# REMEDIAL INVESTIGATION AND INTERIM REMEDIAL MEASURE IMPLEMENTATION REPORT – VOLUME 2 OF 9

Former Drive & Park, Inc. Site Brownfield Cleanup Program #C314111 28 IBM Road Town of Poughkeepsie Dutchess County, New York

#### Prepared for:

Avis Rent A Car System, Inc.

6 Sylvan Way Parsippany, New Jersey 07054

April 2007

Project No. 9328.000





# **APPENDIX A**

# New York State Brownfield Site Cleanup Agreement

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of a Remedial Program for Former Drive & Park, Inc. Site
Dutchess County, under Article 27,
Title 14 of the Environmental Conservation Law
by Participant
Avis Rent A Car System, Inc.

BROWNFIELD SITE CLEANUP AGREEMENT

Index # W3-1011-04-07 Site # C314111

WHEREAS, the Brownfield Cleanup Program Act was enacted to encourage the voluntary remediation of brownfield sites for reuse and redevelopment so as to advance the policy of the State of New York to conserve, improve, and protect its natural resources and environment, and control water, land, and air pollution; and

WHEREAS, the Department of Environmental Conservation (the "Department") is authorized to administer the Brownfield Cleanup Program contained in Article 27, Title 14 of the Environmental Conservation Law ("ECL"); and

WHEREAS, by a certified application dated April 12, 2004, and additional certification dated July 19, 2004, Avis Rent A Car System, Inc. with an address at 6 Sylvan Way, Parsippany, New Jersey submitted a request to participate in the Brownfield Cleanup Program in the category of a "Volunteer" for property located at 28 IBM Road, City of Poughkeepsie, County of Dutchess, New York and identified on the Dutchess County Tax Map as Section 6060, Block 4, Lot 903139 (the Property and/or the "Site"); and

WHEREAS, Avis Rent A Car System, Inc. represents that it's limited involvement with the Site is as the current owner of the Site and a Franchisor at the time Drive & Park, Inc., it's Franchisee, operated the Site. Avis contends that it is, and/or was, not otherwise responsible for the environmental obligations of an Avis Franchisee; and

WHEREAS, the current use of the property is commercial, specifically an automobile rental service, and the intended use of the property is commercial; and

WHEREAS, an opportunity for public comment on Avis Rent A Car System, Inc.'s, request to participate in the Brownfield Cleanup Program was provided and the Department did not receive any comments; and

WHEREAS, upon consideration of the factors enumerated in ECL 27-1407(8) and (9), the Department made a determination, based upon the information contained in the application and the certifications made by Avis Rent A Car System, Inc., as well as any public comment

received, that Avis Rent A Car System, Inc. is eligible to participate in the Brownfield Cleanup Program as a Participant as defined in ECL 27-1405(1)(a).

WHEREAS, While Avis disagrees with the Department's determination that it is a Participant as defined in ECL 27-1405(1)(a), it is nevertheless in the interest of administrative and judicial economy entering into this Agreement. However, the existence of this Agreement or Avis's compliance with it shall not be construed as an admission of any liability, fault, wrongdoing, or violation of law by it, and shall not give rise to any presumption of law or finding of fact which shall inure to the benefit of any third party.

**NOW, THEREFORE,** IN CONSIDERATION OF AND IN EXCHANGE FOR THE MUTUAL COVENANTS AND PROMISES, THE PARTIES AGREE TO THE FOLLOWING:

# I. <u>Citizen Participation Plan</u>

Within twenty (20) Days after the effective date of this Agreement, Participant shall submit a written citizen participation plan prepared in accordance with the requirements of ECL 27-1417 that, at a minimum (i) updates the names and addresses of the interested public and includes a brownfield site contact list; (ii) identifies major issues of public concern related to the Site; (iii) includes a description of citizen participation activities already performed; and (iv) includes a description and schedule of public participation activities that are either specifically required by law or are needed to address public concerns related to the Site. The Citizen Participation Plan shall be attached to and incorporated into this Agreement as Exhibit "A."

# II. Development, Performance, and Reporting of Work Plans

# A. Work Plan Requirements

The work plans ("Work Plan" or "Work Plans") under this Agreement shall be prepared and implemented in accordance with the requirements of ECL Article 27, Title 14 and all applicable laws, rules, regulations, and guidance documents. The Work Plans shall be captioned as follows:

- 1. "Remedial Investigation Work Plan" if the Work Plan provides for the investigation of the nature and extent of contamination within the boundaries of the Site and emanating from such Site;
- 2. "Remedial Work Plan" if the Work Plan provides for the development and implementation of a Remedial Program for contamination within the boundaries of the Site and contamination that has migrated from such Site;
- 3. "IRM Work Plan" if the Work Plan provides for an interim remedial measure; or

4. "OM&M Work Plan" if the Work Plan provides for operation, maintenance, and/or monitoring.

# B. Submission/Implementation of Work Plans

- 1. The first proposed Work Plan to be submitted under this Agreement shall be submitted within forty (40) Days after the effective date of this Agreement. Thereafter, the Participant can submit such other and additional work plans as it deems appropriate.
- 2. A proposed Work Plan shall be submitted for the Department's review and approval and shall include, at a minimum, a chronological description of the anticipated activities, a schedule for performance of those activities, and sufficient detail to allow the Department to evaluate that Work Plan. The Department shall use best efforts to approve, modify, or reject a proposed Work Plan within forty-five (45) Days from its receipt or within fifteen (15) Days from the close of the comment period, if applicable, whichever is later.
- i) Upon the Department's written approval of a Work Plan, such Department-approved Work Plan shall be incorporated into and become an enforceable part of this Agreement as Exhibit "C" and shall be implemented in accordance with the schedule contained therein.
- ii) If the Department modifies a Work Plan, the reasons for such modification shall be provided in writing. Within twenty (20) Days after receiving written notice of such modification, Participant shall elect in writing to (a) implement the Work Plan as modified; (b) implement any other Department-approved Work Plan(s); (c) invoke dispute resolution pursuant to Paragraph XIV; or (d) terminate this Agreement pursuant to Paragraph XIII.
- iii) If the Department disapproves a Work Plan, the reasons for such disapproval shall be provided in writing. In the event the Department disapproves a Work Plan, within twenty (20) Days after receiving written notice of such disapproval, Participant shall elect in writing to (a) modify or expand it within thirty (30) Days of receipt of the written disapproval notice; (b) complete any other Department-approved Work Plan(s); (c) invoke dispute resolution pursuant to Paragraph XIV; or (d) terminate this Agreement pursuant to Subparagraph XIII.
- 3. An OM&M Work Plan, if necessary, shall be submitted in accordance with the schedule set forth in the IRM Work Plan or Remedial Work Plan.
- 4. During all field activities, Participant shall have on-Site a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained by Participant to perform such supervision.

## C. Revisions to Work Plans

If revisions to a Work Plan are required to satisfy the objectives of such Work Plan, the parties will negotiate revisions which shall be attached to and incorporated into the relevant Work Plan and which shall be enforceable under this Agreement. If the parties cannot agree upon revisions to the relevant Work Plan, then unless the Participant invokes dispute resolution pursuant to Paragraph XIV, either party may terminate this Agreement pursuant to Paragraph XIII.

# D. <u>Submission of Final Reports</u>

- 1. In accordance with the schedule contained in a Work Plan, Participant shall submit a Final Report that shall include but not be limited to: all data generated relative to the Site and all other information obtained as part of the implementation of the subject Work Plan; all of the assessments and evaluations required by the subject Work Plan; a statement of any additional data that must be collected; and "as-built" drawings.
- i) The Final Report for an Investigation Work Plan shall comply with the requirements set forth at ECL 27-1411(1) and shall contain a certification by the person with primary responsibility for the day to day performance of the activities under this Agreement that those activities were performed in full accordance with the Investigation Work Plan. If such Final Report concludes that no remediation is necessary, and the Site does not meet the requirements for Track 1, Participant shall submit an Alternatives Analysis prepared in accordance with ECL 27-1413 that supports such determination.
- ii) A Final Engineering Report certifying that remediation of the Site has been performed in accordance with this Agreement shall be prepared by a Professional Engineer with primary responsibility for the day to day performance of the activities under this Agreement. The Report shall be prepared in accordance with the requirements of ECL 27-1419(1) and (2) and shall contain a certification that all such activities were performed in accordance with the Department approved Work Plan. The Department shall review such Report, the submittals made pursuant to the Agreement, and any other relevant information regarding the Site and make a determination as to whether the goals of the remedial program have been or will be achieved in accordance with established timeframes; if so, a written Certificate of Completion will be issued in accordance with the requirements of ECL 27-1419. Such Certificate of Completion may be modified or revoked, after notice and an opportunity for hearing, upon a finding that (a) Participant failed to comply with this Agreement; (b) Participant made a misrepresentation of material fact in connection with its Application or its certification that cleanup levels required by this Agreement were reached; or (c) good cause exists for such modification or revocation.
- iii) All other Work Plan Final Reports shall contain a certification by a Professional Engineer with primary responsibility for the day to day performance of the activities

under this Agreement that all such activities were performed in full accordance with the Department approved Work Plan.

2. Within sixty (60) Days of the Department's approval of a Final Report, Participant shall submit such additional Work Plans as it proposes to implement. Failure to submit any additional Work Plans within such period shall, unless other Work Plans are under review by the Department or being implemented by Participant, result in the termination of this Agreement pursuant to Paragraph XIII.

# E. Review of Submittals other than Work Plans

- 1. The Department shall timely notify Participant in writing of its approval or disapproval of each submittal other than a Work Plan. All Department-approved submittals shall be incorporated into and become an enforceable part of this Agreement.
- 2. If the Department disapproves a submittal covered by this Subparagraph, it shall specify the reasons for its disapproval and may request Participant to modify or expand the submittal. Within twenty (20) Days after receiving written notice that Participant's submittal has been disapproved, Participant shall elect in writing to either (i) modify or expand it within thirty (30) Days of receipt of the written notice of disapproval; (ii) complete any other Department-approved Work Plan(s); (iii) invoke dispute resolution pursuant to Paragraph XIV; or (iv) terminate this Agreement pursuant to Paragraph XIII. If Participant submits a revised submittal and it is disapproved, the Department and Participant may pursue whatever remedies may be available under this Agreement or under law.

# F. Department's Determination of Need for Remediation

The Department shall determine upon its approval of each Final Report dealing with the investigation of the Site whether remediation, or additional remediation as the case may be, is needed for protection of public health and the environment.

- 1. If the Department makes a preliminary determination that remediation, or additional remediation, is not needed for protection of public health and the environment, the Department shall notify the public of such determination and seek public comment in accordance with ECL 27-1417(3)(e). The Department shall provide timely notification to the Participant of its final determination following the close of the public comment period.
- 2. If the Department determines that additional remediation is not needed and such determination is based upon use restrictions, Participant shall cause to be filed an Environmental Easement in accordance with Paragraph X within sixty (60) Days of receipt of the Department's determination.

3. If the Department determines that remediation, or additional remediation, is needed, Participant may elect to submit for review and approval a proposed Remedial Work Plan (or a revision to an existing Work Plan for the Site) for a remedy selected upon due consideration of the factors set forth in ECL 27-1415(3). A proposed Remedial Work Plan addressing the Site's remediation will be noticed for public comment in accordance with ECL 27-1417(3)(e) and the Citizen Participation Plan developed pursuant to Paragraph I of this Agreement. If the Department determines following the close of the public comment period that revisions are needed, Participant agrees to negotiate revisions to the proposed Remedial Work Plan in accordance with Paragraph II.C. If Participant elects not to develop a Work Plan under this Subparagraph or if either party concludes that a mutually acceptable Work Plan under this Subparagraph cannot be negotiated, then this Agreement shall terminate in accordance with Subparagraph XIII.

# G. Submission of Annual Reports, if required

In the event that the remedy for the Site, if any, or any Work Plan for the Site requires operation, maintenance, and monitoring (OM&M), including reliance upon institutional or engineering controls, Participant shall file a report annually (unless a different frequency is specified in an approved Work Plan) on the 1st day of the month following the anniversary of the start of the OM&M and continuing until the Department notifies Participant in writing that such report may be discontinued. Such report shall be signed by a Professional Engineer or by an expert approved by the Department to perform that function and certified under penalty of perjury that the institutional and/or engineering controls are unchanged from the previous certification and that nothing has occurred that would impair the ability of such controls to protect public health and the environment or constitute a violation or failure to comply with the approved OM&M Plan. Participant shall notify the Department within twenty-four (24) hours of discovery of any upset, interruption, or termination of one or more controls without the prior approval of the Department. Further, Participant shall take all actions required by the Department to maintain conditions at the Site that achieve the objectives of the remedy and/or the Work Plan and are protective of public health and the environment. An explanation of such upset, interruption, or termination of one or more controls and the steps taken in response shall be included in the foregoing notice and in the report required by this Subparagraph as well as in any progress reports required by Paragraph XI. Participant can petition the Department for a determination that the institutional and/or engineering controls may be terminated. Such petition must be supported by a Professional Engineer or other expert approved by the Department stating that such controls are no longer necessary. The Department shall not unreasonably withhold its approval of such petition.

#### III. Enforcement

This Agreement shall be enforceable as a contractual agreement under the laws of the State of New York. Participant shall not suffer any penalty or be subject to any proceeding or action if it cannot comply with any requirement of this Agreement as a result of a Force Majeure

Event provided it notifies the Department in writing within ten (10) Days of when it obtains knowledge of any such event. Participant shall include in such notice the measures taken and to be taken to prevent or minimize any delays and shall request an appropriate extension or modification of this Agreement. Participant shall have the burden of proving by a preponderance of the evidence that an event qualifies as a Force Majeure Event pursuant to this Paragraph.

# IV. Entry upon Site

- A. Participant hereby agrees to provide access to the Site and to all relevant information regarding activities at the Site in accordance with the provisions of ECL 27-1431.
- B. The Department shall have the right to periodically inspect the Site to ensure that the use of the property complies with the terms and conditions of this Agreement.

## V. Payment of State Costs

- A. Within forty-five (45) Days after the effective date of this Agreement, Participant shall pay to the Department the sum of \$9,928.84 which shall represent reimbursement for State Costs as set forth in the cost summary attached as Exhibit "D." Participant acknowledges that all past State Costs are not itemized on the cost summary and that additional charges may be billed at a later date for State Costs incurred prior to the effective date of this Agreement.
- B. Within forty-five (45) Days after receipt of an itemized invoice from the Department, Participant shall pay to the Department a sum of money which shall represent reimbursement for State Costs for work performed at or in connection with the Site prior to the effective date of this Agreement, as well as for negotiating this Agreement, and all costs associated with this Agreement up to and including the date upon which the Certificate of Completion is issued, the Department approves the Final Report relative to OM&M, or this Agreement is terminated pursuant to Paragraph XIII, whichever is later.
- C. Personal service costs shall be documented by reports of Direct Personal Service, which shall identify the employee name, title, biweekly salary, and time spent (in hours) on the project during the billing period, as identified by an assigned time and activity code. Approved agency fringe benefit and indirect cost rates shall be applied. Non-personal service costs shall be summarized by category of expense (e.g., supplies, materials, travel, contractual) and shall be documented by expenditure reports. The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with, Article 6 of the Public Officers Law.

D. Such invoice shall be sent to Participant at the following address:

Avis Rent A Car System, Inc. 6 Sylvan Way Parsippany, New Jersey 07054 Attention: Rose Pelino

E. Each such payment shall be made payable to the Department of Environmental Conservation and shall be sent to:

Bureau of Program Management Division of Environmental Remediation New York State Department of Environmental Conservation 625 Broadway, Albany, NY 12233-7012

- F. Each party shall provide written notification to the other within ninety (90) Days of any change in the foregoing addresses.
- G. Participant may contest, in writing, invoiced costs under this Agreement if it believes (i) the cost documentation contains clerical, mathematical, or accounting errors; (ii) the costs are not related to the State's activities reimbursable under this Agreement; or (iii) the Department is not otherwise legally entitled to such costs. If Participant objects to an invoiced cost, Participant shall pay all costs not objected to within the time frame set forth in Subparagraphs V.A and V.B and shall, within thirty (30) Days of receipt of an invoice, identify in writing all costs objected to and identify the basis of the objection. This objection shall be filed with the Director of the Bureau of Program Management ("BPM Director") who shall have the authority to relieve Participant of the obligation to pay invalid costs. Within forty-five (45) Days of the Department's determination of the objection, Participant shall pay to the Department the amount which the BPM Director or the BPM Director's designee determines Participant is obligated to pay or commence an action or proceeding seeking appropriate judicial relief.
- H. In the event any instrument for the payment of any money due under this Agreement fails of collection, such failure of collection shall constitute a violation of this Agreement, provided (i) the Department gives Participant written notice of such failure of collection, and (ii) the Department does not receive from Participant a certified check or bank check within fourteen (14) Days after the date of the Department's written notification.
- I. In the event that an eligible party applies for a technical assistance grant in connection with the Site, Participant may be required to provide such a grant, in accordance with ECL 27-1417(4), in an amount not to exceed \$50,000, with the cost of such grant serving as an offset against State Costs payable pursuant to this Paragraph.

# VI. <u>Liability Limitation</u>

Subsequent to the issuance of a Certificate of Completion pursuant to this Agreement, Participant shall be entitled to the Liability Limitation set forth at ECL 27-1421, subject to the terms and conditions stated therein. A Notice of the Liability Limitation shall be filed with the recording officer of the county in which the Site is located within thirty (30) Days of (i) the effective date of the Certificate of Completion or (ii) the date Participant acquires title to the Site, whichever is later.

# VII. Reservation of Rights

- A. Except as provided in Subparagraph VII.B, Participant reserves all rights and defenses under applicable law to contest, defend against, dispute, or disprove any action, proceeding, allegation, assertion, determination, or order of the Department, including any assertion of remedial liability by the Department against Participant, and further reserves all rights including the rights to notice, to be heard, to appeal, and to any other due process respecting any action or proceeding by the Department, including the enforcement of this Agreement. The existence of this Agreement or Participant's compliance with it shall not be construed as an admission of any liability, fault, wrongdoing, or violation of law by Participant, and shall not give rise to any presumption of law or finding of fact which shall inure to the benefit of any third party.
- B. Notwithstanding the foregoing, Participant hereby waives any right it may have to make a claim pursuant to Article 12 of the Navigation Law with respect to the Site and releases the State and the New York Environmental Protection and Spill Compensation Fund from any and all legal or equitable claims, suits, causes of action, or demands whatsoever with respect to the Site that Participant may have as a result of Participant's entering into or fulfilling the terms of this Agreement.

# VIII. Indemnification

Participant shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless from any claim, suit, action, and cost of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Agreement by Participant prior to the Termination Date except for those claims, suits, actions, and costs arising from the State's gross negligence or willful or intentional misconduct by the Department, the State of New York, and/or their representatives and employees during the course of any activities conducted pursuant to this Agreement. The Department shall provide Participant with written notice no less than thirty (30) Days prior to commencing a lawsuit seeking indemnification pursuant to this Paragraph.

# IX. Change of Use

Participant shall notify the Department at least sixty (60) Days in advance of any change of use, as defined in ECL 27-1425, which is proposed for the Site. In the event the Department determines that the proposed change of use is prohibited, the Department shall notify Participant of such determination within forty-five (45) Days of receipt of such notice.

#### X. Environmental Easement

- A. Within thirty (30) Days after the Department's approval of a Remedial Work Plan which relies upon one or more institutional and/or engineering controls, or within thirty (30) Days after the Department's determination pursuant to Subparagraph II.F.2 that additional remediation is not needed based upon use restrictions, Participant shall submit to the Department for approval an Environmental Easement to run with the land in favor of the State which complies with the requirements of ECL Article 71, Title 36. The submittal shall be substantially similar to Exhibit "B." Participant shall cause such instrument to be recorded with the recording officer for the county in which the Site is located within thirty (30) Days after the Department's approval of such instrument. Participant shall provide the Department with a copy of such instrument certified by the recording officer to be a true and faithful copy within thirty (30) Days of such recording (or such longer period of time as may be required to obtain a certified copy provided Participant advises the Department of the status of its efforts to obtain same within such thirty (30) Day period).
- B. Participant or the owner of the Site may petition the Department to modify or extinguish the Environmental Easement filed pursuant to this Agreement at such time as it can certify that the Site is protective of human health and the environment without reliance upon the restrictions set forth in such instrument. Such certification shall be made by a Professional Engineer or other expert approved by the Department. The Department will not unreasonably withhold its consent.

#### XI. Progress Reports

Participant shall submit a written progress report of its actions under this Agreement to the parties identified in Subparagraph XII.A.1 by the 10<sup>th</sup> Day of each month commencing with the month subsequent to the approval of the first Work Plan and ending with the Termination Date, unless a different frequency is set forth in a Work Plan. Such reports shall, at a minimum, include: all actions relative to the Site during the previous reporting period and those anticipated for the next reporting period; all approved activity modifications (changes of work scope and/or schedule); all results of sampling and tests and all other data received or generated by or on behalf of Participant in connection with this Site, whether under this Agreement or otherwise, in the previous reporting period, including quality assurance/quality control information; information regarding percentage of completion; unresolved delays encountered or anticipated that may affect the future schedule and efforts made to mitigate such delays; and information regarding activities undertaken in support of the Citizen Participation Plan during the previous reporting period and those anticipated for the next reporting period.

# XII. Communications

- A. All written communications required by this Agreement shall be transmitted by United States Postal Service, by private courier service, or hand delivered.
  - 1. Communication from Participant shall be sent to:

Ramarand Pergadia
Division of Environmental Remediation
New York State Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, NY 12561-1696
Note: three copies (one unbound) of work plans are required to be sent.

Gary Litwin
Bureau of Environmental Exposure Investigation
New York State Department of Health
Flanigan Square
547 River Street
Troy, New York 12180-2216

Note: two copies of work plans are required to be sent, and

Alali M. Tamuno Division of Environmental Enforcement 200 White Plains Road, 5<sup>th</sup> Floor Albany, New York 10591

Correspondence only

2. Communication from the Department to Participant shall be sent to:

Avis Rent A Car Systems, Inc. 6 Sylvan Way Parsippany, New Jersey 07054 Attention: Rose Pelino

Jon Brooks, Esq.
Phillips Nizer
600 Old Country Road, Suite 241
Garden City, New York 11530

B. The Department and Participant reserve the right to designate additional or different addressees for communication on written notice to the other.

C. Each party shall notify the other within ninety (90) Days after any change in the addresses listed in this Paragraph XII or in Paragraph V.

## XIII. Termination of Agreement

Participant may terminate this Agreement at any time by providing written notification to the parties listed in Subparagraph XII.A.1. The Department may terminate this Agreement at any time pursuant to Subparagraph XV.A or in the event Participant fails to substantially comply with the Agreement's terms and conditions. The Department shall provide written notification to Participant setting forth the basis for termination of the Agreement. The termination shall be effective the 5<sup>th</sup> day after the non-terminating party's receipt of such written notification, except that such termination shall not affect the provisions contained in Paragraphs V, VII.B, and VIII.

## XIV. Dispute Resolution

- A. In the event disputes arise regarding any notice of disapproval of a submittal, proposed Work Plan or Final Report, or during the implementation of any Work Plan, Participant may, within thirty (30) Days of receipt of such notice, request in writing informal negotiations with the Department in an effort to resolve the dispute. The Department and Participant shall consult together in good faith and exercise best efforts to resolve any differences or disputes without resort to the procedures described in Subparagraph XIV.B. The period for informal negotiations shall not exceed thirty (30) Days from Participant's request for informal negotiations. If the parties cannot resolve a dispute by informal negotiations during this period, the Department's position shall be considered binding unless Participant notifies the Department in writing within thirty (30) Days after the conclusion of the thirty (30) Day period for informal negotiations that it invokes the dispute resolution provisions provided under Subparagraph XIV.B.
- B. 1. Participant shall file with the Office of Hearings and Mediation ("OH&M") a request for formal dispute resolution and a written statement of the issues in dispute, the relevant facts upon which the dispute is based, factual data, analysis, or opinion supporting its position, and all supporting documentation upon which Participant relies (hereinafter called the "Statement of Position"). A copy of such request and written statement shall be provided contemporaneously to the Director of the Division of Environmental Remediation ("DER Director") and to the parties listed under Subparagraph XII.A.1.
- 2. The Department shall serve its Statement of Position no later than twenty (20) Days after receipt of Participant's Statement of Position.
- 3. Participant shall have the burden of proving by substantial evidence that the Department's position does not have a rational basis and should not prevail. The OH&M can conduct meetings, in person or via telephone conferences, and request additional information from either party if such activities will facilitate a resolution of the issues.

- The OH&M shall prepare and submit a report and recommendation to the 4. DER Director who shall issue a final decision resolving the dispute in a timely manner. The final decision shall constitute a final agency action and Participant shall have the right to seek judicial review of the decision pursuant to Article 78 of the CPLR provided that Participant notifies the Department within thirty (30) Days after receipt of a copy of the final decision of its intent to commence an Article 78 proceeding and commences such proceeding within sixty (60) Days after receipt of a copy of the Director's final decision. Participant shall be in violation of this Agreement if it fails to comply with the final decision resolving this dispute within sixty (60) Days after the date of such final decision, or such other time period as may be provided in the final decision, unless it seeks judicial review of such decision within the sixty (60) Day period provided. In the event that Participant seeks judicial review, Participant shall be in violation of this Agreement if it fails to comply with the final Court Order or settlement within thirty (30) Days after the effective date of such Order or settlement, unless otherwise directed by the Court. For purposes of this Subparagraph, a Court Order or settlement shall not be final until the time to perfect an appeal of same has expired.
- 5. The invocation of dispute resolution shall not extend, postpone, or modify Participant's obligations under this Agreement with respect to any item not in dispute unless or until the Department agrees or a Court determines otherwise. The invocation of the procedures set forth in this Paragraph XIV shall constitute a waiver of any and all other administrative remedies which may otherwise be available to Participant regarding the issue in dispute.
- 6. The Department shall keep an administrative record of any proceedings under this Paragraph XIV which shall be available consistent with Article 6 of the Public Officers Law.
- 7. Nothing in this Paragraph XIV shall be construed as an agreement by the parties to resolve disputes through administrative proceedings pursuant to the State Administrative Procedure Act, the ECL, or 6 NYCRR Part 622 or Section 375-2.1.

# XV. Miscellaneous

A. If the information provided and any certifications made by Participant are not materially accurate and complete, this Agreement, except with respect to Participant's obligations pursuant to Paragraphs V, VII.B and VIII, shall be null and void *ab initio* fifteen (15) Days after the Department's notification of such inaccuracy or incompleteness or fifteen (15) Days after issuance of a final decision resolving a dispute pursuant to Paragraph XIV, whichever is later, unless Participant submits information within that fifteen (15) Day time period indicating that the information provided and the certifications made were materially accurate and complete. In the event this Agreement is rendered null and void, any Certificate of Completion and/or Liability Limitation that may have been issued or may have arisen under this Agreement shall also be null and void *ab initio*, and the Department shall reserve all rights that it may have under law.

- B. Participant shall allow the Department to attend, and shall notify the Department at least seven (7) Days in advance of, any field activities to be conducted pursuant to this Agreement, as well as any pre-bid meetings, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting; nothing in this Agreement shall be construed to require Participant to allow the Department to attend portions of meetings where privileged matters are discussed.
- C. The Department may exempt Participant from the requirement to obtain any state or local permit or other authorization for any activity conducted pursuant to this Agreement that (i) is conducted on the Site or on different premises that are under common control or contiguous to or physically connected with the Site and such activity manages exclusively hazardous waste and/or petroleum from such Site, and (ii) satisfies all substantive technical requirements applicable to like activity conducted pursuant to a permit, as determined by the Department.
- D. Participant shall use "best efforts" to obtain all Site access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls, or authorizations necessary to perform Participant's obligations under this Agreement. If, despite Participant's best efforts, any access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls, or authorizations required to perform this Agreement are not obtained, Participant shall promptly notify the Department, and include a summary of the steps taken to obtain access. The Department may, as it deems appropriate and within its authority, assist Participant in obtaining same. If an interest in property is needed to implement an institutional control required by a Work Plan and such interest cannot be obtained, the Department may require Participant to modify the Work Plan pursuant to Subparagraph II.C of this Agreement to reflect changes necessitated by the lack of access and/or approvals.
- E. All approved Work Plans, Final Reports, and other documents required under this Agreement shall be submitted to the Department in an electronic format acceptable to the Department within thirty (30) Days of approval. If any document cannot be converted into electronic format, Participant shall so advise the Department and, if the Department concurs, submit such document in an alternative format acceptable to the Department.
- F. Participant shall provide a copy of this Agreement to each contractor hired to perform work required by this Agreement and shall condition all contracts entered into for the obligations identified in this Agreement upon performance in conformity with the terms of this Agreement. Participant or its contractor(s) shall provide written notice of this Agreement to all subcontractors hired to perform any portion of the work required by this Agreement. Participant shall nonetheless be responsible for ensuring that Participant's contractors and subcontractors perform the work in satisfaction of the requirements of this Agreement.
- G. The paragraph headings set forth in this Agreement are included for convenience of reference only and shall be disregarded in the construction and interpretation of any provisions of this Agreement.
- H. 1. The terms of this Agreement shall constitute the complete and entire agreement between the Department and Participant concerning the implementation of the

activities required by this Agreement. No term, condition, understanding, or agreement purporting to modify or vary any term of this Agreement shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department shall be construed as relieving Participant of Participant's obligation to obtain such formal approvals as may be required by this Agreement. In the event of a conflict between the terms of this Agreement and any Work Plan submitted pursuant to this Agreement, the terms of this Agreement shall control over the terms of the Work Plan(s) attached as Exhibit "C." Participant consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Agreement.

- 2. i. Except as set forth herein, if Participant desires that any provision of this Agreement be changed, other than a provision of a Work Plan or a time frame, Participant shall make timely written application to the Commissioner with copies to the parties listed in Subparagraph XII.A.1.
- ii. Changes to the Work Plan shall be accomplished as set forth in Subparagraph II.C of this Agreement.
- iii. Requests for a change to a time frame set forth in this Agreement shall be made in writing to the Department's project attorney and project manager; such requests shall not be unreasonably denied and a written response to such requests shall be sent to Participant promptly.
- I. 1. If there are multiple parties signing this Agreement, the term "Participant" shall be read in the plural, the obligations of each such party under this Agreement are joint and several, and the insolvency of or failure by any Participant to implement any obligations under this Agreement shall not affect the obligations of the remaining Participant(s) under this Agreement.
- 2. If Participant is a partnership, the obligations of all general partners (including limited partners who act as general partners) under this Agreement are joint and several and the insolvency or failure of any general partner to implement any obligations under this Agreement shall not affect the obligations of the remaining partner(s) under this Agreement.
- 3. Notwithstanding the foregoing Subparagraphs XV.I.1 and 2, if multiple parties sign this Agreement as Participants but not all of the signing parties elect to implement a Work Plan, all Participants are jointly and severally liable for each and every obligation under this Agreement through the completion of activities in such Work Plan that all such parties consented to; thereafter, only those Participants electing to perform additional work shall be jointly and severally liable under this Agreement for the obligations and activities under such additional Work Plan(s). The parties electing not to implement the additional Work Plan(s) shall have no obligations under this Agreement relative to the activities set forth in such Work Plan(s). Further, only those Participants electing to implement such additional Work Plan(s) shall be eligible to receive the Liability Limitation referenced in Paragraph VI.

- J. Participant shall be entitled to contribution protection to the extent authorized by ECL 27-1421(6).
- K. Participant shall not be considered an operator of the Site solely by virtue of having executed and/or implemented this Agreement.
- L. Participant and Participant's agents, grantees, lessees, sublessees, successors, and assigns shall be bound by this Agreement. Any change in ownership of Participant including, but not limited to, any transfer of assets or real or personal property, shall in no way alter Participant's responsibilities under this Agreement.
- M. Unless otherwise expressly provided herein, terms used in this Agreement which are defined in ECL Article 27 or in regulations promulgated thereunder shall have the meaning assigned to them under said statute or regulations. Whenever terms listed in the Glossary attached hereto are used in this Agreement or its Exhibits, the definitions set forth in the Glossary shall apply. In the event of a conflict, the definition set forth in the Glossary shall control.
- N. Participant's obligations under this Agreement represent payment for or reimbursement of response costs, and shall not be deemed to constitute any type of fine or penalty.
- O. This Agreement may be executed for the convenience of the parties hereto, individually or in combination, in one or more counterparts, each of which shall be deemed to have the status of an executed original and all of which shall together constitute one and the same.
- P. The effective date of this Agreement is the date it is signed by the Commissioner or the Commissioner's designee.

 $B_{y}$ 

DATED:

JUL - 6 2005

DENISE M. SHEEHAN, ACTING

COMMISSIONER

NEW YORK STATE DEPARTMENT OF

ENVIRONMENTAL CONSERVATION

Dale A. Desnoyers, Director

Division of Environmental Remediation

# CONSENT BY PARTICIPANT

Participant hereby consents to the issuing and entering of this Agreement, waives Participant's right to a hearing herein as provided by law, and agrees to be bound by this Agreement.

Avis Rent A Car System, Inc.

By: Dieenton Favironmental

AFFAIRS

Date: 6/8/05

STATE OF NEW YORK
)
SSS:

COUNTY OF MORRIS

STORY OF MORRIS
)

On the \_\_\_\_\_\_\_ day of \_\_\_\_\_\_, in the year 2005, before me, the undersigned, personally appeared \_\_\_\_\_\_\_ Rose Pelino\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Signature and Office of individual

taking acknowledgment

Kathleen Spaanstra Notary Public, State of New Jersey Commission Expires June 24, 2007

# **Glossary of Terms**

The following terms shall have the following meanings:

"Day": a calendar day. In computing any period of time under this Agreement, if the last day would fall on a Saturday, Sunday, or State holiday, the period shall run until the close of business of the next working day.

"Force Majeure Event": an event which is brought on as a result of fire, lightning, earthquake, flood, adverse weather conditions, strike, shortages of labor and materials, war, riot, obstruction or interference by adjoining landowners, or any other fact or circumstance beyond Volunteer's reasonable control.

"IRM": an interim remedial measure which is a discrete set of activities which can be undertaken without extensive investigation and evaluation to prevent, mitigate, or remedy environmental damage or the consequences of environmental damage attributable to a Site.

"OM&M": operation, maintenance, and monitoring.

"Professional engineer": an individual registered as a professional engineer in accordance with Article 145 of the New York State Education Law. If such individual is a member of a firm, that firm must be authorized to offer professional engineering services in the State of New York in accordance with Article 145 of the New York State Education Law.

"State Costs": all the State's expenses including, but not limited to, direct labor, fringe benefits, indirect costs, travel, analytical costs, and contractor costs incurred by the State of New York for negotiating, implementing, and administering this Agreement. Approved agency fringe benefit and indirect cost rates will be applied.

"Termination Date": the date upon which (i) the Department issues the Certificate of Completion or approves the Final Report relative to the OM&M at the Site, whichever is later, or (ii) the Agreement terminates pursuant to Paragraph XIII or Subparagraph XV.A,.

"Work Plan": a Department-approved work plan, as may be modified, that Volunteer shall implement and that is attached to this Agreement.

# EXHIBIT "A"

# Citizen Participation Plan

Market and American Control of the Section of th

# EXHIBIT "B"

# **ENVIRONMENTAL EASEMENT**

THIS INDEN	IURE made this _	day of	, 200,	between _	Owner(s)
re	siding at (or having	g an office at )			, (the
"Grantor"), and The F	eople of the State of	of New York (the "	Grantee."), act	ing through	ı their
Commissioner of the	Department of Envi	ironmental Conserv	vation (the "Co	ommissione	er" or
"NYSDEC" or "Depa Broadway, Albany, N	rument as the conto	ext requires) with i	ts headquarter	s located at	625
Dioadway, Albany, 14	5W 1 UIK 12255,	•			
WHEREAS, the Legi	slature of the State	of New York has d	leclared that it	is in the m	. <b>1.</b> 1: - 1: - 4:
to encourage the reme	diation of abandon	ed and likely contain	minated prope	rties ("brov	ione imeres vafield
sites") that threaten th	e health and vitality	of the communities	es they burden	while at th	e same time
ensuring the protection	n of public health a	nd the environment	t; and	· · · · · · · · · · · · · · · · · · ·	o dumo imme
WHEREAS, the Legi	slature of the State	of New York has d	leclared that it	is in the pu	iblic interest
to establish within the	Department a statu	tory environmental	remediation p	rogram tha	it includes
the use of environmen	al easements as an	enforceable means	of ensuring the	ie performa	ince of
operation, maintenanc of future uses of the la	nd when an enviro	g requirements and	of ensuring the	ie potential	restriction
contamination at level	s that have been det	termined to be safe	for a specific	es residuai	t oll maga or
which includes engine	ered structures that	must be maintaine	d or protected	against dar	nage to
perform properly and b	e effective, or which	ch requires groundy	water use or so	oil managen	nent
restrictions; and		·			
THE TENED OF A CO. A. T. C.					
WHEREAS, the Legis	slature of the State	of New York has d	eclared that en	vironmenta	ıl easement
shall mean an interest in Title 36 of the New York	Il real property, cre	ated under and sub	ject to the pro	visions of A	Article 71,
Title 36 of the New Yor restriction and/or a pro	hibition on the use	of land in a manner	Law ("ECL")	which cont	ains a use
controls which are inte	nded to ensure the	ong term effective	ness of a brow	wiin engine	ering
program or eliminate p	otential exposure p	athways to hazardo	ons waste or ne	imeia site i	remediai
•			as waste of pe	in Orcum, an	Iu,
WHEREAS, Grantor,	is the owner of rea	l property located i	n the City/Tov	wn/Village	of
<del></del> ,,	County, 1	New York known a	and designated	on the tax	map of the
ot .	as tax man	parcel number	Ce.	ction bl	ock
lot, being the san	ne as that property (	conveyed to Granto	or by deed on _		, and
Deeds comprised of an	or the	County Cle	erk at page	, liber	of
Deeds, comprised of ap A attached hereto and r	proximatery	the "Controlled D	ter more fully	described in	n <u>Schedule</u>
	a part notcor (	me Commoneu P	roperty ); and	•	

Attach an adequate legal description of the property subject to the easement, or reference a recorded map. If the easement is on only a part of a parcel of land which is not subdivided into encumbered and unencumbered portions, a legal description needs to be created by a survey bearing the seal and signature of a licensed land surveyor with reference to a metes and bounds description.

WHEREAS, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in considera	tion of the covenants and mutual promises co	ntained herein
and the terms and conditions of <b>Bro</b>	wnfield Cleanup Agreement Number	/State
Assistance Contract Number	Order on Consent Number	, Grantor
grants, conveys and releases to Gran	ntee a permanent Environmental Easement pu	rsuant to Article
/1, Title 36 of the ECL in, on, over,	under, and upon the Controlled Property as n	nore fully
described herein ("Environmental Ea	asement").	

- 1. <u>Purposes</u>. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.
- 2. <u>Institutional and Engineering Controls</u>. The following controls apply to the use of the Controlled Property, run with the land are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:
  - A. The Controlled Property may be used for

residential

commercial

industrial

use as long as the following long-term engineering controls are employed:

B. The Controlled Property may not be used for a higher level of use such as <u>unrestricted/residential/commercial</u> use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

# This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.

- D. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.
- E. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.
- 3. <u>Right to Enter and Inspect.</u> Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.
- 4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:
- 1. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;
- 2. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

### 5. Enforcement

- A. This environmental easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this environmental easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.
- B. If any person intentionally violates this environmental easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 27, Title 14, or the Satisfactory Completion of Project provided under ECL Article 56, Title 5 with respect to the Controlled Property.
- C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.
- D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental easement.
- 6. <u>Notice</u>. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing its County tax map number or the Liber and Page or computerized system tracking/ identification number and address correspondence to:

Division of Environmental Enforcement
Office of General Counsel
New York State Department of Environmental Conservation
625 Broadway
Albany New York 12233-5500

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

- 7. <u>Recordation</u>. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 8. <u>Amendment</u>. This environmental easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 9. <u>Extinguishment.</u> This environmental easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 10. <u>Joint Obligation</u>. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

	Grantor's Name		
	By:		
	Title:		
	Date:		
Grantor's Acknowledgment		and the second section is	
STATE OF NEW YORK ) ) ss COUNTY OF )			
On the day of personally appeared of satisfactory evidence to be the instrument and acknowledged to repacity(ies), and that by his/her/toerson upon behalf of which the instrument and acknowledged to repact the same and the same and the same acceptance of the s	, personally know individual(s) whose name ne that he/she/they execut heir signature(s) on the ins	wn to me or proved to r is (are) subscribed to the ed the same in his/her/t	ne on the basis ne within heir
Notary Public - State of New York	<u></u>		

# THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation

By:						
	Denise M. Sheehan, Acting Commissioner					<del></del>
Grantee's Acknowledgment						•
STATE OF NEW YORK ) ss:						
COUNTY OF )						
On theday of, personally appeared, satisfactory evidence to be the individual(sinstrument and acknowledged to me that he Commissioner of the State of New York I his/her/ signature on the instrument, the in individual acted, executed the instrument.	s) whose na ne/she/ exec Department	ame is (are cuted the s of Enviro	e) subscrib same in his onmental C	ed to the s/her/ c conserv	he within apacity as ation, and	s d that by
Notary Public - State of New York						

# EXHIBIT "C"

# **Approved Work Plans**

EXHIBIT "D"

**Cost Summary** 



# **APPENDIX B Geotechnical Soil Report**

# **Soil Report**

Former Drive & Park, Inc. Site Brownfield Cleanup Program #C314111 28 IBM Road Town of Poughkeepsie Dutchess County, New York

#### Prepared for:

Avis Rent A Car System, Inc. 6 Sylvan Way Parsippany, New Jersey 07054

#### Prepared by:

Geomatrix Consultants, Inc. 90B John Muir Drive, Suite 104 Amherst, New York 14228-1148 (716) 565-0624

December 2005

Project No. 9328.000

# TABLE OF CONTENTS

			Page
1.0	INTRO	DDUCTION	1
2.0	SITE (	CONDITIONS	1
3.0	GEOT	ECHNICAL PARAMETERS	1
4.0	RECO	MMENDATIONS	1
		FIGURES	
Figure	1	Site Plan	
Figure	2	Excavation Plan	
		APPENDIXES	
Append	dix A	Boring Logs	
Append	lix B	Geological Cross-sections	
Append	dix C	Geotechnical Laboratory Data	
Append	lix D	Soil Parameters for Shoring Design and Pressure Distribution	

#### SOIL REPORT

Former Drive & Park, Inc. Site 28 IBM Road Poughkeepsie, New York

#### 1.0 INTRODUCTION

A soil excavation is proposed at the referenced Site for the removal of petroleum hydrocarbons affected soil. This document comprises the Soils Report for the proposed excavation. The purpose of this document is to provide parameters for the design of the temporary shoring that will be used to support the excavation, and provide recommendations on how the shoring shall be constructed and the excavation backfilled.

#### 2.0 SITE CONDITIONS

The proposed excavation will be approximately 22,400 ft<sup>2</sup> in area and a maximum depth of 13 feet. However, the shoring will be required in area of 80 feet x 80 feet in the north part of the excavation. Construction shall take place in an asphalted area adjacent to a single story building. The site is approximately level.

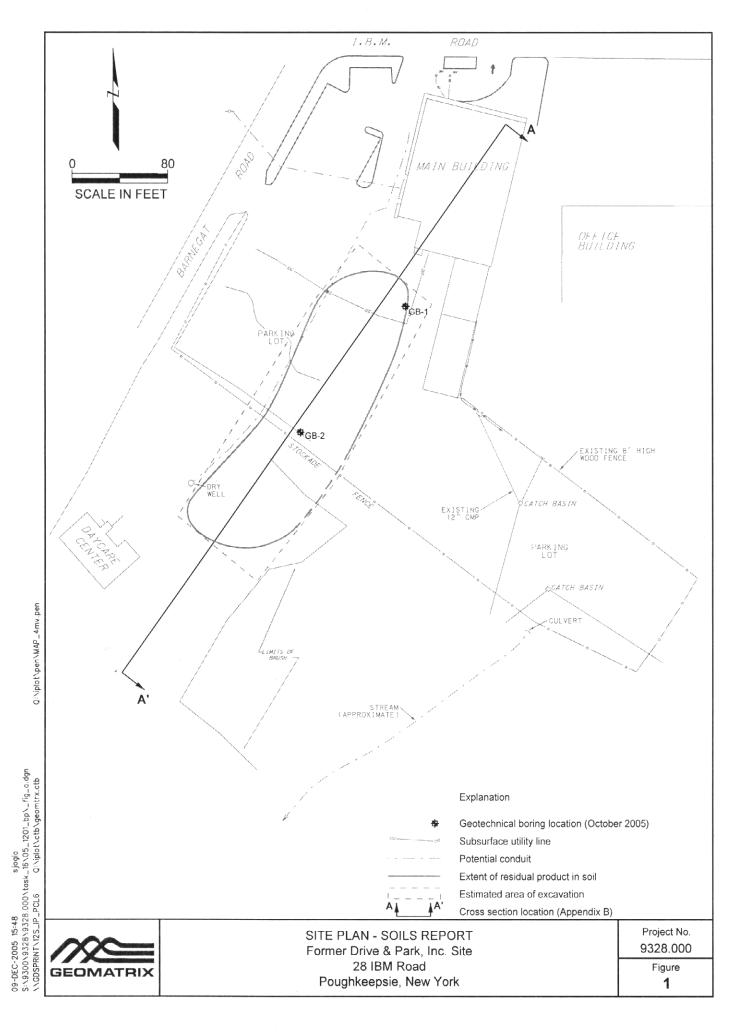
#### 3.0 GEOTECHNICAL PARAMETERS

To determine the geotechnical parameters, two geotechnical soil boring were conducted within the excavation area (GB-1 and GB-2). The locations of the boring are shown in Figure 1 and the boring logs and geological cross-section are attached as Appendix A and B, respectively. Based on the field parameter and geotechnical laboratory report (Appendix C) soil parameters for shoring design are presented in the Appendix D.

#### 4.0 **RECOMMENDATIONS**

- 1. A visual building survey be completed prior to the start of construction on the adjacent buildings. Photographic records of the pre-construction state of each building should be taken.
- 2. No surcharge of any kind shall be stored above the temporary shored excavation.
- 3. Backfill shall be moisture conditioned to + 2 percent of the optimum moisture content prior to placement.

- 4. The excavation shall be backfilled in loose lifts no greater than 12 inches thick. Each lift shall be compacted to a minimum of 90 percent relative compaction. The top 4 feet shall be compacted to a minimum of 95 percent relative compactions.
- 5. Shoring shall be removed once the excavation is backfilled to within a maximum depth of 5 feet below ground surface.



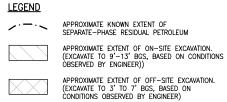


EXCAVATION LIMITS					
CONTROL POINT	NORTHING	EASTING			
ON-1/OF-5	1026504.68	646721.02			
ON-2	1026658.01	646768.80			
0N-3	1026633.30	646847.83			
0N-4/0F-1	1026463.93	646794.93			
OF-2	1026405.72	646745.51			
0F-3	1026401.44	646693.85			
0F-4	1026431.23	646658.68			

#### KEY NOTES

- ON-SITE EXCAVATION TO BE PARTIALLY SHORED. SHORING DESIGNED BY OTHERS, AND SUPPLIED AND INSTALLED BY CONTRACTOR. SEE EXCAVATION PROTECTION PLAN FOR SHORING EXTENT, TYPE, AND INSTALLATION DETAILS.
- MONITORING WELLS ARE 4-INCH DIAMETER AND ARE AVAILABLE TO CONTRACTOR DEWATERING OPERATIONS. WHEN ENCOUNTERING A MONITORING WELL DURING EXCAVATION, CONTRACTOR IS TO CUT MONITORING WELL TO MATCH THE BOTTOM OF THE EXCAVATION, AND FILL REMAINING DEPTH OF WELL WITH GROUT. GROUT SHALL CONSIST OF TYPE 1 PORTLAND CEMENT WITH FOUR PERCENT BENTONITE DAY MERCLATT.
- REMOVE FENCE PRIOR TO EXCAVATION, REPLACE AFTER COMPLETING OFF-SITE EXCAVATION. CONTRACTOR SHALL REPLACE REMOVED FENCE WITH A NEW 8-FOOT STEEL CHAIN LINK FENCE EQUIPPED WITH PLASTIC SLATS.
- 4 OFF-SITE EXCAVATION WILL BE RE-VEGETATED BY OTHERS AT A LATER DATE. CONTRACTOR TO PLACE TEMPORARY EROSION CONTROL MATERIALS ON SURFACE OF EXPOSED TOPSOIL AFTER BACKFILLING AS SHOWN ON SHEET C3.

- THE WORK SHALL BE CONDUCTED IN TWO PHASES. THE OFF-SITE EXCAVATION SHALL TAKE PLACE FIRST. ON-SITE EXCAVATION ACTIVITIES MAY BE PERFORMED CONCURRENTLY WITH OFF-SITE EXCAVATION ACTIVITIES, AS LONG AS ON-SITE. EXCAVATION ACTIVITIES DO NOT IMPEDE THE PROGRESS OF THE OFF-SITE
- CONTRACTOR SHALL CLEAR AND GRUB EXCAVATION EXTENT IN ACCORDANCE TO STATE AND LOCAL REGULATIONS AND SPECIFICATIONS. ALL TREES WITHIN THE EXCAVATION EXTENT AND OFF-SITE GRADING AREA WILL BE REMOVED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL AVOID, AS FAR AS PRACTICAL, DAMAGE TO SHRUBBERY, PLANTS, GRASSES, AND OTHER VEGETATION OUTSIDE OF THE LIMITS OF WARPLY.
- 3. DEWATERING, TREATMENT, AND DISCHARGE TO SANITARY SEWER TO BE PERFORMED BY CONTRACTOR. SEE THE SPECIFICATIONS FOR EFFLUENT FLOWRATE AND CHEMICAL CONCENTRATION LIMITS.
- 4. CONTRACTOR MAY PLACE TREATMENT SYSTEM EQUIPMENT INSIDE BUILDING UPON APPROVAL BY ENGINEER.
- 5. STOCKPILE LOCATIONS, SITE EGRESS/INGRESS, LOADING ZONE, ETC., ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND FACILITY REQUIREMENTS
- 6. EXCAVATED SOIL SHALL BE STOCKPILED ON—SITE ONLY AS LONG AS NECESSARY TO PROFILE THE SOIL BEFORE OFFHAUL
- AT THE END OF FACH SHIFT, ALL STOCKPILES SHALL BE COVERED WITH A WEIGHTED POLYETHYLENE LINER PER THE SPECIFICATIONS TO MINIMIZE DUST OR VAPORS FROM THE STOCKPILE.
- 8. IN ADDITION TO WHAT IS SHOWN ON THE DRAWINGS, CONTRACTOR SHALL INSTALL FENCING, WALKWAYS, TRAFFIC CONTROLS, AND OTHER MEASURES AS NECESSARY TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC IN THE VICINITY OF THE SITE.
- THE OFF-SITE EXCAVATION WORK WILL BE TAKING PLACE AT AN ACTIVE CHILD DAYCARE FACILITY. CONTRACTOR IS TO MAINTAIN TEMPORARY FENCES AND OTHER SITE CONTROL MEASURES TO ENSURE THE SAFETY OF DAYCARE CENTER PERSONNEL AND OCCUPANTS.



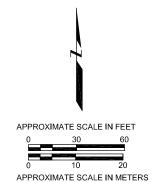
 $- \phi_{OF-2}$ SURVEY CONTROL POINT

MONITORING WELL TO BE DEMOLISHED DURING

TEMPORARY 6' TALL CHAIN LINK FENCE

FENCE (REMOVED AND REPLACED)

STOCKPILE AREAS



**EXCAVATION PLAN** Interim Remedial Measure Former Drive and Park, Inc. Site Poughkeepsie, New York

Date: 03/01/07 Project No. 9328.000 By: JDG



Figure 2

# **APPENDIX A**

Boring Logs

		IVE & PARK, INC. SITE e, New York	Log of	Borin	g No.	GB-1
BORING LOCATI	ON:	20 feet west of garage, 53 feet south of main building	ELEVATION AN	D DATUM: n is ground s	urface	
DRILLING CONTI	RACTOF	R: Martin Geo-Environmental	DATE STARTED	D:	DATE FI	NISHED: 0/24/2005
DRILLING EQUIP	PMENT:	Acker Sentry	TOTAL DEPTH		MEASUR	RING POINT: Ground surface
DRILLING METH	OD:	Hollow-Stem Auger	DEPTH TO FRE	E WATER F		
SAMPLING METH	HOD:	See Boring Log Explanation, Figure A-1	DEPTH TO FRE	E WATER A	T COMPL	ETION:
HAMMER WEIGH	HT: 140	lb HAMMER DROP: 30-inch	LOGGED BY:			
T SAMPLE	ES		D. Averi		_ABORAT(	DRY TESTS
Sample Sa	Blows/ foot	MATERIAL DESCRIPTION		Moisture Content (%)	Dry Density (pcf)	Other
2		ASPHALT CONCRETE (AC) SILTY SAND w/ GRAVEL (SM) Very dense, olive (5Y 4/3), moist, 70% fine to coars sand, 25% non-plastic fines, 5% fine gravel	 se	-		PID=23
3	2"	SILTY SAND (SM) Dense, light olive brown (25Y 5/3), moist, 90% fine medium sand, 10% non-plastic fines	to	-		PID=220
	16 6"	wet	ATD $ar{ar{ar{ar{ar{ar{ar{ar}}}}}}$			PID=236
8 –	46 12" 30 12"	dark greensih gray (Gley 1 4/1), wet, hydrocarbon sheen				Sieve <#200=21.0% PID=720 PID=49
10 -	14	strong hydrocarbon odor		_		
11 -	12 6"			-		PID=166
13 -	43					PID=194 PID=302
15 - 16 - 15 17 -	43	-very dark gray (Gley 1 3/1) -Peat SILTY SAND w/ GRAVEL (SM) Dense, very dark gray (Gley 1 3/1), wet, 60% fine gravel, 30% fine to coarse sand, 10% non-plastic fi	nes	14.0		Sieve <#200=33.1% PID=27 PID=15
	<u> </u>					GT-1 (12/03
Project No. 9328.0	000	Geomatrix Consulta	nts			Figure A-2

PROJECT: FORMER DRIVE & PARK, INC. SITE

Poughkeepsie, New York

Project No. 9328.000

### Log of Boring No. GB-1 cont.

Figure A-2 Cont.

Pougi	keepsie, New York				
SAMPLE			L	ABORATOR	RY TESTS
	MATERIAL DESCRIPT	ION	Moisture Content (%)	Dry Density (pcf)	Other
8-	interbedded clay, 95% non-plastic fines	, 5% fine sand			
	<u>0</u> 2"	-	-		PID=7.6
9 -		-	-		110-7.0
\    c	9 Lean Clay				
1 -	3	-			
'		-	20.0		Sieve
2 - 21		_	26.0		Sieve <#200=99.9% PID=6.5
3	<u></u>	-			
-		-	34.0		Sieve <#200=99.7% LL=35 PL=21
4 24	8	-			PID=5.3
5 -		-			
<b>3</b>   \	4	-			
, -	6. Lean Clay	-			
7	Bottom of boring at 27 feet				
-	Borehole destroyed by placing neat cen total depth to 3 feet bgs through the holl	low stem auger			
		-			
-		-			
	PID = Thermo Environmental Instrumental calibrated with 100 ppm Isobutylen (air				
-	standard	-	_		
		-	-		
-		-			
-		-	-		
		-			
-		-			
-		-	_		
		_			
-		-	-		
-		-			
		-			
-		-			
					GT-2 (i

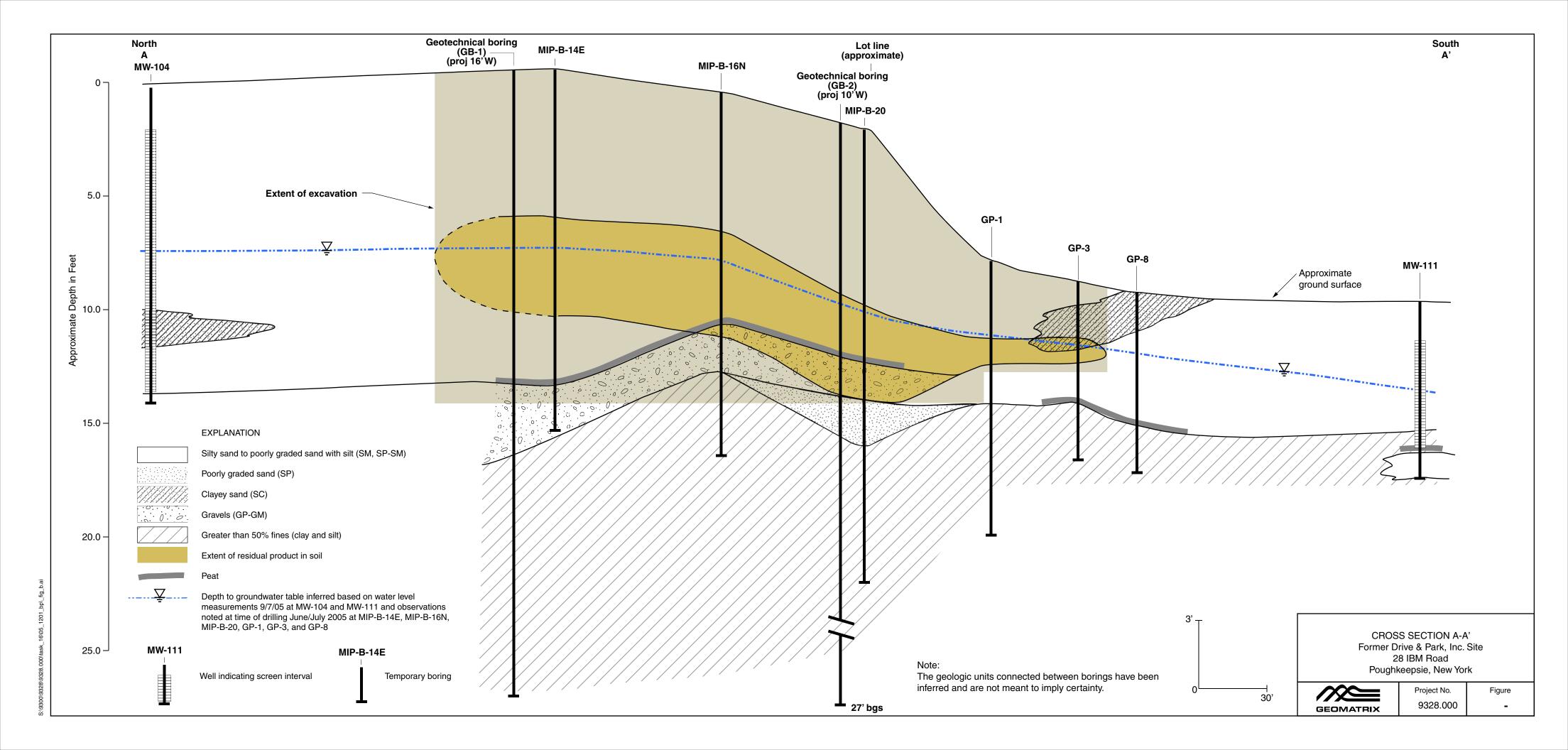
**Geomatrix Consultants** 

		DRIVE & PARK, INC. SITE	Log of E	Borin	g No.	GB-2
BORING LO		40 feet west if SW office, 185 south of main office	ELEVATION AND			
		TOR: Martin Geo-Environmental	0 datum is DATE STARTED:		DATE FIN	
DRILLING E			10/24/2005 TOTAL DEPTH (fe			0/24/2005 ING POINT:
		·	27 DEPTH TO FREE		G	Fround surface
DRILLING M		Hollow-Stem Auger	7.5 feet DEPTH TO FREE			
SAMPLING N	METHOD	See Boring Log Explanation, Figure A-1	N/A LOGGED BY:	WAILKA	TI COIVII L	LTION.
HAMMER W		140 lb HAMMER DROP: 30-inch	D. Averill			
<u>+</u>	Sample Sample Blows/	MATERIAL DESCRIPTION		Moisture Content	Dry Density	ORY TESTS Other
Sal	Sal	ASPHALT CONCRETE (AC)		(%)	(pcf)	
1 - 2 - 3 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4	41 12" 33 12" 13 66" 55	SILTY SAND (SM) Loose, dark gray (16YR 4/1), moist, 70% fine to medium sand, 20% non-plastic fines, 10% fine to coarse gravel wood debris, strong hydrocarbon odor  —wood debris  wet  —Peat  —Poorly Graded Sand with SILT and Grave Medium dense, dark gray (25Y 1/1), wet, 70% medium dense, dark gray (25Y 1/1), wet, 70% medium stiff, grayish brown (25Y 5/2), moist, 90% fines, 10% fine sand, non-plastic, mottling at top of the sand of the	ATD∑			Sieve <#200=40. PID=213 PID=17.8
12 - 12 13 - 12 14 - 15	52 20 6"	dark gray (2.5Y 4/1), 100% non-plastic fines, slov dilatency	v - - - -			Sieve <#200=98 LL=21 PL=16 PID=4.7
15 - - 16 -	14		-			
17 -	12 6"		-			Sieve <#200=99
	328.000	Geomatrix Consul				GT-1 (12) Figure A-3

PROJECT: FORMER DRIVE & PARK, INC. SITE Log of Boring No. GB-2 cont. Poughkeepsie, New York **SAMPLES** LABORATORY TESTS Dry Density (pcf) MATERIAL DESCRIPTION Moisture Blows/ foot Content (%) Other 18 17 21 ⊡lean clay 19 <sup>□–</sup>lean clay 20 Sieve <#200=99.6 LL=28 PL=16 21 <sup>□–</sup>lean clay 17 22 22 23 24 28 25 \_soft 26 19 soft 27 Bottom of boring at 27 feet Borehole destroyed by placing neat cement grout from total depth to 3 feet bgs through the hollow stem auger PID = Thermo Environmental INstruments 580B PID calibrated 100ppm Isobutylene (air balance) standard

# **APPENDIX B**

Geological Cross-Section



# **APPENDIX C**

Geotechnical Laboratory Report



Location: Poughkeepsie, NY

Sample Type: tube Test Date: 11/09/0 Project No: Tested By: GTX-6300

Boring ID: ---Sample ID:GB-1 Depth: 7.5 ft.

Test Date: 11/09, Test Id: 80611

11/09/05 Checked By: jdt

pcs

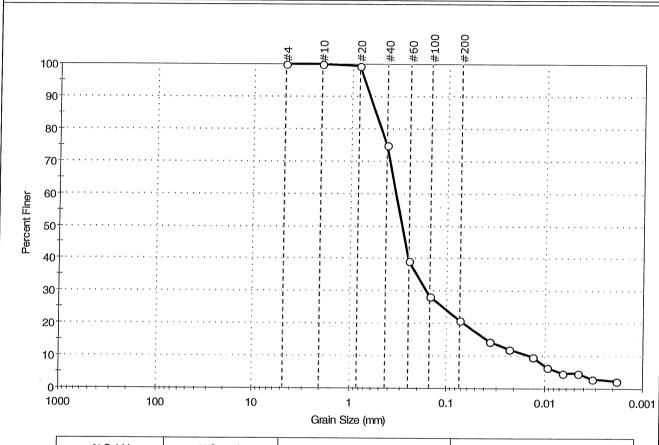
Test Comment:

Sample Description: N

Moist, olive brown silty sand

Sample Comment: --

#### Particle Size Analysis - ASTM D 422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
	0.0	79.0	21.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		· · · · · · · · · · · · · · · · · · ·
#10	2.00	100		
#20	0.84	99		
#40	0.42	75		
#60	0.25	39		
#100	0.15	28		
#200	0.074	21		
	Particle Size (mm)	Percent Finer	Spec, Percent	Complies
	0.0358	14		
	0.0228	12		
	0.0132	10	-	
	0.0093	6		
	0.0066	5		
***	0.0046	5		
	0.0033	3		
	0.0019	2		
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			

<u>Coefficients</u>					
D <sub>85</sub> =0.5640 mm	$D_{30} = 0.1627 \text{ mm}$				
D <sub>60</sub> =0.3408 mm	D <sub>15</sub> =0.0383 mm				
D <sub>50</sub> =0.2938 mm	D <sub>10</sub> =0.0144 mm				
$C_u = 23.667$	$C_c = 5.394$				

ASTM N/A

Classification

AASHTO Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape: ANGULAR
Sand/Gravel Hardness: HARD



Location: Poughkeepsie, NY

Sample Type: tube

Project No: Tested By:

GTX-6300

Boring ID: ---Sample ID:GB-1

Test Date: Test Id:

11/09/05 Checked By:

80612

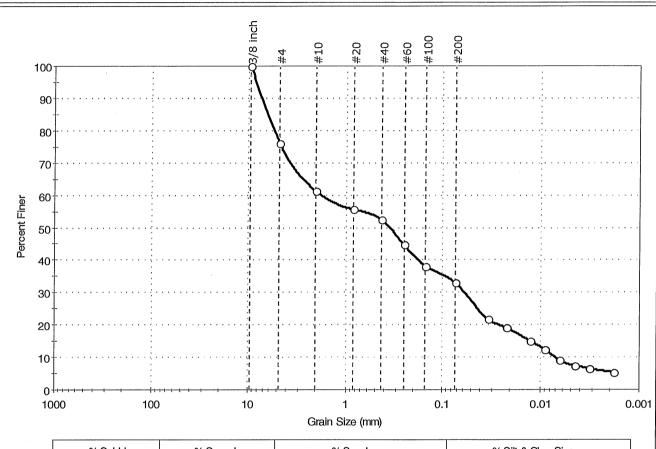
pcs jdt

Depth: 15 ft. Test Comment:

Sample Description: Sample Comment:

Moist, dark gray silty sand with gravel

#### Particle Size Analysis - ASTM D 422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
	23.8	43.1	33.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 Inch	9.51	100		
#4	4.75	76		
#10	2.00	61		
#20	0.84	56		
#40	0.42	52		
#60	0.25	45		
#100	0.15	38		
#200	0.074	33		
	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
	0.0337	22		
	0.0216	19		
	0.0126	15		
	0.0090	12		
	0.0064	9		
***	0.0045	7		
	0.0032	6		
	0.0018	5		

<u>Coefficients</u>				
D <sub>85</sub> =6.1349 mm	$D_{30} = 0.0596 \text{ mm}$			
D <sub>60</sub> =1.6520 mm	$D_{15} = 0.0125 \text{ mm}$			
D <sub>50</sub> = 0.3605 mm	$D_{10} = 0.0070 \text{ mm}$			
$C_u = 236.000$	$C_c = 0.307$			

<u>Classification</u> Silty sand with gravel (SM) **ASTM** AASHTO Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u> Sand/Gravel Particle Shape: ANGULAR Sand/Gravel Hardness: HARD



Location: Poughkeepsie, NY Boring ID: ---

Sample Type: tube

Project No: Tested By:

GTX-6300

Sample ID:GB-1 Depth: 15 ft. Test Date: Test Id:

11/09/05 Checked By: jdt

80620

Test Comment:

Sample Description:

Moist, dark gray silty sand with gravel

Sample Comment:

### Atterberg Limits - ASTM D 4318

#### Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	GB-1	au 10 20	15 ft.	14	n/a	n/a	n/a	n/a	Silty sand with gravel (SM)

48% Retained on #40 Sieve

Dry Strength: HIGH Dilentancy: RAPID Toughness: n/a

The sample was determined to be Non-Plastic



Location: Poughkeepsie, NY Project No:

80613

GTX-6300

Boring ID: ---Sample ID:GB-1 Sample Type: tube Test Date: Test Id:

Tested By: 11/09/05 Checked By:

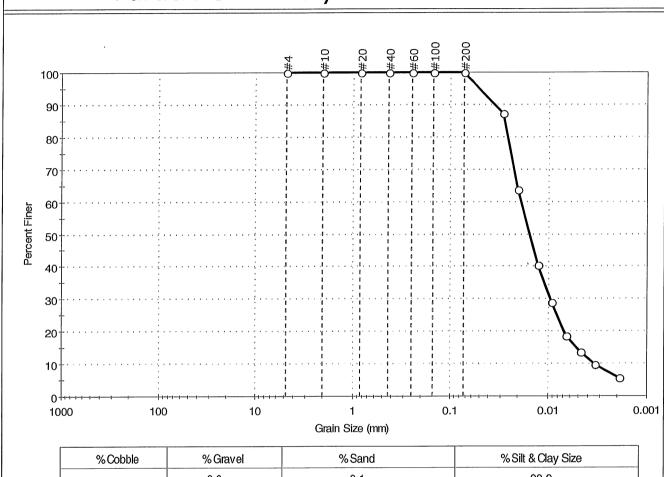
jdt

Depth: 21 ft. Test Comment:

Moist, dark gray silt Sample Description:

Sample Comment:

### Particle Size Analysis - ASTM D 422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
	0.0	0.1	99.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.84	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#200	0.074	100		
	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
	0.0292	87		
	0.0202	64	***************************************	
	0.0126	40		
	0.0091	29		
	0.0066	19		
	0.0047	14		
	0.0034	10		
	0.0019	5		

<u>Coefficients</u>						
$D_{85} = 0.0282 \text{ mm}$	$D_{30} = 0.0094 \text{ mm}$					
$D_{60} = 0.0187 \text{ mm}$	$D_{15} = 0.0052 \text{ mm}$					
D <sub>50</sub> =0.0153 mm	$D_{10} = 0.0035 \text{ mm}$					
$C_u = 5.343$	$C_c = 1.350$					

<u>Classification</u> silt (ML) <u>ASTM</u> AASHTO Silty Soils (A-4 (0))

<u>Sample/Test Description</u> Sand/Gravel Particle Shape : ---Sand/Gravel Hardness: ---



Location: Poughkeepsie, NY

Sample Type: tube

Project No: Tested By:

GTX-6300

Boring ID: ---Sample ID:GB-1

Test Date: Test Id:

11/09/05 Checked By: jdt

80621

pcs

Depth: 21 ft. Test Comment:

Sample Description:

Moist, dark gray silt

Sample Comment:

### Atterberg Limits - ASTM D 4318

#### Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	GB-1		21 ft.	26	n/a	n/a	n/a	n/a	silt (ML)

0% Retained on #40 Sieve

Dry Strength: HIGH Dilentancy: RAPID Toughness: n/a

The sample was determined to be Non-Plastic



Location: Poughkeepsie, NY

Project No: Sample Type: tube Tested By:

80614

GTX-6300

Boring ID: ---Sample ID:GB-1

Test Date: Test Id: 11/09/05 Checked By:

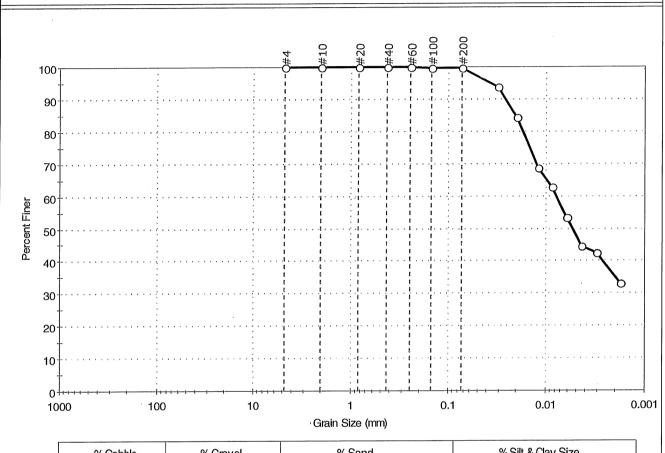
pcs jdt

Depth: 24 ft.
Test Comment:

Sample Description: Moist, very dark gray clay

Sample Comment: -

### Particle Size Analysis - ASTM D 422



% Cobble	% Gravel	%Sand	% Silt & Clay Size
	0.0	0.3	99.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies	
#4	4.75	100			
#10	2.00	100			
#20	0.84	100			
#40	0.42	100			
#60	0.25	100			
#100	0.15	100			
#200	0.074	100			
***	Particle Size (mm)	Percent Finer	Spec. Percent	Complies	
	0.0313	94			
	0.0199	84		V2	
	0.0119	69			
	0.0085	63			
	0.0061	53			
	0.0044	44			
	0.0031	42			
	0.0018	33			

<u>Coefficients</u>					
D <sub>85</sub> =0.0206 mm	$D_{30} = N/A$				
D <sub>60</sub> = 0.0077 mm	$D_{15} = N/A$				
$D_{50} = 0.0054 \text{ mm}$	$D_{10} = N/A$				
Cu =N/A	$C_c = N/A$				

Classification
ASTM lean clay (CL)

AASHTO Clayey Soils (A-6 (16))

Sample/Test Description
Sand/Gravel Particle Shape: --Sand/Gravel Hardness: ---



Location: Poughkeepsie, NY
Boring ID: ---

Sample Type: tube Test Date: 11/0

tube Tested By: 11/09/05 Checked By:

80622

Project No: GTX-6300
Tested By: pcs

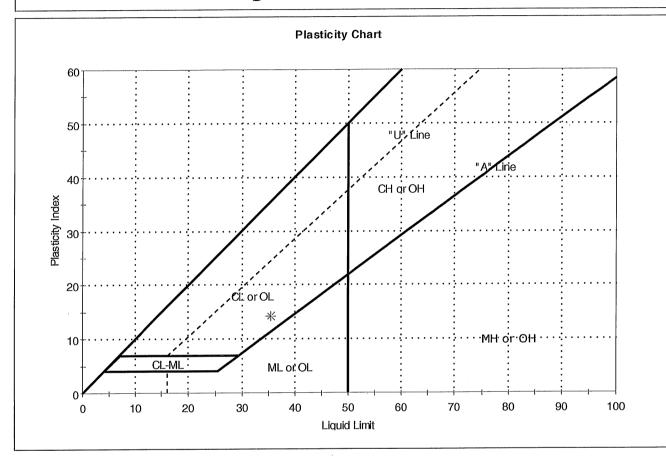
jdt

Sample ID:GB-1
Depth: 24 ft.
Test Comment:

Test Id:

Sample Description: Moist, very dark gray clay Sample Comment: ---

### Atterberg Limits - ASTM D 4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	GB-1		24 ft.	34	35	21	14	1	lean clay (CL)

Sample Prepared using the WET method

0% Retained on #40 Sieve Dry Strength: VERY HIGH

Dilentancy: SLOW
Toughness: MEDIUM



Location: Poughkeepsie, NY Project No:

GTX-6300

Boring ID: ---Sample ID:GB-2 Depth: 4 ft.

Sample Type: tube Test Date: Test Id:

Tested By: Checked By: 11/09/05

80607

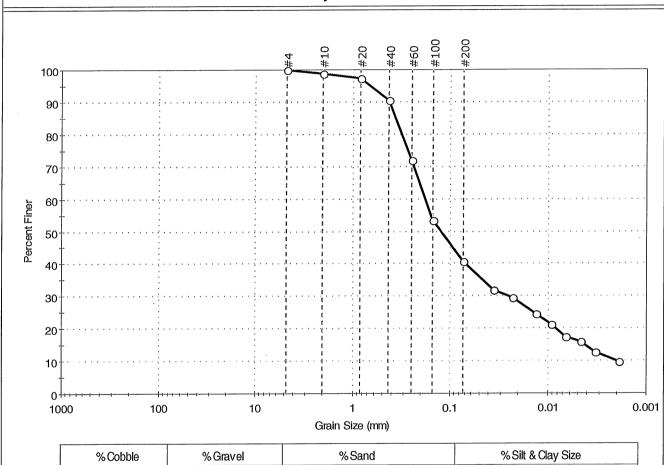
pcs jdt

Test Comment:

Sample Comment:

Moist, dark olive brown silty sand Sample Description:

#### Particle Size Analysis - ASTM D 422



59.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.84	97		
#40	0.42	90		
#60	0.25	72		
#100	0.15	53		
#200	0.074	41		
	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
	0.0355	32		
	0.0226	29		
	0.0132	25		
	0.0093	21		
	0.0066	18		
	0.0047	16		
	0.0033	13		
	0.0019	10		

0.0

<u>Coefficients</u>						
D <sub>85</sub> =0.3635 mm	D <sub>30</sub> = 0.0252 mm					
$D_{60} = 0.1803 \text{ mm}$	D <sub>15</sub> =0.0042 mm					
D <sub>50</sub> =0.1248 mm	D <sub>10</sub> =0.0020 mm					
C <sub>u</sub> =90.150	$C_c = 1.761$					

40.6

**Classification** <u>ASTM</u> N/A AASHTO Silty Soils (A-4 (0))

<u>Sample/Test Description</u> Sand/Gravel Particle Shape: ANGULAR Sand/Gravel Hardness: HARD



Percent Finer

Client: Geomatrix Consultants Inc Project: Former Drive and Park Inc

Location: Poughkeepsie, NY

Sample Type: tube

Project No: Tested By: pcs

GTX-6300

Boring ID: ---Sample ID:GB-2

Test Date:

11/09/05 Checked By:

jdt

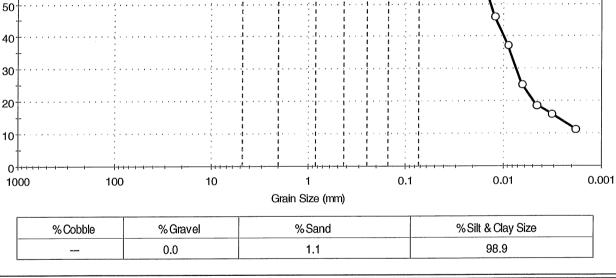
Depth: 12 ft. Test Id: 80608

Test Comment:

Sample Description: Moist, gray silty clay

Sample Comment:

# Particle Size Analysis - ASTM D 422 100 90 80 60



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.84	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#200	0.074	99		
	Particle Size (mm)	Percent Finer	Spec, Percent	Complies
	0.0296	90		
	0.0200	68		
	0.0123	46		
	0.0089	38		
	0.0064	25		
	0.0046	19		
***	0.0033	16		
	0.0019	11		

<u>Coefficients</u>					
D <sub>85</sub> =0.0273 mm	D <sub>30</sub> =0.0073 mm				
D <sub>60</sub> =0.0168 mm	D <sub>15</sub> =0.0028 mm				
D <sub>50</sub> = 0.0134 mm	D <sub>10</sub> =0.0016 mm				
$C_u = 10.500$	$C_c = 1.983$				

<u>Classification</u> silty clay (CL-ML) <u>ASTM</u> <u>AASHTO</u> Silty Soils (A-4 (2))

<u>Sample/Test Description</u> Sand/Gravel Particle Shape: ---Sand/Gravel Hardness: ---



Location: Poughkeepsie, NY

Sample Type: tube Test Date:

Project No: Tested By:

GTX-6300

Boring ID: ---Sample ID:GB-2 Depth: 12 ft.

Test Id:

11/08/05 Checked By: jdt 80616

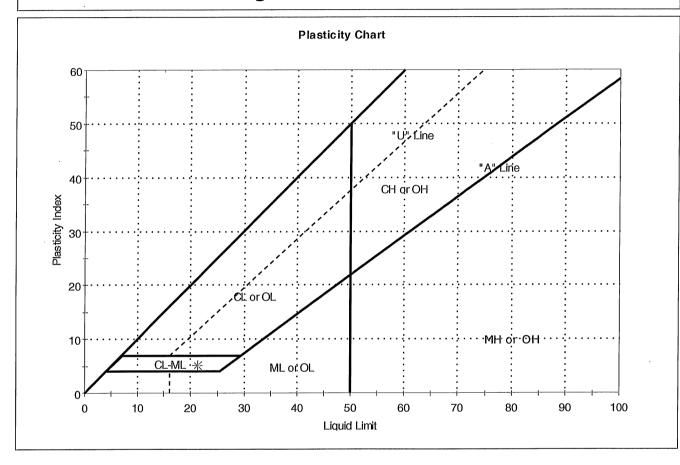
pcs

Test Comment:

Moist, gray silty clay Sample Description:

Sample Comment:

### Atterberg Limits - ASTM D 4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	GB-2		12 ft.	22	21	16	5	1	silty clay (CL-ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve Dry Strength: MEDIUM Dilentancy: SLOW Toughness: LOW



Location: Poughkeepsie, NY

Sample Type: tube

Project No:
Tested By:

GTX-6300

Boring ID: ---Sample ID:GB-2 Depth: 17 ft.

Test Date: Test Id:

11/09/05 Checked By: 80609

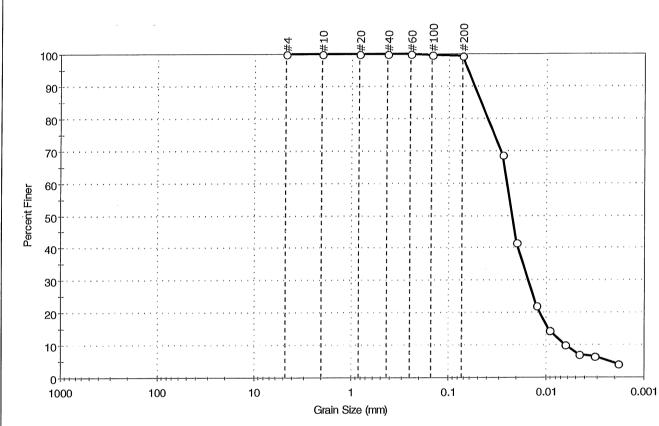
: pcs By: jdt

Test Comment:

Sample Description: Moist, dark gray silt

Sample Comment: --

# Particle Size Analysis - ASTM D 422



% Cobble	% Gravel	%Sand	% Silt & Clay Size
	0.0	0.7	99.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
		100		<u> </u>
#4	4.75			
#10	2.00	100		
#20	0.84	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#200	0.074	99		
	Particle Size (mm)	Percent Finer	Spec, Percent	Complies
	0.0284	69		
	0.0203	42		
	0.0125	22		
	0.0091	15		
	0.0065	10		
	0.0046	7		
	0.0032	7		
	0.0019	4		

<u>Coefficients</u>					
D <sub>85</sub> =0.0472 mm	$D_{30} = 0.0152 \text{ mm}$				
D <sub>60</sub> =0.0254 mm	$D_{15} = 0.0093 \text{ mm}$				
D <sub>50</sub> =0.0225 mm	D <sub>10</sub> =0.0064 mm				
$C_u = 3.969$	$C_c = 1.421$				

ASTM silt (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape: --Sand/Gravel Hardness: ---



Poughkeepsie, NY Location: Boring ID: ---

Sample Type: tube Test Date:

Project No: Tested By:

GTX-6300

Sample ID:GB-2 Depth: 17 ft. Test Id:

11/09/05 Checked By: jdt

80617

pcs

Test Comment:

Sample Description: Sample Comment:

Moist, dark gray silt

### Atterberg Limits - ASTM D 4318

#### Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	GB-2		17 ft.	21	n/a	n/a	n/a	n/a	silt (ML)

0% Retained on #40 Sieve Dry Strength: MEDIUM Dilentancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic



Poughkeepsie, NY Location:

Sample Type: tube Test Date: 11/09/05 Project No: Tested By: pcs

Checked By: jdt

GTX-6300

Sample ID:GB-2 Depth: 22 ft.

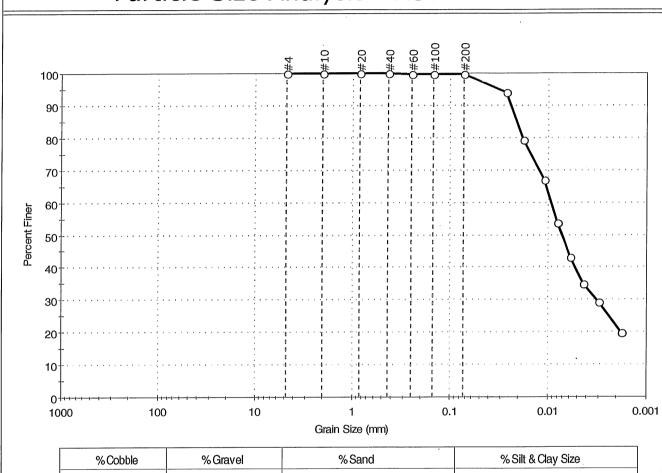
Boring ID: ---

Test Id: 80610

Test Comment: Sample Description: Moist, dark gray clay

Sample Comment:

## Particle Size Analysis - ASTM D 422



% Cobble	% Gravel	% Sand	% Silt & Clay Size	
	0.0	0.4	99.6	

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.84	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#200	0.074	100		
	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
	0.0267	94		- Andrews
	0.0181	79		
	0.0110	67		
	0.0081	54		
	0.0059	43		
	0.0043	35		
	0.0030	29		
	0.0018	20		

<u>Coefficients</u>					
D <sub>85</sub> =0.0210 mm	$D_{30} = 0.0032 \text{ mm}$				
$D_{60} = 0.0093 \text{ mm}$	$D_{15} = N/A$				
D <sub>50</sub> =0.0072 mm	$D_{10} = N/A$				
$C_u = N/A$	$C_c = N/A$				

<u>Classification</u> lean clay (CL) <u>ASTM</u> AASHTO Clayey Soils (A-6 (11))

<u>Sample/Test Description</u> Sand/Gravel Particle Shape : ---Sand/Gravel Hardness: ---



Location: Poughkeepsie, NY

Sample Type: tube

Project No: Tested By:

GTX-6300

Boring ID: ---Sample ID:GB-2

Test Date: Test Id:

11/09/05 Checked By: jdt

80618

pcs

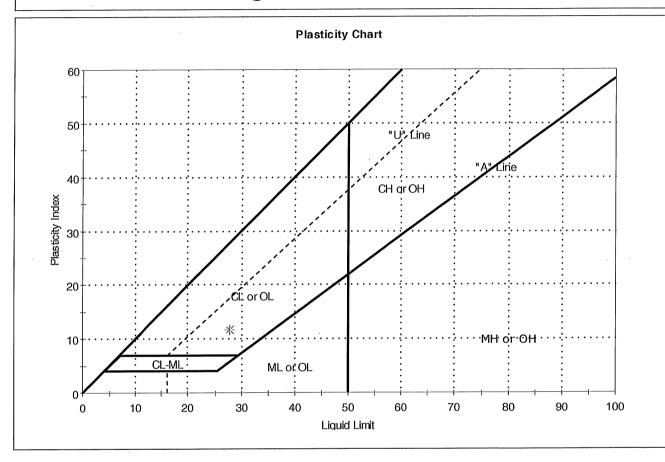
Depth: 22 ft. Test Comment:

Sample Description:

Moist, dark gray clay

Sample Comment:

#### Atterberg Limits - ASTM D 4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	GB-2		22 ft.	34	28	16	12	1	lean clay (CL)

Sample Prepared using the WET method

0% Retained on #40 Sieve Dry Strength: VERY HIGH

Dilentancy: SLOW Toughness: LOW



Location: Poughkeepsie, NY

Sample Type: ---

80630

Project No:

GTX-6300

Boring ID: ---Sample ID:---

Depth:

Test Date: Test Id:

Tested By:

pcs 11/09/05 Checked By: jdt

Specific Gravity of Soils by ASTM D 854

Boring ID	Sample ID	Depth	Visual Description	Specific Gravity
	GB-2	17 ft.	Moist, dark gray silt	2.7
	GB-2	22 ft.	Moist, dark gray clay	2.76
	GB-1	21 ft.	Moist, dark gray silt	2.59
	GB-1	24 ft.	Moist, very dark gray clay	2.69

Notes: Specific Gravity performed by using method A (oven dried specimens) of ASTM D 854 Moisture Content determined by ASTM D 2216.

#### UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850 10 psi 10 25 30 15 20 p, psi Symbol O GB-1 Sample No. 6300-uu1 Test No. 21 ft. Depth Tested by md 12 Test Date 11/10/05 Checked by jdt 10 Check Date psi Diameter, in 1.41 DEVIATOR STRESS, 2.95 Height, in 19.8 Water Content, % Dry Density, pcf 104.2 93.0 Saturation, % Void Ratio 0.552 17 Confining Stress, psi Undrained Strength, psi 2.118 4.237 Max. Dev. Stress, psi 2 -Strain at Failure, % 19.9 Strain Rate, %/min 0.4 Measured Specific Gravity 2.59 0 10 20 30 40 Liquid Limit NΡ VERTICAL STRAIN, % Plastic Limit NΡ Plasticity Index NP Project: Former Drive and Park Location: Poughkeepsie NY Project No.: GTX-6300 Collesting Boring No.: GB-1 oxpross Sample Type: Tube Description: Moist, dark gray silt Remarks: ---

#### UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850 20 psi σ̈ 10 0 50 20 60 10 30 40 p, psi Symbol Φ GB-1 Sample No. 35 Test No. 6300-uu4 24 ft. Depth Tested by md 30 11/10/05 Test Date Checked by jdt 25 Check Date . Isd Diameter, in 1.39 DEVIATOR STRESS, Height, in 2.98 20 Water Content, % 16.9 Dry Density, pcf 115.1 15 Saturation, % 98.4 0.464 Void Ratio Confining Stress, psi 17 10 Undrained Strength, psi 9.781 Max. Dev. Stress, psi 19.56 5 -Strain at Failure, % 3.91 Strain Rate, %/min 0.4 Measured Specific Gravity 2.7 0 250 8 Liquid Limit VERTICAL STRAIN, % Plastic Limit 76 Plasticity Index 174 Project: Former Drive and Park Location: Poughkeepsie NY Project No.: Gtx-6300 Coolesting Boring No.: oxpross Sample Type: Tube Description: Moist/wet dark grey silt Remarks: 100 lb

#### UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850 40 psi σ̈ 20 0 80 100 120 20 40 60 p, psi Symbol O Sample No. GB-2 70 6300-uu3 Test No. Depth 17.5 ft. Tested by md 60 11/10/05 Test Date Checked by jdt 50 Check Date Diameter, in 1.37 DEVIATOR STRESS, Height, in 2.95 40 16.7 Water Content, % Dry Density, pcf 115.8 30 Saturation, % 99.6 Void Ratio 0.45 17 Confining Stress, psi 20 Undrained Strength, psi 22.13 Max. Dev. Stress, psi 44.27 10 -Strain at Failure, % 3.38 Strain Rate, %/min 0.4 Measured Specific Gravity 2.69 Liquid Limit 35 VERTICAL STRAIN, % Plastic Limit 21 Plasticity Index 14 Project: Former Drive and Park Location: Poughkeepsie NY Project No.: GTX-6300 Goollosting Boring No.: GB-2 oxpress Sample Type: Tube Description: Moist, very dark gray clay Remarks: ---

#### UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850 20 psi ά 10 20 10 30 40 50 60 p, psi Symbol GB-2 Sample No. Test No. 6300-uu2 Depth 22 ft. Tested by md 30 Test Date 11/10/05 Checked by jdt 25 Check Date ps. Diameter, in 1.2 DEVIATOR STRESS, Height, in 3 20 Water Content, % 8.3 Dry Density, pcf 139.7 15 Saturation, % 97.8 Void Ratio 0.233 Confining Stress, psi 17 10 Undrained Strength, psi 7.349 Max. Dev. Stress, psi 14.7 5 Strain at Failure, % 11.7 Strain Rate, %/min 0.4 Measured Specific Gravity 2.76 0 10 15 20 Liquid Limit 28 VERTICAL STRAIN, % Plastic Limit 16 Plasticity Index 12 Project: Former Drive and Park Location: Poughkeepsie NY Project No.: GTX-6300 Coolesting Boring No.: GB-2 ompross Sample Type: Tube Description: Moist, dark gray clay Remarks: ---

# **APPENDIX D**

Soil Parameters for Shoring Design

Subject			Project No. 9328 · 000
Rv	ACJ	Checked By	Task No. 13
Ву		Checked By	File No.
Date	12-2-05	Date	Sheet of

# Soil Parameter for Shoring Design Poughkeepsie, New York

Sheet Pule Deskyn - Pressure Distribution

#### Design Assumptions

- 1. Water 6 feet bojs baredon first encountered water in CTB-1 10-24-05.
- 2. Pressure due to equipment adjacent to example ~ 300 psf
- 3. Pressure due to building < 300 psf
- 4 to conditions to minimize movement of wheet pule walls
- 5 Maximum depth of excavadian = 15.0 Feet

#### Creokechnicail Paranelles

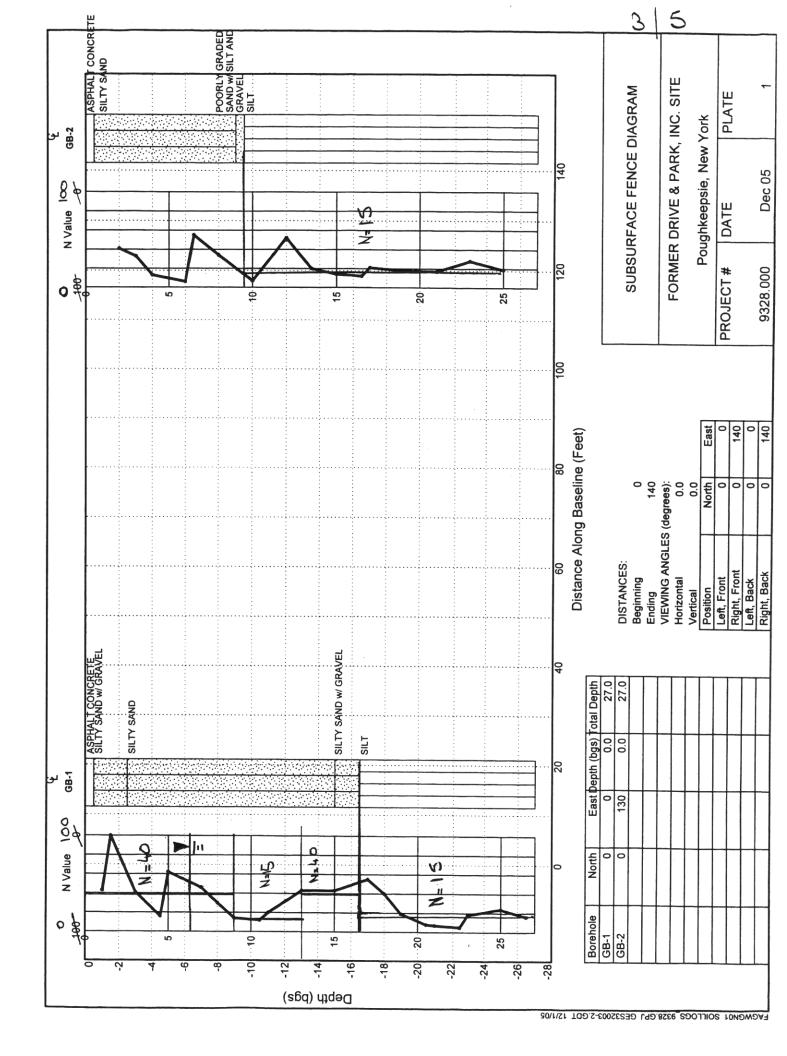
CB-1

Assume 8 = 120 per

Ko=1-m=0.38

tro= 1 - mo' = 0.44

Subje By	ect		Checked By	Т	Project No	_	
Date	12-	2-05	Date		Sheet 2	of/	
(	Bill do	y layer	N= 20				
1		8a(1+ m					
R	Soring	Depth	Description	mc/o	8d pcf	Su psi	SF
	2B1	31,	met (HL)	19.8	104.2	2.118	125
	iBI	24'	Cecu clay (CL)	16.9	115.1	9.781	134
(	202	12'	سللع دامع (دو- ۱۹۱۸)	-	_	_	
	302	'Z.F1	ule (ML)	16.7	115.8	22.13	135
e	GB2	22	Cecuciay (CL)	8.3	139.7	7.349	151
		1	o Sulpai)				
undeenface cleastics	15		SIIty na	el	GBQ ~ 2.5 there GTS1	5' lower	
الد له عام	3 3			ξ	siltlelay		
Dept relative to grown	25'		Design Su= 1 tsf = 14psi		5 Very St ~ 1.0 tsf ~ 14 psi		



Subject	Checked By  Date	Project No. 9328 000  Task No. 13  File No
Design Profite  O'	Ko= 0.4  8 = 120 pcf  Bothomof excavat  Su= 650.psf un  8 = 130pcf on pa	

Subject . By			Project No Task No File No	9328.000
Date	ACS 12-2-05	Date	Sheet	5 of 5
	$\frac{3^{12}/8\omega^{2}}{23u}$ $\frac{23u}{300}$ $\frac{300}{2300}$ $\frac{300}{2300}$ $\frac{300}{2300}$ $\frac{300}{2300}$ $\frac{300}{2300}$ $\frac{300}{2300}$ $\frac{300}{2300}$	20	Assumespil Depth of the state o	Pressure Distribution  2000 1000 300 1000 2000 1000 1000 1000 1



# **APPENDIX C**

# **Soil Vapor Investigation Report**

#### **SOIL VAPOR INVESTIGATION REPORT**

Former Drive & Park, Inc. Site Brownfield Cleanup Program #314111 28 IBM Road Town of Poughkeepsie Dutchess County, New York

#### Prepared for:

Avis Rent A Car System, LLC

6 Sylvan Way Parsippany, New Jersey 07054

September 2006

Project No. 9328.000





September 5, 2006 Project 9328.000 Task 14

Michelle Tipple
Project Manager
Division of Environmental Remediation, Region 3
New York State Department of Environmental Conservation (NYSDEC)
21 South Putt Corners Road
New Paltz, NY 12561-1696

Subject: Soil Vapor Investigation Report

Former Drive & Park, Inc. Site

Brownfield Cleanup Program #314111

28 IBM Road

Town of Poughkeepsie

**Dutchess County, New York** 

Dear Ms. Tipple:

Please find enclosed the *Soil Vapor Investigation Report*, dated September 5, 2006, for the Former Drive & Park, Inc. Site in Poughkeepsie, New York. This report was prepared by Geomatrix Consultants, Inc. on behalf of Avis Rent A Car System, LLC.

Please contact either of the undersigned if you have any questions about this report.

Sincerely yours,

GEOMATRIX CONSULTANTS, INC.

Yenia Hashimoto, CHG

Project Hydrogeologist

Edward P. Conti, C.E.G., CHG.

Principal Geologist

 $I:\label{loc_Safe} I:\label{loc_Safe} I:\label{lo$ 

#### Enclosure

cc: Rose Pelino, Director, Environmental Affairs, Avis Rent A Car System, LLC

Jon Brooks, Esq., Phillips Nizer

Ramarand Pergardia, New York State, Department of Environmental Conservation

Gary Litwin, New York State Department of Health

## SOIL VAPOR INVESTIGATION REPORT

Former Drive & Park, Inc. Site Brownfield Cleanup Program #314111 28 IBM Road Town of Poughkeepsie Dutchess County, New York

Prepared for:
Avis Rent A Car System, LLC
6 Sylvan Way
Parsippany, New Jersey 07054

#### Prepared by:

#### Geomatrix Consultants, Inc.

90 B John Muir Drive, Suite. 104 Amherst, New York 14288 (716) 565-0624

September 2006

Project No. 9328.000



### TABLE OF CONTENTS

			Page
1.0	INTR	ODUCTION	1
2.0	SCOF	PE OF WORK	1
3.0	SAMI 3.1 3.2	PLING ACTIVITIES  Pre-Field Activities  Soil Vapor Sampling	2
		<ul> <li>3.2.1 Temporary Soil Vapor Sampling Point Installation</li> <li>3.2.2 Soil Vapor Sample Collection</li> <li>3.2.3 Ambient Air Sample Collection</li> <li>3.2.4 Waste Management</li> <li>3.2.5 Data Recording and Management</li> </ul>	3 6
4.0	LABO 4.1 4.2	DRATORY METHODS AND DATA QUALITY REVIEW Laboratory Methods Data Quality Review	7
5.0	FIND 5.1 5.2 5.3	INGS FIRST PRE-EXCAVATION SAMPLING SECOND PRE-EXCAVATION SAMPLING POST-EXCAVATION SAMPLING	9 9
6.0	CON	CLUSIONS	13
7.0	REFE	RENCES	15
Table Table Table	2	TABLES  Soil Vapor Sampling Point Construction Summary of Soil Vapor Investigation Sample Collection Data Summary of Soil Vapor Analytical Results	
		FIGURES	
Figure Figure		Site Location Map Soil Vapor Sampling Locations	
		APPENDIXES	
	ndix A ndix B	Field Documentation Analytical Laboratory Data Reports	



#### SOIL VAPOR INVESTIGATION REPORT

Former Drive & Park, Inc. Site Brownfield Cleanup Program #314111 28 IBM Road Town of Poughkeepsie Dutchess County, New York

#### 1.0 INTRODUCTION

This *Soil Vapor Investigation Repor*t provides the results of a soil vapor investigation conducted in the vicinity of the Former Drive & Park, Inc. Site located at 28 IBM Road in Poughkeepsie, New York (Figure 1). This work was performed by Geomatrix Consultants, Inc. (Geomatrix), on behalf of Avis Rent A Car System, LLC (Avis). Prior to conducting this soil vapor investigation, Avis submitted the *Soil Vapor Investigation Work Plan* (Geomatrix, 2005b) as Appendix B of the *Interim Remedial Measure Work Plan* (IRM Work Plan) dated November 1, 2005 (Geomatrix, 2005a).

The New York State Department of Environmental Conservation (NYSDEC) approved the *Soil Vapor Investigation Work Plan* in a November 29, 2005 letter from Michelle Tipple of the NYSDEC to Yemia Hashimoto of Geomatrix. The purpose of the soil vapor investigation was to identify whether chemicals related to the former USTs were present in subsurface vapors at the adjacent property to the south of the Former Drive & Park, Inc. Site, which includes a child care facility (144 Barnegat Road). Previous soil and groundwater investigations have shown that neither residual product in soil nor dissolved chemicals in groundwater extend beneath the child care building.

#### 2.0 SCOPE OF WORK

The soil vapor samples were collected in general accordance with methods provided in the New York State Department of Health (NYSDOH) *Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated February 2005. The soil vapor investigation was conducted in two phases: before and after implementation of the interim remedial measure (pre- and post-excavation). In the pre-excavation phase, conducted in November and December 2005, seven soil vapor samples (three in November and four in December) were collected from six soil vapor sampling points located in the area south and southwest of the delineated extent of petroleum constituents in soil, which is north and east of the child care



facility building located at 144 Barnegat Road (Figure 2). The post-excavation phase was conducted in May 2006, one month after completion of the interim remedial measure excavation. In the post-excavation phase, four soil vapor samples were collected from the four soil vapor sampling points that remained intact following completion of the interim remedial measure excavation. Because the soil vapor investigation area is near a building with no surrounding surface confining layer, the soil vapor sampling points were located at least 10 feet away from the building to avoid influence from the building operations, per NYSDOH guidance (NYSDOH, 2005).

The sampling activities (Section 3.0), laboratory methods and data quality review (Section 4.0), findings (Section 5.0), and conclusions (Section 6.0) of the soil vapor investigation are provided in the following sections.

#### 3.0 SAMPLING ACTIVITIES

This section presents pre-field activities and soil vapor sampling activities.

#### 3.1 Pre-Field Activities

The pre-field activities consisted of a site visit, utility clearance, and update of the site-specific health and safety plan. Geomatrix notified Dig Safely New York, a regional utility notification center, of the planned drilling activities prior to installing the soil vapor sampling points. Drilling permits were not required for soil vapor sampling point installation activities. Geomatrix notified the property owner of the child care facility regarding the soil vapor sampling activities and confirmed that access to the soil vapor sampling point locations was permitted.

Geomatrix updated the site-specific health and safety plan (HASP) for use during the field program. All Geomatrix personnel and subcontractors had completed the OSHA 40-hour training session with the annual 8-hour refresher course prior to implementing the field program. Monitoring of the work area and perimeter was conducted in accordance with the Community Air Monitoring Plan described in the *Draft DER-10 Technical Guidance for Site Investigation and Remediation*, dated December 2002, (NYSDEC, 2002). Field air monitoring logs for photoionization detector (PID) readings are provided in Appendix A. Due to the use of hand augers to install the shallow soil vapor sampling points, only small amounts of soil were brought to the surface; consequently, potential volatile organic compound exposure was minimized.



#### 3.2 SOIL VAPOR SAMPLING

Geomatrix retained Zebra Environmental Corporation of Lynbrook, New York, a licensed subcontractor, to install the soil vapor sampling points. To collect the soil vapor samples, soil borings were advanced using hand augers to the specified depth and temporary soil vapor sampling points were installed in the borings. The sampling methodology is described below.

#### 3.2.1 Temporary Soil Vapor Sampling Point Installation

Temporary soil vapor sampling points were installed in open soil borings advanced using a 2-inch outside-diameter hand auger on November 29, 2005. Before use at each location, the hand auger was cleaned with Alconox® detergent and distilled water, followed by a clean potable water rinse and then a distilled-water rinse. Eight soil borings, labeled SG-1 through SG-8, were advanced to a depth estimated at 1 foot above the water table as measured in the nearest monitoring well, MW-110 (approximately 4 to 6 feet below grade in the work area). A temporary soil vapor sampling point was installed in each soil boring to the selected depths. The sampling point consisted of a 0.5-foot long stainless steel screen that included 0.3 feet of blank stainless steel casing and a bottom point attached to 1/4-inch-inside-diameter, 3/8-inch outside-diameter, polyethylene tubing. The tubing was cut to extend several inches above the ground surface. In the annular space around the screened sampling point and tubing, filter sand was placed from the bottom of the borehole to approximately 1 foot above the top of the screen. From immediately above the filter sand to a depth of 0.5 foot below ground surface (bgs), granular bentonite was placed in lifts and hydrated with distilled water, providing a minimum 1.3 feet of seal above the filter sand. An aluminum protective casing was set over the top of each soil vapor sampling point, and the extended polyethylene tubing was contained within this casing. Upon completion, the protective casing was buried under several inches of sod.

The recommended minimum seal of 3 feet above the sampling zone, as specified in the NYSDOH guidance document, was not feasible at the boring locations advanced for the soil vapor sampling points because of the high groundwater elevation in the area; however, an effort was made to provide as much seal as reasonably possible. NYSDOH was aware of these shallow sampling conditions that could affect sampling results. The soil vapor sampling point construction details are summarized in Table 1.

#### 3.2.2 Soil Vapor Sample Collection

Prior to the start of excavation on December 26, 2005, pre-excavation soil vapor samples were collected on November 30, 2005 from soil vapor sampling points installed the previous day



(SG-5, SG-6, and SG-8). Soil vapor sampling points SG-1, SG-2, SG-3, SG-4, and SG-7 produced water during purging and could not be sampled. There had been heavy rainfall from the evening of November 29 into the morning of November 30, 2005, after the sampling point installation but before soil vapor sampling. On December 20, 2005, Geomatrix returned to collect soil vapor samples from those sampling points that could not be sampled in November. We collected soil vapor samples from soil vapor sampling points SG-1, SG-2, SG-3, and SG-5 on that day. Soil vapor sampling points SG-4 and SG-7 produced water during purging on December 20, 2005 and could not be sampled, so SG-5 was substituted.

Geomatrix collected post-excavation soil vapor samples from soil vapor sampling points SG-1, SG-2, SG-3, and SG-5 on May 3, 2006, after excavation and backfilling on the 144 Barnegat Road property was complete. Soil vapor sampling points SG-4, SG-6, SG-7, and SG-8 had been removed during excavation activities. Following soil vapor sampling of SG-1, SG-2, SG-3, and SG-5, these temporary soil vapor sample points were removed on June 21, 2006, by removing the sample point tubing and allowing the annular contents to collapse within the borehole.

The purging and sampling procedures used during the sampling events are described below.

#### Purging

At each soil vapor sampling point, a vapor volume equal to or greater than 1.5 times the total volume of the borehole was purged prior to sampling. The volume of each borehole was calculated as  $\pi$  r<sup>2</sup> h, where  $\pi$  is 3.14, r is the radius of the borehole (2 inches, 5.08 cm), and h is the total depth of the borehole. To purge vapor from the borehole, approximately 5 feet of flexible silicone tubing was attached to the top of the soil vapor sampling point tubing and connected to a SKC Model 222-3 air pump calibrated to 100 milliliters per minute (ml/min), +/-5 ml/min, using a DryCal DC-Lite flow meter. The ground surface at each soil vapor sampling point was covered with a 4-foot-square piece of plastic sheeting and weighted down to remain flush to the ground surface. Using silicone tubing, helium was released beneath the plastic sheeting into the area above the soil vapor sampling point as a tracer vapor for leak detection. While the pump was purging the soil vapor sampling point, the pump exhaust was screened for helium with the appropriate helium gas detector equipment. In November and December 2005, a Mini Gas Leak Detector (Gow-Mac Model 21-050) was used, and in May 2006 a Dielectric Technologies Model MGD-2002 was used. Both detectors were factory calibrated prior to use, with helium detection capabilities below the 20% as required by the



NYSDOH guidance. The pump exhaust was also screened for volatile organic compounds (VOCs) using a Thermo Environmental 580B organic vapor monitor equipped with a photoionization detector (PID) with an 11.7 eV lamp. The PID was calibrated daily using a 100 parts per million (ppm) isobutylene gas standard. The helium and PID detector results are provided in Table 2.

#### Sampling

Once the appropriate volume of vapor was purged from the soil vapor sampling point, the plastic sheeting was removed. Individually certified SUMMA® air canisters were used to collect the soil vapor samples. The vacuum in each SUMMA® canister was recorded (Table 2), and a laboratory-provided regulator was attached to each SUMMA® canister and connected to the tubing of the soil vapor sampling point. For the sampling event conducted on November 30, 2005, silicone tubing was used to connect the soil vapor sampling point to the SUMMA® canister. The 3/8-inch OD silicone tubing was slipped over the 3/8-inch OD, 1/4-inch ID well tubing, forming a tight seal, and then connected to the regulator on the SUMMA® canister by pushing the silicone tubing over the regulator intake. During the December 20, 2005 and May 3, 2006, sampling events, the soil vapor sampling point tubing was connected to the SUMMA® canister with Teflon-lined tubing. The 1/4-inch-ID Teflonlined tubing was connected to the soil vapor sampling point by slipping it inside the soil vapor sampling point tubing and placing a 2-inch long piece of silicone tubing sheath around the connection. The Teflon tubing was connected to the regulator using a ferrule connection. New, dedicated tubing and ferrules were used for each soil vapor sampling point and sampling event.

Once the soil vapor sampling point was connected to the SUMMA® canister, the valve on the canister was opened until the valve moved freely, and then it was tightened 1/4-turn. The canister collected soil vapor for approximately 20 minutes, until the gauge on the regulator indicated approximately 5 inches of vacuum. The valve was then closed and the regulator was removed.

SUMMA® canisters were labeled with the soil vapor sampling point name, and the canister number was recorded on the sample chain-of-custody form.



#### 3.2.3 Ambient Air Sample Collection

Ambient air samples were collected during the soil vapor sampling events. On November 30, 2005, one ambient air sample was collected approximately 25 feet northwest of soil vapor sampling point SG-8, in the upwind direction. The sample was collected by connecting the SUMMA® canister to a regulator followed by approximately 18 inches of silicone tubing. The sample was collected over a 20-minute period. The intake line was approximately 20 inches above the ground surface.

On December 20, 2005, an ambient air sample was collected from the same location as the November ambient air sample, as well as from a second location approximately 40 feet south-southwest of soil vapor sampling point SG-1. At the start of the day this was an upwind location, but the wind shifted, blowing from the northwest during the day. Ambient air samples were collected from each location on December 20, 2006, over a 20-minute period. A second sample was collected from the November ambient air sample location over a 7-hour period. The longer-duration sample was connected to an 8-hour regulator, but air vacuum readings on the regulator were below 5 inches of mercury after 7 hours, and the sampling was stopped. The December 20, 2006 ambient air samples were collected using approximately 20 inches of Teflon tubing, with the intake approximately 30 inches above the ground surface.

On May 6, 2006, one 8-hour ambient air sample was collected from approximately 20 feet northwest of soil vapor sample point SG-5, upwind from the sample locations. The ambient air sample was collected using approximately 20 inches of Teflon tubing, with the intake approximately 30 inches above the ground surface. It should be noted that the property adjacent to the north (the former Drive & Park, Inc. Site) was being repaved during most of the time that this ambient air sample was collected.

The locations of the ambient air samples are shown on Figure 2.

#### 3.2.4 Waste Management

Following installation of the vapor probes in 2005, approximately 3 gallons of wash water and a 2-gallon bucket of soil cuttings were contained and stored temporarily at the Former Drive & Park, Inc. Site in a secure location prior to disposal in conjunction with excavated soil disposal in January 2006. No soil or wash water waste was produced from soil vapor sampling conducted in December 2005 or May 2006.



#### 3.2.5 Data Recording and Management

Field measurements were recorded on field sample logs (Appendix A) and are provided in Table 2. The field sample logs include the project name, sample date, sample start and finish time, sample location (GPS coordinates), SUMMA® canister serial number, flow controller serial number, initial vacuum reading, and final vacuum reading. Readings from the PID and helium detector screening of purged vapors are also recorded on the field sample logs.

Barometric conditions were recorded during soil vapor sampling. Hourly records from the Dutchess County Airport in Poughkeepsie (approximately 2.5 miles southeast of the sample point locations) are included with the field sample logs in Appendix A. During the December 20, 2005 sampling event, barometric conditions were also recorded at the temporary on-site weather station, north of the soil vapor sampling points. Temperature, wind speed and direction, and barometric pressure are provided in Appendix A and in Table 2.

#### 4.0 LABORATORY METHODS AND DATA QUALITY REVIEW

#### 4.1 LABORATORY METHODS

Samples were delivered under chain-of-custody procedures to Air Toxics Ltd. of Folsom, California, a New York National Environmental Laboratory Approval Program (NELAP)-certified laboratory (NY NELAP-11291). The soil vapor samples were analyzed for volatile organic compounds using United States Environmental Protection Agency (USEPA) method TO-15. The primary chemicals of potential concern for the Former Drive & Park, Inc. Site are benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether, based on previous investigations and section 2.9.1 of the NYSDOH soil vapor intrusion guidance document (NYSDOH, 2005). When possible, the requested method detection limits for volatile organic compounds were 0.1 microgram per liter ( $\mu$ g/L) or lower, per NYSDOH guidance

Copies of the laboratory analytical reports and sample chain-of-custody records are included in Appendix B.

#### 4.2 DATA QUALITY REVIEW

Geomatrix reviewed the quality assurance and quality control (QA/QC) procedures and assessed the quality of the analytical results by evaluating the precision, accuracy, and completeness of the data. Data quality was reviewed using *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999).



The QA/QC procedures included analysis of one trip blank per day and at least one ambient air sample per day, laboratory control sample/laboratory control sample duplicates (LCS/LCSD), surrogate spikes, and method blanks. The data review included a data completeness check of each data package, a transcription check for sample results, and a review of all laboratory reporting forms. As a result of the review, some data were qualified as estimated ("J" or "UJ" flagged) or rejected as unusable ("R" flagged) due to instrument calibration range exceedances. Only one compound, 1,2,4-trichlorobenzne, was rejected as unusable. The compound 1,2,4-trichlorobenzene was rejected in the six samples submitted for analysis in May 2006; 1,2,4-trichlorobenzene was not detected in these six samples. Because 1,2,4-trichlorobenzene had not been detected in any samples collected in November or December 2005, it is presumed that the compound was likely not detected in the samples collected in May 2006, despite the data being rejected for laboratory calibration range exceedances.

For all compounds, the results of the review are provided as flags on the laboratory data sheets in Appendix B. For compounds detected in at least one sample, the data review flags are also reflected in the data summary table (Table 3). All other quality assurance data met their respective acceptance criteria. Overall, the results of the QA/QC review indicate that the test results are valid and useable, except for the "R" flagged data.

#### 5.0 FINDINGS

The soil vapor samples were collected prior to and following implementation of the interim remedial measure excavation; two sampling events occurred pre-excavation and one sampling event occurred post-excavation. The results are provided in Table 3. Results for all three sampling events indicate that compounds present in ambient air were also detected in soil vapor samples, suggesting that ambient air contributed to the detection of some compounds in the soil vapor. Without this contribution from ambient air, we believe that soil vapor concentrations of some compounds would have been lower or not detected. Although helium leak detection was conducted and indicated that the seal of the soil vapor sampling points was adequate prior to sample collection, ambient air appears to have influenced the sample results. Short-circuiting of ambient air into the samples is not unexpected, because the soil vapor probes were installed at less than the optimum depth (3.5 feet below ground surface) needed to minimize ambient air interferences. In some cases, concentrations of petroleum-related chemicals were higher than the ambient air concentrations; however, the concentrations of these chemicals detected in soil vapor were below screening criteria published by the United States Environmental Protection Agency (USEPA, 2002).



#### 5.1 FIRST PRE-EXCAVATION SAMPLING

The first pre-excavation sample collection event occurred on November 30, 2005, within 24 hours of a significant rain event. Rain can fill near-surface soil pores and create conditions that are not optimum for collecting representative soil vapor samples. Soil vapor samples were collected at three soil vapor sampling points that did not contain water in the sample point screen (SG-5, SG-6, and SG-8) in an attempt to obtain data prior to the excavation in the event that none of the locations could be sampled during a subsequent event. One ambient air sample was collected. The chemical analysis results are summarized in Table 3. Based on those results we conclude the following:

- Compounds unrelated to a petroleum hydrocarbon source from the Former Drive & Park, Inc. Site, specifically acetone, 1,3-dichlorobenzene, ethanol, and 2-propanol, were measured at elevated concentrations that were not detected or were significantly lower (30 to 4,000 times) in subsequent samples. Similar concentrations of 1,3-dichlorobenzene, ethanol, and 2-propanol were also present in the ambient air sample, and the laboratory reporting limit for acetone in the ambient air sample was similar to the concentration of acetone measured in the soil vapor samples. Based on comparison to subsequent sampling, these results suggest some form of sample interference.
- The elevated concentrations of 2-propanol and ethanol elevated the laboratory reporting limits for all chemicals; the results for the majority of the chemicals were non-detect.
- Because of the apparent significant interferences from ambient air and the elevated laboratory reporting limits in the soil vapor samples, these results are not useful for evaluating potential subsurface soil vapor conditions. Consequently, a second round of pre-excavation soil vapor sampling was conducted; those results are discussed in Section 5.2.

#### 5.2 SECOND PRE-EXCAVATION SAMPLING

The second sample collection event occurred on December 20, 2005; four soil vapor samples and three ambient air samples were collected. The chemical analysis results are summarized in Table 3. Based on those results we conclude the following:

- Several compounds (benzene, acetone, chloromethane, Freon 11, and Freon 12) were detected in the soil vapor samples and were also present in ambient air samples at similar concentrations.
- Several compounds, both petroleum and non-petroleum related, were detected at low concentrations (near the laboratory reporting limit), but were not detected in



ambient air (2-butanone, carbon disulfide, chloroform, cyclohexane, 1,1-dichloroethane, ethyl benzene, m,p-xylene, and methylene chloride). The differences between the detected concentrations and the laboratory reporting limits for ambient air were not sufficiently large to rule out an ambient source.

- Ethanol, 2-propanol, and tetrachloroethylene were detected at a concentration at least three times the ambient air concentrations in samples collected from sample point SG-2. The concentrations of ethanol and 2-propanol were significantly lower (at least 300 times) than in the November 2005 sampling event. While ethanol is a fuel additive, it is not considered a site-related chemical of potential concern based on the likely period that the release from the former USTs at the Former Drive & Park, Inc. Site occurred and has not been included as an analyte in soil or groundwater. The compound 2-propanol has also not been included as an analyte in soil or groundwater analyses at the Former Drive & Park, Inc. Site. Tetrachloroethylene was not detected in the November 2005 soil vapor sampling event. Tetrachloroethylene was detected only once during sampling near the former USTs, in monitoring well MW-8 in 2004 (located 120 feet upgradient of the former USTs and 360 feet from the soil vapor sampling locations). The detection of 0.27 ug/L trichloroethylene was considered an estimate due to laboratory quality control exceedance. Tetrachloroethylene was non-detect (less than 1 ug/L) in well MW-8 in the other two sample events that included analysis of this constituent. In addition, tetrachloroethylene is not a gasoline constituent. Consequently, detections of these compounds in soil vapor are not considered to be related to the former USTs at the Former Drive & Park, Inc. Site.
- Toluene and hexane, which are petroleum-related compounds, were detected at soil vapor sampling points at concentrations above the ambient air concentration measured. Toluene was detected up to an order of magnitude above the ambient air concentration in samples collected from soil vapor points SG-1, SG-2, SG-3, and SG-5. Hexane was detected in samples from soil vapor points SG-1 and SG-3, approximately five to 17 times higher than the ambient air laboratory reporting limit. These results suggest that a petroleum hydrocarbon source may be impacting subsurface soil vapor measurements at these locations.

Other than toluene and hexane, compounds detected in soil vapor samples are either present at concentrations near the laboratory reporting limit for ambient air, are present at similar concentrations in ambient air samples, or are unrelated to the former petroleum hydrocarbon source at the Former Drive & Park, Inc. Site. Based on soil vapor sample results for chemicals other than toluene and hexane, it appears that the soil vapor measurements may be influenced by ambient air concentrations or a soil vapor source(s) unrelated to the former petroleum hydrocarbon source at the Former Drive & Park, Inc. Site.



Concentrations of chemicals detected in soil vapor were compared to USEPA screening values for shallow soil vapor (less than 5 feet below ground surface) for potential vapor intrusion into residences, provided in Table 2C of the *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (USEPA, 2002). These are the most conservative screening criteria published by USEPA based on generic rather than site-specific assumptions.

Toluene and hexane concentrations are orders of magnitude lower than the USEPA screening levels. For those non-petroleum-related compounds with screening values for comparison<sup>1</sup>, chloroform and tetrachloroethylene were the only compounds detected at concentrations exceeding the USEPA screening levels. It is possible that the chloroform exceedance is related to irrigation of the lawn by tap water or the presence of a nearby septic system, as chloroform is a ubiquitous byproduct of the chlorination process. The source of tetrchloroethylene is unknown, but is unrelated to the former USTs at the Former Drive & Park, Inc. Site based on soil and groundwater data and was detected at slightly lower concentrations in subsequent soil vapor sampling. Of importance to note is that sample points SG-2 and SG-3 are located 10 to 15 feet south of the child care facility's septic system leach field, sample points SG-7 and SG-8 are located within 10 to 15 feet of a septic system dry well, and sample points SG-5 and SG-6 are located within 5 to 10 feet of PVC piping connected to the septic system dry well.

#### 5.3 POST-EXCAVATION SAMPLING

The third sample collection event, conducted on May 3, 2006, provided data from the same four soil vapor sample points sampled on December 20, 2005. During this sampling event, the Former Drive & Park, Inc. Site, generally crosswind of the soil vapor sample points, was being paved with asphalt. The analysis results are summarized in Table 3. Based on these results, we conclude the following:

• More compounds were detected in the soil vapor samples and in the ambient air samples than in the previous sampling event. The following compounds were detected in soil vapor at concentrations consistent with or lower than the ambient air detection: benzene, ethylbenzene, m,p-xylenes, o-xylenes, acetone, 2-butanone, chloromethane, cyclohexane, 1,4-dichlorobenzene, ethanol, freon 11, freon 12, heptane, methylene chloride, 2-propanol, styrene, 1,2,4-trimethylbenzene, 1,1,1-trichloroethane, and tert-butyl alcohol).

-

<sup>&</sup>lt;sup>1</sup> Screening levels for some compounds that are not included in Table 2c of the USEPA guidance were estimated using the attenuation factor of 0.1 used in Table 2c and ambient air preliminary remediation goals published by USEPA, Region 9.



- Carbon disulfide, 1,1,1-trichloroethane, and tetrachloroethylene were detected at low concentrations near their laboratory reporting limits, but were not detected in ambient air. The differences between the detected concentrations and the laboratory reporting limits for ambient air were not sufficiently large to rule out an ambient source. Carbon disulfide was detected once previously in groundwater on the 144 Barnegat Road property, in a groundwater sample collected from monitoring well MW-111 (located downgradient of the soil vapor sampling points near the child care facility's leach field) in 2005 at 0.7 ug/L. That one result was detected below the laboratory reporting limit and is considered an estimate. 1,1,1-trichloroethane has been analyzed in soil and groundwater samples collected at the Former Drive & Park, Inc. Site and on the 144 Barnegat Road property, but has not been detected. Tetrachloroethylene was detected once in a groundwater sample collected from monitoring well MW-8 (located upgradient of the former USTs at the Former Drive & Park, Inc. Site) in 2003 at 0.27 ug/L. That one result was detected below the laboratory reporting limit and is considered an estimate.
- Carbon tetrachloride and chloroform, which are not petroleum-related compounds, were detected at concentrations at least an order of magnitude above the ambient air laboratory reporting limits in soil vapor sampling points (SG-1 for carbon tetrachloride and SG-1, SG-2, and SG-5 for chloroform). These results suggest that a non-petroleum source(s) may be impacting subsurface soil vapor measurements. Carbon tetrachloride was detected in one sample (SG-1) at 2.4 parts per billion by volume (ppbv). Carbon tetrachloride has not been detected in soil or groundwater samples collected at the Former Drive & Park, Inc. Site or the 144 Barnegat Road property and has not been detected in previous soil vapor samples collected at 144 Barnegat Road. Chloroform concentrations were higher at SG-1 in May 2006 (14 ppbv) than in December 2005 (1.9 ppbv). Chloroform was detected at similar concentrations in SG-5 and the detected concentration in SG2 in May 2006 (0.17 ppby) was similar to the laboratory reporting limit in December 2005 (less than 0.15 ppby). Chloroform has not been detected in soil and groundwater samples at the Former Drive & Park, Inc. Site or the 144 Barnegat Road property. Use of tap water for irrigation or the presence of a nearby septic system leach field may explain these results.
- Toluene, cumene, and hexane, which are petroleum-related compounds, were detected in at least one soil vapor sampling point clearly above their laboratory reporting limit and/or their ambient air concentrations. 1,3,5-trimethylbenzene, also a petroleum-related compound, was detected in three soil vapor sampling points at low concentrations near the laboratory reporting limit, but was not detected in ambient air. Toluene was detected in four soil vapor samples with one soil vapor sample (38 ppbv) approximately four times higher than the detection in ambient air (8.7 ppbv) and the other detections ranging from 6.2 to 11 ppbv. Cumene was detected in two soil vapor samples (both 1.0 ppbv) approximately five times higher than the laboratory reporting limit in ambient air (0.24 ppbv). Hexane was detected in three samples (up to 54 ppbv) at least four times higher than the laboratory



reporting limit in ambient air (less than 1.2 ppbv). These results suggest that a petroleum hydrocarbon source(s) may be impacting subsurface soil vapor measurements. The concentration of toluene at sampling point SG-3 was ten times higher than the concentration at sampling point SG-3 prior to excavation in December 2005. Cumene was not detected in pre-excavation samples collected in December 2005, but the post-excavation concentrations were similar to the laboratory reporting limits for the December sampling event. Hexane was detected in samples collected from soil vapor sampling points in December 2005 and May 2006 at similar concentrations (ranging from 4.1 to 19 ppbv), with the exception of SG-3, which was detected at a higher concentration in the May 2006 event (54 ppbv). 1,3,5-trimethylbenzene was detected in samples collected from three soil vapor sampling points at low concentrations near their laboratory reporting limit, but was not detected in ambient air. 1,3,5 trimethylbenzene has historically been detected in monitoring wells at the Former Drive & Park, Inc. Site and at the 144 Barnegat Road property.

Other than toluene, hexane, cumene, and 1,3,5-trimethylbenzene, compounds detected in soil vapor samples are either present at concentrations near their laboratory reporting limit, present at similar concentrations to ambient air samples, or are unrelated to the petroleum hydrocarbon source at the site. The concentrations of toluene, hexane, cumene, and 1,3,5-trimethylbenzene suggest potential influence from a petroleum hydrocarbon source.

The concentrations of toluene, hexane, cumene, 1,3,5 trimethylbenzene and all other petroleum-related chemicals detected in the soil vapor were well below USEPA screening levels for residential site use for shallow soil vapor or an equivalent screening level (U.S. EPA, 2002, see Section 5.2). For those non-petroleum-related compounds with screening levels for comparison, carbon tetrachloride and chloroform were the only compounds detected in May 2006 at concentrations exceeding the USEPA screening levels. The screening levels are included in Table 3.

#### 6.0 CONCLUSIONS

Soil vapor sampling was conducted to identify whether petroleum-related compounds associated with the former USTs at the Former Drive & Park, Inc. Site are present in soil vapor in the vicinity of the child care facility building at 144 Barnegat Road. Both petroleum and non-petroleum related compounds were detected in some soil vapor samples at concentrations sufficiently higher than ambient air concentrations to suggest a subsurface soil vapor source or sources. However, the source or sources responsible for the detections of petroleum and



non-petroleum related compounds in the soil vapor samples appear to be unrelated to the Former Drive & Park, Inc. Site.

Compounds present in soil or groundwater can serve as sources of constituents detected in soil vapor. However, based on the soil sampling performed prior to and following completion of the interim remedial measure excavation at 144 Barnegat Road and based on groundwater chemical analysis data from the monitoring well adjacent to the child care facility building (well MW-110), soil and groundwater in the vicinity of the child care facility building are not impacted by petroleum related compounds from the former USTs at the Former Drive & Park, Inc. Site. Several non-petroleum related compounds were detected above ambient air concentrations in soil vapor samples; however, these non-petroleum related compounds are not associated with the Former Drive & Park, Inc. Site. The Former Drive & Park, Inc. Site is not a known source of non-petroleum related compounds in soil and groundwater.

The low concentrations of petroleum-related compounds detected are well below applicable USEPA human health screening levels for residential land use, which are applicable to a child care facility, indicating potential exposure to these chemicals would not results in adverse health effects. In addition, since soil and groundwater in the vicinity of the child care facility building are not impacted by petroleum-related compounds associated with the Former Drive & Park, Inc. Site, the low concentrations of petroleum-related compounds detected in soil vapor are apparently not related to the Former Drive & Park, Inc. Site. Therefore, we recommend no further soil vapor sampling for petroleum-related compounds in the vicinity of the child care facility.



#### 7.0 REFERENCES

- Geomatrix Consultants, 2005a, *Interim Remedial Measure Work Plan*, 28 IBM Road, Poughkeepsie, New York, October.
- Geomatrix Consultants, 2005b, *Soil Vapor Work Plan*, 28 IBM Road, Poughkeepsie, New York, October.
- New York State Department of Environmental Conservation (NYSDEC), 2002, *Draft DER-10 Technical Guidance for Site Investigation and Remediation*, December 25.
- New York State Department of Health (NYSDOH), 2005, Guidance for Evaluating Soil Vapor Intrusion in the State of New York Public Comment Draft, February.
- U.S. Environmental Protection Agency (USEPA), 1999, Contract Laboratory Program

  National Functional Guidelines for Organic Data Review, Office of Emergency and
  Remedial Response, October.
- USEPA, 2002, OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), November (EPA530-D-02-004).
- USEPA, 2004, Preliminary Remediation Goals, Region 9, October.





#### SOIL VAPOR SAMPLING POINT CONSTRUCTION

Former Drive & Park, Inc. Site 28 IBM Road Poughkeepsie, New York

All depths are listed in feet below ground surface

Sample Location	Depth of Borehole	Screened Interval	Depth to Filter Sand	Seal Interval
SG-1	3.6	2.9 - 3.4	2	0.5 - 2
SG-2	3.7	3 - 3.5	2	0.5 - 2
SG-3	4.0	3 - 3.5	2	0.5 - 2
SG-4	3.0	2.3 - 2.8	1.8	0.5 - 1.8
SG-5	5.5	4.8 - 5.3	3	0.5 - 3
SG-6	4.0	3.3 - 3.8	2	0.5 - 2
SG-7	4.0	3.3 - 3.8	2	0.5 - 2
SG-8	3.5	2.75 - 3.25	2	0.5 - 2

#### Notes and Abbreviations:

Soil vapor sampling points installed November 29, 2005 using hand auger by Zebra Environmental Corporation of Lynbrook, New York. Soil vapor sampling points destroyed June 21, 2006 by Geomatrix Consultants, Inc. by removing tubing and allowing borehole to collapse.

#### SUMMARY OF SOIL VAPOR INVESTIGATION SAMPLE COLLECTION DATA

Former Drive & Park, Inc. Site, 28 IBM Road Poughkeepsie, New York

		Ti	ime	Sample 1	Location	Purge <sup>1</sup>				Canister			Soil Conditions		Atmospheric (	Conditions <sup>2</sup>		Misc.	
Sample ID	Collection Date	Start Collection	Finish Collection	GPS Location (UTM)	Sample Depth I	Soil Vapor Purge Volume (ml)	Volume Soil Vapor Extracted (ft3)	PID Reading <sup>3</sup> (ppm)	Pre-sample Canister Vacuum (inches of Hg)	Post-sample Canister Vacuum (inches of Hg)	Canister Serial Number	Flow Controller Serial Number	Apparent Moisture Content (%)	Windspeed and Direction	Ambient Temperature (deg. F)	Barometric Pressure	Relative Humidity	Helium Test <sup>4</sup>	Chain-of- Custody#
SG-5-113005	11/30/2005	11:33	12:00	4610846N, 588388 E	4.8 - 5.3 bgs	2,007	2231	0	-26.5	-5	33787	FC00887	90% (heavy rain prev. night)	9 mph NW	66	29.88	71%	Pass	1
SG-6-113005	11/30/2005	12:36	13:06	4610840 N, 588388 E	3.3 - 3.8 bgs	1,460	1735	0	>-30	-7	34438	FC00343	90% (heavy rain prev. night)	10 mph NW	61	29.89	74%	Pass	1
				4610856 N,		<u> </u>							90% (heavy rain	•					1
SG-8-113005	11/30/2005	13:48	14:12	588400 E 4610859 N,	2.75 - 3.25 bgs	1,278	1611	0	-28	-4	33910	FC00408	prev. night) 90% (heavy rain	11 mph NW	59	29.92	71%	Pass	I
AMB-113005	11/30/2005	13:30	14:00	588399 E 4610859 N,	1.7 ags	Not Ap	plicable / Ambien	t Air	-31	-7	424	FC0082	prev. night)	11 mph NW 194 to 268	61	29.92	71%	NA	1
8-AMB-1-122005	12/20/2005	9:38	16:28	588399 E 4610859 N,	2.5 ags	Not Ap	plicable / Ambien	t Air	-23	-1	34421	FC00776	Frozen	degrees 194 to 268	28 - 32	29.82 - 29.84	31.7-44.9%	NA	2
8-AMB-2-122005	12/20/2005	9:37	16:30	588399 E 4610832 N,	2.5 ags	Not Ap	plicable / Ambien	t Air	-21.5	-1	33666	FC00365	Frozen	degrees	28 - 32	29.82 - 29.84	31.7-44.9%	NA	2
SG-2-122005	12/20/2005	11:50	12:21	588382 E	3 - 3.5 bgs	1350	2388	0	-21.5	-8	94952	FC00888	Frozen	239 degrees	28	29.84	34.7%	Pass	2
SG-3-122005	12/20/2005	13:49	14:09	4610843 N, 588387 E	3 - 3.5 bgs	1533	1777	0	-22	-4.5	34733	FC00290	Frozen	194 degrees	30	29.83	31.7%	Pass	2
AMB-3-122005	12/20/2005	15:07	15:28	4610859 N, 588399 E	2.5 ags	Not Ap	plicable / Ambien	t Air	-20	-2	4098	FC0047	Frozen	198 degrees	31.8	29.82	34.9%	NA	2
AMB-4-122005	12/20/2005	15:09	15:30	4610859 N, 588399 E	2.5 ags	Not Ap	plicable / Ambien	t Air	-20.5	-2	25238	FC00593	Frozen	198 degrees	31.8	29.82	34.9%	NA	2
SG-5-122005	12/20/2005	16:45	16:02	4610846N, 588388 E	4.8 - 5.3 bgs	2007	2142	0	-20.5	-6	9576	FC00155	Frozen	198 degrees	32	29.82	39.2%	Pass	2
SG-1-122005	12/20/2005	16:35	16:53	4610827 N, 588379 E	2.9 - 3.4 bgs	1314	1700	0	-21	-5	33874	FC00371	Frozen	268 degrees	29	29.83	44.9%	Pass	2
								<u> </u>						J					
8-AMB-050306	5/3/2006	10:40	15:30	NA 4610846N,	2.5 ags	•	plicable / Ambien		-31	-18.5	10795	FC00836	Moist	5 -10 mph NW	62 - 65	29.81 - 29.85		NA	3
SG-5-050306	5/3/2006	11:18	12:10	588388 E 4610843 N,	4.8 -5.3 bgs	2007	2120	2.4	-27	-2	25260	FC00087	10-15%	5-10 mph NW	65	29.85	58%	Pass	3
SG-3-050306	5/3/2006	12:31	12:58	588387 E	3 -3.5 bgs	1533	1640	3.3	-26	-5	34394	FC00717	10-15%	5-10 mph NW	65	29.83	54%	Pass	3
SG-2-050306	5/3/2006	13:05	13:38	4610832 N, 588382 E	3 -3.5 bgs	1350	1570	0.6	-31	-5	20994	FC00402	10-15%	5 mph NW	65	29.81	54%	Pass	3
SG-1-050306	5/3/2006	14:40	15:15	4610827 N, 588379 E	2.9 - 3.4 bgs	1314	2223	0.6	-30	-5	NA	NA	10-15%	10 mph NW	65	29.81	50%	Pass	3

#### Notes:

#### Abbreviations:

ags = above ground surface

bgs = below ground surface

NA = not applicable or not available.

<sup>&</sup>lt;sup>1</sup> Purge volume =  $1.5\pi$  r2 h . Purge volume is in cubic feet. R is radius in feet, h is height (in feet) from bottom of borehole

<sup>&</sup>lt;sup>2</sup> Atmospheric measurement: www.weather.com November 30, 2006; on-site weather station December 20, 2006; www.weatherunderground.com May 3, 2006

<sup>&</sup>lt;sup>3</sup> A portable vacumm pump purged 2 to 3 volumes of air from the vapor probe and sampling line at rate of approximately 100 mL/min.

Organic vapor levels were measured with a Thermo Environmental 580B organic vapor meter containing an 11.7 electron volt lamp photoionization detector (PID) 100 ppm isobutylene standard for additional information.

<sup>&</sup>lt;sup>4</sup> Helium gas was measured with a portable helium monitoring device - a Minigas Leak detector Gow-Mac Model 21-050 in 2005 and a Dielectric MGD-2002 in 2006.

If helium gas was observed, the sample point seal was enhanced to reduce the infiltration of ambient air. The NYSDOH Guidance states that if >20% tracer gas is observed seal enhancement is required.



#### SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

All results in part per billion by volume (ppbv)

					Petroleum-Related Constituents										
Sample Identification Number	Sample Location	Date Collected	Collection Duration (hours)	Benzene	Cumene	Cyclohexane	Ethyl Benzene	Hexane	Heptane	Styrene	Toluene	1,2,4-Trimethyl- benzene	1,3,5-Trimethyl- benzene	m,p-Xylene	o-Xylene
SG-5-113005	SG-5	11/30/2005	0.5	<86	<430	<430	<86	<430	<430	<86	<86	<86	<86	<86	<86
SG-6-113005	SG-6	11/30/2005	0.5	<90	<450	<450	<90	<450	<450	<90	<90	<90	<90	<90	<90
SG-8-113005	SG-8	11/30/2005	0.5	<74	<370	<370	<74	<370	<370	<74	<74	<74	<74	<74	<74
AMB-113005	Northwest of SG-8 (upwind)	11/30/2005	0.5	<88	<440	<440	<88	<440	<440	<88	<88	<88	<88	<88	<88
SG-1-122005	SG-1	12/20/2005	0.5	< 0.21	<1.0	1.2	0.25	16	<1.0UJ	< 0.21	6.1	< 0.21	< 0.21	0.29	< 0.21
SG-2-122005	SG-2	12/20/2005	0.5	0.35	< 0.76	< 0.76	0.28	< 0.76	<0.76UJ	< 0.15	1.5	< 0.15	< 0.15	0.42	< 0.15
SG-3-122005	SG-3	12/20/2005	0.5	< 0.21	<1.0	<1.0	< 0.21	4.5	<1.0UJ	< 0.21	3.8	< 0.21	< 0.21	0.26	< 0.21
SG-5-122005	SG-5	12/20/2005	0.5	0.24	<1.2	<1.2	< 0.23	<1.2	<1.2UJ	< 0.23	2.6	< 0.23	< 0.23	0.47	< 0.23
8-AMB-1-122005	Cancelled	12/20/2005	8												
8-AMB-2-122005	Southeast of SG-1 (downwind)	12/20/2005	8	0.32	< 0.78	< 0.78	< 0.16	< 0.78	<0.78UJ	< 0.16	0.18	< 0.16	< 0.16	< 0.16	< 0.16
AMB-3-122005	Northwest of SG-8 (upwind)	12/20/2005	0.5	0.24	< 0.92	< 0.92	< 0.18	< 0.92	<0.92UJ	< 0.18	0.64	< 0.18	< 0.18	< 0.18	< 0.18
AMB-4-122005	Southeast of SG-1 (downwind)	12/20/2005	0.5	0.19	< 0.92	< 0.92	< 0.18	< 0.92	<0.92UJ	< 0.18	0.34	< 0.18	< 0.18	< 0.18	< 0.18
SG-1-050306	SG-1	5/3/2006	0.5	0.19	1.0	10	5.9	19	1.1	12	7.7	0.45	0.16	14	6.8
SG-2-050306	SG-2	5/3/2006	0.5	0.2	1.0	10	6.0	< 0.8	0.92	12	6.2	0.48	0.18	15	7.1
SG-3-050306	SG-3	5/3/2006	0.5	0.26	< 0.18	12	4.9	54	1.1	7.4	38	0.50	0.18	12	5.4
SG-5-050306	SG-5	5/3/2006	0.5	0.24	< 0.19	7.9	4.8	4.1	1.1	8.6	11	0.43	< 0.19	12	5.4
SG-5-050306 Dup	SG-5	5/3/2006	0.5	< 0.94	< 0.94	7.6	4.7	<4.7	<4.7	7	10	< 0.94	< 0.94	11	5.1
8AMB-050306	North of SG-5 (upwind)	5/3/2006	8	0.53	< 0.24	16	6.7	<1.2	1.4	11	8.7	0.43	< 0.24	16	7.2
Screening Level <sup>1</sup>				0.98	810	18000	2500	570	NA	2300	11000	12	12	16000	16000



#### SOIL VAPOR ANALYTICAL RESULTS

Former Drive & Park, Inc. Site
28 IBM Road
Poughkeepsie, New York

All results in part per billion by volume (ppbv)

					Non-petroleum Related Constituents															
Sample Identification Number	Sample Location	Date Collected	Collection Duration (hours)	Acetone	2-Butanone	Carbon Disulfide	Carbon Tetrachloride	Chloroform	Chloro- methane	1,3- Dichloro- benzene	1,4-Dichloro- benzene	1,1-Dichloro- ethane	Ethanol	Freon 11	Freon 12	Methylene chloride	2-Propanol	Tert-Butyl alcohol	1,1,1- Trichloro- ethane	Tetrachloro- ethene
SG-5-113005	SG-5	11/30/2005	0.5	660	<430	<430	<86	<86	<86	84J	<86	<86	7700	<86	<86	<170	110,000J	NA	<86	<86
SG-6-113005	SG-6	11/30/2005	0.5	1200	<450	<450	<90	<90	<90	<90	<90	<90	7500	<90	<90	<180	120,000J	NA	<90	<90
SG-8-113005	SG-8	11/30/2005	0.5	<370	<370	<370	<74	<74	<74	<74	<74	<74	3300	<74	<74	<150	60,000J	NA	<74	<74
AMB-113005	Northwest of SG-8 (upwind)	11/30/2005	0.5	<440	<440	<440	<88	<88	<88	96	<88	<88	3600	<88	<88	<180	62,000J	NA	<88	<88
SG-1-122005	SG-1	12/20/2005	0.5	4.1	<1.0	<1.0	< 0.21	1.9	< 0.21	< 0.21	< 0.21	< 0.21	3.4	< 0.21	0.29	0.40J	<1.0	NA	< 0.21	< 0.21
SG-2-122005	SG-2	12/20/2005	0.5	18	< 0.76	< 0.76	< 0.15	< 0.15	0.48	< 0.15	< 0.15	0.19	10	0.24	0.26	0.44	32	NA	< 0.15	1.4
SG-3-122005	SG-3	12/20/2005	0.5	6.6	1.8	1.2	< 0.21	< 0.21	0.27	< 0.21	< 0.21	< 0.21	1.4	< 0.21	0.29	< 0.41	<1.0	NA	< 0.21	0.99
SG-5-122005	SG-5	12/20/2005	0.5	2.4	<1.2	<1.2	< 0.23	0.63	< 0.23	< 0.23	< 0.23	< 0.23	3.7	< 0.23	0.28	< 0.46	<1.2	NA	< 0.23	0.36
8-AMB-1-122005	Cancelled	12/20/2005	8																	
8-AMB-2-122005	Southeast of SG-1 (downwind)	12/20/2005	8	7.5	< 0.78	< 0.78	< 0.16	< 0.16	0.67	< 0.16	< 0.16	0.17	2.4	0.24	0.29	< 0.31	< 0.78	NA	< 0.16	0.44
AMB-3-122005	Northwest of SG-8 (upwind)	12/20/2005	0.5	1.6	< 0.92	< 0.92	< 0.18	< 0.18	0.63	< 0.18	< 0.18	< 0.18	2.6	0.24	0.33	< 0.37	< 0.92	NA	< 0.18	< 0.18
AMB-4-122005	Southeast of SG-1 (downwind)	12/20/2005	0.5	2.5	< 0.92	< 0.92	< 0.18	< 0.18	0.56	< 0.18	< 0.18	< 0.18	1.5	0.22	< 0.18	< 0.37	< 0.92	NA	< 0.18	< 0.18
SG-1-050306	SG-1	5/3/2006	0.5	4.1	< 0.78	< 0.78	2.4	14	0.16	< 0.16	5.0	< 0.16	< 0.78	0.31	0.3	< 0.78	1.1	7.9J	0.18	0.33
SG-2-050306	SG-2	5/3/2006	0.5	5.8	< 0.80	< 0.80	< 0.16	0.17	< 0.16	< 0.16	5.6	< 0.16	< 0.80	0.31	0.52	0.52	0.93	13J	< 0.16	0.59
SG-3-050306	SG-3	5/3/2006	0.5	16	1.9	1.5	< 0.18	< 0.18	< 0.18	< 0.18	8.5	< 0.18	1.6	0.34	0.45	0.46	1.5	10J	< 0.18	0.79
SG-5-050306	SG-5	5/3/2006	0.5	8.7	< 0.94	< 0.94	< 0.19	0.82	< 0.19	< 0.19	4.5	< 0.19	< 0.94	0.36	0.53	< 0.37	1.0	8.5J	< 0.19	0.66
SG-5-050306 Dup	SG-5	5/3/2006	0.5	9.1	<4.7	<4.7	< 0.94	< 0.94	< 0.94	< 0.94	4.3	< 0.94	<4.7	< 0.94	< 0.94	<1.9	<4.7	<19UJ	< 0.94	< 0.94
8AMB-050306	North of SG-5 (upwind)	5/3/2006	8	38	1.6	<1.2	< 0.24	< 0.24	0.82	< 0.24	7.2	< 0.24	82	0.29	0.57	0.91	6.2	30J	< 0.24	< 0.24
Screening Level <sup>1</sup>		_		1500	17000	2200	0.26	0.22	460	170	1300	1200	NA	1300	420	15	NA	NA	4000	1.2

#### Notes and Abbreviations:

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

NA = Not available. An EPA screening value does not exist for this compound.

Only those compounds detected in at least one sample at or above the laboratory reporting limit are shown.

Analysis of sample 8-AMB-1-122005 was cancelled because the sample container was compromised upon extraction of the sample at the laboratory.

Samples analyzed by Air Toxics of Folsom, California by EPA Method TO-15.

<sup>&</sup>lt;sup>1</sup> Screening level from United States Environmental Protection Agency (U.S. EPA) Target Shallow Soil Gas values from Table 2C in the November 2002 OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), (EPA530-D-02-004). The soil gas screening value for ethyl benzene, 2-butanone, chloromethane, freon 11, and freon 12 were not included in Table 2C and ambient air preliminary remediation goals published by USEPA, Region 9.

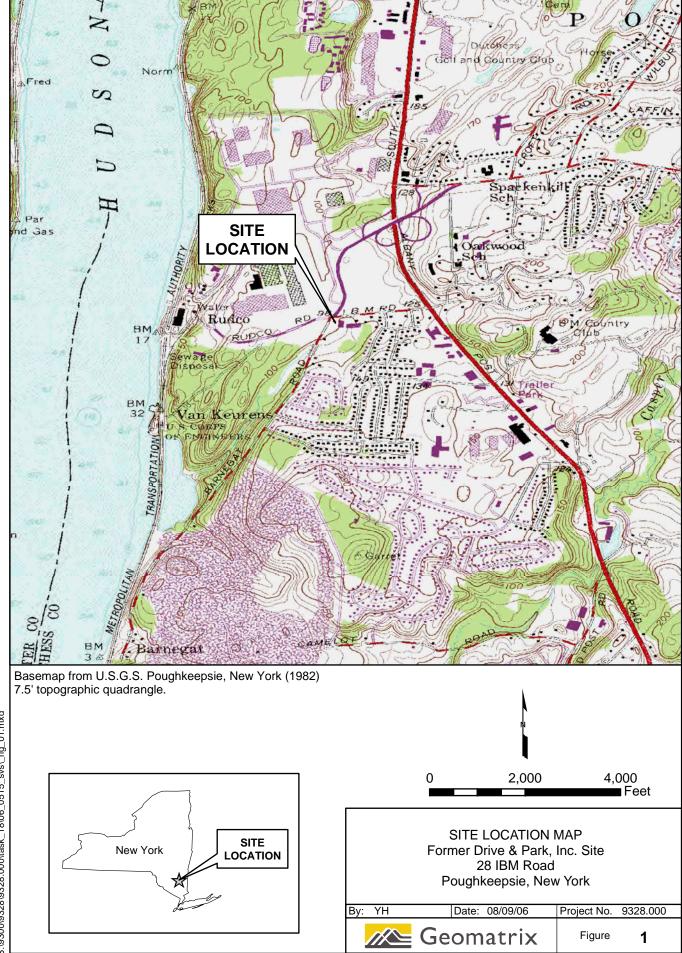
<sup>&</sup>lt; = Not detected at or above the laboratory reporting limit shown

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

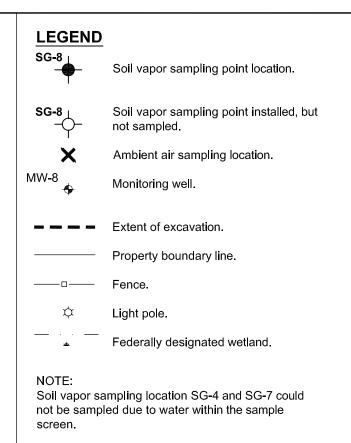
<sup>&</sup>quot;BOLD" = Concentration detected at or above laboratory reporting limit.

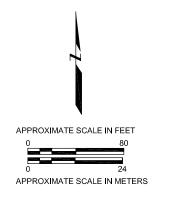


# **FIGURES**



S:\9300\9328\9328.000\task\_18\06\_0515\_svs\\_fig\_01.mxd





SOIL VAPOR SAMPLING LOCATIONS Former Drive & Park, Inc. Site 28 IBM Road Poughkeepsie, New York

By: YH | Date: 08/09/06 | Project No. 9328.000 |

| Geomatrix | Figure 2



# **APPENDIX A Field Documentation**



Project	Name: Fernia L	RIVE PA	Project Nu	ımber: 9	1326
	Son VARGR	Weu,	NSIAU Gree		
	Date: 1/19(05		 Measur	ed by:	LiPuc
			MEASUREMENTS		
Location:			ncentrations in ppm	Location:	
Time	Measurement	Time	Measurement	Time	Measurement
9.30					
905	0,0 0 56-1				
9 (0:00	0.0e 56.2				
10:15	0,0€ 66.2				
10:25	00 0 56-3				
10:80	0.00 56-3				
11:00	0.0@ 56-4				
11:15	6.6 0.0056.4				
1(:35	0.00 56-6				
(1:50	0.0@ 56-5				
12.00	0.0 e 56 - 46				
12:15	0,0056-8				
12:30	0.00 56-7				
12:50	0.0056.7				
13:50	0.0 @ 56-6				
14:00	0.0 @ 56-8				



Project I	Name: VCRM	ir Drivet	PAQ ( Project Nu	mber: <u>43</u>	<del>)</del> 4		
	<u> </u>		<del></del>				
					1		
	Date: 5 /3/0	6	Measur	ed by: <u>D</u>	1 VERIL		
		PID N	MEASUREMENTS				
		Cor	centrations in ppm				
Location:	TAIGEN ON DAY C	Location:		Location:			
Time	PROPERTY.  Measurement	Time	Measurement	Time	Measurement		
1030	0.0						
1100	0.0						
((%	0.0						
1145	0,0						
() un	0,0						
1200	0.0						
1230	0.0						
1250							
1310	0,0						
1330	0,0						
1400	0,0						
1420	0.0						
					~~~~		



Date:	Project	Name: FORMER	DRIVET	Pags Project Nu	ımber: <u>9</u> 3	726
Concentrations in ppm   Location:   Location:   Location:     Location:     Location:		Date: 11/30/66		 Measur	ed by: <u>\bigcircles</u>	AVERIL
Time Measurement Time Measurement Time Measurement    1:00						
	Location:		Location: _		Location: _	***
11:30 0.0 11:45 0.0 12:00 0.0 12:30 0.0 13:00 0.0 13:45 0.0 1400 0.0	Time	Measurement	Time	Measurement	Time	Measurement
12:00 0.0  12:05 0.0  12:30 0.0  13:00 0.0  13:05 0.0  14:00 0.0						
12:00 0.0 12:15 0.0 12:30 0.0 13:00 0.0 13:45 0.0 1400 0.0	·					
13:15 0.0 13:30 0.0 13:00 0.0 13:45 0.0 140 0.0	+					
13:30 GG 0.0 13:00 0.0 13:45 0.0 140 0.0						***************************************
13:00 0.0 13:30 0.0 13:45 0.0 140 0.0						
13:30 0.0 13:45 0.0 1400 0.0	ŀ					
13:45 0.0		***************************************				
1400 0.0	<del></del>					
14:15 0.0	1400					
	14:15	0.0				



Project N	Name:	A FRANCE	DRIVE E	P <sub>IR</sub> ( Project Nu	ımber: 9	<sup>2</sup> 328
	Date:	10/06		Measui	red by: $$	Avirus
				EASUREMENTS centrations in ppm		
Location:		CAR: Padiny	Location: _		Location:	
Time	N	leasurement	Time	Measurement	Time	Measurement
9:15	0.	o e				
9:30						
10:00	0	×. 0				
10:30	0	7.0				
11:00	0.	Ò				
10:30	0.	0				
3:00		056.2				
12:30	0.0	1056.2				
13:30	0.	0 @ 56-3				
14:0	0.0					
14:15	0.0	70 4.3				
14:45	0.0	)				
15:00	0.0	)				
1530		0.0				
15:45		0.0				
16:15		0.0				
16:30		0.0				
16:45		0,0				

· History: Weather Underground



## History for Poughkeepsie, New York on Wednesday, November 30, 2005

Jump to data by:

Date: November

2005

Gο

Airport Code:

Go

Latest visited Airport Codes: KPOU

« Previous Day Daily | Weekly | Monthly | Custom | Trip Planner Next Day »

#### Daily Summary

	Dany Cannin	<u>,</u>	
	Actual	Average	Record
Temperature			
Mean Temperature	52 °F / 11 °C	-	
Max Temperature	62 °F / 16 °C	44 °F / 6 °C	66 °F / 18 °C (2001)
Min Temperature	41 °F / 5 °C	27 °F / -2 °C	14 °F / -10 °C (1967)
Degree Days			
Heating Degree Days	: 13		
Growing Degree Days	s <b>2</b> (Base 50)		
Moisture			
Dew Point	54 °F / 12 °C		
Average Humidity	83		
Maximum Humidity	94		
Minimum Humidity	64		
Precipitation			
Precipitation	1.24 in / 3.15 cm	-	- ()
Sea Level Pressure			
Sea Level Pressure	29.85 in / 1011 hPa		
Wind			
Wind Speed	11 mph / 18 km/h (NW)		
Max Wind Speed	17 mph / 27 km/h		
Max Gust Speed	29 mph / 47 km/h		
Visibility	8 miles / 12 kilometers		
Events	Rain		

Averages and records for this station are not official NWS values.

Time

(EST)

12:31

AM

12:12 62.6 °F/

12:39 62.6 °F/

17.0 °C

62.6 °F /

17.0 °C

Temperature

Key: T is trace of precipitation, MM is missing value Source: NWS Daily Summary Seasonal Weather Averages С Temperature Dew Point Average High/Low 70 21 60 50 16 10 40 -1 -7 -12 30 20 10 11 noon 2 3 5 8 9 in Hg hPa Barometric Pressure 1019 30.1 1016 30.0 29.9 1013 1009 29.8 29.7 1006 9 10 11 noon 8 km/h mph Wind Speed 25.0 40 32 20.0 24 15.0 10.0 16 5.0 8 9 10 11 noon Wind Dir (deg) 360.0 270.0 180.0 90.0 9 10 11 noon 1 2 3 5 8 9 10 11 hotmetar Show full METARS (help) - Comma Delimited File Wind Wind Sea Level Gust Dew Precipitation Events Conditions Humidity Visibility **Point** Pressure Direction Speed Speed 2.5 miles / 10.4 mph / 20.7 mph / 0.10 in / 59.0 °F / 29.85 in / SSW Rain Rain 15.0 °C 16.7 km/h 33.3 km/h 0.3 cm 1010.7 hPa 4.0 kilometers 27.6 mph / 0.38 in / 59.0 °F / 29.85 in / 1.5 miles / 17.3 mph / SSE Rain Heavy Rain 1010.7 hPa 27.8 km/h 44.4 km/h 1.0 cm 15.0 °C 2.4 kilometers 59.0 °F / 29.84 in / 1.2 miles / 17.3 mph / 28.8 mph / 0.51 in /

ΑM	17.0 °C	15.0 °C 88%	<b>1010.4</b> hPa	2.0 kilometers	South	<b>27.8</b> km/h	46.3 km/h	1.3 cm	Rain	Heavy Rain
12:43 AM	62.6 °F / 17.0 °C	59.0 °F / 15.0 °C 88%	29.84 in / 1010.4 hPa	2.0 miles / 3.2 kilometers	South	10.4 mph / 16.7 km/h	28.8 mph / 46.3 km/h	0.54 in / 1.4 cm	Rain	Heavy Rain
12:53 AM	62.1 °F / 16.7 °C	59.0 °F / 15.0 °C 90%	<b>29.83</b> in / <b>1009.9</b> hPa	3.0 miles / 4.8 kilometers	SSW	6.9 mph / 11.1 km/h	-	<b>0.57</b> in / <b>1.4</b> cm	Rain	Rain
1:01 AM	62.6 °F / 17.0 °C	59.0 °F / 15.0 °C 88%	<b>29.85</b> in / <b>1010.7</b> hPa	<ul><li>2.5 miles /</li><li>4.0 kilometers</li></ul>	SW	<b>8.1</b> mph / <b>13.0</b> km/h	•	0.04 in / 0.1 cm	Rain	Heavy Rain
1:12 AM	62.6 °F / 17.0 °C	59.0 °F / 15.0 °C 88%	<b>29.84</b> in / <b>1010.4</b> hPa	1.2 miles / 2.0 kilometers	Variable	5.8 mph / 9.3 km/h	•	<b>0.18</b> in / <b>0.5</b> cm	Rain	Heavy Rain
1:21 AM	60.8 °F / 16.0 °C	59.0 °F / 15.0 °C 94%	<b>29.84</b> in / <b>1010.4</b> hPa	2.0 miles / 3.2 kilometers	South	<b>4.6</b> mph / <b>7.4</b> km/h	**	<b>0.24</b> in / <b>0.6</b> cm	Rain	Rain
1:24 AM	60.8 °F / 16.0 °C	59.0 °F / 15.0 °C 94%	<b>29.84</b> in / <b>1010.4</b> hPa	3.0 miles / 4.8 kilometers	Variable	<b>3.5</b> mph / <b>5.6</b> km/h	-	<b>0.25</b> in / <b>0.6</b> cm	Rain	Rain
1:40 AM	60.8 °F / 16.0 °C	59.0 °F / 15.0 °C 94%	<b>29.84</b> in / <b>1010.4</b> hPa	6.0 miles / 9.7 kilometers	Calm	Calm		<b>0.28</b> in / <b>0.7</b> cm	Rain	Light Rain
1:53 AM	<b>60.1</b> °F / <b>15.6</b> °C	57.9 °F / 14.4 °C 93%	<b>29.84</b> in / <b>1010.5</b> hPa	1.8 miles / 2.8 kilometers	SW	<b>6.9</b> mph / <b>11.1</b> km/h	-	<b>0.37</b> in / <b>0.9</b> cm	Rain	Heavy Rain
2:05 AM	60.8 °F / 16.0 °C	59.0 °F / 15.0 °C 94%	<b>29.85</b> in / <b>1010.7</b> hPa	2.0 miles / 3.2 kilometers	South	<b>6.9</b> mph / <b>11.1</b> km/h	-	0.09 in / 0.2 cm	Rain	Rain
2:09 AM	60.8 °F / 16.0 °C	59.0 °F / 15.0 °C 94%	<b>29.85</b> in / <b>1010.7</b> hPa	3.0 miles / 4.8 kilometers	South	8.1 mph / 13.0 km/h	•	0.11 in / 0.3 cm	Rain	Rain
2:53 AM	61.0 °F / 16.1 °C	57.9 °F / 14.4 °C 90%	<b>29.79</b> in / <b>1008.8</b> hPa	6.0 miles / 9.7 kilometers	Variable	5.8 mph / 9.3 km/h	-	<b>0.24</b> in / <b>0.6</b> cm	Rain	Light Rain
3:26 AM	60.8 °F / 16.0 °C	57.2 °F / 14.0 °C 88%	<b>29.84</b> in / <b>1010.4</b> hPa	1.8 miles / 2.8 kilometers	wsw	6.9 mph / 11.1 km/h	-	0.03 in / 0.1 cm	Rain	Rain
3:34 AM	<b>59.0</b> °F / <b>15.0</b> °C	57.2 °F / 14.0 °C 94%	<b>29.85</b> in / <b>1010.7</b> hPa	2.0 miles / 3.2 kilometers	West	13.8 mph / 22.2 km/h	-	<b>0.05</b> in / <b>0.1</b> cm	Rain	Light Rain
3:53 AM	<b>55.9</b> °F / <b>13.3</b> °C	54.0 °F / 12.2 °C 93%	<b>29.85</b> in / <b>1010.8</b> hPa	9.0 miles / 14.5 kilometers	West	<b>4.6</b> mph / <b>7.4</b> km/h	-	0.06 in / 0.2 cm		Overcast
4:29 AM	55.4 °F / 13.0 °C	53.6 °F / 12.0 °C 94%	<b>29.85</b> in / <b>1010.7</b> hPa	10.0 miles / 16.1 kilometers	Calm	Calm	-	0.00 in / 0.0 cm		Overcast
4:53 AM	55.9 °F / 13.3 °C	54.0 °F / 12.2 °C 93%	<b>29.85</b> in / <b>1010.8</b> hPa	10.0 miles / 16.1 kilometers	SSW	<b>4.6</b> mph / <b>7.4</b> km/h	-	0.00 in / 0.0 cm		Overcast
5:53 AM	55.0 °F / 12.8 °C	53.1 °F / 11.7 °C 93%	<b>29.86</b> in / <b>1011.1</b> hPa	10.0 miles / 16.1 kilometers	Calm	Calm	•	N/A		Overcast
6:35 AM	55.4 °F / 13.0 °C	53.6 °F / 12.0 °C 94%	29.88 in / 1011.7 hPa	10.0 miles / 16.1 kilometers	West	<b>3.5</b> mph / <b>5.6</b> km/h	-	N/A		Overcast
6:53	55.0 °F/	<b>53.1</b> °F /	<b>29.87</b> in /	10.0 miles /		<b>6.9</b> mph /				

AM	<b>12.8</b> °C	11.7 °C	93%	<b>1011.5</b> hPa	16.1 kilometers	NNW	11.1 km/h	-	N/A	Overcast
7:01 AM	55.4 °F / 13.0 °C	51.8 °F / 11.0 °C	88%	<b>29.88</b> in / <b>1011.7</b> hPa	10.0 miles / 16.1 kilometers	North	9.2 mph / 14.8 km/h	-	N/A	Overcast
7:44 AM	53.6 °F / 12.0 °C	51.8 °F / 11.0 °C	94%	<b>29.88</b> in / <b>1011.7</b> hPa	10.0 miles / 16.1 kilometers	NNW	3.5 mph / 5.6 km/h	-	N/A	Overcast
7:53 AM	54.0 °F / 12.2 °C	50.0 °F / 10.0 °C	86%	29.87 in / 1011.5 hPa	10.0 miles / 16.1 kilometers	North	5.8 mph / 9.3 km/h	•	N/A	Overcast
8:53 AM	55.0 °F / 12.8 °C	<b>50.0</b> °F / <b>10.0</b> °C	83%	29.90 in / 1012.4 hPa	10.0 miles / 16.1 kilometers	Calm	Calm	-	N/A	Overcast
9:53 AM	55.9 °F / 13.3 °C	48.0 °F / 8.9 °C	<b>75</b> %	29.90 in / 1012.5 hPa	10.0 miles / 16.1 kilometers	NNW	6.9 mph / 11.1 km/h		N/A	Mostly Cloudy
10:53 AM	<b>57.9</b> °F / <b>14.4</b> °C	48.0 °F / 8.9 °C	70%	<b>29.88</b> in / <b>1011.8</b> hPa	<b>10.0</b> miles / <b>16.1</b> kilometers	Variable	4.6 mph / 7.4 km/h	÷	N/A	Partly Cloudy
11:53 AM	<b>57.9</b> °F / <b>14.4</b> °C	48.0 °F / 8.9 °C	70%	<b>29.87</b> in / <b>1011.4</b> hPa	10.0 miles / 16.1 kilometers	NW	9.2 mph / 14.8 km/h	-	N/A	Overcast
12:01 PM	57.2 °F / 14.0 °C	48.2 °F / 9.0 °C	<b>72</b> %	<b>29.88</b> in / <b>1011.7</b> hPa	10.0 miles / 16.1 kilometers	NW	9.2 mph / 14.8 km/h	-	N/A	Overcast
12:26 PM	59.0 °F / 15.0 °C	48.2 °F / 9.0 °C	67%	<b>29.87</b> in / <b>1011.4</b> hPa	10.0 miles / 16.1 kilometers	NNW	9.2 mph / 14.8 km/h	-	N/A	Scattered Clouds
12:53 PM	57.0 °F / 13.9 °C	46.9 °F / 8.3 °C	69%	<b>29.86</b> in / <b>1010.9</b> hPa	10.0 miles / 16.1 kilometers	North	8.1 mph / 13.0 km/h	-	N/A	Clear
1:53 PM	59.0 °F / 15.0 °C	46.9 °F / 8.3 °C	64%	<b>29.86</b> in / <b>1011.0</b> hPa	10.0 miles / 16.1 kilometers	Variable	5.8 mph / 9.3 km/h	•	N/A	Clear
2:53 PM	55.9 °F / 13.3 °C	46.0 °F / 7.8 °C	69%	<b>29.88</b> in / <b>1011.7</b> hPa	10.0 miles / 16.1 kilometers	NNW	8.1 mph / 13.0 km/h	-	N/A	Scattered Clouds
3:53 PM	55.0 °F / 12.8 °C	<b>45.0</b> °F / <b>7.2</b> °C	69%	<b>29.90</b> in / <b>1012.5</b> hPa	10.0 miles / 16.1 kilometers	NNW	<b>4.6</b> mph / <b>7.4</b> km/h	-	N/A	Mostly Cloudy
4:53 PM	<b>52.0</b> °F / <b>11.1</b> °C	44.1 °F / 6.7 °C	74%	<b>29.93</b> in / <b>1013.3</b> hPa	10.0 miles / 16.1 kilometers	North	5.8 mph / 9.3 km/h	-	N/A	Mostly Cloudy
5:24 PM	50.0 °F / 10.0 °C	<b>42.8</b> °F / <b>6.0</b> °C	76%	<b>29.95</b> in / <b>1014.1</b> hPa	10.0 miles / 16.1 kilometers	NNE	8.1 mph / 13.0 km/h	•	N/A	Overcast
6:53 PM	48.0 °F / 8.9 °C	37.9 °F / 3.3 °C	68%	<b>29.99</b> in / <b>1015.3</b> hPa	10.0 miles / 16.1 kilometers	North	11.5 mph / 18.5 km/h	-	N/A	Overcast
7:17 PM	46.4 °F / 8.0 °C	37.4 °F / 3.0 °C	71%	<b>30.00</b> in / <b>1015.8</b> hPa	10.0 miles / 16.1 kilometers	North	9.2 mph / 14.8 km/h	-	N/A	Overcast
7:43 PM	46.4 °F / 8.0 °C	<b>35.6</b> °F / <b>2.0</b> °C	66%	<b>30.00</b> in / <b>1015.8</b> hPa	10.0 miles / 16.1 kilometers	North	9.2 mph / 14.8 km/h	-	N/A	Overcas:
7:53	46.0 °F /	36.0 °F/		<b>30.00</b> in /	10.0 miles /		<b>11.5</b> mph /			

		_							****	
PM	7.8 °C	2.2 °C	68%	<b>1015.8</b> hPa	16.1 kilometers	NNE	<b>18.5</b> km/h	-	N/A	Overcast
8:36 PM	44.6 °F / 7.0 °C	<b>35.6</b> °F / <b>2.0</b> °C	71%	<b>30.03</b> in / <b>1016.8</b> hPa	10.0 miles / 16.1 kilometers	North	<b>11.5</b> mph / <b>18.5</b> km/h		N/A	Overcast
8:44 PM	<b>44.6</b> °F / <b>7.0</b> °C	35.6 °F / 2.0 °C	71%	<b>30.03</b> in / <b>1016.8</b> hPa	10.0 miles / 16.1 kilometers	North	9.2 mph / 14.8 km/h	-	N/A	Overcast
8:53 PM	<b>45.0</b> °F / <b>7.2</b> °C	<b>35.1</b> °F / <b>1.7</b> °C	68%	<b>30.02</b> in / <b>1016.5</b> hPa	10.0 miles / 16.1 kilometers	North	12.7 mph / 20.4 km/h	-	N/A	Overcast
9:53 PM	<b>44.1</b> °F / <b>6.7</b> °C	33.1 °F / 0.6 °C	65%	<b>30.02</b> in / <b>1016.4</b> hPa	10.0 miles / 16.1 kilometers	North	9.2 mph / 14.8 km/h	-	N/A	Overcast
10:53 PM	<b>42.1</b> °F / <b>5.6</b> °C	32.0 °F / 0.0 °C	67%	<b>30.02</b> in / <b>1016.6</b> hPa	10.0 miles / 16.1 kilometers	North	11.5 mph / 18.5 km/h	-	N/A	Overcast
11:53	41.0 °F /	30.9 °F /	67%	<b>30.03</b> in /	10.0 miles /	NNE	6.9 mph / 11.1 km/h	•	N/A	Overcast

	Show   Hide				
Rise	Set				
12:02 PM UTC	9:26 PM UTC				
11:31 AM UTC	9:57 PM UTC				
10:56 AM UTC	10:31 PM UTC				
10:23 AM UTC	11:05 PM UTC				
11:02 AM UTC (11/30)	8:27 PM UTC (11/30)				
10h 26m					
9h 24m					
al View   Extended	View				
of the Moon is Illumina	2/15 12/23				
	12:02 PM UTC 11:31 AM UTC 10:56 AM UTC 10:23 AM UTC 11:02 AM UTC (11/30) 10h 26m				



Copyright © 2006 The Weather Underground, Inc.

## **DAILY FIELD RECORD (continued)**

GEOMATRIX
Page 4 of 4

TIME	Date: 12/20/05  DESCRIPTION OF WORK PERFORMED								
	KleA	THER RUAD	M65						
46	WIND SPICED			Rit.	B. <i>P</i> .				
	(MP40)		Timp	Han	1 H6				
9:45	124: 3.6	250	21.0	50%	29.89				
4:48	Ava ZH	250 143°	417°	31.37	29.93				
10:10	AV6: 32	204.9	24.7	43.1%	2989				
	1NS1: 3.0	0.9	279	36.6 %	29.90				
11:10	ALC BUY	254"	27.8	3 k.Z					
	ING 17	2490	26,4	367-	29.85				
17:30	A16: 2.8	234.4	27.7	34.7%	29.64				
	INIGTANT: 3,4	142,7	30,4	<i>3</i>					
13:17	Aub: 3.6	194.3	30,3	31.7					
	INST: 21	2015	30, 3 31.4 32.7	31.3	29.461				
14:34	AV0 3, 2	2147	327	30.0					
	INIST: 27	29,7	31.7	33,7	29.82				
1943	A16: 3.4	1964	31.6	34.9	a 9.62				
	10/57: 1.5	216	30.1	3927	24.61				
17:0	NE 3.5	268	29,9	40.4	24.62				
	INST 3,6	a 79	28.8	44.992	R4.63				
<u> </u>									
<u></u>									
			····						
	Alegon 60 MIN AVE	RAGE STATISTI	05. 4MIN	SUN 47 4:	50				
			-						



# History for Poughkeepsie, New York on Tuesday, December 20, 2005

Jump to data by:

Date: December 20 2005 Go Airport Code: Go

Latest visited Airport Codes: KPOU

« Previous Day Daily | Weekly | Monthly | Custom | Trip Planner Next Day »

#### Daily Summary

	Dany Commit	u y	
	Actual	Average	Record
Temperature			
Mean Temperature	23 °F/-5 °C	-	
Max Temperature	28 °F / -2 °C	35 °F / 1 °C	61 °F / 16 °C (1957)
Min Temperature	18 °F / -7 °C	18 °F / -7 °C	-9 °F / -22 °C (1951)
Degree Days			
Heating Degree Days	42		
Moisture			
Dew Point	9 °F / -12 °C		
Average Humidity	54		
Maximum Humidity	68		
Minimum Humidity	41		
Precipitation			
Precipitation	0.00 in / 0.00 cm	-	- ()
Sea Level Pressure			
Sea Level Pressure	30.04 in / 1017 hPa		
Wind			
Wind Speed	9 mph / 14 km/h (SW)		•
Max Wind Speed	13 mph / 21 km/h		
Max Gust Speed	•		
Visibility	10 miles / 16 kilometers	:	
Evente			

5/11/2006

Averages and records for this station are not official NWS values.

Time

(EST)

12:53

AM

1:53

AM

2:53

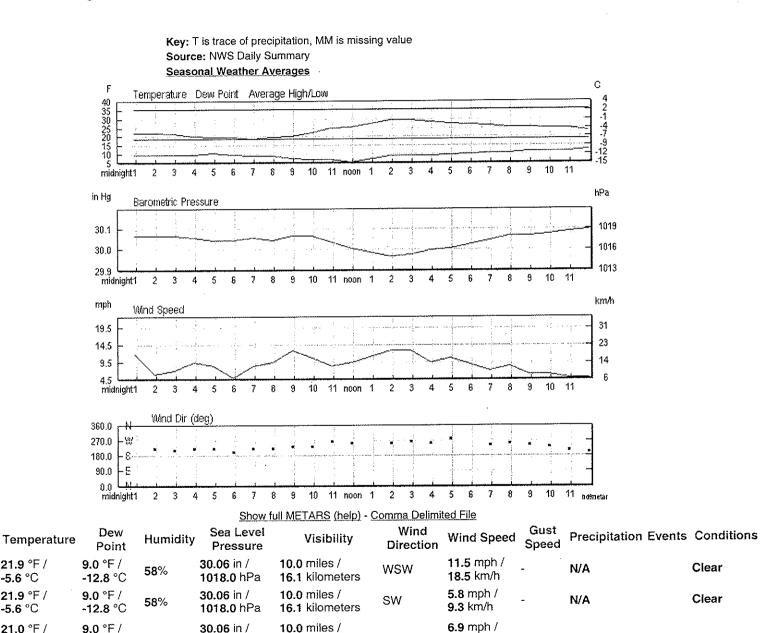
21.9 °F /

-5.6 °C

21.9 °F /

21.0 °F /

-5.6 °C



AM	<b>-6.1</b> °C	-12.8 °C	60%	<b>1017.7</b> hPa	16.1 kilometers	SSW	11.1 km/h	-	N/A	Clear
3:53 AM	19.9 °F / -6.7 °C	9.0 °F / -12.8 °C	62%	<b>30.05</b> in / <b>1017.5</b> hPa	10.0 miles / 16.1 kilometers	SW	9.2 mph / 14.8 km/h	-	N/A	Clear
4:53 AM	<b>19.0</b> °F / -7.2 °C	10.0 °F / -12.2 °C	68%	<b>30.04</b> in / <b>1017.3</b> hPa	10.0 miles / 16.1 kilometers	SW	<b>8.1</b> mph / <b>13.0</b> km/h	<b>.</b>	N/A	Clear
5:53 AM	19.0 °F / -7.2 °C	9.0 °F / -12.8 °C	65%	<b>30.04</b> in / <b>1017.1</b> hPa	10.0 miles / 16.1 kilometers	SSW	4.6 mph / 7.4 km/h	-	N/A	Clear
6:53 AM	<b>18.0</b> °F / -7.8 °C	8.1 °F / -13.3 °C	<b>65</b> %	<b>30.05</b> in / <b>1017.4</b> hPa	10.0 miles / 16.1 kilometers	sw	8.1 mph / 13.0 km/h	-	N/A	Clear
7:53 AM	<b>19.0</b> °F / - <b>7.2</b> °C	8.1 °F / -13.3 °C	62%	<b>30.04</b> in / <b>1017.3</b> hPa	10.0 miles / 16.1 kilometers	sw	9.2 mph / 14.8 km/h	-	N/A	Clear
8:53 AM	19.9 °F / -6.7 °C	7.0 °F / -13.9 °C	57%	<b>30.06</b> in / <b>1017.8</b> hPa	10.0 miles / 16.1 kilometers	.SW	12.7 mph / 20.4 km/h	-	N/A	Clear
9:53 AM	<b>21.9</b> °F / -5.6 °C	6.1 °F / -14.4 °C	51%	<b>30.06</b> in / <b>1017.7</b> hPa	10.0 miles / 16.1 kilometers	SW .	10.4 mph / 16.7 km/h	-	N/A	Clear
10:53 AM	<b>24.1</b> °F / <b>-4.4</b> °C	6.1 °F / -14.4 °C	46%	<b>30.03</b> in / <b>1016.9</b> hPa	10.0 miles / 16.1 kilometers	West	<b>8.1</b> mph / <b>13.0</b> km/h	•	N/A	Clear
11:53 AM	<b>25.0</b> °F / <b>-3.9</b> °C	5.0 °F / -15.0 °C	43%	<b>30.00</b> in / <b>1015.9</b> hPa	10.0 miles / 16.1 kilometers	WSW .	9.2 mph / 14.8 km/h	-	N/A	Clear
1:53 PM	28.9 °F / -1.7 °C	8.1 °F / -13.3 °C	41%	<b>29.96</b> in / <b>1014.4</b> hPa	10.0 miles / 16.1 kilometers	wsw	<b>12.7</b> mph / <b>20.4</b> km/h	-	N/A	Clear
2:53 PM	<b>28.9</b> °F / <b>-1.7</b> °C	8.1 °F / -13.3 °C	41%	<b>29.97</b> in / <b>1014.7</b> hPa	10.0 miles / 16.1 kilometers	West	12.7 mph / 20.4 km/h	-	N/A	Clear
3:53 PM	<b>28.0</b> °F / <b>-2.2</b> °C	8.1 °F / -13.3 °C	43%	<b>29.99</b> in / <b>1015.3</b> hPa	10.0 miles / 16.1 kilometers	wsw	9.2 mph / 14.8 km/h	-	N/A	Clear
4:53 PM	<b>27.0</b> °F / <b>-2.8</b> °C	9.0 °F / -12.8 °C	47%	<b>30.00</b> in / <b>1015.9</b> hPa	10.0 miles / 16.1 kilometers	West	10.4 mph / 16.7 km/h	-	N/A	Clear
6:53 PM	<b>26.1</b> °F / <b>-3.3</b> °C	<b>10.0</b> °F / <b>-12.2</b> °C	51%	<b>30.04</b> in / <b>1017.3</b> hPa	10.0 miles / 16.1 kilometers	WSW	<b>6.9</b> mph / <b>11.1</b> km/h	-	N/A	Clear
7:53 PM	<b>25.0</b> °F / <b>-3.9</b> °C	<b>10.0</b> °F / - <b>12.2</b> °C	53%	<b>30.06</b> in / <b>1017.8</b> hPa	10.0 miles / 16.1 kilometers	wsw	8.1 mph / 13.0 km/h	-	N/A	Mostly Cloudy
8:53 PM	<b>25.0</b> °F / <b>-3.9</b> °C	<b>10.9</b> °F / -11.7 °C	55%	<b>30.06</b> in / <b>1017.8</b> hPa	10.0 miles / 16.1 kilometers	wsw	5.8 mph / 9.3 km/h	-	N/A	Mostly Cloudy
9:53 PM	<b>24.1</b> °F / <b>-4.4</b> °C	<b>10.9</b> °F / -11.7 °C	57%	<b>30.07</b> in / <b>1018.3</b> hPa	10.0 miles / 16.1 kilometers	sw	5.8 mph / 9.3 km/h	-	N/A	Partly Cloudy
10:53 PM	<b>24.1</b> °F / <b>-4.4</b> °C	<b>10.9</b> °F / -11.7 °C	57%	<b>30.08</b> in / <b>1018.5</b> hPa	10.0 miles / 16.1 kilometers	SSW	4.6 mph / 7.4 km/h	-	N/A	Clear
11:53	23.0 °F/	<b>12.0</b> °F /		<b>30.09</b> in /	10.0 miles /		4.6 mph /			Partly

http://www.wandamanand.anar/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalainana/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/historyalaina/histor

Cloudy

N/A

History: Weather Underground

-5.0 °C

PN

-11.1 °C

SSW 7.4 km/h 16.1 kilometers 1018.8 hPa 63% Show | Hide Astronomy Set December 20, 2005 Rise 12:18 PM UTC 9:27 PM UTC Actual Time 11:47 AM UTC 9:59 PM UTC Civil Twilight 11:12 AM UTC 10:34 PM UTC Nautical Twilight 11:08 PM UTC Astronomical Twilight 10:38 AM UTC 3:52 PM UTC (12/20) 1:13 AM UTC (12/20) Moon Length Of Visible Light: 10h 12m Length of Day 9h 09m Normal View Extended View Waning Gibbous, 79% of the Moon is Illuminated 12/31 First Quarter Last Quarter New For more information about the solar system, » View the Full Star Chart!

Copyright © 2006 The Weather Underground, Inc.



#### History for Poughkeepsie, New York on Wednesday, May 3, 2006

Jump to data by:

Date: May

2006

Airport Code:

Go

Latest visited Airport Codes: KPOU

« Previous Day Daily | Weekly | Monthly | Custom | Trip Planner Next Day »

Daily Summary

	Dany Summa	ar y	
•	Actual	Average	Record
Temperature			
Mean Temperature	56 °F / 13 °C	-	
Max Temperature	68 °F / 20 °C	• • • • • • • • • • • • • • • • • • • •	91 °F / 32 °C (2001)
Min Temperature	46 °F / 7 °C	42 °F / 5 °C	<b>28</b> °F / <b>-2</b> °C (1966)
Degree Days			
Heating Degree Days	9		
<b>Growing Degree Days</b>	6 (Base 50)		
Moisture			
Dew Point	46 °F / 7 °C	*	
Average Humidity	81		
Maximum Humidity	100		
Minimum Humidity	50		
Precipitation			
Precipitation	0.05 in / 0.13 cm	-	- ()
Sea Level Pressure	•		
Sea Level Pressure	29.88 in / 1012 hPa		
Wind			
Wind Speed	4 mph / 6 km/h (North)	)	
Max Wind Speed	16 mph / 26 km/h		
Max Gust Speed	21 mph / 34 km/h		
Visibility	9 miles / 14 kilometers	3	
Events	Rain		

Averages and records for this station are not official NWS values.

Time

(EDT)

AΜ

1:53

AM

2:53

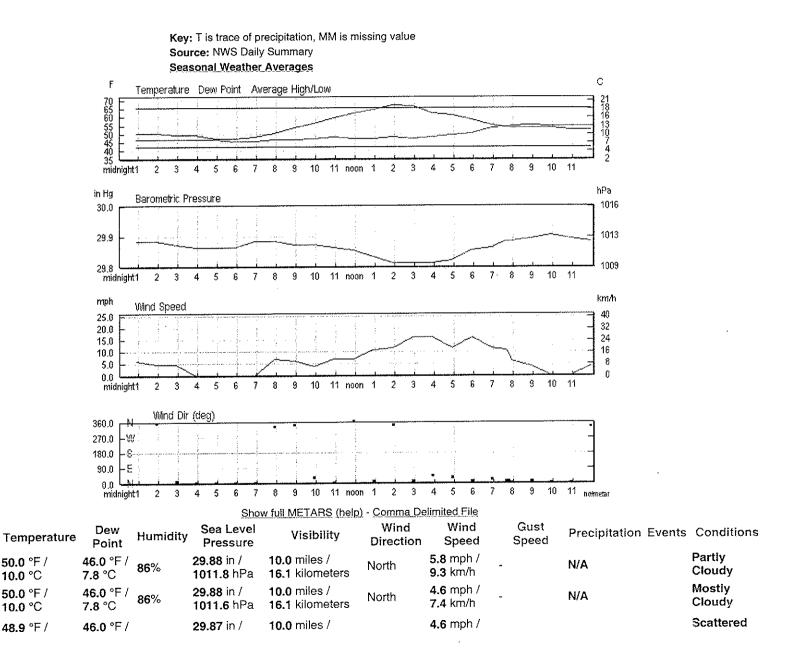
12:53 50.0 °F/

10.0 °C

50.0 °F /

10.0 °C

48.9 °F /



AM	9.4 °C	7.8 °C 96	0% 1	1011.4 hPa	16.1 kilometers	North	<b>7.4</b> km/h	-	N/A		Clouds
3:53 AM	48.9 °F / 9.4 °C	46.0 °F / 90	nv. –		10.0 miles / 16.1 kilometers	Calm	Calm	-	N/A		Partly Cloudy
4:53 AM	<b>46.9</b> °F / <b>8.3</b> °C	46.0 °F / 9° 7.8 °C 9°	10/-		10.0 miles / 16.1 kilometers	Calm	Calm	-	N/A		Clear
5:53 AM	46.9 °F / 8.3 °C	45.0 °F / 95 7.2 °C 95	<b>つ</b> ∨/_ =	<b>29.86</b> in / <b>1011.2</b> hPa	10.0 miles / 16.1 kilometers	Calm	Calm		N/A		Clear
6:53 AM	48.0 °F / 8.9 °C	45.0 °F / 89 7.2 °C 89	<b>0</b> º/	<b>29.88</b> in / <b>1011.6</b> hPa	10.0 miles / 16.1 kilometers	Calm	Calm	-	N/A		Clear
7:53 AM	50.0 °F / 10.0 °C	46.0 °F / 80			10.0 miles / 16.1 kilometers	NNW	6.9 mph / 11.1 km/h	•	N/A		Mostly Cloudy
8:53 AM	<b>53.1</b> °F / <b>11.7</b> °C	46.0 °F / 7 7.8 °C 7	14/-		10.0 miles / 16.1 kilometers	NNW	5.8 mph / 9.3 km/h	14	N/A		Mostly Cloudy
9:53 AM	55.9 °F / 13.3 °C	46.9 °F / 72		<b>29.87</b> in / <b>1011.3</b> hPa	10.0 miles / 16.1 kilometers	NNE	3.5 mph / 5.6 km/h	-	N/A		Clear
10:53 AM	59.0 °F / 15.0 °C	48.0 °F / 6 8.9 °C 6	<b>7</b> 0/_ =	<b>29.86</b> in / <b>1011.0</b> hPa	10.0 miles / 16.1 kilometers	Variable	6.9 mph / 11.1 km/h	-	N/A		Partly Cloudy
11:53 AM	<b>62.1</b> °F / <b>16.7</b> °C	46.9 °F / 58	U V/_	<b>29.85</b> in / <b>1010.7</b> hPa	10.0 miles / 16.1 kilometers	North	6.9 mph / 11.1 km/h	•	N/A		Partly Cloudy
12:53 PM	64.0 °F / 17.8 °C	46.9 °F / 8.3 °C 5		<b>29.83</b> in / <b>1010.1</b> hPa	10.0 miles / 16.1 kilometers	North	10.4 mph / 16.7 km/h	19.6 mph / 31.5 km/h	N/A		Clear
1:53 PM	66.9 °F / 19.4 °C	48.0 °F / 8.9 °C 5		<b>29.81</b> in / <b>1009.4</b> hPa	10.0 miles / 16.1 kilometers	NNW	11.5 mph / 18.5 km/h	-	N/A		Clear
2:53 PM	66.0 °F / 18.9 °C	46.9 °F / 8.3 °C 5		<b>29.81</b> in / <b>1009.3</b> hPa	10.0 miles / 16.1 kilometers	North	16.1 mph / 25.9 km/h	20.7 mph / 33.3 km/h	N/A		Scattered Clouds
3:53 PM	<b>62.1</b> °F / <b>16.7</b> °C	48.0 °F / 8.9 °C 6	n%	<b>29.81</b> in / <b>1009.5</b> hPa	10.0 miles / 16.1 kilometers	NE	16.1 mph / 25.9 km/h	20.7 mph / 33.3 km/h	N/A		Mostly Cloudy
4:53 PM	61.0 °F / 16.1 °C	48.9 °F / 9.4 °C 6	/I V/_	<b>29.82</b> in / <b>1009.6</b> hPa	10.0 miles / 16.1 kilometers	NNE	11.5 mph / 18.5 km/h	18.4 mph / 29.6 km/h	N/A		Overcast
5:53 PM	<b>57.9</b> °F / 14.4 °C	50.0 °F / 7	'EU/ -	<b>29.85</b> in / <b>1010.7</b> hPa	10.0 miles / 16.1 kilometers	North	16.1 mph / 25.9 km/h	•	0.00 in / 0.0 cm		Overcast
6:53 PM	55.0 °F / 12.8 °C	53.1 °F / 9		<b>29.86</b> in / <b>1011.2</b> hPa	3.0 miles / 4.8 kilometers	NNE	11.5 mph / 18.5 km/h	•	0.03 in / 0.1 cm	Rain	Light Rain
7:37 PM	53.6 °F / 12.0 °C	52 € ° ⊑ /		<b>29.88</b> in / <b>1011.7</b> hPa	2.5 miles / 4.0 kilometers	North	10.4 mph / 16.7 km/h	-	0.01 in / 0.0 cm	Rain	Light Rain
7:44 PM	53.6 °F / 12.0 °C	53.6 °F / 12.0 °C 1		<b>29.88</b> in / <b>1011.7</b> hPa	7.0 miles / 11.3 kilometers	North	9.2 mph / 14.8 km/h	-	0.01 in / 0.0 cm	Rain	Light Rain
7:53	54.0 °F/	<b>53.1</b> °F /	2	<b>29.88</b> in /	<b>6.0</b> miles /		<b>5.8</b> mph /		<b>0.01</b> in /		

Light Rain

Overcast

Overcast

Overcast

Overcast

Rain

**0.0** cm

0.01 in /

**0.0** cm

N/A

N/A

N/A

PM	<b>12.2</b> °C	11.7 °C	97%
8:53 PM	55.0 °F / 12.8 °C	<b>53.1</b> °F / <b>11.7</b> °C	93%
9:53 PM	54.0 °F / 12.2 °C	<b>53.1</b> °F / <b>11.7</b> °C	97%
10:53 PM	54.0 °F / 12.2 °C	<b>52.0</b> °F / <b>11.1</b> °C	93%
11:53 PM	54.0 °F /	<b>52.0</b> °F / <b>11.1</b> °C	93%

<b>1011.7</b> hPa	9.7 kilometers	Variable	<b>9.3</b> km/h	-
<b>29.89</b> in / <b>1012.0</b> hPa	10.0 miles / 16.1 kilometers	North	3.5 mph / 5.6 km/h	•
<b>29.90</b> in / <b>1012.5</b> hPa	10.0 miles / 16.1 kilometers	Calm	Calm	-
<b>29.89</b> in / <b>1012.2</b> hPa	10.0 miles / 16.1 kilometers	Calm	Calm	-
<b>29.88</b> in / <b>1011.8</b> hPa	10.0 miles / 16.1 kilometers	NNW	3.5 mph / 5.6 km/h	-

		Show   Hide
Rise	Set	
9:49 AM UT	TC 11:5	55 PM UTC
9:19 AM UT	TC 12:2	6 AM UTC
8:42 AM UT	TO 1:03	AM UTC
ht 8:01 AM UT	TC 1:44	AM UTC
2:20 PM UT	°C (5/3) 5:28	3 AM UTC (5/3)
ght: 15h 06m	A FRANCE CONTRACTOR	
14h 05m		
5/5 5/13	5 / 20	5/27
	9:49 AM UT 9:19 AM UT 8:42 AM UT ht 8:01 AM UT 2:20 PM UT ght: 15h 06m 14h 05m	9:49 AM UTC 11:5 9:19 AM UTC 12:2 8:42 AM UTC 1:03 ht 8:01 AM UTC 1:44 2:20 PM UTC (5/3) 5:28 ght: 15h 06m 14h 05m

Copyright © 2006 The Weather Underground, Inc.



## **APPENDIX B**

# **Analytical Laboratory Data Reports**



## Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd, To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- · Results; and
- Chain of Custody (copy).

WORK ORDER #: 0512023A

Work Order Summary

CLIENT: Ms. Yemia Hashimoto

Geomatrix Consultants

BILL TO:

Ms. Yemia Hashimoto

Geomatrix Consultants

2101 Webster Street, 12th Floor

2101 Webster Street, 12th Floor

Oakland, CA 94612

Oakland, CA 94612

PHONE:

510-663-4100

P.O. #

FAX:

510-663-4141

PROJECT#

9328 Former Drive + Park

DATE RECEIVED: DATE COMPLETED:

12/01/2005 12/14/2005

CONTACT:

Kyle Vagadori

FRACTION #	NAME
01A	SG-5-113005
02A	SG-6-113005
03A	SG-8-113005
04Λ	AMB-113005
05A	Trip Blank
06Α	Lab Blank
06B	Lab Blank
07A	CCV
07B	CCV
08Λ	LCS
08B	LCS

LCS

	RECEIPT
TEST	VAC./PRES.
Modified TO-15	6.5 "Hg
Modified TO-15	7.5 "Hg
Modified TO-15	3.0 "Hg
Modified TO-15	7.0 "Hg
Modified TO-15	4,8 psi
Modified TO-15	NA
Modified TO-15	NΛ
Modified TO-15	NA
Modified TO-15	NA
Modified TO-15	· NA
Modified TO-15	NΛ

CERTIFIED BY:

12/14/05 DATE:

Laboratory Director

Certification numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/05, Expiration date: 06/30/06 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except to full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 (800) 985-5955 FAX (916) 985-1020

#### LABORATORY NARRATIVE Modified TO-15

#### Geomatrix Consultants Workorder# 0512023A

Five 6 Liter Summa Canister (100% Certified) samples were received on December 01, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications		
ICAL %RSD acceptance criteria	+= 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% PS		
Daily Calibration	+- 30% Difference	= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers</td		
Blank and standards	Zero air	Nitrogen		
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases		
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request		

#### Receiving Notes

There were no receiving discrepancies.

#### **Analytical Notes**

The reported LCS for each daily batch has been derived from more than one analytical file.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

#### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
  - J Estimated value.
  - E Exceeds instrument calibration range
  - S Saturated peak.
  - Q Exceeds quality control limits.
  - U Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-5-113005

Lab ID#: 0512023A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	430	7700	800	
Acetone	430	660	1000	14000
2-Propanol	430	110000 E	422.7	1600
1,3-Dichlorobenzene	86	84 J	1000 510	260000 E 510

Client Sample ID: SG-6-113005

Lab ID#: 0512023A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	450	7500		
Acetone	450	1200	840 1100	14000
2-Propanol	450	120000 ⊟	1100	2800 290000 E

Client Sample ID: SG-8-113005

Lab ID#: 0512023A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	370	3300	700	6300
2-Propanol	370	60000 E	920	150000 E

Client Sample ID: AMB-113005

Lab ID#: 0512023A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	440		3.3.5.7.7	
2-Propanol		3600	820	6700
Committee of the commit	440	62000 E	1100	150000 E
1,3-Dichlorobenzene	88	96	530	580

Client Sample ID: Trip Blank

Lab ID#: 0512023A-05A

No Detections Were Found.

Client Sample ID: SG-5-113005

#### Lab ID#: 0512023A-01A

File Name: Dil. Factor:	7120819		Date of Collection: 11/30/05 Date of Analysis: 12/9/05 02:35 AN		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	86	Not Detected	420	Not Detected	
Freon 114	86	Not Detected	600	Not Detected	
Chloromethane	86	Not Detected	180	Not Detected	
Vinyl Chloride	86	Not Detected	220	Not Detected	
1,3-Butadiene	430	Not Detected	940	Not Detected	
Bromomethane	86	Not Detected	330	Not Detected	
Chloroethane	86	Not Detected	220	Not Detected	
Freon 11	86	Not Detected	480	Not Detected	
Ethanol	430	7700	800		
Freon 113	86	Not Detected	660	14000	
1,1-Dichloroethene	86	Not Detected	340	Not Detected	
Acetone	430	660		Not Detected	
2-Propanol	430	110000 E ⋅2	1000	1600	
Carbon Disulfide	430	Not Detected	1000	260000 E	
Methylene Chloride	170	Not Detected	1300	Not Detected	
Methyl tert-butyl ether	430		590	Not Detected	
rans-1,2-Dichloroethene	430	Not Detected	1500	Not Detected	
Hexane	430	Not Detected	1700	Not Detected	
1,1-Dichloroethane	86	Not Detected	1500	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	430	Not Detected	350	Not Detected	
is-1,2-Dichloroethene		Not Detected	1300	Not Detected	
Tetrahydrofuran	86	Not Detected	340	Not Detected	
Chloroform	430	Not Detected	1300	Not Detected	
.1,1-Trichloroethane	86	Not Detected	420	Not Detected	
Cyclohexane	86	Not Detected	470	Not Detected	
Carbon Tetrachloride	430	Not Detected	1500	Not Detected	
Benzene	86	Not Detected	540	Not Detected	
,2-Dichloroethane	86	Not Detected	270	Not Detected	
leptane	86	Not Detected	350	Not Detected	
richloroethene	430	Not Detected	1800	Not Detected	
	86	Not Detected	460	Not Detected	
,2-Dichloropropane ,4-Dioxane	86	Not Detected	400	Not Detected	
	430	Not Detected	1500	Not Detected	
romodichloromethane	430	Not Detected	2900	Not Detected	
s-1,3-Dichloropropene	86	Not Detected	390	Not Detected	
-Methyl-2-pentanone	430	Not Detected	1800	Not Detected	
oluene	86	Not Detected	320	Not Detected	
ans-1,3-Dichloropropene	86	Not Detected	390	Not Detected	
1,2-Trichloroethane	86	Not Detected	470	Not Detected	
etrachloroethene	86	Not Detected	580	Not Detected	
Hexanone	430	Not Detected	1800	Not Detected	
bromochloromethane	430	Not Detected	3600	Not Detected	
2-Dibromoethane (EDB)	86	Not Detected	660	Not Detected	

Client Sample ID: SG-5-113005

#### Lab ID#: 0512023A-01A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	7120819 855		Date of Collection: 11/30/05 Date of Analysis: 12/9/05 02:35 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Chlorobenzene	86	Not Detected	390	Not Detected	
Ethyl Benzene	86	Not Detected	370	Not Detected	
m,p-Xylene	86	Not Detected	370	Not Detected	
o-Xylene	86	Not Detected	370	Not Detected	
Styrene	86	Not Detected	360		
Bromoform	430	Not Detected	4400	Not Detected	
Cumene	430	Not Detected	2100	Not Detected	
1,1,2,2-Tetrachloroethane	86	Not Detected	590	Not Detected	
Propylbenzene	430	Not Detected	2100	Not Detected	
4-Ethyltoluene	430	Not Detected		Not Detected	
1,3,5-Trimethylbenzene	86	Not Detected	2100	Not Detected	
1,2,4-Trimethylbenzene	86	Not Detected	420	Not Detected	
1,3-Dichlorobenzene	86		420	Not Detected	
,4-Dichlorobenzene	86	84 J	510	510	
alpha-Chlorotoluene	86	Not Detected	510	Not Detected	
1,2-Dichlorobenzene		Not Detected	440	Not Detected	
1,2,4-Trichlorobenzene	86	Not Detected	510	Not Detected	
, z, <del>a - i i i ci i di dicenzene</del>	V3U	NI A D. A. A. A.			

E = Exceeds instrument calibration range.

1,2,4-Trichlorobenzene

Hexachlorobutadiene

Container Type: 6 Liter Summa Canister (100% Certified)

%Recovery	Method Limits
	Limits
	70-130
97	70-130
94.	70-130
	%Recovery 96 97 94

Not Detected

Not Detected

3200

4600

Not Detected

Not Detected

430

430

J = Estimated value,

Client Sample ID: SG-6-113005

#### Lab ID#: 0512023A-02A

File Name; Dil. Factor;	7120820 895		Date of Collection: 11/30/05 Date of Analysis: 12/9/05 03:37 Al		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	90	Not Detected	440	Not Detected	
Freon 114	90	Not Detected	620	Not Detected	
Chloromethane	90	Not Detected	180	Not Detected	
Vinyl Chloride	90	Not Detected	230	Not Detected	
1,3-Butadiene	450	Not Detected	990	Not Detected	
Bromomethane	90	Not Detected	350	Not Detected	
Chloroethane	90	Not Detected	240	Not Detected	
Freon 11	90	Not Detected	500	Not Detected	
Ethanol	450	7500	840	14000	
Freon 113	90	Not Detected	680	Not Detected	
1,1-Dichloroethene	90	Not Detected	350	Not Detected	
Acetone	450	1200	1100	2800	
2-Propanol	450	120000 E J	1100	290000 E	
Carbon Disulfide	450	Not Detected	1400	Not Detected	
Methylene Chloride	180	Not Detected	620	Not Detected	
Methyl tert-butyl ether	450	Not Detected	1600		
trans-1,2-Dichloroethene	450	Not Detected	1800	Not Detected Not Detected	
Hexane	450	Not Detected	1600		
1,1-Dichloroethane	90	Not Detected	360	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	450	Not Detected	1300	Not Detected	
cis-1,2-Dichloroethene	90	Not Detected	350	Not Detected	
Tetrahydrofuran	450	Not Detected	1300	Not Detected	
Chloroform	90	Not Detected	440	Not Detected	
1,1,1-Trichloroethane	90	Not Detected	490	Not Detected	
Cyclohexane	450	Not Detected	1500	Not Detected	
Carbon Tetrachloride	90	Not Detected	560	Not Detected	
Benzene	90	Not Detected	280	Not Detected	
,2-Dichloroethane	90	Not Detected	360	Not Detected	
Heptane	450	Not Detected	1800	Not Detected	
richloroethene	90	Not Detected		Not Detected	
,2-Dichloropropane	90	Not Detected	480	Not Detected	
,4-Dioxane	450	Not Detected	410	Not Detected	
Bromodichloromethane	450	Not Detected	1600	Not Detected	
is-1,3-Dichloropropene	90	Not Detected	3000	Not Detected	
-Methyl-2-pentanone	450	Not Detected	410	Not Detected	
oluene	90	Not Detected	1800	Not Detected	
ans-1,3-Dichloropropene	90	Not Detected	340	Not Detected	
1,2-Trichloroethane	90	Not Detected	410	Not Detected	
etrachloroethene	90	Not Detected	490	Not Detected	
-Hexanone	450		610	Not Detected	
ibromochloromethane	450	Not Detected	1800	Not Detected	
2-Dibromoethane (EDB)	90	Not Detected Not Detected	3800 690	Not Detected	

Client Sample ID: SG-6-113005

Lab ID#: 0512023A-02A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: DII. Factor:	7120820 895		Date of Collection: 11/30/05 Date of Analysis: 12/9/05 03:37 A		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Chlorobenzene	90	Not Detected	410	Not Detected	
Ethyl Benzene	90	Not Detected	390	Not Detected	
m,p-Xylene	90	Not Detected	390	Not Detected	
o-Xylene	90	Not Detected	390		
Styrene	90	Not Detected	380	Not Detected	
Bromoform	450	Not Detected	4600	Not Detected	
Cumene	450	Not Detected	2200	Not Detected	
1,1,2,2-Tetrachloroethane	90	Not Detected	610	Not Detected	
Propylbenzene	450	Not Detected	2200	Not Detected	
1-Ethyltoluene	450	Not Detected		Not Detected	
1,3,5-Trimethylbenzene	90	Not Detected	2200	Not Detected	
1,2,4-Trimethylbenzene	90	Not Detected	440	Not Detected	
,3-Dichlorobenzene	90	Not Detected	440	Not Detected	
,4-Dichlorobenzene	90		540	Not Detected	
alpha-Chlorotoluene	90	Not Detected	540	Not Detected	
,2-Dichlorobenzene		Not Detected	460	Not Detected	
,2.4-Trichlorobenzene	90	Not Detected	540	Not Detected	
		MI - I Do II - I			

E = Exceeds instrument calibration range.

1,2,4-Trichlorobenzene

Hexachlorobutadiene

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	
Toluene-d8		70-130
	98	70-130
4-Bromofluorobenzene	91	70-130

Not Detected

Not Detected

3300

4800

Not Detected

Not Detected

450

450

Client Sample ID: SG-8-113005

#### Lab ID#: 0512023A-03A

File Name: Dil. Factor:	7120821 745		Date of Collection Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	74	Not Detected	370	Not Detected
Freon 114	74	Not Detected	520	Not Detected
Chloromethane	74	Not Detected	150	Not Detected
Vinyl Chloride	74	Not Detected	190	Not Detected
1,3-Butadiene	370	Not Detected	820	Not Detected
Bromomethane	74	Not Detected	290	Not Detected
Chloroethane	74	Not Detected	200	Not Detected
Freon 11	74	Not Detected	420	
Ethanol	370	3300	700	Not Detected
Freon 113	74	Not Detected	570	6300
1,1-Dichloroethene	74	Not Detected	300	Not Detected
Acetone	370	Not Detected		Not Detected
2-Propanol	370	60000 E J	880	Not Detected
Carbon Disulfide	370	Not Detected	920	150000 E
Methylene Chloride	150	Not Detected	1200	Not Detected
Methyl tert-butyl ether	370	Not Detected	520	Not Detected
trans-1,2-Dichloroethene	370	Not Detected	1300	Not Detected
Hexane	370		1500	Not Detected
1,1-Dichloroethane	74	Not Detected	1300	Not Detected
2-Butanone (Methyl Ethyl Ketone)	370	Not Detected	300	Not Detected
cis-1,2-Dichloroethene	74	Not Detected	1100	Not Detected
Tetrahydrofuran	370	Not Detected	300	Not Detected
Chloroform	74	Not Detected	1100	Not Detected
1,1,1-Trichloroethane	74	Not Detected	360	Not Detected
Cyclohexane	370	Not Detected	410	Not Detected
Carbon Tetrachloride		Not Detected	1300	Not Detected
Benzene	74	Not Detected	470	Not Detected
I,2-Dichloroethane	74	Not Detected	240	Not Detected
Heptane	74	Not Detected	300	Not Detected
Frichloroethene	370	Not Detected	1500	Not Detected
,2-Dichloropropane	74	Not Detected	400	Not Detected
,4-Dioxane	74	Not Detected	340	Not Detected
Bromodichloromethane	370	Not Detected	1300	Not Detected
is-1,3-Dichloropropene	370	Not Detected	2500	Not Detected
-Methyl-2-pentanone	74	Not Detected	340	Not Detected
oluene	370	Not Detected	1500	Not Detected
	74	Not Detected	280	Not Detected
rans-1,3-Dichloropropene	74	Not Detected	340	Not Detected
,1,2-Trichloroethane etrachloroethene	74	Not Detected	410	Not Detected
-Hexanone	74	Not Detected	500	Not Detected
	370	Not Detected	1500	Not Detected
Dibromochloromethane	370	Not Detected	3200	Not Detected
,2-Dibromoethane (EDB)	74	Not Detected	570	Not Detected

Client Sample ID: SG-8-113005

Lab ID#: 0512023A-03A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:		712082	54		
DII. Factor:					Date of Collection: 11/30/05
Dill Factor.		74	5		Date of Analysis: 12/9/05 04:46 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	74	Not Detected	340	Not Detected
Ethyl Benzene	74	Not Detected	320	Not Detected
m,p-Xylene	74	Not Detected	320	Not Detected
o-Xylene	74	Not Detected	320	Not Detected
Styrene	74	Not Detected	320	Not Detected
Bromoform	370	Not Detected	3800	Not Detected
Cumene	370	Not Detected	1800	Not Detected
1,1,2,2-Tetrachloroethane	74	Not Detected	510	Not Detected
Propylbenzene	370	Not Detected	1800	Not Detected
1-Ethyltoluene	370	Not Detected	1800	Not Detected
1,3,5-Trimethylbenzene	74	Not Detected	370	Not Detected
1,2,4-Trimethylbenzene	74	Not Detected	370	Not Detected
,3-Dichlorobenzene	74	Not Detected	450	Not Detected
,4-Dichlorobenzene	74	Not Detected	450	Not Detected
alpha-Chlorotoluene	74	Not Detected	380	
,2-Dichlorobenzene	74	Not Detected	450	Not Detected
,2,4-Trichlorobenzene	370	Not Detected	2800	Not Detected
lexachlorobutadiene	370	Not Detected	4000	Not Detected Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	
Toluene-d8		70-130
4-Bromofluorobenzene	98	70-130
, Promondoroponzene	92	70-130

#### Client Sample ID: AMB-113005

#### Lab ID#: 0512023A-04A

File Name: Dil. Factor:	7120822 875		Date of Collection Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt, Limit (uG/m3)	Amount (uG/m3)
Freon 12	88	Not Detected	430	Not Detected
Freon 114	88	Not Detected	610	Not Detected
Chloromethane	88	Not Detected	180	Not Detected
Vinyl Chloride	88	Not Detected	220	Not Detected
1,3-Butadiene	440	Not Detected	970	Not Detected
Bromomethane	88	Not Detected	340	Not Detected
Chloroethane	88	Not Detected	230	Not Detected
Freon 11	88	Not Detected	490	Not Detected
Ethanol	440	3600	820	6700
Freon 113	88	Not Detected	670	Not Detected
1,1-Dichloroethene	88	Not Detected	350	Not Detected
Acetone	440	Not Detected	1000	Not Detected
2-Propanol	440	62000 E	1100	150000 E
Carbon Disulfide	440	Not Detected	1400	Not Detected
Methylene Chloride	180	Not Detected	610	Not Detected
Methyl tert-butyl ether	440	Not Detected	1600	
trans-1,2-Dichloroethene	440	Not Detected	1700	Not Detected
Hexane	440	Not Detected	1500	Not Detected
1,1-Dichloroethane	88	Not Detected	350	Not Detected
2-Butanone (Methyl Ethyl Ketone)	440	Not Detected	1300	Not Detected
cis-1,2-Dichloroethene	88	Not Detected	350	Not Detected
Tetrahydrofuran	440	Not Detected	1300	Not Detected
Chloroform	88	Not Detected	430	Not Detected
1,1,1-Trichloroethane	88	Not Detected	480	Not Detected
Cyclohexane	440	Not Detected	1500	Not Detected
Carbon Tetrachloride	88	Not Detected	550	Not Detected
Benzene	88	Not Detected	280	Not Detected
,2-Dichloroethane	88	Not Detected	350	Not Detected
leptane	440	Not Detected	1800	Not Detected
richloroethene	88	Not Detected	470	Not Detected
,2-Dichloropropane	88	Not Detected		Not Detected
,4-Dioxane	440	Not Detected	400	Not Detected
romodichloromethane	440	Not Detected	1600	Not Detected
s-1,3-Dichloropropene	88	Not Detected	2900	Not Detected
-Methyl-2-pentanone	440	Not Detected	400	Not Detected
oluene	88	Not Detected	1800	Not Detected
ans-1,3-Dichloropropene	88	Not Detected	330	Not Detected
1,2-Trichloroethane	88	Not Detected	400	Not Detected
etrachloroethene	88	Not Detected	480	Not Detected
Hexanone	440	Not Detected	590	Not Detected
ibromochloromethane	440	Not Detected	1800	Not Detected
2-Dibromoethane (EDB)	88	Not Detected	3700	Not Detected

Client Sample ID: AMB-113005

#### Lab ID#: 0512023A-04A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

							File Name:
on: 11/30/05	Date of Collection:			120822	7		
12/0/05 05:20 AM	Date of Analysis: 1			875			oll. Factor:
	Date of Analys			875			DII. Factor:

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	88	Not Detected	400	Not Detected
Ethyl Benzene	88	Not Detected	380	Not Detected
m,p-Xylene	88	Not Detected	380	Not Detected
o-Xylene	88	Not Detected	380	Not Detected
Styrene	88	Not Detected	370	Not Detected
Bromoform	440	Not Detected	4500	Not Detected
Cumene	440	Not Detected	2200	Not Detected
1,1,2,2-Tetrachloroethane	88	Not Detected	600	Not Detected
Propylbenzene	440	Not Detected	2200	Not Detected
4-Ethyltoluene	440	Not Detected	2200	
1,3,5-Trimethylbenzene	88	Not Detected	430	Not Detected Not Detected
1,2,4-Trimethylbenzene	88	Not Detected	430	
1,3-Dichlorobenzene	88	96	530	Not Detected
1,4-Dichlorobenzene	88	Not Detected	530	580
alpha-Chlorotoluene	88	Not Detected	450	Not Detected
1,2-Dichlorobenzene	88	Not Detected	530	Not Detected
1,2,4-Trichlorobenzene	440	Not Detected		Not Detected
Hexachlorobutadiene	440	Not Detected	3200 4700	Not Detected Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	
Toluene-d8	634	70-130
	97	70-130
4-Bromofluorobenzene	.90	70-130

#### Client Sample ID: Trip Blank

#### Lab ID#: 0512023A-05A

File Name: Dil. Factor:	7120908 1.00		Date of Collection Date of Analysis:	n: NA 12/9/05 03:44 PM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected 3	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0,20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.50	Not Detected		Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	1.8	Not Detected
Hexane	0.50	Not Detected	2,0	Not Detected
1,1-Dichloroethane	0.10	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	1.5	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.49	Not Detected
Cyclohexane	0.50	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	1.7	Not Detected
Benzene	0.10	Not Detected	0.63	Not Detected
,2-Dichloroethane	0.10	Not Detected	0.32	Not Detected
Heptane	0.50	Not Detected	0.40	Not Detected
richloroethene	0 10	Not Detected	2.0	Not Detected
,2-Dichloropropane	0.10		0.54	Not Detected
,4-Dioxane	0.50	Not Detected	0.46	Not Detected
Bromodichloromethane	0.50	Not Detected	1.8	Not Detected
is-1,3-Dichloropropene	0.10	Not Detected	3.4	Not Detected
-Methyl-2-pentanone	0.50	Not Detected	0.45	Not Detected
oluene	0.10	Not Detected	2.0	Not Detected
ans-1,3-Dichloropropene	0.10	Not Detected	0.38	Not Detected
.1,2-Trichloroethane	0.10	Not Detected	0.45	Not Detected
etrachloroethene	0.10	Not Detected	0.54	Not Detected
-Hexanone	0.50	Not Detected	0.68	Not Detected
ibromochloromethane		Not Detected	2.0	Not Detected
.2-Dibromoethane (EDB)	0.50	Not Detected	4.2	Not Detected
(LDB)	0.10	Not Detected	0.77	Not Detected

Client Sample ID: Trip Blank

#### Lab ID#: 0512023A-05A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:		71	20908		Date of Collection: NA
Dil. Factor:					Date of Collection; NA
on. I actor.			1.00		Date of Analysis: 12/9/05 03:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2,4	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
,2,4-Trichlorobenzene	0.50	Not Detected	3.7	
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected Not Detected
			4.4	, tot bottettet

#### Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	
Toluene-d8		70-130
	97	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: Lab Blank

#### Lab ID#: 0512023A-06A

File Name: Dil. Factor:	7120809 1.00		ate of Collection ate of Analysis:	: NA 12/8/05 04:07 PM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected		Not Detected
Carbon Disulfide	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	1.6	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	0.69	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	1.8	Not Detected
Hexane	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.10	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50		0.40	Not Detected
Chloroform	0.10	Not Detected	1,5	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.49	Not Detected
Cyclohexane	0.50	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	1.7	Not Detected
Benzene	0.10	Not Detected	0.63	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.32	Not Detected
Heptane	0.50	Not Detected	0.40	Not Detected
Frichloroethene		Not Detected	2.0	Not Detected
,2-Dichloropropane	0.10	Not Detected	0.54	Not Detected
.4-Dioxane	0.10	Not Detected	0.46	Not Detected
Bromodichloromethane	0.50	Not Detected	1,8	Not Detected
is-1,3-Dichloropropene	0.50	Not Detected	3.4	Not Detected
-Methyl-2-pentanone	0.10	Not Detected	0.45	Not Detected
oluene	0.50	Not Detected	2.0	Not Detected
rans-1,3-Dichloropropene	0.10	Not Detected	0.38	Not Detected
.1,2-Trichloroethane	0.10	Not Detected	0.45	Not Detected
etrachloroethene	0.10	Not Detected	0.54	Not Detected
-Hexanone	0.10	Not Detected	0.68	Not Detected
ibromochloromethane	0.50	Not Detected	2.0	Not Detected
	0.50	Not Detected	4.2	Not Detected
,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected

Client Sample ID: Lab Blank Lab ID#: 0512023A-06A

File Name: Dil. Factor:	7120809 1.00		Date of Collection: NA Date of Analysis: 12/8/05 04:07 Pt			
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)		
Chlorobenzene	0.10	Not Detected	0.46	Not Detected		
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected		
m,p-Xylene	0.10	Not Detected	0.43	Not Detected		
o-Xylene	0.10	Not Detected	0.43	Not Detected		
Styrene	0.10	Not Detected	0.42	Not Detected		
Bromoform	0.50	Not Detected	5.2	Not Detected		
Cumene	0.50	Not Detected	2.4	Not Detected		
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected		
Propylbenzene	0.50	Not Detected	2.4	Not Detected		
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected		
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49			
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected		
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected		
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected Not Detected		
alpha-Chlorotoluene	0.10	Not Detected	0.52			
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected		
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected		
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected		
Container Type: NA - Not Applicable		THE PRIVATE	9.9	Not Detected		
Surrogates		%Recovery		Method Limits		
.2-Dichloroethane-d4		97				
oluene-d8		97		70-130		
-Bromofluorobenzene		97		70-130 70-130		

Client Sample ID: Lab Blank

#### Lab ID#: 0512023A-06B

File Name: Dil. Factor;	7120907 1.00		Date of Collection Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt, Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	
Freon 11	0.10	Not Detected	0.56	Not Detected Not Detected
Ethanol	0.50	Not Detected	0.94	
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected u		Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected		Not Detected
Methyl tert-butyl ether	0.50	Not Detected	0.69	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	1.8	Not Detected
Hexane	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.10	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	the state of the s	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected Not Detected	1.5	Not Detected
1,1,1-Trichloroethane	0.10		0.49	Not Detected
Cyclohexane	0.50	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	1.7	Not Detected
Benzene	0.10	Not Detected	0.63	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.32	Not Detected
Heptane	0.50	Not Detected	0.40	Not Detected
richloroethene	0.10	Not Detected	2.0	Not Detected
,2-Dichloropropane		Not Detected	0.54	Not Detected
,4-Dioxane	0.10	Not Detected	0.46	Not Detected
Bromodichloromethane	0.50	Not Detected	1.8	Not Detected
is-1,3-Dichloropropene	0.50	Not Detected	3.4	Not Detected
-Methyl-2-pentanone	0.10	Not Detected	0.45	Not Detected
oluene	0.50	Not Detected	2.0	Not Detected
ans-1,3-Dichloropropene	0.10	Not Detected	0.38	Not Detected
.1,2-Trichloroethane	0.10	Not Detected	0.45	Not Detected
etrachloroethene	0.10	Not Detected	0.54	Not Detected
-Hexanone	0.10	Not Detected	0.68	Not Detected
ibromochloromethane	0.50	Not Detected	2.0	Not Detected
,2-Dibromoethane (EDB)	0.50	Not Detected	4.2	Not Detected
,2-Dioromoemane (EDB)	0.10	Not Detected	0.77	Not Detected

Client Sample ID: Lab Blank

#### Lab ID#: 0512023A-06B

File Name: Dil. Factor:	7120907 1.00		Date of Collection: Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0,10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected Not Detected
Container Type; NA - Not Applicab	le		0.0	Not Detected
Surrogates		%Recovery		Method Limits
,2-Dichloroethane-d4		96		
oluene-d8		96		70-130
-Bromofluorobenzene		97		70-130 70-130

Client Sample ID: CCV

#### Lab ID#: 0512023A-07A

File Name:		7420000		
Dil. Factor:		7120802		Date of Collection: NA
Dii. ( actor.		1.00		Date of Analysis: 12/8/05 10:02 AM

Compound	%Recovery
Freon 12	
Freon 114	100
Chloromethane	104
Vinyl Chloride	99
1,3-Butadiene	101
Bromomethane	98
Chloroethane	92
Freon 11	112
Ethanol	98
Freon 113	91
1,1-Dichloroethene	102
Acetone	104
2-Propanol	93
Carbon Disulfide	95
Methylene Chloride	100
Methyl tert-butyl ether	97
trans-1,2-Dichloroethene	105
Hexane	91
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	102
Tetrahydrofuran	108
Chloroform	97
1,1,1-Trichloroethane	100
Cyclohexane	100
Carbon Tetrachloride	105
Benzene	104
,2-Dichloroethane	93
Heptane	98
richloroethene	100
,2-Dichloropropane	104
,4-Dioxane	103
Bromodichloromethane	101
is-1,3-Dichloropropene	96
-Methyl-2-pentanone	.96
oluene	104
ans-1,3-Dichloropropene	100
1,2-Trichloroethane	95
etrachloroethene	100
Hexanone	101
ibromochloromethane	106
2-Dibromoethane (EDB)	100
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	106

Client Sample ID: CCV

#### Lab ID#: 0512023A-07A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:			7120802			
Dil. Factor:			15000			Date of Collection: NA
			1.00			Date of Analysis: 12/8/05 10:02 AM

Compound	%Recovery
Chlorobenzene	100
Ethyl Benzene	106
m,p-Xylene	
o-Xylene	110
Styrene	112
Bromoform	.98
Cumene	104
1,1,2,2-Tetrachloroethane	102
Propylbenzene	101
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	105
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	78
	90

## Container Type: NA - Not Applicable

%Recovery	Method
	Limits
	70-130
100	70-130
102	70-130
	97 100

#### Client Sample ID: CCV

#### Lab ID#: 0512023A-07B

File Name:			7	120902			E de la Elemente de la Company
Dil. Factor:							Date of Collection: NA
2.60 25.810				1.00			Date of Analysis: 12/9/05 10:04 AM

Compound	DE
Freon 12	%Recovery
Freon 114	101
Chloromethane	105
Vinyl Chloride	98
1,3-Butadiene	101
Bromomethane	98
Chloroethane	96
Freon 11	94
Ethanol	93
Freon 113	92
1,1-Dichloroethene	98
Acetone	102
2-Propanol	90
Carbon Disulfide	115
Methylene Chloride	97
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	101
Hexane	89
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	100
Tetrahydrofuran	104
Chloroform	93
1,1,1-Trichloroethane	97
Cyclohexane	97
Carbon Tetrachloride	102
Benzene	99
1,2-Dichloroethane	96
Heptane	97
Trichloroethene	100
1,2-Dichloropropane	108
1,4-Dioxane	104
Bromodichloromethane	103
cis-1,3-Dichloropropene	98
1-Methyl-2-pentanone	96
Toluene	105
rans-1,3-Dichloropropene	102
,1,2-Trichloroethane	92
etrachloroethene	100
-Hexanone	101
Dibromochloromethane	104
,2-Dibromoethane (EDB)	100
4-4-5	105

Client Sample ID: CCV Lab ID#: 0512023A-07B

File Name:			7	120902			
Dil. Factor:			•	70000			Date of Collection: NA
500 100 100 100 100 100 100 100 100 100				1.00			Date of Analysis: 12/9/05 10:04 AM

Compound Chlorobenzene	%Recovery
Ethyl Benzene	99
m,p-Xylene	105
o-Xylene	108
Styrene	111
Bromoform	98
Cumene	106
1,1,2,2-Tetrachloroethane	103
Propylbenzene	100
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	107
,3-Dichlorobenzene	114
,4-Dichlorobenzene	106
alpha-Chlorotoluene	108
,2-Dichlorobenzene	102
,2,4-Trichlorobenzene	106
lexachlorobutadiene	116
	106
Container Type: NA - Not Applicable	
	2000

Surrogates	%Recovery	Method
1,2-Dichloroethane-d4		Limits
Toluene-d8	92	70-130
	101	70-130
4-Bromofluorobenzene	103	70-130

#### Client Sample ID: LCS

#### Lab ID#: 0512023A-08A

File Name:		Service .		
Dil. Factor:		7120803		Date of Collection: NA
Dil. Factor:		1.00		Date of Analysis: 12/8/05 10:49 AM

Compound	%Recovery
Freen 114	90
Freon 114	90
Chloromethane Visual Chlorida	98
Vinyl Chloride	87
1,3-Butadiene	103
Bromomethane	82
Chloroethane	98
Freon 11	89
Ethanol	101
Freon 113	95
1,1-Dichloroethene	95
Acetone	
2-Propanol	100
Carbon Disulfide	108
Methylene Chloride	109
Methyl tert-butyl ether	90
rans-1,2-Dichloroethene	111
Hexane	97
1,1-Dichloroethane	111
2-Butanone (Methyl Ethyl Ketone)	98
sis-1,2-Dichloroethene	110
Tetrahydrofuran Tetrahydrofura	97
Chloroform	101
.1,1-Trichloroethane	96
Cyclohexane	91
Carbon Tetrachloride	110
denzene	87
,2-Dichloroethane	86
leptane	92
richloroethene	105
,2-Dichloropropane	93
4-Dioxane	97
romodichloromethane	102
s-1,3-Dichloropropene	101
Methyl-2-pentanone	103
bluene	104
ans-1,3-Dichloropropene	99
1,2-Trichloroethane	95
etrachloroethene	96
Hexanone	98
bromochloromethane	99
2-Dibromoethane (EDB)	101

Client Sample ID: LCS

#### Lab ID#: 0512023A-08A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:		7420000		
Dil. Factor:		7120803		Date of Collection: NA
om ructor.		1.00		Date of Analysis: 12/8/05 10:49 AM

Chlorehand	%Recovery
Chlorobenzene	94
Ethyl Benzene	103
m,p-Xylene	112
o-Xylene	
Styrene	107
Bromoform	
Cumene	99
1,1,2,2-Tetrachloroethane	87
Propylbenzene	95
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	111
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	71
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	62 Q
200 September 2 - 200 September 200 Septembe	81

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	
1,2-Dichloroethane-d4		Limits	
Toluene-d8 4-Bromofluorobenzene	102	70-130	
	101	70-130 70-130	
	101		

#### Client Sample ID: LCS

#### Lab ID#: 0512023A-08B

-48						7-4-47-41
File Name: Dil. Factor:			7120903			Date of Collection: NA
Dii. Factor.			1.00			Date of Analysis: 12/9/05 10:50 AM

Compound	%Recovery
Freon 12	
Freon 114	89
Chloromethane	91
Vinyl Chloride	.95
1,3-Butadiene	86
Bromomethane	101
Chloroethane	85
Freon 11	81
Ethanol	75
Freon 113	96
1,1-Dichloroethene	92
Acetone	92
2-Propanol	96
Carbon Disulfide	113
Methylene Chloride	104
Methyl tert-butyl ether	87
trans-1,2-Dichloroethene	103
Hexane	94
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	106
Tetrahydrofuran	93
Chloroform	95
1,1,1-Trichloroethane	91
Cyclohexane	85
Carbon Tetrachloride	103
Benzene	81
1,2-Dichloroethane	84
Heptane	90
Frichloroethene	103
,2-Dichloropropane	92
,4-Dioxane	93
Bromodichloromethane	100
is-1,3-Dichloropropene	99
-Methyl-2-pentanone	98
oluene	101
ans-1,3-Dichloropropene	97
.1,2-Trichloroethane	89
etrachloroethene	92
Hexanone	94
ibromochloromethane	93
2-Dibromoethane (EDB)	98
Charles and Charles (ARRA)	107

Client Sample ID: LCS Lab ID#: 0512023A-08B

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:		7120903			Date of Collection: NA
Dil. Factor:		1.00			Date of Analysis: 12/9/05 10:50 AM

Compound	%Recovery
Chlorobenzene	91
Ethyl Benzene	
m,p-Xylene	100
o-Xylene	107
Styrene	104
Bromoform	101
Cumene	99
1,1,2,2-Tetrachloroethane	84
Propylbenzene	93
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	109
	94
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	68 Q
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	94

#### Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

#### Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance 180 BLUE RAVINE ROAD, SUITE B with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related

FOLSOM, CA 95630-4719

Contact Compan Address Phone_	N-OF-CUSTODY Person YEMIA H  Y GEOMATRIX CO  DIM VEBSTER ST  T 10.663. 42.00  d by: (Signature)	ASHUMO FO NSULTAMS EM City CARLAN	nail X	ollection, handling	ng, or shipping	Project #_	o indicates agre im, demand, or a T. Hotline (800)	ction, of any kir 467-4922.	harmless, ad, related	Around Filme: Normal Rush	Press Date:	age $\frac{1}{\sqrt{2}}$ surized by $\frac{12}{\sqrt{2}}$ Surization $\frac{12}{\sqrt{2}}$	of 1. VFR. 0.2/0.5 Gas:
Lab I.	). Field Sample I.	D. (Location)	Can#	Date	Time		Yemia Has	HIMOTO FOR	27		1 100	ssure/Va	cuum
OLA	56-5-113	005		13005	12:00	To-15			- 1	-265"	Final	Receipt	Final (psi)
02A	56-6-113	005		11-30-00	13:06	TO-15		DETECTION		7-30		654	
03A	56-4-113	005		1130-05	14:12	10-15	( in	DETECTO	1 L.MITS)	-25"	-4"	7.54	7
04A	SAG AMB-1	13005		11-30-05	14:00	To-15	1	74	(1)	-31	-7"	3001/4	2
05A	TRIP BLAN	ς				TO-15	(lev	n Detack	en Limits)			7.0% 4.8ps/	74.8
								×					
Dan	1 Word	ate/Time (G: 24 , U-36. ate/Time	05	Sudi	(signature)  SUCAT (signature)	212/1/05	1030	Notes:	Tuo UPS	5 Skifi #2 J 18	MENTS 3 079	8652	
Relinquis	hed by: (signature) Da	ate/Time		Received by:	(signature)	Date/Time	<u>×</u>						=
Lab	Shipper Name	Air	Bill #		Temp (°C	()	Condition	Custom	er Seals Int	act?	Work	Order #	
Use Only	FEDEX	J183 078 8	365 2	H.E.	T-T	0	bood	Yes	4	_		202	3



## Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- · Work order Summary:
- Laboratory Narrative;
- · Results; and
- Chain of Custody (copy).

AN ENVIRONMENTAL ANALYTICAL LABORATORY

#### WORK ORDER #: 0512572A

Work Order Summary

CLIENT:

Ms. Yemia Hashimoto

BILL TO:

Ms. Yemia Hashimoto

Geomatrix Consultants 2101 Webster Street, 12th Floor

Oakland, CA 94612

Geomatrix Consultants

2101 Webster Street, 12th Floor

Oakland, CA 94612

PHONE:

510-663-4100

P.O. #

9328

FAX:

510-663-4141

PROJECT # 9328.14 Formir Drive + Park

DATE RECEIVED: DATE COMPLETED: 12/27/2005 01/10/2006

CONTACT: Kyle Vagadori

<b>FRACTION#</b>	NAME
01A(cancelled)	8-AMB-1-122005
02A	8-AMB-2-122005
03A	SG-2-122005
04A	SG-3-122005
05A	AMB-3-122005
06A	AMB-4-122005
07A	SG-5-122005
08A	SG-1-122005
09A	Lab Blank
10A	CCV
11A	LCS

The same of the sa	RECEIPT
TEST	VAC./PRES.
Modified TO-15	6.0 "Hg
Modified TO-15	4.0 "Hg
Modified TO-15	3.5 "Hg
Modified TO-15	10.5 "Hg
Modified TO-15	8.0 "Hg
Modified TO-15	8.0 "Hg
Modified TO-15	12.5 "Hg
Modified TO-15	10.5 "Hg
Modified TO-15	NA
Modified TO-15	NA
Modified TO-15	NA

CERTIFIED BY:

01/10/06 DATE:

Laboratory Director

Certification numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/05, Expiration date: 06/30/06 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

#### LABORATORY NARRATIVE Modified TO-15

#### Geomatrix Consultants Workorder# 0512572A

Eight 6 Liter Summa Canister (100% Certified) samples were received on December 27, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor, Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	+- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	= 30% Difference with four allowed out up to </=40%.;<br flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

#### **Receiving Notes**

Sample identifications on the sample tags were not unique for 01A and 02A. The time of collection was used to help identify to assure uniqueness.

#### **Analytical Notes**

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The reported LCS for each daily batch has been derived from more than one analytical file.

Sample 8-AMB-1-122005 was compromised during pressurization. Reporting was not possible for this sample.

#### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not

#### performed).

- J Estimated value.
- E Exceeds instrument calibration range.
- S Saturated peak.
- Q Exceeds quality control limits.
  - U Compound analyzed for but not detected above the reporting limit.
  - UJ- Non-detected compound associated with low bias in the CCV
  - N The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- rl-File was requantified for the purpose of reissue

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: 8-AMB-2-122005

Lab ID#: 0512572A-02A

Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
0.16	0.29	0.77	1.4
0.16	0.67		1.4
0.16	0.24		1.3
0.78	2.4		4.6
0.16	0.17	0.61	0.67
0.78	7.5	1.8	18
0.16	0.32		1.0
0.16	0.18	3500 500	0.68
0.16	0.44	1.0	3.0
	(ppbv)  0.16  0.16  0.16  0.78  0.16  0.78  0.16  0.78  0.16	(ppbv)         (ppbv)           0.16         0.29           0.16         0.67           0.16         0.24           0.78         2.4           0.16         0.17           0.78         7.5           0.16         0.32           0.16         0.18	(ppbv)         (ppbv)         (uG/m3)           0.16         0.29         0.77           0.16         0.67         0.32           0.16         0.24         0.87           0.78         2.4         1.5           0.16         0.17         0.61           0.78         7.5         1.8           0.16         0.32         0.50           0.16         0.18         0.58

Client Sample 1D: SG-2-122005

Lab ID#: 0512572A-03A

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.26	0.75	1.3
Chloromethane	0.15	0.48	0.31	
Freon 11	0.15	0.24	0.85	1.0
Ethanol	0.76	10	1.4	1.3
1,1-Dichloroethene	0.15	0.19	0.60	19 0.75
Acetone	0.76	18	1.8	
2-Propanol	0.76	32	1.9	42
Methylene Chloride	0.30	0.44	1.0	78
Benzene	0.15	0.35	0.48	1,5
Toluene	0.15	1.5	0.57	1.1
Tetrachloroethene	0.15	1.4	1.0	5.8
Ethyl Benzene	0.15	0.28	0.66	9.7
m,p-Xylene	0.15	0.42	0.66	1.2 1.8

Client Sample 1D: SG-3-122005

Lab 1D#: 0512572A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.21	0.29	1.0	1.4
Chloromethane	0.21	0.27	0.42	0.55
Ethanol	1.0	1.4	1.9	
Acetone	1.0	6.6	2.4	2.7
Carbon Disulfide	1.0	1.2	3.2	16 3.7
Hexane	1.0	4.5	3.6	
2-Butanone (Methyl Ethyl Ketone)	1.0	1.8	3.0	16 5.4

#### Client Sample ID: SG-3-122005

0.21	3.8	0.78	14
0.21	0.99	714.7	6.7
0.21	0.26		1.1
	0.21	0.21 0.99	0.21 0.99 1.4

#### Client Sample ID: AMB-3-122005

Lab ID#: 0512572A-05A

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.33	0.90	1.6
Chloromethane	0.18	0.63	0.38	1.3
Freon 11	0.18	0.24	1.0	1.4
Ethanol	0.92	2.6	1.7	5.0
Acetone	0.92	1.6	2.2	3,8
Benzene	0.18	0.24	0.58	0.77
Toluene	0.18	0.64	0.69	2.4

#### Client Sample ID: AMB-4-122005

Lab ID#: 0512572A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloromethane	0.18	0.56	0.38	1.2
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.92	1.5	1.7	2.9
Acetone	0.92	2.5	2.2	5.9
Benzene	0.18	0.19	0.58	0.61
Toluene	0.18	0.34	0.69	13

#### Client Sample 1D: SG-5-122005

Lab ID#: 0512572A-07A

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.23	0.28	1,1	1.4
Ethanol	1.2	3.7	2.2	7.0
Acetone	1.2	2.4	2.7	5.8
Chloroform	0.23	0.63	1.1	3.1
Benzene	0.23	0.24	0.73	0.76
Toluene	0.23	2.6	0.87	9.6
Tetrachloroethene	0.23	0.36	1.6	2.4
m,p-Xylene	0.23	0.47	1.0	2.0

#### Client Sample ID: SG-1-122005

Lab ID#: 0512572A-08A

Compound	Rot. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Freon 12	0.21	0.29	1.0	1.4

## Client Sample ID; SG-1-122005

Lab ID#: 0512572A-08A					
Ethanol	1.0	3.4	1.9	6.5	
Acetone	1.0	4.1	2.4	9.7	
Methylene Chloride	0.41	0.40 J	1.4	1.4	
Hexane	1.0	16	3.6	56	
Chloroform	0.21	1,9	1.0	9.2	
Cyclohexane	1.0	1.2	3.5	4.0	0
Toluene	0.21	6.1	0.78	23	
Ethyl Benzene	0.21	0.25	0.89	1.1	
m,p-Xylene	0.21	0.29	0.89	1.2	

### Client Sample ID: 8-AMB-2-122005

#### Lab ID#: 0512572A-02A

File Name: Dil. Factor:	g010919 1.55		Date of Collection: 12/20/05 Date of Analysis: 1/10/06 09:31 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	0.16	0.29	0.77	1,4	
Freon 114	0.16	Not Detected	1.1	Not Detected	
Chloromethane	0.16	0.67	0.32	1.4	
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected	
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected	
Bromomethane	0.16	Not Detected	0.60		
Chloroethane	0.16	Not Detected	0.41	Not Detected	
Freon 11	0.16	0.24	0.87	Not Detected	
Ethanol	0.78	2.4	1.5	1.3	
Freon 113	0.16	Not Detected	1.2	4.6	
1,1-Dichloroethene	0.16	0.17	0.61	Not Detected	
Acetone	0.78	7.5	1.8	0.67	
2-Propanol	0.78	Not Detected	1.9	18	
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected	
Methylene Chloride	0.31	Not Detected	1.1	Not Detected	
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected	
trans-1,2-Dichloroethene	0.78	Not Detected		Not Detected	
Hexane	0.78	Not Detected	3.1	Not Detected	
1,1-Dichloroethane	0.16	Not Detected	2.7	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	0.78	Not Detected	0.63	Not Detected	
cis-1,2-Dichloroethene	0.16	Not Detected	2.3	Not Detected	
Tetrahydrofuran	0.78	Not Detected	0,61	Not Detected	
Chloroform	0.16	Not Detected	2.3	Not Detected	
1,1,1-Trichloroethane	0.16	Not Detected	0.76	Not Detected	
Cyclohexane	0.78	Not Detected	0.84	Not Detected	
Carbon Tetrachloride	0.16	Not Detected	2.7	Not Detected	
Benzene	0.16	0.32	0.98	Not Detected	
1,2-Dichloroethane	0.16		0.50	1.0	
Heptane	0.78	Not Detected	0.63	Not Detected	
Trichloroethene	0.16	Not Detected Not Detected	3.2	Not Detected	
1,2-Dichloropropane	0.16		0.83	Not Detected	
,4-Dioxane	0.78	Not Detected	0.72	Not Detected	
Bromodichloromethane	0.78	Not Detected	2.8	Not Detected	
sis-1,3-Dichloropropene	0.78	Not Detected	5.2	Not Detected	
I-Methyl-2-pentanone	0.78	Not Detected	0.70	Not Detected	
oluene		Not Detected	3.2	Not Detected	
rans-1,3-Dichloropropene	0.16	0.18	0.58	0.68	
,1,2-Trichloroethane	0.16	Not Detected	0.70	Not Detected	
etrachloroethene	0.16	Not Detected	0.84	Not Detected	
-Hexanone	0.16	0.44	1.0	3.0	
Dibromochloromethane	0.78	Not Detected	3.2	Not Detected	
,2-Dibromoethane (EDB)	0.78	Not Detected	6.6	Not Detected	
(LDD)	0.16	Not Detected	1.2	Not Detected	

Client Sample ID: 8-AMB-2-122005

Lab ID#: 0512572A-02A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	12238	
#51.77 TF	g010919	Date of Collection: 12/20/05
Dil. Factor:	1.55	Date of Analysis: 1/10/06 09:31 AM

Compound	Rot, Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	Not Detected	0.67	Not Detected
o-Xylene	0,16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected
Bromoform	0.78	Not Detected	8.0	Not Detected
Cumene	0.78	Not Detected	3.8	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.78	Not Detected	3.8	
4-Ethyltoluene	0.78	Not Detected	3.8	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.76	Not Detected Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.76	
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.80	Not Detected
,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
,2,4-Trichlorobenzene	0.78	Not Detected		Not Detected
Hexachlorobutadiene	0.78	Not Detected	5.8 8.3	Not Detected Not Detected
				uoutou

## Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	
Toluene-d8		70-130
	97	70-130
4-Bromofluorobenzene	79	70-130

### Client Sample ID: SG-2-122005

#### Lab ID#: 0512572A-03A

File Name: Dil. Factor:	g010921 1.52		Date of Collection: 12/20/05 Date of Analysis: 1/10/06 10:32 AM		
Compound	Rot, Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	0.15	0.26	0.75	1.3	
Freon 114	0.15	Not Detected	1.1	Not Detected	
Chloromethane	0.15	0.48	0.31	1.0	
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected	
1,3-Butadiene	0.76	Not Detected	1.7	Not Detected	
Bromomethane	0.15	Not Detected	0.59	Not Detected	
Chloroethane	0.15	Not Detected	0.40	Not Detected	
Freon 11	0.15	0.24	0.85	1.3	
Ethanol	0.76	10	1.4	19	
Freon 113	0.15	Not Detected	1.2	Not Detected	
1,1-Dichloroethene	0.15	0.19	0.60	0.75	
Acetone	0.76	18	1.8	42	
2-Propanol	0.76	32	1.9		
Carbon Disulfide	0.76	Not Detected	2.4	78 Not Detected	
Methylene Chloride	0.30	0.44	1.0		
Methyl tert-butyl ether	0.76	Not Detected	2.7	1.5	
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected	
Hexane	0.76	Not Detected	2.7	Not Detected	
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected	
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected	
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected	
Chloraform	0.15	Not Detected		Not Detected	
1,1,1-Trichloroethane	0.15	Not Detected	0.74	Not Detected	
Cyclohexane	0.76	Not Detected	0.83 2.6	Not Detected	
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected	
Benzene	0.15	0.35	0.48	Not Detected	
.2-Dichloroethane	0.15	Not Detected	0.62	1.1	
Heptane	0.76	Not Detected UT	3.1	Not Detected	
richloroethene	0.15	Not Detected	0.82	Not Detected	
,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected	
,4-Dioxane	0.76	Not Detected		Not Detected	
fromodichloromethane	0.76	Not Detected	2.7	Not Detected	
is-1,3-Dichloropropene	0.15	Not Detected	5.1	Not Detected	
-Methyl-2-pentanone	0.76	Not Detected	0.69	Not Detected	
oluene	0.15	1.5	3.1	Not Detected	
ans-1,3-Dichloropropene	0.15		0.57	5.8	
1,2-Trichloroethane	0.15	Not Detected	0.69	Not Detected	
etrachloroethene	0.15	Not Detected 1.4	0.83	Not Detected	
-Hexanone	0.76	Not Detected	1.0	9.7	
ibromochloromethane	0.76	Not Detected	3.1	Not Detected	
,2-Dibromoethane (EDB)	0.15	Not Detected	6.5 1.2	Not Detected Not Detected	

Client Sample ID: SG-2-122005

#### Lab ID#: 0512572A-03A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:					
		g010921			Date of Collection: 12/20/05
Dil. Factor:		1.52			Date of Analysis: 1/10/06 10:32 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.28	0.66	1.2
m,p-Xylene	0.15	0.42	0.66	1.8
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.76	Not Detected	7.8	Not Detected
Cumene	0.76	Not Detected	3.7	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.76	Not Detected	3.7	Not Detected
4-Ethyltoluene	0.76	Not Detected	3.7	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
,2,4-Trichlorobenzene	0.76	Not Detected UJ	5.6	Not Detected
dexachlorobutadiene	0.76	Not Detected	8.1	Not Detected Not Detected

## Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	
Toluene-d8		70-130
	96	70-130
4-Bromofluorobenzene	98	70-130

### Client Sample ID: SG-3-122005

#### Lab ID#: 0512572A-04A

File Name: Dil. Factor:	g010920 2.06		Date of Collection: 12/20/05 Date of Analysis: 1/10/06 10:02 AM		
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	0.21	0.29	1.0	1.4	
Freon 114	0.21	Not Detected	1.4	Not Detected	
Chloromethane	0.21	0.27	0.42	0.55	
Vinyl Chloride	0.21	Not Detected	0.53	Not Detected	
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected	
Bromomethane	0.21	Not Detected	0.80	Not Detected	
Chloroethane	0.21	Not Detected	0.54	Not Detected	
Freon 11	0.21	Not Detected	1.2		
Ethanol	1.0	1.4	1.9	Not Detected	
Freon 113	0.21	Not Detected	1.6	2.7	
1,1-Dichloroethene	0.21	Not Detected	0.82	Not Detected	
Acetone	1.0	6.6	2.4	Not Detected	
2-Propanol	1.0	Not Detected	2.5	16	
Carbon Disulfide	1.0	1.2	3.2	Not Detected	
Methylene Chloride	0.41	Not Detected	1,4	3.7	
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected	
trans-1,2-Dichloroethene	1.0	Not Detected		Not Detected	
Hexane	1.0	4.5	4.1	Not Detected	
1,1-Dichloroethane	0.21	Not Detected	3.6	16	
2-Butanone (Methyl Ethyl Ketone)	1.0	1.8	0.83	Not Detected	
cis-1,2-Dichloroethene	0.21	Not Detected	3.0	5,4	
Tetrahydrofuran	1.0	Not Detected	0.82	Not Detected	
Chloroform	0.21	Not Detected	3.0	Not Detected	
1,1,1-Trichloroethane	0.21	Not Detected	1.0	Not Detected	
Cyclohexane	1.0	Not Detected	1.1	Not Detected	
Carbon Tetrachloride	0.21	Not Detected	3.5	Not Detected	
Benzene	0.21	Not Detected	1.3	Not Detected	
1,2-Dichloroethane	0.21	Not Detected	0.66	Not Detected	
Heptane	1.0	Not Detected UJ	0.83	Not Detected	
Trichloroethene	0.21	Not Detected NO		Not Detected	
1,2-Dichloropropane	0.21		1.1	Not Detected	
1,4-Dioxane	1.0	Not Detected	0.95	Not Detected	
Bromodichloromethane	1.0	Not Detected	3.7	Not Detected	
cis-1,3-Dichloropropene	0.21	Not Detected	6.9	Not Detected	
I-Methyl-2-pentanone	1.0	Not Detected	0.93	Not Detected	
oluene	0.21	Not Detected	4.2	Not Detected	
rans-1,3-Dichloropropene	0.21	3.8	0.78	14	
,1,2-Trichloroethane	0.21	Not Detected	0.93	Not Detected	
etrachloroethene	0.21	Not Detected	1.1	Not Detected	
-Hexanone	1.0	0.99	1.4	6.7	
Dibromochloromethane	1.0	Not Detected	4.2	Not Detected	
,2-Dibromoethane (EDB)		Not Detected	8.8	Not Detected	
The state of the s	0.21	Not Detected	1.6	Not Detected	

Client Sample ID: SG-3-122005 Lab ID#: 0512572A-04A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Ella Name.			7,000				
File Name:			g010920			Date of Collection: 12/20/05	
Dil. Factor:			2.06			Date of Analysis: 1/10/06 10:02	AM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.21	Not Detected	0.95	Not Detected
Ethyl Benzene	0.21	Not Detected	0.89	Not Detected
m,p-Xylene	0.21	0.26	0.89	1.1
o-Xylene	0.21	Not Detected	0.89	Not Detected
Styrene	0.21	Not Detected	0.88	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	0.21	Not Detected	1.4	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
1,4-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	
,2-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
,2,4-Trichlorobenzene	1.0	Not Detected U.S	7.6	Not Detected
dexachlorobutadiene	1.0	Not Detected	11	Not Detected Not Detected

### Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	
Toluene-d8		70-130
4-Bromofluorobenzene	91	70-130
+-bromonuorobenzene	97	70-130

Client Sample ID: AMB-3-122005

Lab ID#: 0512572A-05A

File Name: Dil. Factor:	g010922 1.83		Date of Collection: Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.33	0.90	1.6
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.18	0.63	0.38	1.3
Vinyl Chloride	0.18	Not Detected	0.47	Not Detected
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Bromomethane	0.18	Not Detected	0.71	Not Detected
Chloroethane	0.18	Not Detected	0.48	Not Detected
Freon 11	0.18	0.24	1.0	1.4
Ethanol	0.92	2.6	1.7	5.0
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	1.6	2.2	3.8
2-Propanol	0.92	Not Detected	2.2	Not Detected
Carbon Disulfide	0.92	Not Detected	2.8	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.92	Not Detected	3.3	Not Detected
trans-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Hexane	0.92	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Cyclohexane	0.92	Not Detected	3.1	Not Detected Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.2	Not Detected
Benzene	0.18	0.24	0.58	
1,2-Dichloroethane	0.18	Not Detected	0.74	0.77 Not Detected
Heptane	0.92	Not Detected US	3.7	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
,2-Dichloropropane	0.18	Not Detected	0.84	
.4-Dioxane	0.92	Not Detected	3.3	Not Detected
Bromodichloromethane	0.92	Not Detected	6.1	Not Detected
is-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
-Methyl-2-pentanone	0.92	Not Detected	3.7	Not Detected
oluene	0.18	0.64	0.69	Not Detected
rans-1,3-Dichloropropene	0.18	Not Detected	0.83	2.4
,1,2-Trichloroethane	0.18	Not Detected	1.0	Not Detected
etrachloroethene	0.18	Not Detected	1.2	Not Detected
-Hexanone	0.92	Not Detected	3.7	Not Detected
Dibromochloromethane	0.92	Not Detected	7.8	Not Detected
,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected Not Detected

Client Sample ID: AMB-3-122005

Lab ID#: 0512572A-05A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:				
		g010922		Date of Collection: 12/20/05
Dil. Factor:		1.83		Date of Analysis: 1/10/06 11:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.92	Not Detected	9.4	Not Detected
Cumene	0.92	Not Detected	4.5	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.92	Not Detected	4.5	Not Detected
4-Ethyltoluene	0.92	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected UJ	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected Not Detected

### Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	
Toluene-d8		70-130
	98	70-130
4-Bromofluorobenzene	80	70-130

Client Sample ID: AMB-4-122005

#### Lab ID#: 0512572A-06A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	g010918 1.83		Date of Collection: Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt, Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	Not Detected	0.90	Not Detected
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.18	0.56	0.38	1.2
Vinyl Chloride	0.18	Not Detected	0.47	Not Detected
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Bromomethane	0.18	Not Detected	0.71	Not Detected
Chloroethane	0.18	Not Detected	0.48	Not Detected
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.92	1.5	1.7	2.9
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	2.5	2.2	5.9
2-Propanol	0.92	Not Detected	2.2	Not Detected
Carbon Disulfide	0.92	Not Detected	2.8	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.92	Not Detected	3.3	Not Detected
rans-1,2-Dichloroethene	0.92	Not Detected	3.6	
Hexane	0.92	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Cyclohexane	0.92	Not Detected	3.1	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.2	Not Detected
Benzene	0.18	0.19	0.58	Not Detected
,2-Dichloroethane	0.18	Not Detected	0.74	0.61
leptane	0.92	Not Detected IAT		Not Detected
richloroethene	0.18	Not Detected	0.98	Not Detected
,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
.4-Dioxane	0.92	Not Detected		Not Detected
romodichloromethane	0.92	Not Detected	3.3	Not Detected
is-1,3-Dichloropropene	0.18	Not Detected	6.1	Not Detected
-Methyl-2-pentanone	0.92	Not Detected	0.83	Not Detected
oluene	0.18	0.34	3.7	Not Detected
ans-1,3-Dichloropropene	0.18	Not Detected	0.69	1.3
1,2-Trichloroethane	0.18	Not Detected	0.83	Not Detected
etrachloroethene	0.18	Not Detected	1.0	Not Detected
-Hexanone	0.92	Not Detected	1.2	Not Detected
ibromochloromethane	0.92	Not Detected	3.7	Not Detected
,2-Dibromoethane (EDB)	0.18	Not Detected	7.8	Not Detected
The state of the s	71.75	Not Detected	1.4	Not Detected

Client Sample ID: AMB-4-122005

#### Lab ID#: 0512572A-06A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

F11.57.84			
File Name:		g010918	Date of Collection: 12/20/05
Dil. Factor:	<u> </u>	1.83	Date of Analysis: 1/9/06 10:32 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.92	Not Detected	9.4	Not Detected
Cumene	0.92	Not Detected	4.5	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.92	Not Detected	4.5	Not Detected
4-Ethyltoluene	0.92	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.95	
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected UJ	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected Not Detected

### Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	
Toluene-d8	92	70-130
4-Bromofluorobenzene		70-130
	80	70-130

Client Sample ID: SG-5-122005

#### Lab ID#: 0512572A-07A

File Name: Dil. Factor:	g010917 2.30		Date of Collection: Date of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.23	0.28	1.1	1.4
Freon 114	0.23	Not Detected	1.6	Not Detected
Chloromethane	0.23	Not Detected	0.47	
Vinyl Chloride	0.23	Not Detected	0.59	Not Detected
1,3-Butadiene	1.2	Not Detected	2.5	Not Detected Not Detected
Bromomethane	0.23	Not Detected	0.89	1 895.04
Chloroethane	0.23	Not Detected	0.61	Not Detected
Freon 11	0.23	Not Detected		Not Detected
Ethanol	1.2	3.7	1.3	Not Detected
Freon 113	0.23	Not Detected	2.2	7.0
1,1-Dichloroethene	0.23	Not Detected	1.8	Not Detected
Acetone	1.2	2.4	0.91	Not Detected
2-Propanol	1.2	Not Detected	2.7	5.8
Carbon Disulfide	1.2	Not Detected	2.8	Not Detected
Methylene Chloride	0.46		3.6	Not Detected
Methyl tert-butyl ether		Not Detected	1.6	Not Detected
rans-1,2-Dichloroethene	1.2	Not Detected	4.1	Not Detected
Hexane	1.2	Not Detected	4.6	Not Detected
I,1-Dichloroethane	1.2	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.23	Not Detected	0.93	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	3.4	Not Detected
Fetrahydrofuran	0.23	Not Detected	0.91	Not Detected
Chloroform	1.2	Not Detected	3.4	Not Detected
	0.23	0.63	1.1	3.1
1,1,1-Trichloroethane	0.23	Not Detected	1.2	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	0.23	Not Detected	1.4	Not Detected
Benzene	0.23	0.24	0.73	0.76
,2-Dichloroethane	0.23	Not Detected	0.93	Not Detected
leptane	1.2	Not Detected UJ	4.7	Not Detected
richloroethene	0,23	Not Detected	1.2	Not Detected
,2-Dichloropropane	0.23	Not Detected	1.1	Not Detected
,4-Dioxane	1.2	Not Detected	4.1	Not Detected
romodichloromethane	1.2	Not Detected	7.7	Not Detected
is-1,3-Dichloropropene	0.23	Not Detected	1.0	Not Detected
-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
oluene	0.23	2.6	0.87	9.6
ans-1,3-Dichloropropene	0.23	Not Detected	1.0	Not Detected
1,2-Trichloroethane	0.23	Not Detected	1.2	Not Detected
etrachloroethene	0.23	0.36	1.6	2.4
-Hexanone	1.2	Not Detected	4.7	Not Detected
ibromochloromethane	1.2	Not Detected	9.8	Not Detected
,2-Dibromoethane (EDB)	0.23	Not Detected	1.8	Not Detected

Client Sample ID: SG-5-122005 Lab ID#: 0512572A-07A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

The same of the sa						
File Name:			g010917			Date of Collection: 12/20/05
Dil. Factor:			0.00			
		_	2.30			Date of Analysis: 1/9/06 10:07 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.23	Not Detected	1.0	Not Detected
Ethyl Benzene	0.23	Not Detected	1.0	Not Detected
m,p-Xylene	0.23	0.47	1.0	2.0
o-Xylene	0.23	Not Detected	1.0	Not Detected
Styrene	0.23	Not Detected	0.98	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	0.23	Not Detected	1.6	Not Detected
Propylbenzene	1.2	Not Detected	5.6	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	0.23	Not Detected	1,1	Not Detected
1,2,4-Trimethylbenzene	0.23	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
1,4-Dichlorobenzene	0.23	Not Detected	1.4	Not Detected
alpha-Chlorotoluene	0.23	Not Detected	1.2	Not Detected
1,2-Dichlorobenzene	0.23	Not Detected	1.4	
1,2,4-Trichlorobenzene	1.2	Not Detected U.J	8.5	Not Detected
Hexachlorobutadiene	1.2	Not Detected	12	Not Detected Not Detected

## Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits	
1,2-Dichloroethane-d4	115		
Toluene-d8		70-130	
4-Bromofluorobenzene	100	70-130	
4-Bromondorobenzene	98	70-130	

Client Sample ID: SG-1-122005 Lab ID#: 0512572A-08A

File Name:				
Dil. Factor:		g010916		Date of Collection: 12/20/05
Dil. ractor:		2.06		Date of Analysis: 1/9/06 09:27 PM

Rot. Limit	Amount	Rpt. Limit	
(ppbv)	(ppbv)	(uG/m3)	Amount (uG/m3)
0.21	0.29	1.0	1.4
0.21	Not Detected		Not Detected
0.21	Not Detected		Not Detected
0.21			Not Detected
1.0			Not Detected
0.21			Not Detected
0.21			Not Detected
0.21			
1.0			Not Detected 6.5
0.21			Not Detected
0.21	The second second		
1.0	and the second s		Not Detected 9.7
1.0			Not Detected
1.0			Not Detected
0.41			1.4
1.0			Not Detected
			Not Detected
			56
			Not Detected
			9.2
	and the second s		Not Detected
0.21			4.0
0.21			Not Detected
0.21		40.00	Not Detected
1.0			Not Detected
0.21			Not Detected
			23
			Not Detected
			Not Detected Not Detected
	0.21 0.21 1.0 0.21 0.21 1.0 0.21 1.0 0.21 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21 1.0 0.21	0.21 Not Detected 0.21 Not Detected 1.0 Not Detected 1.0 Not Detected 0.21 Not Detected 1.0 3.4 0.21 Not Detected 1.0 4.1 1.0 Not Detected	0.21 Not Detected 0.42 0.21 Not Detected 0.42 0.21 Not Detected 0.53 1.0 Not Detected 0.53 1.0 Not Detected 0.80 0.21 Not Detected 0.54 0.21 Not Detected 0.54 0.21 Not Detected 1.2 1.0 3.4 1.9 0.21 Not Detected 1.6 0.21 Not Detected 0.82 1.0 4.1 2.4 1.0 Not Detected 2.5 1.0 Not Detected 3.2 0.41 0.40 J 1.4 1.0 Not Detected 3.7 1.0 Not Detected 3.7 1.0 Not Detected 3.7 1.0 Not Detected 3.6 0.21 Not Detected 3.7 1.0 Not Detected 3.0 0.21 Not Detected 1.1 1.0 1.2 3.5 0.21 Not Detected 1.3 0.21 Not Detected 0.83 1.0 Not Detected 0.83 1.0 Not Detected 1.1 1.0 1.2 3.5 0.21 Not Detected 0.83 1.0 Not Detected 0.83 1.0 Not Detected 0.83 1.0 Not Detected 0.83 1.0 Not Detected 0.95 1.0 Not Detected 0.95 1.0 Not Detected 0.95 1.0 Not Detected 0.93 0.21 Not Detected 1.1 0.21 Not Detected 1.1 0.21 Not Detected 1.1 0.21 Not Detected 1.1 0.21 Not Detected 0.93 0.21 Not Detected 1.1 0.21 Not Detected 1.1 0.21 Not Detected 1.1 0.21 Not Detected 1.1 0.21 Not Detected 0.93 0.21 Not Detected 1.1

Client Sample ID: SG-1-122005

#### Lab ID#: 0512572A-08A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g010916		Data of Calley (Calley Calley
Dil. Factor:	2.06		Date of Collection: 12/20/05
	2.00		Date of Analysis: 1/9/06 09:27 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.21	Not Detected	0.95	Not Detected
Ethyl Benzene	0.21	0.25	0.89	1.1
m,p-Xylene	0.21	0.29	0.89	1.2
o-Xylene	0.21	Not Detected	0.89	Not Detected
Styrene	0.21	Not Detected	0.88	Not Detected
Bromoform	1.0	Not Detected	1.1	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	0.21	Not Detected	1.4	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
1,4-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.21	Not Detected	1.2	
1,2,4-Trichlorobenzene	1.0	Not Detected U.J	7.6	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected Not Detected

#### J = Estimated value.

## Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	111
Toluene-d8		70-130
4-Bromofluorobenzene	.91	70-130
4-biomondolopenzene	90	70-130

Client Sample ID: Lab Blank Lab ID#: 0512572A-09A

File Name: Dil. Factor:	g010915 1.00		Date of Collection: Date of Analysis:	
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0,50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
rans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	1 - 2 - 2 - 1 - 1 - 2 - 2 - 2 - 2 - 2 -
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
leptane	0.50	Not Detectedu 5	2.0	Not Detected
richloroethene	0.10	Not Detected	0.54	Not Detected
,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
,4-Dioxane	0.50	Not Detected	1.8	
romodichloromethane	0.50	Not Detected	3.4	Not Detected
is-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
oluene	0.10	Not Detected	0.38	Not Detected
ans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
etrachloroethene	0.10	Not Detected	0.68	Not Detected
-Hexanone	0.50	Not Detected	2.0	Not Detected
ibromochloromethane	0.50	Not Detected	4.2	Not Detected
,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected Not Detected
			251 /1	Not beledied

Client Sample ID: Lab Blank Lab ID#: 0512572A-09A

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

CHA Daniel		-			
File Name:		g010915			Date of Collection: NA
Dil. Factor:		4.00			
7		1.00			Date of Analysis: 1/9/06 08:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
,2,4-Trichlorobenzene	0.50	Not Detected UJ	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected Not Detected

#### Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	
Toluene-d8		70-130
	93	70-130
4-Bromofluorobenzene	81	70-130

Client Sample ID: CCV Lab ID#: 0512572A-10A

File Name:					LSCAN
7.15L "T		g010910			Date of Collection: NA
Dil. Factor:		1.00			Date of Analysis: 1/9/06 04:47 PM

Compound	%Recovery
Freon 12	112
Freon 114	104
Chloromethane	118
Vinyl Chloride	109
1,3-Butadiene	92
Bromomethane	108
Chloroethane	
Freon 11	96
Ethanol	96
Freon 113	89
1,1-Dichloroethene	102 88
Acetone	
2-Propanol	89
Carbon Disulfide	88
Methylene Chloride	104
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	72
Hexane	86
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	100
Tetrahydrofuran	89
Chloroform	103
1,1,1-Trichloroethane	96
Cyclohexane	95
Carbon Tetrachloride	97
Benzene	101
1,2-Dichloroethane	123
Heptane 🐷	118
Frichloroethene	143 Q
,2-Dichloropropane	112
,4-Dioxane	120
Bromodichloromethane	106
is-1,3-Dichloropropene	109
-Methyl-2-pentanone	90
oluene	124
ans-1,3-Dichloropropene	116
.1,2-Trichloroethane	94
etrachloroethene	116
-Hexanone	110
ibromochloromethane	111
2-Dibromoethane (EDB)	111
The state of the s	115

Client Sample ID: CCV Lab ID#: 0512572A-10A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:		15.855				
File Name:		g0109	10		Date of Collection: NA	
Dil. Factor:					CHESWAY .	
		1	00		Date of Analysis: 1/9/06 04:47 P	M

Compound	9/ Panasikas
Chlorobenzene	%Recovery
Ethyl Benzene	117
m,p-Xylene	119
o-Xylene	127
Styrene	115
Bromoform	110
Cumene	108
1,1,2,2-Tetrachloroethane	106
Propylbenzene	126
4-Ethyltoluene	112
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	123
1,3-Dichlorobenzene	118
1,4-Dichlorobenzene	111
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	103
	114
1,2,4-Trichlorobenzene	132 Q
Hexachlorobutadiene	112
	1100

### Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	
Toluene-d8		70-130
4-Bromofluorobenzene	112	70-130
4-Bromondorobenzene	99	70-130

#### Client Sample ID: LCS Lab ID#: 0512572A-11A

File Name:				~040044			
Dil. Factor:				g010911			Date of Collection: NA
	_			1.00			Date of Analysis: 1/9/06 05:22 PM

Compound	%Recovery
Freon 12	95
Freon 114	89
Chloromethane	112
Vinyl Chloride	92
1,3-Butadiene	106
Bromomethane	
Chloroethane	93
Freon 11	80
Ethanol	83
Freon 113	111
1,1-Dichloroethene	89
Acetone	85
2-Propanol	111
Carbon Disulfide	83
Methylene Chloride	119
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	74
Hexane	90
1,1-Dichloroethane	1.10
2-Butanone (Methyl Ethyl Ketone)	97
cis-1,2-Dichloroethene	104
Tetrahydrofuran	79
Chloroform	109
1,1,1-Trichloroethane	89
Cyclohexane	81
Carbon Tetrachloride	99
Benzene	85
1,2-Dichloroethane	107
Heptane *	106
Frichloroethene	145 Q
,2-Dichloropropane	99
,4-Dioxane	108
Bromodichloromethane	100
is-1,3-Dichloropropene	110
-Methyl-2-pentanone	90
oluene	118
ans-1,3-Dichloropropene	108
.1,2-Trichloroethane	89
etrachloroethene	106
-Hexanone	99
ibromochloromethane	98
2-Dibromoethane (EDB)	107
20 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	117

Client Sample ID: LCS Lab ID#: 0512572A-11A

## MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

			The second of th
File Name:		g010911	
Dil. Factor:		9010311	Date of Collection: NA
Dil. Factor:		1.00	Park Leave and Company of the Compan
			Date of Analysis: 1/9/06 05:22 PM

Compound	%Recovery
Chlorobenzene	
Ethyl Benzene	107
m,p-Xylene	116
o-Xylene	113
Styrene	106
Bromoform	111
Cumene	98
1,1,2,2-Tetrachloroethane	82
Propylbenzene	108
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	122
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	115
	102

# Q = Exceeds Quality Control limits. Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	0.7	Limits
Toluene-d8	97	70-130
	110	70-130
4-Bromofluorobenzene	97	70-130

(a)	AIR	TOXICS	LTD.
<u></u>	AN ENVIRO	NUENTAL ANALYTICAL	LABORATORY

#### Sample Transportation Notice

Refinquishing signature on this document indicates that sample is being shipped in compliance with a Lapplicable local State. Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Umited assumes no liability with respect to the collection, handling unshipping of these samples. Refinquishing signature also indicates agreement to hold hamaless. cefend, and indemnify Air Toxics Limited against any daim, demand, or aution, of any lithid, related

Contact Person TEMIA HASHIMOTO  Company GEOMATRIX CONSUMANTS Fmall 4HASHIMOTO GEOMATRIX  Address 201 WEBSTAR ST City OAKUNDState CA Zip 44612  Phone 20 510,663,4100 AFAX 50,663,4141					Project Info: P.O. # 9326 Project # 9326-14		-   a	Turn Around Time: Time:		Pressurted by Vig Date: 12/30/0	
lected	by: (supremure) Shout A Character				of the first than the second of the second o	MER DAVE +F	-	speaty	Prese	surizetion Gas. N <sub>2</sub> ) He	
ab I.D.	Field Sample I.D. (Location)	Can#	Date	Time	Analy	ses Requested			ier Pre	essure/Vacuu	m
Δ	8-AMB-1-122005	344	12/20/05	9:38		-	, 5	Initial	Final	Receipt Fir	าลไ
A	A-AMB-2-12-2006	376	12/20/06	4:37	To-15 (Lo	V DETECTION		23	1	6.04 54	13
3A	56-2-02006	944	12/20/05	11:50	10-15 (Lo	w Develous	HATES !	al.5	1	4.0445.	00
A	56-3-122005	347	12/20/05	13:49	Tons ("	· ·		21.5	4	3.54	1
ΣĄ.	AMB-3-122009	4098	12/20/05		TO-15 ("	ir .	- ; ;	33	45	10,5mg	
A	AMB-4-122005	352	12/20/05	15:09	TO-15 ( 11		4)	20	2	8.07	1
A	46-5-12005	9576	12/20/05	15:45	TO-15 ( "		- 1	20.5	2	8.0 CH	21.
A	56-1-122005	335 74	10/20/05	16:35		N Detaction	lines	20.5	6	130549	V
6	vii -	+					- 49	10.3		10.576 5.0	151
Petro	(algoriture) Date/Time. (algoriture) Date/Time. (by: (signature) Date/Time	[0:00	cons	)ate	Date/Time 10 / - ARL 12/27 / o. Date/Time	1101001					
	by: (signature) Date/Time		Received by	(signature)	Date/Time			_		-	
100	hioper Name: 184585-99.	ir Bill #		Temp (°C	) Condition	Custome	r Seals Int	not?	A 4 8 2 - 1	Order #	

(a)	AIR	TOXICS	LTD.
0	AN EMVIRO	NUENTAL ANALYTICAL	LABORATORY

#### Sample Transportation Notice

Refinquishing signature on this document indicates that sample is being shipped in compliance. 180 BLUE RAVINE ROAD, SUITE B with a Lepplicable local, State, Federal, national, and international laws, regulations and ordinances. FOLSOM, CA 95630-4719 of any kind Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Palinquishing signature also indicates agreement to hold hamiless, ceffend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection handling or specific and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related Page of

Company Grandia Consumants Finall 4HASHIMORD & Franks.  Address 2101 WFBSTCR ST City OAKLANDState CA 210 94612  Phone DE 510, 663, 4190 = ax 540, 663, 4191  Collected by: (supreture) Shull a Cherille					Project Into: P.O. # 9326  Project # 9326-14  Project Name FORMOR Dave +PARK		Time:  Time:  Time:		Pressurized by Vigo Pressurized by Vigo Date: 12/30/05 Pressurization Gas (N2) He	
ab I.D.	Field Sample I.D. (Location)	Cana	Date	Time				ter Pre	ssure/Vacuum	
DIA	8AMB-1-122005	344	13/20/05	9:34	Analyses Requested		Initial	Final	Receipt Fina	
A	9-AMB-2-12-2006	376	12/20/09	4:37	TO-15 CLOW DETECTION 40		23	11	6.074 5.00	
3A	56-2-122006	944	12/20/05	11:50	TO-15 (Low Derson him		21.5	1	4.0465.0	
A	56-3-122005	347	12/20/05	13:49	Tons (4 4	. )	21.5	4	3.54	
5A	AMB-3-122005	4098				( )	33	45	10,577	
4	AMB-4-122005	352	12/20/05	15:09	70-15 ( 11 11 11 11 11 11 11 11 11 11 11 11 1	4)	20	2	8.0%	
1A	96-5-122005	9576		15:45	TO-16 ( "	7)	20.5		8.000	
KA.	56-1-122005	336 74	10/20/05	16:35	TOLE (1. Duran )	ie J	20.5	6	13.54/g V	
vi-				14.5	to Delocitat te	11.52	01	5	10.57 5.00	
A Peter	d by: (signature) Date/Time	[0.00	Received by	(signature)	Date/Time 10 10 Notes:  ATU 12/27 /05  Date/Time					
nquisne	d by: (signature) Date/Time		Received by:	(signature)	Date/Time		-			



#### Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- · Work order Summary;
- · Laboratory Narrative;
- · Results; and
- Chain of Custody (copy).

#### WORK ORDER #: 0605150

Work Order Summary

CLIENT: Ms. Yemia Hashimoto BILL TO: Ms. Yemia Hashimoto

Geomatrix Consultants

2101 Webster Street, 12th Floor

Oakland, CA 94612

05/18/2006

510-663-4100 P.O. #

FAX: 510-663-4141 PROJECT # 9328 Former Drive + Park

DATE RECEIVED: 05/05/2006 CONTACT: Kyle Vagadori

FRACTION#	NAME	TEST	VAC./PRES.
01A	SG-5-050306	Modified TO-15 Hi/Lo	8.5 "Hg
OIAA	SG-5-050306 Duplicate	Modified TO-15 Hi/Lo	8.5 "Hg
02A	SG-3-050306	Modified TO-15 Hi/Lo	7.0 "Hg
03A	SG-2-050306	Modified TO-15 Hi/Lo	5.0 "Hg
04A	SG-1-050306	Modified TO-15 Hi/Lo	4.0 "Hg
05A	8AMB-050306	Modified TO-15 Hi/Lo	13.0 "Hg
06A	Trip Blank	Modified TO-15 Hi/Lo	4.4 psi
07A	Lab Blank	Modified TO-15 Hi/Lo	NA
08A	CCV	Modified TO-15 Hi/Lo	NA
09A	LCS	Modified TO-15 Hi/Lo	NA

CERTIFIED BY:

PHONE:

DATE COMPLETED:

Sinda d. Fruman

DATE: 05/18/06

Geomatrix Consultants

Oakland, CA 94612

2101 Webster Street, 12th Floor

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/05, Expiration date: 06/30/06

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 (800) 985-5955 FAX (916) 985-1020

#### LABORATORY NARRATIVE Modified TO-15 Full Scan/SIM Geomatrix Consultants Workorder# 0605150

Six 6 Liter Summa Canister (100% Certified) samples were received on May 05, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	=30% RSD with 2<br compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD  For SIM: Project specific; default criteria is =30% RSD with 10% of compounds allowed out to < 40% RSD</td
Daily Calibration	+- 30% Difference	For Full Scan: = 30% Difference with four allowed out up to </=40%.; flag and narrate outliers  For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers</td
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt,136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

#### Receiving Notes

There were no receiving discrepancies.

#### **Analytical Notes**

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The reported CCV and LCS for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15

compound list as per contract or verbal agreement.

#### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B Compound present in laboratory blank greater than reporting limit (background subtraction not performed),
  - J Estimated value.
  - E Exceeds instrument calibration range.
  - S Saturated peak.
  - Q Exceeds quality control limits.
  - U Compound analyzed for but not detected above the reporting limit.
  - UJ- Non-detected compound associated with low bias in the CCV
  - N The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



# Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SG-5-050306

Lab ID#: 0605150-01A

Compound	Rot, Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.19	0.53	0.92	2.6
Freon 11	0.19	0.36	1.0	2.0
Acetone	0.94	8.7	2.2	20
2-Propanol	0.94	1.0	2.3	2.5
Hexane	0.94	4.1	3.3	14
Chloroform	0.19	0.82	0.91	4.0
Cyclohexane	0.94	7.9	3.2	27
Benzene	0.19	0.24	0.60	0.76
Heptane	0.94	1.1	3.8	4.4
Toluene	0.19	-11	0.70	42
Tetrachloroethene	0.19	0.66	1.3	4.4
Ethyl Benzene	0.19	4.8	0.81	21
m,p-Xylene	0.19	12	0.81	52
o-Xylene	0.19	5.4	0.81	24
Styrene	0.19	8.6	0.80	37
1,2,4-Trimethylbenzene	0.19	0.43	0.92	2.1
1,4-Dichlorobenzene	0.19	4.5	1.1	27
tert-Butyl alcohol	3.7	8.5 J	11	26 J

Client Sample ID: SG-5-050306 Duplicate

Lab ID#: 0605150-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	4.7	9.1	11	22
Cyclohexane	4.7	7.6	16	26
Toluene	0.94	10	3.5	39
Ethyl Benzene	0.94	4.7	4.0	20
m,p-Xylene	0.94	11	4.1	47
o-Xylene	0.94	5.1	4.1	22
Styrene	0.94	7.0	4.0	30
1,4-Dichlorobenzene	0.94	4.3	5.6	26

Client Sample ID: SG-3-050306

Lab ID#: 0605150-02A

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)



# Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SG-3-050306

Lab ID#: 0605150-02A

D 1D#: 0005150-02A	Rot. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Freon 12	0.18	0.45	0.86	2.2
Freon 11	0.18	0.34	0.98	1.9
Ethanol	0.88	1.6	1.6	3.0
Acetone	0.88	16	2.1	39
2-Propanol	0.88	1.5	2.2	3.7
Carbon Disulfide	0.88	1.5	2.7	4.6
Methylene Chloride	0.35	0.46	1.2	1.6
Hexane	0.88	54	3.1	190
2-Butanone (Methyl Ethyl Ketone)	0.88	1.9	2.6	5.6
Cyclohexane	0.88	12	3.0	42
Benzene	0.18	0.26	0.56	0.84
Heptane	0.88	1.1	3.6	4.7
Toluene	0.18	38	0.66	140
Tetrachloroethene	0.18	0.79	1.2	5.4
Ethyl Benzene	0.18	4.9	0.76	21
m,p-Xylene	0.18	12	0.76	53
o-Xylene	0.18	5.4	0.76	24
Styrene	0.18	7.4	0.74	31
1,3,5-Trimethylbenzene	0.18	0.18	0.86	0.88
1,2,4-Trimethylbenzene	0.18	0.50	0.86	2.5
1,4-Dichlorobenzene	0.18	8.5	1.0	51
tert-Butyl alcohol	3.5	10 J	11	31 J

Client Sample ID: SG-2-050306

Lab ID#: 0605150-03A

Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.52	0.80	2.6
Freon 11	0.16	0.31	0.90	1.8
Acetone	0.80	5.8	1.9	14
2-Propanol	0.80	0.93	2.0	2.3
Methylene Chloride	0.32	0.52	1.1	1.8
Chloroform	0.16	0.17	0.79	0.84
Cyclohexane	0.80	10	2.8	35
Benzene	0.16	0.20	0.51	0.64
Heptane	0.80	0.92	3.3	3.8
Toluene	0.16	6.2	0.61	23



# Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SG-2-050306

ab ID#: 0605150-03A				
Tetrachloroethene	0.16	0.59	1.1	4.0
Ethyl Benzene	0.16	6.0	0.70	26
m,p-Xylene	0.16	15	0.70	64
o-Xylene	0.16	7.1	0.70	31
Styrene	0.16	12	0.68	49
Cumene	0.80	1.0	4.0	5.2
1,3,5-Trimethylbenzene	0.16	0.18	0.79	0.90
1,2,4-Trimethylbenzene	0.16	0.48	0.79	2.4
1,4-Dichlorobenzene	0.16	5.6	0.97	33
tert-Butyl alcohol	3.2	13 J	9.8	40 J

Client Sample ID: SG-1-050306

Lab ID#: 0605150-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.30	0.77	1.5
Chloromethane	0.16	0.16	0.32	0.33
Freon 11	0.16	0.31	0.87	1.7
Acetone	0.78	4.1	1.8	9.8
2-Propanol	0.78	1.1	1.9	2.8
Hexane	0.78	19	2.7	67
Chloroform	0.16	14	0.76	67
1,1,1-Trichloroethane	0.16	0.18	0.84	0.98
Cyclohexane	0.78	10	2.7	35
Carbon Tetrachloride	0.16	2.4	0.98	15
Benzene	0.16	0.19	0.50	0.59
Heptane	0.78	1.1	3.2	4.7
Toluene	0.16	7.7	0.58	29
Tetrachloroethene	0.16	0.33	1.0	2.2
Ethyl Benzene	0.16	5,9	0.67	25
m,p-Xylene	0.16	14	0.67	62
o-Xylene	0.16	6.8	0.67	30
Styrene	0.16	12	0.66	50
Cumene	0.78	1.0	3.8	5.0
1,3,5-Trimethylbenzene	0.16	0.16	0.76	0.79
1,2,4-Trimethylbenzene	0.16	0.45	0.76	2.2
1,4-Dichlorobenzene	0.16	5.0	0.93	30
tert-Butyl alcohol	3.1	7.9 J	9.4	24 J



# Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: 8AMB-050306

Lab ID#: 0605150-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.24	0.57	1.2	2.8
Chloromethane	0.24	0.82	0.49	1.7
Freon 11	0.24	0.29	1.3	1.6
Ethanol	1.2	82	2.2	150
Acetone	1.2	38	2.8	89
2-Propanol	1.2	6.2	2.9	15
Methylene Chloride	0.47	0.91	1.6	3.1
2-Butanone (Methyl Ethyl Ketone)	1.2	1.6	3.5	4.8
Cyclohexane	1.2	16	4.1	54
Benzene	0.24	0.53	0.75	1.7
Heptane	1.2	1.4	4.8	5.9
Toluene	0.24	8.7	0.89	33
Ethyl Benzene	0.24	6.7	1.0	29
m,p-Xylene	0.24	16	1.0	70
o-Xylene	0.24	7.2	1.0	31
Styrene	0.24	11	1,0	46
1,2,4-Trimethylbenzene	0.24	0.43	1.2	2.1
1,4-Dichlorobenzene	0.24	7.2	1.4	43
tert-Butyl alcohol	4.7	30 J	14	90 J

Client Sample ID: Trip Blank

Lab ID#: 0605150-06A

No Detections Were Found.



# Client Sample ID: SG-5-050306

#### Lab ID#: 0605150-01A

File Name: Dil. Factor:	7051712 1.87		Date of Collection: 5/3/06 Date of Analysis: 5/17/06 08:32 PM		
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	0.19	0.53	0.92	2.6	
Freon 114	0.19	Not Detected	1.3	Not Detected	
Chloromethane	0.19	Not Detected	0.39	Not Detected	
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected	
1,3-Butadiene	0.94	Not Detected	2.1	Not Detected	
Bromomethane	0.19	Not Detected	0.73	Not Detected	
Chloroethane	0.19	Not Detected 45	0.49	Not Detected	
Freon 11	0.19	0.36	1.0	2.0	
Ethanol	0.94	Not Detected	1.8	Not Detected	
Freon 113	0.19	Not Detected	1.4	Not Detected	
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected	
Acetone	0.94	8.7	2.2	20	
2-Propanol	0.94	1.0	2.3	2.5	
Carbon Disulfide	0.94	Not Detected	2.9	Not Detected	
Methylene Chloride	0.37	Not Detected	1.3	Not Detected	
Methyl tert-butyl ether	0.19	Not Detected	0.67	Not Detected	
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected	
Hexane	0.94	4.1	3.3	14	
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	0.94	Not Detected	2.8	Not Detected	
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected	
Tetrahydrofuran	0.94	Not Detected	2.8	Not Detected	
Chloroform	0.19	0.82	0.91	4.0	
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected	
Cyclohexane	0.94	7.9	3.2	27	
Carbon Tetrachloride	0.19	Not Detected	1.2	Not Detected	
Benzene	0.19	0.24	0.60	0.76	
1,2-Dichloroethane	0.19	Not Detected 4J	0.76	Not Detected	
Heptane	0.94	1.1	3.8	4.4	
Trichloroethene	0.19	Not Detected	1.0	Not Detected	
1,2-Dichloropropane	0.19	Not Detected	0.86	Not Detected	
1,4-Dioxane	0.94	Not Detected	3.4	Not Detected	
Bromodichloromethane	0.94	Not Detected	6.3	Not Detected	
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected	
4-Methyl-2-pentanone	0.94	Not Detected	3.8	Not Detected	
Toluene	0.19	11	0.70	42	
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected	
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected	
Tetrachloroethene	0.19	0.66	1.3	4.4	
2-Hexanone	0.94	Not Detected	3,8	Not Detected	

Client Sample ID: SG-5-050306

Lab ID#: 0605150-01A

# MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: Dil. Factor:	7051712 1.87	Date of Collection: 5/3/06 Date of Analysis: 5/17/06 08:32		
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	0.94	Not Detected	8.0	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	4.8	0.81	21
m,p-Xylene	0.19	12	0.81	52
o-Xylene	0.19	5.4	0.81	24
Styrene	0.19	8.6	0.80	37
Bromoform	0.94	Not Detected UJ	9.7	Not Detected
Cumene	0.94	Not Detected	4.6	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.94	Not Detected	4.6	Not Detected
4-Ethyltoluene	0.94	Not Detected	4.6	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,2,4-Trimethylbenzene	0.19	0.43	0.92	2.1
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	4.5	1.1	27
alpha-Chiorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected R	6.9	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected
tert-Butyl alcohol	3.7	8.5 J J	11	26 J
tert-Amyl methyl ether	3.7	Not Detected	16	Not Detected
Ethyl-tert-butyl ether	3.7	Not Detected	16	Not Detected
Isopropyl ether	3.7	Not Detected	16	Not Detected

J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Limits
1.2-Dichloroethane-d4	119	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: SG-5-050306 Duplicate

Lab 1D#: 0605150-01AA

File Name: DII. Factor:	7051711 9,35		ate of Collection: ate of Analysis: 5	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.94	Not Detected	4.6	Not Detected
Freon 114	0.94	Not Detected	6.5	Not Detected
Chloromethane	0.94	Not Detected	1.9	Not Detected
Vinyl Chloride	0.94	Not Detected	2.4	Not Detected
1,3-Butadiene	4.7	Not Detected	10	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected UJ	2.5	Not Detected
Freon 11	0.94	Not Detected	5.2	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Freon 113	0.94	Not Detected	7.2	Not Detected
1,1-Dichloroethene	0.94	Not Detected	3.7	Not Detected
Acetone	4.7	9.1	11	22
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
Methylene Chloride	1.9	Not Detected	6.5	Not Detected
Methyl tert-butyl ether	0.94	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.94	Not Detected	3.7	Not Detected
Hexane	4.7	Not Detected	16	Not Detected
1,1-Dichloroethane	0.94	Not Detected	3.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	0.94	Not Detected	3.7	Not Detected
Tetrahydrofuran	4.7	Not Detected	14	Not Detected
Chloroform	0.94	Not Detected	4.6	Not Detected
1,1,1-Trichloroethane	0.94	Not Detected	5.1	Not Detected
Cyclohexane	4.7	7.6	16	26
Carbon Tetrachloride	0.94	Not Detected	5.9	Not Detected
Benzene	0.94	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.94	Not Detected i	3.8	Not Detected
Heptane	4.7	Not Detected	19	Not Detected
Trichloroethene	0.94	Not Detected	5.0	Not Detected
1,2-Dichloropropane	0.94	Not Detected	4.3	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	4.7	Not Detected	31	Not Detected
cis-1,3-Dichloropropene	0.94	Not Detected	4.2	Not Detected
4-Methyl-2-pentanone	4.7	Not Detected	19	Not Detected
Toluene	0.94	10	3.5	39
trans-1,3-Dichloropropene	0.94	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	0.94	Not Detected	5.1	Not Detected
Tetrachloroethene	0.94	Not Detected	6.3	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected

4-Bromofluorobenzene

VENVIOLIMENTAL MARE TRANSPORTED TO THE PROPERTY OF THE PROPERT

# Client Sample ID: SG-5-050306 Duplicate

#### Lab ID#: 0605150-01AA

# MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: Dil. Factor:	7051711 9.35		ate of Collection: ate of Analysis:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	4.7	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	0.94	Not Detected	7.2	Not Detected
Chlorobenzene	0.94	Not Detected	4.3	Not Detected
Ethyl Benzene	0.94	4.7	4.0	20
m,p-Xylene	0.94	11	4.1	47
o-Xylene	0.94	5.1	4.1	22
Styrene	0.94	7.0	4.0	30
Bromoform	4.7	Not Detected UT	48	Not Detected
Cumene	4.7	Not Detected	23	Not Detected
1,1,2,2-Tetrachloroethane	0.94	Not Detected	6.4	Not Detected
Propylbenzene	4.7	Not Detected	23	Not Detected
4-Ethyltoluene	4.7	Not Detected	23	Not Detected
1,3,5-Trimethylbenzene	0.94	Not Detected	4.6	Not Detected
1,2,4-Trimethylbenzene	0.94	Not Detected	4.6	Not Detected
1,3-Dichlorobenzene	0.94	Not Detected	5.6	Not Detected
1,4-Dichlorobenzene	0.94	4.3	5.6	26
alpha-Chlorotoluene	0.94	Not Detected	4.8	Not Detected
1,2-Dichlorobenzene	0.94	Not Detected	5.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected R	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
tert-Butyl alcohol	19	Not Detected U.5	57	Not Detected
tert-Amyl methyl ether	19	Not Detected	78	Not Detected
Ethyl-tert-butyl ether	19	Not Detected	78	Not Detected
Isopropyl ether	19	Not Detected	78	Not Detected
Container Type: 6 Liter Summa	Canister (100% Certified	):		- 22
Surrogates		%Recovery		Method Limits
1,2-Dichloroethane-d4		119		70-130
Toluene-d8		98		70-130
A STATE OF THE STA		1.22		

108

70-130



### Client Sample ID: SG-3-050306 Lab ID#: 0605150-02A

File Name: Dil: Factor:	7051713 1.75		Date of Collection: 5/3/06 Date of Analysis: 5/17/06 09:25 PM		
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Freon 12	0.18	0.45	0.86	2.2	
Freon 114	0.18	Not Detected	1.2	Not Detected	
Chloromethane	0.18	Not Detected	0.36	Not Detected	
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected	
1,3-Butadiene	0.88	Not Detected	1.9	Not Detected	
Bromomethane	0.18	Not Detected	0.68	Not Detected	
Chloroethane	0.18	Not Detected U.J.	0.46	Not Detected	
Freon 11	0.18	0.34	0.98	1.9	
Ethanol	0.88	1.6	1.6	3.0	
Freon 113	0.18	Not Detected	1.3	Not Detected	
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected	
Acetone	0.88	16	2.1	39	
2-Propanol	0.88	1.5	2.2	3.7	
Carbon Disulfide	0.88	1.5	2.7	4.6	
Methylene Chloride	0.35	0.46	1.2	1.6	
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected	
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected	
Hexane	0.88	54	3.1	190	
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	0.88	1.9	2.6	5.6	
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected	
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected	
Chloroform	0.18	Not Detected	0.85	Not Detected	
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected	
Cyclohexane	0.88	12	3.0	42	
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected	
Benzene	0.18	0.26	0.56	0.84	
1,2-Dichloroethane	0.18	Not Detected UJ	0.71	Not Detected	
Heptane	0.88	1.1	3.6	4.7	
Trichloroethene	0.18	Not Detected	0.94	Not Detected	
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected	
1,4-Dioxane	0.88	Not Detected	3.2	Not Detected	
Bromodichloromethane	0.88	Not Detected	5.9	Not Detected	
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected	
4-Methyl-2-pentanone	0.88	Not Detected	3.6	Not Detected	
Toluene	0.18	38	0.66	140	
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected	
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected	
Tetrachloroethene	0.18	0.79	1.2	5,4	
2-Hexanone	0.88	Not Detected	3.6	Not Detected	

### Client Sample ID: SG-3-050306

Lab ID#: 0605150-02A

#### MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: Dil. Factor:	7051713 1.75		Date of Collection: 5/3/06  Date of Analysis: 5/17/06 09:25 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)	
Dibromochloromethane	0.88	Not Detected	7.4	Not Detected	
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected	
Chlorobenzene	0.18	Not Detected	0.80	Not Detected	
Ethyl Benzene	0.18	4,9	0.76	21	
m,p-Xylene	0.18	12	0.76	53	
o-Xylene	0.18	5.4	0.76	24	
Styrene	0.18	7.4	0.74	31	
Bromoform	0.88	Not Detected U J	9.0	Not Detected	
Cumene	0.88	Not Detected	4.3	Not Detected	
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected	
Propylbenzene	0.88	Not Detected	4.3	Not Detected	
4-Ethyltoluene	0.88	Not Detected	4.3	Not Detected	
1,3,5-Trimethylbenzene	0.18	0.18	0.86	0.88	
1,2,4-Trimethylbenzene	0.18	0.50	0.86	2.5	
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected	
1.4-Dichlorobenzene	0.18	8.5	1.0	51	
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected	
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected	
1,2,4-Trichlorobenzene	0.88	Not Detected R	6.5	Not Detected	
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected	
tert-Butyl alcohol	3.5	10 J J	11	31 J	
tert-Amyl methyl ether	3.5	Not Detected	15	Not Detected	
Ethyl-tert-butyl ether	3.5	Not Detected	15	Not Detected	
Isopropyl ether	3.5	Not Detected	15	Not Detected	

J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

5,005040,0 <b>4,6</b> 245,050,050,050,050,050,0	Jake 18 To Washington	Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	115	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	110	70-130	



# Client Sample ID: SG-2-050306

#### Lab ID#: 0605150-03A

File Name; DII, Factor;	7051714 1.61		te of Collection: te of Analysis: 5	5/3/06 5/17/06 11:04 PM
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.52	0.80	2.6
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	Not Detected	0.33	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.80	Not Detected	1.8	Not Detected
Bromomethane	0.16	Not Detected	0.62	Not Detected
Chloroethane	0.16	Not Detected UJ	0.42	Not Detected
Freon 11	0.16	0.31	0.90	1.8
Ethanol	0.80	Not Detected	1.5	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	5.8	1.9	14
2-Propanol	0.80	0.93	2.0	2.3
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.52	1.1	1.8
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	0.17	0.79	0.84
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.80	10	2.8	35
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
Benzene	0.16	0.20	0.51	0.64
1,2-Dichloroethane	0.16	Not Detected い	0.65	Not Detected
Heptane	0.80	0.92	3.3	3.8
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.80	Not Detected	2.9	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
Toluene	0.16	6.2	0.61	23
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	0.59	1.1	4.0
2-Hexanone	0.80	Not Detected	3.3	Not Detected

# Client Sample ID: SG-2-050306

Lab ID#: 0605150-03A

#### MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: DIL Factor:	7051714 1.61		Date of Collection: 5/3/06 Date of Analysis: 5/17/06 11:04 PM	
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	6.0	0.70	26
m,p-Xylene	0.16	15	0.70	64
o-Xylene	0.16	7.1	0.70	31
Styrene	0.16	12	0.68	49
Bromoform	0.80	Not Detected W	8.3	Not Detected
Cumene	0.80	1.0	4.0	5.2
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.80	Not Detected	4.0	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
1,3,5-Trimethylbenzene	0.16	0.18	0.79	0.90
1,2,4-Trimethylbenzene	0.16	0.48	0.79	2.4
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	5.6	0.97	33
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected R	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
tert-Butyl alcohol	3.2	13 J	9.8	40 J
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected

J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

		wethod
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130



Client Sample 1D: SG-1-050306

Lab ID#: 0605150-04A

File Name: Dil. Factor:	7051715 1.55		ate of Collection: ate of Analysis: 5	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.30	0.77	1.5
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.16	0.32	0.33
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Bromomethane	0.16	Not Detected	0.60	Not Detected
Chloroethane	0.16	Not Detected ルブ	0.41	Not Detected
Freon 11	0.16	0.31	0.87	1,7
Ethanol	0.78	Not Detected	1.5	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	4.1	1.8	9.8
2-Propanol	0.78	1.1	1.9	2.8
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Hexane	0.78	19	2.7	67
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	14	0.76	67
1,1,1-Trichloroethane	0.16	0.18	0.84	0.98
Cyclohexane	0.78	10	2.7	35
Carbon Tetrachloride	0.16	2.4	0.98	15
Benzene	0.16	0.19	0.50	0.59
1,2-Dichloroethane	0.16	Not Detected U.S	0.63	Not Detected
Heptane	0.78	1.1	3.2	4.7
Trichloroethene	0.16	Not Detected	0.83	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.78	Not Detected	2.8	Not Detected
Bromodichloromethane	0.78	Not Detected	5.2	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
Toluene	0.16	7.7	0.58	29
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	0.33	1.0	2.2
2-Hexanone	0.78	Not Detected	3.2	Not Detected

# Client Sample ID: SG-1-050306

Lab ID#: 0605150-04A

# MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: Dil. Factor:	7051715 1.55	14444		5/3/06 5/17/06 11:58 PM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	0.78	Not Detected	6.6	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	5.9	0.67	25
m,p-Xylene	0.16	14	0.67	62
o-Xylene	0.16	6.8	0.67	30
Styrene	0.16	12	0.66	50
Bromoform	0.78	Not Detected W	8.0	Not Detected
Cumene	0.78	1.0	3.8	5.0
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.78	Not Detected	3.8	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.8	Not Detected
1,3,5-Trimethylbenzene	0.16	0.16	0.76	0.79
1,2,4-Trimethylbenzene	0.16	0.45	0.76	2.2
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	5.0	0.93	30
alpha-Chlorotoluene	0.16	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected R	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.3	Not Detected
tert-Butyl alcohol	3.1	7.9J J	9.4	24 J
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected

J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Container Types o Ener Cammin Camera, (	12512 20120016	Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	105	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	104	70-130	



#### Client Sample ID: 8AMB-050306

Lab ID#: 0605150-05A

File Name: Dil. Factor:	7051716 2.36		te of Collection: te of Analysis: 5	5/3/06 /18/06 12:40 AM
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.24	0.57	1.2	2.8
Freon 114	0.24	Not Detected	1.6	Not Detected
Chloromethane	0.24	0.82	0.49	1.7
Vinyl Chloride	0.24	Not Detected	0.60	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	0.24	Not Detected	0.92	Not Detected
Chloroethane	0.24	Not Detected INT	0.62	Not Detected
Freon 11	0.24	0.29	1.3	1.6
Ethanol	1.2	82	2.2	150
Freon 113	0.24	Not Detected	1.8	Not Detected
1,1-Dichloroethene	0.24	Not Detected	0.94	Not Detected
	1.2	38	2.8	89
Acetone	1.2	6.2	2.9	15
2-Propanol	1.2	Not Detected	3.7	Not Detected
Carbon Disulfide	0.47	0.91	1.6	3.1
Methylene Chloride	0.24	Not Detected	0.85	Not Detected
Methyl tert-butyl ether	0.24	Not Detected	0.94	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.2	Not Detected
Hexane	0.24	Not Detected	0.96	Not Detected
1,1-Dichloroethane	1.2	1.6	3.5	4.8
2-Butanone (Methyl Ethyl Ketone)			0.94	Not Detected
cis-1,2-Dichloroethene	0.24	Not Detected	3.5	Not Detected
Tetrahydrofuran	1.2	Not Detected	1.2	Not Detected
Chloroform	0.24	Not Detected		Not Detected
1,1,1-Trichloroethane	0.24	Not Detected	1.3	54
Cyclohexane	1.2	16	4.1	
Carbon Tetrachloride	0.24	Not Detected	1.5	Not Detected
Benzene	0.24	0.53	0.75	1.7
1,2-Dichloroethane	0.24	Not Detected UJ	0.96	Not Detected
Heptane	1.2	1.4	4.8	5.9
Trichloroethene	0.24	Not Detected	1.3	Not Detected
1,2-Dichloropropane	0.24	Not Detected	1.1	Not Detected
1,4-Dioxane	1,2	Not Detected	4.2	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	0.24	Not Detected	1.1	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	0.24	8.7	0.89	33
trans-1,3-Dichloropropene	0.24	Not Detected	1.1	Not Detected
1,1,2-Trichloroethane	0.24	Not Detected	1.3	Not Detected
Tetrachloroethene	0.24	Not Detected	1.6	Not Detected
2-Hexanone	1.2	Not Detected	4.8	Not Detected

#### Client Sample ID: 8AMB-050306

Lab ID#: 0605150-05A

# MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: DII. Factor:	7051716 2.36		Date of Collection: Date of Analysis: 5	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	0.24	Not Detected	1.8	Not Detected
Chlorobenzene	0.24	Not Detected	1.1	Not Detected
Ethyl Benzene	0.24	6.7	1.0	29
m,p-Xylene	0.24	16	1.0	70
o-Xylene	0.24	7.2	1.0	31
Styrene	0.24	11	1.0	46
Bromoform	1.2	Not Detected U	5 12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	0.24	Not Detected	1.6	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	0.24	Not Detected	1.2	Not Detected
1,2,4-Trimethylbenzene	0.24	0.43	1.2	2.1
1,3-Dichlorobenzene	0.24	Not Detected	1.4	Not Detected
1,4-Dichlorobenzene	0.24	7.2	1.4	43
alpha-Chlorotoluene	0.24	Not Detected	1,2	Not Detected
1,2-Dichlorobenzene	0.24	Not Detected	1.4	Not Detected
1,2,4-Trichlorobenzene	1.2	Not Detected R	8.8	Not Detected
Hexachlorobutadiene	1.2	Not Detected	12	Not Detected
tert-Butyl alcohol	4.7	301 7	14	90 J
tert-Amyl methyl ether	4.7	Not Detected	20	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	20	Not Detected
Isopropyl ether	4.7	Not Detected	20	Not Detected

J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	516.00 20	Method
	%Recovery	Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: Trip Blank

Lab 1D#: 0605150-06A

File Name: Dil. Factor:	7051717 1.00		Date of Collection: Date of Analysis: 5	
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
	0.50	Not Detected	1.7	Not Detected
Cyclohexane	0.10	Not Detected	0.63	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.32	Not Detected
Benzene	0.10	Not Detected	0.40	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane Triablareathana	0.10	Not Detected	0.54	Not Detected
Trichloroethene	0.10	Not Detected	0.46	Not Detected
1,2-Dichloropropane	0.50	Not Detected	1.8	Not Detected
1,4-Dioxane	0.50	Not Detected	3.4	Not Detected
Bromodichloromethane	0.10	Not Detected	0.45	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.0	Not Detected
4-Methyl-2-pentanone		Not Detected	0.38	Not Detected
Toluene	0.10		0.45	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected Not Detected	0.54	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.68	Not Detected
Tetrachloroethene 2-Hexanone	0.10 0.50	Not Detected	2.0	Not Detected

Client Sample ID: Trip Blank

Lab ID#: 0605150-06A

File Name: Dil. Factor:	7051717 1.00		Date of Collection: 5/3/06 Date of Analysis: 5/18/06 01:43 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
Container Type: 6 Liter Summa	Canister (100% Certified	)		· Parar
2 7 57 5		N/B		Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		100		70-130
Toluene-d8		97		70-130
4-Bromofluorobenzene		99		70-130



## Client Sample ID: Lab Blank

Lab 1D#: 0605150-07A

File Name: Dil. Factor:	7051710 1.00		Date of Collection: I Date of Analysis: 5	
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt, Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

#### Client Sample ID: Lab Blank Lab ID#: 0605150-07A

File Name: Dil. Factor:	7051710 1.00		Date of Collection: I Date of Analysis: 5	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
Container Type: NA - Not Applicable				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		111		70-130
Toluene-d8		96		70-130
4-Bromofluorobenzene		107		70-130



#### Client Sample ID: CCV Lab ID#: 0605150-08A

File Name:	7051705	Date of Collection: NA
		Date of Analysis: 5/17/06 02:43 PM
Dil. Factor:		

Compound	%Recovery
Freon 12	119
Freon 114	116
Chloromethane	116
Vinyl Chloride	113
1,3-Butadiene	118
Bromomethane	128
Chloroethane	131 Q
Freon 11	126
Ethanol	106
Freon 113	113
1,1-Dichloroethene	104
Acetone	116
2-Propanol	115
Carbon Disulfide	110
Methylene Chloride	102
Methyl tert-butyl ether	109
trans-1,2-Dichloroethene	106
Hexane	104
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	113
cis-1,2-Dichloroethene	105
Tetrahydrofuran	108
Chloroform	111
1,1,1-Trichloroethane	116
Cyclohexane	104
Carbon Tetrachloride	122
Benzene	106
1,2-Dichloroethane	131 Q
Heptane	116
Trichloroethene	109
1,2-Dichloropropane	110
1,4-Dioxane	115
Bromodichloromethane	129
cis-1,3-Dichloropropene	119
4-Methyl-2-pentanone	130
Toluene	110
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	109
Tetrachloroethene	113
2-Hexanone	108

### Client Sample ID: CCV Lab ID#: 0605150-08A

#### MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

	lame:		7051			ate of Col		
Dil. F				1.00			/17/06 02	

Compound	%Recovery
Dibromochloromethane	127
1,2-Dibromoethane (EDB)	116
Chlorobenzene	106
Ethyl Benzene	110
m,p-Xylene	110
o-Xylene	114
Styrene	112
Bromoform	136 Q
Cumene	120
1,1,2,2-Tetrachloroethane	116
Propylbenzene	119
4-Ethyltoluene	119
1,3,5-Trimethylbenzene	113
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	111
1,2,4-Trichlorobenzene	119
Hexachlorobutadiene	127
tert-Butyl alcohol	144 Q
tert-Amyl methyl ether	137
Ethyl-tert-butyl ether	132
Isopropyl ether	135

#### Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	111	70-130

Client Sample ID: LCS

#### Lab ID#: 0605150-09A

Elle Name	7051706 Date of Collection: NA
Dil. Factor:	1.00 Date of Analysis: 5/17/06 03:25 PM

Compound	%Recovery
Freon 12	107
Freon 114	102
Chloromethane	104
Vinyl Chloride	105
1,3-Butadiene	124
Bromomethane	119
Chloroethane	122
Freon 11	109
Ethanol	98
Freon 113	101
1,1-Dichloroethene	96
Acetone	110
2-Propanol	104
Carbon Disulfide	110
Methylene Chloride	95
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	103
Hexane	101
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	98
Tetrahydrofuran	100
Chloroform	102
1,1,1-Trichloroethane	107
Cyclohexane	97
Carbon Tetrachloride	109
Benzene	98
1,2-Dichloroethane	119
Heptane	104
Trichloroethene	102
1,2-Dichloropropane	106
1,4-Dioxane	109
Bromodichloromethane	112
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	118
Toluene	103
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	103
Tetrachloroethene	108
2-Hexanone	92

#### Client Sample ID: LCS Lab ID#: 0605150-09A

# MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

	7051706		te of Collec		
File Name:					
	4.00			sis: 5/17/06 0	
Dil. Factor:					

Compound	%Recovery
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	107
Chlorobenzene	101
Ethyl Benzene	107
m,p-Xylene	99
o-Xylene	96
Styrene	99
Bromoform	99
Cumene	122
1,1,2,2-Tetrachloroethane	108
Propylbenzene	125
4-Ethyltoluene	122
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	74
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	120
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	68 Q
Hexachlorobutadiene	78
tert-Butyl alcohol	Not Spiked
tert-Amyl methyl ether	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked

### Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	108	70-130

(00)	AIR TOXICS LTD.
w	AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance 180 BLUE RAVINE ROAD, SUITE B with all applicable local. State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless. defend, and indemnify Air Loxess Limited against any claim, cemand, or action, of any kind, related to the collection, handling, or shipping of samples, D.O.T. Hotline (800) 487-4922.

FOLSOM, CA 95630-4719

(916) 985-1000 FAX (916) 985-1020 Page

Funn 1295 rev. 10

Company	OF YEMA HASHINDTO  GOOMATRIX CONSULTANGE  OF WESTERS, 12 th Road ON  OF 663-4100  FEX.  (Signalure) David Mark	mail Y <u>HASHIMUTU(</u> 4400 State <u>CA</u> 2 610-663-4141	ip 94612	Project Info:  1 P.O. # Project #9325  Project Name Former Driver+Park	Normal Rush	7	Gas:
Leb J.D.	Field Sample I.D. (Location)	Can# Date	Time	Analyses Requested	Canis	ter Pressure/V	1 " 11 "
O/A	56-5-050306	26060 BHN 51366	120	TO-15 Law DETECTION LIM	T -27	-2 359	1 2 4 10
02A	56 -3-050306	5/3/06	D 59		-26	5 7.04	1 1
03.A	56-2.050305	5/3/06	123%		-3)	-5 5.0°	
04A	56-1-050306	5/3/06	1515		-30	-5 404	1
054	GAMB-050306	5/3/06	1500		-31	-105 13.01	g V
069	TRIP BLANK	5(3/06	_			1.40	1.40; \$
49. T. T.			-			30	* 130 m
Dawn,	by: (elghature) Bate/Time  5/3/0/0  d by: (signature) Date/Time	iles cm.u	r. (signature)	Date/Time 94 CANNISTER  Date/Time Wiel 2	S M 3 4PS UNUGED CAME	SHIPMENTS,	(
Rel'nquishe	ed by: (signature) Date/Time	Received by	(signature)	Date/Time			
Lab.	Shipper Name  VP3 F04(174		Temp (		No None	Work Order 0 6 0 5 1	44 44 44



# **APPENDIX D**

# Membrane Interface Probe and Soil Boring Logs from June-July 2005 Investigation

PROJE	CT:							Boring	g/Well	L	og Expl	anation
BORIN	G LOC	ATIO	ON:				1	ELEVATION AN	ND DATUM	1:		
DRILLI	NG CC	NTF	RACT	OR:			1	DATE STARTE	D:		DATE FINISI	HED:
DRILLI	NG ME	THO	DD:				-	TOTAL DEPTH	I (ft.):		MEASURING	POINT:
DRILLI	NG EC	UIPI	MEN	Γ:				DEPTH TO WATER	FIRST		COMPL.	24 HRS.
SAMPL	ING M	IETH	IOD:					LOGGED BY:				
HAMM	ER WE	EIGH	T:			DROP:	1	RESPONSIBLE	PROFES	SIOI	NAL:	REG. NO.
DEPTH (feet)		ample 17	Blows/ Si	OVM READING (ppm)		DESCRIPTION NAME (USCS): color, moist, % by wt., plast. cementation, react. w/HCl, geo.	density inter.	/, structure,			RE	MARKS
	S	S		<u>IL</u>		Surface Elevation:						
_					No	otes:						
1- - 2-					1.	Soil described using visual-manual proced Society of Testing and Materials (ASTM) guidance; a Standard based on the Unified System.	Standa	rd D 2488 for		_ _ _		
_					2.	Soil color described according to Munsell	Color (	Chart.				
3- - 4-					3.	Dashed lines separating soil strata repres between sampled intervals that may be altransitions.			 es	_ _ _		
5-					4.	Solid lines represent approximate bounda sample intervals.	aries ob	served within		_		
6-					5.	OVM = organic vapor meter, reading in vo (ppm).	olumetr	ic parts per mi	illion	_		
7-					6.	Odor, if noted is subjective and not neces specific compounds or concentrations.	ssarily i	ndicative of		_		
_					7.	NA = not applicable.						
8-					8.	ND = no data.						
9- - 10-					Int	terval of recovered soil collected with a con	ntinuous	s core sampler	:	_		
- 11- -					Int	terval of recovered soil collected with split-s	spoon o	drive sampler.		_ _ _		
12- - 13-		X			Int	terval of no recovery.				_		
- 14 <i>-</i> -	SB-1-14.0				Sa	ample collected for chemical analysis and s	sample	identification.		-  -  -		
15-												KEYFORM (REV. 7/99)
			1	<b>72</b>	Geom	natrix Consultants		Proje	ect No.			age 1 of 1

PROJE	CT:				E & PARK, INC. SITE New York	Loç	g of Boring N	o. GP-1
BORIN	G LOC			•	negat Road	ELEVATION AN		ourfoce
						Not surveyed DATE STARTED	d; datum is ground D: DATE F	Surface FINISHED:
DRILLI	NG CC	TNC	RACT	OR: <b>Zeb</b>	ra Environmental, Inc.	7/6/05	7/6/05	5
DRILLI	NG MI	ETH	OD:	Direct	push	TOTAL DEPTH		JRING POINT: nd surface
DRILLI	NG EC	QUIF	PMEN <sup>-</sup>	T: Geopr	obe 5400	DEPTH TO WAT	FIRST	COMPL.
SAMPL	ING N	ΛΕΤΗ	HOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill	3.0	INA
HAMM	ER WI	EIGH	 - T:	NA	DROP: NA		PROFESSIONAL:	REG. NO.
	SAI	MPL	.ES	O	DESCRIPTION			
DEPTH (feet)	Sample No.	Sample	Blows/ Foot	OVM READING (ppm)	NAME (USCS): color, moist, % by wt., p cementation, react. w/HCl,	olast. density, structure, geo. inter.		REMARKS
	Sai	Sar	照고		Surface Elevation:	Not surveyed		
1- - 2-					SILTY SAND with GRAVEL (SM): yellow moist, 70% fine to coarse sand, 15% fine		Sheen to sharing sharing blacking clean w	est consisted of soil into a jar with ater, mixing, and ing visual check for
3-			7	180	POORLY GRADED SAND with SILT (SI 4/1), moist, 90% fine to coarse sand, 100 wet, hydrocarbon odor and sheen			test conducted; observed.
4 5- 6-				120	no hydrocarbon sheen  SILT (ML): gray (10YR 5/1), moist, 90%	6 fines 10% fine sand	sheen - * Sheer	test conducted; no observed.  test conducted; no observed.
7- - 8-			7	0	nonplastic, soft, slow dilatancy, low tough		-  -  -  -	
9-				0	iron oxide mottling interbedded with LEAN CLAY (CL) lamin	ations	580B P	mental Instruments ID calibrated with n isobutylene
10- - 11-			7	0	III.CEDECUCEU WILLI LEAN CLAT (CL) IZITIIII	au <b>v</b> i i3	-  -  -  -	
12- - 13-					Bottom of boring at 12.0 feet		Type I-I placed f	e destroyed using I neat cement grout from total depth to surface with a pipe.
14- - 15-				<b>***</b>	Geomatrix Consultants	I:\PROJECT\\9328\GINTLOGS\DRAWING	S FILESIGP-1 BORING LOG.GDW	OAKBOREV (REV. 3/00) Page 1 of 1

PROJE					E & PARK, INC. SITE lew York	Log o	f Boring No	. GP-2
BORING	G LOC	ATIO	- N: 14	l4 Barr	negat Road	ELEVATION AND DA		urfoo
					ra Environmental, Inc.	Not surveyed; da DATE STARTED: 7/6/05	DATE FII 7/6/05	
DRILLIN	NG ME	THO	D:	Direct	push	TOTAL DEPTH (ft.): 12.0		ING POINT:   surface
DRILLIN	NG EC	UIPM	IENT:	Geopr	obe 5400	DEPTH TO WATER	(ft.) FIRST	COMPL.
SAMPLI	ING M	IETHO	DD: G	eoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
HAMME	ER WE	IGHT	: N	A	DROP: NA	RESPONSIBLE PRO	PFESSIONAL:	REG. NO.
DEPTH (feet)	Sample Sample No.	Sample 374	Foot OVM	READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plas cementation, react. w/HCl, ged	st. density, structure, o. inter.		REMARKS
	Sa	Sal		R )	Surface Elevation:	Not surveyed		
1- - 2-				90	SILTY SAND (SM): dark yellowish brown fine to medium sand, 15% nonplastic fines	(10YR 4/4), moist, 80%	placing so	st consisted of oil into a jar with er, mixing, and g visual check for
_				30	wet (why arrowdn first water at 2.0 if 1.9 co we need both?	ntact point is wet??? do	_	
3-			2	2390?	CLAYEY SAND (SC): gray (10YR 5/1), we low to medium plasticity fines, hydrocarbon		_	
4-					no hydrocarbon sheen  PEAT (PT)			est conducted; no bserved.
5- - 6-				549	POORLY GRADED SAND with SILT (SP-Swet, 90% fine to coarse sand, 10% nonplasPEAT (PT)	SM): gray (10YR 5/1), stic fines		est conducted; no bserved.
-				187	SILT (ML): dark gray (10YR 4/1), moist, 9 nonplastic, medium dilatancy, low toughnes			est conducted; no bserved.
7-				107	<ul><li>yellowish brown (10YR 5/4) mottling</li></ul>		_	
8-				10			_	
9-					LEAN CLAY (CL): dark gray (10YR 4/1)		-	
10-				5			580B PID	nermo ental Instruments calibrated with isobutylene
12- - 13-		/ \			Bottom of boring at 12.0 feet		<ul><li>Type I-II r</li><li>placed from</li></ul>	destroyed using neat cement grout om total depth to urface with a e.
14-							_	
					I:\PROJECT\\9328\G	SINTLOGS\DRAWING FILES\GP-2 BORI	NG LOG.GDW OAKBO	REV (REV. 3/00)

	ER DRIVI keepsie, N	E & PARK, INC. SITE lew York	Log of	Boring No.	GP-3
BORING LOCATION:	144 Bar	negat Road	ELEVATION AND DATU		
		ra Environmental, Inc.	Not surveyed; datu DATE STARTED: 7/6/05	DATE FINI 7/6/05	
DRILLING METHOD:	Direct	push	TOTAL DEPTH (ft.): 8.0		NG POINT: surface
DRILLING EQUIPMEN	NT: Geopr	obe 5400	DEPTH TO WATER (ft.	FIRST 2.0	COMPL.
SAMPLING METHOD	: Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
HAMMER WEIGHT:	NA	DROP: NA	RESPONSIBLE PROFE	ESSIONAL:	REG. NO.
Cfeet) (feet) Sample No. Sample Blows/ Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plas cementation, react. w/HCl, gec	st. density, structure, o. inter.	R	EMARKS
Sal Sal	RE (	Surface Elevation:	Not surveyed		
		SILTY SAND (SM): dark yellowish brown (fine to medium sand, 15% nonplastic fines	(10YR 4/1), moist, 85%		consisted of
1- - 2-	10.6 (>2000)	CLAYEY SAND (SC): dark gray (10YR 4/20% fines wet	1), moist, 80% fine sand,	clean wate conducting a sheen.	into a jar with r, mixing, and visual check for st conducted; no
3- 4- 5- 6- 7-	62 33 10	SILTY SAND (SM): dark greenish gray (10 medium sand, 15% nonplastic fines, hydrocano sheen  PEAT (PT)  SILT (ML): dark gray (10YR 4/1), moist, no dilatancy  interbedded with LEAN CLAY (CL) lamination	onplastic, medium	- sheen ob - * Sheen te - sheen ob - * Sheen te - sheen ob	st conducted; no served. st conducted; no served. st conducted; no served. st conducted; no
9-		Bottom of boring at 8.0 feet		Type I-II ne	
- 11- - 12- - 13-				580B PID of 100 ppm is standard. OVM readi	ntal Instruments calibrated with cobutylene ngs shown in es ( ) are over pm upper range
14-				-	
14-			CT\\9328\GINTLOGS\DRAWING FILES\GP		OAKBOREV (REV. 3/00)

PROJECT:		ER DRIVE keepsie, N	E & PARK, INC. SITE New York	Log of	Boring No.	GP-4
BORING L	OCATION:	144 Bar	negat Road	ELEVATION AND DAT		urfano
			ra Environmental, Inc.	Not surveyed; date DATE STARTED: 7/6/05	DATE FINI 7/6/05	
DRILLING	METHOD:	Direct	push	TOTAL DEPTH (ft.): 8.0	MEASURII Ground	NG POINT: surface
DRILLING	EQUIPMEN	IT: Geopr	obe 5400	DEPTH TO WATER (ft.	FIRST 2.6	COMPL.
SAMPLING	G METHOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
HAMMER '	WEIGHT:	NA	DROP: NA	RESPONSIBLE PROFI	ESSIONAL:	REG. NO.
_	Sample Sandway Blows/ Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. cementation, react. w/HCl, geo. i	density, structure, inter.	R	EMARKS
Sal	Sal		Surface Elevation: No	ot surveyed		
1- 2- 3- 4- 5- 6- 7- 8- 9- 10- 11-		127 (>2000) (>2000) 142	SILTY SAND (SM): dark yellowish brown (1) fine to medium sand, 15% nonplastic fines  light brownish yellow (10YR 6/4)  iron oxide mottling  dark greenish gray (10G 4/1), wet, hydrocarbo  no hydrocarbon odor  bluish black (GLEY2 2.5/1)  PEAT (PT)  SILT (ML): dark gray (10YR 4/1), moist, 90% nonplastic, slow dilatancy, low toughness  LEAN CLAY (CL)  LEAN CLAY (CL)  Bottom of boring at 8.0 feet	on odor and sheen	placing soil clean wate conducting a sheen. * Sheen te sheen ob  Type I-II ne placed from ground sur tremie pipe	st conducted; served.  st conducted; no served. st conducted; no served. st conducted; no served. st conducted; no served. st conducted; no served. st conducted; no served. st conducted; no served. estroyed using eat cement grout in total depth to face with a served.
12 – 13 – 14 – –					100 ppm is standard. OVM readi	ngs shown in es ( ) are over pm upper range
15			I-IPRO IFOT (0328/GINT	TLOGS\DRAWING FILES\GP-4 BORING	LOG.GDW OAKROPE	EV (REV. 3/00)
		// <b>%</b>	Geomatrix Consultants	Project No. 9	LUU.UDIN UANDURE	· (112 - 3/00)

PROJE	CT:			R DRIVE eepsie, N	& PARK, INC. SITI	Ē	L	og of Bo	ring No.	GP-5
BORIN	G LO	CATI	ON:	144 Bar	negat Road			AND DATUM:		
							DATE START	/ed; datum is red:	DATE FIN	
DRILLI	NG CC	ואכ	RACT	OR: Zeb	ra Environmental, Ir	1C.	7/6/05	T1 1 (5)	7/6/05	
DRILLI	NG MI	ETH	OD:	Direct	push		TOTAL DEP	IΗ (π.):		ING POINT: surface
DRILLI	NG E	QUIF	PMEN	T: Geopr	obe 5400		DEPTH TO V	VATER (ft.)	RST	COMPL.
SAMPL	ING N	ΙΕΤΙ	HOD:	Geoprob	e macro-core sampler	[4' x 1.5"]	LOGGED BY D. Averill			
HAMM	ER WI	EIGI	HT:	NA	DROP: N	Α		LE PROFESSIO	DNAL:	REG. NO.
DEPTH (feet)	Sample No.	Sample 14	_	OVM READING (ppm)	NAME (USCS)	DESCRIPTION: color, moist, % by wt., permentation, react. w/HCl, g	plast. density, structure, geo. inter.		F	REMARKS
<u> </u>	Sar	Sar	Blo	R. F.		Surface Elevation:	Not surveyed			
- 1- - 2- - 3-				8.6 7.3	SILTY SAND (SM nonplastic fines  brownish yellow (	1): dark brown (10YR :	3/3), moist, 85% sand,		placing so clean wate conducting a sheen.	t consisted of il into a jar with er, mixing, and g visual check for
5- 6-				(>2000) 336		g, strong hydrocarbon oo y (5BG 3/1), hydrocarbo		- - - - -	* Sheen of	est conducted; oserved.
7- - 8- - 9-		\_\_\_\_			PEAT (PT)  SILT (ML): dark of nonplastic, slow of Bottom of boring a		, 95% fines, 5% fine sa	nd,	sheen of * Sheen to sheen of Borehole of Type I-II n placed fro	est conducted; no oserved.  destroyed using eat cement grout m total depth to
9 - 10 - 11 - 12 - 13 - 14								- - - - - - -	OVM = The Environment 580B PID 100 ppm is standard.  OVM read parenthes	nermo ental Instruments calibrated with sobutylene lings shown in es ( ) are over opm upper range
15-										OAKBOREV (REV. 3/00)
				? <b>?</b>	Geomatrix Consu	14 4		oject No. 9328.0		Page 1 of 1

	MER DRIVE	E & PARK, INC. SITE New York	Log of	Boring No.	GP-6
BORING LOCATION	•	negat Road	ELEVATION AND DAT Not surveyed; dat		ırface
DRILLING CONTRA	ACTOR: Zeb	ra Environmental, Inc.	DATE STARTED: 7/6/05	DATE FIN 7/6/05	
DRILLING METHOD	D: Direct	push	TOTAL DEPTH (ft.): 8.0	Ground	
DRILLING EQUIPM	ENT: Geopr	obe 5400	DEPTH TO WATER (f	t.) FIRST 2.5	COMPL.
SAMPLING METHO	D: Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
HAMMER WEIGHT	: NA	DROP: NA	RESPONSIBLE PROF	FESSIONAL:	REG. NO.
(feet) (Sample No. Sample Sample Blows/	─ _ ĕ <u>_</u>	DESCRIPTION NAME (USCS): color, moist, % by wt., cementation, react. w/HC	, plast. density, structure,	F	REMARKS
Sal Sal		Surface Elevation:	Not surveyed		
1	17	SILTY SAND (SM): dark brown (10YF medium sand, 20% nonplastic fines, co		<ul><li>placing soi clean wate</li></ul>	consisted of l into a jar with r, mixing, and g visual check for
3-	767	CLAYEY SAND (SC): gray (10YR 5/1 low plasticity fines, firm, hydrocarbon or wet		sheen ob	st conducted; no
		SILTY SAND (SM): dark greenish gray to medium sand, 15% nonplastic fines	y (GLEY2 4/1), wet, 85% fine	sheen ob sheen ob	st conducted; no
5-	241 180	SILT (ML): light yellowish brown (10YR PEAT (PT) SILT (ML): gray (10YR 4/1), moist, 90 nonplastic, soft, slow dilatancy		- sheen ob	st conducted; no
7-	176	SILTY SAND (SM): very dark gray (10\	YR 3/1)	-	
	20	interbedded with LEAN CLAY (CL) lami	inations		
9-		Bottom of boring at 8.0 feet		<ul><li>Type I-II ne</li><li>placed fror</li></ul>	lestroyed using eat cement grout in total depth to face with a
11- - 12-				1 1	ental Instruments calibrated with
13- - 14- -				-  -  -  -	
15		 	ROJECT\\9328\GINTLOGS\DRAWING FILES\G	P-6 BORING LOG.GDW	OAKBOREV (REV. 3/00)
		Geomatrix Consultants	Project No.	9328.000	Page 1 of 1

Poughkeeps	RIVE & PARK, INC. SITE ie, New York	Log of E	Boring No.	GP-7
ORING LOCATION: 144		ELEVATION AND DATU		rfaco
RILLING CONTRACTOR:	Zebra Environmental, Inc.	DATE STARTED: 7/6/05	DATE FINIS 7/6/05	
RILLING METHOD: D	rect push	TOTAL DEPTH (ft.): 12.0	MEASURIN Ground s	
RILLING EQUIPMENT: G	eoprobe 5400	DEPTH TO WATER (ft.)	FIRST 7.2	COMPL.
AMPLING METHOD: Geo	probe macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
AMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFES	SSIONAL:	REG. NO.
Sample Sample Sample Sample Sample Sample Sample Sample Foot Foot Poot Sample S	DESCRIPTION NAME (USCS): color, moist, % by wt., p cementation, react. w/HCl,	olast. density, structure, geo. inter.	RE	EMARKS
Sar	Surface Elevation:	Not surveyed		
- 1- - 2-	SILTY SAND (SM): dark brown (10YR: medium sand, 20% nonplastic fines [FILL]  ASPHALTIC CONCRETE debris [FILL]  brownish yellow (10YR 6/6)		placing soil clean water	consisted of into a jar with , mixing, and visual check for
3-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4	POORLY GRADED SAND (SP): dark ye moist, 95% fine to medium sand, 5% fine		Environmer 580B PID c 100 ppm iso standard.	ntal Instruments alibrated with obutylene
5- - 6- - 7-	2		sheen obs	t conducted; no
8-	₩ wet		- * Sheen tes sheen obs	et conducted; no served.
9- 7.	iron oxide mottling		sheen obs	t conducted; no
10-	PEAT (PT) POORLY GRADED GRAVEL (GP) SILT (ML): gray (10YR 5/1), moist, 90%	o fines, 10% fine sand,	_ sheen obs	t conducted; no
11- 7.	nonplastic, soft, slow dilatancy, low tough		* Sheen tes	t conducted; no served.
- 13- - 14-	Bottom of boring at 12.0 feet		Type I-II nea	
15	 	DJECT\\9328\GINTLOGS\DRAWING FILES\GP-7	BORING LOG.GDW	OAKBOREV (REV. 3/0

PROJECT: FORMEF Poughke		& PARK, INC. SITE lew York	Log of	Boring No.	GP-8
BORING LOCATION:	•		ELEVATION AND DA		urface
		ra Environmental, Inc.	Not surveyed; da:  DATE STARTED: 7/6/05	DATE FIN 7/6/05	ISHED:
ORILLING METHOD:	Direct	oush	TOTAL DEPTH (ft.): 8.0	Ground	
DRILLING EQUIPMENT:	Geopre	bbe 5400	DEPTH TO WATER (1	t.)   FIRST 2.0	COMPL.
SAMPLING METHOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
HAMMER WEIGHT:	NA	DROP: NA	RESPONSIBLE PROF	FESSIONAL:	REG. NO.
Sample Sample Sample Blows/ Sample Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., cementation, react. w/HCl	plast. density, structure,	F	REMARKS
Sa Sa E	8	Surface Elevation:	Not surveyed		
- 1-	7.7 11.1 31	CLAYEY SAND (SC): gray (10YR 5/1 low plasticity fines  iron oxide mottling  wet  SILTY SAND (SM): dark gray (10YR 4 nonplastic fines  PEAT (PT)  SILT (ML): gray (10YR 4/1), moist, 90 gravel, nonplastic, slow dilatancy, low to Bottom of boring at 8.0 feet	4/1), wet, 85% fine sand, 15%  % fines, 5% fine sand, 5% fine	- placing soil clean water conducting a sheen Sheen teath sheen obter sheet sheen obter sheet	est conducted; no eserved.  est conducted; no eserved.
9 10				<ul><li>Type I-II no placed from</li></ul>	eat cement grout in total depth to face with a
11- - 12- - 13- - 14-					ental Instruments calibrated with
-					
15					OAKBOREV (REV. 3/00)
		Geomatrix Consultants	Project No.	9328.000	Page 1 of 1

PROJE				R DRIVE	E & PARK, INC. SITE lew York	Log of Bo	rin	g No. I	MIP-B-1
BORIN	IG LOC	CATI	ION:	28 IBM F	Road	ELEVATION AND DATUM			
						Not surveyed; datun	n is	ground s	
DRILLI	NG CC	TNC	RACT	or: Zeb	ra Environmental, Inc.	6/29/05		6/29/05	
DRILLI	NG ME	ETH	OD:	Direct	push	TOTAL DEPTH (ft.):			ING POINT:
						36.0	FIF	Ground RST	surface COMPL.
DRILLI	NG EC	QUIF	PMENT	Γ: Geopr	be 5400	DEPTH TO WATER (ft.)	5.7		NA
SAMPI	LING M	/IETI	HOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill			
HAMM	ER WE	EIGI	HT:	NA	DROP: NA	RESPONSIBLE PROFES	SIO	NAL:	REG. NO.
DEPTH (feet)	Sample No.	Sample 7	$\overline{}$	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. densi cementation, react. w/HCl, geo. inter.	ty, structure,		ı	REMARKS
	Sar	Sar	용모	RE,	Surface Elevation: Not sun	veved	11		
		П			ASPHALTIC CONCRETE	·	$\parallel$		
1-	-			183	SILTY SAND (SP): very dark gray (10YR 3/1), mo 30% nonplastic fines [FILL]	pist, 60% fine sand,		placing so	st consisted of sil into a jar with er, mixing, and
2-				503	SILTY SAND/SANDY SILT (SM/ML): very dark br moist, 50% fine sand, 50% nonplastic fines, contain [FILL]		-	conducting a sheen.	g visual check for
3-	-				SILTY SAND with GRAVEL (SP): very dark gray 60% fine to coarse sand, 20% nonplastic fines, 20%		_		nermo ental Instruments calibrated with
4- - 5-	-			325	SILTY SAND (SP): greenish gray (5BG 5/1), mois 30% nonplastic fines, hydrocarbon odor	st, 70% fine sand,	-  -  -		isobutylene
6-	_				↓ wet		_		
7- -	-			105			-  -  -	* Sheen to	est conducted; no bserved.
8-	_	X			SILTY SAND (SP): greenish black (5BG 2.5/1), w medium sand, 10% nonplastic fines	et, 90% fine to	_	* Sheen to	est conducted; no
9- - 10-	-			19	_ olive (5Y 5/3)		_	sheen ol	bserved.
11-	-			1.1			_	* Sheen te	est conducted; no
12-	_	X			very dark gray (5Y 3/1)		_	sheen ol	
13-	-				PEAT (PT): dark brown (10YR 3/1), moist  LEAN CLAY with SAND (CL): very dark gray (5Y fines, 10% fine sand, medium plasticity, slow dilata				
14 - -	_				toughness  POORLY GRADED GRAVEL with SAND (GP): ve 3/1), wet, 55% fine to coarse rounded gravel, 40% sand, 5% fines	ery dark gray (5Y	-  -  -		
15-	1								OAKBOREV (REV. 3/00)
				<b>72</b>	Geomatrix Consultants	Project No. 932	วย บบ	00	Page 1 of 3

PROJECT: FORMER DRIVE & PARK, INC. SITE Poughkeepsie, New York

# Log of Boring No. MIP-B-1 (cont'd)

REMARKS

### Log of Boring No. MIP-B-1 (cont'd)

	SAMPLES	; <sub>(2)</sub>			
DEPTH (feet)	Sample No. Sample Blows/	Foot OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure cementation, react. w/HCl, geo. inter.	e,	REMARKS
	l iii liii la		cententation, react. willor, geo. inter.		
_			LEAN CLAY (CL): cont'd		
34-				_	
_				_	
35-				_	
_	/ \			-	
36-			Bottom of boring at 36.0 feet		Borehole destroyed using
- 27					Type I-II neat cement grout placed from total depth to
37 –					ground surface with a tremie pipe.
38-				_	
_				-	
39-				-	
-				-	
40-				-	
41-					
··-				_	
42-				_	
-				-	
43-				-	
_				-	
44 –					
45-				_	
_				_	
46-				-	
-				-	
47 –				-	
48-					
-				_	
49-				-	
-				-	
50-				-	
_ 					
51-					OAKBOREV (REV. 3/00)
		/% <u></u>	Geomatrix Consultants Pr	oject No. 9328.000	Page 3 of 3

ROJECT		RMER DRIVI ghkeepsie, N	E & PARK, INC. SITE New York	Log of Bo	oring No. M	IIP-B-13W
ORING I		N: 28 IBM		ELEVATION AND DA		_
				Not surveyed; da		surface INISHED:
RILLING	CONTRA	ACTOR: Zeb	ra Environmental, Inc.	7/6/05	7/6/05	
DII I ING	METHO	D: Direct	nuch	TOTAL DEPTH (ft.):	MEASU	RING POINT:
INILLINO	IVILITIO	D. DIIEGI	pusii	16.0		d surface
RILLING	EQUIPM	IENT: Geopi	obe 5400	DEPTH TO WATER (f	ft.)   FIRST   7.5	COMPL.
AMPLING	G METHO	DD: Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill		
AMMER	WEIGHT	: NA	DROP: NA	RESPONSIBLE PROF	ESSIONAL:	REG. NO.
_	SAMPLE		DESCRIPTION NAME (USCS): color, moist, % by wt.,			REMARKS
(feet)	No. Sample	Foot OVM (ppm)	cementation, react. w/HCl	, geo. inter.		
Sa	Sala		Surface Elevation:	Not surveyed		
			ASPHALTIC CONCRETE			
+			AGGREGATE BASE		Sheen to	est consisted of
1-		150	ASPHALTIC CONCRETE			soil into a jar with
		100	SILTY SAND (SM): dark gray (10YR	1/1) maist 85% fine to	clean wa	ater, mixing, and
2-			medium sand, 15% nonplastic fines [FII		conducti	ng visual check for No sheen
			POORLY GRADED SAND with SILT (S		observed	d.
7		110	moist, 90% fine sand, 10% nonplastic fi	nes	[-]	
3-			contains rootlets		580B PII	mental Instruments D calibrated with n isobutylene
5- 6- 29-WE1-8-dIM		96 546	dark gray (10YR 4/1), hydrocarbon odo	г	- sheen	test conducted: no observed. test conducted: no observed.
8-	3-13W-8.5	27	√ wet			test conducted: no observed.
9-	MIP-E	20				test conducted: no
MP-8-13W-110		20	PEAT (PT)		sheen	observed.
  2-  -  3-	MIP-B-13W-12.5	6	SILT (ML): dark yellowish brown (10Y fine sand, nonplastic, medium dilatancy CLAY (CL): very dark gray (10YR 3/1), firm, slow dilatancy, medium toughness	, soft; interbedded with LEAN moist, 100% fines, nonplastic,	-  -  -  -	
1   4   1   1   1   1   1   1   1   1		1			-  -  -	
15						OAKBOREV (REV. 3/0
		/% <u></u>	Geomatrix Consultants	Project No.	0000 000	Page 1 of 2

### Log of Boring No. MIP-B-13W (cont'd)

			Geomatrix Consultants	Project No. 9328.0	000 Page 2 of 2
JJ					OAKBOREV (REV. 3/00)
33					
32-					•
-				-	
31-				-	
-				-	-
30-				-	
_				_	
29-				_	
28-					
27-				-	-
+				-	
26-				-	-
-				-	
25 –				-	
_				_	-
4-					
23-					
				-	-
22-				-	-
-				-	
21-				-	
				_	
20-					-
9-				-	-
+				-	
8-				-	
-				_	tremie pipe.
7-				_	Type I-II neat cement grou placed from total depth to ground surface with a
6-			Bottom of boring at 16.0 feet		Borehole destroyed using
+	X		SILT (ML): cont'd	_	
		_			
Sample No.	Sample Blows/	OVM READING (ppm)	NAME (USCS): color, moist, % by wt., plast. density, struction cementation, react. w/HCl, geo. inter.	ture,	
	MPLES	= <u>ĕ</u>	DESCRIPTION		REMARKS

PROJE			ER DRIVE keepsie, N	E & PARK, INC. SITE lew York	Log of Bor	ing	No. MIP	-B-14E
BORIN			28 IBM F		ELEVATION AND DATU			
					Not surveyed; datur	n is	ground sur DATE FINISI	
DRILLI	NG CC	ONTRACT	ror: Zeb	ra Environmental, Inc.	7/6/05		7/6/05	ILD.
DRILLI	NG ME	ETHOD:	Direct	push	TOTAL DEPTH (ft.): 16.0		MEASURING Ground su	ırface
DRILLI	NG EC	QUIPMEN	T: Geopr	obe 5400	DEPTH TO WATER (ft.)	FIR:		COMPL.
SAMPI	LING M	//ETHOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill			
HAMM	ER WE	EIGHT:	NA	DROP: NA	RESPONSIBLE PROFES	SSION	IAL:	REG. NO.
DEPTH (feet)	Sample No.	Sample Blows/ Sample Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. of cementation, react. w/HCl, geo. in	density, structure, nter.		RE	MARKS
	Sa	Sa Blo	RE )	Surface Elevation: No	ot surveyed			
				ASPHALTIC CONCRETE		$\dashv \top$		
1-	-		5	AGGREGATE BASE  SILTY SAND with GRAVEL (SM): yellowish b moist, 70% fine to coarse sand, 15% fine grave			Sheen test or placing soil in clean water, conducting v a sheen. No observed.	nto a jar with mixing, and isual check for
3-			12	grayish brown (10YR 5/2)  SILTY SAND (SP): yellowish brown (10YR 5	(/A) maint 95% fine to			al Instruments
4- - 5-			500	medium sand, 15% nonplastic fines	94), Hoist, 65% life to		580B PID ca 100 ppm isol standard.	
6-	MIP-B-14E-6.0		(>2000)	gray (10YR 5/1)		_ _ _	* Sheen test sheen obse	conducted; no erved.
8- 8-	- - - -		(>2000)	₩et		_ _ _		
9- 10- - 11-	MIP-B-14E-10.5 MIP-B-14E			hydrocarbon odor and sheen		-  -  -  -  -	* Sheen test sheen obse	,
- 12- -	MIP-B-14E-13.0						* Sheen test sheen obse	conducted; no erved.
13- - 14-	4. 7		26	PEAT (PT): dark brown (10YR 3/3), moist				
-	IIP-B-14E-14		20	POORLY GRADED SAND (SP)			* Sheen test sheen obse	conducted; no erved.
15-	Σ	Ш					0	AKBOREV (REV. 3/00)
			/X	Geomatrix Consultants	Project No. 93	28.00		age 1 of 2

### Log of Boring No. MIP-B-14E (cont'd)

1	C 4 4	4DL F	-0 1					
DEPTH (feet)		Sample	Blows/ 6/Foot	OVM READING (ppm)	DESCRIPTI NAME (USCS): color, moist, % by v cementation, react. w/F	ON vt., plast. density, structure, HCI, geo. inter.		REMARKS
_		X			POORLY GRADED GRAVEL with SILT gray (10YR 4/1), wet, 80% fine gravel, nonplastic fines	T and SAND (GP-GM): dark 10% fine to coarse sand, 10%	* Sheen to	est conducted; no observed.
16 – –					Bottom of boring at 16.0 feet	-	- Type I-II ı	destroyed using neat cement grout
17-						-	placed froground so tremie pip	om total depth to urface with a be.
18-						_	_	
19-						-	-	
20-						-	- -	
_						-	_	
21 – –						-	_	
22-						-	_	
23-						-	_	
24-						-	-	
- 25-						-	- -	
_						-	_	
26 – –						-	_	
27 – –						-	- -	
28-						-	_	
29-						-	_	
30-						-	- -	
_ 31_						-	_	
_						-	_	
32- -						-	_	
33						<u> </u>	_	OAKBOREV (REV. 3/00)
				// <u>\</u>	Geomatrix Consultants	Project No. 9328	.000	Page 2 of 2

		ER DRIVE keepsie, N	E & PARK, INC. SITE lew York	Log of Bor	ing No. M	IIP-B-16N
BORING LOC	CATION:	28 IBM F		ELEVATION AND DATU		fa.a.a
ORILLING CO	ONTRACT		ra Environmental, Inc.	Not surveyed; datur	DATE FI	
ORILLING ME		Direct		7/6/05 TOTAL DEPTH (ft.):		RING POINT:
ORILLING EC	QUIPMEN		obe 5400	16.0  DEPTH TO WATER (ft.)	FIRST	d surface COMPL.
		•	e macro-core sampler [4' x 1.5"]	LOGGED BY:	6.2	NA
HAMMER WE		NA	DROP: NA	D. Averill RESPONSIBLE PROFES	SSIONAL:	REG. NO.
SAI	MPLES		DESCRIPTION			<u> </u>
DEPTH (feet) Sample No.	Sample Blows/ Foot	OVM READING (ppm)	NAME (USCS): color, moist, % by wt., plast. der cementation, react. w/HCl, geo. inte	nsity, structure, r.		REMARKS
Sa	Sa	R.	Surface Elevation: Not si — ASPHALTIC CONCRETE	urveyed		
1 2 3 4 5 6 7 8 9 10 0.6.N61-8-76N.6.3		(>2000) (>2000) (>2000) (>2000) (>2000)	SILTY SAND (SM): dark gray (10YR 4/1), mois 15% nonplastic fines, trace fine gravel, contains r [FILL]  grayish brown (10YR 5/2)  wet  dark greenish gray (GLEY2 4/1), sheen  75% fine sand, 25% nonplastic fines		placing since clean ware conducting a sheen. Observed  OVM = T Environm 580B PIE 100 ppm standard. OVM rea parenthe: the 2000 of the det * Sheen of sheen of  * Sheen of  - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of - * Sheen of	hermo nental Instruments of calibrated with isobutylene dings shown in ses ( ) are over ppm upper range
MIP-B-16N-13.0 MIP-B-16N-13.0 MIP-B-16N-13.0 MIP-B-16N-13.0 MIP-B-16N-14.5 MIP-B-		61	PEAT (PT): dark brown (10YR 3/3), moist  POORLY GRADED GRAVEL with SILT and SAI greenish gray (GLEY2 4/1), wet, 60% fine subro fine to medium sand, 10% nonplastic fines  SILT (ML): dark gray (2.5Y 4/1), moist, 80% fine nonplastic, soft, rapid dilatancy	undèd gravél, 30%		test conducted; no observed.
14- 4					_	OAKBODEV (FF)
		/XS	Geomatrix Consultants	Project No. 93		Page 1 of 2

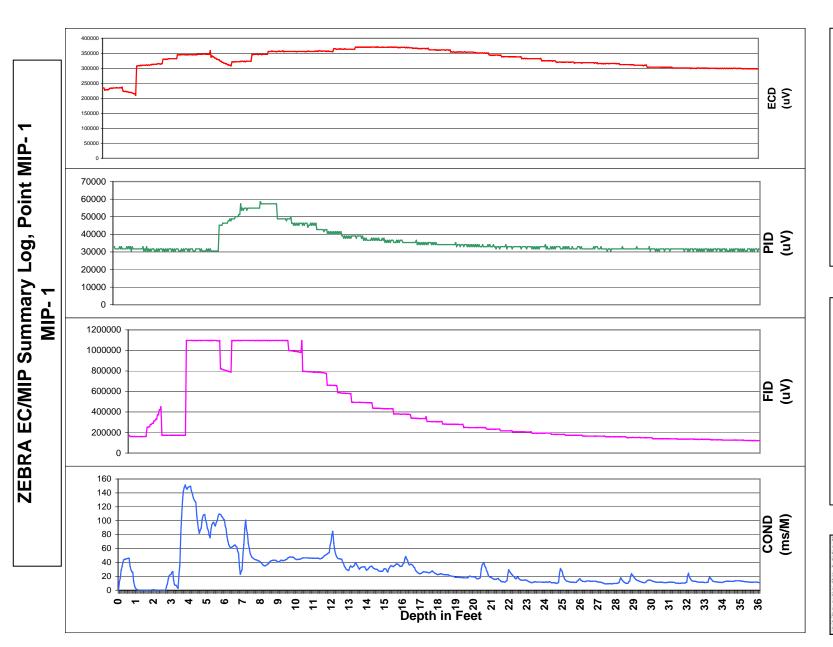
### Log of Boring No. MIP-B-16N (cont'd)

16-	DESCRIPTION NAME (USCS): color, mosts, % by wt. plast density, structure, cementation, react. wiHCl, geo. inter.  SILT (ML): cont'd  Bottom of boring at 16.0 feet  Bottom of boring at 16.0 feet
- 17-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
17 -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17 18 19 20 22 23 24 25 26 27 28 29 29	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17 18 19 20 22 23 24 25 26 27 28 29 29	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17 18 19 20 21 22 23 24 25 26 27 - 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17 18 19 20 21 22 23 24 25 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28 28	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 177 188 199 120 121 - 122 - 123 - 124 - 125 - 126 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 127 - 12	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
7 -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 17-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 7 - 8 - 9 20 21 22 23 24 25	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement group placed from total depth to ground surface with a
- 17-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a
- 7 8 9 20 21 22 23 24	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
- 7 8 9 20 21 22 23 24	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement group placed from total depth to ground surface with a
7- - 8- - 9- - 0- - 1- - 2- - 3-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7 -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
- 7- - 8- - 9- - 0- - 11- - 2- -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- - 8- - 9- - 0- - 1-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- - 8- - 9- - 0- -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- - 8- - 9- - 0- -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7 8 9	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- - 8- - 9-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- - 8- -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
7- -	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
-	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to ground surface with a
-	Bottom of boring at 16.0 feet  Borehole destroyed using Type I-II neat cement grouplaced from total depth to
6	SILT (ML): cont'd  Bottom of boring at 16.0 feet  Borehole destroyed using
-	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.
S S C	DESCRIPTION  NAME (USCS): color, moist, % by wt., plast. density, structure,
Sample Sample Sample Sample Blows/	

ROJEC			ER DRIVE keepsie, N	E& PARK, INC. SITE lew York	Log of Bo	oring	g No. I	MIP-B-20
ORING	1004	ATION:	28 IBM F	Road	ELEVATION AND DATU			
Ortino	LOOF	ΛΠΟΙ <b>ν</b> .	ZO IDIVI I		Not surveyed; datu	ım is		surface INISHED:
RILLING	G CON	NTRAC1	ror: Zeb	ra Environmental, Inc.	DATE STARTED: 6/30/04		6/30/0	
					TOTAL DEPTH (ft.):			TING POINT:
RILLING	G ME	THOD:	Direct	push	20.0			d surface
RILLING	G EQI	UIPMEN	IT: Geopr	bbe 5400	DEPTH TO WATER (ft.	FIR 5.2		COMPL. NA
AMPLIN	NG ME	ETHOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED BY: D. Averill	·		,
AMMER	R WEI	IGHT:	NA	DROP: NA	RESPONSIBLE PROFE	ESSIOI	NAL:	REG. NO.
		IPLES	<u>ق</u> 0	DESCRIPTION				REMARKS
(feet)	Sample No.	Sample Blows/ Foot	OVM READING (ppm)	NAME (USCS): color, moist, % by wt., plast. d cementation, react. w/HCl, geo. in	density, structure, nter.			REIVIARNS
, ,	Sa	Sa	REO	Surface Elevation: Not	t surveyed			
				VEGETATION?		$\dashv T$		
7				ASPHALTIC CONCRETE		_ -	OVM = T	Thermo
1-			7	POORLY GRADED GRAVEL with SILT (GP-G		-	Environn	nental Instruments
+				brown (10YR 4/4), moist, 90% fine to coarse g	gravei, 10% nonplastic	+		O calibrated with isobutylene
2-	\		858	SANDY SILT (ML): dark gray (2.5Y 4/1), moito coarse sand, trace fine gravel, low plasticity, contains roots, wood debris, hydrocarbon odor	firm, slow dilatancy,		standard	l.
3-	\	$\bigvee$				-	OVM res	adings shown in
_	Ι,	$\wedge$		CILTY CAND (CM), alice become (C.EV. 4/2) as			parenthe	ses ( ) are over
4-	1			SILTY SAND (SM): olive brown (2.5Y 4/3), m 35% nonplastic fines, contains rootlets, strong				ppm upper range
			1125	co /cplacac imics, co.namic rocacts, calcing	, a. coa. co coc.		of the de	tector.
			1125					
5-				T wat dark grow (2 EV 4/4)				
-				wet, dark gray (2.5Y 4/1)				
6-	MIP-B-20-6.5		1646					
-	-B-2					-		
7-	¥					_		
	27	X	1500					
8-	20-8			very dark gray (2.5Y 3/1)				
+	2-B-;			separate-phase hydrocarbon product		-		
9-	0-9.5 MIP-			<u> </u>		-		
4	MIP-B-20-9.5		(>0000)			-		
10-	MIP-		(>2000)	iron oxide staining				
	$\simeq$			PEAT (PT): very dark grayish brown (2.5Y 3/2	), moist	$-  \  $		
	20-1 MIP-			SILTY GRAVEL with SAND (GM): dark gray	·			
11-	MIP-B-20-11.0	\ /		fine to coarse rounded gravel, 25% fine to coar		-		
+	\ \	XΙ		nonplastic fines		-		
12-	4	<u></u>				- 4-1		
	-130			POORLY GRADED SAND with GRAVEL (SP) wet, 80% fine to coarse sand, 15% fine to coar				
12	20-1			1070 mile to course carra, 1070 mile to coar	55 graver, 070 miles			
13-	P-B-		196					
+	15.0 MIP.					-		
14-	P-B-20-15.0			SILT with SAND (ML): dark gray (2.5Y 4/1), v	wet. 80% fines. 20%	+ $ $		
+	MIP.		24	fine sand, nonplastic, firm, rapid dilatancy	, 55 /6 11100, 20 /6	-		
15								OAKBOREV (REV. 3/
			/% <u></u>	Geomatrix Consultants	Project No. 9	328 00	)O	Page 1 of 2

### Log of Boring No. MIP-B-20 (cont'd)

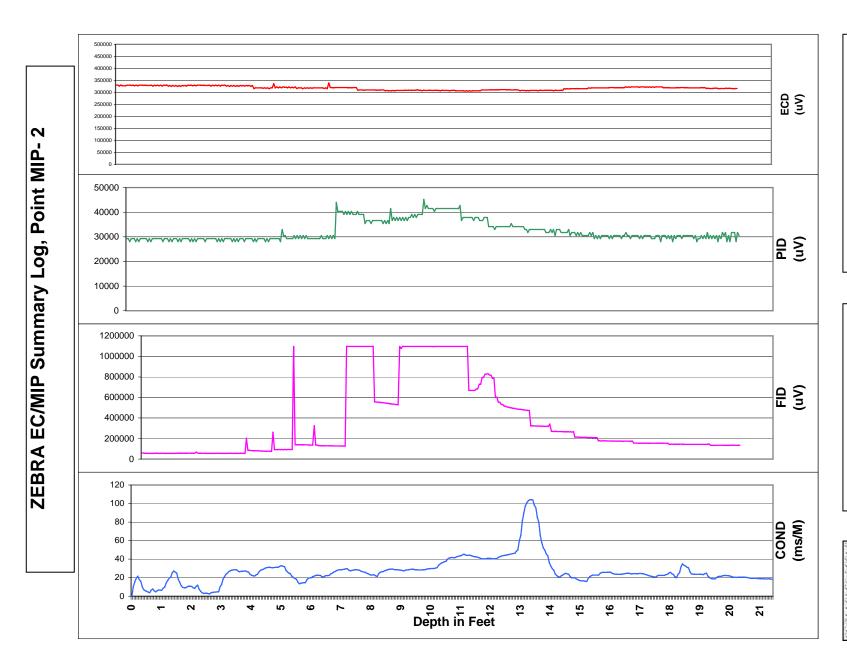
24-  25-  26-  27-   28-  29-  30-  31-  32-	25- 26- 27- 28- 29- 30- 31-	25- 26- 27- 28- 29- 30-
25- 26- 27- 28- 29- 30- 31-	25- 26- 27- 28- 29- 30- 31-	25- 26- 27- 28- 29- 30-
26- - 27- - 28- - 29- - 30- - 31- -	26- - 27- - 28- - 29- - 30- - 31-	26 -
27- 28- 29- 30- 31-	27- 28- 29- 30- 31-	27- 28- 29- 30- -
27- 28- 29- 30- 31-	27- 28- 29- 30- 31-	27- 28- 29- 30- -
28- 29- 30- - 31- -	28- 29- 30- - 31- -	28-   29-  30- 
28- 29- 30- - 31- -	28- 29- 30- - 31- -	28-   29-  30- 
29 -	29 -	29
30		
- 30		
	33	
33 OAKBOREV (REV. 3/00)		





Date: 6/28/2005
Proj. Name: Avis Facility
Proj. #: DS8873

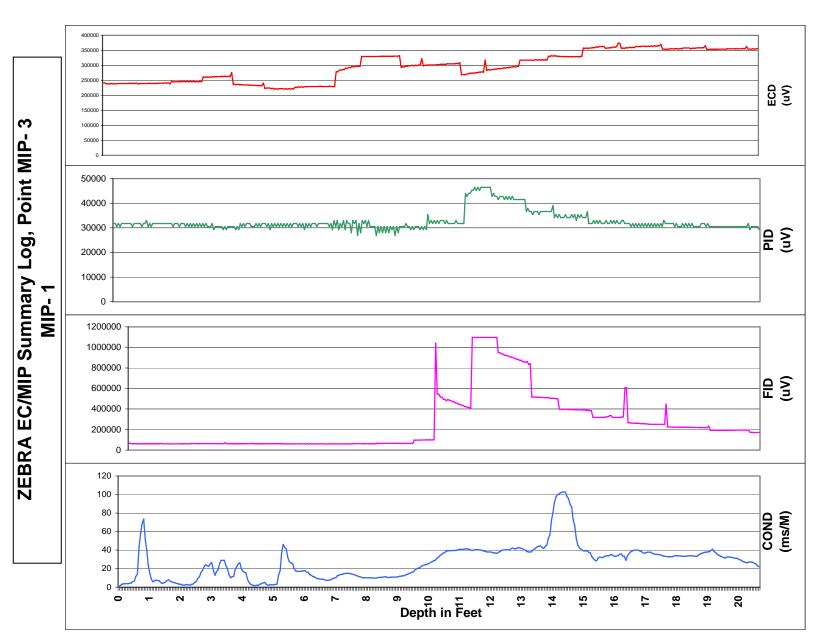
Operators: Chris Point 1 of 6





Date: 6/28/2005
Proj. Name: Avis Facility
Proj. #: DS8873

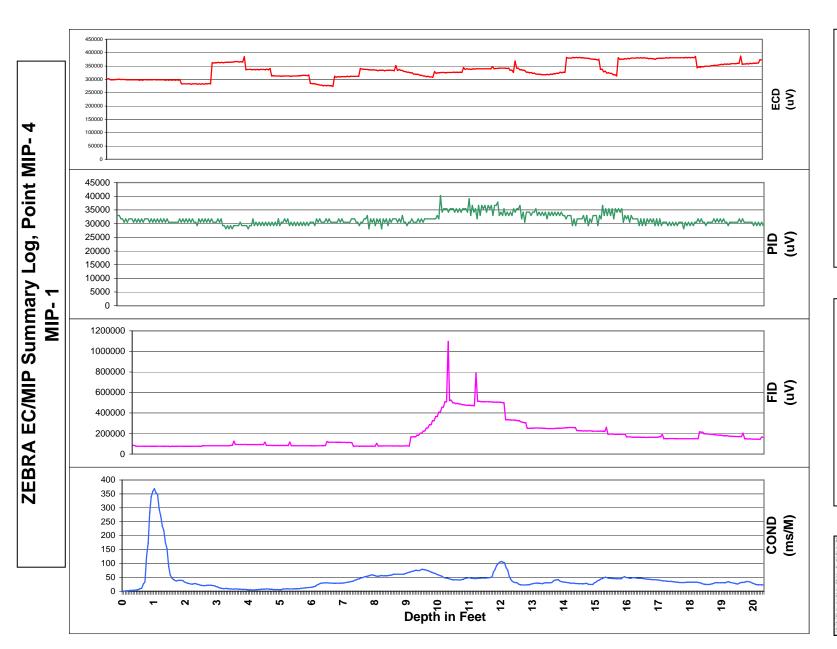
Proj. #: DS88/3 Operators: Chris Point 2 of 6





Date: 6/28/2005 Proj. Name: Avis Facility Proj. #: DS8873

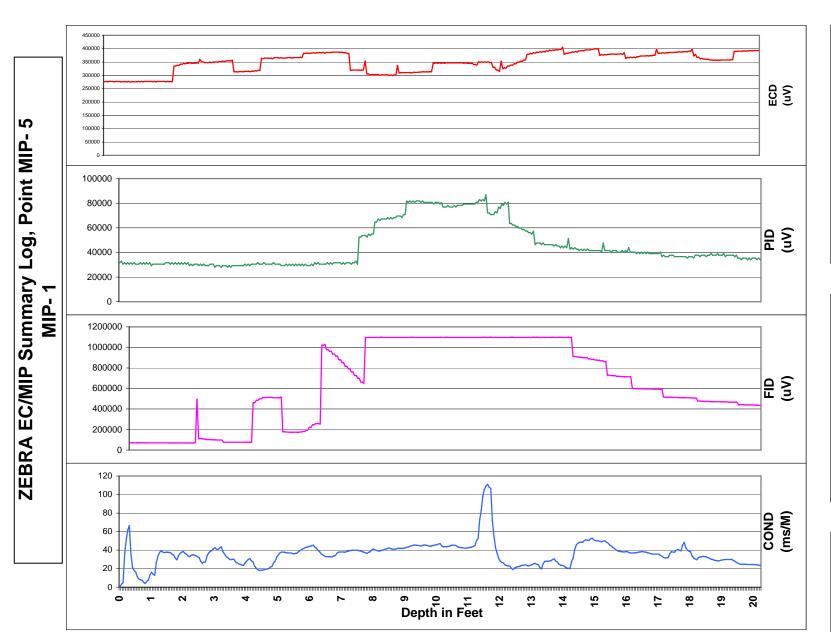
Operators: Chris Point 3 of 6





Date: 6/28/2005
Proj. Name: Avis Facility
Proj. #: DS8873

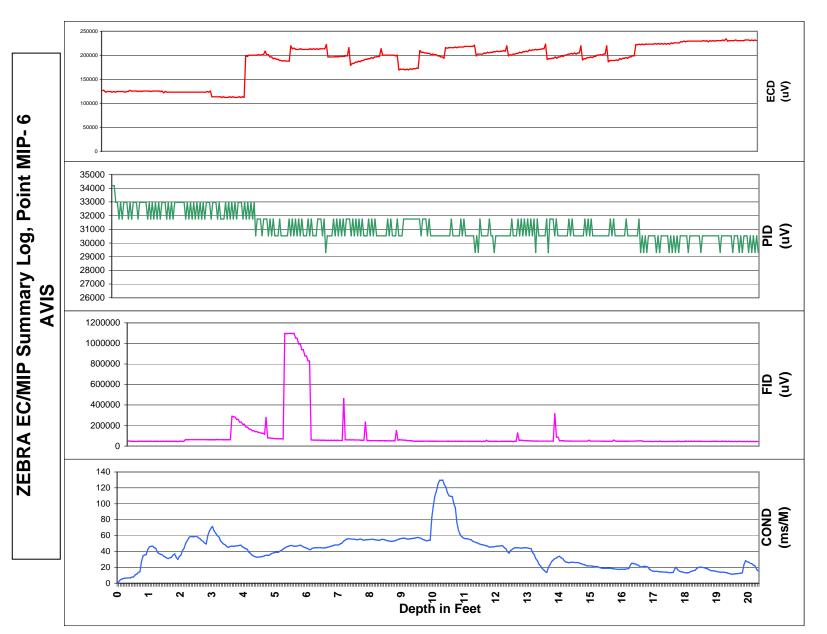
Operators: Chris Point 5 of 6





Date: 6/28/2005 Proj. Name: Avis Facility Proj. #: DS8873

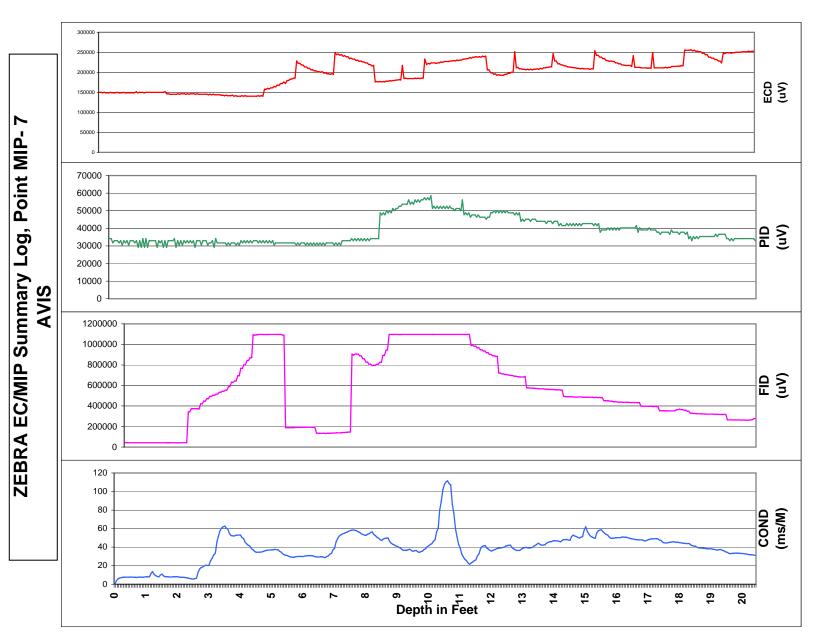
Operators: Chris





Proj. Name: Avis Facility Proj. #: DS8873 Date: 6/29/2005

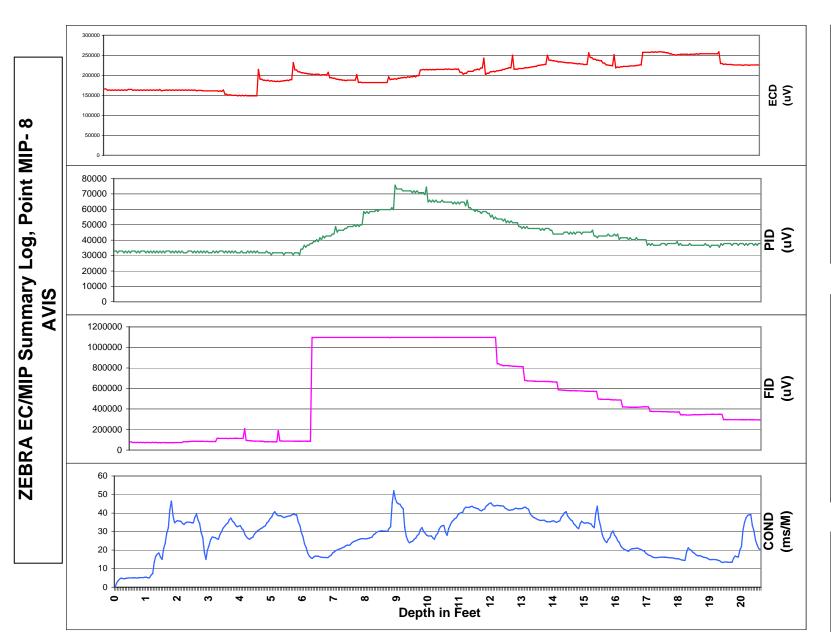
Operators: Chris Point 1 of 9





Proj. Name: Avis Facility Proj. #: DS8873 Date: 6/29/2005

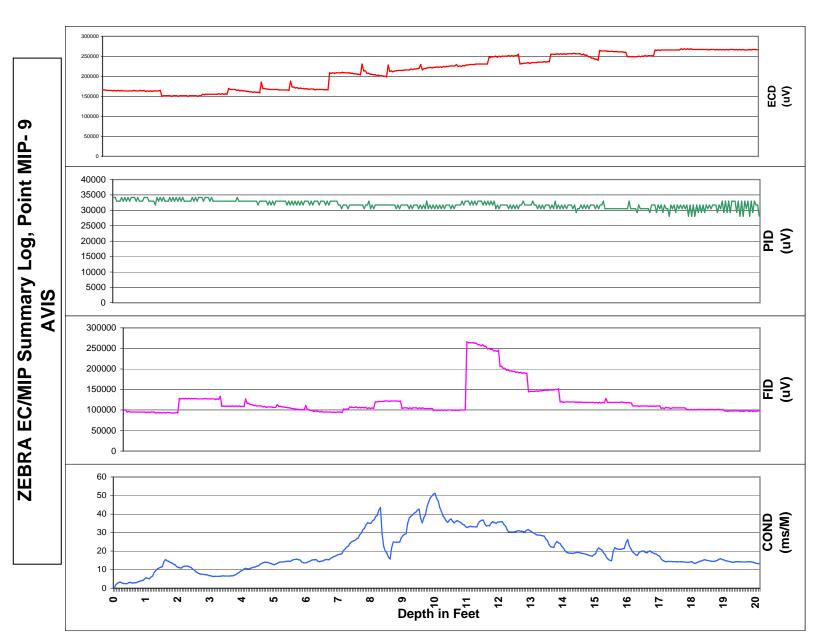
Operators: Chris Point 2 of 9





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

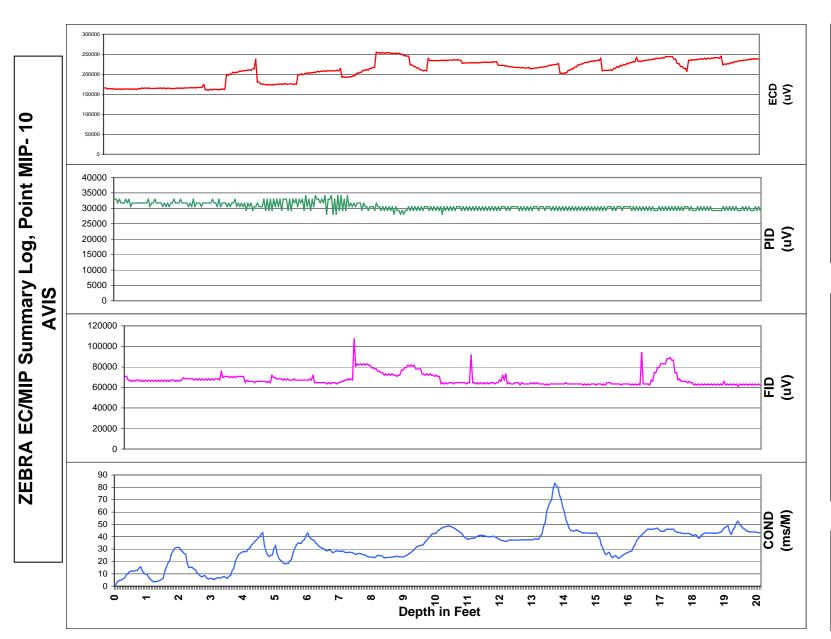
Operators: Chris





Date: 6/29/2005
Proj. Name: Avis Facility
Proj. #: DS8873

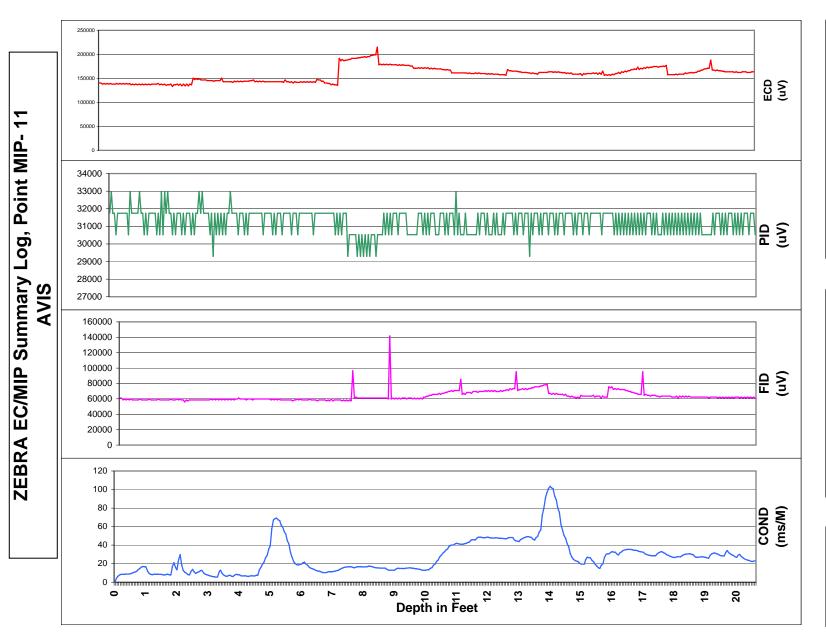
Operators: Chris Point 4 of 9





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

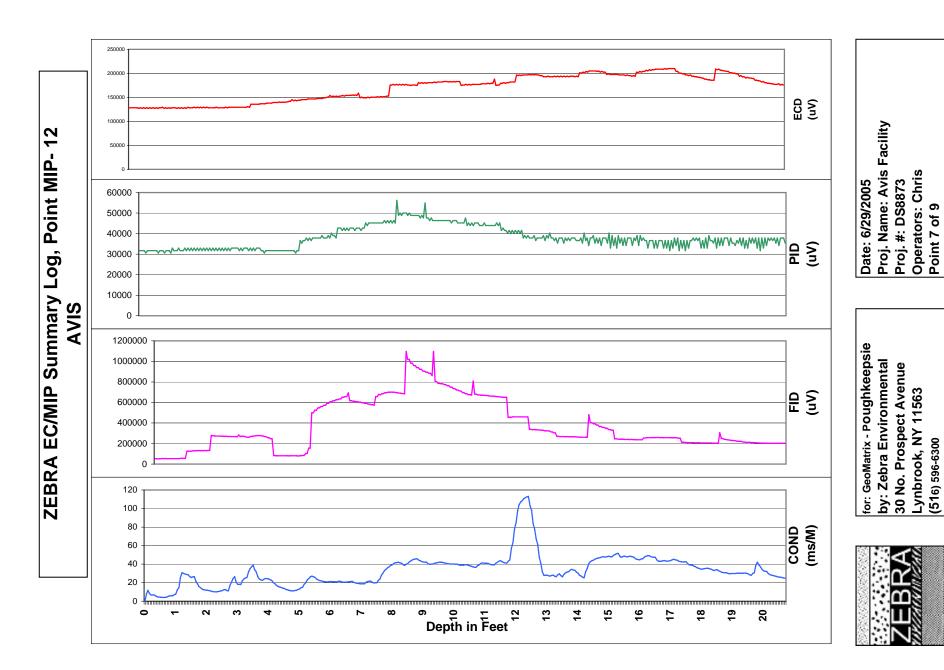
Operators: Chris Point 5 of 9



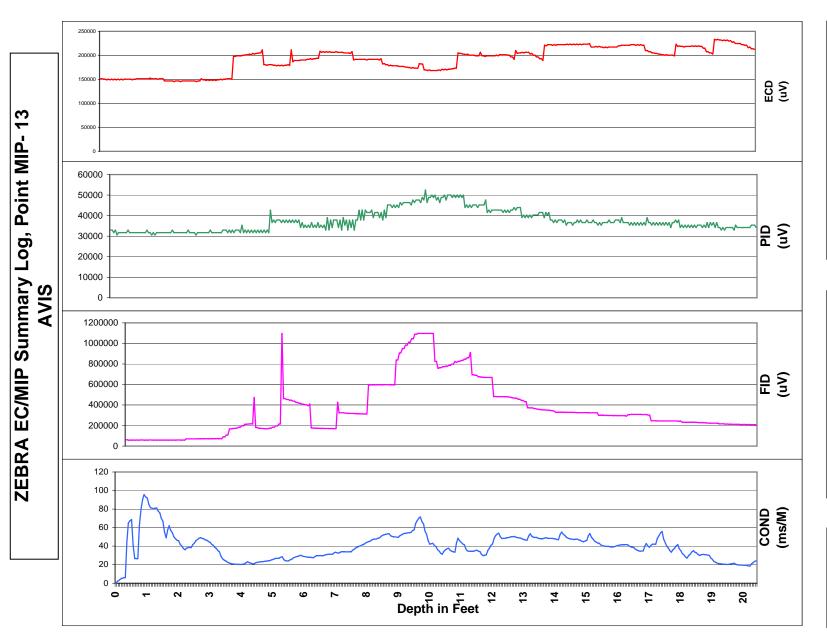


Date: 6/29/2005
Proj. Name: Avis Facility
Proj. #: DS8873

Operators: Chris Point 6 of 9



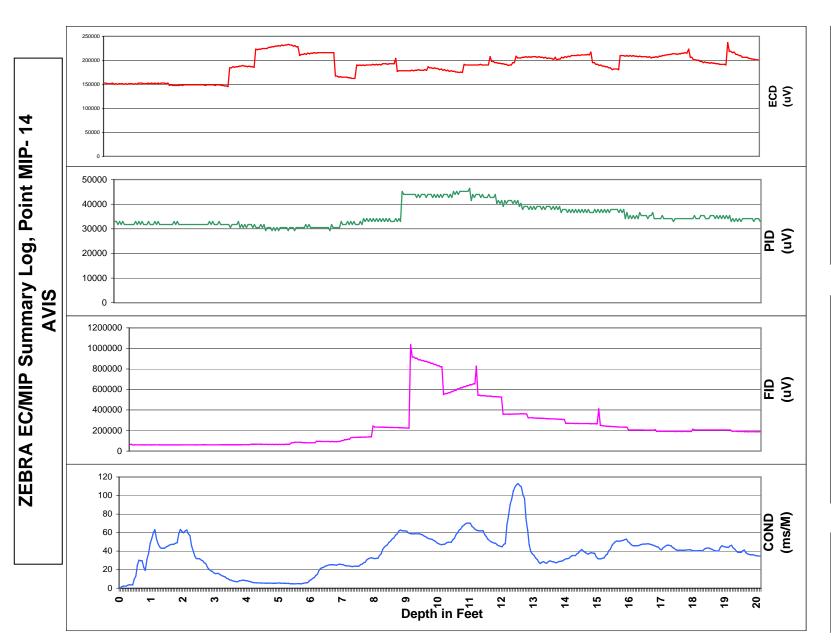
Operators: Chris Point 7 of 9





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

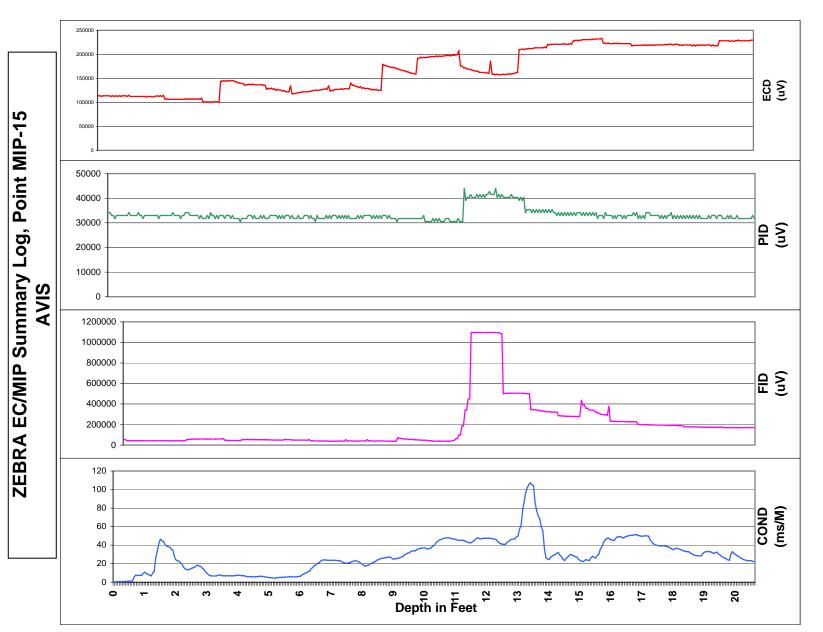
Operators: Chris Point 8 of 9





Proj. Name: Avis Facility Proj. #: DS8873 Date: 6/29/2005

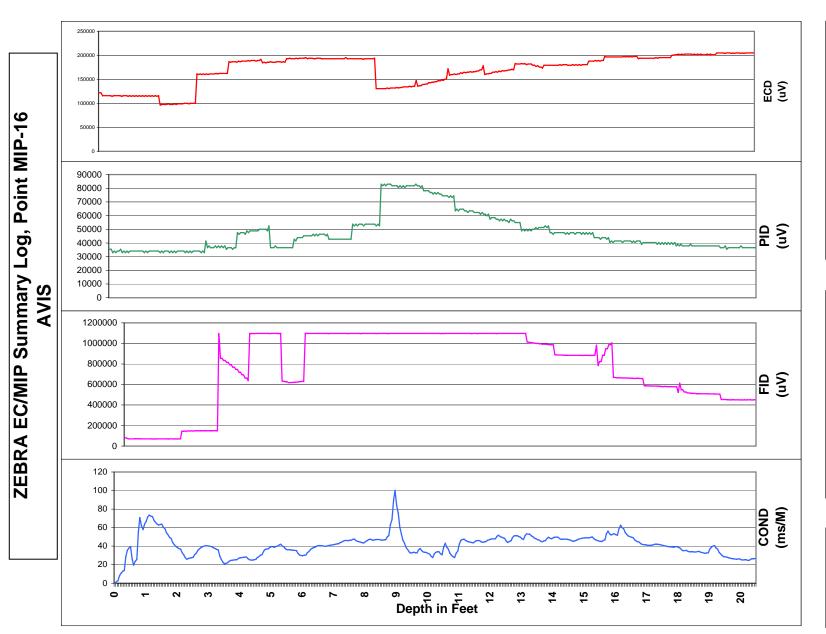
Operators: Chris Point 9 of 9





Date: 6/29/2005
Proj. Name: Avis Facility
Proj. #: DS8873

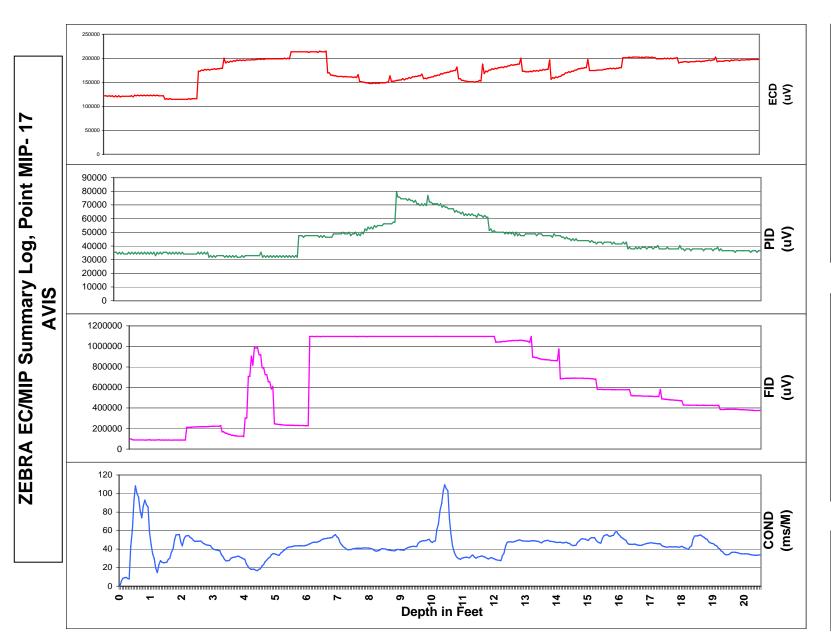
Proj. #: DS8873 Operators: Chris Point 1 of 8





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

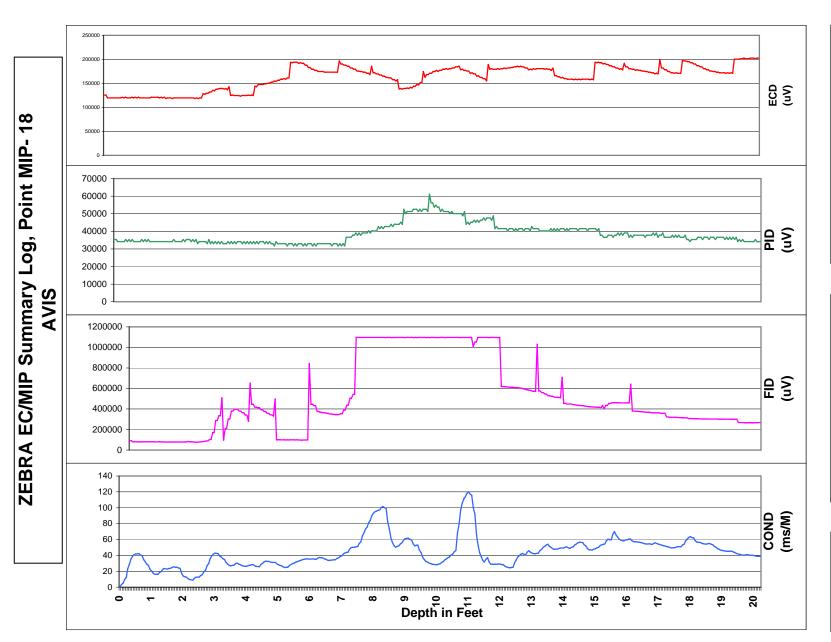
Operators: Chris Point 2 of 8





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

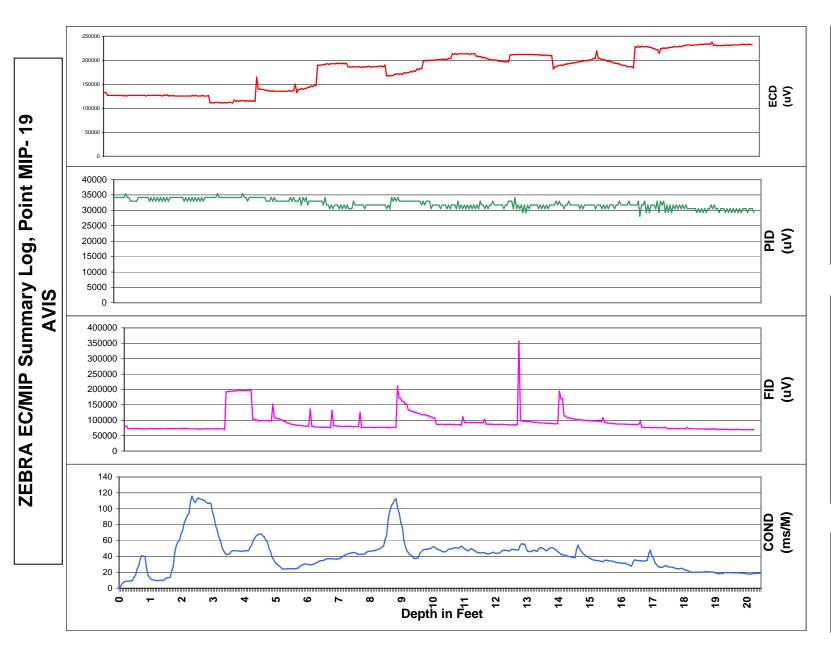
Operators: Chris Point 3 of 8





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

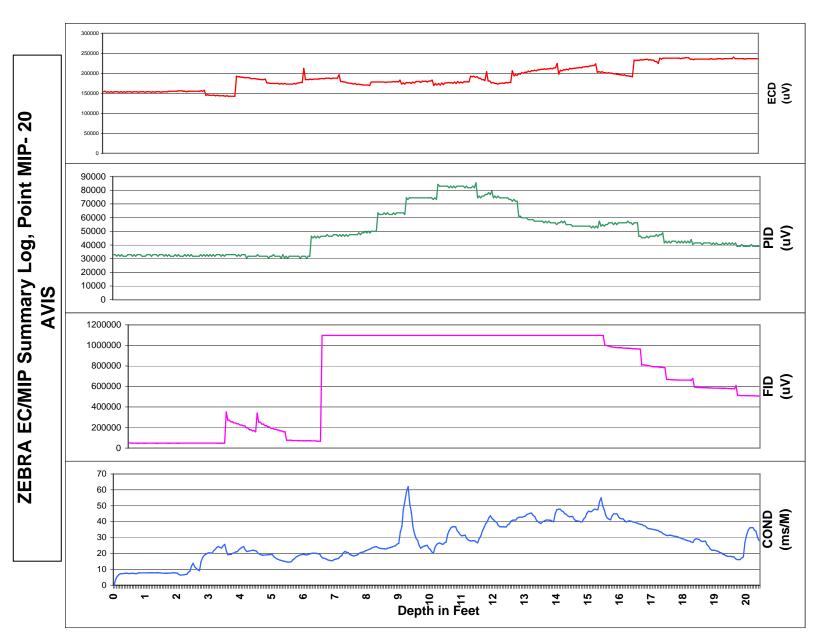
Operators: Chris Point 4 of 8





Proj. Name: Avis Facility Proj. #: DS8873 Date: 6/29/2005

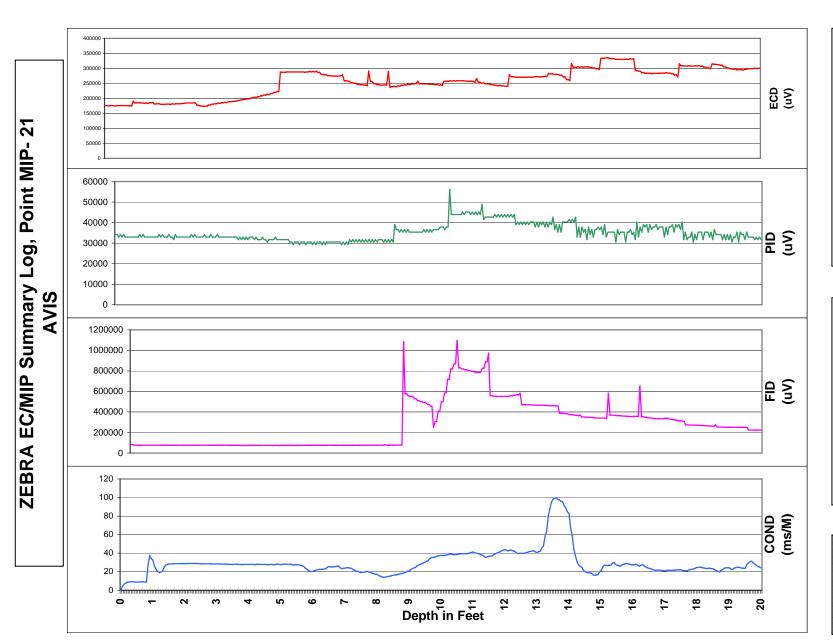
Operators: Chris Point 5 of 8





Proj. Name: Avis Facility Proj. #: DS8873 Date: 6/29/2005

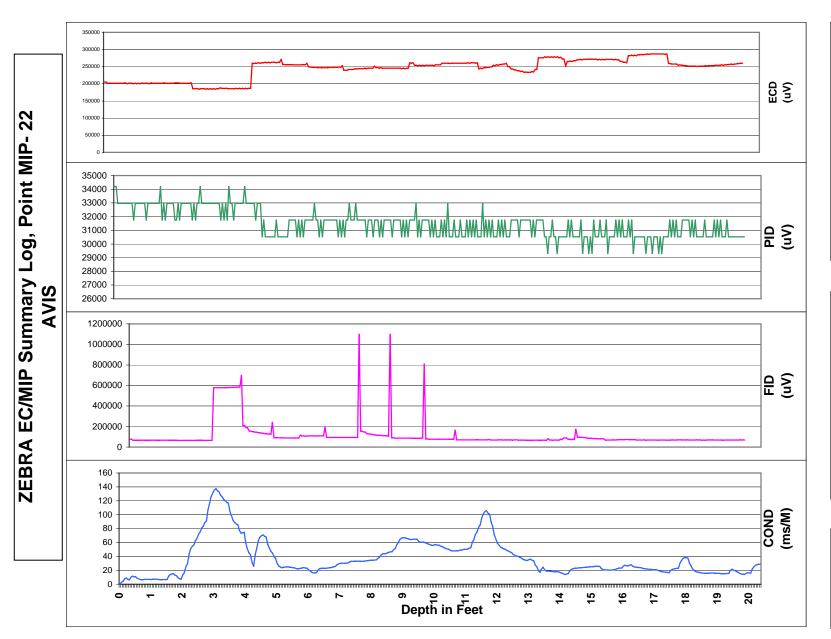
Operators: Chris Point 6 of 8





Proj. Name: Avis Facility Proj. #: DS8873 Date: 6/29/2005

Operators: Chris Point 7 of 8





Date: 6/29/2005 Proj. Name: Avis Facility Proj. #: DS8873

Operators: Chris Point 8 of 8



## **APPENDIX E**

# **Dutchess County Work Permit**

#### COUNTY OF DUTCHESS - DEPARTMENT OF PUBLIC WORKS HIGHWAY WORK PERMIT - SECTION 136 HIGHWAY LAW

Type of Permit:

Permittee:	Cendant Car	Rental Group	c/o Phil Engle
------------	-------------	--------------	----------------

6 Sylvan Way

Parsippany, NJ 07054

973-496-6942

PERMIT NO .:

P 06-163

**Expiration Date:** 10-07

County Route No.:

#### **Description of Permitted Work:**

Perform soil borings in CR 48 R.O.W. in the vicinity of Barnegat Road/ CR 48

intersection for chemical analysis and restore area per DC DPW specs

Permit Fee: \$100.00 Security Deposit: \$1,500.00 Additional Security:

Special Rental Fee:

\$0.00 \$0.00

Sign Fee

**OTHER** 

\$0.00

Insurance Required:

Yes

Policy#

Approved Plan:

Work Location:

Tax Parcel Number:

Plan Dated:

R M

Т E E

Ε

T

T

E

(I, We), the undersigned, acknowledge that:

🛘 I, the permittee described above, am (an, the) owner of the property listed herein and I have read and understand the terms, conditions, and limitations of this permit, including any special conditions on the reverse side of this permit.

o W. Engle am a duly authorized agent for the permittee described above, who is (an, the) owner of the property listed herein and I have read and understand the terms, conditions, and limitations of this permit, including any special conditions on the reverse side of this permit. Attach authorization letter to this permit.

t's Signature

(f, We), the undersigned, accept the terms and conditions of the "Dutchess County Policy and Standards for Access and Utility Work on County Highways," (Highway Work Permit Policy Manual) and all additional conditions and limitations of this permit established by Dutchess County DPW, and will perform all work to the satisfaction of the County of Dutchess Commissioner of Public Works or his designee. All authorized work including restoration shall be completed before the permit expiration date. If work cannot be completed by the expiration date specified herein, applicant may apply for renewal of the permit. Dutchess County Department of Public Works reserves the right to grant or deny any permit renewal request. The permitted work shall be available for inspection during DCDPW normal business hours. The work shall be made available for inspection at any time with twenty-four (24) hour notice.

Date

C D. Р

ermit location and/or plans\_reviewed by

Permit fee received by:

Permit security deposit received

Permit approved by:

Title: TROFFIC IZNGINGE

\*\*READ REVERSE SIDE FOR PERMIT CONDITIONS AND RESTRICTIONS\*\*

P 06-163

#### General Conditions and Limitations of Highway Work Permits

- No permit work can take place within the County right of way between November 15 and March 15.
- All workers within the County right of way are required to wear safety equipment and shall, at a minimum, wear hard hats and ANSI Class II or III safety vests. Flaggers must wear ANSI Class II or III orange vests.
- 3. Work authorized by this permit shall begin within thirty (30) days of the date of issue of the permit and shall continue in a timely manner.
- 4. Forty-eight (48) hour notice must be provided prior to the start of work authorized by the permit. Forty-eight (48) hour notice must be given prior to installation of asphalt pavement in order to conduct a subbase and grading inspection. Failure to provide said notices may result in core sampling of the driveway at the expense of the permittee.
- All work and materials used within the County right of way shall meet DCDPW's current specifications and NYSDOT's 'Standard Specifications for Construction and Materials.'
- Regulations of Code Rule 53 (Part 753) apply to this work. It is the excavator's responsibility to call 'Dig Safety New York' at 1 (800) 962-7962 prior to excavation or demolition work.
- 7. The cost of the permit work and traffic control shall be borne by the permittee. Any damage to the County highway or County facilities shall be repaired or replaced to the satisfaction of DCDPW. Costs for such repair or replacement shall be borne entirely by the permittee.
- The permit and/or security deposit cannot be transferred or assigned to another person, firm, corporation, or municipality under any circumstance.
- The permit poster shall be located such that it remains clearly visible from the County highway as close to the work as possible. The poster shall remain in readable condition throughout the duration of the work. Upon acceptance of the work, the poster shall be returned to DCDPW. Failure to return the permit poster may result in forfeiture of a portion of the security deposit.
- 10. DCDPW reserves the right to halt the work, revoke or cancel a permit at any time should the permittee fail to comply with the terms, conditions, and restrictions of the permit. If a permit is revoked, no lawful access to the County right of way is granted.
- 11. The permittee agrees to defend and indemnify the County of Dutchess for negligence arising out of any claim for damages or injuries to others, that the work and construction was defective, improperly protected or completed, and to pay any judgment recovered of said claim. The County shall have the right to select legal counsel to represent it for the defense of any claim, suit, or action arising directly or indirectly from the work authorized by the permit; all fees and disbursements for the same shall be paid by the permittee.
- 12. The permittee certifies that all persons employed to perform the work are covered by Worker's Compensation Insurance as required by New York State law.
- 13. The work shall be available for Inspection during DCDPW normal business hours. The work shall be made available for inspection at any time with twenty-four (24) hour notice.
- 14. The parcel must be improved such that required sight distances can be verified. The applicant's engineer may be required to submit 'Sight Distance Confficulton' form
- 15. The permittee agrees to pay any cost for testing or inspection of the permitted work as required by DCDPW. Payment for such testing or inspections shall be made within thirty (30) days of billing.
- 16. The permit fee includes up to three inspections of the work; initial site visit, pre-paving inspection, and final inspection. If additional site inspections are required by DCDPW, a fee of \$75.00 per inspection may be assessed and charged against the permittee's security deposit at the discretion of DCDPW. Inspection fees shall be deducted from the security deposit prior to permit close-out and return of securities.
- 17. If the permittee fails to comply with the terms of or complete the work authorized by the permit, DCDPW may order the applicant (or its contractor) to stop work until corrections have been made. If corrective actions are not made as ordered by DCDPW, the County may perform the corrections and use the applicant's security deposit to pay for the necessary work.
- 18. Traffic on the County highway shall be protected and maintained in accordance with standard industry practice and in strict compliance with Title 17NYCRR Part 200 (NYS Manual of Traffic Control Devices).
- 19. Equipment and materials are not to be stored overnight within the County right of way.
- Open trenches must be backfilled to the adjacent grade at the end of each workday. Road plates are not permitted unless specifically approved by DCDPW.
- 21. The County highway must be kept free from debris, including tools, equipment, earth, storm water, vehicles, and construction materials at all times when work is not actively being performed. The highway must be kept clean and passable to traffic at all times.
- 22. DCDPW reserves the right to restrict hours that work can take place within the County right of way due to traffic, weather, safety or other conditions.
- 23. If County forces clean or repair the right of way due to problems with the permitted work, the permittee will be billed for the County's workers and equipment. The permit security deposit will be charged for any outstanding billing prior to being returned.
- 24. Upon acceptance of the permitted work, responsibility of permanent maintenance of all aspects of the entrance to the County highway shall be borne by the property owner. This includes maintenance of the driveway surface, drainage pipe, warning signs, guide rail, and sight line cleared areas. When ownership of property changes, the responsibility of maintenance shall transfer to the new property owner(s).

#### **Special Conditions:**

Sight distances:	. Driveway Pipe:	Miscellaneous:
SLSD-R =		
SLSD-L =	Diameter =	
SSD =	Length =	
TSD =	Longin	

#### SPECIAL CONDITIONS RELATIVE TO THIS PERMIT ONLY:

- MOADWAY SHALL RE KEPT FREE OF MUD, DEBRIS AND DIRT AT ALL TIMES BY PERMITTEE.
- D. Disturbed areas shall be stabilized, seeded, fertilized and mulched to establish turf.
- Swales, ditches, guide rails, etc. shall be generally restored to original conditions or better per DC DFM specs if they are disturbed.
- D. It is the Permittee's responsibility to immediately clean up any mud or debris tracked onto
- fire reedway during and after construction.
- E. The Pennitice/Contractor shall provide adequate protection for all vehicular and pedestrian traffic by means of signs, cones, flagmen and necessary equipment and personnel to safely maintain traffic on the readway.
- Where necessary contractor shall reset guide reli.
- Any drainage problems caused by drilling process shall be corrected immediately by Pomitice/Property Owner.
- 1). Steel tracks vehicles/squipments ARE NOT ALLOWED on the road pavement.
- Genair of all paved shoulders shall be with 3" binder and 1 &1/2" top course.



## **APPENDIX F**

# Off-site Oxygenate Source Investigation Soil Boring Logs

PROJE	CT:							Boring	g/Well	L	og Expl	anation
BORIN	G LOC	ATIO	ON:				1	ELEVATION AN	ND DATUM	1:		
DRILLI	NG CC	NTF	RACT	OR:			1	DATE STARTE	D:		DATE FINISI	HED:
DRILLI	NG ME	THO	DD:				-	TOTAL DEPTH	I (ft.):		MEASURING	POINT:
DRILLI	NG EC	UIPI	MEN	Γ:				DEPTH TO WATER	FIRST		COMPL.	24 HRS.
SAMPL	ING M	IETH	IOD:					LOGGED BY:				
HAMM	ER WE	EIGH	T:			DROP:	1	RESPONSIBLE	PROFES	SIOI	NAL:	REG. NO.
DEPTH (feet)		ample 17	Blows/ Si	OVM READING (ppm)		DESCRIPTION NAME (USCS): color, moist, % by wt., plast. cementation, react. w/HCl, geo.	density inter.	/, structure,			RE	MARKS
	S	S	ш	<u> </u>		Surface Elevation:						
_					No	otes:						
1- - 2-					1.	Soil described using visual-manual proced Society of Testing and Materials (ASTM) guidance; a Standard based on the Unified System.	Standa	rd D 2488 for		_ _ _		
_					2.	Soil color described according to Munsell	Color (	Chart.				
3- - 4-					3.	Dashed lines separating soil strata repres between sampled intervals that may be altransitions.			 es	_ _ _		
5-					4.	Solid lines represent approximate bounda sample intervals.	aries ob	served within		_		
6-					5.	OVM = organic vapor meter, reading in vo (ppm).	olumetr	ic parts per mi	illion	_		
7-					6.	Odor, if noted is subjective and not neces specific compounds or concentrations.	ssarily i	ndicative of		_		
-					7.	NA = not applicable.						
8-					8.	ND = no data.						
9- - 10-					Int	terval of recovered soil collected with a con	ntinuous	s core sampler	:	_ _ _		
- 11- -					Int	terval of recovered soil collected with split-s	spoon o	drive sampler.		_ _ _		
12- - 13-		X			Int	terval of no recovery.				_ _ _		
- 14 <i>-</i> -	SB-1-14.0				Sa	ample collected for chemical analysis and s	sample	identification.		-  -  -		
15-												KEYFORM (REV. 7/99)
			1	<b>72</b>	Geom	natrix Consultants		Proje	ect No.			age 1 of 1

PROJE				R DRIVE	E & PARK, INC. SITE lew York		Log of Bo	ori	ng No	GP-9
BORIN				-	pole # 714-1		ON AND DATUM			
						DATE ST	veyed; datum ARTED:	IS	ground s	
DRILLI	NG CC	ONTE	RACT	OR: Zeb	ra Environmental, Inc.	7/12/06	i		7/12/06	
DRILLI	NG ME	ETHO	OD:	Direct	push	18.0	EPTH (ft.):	EID.	Ground	ING POINT: surface
DRILLI	NG EC	QUIP	MEN	T: Geopr	obe 5400		O WATER (ft.)	FIR 10.		COMPL. NA
SAMPL	ING M	1ETH	HOD:	Geoprob	e macro-core sampler [4' x 1.5"]	LOGGED D. Aver	ill			
HAMM	ER W	EIGH	IT:	NA	DROP: NA	RESPON	SIBLE PROFESS	NOIS	NAL:	REG. NO.
DEPTH (feet)	Sample No.	Sample T	Blows/ 55 Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. dens cementation, react. w/HCl, geo. inter.	sity, structur	e,		I	REMARKS
	Sar	Sar	BIG FI	RE (	Surface Elevation: Not su	ırveyed				
					ASPHALTIC CONCRETE					
-	1				AGGREGATE BASE			-		
1- - 2-					SANDY SILT with GRAVEL (SM): brown (No 5/3 or 4/3 brown?), moist, 70% fine to coarse s nonplastic fines, 15% fine gravel			-1	hand aug	advanced with er from 1 to 6 feet ar for utilities.
_										
3-										
_										
4-										
-								-		
5-								-		
_								_		
6-								-1		
_								_		
7-										
, ,										
_										
8-										
_	1	Н						-		
9-	1	$ \bigvee $			SILT (ML): yellowish brown (10YR 5/4), mois	- – – – – t. 90% fine	 es. 10%	-		
_	-	/			fine sand, nonplastic, soft, rapid dilatancy	,	, - <del>, -</del>	-		
10-		Н			T wat			-		
_					wet					
11-										
_					LEAN CLAY (CL): gray (10YR 5/1), moist, 90 sand, medium plasticity, firm, no dilatancy, lam					
10					(ML), gray (10YR 5/1), moist, 90% fines, 10%		I JIL I			
12-					nonplastic, soft, slow dilatancy	•		$\lceil \rceil$		
_	1									
13-	1							-		
_	1	X						-		
14-	-	H						-		
-	-							-		
15-		Ш								OAKBOREV (REV. 3/00)
				<b>7</b> 2	Geomatrix Consultants		Project No. 9328	3.00	10	Page 1 of 2
L				<del>_</del> _			.,			1 32

PROJECT: FORMER DRIVE & PARK, INC. SITE Poughkeepsie, New York

# Log of Boring No. GP-9 (cont'd)

18-			Bottom of boring at 18 0 feet		_	Borehole destroyed with
18-			Bottom of boring at 18.0 feet		_	Borehole destroyed with cement-bentonite grout
19 <i>-</i>					-	placed from total depth to ground surface with a tremie pipe.
20-					ŀ	
21-						
_					-	
22-						
23-					-	
24-						
_ 25_					L	
_					_	
26-					L	
27-					-	
28-						
_					-	
29-						
30-						
31-						
31					-	
32-					-	
33-						
33		•••				OAKBOREV (REV. 3/00)
	1	<b>72</b>	Geomatrix Consultants	Project No. 93	328.0	000 Page 2 of 2

PROJE	ECT:				E & PARK, INC. SITE lew York	Log of	Bor	ing No	o. GP-12
BORIN	IG LOC	CATI	ON:	At stop I	ine, 6' S of curb	ELEVATION AND DA			f
						Not surveyed; da  DATE STARTED:	um i		SUITACE FINISHED:
DRILLI	NG C	ITNC	RACT	or: Zeb	ra Environmental, Inc.	7/17/06		7/17/0	16
DRILLI	NG MI	ETH	OD:	Direct	push	TOTAL DEPTH (ft.): 18.0			IRING POINT: nd surface
	NO FO	21 IID	N 4 - N 17	Γ: Geopr	oho 5400	DEPTH TO WATER (1	, ¦Fl	RST	COMPL.
DRILLI	NG EC	אוטג	IVIEIN	і. Сеорі		LOGGED BY:	·.) ¦6	.6	NA
SAMPL	LING N	ΛΕΤΗ	HOD:	Geoprob	e macro-core sampler [4' x 1.5"]	D. Averill			
HAMM	ER WI	EIGH	HT:	NA	DROP: NA	RESPONSIBLE PROP	ESSI	ONAL:	REG. NO.
I a		MPL	ES	_ g _	DESCRIPTION				REMARKS
DEPTH (feet)	Sample No.	Sample	Blows/ Foot	OVM READING (ppm)	NAME (USCS): color, moist, % by wt., pla cementation, react. w/HCl, go	ast. density, structure, eo. inter.			REWARKS
ਠੁ	Sar	Sar	B	R S	Surface Elevation:	Not surveyed			
					ASPHALTIC CONCRETE: (8-inches th	ick)			
_					ACOREOATE SACE		_	1	MiniRAE 2000 PID
1-					AGGREGATE BASE				ed with 100 ppm ene standard.
-					SILTY SAND with GRAVEL (SM): brow	wn (10YR 5/3), moist,	-	isobuty	che standard.
2-					60% fine to coarse sand, 25% fine to co		-		
_					nonplastic fines		-		
3-	-						_		
_							_		
4-									
_									le advanced with uger from 1 to 6 fee
5-									clear for utilities.
5-									
_									
6-									
-				4.9	SILTY SAND (SM): brownish yellow (1	10VD 6/6) wat 90% fina	_		
7-					to medium sand, 20% nonplastic fines	101 K 0/0), Wet, 00 /6 line			
_				3.3	dark gray (10YR 4/1)		H		
8-		$\coprod$			dark gray (101 K 4/1)		_		
_		$\backslash /$					_		
9-		\							
_		$  \wedge  $							
40		/ \							
10-			]	8					
_							_		
11-					PEAT (PT)	/	$\overline{}$		
-	-				SILTY GRAVEL (GM): grayish brown gravel, 30% nonplastic fines	(10YR 5/2), wet, 70% fine	$/\!\!+$		
12-					POORLY GRADED GRAVEL with SAN	JD (GP): dark drav (10V	-		
_				4.7	4/1), wet, 50% fine to coarse gravel, 45°		-		
13-					fines		_		
_									
1.4				5.4					
14 –					LEAN CLAY (CL): see next page for de	scription			
_				5.4					
15-	1			-00				1	OAKBOREV (REV. 3/00)
			1.	<b>72</b>	Geomatrix Consultants	Project No.	9328.0	000	Page 1 of 2

PROJECT: FORMER DRIVE & PARK, INC. SITE Poughkeepsie, New York

# Log of Boring No. GP-12 (cont'd)

Project No. 9328.000

Page 2 of 2

		Ū	, ,		Log of Boring it	. C	31 -12 (0011t d)
(feet)	No. Sample	Blows/	OVM READING (ppm)	DESCR NAME (USCS): color, moist, % cementation, react.	IPTION by wt., plast. density, structure, w/HCl, geo. inter.		REMARKS
- 16- - 17-			4.6	LEAN CLAY (CL): gray (10YR 5 sand, medium plasticity, firm, no c thickness) with SILT (ML), gray (1 10% fine sand, nonplastic, soft, sl	dilatancy, stratified (1/2- to 2-inch 0YR 5/1), moist, 90% fines,	_ _ _ _	
18-				Bottom of boring at 18.0 feet			Borehole destroyed with
19-						_	cement-bentonite grout placed from total depth to ground surface with a tremie pipe.
20-						_	истие ріре.
21-						_	
22-						_	
24-						_	
_ 25-						-	
26-						-	
27 –						_	
28-						-	
29-						_	
31-						_	
32-						_	
33							OAKBOREV (REV. 3/00
			//XX=	0		0000 0	

**Geomatrix Consultants** 



# **APPENDIX G**

# Analytical Laboratory Reports for Off-site Oxygenate Source Investigation

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

### PROJECT NARRATIVE

David S. Averill Geomatrix Consultants, Inc. P.O. Box 7 Atkinson, NH 03811

RE: Former Drive & Park

ESS Laboratory Work Order Number: 0607249

This signed Certificate of Analysis is our approved release of your analytical results. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard

Laboratory Director

Date: August 01, 2006

Sample Receipt

13 Aqueous samples and 1 Trip Blank were received on July 19, 2006 for the analyses specified on the enclosed Chain of Custody Record.

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

No unusual observations noted.

End of Project Narrative.

mdp

# Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-9-10.5-14 Date Sampled: 07/12/06 12:00

Percent Solids: N/A
Initial Volume: 10
Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-01

Sample Matrix: Aqueous

Analyst: MD

				- Montage Court board	
Analyte Benzene	Results	<u>Units</u>	MRL	$\underline{\mathbf{DF}}$	<u>Analyzed</u>
	ND	ug/L	1.0	1	07/20/06
Ethylbenzene	ND	ug/L	1.0	1	07/20/06
Methyl tert-Butyl Ether	3.3	ug/L	1.0	1	07/20/06
Toluene	ND	ug/L	1.0	1	07/20/06
Xylene O	ND	ug/L	1.0	. 1	07/20/06
Xylene P,M	ND	ug/L	2.0	1	07/20/06
Xylenes (Total)	ND	ug/L	3.0		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	93 %		70-130
Surrogate: 4-Bromofluorobenzene	97 %		70-130
Surrogate: Dibromofluoromethane	95 %		70-130
Surrogate: Toluene-d8	94 %		70-130

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park Client Sample ID: GP-10-10.5-14

Date Sampled: 07/12/06 13:00

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-02

Sample Matrix: Aqueous

Analyst: MD

# 8021B by 8260B Volatile Organic Compounds

	oozib by ozoob volatile Organic Compounds						
<b>Analyte</b>	<b>Results</b>	<u>Units</u>	<u>MRL</u>		$\mathbf{\underline{DF}}$	Analyzed	
Benzene	ND	ug/L	1.0	-	1	07/20/06	
Ethylbenzene	ND	ug/L	1.0		1	07/20/06	
Methyl tert-Butyl Ether	1.8	ug/L	1.0		1	07/20/06	
Toluene	ND	ug/L	1.0		1	07/20/06	
Xylene O	ND	ug/L	1.0		1	07/20/06	
Xylene P,M	ND	ug/L	2.0		1	07/20/06	
Xylenes (Total)	ND	ug/L	3.0			07/20/06	
***	%Rec	covery	Oualifier	Limits	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	93 %		<i>70-130</i>
Surrogate: 4-Bromofluorobenzene	96 %		<i>70-130</i>
Surrogate: Dibromofluoromethane	96 %		<i>70-130</i>
Surrogate: Toluene-d8	92 %		<i>70-130</i>

Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-10-15-18

Date Sampled: 07/12/06 15:00 Percent Solids: N/A

Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-03

Sample Matrix: Aqueous

Analyst: MD

	•/		— — — — — — — — — — — — — — — — — — —		
Analyte Benzene	Results ND	Units ug/L	<u>MRL</u> 1.0	$\frac{\mathbf{DF}}{1}$	<u>Analyzed</u> 07/20/06
Ethylbenzene	ND	ug/L ug/L	1.0	1	07/20/06
Methyl tert-Butyl Ether	ND	ug/L	1.0	1	07/20/06
Toluene	ND	ug/L	1.0	1	07/20/06
Xylene O	ND	ug/L	1.0	1	07/20/06
Xylene P,M	ND	ug/L	2.0	1	07/20/06
Xylenes (Total)	ND	ug/L	3.0		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130
Surrogate: 4-Bromofluorobenzene	<i>96 %</i>		<i>70-130</i>
Surrogate: Dibromofluoromethane	96 %		70-130
Surrogate: Toluene-d8	93 %		70-130

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-11-11-14

Date Sampled: 07/12/06 16:30

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-04

Sample Matrix: Aqueous

Analyst: MD

			31000110 O15.	amie Compounds	
Analyte	Results	<u>Units</u>	MRL	<u><b>DF</b></u>	<b>Analyzed</b>
Benzene	ND	ug/L	1.0	1	07/20/06
Ethylbenzene	ND	ug/L	1.0	1	07/20/06
Methyl tert-Butyl Ether	ND	ug/L	1.0	1	07/20/06
Toluene	ND	ug/L	1.0	1	07/20/06
Xylene O	ND	ug/L	1.0	1	07/20/06
Xylene P,M	ND	ug/L	2.0	1	07/20/06
Xylenes (Total)	ND	ug/L	3.0		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	98 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		70-130
Surrogate: Dibromofluoromethane	97 %		70-130
Surrogate: Toluene-d8	91 %		70-130

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-7.5-11

Date Sampled: 07/17/06 10:20

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-05

Sample Matrix: Aqueous

Analyst: MD

8021B by 8260B Volatile Organic Compounds

or grant or gra						
<b>Results</b>	<u>Units</u>	<u>MRL</u>	$\mathbf{DF}$	<b>Analyzed</b>		
ND	ug/L	1.0	1	07/20/06		
ND	ug/L	1.0	1	07/20/06		
21.1	ug/L	1.0	1	07/20/06		
ND -	ug/L	1.0	1	07/20/06		
ND	ug/L	1.0	1	07/20/06		
ND	ug/L	2.0	1	07/20/06		
ND	ug/L	3.0		07/20/06		
	ND ND 21.1 ND ND ND	ND       ug/L         ND       ug/L         21.1       ug/L         ND       ug/L         ND       ug/L         ND       ug/L	Results         Units ug/L         MRL 1.0           ND         ug/L         1.0           21.1         ug/L         1.0           ND         ug/L         1.0           ND         ug/L         1.0           ND         ug/L         2.0	Results         Units ug/L         MRL 1.0         DF 1           ND         ug/L         1.0         1           21.1         ug/L         1.0         1           ND         ug/L         1.0         1           ND         ug/L         1.0         1           ND         ug/L         1.0         1           ND         ug/L         2.0         1		

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	97 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		<i>70-130</i>
Surrogate: Dibromofluoromethane	96 %		<i>70-130</i>
Surrogate: Toluene-d8	93 %		70-130

Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-11-14

Date Sampled: 07/17/06 10:50

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-06

Sample Matrix: Aqueous

Analyst: MD

	•/			A	
Analyte Benzene	Results ND	Units ug/L	<u>MRL</u> 1.0	<u><b>DF</b></u>	<u>Analyzed</u> 07/20/06
Ethylbenzene	ND	ug/L	1.0	1	07/20/06
Methyl tert-Butyl Ether	28.9	ug/L	1.0	1	07/20/06
Toluene	ND .	ug/L	1.0	1	07/20/06
Xylene O	ND	ug/L	1.0	1	07/20/06
Xylene P,M	ND	ug/L	2.0	1	07/20/06
Xylenes (Total)	ND	ug/L	3.0		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	<i>95</i> %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		<i>70-130</i>
Surrogate: Dibromofluoromethane	<i>96</i> %		70-130
Surrogate: Toluene-d8	93 %		70-130

# Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park Client Sample ID: GP-12-14.5-18

Date Sampled: 07/17/06 11:15

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-07

Sample Matrix: Aqueous

Analyst: MD

	•/			——————————————————————————————————————	
Analyte Benzene	Results ND	Units ug/L	<u>MRL</u> 1.0	<u><b>DF</b></u>	<u>Analyzed</u> 07/20/06
Ethylbenzene	ND	ug/L	1.0	1	07/20/06
Methyl tert-Butyl Ether	48.6	ug/L	1.0	1	07/20/06
Toluene	ND	ug/L	1.0	1	07/20/06
Xylene O	ND	ug/L	1.0	1	07/20/06
Xylene P,M	ND	ug/L	2.0	1	07/20/06
Xylenes (Total)	ND	ug/L	3.0		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	95 %		70-130
Surrogate: 4-Bromofluorobenzene	<i>95</i> %		70-130
Surrogate: Dibromofluoromethane	97 %		70-130
Surrogate: Toluene-d8	93 %		70-130

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-7-10.5

Date Sampled: 07/17/06 11:45

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-08

Sample Matrix: Aqueous

Analyst: MD

	•/			——————————————————————————————————————	
Analyte Benzene	Results ND	Units ug/L	$\frac{\mathbf{MRL}}{1.0}$	<u><b>DF</b></u>	<u>Analyzed</u> 07/20/06
Ethylbenzene	ND	ug/L	1.0	1	07/20/06
Methyl tert-Butyl Ether	39.7	ug/L	1.0	1	07/20/06
Toluene	ND	ug/L	1.0	1	07/20/06
Xylene O	ND	ug/L	1.0	1	07/20/06
Xylene P,M	ND	ug/L	2.0	. 1	07/20/06
Xylenes (Total)	ND	ug/L	3.0		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130
Surrogate: 4-Bromofluorobenzene	<i>95</i> %		70-130
Surrogate: Dibromofluoromethane	96 %		70-130
Surrogate: Toluene-d8	95 %		70-130

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-11-14 Date Sampled: 07/17/06 12:10

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-09

Sample Matrix: Aqueous

Analyst: MD

or and the state of the state o						
Analyte	Results	<b>Units</b>	<u>MRL</u>	${f DF}$	<b>Analyzed</b>	
Benzene	ND	ug/L	1.0	1	07/20/06	
Ethylbenzene	ND	ug/L	1.0	1	07/20/06	
Methyl tert-Butyl Ether	86.8	ug/L	1.0	1	07/20/06	
Toluene	ND	ug/L	1.0	1	07/20/06	
Xylene O	ND	ug/L	1.0	1	07/20/06	
Xylene P,M	ND	ug/L	2.0	1	07/20/06	
Xylenes (Total)	' ND	ug/L	3.0		07/20/06	

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130
Surrogate: 4-Bromofluorobenzene	<i>95 %</i>		<i>70-130</i>
Surrogate: Dibromofluoromethane	97 %		<i>70-130</i>
Surrogate: Toluene-d8	92 %		<i>70-130</i>

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-15-18

Date Sampled: 07/17/06 12:30 Percent Solids: N/A

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-10

Sample Matrix: Aqueous

Analyst: MD

<b>Analyte</b>	Results	<u>Units</u>	<u>MRL</u>	<u>I</u>	<u>)F</u>	<b>Analyzed</b>
Benzene	ND	ug/L	1.0		1	07/20/06
Ethylbenzene	ND	ug/L	1.0		1	07/20/06
Methyl tert-Butyl Ether	16.2	ug/L	1.0		1	07/20/06
Toluene	ND	ug/L	1.0		1	07/20/06
Xylene O	ND	ug/L	1.0		1	07/20/06
Xylene P,M	ND	ug/L	2.0		1	07/20/06
Xylenes (Total)	ND	ug/L	3.0			07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	98 %		70-130
Surrogate: Toluene-d8	92 %		70-130

### Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-7-10.5

Date Sampled: 07/17/06 13:40

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-11

Sample Matrix: Aqueous

Analyst: MD

	, , , , , , , , , , , , , , , , , , , ,											
Analyte Benzene	Results	<u>Units</u>	<u>MRL</u> 1.0	$\underline{\mathbf{DF}}_{1}$	Analyzed							
Delizene	ND	ug/L	1.0	1	07/20/06							
Ethylbenzene	ND	ug/L	1.0	1	07/20/06							
Methyl tert-Butyl Ether	23.7	ug/L	1.0	1	07/20/06							
Toluene	ND	ug/L	1.0	1	07/20/06							
Xylene O	ND	ug/L	1.0	1	07/20/06							
Xylene P,M	ND	ug/L	2.0	. 1	07/20/06							
Xylenes (Total)	ND	ug/L	3.0		07/20/06							

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	94 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		<i>70-130</i>
Surrogate: Dibromofluoromethane	95 %		70-130
Surrogate: Toluene-d8	93 %		<i>70-130</i>

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-11-14

Date Sampled: 07/17/06 14:00

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-12

Sample Matrix: Aqueous

Analyst: MD

out and of the state of the sta													
<b>Analyte</b>	<b>Results</b>	<u>Units</u>	MRL	$\overline{\mathbf{DF}}$	<b>Analyzed</b>								
Benzene	ND	ug/L	1.0	1	07/20/06								
Ethylbenzene	ND	ug/L	1.0	1	07/20/06								
Methyl tert-Butyl Ether	32.5	ug/L	1.0	1	07/20/06								
Toluene	ND	ug/L	1.0	1	07/20/06								
Xylene O	ND	ug/L	1.0	1	07/20/06								
Xylene P,M	ND	ug/L	2.0	1	07/20/06								
Xylenes (Total)	ND	ug/L	3.0		07/20/06								

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %	•	70-130
Surrogate: 4-Bromofluorobenzene	96 %		70-130
Surrogate: Dibromofluoromethane	96 %		70-130
Surrogate: Toluene-d8	94 %		<i>70-130</i>

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-15-18

Date Sampled: 07/17/06 14:30 Percent Solids: N/A

Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-13

Sample Matrix: Aqueous

Analyst: MD

	.,												
<u>Analyte</u>	Results	<u>Units</u>	<b>MRL</b>	$\mathbf{DF}$	Analyzed								
Benzene	ND	ug/L	1.0	1	07/20/06								
Ethylbenzene	ND	ug/L	1.0	1	07/20/06								
Methyl tert-Butyl Ether	ND	ug/L	1.0	1	07/20/06								
Toluene	ND	ug/L	1.0	1	07/20/06								
Xylene O	ND	ug/L	1.0	1	07/20/06								
Xylene P,M	ND	ug/L	2.0	1	07/20/06								
Xylenes (Total)	ND	ug/L	3.0		07/20/06								

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	97 %		70-130
Surrogate: 4-Bromofluorobenzene	96 %		70-130
Surrogate: Dibromofluoromethane	99 %		70-130
Surrogate: Toluene-d8	93 %		<i>70-130</i>

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: Trip Blank Date Sampled: 07/12/06 00:00

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607249 ESS Laboratory Sample ID: 0607249-14

Sample Matrix: Aqueous

Analyst: MD

	•/		_	7		
Analyte Benzene	Results ND	Units ug/L	$\frac{\mathbf{MRL}}{1.0}$	Ī	<u>DF</u>	<u>Analyzed</u> 07/20/06
Ethylbenzene	ND	ug/L	1.0		1	07/20/06
Methyl tert-Butyl Ether	ND	ug/L	1.0		1	07/20/06
Toluene	ND	ug/L	1.0		1	07/20/06
Xylene O	ND	ug/L	1.0		1	07/20/06
Xylene P,M	ND	ug/L	2.0		1	07/20/06
Xylenes (Total)	ND	ug/L	3.0	,		07/20/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	95 %		70-130
Surrogate: 4-Bromofluorobenzene	<i>95</i> %		70-130
Surrogate: Dibromofluoromethane	96 %		70-130
Surrogate: Toluene-d8	92 %		70-130

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607249

# **Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifie
	8021	by 8260B	Volatile (	Organic	Compo	unds		15.011		
atch BG62008 - 5030B										
Blank						<del></del>				
Benzene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
Methyl tert-Butyl Ether	ND	1.0	ug/L							
Toluene	ND	1.0	ug/L							
(ylene O	ND	1.0	ug/L							
(ylene P,M	ND	2.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	23.9		ug/L	25.0		96	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		ug/L	25.0		96	70-130			
Surrogate: Dibromofluoromethane	24.3		ug/L	25.0		97	70-130			
Surrogate: Toluene-d8	23.0		ug/L	25.0		92	70-130			
CS			-							
enzene	9.6		ug/L	10.0		96	70-130			
ithylbenzene	9.9		ug/L	10.0		99	70-130			
Nethyl tert-Butyl Ether	9.8		ug/L	10.0		98	70-130			
oluene	10.1		ug/L	10.0		101	70-130			
(ylene O	9.7		ug/L	10.0		97	70-130 70-130			
(ylene P,M	19.6		ug/L	20.0		98	70-130 70-130			
,	23.4		ug/L ug/L	25.0		94	70-130 70-130			
Turrogate: 1,2-Dichloroethane-d4 Turrogate: 4-Bromofluorobenzene	24.0		ug/L ug/L	25.0 25.0		96	70-130 70-130			
Surrogate: 4-Bromonuorobenzene Surrogate: Dibromofluoromethane	24.2		ug/L	25.0 25.0		90 97	70-130 70-130			
Surrogate: Dibromondoromethane Surrogate: Toluene-d8	24.0		ug/L	25.0 25.0		96	70-130			
CS Dup		vi =	-21-							
enzene	9.7		ug/L	10.0		97	70-130	1	20	
ithylbenzene	9.9		ug/L ug/L	10.0		97 99	70-130 70-130	0	20 20	
lethyl tert-Butyl Ether	9.9 9.7			10.0		99 97				
oluene	9.7 10.1		ug/L				70-130 70-130	1	20	
ylene O			ug/L	10.0		101	70-130	0	20	
	9.6		ug/L	10.0		96 06	70-130	1	20	
ylene P,M	19.2		ug/L	20.0		96 06	70-130	2	20	
Surrogate: 1,2-Dichloroethane-d4	24.0		ug/L	25.0		96 06	70-130			
Surrogate: 4-Bromofluorobenzene	24.0 24.2		ug/L	25.0		96	70-130			
Gurrogate: Dibromofluoromethane	24.3 24.0		ug/L	25.0		97 06	70-130			
furrogate: Toluene-d8	24.0		ug/L	25.0		96	70-130			
latrix Spike Source: 0607249-05									***	
enzene	10.9		ug/L	10.0	ND	109	70-130			
thylbenzene	9.2		ug/L	10.0	0.110	91	70-130			
lethyl tert-Butyl Ether	30.1		ug/L	10.0	21.1	90	70-130			
oluene	11.3		ug/L	10.0	0.360	109	70-130			
vlene O	9.0		ug/L	10.0	ND	90	70-130			
rlene P,M	18.1		ug/L	20.0	0.180	90	70-130			
urrogate: 1,2-Dichloroethane-d4	23.4		ug/L	25.0		94	70-130			
urrogate: 4-Bromofluorobenzene	23.0		ug/L	25.0		92	<i>70-130</i>			
urrogate: Dibromofluoromethane	24.6		ug/L	25.0		98	70-130			
urrogate: Toluene-d8	21.9		ug/L	25.0		88	70-130			
Matrix Spike Dup Source: 0607249-05 Benzene	10.6		ug/L	10.0	ND	106	70-130	3	20	

Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607249

# **Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
	8021B	by 8260B	Volatile (	Organic	Compou	unds		*****		***
Batch BG62008 - 5030B										
Ethylbenzene	9.1		ug/L	10.0	0.110	90	70-130	1	20	
Methyl tert-Butyl Ether	29.1		ug/L	10.0	21.1	80	70-130	12	20	
Toluene	11.2		ug/L	10.0	0.360	108	70-130	0.9	20	
Xylene O	8.7		ug/L	10.0	ND	87	70-130	3	20	
Xylene P,M	17.5		ug/L	20.0	0.180	87	70-130	3	20	
Surrogate: 1,2-Dichloroethane-d4	22.6		ug/L	25.0		90	<i>70-130</i>			
Surrogate: 4-Bromofluorobenzene	22.7		ug/L	25.0		91	70-130			
Surrogate: Dibromofluoromethane	24.0		ug/L	25.0		96	70-130			
Surrogate: Toluene-d8	21.7		ug/L	25.0		<i>87</i>	70-130			

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607249

#### **Notes and Definitions**

ND dry RPD MDL MRL mg/kg TCLP I/V F/V § TIC	Analyte NOT DETECTED above the detection limit Sample results reported on a dry weight basis Relative Percent Difference Method Detection Limit Method Reporting Limit Results reported as wet weight Toxicity Characteristic Leachate Procedure Initial Volume Final Volume Subcontracted analysis; see attached report A forward library search of the NBS Mass Spectral Library was performed on this sample using the McLafferty Probability Base Matching (PBM) Algorithm. An estimated concentration of non-TCL compounds tentatively identified is quantified by the internal standard method. The nearest internal standard free of interferences was used to quantify. A response factor of one was assumed. This search was inclusive of the ten largest peaks greater than ten percent of the nearest internal standard.
1 2 3 Avg NR ¶	Range result excludes concentrations of surrogates and/or internal standards eluting in that range. Range result excludes concentrations of target analytes eluting in that range. Range result excludes the concentration of the C9-C10 aromatic range. Results reported as a mathematical average. No Recovery The state of RI does not grant certification for this method for non-potables.

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607249

### ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers Soil and Water

Navy Installation Restoration QA Program Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP): 242405 Potable Water Non Potable Water

New York (NELAP): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture Soil Permit: S-54210

> New Jersey (NELAP): RI002 Potable Water Non Potable Water Soil and Hazardous Waste

> > Maryland: 301 Potable Water

Pennsylvania: 68-934, 68-1752

E55	Labora	itory							CH	АĮ	.IN (	JF		U	5.	1 (	IJ	J				Pag	e		of	0
<i>Division</i> 185 Franc Tel. (401)	<i>of Thielsch En</i> ces Avenue, C ) 461-7181    F	gineering, Franston, R Fax (401) 4	RI 02	910 4486	)-22 6	11	State wh	than 5	days, prior a	ollected	by labora		quired ther	#		_		ng Lir				00		7 <b>2</b> 4		D
www.essl	aboratory.com	ו					MA RI CT NH NJ NY ME Other  Is this project for any of the following:  MA-MCP Navy USACE Other									nic D t: Ex				Yes	Oth	No ner				
Co. Name	( = a . a . a . a . a . a . a . a . a . a	, C. 10			- 1	Project 935	#	P	roject Name	(20 Char.	or less)	_					(	Circle	and/o	r Wri	te Red	quired	Analy	'sis		
Contact Person DANIT AVERILL Address								Bex	ORMER 17		XI VEF	ARIS	-		524.2		la la	4 Diesel	. E	TAL23		(8 (13)	osel,			
City AT	KINSON	State	NH				Zip 034						tainers	ers		8015 GRO	8g	Š	Pesticides	8270 3 PP13 T.	NBC7		岛	2		
Telephone #	03.374.207				37			En	nail Address	GEOM	ATRIX. C	iom	Number of Containers	Type of Containers	0 624	MTX/BTEX (80	8100 TPH	W/PAI	PCB 2	RCRA8			17/20	NOTE		
ESS LAB Sample#	Date	Collection Time CO 3. 3 7 %. 24									Pres Code	Number	Type of	\$260	MTW	ЕРИ	w/o PAHs 8081	Pesticides 8270	SVOA RCRA5	TCLP-RCRA8	MCP- METALS (13)	BIEX+MAGE BY	OxeenPres			
1	7/12/06	126		×	Aç	GF	>-9	- 10	1.6 - 14	1		2	9			H							Υ	4		
<u>2</u>	7/12/06	1300		X	AG		P-10				2	8			Н							X	4			
3	7/12/06	1500		7	AQ		P-10 ·	15	નજ ે			2	7		H	H							'X 1	H		
4	7/12/06	1630		8	ΑQ	6	P-11-		-14			2	7			Н							X	17		
5	7/17/06	10 30		X	ΑŶ	GP	12 12	12-7.5-11			2	9			H						,	X	$I^{\dagger}$			
4	7/17/06	1050		X	AG	6,	P-12	- )	1-14			2	9			14								7		T
7	7/17/06	11 15		X	196	61	٠ ١٥٠ ٥	- 1	45 -	-18		2	9			H							X	H		T
8	7/17/06	1145		X	A	GF	7-13	<u>-</u> r	7-10.			7	9			Н							Y	4		
9	7/17/06	1210		X	AC	GF	7-13-	· ]	1-14	1		12	4		1	Н	十	_						7		T
10	7117106	1230		X	AC	60	- 13	- 10	5-18	3		12	9			H				-	1		X	4		T
Container T	ype: P-Poly G-Gla		V-VO.	A N	/atrix	: S-Soi	l SD-So	lid D	)-Sludge W	/W-Wast	e Water		und W	ater S	SW-Su	ırface	Water	DW	-Drin	king V	Vater	O-Oi	W-V	Wipes	F-Filt	ers
Cooler Prese	nt Yes _	No		Inter	nal Us	se Only	Pr	reserva	tion Code:	1- NP, 2	- HCl, 3-	H2SO4, 4	4- HNO	O3, 5-	NaOI	H, 6-	MeOI	I, 7- A	Asorb	ic Aci	d, 8- Z	ZnAct,	9			
Seals Intact	Yes _	No NA: _	_		Pickup	þ	Sa	ampled	l by:	DYEY.	2iU															
Cooler Temp				[ ]7	Гесhni	icians	Co	ommei	nts: Hoi	D 61	RO+O	KYBET	YATE	is f						,	Sul					
27 V.	d by: ¡Signature)	Date/Tim		$\perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	1/	12	grature)	W	Date/Til	100	Relingui W			V	19/2	zte/T	re/Time Received by Sign					Date/Time 7-19-6/16-2				_
Relinquishe	d by: (Signature)	Date/Tim	e	Re	ceive	d by: (Si	gnature)	0	Date/Ti	me	Relinqui	shed by:	(Signal	ture)	L	ate/T	ime	F	lec <b>i</b> ly	ed by:	(Sign:	ature)		Date	/Time	

<sup>\*</sup>By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

N OF CUSTODY **ESS Laboratory** Division of Thielsch Engineering, Inc. ESS LAB PROJECT ID Reporting Limits 185 Frances Avenue, Cranston, RI 02910-2211 If faster than 5 days, prior approval by laboratory is required # State where samples were collected from: Tel. (401) 461-7181 Fax (401) 461-4486 MA RI CT NH NI (NY ME Other Electronic Deliverable www.esslaboratory.com Is this project for any of the following:
MA-MCP Navy USACE Other Format: Excel Access PDF Other Co. Name Project # Project Name (20 Char. or less) Circle and/or Write Required Analysis 9324 RCRA8 PP13 TAL23 Contact Person NBC7 Type of Containers 8082 PCB Telephone # Fax # Email Address BERF ESS LAB Date Collection Sample# Sample Identification (20 Char. or less). Time 2 400 1430 Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters Cooler Present Internal Use Only Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-\_ \_\_\_\_ Yes \_\_\_\_ No NA: \_\_\_\_ Seals Intact Sampled by: Comments HOLD GRO + OXYGENATES PENDING BYEX RESULTS, SEE JIM FRAHER Technicians \_ -Date/Time Date/Time Date/Time Relinquished by: (Signature) Date/Time Received by: (Signature) Relinquished by: (Signature) Date/Time Regerved by: (Signature) Date/Time

<sup>\*</sup>By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

### PROJECT NARRATIVE

David S. Averill Geomatrix Consultants, Inc. P.O. Box 7 Atkinson, NH 03811

RE: Former Drive & Park

ESS Laboratory Work Order Number: 0607368

This signed Certificate of Analysis is our approved release of your analytical results. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard Laboratory Director Date: August 04, 2006

#### Sample Receipt

13 Aqueous samples, which were originally received on July 19, 2006 as ESS Laboratory work order number 0607249, were relogged on July 27, 2006 as ESS Laboratory work order 0607368 for the analyses specified on the enclosed Chain of Custody Record. Samples 0607368-01, 0607368-02, 0607368-03 and 0607368-04 for Gasoline Range Organics Analysis and Oxygenates were requested outside of the EPA Recommended holding times. Samples were run per client's request.

#### **Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

No unusual observations noted.

End of Project Narrative.

mlp

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-9-10.5-14 Date Sampled: 07/12/06 12:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-01

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

Analyte Gasoline Range Organics	H ND	ts <u>Units</u> ug/L	<u>MRL</u> 50.0		Method 8015M	$\frac{\mathbf{DF}}{1}$	Analyst MD	Analyzed 07/28/06	1/V 5	<b>F/V</b> 5
		%Recovery	Qualifier	Limits						
Surrogate: 2,5-Dibromotoluene - FID		95 %	Н	70-130						

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-9-10.5-14 Date Sampled: 07/12/06 12:00

Percent Solids: N/A Initial Volume: 10

Final Volume: 10 Extraction Method: 5030B ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-01

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

	6200D Volatile Oxygenate Compounds											
<u>Analyte</u>		Results	Units	MRL		DF	Analyzed					
Di-isopropyl ether	H	ND < 1.0	ouJug/L	1.00		1	07/28/06					
Ethyl tertiary-butyl ether	Н	ND	ug/L	1.00		1	07/28/06					
Tertiary-amyl methyl ether	Н	$_{ m ND}$ $_{ m V}$	ug/L	1.00		1	07/28/06					
Tertiary-butyl Alcohol	Н	96.1ブ	ug/L	25.0		1	07/28/06					
		%Red	covery	Qualifier	Limits		· · · · · · · · · · · · · · · · · · ·					
Surrogate: 1,2-Dichloroethane-d4		10	02 %	Н	70-130							

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	102 %	Н	70-130
Surrogate: 4-Bromofluorobenzene	95 %	Н	70-130
Surrogate: Dibromofluoromethane	110 %	Н	70-130
Surrogate: Toluene-d8	94 %	Н	70-130

Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park Client Sample ID: GP-10-10.5-14

Date Sampled: 07/12/06 13:00

Percent Solids: N/A

Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-02

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

Analyte Gasoline Range Organics	H ND so.ouゴ ug/L	MRL 50.0		Method 8015M	<u><b>DF</b></u>	Analyst MD	<b>Analyzed</b> 07/28/06	<u>I/V</u> 5	<b>F/V</b> 5
	%Recovery	Qualifier	Limits						
Surrogate: 2,5-Dibromotoluene - FID	103 %	Н	70-130						

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-10-10.5-14 Date Sampled: 07/12/06 13:00

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-02

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozoob volatile Oxygenate Compounds										
<u>Analyte</u>		Results U	nits	MRL		$\overline{\mathbf{DF}}$	Analyzed			
Di-isopropyl ether	Н	ND < 1.00 45	ug/L	1.00		1	07/28/06			
Ethyl tertiary-butyl ether	Н	ND	ug/L	1.00		1	07/28/06			
Tertiary-amyl methyl ether	Н	ND 🚣	ug/L	1.00		1	07/28/06			
Tertiary-butyl Alcohol	Н	ND 25.0UJ	ug/L	25.0		1	07/28/06			
		%Recover	y	Qualifier	Limits					
Surrogate: 1,2-Dichloroethane-d4		102 %		Н	70-130					
Surrogate: 4-Bromofluorobenzene		94 %		Н	70-130					
Surrogate: Dibromofluoromethane		111 %		Н	70-130					
Surrogate: Toluene-d8		93 %		Н	70-130					

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-10-15-18 Date Sampled: 07/12/06 15:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-03

Sample Matrix: Aqueous

Analyst: MD Prepared: 07/28/06

**8015M Gasoline Range Organics** 

Analyte Gasoline Range Organics	Н	Results ND <50.0	<u>Units</u> ug/L	MRL 50.0		Method 8015M	$\frac{\mathbf{DF}}{1}$	Analyst MD	<u>Analyzed</u> 07/28/06	<u>I/V</u> ]	<u>F/V</u> 5
		%Rea	covery	Qualifier	Limits						_
Surrogate: 2,5-Dibromotoluene - FID		10	07 %	Н	70-130						

Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-10-15-18

Date Sampled: 07/12/06 15:00 Percent Solids: N/A

Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-03

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

6200D volatile Oxygenate Compounds											
<b>Analyte</b>		Results	<u>Units</u>	MRL		<u><b>DF</b></u>	Analyzed				
Di-isopropyl ether	Н	ND <1.00 U	Jug/L	1.00		1	07/28/06				
Ethyl tertiary-butyl ether	H	ND	ug/L	1.00		1	07/28/06				
Tertiary-amyl methyl ether	Н	ND ↓	ug/L	1.00		1	07/28/06				
Tertiary-butyl Alcohol	Н	ND < 25.00	rug/L	25.0		1	07/28/06				
		%Reco	very	Qualifier	Limits						
Surrogate: 1,2-Dichloroethane-d4		100	%	Н	70-130						
Surrogate: 4-Bromofluorohenzene		0.4	01		70.400						

	%kecovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	100 %	Н	70-130
Surrogate: 4-Bromofluorobenzene	94 %	Н	70-130
Surrogate: Dibromofluoromethane	112 %	Н	70-130
Surrogate: Toluene-d8	<i>93 %</i>	Н	70-130

♦ Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-11-11-14 Date Sampled: 07/12/06 16:30

Percent Solids: N/A Initial Volume: 5

Extraction Method: 5030B

Final Volume: 5

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-04

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

o to to the training of familiary											
Analyte Gasoline Range Organics		sults <u>Units</u>	<u>MRL</u> 50.0		Method 8015M	<u><b>DF</b></u>	Analyst MD	<b>Analyzed</b> 07/29/06	<u>I/V</u> 5	$\frac{\mathbf{F/V}}{5}$	
		%Recovery	Qualifier	Limits	***************************************			······································			
Surrogate: 2,5-Dibromotoluene - FID		105 %	Н	<i>70-130</i>							

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-11-11-14

Date Sampled: 07/12/06 16:30

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-04

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozoob volathe Oxygenate Compounds											
<u>Analyte</u>	Results Units	MRL	$\mathbf{\underline{DF}}$	Analyzed							
Di-isopropyl ether	H ND<1.00 uJug/L	1.00	1	07/28/06							
Ethyl tertiary-butyl ether	H ND ug/L	1.00	1	07/28/06							
Tertiary-amyl methyl ether	H ND 🗸 ug/L	1.00	1	07/28/06							
Tertiary-butyl Alcohol	H ND <25.0 u Tug/L	25.0	1	07/28/06							
	%Recovery (	Qualifier Limits									
Surrogate: 1,2-Dichloroethane-d4	101 %	H 70-130									
Surrogate: 4-Bromofluorobenzene	93 %	H 70-130									
Surrogate: Dibromofluoromethane	110 %	H 70-130									
Surrogate: Toluene-d8	<i>93 %</i>	H 70-130									

♦ Quality

Division of Thielsch Engineering, Inc.

### CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-7.5-11 Date Sampled: 07/17/06 10:20

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

Surrogate: 2,5-Dibromotoluene - FID

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-05

Sample Matrix: Aqueous

Analyst: MD Prepared: 07/28/06

70-130

8015M Gasoline Range Organics

Analyte Gasoline Range Organics	Results ND	Units ug/L	<u>MRL</u> 50.0		-	Method 8015M	$\frac{\mathbf{DF}}{1}$	Analyst MD	<b>Analyzed</b> 07/29/06	<u>I/V</u> 5	<u><b>F/V</b></u> 5
	%Red	covery	Oualifier	Limits							

103 %

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181 Dependability

Quality

Fax: 401-461-4486 Service

http://www.ESSLaboratory.com

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-7.5-11

Date Sampled: 07/17/06 10:20 Percent Solids: N/A

Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-05

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

grand on grand compounds								
<u>Analyte</u>	<b>Results</b>	<b>Units</b>	MRL	$\mathbf{DF}$	Analyzed			
Di-isopropyl ether	ND	ug/L	1.00	1	07/28/06			
Ethyl tertiary-butyl ether	ND	ug/L	1.00	1	07/28/06			
Tertiary-amyl methyl ether	ND	ug/L	1.00	1	07/28/06			
Tertiary-butyl Alcohol	ND	ug/L	25.0	1	07/28/06			
	%Rei	coverv	Oualifier Limits	3				

%Recovery	Qualifier	Limis
104 %		<i>70-130</i>
<i>95</i> %		70-130
111 %		70-130
94 %		<i>70-130</i>
	104 % 95 % 111 %	104 % 95 % 111 %

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-11-14 Date Sampled: 07/17/06 10:50

Percent Solids: N/A
Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-06

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

Analyte Gasoline Range Organics	Results ND	Units ug/L	<u>MRL</u> 50.0		Method 8015M	<u><b>DF</b></u>	Analyst MD	<b>Analyzed</b> 07/29/06	<u>I/V</u> 5	<u><b>F/V</b></u> 5
	%Re	covery	Qualifier	Limits	<u>L</u>					
Surrogate: 2,5-Dibromotoluene - FID	1	07 %		<i>70-130</i>						

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-11-14

Date Sampled: 07/17/06 10:50 Percent Solids: N/A

Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-06

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozoob volatile Oxygenate Compounds								
<b>Analyte</b>	Results	<b>Units</b>	<b>MRL</b>		DF	Analyzed		
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06		
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06		
Tertiary-amyl methyl ether	ND	ug/L	1.00		1	07/28/06		
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06		
	%Re	covery	Qualifier	Limits				
Company of 2 District and 14								

	%Recovery	Qualitier	Limits
Surrogate: 1,2-Dichloroethane-d4	100 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	109 %		70-130
Surrogate: Toluene-d8	95 %		<i>70-130</i>

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-12-14.5-18 Date Sampled: 07/17/06 11:15

Percent Solids: N/A Initial Volume: 5

Extraction Method: 5030B

Final Volume: 5

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-07

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

	00101									
Analyte Gasoline Range Organics	Results ND	Units ug/L	<u>MRL</u> 50.0		Method 8015M	$\frac{\mathbf{DF}}{1}$	Analyst MD	Analyzed 07/29/06	<u>I/V</u> 5	F/V 5
	%Re	covery	Qualifier	Limits			****	****		_
Surrogate: 2,5-Dibromotoluene - FID	10	07 %		70-130						

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park Client Sample ID: GP-12-14.5-18

Date Sampled: 07/17/06 11:15

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-07

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozood volathe Oxygenate Compounds								
<u>Analyte</u>	Results	Units	<b>MRL</b>		<u>DF</u>	Analvzed		
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06		
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06		
Tertiary-amyl methyl ether	1.10	ug/L	1.00		1	07/28/06		
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06		
	%Re	covery	Qualifier	Limits	· · · · · · · · · · · · · · · · · · ·			
Surrogate: 1,2-Dichloroethane-d4	10	02 %		<i>70-130</i>				

	70KELUVEI Y	Quaililei	LIIIILS
Surrogate: 1,2-Dichloroethane-d4	102 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	108 %		70-130
Surrogate: Toluene-d8	95 %		70-130

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-7-10.5 Date Sampled: 07/17/06 11:45

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

Surrogate: 2,5-Dibromotoluene - FID

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-08

Sample Matrix: Aqueous

Analyst: MD Prepared: 07/28/06

70-130

8015M Gasoline Range Organics

Analyte Gasoline Range Organics	Results ND	Units ug/L	MRL 50.0		Method 8015M	<u><b>DF</b></u>	Analyst MD	<u>Analyzed</u> 07/29/06	<u>I/V</u> 5	<u><b>F/V</b></u> 5
	%Red	covery	Qualifier	Limits	-1					_

112 %

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Quality

Dependability

Fax: 401-461-4486

Service

http://www.ESSLaboratory.com

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-7-10.5

Date Sampled: 07/17/06 11:45

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-08

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozob volatne Oxygenate Compounds							
<b>Analyte</b>	Results	<u>Units</u>	<u>MRL</u>		<u>DF</u>	Analyzed	
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06	
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06	
Tertiary-amyl methyl ether	ND	ug/L	1.00		1	07/28/06	
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06	
	%Re	covery	Qualifier	Limits		· · · · · · · · · · · · · · · · · · ·	

	%Recovery	Quaimer	LIMITS
Surrogate: 1,2-Dichloroethane-d4	103 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	111 %		70-130
Surrogate: Toluene-d8	94 %		70-130

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-11-14 Date Sampled: 07/17/06 12:10

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

Surrogate: 2,5-Dibromotoluene - FID

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-09

Sample Matrix: Aqueous

Analyst: MD Prepared: 07/28/06

8015M Gasoline Range Organics

Qualifier

Limits

70-130

%Recovery

111 %

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

http://www.ESSLaboratory.com

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-11-14

Date Sampled: 07/17/06 12:10

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-09

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozob . omone on genute compounds									
<u>Analyte</u>	Results	<u>Units</u>	MRL		$\mathbf{DF}$	Analyzed			
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06			
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06			
Tertiary-amyl methyl ether	1.19	ug/L	1.00		1	07/28/06			
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06			
	%Re	covery	Qualifier	Limits	, 1 w / 11				

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	102 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	111 %		70-130
Surrogate: Toluene-d8	<i>95 %</i>		70-130

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-15-18 Date Sampled: 07/17/06 12:30

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-10

Sample Matrix: Aqueous

Analyst: MD Prepared: 07/28/06

# 8015M Gasoline Range Organics

oolow Gusonie Runge Organies										
Analyte Gasoline Range Organics	Results ND	Units ug/L	MRL 50.0		Method 8015M	$\frac{\mathbf{DF}}{1}$	Analyst MD	<u>Analyzed</u> 07/29/06	<u>I/V</u>	$\frac{\mathbf{F/V}}{5}$
	%Red	covery	Qualifier	Limits						
Surrogate: 2,5-Dibromotoluene - FID	1	11 %		70-130						

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-13-15-18

Date Sampled: 07/17/06 12:30

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-10

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozoob voiathe Oxygenate Compounds									
<b>Analyte</b>	Results	Units	MRL		DF	Analyzed			
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06			
Ethyl tertiary-butyl ether	ND	ug/L	1.00	,	1	07/28/06			
Tertiary-amyl methyl ether	ND	ug/L	1.00		1	07/28/06			
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06			
	%Red	covery	Qualifier	Limits					
Surrogate: 1,2-Dichloroethane-d4	1.	02 %		70-130					

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	102 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	110 %		70-130
Surrogate: Toluene-d8	94 %		70-130

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-7-10.5

Date Sampled: 07/17/06 13:40

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-11

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

ooletti Gusonne Runge Olgumes										
Analyte Gasoline Range Organics	Results ND	Units ug/L	<u>MRL</u> 50.0		Method 8015M	$\frac{\mathbf{DF}}{1}$	Analyst MD	<u>Analyzed</u> 07/29/06	<u>I/V</u> 5	$\frac{\mathbf{F/V}}{5}$
	%Rec	covery	Qualifier	Limits		-	****			
Surrogate: 2,5-Dibromotoluene - FID	1.	12 %		70-130						

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-7-10.5

Date Sampled: 07/17/06 13:40

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-11

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozoob volume Oxygenate Compounds									
<b>Analyte</b>	Results	<u>Units</u>	<b>MRL</b>		$\mathbf{DF}$	Analyzed			
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06			
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06			
Tertiary-amyl methyl ether	ND	ug/L	1.00		. 1	07/28/06			
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06			
	%Red	covery	Qualifier	Limits					
Surrogate: 1,2-Dichloroethane-d4	1.	01 04		70 120					

	%KeLOVEI y	Qualifier	LITTILS
Surrogate: 1,2-Dichloroethane-d4	101 %		70-130
Surrogate: 4-Bromofluorobenzene	96 %		70-130
Surrogate: Dibromofluoromethane	110 %		70-130
Surrogate: Toluene-d8	<i>95</i> %		70-130

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-11-14 Date Sampled: 07/17/06 14:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

Surrogate: 2,5-Dibromotoluene - FID

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-12

Sample Matrix: Aqueous

Analyst: MD Prepared: 07/28/06

70-130

**8015M Gasoline Range Organics** 

Analyte Results **Units MRL** Method **DF** Analyst Analyzed I/V Gasoline Range Organics ND ug/L 50.0 8015M 07/29/06 MD %Recovery Qualifier Limits

108 %

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

Service

http://www.ESSLaboratory.com

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-11-14

Date Sampled: 07/17/06 14:00 Percent Solids: N/A

Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-12

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

o-oob / olasile On,/ genate Compounts									
<b>Analyte</b>	Results	<u>Units</u>	MRL		$\mathbf{DF}$	Analyzed			
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06			
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06			
Tertiary-amyl methyl ether	1.16	ug/L	1.00		1	07/28/06			
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06			
	%Red	covery	Qualifier	Limits					

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	103 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	110 %		70-130
Surrogate: Toluene-d8	94 %		70-130

Dependability •

Quality

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-15-18 Date Sampled: 07/17/06 14:30

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-13

Sample Matrix: Aqueous

Analyst: MD

Prepared: 07/28/06

# 8015M Gasoline Range Organics

<b>Analyte</b>	<b>Results</b>	<u>Units</u>	<b>MRL</b>		<b>Method</b>	<u>DF</u>	<b>Analyst</b>	Analyzed	I/V	<u>F/V</u>
Gasoline Range Organics	ND	ug/L	50.0		8015M	1	MD	07/29/06	5	5
	%Re	covery	Qualifier	Limits		•				
Surrogate: 2,5-Dibromotoluene - FID	1	05 %		70-130						

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

Client Sample ID: GP-14-15-18

Date Sampled: 07/17/06 14:30

Percent Solids: N/A Initial Volume: 10 Final Volume: 10

Extraction Method: 5030B

ESS Laboratory Work Order: 0607368 ESS Laboratory Sample ID: 0607368-13

Sample Matrix: Aqueous

Analyst: MD

8260B Volatile Oxygenate Compounds

ozoob volatile Oxygenate Compounds								
<b>Analyte</b>	Results	Units	MRL		$\mathbf{DF}$	Analyzed		
Di-isopropyl ether	ND	ug/L	1.00		1	07/28/06		
Ethyl tertiary-butyl ether	ND	ug/L	1.00		1	07/28/06		
Tertiary-amyl methyl ether	ND	ug/L	1.00		1	07/28/06		
Tertiary-butyl Alcohol	ND	ug/L	25.0		1	07/28/06		
	%Rea	covery	Qualifier	Limits	1,000	****		
Surrogate: 1,2-Dichloroethane-d4	10	05 %		<i>70-130</i>				

	70/1CCOVC/ y	Quantici	LIIIIL
Surrogate: 1,2-Dichloroethane-d4	105 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	112 %		70-130
Surrogate: Toluene-d8	93 %		70-130

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607368

# **Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
		8015M Ga	soline Ra	inge Org	ganics					
Batch BG62841 - 5030B										
Blank										
Gasoline Range Organics	ND	50.0	ug/L							
			<u>-</u> -		····					
Surrogate: 2,5-Dibromotoluene - FID	52.2		ug/L	50.0		104	<i>70-130</i>			
LCS										***
Gasoline Range Organics	480		ug/L	500		96	60-140			
Surrogate: 2,5-Dibromotoluene - FID	51.2		ug/L	50.0		102	70-130			
LCS Dup										
Gasoline Range Organics	483		ug/L	500		97	60-140	0.6	20	
					<del> </del>					
Surrogate: 2,5-Dibromotoluene - FID	<i>50.5</i>		ug/L	50.0		101	70-130			
Matrix Spike Source: 0607368-05										
Gasoline Range Organics	489		ug/L	500	14.2	95	60-140			
Surrogate: 2,5-Dibromotoluene - FID	<i>55.2</i>		ug/L	50.0		110	70-130			
Matrix Spike Dup Source: 0607368-05										
Gasoline Range Organics	483		ug/L	500	14.2	94	60-140	1	40	
Comparator 2 F Dibramatalyana FID	56.0		ug/L	50.0		112	70-130			***************************************
Surrogate: 2,5-Dibromotoluene - FID		COR Volatil			mnaunde		70-130			
		260B Volatil	e Oxyger	iate Cor	npounas	5				
Batch BG62823 - 5030B										
Blank										
Di-isopropyl ether	ND	1.00	ug/L							
Ethyl tertiary-butyl ether	ND	1.00	ug/L							
Tertiary-amyl methyl ether	ND	1.00	ug/L							
Tertiary-butyl Alcohol	ND	25.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	<i>25.0</i>		ug/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	23.4		ug/L	25.0		94	<i>70-130</i>			
Surrogate: Dibromofluoromethane	27.8		ug/L	25.0		111	<i>70-130</i>			
Surrogate: Toluene-d8	23.3		ug/L	25.0		93	<i>70-130</i>			
LCS										
Di-isopropyl ether	24.9		ug/L	25.0		100	70-130			
Ethyl tertiary-butyl ether	23.4		ug/L	25.0		94	70-130			
Tertiary-amyl methyl ether	22.2		ug/L	25.0		89	70-130			
Tertiary-butyl Alcohol	127		ug/L	125		102	70-130	`		
Surrogate: 1,2-Dichloroethane-d4	24.0		ug/L	25.0		<i>96</i>	<i>70-130</i>			
Surrogate: 4-Bromofluorobenzene	<i>22.5</i>		ug/L	25.0		90	<i>70-130</i>			
Surrogate: Dibromofluoromethane	26.1		ug/L	25.0		104	<i>70-130</i>			
Surrogate: Toluene-d8	<i>25.1</i>		ug/L	<i>25.0</i>		100	<i>70-130</i>			
LCS Dup										
Di-isopropyl ether	24.6		ug/L	25.0		98	70-130	1	20	
Ethyl tertiary-butyl ether	23.0		ug/L	25.0		92	70-130	2	20	
Tertiary-amyl methyl ether	21.5		ug/L	25.0		86	70-130	3	20	
Tertiary-butyl Alcohol	115		ug/L	125		92	70-130	10	20	
Surrogate: 1,2-Dichloroethane-d4	23.6		ug/L	25.0		94	70-130		_•	
185 Frances Avenue, Cranston		.2211 Tal	: 401-461-7		Fax: 401-4			man, EC	SLaborato	ru com
103 Hances Avenue, Clauston	n, Ki UZ71U-	Dependability		ouality		vice	nup://	www.ed	orannial0	2

Division of Thielsch Engineering, Inc.

# CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607368

# **Quality Control Data**

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier
	82	60B Volatil	e Oxyger	ate Cor	npounds	5				
Batch BG62823 - 5030B				,						
Surrogate: 4-Bromofluorobenzene	22.4		ug/L	25.0		90	70-130			
Surrogate: Dibromofluoromethane	<i>25.4</i>		ug/L	25.0		102	<i>70-130</i>			
Surrogate: Toluene-d8	<i>25.2</i>		ug/L	25.0		101	<i>70-130</i>			
Matrix Spike Source: 0607368-07	7 80.00		-n-/-							
Di-isopropyl ether	27.0		ug/L	25.0	ND	108	70-130	- mar		AB 14-2
Ethyl tertiary-butyl ether	24.6		ug/L	25.0	ND	98	70-130			
Tertiary-amyl methyl ether	24.8		ug/L	25.0	1.10	95	70-130			
Tertiary-butyl Alcohol	103		ug/L	125	ND	82	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.3		ug/L	25.0		93	<i>70-130</i>			
Surrogate: 4-Bromofluorobenzene	23.4		ug/L	25.0		94	<i>70-130</i>			
Surrogate: Dibromofluoromethane	<i>25.9</i>		ug/L	25.0		104	<i>70-130</i>			
Surrogate: Toluene-d8	23.8		ug/L	<i>25.0</i>		<i>95</i>	<i>70-130</i>			
Matrix Spike Dup Source: 0607368-07				•						
Di-isopropyl ether	25.9		ug/L	25.0	ND	104	70-130	4	20	
Ethyl tertiary-butyl ether	24.1		ug/L	25.0	ND	96	70-130	2	20	
Tertiary-amyl methyl ether	24.0		ug/L	25.0	1.10	92	70-130	3	20	
Tertiary-butyl Alcohol	112		ug/L	125	ND	90	70-130	8	20	
Surrogate: 1,2-Dichloroethane-d4	23.9		ug/L	25.0		96	70-130			
Surrogate: 4-Bromofluorobenzene	23.2		ug/L	<i>25.0</i>		93	<i>70-130</i>			
Surrogate: Dibromofluoromethane	<i>26.1</i>		ug/L	25.0		104	<i>70-130</i>			
Surrogate: Toluene-d8	<i>23.5</i>		ug/L	25.0		94	<i>70-130</i>			

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607368

#### **Notes and Definitions**

H	Estimated value. Sample hold times were exceeded.
ND	Analyte NOT DETECTED above the detection limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
mg/kg	Results reported as wet weight
TCLP	Toxicity Characteristic Leachate Procedure

TCLP Toxicity Characteristic Leachate Procedure I/V Initial Volume F/V Final Volume

§ Subcontracted analysis; see attached report

A forward library search of the NBS Mass Spectral Library was performed on this sample using the McLafferty Probability Base Matching (PBM) Algorithm. An estimated concentration of non-TCL compounds tentatively identified is quantified by the internal standard method. The nearest internal standard free of interferences was used to quantify. A response factor of one was assumed. This search was inclusive of the ten largest peaks greater than ten percent of the nearest internal standard.

- Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- Range result excludes concentrations of target analytes eluting in that range.
  Range result excludes the concentration of the C9-C10 aromatic range.

Avg Results reported as a mathematical average.

NR No Recovery

The state of RI does not grant certification for this method for non-potables.

Dependability

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Geomatrix Consultants, Inc. Client Project ID: Former Drive & Park

ESS Laboratory Work Order: 0607368

# **ESS LABORATORY CERTIFICATIONS**

U.S. Army Corps of Engineers Soil and Water

Navy Installation Restoration QA Program Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP): 242405 Potable Water Non Potable Water

New York (NELAP): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture Soil Permit: S-54210

> New Jersey (NELAP): RI002 Potable Water Non Potable Water Soil and Hazardous Waste

> > Maryland: 301 Potable Water

Pennsylvania: 68-934, 68-1752

ESS Laboratory
Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211 AIN OF CUSTOD Standard Turn Time Reporting Limits If faster than 5 days, prior approval by laboratory is required # State where samples were collected with:
MA RI CT NH NJ NY Tel. (401) 461-7181 Fax (401) 461-4486 ME Other Electronic Deliverable www.esslaboratory.com Is this project for any of the following:
MA-MCP Navy Format: Excel Access PDFX USACE Other Co. Name Project # Project Name (20 Char. or less) Circle and/or Write Required Analysis 9328 FORMER DRIVETPARK DEOMATRIX CONSULTANTS MCP-METALS (13) wHg Contact Person Address 90 80 80 80 80 80 ANID AVERIL PP13 NBC7 Number of Containers City S. ATKINSON Type of Containers RCRA8 SIKY+MOZ Fax #603.37%. 2078 Email Address
DAVERALC GEOMATAK. COM 8082 PCB Telephone # 603376,2017 TCLP-RCRA8 RCRA5 ESS LAB Collection Date GRAB Sample# Time Sample Identification (20 Char. or less) 120 -9-10.6-14 -10.5-14 2 1500 2 1630 10 20 9 1050 11 15 1145 9 30 7117106 Container Type: P-Poly G-Glass S-Sterile V-VOA D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters Matrix: S-Soil SD-Solid \_\_\_ No Internal Use Only Cooler Present Preservation Code: 1- NP, 2- HCl, 3- H2SO4, 4- HNO3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9-Yes \_\_\_ No NA: Seals Intact Sampled by: DYCRIL HOLD GRU + ONEDENATES PENDING BTEX Cooler Temp: 7 Comments: Technicians Date/Time Date/Time Date/Time 7-19-611602 Date/Time Received by: (Signature) Date/Time Relinquished by: (Signature) Date/Time Received by: (Signature) Date/Time

<sup>\*</sup>By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

<b>L33</b>	Labora	itory		100 m			9 14 T	CHAIN	OF		U	5	T		U	Y				Pag	eˈ	2	of	<u> </u>	
Division o	of Thielsch Eng	gineering,	Inc.	016			rn Time faster th	Standard nan 5 days, prior approval by labo	Other	quired	#		<u>[</u> ]	Repor	ting I	imite	1 31	7	T	ES	S LAJ	B PRC	)JEC	T ID	-
ranc Tel. (401)	es Avenue, C 461-7181 F	ranston, K ax (401) 4	1 02 61-	1910 4480	1-22 5	Sta	ate wher	e samples were collected from:			1	1	$=$ $\downarrow$					170	6	00	00	72	4	7_	
	aboratory.com					Is M	this proj	CT NH NJ (NY) I ject for any of the following: Navy US.	ME O	ther_			- 1		onic l				s F	_ Yes P <b>DF</b>	— O!	$-\ddot{G}^{\circ}\mathcal{C}$	07	7368	,
Co. Name		~		7		Project #		Project Name (20 Char. or less)	$\circ$				ناجح	-			-			uired				Charles Constant	-
C	GECMA RI	ix Consa	110	W	)	4320 Address	8	FERMER VANCT	YARU				. 2							ĖΤ		100	T		
Contact Perso	GECMARIO /	AUERICE	5 10			Address	101 121 141					524.2	VPH #/targe	S2	2 4	s 508	PAH 8270	PP13 TAL23		FALS (1	1963	14 M DI			
City		State				Zip		PO#		tainer	iers	4	S15 805	85		608 Posticides	9 (1)	PPI	NBC7	P-ME	35	(1)	5		
Telephone #		Fax	#					Email Address		of Con	ontain	624	) XI	) HH	EPH w/PAHs	8082 P.C.B.	625	RCRA8		¥ .	156	E E			
ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX		Sample	Identification (20 Chm. or less)	Pres Code	Number of	Type of Containers	8280	8021 MTBE/BT	3		8081 Pesticides		RCRAS	TCLP-RCRA8	METALS (13)	BEX+ MTBE	ONENTES			
	7/1706	1340		+	A	GP-	14-	7-10.5	2	d	V		П	* 1 14	3						γ				,
12	7/17/06	140		7	A	GP-	14	- 11-14	a	9	V		Ч								X		$\top$		
13'	7/17/66	1431		+	A	GP:	14	- 15-18	a	9	V		H	i i i			7				X	1			-
)4	7/17/06			6.1 B		TRIF	B	LANG			in in											1			
																			1.			十	1		
																							$\top$		
					21.1																		$\top$		-
						a in Hill Markan esta				1 12 € 1											$\neg$	_			•
										110 112													+		
				. ( ) 	lattu. Kelin								1.2.0										1		
10/10/10/10/10/10/10/10/10/10/10/10/10/1		ss S-Sterile					D-\$olid	D-Sludge WW-Waste Water	GW-Gro	und W	ater	SW-S	urface	Wate	r D	W-Di	inkin	g Wa	ter	O-0i	l W	Wipes	F-I	Filters	
Cooler Preser		No		tu.		se Only	Pres	ervation Code: 1- NP, 2- HCl,	3- H.SO <sub>1</sub> , 4	1- HN	O1, 5-	NaO	Н, 6-	MeO	Н, 7-	Aso	rbic A	Acid,	8- Zı	nAct,	9			THE CONTRACTOR OF STREET	
Seals Intact	.1	No NA:		. 1			1	pled by:					.12 <sup>1</sup> - 1 <u>1                                 </u>												
Cooler Temp:	4.5		:		Cechni	cians	Com	iments: Hold GRO + 6	OXYGEN	AT	يخ خ	PEN	DIN	6	BI	ēΧ	R	ES u	LES.	5	EE	Jun	FR	'AHER	
Relaquish d	by (Signature)	Date/Time	3	Re	ceive	d by: (Signate	W JA	Date/Time Reling	quished A:	(Signa	tire)		Date/]	ime		Reco	ived	(S)	Signat	ture)	100/00/10/10/10	Da	ite/Tii	me	-
Relinquished	by: (Signature)	]. Date/Time		Re	iceive	l by: (Signati	ire)	Date/Time Reling	quished by:	(Signa	ture	1/2	06   Date/1	1.00 ime	SZ	Reaf	/ Le ved	bv: (9	<u>All</u>	,	)   7	7/90	ite/Tin	1602	
									la di di Panalahan					- 41 - 1		Û	/	- /- (							

<sup>\*</sup>By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A



# **APPENDIX H**

# Waste Disposal Records for Off-site Oxygenate Source Investigation



# State of New Jersey Department of Environmental Protection Hazardous Waste Regulation Program Manifest Section P.O. Box 414, Trenton, NJ 08625-0414



P	ease	type or	r print in block letters. (Form designed	for use on elite (12-pito	ch) typewriter.)	- compression in the		rm App		No. 205	0-0039.
			UNIFORM HAZARDOUS . WASTE MANIFEST	1. Generator's US EPA  N  Y  D  0  1  3	. ID No. 0 6 4 5 8	9 0 9	anifest ment No.  2 2 3	2. Pag of	is not	required	he shaded areas I by Federal law.
	I			S-RENT-A-CAR	System, Inc	*		A. Sta	te Manifest Docum	nent Num	nber NOOO
The second	1 -		M ROAD					B Sta	te Generator's ID-	(Gen. Site	e Address):
	4		KEEPSIE, NY*12601	4.					ar, har	Jack Olk	o Vadiopali
	-		tor's Phone( <b>(973))496-34</b> orter 1 Company Name	<b>4/</b> 6.	US EPA ID	Number	<del></del>	SAM C. Sta	te Trans. ID-NJDE	p i	
	1		VENTURE INC.	J Als	*******			y. Sta	Decal No		55811 0 08 2 67 0
			orter 2 Company Name	8.	US EPA ID		1.7.	D. Tra	nsporter's Phone (		8) 355–5800
				1.1	11111			211.00	te Trans, ID-NJDE	8 3 3 4	
	9.	Designa	ated Facility Name and Site Address	10.	US EPA ID	Number			Decai No		TE CHE
	C	ycle	Chem Inc.					F. Tra	nsporter's Phone (		)
	2:	17 S	outh First Street					the state of	te Facility's ID		No.
			beth, NJ 07206	<u>  1</u>	<u> </u>	200			ility's Phone((g		555-5800
	11.		OT Description (Including Proper Shippir ID Number and Packing		r Division,		12. Conta		13. Total	14. Unit	i. Waste No.
	a.	HM.	the state of the s	<u> </u>			No.	Туре	Quantity	· Wt/Vol	
		X	R.Q.Hazardous wast III (DO18)	e, ilquia, n.	0.5. 7 MAX	VOZ FO	)				D018
		^	TIT /MATO)	en e		-	XX3	<b>₩</b> ×	XX165	1 .	
,	b.		R.Q.Hazardous wast	e. solid n.o	.s. 9 NAKO			_#_f			D018
G E		x	III (D018)	cd acread wer		1				0	
N					,		XXX	D i	X1600	1	e i i i i
R A	Ċ.			<del> </del>		· .		-	7,7,0,0,10	(4)	
O											
Ħ.				·	· · · · · · · · · · · · · · · · · · ·					1	
1	d.				$\cdot$ $\cdot$ $\cdot$						
						1					
	21.7	l naitibb <i>l</i>	al Descriptions for Materials Listed Abov	e .				i K	anyon dodes to	r Wastes	Listed Above
		(EL)	WASTE WATER BENZENE		4			(2	$\gamma \omega_1 -$		
	學校 电影	6-762 Car (+)	g/kg_0=100Z	C.				a.		c.	L CL
	18 42.11	(ES)	Control Court Control	ka 🗀 💮				( ) (	<i>301</i> 5		
	b. <b>(</b>	)–10(	and a second control of the control	d.				b.	スナゲ	d,	
	15.	Special	Handling Instructions and Additional Inf	ormation 24 Hr E	Lergency #	: (90	8) 354	-021	0 939953	/9391	35/66486
		OR OR	n File								
					171	ar- 7	+ AF6-l	6161	1		
	16. (	GENER.	<b><u> </u></b>	-2 F-RT-#171: lare that the contents of	this consignment ar	e fully and	accurately	descri	bed above by prop	er shippi	ing name and are
		classifie egulatio	d, packed, marked, and labeled, and are	in all respects in proper co	ondition for transpor	t by highwa	ay accordin	g to app	olicable internation	al and na	tional government
	t	flam:	a large quantity generator. I certify that	I have a program in pla	ace to reduce the v	olume and	I toxicity of	waste	generated to the	deg ee 1	have determined
	t	o be ec	onomically practicable and that I have s are threat to human health and the envect the best waste management method	elected the practicable me	ethod of treatment,	storage, or	disposal ci	urrently	available to me w	hich mini	mizes the present
	a	and sele	ect the best waste management method	that is available to me ar	than I day afford.	1, 1 112		3	THE SHOPE TO THE	1111215 11sy	waste generation
	1	Pinte	Typed Name	nyewy	DARDERING .		71(	)		`\ »	ionth Day Year
Ц	X		EWN XMMONIOS	1'1 1	<u>K</u>		حر إ	<u> </u>		X	8 10 7 0 6
T   Pi			orter 1 Acknowledgement of Receipt of I	Materials	Cianatura	/	7	_/			
A N	۶	rinted/1	Typed Name		Signature	11					Nonth Day Year
S	19	LEV Transpo	orter 2 Acknowledgement of Receipt of N	fatariale	1	110		<u>~</u>			780706
Ä			Typed Name	naterials	Signature	<del></del>		<del>- ;</del>			Nonth Day Year
TRANSPORTER			•							ľ	Day rear
7	19. [	Discrepa	ancy Indication Space		<del></del>					<u>_</u>	
F			1								
A							7 /	-	) 1		
						11			1///11	$\triangle$	
- -			Owner of Operator: Certification of recei	pt of hazardous materials		lites exce	ept as note	d in ite	m/ <i>§</i> 8. // //		
Ý	- P	riplied	yped Nome	AAM	Signature	(A)	1/1/	//	1/1/10	/ M	127 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	6	0700.00	MUNICOLU		1/1/	11	US		111/1/1/		MINA
cr/	ידיסומו	8700-22	4		SIGNATURE AND	D INFORM	MATION	UST B	E LEGIBLE ON A	ALL CO	PIES



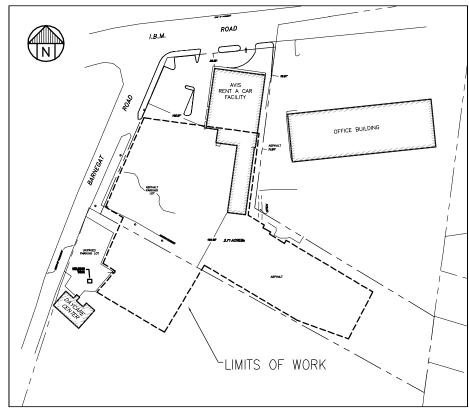
# **APPENDIX I**

# **As-Built Construction Drawings**

# SITE LOCATION

# SITE LOCATION MAP





# **INTERIM REMEDIAL MEASURE - AS BUILT** FORMER DRIVE & PARK, INC. SITE TOWN OF POUGHKEEPSIE **NEW YORK**

# DRAWING LIST

SHT No. DWG No. DWG NAME

G1 TITLE SHEET EXISTING SITE LAYOUT EXCAVATION PLAN BACKFILL DETAILS OFF-SITE RESTORATION PLAN DECONTAMINATION PAD DETAILS

## **SYMBOLS**



- DETAIL IDENTIFICATION LETTER - DWG NUMBER ON WHICH DETAIL IS DRAWN

DWG NUMBER FROM WHICH DETAIL IS TAKEN



DETAIL IDENTIFICATION LETTER DETAIL IS TAKEN FROM AND DRAWN ON SAME DWG



SECTION IDENTIFICATION LETTER DWG NUMBER ON WHICH SECTION IS DRAWN

DWG NUMBER FROM WHICH SECTION IS TAKEN

SECTION IDENTIFICATION LETTER

SECTION IS TAKEN FROM AND DRAWN ON SAME DWG

## **LEGEND**

UTILITY POLE HYDRANT CATCH BASIN LIGHT POLE OVERHEAD UTILITIES UNDERGROUND ELECTRIC UNDERGROUND GAS LINE UNKNOWN UTILITY/DRAIN LINE WATER LINE WATER VALVE GAS VALVE

UNKNOWN VALVE

TELEPHONE MANHOLE

UNKNOWN MANHOLE SIGN ELEVATION INFORMATION

T-BOX TELEPHONE BOX  $\langle \cdot \rangle$ TRFF

€3) RUSH

TOPOGRAPHIC CONTOUR (ELEV. IN FT.) PARCEL BOUNDARY LINE

## GENERAL NOTES

- THE WORK IS TAKING PLACE AT AN ACTIVE FACILITY. THE CONTRACTOR SHALL MINIMIZE ADVERSE IMPACTS TO FACILITY OPERATION.
- CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND ELEVATIONS SHOWN ON THE PLANS AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES FOR CORRECTIVE ACTION PRIOR TO PROCEEDING WITH WORK.
- THE SPECIFICATIONS FOR THIS PROJECT, WHICH ARE A SEPARATE DOCUMENT, ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS. SEE SPECIFICATIONS FOR INFORMATION NOT GIVEN IN THESE GENERAL NOTES OR SHOWN ON THESE
- 4. THE ENGINEER SHALL BE NOTIFIED OF ANY UNANTICIPATED CONDITIONS THAT ARE ENCOUNTERED AND WILL DETERMINE WHETHER DESIGN CHANGES WILL BE
- 5. EXISTING SURVEY AND PHOTOGRAMMETRY OF THE AREA WAS PERFORMED BY MORRIS ASSOCIATES, POUGHKEEPSIE, NY.
- 6. HORIZONTAL DATUM IS NAD83 (NEW YORK EAST). VERTICAL DATUM IS NAVD88.
- EXISTING UNDERGROUND FACILITIES: EXISTING UNDERGROUND UTILITIES AND FACILITIES DATA SHOWN OR REFERRED TO ARE PER RECORDS AND PREVIOUS INVESTIGATIONS ONLY.
- 9. CONFORMS: VERIFY LOCATIONS AND ELEVATIONS OF EXISTING FACILITIES TO WHICH NEW FACILITIES WOULD CONNECT PRIOR TO COMMENCING WORK SO THAT, IF NECESSARY, ADJUSTMENTS MAY BE MADE TO PROVIDE FOR SMOOTH CONFORMS AND TRANSITIONS.
- 10. SURFACE GRADES: SURFACE GRADES SHOWN ARE TO BE FINISHED GRADES.
- 11. MAINTAIN SERVICES DURING CONSTRUCTION: SEQUENCE, COORDINATE AND CONDUCT CONSTRUCTION OPERATIONS SUCH AS TO MAINTAIN CONTINUOUS PUBLIC SAFETY, ACCESS, DRAINAGE AND UTILITY SERVICES TO EXISTING FACILITIES REQUIRING THESE SERVICES. NOTIFY THE ENGINEER AT LEAST SEVEN (7) DAYS, UNLESS OTHERWISE APPROVED, IN ADVANCE OF INTERRUPTION OF ANY OF THESE SERVICES.
- 12. OVERHEAD ELECTRICAL LINES: CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND MAINTAINING SAFE CLEARANCES FROM OVERHEAD ELECTRICAL LINES AT ALL TIMES AND, WHERE HAZARDOUS CONDITIONS EXIST, FOR TAKING THE NECESSARY PRECAUTIONS AGAINST INJURY AND DAMAGE.
- 13. SAFETY MEASURES. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE AT ALL TIMES INCLUDING SAFETY OF PERSONS AND PROPERTY, AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS. THE ENGINEER'S JOB SITE REVIEW DOES NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFFTY MEASURES

REVISION DATE APRVD REFERENCES: 09/30/06 AS BUILT DATUM

JDG DRAWN DESIGNED SNJ CHECKED ADC REVIEWED KRM 68079

Avis Rent A Car System, Inc. 6 Sylvan Way Parsippany, New Jersey 07054



Amherst, New York 14228

(716) 565-0624

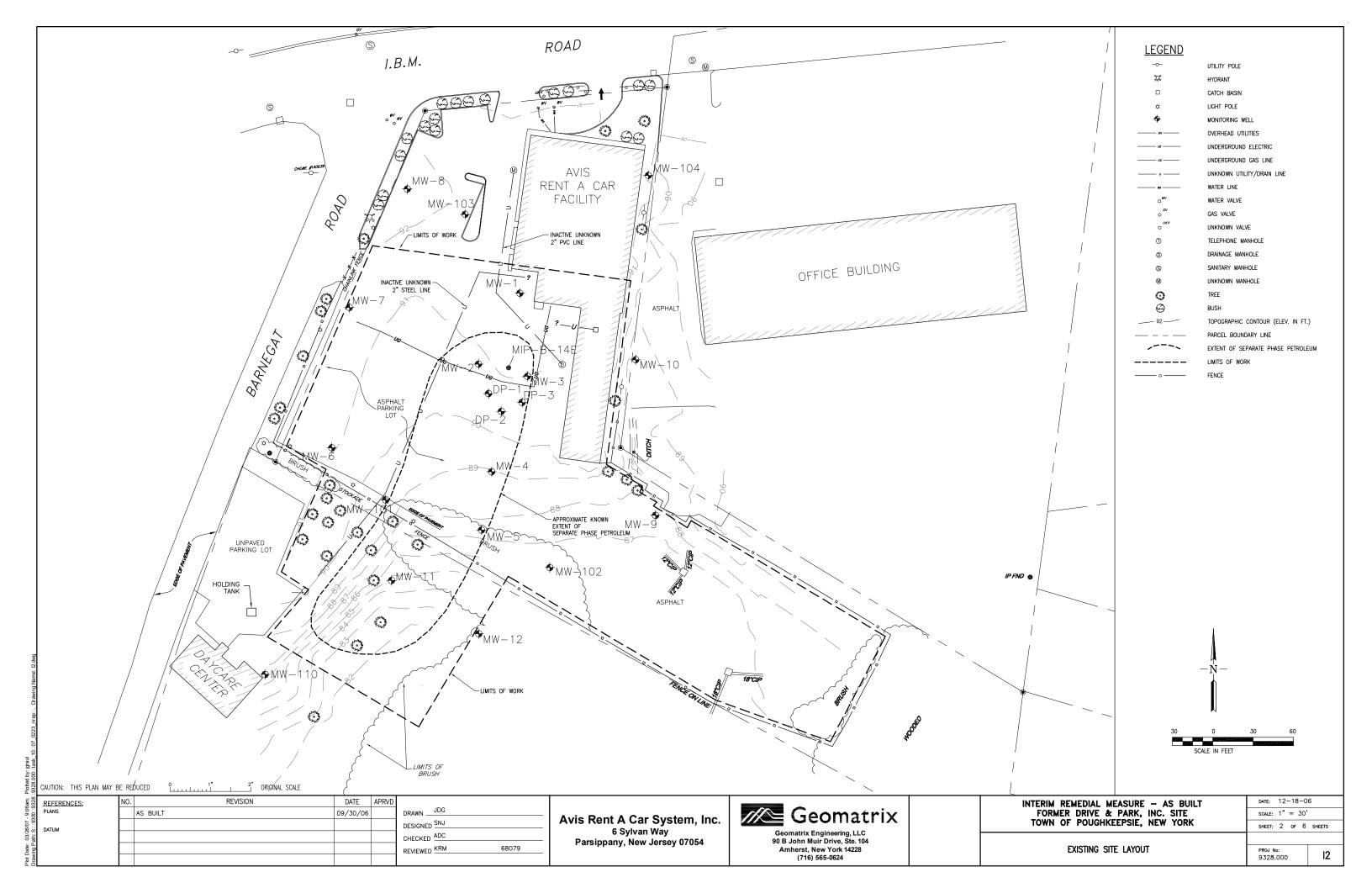
CAUTION: THIS PLAN MAY BE REDUCED 1" DATE: 12-18-06

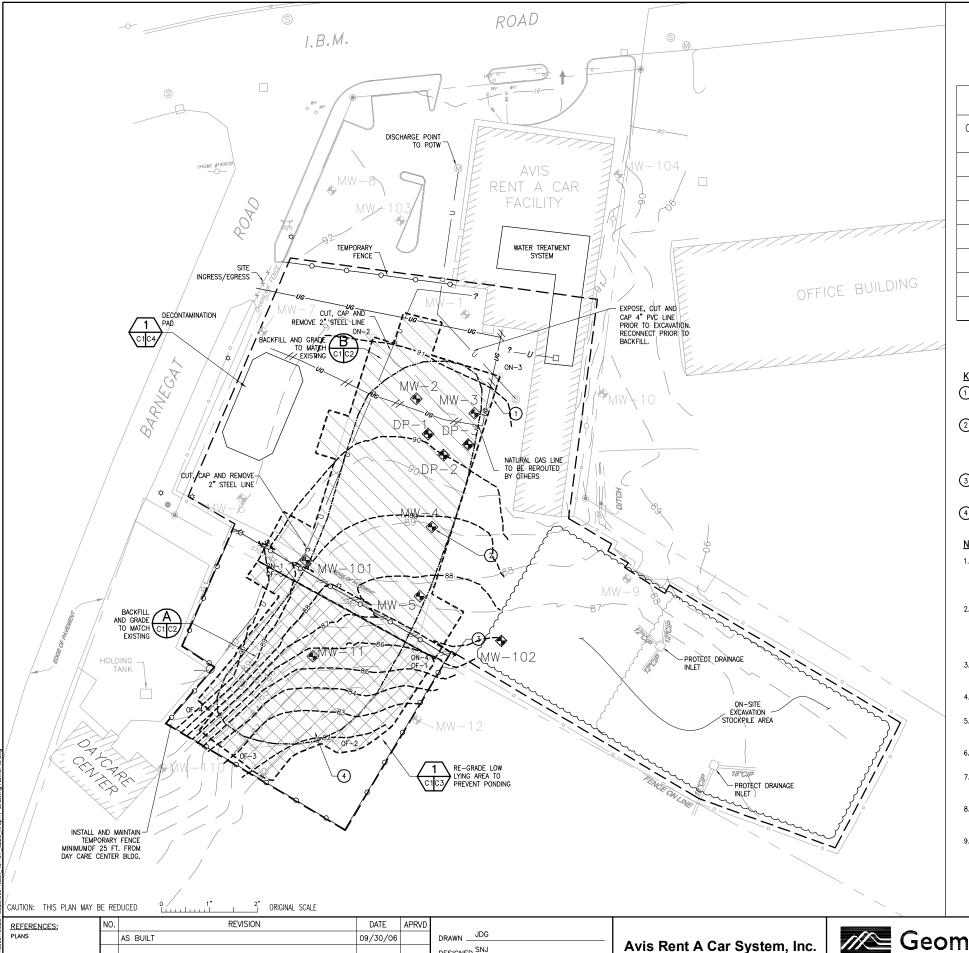
INTERIM REMEDIAL MEASURE - AS BUILT FORMER DRIVE & PARK, INC. SITE SCALE: SEE DRAWING TOWN OF POUGHKEEPSIE, NEW YORK SHEET: 1 OF 6 SHEETS

TITLE SHEET

9328,000

11





EXCAVATION LIMITS								
CONTROL POINT	NORTHING	EASTING						
ON-1/OF-5	1026504.68	646721.02						
ON-2	1026658.01	646768.80						
0N-3	1026633.30	646847.83						
0N-4/0F-1	1026463.93	646794.93						
0F-2	1026405.72	646745.51						
0F-3	1026401.44	646693.85						
0F-4	1026431.23	646658.68						

#### KEY NOTES

- ① ON—SITE EXCAVATION TO BE PARTIALLY SHORED. SHORING DESIGNED BY OTHERS, AND SUPPLIED AND INSTALLED BY CONTRACTOR. SEE EXCAVATION PROTECTION PLAN FOR SHORING EXTENT, TYPE, AND INSTALLATION DETAILS.
- (2) MONITORING WELLS ARE 4-INCH DIAMETER AND ARE AVAILABLE TO CONTRACTOR DEWATERING OPERATIONS. WHEN ENCOUNTERING A MONITORING WELL DURING EXCAVATION, CONTRACTOR IS TO CUT MONITORING WELL TO MATCH THE BOTTOM OF THE EXCAVATION, AND FILL REMAINING DEPTH OF WELL WITH GROUT. GROUT SHALL CONSIST OF TYPE 1 PORTLAND CEMENT WITH FOUR PERCENT BENTONITE BY WEIGHT.
- REMOVE FENCE PRIOR TO EXCAVATION, REPLACE AFTER COMPLETING OFF-SITE EXCAVATION. CONTRACTOR SHALL REPLACE REMOVED FENCE WITH A NEW 8-FOOT STEEL CHAIN LINK FENCE EQUIPPED WITH PLASTIC SLATS.
- 4 OFF-SITE EXCAVATION WILL BE RE-VEGETATED BY OTHERS AT A LATER DATE. CONTRACTOR TO PLACE TEMPORARY EROSION CONTROL MATERIALS ON SURFACE OF EXPOSED TOPSOIL AFTER BACKFILLING AS SHOWN ON SHEET C3.

- THE WORK SHALL BE CONDUCTED IN TWO PHASES. THE OFF-SITE EXCAVATION SHALL TAKE PLACE FIRST. ON-SITE EXCAVATION ACTIVITIES MAY BE PERFORMED CONCURRENTLY WITH OFF-SITE EXCAVATION ACTIVITIES, AS LONG AS ON-SITE EXCAVATION ACTIVITIES DO NOT IMPEDE THE PROGRESS OF THE OFF-SITE
- CONTRACTOR SHALL CLEAR AND GRUB EXCAVATION EXTENT IN ACCORDANCE TO STATE AND LOCAL REGULATIONS AND SPECIFICATIONS. ALL TREES WITHIN THE EXCAVATION EXTENT AND OFF-SITE GRADING AREA WILL BE REMOVED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL AVOID, AS FAR AS PRACTICAL, DAMAGE TO SHRUBBERY, PLANTS, GRASSES, AND OTHER VEGETATION OUTSIDE OF THE
- 3. DEWATERING, TREATMENT, AND DISCHARGE TO SANITARY SEWER TO BE PERFORMED BY CONTRACTOR. SEE THE SPECIFICATIONS FOR EFFLUENT FLOWRATE AND CHEMICAL CONCENTRATION LIMITS.
- CONTRACTOR MAY PLACE TREATMENT SYSTEM EQUIPMENT INSIDE BUILDING UPON APPROVAL BY ENGINEER.
- STOCKPILE LOCATIONS, SITE EGRESS/INGRESS, LOADING ZONE, ETC., ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND
- EXCAVATED SOIL SHALL BE STOCKPILED ON—SITE ONLY AS LONG AS NECESSARY TO PROFILE THE SOIL BEFORE OFFHAUL
- AT THE END OF EACH SHIFT, ALL STOCKPILES SHALL BE COVERED WITH A WEIGHTED POLYETHYLENE LINER PER THE SPECIFICATIONS TO MINIMIZE DUST OR
- 8. IN ADDITION TO WHAT IS SHOWN ON THE DRAWINGS, CONTRACTOR SHALL INSTALL FENCING, WALKWAYS, TRAFFIC CONTROLS, AND OTHER MEASURES AS NECESSARY

#### **LEGEND**

APPROXIMATE KNOWN EXTENT OF SEPARATE-PHASE RESIDUAL PETROLEUM



APPROXIMATE EXTENT OF ON-SITE EXCAVATION. (EXCAVATE TO 9'-13' BOS, BASED ON CONDITIONS-OBSERVED BY ENGINEER).
AS-BUILT DEPTH = 13'-15' BGS.



APPROXIMATE EXTENT OF OFF-SITE EXCAVATION. (EXCAVATE TO 3'-7'-BCS, BASED ON CONDITIONS-OBSERVED BY ENGINEER).
AS-BUILT DEPTH = 8'-15' BGS.



OF-2 SURVEY CONTROL POINT



MONITORING WELL TO BE DEMOLISHED DURING



TEMPORARY 6' TALL CHAIN LINK FENCE FENCE (REMOVED AND REPLACED)



STOCKPILE AREAS

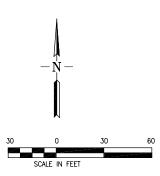


TOPOGRAPHIC CONTOUR, FINISHED GRADE, ELEVATION IN FEET - AS BUILT

EXTENT OF EXCAVATION - AS BUILT



// ABANDONED UNDERGROUND GAS LINE



	TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC IN THE VICINITY OF THE SITE.
9.	THE OFF-SITE EXCAVATION WORK WILL BE TAKING PLACE AT AN ACTIVE CHILD DAYCARE FACILITY. CONTRACTOR IS TO MAINTAIN TEMPORARY FENCES AND OTHER SITE CONTROL MEASURES TO ENSURE THE SAFETY OF DAYCARE CENTER PERSONNEL AND OCCUPANTS.

REFERENCES:	NO.	REVISION	DATE	APRVD						
PLANS		AS BUILT	09/30/06							
DATUM										
, o					(					
					F					

DESIGNED SNJ CHECKED ADC REVIEWED KRM 68079

6 Sylvan Way Parsippany, New Jersey 07054



Geomatrix Engineering, LLC 90 B John Muir Drive, Ste. 104 (716) 565-0624

INTERIM REMEDIAL MEASURE - AS BUILT FORMER DRIVE & PARK, INC. SITE TOWN OF POUGHKEEPSIE, NEW YORK

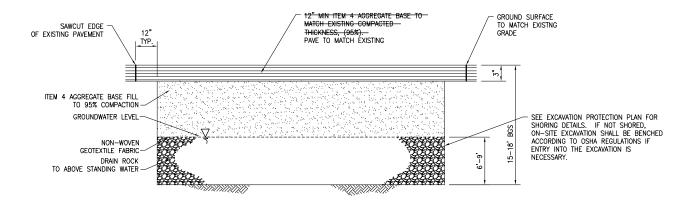
DATE: 12-18-06 SCALE: 1" = 30' SHEET: 3 OF 6 SHEETS

EXCAVATION PLAN

9328,000

13





B ON-SITE BACKFILL, TYP.

0 1" 2" ORIGINAL SCALE CAUTION: THIS PLAN MAY BE REDUCED

REFERENCES:	NO.	REVISION	DATE	APRVD	i
PLANS		AS BUILT	09-30-06		DRAWN
DATUM					DESIG
5/110#					CHECK
					REVIEW

WN JDG GNED SNJ CKED ADC IEWED KRM 68079

Avis Rent A Car System, Inc. 6 Sylvan Way Parsippany, New Jersey 07054

<b>c.</b>	<b>Geomatrix</b>
	Geomatrix Engineering, LLC
	90 B John Muir Drive, Ste. 104
	Amphamat Navy Vault 44220

(716) 565-0624

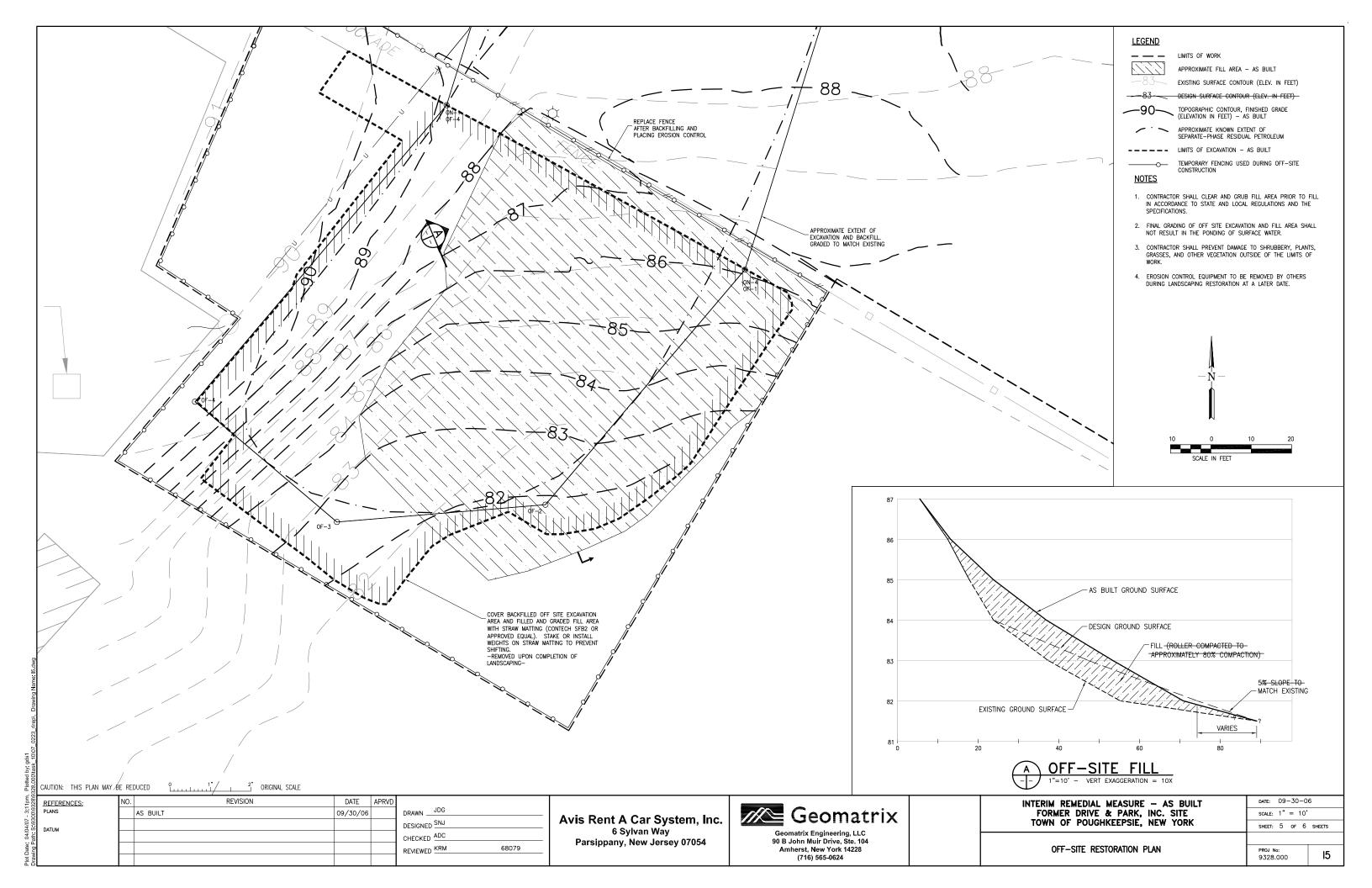
INTERIM REMEDIAL MEASURE — AS BUILT FORMER DRIVE & PARK, INC. SITE TOWN OF POUGHKEEPSIE, NEW YORK

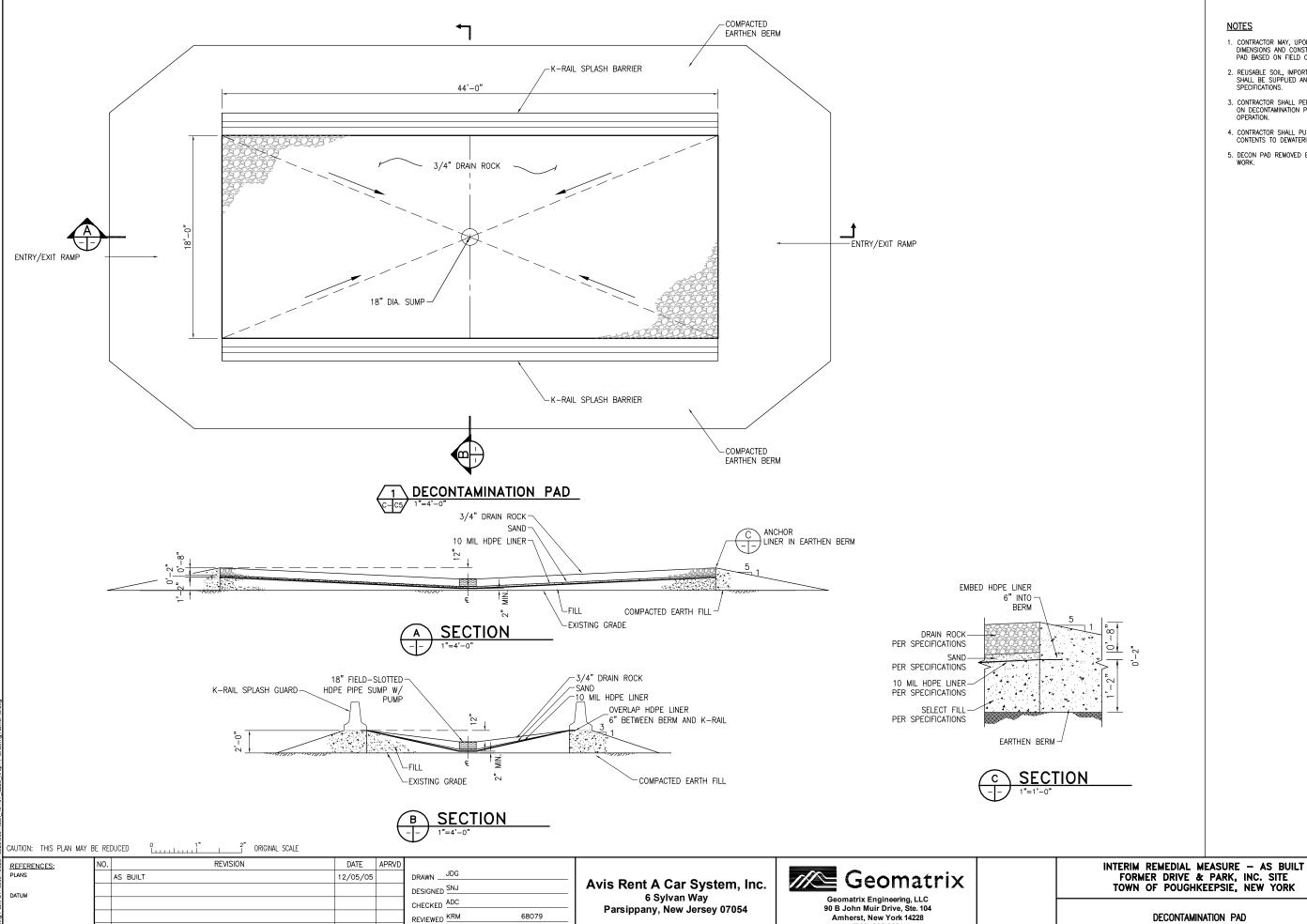
DATE:	12-18-06
SCALE:	SEE DRAWING
SHEET:	4 of 6 SHEETS

BACKFILL DETAILS

14

9328.000





(716) 565-0624

- CONTRACTOR MAY, UPON APPROVAL OF ENGINEER, ALTER DIMENSIONS AND CONSTRUCTION DETAILS OF DECONTAMINATION PAD BASED ON FIELD CONDITIONS.
- REUSABLE SOIL, IMPORT MATERIAL, DRAIN ROCK, AND SAND SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 3. CONTRACTOR SHALL PERFORM OPERATIONS AND MAINTENANCE ON DECONTAMINATION PAD AS NECESSARY FOR PROPER OPERATION.
- 4. CONTRACTOR SHALL PUMP DECONTAMINATION PAD SUMP CONTENTS TO DEWATERING TREATMENT SYSTEM.
- DECON PAD REMOVED BY CONTRACTOR UPON COMPLETION OF WORK.

DATE: 12-18-06

9328.000

SCALE: SEE DRAWING

SHEET: 6 OF 6 SHEETS

16



# **APPENDIX J**

# **Buried Container Removal**



# APPENDIX J BURIED CONTAINER REMOVAL

Former Drive & Park, Inc., Site
Brownfield Cleanup Program #C314111
28 IBM Road
Town of Poughkeepsie
Dutchess County, New York

## 1.0 INTRODUCTION

Four containers were unearthed during implementation of the interim remedial measure excavation at the Former Drive & Park, Inc., Site (the site), on Friday, February 24, 2006. The containers were buried 3 to 4 feet below ground surface, approximately 20 feet west of the eastern on-site excavation boundary and approximately 40 feet north of the site property boundary. The former location of the buried containers is shown on Figure 11 of the main report. Descriptions of each container and post-excavation container handling are presented below. All four containers were crushed and had numerous tears and holes and moderate corrosion. The original orientation of the containers in the subsurface is unknown, as the containers were discovered while being unearthed by heavy equipment.

## 1.1 INDIVIDUAL CONTAINER DESCRIPTIONS

## **1.1.1** Container #1

The approximate size of container #1 was 55 gallons. A plugged fill port was located at one end of the container. The words "E.L. DuPont De Mourse & Co. Inc." and "Wilmington, Del" were visible along the top of the container. The DuPont company logo was also visible on the lid.

A small volume of liquid (less than 250 milliliters) was observed inside container #1 during removal. The liquid had a strong odor, which seemed to be different from the characteristic degraded petroleum odor observed in soil excavated from the site. The liquid appeared to be non-aqueous. Geomatrix collected a sample of the liquid for laboratory analysis for volatile organic compounds (VOCs) by EPA Method 8260B, polychlorinated biphenyls (PCBs) by EPA Method 8082, metals (arsenic, beryllium, cadmium, lead, nickel, and zinc) by EPA Method 6010B, mercury by EPA Method 7471A, and semi-volatile organic compounds (SVOCs) using EPA Method 8270C. Analytical results of the container residual liquid contents are presented in Table J-1, and laboratory analytical reports are included in



Appendix L of the main report. The liquid was found to be composed primarily of toluene (51%), acetone (23%), m,p-xylene (5.4%), and methyl-isobutyl ketone (5%).

## **1.1.2** Container #2

The approximate size of container #2 was 55 gallons. A plugged fill port was located at one end of the container. No writing or labeling was visible on the container. No liquid was present in the container when it was excavated.

#### **1.1.3** Container #3

The approximate size of container #3 was 55 gallons. There were no visible fill ports or other fittings. No writing or labeling was visible on the container. No liquid was present in the container when it was excavated.

## **1.1.4** Container #4

The approximate size of container #4 was 5 to 10 gallons. There were no visible fill ports or other fittings. No writing or labeling was visible on the container. There was no liquid present in the container when it was excavated.

# 1.1.5 Soil Sampling

Three soil samples were collected from the excavation floor near the horizontal location where Container #1 was encountered and analyzed for volatile organic compounds using EPA Method 8260B. Analytical results for all three samples were below TAGM 4046 cleanup goals.

#### 1.2 POST-EXCAVATION CONTAINER HANDLING

All four containers were securely wrapped in 6-mil plastic sheeting immediately after being unearthed on February 24, 2006. On March 24, 2006, all four containers were placed in overpack containers. Containers #1, #2, and #3 were placed in individual 85-gallon over-pack containers, and container #4 was placed in a 30-gallon over-pack container. The over-packed containers were transported under manifest on June 21, 2006 by Op-Tech to Op-Tech's waste transfer facility in Waverly, New York. The containers were disposed of at the Cycle Chem, Inc., facility in Lewisberry, Pennsylvania, on June 26, 2006.



# **TABLE J-1**

# SUMMARY OF EXCAVATED CONTAINER LIQUID ANALYTICAL RESULTS

Former Drive & Park, Inc. Site 28 IBM Road Poughkeepsie, New York

All results in micrograms per liter (ug/L)

		Date										
Sample Identification	Sample Location	Collected	Benzene	Toluene	Ethyl benzene	m,p-Xylenes	o-Xylene	MTBE	ETBE	TBA	TAME	Other
Unknown-022406	Excavated Container	2/24/2006	<3,500,000	510,000,000	<25,000,000	54,000,000	<25,000,000	<25,000,000	<25,000,000	<500,000,000	-50 000 000	Acetone 230,000,000 4-Methyl,2-pentanone 50,000,000

# Abbreviations:

< = Not detected at or above the reporting limit shown.

"BOLD" = Detected concentration



# **APPENDIX K**

# Chemical Analysis Quality Assurance Evaluation



# APPENDIX K CHEMICAL ANALYSIS QUALITY ASSURANCE EVALUATION

1.0	Introduction	. 1
2.0	Analytical Methods	. 2
3.0	Data Quality Review Procedures	
3.1	Data Accuracy	
3.	1.1 Laboratory Control Samples	
3.	1.2 Matrix Spike Samples	
3.	1.3 Laboratory Surrogate Compounds	
3.	1.4 Trip Blanks	
3.	1.5 Laboratory Method Blanks	. 4
3.2	Data Precision	. 4
3.	2.1 LCS/LCSD	4
3.	2.3 MS/MSD	. 5
3.3	Data Completeness	. 5
4.0	Summary of Data Quality Review	

# **TABLES**

- Table K-1 Summary of Trip Blank Results
- Table K-2 Data Qualifier Definitions



# **APPENDIX K**

# CHEMICAL ANALYSIS QUALITY ASSURANCE EVALUATION

Former Drive & Park, Inc. Site Brownfield Cleanup Program #C314111 28 IBM Road Town of Poughkeepsie Dutchess County, New York

## 1.0 INTRODUCTION

This appendix presents the results of the data quality review for the chemical analyses of samples collected by Geomatrix for this project. The samples of soil, buried container contents, and extracted groundwater collected during the interim remedial measure implementation were analyzed by Adirondack Environmental Services of Albany, New York. Soil and grab groundwater samples collected pre- and post-excavation for site investigations were analyzed by ESS Laboratory of Cranston, Rhode Island. Perimeter air monitoring samples collected during the excavation were analyzed by Severn Trent Laboratories, Inc. (STL) of Santa Ana, California. Topsoil samples were analyzed by STL of Newburgh, New York, Buffalo, New York, and Pleasanton, California. All laboratories used are Environmental Laboratory Accreditation Program (ELAP)-certified analytical laboratories.

To obtain representative field and laboratory data, consistent data collection procedures were used. Equipment used to collect field data was maintained and calibrated prior to use according to the manufacturer's instructions and using known standards. Data comparability was attained by following the established Geomatrix protocols for sample collection and by recording field and laboratory data in consistent units.

Quality assurance (QA) procedures for soil, grab groundwater, and perimeter air sampling at the site were adopted to assist in the evaluation of data quality. Analytical data were evaluated by Geomatrix, in general accordance with the National Functional Guidelines for Organic Data Review<sup>1</sup> and for Inorganic Data Review<sup>2</sup> (National Functional Guidelines). The results of the review are reflected in the respective data

U.S. Environmental Protection Agency, 1999, Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, PB99-963506, EPA 540/R-99-008, October

<sup>&</sup>lt;sup>2</sup> U.S. Environmental Protection Agency, 2004, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review Final, Office of Emergency and Remedial Response, July.



summary tables (Tables 6 and 9 through 13) in the main report. Copies of the laboratory reports are included in Appendixes G and L of the main report.

## 2.0 ANALYTICAL METHODS

The chemical analytical program included the following methods:

- Volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260B;
- Polychlorinate Biphenyls (PCBs) by EPA Method 8082;
- Total petroleum hydrocarbons as gasoline and diesel by EPA Method 8015M;
- Metals by EPA Method 6010;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;
- Organochlorine pesticides by EPA Method 8081A;
- Mercury by EPA Method 7471A; and
- Herbicides by EPA Method 8151.

## 3.0 DATA QUALITY REVIEW PROCEDURES

The purpose of the quality assurance procedures is to assess the quality of the data by evaluating the accuracy, precision, and completeness of the data. The field QA samples included trip blanks and matrix spike/matrix spike duplicate (MS/MSD) samples. The laboratory analyzed method blanks, laboratory control samples/laboratory control sample duplicate (LCS/LCSD), and surrogate spike samples to provide internal quality control. All of the data generated were assessed for accuracy, precision, and completeness. Results of the QA evaluation are presented below.

## 3.1 DATA ACCURACY

Data accuracy is assessed by the analysis of LCS and MS samples, and is expressed as percent recoveries of the true or known concentrations. Surrogate recoveries and blank results may also be used to assess accuracy.

## 3.1.1 Laboratory Control Samples

Laboratory control samples contain known concentrations of the analytes of concern and are prepared by the laboratory or a reliable source. They are subject to the same



preparation/extraction procedures as the project samples and are prepared independently of calibration standards. LCS recovery results are used to check the accuracy of the analytical methods and equipment. LCS analyses were conducted at least once per each analytical batch. LCS recovery results are compared to laboratory-specified limits. Some LCS recoveries were outside their respective limits, and the associated primary analytical results were flagged as appropriate in accordance with the National Functional Guidelines. The qualified data are reflected in the data summary tables in the main report.

# 3.1.2 Matrix Spike Samples

A matrix spike is an aliquot of a project sample to which the analytical laboratory adds a known quantity of a compound prior to extraction/digestion and analysis. The reported percent recovery of the known compound in the sample indicates the presence or absence of matrix effects which may affect the accuracy of the analytical results. MS analyses were performed at least once per analytical batch, with a minimum of one for every 20 samples. Some MS/MSD recoveries were outside their respective limits, and the associated primary analytical results were flagged as appropriate in accordance with the National Functional Guidelines. The qualified data are reflected in the data summary tables in the main report.

## 3.1.3 Laboratory Surrogate Compounds

A surrogate spike is the addition to a sample of a known concentration of an organic compound that is not expected to be a compound of concern in the sample. Every blank, QC sample, and project sample was spiked as specified by the analytical method. The recovery of the surrogate is used to indicate the possible presence of systematic extraction problems and to evaluate laboratory data accuracy. Surrogate recoveries should fall within the limits set by the laboratory in accordance with the procedures specified by the analytical method. Some surrogate recoveries were outside their respective limits, and the associated primary analytical results were flagged as appropriate in accordance with the National Functional Guidelines. The qualified data are reflected in the data summary tables in the main report.

## 3.1.4 Trip Blanks

A trip blank is a laboratory-prepared sample of de-ionized and/or organic free water that accompanies samples from the field to the laboratory. Trip blank analyses provide an



indication as to whether volatile organic compounds may have entered sample containers during transport from and to the laboratory.

Four trip blanks (associated with the dewatering treatment system samples collected on January 4, 24, 31, and February 16, 2006) were submitted to Adirondack Environmental Services for volatile organic compound analysis using EPA Method 8260B. No volatile organic compounds were detected in the trip blanks at or above the respective laboratory reporting limits, with the exception of methylene chloride at concentrations just above the 5.0 micrograms per liter (µg/L) reporting limit in the trip blanks associated with the January 24 and 31 and February 16, 2006 sampling events (Table K-1). Methyl chloride results for some of the primary samples were qualified in accordance with the National Functional Guidelines. Data qualifiers are included in the data summary tables in the main report.

## 3.1.5 Laboratory Method Blanks

Laboratory method blanks are laboratory-prepared samples of de-ionized and/or organic free water that are carried through the analytical procedure and are used to measure laboratory data accuracy. The blank serves as a check for laboratory contamination during preparation and analysis of the samples. At least one method blank was prepared and analyzed for each analytical batch. Compounds were detected in the method blanks at or above the respective laboratory reporting limits, and data qualification was required in these instances. The qualified data are reflected in the data summary tables in the main report.

## 3.2 DATA PRECISION

Data precision is evaluated by comparing analytical results from duplicate samples. The LCS/LCSD and MS/MSD samples were analyzed to evaluate the precision of the analytical methods.

#### 3.2.1 LCS/LCSD

A laboratory control sample duplicate (LCSD) is an aliquot of the laboratory control sample that is analyzed separately. Comparison of the LCS and LCSD results indicate the precision of the analytical method for that analytical batch. LCS/LCSD analyses were conducted at least once per each analytical batch. LCS/LCSD results are compared to laboratory-specified limits. Some relative percentage differences were greater than their respective limits, and the associated primary analytical results were flagged as



appropriate in accordance with the National Functional Guidelines. The qualified data are reflected in the data summary tables in the main report.

## 3.2.3 MS/MSD

A matrix spike duplicate (MSD) is an aliquot of the matrix spike sample that is analyzed separately. Comparison of the MS and MSD results indicate the precision of the analytical method for that analytical batch. MS/MSD analyses were performed at least once per analytical batch, with a minimum of one for every 20 samples. MS/MSD results are compared to laboratory-specified limits. Some RPDs were greater than their respective limits, and the associated primary analytical results were flagged as appropriate in accordance with the National Functional Guidelines. The qualified data are reflected in the data summary tables in the main report.

## 3.3 DATA COMPLETENESS

Completeness refers to the amount of valid data obtained from a prescribed measurement system during the course of the project, as compared with that expected and required to meet project goals. The data generated during this investigation have been reviewed by the project manager and are considered to be complete.

## 4.0 SUMMARY OF DATA QUALITY REVIEW

Data verification was documented for each laboratory report using organic and inorganic data assessment summary checklists that are consistent with the examples in the National Functional Guidelines. Where data qualification was required, the appropriate data flag was included in the summary tables in the main report and also was marked on the original laboratory report (see Appendixes G and L). The EPA data qualifier definitions are presented in Table K-2.

Overall, the results of the quality assurance evaluation indicate that the chemical analysis data are valid and useable. All qualified data can be used for decision-making purposes, with the exception of the rejected data. However, the limitations identified by the data qualifiers should be considered when using the data.



# **TABLE K-1**

## SUMMARY OF TRIP BLANK RESULTS

# Former Drive & Park, Inc. Site 28 IBM Road Poughkeepsie, New York

Concentrations in micrograms per liter (µg/L)

Sample ID	Sample Date	Methyl Chloride
Trip Blank	1/4/06	<5.0
Trip Blank	1/24/06	5.7
Trip Blank	1/31/06	5.9
Trip Blank	2/16/06	5.5

#### Notes:

Trip blank samples were analyzed for the same volatile organic compounds as the primary samples. All other volatile organic compounds not shown in this table werenot detected at or above their respective reporting limits.

## Abbreviations:

<sup>&</sup>quot;<" indicates analyte not detected at or above laboratory reporting limit shown



## **TABLE K-2**

# DATA QUALIFIER DEFINITIONS

Former Drive & Park, Inc. Site 28 IBM Road Poughkeepsie, New York

Qualifier	Explanation of Qualifier			
Organic Analyses <sup>1</sup>				
U	The compound was analyzed for, but was not detected above the reported sample quantitation limit.			
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.			
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".			
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.			
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.			
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.			
Inorganic Analyses <sup>2</sup>				
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.			
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.			
J+	The result is an estimated quantity, but the result may be biased high.			
J-	The result is an estimated quantity, but the result may be biased low.			
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.			
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.			

## Notes:

- 1 USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, USEPA 540-R-99-008, October 1999.
- 2 USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, USEPA 540-R-01-008, July 2002.