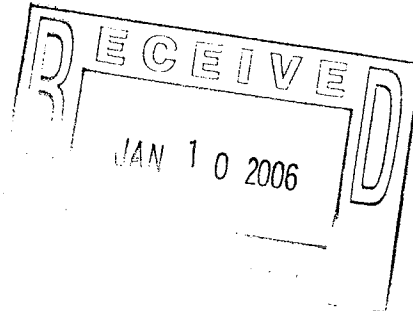


January 9, 2006

Mr. Ralph Rodrigues  
New Jersey Department of Environmental Protection  
Site Remediation Program  
Northern Bureau of Field Operations  
2 Babcock Place  
West Orange, NJ 07052



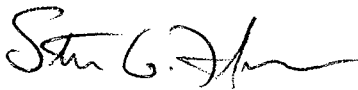
**Re: Supplemental Soil and Groundwater Remedial Investigation Report  
AT&T Clark Shop, 100 Terminal Avenue, Clark, Union County, New Jersey  
ISRA Case No. 97187**

Dear Mr. Rodrigues:

On behalf of AT&T Corporation, enclosed please find two (2) copies of the Supplemental Soil and Groundwater Remedial Investigation Report for the above site. This report contains the results of soil and groundwater investigation activities conducted from May to October 2005. Sampling activities were conducted pursuant to requirements outlined in a Work Plan submitted to the New Jersey Department of Environmental Protection (NJDEP) on October 29, 2004, in response correspondence from NJDEP dated March 9, 2005, teleconferences conducted on April 20, 2005 and August 2, 2005, and follow-up correspondence from NJDEP dated June 2, 2005 and August 5, 2005.

As required in the NJDEP Technical Requirements for Site Remediation (7:26E-3.13), electronic data deliverables are included on disks in one copy of the enclosed report (Appendix A – Volume II). Please contact me at (908) 730-0014 if there is anything you wish to discuss regarding this submittal.

Sincerely,



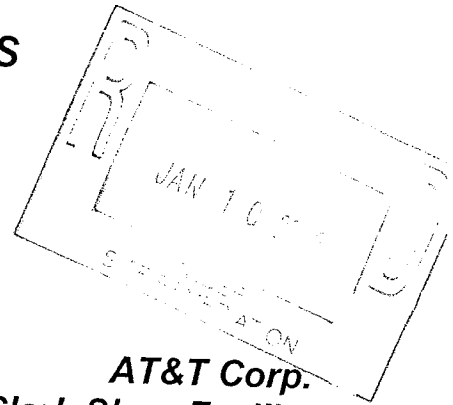
Steven G. Feldmann, P.G.  
Senior Project Geologist

Enclosure

- c: Joel Jones – AT&T (1 copy)
- Paul Shorb, Esq. – AT&T (cover letter only)
- Robert Crespi, Esq. – Wolff & Samson (1 copy)
- Anthony DiGiovanni – Garden Commercial Properties (cover letter only)
- Michael Schweitzer – EcolSciences (cover letter only)

**SUPPLEMENTAL SOIL AND  
GROUNDWATER REMEDIAL  
INVESTIGATION**

**TEXT, TABLES AND FIGURES**



**AT&T Corp.  
Clark Shop Facility**

**ISRA Case No. 97187**

**January 2006**

**Volume I of III**

*Prepared for:*



1465 Route 31 South  
Annandale, New Jersey



**AT&T Corp.**

One AT&T Way  
Bedminster, New Jersey

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<b>1.0 INTRODUCTION.....</b>	<b>1-1</b>
1.1 BACKGROUND.....	1-1
1.2 SCOPE OF WORK.....	1-2
1.3 REPORT ORGANIZATION.....	1-4
<b>2.0 BACKGROUND.....</b>	<b>2-1</b>
2.1 SITE HISTORY AND OPERATIONS.....	2-1
2.2 SUMMARY OF PREVIOUS INVESTIGATIONS.....	2-2
2.2.1 Soils.....	2-2
2.2.2 Groundwater.....	2-4
2.2.3 Baseline Ecological Evaluation.....	2-4
<b>3.0 PHYSICAL SETTING.....</b>	<b>3-1</b>
3.1 SITE LOCATION.....	3-1
3.2 TOPOGRAPHY AND DRAINAGE.....	3-1
3.3 GEOLOGY.....	3-1
3.4 HYDROGEOLOGY.....	3-2
3.5 SURFACE WATER BODIES/WETLANDS.....	3-2
<b>4.0 TECHNICAL OVERVIEW.....</b>	<b>4-1</b>
4.1 SAMPLING PROGRAM.....	4-1
4.2 ANALYTICAL DATA QUALITY ASSESSMENT.....	4-2
4.2.1 Soil and Groundwater Grab Sample Data.....	4-2
4.2.2 Monitoring Well Sampling Data.....	4-4
4.3 OVERALL ASSESSMENT OF IMPACTS TO THE SITE.....	4-5
<b>5.0 FIELD INVESTIGATION METHODS.....</b>	<b>5-1</b>
5.1 SOIL.....	5-1
5.1.1 Video Inspection of Storm Sewer and Sanitary Sewer Systems.....	5-2
5.1.2 Soil Borings.....	5-3
5.1.3 Soil Sampling.....	5-4
5.2 GROUNDWATER.....	5-4
5.2.1 Groundwater Grab Sampling.....	5-5
5.2.2 Monitoring Well Installation.....	5-6
5.2.2.1 Shallow Overburden Wells.....	5-7

**TABLE OF CONTENTS (Cont'd)**

<u>Section</u>	<u>Page</u>
5.2.1.2 Deep Overburden Wells .....	5-8
5.2.2.3 Bedrock Wells .....	5-11
5.2.3 Bedrock Coring.....	5-17
5.2.4 Borehole Geophysical Logging.....	5-17
5.2.5 Packer Testing.....	5-18
5.2.5.1 Interconnectivity Testing .....	5-20
5.2.6 Well Development .....	5-20
5.2.7 Groundwater Elevation Surveying.....	5-20
5.2.8 Monitoring Well Groundwater Sampling .....	5-21
5.2.8.1 Volume-Averaged Purging and Sampling .....	5-22
5.3 ANALYTICAL METHODS .....	5-24
5.3.1 Quality Assurance/Quality Control and Sample Handling .....	5-24
5.4 EQUIPMENT DECONTAMINATION AND INVESTIGATION DERIVED WASTE .....	5-25
5.5 MONITORING WELL ABANDONMENT .....	5-26
<b>6.0 INVESTIGATION FINDINGS – AREAS OF CONCERN .....</b>	<b>6-1</b>
6.1 AOC 4: NO. 2 DIESEL FUEL 25,000 GALLON UST.....	6-1
6.1.1 Description.....	6-1
6.1.2 Summary of RI Activities .....	6-2
6.1.3 Findings.....	6-3
6.1.4 Recommendations.....	6-3
6.2 AOC 6: SUMPS.....	6-4
6.2.1 Description.....	6-4
6.2.2 Summary of RI Activities .....	6-5
6.2.3 Findings.....	6-5
6.2.4 Recommendations.....	6-6
6.3 AOC 7: PITS.....	6-7
6.3.1 Description.....	6-7
6.3.2 Summary of RI Activities .....	6-8
6.3.3 Findings.....	6-8
6.3.4 Recommendations.....	6-8
6.4 AOC 12: CHEMICAL STORAGE CABINET .....	6-9
6.4.1 Description.....	6-9
6.4.2 Summary of RI Activities .....	6-9

**TABLE OF CONTENTS (Cont'd)**

<u>Section</u>	<u>Page</u>
6.4.3 Findings.....	6-10
6.4.4 Recommendations.....	6-10
6.5 AOC-13: FLOOR DRAINS, TRENCHES, OR PIPING.....	6-10
6.5.1 Description.....	6-10
6.5.2 Summary of RI Activities .....	6-11
6.5.3 Findings.....	6-12
6.5.4 Recommendations.....	6-12
6.6 AOC-14: STORM SEWER COLLECTION SYSTEM.....	6-12
6.6.1 Description.....	6-12
6.6.2 Summary of RI Activities .....	6-13
6.6.3 Findings.....	6-14
6.6.4 Recommendations.....	6-15
6.7 AOC 15: FORMER DRY WELL AND PIPING.....	6-15
6.7.1 Description.....	6-15
6.7.2 Summary of RI Activities .....	6-17
6.7.3 Findings.....	6-18
6.7.3.1 Soil.....	6-18
6.7.3.2 Groundwater .....	6-18
6.7.3.3 Additional Groundwater Delineation .....	6-19
6.7.4 Recommendations.....	6-21
6.8 AOC 18: UNDERGROUND PIPING, INCLUDING INDUSTRIAL PROCESS SEWERS, PROCESS AREA SINKS, AND PIPING WHICH RECEIVED PROCESS WASTE .....	6-22
6.8.1 Description.....	6-22
6.8.2 Summary of RI Activities .....	6-24
6.8.3 Findings.....	6-24
6.8.4 Recommendations.....	6-24
6.9 AOC 19: NON-CONTACT COOLING WATER.....	6-25
6.9.1 Description.....	6-25
6.9.2 Summary of RI Activities .....	6-25
6.9.3 Findings.....	6-26
6.9.4 Recommendations.....	6-27
6.10 AOC 24: DISCHARGE TO LIFT STATION.....	6-27
6.10.1 Description.....	6-27
6.10.2 Summary of RI Activities .....	6-28

**TABLE OF CONTENTS (Cont'd)**

<u>Section</u>	<u>Page</u>
6.10.3 Findings.....	6-28
6.10.4 Recommendations.....	6-29
6.11 AOC-30 LOADING TRANSFER AREA.....	6-29
6.11.1 Description.....	6-29
6.11.2 Summary of RI Activities.....	6-30
6.11.3 Findings.....	6-30
6.11.4 Recommendations.....	6-31
6.12 AOC-31 BOILER ROOM.....	6-31
6.12.1 Description.....	6-31
6.12.2 Summary of RI Activities.....	6-32
6.12.3 Findings.....	6-32
6.12.4 Recommendations.....	6-33
6.13 AOC-33 FORMER SOLVENT STORAGE ROOM.....	6-33
6.13.1 Description.....	6-33
6.13.2 Summary of RI Activities.....	6-34
6.13.3 Findings.....	6-35
6.13.4 Recommendations.....	6-36
6.14 ADDITIONAL SAMPLING LOCATIONS.....	6-36
6.14.1 Description.....	6-36
6.14.2 Summary of RI Activities.....	6-37
6.14.3 Findings.....	6-37
6.14.4 Recommendations.....	6-39
<b>7.0 INVESTIGATION FINDINGS – GROUNDWATER (AOC 34).....</b>	<b>7-1</b>
7.1 PHYSICAL SETTING.....	7-1
7.1.1 Geology.....	7-1
7.1.1.1 Shallow and Deep Overburden.....	7-2
7.1.1.2 Bedrock.....	7-2
7.1.2 Groundwater Flow.....	7-7
7.1.2.1 Shallow and Deep Overburden.....	7-7
7.1.2.2 Bedrock.....	7-9
7.2 ANALYTICAL RESULTS.....	7-11
7.2.1 Packer Testing.....	7-11
7.2.2 Monitoring Well Sampling.....	7-12

**TABLE OF CONTENTS (Cont'd)**

<u>Section</u>	<u>Page</u>
7.2.2.1 Volatile Organic Compounds.....	7-13
7.2.2.2 Base Neutral/Acid Extractable Compounds.....	7-15
7.2.2.3 Metals.....	7-15
7.2.2.4 Pesticides, Alcohols, and Formaldehyde.....	7-16
7.3 UPDATED WELL SEARCH.....	7-16
<b>8.0 SUMMARY OF KEY FINDINGS.....</b>	<b>8-1</b>
8.1 SOIL.....	8-1
8.2 GROUNDWATER.....	8-2
8.2.1 Shallow and Deep Overburden.....	8-2
8.2.2 Bedrock.....	8-3
8.2.3 Conceptual Site Model.....	8-4
8.2.3.1 Hydrogeologic Conditions.....	8-5
8.2.3.2 Nature and Extent of Impacts.....	8-6
8.2.3.3 Sources of Impacts.....	8-7
8.2.3.4 Contaminant Fate and Transport.....	8-8
8.2.3.5 Receptor Evaluation.....	8-9
8.3 RECOMMENDATIONS.....	8-9
8.3.1 Soil.....	8-9
8.3.2 Groundwater.....	8-11
8.3.2.1 Shallow and Deep Overburden.....	8-11
8.3.2.2 Bedrock.....	8-12

**LIST OF TABLES**

Table 1-1:	Investigative and Remedial Activities Summary
Table 4-1:	AOC Status Summary and Supplemental Investigation
Table 4-2:	Summary of Analyses Performed during Supplemental Remedial Investigation
Table 4-3:	Summary of Monitoring Well Analyses Performed during Supplemental Remedial Investigation
Table 4-4:	Analytical Methods used during the Site Investigation
Table 4-5:	Summary of Analytical Parameters Reported at Concentrations Exceeding Applicable Guidelines for Soil and Groundwater

## TABLE OF CONTENTS (Cont'd)

Table 5-1:	Monitoring Well Construction Details
Table 5-2:	Summary of Rock Coring Depths and Packer Testing Intervals Investigation
Table 6-1:	Summary of Groundwater Analytical Results for AOC 4
Table 6-2:	Summary of Soil Analytical Results for AOC 6
Table 6-3:	Summary of Groundwater Analytical Results for AOC 6
Table 6-4:	Summary of Soil Analytical Results for AOC 7
Table 6-5:	Summary of Soil Analytical Results for AOC 12
Table 6-6:	Summary of Soil Analytical Results for AOC 13
Table 6-7:	Summary of Soil Analytical Results for AOC 14
Table 6-8:	Summary of Soil Analytical Results for AOC 15
Table 6-9:	Summary of Groundwater Analytical Results for AOC 15
Table 6-10:	Summary of Groundwater Analytical Results for AOC 34
Table 6-11:	Summary of Groundwater Analytical Results for AOC 33
Table 6-12:	Summary of Soil Analytical Results for AOC 19
Table 6-13:	Summary of Soil Analytical Results for AOC 24
Table 6-14:	Summary of Groundwater Analytical Results for AOC 24
Table 6-15:	Summary of Soil Analytical Results for AOC 31
Table 6-16:	Summary of Soil Analytical Results for AOC 33
Table 6-17:	Summary of Soil Analytical Results for Additional Sampling Locations
Table 6-18:	Summary of Groundwater Analytical Results for Additional Sampling
Table 7-1:	Packer Test Observation Wells and Rationale for Selection
Table 7-2:	Groundwater Levels in Monitoring Wells on September 23, 2005
Table 7-3:	Groundwater Levels in Shallow Overburden Monitoring Wells on October 26, 2005
Table 7-4:	Summary of Analytical Results for Volatile Organic Compounds September - October 2005 Groundwater Sampling Event
Table 7-5:	Summary of Analytical Results for Semivolatile Organic Compounds September - October 2005 Groundwater Sampling Event
Table 7-6:	Summary of Analytical Results for Pesticides, Metals, Alcohols, and Formaldehyde September - October 2005 Groundwater Sampling Event
Table 8-1:	Status of Areas of Concern and Phase II Sampling Locations

## TABLE OF CONTENTS (Cont'd)

### LIST OF FIGURES

- Figure 1-1: Site Location Map
- Figure 3-1: Site Plan and Monitoring Well Locations
- Figure 4-1: AOC Location Map
- Figure 5-1: Sewer Location Map and Areas of Video Inspection
- Figure 6-1: AOC 4 (No. 2 Diesel Fuel 25,000-Gallon UST) - Sampling Location
- Figure 6-2: AOC 6 (Sumps) – Sump S-1 Sampling Location
- Figure 6-3: AOC 6 (Sumps) – Sump S-2 Sampling Location
- Figure 6-4: AOC 6 (Sumps) – Sump S-3 Sampling Locations and Analytical Results
- Figure 6-5: AOC 7 (Pits) – Pits P-1 and P-3 Sampling Locations
- Figure 6-6: AOC 7 (Pits) – Pit P-2 Sampling Location
- Figure 6-7: AOC 12 (Chemical Storage Cabinet) - Sampling Locations
- Figure 6-8: AOC 13 (Floor Drains, Trenches or Piping) - Sampling Locations
- Figure 6-9: AOC 14 (Storm Sewer Collection System) - Sampling Locations and Analytical Results
- Figure 6-10: AOC 15 (Former Dry Well and Piping) – Dry Well Area Sampling Locations and Analytical Results
- Figure 6-11: AOC 15 (Former Dry Well and Piping) – Groundwater Delineation Sampling Locations and Analytical Results
- Figure 6-12: AOC 19 (Non-Contact Cooling Water) - Sampling Locations
- Figure 6-13: AOC 24 (Discharge to Lift Station) - Sampling Locations
- Figure 6-14: AOC 31 (Boiler Room) - Sampling Locations
- Figure 6-15: AOC 33 (Former Solvent Storage Room) - Sampling Locations and Analytical Results
- Figure 6-16: Additional Soil Sampling near Locations I-2 and I-7 and Analytical Results
- Figure 6-17: Additional Soil Sampling near Locations I-13 and I-17 and Analytical Results
- Figure 6-18: Additional Soil Sampling near Locations I-10 and I-25
- Figure 7-1: Geologic Cross Section Location Map
- Figure 7-2: Geologic Cross Sections A-A' (Overburden) and B-B' (Bedrock)
- Figure 7-3: Top of Weathered Bedrock Elevation
- Figure 7-4: Top of Bedrock Elevation
- Figure 7-5: Groundwater Elevation Contour Map (Shallow Overburden Monitoring Wells) October 26, 2005

### TABLE OF CONTENTS (Cont'd)

- Figure 7-6: Groundwater Elevation Contour Map (Deep Overburden Monitoring Wells) September 23, 2005
- Figure 7-7: Groundwater Elevation Map (Bedrock Monitoring Wells) September 23, 2005
- Figure 7-8: TCE Isoconcentration Map (Shallow Overburden Monitoring Wells) September – October 2005
- Figure 7-9: TCE Isoconcentration Map (Deep Overburden Monitoring Wells) September – October 2005
- Figure 7-10: Inferred TCE Isoconcentration Map (Bedrock Monitoring Wells) September – October 2005

### LIST OF APPENDICES

Under Volume II:

Appendix A: Analytical Data Summary Sheets, Chains of Custody, and Laboratory Correspondence

Under Volume III:

Appendix B: Sewer Video Inspection Reports and Photographs

Appendix C: Soil, Monitoring Well, and Rock Coring Logs, Well Completion Reports, NJDEP Forms A and Forms B, and MW-2 Well Abandonment Record

Appendix D: Borehole Geophysical Logs and Video Notes

Appendix E: Groundwater Sampling Field Records

Appendix F: Packer Test and Interconnectivity Test Results

Appendix G: Updated Well Search

## 1.0 INTRODUCTION

GeoTrans, Inc. (GeoTrans) of Annandale, New Jersey was retained by AT&T of Bedminster, New Jersey, to conduct supplemental soil and groundwater remedial investigation (RI) activities at the former Clark Facility (the site) located at 100 Terminal Avenue in Clark, Union County, New Jersey (Figure 1-1). These RI activities were conducted pursuant to requirements outlined in a Work Plan submitted to the New Jersey Department of Environmental Protection (NJDEP) on October 29, 2004, in response correspondence from NJDEP dated March 9, 2005, teleconferences conducted on April 20, 2005 and August 2, 2005, and follow-up correspondence from NJDEP dated June 2, 2005 and August 5, 2005. The supplemental soil and groundwater investigation activities discussed in this Supplemental Soil and Groundwater Remedial Investigation Report were also conducted consistent with requirements of the Industrial Site Recovery Act (ISRA) and the NJDEP Technical Requirements for Site Remediation.

### 1.1 BACKGROUND

AT&T is responsible for completing ISRA requirements in accordance with a Remediation Agreement dated July 1, 1997 (ISRA Case No. 97187). The requirements of ISRA were triggered due to AT&T's sale of its Submarine Systems, Inc. business unit including the Clark Shop facility to Tyco, Inc. A summary of significant report submittals and correspondence relating to investigation and remediation of the site since 1997 is provided in Table 1-1.

In 2002, closure of site operations by Tyco and the subsequent sale of the property by Tyco to Clark Developers, LLC resulted in additional Phase II sampling activities that were conducted by EcolSciences, Inc. on behalf of Clark Developers, LLC. In addition, after closure of site operations, areas beneath the building that could not previously be characterized in accordance with ISRA requirements were now accessible for subsurface investigation. GeoTrans subsequently conducted a subsurface investigation based on the EcolSciences Phase II sampling results and comments received from NJDEP in an on-site meeting on February 25, 2004. The results of these investigation activities were presented to NJDEP in the Phase II Report submitted to NJDEP in March 2004 and the

Supplemental Groundwater Remedial Investigation Technical Memorandum dated September 16, 2004. The Technical Memorandum also included the results of groundwater investigation activities that were conducted in 1999 and 2000 but were not previously reported to NJDEP.

In a comment letter dated July 7, 2004, NJDEP identified additional data collection requirements for 16 Areas of Concern (AOCs) at the site for which No Further Action determinations were not previously issued by NJDEP. A second letter from NJDEP dated July 15, 2004 provided No Further Action Approval for AOCs not addressed by the July 7, 2004 letter. NJDEP's closure requirements for the outstanding AOCs and AT&T's proposed scope of work for each remaining AOC were discussed in a meeting with NJDEP on September 29, 2004. AT&T subsequently prepared and submitted a letter work plan on October 29, 2004 describing the proposed sampling at 16 AOCs as well as conducting a Baseline Ecological Evaluation and performing quarterly groundwater sampling at the site, as required by NJDEP. NJDEP provided comments to the September and October submittals in a letter dated March 9, 2005. Based on the March 9, 2005 letter, the scope of work for supplemental soil and groundwater RI activities was finalized via correspondence with NJDEP between April and November 2005, as summarized on Table 1-1. This report presents the results of supplemental soil and groundwater RI activities that were conducted at the site in June 2005 through November 2005.

## 1.2 SCOPE OF WORK

The following activities were conducted as part of the 2005 supplemental RI:

- Video inspection of approximately 3162 linear feet of storm and sanitary sewers beneath the building.
- Soil and/or groundwater grab sampling at 14 AOCs. A total of 46 soil and 34 groundwater grab samples were collected.
- Installation of three shallow overburden wells (MW-1R, MW-2R, and MW-19S).
- Installation of three deep overburden wells (MW-4A, MW-6A, and MW-17AR).
- Drilling of three boreholes to 300 feet (MW-7DB, MW-19DB and MW-21DB). Continuous

rock core was collected from competent bedrock at locations MW-19DB and MW-21DB. The Rock Quality Designation (RQD) index was calculated for recovered bedrock cores to identify fracture zones for optimal screen placement.

- Geophysical logging and packer testing at the above three locations and at MW-23D (located down-dip of the source area) to identify the most hydraulically productive fracture zones. Resulting data assisted in identifying the optimal depth intervals for screen placement.
- Installation of six bedrock wells (MW-7DB, MW-19B, MW-19DB, MW-20B, MW-21DB, MW-23D).
- Development and surveying of all newly installed wells.
- Interconnectivity testing by deploying pressure transducers in up to 4 observation wells during packer-testing to monitor potential influence on water levels in the observation wells. These data were used to further understand fracture interconnectivity, the extent of preferential groundwater migration along strike, and to correlate observations with rock coring, geophysical logging, and packer testing data.
- Collection and analysis of groundwater samples from the on- and off-site monitoring wells. Quarterly groundwater samples will be collected from the wells for four quarters; results from the first sampling event (performed from September 23, 2005 to October 13, 2005) are included in this report. During the first sampling event, groundwater samples were analyzed for volatile organic compounds plus a library search of 10 compounds (VOC+10), base neutral and acid extractable compounds plus a library search of 25 compounds (BNA+25) and xylenol, formaldehyde, hydroquinone, alcohols, pesticides, and Priority Pollutant (PP) metals + silver. Samples were collected using two methods during the first sampling event. Groundwater samples were initially collected using traditional volume-averaged purging and sampling methods (i.e., 3 to 5 well volume purge followed by sampling using a bailer). Following the completion of volume-averaged purging and sampling, passive diffusion bag samplers (PDBS) were deployed to vertically profile VOC concentrations in the wells and thereby select the most appropriate screen intervals for future sampling. Results from PDBS sampling will be included in a separate report. Pending NJDEP approval, PDBS will be used to collect groundwater samples during the subsequent three quarterly sampling events.

- Implementation of a well search by performing the following sequence of tasks:
  - Establish the search area within a one mile radius of the site boundary;
  - Obtain and review tax maps from Westfield, Garwood and Cranford Townships for properties falling within the search area;
  - Obtain and review well records from the NJDEP Bureau of Water Allocation;
  - Review the NJDEP Geographic Information System (GIS) wells database to search for public supply wells and wells with allocation permits within the search area;
  - Review a list of water bill recipients for properties falling within the search area (if available); and,
  - Conduct a field check of properties with potential water supply wells identified within the search area.

### 1.3 REPORT ORGANIZATION

This Supplemental Soil and Groundwater Remedial Investigation Report is organized as follows:

- The introduction, including the background and scope of work of the investigation and the report organization, are provided in Section 1.
- A summary of background information, including site history and operations, previous investigations, and the results of a baseline ecological evaluation, is provided in Section 2.
- The physical setting, including a description of the site location and a brief general description of soils, geology, hydrogeology, and topography, is summarized in Section 3.
- A technical overview, including an assessment of analytical data quality and an overall assessment of impacts to the site, is provided in Section 4.
- A description of field and analytical methods used during the supplemental remedial investigation is provided in Section 5.
- Investigation findings and proposed recommendations for the AOCs are provided in Section 6.
- Investigation findings and proposed recommendations for site-wide groundwater are provided in Section 7.

- A summary of the key findings, a discussion of the site conceptual model, and recommendations for soil and groundwater issues at the site are provided in Section 8.

Seven appendices are included with this report. Laboratory analytical data summary sheets and chains of custody for the soil and groundwater samples collected during this investigation are provided in Appendix A, along with related laboratory correspondence. Storm and sanitary sewer video inspection reports and photographs of floor drains, sumps, and pits are provided in Appendix B. Soil boring logs, monitoring well and rock coring logs, monitoring well records, NJDEP Forms A and B, and a well abandonment report for well MW-2 are provided in Appendix C. Borehole geophysical logs and video log notes are provided in Appendix D. Records of water quality parameters measured during the September-October 2005 groundwater sampling event are provided in Appendix E. Packer testing and interconnectivity test results are provided in Appendix F. The updated well search results are provided in Appendix G.

## 2.0 BACKGROUND

Historical operations at the former AT&T Clark facility and previous environmental investigations at the site are summarized in this section.

### 2.1 SITE HISTORY AND OPERATIONS

Prior to the development of the site by Villa Construction in 1959, the land was undeveloped. In 1959 the site was purchased by AT&T for the manufacturing, testing and repair of undersea communication repeaters. The facility was constructed for AT&T in 1959 and first occupied in 1960. In June 1997, AT&T Submarine Systems Inc. was sold to Tyco. A more detailed account of ownership history is included in the Preliminary Assessment Report (dated 27 October 1997 and submitted to NJDEP on 22 December 1997).

Operations at the former Clark Shop consisted of the production of electro-optic repeaters and electro-optic terminal shelves to regenerate lightwave signals for use in undersea cable telecommunications systems. Production included mechanical assembly and electro-optic and mechanical testing. The assembly operations included soldering, welding, arc-fusion splicing, and minimal parts cleaning and packaging.

Raw materials such as beryllium repeater housings end caps and fiber optic components were received at the facility. The beryllium housings and caps were machined if needed and the resultant metallic wastes were recycled. The fiber optic components were assembled on a circuit board. During assembly, amp-pairs were manufactured and affixed to the board. The amp-pairs consisted of soldered components (flux was used during soldering) that were cleaned with isopropanol and d-limonene. After manufacturing, the amp-pairs were spliced into the repeater housing. Splicing consisted of dipping the ends of the fiber optic wiring into sulfuric acid to strip away a protective coating. The exposed ends were cleaned with methanol and acetone, spliced together and coated with a methacrylate for protection. The assembled repeater was tested and sealed with an electron beam welder. The finished product was then shipped from the facility for distribution.

## 2.2 SUMMARY OF PREVIOUS INVESTIGATIONS

A summary of previous investigative and remedial activities is provided in Table 1-1. As shown in the table, the requirements of ISRA were triggered due to AT&T's sale of its Submarine Systems, Inc. business unit including the Clark Shop facility to Tyco, Inc. AT&T is responsible for completing ISRA requirements in accordance with a Remediation Agreement dated July 1, 1997 (ISRA Case No. 97187). Investigative and remedial activities performed subsequent to the ISRA Remediation Agreement are briefly summarized below.

### 2.2.1 Soils

Following the ISRA Remediation Agreement, McLaren/Hart conducted a Preliminary Assessment (PA) of the site and identified 34 Areas of Concern (AOCs). McLaren/Hart concluded that 14 of the identified soils AOCs required further investigation. McLaren/Hart subsequently conducted Site Investigation/Remedial Investigation (SI/RI) activities to assess potential impacts to soil from site operations at the 14 AOCs. Soil investigation activities were performed from July 1997 to September 1997. Sampling was conducted to evaluate the presence of chemical constituents at concentrations exceeding applicable remediation guidelines. Results indicated that target constituents were detected in concentrations exceeding applicable NJDEP criteria in soil or sediment at 5 AOCs. These constituents were primarily base neutral compounds (BNs) in soil and BNs and metals in catch basin sediment. AT&T submitted a combined PA/SI/RI report (McLaren/Hart 1997) to NJDEP on 22 December 1997.

McLaren/Hart developed a Remedial Action Work Plan (RAWP) for Soils (McLaren/Hart 1998a) to address concentrations of BNs and metals exceeding applicable NJDEP criteria at the 5 soils AOCs and submitted the RAWP to NJDEP in March 1998. The RAWP was implemented in July 1998 when impacted soil and sediment were excavated from the 5 AOCs and removed for proper disposal. McLaren/Hart subsequently submitted a Remedial Action Report for Soils (McLaren/Hart 1998b) to NJDEP in December 1998.

Based on a review of the previous investigation results, a residual mass of trichloroethylene (TCE) was thought to be present beneath the previously excavated area surrounding the former dry well. A focused field effort using the Expedited Site Characterization (ESC) approach was conducted to aid in defining the limits of remediation, and to complete site characterization activities near the former dry well. In June and July 1999, the ESC sampling program was conducted “at peril” to minimize impact on Tyco’s pending building expansion in the area of the former dry well. Depth-discrete groundwater grab samples were collected to delineate impacted groundwater and soil samples were collected for analysis of engineering parameters to evaluate remedial options.

Based on these delineation efforts, a 24 ft x 20 ft area of soil beneath the former dry well location was excavated to approximately 29 ft below ground surface (bgs) to top of bedrock to remove and remediate soil containing residual product. This remedial action was performed from August 1999 by McLaren/Hart and an Interim Remedial Action Report was prepared and submitted to AT&T in August 2000 for review.

After closure of site operations by Tyco and the subsequent sale of the property by Tyco to Clark Developers, LLC, areas beneath the building that could not previously be characterized in accordance with ISRA requirements were accessible for subsurface investigation in 2003. Phase II sampling was conducted by EcolSciences, Inc. on behalf of Clark Developers, LLC. Samples collected beneath the building and at a number of exterior areas indicated some marginal exceedances of base neutral compounds and metals in soil samples beneath the building, but no exceedances of volatile organic compounds.

In May 2004, additional soil samples were collected as part of a groundwater grab sampling program to further evaluate whether any residual VOCs are present beneath the building. Detections of TCE did not exceed applicable NJDEP soil cleanup criteria and no other VOCs were detected. The results of the 2004 soil and groundwater sampling program were provided in the Supplemental Groundwater Remedial Investigation Technical Memorandum (GeoTrans, September 2004).

### **2.2.2 Groundwater**

Initial investigation into potential groundwater impacts from a spill collection tank and operation of the dry well began in 1988. Dunn Geosciences performed several phases of groundwater investigations between 1989 and 1992 (Dunn Geosciences 1990, 1991, and 1992). RUST Environmental installed a test recovery well and performed a feasibility study supplemental investigation, including packer and pump tests in 1993 and conducted an offsite groundwater investigation in 1994 (RUST 1994, 1995). McLaren/Hart collected groundwater samples from a number of the AOCs identified in the PA/SI/RI in 1997. Most of the PA/SI/RI activities, however, dealt with potential impacts of facility operations on soil. Roy F. Weston, Inc. conducted a separate groundwater remedial investigation in 1996 and 1997 to address potential impacts to groundwater at the site. Results of this groundwater investigation were included in a Final Remedial Investigation Report (Weston 1997). More recently, EcolSciences, Inc. conducted a Phase II site investigation for Clark Developers, LLC that included groundwater sampling of existing monitoring wells and the installation and sampling of temporary well points inside the facility building (EcolSciences 2003).

In May 2004, GeoTrans conducted a supplemental groundwater investigation to evaluate impacts to groundwater beneath the building, which had previously been estimated via concentration gradients from monitoring wells up and down gradient of the building. The results confirmed the concentration gradient and also confirmed the results previously collected during the Phase II investigation in 2003. Groundwater samples were also collected from existing monitoring wells and presented in the Supplemental Groundwater Remedial Investigation Technical Memorandum (GeoTrans, September 2004). The existing on-site monitoring wells were again sampled in November 2004 and February 2005, with results reported in Quarterly Sampling Reports prepared by GeoTrans (dated February 2005 and April 2005, respectively).

### **2.2.3 Baseline Ecological Evaluation**

A Baseline Ecological Evaluation (BEE) was conducted to evaluate the site for the co-occurrence of contaminants of potential ecological concern, environmentally sensitive areas within the site boundaries

and on properties immediately adjacent to the site, and to assess chemical migration pathways to environmentally sensitive areas. The soil screening indicated that lead and chromium, and one pesticide exceeded ecological screening values. However, these exceedances were limited to a small number of samples and the samples were collected from areas not supporting ecological receptors. The existing site contains no significant terrestrial habitat for terrestrial plants and wildlife. No environmentally sensitive natural resources exist on, or immediately adjacent to the site, and there has been no evidence to suggest a contaminant migration pathway that would adversely impact the wetland and reservoir located about 0.5 miles from the site. The results of the BEE were presented in a report dated May 2005.

### **3.0 PHYSICAL SETTING**

#### **3.1 SITE LOCATION**

The site is located at 100 Terminal Avenue in Clark, Union County, New Jersey (Figure 3-1). Surrounding land use is primarily industrial. Conrail Railroad borders the property to the north and northwest, Terminal Avenue borders the southeast and two commercial properties border the southwest and northeast sides. The site encompasses approximately 10 acres of land and consists of a Main Building (98,500 sq. feet) and several ancillary buildings.

#### **3.2 TOPOGRAPHY AND DRAINAGE**

Historical site plans indicate that site topography slopes gradually to the south. The ground surface elevation is generally flat across the site, varying from approximately 56 feet to 60 feet above mean sea level across the site. No surface water bodies are currently present onsite; however, a culverted stream channel was described in the Groundwater Remedial Investigation Report (Weston 1997). The channel was observed on historical figures and interpreted from aerial photographs. The culverted stream channel enters the property near the center of the eastern boundary line, trends southward toward Terminal Avenue, then runs adjacent and parallel to Terminal Avenue across the site until it exits near the southern corner of the property.

#### **3.3 GEOLOGY**

Geology beneath the site consists of a layer of unconsolidated glacial fluvial sediments underlain by muddy sandstone bedrock of the Passaic Formation (formerly the Brunswick formation). The glacial fluvial sediments are composed of primarily reddish-brown clayey silt, with some sand and little amounts of gravel. The thickness of the sediments ranges from approximately 22-50 feet. The glacial fluvial sediments are underlain by the Passaic formation which consists mainly of reddish brown muddy or silty sandstone.

The depth to the top of bedrock generally increases to the south and southwest. The top of bedrock is weathered and was encountered during the drilling of bedrock monitoring wells at approximately 28-40 ft bgs. Weathered bedrock thickness ranges from approximately 10 to 20 feet, generally increasing in thickness to the south. The top of competent bedrock was encountered at approximately 40-60 ft bgs.

### **3.4 HYDROGEOLOGY**

Groundwater in the unconsolidated overburden soil beneath the site has been encountered at depths ranging from approximately 2 to 15 feet below ground surface. A piezometric head difference exists between monitoring wells screened in the shallow unconsolidated overburden and monitoring wells screened in the deep unconsolidated overburden. Groundwater flow in the shallow overburden is generally to the south-southeast near the former dry well location, with a southeasterly component of flow from the northwestern corner of the site. Groundwater flow in the deep overburden is generally to the south-southwest. Groundwater elevations in the shallow and deep overburden wells indicate a downward vertical gradient.

Due to the fine-grained nature of the muddy sandstone bedrock beneath the site, it is likely that groundwater flow in bedrock occurs predominantly in secondary partings and fractures within the rock. Geophysical and video logging of monitoring wells prior to their completion identified a number of vertical, angled, and near-horizontal fractures that are potential pathways for groundwater flow. Groundwater elevations in the bedrock wells are generally lower than elevations in nearby overburden wells, suggesting a potential downward vertical gradient between the overburden and bedrock. A detailed discussion of the bedrock aquifer is provided in Section 8 of this report.

### **3.5 SURFACE WATER BODIES/WETLANDS**

There are no surface water bodies or wetlands present at the site property.

## 4.0 TECHNICAL OVERVIEW

This Section briefly describes the sampling program, the analytical data quality assessment, and the overall assessment of impacts. A more detailed description of the sampling program is provided in Section 5 (Field Investigation Methods), and more information on the specific Area of Concern (AOC) and groundwater investigation findings are presented in Sections 6 and 7.

### 4.1 SAMPLING PROGRAM

Thirty four AOCs were identified in the 1997 PA/SI/RI Report, including AOC 34 (Groundwater VOC Plume). Two more AOCs (AOC 35 [Baseline Ecological Evaluation] and AOC 36 [Clean Fill Certifications and Waste Disposal Documentation]) were specified by the NJDEP, resulting in a total of 36 AOCs for the site (Figure 4-1). Supplemental soil and groundwater investigation activities addressed in this report include soil and/or groundwater grab sampling at 14 AOCs and at 6 additional locations originally sampled by EcolSciences on behalf of Clark Developers, LLC during their Phase II investigation. A video inspection of storm and sanitary sewer lines beneath the facility building was conducted prior to soil and groundwater grab sampling associated with 3 AOCs.

Soil and groundwater grab samples were collected from the above AOCs to assess whether chemical compounds were present at concentrations exceeding applicable remediation guidelines. During supplemental investigation activities, approximately 57 borings were advanced to facilitate soil and groundwater grab sample collection at the identified AOCs and the additional sampling locations. Soil boring and soil sampling activities were conducted using either a Geoprobe direct-push rig or hand-held coring devices (i.e., core barrels advanced using a manual coring device or a hand auger). A total of 45 soil samples and 34 groundwater samples were collected and submitted for laboratory analysis of multiple parameters, including TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde. The supplemental investigation activities conducted at the above AOCs are summarized in Table 4-1. A detailed summary of the samples collected and the parameters analyzed is provided in Table 4-2.

Site-wide groundwater investigation activities addressed in this report include the installation of 12 monitoring wells (3 shallow overburden wells, 3 deep overburden wells, and 6 bedrock wells), rock coring, geophysical logging, and packer testing of selected bedrock boreholes. Following installation and development of the monitoring wells, groundwater samples were collected from the 32 onsite and 4 offsite monitoring wells using volume-averaged purging and sampling methods. A detailed summary of the samples collected and the parameters analyzed is provided in Table 4-3. PDBS groundwater sampling was performed after the volume-averaged sampling event; results from PDBS sampling will be included in a separate report.

This report contains the results for soil and groundwater sampling conducted pursuant to ISRA requirements and consistent with the New Jersey Administrative Code 7:26E Technical Requirements for Site Remediation (TRSR), the NJDEP Field Sampling Procedures Manual (May 1992) and the NJDEP Alternative Ground Water Sampling Techniques Guide (1994). Sampling activities in September and October 2005 were performed consistent with the updated NJDEP Field Sampling Procedures Manual dated August 2005.

## **4.2 ANALYTICAL DATA QUALITY ASSESSMENT**

Sample analyses were performed using the methods listed in Table 4-4. A review of the laboratory analytical data reports indicates that data quality is acceptable and that all of the data is useable. All holding times were met and surrogate recoveries met criteria. Analytical results for soil and groundwater samples and their corresponding field duplicate samples were generally similar. Details regarding the analytical data quality of soil and groundwater grab sample analyses are discussed below, followed by a discussion of the analytical data quality of the monitoring well samples.

### **4.2.1 Soil and Groundwater Grab Sample Data**

Analytical results indicate that no analyte concentrations were detected in the trip blanks associated with the soil and groundwater grab samples. For the field blanks, results indicate that 2-butanone (methyl ethyl ketone) was reported in aqueous field blank sample FB-062305 (19.6 µg/L). Copper (9.84 µg/L) was reported in aqueous field blank sample FB-062805 and zinc was reported in aqueous

field blank samples FB-062205 (12 µg/L) and FB-062905 (15 µg/L), and FB-063005 (8.75 µg/L). Analytical results also indicate that low concentrations of methylene chloride were reported in several field blank samples; however, this compound is a common laboratory contaminant. Low concentrations of formaldehyde were also reported in field blanks associated with groundwater grab samples collected from June 22, 2005 to June 30, 2005. Formaldehyde concentrations reported in these field blanks are likely the result of the analytical method used, as described below.

Formaldehyde results for many of the soil and groundwater grab samples collected in June and July 2005 were reported with a “B” qualifier, indicating that the analyte was detected in the associated method blank and/or leachate blank. Discussions with the laboratory indicated that the blank contamination was an artifact of the method used to analyze formaldehyde (High Pressure Liquid Chromatography [HPLC] Method 8315). This method provides low method detection limits and was selected to meet the NJDEP GWQS for formaldehyde (100 µg/L). The laboratory indicated that formaldehyde is an unstable compound; therefore, reagents are used to prepare a more stable derivative of formaldehyde for HPLC analysis. Analysis using this method, however, may result in low background concentrations of formaldehyde in soil (approximately 400 µg/kg) and groundwater samples (approximately 5 µg/L) that are visible at low reporting limits. Therefore, reported formaldehyde concentrations that are qualified with a “B” may be biased high.

Some of the groundwater grab samples collected from the shallow and deep overburden aquifers contained varying levels of sediment, which affected the metals analytical results. The overburden soil at the site is composed mainly of silt and consequently provided limited water during sampling. The water was often turbid; the screen points and temporary wells used to collect groundwater samples from the overburden were purged prior to sampling, but generally this did not reduce the turbidity substantially. Since groundwater samples collected for metals are preserved with nitric acid, the acidic conditions may leach metals from the sediment, thereby increasing the concentration of metals in the aqueous sample. Therefore, the concentration of metals reported for groundwater grab samples that were noted to contain sediment are likely biased high. This includes groundwater grab samples from 4 AOCs (AOC 15, AOC 24, AOC 33, and AOC 34).

The groundwater grab samples were analyzed for alcohols using a method detection limit (MDL) that was inadvertently higher than the previous NJDEP Interim Specific Criteria for isopropanol (200 µg/L) and the current GWQS for methanol (4,000 µg/L; adopted in November 2005). Alcohols were analyzed using SW-846 Method 8015B via gas chromatograph and flame ionization detection (GC/FID). Using this method, aqueous samples were injected directly into the GC and no sample preparation was required prior to analysis. Method detection limits using this method, however, were elevated to 5000 µg/L, which was insufficient to meet the previous Interim Specific Criteria for isopropanol or the current GWQS for methanol.

During collection of groundwater grab sample 34CGW-24-26 from the deep overburden aquifer, insufficient water was available to collect a sample for pesticide analysis from this location.

#### **4.2.2 Monitoring Well Sampling Data**

During volume-averaged sampling of the monitoring wells, the field blank FB-9-26-05 was inadvertently submitted for analysis of VOCs only, rather than for the full list of parameters being analyzed. Therefore, this field blank was not analyzed for TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde.

Analytical results indicate that low concentrations of methylene chloride were reported in several field blank and trip blank samples and in several monitoring well samples. As noted above, this compound is a common laboratory contaminant. Formaldehyde was also reported at low concentration in field blank sample FB-10-7-05. Formaldehyde concentrations reported in this field blank and the samples associated with it (MW-19B and MW-21D) are qualified with a “B” and are likely biased high, as discussed above.

Many of the groundwater samples collected from the monitoring wells contained varying levels of sediment, which affected the metals analytical results. The volume-averaged purging and sampling method used during sampling has the potential to increase turbidity during sampling. The wells were purged with a submersible pump at low rates due to the generally low water yield and reasonable

efforts were made to keep pumping rates low to reduce turbidity. Groundwater samples were collected with bailers, which may have increased the sample turbidity. As described above, groundwater samples collected for metals are preserved under acidic conditions that tend to leach metals from the sediment, thereby increasing the concentration of metals in the aqueous sample. The concentration of metals reported for groundwater samples that were noted to contain sediment are likely biased high. This includes groundwater samples collected from most of the monitoring wells at the site during this monitoring well sampling event.

Groundwater samples collected during this investigation were submitted to Integrated Analytical Laboratories (IAL) located in Randolph, New Jersey (NJDEP certification number 14751) for laboratory analysis. To achieve method detection limits below GWQS, monitoring well samples submitted for alcohol analysis were analyzed by Accutest Laboratories of New Jersey located in Dayton, New Jersey (NJDEP certification number 12129), a subcontractor to IAL. Alcohol analytical results generated by Accutest were qualified for pH because unpreserved laboratory bottles were used during sampling. Based on discussions with IAL, the alcohol data for these samples are useable because acidic preservation of the samples is a requirement for the sample preparation method, not the sample analysis method. Accutest performed the alcohol analyses using the same direct injection method as IAL (SW-846 Method 8015B), which does not require sample preparation prior to analysis. Therefore, pH preservation was not required for samples collected for alcohol analyses and the data are considered useable. Letters from the laboratories explaining this difference in laboratory operating procedures and verifying that the alcohol data are useable are provided in Appendix A.

#### **4.3 OVERALL ASSESSMENT OF IMPACTS TO THE SITE**

A total of 34 AOCs were identified in the 1997 PA/SI/RI Report, including AOC 34 (Groundwater VOC Plume). Two more AOCs (AOC 35 [Baseline Ecological Evaluation] and AOC 36 [Clean Fill Certifications and Waste Disposal Documentation]) were specified by the NJDEP, resulting in a total of 36 AOCs for the site. NJDEP granted No Further Action (NFA) for 18 of the 36 total AOCs in their letter dated July 7, 2005 or in earlier NJDEP correspondence. Most of these NFAs address soils only at the AOCs. NJDEP subsequently granted NFA status for soils only at 2 more AOCs in their

comment letter dated March 9, 2005. The current status of the 36 total AOCs is summarized on Table 4-1.

Supplemental remedial investigation activities included soil and/or groundwater grab sampling at 14 AOCs and at 6 additional locations originally sampled by EcolSciences during their Phase II investigation. Based on the results of this supplemental investigation, no further action is recommended for 11 AOCs and for 5 of the Phase II locations. Additional investigation and/or remediation is recommended at AOC 6 (Sumps), AOC 14 (Storm Sewer Collection System), AOC 15 Former Dry Well and Piping), and at EcolSciences' Phase II sampling location I-2. It is recommended that impacted groundwater at the above AOCs and Phase II sampling location be addressed as part of the site-wide groundwater remedial investigation (AOC 34).

Groundwater investigation results indicate that groundwater in the overburden and bedrock beneath the site is impacted by VOCs, mainly TCE. Some metals concentrations exceeded applicable GWQS in groundwater samples collected from several overburden and bedrock wells, but this is attributed to leaching of metals from sediment collected with the acid-preserved samples. Concentrations of BNAs (including hydroquinone and xylenol), pesticides, alcohols, and formaldehyde were either not detected or did not exceed applicable NJDEP GWQS in groundwater grab samples and monitoring well samples at the site.

VOC impacts to shallow overburden and deep overburden groundwater are primarily in the vicinity of the former dry well and immediately downgradient to the south. The horizontal extent of impacted groundwater in the deep overburden has not been completely delineated. TCE concentrations at three deep overburden groundwater locations immediately south of the former dry well area are close to or exceed 1% of the aqueous solubility of TCE, indicating that residual product may be present in the deep overburden at the top of bedrock in these areas. Source zone treatment is recommended to remediate potential residual product in these areas. Elevated TCE concentrations were also reported in deep overburden groundwater samples from well MW-17AR located to the west on Mastertaste property, and in nearby wells MW-11A, MW-4A, and MW-5A. These results

suggest that a second source of TCE may be present in the southwestern portion of the site or on Mastertaste property.

The highest TCE concentrations in the bedrock were reported in wells MW-19A and MW-21S, which are screened at intermediate depths (70-80 ft bgs and 104-114 ft bgs, respectively). The highest concentration in deep bedrock was detected in well MW-21DB (250-255 ft bgs). These wells are aligned roughly north-south, parallel to the strike of low-angle fractures in the bedrock. No evidence of product was identified in well MW-23D, which was installed approximately down-dip of the former dry well area. The horizontal and vertical extent of impacted groundwater in the bedrock has not been completely delineated.

## 5.0 FIELD INVESTIGATION METHODS

Field investigation methods used during the supplemental soil and groundwater investigation activities conducted from May to October 2005 are described in this section. This includes video inspection of storm and sanitary sewers beneath the main site building, groundwater and soil grab sampling, monitoring well installation and development, rock coring, borehole geophysical logging, packer sampling of selected rock borehole intervals, monitoring well sampling, and well abandonment activities.

Field activities were performed consistent with the New Jersey Administrative Code 7:26E Technical Requirements for Site Remediation (TRSR), the NJDEP Field Sampling Procedures Manual (NJDEP 1992) and the NJDEP Alternative Ground Water Sampling Techniques Guide (NJDEP 1994). Sampling activities in September and October 2005 were performed consistent with the updated NJDEP Field Sampling Procedures Manual dated August 2005.

Field investigation methods used during the above activities are described below. Soil sampling activities and methods are described first, followed by groundwater investigation and sampling methods. Groundwater investigation methods include a discussion of groundwater grab sampling methods, monitoring well installation methods (including associated rock coring, geophysical logging, and packer testing activities), and monitoring well sampling methods.

### 5.1 SOIL

Based on NJDEP comments dated March 9, 2005, a video inspection of the storm sewer and sanitary sewer pipes beneath the facility building was performed prior to soil sampling. The purpose of the video inspection was to assess storm and sanitary sewer pipe integrity and to identify the location of potential breaches in the pipes beneath the building. A closed-circuit television inspection of the storm sewer and sanitary sewer systems was conducted from May 17, 2005 to June 9, 2005. During this inspection, the main sewer pipes and many of the lateral branches were video inspected. On June 7, 2005, based on the extent and findings of the work completed at that time, NJDEP agreed

that further video inspection of the remaining lateral pipes (generally 3-inch diameter) was not warranted.

Soil sampling activities were conducted following completion of the sewer system video inspection. Soil sampling activities were conducted from June 21, 2005 to July 7, 2005 and from September 13, 2005 to September 23, 2005, during which soil samples were collected from up to 14 AOCs at the site (Table 4-2 and Figure 4-1). Soil samples were also collected near 6 locations previously sampled by EcolSciences. Sewer system video inspection methods and soil sampling methods used during the above field activities are described below.

### **5.1.1 Video Inspection of Storm Sewer and Sanitary Sewer Systems**

The video inspection was performed by the National Water Main Cleaning Company located in Newark, New Jersey. Pipes larger than 6-inches in diameter were inspected using a television camera mounted on a remote-controlled crawler. Smaller diameter pipes (between 3-inch and 6-inch diameter) were inspected using a mini-camera that was manually advanced through the pipes. The storm and sanitary sewer pipe systems beneath the building that were video inspected are shown on Figure 5-1.

Prior to the video inspection, some of the storm sewer pipes and most of the sanitary sewer pipes were cleaned to remove rust, corrosion, and other small obstructions and to facilitate camera access. The pipes were cleaned using a pressure washer system and potable water. One pit (P-1) and two sumps (Sump S-1 and S-2) were also cleaned using the pressure washer prior to visual inspection (two additional pits [P-2 and P-3] and one additional sump [S-3] were previously abandoned with concrete and were inaccessible for video inspection).

Investigation-derived waste generated during pressure washing of the sewer pipes included wash water and solid material (i.e., rust) removed from the pipes, pits, and sumps. During pressure washing activities, this material was captured and contained using a vacuum truck. The collected wash water was decanted from the vacuum truck into an on-site sanitary sewer manhole located near

Terminal Avenue. The solid material was contained in the vacuum truck and properly disposed of off site as non-hazardous solid waste. Copies of the weight ticket and the solid waste disposal form are included in Appendix B of this report.

The results of the video inspection activities conducted at the site are included in Appendix B. Approximately 3162 total linear feet of pipe were video inspected at the site. Results of the video inspection indicated that most of the storm sewer and sanitary sewer pipes were intact. Existing Pit P-1 and sumps S-1 and S-2 were also found to be intact. Three breaches were identified in the storm sewer lines south of the building in the front lawn near Terminal Avenue. Two floor drains in the boiler room were observed to be rusted through on the bottom. One breach was identified in the polyvinyl chloride (PVC) piping of the central sanitary pipe located north of the building. Soil sampling was conducted near the identified breaches to assess whether compounds of concern were discharged to the soil at these locations. Details on the location of pipe breaches and associated soil sampling results are included in Sections 6.5 (AOC 13 – Floor Drains, Trenches, or Pipes) and 6.6 (AOC 14 – Storm Sewer Collection System) of this report.

### **5.1.2 Soil Borings**

Prior to the start of intrusive field activities, New Jersey One Call was contacted and underground utility locations near the subject property (e.g., gas, electric, water) were identified and marked by utility company personnel.

Soil samples were mainly collected by advancing soil borings using a Geoprobe direct-push rig operated by New Jersey licensed test borers employed with TPI Environmental, Inc., located in Carversville, PA. Additional Geoprobe soil borings were advanced by New Jersey licensed test borers employed with HRS Drilling Company, Inc., located in Netcong, NJ. Continuous soil cores were collected from the boring locations by hydraulically advancing a 4-foot long, 2½-inch diameter Macro-core barrel fitted with dedicated 1½-inch diameter acetate liners. Following completion of soil boring and sampling, the borings were backfilled with remaining soil and sealed with bentonite

or cement. Borings installed on asphalt or concrete surfaces were sealed with bentonite and cold patch asphalt or concrete, respectively.

Due to limited access for the Geoprobe rig, soil borings were advanced manually at sampling locations in the boiler room of the site building and near EcolSciences' Phase II sample location I-17. The sample locations in the boiler room were associated with AOC 6 (Sumps), AOC 7 (Pits), and AOC 13 (Floor Drains, Trenches, and Piping). Soil samples were collected at these locations using a hand-held electric hammer drill that advanced a 2-foot long core barrel fitted with dedicated 1-inch diameter advanced acetate liners. Shallow soil samples were also collected manually at AOC 19 (Non-Contact Cooling Water) using a hand auger.

### 5.1.3 Soil Sampling

Upon retrieval from the borehole, the soil core liner was opened and the soil was inspected and field-screened for total VOC concentrations using a photoionization detector (PID). The soil cores were described and logged using the Burmeister Soil Classification System, and recovery percentages were noted. Soil samples for laboratory analysis were collected from discrete 6-inch intervals, and were selected for analysis based on PID field screening results and field observations (e.g., staining, odor). Soil samples collected for VOC analysis were collected using methods consistent with the NJDEP Methodology for the Field Extraction/Preservation of Soil Samples with Methanol for Volatile Organic Compounds (February 1997).

## 5.2 GROUNDWATER

Groundwater investigation activities performed in 2005 include the collection of groundwater grab samples and the installation and sampling of additional monitoring wells. Groundwater grab sampling activities were conducted from June 21, 2005 to July 7, 2005 and from September 13, 2005 to September 23, 2005, during which groundwater grab samples were collected at up to 14 AOCs and near 4 locations previously sampled by EcolSciences (Table 4-1). Twelve additional monitoring wells (3 shallow overburden wells, 3 deep overburden wells, and 6 bedrock wells) were installed at

the site between August 1, 2005 and September 23, 2005. Monitoring well installation activities included rock coring, borehole geophysical logging, and the collection of discrete groundwater samples during packer testing of four bedrock monitoring wells (wells MW-7DB, MW-19DB, MW-21DB, and MW-23D). Following installation and development of the additional wells, groundwater samples were collected from existing onsite and offsite monitoring wells in September and October 2005. Groundwater samples were collected using traditional sampling methods (i.e., volume-averaged purge and sampling) and using passive diffusion bag samplers.

Groundwater grab sampling locations are presented on AOC-specific figures as described in Section 6 of this report. Monitoring well locations are shown on Figure 3-1. Sampling activities and methods used during the above field activities are described below. Groundwater grab sampling activities and methods are described first, followed by monitoring well installation and sampling activities and methods.

### **5.2.1 Groundwater Grab Sampling**

Prior to the start of intrusive field activities, New Jersey One Call was contacted and underground utility locations near the subject property (e.g., gas, electric, water) were identified and marked by utility company personnel. Construction drawings were also used to identify underground utility locations adjacent to and within the building.

Groundwater grab sampling was performed using a Geoprobe direct-push rig operated by New Jersey licensed test borers employed with TPI Environmental, Inc., located in Carversville, PA. Additional groundwater grab samples were collected using a Geoprobe rig operated by New Jersey licensed test borers employed with HRS Drilling Company, Inc., located in Netcong, NJ.

Depth-discrete groundwater grab samples were collected most often using screened rods with expendable points. Using this method, direct push rods were advanced to the desired sampling depth and then retracted to expose an inner stainless steel screen in the bottom rod. Upon exposure of the screen to groundwater, the screen point was then purged using either a dedicated disposable Teflon

bailer or polyethylene tubing attached to a peristaltic pump. Groundwater purging continued until the discharged water was clear of fines, if practicable, prior to sample collection. Following purging, groundwater samples were collected using either dedicated polyethylene tubing with a foot valve or dedicated disposable Teflon bailers. To advance to a deeper sampling interval, the rods were withdrawn from the boring to decontaminate the screen and install a new expendable point. Sampling with successive expendable points simply pushed previously deployed points aside. Upon completion of groundwater sampling, the direct-push rods and screen were withdrawn and the borings were sealed with bentonite or cement. Groundwater grab sampling points located on asphalt or concrete surfaces were sealed with bentonite and cold patch asphalt or concrete, respectively.

Some groundwater grab samples were also collected by installing a temporary well. Using this method, soil borings were advanced to the desired sampling depth and then temporary wells were constructed and placed in the boreholes. The wells were generally screened using 5 feet of 1-inch diameter Schedule 40 PVC 10-slot screen, followed by 1-inch Schedule 40 PVC riser pipe to the surface. Bentonite was placed around the riser pipe at the ground surface to seal the borehole annular space and prevent surface runoff from entering into the borehole. The wells were purged using tubing with a foot valve prior to sampling. Groundwater samples were collected using dedicated, disposable Teflon bailers. Upon completion of groundwater sampling, the temporary wells were removed and the borings were backfilled with the remaining soil and sealed with bentonite or cement. Borings installed on asphalt surfaces were sealed with bentonite and cold patch asphalt.

### **5.2.2 Monitoring Well Installation**

Based on NJDEP comments dated March 9, 2005 and subsequent discussion with NJDEP, a total of 12 monitoring wells (3 shallow overburden wells, 3 deep overburden wells, and 6 bedrock wells) were installed to assess the extent of impacts to groundwater beneath the site. The monitoring wells were installed in August and September 2005 by New Jersey licensed drillers employed with HRS Drilling Company, Inc., located in Netcong, NJ.

Well construction details for monitoring wells located at the site, including the newly installed wells, are summarized in Table 5-1. Monitoring well locations are shown on Figure 3-1. Monitoring well logs, well construction diagrams, and monitoring well records for the monitoring wells installed in August and September 2005 are included in Appendix C. Overburden and bedrock monitoring well installation procedures are described below.

#### **5.2.2.1 Shallow Overburden Wells**

Three shallow overburden monitoring wells (wells MW-1R, MW-2R, and MW-19S) were installed at the site during this investigation (Figure 3-1). Monitoring well MW-1R was installed within the former dry well area as a replacement for well MW-1, which was abandoned in September 1999 prior to the construction of an addition to the north corner of the facility building. Monitoring wells MW-2R and MW-19S were installed south of the former dry well area to assess groundwater quality in the shallow overburden immediately downgradient of the former dry well. Monitoring well MW-2R is located adjacent to well MW-2 and was installed as a replacement for well MW-2, which is obstructed and apparently abandoned. Monitoring well MW-19S was installed near bedrock well MW-19D.

Soil samples were collected from the well locations for field screening and description purposes. The soil was screened for total VOC concentrations using a PID and described by a qualified field geologist. Soil samples were collected either prior to or during well installation activities. The wells were installed using hollow-stem auger drilling methods. Soil sampling and well installation procedures for the shallow overburden wells are described below.

#### **MW-1R and MW-2R**

Continuous direct-push soil cores were collected at well location MW-2R prior to auger drilling to install the well. Grab samples were collected at well location MW-1R during drilling (due to the close proximity of recently logged soil borings near well MW-1R, only grab samples were collected).

Monitoring wells MW-1R and MW-2R were installed using a Geoprobe rig with auger capabilities. For these wells, a 6-inch diameter borehole was advanced to 22 ft bgs (approximate bottom of the shallow overburden soil beneath the site). The wells were screened from 7-22 ft bgs with 15 ft of 2-inch diameter 10-slot Schedule 40 PVC screen, followed by 2-inch diameter Schedule 40 PVC riser from top of screen to the surface. The screen was filter packed with #1 sand from the bottom to approximately 1 ft above top of screen. A 1 ft thick layer of fine #00 sand was then installed to minimize penetration of the grout seal. The annular space was then sealed using a cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing and the inner PVC casing was secured with a gripper plug and lock.

### **MW-19S**

Soil grab samples and split-spoon samples were collected at well location MW-19S during drilling. Monitoring well MW-19S was installed using a Mobile B-57 drill rig using the same procedures as above. For this well, an 8-inch diameter borehole was advanced to 22 ft bgs, and the well was screened from 7-22 ft bgs with 15 ft of 4-inch diameter 10-slot Schedule 40 PVC screen, followed by 4-inch diameter Schedule 40 PVC riser from top of screen to the surface. The screen was filter packed with #1 sand from the bottom to approximately 1 ft above top of screen. A 1 ft thick layer of fine #00 sand was then installed, followed by cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing.

#### ***5.2.1.2 Deep Overburden Wells***

Three deep overburden monitoring wells (wells MW-4A, MW-6A, and MW-17AR) were installed at the site during this investigation (Figure 3-1). Monitoring wells MW-4A and MW-6A were installed near shallow overburden wells MW-4 and MW-6, respectively. Monitoring well MW-17AR is located offsite to the west on property owned by Mastertaste, Inc. (formerly J. Manheimer). These wells were installed to assess groundwater quality in the deep overburden and to horizontally delineate TCE concentrations downgradient to the west and south-southeast of wells MW-5A and MW-11. Drilling at the deep overburden well locations was advanced into the weathered bedrock (to the extent possible) to assess the extent of potential VOC impacts in this zone.

Monitoring well MW-17AR was installed as a replacement for well MW-17A, which could not be located. Discussions with Mastertaste personnel indicate that the well was apparently destroyed by Mastertaste during construction of a building addition. Efforts by AT&T to find well MW-17A also indicate that the well was likely destroyed. On November 3, 2004, a New Jersey-licensed land surveyor identified and marked the probable location of the well using previously-surveyed coordinates. On January 25, 2005, an area of approximately 25 feet by 30 feet centered on the location of well MW-17A was excavated to a depth of approximately 3.5 to 4 feet below grade, but the well was not located.

Soil samples were collected from the deep overburden well locations for PID field screening, soil descriptions, and to assess the weathered bedrock zone. Soil samples were collected either prior to or during well installation activities. The wells were then installed using hollow-stem auger drilling methods. Soil sampling and well installation procedures for the deep overburden wells are described below.

#### **MW-4A**

Continuous direct-push soil cores were collected at well location MW-4A from ground surface to refusal at 30 ft below ground surface. Weathered bedrock was encountered at approximately 29 ft bgs. Following collection of the soil cores, monitoring well MW-4A was installed using a Mobile B-57 hollow-stem auger drill rig. Based on the soil core observations, a 6-inch diameter borehole was advanced to 31 ft bgs. The well was screened in the weathered bedrock from 25-30 ft bgs with 5 ft of 2-inch diameter 10-slot Schedule 40 PVC screen, followed by 2-inch diameter Schedule 40 PVC riser from top of screen to the surface. The screen was filter packed with #2 sand from the bottom to approximately 1 to 2 ft above top of screen. A 1 ft thick layer of fine #00 sand was then installed to minimize penetration of the grout seal. The annular space was then sealed using a cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing and the inner PVC casing was secured with a gripper plug and lock.

### **MW-6A**

Continuous direct-push soil cores were collected at monitoring well location MW-6A from ground surface to refusal at 34.5 ft below ground surface. Weathered bedrock was encountered at approximately 33 ft bgs. Following collection of the soil cores, monitoring well MW-6A was installed using a Mobile B-57 hollow-stem auger drill rig. Based on the soil core observations, a 6-inch diameter borehole was advanced to 33 ft bgs. The well was screened in the weathered bedrock from 28-33 ft bgs with 5 ft of 2-inch diameter 10-slot Schedule 40 PVC screen, followed by 2-inch diameter Schedule 40 PVC riser from top of screen to the surface. The screen was filter packed with #2 sand from the bottom to approximately 1 to 2 ft above top of screen. A 1 ft thick layer of fine #00 sand was then installed to minimize penetration of the grout seal. The annular space was then sealed using a cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing and the inner PVC casing was secured with a gripper plug and lock.

### **MW-17AR**

Continuous direct-push soil cores were collected at well location MW-17AR from ground surface to apparent refusal 28 ft bgs. Continuous split-spoon samples were then collected using a Mobile B-57 hollow-stem auger rig until split-spoon refusal at approximately 37 ft bgs. Weathered bedrock was encountered at approximately 30.5 ft bgs. Based on the soil observations, a 6-inch diameter borehole was advanced to 37 ft bgs. The well was screened in the weathered bedrock from 32-37 ft bgs with 5 ft of 2-inch diameter 10-slot Schedule 40 PVC screen, followed by 2-inch diameter Schedule 40 PVC riser from top of screen to the surface. The screen was filter packed with #1 sand from the bottom to approximately 1 to 2 ft above top of screen. A 1 ft thick layer of fine #00 sand was then installed to minimize penetration of the grout seal. The annular space was then sealed using a cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing and the inner PVC casing was secured with a gripper plug and lock.

### 5.2.2.3 Bedrock Wells

Six bedrock monitoring wells (MW-7DB, MW-19B, MW-19DB, MW-20B, MW-21DB, and MW-23D) were installed at the site during this investigation (Figure 3-1). Monitoring wells MW-19B and MW-20B were installed near bedrock wells MW-19D and MW-20D, respectively. These wells were installed to monitor groundwater quality in prominent fracture zones previously identified during the drilling of wells MW-19D and MW-20D. Monitoring well MW-23D was installed northwest of well MW-19A. Borehole geophysical data previously generated at the site indicated the presence of low-angle fractures dipping approximately 10 degrees to the northwest. Given that groundwater samples collected from monitoring well MW-19A contain the highest concentrations of TCE at the site, well MW-23D was installed to intersect the same fracture zone as well MW-19A to investigate VOC concentrations in the down-dip direction. Monitoring wells MW-7DB, MW-19DB, and MW-21DB were installed near wells MW-7A, MW-19D, and MW-21D, respectively, to investigate the vertical extent of VOCs in groundwater beneath the site. Boreholes for deep bedrock wells MW-7DB, MW-19DB, and MW-21DB were advanced to approximately 300 ft bgs.

Drilling and installation of the bedrock monitoring wells generally proceeded in stages. The bedrock wells were installed using dual-rotary air drilling methods. Dual-rotary drilling rigs use two rotary drives to advance the drill string and steel casing independently. A carbide-studded drive shoe is welded onto the bottom of the casing and the casing can be advanced simultaneously as the hole is drilled using an air hammer bit. Drilling can proceed either inside or ahead of the casing. Using dual rotary drilling, 6-inch diameter steel casing was advanced through the overburden approximately 10 feet into the top of competent bedrock. Following installation of the casing, drilling was continued to total depth and the open borehole was geophysically logged to identify fractures and partings that might conduct water. The borehole geophysical logs were then evaluated to select fracture zone intervals for packer testing. The fracture zone intervals were isolated using inflatable packers and groundwater samples were collected to assess TCE concentrations and to select the appropriate screen interval for the wells. The wells were then constructed with 5 to 10 feet of 2-inch diameter casing and screen.

Monitoring wells MW-19B and MW-20B were not geophysically logged or packer tested. These wells were installed to monitor prominent fracture zones identified during the drilling of adjacent bedrock wells MW-19D and MW-20D.

Continuous rock coring was also conducted in deep bedrock wells MW-19DB and MW21DB to assess bedrock geology and the distribution of fractures in the rock.

Rock coring and logging procedures are discussed in Section 5.2.3. Borehole geophysical logging and packer testing procedures are summarized below in Sections 5.2.4 and 5.2.5, respectively. Details regarding drilling and construction of the individual bedrock monitoring wells are summarized below.

### **MW-19B**

Bedrock monitoring well MW-19B was installed approximately 90 ft southwest of and downgradient from the former dry well location. This well was installed to monitor a fracture zone from 108 to 112 ft bgs encountered during the drilling of adjacent well MW-19D. A 6-inch diameter borehole was advanced using dual rotary air drilling methods. Weathered bedrock was encountered at approximately 31 feet bgs, and competent bedrock was encountered at approximately 41 ft bgs. Drilling continued and 6-inch diameter steel casing was advanced to approximately 53.5 ft bgs (15.5 ft into competent rock) to prevent collapse of the overburden.

Following installation of the casing, a 6-inch diameter borehole was drilled to 115 ft bgs and the well was installed. MW-19B was screened from 105-115 ft bgs with 10 ft of 2-inch diameter 10-slot Schedule 40 PVC screen, followed by 2-inch diameter Schedule 40 PVC riser from 105 ft bgs to near ground surface. The screen was filter packed with #2 sand from the bottom to approximately 1 to 2 ft above top of screen. A 1 to 2 ft layer of fine #00 sand was then placed above the filter pack to minimize penetration of the grout seal. The annular space was then sealed using a cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing and the inner PVC casing was secured with a gripper plug and lock.

### **MW-20B**

Bedrock monitoring well MW-20B was installed approximately 300 ft northeast of and upgradient from the former dry well location. This well was installed to monitor a fracture zone from 105 to 107 ft bgs encountered during the drilling of adjacent well MW-20D. A 6-inch diameter borehole was advanced using dual rotary air drilling methods. Weathered bedrock was encountered at approximately 32 feet bgs, and competent bedrock rock was encountered at approximately 44 ft bgs. Drilling continued and 6-inch diameter steel casing was advanced to approximately 57 ft bgs (13 ft into competent rock) to prevent collapse of the overburden.

Following installation of the casing, a 6-inch diameter borehole was drilled to 113 ft bgs and the well was installed. MW-20B was screened from 103-113 ft bgs with 10 ft of 2-inch diameter 10-slot Schedule 40 PVC screen, followed by 2-inch diameter Schedule 40 PVC riser from 103 ft bgs to near ground surface. The screen was filter packed and the well sealed and completed as a flush mount using the same procedures and construction described above for well MW-19B.

### **MW-23D**

Bedrock monitoring well MW-23D was installed approximately 70 ft west-northwest of the former dry well location and approximately 100 ft northwest of well MW-19A. As noted above, this well was installed to investigate VOC concentrations in groundwater down-dip of MW-19A. A 6-inch diameter borehole was advanced using dual rotary air drilling methods. Weathered bedrock was encountered at approximately 34 feet bgs, and competent bedrock rock was encountered at approximately 40 ft bgs. Drilling continued and 6-inch diameter steel casing was advanced to approximately 57 ft bgs (17 ft into competent rock) to prevent collapse of the overburden.

Following installation of the casing, a 6-inch diameter borehole was drilled to 100 ft bgs and the borehole was developed via air displacement to reduce fines and prepare for geophysical logging. The borehole was geophysically logged following development. Based on an evaluation of the borehole geophysical logs, selected intervals were packer tested to assess TCE concentrations in the groundwater. The well screen interval was then selected based on the packer testing data, the geophysical logs, and observations recorded during drilling.

Monitoring well MW-23D was screened from 95-100 ft bgs with 5 ft of 2-inch diameter 20-slot continuous wire-wrapped stainless steel screen, followed by 2-inch diameter Schedule 40 PVC riser from 95 ft bgs to near ground surface. The screen was filter packed with #2 sand from the bottom to approximately 1 to 2 ft above top of screen. A 1 to 2 ft thick layer of fine #00 sand was then placed above the filter pack to minimize penetration of the grout seal. The annular space was then sealed using a cement grout that was tremie-piped from the top of the filter pack to near surface. The well was completed with a flush mount protective steel casing and the inner PVC casing was secured with a gripper plug and lock.

### **MW-7DB**

Bedrock monitoring well MW-7DB was installed approximately 160 ft southwest of the former dry well location. A 6-inch diameter borehole was advanced using dual rotary air drilling methods. Weathered bedrock was encountered between approximately 30 to 35 feet bgs, and competent bedrock rock was encountered at approximately 45 ft bgs. Drilling continued and 6-inch diameter steel casing was advanced to approximately 55 ft bgs (at least 10 ft into competent rock) to prevent collapse of the overburden.

Following installation of the casing, a 6-inch diameter borehole was drilled to 300 ft bgs and the borehole was developed via air displacement to reduce fines and prepare for geophysical logging. The borehole was geophysically logged following development. Based on an evaluation of the borehole geophysical logs, selected intervals were packer tested to assess TCE concentrations in the groundwater. The well screen interval was then selected based on the packer testing data, the geophysical logs, and observations recorded during drilling.

Prior to constructing the well, the open borehole beneath the selected screen interval was sealed from the bottom up by tremie-grouting with cement grout (from 300 to 280 ft bgs). The well was installed following curing of the grout. Well MW-7DB was screened from 273-278 ft bgs with 5 ft of 2-inch diameter 20-slot continuous wire-wrapped stainless steel screen, followed by 2-inch diameter Schedule 40 PVC riser from 273 ft bgs to near ground surface. The screen was gravel packed and

the well sealed and completed as a flush mount using the same procedures and construction described above for well MW-23D.

### **MW-19DB**

Bedrock monitoring well MW-19DB was installed approximately 105 ft southwest of the former dry well location. A 6-inch diameter borehole was advanced using dual rotary air drilling methods. Weathered bedrock was encountered at approximately 31 feet bgs, and competent bedrock rock was encountered at approximately 38 ft bgs. Drilling continued and 6-inch diameter steel casing was advanced to approximately 47 ft bgs (9 ft into competent rock) to prevent collapse of the overburden.

Following installation of the casing, the borehole was advanced via NQ (wire-line) rock coring from 47 to 300 ft bgs. A qualified field geologist inspected and described the recovered rock cores and logged pertinent hydrogeologic information. Rock core logging procedures are discussed in Section 5.2.3.

Following completion of rock coring, the rock core hole was reamed to 6-inch diameter and the borehole was developed via air displacement to reduce fines and prepare for geophysical logging. The borehole was geophysically logged following development. Based on an evaluation of the borehole geophysical logs, selected intervals were packer tested to assess TCE concentrations in the groundwater. The well screen interval was then selected based on the packer testing data, the geophysical logs, and observations recorded during drilling.

Monitoring well MW-19DB was screened from 295-300 ft bgs with 5 ft of 2-inch diameter 20-slot continuous wire-wrapped stainless steel screen, followed by 2-inch diameter Schedule 40 PVC riser from 295 ft bgs to near ground surface. The screen was gravel packed and the well sealed and completed as a flush mount using the same procedures and construction described above for well MW-23D.

### **MW-21DB**

Bedrock monitoring well MW-21DB was installed approximately 500 ft south of the former dry well location. A 6-inch diameter borehole was advanced using dual rotary air drilling methods. Weathered bedrock was encountered at approximately 36 feet bgs, and competent bedrock rock was encountered at approximately 60 ft bgs. Drilling continued and 6-inch diameter steel casing was advanced to approximately 57 ft bgs (17 ft into competent rock) to prevent collapse of the overburden.

Following installation of the casing, the borehole was advanced via NQ (wire-line) rock coring from 59 to 300 ft bgs. A qualified field geologist inspected and described the recovered rock cores and logged pertinent hydrogeologic information. Rock core logging procedures are discussed in Section 5.2.3.

Following completion of rock coring, the steel casing was advanced further to approximately 77 ft bgs due to the fractured condition of bedrock in the upper hole. The borehole was then reamed to 6-inch diameter and developed via air displacement to reduce fines and prepare for geophysical logging. The borehole was geophysically logged following development. Based on an evaluation of the borehole geophysical logs, selected intervals were packer tested to assess TCE concentrations in the groundwater. The well screen interval was then selected based on the packer testing data, the geophysical logs, and observations recorded during drilling.

Prior to constructing the well, the open borehole beneath the selected screen interval was sealed from the bottom up by tremie-grouting with cement grout (from 300-256 ft bgs). The well was installed following curing of the grout. Well MW-21DB was screened from 250-255 ft bgs with 5 ft of 2-inch diameter 20-slot continuous wire-wrapped stainless steel screen, followed by 2-inch diameter Schedule 40 PVC riser from 250 ft bgs to near ground surface. The screen was gravel packed and the well sealed and completed as a flush mount using the same procedures and construction described above for well MW-23D.

### **5.2.3 Bedrock Coring**

Rock coring was conducted in deep bedrock wells MW-19DB (from 47 to 300 ft bgs) and MW21DB (from 59 to 300 ft bgs) to assess bedrock geology and the distribution of fractures, partings, and other separations in the rock that might conduct groundwater. Coring was performed using NQ (2-inch diameter) core barrels using a wire-line system to retrieve the inner core barrel. Rock core logs for MW-19DB and MW-21DB are provided in Appendix C. The structural integrity of the bedrock was evaluated by calculating the Rock Quality Designation (RQD) of the recovered core runs. The RQD is calculated by adding the total lengths of all core pieces exceeding four inches in a coring run and dividing by the total length of the coring run to obtain a percentage. Only natural breaks in the cores are counted toward the RQD; drilling-induced breaks and mechanical breaks due to core handling are disregarded. Highly fractured bedrock core runs have low RQD values; conversely, competent bedrock core runs have high RQD values. RQD values and rock core descriptions were used to help select packer testing intervals for wells MW-19DB and MW-21DB (discussed in Section 5.2.5).

### **5.2.4 Borehole Geophysical Logging**

Borehole geophysical logging was conducted in bedrock wells MW-7DB, MW-19DB, MW-21DB and MW-23D to assess bedrock geology and hydrogeology beneath the site. Geophysical logs were used to identify and select appropriate fracture intervals for packer sampling and to obtain in-well flow data. Geophysical logging was conducted from August 29, 2005 to August 31, 2005 by Appalachian Geophysical Surveys of Apollo, Pennsylvania. The wells were also video logged to provide direct observation of borehole conditions such as the location and extent of fractures encountered during drilling. Copies of the geophysical logs and a transcription of observations from the video logs are provided in Appendix D.

The geophysical logging tools were lowered down hole on a wire cable following video logging of a borehole. Final results were provided on strip charts which display up to three logging read-outs side by side with respect to borehole depth. Field copies of individual logs were immediately available for use in selecting packer sampling depth intervals.

The types of geophysical logging performed on the above bedrock monitoring wells included, conventional geophysical logs, such as caliper, natural gamma ray, resistivity, temperature, and spontaneous potential, as well as acoustic borehole logs and heat pulse flowmeter logs. The caliper log was the primary geophysical log used to identify apparent fracture zones and select packer sampling depth intervals and packer seating locations in the boreholes. The remaining logs in the suite, particularly the temperature and heat pulse flowmeter logs, were used to better qualify apparent fracture zones indicated on the caliper log. Brief descriptions of the acoustic borehole and heat pulse flowmeter logging methods are provided below.

The acoustic borehole logging tool uses a rotating transducer to transmit and receive high-frequency acoustic pulses. This tool generates a 360-degree scan of the borehole wall and provides high-resolution images of fractures and solution openings. A built-in magnetometer mounted on the tool is used to provide a compass orientation of the features identified on the log. This log is used to characterize fractures and solution openings and provide strike and dip of fractures and bedding planes. Attitudes reported using acoustic borehole logging required correction for magnetic declination prior to interpretation.

The heat pulse flowmeter tool provides direct measurements of both the vertical direction and rate of flow in an open borehole. When situated at the selected depth, the tool generates a pulse or slug of heat by discharging a capacitor. As the heat moves with the flow of water in the borehole, the time required for the heat to reach the tool's sensors is recorded and converted to units of gallons per minute in the appropriate direction. Heat pulse flowmeter test depths were chosen based upon geophysical logging results for a given borehole. Test depth intervals were selected to bracket apparent fracture locations identified on the caliper log. The resulting composite profile of vertical flow in a given borehole is used to assess intervals where water flows into or out of the borehole.

### **5.2.5 Packer Testing**

In September 2005, groundwater samples were collected from selected intervals in the open boreholes of monitoring well locations MW-7DB, MW-19DB, MW-21DB, and MW-23D.

Groundwater samples were collected to assess the extent of VOC concentrations in the bedrock aquifer. Fracture zones were identified for packer testing based on rock core descriptions, geophysical logging results and drilling observations. The selected intervals were isolated using inflatable packers, then purged and sampled. Groundwater samples collected from the intervals were analyzed for TCE. Packer testing intervals are summarized in Table 5-2.

Packer testing and sampling was conducted using an assembly consisting of upper and lower pneumatic packers, separated by a perforated pipe. The packer assembly was suspended within the well using coupled hollow steel riser pipe. A submersible pump was lowered into riser pipe to evacuate water from the packed-off zone of the borehole (i.e., the test zone) for hydraulic and chemical testing purposes; the pump's discharge tube extended up the riser pipe to the surface. During purging, the submersible pump drew water into the well through bedrock fractures in the test zone isolated between the packers and pumped it to the surface. Three pressure transducers were mounted to the assembly to measure water level changes within the test zone, in the borehole above the top packer, and in the borehole below the bottom packer. For test zones at the bottom of the borehole, the bottom packer was not inflated; therefore, the test zone and bottom transducers both responded to pumping. Water level measurements in the test zone were also monitored occasionally through the riser pipe with an electronic water level meter.

The packer assembly was lowered into place at the test intervals and the packers inflated with nitrogen. The well was allowed to equilibrate following inflation of the packers, and then a 1 to 2 gallon slug of distilled deionized water was poured down the riser pipe into the test zone interval to assess the integrity of the packer seal. After water levels recovered from the slug, the submersible pump was lowered into the riser pipe to approximately 2 feet above the top packer. After water levels recovered from setting the pump, the pump was turned on to evacuate the test zone interval. Changes in water levels were measured using the pressure transducers and recorded on a computerized data logger at the surface. The test zone was pumped to remove approximately 3 volumes of water from the isolated interval. Following the removal of 3 volumes from the isolated test zone, a groundwater sample was collected. Water quality measurements (i.e., pH, conductivity, and temperature) were periodically measured and recorded during pumping, but collection of the

groundwater sample was based primarily upon evacuation of multiple test zone volumes, rather than water quality parameter stabilization.

#### **5.2.5.1 Interconnectivity Testing**

To assess the connections between prominent fracture zones beneath the site, interconnectivity testing was performed during packer testing of the open boreholes for MW-7DB, MW-19DB, MW-21DB, and MW-23D. Prior to the start of packer testing, three to four bedrock monitoring wells were selected to function as observation wells. The observation wells were selected to monitor changes in water levels during packer testing that might indicate horizontal and/or vertical hydraulic communication in fracture zones beneath the site. Pressure transducers with built-in computerized data loggers were installed in the selected observation wells to monitor and record changes in water levels during pumping of the packer test well. Data generated during interconnectivity testing were interpreted qualitatively to assess the extent of vertical and horizontal connections between fractures at the site.

#### **5.2.6 Well Development**

Following installation of the overburden and bedrock monitoring wells, the wells were developed to remove silt and other fine particulate material from the well screen and to establish good hydraulic communication with the overburden soil and bedrock formation near the well intake. The completed wells were generally developed by double-pipe air lifting methods until the discharged water was visibly clear of fines. As noted above, the boreholes for wells MW-7DB, MW-19DB, MW-21DB and MW-23D were also developed via air displacement prior to well construction to remove fines from the borehole and facilitate geophysical logging of the wells.

#### **5.2.7 Groundwater Elevation Surveying**

Following completion of monitoring well installation activities, the new wells were surveyed to establish horizontal locations and vertical elevations. The survey was performed on October 17,

2005 by DeMuro Associates, Inc., a New Jersey-licensed surveyor located in Somerville, New Jersey (NJ license number 21866). Horizontal coordinates (Northing and Easting) and vertical elevations of the inner and outer casings (relative to mean sea level) were measured and are provided in Table 5-1. NJDEP Monitoring Well Certification Form B's are presented in Appendix C.

### 5.2.8 Monitoring Well Groundwater Sampling

In September and October 2005, groundwater samples were collected from 36 monitoring wells (32 on-site wells and 4 off-site wells) and submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA +25 plus xylenol, TCL Pesticides, Priority Pollutant (PP) metals including silver, alcohols, hydroquinone, and formaldehyde. A summary of the specific analyses performed during groundwater sampling is provided in Table 4-4. Monitoring well locations are shown on Figure 3-1, and monitoring well construction details are summarized in Table 5-1. Groundwater sampling field record sheets are provided in Appendix E.

Groundwater samples were collected using two purging and sampling methods. The wells were initially sampled using traditional groundwater sampling methods, i.e., volume-averaged purging and sampling. Following the completion of volume-averaged purging and sampling, the wells were sampled again using passive diffusion bag samplers. PDBS were deployed to vertically profile VOC concentrations and to select appropriate sampling locations within the screened interval of the wells. PDBS sampling results will be provided and discussed in a separate report.

As noted during previous investigations, the well identification tags for 2 of the wells located on the adjacent Mastertaste property do not correspond with the well identification shown on historic and current site maps. Mapped wells MW-15A and MW-16A are labeled as MW-16A and MW-17A, respectively, in the field. In accordance with past reports, the monitoring well designations used in this report correspond to the designations used in past reports (i.e., for discussion purposes, these wells are considered to be MW-15A and MW-16A). New well identification tags were received and will be affixed to these wells to correct their designations.

Groundwater sampling using volume-averaged purging and sampling methods are described below. As noted above, PDBS sampling methods will be discussed in a separate report.

#### ***5.2.8.1 Volume-Averaged Purging and Sampling***

Prior to groundwater sampling, synoptic groundwater level measurements were collected from the offsite and onsite monitoring wells to provide data for calculating groundwater elevations.

Groundwater samples were collected using volume-averaged purging and sampling methods from September 23, 2005 to October 13, 2005. Using the depth to water measurements, the volume of standing water within each monitoring well was calculated and a minimum of 3 well volumes were purged using Grundfos variable-speed submersible pumps and dedicated Teflon tubing. The pump intake was set at the top of the water column and lowered as needed during purging to remove stagnant water prior to sampling with a bailer.

Many of the monitoring wells required purging at rates lower than 0.5 gallons per minute to avoid exposing the well screen or pumping the wells to dryness. These wells often exhibited very slow recovery rates and had to be allowed to recover overnight prior to sampling. Consistent with the NJDEP Field Sampling Procedures Manual, the wells were allowed to recover completely and were sampled within 24 hours after purging.

Water quality parameters (i.e., pH, temperature, conductivity, and dissolved oxygen) were measured at regular intervals during volume-averaged purging of the wells. The depth to groundwater and pumping rate were also checked and recorded at regular intervals during purging.

Following the purging of a minimum of 3 well volumes of water, groundwater samples were collected from the wells using dedicated Teflon bailers. For the shallow overburden wells, groundwater samples were generally collected at the top of the water table within the screened interval using single check valve bailers. For the deep overburden wells, groundwater samples were collected within the screened interval near the bottom of the well using double check valve bailers.

For the bedrock wells, existing geophysical logs, well logs, and rock core logs were reviewed to select prominent fracture zones within the screened interval of the wells. Groundwater samples were then collected from the screened interval near the selected fracture zones using either single or double check valve bailers.

### 5.3 ANALYTICAL METHODS

Soil and groundwater samples collected during this investigation were submitted to Integrated Analytical Laboratories (IAL) located in Randolph, New Jersey (NJDEP certification number 14751) for laboratory analysis. Soil and groundwater samples were analyzed using the methods listed in Table 4-4. Samples submitted to IAL for formaldehyde analyses were analyzed by Accutest Laboratories of New England located in Marlborough, Massachusetts (NJDEP certification number MA926), a subcontractor to IAL. As noted in Section 4.2, groundwater samples collected from monitoring wells and submitted to IAL for alcohol analysis were analyzed by Accutest Laboratories of New Jersey located in Dayton, New Jersey (NJDEP certification number 12129).

Soil samples collected for VOC analysis were collected using methods consistent with the NJDEP Methodology for the Field Extraction/Preservation of Soil Samples with Methanol for Volatile Organic Compounds (February 1997). For VOC analysis, approximately 8-12 grams of soil were collected from the interval of interest using a polyethylene syringe that was inserted into the in-situ soil core. The soil was then placed into a methanol-filled glass jar provided by the laboratory. A second jar with no preservatives was then filled with adjacent soil to be used for calculating the percent of soil moisture.

#### 5.3.1 Quality Assurance/Quality Control and Sample Handling

Quality assurance and quality control (QA/QC) samples collected and submitted for laboratory analysis during this investigation include trip blanks, field blanks, and field duplicates.

A trip blank was provided by the laboratory for each sample delivery group. Trip blanks for soil samples consisted of a methanol-filled glass jar provided by the laboratory. Trip blanks for aqueous samples consisted of analyte-free water preserved with hydrochloric acid. These samples were analyzed to assess whether laboratory reagents and containers, transportation conditions, or site conditions resulted in cross-contamination of the field samples. The trip blanks were analyzed for TCL VOCs+10; trip blank analytical results were discussed in Section 4 of this report.

A field blank is not required during soil sampling using the methanol extraction/preservation method; therefore, field/rinsate blank samples were not collected during soil sampling activities. Aqueous field blanks were collected during groundwater sampling activities by passing laboratory-supplied blank water through the field sampling device (e.g., bailer). These samples were primarily analyzed to assess potential contamination from sampling equipment. Field blanks were collected daily during sampling and were analyzed for the same parameters as the groundwater samples collected that day. Analytical results for the field blanks were discussed in Section 4 of this report.

The samples were picked up from field personnel by a laboratory-employed courier for delivery to the laboratory within the prescribed holding time. Samples were packed in coolers to prevent breakage and to keep them cool. Ice packs were used to maintain a temperature of 4°C ( $\pm 2^\circ\text{C}$ ) in the coolers during shipping. A chain-of-custody form accompanied the samples from the time of collection until the laboratory received them, and was signed by parties relinquishing and receiving the samples.

#### **5.4 EQUIPMENT DECONTAMINATION AND INVESTIGATION DERIVED WASTE**

Dedicated disposable equipment was used whenever possible during soil and groundwater sampling activities. Decontamination of non-disposable equipment that contacted soil or groundwater (e.g., Geoprobe sampling rods, drilling rods, packers, and submersible pumps) was performed consistent with procedures in the NJDEP Field Sampling Procedures Manual.

Investigation derived waste included drill cuttings, soil generated during soil sampling, purge water generated during groundwater sampling, and decontamination fluids. Drill cuttings and soil were contained in drums or lined dumpsters and staged onsite for subsequent characterization and disposal by AT&T. Groundwater generated during drilling and well purging activities and decontamination fluids were contained in steel frac tanks and also staged onsite for subsequent characterization and disposal by AT&T.

## 5.5 MONITORING WELL ABANDONMENT

Shallow overburden monitoring well MW-2 was abandoned during this investigation. Previous attempts to measure water levels in MW-2 failed due to a plug of bentonite encountered in the well at approximately 1 ft bgs. During well installation activities, the driller assessed the condition of MW-2 and found that the obstruction could not be removed. Accordingly, a replacement monitoring well (MW-2R) was installed near the obstructed well and monitoring well MW-2 was abandoned. Monitoring well MW-2 was abandoned consistent with NJDEP procedures. The abandonment report for monitoring well MW-2 is provided in Appendix C of this report.

## 6.0 INVESTIGATION FINDINGS – AREAS OF CONCERN

In June and July 2005, soil and groundwater grab samples were collected at 14 AOCs investigated during this supplemental remedial investigation. Following review of preliminary analytical results, additional soil and groundwater samples were collected at 6 of the AOCs in September 2005. Analytical results from the soil and groundwater samples collected at these AOCs and at 6 locations previously sampled by EcolSciences during their Phase II investigation are presented in this section, along with recommendations for no further action (NFA) or proposed further actions, where appropriate. The locations of the AOCs investigated during this investigation are provided on Figure 4-1.

As noted in Section 4 of this report, the supplemental remedial investigation activities are summarized in Table 4-1. A detailed summary of the soil and groundwater samples collected and the parameters analyzed is provided in Table 4-2. Sampling locations at the AOCs and at the locations previously sampled by EcolSciences are indicated on Figures 6-1 to 6-18. Soil and groundwater analytical results for samples collected at the AOCs are summarized in Tables 6-1 through 6-18. Soil boring logs are provided in Appendix C. Analytical data summary sheets for the samples collected during the Supplemental RI are provided in Appendix A. Laboratory chains of custody are also provided in Appendix A.

The results of supplemental remedial investigation activities at the above AOCs are presented and discussed below. A description of each AOC is presented, followed by a summary of supplemental remedial investigation activities, investigation findings, and subsequent recommendations.

### 6.1 AOC 4: NO. 2 DIESEL FUEL 25,000 GALLON UST

#### 6.1.1 Description

Two steel 20,000-gallon No. 2 fuel oil underground storage tanks (USTs; AOC 2 and AOC 3) were removed in 1990 and replaced with a double-walled fiberglass, 25,000-gallon fuel oil UST (AOC 4). NJDEP issued a soils-only No Further Action (NFA) for the two former USTs on July 15, 2004. Prior to completion of the new UST installation, the tank was put into temporary service, resulting in

a release of approximately 944 gallons of No. 2 fuel oil. A recovery system was installed and approximately 796 gallons of product was recovered. Corrective actions were detailed in a Discharge Investigation and Corrective Action Report (DICAR) dated May 1991 prepared by O'Brien and Gere Engineers, Inc.

Subsequent remedial activities conducted in accordance with NJDEP directives included the installation of upgradient and downgradient monitoring wells (MW-8 and MW-5, respectively) near the tank area. Previous analysis of groundwater samples collected from the wells indicated that VOCs and BN compounds related to fuel oil were not reported. In a letter dated July 7, 2004, NJDEP directed that the UST, which was no longer used at the site, be properly removed and remediated. In addition, given that wells MW-8 and MW-5 were not located immediately within the AOC, NJDEP directed AT&T to conduct a groundwater investigation to assess potential impacts to groundwater from the UST.

In January 2005, EcolSciences, Inc. was retained by Clark Developers, LLC to remove the inactive UST. These activities included tank removal, excavation and offsite disposal of petroleum impacted soil, and post-excavation soil sampling to document soil remedial activities in accordance with NJDEP requirements. All post-excavation soil sample results were below applicable NJDEP Soil Cleanup Criteria (SCC). A Remedial Action Report was submitted to NJDEP in May 2005, and a response to NJDEP comments dated May 2005 was provided to NJDEP in July 2005. NJDEP granted a soils-only NFA for AOC 4 in a letter dated May 26, 2004.

### **6.1.2 Summary of RI Activities**

In their March 9, 2005 comment letter, NJDEP required that a groundwater grab sample be collected following removal of the UST from within the former UST location or within 10 ft downgradient. NJDEP indicated that the sample should be analyzed for VOC+10 and BNA+25 compounds. NJDEP also required that groundwater samples be collected from wells MW-8 and MW-5 and analyzed for the same compounds to further evaluate this AOC.

In June 2005, one groundwater grab sample (4GW-3-8) was collected from within the former UST location (Figure 6-1). The groundwater sample was collected using direct-push methods from an interval approximately 3-8 ft bgs in the shallow overburden aquifer and submitted for laboratory analysis of TCL VOC+10 and BNA+25 plus xylenol and hydroquinone.

Groundwater samples were also collected from monitoring wells MW-8 and MW-5 during the September-October 2005 groundwater sampling event. As noted in Section 5 of this report, the monitoring wells were sampled using volume-averaged sampling methods. Groundwater samples collected during volume-averaged sampling methods were submitted for analysis of multiple analytes including TCL VOC+10 and BNA+25 plus xylenol and hydroquinone.

### **6.1.3 Findings**

Analytical results for the groundwater grab sample collected at AOC 4 are summarized in Table 6-1 and shown on Figure 6-1. Results indicate that concentrations of VOCs, BNAs, xylenol, and hydroquinone were not reported above method detection limits in the groundwater grab sample 4GW-3-8. Analytical results from the groundwater samples collected from monitoring wells MW-8 and MW-5 are presented in Section 7 of this report and summarized in Tables 7-4 to 7-6. Results indicate that concentrations of VOCs, BNAs, xylenol, and hydroquinone were not reported above method detection limits in groundwater samples collected from wells MW-8 and MW-5.

### **6.1.4 Recommendations**

Based on the May 2005 Remedial Action Report submitted by EcolSciences, the analytical results from all post-excavation soil samples collected at AOC 4 were below applicable NJDEP SCC. Analytical results for groundwater grab sample 4GW-3-8 collected from within the former UST location indicate that VOCs, BNAs, xylenol, and hydroquinone were not detected in groundwater at AOC 4. Similarly, analytical results for groundwater samples collected upgradient and downgradient of AOC 4 from monitoring wells MW-8 and MW-5, respectively, indicate that no VOCs, BNAs, xylenol, and hydroquinone concentrations were detected. Based on these results, no further action is recommended for this AOC.

## 6.2 AOC 6: SUMPS

### 6.2.1 Description

Historical drawings and interviews with former facility personnel indicate that three interior sumps were located in the building (Sumps S-1, S-2, and S-3). The three sump locations are shown on Figure 4-1. Sump S-1 is a concrete-lined sump located in the north corner of the boiler room that discharged to the sanitary sewer system. Sump S-2 is a concrete-lined sump located in the loading garage that discharged to the storm sewer system. Sump S-3 was an epoxy-coated concrete-lined sump located in the cleaning room. This sump was used for process waste (primarily acidic plating bath influent) and discharged to the former dry well. Sump S-3 was later connected to the sanitary sewer. Historical records indicate that Sump S-3 leaked and that groundwater was observed entering the sump. The sump was subsequently abandoned in place.

To avoid disrupting active operations during SI/RI activities, a variance letter proposing an alternative approach for characterizing AOCs in the building was submitted to NJDEP in July 1997. The alternative approach included collecting shallow groundwater samples from temporary wells located downgradient of the building and biased to sanitary discharge points. The variance was granted by NJDEP in September 1997. Based on this variance, the sumps and other interior AOCs were investigated during the 1997 SI/RI by collecting shallow groundwater grab samples immediately downgradient of the building and biased to sanitary discharge points. Results indicated that TCE concentrations exceeded the Ground Water Quality Standard of 1 µg/L. Since TCE concentrations in groundwater were being addressed site wide, no further action was proposed for the sumps at AOC 6.

NJDEP required additional investigation, however, following the shut down of plant operations. Soil sampling conducted by EcolSciences within the building following the plant shut down indicated that VOC, BN, and PP metals concentrations in soil beneath the building exceeded NJDEP SCC. Accordingly, NJDEP required that AOCs within the building be investigated pursuant to the TRSR 7:26E-3.9.

### 6.2.2 Summary of RI Activities

In May 2005, Sumps S-1 and S-2 were cleaned using a pressure washer and a vacuum truck was used to remove accumulated material prior to visual inspection (Sump S-3 was previously abandoned with concrete and was inaccessible for cleaning and visual inspection). Visual inspection indicated that the sumps were intact and free of structural defects. Photographs of the sumps are provided in Appendix B to document their integrity.

In June and July 2005, soil samples were collected at the three sumps (Figure 6-2 through 6-4). Soil borings were advanced at the three sump locations to groundwater or bedrock refusal, whichever was encountered first. For each sump, one soil sample was collected from the sump area or within 2 ft downgradient of the sump area at a depth corresponding to the highest PID reading or, if PID readings were consistent, near the depth of sump bottom. Soil samples collected from the sumps were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylene and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde.

### 6.2.3 Findings

Analytical results for samples collected at AOC 6 are summarized in Tables 6-2 and 6-3 and shown on Figure 6-4 for Sump S-3. Results indicate that no VOCs, BNAs, pesticides, alcohols, metals, or formaldehyde were detected at concentrations exceeding NJDEP SCC in samples from Sumps S-1 (sample 6A-3.5-4) and S-2 (sample 6B-3.5-4). Elevated PID readings and a petroleum odor were noted during soil sampling at Sump S-3. TCE and cis-1,2-dichloroethylene (cis-1,2-DCE) concentrations in soil collected from location 6C-4-4.5 exceeded the Impact to Groundwater Soil Cleanup Criteria (IGWSCC). The TCE concentration also exceeded the RDCSCC of 23 mg/kg for this compound. No other compounds were reported at concentrations exceeding applicable NJDEP SCC in soil sample 6C-4-4.5.

Based on preliminary analytical results, NJDEP required additional sampling at Sump S-3 to delineate the extent of TCE at location 6C-4-4.5. Accordingly, additional samples were collected in September 2005 to delineate the horizontal and vertical extent of TCE concentrations in the soil and

groundwater near sample location 6C-4-4.5. Four horizontal delineation soil samples were collected from approximately 4-4.5 ft bgs near sample location 6C-4-4.5. One vertical delineation soil sample was collected at sample location 6C-4-4.5 from approximately 7-7.5 ft bgs. In addition, shallow and deep overburden groundwater grab samples were collected from intervals of approximately 11-15.5 ft and 23-25 ft bgs, respectively, at the location of sample 6C-4-4.5. Soil and groundwater samples were submitted for laboratory analysis of TCE.

Analytical results for delineation samples collected near sample location 6C-4-4.5 are summarized in Tables 6-2 and 6-3 and shown on Figure 6-4. Soil analytical results indicate that TCE concentrations were not reported above method detection limits in samples 6C2-4-4.5 and 6C4-4-4.5 located north and south of sample location 6C-4-4.5, respectively. TCE concentrations in the soil exceeded the IGWSCC at 4-4.5 ft bgs in soil samples located immediately south (6C1-4-4.5) and east (6C3-4-4.5) of location 6C-4-4.5. TCE concentrations also exceeded the IGWSCC and RDCSCC at 7-7.5 ft bgs in vertical delineation soil sample 6C-7-7.5. Elevated PID readings and a petroleum odor were also noted during soil sampling at this location. Groundwater analytical results indicate that TCE concentrations exceeded the NJDEP Ground Water Quality Standard (GWQS) in both shallow and deep groundwater near Sump S-3.

#### **6.2.4 Recommendations**

For Sumps S-1 and S-2, soil analytical results collected from the sump areas in 2003 and during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC. Visual inspection of Sumps S-1 and S-2 indicated that the sumps are intact, with no identified breaches. Based on these results, no further action is recommended for Sumps S-1 and S-2.

For Sump S-3, analytical results indicate that TCE concentrations that exceed NJDEP SCC are delineated horizontally north and south of Sump S-3, but TCE concentrations exceed IGWSCC immediately to the east. TCE concentrations are delineated west of Sump S-3 by shallow soil samples collected near EcolSciences sample I-17, where TCE concentrations were not detected above method detection limits (Figure 6-4). Results also indicate that TCE concentrations in groundwater samples collected from the shallow and deep overburden at Sump S-3 exceeded

GWQS. Elevated TCE concentrations in the soil and groundwater at Sump S-3 may be due to the presence of potential source material. It is recommended that soil near Sump S-3 be excavated to remediate potential source material impacting shallow and deep overburden groundwater. Following soil remediation, it is recommended that a monitoring well be installed at this location and screened in the deep overburden to assess and verify TCE concentrations. Impacts to groundwater at AOC 6 Sump S-3 should be addressed as part of the continuing site-wide groundwater remedial investigation.

### 6.3 AOC 7: PITS

#### 6.3.1 Description

Historical drawings and interviews with former facility personnel indicate that three interior pits were located in the building (Pits P-1, P-2, and P-3). The pit locations are shown on Figure 4-1. Pit P-1 is a round steel tank located in the northwest corner of the boiler room that received blowdown from the boilers and discharged to the sanitary sewer. Pit P-2 was a vessel pit used for pressure testing equipment in the Repeater Closure area; the pit is concrete capped and apparently abandoned in place. Pit P-3 was reportedly a transformer pit that was connected to Sump S-1 in the boiler room, which discharged to the sanitary sewer. Pit P-3 was located during this investigation; the pit is concrete capped and apparently abandoned in place.

Pursuant to the variance granted by NJDEP in September 1997, the pits were initially investigated as part of the shallow groundwater investigation conducted downgradient of the building during the 1997 SI/RI, as described in Section 6.2.1 above. NJDEP required additional investigation, however, following the shut down of plant operations. Soil sampling conducted by EcolSciences within the building following the plant shut down indicated that VOC, BN, and PP metals concentrations in soil beneath the building exceeded NJDEP SCC. Accordingly, NJDEP required that AOCs within the building be investigated pursuant to the TRSR 7:26E-3.9.

### 6.3.2 Summary of RI Activities

In May 2005, Pit P-1 was cleaned using a pressure washer and a vacuum truck was used to remove accumulated material prior to visual inspection (Pits P-2 and P-3 were previously abandoned and capped with concrete and were inaccessible for cleaning and visual inspection). Visual inspection indicated that Pit P-1 was intact and free of structural defects. Photographs of Pit P-1 are provided in Appendix B.

In July 2005, soil samples were collected at the three pits (Figures 6-5 and 6-6). Soil borings were advanced at the three pit locations to groundwater or bedrock refusal, whichever was encountered first. For each pit, one soil sample was collected from the pit area from or within 2 ft downgradient of the pit at a depth corresponding to the highest PID reading or, if PID readings were consistent, near the depth of pit bottom. Soil samples collected from the pits were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde.

### 6.3.3 Findings

Analytical results for samples collected at AOC 7 are summarized in Table 6-4. Soil analytical results indicate that VOCs, alcohols, and pesticides were not reported above method detection limits, and BNA, metals, and formaldehyde concentrations did not exceed applicable NJDEP SCC in soil samples from the three pits.

### 6.3.4 Recommendations

Analytical results for soil samples collected from the pit areas in 2003 and during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC. Field inspection of existing Pit P-1 indicated that the pit is intact, with no identified breaches. Based on these results, no further action is recommended for this AOC.

## 6.4 AOC 12: CHEMICAL STORAGE CABINET

### 6.4.1 Description

An outdoor chemical storage locker at AOC 12 was used as a transfer area and contained two drums and a siphon pump. The drums were enclosed in the chemical storage locker, which had a steel floor and was located on an elevated concrete pad adjacent to the north wall of the building. Material stored in the drums was pumped into the building for use as needed. All material handling was performed by a subcontractor and/or AT&T employees. No staining was observed on the pad during the PA conducted in 1997. The location of AOC 12 is shown on Figure 4-1.

Recent interviews with former AT&T employees indicate that the chemical storage cabinet was installed in 1995-1996 and was used to store d-limonene, which is a biodegradable cleaner. This compound is the main component of orange peel oil and was used by AT&T as an environmentally-friendly alternative in cleaning room operations. A review of NJDEP SCC and GWQS indicates no criteria have been established for d-limonene. Given the above information, AT&T proposed no further action for this AOC in April 2005. In discussions on April 20, 2005, NJDEP required that either a former AT&T employee provide an affidavit regarding storage of d-limonene, or that AT&T collect soil shallow samples adjacent to each side of the concrete pad.

### 6.4.2 Summary of RI Activities

In July 2005, three soil samples were collected at AOC 12 (Figure 6-7). One soil sample was collected northwest of the pad (sample 12A-1.5-2) and two soil samples were collected immediately adjacent to southwest and northeast sides of the concrete pad (samples 12B-1.5-2 and 12C-1.5-2, respectively). Soil borings were advanced at the three sample locations to approximately 2 ft bgs. One soil sample was collected from each boring at a depth corresponding to the highest PID reading or, if PID readings were consistent, at the bottom of the boring. Soil samples collected from AOC 12 were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde.

### **6.4.3 Findings**

Analytical results for samples collected at AOC 12 are summarized in Table 6-5. Soil analytical results indicate that VOCs, alcohols, and pesticides were not reported above method detection limits, and BNA, metals, and formaldehyde concentrations did not exceed applicable NJDEP SCC.

### **6.4.4 Recommendations**

Analytical results for soil samples collected from AOC 12 during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC. Visual observations of the concrete pad during this investigation indicate that the pad is intact. Based on the analytical results, the integrity of the concrete pad, and the lack of staining on the pad, no further action is recommended for this AOC.

## **6.5 AOC-13: FLOOR DRAINS, TRENCHES, OR PIPING**

### **6.5.1 Description**

Floor drains, trenches, and piping currently or formerly existing on site were identified in the combined PA/SI/RI report submitted to NJDEP in December 1997. Several drains have been sealed with cement, including the former cleaning room drain that was piped to the former dry well (the former dry well and associated piping, including the former solvent storage room drain, were excavated and removed in 1989). The former isotope drain connected to the sanitary sewer was removed as part of the cesium remediation project (AOC 20). A drain in the boiler room also received compressor vent discharge from a compressor used for building air control; this drain discharged to the sanitary sewer.

Pursuant to the variance granted by NJDEP in September 1997, the floor drains, trenches or pipes were investigated as part of the shallow groundwater investigation conducted downgradient of the building during the 1997 SI/RI, as described in Section 6.2.1 above. NJDEP required additional investigation, however, following the shut down of plant operations. Soil sampling conducted by

EcolSciences within the building following the plant shut down indicated that VOC, BN, and PP metals concentrations in soil beneath the building exceeded NJDEP SCC. Accordingly, NJDEP required that AOCs within the building be investigated pursuant to the TRSR 7:26E-3.9.

### 6.5.2 Summary of RI Activities

Floor drains, trenches or piping at the facility generally discharge to the sanitary sewer system. Exceptions noted above include the former isotope drain connected to the sanitary sewer that was removed as part of the cesium remediation project (AOC 20) and the former dry well and associated piping (AOC 15). As noted in Section 5 of this report, the sanitary and storm drain pipes were video surveyed to assess pipe integrity and to identify potential breaches for soil sampling and investigation.

Results of the video inspection indicated that most of the storm sewer and sanitary sewer pipes were intact (Appendix B). Breaches were identified in two floor drains in the boiler room that had rusted out on the bottom. One breach was also identified at the junction of a cleanout pipe with the central PVC sanitary sewer pipe located north of the building. Soil sampling was conducted near these identified breaches to assess whether compounds of concern were discharged to the soil at these locations.

In June 2005, soil samples were collected at the above breaches identified during the video inspection (Figure 6-8). One soil sample was collected from each floor drain (samples 13B-2.5-3 and 13C-2.5-3) and one soil sample was collected at the breach in the PVC sanitary sewer pipe (sample 13A-5-5.5). Soil borings were advanced through the bottom of the two floor drains in the boiler room and to the pipe invert depth at the breached sanitary sewer pipe. For the floor drains, soil borings were advanced approximately 3 ft bgs until refusal. One soil sample was collected from beneath each floor drain at a depth corresponding to the highest PID reading or, if PID readings were consistent, at the bottom of the boring. For the breached sanitary sewer pipe, a soil boring was advanced downgradient and adjacent to the pipe to approximately 6 ft bgs (based on field measurements, the pipe invert depth is approximately 5.3 ft bgs). Field screening of the soil indicated slightly elevated PID readings in the top 1-2 feet of the soil core, but this was attributed to

the presence of degraded asphalt recovered in the core. One soil sample was collected from the pipe invert depth to assess potential impacts due to discharge from the breached pipe.

Soil samples collected at AOC 13 were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde.

### **6.5.3 Findings**

Analytical results for samples collected at AOC 13 are summarized in Table 6-6. Soil analytical results indicate that VOCs, alcohols, and pesticides were not reported above method detection limits, and BNA, metals, and formaldehyde concentrations did not exceed applicable NJDEP SCC.

### **6.5.4 Recommendations**

Analytical results for soil samples collected from AOC 13 during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC. Based on these analytical results, no further action is recommended for this AOC.

## **6.6 AOC-14: STORM SEWER COLLECTION SYSTEM**

### **6.6.1 Description**

Facility drawings indicate that the storm sewer system beneath the building receives discharge from the roof leaders, floor drains in the loading dock area, and possibly the former molding operation area. These storm sewer lines discharge to three catch basins located in front of the building and then to the municipal storm sewer. During the SI/RI conducted in 1997, sediment samples were collected from the three catch basins located in front of the facility and analyzed for PP+40, TPH, and pH. Analytical results indicated that some polynuclear aromatic hydrocarbons (PAHs) and metals exceeded one or more NJDEP SCC and TPH in one sediment sample exceeded 10,000

mg/kg. The catch basins were then cleaned to evaluate integrity. The catch basins were found to be sound and were photographed to demonstrate that no structural defects were observed.

NJDEP subsequently indicated that the catch basin results may not be representative of upstream conditions and required video logging of the upstream storm sewer system to assess whether there were breaches in the piping. NJDEP also required soil sampling at identified breach locations.

### 6.6.2 Summary of RI Activities

As noted in Section 5 of this report, the storm sewer pipes beneath the building were video surveyed to assess pipe integrity and to identify potential breaches for soil sampling. Video logging was conducted in May 2005 and was limited to the storm sewer lines associated with the three catch basins, as these lines run beneath the building and are most likely to be impacted by former operations at the site.

Results of the video inspection indicated that most of the storm sewer pipes were intact (Appendix B). The storm sewer lines beneath the building are constructed mainly of cast iron pipe, but the pipes between the downstream catch basins and the building are composed of reinforced concrete. Three breaches were identified in the concrete storm sewer pipes south of the building in the front lawn near Terminal Avenue (Figure 5-1). The first breach was located on the eastern storm sewer pipe approximately 9 ft upstream from the catch basin where the joint was weathered. The second breach was located on the central storm sewer pipe approximately 23 ft upstream of the catch basin where the joint had separated and tree roots entered the pipe. The third breach was located on the western storm sewer pipe approximately 30 ft upstream of the catch basin. Soil sampling was conducted near these identified breaches to assess whether compounds of concern were discharged to the soil at these locations.

In July 2005, soil samples were collected at the above breaches identified during the video inspection (Figure 6-9). One soil sample was collected from near each pipe breach (samples 14A-4.5-5, 14B-3-3.5, and 14C-3.5-4). Soil borings were advanced downgradient and immediately adjacent to the pipe breach locations. Borings were advanced to approximately 12 ft bgs and groundwater was

encountered at approximately 10.5 ft bgs. One soil sample was collected from each boring at a depth corresponding to the highest PID reading or, if PID readings were consistent, at a depth corresponding to the pipe invert.

Soil samples collected at AOC 14 were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylene and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde.

### 6.6.3 Findings

Analytical results for samples collected at AOC 14 are summarized in Table 6-7 and shown on Figure 6-9. Results indicate that VOCs and alcohols were not reported above method detection limits, and BNA, metals, and formaldehyde concentrations did not exceed applicable NJDEP SCC. Pesticide concentrations also did not exceed method detection limits in the three soil samples collected from AOC 14, but toxaphene (0.159 mg/kg) exceeded the RDCSCC in the field duplicate sample for 14B-3-3.5. Toxaphene was not detected in the initial sample collected at 14B-3-3.5.

Based on preliminary analytical results, NJDEP required additional sampling at location 14B-3-3.5 to confirm and delineate the extent of toxaphene in the soil. In September 2005, five additional soil samples were collected near sample location 14B-3-3.5. Four horizontal delineation soil samples were collected from approximately 3-3.5 ft bgs near sample location 14B-3-3.5. One confirmation soil sample was collected at sample location 14B-3-3.5 from approximately 3-3.5 ft bgs. The additional soil samples were submitted for laboratory analysis of toxaphene.

Analytical results for delineation samples collected near sample location 14B-3-3.5 are summarized in Table 6-7. Soil analytical results indicate that toxaphene concentrations were not reported above method detection limits in the horizontal and confirmation soil samples collected.

#### **6.6.4 Recommendations**

Analytical results for soil samples collected from AOC 14 during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC in samples 14A-4.5-5 and 14C-3.5-4 collected near breaches in two of the storm sewer pipes. At the breach in the central storm sewer pipe, results indicate that only toxaphene was detected above applicable NJDEP SCC in the field duplicate for 14B-3-3.5. Analysis of a confirmation soil sample from location 14B-3-3.5 and of horizontal delineation soil samples collected around this location indicate that toxaphene was not detected above method detection limits. Given that the presence of toxaphene was not confirmed in the soil at this location, and that concentrations of the remaining analytes were not detected in samples from any of the AOC 14 sampling locations, no further action is warranted for this AOC. Nevertheless, AT&T proposes to excavate the soil at location 14B to remove soil that may have been impacted by toxaphene. Soil will be excavated to approximately 3.5 ft bgs within the area bounded by the four horizontal delineation sampling locations (locations 14B2 through 14B5 on Figure 6-9).

#### **6.7 AOC 15: FORMER DRY WELL AND PIPING**

##### **6.7.1 Description**

The area of the former dry well and former drain pipes, located to the north of the main building, contained two drain pipes and one dry well. The former drain pipes originated from the former solvent storage room and metal cleaning and finishing area (Figure 4-1). Based on our analysis, these pipes transferred potential leaks or spills of TCE from either the storage or processing operations to the dry well. The former dry well was constructed of concrete block and was used from approximately 1960 to 1980. In January 1989, the dry well, the two exterior pipe runs, and impacted soils were removed in accordance with NJDEP guidelines. Post-excavation sampling for TPHC, VOCs, PCBs and metals indicated non-detectable compounds or concentrations below the unrestricted NJDEP SCC.

This area was designated as area of concern three in the Memorandum of Agreement (MOA#94-05-03-SP02). Given that initial post-excavation sampling did not include sampling for BNAs and PCBs

along the former PVC drain line, additional sampling was conducted at the former dry well area. During the SI in July 1997, additional soil samples were collected at the former dry well area and associated pipe locations and submitted for analysis of BNAs, PCBs, pesticides, alcohols, and pH. Analytical results indicated that no compounds exceeded the applicable unrestricted NJDEP SCC. Based on these results, no further action was proposed for the piping leading to the former dry well.

During a 1996 groundwater investigation conducted by Roy F. Weston, Inc. (Weston) on behalf of AT&T, additional soil and groundwater grab sampling was conducted at the former dry well area to further delineate the extent of potential source material. Analytical results indicated that TCE concentrations in the soil exceeded IGWSCC (in one soil sample from 21-21.5 ft bgs) but were below RDCSCC in several delineation borings conducted in the former dry well area. No evidence of dense non-aqueous phase liquid (DNAPL) was detected in either the soil or groundwater samples collected at the former dry well area. Results indicated that TCE concentrations in the soil decreased with depth. TCE concentrations in deep overburden groundwater samples exceeded GWQS near the former dry well and decreased downgradient.

Based on a review of the previous investigation results, residual TCE was thought to be present beneath the previously excavated area surrounding the former dry well. As described in Section 2.2.1 above, an expedited sampling program was conducted to define the limits of remediation and to complete site characterization activities near the former dry well. Expedited sampling was conducted “at peril” in June and July 1999 to minimize the impact on Tyco’s proposed building expansion in the area of the former dry well. Based on the results of soil and groundwater delineation sampling, an Interim Remedial Measure (IRM) was conducted in August 1999 to remediate soils at the former dry well area. During the IRM, a 24 ft x 20 ft area of soil beneath the former dry well location was excavated to approximately 29 ft below ground surface (bgs) to top of bedrock to remove and remediate soil containing potential residual product.

In May 2004, groundwater grab samples were collected near the former dry well location for VOCs analysis to provide additional delineation data requested by NJDEP. Analytical results indicated that low TCE concentrations exceeded GWQS downgradient of the former dry well location.

In their March 9, 2005 comment letter, NJDEP required that additional vertical and horizontal delineation samples be collected beneath the building at the former dry well location. Specifically, NJDEP required soil and groundwater grab samples northeast of former sample locations DB-11, DB-1, and DB-3, as well as shallow and deep groundwater grab samples north of DB-10, and southwest of DB-9. Based on discussions with NJDEP on April 20, 2005, soil and groundwater samples to be collected northeast of DB-11, DB-1, and DB-3 were moved to the portion of the former dry well area not removed during the 1999 IRM excavation.

As part of the groundwater investigation conducted under AOC 34 (Groundwater VOC Plume), NJDEP also required groundwater samples at four former sampling locations (DB-1 through DB-4) within the former dry well area. Shallow and deep overburden groundwater samples were to be collected from depth intervals that correspond to previous sampling at these locations (20-23 ft bgs and 25-28 ft bgs) to confirm that source removal at the former dry well area is complete. Results from these groundwater grab samples will be discussed with the investigation results from AOC 15 because they were collected at the former dry well area.

### 6.7.2 Summary of RI Activities

In June and July 2005, a total of 3 soil samples and 17 groundwater grab samples were collected at AOC 15 near the former dry well location. The soil samples were collected from three soil boring locations (15D, 15E, and 15F) ranging from 4 to 5.5 ft bgs. Shallow and deep overburden groundwater samples were collected from nine locations near the former dry well (sampling locations 15A, 15C through 15F, and 34A through 34D). Groundwater grab samples were collected using either direct-push screen points or temporary wells. Shallow groundwater samples were collected at depth intervals ranging from 11 to 23 ft bgs. Deep overburden groundwater samples were collected at the top of weathered bedrock. A deep groundwater grab sample was not collected at location 15A northwest of the former dry well location due to persistent refusal at approximately 20 ft bgs. Soil and groundwater samples collected from these locations were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde. The sampling locations are shown on Figure 6-10.

### 6.7.3 Findings

As shown on Figure 6-10, sampling was conducted near the former dry well; however, samples were inadvertently not collected at the locations specified by the NJDEP during discussions in April 2005. The dry well and associated piping were excavated and removed from the site in 1989, and a new addition was constructed over the former dry well location in 1999. Sampling locations were selected using existing building features and older drawings depicting the proposed building addition. Following completion of the field work, review of a new survey of the property indicated that the sampling locations were situated further west of the former dry well location (approximately 13 ft further west). Although the sampling locations are marginally off set from the former dry well location, most of the samples provide data that meet the objectives of the investigation, as discussed below.

#### 6.7.3.1 Soil

Analytical results for soil samples collected at AOC 15 are summarized in Table 6-8 and shown on Figure 6-10. Soil analytical results indicate that concentrations of VOCs, BNAs, alcohols, pesticides, metals, and formaldehyde did not exceed applicable NJDEP SCC in the three soil samples collected. Boring locations 15D and 15F are located near the approximate edge of the excavated area around the former dry well (west and south of the former dry well, respectively) and boring location 15E is located within the excavated area southwest of the former dry well. Soil descriptions indicate that the borings were installed within backfill material placed within the excavation around the former dry well location (Figure 6-10).

#### 6.7.3.2 Groundwater

Groundwater analytical results are summarized in Tables 6-8 and Table 6-10 and shown on Figure 6-10. Results indicate that concentrations of BNAs, alcohols, pesticides, and formaldehyde were either not detected or did not exceed applicable GWQS in groundwater samples collected from the shallow and deep overburden aquifers.

Metals concentrations exceeded the GWQS in both shallow and deep groundwater grab samples collected at AOC 15 and AOC 34. As explained in Section 4.2 of this report, some of the groundwater grab samples contained varying levels of sediment, which affected the analytical results for metals. This included groundwater samples collected at the former dry well location, where screen points and temporary wells in the shallow and deep overburden aquifers provided limited water and purging prior to sampling did not reduce turbidity. Therefore, the concentrations of metals reported in the groundwater grab samples collected at the former dry well area are considered to be biased high due to leaching of metals from sediment collected with the acid-preserved samples.

Analytical results indicate VOC concentrations (mainly TCE) exceeded GWQS in shallow and deep overburden groundwater samples collected at the former dry well area. For the shallow overburden, TCE concentrations exceeded the GWQS in samples collected at locations 34A, 34B, 34C, and 34D (all collected from 20-23 ft bgs interval) and at location 15C (16-20 ft bgs interval). The concentration of vinyl chloride also exceeded GWQS in the shallow overburden groundwater sample from location 34B (20-23 ft bgs interval). The highest TCE concentration in the shallow overburden groundwater samples was reported at location 34C (514 µg/L) located immediately south of the former dry well location. VOC concentrations were not detected or did not exceed GWQS in shallow overburden groundwater samples collected at location 15A northwest of the former dry well or at locations 15D, 15E, and 15F in the former dry well area (Table 6-9 and Figure 6-10).

TCE concentrations exceeded the GWQS in most of the deep overburden groundwater samples collected at the former dry well area (Tables 6-9 and 6-10; Figure 6-10). The highest TCE concentrations in the deep overburden groundwater were reported in samples collected at locations 34B (9790 µg/L), 15C (9520 µg/L), and 34C (568 µg/L). These sampling locations are situated generally south of the former dry well area in the downgradient direction.

### **6.7.3.3 Additional Groundwater Delineation**

Based on preliminary analytical results, additional groundwater grab samples were collected in September 2005 to further delineate TCE impacts to groundwater near the former dry well area (Figure 6-11). Groundwater grab samples were collected at location 15B to the northwest and at

locations 34E, 34F, and 34G located northeast, east, and southeast, respectively, of the former dry well. Additional groundwater grab samples were also collected in September 2005 at AOC 6 Sump S-3 (sample location 6C), AOC 33 (Former Solvent Storage Room, sample location 33A), and at four Phase II locations previously sampled by EcolSciences (locations I-2A, I-7A, I-13A, and I-17D). Although separate investigations were conducted at these areas of concern, groundwater results from these locations were also used to further delineate TCE-impacted groundwater near the former dry well area. Details regarding the separate investigations conducted at AOC 6, AOC 33, and the Phase II sampling locations are included in Section 6.2, Section 6.13, and Section 6.14, respectively, of this report.

A total of 6 shallow and 9 deep overburden groundwater samples were collected at the locations noted above. Groundwater grab samples were collected using either direct-push screen points or temporary wells. The shallow groundwater samples were collected at depth intervals ranging from 6 to 19 ft bgs. Deep overburden groundwater samples were collected at the top of weathered bedrock (generally from 25 to 28 ft bgs). Shallow samples collected at location I-7A and shallow and deep samples collected at location 33A were analyzed for TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde. The remaining groundwater samples were analyzed for either VOCs or TCE only (samples collected in September 2005 were analyzed for TCE only, except for the deep groundwater sample from 15B which was analyzed for VOCs). The sampling locations are shown on Figure 6-11.

Analytical results for shallow overburden groundwater indicate that TCE concentrations exceeded GWQS in samples collected at locations 6C and I-17A (both collected at 6-8 ft bgs) and at locations I-13A (12-16 ft bgs) and I-2A (9-19 ft bgs). Vinyl chloride concentrations in shallow groundwater exceeded GWQS at locations I-17A, I-13A, I-7A, and I-2A. Cis-1,2-DCE and 1,1,1-trichloroethane (1,1,1-TCA) concentrations also exceeded GWQS in the shallow groundwater sample collected at I-13A. The highest TCE concentration in the shallow groundwater samples was reported at 6C (2,820 µg/L), located adjacent to Sump S-3 at AOC 6. Elevated PID readings and a petroleum odor were also noted during soil boring activities at location 6C. TCE concentrations were not detected in shallow groundwater sampled at 15B located northwest of the former dry well. Similarly, VOC

concentrations were not detected above reporting limits in shallow groundwater sampled at 33A located southeast of the former dry well area (Table 6-11 and Figure 6-11).

Analytical results for deep overburden groundwater indicate that TCE concentrations also exceeded the GWQS in samples collected from locations south and southeast of the former dry well area (Tables 6-11 and 6-3; Figure 6-11). The highest TCE concentrations in the deep overburden groundwater were reported in samples collected at AOC 33 location 33A (11,200 µg/L TCE in groundwater from 28-31 ft bgs) and at AOC 6 location 6C (1,450 µg/L from 23-25 ft bgs). Reported TCE concentrations also exceeded GWQS in deep groundwater samples collected at 34G (152 µg/L) and I-7A (113 µg/L) located south of AOC 33. TCE concentrations were not detected in deep overburden groundwater samples collected at 15B, 34E, and 34F, which are located northwest, northeast, and east of the former dry well area, respectively.

#### 6.7.4 Recommendations

Analytical results for soil samples collected from AOC 15 during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC. Soil sampling locations 15D, 15E, and 15F, however, were inadvertently located west of the former dry well location, as discussed in Section 6.7.3. Therefore, it is recommended that soil samples be collected from the unsaturated zone at locations west of the former dry well in the portion not removed during the 1999 IRM excavation, as requested by NJDEP.

Results indicate that shallow overburden groundwater is impacted by TCE in the southern portion of the former dry well area and downgradient to the south-southeast. TCE concentrations in the shallow overburden groundwater are delineated to the north at 15B, to the northeast and east at locations 15D, 15E, and 15F, and to the southeast at location 33A, where TCE was not detected above the reporting limit. TCE concentrations are highest immediately south of the dry well and decrease to low levels downgradient at I-17A (2.62 µg/L). Given that shallow groundwater is not impacted at 33A and that TCE was not detected in soil samples collected near I-2A, the source of elevated TCE concentrations in shallow overburden groundwater at I-2A is uncertain. It is

recommended that additional soil sampling be conducted near I-2A to identify the source of the TCE impacts to groundwater.

Deep overburden groundwater is impacted by TCE in the former dry well area and to the south and southeast. TCE concentrations in the deep overburden groundwater at the former dry well area are delineated to the north at 15B and to the northeast at 34E. The highest TCE concentration in the deep overburden was reported in the sample collected at 33A (11,200 µg/L). It is recommended that a monitoring well be installed at this location and screened in the deep overburden to assess and verify TCE concentrations.

Elevated TCE concentrations in shallow overburden groundwater at I-13A and shallow and deep overburden groundwater at 6C appear to be due to the presence of potential source material at AOC 6 Sump S-3, rather than a release from the former dry well. It is recommended that soil near Sump S-3 be excavated to remediate potential source material impacting shallow and deep overburden groundwater at AOC 6 and I-13A. Following soil remediation, it is recommended that a monitoring well be installed at this location and screened in the deep overburden to assess and verify TCE concentrations.

Concentrations of TCE are close to or exceed 1% of the aqueous solubility in deep overburden groundwater samples collected at AOC 33 location 33A (11,200 µg/L) and at locations 34B (9,790 µg/L) and 15C (9,520 µg/L) near the former dry well area. This suggests that residual product may be present in the deep overburden at the top of bedrock in these areas. It is recommended that source zone treatment be conducted to remediate these areas.

## **6.8 AOC 18: UNDERGROUND PIPING, INCLUDING INDUSTRIAL PROCESS SEWERS, PROCESS AREA SINKS, AND PIPING WHICH RECEIVED PROCESS WASTE**

### **6.8.1 Description**

Sanitary and former process wastewater was directed to the municipal sanitary sewer system via sewer lines beneath the facility building. Sewer lines from the facility building discharge to the trunk

line beneath Terminal Avenue, which conveys wastewater to the Rahway Valley Sewage Authority publicly-owned treatment works (POTW). The facility had no direct discharges to groundwater or surface water. Several process sinks were located in the building; the sinks also discharged to the sanitary sewer.

Three main sewer lines are located beneath the building. Two sewer lines exit the front of the building and run to the sewer main under Terminal Avenue. The third sewer line exits the rear of the building and runs around the west side of the building toward Terminal Avenue.

The third sewer line was installed in 1995 after a portion of the sewer piping and cesium-impacted soil beneath the building was remediated. In 1992, trace amounts of cesium-137 were discovered in sewer pipe sludge during a routine internal inspection. In 1994, AT&T conducted a cesium remediation under the direction of the Nuclear Regulatory Commission (NRC) and NJDEP Radioactive Materials Section and identified a breached section of the central sewer line beneath the building. Five soil samples were subsequently collected to assess potential cesium impacts to the underlying soil. Approximately 180 feet of sewer pipe, including sections of pipe containing cesium-137 and surrounding soil, were removed and the remaining pipe (approximately 220 feet) was capped and left in place.

Based on the remediation conducted, no further action was proposed for the cesium release. In a letter dated June 30, 1997, the NRC indicated “no further concerns in this matter” regarding the cesium issue. In their letter dated March 9, 2005, NJDEP granted the request for No Further Action on the condition that, if left in place, the remaining capped piping and cesium-137 concentrations in the soil should be included in a deed notice for the site. NJDEP’s letter confirmed that the NJDEP Bureau of Environmental Radiation concurred with the NRC conclusion that the capped sewer pipe impacted by cesium-137 meets the unrestricted use criteria; consequently, AT&T believes that inclusion of the piping and associated cesium-137 concentrations in the soil in a deed notice is not warranted. The cesium release is being addressed as a separate AOC (AOC 20 Release of Cesium-137 to Soil) and no field activities were performed at AOC 20 during this investigation.

Pursuant to the variance granted by NJDEP in September 1997, the remaining sanitary sewers beneath the building were investigated as part of the shallow groundwater investigation conducted downgradient of the building during the 1997 SI/RI, as described in Section 6.2.1 above. NJDEP subsequently required additional investigation, however, following the shut down of plant operations. Soil sampling conducted by EcolSciences within the building following the plant shut down indicated that VOC, BN, and PP metals concentrations in soil beneath the building exceeded NJDEP SCC. Accordingly, NJDEP required that AOCs within the building be investigated pursuant to the TRSR 7:26E-3.9.

### **6.8.2 Summary of RI Activities**

As noted in Section 5 of this report, the sanitary sewer pipes were video surveyed to assess pipe integrity and to identify potential breaches for soil sampling and investigation. Detailed discussion of the video inspection and cleaning of the sanitary sewer system is provided in Section 5.1.1 of this report.

### **6.8.3 Findings**

Results of the video inspection indicated that most of the sanitary sewer pipes were intact (Appendix B). Only three breaches in sanitary piping or associated drains were identified during the video inspection. Floor drains in the boiler room discharge to the sanitary sewer; two of the boiler room floor drains were observed to be rusted through on the bottom. One breach was also identified in the PVC sewer piping of the central sanitary pipe located north of the building. Soil sampling activities at these locations were addressed under AOC 13 (Floor Drains, Trenches or Piping) and are described in Section 6.5.2 of this report.

### **6.8.4 Recommendations**

As noted in Section 6.5.3 of this report, soil analytical results indicate that VOCs, alcohols, and pesticides were not reported above method detection limits, and BNA, metals, and formaldehyde concentrations did not exceed applicable NJDEP SCC in soil samples collected at the sanitary sewer

breaches. Based on these analytical results, and the results of the video inspection indicating that most of the sanitary sewer pipes were intact, no further action is recommended for AOC 18.

## 6.9 AOC 19: NON-CONTACT COOLING WATER

### 6.9.1 Description

The non-contact cooling tower area is located near the west side of the facility building (Figure 4-1). The cooling towers were set on a concrete pad. The cooling tower pad is bordered to the north by a concrete-lined pipe chase set below grade and to the east by extended concrete pad. Two concrete walls approximately 4 feet tall are constructed on the east and west sides of the pad and were used to support cooling tower piping and utility conduits. Gravel-covered open areas abut the west side of the pad beyond the wall and the south edge of the pad.

During facility operations, most of the non-contact cooling water evaporated, but cooling tower blowdown water would occasionally discharge to the sanitary sewer. The non-contact cooling water contained water treatment chemicals. Because the non-contact cooling water was discharged to the sanitary sewer, and the sanitary sewer was being investigated as a separate AOC, no further action was originally proposed for this AOC.

In their March 9, 2005 comment letter, NJDEP indicated that the area surrounding the cooling tower pad is gravel covered and may have been impacted by runoff from the pad. Therefore, NJDEP required that soil samples be collected from the open sides of the pad. Based on discussions with NJDEP on April 20, 2005, soil samples were to be submitted for analysis of VOC+10, acid extractables (AE+15), molybdenum, chloride, and pH.

### 6.9.2 Summary of RI Activities

In July 2005, two soil samples were collected at AOC 19 from the gravel-covered open sides of the pad (Figure 6-12). Samples were collected manually using a hand auger due to limited access for the Geoprobe rig in this area. Sampling was biased toward likely areas for runoff drainage from the pad;

however, the pad is relatively level, with no dominant drainage direction. Soil borings were advanced via hand auger approximately 1.5-2 ft bgs. One shallow soil sample was collected from each boring at a depth corresponding to the highest PID reading or, if PID readings were consistent, at the bottom of the boring.

One soil sample was collected adjacent to the west side of the concrete pad (samples 19A-1-1.5). This sample was biased toward the northwest corner of the pad near the gas house; however, buried gas utility lines in that area limited access for soil sampling. The second soil sample (19B-1-1.5) was collected near the south side of the pad. This sample was collected approximately 7-8 ft south of the pad due to an asphalt surface encountered beneath the gravel.

Soil samples collected from AOC 19 were submitted for laboratory analysis of TCL VOC+10, AE+15, molybdenum, chloride, and pH. Following completion of sampling, soil pH was measured in the borings using a Turf-Tec soil pH meter.

### 6.9.3 Findings

Analytical results for samples collected at AOC 19 are summarized in Table 6-12. Soil analytical results indicate that VOCs, AEs, molybdenum, and chloride concentrations did not exceed applicable NJDEP SCC in the two soil samples collected. Soil pH measurements recorded in the field from sample locations 19A-1-1.5 and 19B-1-1.5 (6.8 and 6.7, respectively) are lower than pH measurements reported by the laboratory (8.03 and 7.47, respectively). Given that the analytical method used by the laboratory (SW-846 Method 9045) recommends measurement of pH as soon as possible, the field measurements of pH are considered to be more accurate for the purpose of this investigation. Based on information provided on the NJDEP iMapNJ DEP web site and by the National Resource Conservation Service, the soil type underlying AOC 19 is Urban Land and no pH data are available for this soil type. The soil type immediately north of AOC 19 is identified as the Haledon-Urban land-Hasbrouck complex. The pH of this soil type ranges from approximately 5.1 to 6.5 at a soil depth of 9 inches to 28 inches bgs, which includes the depth interval from which the soil samples were collected at AOC 19. Field measurements of pH in the soil borings at AOC 19 are similar to the pH of the Haledon-Urban land-Hasbrouck complex.

#### **6.9.4 Recommendations**

Analytical results for soil samples collected from AOC 19 during this investigation indicate that no analyte concentrations exceeded applicable NJDEP SCC. Visual observations of the concrete pad during this investigation indicate that the pad is intact. Field measurements of pH in the soil borings indicate that the soil pH is close to neutral and is very similar to the pH data provided for the soil type located immediately north of AOC 19. This suggests that the soil pH at AOC 19 has not been impacted. Based on these analytical results and observations, no further action is recommended for this AOC.

#### **6.10 AOC 24: DISCHARGE TO LIFT STATION**

##### **6.10.1 Description**

During the August 1995 facility sewer reroute project, a lift station was installed on the sewer line near the west side of the facility building (Figure 4-1). The lift station was placed into operation after successfully passing a local plumbing inspection. One day after the first rainfall following completion of the project, water was observed entering the lift station through a bolted flange at an elevation above the gravity feed pipe. This discovery was reported as a potential release to the environment. Upon re-excavation of the area adjacent to the lift station, pooled rainwater due to surface runoff was determined to be the source of the water. A rubber grommet was placed between the outside wall of the lift station and the flange to prevent water from entering the lift station. Based on these engineering controls, and on NJDEP's review of the response action, no further action was proposed for this AOC in the 1997 PA/SI/RI report.

In their July 7, 2004 comment letter, NJDEP indicated additional investigation was required near the lift station due to the potential for impacts to soil and groundwater. AT&T subsequently proposed to collect one soil and one groundwater grab sample in the area of the former lift station. In their March 9, 2005 comment letter, NJDEP indicated that the proposed sampling was acceptable, and required that the samples be submitted for analysis of PP+40 plus xyleneol, alcohols, formaldehyde, and hydroquinone.

### 6.10.2 Summary of RI Activities

During the storm sewer video inspection in May 2005, the lift station was cleaned using a pressure washer and a vacuum truck was used to remove accumulated material prior to visual inspection. Visual inspection indicated that the lift station was intact and free of structural defects. A photograph of the lift station is provided in Appendix B.

On June 30, 2005, one groundwater grab sample (24AGW-8-10) and one soil sample (24B-11.5-12) were collected at AOC 24 immediately adjacent to the lift station (Figure 6-13). Samples were collected within 2 ft downgradient of the lift station using direct-push methods. The groundwater grab sample was collected using direct-push methods from an interval approximately 8-10 ft bgs in the shallow overburden aquifer. Following collection of the groundwater sample, a soil boring was advanced near the lift station to approximately 12 ft bgs, a depth corresponding to the approximate depth of the bottom of the lift station (11 ft). Groundwater was encountered at approximately 4 ft bgs in the soil boring. Field screening of the soil indicated slightly elevated PID readings in the top 0-0.5 feet of the soil core, but this was attributed to the presence of asphalt near the surface. Subsequent PID readings did not exceed background levels (approximately 0.3 ppm total VOCs); therefore, one soil sample was collected from the bottom of the boring near the bottom of the lift station. Soil and groundwater grab samples collected at the lift station were submitted for laboratory analysis of PP+40 plus xylenol, alcohols, formaldehyde, and hydroquinone.

### 6.10.3 Findings

Analytical results for samples collected at AOC 24 are summarized in Tables 6-13 and 6-14. Soil analytical results indicate that VOCs, BNAs, PCBs, alcohols, pesticides, cyanide, and phenols were not reported above method detection limits, and concentrations of metals and formaldehyde did not exceed applicable NJDEP SCC in soil samples collected at AOC 24. Groundwater analytical results indicate that reported VOC, BNA, and metals concentrations did not exceed NJDEP GWQS and that no other analytes were detected.

#### **6.10.4 Recommendations**

Analytical results for soil samples collected from AOC 24 during this investigation indicate that analyte concentrations in soil and groundwater samples did not exceed applicable NJDEP SCC or GWQS, respectively. Visual observations of the lift station during this investigation indicate that the lift station is intact. Based on these analytical results and observations, no further action is recommended for this AOC.

### **6.11 AOC-30 LOADING TRANSFER AREA**

#### **6.11.1 Description**

The loading dock is located in the northeast corner of the facility building (Figure 4-1). The loading dock is an interior loading and transfer area inside a garage with exterior high-bay doors. Outside the doors are two long narrow drains that receive surface runoff from the loading transfer area. The drains are connected to a concrete-lined sump (Sump S-2) located in the loading garage that discharged to the storm sewer system.

During the PA/SI/RI conducted in 1997, sediment samples were collected from the two catch basins located in front of loading transfer area and analyzed for PP+40. One sediment sample was collected per catch basin. Analytical results indicated that concentrations of some PAHs exceeded the RDCSCC in TPH in both sediment samples from the catch basins. Approximately 0.44 cubic yards of sediment was subsequently removed from the catch basins, and the catch basins were then cleaned to evaluate integrity. Based on the removal of the sediment and the observed good integrity of the catch basins, no further action was proposed for this AOC.

In their July 7, 2004 comment letter, NJDEP required AT&T explain the processes used to determine the catch basin integrity at this AOC. In addition, NJDEP required that the storm sewers be investigated for integrity using video logging. If breaches or cracks were noted, then NJDEP required that sampling be conducted at identified breach locations pursuant to TRSR 7:26E-3.9(d)4.

AT&T subsequently provided the NJDEP with additional information regarding the process used to evaluate the integrity of the catch basins (i.e., the catch basins were cleaned and photo-documented). NJDEP noted that the catch basins were free of structural defects, but still required video inspection of the storm sewer system to verify its integrity. NJDEP also required soil sampling at any pipe breaches identified during the video inspection.

### **6.11.2 Summary of RI Activities**

As noted in Section 5 of this report, the storm sewer pipes beneath the building were video surveyed to assess pipe integrity and to identify potential breaches for soil sampling. Video logging was conducted in May 2005 and included the eastern storm sewer main and lateral connecting pipes that drain the two catch basins and Sump S-2 at the loading transfer area. Video logging of the storm sewer system was addressed under AOC 14 (Storm Sewer Collection System) and is described in Section 6.6 of this report. Cleaning and integrity inspection of Sump S-2 was addressed under AOC 6 (Sumps) and is described in Section 6.2 of this report.

Results of the video inspection indicated that most of the storm sewer pipes were intact (Section 6.6 and Appendix B). Only three breaches were identified in the storm sewer pipes during the video inspection, one of which was located in the eastern storm sewer main south of the building in the front lawn near Terminal Avenue. Soil sample 14A-4.5-5 was collected near this breach location. Soil sampling activities at the breached locations were addressed under AOC 14 (Storm Sewer Collection System) and are described in Section 6.6 of this report.

### **6.11.3 Findings**

No breaches were identified in the storm sewer pipes located in the loading transfer area during the video inspection. Similarly, cleaning and visual inspection of Sump S-2 indicated that the sump is intact and free of structural defects (see Section 6.2 of this report). One soil sample (14A-4.5-5) was collected near the only identified breach on the downstream storm sewer pipes connected to the loading transfer area. As shown in Table 6-7, analytical results for sample 14A-4.5-5 indicate that

VOCs, BNAs, alcohols, and pesticides were not reported above method detection limits, and metals and formaldehyde concentrations did not exceed applicable NJDEP SCC.

#### **6.11.4 Recommendations**

Video inspection of the storm sewer pipes associated with the loading transfer area indicates that they are intact and free of structural defects. The analytical results for soil sample 14A-4.5-5 collected near a breach in the eastern storm sewer line that drains the loading transfer area indicate that no analyte concentrations exceeded applicable NJDEP SCC. In addition, Sump S-2 and the two catch basins in the loading transfer area are intact. Based on these results, no further action is recommended for AOC 30.

### **6.12 AOC-31 BOILER ROOM**

#### **6.12.1 Description**

The boiler room is located in the northwest corner of the facility building (Figure 4-1). The boiler room contains approximately 19 floor drains; one drain received blowdown from the compressor and the other drains were located beneath the boilers and other former equipment. The drains in the boiler room discharged to the sanitary sewer system. The boiler room also contains two pits (Pits P-1 and P-3) and one sump (Sump S-1), which also discharged to the sanitary sewer system.

Pursuant to the variance granted by NJDEP in September 1997, the boiler room drains were initially investigated as part of the shallow groundwater investigation conducted downgradient of the building during the 1997 SI/RI, as described in Section 6.2.1 above. NJDEP required additional investigation, however, following the shut down of plant operations. Soil sampling conducted by EcolSciences within the building following the plant shut down indicated that VOC, BN, and PP metals concentrations in soil beneath the building exceeded NJDEP SCC. Accordingly, NJDEP required that AOCs within the building be investigated pursuant to the TRSR 7:26E-3.9. Specifically, NJDEP required that soil samples be collected in the boiler room and analyzed for VOC +10 and BN+10. If soil concentrations exceed the IGWSCC, then a groundwater investigation would be

required pursuant to TRSR 7:26E-4.4, with groundwater samples analyzed for VOC+10 and BN+10. In addition, NJDEP required that concentrations of 2,6-dinitrotoluene detected in shallow soil at EcolSciences sample location I-33 (located near Sump S-1) be delineated below 4 ft bgs.

### 6.12.2 Summary of RI Activities

The floor drains in the boiler room discharge to the sanitary sewer system. As noted in Section 5, the sanitary sewer pipes were video inspected to assess pipe integrity and to identify potential breaches for soil sampling and investigation. Video logging of the sanitary sewer system was addressed under AOC 13 (Floor Drains, Trenches, or Piping) and is described in Section 6.5 of this report. Video logging was conducted in May 2005 and included the sanitary sewer pipes located in the boiler room. The sewer pipes were cleaned using a pressure washer and a vacuum truck to remove accumulated material prior to video logging. The floor drains were cleaned in the same manner and then visually inspected to assess integrity.

On June 30, 2005, one soil sample (31A-4-4.5) was collected from approximately 4-4.5 ft bgs at a location immediately adjacent to EcolSciences sample location I-33 (Figure 6-14). Sample location I-33 is located within approximately 2 feet of Sump S-1; therefore, sample 31A-4-4.5 was collected from the bottom of soil boring 6A, which was advanced during the investigation of Sump S-1 (supplemental remedial investigation activities associated with Sump S-1 and the two pits in the boiler room are addressed in Section 6.2 and Section 6.3, respectively, of this report). Soil sample 31A-4-4.5 was collected from approximately 4-4.5 ft bgs and submitted for laboratory analysis of 2,6-dinitrotoluene.

### 6.12.3 Findings

Results of the video inspection indicated that most of the sanitary sewer pipes beneath the building are intact (Appendix B). Only three breaches in sanitary piping or associated drains were identified during the video inspection. Two of the breaches were identified in the boiler room, where two floor drains were observed to be rusted through on the bottom. Soil sampling activities at these locations were addressed under AOC 13 (Floor Drains, Trenches or Piping) and are described in Section 6.5.2

of this report. Visual inspection of the remaining floor drains in the boiler room indicated that they were generally intact and free of structural defects. The floor drains were also manually probed using a crow bar during this inspection and were found to be sound. Photographs of the floor drains in the boiler room are provided in Appendix B to document their integrity.

As shown in Table 6-6, soil analytical results indicate that VOCs, alcohols, and pesticides were not reported above method detection limits, and BNA, metals, and formaldehyde concentrations did not exceed applicable NJDEP SCC in soil samples collected at the floor drain breaches. Similarly, concentrations of 2,6-dinitrotoluene in sample 31A-4-4.5 were not reported above the method detection limit (Table 6-15). This is consistent with the results from soil sample 6A-3.5-4, where 2,6-dinitrotoluene was not detected at 3.5-4 ft bgs (Table 6-3). EcolSciences soil sample I-33 was also collected from 3.5-4 ft bgs. Given that samples 31A-4-4.5 and 6A-3.5-4 were collected immediately adjacent to sample location I-33, this indicates that the detection of 2,6-dinitrotoluene at I-33 could not be confirmed.

#### **6.12.4 Recommendations**

Based on the analytical results above, on the results of the video inspection indicating that the sanitary sewer pipes in the boiler room were intact, and on the demonstrated integrity of the remaining floor drains, no further action is recommended for AOC 31.

### **6.13 AOC-33 FORMER SOLVENT STORAGE ROOM**

#### **6.13.1 Description**

The former solvent storage room was located in the northeast corner of the main portion of the facility building (Figure 4-1). The room was used for storage of virgin and spent materials including alcohols, oils, and chlorinated solvents. Removal of the former solvent storage room floor, associated drainage system piping and impacted soil was performed in December 1992 and documented by Rust Environmental and Infrastructure in their March 1997 report. Analytical results for post-excavation soil samples collected in the former solvent room indicated that VOCs and TPH

concentrations were below the unrestricted NJDEP SCC and IGWSCC. Based on these results and the remedial actions conducted, no further action was proposed for this AOC in the 1997 PA/SI/RI report. NJDEP granted a soils-only NFA for AOC 33 on July 15, 2004 and required that groundwater at this AOC be investigated as part of the VOC plume at the site.

During a sub-building investigation in May 2004, a soil boring (GW-9) was advanced in the former solvent storage room to assess potential residual soil impacts. The soil boring was advanced approximately 4 feet and the recovered soil was field screened with a PID to assess total VOCs. A soil sample was not collected from location GW-9 because no VOCs were detected during field PID screening.

In their March 9, 2005 comment letter, NJDEP required that shallow and deep groundwater grab samples be collected at the location GW-9 or somewhere within the former solvent storage room. Based on discussions on April 20, 2005, NJDEP also required that a soil boring be advanced to the water table at or near location GW-9 in the former solvent storage room as part of the groundwater investigation at this AOC. NJDEP indicated that a soil sample should be collected from the unsaturated zone if PID screening of the soil indicated readings above background. Samples collected during this investigation were to be submitted for analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, total metals plus silver, alcohols, and formaldehyde.

### **6.13.2 Summary of RI Activities**

On June 28, 2005, one soil boring was advanced in the former solvent storage room location immediately east of sampling location GW-9 (Figure 6-15). The soil boring was advanced using direct-push methods to approximately 10 ft bgs and groundwater was encountered at approximately 8 ft bgs. Based on PID field screening of the recovered soil, one soil sample was collected from the interval with the highest PID reading (1.2 ppm) from approximately 4-4.5 ft bgs (soil sample 33A-4-4.5).

Following completion of the soil boring, two groundwater grab samples were collected from the same borehole using direct-push screen point methods. One groundwater sample was collected from the shallow overburden aquifer at approximately 10.5-13 ft bgs (sample 33AGW-10.5-13), and one groundwater sample was collected from the deep overburden aquifer at approximately 28-31 ft bgs (sample 33AGW-28-31). The deep groundwater sample was collected following hard refusal at the top of weathered bedrock.

Soil and groundwater grab samples collected from the former solvent storage room were submitted for laboratory analysis of TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, total metals plus silver, alcohols, and formaldehyde.

### 6.13.3 Findings

Analytical results for samples collected at AOC 33 are summarized in Tables 6-16 and 6-11 and shown on Figure 6-15. Soil analytical results indicate that VOCs, alcohols, and pesticides were not reported above method detection limits, and concentrations of BNAs, metals and formaldehyde did not exceed applicable NJDEP SCC.

Groundwater analytical results indicate that VOCs were not detected in the shallow overburden groundwater sample, but TCE concentrations in the deep overburden groundwater sample (11,200 µg/L) exceeded the NJDEP GWQS. The concentrations of other VOC compounds reported in the deep overburden groundwater sample were below NJDEP GWQS. Similarly, BNAs, alcohols, pesticides, and formaldehyde concentrations in the shallow and deep overburden groundwater samples were either not detected or did not exceed their respective GWQS.

The concentration of lead exceeded the GWQS in the shallow groundwater sample and arsenic and beryllium concentrations exceeded the GWQS in the deep groundwater sample. As explained in Section 4.2, some of the groundwater grab samples collected contained varying levels of sediment, which affected the analytical results for metals. This included groundwater samples collected at AOC 33, where screen points in the shallow and deep groundwater aquifers provided limited water and purging prior to sampling did not reduce turbidity. Therefore, it is likely that the concentration

of metals reported in the groundwater grab samples collected at this AOC are biased high due to leaching of metals from sediment collected with the acid-preserved samples.

#### **6.13.4 Recommendations**

Soil analytical results from the former solvent storage room at AOC 33 indicate that no analyte concentrations exceeded applicable NJDEP SCC. Based on these results, and on previous remedial actions and post-excavation sampling conducted at the former solvent storage room, no further action for soil is proposed at this AOC.

Groundwater analytical results indicate that the shallow overburden groundwater is not impacted by VOCs, but the concentration of TCE in the deep overburden groundwater sample collected at the former solvent storage room exceeded the NJDEP GWQS. Given that the soil and shallow overburden groundwater at AOC 33 are not impacted by VOCs, elevated TCE concentrations in the deep overburden groundwater are likely related to releases from the former dry well at AOC 15. The TCE concentration in deep overburden groundwater sampled from 33A exceeded 1% of the aqueous solubility of this compound. This suggests that residual product may be present in the deep overburden at the top of bedrock at AOC 33. It is recommended that TCE impacts to deep overburden groundwater at AOC 33 be addressed as part of the continuing site-wide groundwater remedial investigation. It is further recommended that source zone treatment be conducted to remediate this area. Following source zone treatment, a monitoring well should be installed at this location and screened in the deep overburden to verify the TCE concentration in groundwater.

### **6.14 ADDITIONAL SAMPLING LOCATIONS**

#### **6.14.1 Description**

During Phase II site investigation activities conducted by EcolSciences, Inc. in 2003, some detections of soil and groundwater grab samples that were collected beneath the building interior indicated exceedences above NJDEP soil cleanup criteria or Groundwater Quality Standards. The SI sampling data that was collected by EcolSciences, Inc. was presented in Plate 1 of the Phase II Site

Investigation Report dated November 19, 2003. Based on concentrations of VOCs in samples collected at sampling locations I-1, I-2, I-13, I-17 and I-25, detections of BNAs at I-7 and I-25, and detections of metals at I-10, NJDEP required that additional delineation be conducted at these locations during RI activities. NJDEP's requirements for sampling at these locations were provided in comment letters dated March 9, 2005 and August 5, 2005.

#### 6.14.2 Summary of RI Activities

Additional soil sampling was conducted at the following former SI sampling locations: I-2; I-7; I-10; I-13; I-17; and I-25. Groundwater grab samples were also collected at the I-2, I-13, I-7 and I-17 sampling locations. A sample was not collected at the former I-1 location after clarification was provided to NJDEP that no compounds exceeded criteria in soil samples collected from I-1. The sampling locations are shown on Figures 6-16 through 6-18. A total of 13 soil and 7 groundwater grab samples were collected for analysis of parameters that are summarized on Table 4-2.

#### 6.14.3 Findings

Analytical results for delineation samples collected beneath the building interior at the above locations are summarized in Tables 6-17 and 6-18 and shown on Figures 6-16 and 6-17.

- **I-2:** One vertical and two horizontal delineation soil samples and two groundwater grab samples were collected for analysis of VOCs at the I-2 location. Cis-1,2,-DCE was detected in the two horizontal delineation soil samples at concentrations that exceed the IGWSCC only. VOCs were not detected in the vertical delineation soil sample. Vinyl chloride and TCE were detected at concentrations above GWQS in the shallow groundwater grab sample (9' – 19' depth interval), and only TCE was detected at a concentration above the GWQS in the deeper groundwater sample collected at the top of weathered bedrock, at the 25 to 28 foot depth interval.

- **I-7:** One vertical soil delineation sample and two groundwater grab samples were collected at the former I-7 sampling location. The soil sample was analyzed for BNAs, alcohols, and TCL pesticides. No exceedences were detected in the soil samples. The shallow groundwater sample was analyzed for TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde. The deep groundwater sample was analyzed for TCE. Only vinyl chloride was detected in the shallow groundwater grab sample (6' – 10' depth interval) at a concentration above the GWQS, and TCE was detected at a concentration above the GWQS in the deeper groundwater sample collected at the top of weathered bedrock, at the 24 to 28 foot depth interval.
- **I-10:** One vertical soil delineation sample was collected for analysis of metals, alcohols and pesticides at the I-10 location. No exceedences above current NJDEP SCC were detected at this location.
- **I-13:** Two vertical and two horizontal delineation soil samples ranging from 6 to 14 ft bgs and one shallow groundwater grab sample were collected at the I-13 location. Samples were analyzed for VOCs. The concentration of cis-1,2-DCE exceeded the IGWSCC in one soil sample collected from a depth of 6 to 6.5 feet. No VOC concentrations above the current SCC were detected in the remaining soil samples. Vinyl chloride, cis-1,2-DCE, 1,1,1-TCA, and TCE were detected in the shallow groundwater sample (12-16 ft depth interval) at concentrations above the GWQS. A deeper groundwater grab sample (23' – 25' depth interval) was collected from approximately 10 ft northwest of I-13 near Sump S-3 at AOC 6 and analyzed for TCE (location 6C on Figure 6-4). The concentration of TCE exceeded the GWQS in this deep groundwater sample.
- **I-17:** Three soil samples ranging in depth from 2 to 8 feet, and two groundwater grab samples were collected at the I-17 location. Only cis-1,2,-DCE was detected in the shallowest soil sample collected from the 2 to 2.5 foot depth interval at a concentration above the IGWSCC. Vinyl chloride and TCE were detected in the shallower groundwater grab

sample (6' – 8' depth interval) at a concentration above the GWQS, and only TCE was detected at a concentration above the GWQS in the deeper groundwater sample collected at the top of weathered bedrock, at the 25 to 28 foot depth interval.

- **I-25:** One soil samples was collected from a depth of 8.5 to 9 feet at the I-25 location for analysis of BNAs, alcohols, pesticides and metals. No exceedences were detected.

#### 6.14.4 Recommendations

- **I-2:** Soil analytical results indicate that cis-1,2-DCE concentrations exceed IGWSCC at two horizontal delineation locations immediately north and west of I-2. VOC concentrations were vertically delineated at location I-2A at approximately 5.5-6 ft bgs, which is approximately 4 ft above the water table at this location. Concentrations of cis-1,2-DCE did not exceed GWQS in the shallow overburden groundwater sample, but vinyl chloride concentrations exceeded GWQS in shallow overburden groundwater and TCE concentrations exceeded GWQS in both the shallow and deep overburden groundwater samples collected at I-2A. Given that TCE was not detected in soil samples collected at locations I-2A, I-2B, and I-2C, the source of elevated TCE concentrations in shallow overburden groundwater at I-2A is uncertain. It is recommended that additional soil sampling be conducted near I-2A to complete the horizontal delineation of cis-1,2-DCE concentrations in the soil near I-2 and to identify the source of the TCE impacts to groundwater.
- **I-7:** Soil analytical results from 4-4.5 ft bgs at I-7A indicate that concentrations of BNAs detected in shallow soil at Phase II location I-7 are vertically delineated. Alcohols and pesticides were not detected at sample location I-7A. Given that BNAs were not detected in the shallow overburden groundwater sample collected at I-7A, it is recommended that no further soil investigation be performed at I-7 and that this location be addressed using institutional controls. Groundwater analytical results indicate that the concentration of vinyl chloride exceeded GWQS in the shallow overburden groundwater sample and the concentration of TCE exceeded GWQS in the deep overburden groundwater sample

collected at location I-7A. Concentrations of VOCs did not exceed GWQS in Phase II soil sample I-7. Given that vinyl chloride was detected in shallow overburden groundwater at upgradient Phase II location I-2, it is likely that the vinyl chloride detected in shallow overburden groundwater at I-7A is related. Additional soil sampling was recommended above to identify the source of impacts to groundwater near location I-2A. As shown on Figure 6-11, elevated TCE concentrations were also detected in the deep overburden groundwater at upgradient groundwater grab sampling locations 34G (152 µg/L) and 33A (11,200 µg/L). Source zone treatment was recommended at location 33A to remediate the groundwater. Therefore, it is recommended that VOC impacts to groundwater at location I-7 be addressed as part of the continuing site-wide groundwater remedial investigation.

- **I-13:** Soil analytical results indicate that cis-1,2-DCE concentrations exceeded IGWSCC at horizontal delineation location I-13C situated immediately south of I-13. VOC concentrations were delineated horizontally to the east at I-13B and delineated vertically at location I-13A at approximately 10-10.5 ft bgs. Concentrations of several VOCs exceeded GWQS in the shallow overburden groundwater and the concentration of TCE exceeded GWQS in a deep overburden groundwater sample collected northwest of I-13 at AOC 6 Sump S-3. As noted in Section 6.2.4, elevated TCE concentrations in the soil and groundwater at Sump S-3 may be due to the presence of potential source material. Given the limited VOC concentrations in soil at I-13, it is likely that groundwater at I-13 is impacted by potential source material at Sump S-3, which is located immediately upgradient. Excavation of the soil near Sump S-3 was recommended to remediate potential source material impacting shallow and deep overburden groundwater. Following excavation, a deep overburden monitoring well be installed at AOC 6 to assess and verify TCE concentrations. It is recommended that these activities be performed to remediate overburden groundwater at downgradient location I-13. Regarding the soil, VOC concentrations detected in Phase II shallow soil sample I-13 will be addressed during the excavation of Sump S-3. The soil sample at I-13C impacted by cis-1,2-DCE was collected at approximately 6-6.5 ft bgs, which is just above the water table (encountered at I-13A at approximately 7 ft bgs). Groundwater analytical results indicate that shallow overburden groundwater is impacted by cis-1,2-DCE (1,010 µg/L detected in sample collected from I-13A). Given that the soil sample from I-13C

was collected from moist soil just above the water table, it is likely that the reported cis-1,2-DCE concentrations are due to impacted groundwater infiltrating the soil in the capillary zone. Therefore, it is recommended that no further soil investigation be performed at I-13C and that this location be addressed using institutional controls.

- **I-17:** Soil analytical results indicate that cis-1,2-DCE concentrations exceeded IGWSCC at horizontal delineation location I-17B situated immediately south of I-17. VOC concentrations in the soil were delineated horizontally to the west at I-17C and delineated vertically at location I-17A. Given that cis-1,2-DCE was detected in only one shallow soil sample from approximately 2-2.5 ft bgs and that cis-1,2-DCE was not reported above GWQS in the shallow overburden groundwater sample collected at I-17A, it is recommended that no further soil investigation be performed at I-17 and that this location be addressed using institutional controls. In the groundwater, concentrations of cis-1,2-DCE did not exceed GWQS in the shallow overburden groundwater sample, but vinyl chloride concentrations exceeded GWQS in shallow overburden groundwater and TCE concentrations exceeded GWQS in both the shallow and deep overburden groundwater samples (collected at I-17A and I-17D, respectively). It is recommended that VOC impacts to groundwater at location I-17 be addressed as part of the continuing site-wide groundwater remedial investigation.
- **I-10:** Soil analytical results from 2.5-3 ft bgs at I-10A indicate that concentrations of metals detected in shallow soil at Phase II location I-10 are vertically delineated and that alcohols and pesticides were not detected. Therefore, it is recommended that no further investigation be performed at I-10 and that this location be addressed using institutional controls.
- **I-25:** Soil analytical results from 8.5-9 ft bgs at I-25A indicate that concentrations of BNAs and metals detected in shallow soil at Phase II location I-25 are vertically delineated and that alcohols and pesticides were not detected. Therefore, it is recommended that no further investigation be performed at I-25 and that this location be addressed using institutional controls.

## 7.0 INVESTIGATION FINDINGS – GROUNDWATER (AOC 34)

Supplemental groundwater investigation activities were conducted from June to October 2005. Site-wide groundwater investigation activities conducted at the site included the installation of 12 monitoring wells (3 shallow overburden wells, 3 deep overburden wells, and 6 bedrock wells) and assessment of the bedrock aquifer via rock coring, geophysical logging, and packer testing of selected bedrock boreholes. Following installation and development of the monitoring wells, groundwater samples were collected from the onsite and offsite monitoring wells using volume-averaged purging and sampling methods and PDBS sampling methods (as previously indicated, PDBS sampling results will be presented in a separate report).

The results of supplemental groundwater investigation activities at the site are presented and discussed below. The findings from the monitoring well installation program are discussed in the context of the site-specific geology and groundwater flow. This is followed by a discussion of the groundwater analytical results.

### 7.1 PHYSICAL SETTING

#### 7.1.1 Geology

A summary of site geology is provided below, with additional information generated during the monitoring well installation program. Monitoring well locations are shown on Figure 3-1. Monitoring well logs with well construction details and rock core logs, are provided in Appendix C, along with well completion reports and survey data (NJDEP Form B) for the newly installed wells. Borehole geophysical logs and video log observations are included in Appendix D. Packer testing and interconnectivity data are provided in Appendix F.

To illustrate the current understanding of site geology, geologic cross sections of the overburden and bedrock units were prepared using site monitoring well data. The cross section locations are shown on Figure 7-1 and the overburden and bedrock cross sections are provided on Figure 7-2. The depths

to top of weathered and competent bedrock in the cross sections are based on observations during drilling of the boreholes.

#### **7.1.1.1 Shallow and Deep Overburden**

The overburden material at the site consists of unconsolidated glacial fluvial sediments underlain by the muddy sandstone bedrock of the Passaic Formation. The glacial fluvial sediments are generally fine-grained, composed mainly of reddish-brown clayey silt and sandy silt, with trace to little amounts of gravel. The thickness of the unconsolidated overburden ranges from approximately 22-50 feet. The depth to the top of bedrock generally increases to the south and southwest. As illustrated in Figure 7-2, changes in soil lithology are subtle, and no continuous layers were identified that correlated directly across the site. The shallow overburden soil generally varies from clayey silt to silty sand, with discontinuous clayey sand or silty sand lenses observed at well locations near the former dry well area. The deep overburden soil is generally finer-grained silty clay in the eastern portion of the site, changing to more silt and sand in the western portion of the site and near offsite well MW-17AR.

The fine-grained shallow and deep overburden soils generally have a low permeability, as demonstrated by the low flow rates needed to reduce drawdown during purging of the monitoring wells prior to sampling, and the low water yields observed during groundwater grab sampling. During a step test of well MW-2A in June 1999, low groundwater yield resulted in dewatering of the well and cancellation of a planned constant-rate pump test. Grain size analyses performed on soil samples collected during the 1999 expedited site characterization of the former dry well area indicated that the overburden soil generally contains 30 to 40 per cent clay and silt.

#### **7.1.1.2 Bedrock**

The unconsolidated overburden is underlain by the Passaic Formation, which is classified by the New Jersey Geologic Survey as muddy sandstone. Rock coring observations indicate that the bedrock beneath the site is primarily reddish brown silty sandstone, which is consistent with the above classification.

The top of bedrock is weathered and was encountered during the drilling of bedrock monitoring wells at approximately 30-40 ft bgs. Soil observations from deep overburden borings and wells advanced to the top of weathered bedrock indicate that the transition from deep overburden to weathered bedrock is gradational, with alternating unconsolidated and friable, semi-indurated layers. Weathered bedrock thickness ranges from approximately 10 to 20 feet, increasing in thickness to the south. The top of competent bedrock was encountered from approximately 33-60 ft bgs. Structure contour maps indicate that the depth to top of weathered bedrock generally increases to the south and the depth to top of competent bedrock increases to the south and southeast (Figures 7-3 and 7-4, respectively). The depths to top of weathered and competent bedrock in the cross sections are mainly based on observations during drilling of bedrock boreholes.

The zone of weathered bedrock is illustrated on a bedrock geologic cross section prepared from site monitoring well data (Figure 7-2). The depths to the top of weathered and competent bedrock identified at wells MW-19A, MW-19D, MW-19B, and MW-19DB differed by several feet, most likely due to variability in field interpretation during drilling. Since these wells are located relatively near to each other, the depths to the top of weathered and competent bedrock used in the cross section in this area are based on the closest agreement of depths from these wells.

Borehole geophysical logs, video logs, and packer testing data from well locations MW-7DB, MW-19DB, MW-21DB, and MW-23D and rock cores from well locations MW-19DB and M-21DB were assessed to evaluate site geology and identify potential water-bearing fractures beneath the site.

Acoustic borehole logging was used to identify fractures and their orientation (i.e., strike and dip) within the bedrock boreholes. Most of the fractures identified were classified as high-angle joints or low angle fractures. Fracture orientation data from the four bedrock wells were corrected for magnetic declination and then plotted as poles on a lower hemisphere equal-area stereonet. The stereographic projections of data from the four wells were similar and indicated two dominant fracture subsets beneath the site, specifically high-angle, near-vertical fractures and low-angle, subhorizontal fractures. Contoured stereographic plots of the two fracture subsets using combined data from the four wells indicates that the low-angle fractures strike approximately to the north and dip approximately 7-8 degrees to the west. The high angle fractures or joints dip approximately 70-

80 degrees, but exhibit no dominant strike direction. Stereographic projections from the acoustic borehole logging data are included with the geophysical logs from the four wells in Appendix D. Contoured stereographic projections of the low-angle fractures and the near-vertical fractures from the four wells are also included in Appendix D.

The low-angle fractures may be partings parallel to bedding planes in the bedrock. The northern strike of low-angle fractures at the site is inconsistent with regional bedding strike, which is more to the northeast. Assuming the low-angle fractures represent bedding-plane partings, the more northerly strike direction is possibly representative of local differences in bedding orientation beneath the site. A discussion with Greg Herman at the New Jersey Geological Survey indicated that the bedding may be locally warped into a north-south strike reflecting late-stage extension in the area. Mr. Herman also indicated that other subhorizontal fractures, locally filled with gypsum, may be present in the site region; these fractures may be related to post-Jurassic east-west directed tectonic compression.

### **Packer Testing**

Rock core descriptions and caliper, temperature, and heat pulse flowmeter logs were used to identify potential water-bearing fractures for packer testing. Prominent fractures and/or fracture zones identified in wells MW-7DB, MW-19DB, MW-21DB, and MW-23D are shown on the bedrock cross section (Figure 7-2). Major fracture zones at approximately 105-115 ft bgs and at approximately 230-238 ft bgs were identified in multiple wells at the site (wells MW-7DB, MW-19DB, and MW-21DB). These intervals were selected for packer testing, along with other fracture zones of interest, as shown on Figure 7-2.

Packer testing was conducted in September 2005 in wells MW-7DB, MW-19DB, MW-21DB, and MW-23D. Four intervals were selected for packer testing in wells MW-7DB, MW-19DB, and MW-21DB, and two intervals were selected in well MW-23D. Packer test interval depths and pump rates are summarized in Table 5-2. Field data recorded during the packer tests, and graphs of water level changes within the test zone and in the borehole above and below the test zone are included in Appendix F. Analytical data from groundwater samples collected during packer testing is discussed in Section 7.2 of this report.

Test data indicate that the packers generally provided a good seal against the borehole walls. Electrical interference from the submersible pump and the packer testing equipment trailer created signal noise in the transducers, making it difficult to assess whether flow occurred within the formation around the packers during the tests.

Most of the packer tested intervals provided sufficient water to evacuate approximately 3 test-zone volumes during the tests. Flow rates were generally sustainable at 3 to 5 gallons per minute (gpm). The highest flow rates were recorded in well MW-7DB, where flow rates ranged between 5 and 6 gpm in three of the four intervals tested. Groundwater flow was generally low in shallow bedrock well MW-23D, and both packer test intervals purged dry at a flow rate of approximately 0.5 gpm.

### **Interconnectivity**

To assess the connections between prominent fracture zones beneath the site, interconnectivity testing was performed during packer testing activities. Pressure transducers/data loggers were installed in up to four bedrock monitoring wells to observe and record changes in water levels during packer testing to assess potential horizontal and/or vertical hydraulic communication in fracture zones beneath the site. Different observation well sets were used for each bedrock well that was packer tested. The observation wells used during packer testing and the rationale for their selection are summarized in Table 7-1. Graphs of the observation well water level data are included in Appendix F.

Water levels in the selected observation wells were measured and recorded at 1-minute intervals using pressure transducers/data loggers. During packer testing of MW-19DB, water level data was recorded in only three observation wells due to the failure of a transducer in the fourth well (MW-19B). During subsequent packer tests, three observation wells were monitored with transducers and one well was monitored manually using an electronic water level meter.

Review of the observation well data indicates that some vertical and horizontal hydraulic communication occurred at the site during packer testing. Observation well water levels generally dropped during packer testing, but the magnitude was usually small (approximately 0.1-0.3 ft). Most of the packer tests were conducted for less than 1 hour, and the maximum pump rate was

approximately 5 gpm. Observations regarding the interconnectivity testing are summarized below for the packer tested wells:

- MW-7DB – water level drawdown was recorded in observation wells MW-19D, MW-20D, MW-21D, and MW-22D during packer testing of all the intervals in MW-7DB. Limited drawdown (approximately 0.1 ft drawdown) was recorded during packer testing of the 280-300 ft interval, but this test was performed at the lowest pump rate (approximately 3 gpm; see Table 5-2). Water level drawdown in observation well MW-21D was less evident during packer testing of the shallow 100-120 ft interval, but was still identifiable. Drawdown in well MW-21D located in the southern portion of the site suggests some horizontal hydraulic communication exists at depth across the site. In general, observation well drawdown in response to packer testing was more pronounced when the packer test interval depth was similar to the screen depth of the observation well. For example, water level drawdown in well MW-22D (screened at 105-115 ft bgs) was greatest during packer testing of the 100-120 ft bgs interval.
- MW-19DB – packer testing of the shallow 104-124 ft interval elicited a very limited response (approximately 0.1 ft drawdown) in the three observation wells (MW-19A, MW-19D, and MW-21D). Recorded water levels appeared to rise in well MW-19A; the reason for this is unknown. Measurable drawdown was recorded in all three observation wells during packer testing of the remaining intervals at MW-19DB. Drawdown in well MW-21D located in the southern portion of the site suggests some horizontal hydraulic communication exists at depth across the site.
- MW-21DB – water level changes in response to packer testing were most pronounced in adjacent wells MW-21S and MW-21D (screened at 104-114 ft bgs and 178-198 ft bgs, respectively), demonstrating substantial vertical hydraulic communication in the bedrock near these wells. Drawdown was more pronounced when the packer test interval depth was similar to the screen depth of the observation well. In observation well MW-21S (screened at 104-114 ft bgs), drawdown was approximately 2 ft during packer testing of the 96-116 ft

interval and approximately 0.6 ft during packer testing of the 157-177 ft interval, with progressively less drawdown during packer testing of intervals deeper than 200 ft bgs. Water levels in MW-21D (178-198 ft screen) dropped the most in response to packer testing of intervals greater than 200 ft bgs, and showed little response during packer testing of shallower intervals. Drawdown patterns in MW-21S and MW-21D suggest lower hydraulic conductivity between shallow and deep bedrock at this location, mainly in the depth range between the intermediate test intervals (i.e., from approximately 177 and 224 ft bgs). Relatively little drawdown was observed in deep wells MW-20D and MW-19D (located in the central and eastern portions of the site, respectively). These two observation wells are screened at similar depths (approximately 180-200 ft bgs); the lack of drawdown in these wells may indicate limited horizontal communication at this depth across the site. Given the large drawdown in adjacent wells MW-21S and MW-21D, however, it is more likely that packer testing at MW-21DB induced vertical leakage of groundwater from the upper bedrock, resulting in less drawdown at distant observation wells.

- MW-23D – water levels in observation wells MW19A, MW-19D, MW-20B, and MW-22D did not change substantially in response to packer testing of the MW-23D borehole. Both packer test intervals at this location (75-100 ft and 50-75 ft bgs) dewatered when pumped at approximately 0.5 gpm, indicating very low yield from the shallow bedrock at this location. The low pumping rates did not stress the aquifer sufficiently to produce drawdown in the observation wells.

## 7.1.2 Groundwater Flow

### 7.1.2.1 Shallow and Deep Overburden

On September 23, 2005, synoptic groundwater level measurements were recorded for the shallow and deep overburden wells prior to performing groundwater sampling. Groundwater levels were measured in all of the onsite and offsite monitoring wells, except for shallow overburden wells US-1 and US-2, which were inadvertently not measured on this date. Wells US-1 and US-2 are the only shallow overburden monitoring wells located in the southern portion of the site; therefore, water

level measurements from these wells are essential to evaluate groundwater flow directions in the shallow overburden aquifer. For this reason, groundwater levels in all of the shallow overburden wells were measured again on October 26, 2005. Groundwater level measurements and calculated groundwater elevations from September 23, 2005 and October 26, 2005 are provided in Tables 7-2 and 7-3, respectively. The groundwater elevations calculated from these data were used to create groundwater elevation contour maps for the shallow and deep overburden aquifers (Figures 7-5 and 7-6, respectively). As required by NJDEP, contour map reporting forms for the shallow and deep overburden groundwater elevation maps are included with Figures 7-5 and 7-6.

Shallow overburden groundwater levels measured on October 26, 2005 are on average about three feet higher than groundwater levels measured the previous month in the same wells. This is attributed to infiltration from significant rainfall that occurred during most of October 2005. Based on records from a National Weather Service station in Newark, New Jersey (located approximately 8 miles northeast of the site), approximately 18 inches of rain fell in the three weeks prior to October 26, 2005.

The groundwater elevation data indicate that flow in the shallow overburden is generally to the south-southeast near the former dry well location, with a component of flow to the east from the northwestern corner of the site (Figure 7-5). This flow pattern is generally consistent with historic flow directions observed in the shallow overburden at the site.

In October 2005, the groundwater elevation in well MW-4 was lower than the groundwater elevations in wells MW-5 and MW-8. Similar relative elevations were recorded in November 2004, but the May 2004 and February 2005 data indicate that the groundwater elevation in MW-4 was higher than the groundwater elevations in wells MW-5 and MW-8. Previous reports attributed fluctuating water levels in MW-4 to the operation of a sump on the adjacent Mastertaste property. Mastertaste also operates a production well and two injection wells on their property for a non-contact cooling water system, which may affect water levels at MW-4.

The September 2005 groundwater elevation data indicate that flow in the deep overburden beneath the site is generally to the south-southwest, which is consistent with historic groundwater flow

patterns observed in the deep overburden (Figure 7-6). Groundwater flow near the former dry well area is to the south-southwest, with a component of flow to the west in the northwestern portion of the site near MW-4A.

Historic groundwater elevation data indicate that a piezometric head difference exists between monitoring wells screened in the shallow unconsolidated overburden and monitoring wells screened in the deep unconsolidated overburden. Groundwater elevation data in shallow and deep overburden well pairs or at proximal well locations (e.g., MW-5/MW-5A, US-1/MW-13A, and MW-2/MW-2A) indicate a downward vertical gradient, which is consistent with historical data. Using the October 2005 groundwater elevation data, the horizontal hydraulic gradient in the shallow overburden aquifer is approximately 0.0131 ft/ft beneath the site. Based on the September 2005 groundwater elevation data, the horizontal hydraulic gradient in the deep overburden aquifer is approximately 0.0151 ft/ft, but becomes steeper near the western property boundary (0.0504 ft/ft). It is unclear why the horizontal gradient increases in this area; it may be related to the change from clayey silt to sand and silt in the western portion of the site.

#### **7.1.2.2 Bedrock**

Results from packer testing and interconnectivity testing indicate that groundwater flow is predominantly in fractures in the bedrock. Acoustic borehole log data indicate two subsets of bedrock fractures at the site, specifically low-angle fractures with a north-south strike and high-angle, near-vertical fractures with no dominant orientation.

During geophysical logging, heat pulse flowmeter and temperature measurements were conducted in the open boreholes at locations MW-7DB, MW-19DB, MW-21DB, and MW-23D. The heat pulse flowmeter measurements were used to assess vertical flow in the boreholes and to identify groundwater flow into or out of the borehole. Changes in temperature gradient were also used to identify regions where groundwater was likely flowing into or out of the borehole.

Results from heat pulse flowmeter logging indicate upward vertical flow in boreholes MW-21DB and MW-7DB, and downward vertical flow in borehole MW-19DB. Limited vertical flow was

measured in borehole MW-23D. Temperature gradients suggest that inflow was occurring in the shallow bedrock (approximately 60 to 96 ft bgs) in all of the geophysically logged boreholes. Based on changes in temperature gradients and changes in vertical flow magnitude or direction, several water-bearing fracture zones were identified in the boreholes:

- MW-7DB – possible outflow was noted at approximately 105-110 ft bgs and possible inflow at approximately 272-275 ft bgs. Possible flow associated with fracture zone at approximately 230-232 ft bgs.
- MW-19DB – possible outflow at approximately 110-115 ft bgs and at approximately 230-232 ft bgs. Possible flow associated with fractures at approximately 293-297 ft bgs.
- MW-21DB – possible inflow near approximately 110 ft bgs and at approximately 200 ft and 250-255 ft bgs. An increase in upward flow suggests water-bearing fractures may be present between approximately 230 to 245 ft bgs.
- MW-23D – possible inflow at approximately 75 ft bgs

Interconnectivity testing indicated vertical interconnectivity of water-bearing fractures in the southern portion of the site near MW-21DB, and horizontal interconnectivity of water-bearing fractures between the area near the former dry well and the southern portion of the site. Some horizontal connectivity between the former dry well area and the northern and eastern portions of the site was also indicated.

Groundwater level measurements collected from the 12 bedrock monitoring wells on September 23, 2005 are provided in Table 7-2. Groundwater elevations in the bedrock wells are generally lower than elevations in nearby overburden wells, suggesting a downward vertical gradient between the unconsolidated overburden and bedrock. Groundwater elevations in the bedrock monitoring wells are presented on Figure 7-7.

Groundwater elevations are typically constructed using elevation data from a single aquifer system. Given the complexity of the bedrock aquifer, bedrock groundwater elevations were not contoured. Horizontal groundwater flow in the bedrock occurs in low-angle fractures that strike to the north.

Wells MW-22D, MW-20B, and MW-21S are all screened at approximately 105-115 ft bgs and are aligned approximately parallel to N-S strike. Elevations in these wells suggest a horizontal groundwater gradient to the south. This is consistent with groundwater flow directions in the shallow and deep overburden, as well as regional groundwater flow in the Passaic Formation.

## 7.2 ANALYTICAL RESULTS

Groundwater sampling activities conducted during this supplemental investigation include the collection of groundwater grab samples at multiple areas of concern, the collection of groundwater samples during packer testing of bedrock monitoring wells, and the collection of groundwater samples from onsite and offsite monitoring wells in September and October 2005 using volume-averaged purging and sampling methods (as previously indicated, groundwater sampling conducted in November 2005 using PDBS methods will be discussed in a separate report).

Results for groundwater grab samples collected at 5 areas of concern (AOC 4, AOC 6, AOC 15, AOC 24, and AOC 33) and at 4 Phase II sampling locations (I-2, I-7, I-13, and I-17) were discussed in Section 6 of this report.

Analytical results for discrete groundwater samples collected during packer testing of bedrock monitoring wells MW-7DB, MW-19DB, MW-21DB, and MW-23D, and results from the September and October monitoring well sampling event are discussed below. Results for groundwater samples collected during packer testing are discussed first, followed by a discussion of the monitoring well sampling results.

### 7.2.1 Packer Testing

In September 2005, packer testing was conducted at selected intervals in the open boreholes of monitoring wells MW-7DB, MW-19DB, MW-21DB, and MW-23D. Fracture zones were identified for packer testing and sampling based on geophysical logging results, rock core descriptions, and drilling observations. The selected intervals were isolated using inflatable packers and purged using a submersible pump. Following purging, groundwater samples were collected. Groundwater

samples collected from the intervals were analyzed for TCE. Analytical data summary sheets are provided in Appendix A. Analytical results are summarized in Table 5-2.

Groundwater samples were collected from most of the intervals packer tested. Groundwater was not sampled during packer testing of the 100-120 ft interval in MW-7DB, because a groundwater sample was collected from approximately the same interval in nearby well MW-19DB (104-124 ft interval). Due to limited water yield, both packer test intervals at MW-23D dewatered during purging and groundwater samples were collected following recovery.

Analytical results indicate that TCE was detected at concentrations exceeding the NJDEP GWQS in the sampled intervals. The highest concentrations were reported in groundwater samples collected from well MW-19DB (142-162 ft interval [854 µg/L] and 289-300 ft interval [989 µg/L]) and MW-7DB (260-280 ft interval [771 µg/L]). No correlation was observed between packer test groundwater analytical results and heat pulse flowmeter data.

### 7.2.2 Monitoring Well Sampling

In September and October 2005, groundwater samples were collected from the existing onsite and offsite monitoring wells and analyzed for TCL VOC+10 plus acetone, TCL BNA+25 plus xylenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde. Samples were collected using volume-averaged purging and sampling methods. Analytical results are summarized in Tables 7-4 through 7-6. Well purging and sampling data recorded in the field, including pumping rates and water quality parameters measured during purging (i.e., pH, temperature, conductivity, and dissolved oxygen) are provided in Appendix E. Analytical data summary sheets and chains of custody are provided in Appendix A.

Analytical results from the September-October 2005 groundwater sampling event are discussed below. Results for VOCs are discussed first, followed by a discussion of BNAs, metals, pesticides, alcohols, and formaldehyde results.

### 7.2.2.1 Volatile Organic Compounds

Analytical results indicate that VOCs were detected in groundwater samples collected during the September and October 2005 monitoring well sampling event. The reported VOCs were primarily TCE and other chlorinated compounds.

Concentrations of TCE in groundwater samples collected from the shallow and deep overburden wells were plotted on the site map and TCE isoconcentrations were contoured, where applicable, to assess the distribution of dissolved TCE concentrations at the site. Concentrations of TCE in samples collected from the shallow and deep overburden monitoring wells are shown on Figures 7-8 and 7-9, respectively. Concentrations of TCE in samples collected from the bedrock monitoring wells are shown on Figure 7-10.

For the shallow overburden wells, analytical results indicate that VOCs were only detected at concentrations above the NJDEP GWQS in two wells (MW-1R and MW-2R) located near the former dry well location (Table 7-4 and Figure 7-8). Low concentrations of TCE exceeded the GWQS in groundwater samples collected from both MW-1R and MW-2R. The concentration of methylene chloride was also reported above GWQS in well MW-1R, but this compound is a common laboratory contaminant and was not detected during previous groundwater sampling events conducted in November 2004 and February 2005. These results indicate that low concentrations of dissolved TCE are present in shallow groundwater at the former dry well location and immediately downgradient.

Analytical results indicate that TCE concentrations exceed GWQS in groundwater samples collected from most of the deep overburden monitoring wells (Table 7-4). As shown on Figure 7-9, the highest TCE concentrations in the deep overburden groundwater were reported near the former dry well location in well MW-2A (924  $\mu\text{g/L}$ ). Concentrations of TCE in deep overburden groundwater near the former dry well, however, have generally decreased since the May 2004 groundwater sampling event, when the reported TCE concentration in well MW-2A was 2,690  $\mu\text{g/L}$ . Elevated TCE concentrations were also reported in groundwater samples from well MW-17AR (722  $\mu\text{g/L}$ ) located to the west on Mastertaste property, and in nearby wells MW-11A (360  $\mu\text{g/L}$ ), MW-4A

(47.3 µg/L), and MW-5A (155 µg/L). These results suggest that a second source of TCE may be present in the southwestern portion of the site or on Mastertaste property.

Trichlorofluoromethane (Freon 11) was reported at concentrations exceeding GWQS in groundwater samples collected from wells MW-5A and MW-11A (Table 7-4). Freon 11 was reported in these wells during previous sampling events conducted in May 2004, November 2004 and February 2005, but concentrations did not exceed the GWQS (2000 µg/L). Low concentrations of 1,1-DCE, tetrachloroethylene (PCE), and methylene chloride also exceeded GWQS in samples collected from several deep overburden wells. As noted above, methylene chloride is considered to be a lab contaminant.

Results for samples collected from the deep overburden wells indicate that reported TCE concentrations are generally consistent with or higher than concentrations reported for the same wells during the previous sampling events in November 2004 and February 2005. The difference in concentrations may be the result of using volume-averaged purging and sampling methods during the recent sampling event, versus low-flow methods used during the previous sampling events. Low-flow purging is conducted at low purge rates (less than 0.5 L/min), and consequently draws water from that portion of the well screen and the surrounding overburden formation that is close to the pump. Volume-averaged purging is conducted at higher purge rates and draws multiple volumes of water from the entire screened interval. The volume-averaged method may have drawn higher concentrations of TCE-impacted water from formation areas outside the zone of influence of the low-flow method.

The horizontal extent of impacted groundwater in the deep overburden is generally consistent with the extent observed in November 2004 and February 2005.

Analytical results indicate that TCE concentrations exceed GWQS in groundwater samples collected from the bedrock monitoring wells (Table 7-4). The highest TCE concentrations were reported in wells MW-19A (2,000 µg/L) and MW-21S (1,250 µg/L), which are screened at intermediate depths in the bedrock (70-80 ft bgs and 104-114 ft bgs, respectively). The highest concentration in deep bedrock (250-255 ft bgs) was detected in well MW-21DB (196 µg/L). Well MW-19A is located

near the former dry well area, and wells MW-21S and MW-21DB are located in the apparent downgradient direction from this former source area (Figure 7-10).

Concentrations of TCE in the existing bedrock monitoring wells are generally consistent with or lower than TCE concentrations reported for the same wells in November 2004 and February 2005. Lower TCE concentrations in the bedrock groundwater samples may be the result of using volume-averaged purging and sampling methods versus the low-flow methods used during previous sampling events. The explanation proposed above for the deep overburden may also apply here, but in the opposite manner. Lower TCE concentrations reported using the volume-averaged method may be due to the extraction of water from “cleaner” fractures outside the zone of influence of the low-flow method, effectively diluting TCE concentrations in groundwater entering the well.

Horizontal and vertical delineation of impacted groundwater in the bedrock is not complete. TCE concentrations generally decrease with depth, although there is little variability in groundwater samples collected from wells screened deeper than 115 ft bgs.

#### **7.2.2.2 Base Neutral/Acid Extractable Compounds**

Groundwater samples collected from the monitoring wells in September and October 2005 were also analyzed for TCL BNA+25 including hydroquinone and xylenol. Analytical results for these parameters are summarized in Table 7-5. Reported results indicate that BNA concentrations (including hydroquinone and xylenol) were either not detected or did not exceed applicable NJDEP GWQS. The one exception was groundwater sampled from bedrock well MW-19DB, where the concentration of bis(2-ethylhexyl)phthalate (4.44 µg/L) marginally exceeded the revised GWQS. This compound is a common lab contaminant (found in gloves) and historically has not been detected in groundwater samples collected at the site.

#### **7.2.2.3 Metals**

Reported concentrations of some metals exceeded applicable GWQS in groundwater samples collected from several overburden and bedrock monitoring wells. Analytical results for PP metals

are summarized in Table 7-6. As noted in Section 4.2.2, the water yield was low in many of the wells and turbidity was often not reduced substantially during purging. For this reason, many of the groundwater samples collected from the monitoring wells contained varying levels of sediment, which affected the metals analytical results. This included groundwater samples collected from those monitoring wells identified in Table 7-6 as having metals concentrations above GWQS. Therefore, the reported metals concentrations in groundwater samples collected from most of the monitoring wells at the site are considered to be biased high due to leaching of metals from sediment collected with the acid-preserved samples.

#### **7.2.2.4 Pesticides, Alcohols, and Formaldehyde**

Analytical results indicate that pesticide and alcohol concentrations were not reported above method detection limits and formaldehyde concentrations did not exceed the GWQS in groundwater samples collected from monitoring wells at the site (Table 7-6 and Appendix A).

### **7.3 UPDATED WELL SEARCH**

Results of the updated well search are included in Appendix G. A total of 141 wells were identified within a one-mile radius of the site. This included only one public supply well that is located south-southwest of the site and more than one-half mile from the site. Within a 1,000-foot radius of the site, there are a total of 83 wells, all of which are associated with injection, industrial recovery, monitoring, piezometer, or test uses. No domestic or public supply wells were identified within 1,000 feet of the site.

## 8.0 SUMMARY OF KEY FINDINGS

### 8.1 SOIL

Supplemental remedial investigation activities included soil and/or groundwater grab sampling at 14 AOCs and at 6 additional locations originally sampled by EcolSciences during their Phase II investigation. Investigation findings are summarized below.

- Investigation and analysis of soil and/or groundwater grab samples at 11 AOCs and at 5 of the Phase II sampling locations indicates that analyte concentrations did not exceed applicable NJDEP SCC or GWQS.
- AOC 6 – Results indicate that no VOCs, BNAs, pesticides, alcohols, metals, or formaldehyde were detected at concentrations exceeding NJDEP SCC in samples from Sumps S-1 and S-2. At Sump S-3, elevated PID readings and a petroleum odor were noted during soil sampling, and TCE and cis-1,2-DCE concentrations in soil at the sump location exceeded the IGWSCC. TCE concentrations also exceeded the RDCSCC. Results from additional soil sampling indicated that TCE concentrations exceeded the IGWSCC and RDCSCC at 7-7.5 ft bgs at the sump and exceeded IGWSCC east of the sump. Results also indicate that TCE concentrations in groundwater samples collected from the shallow and deep overburden at Sump S-3 exceeded GWQS.
- AOC 14 - At the breach in the central storm sewer pipe, soil analytical results indicated that toxaphene was detected above applicable NJDEP SCC in the field duplicate sample. Analysis of a confirmation soil sample from the same location and of horizontal delineation soil samples collected around this location indicate that toxaphene was not detected above method detection limits.
- AOC 15 - Soil analytical results indicate that concentrations of VOCs, BNAs, alcohols, pesticides, metals, and formaldehyde did not exceed applicable NJDEP SCC in samples collected from backfill material near the former dry well. For the groundwater, metals concentrations exceeded the GWQS in both shallow and deep groundwater grab samples collected near the former dry well, but this is attributed to leaching of metals from sediment

collected with the preserved samples. VOC concentrations (mainly TCE) exceeded GWQS in shallow and deep overburden groundwater samples collected at the former dry well area. The highest TCE concentrations in the shallow and deep overburden groundwater were reported in samples collected immediately south of the former dry well and downgradient to the south-southeast. TCE concentrations in the shallow overburden groundwater are delineated to the north, northeast, east, and southeast of the former dry well. TCE concentrations in the deep overburden groundwater are delineated to the north and northeast of the former dry well. TCE concentrations at three deep overburden groundwater locations (34B [9,790 µg/L], 15C [9,520 µg/L], and 33A [11,200 µg/L]) are close to or exceed 1% of the aqueous solubility of TCE, indicating that residual product may be present in the deep overburden at the top of bedrock in these areas.

- Phase II sampling location I-2 – Soil analytical results indicate that cis-1,2-DCE concentrations exceed IGWSCC at two horizontal delineation locations immediately north and west of I-2. Analytical results for shallow overburden groundwater indicate that TCE and vinyl chloride concentrations exceeded GWQS at location I-2A. TCE was not detected in soil samples collected near I-2A.

## 8.2 GROUNDWATER

### 8.2.1 Shallow and Deep Overburden

- The overburden soils generally have a low permeability, as demonstrated by the low flow rates needed to reduce drawdown during purging of the monitoring wells prior to sampling, and the low water yields generated during groundwater grab sampling.
- Concentrations of BNAs (including hydroquinone and xylenol), pesticides, alcohols, and formaldehyde were either not detected or did not exceed applicable NJDEP GWQS in shallow and deep overburden groundwater samples. Some metals concentrations exceeded applicable GWQS in groundwater samples collected from several overburden wells, but this is attributed to leaching of metals from sediment collected with the samples.
- For the shallow overburden wells, VOCs were only detected at concentrations above GWQS in wells MW-1R and MW-2R situated near the former dry well location. These results

indicate that low concentrations of dissolved TCE are present in shallow groundwater at the former dry well location and immediately downgradient.

- TCE concentrations in groundwater collected from the deep overburden wells generally exceeded the GWQS. Concentrations of TCE in deep overburden groundwater near the former dry well, however, have generally decreased since the May 2004 groundwater sampling event.
- Elevated TCE concentrations were also reported in deep overburden groundwater samples from well MW-17AR located to the west on Mastertaste property, and in nearby wells MW-11A, MW-4A, and MW-5A. These results suggest that a second source of TCE may be present in the southwestern portion of the site or on the adjacent Mastertaste property.
- Trichlorofluoromethane (Freon 11) was reported at concentrations exceeding GWQS in groundwater samples collected from wells MW-5A and MW-11A, and low concentrations of 1,1-DCE, PCE, and methylene chloride also exceeded GWQS in samples collected from several deep overburden wells.
- The horizontal extent of impacted groundwater in the deep overburden is not delineated downgradient. The horizontal extent is generally consistent with the extent observed in November 2004 and February 2005.

### 8.2.2 Bedrock

- Acoustic borehole logging data indicates two main fracture subsets in bedrock beneath the site, specifically high-angle, near-vertical fractures and low-angle, subhorizontal fractures. The low-angle fractures strike approximately north and dip approximately 7-8 degrees to the west. The high angle fractures or joints dip approximately 70-80 degrees, but exhibit no dominant strike direction.
- Interconnectivity testing indicated that vertical and horizontal hydraulic communication occurred at the site during packer testing. Drawdown in observation wells in response to packer testing was generally more pronounced when the packer test interval depth was similar to the screen depth of the observation well. Drawdown in well MW-21D (located in the southern portion of the site) during packer testing of MW-7DB and MW-19DB suggests

horizontal hydraulic communication exists at depth across the site. Packer testing of MW-21D produced drawdown in adjacent shallower bedrock wells, indicating well-developed vertical hydraulic communication in the southern portion of the site.

- Prominent water-bearing fracture zones at approximately 105-115 ft bgs and at approximately 230-238 ft bgs were identified in multiple wells at the site (wells MW-7DB, MW-19DB, and MW-21DB). Water-bearing fractures were also identified at approximately 272-275 ft bgs at MW-7DB and at 250-255 ft bgs at MW-21DB. Packer testing confirmed that TCE concentrations exceed GWQS in groundwater at these intervals.
- The highest TCE concentrations were reported in wells MW-19A and MW-21S, which are screened at intermediate depths in the bedrock (70-80 ft bgs and 104-114 ft bgs, respectively). The highest concentration in deep bedrock (250-255 ft bgs) was detected in well MW-21DB. No evidence of product was identified in well MW-23D, which was installed approximately down-dip of the former dry well area.
- Based on the September and October 2005 groundwater sampling data, the horizontal and vertical extent of impacted groundwater in the bedrock has not been completely delineated.

### 8.2.3 Conceptual Site Model

The development of a conceptual site model (CSM) is a dynamic process that is refined as additional data is collected. The CSM described in this report represents the current understanding of groundwater conditions at the site and provides a basis for identifying data gaps. The CSM components include the site hydrogeologic conditions, the nature and extent of impacts to groundwater, the source of the impacts, and constituent migration pathways. The recommendations presented in Section 8.3 are intended to provide data that will further refine the conceptual model of the site in a manner consistent with the TRSR.

### 8.2.3.1 Hydrogeologic Conditions

#### **Shallow and Deep Overburden**

The unconsolidated overburden is mainly composed of low-permeability clayey and sandy silt, with broad soil units that are generally discontinuous. The thickness of the unconsolidated overburden ranges from approximately 22-50 feet, increasing in thickness to the south and southwest.

The groundwater flow in the shallow overburden is generally to the south-southeast near the former dry well location, with a component of flow to the east from the northwestern corner of the site. Groundwater flow direction appears to fluctuate near MW-4, possibly in response to operation of a sump and/or industrial wells on the adjacent Mastertaste property. The horizontal hydraulic gradient in the shallow overburden aquifer is approximately 0.0131 ft/ft beneath the site.

Groundwater flow in the deep overburden is generally to the south-southwest. Flow near the former dry well is to the south-southwest, with a component of flow to the west in the northwestern portion of the site. The horizontal hydraulic gradient in the deep overburden aquifer is approximately 0.0151 ft/ft, but becomes steeper near the western property boundary (0.0504 ft/ft). Groundwater elevation data in shallow and deep overburden well pairs indicate a downward vertical gradient.

#### **Bedrock**

The unconsolidated overburden is underlain by the Passaic Formation, which is primarily reddish brown silty sandstone beneath the site. The top of bedrock is weathered and was encountered during the drilling at approximately 30-40 ft bgs. Soil observations indicate that the transition from deep overburden to weathered bedrock is gradational, with alternating unconsolidated and friable, semi-indurated layers. Weathered bedrock thickness ranges from approximately 10 to 20 feet, increasing in thickness to the south. The top of competent bedrock was encountered from approximately 33-60 ft bgs. Structure contour maps indicate that top of weathered bedrock slopes generally to the south and the top of competent bedrock slopes to the south and southeast.

Groundwater flow occurs mainly in two fracture subsets identified at the site, specifically low-angle fractures with a north-south strike and high-angle, near-vertical fractures with no dominant

orientation. Vertical gradients vary in the bedrock; an upward vertical flow was measured at wells MW-21DB and MW-7DB, and downward vertical flow in borehole MW-19DB. Limited vertical flow was measured in borehole MW-23D.

Prominent water-bearing fracture zones at approximately 105-115 ft bgs and at approximately 230-238 ft bgs were identified in multiple wells at the site (wells MW-7DB, MW-19DB, and MW-21DB). Water-bearing fractures were also identified at approximately 272-275 ft bgs at MW-7DB and at 250-255 ft bgs at MW-21DB. Interconnectivity testing indicated vertical interconnectivity of water-bearing fractures in the southern portion of the site near MW-21DB, and horizontal interconnectivity of water-bearing fractures between the area near the former dry well and the southern portion of the site.

Groundwater elevations in the bedrock wells are generally lower than elevations in nearby overburden wells, suggesting a downward vertical gradient between the unconsolidated overburden and bedrock. Groundwater elevations in bedrock wells aligned north-south (i.e., parallel to strike of the low-angle fractures at the site and screened at the same depth interval) suggest a horizontal groundwater flow gradient to the south.

#### ***8.2.3.2 Nature and Extent of Impacts***

Groundwater in the overburden and bedrock beneath the site is impacted by VOCs, mainly TCE. Some metals concentrations exceeded applicable GWQS in groundwater samples collected from several overburden and bedrock wells, but this is attributed to leaching of metals from sediment collected with the samples. Concentrations of BNAs (including hydroquinone and xylenol), pesticides, alcohols, and formaldehyde were either not detected or did not exceed applicable NJDEP GWQS in groundwater samples collected from monitoring wells at the site.

Results from groundwater grab samples and monitoring well samples indicate that VOC impacts to shallow overburden groundwater are primarily in the vicinity of the former dry well and immediately downgradient to the south. VOC impacts to deep overburden groundwater are primarily also highest immediately downgradient of the former dry well. TCE concentrations at three deep overburden

groundwater grab sample locations immediately south of the former dry well are close to or exceed 1% of the aqueous solubility of TCE, indicating that residual product may be present in the deep overburden at the top of bedrock in these areas.

Elevated TCE concentrations were also reported in deep overburden groundwater samples from well MW-17AR located to the west on Mastertaste property, and in nearby wells MW-11A, MW-4A, and MW-5A. These results suggest that a second source of TCE may be present in the southwestern portion of the site or on Mastertaste property. The horizontal extent of impacted groundwater in the deep overburden is not delineated downgradient to the south and southeast toward Terminal Avenue.

The highest TCE concentrations in the bedrock were reported in wells MW-19A and MW-21S, which are screened at intermediate depths (70-80 ft bgs and 104-114 ft bgs, respectively). The highest concentration in deep bedrock was detected in well MW-21DB (250-255 ft bgs). These wells are aligned roughly north-south, parallel to the strike of low-angle fractures in the bedrock. No evidence of product was identified in well MW-23D, which was installed approximately down-dip of the former dry well area. The horizontal and vertical extent of impacted groundwater in the bedrock has not been completely delineated.

#### **8.2.3.3 Sources of Impacts**

Supplemental remedial investigation results indicate that the former dry well was the main source for VOC impacts to groundwater at the site. This source was mitigated significantly during the IRM soil excavation, but groundwater grab sampling immediately south of the former dry well location and at AOC 33 (Former Solvent Storage Room) indicates that there still may be limited areas of residual product in the deep overburden near the top of weathered bedrock.

Results from post-excavation soil samples and groundwater grab sampling at AOC 4 (Former No. 2 Diesel Fuel 25,000 Gallon UST) indicate the former UST is not a source for impacts to groundwater.

As noted above, elevated TCE concentrations in deep overburden groundwater samples from well MW-17AR located on adjacent Mastertaste property to the west suggest that a second source of TCE

may be present near the west-southwest corner of the site or possibly offsite on the Mastertaste property.

Elevated TCE concentrations in soil and groundwater grab samples collected at AOC 6 Sump S-3 indicate that residual source material may be present in the sump area.

#### ***8.2.3.4 Contaminant Fate and Transport***

Historic TCE concentrations in groundwater and soil at the site suggest that DNAPL might have been discharged at the former dry well during site operations. During the 1999 IRM, the former dry well and surrounding impacted soil was excavated down to top of bedrock to remediate the source material at this location. Results from subsequent groundwater sampling events indicate that TCE concentrations have decreased across the site in both the overburden and bedrock aquifers, indicating that the primary source material was remediated.

If DNAPL was discharged at the dry well, the product would likely have migrated downward with gravity through the overburden, potentially reaching the top of weathered bedrock. Elevated TCE concentrations in groundwater grab samples from the deep overburden suggest that limited areas of residual product in the deep overburden may be present near the top of weathered bedrock at the former dry well area and to the south-southeast at AOC 33. This is consistent with the structure contour map of the top of weathered bedrock which indicates that this surface slopes to the south.

Migration of DNAPL in the bedrock would most likely occur along the permeable low-angle fractures in the down-dip direction to the west. No evidence of product was identified during packer testing and sampling of well MW-23D, which was installed approximately down-dip of the former dry well area.

Dissolved-phase VOCs from the former dry well area will migrate in the downgradient direction with groundwater flow. Groundwater flow in the shallow overburden aquifer is generally to the south-southeast, and groundwater flow in the deep overburden is generally to the south-southwest.

Groundwater flow in the bedrock occurs mainly in the low-angle fractures aligned north-south and in near-vertical fractures. Groundwater flow in the bedrock is also generally to the south.

The presence of TCE daughter products (e.g., cis-1,2-DCE) in bedrock groundwater samples indicates that some natural attenuation of TCE is occurring at the site. Assessment of natural attenuation parameters during previous quarterly groundwater sampling events, however, provides limited evidence that conditions are genuinely conducive for natural attenuation of TCE in the overburden and bedrock aquifers beneath the site.

#### **8.2.3.5 Receptor Evaluation**

A total of 83 wells were identified within a 1,000-foot radius of the site, all of which are associated with injection, industrial recovery, monitoring, piezometer, or test uses. No domestic or public supply wells were identified within 1,000 feet of the site. Only one public supply well was identified during the well search; the public supply well is located more than one-half mile south-southeast of the site.

### **8.3 RECOMMENDATIONS**

#### **8.3.1 Soil**

A total of 34 AOCs were identified in the 1997 PA/SI/RI Report, including AOC 34 (Groundwater VOC Plume). Two more AOCs (AOC 35 [Baseline Ecological Evaluation] and AOC 36 [Clean Fill Certifications and Waste Disposal Documentation]) were specified by the NJDEP, resulting in a total of 36 AOCs for the site. Supplemental remedial investigation activities included soil and/or groundwater grab sampling at 14 AOCs and at 6 additional locations originally sampled by EcolSciences during their Phase II investigation.

Based on these supplemental remedial investigation activities, no further action is proposed at 11 AOCs and 5 of the Phase II sampling locations. Additional delineation and remediation of soil impacts at the following locations is recommended:

- AOC 6 (Sumps) – no further action is recommended for Sumps S-1 and S-2. It is recommended that Sump S-3 and the surrounding soil be excavated to remediate potential source material impacting shallow and deep overburden groundwater at Sump S-3 and at adjacent Phase II location I-13A.
- AOC 14 (Storm Sewer Collection System) – at a breach in the central storm sewer pipe, soil analytical results from location 14B indicated that toxaphene was detected above applicable NJDEP SCC in the field duplicate sample. Although analysis of a confirmation soil sample from the same location and of horizontal delineation soil samples collected around this location indicated that toxaphene was not detected above method detection limits, AT&T proposes to excavate and remediate the soil at location 14B. Excavation will be conducted within the bounds of the horizontal and vertical delineation soil sampling locations adjacent to 14B.
- AOC 15 (Former Dry Well and Piping) – results for soil samples indicate that no analyte concentrations exceeded applicable NJDEP SCC. Soil sampling locations 15D, 15E, and 15F, however, were inadvertently located west of the former dry well location, as discussed above. Therefore, it is recommended that soil samples be collected from the unsaturated zone at locations west of the former dry well, as requested by NJDEP. Concentrations of TCE are close to or exceed 1% of the aqueous solubility in deep overburden groundwater samples collected south of the former dry well at AOC 33 location 33A (11,200 µg/L) and at locations 34B (9,790 µg/L) and 15C (9,520 µg/L) near the former dry well area. This suggests that residual product may be present in the deep overburden at the top of bedrock in these areas. It is recommended that source zone treatment be conducted to remediate these areas.
- Phase II sampling location I-2 – additional soil sampling is recommended near location I-2A to complete the horizontal delineation of cis-1,2-DCE concentrations in the soil and to identify the source of TCE impacts to groundwater near this location.

It is recommended that impacted groundwater at the above AOCs and Phase II sampling locations be addressed as part of the site-wide groundwater remedial investigation (AOC 34). The status of

AOCs and Phase II sampling locations investigated during this supplemental remedial investigation is summarized in Table 8-1.

### 8.3.2 Groundwater

Previous investigation and remediation activities have provided data to prepare a conceptual model of the site, i.e., hydrogeologic conditions; nature and extent of impacts; sources of impacts; and contaminant migration pathways. The existing body of groundwater data collected at the site provides sufficient information for evaluating remedial options. This can be accomplished in parallel with completion of the outstanding groundwater issues and would not materially effect the ultimate selection of a groundwater remedy. The following scope of work is recommended during the next phase of remedial investigation/remedial planning activities at the site.

#### 8.3.2.1 Shallow and Deep Overburden

- Elevated TCE concentrations are close to or exceed 1% of the aqueous solubility in deep overburden groundwater grab samples collected south of the former dry well at AOC 33 location 33A (11,200 µg/L) and at locations 34B (9,790 µg/L) and 15C (9,520 µg/L) near the former dry well area. Therefore, source zone treatment was recommended in Section 8.3.1 of this report to remediate potential residual product in these areas. Following source zone treatment, it is recommended that a deep overburden monitoring well be installed at AOC 33 to assess TCE concentrations downgradient of the former dry well area.
- Elevated TCE concentrations in soil and groundwater grab samples collected at AOC 6 Sump S-3 indicate that residual source material may be present in the sump area. Excavation and removal of Sump S-3 and the surrounding soil was recommended in Section 8.3.1 of this report to remediate the potential source material impacting shallow and deep overburden groundwater at AOC 6 and at adjacent Phase II location I-13A. Following excavation of the sump and associated impacted soil, it is recommended that a monitoring well be installed at AOC 6 to assess TCE concentrations in the deep overburden groundwater at this location.
- TCE concentrations on the deep overburden groundwater decrease downgradient of the former

dry well to the southwest and then increase near wells MW-5A, MW-11A, and MW-17AR (Figure 7-9). This suggests a second VOC source area in the west portion of the site or on the Mastertaste property. It is recommended that a deep overburden monitoring well be installed near well MW-8 to provide additional chemical data in the deep overburden between the former dry well area plume and the elevated TCE concentrations near well MW-17AR.

- Freon 11 concentrations exceeded GWQS in groundwater samples collected from deep overburden wells MW-5A and MW-11A. Given that Freon 11 concentrations did not exceed GWQS in deep overburden wells upgradient of this area, groundwater grab sampling via direct-push methods is recommended near these wells to delineate the extent of Freon 11 concentrations in deep overburden groundwater.

#### 8.3.2.2 *Bedrock*

- Given that TCE concentrations in the bedrock exceed GWQS and that horizontal and vertical delineation of the extent of impacted groundwater in the bedrock is ongoing, an updated NJDEP file search is recommended in conjunction with a review of known contaminated sites in the area to identify other potential sources of regional impacts to groundwater.
- It is recommended that detailed information be obtained from Mastertaste regarding operation of their sump(s) and non-contact cooling water pumping and injection wells to assess their potential affect, if any, on groundwater gradients and flow at the site.
- Given the elevated TCE concentrations in the deep overburden near wells MW-11A and MW-4A, vertical delineation is not complete in the western portion of the site. It is recommended that a deep bedrock well be installed near well MW-11A or between wells MW-11A and MW-4A to provide vertical delineation of TCE concentrations in the bedrock in this area.
- Given the elevated TCE concentrations in the bedrock near MW-21S in the southern portion of the site and the apparent horizontal gradient to the south in the bedrock, it is recommended that a bedrock monitoring well be installed on offsite property to the south. The purpose of this well will be to provide horizontal delineation in the bedrock downgradient to the south. The well should be installed with a screen interval similar to MW-21S (approximately 105-115 ft bgs).

- Following installation and development of the installed wells, the existing and new onsite and offsite monitoring wells will be sampled for VOC analysis. Samples will be collected using PDBS methods, pending NJDEP approval. Since the new bedrock wells installed during this investigation have only been sampled once, it is recommended that further vertical delineation efforts in the bedrock be postponed until additional groundwater samples are collected to verify the results from the September-October 2005 groundwater sampling event.
- It is also recommended that a preliminary remedial alternatives analysis be commenced to focus efforts on attaining additional data as needed to support the remedial selection and design process.

## **TABLES**

**Table 1-1**  
**Investigative and Remedial Activities Summary**  
 Former AT&T Clark Facility, Clark, New Jersey

<i>June 1988</i>	Samples collected in spill collection tank and dry well indicated presence of Volatile Organic Compounds (VOCs).	
<i>November 1988</i>	Due to potential or actual discharge of VOCs to groundwater at the site, NJDEP directed AT&T to conduct remedial investigation activities at Site.	
<i>December 1988 through July 1989</i>	Spill collection tank, dry well and associated piping at rear of building were removed. No evidence of impact from spill collection tank. Contaminated soil was removed from beneath the piping and the dry well excavation to 15 ft. b.g.s. Presence of groundwater at 15 ft. b.g.s precluded further removal of source area.	Dunn Corp.
<i>June 1990</i>	Dunn Corp. completed Phase I Groundwater Investigation. Three shallow overburden (maximum depth = 23 ft. b.g.s.) monitoring wells were installed in vicinity of former dry well. Sampling indicated impact to shallow groundwater by trichloroethylene (TCE).	Phase I Groundwater Investigation Dunn Corp.
<i>May through September 1991</i>	Phase II Groundwater Investigation completed by Dunn Corp. Four additional shallow overburden and two deep overburden monitoring wells were installed. Sampling indicated significantly higher TCE concentrations in deeper wells. Trichloroethane (TCA) and trichlorofluoromethane (TCFM) were also detected.	Phase II Groundwater Investigation Dunn Corp.
<i>March through June 1992</i>	Dunn Corp. completed Phase III Groundwater Investigation. One additional shallow overburden and seven deep overburden monitoring wells were installed. High concentrations of TCE were detected. TCA and TCFM were also detected.	Phase III Groundwater Investigation Dunn Corp.
<i>August 1993</i>	RUST conducted Feasibility Study which included installation, packer testing, and aquifer testing of well RW-1.	RUST Env. & Infrastructure
<i>December 1993 through January 1994</i>	RUST conducted Phase IV Off-Site Groundwater Investigation. Significant concentrations of TCE were detected in MW-17A on Polychrome property.	RUST Env. & Infrastructure
<i>May 1996</i>	ESE conducted groundwater sampling at all 21 on-site and off-site monitoring wells. TCE, TCA, and TCFM detections were found to have decreased in concentration since the sampling events conducted in June 1991 and April 1992.	ESE, Inc.

**Table 1-1**  
**Investigative and Remedial Activities Summary**  
 Former AT&T Clark Facility, Clark, New Jersey

<p><b>November 1996 through March 1997</b></p> <p>Roy F. Weston, Inc. conducted Site Investigation (SI) activities. Tasks included monitoring well sampling, water level monitoring in wells, soil borings with geotechnical and VOC analytical sampling. Based on SI, Weston prepared the November 1997 Final Remedial Investigation (RI) Report. The RI report indicated that TCE concentrations in MW-17A were found to have increased to 2,100 ppb from the 600 ppb that was reported during the December 1993 to January 1994 sampling event. Compared with results from sampling events in June 1991 and April 1992, a general decrease in concentrations of TCE, TCA, and TCFM was observed in wells on the Clark SSI property. Investigation indicates a second potential source area, unrelated to the former dry well on the Clark SSI property.</p>	<p>FINAL - Remedial Investigation Report for the AT&amp;T SSI Clark Shop, New Jersey Facility. November 1997.</p> <p>Roy F. Weston, Inc.</p>
<p><b>July 1997</b></p> <p>AT&amp;T entered into Remediation Agreement to complete ISRA requirements as result of sale of Site to Tyco, Inc. McLaren/Hart began SI/RI.</p>	<p>McLaren/Hart, Inc.</p>
<p><b>December 1997</b></p> <p>PA Report submitted to NJDEP along with SI/RI Report. Fourteen Areas of Concern (AOCs) were identified and investigated.</p>	<p>Preliminary Assessment / Site Investigation / Remedial Investigation (PA/SI/RI) Report. October 27, 1997.</p> <p>McLaren/Hart, Inc.</p>
<p><b>March 1998</b></p> <p>Remedial Action Work Plan (RAWP) for Soils submitted to NJDEP to address marginal exceedences of SVOCs at three AOCs and concentrations of SVOCs, metals and TPH found in several storm drains and manholes.</p>	<p>Remedial Action Work Plan (RAWP) for Soils. March 18, 1998</p> <p>McLaren/Hart, Inc.</p>
<p><b>July 1998</b></p> <p>The five AOCs identified on the RAWP were remediated through soil excavation/sediment removal and disposal.</p>	<p>McLaren/Hart, Inc.</p>
<p><b>December 1998</b></p> <p>Remedial Action Report for Soils submitted to NJDEP.</p>	<p>Remedial Action Report for Soils. December 1998</p> <p>McLaren/Hart, Inc.</p>
<p><b>June to July 1999</b></p> <p>Extent of TCE source area was delineated around former dry well using Expedited Site Characterization. One bedrock monitoring well was installed to address vertical delineation in bedrock. Sampling of existing monitoring wells confirmed findings in Weston's November 1997 Final RI Report which indicated a second source area of TCE in the vicinity of the western portion of the site.</p>	<p>Results were submitted to NJDEP in a July 1999 letter</p> <p>McLaren/Hart, Inc.</p>
<p><b>August 1999</b></p> <p>Excavation of residual contaminant source area was completed at vicinity of former dry well to depth of bedrock (28 ft. b.g.s.).</p>	<p>Interim Remedial Action Report, August 2000</p> <p>McLaren/Hart, Inc.</p>

**Table 1-1**  
**Investigative and Remedial Activities Summary**  
 Former AT&T Clark Facility, Clark, New Jersey

<b>October 1999</b>	NJDEP provides comment letter in response to the July 1999 investigation results	Comment Letter	NJDEP
<b>May - July 2000</b>	Installation of Additional Deep Groundwater Monitoring Wells (MW-19, MW-20, MW-21)	Results of this investigation were later presented in the September 2004 Technical Memorandum for Groundwater by GeoTrans, Inc.	McLaren/Hart, Inc.
<b>November 2003</b>	Phase II Site Investigation is performed for Garden Commercial Properties as part of property transfer due diligence activities	Phase II Site Investigation, November 2003	EcolSciences, Inc.
<b>May 2004</b>	Supplemental soil and groundwater sampling is conducted based on Phase II results and NJDEP comments in a February 2004 meeting.	Technical Memorandum for Groundwater (included as Attachment 1 in comment response letter to NJDEP), September 2004	GeoTrans, Inc.
<b>July 2004</b>	NJDEP provides comment letter to respond to 1997 through 2004 Reports	Comment Letter	NJDEP
<b>September 2004</b>	Response to NJDEP July 2004 letter and submittal of Tech Memo for Groundwater that presents the results of the 2000 and 2004 soil and groundwater investigation activities.	Comment Response Letter and Technical Memorandum for Groundwater, September 2004	GeoTrans, Inc.
<b>October 2004</b>	Letter Work Plan for Supplemental Soils and Groundwater RI activities	Letter RI Work Plan, October 2004	GeoTrans, Inc.
<b>March 2005</b>	NJDEP provides response to September and October 2004 submittals	Comment Letter	NJDEP
<b>April 2005</b>	Conference call and summary notes to discuss March 2005 comment letter	Conference call notes for soil and groundwater, April 2005	GeoTrans, Inc.
<b>April 2005</b>	NJDEP response to conference call summary notes. Provides concurrence on soils and groundwater issues; map is requested to show proposed well locations.	Comment Letter	NJDEP
<b>May 2005</b>	Proposed groundwater investigation summary and figure are provided to NJDEP	Groundwater Investigation Summary table and figure	GeoTrans, Inc.
<b>May 2005</b>	Remedial Action Report for the 25,000 gallon UST is submitted to NJDEP	Remedial Action Report 25,000 gallon UST, May 2005	Ecol Sciences, Inc.
<b>May 2005</b>	NJDEP provides comment letter to respond to May 2005 RAR	Comment Letter	NJDEP

**Table 1-1**  
**Investigative and Remedial Activities Summary**  
 Former AT&T Clark Facility, Clark, New Jersey

<i>June 2005</i>	NJDEP provides comment letter to respond to May 2005 groundwater investigation summary and figure	Comment Letter	NJDEP
<i>June 2005</i>	Baseline Ecological Evaluation is submitted to NJDEP	BEE, June 2005	GeoTrans, Inc.
<i>June 2005</i>	NJDEP provides comment letter to respond to the June 2005 BEE	Comment Letter	NJDEP
<i>July 2005</i>	Comment response letter to address NJDEP's comments to the RAR for the 25,000 gallon UST	Comment Response Letter	Ecol Sciences, Inc.
<i>July 2005</i>	Response to NJDEP Comments on the BEE	Comment Response Letter	GeoTrans, Inc.
<i>July 2005</i>	Draft sub-building sampling results are submitted to NJDEP to facilitate discussion of proposed well locations beneath the building.	Draft Sampling Results Figures and Table	GeoTrans, Inc.
<i>August 2005</i>	Conference call with NJDEP to discuss proposed well locations. The locations of alternate soil and groundwater grab samples are selected.	Conference Call	GeoTrans/NJDEP
<i>August 2005</i>	NJDEP provides letter to summarize August call on soil and groundwater grab samples in lieu of wells in the building interior.	Comment Letter	NJDEP
<i>October 2005</i>	Passive Bag Diffusion Sampling Work Plan is submitted to NJDEP	Groundwater Sampling Work Plan	GeoTrans, Inc.
<i>November 2005</i>	Conference call with NJDEP to discuss NJDEP's comments to PDBS Work Plan	Conference Call	GeoTrans/NJDEP
<i>November 2005</i>	NJDEP provides letter to summarize 11/1/05 conference call on PDBS sampling	Conference Call Summary	NJDEP

**Table 4-3**  
**Summary of Monitoring Well Analyses Performed during Supplemental Remedial Investigation**  
 Former AT&T Clark Facility, Clark, New Jersey

Sample ID	Sample Date	Lab ID	Sample Matrix	Laboratory Analyses					
				<sup>2</sup> TCL VOA+10	<sup>3</sup> Special BNA+25	Alcohols	<sup>4</sup> TCL Pesticides	<sup>5</sup> PP Metals	Formaldehyde
MW-1R	9/28/2005	10307-006	Aqueous	X	X	X	X	X	X
MW-2A	10/13/2005	10945-001	Aqueous	X	X	X	X	X	X
MW-2A ( <sup>1</sup> DUP)	10/13/2005	10945-004	Aqueous	X	X	X	X	X	X
MW-2R	9/29/2005	10381-004	Aqueous	X	X	X	X	X	X
MW-3	9/26/2005	10227-001	Aqueous	X	X	X	X	X	X
MW-4	9/29/2005	10381-003	Aqueous	X	X	X	X	X	X
MW-4A	9/28/2005	10307-003	Aqueous	X	X	X	X	X	X
MW-5	9/28/2005	10307-002	Aqueous	X	X	X	X	X	X
MW-5A	10/11/2005	10848-001	Aqueous	X	X	X	X	X	X
MW-6	9/26/2005	10227-003	Aqueous	X	X	X	X	X	X
MW-6A	9/27/2005	10250-001	Aqueous	X	X	X	X	X	X
MW-7	10/4/2005	10536-002	Aqueous	X	X	X	X	X	X
MW-7A	9/30/2005	10413-004	Aqueous	X	X	X	X	X	X
MW-7DB	10/12/2005	10904-004	Aqueous	X	X	X	X	X	X
MW-8	9/28/2005	10307-001	Aqueous	X	X	X	X	X	X
MW-9A	9/30/2005	10413-001	Aqueous	X	X	X	X	X	X
MW-10A	10/3/2005	10487-002	Aqueous	X	X	X	X	X	X
MW-11A	10/10/2005	10822-004	Aqueous	X	X	X	X	X	X
MW-12A	10/10/2005	10822-001	Aqueous	X	X	X	X	X	X
MW-13A	10/4/2005	10536-001	Aqueous	X	X	X	X	X	X
MW-14A	9/28/2005	10307-007	Aqueous	X	X	X	X	X	X
MW-15A	10/5/2005	10596-001	Aqueous	X	X	X	X	X	X
MW-16A	10/3/2005	10487-001	Aqueous	X	X	X	X	X	X
MW-17AR	10/5/2005	10596-002	Aqueous	X	X	X	X	X	X
MW-18A	10/6/2005	10671-003	Aqueous	X	X	X	X	X	X
MW-19A	10/13/2005	10945-005	Aqueous	X	X	X	X	X	X
MW-19B	10/6/2005	10726-005	Aqueous	X	X	X	X	X	X
MW-19D	10/11/2005	10848-002	Aqueous	X	X	X	X	X	X
MW-19DB	10/12/2005	10904-006	Aqueous	X	X	X	X	X	X
MW-19S	9/29/2005	10381-005	Aqueous	X	X	X	X	X	X
MW-20B	10/13/2005	10945-006	Aqueous	X	X	X	X	X	X
MW-20D	10/6/2005	10671-004	Aqueous	X	X	X	X	X	X
MW-21D	10/6/2005	10726-001	Aqueous	X	X	X	X	X	X
MW-21D ( <sup>1</sup> DUP)	10/6/2005	10726-004	Aqueous	X	X	X	X	X	X
MW-21DB	10/11/2005	10848-005	Aqueous	X	X	X	X	X	X
MW-21S	10/12/2005	10904-005	Aqueous	X	X	X	X	X	X
MW-22D	10/4/2005	10536-003	Aqueous	X	X	X	X	X	X
MW-23D	10/12/2005	10904-003	Aqueous	X	X	X	X	X	X

<sup>1</sup>DUP: Field duplicate sample

<sup>2</sup>TCL VOA+10: Target Compound List Volatile Organic Compounds + 10 Peaks Library Search

<sup>3</sup>Special BNA+25: Target Compound List Base Neutral/Acid Extractable Compounds + 25 Peaks Library Search. This

<sup>4</sup>TCL Pesticides: Target Compound List Pesticides

<sup>5</sup>PP Metals: Priority Pollutant Metals (total)

**Table 4-3**  
**Summary of Monitoring Well Analyses Performed during Supplemental Remedial Investigation**  
 Former AT&T Clark Facility, Clark, New Jersey

Sample ID	Sample Date	Lab ID	Sample Matrix	Laboratory Analyses					
				<sup>2</sup> TCL VOA+10	<sup>3</sup> Special BNA+25	Alcohols	<sup>4</sup> TCL Pesticides	<sup>5</sup> PP Metals	Formaldehyde
<b>Field Blanks</b>									
FB-9-26-05	9/26/2005	10227-002	Aqueous	X					
FB-9-27-05	9/27/2005	10250-002	Aqueous	X	X	X	X	X	X
FB-9-28-05	9/28/2005	10307-004	Aqueous	X	X	X	X	X	X
FB-9-29-05	9/29/2005	10381-001	Aqueous	X	X	X	X	X	X
FB-9-30-05	9/30/2005	10413-002	Aqueous	X	X	X	X	X	X
FB-10-3-05	10/3/2005	10487-003	Aqueous	X	X	X	X	X	X
FB-10-4-05	10/4/2005	10536-004	Aqueous	X	X	X	X	X	X
FB-10-5-05	10/5/2005	10596-003	Aqueous	X	X	X	X	X	X
FB-10-6-05	10/6/2005	10671-002	Aqueous	X	X	X	X	X	X
FB-10-7-05	10/7/2005	10726-002	Aqueous	X	X	X	X	X	X
FB-10-10-05	10/10/2005	10822-002	Aqueous	X	X	X	X	X	X
FB-10-11-05	10/11/2005	10848-003	Aqueous	X	X	X	X	X	X
FB-10-12-05	10/12/2005	10904-002	Aqueous	X	X	X	X	X	X
FB-10-13-05	10/13/2005	10945-002	Aqueous	X	X	X	X	X	X
<b>Trip Blanks</b>									
TB-9-26-05	9/26/2005	10227-004	Aqueous	X					
TB-9-27-05	9/27/2005	10250-003	Aqueous	X					
TB-9-28-05	9/28/2005	10307-005	Aqueous	X					
TB-9-29-05	9/29/2005	10381-002	Aqueous	X					
TB-9-30-05	9/30/2005	10413-003	Aqueous	X					
TB-10-3-05	10/3/2005	10487-004	Aqueous	X					
TB-10-4-05	10/4/2005	10536-005	Aqueous	X					
TB-10-5-05	10/5/2005	10596-004	Aqueous	X					
TB-10-6-05	10/6/2005	10671-001	Aqueous	X					
TB-10-7-05	10/7/2005	10726-003	Aqueous	X					
TB-10-10-05	10/10/2005	10822-003	Aqueous	X					
TB-10-11-05	10/11/2005	10848-004	Aqueous	X					
TB-10-12-05	10/12/2005	10904-001	Aqueous	X					
TB-10-13-05	10/13/2005	10945-003	Aqueous	X					

<sup>1</sup>DUP: Field duplicate sample

<sup>2</sup>TCL VOA+10: Target Compound List Volatile Organic Compounds + 10 Peaks Library Search

<sup>3</sup>Special BNA+25: Target Compound List Base Neutral/Acid Extractable Compounds + 25 Peaks Library Search. This list includes hydroquinone and xylenols (2,5-dimethylphenol, 2,6-dimethylphenol, and 3,5-dimethylphenol)

<sup>4</sup>TCL Pesticides: Target Compound List Pesticides

<sup>5</sup>PP Metals: Priority Pollutant Metals (total)

**Table 4-4**  
**Analytical Methods used for the Supplemental Remedial Investigation**  
Former AT&T Clark Facility, Clark, New Jersey

Analytical Parameter	Soil Method
TCL VOA + 10 + Acetone	8260B
Special BNA + 25	8270C
PP VOA + 15	8260B
Alcohols	8015B M
TCL Pesticides	8081A
PP Metals	6020/7471A
Formaldehyde	8315 (HPLC)
PCBs	8082
Acids + 15	8270C
Molybdenum - MO	6020
pH/Corrosivity	9045C
Chloride	9251
Total Recoverable Phenols	420.2
Cyanide, Total	335.2

**Table 4-5**  
**Summary of Analytical Parameters Reported at Concentrations Exceeding Applicable Guidelines for Soil or Groundwater**  
 Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Parameter Group	Matrix	Sample Name	Sample Depth (ft)	Analytical Parameters	Concentration	RDCSCC	NRDCSCC	IGWSCC	GWQS
								Soil Cleanup Criteria (ppm)			Groundwater Cleanup Criteria (ppb)
6	Sumps	Volatiles	Soil	6C-4-4-5	4 - 4.5	cis-1,2-Dichloroethene	2.80 ppm	79	1000	1	70
				6C-7-7.5	7 - 7.5	Trichloroethene	44.4 (D) ppm	23	54	1	1
				6C1-4-4.5	4 - 4.5	Trichloroethene	33.5 (D) ppm	23	54	1	1
				6C3-4-4.5	4 - 4.5	Trichloroethene	23.4 (D) ppm	23	54	1	1
				6CGW-11-15.5	11 - 15.5	Trichloroethene	5.46 ppm	23	54	1	1
		6CGW-23-25	23 - 25	Trichloroethene	2.820 ppb	23	54	1	1		
14	Storm Sewer Collection System	Pesticides	Soil	14B-3-3.5 (DUP)	3 - 3.5	Toxaphene	0.159 ppm	0.1	0.2	50	3
15	Former Dry Well and Piping	Volatiles	Aqueous	15CGW-16-20	16 - 20	Trichloroethene	1.15 ppb	23	54	1	1
				15CGW-23.5-27.5	23.5 - 27.5	Trichloroethene	9.520 ppb	23	54	1	1
				15DGW-24.5-28.5	24.5 - 28.5	Trichloroethene	80.5 ppb	23	54	1	1
				15EGW-26-28	26 - 28	Trichloroethene	173.0 ppb	23	54	1	1
				15FGW-26-28	26 - 28	Trichloroethene	99.3 ppb	23	54	1	1
				15B-24-27	24 - 27	Bromodichloromethane	4.18 ppb	11	46	1	1
						Dibromochloromethane	1.18 ppb	110	1000	1	1
				15CGW-16-20	16 - 20	Beryllium	2.02 ppb	2	2	NA	NA
						Lead	6.06 ppb	400	600	NA	5
						Arsenic	7.36 ppb	20	20	NA	3
		15CGW-23.5-27.5	23.5 - 27.5	Beryllium	4.01 ppb	2	2	NA	1		
				Chromium	467 ppb	NA	NA	NA	70		
				Lead	23.0 ppb	400	600	NA	5		
				Nickel	205.0 ppb	NA	NA	NA	100		
				Zinc	3840 ppb	1500	1500	NA	2000		
		15DGW-11-16	11 - 16	Arsenic	27.0 ppb	20	20	NA	3		
				Lead	50.0 ppb	400	600	NA	5		
		15DGW-24.5-28.5	24.5 - 28.5	Arsenic	6.38 ppb	20	20	NA	3		
				Chromium	90.0 ppb	NA	NA	NA	70		
				Lead	59.0 ppb	400	600	NA	5		
15EGW-14-16	14 - 16	Arsenic	53.0 ppb	20	20	NA	3				
		Lead	6.40 ppb	400	600	NA	5				
		Arsenic	12.0 ppb	20	20	NA	3				
15EGW-26-28	26 - 28	Chromium	215.0 ppb	NA	NA	NA	70				
		Lead	31.0 ppb	400	600	NA	5				
		Zinc	2,510 ppb	1500	1500	NA	2000				
15FGW-14-16	14 - 16	Arsenic	14.0 ppb	20	20	NA	3				
		Lead	9.55 ppb	400	600	NA	5				
15FGW-26-28	26 - 28	Arsenic	14.0 ppb	20	20	NA	3				
		Lead	10.0 ppb	400	600	NA	5				

**Table 4-5**  
**Summary of Analytical Parameters Reported at Concentrations Exceeding Applicable Guidelines for Soil or Groundwater**  
 Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Parameter Group	Matrix	Sample Name	Sample Depth (ft)	Analytical Parameters	Concentration	RDCSCC		IGWSCC		GWQS
								NRDCSCC	Soil Cleanup Criteria (ppm)	IGWSCC	Groundwater Cleanup Criteria (ppb)	
33	Former Solvent Storage Room	Volatiles Metals	Aqueous	33AGW-28-31	28 - 31	Trichloroethene	11,200 (D) ppb	23	54	1	1	Groundwater Cleanup Criteria (ppb)
				33AGW-10.5-13	10.5 - 13	Lead	6.69 ppb	400	600	NA	5	
				33AGW-28-31	28 - 31	Arsenic	5.78 ppb	20	20	NA	3	
34	Groundwater VOC Plume	Volatiles	Aqueous	34AGW-20-23	20 - 23	Trichloroethene	11.0 ppb	23	54	1	1	Groundwater Cleanup Criteria (ppb)
				34AGW-25-28	25 - 28	Vinyl chloride	1.04 ppb	2	7	10	1	
				34BGW-20-23	20 - 23	Trichloroethene	117 ppb	23	54	1	1	
				34BGW-24-28	24 - 28	Vinyl chloride	6.24 ppb	2	7	10	1	
				34CGW-20-23	20 - 23	Trichloroethene	19.5 ppb	23	54	1	1	
				34CGW-24-26	24 - 26	Trichloroethene	9.79 ppb	23	54	1	1	
				34DGW-20-23	20 - 23	Trichloroethene	514 (D) ppb	23	54	1	1	
				34DGW-25-28	25 - 28	Trichloroethene	568 (D) ppb	23	54	1	1	
				34G-GW-23.5-28	23.5 - 28	Trichloroethene	9.91 ppb	23	54	1	1	
				34AGW-20-23	20 - 23	Trichloroethene	33.6 ppb	23	54	1	1	
		34AGW-25-28		25 - 28	Trichloroethene	162.0 ppb	20	20	NA	3		
		34BGW-20-23		20 - 23	Arsenic	24.0 ppb	400	600	NA	5		
		34BGW-24-28		24 - 28	Lead	16.0 ppb	20	20	NA	3		
		34CGW-24-26		24 - 26	Arsenic	14.0 ppb	400	600	NA	5		
		34DGW-20-23		20 - 23	Lead	6.15 ppb	20	20	NA	3		
		34DGW-25-28		25 - 28	Arsenic	4.96 ppb	20	20	NA	3		
		34DGW-25-28		25 - 28	Arsenic	5.40 ppb	20	20	NA	3		
		34DGW-25-28		25 - 28	Arsenic	12.0 ppb	20	20	NA	3		
		34DGW-25-28		25 - 28	Beryllium	4.20 ppb	2	2	NA	1		
		34DGW-25-28		25 - 28	Chromium	574.0 ppb	NA	NA	NA	70		
34DGW-25-28	25 - 28	Lead	30.0 ppb	400	600	NA	5					
34DGW-25-28	25 - 28	Nickel	223.0 ppb	NA	NA	NA	100					
34DGW-25-28	25 - 28	Zinc	2,500 ppb	1500	1500	NA	2000					
34DGW-25-28	25 - 28	Arsenic	29.0 ppb	20	20	NA	3					
34DGW-25-28	25 - 28	Chromium	104.0 ppb	NA	NA	NA	70					
34DGW-25-28	25 - 28	Lead	14.0 ppb	400	600	NA	5					
34DGW-25-28	25 - 28	Zinc	3,380 ppb	1500	1500	NA	2000					
34DGW-25-28	25 - 28	Arsenic	12.0 ppb	20	20	NA	3					
34DGW-25-28	25 - 28	Lead	12.0 ppb	400	600	NA	5					

**Table 4-5**  
**Summary of Analytical Parameters Reported at Concentrations Exceeding Applicable Guidelines for Soil or Groundwater**  
 Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Parameter Group	Matrix	Sample Name	Sample Depth (ft)	Analytical Parameters	Concentration	RDCSCC	NRDCSCC	IGWSCC	GWQS	
								Soil Cleanup Criteria (ppm)				
Additional Sampling Locations	Volatiles	Soil	Soil	I2B-2-2.5	2 - 2.5	cis-1,2-Dichloroethene	18.1 ppm	79	1000	1	70	
				I2C-2-2.5	2 - 2.5	cis-1,2-Dichloroethene	1.70 ppm	79	1000	1	70	
				I13C-6-6.5	6 - 6.5	cis-1,2-Dichloroethene	2.84 ppm	79	1000	1	70	
				I17B-2-2.5	2 - 2.5	cis-1,2-Dichloroethene	2.01 ppm	79	1000	1	70	
				I2AGW-9-19	9 - 19	Vinyl chloride	6.16 ppb	2	7	10	1	1
						Trichloroethene	66.5 ppb	23	54	1	1	1
						Vinyl chloride	134.0 ppb	2	7	10	1	1
						cis-1,2-Dichloroethene	1010 ppb	79	1000	1	1	1
						1,1,1-Trichloroethane	31.4 ppb	210	1000	50	70	30
						Trichloroethene	144.0 ppb	23	54	1	1	1
Additional Sampling Locations	Volatiles	Aqueous	Aqueous	I17A-GW-6-8	6 - 8	Vinyl chloride	18.5 ppb	2	7	10	1	
				I7AGW-6-10	6 - 10	Trichloroethene	2.62 ppb	23	54	1	1	
				I17D-GW-25-28	25 - 28	Vinyl chloride	6.39 ppb	2	7	10	1	
				I7AGW-24-28	24 - 28	Trichloroethene	2.10 ppb	23	54	1	1	
						Trichloroethene	113.0 ppb	23	54	1	1	
						Trichloroethene	3.04 ppb	23	54	1	1	

(D) - The compound was reported from a diluted analysis  
 RDCSCC - Residential Direct Contact Soil Cleanup Criteria  
 NRDCSCC - Non-Residential Direct Contact Soil Cleanup Criteria  
 IGWSCC - Impact to Ground Water Soil Cleanup Criteria  
 GWQS - Groundwater Quality Standards  
 TICs - Tentatively Identified Compounds

**Table 5-1**  
**Monitoring Well Construction Details**  
 Former AT&T Clark Facility, Clark, New Jersey

Well	Date Installed	Permit Number	Northing	Easting	Completion	Elevation of TIC AMSL (feet)	Well Diameter (inches)	Total Well Depth (ft bgs)	Screen Length (feet)	Depth Top of Screen (ft bgs)	Depth Bottom of Screen (ft bgs)	
<b>Shallow Overburden Wells</b>												
MW-1*	June 1990	26-20540-8	654912.7700	542706.3890	Stick-up	62.11	2	22	15	7	22	
MW-1R	September 2005	2600075692	654856.8453	542671.3008	Flush	58.07	2	22	15	7	22	
MW-2*	June 1990	26-20541-6	654841.8580	542667.9880	Stick-up	61.85	2	23	15	8	23	
MW-2R	September 2005	2600075693	654836.9691	542664.9715	Flush	57.66	2	22	15	7	22	
MW-3	June 1990	26-20542-4	654812.0350	542693.4190	Flush	57.67	4	23	15	7	22	
MW-4	May 1991	26-25040-3	654659.4806	542354.1024	Flush	55.91	4	23.6	15	8.6	23.6	
MW-5	May 1991	26-25041-1	654614.7140	542440.2688	Flush	55.14	4	18	15	3	18	
MW-6	May 1991	26-25043-8	654518.3675	542480.6187	Flush	55.48	4	19.5	15	4.5	19.5	
MW-7	June 1991	26-25326-7	654719.7347	542581.3655	Flush	57.13	4	23.5	15	8.5	23.5	
MW-8	June 1991	26-29068	654657.2628	542483.0402	Stick-up	58.41	4	19	15	4	19	
MW-19S	September 2005	2600075696	654798.3570	542646.8151	Flush	57.98	4	22	15	7	22	
<b>Deep Overburden Wells</b>												
MW-2A	June 1991	26-25039-0	654832.3802	542668.7571	Flush	57.34	4	28.8	5	23.8	28.8	
MW-4A	September 2005	2600075694	654656.2550	542360.6528	Flush	56.19	2	30	5	25	30	
MW-5A	June 1991	26-25042-0	654607.9388	542445.5656	Flush	55.25	4	30.5	5	25.5	30.5	
MW-6A	September 2005	2600075695	654516.0923	542487.7508	Flush	55.65	2	33	5	28	33	
MW-7A	April 1992	26-29067	654712.6206	542586.0613	Flush	57.28	4	33	5	28	33	
MW-9A	April 1992	26-29069	654885.7991	542777.0921	Flush	57.07	4	19	5	14	19	
MW-10A	March 1992	26-29070	654816.0623	542583.8877	Flush	57.93	4	24	5	19	24	
MW-11A	April 1992	26-29071	654577.8675	542416.9972	Flush	55.27	4	31	5	26	31	
MW-12A	April 1992	26-29072	654392.1334	542606.2337	Flush	55.06	4	38	5	33	38	
MW-13A	April 1992	26-29073	654360.5244	542739.1182	Flush	55.46	4	33.5	5	28.5	33.5	
MW-14A	April 1992	26-29078	654633.3182	543010.2847	Flush	57.18	4	31	5	26	31	
MW-15A	December 1993	26-35378	654239.4069	542626.1430	Flush	54.60	4	58	5	53	58	
MW-16A	December 1993	26-35379	654078.9235	542473.3702	Flush	54.25	4	57	10	47	57	
MW-17A^	December 1993	26-35380	654446.5010	542329.5880	Flush	59.05	4	37.5	5	32.5	37.5	
MW-17AR	September 2005	2600075691	654447.4251	542307.7677	Flush	55.70	2	37	5	32	37	
MW-18A	December 1993	26-35381	653973.4798	542042.5010	Flush	52.73	4	51	5	46	51	
<b>Bedrock Wells</b>												
MW-7DB	September 2005	2600075700	654734.9545	542592.9224	Flush	58.03	2	278	5	273	278	
MW-19A	July 1999	26-54348	654806.3649	542675.9253	Flush	57.17	2	80	10	70	80	
MW-19B	September 2005	2600075702	654789.1284	542636.8719	Flush	58.05	2	115	10	105	115	
MW-19D	June 2000	26-57263	654778.8688	542645.6780	Flush	57.76	2	206	20	186	206	
MW-19DB	September 2005	2600075701	654771.8687	542636.8880	Flush	57.85	2	300	5	295	300	
MW-20B	September 2005	2600075703	654911.0452	542810.0708	Flush	57.19	2	113	10	103	113	
MW-20D	June 2000	26-57262	654904.2598	542817.2533	Flush	57.22	2	198	20	178	198	
MW-21	June 2000	26-57260	654352.4515	542741.8635	Flush	55.42	2	114	10	104	114	
MW-21D	June 2000	26-57261	654353.5253	542732.8614	Flush	55.50	2	198	20	178	198	
MW-21DB	September 2005	2600075704	654370.2273	542727.3651	Flush	55.87	2	255	5	250	255	
MW-22D	June 2000	26-57259	655150.6470	542761.8072	Flush	59.81	2	115	10	105	115	
MW-23D	September 2005	2600075705	654879.6529	542606.1592	Flush	58.50	2	100	5	96.5	101.5	

TIC: Top of Inner Casing.  
 AMSL: Above Mean Sea Level.  
 ft bgs: feet below ground surface

\* Well Abandoned. Survey data is not current.  
 ^ Well Presumed Destroyed. Survey data is not current.

**Table 4-1**  
**AOC Status Summary and Supplemental Investigation Activities**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	NJDEP Comments - March 2005 letter	Proposed Tasks/Field Methods	Number of Samples	Analytical Parameters	TRSR Reference	Variance with TRSR?
1	Above Ground Storage Tank	NFA/CNS granted on 1/2/02					
2	Former No. 2 Diesel Fuel 20,000-gallon UST	NFA/CNS soils only granted 7/15/04					
3	Former No. 2 Diesel Fuel 20,000-gallon UST	NFA/CNS soils only granted 7/15/04					
4	No. 2 Diesel Fuel 25,000-gallon UST	NJDEP accepted proposal for UST removal/post-ex soil sampling, groundwater grab sample within 10 ft downgradient or within UST location, and groundwater sampling at MW-5 and MW-6 for VOC+10, BNA+15.	UST removal and post-ex sampling January 2005. Collect groundwater grab sample from former UST location or within 10 ft downgradient	1 groundwater grab sample	TCL VOC+10, TCL BNA+15	7:26E-6.3 7:26E-4.4	None
5	Former Underground Spill Collection Tank	NFA/CNS soils only granted 7/15/04					
6	Sumps	NJDEP required soil delineation at exceedences and groundwater sampling where IGWSCC were exceeded.	Sumps S-1, S-2, and S-3 (abandoned): Clean out and assess integrity of sumps S-1 and S-2. Collect soil samples from sump areas or within 2 ft downgradient.	3 soil samples (1 sample/boring)	Full Suite*	7:26E-3.9(d)	None
7	Pits	NJDEP required soil delineation at exceedences and groundwater sampling where IGWSCC were exceeded	Pits P-1, P-2 (abandoned), and P-3 (abandoned): Clean out and assess integrity of pit P-1. Collect soil samples from pit areas or within 2 ft downgradient.	3 soil samples (1 sample/boring)	Full Suite*	7:26E-3.9(d)	None
8	Storage Pad & Hazardous Materials Storage and Handling Area	NFA/CNS granted on 6/10/99					
9	Suspected Former Drum Storage Area	NFA/CNS granted on 6/14/99					
10	Oil Storage Shed (Former Denatured Alcohol Shed & Former Gas House)	NFA/CNS soils only granted 7/15/04					
11	Dumpsters	NJDEP accepted AT&T clarification regarding post-ex samples collected in-situ prior to excavation. NFA/CNS for soils only will be granted.					
12	Chemical Storage Cabinet	Conditional NFA based on confirming location of chemical storage cabinet and verifying that soil samples collected during 1989 dry well remediation activities were located within the AOC.	Interviews with former AT&T employees indicate chemical storage cabinet was installed in 1995-1996 and used to store d-limonene (environmentally friendly cleaner). Confirm storage cabinet location and collect shallow soil samples adjacent to the pad.	3 soil samples (1 sample/boring)	Full Suite*	7:26E-3.9(b)1	None
13	Floor Drains, Trenches or Piping	NJDEP required soil delineation at exceedences and groundwater sampling where IGWSCC were exceeded	Video log the floor drain system and collect soil samples adjacent to identified pipe breaches. Collect soil samples near pipe breaches on downgradient side at depth corresponding to pipe bottom.	3 soil samples (1 sample/boring)	Full Suite*	7:26E-3.9(d)	None

**Table 4-1**  
**AOC Status Summary and Supplemental Investigation Activities**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	NJDEP Comments - March 2005 letter	Proposed Tasks/Field Methods	Number of Samples	Analytical Parameters	TRSR Reference	Variance with TRSR?
14	Storm Sewer Collection System	NJDEP required video logging of storm sewer system and soil sampling at identified breaches	Video log the storm sewer system beneath the building and collect soil samples adjacent to identified pipe breaches. Collect soil samples near pipe breaches on downgradient side at depth corresponding to pipe bottom.	3 initial soil samples (1 sample/boring) and 5 delineation soil samples	Full suite* (initial) Toxaphene (delineation)	7:26E-3.9(d)4	None
15	Former Dry Well and Piping	NJDEP required soil and groundwater delineation near the former dry well area	Collect soil samples and shallow and deep groundwater grab samples at 3 locations within the former dry well area not removed during the 1999 IRM. Collect shallow and deep groundwater grab samples north and southwest of the former dry well area.	3 soil samples (1 sample/boring) 5 shallow and 5 deep groundwater grab samples	Full Suite*	7:26E-3.9 7:26E-4.4	None
16	Current Electrical Transformers	NFA/CNS soils only granted 7/15/04					
17	Former Electrical Transformers	NFA/CNS soils only granted 7/15/04					
18	Underground Piping, Including Industrial Process Sewers, Process Area Sinks & Piping Which Received Process Waste	NJDEP required soil delineation at exceedences and groundwater sampling where IGWSCC were exceeded.	Same as AOC 13 (Floor Drains, Trenches or Piping). Sampling included under AOC 13.			7:26E-3.9(d)	None
19	Non-Contact Cooling Water	NJDEP required soil samples from open areas adjacent to pad	Collect shallow soil samples from open sides adjacent to pad.	2 soil samples (1 sample/boring)	VOC+10, AE+15, molybdenum, chloride, pH	7:26E-3.9(b)	None
20	Release of Cesium to Soil (94-5-3-1-1703-03)	Conditional NFA; if pipe remains in place, then include in Deed Notice. If pipe removed, then post ex soil sampling for Full Suite plus cesium required	No proposed field activities.				
21	Front Lawn Sewer Overflow (95-6-16-1642-52)	NFA/CNS soils only granted 7/15/04					
22	Kitchen Grease in Sewer (85-6-29-1938-53)	NFA/CNS soils only granted 7/15/04					
23	VOCs in Excavation Soils (95-8-28-1359-52)	NFA/CNS soils only granted 7/15/04					
24	Discharge to Lift Station (95-10-4-1131-25)	NJDEP accepted proposal to collect soil and groundwater grab samples at the lift station	Collect soil sample and a shallow groundwater grab sample at the sewer lift station or within 2 ft downgradient.	1 soil sample 1 shallow groundwater grab sample	PP+40 plus xylenol, alcohols, formaldehyde, hydroquinone	7:26E-3.9 7:26E-4.4	None

**Table 4-1**  
**AOC Status Summary and Supplemental Investigation Activities**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	NJDEP Comments - March 2005 letter	Proposed Tasks/Field Methods	Number of Samples	Analytical Parameters	TRSR Reference	Variance with TRSR?
25	Kitchen Grease Spill (95-12-8-0819-04)	NFA/CNS for soils only will be granted					
26	Flourescin Die Pipe Tracing (96-111-7-1336-11)	NFA/CNS soils only granted 7/15/04					
27	Orange Smoke Pipe Tracing (97-1-7-1336-11)	NFA/CNS soils only granted 7/15/04					
28	Non-Contact Cooling Water (97-3-14-0850-39)	NFA/CNS soils only granted 7/15/04					
29	Kitchen Grease Trap Replacement (94-11-1-1511-00)	NFA/CNS soils only granted 1/23/02					
30	Loading Transfer Area	NJDEP required video logging of storm sewer system and soil sampling at any identified breaches	Same as AOC 14 (Storm Sewer Collection System). Sampling included under AOC 14.			7:26E-3.9(d)4	None
31	Boiler Room	NJDEP required soil delineation and groundwater sampling where IGWSCC were exceeded.	Sampling at sump and pits in boiler room addressed under AOCs 6 and 7. Video logging of floor drain piping and sampling at breaches addressed under AOC 13. Collect a soil sample below 4 ft at Phase II location I-33.	1 soil sample	2,4-dinitrotoluene	7:26E-3.9(d)	None
32	Air Vents/Ducts	NFA/CNS granted on 1/2/02					
33	Former Solvent Storage Room	NFA/CNS soils only granted 7/15/04. NJDEP required shallow and deep groundwater grab samples and PID screening of soil; if PID readings exceed background, collect a soil sample above groundwater	Collect shallow and deep overburden groundwater grab samples. Screen soil column with PID. If PID readings exceed background, collect a soil sample from interval with the highest PID reading in the unsaturated zone	2 groundwater grab samples 1 soil sample	Full Suite*	7:26E-3.9 7:26E-4.4	None
34	Groundwater VOC Plume	NJDEP required groundwater grab sampling near the former dry well at former grab sampling locations DB-1 through DB-4	Collect shallow and deep groundwater grab samples at 4 locations near the former dry well area. Groundwater samples should be at same locations and depths as original DB-1 through DB-4 samples.	4 shallow and 4 deep groundwater grab samples	Full Suite*	7:26E-4.4	None
35	Baseline Ecological Evaluation (BEE)	NJDEP will review BEE upon receipt.	Draft BEE submitted to NJDEP on 6/1/05 for review			7:26E-3.11	None
36	Clean Fill Certifications and Waste Disposal Documentation	Waste disposal documentation required during redevelopment activities. Clean fill certifications required upon completion of remediation.	To be submitted to NJDEP				

\* Full Suite: TCL VOC+10, TCL BNA+25 plus xlenol and hydroquinone, TCL pesticides, PP metals, alcohols, and formaldehyde  
TCL VOA+10: Target Compound List Volatile Organic Compounds + 10 Peaks Library Search  
TCL BNA+25: Target Compound List Base Neutral/Acid Extractable Compounds + 25 Peaks Library Search  
TCL Pesticides: Target Compound List Pesticides  
PP Metals: Priority Pollutant Metals (total)  
AE+15: Acid Extractable Compounds + 15 Peaks Library Search  
TRSR: NJDEP Technical Requirements for Site Remediation

**Table 4-2**  
**Summary of Analyses Performed during Supplemental Remedial Investigation**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Sample ID	Sample Depth (ft)	Sample Date	Lab ID	Sample Matrix	Laboratory Analyses													
							TCL VOA+10	Special BNA+25	PP VOA+15	Alcohols	TCL Pesticides	PP Metals	Formaldehyde	PCBs	AE+15	Molybdenum	pH/Corrosivity	Chloride	Total Recoverable Phenols	Cyanide
4	No. 2 Diesel Fuel 25,000-gallon UST	4GW-3-8	3 - 8	6/21/2005	06355-001	Aqueous	X	X												
6	Sumps	6A-3.5-4	3.5 - 4	6/30/2005	06762-008	Soil	X	X		X	X	X	X							
		6B-3.5-4	3.5 - 4	7/1/2005	06830-008	Soil	X	X		X	X	X	X							
		6C-4-4.5	4 - 4.5	7/6/2005	06962-009	Soil	X	X		X	X	X	X							
		6C-7-7.5	7 - 7.5	9/14/2005	09685-001	Soil	X <sup>1</sup>													
		6C1-4-4.5	4 - 4.5	9/14/2005	09685-002	Soil	X <sup>1</sup>													
		6C1-4-4.5 (DUP)	4 - 4.5	9/14/2005	09685-006	Soil	X <sup>1</sup>													
		6C2-4-4.5	4 - 4.5	9/14/2005	09685-003	Soil	X <sup>1</sup>													
		6C3-4-4.5	4 - 4.5	9/14/2005	09685-004	Soil	X <sup>1</sup>													
		6C4-4-4.5	4 - 4.5	9/14/2005	09685-005	Soil	X <sup>1</sup>													
		6CGW-11-15.5	11 - 15.5	9/14/2005	09685-007	Aqueous	X <sup>1</sup>													
		6CGW-23-25	23 - 25	9/14/2005	09685-008	Aqueous	X <sup>1</sup>													
7	Pits	7A-4-4.5	4 - 4.5	7/1/2005	06830-002	Soil	X	X		X	X	X	X							
		7B-3-3.5	3 - 3.5	7/1/2005	06830-003	Soil	X	X		X	X	X	X							
		7C-7.5-8	7.5 - 8	7/5/2005	06922-008	Soil	X	X		X	X	X	X							
12	Chemical Storage Cabinet	12A-1.5-2	1.5 - 2	7/1/2005	06830-009	Soil	X	X		X	X	X	X							
		12B-1.5-2	1.5 - 2	7/1/2005	06830-011	Soil	X	X		X	X	X	X							
		12B-1.5-2 (DUP)	1.5 - 2	7/1/2005	06830-012	Soil	X	X		X	X	X	X							
		12C-1.5-2	1.5 - 2	7/1/2005	06830-010	Soil	X	X		X	X	X	X							
13	Floor Drains, Trenches or Piping	13A-5-5.5	5 - 5.5	6/21/2005	06355-002	Soil	X	X		X	X	X	X							
		13B-2.5-3	2.5 - 3	6/30/2005	06762-010	Soil	X	X		X	X	X	X							
		13C-2.5-3	2.5 - 3	6/30/2005	06762-007	Soil	X	X		X	X	X	X							
14	Storm Sewer Collection System	14A-4.5-5	4.5 - 5	7/7/2005	07024-004	Soil	X	X		X	X	X	X							
		14B-3-3.5	3 - 3.5	7/7/2005	07024-002	Soil	X	X		X	X	X	X							
		14B1-3-3.5	3 - 3.5	9/13/2005	09639-001	Soil					X <sup>2</sup>									
		14B2-3-3.5	3 - 3.5	9/13/2005	09639-002	Soil					X <sup>2</sup>									
		14B3-3-3.5	3 - 3.5	9/13/2005	09639-003	Soil					X <sup>2</sup>									
		14B4-3-3.5	3 - 3.5	9/13/2005	09639-004	Soil					X <sup>2</sup>									
		14B5-3-3.5	3 - 3.5	9/13/2005	09639-005	Soil					X <sup>2</sup>									
		14B-3-3.5 (DUP)	3 - 3.5	7/7/2005	07024-003	Soil	X	X		X	X	X	X							
		14C-3.5-4	3.5 - 4	7/7/2005	07024-005	Soil	X	X		X	X	X	X							

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AE+15: Acid Extractable Compounds + 15 Peaks Library Search

<sup>1</sup>: Sampled only for TCE

<sup>2</sup>: Sampled only for Toxaphene

**Table 4-2**  
**Summary of Analyses Performed during Supplemental Remedial Investigation**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Sample ID	Sample Depth (ft)	Sample Date	Lab ID	Sample Matrix	Laboratory Analyses															
							TCL VOA+10	Special BNA+25	PP VOA+15	Alcohols	TCL Pesticides	PP Metals	Formaldehyde	PCBs	AE+15	Molybdenum	pH/Corrosivity	Chloride	Total Recoverable Phenols	Cyanide		
15	Former Dry Well and Piping	15GWA-13-15	13 - 15	6/22/2005	06414-002	Aqueous	X	X		X	X	X	X									
		15B-20.5-23.5	20.5 - 23.5	9/16/2005	09793-006	Aqueous	X <sup>1</sup>															
		15B-24-27	24 - 27	9/23/2005	10100-001	Aqueous	X															
		15CGW-16-20	16 - 20	6/29/2005	06701-003	Aqueous	X	X		X	X	X	X									
		15CGW-16-20 (DUP)	16 - 20	6/29/2005	06701-004	Aqueous	X	X		X	X	X	X									
		15CGW-23.5-27.5	23.5 - 27.5	6/29/2005	06701-005	Aqueous	X	X		X	X	X	X									
		15D-4-4.5	4 - 4.5	6/23/2005	06508-001	Soil	X	X		X	X	X	X									
		15DGW-11-16	11 - 16	6/23/2005	06508-004	Aqueous	X	X		X	X	X	X									
		15DGW-24.5-28.5	24.5 - 28.5	6/23/2005	06508-005	Aqueous	X	X		X	X	X	X									
		15E-5-5.5	5 - 5.5	6/23/2005	06508-007	Soil	X	X		X	X	X	X									
		15EGW-14-16	14 - 16	6/23/2005	06508-006	Aqueous	X	X		X	X	X	X									
		15EGW-26-28	26 - 28	6/23/2005	06508-009	Aqueous	X	X		X	X	X	X									
		15F-5-5.5	5 - 5.5	6/24/2005	06532-001	Soil	X	X		X	X	X	X									
15FGW-14-16	14 - 16	6/24/2005	06532-005	Aqueous	X	X		X	X	X	X											
15FGW-26-28	26 - 28	6/24/2005	06532-006	Aqueous	X	X		X	X	X	X											
19	Non-Contact Cooling Water	19A-1-1.5	1 - 1.5	7/7/2005	07024-006	Soil	X								X	X	X	X				
		19B-1-1.5 (DUP)	1 - 1.5	7/7/2005	07024-008	Soil										X	X	X	X			
		19B-1-1.5	1 - 1.5	7/7/2005	07024-007	Soil	X								X	X	X	X				
24	Discharge to Lift Station	24AGW-8-10	8 - 10	6/30/2005	06762-001	Aqueous		X	X	X	X	X	X	X					X	X		
		24AGW-8-10 (DUP)	8 - 10	6/30/2005	06762-004	Aqueous								X					X	X		
		24B-11.5-12	11.5 - 12	6/30/2005	06762-005	Soil		X	X	X	X	X	X	X					X	X		
31	Boiler Room	31A-4-4.5	4 - 4.5	6/30/2005	06762-009	Soil		X														
33	Former Solvent Storage Room	33A-4-4.5	4 - 4.5	6/28/2005	06650-006	Soil	X	X		X	X	X	X									
		33AGW-10.5-13	10.5 - 13	6/28/2005	06650-005	Aqueous	X	X		X	X	X	X									
		33AGW-28-31	28 - 31	6/28/2005	06650-008	Aqueous	X	X		X	X	X	X									
34	Groundwater VOC Plume	34AGW-20-23	20-23	6/24/2005	06532-007	Aqueous	X	X		X	X	X	X									
		34AGW-25-28	25-28	6/24/2005	06532-008	Aqueous	X	X		X	X	X	X									
		34BGW-20-23	20 - 23	6/27/2005	06616-001	Aqueous	X	X		X	X	X	X									
		34BGW-24-28	24 - 28	6/27/2005	06616-004	Aqueous	X	X		X	X	X	X									
		34CGW-20-23	20 - 23	6/27/2005	06616-005	Aqueous	X	X		X	X	X	X									
		34CGW-24-26	24 - 26	6/27/2005	06616-006	Aqueous	X	X		X	X	X	X									
		34DGW-20-23	20 - 23	6/28/2005	06650-003	Aqueous	X	X		X	X	X	X									
		34DGW-25-28	25 - 28	6/28/2005	06650-004	Aqueous	X	X		X	X	X	X									
		34E-25-28	25 - 28	9/15/2005	09762-006	Aqueous	X <sup>1</sup>															
		34G-GW-23.5-28	23.5 - 28	9/13/2005	09639-010	Aqueous	X <sup>1</sup>															
		34G-GW-23.5-28 (DUP)	23.5 - 28	9/13/2005	09639-011	Aqueous	X <sup>1</sup>															
34F-25-28	25 - 28	9/15/2005	09762-003	Aqueous	X <sup>1</sup>																	

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AE+15: Acid Extractable Compounds + 15 Peaks Library Search

<sup>1</sup>: Sampled only for TCE

<sup>2</sup>: Sampled only for Toxaphene

**Table 4-2**  
**Summary of Analyses Performed during Supplemental Remedial Investigation**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Sample ID	Sample Depth (ft)	Sample Date	Lab ID	Sample Matrix	Laboratory Analyses															
							TCL VOA+10	Special BNA+25	PP VOA+15	Alcohols	TCL Pesticides	PP Metals	Formaldehyde	PCBs	AE+15	Molybdenum	pH/ Corrosivity	Chloride	Total Recoverable Phenols	Cyanide		
Additional Sampling Locations		I2A-5.5-6	5.5 - 6	7/6/2005	06962-010	Soil	X															
		I2AGW-9-19	9 - 19	7/5/2005	06922-009	Aqueous	X															
		I2A-25-28	25 - 28	9/16/2005	09793-001	Aqueous	X <sup>1</sup>															
		I2B-2-2.5	2 - 2.5	7/6/2005	06962-011	Soil	X															
		I2C-2-2.5	2 - 2.5	7/6/2005	06962-012	Soil	X															
		I7A-4-4.5	4 - 4.5	7/5/2005	06922-011	Soil		X		X	X											
		I10A-2.5-3	2.5 - 3	7/6/2005	06962-015	Soil				X	X	X										
		I13A-10-10.5	10 - 10.5	7/6/2005	06962-005	Soil	X															
		I13AGW-12-16	12 - 16	7/6/2005	06962-001	Aqueous	X															
		I13AGW-12-16 (DUP)	12 - 16	7/6/2005	06962-002	Aqueous	X															
		I13B-7-7.5	7 - 7.5	7/6/2005	06962-006	Soil	X															
		I13B-13.5-14	13.5 - 14	7/6/2005	06962-007	Soil	X															
		I13C-6-6.5	6 - 6.5	7/6/2005	06962-008	Soil	X															
		I17A-7.5-8	7.5 - 8	7/1/2005	06830-006	Soil	X															
		I17A-GW-6-8	6 - 8	7/1/2005	06830-007	Aqueous	X															
		I7AGW-6-10	6 - 10	7/5/2005	06922-010	Aqueous	X	X		X	X	X	X									
		I7AGW-24-28	24 - 28	9/14/2005	09685-009	Aqueous	X <sup>1</sup>															
		I17B-2-2.5	2 - 2.5	7/7/2005	07024-009	Soil	X															
	I17C-7-7.5	7 - 7.5	7/7/2005	07024-010	Soil	X																
	I17D-GW-25-28	25 - 28	9/13/2005	09639-007	Aqueous	X <sup>1</sup>																
	I25A-8.5-9	8.5 - 9	7/6/2005	06962-014	Soil		X		X	X	X											
Field Blanks		FB-062105	N/A	6/21/2005	06355-003	Aqueous	X	X														
		FB-062205	N/A	6/22/2005	06414-001	Aqueous	X	X		X	X	X	X									
		FB-062305	N/A	6/23/2005	06508-003	Aqueous	X	X		X	X	X	X									
		FB-062405	N/A	6/24/2005	06532-003	Aqueous	X	X		X	X	X	X									
		FB-062705	N/A	6/27/2005	06616-002	Aqueous	X	X		X	X	X	X									
		FB-062805	N/A	6/28/2005	06650-001	Aqueous	X	X		X	X	X	X									
		FB-062905	N/A	6/29/2005	06701-001	Aqueous	X	X		X	X	X	X									
		FB-063005	N/A	6/30/2005	06762-002	Aqueous		X	X	X	X	X	X	X							X	X
		FB-070105	N/A	7/1/2005	06830-005	Aqueous	X															
		FB-070505	N/A	7/5/2005	06922-001	Aqueous	X															
		FB-070605	N/A	7/6/2005	06962-003	Aqueous	X															
		FB1-9-13-05	N/A	9/13/2005	09639-008	Aqueous	X <sup>1</sup>															
		FB2-9-14-05	N/A	9/14/2005	09685-011	Aqueous	X <sup>1</sup>															
		FB3-9-15-05	N/A	9/15/2005	09762-005	Aqueous	X <sup>1</sup>															
		FB4-9-16-05	N/A	9/16/2005	09793-005	Aqueous	X <sup>1</sup>															
	FB-9-23-05	N/A	9/23/2005	10100-002	Aqueous	X																

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 Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Sample ID	Sample Depth (ft)	Sample Date	Lab ID	Sample Matrix	Laboratory Analyses													
							TCL VOA+10	Special BNA+25	PP VOA+15	Alcohols	TCL Pesticides	PP Metals	Formaldehyde	PCBs	AE+15	Molybdenum	pH/Corrosivity	Chloride	Total Recoverable Phenols	Cyanide
Trip Blanks (Soil)		TB-062305	N/A	6/23/2005	06508-002	Soil	X													
		TB-062405	N/A	6/24/2005	06532-002	Soil	X													
		TB-062805	N/A	6/28/2005	06650-007	Soil	X													
		TB-063005	N/A	6/30/2005	06762-006	Soil	X													
		TB-070105	N/A	7/1/2005	06830-001	Soil	X													
		TB-070505	N/A	7/5/2005	06922-004	Soil	X													
		TB-070605	N/A	7/6/2005	06962-013	Soil	X													
	TB-070705	N/A	7/7/2005	07024-001	Soil	X														
Trip Blanks (Aqueous)		TB-062105	N/A	6/21/2005	06355-004	Aqueous	X													
		TB-062205	N/A	6/22/2005	06414-003	Aqueous	X													
		TB-062305	N/A	6/23/2005	06508-008	Aqueous	X													
		TB-062405	N/A	6/24/2005	06532-004	Aqueous	X													
		AQTB-062705	N/A	6/27/2005	06616-003	Aqueous	X													
		AQTB-062805	N/A	6/28/2005	06650-002	Aqueous	X													
		AQTB-062905	N/A	6/29/2005	06701-002	Aqueous	X													
		AQTB-063005	N/A	6/30/2005	06762-003	Aqueous	X													
		AQTB-070105	N/A	7/1/2005	06830-004	Aqueous	X													
		AQTB-070505	N/A	7/5/2005	06922-003	Aqueous	X													
		AQTB-070605	N/A	7/6/2005	06962-004	Aqueous	X													
		TB1-9-13-05	N/A	9/13/2005	09639-009	Aqueous	X <sup>1</sup>													
		TB2-9-14-05	N/A	9/14/2005	09685-012	Aqueous	X <sup>1</sup>													
		TB3-9-15-05	N/A	9/15/2005	09762-004	Aqueous	X <sup>1</sup>													
	TB4-9-16-05	N/A	9/16/2005	09793-004	Aqueous	X <sup>1</sup>														
	TB-9-23-05	N/A	9/23/2005	10100-003	Aqueous	X														

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<sup>2</sup>: Sampled only for Toxaphene

**Table 5-2**  
**Summary of Rock Coring Depths and Packer Testing Intervals**  
Former AT&T Clark Facility, Clark, New Jersey

Monitoring Well	Depths Rock Core (ft bgs)	Packer Sampling Intervals (ft bgs)	Intervals Sampled	Approximate Water Yield (gpm)	TCE Concentration (ug/l)
MW-7DB	Not Cored	100-120	Not Sampled *	6.3	*
		220-240	Sampled	5.8	187
		260-280	Sampled	5.7	771
		280-300	Sampled	3	560
MW-19DB	48-300	104-124	Sampled	2.5 - 5	150
		142-162	Sampled	5	854
		218-238	Sampled	4	205
		270-300	Sampled	5	989
MW-21DB	59-300	96-116	Sampled	5	184
		157-177	Sampled	5	143
		224-244	Sampled	5	157
		248-268	Sampled	5	162
MW-23D	Not Cored	60-80	Sampled	0.5 - 0.55	100
		80-100	Sampled	0.45 - 0.5 **	165

\* Analytical sample collected from this interval in MW-19DB.

\*\* Dewatered the interval and sampled after recovery.

gpm: gallons per minute

ft bgs: feet below ground surface

**Table 6-1**  
**Summary of Groundwater Analytical Results for AOC 4**  
 Former AT&T Facility, Clark, New Jersey

Client ID:	HIGHER OF PQLs	4GW-3-8
Sample Depth:	+ GROUND WATER	3-8
Lab ID:	QUALITY	06355-001
Date Sampled:	CRITERIA	06/21/2005
Matrix:		Aqueous
Volatiles + Acetone (ppb)		Conc Q MDL
TOTAL VO's:	NA	ND
TOTAL TIC's:	NA	ND
TOTAL VO's & TIC's:	NA	ND
Semivolatiles - BNA Special List (ppb)		
TOTAL BNA'S:	NA	ND
TOTAL TIC's:	NA	ND
TOTAL BNA'S & TIC's:	NA	ND

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-2**  
**Summary of Soil Analytical Results for AOC 6**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NUDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NUDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NUDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	6A-3.5-4		6B-3.5-4		6C-4-4.5		6C-7-7.5		6C1-4-4.5	
				Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles (ppm)													
1,1-Dichloroethene	8	150	10	ND	0.282	ND	0.235	0.442	0.273	ND	ND	ND	ND
Acetone	1000	1000	100	ND	0.565	ND	0.471	4.56	0.547	ND	ND	ND	ND
cis-1,2-Dichloroethene	79	1000	1	ND	0.282	ND	0.235	<b>2.80</b>	0.273	ND	ND	ND	ND
Trichloroethene	23	54	1	ND	0.282	ND	0.235	<b>44.4 D</b>	5.33	<b>33.5 D</b>	2.66	<b>23.4 D</b>	5.14
Toluene	1000	1000	500	ND	0.282	ND	0.235	0.113 J	0.273	ND	ND	ND	ND
Tetrachloroethene	4	6	1	ND	0.282	ND	0.235	0.113 J	0.273	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	ND	0.282	ND	0.235	158 D	5.33	ND	ND	ND	ND
TOTAL VO's:	NA	NA	NA	ND	0.282	ND	0.235	210 J	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	ND	0.282	ND	0.235	406	ND	ND	ND	ND	ND
TOTAL VO's & TIC's:	NA	NA	NA	ND	0.282	ND	0.235	616 J	ND	ND	ND	ND	ND
Semivolatiles - BNA Special List (ppm)													
Fluoranthene	2300	10000	100	ND	0.228	0.178 J	0.235	ND	0.256	ND	ND	ND	ND
Pyrene	1700	10000	100	ND	0.228	0.185 J	0.235	ND	0.256	ND	ND	ND	ND
TOTAL BNA's:	NA	NA	NA	ND	0.228	0.363 J	0.235	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	ND	0.228	1.55	139	ND	ND	ND	ND	ND	ND
TOTAL BNA's & TIC's:	NA	NA	NA	ND	0.228	1.91 J	139	ND	ND	ND	ND	ND	ND
Alcohols (ppm)													
Pesticides (ppm)													
Metals (ppm)													
Arsenic	20	20	NA	ND	1.14	1.60	1.18	1.93	1.26	ND	ND	ND	ND
Beryllium	2	2	NA	ND	0.570	ND	0.590	1.80	0.632	ND	ND	ND	ND
Chromium	120,000	NA	NA	21.0	2.28	17.2	2.36	17.3	2.53	ND	ND	ND	ND
Copper	600	600	NA	17.4	2.28	16.6	2.36	21.9	2.53	ND	ND	ND	ND
Lead	400	600	NA	6.50	0.570	17.6	0.590	14.0	0.632	ND	ND	ND	ND
Mercury	14	270	NA	0.016	0.014	0.018	0.015	0.024	0.016	ND	ND	ND	ND
Nickel	250	2400	NA	11.7	1.14	12.6	1.18	19.5	1.26	ND	ND	ND	ND
Zinc	1500	1500	NA	29.1	2.28	48.0	2.36	51.1	2.53	ND	ND	ND	ND
Formaldehyde (ug/kg)													
Formaldehyde	NA	NA	NA	862 B	230	624 B	240	5330	260	ND	ND	ND	ND

Concentrations that exceed NUDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 D = The compound was reported from a diluted analysis  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-2**  
**Summary of Soil Analytical Results for AOC 6**  
 Former AT&T Facility, Clark, New Jersey

Volatiles (ppm)	Client ID:		NJDEP		NJDEP		NJDEP		6C1-4-4.5 (DUP)		
	Sample Depth:	Lab ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	Conc	Q	MDL	Conc	Q	MDL
1,1-Dichloroethene	8	150									
Acetone	1000	1000									
cis-1,2-Dichloroethene	79	1000									
Trichloroethene	23	54									
Toluene	1000	1000									
Tetrachloroethene	4	6									
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA									
TOTAL VO's:	NA	NA									
TOTAL TIC's:	NA	NA									
TOTAL VO's & TIC's:	NA	NA									
<b>Semivolatiles - BNA Special List (ppm)</b>											
Fluoranthene	2300	10000									
Pyrene	1700	10000									
TOTAL BNA's:	NA	NA									
TOTAL TIC's:	NA	NA									
TOTAL BNA's & TIC's:	NA	NA									
<b>Alcohols (ppm)</b>											
<b>Pesticides (ppm)</b>											
<b>Metals (ppm)</b>											
Arsenic	20	20									
Beryllium	2	2									
Chromium	120,000	NA									
Copper	600	600									
Lead	400	600									
Mercury	14	270									
Nickel	250	2400									
Zinc	1500	1500									
Formaldehyde (ug/kg)											
Formaldehyde	NA	NA									

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 D = The compound was reported from a diluted analysis  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-3**  
**Summary of Groundwater Analytical Results for AOC 6**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	6CGW-11-15.5 11-15.5 09685-007 09/14/2005 Aqueous	6CGW-23-25 23-25 09685-008 09/14/2005 Aqueous
Volatiles + Acetone (ppb)	Conc Q MDL	Conc Q MDL	Conc Q MDL
Vinyl chloride	1	~	~
Chloroethane	NA	~	~
Acetone	6000	~	~
cis-1,2-Dichloroethene	70	~	~
2-Butanone (MEK)	300	~	~
Trichloroethene	1	2820	1450
Toluene	1000	16.5	3.30
TOTAL VO's:	NA	~	~
TOTAL TIC's:	NA	~	~
TOTAL VO's & TIC's:	NA	~	~
<b>Semivolatiles - BNA Special List (ppb)</b>			
Caprolactam	NA	~	~
Diethylphthalate	5000	~	~
Phenanthrene	100*	~	~
Di-n-butylphthalate	900	~	~
Fluoranthene	300	~	~
Pyrene	200	~	~
bis(2-Ethylhexyl)phthalate	30	~	~
TOTAL BNA'S:	NA	~	~
TOTAL TIC's:	NA	~	~
TOTAL BNA'S & TIC's:	NA	~	~
<b>Alcohols (ppb)</b>			
<b>Pesticides (ppb)</b>			
<b>Metals (ppb)</b>			
Arsenic	8	~	~
Beryllium	20	~	~
Cadmium	4	~	~
Chromium	100	~	~
Copper	1000	~	~
Lead	10	~	~
Nickel	100	~	~
Zinc	5000	~	~
<b>Formaldehyde (ug/kg)</b>			
Formaldehyde	100*	~	~

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

NA = No Standards Available

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

B = The compound was found in the associated method blank and/or leachate blank

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

~ = Sample not analyzed for this compound

DUP = Field duplicate sample

**Table 6-4**  
**Summary of Soil Analytical Results for AOC 7**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	7A-4-4.5		7B-3-3.5		7C-7.5-8	
				Conc	MDL	Conc	MDL	Conc	MDL
	NA	NA	NA	ND	ND	ND	ND	ND	ND
	NA	NA	NA	ND	ND	ND	ND	ND	ND
	NA	NA	NA	ND	ND	ND	ND	ND	ND
<b>Volatiles (ppm)</b>									
TOTAL VO's:	1100	10000	100	0.150 J	0.247	ND	0.229	ND	0.229
TOTAL TIC's:	NA	NA	NA	0.150 J		ND	ND	ND	ND
TOTAL VO's & TIC's:	NA	NA	NA	10.9		ND	ND	2.81	
<b>Semivolatiles - BNA Special List (ppm)</b>				11.1 J		ND	ND	2.81	
Butylbenzylphthalate				ND		ND	ND	ND	
TOTAL BNA'S:				ND		ND	ND	ND	
TOTAL TIC's:				ND		ND	ND	ND	
TOTAL BNA'S & TIC's:				ND		ND	ND	ND	
<b>Alcohols (ppm)</b>				ND		ND	ND	ND	
<b>Pesticides (ppm)</b>				ND		ND	ND	ND	
<b>Metals (ppm)</b>									
Chromium	120,000	NA	NA	13.0	2.47	19.1	2.26	14.8	2.27
Copper	600	600	NA	26.3	2.47	12.3	2.26	13.7	2.27
Lead	400	600	NA	10.6	0.617	9.54	0.565	6.35	0.568
Nickel	250	2400	NA	7.64	1.23	10.6	1.13	12.8	1.14
Zinc	1500	1500	NA	26.1	2.47	39.1	2.26	34.1	2.27
<b>Formaldehyde (ug/kg)</b>									
Formaldehyde	NA	NA	NA	790 B	240	556 B	230	412 B	230

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-5**  
**Summary of Soil Analytical Results for AOC 12**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	12A-1.5-2 1.5-2 06830-009 07/01/2005 Soil		12B-1.5-2 1.5-2 06830-011 07/01/2005 Soil		12B-1.5-2 (DUP) 06830-012 07/01/2005 Soil		12C-1.5-2 1.5-2 06830-010 07/01/2005 Soil	
				Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles (ppm)											
TOTAL VO's:	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VO's & TIC's:	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND
<b>Semivolatiles - BNA Special List (ppm)</b>											
Caprolactam	NA	NA	NA	0.317	0.218	1.16	0.225	ND	0.229	ND	0.219
Phenanthrene	NA	NA	NA	ND	0.218	0.169 J	0.225	ND	0.229	ND	0.219
Fluoranthene	2300	10000	100	ND	0.218	0.393	0.225	0.336	0.229	ND	0.219
Pyrene	1700	10000	100	ND	0.218	0.434	0.225	0.329	0.229	ND	0.219
Benzo[a]anthracene	0.9	4	500	ND	0.218	0.260	0.225	0.226 J	0.229	ND	0.219
Chrysene	9	40	500	ND	0.218	0.369	0.225	0.311	0.229	ND	0.219
Benzo[b]fluoranthene	0.9	4	50	ND	0.218	0.443	0.225	0.251	0.229	ND	0.219
Benzo[k]fluoranthene	0.9	4	500	ND	0.218	0.247	0.225	0.231	0.229	ND	0.219
Benzo[a]pyrene	0.66	0.66	100	ND	0.218	0.362	0.225	0.256	0.229	ND	0.219
Indeno[1,2,3-cd]pyrene	0.9	4	500	ND	0.218	0.326	0.225	ND	0.229	ND	0.219
Benzo[g,h,i]perylene	NA	NA	NA	ND	0.218	0.345	0.225	ND	0.229	ND	0.219
TOTAL BNA'S:	NA	NA	NA	0.317	0.218	4.51 J	0.225	1.94 J	0.229	ND	0.219
TOTAL TIC's:	NA	NA	NA	ND	0.218	2.43	0.225	ND	0.229	ND	0.219
TOTAL BNA'S & TIC's:	NA	NA	NA	0.317	0.218	6.94 J	0.225	1.94 J	0.229	ND	0.219
Alcohols (ppm)				ND	ND	ND	ND	ND	ND	ND	ND
Pesticides (ppm)				ND	ND	ND	ND	ND	ND	ND	ND
Metals (ppm)											
Arsenic	20	20	NA	4.36	1.09	2.25	1.12	2.53	1.15	2.86	1.09
Beryllium	2	2	NA	ND	0.545	ND	0.560	0.589	0.575	ND	0.545
Chromium	120,000	NA	NA	5.37	2.18	17.1	2.24	16.6	2.30	3.37	2.18
Copper	600	600	NA	8.97	2.18	22.0	2.24	15.9	2.30	ND	2.18
Lead	400	600	NA	3.15	0.545	16.4	0.560	18.0	0.575	1.71	0.545
Mercury	14	270	NA	ND	0.014	0.027	0.014	0.027	0.014	ND	0.014
Nickel	250	2400	NA	ND	1.09	12.2	1.12	12.7	1.15	ND	1.09
Thallium	2	2	NA	ND	0.109	ND	0.112	ND	0.115	ND	0.109
Zinc	1500	1500	NA	2.85	2.18	45.0	2.24	45.4	2.30	0.187	0.109
Formaldehyde (ug/kg)				ND	220	700 B	230	512 B	230	557 B	220
Formaldehyde	NA	NA	NA	ND	220	700 B	230	512 B	230	557 B	220

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded

NA = No Standards Available

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

B = The compound was found in the associated method blank and/or leachate blank

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

DUP = Field duplicate sample

**Table 6-6**  
**Summary of Soil Analytical Results for AOC 13**  
 Former AT&T Facility, Clark, New Jersey

Client ID:	NJDEP		NJDEP		NJDEP		13A-5-5.5		13B-2.5-3		13C-2.5-3		
	RESIDENTIAL	NON-RESIDENTIAL	DIRECT CONTACT	IMPACT TO	GROUND WATER	SOIL CLEANUP	SOIL CLEANUP	5-5.5	2.5-3	2.5-3	2.5-3	2.5-3	
Sample Depth:	DIRECT CONTACT	DIRECT CONTACT	SOIL CLEANUP	SOIL CLEANUP	SOIL CLEANUP	SOIL CLEANUP	SOIL CLEANUP	06355-002	06762-010	06762-010	06762-007	06762-007	
Lab ID:	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	06/21/2005	06/30/2005	06/30/2005	06/30/2005	06/30/2005	
Date Sampled:	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	Soil	Soil	Soil	Soil	Soil	
Matrix:	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	CRITERIA	Conc	Q	MDL	Conc	Q	MDL
<b>Volatiles (ppm)</b>													
TOTAL VO's:	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL VO's & TIC's:	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
<b>Semivolatiles - BNA Special List (ppm)</b>													
Caprolactam	NA	NA	NA	NA	NA	NA	NA	0.886	0.229	0.245	1.22	0.245	0.245
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	ND	0.245	0.245	0.297	0.245	0.245
Fluoranthene	2300	10000	10000	100	100	100	ND	ND	0.245	0.245	0.661	0.245	0.245
Pyrene	1700	10000	10000	100	100	100	ND	ND	0.245	0.245	0.677	0.245	0.245
Benzo[a]anthracene	0.9	4	4	500	500	500	ND	ND	0.245	0.245	0.460	0.245	0.245
Chrysene	9	40	40	500	500	500	ND	ND	0.245	0.245	0.636	0.245	0.245
bis(2-Ethylhexyl)phthalate	49	210	210	100	100	100	0.182 J	0.229	0.245	0.245	0.304	0.245	0.245
Benzo[b]fluoranthene	0.9	4	4	50	50	50	ND	ND	0.245	0.245	0.550	0.245	0.245
Benzo[k]fluoranthene	0.9	4	4	500	500	500	ND	ND	0.245	0.245	0.407	0.245	0.245
Benzo[a]pyrene	0.66	0.66	0.66	100	100	100	ND	ND	0.245	0.245	0.529	0.245	0.245
Indeno[1,2,3-cd]pyrene	0.9	4	4	500	500	500	ND	ND	0.245	0.245	0.406	0.245	0.245
Dibenz[a,h]anthracene	0.66	0.66	0.66	100	100	100	ND	ND	0.245	0.245	0.251	0.245	0.245
Benzo[ghi]perylene	NA	NA	NA	NA	NA	NA	NA	ND	0.245	0.245	0.375	0.245	0.245
TOTAL BNA'S:	NA	NA	NA	NA	NA	NA	NA	1.07 J	0.229	0.245	6.77	0.245	0.245
TOTAL TIC's:	NA	NA	NA	NA	NA	NA	NA	16.4	2.28	2.44	3.21	2.44	2.46
TOTAL BNA'S & TIC's:	NA	NA	NA	NA	NA	NA	NA	17.5 J	2.28	2.44	9.98	2.44	2.46
<b>Alcohols (ppm)</b>													
ND													
<b>Pesticides (ppm)</b>													
ND													
<b>Metals (ppm)</b>													
Arsenic	20	20	20	NA	NA	NA	NA	ND	1.14	1.22	2.10	1.23	1.23
Beryllium	2	2	2	NA	NA	NA	NA	0.588	0.570	0.610	0.669	0.615	0.615
Cadmium	39	100	100	NA	NA	NA	NA	ND	0.285	0.305	0.354	0.308	0.308
Chromium	120,000	NA	NA	NA	NA	NA	NA	15.5	2.28	2.44	16.5	2.46	2.46
Copper	600	600	600	600	600	600	26.4	2.28	2.44	2.44	36.2	2.46	2.46
Lead	400	600	600	600	600	600	7.02	0.570	0.610	0.610	34.8	0.615	0.615
Mercury	14	270	270	NA	NA	NA	ND	0.014	0.015	0.015	0.060	0.015	0.015
Nickel	250	2400	2400	NA	NA	NA	19.9	1.14	1.22	1.22	13.7	1.23	1.23
Thallium	2	2	2	NA	NA	NA	0.119	0.114	0.122	0.136	0.136	0.123	0.123
Zinc	1500	1500	1500	NA	NA	NA	44.5	2.28	2.44	83.0	2.46	2.46	2.46
<b>Formaldehyde (ug/kg)</b>													
Formaldehyde	NA	NA	NA	NA	NA	NA	307 B	230	19000 B	240	813 B	240	240

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-7**  
**Summary of Soil Analytical Results for AOC 14**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	14A-4.5-5		14B-3.3.5		14B-3.3.5 (DUP)		14C-3.5-4		14B1-3.3.5	
				Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles (ppm)													
TOTAL VO's:	NA	NA	NA	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
TOTAL TIC's:	NA	10000	10000	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
TOTAL VO's & TIC's:	NA	4	4	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Semivolatiles - BNA Special List (ppm)													
Fluoranthene	2300	10000	100	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Pyrene	1700	10000	100	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Benzofluoranthene	0.9	4	500	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Chrysene	9	40	500	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Benzofluoranthene	0.9	4	50	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Benzofluoranthene	0.66	0.66	100	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
TOTAL BNA'S:	NA	NA	NA	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
TOTAL TIC's:	NA	NA	NA	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
TOTAL BNA'S & TIC's:	NA	NA	NA	ND	0.108	ND	0.105	ND	0.108	ND	0.106	ND	0.106
Alcohols (ppm)				ND	0.584 J	ND	0.584 J	ND	0.584 J	ND	0.584 J	ND	0.584 J
Pesticides (ppm)				ND	0.584 J	ND	0.584 J	ND	0.584 J	ND	0.584 J	ND	0.584 J
Toxaphene	0.1	0.2	50	ND	0.019	ND	0.019	ND	0.020	ND	0.022	ND	0.021
Metals (ppm)													
Arsenic	20	20	NA	1.66	1.08	1.20	1.11	ND	1.10	3.49	1.11	ND	1.11
Beryllium	2	2	NA	ND	0.540	0.697	0.553	0.623	0.548	0.565	0.557	0.565	0.557
Chromium	120,000	NA	NA	18.5	2.16	18.8	2.21	19.7	2.19	16.4	2.23	16.4	2.23
Copper	600	600	NA	11.2	2.16	30.7	2.21	28.0	2.19	22.5	2.23	22.5	2.23
Lead	400	600	NA	9.20	0.540	13.4	0.553	12.7	0.548	20.6	0.557	20.6	0.557
Mercury	14	270	NA	ND	0.014	0.018	0.014	0.016	0.014	0.049	0.014	0.049	0.014
Nickel	250	2400	NA	14.2	1.08	15.9	1.11	15.9	1.10	12.2	1.11	12.2	1.11
Thallium	2	2	NA	0.136	0.108	0.163	0.111	0.152	0.110	0.154	0.111	0.154	0.111
Zinc	1500	1500	NA	39.8	2.16	44.4	2.21	44.1	2.19	51.3	2.23	51.3	2.23
Formaldehyde (ug/kg)				423 B	220	342 B	220	345 B	220	385 B	220	385 B	220
Formaldehyde	NA	NA	NA	423 B	220	342 B	220	345 B	220	385 B	220	385 B	220

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available

B = The compound was found in the associated method blank and/or leachate blank

J = The concentration was detected at a value below the MDL

DUP = Field duplicate sample

-- = Sample not analyzed for this compound

**Table 6-7**  
**Summary of Soil Analytical Results for AOC 14**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NUDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NUDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NUDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	14B2-3-3.5		14B3-3-3.5		14B4-3-3.5		14B5-3-3.5	
				Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles (ppm)											
TOTAL VO's:	NA	NA	NA								
TOTAL TIC's:	NA	NA	NA								
TOTAL VO's & TIC's:	NA	NA	NA								
<b>Semivolatiles - BNA Special List (ppm)</b>											
Fluoranthene	2300	10000	100								
Pyrene	1700	10000	100								
Benzofluoranthene	0.9	4	500								
Chrysene	9	40	500								
Benzofluoranthene	0.9	4	50								
Benzofluoranthene	0.66	0.66	100								
TOTAL BNA'S:	NA	NA	NA								
TOTAL TIC's:	NA	NA	NA								
TOTAL BNA'S & TIC's:	NA	NA	NA								
<b>Alcohols (ppm)</b>											
<b>Pesticides (ppm)</b>											
Toxaphene	0.1	0.2	50	ND	0.022	ND	0.023	ND	0.022	ND	0.020
<b>Metals (ppm)</b>											
Arsenic	20	20	NA								
Beryllium	2	2	NA								
Chromium	120,000	NA	NA								
Copper	600	600	NA								
Lead	400	600	NA								
Mercury	14	270	NA								
Nickel	250	2400	NA								
Thallium	2	2	NA								
Zinc	1500	1500	NA								
Formaldehyde (ug/kg)											
Formaldehyde	NA	NA	NA								

Concentrations that exceed NUDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.  
 DUP = Field duplicate sample  
 ~ = Sample not analyzed for this compound

**Table 6-8**  
**Summary of Soil Analytical Results for AOC 15**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	15D-4-4.5 4-4.5 06508-001 06/23/2005 Soil		15E-5-5.5 5-5.5 06508-007 06/23/2005 Soil		15F-5-5.5 5-5.5 06532-001 06/24/2005 Soil	
				Conc	MDL	Conc	MDL	Conc	MDL
<b>Volatiles + Acetone (ppm)</b>									
TOTAL VO's:	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL VO's & TIC's:	NA	NA	NA	ND	ND	ND	ND	ND	ND
<b>Semivolatiles - BNA Special List (ppm)</b>									
Caprolactam	NA	NA	NA	ND	0.211	0.800	0.213	ND	0.216
Butylbenzylphthalate	1100	10000	100	ND	0.211	4.37	0.213	ND	0.216
bis(2-Ethylhexyl)phthalate	49	210	100	0.138 J	0.211	ND	0.213	ND	0.216
Di-n-octylphthalate	1100	10000	100	ND	0.211	0.212 J	0.213	ND	0.216
TOTAL BNA'S:	NA	NA	NA	0.138 J		5.38 J		ND	
TOTAL TIC's:	NA	NA	NA	ND		ND		ND	
TOTAL BNA'S & TIC's:	NA	NA	NA	0.138 J		5.38 J		ND	
<b>Alcohols (ppm)</b>									
				ND		ND		ND	
<b>Pesticides (ppm)</b>									
				ND		ND		ND	
<b>Metals (ppm)</b>									
Arsenic	20	20	NA	ND	1.05	2.17	1.06	2.05	1.07
Cadmium	39	100	NA	ND	0.263	0.414	0.264	0.437	0.267
Chromium	120,000	NA	NA	7.39	2.10	11.8	2.11	12.4	2.13
Copper	600	600	NA	ND	2.10	71.6	2.11	96.8	2.13
Lead	400	600	NA	1.97	0.525	9.46	0.528	12.9	0.534
Mercury	14	270	NA	0.030	0.013	0.029	0.013	0.033	0.014
Nickel	250	2400	NA	1.55	1.05	6.93	1.06	8.78	1.07
Silver	110	4100	NA	ND	0.525	4.33	0.528	5.96	0.534
Zinc	1500	1500	NA	2.23	2.10	247	2.11	361	2.13
<b>Formaldehyde (ug/kg)</b>				600 B	210	633 B	210	619 B	220
Formaldehyde	NA	NA	NA						

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-9**  
**Summary of Groundwater Analytical Results for AOC 15**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	15GWA-13-15 13-15 06414-002 06/22/2005 Aqueous		15CGW-16-20 16-20 06701-003 06/29/2005 Aqueous		15CGW-16-20 (DUP) 16-20 06701-004 06/29/2005 Aqueous		15CGW-23.5-27.5 23.5-27.5 06701-005 06/29/2005 Aqueous		15DGW-11-16 11-16 06508-004 06/23/2005 Aqueous		15DGW-24.5-28.5 24.5-28.5 06508-005 06/23/2005 Aqueous		15EGW-14-16 14-16 06508-006 06/23/2005 Aqueous	
		Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL
<b>Volatiles + Acetone (ppb)</b>															
Vinyl chloride	1	ND	0.190	ND	0.190	ND	0.190	ND	9.50	ND	0.190	ND	0.190	ND	0.190
Acetone	6000	15.8	0.890	ND	0.890	ND	0.890	ND	44.5	5.46	0.890	ND	4.28	0.890	ND
cis-1,2-Dichloroethene	70	ND	0.310	ND	0.310	ND	0.310	54.4	15.5	ND	0.310	ND	0.699	0.310	ND
2-Butanone (MEK)	300	ND	0.980	ND	0.980	ND	0.980	ND	49.0	17.4	0.980	ND	ND	0.980	ND
Chloroform	70	ND	0.260	ND	0.260	ND	0.260	ND	13.0	ND	0.260	ND	ND	0.260	ND
Trichloroethene	1	ND	0.330	<b>1.15</b>	0.330	<b>1.35</b>	0.330	<b>9520</b>	16.5	ND	0.330	<b>80.5</b>	ND	0.330	ND
Bromodichloromethane	1	ND	0.440	ND	0.440	ND	0.440	ND	22.0	ND	0.440	ND	ND	0.440	ND
Toluene	1000	ND	0.350	ND	0.350	ND	0.350	ND	17.5	ND	0.350	ND	0.448	0.350	ND
Dibromochloromethane	1	ND	0.280	ND	0.280	ND	0.280	14.0	ND	ND	0.280	ND	ND	0.280	ND
TOTAL VO's:	NA	15.8	1.15	1.15	1.15	1.35	1.35	9570	ND	22.9	ND	85.9	ND	0.488	ND
TOTAL TIC's:	NA	15.8	1.15	1.15	1.15	1.35	1.35	9570	ND	22.9	ND	85.9	ND	0.488	ND
TOTAL VO's & TIC's:	NA	15.8	1.15	1.15	1.15	1.35	1.35	9570	ND	22.9	ND	85.9	ND	0.488	ND
<b>Semivolatiles - BNA Special List (ppb)</b>															
Caprolactam	NA	61.8	0.380	ND	0.380	ND	0.380	ND	0.760	ND	0.380	ND	ND	0.380	ND
Diethylphthalate	6000	ND	0.180	ND	0.180	ND	0.180	ND	0.360	0.498	0.180	ND	0.266	0.180	0.271
Phenanthrene	NA	ND	0.110	ND	0.110	ND	0.110	ND	0.220	0.265	0.110	ND	0.244	0.110	ND
Di-n-butylphthalate	700	ND	0.160	ND	0.160	ND	0.160	ND	0.320	ND	0.160	ND	ND	0.160	ND
Fluoranthene	300	ND	0.190	ND	0.190	ND	0.190	ND	0.380	0.184	0.190	ND	0.170	0.190	ND
Pyrene	200	ND	0.140	ND	0.140	ND	0.140	ND	0.280	0.166	0.140	ND	0.158	0.140	ND
bis(2-Ethylhexyl)phthalate	3	ND	0.370	0.449	0.370	0.605	0.370	0.740	ND	ND	0.370	ND	ND	0.370	ND
TOTAL BNA's:	NA	61.8	0.370	0.449	0.370	0.605	0.370	0.740	ND	1.11	J	ND	0.838	J	0.271
TOTAL TIC's:	NA	61.8	0.370	0.449	0.370	0.605	0.370	0.740	ND	1.11	J	ND	0.838	J	0.271
TOTAL BNA's & TIC's:	NA	61.8	0.370	0.449	0.370	0.605	0.370	0.740	ND	1.11	J	ND	0.838	J	0.271
<b>Alcohols (ppb)</b>															
<b>Pesticides (ppb)</b>															
<b>Metals (ppb)</b>															
Arsenic	3	ND	4.00	ND	4.00	ND	4.00	4.00	7.36	4.00	4.00	ND	6.38	4.00	53.0
Beryllium	1	ND	2.00	2.02	2.00	ND	2.00	2.00	4.01	2.00	2.00	ND	2.00	2.00	2.00
Cadmium	4	ND	1.00	ND	1.00	ND	1.00	1.00	1.12	1.00	1.00	ND	1.00	1.00	1.00
Chromium	70	ND	8.00	42.0	8.00	ND	8.00	8.00	467	8.00	11.0	8.00	90.0	8.00	8.00
Copper	1300	ND	8.00	106	8.00	8.26	8.00	8.00	239	8.00	32.1	8.00	200	8.00	35.0
Lead	5	2.88	2.00	6.06	2.00	ND	2.00	2.00	23.0	2.00	50.0	2.00	59.0	2.00	6.40
Nickel	100	12.0	4.00	65.0	4.00	4.16	4.00	4.00	205	4.00	11.0	4.00	66.0	4.00	4.00
Zinc	2000	32.0	8.00	955	8.00	75.0	8.00	8.00	3840	8.00	1270	8.00	1240	8.00	153
Formaldehyde (ug/kg)		ND	10	15.2	B 10	13.9	B 10	35.7	B 10	10.9	B 10	ND	10	11.4	B 10
Formaldehyde	100	ND	10	15.2	B 10	13.9	B 10	35.7	B 10	10.9	B 10	ND	10	11.4	B 10

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.  
 - = Sample not analyzed for this compound  
 DUP = Field duplicate sample

**Table 6-9**  
**Summary of Groundwater Analytical Results for AOC 15**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	15EGW-26-28 26-28 06508-009 06/23/2005 Aqueous		15FGW-14-16 14-16 06532-005 06/24/2005 Aqueous		15FGW-26-28 26-28 06532-006 06/24/2005 Aqueous		15B-20.5-23.5 20.5-23.5 09793-006 09/16/2005 Aqueous		15B-24-27 24-27 10100-001 09/23/2005 Aqueous	
		Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL
<b>Volatiles + Acetone (ppb)</b>											
Vinyl chloride	1	0.753	0.190	ND	0.190	0.822	0.190	ND	0.190	ND	0.190
Acetone	6000	ND	0.890	ND	0.890	4.90	0.890	5.98	0.890	ND	0.890
cis-1,2-Dichloroethene	70	2.08	0.310	ND	0.310	4.05	0.310	ND	0.310	ND	0.310
2-Butanone (MEK)	300	ND	0.980	ND	0.980	ND	0.980	ND	0.980	ND	0.980
Chloroform	70	ND	0.260	ND	0.260	ND	0.260	13.2	0.260	ND	0.260
Trichloroethene	1	<b>173</b>	<b>0.330</b>	ND	<b>0.330</b>	<b>99.3</b>	<b>0.330</b>	ND	<b>0.330</b>	ND	<b>0.330</b>
Bromodichloromethane	1	ND	0.440	ND	0.440	ND	0.440	<b>4.18</b>	0.440	ND	<b>0.440</b>
Toluene	1000	0.412	0.350	0.667	0.350	ND	0.350	ND	0.350	ND	0.350
Dibromochloromethane	1	176	0.280	0.667	0.280	109	0.280	ND	0.280	<b>1.18</b>	<b>0.280</b>
TOTAL VO's:	NA	176		0.667		109		109		24.5	
TOTAL TIC's:	NA	176		0.667		109		109		24.5	
TOTAL VO's & TIC's:	NA	176		0.667		109		109		24.5	
<b>Semivolatiles - BNA Special List (ppb)</b>											
Caprolactam	NA	ND	0.380	ND	0.380	ND	0.380	ND	0.380	ND	0.380
Diethylphthalate	6000	0.273	0.180	0.538	0.180	0.397	0.180	ND	0.180	ND	0.180
Phenanthrene	NA	ND	0.110	ND	0.110	ND	0.110	ND	0.110	ND	0.110
Di-n-butylphthalate	700	ND	0.160	0.190	0.160	ND	0.160	ND	0.160	ND	0.160
Fluoranthene	300	ND	0.190	ND	0.190	ND	0.190	ND	0.190	ND	0.190
Pyrene	200	ND	0.140	ND	0.140	ND	0.140	ND	0.140	ND	0.140
bis(2-Ethylhexyl)phthalate	3	ND	0.370	0.728	0.370	0.397	0.370	ND	0.370	ND	0.370
TOTAL BNA's:	NA	0.273		0.728		0.397		0.397		0.397	
TOTAL TIC's:	NA	0.273		0.728		0.397		0.397		0.397	
TOTAL BNA's & TIC's:	NA	0.273		0.728		0.397		0.397		0.397	
<b>Alcohols (ppb)</b>											
<b>Pesticides (ppb)</b>											
<b>Metals (ppb)</b>											
Arsenic	3	<b>12.0</b>	4.00	<b>14.0</b>	4.00	<b>14.0</b>	4.00	<b>14.0</b>	4.00	<b>14.0</b>	4.00
Beryllium	1	ND	2.00	ND	2.00	ND	2.00	ND	2.00	ND	2.00
Cadmium	4	ND	1.00	ND	1.00	ND	1.00	ND	1.00	ND	1.00
Chromium	70	<b>215</b>	8.00	ND	8.00	ND	8.00	ND	8.00	ND	8.00
Copper	1300	<b>239</b>	8.00	64.0	8.00	69.0	8.00	69.0	8.00	69.0	8.00
Lead	5	<b>31.0</b>	2.00	<b>9.55</b>	2.00	<b>10.0</b>	2.00	<b>10.0</b>	2.00	<b>10.0</b>	2.00
Nickel	100	<b>97.0</b>	4.00	<b>4.59</b>	4.00	<b>9.02</b>	4.00	<b>9.02</b>	4.00	<b>9.02</b>	4.00
Zinc	2000	<b>2510</b>	8.00	256	8.00	240	8.00	240	8.00	240	8.00
Formaldehyde (ug/kg)											
Formaldehyde	100	ND	10	ND	10	10.7	10	10.7	10	10.7	10

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

NA = No Standards Available

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

B = The compound was found in the associated method blank and/or leachate blank.

J = The concentration was detected at a value below the MDL.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

-- = Sample not analyzed for this compound

DUP = Field duplicate sample

Table 6-10  
 Summary of Groundwater Analytical Results for AOC 34  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	34AGW-20-23		34AGW-25-28		34BGW-20-23		34BGW-24-28		34CGW-20-23		34CGW-24-26		34DGW-20-23		34DGW-25-28	
		Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles + Acetone (ppb)																	
Vinyl chloride	1	ND	0.190	<b>1.04</b>	0.190	<b>6.24</b>	0.190	ND	9.50	ND	0.380	ND	0.380	ND	0.190	ND	0.190
Acetone	6000	3.61	0.890	ND	0.890	ND	0.890	ND	44.5	ND	1.78	ND	1.78	ND	0.890	ND	0.890
1,1-Dichloroethane	50	ND	0.330	ND	0.330	ND	0.330	ND	16.5	2.21	0.660	ND	0.660	ND	0.330	ND	0.330
cis-1,2-Dichloroethane	70	ND	0.310	3.27	0.310	3.64	0.310	29.3	15.5	3.71	0.620	5.38	0.620	ND	0.310	ND	0.310
Trichloroethane	1	<b>11.0</b>	0.330	<b>117</b>	0.330	<b>19.5</b>	0.330	<b>9730</b>	16.5	<b>514 D</b>	3.30	<b>568 D</b>	3.30	<b>9.91</b>	33.6	0.330	0.330
Toluene	1000	ND	0.350	ND	0.350	ND	0.350	ND	17.5	ND	0.700	0.779	0.700	0.554	ND	0.350	0.350
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	ND	0.260	ND	0.260	ND	0.260	ND	13.0	4.23	0.520	3.74	0.520	ND	0.260	ND	0.260
TOTAL VO's:	NA	14.6		121		29.4		9820		524		580		10.5		33.6	
TOTAL TIC's:	NA	14.6		121		29.4		9820		524		580		10.5		33.6	
TOTAL BNAS & TIC's:	NA	14.6		121		29.4		9820		524		580		10.5		33.6	
Semivolatiles - BNA Special List (ppb)																	
Naphthalene	300	ND	0.110	ND	0.110	ND	0.110	0.168	0.110	ND	0.110	ND	0.220	ND	0.110	ND	0.110
2-Methylnaphthalene	NA	ND	0.140	ND	0.140	ND	0.140	0.836	0.140	ND	0.140	ND	0.280	ND	0.140	ND	0.140
1-1'-Biphenyl	400	ND	0.120	ND	0.120	ND	0.120	0.391	0.120	0.156	0.120	ND	0.240	ND	0.120	ND	0.120
Acenaphthene	400	ND	0.170	ND	0.170	ND	0.170	0.226	0.170	ND	0.170	ND	0.340	ND	0.170	ND	0.170
Diethylphthalate	6000	ND	0.180	ND	0.180	0.944	0.180	0.632	0.180	1.11	0.180	1.75	0.360	0.849	0.180	ND	0.180
Fluorene	300	ND	0.180	ND	0.180	ND	0.180	0.266	0.180	ND	0.180	ND	0.360	ND	0.180	ND	0.180
Phenanthrene	NA	ND	0.110	ND	0.110	ND	0.110	1.60	0.110	0.172	0.110	ND	0.220	ND	0.110	ND	0.110
Anthracene	2000	ND	0.140	ND	0.140	ND	0.140	0.582	0.140	ND	0.140	ND	0.280	ND	0.140	ND	0.140
Di-n-butylphthalate	700	ND	0.160	0.218	0.160	ND	0.160	0.309	0.160	ND	0.160	ND	0.320	ND	0.160	ND	0.160
Pyrene	200	ND	0.140	ND	0.140	ND	0.140	0.478	0.140	ND	0.140	ND	0.280	ND	0.140	ND	0.140
Butylbenzylphthalate	100	ND	0.310	0.469	0.310	0.582	0.310	1.04	0.310	ND	0.310	1.63	0.620	ND	0.310	0.346	0.310
bis(2-Ethylhexyl)phthalate	3	0.514	0.370	0.737	0.370	0.737	0.370	2.59	0.370	1.44	0.370	1.05	0.740	ND	0.370	0.418	0.370
TOTAL BNAS:	NA	0.514		1.42		1.53		9.12		63.7		99		4.43		0.764	
TOTAL TIC's:	NA	4.20		4.60		13.8		592		65.1		103.4		37.8		32.5	
TOTAL BNAS & TIC's:	NA	4.71		6.02		15.3		601		65.1		103.4		37.8		33.3	
Alcohols (ppb)																	
Pesticides (ppb)																	
Metals (ppb)																	
Arsenic	3	<b>24.0</b>	4.00	<b>14.0</b>	4.00	<b>4.96</b>	4.00	<b>5.40</b>	4.00	ND	4.00	<b>12.0</b>	4.00	<b>29.0</b>	4.00	<b>12.0</b>	4.00
Beryllium	1	ND	2.00	ND	2.00	ND	2.00	ND	2.00	ND	2.00	ND	2.00	ND	2.00	ND	2.00
Cadmium	4	ND	1.00	ND	1.00	ND	1.00	ND	1.00	ND	1.00	1.50	1.00	1.82	1.00	ND	1.00
Chromium	70	ND	8.00	16.0	8.00	ND	8.00	16.0	8.00	ND	8.00	<b>574</b>	8.00	<b>104</b>	8.00	28.0	8.00
Copper	1300	110	8.00	39.0	8.00	ND	8.00	23.0	8.00	ND	8.00	<b>405</b>	8.00	<b>629</b>	8.00	86.0	8.00
Lead	5	<b>16.0</b>	2.00	<b>6.15</b>	2.00	ND	2.00	2.52	2.00	ND	2.00	<b>30.0</b>	2.00	<b>14.0</b>	2.00	<b>12.0</b>	2.00
Nickel	100	7.55	4.00	15.0	4.00	6.24	4.00	15.0	4.00	6.01	4.00	<b>223</b>	4.00	<b>60.0</b>	4.00	16.0	4.00
Zinc	2000	370	8.00	112	8.00	125	8.00	151	8.00	42.0	8.00	<b>2500</b>	8.00	<b>3380</b>	8.00	271	8.00
Formaldehyde (ug/kg)																	
Formaldehyde	100	10 B	10	11.3 B	10	ND	10	ND	10	ND	10	31.3	10	ND	10	ND	10

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.  
 NA = No Standards Available  
 ~ = Sample not analyzed for this compound  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 D = The compound was reported from a diluted analysis  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-10**  
**Summary of Groundwater Analytical Results for AOC 34**  
 Former AT&T Facility, Clark, New Jersey

Client ID: HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	34G-GW-23.5-28		34G-GW (DUP)		34F-25-28		34E-25-28	
	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles + Acetone (ppb)								
Vinyl chloride	1							
Acetone	6000							
1,1-Dichloroethane	50							
cis-1,2-Dichloroethene	70							
Trichloroethene	1							
Toluene	152	1.65	134	0.660	ND	0.330	ND	0.330
1,1,2-Trichloro-1,2,2-trifluoroethane								
TOTAL VO's:	NA							
TOTAL TIC's:	NA							
TOTAL VO's & TIC's:	NA							
Semivolatiles - BNA Special List (ppb)								
Naphthalene	300							
2-Methylnaphthalene	NA							
1-1'-Biphenyl	400							
Acenaphthene	400							
Diethylphthalate	6000							
Fluorene	300							
Phenanthrene	NA							
Anthracene	2000							
Di-n-butylphthalate	700							
Pyrene	200							
Butylbenzylphthalate	100							
bis(2-Ethylhexyl)phthalate	3							
TOTAL BNA's:	NA							
TOTAL TIC's:	NA							
TOTAL BNA's & TIC's:	NA							
Alcohols (ppb)								
Pesticides (ppb)								
Metals (ppb)								
Arsenic	3							
Beryllium	1							
Cadmium	4							
Chromium	70							
Copper	1300							
Lead	5							
Nickel	100							
Zinc	2000							
Formaldehyde (ug/kg)								
Formaldehyde	100							

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

NA = No Standards Available

~ = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

B = The compound was found in the associated method blank and/or leachate blank

D = The compound was reported from a diluted analysis

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-11**  
**Summary of Groundwater Analytical Results for AOC 33**  
 Former AT&T Facility, Clark, New Jersey

	Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	33AGW-10.5-13		33AGW-28-31	
			10.5-13 06650-005 06/28/2005 Aqueous	MDL	28-31 06650-008 06/28/2005 Aqueous	Conc Q
<b>Volatiles + Acetone (ppb)</b>						
1,1-Dichloroethane		50	ND	0.330	35.5	16.5
cis-1,2-Dichloroethene		70	ND	0.310	62.6	15.5
Trichloroethene		1	ND	0.330	11200 D	33.0
TOTAL VO's:		NA	ND		11300	
TOTAL TIC's:		NA	ND		ND	
TOTAL VO's & TIC's:		NA	ND		11300	
<b>Semivolatiles - BNA Special List (ppm)</b>						
Diethylphthalate		6000	0.356	0.180	0.583	0.180
TOTAL BNA'S:		NA	0.356		0.583	
TOTAL TIC's:		NA	38.5		497	
TOTAL BNA'S & TIC's:		NA	38.9		498	
<b>Alcohols (ppb)</b>			ND	ND	ND	ND
<b>Pesticides (ppb)</b>			ND	ND	ND	ND
<b>Metals (ppb)</b>						
Arsenic		3	ND	4.00	5.78	4.00
Beryllium		1	ND	2.00	6.19	2.00
Chromium		70	58.0	8.00	29.0	8.00
Copper		1300	55.0	8.00	35.0	8.00
Lead		5	6.69	2.00	ND	2.00
Nickel		100	30.0	4.00	55.0	4.00
Zinc		2000	447	8.00	336	8.00
<b>Formaldehyde (ug/kg)</b>						
Formaldehyde		100	10.6	10	39.1	10

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

NA = No Standards Available

- = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

D = The compound was reported from a diluted analysis

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-12**  
**Summary of Soil Analytical Results for AOC 19**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA		NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA		NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA		19A-1-1.5 1-1.5 07024-006 07/07/2005 Soil		19B-1-1.5 1-1.5 07024-007 07/07/2005 Soil		19B-1-1.5 (DUP) 1-1.5 07024-008 07/07/2005 Soil	
	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
<b>Volatiles + Acetone (ppm)</b>												
TOTAL VO's:	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL VO's & TIC's:	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
<b>Semivolatiles - Acids (ppm)</b>												
TOTAL ACID's:	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
TOTAL ACID's & TIC's:	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
<b>Metals (ppm)</b>												
Molybdenum	NA	NA	NA	NA	NA	NA	ND	5.35	ND	5.61	ND	5.85
<b>General Analytical</b>												
Chloride-ppm	NA	NA	NA	NA	NA	NA	ND	21.3	ND	22.7	ND	23.4
pH/Corrosivity-SU	NA	NA	NA	NA	NA	NA	8.03	**	7.47	**	7.35	**

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded

\*\* = Not Applicable

~ = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

DUP = Field duplicate sample

**Table 6-13**  
**Summary of Soil Analytical Results for AOC 24**  
 Former AT&T Facility, Clark, New Jersey

Client ID:	NJDEP	NJDEP	NJDEP	NJDEP	24B-11.5-12
Sample Depth:	RESIDENTIAL	NON-RESIDENTIAL	IMPACT TO	GROUND WATER	11.5-12
Lab ID:	DIRECT CONTACT	DIRECT CONTACT	SOIL CLEANUP	SOIL CLEANUP	06762-005
Date Sampled:	SOIL CLEANUP	SOIL CLEANUP	CRITERIA	CRITERIA	06/30/2005
Matrix:	CRITERIA	CRITERIA			Soil
<b>Volatiles + Acetone (ppm)</b>					Conc Q MDL
TOTAL VO's:	NA	NA	NA	NA	ND
TOTAL TIC's:	NA	NA	NA	NA	ND
TOTAL VO's & TIC's:	NA	NA	NA	NA	ND
<b>Semivolatiles - BNA Special List (ppm)</b>					
TOTAL BNA'S:	NA	NA	NA	NA	ND
TOTAL TIC's:	NA	NA	NA	NA	ND
TOTAL BNA'S & TIC's:	NA	NA	NA	NA	ND
<b>PCB's (ppm)</b>					ND
<b>Alcohols (ppm)</b>					ND
<b>Pesticides (ppm)</b>					ND
<b>Metals (ppm)</b>					
Beryllium	2	2	NA	NA	0.617 0.577
Chromium	120,000	NA	NA	NA	15.0 2.31
Copper	600	600	NA	NA	14.9 2.31
Lead	400	600	NA	NA	7.50 0.577
Nickel	250	2400	NA	NA	16.4 1.15
Zinc	1500	1500	NA	NA	36.9 2.31
<b>General Analytical</b>					
Cyanide, Total-ppm	(NA)	(NA)	(NA)	(NA)	ND 1.15
Total Recoverable Phenols-ppm	10000	10000	50	50	ND 2.87
<b>Formaldehyde (ug/kg)</b>					
Formaldehyde	NA	NA	NA	NA	583 B 230

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-14**  
**Summary of Groundwater Analytical Results for AOC 24**  
 Former AT&T Facility, Clark, New Jersey

	Client ID: HIGHER OF PQLS		24AGW-8-10 (DUP)	
	Sample Depth: + GROUND WATER	QUALITY	24AGW-8-10	8-10
	Lab ID:	CRITERIA	06762-001	06762-004
	Date Sampled:		06/30/2005	06/30/2005
	Matrix:		Aqueous	Aqueous
<b>Volatiles + Acetone (ppb)</b>			Conc Q	MDL
Toluene	1000		0.564	0.350
TOTAL VO's:	NA		0.564	~
TOTAL TIC's:	NA		ND	~
TOTAL VO's & TIC's:	NA		0.564	~
<b>Semivolatiles - BNA Special List (ppb)</b>				
TOTAL BNA'S:	NA		ND	~
TOTAL TIC's:	NA		5.70	~
TOTAL BNA'S & TIC's:	NA		5.70	~
<b>PCB's (ppb)</b>			ND	~
<b>Alcohols (ppb)</b>			ND	~
<b>Pesticides (ppb)</b>			ND	~
<b>Metals (ppb)</b>				
Copper	1300		32.0	8.00
Lead	5		3.52	2.00
Nickel	100		4.71	4.00
Zinc	2000		20.0	8.00
<b>General Analytical</b>				
Cyanide, Total-ppb	100		ND	20.0
Total Recoverable Phenols-ppb	2000		ND	50.0
<b>Formaldehyde (ug/kg)</b>	100		ND	~

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

- NA = No Standards Available
- ~ = Sample not analyzed for this compound
- ND = Analyzed for but not detected at the Method Detection Limit (MDL)
- J = The concentration was detected at a value below the MDL
- All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
- DUP = Field duplicate sample

**Table 6-15**  
**Summary of Soil Analytical Results for AOC 31**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA		NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA		NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	
	1	4	4	10	10	10
31A-4-4.5 4-4.5 06762-009 06/30/2005 Soil	Conc ND	Q	MDL 0.228			

SemiVolatiles - BN Special List (ppb)  
 2,6-Dinitrotoluene

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL )

**Table 6-16**  
**Summary of Soil Analytical Results for AOC 33**  
 Former AT&T Facility, Clark, New Jersey

	Client ID:		NJDEP		NJDEP		NJDEP	
	Sample Depth:	Lab ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	Conc	Q	MDL
Volatiles (ppm)								
TOTAL VO's:			NA	NA	NA	ND		
TOTAL TIC's:			NA	NA	NA	ND		
TOTAL VO's & TIC's:			NA	NA	NA	ND		
<b>Semivolatiles - BNA Special List (ppm)</b>								
Diethylphthalate		10000	10000	50		0.245		0.148
Phenanthrene		NA	NA	NA		0.122 J		0.148
Fluoranthene		2300	10000	100		0.230		0.148
Pyrene		1700	10000	100		0.244		0.148
Butylbenzylphthalate		1100	10000	100		0.459		0.148
Benzo[a]anthracene		0.9	4	500		0.156		0.148
Chrysene		9	40	500		0.233		0.148
bis(2-Ethylhexyl)phthalate		49	210	100		0.093 J		0.148
Benzo[b]fluoranthene		0.9	4	50		0.179		0.148
Benzo[k]fluoranthene		0.9	4	500		0.106 J		0.148
Benzo[a]pyrene		0.66	0.66	100		0.174		0.148
TOTAL BNA'S:		NA	NA	NA		2.24 J		
TOTAL TIC's:		NA	NA	NA		9.63		
TOTAL BNA'S & TIC's:		NA	NA	NA		11.9 J		
Alcohols (ppm)						ND		
Pesticides (ppm)						ND		
<b>Metals (ppm)</b>								
Arsenic		20	20	NA		3.31		1.53
Beryllium		2	2	NA		0.862		0.763
Chromium		120,000	NA	NA		23.1		3.05
Copper		600	600	NA		23.3		3.05
Lead		400	600	NA		28.1		0.763
Mercury		14	270	NA		0.059		0.019
Nickel		250	2400	NA		16.5		1.53
Zinc		1500	1500	NA		78.7		3.05
Formaldehyde (ug/kg)						4000 B		220
Formaldehyde		NA	NA	NA				

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded  
 NA = No Standards Available  
 ND = Analyzed for but not detected at the Method Detection Limit (MDL)  
 B = The compound was found in the associated method blank and/or leachate blank  
 J = The concentration was detected at a value below the MDL  
 All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-17**  
**Summary of Soil Analytical Results for Additional Sampling Locations**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	I2A-5.5-6 5.5-6 06962-010 07/06/2005 Soil		I2B-2.2.5 2-2.5 06962-011 07/06/2005 Soil		I2C-2.2.5 2-2.5 06962-012 07/06/2005 Soil		I7A-4.4.5 4-4.5 06922-011 07/05/2005 Soil		I10A-2.5-3 2.5-3 06962-015 07/06/2005 Soil		I13A-10-10.5 10-10.5 06962-005 07/06/2005 Soil		I13B-7-7.5 7-7.5 06962-006 07/06/2005 Soil	
				Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
Volatiles (ppm)																	
Vinyl chloride	2	7	10	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
cis-1,2-Dichloroethene	79	1000	1	ND	0.250	18.1	0.524	1.70	0.295	ND	0.265	ND	0.265	ND	0.395	ND	0.395
Benzene	3	13	1	ND	0.250	0.228 J	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Trichloroethene	23	54	1	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Toluene	1000	1000	500	ND	0.250	0.230 J	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
TOTAL VO's:	NA	NA	NA	ND	0.250	18.6 J	1.70	1.70	1.70	ND	126	126	126	126	0.395	0.395	0.395
TOTAL TIC's:	NA	NA	NA	ND	0.250	18.6 J	1.70	1.70	1.70	ND	126	126	126	126	0.395	0.395	0.395
TOTAL VO's & TIC's:	NA	NA	NA	ND	0.250	18.6 J	1.70	1.70	1.70	ND	126	126	126	126	0.395	0.395	0.395
Semivolatiles - BNA Special List (ppm)																	
Naphthalene	230	4200	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Fluorene	2300	10000	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Phenanthrene	NA	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Anthracene	10000	10000	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Fluoranthene	2300	10000	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Pyrene	1700	10000	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Benzo[a]anthracene	0.9	4	500	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Chrysene	9	40	500	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
bis(2-Ethylhexyl)phthalate	49	210	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Benzo[b]fluoranthene	0.9	4	50	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Benzo[k]fluoranthene	0.9	4	500	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Benzo[a]pyrene	0.66	0.66	100	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Indeno[1,2,3-cd]pyrene	0.9	4	500	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Benzo[g,h,i]perylene	NA	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
TOTAL BNA'S:	NA	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
TOTAL TIC's:	NA	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
TOTAL BNA'S & TIC's:	NA	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Alcohols (ppm)																	
Pesticides (ppm)																	
Metals (ppm)																	
Arsenic	20	20	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Beryllium	2	2	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Chromium	120,000	NA	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Copper	600	600	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Lead	400	600	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Mercury	14	270	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Nickel	250	2400	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Thallium	2	2	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257
Zinc	1500	1500	NA	ND	0.250	ND	0.524	ND	0.295	ND	0.265	ND	0.265	ND	0.257	ND	0.257

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded

NA = No Standards Available

~ = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

D = The compound was reported from a diluted analysis

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-17**  
**Summary of Soil Analytical Results for Additional Sampling Locations**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA	NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA	I13B-13.5-14		I13C-6-6.5		I17A-7.5-8		I17B-2-2.5		I17C-7-7.5		I25A-8.5-9	
				Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
Volatiles (ppm)															
Vinyl chloride	2	7	10	ND	0.246	1.40	0.249	ND	0.232	ND	0.250	ND	0.280	ND	0.216
cis-1,2-Dichloroethene	79	1000	1	0.348	0.246	2.84	0.249	ND	0.232	ND	0.250	ND	0.280	ND	0.216
Benzene	3	13	1	ND	0.246	ND	0.124	ND	0.232	ND	0.250	ND	0.280	ND	0.216
Trichloroethene	23	54	1	0.071 J	0.246	ND	0.249	ND	0.232	ND	0.250	ND	0.280	ND	0.216
Toluene	1000	1000	500	ND	0.246	ND	0.249	ND	0.232	ND	0.250	ND	0.280	ND	0.216
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	ND	0.246	47.5 D	4.98	ND	0.232	ND	0.250	ND	0.280	ND	0.216
TOTAL VO's:	NA	NA	NA	0.419 J		51.7		ND		2.01		ND		ND	
TOTAL VO's & TIC's:	NA	NA	NA	0.419 J		596		151		19.2		ND		ND	
TOTAL BNA's & TIC's:	NA	NA	NA	0.419 J		648		151		21.2		ND		ND	
<b>Semivolatiles - BNA Special List (ppm)</b>															
Naphthalene	230	4200	100	-	-	-	-	-	-	-	-	-	-	0.143 J	0.216
Fluorene	2300	10000	100	-	-	-	-	-	-	-	-	-	-	0.155 J	0.216
Phenanthrene	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	0.789	0.216
Anthracene	10000	10000	100	-	-	-	-	-	-	-	-	-	-	0.204 J	0.216
Fluoranthene	2300	10000	100	-	-	-	-	-	-	-	-	-	-	1.06	0.216
Pyrene	1700	10000	100	-	-	-	-	-	-	-	-	-	-	0.944	0.216
Benzo[a]anthracene	0.9	4	500	-	-	-	-	-	-	-	-	-	-	0.480	0.216
Chrysene	9	40	500	-	-	-	-	-	-	-	-	-	-	0.638	0.216
bis(2-Ethylhexyl)phthalate	49	210	100	-	-	-	-	-	-	-	-	-	-	13.8	0.216
Benzo[b]fluoranthene	0.9	4	50	-	-	-	-	-	-	-	-	-	-	0.490	0.216
Benzo[k]fluoranthene	0.9	4	500	-	-	-	-	-	-	-	-	-	-	0.374	0.216
Benzo[a]pyrene	0.66	0.66	100	-	-	-	-	-	-	-	-	-	-	0.489	0.216
Indeno[1,2,3-cd]pyrene	0.9	4	500	-	-	-	-	-	-	-	-	-	-	0.348	0.216
Benzo[g,h,i]perylene	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	0.323	0.216
TOTAL BNA's:	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	20.2 J	
TOTAL TIC's:	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	ND	
TOTAL BNA's & TIC's:	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	20.2 J	
<b>Alcohols (ppm)</b>															
<b>Pesticides (ppm)</b>															
<b>Metals (ppm)</b>															
Arsenic	20	20	NA	-	-	-	-	-	-	-	-	-	-	1.79	1.08
Beryllium	2	2	NA	-	-	-	-	-	-	-	-	-	-	ND	0.540
Chromium	120,000	NA	NA	-	-	-	-	-	-	-	-	-	-	22.9	2.16
Copper	600	600	NA	-	-	-	-	-	-	-	-	-	-	14.1	2.16
Lead	400	600	NA	-	-	-	-	-	-	-	-	-	-	8.40	0.540
Mercury	14	270	NA	-	-	-	-	-	-	-	-	-	-	0.015	0.014
Nickel	250	2400	NA	-	-	-	-	-	-	-	-	-	-	8.16	1.08
Thallium	2	2	NA	-	-	-	-	-	-	-	-	-	-	ND	0.108
Zinc	1500	1500	NA	-	-	-	-	-	-	-	-	-	-	26.6	2.16

Concentrations that exceed NJDEP Residential, Non-Residential, or Impact to Groundwater Soil Cleanup Criteria are highlighted in bold and shaded

NA = No Standards Available

- = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

D = The compound was reported from a diluted analysis

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**Table 6-18**  
**Summary of Groundwater Analytical Results for Additional Sampling Locations**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	I2AGW-9-19 9-19 06922-009 07/05/2005 Aqueous		I13AGW-12-16 12-16 06962-001 07/06/2005 Aqueous		I13AGW-12-16 (DUP) 12-16 06962-002 07/06/2005 Aqueous		117A-GW-6-8 6-8 06830-007 07/01/2005 Aqueous		I7AGW-6-10 6-10 06922-010 07/05/2005 Aqueous	
		Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
<b>Volatiles + Acetone (ppb)</b>											
Vinyl chloride	1	6.16	0.190	134	3.80	151	3.80	18.5	6.39	0.190	
trans-1,2-Dichloroethene	100	1.35	0.260	ND	5.20	ND	5.20	ND	ND	0.260	
1,1-Dichloroethane	50	ND	0.330	ND	6.60	ND	6.60	1.27	ND	0.330	
cis-1,2-Dichloroethene	70	19.0	0.310	1010	6.20	1060	6.20	25.1	4.73	0.310	
Chloroform	70	2.15	0.260	ND	5.20	ND	5.20	ND	ND	0.260	
1,1,1-Trichloroethane	30	ND	0.210	31.4	4.20	26.3	4.20	ND	ND	0.210	
Trichloroethene	1	66.5	0.330	144	6.60	135	6.60	2.62	ND	0.330	
Chlorobenzene	50	0.683	0.250	ND	5.00	ND	5.00	ND	ND	0.250	
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	ND	0.260	1600	5.20	1310	5.20	15.4	ND	0.260	
Methylcyclohexane	NA	ND	0.420	ND	8.40	ND	8.40	ND	ND	0.420	
TOTAL VO's:	NA	95.8		2920		2680		62.9	11.1		
TOTAL TIC's:	NA	ND		1200		598		46.1	ND		
TOTAL VO's & TIC's:	NA	95.8		4120		3280		109	11.1		
<b>Semivolatiles - BNA Special List (ppb)</b>											
TOTAL BNA'S:	NA	~		~		~		~	ND		
TOTAL TIC's:	NA	~		~		~		~	ND		
TOTAL BNA'S & TIC's:	NA	~		~		~		~	ND		
<b>Alcohols (ppb)</b>											
<b>Pesticides (ppb)</b>											
<b>Metals (ppb)</b>											
Copper	1300	~		~		~		~	19.0	8.00	
Nickel	100	~		~		~		~	5.72	4.00	
Zinc	2000	~		~		~		~	15.0	8.00	
<b>Formaldehyde (ug/kg)</b>	100	~		~		~		~	ND	10	

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

NA = No Standards Available

~ = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

DUP = Field duplicate sample

**Table 6-18**  
**Summary of Groundwater Analytical Results for Additional Sampling Locations**  
 Former AT&T Facility, Clark, New Jersey

Volatiles + Acetone (ppb)	Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	117D-GW-25-28		17AGW-24-28		12A-25-28	
		Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
Vinyl chloride	1	~	~	~	~	~	~
trans-1,2-Dichloroethene	100	~	~	~	~	~	~
1,1-Dichloroethane	50	~	~	~	~	~	~
cis-1,2-Dichloroethene	70	~	~	~	~	~	~
Chloroform	70	~	~	~	~	~	~
1,1,1-Trichloroethane	30	~	~	~	~	~	~
Trichloroethene	1	2.10	0.330	113	1.65	3.04	0.330
Chlorobenzene	50	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	~	~	~	~	~	~
Methylcyclohexane	NA	~	~	~	~	~	~
TOTAL VO's:	NA	~	~	~	~	~	~
TOTAL TIC's:	NA	~	~	~	~	~	~
TOTAL VO's & TIC's:	NA	~	~	~	~	~	~
<b>Semivolatiles - BNA Special List (ppb)</b>							
TOTAL BNA's:	NA	~	~	~	~	~	~
TOTAL TIC's:	NA	~	~	~	~	~	~
TOTAL BNA's & TIC's:	NA	~	~	~	~	~	~
<b>Alcohols (ppb)</b>							
<b>Pesticides (ppb)</b>							
<b>Metals (ppb)</b>							
Copper	1300	~	~	~	~	~	~
Nickel	100	~	~	~	~	~	~
Zinc	2000	~	~	~	~	~	~
<b>Formaldehyde (ug/kg)</b>	100	~	~	~	~	~	~

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

NA = No Standards Available

~ = Sample not analyzed for this compound

ND = Analyzed for but not detected at the Method Detection Limit (MDL)

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

DUP = Field duplicate sample

**Table 7-1**  
**Packer Test Observation Wells and Rationale for Selection**  
 Former AT&T Clark Facility, Clark, New Jersey

Packer Test Borehole (total depth ft bgs)	Observation Well (screen interval ft bgs)	Rationale
7DB (300 ft)	19D (186-206)	adjacent well; monitor possible vertical and horizontal connections
	21D (178-198)	monitor possible horizontal connections in southern portion of the site
	20D (178-198)	monitor possible horizontal connections in eastern portion of the site
	22D (105-115)	monitor possible horizontal connections in northern portion of the site
19DB (300 ft)	19A (70-80)	adjacent well; monitor possible vertical and horizontal connections in shallow bedrock
	19B (105-115)	adjacent well; monitor possible vertical and horizontal connections in intermediate bedrock
	21DB (0-300)	monitor possible horizontal connections in southern portion of the site
	19D (186-206)	adjacent well; monitor possible vertical and horizontal connections in deep bedrock
21DB (300 ft)	21D (178-198)	adjacent well; monitor possible vertical and horizontal connections in deep bedrock
	21S (104-114)	adjacent well; monitor possible vertical and horizontal connections in shallow bedrock
	19D (186-206)	monitor possible horizontal connections closer to former dry well area
	20D (178-198)	monitor possible horizontal connections in eastern portion of the site
23D (100 ft)	19A (70-80)	monitor same bedding unit in presumed up-dip direction
	19D (186-206)	adjacent well; monitor possible vertical connections in deep bedrock
	20B (103-113)	monitor possible horizontal connections in eastern portion of the site
	22D (105-115)	monitor possible horizontal connections in northern portion of the site

**Table 7-2**  
**Groundwater Levels in Monitoring Wells on September 23, 2005**  
Former AT&T Clark Facility, Clark, New Jersey

Well ID	TIC Elevation (ft AMSL)	Depth to Water from TIC (ft)	Groundwater Elevation (ft AMSL)
<b>Shallow</b>			
MW-1R	58.07	9.57	48.50
MW-2R	57.66	8.89	48.77
MW-3	57.67	7.67	50.00
MW-4	55.91	4.22	51.69
MW-5	55.14	3.95	51.19
MW-6	55.48	6.96	48.52
MW-7	57.13	8.24	48.89
MW-8	58.41	6.98	51.43
MW-19S	57.98	8.83	49.15
<b>Deep</b>			
MW-2A	57.34	8.94	48.40
MW-4A	56.19	9.85	46.34
MW-5A	55.25	6.98	48.27
MW-6A	55.65	7.41	48.24
MW-7A	57.28	9.26	48.02
MW-9A	57.07	6.51	50.56
MW-10A	57.93	9.24	48.69
MW-11A	55.27	7.35	47.92
MW-12A	55.06	9.33	45.73
MW-13A	55.46	10.36	45.10
MW-14A	57.18	10.16	47.02
MW-15A	54.60	16.05	38.55
MW-16A	54.25	15.81	38.44
MW17AR	55.70	14.16	41.54
MW-18A	52.73	15.19	37.54
<b>Bedrock</b>			
MW-7DB	58.03	17.63	40.40
MW-19A	57.17	14.69	42.48
MW-19B	58.05	16.41	41.64
MW-19D	57.76	17.32	40.44
MW19DB	57.85	17.21	40.64
MW-20B	57.19	15.45	41.74
MW-20D	57.22	15.52	41.70
MW-21S	55.42	16.03	39.39
MW21D	55.50	13.84	41.66
MW21DB	55.87	15.27	40.60
MW-22D	59.81	17.24	42.57
MW-23D	58.5	14.28	44.22

AMSL: Above Mean Sea Level

TIC: Top of Inner Casing

Elevations are from a survey performed in June 2004

**Table 7-3**  
**Groundwater Levels in Shallow Overburden Monitoring Wells on October 26, 2005**  
 Former AT&T Clark Facility, Clark, New Jersey

Well ID	TIC Elevation (ft AMSL) <sup>1</sup>	Depth to Water from TIC (ft)	Groundwater Elevation (ft AMSL)
<b>Shallow</b>			
US-1	55.53	5.78	49.75
US-2	56.83	7.15	49.68
MW-1R	58.07	5.78	52.29
MW-2R	57.66	5.41	52.25
MW-3	57.67	5.05	52.62
MW-4	55.91	3.61	52.30
MW-5	55.14	1.95	53.19
MW-6	55.48	2.18	53.30
MW-7	57.13	5.35	51.78
MW-8	58.41	5.05	53.36
MW-19S	57.98	5.58	52.40
<b>Deep</b>			
MW-2A	57.34	--	
MW-4A	56.19	--	
MW-5A	55.25	--	
MW-6A	55.65	--	
MW-7A	57.28	--	
MW-9A	57.07	--	
MW-10A	57.93	--	
MW-11A	55.27	--	
MW-12A	55.06	--	
MW-13A	55.46	--	
MW-14A	57.18	--	
MW-15A	54.60	--	
MW-16A	54.25	--	
MW17AR	55.70	--	
MW-18A	52.73	--	
<b>Bedrock</b>			
MW-7DB	58.03	--	
MW-19A	57.17	--	
MW-19B	58.05	--	
MW-19D	57.76	--	
MW19DB	57.85	--	
MW-20B	57.19	--	
MW-20D	57.22	--	
MW-21S	55.42	--	
MW21D	55.50	--	
MW21DB	55.87	--	
MW-22D	59.81	--	
MW-23D	58.5	--	

-- depth to water not measured

AMSL: Above Mean Sea Level

TIC: Top of Inner Casing

Elevations are from a survey performed in June 2004

**Table 7-4**  
**Summary of Analytical Results for Volatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	MW-1R*		MW-2R*		MW-2A		MW-2A (Dup-2)		MW-3		MW-4		MW-4A*		MW-5			
		Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
<b>Volatiles + Acetone (ppb)</b>	2000																		
Trichlorofluoromethane	1	ND	0.120	ND	0.120	ND	7.05	ND	7.05	ND	0.120	ND	ND	0.120	ND	0.120	ND	0.120	0.120
1,1-Dichloroethene	6000	ND	0.350	ND	0.350	ND	4.20	ND	4.20	ND	0.350	ND	ND	0.350	ND	0.350	ND	0.350	0.350
Acetone	3	ND	0.890	ND	0.890	ND	2.50	ND	2.50	ND	0.890	3.46	ND	0.890	ND	0.890	ND	0.890	0.890
Methylene chloride	70	<b>4.80</b> C	1.99	ND	1.99	ND	9.60	ND	9.60	ND	1.99	ND	ND	1.99	ND	1.99	ND	1.99	1.99
Methyl tert-butyl ether (MTBE)	50	ND	0.250	ND	0.250	ND	1.35	ND	1.35	ND	0.250	ND	ND	0.250	ND	0.250	ND	0.250	0.250
1,1-Dichloroethane	70	ND	0.330	ND	0.330	ND	2.40	ND	2.40	ND	0.330	ND	ND	0.330	ND	0.330	ND	0.330	0.330
cis-1,2-Dichloroethene	70	ND	0.310	ND	0.310	5.62	3.20	5.49	3.20	ND	0.310	ND	ND	0.310	ND	0.310	ND	0.310	0.310
Chloroform	30	ND	0.260	ND	0.260	ND	2.85	ND	2.85	ND	0.260	ND	ND	0.260	ND	0.260	ND	0.260	0.260
1,1,1-Trichloroethane	1	ND	0.390	ND	0.390	ND	4.35	ND	4.35	ND	0.390	ND	ND	0.390	ND	0.390	ND	0.390	0.390
Benzene	1	ND	0.330	ND	0.330	ND	3.85	ND	3.85	ND	0.330	ND	ND	0.330	ND	0.330	ND	0.330	0.330
Trichloroethene	1	<b>3.69</b>	0.220	ND	0.220	<b>924</b>	4.50	<b>960</b>	4.50	ND	0.220	ND	ND	0.220	ND	0.220	ND	0.220	0.220
Tetrachloroethene	1	ND	0.260	ND	0.260	ND	6.70	ND	6.70	ND	0.260	ND	ND	0.260	ND	0.260	ND	0.260	0.260
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	ND	0.260	ND	0.260	8.35	J	10.6	10.6	ND	0.260	ND	ND	0.260	ND	0.260	ND	0.260	0.260
TOTAL VO's:	NA	8.49	C	ND	6.35	938	J	965	965	ND	6.35	3.46	ND	6.35	ND	3.46	ND	6.35	6.35
TOTAL TIC's:	NA	8.49	C	ND	6.35	938	J	965	965	ND	6.35	3.46	ND	6.35	ND	3.46	ND	6.35	6.35
TOTAL VO's & TIC's:	NA	8.49	C	ND	6.35	938	J	965	965	ND	6.35	3.46	ND	6.35	ND	3.46	ND	6.35	6.35

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

- = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

C = Common Laboratory and/or Bottle Contaminant.

B = Indicates analyte found in associated method blank

D = The compound was reported from the Diluted analysis

J = The concentration was detected at a value below the MDL

**Table 7-4**  
**Summary of Analytical Results for Volatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-5A 28-33 10848-001 10/11/2005 Aqueous		MW-6 5-20 10227-003 09/26/2005 Aqueous		MW-6A* 28-33 10250-001 09/27/2005 Aqueous		MW-7 9-24 10536-002 10/04/2005 Aqueous		MW-7A 27.5-34 10413-004 9/30/2005 Aqueous		MW-7DB* 273-278 10904-004 10/12/2005 Aqueous		MW-8 5-20 10307-001 09/28/2005 Aqueous		MW-9A 14-20 10413-001 9/30/2005 Aqueous	
		Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles + Acetone (ppb)		2790	D	6.00	0.120	174	0.120	8.53	0.120	ND	0.300	42.8	0.120	ND	0.120	ND	0.120
Trichlorofluoromethane		75.5		0.350	0.350	28.3	0.350	ND	0.350	ND	0.875	7.20	0.350	ND	0.350	ND	0.350
1,1-Dichloroethane		ND		0.890	0.890	ND	0.890	ND	0.890	ND	2.23	ND	0.890	ND	0.890	ND	0.890
Acetone		ND		1.99	1.99	ND	1.99	ND	1.99	ND	4.98	ND	1.99	ND	1.99	ND	1.99
Methylene chloride		ND		0.250	0.250	ND	0.250	ND	0.250	ND	0.625	0.470	0.250	ND	0.250	ND	0.250
Methyl tert-butyl ether (MTBE)		13.5		0.330	0.330	1.52	0.330	ND	0.330	ND	0.825	3.30	0.330	ND	0.330	ND	0.330
1,1-Dichloroethane		2.39		0.310	0.310	ND	0.310	ND	0.310	7.46	0.775	9.02	0.310	ND	0.310	ND	0.310
cis-1,2-Dichloroethane		ND		0.260	0.260	ND	0.260	ND	0.260	ND	0.650	1.47	0.260	ND	0.260	ND	0.260
Chloroform		25.4		0.210	0.210	9.04	0.210	ND	0.210	ND	0.525	ND	0.210	ND	0.210	ND	0.210
1,1,1-Trichloroethane		ND		0.390	0.390	ND	0.390	ND	0.390	ND	0.975	ND	0.390	ND	0.390	ND	0.390
Benzene		155		0.330	0.330	18.4	0.330	ND	0.330	306	0.825	169	0.330	ND	0.330	ND	0.330
Trichloroethene		ND		0.220	0.220	ND	0.220	ND	0.220	ND	0.550	5.57	0.220	ND	0.220	ND	0.220
Tetrachloroethene		530	D	13.0	0.260	81.1	0.260	ND	0.260	ND	0.650	239	0.260	ND	0.260	ND	0.260
1,1,2-Trichloro-1,2,2-trifluoroethane		3590		ND	ND	312	ND	8.53	ND	313	ND	ND	ND	ND	ND	7.88	C
TOTAL VO's:		23.1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL TIC's:		3610		ND	ND	312	ND	8.53	ND	313	ND	239	ND	ND	ND	ND	7.88
TOTAL VO's & TIC's:				ND	ND	312	ND	8.53	ND	313	ND	239	ND	ND	ND	ND	7.88

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

~ = Sample not analyzed for

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C = Common Laboratory and/or Bottle Contaminant.

B = Indicates analyte found in associated method blank

D = The compound was reported from the Diluted analysis

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**Table 7-4**  
**Summary of Analytical Results for Volatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-10A 19-24 10487-002 10/03/2005 Aqueous		MW-11A 27-32 10822-004 10/10/2005 Aqueous		MW-12A 35-40 10822-001 10/10/2005 Aqueous		MW-13A 29-34 10536-001 10/04/2005 Aqueous		MW-14A 27-32 10307-007 09/28/2005 Aqueous		MW-15A 53-58 10596-001 10/05/2005 Aqueous		MW-16A 47-57 10487-001 10/03/2005 Aqueous		MW-17AR* 32-37 10596-002 10/05/2005 Aqueous			
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles + Acetone (ppb)	2000	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Trichlorofluoromethane	1	ND	0.120	116	0.240	116	0.240	5.77	0.120	ND	0.120	8.18	0.120	ND	0.120	1380		1.20	
1,1-Dichloroethene	6000	ND	0.350	21.3	0.350	0.700	0.700	ND	0.350	ND	0.350	ND	0.350	ND	0.350	ND		3.50	
Acetone	3	ND	0.890	ND	1.78	0.890	1.78	ND	0.890	ND	0.890	ND	0.890	ND	0.890	ND		8.90	
Methylene chloride	70	ND	1.99	7.42	1.99	3.98	3.98	2.30	1.99	ND	1.99	ND	1.99	ND	1.99	ND		19.9	
Methyl tert-butyl ether (MTBE)	50	ND	0.250	ND	0.500	0.500	0.500	ND	0.250	ND	0.250	ND	0.250	ND	0.250	ND		2.50	
1,1-Dichloroethane	70	ND	0.330	2.92	0.330	0.660	0.660	ND	0.330	ND	0.330	ND	0.330	ND	0.330	ND		3.30	
cis-1,2-Dichloroethene	70	ND	0.310	8.00	0.310	11.0	0.620	1.26	0.310	ND	0.310	1.60	0.310	ND	0.310	12.1		3.10	
Chloroform	30	ND	0.260	ND	0.520	0.520	0.520	ND	0.260	ND	0.260	ND	0.260	ND	0.260	ND		2.60	
1,1,1-Trichloroethane	1	ND	0.210	ND	0.420	0.420	0.420	ND	0.210	ND	0.210	ND	0.210	ND	0.210	ND		2.10	
Benzene	1	ND	0.390	ND	0.780	0.780	0.780	ND	0.390	ND	0.390	ND	0.390	ND	0.390	ND		3.90	
Trichloroethene	1	ND	0.330	360	0.330	33.0	0.660	8.21	0.330	5.14	0.330	37.8	0.330	23.2	0.330	722		3.30	
Tetrachloroethene	1	ND	0.220	ND	0.440	0.440	0.440	ND	0.220	ND	0.220	ND	0.220	ND	0.220	ND		2.20	
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	ND	0.260	ND	0.520	0.520	0.520	ND	0.260	ND	0.260	ND	0.260	ND	0.260	ND		2.60	
TOTAL VO's:	NA	ND	2550	2550	C	149	149	17.5	17.5	5.14	5.14	47.6	47.6	29.4	29.4	2110		2110	
TOTAL TIC's:	NA	ND	2550	2550	C	149	149	10.3	10.3	5.14	5.14	47.6	47.6	29.4	29.4	2110		2110	
TOTAL VO's & TIC's:	NA	ND	2550	2550	C	149	149	27.8	27.8	5.14	5.14	47.6	47.6	29.4	29.4	2110		2110	

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

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**Table 7-4**  
**Summary of Analytical Results for Volatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Screen Interval: Lab ID: Date Sampled: Matrix:	Client ID: HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	MW-18A		MW-19A		MW-19B*		MW-19D		MW-19DB*		MW-19S*		MW-20B*		MW-20D	
		Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Volatiles + Acetone (ppb)	2000	22.0	0.120	14.1	0.120	6.00	0.120	39.7	0.120	25.7	0.120	ND	0.120	ND	1.41	10.5	0.120
Trichlorofluoromethane	1	<b>3.58</b>	0.350	8.40	0.350	ND	0.350	<b>10.2</b>	0.350	<b>2.90</b>	0.350	ND	0.350	ND	0.840	<b>8.46</b>	0.350
1,1-Dichloroethane	6000	3.11	0.890	5.00	0.890	ND	0.890	ND	0.890	ND	0.890	6.65	0.890	ND	0.500	1.00	0.890
Acetone	3	2.04	1.99	19.2	1.99	ND	1.99	ND	1.99	ND	1.99	ND	1.99	ND	1.92	ND	1.99
Methylene chloride	70	1.84	0.250	2.70	0.250	1.36	0.250	ND	0.250	ND	0.250	ND	0.250	ND	0.270	ND	0.250
Methyl tert-butyl ether (MTBE)	50	12.7	0.330	4.80	0.330	ND	0.330	3.39	0.330	1.48	0.330	ND	0.330	ND	0.480	3.51	0.330
1,1-Dichloroethane	70	4.91	0.310	6.40	0.310	2.31	0.310	6.95	0.310	4.27	0.310	ND	0.310	ND	0.640	3.06	0.310
cis-1,2-Dichloroethane	70	ND	0.260	5.70	0.260	2.07	0.260	3.37	0.260	0.708	0.260	ND	0.260	ND	0.570	4.45	0.260
Chloroform	30	ND	0.210	8.70	0.210	ND	0.210	ND	0.210	ND	0.210	ND	0.210	ND	0.870	ND	0.210
1,1,1-Trichloroethane	1	ND	0.390	7.70	0.390	ND	0.390	ND	0.390	ND	0.390	ND	0.390	ND	0.770	ND	0.390
Benzene	1	<b>37.0</b>	0.330	<b>2000</b>	9.00	<b>133</b>	0.330	<b>141</b>	0.330	<b>124</b>	0.330	ND	0.330	ND	<b>4.84</b>	<b>59.4</b>	0.330
Trichloroethene	1	<b>2.97</b>	0.220	13.4	0.220	ND	0.220	<b>3.75</b>	0.220	<b>2.29</b>	0.220	ND	0.220	ND	1.34	<b>1.77</b>	0.220
Tetrachloroethene	NA	ND	0.260	21.2	0.260	ND	0.260	ND	0.260	ND	0.260	ND	0.260	ND	2.12	ND	0.260
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	90.2	C	2020	2020	145	0.260	208	0.260	161	0.260	6.65	0.260	ND	4.84	92.2	0.260
TOTAL VO's:	NA	ND		ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	90.2	C	2020	2020	145	0.260	208	0.260	161	0.260	6.65	0.260	ND	4.84	92.2	0.260
TOTAL VO's & TIC's:	NA	90.2	C	2020	2020	145	0.260	208	0.260	161	0.260	6.65	0.260	ND	4.84	92.2	0.260

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**Table 7-4**  
**Summary of Analytical Results for Volatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-21D 178-198 10726-001 10/06/2005 Aqueous		MW-21D (Dup-1) 10726-004 10/06/2005 Aqueous		MW-21DB* 250-255 10848-005 10/11/2005 Aqueous		MW-21S 104-114 10904-005 10/12/2005 Aqueous		MW-22D 105-115 10536-003 10/04/2005 Aqueous		MW-23D* 95-100 10904-003 10/12/2005 Aqueous	
		Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL
<b>Volatiles + Acetone (ppb)</b>	2000	25.8	0.120	32.0	0.120	59.5	0.120	22.5	1.20	ND	0.120	3.87	0.120
Trichlorofluoromethane	1	<b>5.91</b>	0.350	<b>6.90</b>	0.350	<b>7.12</b>	0.350	ND	3.50	<b>1.13</b>	0.350	ND	0.350
1,1-Dichloroethene	6000	4.11	0.890	1.98	0.890	ND	0.890	ND	8.90	ND	0.890	ND	0.890
Acetone	3	ND	1.99	ND	1.99	ND	1.99	ND	19.9	ND	1.99	ND	1.99
Methylene chloride	70	ND	0.250	ND	0.250	ND	0.250	ND	2.50	ND	0.250	ND	0.250
Methyl tert-butyl ether (MTBE)	50	2.54	0.330	2.91	0.330	4.27	0.330	ND	3.30	ND	0.330	ND	0.330
1,1-Dichloroethane	70	7.91	0.310	8.71	0.310	10.8	0.310	28.9	3.10	ND	0.310	1.50	0.310
cis-1,2-Dichloroethene	70	1.04	0.260	1.18	0.260	1.88	0.260	ND	2.60	ND	0.260	ND	0.260
Chloroform	30	ND	0.210	ND	0.210	ND	0.210	ND	2.10	ND	0.210	ND	0.210
1,1,1-Trichloroethane	1	ND	0.390	ND	0.390	ND	0.390	ND	3.90	ND	0.390	ND	0.390
Benzene	1	<b>127</b>	0.330	<b>146</b>	0.330	<b>196</b>	0.330	<b>1250</b>	3.30	<b>4.97</b>	0.330	<b>97.9</b>	0.330
Trichloroethene	1	<b>4.76</b>	0.220	<b>5.49</b>	0.220	<b>6.93</b>	0.220	<b>53.1</b>	2.20	ND	0.220	ND	0.220
Tetrachloroethene	1	ND	0.260	ND	0.260	ND	0.260	ND	2.60	ND	0.260	ND	0.260
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	179		205		287		1350		6.10		103	
TOTAL VO's:	NA	ND		ND		ND		ND		ND		ND	
TOTAL TIC's:	NA	179		205		287		1350		6.10		103	
TOTAL VO's & TIC's:	NA	179		205		287		1350		6.10		103	

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**Table 7-5**  
**Summary of Analytical Results for Semivolatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-1R* 7-22 10307-006 09/28/2005 Aqueous	MW-2R* 7-22 10381-004 09/29/2005 Aqueous	MW-2A 25-30 10945-001 10/13/2005 Aqueous	MW-2A (Dup-2) 10945-004 10/13/2005 Aqueous	MW-3 8-23 10227-001 09/26/2005 Aqueous	MW-4 9.5-24.5 10381-003 09/29/2005 Aqueous	MW-4A* 25-30 10307-003 09/28/2005 Aqueous	MW-5 4-19 10307-002 09/28/2005 Aqueous
<b>Semivolatiles - BNA Special List (ppb)</b>									
Caprolactam	NA	ND	0.380	ND	0.380	ND	0.380	ND	0.380
Acenaphthylene	NA	ND	0.180	ND	0.180	ND	0.180	ND	0.180
Acenaphthene	400	ND	0.170	ND	0.170	ND	0.170	ND	0.170
Diethylphthalate	6000	ND	0.280	ND	0.180	ND	0.180	ND	0.180
Fluorene	300	ND	0.180	ND	0.180	ND	0.180	ND	0.180
Di-n-butylphthalate	700	0.173	0.160	ND	0.160	ND	0.160	ND	0.160
Fluoranthene	300	ND	0.190	ND	0.190	ND	0.190	ND	0.190
Pyrene	200	ND	0.140	ND	0.140	ND	0.140	ND	0.140
Butylbenzylphthalate	100	0.419	0.310	ND	0.310	ND	0.310	ND	0.310
bis(2-Ethylhexyl)phthalate	3	ND	0.370	ND	0.370	ND	0.370	ND	0.370
TOTAL BNAS:	NA	0.592	0.280	ND	0.370	ND	0.370	ND	0.370
TOTAL TIC's:	NA	ND	ND	87.6	97.5	ND	16.6	ND	ND
TOTAL BNA'S & TIC's:	NA	0.592	0.280	87.6	97.5	ND	4.60	ND	ND
				87.6	97.5	ND	21.2	ND	ND

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

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**Table 7-5**  
**Summary of Analytical Results for Semivolatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA	MW-5A 28-33 10848-001 10/11/2005 Aqueous	MW-6 5-20 10227-003 09/26/2005 Aqueous	MW-6A* 28-33 10250-001 09/27/2005 Aqueous	MW-7 9-24 10536-002 10/04/2005 Aqueous	MW-7A 27.5-34 10413-004 9/30/2005 Aqueous	MW-7DB* 273-278 10904-004 10/12/2005 Aqueous	MW-8 5-20 10307-001 09/28/2005 Aqueous	MW-9A 14-20 10413-001 9/30/2005 Aqueous
Semivolatiles - BNA Special List (ppb)									
Caprolactam	NA	ND	0.380	ND	0.380	ND	0.380	ND	0.380
Acenaphthylene	NA	ND	0.180	ND	0.180	ND	0.180	ND	0.180
Acenaphthene	400	ND	0.170	ND	0.170	ND	0.170	ND	0.170
Diethylphthalate	6000	ND	0.180	ND	0.180	ND	0.180	ND	0.180
Fluorene	300	ND	0.180	ND	0.180	ND	0.180	ND	0.180
Di-n-butylphthalate	700	ND	0.160	ND	0.160	ND	0.160	ND	0.160
Fluoranthene	300	ND	0.190	ND	0.190	ND	0.190	ND	0.190
Pyrene	200	ND	0.140	ND	0.140	ND	0.140	ND	0.140
Butylbenzylphthalate	100	ND	0.310	ND	0.310	ND	0.310	ND	0.310
bis(2-Ethylhexyl)phthalate	3	ND	0.370	ND	0.370	ND	0.370	ND	0.370
TOTAL BNA'S:	NA	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL TIC's:	NA	13.0	20.2	ND	ND	ND	10.0	ND	ND
TOTAL BNA'S & TIC's:	NA	13.0	20.2	ND	ND	ND	10.0	ND	ND

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**Summary of Analytical Results for Semivolatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-10A 19-24 10487-002 10/03/2005 Aqueous	MW-11A 27-32 10822-004 10/10/2005 Aqueous	MW-12A 35-40 10822-001 10/10/2005 Aqueous	MW-13A 29-34 10536-001 10/04/2005 Aqueous	MW-14A 27-32 10307-007 09/28/2005 Aqueous	MW-15A 53-58 10596-001 10/05/2005 Aqueous	MW-16A 47-57 10487-001 10/03/2005 Aqueous	MW-17AR* 32-37 10596-002 10/05/2005 Aqueous
Semivolatiles - BNA Special List (ppb)									
Caprolactam	NA	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	NA	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	400	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	6000	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	700	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	300	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	100	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	3	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL BNA'S:	NA	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL TIC'S:	NA	ND	43.6	ND	ND	ND	ND	ND	ND
TOTAL BNA'S & TIC'S:	NA	ND	43.6	ND	ND	ND	9.30	60.5	ND
							9.30	60.5	ND

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**Table 7-5**  
**Summary of Analytical Results for Semivolatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-18A 46-51 10671-003 10/06/2005 Aqueous	MW-19A 70-80 10945-005 10/13/2005 Aqueous	MW-19B* 105-115 10726-005 10/06/2005 Aqueous	MW-19D 186-206 10848-002 10/11/2005 Aqueous	MW-19DB* 295-300 10904-006 10/12/2005 Aqueous	MW-19S* 6-21 10381-005 09/29/2005 Aqueous	MW-20B* 103-113 10945-006 10/13/2005 Aqueous	MW-20D 178-198 10671-004 10/06/2005 Aqueous
Semivolatiles - BNA Special List (ppb)									
Caprolactam	NA	ND	0.380	ND	12.2	ND	0.380	ND	0.380
Acenaphthylene	NA	ND	0.180	ND	ND	ND	0.180	ND	0.180
Acenaphthene	400	ND	0.170	ND	ND	ND	0.170	ND	0.170
Diethylphthalate	6000	ND	0.180	ND	ND	ND	0.180	ND	0.180
Fluorene	300	ND	0.180	ND	ND	ND	0.180	ND	0.180
Di-n-butylphthalate	700	ND	0.160	ND	ND	ND	0.160	ND	0.160
Fluoranthene	300	ND	0.190	ND	ND	ND	0.190	ND	0.190
Pyrene	200	ND	0.140	ND	ND	ND	0.140	ND	0.140
Butylbenzylphthalate	100	ND	0.310	ND	ND	ND	0.310	ND	0.310
bis(2-Ethylhexyl)phthalate	3	ND	0.370	ND	ND	ND	0.370	ND	0.370
TOTAL BNA'S:	NA	ND	ND	ND	12.2	4.44	ND	ND	ND
TOTAL TIC's:	NA	213	11.8	62.8	75.0	58.2	ND	ND	ND
TOTAL BNAS & TIC's:	NA	213	11.8	62.8	75.0	62.6	ND	ND	ND

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- J = The concentration was detected at a value below the MDL

**Table 7-5**  
**Summary of Analytical Results for Semivolatile Organic Compounds**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-21D 178-198 10726-001 10/06/2005 Aqueous	MW-21D (Dup-1) 10726-004 10/06/2005 Aqueous	MW-21DB* 250-255 10848-005 10/11/2005 Aqueous	MW-21S 104-114 10904-005 10/12/2005 Aqueous	MW-22D 105-115 10536-003 10/04/2005 Aqueous	MW-23D* 95-100 10904-003 10/12/2005 Aqueous
<b>Semivolatiles - BNA Special List (ppb)</b>							
Caprolactam	NA	ND	0.380	ND	0.380	ND	ND
Acenaphthylene	NA	ND	0.180	ND	0.180	ND	0.180
Acenaphthene	400	ND	0.170	ND	0.170	ND	0.170
Diethylphthalate	6000	ND	0.180	ND	0.180	ND	0.180
Fluorene	300	ND	0.180	ND	0.180	ND	0.180
Di-n-butylphthalate	700	ND	0.160	ND	0.160	ND	0.160
Fluoranthene	300	ND	0.190	ND	0.190	ND	0.190
Pyrene	200	ND	0.140	ND	0.140	ND	0.140
Butylbenzylphthalate	100	ND	0.310	ND	0.310	ND	0.310
bis(2-Ethylhexyl)phthalate	3	1.43	0.370	ND	0.370	ND	0.370
TOTAL BNA'S:	NA	1.43	1.34	ND	0.370	ND	ND
TOTAL TIC's:	NA	11.3	11.0	11.2	180	377	56.9
TOTAL BNA'S & TIC's:	NA	12.7	12.3	11.2	180	377	56.9

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

- \* = New monitoring wells installed summer 2005
- NA = No Standards Available
- = Sample not analyzed for
- ND = Analyzed for but Not Detected at the MDL
- C = Common Laboratory and/or Bottle Contaminant.
- B = Indicates analyte found in associated method blank
- D = The compound was reported from the Diluted analysis
- J = The concentration was detected at a value below the MDL

**Table 7-6**  
**Summary of Analytical Results for Pesticides, Metals, Alcohols, and Formaldehyde**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Pesticides (ppb)	Metals (ppb)	Alcohols (ppm)	Formaldehyde (ppm)	Formaldehyde	Client ID: HIGHER OF PQLs + GROUND WATER QUALITY CRITERIA												
					MW-1R* 7-22 10307-006 09/28/2005 Aqueous	MW-2R* 7-22 10381-004 09/29/2005 Aqueous	MW-2A 25-30 10945-001 10/13/2005 Aqueous	MW-2A (Dup-2) 10945-004 10/13/2005 Aqueous	MW-3 8-23 10227-001 09/26/2005 Aqueous	MW-4 9.5-24.5 10381-003 09/29/2005 Aqueous	MW-4A* 25-30 10307-003 09/28/2005 Aqueous	MW-5 4-19 10307-002 09/28/2005 Aqueous					
Arsenic	3	4.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	1	20.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	4	2.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	70	3.64	ND	ND	1.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	1300	14.9	ND	ND	ND	8.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	5	886	ND	ND	ND	8.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	91.9	ND	ND	ND	31.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2000	21.2	ND	ND	ND	2.59	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
*Alcohols (ppm)		3570	ND	ND	ND	4.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
*Formaldehyde (ppm)		8.00	ND	ND	ND	49.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Formaldehyde	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

C = Common Laboratory and/or Bottle Contaminant.

B = indicates analyte found in associated method blank

D = The compound was reported from the Diluted analysis

J = The concentration was detected at a value below the MDL

\*\*Subcontracted Result from Accutest

**Table 7-6**  
**Summary of Analytical Results for Pesticides, Metals, Alcohols, and Formaldehyde**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Pesticides (ppb) Metals (ppb)	Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-5A	MW-6	MW-6A*	MW-7	MW-7A	MW-7DB*	MW-8	MW-9A
			28-33 10848-001 10/11/2005 Aqueous	5-20 10227-003 09/26/2005 Aqueous	28-33 10250-001 09/27/2005 Aqueous	9-24 10536-002 10/04/2005 Aqueous	27.5-34 10413-004 9/30/2005 Aqueous	27.5-27.8 10904-004 10/12/2005 Aqueous	5-20 10307-001 09/28/2005 Aqueous	14-20 10413-001 9/30/2005 Aqueous
Arsenic		3	ND	4.00	ND	4.00	ND	ND	ND	ND
Beryllium		1	ND	2.00	ND	4.00	ND	4.00	ND	4.00
Cadmium		4	ND	2.00	ND	2.00	ND	2.00	ND	2.00
Chromium		70	ND	1.09	ND	1.00	ND	1.00	ND	1.00
Copper		1300	ND	8.00	ND	8.00	ND	8.00	ND	8.00
Lead		5	ND	8.00	ND	8.00	ND	8.00	ND	8.00
Nickel		100	ND	2.00	ND	2.00	ND	2.00	ND	2.00
Zinc		2000	11.6	8.00	11.4	8.00	20.2	8.00	21.3	126
*Alcohols (ppm)			ND	ND	ND	ND	ND	ND	ND	ND
*Formaldehyde (ppm)			ND	ND	ND	ND	ND	ND	ND	ND
Formaldehyde		100	ND	20	ND	20	ND	20	ND	20

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

C = Common Laboratory and/or Bottle Contaminant.

B = Indicates analyte found in associated method blank

D = The compound was reported from the Diluted analysis

J = The concentration was detected at a value below the MDL

\*Subcontracted Result from Accutest

**Table 7-6**  
**Summary of Analytical Results for Pesticides, Metals, Alcohols, and Formaldehyde**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	MW-10A 19-24 10487-002 10/03/2005 Aqueous	MW-11A 27-32 10822-004 10/10/2005 Aqueous	MW-12A 35-40 10822-001 10/10/2005 Aqueous	MW-13A 29-34 10536-001 10/04/2005 Aqueous	MW-14A 27-32 10307-007 09/28/2005 Aqueous	MW-15A 53-58 10596-001 10/05/2005 Aqueous	MW-16A 47-57 10487-001 10/03/2005 Aqueous	MW-17AR* 32-37 10596-002 10/05/2005 Aqueous
Pesticides (ppb)	ND	ND	ND	ND	ND	ND	ND	ND
Metals (ppb)								
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	2.92	1.00	3.78	1.00	2.00	2.00	2.00
Chromium	ND	8.00	8.00	8.00	8.00	7.29	1.00	1.00
Copper	14.3	8.00	8.00	10.5	8.00	ND	8.00	8.00
Lead	ND	2.00	2.00	29.8	8.00	ND	11.1	8.00
Nickel	ND	ND	ND	10.4	2.00	ND	10.0	8.00
Zinc	9.12	8.00	4.00	4.29	4.00	ND	2.41	2.00
*Alcohols (ppm)	ND	13.6	8.00	11.4	8.00	15.1	4.00	4.32
*Formaldehyde (ppm)	ND	ND	ND	ND	19.5	8.00	8.00	34.4
Formaldehyde	ND	ND	ND	ND	ND	ND	ND	ND
	ND	20	20	20	20	20	20	20

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

C = Common Laboratory and/or Bottle Contaminant.

B = Indicates analyte found in associated method blank

D = The compound was reported from the Diluted analysis

J = The concentration was detected at a value below the MDL

\*Subcontracted Result from Accutest

**Table 7-6**  
**Summary of Analytical Results for Pesticides, Metals, Alcohols, and Formaldehyde**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Pesticides (ppb) Metals (ppb)	Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-18A	MW-19A	MW-19B*	MW-19D	MW-19DB*	MW-19S*	MW-20B*	MW-20D
			46-51 10671-003 10/06/2005 Aqueous	70-80 10945-005 10/13/2005 Aqueous	105-115 10726-005 10/06/2005 Aqueous	186-206 10848-002 10/11/2005 Aqueous	295-300 10904-006 10/12/2005 Aqueous	6-21 10381-005 09/29/2005 Aqueous	103-113 10945-006 10/13/2005 Aqueous	178-198 10671-004 10/06/2005 Aqueous
Arsenic	3		4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Beryllium	1		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Cadmium	4		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Chromium	70		8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Copper	1300		8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Lead	5		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Nickel	100		4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Zinc	2000		8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
*Alcohols (ppm)			ND	ND	ND	ND	ND	ND	ND	ND
*Formaldehyde (ppm)			ND	ND	ND	ND	ND	ND	ND	ND
Formaldehyde	100		ND	ND	24.2 B	ND	ND	20	ND	20

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

C = Common Laboratory and/or Bottle Contaminant.

B = Indicates analyte found in associated method blank

D = The compound was reported from the Diluted analysis

J = The concentration was detected at a value below the MDL

\*Subcontracted Result from Accutest

**Table 7-6**  
**Summary of Analytical Results for Pesticides, Metals, Alcohols, and Formaldehyde**  
**September - October 2005 Groundwater Sampling Event**  
 Former AT&T Facility, Clark, New Jersey

Pesticides (ppb)	Client ID: Screen Interval: Lab ID: Date Sampled: Matrix:	HIGHER OF PQLS + GROUND WATER QUALITY CRITERIA	MW-21D	MW-21D	MW-21D	MW-21DB*	MW-21S	MW-22D	MW-23D*
			178-198 10726-001 10/06/2005 Aqueous	(Dup-1) 10726-004 10/06/2005 Aqueous	250-255 10848-005 10/11/2005 Aqueous	104-114 10904-005 10/12/2005 Aqueous	105-115 10536-003 10/04/2005 Aqueous	95-100 10904-003 10/12/2005 Aqueous	
<b>Metals (ppb)</b>			ND	ND	ND	ND	ND	ND	ND
Arsenic	3		8.00	4.73	4.00	4.00	4.00	4.00	4.00
Beryllium	1		ND	ND	2.00	2.00	2.00	2.00	2.00
Cadmium	4		4.52	1.77	1.00	1.00	1.00	1.00	1.00
Chromium	70		17.6	9.79	8.00	8.00	8.00	9.79	8.00
Copper	1300		21.4	14.3	8.00	8.00	8.00	8.00	8.00
Lead	5		6.90	5.52	2.00	2.00	2.00	2.00	2.00
Nickel	100		14.0	5.95	4.00	4.00	4.00	4.00	4.00
Zinc	2000		127	66.8	8.00	29.2	8.00	15.3	31.9
<b>*Alcohols (ppm)</b>			ND	ND	ND	ND	ND	ND	ND
<b>*Formaldehyde (ppm)</b>			21.8	B	20	20	20	20	20
Formaldehyde	100		21.8	B	20	20	20	20	20

Concentrations exceeding the higher of Practical Quantitation Level (PQL) and Groundwater Quality Criteria are shaded and highlighted in bold.

\* = New monitoring wells installed summer 2005

NA = No Standards Available

-- = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

C = Common Laboratory and/or Bottle Contaminant.

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D = The compound was reported from the Diluted analysis

J = The concentration was detected at a value below the MDL

\*Subcontracted Result from Accutest

**Table 8-1**  
**Status of Areas of Concern and Phase II Sampling Locations**  
Former AT&T Clark Facility, Clark, New Jersey

Area of Concern	Description	Further Action Proposed	No Further Action Proposed	Rationale Reference
4	No. 2 Diesel Fuel 25,000-gallon UST		X	Section 6.1
6	Sumps	X		Section 6.2
7	Pits		X	Section 6.3
12	Chemical Storage Cabinet		X	Section 6.4
13	Floor Drains, Trenches or Piping		X	Section 6.5
14	Storm Sewer Collection System	X		Section 6.6
15	Former Dry Well and Piping	X		Section 6.7
18	Underground Piping, Including Industrial Process Sewers, Process Area Sinks & Piping Which Received Process Waste		X	Section 6.8
19	Non-Contact Cooling Water		X	Section 6.9
24	Discharge to Lift Station		X	Section 6.10
30	Loading Transfer Area		X	Section 6.11
31	Boiler Room		X	Section 6.12
33	Former Solvent Storage Room		X	Section 6.13
34	Groundwater VOC Plume	X		Section 7.0
	Additional Sampling Locations	X (Location I-2A Only)	X (Remaining Locations)	Section 6.14


## **FIGURES**



SOURCE: USGS QUADRANGLE (PERTH AMBOY & ROSELLE, NJ)

DWG: Figure 1-1 12/16/05



FIGURE 1-1	
SITE LOCATION MAP	
FORMER AT&T CLARK FACILITY CLARK, NEW JERSEY	
 1465 Route 31 South Annandale, NJ 08801 GEOTRANS, INC.	
DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 12/16/05



**January 2006**  
Contour Map Reporting Form  
Shallow Overburden

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes **X** No   . If yes, attach new "Well Certification - Form B – Location Certification" as found in the "Guide for the Submission of Remedial Action Workplans" (NJDEP, March 1995) and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

**New wells were installed, MW-1R, MW-2R, MW-19S, MW-4A, MW-6A, MW-17AR, MW-7DB, MW-19B, MW-19DB, MW-20B, MW-21DB, and MW-23D were installed summer of 2005. The well certifications are included in Appendix C.**

2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes **X** No   . If yes, identify these wells.

**All wells on-site demonstrated water table elevation higher than the top of the well screen with the exception of MW-8.**

3. Are there any monitor wells present at the site but omitted from the contour map? Yes    No **X**. Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

**This contour map is designed specifically for shallow overburden wells. All shallow overburden wells are contoured on this map.**

4. Are there any monitor wells containing separate phase product during this measuring event? Yes    No **X**. Were any of the monitor wells with separate phase product included in the ground water contour map? Yes    No **X**. If yes, show the formula used to correct the water table elevation.



5. Has the ground water flow direction changed more than 45 degrees from the previous ground water contour map? Yes \_\_\_ No X. If yes, discuss the reasons for the change.
6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes \_\_\_ No X. Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.
7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No \_\_\_. If no, justify inclusion of those wells.
8. Were the ground water contours computer generated \_\_\_, computer aided \_\_\_, or hand-drawn X? If computer aided or generated, identify the interpolation method(s) used.



**January 2006**  
Contour Map Reporting Form  
Deep Overburden

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes  No . If yes, attach new "Well Certification - Form B - Location Certification" as found in the "Guide for the Submission of Remedial Action Workplans" (NJDEP, March 1995) and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

**New wells were installed, MW-1R, MW-2R, MW-19S, MW-4A, MW-6A, MW-17AR, MW-7DB, MW-19B, MW-19DB, MW-20B, MW-21DB, and MW-23D were installed summer of 2005. The well certifications are included in Appendix C.**

2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes  No . If yes, identify these wells.

**All wells on-site demonstrated water table elevation higher than the top of the well screen.**

3. Are there any monitor wells present at the site but omitted from the contour map? Yes  No . Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

**This contour map is designed specifically for deep overburden wells. All deep overburden wells are contoured on this map.**

4. Are there any monitor wells containing separate phase product during this measuring event? Yes  No . Were any of the monitor wells with separate phase product included in the ground water contour map? Yes  No . If yes, show the formula used to correct the water table elevation.



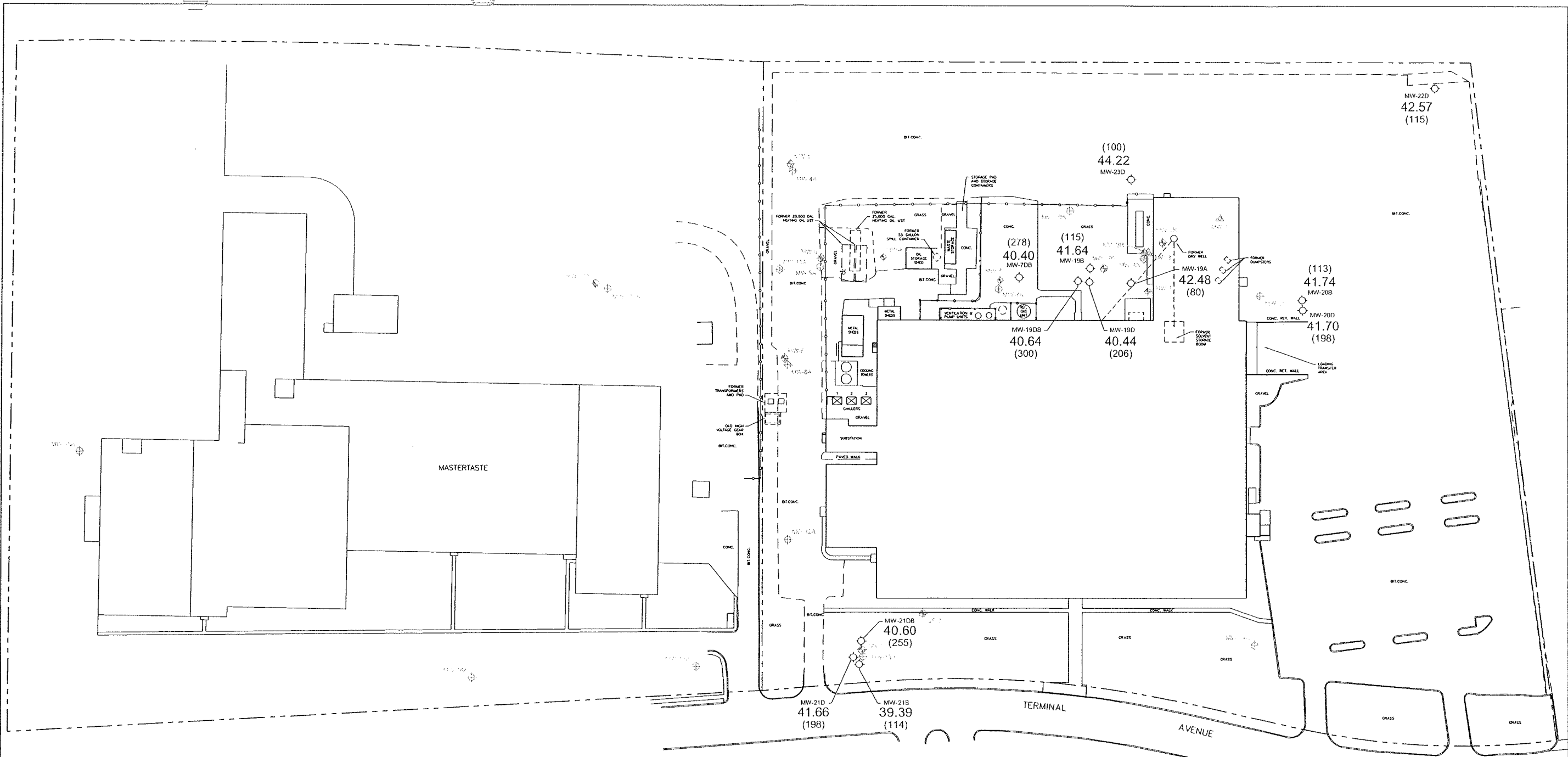
5. Has the ground water flow direction changed more than 45 degrees from the previous ground water contour map? Yes \_\_\_ No X. If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes \_\_\_ No X. Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

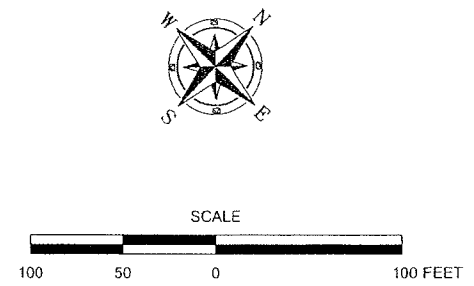
7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No \_\_\_. If no, justify inclusion of those wells.


8. Were the ground water contours computer generated \_\_\_, computer aided \_\_\_, or hand-drawn X? If computer aided or generated, identify the interpolation method(s) used.

DWG: FIGURE 7-7, 12/16/05

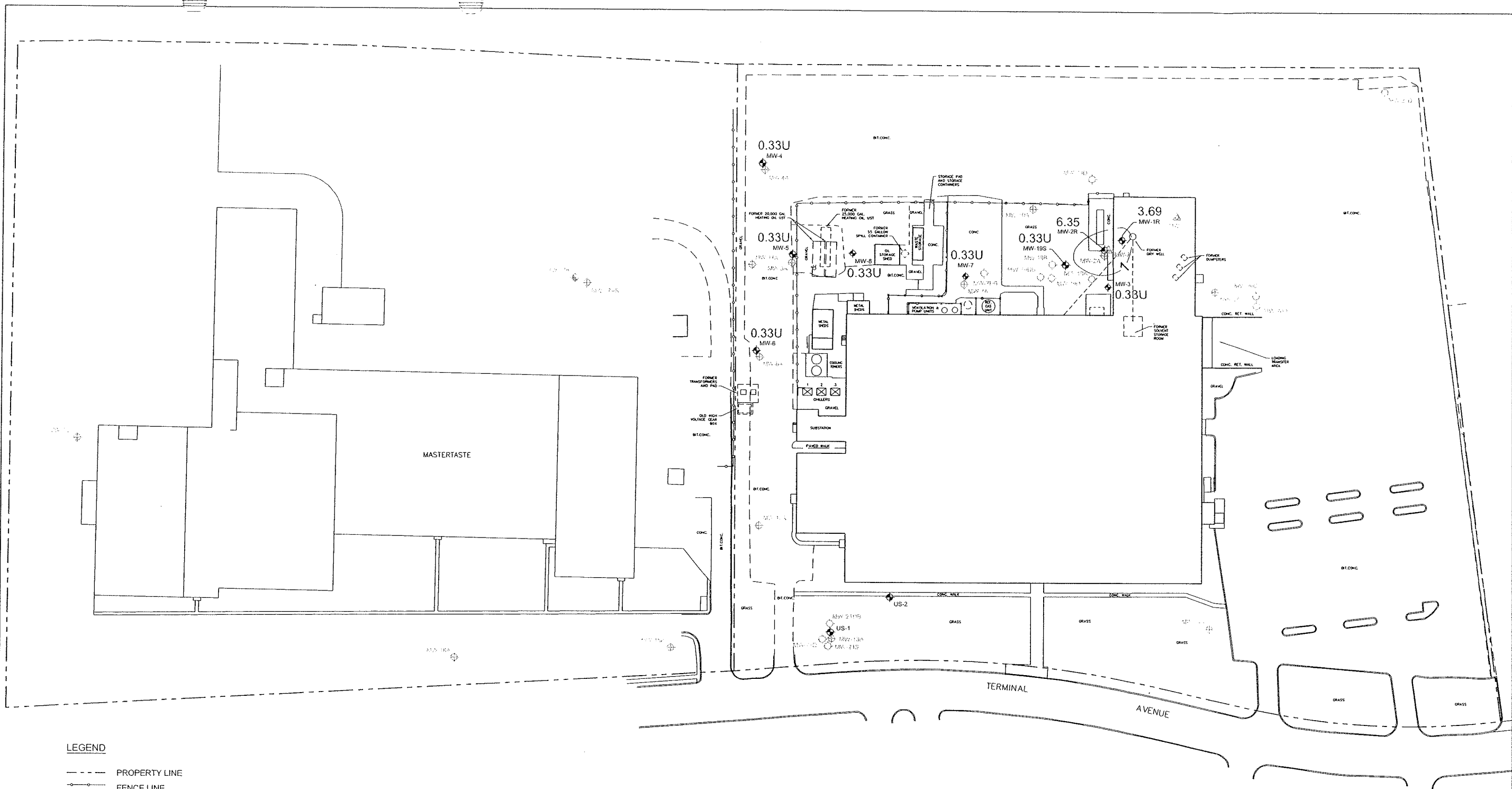


- LEGEND**
- PROPERTY LINE
  - - - FENCE LINE
  - - - - - SANITARY SEWER LINE
  - - - - - STORM SEWER LINE
  - ⊕ SHALLOW OVERBURDEN MONITORING WELL
  - ⊕ DEEP OVERBURDEN MONITORING WELL
  - ⊕ BEDROCK MONITORING WELL
  - ⊕ DESTROYED WELL
  - ⊕ ABANDONED WELL
  - 44.22 GROUNDWATER ELEVATION (ft. msl)
  - (100) WELL DEPTH (ft. bgs)



<b>FIGURE 7-7</b>	
GROUNDWATER ELEVATION MAP (BEDROCK MONITORING WELLS) SEPTEMBER 23, 2005	
FORMER AT&T CLARK FACILITY CLARK, NEW JERSEY	
	
1465 Route 31 South Annandale, NJ 08801	
DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 12/16/05

DWG: FIGURE 7-8 12/16/05



**LEGEND**

- PROPERTY LINE
- FENCE LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- ◆ SHALLOW OVERBURDEN MONITORING WELL
- ⊕ DEEP OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- ⊗ DESTROYED WELL
- ⊘ ABANDONED WELL
- 3.69 TCE ISOCONCENTRATION (ppb)
- U UNDETECTED
- TCE ISOCONCENTRATION CONTOUR
- TCE ISOCONCENTRATION CONTOUR (INFERRED)

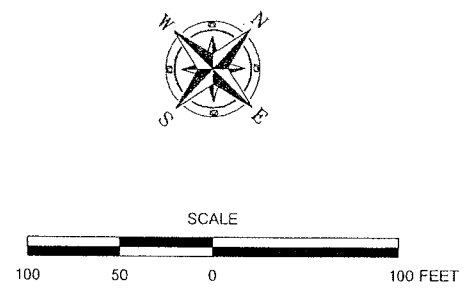

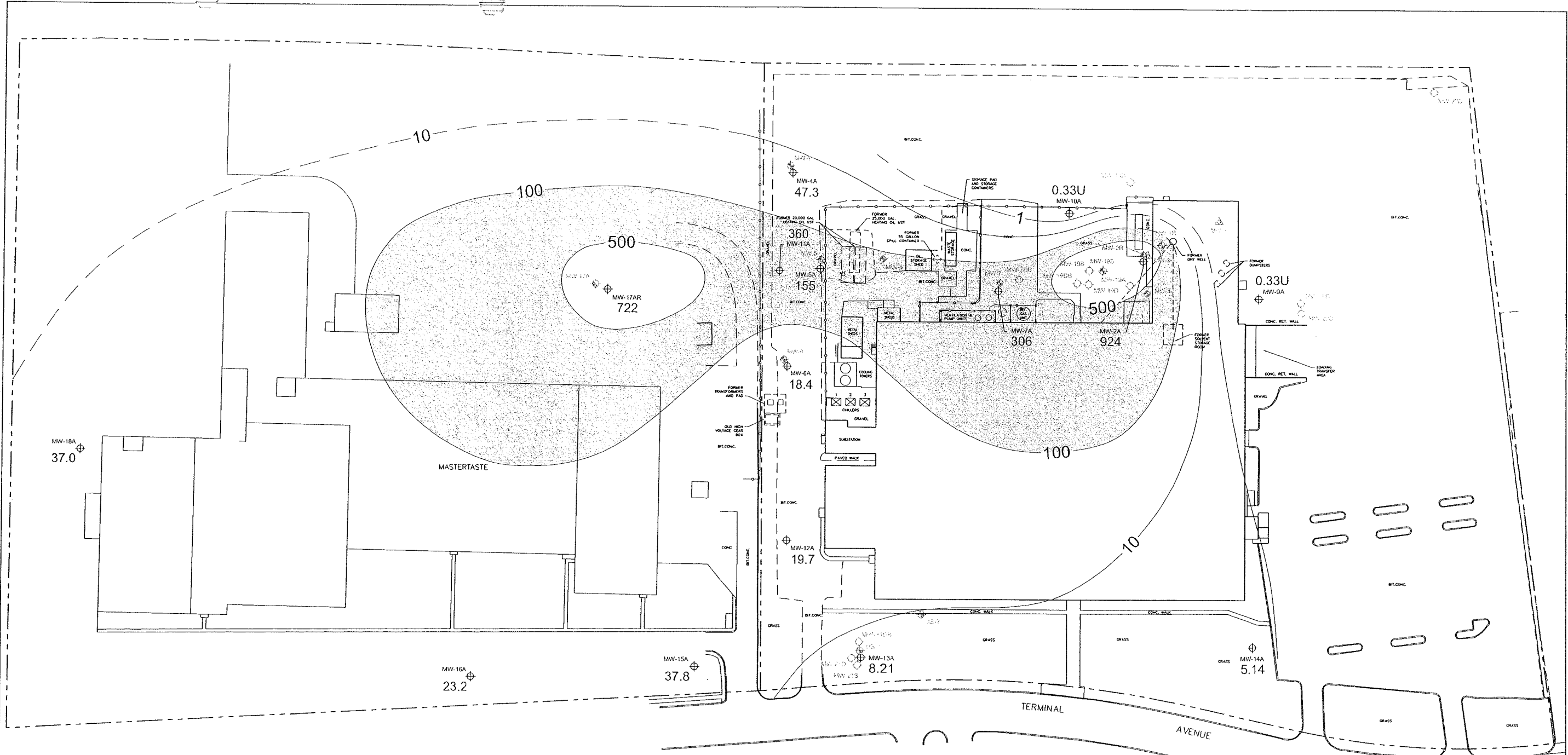


FIGURE 7-8	
TCE ISOCONCENTRATION MAP (SHALLOW OVERBURDEN MONITORING WELLS) SEPTEMBER - OCTOBER 2005	
FORMER AT&T CLARK FACILITY CLARK, NEW JERSEY	
	
1465 Route 31 South Annandale, NJ 08801	
DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 12/16/05



- LEGEND**
- PROPERTY LINE
  - FENCE LINE
  - SANITARY SEWER LINE
  - STORM SEWER LINE
  - ⊕ SHALLOW OVERBURDEN MONITORING WELL
  - ⊕ DEEP OVERBURDEN MONITORING WELL
  - ⊕ BEDROCK MONITORING WELL
  - ⊕ DESTROYED WELL
  - ⊕ ABANDONED WELL
  - 306 TCE ISOCONCENTRATION (ppb)
  - U UNDETECTED
  - TCE ISOCONCENTRATION CONTOUR
  - TCE ISOCONCENTRATION CONTOUR (INFERRED)

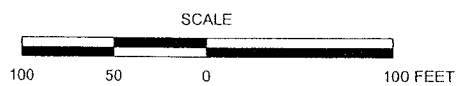

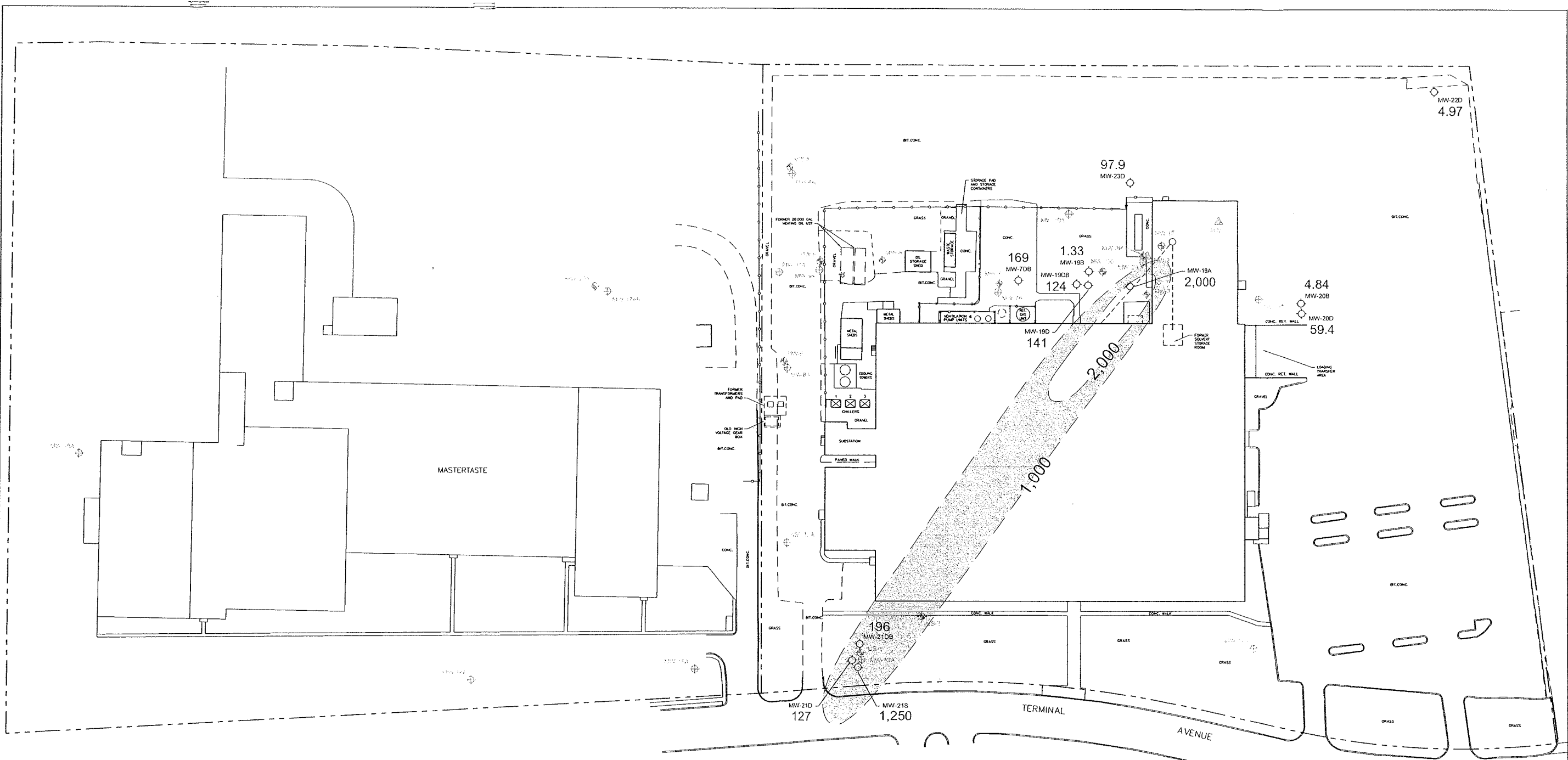


FIGURE 7-9	
TCE ISOCONCENTRATION MAP (DEEP OVERBURDEN MONITORING WELLS) SEPTEMBER - OCTOBER 2005	
FORMER AT&T CLARK FACILITY CLARK, NEW JERSEY	
	
1465 Route 31 South Annandale, NJ 08801	
DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 12/16/05

DWG: FIGURE 7-9 12/16/05

DWG: FIGURE 7-10 12/16/05



- LEGEND**
- PROPERTY LINE
  - FENCE LINE
  - SANITARY SEWER LINE
  - STORM SEWER LINE
  - ⊕ SHALLOW OVERBURDEN MONITORING WELL
  - ⊕ DEEP OVERBURDEN MONITORING WELL
  - ⊕ BEDROCK MONITORING WELL
  - ⊕ DESTROYED WELL
  - ⊕ ABANDONED WELL
  - 169 TCE ISOCONCENTRATION (ppb)
  - U UNDETECTED
  - ( ) TCE ISOCONCENTRATION CONTOUR (INFERRED)

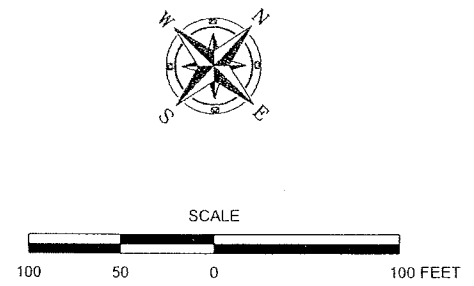

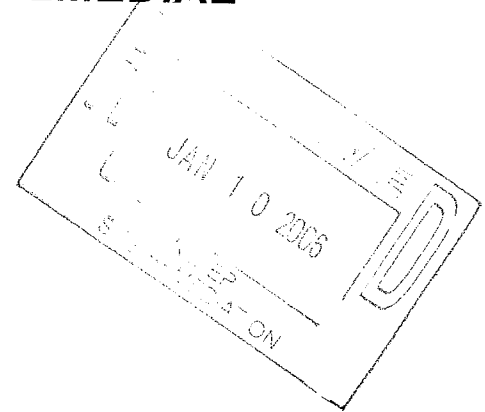


FIGURE 7-10	
INFERRED TCE ISOCONCENTRATION MAP (BEDROCK MONITORING WELLS) SEPTEMBER - OCTOBER 2005	
FORMER AT&T CLARK FACILITY CLARK, NEW JERSEY	
 <b>GEOTRANS, INC.</b>	1465 Route 31 South Annandale, NJ 08801
DRWN: S.F.H.	CHK'D: S.F.
SCALE: AS SHOWN	DATE: 12/16/05

**ANALYTICAL DATA SUMMARY SHEETS**

**SUPPLEMENTAL SOIL AND  
GROUNDWATER REMEDIAL  
INVESTIGATION**

**APPENDIX A**



**AT&T Corp.  
Clark Shop Facility**

**ISRA Case No. 97187**

**January 2006**

**Volume II of III**

*Prepared for:*



1465 Route 31 South  
Annandale, New Jersey



**AT&T Corp.**  
One AT&T Way  
Bedminster, New Jersey

## APPENDIX A

### ANALYTICAL DATA SUMMARY SHEETS Soil & Groundwater Grab Samples

IAL Lab ID #  
06355 06414 06508 06532 06616 06650  
06701 06762 06830 06922 06962 07024  
09310 09577 09639 09685 09762 09793  
10100

### Monitoring Well Samples

IAL Lab ID#  
10227 10250 10307 10381 10413 10487  
10536 10596 10671 10726 10822 10848  
10904 10945

### CHAIN OF CUSTODY Soil & Groundwater Grab Samples Monitoring Well Samples

### LABORATORY CORRESPONDENCE

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06355

Lab ID:	06355-002	06355-005	06355-006	06355-007
Client ID:	13A-5-5.5	MDL STUDY 1S	MDL STUDY 2S	MDL STUDY 3S
Depth:	5/5.5			
Matrix:	Soil	Soil	Soil	Soil
Sampled Date	6/21/05	6/21/05	6/21/05	6/21/05
PARAMETER(Units)	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Pesticides (mg/Kg-ppm)</b>				
alpha-BHC	ND 0.00382	~ ~	~ ~	~ ~
beta-BHC	ND 0.00382	~ ~	~ ~	~ ~
gamma-BHC	ND 0.00382	~ ~	~ ~	~ ~
delta-BHC	ND 0.00382	~ ~	~ ~	~ ~
Heptachlor	ND 0.00382	~ ~	~ ~	~ ~
Aldrin	ND 0.00382	~ ~	~ ~	~ ~
Heptachlor epoxide	ND 0.00382	~ ~	~ ~	~ ~
Endosulfan I	ND 0.00382	~ ~	~ ~	~ ~
4,4'-DDE	ND 0.00382	~ ~	~ ~	~ ~
Dieldrin	ND 0.00382	~ ~	~ ~	~ ~
Endrin	ND 0.00382	~ ~	~ ~	~ ~
Endosulfan II	ND 0.00382	~ ~	~ ~	~ ~
4,4'-DDD	ND 0.00382	~ ~	~ ~	~ ~
Endrin aldehyde	ND 0.00382	~ ~	~ ~	~ ~
Endosulfan sulfate	ND 0.00382	~ ~	~ ~	~ ~
4,4'-DDT	ND 0.00382	~ ~	~ ~	~ ~
Endrin ketone	ND 0.00382	~ ~	~ ~	~ ~
Methoxychlor	ND 0.00382	~ ~	~ ~	~ ~
alpha-Chlordane	ND 0.00382	~ ~	~ ~	~ ~
gamma-Chlordane	ND 0.00382	~ ~	~ ~	~ ~
Toxaphene	ND 0.019	~ ~	~ ~	~ ~
<b>Metals (mg/Kg-ppm)</b>				
Antimony	ND 1.14	~ ~	~ ~	~ ~
Arsenic	ND 1.14	~ ~	~ ~	~ ~
Beryllium	0.588 0.570	~ ~	~ ~	~ ~
Cadmium	ND 0.285	~ ~	~ ~	~ ~
Chromium	15.5 2.28	~ ~	~ ~	~ ~
Copper	26.4 2.28	~ ~	~ ~	~ ~
Lead	7.02 0.570	~ ~	~ ~	~ ~
Mercury	ND 0.014	~ ~	~ ~	~ ~
Nickel	19.9 1.14	~ ~	~ ~	~ ~
Selenium	ND 2.28	~ ~	~ ~	~ ~
Silver	ND 0.570	~ ~	~ ~	~ ~
Thallium	0.119 0.114	~ ~	~ ~	~ ~
Zinc	44.5 2.28	~ ~	~ ~	~ ~
<b>*Formaldehyde (ug/Kg)</b>				
Formaldehyde	307 230	~ ~	~ ~	~ ~
Lab ID:	06355-008	06355-009	06355-010	06355-011
Client ID:	MDL STUDY 4S	MDL STUDY 5S	MDL STUDY 6S	MDL STUDY 7S
Matrix:	Soil	Soil	Soil	Soil
Sampled Date	6/21/05	6/21/05	6/21/05	6/21/05
PARAMETER(Units)	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 \*Subcontracted Result from Accutest  
 Samples #5 - #18 is an MDL Study

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06355

Lab ID:	06355-001	06355-003	06355-004	06355-012							
Client ID:	4GW-3-8	FB-062105	TB-062105	MDL STUDY 1A							
Depth:	3/8										
Matrix:	Aqueous	Aqueous	Aqueous	Aqueous							
Sampled Date	6/21/05	6/21/05	6/21/05	6/21/05							
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL		
<b>Volatiles (µg/L-ppb)</b>											
Acetone	ND		0.890	ND		0.890	ND		0.890	~	~
TOTAL VO's:	ND			ND			ND			~	~
TOTAL TIC's:	ND			ND			ND			~	~
TOTAL VO's & TIC's:	ND			ND			ND			~	~
<b>Semivolatiles - BNA (µg/L-ppb)</b>											
TOTAL BNA'S:	ND			ND			~	~		~	~
TOTAL TIC's:	ND			ND			~	~		~	~
TOTAL BNA'S & TIC's:	ND			ND			~	~		~	~
Lab ID:	06355-013	06355-014	06355-015	06355-016							
Client ID:	MDL STUDY 2A	MDL STUDY 3A	MDL STUDY 4A	MDL STUDY 5A							
Matrix:	Aqueous	Aqueous	Aqueous	Aqueous							
Sampled Date	6/21/05	6/21/05	6/21/05	6/21/05							
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL		
<b>Volatiles (mg/Kg-ppm)</b>											
Acetone	ND		1.10	~	~		~	~			
TOTAL VO's:	ND			~	~		~	~			
TOTAL TIC's:	ND			~	~		~	~			
TOTAL VO's & TIC's:	ND			~	~		~	~			
<b>Semivolatiles - BNA (mg/Kg-ppm)</b>											
Caprolactam	0.886		0.229	~	~		~	~			
bis(2-Ethylhexyl)phthalate	0.182	J	0.229	~	~		~	~			
TOTAL BNA'S:	1.07	J		~	~		~	~			
TOTAL TIC's:	16.4			~	~		~	~			
TOTAL BNA'S & TIC's:	17.5	J		~	~		~	~			
<b>Alcohols (mg/Kg-ppm)</b>											
Methanol	ND		11.0	~	~		~	~			
iso-Propanol	ND		11.0	~	~		~	~			
Ethanol	ND		11.0	~	~		~	~			
n-Propanol	ND		11.0	~	~		~	~			
iso-Butanol	ND		11.0	~	~		~	~			

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Samples #5 - #18 is an MDL Study

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-001

Client ID: 4GW-3-8/3-8

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Data file: J4998.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-001

Client ID: 4GW-3-8/3-8

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Data file: J4998.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-001

Client ID: 4GW-3-8/3-8

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Date File: J4998.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

**INTEGRATED ANALYTICAL LABORATORIES**

**VOLATILE ORGANICS**

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-002  
 Client ID: 13A-5-5.5/5-5.5  
 Date Received: 06/21/2005  
 Date Analyzed: 06/22/2005  
 Data file: L9210.D

GC/MS Column: DB-624  
 Sample wt/vol: 0.052g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 12.6

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.550
Chloromethane	ND		0.550
Vinyl chloride	ND		0.550
Bromomethane	ND		0.550
Chloroethane	ND		0.550
Trichlorofluoromethane	ND		0.550
1,1-Dichloroethene	ND		0.550
Acetone	ND		1.10
Carbon disulfide	ND		0.550
Methylene chloride	ND		0.550
trans-1,2-Dichloroethene	ND		0.550
Methyl tert-butyl ether(MTBE)	ND		0.550
1,1-Dichloroethane	ND		0.550
cis-1,2-Dichloroethene	ND		0.550
2-Butanone(MEK)	ND		1.10
Bromochloromethane	ND		0.550
Chloroform	ND		0.550
1,1,1-Trichloroethane	ND		0.550
Carbon tetrachloride	ND		0.550
1,2-Dichloroethane(EDC)	ND		0.550
Benzene	ND		0.550
Trichloroethene	ND		0.550
1,2-Dichloropropane	ND		0.550
Bromodichloromethane	ND		0.550
cis-1,3-Dichloropropene	ND		0.550
4-Methyl-2-pentanone(MIBK)	ND		1.10

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-002  
 Client ID: 13A-5-5.5/5-5.5  
 Date Received: 06/21/2005  
 Date Analyzed: 06/22/2005  
 Data file: L9210.D

GC/MS Column: DB-624  
 Sample wt/vol: 0.052g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 12.6

Compound	Concentration	Q	MDL
Toluene	ND		0.550
trans-1,3-Dichloropropene	ND		0.550
1,1,2-Trichloroethane	ND		0.550
Tetrachloroethene	ND		0.550
2-Hexanone	ND		1.10
Dibromochloromethane	ND		0.550
1,2-Dibromoethane(EDB)	ND		0.550
Chlorobenzene	ND		0.550
Ethylbenzene	ND		0.550
Total Xylenes	ND		0.550
Styrene	ND		0.550
Bromoform	ND		0.550
Isopropylbenzene	ND		0.550
1,1,2,2-Tetrachloroethane	ND		0.550
1,3-Dichlorobenzene	ND		0.550
1,4-Dichlorobenzene	ND		0.550
1,2-Dichlorobenzene	ND		0.550
1,2-Dibromo-3-chloropropane	ND		0.550
1,2,4-Trichlorobenzene	ND		0.550
1,2,3-Trichlorobenzene	ND		0.550
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.550
Methyl acetate	ND		0.550
Cyclohexane	ND		0.550
Methylcyclohexane	ND		0.550

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-002

Client ID: 13A-5-5.5/5-5.5

Date Received: 06/21/2005

Date Analyzed: 06/22/2005

Data file: L9210.D

GC/MS Column: DB-624

Sample wt/vol: 0.052g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 12.6

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-003

Client ID: FB-062105

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Data file: J4999.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-003

Client ID: FB-062105

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Data file: J4999.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-003

Client ID: FB-062105

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Date File: J4999.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-004

Client ID: TB-062105

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Data file: J5000.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-004

Client ID: TB-062105

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Data file: J5000.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-004

Client ID: TB-062105

Date Received: 06/21/2005

Date Analyzed: 06/23/2005

Date File: J5000.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-002

Client ID: 13A-5-5.5/5-

Date Received: 06/21/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: C1856.D

GC/MS Column: DB-5

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 12.6

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.229
Phenol	ND		0.229
bis(2-Chloroethyl)ether	ND		0.229
2-Chlorophenol	ND		0.229
2-Methylphenol	ND		0.229
bis(2-chloroisopropyl)ether	ND		0.229
4-Methylphenol	ND		0.229
N-Nitroso-di-n-propylamine	ND		0.229
Acetophenone	ND		0.229
Hexachloroethane	ND		0.229
2,6-Dimethylphenol	ND		0.229
Nitrobenzene	ND		0.229
Isophorone	ND		0.229
2-Nitrophenol	ND		0.229
2,4+2,5-Dimethylphenol	ND		0.229
bis(2-Chloroethoxy)methane	ND		0.229
2,4-Dichlorophenol	ND		0.229
Naphthalene	ND		0.229
4-Chloroaniline	ND		0.229
Hexachlorobutadiene	ND		0.229
Caprolactam	0.886		0.229
4-Chloro-3-methylphenol	ND		0.229
2-Methylnaphthalene	ND		0.229
3,5-Dimethylphenol	ND		0.229
Hexachlorocyclopentadiene	ND		0.229
2,4,6-Trichlorophenol	ND		0.229
2,4,5-Trichlorophenol	ND		0.229
1-1'-Biphenyl	ND		0.229
2-Chloronaphthalene	ND		0.229
2-Nitroaniline	ND		0.229
Dimethylphthalate	ND		0.229

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-002  
 Client ID: 13A-5-5.5/5-  
 Date Received: 06/21/2005  
 Date Extracted: 06/24/2005  
 Date Analyzed: 06/27/2005  
 Data file: C1856.D

GC/MS Column: DB-5  
 Sample wt/vol: 5.00g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 12.6

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.229
Acenaphthylene	ND		0.229
3-Nitroaniline	ND		0.229
Acenaphthene	ND		0.229
2,4-Dinitrophenol	ND		0.229
4-Nitrophenol	ND		0.229
2,4-Dinitrotoluene	ND		0.229
Dibenzofuran	ND		0.229
Diethylphthalate	ND		0.229
Fluorene	ND		0.229
4-Chlorophenyl-phenylether	ND		0.229
4-Nitroaniline	ND		0.229
1,2,4,5-Tetrachlorobenzene	ND		0.229
Hydroquinone	ND		0.229
4,6-Dinitro-2-methylphenol	ND		0.229
N-Nitrosodiphenylamine	ND		0.229
4-Bromophenyl-phenylether	ND		0.229
Hexachlorobenzene	ND		0.229
Atrazine	ND		0.229
Pentachlorophenol	ND		0.229
Phenanthrene	ND		0.229
Anthracene	ND		0.229
Carbazole	ND		0.229
Di-n-butylphthalate	ND		0.229
Fluoranthene	ND		0.229
Pyrene	ND		0.229
Butylbenzylphthalate	ND		0.229
3,3'-Dichlorobenzidine	ND		0.229
Benzo[a]anthracene	ND		0.229
Chrysene	ND		0.229
bis(2-Ethylhexyl)phthalate	0.182	J	0.229
Di-n-octylphthalate	ND		0.229
Benzo[b]fluoranthene	ND		0.229
Benzo[k]fluoranthene	ND		0.229
Benzo[a]pyrene	ND		0.229
Indeno[1,2,3-cd]pyrene	ND		0.229
Dibenz[a,h]anthracene	ND		0.229
Benzo[g,h,i]perylene	ND		0.229
Total Target Compounds:	1.07	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-002

Client ID: 13A-5-5.5/5-

Date Received: 06/21/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Date File: C1856.D

GC/MS Column: DB-5

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 12.6

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
	Substituted benzene	1.53	2.40
	Unknown	1.37	4.42
	Unknown	4.21	4.80
	Unknown hydrocarbon	1.35	5.63
	Substituted benzene	2.54	6.14
	Unknown hydrocarbon	1.05	6.20
	Unknown hydrocarbon	3.43	6.22
	Unknown	0.915	6.55

Total TICs = 16.4

**INTEGRATED ANALYTICAL LABORATORIES**

**SEMIVOLATILE ORGANICS**

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-001  
 Client ID: 4GW-3-8/3-8  
 Date Received: 06/21/2005  
 Date Extracted: 06/24/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7892.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

**INTEGRATED ANALYTICAL LABORATORIES**

**SEMIVOLATILE ORGANICS**

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-001  
 Client ID: 4GW-3-8/3-8  
 Date Received: 06/21/2005  
 Date Extracted: 06/24/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7892.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous-µg/L (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-001

Client ID: 4GW-3-8/3-8

Date Received: 06/21/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7892.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

**INTEGRATED ANALYTICAL LABORATORIES**

**SEMIVOLATILE ORGANICS**

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-003

Client ID: FB-062105

Date Received: 06/21/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7893.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06355-003  
 Client ID: FB-062105  
 Date Received: 06/21/2005  
 Date Extracted: 06/24/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7893.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: Q6355-003

Client ID: FB-062105

Date Received: 06/21/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7893.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale

Project: AT&T CLARK - 4185.007.01

Lab Case No.: E05-06414

PARAMETER(Units)	06414-001		06414-002		06414-003	
	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL
Lab ID:	06414-001		06414-002		06414-003	
Client ID:	FB-062205		15GWA-13-15		TB-062205	
Depth:			13/15			
Matrix:	Aqueous		Aqueous		Aqueous	
Sampled Date	6/22/05		6/22/05		6/22/05	
<b>Volatiles + Acetone (µg/L-ppb)</b>						
Acetone	ND	0.890	15.8	0.890	ND	0.890
<b>TOTAL VO's:</b>	ND		15.8		ND	
<b>TOTAL TIC's:</b>	ND		ND		ND	
<b>TOTAL VO's &amp; TIC's:</b>	ND		15.8		ND	

**Semivolatiles - BNA Special List (µg/L-ppb)**

Benzaldehyde	ND	0.180	ND	0.180	~	~
Phenol	ND	0.150	ND	0.150	~	~
bis(2-Chloroethyl)ether	ND	0.240	ND	0.240	~	~
2-Chlorophenol	ND	0.120	ND	0.120	~	~
2-Methylphenol	ND	0.180	ND	0.180	~	~
bis(2-chloroisopropyl)ether	ND	0.200	ND	0.200	~	~
4-Methylphenol	ND	0.300	ND	0.300	~	~
N-Nitroso-di-n-propylamine	ND	0.200	ND	0.200	~	~
Acetophenone	ND	0.230	ND	0.230	~	~
Hexachloroethane	ND	0.190	ND	0.190	~	~
2,6-Dimethylphenol	ND	0.310	ND	0.310	~	~
Nitrobenzene	ND	0.250	ND	0.250	~	~
Isophorone	ND	0.120	ND	0.120	~	~
2-Nitrophenol	ND	0.460	ND	0.460	~	~
2,4+2,5-Dimethylphenol	ND	0.220	ND	0.220	~	~
bis(2-Chloroethoxy)methane	ND	0.120	ND	0.120	~	~
2,4-Dichlorophenol	ND	0.210	ND	0.210	~	~
Naphthalene	ND	0.110	ND	0.110	~	~
4-Chloroaniline	ND	0.140	ND	0.140	~	~
Hexachlorobutadiene	ND	0.240	ND	0.240	~	~
Caprolactam	ND	0.380	61.8	0.380	~	~
4-Chloro-3-methylphenol	ND	0.230	ND	0.230	~	~
2-Methylnaphthalene	ND	0.140	ND	0.140	~	~
3,5-Dimethylphenol	ND	0.440	ND	0.440	~	~
Hexachlorocyclopentadiene	ND	0.330	ND	0.330	~	~
2,4,6-Trichlorophenol	ND	0.270	ND	0.270	~	~
2,4,5-Trichlorophenol	ND	0.300	ND	0.300	~	~
1-1'-Biphenyl	ND	0.120	ND	0.120	~	~
2-Chloronaphthalene	ND	0.120	ND	0.120	~	~
2-Nitroaniline	ND	0.500	ND	0.500	~	~
Dimethylphthalate	ND	0.190	ND	0.190	~	~
2,6-Dinitrotoluene	ND	0.480	ND	0.480	~	~
Acenaphthylene	ND	0.180	ND	0.180	~	~
3-Nitroaniline	ND	0.320	ND	0.320	~	~
Acenaphthene	ND	0.170	ND	0.170	~	~

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**SUMMARY REPORT**  
 Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06414

Lab ID:	06414-001	06414-002	06414-003
Client ID:	FB-062205	15GWA-13-15	TB-062205
Depth:	13/15		
Matrix:	Aqueous	Aqueous	Aqueous
Sampled Date	6/22/05	6/22/05	6/22/05
<b>PARAMETER(Units)</b>	<b>Conc Q MDL</b>	<b>Conc Q MDL</b>	<b>Conc Q MDL</b>

**Semivolatiles - BNA Special List (µg/L-ppb)**

2,4-Dinitrophenol	ND	0.470	ND	0.470	~	~
4-Nitrophenol	ND	0.460	ND	0.460	~	~
2,4-Dinitrotoluene	ND	0.450	ND	0.450	~	~
Dibenzofuran	ND	0.120	ND	0.120	~	~
Diethylphthalate	ND	0.180	ND	0.180	~	~
Fluorene	ND	0.180	ND	0.180	~	~
4-Chlorophenyl-phenylether	ND	0.230	ND	0.230	~	~
4-Nitroaniline	ND	0.380	ND	0.380	~	~
1,2,4,5-Tetrachlorobenzene	ND	0.230	ND	0.230	~	~
Hydroquinone	ND	0.650	ND	0.650	~	~
4,6-Dinitro-2-methylphenol	ND	0.780	ND	0.780	~	~
N-Nitrosodiphenylamine	ND	0.150	ND	0.150	~	~
4-Bromophenyl-phenylether	ND	0.260	ND	0.260	~	~
Hexachlorobenzene	ND	0.190	ND	0.190	~	~
Atrazine	ND	0.280	ND	0.280	~	~
Pentachlorophenol	ND	0.490	ND	0.490	~	~
Phenanthrene	ND	0.110	ND	0.110	~	~
Anthracene	ND	0.140	ND	0.140	~	~
Carbazole	ND	0.170	ND	0.170	~	~
Di-n-butylphthalate	ND	0.160	ND	0.160	~	~
Fluoranthene	ND	0.190	ND	0.190	~	~
Pyrene	ND	0.140	ND	0.140	~	~
Butylbenzylphthalate	ND	0.310	ND	0.310	~	~
3,3'-Dichlorobenzidine	ND	0.430	ND	0.430	~	~
Benzo[a]anthracene	ND	0.150	ND	0.150	~	~
Chrysene	ND	0.140	ND	0.140	~	~
bis(2-Ethylhexyl)phthalate	ND	0.370	ND	0.370	~	~
Di-n-octylphthalate	ND	0.570	ND	0.570	~	~
Benzo[b]fluoranthene	ND	0.340	ND	0.340	~	~
Benzo[k]fluoranthene	ND	0.630	ND	0.630	~	~
Benzo[a]pyrene	ND	0.200	ND	0.200	~	~
Indeno[1,2,3-cd]pyrene	ND	0.510	ND	0.510	~	~
Dibenz[a,h]anthracene	ND	0.490	ND	0.490	~	~
Benzo[g,h,i]perylene	ND	0.310	ND	0.310	~	~
<b>TOTAL BNA'S:</b>	ND		61.8		~	~
<b>TOTAL TIC's:</b>	ND		ND		~	~
<b>TOTAL BNA'S &amp; TIC's:</b>	ND		61.8		~	~

**Alcohols (µg/L-ppb)**

Methanol	ND	5000	ND	5000	~	~
iso-Propanol	ND	5000	ND	5000	~	~
Ethanol	ND	5000	ND	5000	~	~
n-Propanol	ND	5000	ND	5000	~	~
iso-Butanol	ND	5000	ND	5000	~	~

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06414

	Lab ID:	06414-001	06414-002	06414-003			
	Client ID:	FB-062205	15GWA-13-15	TB-062205			
	Depth:		13/15				
	Matrix:	Aqueous	Aqueous	Aqueous			
	Sampled Date	6/22/05	6/22/05	6/22/05			
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
<b>Pesticides (µg/L-ppb)</b>							
alpha-BHC	ND	0.010	ND	0.010	~	~	~
beta-BHC	ND	0.010	ND	0.010	~	~	~
gamma-BHC	ND	0.010	ND	0.010	~	~	~
delta-BHC	ND	0.010	ND	0.010	~	~	~
Heptachlor	ND	0.010	ND	0.010	~	~	~
Aldrin	ND	0.010	ND	0.010	~	~	~
Heptachlor epoxide	ND	0.010	ND	0.010	~	~	~
Endosulfan I	ND	0.010	ND	0.010	~	~	~
4,4'-DDE	ND	0.010	ND	0.010	~	~	~
Dieldrin	ND	0.010	ND	0.010	~	~	~
Endrin	ND	0.010	ND	0.010	~	~	~
Endosulfan II	ND	0.010	ND	0.010	~	~	~
4,4'-DDD	ND	0.010	ND	0.010	~	~	~
Endrin aldehyde	ND	0.010	ND	0.010	~	~	~
Endosulfan sulfate	ND	0.010	ND	0.010	~	~	~
4,4'-DDT	ND	0.010	ND	0.010	~	~	~
Endrin ketone	ND	0.010	ND	0.010	~	~	~
Methoxychlor	ND	0.010	ND	0.010	~	~	~
alpha-Chlordane	ND	0.010	ND	0.010	~	~	~
gamma-Chlordane	ND	0.010	ND	0.010	~	~	~
Toxaphene	ND	0.075	ND	0.075	~	~	~
<b>Metals (µg/L-ppb)</b>							
Antimony	ND	4.00	ND	4.00	~	~	~
Arsenic	ND	4.00	ND	4.00	~	~	~
Beryllium	ND	2.00	ND	2.00	~	~	~
Cadmium	ND	1.00	ND	1.00	~	~	~
Chromium	ND	8.00	ND	8.00	~	~	~
Copper	ND	8.00	ND	8.00	~	~	~
Lead	ND	2.00	2.88	2.00	~	~	~
Mercury	ND	0.500	ND	0.500	~	~	~
Nickel	ND	4.00	12.0	4.00	~	~	~
Selenium	ND	8.00	ND	8.00	~	~	~
Silver	ND	2.00	ND	2.00	~	~	~
Thallium	ND	0.400	ND	0.400	~	~	~
Zinc	12.0	8.00	32.0	8.00	~	~	~
<b>Formaldehyde (µg/L-ppb)</b>							
*Formaldehyde	10.8	10	ND	10	~	~	~

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 \*Subcontracted Result from Accutest

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Analyzed: 06/24/2005

Data file: J5035.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Analyzed: 06/24/2005

Data file: J5035.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Analyzed: 06/24/2005

Date File: J5035.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-002  
 Client ID: 15GWA-13-15/13-15  
 Date Received: 06/22/2005  
 Date Analyzed: 06/24/2005  
 Data file: J5036.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	15.8		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-002  
 Client ID: 15GWA-13-15/13-15  
 Date Received: 06/22/2005  
 Date Analyzed: 06/24/2005  
 Data file: J5036.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	15.8		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-002

Client ID: 15GWA-13-15/13-15

Date Received: 06/22/2005

Date Analyzed: 06/24/2005

Date File: J5036.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

0017

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-003

Client ID: TB-062205

Date Received: 06/22/2005

Date Analyzed: 06/24/2005

Data file: J5073.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-003  
 Client ID: TB-062205  
 Date Received: 06/22/2005  
 Date Analyzed: 06/24/2005  
 Data file: J5073.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-003

Client ID: TB-062205

Date Received: 06/22/2005

Date Analyzed: 06/24/2005

Date File: J5073.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7894.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-001  
 Client ID: FB-062205  
 Date Received: 06/22/2005  
 Date Extracted: 06/24/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7894.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7894.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-002  
 Client ID: 15GWA-13-15/  
 Date Received: 06/22/2005  
 Date Extracted: 06/24/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7895.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	61.8		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-002

Client ID: 15GWA-13-15/

Date Received: 06/22/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7895.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 61.8

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06414-002

Client ID: 15GWA-13-15/

Date Received: 06/22/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: B7895.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8195.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>Compound</u>	<u>Concentration</u>	<u>Q</u>	<u>MDL</u>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06414-002

Client ID: 15GWA-13-1

Date Received: 06/22/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8196.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

<u>Compound</u>	<u>Concentration</u>	<u>Q</u>	<u>MDL</u>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

**INTEGRATED ANALYTICAL LABORATORIES**

**PESTICIDES**

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06414-001

Client ID: FB-062205

Date Received: 06/22/2005

Date Extracted: 06/23/2005

Date Analyzed: 06/25/2005

Data file: P5824.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 5

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T\_CI

Lab ID: 06414-002

Client ID: 15GWA-13-1

Date Received: 06/22/2005

Date Extracted: 06/23/2005

Date Analyzed: 06/25/2005

Data file: P5825.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 5

% Moisture: 100

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06414-001  
Client ID: FB-062205  
Date Received: 06/22/05 17:35  
Matrix-Units: Aqueous-µg/L  
% Moisture: 100  
Batch #: 238

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	ND		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	ND		1	1.00	06/28/05	6020
Chromium	ND		1	8.00	06/28/05	6020
Copper	ND		1	8.00	06/28/05	6020
Lead	ND		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	ND		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	12.0		1	8.00	06/28/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06414-002  
 Client ID: 15GWA-13-15  
 Date Received: 06/22/05 17:35  
 Matrix-Units: Aqueous-µg/L  
 % Moisture: 100  
 Batch #: 238

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	ND		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	ND		1	1.00	06/28/05	6020
Chromium	ND		1	8.00	06/28/05	6020
Copper	ND		1	8.00	06/28/05	6020
Lead	2.88		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	12.0		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	32.0		1	8.00	06/28/05	6020

Report of Analysis

Client Sample ID: E05-06414-001	Date Sampled: 06/22/05
Lab Sample ID: M48582-1	Date Received: 06/25/05
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8315 SW846 3510C	
Project: Formaldehyde Sampling	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9548A.D	1	06/27/05	CZ	06/25/05	OP9182	GST447
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	10.8	10	ug/l	B
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	37%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> E05-06414-002	<b>Date Sampled:</b> 06/22/05
<b>Lab Sample ID:</b> M48582-2	<b>Date Received:</b> 06/25/05
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8315 SW846 3510C	
<b>Project:</b> Formaldehyde Sampling	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9548B.D	1	06/27/05	CZ	06/25/05	OP9182	GST447
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	ND	10	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	42%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale

Project: AT&T CLARK - 4185.007.01

Lab Case No.: E05-06508

Lab ID:	06508-003		06508-004		06508-005		06508-006		
Client ID:	FB-062305		15DGW-11-16		15DGW-24.5-		15EGW-14-16		
Depth:			11/16		24.5/28.5		14/16		
Matrix:	Aqueous		Aqueous		Aqueous		Aqueous		
Sampled Date	6/23/05		6/23/05		6/23/05		6/23/05		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatiles (µg/L-ppb)</b>									
Acetone	ND		0.890	5.46	0.890	4.28	0.890	ND	0.890
cis-1,2-Dichloroethene	ND		0.310	ND	0.310	0.699	0.310	ND	0.310
2-Butanone (MEK)	19.6		0.980	17.4	0.980	ND	0.980	ND	0.980
Trichloroethene	ND		0.330	ND	0.330	80.5	0.330	ND	0.330
Toluene	ND		0.350	ND	0.350	0.448	0.350	0.488	0.350
<b>TOTAL VO's:</b>	19.6			22.9		85.9		0.488	
<b>TOTAL TIC's:</b>	ND			ND		ND		ND	
<b>TOTAL VO's &amp; TIC's:</b>	19.6			22.9		85.9		0.488	
<b>Semivolatiles - BNA Special List (µg/L-ppb)</b>									
Diethylphthalate	ND		0.180	0.498	0.180	0.266	0.180	0.271	0.180
Phenanthrene	ND		0.110	0.265	0.110	0.244	0.110	ND	0.110
Fluoranthene	ND		0.190	0.184	J 0.190	0.170	J 0.190	ND	0.190
Pyrene	ND		0.140	0.166	0.140	0.158	0.140	ND	0.140
<b>TOTAL BNA'S:</b>	ND			1.11	J	0.838	J	0.271	
<b>TOTAL TIC's:</b>	ND			ND		ND		ND	
<b>TOTAL BNA'S &amp; TIC's:</b>	ND			1.11	J	0.838	J	0.271	
<b>Alcohols (µg/L-ppb)</b>									
Methanol	ND		5000	ND	5000	ND	5000	ND	5000
iso-Propanol	ND		5000	ND	5000	ND	5000	ND	5000
Ethanol	ND		5000	ND	5000	ND	5000	ND	5000
n-Propanol	ND		5000	ND	5000	ND	5000	ND	5000
iso-Butanol	ND		5000	ND	5000	ND	5000	ND	5000
<b>Pesticides (µg/L-ppb)</b>									
alpha-BHC	ND		0.010	ND	0.010	ND	0.010	ND	0.010
beta-BHC	ND		0.010	ND	0.010	ND	0.010	ND	0.010
gamma-BHC	ND		0.010	ND	0.010	ND	0.010	ND	0.010
delta-BHC	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Heptachlor	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Aldrin	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Heptachlor epoxide	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Endosulfan I	ND		0.010	ND	0.010	ND	0.010	ND	0.010
4,4'-DDE	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Dieldrin	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Endrin	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Endosulfan II	ND		0.010	ND	0.010	ND	0.010	ND	0.010
4,4'-DDD	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Endrin aldehyde	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Endosulfan sulfate	ND		0.010	ND	0.010	ND	0.010	ND	0.010
4,4'-DDT	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Endrin ketone	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Methoxychlor	ND		0.010	ND	0.010	ND	0.010	ND	0.010
alpha-Chlordane	ND		0.010	ND	0.010	ND	0.010	ND	0.010
gamma-Chlordane	ND		0.010	ND	0.010	ND	0.010	ND	0.010
Toxaphene	ND		0.075	ND	0.075	ND	0.075	ND	0.075

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06508

PARAMETER(Units)	Lab ID: 06508-003			06508-004			06508-005			06508-006		
	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (µg/L-ppb)</b>												
Antimony	ND		4.00	ND		4.00	ND		4.00	ND		4.00
Arsenic	ND		4.00	27.0		4.00	6.38		4.00	53.0		4.00
Beryllium	ND		2.00	ND		2.00	ND		2.00	ND		2.00
Cadmium	ND		1.00	1.04		1.00	ND		1.00	ND		1.00
Chromium	ND		8.00	11.0		8.00	90.0		8.00	ND		8.00
Copper	ND		8.00	321		8.00	200		8.00	35.0		8.00
Lead	ND		2.00	50.0		2.00	59.0		2.00	6.40		2.00
Mercury	ND		0.500	ND		0.500	ND		0.500	ND		0.500
Nickel	ND		4.00	11.0		4.00	66.0		4.00	ND		4.00
Selenium	ND		8.00	ND		8.00	ND		8.00	ND		8.00
Silver	ND		2.00	ND		2.00	ND		2.00	ND		2.00
Thallium	ND		0.400	ND		0.400	ND		0.400	ND		0.400
Zinc	ND		8.00	1270		8.00	1240		8.00	153		8.00
<b>*Formaldehyde (µg/L-ppb)</b>												
Formaldehyde			12.9			10			10.9			10
									ND			10
												11.4
												10
<b>PARAMETER(Units)</b>												
<b>Vofatiles (µg/L-ppb)</b>												
Vinyl chloride	ND		0.190	0.753		0.190						
Acetone	ND		0.890	ND		0.890						
cis-1,2-Dichloroethene	ND		0.310	2.08		0.310						
Trichloroethene	ND		0.330	173		0.330						
Toluene	ND		0.350	0.412		0.350						
<b>TOTAL VO's:</b>	ND			176								
<b>TOTAL TIC's:</b>	ND			ND								
<b>TOTAL VO's &amp; TIC's:</b>	ND			176								
<b>Semivolatiles - BNA Special List (µg/L-ppb)</b>												
Diethylphthalate	~		~	0.273		0.180						
<b>TOTAL BNA's:</b>				0.273								
<b>TOTAL TIC's:</b>	~		~	ND								
<b>TOTAL BNA'S &amp; TIC's:</b>	~		~	0.273								
<b>Alcohols (µg/L-ppb)</b>												
Methanol	~		~	ND		5000						
iso-Propanol	~		~	ND		5000						
Ethanol	~		~	ND		5000						
n-Propanol	~		~	ND		5000						
iso-Butanol	~		~	ND		5000						

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06508

	Lab ID: 06508-008	06508-009				
	Client ID: AQTB-062305	15EGW-26-28				
	Depth: 26/28					
	Matrix: Aqueous	Aqueous				
	Sampled Date: 6/23/05	6/23/05				
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
<b>Pesticides (µg/L-ppb)</b>						
alpha-BHC	~	~	ND	0.010		
beta-BHC	~	~	ND	0.010		
gamma-BHC	~	~	ND	0.010		
delta-BHC	~	~	ND	0.010		
Heptachlor	~	~	ND	0.010		
Aldrin	~	~	ND	0.010		
Heptachlor epoxide	~	~	ND	0.010		
Endosulfan I	~	~	ND	0.010		
4,4'-DDE	~	~	ND	0.010		
Dieldrin	~	~	ND	0.010		
Endrin	~	~	ND	0.010		
Endosulfan II	~	~	ND	0.010		
4,4'-DDD	~	~	ND	0.010		
Endrin aldehyde	~	~	ND	0.010		
Endosulfan sulfate	~	~	ND	0.010		
4,4'-DDT	~	~	ND	0.010		
Endrin ketone	~	~	ND	0.010		
Methoxychlor	~	~	ND	0.010		
alpha-Chlordane	~	~	ND	0.010		
gamma-Chlordane	~	~	ND	0.010		
Toxaphene	~	~	ND	0.075		
<b>Metals (µg/L-ppb)</b>						
Antimony	~	~	ND	4.00		
Arsenic	~	~	12.0	4.00		
Beryllium	~	~	ND	2.00		
Cadmium	~	~	ND	1.00		
Chromium	~	~	215	8.00		
Copper	~	~	239	8.00		
Lead	~	~	31.0	2.00		
Mercury	~	~	ND	0.500		
Nickel	~	~	97.0	4.00		
Selenium	~	~	ND	8.00		
Silver	~	~	ND	2.00		
Thallium	~	~	ND	0.400		
Zinc	~	~	2510	8.00		
<b>*Formaldehyde (µg/L-ppb)</b>						
Formaldehyde	~	~	ND	10		

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06508

Lab ID:	06508-001	06508-002	06508-007						
Client ID:	15D-4-4.5	TB-062305	15E-5-5.5						
Depth:	4/4.5		5/5.5						
Matrix:	Soil	Soil	Soil						
Sampled Date	6/23/05	6/23/05	6/23/05						
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatiles (mg/Kg-ppm)</b>									
Acetone	ND		0.506	ND		1.00	ND		0.466
<b>TOTAL VO's:</b>	ND			ND			ND		
<b>TOTAL TIC's:</b>	ND			ND			ND		
<b>TOTAL VO's &amp; TIC's:</b>	ND			ND			ND		
<b>Semivolatiles - BNA Special List (mg/Kg-ppm)</b>									
Caprolactam	ND		0.211	~		~	0.800		0.213
Butylbenzylphthalate	ND		0.211	~		~	4.37		0.213
bis(2-Ethylhexyl)phthalate	0.138	J	0.211	~		~	ND		0.213
Di-n-octylphthalate	ND		0.211	~		~	0.212	J	0.213
<b>TOTAL BNA'S:</b>	0.138	J					5.38	J	
<b>TOTAL TIC's:</b>	ND			~		~	ND		
<b>TOTAL BNA'S &amp; TIC's:</b>	0.138	J		~		~	5.38	J	
<b>Alcohols (mg/Kg-ppm)</b>									
Methanol	ND		10.0	~		~	ND		10.2
iso-Propanol	ND		10.0	~		~	ND		10.2
Ethanol	ND		10.0	~		~	ND		10.2
n-Propanol	ND		10.0	~		~	ND		10.2
iso-Butanol	ND		10.0	~		~	ND		10.2
<b>Pesticides (mg/Kg-ppm)</b>									
alpha-BHC	ND		0.00413	~		~	ND		0.00406
beta-BHC	ND		0.00413	~		~	ND		0.00406
gamma-BHC	ND		0.00413	~		~	ND		0.00406
delta-BHC	ND		0.00413	~		~	ND		0.00406
Heptachlor	ND		0.00413	~		~	ND		0.00406
Aldrin	ND		0.00413	~		~	ND		0.00406
Heptachlor epoxide	ND		0.00413	~		~	ND		0.00406
Endosulfan I	ND		0.00413	~		~	ND		0.00406
4,4'-DDE	ND		0.00413	~		~	ND		0.00406
Dieldrin	ND		0.00413	~		~	ND		0.00406
Endrin	ND		0.00413	~		~	ND		0.00406
Endosulfan II	ND		0.00413	~		~	ND		0.00406
4,4'-DDD	ND		0.00413	~		~	ND		0.00406
Endrin aldehyde	ND		0.00413	~		~	ND		0.00406
Endosulfan sulfate	ND		0.00413	~		~	ND		0.00406
4,4'-DDT	ND		0.00413	~		~	ND		0.00406
Endrin ketone	ND		0.00413	~		~	ND		0.00406
Methoxychlor	ND		0.00413	~		~	ND		0.00406
alpha-Chlordane	ND		0.00413	~		~	ND		0.00406
gamma-Chlordane	ND		0.00413	~		~	ND		0.00406
Toxaphene	ND		0.021	~		~	ND		0.020

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale

Project: AT&T CLARK - 4185.007.01

Lab Case No.: E05-06508

	Lab ID: 06508-001	06508-002	06508-007			
	Client ID: 15D-4-4.5	TB-062305	15E-5-5.5			
	Depth: 4/4.5		5/5.5			
	Matrix: Soil	Soil	Soil			
	Sampled Date: 6/23/05	6/23/05	6/23/05			
PARAMETER(Units)	Conc Q MDL	Conc Q MDL	Conc Q MDL			
<b>Metals (mg/Kg-ppm)</b>						
Antimony	ND 1.05	~ ~	ND 1.06			
Arsenic	ND 1.05	~ ~	2.17 1.06			
Beryllium	ND 0.525	~ ~	ND 0.528			
Cadmium	ND 0.263	~ ~	0.414 0.264			
Chromium	7.39 2.10	~ ~	11.8 2.11			
Copper	ND 2.10	~ ~	71.6 2.11			
Lead	1.97 0.525	~ ~	9.46 0.528			
Mercury	0.030 0.013	~ ~	0.030 0.013			
Nickel	1.55 1.05	~ ~	6.93 1.06			
Selenium	ND 2.10	~ ~	ND 2.11			
Silver	ND 0.525	~ ~	4.33 0.528			
Thallium	ND 0.105	~ ~	ND 0.106			
Zinc	2.23 2.10	~ ~	247 2.11			
<b>*Formaldehyde (ug/kg-ppb)</b>						
Formaldehyde	600 210	~ ~	633 210			

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-001

Client ID: 15D-4-4.5/4-4.

Date Received: 06/23/2005

Date Analyzed: 06/27/2005

Data file: I1151.D

GC/MS Column: DB-624

Sample wt/vol: 0.104g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.00

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.253
Chloromethane	ND		0.253
Vinyl chloride	ND		0.253
Bromomethane	ND		0.253
Chloroethane	ND		0.253
Trichlorofluoromethane	ND		0.253
1,1-Dichloroethene	ND		0.253
Acetone	ND		0.506
Carbon disulfide	ND		0.253
Methylene chloride	ND		0.253
trans-1,2-Dichloroethene	ND		0.253
Methyl tert-butyl ether (MTBE)	ND		0.253
1,1-Dichloroethane	ND		0.253
cis-1,2-Dichloroethene	ND		0.253
2-Butanone (MEK)	ND		0.506
Bromochloromethane	ND		0.253
Chloroform	ND		0.253
1,1,1-Trichloroethane	ND		0.253
Carbon tetrachloride	ND		0.253
1,2-Dichloroethane (EDC)	ND		0.253
Benzene	ND		0.253
Trichloroethene	ND		0.253
1,2-Dichloropropane	ND		0.253
Bromodichloromethane	ND		0.253
cis-1,3-Dichloropropene	ND		0.253
4-Methyl-2-pentanone (MIBK)	ND		0.506

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-001  
 Client ID: 15D-4-4.5/4-4.  
 Date Received: 06/23/2005  
 Date Analyzed: 06/27/2005  
 Data file: 11151.D

GC/MS Column: DB-624  
 Sample wt/vol: 0.104g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 5.00

Compound	Concentration	Q	MDL
Toluene	ND		0.253
trans-1,3-Dichloropropene	ND		0.253
1,1,2-Trichloroethane	ND		0.253
Tetrachloroethene	ND		0.253
2-Hexanone	ND		0.506
Dibromochloromethane	ND		0.253
1,2-Dibromoethane (EDB)	ND		0.253
Chlorobenzene	ND		0.253
Ethylbenzene	ND		0.253
Total Xylenes	ND		0.253
Styrene	ND		0.253
Bromoform	ND		0.253
Isopropylbenzene	ND		0.253
1,1,2,2-Tetrachloroethane	ND		0.253
1,3-Dichlorobenzene	ND		0.253
1,4-Dichlorobenzene	ND		0.253
1,2-Dichlorobenzene	ND		0.253
1,2-Dibromo-3-chloropropane	ND		0.253
1,2,4-Trichlorobenzene	ND		0.253
1,2,3-Trichlorobenzene	ND		0.253
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.253
Methyl acetate	ND		0.253
Cyclohexane	ND		0.253
Methylcyclohexane	ND		0.253

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-001  
Client ID: 15D-4-4.5/4-4.  
Date Received: 06/23/2005  
Date Analyzed: 06/27/2005  
Data file: I1151.D

GC/MS Column: DB-624  
Sample wt/vol: 0.104g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 5.00

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-002

Client ID: TB-062305

Date Received: 06/23/2005

Date Analyzed: 06/27/2005

Data file: I1152.D

GC/MS Column: DB-624

Sample wt/vol: 0.05g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.500
Chloromethane	ND		0.500
Vinyl chloride	ND		0.500
Bromomethane	ND		0.500
Chloroethane	ND		0.500
Trichlorofluoromethane	ND		0.500
1,1-Dichloroethene	ND		0.500
Acetone	ND		1.00
Carbon disulfide	ND		0.500
Methylene chloride	ND		0.500
trans-1,2-Dichloroethene	ND		0.500
Methyl tert-butyl ether (MTBE)	ND		0.500
1,1-Dichloroethane	ND		0.500
cis-1,2-Dichloroethene	ND		0.500
2-Butanone (MEK)	ND		1.00
Bromochloromethane	ND		0.500
Chloroform	ND		0.500
1,1,1-Trichloroethane	ND		0.500
Carbon tetrachloride	ND		0.500
1,2-Dichloroethane (EDC)	ND		0.500
Benzene	ND		0.500
Trichloroethene	ND		0.500
1,2-Dichloropropane	ND		0.500
Bromodichloromethane	ND		0.500
cis-1,3-Dichloropropene	ND		0.500
4-Methyl-2-pentanone (MIBK)	ND		1.00

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-002  
 Client ID: TB-062305  
 Date Received: 06/23/2005  
 Date Analyzed: 06/27/2005  
 Data file: I1152.D

GC/MS Column: DB-624  
 Sample wt/vol: 0.05g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.500
trans-1,3-Dichloropropene	ND		0.500
1,1,2-Trichloroethane	ND		0.500
Tetrachloroethene	ND		0.500
2-Hexanone	ND		1.00
Dibromochloromethane	ND		0.500
1,2-Dibromoethane (EDB)	ND		0.500
Chlorobenzene	ND		0.500
Ethylbenzene	ND		0.500
Total Xylenes	ND		0.500
Styrene	ND		0.500
Bromoform	ND		0.500
Isopropylbenzene	ND		0.500
1,1,2,2-Tetrachloroethane	ND		0.500
1,3-Dichlorobenzene	ND		0.500
1,4-Dichlorobenzene	ND		0.500
1,2-Dichlorobenzene	ND		0.500
1,2-Dibromo-3-chloropropane	ND		0.500
1,2,4-Trichlorobenzene	ND		0.500
1,2,3-Trichlorobenzene	ND		0.500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500
Methyl acetate	ND		0.500
Cyclohexane	ND		0.500
Methylcyclohexane	ND		0.500

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-002

Client ID: TB-062305

Date Received: 06/23/2005

Date Analyzed: 06/27/2005

Data file: I1152.D

GC/MS Column: DB-624

Sample wt/vol: 0.05g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 0

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-003

Client ID: FB-062305

Date Received: 06/23/2005

Date Analyzed: 06/30/2005

Data file: J5281.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	19.6		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-003  
 Client ID: FB-062305  
 Date Received: 06/23/2005  
 Date Analyzed: 06/30/2005  
 Data file: J5281.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	19.6		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-003

Client ID: FB-062305

Date Received: 06/23/2005

Date Analyzed: 06/30/2005

Date File: J5281.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-004  
 Client ID: 15DGW-11-16/11-16  
 Date Received: 06/23/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5230.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	5.46		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	17.4		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-004  
 Client ID: 15DGW-11-16/11-16  
 Date Received: 06/23/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5230.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 22.9

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-004

Client ID: 15DGW-11-16/11-16

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Date File: J5230.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-005

Client ID: 15DGW-24.5-28.5/24.5-28.

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Data file: J5231.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	4.28		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	0.699		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	80.5		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-005

Client ID: 15DGW-24.5-28.5/24.5-28.5

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Data file: J5231.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	0.448		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	85.9		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-005

Client ID: 15DGW-24.5-28.5/24.5-28.5

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Date File: J5231.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-006  
 Client ID: 15EGW-14-16/14-16  
 Date Received: 06/23/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5232.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-006  
 Client ID: 15EGW-14-16/14-16  
 Date Received: 06/23/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5232.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	0.488		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	0.488		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-006

Client ID: 15EGW-14-16/14-16

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Date File: J5232.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

0035

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-007

Client ID: 15E-5-5.5/5-5.

Date Received: 06/23/2005

Date Analyzed: 06/27/2005

Data file: I1153.D

GC/MS Column: DB-624

Sample wt/vol: 0.114g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.90

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.233
Chloromethane	ND		0.233
Vinyl chloride	ND		0.233
Bromomethane	ND		0.233
Chloroethane	ND		0.233
Trichlorofluoromethane	ND		0.233
1,1-Dichloroethene	ND		0.233
Acetone	ND		0.466
Carbon disulfide	ND		0.233
Methylene chloride	ND		0.233
trans-1,2-Dichloroethene	ND		0.233
Methyl tert-butyl ether (MTBE)	ND		0.233
1,1-Dichloroethane	ND		0.233
cis-1,2-Dichloroethene	ND		0.233
2-Butanone (MEK)	ND		0.466
Bromochloromethane	ND		0.233
Chloroform	ND		0.233
1,1,1-Trichloroethane	ND		0.233
Carbon tetrachloride	ND		0.233
1,2-Dichloroethane (EDC)	ND		0.233
Benzene	ND		0.233
Trichloroethene	ND		0.233
1,2-Dichloropropane	ND		0.233
Bromodichloromethane	ND		0.233
cis-1,3-Dichloropropene	ND		0.233
4-Methyl-2-pentanone (MIBK)	ND		0.466

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-007  
 Client ID: 15E-5-5.5/5-5.  
 Date Received: 06/23/2005  
 Date Analyzed: 06/27/2005  
 Data file: I1153.D

GC/MS Column: DB-624  
 Sample wt/vol: 0.114g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 5.90

Compound	Concentration	Q	MDL
Toluene	ND		0.233
trans-1,3-Dichloropropene	ND		0.233
1,1,2-Trichloroethane	ND		0.233
Tetrachloroethene	ND		0.233
2-Hexanone	ND		0.466
Dibromochloromethane	ND		0.233
1,2-Dibromoethane (EDB)	ND		0.233
Chlorobenzene	ND		0.233
Ethylbenzene	ND		0.233
Total Xylenes	ND		0.233
Styrene	ND		0.233
Bromoform	ND		0.233
Isopropylbenzene	ND		0.233
1,1,2,2-Tetrachloroethane	ND		0.233
1,3-Dichlorobenzene	ND		0.233
1,4-Dichlorobenzene	ND		0.233
1,2-Dichlorobenzene	ND		0.233
1,2-Dibromo-3-chloropropane	ND		0.233
1,2,4-Trichlorobenzene	ND		0.233
1,2,3-Trichlorobenzene	ND		0.233
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.233
Methyl acetate	ND		0.233
Cyclohexane	ND		0.233
Methylcyclohexane	ND		0.233
Total Target Compounds:	0		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-007  
Client ID: 15E-5-5.5/5-5.  
Date Received: 06/23/2005  
Date Analyzed: 06/27/2005  
Data file: 11153.D

GC/MS Column: DB-624  
Sample wt/vol: 0.114g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 5.90

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-008

Client ID: AQTB-062305

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Data file: J5233.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-008

Client ID: AQTB-062305

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Data file: J5233.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-008

Client ID: AQTB-062305

Date Received: 06/23/2005

Date Analyzed: 06/29/2005

Date File: J5233.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-009  
 Client ID: 15EGW-26-28/26-28  
 Date Received: 06/23/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5234.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	0.753		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	2.08		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	173		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-009  
 Client ID: 15EGW-26-28/26-28  
 Date Received: 06/23/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5234.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	0.412		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 176

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: -06508-009  
Client ID: 15EGW-26-28/26-28  
Date Received: 06/23/2005  
Date Analyzed: 06/29/2005  
Date File: J5234.D

GC/MS Column: DB-624  
Sample wt/vol: 5ml  
Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
Dilution Factor: 1  
% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-001  
 Client ID: 15D-4-4.5/4-  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/28/2005  
 Data file: C1867.D

GC/MS Column: DB-5  
 Sample wt/vol: 5.00g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 5.00

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.211
Phenol	ND		0.211
bis(2-Chloroethyl)ether	ND		0.211
2-Chlorophenol	ND		0.211
2-Methylphenol	ND		0.211
bis(2-chloroisopropyl)ether	ND		0.211
4-Methylphenol	ND		0.211
N-Nitroso-di-n-propylamine	ND		0.211
Acetophenone	ND		0.211
Hexachloroethane	ND		0.211
2,6-Dimethylphenol	ND		0.211
Nitrobenzene	ND		0.211
Isophorone	ND		0.211
2-Nitrophenol	ND		0.211
2,4+2,5-Dimethylphenol	ND		0.211
bis(2-Chloroethoxy)methane	ND		0.211
2,4-Dichlorophenol	ND		0.211
Naphthalene	ND		0.211
4-Chloroaniline	ND		0.211
Hexachlorobutadiene	ND		0.211
Caprolactam	ND		0.211
4-Chloro-3-methylphenol	ND		0.211
2-Methylnaphthalene	ND		0.211
3,5-Dimethylphenol	ND		0.211
Hexachlorocyclopentadiene	ND		0.211
2,4,6-Trichlorophenol	ND		0.211
2,4,5-Trichlorophenol	ND		0.211
1-1'-Biphenyl	ND		0.211
2-Chloronaphthalene	ND		0.211
2-Nitroaniline	ND		0.211
Dimethylphthalate	ND		0.211

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-001  
 Client ID: 15D-4-4.5/4-  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/28/2005  
 Data file: C1867.D

GC/MS Column: DB-5  
 Sample wt/vol: 5.00g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 5.00

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.211
Acenaphthylene	ND		0.211
3-Nitroaniline	ND		0.211
Acenaphthene	ND		0.211
2,4-Dinitrophenol	ND		0.211
4-Nitrophenol	ND		0.211
2,4-Dinitrotoluene	ND		0.211
Dibenzofuran	ND		0.211
Diethylphthalate	ND		0.211
Fluorene	ND		0.211
4-Chlorophenyl-phenylether	ND		0.211
4-Nitroaniline	ND		0.211
1,2,4,5-Tetrachlorobenzene	ND		0.211
Hydroquinone	ND		0.211
4,6-Dinitro-2-methylphenol	ND		0.211
N-Nitrosodiphenylamine	ND		0.211
4-Bromophenyl-phenylether	ND		0.211
Hexachlorobenzene	ND		0.211
Atrazine	ND		0.211
Pentachlorophenol	ND		0.211
Phenanthrene	ND		0.211
Anthracene	ND		0.211
Carbazole	ND		0.211
Di-n-butylphthalate	ND		0.211
Fluoranthene	ND		0.211
Pyrene	ND		0.211
Butylbenzylphthalate	ND		0.211
3,3'-Dichlorobenzidine	ND		0.211
Benzo[a]anthracene	ND		0.211
Chrysene	ND		0.211
bis(2-Ethylhexyl)phthalate	0.138	J	0.211
Di-n-octylphthalate	ND		0.211
Benzo[b]fluoranthene	ND		0.211
Benzo[k]fluoranthene	ND		0.211
Benzo[a]pyrene	ND		0.211
Indeno[1,2,3-cd]pyrene	ND		0.211
Dibenz[a,h]anthracene	ND		0.211
Benzo[g,h,i]perylene	ND		0.211

Total Target Compounds: 0.138 J

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-001

Client ID: 15D-4-4.5/4-

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: C1867.D

GC/MS Column: DB-5

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.00

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-003  
 Client ID: FB-062305  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7903.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4 + 2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-003

Client ID: FB-062305

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: B7903.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-µg/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-003

Client ID: FB-062305

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: B7903.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-004  
 Client ID: 15DGW-11-16/  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7904.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-004  
 Client ID: 15DGW-11-16/  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7904.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous-µg/L (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	0.498		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	0.265		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	0.184	J	0.190
Pyrene	0.166		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 1.11 J

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-004

Client ID: 15DGW-11-16/

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: B7904.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-005  
 Client ID: 15DGW-24.5-2  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7905.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-005

Client ID: 15DGW-24.5-2

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: B7905.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-µg/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	0.266		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	0.244		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	0.170	J	0.190
Pyrene	0.158		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0.838 J

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-005

Client ID: 15D GW-24.5-2

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: B7905.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

**INTEGRATED ANALYTICAL LABORATORIES**

**SEMIVOLATILE ORGANICS**

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-006  
 Client ID: 15EGW-14-16/  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7906.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-006  
 Client ID: 15EGW-14-16/  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7906.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	0.271		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0.271

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-006

Client ID: 15EGW-14-16/

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: B7906.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-007  
 Client ID: 15E-5-5.5/5-  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/28/2005  
 Data file: C1868.D

GC/MS Column: DB-5  
 Sample wt/vol: 5.00g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 5.90

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.213
Phenol	ND		0.213
bis(2-Chloroethyl)ether	ND		0.213
2-Chlorophenol	ND		0.213
2-Methylphenol	ND		0.213
bis(2-chloroisopropyl)ether	ND		0.213
4-Methylphenol	ND		0.213
N-Nitroso-di-n-propylamine	ND		0.213
Acetophenone	ND		0.213
Hexachloroethane	ND		0.213
2,6-Dimethylphenol	ND		0.213
Nitrobenzene	ND		0.213
Isophorone	ND		0.213
2-Nitrophenol	ND		0.213
2,4+2,5-Dimethylphenol	ND		0.213
bis(2-Chloroethoxy)methane	ND		0.213
2,4-Dichlorophenol	ND		0.213
Naphthalene	ND		0.213
4-Chloroaniline	ND		0.213
Hexachlorobutadiene	ND		0.213
Caprolactam	0.800		0.213
4-Chloro-3-methylphenol	ND		0.213
2-Methylnaphthalene	ND		0.213
3,5-Dimethylphenol	ND		0.213
Hexachlorocyclopentadiene	ND		0.213
2,4,6-Trichlorophenol	ND		0.213
2,4,5-Trichlorophenol	ND		0.213
1-1'-Biphenyl	ND		0.213
2-Chloronaphthalene	ND		0.213
2-Nitroaniline	ND		0.213
Dimethylphthalate	ND		0.213

**INTEGRATED ANALYTICAL LABORATORIES**

**SEMIVOLATILE ORGANICS**

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-007

Client ID: 15E-5-5.5/5-

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: C1868.D

GC/MS Column: DB-5

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.90

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.213
Acenaphthylene	ND		0.213
3-Nitroaniline	ND		0.213
Acenaphthene	ND		0.213
2,4-Dinitrophenol	ND		0.213
4-Nitrophenol	ND		0.213
2,4-Dinitrotoluene	ND		0.213
Dibenzofuran	ND		0.213
Diethylphthalate	ND		0.213
Fluorene	ND		0.213
4-Chlorophenyl-phenylether	ND		0.213
4-Nitroaniline	ND		0.213
1,2,4,5-Tetrachlorobenzene	ND		0.213
Hydroquinone	ND		0.213
4,6-Dinitro-2-methylphenol	ND		0.213
N-Nitrosodiphenylamine	ND		0.213
4-Bromophenyl-phenylether	ND		0.213
Hexachlorobenzene	ND		0.213
Atrazine	ND		0.213
Pentachlorophenol	ND		0.213
Phenanthrene	ND		0.213
Anthracene	ND		0.213
Carbazole	ND		0.213
Di-n-butylphthalate	ND		0.213
Fluoranthene	ND		0.213
Pyrene	ND		0.213
Butylbenzylphthalate	4.37		0.213
3,3'-Dichlorobenzidine	ND		0.213
Benzo[a]anthracene	ND		0.213
Chrysene	ND		0.213
bis(2-Ethylhexyl)phthalate	ND		0.213
Di-n-octylphthalate	0.212	J	0.213
Benzo[b]fluoranthene	ND		0.213
Benzo[k]fluoranthene	ND		0.213
Benzo[a]pyrene	ND		0.213
Indeno[1,2,3-cd]pyrene	ND		0.213
Dibenz[a,h]anthracene	ND		0.213
Benzo[g,h,i]perylene	ND		0.213
Total Target Compounds:	5.38	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-007

Client ID: 15E-5-5.5/5-

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: C1868.D

GC/MS Column: DB-5

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.90

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-009  
 Client ID: 15EGW-26-28/  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7907.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-009  
 Client ID: 15EGW-26-28/  
 Date Received: 06/23/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/27/2005  
 Data file: B7907.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	0.273		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0.273

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06508-009  
Client ID: 15EGW-26-28/  
Date Received: 06/23/2005  
Date Extracted: 06/27/2005  
Date Analyzed: 06/27/2005  
Date File: B7907.D

GC/MS Column: DB-5  
Sample wt/vol: 1000ml  
Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
Dilution Factor: 1  
% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-001

Client ID: 15D-4-4.5/

Date Received: 06/23/2005

Date Extracted: 06/26/2005

Date Analyzed: 06/27/2005

Data file: P5859.D

GC Column: DB-5/DB1701P

Sample wt/vol: 5.10g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.00

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.00413
beta-BHC	ND		0.00413
gamma-BHC	ND		0.00413
delta-BHC	ND		0.00413
Heptachlor	ND		0.00413
Aldrin	ND		0.00413
Heptachlor epoxide	ND		0.00413
Endosulfan I	ND		0.00413
4,4'-DDE	ND		0.00413
Dieldrin	ND		0.00413
Endrin	ND		0.00413
Endosulfan II	ND		0.00413
4,4'-DDD	ND		0.00413
Endrin aldehyde	ND		0.00413
Endosulfan sulfate	ND		0.00413
4,4'-DDT	ND		0.00413
Endrin ketone	ND		0.00413
Methoxychlor	ND		0.00413
alpha-Chlordane	ND		0.00413
gamma-Chlordane	ND		0.00413
Toxaphene	ND		0.021

**INTEGRATED ANALYTICAL LABORATORIES**

**PESTICIDES**

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-003

Client ID: FB-062305

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5910.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 5

% Moisture: 100

<u>Compound</u>	<u>Concentration</u>	<u>Q</u>	<u>MDL</u>
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

**INTEGRATED ANALYTICAL LABORATORIES**

**PESTICIDES**

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-004

Client ID: 15DGW-11-1

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5911.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-µg/L (ppb)

Dilution Factor: 5

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-005

Client ID: 15DGW-24.5

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5912.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 5

% Moisture: 100

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-006

Client ID: 15EGW-14-1

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5913.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 5

% Moisture: 100

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

**INTEGRATED ANALYTICAL LABORATORIES**

**PESTICIDES**

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-007

Client ID: 15E-5-5.5/

Date Received: 06/23/2005

Date Extracted: 06/26/2005

Date Analyzed: 06/27/2005

Data file: P5860.D

GC Column: DB-5/DB1701P

Sample wt/vol: 5.23g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.90

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
alpha-BHC	ND		0.00406
beta-BHC	ND		0.00406
gamma-BHC	ND		0.00406
delta-BHC	ND		0.00406
Heptachlor	ND		0.00406
Aldrin	ND		0.00406
Heptachlor epoxide	ND		0.00406
Endosulfan I	ND		0.00406
4,4'-DDE	ND		0.00406
Dieldrin	ND		0.00406
Endrin	ND		0.00406
Endosulfan II	ND		0.00406
4,4'-DDD	ND		0.00406
Endrin aldehyde	ND		0.00406
Endosulfan sulfate	ND		0.00406
4,4'-DDT	ND		0.00406
Endrin ketone	ND		0.00406
Methoxychlor	ND		0.00406
alpha-Chlordane	ND		0.00406
gamma-Chlordane	ND		0.00406
Toxaphene	ND		0.020

**INTEGRATED ANALYTICAL LABORATORIES**

**PESTICIDES**

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06508-009

Client ID: 15EGW-26-2

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5914.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-µg/L (ppb)

Dilution Factor: 5

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06508-001

Client ID: 15D-4-4.5/

Date Received: 06/23/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: X8178.D

GC Column: NUKOL

Sample wt/vol: 10.51g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.00

<u>Compound</u>	<u>Concentration</u>	<u>Q</u>	<u>MDL</u>
Methanol	ND		10.0
iso-Propanol	ND		10.0
Ethanol	ND		10.0
n-Propanol	ND		10.0
iso-Butanol	ND		10.0

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06508-003  
Client ID: FB-062305  
Date Received: 06/23/2005  
Date Extracted: 06/27/2005  
Date Analyzed: 06/28/2005  
Data file: X8191.D

GC Column: NUKOL  
Sample wt/vol: 20ml  
Matrix-Units: Aqueous-µg/L (ppb)  
Dilution Factor: 1  
% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06508-004

Client ID: 15DGW-11-1

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8192.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06508-005

Client ID: 15DGW-24.5

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8193.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06508-006

Client ID: 15EGW-14-16

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8205.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06508-007

Client ID: 15E-5-5.5/

Date Received: 06/23/2005

Date Extracted: 06/24/2005

Date Analyzed: 06/27/2005

Data file: X8179.D

GC Column: NUKOL

Sample wt/vol: 10.44g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 5.90

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		10.2
iso-Propanol	ND		10.2
Ethanol	ND		10.2
n-Propanol	ND		10.2
iso-Butanol	ND		10.2

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06508-009

Client ID: 15EGW-26-2

Date Received: 06/23/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8194.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>Compound</u>	<u>Concentration</u>	<u>Q</u>	<u>MDL</u>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-001  
Client ID: 15D-4-4.5  
Date Received: 06/23/05 18:40  
Matrix-Units: Soil-mg/Kg  
% Moisture: 5.00  
Batch #: 240

<b>Compound</b>	<b>Result</b>	<b>Q</b>	<b>DF</b>	<b>MDL</b>	<b>Date Analyzed</b>	<b>Method</b>
Antimony	ND		1	1.05	06/27/05	6020
Arsenic	ND		1	1.05	06/27/05	6020
Beryllium	ND		1	0.525	06/27/05	6020
Cadmium	ND		1	0.263	06/27/05	6020
Chromium	7.39		1	2.10	06/27/05	6020
Copper	ND		1	2.10	06/27/05	6020
Lead	1.97		1	0.525	06/27/05	6020
Mercury	0.030		1	0.013	06/27/05	7471 A
Nickel	1.55		1	1.05	06/27/05	6020
Selenium	ND		1	2.10	06/27/05	6020
Silver	ND		1	0.525	06/27/05	6020
Thallium	ND		1	0.105	06/27/05	6020
Zinc	2.23		1	2.10	06/27/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-003

Client ID: FB-062305

Date Received: 06/23/05 18:40

Matrix-Units: Aqueous-µg/L

% Moisture: 100

Batch #: 238

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	ND		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	ND		1	1.00	06/28/05	6020
Chromium	ND		1	8.00	06/28/05	6020
Copper	ND		1	8.00	06/28/05	6020
Lead	ND		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	ND		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	ND		1	8.00	06/28/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-004  
Client ID: 15DGW-11-16  
Date Received: 06/23/05 18:40  
Matrix-Units: Aqueous- $\mu\text{g/L}$   
% Moisture: 100  
Batch #: 238

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	27.0		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	1.04		1	1.00	06/28/05	6020
Chromium	11.0		1	8.00	06/28/05	6020
Copper	321		1	8.00	06/28/05	6020
Lead	50.0		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	11.0		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	1270		1	8.00	06/28/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-005

Client ID: 15DGW-24.5-28.5

Date Received: 06/23/05 18:40

Matrix-Units: Aqueous-µg/L

% Moisture: 100

Batch #: 238

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	6.38		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	ND		1	1.00	06/28/05	6020
Chromium	90.0		1	8.00	06/28/05	6020
Copper	200		1	8.00	06/28/05	6020
Lead	59.0		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	66.0		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	1240		1	8.00	06/28/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-006  
Client ID: 15EGW-14-16  
Date Received: 06/23/05 18:40  
Matrix-Units: Aqueous-µg/L  
% Moisture: 100  
Batch #: 238

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	53.0		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	ND		1	1.00	06/28/05	6020
Chromium	ND		1	8.00	06/28/05	6020
Copper	35.0		1	8.00	06/28/05	6020
Lead	6.40		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	ND		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	153		1	8.00	06/28/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-007  
 Client ID: 15E-5-5.5  
 Date Received: 06/23/05 18:40  
 Matrix-Units: Soil-mg/Kg  
 % Moisture: 5.90  
 Batch #: 240

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	1.06	06/27/05	6020
Arsenic	2.17		1	1.06	06/27/05	6020
Beryllium	ND		1	0.528	06/27/05	6020
Cadmium	0.414		1	0.264	06/27/05	6020
Chromium	11.8		1	2.11	06/27/05	6020
Copper	71.6		1	2.11	06/27/05	6020
Lead	9.46		1	0.528	06/27/05	6020
Mercury	0.029		1	0.013	06/27/05	7471 A
Nickel	6.93		1	1.06	06/27/05	6020
Selenium	ND		1	2.11	06/27/05	6020
Silver	4.33		1	0.528	06/27/05	6020
Thallium	ND		1	0.106	06/27/05	6020
Zinc	247		1	2.11	06/27/05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: GEOTRANS/AT&T CLARK - 4185.007.01

Lab ID: E05-06508-009

Client ID: 15EGW-26-28

Date Received: 06/23/05 18:40

Matrix-Units: Aqueous-µg/L

% Moisture: 100

Batch #: 238

<b>Compound</b>	<b>Result</b>	<b>Q</b>	<b>DF</b>	<b>MDL</b>	<b>Date Analyzed</b>	<b>Method</b>
Antimony	ND		1	4.00	06/28/05	6020
Arsenic	12.0		1	4.00	06/28/05	6020
Beryllium	ND		1	2.00	06/28/05	6020
Cadmium	ND		1	1.00	06/28/05	6020
Chromium	215		1	8.00	06/28/05	6020
Copper	239		1	8.00	06/28/05	6020
Lead	31.0		1	2.00	06/28/05	6020
Mercury	ND		1	0.500	06/27/05	7471 A
Nickel	97.0		1	4.00	06/28/05	6020
Selenium	ND		1	8.00	06/28/05	6020
Silver	ND		1	2.00	06/28/05	6020
Thallium	ND		1	0.400	06/28/05	6020
Zinc	2510		1	8.00	06/28/05	6020

Report of Analysis

<b>Client Sample ID:</b> E05-06508-001	<b>Date Sampled:</b> 06/23/05
<b>Lab Sample ID:</b> M48581-1	<b>Date Received:</b> 06/25/05
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.5
<b>Method:</b> SW846 8315 SW846 8315	
<b>Project:</b> Formaldehyde Sampling	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9584.D	1	06/30/05	CZ	06/28/05	OP9198	GST450
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.00 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde <sup>a</sup>	600	210	ug/kg	B
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	56%		20-115%	

(a) Target found in associated leachate blank.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> E05-06508-003	<b>Date Sampled:</b> 06/23/05
<b>Lab Sample ID:</b> M48581-2	<b>Date Received:</b> 06/25/05
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8315 SW846 3510C	
<b>Project:</b> Formaldehyde Sampling	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9565.D	1	06/28/05	CZ	06/25/05	OP9182	GST448
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	12.9	10	ug/l	B
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	34%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> E05-06508-004	
<b>Lab Sample ID:</b> M48581-3	<b>Date Sampled:</b> 06/23/05
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/25/05
<b>Method:</b> SW846 8315 SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> Formaldehyde Sampling	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9560.D	1	06/28/05	CZ	06/25/05	OP9182	GST448
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	10.9	10	ug/l	B
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	37%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

<b>Client Sample ID:</b> E05-06508-005	<b>Date Sampled:</b> 06/23/05
<b>Lab Sample ID:</b> M48581-4	<b>Date Received:</b> 06/25/05
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8315 SW846 3510C	
<b>Project:</b> Formaldehyde Sampling	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9561.D	1	06/28/05	CZ	06/25/05	OP9182	GST448
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	ND	10	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	43%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

<b>Client Sample ID:</b> E05-06508-006	<b>Date Sampled:</b> 06/23/05
<b>Lab Sample ID:</b> M48581-5	<b>Date Received:</b> 06/25/05
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8315 SW846 3510C	
<b>Project:</b> Formaldehyde Sampling	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9562.D	1	06/28/05	CZ	06/25/05	OP9182	GST448
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	11.4	10	ug/l	B
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	42%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	E05-06508-007	
Lab Sample ID:	M48581-6	Date Sampled: 06/23/05
Matrix:	SO - Soil	Date Received: 06/25/05
Method:	SW846 8315 SW846 8315	Percent Solids: 93.3
Project:	Formaldehyde Sampling	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9585.D	1	06/30/05	CZ	06/28/05	OP9198	GST450
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.00 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde <sup>a</sup>	633	210	ug/kg	B
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	52%		20-115%	

(a) Target found in associated leachate blank.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

<b>Client Sample ID:</b> E05-06508-009	<b>Date Sampled:</b> 06/23/05
<b>Lab Sample ID:</b> M48581-7	<b>Date Received:</b> 06/25/05
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8315 SW846 3510C	
<b>Project:</b> Formaldehyde Sampling	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST9563.D	1	06/28/05	CZ	06/25/05	OP9182	GST448
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
50-00-0	Formaldehyde	ND	10	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
123-72-8	Butyraldehyde	44%		10-115%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-003			06532-004			06532-005			06532-006		
	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatiles Special List (µg/L-ppb)</b>												
Dichlorodifluoromethane	ND		0.150	ND		0.150	ND		0.150	ND		0.150
Chloromethane	ND		0.260	ND		0.260	ND		0.260	ND		0.260
Vinyl chloride	ND		0.190	ND		0.190	ND		0.190	0.822		0.190
Bromomethane	ND		0.240	ND		0.240	ND		0.240	ND		0.240
Chloroethane	ND		0.300	ND		0.300	ND		0.300	ND		0.300
Trichlorofluoromethane	ND		0.120	ND		0.120	ND		0.120	ND		0.120
1,1-Dichloroethene	ND		0.350	ND		0.350	ND		0.350	ND		0.350
Acetone	ND		0.890	ND		0.890	ND		0.890	4.90		0.890
Carbon disulfide	ND		0.260	ND		0.260	ND		0.260	ND		0.260
Methylene chloride	ND		1.99	ND		1.99	ND		1.99	ND		1.99
trans-1,2-Dichloroethene	ND		0.260	ND		0.260	ND		0.260	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250	ND		0.250	ND		0.250	ND		0.250
1,1-Dichloroethane	ND		0.330	ND		0.330	ND		0.330	ND		0.330
cis-1,2-Dichloroethene	ND		0.310	ND		0.310	ND		0.310	4.05		0.310
2-Butanone (MEK)	ND		0.980	ND		0.980	ND		0.980	ND		0.980
Bromochloromethane	ND		0.300	ND		0.300	ND		0.300	ND		0.300
Chloroform	ND		0.260	ND		0.260	ND		0.260	ND		0.260
1,1,1-Trichloroethane	ND		0.210	ND		0.210	ND		0.210	ND		0.210
Carbon tetrachloride	ND		0.230	ND		0.230	ND		0.230	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340	ND		0.340	ND		0.340	ND		0.340
Benzene	ND		0.390	ND		0.390	ND		0.390	ND		0.390
Trichloroethene	ND		0.330	ND		0.330	ND		0.330	99.3		0.330
1,2-Dichloropropane	ND		0.320	ND		0.320	ND		0.320	ND		0.320
Bromodichloromethane	ND		0.440	ND		0.440	ND		0.440	ND		0.440
cis-1,3-Dichloropropene	ND		0.480	ND		0.480	ND		0.480	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690	ND		0.690	ND		0.690	ND		0.690
Toluene	ND		0.350	ND		0.350	0.667		0.350	ND		0.350
trans-1,3-Dichloropropene	ND		0.470	ND		0.470	ND		0.470	ND		0.470
1,1,2-Trichloroethane	ND		0.340	ND		0.340	ND		0.340	ND		0.340
Tetrachloroethene	ND		0.220	ND		0.220	ND		0.220	ND		0.220
2-Hexanone	ND		0.510	ND		0.510	ND		0.510	ND		0.510
Dibromochloromethane	ND		0.280	ND		0.280	ND		0.280	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320	ND		0.320	ND		0.320	ND		0.320
Chlorobenzene	ND		0.250	ND		0.250	ND		0.250	ND		0.250
Ethylbenzene	ND		0.330	ND		0.330	ND		0.330	ND		0.330
Total Xylenes	ND		1.15	ND		1.15	ND		1.15	ND		1.15
Styrene	ND		0.390	ND		0.390	ND		0.390	ND		0.390
Bromoform	ND		0.370	ND		0.370	ND		0.370	ND		0.370
Isopropylbenzene	ND		0.350	ND		0.350	ND		0.350	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440	ND		0.440	ND		0.440	ND		0.440
1,3-Dichlorobenzene	ND		0.310	ND		0.310	ND		0.310	ND		0.310
1,4-Dichlorobenzene	ND		0.280	ND		0.280	ND		0.280	ND		0.280
1,2-Dichlorobenzene	ND		0.380	ND		0.380	ND		0.380	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570	ND		0.570	ND		0.570	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690	ND		0.690	ND		0.690	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670	ND		0.670	ND		0.670	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260	ND		0.260	ND		0.260	ND		0.260
Methyl acetate	ND		0.880	ND		0.880	ND		0.880	ND		0.880
Cyclohexane	ND		0.380	ND		0.380	ND		0.380	ND		0.380
Methylcyclohexane	ND		0.420	ND		0.420	ND		0.420	ND		0.420
<b>TOTAL VO's:</b>	ND			ND			0.667			109		
<b>TOTAL TIC's:</b>	ND			ND			ND			ND		
<b>TOTAL VO's &amp; TIC's:</b>	ND			ND			0.667			109		

ND = Analyzed for but Not Detected at the MDL

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-003			06532-004			06532-005			06532-006		
	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BNA (µg/L.-ppb)												
Benzaldehyde	ND	0.180	~	~	ND	0.180	ND	0.180	ND	0.180	ND	0.180
Phenol	ND	0.150	~	~	ND	0.150	ND	0.150	ND	0.150	ND	0.150
bis(2-Chloroethyl)ether	ND	0.240	~	~	ND	0.240	ND	0.240	ND	0.240	ND	0.240
2-Chlorophenol	ND	0.120	~	~	ND	0.120	ND	0.120	ND	0.120	ND	0.120
2-Methylphenol	ND	0.180	~	~	ND	0.180	ND	0.180	ND	0.180	ND	0.180
bis(2-chloroisopropyl)ether	ND	0.200	~	~	ND	0.200	ND	0.200	ND	0.200	ND	0.200
4-Methylphenol	ND	0.300	~	~	ND	0.300	ND	0.300	ND	0.300	ND	0.300
N-Nitroso-di-n-propylamine	ND	0.200	~	~	ND	0.200	ND	0.200	ND	0.200	ND	0.200
Acetophenone	ND	0.230	~	~	ND	0.230	ND	0.230	ND	0.230	ND	0.230
Hexachloroethane	ND	0.190	~	~	ND	0.190	ND	0.190	ND	0.190	ND	0.190
2,6-Dimethylphenol	ND	0.310	~	~	ND	0.310	ND	0.310	ND	0.310	ND	0.310
Nitrobenzene	ND	0.250	~	~	ND	0.250	ND	0.250	ND	0.250	ND	0.250
Isophorone	ND	0.120	~	~	ND	0.120	ND	0.120	ND	0.120	ND	0.120
2-Nitrophenol	ND	0.460	~	~	ND	0.460	ND	0.460	ND	0.460	ND	0.460
2,4+2,5-Dimethylphenol	ND	0.220	~	~	ND	0.220	ND	0.220	ND	0.220	ND	0.220
bis(2-Chloroethoxy)methane	ND	0.120	~	~	ND	0.120	ND	0.120	ND	0.120	ND	0.120
2,4-Dichlorophenol	ND	0.210	~	~	ND	0.210	ND	0.210	ND	0.210	ND	0.210
Naphthalene	ND	0.110	~	~	ND	0.110	ND	0.110	ND	0.110	ND	0.110
4-Chloroaniline	ND	0.140	~	~	ND	0.140	ND	0.140	ND	0.140	ND	0.140
Hexachlorobutadiene	ND	0.240	~	~	ND	0.240	ND	0.240	ND	0.240	ND	0.240
Caprolactam	ND	0.380	~	~	ND	0.380	ND	0.380	ND	0.380	ND	0.380
4-Chloro-3-methylphenol	ND	0.230	~	~	ND	0.230	ND	0.230	ND	0.230	ND	0.230
2-Methylnaphthalene	ND	0.140	~	~	ND	0.140	ND	0.140	ND	0.140	ND	0.140
3,5-Dimethylphenol	ND	0.440	~	~	ND	0.440	ND	0.440	ND	0.440	ND	0.440
Hexachlorocyclopentadiene	ND	0.330	~	~	ND	0.330	ND	0.330	ND	0.330	ND	0.330
2,4,6-Trichlorophenol	ND	0.270	~	~	ND	0.270	ND	0.270	ND	0.270	ND	0.270
2,4,5-Trichlorophenol	ND	0.300	~	~	ND	0.300	ND	0.300	ND	0.300	ND	0.300
1-1'-Biphenyl	ND	0.120	~	~	ND	0.120	ND	0.120	ND	0.120	ND	0.120
2-Chloronaphthalene	ND	0.120	~	~	ND	0.120	ND	0.120	ND	0.120	ND	0.120
2-Nitroaniline	ND	0.500	~	~	ND	0.500	ND	0.500	ND	0.500	ND	0.500
Dimethylphthalate	ND	0.190	~	~	ND	0.190	ND	0.190	ND	0.190	ND	0.190
2,6-Dinitrotoluene	ND	0.480	~	~	ND	0.480	ND	0.480	ND	0.480	ND	0.480
Acenaphthylene	ND	0.180	~	~	ND	0.180	ND	0.180	ND	0.180	ND	0.180
3-Nitroaniline	ND	0.320	~	~	ND	0.320	ND	0.320	ND	0.320	ND	0.320
Acenaphthene	ND	0.170	~	~	ND	0.170	ND	0.170	ND	0.170	ND	0.170
2,4-Dinitrophenol	ND	0.470	~	~	ND	0.470	ND	0.470	ND	0.470	ND	0.470
4-Nitrophenol	ND	0.460	~	~	ND	0.460	ND	0.460	ND	0.460	ND	0.460
2,4-Dinitrotoluene	ND	0.450	~	~	ND	0.450	ND	0.450	ND	0.450	ND	0.450
Dibenzofuran	ND	0.120	~	~	ND	0.120	ND	0.120	ND	0.120	ND	0.120
Diethylphthalate	ND	0.180	~	~	0.538	0.180	0.397	0.180	0.397	0.180	0.397	0.180
Fluorene	ND	0.180	~	~	ND	0.180	ND	0.180	ND	0.180	ND	0.180
4-Chlorophenyl-phenylether	ND	0.230	~	~	ND	0.230	ND	0.230	ND	0.230	ND	0.230
4-Nitroaniline	ND	0.380	~	~	ND	0.380	ND	0.380	ND	0.380	ND	0.380
1,2,4,5-Tetrachlorobenzene	ND	0.230	~	~	ND	0.230	ND	0.230	ND	0.230	ND	0.230

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.  
SUMMARY REPORT

Client: GeoTrans, Inc. - Annandale  
Project: AT&T CLARK - 4185.007.01  
Lab Case No.: E05-06532

PARAMETER(Units)	06532-003			06532-004			06532-005			06532-006		
	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatiles - BNA (µg/L-ppb)</b>												
Hydroquinone	ND		0.650	~		~	ND		0.650	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780	~		~	ND		0.780	ND		0.780
N-Nitrosodiphenylamine	ND		0.150	~		~	ND		0.150	ND		0.150
4-Bromophenyl-phenylether	ND		0.260	~		~	ND		0.260	ND		0.260
Hexachlorobenzene	ND		0.190	~		~	ND		0.190	ND		0.190
Atrazine	ND		0.280	~		~	ND		0.280	ND		0.280
Pentachlorophenol	ND		0.490	~		~	ND		0.490	ND		0.490
Phenanthrene	ND		0.110	~		~	ND		0.110	ND		0.110
Anthracene	ND		0.140	~		~	ND		0.140	ND		0.140
Carbazole	ND		0.170	~		~	ND		0.170	ND		0.170
Di-n-butylphthalate	ND		0.160	~		~	0.190		0.160	ND		0.160
Fluoranthene	ND		0.190	~		~	ND		0.190	ND		0.190
Pyrene	ND		0.140	~		~	ND		0.140	ND		0.140
Butylbenzylphthalate	ND		0.310	~		~	ND		0.310	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430	~		~	ND		0.430	ND		0.430
Benzo[a]anthracene	ND		0.150	~		~	ND		0.150	ND		0.150
Chrysene	ND		0.140	~		~	ND		0.140	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370	~		~	ND		0.370	ND		0.370
Di-n-octylphthalate	ND		0.570	~		~	ND		0.570	ND		0.570
Benzo[b]fluoranthene	ND		0.340	~		~	ND		0.340	ND		0.340
Benzo[k]fluoranthene	ND		0.630	~		~	ND		0.630	ND		0.630
Benzo[a]pyrene	ND		0.200	~		~	ND		0.200	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510	~		~	ND		0.510	ND		0.510
Dibenz[a,h]anthracene	ND		0.490	~		~	ND		0.490	ND		0.490
Benzo[g,h,i]perylene	ND		0.310	~		~	ND		0.310	ND		0.310
<b>TOTAL BNA'S:</b>	ND						0.728			0.397		
<b>TOTAL TIC'S:</b>	ND						4.00			ND		
<b>TOTAL BNA'S &amp; TIC'S:</b>	ND						4.73			0.397		
<b>Alcohols (µg/L-ppb)</b>												
Methanol	ND		5000	~		~	ND		5000	ND		5000
iso-Propanol	ND		5000	~		~	ND		5000	ND		5000
Ethanol	ND		5000	~		~	ND		5000	ND		5000
n-Propanol	ND		5000	~		~	ND		5000	ND		5000
iso-Butanol	ND		5000	~		~	ND		5000	ND		5000
<b>Pesticides (µg/L-ppb)</b>												
alpha-BHC	ND		0.010	~		~	ND		0.010	ND		0.010
beta-BHC	ND		0.010	~		~	ND		0.010	ND		0.010
gamma-BHC	ND		0.010	~		~	ND		0.010	ND		0.010
delta-BHC	ND		0.010	~		~	ND		0.010	ND		0.010
Heptachlor	ND		0.010	~		~	ND		0.010	ND		0.010
Aldrin	ND		0.010	~		~	ND		0.010	ND		0.010
Heptachlor epoxide	ND		0.010	~		~	ND		0.010	ND		0.010
Endosulfan I	ND		0.010	~		~	ND		0.010	ND		0.010
4,4'-DDE	ND		0.010	~		~	ND		0.010	ND		0.010

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-003			06532-004			06532-005			06532-006		
	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Pesticides (µg/L-ppb)</b>												
Dieldrin	ND		0.010	~		~	ND		0.010	ND		0.010
Endrin	ND		0.010	~		~	ND		0.010	ND		0.010
Endosulfan II	ND		0.010	~		~	ND		0.010	ND		0.010
4,4'-DDD	ND		0.010	~		~	ND		0.010	ND		0.010
Endrin aldehyde	ND		0.010	~		~	ND		0.010	ND		0.010
Endosulfan sulfate	ND		0.010	~		~	ND		0.010	ND		0.010
4,4'-DDT	ND		0.010	~		~	ND		0.010	ND		0.010
Endrin ketone	ND		0.010	~		~	ND		0.010	ND		0.010
Methoxychlor	ND		0.010	~		~	ND		0.010	ND		0.010
alpha-Chlordane	ND		0.010	~		~	ND		0.010	ND		0.010
gamma-Chlordane	ND		0.010	~		~	ND		0.010	ND		0.010
Toxaphene	ND		0.075	~		~	ND		0.075	ND		0.075
<b>Metals (µg/L-ppb)</b>												
Antimony	ND		4.00	~		~	ND		4.00	ND		4.00
Arsenic	ND		4.00	~		~	14.0		4.00	14.0		4.00
Beryllium	ND		2.00	~		~	ND		2.00	ND		2.00
Cadmium	ND		1.00	~		~	ND		1.00	ND		1.00
Chromium	ND		8.00	~		~	ND		8.00	11.0		8.00
Copper	ND		8.00	~		~	64.0		8.00	69.0		8.00
Lead	ND		2.00	~		~	9.55		2.00	10.0		2.00
Mercury	ND		0.500	~		~	ND		0.500	ND		0.500
Nickel	ND		4.00	~		~	4.59		4.00	9.02		4.00
Selenium	ND		8.00	~		~	ND		8.00	ND		8.00
Silver	ND		2.00	~		~	ND		2.00	ND		2.00
Thallium	ND		0.400	~		~	ND		0.400	ND		0.400
Zinc	ND		8.00	~		~	256		8.00	240		8.00
<b>*Formaldehyde (µg/L-ppb)</b>												
Formaldehyde			15.6			10	~		~	ND		10

Lab ID: 06532-007      06532-008  
 Client ID: 34AGW-20-23      34AGW-25-28  
 Depth: 20/23      25/28  
 Matrix: Aqueous      Aqueous  
 Sampled Date: 6/24/05      6/24/05

PARAMETER(Units)	06532-007		06532-008			
	Conc	Q	MDL	Conc	Q	MDL
<b>Volatiles Special List (µg/L-ppb)</b>						
Dichlorodifluoromethane	ND		0.150	ND		0.150
Chloromethane	ND		0.260	ND		0.260
Vinyl chloride	ND		0.190	1.04		0.190
Bromomethane	ND		0.240	ND		0.240
Chloroethane	ND		0.300	ND		0.300
Trichlorofluoromethane	ND		0.120	ND		0.120
1,1-Dichloroethene	ND		0.350	ND		0.350
Acetone	3.61		0.890	ND		0.890
Carbon disulfide	ND		0.260	ND		0.260
Methylene chloride	ND		1.99	ND		1.99

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 \*Subcontracted Result from Accutest  
 Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-007		06532-008	
	Conc	Q	Conc	Q
Lab ID:	06532-007		06532-008	
Client ID:	34AGW-20-23		34AGW-25-28	
Depth:	20/23		25/28	
Matrix:	Aqueous		Aqueous	
Sampled Date	6/24/05		6/24/05	
	MDL		MDL	
<b>Volatiles Special List (µg/L-ppb)</b>				
trans-1,2-Dichloroethene	ND	0.260	ND	0.260
Methyl tert-butyl ether (MTBE)	ND	0.250	ND	0.250
1,1-Dichloroethane	ND	0.330	ND	0.330
cis-1,2-Dichloroethene	ND	0.310	3.27	0.310
2-Butanone (MEK)	ND	0.980	ND	0.980
Bromochloromethane	ND	0.300	ND	0.300
Chloroform	ND	0.260	ND	0.260
1,1,1-Trichloroethane	ND	0.210	ND	0.210
Carbon tetrachloride	ND	0.230	ND	0.230
1,2-Dichloroethane (EDC)	ND	0.340	ND	0.340
Benzene	ND	0.390	ND	0.390
Trichloroethene	11.0	0.330	117	0.330
1,2-Dichloropropane	ND	0.320	ND	0.320
Bromodichloromethane	ND	0.440	ND	0.440
cis-1,3-Dichloropropene	ND	0.480	ND	0.480
4-Methyl-2-pentanone (MIBK)	ND	0.690	ND	0.690
Toluene	ND	0.350	ND	0.350
trans-1,3-Dichloropropene	ND	0.470	ND	0.470
1,1,2-Trichloroethane	ND	0.340	ND	0.340
Tetrachloroethene	ND	0.220	ND	0.220
2-Hexanone	ND	0.510	ND	0.510
Dibromochloromethane	ND	0.280	ND	0.280
1,2-Dibromoethane (EDB)	ND	0.320	ND	0.320
Chlorobenzene	ND	0.250	ND	0.250
Ethylbenzene	ND	0.330	ND	0.330
Total Xylenes	ND	1.15	ND	1.15
Styrene	ND	0.390	ND	0.390
Bromoform	ND	0.370	ND	0.370
Isopropylbenzene	ND	0.350	ND	0.350
1,1,2,2-Tetrachloroethane	ND	0.440	ND	0.440
1,3-Dichlorobenzene	ND	0.310	ND	0.310
1,4-Dichlorobenzene	ND	0.280	ND	0.280
1,2-Dichlorobenzene	ND	0.380	ND	0.380
1,2-Dibromo-3-chloropropane	ND	0.570	ND	0.570
1,2,4-Trichlorobenzene	ND	0.690	ND	0.690
1,2,3-Trichlorobenzene	ND	0.670	ND	0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.260	ND	0.260
Methyl acetate	ND	0.880	ND	0.880
Cyclohexane	ND	0.380	ND	0.380
Methylcyclohexane	ND	0.420	ND	0.420
<b>TOTAL VO's:</b>		14.6		121
<b>TOTAL TIC's:</b>		ND		ND
<b>TOTAL VO's &amp; TIC's:</b>		14.6		121

ND = Analyzed for but Not Detected at the MDL

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	Lab ID: 06532-007			06532-008		
	Conc	Q	MDL	Conc	Q	MDL
	Client ID: 34AGW-20-23			34AGW-25-28		
	Depth: 20/23			25/28		
	Matrix: Aqueous			Aqueous		
	Sampled Date 6/24/05			6/24/05		
<b>Semivolatiles - BNA (ug/L-ppb)</b>						
Benzaldehyde	ND	0.180	ND	0.180		
Phenol	ND	0.150	ND	0.150		
bis(2-Chloroethyl)ether	ND	0.240	ND	0.240		
2-Chlorophenol	ND	0.120	ND	0.120		
2-Methylphenol	ND	0.180	ND	0.180		
bis(2-chloroisopropyl)ether	ND	0.200	ND	0.200		
4-Methylphenol	ND	0.300	ND	0.300		
N-Nitroso-di-n-propylamine	ND	0.200	ND	0.200		
Acetophenone	ND	0.230	ND	0.230		
Hexachloroethane	ND	0.190	ND	0.190		
2,6-Dimethylphenol	ND	0.310	ND	0.310		
Nitrobenzene	ND	0.250	ND	0.250		
Isophorone	ND	0.120	ND	0.120		
2-Nitrophenol	ND	0.460	ND	0.460		
2,4+2,5-Dimethylphenol	ND	0.220	ND	0.220		
bis(2-Chloroethoxy)methane	ND	0.120	ND	0.120		
2,4-Dichlorophenol	ND	0.210	ND	0.210		
Naphthalene	ND	0.110	ND	0.110		
4-Chloroaniline	ND	0.140	ND	0.140		
Hexachlorobutadiene	ND	0.240	ND	0.240		
Caprolactam	ND	0.380	ND	0.380		
4-Chloro-3-methylphenol	ND	0.230	ND	0.230		
2-Methylnaphthalene	ND	0.140	ND	0.140		
3,5-Dimethylphenol	ND	0.440	ND	0.440		
Hexachlorocyclopentadiene	ND	0.330	ND	0.330		
2,4,6-Trichlorophenol	ND	0.270	ND	0.270		
2,4,5-Trichlorophenol	ND	0.300	ND	0.300		
1-1'-Biphenyl	ND	0.120	ND	0.120		
2-Chloronaphthalene	ND	0.120	ND	0.120		
2-Nitroaniline	ND	0.500	ND	0.500		
Dimethylphthalate	ND	0.190	ND	0.190		
2,6-Dinitrotoluene	ND	0.480	ND	0.480		
Acenaphthylene	ND	0.180	ND	0.180		
3-Nitroaniline	ND	0.320	ND	0.320		
Acenaphthene	ND	0.170	ND	0.170		
2,4-Dinitrophenol	ND	0.470	ND	0.470		
4-Nitrophenol	ND	0.460	ND	0.460		
2,4-Dinitrotoluene	ND	0.450	ND	0.450		
Dibenzofuran	ND	0.120	ND	0.120		
Diethylphthalate	ND	0.180	ND	0.180		
Fluorene	ND	0.180	ND	0.180		
4-Chlorophenyl-phenylether	ND	0.230	ND	0.230		
4-Nitroaniline	ND	0.380	ND	0.380		
1,2,4,5-Tetrachlorobenzene	ND	0.230	ND	0.230		
Hydroquinone	ND	0.650	ND	0.650		

ND = Analyzed for but Not Detected at the MDL  
 Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-007		06532-008	
	Conc	Q MDL	Conc	Q MDL
<b>Client ID:</b>	34AGW-20-23		34AGW-25-28	
<b>Depth:</b>	20/23		25/28	
<b>Matrix:</b>	Aqueous		Aqueous	
<b>Sampled Date</b>	6/24/05		6/24/05	
<b>Semivolatiles - BNA (µg/L-ppb)</b>				
4,6-Dinitro-2-methylphenol	ND	0.780	ND	0.780
N-Nitrosodiphenylamine	ND	0.150	ND	0.150
4-Bromophenyl-phenylether	ND	0.260	ND	0.260
Hexachlorobenzene	ND	0.190	ND	0.190
Atrazine	ND	0.280	ND	0.280
Pentachlorophenol	ND	0.490	ND	0.490
Phenanthrene	ND	0.110	ND	0.110
Anthracene	ND	0.140	ND	0.140
Carbazole	ND	0.170	ND	0.170
Di-n-butylphthalate	ND	0.160	0.218	0.160
Fluoranthene	ND	0.190	ND	0.190
Pyrene	ND	0.140	ND	0.140
Butylbenzylphthalate	ND	0.310	0.469	0.310
3,3'-Dichlorobenzidine	ND	0.430	ND	0.430
Benzo[a]anthracene	ND	0.150	ND	0.150
Chrysene	ND	0.140	ND	0.140
bis(2-Ethylhexyl)phthalate	0.514	0.370	0.737	0.370
Di-n-octylphthalate	ND	0.570	ND	0.570
Benzo[b]fluoranthene	ND	0.340	ND	0.340
Benzo[k]fluoranthene	ND	0.630	ND	0.630
Benzo[a]pyrene	ND	0.200	ND	0.200
Indeno[1,2,3-cd]pyrene	ND	0.510	ND	0.510
Dibenz[a,h]anthracene	ND	0.490	ND	0.490
Benzo[g,h,i]perylene	ND	0.310	ND	0.310
<b>TOTAL BNA'S:</b>		0.514		1.42
<b>TOTAL TIC's:</b>		4.20		4.60
<b>TOTAL BNA'S &amp; TIC's:</b>		4.71		6.02
<b>Alcohols (µg/L-ppb)</b>				
Methanol	ND	5000	ND	5000
iso-Propanol	ND	5000	ND	5000
Ethanol	ND	5000	ND	5000
n-Propanol	ND	5000	ND	5000
iso-Butanol	ND	5000	ND	5000
<b>Pesticides (µg/L-ppb)</b>				
alpha-BHC	ND	0.010	ND	0.010
beta-BHC	ND	0.010	ND	0.010
gamma-BHC	ND	0.010	ND	0.010
delta-BHC	ND	0.010	ND	0.010
Heptachlor	ND	0.010	ND	0.010
Aldrin	ND	0.010	ND	0.010
Heptachlor epoxide	ND	0.010	ND	0.010
Endosulfan I	ND	0.010	ND	0.010
4,4'-DDE	ND	0.010	ND	0.010
Dieldrin	ND	0.010	ND	0.010
Endrin	ND	0.010	ND	0.010

ND = Analyzed for but Not Detected at the MDL  
 Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale

Project: AT&T CLARK - 4185.007.01

Lab Case No.: E05-06532

		Lab ID: 06532-007	06532-008				
		Client ID: 34AGW-20-23	34AGW-25-28				
		Depth: 20/23	25/28				
		Matrix: Aqueous	Aqueous				
		Sampled Date: 6/24/05	6/24/05				
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
<b>Pesticides (µg/L-ppb)</b>							
Endosulfan II		ND		0.010	ND		0.010
4,4'-DDD		ND		0.010	ND		0.010
Endrin aldehyde		ND		0.010	ND		0.010
Endosulfan sulfate		ND		0.010	ND		0.010
4,4'-DDT		ND		0.010	ND		0.010
Endrin ketone		ND		0.010	ND		0.010
Methoxychlor		ND		0.010	ND		0.010
alpha-Chlordane		ND		0.010	ND		0.010
gamma-Chlordane		ND		0.010	ND		0.010
Toxaphene		ND		0.075	ND		0.075
<b>Metals (µg/L-ppb)</b>							
Antimony		ND		4.00	ND		4.00
Arsenic		24.0		4.00	14.0		4.00
Beryllium		ND		2.00	ND		2.00
Cadmium		ND		1.00	ND		1.00
Chromium		ND		8.00	16.0		8.00
Copper		110		8.00	39.0		8.00
Lead		16.0		2.00	6.15		2.00
Mercury		ND		0.500	ND		0.500
Nickel		7.55		4.00	15.0		4.00
Selenium		ND		8.00	ND		8.00
Silver		ND		2.00	ND		2.00
Thallium		ND		0.400	ND		0.400
Zinc		370		8.00	112		8.00
<b>*Formaldehyde (µg/L-ppb)</b>							
Formaldehyde		10		10	11.3		10
		Lab ID: 06532-001		06532-002			
		Client ID: 15F-5-5.5		TB-062405			
		Depth: 5/5.5					
		Matrix: Soil		Soil			
		Sampled Date: 6/24/05		6/24/05			
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
<b>Volatiles Special List (mg/Kg-ppm)</b>							
Dichlorodifluoromethane		ND		0.271	ND		0.500
Chloromethane		ND		0.271	ND		0.500
Vinyl chloride		ND		0.271	ND		0.500
Bromomethane		ND		0.271	ND		0.500
Chloroethane		ND		0.271	ND		0.500
Trichlorofluoromethane		ND		0.271	ND		0.500
1,1-Dichloroethene		ND		0.271	ND		0.500
Acetone		ND		0.541	ND		1.00
Carbon disulfide		ND		0.271	ND		0.500
Methylene chloride		ND		0.271	ND		0.500
trans-1,2-Dichloroethene		ND		0.271	ND		0.500

ND = Analyzed for but Not Detected at the MDL

\*Subcontracted Result from Accutest

Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-001			06532-002		
	Conc	Q	MDL	Conc	Q	MDL
Lab ID:	06532-001			06532-002		
Client ID:	15F-5-5.5			TB-062405		
Depth:	5/5.5					
Matrix:	Soil			Soil		
Sampled Date	6/24/05			6/24/05		
<b>Volatiles Special List (mg/Kg-ppm)</b>						
Methyl tert-butyl ether (MTBE)	ND	0.271	ND	0.500		
1,1-Dichloroethane	ND	0.271	ND	0.500		
cis-1,2-Dichloroethene	ND	0.271	ND	0.500		
2-Butanone (MEK)	ND	0.541	ND	1.00		
Bromochloromethane	ND	0.271	ND	0.500		
Chloroform	ND	0.271	ND	0.500		
1,1,1-Trichloroethane	ND	0.271	ND	0.500		
Carbon tetrachloride	ND	0.271	ND	0.500		
1,2-Dichloroethane (EDC)	ND	0.271	ND	0.500		
Benzene	ND	0.271	ND	0.500		
Trichloroethene	ND	0.271	ND	0.500		
1,2-Dichloropropane	ND	0.271	ND	0.500		
Bromodichloromethane	ND	0.271	ND	0.500		
cis-1,3-Dichloropropene	ND	0.271	ND	0.500		
4-Methyl-2-pentanone (MIBK)	ND	0.541	ND	1.00		
Toluene	ND	0.271	ND	0.500		
trans-1,3-Dichloropropene	ND	0.271	ND	0.500		
1,1,2-Trichloroethane	ND	0.271	ND	0.500		
Tetrachloroethene	ND	0.271	ND	0.500		
2-Hexanone	ND	0.541	ND	1.00		
Dibromochloromethane	ND	0.271	ND	0.500		
1,2-Dibromoethane (EDB)	ND	0.271	ND	0.500		
Chlorobenzene	ND	0.271	ND	0.500		
Ethylbenzene	ND	0.271	ND	0.500		
Total Xylenes	ND	0.271	ND	0.500		
Styrene	ND	0.271	ND	0.500		
Bromoform	ND	0.271	ND	0.500		
Isopropylbenzene	ND	0.271	ND	0.500		
1,1,2,2-Tetrachloroethane	ND	0.271	ND	0.500		
1,3-Dichlorobenzene	ND	0.271	ND	0.500		
1,4-Dichlorobenzene	ND	0.271	ND	0.500		
1,2-Dichlorobenzene	ND	0.271	ND	0.500		
1,2-Dibromo-3-chloropropane	ND	0.271	ND	0.500		
1,2,4-Trichlorobenzene	ND	0.271	ND	0.500		
1,2,3-Trichlorobenzene	ND	0.271	ND	0.500		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.271	ND	0.500		
Methyl acetate	ND	0.271	ND	0.500		
Cyclohexane	ND	0.271	ND	0.500		
Methylcyclohexane	ND	0.271	ND	0.500		
<b>TOTAL VO's:</b>	ND		ND			
<b>TOTAL TIC's:</b>	ND		ND			
<b>TOTAL VO's &amp; TIC's:</b>	ND		ND			

ND = Analyzed for but Not Detected at the MDL

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	Lab ID: 06532-001		06532-002	
	Client ID: 15F-5-5.5		TB-062405	
	Depth: 5/5.5			
	Matrix: Soil		Soil	
	Sampled Date 6/24/05		6/24/05	
	Conc	Q MDL	Conc	Q MDL
<b>Semivolatiles - BNA (mg/Kg-ppm)</b>				
Benzaldehyde	ND	0.216	~	~
Phenol	ND	0.216	~	~
bis(2-Chloroethyl)ether	ND	0.216	~	~
2-Chlorophenol	ND	0.216	~	~
2-Methylphenol	ND	0.216	~	~
bis(2-chloroisopropyl)ether	ND	0.216	~	~
4-Methylphenol	ND	0.216	~	~
N-Nitroso-di-n-propylamine	ND	0.216	~	~
Acetophenone	ND	0.216	~	~
Hexachloroethane	ND	0.216	~	~
2,6-Dimethylphenol	ND	0.216	~	~
Nitrobenzene	ND	0.216	~	~
Isophorone	ND	0.216	~	~
2-Nitrophenol	ND	0.216	~	~
2,4+2,5-Dimethylphenol	ND	0.216	~	~
bis(2-Chloroethoxy)methane	ND	0.216	~	~
2,4-Dichlorophenol	ND	0.216	~	~
Naphthalene	ND	0.216	~	~
4-Chloroaniline	ND	0.216	~	~
Hexachlorobutadiene	ND	0.216	~	~
Caprolactam	ND	0.216	~	~
4-Chloro-3-methylphenol	ND	0.216	~	~
2-Methylnaphthalene	ND	0.216	~	~
3,5-Dimethylphenol	ND	0.216	~	~
Hexachlorocyclopentadiene	ND	0.216	~	~
2,4,6-Trichlorophenol	ND	0.216	~	~
2,4,5-Trichlorophenol	ND	0.216	~	~
1-1'-Biphenyl	ND	0.216	~	~
2-Chloronaphthalene	ND	0.216	~	~
2-Nitroaniline	ND	0.216	~	~
Dimethylphthalate	ND	0.216	~	~
2,6-Dinitrotoluene	ND	0.216	~	~
Acenaphthylene	ND	0.216	~	~
3-Nitroaniline	ND	0.216	~	~
Acenaphthene	ND	0.216	~	~
2,4-Dinitrophenol	ND	0.216	~	~
4-Nitrophenol	ND	0.216	~	~
2,4-Dinitrotoluene	ND	0.216	~	~
Dibenzofuran	ND	0.216	~	~
Diethylphthalate	ND	0.216	~	~
Fluorene	ND	0.216	~	~
4-Chlorophenyl-phenylether	ND	0.216	~	~
4-Nitroaniline	ND	0.216	~	~
1,2,4,5-Tetrachlorobenzene	ND	0.216	~	~

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	Lab ID: 06532-001		06532-002			
	Client ID: 15F-5-5.5		TB-062405			
	Depth: 5/5.5					
	Matrix: Soil		Soil			
	Sampled Date: 6/24/05		6/24/05			
	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatiles - BNA (mg/Kg-ppm)</b>						
Hydroquinone	ND		0.216	~		~
4,6-Dinitro-2-methylphenol	ND		0.216	~		~
N-Nitrosodiphenylamine	ND		0.216	~		~
4-Bromophenyl-phenylether	ND		0.216	~		~
Hexachlorobenzene	ND		0.216	~		~
Atrazine	ND		0.216	~		~
Pentachlorophenol	ND		0.216	~		~
Phenanthrene	ND		0.216	~		~
Anthracene	ND		0.216	~		~
Carbazole	ND		0.216	~		~
Di-n-butylphthalate	ND		0.216	~		~
Fluoranthene	ND		0.216	~		~
Pyrene	ND		0.216	~		~
Butylbenzylphthalate	ND		0.216	~		~
3,3'-Dichlorobenzidine	ND		0.216	~		~
Benzo[a]anthracene	ND		0.216	~		~
Chrysene	ND		0.216	~		~
bis(2-Ethylhexyl)phthalate	ND		0.216	~		~
Di-n-octylphthalate	ND		0.216	~		~
Benzo[b]fluoranthene	ND		0.216	~		~
Benzo[k]fluoranthene	ND		0.216	~		~
Benzo[a]pyrene	ND		0.216	~		~
Indeno[1,2,3-cd]pyrene	ND		0.216	~		~
Dibenz[a,h]anthracene	ND		0.216	~		~
Benzo[g,h,i]perylene	ND		0.216	~		~
<b>TOTAL BNA'S:</b>	ND					
<b>TOTAL TIC's:</b>	ND			~		~
<b>TOTAL BNA'S &amp; TIC's:</b>	ND			~		~
<b>Alcohols (mg/Kg-ppm)</b>						
Methanol	ND		9.97	~		~
iso-Propanol	ND		9.97	~		~
Ethanol	ND		9.97	~		~
n-Propanol	ND		9.97	~		~
iso-Butanol	ND		9.97	~		~
<b>Pesticides (mg/Kg-ppm)</b>						
alpha-BHC	ND		0.0037	~		~
beta-BHC	ND		0.0037	~		~
gamma-BHC	ND		0.0037	~		~
delta-BHC	ND		0.0037	~		~
Heptachlor	ND		0.0037	~		~
Aldrin	ND		0.0037	~		~
Heptachlor epoxide	ND		0.0037	~		~
Endosulfan I	ND		0.0037	~		~
4,4'-DDE	ND		0.0037	~		~

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 Continued on Next Page

**INTEGRATED ANALYTICAL LABORATORIES, LLC.**  
**SUMMARY REPORT**

Client: GeoTrans, Inc. - Annandale  
 Project: AT&T CLARK - 4185.007.01  
 Lab Case No.: E05-06532

PARAMETER(Units)	06532-001		06532-002	
	Conc	Q MDL	Conc	Q MDL
<b>Pesticides (mg/Kg-ppm)</b>				
Dieldrin	ND	0.0037	~	~
Endrin	ND	0.0037	~	~
Endosulfan II	ND	0.0037	~	~
4,4'-DDD	ND	0.0037	~	~
Endrin aldehyde	ND	0.0037	~	~
Endosulfan sulfate	ND	0.0037	~	~
4,4'-DDT	ND	0.0037	~	~
Endrin ketone	ND	0.0037	~	~
Methoxychlor	ND	0.0037	~	~
alpha-Chlordane	ND	0.0037	~	~
gamma-Chlordane	ND	0.0037	~	~
Toxaphene	ND	0.019	~	~
<b>Metals (mg/Kg-ppm)</b>				
Antimony	ND	1.07	~	~
Arsenic	2.05	1.07	~	~
Beryllium	ND	0.534	~	~
Cadmium	0.437	0.267	~	~
Chromium	12.4	2.13	~	~
Copper	96.8	2.13	~	~
Lead	12.9	0.534	~	~
Mercury	0.033	0.014	~	~
Nickel	8.78	1.07	~	~
Selenium	ND	2.13	~	~
Silver	5.96	0.534	~	~
Thallium	ND	0.107	~	~
Zinc	361	2.13	~	~
<b>*Formaldehyde (µg/Kg-ppb)</b>				
Formaldehyde	619	220	~	~

~ = Sample not analyzed for  
 ND = Analyzed for but Not Detected at the MDL  
 \*Subcontracted Result from Accutest

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-001

Client ID: 15F-5-5.5/5-5.5

Date Received: 06/24/2005

Date Analyzed: 06/28/2005

Data file: J5150.D

GC/MS Column: DB-624

Sample wt/vol: 0.1g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 7.60

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.271
Chloromethane	ND		0.271
Vinyl chloride	ND		0.271
Bromomethane	ND		0.271
Chloroethane	ND		0.271
Trichlorofluoromethane	ND		0.271
1,1-Dichloroethene	ND		0.271
Acetone	ND		0.541
Carbon disulfide	ND		0.271
Methylene chloride	ND		0.271
trans-1,2-Dichloroethene	ND		0.271
Methyl tert-butyl ether (MTBE)	ND		0.271
1,1-Dichloroethane	ND		0.271
cis-1,2-Dichloroethene	ND		0.271
2-Butanone (MEK)	ND		0.541
Bromochloromethane	ND		0.271
Chloroform	ND		0.271
1,1,1-Trichloroethane	ND		0.271
Carbon tetrachloride	ND		0.271
1,2-Dichloroethane (EDC)	ND		0.271
Benzene	ND		0.271
Trichloroethene	ND		0.271
1,2-Dichloropropane	ND		0.271
Bromodichloromethane	ND		0.271
cis-1,3-Dichloropropene	ND		0.271
4-Methyl-2-pentanone (MIBK)	ND		0.541

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-001

Client ID: 15F-5-5.5/5-5.5

Date Received: 06/24/2005

Date Analyzed: 06/28/2005

Data file: J5150.D

GC/MS Column: DB-624

Sample wt/vol: 0.1g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 7.60

Compound	Concentration	Q	MDL
Toluene	ND		0.271
trans-1,3-Dichloropropene	ND		0.271
1,1,2-Trichloroethane	ND		0.271
Tetrachloroethene	ND		0.271
2-Hexanone	ND		0.541
Dibromochloromethane	ND		0.271
1,2-Dibromoethane (EDB)	ND		0.271
Chlorobenzene	ND		0.271
Ethylbenzene	ND		0.271
Total Xylenes	ND		0.271
Styrene	ND		0.271
Bromoform	ND		0.271
Isopropylbenzene	ND		0.271
1,1,2,2-Tetrachloroethane	ND		0.271
1,3-Dichlorobenzene	ND		0.271
1,4-Dichlorobenzene	ND		0.271
1,2-Dichlorobenzene	ND		0.271
1,2-Dibromo-3-chloropropane	ND		0.271
1,2,4-Trichlorobenzene	ND		0.271
1,2,3-Trichlorobenzene	ND		0.271
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.271
Methyl acetate	ND		0.271
Cyclohexane	ND		0.271
Methylcyclohexane	ND		0.271

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-001  
Client ID: 15F-5-5.5/5-5.5  
Date Received: 06/24/2005  
Date Analyzed: 06/28/2005  
Date File: J5150.D

GC/MS Column: DB-624  
Sample wt/vol: 0.1g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 7.60

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-002

Client ID: TB-062405

Date Received: 06/24/2005

Date Analyzed: 06/28/2005

Data file: J5151.D

GC/MS Column: DB-624

Sample wt/vol: 0.05g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.500
Chloromethane	ND		0.500
Vinyl chloride	ND		0.500
Bromomethane	ND		0.500
Chloroethane	ND		0.500
Trichlorofluoromethane	ND		0.500
1,1-Dichloroethene	ND		0.500
Acetone	ND		1.00
Carbon disulfide	ND		0.500
Methylene chloride	ND		0.500
trans-1,2-Dichloroethene	ND		0.500
Methyl tert-butyl ether (MTBE)	ND		0.500
1,1-Dichloroethane	ND		0.500
cis-1,2-Dichloroethene	ND		0.500
2-Butanone (MEK)	ND		1.00
Bromochloromethane	ND		0.500
Chloroform	ND		0.500
1,1,1-Trichloroethane	ND		0.500
Carbon tetrachloride	ND		0.500
1,2-Dichloroethane (EDC)	ND		0.500
Benzene	ND		0.500
Trichloroethene	ND		0.500
1,2-Dichloropropane	ND		0.500
Bromodichloromethane	ND		0.500
cis-1,3-Dichloropropene	ND		0.500
4-Methyl-2-pentanone (MIBK)	ND		1.00

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-002  
 Client ID: TB-062405  
 Date Received: 06/24/2005  
 Date Analyzed: 06/28/2005  
 Data file: J5151.D

GC/MS Column: DB-624  
 Sample wt/vol: 0.05g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.500
trans-1,3-Dichloropropene	ND		0.500
1,1,2-Trichloroethane	ND		0.500
Tetrachloroethene	ND		0.500
2-Hexanone	ND		1.00
Dibromochloromethane	ND		0.500
1,2-Dibromoethane (EDB)	ND		0.500
Chlorobenzene	ND		0.500
Ethylbenzene	ND		0.500
Total Xylenes	ND		0.500
Styrene	ND		0.500
Bromoform	ND		0.500
Isopropylbenzene	ND		0.500
1,1,2,2-Tetrachloroethane	ND		0.500
1,3-Dichlorobenzene	ND		0.500
1,4-Dichlorobenzene	ND		0.500
1,2-Dichlorobenzene	ND		0.500
1,2-Dibromo-3-chloropropane	ND		0.500
1,2,4-Trichlorobenzene	ND		0.500
1,2,3-Trichlorobenzene	ND		0.500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500
Methyl acetate	ND		0.500
Cyclohexane	ND		0.500
Methylcyclohexane	ND		0.500

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-002

Client ID: TB-062405

Date Received: 06/24/2005

Date Analyzed: 06/28/2005

Date File: J5151.D

GC/MS Column: DB-624

Sample wt/vol: 0.05g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 0

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-003  
 Client ID: FB-062405  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5238.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-003  
 Client ID: FB-062405  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5238.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-003

Client ID: FB-062405

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Date File: J5238.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-004

Client ID: AQTB-062405

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Data file: J5239.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-004

Client ID: AQTB-062405

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Data file: J5239.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-004

Client ID: AQTB-062405

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Date File: J5239.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-005  
 Client ID: 15FGW-14-16/14-16  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5240.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	ND		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-005  
 Client ID: 15FGW-14-16/14-16  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5240.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	0.667		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	0.667		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-005

Client ID: 15FGW-14-16/14-16

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Date File: J5240.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-006  
 Client ID: 15FGW-26-28/26-28  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5241.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	0.822		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	4.90		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	4.05		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	99.3		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-006  
 Client ID: 15FGW-26-28/26-28  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5241.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	109		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-006

Client ID: 15FGW-26-28/26-28

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Date File: J5241.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-007  
 Client ID: 34AGW-20-23/20-23  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5242.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	ND		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	3.61		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	ND		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	11.0		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-007  
 Client ID: 34AGW-20-23/20-23  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5242.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	14.6		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-007

Client ID: 34AGW-20-23/20-23

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Date File: J5242.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-008  
 Client ID: 34AGW-25-28/25-28  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5243.D

GC/MS Column: DB-624  
 Sample wt/vol: .5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.150
Chloromethane	ND		0.260
Vinyl chloride	1.04		0.190
Bromomethane	ND		0.240
Chloroethane	ND		0.300
Trichlorofluoromethane	ND		0.120
1,1-Dichloroethene	ND		0.350
Acetone	ND		0.890
Carbon disulfide	ND		0.260
Methylene chloride	ND		1.99
trans-1,2-Dichloroethene	ND		0.260
Methyl tert-butyl ether (MTBE)	ND		0.250
1,1-Dichloroethane	ND		0.330
cis-1,2-Dichloroethene	3.27		0.310
2-Butanone (MEK)	ND		0.980
Bromochloromethane	ND		0.300
Chloroform	ND		0.260
1,1,1-Trichloroethane	ND		0.210
Carbon tetrachloride	ND		0.230
1,2-Dichloroethane (EDC)	ND		0.340
Benzene	ND		0.390
Trichloroethene	117		0.330
1,2-Dichloropropane	ND		0.320
Bromodichloromethane	ND		0.440
cis-1,3-Dichloropropene	ND		0.480
4-Methyl-2-pentanone (MIBK)	ND		0.690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-008  
 Client ID: 34AGW-25-28/25-28  
 Date Received: 06/24/2005  
 Date Analyzed: 06/29/2005  
 Data file: J5243.D

GC/MS Column: DB-624  
 Sample wt/vol: 5ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Toluene	ND		0.350
trans-1,3-Dichloropropene	ND		0.470
1,1,2-Trichloroethane	ND		0.340
Tetrachloroethene	ND		0.220
2-Hexanone	ND		0.510
Dibromochloromethane	ND		0.280
1,2-Dibromoethane (EDB)	ND		0.320
Chlorobenzene	ND		0.250
Ethylbenzene	ND		0.330
Total Xylenes	ND		1.15
Styrene	ND		0.390
Bromoform	ND		0.370
Isopropylbenzene	ND		0.350
1,1,2,2-Tetrachloroethane	ND		0.440
1,3-Dichlorobenzene	ND		0.310
1,4-Dichlorobenzene	ND		0.280
1,2-Dichlorobenzene	ND		0.380
1,2-Dibromo-3-chloropropane	ND		0.570
1,2,4-Trichlorobenzene	ND		0.690
1,2,3-Trichlorobenzene	ND		0.670
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.260
Methyl acetate	ND		0.880
Cyclohexane	ND		0.380
Methylcyclohexane	ND		0.420
Total Target Compounds:	121		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-008

Client ID: 34AGW-25-28/25-28

Date Received: 06/24/2005

Date Analyzed: 06/29/2005

Date File: J5243.D

GC/MS Column: DB-624

Sample wt/vol: 5ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-001  
 Client ID: 15F-5-5.5/5-  
 Date Received: 06/24/2005  
 Date Extracted: 06/28/2005  
 Date Analyzed: 06/29/2005  
 Data file: C1934.D

GC/MS Column: DB-5  
 Sample wt/vol: 5.00g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 7.60

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.216
Phenol	ND		0.216
bis(2-Chloroethyl)ether	ND		0.216
2-Chlorophenol	ND		0.216
2-Methylphenol	ND		0.216
bis(2-chloroisopropyl)ether	ND		0.216
4-Methylphenol	ND		0.216
N-Nitroso-di-n-propylamine	ND		0.216
Acetophenone	ND		0.216
Hexachloroethane	ND		0.216
2,6-Dimethylphenol	ND		0.216
Nitrobenzene	ND		0.216
Isophorone	ND		0.216
2-Nitrophenol	ND		0.216
2,4+2,5-Dimethylphenol	ND		0.216
bis(2-Chloroethoxy)methane	ND		0.216
2,4-Dichlorophenol	ND		0.216
Naphthalene	ND		0.216
4-Chloroaniline	ND		0.216
Hexachlorobutadiene	ND		0.216
Caprolactam	ND		0.216
4-Chloro-3-methylphenol	ND		0.216
2-Methylnaphthalene	ND		0.216
3,5-Dimethylphenol	ND		0.216
Hexachlorocyclopentadiene	ND		0.216
2,4,6-Trichlorophenol	ND		0.216
2,4,5-Trichlorophenol	ND		0.216
1-1'-Biphenyl	ND		0.216
2-Chloronaphthalene	ND		0.216
2-Nitroaniline	ND		0.216
Dimethylphthalate	ND		0.216

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-001  
 Client ID: 15F-5-5.5/5-  
 Date Received: 06/24/2005  
 Date Extracted: 06/28/2005  
 Date Analyzed: 06/29/2005  
 Data file: C1934.D

GC/MS Column: DB-5  
 Sample wt/vol: 5.00g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 7.60

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.216
Acenaphthylene	ND		0.216
3-Nitroaniline	ND		0.216
Acenaphthene	ND		0.216
2,4-Dinitrophenol	ND		0.216
4-Nitrophenol	ND		0.216
2,4-Dinitrotoluene	ND		0.216
Dibenzofuran	ND		0.216
Diethylphthalate	ND		0.216
Fluorene	ND		0.216
4-Chlorophenyl-phenylether	ND		0.216
4-Nitroaniline	ND		0.216
1,2,4,5-Tetrachlorobenzene	ND		0.216
Hydroquinone	ND		0.216
4,6-Dinitro-2-methylphenol	ND		0.216
N-Nitrosodiphenylamine	ND		0.216
4-Bromophenyl-phenylether	ND		0.216
Hexachlorobenzene	ND		0.216
Atrazine	ND		0.216
Pentachlorophenol	ND		0.216
Phenanthrene	ND		0.216
Anthracene	ND		0.216
Carbazole	ND		0.216
Di-n-butylphthalate	ND		0.216
Fluoranthene	ND		0.216
Pyrene	ND		0.216
Butylbenzylphthalate	ND		0.216
3,3'-Dichlorobenzidine	ND		0.216
Benzo[a]anthracene	ND		0.216
Chrysene	ND		0.216
bis(2-Ethylhexyl)phthalate	ND		0.216
Di-n-octylphthalate	ND		0.216
Benzo[b]fluoranthene	ND		0.216
Benzo[k]fluoranthene	ND		0.216
Benzo[a]pyrene	ND		0.216
Indeno[1,2,3-cd]pyrene	ND		0.216
Dibenz[a,h]anthracene	ND		0.216
Benzo[g,h,i]perylene	ND		0.216

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-001

Client ID: 15F-5-5.5/5-

Date Received: 06/24/2005

Date Extracted: 06/28/2005

Date Analyzed: 06/29/2005

Data file: C1934.D

GC/MS Column: DB-5

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 7.60

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-003

Client ID: FB-062405

Date Received: 06/24/2005

Date Extracted: 06/30/2005

Date Analyzed: 06/30/2005

Data file: B8026.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-003  
 Client ID: FB-062405  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8026.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-003

Client ID: FB-062405

Date Received: 06/24/2005

Date Extracted: 06/30/2005

Date Analyzed: 06/30/2005

Date File: B8026.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-005  
 Client ID: 15FGW-14-16/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8027.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-005  
 Client ID: 15FGW-14-16/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8027.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	0.538		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	0.190		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0.728

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-005

Client ID: 15FGW-14-16/

Date Received: 06/24/2005

Date Extracted: 06/30/2005

Date Analyzed: 06/30/2005

Date File: B8027.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
	Unknown hydrocarbon	4.00	5.99

Total TICs = 4.00

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-006  
 Client ID: 15FGW-26-28/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8028.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-006  
 Client ID: 15FGW-26-28/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8028.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous-µg/L (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	0.397		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	ND		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0.397

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-006

Client ID: 15FGW-26-28/

Date Received: 06/24/2005

Date Extracted: 06/30/2005

Date Analyzed: 06/30/2005

Date File: B8028.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-007  
 Client ID: 34AGW-20-23/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8029.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4+2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-007  
 Client ID: 34AGW-20-23/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8029.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	ND		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	ND		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	0.514		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 0.514

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-007

Client ID: 34AGW-20-23/

Date Received: 06/24/2005

Date Extracted: 06/30/2005

Date Analyzed: 06/30/2005

Date File: B8029.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
	Unknown hydrocarbon	4.20	6.00

Total TICs = 4.20

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-008  
 Client ID: 34AGW-25-28/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8030.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.180
Phenol	ND		0.150
bis(2-Chloroethyl)ether	ND		0.240
2-Chlorophenol	ND		0.120
2-Methylphenol	ND		0.180
bis(2-chloroisopropyl)ether	ND		0.200
4-Methylphenol	ND		0.300
N-Nitroso-di-n-propylamine	ND		0.200
Acetophenone	ND		0.230
Hexachloroethane	ND		0.190
2,6-Dimethylphenol	ND		0.310
Nitrobenzene	ND		0.250
Isophorone	ND		0.120
2-Nitrophenol	ND		0.460
2,4 + 2,5-Dimethylphenol	ND		0.220
bis(2-Chloroethoxy)methane	ND		0.120
2,4-Dichlorophenol	ND		0.210
Naphthalene	ND		0.110
4-Chloroaniline	ND		0.140
Hexachlorobutadiene	ND		0.240
Caprolactam	ND		0.380
4-Chloro-3-methylphenol	ND		0.230
2-Methylnaphthalene	ND		0.140
3,5-Dimethylphenol	ND		0.440
Hexachlorocyclopentadiene	ND		0.330
2,4,6-Trichlorophenol	ND		0.270
2,4,5-Trichlorophenol	ND		0.300
1-1'-Biphenyl	ND		0.120
2-Chloronaphthalene	ND		0.120
2-Nitroaniline	ND		0.500
Dimethylphthalate	ND		0.190

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-008  
 Client ID: 34AGW-25-28/  
 Date Received: 06/24/2005  
 Date Extracted: 06/30/2005  
 Date Analyzed: 06/30/2005  
 Data file: B8030.D

GC/MS Column: DB-5  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
 Dilution Factor: 1  
 % Moisture: 100

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.480
Acenaphthylene	ND		0.180
3-Nitroaniline	ND		0.320
Acenaphthene	ND		0.170
2,4-Dinitrophenol	ND		0.470
4-Nitrophenol	ND		0.460
2,4-Dinitrotoluene	ND		0.450
Dibenzofuran	ND		0.120
Diethylphthalate	ND		0.180
Fluorene	ND		0.180
4-Chlorophenyl-phenylether	ND		0.230
4-Nitroaniline	ND		0.380
1,2,4,5-Tetrachlorobenzene	ND		0.230
Hydroquinone	ND		0.650
4,6-Dinitro-2-methylphenol	ND		0.780
N-Nitrosodiphenylamine	ND		0.150
4-Bromophenyl-phenylether	ND		0.260
Hexachlorobenzene	ND		0.190
Atrazine	ND		0.280
Pentachlorophenol	ND		0.490
Phenanthrene	ND		0.110
Anthracene	ND		0.140
Carbazole	ND		0.170
Di-n-butylphthalate	0.218		0.160
Fluoranthene	ND		0.190
Pyrene	ND		0.140
Butylbenzylphthalate	0.469		0.310
3,3'-Dichlorobenzidine	ND		0.430
Benzo[a]anthracene	ND		0.150
Chrysene	ND		0.140
bis(2-Ethylhexyl)phthalate	0.737		0.370
Di-n-octylphthalate	ND		0.570
Benzo[b]fluoranthene	ND		0.340
Benzo[k]fluoranthene	ND		0.630
Benzo[a]pyrene	ND		0.200
Indeno[1,2,3-cd]pyrene	ND		0.510
Dibenz[a,h]anthracene	ND		0.490
Benzo[g,h,i]perylene	ND		0.310

Total Target Compounds: 1.42

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS  
Tentatively Identified Compounds

Client/Project: GEOTRANS/AT&T CLAR

Lab ID: 06532-008

Client ID: 34AGW-25-28/

Date Received: 06/24/2005

Date Extracted: 06/30/2005

Date Analyzed: 06/30/2005

Date File: B8030.D

GC/MS Column: DB-5

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>CAS #</u>	<u>Compound</u>	<u>Estimated Concentration</u>	<u>Retention Time</u>
	Unknown hydrocarbon	4.60	5.99

Total TICs = 4.60

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06532-001

Client ID: 15F-5-5.5/

Date Received: 06/24/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/27/2005

Data file: X8181.D

GC Column: NUKOL

Sample wt/vol: 10.86g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: 7.6

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		9.97
iso-Propanol	ND		9.97
Ethanol	ND		9.97
n-Propanol	ND		9.97
iso-Butanol	ND		9.97

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06532-003  
Client ID: FB-062405  
Date Received: 06/24/2005  
Date Extracted: 06/27/2005  
Date Analyzed: 06/28/2005  
Data file: X8197.D

GC Column: NUKOL  
Sample wt/vol: 20ml  
Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
Dilution Factor: 1  
% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06532-005

Client ID: 15FGW-14-16/1

Date Received: 06/24/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8198.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<u>Compound</u>	<u>Concentration</u>	<u>Q</u>	<u>MDL</u>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06532-006  
Client ID: 15FGW-26-28/2  
Date Received: 06/24/2005  
Date Extracted: 06/27/2005  
Date Analyzed: 06/28/2005  
Data file: X8199.D

GC Column: NUKOL  
Sample wt/vol: 20ml  
Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)  
Dilution Factor: 1  
% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T CL

Lab ID: 06532-007

Client ID: 34AGW-20-23/2

Date Received: 06/24/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8200.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu\text{g/L}$  (ppb)

Dilution Factor: 1

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

ALCOHOL

Client/Project: GEOTRANS/AT&T\_CL

Lab ID: 06532-008

Client ID: 34AGW-25-28/2

Date Received: 06/24/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/28/2005

Data file: X8201.D

GC Column: NUKOL

Sample wt/vol: 20ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	MDL
Methanol	ND		5000
iso-Propanol	ND		5000
Ethanol	ND		5000
n-Propanol	ND		5000
iso-Butanol	ND		5000

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06532-001  
 Client ID: 15F-5-5.5/  
 Date Received: 06/24/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/28/2005  
 Data file: P5882.D

GC Column: DB-5/DB1701P  
 Sample wt/vol: 5.85g  
 Matrix-Units: Soil-mg/Kg (ppm)  
 Dilution Factor: 1  
 % Moisture: 7.60

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.0037
beta-BHC	ND		0.0037
gamma-BHC	ND		0.0037
delta-BHC	ND		0.0037
Heptachlor	ND		0.0037
Aldrin	ND		0.0037
Heptachlor epoxide	ND		0.0037
Endosulfan I	ND		0.0037
4,4'-DDE	ND		0.0037
Dieldrin	ND		0.0037
Endrin	ND		0.0037
Endosulfan II	ND		0.0037
4,4'-DDD	ND		0.0037
Endrin aldehyde	ND		0.0037
Endosulfan sulfate	ND		0.0037
4,4'-DDT	ND		0.0037
Endrin ketone	ND		0.0037
Methoxychlor	ND		0.0037
alpha-Chlordane	ND		0.0037
gamma-Chlordane	ND		0.0037
Toxaphene	ND		0.019

**INTEGRATED ANALYTICAL LABORATORIES**

**PESTICIDES**

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06532-003  
 Client ID: FB-062405  
 Date Received: 06/24/2005  
 Date Extracted: 06/27/2005  
 Date Analyzed: 06/29/2005  
 Data file: P5915.D

GC Column: DB-5/DB1701P  
 Sample wt/vol: 1000ml  
 Matrix-Units: Aqueous-µg/L (ppb)  
 Dilution Factor: 5  
 % Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>MDL</b>
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T\_CI

Lab ID: 06532-005

Client ID: 15FGW-14-1

Date Received: 06/24/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5916.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-µg/L (ppb)

Dilution Factor: 5

% Moisture: 100

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: GEOTRANS/AT&T CI

Lab ID: 06532-006

Client ID: 15FGW-26-2

Date Received: 06/24/2005

Date Extracted: 06/27/2005

Date Analyzed: 06/29/2005

Data file: P5917.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 5

% Moisture: 100

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.010
beta-BHC	ND		0.010
gamma-BHC	ND		0.010
delta-BHC	ND		0.010
Heptachlor	ND		0.010
Aldrin	ND		0.010
Heptachlor epoxide	ND		0.010
Endosulfan I	ND		0.010
4,4'-DDE	ND		0.010
Dieldrin	ND		0.010
Endrin	ND		0.010
Endosulfan II	ND		0.010
4,4'-DDD	ND		0.010
Endrin aldehyde	ND		0.010
Endosulfan sulfate	ND		0.010
4,4'-DDT	ND		0.010
Endrin ketone	ND		0.010
Methoxychlor	ND		0.010
alpha-Chlordane	ND		0.010
gamma-Chlordane	ND		0.010
Toxaphene	ND		0.075