Remedial Investigation and

Remedial Alternatives Analysis Report

(Volume 1 of 5)

Midler City Industrial Park Site Brownfield Cleanup

City of Syracuse Onondaga County, New York

NYSDEC BROWNFIELD SITE # C734103

Prepared for Pioneer Midler Avenue, LLC

By



C&S Engineers, Inc. 499 Col. Eileen Collins Blvd. Syracuse, New York 13212

December 2007



Midler City Industrial Park Site Remedial Investigation and Remedial Alternatives Analysis Report

Table of Contents

| Section 1 - Introduction | | | |
|--------------------------|---|--|----|
| 1.1 | Purpose and Organization of the Report1 | | |
| 1.2 | 1.2 Site Background | | 2 |
| | 1.2.1 | Site Description | 2 |
| | 1.2.2 | Site History | 3 |
| | 1.2.3 | Previous Investigations | 4 |
| 1.3 | Report | Organization | 7 |
| Section 2 - | Study A | rea Investigation | 8 |
| 2.1 | Introdu | ction | 8 |
| 2.2 | Site Ch | aracterization Field Activities | 9 |
| | 2.2.1 | Preliminary Site Reconnaissance | 9 |
| | 2.2.2 | Surface Features | 9 |
| | 2.2.3 | Contaminant Source Investigation | 10 |
| | 2.2.4 | Soil and Vadose Zone Investigations | 11 |
| | 2.2 | .4.1 Summary | 11 |
| | 2.2 | .4.2 Subsurface Investigations Phase 1, November – December 2004 | 12 |
| | 2.2 | .4.3 Subsurface Investigation Phase 2, January – March 2005 | 14 |
| | 2.2 | .4.4 Subsurface Investigation Phase 3, July – February 2006 | 15 |
| | 2.2.5 | Groundwater Investigations | 16 |
| | 2.2.6 | Soil Vapor Sampling | 19 |
| Section 3 - | Physical | Characteristics of the Study Area | 20 |
| 3.1 | Surface | e Features | 20 |
| 3.2 | Surface | e Water Hydrology | 20 |
| 3.3 | Geolog | у | 21 |
| 3.4 | Hydrog | geology | 21 |



| | 3.4.1 Peat/Marl Unit | 21 | |
|-------------|---|----|--|
| | 3.4.2 Sand Unit | 22 | |
| | 3.4.3 Hydraulic Conductivity Testing | 23 | |
| 3.5 | Demography and Land Use | 24 | |
| Section 4 - | Nature and Extent of Contamination | 25 | |
| 4.1 | Surface and Subsurface Soils | | |
| 4.2 | Potential Sources of Contamination (Site Utility Sediments and Liquids) | 31 | |
| 4.3 | Groundwater | 32 | |
| 4.4 | Soil Vapor Sampling Results | 36 | |
| Section 5 - | Interim Remedial Measures | 37 | |
| Section 6 - | Post-IRM Conditions | 39 | |
| Section 7 - | Qualitative Human Health Exposure Assessment | 40 | |
| 7.1 | Contaminant Sources in Soil | 40 | |
| 7.2 | Contaminant Sources in Groundwater | 41 | |
| 7.3 | 3 Release and Transport Mechanisms (Soil and Groundwater) | | |
| 7.4 | 4 Potential Points and Routes of Exposure | | |
| 7.5 | Potential Receptor Populations | 44 | |
| 7.6 | Conclusions Regarding Exposure Pathways | 45 | |
| Section 8 - | Remedial Alternatives Analysis | 47 | |
| 8.1 | 1 Introduction | | |
| 8.2 | Remedial Goal | | |
| 8.3 | Remedial Action Objectives for Soil | | |
| 8.4 | Remedial Action Objectives for Groundwater | | |
| 8.5 | Remedial Alternatives for Soil | 51 | |
| | 8.5.1 Excavation and Off-Site Disposal | 51 | |
| | 8.5.2 In-Situ Thermal Treatment | 52 | |
| | 8.5.3 Institutional and Engineering Controls | 54 | |
| 8.6 | Potential Remedial Actions for Groundwater | 55 | |



| | 8.6.1 | In-Situ or Ex-Situ Groundwater Treatment | 55 |
|-----|--------|--|----|
| | 8.6.2 | Monitored Natural Attenuation | 57 |
| | 8.6.3 | Institutional and Engineering Controls | 60 |
| 8.7 | The "N | o Action" Alternative | 61 |
| 8.8 | Compa | rative Analyses | 62 |
| 8.9 | Conclu | sions | 62 |

Figures

| Figure 1 | Site Location Map |
|-----------|--|
| Figure 2 | Former Site Structures |
| Figure 3 | RI Site Sample Location Map |
| Figure 3B | IRM Treatment Areas and Verification Sample Locations |
| Figure 4 | Phase 1 and Phase 2 Soils VOC Data Exceeding RSCOs |
| Figure 5 | RI Soils CVOCs Data and IRM Treatment Areas |
| Figure 6 | Pre-IRM Groundwater VOC Data Exceeding Class GA Standards |
| Figure 6B | IRM and Post-IRM Groundwater VOC Data Exceeding Class GA Standards |
| Figure 7 | Groundwater Contours for December 2004 |
| Figure 8 | Groundwater Contours for February 2005 |
| Figure 9 | Groundwater Contours for April 2005 |
| Figure 10 | Groundwater Contours for May 2005 |
| Figure 11 | Groundwater Contours for July 2005 |
| Figure 12 | Groundwater Contours for October 2005 |
| Figure 13 | Groundwater Contours for May 2006 |
| Figure 14 | Groundwater Contours for August 2007 |
| Figure 15 | Cross Section Location Map |
| Figure 16 | Generalized Geologic Cross Sections |
| Figure 17 | Post-IRM Soil Data |

<u>Tables</u>

| Table 1 | Phase 1 Soil Boring Data |
|---------|---|
| Table 2 | Phase 1 Soil Data for Monitoring Wells and Geotechnical Borings |



- Table 3Phase 1 Test Pit Data
- Table 4Phase 2 Soil Boring Data for Clay Unit Wells
- Table 5Phase 2 GeoProbeTM Boring Data
- Table 6Phase 2 Soil Data from Borings within Structures
- Table 7Phase 3 Soil Boring Data for Sand Unit Wells to Till
- Table 8
 Phase 3 GeoProbeTM Boring Data for Source Area Delineation
- Table 9Phase 1 Surface Soil Data for PCBs/Pesticides
- Table 10Summary Subsurface Soils CVOCs Data
- Table 11Phase 1 Site Utility Sediment Data
- Table 12Phase 1 Site Utility Liquid Data
- Table 13Monitoring Well Depths and Screened Intervals
- Table 14Phase 1 Groundwater Data
- Table 15Phase 2 Groundwater Data for Clay Unit Monitoring Wells
- Table 16
 Phase 2 Groundwater Data for Temporary Interior Monitoring Wells
- Table 17Phase 3 Groundwater Data for Temporary Sand Unit Wells to Till
- Table 18Phase 3 Groundwater Data for Permanent Sand Unit Wells to Till
- Table 19Data for Post-IRM Conditions
- Table 20Summary Groundwater VOCs Data
- Table 21Soil Vapor Sampling Data
- Table 22MNA Indicators Data
- Table 23
 Comparative Summary of Remedial Alternatives for Soil
- Table 24
 Comparative Summary of Remedial Alternatives for Groundwater

Appendices

| Appendix A | Subsurface Investigation Logs (Bound Separately, Volume 2 of 5) |
|------------|---|
| | Environmental Boring Logs |
| | Geotechnical Boring Logs |
| | Test Pit Logs |
| | PID Logs |
| | Soil Vapor Sampling Field Logs |
| Appendix B | Historic and Supplemental Investigations (Bound with Volume 1 of 5) |



Hydraulic Conductivity Test Data
 GeoLogic Groundwater and Contaminant Flow Report
 July 2004 Preliminary Site Investigation Report
 Independent Geochemistry and Microbiology Investigations
 Appendix C Data Usability Summary Reports (DUSRs) - (Bound Separately, Volumes 3, 4

and 5 of 5)



PIONEER MIDLER AVENUE SITE

REMEDIAL INVESTIGATION AND REMEDIAL ALTERNATIVES ANALYSIS REPORT

SECTION 1 - INTRODUCTION

1.1 Purpose and Organization of the Report

This Remedial Investigation (RI) and Remedial Alternatives Analysis (RAA) Report documents efforts to characterize environmental quality at the Midler City Industrial Park Site, in the City of Syracuse, New York. This report covers work performed under the New York State Department of Environmental Conservation's (NYSDEC's) "Brownfields Program" and addresses elements, as appropriate, established within the NYSDEC's Brownfield Cleanup Program. This report covers work completed through October 2007.

Section 4 of this report documents the multi-phased Remedial Investigation, which identified the nature and extent of soil and groundwater contamination to be associated with four well-defined source areas where chlorinated volatile organic compounds (CVOCs) were present at concentrations orders of magnitude greater than were present elsewhere at the site. Those source areas were the subject of the year-long Interim Remedial Measure (IRM) which is documented in the <u>OctoOeto</u>ber 2007 *Interim Remedial Measures Report* (separate report). Section 5 summarizes the IRM and documents the removal of CVOCs from within the source areas, significantly altering the nature and extent of site soil and groundwater CVOC impacts (note that ground water continues to be monitored as discussed in a separate document, the *Remedial Work Plan*). Section 6 of this report then discusses post-IRM conditions at the site, which are the basis of subsequent evaluations associated with human health (Section 7) and the remedial alternatives analysis (Section 8).



1.2 Site Background

The following sections provide background information associated with the site, including a description of the site, the history of the site, and a summary of previous investigations or remedial actions undertaken.

1.2.1 Site Description

The Midler City Industrial Park Site is approximately 22 acres and is located in the eastern portion of the City of Syracuse, as shown on Figure 1. The site was developed as an industrial facility in the late nineteenth century and was utilized as such through the mid-twentieth century. The Midler City Industrial Park Site is relatively flat and is bounded as follows:

- To the north by Interstate Route 690;
- To the east by property reportedly held by Sutton Investing Corporation and currently being for mulching/landscaping operation;
- To the south by property owned by CSX Transportation; and
- To the west by Midler Avenue.

Review of United States Geological Survey (USGS) mapping shows that the site lies at an elevation of approximately 410 feet above mean sea level and is located approximately 800 feet north of the former Erie Canal (now Erie Boulevard) and three miles east of Onondaga Creek. Surface drainage in the area is controlled via storm water structures, with the majority of flow toward the west, where subtle sloping topography would result in discharge to Onondaga Creek, which discharges to Lake Ontario via the Seneca/Oswego River system.

According to United States Department of Agriculture - Soil Conservation Service Soil Survey mapping for Onondaga County, the soils in the vicinity of the site are classified as "Cut and Fill Land". These soils have moderate to poor permeability and are characterized by seasonal high water tables. Review of surficial geologic mapping prepared by the New York State Geological Survey indicates that unconsolidated soils in the vicinity of the site consist of lacustrine silt and



clay. Consistent with the topographic setting of the site, shallow groundwater flow in the area of the site would be expected to flow across the site generally from north to south.

Regional bedrock geologic mapping indicates that bedrock underlying the site consists of the Camillus and Syracuse formations of shale, doelostone, gypsum, or salts, generally present at depths of greater than 100 feet. Groundwater within the deeper bedrock generally occurs within fractures, joint sets, and bedding planes.

Residents in the area of the site receive their domestic water from municipal service connections supplied by the City of Syracuse. The source of the municipal water supply is surface water from Lakes Skaneateles and Ontario.

1.2.2 Site History

The early history of the site was characterized by its use as an industrial site and its proximity to transportation infrastructure (railroads and previously, the Erie Canal). Former tenants of note include *Pierce, Butler, & Pierce Manufacturing Company*, a producer of heavy iron wares (boilers, radiators, piping, etc.) and *Prosperity Company*, a producer of laundry and dry cleaning equipment. Since being acquired in 1961 by Sutton Investing Company, the buildings had been utilized as general storage/operations (warehouse) rental space. The nature of these tenants was varied and included the following:

- Auto dealer storage of new and used vehicles
- Electrical contractor
- Landscape contractor
- Rack/storage/pallet system vendor
- Hardwood/plywood storage
- General contractors

Figure 2 identifies the major site structures as they existed at the beginning of the Remedial Investigation. Concurrent with the RI, Pioneer Midler Avenue, LLC proceeded with the



demolition of buildings and structures as well as redevelopment of the site into a multi-tenant commercial property, anchored by a major home improvement chain store. An October 2007 *Demolition Closure Report*, including details regarding incidents associated with subsurface conditions (i.e., encounters with unanticipated subsurface structures), will be submitted under separate cover. Redevelopment of the site is well underway and various components are scheduled for completion in late 2007.

1.2.3 Previous Investigations

A Phase I Environmental Site Assessment (ESA) was completed by C&S for the Midler City Industrial Park Site in 1994. That ESA concluded that evidence of recognized environmental conditions existed within numerous areas at the site. In particular:

- Thirteen areas were identified as having the potential for petroleum contamination due to leakage or spillage;
- Four areas were associated with general debris disposal including ashes/cinders;
- Six areas were identified as having the potential for chemical contamination due to container leakage or spillage;
- Five areas were identified as having the potential for contamination associated with electrical transformer dielectric fluids; and
- Evidence of asbestos-containing materials was also observed at several locations on the site.

Prior to submitting the BCP application, Pioneer Midler, LLC undertook a preliminary investigation in July 2004 (Appendix B). The objective of that investigation was to assess specific areas of the Site that were identified in the 1994 Phase I ESA. The areas of interest for the July 2004 investigation included:

- The former pond;
- The former C&D fill area;
- Area Q former location of a 12,000 gallon fuel oil underground storage tank (UST);
- Area S former location of four partially buried fuel oil storage tanks ranging in size from 900 gallons to 20,000 gallons; and



• Existing electrical powerhouse and maintenance building.

The former pond and C&D areas as well as Area Q and Area S were investigated by making a series of test trench explorations with a track mounted excavator. At the electrical powerhouse, wipe samples were obtained for laboratory analysis to assess the presence or absence of polychlorinated biphenyls (PCBs). In addition to the test pit explorations made to assess specific environmental areas of potential concern, three additional trenches were made along the western boundary of the site. Those excavations were dug to assess shallow groundwater levels in the location where stormwater retention basins have been proposed for the future site development.

Documentation of field observations and analytical laboratory results was presented in a letter report (included in Appendix B to this Report) prepared by C&S Engineers, Inc. for Pioneer Midler Avenue, LLC. The following is a summary of findings relative to the July 2004 investigation.

Former Pond Area

- Ground surface to four feet below grade consisted of soil intermixed with scrap wood, foundry sand, bricks, asphalt, concrete, a cast iron sink, and discarded metal cans.
- 3.5 to 5.5 feet below grade, silty clay, marl, and peat were found.
- Laboratory analysis of two samples for PCBs and volatile organic compounds (VOCs) did not detect the presence of these compounds.

Former C&D Fill Area

- Ground surface to three feet below grade was fill material which did not exhibit discoloration, staining, or odors.
- Below three feet were foundry sands, slag, glass, scrap wood, metal, concrete, asphalt, and tar.
- Six feet below grade, white marl was encountered with peat above.
- Conventional headspace analysis performed in the field revealed the presence of volatile



organic vapors in one test trench.

 Laboratory analysis of samples taken from this area indicated the presence of acetone, 2butanone, and tetrachloroethene. The tetrachloroethene was reported at a concentration of 160 μg/kg.

Area Q – Former 12,000 Gallon UST Location

- Foundry sand, slag, and marble stone fragments were encountered.
- No evidence of a UST was found.
- No physical evidence of staining or discoloration was detected. A petroleum odor was noted in the shallow soils of the boring.
- No samples for laboratory analysis were obtained.

Area S – *Former Location of Four Partially Buried Tanks*

- Foundry sand and slag were observed.
- No physical evidence of a UST was found.
- No volatile organic vapors, stained soil, or sheens were detected.

Electrical Powerhouse

• Wipe samples of surfaces within the Electrical Powerhouse revealed the presence of Aroclor 1260 at 5.5 μ g/100 cm² on the floor and 1.3 μ g/100 cm² on the front of one of the transformers.

West Area Trenches

- Fill materials consisting of slag, foundry sand, rocks, and a sand/silt mixture were found to a depth of approximately six feet below grade.
- Marl was encountered at depths ranging from three feet to ten feet below ground surface.
- No samples for laboratory analysis were obtained.



1.3 Report Organization

This RI Report utilizes the general format recommended in *Draft DER-10, Technical Guidance for Site Investigation and Remediation*. In order to provide a stand-alone document capable of identifying appropriate site remedial actions, the results of the RI, the Interim Remedial Measures, and of the previous investigative activities are included.

Tasks conducted as part of this RI were performed consistent with the NYSDEC's *Draft DER-*10, Technical Guidance for Site Investigation and Remediation and the NYSDEC's Draft Brownfield Cleanup Program Guide.



SECTION 2 - STUDY AREA INVESTIGATION

2.1 Introduction

This Section documents the activities undertaken during this Brownfields Investigation to evaluate the existence and extent of impacts to the Midler City Industrial Park Site from past industrial activities and waste management practices.

The initial round of RI activities was conducted from November 11, 2004 through November 29, 2004, during which eighteen soil borings, eight monitoring well installations, test pit excavations, and utility sediment/liquid sampling programs were conducted. During the week of January 24, 2005, six additional borings were made and completed as deeper interval monitoring wells. In March 2005, sixteen GeoProbe[™] borings were made to delineate a chlorinated hydrocarbon impacted area east of Building 7, and seven borings completed as temporary monitoring wells were installed at locations inside site structures. In July 2005, four GeoProbe[™] exploratory wells were made to investigate groundwater within the sand unit at the top of till. In late 2005 and early 2006, four permanent monitoring wells were installed within the sand at the top of till and sixty-nine GeoProbe[™] borings were made to delineate potential source areas that had been identified during the previous work phases. An additional 54 borings were made during March and April 2006 to complete the delineation of the four source areas. Copies of boring logs, well installation logs, photoionization screening data, and other supporting data are provided in the various appendices to this report.

During the first phase of the investigation, C&S also provided an environmental monitor to observe the geotechnical drilling effort and the geotechnical test-pit excavation effort at the site, both of which were conducted concurrently with the RI. The geotechnical borings utilized continuous sampling methods for the initial twenty feet below the ground surface, during which each split-spoon sample was examined and headspace screened utilizing a PID; samples were selected from five geotechnical borings for laboratory analysis. Soil samples from six test pit locations were also submitted for laboratory analysis.



The NYSDEC-approved site Interim Remedial Measure (IRM), completed in October 2007, successfully removed chlorinated volatile organic compounds (CVOCs) from the source areas. The term *chlorinated volatile organic compounds*, as used in this report, refers to the suite of compounds made up of tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride (VC), cis-1,2-dichloroethene (cis-DCE), and trans-1,2-dichloroethene (trans-DCE).

The October 2007 *Interim Remedial Measures Report,* submitted under separate cover, documents the verification sampling program, consisting of soil borings at 59 locations to specified depths, associated sampling, and laboratory analysis for CVOCs. Section 5 of this report discusses the IRM.

2.2 Site Characterization Field Activities

This Section summarizes the field activities undertaken to characterize the site.

2.2.1 Preliminary Site Reconnaissance

The layout of the Midler City Industrial Park Site property is shown in Figure 2. The preliminary site reconnaissance consisted of reviewing historical documents from the Phase I ESA and physically orienting the areas of concern identified therein. A room-to-room walkthrough was conducted for site buildings to confirm or clarify historical information. Site utility maps were reviewed and accessible manhole/catch basin covers were removed in an effort to assess the orientation and construction of penetrations and connecting pipelines.

2.2.2 Surface Features

Site structures and utilities are the relevant surface features with respect to the investigation of the presence and migration of chemical constituents, or that may affect future uses of the site. Outside of the site structures, stored equipment of varied condition was scattered somewhat randomly around the eastern portion of the site. A deteriorated perimeter fence surrounded the site. There were entry gates at the western boundary of the site (off Midler Avenue).



There was no observed evidence of specific areas external to the buildings where the condition of surface features (e.g., stained soil or dead vegetation) indicated a recognized environmental condition. One existing tenant in Building 13 had oily equipment stored outside. Accumulated debris and extreme building deterioration (to the point where entry to some areas was not safe) precluded thorough physical inspection of Building 11; however, historical information suggested no concerns.

2.2.3 Contaminant Source Investigation

The contaminant source investigation focused on areas associated with past use of industrial chemicals, as indicated by the Phase I ESA and the previous site investigations. As part of the comprehensive site investigation, sediment and/or liquid samples were collected from subsurface utility locations (see Figure 3), as described in the following table:

| Sediment and/or Liquid Sample from Utility Location | Location/Area of Concern |
|---|--|
| S-1, S-2, S-3 | Stormwater catch basins |
| S4 | Sump in southeast corner of "Compressor Room" |
| S–5 | Trench drain |
| S–6, S–7 | Stormwater catch basins in alley |
| S8 | Diamond plate covered trench east of the overhead door. |
| S–9 | Diamond plate covered trench and sump in former "Plating Building" as shown on 1960 mapping. |
| S-10 | Sump in "Building 9" |
| S-11 | Main storm sewer south of "Building 13" |
| S-12 | Trench in western portion of "Building 3". |



2.2.4 Soil and Vadose Zone Investigations

2.2.4.1 Summary

During the multiple investigation and IRM phases at the site, more than 300 hollow-stem auger or direct push soil borings were completed, with 32 being completed as permanent or temporary groundwater monitoring wells. Eighteen borings were completed during the initial phase of investigative activities (including eight completed as monitoring wells above the clay layer), six borings (all completed as monitoring wells to the top of the clay unit) were completed during the second phase, seven interior borings with temporary monitoring wells were also installed during the second phase, along with four deep borings (all completed as temporary monitoring wells) followed by installation of four permanent deep wells. The following additional activities were undertaken to assess soil and vadose zone conditions at the site:

- C&S observed continuous sampling and recorded PID measurements for the top twenty feet at each of the 36 geotechnical borings at the site. Five geotechnical soil boring locations (PB3, PB4, PB7, PB12, and LB8) were also sampled for laboratory analysis.
- Sixteen GeoProbe[™] explorations were conducted in March 2005 to delineate the chlorinated hydrocarbon plume in the area around Phase 1 soil boring B-3.
- Three surface soil samples and six test pit samples were collected at locations designated based on their proximity to activities or structures associated with suspect environmental conditions.
- 123 additional GeoProbe[™] borings were completed in late 2005 and early 2006 to complete delineation of the four source areas.
- GeoProbe[™] borings for 59 IRM verification sample locations were made during the period from March 2007 through September 2007. Many of those locations were bored and sampled on multiple occasions.

Figure 3 provides the locations for all site soil borings, test pits, and surface soil samples, and monitoring wells.



Depending on accessibility of a particular boring location, the drilling equipment was either mounted on a truck or a custom-fabricated unit made for interior buildings or small space applications. Drilling spoils created at each borehole (except those completed as groundwater monitoring wells) were placed into the borehole of origin as backfill. Excess spoils including those generated at boreholes completed as groundwater monitoring wells were placed in 55-gallon drums for subsequent disposal.

Each borehole made by rotary drilling methods was sampled continuously (i.e., split spoons) in accordance with ASTM D1586-99. Retrieved soil samples were visually examined to assess subsurface conditions and physical properties of the strata. These properties included: color, moisture content, and visual evidence of discoloration or sheens. Additionally, representative soil samples were field screened for evidence of volatile organic vapors via conventional headspace analysis techniques using a photoionization detector (PID) equipped with a 10.6 eV lamp.

During the initial two phases of work, a minimum of one soil sample from each of the borings was collected for laboratory analysis. The sampling interval was determined in the field based on visual examination of the samples and the results of PID screening. In the absence of evidence of contamination, samples were retrieved from just above the water table. Analysis of the soil samples was for the Superfund Target Compound List (TCL) of parameters as specified in Exhibit C of the NYSDEC ASP.

2.2.4.2 Subsurface Investigations Phase 1, November – December 2004

The following table describes the locations for the Phase 1 environmental soil borings.

| Soil Boring | Location/Area of Concern |
|-------------|--|
| B-1 | Area previously identified in the 1994 Phase I ESA as the locations of an oil tank (1930 mapping) and an 8,000 gallon oil tank (1960 mapping). |



| Soil Boring | Location/Area of Concern |
|----------------------------------|---|
| В–2 | Former "Spray Oven and Dip Tank Degreaser" as shown on the 1960 mapping. |
| В-3 | Former "Paint House" as shown on the 1960 mapping. |
| B-4 | Interior courtyard area. 1960 mapping shows plating room was situated immediately south of courtyard. |
| В–5 | Area previously identified in the 1994 Phase I ESA as being the location of "Paint Storage" as shown on the 1960 mapping. |
| B6 | Area previously identified in the Phase I ESA as the location of a 12,000 gallon fuel oil tank as shown on the 1960 mapping. This area was also investigated by test pit explorations in July 2004. |
| B–7, B–8, B–9 | Fill area previously identified in 1994 Phase I ESA. This area was also investigated by test trench explorations in July 2004. VOC's detected. |
| B–10 | Plating Building as shown on the 1960 mapping. |
| PB3, PB4, PB7, PB12, LB-8. | Samples collected from geotechnical borings. |

Surface soil samples P-1 through P-3 (see Figure 3) were composite samples for PCB analysis, collected as part of the Phase 1 investigation from the following areas potentially associated with past use, storage or disposal of electrical transformers.

| Surface Soil / Sediment for PCBs Only | Location/Area of Concern |
|--|---|
| P-1 | Area Y, previously identified in the 1994 Phase I ESA as the location of "Transformer Poles". |
| P-2 | Area W - former transformer area. |
| Р-3 | Existing exterior electrical transformer yard. |

A fourth planned surface soil sampling location was not sampled as there was no solid media within the vault. Liquid sample IL-3 was collected at that location.



The following six test pit soil samples were collected for laboratory analysis from the thirteen test pits (see Appendix A for test pit logs):

| Test Pits | Location/Area of Concern | |
|-----------|---|--|
| TP-4 | Geotechnical test pit location selected for sampling based on observation of fuel oil emanating from the north (from under adjacent building) | |
| TP-5 | Geotechnical test pit location selected for sampling based on presence of a sheen on the water entering the test pit at approximately four feet below the ground surface. | |
| TP-7 | Area previously identified in the 1994 Phase I ESA as the location of an aboveground fuel oil tank, as shown on the 1930 mapping. | |
| TP-12 | Area previously identified in the Phase I ESA as being the location of two 500-gallon skid mounted tanks. One tank was labeled as gasoline and the other "Diesel Off Road." | |
| TP-13 | Area previously identified in the 1994 Phase I ESA as being the location of "Open Incinerators" as shown on the 1960 mapping. | |
| TP -14 | Area previously identified as the location of an underground storage tank. | |

2.2.4.3 Subsurface Investigation Phase 2, January – March 2005

Six additional Phase 2 borings into the deeper portion of the shallow aquifer above the clay layer were installed in January 2005 for completion as monitoring wells. Three of the six locations (MW-2D, MW-3D, and MW-4D) were selected as companion wells for Phase 1 installations, two of the six (MW-9D and MW-10D) were placed along the southern site boundary, and the final deeper well (MW-11D) was placed near Phase 1 boring B-3 where significant chlorinated hydrocarbons had been detected. The deeper borings were installed to determine soil quality, groundwater flow characteristics, and groundwater quality within that portion of the aquifer directly above the clay unit.

Sixteen GeoProbe[™] soil explorations were performed as part of the Phase 2 investigation in March 2005 to:



- Delineate the chlorinated hydrocarbon plume identified at soil boring B-3 during the first phase of borings; and
- Verify the existence and depth to the top of the clay unit identified during the Phase 1 borings.

PID measurements and soil classifications were made at each of the GeoProbe[™] locations and samples were selected for laboratory analysis based on those observations.

Also in March 2005, seven additional Phase 2 borings completed as temporary groundwater monitoring wells (locations identified with "SB" prefix on Figure 3) were installed at locations within site structures. These locations were selected based on historical information with the objective to:

- Investigate interior areas to determine source areas with respect to the chlorinated hydrocarbon impacts identified during the Phase 1 investigative activities;
- Delineate the chlorinated hydrocarbon plume within the sub-structure areas; and
- Verify the existence and depth to the top of the clay unit in sub-structure locations.

The interior soil boring locations were selected based on knowledge of previous activities in an area or on evidence of surface modifications, such as patched concrete, that may indicate removal of process equipment.

2.2.4.4 Subsurface Investigation Phase 3, July – February 2006

In July 2005, an investigation of the deep soils and aquifer was initiated. Four direct push borings (DW-1, DW-2, DW-3, and DW-4) were advanced to the top of the glacial till unit, with continuous sampling conducted from the top of the clay unit. Soil samples were collected consistent with the selection criteria developed during the Phase 1 and 2 installations. GeoProbe[™] discreet interval sampling tools were utilized to assess the presence or absence of dissolved phase VOCs and dense non-aqueous phase liquids within the sandy strata which lie



above the till. Permanent monitoring wells were installed at three of the four locations (DW-1, DW-2, and DW-3) in September 2005.

The final Phase 3 investigative activities completed in late 2005 and early 2006 included installation of an additional 123 GeoProbeTM soil explorations within the areas surrounding B-1 and B-5, MW-3D and north of B-3, to determine areal and vertical extent of impacted soils associated with the potential VOC source areas identified from the Phase 1 and Phase 2 investigation results.

2.2.5 Groundwater Investigations

Monitoring wells MW-1 through MW-8 were installed during the first round of RI activities at areas of interest. The locations were selected in agreement with NYSDEC preferences.

| Monitoring | Location/Area of Concern |
|------------|--|
| Well | |
| | Area previously identified in the 1994 Phase I ESA. Former |
| | location of a 500 gallon fuel oil tank as shown on the 1960 mapping. |
| MW–2 | Perimeter monitoring well location. |
| MANY 2 | Area previously identified in the 1994 Phase I ESA as the location |
| IVI W-3 | of a drum storage area and stained soil. |
| | Area previously identified in the 1994 Phase I ESA as the location |
| M W-4 | of 55-gallon drums of flammable liquid in 1960. |
| | This well is to assess groundwater quality in the vicinity of the |
| | following areas identified in the 1994 Phase I ESA: |
| | Paint storage (1960 mapping) |
| MAN 5 | Lacquer and thinner storage (1960 mapping) |
| IVI W-3 | Electrical transformer storage observed in 1994 |
| | Previously identified ash/cinder debris. |
| | Storage of containers holding roof tar, epoxy paint, and |
| | concrete additives as observed in 1994. |
| | This monitoring well has been placed adjacent to C&D fill area |
| | identified in the 1994 Phase I ESA. In addition, it will used to |
| IVI W-0 | monitor the presence of tetrachloroethene that was detected during |
| | the July 2004 investigation. |



| MW–7 | Area previously identified in the 1994 Phase I ESA as being the | | |
|------|--|--|--|
| | location of storage tanks situated on the ground surface. The origin | | |
| | of these tanks was suspected to be Area S. This is also a perimeter | | |
| | well and adjacent to the previously described C&D fill area. | | |
| | Additionally, the 1960 mapping shows this area as the location of a | | |
| | 275 gallon fuel oil aboveground storage tank (AST). | | |
| MW–8 | Perimeter well and assessment of area previously identified in the | | |
| | 1994 Phase I ESA as the location of electrical transformers (1960 | | |
| | mapping). The 1960 mapping also shows a "Dip Tank" at the | | |
| | interior northwest corner of the current day "Building No. 2." | | |

Consistent with the RI work plan, monitoring wells MW-1 through MW-8 were constructed with the screened interval straddling the water table.

After assessing the analytical results and field PID logs for the initial borings and monitoring wells, it was observed that impacts from chlorinated hydrocarbons appeared to be present at the site at depths below the level designated for the screened interval within the first eight monitoring wells. Specifically, the VOCs data for boring B-3 (14 ft. to 16 ft. below the ground surface), PID measurements from soil borings in the southern portion of the site, and the observed direction of groundwater flow across the site, indicated the possible presence of VOCs at depths from fourteen feet below the ground surface to the depth where a clay unit was encountered. To provide additional data regarding the presence of the clay unit, six Phase 2 monitoring wells were installed. These additional wells were screened across a deeper interval of the shallow aquifer than the Phase 1 monitoring wells, and were located as follows:

- MW-2D, MW-3D, and MW-4D were installed as "companion" wells to downgradient monitoring wells MW-2, MW-3, and MW-4, respectively.
- MW-11D was installed adjacent to boring B-3.
- MW-9D and MW-10D were installed within the City of Syracuse property immediately south of the site. In the east/west direction, the locations of MW-9D and MW-10D were selected to provide more complete data for soil and water quality along the downgradient (southern) site boundary.



Seven Phase 2 temporary monitoring wells were installed at locations ("SB" prefix) inside site structures during March 2005 to provide additional data characterizing conditions beneath the structures, to assist in delineating the chlorinated hydrocarbon plume identified immediately east of the structures, and to enhance the understanding of site groundwater flow patterns.

In the third phase of the RI (July 2005), four temporary deep "monitoring wells" ("DW" prefix) were installed to investigate groundwater quality within the sand unit(s) located directly above the glacial till in the south central portion of the site. After advancing a casing into a sand unit, groundwater was purged, the sampler inserted, and a sample collected utilizing a GeoProbeTM SP15 stainless steel groundwater sampling device. If more than one distinct sand unit was identified in the zone above the till, the process was repeated for each sand unit, resulting in multiple samples at some locations. The groundwater samples from this phase were analyzed for TCL VOCs. At the request of the NYSDEC, the samples were also analyzed for total chloride content to assist in establishing whether the overburden groundwater at the site, irrespective of VOC contamination, could potentially be an acceptable drinking water source.

Permanent deep monitoring wells (designated as "DAW" on Figure 3) were installed near the four temporary deep well locations (DW-1 through DW-4) as part of the Phase 3 work. These deep wells were installed by advancing an outer casing into the clay unit, and grouting in an inner casing through which the boring into the deeper aquifer was advanced. The monitoring wells were terminated at the top of the glacial till unit and screened to target the sand unit at the top of till. After installation, the deep wells were developed and sampled for VOCs and total chlorides.

During the latter stages of the RI, the following two additional monitoring wells were installed at the request of NYSDEC:

• MW-12D and MW-12DR, PVC and stainless steel monitoring wells, respectively, located in the "B-3" IRM treatment area and screened across the bottom of the peat/marl



unit (MW-12D was a replacement well for MW-11D and MW-12DR was a replacement well for MW-12); and

• MW-13D, located immediately south of the "MW-3D" IRM treatment area and screened across the bottom of the peat/marl unit.

In May 2006, concurrent with the sampling of the "DAW' series wells, another round of sampling was also conducted for the remaining shallow overburden wells: MW-1, MW-2, MW-2D, MW-3, MW-3D, MW-4, MW-4D, MW-6, MW-7, MW-8, MW-9D, MW-10D, MW-12D, and MW-13D.

In April and July 2007, samples for VOCs analysis were collected from monitoring well MW-13D and in August 2007 a final round of RI groundwater sampling was conducted for the eight remaining site wells: MW-2, MW-2D, MW-7, MW-8, MW-9D, MW-10D, MW-12D, and MW-13D.

2.2.6 Soil Vapor Sampling

At the request of NYSDEC and the New York State Department of Health (NYSDOH), a soil vapor sampling and analysis effort was added to the RI work plan in February 2006. The February 2006 *Soil Vapor Sampling Work Plan* was developed consistent with NYSDOH's February 2005 Public Comment Draft *Guidance for Evaluating Soil Vapor Intrusion in New York State*. The work plan specified installation of ten temporary soil vapor probes with associated subsequent sampling for VOCs. The soil vapor probe installations and sampling were conducted on April 19-20, 2006. Soil vapor sampling locations ("SV" prefix) are shown on Figure 3.



SECTION 3 - PHYSICAL CHARACTERISTICS OF THE STUDY AREA

This Section provides the results of the field activities that were conducted to determine the physical characteristics of the site.

3.1 Surface Features

Figure 2 shows the locations of the structures that were present at the site when the project began. Structures occupied most of the central portion of the site from the northern site boundary nearly to the southern site boundary. There were limited natural features at the site: a landscaped area with several mature trees were present in the western portion of the site (within the perimeter) fence. Outside the perimeter fence to the west was an open area (paved or soil covered) that had been used for parking by a local automobile dealer. East of the buildings, open areas, sparsely vegetated or unevenly surfaced, were present. These areas were apparently associated with storage of surplus or idle equipment and supplies and may have been utilized as "fill areas" over the years of facility operation.

Structural Integrity Assessment

Based on the redevelopment plans for the site, all existing structures were demolished. Therefore, a structural integrity assessment was not included in the scope of the RI.

3.2 Surface Water Hydrology

There were no surface water bodies at the site. Stormwater at the site apparently infiltrated permeable surfaces or was conveyed overland via low-permeability surfaces. Storm sewers west of the site structures appeared to convey stormwater towards Midler Avenue. South of the former buildings, a main trunk storm sewer runs east to west along the southern site boundary, receiving inflow from within the facility. Ground surface elevations prior to site work indicated that site storm sewers likely converge with regional storm water drainage along Midler Avenue where they would flow southward to Erie Boulevard.



3.3 Geology

Regional bedrock geologic mapping indicates that bedrock underlying the site consists of the Camillus and Syracuse formations of shale, dolostone, gypsum, or salts, generally present at depths of greater than 100 feet. These formations were not encountered at the terminal depth of site borings associated with the RI. Based on those depths, the affect of these deposits on the fate and transport of site constituents is assumed to be insignificant.

3.4 Hydrogeology

The unconsolidated deposits at the Midler site consist of surficial fill, peat/marl, clay, sand, and glacier till. The peat/marl unit and the deeper sand unit are the main water-bearing units at the Midler site.

3.4.1 Peat/Marl Unit

Figures 7 through 14 provide groundwater contours for the site for eight gauging events between December 2004 and August 2007. The well gauging data are provided in Table 13. The groundwater contours were developed from groundwater surface elevations (measured at RI monitoring wells) utilizing a kriging routine within the proprietary modeling software *Surfer8*TM. Assessment of the contours indicates:

- A generally southward flow of overburden groundwater at the site, with minor eastward and westward variations noted for the separate gauging events.
- No significant changes as additional monitoring wells, screened across deeper intervals within the subsurface, were installed and added to the data base.
- No significant changes if data from monitoring wells screened only across similar depth intervals were utilized to infer contours.

The preceding assessment indicates the presence of a relatively shallow, locally heterogeneous, hydrologic unit beneath the site, exhibiting an interpreted overburden groundwater surface that gently slopes to the south at a gradient of between 0.006 ft./ft. (as calculated between Phase 1



monitoring wells MW-8 and MW-3) and 0.0122 ft/ft (calculated average gradient for the four wells investigated by GeoLogic of Homer, NY [Appendix A]). The orientation of the groundwater surface is consistent with a slow southerly groundwater flow toward the location of the former Erie Canal, currently Eire Boulevard, a highly developed corridor which includes commercial, retail, light industrial, and other contaminated sites.

3.4.2 Sand Unit

The Phase 3 GeoProbe[™] explorations ("DW" prefix on Figure 3) and permanent monitoring well installations ("DAW" prefix) were installed to assess conditions within generally more granular strata (just above the top of the glacial till unit – refer to boring logs), at depths ranging from 35.8 feet to 56.5 feet below the ground surface.

Groundwater samples from the DW series of temporary wells were collected from discreet intervals within each borehole casing utilizing a GeoProbe[™] SP15 stainless steel groundwater sampling device. After sampling the groundwater from the terminal depth, the sampling device was removed from the casing and groundwater recovery at each location was tracked over time, utilizing measurements obtained by an electronic water level indicator. With the exception of temporary monitoring well DW-3, those measurements indicated recovery to levels similar to the static groundwater levels present in the shallower site wells. At DW-3, an "overpressure" condition was identified.

After installation, the permanent deep wells (DAW-1 through DAW -4) were purged by pumping with a peristaltic pump to establish natural groundwater conditions within the deeper strata. The permanent deep wells were developed and sampled consistent with the methods set forth in the work plan for those installations. Groundwater elevation data for these monitoring wells corroborated the data observed within the DW series wells, including the "overpressure" condition observed at DAW-3, which was estimated via measurement within a temporarily extended riser to be approximately 1.8 ft. As indicated on Figure IRM-2 in the Geologic NY, Inc. July 3, 2006 hydrogeology report (see Appendix B of this report), the groundwater



elevations taken in the sand unit wells "suggest radial flow towards a trough in the center of the site with groundwater discharging to the east."

3.4.3 Hydraulic Conductivity Testing

In October 2005, C&S conducted hydraulic conductivity testing at four site monitoring wells. The hydraulic conductivity testing was conducted to provide permeability information for specific locations and to allow estimation of groundwater flow rates within the overburden at the site. Rising head slug tests were conducted at monitoring wells MW-3D, MW-9D, MW-10D, and MW-11D. Well recovery data were logged utilizing a *Hermit*TM *Data Logger* and analyzed using the Bouwer-Rice method in the software program *Aquifer Test for Windows*", version 2.57. The raw data and graphs resulting from the reduction of that data are provided in Appendix B. The resulting hydraulic conductivities for the four wells are provided below.

| Monitoring Well ID | Hydraulic Conductivity (cm/sec) |
|--------------------|---------------------------------|
| MW-3D | 2.01 x 10 ⁻⁵ |
| MW-9D | 3.28×10^{-5} |
| MW-10D | 3.74 x 10 ⁻⁵ |
| MW-11D | 4.78 x 10 ⁻⁶ |

Calculated from the above four tests, the average hydraulic conductivity for the site would be 2.38×10^{-5} cm/sec (4.69 x 10^{-5} ft/min).

In May 2006, GeoLogic conducted an independent investigation of the hydrogeological characteristics of the site, including rising and falling head hydraulic conductivity testing at four monitoring wells (MW-3D, MW-9D, MW-10D, and MW-12D). The GeoLogic report, provided in Appendix A, calculated an average hydraulic conductivity of 1.4×10^{-4} cm/sec for the locations investigated, along with a north to south direction of flow along a horizontal hydraulic gradient of 0.0122 ft/ft. The Geologic assessment estimated a groundwater velocity of 4.4 feet per year, and the following CVOC velocities:

- 3.1×10^{-2} feet per year for PCE;
- $1.0 \ge 10^{-1}$ feet per year for TCE;



- 1.0×10^{-1} feet per year for dichloroethenes (undifferentiated isomers); and
- 4.4×10^{-1} feet per year for vinyl chloride.

C&S performed a similar evaluation utilizing a range of Total Organic Carbon (TOC) values instead of an average value. Twelve subsurface soil samples were analyzed for TOC. The range of data for these twelve samples was 3.6% to 49.8% TOC, with an average of 10.80. Consistent with the Geologic report, and because of the high standard deviation, the low and high values were dropped resulting in a new range of 3.5% to 19.6% with an average of 8.0. The table below shows CVOC velocities for the different (minimum, mean, maximum) TOC concentrations.

| Parameter | CVOC velocity in feet/year | | | |
|-----------|----------------------------|----------------------|-----------------------|--|
| | Low (TOC = 3.5%) | Mean (TOC = 8.0%) | High (TOC = 19.6%) | |
| PCE | 0.07 | 0.03 | 0.01 | |
| TCE | 0.23 | 0.10 | 0.04 | |
| DCEs | 0.24 | 0.11 | 0.04 | |
| VC | 0.86 | 0.44 | 0.18 | |

3.5 Demography and Land Use

Based on available documentation, land use near the site has been primarily industrial and commercial in nature since the late nineteenth century. Although industrial activity in the area has declined in recent years, the area is likely to maintain a commercial character due to the proximity of Interstate Route 690 and Erie Boulevard. Urban residential areas to the north and south of the site (both of which are at higher elevations than the site), and access via I-690 from suburban areas would appear to indicate a continued strong commercial viability for the area.



SECTION 4 - NATURE AND EXTENT OF CONTAMINATION

This section discusses the results of the RI sampling with respect to the nature and extent of contamination of environmental media.

4.1 Surface and Subsurface Soils

More than 300 environmental borings, geotechnical borings, probes, test pits, and surface soil samplings were conducted at the site including, as follows:

- Soil samples from more than 200 environmental borings and 5 geotechnical borings were submitted for laboratory analysis.
- Soil descriptions and field PID measurements from the all of the above soil boring and test pit locations.
- Six soil grab samples from test pits.
- Three surface soil grab samples analyzed for PCBs and pesticides. Due to the assumption that the site would be covered with buildings₂, pavement, and soil during development, only three samples were deemed necessary by the State.

The following general lithology for the site was compiled from the investigation boring logs (Appendix A), and is depicted via generalized geologic cross sections in Figure 16 (see Figure 15 for cross section locations):

- The top three to eight feet is predominantly fill material, consisting of a foundry sand matrix with organic and inorganic debris.
- A peat or peat/marl layer underlies the fill to a depth of 14 to 30 feet. The depth of this layer generally increases in the southern part of the site, except along the western boundary.
- A soft clay layer underlies the peat or peat/marl layer. The clay layer is of variable thickness, sometimes observed for thirty or more feet uninterrupted, and sometimes only present mixed with silt or peat. Data portraying the depth to, and thickness of, the clay unit are presented on Figure 16.



• Mixed sand, gravel, and silt layers of varying thicknesses were observed below the clay layer at most locations, underlain by a glacial till. The depth to the till generally increases to the south, ranging from as shallow as 15 feet along the northern site boundary to more than 51 feet along the southern boundary. At most locations, a discernible sand unit is present just above the glacial till.

Tables 1 through 8B provide summaries of the analytical data resulting from the subsurface soil sampling. These data indicate that VOCs were detected at concentrations exceeding NYSDEC TAGM 4046 RSCOs at the following soil boring locations and depths:

Phase 1 Subsurface Soil Sample Locations

- B-1 (4-6 ft. depth)
- B-3 (14-16 ft. depth)
- B-5 (6-8 ft. depth)
- B-10 (3-6 ft. depth)

Phase 2 Subsurface Soil Sample Locations

- MW-11D (20-22 ft. depth)
- GP-2 (12-16 ft. depth)
- GP-3 (16-19 ft. depth and 19-19.5 ft. depth)
- GP-4 (3-8 ft. depth)
- GP-9 (8-10.5 ft. depth)
- GP-14 (18.5-19.5 ft. depth)
- GP-15 (24-25 ft. depth)
- SB 12-1 (16-18 ft. depth)
- SB 13-2 (12-14 ft. depth and 20-22 ft. depth)

Phase 3 Subsurface Soil Sample Locations

- GPD-2 (15.8-17.5 ft. depth)
- GPD-3 (4-8 ft. depth, 15-17 ft. depth, 17-20 ft. depth, and 23-26 ft. depth)
- GPD-5 (14-15.2 ft. depth and 16-18 ft. depth)



- GPD-6 (4-8 ft. depth, 12-13 ft. depth, and 13-15 ft. depth)
- GPD-10 (4-7.6 ft. depth)
- GPD-14 (7-9.8 ft. depth)
- GPD-19 (3-4 ft. depth and 7-11 ft. depth)
- GPD-21 (15-18.2 ft. depth)
- GPD 26 (4-7 ft. depth and 11-15 ft. depth)
- GPD-27 (7-11 ft. depth)
- GPD-32 (11-15 ft. depth)
- GPD-33 (15-18 ft. depth)
- GPD-34 (7-11 ft. depth and 15-17 ft. depth)
- GPD-36 (11-15 ft.depth)
- GPD-37 (7-11 ft. depth and 15-18.3 ft. depth)
- GPD-38 (17-19 ft.depth)
- GPD-41 (7-11 ft. depth)
- GPD-42 (11-15 ft. depth)
- GPD 43 (11-15 ft. depth)
- GPD-44 (4-7 ft. depth)
- GPD-47 (11-15 ft. depth)
- GPD-49 (11-15 ft. depth and 15-17 ft. depth)
- GPD-51 (15-18.2 ft. depth)
- GPD-52 (15-17.5 ft. depth)
- GPD-57 (0.5-4 ft. depth)
- GPD-59 (11-14.3 ft. depth and 14.3-15 ft. depth)
- GPD-61 (15-17.8 ft. depth)
- GPD-64 (11-15 ft. depth)
- GPD-66 (11-15 ft. depth)
- GPD-67 (11-15 ft. depth)
- DW-4 (6-8 ft. depth and 16-18.5 ft. depth)



The analytical sample from Phase 1 test pit TP-14 (4-5 ft depth) also indicated the presence of VOCs at concentrations exceeding RSCOs.

Figure 4 presents the locations and VOC concentrations for the Phase 1 and Phase 2 soil samples that exceed RSCOs for VOCs. Figure 5 presents the locations and VOC concentrations for Phase 3 soil samples that exceed RSCOs for VOCs. At most of the locations where VOCs were detected at concentrations exceeding RSCOs, the compounds detected were predominantly chlorinated hydrocarbons (e.g., trichloroethene [TCE], tetrachloroethene [PCE], and several degradation products of TCE and PCE). Chlorinated VOC concentrations exceeding RSCOs were identified as deep as twenty-five feet below the ground surface in an area defined by borings B-3, GP-3, MW-11D, GP-15, and GPD-3, GPD-4, GPD-6, GPD-51, and GPD-52. Samples exhibiting the highest levels of VOCs were GPD-3-4-8 (PCE concentration of 1,000,000,000 µg/kg), GPD-3-17-20 (PCE concentration of 23,000,000 µg/kg), and GP-3-16-19 (PCE concentration of 13,000,000 µg/kg). Borings GP-3 and GPD-3 are located along the eastern end of Building 7 (former Paint House) and appear to be the centroid of the site's largest and most significantly impacted source area for chlorinated VOCs, hereafter referred to as the "B-3 Area".

Two additional potential chlorinated VOC source areas were identified by Phase 1 soil borings and delineated during subsequent investigative activities. Brief descriptions of these secondary source areas, each identified by its Phase 1 sample location, follow:

"B-1 Area": Located along the northern edge of Building 13, and extending under the building, this area is defined by the analytical data for borings B-1, DW-4, GPD-19, GPD-26, and GPD-28 and by test pit TP-14. The PCE/TCE impacts in these areas are relatively shallow (<19 ft. below the ground surface). Samples exhibiting the most significant impacts were GPD-26-11-15 (PCE concentration of 2,500,000 μ g/kg), DW-4-16-18.5 (PCE concentration of 600,000 μ g/kg), GPD-26-4-7 (PCE concentration of 210,000 μ g/kg), and TP-14-4-5 (PCE concentration of 83,000 μ g/kg). South of the B-1 area, a relatively large area is characterized by widespread detections of PCE/TCE degradation compounds (primarily vinyl chloride), with concentrations less than 5,000 μ g/kg.



"B-5 Area": Located east of Building 12, this area is defined by borings B-5, GPD-14, GPD-49, and GPD-66. Maximum depth of observed PCE/TCE impacts in this area is 17 feet. The magnitude of the maximum PCE/TCE concentrations in this area are approximately three orders of magnitude less than the maximum concentrations within the other two source areas, ranging from 7,100 μ g/kg PCE and 5,800 μ g/kg TCE for sample GPD-14-7-9.8 to 1,200 μ g/kg PCE and 2,600 ug/kg TCE for GPD-66-11-15.

"MW-3D Area": The initial RI soil sample from this boring did not exhibit significant CVOC impact, but the groundwater sample from this location exceeded Class GA standards for several parameters. During October 2005, a dense non-aqueous phase liquid (DNAPL) exhibiting the olfactory characteristics of PCE was observed in this MW-3D. Subsequent laboratory analysis confirmed that the DNAPL was PCE. Additional borings in this area confirmed the presence of elevated levels of CVOCs in a small area around MW-3D.

Approximately 125 feet to the south of the B-3 area, VOC data from Phase 2 boring SB 12-1 indicate reduced PCE and TCE concentrations at the 16-18 foot depth interval, although the concentrations remain greater than RSCOs (5,000 µg/kg PCE and 1,800 ug/kg TCE). Further south, soils VOC data and PID measurements for MW-3, MW-3D, SB 13-4, AND MW-10D soils data indicate detectable levels of the degradation products of the predominant site chlorinated hydrocarbons (TCE and PCE), with concentrations generally less than RSCOs.

At Phase 1 soil boring location B-10, the VOCs detected at concentrations exceeding RSCOs were xylenes, acetone, 2-butanone, and 4-methyl-2-pentanone. These compounds are associated with petroleum or ketones, and have different environmental characteristics from the chlorinated hydrocarbons. Due to auger refusal, boring B-10 was terminated at a depth of six feet. Boring B-10 is located at the northern edge of the "B-3 area" described above

Semivolatile organic compounds were detected at concentrations exceeding RSCOs in many of the Phase 1 subsurface soil samples. The semivolatile compounds detected are generally



polycyclic aromatic hydrocarbons (PAHs), a class of compounds associated with incomplete combustion of fossil fuels. These compounds bind tightly to soils and have limited solubility and low volatility, factors that limit their exposure pathways. At the Midler Avenue site, PAH concentrations exhibit a general pattern of declining with depth. Although Phase 3 sampling focused on VOCs, two Phase 3 borings investigated areas where analyses from Phase 1 geotechnical borings indicated several PAH compounds exceeded RSCOs; the results from boring SVGP-1-7-10 (see Table 8) indicated one PAH compound exceeded the applicable RSCO (Benzo(a)pyrene detected at 380 μ g/kg versus the RSCO of 61 μ g/kg).

Three pesticide compounds were detected at concentrations exceeding RSCOs in the Phase 1 soil sample from the 2-4 foot depth interval at soil boring PB-7 (maximum concentration of 160 ug/kg for endosulfan vs. RSCO of 100 ug/kg. Dieldrin was detected at a concentration of 73 ug/kg in the sample collected from the 2-4 foot depth interval at soil boring MW-4. Otherwise, pesticides/PCBs were not detected at concentrations exceeding RSCOs in subsurface soil samples.

Inorganic parameters were not detected at concentrations significantly exceeding RSCOs or site background in subsurface soil samples.

Wet chemistry results indicate slightly basic soil pH at the site with soils at B-2 exhibiting a more extreme basic pH of 11.1 Standard Units. Cyanide was not-detected in subsurface soils at a 4 ppm detection limit, except at MW-1 where it was detected 6.03 ppm. There is no RSCO in TAGM 4046 for cyanide in soils.

Table 9 provides the PCBs/Pesticides data for the three surface soil samples collected during the Phase 1 investigation. These data indicate that one pesticide compound (heptachlor epoxide) was detected at a concentration of 35 ug/kg (RSCO of 20 ug/kg) at sample location P-1, collected to the east of Building 1, and one pesticide compound (dieldrin) was detected at a concentration of 90 ug/kg (RSCO of 44 ug/kg) at sample location P-2, located north of Building 2.


Between September 2005 and March 2006, 123 additional borings with associated sampling for VOCs were conducted to delineate the final treatment areas to be addressed in the IRM. Figure 3 includes these supplemental sampling locations, which are designated with the prefixes "GPD" (2005) and "GP" followed by the source area (3, B1, B3, or 5), followed by the sequential boring number within that area. Table 10 provides the CVOCs data for all these borings.

IRM Soil Verification Samples

Section 5 discusses the IRM for the site, during which three of the four delineated source areas (the "B-1", "B-3",and "MW-3D" Areas) were treated via application of In-Situ Thermal Desorption. The fourth source area ("B-5" Area) was excavated and the soils placed within the "B-1" and "B-3" Areas for treatment. The May 2006 *Interim Remedial Measures Work Plan* documented the development of site specific clean-up objectives (SSCOs) and set forth the requirements for post-treatment verification sampling, which was conducted between March 2007 and September 2007. The October 2007 *Interim Remedial Measures Report* provides the full documentation of that portion of the project, including the verification sample locations and results.

For purposes of further discussion regarding the nature and extent of CVOC soil contamination within the four treatment areas, the IRM soil verification sampling results provide the relevant data. Table 2 from the October 2007 *Interim Remedial Measures Report* provides the summary verification sampling data. Figure 17 of this report provides all of the soil data points (IRM verification samples from within IRM treatment areas and RI sample results from outside the treatment areas) where the concentration of one or more CVOC parameters exceeds the respective SSCO for that parameter.

4.2 Potential Sources of Contamination (Site Utility Sediments and Liquids)

Consistent with the work plan for the site, C&S collected eight liquid and ten sediment samples from subsurface utility sumps, pits, manholes and trenches. Assessment of these data is useful in determining potential source areas for site contaminants and to facilitate determinations as to



whether the wastes may be classified as hazardous wastes (solid materials) for purposes of disposal. For liquids, the degree of impact affects the type and extent of treatment that may be required prior to discharge. An additional use for these data is in incorporating appropriate worker health and safety requirements into the remedial program for the site.

Tables 10 and 11 provide summaries of the analytical data resulting from the site utility sampling for sediments and liquids, respectively. These data indicate that volatile organic compounds in sediments were detected at levels that may meet hazardous waste criteria for TCE and PCE for the samples S-5 and S-10. Sample S-5 was associated with dry sediments collected from an extensive system of trenches in Building 13; there is no liquid sample associated with these trenches. Sample S-10 was collected from the sump in Building 9; liquid sample IL-10, which also exhibits chlorinated hydrocarbon impacts, is also associated with this sump.

Semivolatile organic compounds were not detected in sediment samples at concentrations indicative of potential hazardous waste materials. Likewise, liquid samples exhibit only trace detections of semivolatile compounds. Pesticides were not detected at concentrations indicative of potential hazardous waste materials. PCBs were detected in four sediment samples, but the concentrations do not indicate potential hazardous waste materials. Liquid samples exhibited only trace detections of pesticides and no detectable PCBs. Inorganic parameters in sediments were detected at levels that may meet "hazardous waste" criteria for cadmium for the samples S-5 and S-9. Locations S-5, S-10, and S-12 also exhibit potential "hazardous waste" characteristics with respect to lead and chromium. Wet chemistry results do not indicate potential hazardous waste levels for any of the sediment samples.

4.3 Groundwater

A total of 32 groundwater monitoring wells (including temporary wells and replacement wells) were installed and sampled during the RI. Figure 3 provides the locations of all monitoring wells and Table 13 provides the depths of borings and well screen intervals for monitoring wells utilized for gauging events. Groundwater elevations were measured by C&S personnel on eight



occasions between December 2004 and on August 2007 to aid in the creation of groundwater contour maps (see Figures 7 through 14). Section 3.4 provides a detailed discussion of site hydrogeology.

Overburden Monitoring Wells – Phase 1 Groundwater Analytical Data

Table 14 provides a summary of the analytical data resulting from the Phase 1 groundwater sampling. Figure 6 presents groundwater analytical data that exceeds NYSDEC's Class GA Groundwater Standards.

For the eight Phase 1 monitoring wells, VOCs were detected at concentrations exceeding NYSDEC Class GA Groundwater Standards or Guidance in the groundwater sample obtained from monitoring well MW-3. The compounds detected at levels exceeding Class GA Groundwater Standards were cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride. These are degradation products of TCE and PCE. Since MW-3 is downgradient of the area where chlorinated hydrocarbons were detected in soil, the compounds and levels detected appear be indicative of natural attenuation/degradation of those compounds.

Semivolatile Organic Compounds were detected at concentrations slightly exceeding NYSDEC Class GA Groundwater Standards or Guidance (based on estimated "J" values) in the groundwater samples obtained from monitoring wells MW-3, MW-4, MW-7, and MW-8. Pesticides/PCBs were not detected at concentrations exceeding NYSDEC Class GA Groundwater Standards or Guidance in the groundwater samples. Inorganic parameters were not detected at concentrations Significantly exceeding NYSDEC Class GA Groundwater Standards or Guidance in the groundwater samples.

Overburden Monitoring Wells – Phase 2 Groundwater Analytical Data

Table 14 provides a summary of the analytical data resulting from the Phase 2 sampling of exterior monitoring wells. The Phase 2 exterior monitoring well locations were selected to provide data associated with groundwater quality at the top of the clay unit in the area where chlorinated VOCs had been detected in soil during Phase 1 sampling (B-3) and in areas



downgradient of that area. For the six Phase 2 monitoring wells, volatile organic compounds were detected at concentrations exceeding NYSDEC Class GA Groundwater Standards or Guidance in the groundwater samples obtained from monitoring wells:

• MW-3D • MW-9D • MW-10D • MW-11D

The groundwater VOCs data indicate that at monitoring wells MW-9D and MW-10D the VOCs detected were low concentrations of TCE/PCE degradation products. VOC detections in samples collected from MW-3D and MW-11D indicate the presence of TCE and PCE, as well as degradation products, at concentrations exceeding Class GA Groundwater Standards.

Table 16 provides a summary of the analytical data resulting from the Phase 2 groundwater samples collected from the temporary wells installed within the site buildings. These data indicate concentrations of TCE/PCE and/or associated degradation products exceeding Class GA Groundwater Standards at the following locations:

• SB 12-1 • SB 13-2 • SB 13-4

Each of the above locations lies between the suspected source area (MW-11D) and exterior downgradient monitoring well locations. The chlorinated VOCs detected were predominantly degradation products (vinyl chloride and cis-1,2-dichloroethene), again apparently indicative of natural attenuation/degradation of TCE and PCE, which are present at significantly reduced concentrations compared to the upgradient locations.

Overburden Monitoring Wells – Phase 3 Phase Groundwater Analytical Data

Table 17 provides a summary of the analytical data resulting from the Phase 3 groundwater samples collected from the temporary deep monitoring wells ("DW" prefix); Table 18 provides the analytical data from the Phase 3 permanent deep monitoring wells ("DAW" prefix). At one of the four Phase 3 temporary monitoring wells (DW-2), several chlorinated VOCs were detected at concentrations exceeding their respective Class GA Groundwater Standards or Guidance Values. In the groundwater sample from DW-2, PCE was detected at a concentration of 11 ug/l (Class GA Groundwater Standard of 5 ug/l), cis-1,2-dichloroethene was detected at a



concentration of 36 ug/l (Class GA Groundwater Standard of 5 ug/l), and 1,2-dibromo-3chloropropane was detected at a concentration of 1.1 ug/l (Class GA Groundwater Standard of 0.04 ug/l).

To assist in establishing whether the overburden groundwater at the site, irrespective of VOC contamination, could potentially be an acceptable drinking water source, the Phase 3 groundwater samples were also analyzed for total chloride content. Those data, included in Table 16, indicate that in three of the four temporary deep wells, total chloride content exceeded the NYSDEC's Class GA Groundwater Standard of 250 mg/l.

To confirm deep groundwater quality, the three permanent monitoring wells (DAW-1, DAW-2, and DAW-3) were installed in September 2005, at the approximate locations of temporary monitoring wells DW-1, DW-2, and DW-3, respectively. The analytical results for VOCs and total chlorides for the groundwater samples collected from these monitoring wells are presented in Table 18. The VOC detections and concentrations are consistent with the data from the earlier temporary deep sand unit wells. A fourth deep monitoring well (DAW-4) was installed in April 2006 in the north-central portion of the site (Figure 3); May 2006 sampling of that well indicated that no VOCs were present at concentrations exceeding Class GA Standards (Table 20).

Overburden Monitoring Wells – August 2007 Groundwater Analytical Data

In August 2007, at the conclusion of the IRM, another round of groundwater samples was collected from the eight remaining monitoring wells, including upgradient wells, wells from within or near the IRM thermal treatment areas, and wells near the downgradient site boundary. Table 20 includes the data for this final RI groundwater sampling event, which indicate that, with respect to CVOCs, both the upgradient wells and the downgradient wells near the site boundary exhibited similar conditions to the previous (RI) results. The monitoring well from within a thermal treatment area (MW-12D) exhibited dramatically reduced levels (compared to pre-IRM conditions) of both highly chlorinated CVOCs and degradation compounds. A monitoring well



from immediately outside a thermal treatment area (MW-13D) exhibited increased levels of one degradation compound (vinyl chloride).

In or near the IRM treatment areas, concentrations of several ketones (principally acetone and 2butanone) in soil and groundwater were observed to increase during the IRM. The synthesis of these compounds during thermal treatment of soils has been documented and is apparently principally the result of physical/chemical reactions associated with humic acids present in the soils and the applied heat from the remedial system. The concentrations of these compounds are expected to decline relatively quickly as the subsurface cools.

4.4 Soil Vapor Sampling Results

Table 20 provides the VOCs data generated from the April 2006 soil vapor sampling effort and the associated Data Usability Summary Report (DUSR) is included in Appendix C. The soil vapor probe installations and sampling were conducted by Centek Laboratories of Syracuse, New York. The soil vapor data were submitted to NYSDEC and NYSDOH in May 2006, following receipt from the laboratory. The data did not indicate the presence of significant CVOC concentrations within site soil vapors, although the detectable presence of chemical compounds usually associated with ambient air (e.g., Freon) indicated the technical difficulties of sampling soil vapors at the shallow depths required at this site because of the high water table beneath the site



SECTION 5 - INTERIM REMEDIAL MEASURES

The July 2006 *IRM Work Plan* established site-specific clean-up objectives (SSCOs) for four CVOC parameters which were the focus of the IRM. The SSCOs, shown in the table below, were calculated using NYSDEC's methodology from the Technical and Guidance Memorandum (TAGM) #4046, utilizing site groundwater characteristics and Total Organic Carbon (TOC) data.

| CVOC Parameter | Midler SSCO |
|--------------------------|-------------|
| РСЕ | 5,600 |
| TCE | 2,800 |
| Vinyl chloride | 800 |
| trans-1,2-Dichloroethene | 1,200 |
| All units in µg/kg | • |

To establish practical IRM thermal treatment areas, a range of areas characterized by total CVOC concentration were considered. That analysis indicated that the vast majority of CVOC mass was associated with PCE within limited source areas that would be removed under any scenario targeting 100,000 µg/kg total CVOCs or less. Therefore, the adopted target concentration of 31,200 ug/kg total CVOCs represented an extremely conservative approach with respect to mass CVOC removals within the identified source areas. The IRM goal was to achieve, within each of the four identified treatment areas, an average concentration for each individual CVOC parameter that was less than its respective SSCO. The IRM verification data (Table 3, IRM Report) indicate that the remedial goal was achieved.

Table 4 from the October 2007 IRM Report provides an analysis of pre-IRM and post-IRM data for total CVOCs in the four treatment areas, and calculated the following:

| Area | Pre-IRM Average Post-IRM Aver | |
|-------|-------------------------------|-----------------------|
| | Concentration (ug/kg) | Concentration (ug/kg) |
| "В-3" | 18,927,326 | 9,430 |



| "B-1" | 4,481,576 | 8,002 |
|---------|-----------|-------|
| "MW-3D" | 1,306,250 | 4,951 |
| "B-5" | 57,745 | 3,513 |

Those data indicated that 99.95 % of the CVOCs in the "B-3" Area, 99.82 % of the CVOCs in the "B-1" Area, 99.62 % of the CVOCs in the "3-D" Area, and 93.92% of the CVOCs in the "B-5" Area were destroyed during the IRM. For the combined treatment areas (using a weighted average), 99.92% of CVOCs were destroyed during the IRM.



SECTION 6 - POST-IRM CONDITIONS

The extent of CVOC impacts at the site was significantly altered by the year-long IRM. The thermal destruction of more than 99.9% of CVOCs from within the source areas has left a site characterized by dispersed locations where CVOC impacts are present at concentrations orders of magnitude less than those present before the IRM. In addition to those documented reductions within the source areas, the IRM created dynamic conditions within the subsurface, likely associated with enhanced biodegradation of CVOCs, which will persist for months into the "cool-down" period.

Within the IRM treatment areas, there were 21 verification sampling locations where one or more individual CVOC parameters were detected at concentrations exceeding the respective SSCO (out of a total of 59 verification sampling locations). Likewise, there were approximately 36 RI sample locations (out of the hundreds of locations sampled) from outside of the delineated treatment areas where one or more individual CVOC parameters were present at levels exceeding respective SSCOs. VOCs data for these IRM and RI locations are presented in Tables 1 through 8 (RI) and Table 19 (IRM) and the locations are shown on Figures 3B and 17. Although these data represent a conservative estimate of present conditions, they are the relevant data for further discussion regarding the nature and extent of CVOC soil contamination, human health implications, and further remedial alternatives.



SECTION 7 - QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

Completion of a Qualitative Human Health Exposure Assessment (Qualitative HHEA) following NYSDOH guidance is a requirement of the Brownfield Site Investigation / Remedial Alternatives Assessment process, as set forth in Appendix 3B of the NYSDEC's Draft *DER-10, Technical Guidance for Site Investigations and Remediation*. For the Pioneer Midler Avenue project, it is appropriate that the Qualitative HHEA be completed following the IRM, so that the assessment considers the effectiveness of the IRM at mitigating exposure risks at the site. Summary data generated during the Brownfield RI, the IRM, and during site redevelopment activities, are all considered in this assessment. The following subsections identify and assess:

- Contaminant sources within soil and groundwater at the site:
- Contaminant release and transport mechanisms;
- Potential points and routes of exposure;
- Human receptor populations; and
- Conclusions regarding exposure pathways.

7.1 Contaminant Sources in Soil

Subsurface Soils

As indicated above, the IRM data indicate that the IRM remedial objectives were achieved and that the average concentration of each CVOC within each of the source areas is less than the respective SSCO. RI/IRM data indicate that soils with individual CVOC concentrations exceeding the respective SSCO may exist both within the source areas and within areas that were not addressed during the IRM. The soil sampling locations where concentrations of one or more individual CVOCs may exceed the respective SSCO are shown on Figure 17.

Surface Soils

The urban fill surface soils originally at the site surface are presently almost completely covered by the site development (e.g., buildings, pavement, soil). Upon the completion of development,



the site's urban fill surface soils are expected to be completely covered. These types of urban fill soils are commonly contaminated with a class of compounds known as polycyclic (or polynuclear) aromatic hydrocarbons (PAHs). PAHs are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat.

7.2 Contaminant Sources in Groundwater

At the conclusion of the IRM, groundwater samples were collected from the eight remaining monitoring wells, including upgradient wells, from within or near the IRM thermal treatment areas, and wells near the downgradient site boundary. The data indicated that, with respect to CVOCs, both the upgradient wells and the downgradient wells near the site boundary exhibited similar conditions to the pre-IRM results. A monitoring well from within a thermal treatment area (MW-12D) exhibited dramatically reduced levels (compared to pre-IRM conditions) of both highly chlorinated CVOCs and degradation compounds. A monitoring well from immediately outside a thermal treatment area (MW-13D) exhibited increased levels of one degradation compound (vinyl chloride). The level of vinyl chloride is expected to decrease significantly from microbial degradation.

In or near the IRM treatment areas, concentrations of several ketones (principally acetone and 2butanone) in soil and groundwater were observed to increase during the IRM. The synthesis of these compounds during thermal treatment of soils has been documented at other sites and is apparently principally the result of physical/chemical reactions associated with humic acids present in the soils and the applied heat from the remedial system. The concentrations of these compounds would be expected to decline relatively quickly as the subsurface cools. For the purpose of this qualitative HHEA, these volatile organic compounds will be considered to be associated with the same potential migration pathways and receptors as the CVOCs discussed.

The table below lists the fate and transport parameters for acetone, 2-butanone, and MIBK. These data indicate that these compounds are volatile, very soluble in water, and readily



degradable in the subsurface. Once formed, they will be quickly removed via the following pathways:

- Volatilization from water to air and/or steam,
- Biodegradation in the cooler areas surrounding the actively heated treatment zone, and
- Advective flux with the groundwater and dilution due to mixing and dispersion.

| | Acetone | 2-Butanone | MIBK |
|---|---|---|---|
| Henry's Law Constant (atm-m ³ /mole) | 3.8 x 10 ⁻⁵ | 1.1 x 10 ⁻⁵ | 1.4 x 10 ⁻⁴ |
| Aqueous solubility (mg/L) | Miscible | 259,000 | 20,000 |
| Soil half-life | High: 168 hrs Low: 24 hrs Avg.: 96 hrs | High: 168 hrs Low: 24 hrs Avg.: 96 hrs | High: 168 hrs Low: 24 hrs Avg.: 96 hrs |
| Groundwater half-life | High: 336 hrs Low: 48 hrs Avg.: 192 hrs | High: 336 hrs Low: 48 hrs Avg.: 192 hrs | High: 336 hrs Low: 48 hrs Avg.: 192 hrs |

Selected Fate and Transport Parameters for Acetone, 2-Butanone, and MIBK.

Source: Howard P.H. 1991, Handbook of Environmental Degradation Rates; and Howard P.H. 1997, Handbook of Environmental Fate and Exposure Data for Organic Chemicals.

As the treatment zone cools, the rate of formation of acetone, MEK, and MIBK will decrease while the removal rates remain relatively constant (i.e., volatilization, biodegradation, and advective flux). This will result in a reduction in the concentrations measured in soil and groundwater over time as the site cools to ambient temperatures.

7.3 Release and Transport Mechanisms (Soil and Groundwater)

Groundwater surface elevations at the Pioneer Midler Avenue site are within several feet, with some seasonal variation, of the ground surface. Above the groundwater table, vadose zone materials, whether native or imported fill materials, have not been found to be significantly



impacted by CVOCs. The discussion of release and transport mechanisms is therefore associated with the saturated overburden. The potential transport mechanisms for site CVOC contaminants would be:

- Partitioning between soil and groundwater; and
- Subsurface migration of the contaminant plume;

The potential release mechanism would be as soil vapor or atmospheric vapor, the occurrence of which would be most likely in the case of impacted soil disturbance or via use of extracted groundwater. It should be noted that, based on the destruction of more than 99.9% of CVOCs within the soil in source areas during the IRM, the degree of partitioning and the likelihood of significant vapor release are significantly reduced compared to pre-IRM conditions.

For PAHs in soils, the compounds are most likely to stick tightly to soil particles and not partition to groundwater or soil vapor.

Groundwater at the site, or in the vicinity of the site, is not used as a drinking water source. Downgradient of the site, properties are commercial in nature and served by the public water system. Since the area is a fully developed urban area with long-established public drinking water sources from remote surface waters, future withdrawal and use of the groundwater from beneath the site is not necessary. Furthermore, it is assumed that institutional controls would be available to restrict use of site groundwater. Therefore, the only feasible transport mechanism for groundwater is via migration to off-site receptors. RI hydrogeologic investigations (Appendix B) indicate an average groundwater velocity of approximately 4.4 feet/year at the site, and associated CVOC transport velocities 5 to 330 times slower than groundwater velocity. The RI site characterization of multiple CVOC release points and CVOC distribution within the subsurface appears to be consistent with those velocities and with the historical time-frame over which the contaminants were likely to have been released. These summary groundwater characteristics for the site, and all observations to date, indicate that CVOCs from the site would not migrate an appreciable distance downgradient before significant natural attenuation, principally via reductive dechlorination, would be likely to occur.



7.4 Potential Points and Routes of Exposure

The most likely point of direct human exposure to CVOCs in soils would be in the case where impacted soils were disturbed. In that case exposure would be possible via dermal absorption, inhalation of dust, or inhalation of soil vapors. Barring soil disturbance, migration of soil vapors to an ambient indoor environment constitutes another potential route of exposure.

The most likely point of direct human exposure to PAHs in soils would be in the case where impacted soils were disturbed. In that case exposure would be possible via inhalation of dust.

With respect to groundwater, a possible point or route of exposure could occur if impacted groundwater were withdrawn from the subsurface for use. In that unlikely case, the route of exposure could be ingestion, inhalation of vapors, or dermal absorption.

7.5 Potential Receptor Populations

The redeveloped use of the Pioneer Midler Avenue Site will be as a retail shopping facility. Public patrons of the redeveloped facility or workers performing typical occupational procedures would not contact contaminated soils or groundwater and would not be potential direct receptor populations. Therefore, the only feasible receptors with respect to soils or groundwater would be:

- Workers involved with installing or repairing facilities which might extend into PAH or CVOC-impacted soils or groundwater;
- Patrons or workers at the site who could be exposed to CVOC vapors within the indoor environment at the site.

This analysis concludes that there is no likely exposure scenario associated with withdrawal and use of groundwater at with the site. However, it is appropriate for a site remedy to include measures to assure that site groundwater will not be withdrawn and used for any purpose, as well



as measures to monitor groundwater conditions at the downgradient site boundary to confirm that conditions over time do not change to the extent that additional potential receptor populations could be identified.

7.6 Conclusions Regarding Exposure Pathways

The preceding exposure assessment indicates that the plausible exposure pathways identified are:

- The future on-site worker who may contact impacted soils or groundwater; and
- The future on-site patron or worker who could be exposed to CVOC vapors within an interior environment.

With regard to future construction workers contacting deep soils or groundwater after the redevelopment of the site, it is assumed that the Site Management Plan will be adopted that will bind the owner to inform future site workers as to the potential presence of CVOCs within site media and require their employers to provide adequate health and safety monitoring and, if required, personal protective equipment.

With regard to the potential exposure to CVOC vapors, the NYSDEC and NYSDOH require that structures at the Site be equipped with a sub-slab depressurization system (SSDS) designed consistent with NYSDOH guidelines that will actively route soil vapors from beneath the structure to the ambient outdoor environment and provide the ability to monitor vapor quality below the building slab.

This exposure assessment indicates that further assessment of remedial alternatives for the site should consider the potential human exposure pathways identified. Any adopted remedy must include adequate measures to mitigate the identified threats to the health of future site patrons, workers, and the general public. Furthermore, the adopted remedy should, to the extent feasible, provide measures to assure that significantly contaminated site groundwater will not migrate off-site or be withdrawn and used for any purpose. There should also be measures to monitor



groundwater conditions at the downgradient site boundary to confirm that conditions over time do not change to the extent that additional potential receptor populations could be identified.



SECTION 8 - REMEDIAL ALTERNATIVES ANALYSIS

8.1 Introduction

This section identifies remedial technologies that are available to address soil and groundwater impacted by CVOCs, and discusses the feasibility of incorporating one or more of these technologies as part of the final remedy at the Pioneer Midler Avenue site. This alternatives analysis follows the methodology set forth in Section 4 of the NYSDEC's Draft *DER-10 Technical Guidance for Site Investigation and Remediation* and is based on post-IRM site conditions and identified risks to human health or the environment, as identified and discussed in previous sections of this report. Alternatives were evaluated relative to the following criteria (with descriptions as provided in DER-10):

- 1. *Overall Protection of Public Health and the Environment*. This criterion is an evaluation of the remedy's ability to protect public health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through removal, treatment, engineering controls or institutional controls.
- 2. *Compliance with Standards, Criteria, and Guidance (SCGs)*. Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.
- 3. *Long-term Effectiveness and Permanence*. This criterion evaluates the long-term effectiveness of the remedy after implementation.
- 4. *Reduction of Toxicity, Mobility or Volume with Treatment*. The remedy's ability to reduce the toxicity, mobility or volume of site contamination is evaluated.
- 5. *Short-term Effectiveness*. The potential short-term adverse impacts and risks of the remedy upon the community, the workers, and the environment during the construction and/or implementation are evaluated.
- 6. *Implementability*. The technical and administrative feasibility of implementing the remedy is evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative



feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

- 7. Cost. Capital, operation, maintenance and monitoring costs are evaluated for the remedy.
- 8. *Community Acceptance*. The public's comments, concerns, and overall perception of the remedy, if any, are evaluated in a format that responds to all questions that are raised (i.e., responsiveness summary).
- 9. Land Use. Since the inception of the Pioneer Midler Avenue Project, it has been the stated intention that redevelopment of this former industrial and commercial site would be as a retail commercial facility. Remedial alternatives should be compared as to the ability to attain remedial goals given that intended use.

8.2 Remedial Goal

The overall remedial goal for the pioneer Midler Avenue site is to eliminate or mitigate significant threats to public health and the environment, given the intended use of the site.

8.3 Remedial Action Objectives for Soil

As indicated earlier in this report, the IRM verification data (Table 3 of the IRM Report) indicate that the IRM remedial goal was achieved and that, for the combined treatment areas, 99.92% of CVOCs were destroyed during the IRM. Within the IRM treatment areas, there were 21 final verification sampling locations where one or more individual CVOC parameters were detected at concentrations exceeding the respective IRM SSCO (out of a total of 59 verification sampling locations). Figure 17 shows the distribution of those samples, and includes all RI soil sample locations where one or more individual CVOC parameters were detected at levels exceeding the IRM SSCOs and that were outside the delineated treatment areas.

The HHEA identified the following feasible exposure scenarios with respect to soils at the site:

• A future on-site worker who might contact impacted soils; and



• The future on-site patron or worker who could be exposed to volatile vapors within site structures.

Given the above, the Remedial Action Objective (RAO) with respect to site soils would be to protect future on-site workers or patrons from contact with impacted soils or vapors.

8.4 Remedial Action Objectives for Groundwater

As discussed previously, the analytical results from the final RI groundwater sampling event (Table 20) indicated:

- No appreciable change in groundwater flow direction or in groundwater quality at site upgradient, side-gradient, or downgradient locations;
- Significant reductions in CVOC concentrations within the groundwater (as well as in the soil) in the "B-3" area at the conclusion of the thermal treatment regime;
- An increase in the concentration of one CVOC compound (vinyl chloride) immediately outside the "3-D" thermal treatment area (MW-13D sample);
- An increase in the concentrations of several ketone compounds (acetone, 2-butanone, and 4-methyl-2-pentanone) in and near the thermal treatment areas.

The final two conditions discussed above are apparently related to the dynamic effects of the thermal increase within and near the thermal treatment areas. Within the thermal treatment areas, the temperature conditions that destroyed CVOC compounds also favored increased production of ketones. In areas outside and proximate to the treatment areas, increased temperatures apparently enhanced biological degradation (dechlorination) of CVOCs. These effects, and the associated concentrations of the volatile chemical constituents of interest (both CVOCs and ketones), would be expected to decline as the subsurface temperatures decline to ambient conditions in the months following cessation of heating. The decrease in CVOC and ketone concentrations would occur from the degradation of these materials from naturally occurring bacteria.



The lithology and hydrogeology for the site are discussed in Report Sections 3 and 4. These assessments indicate a low hydraulic gradient and very slow-moving shallow overburden groundwater above a clay confining unit (aquitard) of varying thickness. This characterization was consistent with the sizes and configurations of the CVOC source areas identified and treated via the IRM, as well as the time–frame over which those impacted areas evolved. The presence of conditions amenable to reductive dechlorination of PCE (the compound that is assumed to be the original source of CVOC contamination at the site) is empirically evidenced by the predominance of degradation compounds (vinyl chloride, dichloroethenes) outside the identified source areas and the trend of declining concentrations of those degradation compounds with distance from the source areas.

The potential affects to the groundwater regime in and near the treatment areas caused by the dynamic temperature conditions associated with the IRM could temporarily alter groundwater physical/chemical characteristics, including water surface elevations, viscosity, kinematic viscosity, dissolved oxygen, pH, and microbiological activity. Those effects to the subsurface physical/chemical environment would be expected to create subsurface transport and biological activity characteristics different from static conditions that would slowly return to the steady state characteristics identified during the RI.

Due to the long-established utilization of public drinking water supplies in areas surrounding the site, the HHEA concludes that, although groundwater at the site contains volatile organic compounds at concentrations exceeding Class GA Groundwater Standards, the only feasible exposure scenarios were associated with:

- The future on-site worker who might contact impacted groundwater.
- The future on-site patron or worker who could be exposed to volatile vapors within site structures.



Therefore, one RAO with respect to site groundwater would be to protect future on-site workers or patrons from contact with groundwater or vapors.

Although, in our opinion, the HHEA concluded that there was no likely exposure scenario associated with withdrawal and use of groundwater at the site, that assessment did conclude that it would be appropriate for a site remedy to include measures to assure that site groundwater will not be withdrawn and used for any purpose, as well as measures to monitor groundwater conditions at the downgradient site boundary to confirm conditions over time. Therefore, additional RAOs for groundwater would be:

- To assure that site groundwater will not be withdrawn and used for any reason.
- To mitigate potential off-site CVOC migration via site groundwater.

8.5 Remedial Alternatives for Soil

Given the summary site characteristics and conditions, the following remedial technologies have been identified as potentially applicable to soils impacted by volatile organic contaminants:

- Excavation and Off-Site Disposal
- In-Situ Thermal Treatment
- Institutional and/or Engineering Controls

The following subsections describe the above remedial technologies and assess the feasibility of each in addressing the remaining CVOC-impacted materials at the Pioneer Midler Avenue site.

8.5.1 Excavation and Off-Site Disposal

Technology Description

This technology consists of excavating impacted materials, transporting them off-site for disposal or treatment, and replacing the excavated materials with clean imported fill. Excavation was successfully implemented within the shallow, overburden soils within the "B-5" treatment area during the IRM, as documented in preceding sections of this report. Due to the shallow site groundwater table and the depths of the CVOC impacts, each area to be excavated would need to be sheet-piled and braced to limit groundwater intrusion. Non-impacted upper soils would be



characterized, removed and stockpiled. Impacted soils would be characterized using a photoionization detector and segregated for disposal. A confirmation sampling program would be incorporated to confirm that remedial goals were achieved; excavations would need to be kept open and dewatered pending receipt of sample results in case additional excavation would be needed to achieve clean-up goals. Affected areas would need to be restored.

Feasibility Assessment

Excavation was utilized in the "B-5" area during the IRM based on relatively shallow depths of impacts in that area and because the impacted soils could be moved to a thermal treatment area for treatment (avoiding the costs for transport and disposal). The IRM soil verification data confirmed that the IRM goal (average concentration of each CVOC less than SSCO) was achieved at the limits of the "B-5" excavation. The further application of this technology to soils where one or more CVOC parameters exceed cleanup goals, would extend this technology to deeper overburden soils within an area approximately double the size of the combined IRM treatment areas, resulting in unit costs far exceeding those of the IRM (and far beyond feasibility for a private investor), and associated CVOC removals two to three orders of magnitude less than were achieved during the IRM.

This technology could be successfully implemented: all known soils with impacts exceeding cleanup goals could be excavated and transported from the site for disposal, until verification samples from the limits of excavations met the cleanup goals. However, even after that inordinate effort and expense, institutional and/or engineering controls would remain appropriate to meet the site RAOs. Therefore, given the prohibitive efforts and costs of implementing this technology, and the fact that successful implementation would not obviate the need for institutional and/or engineering controls, this technology is deemed not feasible for addressing remaining impacts to soils at the site.

8.5.2 In-Situ Thermal Treatment

Technology Description



This technology consists of heating the subsurface to thermally destroy volatile organic contaminants. Two specific variants of in-situ thermal treatment differ in the manner in which the soils are heated; one technology induces an electrical current between pairs of electrodes placed in the subsurface and another technology installs electrical resistance heating elements within vertical wells. Application of either of these technologies at the site would include a vapor extraction and treatment system and associated collection and treatment/destruction of withdrawn vapors and condensed liquids.

In-situ thermal treatment was selected as the preferred technology for the IRM source areas based on the shallow depth to groundwater, the generally deeper occurrences of CVOC impacts, and the higher CVOC concentrations (particularly the highly chlorinated isomers, PCE and TCE) in the treatment areas. For the purpose of the IRM, in-situ thermal treatment was judged to be more cost-effective than excavation and disposal because of the depth of the CVOC-impacted soils, the extremely elevated CVOC concentrations exhibited (pre-IRM concentration of 18,927,326 ug/kg average "Total CVOCs" in the "B-3" area), and because a large fraction of excavated soils would likely have needed to be disposed as hazardous waste.

Feasibility Assessment

Figure 17 shows the known sample points where RI and IRM data identify one or more individual CVOC concentrations that may exceed the respective SSCO. The distribution of these sample points indicates that an area roughly twice the size of the IRM treatment areas, with average CVOC concentrations three orders of magnitude less than those addressed during the IRM, would need to be treated to remediate soils exhibiting individual CVOCs that presently may exceed IRM SSCOs. The resulting cost per mass unit of CVOCs removed would be thousands of times greater than that achieved during the IRM. However, even after that substantial effort and expense, institutional and/or engineering controls would remain appropriate to meet the site RAOs. Therefore, based on the prohibitive costs of implementing this technology (far beyond feasible costs for a private investor), and on the fact that successful implementation would not obviate the need for institutional and/or engineering controls, in our opinion, this technology is not feasible for addressing remaining impacts to soils at the site.



8.5.3 Institutional and Engineering Controls

Technology Description

An *institutional control* is a non-physical means of enforcing a restriction on the use of real property that is used in situations where conditions make the property suitable for some, but not all, potential uses of the property. The purpose of an institutional control, such as an environmental easement, may be to limit human or environmental exposure, restrict use, or provide notice of such restriction.

Engineering controls consist of physical barriers or methods employed to actively or passively contain, stabilize, or monitor contamination; restrict the movement of contamination to ensure the long-term effectiveness of a remedial program; or eliminate potential exposure pathways to contamination. Examples potentially applicable to the Pioneer Midler Avenue site would be low-permeability membranes or sub-slab depressurization systems applied below the concrete building slabs or a positively pressured interior atmospheric system within a structure.

Feasibility Assessment

The analyses provided in the RI, the Qualitative HHEA and in this RAA indicate that the present condition of the Pioneer Midler Avenue site, with safeguards to mitigate identified exposure scenarios, is compatible with the intended use of the site as a retail commercial establishment. After completion of the IRM and redevelopment of the site, there is a possibility of a future change in the use of the site that might require significant additional construction. Therefore, it would be feasible and appropriate to:

• Incorporate institutional controls to limit the types of activities that might take place at the site in the future, and to notify future site workers as to the site's limitations and to the nature of potential exposures; and



• Incorporate engineering controls, such as sub-slab depressurization systems for site structures to mitigate potential for site workers and patrons to be exposed to CVOC vapors from the subsurface.

8.6 Potential Remedial Actions for Groundwater

The remedial goal with respect to groundwater would be to mitigate human or environmental exposure to contaminants in the groundwater. The Qualitative HHEA evaluated use of the groundwater from the site as a potential human exposure pathway, and concluded that, given the availability of public drinking water, such use is unlikely. Technologies available for mitigating exposure to contaminated groundwater are:

- In-Situ or Ex-Situ Groundwater Treatment;
- Monitored Natural Attenuation; and
- Institutional and/or Engineering Controls.

The following subsections describe the above technologies and assess the feasibility of each in addressing groundwater at the Pioneer Midler Avenue site.

8.6.1 In-Situ or Ex-Situ Groundwater Treatment

Technology Description

This technology could consist of one of a large variety of treatment systems that are capable of treating groundwater either in place (e.g., reaction walls, injection of microbes or nutrients, air sparge) or after extraction of the groundwater (e.g., air stripping, granular activated carbon adsorption). In general, these technologies are applicable to sites where a distinct area of impacted groundwater (contaminant plume) is present. For in-situ technologies to be effective the hydrogeological characteristics and contaminant distribution data for the site should indicate that the contaminant plume coincides with the treatment area to an extent necessary for adequate treatment to occur; otherwise, a hydraulic control technology would need to be included to achieve that condition. For ex-situ technologies to be effective, the groundwater extraction field



would need to assert an area of influence sufficient to remove and treat impacted groundwater from the entire plume. In-situ technologies tend to be capital intensive, but may be less expensive to operate and maintain compared to ex-situ technologies. Achieving remediation to stringent standards (such as Class GA groundwater Standards) is often problematic for all of these technologies due to ongoing soil/groundwater contaminant partitioning and to practical difficulties and costs involved with addressing large areas of low-level groundwater contamination.

Feasibility Assessment

The summary site groundwater data do not identify a CVOC contaminant plume that would appear to be compatible with ex-situ or in-situ treatment technologies. Of the fourteen monitoring wells installed in the peat/marl unit, only those within IRM treatment areas (MW-3D, MW-11D, MW-12D) exhibited significant concentrations of the highly chlorinated CVOCs (PCE or TCE) in groundwater prior to implementation of the IRM. Based on the post-IRM (August 2007) sample from the "B-3" treatment area monitoring well (MW-12D), the thermal treatment effectively removed those highly chlorinated compounds from groundwater in the source areas. Outside the thermal treatment areas, the distribution of CVOCs in groundwater appears to be dispersed, low-level concentrations, and composed primarily of the lower-chlorinated degradation compounds (VC, cis-DCE). As previously discussed, two situations have been identified that warrant consideration of ex-situ or in-situ remedial technologies:

- In MW-13D, an increase in vinyl chloride was detected in the post-IRM groundwater sample; and
- Within all thermal treatment areas, several ketones (acetone, 2-butanone, and 4-methyl-2-pentanone) were detected in IRM soil verification samples and in post-IRM groundwater samples.

Both of the above conditions appear to be associated with the dynamic thermal conditions within and near the thermal treatment areas. As such, the observed effects upon the subsurface physical/chemical environment are assumed to be temporal, and would not warrant mitigation actions of the scope associated with ex-situ or in-situ treatment technologies. Concentration of



ketones and vinyl chloride are expected to continue decreasing through natural attenuation after the subsurface has cooled. Therefore, these in-situ and ex-situ technologies are concluded to be not appropriate for the site given current conditions.

8.6.2 Monitored Natural Attenuation

Technology Description

Natural attenuation processes (biodegradation, dispersion, sorption, and volatilization) are active to some degree within any CVOC-impacted groundwater system. In a situation where natural attenuation processes, compared with other remedial alternatives, can be expected to attain site remedial objectives within a reasonable time period, reliance on and monitoring of these processes can constitute an appropriate site remedy. In most cases, adoption of monitored natural attenuation as the site remedy follows a period of active remediation, such as the source area thermal treatment implemented as an IRM at the Midler site, or one of the ex-situ treatment technologies discussed previously. Determining the appropriateness of monitored natural attenuation of CVOCs for a site requires, at a minimum:

- That the contaminant flow field be known to an acceptable degree of certainty;
- That a source of electron donors is present;
- That inorganic electron acceptors are not present in quantities that would interfere with biodegradation pathways;
- That the affects and interactions of attenuation processes have been considered and can be assessed periodically via monitoring; and
- That the potential for downgradient receptors to be exposed to contaminants can be assessed.

In most cases, site characterization data are used as a basis for determining whether monitored natural attenuation may be appropriate for a site. Performance monitoring will then be used to demonstrate the progress of natural attenuation of CVOCs, as well as to confirm that, among other things:

• No impacts to downgradient receptors are occurring;



- No additional releases of contaminants have occurred;
- No potentially toxic transformation products have resulted from biodegradation; and
- No environmental conditions (hydrogeologic, geochemical, microbiological) have changed to the extent that the efficacy of the attenuation processes may be compromised.

Performance monitoring typically continues for a specified period (e.g., two years) after clean-up objectives have been achieved. Institutional mechanisms for maintaining the monitoring program should be established in the remedy decision or in other binding site documents.

Feasibility Assessment

Although a large body of site data was generated during the RI, the IRM and associated removal of more than 99.9% of CVOCs from within the treatment areas has rendered much of those data obsolete. Existing soil conditions within and surrounding the thermal treatment areas, where one or more CVOCs may remain present at concentrations exceeding the IRM SSCOs are presented on Figure 17. Furthermore, during the last year of the three-year RI period, the IRM was being successfully implemented, resulting in dynamic conditions within and surrounding the thermal treatment areas. During the cool-down period, it is assumed that static conditions will slowly return to the treatment area environs, first to areas more distant from the thermal treatment zones, and finally inward to the centers of the treatment zones. Therefore, the following analysis of the appropriateness of monitored natural attenuation as the site remedy is based on

- The general site hydrogeologic characteristics developed during the RI;
- The results of the IRM, which successfully removed more than 99.9% of CVOCs from the treatment areas;
- One additional round of groundwater sampling conducted at the end of the IRM; and
- Supplemental (non-RI) investigations undertaken independently by Pioneer Midler Avenue, LLC.

The summary hydrogeologic investigations at this site have not identified any characteristics that would contraindicate the feasibility of natural attenuation. The presence of high concentrations of total organic carbon within the saturated overburden indicates that the peat/marl unit



constitutes an abundant electron donor source. The existence of degradation compounds at declining concentrations in downgradient locations indicates that, if present, inorganic electron acceptors are not inhibiting some level of reductive dechlorination from occurring.

To gain an understanding of the presence of populations of dechlorinating microbes in the site groundwater regime, Pioneer Midler Avenue, LLC collected one sample from each of three site monitoring wells (MW-3D, MW-11D, and SB-7-1) in October 2005, using sample kits provided by Microbial Insights of Rockford, Tennessee. This limited investigation was not a formal part of the RI. The samples were analyzed by Microbial Insights for the presence of Dehalococcoides (dechlorinating bacteria) and for functional genes and phylogenetic groups associated with dechlorinating conditions. The data generated indicated the presence of Dehalococcoides and functional genes at each of the wells.

To augment the Microbial Insights data, and to define post-IRM geochemical and microbiological conditions downgradient of one of the thermal treatment areas, Pioneer Midler Avenue, LLC collected additional groundwater samples from monitoring well MW-13D in October 2007. Field parameters (ORP, DO, temperature) were measured and groundwater samples were submitted to STL Inc. and SiREM for analysis of a list of MNA indicators, including: dissolved inorganic carbon, dissolved organic carbon, VOCs, Dehalococcoides, Vinyl Chloride Reductase, Iron [total, Fe (II) and Fe (III)], nitrate, nitrite, sulfate, sulfide, methane, ethene, and ethane.

Table 22 presents the data generated from the October 2007 groundwater sampling and provides limited interpretation of the data. Table 22 also provides calculation of a site score using the USEPAs methodology from the 1998 *Technical Protocol for Evaluating Attenuation of Chlorinated Solvents in Ground Water*. According to the USEPA's scoring criteria, a site score exceeding 20 indicates that there is strong evidence for reductive dechlorination at the site; the score for the Pioneer Midler Avenue site from the October groundwater sampling at MW-13D is 22. In addition to the physical and geochemical parameters the USEPA uses in their site scoring methodology, the biological data generated from the October 2007 sampling indicate the



abundant presence of microbes associated with reductive dechlorination, particularly the specific microbes Vinyl Chloride Reductase (vcrA) capable of reducing vinyl chloride to ethene and carbon dioxide.

Of the four main components of natural attenuation (biodegradation, dispersion, sorption, and volatilization), in our opinion, biodegradation would be the dominant parameter at this site due to the slow-moving groundwater environment. Dispersion, sorption, and volatilization would all have more affect in a groundwater regime with higher rates of flux than are present at this site. This same relatively static environment would offer the ability to periodically assess conditions with ample opportunity to identify and assess a change that might indicate a threat to potential downgradient receptors.

The preceding analyses indicate that, with adequate institutional controls to prohibit use of site groundwater and with adequate engineering controls to protect identified potential on-site receptors, monitored natural attenuation constitutes a feasible remedy for the residual groundwater CVOC contamination that remains at this site following the IRM.

8.6.3 Institutional and Engineering Controls

Technology Description

Engineering controls to mitigate groundwater impacts include physical barriers to contain groundwater, such as slurry walls or sheet piling barriers. Other types of engineering controls include access controls, provision of alternative water supplies via connection to public water supply, adding treatment technologies to existing public water supplies, or installing filtration devices on private water supplies.

An *institutional control* is a non-physical means of enforcing a restriction on the use of real property that is used in situations where conditions make the property suitable for some, but not all, potential uses of the property. The purpose of an institutional control, such as an



environmental easement, may be to limit human or environmental exposure, restrict use, or provide notice of such restriction.

Feasibility Assessment

Barrier type engineering controls would not appear to be applicable to this site as no distinct plume or area of particularly elevated contaminant levels ("hot spot") appear to be present. With respect to the other types of controls, the encompassing availability and use of public water in the vicinity of the site renders these technologies unnecessary. To assure that withdrawal and use of groundwater from beneath the site does not occur, institution of site controls restricting such use is appropriate.

8.7 The "No Action" Alternative

Technology Description

Guidance for assessing remedial alternatives requires that the "No Action" alternative be included in the assessment. Under this alternative, the consequences of doing nothing to address identified or potential risks posed by the presence of contamination at a site are assessed. This alternative may be the appropriate one if the risks present are not of sufficient significance, or if the effectiveness of other potential remedies can not be established. For the Pioneer Midler Avenue site, this alternative assumes that following completion of the IRM and establishment of the site's redevelopment, no further actions would be undertaken by Pioneer Midler Avenue, LLC with respect to mitigating potential risks posed by CVOC contaminants that remain at the site.

Feasibility Assessment

Summary site data indicate that, following the IRM, CVOC impacts at the site are dramatically reduced compared to pre-IRM conditions. However, those residual CVOC impacts, and the identified potential exposure pathways, are significant enough that the "No-Action" alternative would not be appropriate.



8.8 Comparative Analyses

Tables 23 and 24 provide summaries of the comparative analyses of remedial alternatives for soil and groundwater, respectively. These tables assess each of the remedial technologies developed in the previous sections (including the "No Action" alternative) with respect to the nine criteria set forth in Section 8.1. The analyses in Tables 23 and 24 extend the comparison of alternatives to assess each with respect to both the intended use of the site as a commercial retail facility (Track 4 development) and a hypothetical Unrestricted Use (Track 1) development.

The technology assessments summarized in Tables 23 and 24 indicate that, for the intended use of the site (Track 4 development), and with the exception of the "No Action" alternative, each of the remedial technologies is potentially capable of achieving the remedial action objectives for the Pioneer Midler site. The technologies differ in the difficulty and high cost associated with the more aggressive potential remedies in addressing widespread but comparatively low levels of contaminated soils and groundwater present at the site following the source removal actions of the IRM. For the hypothetical Unrestricted Use (Track 1) development scenario, extensive application of those more aggressive and intrusive technologies would be required to attempt to attain site conditions appropriate for unrestricted use. However, it would remain likely that inclusion of the less physically aggressive technologies (Institutional and Engineering Controls, Monitored Natural Attenuation) would be appropriate following implementation of aggressive remedial actions, irrespective of the redevelopment track pursued.

8.9 Conclusions

The preceding discussions regarding potential exposure scenarios associated with CVOCs in the site soils and groundwater regimes indicate, in our opinion, that the identified risks posed by those constituents do not pose an immediate threat to a receptor population, such that the adoption of additional aggressive remedial actions is appropriate. We conclude that, based on the effectiveness of the IRM and the site's hydrogeological characteristics, risks associated with the site have been reduced to the extent that Monitored Natural Attenuation of groundwater conditions, accompanied by Institutional and Engineering Controls to protect the identified onsite receptor populations, constitute a remedy that provides:



- Overall protection of public health and the environment;
- A path to long-term attainment of cleanup goals for soil and Class GA Groundwater Standards for groundwater; and
- A commitment to monitoring long-term effectiveness and the flexibility to add elements of additional technologies, if appropriate in the future.

The selected technologies (Monitored Natural Attenuation, Institutional Controls, and Engineering Controls) provide a cost-effective means to return this site to a productive capacity for the surrounding community, with no technical restraints or short-term adverse impacts. Although the time needed to achieve cleanup goals for soil and Class GA Groundwater Standards for water will be on the order of decades, this time constraint could not likely be shortened appreciably by any of the other much more aggressive and expensive remedial technologies available.

F:\Project\C81 - Pioneer Development\C81.002 BCP\Close out and COC\October 2007\RI Report\Draft number 2\RI Report 121007.doc










| Ren | nedio | al Invest | igation | Report |
|-----|-------|-----------|---------|--------|
| RI | Site | Sample | Locatio | n Map |

Figure 3



LEGEND:

0

-£2

÷

÷

MW-10 MW-10D

TP-14

8-5

GPD-44

QP-12

98-13-4

D₩-1

DAW-1

PB-18

SVGP-1

18-1



| | GP-4 3-8FT | | ug/kg |
|----------------|----------------|-------|--------|
| 500 | VINYL CHLORIDE | | 80,000 |
| | TETRACHLOROETH | ENE | 4,400 |
| | - | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| <u>SB-12-1</u> | 16-18FT | ug/kg | |
| TRICHLORC | ETHENE | 1,800 | |
| TETRACHLC | ROETHENE | 5,000 | |
| | | | |
| | | | |
| B-5 6-8FT | L | ig/kg | |
| VINYL CHLORI | DE | 3,700 | |
| TETRACHLORO | THENE | 2,300 | |
| TRANS- 1,2- | DICHLOROETHENE | 3,800 | |
| / | | | |

| Ţ | | \overline{m} |
|---|-------------------------|----------------|
| | 1 sty brick Bualding | |
| | <u></u> | |

ጬ–13

Pioneer Midler Avenue LLC Remedial Investigation Report Figure 4 Phase I and Phase II-Soils VOC Data Exceeding RSCO'S



| J | |
|---|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| VINYL CHLORIDE 5,000 TRICHLOROETHENE 5,800 TETRACHLOROETHENE 7,100 TRANS- 1,2-DICHLOROETHENE 12,000 | <u>GPD-14 7-9.8FT</u> | ug/kg |
|--|---------------------------|--------|
| TRICHLOROETHENE 5,800 TETRACHLOROETHENE 7,100 TRANS - 1,2-DICHLOROETHENE 12,000 | VINYL CHLORIDE | 5,000 |
| TETRACHLOROETHENE 7,100 | TRICHLOROETHENE | 5,800 |
| TRANS- 1.2-DICHLOROETHENE 12.000 | TETRACHLOROETHENE | 7,100 |
| | TRANS- 1,2-DICHLOROETHENE | 12,000 |

| ug/kg |
|--------|
| 1,500D |
| 1,800D |
| |
| 810DJ |
| 5,100D |
| |



| GPD-66 11-15FT | ug/kg |
|-------------------|--------|
| TRICHLOROETHENE | 2,600E |
| TETRACHLOROETHENE | 1,200E |

| GPD-67 11-15FT | ug/kg_ |
|-------------------|--------|
| TRICHLOROETHENE | 5,800D |
| TETRACHLOROETHENE | 1,600D |

Pioneer Midler Avenue LLC Remedial Investigation Report Phase 3 - Soil Sample Results Exceeding RSCO'S



2007 t\C81

15, Ceiec

| ug/1 140 200 5,900 THENE 170 ROETHENE 24 | SB-12-1 (3-21-05) ug/l | |
|--|---|---|
| | 1,1-DICHOROETHENE 7 TRICHLOROETHENE 7 TRICHLOROETHENE 14 TRAS-1,2-DICHLOROETHENE 15 CIS-1,2-DICHLOROETHENE 2,100 WW-5 WW-5 | |
| DW-2 AND DAW-2 | 1,2-DIBROMO-3-CHLOROPROPANE 1.1 CIS-1,2-DICHLOROETHENE 36. DAW-2 (8-30-05) ' TETRACHLOROETHENE 10 CIS-1,2-DICHLOROETHENE 24 DAW-2 (5-3-06) ug/l CIS-1,2-DICHLOROETHENE 43 | |
| ww−s ⊘ | 1.1TT BROCK RULING | |
| | | |
| | М₩- 4 ₩₩- 4D Ф | |
| -10D (1-31-05) ^{/L} CHLORIDE NS-1,2-DICHLOROETHENE -1,2-DICHLOROETHENE | ug/l MW-10D (5-3-06) ug/l 32 VINYL CHLORIDE 58 46 TRANS-1,2-DICHLOROETHENE 22 700 CIS-1,2-DICHLOROETHENE 420 | |
| Pioneer Mi Remedial Inves Pre-IRM Groun Exceeding Class | idler Avenue LLC tigation Report dgwater VOC's Data s GA Standards | 6 |

_____ ₩₩-7



| | _ | | |
|--|-------------------------------------|--|--------|
| MW-10D (8-23-07) | ug/I | | |
| VINYL CHLORIDE | 78 | | |
| TRANS-1,2-DICHLOROETHENE | 25 | | |
| CIS-1,2-DICHLOROETHENE | 220 | | |
| 1,1-DICHLOROETHENE | 28 | | |
| Pioneer Mic Remedial Investi IRM And Post-I Exceeding Class | dler / gation RM Gro GA St | Avenue LLC Report undwater VOC's Data andards | Figure |

M₩-4 M₩-40

| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|----------------|---|
| i STY Block | QUANSAT HUT |
| | yan |





| | - | - |
|-----------------|---|---|
| | | - |
| _ | | |
| $\Delta \Delta$ | | |
| | | |

| MW-13D | ug/I | ug/I | ug/l |
|-----------------------------|-------|-------|--------|
| VINYL CHLORIDE | 2,000 | 7,200 | 16,000 |
| TRANS-1,2-DICHLOROETHENE | 95 | 93 | 93 |
| CIS-1,2-DICHLÖROETHENE | 980 | 3,200 | 1,700 |
| TETRACHLOROETHENE | ND | 160 | ND |
| ACETONE | 5,000 | 130 | ND |
| MEK (2-BUTANONE) | 1,300 | ND | ND |
| METHYLENE CHLORIDE | 32 | ND | 14 |
| 1,1-DICHLOROETHENE | ND | 110 | ND |
| TRICHLOROETHENE | ND | 98 | ND |
| BENZENE | 37 | 15 | ND |
| MIBK (4-METHYL-2-PENTANONE) | 170 | ND | 44 |
| TOLUENE | 40 | 16 | 17 |

4-11-07 7-20-07 8-23-07

| -07) | ug/I |
|----------|-------|
| | 2,100 |
| NE) | 920 |
| ROETHENE | 61 |

_____ ₩₩-7

© ™-6

re 6B



Pioneer Midler Avenue LLC Remedial Investigation Report Figure 7 Groundwater Contours for December 2004



Pioneer Midler Avenue LLC Remedial Investigation Report Figure 8 Groundwater Contours for February 2005 Ŵ



Pioneer Midler Avenue LLC Remedial Investigation Report Figure 9 Groundwater Contours for April 2005



Pioneer Midler Avenue LLC Remedial Investigation Report Figure 10 Groundwater Contours for May 2005





Pioneer Midler Avenue LLC Remedial Investigation Report Figure 11 Groundwater Contours for July 2005 ₩ N



Pioneer Midler Avenue LLC Remedial Investigation Report Figure12 Groundwater Contours for October 2005



Pioneer Midler Avenue LLC Remedial Investigation Report Figure 13 Groundwater Contours for May 2006



Pioneer Midler Avenue LLC Remedial Investigation Report Figure 14 Groundwater Contours for August 2007 ∧ N





(10) - Letters (10) - Letters Development's adde for Beer and Agains 1.3 -



| THERMAL TRI | EATMENT AREA | 1 |
|-------------|--|-----|
| TER | POST-IRM AVERAGE CONCENTRATION (ug/I) | |
| | 766 | |
| OROETHENE | 810 | B_8 |
| | 1,156 | 1 |
| NE | 5,365 | |
| DETHENE | 1,333 | |
| | 9,430 | |

| | 1 -7 |
|--------------------|--|
| "8-5" EXCAVA | TION AREA |
| C PARAMETER | POST-IRM AVERAGE CONCENTRATION (ug/I) |
| HLORIDE | 315 |
| 1,2-DICHLOROETHENE | 379 |
| ROETHENE | 59 |
| -DICHLOROETHENE | 3,513 |
| LOROETHENE | 56 |
| WOCs | 4.322 |
| 70-18 | / |

TABLES

1.

2.1

STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U Indicates compound was analyzed for, but not detected.

- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aidol-condensation product.
- Indicates coelution.
- Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

.

- ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- Indicates the spike or duplicate analysis is not within the quality control limits.
- Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

+ 1

| Samplo ID | Inits | TAGN | 1 4046 | B-1 | B-2 | B-3 | B-3 | B-4 | B-5 | B-5 DL |
|---------------------------------------|-----------|-----------|---------------------------------------|------------|------------|------------|------------------|------------|------------|-------------------|
| | | PSCO . | Eastern USA | 4-6 | 5-7 | 14 - 16 | 2 - 4 | 2 - 4 | 6-8 | 6-8 |
| Date Sampled -> | | | Background | 11/12/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 | 11/12/2004 |
| VOLATILES | ng/kg | | | | | | | | | |
| Chloromethane | ug/kg | | | 1,800 UJ | 16 U | 16,000 UJ | 11 U | 12 U | 660 J | 5,800 U |
| Bromomethane | ug/kg | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Vinvl chloride | ug/kg | 200 | | 8.100 | 11 J | 16,000 U | 11 U | 12 U | 3,800 | 3,700 DJ |
| Chloroethane | ug/kg | 1,900 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Methylene chloride | ug/kg | 100 | | 1,800 U | 16 U | 16,000 U | 16 0 | 14 U | 1,500,0 | 0,00,0 |
| Acetone | ug/kg | 200 | | 1,800 U | 62 | 16,000 U | 7 1 | 0 21 | 1,000 L | 2,800 0 |
| Carbon disulfide | ng/kg | 2,700 | | 1,800 U | 16 U | 16,000 U | 1110 | 12 U | 1,500 U | 5,800 U |
| 1.1-Dichtoroethene | ng/kg | 400 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 1.1-Dichloroethane | ng/kg | 200 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Chloroform | ug/kg | 300 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 1.2-Dichloroethane | ng/kg | 100 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 2-Butanone | ug/kg | 300 | | 1,800 U | <u>Р</u> 6 | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Carbon tetrachloride | ng/kg | 600 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Bromodichloromethane | ug/kg | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 1.2-Dichloropropane | ug/kg | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| cis-1 3-Dichloroprozene | ua/ka | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Trichloroethene | ua/ka | 700 | | 5,800 | 5 J | 68,000 | 2 J | 3 J | 490 J | 5,800 U |
| Dibromochloromethane | ua/ka | | | 1,800 U | 16 U | 16,000 U | 11 0 | 12 U | 1,500 U | 5,800 U |
| 1 1 2. Trichloroethane | ua/ka | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Renzene | ua/ka 6 | 30 or MDL | | 1,800 U | 2 J | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| trans-1 3-Dichloronronene | ua/ka | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Bromoform | ua/ka | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 4-Methyl-2-pentanone | uq/kg | 1,000 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| 2-Hexanone | ug/kg | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Tetrachloroethene | ug/kg | 1,400 | | 14,000 | 21 | 310,000 | 20 | 8 J | 1,200 J | 2,300,04 |
| Toluene | ug/kg | 1,500 | | 2,100 | 16 U | 16,000 U | 2 J | 12 U | 1,500 U | 5,800 U |
| 1.1.2.2-Tetrachloroethane | ug/kg | 600 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Chlorobenzene | ug/kg | 1,700 | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 5,800 U |
| Ethylbenzene | l ug/kg | 5,500 | | 2,400 | 16 U | 16,000 U | 11 C | 12 U | 1,500 U | 5,800 U |
| Styrene | ng/kg | | | 1,800 U | 16 U | 16,000 U | 11 U | 12 U | 1,500 U | 0.008,6 |
| Total xylenes | ug/kg | 1,200 | | 7,000 | 16 U | 16,000 U | 110 | 12 U | 1,500 U | 5,800 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ng/kg | 1,000 | | 1,800 U | 16 U | 16,000 U | 11 0 | 12 U | 1,500 U | 0,008,c |
| cis-1,2-Dichloroethene | ug/kg | | | 11,000 | 18 | 30,000 | 11 0 | 12 U | 54,000 | 54,UUU U |
| trans-1,2-Dichloroethene | ug/kg | 300 | | 1,800 U | 16 U | 16,000 U | 110 | 12 0 | 3,100. | 3,800 JU |
| Dichlorodiftuoromethane | ug/kg | | | 1,800 U | 16 UJ | 16,000 U | 11 M | 12 01 | 1,500 U | 5,800 U |
| Trichlorofluoromethane | ug/kg | | | 1,800 U | 16 UJ | 16,000 U | 11 m | 12 00 | 1,500 1 | 0,000,0 |
| Methyl acetate | ug/kg | | | 1,800 U | 100 | 10,000 01 | ⊃ = = ₹ | | | |
| Methyl tert butyl ether | ng/kg | 120 | · · · · · · · · · · · · · · · · · · · | 1,800 U | | | > = = ; | 2 | 1 500 1 | C 2000 C |
| Cyclohexane | ug/kg | | | 620 J | | 0 000 07 | | | 1 20011 | |
| Methylcyclohexane | ug/kg | | | 17,000 | 16 U | 10,000 0 | | | | 3,000 0 |
| 1,2-Dibromoethane | ug/kg | | | 1,800 U | | 10,000 0 | | 2 4 | | |
| lsopropylbenzene | ug/kg | | | 750 J | | 10,000,01 | | | 1 200 1 | |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | | 1,800 U | 16.0 | 10,000,01 | - - - - | 0 21 | 1,000 1 | |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | | 1,800 U | 16 0 | 10,000 0 | | 11 97 | 1 200 0 | 0,000 0 800 11 |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | | | | 16,000 0 | | 1011 | 1 500 U | 5.800 [] |
| 1,2-Dibromo-3-chloropropane | ug/kg | 0 400 | | | 11195 | 16 000 0 | 11111 | 12 12 | 1.500[1,1 | 5,800 U |
| 1,2,4-1 richlorobenzene | ng/kg | 3,400 | | | 3 | | 3 | 2 | | |
| SEMIVOLATILES | 110/100 | | | 4 900 [] | 1.100 U | 1.900 U | 3,600 U | 790 U | 4,100 U | , |
| Benzaidenyde | I fiv/fin | | | 212221 | 212221 | | | | | |

| Samule ID -> | Units | TAGN | 4046 | ₽-1 | B-2 | <u>в</u> .3 | B-3 | B-4 | B-5 | B-5 DL |
|--|--------|-------------|-------------|------------|------------|-------------|------------|--------------|------------|------------|
| Depth - > | T | RSCO | Eastern USA | 4-6 | 5-7 | 14 - 16 | 2 - 4 | 2 - 4 | 6-8 | 6-8 |
| Date Sampled -> | | | Background | 11/12/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 | 11/12/2004 |
| Phenol | ug/kg | 30 or MDL | | 2,400 U | 24 J | 150 J | 1,800 U | 400 U | 2,000 U | - |
| Bis(2-chloroethvl) ether | ua/ka | | | 2,400 U | 530 U | 0066 | 1,800 U | 400 U | 2,000 U | • |
| 2-Chlorophenol | uq/ka | 800 | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | 1 |
| 2-Methylphenol | ua/ka | 100 or MDL | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| 2.2'-Oxvbis(1-Chloropropane) | ug/kg | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | - |
| Acetophenone | ug/kg | | | 4,900 U | 1,100 U | 1,900 U | 3,600 U | 790 U | 4,100 U | • |
| 4-Methytahenol | uq/kg | 006 | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | 1 |
| N-Nitroso-Di-n-propylamine | ua/ka | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | |
| Hexachloroethane | ua/ka | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| Nitrobenzene | ua/ka | 200 or MDL | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | 1 |
| soborone | ua/ka | 4400 | | 2,400 U | 530 U | 000 N | 1,800 U | 400 U | 2,000 U | |
| 2-Nitrophenol | ua/ka | 330 or MDL | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | - |
| 2.4-Dimethylphenol | ua/ka | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | <u>,</u> |
| Bis(2-chloroethoxv) methane | uq/kg | | | 2,400 U | 530 U | 030 U | 1,800 U | 400 U | 2,000 U | , |
| 2.4-Dichlorophenol | ua/ka | 400 | | 2,400 U | 530 U | 020 N | 1,800 U | 400 U | 2,000 U | • |
| Naphthalene | ua/ka | 1.300 | | 540 J | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| 4-Chloroaniline | ua/ka | 220 or MDL | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | - |
| Havachtorobutadiana | in/ka | | | 2.400 U | 530 U | 020 N | 1,800 U | 400 U | 2,000 U | - |
| Canrolactam | no/ka | | | 4,900 U | 1,100 U | 1,900 U | 3,600 U | 790 U | 4,100 U | 1 |
| 4. Chloro-3. mathvlinhanol | | 240 or MDI | | 2.400 U | 53010 | 930 U | 1,800 U | 400 U | 2,000 U | • |
| 9-Methylnenhthalene | | 36.400 | | 1.500 J | 530 U | 020 | 1,800 U | 400 U | 2,000 U | |
| E-montymatruments Havechlorocyclonentadiane | | 22: 622 | | 2.4001U | 530 U | 030 U | 1,800 U | 400 U | 2,000 U | 1 |
| o A 6. Trichloronhand | | | | 2.40011 | 530 U | 930 U | 1.800 U | 400 U | 2,000 U | |
| a, t. Trichlorophenol | rio/ka | 100 | | 5,90011 | 1.300 U | 2.300 U | 4,400 U | 960 U | 5,000 U | • |
| Bishond | | 22. | | 4.900 U | 1.100 U | 1.900 U | 3,600 U | 790 U | 4,100 U | 1 |
| olprietry: 7 Chlorosochthalann | | | | 2 400 II | 530 11 | 930 U | 1.800 U | 400 U | 2,000 U | 1 |
| 2-VIIIUUIIIQUIIQUIIIQUII 0.Nitrosnitine | | 430 or MDI | | 5,900 [] | 1.300 U | 2.300 U | 4.400 U | 0096 | 5,000 U | 1 |
| ctyludarmine Diaethyd abtholato | 5,00 | 10000 | | 0 00010 | 53011 | 03011 | 1,800 [] | 400 U | 2.000 U | |
| Ulmetnyi prinalate | ng/kg | 2,000 | | 0 100 0 | 2000 | | 1 800 11 | 11007 | 0000 | |
| 2,6-Dinitrotoluene | ng/Kg | 1,000 | | 2,400 0 | 0.000 | 0 000 | | | 2 000 0 | |
| Acenaphthylene | ug/kg | 41,000 | | 2,400 U | 14 N | 830.0 | 1,000,1 | 400 0 | | |
| 3-Nitroaniline | ng/kg | 500 or MDL | | 5,900 U | 1,300 U | 2,300 U | 4,400 0 | 300 0 | n nnn'e | |
| Acenaphthene | ng/kg | 50,000 | | 290 J | 530 U | 930 0 | 1,800 0 | 400 0 | 2,000,2 | |
| 2,4-Dinitrophenol | ng/kg | 200 or MDL | | 5,900 U | 1,300 U | 2,300 U | 4,400 U | 200 | 0,000,0 | , |
| 4-Nitrophenol | ug/kg | 100 or MDL | | 5,900 U | 1'300 U | 5,300 U | 4,400 0 | 200 0 | n nnn'e | , |
| Dibenzofuran | ug/kg | 6,200 | | 370 J | 53U U | 930 0 | 1,800 0 | 400 0 | 2000 0 | |
| 2,4-Dinitrotoluene | ng/kg | 1,000 | | 2,400 U | 530 U | 930 U | 1,800 U | 400 0 | 5,000 0 | |
| Diethyl phthalate | ug/kg | 7,100 | | 2,400 U | 530 U | 930 U | 1,800 U | 4000 | D 000'Z | |
| Fluorene | ng/kg | 50,000 | | 800 J | 51 J | 930 U | 160 J | <u>۲ ۹۲</u> | 5,000 U | - |
| 4-Chlorophenyl phenyl ether | ug/kg | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| 4-Nitroaniline | ug/kg | | | 5,900 U | 1,300 U | 2,300 U | 4,400 U | 960 U | 5,000 U | , |
| 4,6-Dinitro-2-methylphenol | ug/kg | | *. | 5,900 U | 1,300 U | 2,300 U | 4,400 U | 960 U | 5,000 U | - |
| N-nitrosodiphenylamine | ug/kg | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | - |
| 4-Bromophenyi phenyl ether | ug/kg | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | , |
| Hexachlorobenzene | ug/kg | 410 | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | , |
| Atrazine | ug/kg | | | 4,900 U | 1,100 U | 1,900 U | 3,600 U | 0 06Z | 4,100 U | , |
| Pentachlorophenol | ug/kg | 1000 or MDL | | 5,900 U | 1,300 U | 2,300 U | 4,400 U | 960 U | 000'q | - |
| Phenanthrene | ug/kg | 50,000 | | 1,400 J | 690 | 180 J | 2,300 | 300 1 | 28.0 | |
| Anthracene | ug/kg | 50,000 | | 270 J | 120 J | 40 7 | 450 J | - 53 - 52 | 5,000 0 | |
| Carbazole | ng/kg | | | 92 J | 67 J | 27 J | 2220 1 | 30 0 | 2,000 0 | , |
| Di-n-butyl phthalate | ug/kg | 8,100 | | 2,400 U | 530 U | 930 0 | 1,800 0 | 400 0 | | |
| Fluoranthene | ug/kg | 50,000 | | 1,300 J | 860 | 400 J | 4,600 | pun | וחסו | - |

FilprojectIC81 - Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007HI ReportITablesITable1 validated xis / Table 1

Page 2 of 8

| +- | Data |
|--------|---------|
| Jepoi | oring |
| ation | Soil B |
| restig | ise 1 9 |
| ial In | - Ph |
| Remed | Table 1 |

(//

| Same D. | 1 Inite | TACM | ADAG | P1 | R7 | B-3 | B-3 | B-4 | B-5 | B-5 DL |
|---|--------------|-----------------|--------------|------------|------------|--------------|------------------------|------------------------|------------|------------|
| | 5 | UDSA UDSA | Factorn ISA | 4-6-4 | 5-7 | 14 - 16 | 2-4 | 2-4 | 6-8 | 6-8 |
| Date Samoled -> | 1 |) | Background | 11/12/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 | 11/12/2004 |
| Pyrene | ua/ka | 50,000 | | 1,200 J | 410 J | 240 J | 2,600 | 300 J | 92 J | • |
| Butvi henzvi ohthalate | ua/ka | 50,000 | | 2,400 U | 21 J | 930 U | 1,800 U | 400 U | 2,000 U | • |
| 3 3'-Dichlorobenzidine | ua/ka | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| Renzo(a)anthracene | 1ro/kg | 224 or MDL | | 610.J | 340 J | 250 J | 2,500 | 220 J | 97 J | <u>,</u> |
| Christene | ua/ka | 400 | | L 017 | 400 J | 290 J | 2,700 | 250 J | 110 J | - |
| Ris(2-ethylhexyl) phthalate | ua/ka | | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| Di-n-octvl ohthalate | ua/ka | 50,000 | | 2,400 U | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| Benzo(b)fluoranthene | ua/ka | 1.100 | | L 067 | 350 J | 290 J | 2,200 | 250 J | 85 J | • |
| Benzo(k)fluoranthene | ua/ka | 1,100 | | C 089 | 210 J | 140 J | 1,800 | 100 J | 2,000 U | • |
| Renzo(a)nvrane | ua/ka | 61 or MDL | | 800 J | 130,J | 92 J | 040 J | 63.J | 2,000 U | - |
| bolizo(u/p) circo | | 3.200 | | 510 J | 87 J | 63 J | L 067 | 80 J | 2,000 U | - |
| Dihonzofa h)anthracene | na/kn | 14 or MDI | | 210 J | 66.J | 52.J | P1029 | 57.J | 2,000 U | • |
| Diverizo(a,ri)anniacene Renzo/chilnenvlene | | 50,000 | | 680 J | 530 U | 930 U | 1,800 U | 400 U | 2,000 U | • |
| DESTICIDES/AROCI ORS | 8, h1 | | | | | | | | | |
| alaba_BHC | ric/kn | 110 | | 13IU | 2.7 U | 4.9 U | 9.2 U | 20 | 2.1 U | <u>۲</u> |
| | no/ka | 000 | | 1310 | 2.7 U | 4.9 U | 9.2 U | 2 U | 2.1 U | |
| | Suga Note | 300 | | 1311 | 2.7 U | 4.9 U | 9,2,0 | 20 | 2.1 U | 1 |
| uellarono commo BUC /l (ndena) | 54/01 | 60 | | 13 [] | 2.7 U | 4.9 U | 9.2 U | 210 | 2.1 U | 1 |
| | 22/01 | 90 <u>1</u> | | 1311 | 9711 | 4.911 | 9.2 U | 20 | 2.1 U | |
| Teptacilioi Alada | 2/01 | 41 | | 1311 | 2710 | 4,910 | 9.2 U | 0.65 JP | 2.1 U | , |
| Autoritation analysis | Purpo | 100 | | 1911 | 11.IDN | 4911 | 9.2 U | 20 | 2.1 U | , |
| | 5y/Sn | 22 | | | 9711 | 4 9 11 | 1166 | 000 | 2.1 U | , |
| | Ry/Sn | 202 | | | 5.10 | 0 0.1 | 1811 | 110 g | 4 1 11 | • |
| | ngvg | ## | | 0 + 2 | | 1190 | | | 4111 | |
| 4,4UUE | ng/kg | 2,100 | | 2410 | | 1190 | 2 q | 3011 | 35.1 | |
| Endrin | ng/kg | 001 | | 0 42 | 0.00 | | 2 9 | 100 | 1111 | |
| Endosultan II | ng/kg | 006 | | 24 U | 0.5.0 | 0 | <u> </u> | 0.000 | | |
| 4,4'-DDD | ng/kg | 2,900 | | 24 U | 0.3.0 | 30.0 | | 0.000 | | |
| Endosulfan Sulfate | ug/kg | 100 | | 24 U | 5.3 U | 9.6 U | | 3.810 | 4 | |
| 4,4'-DDT | ug/kg | 2,100 | | 24 U | 5.3 U | 4r [.7 | 181 | 3.9 0 | | • |
| Methoxychior | ug/kg | | | 110 U | 27 U | 49 U | 1810 | 10 9.7 | 017 | - |
| Endrin ketone | ug/kg | | | 24 U | 5.3 U | 9.6 U | 1810 | 3.90 | | - |
| Endrin aldehyde | ug/kg | | | 24 U | 5.3 U | 9.6 U | 1810 | 3.9 U | 4.1 U | 1 |
| alpha-Chlordane | ug/kg | 540 | | 13 U | 2.7 U | 4.9 U | 2.4 J | | n : | |
| gamma-Chlordane | ug/kg | 540 | | 13 U | 2.7 U | 4,9 U | 9.2 U | N 2 | n 1.2 | |
| Toxaphene | ug/kg | | | 1,300 U | 270 U | 490 U | 920 U | 200 U | 0 012 | |
| Aroclor 1016 | ug/kg | | | 240 U | 53 U | 096 0 | 180 U | 39 0 | 41 U | |
| Aroclor 1221 | ng/kg | 1 000 - europa | | 490 U | 110 U | 190 U | 360 U | 79 U | 84 U | - |
| Arocior 1232 | ug/kg | collo to 000 | | 240 U | 53 U | 96 U | 180 U | 39 0 | 41 U | |
| Arocior 1242 | ng/kg | sulls, tu,uuu - | | 240 U | 53 U | 96 U | 180 U | 39 U | 41 U | , |
| Arocior 1248 | ng/kg | aurou lace | : | 240 U | 53 U | <u> 96 U</u> | 180 U | 39 U | 41 U | |
| Aroclor 1254 | ng/kg | SIUS | • | 240 U | 53 U | 96 U | 180 U | 39 U | 41 U | , |
| Aroctor 1260 | ug/kg | | | 240 U | 53 U | U 96 | 180 U | 39 U | 41 U | - |
| INORGANICS | | | | | | | | | | |
| Aluminum | mg/kg | SB | 33000 | 3,230 J | 1,480 J | 1,020 J | 3,760 J | 5,540 J | 4,910 J | |
| Antimony | mg/kg | SB | | L*UN 66.0 | C*UN 29.0 | 1.3 NU*J | 0.5 NU*J | 0.52 NU ⁺ J | 0.56 NU*J | , |
| Arsenic | mg/ka | 7.5 or SB | 3 - 12 | 9.2 N*J | L*N8 2.1 | 0.96 BN*J | 17.9 N*J | 3 N*J | 7,4 N*J | , |
| Barium | mg/kg | 300 or SB | 15 - 600 | 38.3 N*J | 59.3 N*J | 26.3 BN*J | 86.7 N*J | 56.8 N*J | 42.4 N*J | |
| Beryllium | mg/kg | 0.16 or SB | 0 - 1.75 | 0.24 BN*J | 0.18 BN*J | 0.14 BN*J | 0.25 BN*J | 0.26 BN*J | 0.24 BN*J | 1 |
| Cadmium | mg/kg | 1 or SB | 0.1 - 1 | 0.04 NU*J | 0.04 NU*J | 0.07 NU*J | 0.03 NU ⁺ J | 0.03 NU*J | 0.03 NU*J | , |
| Calcium | mg/kg | SB | 130 - 35,000 | 65,300 EJ | 484,000 EJ | 157,000 EJ | 12,300 EJ | 19000EJ | 67800 EJ | 1 |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 15,3 N*J | 14.2 N*J | 2.2 BN*J | 22.1 N*J | 0.8 N*J | 8.4 N*J | - |
| | 2 | | | | | | | | | |

| Domaio ID - | 1 Inite | TAGN | 1 4046 | Ð-1 | B-2 | с П | e e e | В-4 | с, Ш | B-5 DL |
|------------------------|---------|-------------|-----------------|------------|------------|------------|-------------|------------------------|------------------------|------------|
| Sample IU -> | | | | | | | | × c | a 4 | 6.8 |
| Depth - > | | RSCO | Eastern USA | 4-6 | 2 - 7 | 14 - 10 | 2 - 4 | ν. 4 | 0-0 | 0 |
| Date Samiled -> | [| | Background | 11/12/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 | 11/12/2004 |
| Cohalt | ma/ka | 30 or SB | 2.5 - 60 | 4 BN*J | 1.2 BN*J | 0.82 BN*J | 11.2 N*J | 3.3 BN*J | 3.1 BN*J | • |
| Conner | ma/ka | 25 or SB | 1 - 50 | 38.1 N*J | 10.7 N*J | 14.2 N*J | 57.3 N*J | 15 N*J | 10.7 N*J | 1 |
| lion | ma/ka | 2,000 or SB | 2,000 - 550,000 | 50,000 J | 4,000 J | 4,140 J | 126,000 J | 19,400 J | 22,600 J | <u>г</u> |
| lead | ma/ka | SB | 200 - 500 | 28 NJ | 4.9 NJ | LN 9.1 | 35.5 NJ | 14.2 NJ | 17.3 NJ | • |
| Magnesium | mg/kg | SB | 100 - 5,000 | 1,420 J | 12,400 J | 1490 J | 1,360 J | 2,760 J | 2,530 J | 1 |
| Mandanese | ma/ka | SB | 50 - 5,000 | 266 N*J | L*N 901 | 76.9 N*J | 882 N*J | 418 N*J | 221 N*J | - |
| Mercury | ma/ka | 0.1 | 0.001 - 0.2 | 0.042 BN*J | 0.035 NU* | 0.059 U | 0.115 | 0.026 U | 0.028 NU* | - |
| Nickel | ma/ka | 13 or SB | 0.5 - 25 | 73.3 N*J | 4.4 BN*J | 16.8 N*J | 16.2 N*J | 6.2 N*J | 6.4 N*J | 1 |
| Potaccium | ma/ka | SB | 8,500 - 43,000 | 445 BEJ | 568 BEJ | 291 BEJ | 485 BEJ | 1,040 EJ | 718 EJ | 1 |
| Salani Im | ma/ka | 2 or SR | 0.1 - 3.9 | C*N8 E | L*N8 E7.0 | 4 BN+J | 3.3 BN*J | 1 BN*J | 0.76 BN*J | 1 |
| Silvar | ma/ka | SB | | 0.15 NU*J | 0,14 NU*J | 0.27 NU*J | 0.39 BN*J | 0.11 NU [*] J | 0.12 NU ⁺ J | 1 1 |
| Sodium | mo/ka | SB | 6.000 - 8.000 | 115 BJ | 151 BJ | 339 BJ | 91.4 BJ | 147 BJ | 271 BJ | 1 |
| Thallium | ma/ka | SB | | 10.1 N*J | 0.57 BN*J | 1.6 BN*J | 23.5 N*J | 3.7 N*J | 4.6 N*J | • |
| Vanadium | ma/ka | 150 or SB | 1 - 300 | 23.1 N*J | 4.9 BN*J | 2.7 BN*J | 30.3 N*J | 16.3 N*J | 15.6 N*J | 1 |
| Zinc | mg/kg | 20 or SB | 9 - 50 | 67.8 N*J | 14.2 N*J | 40.9 N*J | 80.5 N*J | 36.8 N*J | 63.2 N*J | 1 |
| WET CHEMISTRY ANALYSIS | | | | | | | | | | |
| Cvanide - Total | ug/kg | | | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | |
| Leachable pt- | s.u. | | | 7.23 | 11.1 | 7.47 | 7.79 | 8.21 | 7.86 | |
| | | | | | | | | | | |

T T

+ 1

| | 1 Inite | TAGA | 1 4046 | В-6 | B-7 | B-8 | 6-8 | B-10 |
|---------------------------------------|---------|-----------|-------------|------------|------------|------------|------------|------------|
| | 2 | RSCO. | Fastern USA | 2-4 | 2-4 | 2 - 4 | 2-4 | 3-6 |
| Date Samoled -> | | | Background | 11/11/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 |
| VOLATILES | ua/ka | | 2 | | | | | |
| Chloromethane | ua/ka | | | 10 U | 11 U | 11 U | 11 U | 910 J |
| Bromomethane | ua/ka | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Vinvi chtoride | ug/kg | 200 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Chloroethane | ug/kg | 1,900 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Methylene chloride | ug/kg | 100 | | 21 U | 25 U | 21 U | 16 U | 1,700 U |
| Acetone | ua/ka | 200 | | 10 1 | 11 U | 11 U | 16 | 2,100 |
| Carbon disulfide | ua/ka | 2,700 | | 10 U | 11 U | 11 U | 11 C | 1,700 U |
| 1.1-Dichloroethene | uq/ka | 400 | | 10 U | 11 U | 11 U | 11 N | 1,700 U |
| t 1-Dichloroethane | ua/ka | 200 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Chloroform | ua/ka | 300 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| 1 2-Dichloroethane | ua/ka | 100 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| 2-Butanone | ua/ka | 300 | | 10 U | 11 U | 11 U | 4 J | 680 J |
| 1.1.1.Trichloroethane | ua/ka | 800 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Carbon tetrachtoride | ua/ka | 600 | | 10 U | 11 U | 11 U | 110 | 1,700 U |
| Bromodichloromethane | ua/ka | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| 1 2-Dichlorononane | ua/ka | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| ris-1 3-Dichloronronene | ua/ka | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Trichloroethene | ua/ka | 200 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Dihromochloromethane | 11/kn | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| t 1 0-Trichloroethane | 110/kg | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| r, r,ar i italio occitario Bonzana | | 60 or MDI | | 10 U | 11 U | 11 U | 110 | 1,700 U |
| trans-1 3-Dichloropronene | nn/ka | | | 10 0 | 11 U | 11 U | 110 | 1,700 U |
| Romoform | ug/yo | | | 10 0 | 11 U | 11 U | 1110 | 1,700 U |
| d.Mathul.2-nentanone | Ind/ka | 1.000 | | 10 U | 11 U | 11 U | 11 U | 1,800 |
| 0-Hexanone | ua/ka | | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Tetrachloroethene | ua/ka | 1.400 | | 10 U | 11 U | 11 U | 17 | 1,700 U |
| Toltione | ua/ka | 1.500 | | 10 U | 2 J | 11 U | 11 U | 810 J |
| 1 1 2 2-Tetrachloroethane | ua/ka | 600 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| | un/ka | 1.700 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Fihulhanzana | ua/ka | 5,500 | | 10 U | 11 U | 11 U | 11 U | 500 J |
| Styrene | ua/ka | | | 10 U | 11 U | 11 U | 110 | 1,700 U |
| Total xvienes | ua/ka | 1.200 | | 10 U | 11 U | 11 U | 11 0 | 4,100 |
| 1 1 2-Trichlorn-1 2 2-triftuoroethane | ua/ka | 1.000 | | 10:01 | 11 U | 11 U | 11 U | 1,700 U |
| cis-1 2-Dichloroethene | ua/ka | | | 10 0 | 11 U | 11 U | 11 U | 1,700 U |
| trans-1.2-Dichloroethene | uq/ka | 300 | | 10 U | 11 U | 11 U | 11 U | 1,700 U |
| Dichlorodifluoromethane | ug/kg | | | 10 UJ | 11 W | л З Л | 11 U | 1,700 U |
| Trichlorofluoromethane | ng/kg | | | 10 UJ | 11 UJ | 11 UU | 11 O | 1,700 U |
| Methyl acetate | ug/kg | | | 10 U | 11 U | 11 U | 110 | 850 J |
| Methyl tert butyl ether | ng/kg | 120 | | 10 U | 11 U | 11 0 | | 1,700 U |
| Cyclohexane | ug/kg | ÷ | | 10 U | 11 U | 11 0 | 110 | 1,700 U |
| Methylcyclohexane | ng/kg | | | 10 U | 110 | 11 0 | 110 | n 00/1 |
| 1,2-Dibromoethane | ug/kg | | | 10 U | 11 0 | n LL | | |
| Isopropylbenzene | ug/kg | | | 10 U | 11 U | n [] | | 330 J |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | | 10 U | 11 U | 110 | 110 | 1/00/1 |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | | 10 U | 11 U | 110 | 110 | 1,/00 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | | 10 U | 11 U | 11 0 | | 1,/00 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | | 10 U | 11 U | 11 0 | 110 | 1,/00 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | | 10 01 | 11 W | N 11 | | nn/,1 |
| SEMIVOLATILES | | | | | 11 000 0 | 0 20011 | | 11 VU 11 |
| Benzaldehvde | uq/ka | | | 72010 | 3,8000 | 3,00010 | 1400 | 1,000,4 |

| Sample ID -> | Units | TAGN | A 4046 | ъ | B-7 | B-8 | 6-8 | B-10 |
|--|-----------------|-------------|-------------|------------|------------|------------|------------|------------|
| Depth - > | T | RSCO | Eastern USA | 2-4 | 2 - 4 | 2-4 | 2 - 4 | 3-6 |
| Date Sampled -> | 1 | | Background | 11/11/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 |
| Phenol | ng/kg | 30 or MDL | | 360 U | 1,900 U | 1,800 U | 15 J | 67.J |
| Bis(2-chloroethvl) ether | uq/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2-Chlorophenol | ng/kg | 800 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2-Methylphenol | ng/kg | 100 or MDL | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2,2'-Oxybis(1-Chloropropane) | ug/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Acetophenone | ug/kg | | | 720 U | 3,800 U | 3,600 U | 740 U | 4,600 U |
| 4-Methylphenol | ng/kg | 006 | | 360 U | 1,900 U | 1,800 U | 370 U | 440 J |
| N-Nitroso-Di-n-propylamine | ug/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Hexachloroethane | ng/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Nitrobenzene | ua/ka | 200 or MDL | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Isophorone | ua/ka | 4400 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2-Nitronhenol | ua/ka | 330 or MDL | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2.4-Dimethylphenol | uq/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Bis(2-chloroethoxv) methane | ug/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2,4-Dichlorophenol | ug/kg | 400 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Naphthalene | ug/kg | 1,300 | | 360 U | 1,900 U | 1,800 U | 370 U | 1,000 J |
| 4-Chtoroaniline | uq/ka | 220 or MDL | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Hexachtorobutadiene | ua/ka | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Canrolaciam | ua/ka | | | 720 U | 3,800 U | 3,600 U | 740 U | 4,600 U |
| 4-Chlorn-3-methylnhenol | tro/ku | 240 or MDL | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 2-Methylnanhthalene | in/ko | 36.400 | | 360 U | 1,900 U | 1,800 U | 370 U | 300 J |
| E wouldnapradiate | | 221 122 | | 360 U | 1.900 U | 1,800 U | 370 U | 2,300 U |
| 9 4 6-Trichtoronhand | 1:0/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2.300 U |
| 2,4,5,1 Itoliiolopiicitoi 2,4,5,Trichlorophenol | | 100 | | 87010 | 4.600 U | 4,400 U | ∩ 006 | 5.500 U |
| Rinhanut | nu/ku | | | 720 U | 3.800 U | 3.600 U | 740 U | 4,600 U |
| 2.Chloronanhthalene | 110/kg | | | 360 U | 1.900 U | 1,800 U | 370 U | 2,300 U |
| D-Mitmanitine | | 430 or MDI | | 870 U | 4.600 U | 4,400 U | N 006 | 5.500 U |
| Cimethyl nhthalate | 110/kg | 2.000 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Dimenty primatic | 24/01 | 1 000 | | 360 LI | 1.90011 | 1.800 [J | 370 U | 2,300 U |
| 2,0-Dittiti UQUUDETE | | 41 000 | | 360 11 | 1 900 [1 | 46.1 | 370 U | 150 J |
| | By/Sn | | | 87011 | A 600 11 | 4 400 [1] | | 5 500 11 |
| | 6u/Rn | | | 36011 | 1 000 1 | 1 80011 | 37011 | 2002 |
| Acertaprintere | Ru/Rn | 200 or MDI | | 870 11 | 4 600 11 | 4 400 [] | 0006 | 5.500 U |
| Z,4-UIIIRIUDIIBIJUI A Niteashanai | By/An | | | 87011 | 4 600 11 | 4 400 11 | | 5,500 [] |
| A-Nittoptieritoi Dihanzofuran | Pulka Ind/kg | 6 200 | | 36010 | 1,900 U | 1.800 U | 370 U | 220 J |
| 0 4 Dinitrotalizano | Dy/Un | | | 36011 | 1,900 [] | 1,800 U | 370 U | 2.300 U |
| Diethvl nhthalate | na/ka | 7.100 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Eltiorene | ua/ka | 50.000 | | 26 J | 1,900 U | 1,800 U | 370 U | 460 J |
| 4-Chlorophenvi phenvi ether | ua/ka | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 4-Nitroaniline | ug/kg | | | 870 U | 4,600 U | 4,400 U | 006 N | 5,500 U |
| 4,6-Dinitro-2-methylphenol | ng/kg | *: | | 870 U | 4,600 U | 4,400 U | 006 | 5,500 U |
| N-nitrosodiphenylamine | ng/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 76 J |
| 4-Bromophenyi phenyi ether | ug/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Hexachlorobenzene | ug/kg | 410 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Atrazine | ug/kg | | | 720 U | 3,800 U | 3,600 U | 740 U | 4,600 U |
| Pentachlorophenol | ug/kg | 1000 or MDL | | 870 U | 4,600 U | 4,400 U | 900 N | 5,500 U |
| Phenanthrene | ug/kg | 50,000 | | 280 J | 680 J | 300 J | 68 J | 3,200 |
| Anthracene | ug/kg | 50,000 | | 64 J | 88 J | 1001 | 10 7 | 430 J |
| Carbazole | ng/kg | | | 29 J | 1,900 U | 1,800 U | 370 U | 340 J |
| Di-n-butyl phthalate | ug/kg | 8,100 | | 360 U | 1,900 U | 1,800 U | 3/0/0 | 2,300 U |
| Fluoranthene | ua/ka | 50.000 | | 330 J | 1,200 J | 1,000 J | 97 1 | 5,200 |

| Samia ID | Inite | TAGN | 4046 | 9-8 | B-7 | B-8 | 6-8 | B-10 |
|-----------------------------|--------|-----------------|--------------|------------|--------------|------------|-----------------------|-----------------------|
| Denth - > | } | RSCO | Eastern USA | 2-4 | 2-4 | 2-4 | 2-4 | 3-6 |
| Date Sampled -> | | | Background | 11/11/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 |
| Pyrene | ug/kg | 50,000 | | 180 J | 690 J | 710 J | 51 J | 2,300 |
| Butvl benzvl phthalate | uq/kg | 50,000 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| 3.3'-Dichlorobenzidine | ua/ka | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Benzo(a)anthracene | uq/kg | 224 or MDL | | 160 J | 590 J | 590.J | 39 J | 1,001,1 |
| Chrysene | ug/kg | 400 | | 180 J | 680 J | 650 J | 54 J | 1,400 J |
| Bis(2-ethylhexyl) phthalate | ug/kg | | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Di-n-octvl phthalate | ua/ka | 50,000 | | 360 U | 1,900 U | 1,800 U | 370 U | 2,300 U |
| Benzo(b)(tuoranthene | ua/ka | 1.100 | | 160 J | 420 J | 730 J | 49 J | 2,400 |
| Benzo(k)tuoranthene | ua/ka | 1.100 | | 81 J | 450 J | 330 J | 35 J | 2,200,J |
| Benzo(a)nvrene | ua/ka | 61 or MDL | | 52 J | 220 J | 250 J | 18 J | 1,001,1 |
| Indeno(1,2,3-cd)nvrene | ua/ka | 3.200 | | 44 J | 120 J | 150 J | 13.J | 250 J |
| Dihanzo(a h)anthracana | | 14 or MDI | | 39.J | 110.1 | 120 J | 10.1 | 100. |
| Benzolahi)annuazariz | uo/ko | 50.000 | | 360 U | 1.900 U | 1.800 U | 370 U | 300 J |
| PESTICIDES/AROCLORS | 0 | | | | | | | |
| aluha-BHC | ua/ka | 110 | | 1.9 U | 9.6 U | 9.3 U | 1.9 U | 23 U |
| heta-RHC | 110/kg | 006 | | 1.9 U | 9'9' | 9.3 U | 1.9 U | 23 U |
| delta_RHC | 110/kn | 300 | | 1.911 | 0.611 | 9.3 U | 1.9 U | 23 U |
| domma_RHC (1 indana) | nn/kn | 60 | | 1.910 | 9.6 U | 9.3 U | 1.9 U | 23 U |
| | 21/01 | 20F | | 1011 | 0 6 H | 0311 | 101 | 23 11 |
| Alden | Bu/bn | 2 | | 101 | afil | 0311 | 101 | 23 11 |
| | Bu/fin | | | 1101 | 190 | | 101 | 22 22 |
| | ng/kg | 500 | | 0.8.1 | | 0000 | 2 1 0 7 | 2 2 2 |
| Endosultan I | ug/Kg | 906 | | 1.9 U | 202 | 9.00 | <u>ימ</u> ר סייר | 3 |
| Dieldrin | ug/kg | 4 | | 3.6 U | 1910 | 18/U | 3./ U | 45 |
| 4,4'-DDE | ug/kg | 2,100 | | 3.6 U | 19 0 | 18 U | 3.7 U | 45 |
| Endrin | ug/kg | 100 | | 3.6 U | 19 U | 18 U | 3.7 U | 45 U |
| Endosulfan II | ug/kg | 800 | | 3.6 U | 19 U | 18/0 | 3.7 U | 45 U |
| 4,4'-DDD | ug/kg | 2,900 | | 3.6 U | 19 U | 18 U | 3.7 U | 45 U |
| Endosulfan Sulfate | ug/kg | 100 | | 3.6 U | 19 U | 18 U | 3.7 U | 45 U |
| 4,4'-DDT | ug/kg | 2,100 | | 3.6 U | 19 U | 18 U | 3.7 U | 45 U |
| Methoxychlor | ug/kg | | | 19 U | 0 96 ∩ | 93 U | 19 U | 230 U |
| Endrin ketone | ug/kg | | | 3.6 U | 19 U | 18 U | 3.7 U | 45 U |
| Endrin aldehyde | ug/kg | | | 3.6 U | 19 U | 18 U | 3.7 U | 45 U |
| alpha-Chlordane | ug/kg | 540 | | 1.9 U | 9.6 U | 9.3 U | 1.9 U | 23 U |
| gamma-Chlordane | ug/kg | 540 | | 1.9 U | 9.6 U | 9.3 U | 1.9 0 | 23 U |
| Toxaphene | ug/kg | | | 190 U | 960 U | 930 U | 190 U | 2,300 U |
| Aroctor 1016 | ug/kg | | | 36 U | 190 U | 180 U | 37 U | 450 U |
| Arocior 1221 | ng/kg | 1 000 5114000 | | 73 U | 380 U | 370 U | 76 U | 920 U |
| Araciar 1232 | ug/kg | | | 36 U | 190 U | 180 U | 37 U | 450 U |
| Araciar 1242 | ng/kg | suils, 10,000 - | | 36 U | 190 U | 180 U | 37 U | 450 U |
| Aroclor 1248 | ng/kg | | | 36 U | 190 U | 180 U | 37 U | 450 U |
| Aroclor 1254 | ug/kg | SIDS 1 | | 36 U | 190 U | 180 U | 37 U | 3,000 |
| Araclar 1260 | ng/kg | | | 36 U | 190 U | 180 U | 37 U | 450 U |
| INORGANICS | | | | | | | | |
| Aluminum | mg/kg | SB | 33000 | 4,770 J | 4,560 J | 5,130 J | 2,790 J | 5,850 J |
| Antimony | mg/kg | SB | | 0.48 NU*J | 1.1 BN*J | 0.49 NU*J | 0.49 NU* | 3.9 BN |
| Arsenic | mg/kg | 7.5 or SB | 3 - 12 | 3.3 N*J | 2.2 N*J | 2.4 N*J | 18.5 N*J | C*N 6.7 |
| Barium | mg/kg | 300 or SB | 15 - 600 | 35.5 N*J | 35.1 N*J | 57.4 N*J | 406 N*J | 102 N*J |
| Beryllium | mg/kg | 0.16 or SB | 0 - 1.75 | 0.28 BN*J | 0.31 BN*J | 0.3 BN*J | 0.22 BN* | 0.29 BN |
| Cadmium | mg/kg | 1 or SB | 0.1 - 1 | 0.03 NU*J | 0.03 NU*J | 0.03 NU*J | 0.03 NUT | U-N 8.1 |
| Catcium | mg/kg | SB | 130 - 35,000 | 13,000 EJ | 24,900 EJ | 53,700 EJ | 8,370 EJ | 15,600 EJ |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 8.5 N*J | 7.5 N*J | 7.3 N*J | 21.8 N [*] J | 40.9 N ⁻ J |

Page 7 of B

| Sample ID -> | Units | TAGI | M 4046 | ę | B-7 | е Н | 6-H | њ 0 |
|------------------------|-------|-------------|-----------------|---------------|------------------------|------------|------------|------------|
| Depth - > | | RSCO | Eastern USA | 2-4 | 2-4 | 2 - 4 | 2-4 | ອ - ຍ |
| Date Sampled -> | | | Background | 11/11/2004 | 11/12/2004 | 11/11/2004 | 11/11/2004 | 11/12/2004 |
| Cobalt | mg/kg | 30 or SB | 2.5 - 60 | 2.9 BN*J | 2.7 BN*J | 3 BN*J | 0.3 N*J | L*N 2.7 |
| Copper | ma/ka | 25 or SB | 1-50 | 17.6 N*J | 16.5 N*J | 12.8 N*J | 27.6 N*J | C*N 496 |
| Iron | mg/kg | 2,000 or SB | 2,000 - 550,000 | 18,100 J | 17,900 J | 11,600 J | 153,000 J | 60,500 J |
| Lead | mg/kg | SB | 200-500 | LN 5.7 | 33.8 NJ | 16.9 NJ | 32.3 NJ | 494 NJ |
| Magnesium | mg/kg | SB | 100 - 5,000 | 1,470 J | 3,360 J | 9,680 J | 1,310 J | 2,450 J |
| Manganese | mg/kg | SB | 50 - 5,000 | 383 N*J | 628 N*J | 221 N*J | L*N 568 | 804 N*J |
| Mercury | mg/kg | 0.1 | 0.001 - 0.2 | 0.029 U | 0.028 U | 0.023 U | 0.025 U | 0.31 N*J |
| Nickel | ma/ka | 13 or SB | 0.5 - 25 | 5.4 N*J | 4.5 N*J | L*N 9.7 | 19.6 N*J | 79.2 N*J |
| Potassium | mg/kg | SB | 8,500 - 43,000 | 825 E.J | 721 EJ | 1,050 EJ | 439 BEJ | 1,100 EJ |
| Selenium | mg/kg | 2 or SR | 0.1 - 3.9 | 1.2 BN*J | 0.98 BN*J | 0.55 BN*J | 3.4 BN* | 2.1 BN*. |
| Silver | ma/ka | SB | | 0.1 NU*J | 0.11 NU [*] J | 0.11 NU*J | 0.14 BN* | 0.71 BN* |
| Sodium | mg/kg | SB | 6,000 - 8,000 | 103 BJ | 130 BJ | 131 BJ | 134 BJ | 1,850 J |
| Thallium | mg/kg | SB | | 3.7 N*J | 3.5 N*J | 2.3 N°J | 27.7 N*J | L*N 1.11 |
| Vanadium | mg/kg | 150 or SB | 1 - 300 | 15.2 N*J | 16.9 N*J | 22 N*J | 44.6 N*J | 23.2 N*J |
| Zinc | mg/kg | 20 or SB | 9 - 50 | 24.5 N*J | 53.3 N*J | 38.4 N*J | C*N 966 | 348 N*J |
| WET CHEMISTRY ANALYSIS | | | | | | | | |
| Cyanide - Total | ug/kg | | | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U |
| Leachable pH | S.U. | | | 8.28 | 8.15 | 9.68 | 7.73 | 9.12 |
| | | | | | | | | |

RSCO = Recommended Soil Cleanup Objectives 1,000 - indicates detected value for organics.

.

1

* I

| ŝ |
|----------|
| Ö |
| ÷ |
| |
| X |
| <u> </u> |
| ш |
| _ |
| С. |
| e |
| 12 |
| - |
| 듰 |
| Ŋ. |
| 8 |
| 75 |
| ~ |
| ž |
| Ċ, |
| |
| |
| |
| |

| Sample ID -> | Units | TAGN | 1 4046 | LB-8 | PB-3 | PB-3 DL | PB-4 | PB-7 | PB-7 DL |
|---------------------------------------|----------|-----------|-------------|-----------|------------|------------|------------|------------|---------|
| Depth - > | <u> </u> | RSCO | Eastern USA | 4-6 | 2 - 4 | 2 - 4 | 2 - 4 | 2-4 | 2-4 |
| Date Sampled -> | | | Background | 11/9/2004 | 11/22/2004 | 11/22/2004 | 11/18/2004 | 11/19/2004 | 38310 |
| VOLATILES | ug/kg | | | | | | | | |
| Chloromethane | ug/kg | | | 15 U | 12 UJ | | 12 UJ | 12 UU | |
| Bromomethane | ug/kg | | | 15 U | 12 U | - | 12 U | 12 U | |
| Vinyl chloride | ng/kg | 200 | | 15 U | 12 UJ | | 12 U | 12 UJ | |
| Chloroethane | ug/kg | 1,900 | | 15 U | 12 U | | 12 U | 12 U | |
| Methylene chloride | ug/kg | 100 | | 15 U | 12 U | | 12 U | 20 C | |
| Acetone | ug/kg | 200 | | 48 | 14 | | 10 J | 12 U | |
| Carbon disulfide | ug/kg | 2,700 | | 15 U | 12 U | | 12 U | 12 U | |
| 1,1-Dichloroethene | ng/kg | 400 | | 15 U | 12 U | | 12 U | 12 U | |
| 1,1-Dichloroethane | ug/kg | 200 | | 15 U | 12 U | | 12 U | 12 U | |
| Chloroform | ug/kg | 300 | | 15 U | 12 U | | 12 U | 12 U | |
| 1,2-Dichloroethane | ug/kg | 100 | | 15 U | 12 W | | 12 U | 12 UJ | |
| 2-Butanone | ug/kg | 300 | | 13 J | 12 U | | 12 U | 12 U | |
| 1,1,1-Trichloroethane | ug/kg | 800 | | 15 U | 12 U | | 12 U | 12 U | |
| Carbon tetrachloride | ng/kg | 600 | | 15 U | 12 U | | 12 U | 12 U | |
| Bromodichloromethane | ng/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| 1,2-Dichloropropane | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| cis-1,3-Dichloropropene | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| Trichloroethene | ug/kg | 700 | | 15 U | 12 U | | 12 U | 12 U | |
| Dibromochloromethane | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| 1,1,2-Trichloroethane | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| Benzene | ng/kg | 60 or MDL | | 2 J | 12 U | | 12 U | 12 U | |
| trans-1.3-Dichloropropene | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| Bromoform | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | | 15 U | 12 U | | 12 U | 12 U | |
| 2-Hexanone | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| Tetrachloroethene | ug/kg | 1,400 | | 15 U | 12 U | | 12 U | 12 U | |
| Toluene | ng/kg | 1,500 | | 15 U | 12 U | | 12 U | 12 U | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | | 15 U | 12 U | | 12 U | 12 U | |
| Chlorobenzene | ng/kg | 1,700 | | 15 U | 12 U | | 12 U | 12 U | |
| Ethylbenzene | ug/kg | 5,500 | | 16 | 12 U | | 12 U | 12 U | |
| Styrene | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| Total xylenes | ug/kg | 1,200 | | 15 U | 12 U | | 12 U | 12 U | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | | 15 U | 12 U | | 12 U | 12 U | |
| cis-1,2-Dichloroethene | ug/kg | | | 15 U | 12 U | | 12 U | 12 U | |
| trans-1,2-Dichloroethene | ug/kg | 300 | | 15 U | 12 U | | 12 U | 12 U | |
| Dichlorodifluoromethane | ug/kg | | | 15 U | 12 UJ | | 12 U | 12 UU | |
| Trichlorofluoromethane | ng/kg | | | 15 U | 12 UU | | 120 | | |
| Methyl acetate | ug/kg | | | 15 U | 12 U | | 12 0 | 12 0 | |
| Methyl tert butyl ether | ug/kg | • 120 | | 15 U | 12 U | | 12 U | 12 U | |
| Cyclohexane | ng/kg | | | 101 | 12 U | | 1210 | | |
| Methylcyclohexane | ng/kg | | | 31 | 12 U | | | | |
| 1,2-Dibromoethane | Dy/6n | | | 15 U | 12 U | | | | |
| lsopropylbenzene | ng/kg | | | 35 | 12 U | | | | |
| 1,3-Dichlorobenzene | ng/kg | 1,600 | | 15 U | 12 U | | | | |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | | 15 U | 12 U | | 120 | | |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | | 1510 | 12 U | | | | |
| 1,2-Dibromo-3-chloropropane | ug/kg | | | 15 U | 12 U | | 120 | | |
| 1,2,4-Trichlorobenzene | ng/kg | 3,400 | | 15 UJ | 12 W | | | | |
| SEMIVOLATILES | | | | 11000 | 1 000 2 | | 76011 | 7 000 [1 | 11000 |
| Benzaldehyde | l ug/kg | | | anna | 1,500,0 | 1 21000 | 2022 | 1 212221 | 2021202 |

| <u>.</u> |
|-------------------------|
| 0 |
| 5 |
| Ξ. |
| 0 |
| m |
| |
| CC . |
| ö |
| - |
| 5 |
| _ |
| $\overline{\mathbf{u}}$ |
| |
| <u>ت</u> |
| n. |
| |
| |
| Ċ. |
| |
| |
| |
| |

| | | | | - | | | | | 21 |
|------------------------------|--------|-------------|------------|-----------|----------|-------------|------------|------------|----------|
| Sample ID -> | | | 1 4045 | | 2-07 | 10-3 UL | 402 | | -0- |
| Uepth - > | | 0000 | | 4 - 0 | 4 - 2 | + - 7 | 11/18/2004 | 11/10/2004 | 38310 |
| Date Sampleu -> | 24/21 | 30 or MDI | המראותמוזע | 1.1202/01 | 11011 | | 38011 | 1401.1 | 20 00011 |
| Pnenol | ĥy/ĥn | | | 11 017 | 0 010 | 0 000 01 | | | 200000 |
| Bis(2-chloroethyl) ether | Dy/6n | | | 450 U | 4,000 U | 40,000 U | D DRS | 3,900 U | 50,000 U |
| 2-Chlorophenol | ug/kg | 800 | | 450 U | 4,000 U | 40,000 U | 380 0 | 3,900 U | 20,000 U |
| 2-Methylphenol | ug/kg | 100 or MDL | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2,2'-Oxybis(1-Chloropropane) | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Acetophenone | ng/kg | | | 000 N | 7,900 U | 79,000 U | 760 U | 7,900 U | 39,000 U |
| 4-Methylphenol | ug/kg | 006 | | 450 U | 4,000 U | 40,000 U | 380 U | 160 J | 20,000 U |
| N-Nitroso-Di-n-propylamine | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Hexachloroethane | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Nitrobenzene | ug/kg | 200 or MDL | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Isophorone | ug/kg | 4400 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2-Nitrophenol | ug/kg | 330 or MDL | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2,4-Dimethytphenof | 110/kg | | | 450 U | 140 J | 40,000 U | 380 U | 120 J | 20,000 U |
| Bis(2-chloroethoxy) methane | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2,4-Dichlorophenol | ug/kg | 400 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Naphthalene | ug/kg | 1,300 | | 48 JN | 13,000 | 13,000 DJ | 21 J | 1,200 J | 1.400 DJ |
| 4-Chloroaniline | ng/kg | 220 or MDL | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Hexachlorobutadiene | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Caprolactam | ug/kg | | | 006 U | 7,900 U | 79,000 U | 760 U | 7,900 U | 39,000 U |
| 4-Chloro-3-methylphenol | ug/kg | 240 or MDL | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2-Methylnaphthalene | ug/kg | 36,400 | | 220 J | 12,000 | 12,000 DJ | 16 J | 1,500 J | 1,600 DJ |
| Hexachlorocyclopentadiene | ua/ka | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2.4.6-Trichlorophenol | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2.4.5-Trichlorophenol | ua/ka | 100 | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| Biphenvl | ug/kg | | | 900 U | 7,900 U | 79,000 U | 760 U | 7,900 U | 39,000 U |
| 2-Chloronaphthalene | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2-Nitroaniline | ug/kg | 430 or MDL | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| Dimethyl phthalate | ug/kg | 2,000 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 2,6-Dinitrotoluene | ng/kg | 1,000 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Acenaphthylene | ug/kg | 41,000 | | 450 U | 2,400 J | 3,500 J | 35 J | 4,600 | 4,500 DJ |
| 3-Nitroaniline | ug/kg | 500 or MDL | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| Acenaphthene | ug/kg | 50,000 | | 110 J | 11,000 | 11,000 DJ | 24 J | 2,800 J | 3,400 DJ |
| 2,4-Dinitrophenol | ug/kg | 200 or MDL | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| 4-Nitrophenot | ng/kg | 100 or MDL | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| Dibenzofuran | ug/kg | 6,200 | | 74 J | 17,000 | 16,000 DJ | 22) | 4,600 | 5,000 DJ |
| 2,4-Dinitrotoluene | ug/kg | 1,000 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Diethyt phthalate | ug/kg | 7,100 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Fluorene | ug/kg | 50,000 | | 240 J | 28,000 | 26,000 DJ | 25 J | 5,800 | 5,600 DJ |
| 4-Chlorophenyl phenyl ether | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 4-Nitroaniline | ug/kg | ¥. | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| 4,6-Dinitro-2-methylphenol | ug/kg | • | | 1,100 U | 9,600 U | 96,000 U | 920 U | 9,500 U | 48,000 U |
| N-nitrosodiphenylamine | ug/kg | | | 190 J | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 4-Bromophenyl phenyl ether | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Hexachlorobenzene | ug/kg | 410 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Atrazine | ug/kg | | | 000 U | 7,900 U | 79,000 U | 760 U | 7,900 U | 39,000 U |
| Pentachlorophenol | ug/kg | 1000 or MDL | | 1,100 U | 4,000 U | 40,000 U | 920 U | 9,500 U | 48,000 U |
| Phenanthrene | ug/kg | 50,000 | | 360 J | 130,000 | 130,000 BD | 470 | 68,000 | 68,000 D |
| Anthracene | ug/kg | 50,000 | | 35 J | 30,000 J | 3,000 DJ | 102 | 7,100 | 7,500 00 |
| Carbazole | ug/kg | | | 450 U | 6,000 | 6,500 DJ | 45 J | 3,400 J | 3,600 DJ |
| Di-n-butyl phthalate | ug/kg | 8,100 | | 23 J | 4,000 U | 40,000 U | 11 1 | 3,900 U | 700 121 |
| Fluoranthene | ug/kg | 50,000 | | 91 J | 110,000 | 110,000,011 | 650 | 71,000 | 71,00015 |

| | | | | 0 | < 00 | | 1 00 | 7 do | 10 4 20 |
|---|-------------------|--|--------------|----------------------|---------------------|-----------|-------------|--------------|-----------|
| Sample ID -> | | | 4040 | 0-0- | | | | | 0.1 |
| Depth - > | | HSCU HSCU | Eastern USA | 4 - 0 | + - 7 | 11/00/07 | 11/10/00/ | 11/10/00/1 | 1-7 |
| Date Sampled -> | | | Background | 11/3/2004 | 11/22/2004 | | 11/10/2/014 | 11/13/2004 | 20210 |
| Pyrene | ug/kg | 50,000 | | 87 J | 41,000 | 41,000 | 016 | 000,50 | |
| Butyl benzyl phthalate | ug/kg | 50,000 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| 3,3'-Dichlorobenzidine | ug/kg | | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Benzo(a)anthracene | ug/kg | 224 or MDL | | 34 J | 40,000 | 40,000 DJ | 260 J | 20,000 | 19.000 DJ |
| Chrysene | ug/kg | 400 | | 42 J | 32,000.J | 33,000 DJ | 300 J | 23,000 | 23,000 D |
| Bis(2-ethylhexyl) phthalate | ug/kg | | | 450 U | 4,000 U | 40,000 U | 830 U | 3,900 U | 740 BDJ |
| Di-n-octvl phthalate | ug/kg | 50,000 | | 450 U | 4,000 U | 40,000 U | 380 U | 3,900 U | 20,000 U |
| Benzo(b)fluoranthene | ug/kg | 1,100 | | 28 J | 19,000,51 | 19,000 DJ | 260 J | 14,000 J | 14.000 DJ |
| Benzo(k)tiuoranthene | ua/ka | 1.100 | | 25 J | 20,000 J | 28,000 DJ | 200 J | 14,000 J | 14,000 DJ |
| Benzofalovrene | ua/ka | 61 or MDL | | 30 J | 15,000 | 13,000 DJ | 250 J | 21,000 J | 18.000 DJ |
| Indeno(1 2 3cd)nvrene | un/ka | 3 200 | | 17 J | 4.800 | 5,700 DJ | 94 J | 5,500 J | 9,600 DJ |
| Dihanzo(a h)anthracana | | 14 or MDI | | 450 U | 3,600 J | 3,600 DJ | 33.J | 2,400 J | 4,400 DJ |
| Boototototototo | | 50,000 | | 22.1 | 210 J | 40.000 U | 1001 | 5,800 J | 12,000 DJ |
| PESTICIDES/AROCI.ORS | D:: D:: D:: | | | | | • | | | |
| aluha-BHC | ua/ka | 110 | | 2.3 U | 20 U | | 1.9 U | 41 U | 410 U |
| heta-RHC | na/ka | 200 | | 2.3 U | 20 U | | 1.9 U | 41 U | 410 U |
| | | 300 | | 2311 | 20 0 | | 1.9 U | 41 U | 410 U |
| uella-Ul IO comma BHC /l indene) | | en e | | 2.311 | 20 U | | 1.9 U | 41 U | 410 U |
| galilita-bito (clinderic) Lantachiar | Bu Ro | g u | | 0311 | 8.0 JPN | | 1.9 U | 10 JP | 410 U |
| | 51,01 | 11 | | 2311 | 2011 | | 191 | 41 U | 410 U |
| | 200 | Ŧ | | 100 | | | | 41 11 | 41011 |
| | ng/Kg | 22 | | | | | | 2011 | 41011 |
| Endosultan I | ng/kg | 202 | | 2.20 | | | | | 11002 |
| Dieldrin | ng/Kg | 44 | | 0 4.4 U | 0 200 | | | | 0 06/ |
| 4,4'-DDE | ug/kg | 2,100 | | 4.4 U | 0.65 | | 0 0 | | 1 200 |
| Endrin | ng/kg | 90 | | 4.4 U | 39 U | | 3.8 0 | 130 1 | 1 2001 |
| Endosultan II | ug/kg | 006 | | 4,4 U | 35 JP | | 3.8 U | ч 1 8 | 1901 |
| 4,4'-DDD | ng/kg | 2,900 | | 4.4 U | 39 U | | 3.8 U | л 88 1 | |
| Endosultan Sulfate | ug/kg | 100 | | 4.4 U | 39 U | | 3.8 U | 160 | 240 JP |
| 4,4'-DDT | ug/kg | 2,100 | | 4.4 U | 39 U | | 3.8 U | 47 JP | 790 U |
| Methoxychior | ng/kg | | | 23 U | 200 U | | 7.4 J | 110 JP | 4100 U |
| Endrin ketone | ng/kg | | | 4.4 U | 39 U | | 9.5 | 380 | 790 U |
| Endrin aldehyde | ug/kg | | | 4.4 U | 39 U | | 3.8 U | 0 6Z | 1062 |
| alpha-Chlordane | ug/kg | 540 | | 2.3 U | 25 | | 1.9 U | 41 U | 410 U |
| gamma-Chlordane | ug/kg | 540 | | 2.3 U | 28 U | | 1.9 U | 41 U | 410 U |
| Toxaphene | ug/kg | | | 230 U | 2,000 U | | 190 U | 0 06Z | 41000 U |
| Arocior 1016 | ug/kg | | | 44 U | 390 U | | 38 U | 1,600 U | 7900 U |
| Aroclor 1221 | ug/kg | 1 000 - curface | | 0 68 | 800 U | | 77 U | 790 U | 16000 U |
| Aroclor 1232 | ug/kg | eoile 10 000 - | | 44 U | 390 U | | 38 U | 790 U | 0 006Z |
| Arocior 1242 | ng/kg | eubeurface | | 44 U | 390 U | | 38 N | 790 U | 10062 |
| Aroclor 1248 | ug/kg | subsurace | | 44 U | 390 U | | 38 U | 790 U | 0062 |
| Aroclor 1254 | ug/kg | C.00 | | 44 U | 390 U | | 38 U | 790 U | 7900 U |
| Aroclor 1260 | ug/kg | | | 44 U | 390 U | | 38 38 | D 062 | 0062 |
| INORGANICS | | | | | | | | | |
| Aluminum | mg/kg | SB | 33000 | 2,960 J | 6,110 | | 2,990 E | 3,530 | |
| Antimony | mg/kg | SB | | 0.63 NU*J | 2.1 BN*J | | 8.1 NJ | 2.5 BNJ | |
| Arsenic | mg/kg | 7.5 or SB | 3 - 12 | 2.5 N*J | 7.8 N*J | | 55.5 | 6.4 N | |
| Barium | mg/kg | 300 or SB | 15 - 600 | 58.6 N*J | 77.7 | | 68.2 E | 38.6 | |
| Beryllium | mg/kg | 0.16 or SB | 0 - 1.75 | 0.18 BN*J | 0.62 | | 0.72 | 0.52 B | |
| Cadmium | mg/kg | 1 or SB | 0.1 - 1 | 0.03 NU*J | 0.24 BN* | | 0.03 U | 0.04 U | |
| Calcium | mg/kg | SB | 130 - 35,000 | 141,000 EJ | 112,000 | | 42,900 E | 97,500 | |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 4.6 N ^r J | 13.6 N ⁻ | | 43.7 F | 18.0 | |

Pioneer Midler Avenue LLC

Remedial Investigation Report Table 2 - Phase 1 Soil Data for Monitoring Wells and Geotechnical Borings

| Sample ID -> | Units | TAG | M 4046 | LB-8 | PB-3 | PB-3 DL | PB-4 | PB-7 | PB-7 DL |
|------------------------|-------|-------------|-----------------|-----------|------------|------------|------------|------------|---------|
| Depth - > | | RSCO | Eastern USA | 4-6 | 2 - 4 | 2-4 | 2-4 | 2-4 | 2-4 |
| Date Sampled -> | | | Background | 11/9/2004 | 11/22/2004 | 11/22/2004 | 11/18/2004 | 11/19/2004 | 38310 |
| Cobalt | mg/kg | 30 or SB | 2.5 - 60 | 1.8 BN*J | 5.0 B* | | 11,2 | 4.7 B | |
| Copper | mg/kg | 25 or SB | 1-50 | 4.3 N*J | 62.8 N* | | 91.7 EN | 21.7 N | |
| lron | mg/kg | 2,000 or SB | 2,000 - 550,000 | 10,400 J | 24,000 | | 188,000 E | 82,000 | |
| Lead | mg/kg | SB | 200-500 | 6.3 NJ | 141 | | 110 E | 29.6 | |
| Magnesium | mg/kg | SB | 100 - 5,000 | 2,240 J | 16,900 | | 1,460 E | 4,060 | |
| Manganese | mg/kg | SB | 50 - 5,000 | 122 N*J | 523 N*J | | 735 EJ | 083 NJ | |
| Mercury | mg/kg | 0.1 | 0.001 - 0.2 | 0.026 U | 0.203 J | | 0.026 U | 0.078 N* | |
| Nickel | mg/kg | 13 or SB | 0.5 - 25 | 4.1 BN*J | 22.0 | | 22.3 E | 9.6 | |
| Potassium | mg/kg | SB | 8,500 - 43,000 | 642 BEJ | 1,360 | | 565 | 452 B | |
| Selenium | mg/kg | 2 or SR | 0.1 - 3.9 | 0.71 BN*J | 0.55 U | | 0.48 U | 0.58 U | |
| Silver | mg/kg | SB | | 0.14 NU*J | 0.14 BN*J | | 0.27 B | 0.08 U | |
| Sodium | mg/kg | SB | 6,000 - 8,000 | 96.4 BJ | 384 B | | 114 B | 154 B | |
| Thallium | mg/kg | SB | | 2.1 N*J | 0.56 U | | 0.49 U | 0.59 U | |
| Vanadium | mg/kg | 150 or SB | 1-300 | 9.1 N*J | 16.5 | | 82.0 E | 35.6 | |
| Zinc | mg/kg | 20 or SB | 9-50 | 21.8 N*J | 140 | | 52.4 E | 62.7 | |
| WET CHEMISTRY ANALYSIS | | | | - | | | | | |
| Cyanide - Total | ug/kg | | | 4,000 U | 4,000 UJ | | 4000 U | 4000 U | |
| Leachable pH | s.U | | | 7.77 | 8.21 | _ | 7.15 | 7.38 | |

f.

. .

| Sample ID -> | Units | TAGN | A 4046 | PB-12 | 1-WM | MW-2 | 6-WM | MW-4 |
|---------------------------------------|-------|-----------|-------------|------------|------------|------------|----------------|------------|
| Depth - > | | RSCO | Eastern USA | 18 - 20 | 4 - 6 | 2 - 4 | 2 - 4 | 2 - 4 |
| Date Sampled -> | | | Background | 11/24/2004 | 11/17/2004 | 11/18/2004 | 11/18/2004 | 11/17/2004 |
| VOLATILES | 6x/6n | _ | | | | | | |
| Chloromethane | ug/kg | | | 17 UJ | 11 UJ | 12 U | 14 0.1 | 14 WJ |
| Bromomethane | ng/kg | | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Vinyl chloride | ng/kg | 200 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Chloroethane | D3/kg | 1,900 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Methylene chloride | ng/kg | 100 | | 13 J | 11 U | 12 U | 14 U | 14 U |
| Acetone | ug/kg | 200 | | ۲ <u>8</u> | 10 J | 12 U | 14 U | 40 |
| Carbon disulfide | ng/kg | 2,700 | | 17 WJ | 11 U | 12 U | 14 U | 14 U |
| 1.1-Dichtoroethene | ug/kg | 400 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| 1,1-Dichloroethane | ug/kg | 200 | | 17 W | 11 U | 12 U | 14 U | 14 U |
| Chloroform | ug/ka | 300 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| 1.2-Dichloroethane | ug/kg | 100 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| 2-Butanone | ug/kg | 300 | | 17 UJ | 11 U | 12 U | 14 U | 8 J |
| 1,1,1-Trichloroethane | ug/kg | 800 | | 17 W | 11 U | 12 U | 14 U | 14 U |
| Carbon tetrachtoride | ug/kg | 600 | | 17 W | 11 U | 12 U | 14 U | 14 U |
| Bromodichloromethane | ng/kg | | | 17 W | 11 N | 12 U | 14 U | 14 U |
| 1.2-Dichloropropane | ng/kg | | | 17 W | 11 U | 12 U | 14 U | 14 U |
| cis-1.3-Dichloropropene | uq/ka | | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Trichloroethene | ua/ka | 700 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Dibromochloromethane | ua/ka | | | 17 W | 110 | 12 U | 14 U | 14 U |
| 1.1.2-Trichloroethane | uq/kg | | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Benzene | ug/kg | 60 or MDL | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| trans-1.3-Dichloropropene | na/kg | | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Bromoform | ug/kg | | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| 2-Hexanone | ug/kg | | | 17 UU | 11 U | 12 U | 14 U | 14 U |
| Tetrachloroethene | ng/kg | 1,400 | | 17 UU | 11 U | 12 U | 46 | 14 U |
| Toluene | ng/kg | 1,500 | | 17 UJ | 11 U | 12 U | 14 | 14 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Chlorobenzene | ng/kg | 1,700 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Ethylbenzene | ug/kg | 5,500 | | 17 UJ | 11 U | 12 U | ا 6 | 14 U |
| Styrene | ug/kg | | | 17 UU | 11 U | 12 U | 14 U | 14 U |
| Totat xylenes | ug/kg | 1,200 | | 17 UJ | 11 U | 12 U | 48 | 14 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | | 17 W | 11 U | 12 U | 14 U | 14 U |
| cis-1,2-Dichloroethene | ug/kg | | | 17 W | 11 0 | 12 U | 14 U | 14 U |
| trans-1,2-Dichloroethene | ug/kg | 300 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Dichlorodifluoromethane | ug/kg | | | 17 UJ | 11 C | 12 U | 14 U | 14 U |
| Trichlorofluoromethane | ug/kg | | | 17 W | 11 U | 12 U | 14 U | 14 U |
| Methyl acetate | ug/kg | | | 17 UJ | 11 U | 12 UJ | 14 U | 14 U |
| Methyl tert butyl ether | ug/kg | 120 | | 17 UJ | 0 : I | 12 0 | 14 U | 14 U |
| Cyclohexane | ug/kg | | | 17 UJ | 110 | 12 0 | 14 U | 14 U |
| Methylcyclohexane | ug/kg | | | 17 UJ | D II | 12 U | 9 | 14 U |
| 1,2-Dibromoethane | ug/kg | | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| Isopropylbenzene | ug/kg | | | 17 UJ | 11 U | 12 0 | 14 U | 14 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | | 17 UJ | 110 | 12 U | 14 U | 14 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | | 17 UJ | 11 U | 12 U | 14 U | 14 U |
| 1,2-Dichlorobenzene | ng/kg | 7,900 | | 17 UJ | 110 | 12 U | 14 U | 14 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | | 17 UJ | 11 0 | 12 U | 14 0 | 14 U |
| 1,2,4-Trichlorobenzene | ng/kg | 3,400 | | 12 M | 11 m | 12 M | 14 01 | 14 UJ |
| SEMIVOLATILES | | | | 11007 + | 11000 0 | 760 11 | 11002 1 | |
| Benzaldenyde | D3/KG | | | 1,100,00 | 20000 | nine/ | +, 'vu'u | 0,30010 |

| Ċ۵. |
|--------------|
| - * * |
| - 📿 |
| 2 |
| - |
| ~ |
| 0 |
| 0 |
| _ |
| |
| 0 |
| v. |
| -= |
| <u> </u> |
| 2 |
| 0 |
| - 75 |
| 2 |
| õ |
| ×. |
| <u>.</u> |
| ശ |
| |
| |
| |
| |
| |

| Sample ID -> | Units | TAGN | A 4046 | PB-12 | 1-WW | MW-2 | E-WM | MW-4 |
|------------------------------|---------|-------------|-------------|------------|------------|------------|------------|------------|
| Depth - > | | RSCO | Eastern USA | 18 - 20 | 4-6 | 2 - 4 | 2 - 4 | 2-4 |
| Date Sampled -> | | | Background | 11/24/2004 | 11/17/2004 | 11/18/2004 | 11/18/2004 | 11/17/2004 |
| Phenol | ug/kg | 30 or MDL | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Bis(2-chloroethyl) ether | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2-Chlorophenol | ug/kg | 800 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2-Methylphenol | ug/kg | 100 or MDL | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2,2'-Oxybis(1-Chloropropane) | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Acetophenone | ug/kg | | | 1,100 UJ | 3,800 U | 750 U | 4,700 U | 8,900 U |
| 4-Methylphenol | ug/kg | 006 | | 550 UU | 1,900 U | 380 U | 2,300 U | 4,500 U |
| N-Nitroso-Di-n-propylamine | uq/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Hexachloroethane | ua/ka | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Nitrobenzene | ua/ka | 200 or MDL | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Isonhorone | io/ko | 4400 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2-Nitronhanol | 110/kg | 330 or MDI | | 550 UJ | 1.900 U | 380 U | 2.300 U | 4,500 U |
| 2 A.Dimethylohand | 10/kg | | | 550 UJ | 1.900 U | 380 U | 2,300 U | 4,500 U |
| Bic/2.chloroathow/ methane | 10/kg | | | 550 UJ | 1.900 U | 380 U | 2.300 U | 4.500 U |
| 2 4-Dichlorophenol | nn/ka | 400 | | 550 UJ | 1.900 U | 380 U | 2,300 U | 4,500 U |
| Lat Distriction | ind/kn | 1 300 | | 550 UJ | 1,900 U | 380 U | 260 J | 490 J |
| A Phononilino | By Br | 220 or MDI | | 550 111 | 1 900 11 | 380 11 | 2 300 U | 4.500 [1] |
| H-Willotvalulitie | Rufford | | | 550 11.1 | 1 900 11 | 380 [] | 2,300 U | 4.500 U |
| | | | | 11001 1 | | 75011 | 4 700 11 | |
| Caprolactarn | Fy/Fn | | | | | | | A 500 11 |
| 4-Chioro-3-methylphenol | ng/Kg | | | 00000 | 000 | | | |
| 2-Methylnaphthalene | ng/kg | 36,400 | | 550 UJ | 1,900 1 | 380 0 | 83 0 | 200 3 |
| Hexachlorocyclopentadiene | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2,4,6-Trichlorophenol | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2,4,5-Trichlorophenol | ug/kg | 100 | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 11,000 U |
| Biphenyl | ug/kg | | | 1,100 UJ | 3,800 U | 750 U | 4,700 U | 8,900 U |
| 2-Chloronaphthalene | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2-Nitroaniline | ug/kg | 430 or MDL | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 11,000 U |
| Dimethyl phthalate | ug/kg | 2,000 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 2.6-Dinitrotoluene | ng/kg | 1,000 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Acenaphthylene | ug/kg | 41,000 | | 550 UJ | 1,900 U | 380 U | 95 J | 1,500 J |
| 3-Nitroaniline | ug/kg | 500 or MDL | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 11,000 U |
| Acenaphthene | ug/kg | 50,000 | | 550 UJ | 1,900 U | 380 U | 160 J | 510 J |
| 2,4-Dinitrophenol | ug/kg | 200 or MDL | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 4,500 U |
| 4-Nitrophenol | ng/kg | 100 or MDL | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 4,500 U |
| Dibenzofuran | ng/kg | 6,200 | | 550 UJ | 1,900 U | 380 U | 120 J | 400 J |
| 2,4-Dinitrototuene | ng/kg | 1,000 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Diethyl phthalate | ug/kg | 7,100 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Fluorene | ng/kg | 50,000 | | 550 UJ | 1,900 U | 380 U | 190 J | 1,000 J |
| 4-Chlorophenyl phenyl ether | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 4-Nitroaniline | ng/kg | | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 11,000 U |
| 4,6-Dinitro-2-methylphenol | ug/kg | | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 11,000 U |
| N-nitrosodiphenylamine | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 4-Bromophenyl phenyl ether | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Hexachlorobenzene | ug/kg | 410 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Atrazine | ug/kg | | | 1,100 UJ | 3,800 U | 750 U | 4,700 U | 8,900 U |
| Pentachlorophenol | ug/kg | 1000 or MDL | | 1,300 UJ | 4,500 U | 910 U | 5,700 U | 11,000 U |
| Phenanthrene | ug/kg | 50,000 | | 550 UJ | 300 J | 22 J | 2,100 J | 9,700 |
| Anthracene | ug/kg | 50,000 | | 550 UJ | 60 J | 380 U | 320 J | 2,300 J |
| Carbazole | ug/kg | | | 550 UJ | 1,900 U | 380 U | 240 J | B0 ا |
| Di-n-butyl phthalate | ug/kg | 8,100 | | 65 J | 1,900 U | 380 U | 2,300 U | 20.000 |
| Elinranthene | 110/Kg | 50.000 | | 550 UJ | 400 J | 44 J | 2,200 J | 13,000 |

| Sample (D -> | Units | TAGN | 1 4046 | PB-12 | I-WM | MW-2 | MW-3 |
|-----------------------------|-------|------------|-------------|------------|------------|------------|------------|
| Depth - > | | RSCO | Eastern USA | 18 - 20 | 4-6 | 2-4 | 2-4 |
| Date Sampled -> | [| | Background | 11/24/2004 | 11/17/2004 | 11/18/2004 | 11/18/2004 |
| Pyrene | ua/ka | 50,000 | | 550 UJ | 280 J | 37 J | 2,300 U |
| Butvl benzvl phthalate | ng/kg | 50,000 | | 550 UJ | 1,900 U | 380 U | 2,300 U |
| 3.3'-Dichlorobenzidine | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U |
| Benzo(a)anthracene | ug/kg | 224 or MDL | | 550 UJ | 160 J | 26 J | 1,300 J |
| Chrysene | uq/kg | 400 | | 550 UJ | 170 J | 30 J | 1,400 J |
| Bis(2-ethvlhexvl) phthalate | uq/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U |
| Di-n-octvl phthalate | ng/kg | 50,000 | | 550 UJ | 1,900 U | 12 J | 2,300 U |
| Benzo(b)fluoranthene | ug/kg | 1,100 | | 550 UJ | 140 J | 23 J | 1,400 J |
| Benzo(k)fluoranthene | ng/kg | 1,100 | | 550 UJ | 150 J | 23 J | 940J |
| Benzo(a)pyrene | ug/kg | 61 or MDL | | 550 UJ | 150 J | 24 J | 1,200 J |
| Indeno(1,2,3-cd)pyrene | ng/kg | 3,200 | | 550 UJ | 52 J | 10 J | 400 J |
| Dibenzo(a,h)anthracene | ug/kg | 14 or MDL | | 550 UJ | 1,900 U | 380 U | 220 J |
| Benzo(ghi)perylene | ng/kg | 50,000 | | 550 UJ | 66 J | 12 J | 420 J |
| PESTICIDES/AROCLORS | | | | | | | |
| alpha-BHC | 03/bn | 110 | | 2:9 UJ | 19 U | 1.9 U | 24 U |
| beta-BHC | Dy/bn | 200 | | 2.9 UJ | 19 U | 1.9 U | 24 U |
| delta-BHC | ug/kg | 300 | | 2.9 W | 19 U | 1,9 U | 24 U |
| gamma-BHC (Lindane) | ng/kg | 80 | | 2.9 UJ | 19 U | 1.9 U | 24 U |
| Heptachlor | ng/kg | 100 | | 2.9 UJ | 19 N | 1.9 U | 24 U |
| Aldin | ug/kg | 41 | | 2.9 UJ | 19 U | 1.9 U | 24 U |
| | | 00 | | 11100 | 1.01 | | I VC |

| Samnle ID -> | Units | TAGN | A 4046 | PB-12 | 1-WM | MW-2 | MW-3 | MW-4 |
|-----------------------------|-------|-----------------|--------------|------------|------------|------------|------------|------------|
| Depth - > | | RSCO | Eastern USA | 18 - 20 | 4-6 | 2-4 | 2-4 | 2-4 |
| Date Sampled -> | | | Background | 11/24/2004 | 11/17/2004 | 11/18/2004 | 11/18/2004 | 11/17/2004 |
| Pyrene | ug/kg | 50,000 | | 550 UJ | 280 J | 37 J | 2,300 U | 4,500 U |
| Butyl benzyl phthalate | ng/kg | 50,000 | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| 3,3'-Dichlorobenzidine | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Benzo(a)anthracene | ug/kg | 224 or MDL | | 550 UJ | 160 J | 26 J | 1,300 J | 8,300 |
| Chrysene | ug/kg | 400 | | 550 UJ | 170 J | 30 J | 1,400.J | 370 BJ |
| Bis(2-ethylhexyl) phthalate | ug/kg | | | 550 UJ | 1,900 U | 380 U | 2,300 U | 4,500 U |
| Di-n-octyl phthalate | ug/kg | 50,000 | | 550 UJ | 1,900 U | 12.J | 2,300 U | 4,500 U |
| Benzo(b)fluoranthene | ug/kg | 1,100 | | 550 UJ | 140 J | 23 J | 1,400 J | 17.000 J |
| Benzo(k)fluoranthene | ug/kg | 1,100 | | 550 UJ | 150 J | 23 J | 940 J | 9,100,J |
| Benzo(a)pyrene | ug/kg | 61 or MDL | | 550 UJ | 150 J | 24 J | 1,200,J | 7,100 |
| Indeno(1,2,3-cd)pyrene | ug/kg | 3,200 | | 550 UJ | 52 J | 10 J | 400 J | 2,800 J |
| Dibenzo(a,h)anthracene | ug/kg | 14 or MDL | | 550 UJ | 1,900 U | 380 U | 220 J | 1,500 J |
| Benzo(ghi)perylene | ug/kg | 50,000 | | 550 UJ | 66 J | 12 J | 420 J | 2,900 J |
| PESTICIDES/AROCLORS | | | | | | | | |
| alpha-BHC | ug/kg | 110 | | 2.9 UJ | 19 U | 1.9 U | 24 U | 23 U |
| beta-BHC | ng/kg | 200 | | 2.9 UJ | 19 U | 1.9 U | 24 U | 23 U |
| delta-BHC | ng/kg | 300 | | 2.9 UJ | 19 U | 1,9 U | 24 U | 23 U |
| gamma-BHC (Lindane) | ug/kg | 60 | | 2.9 UJ | 19 0 | 1.9 U | 24 U | 23 U |
| Heptachlor | ug/kg | 100 | | 2.9 UJ | 19 N | 1.9 U | 24 U | 23 U |
| Aldin | ug/kg | 41 | | 2.9 UJ | 19 U | 1.9 U | 24 U | 23 U |
| Heptachlor epoxide | ug/kg | 20 | | 2.9 UJ | 19 U | 1.9 U | 24 U | 23 U |
| Endosultan I | ng/kg | 006 | | 5.6 UJ | 19 U | 1.9 U | 24 U | 23 U |
| Dieldrin | ng/kg | 44 | | 5.6 UJ | 38 U | 3.8 U | 47 U | 73 U |
| 4,4'-DDE | ug/kg | 2,100 | | 5.6 UJ | 38 U | 3.8 U | 47 U | 46 U |
| Endrin | ug/kg | 100 | | 5.6 UJ | 38 U | 3.8 U | 47 U | 46 U |
| Endosulfan II | ng/kg | 006 | | 5.6 UJ | 38 U | 3.8 U | 47 U | 46 U |
| 4,4'-DDD | ug/kg | 2,900 | | 5.6 UJ | 38 0 | 3.8 U | 47 U | 46 U |
| Endosulfan Sultate | ng/kg | 100 | | 5.6 UJ | 38 0 | 3.8 U | 47 U | 38 J |
| 4,4'-DDT | ug/kg | 2,100 | | 5.6 UJ | 38 0 | 3.8 U | 47 U | 46 U |
| Methoxychlor | ug/kg | | | 29 UU | 190 U | 3.8 U | 240 U | 230 U |
| Endrin ketone | ug/kg | | | 5.6 UJ | 38 0 | 3.8 U | 47 U | 86 |
| Endrin aldehyde | ug/kg | | | 5.6 UJ | 38 0 | 3.8 U | 47 U | 46 U |
| alpha-Chlordane | ug/kg | 540 | | 2.9 UJ | 19 U | 1.9 U | 24 U | 23 U |
| gamma-Chlordane | ug/kg | 540 | | 2.9 UJ | 19 U | 1.9 U | 24 U | 23 U |
| Toxaphene | ug/kg | | | 290 UJ | 1,900 U | 190 U | 2,400 U | 2,300 U |
| Aroclor 1016 | ug/kg | | | 56 UJ | 380 U | 38 U | 470 U | 460 U |
| Aroclor 1221 | ug/kg | 1 000 - surface | | 110 UJ | 380 U | 38 U | 470 U | 460 U |
| Aroclor 1232 | ug/kg | soils. 10.000 - | | 56 UJ | 380 U | 38 0 | 470 U | 460 U |
| Aroclor 1242 | ug/kg | subsurfare | | 56 UJ | 380 U | 38 U | 470 U | 460 U |
| Aroclor 1248 | ug/kg | ourourave | | 56 UJ | 380 U | 38 U | 470 U | 460 U |
| Aroclor 1254 | ug/kg | | | 56 UJ | 380 U | 38 U | 470 U | 460 U |
| Aroclor 1260 | ng/kg | , | | 56 UJ | 380 U | 38 U | 470 U | 460 U |
| INORGANICS | | | | | | | | |
| Aluminum | mg/kg | SB | 33000 | 50.1 | 6580 EJ | 4670 | 5310 EJ | 4840 EJ |
| Antimony | mg/kg | SB | | 0.62 N*J | 1.7 BNJ | 0.51 NJ | 2.4 BNJ | 1.0 BNJ |
| Arsenic | mg/kg | 7.5 or SB | 3 - 12 | 0.45 N*J | 3.3 | 1.4 N | 5.1 | 3.3 |
| Barium | mg/kg | 300 or SB | 15 - 600 | 27.1 | 64.0 EJ | 21.1 | 32.0 EJ | 37.8 BEJ |
| Beryllium | mg/kg | 0.16 or SB | 0 - 1.75 | 0.14 | 0.70 | 0.21 BJ | 0.50 B | 0.36 B |
| Cadmium | mg/kg | 1 or SB | 0.1 - 1 | 0.03 ND | 0.04 U | 0.03 U | 0.04 U | 0.06 U |
| Calcium | mg/kg | BS | 130 - 35,000 | 339,000 | 106000 EJ | 14600 | 72700 EJ | 15200 EJ |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 0.11 BN"J | 14.2 EJ | 5.5 | 12.3 EU | 14.8 151 |
| | | | | | | | | |

| Sample ID -> | Units | TAGN | A 4046 | PB-12 | MW-1 | MW-2 | MW-3 | MW-4 |
|------------------------|-------|-------------|-----------------|------------|------------|------------|------------|------------|
| Depth - > | | RSCO | Eastern USA | 18 - 20 | 4-6 | 2-4 | 2-4 | 2-4 |
| Date Sampled -> | | | Background | 11/24/2004 | 11/17/2004 | 11/18/2004 | 11/18/2004 | 11/17/2004 |
| Cobalt | ma/ka | 30 or SB | 2.5 - 60 | 0.07 N | 3.1 B | 2.1 BJ | 5.0 B | 1.9 B |
| Copper | mg/kg | 25 or SB | 1 - 50 | 0.38 B* | 17.1 ENJ | 3.8 N | 373 ENJ | 38.3 ENJ |
| lion | ma/ka | 2,000 or SB | 2,000 - 550,000 | 194 | 27300 EJ | 7350 | 31600 EJ | 14900 EJ |
| Lead | mg/kg | SB | 200 - 500 | 0.16 NJ | 90.4 EJ | 0.08 | 109 EJ | 39.8 EJ |
| Magnesium | mg/kg | SB | 100 - 5,000 | 1,800 | 5600 EJ | 2550 | 11400 EJ | 1540 EJ |
| Manganese | ma/ka | SB | 50 - 5,000 | 38.5 | 1040 E*J | 157 NJ | 364 E*J | 456 E*J |
| Mercury | ma/ka | 0.1 | 0.001 - 0,2 | 0.036 N | 0.092 N* | 0.026 N* | 0.055 BN* | 0.104 N* |
| Nickel | ma/ka | 13 or SB | 0.5 - 25 | 2.2 | 7.8 EJ | 4.2 | 13.8 EJ | 9.7 EJ |
| Potassium | ma/ka | SB | 8,500 - 43,000 | 54.6 | 1060 | 979 | 943 | 693 B |
| Selenium | mg/kg | 2 or SR | 0.1 - 3.9 | 0.4 N | 0.66 U | 0.61 BJ | 0.54 U | 0.96 U |
| Silver | ma/ka | SB | | 0.13 N | U 60.0 | 0.07 U | 0.14 B | 0.13 U |
| Sodium | ma/ka | SB | 6,000 - 8,000 | 153 | 215 B | 153 BJ | 289 B | 102 B |
| Thallium | ma/ka | SB | | 0.37 N | 0.67 UJ | 0.52 U | 0.56 UU | 0.98 UJ |
| Vanadium | ma/ka | 150 or SB | 1-300 | 0.10 BN*J | 21.4 EJ | 10.3 | 17.3 EJ | 18.7 EJ |
| Zinc | mg/kg | 20 or SB | 9 - 50 | 2.8 | 27.2 E*J | 19.1 | 180 E*J | 70.3 E*J |
| WET CHEMISTRY ANALYSIS | | | | | | | | |
| Cvanide - Total | ng/kg | | | 4000 UJ | 4000 U | 4000 U | 4000 U | 4000 U |
| Leachable pH | S.U. | | | 7.08 J | 7.50 | 8.30 | 7.66 | 7.45 |
| | | | | | | | | |

1 .

ا م

| Sample ID -> | Units | TAGN | A 4046 | MW-5 | MW-6 | MW-7 | MW-7 RI | MW-8 |
|--|---|----------------|-------------|------------|------------|--------------|------------|------------|
| Depth - > | L | RSCO | Eastern USA | 2-4 | 4 - 7 | 4 - 6 | 4-6 | 2-5 |
| Date Sampled -> | | | Background | 11/17/2004 | 11/16/2004 | 11/16/2004 | 11/16/2004 | 11/18/2004 |
| VOLATILES | ug/kg | | | | | | | |
| Chloromethane | ug/kg | | | 12 UU | 13 UJ | 11 UJ | | 18 W |
| Bromomethane | ug/kg | | | 12 U | 13 U | ⊐ | | 18 U |
| Vinyl chloride | ug/kg | 200 | | 12 U | 13 U | 11 U | | 18 U |
| Chloroethane | ug/kg | 1,900 | | 12 U | 13 U | 11 U | | -18 U |
| Methylene chloride | ug/kg | 100 | | 12 U | 13 U | 11 C | | 18 U |
| Acetone | ug/kg | 200 | | 8 J | 13 | 23 | | 18 U |
| Carbon disulfide | ug/kg | 2,700 | | 12 U | 13 U | 11 U | | 18 U |
| 1,1-Dichloroethene | ug/kg | 400 | | 12 U | 13 U | 11 U | | 18 U |
| 1,1-Dichloroethane | ug/kg | 200 | | 12 U | 13 U | 11 U | | 18 U |
| Chloroform | ug/ka | 300 | | 12 U | 13 U | 11 U | | 18 U |
| 1.2-Dichloroethane | ua/ka | 100 | | 12 U | 13 U | 11 U | | 18 U |
| 2-Butanone | ng/kg | 300 | | 12 U | 13 U | 11 U | | 18 U |
| 1.1.1-Trichloroethane | ug/kg | 800 | | 12 U | 13 U | 11 U | | 18 U |
| Carbon tetrachloride | ug/kg | 600 | | 12 U | 13 U | 11 U | | 18 U |
| Bromodichloromethane | ug/kg | | | 12 U | 13 U | 11 U | | 18 U |
| 1.2-Dichloropropane | ug/kg | | | 12 U | 13 U | 11 U | | 18 U |
| cis-1,3-Dichloropropene | ug/kg | | | 12 U | 13 U | 11 U | | 18 U |
| Trichloroethene | ug/kg | 700 | | 12 U | 13 U | 11 UJ | | 18 U |
| Dibromochloromethane | ug/kg | | | 12 U | 13 U | 11 U | | 18 U |
| 1,1,2-Trichloroethane | ug/kg | | | 12 U | 13 U | 11 U | | 18 U |
| Benzene | ug/kg | 60 or MDL | | 12 U | 13 U | 11 U | | 18 U |
| trans-1,3-Dichloropropene | ug/kg | | | 12 U | 13 U | 11 0 | | 18 0 |
| Bromoform | ug/kg | | | 12 U | 13 U | 11 U | | 18 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | | 12 U | 13 U | 11 0 | | 1810 |
| 2-Hexanone | ng/kg | | | 12 U | 13 U | 11 0 | | 18 0 |
| Tetrachloroethene | ug/kg | 1,400 | | 101 | 13 U | 11 0 | | 181 |
| Toluene | ng/kg | 1,500 | | 120 | 13.0 | | | |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | | | 0.51 | | | |
| Chlorobenzene | ng/kg | 1,700 | | 12 U | 13 U | | | |
| Ethylbenzene | ng/kg | 5,500 | | 1210 | 130 | | | |
| Styrene | ng/kg | | | | | | | |
| Total xylenes | ug/kg | 1,200 | | | 130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | | 120 | | | | |
| cis-1,2-Dichloroethene | ug/kg | | | | | | | |
| trans-1,2-Dichloroethene | ng/kg | 300 | | | 2 2 | - | - | |
| Dichlorodifluoromethane | by/6n | | | | | | | |
| Trichlorofluoromethane | 6X/6n | | | | 2 9 | | | |
| Methyl acetate | 6y/6n | 001 | | | | | | 191 |
| Methyl tert butyl ether | Dy/cn | 120 | | 1210 | 2 2 2 | | | 2 4 |
| Uycionexane | 6y/6n | | | 101 | 2 4 | | | 181 |
| Meinyicycionexane | ng/kg | | | 101 | 131 | | | 18 [] |
| 1,2-DIOMOUNCINARIE | 6y/on | | | 101 | 13 1 | 11 | | 18 U |
| | Ru/An | 1 600 | | 191 | 1311 | 110 | | 18 U |
| 1,3-Dichlouentene | Ru/on | 0 500 | | 1 2 2 | 13 11 |) = ; ; ; | | 1810 |
| 1,4-DICINOTOBRIZERIE | Ru/An | 4 000 | | 101 | 13 [1 | 110 | | 18 U |
| 1,2-UICIIIUUUUBIKEIIE 1 0-Dibromo-2-chloronronane | 10/kg | 202 1 • | | 1210 | 13 U | 11 U | | 18 U |
| 1, 2.4. Trichlorchenzene | nn/kn | 3 400 | | 12 UJ | 13 UJ | 11 UU | | 18 UJ |
| | מלו | 22.5 | | | | | | |
| Benzaldehvde | uq/ka | | | 750 U | 970 U | 3,700 U | 3,700 U | 1,100 U |
| | The second se | | | | | | | |
Pioneer Midler Avenue LLC Remedial Investigation Report Table 2 - Phase 1 Soil Data for Monitoring Wells and Geotechnical Borings

| | 1 Inite | TAGA | A ANAG | NAVALE | MW-6 | MW-7 | MW-7 RI | MW-8 |
|------------------------------|---------|--------------|-------------|------------|------------|------------|------------|------------|
| Janth - > | | RSCO RSCO | Fastern USA | 2-4 | 4-7 | 4 - 6 | 4-6 | 2-5 |
| Date Sampled -> | 1 | | Background | 11/17/2004 | 11/16/2004 | 11/16/2004 | 11/16/2004 | 11/18/2004 |
| henol | ug/kg | 30 or MDL | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 3is(2-chloroethyl) ether | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2-Chlorophenol | ug/kg | 800 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2-Methylphenol | ug/kg | 100 or MDL | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2,2'-Oxybis(1-Chloropropane) | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Acetophenone | ug/kg | | | 750 U | 970 U | 3,700 U | 3,700 U | 1,100 U |
| t-Methylphenol | ug/kg | 900 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| V-Nitroso-Di-n-propylamine | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Hexachioroethane | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Vitrobenzene | ng/kg | 200 or MDL | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| sophorone | ng/kg | 4400 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2-Nitrophenol | ug/kg | 330 or MDL | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2,4-Dimethylphenol | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 3is(2-chloroethoxy) methane | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2.4-Dichlorophenol | ug/kg | 400 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Vaphthalene | ug/kg | 1,300 | | 28 J | 480 U | 1,800 U | 1,800 U | 560 U |
| 4-Chtoroanitine | ng/kg | 220 or MDL | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Hexachtorobutadiene | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Caprolactam | ng/kg | | | 750 U | 970 U | 3,700 U | 3,700 U | 1,100 U |
| 4-Chloro-3-methylphenol | uq/kg | 240 or MDL | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2-Methylnaphthalene | ng/kg | 36,400 | | 12 J | 480 U | 1,800 U | 1,800 U | 560 U |
| Hexachlorocvclopentadiene | ua/ka | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2.4.6-Trichlorophenol | ua/ka | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2.4.5-Trichlorophenol | uq/kg | 100 | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| Siphenyl | ug/kg | | | 750 U | 970 U | 3,700 U | 3,700 U | 1,100 U |
| 2-Chloronaphthalene | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2-Nitroaniline | ng/kg | 430 or MDL | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| Dimethyl phthalate | ug/kg | 2,000 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2,6-Dinitrotoluene | ug/kg | 1,000 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Acenaphthylene | ug/kg | 41,000 | | 12 J | 480 U | 1,800 U | 1,800 U | 560 U |
| 3-Nitroaniline | ug/kg | 500 or MDL | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| Acenaphthene | ng/kg | 50,000 | | 37 J | 480 U | 1,800 U | 1,800 U | 560 U |
| 2,4-Dinitrophenol | ng/kg | 200 or MDL | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| 4-Nitrophenol | ug/kg | 100 or MDL | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| Dibenzofuran | ng/kg | 6,200 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 2,4-Dinitrotoluene | ug/kg | 1,000 | | 22 J | 480 U | 1,800 U | 1,800 U | 560 U |
| Diethyl phthalate | ug/kg | 7,100 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Fluorene | ug/kg | 50,000 | | 35 J | 480 U | 1,800 U | 1,800 U | 560 U |
| 4-Chlorophenyl phenyl ether | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 4-Nitroaniline | ug/kg | | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| 4,6-Dinitro-2-methyiphenol | ug/kg | | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| N-nitrosodiphenylamine | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 4-Bromophenyl phenyl ether | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Hexachlorobenzene | ug/kg | 410 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Atrazine | ug/kg | | | 750 U | 970 U | 3,700 U | 3,700 U | 1,100 U |
| Pentachlorophenol | ug/kg | 1000 or MDL | | 910 U | 1,200 U | 4,500 U | 4,500 U | 1,400 U |
| Phenanthrene | ug/kg | 50,000 | | 64 J | 38 J | 150 J | 150 J | 130 J |
| Anthracene | ug/kg | 50,000 | | 53 J | 480 U | 1,800 U | 1,800 U | 23 J |
| Carbazole | ug/kg | | - | 13 J | 480 U | 1,800 U | 1,800 U | 16 J |
| Di-n-butyl phthalate | ug/kg | 8,100 | | 560 | 480 U | 1,800 U | 1,800 0 | 100 r |
| Flinranthene | 110/kg | 50.000 | | 470 | 611 | 2401 | 2801 | 16010 |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 2 - Phase 1 Soil Data for Monitoring Wells and

| | - |
|---|---------|
| 5 | |
| | |
| 5 | |
| | |
| | n |
| 5 | ö |
| | č |
| 5 | ·문. |
| | ā |
| 2 | m. |
| | |
| 1 | 3 |
|) | ö |
|) | 1 |
| | |
| | <u></u> |
| 2 | - X |
| 2 | ÷. |
| 2 | Ö. |
| | Ψ |
| • | G |
| | |
| 1 | |
| 5 | |
| - | |
| 2 | |
| | |

| Sample ID -> | Units | TAGM | 4046 | MW-5 | MW-6 | 7-WM | MW-7 RI | MW-8 |
|-----------------------------|--------|-----------------|--------------|------------|------------|------------|------------|------------|
| Depth - > | 1,, p | RSCO | Eastern USA | 2-4 | 4-7 | 4-6 | 4-6 | 2 - 5 |
| Date Sampled -> | | | Background | 11/17/2004 | 11/16/2004 | 11/16/2004 | 11/16/2004 | 11/18/2004 |
| Pyrene | ug/kg | 50,000 | | 370 U | 58 J | 180 J | 150 J | 140 J |
| Butyl benzyl phthalate | ug/kg | 50,000 | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| 3,3'-Dichlorobenzidine | ug/kg | | | 370 U | 480 U | 1,800 U | 1,800 U | 560 U |
| Benzo(a)anthracene | ng/kg | 224 or MDL | | 220 J | 36 J | 120 J | 120 J | 71 J |
| Chrysene | ng/kg | 400 | | 240 J | 41 J | 140 J | 140 J | ר 62 |
| Bis(2-ethylhexyl) phthalate | ug/kg | | | 370 U | 480 U | 1,800 U | 49 BJ | 560 U |
| Di-n-octyl phthalate | ug/kg | 50,000 | | 101 | 15 J | 1,800 U | 1,800 U | 560 U |
| Benzo(b)fluoranthene | ug/kg | 1,100 | | 240 J | 32 J | 130 J | 110 J | 58 J |
| Benzo(k)fluoranthene | ug/kg | 1,100 | | 140 J | 31 J | 91 J | 110 J | 53 J |
| Benzo(a)pvrene | ua/ka | 61 or MDL | | 210.J | 34 J | 120.J | L'011 | 57 J |
| Indeno(1,2,3-cd)pvrene | uq/ka | 3,200 | | 120 J | 21 J | 51 J | 1,800 U | 35 J |
| Dibenzo(a.h)anthracene | uq/ka | 14 or MDL | | 58 J | 480 U | 1,800 U | 1,800 U | 19 J |
| Benzo(ghi)pervlene | uq/ka | 50,000 | | 140 J | 26 J | 72 J | 48 J | 43 J |
| PESTICIDES/AROCLORS | > | | | | | | | |
| alpha-BHC | ua/ka | 110 | | 1.9 U | 2,5 U | 19 U | | 2.9 U |
| heta-BHC | ua/ka | 200 | | 1.9 U | 2.5 U | 19 U | | 2.9 U |
| delta-BHC | ua/ka | 300 | | 1.9 U | 2.5 U | 19 U | | 2.9 U |
| namma-BHC (I indane) | un/ka | 60 | | 1.9 U | 0.76 JP | 19 U | | 2.9 U |
| Hentachlor | un/ko | 100 | | 1.9 U | 2.5 U | 19 U | | 2.9 U |
| Aldrin | | 41 | | 190 | 2.5 U | 19 U | | 2.9 U |
| Hantachlor annvida | | 20 | | 1911 | 2511 | 1910 | | 2.910 |
| Endoerition (| | | | 1 90 11 | 2511 | 1911 | | 2.9 U |
| Dialdrin | | 44 | | 3711 | 4811 | 3711 | | 5.611 |
| | Fu/fin | | | 1 4 0 | | 1 20 | | 200 |
| 4,4-DUE Easter | 6y/n | 2,100 | | 11/2 | | 3711 | | 2 2 2 2 |
| | Ry/fin | 8 | | 0 1 4 0 | | 3711 | | 2.00 |
| | By/bn | 2000 | | 0 - C | 0 - C - C | 0 10 | | |
| 4,4'-DDD | ng/kg | 2,900 | | 3.7 U | 0 10 | 0 10 | | 0.00 |
| Endosultan Sulfate | ng/kg | 100 | | 3.7 U | 4.8 U | 3/ U | | 0.0.7 |
| 4,4'-DDT | ng/kg | 2,100 | | 3./ U | 4.8 U | 37 U | | |
| Methoxychlor | ug/kg | | | 3.7 U | 25 U | 190 U | | 8.4 JP |
| Endrin ketone | ug/kg | | | 3.7 U | 4.8 U | 37 U | | 6.5 PJ |
| Endrin aldehyde | ug/kg | | | 3.7 U | 4,8 U | 37 U | | 5.6 U |
| alpha-Chtordane | ug/kg | 540 | | 1.9 U | 2.5 U | 19 U | | 2.9 U |
| gamma-Chlordane | ug/kg | 540 | | 1.9 U | 2.5 U | 19 U | | 2.9 U |
| Toxaphene | ug/kg | | | 190 U | 250 U | 1,900 U | | 290 U |
| Aroclor 1016 | ug/kg | | | 37 U | 48 U | 370 U | | 56 U |
| Aroclor 1221 | ug/kg | 1 000 - curface | | 37 U | 48 U | 370 U | | 56 U |
| Aroclor 1232 | ug/kg | nour suitate | | 37 U | 48 U | 370 U | | 56 U |
| Aroclor 1242 | ug/kg | | | 37 U | 48 U | 370 U | | 56 U |
| Aroclor 1248 | ug/kg | enile | | 37 U | 48 U | 370 U | | 56 U |
| Aroclor 1254 | ug/kg | SIDE | | 37 U | 48 U | 370 U | | 56 U |
| Aroclor 1260 | ug/kg | | | 37 U | 48 U | 370 U | | 56 U |
| INORGANICS | | | | | | | | |
| Aluminum | mg/kg | SB | 33000 | 5550 EJ | 6140 EJ | 4540 E | | 33400 E |
| Antimony | mg/kg | SB | | 0.6 BN | 1.5 BNJ | 1.7 BNJ | | 1.5 BNJ |
| Arsenic | mg/kg | 7.5 or SB | 3 - 12 | 2.2 | 4.5 | 5.4 | | 7.0 |
| Barium | mg/kg | 300 or SB | 15 - 600 | 21.1 EJ | 45.8 BEJ | 49.3 E | | 273 E |
| Beryllium | mg/kg | 0.16 or SB | 0 - 1.75 | 0.29 B | 0.47 B | 0.49 B | | 0.71 B |
| Cadmium | mg/kg | 1 or SB | 0.1 - 1 | 0.03 U | 0.08 U | 0.04 U | | 0.07 U |
| Calcium | mg/kg | SB | 130 - 35,000 | 8170 EJ | 43200.0 EJ | 36000 E | | 185000 E |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 6.4 EJ | 12 EJ | 11.1 E | | 14.8 E |

Remedial Investigation Report Table 2 - Phase 1 Soil Data for Monitoring Wells and Geotechnical Borings **Pioneer Midler Avenue LLC**

| Sample ID -> | Units | TAGN | M 4046 | MW-5 | MW-6 | MW-7 | MW-7 RI | MW-8 |
|------------------------|-------|-------------|-----------------|------------|------------|------------|------------|------------|
| Depth - > | r | RSCO | Eastern USA | 2-4 | 4 - 7 | 4 - 6 | 4-6 | 2-5 |
| Date Sampled -> | ſ | | Background | 11/17/2004 | 11/16/2004 | 11/16/2004 | 11/16/2004 | 11/18/2004 |
| Cobalt | mg/kg | 30 or SB | 2.5 - 60 | 2.8 B | 4.2 B | 3.5 B | | 15.9 |
| Copper | mg/kg | 25 or SB | 1 - 50 | 8.0 EN | 10.7 ENJ | 26.7 EN | | 59.0 EN |
| lron | mg/kg | 2,000 or SB | 2,000 - 550,000 | 13900 EJ | 34200.0 EJ | 31400 E | | 29300 E |
| Lead | mg/kg | SB | 200 - 500 | 11.3 EJ | 55 EJ | 36.6 E | | 19.5 E |
| Magnesium | mg/kg | ß | 100 - 5,000 | 1450 EJ | 2150 EJ | 4030 E | | 4500 E |
| Manganese | mg/kg | SB | 50 - 5,000 | 178 E*J | 420 E*J | 486 E*J | | 722 E*J |
| Mercury | mg/kg | 0.1 | 0.001 - 0.2 | 0.029 U | 0.038 U | 0.024 U | | 0.073 BN* |
| Nickel | mg/kg | 13 or SB | 0.5 - 25 | 6.1 EJ | 8.7 BEJ | 7.9 E | | 29.9 E |
| Potassium | mg/kg | SB | 8,500 - 43,000 | 629 | 954 B | 653 | | 626 B |
| Selenium | mg/kg | 2 or SR | 0.1 - 3.9 | 0.43 U | 1.2 U | 0.55 U | | 1.3 BN* |
| Silver | mg/kg | SB | | 0.06 U | 0.17 B | 0.09 B | | 0.18 B |
| Sodium | mg/kg | SB | 6,000 - 8,000 | 62.9 B | 353 B | 143 B | | 180 B |
| Thallium | mg/kg | SB | | 0.44 UJ | 1.2 UJ | 0.57 U | | 1.1 U |
| Vanadium | mg/kg | 150 or SB | 1-300 | 12.1 EJ | 20.2 EJ | 21.5 E | | 16.1 E |
| Zinc | mg/kg | 20 or SB | 9 - 50 | 24.8 E*J | 37.8 E*J | 308 E* | | 140 E* |
| WET CHEMISTRY ANALYSIS | | | | | | | | |
| Cyanide - Total | ug/kg | | | 4000 U | 4000 U | 4000 U | | 4000 U |
| Leachable pH | S.U. | | | 8.08 | 7.91 | 7.49 | | 7.78 |

 RSCO = Recommended Soil Cleanup Objectives

 1,000
 - indicates detected value for organics.

 - indicates value exceeds TAGM 4046 RSCO

1 •

+ 1

Pioneer Midler Avenue LLC Remedial Investigation Report Table 3 - Phase 1 Test Pit Data

| Sample ID - | 1 Inite | TAGM | Ande | TP-4 | 1 TP-5 | TP-7 | TP-12 | TP-13 | TP-14 | TP-14 DL |
|---|--|------------------|-------------|------------|----------|----------|----------|---|-----------|----------|
| Janth . \ | | BSCO | Fastern USA | 35-4.2 | 4.6-5.2 | 4-7 | 3.1-5.1 | 3.5-5.3 | 4-5 | 4-5 |
| Date Sampled -> | | | Background | 12/03/04 | 12/07/05 | 12/03/04 | 12/07/05 | 12/07/05 | 12/03/04 | 12/03/04 |
| VOLATILES | ug/kg | | | | | | | | | |
| Chloromethane | uo/ka | | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| Gromomethane | | | | 14 [1] | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| diodonations faul ablanda | D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D- | 000 | | 14 | 1511 | 13.1 | 12 [1 | 37 | 300 | 1.800 DJ |
| | Ru An | - 200 | | 2 2 2 | - | 1511 | 1911 | 10 11 | 16/1 | 110002 |
| cnioroeurane | fly/6n | M2' | | | 2 2 | | | 100 | 10 21 | 7 200 11 |
| Methylene chloride | n0.kg | 31 | | 1410 | 0 01 | 0 00 | 2 - | 2 - | 2 2 | 110001 |
| Acetone | ug/kg | 200 | | 76 J | 18 | 3 | 20 | מר | 5 | 1 202 - |
| Carbon disulfide | ug/kg | 2,700 | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| 1.1-Dichloroethene | uq/kg | 004 | | 14 U | 15 U | 15 U | 12 U | 12 U | 2] | 7,200 U |
| t 1. Dichloroethane | 100kg | 200 | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| | 2000 | 200 | | 1411 | 1511 | 15 11 | 12/11 | 12 U | 161 | 7.20010 |
| | Rufin | 300 | | <u>,</u> | 222 | | 1 4 | 101 | 18/11 | 110002 |
| 1,2-Dichloroethane | ng/kg | 18 | | 1410 | | D C! | 2 | 2 | | 1,200 0 |
| 2-Butanone | ug/kg | 300 | | 29JJ | 6.J | 5 J | 12 U | 12 U | 16 U | 7,200 U |
| 1.1.1-Trichtoroethane | ua/ka | 800 | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| Carton tatrachtorida | 10/ku | 600 | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| | 0.000 | 200 | | 1411 | 121 | 15.11 | 1911 | 1911 | 1610 | 7.200 U |
| DIONIOGICINOLOGICIERIALIE | Ry.fin | | | | 222 | | 212 | 1011 | 181 | 7 20011 |
| 1,2-UIChloropropane | ng kg | | | 2 : * ; | | | 2 2 2 | 19 | | 11000-2 |
| cis-1,3-Dichloropropene | ngkg | | | 14 C | 00 | 0 61 | 212 | 2 2 | | |
| Trichloroethene | ng/kg | 700 | | 14 U | 15IU | 15IU | 12 U | 36 | 310 | 0,000 UN |
| Dibromochloromethane | uo/ka | | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| 1 1 O. Trichloroethane | 100/kg | | | 14IU | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| | - And | 60 or MDI | | 14 | 1510 | 1510 | 12 U | 12 U | 1610 | 7.200 U |
| | Suñn - | | | | 35 1 | 15.11 | 1911 | 1011 | 1611 | 7,200 U |
| | Ry fin | | | | | 111 | 100 | 1101 | 11.31 | 11006.2 |
| Bromotorm | ugrkg | | | 14 (| 5 | | 121 | 220 | | |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | | 14 U | 15 U | 15.U | 12 U | 0 ZL | 16 U | /'z00 U |
| 2-Hexanone | uq/ka | | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200JU |
| Tetrachloroethene | | 1.400 | | 14 U | 15 U | 15 U | 12 U | 67 | 83,000 | 63,000 D |
| Telicoo | C UNIT | 1 EDD | | 0.10 | 15.11 | 15 | 12 [] | 12 U | P6 | 7.200 U |
| | fy/in | Ano ¹ | | | 2 2 2 | 100 | 515 | 2 = 1 \$ | 1611 | 11006 4 |
| 1,1,2,2-1 etrachloroethane | ng/kg | 200 | | - + C | 0 0 0 | | 2 4 | 2 2 2 | | 7 000 1 |
| Chlorobenzene | ng/kg | 1,700 | | 14 U | | 0.01 | | | | 1 000 |
| Ethylbenzene | ng/kg | 5,500 | | 14 U | 15 U | 15 U | 1210 | 120 | 41 | 1,200 0 |
| Styrene | ng/kg | | | 14 U | 15 U | 15 U | 12IU | 12 U | 16 U | 7,200 U |
| Total xvienes | uq/ka | 1,200 | | 14 U | 15 U | 15 U | 12 U | 12 U | 180 | 2,500 DJ |
| t 1 9-Trichtoro-1 2 9-triftioroethane | | 1.000 | | 14IU | 1510 | 15 U | 12 U | 12 U | 1610 | 7,200 U |
| ain 1.0. Dicklaracthana | 10/00 | | | 14 | 15 1 | 2.1 | 12 U | 23 | 7.400 | 7,400 D |
| | Bu An | 000 | | | 15 | 1515 | 1911 | 36 | 1611 | 7,20011 |
| trans+1,2+Ulchioroemene | fly/n | 30 | | 2 | | | 1107 | 11 57 | 24 | 2 20011 |
| Dichlorodifluoromethane | ug/kg | | | D 51 | 0 61 | 201 | | 121 | | 1,000 |
| Trichloroftuoromethane | ug/kg | | | 14 U | 150 | 15 U | 12.0 | חצו | | n mz' |
| Methyl acetate | ug/kg | | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| Methyl tert butyl ether | ug/kg | 120 | | 14 U | 15 U | 15 U | 12 U | 12 U | 16 U | 7,200 U |
| Cvclohezane | un/ko | | | 52 J | 15 U | 15 U | 12 U | 12 U | 150 | 7,200 U |
| Mathutanahasana | 110/km | | | 160 J | 15/U | 15 U | 12 U | 12 U | 31,000 | 31,000 D |
| 1 9. Ditromoditione | 1 to Act | | | 14[1] | 1510 | 15IU | 12 U | 12 U | 1610 | 7,200 U |
| transmillanzasa | Notice 1 | | | 200 | 15[] | 15 U | 1210 | 12 U | 55 | 7.200 U |
| t o Dichlorchenzano | 10/01 | 1 600 | | 14 | 15 [] | 15 U | 12IU | 12 U | 16 U | 7.200 U |
| 1,3-Diulijujudenterite 4.4 Diastarskonseno | Bullan Bullan | 8 500 | | 14 | 151 | 15/11 | 12 [1] | 12 U | 16 U | 7.200 U |
| 1,4-010/jiv/oucriterie | Part of | 000 | | 1411 | 15 | 1511 | 1211 | 12 U | 1610 | 7.200 U |
| 1,2-Diciliotobelizerie | Ruffo | 2021 | | | 16 | 1511 | 1911 | 101 | 16 [] | 7.200 U |
| 1,2-Ulprono-3-Cinoroproparie | fw/fin | | | | 11124 | 1127 | 11101 | 10 11 12 10 11 | 1111 | 11000 4 |
| 1,2,4-i nchlorobenzene | ng/kg | 3,400 | | 3 | 300 | 300 | 2 | 2012 | 3 | , , , , |
| SEMIVOLATILES | | | | - 11 000 | 1 200 | c +0/12 | 11 727 | 11000 | | |
| Benzaldehyde | Bx/6n | | | 200 | 0,000,0 | n n i c | 0.007 | 2 | | |
| Phenol | ng/kg | 30 of MUL | | 450 UJ | 2,800 U | 2,200 0 | 1000 | 4100 | | |
| Bis(2-chloroethyl) ether | ng/kg | | | 450 UJ | 2,800 U | 2,500 0 | 0 000 | 4100 | | |
| 2-Chlorophenol | ng/kg | 800 | | 450 UJ | 2,800 U | n nns'z | 380 U | 0 014 | | |
| 2-Methylphenol | ug/kg | 100 or MDL | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 0,000,0 | |
| 2,2'-Oxybis(1-Chloropropane) | ug/kg | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 0 002'9 | |
| Acetophenone | ug/kg | | | 600 U.J | 5,600 U | 5,100 U | /60 0 | 830 0 | 10,000,01 | |
| 4-Methylphenot | ug/kg | 86 | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| N-Nilroso-Di-n-propylamine | ug/kg | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Hexachloroethane | ug/kg | | | 450 UJ | 2,800 U | 2,500 U | 380 0 | 410 U | 0,300 0 | |
| Nitrobenzene | ua/ka | 200 or MDL | | 450 UJ | 2,800 U | 2,500 U | 380JU | 410 U | 5,300 U | |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 3 - Phase 1 Test Pit Data

| Samue ID -> | Units | TAGN | 1 4046 | TP-4 | 7P-5 | TP-7 | TP-12 | TP-13 | TP-14 | TP-14 DL |
|-----------------------------|--------------|-------------|-------------|-----------|----------|----------------|----------|----------|-----------|----------|
| Death - > | T | RSCO | Eastern USA | 3.5-4.2 | 4.6-5.2 | 4-7 | 3.1-5.1 | 3.5-5.3 | 4-5 | 4-5 |
| Date Sampled -> | | | Background | 12/03/04 | 12/07/05 | 12/03/04 | 12/07/05 | 12/07/05 | 12/03/04 | 12/03/04 |
| Isophorone | ug/kg | 4400 | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| 2-Nitrophenol | ua/ka | 330 or MDL | | 450 UJ | 2,600 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| 2.4-Dimethylohenol | ua/ka | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Bis(2-chloroethoxy) methane | uq/ka | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| 2.4-Dichlorophenol | rg/kg | 400 | | 450 UJ | 2,800 U | 2,500 U | 360 U | 410 U | 5,300 U | |
| Naphthalene | ug/kg | 1,300 | | 3,400 J | 2,800 U | 2,500 U | 380 U | 410 U | 610 J | |
| 4-Chtoroanline | ug/kg | 220 or MDL | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Hexachlorobutadiene | ng/kg | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Caprolactam | ng/kg | | | FU 006 | 5,600 U | 5,100 U | 920 U | 830 U | 10,000 U | |
| 4-Chtoro-3-methylphenol | ng/kg | 240 or MDL | | 450 UJ | 2,800 U | 2,500 U | 760 U | 410 U | 5,300 U | |
| 2-Methvinaphthalene | ng/kg | 36,400 | | 5,200 | 2,800 U | 2,500 U | 380 U | 410 U | 1,300 J | |
| Hevachlningvolonentadiene | uo/ka | | | 450 UU | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| 2 4 6. Trichlorothenol | uc/ka | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| 2 4 5-Trichlorochenol | uo/ka | 100 | | 1,100 UJ | 6,800 U | 6,200 U | 920 U | 1,000 U | 13,000 U | |
| Rinhanut | norka | | | 500 LU | 5.600 U | 5,100 U | 760 U | 830 U | 10,000 U | |
| 9. Chlorosophthalene | Linko | | | 450 UJ | 2,800 U | 2.500 U | 380 U | 410 U | 5,300 U | |
| 2-Vitionaline | Colors | 430 or MDI | | 1.100[1.1 | 6.800 U | 6.200 U | 920 U | 1.000 U | 13,000 U | |
| Z-LINU CENTRIE | 242 | 2000 | | AEDITI | 2 800 11 | 2 500 LT | 38011 | 41010 | 5.300 U | |
| Danieuryi pilulaade | Rufin | 1 200 | | AED III | 2 800 11 | 2 500 11 | 38011 | 41011 | 5.300 U | |
| 2,0-Uinirololuerie | hynn | 2000 | | | 2 000 11 | 0 500 11 | | 11011 | ERO I | |
| Acenaphthylene | uo/kg | 41,000 | | C 07/ | 2,000 0 | | 000 | 1 444 | 1 000 01 | |
| 3-Nitroantine | ng/kg | 500 or MUL | | 2010/11 | 6 800 U | | 920 0 | n m'' | 0 000'01 | |
| Acenaphthene | ug/kg | 50,000 | | 3,500 J | 2,800 U | Г 66 | 380 U | 410 U | 800 J | |
| 2,4-Dinitrophenol | ug/kg | 200 or MDL | | 1,100 UJ | 6,800 UJ | 6,200 UJ | 920 UJ | 1,000 UJ | 13,000 UJ | |
| 4-Nitrophenol | ua/ka | 100 or MDL | | 1,100 UJ | 6,800 U | 6,200 U | 920 U | 1,000 U | 13,000 U | |
| Dibenzofuran | uc/ka | 6.200 | | 2,200 J | 2,800 U | 2,500 U | 380 U | 410 U | 710 J | |
| 2 4-Dinitrotokiene | uc/kg | 1.000 | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Diethvl ohthalate | ua/ka | 7.100 | | 450 UJ | 2,800 U | 2,500 U | 14 J | 410 U | 5,300 U | |
| Fluorana | uo/ka | 50.000 | | 6.100 | ١ | 120 J | 380 U | 410 U | 1,400 J | |
| 4-Chlorohanui nhanui athar | 10/kg | | | 450 UJ | 2.800 U | 2.500 U | 380 U | 410 U | 5,300 U | |
| | Bu An | | | 110011 | S ROOLI | 6 200 11 | 92011 | 1,000 U | 13.0001U | |
| 4-Mirrodrinitie | Ry An | | | 1100 | 6 800 II | 6.20011 | 92011 | 1 00011 | 13,000 U | |
| | RyAn I | | | | 0 000 0 | 9 500 11 | 3BO LI | 41011 | 5 300 11 | |
| | Ry An | | | 110 00 | 0 000 11 | 5 200 U | | 11017 | 5 300 11 | - |
| 4-Bromophenyl phenyl ether | ugrkg | | | | | | | 41011 | 2000 | |
| Hexachlorobenzene | ngykg | 410 | | 10,004 | 2,000,0 | 21000 | | 11/050 | 10000 | |
| Atrazine | ngkg | | | 6006 | 5,600 U | 0,001,6 | 0.007 | 0000 | 0 000 01 | |
| Pentachlorophenol | цgkg | 1000 or MUL | | | 0'800 N | 0.200 | 320 0 | n nn 1 | | |
| Phenanthrene | ug/kg | 50,000 | | 12,000 | 830.5 | r mr. 2 | D DRC | | | |
| Anthracene | by/6n | 20,000 | | 1,700 J | 140 J | 340 J | 900 | 01 | 1,100 J | |
| Carbazole | ug/kg | | | 450 UJ | 2,800 U | 130 1 | 29 J | 410 U | 570 J | |
| Di-n-butyt phthalate | ug/kg | 8,100 | | 450 UJ | 2,800 U | 2,500 U | 18.J | 15 J | 170.1 | |
| Fluoranthene | ug/kg | 50,000 | | 3,800 J | 1,000 J | 2,100 J | 36 J | 180 J | 14,000 | |
| Pyrene | ug/kg | 50,000 | | 2,000 | 920 J | 2,200 J | 31 J | 160.J | 14,000 | |
| Butyl benzyl phthalate | ng/kg | 50,000 | | 450 UJ | 2,800 U | 2,500 U | 12 J | 410 U | 5,300 U | |
| 3,3'-Dichlorobenzidine | ug/kg | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Benzo(a)anthracene | ng/kg | 224 or MDL | | 1500 | 430 J | 820 J | 16 J | 86 J | 8.100 | |
| Chrysene | ug/kg | 400 | | 1,500 | E10.J | D40.1 | 21 J | 95 J | 8.900 | |
| Bis(2-ethylhexyl) phthalate | ug/kg | | | 450 UJ | 2,800 U | 2,500 U | 380 U | 410 U | 5,300 U | |
| Di-n-octyl phthalate | ug/kg | 50,000. | | 450 UJ | 110 J | 2,500 U | 380 U | 410 U | 5,300 U | |
| Benzo(b)fluoranthene | ug/kg | 1,100 | | 1,300 | 380 J | 560J | 12 J | 77 | 8,400 | |
| Benzo(k)fluoranthene | ug/kg | 1,100 | | 940 | 360 J | 480 J | 12 J | 76 J | 9,200 | - |
| Benzo(a)pyrene | ug/kg | 61 or MDL | | 1,200 | 370 J | F 083 | 12 J | 57.J | 8,400 | |
| Indeno(1,2,3-cd)pyrene | ug/kg | 3,200 | | 560 | 140J | 430.J | 380 U | 55 J | 5,600 | |
| Dibenzo(a,h)anthracene | ug/kg | 14 of MDL | | 300,1 | F 82 | 190.J | 380 U | 25.J | 3.000.J | |
| Benzo(ghi)perylene | ug/kg | 50,000 | | 340 J | 1001 | 310.J | 380 U | 35 J | 3,600 J | |
| PESTICIDES/AROCLORS | | | | _ | - | _ | | | _ | - |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 3 - Phase 1 Test Pit Data

| Samole ID -> | Units | TAGN | 14046 | TP-4 | TP-5 | 2-d1 | TP-12 | TP-13 | TP-14 | TP-14 DL |
|--------------------------|-----------|-----------------|-----------------|------------|-----------------------|-----------------------|----------------------|-------------------------|-----------------------|----------|
| Depth - > | · | BSCO | Eastern USA | 3.5-4.2 | 4.6-5.2 | 4-7 | 3.1-5.1 | 3.5-5.3 | 4-5 | 4-5 |
| Date Sampled -> | _ | | Background | 12/03/04 | 12/07/05 | 12/03/04 | 12/07/05 | 12/07/05 | 12/03/04 | 12/03/04 |
| alpha-BHC | ng/kg | 110 | - | 5.3 JP | 13 U | 5.4 U | 2.0 U | 2:0 U | 35 U | |
| beta-BHC | ug/kg | 200 | | 7.6 JP | 13 U | 5.4 U | 2.0 U | 2.0 U | 27 U | |
| delta-BHC | ug/kg | 300 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 27 U | |
| gamma-BHC (Lindane) | ug/kg | 8 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 27 U | |
| Heptachtor | ug/kg | 100 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 27 U | |
| Aldrin | ng/kg | 41 | | 1210 | 13 U | 5.4 U | 2.0 U | 2.0 U | 27U | |
| Heptachfor epoxide | пд/кд | 20 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 28 U | |
| Endosultan I | ug/kg | 006 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 27U | |
| Dieldrin | ug/kg | 44 | | 23 U | 25 U | 10 U | 3.9 U | 3.8 U | 52 U | |
| 4,4'-DDE | ug/kg | 2,100 | | 23 U | 25 U | 10 U | 3.9 U | 3.8 U | 52 U | |
| Endrin | ug/kg | 1 00 | | 23 U | 25 U | 10 U | 3.9 U | 3.8 U | 140 J | |
| Endosulfan I | ng/kg | 006 | | 23.0 | 25 U | 10 U | 3.9 U | 3.8 U | 5210 | |
| 4.4-DDD | ng/kg | 2,900 | | 23 U | 25 U | 10 U | 3,9 U | 3.8 U | 52 U | |
| Endosulfan Sulfate | ug/kg | 100 | | 23 U | 25 U | 10 U | 3.9 U | 3.8 U | 52 U | |
| 4,4'-DDT | ug/kg | 2,100 | | 23 U | 25 U | 10 U | 3.9 U | 3.8 U | 250 PJ | |
| Methoxychlor | ug/kg | | | 120 U | 130 U | 54 U | 20 U | 20 U | 270 U | |
| Endrin ketone | ug/kg | | | 23 U | 25 U | 10 U | 3.9 U | 3.8 U | 120 U | |
| Endrin aldehyde | uq/kg | | | 23U | 25 U | 10 U | 3.9 U | 3.8 U | 150 PJ | |
| atoha-Chtordane | ua/ka | 540 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 27 U | |
| oamma-Chlordane | uq/ka | 540 | | 12 U | 13 U | 5.4 U | 2.0 U | 2.0 U | 27 U | |
| Toxanhene | ua/ka | | | 1,200 U | 1,300 U | 540 U | 200 U | 200 U | 2700 U | |
| Arocior 1016 | ua/ka | | | 230 U | 250 U | 100 U | 39 0 | 38 U | 520 U | |
| Aroclor 1221 | ua/ka | | | 470 U | 510 U | 2210 U | 80 U | 77 U | 1000 N | |
| Aroclor 1232 | ua/ka | 1,000 - surrace | | 230 U | 250 U | 100 U | 0 68 | 38 U | 520 U | |
| Aroclor 1242 | uc/ka | Soils, 10,000 - | | 230 U | 250 U | 100 U | 39 0 | 38 U | 520 U | |
| Aroclos 1248 | ug/kg | subsultace | | 230 U | 250 U | 100 U | 39 U | 38 U | 520 U | |
| Aroclor 1254 | uq/kg | SIDS | | 230 U | 250 U | 1001 | 39 U | 38 U | 520 U | |
| Aroclor 1260 | un/kg | | | 230 U | 250 U | 100 U | 39 U | 38 U | 520 U | |
| INORGANICS | | | | | | | | | | |
| Auminum | mg/kg | SB | 33000 | 4930 | 7950 | 3940 | 3070 | 15200 | 7340 | |
| Antimony | mg/kg | SB | | 0.64 U N J | 0.96 BN*J | 0.53 UN*J | 0.55 U N*J | 0.50 U N [*] J | 2.0 N°J | |
| Arsenic | mg/kg | 7.5 or SB | 3-12 | 3.0 N°J | 5.1 N°J | 5.5 N*J | 1.6 N°J | 4.6 N*J | 9.8 N.1 | |
| Barlum | mg/kg | 300 or SB | 15 - 600 | 35.9 | 82.3 | 41.0 | 16 | 82.0 | 61.5 | |
| Berdlium | ma/kg | 0.16 or SB | 0 - 1.75 | 0.25 | 0.35 | 0.44 | 0.18 | 0.81 | 0.38 | |
| Cadmium | mg/kg | 1 or SB | 0.1 - 1 | 0.14 | 0.25 | 0.22 | 0.03 U | 0.03 U | 5.7 | |
| Calcium | mg/kg | SB | 130 - 35,000 | 33200 | 44700 | 69500 | 25700 | 41500 | 61500 | |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 6.5 N*J | 10.2 N*J | 6.5 N°J | 3.1 N ⁺ J | 22.8 N [•] J | F-N 672 | |
| Cobalt | mg/kg | 30 or SB | 2.5 - 60 | 3.2 | 3.8 | 4.2 | 1.6 | 5.3 | 7.5 | |
| Copper | mg/kg | 25 or SB | 1-50 | 15.7 * | 14.7 | 17.1 * | 2.3 . | 11.8 | 187 | |
| Iron | mg/kg | 2,000 or SB | 2,000 - 550,000 | 11900 | 20300 | 37500 | 6350 | 25900 | 48500 | |
| Lead | mg/kg | SB | 200 - 500 | 22.8 NJ | 25.4 N ⁻ J | 16.6 NJ | G.N 9.5 | P.N.Z.GL | C-N /01 | |
| Magnesium | mg/kg | SB SB | 100 - 5,000 | 1930 | 3680 | 1947 | - 96F | 2450 | 2140 | |
| Manganese | шука | 80 | 00,000 | 14 | 0.036 11 | 0.02511 | 0.025 | 0.027 | 0.064 B | |
| Mercury | BA/Gm | 13 or CD | 20 - 1000 | 4 150 | 0 1 0 | | 2 8 6 | 10.0 | 327 • | |
| Nickel | mo/kg | SR SR | 8 500 - 43 000 | 773 | 1590 | 586 | 464 | 2010 | 637 | |
| Pulassiulti Salaation | CALCON IN | 02.20 | 01-30 | - 1 | 10R* | 11 19. | 0.36.01 | 168 | 2.4 B* | |
| Selenium | 64/011 | | 00-10 | 0 14 11 | 0 18 [] | 0.1218 | 0.12 U | 0.54 B | 0.61 B | |
| Codium Codium | GAN DU | n d | 6 000 - 8 000 | 142 | 368 | 60.3 | 124 | 573 | 195 | - |
| Thalling | | 9 8 | | 0.38 U* | 0.54 B* | 0.49 B* | 0.33 U * | 1.1* | 1.0 B* | |
| Vanadkim | ma/ka | 150 or SB | 1-300 | 12.3 N°J | L.N 0.71 | 12.4 N ⁻ J | 7.2 N ⁻ J | 53.6 N°J | 56.7 N [•] J | |
| Zinc | mg/kg | 20 or SB | 9-50 | 49.1 | 290 | 24.8 | 15.8 | 22.2 | 364 | |
| WET CHEMISTRY ANAL YSIS | | | | | | | | | | |
| Cyanide - Total | | | | 4000 UJ | 4000 UJ | 4000 UJ | 4000 UJ | 4000 UJ | 4000 UJ | |
| Leachable pH | | | - | 7.08 | 7.33 | 7.17 | 8.12 | 7.73 | /18 | |

RSCO = Recommended Soli Clearup Objectives 1,000 - initiates detected value for organics. - initiates value exceeds TACM 4046 RSCO

| Comolo 10 - | Inite | TAGM ADAR | UC-WM | MW-3D | MW.3D DI | MW-3D | MW-4D | De-WM | MS-9D | MW-10D | MW-11D | MW-11D DL |
|---------------------------------------|---------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-------------|-----------|
| Satiple ID -2 | | CCC28 | 16-18 | 20-22 | 20-22 | 24-26 | 14-16 | 16-18 | 18-20 | 16-18 | 20-22 | 20-22 |
| Date Sampled -> | |) | 1/27/2005 | 1/25/2005 | 1/25/2005 | 1/25/2005 | 1/26/2005 | 1/27/2005 | 1/27/2005 | 1/26/2005 | 1/24/2005 | 1/24/2005 |
| VOLATIES | na/ka | | | | | | | | | | | |
| Chloromethane | ua/ka | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Bromomethane | na/ka | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 110 | 1,300 U |
| Vinvl chloride | uq/ka | 200 | 18 U | 160 | 4,300 U | 14 U | 13 U | 16 U | 15 U | <u>۲</u> | 11 U | 1,300 U |
| Chloroethane | uq/kg | 1,900 | 18 U | 18/U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Methylene chloride | uq/kg | 100 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Acetone | ng/kg | 200 | 10.1 | 10.1 | 4,300 U | 5 J | 11 J | 16 | Г 6 | 15 J | 6 J | 1,300 U |
| Carbon disulfide | uq/kg | 2,700 | 3 J | 2 1 | 4,300 U | 14 U | 3 J | 57 | 3 J | 81 | 4 1 | 1,300 U |
| 1.1-Dichloroethene | noka | 400 | 18 U | 18U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 2 J | 1,300 U |
| 1.1-Dichloroethane | uq/ka | 200 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Chloroform | ua/ka | 300 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| 1.2-Dichloroethane | ua/ka | 100 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| 2-Butanone | ua/ka | 88 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 110 | 1,300 U |
| 1.1.1-Trichloroethane | na/kg | 800 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Carbon tetrachloride | ua/ka | 600 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 110 | 1,300 U |
| Bromodichloromethane | na/ka | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| 1 9-Dichloronmane | in/ka | | 1810 | 18 U | 4.300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| loie-1 3-Dichloronronane | in/ka | | 1810 | 18 U | 4.300 U | 14 U | 13 U | 16 U | 15 U | 18U | 110 | 1,300 U |
| Trichloroathana | | 200 | 1810 | 3.1 | 4.300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 550 E | 650 DJ |
| Dibromochloromathane | | 2 | 181 | 181 | 4 300 11 | 14 U | 13 U | 16 U | 1510 | 1810 | 11 U | 1.300 U |
| 1 1 2. Trichloroethane | Ru/ku | | 1810 | 181 | 4.300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Renzene | n/kn | 60 or MDI | 1811 | 181 | 4.30010 | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| trace.1 3. Dichloronronene | | 1011 10 00 | 18.U | 181 | 4.300 U | 1410 | 13 U | 16 U | 15 U | 18 U | 110 | 1,300 U |
| Bromoform | ua/ka | | 1810 | 18 U | 4.300 U | 14 U | 13 U | 16 U | 15 U | 1810 | 11 U | 1,300 U |
| 4-Methvl-2-pentanone | na/ka | 1.000 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 110 | 1,300 U |
| 2-Hexanone | ug/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Tetrachloroethene | uo/kg | 1,400 | 1810 | 12 J | 4,300 U | 2 J | 13 U | 16 U | 15 U | 18 U | 13,000 | 13,000 D |
| Toluene | D3/kg | 1,500 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| 1.1.2.2-Tetrachloroethane | ug/kg | 600 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 1 I I | 1,300 U |
| Chlorobenzene | ug/kg | 1,700 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Ethylbenzene | ug/kg | 5,500 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Styrene | ug/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Total xylenes | ug/kg | 1,200 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 0 | 110 | 1,300 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 0 | D FF | 1,300 U |
| cis-1,2-Dichloroethene | ug/kg | | 18 U | 2,000 J | 2,000 DJ | 14 U | 13 U | 16 U | 15 U | 42 | 36 | 1,300 U |
| trans-1,2-Dichioroethene | ug/kg | 300 | 18 U | 140 | 4,300 U | 14 U | 13 U | 16 U | 15 U | 27 | 2 1 | 1,300 U |
| Dichlorodifluoromethane | ug/kg | | 18 U | 1810 | 4,300 U | 14 U | 13 0 | 16 U | 15 U | D BL | 011 | 1,300 U |
| Trichlorofluoromethane | ug/kg | | 18 U | 18 U | 4,300 U | 14 IU | 13 U | 16 U | 15 U | 18 U | 11 0 | 1,300 U |
| Methyl acetate | ug/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Methyl tert butyl ether | ug/kg | 120 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| Cyclohexane | lg/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 110 | 1,300 U |
| Methylcyclohexane | ug/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 181 | 110 | 1,300 U |
| 1,2-Dibromoethane | ug/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 1110 | 1,300 U |
| Isopropyibenzene | ug/kg | | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 0 | 1,300 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | 11 U | 1,300 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | - 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 18 U | D E | 1,300 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 18 U | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 180 | 11 U | 1,300 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 1810 | 18 U | 4,300 U | 14 U | 13 U | 16 U | 15 U | 181 | | 1,300 0 |
| 1,2,4-Trichlorobenzene | l ug/kg | 3,400 | 18 U | 18 U | 4,300 U | 14IU | 13 U | 16 U | 15 0 | 18/0 | 1110 | 1,300,0 |

HSCO = Recommended Soil Cleanup Objectives 1,000 - Indicates detected value for organics.

| Sample ID -> | Units | TAGM 4046 | GP-2 | GP-2 DL | GP-2 | GP-2 DL | GP-3 | GP-3 |
|---------------------------------------|-------|--------------------|----------|----------|----------|----------|--------------|------------|
| Depth - > | · | RSCO | 12 - 16 | 12 - 16 | 16 - 19 | 16 - 19 | 16 - 19 | 19 - 19.5 |
| - Date Sampled -> | | | 03/17/05 | 03/17/05 | 03/17/05 | 03/17/05 | 03/17/05 | 03/17/05 |
| VOLATILES | ug/kg | | | | | | | |
| Chloromethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Bromomethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Vinyl chloride | ug/kg | 200 | 820 J | 500 DJ | 24 J | 3,500 U | 980,000 UJ | 360,000 U |
| Chloroethane | ug/kg | 1,900 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 UJ |
| Methylene chloride | ug/kg | 100 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Acetone | ug/kg | 200 | ۲ J | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Carbon disulfide | ng/kg | 2,700 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,1-Dichloroethene | ng/kg | 400 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,1-Dichloroethane | ug/kg | 200 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Chloroform | ug/kg | 300 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,2-Dichloroethane | ug/kg | 100 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 2-Butanone | ug/kg | 300 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 17 U | 2,000 U | 24 J | 3,500 U | 980,000 UJ | 360,000 U |
| Carbon tetrachloride | ug/kg | 600 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Bromodichloromethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,2-Dichloropropane | ng/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| cis-1,3-Dichloropropene | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UU | 360,000 U |
| Trichloroethene | ug/kg | 700 | 12 J | 2,000 U | 92 | 3,500 U | 250,000 J | 240,000 J |
| Dibromochloromethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,1,2-Trichloroethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Benzene | ug/kg | 60 or MDL | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| trans-1,3-Dichloropropene | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Bromoform | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 2-Hexanone | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UU | 360,000 U |
| Tetrachloroethene | ug/kg | 1,400 | 80 | 360 DJ | 82 | 710 DJ | 13,000,000 J | 5,900,000 |
| Toluene | ug/kg | 1,500. | 17 U | 2,000 U | 30 U | 3,500 U | 000'086 | 360,000 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | e00 ^{- 1} | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Chlorobenzene | ug/kg | 1,700 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Ethylbenzene | ug/kg | 5,500 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Styrene | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Total xylenes | ug/kg | 1,200 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| cis-1,2-Dichloroethene | ug/kg | | 1,700 J | 1,700 DJ | 1600 J | 1,600 DJ | 980,000 UJ | 360,000 U |

Page 1 of 8

F-IProjectIC81 - Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007/RI ReportITablesITable5VALIDATED.xis / B-3 Area

| Sample ID -> | Units | TAGM 4046 | GP-2 | GP-2 DL | GP-2 | GP-2 DL | GP-3 | GP-3 |
|-----------------------------|---------------------------|-----------|----------|----------|-------------|----------|-----------------------|-----------|
| Depth - > | | RSCO | 12 - 16 | 12 - 16 | 16 - 19 | 16 - 19 | 16 - 19 | 19 - 19.5 |
| Date Sampled -> | | L | 03/17/05 | 03/17/05 | 03/17/05 | 03/17/05 | 03/17/05 | 03/17/05 |
| trans-1,2-Dichloroethene | ug/kg | 300 | 240 | 2,000 U | 39 | 3,500 U | 980,000 UJ | 360,000 U |
| Dichlorodifluoromethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Trichlorofluoromethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Methyl acetate | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Methyl tert butyl ether | ug/kg | 120 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Cvctohexane | ug/kg | | 17 U | 2,000 U | <u>30 U</u> | 3,500 U | 000,089 UU 000,089 | 360,000 U |
| Methvlcvclohexane | ug/kg | | 17 U | 2,000 U | <u>30 U</u> | 3,500 U | 000'086 | 360,000 U |
| 1,2-Dibromoethane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| Isopropylbenzene | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | 17 U | 2,000 U | 30 U | 3,500 U | 000'086 nn | 360,000 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 17 U | 2,000 U | 30 U | 3,500 U | 980,000 UJ | 360,000 U |
| | | | | | | | | |

;

و بر

| er Midler Avenue LLC | dial Investigation Report | 5 - Phase 2 GeoProbe Boring Data |
|----------------------|---------------------------|----------------------------------|
| Pioneer N | Remedial | Table 5 - I |

| Sample ID -> | Units | TAGM 4046 | GP-4 | GP-7 | GP-7 | GP-9 | GP-9 DL | GP-9 |
|---------------------------------------|---------------------------|-----------|-----------|----------|-----------|------------------|----------|-----------|
| Depth - > | • | RSCO | Ъ | 8 - 12 | 16 - 18.9 | 8 - 10.5 | 8 - 10.5 | 16 - 18.5 |
| Date Sampled -> | _ | | 03/17/05 | 03/18/05 | 03/18/05 | 03/18/05 | 03/18/05 | 03/18/05 |
| VOLATILES | ug/kg | | | | | | | |
| Chloromethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Bromomethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Vinyl chloride | ug/kg | 200 | 80,000 | 5 J | 3 J | 2,700 J | 2,700 DJ | <u>ل</u> |
| Chloroethane | ug/kg | 1,900 | 16,000 UJ | 20 UJ | 29 UJ | 33 NJ | 3,900 U | 20 UJ |
| Methylene chloride | ug/kg | 100 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Acetone | ug/kg | 200 | 16,000 U | 20 U | 29 U | 240 B | 3,900 U | 25 U |
| Carbon disulfide | ug/kg | 2,700 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 2 J |
| 1,1-Dichloroethene | ug/kg | 400 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 1,1-Dichloroethane | ug/kg | 200 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Chloroform | ug/kg | 300 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 1,2-Dichloroethane | ug/kg | 100 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 2-Butanone | ug/kg | 300 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Carbon tetrachloride | ug/kg | 600 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Bromodichloromethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 1,2-Dichloropropane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| cis-1,3-Dichloropropene | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Trichloroethene | ug/kg | 700 | 16,000 U | 20 U | 3 J | 33 U | 3,900 U | 14 J |
| Dibromochloromethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 1,1,2-Trichloroethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Benzene | ug/kg | 60 or MDL | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| trans-1,3-Dichloropropene | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Bromoform | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 2-Hexanone | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Tetrachloroethene | ug/kg | 1,400 | 4,400 J | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Toluene | ug/kg | 1,500 | 16,000 U | 20 U | 29 U | <mark>ر</mark> 8 | 3,900 U | 20 U |
| 1,1,2,2-Tetrachloroethane - | ug/kg | 600 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Chlorobenzene | ug/kg | 1,700 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Ethylbenzene | ug/kg | 5,500 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Styrene | ug/kg | | 16,000 U | 20 U | 29 U | 33 N | 3,900 U | 20 U |
| Total xylenes | ug/kg | 1,200 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 16,000 U | 20 U | 29 U | 33 N | 3,900 U | 20 U |
| cis-1,2-Dichloroethene | ug/kg | | 170,000 | 37 | 89 | 530 | 2,200 DJ | 69 |

FiProjectIC81 - Pioneer DevelopmentIC81.002 BCPICtose out and COCIOctober 2007/RI ReportITables/Table5VALIDATED.xis / B-3 Area

Page 3 of 8

| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$ | Sample ID -> | Units | TAGM 4046 | GP-4 | GP-7 | GP-7 | GP-9 | GP-9 DL | GP-9 |
|---|-------------------|-------|-----------|----------|----------|-----------|----------|----------|-----------|
| Date Sampled -> 03/17/05 03/18/05 03/18/05 2-Dichloroethene ug/kg 300 16,000 U 56 offuoromethane ug/kg 300 16,000 U 20 offuoromethane ug/kg 300 16,000 U 20 offuoromethane ug/kg 16,000 U 20 1 acetate ug/kg 120 16,000 U 20 1 acomoethane ug/kg 16,000 | < - Depth - > | | RSCO | ሲ | 8 - 12 | 16 - 18.9 | 8 - 10.5 | 8 - 10.5 | 16 - 18.5 |
| 2-Dichloroethene ug/kg 300 16,000 U 5 odifluoromethane ug/kg 16,000 U 20 1 odifluoromethane ug/kg 16,000 U 20 1 odifluoromethane ug/kg 120 16,000 U 20 1 acetate ug/kg 120 16,000 U 20 1 acetate ug/kg 120 16,000 U 20 1 acetate ug/kg 120 16,000 U 20 1 exane ug/kg 120 16,000 U 20 1 vomoethane ug/kg 120 16,000 U 20 1 vomoethane ug/kg 1,600 U 20 1 20 1 vomoethane ug/kg 1,600 U 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 </td <td>Date Sampled -></td> <td></td> <td>I</td> <td>03/17/05</td> <td>03/18/05</td> <td>03/18/05</td> <td>03/18/05</td> <td>03/18/05</td> <td>03/18/05</td> | Date Sampled -> | | I | 03/17/05 | 03/18/05 | 03/18/05 | 03/18/05 | 03/18/05 | 03/18/05 |
| odiffuoromethane ug/kg 16,000 U 201 rofluoromethane ug/kg 16,000 U 201 acetate ug/kg 16,000 U 201 acetate ug/kg 120 16,000 U 201 acetate ug/kg 120 16,000 U 201 tert butyl ether ug/kg 120 16,000 U 201 exane ug/kg 120 16,000 U 201 exane ug/kg 120 16,000 U 201 ovaloberzene ug/kg 1,600 U 201 ovaloberzene ug/kg 1,600 U 201 hloroberzene ug/kg 7,900 16,000 U 201 ovaloberzene ug/kg 7,900 16,000 U 201 ovaloberzene ug/kg 1,6000 U 201 201 ovaloberzene ug/kg 7,900 16,000 U </td <td>ichloroethene</td> <td>ug/kg</td> <td>300</td> <td>16,000 U</td> <td>5 J</td> <td>10 J</td> <td>68</td> <td>3,900 U</td> <td>13 J</td> | ichloroethene | ug/kg | 300 | 16,000 U | 5 J | 10 J | 68 | 3,900 U | 13 J |
| rofluoromethane ug/kg 16,000 U 20 acetate ug/kg 120 16,000 U 20 tert butyl ether ug/kg 120 16,000 U 20 tert butyl ether ug/kg 120 16,000 U 20 exane ug/kg 120 16,000 U 20 cyclohexane ug/kg 16,000 U 20 vyclohexane ug/kg 16,000 U 20 vionoethane ug/kg 1,600 U 20 vionobenzene ug/kg 7,900 U 20 vionobenzene ug/kg 7,900 U 20 viono-3-chloropropane ug/kg 7,900 U 20 | uoromethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| acetate ug/kg 120 16,000 U 20 tert butyl ether ug/kg 120 16,000 U 20 exane ug/kg 120 16,000 U 20 exane ug/kg 120 16,000 U 20 cyclohexane ug/kg 16,000 U 20 cyclohexane ug/kg 16,000 U 20 oylbenzene ug/kg 1,600 U 20 oylbenzene ug/kg 1,600 U 20 ihlorobenzene ug/kg 7,900 16,000 U 20 inlorobenzene ug/kg 7,900 16,000 U 20 inlorobenzene ug/kg 7,900 16,000 U 20 oromo-3-chloropropane ug/kg 7,900 16,000 U 20 | oromethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| tert butyl ether ug/kg 120 16,000 U 20 exane ug/kg 120 16,000 U 20 exane ug/kg 16,000 U 20 cyclohexane ug/kg 16,000 U 20 cyclohexane ug/kg 16,000 U 20 ovomoethane ug/kg 16,000 U 20 ovlobenzene ug/kg 1,600 16,000 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 oromo-3-chloropropane ug/kg 7,900 16,000 U 20 | tate | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| exame ug/kg 16,000 U 20 cyclohexane ug/kg 16,000 U 20 romoethane ug/kg 16,000 U 20 vomoethane ug/kg 16,000 U 20 vhorbenzene ug/kg 1,600 U 20 hlorobenzene ug/kg 1,600 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 noroof-archonzene ug/kg 7,900 16,000 U 20 noroof-archonzene ug/kg 7,900 16,000 U 20 | butyl ether | ug/kg | 120 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| cyclohexane ug/kg 16,000 U 20 romoethane ug/kg 16,000 U 20 vylbenzene ug/kg 16,000 U 20 hlorobenzene ug/kg 1,600 U 20 hlorobenzene ug/kg 1,600 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 nlorobenzene ug/kg 7,900 16,000 U 20 nlorobenzene ug/kg 7,900 16,000 U 20 nono-3-chloropropane ug/kg 7,900 16,000 U 20 | le | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| romoethane ug/kg 16,000 U 20 v/benzene ug/kg 1,600 U 20 hlorobenzene ug/kg 1,600 U 20 hlorobenzene ug/kg 1,600 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 nlorobenzene ug/kg 7,900 16,000 U 20 noro-3-chloropropane ug/kg 7,900 16,000 U 20 | phexane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| ylbenzene ug/kg 16,000 U 20 hlorobenzene ug/kg 1,600 16,000 U 20 hlorobenzene ug/kg 8,500 16,000 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 hlorobenzene ug/kg 7,900 16,000 U 20 romo-3-chloropropane ug/kg 7,900 16,000 U 20 | oethane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| Ínlorobenzene ug/kg 1,600 16,000 U 20 Ínlorobenzene ug/kg 8,500 16,000 U 20 Ínlorobenzene ug/kg 7,900 16,000 U 20 Ínlorobenzene ug/kg 7,900 16,000 U 20 Ínlorobenzene ug/kg 7,900 16,000 U 20 | enzene | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| hlorobenzene ug/kg 8,500 16,000 U 201 hlorobenzene ug/kg 7,900 16,000 U 201 romo-3-chloropropane ug/kg 2,000 U 201 | obenzene | ug/kg | 1,600 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| hlorobenzene ug/kg 7,900 16,000 U 20 romo-3-chloropropane ug/kg 2.00 1 20 20 | obenzene | ug/kg | 8,500 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| romo-3-chloropropane ug/kg 16,000 U 201 | obenzene | ug/kg | 7,900 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| | o-3-chloropropane | ug/kg | | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |
| richlorobenzene ug/Kg 3,400 10,000 0 20 | lorobenzene | ug/kg | 3,400 | 16,000 U | 20 U | 29 U | 33 U | 3,900 U | 20 U |

; ;

x 1

| Sample ID -> | Units | TAGM 4046 | GP-10 | GP-10 | GP-11 | GP-11 |
|---------------------------------------|-------|-----------|----------|------------|----------|----------|
| Depth - > | | RSCO | 9 - 10 | 14 - 16 | 15 - 16 | 16 - 18 |
| Date Sampled -> | | | 03/18/05 | 03/21/05 | 03/21/05 | 03/21/05 |
| VOLATILES | ug/kg | | | | | |
| Chloromethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Bromomethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Vinyl chloride | ug/kg | 200 | 101 | 34 U | 28 U | 29 U |
| Chloroethane | ug/kg | 1,900 | 29 UJ | 34 UJ | 28 UJ | 29 UJ |
| Methylene chloride | ug/kg | 100 | 29 U | 34 U | 28 U | 29 U |
| Acetone | ng/kg | 200 | 68 U | 31 J | 22 J | 60 |
| Carbon disulfide | ug/kg | 2,700 | 29 U | ۲ ک | 4 J | 15 J |
| 1,1-Dichloroethene | ug/kg | 400 | 29 U | 34 U | 28 U | 29 U |
| 1,1-Dichloroethane | ug/kg | 200 | 29 U | 34 U | 28 U | 29 U |
| Chloroform | ug/kg | 300 | 29 U | 34 U | 28 U | 29 U |
| 1,2-Dichloroethane | ug/kg | 100 | 29 U | 34 U | 28 U | 29 U |
| 2-Butanone | ug/kg | 300 | 29 U | 34 U | 28 U | 29 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 29 U | 34 U | 28 U | 29 U |
| Carbon tetrachloride | ug/kg | 600 | 29 U | 34 U | 28 U | 29 U |
| Bromodichloromethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| 1,2-Dichloropropane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| cis-1,3-Dichloropropene | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Trichloroethene | ug/kg | 700 | 29 U | 34 U | 28 U | 29 U |
| Dibromochloromethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| 1,1,2-Trichloroethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Benzene | ug/kg | 60 or MDL | 29 U | 34 U | 28 U | 29 U |
| trans-1,3-Dichloropropene | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Bromoform | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 29 U | 34 U | 28 U | 29 U |
| 2-Hexanone | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Tetrachloroethene | ug/kg | 1,400 | 29 U | 22 J | 14 J | 4 J |
| Toluene | ug/kg | 1,500 | 29 U | 34 U | 28 U | 29 U |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | 29 U | 34 U | 28 U | 29 U |
| Chlorobenzene | ug/kg | 1,700 | 29 U | 4 J | 28 U | 29 U |
| Ethylbenzene | ug/kg | 5,500 | 29 U | 34 U | 28 U | 29 U |
| Styrene | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Total xylenes | ug/kg | 1,200 | 29 U | 34 U | 28 U | 29 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 29 U | 34 U | 28 U | 29 U |
| cis-1,2-Dichloroethene | ug/kg | | 32 | 32 J | 20 J | 20 J |

Page 5 of 8

F:\Project\C81 - Pioneer Development\C81.002 BCP\Close out and COC\October 2007\R\ Report\Tables\Tables\Table5VALIDATED.xls / B-3 Area

| Sample ID -> | Units | TAGM 4046 | GP-10 | GP-10 | GP-11 | GP-11 |
|-----------------------------|-------|-----------|----------|------------|----------|----------|
| Depth - > | 1 | RSCO | 9 - 10 | 14 - 16 | 15 - 16 | 16 - 18 |
| Date Sampled -> | | | 03/18/05 | 03/21/05 | 03/21/05 | 03/21/05 |
| trans-1,2-Dichloroethene | ug/kg | 300 | 11 J | ۲ <u>۲</u> | 28 U | ۲J |
| Dichlorodifiuoromethane | ug/kg | | 29 U | 34 UJ | 28 UJ | 29 UJ |
| Trichlorofluoromethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Methyl acetate | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Methyl tert butyl ether | ug/kg | 120 | 29 U | 34 U | 28 U | 29 U |
| Cvclohexane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Methylcyclohexane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| 1,2-Dibromoethane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| Isopropylbenzene | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 29 U | 34 U | 28 U | 29 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | 29 U | 34 U | 28 U | 29 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 29 U | 34 U | 28 U | 29 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 29 U | 34 U | 28 U | 29 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 29 U | 34 U | 28 U | 29 U |
| | | | | | | |

Page 6 of 8

F:\ProjectlC81 - Pioneer Development\C81.002 BCP\Close out and COC\October 2007\R\ Report\Tables\Tables\AblesVALIDATED.x\s/B-3 Area

: :

<u>ا</u> م

| Sample ID -> | Units | TAGM 4046 | GP-12 | GP-14 | GP-14 DL | GP-15 |
|---------------------------------------|-------|-----------|----------|-------------|-------------|-----------|
| Depth - > | | RSCO | 8 - 12 | 18.5 - 19.5 | 18.5 - 19.5 | 24 - 25 |
| Date Sampled -> | | | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 |
| VOLATILES | ug/kg | | | | | |
| Chloromethane | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Bromomethane | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Vinyl chloride | ug/kg | 200 | 1,300 J | 6 J | 2,700 U | 38,000 U |
| Chloroethane | ug/kg | 1,900 | 1,900 UJ | 23 U | 2,700 U | 38,000 UJ |
| Methylene chloride | ug/kg | 100 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Acetone | ug/kg | 200 | 1,900 U | 24 | 2,700 U | 38,000 U |
| Carbon disulfide | ug/kg | 2,700 | 1,900 U | 10 J | 2,700 U | 38,000 U |
| 1,1-Dichloroethene | ug/kg | 400 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,1-Dichloroethane | ug/kg | 200 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Chloroform | ug/kg | 300 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,2-Dichloroethane | ug/kg | 100 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 2-Butanone | ug/kg | 300 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Carbon tetrachloride | ug/kg | 600 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Bromodichloromethane | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,2-Dichloropropane | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| cis-1,3-Dichloropropene | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Trichloroethene | ug/kg | 200 | 1,900 U | L 017 | 710 DJ | 13,000 J |
| Dibromochloromethane | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,1,2-Trichloroethane | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Benzene | ug/kg | 60 or MDL | 1,900 U | 23 U | 2,700 U | 38,000 U |
| trans-1,3-Dichloropropene | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Bromoform | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 2-Hexanone | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Tetrachioroethene | ug/kg | 1,400 | 1,900 U | 660 J | 660 DJ | 510,000 |
| Toluene | ug/kg | 1,500 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Chlorobenzene | ug/kg | 1,700 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Ethylbenzene | ug/kg | 5,500 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Styrene | ug/kg | | 1,900 U | 23 U | 2,700 U | 38,000 U |
| Total xylenes | ug/kg | 1,200 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 1,900 U | 23 U | 2,700 U | 38,000 U |
| cis-1,2-Dichloroethene | ug/kg | | 2,800 | L 067 | 2,700 U | 38,000 U |

Т

....

_

Т

-

| | | | | | | | | | | | | | | | | _ | |
|--------------|-------------|-----------------|--------------------------|-------------------------|------------------------|----------------|-------------------------|-------------|-------------------|-------------------|------------------|---------------------|---------------------|---------------------|-----------------------------|------------------------|-----------------|
| GP-15 | 24 - 25 | 03/21/05 | 38,000 U | 38,000 UJ | 38,000 U | 38,000 U | 38,000 U | 38,000 U | 13,200 U | 38,000 U | 38,000 U | 38,000 U | 38,000 U | 38,000 U | 38,000 U | 38,000 U | S |
| GP-14 DL | 18.5 - 19.5 | 03/21/05 | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | 2,700 U | anup Objective |
| GP-14 | 18.5 - 19.5 | 03/21/05 | 230 | 23 U | 23 U | 23 UJ | 23 U | 23 U | 23 U | 23 U | 23 U | 23 U | 23 U | 23 U | 23 U | 23 U | nended Soil Cle |
| GP-12 | 8 - 12 | 03/21/05 | 1,900 U | 1,900 UJ | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | 1,900 U | RSCO = Recomr |
| TAGM 4046 | RSCO | L | 300 | | | | 120 | | | | | 1,600 | 8,500 | 7,900 | | 3,400 | |
| Units | L | | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | |
| Sample ID -> | Depth - > | Date Sampled -> | trans-1,2-Dichloroethene | Dichlorodifluoromethane | Trichlorofluoromethane | Methyl acetate | Methyl tert butyl ether | Cyclohexane | Methylcyclohexane | 1,2-Dibromoethane | Isopropylbenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 1,2-Dichlorobenzene | 1,2-Dibromo-3-chloropropane | 1,2,4-Trichlorobenzene | |

1,000 - indicates detected value for organics.

- indicates value exceeds TAGM 4046 RSCO

: - •

÷ 1

| Samole | ID -> Units | TAGM 4046 | SB 2-1 | SB 2-1 RE | SB 2-1 | SB 3-1 | SB 3-1 | SB 7-1 | SB 7-1 | SB 9-1 | SB 9-1 |
|--------------------------------------|-------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Dep | 1 | RSCO | 5-7 | 5 - 7 | 8 - 10 | 2 - 4 | 12 - 14 | 2-4 | 16 - 18 | 4-6 | 16 - 18 |
| Date Samp | ed -> | | 3/16/2005 | 3/16/2005 | 3/16/2005 | 3/16/2005 | 3/16/2005 | 3/17/2005 | 3/17/2005 | 3/17/2005 | 3/17/2005 |
| VOLATILES | ng/kg | | | | | | | | | | |
| Chloromethane | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Bromomethane | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Vinvl chloride | ng/kg | 200 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Chloroethane | ng/kg | 1,900 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Methylene chloride | ug/kg | 100 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Acetone | ng/kg | 200 | <u>۱</u> ۲ | Г 8 | 11 J | 25 J | 13 J | 20 U | 29 U | Р9 | Р 8 |
| Carbon disulfide | ng/kg | 2,700 | 15U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1.1-Dichloroethene | ug/kg | 400 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1,1-Dichloroethane | ug/kg | 200 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Chloroform | ng/kg | 300 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1.2-Dichloroethane | ng/kg | 100 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 2-Butanone | ng/kg | 300 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1.1.1-Trichloroethane | ug/kg | 800 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Carbon tetrachloride | ug/kg | 600 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Bromodichloromethane | ug/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1.2-Dichloropropane | ug/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| cis-1,3-Dichloropropene | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Trichloroethene | ng/kg | 200 | 15 U | 15 U | 18 U | 34 U | 19 U | 18 J | 29 U | 39 | 240 |
| Dibromochloromethane | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1,1,2-Trichloroethane | ng/kg | | 15 0 | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Benzene | ng/kg | 60 or MDL | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| trans-1,3-Dichloropropene | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Bromoform | ug/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 4-Methyl-2-pentanone | ng/kg | 1,000 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 2-Hexanone | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Tetrachloroethene | ng/kg | 1,400 | 15 U | 15 U | 18 U | 34 U | 19 U | 260 | 29 U | 130 | 64 |
| Toluene | ng/kg | 1,500 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Chlorobenzene | ng/kg | 1,700 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Ethylbenzene | by/bn | 5,500 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Styrene | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Total xylenes | ng/kg | 1,200 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethar | ne lug/kg | 1,000 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| cis-1,2-Dichloroethene | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 160 |
| trans-1,2-Dichloroethene | ng/kg | 300 | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 89 |
| Dichlorodifluoromethane | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |
| Trichlorofluoromethane | ng/kg | | 15 U | 15 U | 18 U | 34 U | 19 U | 20 U | 29 U | 15 U | 21 U |

Pioneer Midler Avenue BCP Remedial Investigation Table 6 - Phase 2 Soil Data for Borings Within Structures

F:\Project\C81 - Pioneer Development\C81.002 BCP\Close out and COC\October 2007\H! Report\Tables\Tables\Table6VALIDATED.xis / Bldgs - VOAs

Page 1 of 5

| M 4046 SCO 120 600 500 900 900 | Sample ID -> Units TAG | Depth - > | Date Sampled -> | acetate ug/kg | tert butyl ether ug/kg | exane ug/kg | vclohexane ug/kg | romoethane ug/kg | wibenzene ug/kg | hlorobenzene ug/kg 1 | hlorobenzene ug/kg 8 | hlorobenzene ug/kg 7 | romo-3-chloropropane ug/kg | richlorohanzana 110/kg 3 |
|--|------------------------|-----------|-----------------|---------------|------------------------|-------------|------------------|------------------|-----------------|----------------------|----------------------|----------------------|----------------------------|--------------------------|
| | M 4046 | sco | | | 120 | | | | | ,600 | 500 | 900 | | .400 |
| | SB 2-1 RE | 5 - 7 | 3/16/2005 | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U |
| SB 2-1 RE 5 - 7 3/16/2005 115 U 15 U 15 U 15 U 15 U 15 U | SB 2-1 | 8 - 10 | 3/16/2005 | 18 U | 18 U | 18 U | 18 U | 18 U | 18 U | 18 U | 18 U | 18 U | 18 U | 18 U |
| SB2-1 RE SB2-1 5-7 8-10 3/16/2005 3/16/2005 15 U 18 U 15 U 18 U | SB 3-1 | 2-4 | 3/16/2005 | 34 U | 34 U | 34 U | 34 U | 34 U | 34 U | 34 U | 34 U | 34 U | 34 U | 34 U |
| SB2-1 RE SB2-1 SB3-1 5-7 8-10 2-4 3/16/2005 3/16/2005 3/16/2005 3/16/2005 3/16/2005 3/16/2005 15 U 18 U 34 U | SB 3-1 | 12 - 14 | 3/16/2005 | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| SB2-1 RE SB2-1 SB3-1 SB3-1 5-7 8-10 2-4 12-14 3/16/2005 3/16/2005 3/16/2005 3/16/2005 3/16/2005 3/16/2005 3/16/2005 3/16/2005 15 <u< td=""> 18<u< td=""> 34<u< td=""> 19<u< td=""> 15<u< td=""> 18<u< td=""> 34<u< td=""> 19<u< td=""></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<></u<> | SB 7-1 | 2 - 4 | 3/17/2005 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| SB2-1 RESB2-1SB3-1SB3-1SB7-1 $5-7$ $8-10$ $2-4$ $12-14$ $2-4$ $3/16/2005$ $3/16/2005$ $3/16/2005$ $3/17/2005$ $3/17/2005$ $3/16/2005$ $3/16/2005$ $3/16/2005$ $3/17/2005$ $3/17/2005$ 15 18 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 34 19 20 0 15 18 34 34 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 | SB 7-1 | 16 - 18 | 3/17/2005 | 29 U | 29 U | 29 U | 29 U | 29 U | 29 U | 29 U | 29 U | 29 U | 29 U | 29 U |
| SB2-1 RESB 2-1SB 3-1SB 7-1SB 7-1SB 7-1 $5-7$ $8-10$ $2-4$ $12-14$ $2-4$ $16-18$ $3/16/2005$ $3/16/2005$ $3/16/2005$ $3/17/2005$ $3/17/2005$ $3/16/2005$ $3/16/2005$ $3/16/2005$ $3/17/2005$ $3/17/2005$ 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 18 34 19 19 20 0 15 19 20 0 20 0 29 10 20 20 | SB 9-1 | 4-6 | 3/17/2005 | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U |
| SB2-1 RESB2-1SB3-1SB3-1SB3-1SB7-1SB7-1SB7-1 $5-7$ $8-10$ 2.4 $12 \cdot 14$ 2.4 $16 \cdot 18$ $4-6$ $3/16/2005$ $3/16/2005$ $3/16/2005$ $3/17/2005$ $3/17/2005$ $3/17/2005$ $3/16/2005$ $3/16/2005$ $3/16/2005$ $3/17/2005$ $3/17/2005$ $3/17/2005$ 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 20 29 15 15 18 34 19 19 < | SB 9-1 | 16 - 18 | 3/17/2005 | 21 U | 21 U | 21 U | 21 U | 21 U | 21 U | 21 U | 21 U | 21 U | 21 U | 21 U |

Table 6 - Phase 2 Soil Data for Borings Within Structures **Remedial Investigation**

Pioneer Midler Avenue BCP

- indicates value exceeds TAGM 4046 RSCO RSCO = Recommended Soil Cleanup Objectives

 1,000
 - indicates detected value for organics.

: •

x 1

| Sample ID -> | Units | TAGM 4046 | SB 12-1 | SB 12-1 | SB 13-2 | SB 13-2 DL | SB 13-2 | SB 13-4 | SB 13-4 |
|---------------------------------------|-------|-----------|------------|----------|-----------|------------|----------|----------|----------|
| Depth - > | | RSCO | 0-2 | 16 - 18 | 12 - 14 | 12 - 14 | 20 - 22 | 4 - 6 | 20 - 22 |
| Date Sampled -> | | | 03/18/05 | 03/18/05 | 3/21/2005 | 03/21/05 | 03/21/05 | 03/18/05 | 03/18/05 |
| VOLATILES | ug/kg | | | | | | | | |
| Chloromethane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Bromomethane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Vinyl chloride | ug/kg | 200 | 12 U | 1,600 U | 3,200 | 3,200 D | 2,700 | 120 | 1 J |
| Chloroethane | ug/kg | 1,900 | 12 UJ | 1,600 U | 18 U | 2,100 U | 2,100 UJ | 14 UJ | 13 UJ |
| Methylene chloride | ug/kg | 100 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Acetone | ug/kg | 200 | 54 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 23 U | 15 U |
| Carbon disulfide | ug/kg | 2,700 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,1-Dichloroethene | ug/kg | 400 | 12 U | 1,600 U | 21 | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,1-Dichloroethane | ug/kg | 200 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Chloroform | ng/kg | 300 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,2-Dichloroethane | ug/kg | 100 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 2-Butanone | ug/kg | 300 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Carbon tetrachloride | ug/kg | 600 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Bromodichloromethane | ng/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,2-Dichloropropane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| cis-1,3-Dichloropropene | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Trichloroethene | ug/kg | 700 | 220 | 1,800 | 18 U | 2,100 U | 2,100 U | 14 | 13 U |
| Dibromochloromethane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,1,2-Trichloroethane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Benzene | ug/kg | 60 or MDL | 4 J | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| trans-1,3-Dichloropropene | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Bromoform | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| 2-Hexanone | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Tetrachloroethene | ug/kg | 1,400 | 12 U | 5,000 | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Toluene | ug/kg | 1,500 | 6 J | 1,600 U | 4 J | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Chlorobenzene | ug/kg | 1,700 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Ethylbenzene | ug/kg | 5,500 | <u>з</u> Ј | 1,600 U | Э Ј | 2,100 U | 2,100 U | 14 U | 13 U |
| Styrene | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| Total xylenes | ug/kg | 1,200 | ۲ J | 1,600 U | ر 8 | 2,100 U | 2,100 U | 14 U | 13 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |
| cis-1,2-Dichloroethene | ug/kg | | 4 J | 2,700 | 20,000 | 20,000 D | 14,000 | 45 | 13 U |
| trans-1,2-Dichloroethene | ug/kg | 300 | 12 U | 1,600 U | 60 | 2,100 U | 2,100 U | 2 J | 13 U |
| Dichlorodifluoromethane | ug/kg | | 2 J | 1,600 U | 18 U | 2,100 U | 2,100 UJ | 14 U | 13 U |
| Trichlorofluoromethane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 U |

Pioneer Midler Avenue BCP Remedial Investigation Table 6 - Phase 2 Soil Data for Borings Within Stru F:\Project\C81 - Pioneer Development\C81.002 BCP\Close out and COC\October 2007\Pt Report\Tables\Table6VALIDATED.xis / Bldgs - VOAs

Page 3 of 5

| Sample ID -> | < Units | TAGM 4046 | SB 12-1 | SB 12-1 | SB 13-2 | SB 13-2 DL | SB 13-2 | SB 13-4 | SB 13- |
|-----------------------------|---------|-----------|----------|----------|------------|------------|----------|----------|------------|
| Depth - > | | RSCO | 0-2 | 16 - 18 | 12 - 14 | 12 - 14 | 20 - 22 | 4-6 | 20 - 22 |
| Date Sampled -> | | | 03/18/05 | 03/18/05 | 3/21/2005 | 03/21/05 | 03/21/05 | 03/18/05 | 03/18/(|
| Methyl acetate | ng/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| Methyl tert butyl ether | ug/kg | 120 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| Cvctohexane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| Methylcyclohexane | ug/kg | | 12 U | 1,600 U | ۲ <u>6</u> | 2,100 U | 2,100 U | 14 U | 13 |
| 1.2-Dibromoethane | uq/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| Isopropylbenzene | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | <u>1</u> 3 |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | 13 |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 12 U | 1,600 U | 18 U | 2,100 U | 2,100 U | 14 U | <u>က</u> |
| | | | | | | | | | |

13 U 13 U

13 U

13 U 13 U 13 U

13 U 13 U

14 U 14 U

2,100 U 2,100 U 2,100 U

2,100 U 2,100 U 2,100 U

1,600 U

12 U

3,400

ug/kg ug/kg

1,2,4-Trichlorobenzene

13 U 13 U 13 U

03/18/05

SB 13-4

Table 6 - Phase 2 Soil Data for Borings Within Stru **Remedial Investigation**

Pioneer Midler Avenue BCP

RSCO = Recommended Soil Cleanup Objectives

- indicates value exceeds TAG 1,000 - indicates detected value for c

F:|Project|C81 - Pioneer Development|C81.002 BCP|Close out and COC|October 2007|HI Report|Tables\Tables\Table6VALIDATED.xls / Bldgs - VOAs

:

× 1

Pioneer Midler Avenue BCP Remedial Investigation Report Table 6 - Phase 2 Soil Data for Borings Within Structures

| U 150 U 150 U 150 | | U C C C C C C C C C C C C C C C C C C C | B B C 150 C 130 C 1 150 C 1 131 C 1 1 1 | B B 150 U C U 150 U C U 150 U C 150 U 150 U C 130 U 100 U | U 150 150 150 150 150 150 150 150 | U 10 150 U 150 U 150 U 150 U 150 U 150 U 1550 U 15500 U 15500 U 1550 U 1550 U 1 | U 150 U 150 U 150 U 150 U 155 U 150 U 155 U 150 U 155 U 150 U 155 U 150 U 150 U 150 U | U 150 U 150 U 150 U 150 U 150 U 1550 U 15500 U 15500 U 1550 U 1550 U 1550 U 155 | U 150 U 1550 U 15500 U 15500 U 1550 U | U 150 U U 150 U U 150 U U 155 U U 101 U 101 U 0.13 B U 0.13 B M 0.13 B 0.13 B 0.13 B 0.3 U 0.3 U | U 150 U U 150 U U 150 U U 155 U U 101 U 101 U 0.54 U N 0.58 B 0.58 B 0.58 B 0.58 B 0.58 B 0.58 B 0.58 B 0.518 B 0.55 B 0.517 B 0.55 B 0.518 B 0.55 B 0.517 B 0.55 B 0.518 B 0.55 B 0.510 B 0.55 B 0.510 B 0.55 B 0.510 B 0.55 B | U 150 U U 150 U U 150 U U 155 U U 0.62 U N 0.54 UN 0.54 UN 0.54 UN 0.55 B 0.56 B 0.56 B 0.56 U 0.54 U 0.56 U 0.54 U 0.56 U 0.54 U 0.56 U 0.56 U 0.56 U 0.57 U 0.56 U 0.57 U 0.56 U 0.57 U 0.56 U 0.57 U 0.56 U <t< th=""><th>U 150 U U 0.04 U U 0.04 U U 0.04 U D 0.05 B D 0.06 B D 0.05 B V 0.05 B O 0.05 B D 0.06 B D 0.05 B </th><th>U 150 U 150 U U 150 U 101 U 150 U 101 U 150 U 101 U 0.62 U 101 U 0.06 B 31.3 B U 0.06 B 1.12 B U 0.06 B 1.12 B N 0.31 B 0.06 B N 0.31 B 0.05 B U 0.06 B 1.12 B N 0.31 B 0.05 B U 0.02 B 0.02 B U 0.02 B 0.01 U 0.13 B 0.02 B 0.01 U 0.13 B 0.02 U 0.01 U 0.11 U 0.02 U 0.01 U 0.12 U 0.02 U 0.01 U 0.13 U 0.02 U 0.01 U 0.12 U 0.02 U 0.02 U 0.13 U 0.12 U 0.0</th><th>U 150 U U 0.04 U U 0.06 B U 0.06 H U 0.06 H U 0.06 H U 0.06 H U 0.03 H U 0.023 U U 0.023 U U 0.032 U U 0.032 U U 0.032 U U 0.032 U U 0.126 U</th></t<> | U 150 U U 0.04 U U 0.04 U U 0.04 U D 0.05 B D 0.06 B D 0.05 B V 0.05 B O 0.05 B D 0.06 B D 0.05 B | U 150 U 150 U U 150 U 101 U 150 U 101 U 150 U 101 U 0.62 U 101 U 0.06 B 31.3 B U 0.06 B 1.12 B U 0.06 B 1.12 B N 0.31 B 0.06 B N 0.31 B 0.05 B U 0.06 B 1.12 B N 0.31 B 0.05 B U 0.02 B 0.02 B U 0.02 B 0.01 U 0.13 B 0.02 B 0.01 U 0.13 B 0.02 U 0.01 U 0.11 U 0.02 U 0.01 U 0.12 U 0.02 U 0.01 U 0.13 U 0.02 U 0.01 U 0.12 U 0.02 U 0.02 U 0.13 U 0.12 U 0.0 | U 150 U U 0.04 U U 0.06 B U 0.06 H U 0.06 H U 0.06 H U 0.06 H U 0.03 H U 0.023 U U 0.023 U U 0.032 U U 0.032 U U 0.032 U U 0.032 U U 0.126 U |
|--|--|--|--|--|--|--|--|---|--|---|--|---|--|--|---|
| <u>0 89 00 U</u> 0 99 00 U 0 U 0 U | U U 097U U 0 97U U 0 97U U 0 97U 040 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | U 97 U BN 0.41 UN | U 97 U 10 10 10 10 10 10 10 10 10 10 10 10 10 | U 97 U BN 0.41 UN BN 0.10 B | U 97 U U 0.41 UN U 0.030 U | U 97 U 0.41 U 0.10 U 0.03 U 0.03 | U 97 U 0.41 U 0.34 U 0.34 U 0.34 U 0.33 U 0.36 U 0.36 | U 97 L 11 BN 0.41 0.10 1.1 BN 0.10 U 0.030 U 0.030 1.9 56 1.9 56 | U 97 U 1340 BN 0.41 U 0.03 U 0.03 U 0.03 U 0.03 S.6 1.0 BE 3.1 BE 3.1 BE 3.1 BE 3.1 | U 97 BN 0.41 U 0.41 U 0.3440 BN 0.410 U 0.030 U 0.030 M 0.033 0.10 1.08 S.1 0.108 N 7.3 | U 97 U EL 3,440 E BN 0.41 U U 0.3440 E L 1.1 B 1.1 B L 1.1 B 3.6 EL 3.6 U N 7.3 N Z<280 | U 97 U EL 3,440 E BN 0,41 U 0.10 B 0.10 EL 1,1 B EL 1,1 B M 0.030 U N 7.30 N 156 N 1.9 | U 97 U EJ 3,440 EJ H 1,1 B 1,1,3 1,13 B U 0.03 U M 0.033 U N 6,410 J N 7.3 3.6 1.3 B 2.2200 N 1.15 N N 0.016 U | U 97 U EL 3,440 E. L 1,1 B L 1,3 C. L 1,3 C. L 1,3 C. M 7,3 C. N 7,3 C. N 7,3 C. S 3,6 L. S 3,3 B O. 0,0 C. N 1,3 C. N 1,3 C. S 3,3 B S 3,3 C. S S S S S S | U 97 U EL 3,440 E L 13 B 0.41 U 0.03 U 0 EL 1.1 B 1.1 M 7.3 3.6 L M 7.3 1.9 |
| U 100 100 100 100 100 100 100 100 100 10 | U U U 1000 U 100 | U 100 (U J 1.6 (B) (E | U 100 U U 16 B UNJ 1.6 B SI 9.8 ENJ 117 | U 100 (U U 110 (U ENJ 0.54 (B | U 100 (U U 1.100 (U ENJ 1.17 BNJ 0.03 (U UNJ 0.03 (U | U 100 [0 J 100 [0 U 100 [0 U 100 [0 U 100 [0 U 16 [0 U 1.6 [0 UNJ 1.6 [17] BNJ 0.03 [0 UNJ 0.37 [70] | U 100 [U J 100 [U U 100 [U U 100 [U U 100 [U U 1.10 [U U 0.54 [E U 0.03 [U J 0.03 [U J 37 700 [U MJ 444 [E | U 100 [0 J 1.6 [0 U 1.6 [0 U 1.6 [0 U 1.6 [0 U 1.16 [0 BNJ 0.03 [0 J 1.17 [0 BNJ 0.03 [1 J 37,700 NJ 4.4 1 [E NJ 1.0 [0 | U 100 [U U 1.6 [B UNJ 1.6 [B UNJ 0.03 [U J 37700 [U NJ 44.1 [E NJ 44.5 [E NJ 1.05 [E NJ 1.05 [E NJ 1.05 [E | U 100 | U 100 100 U 100 100 U 100 100 U 100 1 J 1000 1 U 1000 1 U 1100 1 U 1.6 1 U 0.03 1 U 0.03 1 UNJ 0.54 1 UNJ 0.3700 1 NJ 44.1 10 NJ 44.3 1 NJ 1.67 1 NJ 1.87 1 NJ 2,300 1 | U 100 100 U 100 100 U 100 100 U 100 1 U 1000 1 U 1000 1 U 1000 1 U 1.6 1 U 1.6 1 U 1.6 1 U 1.6 1 U 1.17 1 BNJ 0.54 1 UNJ 44.1 1 N.J 44.1 1 N.J 44.1 1 N.J 1.0.9 1 M.J 1.17 1 M.J 1.187 1 M.J 1.15 1 M.J 1.15 1 M.J 1.15 1 M.J 1.17 1 M.J 1.17 1 M.J 1.17 1 M.J 1 | U 100 | U 100 100 U 100 100 U 100 100 U 100 1 U 100 1 U 100 1 U 1.6 1 U 0.03 1 U 0.03 1 U 0.03 1 U 0.03 1 U 1.3 0.3 U 1.3 1.4 Nu 1.3 1.3 Nu 1.3 1.3 Nu 1.37 0.05 Nu 1.37 1.37 Nu 1.37 1.37 Nu 1.37 1.37 Nu 1.37 | U 100 100 U 100 100 U 100 100 U 100 1 U 100 1 U 1.6 1 U 1.6 1 U 1.6 1 U 0.03 1 U 1.87 1 U 0.04 1.87 U 0.05 1 U 0.06 1 U 0.06 1.87 U 0.06 1.87 <tr tblood<="" tr=""> <tr tblood<="" tr=""> <tr tblood<="" tr=""></tr></tr></tr> |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | U 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | U 95 | U 0 95 U 95 U 0 | U 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | U U 95 U | U U 95 U | U 0 95 U 9 | U 95 | U 955 U U 951 U U 952 U U 0.333 U U 0.333 U BNU 0.15 BI BNU 10.4 M BNU 10.4 M BNU 10.4 M UN-1 50.042 J BNU 10.4 M BNU 10.4 M BNU 10.4 M BNU 10.4 M BNU 2.250 K | U 955 U BNJ 0.333 U D 0.025 U BNJ 0.025 U UN-J 13.1 N UN-J 13.1 N UN-J 13.1 N UN-J 2.256 E E-J 2.256 E EN-J 2.256 E | U 950 U BBNJ 0.15 BBNJ J 56,002 J J 10.4 N BNJ 10.4 N BNJ 56,002 J J 56,002 J J 56,002 J BNJ 56,002 J BNJ 56,002 J J 3338 E BNJ 0.022 B BNJ 0.022 B | U 950 U U 951 U BNJ 0.15 B BNJ 0.15 B BNJ 10.4 N BNJ 51.4 N BNJ 51.4 N BNJ 51.4 N BNJ 51.4 N BNJ 91.4 N BNJ 91.4 N BNJ 91.4 N U 10.4 N U 11.4 N U 11.4 N U 11.4 N U 11.4 N U 11.1 N < | U 950 U U 0 960 U U 0 960 U U 0 960 U U 0 970 U U 0 0.15 B BNJ 0.015 B 0.015 B BNJ 0.022 B 0.014 N BNJ 55.6 N 0.012 B BNJ 0.022 B 0.014 N BNJ 0.022 B 0.014 N UN1 0.022 B 0.014 N BNJ 0.022 B 0.014 N UN1 0.015 B 0.010 N 0.010 N 0.014 N |
| <u> </u> | | U U U U U U U U U U U 0 0 0 0 0 0 0 0 0 | 1000 000 000 000 000 000 000 000 000 00 | U | UUUUU14000 UUUU14000 UUUU14000 UU14000 UU14400 UU14400 U014400 U016BN U016BN 016BN | U U U 140U U 140U U 044U U 044U U 044U U 0044U U 0016 BN U 0000 U 00000 U 0000 U 00000 U 00000 U 00000 U 00000 U 00000 U 0000 U 000 | UUUUU14000 UUUU1400 UU1400 UU1400 U0440 U0440 016 BR B 016 BR 016 BR 0 016 BR 0 016 BR | UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU | UUUUU14000 UUUU1400 UUU1400 UU1400 UU1400 UU1400 U01400 BB 0.16 BN BB 0.16 BN BB 0.16 BN BB 0.16 BN C011 BN C011 BN C011 BN C011 BN C010 BN C0 | U U U U U U U U U U U U U U U U U U U | U U 140U U 140U U 140U U 0 140U U 0 140U U 0 0.16 BN 0.16 | U U U U U U U U U U U U U U U U U U U | U U U 140U U U 140U U U 140U U U 140U U U 140U U 0.550U B 15.7 BE B 15.7 BE B 0.23BA B 0.23BA C 10B B 0.23BA C 10B B 0.23BA C 10B B 0.23BA C 10B C 10 | U U U U 140U U 140U U U U U 140U U U U U U 140U U U 140U U U 140U U U 140U U 0.50UN U 0.66DN B B 15.7 BE B 15.000 J B 10.000 J B 10.0000 J B 10.000 J B 10.0000 J B 10.0000 J B 10.0000 J B 10.0000 J B | U U U U U U U U U U U U U U U U U U U |
| 30 U 200 U 200 U | C C C C C C C C C C C C C C C C C C C | 000 2000 2000 2000 000 000 000 000 000 | 200 U | 200 U | 300 200 200 | 30 U 200 U 200 U 200 U | 00000000000000000000000000000000000000 | 30 0 200 200 0 200 200 0 < | 000 0 200 0 200 0 200 0 200 0 200 0 200 0 200 0 200 | 300 200 200 | 300 200 200 200 0 200 1410 0 | 90 U 200 U 200 U 91 U 0.33 U 103 U 12 B 0.30 B 0.07 U 14 B 0.37 U 0.37 U 14 B 0.37 U 0.33 U 11.4 B 0.33 U 1.4 B 11.9 0.34 U 0.33 U | 90 U 200 U 200 U 7 0.30 B 0.30 B 114 B 0.07 U 0.07 U 8 0.17 U 0.33 B 0.11 B 0.33 B 0.17 U 1.1 A 0.17 U 0.33 B 1.1 B 0.37 U 0.37 U 1.1 B 0.37 U 0.37 U 1.1 B 0.33 U 0.33 U | 90 U 200 U 200 U 7 0.30 B 103 7 0.30 B 0.30 B 7 0.07 U 0.07 U 8 0.17 U 0.07 U 11.9 0.17 U 0.33 U 11.9 0.17 U 0.33 U 11.9 0.17 U 0.33 U 11.9 0.33 U 1.1.9 11.19 0.33 U 0.33 U 11.19 0.31 B 3.1 B 11.19 0.31 U 1.1.9 11.19 0.31 U 1.1.1 U 11.1 0.31 U 1.1.1 U | 30 0 200 200 00 0 200 0 00 0 200 0 00 0 200 0 01 200 0 200 01 200 0 200 01 200 0 200 01 200 0 200 01 0 200 0 01 0 0 0 01 0 0 0 01 0 0 0 01 0 0 0 01 0 0 0 01 0 0 0 01 1 0 0 01 1 0 0 01 0 0 0 01 0 0 0 01 0 0 0 01 0 0 0 |
| 130 | 130 130 130 130 130 130 130 130 130 | 33000 1,810 33000 1,810 0.59 0.59 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 15.600 23.2 | 130 130 130 130 130 130 130 130 130 130 130 33000 1,810 3.12 15.600 23.2 0.517 0.517 0.517 0.517 0.517 | 130 130 130 130 130 130 130 130 130 130 130 130 130 33000 1,810 35,12 1,810 3,12 1,5,600 3,12 1,75 0,1,75 0,1,1,75 0,1,-1 0,1,-1 | 130 130 130 130 130 130 130 130 130 130 130 130 130 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 15 15 0.1 15 0.1 15 0.1 15 15 15 15 15 15 15 15 15 15 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 121 131 131 131 131 131 131 131 131 131 131 131 131 131 131 132 131 132 131 132 133 133 133 134 135 135 131 132 133 133 134 135 136 137 130 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 140 130 140 15 600 15 0.1 15 0.21 0.1 1.75 0.1 1.60 1.5 0.04 1.5 0.14 0.1 1.00 1.5 0.14 1.5 0.14 1.5 0.14 1.5 0.14 1.5 0.01 1.5 0.01 1.5 0.01 1.5 0.00 1.5 0.00 1.5 0.00 1.5 0.00 1.5 0.00 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 148 130 16 15 600 15 0.21 0.1 1.75 0.1 1.75 0.1 1.6 0.1 1.0 1.5 600 1.5 0.14 0.1 1.0 1.5 0.14 1.5 0.14 1.5 1.30 2.5.5 60 1.50 1.30 2.00 5.00 2.00 5.00 2.00 5.00 1.50 1.37 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 15 600 0.59 3-12 1.7 0.65 3-12 1.7 0.21 15 600 23.2 0.1 - 1 0.04 3.0 1.5 60 3.0 2.5 60 6.8 1.5 0.04 3.0 2.55 60 4.10 100<-5.000 | 130 130 33000 130 130 130 33000 1,81 130 130 33000 1,81 130 0.59 3-12 1,70 15-600 23.27 0.1-1 0.04 15-60 23.27 0.1-1 0.04 1.5-60 8.16 1.5-60 9.16 1.5-60 9.16 1.5-60 4.10 1.0-5,000 1,170 200-5,000 1,170 50-5,000 1,170 | 130 33000 1,80 130 130 33000 1,810 33000 1,810 332000 1,810 33000 1,810 33000 1,810 33000 1,810 33000 1,810 33000 1,810 33000 1,810 33000 1,810 33000 2,510 300 1,15 11.5 40 300 25,000 21.5 60 21.5 60 21.5 60 30 2,55 30 5,000 1 10 200 55,000 300 5,000 300 5,000 300 5,000 300 5,000 300 1,170 300 5,000 300 1,170 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 140 1810 15 0.59 3 - 12 1.7 15 - 600 23.2 0.1 - 1 0.041 0.1 - 1 0.041 1.5 - 600 101 1.5 - 600 101 2.5 - 60 6.8 1.5 - 500 1.1,17 0.00 - 550,000 101 0.00 - 550,000 101 0.00 - 50,000 101 0.00 - 5.000 101 0.001 - 0.2 0.046 0.1 - 3.9 0.430 0.1 - 3.9 0.440 0.1 - 3.9 0.440 0.1 - 3.9 0.440 0.1 - 3.9 0.440 0.1 - 3.9 0.440 0.1 - 3.9 0.440 0.1 - 3.9 0.440 | 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 131 130 141 141 0.55 15.600 23.2 0.1.1 0.14 10.1.1 0.04 0.1.1 0.04 15.600 101 15.600 101 15.600 101 200.5500 4,800 200.5500 115 0.001.5000 101 0.001.50.000 101 0.001.50.000 101 0.01.3.3 0.046 0.1.3.9 0.046 0.1.3.9 0.046 0.1.3.9 0.42 0.1.3.9 0.42 0.1.3.9 0.42 0.1.3.9 0.42 0.1.3.9 0.42 |
| 200001 2000 | sultace subsurface soils Soils Soils | solis, uçucu subsurface solis SB SB | solis, roycoc subsurface solis SB SB 7.5 or SB 7.5 or SB | solis, roycoc subsurface solis SB SB 7.5 or SB 1 300 or SB 0.16 or SB 0 | solis, roycoc subsurface solis SB SB 7.5 or SB 300 or SB 1 or SB 1 or SB | solis, royocc subsurface solis SB SB 7.5 or SB 1 0.16 or SB 1 or SB 1 or SB 1 300 or SB 1 or SB 1 300 | subsurface subsurface sols SB SB 7.5 or SB 1.0 | subsurface subsurface sols SB SB SB 7.5 or SB 1 0.06 or SB 1 0 or SB 2 0 or | subsurface subsurface solis solis SB SB SB 7.5 or SB 1 or SB 1 or SB 1 or SB 1 or SB 2 | subsurface subsurface solis solis SB SB 7.5 of SB 10 of SB 10 of SB 13 0.16 of SB 13 10 of SB 13 25 of SB 25 of SB 25 of SB 200 of SB 20 | subsurface subsurface SB SB SB SB 7.5 or SB 1.6 or SB 1.0 or SB 1.0 or SB 1.0 or SB 1.0 or SB 1.0 or SB 2.000 or S | subsurface subsurface SB SB SB 7.5 or SB 10 or SB 10 or SB 10 or SB 13 25 or SB 25 or SB 26 or SB 26 or SB 27 or SB 26 or SB 27 or SB 27 or SB 20 o | subsurface subsurface subsurface subsurface subsurface subsurface subsurface subsurface SB SB SB SB 7.5 or SB 1 300 or SB 1 0.16 or SB 0 30 or SB 1 25 or SB 1 26 or SB 2 28 1 30 or SB 2 28 1 28 1 28 1 28 1 28 1 28 1 28 1 28 1 28 1 28 1 28 1 28 1 0.1 0.1 | Solution Solution subsurface subsurface subsurface subsurface SB SB SB SB SB SB 7.5 or SB 1 300 or SB 1 10 or SB 1 25 or SB 1 20 or SB 2 20 or SB 2 20 or SB 2 28 12 28 12 29 20 28 12 29 20 28 10 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 28 50 | Solution Solution subsurface subsurface subsurface subsurface SB SB SB SB 7.5 or SB 1 300 or SB 1 300 or SB 1 300 or SB 1 25 or SB 2 200 or SB 2 200 or SB 2 200 or SB 2 28 12 28 10 28 10 28 10 28 10 28 10 28 10 28 10 28 10 28 50 28 50 28 50 28 50 28 50 28 50 58 60 58 60 58 50 58 50 58 50 <t< td=""></t<> |
| | 0,140 0, | 2 ug/kg 3 ug/kg 5 ng/kg 5 mg/kg mg/kg | ngrky ng | 00000000000000000000000000000000000000 | CS Ug/kg CS CS CS Ug/kg CS | лугу идуку с подко с | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | муку подко видука видоо видо видо видоо видоо видо видо в | лугуд подка п | мулу | мулу | 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | | Буубл Буубл< |
| | roclor 1248 roclor 1254 NORGANIC: | vroclor 1248 vroclor 1254 vroclor 1260 NORGANICS Numinum vntimony | vroclor 1248 vroclor 1254 vroclor 1260 NORGANICS Nutminum vritimony vrsenic | vroclor 1248 vroclor 1254 vroclor 1260 NORGANICs Nutminum vntimony vrsenic Barlum | voclor 1248 voclor 1254 voclor 1260 NORGANICS Nutminum Nutminum Sartum Sartum Sartum | voclor 1248 voclor 1254 voclor 1256 volor 1260 volor 1260 voluminum volumory volumory volumory service | voclor 1248 voclor 1254 voclor 1256 voclor 1260 vorlen 1260 vorlen kluminum vollimony vollium altium admium adclum | vocior 1248 vocior 1254 vocior 1254 Nordon 1260 Vorimum Nutritium Vatienic antium alcium alcium Cobalt | vocior 1248 vocior 1254 vocior 1256 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1248 vocior 1260 vocior 1248 vocior 1260 vocior | vocior 1248 vocior 1254 vocior 1256 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1260 vocior 1248 vocior 1260 vocior 1248 vocior 1260 vocior | vocilor 1248 vocilor 1254 vocilor 1256 vocilor 1260 vocilor 1260 vocilor 1260 vocilor 1260 vocilor 1260 vocilor 260 vocilor 200 vocilor 20 | vicoclor 1248 vicoclor 1254 vicoclor 1254 Vorden 1250 Vorden 1260 vicenic vice | viccilor 1248 viccilor 1254 viccilor 1254 viccilor 1256 viccilor 1260 viccilor viccilor Santium Sardmium Sinchium Sinchium Sinchium Sinchium Sinchium Sinchium Sinchium Sinchium Sinchium Sinchium Aanganeseium Aanganeseium | vocior 1248 vocior 1254 vocior 1254 vocior 1254 vocior 1260 vocior 1260 vocior 1260 landium landium hornium hornium hornium coper ead Aerouy vickel Aerouy vickel herouy balenium balenium hallium | vocior 1248 vocior 1254 vocior 1254 vocior 1250 vorgenice landium land |
| minimun minys 550 UN-1 0.33 UN-1 0.41 UN 0.41 UN 0.41 UN 0.41 UN 0.65 UN 0.650 UN-1 0.33 UN-1 0.41 UN 0.65 UN 0.66 UN 0.66 UN 0.66 UN 0.66 UN 0.66 UN 0.66 UN 0.66 <thun< th=""> UN UN</thun<> | rsenic mg/kg 7.5 or SB 3 - 12 1.7 0.76 U 0.44 U [*] 8.81 9.8 1.1 B 0.37 JU arium mg/kg 300 or SB 15 - 600 232 B 26.0 B 15.7 BENJ 32.1 ENJ 11.7 B 13.7 B 31.8 B eryllium mg/kg 0.0 or SB 01.75 0.0.7 U 0.01 BNJ 0.0.31 BNJ <td>letyllium mgkg 0.16 or SB 0 - 1.75 0.21 B 0.30 B 0.16 BNJ 0.54 B 0.10 B 0.010 B 0.013 B admium mg/kg 1 or SB 0.1 - 1 0.04 U 0.07 U 0.01 BNJ 0.54 B 0.10 B 0.04 U baltium mg/kg 1 or SB 0.1 - 1 0.04 U 0.07 U 0.1 BNJ 0.03 U 0.03 U 0.03 U 0.04 U 0.04 U Calcium mg/kg SB 130 - 35,000 91,56 U 228,000 E 1.89,00 J 37,700 18,200 121,171 Choint mg/kg 30 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 441 EJ 36 EJ 0.5 B Choper mg/kg 20 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.05 B Choper mg/kg 20 or SB 1 - 50 13.7 12.8 NJ 10.9 NJ 10.8 NJ 1.2 BZJ 0.5 B Choper mg/kg 25 or SB 1 - 5</td> <td>admium mg/kg 1 or SB 0.1 - 1 0.04 U 0.07 U 0.1 BNU 0.02 UN 0.03 U 0.04 U 0.04</td> <td>Date mg/kg SB 130 - 35,000 91,168 J 228,000 E/J 183,000 J 37,700 18,200 421,171 Zhomium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.223 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.5 B Zhomium mg/kg 20 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.05 B Zopper mg/kg 25 or SB 1 - 50 13.7 14 1.1 BNJ 55.6 NJ 1.0 B 18.1 1 3.6 EJ 0.05 B Zopper mg/kg 25 or SB 1 - 50 1.3 J 1.0 B 18.1 1 1.2 B 0.06 B Zopper mg/kg 28 or S000 or SB 2,000 - 5500 4.1 D 0.34 U 0.201 N'J 56,400 N'J 73 N' 73 N' 0.31 U Angresium mg/kg SB 100 or S00 11.1 O 1.040 E'J 2.300 S 2.7 S0 2.1 S0</td> <td>Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.3 B Obalit mg/kg 30 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 B Doper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 1.9 BEJ 1.06 B Doper mg/kg 25 or SB 2,000 - 550,000 4,800 134 U 0.20 UN'J 51,10'J 187 N 7.3 N 0.31 U Dring mg/kg SB 2,000 - 550,000 4,110 0.34 U 0.20 UN'J 131 N'J 187 N 7.3 N 0.31 U Agensium mg/kg SB 500 - 5,000 11,10 1,040 E'J 2.300 2.280 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.15</td> <td>mg/kg 200 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 48.1 0.45 B 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 64.10 3.1 1.2 B con mg/kg 2000 or SB 2,000 - 5500 4,800 139 0.20 UN'J 13.0 N'J 187 N 7.3 N 0.3 U dagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E'J 2.300 2.280 2.150 Aggresium mg/kg SB 50 - 5,000 1,170 1,600 1,040 E'J 2.300 2.280 2.150 Aggresium mg/kg SB 50 - 5,000 101 11.9 5.308 2.300 2.280 2.150 Aggresium mg/kg SB 50 - 5,000 10.1 11.9 5.308</td> <td>Copper mg/kg 2.50 CSB 1 - 50 13.1 1.41B 1.01B 18.1 9.44.3 0.1 1.41B 0.31U 1.31D 1.37D 1.31N 1.31N 1.31N 1.31N 1.31N 1.31N 0.31U 0.31U Ragnesium mg/kg SB 1.000 1.170 1.500 1.170 1.600 1.040 2.300 2.280 2.150</td> <td>Old mg/kg Environment Total Total</td> <td>Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E-3 2,250 E-3 2,300 2,280 2,150<!--</td--><td>Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 E.9 N.1 1,870 N 115 N 9.4 Aercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 0.016 U 0.023 UN Aercury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B</td><td>Aercury mg/kg 0.1 0.001-0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.063 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5-25 11.5 3.1,B 1.3 BNJ 8.7 NJ 31.8 3.1,B 3.9 B</td><td>vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B</td><td></td><td>belenium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN J 0.35 UN J 0.47 U 0.43 U 0.66 U 0.65 U 0.62 U 0.62 U 0.62 U 0.62 U 0.65 U 0.65 U 0.65 U 0.65 U 0.65 U 0.62 U 0.62 B 0.62 U 0.62 U 0.62 U 0.65 U 0.62 U 0.65 U <</td><td>belenium mg/kg 2 or SR 0.1 - 3.9 0.99 U 1.6 U 0.53 UN J 0.35 UN J 0.47 U 0.43 U 0.65 U 0.12 U 0.13 U 0.13 U 0.12 U 0.13 U 0.12 U <</td></td> | letyllium mgkg 0.16 or SB 0 - 1.75 0.21 B 0.30 B 0.16 BNJ 0.54 B 0.10 B 0.010 B 0.013 B admium mg/kg 1 or SB 0.1 - 1 0.04 U 0.07 U 0.01 BNJ 0.54 B 0.10 B 0.04 U baltium mg/kg 1 or SB 0.1 - 1 0.04 U 0.07 U 0.1 BNJ 0.03 U 0.03 U 0.03 U 0.04 U 0.04 U Calcium mg/kg SB 130 - 35,000 91,56 U 228,000 E 1.89,00 J 37,700 18,200 121,171 Choint mg/kg 30 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 441 EJ 36 EJ 0.5 B Choper mg/kg 20 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.05 B Choper mg/kg 20 or SB 1 - 50 13.7 12.8 NJ 10.9 NJ 10.8 NJ 1.2 BZJ 0.5 B Choper mg/kg 25 or SB 1 - 5 | admium mg/kg 1 or SB 0.1 - 1 0.04 U 0.07 U 0.1 BNU 0.02 UN 0.03 U 0.04 | Date mg/kg SB 130 - 35,000 91,168 J 228,000 E/J 183,000 J 37,700 18,200 421,171 Zhomium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.223 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.5 B Zhomium mg/kg 20 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.05 B Zopper mg/kg 25 or SB 1 - 50 13.7 14 1.1 BNJ 55.6 NJ 1.0 B 18.1 1 3.6 EJ 0.05 B Zopper mg/kg 25 or SB 1 - 50 1.3 J 1.0 B 18.1 1 1.2 B 0.06 B Zopper mg/kg 28 or S000 or SB 2,000 - 5500 4.1 D 0.34 U 0.201 N'J 56,400 N'J 73 N' 73 N' 0.31 U Angresium mg/kg SB 100 or S00 11.1 O 1.040 E'J 2.300 S 2.7 S0 2.1 S0 | Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.3 B Obalit mg/kg 30 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 B Doper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 1.9 BEJ 1.06 B Doper mg/kg 25 or SB 2,000 - 550,000 4,800 134 U 0.20 UN'J 51,10'J 187 N 7.3 N 0.31 U Dring mg/kg SB 2,000 - 550,000 4,110 0.34 U 0.20 UN'J 131 N'J 187 N 7.3 N 0.31 U Agensium mg/kg SB 500 - 5,000 11,10 1,040 E'J 2.300 2.280 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.150 2.15 | mg/kg 200 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 48.1 0.45 B 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 64.10 3.1 1.2 B con mg/kg 2000 or SB 2,000 - 5500 4,800 139 0.20 UN'J 13.0 N'J 187 N 7.3 N 0.3 U dagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E'J 2.300 2.280 2.150 Aggresium mg/kg SB 50 - 5,000 1,170 1,600 1,040 E'J 2.300 2.280 2.150 Aggresium mg/kg SB 50 - 5,000 101 11.9 5.308 2.300 2.280 2.150 Aggresium mg/kg SB 50 - 5,000 10.1 11.9 5.308 | Copper mg/kg 2.50 CSB 1 - 50 13.1 1.41B 1.01B 18.1 9.44.3 0.1 1.41B 0.31U 1.31D 1.37D 1.31N 1.31N 1.31N 1.31N 1.31N 1.31N 0.31U 0.31U Ragnesium mg/kg SB 1.000 1.170 1.500 1.170 1.600 1.040 2.300 2.280 2.150 | Old mg/kg Environment Total | Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E-3 2,250 E-3 2,300 2,280 2,150 </td <td>Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 E.9 N.1 1,870 N 115 N 9.4 Aercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 0.016 U 0.023 UN Aercury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B</td> <td>Aercury mg/kg 0.1 0.001-0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.063 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5-25 11.5 3.1,B 1.3 BNJ 8.7 NJ 31.8 3.1,B 3.9 B</td> <td>vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B</td> <td></td> <td>belenium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN J 0.35 UN J 0.47 U 0.43 U 0.66 U 0.65 U 0.62 U 0.62 U 0.62 U 0.62 U 0.65 U 0.65 U 0.65 U 0.65 U 0.65 U 0.62 U 0.62 B 0.62 U 0.62 U 0.62 U 0.65 U 0.62 U 0.65 U <</td> <td>belenium mg/kg 2 or SR 0.1 - 3.9 0.99 U 1.6 U 0.53 UN J 0.35 UN J 0.47 U 0.43 U 0.65 U 0.12 U 0.13 U 0.13 U 0.12 U 0.13 U 0.12 U <</td> | Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 E.9 N.1 1,870 N 115 N 9.4 Aercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 0.016 U 0.023 UN Aercury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B | Aercury mg/kg 0.1 0.001-0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.063 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5-25 11.5 3.1,B 1.3 BNJ 8.7 NJ 31.8 3.1,B 3.9 B | vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B | | belenium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN J 0.35 UN J 0.47 U 0.43 U 0.66 U 0.65 U 0.62 U 0.62 U 0.62 U 0.62 U 0.65 U 0.65 U 0.65 U 0.65 U 0.65 U 0.62 U 0.62 B 0.62 U 0.62 U 0.62 U 0.65 U 0.62 U 0.65 U < | belenium mg/kg 2 or SR 0.1 - 3.9 0.99 U 1.6 U 0.53 UN J 0.35 UN J 0.47 U 0.43 U 0.65 U 0.12 U 0.13 U 0.13 U 0.12 U 0.13 U 0.12 U < |
| minimun minrory mg/kg SB $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $ $ | reenic mg/kg 7.5 or SB 3 - 12 1.7 0.76 U 0.44 U [*] 8.81 9.8 1.1 B 0.37 B arium mg/kg 300 or SB 15 - 600 232 B 26.0 B 15.7 BENJ 32.1 ENJ 117 11.7 B 0.37 B 31.8 B erylium mg/kg 0.16 or SB 01.75 0.02 B 0.01 BNJ 0.03 U 0.03 U 0.03 U 0.019 B 0.11 B admium mg/kg 10 or SB 1.5 -60 3.0 Or N 0.03 B 0.03 U 0.03 U 0.03 U 0.019 B 0.19 B 0.10 B 0.19 B 0.19 B 0.19 B 0.19 B 0.10 B 0.11 B 0.05 B 0.01 B <td>Jeryllium mg/kg 0.16 orSB 0 - 1.75 0.21 B 0.016 BNJ 0.54 B 0.10 B 0.019 B 0.019 D 0.011 D <thd< th=""> D D</thd<></td> <td>zadmium mg/kg 1 or SB 0.1-1 0.04 U 0.07 U 0.1 BNJ 0.02 UN 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.04 U 0.04 U 0.04 U 0.07 U 0.01 BNJ 0.02 UN 0.03 U 0.03 U 0.04 U 0.03 U 0.03 U 0.03 U 0.04 U 0.</td> <td>Date mg/kg SB 130 - 35,000 91,168 J 228,000 E-1 183,000 J 50,042 J 37,700 18,200 421,171 Zhomium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.22 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.5 B Zhomium mg/kg 30 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.06 B Zopper mg/kg 26 or SB 1 - 50 13.7 14 B 1.0 B 18.1 9.4 S 3.1 1.2 BEJ 0.06 B Zopper mg/kg 2.000 or SB 2.000 - 550,000 4,10 0.24 NJ 56,400 N'J 58,100 6,410 1.2 B Con mg/kg SB 10.0 - 500 1,170 1,600 1,040 E'J 2.300 2.280 2,150 2,150 Aggnesium mg/kg SB 0.0 22 BNJ 0.022 BNJ 0.052 BNJ 0.066 2,150 Aggnesium mg/kg SB 0.0 5000 <t< td=""><td>Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.35 B 0.35 B 0.35 B 0.35 B 0.35 B 0.36 B 0.37 B 3.6 EJ 0.35 B 0.35 B 0.05 B 0.35 B 0.35 B 0.36 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.06 B 0.06 B 0.06 B 0.05 B 0.06 B 0.07 I B 13.1 N'J 13 N'J</td><td>xobalt mg/kg 300 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 94.5 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 94.5 3.1 1.2 B con mg/kg 280 2,000 - 550,000 4,800 139 0.20 UN'J 13.1 N'J 56,400 6,410 191 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 E'J 2,300 2,200 0.3 U fagnesium mg/kg SB 500 - 5,000 101 11.90 5.6 BNJ 2,330 2,280 2,150 fagnesium mg/kg SB 50.0 - 5,000 101 11.91 5.9 BNJ 2,300 2,280 2,150 fagnesium mg/kg SB 5.0 - 5,000 101 11.91 <</td><td>Copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B cin mg/kg 2,000 or SB 2,000 - 550,000 4,800 1.34 D 0.31 U 56,400 N*J 63,100 6,410 1.4 D 0.3 U cad mg/kg SB 2,000 - 550,000 4,800 0.34 U 0.200 UN*J 56,400 N*J 63,100 6,410 191 adgnesium mg/kg SB 100 - 5,000 1,170 1,600 2,260 E*J 2,300 2,280 2,150 Aanganesium mg/kg SB 500 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9,4 Aanganesium mg/kg SB 0.1 0.001 6 U 0.022 BNJ 0.052 BNJ 0.065 3 0.016 U 0.023 UN Aanganesium mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.1 B 0.016 U 0.023 UN Aarsium mg/kg</td><td>Old mg/kg Environment Team Team</td><td>Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E·J 2,250 E·J 2,300 2,280 2,150<!--</td--><td>Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 115 N 9.4 Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B Actury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 J 1,220 563 B 63.5 B 63.5 B 63.5 B 63.5 B 53.5 B 53.5</td><td>iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B - 3.4 B - 0.5 - 43,000 385 B 35.7 B 28.4 B[*]J 514 J 1,220 563 B 63.5 B 63.5 B</td><td>otassium mg/kg SB 8,500 385 8 35.7 8 28.4 8⁺J 514 *¹ 1,220 563 B 63.5 B 63.5 B</td><td>Bilver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.82 B 310 B</td><td>Biltver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.01 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UN 1.2 NJ 0.32 U 0.32 B 310 B fandlum mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td></td></t<></td> | Jeryllium mg/kg 0.16 orSB 0 - 1.75 0.21 B 0.016 BNJ 0.54 B 0.10 B 0.019 B 0.019 D 0.011 D <thd< th=""> D D</thd<> | zadmium mg/kg 1 or SB 0.1-1 0.04 U 0.07 U 0.1 BNJ 0.02 UN 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.04 U 0.04 U 0.04 U 0.07 U 0.01 BNJ 0.02 UN 0.03 U 0.03 U 0.04 U 0.03 U 0.03 U 0.03 U 0.04 U 0. | Date mg/kg SB 130 - 35,000 91,168 J 228,000 E-1 183,000 J 50,042 J 37,700 18,200 421,171 Zhomium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.22 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.5 B Zhomium mg/kg 30 or SB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.06 B Zopper mg/kg 26 or SB 1 - 50 13.7 14 B 1.0 B 18.1 9.4 S 3.1 1.2 BEJ 0.06 B Zopper mg/kg 2.000 or SB 2.000 - 550,000 4,10 0.24 NJ 56,400 N'J 58,100 6,410 1.2 B Con mg/kg SB 10.0 - 500 1,170 1,600 1,040 E'J 2.300 2.280 2,150 2,150 Aggnesium mg/kg SB 0.0 22 BNJ 0.022 BNJ 0.052 BNJ 0.066 2,150 Aggnesium mg/kg SB 0.0 5000 <t< td=""><td>Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.35 B 0.35 B 0.35 B 0.35 B 0.35 B 0.36 B 0.37 B 3.6 EJ 0.35 B 0.35 B 0.05 B 0.35 B 0.35 B 0.36 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.06 B 0.06 B 0.06 B 0.05 B 0.06 B 0.07 I B 13.1 N'J 13 N'J</td><td>xobalt mg/kg 300 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 94.5 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 94.5 3.1 1.2 B con mg/kg 280 2,000 - 550,000 4,800 139 0.20 UN'J 13.1 N'J 56,400 6,410 191 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 E'J 2,300 2,200 0.3 U fagnesium mg/kg SB 500 - 5,000 101 11.90 5.6 BNJ 2,330 2,280 2,150 fagnesium mg/kg SB 50.0 - 5,000 101 11.91 5.9 BNJ 2,300 2,280 2,150 fagnesium mg/kg SB 5.0 - 5,000 101 11.91 <</td><td>Copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B cin mg/kg 2,000 or SB 2,000 - 550,000 4,800 1.34 D 0.31 U 56,400 N*J 63,100 6,410 1.4 D 0.3 U cad mg/kg SB 2,000 - 550,000 4,800 0.34 U 0.200 UN*J 56,400 N*J 63,100 6,410 191 adgnesium mg/kg SB 100 - 5,000 1,170 1,600 2,260 E*J 2,300 2,280 2,150 Aanganesium mg/kg SB 500 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9,4 Aanganesium mg/kg SB 0.1 0.001 6 U 0.022 BNJ 0.052 BNJ 0.065 3 0.016 U 0.023 UN Aanganesium mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.1 B 0.016 U 0.023 UN Aarsium mg/kg</td><td>Old mg/kg Environment Team Team</td><td>Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E·J 2,250 E·J 2,300 2,280 2,150<!--</td--><td>Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 115 N 9.4 Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B Actury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 J 1,220 563 B 63.5 B 63.5 B 63.5 B 63.5 B 53.5 B 53.5</td><td>iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B - 3.4 B - 0.5 - 43,000 385 B 35.7 B 28.4 B[*]J 514 J 1,220 563 B 63.5 B 63.5 B</td><td>otassium mg/kg SB 8,500 385 8 35.7 8 28.4 8⁺J 514 *¹ 1,220 563 B 63.5 B 63.5 B</td><td>Bilver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.82 B 310 B</td><td>Biltver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.01 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UN 1.2 NJ 0.32 U 0.32 B 310 B fandlum mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td></td></t<> | Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.35 B 0.35 B 0.35 B 0.35 B 0.35 B 0.36 B 0.37 B 3.6 EJ 0.35 B 0.35 B 0.05 B 0.35 B 0.35 B 0.36 B 0.17 U 0.11 BNJ 52.6 NJ 1.9 BEJ 0.06 B 0.06 B 0.06 B 0.05 B 0.06 B 0.07 I B 13.1 N'J 13 N'J | xobalt mg/kg 300 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 94.5 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 94.5 3.1 1.2 B con mg/kg 280 2,000 - 550,000 4,800 139 0.20 UN'J 13.1 N'J 56,400 6,410 191 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 E'J 2,300 2,200 0.3 U fagnesium mg/kg SB 500 - 5,000 101 11.90 5.6 BNJ 2,330 2,280 2,150 fagnesium mg/kg SB 50.0 - 5,000 101 11.91 5.9 BNJ 2,300 2,280 2,150 fagnesium mg/kg SB 5.0 - 5,000 101 11.91 < | Copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B cin mg/kg 2,000 or SB 2,000 - 550,000 4,800 1.34 D 0.31 U 56,400 N*J 63,100 6,410 1.4 D 0.3 U cad mg/kg SB 2,000 - 550,000 4,800 0.34 U 0.200 UN*J 56,400 N*J 63,100 6,410 191 adgnesium mg/kg SB 100 - 5,000 1,170 1,600 2,260 E*J 2,300 2,280 2,150 Aanganesium mg/kg SB 500 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9,4 Aanganesium mg/kg SB 0.1 0.001 6 U 0.022 BNJ 0.052 BNJ 0.065 3 0.016 U 0.023 UN Aanganesium mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.1 B 0.016 U 0.023 UN Aarsium mg/kg | Old mg/kg Environment Team | Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E·J 2,250 E·J 2,300 2,280 2,150 </td <td>Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 115 N 9.4 Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B Actury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B</td> <td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 J 1,220 563 B 63.5 B 63.5 B 63.5 B 63.5 B 53.5 B 53.5</td> <td>iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B - 3.4 B - 0.5 - 43,000 385 B 35.7 B 28.4 B[*]J 514 J 1,220 563 B 63.5 B 63.5 B</td> <td>otassium mg/kg SB 8,500 385 8 35.7 8 28.4 8⁺J 514 *¹ 1,220 563 B 63.5 B 63.5 B</td> <td>Bilver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.82 B 310 B</td> <td>Biltver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.01 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UN 1.2 NJ 0.32 U 0.32 B 310 B fandlum mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td> | Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 115 N 9.4 Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B Actury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B | Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 J 1,220 563 B 63.5 B 63.5 B 63.5 B 63.5 B 53.5 | iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.9 B - 3.4 B - 0.5 - 43,000 385 B 35.7 B 28.4 B [*] J 514 J 1,220 563 B 63.5 B 63.5 B | otassium mg/kg SB 8,500 385 8 35.7 8 28.4 8 ⁺ J 514 * ¹ 1,220 563 B 63.5 B 63.5 B | Bilver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.82 B 310 B | Biltver mg/kg SB 0.44 B 0.30 U 0.10 U 1.1 0.29 B 0.08 U 0.01 U 0.12 U Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UN 1.2 NJ 0.32 U 0.32 B 310 B fandlum mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U |
| Informutu Migky mittor SB Word SS Word SS | restric mg/kg 7.5 or SB 3 - 12 1.7 0.76 U 0.44 U [*] 8.81 9.8 1.1 B 0.13 B atium mg/kg 300 or SB 15 - 600 232 B 26.0 B 15.7 BENJ 32.1 ENJ 117 11.7 B 0.13 B atmium mg/kg 0.16 or SB 0-1.75 0.03 U 0.01 BNJ 0.03 U 0.03 U 0.03 U 0.01 B atdmium mg/kg 0.16 or SB 0.1-1 0.04 U 0.01 BNJ 0.02 UNJ 0.03 U 0.03 U 0.03 U 0.01 B atdmium mg/kg 100 rSB 1.5-40 3.0 0.35 B 0.02 UNJ 10.4 NJ 4.4 EJ 3.6 EJ 0.05 B Antonim mg/kg 30 or SB 1.5-60 8.3 B 0.34 U 0.01 BNJ 52.6 NJ 10.9 BEJ 0.12 B 0.05 B Antonim mg/kg 250 or SB 1.2 BNJ 10.4 NJ 4.4 EJ 3.6 EJ 0.05 B Antonim mg/kg 250 or SB 1.0 AB 1.0 NJ | Jeryllium mgkg 0.16 orSB 0 - 1.75 0.21 B 0.016 BNJ 0.54 B 0.10 B 0.019 D 0.011 D <thd< td=""><td>zadmium mg/kg 1 or SB 0.1-1 0.04 U 0.07 U 0.1 BNJ 0.02 UN 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.04 U Zalcium mg/kg SB 130-35,000 91,68 J 228,000 E-J 189,000 J 50,022 J 37,700 18,200 231 T 0.04 U Zhomium mg/kg S0 or SB 1.5 -40 3.0 0.35 B 0.23 BNJ 10.4 NJ 441 EJ 1.9 BL 0.05 B 200 5 B 0.05 B 200 5 B 0.05 B</td><td>Talcium mg/kg SB 130 - 35,000 91,168 J 228,000 E*J 188,000 J 37,700 18,200 421,171 Chromium mg/kg 100 rSB 1.5 - 40 3.0 0.17 U 0.228 BNJ 10.4 NJ 44,1 EJ 3.6 EJ 0.05 B 0.05 B 0.06 B 0.017 U 0.017 U 10.4 NJ 44,1 EJ 1.9 BL 0.06 B 0.06 B 0.017 U 0.017 NJ 56,400 NJ 53,100 6,410 191 1.2 B Copper mg/kg 200 rSB 1.00 - 550,000 4,800 11,10 1.04 NJ 56,400 NJ 63,100 6,410 191 1.2 B Copper mg/kg 28B 100 - 5,000 1,170 1,1600 1,040 E-J 2.300 NJ 7.3 N 0.3 U 0.3 U Angresum mg/kg SB 100 - 5,000 1,170 1,1600 1,040 E-J 2.300 NJ 187 N 7.3 N 0.3 U 0.3 E 0.3 E 0.3 E 0.</td><td>Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.25 B/M v 10.4 Nv 44.5 E v 3.6 E v 0.35 B 0.25 B/M v 10.4 Nv 44.5 E v 3.6 E v 0.35 B 0.37 V 0.31 B/V 52.6 Nv 10.9 E v 13 BE v 0.06 B 0.03 B 0.17 V 0.11 B/V 55.400 Nv 13 BE v 0.19 BL v 0.03 B 0.01 B 0.03 V 0.03 V 0.03 B 0.03 V <t< td=""><td>x00alt mg/kg 300 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 045.5 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 045.5 3.1 1.2 B cont mg/kg 280 200 - 550,00 4,800 139 0.20 131 N'J 56,400 N'J 56,400 N'J 66,100 191 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 B'J 2,236 B'J 2,730 2,150 Aggresium mg/kg SB 100 - 5,000 1,170 11.60 5,38 BNJ 2,300 2,280 2,150 Aggresium mg/kg SB 0.1 0.022 BNJ 0.022 BNJ 0.065 N 3,3 B 2,300 2,450 2,150 Aggresium mg/kg 13 or SB 0.5 -</td><td>Copper mg/kg Z5 or SB 1 - 50 13.1 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B cin mg/kg 2000 or SB 2,000 - 550,000 4,800 139 70.1 N*J 56,400 N*J 56,400 6,410 141 0.3 U ead mg/kg SB 2,000 - 550,000 4,800 1,170 0.34 U 0.200 N*J 187/N 57,31N 0.31 0.31 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 E*J 2,300 2,280 2,150 Angnesium mg/kg SB 500 - 6,000 1,170 1,600 5,160 2,300 2,280 2,150 Angnesium mg/kg SB 50.01 10.1 11.90 5,500 2,500 2,150 3,1 3,4 Angnesium mg/kg SB 0.022 0.046 B 0.022 BNJ 0.052 0.016 U 0.023 UN 3,3 3 3 3 3 3 3 3<</td><td>Old Markage SB Concentration And to the factor A</td><td>Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E·J 2,250 E·J 2,300 2,280 2,150 9.4 Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9.4 Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9.4 Aercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.063 0.016 U 0.023 UN Aercury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 0.063 B 3.3 B 0.023 UN otassium mg/kg SB 8.500 - 43,000 385 B 35.7 B 28.4 B*J 514 *J 1, 1, 220 563 B 63.5 B otassium mg/kg 2.0 SH 0.1.3 O.S3 UN*J 0.35 UN*J 0.43 U 0.43 U 0.63 U</td><td>Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 0.016 U 0.023 BN 0.016 U 0.023 BN 0.016 U 0.023 UN 0.016 U 0.023 BN 0.016 U 0.016 U 0.016 U</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B selenium mg/kg 2.0 SR 0.53 UN'J 0.35 UNJ 0.47 U 0.43 U 0.651 U</td><td>iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B 3.9 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.4 Style 1.</td><td>otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B 6</td><td>odium mg/kg SB 6,000 6,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.82 B</td><td>Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.32 U 0.82 B faallium mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td></t<></td></thd<> | zadmium mg/kg 1 or SB 0.1-1 0.04 U 0.07 U 0.1 BNJ 0.02 UN 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.04 U Zalcium mg/kg SB 130-35,000 91,68 J 228,000 E-J 189,000 J 50,022 J 37,700 18,200 231 T 0.04 U Zhomium mg/kg S0 or SB 1.5 -40 3.0 0.35 B 0.23 BNJ 10.4 NJ 441 EJ 1.9 BL 0.05 B 200 5 B 0.05 B 200 5 B 0.05 B | Talcium mg/kg SB 130 - 35,000 91,168 J 228,000 E*J 188,000 J 37,700 18,200 421,171 Chromium mg/kg 100 rSB 1.5 - 40 3.0 0.17 U 0.228 BNJ 10.4 NJ 44,1 EJ 3.6 EJ 0.05 B 0.05 B 0.06 B 0.017 U 0.017 U 10.4 NJ 44,1 EJ 1.9 BL 0.06 B 0.06 B 0.017 U 0.017 NJ 56,400 NJ 53,100 6,410 191 1.2 B Copper mg/kg 200 rSB 1.00 - 550,000 4,800 11,10 1.04 NJ 56,400 NJ 63,100 6,410 191 1.2 B Copper mg/kg 28B 100 - 5,000 1,170 1,1600 1,040 E-J 2.300 NJ 7.3 N 0.3 U 0.3 U Angresum mg/kg SB 100 - 5,000 1,170 1,1600 1,040 E-J 2.300 NJ 187 N 7.3 N 0.3 U 0.3 E 0.3 E 0.3 E 0. | Thromium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.25 B/M v 10.4 Nv 44.5 E v 3.6 E v 0.35 B 0.25 B/M v 10.4 Nv 44.5 E v 3.6 E v 0.35 B 0.37 V 0.31 B/V 52.6 Nv 10.9 E v 13 BE v 0.06 B 0.03 B 0.17 V 0.11 B/V 55.400 Nv 13 BE v 0.19 BL v 0.03 B 0.01 B 0.03 V 0.03 V 0.03 B 0.03 V 0.03 V <t< td=""><td>x00alt mg/kg 300 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 045.5 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 045.5 3.1 1.2 B cont mg/kg 280 200 - 550,00 4,800 139 0.20 131 N'J 56,400 N'J 56,400 N'J 66,100 191 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 B'J 2,236 B'J 2,730 2,150 Aggresium mg/kg SB 100 - 5,000 1,170 11.60 5,38 BNJ 2,300 2,280 2,150 Aggresium mg/kg SB 0.1 0.022 BNJ 0.022 BNJ 0.065 N 3,3 B 2,300 2,450 2,150 Aggresium mg/kg 13 or SB 0.5 -</td><td>Copper mg/kg Z5 or SB 1 - 50 13.1 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B cin mg/kg 2000 or SB 2,000 - 550,000 4,800 139 70.1 N*J 56,400 N*J 56,400 6,410 141 0.3 U ead mg/kg SB 2,000 - 550,000 4,800 1,170 0.34 U 0.200 N*J 187/N 57,31N 0.31 0.31 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 E*J 2,300 2,280 2,150 Angnesium mg/kg SB 500 - 6,000 1,170 1,600 5,160 2,300 2,280 2,150 Angnesium mg/kg SB 50.01 10.1 11.90 5,500 2,500 2,150 3,1 3,4 Angnesium mg/kg SB 0.022 0.046 B 0.022 BNJ 0.052 0.016 U 0.023 UN 3,3 3 3 3 3 3 3 3<</td><td>Old Markage SB Concentration And to the factor A</td><td>Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E·J 2,250 E·J 2,300 2,280 2,150 9.4 Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9.4 Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9.4 Aercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.063 0.016 U 0.023 UN Aercury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 0.063 B 3.3 B 0.023 UN otassium mg/kg SB 8.500 - 43,000 385 B 35.7 B 28.4 B*J 514 *J 1, 1, 220 563 B 63.5 B otassium mg/kg 2.0 SH 0.1.3 O.S3 UN*J 0.35 UN*J 0.43 U 0.43 U 0.63 U</td><td>Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 0.016 U 0.023 BN 0.016 U 0.023 BN 0.016 U 0.023 UN 0.016 U 0.023 BN 0.016 U 0.016 U 0.016 U</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B selenium mg/kg 2.0 SR 0.53 UN'J 0.35 UNJ 0.47 U 0.43 U 0.651 U</td><td>iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B 3.9 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.4 Style 1.</td><td>otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B 6</td><td>odium mg/kg SB 6,000 6,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.82 B</td><td>Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.32 U 0.82 B faallium mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td></t<> | x00alt mg/kg 300 rSB 2.5 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.06 BJ copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 045.5 3.1 1.2 B copper mg/kg 25 or SB 1 - 50 13.7 1.4 B 1.0 B 18.1 045.5 3.1 1.2 B cont mg/kg 280 200 - 550,00 4,800 139 0.20 131 N'J 56,400 N'J 56,400 N'J 66,100 191 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 B'J 2,236 B'J 2,730 2,150 Aggresium mg/kg SB 100 - 5,000 1,170 11.60 5,38 BNJ 2,300 2,280 2,150 Aggresium mg/kg SB 0.1 0.022 BNJ 0.022 BNJ 0.065 N 3,3 B 2,300 2,450 2,150 Aggresium mg/kg 13 or SB 0.5 - | Copper mg/kg Z5 or SB 1 - 50 13.1 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B cin mg/kg 2000 or SB 2,000 - 550,000 4,800 139 70.1 N*J 56,400 N*J 56,400 6,410 141 0.3 U ead mg/kg SB 2,000 - 550,000 4,800 1,170 0.34 U 0.200 N*J 187/N 57,31N 0.31 0.31 ead mg/kg SB 100 - 5,000 1,170 1,600 1,040 E*J 2,300 2,280 2,150 Angnesium mg/kg SB 500 - 6,000 1,170 1,600 5,160 2,300 2,280 2,150 Angnesium mg/kg SB 50.01 10.1 11.90 5,500 2,500 2,150 3,1 3,4 Angnesium mg/kg SB 0.022 0.046 B 0.022 BNJ 0.052 0.016 U 0.023 UN 3,3 3 3 3 3 3 3 3< | Old Markage SB Concentration And to the factor A | Aagnesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 E·J 2,250 E·J 2,300 2,280 2,150 9.4 Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9.4 Aanganese mg/kg SB 50 - 5,000 101 11.9 6.9 EN*J 338 EN*J 1,870 N 115 N 9.4 Aercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.063 0.016 U 0.023 UN Aercury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 0.063 B 3.3 B 0.023 UN otassium mg/kg SB 8.500 - 43,000 385 B 35.7 B 28.4 B*J 514 *J 1, 1, 220 563 B 63.5 B otassium mg/kg 2.0 SH 0.1.3 O.S3 UN*J 0.35 UN*J 0.43 U 0.43 U 0.63 U | Angenese mg/kg SB 50 - 5,000 101 11.9 6.9 N*1 1,870 N 115 N 9.4 Angenese mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.066 U 0.023 UN 0.016 U 0.023 BN 0.016 U 0.023 BN 0.016 U 0.023 UN 0.016 U 0.023 BN 0.016 U 0.016 U 0.016 U | Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.029 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B selenium mg/kg 2.0 SR 0.53 UN'J 0.35 UNJ 0.47 U 0.43 U 0.651 U | iickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B 3.9 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.2 C 563 B 63.5 B - 0.14 style 1.4 Style 1. | otassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B 6 | odium mg/kg SB 6,000 6,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B Tailium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.82 B | Sodium mg/kg SB 6,000 - 8,000 374 B 448 B 78.0 BJ 172 B 292 B 125 B 310 B hallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.32 U 0.32 U 0.82 B faallium mg/kg 150 or SB 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U |
| Internation Impose Constraint Constraint <thconstraint< th=""> Constraint Constan</thconstraint<> | rsenic mg/kg 7.5 or SB 3 - 12 1.7 0.76 U 0.44 U [*] 8.8 9.8 1.1 IB 0.34 UI admium mg/kg 300 or SB 15 · 600 23.2 B 26.0 B 15 · 16 NJ 17 / 7 1.1 IB 0.34 IJ admium mg/kg 300 or SB 15 · 600 23.2 B 0.07 U 0.1 BNJ 0.05 INJ 0.03 U 0.04 U admium mg/kg 5B 0.1 - 17 0.07 U 0.01 BNJ 0.03 U 0.03 U 0.04 U admium mg/kg 5B 0.1 - 17 0.074 U 0.07 IJ 0.01 BNJ 0.03 UN 0.03 UN 0.03 UN 0.04 U 0.04 U admium mg/kg 5B 1.0 or SB 0.17 U 0.11 BNJ 0.02 LNJ 4.41 EJ 3.6 EJ 0.05 B bind mg/kg 2B 10 or SB 0.17 U 0.11 BNJ 5.6 NJ 1.9 BEJ 1.9 BEJ 0.06 B bind mg/kg 2B or SB 2.000 SE 0.00 4.10 0.30 UN 5.6 NJ | Jeryllium mg/kg 0.16 or SB 0 - 1.75 0.21 B 0.016 BNJ 0.54 B 0.10 B 0.01 B D <thd< th=""> D</thd<> | zadmium mg/kg 1 or SB $0.1 - 1$ 0.04 U 0.07 U 0.01 BU 0.02 UN 0.03 U 0.03 U 0.03 U 0.04 UZalcium mg/kg SB $130 - 35,000$ $91,68$ J $228,000$ E-1 $189,000$ J $37,700$ $18,200$ 230 EJ 0.04 UZhomium mg/kg SB $15 - 40$ 3.0 0.35 B 0.17 U 0.22 BNJ 10.4 NJ 441 EJ 3.0 EJ 0.06 BZhomium mg/kg 250 or SB $1.5 - 60$ 8.8 B 0.17 U 0.01 BNJ 52.6 NJ 10.9 EJ 3.0 ES 3.1 DZhomium mg/kg 250 or SB $1.5 - 60$ 8.8 B 1.7 I 1.4 B 10.4 NJ 441 EJ 1.9 BEJ 0.06 BZhomo mg/kg 250 or SB 1.77 I 1.4 B 1.04 NJ $56,400$ NJ 6410 T 1.2 BZhomo mg/kg 2500 cr SB $2.00 - 550,00$ 1.170 1.1600 1.040 E'J 2.250 E'J 2.30 S 2.36 SAngrasu mg/kg SB $100 - 5,000$ 1.170 1.1600 1.040 E'J 2.250 E'J 2.30 S 2.150 SAngrasu mg/kg SB $100 - 5,000$ 1.1170 1.1600 1.040 E'J 2.250 E'J 2.300 S 2.150 SAngrasu mg/kg SB $100 - 5,000$ 1.1170 1.1600 1.040 E'J 2.250 E'J 2.300 S 2.280 S 2.150 SAngrasu mg/kg SB $100 - 5,000$ 1.01 | Talcium mg/kg SB 130 - 35,000 91,68 J 228,000 E^{-1} 188,000 J 37,700 18,200 421,171 Zhomium mg/kg 100 rSB $1.5 - 40$ 3.0 0.17 U 0.221 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.05 B 2.5 eV 0.6 B 0.17 U 0.221 BNJ 10.9 EJ 3.0 EJ 3.0 EJ 0.05 B 2.5 eV 3.1 E 1.9 BEJ 0.06 B 3.1 E 1.2 BEJ 0.01 BNJ 5.5 G/NJ 1.0 BNJ 5.6 EJ 3.1 E 1.2 BEJ 0.05 B 2.00 e 550,000 4.1 EJ 0.220 UN'J 56,400 N'J 53,100 6,410 191 1.2 B Deper mg/kg 286 200 e 50,000 4.1 D 0.221 N'J 56,400 N'J 53,100 6,410 191 1.2 B Deper mg/kg SB 200 e 50,000 1,170 1,1600 1,040 E'J 2,300 N'J 56,100 2,150 6,410 191 Magnesium mg/kg SB 50 e 5,000 1,170 1,1600 1,040 | Thomium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.25 B/U 10.4 NJ 44.5 EU 3.6 EJ 0.35 B 0.35 B 0.25 B/U 10.4 NJ 44.5 EU 3.6 EJ 0.35 B 0.35 B 0.35 B 0.35 B 0.37 U 0.31 J 0.35 B 0.35 B 0.37 U 0.35 B/U 0.36 B/U 0.35 B/U 0.36 B/U 0.31 B/U 0.36 B/U 0.31 B/U 0.36 B/U 0.36 B/U 0.31 B/U 0.32 B/U 0.31 B/U 0.32 B/U 0.32 B/U 0.32 B/U 0.31 B/U 0.32 B/U 0.31 B/U 0.32 B/U 0.31 B/U 0.32 B/U 0.32 B/U 0.32 B/U 0.32 B/U 0.32 B/U 0.32 B/U </td <td>xobalt mg/kg 300 rSB 25-60 6.8 B 0.17 U 0.11 B/J 52.6 NJ 10.9 LJ 1.1 B/LJ 0.00 B/J copper mg/kg 25 or SB 1 - 500 13.7 1 + 4 B 1.0 B 1.81 0.45 B 31 1.1 B/LJ 1.0 B con mg/kg 2000 - 550,000 4.01 0.34 U 0.20 UN'J 13.1 N'J 187 N 7.3 N 0.31 U con mg/kg SB 200 - 550,000 4.17 0.34 U 0.20 UN'J 13.1 N'J 187 N 7.3 N 0.31 U Angenesium mg/kg SB 200 - 5,000 1,170 1.600 1,040 E'J 2.250 E'J 2.300 2.780 2.150 Anganese mg/kg SB 50 - 5,000 101 11.9 0.028 BNJ 0.023 DN 0.65 DN 0.416 N 0.31 U Anganese mg/kg SB 50.1 N'J 13.1 N'J 187 N 115 N 0.31 D Anganese mg/kg SB 0.1 B B'J 1.36</td> <td>Copper mg/kg Z5 or SB 1 - 50 13.1 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B con mg/kg 2000 or SB 2,000 - 550,000 4,800 139 0.201 NrJ 56,400 NrJ 66,100 6,410 191 ead mg/kg SB 2,000 - 550,000 4,800 1,170 0.34 U 0.200 NrJ 53,100 5,730 0.31 U Angaresium mg/kg SB 100 - 5,000 1,170 1,600 5,900 2,80 0.31 U Angaresium mg/kg SB 500 - 5,000 101 11.9 6.9 EN'J 2,300 NrJ 2,300 NrJ 9.4 Angaresium mg/kg SB 0.01 11.1 0.029 BNJ 0.022 BNJ 0.016 U 0.023 UN Angaresium mg/kg SB 0.022 BNJ 0.022 BNJ 0.023 UN 0.023 UN Angaresium mg/kg SB 0.022 BNJ 0.022 BNJ 0.016 U 0.023 UN Angustium mg/kg <td< td=""><td>ead mg/g constraint <thconstraint< th=""> mg/g con</thconstraint<></td><td>Algenesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 CJ 2,250 CJ 2,300 2,280 2,150 2,150 Anaganese mg/kg SB 50 - 5,000 101 119 6.9 N 2,250 2,130 2,280 2,150 2,150 Anaganese mg/kg SB 50 - 5,000 101 11.9 0.025 11.8 0.063 0.016 0 0.023 UN 0.016 U 0.028 UN 0.016 U 0.028 UN <td< td=""><td>Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N*J 338 N*J 1,870 N 115 N 9.4 Anganese mg/kg 0.1 0.001 - 0.2 0.046 0 0.022 N 0.023 N 0.023</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B olassium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN'J 0.47 U 0.43 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U olassium mg/kg 2 or SR 0.1 - 3.9 0.30 U 0.61 U 0.651 U</td><td>Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B</td><td>Datassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B</td><td>Trailium mg/kg SB 0.73/U 1.1/U 0.39/U/J 1.2/NJ 0.35/U 0.32/U 0.82/B</td><td>Thallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.32 U 0.82 B 0.82 B 1.4 mg/kg 150 or SB 1.3 mg/kg 150 or SB 1.4 mg/kg 0.31 LJ 0.32 U 0.31 U</td></td<></td></td<></td> | xobalt mg/kg 300 rSB 25-60 6.8 B 0.17 U 0.11 B/J 52.6 NJ 10.9 LJ 1.1 B/LJ 0.00 B/J copper mg/kg 25 or SB 1 - 500 13.7 1 + 4 B 1.0 B 1.81 0.45 B 31 1.1 B/LJ 1.0 B con mg/kg 2000 - 550,000 4.01 0.34 U 0.20 UN'J 13.1 N'J 187 N 7.3 N 0.31 U con mg/kg SB 200 - 550,000 4.17 0.34 U 0.20 UN'J 13.1 N'J 187 N 7.3 N 0.31 U Angenesium mg/kg SB 200 - 5,000 1,170 1.600 1,040 E'J 2.250 E'J 2.300 2.780 2.150 Anganese mg/kg SB 50 - 5,000 101 11.9 0.028 BNJ 0.023 DN 0.65 DN 0.416 N 0.31 U Anganese mg/kg SB 50.1 N'J 13.1 N'J 187 N 115 N 0.31 D Anganese mg/kg SB 0.1 B B'J 1.36 | Copper mg/kg Z5 or SB 1 - 50 13.1 1.4 B 1.0 B 18.1 wt+3 0.1 1.4 B con mg/kg 2000 or SB 2,000 - 550,000 4,800 139 0.201 NrJ 56,400 NrJ 66,100 6,410 191 ead mg/kg SB 2,000 - 550,000 4,800 1,170 0.34 U 0.200 NrJ 53,100 5,730 0.31 U Angaresium mg/kg SB 100 - 5,000 1,170 1,600 5,900 2,80 0.31 U Angaresium mg/kg SB 500 - 5,000 101 11.9 6.9 EN'J 2,300 NrJ 2,300 NrJ 9.4 Angaresium mg/kg SB 0.01 11.1 0.029 BNJ 0.022 BNJ 0.016 U 0.023 UN Angaresium mg/kg SB 0.022 BNJ 0.022 BNJ 0.023 UN 0.023 UN Angaresium mg/kg SB 0.022 BNJ 0.022 BNJ 0.016 U 0.023 UN Angustium mg/kg <td< td=""><td>ead mg/g constraint <thconstraint< th=""> mg/g con</thconstraint<></td><td>Algenesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 CJ 2,250 CJ 2,300 2,280 2,150 2,150 Anaganese mg/kg SB 50 - 5,000 101 119 6.9 N 2,250 2,130 2,280 2,150 2,150 Anaganese mg/kg SB 50 - 5,000 101 11.9 0.025 11.8 0.063 0.016 0 0.023 UN 0.016 U 0.028 UN 0.016 U 0.028 UN <td< td=""><td>Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N*J 338 N*J 1,870 N 115 N 9.4 Anganese mg/kg 0.1 0.001 - 0.2 0.046 0 0.022 N 0.023 N 0.023</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B olassium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN'J 0.47 U 0.43 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U olassium mg/kg 2 or SR 0.1 - 3.9 0.30 U 0.61 U 0.651 U</td><td>Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B</td><td>Datassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B</td><td>Trailium mg/kg SB 0.73/U 1.1/U 0.39/U/J 1.2/NJ 0.35/U 0.32/U 0.82/B</td><td>Thallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.32 U 0.82 B 0.82 B 1.4 mg/kg 150 or SB 1.3 mg/kg 150 or SB 1.4 mg/kg 0.31 LJ 0.32 U 0.31 U</td></td<></td></td<> | ead mg/g constraint mg/g constraint <thconstraint< th=""> mg/g con</thconstraint<> | Algenesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 CJ 2,250 CJ 2,300 2,280 2,150 2,150 Anaganese mg/kg SB 50 - 5,000 101 119 6.9 N 2,250 2,130 2,280 2,150 2,150 Anaganese mg/kg SB 50 - 5,000 101 11.9 0.025 11.8 0.063 0.016 0 0.023 UN 0.016 U 0.028 UN 0.016 U 0.028 UN <td< td=""><td>Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N*J 338 N*J 1,870 N 115 N 9.4 Anganese mg/kg 0.1 0.001 - 0.2 0.046 0 0.022 N 0.023 N 0.023</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B olassium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN'J 0.47 U 0.43 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U olassium mg/kg 2 or SR 0.1 - 3.9 0.30 U 0.61 U 0.651 U</td><td>Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B</td><td>Datassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B</td><td>Trailium mg/kg SB 0.73/U 1.1/U 0.39/U/J 1.2/NJ 0.35/U 0.32/U 0.82/B</td><td>Thallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.32 U 0.82 B 0.82 B 1.4 mg/kg 150 or SB 1.3 mg/kg 150 or SB 1.4 mg/kg 0.31 LJ 0.32 U 0.31 U</td></td<> | Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N*J 338 N*J 1,870 N 115 N 9.4 Anganese mg/kg 0.1 0.001 - 0.2 0.046 0 0.022 N 0.023 | Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.022 BNJ 0.065 0.016 U 0.023 UN vickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 31.8 3.3 B 3.9 B olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B olassium mg/kg 2 or SR 0.1 - 3.9 0.39 U 1.6 U 0.53 UN'J 0.47 U 0.43 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U 0.651 U olassium mg/kg 2 or SR 0.1 - 3.9 0.30 U 0.61 U 0.651 U | Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B | Datassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'.1 514 '.1 1,220 563 B 63.5 B | Trailium mg/kg SB 0.73/U 1.1/U 0.39/U/J 1.2/NJ 0.35/U 0.32/U 0.82/B | Thallium mg/kg SB 0.73 U 1.1 U 0.39 UNJ 1.2 NJ 0.35 U 0.32 U 0.32 U 0.82 B 0.82 B 1.4 mg/kg 150 or SB 1.3 mg/kg 150 or SB 1.4 mg/kg 0.31 LJ 0.32 U 0.31 U |
| Infinition mg/g Sec rSB 3-12 1/7 0.56 / U 0.56 / UV 0.53 / UV 0.53 / UN 0.56 / UN | reent: mg/kg 7.5 or SB 3 - 12 1.7 0.76 U 0.44 U 8.81 9.38 1.1 B 0.36 U atium mg/kg 300 or SB 15 - 600 2.32 B 0.157 BENU 0.17 C 0.37 ID 0.36 B 0.17 B 0.36 B 0.16 B 0.37 ID 8.37 ID 8.36 ID 8.31 IS 8.31 IS 9.36 ID | Jeryllium mg/kg 0.16 or SB 0 - 1.75 0.21 B 0.30 B 0.16 BNJ 0.15 BNJ 0.54 B 0.10 B 0.19 B admium mg/kg 1 or SB 0.1 - 1 0.004 U 0.07 U 0.01 BNJ 0.03 U 0.03 U 0.04 U 0.03 U 0.04 U 0.03 B 0.17 U 0.01 HNJ 0.01 HNJ 0.03 H 0.03 B 0.011 BNJ 0.01 HNJ 0.01 HNJ 0.03 H 0.05 B 0.011 BNJ 0.01 HNJ 0.01 H 1.12 BUJ 0.01 B 0.01 HNJ 0.01 HNJ 0.01 H 1.12 BUJ 0.01 B 0.01 HNJ | admium mg/kg 1 or SB 0.1-1 0.04 U 0.07 U 0.1 BNJ 0.02 UNJ 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.03 U 0.04 U alcium mg/kg SB 130-35,000 91,68 J 228,000 E*U 189,000 J 37,00 18,200 30 C3 50,42 J 36 EJ 0.04 U 0.04 U Zhomium mg/kg SB 15-40 3.0 0.17 U 0.23 BNJ 10.4 NJ 44,1 EJ 3.6 EJ 0.05 B 2.6 C3 3.1 E 0.64 U 1.7 D 1.4 B 1.0 BAS 3.6 EJ 3.1 E 0.5 B 3.1 E 1.2 BZ 0.6 B 3.1 D 1.6 D 1.6 D 1.6 D 1.1 E 1.2 BZ 0.1 BZ 0.5 E 0.1 T 1.1 E 1.2 BZ 0.1 | Talcium mg/kg SB 130 - 35,000 91,68 J 228,000 E' J 188,000 J 37,700 18,200 421,171 Zhomium mg/kg 10 or SB 1.5 - 40 3.0 0.35 B 0.22 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.05 B Zhomium mg/kg 200 or SB 1.5 - 40 3.0 0.35 B 0.23 BNJ 10.4 NJ 44.1 EJ 3.6 EJ 0.05 B Zobat mg/kg 256 or SB 1.5 - 60 8.8 B 10.1 BNJ 55.6 NJ 10.9 EJ 3.1 BL 11.2 B Zopper mg/kg 256 or SD 4.1 B 0.23 UN'J 56,400 N'J 53,100 64,10 191 Zomo mg/kg SB 200 - 5,000 4.1 D 0.24 BNJ 10.4 NJ 56,400 N'J 53,100 64,10 191 Angenesium mg/kg SB 200 - 5,000 11.1 O 0.23 BNJ 13.1 N'J 187 N 7.3 N 0.3 BJ Angenesium mg/kg SB 50 - 5,000 11.1 O <td< td=""><td>Thomium mg/kg 10 or SB $1.5 \cdot 40$ 3.0 0.35/SH 0.23/SHU 10.4 NU 44.4 NL 3.6/SU 0.03/SH 0.03/SH Sobalt mg/kg 20 or SB $1.5 \cdot 40$ 3.3 0.17/U 0.11/SU 52.6 NU 1.9/SE 3.6/SU $3.$</td><td>xobalt mg/kg 300 r SB 25 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.00 BJ copper mg/kg 25 or SB 1 - 50 13.7 1 + 4 B 1.0 B 1.81 0.45 A 31 1.2 B copper mg/kg 250 or SB 2,000 - 550,000 4.800 1.0 B 7.01 N 510 N 5.410 1.12 B cond mg/kg 28B 2,000 - 550,000 4.170 1.1600 1.040 E'J 2.250 E'J 2.300 2.280 2.150 dagnesum mg/kg SB 100 - 5,000 1,170 11.90 0.20 UN'J 13.1 N'J 187/N 7.3 N 0.3 U Angenese mg/kg SB 100 - 5,000 1,170 11.90 2.250 E'J 2.300 2.280 2.150 Angenese mg/kg SB 0.11 - 0.023 BNJ 0.022 BNJ 0.053 B 0.016 U 0.023 BNJ Angenese mg/kg 13 or SB 0.1.5 B 1.3 BNJ 2.200</td></td<> <td>Opper mg/kg ZB or SB 1 - 50 13.1 1 - 41<td>end mg/rg concentration wind wind concentration wind wind</td><td>Algenesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 2,1 2,250 2,1 2,280 2,150 3,150 3,150 3,150 3,150 3,150 3,150 3,150 3,150 3,160 3,170 3,170 3,150 3,218 3,219 3,216 3,216 3,216 3,216 3,216 3,216 1,216 3,216</td><td>Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N' 1.870 N 115 N 9.4 Aniganese mg/kg 0.1 0.001 - 0.2 0.046 B 0.022 U 0.025 BNJ 0.023 BNJ 0.063 0.016 U 0.023 UN Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.7 B 3.3 B 3.4 B 3.7 NJ 3.7 B 3.3 B 3.4 B 3.7 NJ 3.7 NJ 3.7 B 3.3 B 3.3 B 3.3 B 3.3 B 3.3 B 3.6 B 5.6 B 3.6 B 5.6 B</td><td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.023 ENJ 0.063 O 0.016 U 0.023 UV dickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.7 B 3.3 B</td><td>Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B</td><td>olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B 63.</td><td></td><td>/anadium mg/kg 150 or SB 1 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td></td> | Thomium mg/kg 10 or SB $1.5 \cdot 40$ 3.0 0.35 /SH 0.23 /SHU 10.4 NU 44.4 NL 3.6 /SU 0.03 /SH 0.03 /SH Sobalt mg/kg 20 or SB $1.5 \cdot 40$ 3.3 0.17 /U 0.11 /SU 52.6 NU 1.9 /SE 3.6 /SU $3.$ | xobalt mg/kg 300 r SB 25 - 60 6.8 B 0.17 U 0.11 BNJ 52.6 NJ 10.9 EJ 1.9 BEJ 0.00 BJ copper mg/kg 25 or SB 1 - 50 13.7 1 + 4 B 1.0 B 1.81 0.45 A 31 1.2 B copper mg/kg 250 or SB 2,000 - 550,000 4.800 1.0 B 7.01 N 510 N 5.410 1.12 B cond mg/kg 28B 2,000 - 550,000 4.170 1.1600 1.040 E'J 2.250 E'J 2.300 2.280 2.150 dagnesum mg/kg SB 100 - 5,000 1,170 11.90 0.20 UN'J 13.1 N'J 187/N 7.3 N 0.3 U Angenese mg/kg SB 100 - 5,000 1,170 11.90 2.250 E'J 2.300 2.280 2.150 Angenese mg/kg SB 0.11 - 0.023 BNJ 0.022 BNJ 0.053 B 0.016 U 0.023 BNJ Angenese mg/kg 13 or SB 0.1.5 B 1.3 BNJ 2.200 | Opper mg/kg ZB or SB 1 - 50 13.1 1 - 41 <td>end mg/rg concentration wind wind concentration wind wind</td> <td>Algenesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 2,1 2,250 2,1 2,280 2,150 3,150 3,150 3,150 3,150 3,150 3,150 3,150 3,150 3,160 3,170 3,170 3,150 3,218 3,219 3,216 3,216 3,216 3,216 3,216 3,216 1,216 3,216</td> <td>Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N' 1.870 N 115 N 9.4 Aniganese mg/kg 0.1 0.001 - 0.2 0.046 B 0.022 U 0.025 BNJ 0.023 BNJ 0.063 0.016 U 0.023 UN Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.7 B 3.3 B 3.4 B 3.7 NJ 3.7 B 3.3 B 3.4 B 3.7 NJ 3.7 NJ 3.7 B 3.3 B 3.3 B 3.3 B 3.3 B 3.3 B 3.6 B 5.6 B 3.6 B 5.6 B</td> <td>Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.023 ENJ 0.063 O 0.016 U 0.023 UV dickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.7 B 3.3 B</td> <td>Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B 3.3 B</td> <td>olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B 63.</td> <td></td> <td>/anadium mg/kg 150 or SB 1 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U</td> | end mg/rg concentration wind wind concentration wind | Algenesium mg/kg SB 100 - 5,000 1,170 1,600 1,040 2,1 2,250 2,1 2,280 2,150 3,150 3,150 3,150 3,150 3,150 3,150 3,150 3,150 3,160 3,170 3,170 3,150 3,218 3,219 3,216 3,216 3,216 3,216 3,216 3,216 1,216 3,216 | Aniganese mg/kg SB 50 - 5,000 101 11.9 6.9 N' 1.870 N 115 N 9.4 Aniganese mg/kg 0.1 0.001 - 0.2 0.046 B 0.022 U 0.025 BNJ 0.023 BNJ 0.063 0.016 U 0.023 UN Ancury mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.7 B 3.3 B 3.4 B 3.7 NJ 3.7 B 3.3 B 3.4 B 3.7 NJ 3.7 NJ 3.7 B 3.3 B 3.3 B 3.3 B 3.3 B 3.3 B 3.6 B 5.6 B 3.6 B 5.6 B | Mercury mg/kg 0.1 0.001 - 0.2 0.046 B 0.032 U 0.022 BNJ 0.023 ENJ 0.063 O 0.016 U 0.023 UV dickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 3.7 B 3.3 B | Wickel mg/kg 13 or SB 0.5 - 25 11.5 3.1 B 1.3 BNJ 8.7 NJ 318 3.3 B | olassium mg/kg SB 8,500 - 43,000 385 B 35.7 B 28.4 B'J 514 'J 1,220 563 B 63.5 B 63. | | /anadium mg/kg 150 or SB 1 1 - 300 4.2 B 0.29 B 0.13 BNJ 20.9 NJ 33.1 EJ 6.3 EJ 0.1 U |

HSCO = Recommended Soil Cleanup Objectives **1,000** - Indicates detected value for organics. - Indicates value exceeds TAGM 4046 RSCO

| Sample ID -> | Units | TAGM 4046 | DW-1 | DW-1 | DW-2 | DW-2 | DW-2R | DW-2 | DW-2R | DW-3 | DW-4 |
|---------------------------------------|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Depth - > | Λ | RSCO | 16-18 | 20-24 | 20-22 | 24-26 | 24-26 | 40-43 | 40-43 | 16-18.5 | 6-8 |
| Date Sampled -> | ~ | | 7/27/2005 | 7/27/2005 | 7/26/2005 | 7/26/2005 | 7/26/2005 | 7/26/2005 | 7/26/2005 | 7/27/2005 | 7/28/2005 |
| VOLATILES via EPA Method 8260 | | | | | | | | | | | |
| Chloromethane | ng/kg | | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Bromomethane | ng/kg | | 12 U | 12 U | 14 UJ | 12 W | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Vinvl chloride | ug/kg | 200 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 210 J |
| Chloroethane | ug/kg | 1,900 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Methviene chloride | ug/kg | 100 | 12 U | 12 U | 14 UU | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Acetone | ug/kg | 200 | 12 | 10 J | 14 UJ | 12 W | 12 | 12 UJ | 12 U | 32 U | 48 J |
| Carbon disulfide | ug/kg | 2,700 | 1 Z J | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 4.7 J | 52 U |
| 1.1-Dichloroethene | ua/ka | 400 | 12 U | 12 U | 14 UU | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 11.1-Dichloroethane | ua/ka | 200 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 01 | 12 U | 19 U | 52 U |
| Chloroform | ug/ka | 300 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 1.2-Dichloroethane | ng/kg | 100 | 12 U | 12 U | 14 UU | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 2-Butanone | ug/kg | 300 | 12 U | 12 U | 14 UJ | 12 W | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UU | 12 U | 19 U | 52 U |
| Carbon tetrachloride | ug/kg | 600 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Bromodichloromethane | ug/kg | | 12 U | 12 U | 14 UJ | 12 UU | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 1.2-Dichloropropane | ng/kg | | 12 U | 12 U | 14 UJ | 12 W | 12 U | 12 UU | 12 U | 19 U | 52 U |
| cis-1,3-Dichloropropene | ug/kg | | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Trichloroethene | ug/kg | 200 | 12 U | 12 U | 14 UJ | 12 W | 12 U | 17 J | 25 | 19 U | 52 U |
| Dibromochtoromethane | ug/kg | | 12 U | 12 U | 14 UU | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 1,1,2-Trichloroethane | ng/kg | | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Benzene | ng/kg | 60 or MDL | 12 U | 12 U | 14 UU | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Itrans-1.3-Dichloropropene | ng/kg | | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Bromoform | ug/kg | | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| 2-Hexanone | ug/kg | | 12 U | 12 U | 14 UU | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Tetrachloroethene | ng/kg | 1,400 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 86 J | 150 | 19 U | 52 U |
| Toluene | ng/kg | 1,500 | 12 U | 12 U | 1.5 J | 12 UJ | 12 U | 12 W | 12 U | 19 U | <u>г</u> 8 |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | 12 U | 12 U | 14 UU | 12 UJ | 12 J | 12 UJ | 12 U | 19 U | 52 U |
| Chlorobenzene | ng/kg | 1,700 | 12 U | 12 U | 3.1 J | 12 UJ | 12 U | 12 UJ | 12 U | 19 U | 52 U |
| Ethylbenzene | ug/kg | 5,500 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 UU | 12 U | 19 U | 6 J |
| Styrene | ug/kg | | 12 U | 12 U | 14 W | 12 UJ | 12 U | 12 W | 12 U | 19 U | 52 U |
| Total xylenes | ug/kg | 1,200 | 12 U | 12 U | 3.7 J | 12 UJ | 12 U | 12 W | 12 U | 19 U | 34 J |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 W | 11 J | 19 U | 52 U |
| cis-1,2-Dichtoroethene | ng/kg | | 12 U | 12 U | 14 UJ | 12 UJ | 12 U | 12 W | 12 U | 19 U | P 066 |
| trans-1,2-Dichloroethene | , ug/kg | 300 | 12 U | 12 U | 14 UJ | 12 W | 12 U | 12 UJ | 12 U | 19 0 | 14 J |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 7 - Phase 3 Soil Boring Data for Sand Unit Wells to Till FilProject(C81 - Pioneer Development(C81.002 BCPtCrose out and COCIOctober 2007HI ReportTableSTable7validated.xis / Table 7

ł

Page 1 of 4

| ioneer Midler Avenue LLC | emedial Investigation Report | able 7 - Phase 3 Soli Boring Data for Sand Unit Wells to Till |
|--------------------------|------------------------------|---|
| Pioneer Midler Av | Remedial Investig | Table 7 - Phase 3 |

| | | []] | | | | | | | | | | | | | _ |
|--------------|-----------|-----------------|-------------------------|-----------------------|----------------|-------------------------|------------|-------------------|------------------|-----------------|---------------------|---------------------|--------------------|-----------------------------|----------------------|
| DW-4 | 6-8 | 7/28/2005 | 52 U | 52 U | 52 U | 52 U | 52 U | 5 J | 52 U | 7 7 | 52 U | 52 U | 52 U | 52 U | 52 U |
| DW-3 | 16-18.5 | 7/27/2005 | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 0 |
| DW-2R | 40-43 | 7/26/2005 | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U |
| DW-2 | 40-43 | 7/26/2005 | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 12 UJ |
| DW-2R | 24-26 | 7/26/2005 | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 1210 |
| DW-2 | 24-26 | 7/26/2005 | 12 UJ | 12 W | 12 W | 12 W | 12 UJ | 12 W | 12 UJ | 12 W | 12 W | 12 W | 12 UJ | 12 UJ | 12 UJ |
| DW-2 | 20-22 | 7/26/2005 | 14 UU | 14 UU | 14 0.0 | 14 UJ | 14 UJ | 14 UJ | 14 UJ | 14 UJ | 5.6 J | 6.2 J | 5.1 J | 14 UU | 5.2 J |
| I-MO | 20-24 | 7/27/2005 | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 61 |
| 1-MO | 16-18 | 7/27/2005 | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U | 12 U |
| TAGM 4046 | RSCO | | | | | 120 | | | | | 1,600 | 8,500 | 7,900 | | 3.400 |
| Units | | | ng/kg | ug/kg | uq/ka | ng/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ng/kg | ug/kg | ug/kg | un/ka |
| Sample ID -> | Depth - > | Date Sampled -> | Dichlorodifluoromethane | Tichlorofluoromethane | Aethvl acetate | Aethyl tert butyl ether | Vclohexane | Aethylcyclohexane | .2-Dibromoethane | sopropylbenzene | , 3-Dichlorobenzene | , 4-Dichlorobenzene | ,2-Dichlorobenzene | , 2-Dibromo-3-chloropropane | 2 4-Trichlorobenzene |

: .

x 1

Pioneer Midler Avenue LLC Remedial Investigation Report Table 7 - Phase 3 Soil Boring Data for Sand Unit Wells to Till

| Sample ID -> | Units | TAGM 4046 | DW-4 | DW-4 | DW-4 | DW-4 |
|---------------------------------------|-------|-----------|-----------|-----------|-----------|-----------|
| Cepth - > | | RSCO | 6-8 RI | 16-18.5 | 16-18.5DL | 24-28.5 |
| Date Sampled -> | | | 7/28/2005 | 7/28/2005 | 7/28/2005 | 7/28/2005 |
| VOLATILES via EPA Method 8260 | | | | | | |
| Chloromethane | ng/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Sromomethane | ng/kg | | 51 U | 1500 U | 60000 U | 12 U |
| /inyl chloride | ng/kg | 200 | 190 J | F 016 | 60000 U | 12 U |
| Chloroethane | ug/kg | 1,900 | 51 U | 1500 U | 60000 U | 12 U |
| Methylene chloride | ng/kg | 100 | 51 U | 1500 U | 60000 U | 12 U |
| Acetone | ug/kg | 200 | 65 | 1500 U | 60000 U | 5 J |
| Carbon disulfide | ng/kg | 2,700 | 51 U | 1500 U | 60000 U | 12 U |
| 1.1-Dichloroethene | ng/kg | 400 | 51 U | 1500 U | 60000 U | 12 U |
| I,1-Dichloroethane | ng/kg | 200 | 51 U | 1500 U | 60000 U | 12 U |
| Chloroform | ng/kg | 300 | 51 U | 1500 U | 60000 U | 12 U |
| 1,2-Dichloroethane | ng/kg | 100 | 51 U | 1500 U | 60000 U | 12 U |
| ?-Butanone | ug/kg | 300 | 51 U | 1500 U | 60000 U | 12 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 51 U | 1500 U | 60000 U | 12 U |
| Carbon tetrachloride | ug/kg | 600 | 51 U | 1500 U | 60000 U | 12 U |
| 3romodichloromethane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| 1,2-Dichloropropane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| sis-1,3-Dichloropropene | ng/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Trichloroethene | ng/kg | 700 | 51 U | 26000 | 26000 DJ | 12 U |
| Dibromochloromethane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| 1,1,2-Trichloroethane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| 3enzene | ug/kg | 60 or MDL | 51 U | 1500 U | 60000 U | 12 U |
| rans-1,3-Dichioropropene | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Bromoform | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 51 U | 1500 U | 60000 U | 12 U |
| 2-Hexanone | ng/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Tetrachloroethene | ng/kg | 1,400 | 51 U | 60000 | 60000 D | 2 J |
| [oluene | ng/kg | 1,500 | Г 8 | 1500 U | 60000 U | 12 U |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | 51 U | 1500 U | 60000 U | 12 U |
| Chiorobenzene | ng/kg | 1,700 | 51 U | 1500 U | 60000 U | 12 U |
| ≣thylbenzene | ng/kg | 5,500 | 2 J | 1500 U | 60000 U | 12 U |
| Styrene | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Fotal xylenes | ug/kg | 1,200 | 35 J | 1500 U | 60000 U | 12 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 51 U | 1500 U | 60000 U | 12 U |
| cis-1,2-Dichloroethene | ug/kg | | 1000 | 20000 J | 20000 DJ | 2 J |
| rans-1,2-Dichloroethene | ug/kg | 300 | 12 J | 300 J | 60000 U | 12 U |

t

Pioneer Midler Avenue LLC Remedial Investigation Report Table 7 - Phase 3 Soil Boring Data for Sand Unit Wells to Till

| Sample ID -> | Units | TAGM 4046 | DW-4 | DW-4 | DW-4 | DW-4 |
|-----------------------------|-------|-----------|----------------|-------------------|--------------|-----------|
| Depth - > | | RSCO | 6-8 Fil | 16-18.5 | 16-18.5DL | 24-28.5 |
| Date Sampled -> | | | 7/28/2005 | 7/28/2005 | 7/28/2005 | 7/28/2005 |
| Dichlorodifluoromethane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Trichlorofluoromethane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Methyl acetate | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Methyl tert butyl ether | ug/kg | 120 | 51 U | 1500 U | 60000 U | 12 U |
| Cvctohexane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Methylcyclohexane | ug/kg | | 5 J | 1500 U | 60000 U | 12 U |
| 1,2-Dibromoethane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| Isopropylbenzene | ug/kg | | ۲ J | 1500 U | 60000 U | 12 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 51 U | 1500 U | 60000 U | 12 U |
| 1,4-Dichtorobenzene | ug/kg | 8,500 | 51 U | 1500 U | 60000 U | 12 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 51U | 1500 U | 60000 U | 12 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 51 U | 1500 U | 60000 U | 12 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 51 U | 1500 U | 60000 U | 12 U |
| | | | RSCO = Recomme | ended Soil Cleanu | o Objectives | |

1,000 - indicates detected value for organics.

1. • ł

~ !

| Sample ID -> | Units | TAGM | GPD-1 | GPD-1 | GPD-1 | GPD-1 | GPU-2 | GPD-2 | GMU-3 | Gru-3 | GPU-S | 5-1-5- |
|--|-----------|-----------|----------|----------|----------|------------|-------------|----------------|-----------------------|------------------|------------|------------------------|
| Depth - > | | 4046 | 7-9 | 7-9 DL | 11 - 14 | 11 - 14 DL | 15.8 - 17.5 | 15.8 - 17.5 DL | 4-8 | 4 - 8 UL | 11-01 | 15 - 1/ UL 0/6/00/2 |
| Date Sampled -> | | RSCO | 9/6/2005 | 9/6/2005 | 9/6/2005 | 9/6/2005 | 9/07/2/9/6 | 3/6/2002 | CUUZIDIE | C007/0/S | CMANA | 2002/0/2 |
| VOLATILES | ug/kg | | | | | | | | | | | |
| Chloromethane | ug/kg | | 14 UJ | ∩ 69 | 13 UU | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Bromomethane | ng/kg | | 14 UJ | 069 | 13 WJ | 64 U | 60 U | 1,500 U | 1,600 U | 1.600,000,000 U | 1,4001U | 1,400,000 U |
| Vinvl chloride | uq/ka | 200 | 4J | 0 69 | 13 UJ | 64 U | 60 U | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Chloroethane | ua/ka | 1,900 | 14 UJ | 0 69 | 13 UJ | 64 U | 60 U | 1,500 U | 1'600 U | 1,600,000,000 U | 170 J | 1,400,000 U |
| Methylene chloride | ua/ka | 8 | 14 W | 79 D | 13 UU | 41 DU | 40 J | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Acetone | uo/ka | 200 | 14 UU | 41 DV | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Carbon disulfide | uo/ka | 2.700 | 14 UJ | 069 | 13 UJ | 64 U | 19.1 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 1-Dichloroethene | uo/ka | 400 | 14 W | 0 69 | 13 UV | 64 U | 8.1 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 1. Dichlomethane | | 200 | 14 UJ | 6910 | 13100 | 64 U | 60 U | 1,500 U | 1.600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Chloroform | | 300 | 14 UJ | 69 U | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 15 9-Dichloroethane | no/ko | 100 | 14 UJ | 069 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 2.Rutanona | ua/ka | 300 | 14 100 | 0.69 | 13 UJ | 64 U | 00 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 1 1-Trichloroethane | naka | 800 | 14 W | 69 U | 13/UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Carhon tetrachloride | uo/ka | 600 | 14 UU | U 69 | 13 UJ | 0 49 | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1.400,000 U |
| Bronodichloromethane | | | 14 UU | 0 69 | 13 UU | 64 U | | 1,500 U | 1.600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 2-Dichlorononana | Lin/kg | | 14 UU | 0 69 | 13 UU | 64 U | 60 U | 1,500 U | 1,600 U | 1.600,000,000 U | 1,400 U | 1,400,000 U |
| kie.1 3. Dichloronnoana | In Ma | | 14 11.1 | 069 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Trichlorothene | - 22 - 22 | 200 | 1411.1 | 6911 | 13 UU | 64 U | 2.200 | 2,200 D | 110,000 J | 1,600,000,000 U | 2,700 | 310,000 DJ |
| Dihomochlorumathana | | | 14 1.1 | 0.69 | 13 UJ | 64 U | 6010 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 1 9. Trichlocothane | | | 14 11.1 | 69 U | 13 UJ | 0 15 | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Rentene | na ka | 60 or MDL | 14 UJ | 0 69 | 13 UU | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| trans-1 3-Dichlorontonana | - Andrew | | 14 [1] | 69 U | 13100 | 64 U | 009 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Bromoform | in Ko | | 14 [1.] | 69 11 | 13 UU | 64 U | 009 | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 4 Mathul-2-pertange | | 900 | 14111 | 1109 | 13 U.I | 64 U | 60 U | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| P-Wollyr-Peladions | | 2221 | 14 11 | 6911 | 13 01 | 64 U | 60 U | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Z-trocklossothese | | 1 400 | 11111 | 109 | 7.1 | 11179 | 2.100 - 2X | 2.100 D | 1.000.000.000 | 1.000.000.000 DJ | 12.000.000 | 12,000,000 BD |
| Telraco | Ru An | 1500 | 14111 | 69[1] | 13 [11] | 64 U | 000 | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 Uluerte 1 1 1 0 Totrachtaroathana | na/kn | 500 | 14116 | 6911 | 13 111 | 64 U | 60 U | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1,1,2,2715macmovourane | no/ku | 1 700 | 14 14 | 0 69 | 13 UJ | 64 U | 108 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Citutions i Leite Fittuthanzana | | 5.500 | 14 UJ | 0169 | 13 UU | 0 19 | <u>∩</u> 09 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Styrada | uo/ko | | 14 UJ | U 69 | 13 W | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400.000 U |
| Total vulenes | uaka | 1.200 | 14 UJ | 6910 | 13 UJ | 64 U | 60 U | 1,500 U | F 008 | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1.1.2-Trichloro-1.2.2-Influoroethane | uo/ka | 1.000 | 14 UU | 69 U | 13 W | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| cis-1.2-Dichloroethene | ua/ka | | 5.1 | 69 U | 13 UJ | 64 U | 340 | 230 DJ | 30,000 | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| trans-1,2-Dichloroethene | ng/kg | 300 | 2 J | 0 69 | 13 UJ | 64 U | 38 J | 1,500 U | 1000 (000 N/) 330 N S | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Dichtorodilluoromethane | ug/kg | | 14 U | 069 | 13 UJ | 64 U | 00 00 | 1,500 U | 1,600 U | 1,600,000.000 U | 1,400 U | 1,400,000 U |
| Trichlorofluoromethane | ug/kg | | 14 U | N 69 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400.000 U |
| Methył acetate | ug/kg | | 14 U | 69 U | 13 [12] | 64 U | 60 U | 1,500 U | 1.600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Methyl tert butyl ether | ug/kg | 120 | 14 U | 69 0 | 13 UU | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,40010 | 1,400,000 0 |
| Cvctohexane | ng/kg | | 14 U | 69 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Methylcyclohexane | ng/kg | | 14 U | 69 0 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1.2-Dibromoethane | ua/ka | | 14 U | 69 U | 13 UU | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| Isonrowlbenzene | ua/ka | | 14 U | 69 U | 13 UU | 64 0 | 00 N | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1.3-Dichlorobenzene | ua/ka | 1.600. | 14 U | 69 U | 13 UJ | 64 U | ∩ 80 ∩ | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1 4-Dichlorohenzene | uo/ko | 8,500 | 14 U | - N 69 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1.2-Dichlorobenzene | ug/kg | 7,900 | 14 U | 69 U | 13 UJ | 64 U | 60 U | 1.500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1.2-Dibromo-3-chloropropane | ng/kg | | 14 U | 69 U | 13 UJ | 64 U | 080 | 1,500 U | 1,600 U | 1,600,000,000 U | 1,400 U | 1,400,000 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 14 U | 0 89 | 13 UJ | 64 U | 60 U | 1,500 U | 1,600 U | 1,600,000,00010 | 1,400)U | 1,400,00010 |

| Sample ID -> | Units | TAGM | GPD-3 | GPD-3 | GPD-3 | GPD-5 | GPD-5 | GPD-5 | GPD-6 | 3-0-15 | GPU-6 | GPU-6 |
|---------------------------------------|--------|-----------|------------|---------------|----------|-----------|----------|------------|----------|----------|------------|----------|
| Depth - > | | 4046 | 17 - 20 | 17 - 20 DL | 23 - 26 | 14 - 15.2 | 16 - 18 | 16 - 18 DL | 4-8 | 12 - 13 | 12 - 13 DL | 13 - 15 |
| Date Sampled -> | | RSCO | 9/6/2005 | 9/6/2005 | 9/6/2005 | 9/7/2005 | 9/7/2005 | 9/7/2005 | 9/7/2005 | 9/7/2005 | 9/7/2005 | 9/7/2005 |
| VOLATILES | ug/kg | | | | | - | | | | | | |
| Chloromethane | unka | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1.500 U | 59 U | 1,500 U | 1.600 U |
| Bromomethane | ua/ka | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1.500 U | 1,600 U |
| Vinvi chloride | ua/ka | 200 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1.500 U | 1,600 U |
| Chloroethane | uq/ka | 1,900 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Methviene chloride | ua/ka | 100 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 41 J | 1,500 U | 1,500 U | 41 J | 1,500 U | 1,600 U |
| | ua/ka | 200 | 1.300 U | 2.600.000 U | 1,400 U | 1.500 U | 20 J | 1,500 U | 1,500 U | 35 J | 1,500 U | 1,600 U |
| Carhon disultida | uo/ka | 2.700 | 1.300 U | 2.600,000 U | 1,400 U | 1,500 U | 100 | 1,500 U | 1,500 U | 10 J | 1,500 U | 1,600 U |
| 1 1-Dichloroethene | ua/ka | 400 | 1.300 U | 2.600.000 U | 1,400 U | 1,500 U | 57 U | 1.500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1 1-Dichloroethane | ua/ka | 200 | 1.300 U | 2.600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Chloroform | uaka | 300 | 1.300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1 2-Dichloroathane | | 100 | 1.300 U | 2.600.000 U | 1.400 U | 1.500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1,2-Dictinotocinario | 10 kg | 300 | 1.300 U | 2.600.000 U | 1.40010 | 1.500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| t 1 1-Trichloroothane | ino/ka | 800 | 1.300 U | 2.600.000 U | 1.400 U | 1.500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Carbon tetrachloride | 110/kg | 600 | 1.300 U | 2.600.000 U | 1.40010 | 1.500 U | 57 U | 1,500 U | 1,500 U | 0.65 | 1,500 U | 1,600 U |
| Bromodichloromethane | ua/ka | | 1.300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | N 69 | 1,500 U | 1,600 U |
| 1.2-Dichloropropane | ua/ka | | 1.300 U | 2.600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| cis-1.3-Dichloropropene | ua/ka | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Trichloroethene | uo/ka | 700 | 4,100 | 370,000 DJ | 1,500 | 1,500 | 2,400 | 2,800 D | 1,500 U | 260 | 260 DJ | 3,400 |
| Dihromochtoromethane | ua/ka | | 1.300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1.1.2-Trichloroethane | ua/ka | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 0 69 N | 1,500 U | 1,600 U |
| Benzene | ua/ka | 60 or MDL | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1.500 U | 1,500 U | 59 U | 1,500 U | 1.600 U |
| trans-1,3-Dichioropropene | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500U | 57 U | 1,500 U | 1,500 U | 1 65 | 1,500 U | 1,600 U |
| Bromoform | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1.600 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 2-Hexanone | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Tetrachloroethene | ug/kg | 1,400 202 | 23,000,000 | 23,000,000 BD | 6,700 B | 4,500 | L 11 | 2,400 D | 1,900 | L 8 | 1,600 D | 2,800 |
| Toluene | ng/kg | 1,500 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1,1,2,2-Tetrachloroethane | 03/kg | 600 | 1,300 U | 2,600,000 U | 1,400 U | 1.500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Chlorobenzene | ng/kg | 1,700 | 1,300 U | 2,600,000 U | 1,400[U | 1.500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Ethylbenzene | ug/kg | 5,500 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Styrene | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 29 0 | 1.500 U | 1,600 U |
| Total xylenes | ug/kg | 1,200 | 1,300 U | 2,600,000 U | 1,400 U | 1.500 U | 57 U | 1,500 U | 1,500 U | 0 65 | 1,500 U | 1,600 U |
| 1,1,2-Trichioro-1,2,2-trifluoroethane | ug/kg | 1,000 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 29 0 | 1,500 U | 1,600 U |
| cis-1,2-Dichloroethene | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 550 J | 410 | 340 D.1 | 1.500 U | 760 J | 760 DJ | 1,600 |
| trans-1,2-Dichloroethene | ug/kg | 300 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 62 | 1,500 U | 1,500 U | 78 | 1,500 U | 1,600 U |
| Dichlorodilluoromethane | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 29 0 | 1,500 U | 1,600 U |
| Trichlorofiuoromethane | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 2010 | 1,500 U | 1,600 U |
| Methyl acetate | ug/kg | | 1.300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Methyl tert butyl ether | ug/kg | 120 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1.500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Cyclohexane | ng/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1.500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Methylcyclohexane | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1.600 U |
| 1,2-Dibromoethane | ng/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| Isopropylbenzene | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1.500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1, 3-Dichlorobenzene | ug/kg | 1,600, | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500 U | 59 U | 1,500 U | 1,600 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 1,300 U | 2,600,000 U | 1,400 U | 1,500 U | 57 U | 1,500 U | 1,500[U | 59 U | 1.500JU | 1.60010 |

| Comple ID | 1 I Inits | TAGM | GPD-7 | GPD-8 | R-CPD-R | GPD-10 | GPD-10 | GPD-10 | GPD-12 | 6PD-12 | GPD-12 | GPD-12 |
|---------------------------------------|-----------|-------------|-------------|----------------|-----------|----------|------------|----------|----------------|----------|------------|------------|
| Saupte 10-2 | 5 | 4046 | 4-8 4-8 | 4 - 7.6 | 11.5-15 | 4 - 7.6 | 4 - 7.6 DL | 17 - 19 | 4-7 | 4-7 DL | 15 - 16 | 16 - 19 |
| Date Sampled -> | | BSCO | 9/7/2005 | 9/8/2005 | 9/19/2005 | 9/8/2005 | 9/8/2005 | 9/8/2005 | 9/8/2005 | 9/8/2005 | 9/8/2005 | 9/8/2005 |
| VOLATILES | ug/kg | 1 | | | | | | | | | | |
| Chloromethane | uq/kg | | 110 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Bromomethane | ug/kg | | n H | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Vinyl chloride | ng/kg | 1 200 | 7 J | 1 | 18 U | 02 | 1.400 U | 14 U | 180 U | 180 DJ | 4 J | 2] |
| Chloroethane | ug/kg | 1,900 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Methylene chioride | ug/kg | 100 | ۲٦ | <u>۲</u> | 6 | ۲ ۲ | 1,400 U | ۲۷ | <mark>۲</mark> | 1,400 U | 5 1 | 2 |
| Acetone | ng/kg | 200 | 1 EI | 4 | ך ד | 17 | 1,400 U | 101 | <u>۲</u> ۲ | 1,400 U | <u>۲</u> ۷ | 7 6 |
| Carbon disulfide | ug/kg | 3 2,700 | 11 U | 11 U | 4 J | 2 J | 1,400 U | 14 U | 12 U | 1,400 U | 5 J | 12 U |
| 1.1-Dichtoroethene | uq/kg | 400 | 1110 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.1-Dichtoroethane | palau | 200 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Chloraform | uo/ka | 300 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.2-Dichloroethane | naka | 100 | 1110 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 2-Butanone | No. | 300 | 1110 | 11U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.1.1-Trichloroethane | ua/ka | 800 | 11 U | 110 | -18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Carbon tetrachtoride | na/ka | 009 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Bromodichtoromethane | uo/ka | | 11 U | 1110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1,2-Dichloropropane | na/ka | | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| cis-1.3-Dichleropropene | narka | E | <u>1110</u> | 110 | 18 U | 12 U | 1.400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Trichloroethene | ua/ka | 200 | 11 U | 1110 | 14 J | 2 J | 1,400 U | 14 U | 12 U | 1,400 U | 20 | 12 U |
| Dihromochtoromethane | na/ka | | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.1.2-Trichloroethane | ua/ka | | 11 N | 11 U | U 81 | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Benzene | ua/ka | 1 60 or MDL | 110 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| trans-1.3-Dichloroorooene | uc/ko | | N 11 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 0 |
| Bromeform | uo/ko | | 11 0 | 110 | <u>18</u> | 120 | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 4-Methyl-2-pentanone | ua/ka | 1.000 | 11 U | 1110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 2-Hexanone | uo/ka | | 1110 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Tetrachloroethene | ua/ka | 1.400 | 11 U | 1110 | ل 2 | 12 U | 180 DJ | 14 U | 12 U | 1,400 U | 26 | 12 U |
| Toluene | ug/kg | 1 1,500 | N H | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.1.2.2-Tetrachioroethane | ua/ka | 1 600 | 11 U | <u>11 U</u> | -18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Chlorobenzene | ng/kg | 1,700 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Ethylbenzene | uo/ka | 1 5,500 | 11 U | 110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Styrene | ug/kg | - | 11 U | 110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Total xytenes | ng/kg | 1,200 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 1210 | 1,400 U | 12 U | 12 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ng/kg | 1,000 | 110 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| cis-1,2-Dichloroethene | ug/kg | - | U 11 | 11 U | 44 | 3,200 | 3,200 D | 14 U | 2,000 | 2,000 D | 82 | 37 |
| trans-1,2-Dichloroethene | ug/kg | 300 | 11 U | 11 U | 10 J | 180 | 1,000 DJ | 14 U | 24 | 1.400 U | <u>с 8</u> | 12 0 |
| Dichlorodifluoromethane | ug/kg | | 11 U | 1110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Trichtorofluoromethane | ug/kg | 6 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Methyl acetate | ng/kg | | 11 0 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Methyl tert butyl ether | ng/kg | 120 | 1110 | 110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Cvctohexane | ng/kg | | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 0 | 1,400 U | 12 U | 12 U |
| Methylcyclohexane | ua/ko | | 11 U | 11 10 | -18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1,2-Dibromoethane | ug/kg | E | 11 U | 1110 | N 81 | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| Isopropylbenzene | ug/kg | | 111 | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.3-Dichlorobenzene | no/ko | 1,600, | 1110 | 110 | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1.400 U | 12 U | 12 U |
| 1,4-Dichlorobenzene | ng/kg | 3 8,500 | 11 U | - <u>11</u> .1 | · 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1,2-Dichlorobenzene | ug/kg | 3 7,900 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1.2-Dibromo-3-chioropropane | ng/kg | 6 | 11 U | 11 U | 18 U | 12 U | 1,400 U | 14 U | 12 U | 1,400 U | 12 U | 12 U |
| 1,2,4-Trichtorobenzene | ug/kg | 3,400 | 11 U | 110 | 18 | 12 U | 1,400 U | 14 0 | 1210 | 1.400 U | 12IU | 1210 |
| | | | | | | | | | | | | |

| Camela ID | 1 Inite | TACAA | CDD-12 | GPD-14 | CPD-14 | GPD.14 | GPD-16 | GPD-16 | GPD-17 | GPD-18 | GPD-18 | GPD-18 |
|---------------------------------------|---------|-----------|--------------|----------------|-------------|-----------|-----------|---------------------------------|--------|----------|----------|----------|
| | | NDVI | CL-7-10 | | 1447 24 | 10 12 12 | 2 - 7 - N | 1 1 1 1 1 1 1 | | 4.7 | 1.7.1 | 11.15 |
| Ueptin - > | | 0404 | 4 - 1 | 0.6 - 7 | 1000000 | | 200000 | 2000/0/0 | 200000 | 2000/0/0 | | ammone |
| Date Sampled -> | | DUCH | CUOZVANS | CUUZAIR | cnn7/8/P | CUU2/29/2 | CONZIEIS | conzicio | C007方防 | 007/2/2 | 0007/000 | 3/2/2/00 |
| VOLATILES | ug/kg | | | | | | | | | | ., | |
| Chloromethane | ug/kg | | 13 U | 2,000 U | 11 N | 1,300 U | 2 | 12 U | 19 0 | 110 | 1,300 U | 14 U |
| Bromomethane | ng/kg | | 13 U | 2,000 U | 11 1 | 1,300 U | 12 U | 12 U | 19 U | D EE | 1,300 U | 14 U |
| Vinyl chloride | ug/kg | 200 | 120 | 5,000 | 14 | 1,300 U | 27 | - | 19 U | 200 | 1,300 U | 100 |
| Chloroethane | ug/kg | 1,900 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 110 | 1,300 U | 14 U |
| Methylene chloride | ug/kg | ĝ | 8.1 | 2,000 U | 6 J | 1,300 U | 8 | ۲ J | 11 | 5 J | 1,300 U | 14 U |
| Acetone | ng/kg | 200 | 13 0 | 2,000U | 7 J | 1,300 U | 17 | 8 | 7 6 | 4 J | 1,300 U | 14 U |
| Carbon disulfide | ng/kg | 2,700 | 13 U | 2,000 U | 4 J | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 2 J |
| 1.1-Dichloroethene | ua/ka | 400 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 1.1-Dichioroethane | uq/ka | 200 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 110 | 1,300 U | 14 U |
| Chloroform | ua/ka | 300 | 13 U | 2.000 U | 1 I N | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 1.2-Dichioroethane | uq/ka | 9 | 13 U | 2,000 U | 110 | 1,300 U | 12 U | 1210 | 1910 | 110 | 1,300 U | 14 U |
| 2-Butanone | ua/ka | 300 | 13 U | 2.000 U | 1110 | 1,300 U | 4) | 12 U | 1910 | 1110 | 1,300 U | 14 U |
| 1.1.1-Trichloroethane | uaka | 800 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 110 | 1,300 U | 14 U |
| Carbon tetrachloride | ua/ka | 609 | 13 U | 2,000(U | 11 U | 1,300 U | 12 U | 12 U | 19 0 | 110 | 1,300 U | 14 U |
| Bromodichloromethane | ua/ka | | 13 U | 2,000 U | 1110 | 1,300 U | 12 U | 1210 | 19 U | 1110 | 1,300 U | 14 U |
| 1.2-Dichloropropane | uq/ka | | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| cis-1.3-Dichloropronene | ua/ka | | 13 U | 2.000 U | 110 | 1,300 U | 12 U | 1210 | 19 U | 11 U | 1,300 U | 14 0 |
| Trichloroethene | na/ka | 200 | 4 J | Sec. 5,800 No | 84 | 480 DJ | 12 U | 12 U | 19 U | 11 U | 1,300 U | 120 |
| Dibromochloromethane | uo/ka | | 1310 | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 11.1.2-Trichtoroethane | ua/ka | | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Benzene | u@/kg | 60 or MDL | 13 U | 2.000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Itrans-1.3-Dichloropropene | uo/ka | | 130 | 2,000 U | <u>11 U</u> | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Bromotorm | ng/kg | | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 4-Methyl-2-pentanone | uq/ka | 1 000 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 110 | 1,300 U | 14 U |
| 2-Hexanone | ug/kg | | 13 U | 2,000 U | 110 | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Tetrachloroethene | ug/kg | 1,400 | 13 U | 30.00 July 100 | 110 | 740 DJ | 12 U | 12 U | 19 U | 111 U | 1,300[U | 5 J |
| Toluene | uq/kg | 1,500 | 13 U | 2,000 U | <u>л</u> н | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 1,1,2,2-Tetrachloroethane | ng/kg | 600 | 13 U | 2,000 U | 11 L | 1,300 U | 12 U | 12 U | N 61 | 11 U | 1,300 U | 14 U |
| Chlorobenzene | ug/kg | 1,700 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14)U |
| Ethylbenzene | by/6n | 5,500 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Styrene | ug/kg | | 13 U | 2,000 U | 1110 | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Total xylenes | ug/kg | 1,200 | 13 U | 2,000 U | 11 C | 1,300 U | 12 U | 12 U | 19 U | 11 0 | 1,300 U | 14 U |
| 1,1,2-Trichloro-1,2,2-trilluoroethane | ug/kg | 1,000 | 13 U | 2,000 U | 110 | 1,300 U | 12 U | 12 U | 19 U | 11 [1 | 1,300 U | 14 U |
| cis-1,2-Dichlaroethene | ug/kg | | 100 | 33,000 | 790 | 790 DJ | 19 | 10 J | 19 U | 1,300 | 1,300 D | 2,100 |
| trans-1,2-Dichloroethene | ug/kg | 300 | 2 J | 12,000 | 21 | 1,300 U | 12 U | 2 J | 19 U | 15 | 1,300 U | 56 |
| Dichlorodifluoromethane | ug/kg | | 1 <u>3</u> U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 110 | 1,300 U | 14 U |
| Trichlorofluoromethane | ug/kg | | 13 U | 2.000 U | 11 C | 1,300 U | 1210 | 12 U | 19 U | 11 0 | 1,300 U | 14 U |
| Methyl acetate | ug/kg | | 13 U | 2,000 U | 11 0 | 1.300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Methyf tert butyl ether | ug/kg | 120 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| Cyclohexane | ug/kg | | 13 U | 2,000 U | 11 U | 1.300 U | 12 U | 12 U | 19 0 | 11 U | 1,300 U | 14 U |
| Methytcyclohexane | uq/kg | | 13 U | 2,000 U | 11 U | 1.300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 1,2-Dibromoethane | ug/kg | | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 0 | 0 11 | 1,300 U | 14 U |
| Isopropylbenzene | ua/ka | | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 0 | 11 0 | 1,300 U | 14 U |
| 1.3-Dichlorobenzene | ug/kg | 1,600, | 13 U | 2,000 U | 11 U | 1,300 U | 1210 | 12 U | 19 0 | 11 U | 1,300 U | 14 U |
| 1,4-Dichlorobenzene | ng/kg | 8,500 | 13 U | 2,000 U ·· | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 0 | 1,300 U | 14 U |
| 1,2-Dichlarobenzene | ug/kg | 7,900 | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1.300 U | 14 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 13 U | 2,000 U | 11 U | 1,300 U | 12 U | 12 U | 19 U | 11 U | 1,300 U | 14 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 13 0 | 2.000 U | 1110 | 1,300U | 12 U | 12 U | 1910 | 11/0 | 1.300 U | 14 U |

| Samote ID -> | Units | TAGM | GPD-18 | GPD-19 | GPD-19 | GPD-20 | GPD-20 | GPD-20 | GPD-21 | GPD-21 | GPD-21 | GPD-24 |
|---------------------------------------|--------|-----------|------------|----------|----------|----------|------------|-----------|----------|-----------|----------|------------|
| Denth - > | | 4046 | 11 - 15 DL | 3-4 | 7 - 11 | 2-4 | 15 - 17.7 | 17.7 - 19 | 3.3 - 4 | 15 - 18.2 | 19-21 | 2-4 |
| Date Sampled -> | | RSCO | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/9/2005 | 9/12/2005 |
| VOLATILES | ua/ka | | | | | | | | | | | |
| Chloromethane | uo/ka | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Bromomethane | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Vinyl chloride | ug/kg | 200 | 1,700 U | 1,600 U | 9,100 | 12 U | 11 U | 14 U | 1,300 U | 660 J | 14 U | 110 |
| Chioroethane | ng/kg | 1,900 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Methylene chloride | ug/kg | 8 | 1,700 U | 1,600 U | 1,300 U | 12 U | 0 H | 14 U | 1,300 U | 1,300 U | 14 U | 11 0 |
| Acetone | ng/kg | 200 | 1,700 U | 1,600 U | 1,300 U | 46 U | 11 U | 17 U | 1,300 U | 1,300 U | 14 U | 45 U |
| Carbon disulfide | no/ka | 2,700 | 1,700 U | 1,600 U | 1,300 UJ | 12 U | Р 6 | 6 J | 1,300 UJ | 1,300 UJ | 14 U | 11 U |
| 1.1-Dichloroethene | ua/ka | 400 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 1.1-Dichtoroethane | ua/ka | 200 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Chleroform | ua/ka | 300 | 1.700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 110 |
| 1.2-Dichloroethane | uarka | 90 | 1,700 U | 1.600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 0 | 11 U |
| 2-Butanone | uarka | 300 | 1.700 U | 1.60010 | 1,300 U | 12 | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | ۲ <u>8</u> |
| 1 1 1-Trichloroethane | ua/ka | 800 | 1.700 U | 1.600 U | 1.300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Carbon tetrachloride | ua/ka | 600 | 1.700 U | 1.600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 110 |
| Bromodichloromethane | ua/ka | | 1.700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 1.2-Dichloropropane | no/ka | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| cis-1.3-Dichlorooropene | ua/ka | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Trichloroethene | ua/ka | 200 | 480 DJ | 440 J | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Dihromochloromethane | 10/ko | | 1 7001 | 1 600 U | 1 300 U | 12 U | 11 U | 14 U | 1.300 U | 1,300 U | 14 U | 11 U |
| 1 1 2-Trichloroethane | ua/ka | | 1.700 U | 1.600 U | 1.300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Renzene | cia/ko | 60 or MDL | 1.700 U | 1.600 U | 1.300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| trans-1.3-Dichlorononene | uo/ko | | 1.700 U | 1.600 U | 1.300 U | 12 U | 110 | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Bromoform | ualka | | 1.700 U | 1.600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 4-Methyl-2-pentanone | ua/ka | 1.000 | 1.700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 2-Hexanone | ua/ka | | 1.700 U | 1.600 U | 1,300 U | 12 U | 11 U | 14 U | 1'300 U | 1,300 U | 14 U | 11 U |
| Tetrachloroethene | ua/ka | 1,400 | 1,700 U | 4,500 | 1,300 U | 11 | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Toluene | ua/ka | 1.500 | 1,700 U | 1,600 U | 1,300 U | 1210 | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 1.1.2.2-Tetrachloroethane | uo/ka | 600 | 1,700 U | 1,600 U | 1,300 U | 12 U | 110 | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Chlorobenzene | ua/kg | 1,700 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 0 | 11 U |
| Ethylbenzene | uq/ka | 5,500 | 1,700 U | 1,600 U | 1.300 U | 12 U | 110 | 14 U | 1,300 U | 1,300 U | 14 0 | 11 U |
| Styrene | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Total xylenes | ug/kg | 1,200 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 580 J | 1,300 U | 14 U | 11 U |
| 1,1,2-Trichioro-1,2,2-trifluoroethane | ng/kg | 1,000 | 1,700 U | 1,600 U | 1.300 U | 12 0 | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| cis-1,2-Dichloroethene | ug/kg | | 2,100D | 850 J | 11,000 | 12 U | 2 J | 14 U | 1,300 U | 5,000 | 14 U | 11 U |
| trans-1,2-Dichloroethene | Da/kg | 300 | 1,700 U | 1,600 U | 200 J | 12 U | ⊃ F | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Dichlorodifluoromethane | ug/kg | | 1.700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Trichlorofluoromethane | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Methyl acetate | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 490 J | 1,300 U | 14 U | 11 U |
| Methyl tert butyl ether | ug/kg | 120 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Cyclohexane | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 360 J | 1,300 U | 14 U | 11 U |
| Methylcyclohexane | ug/kg | | 1,700 U | 190 J | 1,300 U | 12 U | 11 U | 14 U | 3,000 | 1,300 U | 14 U | 11 U |
| 1,2-Dibromoethane | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 0 | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| Isopropylbenzene | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 620 J | 1,300 U | 14 U | 11 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 1,700 U | 1,600[U | 1,300 U | 12 U | 110 | 14 U | 1,300 U | 1,300 U | 14 0 | 11 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | 1,700 U | 1,600 U | 1 300 U | 12 U | 110 | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 1.2-Dichlorobenzene | ug/kg | 7,900 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 1.2-Dibromo-3-chloropropane | ug/kg | | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300 U | 14 U | 11 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 1,700 U | 1,600 U | 1,300 U | 12 U | 11 U | 14 U | 1,300 U | 1,300JU | 14jU | 110 |

| Sample ID -> | Units | TAGM | GPD-24 | GPD-24 | GPD-25 | GPD-25 | GPD-26 | GPD-26 | GPD-26 | GP-D-26 | GPU-26 | GPU-27 |
|---------------------------------------|-------|-----------|-----------|-------------------|-----------|------------|-----------|-----------|-----------|-------------|-----------|------------|
| Depth - > | | 4046 | 11 - 15 | 16 - 17 | 3 - 3,4 | 11 - 15 | 4 - 7 | 4 -7 DL | 11 - 15 | 11 - 15 DL | 17.5 - 19 | 0-4 |
| Date Sampled -> | | HSCO | 9/12/2005 | 8/12/2009 | SU12/2005 | CONZ/ZL/R | SUUS/21/S | CONZIZINE | CUU2/21/8 | CUUZ/21 /S | | CM07/71/25 |
| VOLATILES | ug/kg | | | | | | | | | | | |
| Chloromethane | ug/kg | | 11 U | 12 U | 12 U | 110 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Bromomethane | ug/kg | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Vinyl chioride | ng/kg | 200 | 110 | 12 U | 12 U | 11 U | 3.200 N | 2,200 DJ | 1,400 U | 1.400,000 U | 1,700 U | 51 U |
| Chloroethane | ug/kg | 1,900 | 1110 | 12 U | 1210 | 110 | 1,700 | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Methylene chioride | ng/kg | <u>8</u> | 11 U | 12 U | 12 U | 110 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Acetone | ng/kg | 200 | 12 U | 12 U | 13 U | 110 | 1,500 U | 15,000 U | 1,400 U | 1.400,000 U | 1,700 U | 51 U |
| Carbon disulfide | uq/ka | 2,700 | 11 U | 14 | 12 U | 11 U | 1,500 UJ | 15,000 U | 1,400 UJ | 1,400,000 U | 1,700 U | 51 U |
| 1.1-Dichtoroethene | uq/ka | 400 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1.700 U | 51 U |
| 1.1-Dichloroethane | ua/ka | 200 | 11 U | 12 U | 12 U | 1110 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Chloroform | ua/ka | 300 | 110 | 12 U | 12 U | 110 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1.700 U | 51 U |
| 1.2-Dichloroethane | no/ka | 100 | 1110 | 12 U | 12 U | 1110 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 2-Butanone | uo/ka | 300 | 110 | 12 U | 4 J | 11 U | 1.500 U | 15,000 U | 1.400 U | 1,400,000 U | 1,700 U | 51 U |
| 11.1.1-Trichtoroethane | no/ka | 800 | 1110 | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Carbon tetrachtoride | ua/ka | 009 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000[U | 1'200 U | 51 U |
| Bromodichloromethane | ua/ka | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1/200 | 51 U |
| 1.2-Dichioropropane | uq/ko | | 11 U | 12 U | 1210 | 111 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| cis-1.3-Dichloropropene | ua/ka | | 1110 | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Trichloroethene | uq/ka | 200 | 11 U | 12 U | 12 U | 110 | 29,000 | 29,000 D | 32,000 EJ | 1,400,000 U | 1,700 U | 23 J |
| Dibromochtoromethane | uq/ka | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 1.1.2-Trichloroethane | uq/kg | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Benzene | na/ka | 60 or MDL | 1110 | 12 U | 12 U | 1110 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| trans-1.3-Dichtoropropene | ua/ka | | 11 U | 12 U | 12 U | <u>111</u> | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Bromotorm | na/ka | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 4-Methyl-2-pentanone | uq/ka | 1,000 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 2-Hexanone | ua/ka | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Tetrachloroethene | ua/ka | 1.400 | 11 U | 12 U | 12 U | 11 U | 210,000 | 210,000 D | 2,500,000 | 2,500,000 D | 500 J | 39 J |
| Totuene | naka | 1,500 | 1110 | 12 U | 12 U | 110 | 300 J | 15,000 U | 610 J | 1,400,000 U | 1,700 U | 51 U |
| 1.1.2.2-Tetrachloroethane | ua/ka | 600 | 110 | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Chlorobenzene | na/ka | 1,700 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Ethylbenzene | uq/ka | 5,500 | 1110 | 12 U | 12 U | 11 U | 230 J | 15,000 U | 290 J | 1,400,000 U | 1,700 U | 51 U |
| Styrene | ng/kg | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Total xylenes | ng/kg | 1,200 | 11 U | 12 U | 12 U | 1110 | 1,200 J | 15,000 U | 1,000 J | 1,400,000 U | 1,700 U | 51 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ng/kg | 1,000 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| cis-1,2-Dichloroethene | ug/kg | | 11 U | 12 U | 12 U | 11 U | 28,000 | 28,000 D | 11,000 | 1,400,000 U | 1,700 U | 51 U |
| trans-1,2-Dichloroethene | ug/kg | 300 | 11 U | 12 U | 12 U | 11 U | 400 J | 15,000 U | 1,400 U | 1,400,000 U | 1.700 U | 51 U |
| Dichlorodifluoromethane | ug/kg | : | 11 U | 12 ⁻ U | 12 U | n H | 1,500 U | 15,000 U | 1,400 U | 1,400.000 U | 1,700 U | 51 U |
| Trichtorofluoromethane | ug/kg | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 510 |
| Methyl acetate | ng/kg | | 11 U | 12 U | 12 U | 11 0 | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Methyl tert butyl ether | by/bn | 120 | 1110 | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Cyclohexane | ng/kg | | 110 | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Methylcyclohexane | ng/kg | | 11 U | 12 U | 12 U | 11 U | 440 J | 15,000 U | F 099 | 1,400,000 U | 1,700 U | 51 U |
| 1,2-Dibromoethane | ug/kg | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| Isopropyibenzene | ng/kg | | 110 | 12 U | 12 U | 11 U | 1,500 | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 1.3-Dichlorobenzene | ug/kg | 1,600, | 1110 | 12 U | 12 U | 110 | 1.500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 1,4-Dichlorobenzene | ng/kg | 8,500 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1.400 U | 1,400,000 U | 1,700 U | 51 U |
| 1,2-Dichlorobenzene | ng/kg | 7,900 | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 11 U | 12 U | 12 U | 11 U | 1,500 U | 15,000 U | 1,400 U | 1,400,000 U | 1,700 U | 51 U |
| 1,2,4-Trichlorobenzene | ug/kg | 3,400 | 110 | 12 U | 12 U | 1110 | 1,500 U | 15,000 U | 1,400 U | 1,400,0001U | 1,700 U | 51[U |
| | | | | | | | | | | | | |

| Sample ID -> 10 | Units | TAGM | GPD-27 | GPD-28 | GPD-28 | GPD-29 | GPD-29 | GPD-30 | GPD-30 | GPD-32 | GPD-33 | GPD-34 |
|---|-------|-----------|-----------|------------|---------------|-----------|------------------|------------|-----------|-----------|-----------|---------------------|
| Depth - > | L | 4046 | 7-11 | 0.5-4 | 11-15 | 0.5 - 4 | 12 - 16 | 0.3 - 4 | 11 - 15 | 11-15 | 15 - 18 | 7 - 11 |
| Date Sampled -> | | RSCO | 9/12/2005 | 9/13/2005 | 9/13/2005 | 9/13/2005 | 9/13/2005 | 9/13/2005 | 9/13/2005 | 9/14/2005 | 9/14/2005 | 9/14/2005 |
| VOLATILES | ug/kg | | | | | | | | | | | |
| Chloromethane | 6y/6n | | 110 U | 16 U | 22 U | 84 0 | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Bromomethane | ng/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Vinyl chloride | ug/kg | 200 | 1,400 | 2 J | 22 U | 840 | 23 U | 13 U | 41 | 3,700 | 930 J 🗧 | 2,000 J |
| Chloroethane | ug/kg | 1,900 | 110 U | 16 U | 22 U | 8410 | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| Methylene chloride | ug/kg | 100 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 101 | 2,800 U | 3,000 U | 2,100 U |
| Acetone | 03/kg | 200 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Carbon disulfide | ug/kg | 2,700 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1,1-Dichloroethene | iq/kg | 400 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1,1-Dichloroethane | ug/kg | 200 | 110 U | 16 0 | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2.100 U |
| Chtoroform | ng/kg | 300 | 110 U | 16 U | 22 U | 84 0 | 23 U | 13.U | 1 21 U | 2,800 U | 3,000 U | 2,100 U |
| 1.2-Dichloroethane | uo/ka | 100 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 2-Butanone | uo/kg | 300 | 11010 | 161 | 22 U | 2 | 23U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1,1,1-Trichloroethane | ug/kg | 800 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Carbon tetrachloride | uo/ka | 600 | 110 U | 16 U | 2210 | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Bromodichloromethane | ug/kg | | 110 U | 16 0 | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 1.2-Dichloropropane | uq/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| cis-1,3-Dichloropropene | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100U |
| Trichtoroethene | uq/kg | 700 | 110 U | P 6 | 22 U | 24 J | 35 | 7 6 | 21 U | 2,800 U | L 600, J | 2,100 U |
| Dibromochloromethane | uq/ka | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1,1,2-Trichtoroethane | ug/kg | | 110 U | 16 U | 22 U | 84 ∪ | 23 U | 13 U | 21U | 2,800 U | 3,000 U | 2,100 U |
| Benzene | ug/kg | 60 or MDL | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2.100 U |
| trans-1,3-Dichloropropene | uq/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2.800 U | 3,000 U | 2,100 U |
| Bromoform | ug/kg | | 110 U | 16 U | 22 U | 0 #8 | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 4-Methyl-2-pentanone | ng/kg | 1,000 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 ^{(U} |
| 2-Hexanone | ug/kg | | 110 U | 16 U | 22 0 | 84 N | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Tetrachloroethene | ug/kg | 1,400 | 110 U | 58 | 22 U | 280 | 4) | 28 | 2.1 | 2,800 U | 3,000 U | 350 J |
| Toluene | ug/kg | 1,500 | 38 J | 16U | 22 U | 84 U | 23 0 | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | 110 U | 16 U | 22 U | 0 148 | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Chlorobenzene | ug/kg | 1,700 | 110 U | 16 U | 22 U | 84 0 | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Ethylbenzene | ug/kg | 5,500 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Styrene | ug/kg | | 110 U | 16 U | 22 U | ∩ 88 | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Total xylenes | ug/kg | 1,200 | 0011 | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane u | ug/kg | 1,000 | 110 U | 16 U | 2210 | 84 U | 23 U | 13 0 | 21 U | 2,800 U | 3,000 U | 2,100 U |
| cis-1,2-Dichloroethene | ug/kg | | 1,500 | 20 | 22 0 | 23 J | ۲ <mark>8</mark> | 24 | 15 J | 24,000 | 17,000 | 1,000 J |
| trans-1,2-Dichloroethene u | ug/kg | 300 | 95 J | 4 J | 22 U | 84 U | <u>7</u> 8 | ۲ | 40 | 2,800.U | 1,000,1 | 2,100 U |
| Dichlorodifiuoromethane u | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Trichlorofluoromethane | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Methyl acetate | ng/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Methyl tert butyl ether | ug/kg | 120 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Cyclohexane | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21U | 2.800U | 3,000 U | 2,100 U |
| Methylcyclohexane | uo/kg | | 110 U | 16 U | 22 U | 84 C | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1,2-Dibromoethane | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| Isopropyibenzene | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1,3-Dichlorobenzene | ng/kg | 1,600, | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 1,4-Dichlorobenzene u | ug/kg | 8,500 | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 21U | 2,800 U | 3,000 U | 2,100 U |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 110 U | 16 U | <u>า</u> ส | ⊂ 87 | 23 U | 13 U | 21 U | 2,800 U | 3,000 U | 2,100 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 110 U | 16 U | 22 U | 84 U | 23 U | 13 U | 210 | 2,800 U | 3,000 U | 2,100 U |
| 1.2.4-Trichlorobenzene | ug/kg | 3,400 | 110 U | 16 0 | 22 U | 84 0 | 23 U | 13 U | 1 21U | 2,800 U | 3,000 U | 2,100 U |
| | ĺ | | | | | | | | | | | |

| | 1911 | 555 | Gru-00 | GPU-36 | Gru-3/ | GPD-37 | GPD-38 | GPD-38 | GPD-38 | GPD-38 | GPD-41 |
|---|-------------|-----------|-------------|-----------|------------------|------------------------|-------------------------------|---|------------------------------|-------------------------------------|-----------|
| | 4046 | 15-17 | 4-7 | 11-15 | 7 - 11 | 15-18.3 | 4 - 7 | 4 - 7DL | 15 -17 | 17 -19 | 7 - 11 |
| | HSCO | 9/14/2005 | 9/15/2005 | 9/15/2005 | 9/15/2005 | 9/15/2005 | 9/15/2005 | 9/15/2005 | 9/15/2005 | 9/15/2005 | 9/16/2005 |
| 1/6n | 6 | | _ | | _ | | | | | | - |
| ng/k | 0 | 2,200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| 3/6n | 0 | 2.200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| y/6n | g 200 | 2,700 | 11 U | 1200 J | 2800 | 1.600 U | œ | 27 J | 170 J | 1700 U | 4400 |
| yôn | 1,900 | 2,200 U | 11 U | 1400 U | 1400 U | 1.600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| te ug/k | g 100 | 2,200 U | ⊐ ₽ | 1400 U | 1400 U | 1,600 U | <u>۲</u> | 44 BJ | 1600 U | 1700 U | 2200 U |
| 1/6n | g 200 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 20 | 53 J | 1600 U | 1700 U | 2200 U |
| y/ön | g 2,700 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ne Vg/k | 400 400 | 2,200 U | 1110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| 19 UG/K | g 200 | 2,200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| A/on | a 300 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 0 | 67 U | 1600 U | 1700 U | 2200 U |
| 16 UQ/K | 100 | 2.200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| na/k | 300 | 2.200 U | 11 U | 1400 U | 1400 U | 1,600 U | 5 1 | 67 U | 1600 U | 1700 U | 2200 U |
| nane luo/k | 800 | 2,200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ride Lock | 600 | 2.200 U | <u>11 U</u> | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| sthane ug/k | 2 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ane uo/k | 9 | 2,200 U | 1110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700/1 | 2200 U |
| rooene ua/k | 29 | 2,200 U | U H | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| na/k | 700 | 2,200 U | 11 U | 1400 U | 1400 U | C 016 | 13 U | 67 U | 230 J | 1700 U | 2200 U |
| ethane uo/k | | 2,20010 | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| hane uo/k | g | 2,200 U | 1110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| קקא | a 60 or MDL | 2,200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1/00/1 | 2200 U |
| opropene uq/k | 20 | 2,200 U | 1110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ()on | | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| none uq/k | 1,000 | 2,200 U | 11 U | 1400U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| y/on | 9 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| le la | 1,400 | 310 J | 1110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 22000 | 2200 U |
| 1/6n | g 1,500 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| vroethane ug/k | 009 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| y/bn | 1,700 | 2,200 U | 11 U | 1400U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ¥0n | G 5,500 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| y/6n | ŋ | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1200 U | 2200 U |
| ¥/őn | g 1,200 | 2,200 U | 11 U | 1400 0 | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| 2,2-trifluoroethane ug/k | 1,000 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| thene ug/k | 6 | 1,900 J | 11 U | 7100 | 7800 | 7,400 | æ | 330 | 7200 | 1700 U | 13000 |
| oethene ug/k | 300 | 430 J | 11 U | 540 J | 260 J | 1,600 U | 13 UJ | 67 U | 280 J | 1700 U | 2200 U |
| hethane ug/k | 5 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 0 | L 01 | 1600 U | 1700 U | 2200 U |
| athane ug/k | g | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| 4/6n | g | 2,200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ether | 120 | 2,200 U | 110 | 1400 U | 1400 U | 1 600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| 4/6n | 0 | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ne uq/k | g | 2,200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 0 | 0/29 | 1600 U | 1700 U | 2200 U |
| ne ug/ | 5 | 2,200 U | n 11 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| e ng/k | 5 | 2,200 U | 1110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1200 U | 2200 U |
| tene ug/k | 1,600, | 2,200 U | 11 0 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ene ug/r | g 8,500_ | 2,200 U | 11U-1 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| ene ug/k | 006'2 60 | 2.200 U | 11 U | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| Iloropropane ug/k | 6 | 2,200 U | 110 | 1400 U | 1400 U | 1,600 U | 13 U | 67 U | 1600 U | 1700 U | 2200 U |
| inzene ug/k | g 3,400 | 2.200 U | 1110 | 1400 U | 1400 U | 1,600 U | 13 0 | 67 U | 1600 U | 1700/U | 220010 |
| incroproparie ug/k | g 3,400 | 2,200 U | | | 1 <u>U 1400U</u> | 1 <u>U</u> 1400U 1400U | 1 <u>U</u> 1400U 1400U 1.600U | 1 <u>U</u> 1400U 1400U 1400U 1.000U 13U | 10 1400U 1400U 1400U 13U 67U | 10 1400U 1400U 1.600U 13U 67U 1600U | |

| Sample ID -> | Units | TAGM | GPD-42 | GPD-43 | GPD-44 | GPD-44 | GPD-45 | GPD-45 | GPD-45 | GPD-47 | GPD-47 | GPD-47 |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Depth - > | | 4046 | 11 - 15 | 11 - 15 | 4-7 | 15 -17.9 | 2-4 | 15-18.3 | 19-22 | 4-7 | 4 - 7 DL | 11 - 15 |
| Date Sampled -> | | BSCO | 9/16/2005 | 9/16/2005 | 9/16/2005 | 9/16/2005 | 9/19/2005 | 9/19/2005 | 9/19/2005 | 9/19/2005 | g/19/2005 | 9/19/2005 |
| VOLATILES | ug/kg | | | | | | | | | | | |
| Chloromethane | ng/kg | | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 U | 1100 U |
| Bromomethane | no/kg | | 2000 U | 1400 U | 1,500 U | 1600 U | 11 10 | 13 U | 14 U | 15 U | 60 U | 1100 U |
| Vinyl chloride | no/kg | 200 | 2200 | 1700 | 1,800 | 1600 U | 33 | 16 | 14 U | 170 | 97 D | 1300 |
| Chtoroethane | ng/kg | 1,900 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 U | 1100 U |
| Aethylene chloride | ug/kg | 100 | 2000 U | 1400 U | 1,500 U | 1600 U | 110 | 7 8.1 | 14 U | 15 0 | 35 DJ | 1100 U |
| Acetone | na/ka | 200 | 2000 U | 1400 U | 1,500 U | 1600 U | 110 | 4 1 | 140 | 28 U | 59 D.J | 1100 U |
| Carbon disulfide | ua/ka | 2.700 | 2000 U | 1400 U | 1,500 U | 1600 U | 1110 | 13 U | 81 | 15 U | 60 U | 1100 U |
| I 1-Dichloroetheae | uo'ka | 400 | 2000 U | 1400 U | 1.500IU | 1600 U | 1110 | 13 U | 14 U | 15 U | 60 U | 1100 U |
| 1 -Dichlomethane | uo/ka | 200 | 2000 U | 1400 U | 1.500 U | 1600 U | 11 U | 13 U | 14 U | 15 0 | 60 U | 1100 U |
| Chloroform | uo/ka | 300 | 2000 U | 1400 U | 1.500 U | 1600 U | 110 | 13 U | 14 U | 15 U | 60 U | 1100 U |
| 2. Pichioroathana | un/ka | 100 | 200010 | 1400 U | 1.500 U | 1600 U | 0 H | 13 U | 14 U | 15 U | 009 | 1100 U |
| | | 300 | 2000 U | 1400 U | 1.500 U | 1600 U | 1110 | 1310 | 14 U | 15 U | 60 U | 1100 U |
| 1 1 - Trichloroethane | cio/ko | 800 | 2000 U | 1400 U | 1.500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 U | 1100 U |
| arthon tetrachloride | ua/ka | 600 | 2000 U | 1400 U | 1.500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 U | 1100 U |
| dromodichloromethane | | 222 | 2000 U | 1400 U | 1.500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 09 N | 1100 U |
| 1 2. Dichlammane | na/kn | | 2000 [1] | 1400 U | 1.500 U | 1600 U | | 13 U | 14 U | 1510 | 60 U | 1100 U |
| ie-1 3-Dicklorooroooa | D AN | | 2000 | 140011 | 1 500 11 | 16001 | 1111 | 13 U | 14 U | 1510 | 6010 | 1100 U |
| richloroethene | Rugo | 200 | 200011 | 140011 | 1 500 11 | 16001 | | 1310 | 14 U | 15 U | 60 U | 1100 U |
| Dihamochicomethane | 1 Puller | | 2000 | 140011 | 150011 | 160011 | 11111 | 13(1) | 14 [] | 15 U | 60 U | 1100:U |
| 1 1 2. Trichtoroethane | | | 20001 | 140013 | 1.500 U | 16001 | 1110 | 13 U | 14 U | 15 U | 60 U | 1100 U |
| | Colori | 60 or MDI | 5000 | 140011 | 1 50011 | 180011 | | 1311 | 14 [] | 1511 | 60 U | 110010 |
| ociteite | 201 | | | | 1 500 1 | 180011 | 1 | 1151 | 11171 | 15 1 | E011 | 110011 |
| | Part Part | | 20001 | | 1 500 11 | | 1111 | 121 | 11171 | 15 1 | En la | 110011 |
| Sromoloration | By An | 000 - | | | | | | 101 | | 24 | 39 | 110011 |
| +-Memyi-z-pentanone | by/fin | 1,000 | | | 00001 | 0 0001 | | | | | 2 102 | |
| 2-Hexanone | novkg | | | 400.0 | | | <u> </u> | 22 | | | 33 | |
| retrachloroethene | ng/kg | 1,400 | 2000 U | 1400 U | 1,500 U | 1600 U | | 130 | 14 0 | | | |
| Toluene | ug/kg | 1,500 | 2000 U | 1400 U | 1,500 U | 1600 U | 5 | 13 0 | 14 U | | 660 C | |
| I, 1, 2, 2-Tetrachloroethane | ug/kg | 600 | 2000 U | 1400 U | 1,500 U | 1600 U | <u>11</u> | 13.0 | 14 U | 15 U | 0 | D 0011 |
| Chlorobenzene | ng/kg | 1,700 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15.0 | D Gg | 1100 U |
| Ethylbenzene | ug/kg | 5,500 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13U | 14 U | 15 U | 60 U | 1100 U |
| Styrene | ug/kg | | 2000 | 1400 U | 1,500 U | 1600 U | 11 C | 1310 | 14 U | 15 U | 000 | 1100 C |
| rotal xylenes | ug/kg | 1,200 | 2000 U | 1400 U | 1,500 U | 1600 U | 110 | 13 U | 14 U | 15 U | ח 80 | 1100 C |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 00 00 | 1100 U |
| cis-1,2-Dichloroethene | uq/kg | | 0096 | 6800 | 9,800 | 3700 | 27 | 12 J | 14 U | 430 | 430 D | 5400 |
| rans-1,2-Dichloroethene | ug/kg | 300 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 5.1 | 10 DJ | 1100 U |
| Dichlorodifluoromethane | ug/kg | | 2000 U | 1400 U | 1,500 U | 1600[U | 11 U | 13 U | 14 U | 15 U | ∩ 89 | 1100 U |
| Trichtorofluoromethane | uq/kg | | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 0 | 14 U | 15 U | 09 | 11001 |
| Methyl acetate | uq/ka | | 2000 U | 1400 U | 1,500 U | 1600 U | 11 C | 13 U | 14 0 | 15 U | 60 U | 1100 U |
| Methyl tert butyl ether | uc/kg | 120 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 0 | 1100 U |
| Ovciohexane | ua/ka | | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 U | 1100 U |
| Vethylcyctohexane | ua/kg | | 2000 U | 1400 U | 1,500 U | 1600 U | U 11 | 13 U | 14 U | 15 U | 60 U | 1100 U |
| 1.2-Dibromoethane | ug/ka | | 2000 U | 1400 U | 1,500 U | 1600 U | 110 | 13 U | 14 U | 15 0 | 60 0 | 110010 |
| soroovlbenzene | ua/ka | | 2000 U | 1400 U | 1,500 U | 1600 U | 1110 | 13 U | 14 U | 15 0 | 60 U | 1100 U |
| 1.3-Dichlorobenzene | no/kg | 1,600, | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 0 | 1100 U |
| .4-Dichlorobenzene | ua/ka | 8,500 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | eo u | 1100 U |
| (,2-Dichlorobenzene | ug/kg | 7,900 | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 09 09 | 1100 U |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 2000 U | 1400 U | 1,500 U | 1600 U | 11 U | 13 U | 14 U | 15 U | 60 U | 1100 Г |
| 1.2.4-Trichtorobenzene | ua/ka | 3.400 | 2000 U | 1400 U | 1.500 U | 1600 U | 110 | 13 U | 1410 | 1510 | 000 | 110010 |

RSCO = Recommended Soil Cleanup Objectives 1,000 - Indicates detected value for organics.

| Campto ID | 1 Inite | TAGM | GPD-47 | GPD-48 | GPD-48 | GPD-49 | GPD-49 | GPD-49 | GPD-49 | GPD-49 | GPD-49 | Γ |
|---------------------------------------|---------|-----------|-----------|----------------|------------|------------|----------|---------|-----------|-------------------|--------|----------|
| | 5 | MIDU | | P | 1111 | 24 | 14 - 45 | 15.17 | 46.47 DI | 7 - 11 | 17.10 | Τ |
| Deptn - > | | 4040 | 18-19 | 11-1 | 571 - CI | 21 - 11 | 010/0/05 | 0/12/01 | 0/10/2005 | artarons | | 1 |
| Uale Sampled -> | 04/011 | 0000 | 2012/2012 | 2000 | 21 216,000 | SI ISIEND | 2007/2 | | ~ ~ | | | Ţ |
| VULAILLES | Ru An | | 1101 | | 1111 | 1101 | 140011 | 13 [] | 160011 | 1911 | 141 | Τ_ |
| Uniumentaria Armomethana | Ru An | | 191 | 181 | 1111 | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 [| _ |
| View chlorida | in ko | 200 | 1.6 | 63 | 21 | 5 | 1400 U | 13 U | 1600 U | 19 U | 141 | Б |
| Viriyi Girona Chioroethane | Ru An | 1 900 | 13.0 | 1810 | 110 | 12 U | 1400 U | 13 U | 1600U | 19 0 | 141 | 5 |
| Mathulana chlorida | 130.KG | 100 | 1310 | 12.J | 5 | <u>7</u> 8 | 1400 U | 13 U | 1600 U | 13.J | 7. | 5 |
| Acetone | ua/ka | 200 | 13 U | ٢ ٥ | 7.0 | 12 U | 1400 U | 6 J | 1600 U | Р6 | 16 | Π |
| Carbon disulfide | uc/ko | 2.700 | 13 U | 18 U | 6.1 | 12 U | 1400 U | 61 | 1600 U | 19 U | 4. | |
| 1 1-Dichlornethene | uo/ko | 400 | 13 U | 18IU | 11 U | 14 | 1400 U | 2 J | 1600 U | 19 U | 141 | _ |
| 1 1-Dichloroethane | uo/ka | 200 | 13 U | 18 U | 1110 | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | 5 |
| Chloroform | uo/ka | 300 | 13 U | 18 U | 0 H | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| 1.2-Dichtoroethane | ua/ka | 8 | 13 U | 18 U | 1110 | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 (| _ |
| 2-Butanone | ua/ka | 800 | 1310 | 18 U | 111 | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 (| - |
| 1.1.1.Trichloroethane | uo/ka | 800 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 1 | _ |
| Carbon tetrachloride | ua/ka | 89 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 N | 141 | 5 |
| Bromodichloromethane | ua/ka | | 13 U | 1810 | 110 | 1210 | 1400 U | 13 U | 1600 U | 19.0 | 14 [| 5 |
| 1.2-Dichloroorobane | ua/ka | | 13 U | 1810 | 1110 | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | 5 |
| cis-1.3-Dichioronooene | uo/ka | | 13 U | 181 | 1110 | 12 U | 1400 U | 13 U | 1600 U | 19 0 | 14 1 | 5 |
| Trichlorethene | uo/ko | 700 | 32 | 18 U | 11 U | 1500 | 1500 D | 810.3 | 810 DU | 19 U | 141 | 5 |
| Dibromochloromethane | uo/ka | | 2 J | 1810 | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 0 | 141 | |
| 1.1.2-Trichloroethane | ua/ko | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 0 | 14 (| 5 |
| Benzene | ua/ka | 60 or MDL | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 0 | 14 1 | - |
| trans-1.3-Dichloropropene | ua/ka | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 (| _ |
| Bromoform | ug/kg | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| 4-Methvi-2-pentanone | uq/ka | 1,000 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| 2-Hexanone | ug/kg | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| Tetrachioroethene | ug/kg | 1,400 | 2 J | 18 U | 11 U | 1800 | 1800 D | 5100 | 5100 D | 19 U | 141 | _ |
| Toluene | ug/kg | 1,500 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | 5 |
| Chlorobenzene | ug/kg | 1,700 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | 5 |
| Ethyibenzene | ug/kg | 5,500 | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | 5 |
| Styrene | ug/kg | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| Total xylenes | ug/kg | 1,200 | 13 U | 18 U | 11 N | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | <u>_</u> |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 1,000 | 13 U | 1810 | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 | 5 |
| cis-1,2-Dichloroethene | ug/kg | | 140 | 190 | 6 9 | 58 | 1400 U | 12.1 | 1600 U | 21 | 141 | 5 |
| trans-1.2-Dichtoroethene | uq/kg | සි | 30 | 11 J | <u> </u> | 100 | 1400 U | 130 | 1600 U | חאו | 141 | 5 |
| Dichlorodifluoromethane | ug/kg | | 13 U | 18 U | 11 | 12 U | 1400 U | 13.0 | 1600 U | 19 0 | 14 | 5 |
| Trichlorolluoromethane | ug/kg | | 13 U | 18 U | 11 C | 12IU | 1400 U | 130 | 1600 U | 1910 | 141 | |
| Methyl acetate | ug/kg | | 13 U | 1810 | 11 N | 12 U | 1400 U | 13 U | 1600 U | 19 0 | 141 | 5 |
| Methyl tert butyl ether | ug/kg | 120 | 13 U | 18 U | 11 0 | 12 U | 1400 U | 13 U | 1600 U | 1910 | 141 | 5 |
| Cyclohexane | ng/kg | | 13 U | 18 U | 110 | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | _ |
| Methylcyclohexane | ng/kg | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 141 | 5 |
| 1.2-Dibromoethane | ng/kg | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 | _ |
| Isopropylbenzene | by/6n | | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 ⁻ U | 14 | ∍ |
| 1,3-Dichlorobenzene | ug/kg | 1,600, | 13 U | 18 U | 11 U | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 | J |
| 1.4-Dichlorobenzene | ug/kg | 8,500 | 13 U | 18 U. | 11 C | 12 U | 1400 U | 13 U | 1600 U | 19 U | 14 | 5 |
| 1,2-Dichlorobenzene | ng/kg | 7,900 | 13 U | 18 U | 110 | 12 U | 1400 U | 13 U | 1600 U | 16L | 14 | 5 |
| 1,2-Dibromo-3-chloropropane | ug/kg | | 13 U | 18 U | Ð | 12 U | 1400 U | 130 | 1600 U | 19 U | 141 | 5 |
| 1.2.4-Trichtorobenzene | ug/kg | 3,400 | 13 U | 1810 | 1110 | 12 U | 1400 U | 13 U | 160010 | 1910 | 141 | 3 |

| | 1 - 1 - 1 - 1 | +1011 | 000 50 | 00 000 | 02 000 1 | 000-000 | 000 E1 | 000.61 | GDD.E9 | GPD.55 | GPD.55 | GPD.55 | GPD-57 | GPD-67 | GPD-58 |
|---------------------------------------|---------------|-----------|-----------|------------|------------|---------------|-------------|-----------|-----------|-------------|-------------------|-----------|-----------|------------|-----------|
| Sample IU -> | | MON | 1-10 | 11.25 | 14 15 | 15.10 | 15-18.0 | 19.23 | 15-17.5 | 4 - 7 | 15-18 | 15-18I DL | D.5-4 | 11-14.5 | 15-18.5 |
| Cato Samulad | | | 9/19/2005 | 9/19/2005 | 9/19/2005 | 9/19/2005 | 9/20/2005 | 9/20/2005 | 9/20/2005 | 9/21/2005 | 9/21/2005 | 9/21/2005 | 9/21/2005 | 9/21/2005 | 9/22/2005 |
| VOLATILES | ua/ka | | | | | _ | | | | | | | | | |
| Chioromethane | ua/ka | | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 0 | 2,400 U | 12 U | 11 U |
| Bromomethane | ua/ka | | 12 U | 12 U | 12 U | 110 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 C |
| Vinyl chloride | ug/kg | 200 | 36 | 12 U | 7 | 11 U | 3,200,000 U | 4 J | 1,600 UJ | 12 U | 32 | 58 U | 2,400 U | 12 U | 11 0 |
| Chloroethane | ug/kg | 1,900 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12.U | 11 U |
| Methylene chloride | ug/kg | 100 | 6 J | ר 9 | <u>г</u> 8 | Г 8 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | | 5810 | 2,400 U | 12 0 | 0 L1 |
| Acelone | ug/kg | 200 | 9 | 7 | 11 1 | 5 J | 3,200,000 U | 1210 | 1,600 UJ | 12 U | 0 11 | 280 | 2,400.U | <u>171</u> | |
| Carbon disulfide | ug/kg | 2,700 | 12 U | 2 1 | 5.1 | 2 9 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 011 | 280 | 2,400 U | 2.1 | |
| 11.1-Dichloroelhene | ug/kg | 400 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 51 | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12.0 | 0 |
| 1.1-Dichloroethane | ug/kg | 200 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UU | 12 U | 11 U | 58 U | 2,400 U | 12 U | 110 |
| Chloroform | uq/kg | 300 | 12 U | 12 U | 12 U | 110 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 1210 | 011 |
| 1.2-Dichtoroethane | nc/kg | 160 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UU | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 C |
| 2-Bitanone | uc/ka | 300 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 1210 | 11 U |
| 1.1.Trichlomethane | ua/ka | 800 | 12 U | 12 U | 12 U | 11 17 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| Carbon tetrachloride | ua/ka | 600 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| Bromodichloromethane | ua/ka | | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UU | 12 U | 11 [U | 58 U | 2,400 U | 12 U | 11 U |
| 1 2-Dichlorononane | ua/ka | | 12 U | 12 U | 1210 | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| icite-1 3-Dichlorontonene | ua/ka | | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| Trichlomethane | ua/ka | 200 | 12 U | 7 8 | 4 J | 75 | 000,000 J % | 6 J | 4,800 J | 12 U | 32 | 53 DJ | 2,400 U | 2 J | 11 U |
| Dihomochloromethane | 1 storko | | 12 U | 12 U | 12 U | 11 N | 3,200,000 U | 12IU | 1,600 UJ | 12 U | 25 | 58 U | 2,400 U | 12 U | 110 |
| 1 1 2-Trichloroethane | uc/ko | | 12 U | 12 U | 12 U | 110 | 3,200,000 U | 12 U | 1,600 UU | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| Renzene | ua/ka | 60 or MDL | 12 U | 12 U | 12 U | 1110 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 0 | 58 U | 2,400 U | 12 U | 11 U |
| trans-1.3-Dichloropropene | uc/ka | | 12 U | 12 U | 12 U | 110 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 110 | 58 U | 2,400 U | 12 U | 11 U |
| Bromotorm | no/ka | | 1210 | 12 U | 12 U | <u>∩</u> !‡ | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 1 F |
| 4-Methyl-2-pentanone | uo/ka | 1,000 | 12 U | 12 U | 12 U | 110 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| 2-Hexanone | ua/ka | | 12JU | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UU | 12 U | 11 U | 58 U | 2,400 U | 12 U | 11 U |
| Tetrachloroethene | ug/kg | 1,400 | 12 U | 2 J | 12 U | 54 | 42,000,000 | 180 | 29,000 J | 7 6 | 25 | 90 | 14,000 | 2 1 | 110 |
| Toluene | ng/kg | 1,500 | 12 U | 12 U | 12 U | ן וו 11 ונ | 3,200,000 U | 12 C | 1,600 LU | 12 U | 11 U | 58 U | 2.400 U | 1210 | 110 |
| 1,1,2,2-Tetrachioroelhane | ug/kg | 600 | 12 U | 1210 | 12 U | 110 | 3,200,000 U | 12 U | 1,600 LU | 12 U | 11 U | 58 U | 2,400 U | 12 U | 1110 |
| Chlorobenzene | ug/kg | 1,700 | 12 U | 12 U | 12 U | 11 C | 3,200,000 U | 12:U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12 U | 110 |
| Ethylbenzene | ug/kg | 5,500 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UU | 12 U | | 58 U | 2,400 U | 121 | n 11 |
| Styrene | ug/kg | | 12 U | 12 U | 12 U | 11 0 | 3,200,000 U | 12 U | 1,600 UV | 12 U | 1110 | 58 U | 2,400 U | 120 | |
| Total xylenes | ug/kg | 1,200 | 12 U | 1210 | 12 U | 1 | 3,200,000 U | 12 U | 1,600 00 | 021 | | 080 | 2,400 0 | 0 71 | |
| 1,1,2-Trichioro-1,2,2-trifluoroethane | ug/kg | 1,000 | 12 U | 12 U | 12 U | 11 U | 3,200,0001U | 12 U | 1,600 UJ | | | 220 | 2,400 U | 12.0 | |
| cis-1,2-Dichloroethene | ug/kg | | 6 | 21 | 20 | | 3,200,000 U | L c | 13,000 J | 200 | 202 | | 2,400 0 | 2 - | |
| trans-1.2-Dichtoroethene | ug/kg | 30 | 10 / | 47 | 30 | | 3,200,000 U | 021 | 1,500 UU | | 170 | 20 27 | 2,400 0 | 2 | |
| Dichlorodilluoromethane | ug/kg | | 12:U | 12 U | 12 U | 110 | 3.200,000 U | 1210 | 1,600 UU | 021 | | 20107 | 2,400 0 | 22.2 | |
| Trichlorofluoromethane | ug/kg | | 12 U | 12 U | 12 U | 11 U | 3.200,000 U | 1210 | 1,600 UJ | 12 U | | | 2,400 U | 120 | |
| Methyl acetate | ug/kg | | 12 U | 12 U | 12 U | 11 0 | 3,200,000 U | 12 0 | 430 7 | 0.21 | 5 | 0 26 | 2,400 U | | |
| Methyl tert butyl ether | ug/kg | 120 | 12 U | 12 U | 12 U | 11 | 3,200,000 U | 12 0 | 1,600 UJ | 0 21 | | | 2,40010 | | |
| Cyclohexane | ug/kg | | 12 U | 12 U | 12 0 | 11 0 | 3,200,000 U | | 1,500 00 | <u>ח 21</u> | | 200 | 2,400 0 | 121 | |
| Methylcyclohexane | ug/kg | | 12 U | 12 U | 12 U | 11 C | 3,200,000 U | 12 U | 1,600 UJ | 21 | 0:11 | 58 U | 2,400 U | 121 | 217 |
| 1,2-Dibromoethane | ug/kg | | 12 U | 12 U | 12 U | 11 C | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 0 | 58 0 | 2,400 U | 12 U | n 11 |
| Isopropylbenzene | ug/kg | | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UU | 12 U | Ē | 58 U | 2,400 U | 12 0 | 11 0 |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 12 U | 12 U | 12 U | 110 | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 58 U | 2,400 U | 12.0 | 5 1 |
| 1,4-Dichlorobenzene | ng/kg | 8,500 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11 U | 5810 | 2,400 U | 12 U | 0 |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 12 U | 1,600 UJ | 12 U | 11.0 | 58IU | 2,400 U | 12.0 | 0 |
| 1,2-Dibromo-3-chiaropropane | ug/kg | | 12 U | 12 U | 12 U | 11 U | 3,200,000 U | 1210 | 1,600 UU | 12 0 | <u>א</u> ור 11 | 0 83 | 2,40010 | 721 | |
| 1,2,4-Trichlorobenzene | ug/kg | 3.400 1 | 12 U | 1210 | 12 U | 11 U | 3,200,0001U | 1210 | 1,600 UU | 1210 | | | 2,40010 | 1210 | |

ł

| ISamote ID -> | Units | TAGM | GPD-59 | GPD-59 | GPD-59 | GPD-59 | GPD-59 | GPD-59 | GPD-60 | GPD-61 | GPD-62 | GPD-62 | GPD-62 | GPD-63 | GPD-63 |
|---------------------------------------|---------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Depth - > | | 4046 | 7 - 11 | 2-11 DL | 11-14.3 | 11-14.3 DL | 14.3-15 | 14.3-15 DL | 4 - 7 | 15-17.8 | 11-15 | 15-16.5 | 16.5-19 | 1-4 | 15-16.6 |
| Date Sampled -> | | RSCO | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/22/2005 | 9/23/2005 | 9/23/2005 |
| VOLATILES | ug/kg | | | | _ | | - | _ | | | | | | | |
| Chloromethane | ug/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Bromomelhane | ug/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Vinyl chloride | ug/kg | 200 | 12 U | 52 U | 2 3 | 1,400 U | 920J | 1,400 U | 46 | 250 | 10.1 | 12 U | 35 | 14 U | 12 U |
| Chloroethane | ug/kg | 1,900 | 12 U | 52 U | 12 U | 1.400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Methylene chloride | ug/kg | 100 | 12 U | 30 BDJ | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Acelone | ug/kg | 200 | 12 U | 52 U | 5 J | 1,400 U | 4 ر ا | 1,400 U | 11 U | 13 U | 6.J | 12 U | 15 U | 14 U | 12 U |
| Carbon disulfide | ug/kg | 2,700 | ١L | 52 U | 5.1 | 1,400 U | 12 U | 1,400 U | Ĵ | 27 | 6 J | 5 1 | ۲ 6 | 2.1 | 12-U |
| 1,1-Dichloroethene | ug/kg | 400 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,1-Dichloroethane | ug/kg | 200 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Chloroform | ug/kg | 300 | 12 U | 52 U | 12 U | 1.400[U | 12 U | 1,400 U | 110 | 13 U | 14 U | 12 U | 1510 | 14 U | 12 U |
| 1,2-Dichloroelhane | ug/kg | 100 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 2-Butanone | ng/kg | 300 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,1,1,1-Trichloroethane | ng/kg | 800 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Carbon tetrachloride | ng/kg | 600 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Bromodichloromethane | ug/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,2-Dichloropropane | ng/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1.400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| cis-1.3-Dichloropropene | ng/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Trichloroethene | ng/kg | 002 | 240 J | 45 DJ | r 098 | 880 DJ | 2 3 | 5,300 D | 6 J | 51 | 14 U | 12 U | 15 U | 14 U | 12 U |
| Dibromochloromethane | ug/kg | | 12 U | 52 U | 130 | 1,400 U | 2 J | 1,400 U | 11 U | 13 U | 14 U | 12IU | 15 U | 14 U | 12 U |
| 1,1,2-Trichtoroethane | ug/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Benzene | ug/kg | 60 or MDL | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| trans-1,3-Dichtoropropene | ng/kg | | 12 0 | 52 U | 12]U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Bromoform | ug/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 じ | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 4-Methyl-2-pentanone | ng/kg | 1,000 | 12 U | 52 U | 12 U | 1,400 U | 15 G | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 2-Hexanone | ng/kg | | 12 U | 52 U | 12 U | 1.400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Tetrachloroelhene | ng/kg | 1,400 | 6 J | 52 U | 120 | 780 DJ | 2 J | 2,400 D | 11 U | 13U | 14 U | 12 U | 15 U | 14 U | 20 |
| Toluene | lug/kg | 1,500 | 12 U | 52 U | 12 U | 1,400 U | 12 0 | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,1,2,2-Tetrachloroethane | - By/6n | 600 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 10 | 12 U | 15 U | 14 U | 12 U |
| Chlorobenzene | п9/Хд | 1,700 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Ethylbenzene | ng/kg | 5,500 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 1210 |
| Styrene | ug/kg | | 12 C | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Total xylenes | ug/kg | 1,200 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 140 | 12 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ng/kg | 1,000 | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 011 | 13 0 | 14 U | | 150 | 14 U | 1210 |
| cis-1,2-Dichloroethene | ng/kg | | 210 | 150 D | 130 | 420 DV | r 00/L | | 007 | | 41 | | 0 | - - | |
| Irans-1,2-Dichloroethene | ng/kg | BUB | 99 | N 92 | 49 | 1,400 0 | 7 10 | | 707 | 00 | 4 | 2 2 2 | | | 21 21 |
| Uctionodiluoromethane | Ug/Kg | | 2 | 22 | 11 01 | 1 400 1 | 12 | 1 40011 | | 100 | | 1911 | 1510 | 1 | 101 |
| Mathul scatate | | | 10 11 | 2010 | 10 61 | 1 400 13 | 12 12 | 1.40011 | 1111 | 13 U | 14 U | 12 U | 15.0 | 14 U | 12 U |
| Mathy test high ather | uo/ka | 120 | 1210 | 52 U | 1210 | 1.400 U | 12 U | 1.400 U | 110 | 13 U | 14 U | 12 U | 15 U | 14 U | 12.U |
| Cvclohexane | ua/ka | | 12 0 | 52 U | 12.0 | 1,400 U | 12 U | 1,400 U | 110 | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Methyscyclohexane | uq/ka | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,2-Dibromoethane | ug/kg | | 12 U | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| Isopropylbenzene | ug/kg | | 12 0 | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 U | 13JU | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,3-Dichlorobenzene | ug/kg | 1,600 | 12 U | 52 U | 12 10 | 1.400 U | 12 U | 1,400 U | 11 U | 13 U | 14 U | 12 U | 15 U | 14 U | 12 U |
| 1,4-Dichlorobenzene | ug/kg | 8,500 | 12 U | 52 U | 12 U | 1.400 U | 12 U | 1,400 U | 1110 | 13 U | 14 U | 12 U | 15 U | 14 U | 120 |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 1210 | 52 U | 12 U | 1,400 U | 12 U | 1,400 U | 11 0 | 130 | 14 U | 121 | 15 U | 14 0 | 120 |
| 1,2-Dibromo-3-chioropropane | ug/kg | | 12 U | 52 U | 1210 | 1,400 U | 12 0 | 1,400 U | | 1310 | 140 | ביי בי | | | |
| 11,2,4-Trichlorobenzene | ug/kg | 3,400 % | 12 U | 1 52 U | 12IU | 1.40010 | 12/0 | 1,400,0 | 2112 | 13[0 | 1410 | 1210 | 151 | 1410 | ו טוצו |

RSCD = Recommended Sol Clearup Objectives RSCD = Recommended Sol Clearup Objectives 1,000 - Instans detected whus for organis.

ł
Pioneer Midier Avenue LLC Remedial Investigation Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - GPD Series

| Sample ID -> | Units | TAGM | GPD-64 | GPD-64 | GPU-65 | GPD-65 | GPD-66 | GPU-66 | GPD-67 | GPD-67 |
|---------------------------------------|--------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-------------|------------|
| Depth - > | · | 4046 | 11-15 | 11 - 15 DL | 11 - 15 | 17.2-19 | 11-15 | 11-15 DL | 11 - 15 | 11 - 15 DL |
| Date Sampled -> | | RSCO | 9/23/2005 | 9/23/2005 | 9/23/2005 | 9/23/2005 | 9/23/2005 | 9/23/2005 | 9/23/2005 | 9/23/2005 |
| VOLATILES | uq/kg | | | | | | | | _ | |
| Chtoromethane | ug/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Bromomethane | ug/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1.300 U | 11 U | 1,300 U |
| Vinyl chloride | ug/kg | 200 | 550 J | 1,500 U | 2 J | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Chioroethane | ug/kg | 1,900 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 110 | 1,300 U |
| Methylene chloride | ug/kg | 100 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Acetone | ug/kg | 200 | 12 U | 1,500 U | 16 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Carbon disulfide | ug/kg | 2,700 | 12 U | 1,500 U | 210 | 14 U | 11 U | 1,300 U | 11 10 | 1,300 U |
| 1.1-Dichloroethene | uq/kg | 400 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 68 | 1,300 U |
| 1.1.Dichloroethane | ua/ko | 200 | 12IU | 1,500 U | 1110 | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Chloroform | uo/ka | 300 | 12 U | 1.500 U | 11 U | 14 U | 11 U | 1,300 U | 1110 | 1,300 U |
| 1 2-Dichloroathane | ua/ka | 100 | 12 0 | 1.500 U | 11 U | 14 U | 11 U | 1,300 U | 1110 | 1,300 U |
| 2+Butanone | uo/ka | 300 | 12 U | 1.500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 1 1 1-Trichlomethane | io/ka | 800 | 1210 | 1.500 U | 11 U | 14 U | 11 U | 1.300 U | 11 U | 1,300 U |
| Carbon tetrachioride | ua/ko | 600 | 12 U | 1.500 U | 11 U | 14 U | 11 U | 1,300 U | 1110 | 1,300 U |
| Bromodichloromethane | ua/ka | | 12 U | 1.500 U | 11 U | 14 U | 5 H G | 1,300 U | 110 | 1,300 U |
| 1.2-Dichloropropane | ua/ka | | 12 U | 1.500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| cis-1.3-Dichloropropene | ua/ka | | 12 U | 1,500 U | 1110 | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Trichloroethene | ug/kg | 700 | 2 J | 1,500 U | 11 U | 14 U | 2600 J | 1,300 U | 5,800 | 5,800 D |
| Dibromochloromethane | ua/ka | | 12 U | 1,500 U | 1110 | 14 U | 11 U | 1,300 U | 110 | 1,300 U |
| 11.1.2-Trichloroethane | uq/ka | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Benzene | ua/ka | 60 or MDL | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 54 | 1,300 U |
| Irans-1.3-Dichloropropene | uq/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 1110 | 1,300 U |
| Bromoform | Ug/kg | | 12 U | 1,500 U | 11 0 | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 4-Melhyi-2-pentanone | ug/kg | 1,000 | 12 U | 1,500 U | 11 C | 14 0 | 11 U | 1,300 U | 11 U | 1,300 U |
| 2-Hexanone | ng/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Tetrachioroethene | ug/kg | 1,400 | 4 J | 600 DJ | 11 U | 14 U | 11 U | 370 DJ | 11 U | 340 DJ |
| Toluene | ng/kg | 1,500 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 55 | 1,300 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | 12 U | 1,500 U | 11 0 | 14 U | ±1 U | 1,300 U | 11 C | 1,300 U |
| Chlorobenzene | ug/kg | 1,700 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 50 | 1,300 U |
| Ethylbenzene | ug/kg | 5,500 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Styrene | ug/kg | | 12 U | 1,500 U | 11 C | 14 U | 11 C | 1,300 U | 11 C | 1,300 U |
| Total xylenes | ug/kg | 1,200 | 12 U | 1.500 U | 11 U | 14 () | n ₽ | 1,300 U | <u>11 U</u> | 1,300 U |
| t,t,2-Trichloro-1,2,2-trifluoroethane | ng/kg | 1,000 | 12 U | 1,50010 | 11 U | 14 U | 11 U | 1,300 U | 110 | 1,300 U |
| cis-1,2-Dichloroethene | ug/kg | | F 066 | 1,500 U | ٦ | 14 U | 510 J | 1,300 U | 600 J | 600 DJ |
| trans-1,2-Dichloroethene | ug/kg | 30 | 73 | 1,500 U | 110 | 14 0 | 1200 J | 1,300 U | 1,600 | 1,600 D |
| Dichlorodifuoromethane | ug/kg | | 12 U | 1,500 U | | 14 U | | 1,300 1 | | 0.002,1 |
| Trichtorofluoromethane | ug/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 1110 | 1,300 U |
| Methy! acetate | ug/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1.300 U | 110 | 1,300 U |
| Methyl tert butyl ether | ug/kg | 120 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11U | 1,300 U |
| Cyclohexane | ug/kg | | 12 U | 1,500 U | ∩ ₽ | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Methylcyclohexane | ug/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 1,2-Dibromoethane | ug/kg | | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| Isopropylbenzene | fay/6n | | 12 0 | 1.500 U | 11 U | 14 U | 11 U | 1,300 U | 11U | 1.300 U |
| 1.3-Dichlorobenzene | ng/kg | 1,600 | 12 U | 1,500 U | n 11 | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 1.4-Dichtorobenzene | 6y/6n | 8,500 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 1,2-Dichlorobenzene | ng/kg | 7,900 | 12 U | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 1.2-Dibromo-3-chloropropane | ug/kg | | 12 U | 1,500 U | 11 0 | 14 U | 11 U | 1,300 U | 11 U | 1,300 U |
| 1 2.4-Trichlornhenzene | 03/kg | 3,400 1 | 12 0 | 1,500 U | 11 U | 14 U | 11 U | 1,300 U | 110 | 1,300 U |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - MW-3D Area

| | | 11/11 | 1000 | 20100 | 0001 | 0034 01 | 0000 | 6.602 | C02-0 01 | 002.0 | CD3.3 DI | CD3.3 | GP3.3 DI | GP3.4 | GP3-4 DI |
|--|------------------|-----------|-------------|----------|-------------|----------|----------|---------|-------------|----------|-----------|-----------|----------|----------|----------|
| Sample IU -> | 2 | MON | | | | | | 47.07 | 11 11 11 | 1 1 1 | 11 00 0 | 1 1 1 1 | 11.17 | 11 | 10.14 |
| Deptn - > | | 4045 | 10-14 | + | 14 - 10 | 14 - 10 | 10-14 | 0.11-11 | 2751 - 41 | 100000 | | | 00140100 | 00100100 | 00/00/00 |
| Date Sampled -> | | RSCO | 02/27/06 | 02/27/06 | 02/27/06 | 02/21/06 | 90//2/20 | 07/2/20 | 90//2/20 | 00//2/20 | 90/12/20 | 07/2/2/00 | 00//7/20 | 00/02/20 | 01/2/20 |
| VOLATILES | | | | | | | | | | | | | 11 000 0 | | |
| Chloromelhane | LIG/kg | | 17 U | 73 U | 19 U | 91 U | 18 U | 20 0 | 00 N | 18.0 | 2,100 U | 19 U | 2,300 U | | 84 0 |
| Bromomethane | pg/kg | | 17,U | 73 U | 19 U | 91 U | 18 U | 20 U | 30 U | 1810 | 2,100 U | 19 U | 2,300 U | 1710 | 84 U |
| Vinyl chloride | Dy/Srl | 500 | C 009 | 600 D | 340 J | 340 D | 260 | 140 | 240 D | 2,200 EJ | 2,100 U | 210 | 2,300 U | C 068 | 0 068 |
| Chioroethane | ра/ка | 1,900 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 0 | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| Methylene chloride | ug/kg | 8 | 17/1 | 73 U | 19 U | 91 U | 18 U | 20 U | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| Acetone | LIQ/Kg | 200 | 6.1 | 73 U | <u>า</u> 61 | 91 U | 18 U | 20 U | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 0 ¥8 |
| Carbon disulfide | uo/ka | 2,700 | 17 U | 73 U | 19 U | 91 U | 18 U | 2 J | U 06 | 18 U | 2,100 U | 6 J | 2.300 U | 17 U | 84 U |
| 1.1-Dichloroethene | uc/kg | 400 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 U | ∩ 06 | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| 1.1-Dichlomethane | ua/ka | 200 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 U | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| Chloroform | uo/ka | 000 | 1210 | 73 U | 19 0 | 0116 | 18 U | 20 U | 90 U | 18 U | 2,100 U | 19 0 | 2,300 U | 17 U | 84 U |
| 1.2-Dichlomethane | uoko | 8 | 17 U | 73 U | 1910 | 91 U | 18 U | 20 U | 005 | 1810 | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| 2-Butacone | uc/ko | 88 | 17 U | 7310 | 19 U | 91 U | 1810 | 20 U | U 06 | 18 U | 2,100 U | 19 U | 5,300 U | 17 U | 84 U |
| 1 1 1-Trichtoroethane | | 800 | 17 U | 7310 | 1910 | 91 U | 1810 | 20 0 | 0 O O | 18 U | 2,100 U | 19 0 | 2,300 U | 17 U | 84 U |
| Carbon tetrachloride | tro/kg | 600 | 17 U | 73 U | 1910 | 91 U | 18U | 20 U | D 06 | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| Bromodichlomethane | no/ko | | 17 U | 73 U | 19 U | 91.10 | 18 U | 2010 | <u>) 06</u> | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| 1.9.Ochhorocroane | | | 12 11 | 73 U | 1910 | 91 U | 18 U | 2010 | 006 | 18 U | 2,100 U | 1910 | 2,300 U | 17 U | 84 U |
| cie-1 3.Dichtomonona | | | 12 11 | 1162 | N 61 | 91.10 | 18 U | 2010 | 006 | 1810 | 2.100 U | 19 fl | 2,300 U | 17 U | 84 U |
| Trichlomathena | in/ko | 200 | 17 11 | 73.0 | 43.J | 43 DJ | 18 U | 270 | 550 D | 18 U | 2,100 U | 48 | 2,300 U | 1710 | 84 U |
| Dihomobilaromothaso | r de la | | 121 | 73 11 | 101 | 91 11 | 11.83 | 2011 | 0106 | 18.0 | 2,100 U | 19 U | 2.300 U | 1710 | 84 U |
| UNUM Tradication | | | 17 11 | 1182 | 101 | 11 16 | 1810 | 2010 | 006 | 18 U | 2.100 U | 19(| 2.300 U | 1710 | 84 U |
| Berrond | 0/10 | RD or MD) | 11/11 | 11182 | (16) | 91 10 | 18 U | 20 U | 0 D | 18 U | 2.100 U | 19 0 | 2.300 U | 17 U | 84 U |
| bourgine twee 1.0 Diskloweeeee | AU AU | 1000 | 11/11 | 2 2 2 | 101 | 5 6 | 181 | 2011 | 1106 | 18 U | 2,100 U | 161 | 2.300 U | 17 U | B4 U |
| Browelow | 64/01 | | 114 | 73 U | 1161 | 0 16 | 18 U | 2010 | 90 U | 18 U | 2.100 U | 1910 | 2.300 U | 17 U | 84 U |
| A Mathul 2, nontanano | D4/01 | 1 000 | 121 | 1184 | 1911 | 91110 | 18[1] | 2011 | 106 | 1810 | 2.100 U | 1910 | 2.300 U | 1710 | 84 IU |
| | Callon Callon | 2000'1 | 1710 | 1182 | 1161 | 1 16 | 1810 | 20 0 | 00 D | 18 U | 2.10010 | 1910 | 2.300 U | 17 IU | 84 U |
| Tates beset with a set of the set | 54/0 | 1 400 | 124 | 1182 | 1101 | 01116 | 18.81 | 2011 | 1106 | 1811 | 2,100 U | 76 | 2.300 U | 17 U | 84 U |
| Telraco | By/61 | 1 500 | 121 | 731 | | 5 | 181 | 2011 | 9011 | 1810 | 2.100 U | 1910 | 2.300 U | 1710 | 8410 |
| 1 totuette | Rugar Notes | - COL | 1212 | 1021 | 101 | 9 2 6 | 181 | 5011 | 1106 | 1811 | 2,100 (1) | 1911 | 2.300 U | 17 10 | 84 U |
| Chlorobenzene | 10/kg | 1 700 | 17 [1] | 7310 | 161 | 9110 | 1810 | 2010 | 006 | 1810 | 2,100 U | 19 U | 2.300 U | 17 U | 84 U |
| Ethulhenzene | | 5 50D | 12 11 | 73 U | 1910 | 91 10 | 1810 | 2010 | 00 O | 18 U | 2.10010 | 1910 | 2,300 U | 17 10 | 84 U |
| Styrene | uc/kg | 200012 | <u>1110</u> | 73 U | 19 U | 9110 | 18.0 | 20 0 | 0106 | 18 U | 2,100 U | 19 U | 2,300 U | 17 0 | 84 U |
| Total Xvienes | uc/ka | 1.200 | 17 U | 73U | 19 U | 91 U | 18 U | 20 U | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| 1.1.2-Trichloro-1,2,2-trilluoroethane | Da/kg | 1,000 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 0 | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| cis-1,2-Dichloroethene | ра/ка | | r 006 | 0006 | 1,300 J | 1,300 D | 300 | 1,400 | 1,400 D | 2,500 | 2,500 D | 2,700 | 2,700 D | 180 J | 180 D |
| trans-1,2-Dichioroethene | lug/kg | 300 | 130 J | 130 D | 260 J | 260 D | 95 | 260 | 450 D | 140 | 2,100 U | 120 | 2,300 U | 14 J | 26 DJ |
| Dichlorodifluoromethane | pg/kg l | | 17 UJ | 73 U | 19 UJ | 91 U | 18 UJ | 20 UJ | 005 | 18 UJ | 2,100 U | 19 UU | 2,300 U | 17 U | 84 U |
| Trichlorofluoromethane | pg/kg | | 17 U | 73 U | 19 U | 91 LC | 18 U | 20 U | <u>л 06</u> | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| Methyl acetate | pg/kg | | 17 U | 73 U | 19 U | 91 U | 18 U | 20 N | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 U |
| Methyl tert butyl elher | 5x/6rt | 120 | 17 U | 73 U | 19 U | 91 U | 18 U | 2010 | ก 06 | 18 U | 2,100U | 19 0 | 2,300 U | 17 U | 84 U |
| Cyclohexane | pg/kg | | 17 U | 73 U | 19 0 | 91 U | 181 | 2010 | 0 06 | 18 U | 2,100 U | 180 | 2,300 U | 17 U | 84 U |
| Methylcyclohexane | 19/Kg | | 17 U | 73 U | 19 U | 91 U | 18 U | 2010 | 90 U | 18 U | 2,100 U | 1910 | 2,300 U | 17 U | 84 0 |
| 1.2-Dibromoethane | ug/kg | | 17 U | 73 U | 1910 | 91 U | 18 U | 2010 | 0 06 | 18 U | 2,100 U | 0.61 | 2,300 U | 17 U | 64 C |
| Isopropylbenzene | ug/kg | | 17 U | 73 U | 1910 | 91 U | 18 U | 20 U | 06 | 18 1 | 2,100 U | 061 | 2,300 U | 1710 | 84 U |
| 1,3-Dichlorobenzene | µg/kg | 1,600 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 U | 90 0 | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84 0 |
| 1.4-Dichlorobenzene | µg/kg | 8,500 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 U | 90 U | 18 U | 2,100 U | 1910 | 2,300 U | 1710 | 84 0 |
| 1,2-Dichlorobenzene | ug/kg | 7,900 | 17 U | 73 U | 19 U | 91 U | 18 U | 20 0 | 90 U | 18 U | 2,100 U | 19 U | 2,300 U | 17 U | 84.0 |
| 1,2-Dibromo-3-chloropropane | ру/вц | | 17 U | 73 U | 19:0 | 91 U | 18 U | 20 U | 0 0 O | 18 U | 2,100 U | 19.0 | 2,300 U | 0 21 | 84 0 |
| 1,2,4-Trichlorobenzene | 19/kg | 3,400 1 | 1710 | 73 U | 1910 | 91 U | 1810 | 2010 1 | 006 | 18 U | 2,100\U | 19/0 | 2.30010 | | 8410 |

ŧ

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - MW-3D Area

| Sample ID -> | Units | TAGM | GP3-4 | GP3-4 D | L GP3-5 | GP3-5 DL | GP3-5 | GP3-6 | GP3-6 | GP3-7 | GP3-8 | GP3-8 DL | GP3-8 | GP3-8 DL |
|--|---------|-------------|-------------|--------------|------------|----------|-----------|----------|----------|------------|-----------|-----------|-------------|------------|
| Deoth - > | | 4046 | 14 - 17.7 | 14-17.7 | 7 10-14 | 10-14 | 14 - 17.7 | 10-14 | 14 -17 | 14 - 16.7 | 10-14 | 10-14 | 14 -18 | 14 -18 |
| Date Samoled -> | | HSCO | 02/28/06 | 02/28/0(| 5 02/28/06 | 02/28/06 | 02/28/06 | 02/28/06 | 02/28/06 | 03/02/06 | 02/28/06 | 02/28/06 | 02/28/06 | 02/28/06 |
| VOLATILES | | | - | | _ | | | | | _ | | | | |
| Chloromethane | Lig/kg | | 17 U | B2 U | 18 0 | 80 U | 21 U | 18 U | 20 0 | 18 U | 18 U | 11.000 U | 20 U | 12,000 U |
| Bromomethane | µ0/kg | | 17 U | 82 0 | 18/0 | 80 U | 21 U | 181 | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| Vinvi chioride | ug/kg | 200 | 220 J | 220 D | 1,000,1 | 1,000 D | 42 | 260 | 28 | 4 J | 1,200 EJ | 11,000 U | 27 | 12,000 U |
| Chloroethane | р9/kg | 1,900 | 17 U | 82 | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| Methylene chloride | Lig/kg | 100 | 17 U | 82 U | 18 0 | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| Acetone | ua/ka | 200 | 17 U | 1 82 U | 1810 | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 7 1 | 12,000 U |
| Carbon disultide | uo/ko | 2.700 | 6 3 | 16 D | J 18 U | 0 08 | 21 U | 18 U | 4 | 2 J | 2 J | 11,000 U | 6 J | 12,000 U |
| 1 1-Dichloroethene | uo/ko | 400 | 1710 | 1 82 U | 1810 | 80 U | 21 U | 18 U | 20 U | 18 U | 49 J | 11,000 U | 101 | 12,000 U |
| 1 1-Dichlomethane | uo/ka | 200 | 17 U | 82 Ú | 1810 | 80 U | 21IU | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| Chlomform | | 300 | 17 U | U 82 | 1810 | 80 U | 21 U | 1810 | 2010 | 1810 | 18 U | 11,000 U | 20 0 | 12,000 U |
| 1 2-Dichloroethane | uo/ko | 100 | 17 U | 82 U | 1810 | 90 U | 21 U | 1810 | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| 2.Butanne | | 300 | 1710 | 82 0 | 1810 | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20(U | 12.000 U |
| 1 1 1. Trichtoroelhane | | 800 | 17 U | 82 | 1810 | 8010 | 21 U | 18 U | 2010 | 18.U | 18 U | 11,000 U | 20 U | 12,000 U |
| Carthon tatrachlorida | uo/ko | 600 | 17 U | 82 U | 1810 | 80 U | 21 U | 18 U | 2010 | 18 U | 181 | 11,000 U | 20 0 | 12,000 U |
| Romodichteromethane | DY/OI1 | 222 | 17 10 | 82 | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| 1 9. Dichloroconana | 101/04 | | 17 [] | 82 | 18(1) | 801 | 21 U | 18 U | 2010 | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| rie 1 9 Dickloroprocess | 04/01 | | 1711 | 68 | 1841 | BOIL | 25 11 | 181 | 2011 | 1810 | 1810 | 11.0001U | 2010 | 12.000 U |
| US-1, J-Datitutupioperie T-schorzathona | 5 AL | 002 | 1 022 | L US | 150.1 | 150 D | 20.1 | 16.1 | 2.1 | 181 | 10.000.1 | 10.000 DJ | 3.200 J | 3.200 DJ |
| Plicingloguigate | Parks 1 | 3 | | 3 | 1811 | 1 U8 | 0111 | 1811 | 2011 | 1811 | 1181 | 11 00011 | 2011 | 12 000 11 |
| Diblomicormologitemente | Ru/Rr | | | | | | 212 | 1911 | 2011 | 181 | 181 | 11 000 11 | 50116 | 12,000 [J |
| | Ru/Ari | CLASS OF | 14 | | | | 24 | 12 81 | 5011 | 181 | | 11 000 11 | 2011 | 12 000 11 |
| aliaztiao | Ru/Rr | | | 300 | | | 2 5 | 2 9 | 2000 | | | 11 000 11 | 100 | 19 000 11 |
| Irens-1,3-Dicenoropropene | 6y/6r | | | 200 | | | 212 | | 2011 | 181 | 181 | 11 000 11 | 000 | 12 000 11 |
| | Ru/An | 000 | | | | | 2 | 2 9 | 200 | | 181 | 11 000 11 | 1100 | 12 000 11 |
| 4-Metryl-2-pentanone | Pare 1 | ND.1 | | 200 | | | 2 12 | 100 | 100 | | | 11 000 11 | 2011 | 12 000 11 |
| Z-riexanone | 6y/6n | | | 26 | | | 1 | 2 4 | 2 22 | | 1 000 041 | 000011 | | 100 000 0 |
| Tetrachloroethene | ng/kg | 1,400 | <u> </u> | 32 | 1810 | 202 | 012 | 181 | 20.02 | 1810 | 100,001 | 1000'061 | - Inninal - | 130,000 11 |
| Toluene | р9/кд | 1,500 | 17 U | 82 | 18.0 | 80 0 | 210 | 181 | 20 0 | n ai | 1 40 | n 000'tL | 30 | 12,00010 |
| 1,1,2,2-Tetrachioroelhane | µg/kg | 89 | 17 U | 82 | 18 U | 80 U | 21 U | 18 U | 20 0 | 18 U | 181 | 11,000 U | 20 0 | 12,000 U |
| Chlorobenzene | pg/kg | 1,700 | 17 U | 82 | 18 U | 80 U | 21 U | 18 U | 20 U | 181 | 1810 | 0000'11 | 202 | 12,000 U |
| Ethylbenzene | µg/kg | 5,500 | 17 U | 82 0 | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 68 | 11,000 U | 2] | 12,000 U |
| Styrene | µg/kg | | 17 U | 0 82 | 18 U | 80 0 | 21 C | 18 U | 20 U | 18 U | 1810 | 11,000 U | 20 0 | 12,000 U |
| Total Xylenes | µg/kg | 1,200 | 17 U | 82 10 | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 68 J | 11,000 U | 21 | 12,000 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | µg/kg | 1,000 | 17 <u>U</u> | 82 () | 18 U | 80 0 | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 2010 | 12,000 U |
| cis-1,2-Dichloroethene | µg/kg | | 860 J | 860 D | 920 J | 920 D | 91 | 240 | 75 | ۲ <u>8</u> | 21,000 J | 21,000 D | 320 | 12,000 U |
| trans-1,2-Dichloroethene | hG/kg | 900 | 360 J | 360 D | 390 J | 390 D | 54 | 170 | 53 | 3.1 | 150 | 11,000 U | 121 | 12,000 U |
| Dichlorodifluoromethane | pg/kg | | 17 U | J 82 U | 18 U | 80 U | 21 UJ | 18 UJ | 20 UJ | 18 U | 18 UJ | 11,000 U | 20100 | 12.000 U |
| Trichlorolluoromethane | pg/kg | | 17 0 | 82 U | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 1810 | 11.000 U | 20 U | 12,000 U |
| Methyl acetate | h9/kg | | 17 U | 82 U | 18/U | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 2010 | 12,000 U |
| Methyl tert butyf elher | ba/kg1 | 120 | 17 U | 82 U | 18 0 | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| Cyclohexane | hg/kg | | 17 U | 82 U | 18 0 | 80 U | 21 U | 18 U | 20 U | 18 0 | 18 U | 11,000 U | 20 U | 12,000 U |
| Methylcyclohexane | pg/kg | | 17 U | 82 U | 18 U | 80 0 | 21 U | 18 U | 20 U | 18 U | 517 | 11,000 U | 20 0 | 12,000 U |
| 1,2-Dibromoethane | pg/kg | | 17 U | 82 0 | 18 U | 80 U | 21 U | 18 U | 2010 | 18 U | 18 U | 11,000 U | 20 0 | 12,000 U |
| Isopropylbenzene | uq/kg | | 17 U | 0 82 | 18 0 | 008 | 21 U | 18 U | 20 0 | 18 U | 18 U | 11,000 U | 20 0 | 12,000 U |
| 1,3-Dichlorobenzene | по/ка | 1,600 | 17 U | 82 | 18 U | 80 U | 레미 | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12,000 U |
| 1,4-Dichlorobenzene | pg/kg | 8,500 | 17 U | - 62 U | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 U | 12.000 U |
| 1,2-Dichlorobenzene | pg/kg | 7,900 | 17 U | 0 82 | 18 U | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 0 | 12,000 U |
| 1,2-Dibromo-3-chloropropane | D3/61 | | 17 U | 1 82 U | 18JU | 80 U | 21 U | 18 U | 20 U | 18 U | 18 U | 11,000 U | 20 20 | 12.000 U |
| 1,2,4-Trichlorobenzene | µg/kg | 3,400 1 | 1710 | 1 82 | 1810 | 8010 | 210 | 18 0 | 2010 | 18 U | 18 0 | 11,000JU | 2010 | 12,000 U |

,

Pioneer Midler Avenue LLC Remedial investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - MW-3D Area

| Sample ID -> | Units | TAGM | GP3-9 | GP3-9 DL | GP3-9 | GP3-9 DL | GP3-10 | GP3-10 DL | GP3-11 | GP3-11 DL | GP3-12 | GP3-12 DL | GP3-13 | GP3-13 DL | GP3-13 |
|---------------------------------------|---------|-----------|----------|------------|-----------|-------------|----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|----------|
| Depth - > | | 4046 | 10 -14 | 10 -14 | 14 -18 | 14-18 | 14 - 18 | 14 - 18 | 14 - 17.5 | 14 - 17.5 | 14 - 17.5 | 14 - 17.5 | 10-14 | 10 - 14 | 14 - 17 |
| Date Sampled -> | | RSCO | 02/28/06 | 02/28/06 | 02/28/06 | 02/28/06 | 03/01/06 | 03/01/06 | 03/01/06 | 03/01/05 | 03/01/06 | 03/01/06 | 03/01/06 | 03/01/06 | 90/10/20 |
| VOLATILES | | | | | | | _ | | | _ | | | | | |
| Chloromethane | l µg/kg | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 1001 | 19 U | 0196 | 19 U | 85 U | 18 U |
| Bromomethane | µ9/k9 | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 180 | 19 U | 36 U | 1910 | 85 U | 1810 |
| Vinvi chloride | hg/kg | 200 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 240 | 2,400 U | 1,100 J | 1,100 D | 660 J | 650 D | 530 | 530 D | 50 |
| Chloroethane | Dg/kg | 1,900 | 2,200 U | 44,000 U | 2,500 U | 620.000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 96 U | 19 U | 85 U | 18 U |
| Methylene chloride | 10/kg | 100 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 | 19 U | 96 U | 1910 | 85 U | 18IU |
| Acetone | ua/ka | 200 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19 C | 96 U | 19 U | 85 U | 18IU |
| Carbon disutfide | ua/ka | 2.700 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | ٩ ۲ | 2,400 U | 4 | 1000 | 4 J | 12 DJ | 19 U | 85 U | 21 |
| 1 1-Dichloroethene | ua/ka | 400 | 2.20010 | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 0 | 19 U | 96 U | 19 0 | 85 U | 18 U |
| t 1-Dichloroethane | ua/ka | 200 | 2.20010 | 44.000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 96 U | 19 0 | 85 U | 18 U |
| Chloroform | un/ka | 300 | 2.20010 | 44,000 U | 2.500 U | 620.000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 0 96 | 19 0 | 85 U | 18 U |
| 1 2-Dichlomethane | uo/ko | 100 | 2.200 U | 44.000 U | 2.500 U | 620,000 U | 2010 | 2,400 U | 21 U | 1001 | 19 U | 96 U | 19 0 | 85 U | 18 U |
| 2-Butanone | uc/ka | 300 | 2.200 U | 44,000 U | 2.500 U | 620,000 U | 20 0 | 2,400 U | 21 U | 100 U | 19 U | 36 U | 19 U | 85 U | 18 U |
| 1 1 1-Trichloroelhane | ucka | 800 | 2.200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 1001 | 19 U | n 96 | 19 U | 85 U | 18 U |
| Carbon talrachloride | uc/ka | 600 | 2.200 U | 44.000 U | 2,500 U | 620,000 U | 20 0 | 2,400 U | 21 U | 1001 | 19 U | 96 N | 19 U | 85 U | 18 U |
| Bromodichteromethane | ua/ka | | 2.200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 96 U | 19 0 | 85 U | 18 U |
| 1 2-Dichlononooane | uo/ka | | 2.20010 | 44.000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 0 96 U | 19 U | 85 U | 1810 |
| rie-1 3. Dichlomoronene | 10/kg | | 2,200 U | 44 000 U | 2.500 U | 620,000 U | 20 U | 2,400 U | 21 U | 1 00F | 19 U | 9610 | 19 U | 85 U | 18 U |
| Trichlonothane | 10/kg | 200 | 3.400 | 44.000 U | 2.200 J | 620.000 U | 6 3 | 2,400 U | 2 J | 100 U | 063 | 96 U | 19 U | 85 U | 18 U |
| Dihomochinomethane | un/ka | - | 2.20010 | 44.000 U | 2,500.U | 620.000 U | 20 U | 2.400 U | 21 U | 100 U | 19 U | 0 96 | 19 0 | 85 U | 18 U |
| t 1 2. Trichlomethane | un/ko | | 2,200 U | 44,000 U | 2.500 U | 620,000 U | 20 U | 2,400 U | 21 U | 1001 | 19 U | 96 U | 19 U | 85 U | 18 U |
| Rentende | In /kg | 60 or MDI | 2,20011 | 44.000 U | 2.500 U | 620.000 U | 2010 | 2.400 U | 21 U | 100 U | 1910 | 36 U | 1910 | 85 U | 18 U |
| trans-1.3-Dickloropropene | u a/ka | | 2.200 U | 44 000 U | 2.500 U | 620,000 U | 2010 | 2,400 U | 21 U | 100 U | 19 U | 36 U | 19 0 | 85 U | 18 U |
| Bromoform | uo/ka | | 2.200 U | 44.000 U | 2.500 U | 620.000 U | 20 U | 2,400 U | 21 U | 1001 | 19 U | 36 U | D 61 | 85 U | 18 U |
| 4.Mathul-2-nantanone | 110/kg | 1 000 | 2 200 11 | 44,000 U | 2.50010 | 620.000 U | 2010 | 2.400 U | 21 U | 1001 | 1910 | 96 U | 19 U | 85 U | 1810 |
| | uo/ko | 2021 | 2.200 U | 44.000 U | 2.500 U | 620,000 U | 20 0 | 2,400 U | 21 U | 1001 | 1910 | 0 96 | 19 U | 85 U | 18 U |
| Totrochlaraothana | olko - | 1 400 | 830,000 | R30.000 BD | 4.200.000 | 4.200.000 D | 42 U | 2.400 U | 21 U | 1001 | 19 U | 0 96 | 1910 | 85 U | 18 U |
| Tetractivoluceuserie Totucone | | 1 500 | 2 200 11 | 44.000 [] | 540.1 | 620.000 U | 2010 | 2.400 U | 21 0 | 1001 | 19 U | 96 U | 19 U | 85 U | 18 U |
| 1 1 0 0.Tetrachteroalhane | 10/01 | 600 | 0 2021 | 44 000 81 | 250010 | 620.000 U | 20 U | 2,400 U | 21 U | 1001 | 1910 | 36 U | 19 U | 8510 | 18 U |
| Chlorohenzene | | 1.700 | 2 200 11 | 44,000 U | 2.500 U | 620.000 U | 20 0 | 2,400 U | 21 U | 1001 | 1910 | U 36 | 19 U | 85 U | 18 U |
| Ethulhenzene | n n ko | 5 500 | 2,200 [] | 44.000 U | 2.500 U | 620.000 U | 20 U | 2.400 U | 21 U | 100 U | 19 U | 96 U | 19 0 | 85 U | 18 U |
| Styrene | uo/ka | | 2.200 U | 44.000 U | 2.500 U | 620,000 U | 20 U | 2.400 U | 21 U | 100 U | 19 0 | 96 U | 19 U | 85 U | 18 U |
| Total Xvienes | uc/ko | 1.200 | 2.200 U | 44.000 U | 1.400 J | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 96 U | 19 U | 85 U | 18 U |
| 1.1.2-Trichloro-1.2.2-trifluoroethane | Da/kg | 1,000 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19 U | 96 U | 19 U | 85 U | 18 U |
| icis-1.2-Dichloroethene | uo/kg | | 2,200 | 44.000 U | 2,500 U | 620,000 U | 2,100 | 2,100 DJ | 860 J | 860 D | 910 D | 910 D | 130 | 170 D | 30 |
| Itrans-1.2-Dichtoroethene | pa/kg | 300 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 180 | 510 DJ | L 021 | 120 D | Г 98 | 86 DJ | 20 | 26 DJ | 18 U |
| Dichtorodifluoromethane | pg/kg | | 2,200 W | 44,000 U | 2,500 UJ | 620,000 U | 20 W | 2,400 U | 21 12 | 100 (| 19 11 | 96 U | 19 UU | 85 U | 18 U |
| Trichlorofluoromethane | by/6n | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 10 1 | 19 0 | 96 U | 1910 | 85 U | 18U |
| Methyl acetate | By/6rt | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 19(U | 96 U | 1910 | 85 U | 18 U |
| Methyl tert butyl ether | 110/kg | 120 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 51 N | 100 U | 19 C | 96 U | 19 U | 85 U | 181 |
| Cyclohexane | uq/kg | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 0 | 2,400 U | 21 N | 100 U | 19 U | 96 U | 19 U | 85 U | 18 U |
| Methylcyclohexane | ug/kg | | 2,200 U | 44,000 U | 1,400 J | 620.000 U | 20 U | 2,400 U | 21 U | 1001 | 19 U | 96 U | 19 U | 85 U | 18 U |
| 1,2-Dibromoethane | ид/Ка | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 0 | 2,400 U | 21 U | 100 C | 19 U | 96 0 | 19 U | 85 U | 18 U |
| Isopropylbenzene | Lig/kg | | 2,200 U | 44,000 U | 370 J | 620,000 U | 20 0 | 2,400 U | 21 U | 1001 | 19 U | 96 U | 19 U | 85 U | 18IU |
| 1.3-Dichlorobenzene | ug/kg | 1,600 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 1 | 2,400 U | 21 U | 1001 | 19 U | 96 U | 19 U | 85 U | 18 U |
| 1,4-Dichlorobenzene | pg/kg | 8,500 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 1001 | 19 U | 0 96 | 19 U | 85 U | 18 U |
| 1,2-Dichlorobenzene | µg/kg | 2,900 | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 20 U | 2,400 U | 21 U | 100 U | 1910 | 96 U | 19 U | 85 U | 1810 |
| 1,2-Dibromo-3-chloropropane | µg/kg | | 2,200 U | 44,000 U | 2,500 U | 620,000 U | 2010 | 2,400 U | n 12 | 1001 | 1910 | 3610 | 0.82 | | 180 |
| 1,2,4-Trichlorobenzene | µg/kg | 3,400 | 2,2001U | 44,000 U | 2,500)U | 620,000 U | 2010 | 2,400 U | חונצ | 1001 | 18IU | 2010 | 1910 | 200 | |

RSCO = Recommended Soil Cleanup Objectives 1,000 - indcates detected value for organics.

1

Page 16 of 26

| | | Data for | |
|----------|-----------|-----------|------------|
| | ort | e Boring | it Area |
| nue LLC | tion Rep | eoProbe | vation - B |
| dler Ave | nvestiga | hase 3 G | a Deline |
| meer Mi | mediai li | ble 8 - P | urce Are |
| ă | æ | Ë, | õ |

| Samola ID -> | IInits TAG | M GPB1-1 | GPB1-1 DL | GPB1-2 | GPB1-2 DL | GPB1-3 | GPB1-3 DL | GPB1-4 | GPB1-5 | GPB1-6 | GPB1-7 | GPB1-8 | GPB1-9 | GPB1-9 DL | GPB1-10 |
|---------------------------------------|--------------|---------------|-----------|-------------|--------------|-----------|--------------|-----------|----------|-------------|----------|-------------|----------|-------------|-------------|
| Depth - > | 4 4 | 16 14-17 | 14 - 17 | 14 - 18 | 14 - 18 | 10 - 11.8 | 10 - 11.8 | 14 - 17.6 | 14 - 17 | 14 - 17.7 | 14 - 18 | 14 - 18 | 14-17.4 | 14 - 17.4 | 14 • 16.8 |
| Date Samoled -> | RSC | 20 03/02/06 | 03/02/06 | 03/02/06 | 03/02/06 | 03/03/06 | 03/03/06 | 03/03/06 | 03/03/06 | 03/03/06 | 03/06/06 | 03/06/06 | 03/09/06 | 03/09/06 | 90/60/20 |
| VOLATILES | | | | | | | | | _ | | | | | | |
| Chloromethane | 03/Kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| Bromomelhane | ba/kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800.000 U |
| Vinyl chlorida | ug/kg 20. | 0 2,600 U | 52,000 U | SSS 630 J S | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,300 J | 260.000 U | 510 E | 610,000 U | 1,800,000 U |
| Chloroethane | ug/kg 1,9t | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| Methylene chloride | ug/kg 10. | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310.000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260.000 U | 20 U | 610,000 U | 1,800,000 U |
| Acetone | ug/kg 20 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310.000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260.000 U | L 8 | 610,000 U | 1,800,000 U |
| Carbon disulfide | ug/kg 2,7(| 20 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | L L E | 610,000 U | 1,800.000 U |
| 1,1-Dichloroethene | ug/kg 40 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260.000 U | 25 | 610,000 U | 1,800,000 U |
| 1,1-Dichloroethane | ug/kg 20 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 24 N | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| Chioroform | ug/kg 30 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2.500 U | 260,000 U | 20 U | 610,000 U | 1.800.000 U |
| 1,2-Dichloroethane | ug/kg 10 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2.500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| 2-Butanone | ug/kg 30. | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2.500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| 1,1,1-Trichloroethane | ug/kg 80. | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 0 | 610,000 U | 1,800,000 U |
| Carbon tetrachioride | 03/kg 60 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 210 | 260.000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| Bromodichtoromethane | ug/kg | 2,600 U | 52,000 U | 2,700 U | 550.000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 2010 | 610,000 U | 1,800,000 U |
| 1,2-Dichloropropane | µg/kg | 2.600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620.000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 2010 | 610,000 U | 1,800,000 U |
| cis-1,3-Dichloropropene | µg/kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 2010 | 610,000 U | 1,800,000 U |
| Trichloroethene | µg/kg 70 | 0 28,000 | 27,000 DJ | 21,000 | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 25 | 110,000 J | 2,500 U | 260.000 U | 8,100 E | 140,000 DJ | 440,000 J |
| Dibromochloromelhane | pg/kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1.800.000 U |
| 1,1,2-Trichloroethane | pg/kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800.000 U |
| Benzene | hg/kg 60 or | MDL 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310.000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| trans-1,3-Dichloropropene | ng/kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610.000 U | 1,800,000 U |
| Bromoform | 6x/6rt | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 24 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1.800,000 U |
| 4-Methyl-2-pentanone | 10/kg 1.0 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260.000 U | 20 U | 610,000 U | 1.800.000 U |
| 2-Hexanone | D3/kg | 2,600 U | 52.000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2.500 U | 260,000 U | 2010 | 610.000 U | 1.800.000 U |
| Tetrachloroethene | µg/kg 1,4 | 00 290,000 J | 290,000 D | 6.300,000 | 6,300,000 BD | 6,900,000 | 6,900,000 BD | 4,400,000 | 42 | 4,700,000 B | 2,500 U | 2,800,000 | 58,000 E | 9,800,000 D | 67,000,000 |
| Toluene | ug/kg 1,5, | 00 2,600 U | 52,000 U | 930 J | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 96 | 610,000 U | 1,800,000 U |
| 1,1,2,2-Tetrachioroethane | hg/kg 60 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610.000 U | 1.800,000 U |
| Chlorobenzene | ug/kg 1.7 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 230,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1.800.000 U |
| Ethylbenzene | LIG/Kg 5.5 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21U | 260,000 U | 2,500 U | 260.000 U | L 8 | 610.000 U | 1,800,000 U |
| Styrene | и9/кд | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 0 | 610,000 U | 1,800,000 U |
| Total Xylenes | ug/kg 1.2 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 6 | 610.000 U | 1,800,000 U |
| 1,1,2-Trichloro-1,2,2-tritluoroethane | µg/kg 1.0 | 00 2,600 U | 52,000 U | 2,700 U | 550.000 U | 310,000 U | 620,000 U | 290,000 U | 0 H2 | 260,000 U | 2.500 U | 260,000 U | 2010 | 610,000 U | 1,800,000 U |
| cis-1,2-Dichloroethene | µg/kg | 9,400 | 7,900 DJ | 36,000 | 550,000 U | 310.000 U | 620,000 U | L 000/67 | 200 | 260,000 U | 17,000 | 58,000 J | 4,300 E | 610.000 U | 1,800,000 U |
| trans-1.2-Dichloroethene | 119/kg 30 | 0 2.600 U | 52,000 U | 230J | 550.000 U | 310,000 U | 620,000 U | 290,000 U | 13.1 | 260,000 U | 2,500 U | 260.000 U | 260 | 610,000 U | 1,800,000 U |
| Dichtorodifluoromethane | µg/kg | 2.600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290.000 U | 210 | 260,000 U | 0.00612 | 260,000 1 | | 0,000,010 | 1,800,000 U |
| Trichlorofluoromethane | µg/kg | 2,600 U | 52.000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 7,500 U | 7.000,002 | 20102 | 610,000 U | 1,800,000 U |
| Methyl acetate | µg/kg | 2,600 U | 52,000 U | 2.700 U | 550,000 U | 310,000 U | 620,000 U | 290.000 U | 21 U | 260,000 U | 2,500 U | 260.000 U | 2010 | 610,000 U | 1,800,000 U |
| Methys tert butys ether | 12 12 12 | 0 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260.000 U | 2,500 U | 260,000 U | 2010 | 610.000 U | 1,800,000 U |
| Cyclohexane | 54/6d | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500U | 260,000 U | 200 | 610,000 U | 1,800,000 U |
| Mathylcyclohexane | 10/kg | 2,600 U | 52,000 U | 630 J | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260.000 U | 2,500 U | 260,000 U | 69 | 610,000 U | 1,800,000 U |
| 1.2-Dibromoethane | Day 61 | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310.000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,600,000 U |
| Isopropylbenzana | hQ/kg | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 20 U | 610,000 U | 1,800,000 U |
| 1,3-Dichlorobenzene | 1,6 1,6 1,6 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2,500 U | 260,000 U | 201 | 610,000 U | 1.800,000 U |
| 1,4-Dichlorobenzene | µg/kg 8,5 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 310 | 260.000 U | 2.500 U | 260,000 U | 20 0 | 610,000 U | 1,800,000U |
| 1,2-Dichlorobenzene | µg/kg 7,9 | 00 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 21 U | 260,000 U | 2.500 U | 260,000 U | 20 1 | 610.000 U | 1.800.000 U |
| 1,2-Dibromo-3-chloropropane | ру/ец | 2,600 U | 52,000 U | 2,700 U | 550,000 U | 310,000 U | 620,000 U | 290,000 U | 210 | 260,000 U | 2,500 U | 260,00010 | 2010 | 610,000 U | 1,500,000 |
| 1,2,4-Trichlorobenzene | µg/kg 3,4 | 00 1 72,600 U | 52,0001U | 2,700 U | 550,000 lu | 310,000 U | 620,000 U | 290,00010 | 1 112 | 260,00010 | 2,000ju | - 710001002 | zuluz | proving | 1.800,000 |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - B1 Area

| | 10-01 | | 2001 10 Di | 11 1000 | CDD+ 11 DI | 01 1007 | CDR1.10 | GDR1.19 | GPR1-10 DI | GPR1-13 | GPR1-13 | GPB1-14 | GPB1-15 | GPB1-16 | GPB1-16 |
|---------------------------------------|---------------------------------------|------------|--------------|----------------|------------|----------|----------|------------|------------|----------|-------------|-----------|----------|----------|----------|
| Sample ID -> | Curs | WOW . | GLOI-10 DL | Grbi-II | | 05.4 | 10-01 | 11 10 | 44 - 40 | 6 - 10 | 14.17.9 | 6-10 | 14.17 | 15.5-17 | 17-18 |
| Depth - > | | 0505 | 14 - 10.0 | 1 - 61 | 1.41 | + - C-7 | 1 - 01 | 0 - + | 000000 | 2010100 | 2010100 | 2010100 | 02/12/06 | 04140106 | Da/HO/DE |
| Date Sampled -> | | HSCO | 03/03/06 | 03/061/06 | 90/20/20 | 90,50,50 | 00/60/50 | 901/201/20 | - onisinen | 001100 | | 000100 | 200170 | 205120 | |
| VOLATILES | | | | | | | | | ., | | | 100 | 1100 | 110000 | 14.64 |
| Chloromethane | µg/kg | | 3,700,000 U | 2010 | 1.900 U | 1,800 U | 2,100 U | 20 U | 1001 | л ооц | 2410 | | 0.02 | Z,000 U | 1 1 1 |
| Bromomethane | LIQ/Kg | | 3,700,000 U | 20 U | 1.900 U | 1,800 U | 2,100 U | 20 U | 100 U | 1001 | 24 U | 22 0 | 2012 | 2,600 00 | 14 0.1 |
| Vinyl chloride | 119/kg | 200 | 3,700,000 U | Sec 1.500 J.S. | 1,500 DJ | 360 J | L 900,1 | 130 | 130 D | 1,200 | 1 CE | 31 | 2010 | 680.0 | 0/1 |
| Chloroethane | 10/kg | 1,900 | 3,700,000 U | 20 U | 1.900[U | 1,800 U | 2,100 U | 20 U | 1000 | ח 100 | 24IU | 22 [] | 2010 | 2,600 U | 14 0 |
| Methylene chloride | D3/01 | 8 | 3,700,000 U | 20 0 | 1.900 U | 1,800 U | 2,100 U | 20 U | 100 U | 54 J | 24 U | 22 U | 20 0 | 2,600 U | 14 U |
| Acelone | D3/Rd | 200 | 3,700,000 U | 71 | 1,900 U | 1,800 U | 2,100 U | 16 | 1001 | 39 J | 11 J | 22 U | 20 U | 2,600 U | 10.1 |
| Carbon disulfide | 10/kg | 2,700 | 3,700,000 U | 61 | 1,900 U | 1,800 U | 2,100 U | L 21 | 1001 | 100 U | 3 J | 22 U | 20 U | 2,600 U | 6.1 |
| 1.1-Dichloroethene | noka | 400 | 3.700,000 U | 14.1 | 1,900 U | 1,800 U | 2,100 U | 20 U | 100 U | 100 U | 24 U | 22 U | 20 1 | 2.600 U | 14 U |
| 1 1-Dichloroethane | no%o | 200 | 3.700.00010 | 2010 | 1,900 U | 1,800 U | 2,100U | 20 U | 1001 | 100 U | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| Chloroform | 10 An | 900 | 3 700 000 11 | 11 06 | 1 900 L | 1,80010 | 2.100 U | 2010 | 1001 | 100 U | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| Vited Unite | n alla | 90 | 3 700 000 U | 2011 | 1.900 | 1.80010 | 2.100 U | 20 U | 1001 | 100 U | 24 U | 22 U | 20 13 | 2,600 U | 14 U |
| D-Butanono | no/ku | 300 | 3.700.000 11 | 2010 | 1.900 U | 1.800 U | 2.100 U | 20 U | 1001 | 1001 | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| 4 1 1. Trichlocothana | 10/kg | 808 | 3.700.000 U | 2010 | 1.900 U | 1.800 U | 2.100 U | 2010 | 100 L | 1001 | 24 U | 22 U | 20 0 | 2,600 U | 14 U |
| Corbon Introduction | D I D | en o | 3 200 000 11 | 2UI1 | 1.900 U | 1,800 [] | 2.100 U | 2010 | 1001 | 1001 | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| Carlown reuckulturine | Bunn | 3 | 3 700 000 1 | | 1 900 1 | 1 800 11 | 2.1001 | 2010 | 100 U | 1001 | 24 U | 2210 | 20 U | 2.600 U | 14 U |
| | 2010 | T | 11000002.5 | 1100 | 1 900 1 | 1,80011 | 2.100 U | 20 U | 1001 | 1001 | 24 U | 22 U | 20 0 | 2.600 U | 14 U |
| | L L L L L L L L L L L L L L L L L L L | ſ | 3 700 000 11 | 2011 | 1 900 1 | 1.80010 | 2.100 U | 201 | 1001 | 100 L | 24 U | 22 U | 2010 | 2,600 U | 14 U |
| | Rugar | 200 | 0,200,000 11 | 5 600 1 | E SMID | 730.1 | 2 100 LI | 2011 | 100 U | 1001 | 24 U | 22 U | 2010 | 2,600 U | 14 U |
| | RUAR | | 11 000 004 0 | 1100 | 1 0101 | 1 800 11 | 0 10011 | 2013 | 10001 | 1001 | 24 U | 22 U | 2010 | 2.600 U | 14 U |
| DIDORIUMINI OLIGUIAURIA | Bu An | | 1000000 | | 1 200011 | 1.80011 | 2.100 U | 2010 | 100 U | 1001 | 24 U | 22.0 | 20 U | 2,600 U | 14 U |
| 1,1,2,1,110,110,000,000,000 | Ruff | turi se os | 1000000-0 | | | | 0 10011 | 100 | 13001 | 1001 | 2410 | 22 U | 2010 | 2,600 U | 14 U |
| Benzene | By/6r | | 100000000 | | 11000 | 1 800 11 | 0 10011 | 2011 | 1001 | 10001 | 24 (1 | 22 U | 2010 | 2.600 U | 14 U |
| | Hu St | | 1100000000 | 201 | 1 0001 | 1 BOOLE | 2 10011 | 1106 | 1001 | 1001 | 24 11 | 2210 | 20 U | 2.600 U | 14 U |
| | Sub- | | 11000 002 0 | | | 1 800 11 | 2 10011 | 2011 | 1001 | 1001 | 24 U | 22 U | 2010 | 2.600 U | 14 U |
| 4-Maunyt-2-pantarione | Rufin | - | | 1 100 | 10001 | | 11001 0 | 1100 | 10011 | | 24 11 | 22 U | 2010 | 2.600 U | 14 U |
| Z-Hexanone | fly/6r | 007.5 | 0 000 000 to | | | | 0 1001 | 100 | 52 B.D. | 11005 | 54 11 | 2011 | 2013 | 2.60010 | 14 U |
| Tetrachloroethene | 6x6r | 2 | 1 000'000'1 | | 1 1000 | 1 00011 | 1001 | | 10011 | 1001 | 11 40 | 2011 | 5011 | 2 600 U | 14 U |
| Toluene | hg/kg | NXC. | 3,/101,001 0 | | n nos'1 | 0000 | 0.001.0 | | 2007 | | 5170 | 18 | 1100 | 9 600 1 | 1411 |
| 1,1,2,2-Tetrachloroelhane | пд/кд | 800 | 3,700,000 U | 2010 | 1,900 | 1,500 U | 0 001'Z | 1 100 | 000 | 0.001 | 5 | 2 1 | | 0 600 1 | 1 24 |
| Chlorobenzene | ng/kg | 1,700 | 3,700,000 U | 2010 | 1,900U | 1,800 U | 2,100 U | <u>102</u> | 0.001 | | | 2 2 | | | 5 |
| Ethylbenzene | µg/kg | 5,500 | 3,700,000 U | 20 0 | 1,900U | 1.800 U | 2,100 U | 200 | 1000 | D DOL | 240 | | | 20000 | |
| Styrene | 11g/kg | | 3.700.000 U | 2010 | 1,900 U | 1,800 U | 2,100 U | 500 | 0.001 | | N 42 | 7 | 200 | | |
| Total Xylenes | µg/kg | 1,200 | 3,700,000 U | 20 0 | 1,900 U | 1,800 U | 2,100 U | 2010 | 1001 | 100 | ∩ ₩7 | 0 22 | | 2,000 0 | * |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | pg/kg | 1,000 | 3,700,000 U | 20 U | 1,900 U | 1,800 U | 2,100 U | 20 U | 1001 | 1001 | 0 57 | <u> 1</u> | | z,000 U | |
| cis-1, 2-Dichloroethene | 19/kg | | 3,700,000 U | 18,000 J | 18,000 D | 5,200 | 8,200 | 830 | 0 066 | 0094'1 | 48 | | 202 | 0,000 | 1 1 |
| trans-1.2-Dichtoroethene | D3/61 | 8 | 3,700,000 U | 260 J | 430 DJ | 1,800 U | 2,100U | 49 | 25 DJ | 26 J | | - | 7102 | 2,600 0 | <u>+</u> |
| Dichlorodilluoromethane | 16y/6rl | | 3,700.000 U | 2010 | 1,900 U | 1,800 U | 2.100 U | 20 0 | 1001 | | 240 | 7 | 11 02 | 2,000 | 5 I I |
| Trichtorofluoromethane | pg/kg | | 3,700,000 U | 20 П | 1,900 U | 1,800 U | 2,100 U | 2010 | 1001 | D M | 0 47 | | 20.02 | 7,000 0 | |
| Methyl acetate | 51g/kg | | 3,700,000 U | 200 | 1,900 U | 1,800 U | 2,100 U | 20 U | 100 | 1001 | 24 0 | 22 U | 2010 | 2,600 U | 1410 |
| Methyl tert butyl ather | pa/gu | 120 | 3,700,000 U | 20 0 | 1,900 0 | 1,800 U | 2,100 U | 20 U | 100 U | 100 | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| Cvctohexane | pa/kg | | 3,700,000 U | 2010 | 1,900 U | 1,800 U | 2,100 U | 20 0 | 100 U | 100 U | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| Methylovofothexane | uo/ko | | 3,700,000 U | 2010 | 1,900 U | 320 J | 2,100 U | 20 U | 100 | 1001 | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| 1 2-Dibromnethane | ua/ka | | 3,700,000 U | 2010 | 1,900 U | 1,800 U | 2,100 U | 20 U | 100 U | 1001 | 24 U | 22 U | 20.0 | 2,600 U | 14 U |
| fsorrowlbanzana | noko | | 3.700.000 U | 2010 | 1,900,1 | 1,800 U | 2,100U | 20 U | 1001 | 1001 | 24 U | 22 U | 20 17 | 2,600 U | 14 U |
| 1 3-Dichloroboozene | 10/40 | 1.600 | 3.700.000U | 20IU | 1,900 U | 1,800 U | 2,100U | 20 U | 100 U | 100t | 24 U | 22 U | 20 0 | 2,600 U | 14 U |
| 1 4-Dichlornhenzene | Inc/kg | 8.500 | 3.700.000 U | 20 U | 1,900 U | 1,800 U | 2,100 U | 20 U | 100 U | 100 U | 24 U | 22 U | 20 03 | 2,600 U | 14 U |
| 1 2-Dichlorobanzane | LIC/K0 | 2,900 | 3.700.000 U | 20 U | 1,900 U | 1,800 U | 2,100 U | 20 U | 100 U | 100 U | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| 1.2-Dibromo-3-chloropropane | uo/ka | | 3,700,000 U | 20 0 | 1,900 U | 1,800 U | 2,100 U | 20 U | 100 U | 100 U | 24 U | 22 U | 20 U | 2,600 U | 14 U |
| 1.2.4.Trichlorobenzene | ua/ka | 3.400 | 3,700,000 U | 1 20 U | 1'800 U | 1,800 U | 2,100 U | 20 U | 1001 | 100 U | 24 U | 22 U | 2010 | 2,600 U | 14 U |

RSCO = Recommended Soli Claanup Objectives 1,000 - Indcates denoted value for opprict. - Indcates value occodes TAGM 406 RSCO

,

Pioneer Midier Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - B-3 Area

| | | | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | 0 0000 | | | | | 0000 | 0,000 | | 10001 | 1000 |
|---------------------------------------|--------|-----------|---------------|---------------------------------------|-----------|-----------|-----------|------------|----------------------|-----------|----------|-------------|-----------|----------|---------|
| Sample ID -> | Units | 1 AGM | GPB3-1 | GP83-2 | GFB3-2 UL | GF83-3 | Gr83-3 UL | 6-00-5 | 01043 | Gros-a | 0.5019 | 0-00-0 | 110-00-0 | | |
| Depth - > | | 4046 | 14 • 18 | 14 - 18 | 14 - 18 | 14 - 17,5 | G.11-41 | 14 - 1 / 9 | 6 - 10 | 14 - 10.7 | 4.0.0 | 10 - 14 | - 14 - N | 0 - 10 | 11 - 41 |
| Date Sampled -> | | RSCO | 03/06/06 | 03/06/06 | 03/06/06 | 90/90/00 | 03/06/06 | 03/06/06 | 03/06/06 | 03/05/06 | 03/06/06 | 90,00,50 | 90,90,90 | 90//0/20 | 90//080 |
| VOLATILES | | | | | | | | | | _ | - | | | - | |
| Chloromethane | pg/kg | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 0 | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Bromomethane | By/6rl | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1.300 U | 75 U | 1,900 U | 9,500 U | 2.800 U |
| Vinyt chloride | p3/gu | 200 | 13.J | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | ି 1 , 400 J ି | 3,600 U | 1.300 U | 31.1 | 1,900 U | 5,900 J | 2,800 U |
| Chloroethane | 6y/0rt | 1,900 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1.300 U | 76 U | 1,900 U | 9,500 U | 2,800 U |
| Methylene chloride | By/Brl | 8 | 22 U | 23,000 U | 47,000/U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1.300 U | 75U | 1,900 U | 9,500 U | 2.800 U |
| Acetone | DX/DIT | 200 | 220 | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 55 N | 2,700 U | 3,600 U | 1.300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Carbon disulfide | D3/DI1 | 2,700 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1.300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 11 1-Dichloroathene | ua/ka | 400 | 2210 | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 1 1-Dichloroethane | ua/ko | 200 | 22 U | 23.000U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300.U | 75 U | 1,900U | 9.500 U | 2,800 U |
| Chloroform | uo/ku | 900 | 22 U | 23.000U | 47.000U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900U | 9,500 U | 2,800 U |
| 1 2. Tichloroethana | uo/kn | 001 | 22 U | 23.000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 2. Birtanma | | 908 | 22 U | 23.000 U | 47.000 U | 12.000 U | 30,000 U | 22.0 | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,600 U |
| 1 1 1-Trichloroethage | no/ka | 800 | 22 U | 23.000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,600 U |
| Carbon tetrachiorida | | 009 | 22 [] | 23.000 U | 47,000 U | 12.000 U | 30.000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75U | 1,900 U | 9,500 U | 2,800 U |
| Bromodichloromethane | naka | | 22 U | 23.000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,600 U |
| 1.2-Dichteroromana | in/ko | | 22 U | 23.000 U | 47.000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| cis-1 3-Dichlorococata | na/ka | | 22 U | 23.000U | 47 000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | U 006,1 | 9,500 U | 2,800 U |
| Trichlocothene | na/ka | 700 | 64 | 000.69 | 73.000 D | 100,000 | 93,000 D | 4 J | 18,000 | 12,000 | 640 J | 350 | 1006E | 160,000 | 3,800 |
| Dibromochloromethane | uoľka | | 22 U | 23.000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 1.1.2-Trichloroethane | ua/ka | | 22 U | 23.000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Renzena | IIC/K0 | 60 or MDL | 22 Ц | 23,000 U | 47.000 U | 12.000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Irans-1.3-Dichloronrooene | un/ka | | 22 U | 23.000 U | 47.000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,600 U |
| Bromotorm | na/ka | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30.000 U | 220 | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 4.Methvi-2-Dentanone | un/ka | 1.000 | 22 U | 23.000 U | 47.000 U | 12.0001U | 30.000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 2-Hexanone | uaka | | 0 22 | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Tetrachloroethene | no/ko | 1.400 | 31 | 600.000 | 600,000 D | 230,000 | 230,000 D | 22 U | 31,000 | 1,900 J | 1,800 | 1,500 | 1,900 D | 38,000 | 27,000 |
| Toluene | by/bri | 1,500 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1.300 U | 75 U | 1,900 U | 9.500 U | 2,800 U |
| 1.1.2.2-Tetrachloroethane | D3/Kg | 800 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Chlorobenzene | D3/61 | 1,700 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Ethylberzene | 10%G1 | 5,500 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| Styrene | р9/кд | | 22U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3.600 U | 1,300 U | 75 U | 1,900 U | 0.500 U | 2,800 U |
| Total Xylenes | ид/ка | 1.200 | 2210 | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 220 | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 3,500 U | 2,800 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 119/Kg | 1,00 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | D 005'E | D 009'B | 2,800 U |
| cis-1,2-Dichloroethene | 19/kg | | 310 | 14,000 J | 13,000 DJ | 28,000 | 24,000 DJ | 52 | 48,000 | 1,400 J | 1,300 U | 1.002.1 | 1,0001 | 1,000,0 | 3,700 |
| trans-1,2-Dichloroethene | Бубп | 8 | 35 | 23.000 U | 47.000 U | 12,000 U | 000'00 | 7.5 | 2,700 U | 3,000 U | 1,300 U | 174 | 1 000 | 1 000 0 | 0000 |
| Dichlorodilluoromethane | pg/gu | | 22 0 | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 022 | 2,700 U | 1009.5 | 0 005't | | 1 202 | 8,500 0 | 2,000 0 |
| Trichlorofluoromethane | hg/kg | | 22 10 | 23,000 U | 47,000 U | 12.000 U | 30,000 U | D 22 | 2,700 U | 3,600 U | 1,300 U | | | 0.000 | 2,000 0 |
| Methyl acetate | 10 kg | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600U | 1,300 U | N 9/ | 0.0061 | n nng's | 2,800 U |
| Methyl tert butyl ether | бувп | 120 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 0 22 ∩ | 2,700 U | 3,600 U | 1,300 U | 75 U | ∩ 006' | 9.500 U | 2,800 U |
| Cyclohexane | бубг | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | n R | 2,700 U | 3,600 U | 1,300 U | 197 75 U | 1,900 U | 9,500 U | 2,800 U |
| Methylcyclohexane | D3/6rl | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 (1 | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 1,2-Dibromoethane | полка | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3.600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800U |
| Isopropylbenzene | полка | | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 1,3-Dichlorobenzene | Будп | 1,600 | ⊓ ਲ | 23,000 U | 47,000 U | \$2,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 1,4-Dichlorobenzene | D3/61 | 8,500 | 22 U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600/U | 1,300 U | 75 U | 1,900 U | 9,500 U | 2,800 U |
| 1,2-Dichlorobenzene | р9/6ц | 7,900 | | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75 U | 0006-1 | 9,500 U | 2,800 U |
| 1,2-Dibromo-3-chloropropane | µg/kg | | ∩ 27 ↓ | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22 U | 2,700 U | 3,600 U | 1,300 U | 75U | 1,900 U | 9,500 U | 2,800 U |
| 1.2.4-Trichlorobenzene | рожа | 3,400 | · 22U | 23,000 U | 47,000 U | 12,000 U | 30,000 U | 22IU | 2,700 U | 3,600 U | 1,300 U | 75JU | 1.900 U | 9,500 U | 2,800[U |

| er Midler Avenue LLC | dial Investigation Report | 8 - Phase 3 GeoProbe Boring Data for | e Area Delineation - B-3 Area |
|----------------------|---------------------------|--------------------------------------|-------------------------------|
| Pioneer Mic | Remedial In | Table 8 - Ph | Source Area |

| ····· | | | | | | - 1 | - 1 | _ | _ | | | _ | | _ | | - 1 | _ | | _ | | | | · · · · | | | | | | | | | • • • | · · · · | - 1 | · | | ···· | | ÷ | | | | | | · | ,, | · · · · · · | | | | |
|--------------|-----------|-----------------|-----------|---------------|--------------|----------------|--------------|--------------------|--------------|------------------|--------------------|--------------------|------------|--------------------|--------------|-----------------------|----------------------|----------------------|---------------------|-------------------------|-----------------|----------------------|-----------------------|-----------|---------------------------|-----------|----------------------|------------|-------------------|-----------|---------------------------|---------------|--------------|---------------|---------------|---------------------------------------|------------------------|--------------------------|-------------------------|------------------------|----------------|-------------------------|-------------|-------------------|-------------------|------------------|---------------------|---------------------|---------------------|-----------------------------|------------------------|
| GPB3-16 DL | 14 - 17 | 03/08/06 | | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3.200 U | 6,000 D | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 6,100 D | 3,200 U | 3,200 U | 3,200 U | 3.200 U | 3,200 U | 3,200 U | 3,200 U | N 022 | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3,200 U | 3.200 U | 3,200 U | 3,200 U |
| GPB3-16 | 14 - 17 | 03/08/06 | | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | ۲Þ | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 6,000 | 26 U | 26U | 26 U | 26 U | 26 U | 26 U | 26 U | 6,100 | 26 U | 26 U | 26U | 26U | 26 U | 26 U | 26 U | 8 | 3 | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U | 26 U |
| GPB3-16 DL | 6-10 | 03/08/06 | | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 690 DJ | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 6,400 D | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 4,600 D | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U |
| GPB3-16 | 6 - 10 | 03/08/06 | | 20 0 | 20 U | ۲ Q2 | 20 U | 20 U | 20 U | 2010 | 21 | 20 U | 20 0 | 2010 | 20 0 | 20 U | 2010 | 20 U | 20 U | 2010 | 690 J | 20 U | 20 U | 20 U | 20 0 | 20 U | 20 U | 20 U | 6,400 J | 20 U | 20 U | 2010 | 20 U | 20 0 | 2010 | 20 U | 4,600 J | 38.9 | 20 U | 20 U | 20 0 | 20 0 | 20 0 | 20 0 | 20 U | 2010 | 20 0 | 20 0 | 20 U | 20 13 | 2010 |
| GPB3-14 | 14 - 17 | 03/08/06 | | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2.800 U | 2,800 U | 2,800 U | 2,200 J | 2,600 U | 2,600 U | 2,800 U | 2,800 U | 2,800U | 2,800 U | 2,800 U | 008'6 | 2,800 U | 2.800 U | 2.800 U | 2.800U | 2,800 U | 2.800 U | 2.800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U | 2,800 U |
| GPB3-13 | 6 - 10 | 03/08/06 | | 3,100 U | 3,100 U | 3,200 | 3,100 U | 3,100 U | 3,500 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100U | 3,100U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 20,000 | - 1,800 J | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100[U |
| GPB3-12 | 14 - 17.5 | 03/08/06 | | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100U | 3,100(U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 2,100 J | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 19,000 | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 8,000 | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100 U | 3,100U |
| GPB3-11 | 14 - 18 | 03/08/06 | | 2,400 U | 2.400 U | 2,400 U | 2,400 U | 2,400U | 2,400U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400U | 2,400 U | 2,400 U | 2,400 U | 530 J | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 570 J | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 9,300 | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2,400 U | 2.400 U |
| GPB3-10 | 14 - 17.5 | 03/07/06 | | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200U | 2,200 U | 2.200 U | 3,400 | 2.200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 8,600 | 2,200 U | 2,200 U | 2.200 U | 2.200 U | 2.200 U | 2,200 U | 2,200 U | 4,000 | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2,200 U | 2.200 U | 2,200 U | 2.200 U |
| GPB3-9 DL | 14 - 17,5 | 03/07/06 | | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000[U | 110.000 DJ | 600,000 U | 600,000 U | 600.000 U | 600,000 U | 600.000 U | 600,000 U | 600,000 U | 7,300,000 D | 600,000 U | 1000'009 | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 600.000 U | 600.000 U | 600,000 U | 600,000 U | 600,000 U | 600,000 U | 000'009 | 600,000 U | 600,000 U | 000'009 | 600,000 U | 600,000 U | 600.000 U |
| GPB3-9 | 14 - 17.5 | 90/20/60 | | 30,000,06 | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | See 150,000 | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30.000 U | 30,000 U | 30,000 U | 7,300,000 | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30'000 N | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000 U | 30,000[U |
| GP83-8 DL | 14 - 17 | 03/07/06 | | 110,000 U | 110,000 U | 110,000 U | 110.000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110.000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 53,000 DJ | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110.000 U | 110,000 U | 110,000 U | C 620,000 D 0 | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110.000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U | 110,000 U . | 110,000 U | 110,000 U |
| GPB3-8 | 14 - 17 | 03/07/06 | | 2,300 U | 2,300 U | 2.300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 23,000 J | 2,300 U | 2,300 U | 2,300 U | 2.300 U | 2,300 U | 2,300 U | 2,300 U | 620,000 | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 3,700 | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | 2,300 U | * 2,300 U | - 2,300 U |
| TAGM | 4046 | RSCO | | | | 200 | 1,900 | 8 | 500 | 2,700 | 4 8 | 200 | 800 | 8 | 800 | 908 800 | 600 | | | | 200 | | | 60 or MDL | | | 1,000 | | 1,400 | 1,500 | 600 | 1,700 | 5,500 | | 1,200 | 1,000 | | 300 | | | | 120 | | | | | 1,600 | 8,500 | 2,900 | | 3,400 |
| Units | | | | 6x/6r | 5y/6rt | ug/kg | µg/kg | pgykg | DAVOU | parkq | pa/kg | ng/kg | DA/Ru | Dave u | pg/kg | pg/kg | p4/64 | DH/GI | By/Bri | 6y/6rt | pg/kg | 6x/6r | 5y/6r | 6x/6rt | pg/kg | By/Brl | By/brl | 6x/6r1 | 6x/6rl | Бу/бп | бх/бл | p:g/kg | рууди | 6 %6rt | pg/kg | tig/kg | 6y/6rt | By/6rt | 6x/6r | pg/kg | 6y/6rl | By/6rt | 6y/6rl | By/Bri | By/Bri | Byon | 6y/6r | бу/бл | pg/kg | pg/kg | ug/kg |
| Sample ID -> | Depth - > | Date Sampled -> | VOLATILES | Chloromethane | Bromomethane | Vinyl chloride | Chioroethane | Methylene chloride | Acetone | Carbon disulfide | 1.1-Dichloroethene | 1.1-Dichloroethane | Chioroform | 1.2-Dichloroethane | 2-Bularone | 1,1,1-Trichloroethane | Carbon tetrachloride | Bromodichloromethane | 1,2-Dichloropropane | cis-1,3-Dichloropropene | Trichtoroethene | Dibromochloromethane | 1,1,2-Trichtoroethane | Benzene | trans-1,3-Dichloropropene | Bromoform | 4-Methyl-2-pentanone | 2-Hexanone | Tetrachloroethene | Toluene | 1,1,2,2-Tetrachloroethane | Chlorobenzene | Elhylberzene | Styrene | Total Xylenes | 1,1,2-Trichtoro-1,2,2-trifluoroethane | cis-1,2-Dichtoroelhene | trans-1,2-Dichloroethene | Dichtoroditiuoromethane | Trichlorofluoromethane | Methyl acetate | Melhyl tert butyl ether | Cyclohexane | Methylcyclohexane | 1,2-Dibromoethane | Isopropylbenzene | 1,3-Dichlorobenzene | 1,4-Dichtorobenzene | 1,2-Dichtorobenzene | 1,2-Dibromo-3-chloropropane | 1.2.4-Trichlorobenzene |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - B-3 Area

| Sample ID -> | Units | TAGM | GPB3-17 | GP83-17 DL | GPB3-18 | GPB3-18 | GPB3-19 | GPB3-21 | GPB3-21 | GPB3-22 | GPB3-22 DL | GPB3-24 | GPB3-24 |
|---------------------------------------|---------------|------------|-----------|-------------|-----------|------------|--------------|----------|------------|-----------|------------|-----------|----------|
| Depth - > | | 4046 | 14 - 18 | 14 - 18 | 14 - 16.9 | 6 • 10 | 14 - 18 | 14 - 16 | 6 - 10 | 6 - 10 | 6 - 10 | 15.5 - 17 | 6 - 10 |
| Date Sampled -> | | RSCO | 03/08/06 | 03/08/06 | 04/18/06 | 04/18/06 | 04/18/06 | 04/18/06 | 04/18/06 | 04/18/06 | 04/18/06 | 04/19/06 | 04/18/06 |
| VOLATHES | | | | | _ | | | | _ | _ | | - | |
| Chloromethane | µg/kg | | 24 U | 110,000 U | 1 000'L1 | 150,000 U | 230 | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Bromomethane | µ9/kg | | 24 U | 110,000 U | 17,000 UJ | 150,000 UJ | 23 UJ | 35 UJ | 22 UU | 58,000 UJ | 120,000 U | 28 GJ | 21 UJ |
| Vinyl chloride | pg/kg | 200 | 340 | 110,000 U | 17,000 U | 150,000 U | 23 U | 19.1 | 410 | 58,000 U | 120,000 U | 28 U | 21 U |
| Chloroethane | Bx/6rl | 1,900 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | <u>8</u> | 58,000 U | 120,000 U | 28 U | 21 U |
| Methylene chloride | 19/kg | õ | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 280 | 21 U |
| Acetone | prg/kg | 200 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 30 J | 22 U | 58,000 U | 120,000 U | 12 J | 21U |
| Carbon disulfide | pg/gu | 2,700 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | L 7 J | 22 U | 58,000 U | 120,000 U | 3 J | 21 U |
| 1,1-Dichtoroethene | pg/kg | 400 4 | 4 | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,1-Dichtoroelhane | pg/kg | 200 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Chioroform | 19/kg | 80 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 280 | 21 U |
| 1.2-Dichtoroethane | tig/kg | 8 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 2-Butanone | 6y/6rl | 300 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,1,1-Trichtoroethane | By/Grl | 900 900 | 24 U | 110,000 U | 17.000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Carbon tetrachloride | pg/kg | 600 | 24 U | 110.000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Bromodichicxomethane | µg∕kg | | 24 U | 110,000 U | 1/000/11 | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 C |
| 1,2-Dichloropropane | руурц | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| cis-1,3-Dichloropropene | µg/kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 ⊔ | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Trichloroethene | bg∕kg l | 700 | 53,000 J | 53,000 DJ | 45,000 | 160,000 | 23 U | 23 J | 22 (1 | 58,000 U | 120,000 U | 28 U | 21 U |
| Dibromochloromethane | р9/кд | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,1,2-Trichloroethane | ps/gu | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21U |
| Benzene | D3/61 | 60 or MDL | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58.000 U | 120,000 U | 28U | 21 U |
| trans-1,3-Dichtoropropene | ыр/ка | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Bromotorm | ру/бц | | 24 U | 110,000 U | 12,000 U | 150,000 U | 23(1 | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 4-Methyl-2-pentanone | ug/kg | 1,000 | 24 U | 110,000 U | 12,000 U | 150,000 U | 23 (| 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 2-Hexanone | ug/kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21U |
| Tetrachloroethene | ug/kg | 1,400 | 1,300,000 | 1,300,000 D | 260,000 | 1,900,000 | 23 U | 6 J | 22 U | 1,400,000 | 120,000 U | 28 U | 21 U |
| Toluene | ng/kg | 1,500 | r 6 | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | 600 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21U |
| Chlorobenzene | pg/kg | 1,700 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 200 | 58,000 U | 120,000 U | 28 U | 21 U |
| Ethylbenzene | pg/kg | 5,500 | 28 | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Styrene | pg/kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Tolal Xylenes | pg/kg | 1,200 | 130 | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,1,2-Trichloro-1,2,2-trilluoroethane | рунд | 1,000 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28U | 21 U |
| cis-1,2-Dichloroethene | pg/kg | | 23,000 J | 23,000 DJ | 85,000 | 66,000 J | 23 U | 360 | <u>8</u> | 30,000 J | 29,000 D | 52 | 21 U |
| Irans-1,2-Dichtoroelhene | µg/kg | 80 | 340 | 110,000 U | 17,000 U | 150,000 U | 23 C | 72 | 15 J | 58,000 U | 120,000 U | 10 J | 21 U |
| Dichlorodifluoromethane | pg/kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 (1 | 35 U | 22 U | 58,000 U | 120,000 U | 26 U | 21 U |
| Trichtorofluoromethane | p:g/kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 (| 35 U | 22 0 | 58,000 U | 120,000 U | 28 U | 21 U |
| Methyi acetate | p:0/kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 5 <u>3</u> G | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Methys tert butyl ether | 63/6 d | 120 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 220 | 58,000 U | 120,000 U | 28 U | 21 U |
| Cyclohexane | 6xy6r1 | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| Methylcyctohexane | бу/бл | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,2-Dibromoethane | DQ/Kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 22 (| 58,000 U | 120,000 U | 28 U | 21 U |
| Isopropylbenzene | 6у/6п | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23U | 35 U | 22 U | 58,000 U | 120,000 U | 28U | 21 U |
| 1,3-Dichtorobenzene | By/6r | 1.60 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | <u>∩</u> ≋ | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,4-Dichlorobenzene | by/6rl | 8,500 | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 U | 35 U | 52 U | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,2-Dichtorobenzene | By/6r | 7,900 | 24 U | 110,000 U | 12,000 U | 150,000 U | 23 U | 35 U | 220 | 58,000 U | 120,000 U | 28 U | 21 U |
| 1,2-Dibromo-3-chloropropane | 130,kg | | 24 U | 110,000 U | 17,000 U | 150,000 U | 23 0 | 35 U | 220 | 58,000 U | 120,000 U | 280 | 210 |
| 1,2,4-Trichtorobenzene | Dy/Din | 3,400 | - 24U | 110,000 U | 12,000 U | 150,000 U | 23 0 | 3510 | 220 | 58,000 U | 120,000 U | 28 U | 2110 |

HSCO = Recommended Soil Cleanup Objectives 1,000 - Indeates detorted value for organica.

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - B-5 Area

| Samola ID | 1 Inite | TAGM | GPB5-1 | GPB5-1 DL | GPB5-2 | GPB5-2 DL | GPB5-3 | GPB5-3 | GPB5-3 | GPB5-3 DL |
|---------------------------------------|---------|-------------|----------|-----------|-----------|-----------|-------------|----------|--------------|-----------|
| | 5 | 4046 | 14-18 | 14 - 18 | 14 - 17.5 | 14 - 17.5 | 6 - 10 | 10-14 | 14 - 17 | 14 - 17 |
| Data Samiad -> | | HSCO | 03/09/06 | 03/09/06 | 03/09/06 | 03/09/06 | 90/60/00 | 03/09/06 | 90/60/20 | 90/60/60 |
| VOLATILES | | - | | | | | | | | |
| Chloromethane | ua/ka | | 20 U | 2,400 U | 21 U | 2.600 U | 83 U | 17 U | 19 U | 88 U |
| Bromomethane | руди | | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 7) (1 | 88 U |
| Vinvi chlaride | uq/kg | 200 | 330 J | 2,400 U | 480 E | 2,600 U | 140 N | 170 | 54 | 88 U |
| Chloroethane | narka | 1,900 | 2010 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 8810 |
| Methylene chloride | uo'ka | 00 1 | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | <u>19</u> 10 | 88 U |
| Acetone | uo/ko | 200 | 2010 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | <u>р</u> 8 | 88 U |
| Carbon disulfida | a/bi | 2.700 | 20 0 | 2.400 U | 5 J | 2,600 U | 83 U | 17 U | ר <u>9</u> | 88 U |
| 1 1-Dichloroethene | na/ko | 400 | 20 U | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1 1-Dichloroethane | uo/ka | 200 | 20 0 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 1910 | 88 U |
| Chloroform | un/ka | 300 | 2010 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 19 0 | 88 U |
| 1 2-Dichloroethane | no/ka | 8 | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 2-Butanone | | 800 | 2010 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1.1.1-Trichloroethane | Па/ка | 800 | 20 0 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 N | 88 U |
| Carbon tetrachloride | Lio/ka | 009 | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 01 | 88 U |
| Bromodichloromethane | Loka | | 2010 | 2,400 U | 210 | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1 2-Dichloropropane | uo/ko | | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| cis-1 3-Dichlorononene | | | 2010 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Trichlornathana | 10/40 | 700 | 1.300 J | 1.300 DJ | 330 | 620 DJ | 83 U | 17 U | 170 | 230 D |
| Dihomochloromathana | uo/ka | | 2010 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | U 61 | 88 U |
| 1.t.2-Trichlonethane | uc/ka | | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Renzena | | 60 or MDL | 2010 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 1910 | 88 U |
| trans-1 3-Dichlorononana | | | 2010 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Bromoform | | | 2010 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 4.Mathul-2.nantanona | | 1 000 | 2010 | 2.400 U | 21 U | 2.600 U | 0.68 | 17 U | 1910 | 88 U |
| 9-Hevenche | LO/KG | | 2010 | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Tatrachlorodhone | In Ako | 1400 | 1 066 | P0 065 | 54 | 2.600 U | 83 U | 17 U | 670 | 670 BD |
| Totrana | in/ka | 1 500 | 2010 | 2.400 U | 210 | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1 1 2 2-Tatrachloroathana | | 600 | 2010 | 2.400 U | 21 U | 2.600 U | 83 U | 17 U | 19 U | 88 U |
| Chlorohanzana | 100kg | 1.700 | 20 U | 2.400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Ethvihanzana | na/ka | 5,500 | 20 U | 2,400 U | 210 | 2,600 U | 8310 | 17 U | 19 U | 88 U |
| Swrene | Lia/ka | | 2010 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Total Xvienes | navka | 1,200 | 20 U | 2,400 U | 210 | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | pg/kg | 1,000 | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | U 61 | 88 U |
| cis-1,2-Dichtoroethene | pg/kg | | 3,700 J | 3,700 D | 3,600 | 3,600 D | 1,000 | 260 | 690 | 690 D |
| trans-1,2-Dichloroethene | µg/kg | 300 | 64 J | 2,400 U | 170 | 2,600 U | 18.1 | 2 | 24 | 18 DJ |
| Dichtorodilluoromethane | P9/kg | | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 061 | 88 0 |
| Trichlorofluoromethane | Бу/бп | | 20 0 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Methyl acetate | бу/бл | | 20 0 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Methyl tert butyl ether | па/ка | 120 | 20 0 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| Cyclohexane | hg/kg | | 20 0 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | ∩ 88 |
| Methylcyclohexane | pg/kg | | 20 0 | 2,400 U | 210 | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1.2-Dibromoethane | Pro/kg | | 20 0 | 2,400 U | 210 | 2,600 U | 83 U | 17 U | <u>16</u> | 88 U |
| Isopropylbenzene | hg/kg | | 200 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19 U | 88 U |
| 1,3-Dichlorobenzene | µ9/kg | 1,600 | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | <u>19 C</u> | 88 U |
| 1,4-Dichlorobenzene | µg/kg | 8,500 1 | 200 | 2,400 U | 21 U | 2,600 U | 3 0 0 | 17 U | <u>16</u> | 88 0 |
| 1,2-Dichlorobenzene | µg/kg. | 2'906'2 | 20 U | 2,400 U | 21U | 2,600 U | 83 U | ח 14 | 1910 | 88 0 |
| 1,2-Dibromo-3-chloropropane | 1:9/kg | | 20 U | 2,400 U | 21 U | 2,600 U | 83 U | 1710 | 1910 | 0.88 |
| 11.2.4-Trichlarobenzene | раурл | 3,400 | 20 0 | 2,400 U | 21 U | 2,600 U | 83 U | 17 U | 19/01 | 88 U |

RSCO = Recommended Soil Clearup Objectives 1,000 - Indicates detected value for organics.

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - Conveyor Sump

| Comola 10 - | 1 Inite | TAGM | GPCS-1 | GPCS-1 | GPCS-1 | GPSC-2 | GPCS-2 | GPCS-3 | GPCS-4 | GPCS-5 | GPCS-6 |
|---|-------------------|-----------|------------|--------------|----------|-------------|----------|--------------|----------------|----------|----------|
| Denth - > | 2 | 4046 | 2 - 4 | 4.8 - 10 | 14 - 18 | 1.3 - 4 | 14 - 18 | 14 - 18 | 14 - 18 | 2-4 | 4-6 |
| Date Sampled -> | | RSCO | 90/13/09 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 |
| VOLATILES | | | | | | | | | | | |
| Chloromethane | pg/kg | | 15 U | 19 U | 21 U | U II | 19 U | 18 U | 28 ∩ | 12 U | 24 U |
| Bromomethane | D3/61 | | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 C | 12 U | 210 |
| Vinyl chloride | bg/gu | 200 | 15 U | 31 | 10 J | 11 N | 5 | Г 8 | 4 J | 12 U | 21 U |
| Chioroethane | вя/бп | 1,900 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | ∩ 82 | 12 U | 21 U |
| Methylene chloride | Бу/бл | 100 | 15 U | 19 U | 21 U | 11 N | 19 U | 18 U | រា | 12 U | 21 U |
| Acetone | 19/kg | 200 | 25 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 8 8 | 170 |
| Carbon disulfide | LIQ/KG | 2,700 | 15 U | 19 U | 2 J | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| 1 1-Dichloroethene | ua/ka | 400 | 15 U | 19 U | 21 U | 11 | 19:U | 18 U | 22 U | 12 U | 21 U |
| 1 t-Dichloroethane | ua/ka | 500 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Chlaroform | ла/ка | 88 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| 1.2-Dichloroethane | ua/ka | 8 | 15 U | 19 U | 21 U | <u>ח 11</u> | 19 U | 18 U | 22 U | 12 U | 21 U |
| 2-Butanone | pa/kg | 300 | 6 J | U 61 | 21 U | 11 0 | 19 0 | 18 U | 22 U | 12 0 | 55 |
| 1.1.1-Trichloroethane | uq/kg | 80 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Carbon tetrachforide | uq/kq | 009 | 15 U | 19-01 | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Bromodichloromethane | na/ka | | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| 1 2-Dichloropropane | Lio/ko | | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| cis-1.3-Dichlorononene | ua/ko | | 1510 | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Trichloroothone | na/ko | 200 | 1510 | 1 <u>9</u> U | 21 U | 1110 | 1910 | 1810 | 22 U | L H | 21 U |
| Dihromochicromathana | 10/kg | 2 | 1511 | 1911 | 2113 | 1110 | 1910 | 1810 | 22 U | 12 U | 21 U |
| 1 1 2-Trichloroethane | | | 15 11 | 1911 | 21 U | 11 1 | 19 U | 18 U | 22 U | 12 U | 21 U |
| | Part of | SO or MDI | 1511 | 1911 | 211 | 11 [] | 1161 | 18 U | 22 U | 12 U | 21 U |
| beitzeite troce-1 3. Nichterenschane | RUAL D | | 15 1 | 1161 | 2112 | 11 11 | 1910 | 18 U | 22 U | 1210 | 21 U |
| Bomolorm | E STOR | | 131 | 1911 | 3111 | 1111 | 1911 | 181 | 2211 | 12 [] | 21 U |
| A Mothurd Contractor | Bullet. | 500 |) | | 2413 | 1113 | 191 | 1811 | 22 11 | 1210 | 21 U |
| P-Weillyrz-Petiterione | Ruffa | 2221 | 121 | 101 | 2111 | 11 11 | 1161 | 1811 | 22 U | 12 U | 24 N |
| Z-riekaiusio Tetrachloroethene | Ruffer Ind/kon | 1.400 | 15 U | 191 | 21 U | 11 0 | 1910 | 18 U | ∩ 8 | 65 | 21 U |
| Toliana | 10/kg | 1.500 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| 1 1 2 2-Tetrachloroethane | un/ka | 009 | 15 U | 19 U | 21 U | 11 U | 19 U | 1 <u>8</u> U | 22 U | 12 U | 21 U |
| Chinrohenzene | uc/ka | 1.700 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Ethvibenzene | uc/kg | 5,500 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Styrene | uq/ka | | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Total Xvienes | uq/kg | 1,200 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| 1,1,2-Trichloro-1,2,2-trifiuoroethane | 130/kg | 1,000 | 15 UJ | 19 UJ | 21 W | 11 UJ | 19 UJ | 18 UJ | 22 UL | 12 U | 21 WJ |
| cis-1,2-Dichloroethene | hg/kg | | 15 U | 20 | 22 | 1110 | 13 J | 10 J | 5 J | 3 | 31 |
| trans-1,2-Dichloroethene | hg/kg | 300 | 15 UJ | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 2 7 | 21 U |
| Dichlorodifiuoromethane | pg/kg | | 15 UJ | 19 UJ | 21 U | 11 03 | 19 W | 18 UJ | 22 | 12 U | 21 W |
| Trichlorofluoromethane | р9/кд | | 15 U | 19 UJ | 21 U | 11 W | 19 WJ | 18 UJ | 22 W | 12 U | 21 W |
| Methyl acetate | pg/kg | | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 0 | 12 U | 21 U |
| Methyl tert butyl ether | µg/kg | 120 | 15 U | 19 U | 21 U | -1 I L | 19 U | 18 U | 0 8 | 12 U | 21 U |
| Cyclohexane | µg/kg | | 3 J | 2 | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 27 |
| Methylcyclohexane | µg/kg | | 15 | 2 J | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 130 |
| 1.2-Dibromoethane | р9/kg | | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 U | 12 U | 21 U |
| Isopropylbenzene | pg/kg | | 5 J | 19 U | 21 U | 11 U | 19 U | 18 U | 22 N | 3 J | 28 |
| 1,3-Dichlorobenzene | pg/kg | 4,600 | 15 U | 1 <u>9</u> U | 21 U | 11 C | 19 U | 18 U | <u>2</u> 22 | 12 U | 21 U |
| 1,4-Dichlorobenzene | р9/кд | 8,500 | 15 U | 19 U | 21 U | 11 U | 19 U | 18 U | 22 N | 12 U | 210 |
| 1,2-Dichlorobenzene | µg/kg | 006'∠ | 15 U | 19 U | 21 U | 111 | 19 U | 18 U | 22.0 | 12 U | 21 U |
| 1.2-Dibromo-3-chloropropane | р9/кд | | 15 U | 19 U | 21 U | 11 U | 19 U | 18.0 | 2 | 12 U | 21 12 |
| 1 2 4_Tichlorohanzana | 130/Ka | 3 400 | 1510 | 19 U | 21 U | Ē | 1910 | 1810 | 220 | 12 U | 210 |

RSCO = Recommended Soil Cleanup Objectives 1,000 - Indicates detected value for organics. indicates value exceeds TAGM 4046 RSCO

Pioneer Midler Avenue 1.LC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - Conveyor Sump

| Sample ID -> | Units | TAGM | 4046 | GPCS-1 | GPCS-1 | GPCS-2 | GPCS-G | GPCS-4 | 6-00-19 | פרנטים ער | 6-02-0 | | 61-00-0 |
|--|---------------------|-------------|-------------|----------|--------------|----------|----------|----------|---------------------|-----------|----------|----------|----------|
| Depth - > | | RSCO | Eastern USA | 2-4 | 4.8 - 10 | 1.3 - 4 | 3.4 - 6 | 2.2 - 4 | 2-4 | 2.4 | 4-6 | 4-6 | 6-8 |
| Date Sampled -> | | | Background | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 90/21/20 |
| SEMIVOLATILES | | | | | | | | | | | | | |
| Benzaldehvde | ua/ka | | | 1,000 U | 1,200 U | 3,700 U | | | 840 U | 4,200 U | 1,900 U | 19,000 U | 1100 U |
| Phone | | 30 or MDL | | 57 J | P [8] | 1,800 U | | | 25 J | 2,100 U | 970 U | 9.700UU | 20 J |
| Ris(2,chloroothul) ather | | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 010 | 9,700 U | 560 U |
| 2.Chloronhand | | 800 | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 002'6 | 560 U |
| 2-Mathvinhand | | 100 or MDL | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| 2 2 Owhield-Chloronooane) | uo/ka | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| Acetochenone | ua/ka | | | 1,000 U | 1,200 U | 3,700 U | | | 840 U | 4,200 U | 1,900 U | 19,000 U | 1100U |
| 4-Mathvinhanof | | 006 | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| N.Nitrosc.Di.n.oronvlamine | 110/KG | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| Herochloroethane | | | | 510 U | 630 U | 1.800 U | | | 420 U | 2,100U | 020 U | 002'6 | 560 U |
| Nitrobortono | | 200 or MDI | | 51011 | 63011 | 1.800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| leophrone | LID/KO | 4400 | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 020 U | 9,700 U | 560 U |
| 9-Mitroheod | | 330 or MD1 | | 51011 | 630 U | 1.800 U | | | 420 U | 2,100 U | 970 U | n 002'6 | 560 U |
| 2 4-Dimethylichood | | 2011 10 000 | | 51010 | 630 U | 1.800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| 2,4-UIIIGUIYIDUIGUO Dicf9-chicroathowii methana | 10/61 | | | 51011 | 63010 | 1.800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| 10.4 Diskloresharel | | w.v | | 51011 | 63011 | 1.80013 | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| | 20100 | 1 200 | | 350.1 | 1029 | 220.1 | | | 440 | 460 DJ | 1.800 | 2,100 DJ | 560 U |
| | Ru An | 1011 1000 | | 11011 | 11/05/3 | | | | 42011 | 2 10011 | 97011 | 9.70010 | 560 U |
| | Nu fin | | | | 11053 | | | | 42011 | 2,10011 | 026 | 9.700 U | 56010 |
| Hexacinoroouaguere | Fw An | | | 1012 | 1000 | | | | 42011 | 0 100 II | 11026 | 002.6 | 560 U |
| Caprolactam | ngrkg | | | 0.010 | 0,000 | 1,0001 | | | | 2 2 2 | 0020 | 0 700 11 | EE011 |
| 4-Chioro-3-methylphenol | hg/kg | 240 or MUL | | 0 010 | 0.000 | 1,000,1 | | | 1 000 | | | 0000 | |
| 2-Methylnaphthalene | 119 ¹ Kg | 36,400 | | 950 | 63U U | r nes | | | 1 007' 4 | 1 201 0 | 10,020 | 1 202.0 | 2000 |
| Hexachlorocyclopentadiene | LIQ/KG | | | 510 U | 630 U | 1,800 U | | | 420 U | U U01,2 | 0.0/6 | a,700 U | |
| 2,4,6-Trichlorophenol | pg/kg | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 0.0/6 | 8,/00/0 | 560 U |
| 2.4.5-Trichtorophenol | D3/61 | <u>8</u> | - | 1,200 U | 1,500 U | 4,400 U | | | ∩ 000 - | 5,100 U | 2,300 U | 23,000 U | 1400 U |
| Biohenvl | na/ka | | | 1.000 U | 630 U | 1,800 U | - | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| 2-Chloronaphthalene | Lo Ka | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 070 U | 9,700 U | 560 U |
| 2-Nitroaniine | naka | 430 or MDL | | 1,200 U | 1,500 U | 4,400 U | | | 1,000 U | 5,100 U | 2,300 U | 23,000 U | 1400 U |
| Dimathyl nhthalate | ua/ka | 2,000 | | 510 U | 630 U | 1,800 U | | | 420 0 | 2,100 U | 970 U | 9,700 U | 560 U |
| 9 6-Dinitrotoluona | | 1.000 | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| Aconschibulana | | 41 000 | | 51010 | 630 U | 130 J | | | 120 J | 120 DJ | 250 J | 9,700 U | 560 U |
| Automiline 3-Nitmaniline | | 500 or MDL | | 1.200 U | 1.500 U | 4.400 U | | | 1,000 U | 5,100 U | 2,300 U | 23,000 U | 1400 U |
| Arenanhthana | Inn/ka | 50.000 | | 720 | 630 U | L 008 | | | 370 J | 390 DJ | 920 J | 1,300 DJ | 560 U |
| 2 4-Dinitronhend | ua/ka | 200 or MDL | | 1.200 U | 1,500 U | 4,400 U | | | 1,000 U | 5,100U | 2,300 U | 23,000 U | 1400 U |
| 4-Nitronhenol | ua/ka | 100 or MDL | | 1,200 U | 1,500 U | 4,400 U | | | 1,000 U | 5,100 U | 2,300 U | 23,000 U | 1400 U |
| Dibenzofuran | ua/ka | 6.200 | - | 510 U | 630 U | 360 J | | | 196 J | 94 DJ | 350 J | 500 DJ | 560 U |
| 2.4-Dinitrotoluene | La/ka | 1.000 | - | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| Diethyl phthalate | ua/ka | 7.100 | | 510 U | 630 U | 1,800 U | | - | 420 U | 68 DJ | 970 U | 460 DJ | 560 U |
| Flintene | uo/ko | 50.000 | | 1,000 | 1,200 U | 520 J | | | 370 J | 400 DJ | 1,100 U | 1,400 DJ | 1100 U |
| 4. Chloronhanvi nhanvi ather | 10/kg | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| 4-Nitroaniline | | | | 1.200 U | 1.500 U | 4,400 U | | | 1,000 U | 5,100 U | 2,300 U | 23,000 U | 1400 U |
| A & Dinitro-0-mathulnhanoi | 1 mileo | | | 1,20010 | 1.500 U | 4.400 U | | | 1,000 U | 5,100 U | 2,300 U | 23,000 U | 1400 U |
| | E | | | 51011 | 63011 | 1,800 U | | | 420 U | 2.100U | 970 U | 0'00'10 | 560 U |
| 4 Demochand shard other | Ru Au | | | . 510[] | 63011 | 1.8001 | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| Tourshiseburger | Ru An | 410 | | 51011 | 630 1 L | 1 80011 | | | 420 U | 2.100 U | 970 U | 9,700IU | 560 U |
| Hexaciiloroverizere | 5v/6r | 51# | | | 1 200 | 1 UUL 8 | | | 84011 | 4.200 U | 1.900 U | 19.0001 | 1100 U |
| Alfazine | 54/61 | 1000 or MDI | | | 1 500 11 | 4 400 II | | | 1.0001 | 5.100 U | 2.300 U | 23.000 U | 1400 U |
| Phonoditroco | Ruffi | | | 2 400 | 63011 | 1.800 | | | 1.400 | 1.500 DJ | 2,500 | 3,200 DJ | 560 U |
| Pristantineue | RUKU | 50.000 | | 510 | 630 U | 600 J | | | 190 J | 200 DJ | 400 J | 440 DJ | 560 U |
| Alguided ic | DAI/OI | | | 510 U | 63010 | 200 J | | | 130 J | 140 DJ | 230 J | 9,700 U | 560JU |
| Juaruazoic | RUA1 | | | | 1 21222 | | | | | | | | |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - Conveyor Sump

| Sample ID -> | Units | TAGN | 1 4046 | GPCS-1 | GPCS-1 | GPCS-2 | GPCS-3 | GPCS-4 | GPCS-5 | GPCS-5 DL | 8-SC49 | GPCS-6 PL | GPCS-0 |
|------------------------|----------|-----------------|-----------------|----------------|----------|---------------------|-----------|-------------|----------------------|------------|----------------|-----------|----------|
| Depth - > | | RSCO | Eastern USA | 2-4 | 4.8 - 10 | 1.3 - 4 | 3.4 - 6 | 2.2 - 4 | 2-4 | 2-4 | 4-6 | 4-6 | 6-8 |
| Date Sampled -> | | | Background | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 | 03/13/06 |
| Di-n-butyt phthalate | р9/кд | 8,100 | | 510 U | 630 U | 1,800 U | | | 420 U | 430 DJ | 310 | 1,400 DV | 26010 |
| Firoranthene | by/61 | 50,000 | | 760 | 630 U | 2,500 | | | 1,500 | 1,800 DJ | 810 J | 1,000 DJ | 560 U |
| Pviene | ра/ка | 50.000 | | 650 | 630 U | 2,000 | | | 1,300 | 1,600 DJ | 660 J | FQ 026 | 560 U |
| Butvi benzvi ohthalate | uo/ka | 50,000 | | 510 U | 23 J | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| 3.3'-Dichlorobenzidine | na/ka | | | 510 U | 630 U | 1,800 U | | | 420 U | 2,100 U | 970 U | 9,700 U | 560 U |
| Benzylalantherene | | 224 or MDI | | 300 J | 630 U | 1.000 J | | | 690 | 740 DJ | 350 J | 460 DJ | 560 U |
| Christian | Dallon | 400 | | 340.1 | 630 U | 1.000 J | | | 1012 (Sec. 710) Sec. | 750 DJ | 370.J | 430 DJ | 560 U |
| CitrySeries | D.U.C. | | | 510 BJ | 63011 | 1.800 U | | | 420 U | 84 BD. | 070 U | 9,700 U | 560 U |
| | R N | 50,000 | | 51011 51011 | 17.1 | 1 80011 | | | 42010 | 2.100 U | 970IU | 9.700 U | 560 U |
| Dr-rr-octyl printalate | Fulfr | 100 | | 360.1 | 63011 | 1.100.1 | | | 500 J | 880 DJ | 450 J | 560 DJ | 560 U |
| | 6y/6r | 84 | | 1 1 1 1 | 1000 | I UGV | | | 1.022 | 340 D.I | 130.1 | 9.700 U | 560 U |
| Benzo(K)IIUOraninene | Ry 6r | 31.1 | | | 200 | | | | E40 1 | E STOLD IN | 1 1000 | 320 0.1 | EED 11 |
| Benzo(a)pyrene | By/6r | PI OL MUL | | 1 047 | 2000 | | | | | | 1001 | 270 D.1 | C RO II |
| Indeno(1,2,3-cd)pyrene | 1 JU2/10 | 3,200 | | 1012 | 0.000 | - noc | | | 1 405 | | | | 2000 |
| Dibenzo(a,h)anthracene | рубл | 14 or MDL | | | 630 0 | 1000 1000 1000 | | | | | | 0 002 0 | |
| Benzo(ghi)perytene | ру/ка | 50,000 | | 30 J | 630 U | 1 35 1 | | | 202 | 20.02 | 200 | 3,100 | 0.000 |
| AROCLORS | | | | _ | | | | | | | | | |
| Arocior 1016 | 6y/6r1 | | | 120 U | 150 U | 910 | _ 0.06 | <u>) (8</u> | 100 | | 230 U | | 130 U |
| Aroctor 1221 | Da/kg | | | 120 U | 150 U | 910 | 90 U | 006 | 100 U | | 230 U | | 130 U |
| Aroclor 1232 | uaka | I non - suilace | | 120 U | 150 U | 91U | 00 0 | 00 0 | 1001 | | 230 U | | 130 U |
| Arcelor 1949 | | solis, TU,UUU - | | 120 U | 150 U | 91 U | D 08 | N 06 | 1001 | | 230 U | | 130 U |
| Arcolor 1248 | | subsurface | | 120 U | 150 U | 91 U | 006 | 00 N | 100 U | | 230 U | | 130 U |
| Arodor 1954 | | soils | | 12011 | 150(U | 9110 | 106 | 0 06 | 1001 | | 230 U | | 130 U |
| Arolar 1980 | 5 CA 20 | _ | | 12011 | 150.11 | 1116 | 006 | 106 | 1001 | | 230 U | | 130 U |
| | Runna | | | 2 2 2 2 | 2 | | | | | | | | |
| INCHGANICS | | 90 | | 0142 0 | 0.70 | 030 | 3 150 | e non | 5 080 | | 1 730 | | |
| Aluminum | By du | 00 | 2000 | 0+10 | 0,10 | 0000 | | | | | 0 7 | | |
| Antimony | mg/kg | SB | | 0.46 B | 0,50 8 | 0.8615 | U.48 B | 0.88 5 | a 0.30 | | | | |
| Arsenic | mg/kg | 7.5 or SB | 3 - 12 | 2.8 | 0.36 U | 5.9 | 3.4 | 3.4 | 2.2 S | | а () С /) | | |
| Banum | mg/kg | 300 or SB | 15 - 600 | 39.2 | 28.4 B | 85.1 | 71.9 | 26.4 | 60.0 | | 55.3 B | | |
| Bervilum | mg/kg | 0.16 or SB | 0 - 1.75 | 0.23 B | 0.16B | 0.41B | 0.24 B | 0.31B | 0.35B | | 0.10 B | | |
| Cadmium | mq/ko | 1 or SB | 0.1-1 | 0.04 U | 0.04 U | 0.03 U | 0.03 B | 0.03 U | 0.03 | | 0.18 B | | |
| Calcium | mg/kg | SB | 130 - 35,000 | 49,000 | 389,000 | 82,800 | 153,000 | 43,000 | 54,900 | | 51,500 | | |
| Chromium | mg/kg | 10 or SB | 1.5 - 40 | 6.2 | 0.3 B | 0.00 Sec. 11.9 Sec. | 5.6 | 10.4 | 9.0 | | 3.4 | | |
| Cobalt | mg/kg | 30 or SB | 2.5 - 60 | 2.7 B | 0.12 B | 4.8 B | 3.8 B | 5.5 B | 4.5 B | | 1.3 B | | |
| Copper | mg/kg | 25 or SB | 1-50 | 10.5 | 0.16 8 | 24.6 | 16.2 | 14.0 | 19.8 | | 11.0 | | |
| Iron | mg/kg | 2,000 or SB | 2,000 - 550,000 | 10,800 | 85 * | 31,200 | 7,870 | 15,100 * | 57,600* | _ | 9,940 | | |
| Lead | mg/kg | SB | 200 - 500 | 10.9 | 0.32 U | 43.2 | 4.7 | 19.5 | 18.2 | | 8.1 | | |
| Magnesium | mg/kg | SB | 100 - 5,000 | 3,600 | 2,340 | 12,100 | 12,100 | 14,500 | 3,870 | | 2,910 | | |
| Manganese | mg/kg | ß | 50 - 5,000 | 171 | 7.3 | 682 | 293 | 269 | 1,680 | | 238 | | |
| Mercury | ma/kg | 0.1 | 0.001 - 0.2 | 0.073 | 0.004 U | 0.039 | 0.010 B | 0.021 | 0.040 | | 0.074 | | |
| Nicket | mg/kg | 13 or SB | 0.5 - 25 | 6.5 | 1.6B | 10.5 | 14 | 12.4 | 8.6 | _ | 8.7 B | | |
| Potassium | ma/kg | SB | 8,500 - 43,000 | 538 B | 34.3 B | 821 | 826 | 971 | 597 B | | 312 B | | |
| Selenium | ma/ka | 2 or SR | 0.1 - 3.9 | 0.86 B | 0.46 U | 0.37 B | 0.31 U | 0.53 B | 1.18 | _ | 4.6 B | | |
| Silver | ШQ.Kg | SB | | 0.14B | 0.05 B | 0.14 B | 0.10 B | 0.08 B | 0.15 B | | 0.18 B | | |
| Sodium | ma/ka | SB | 6.000 - 8.000 | 206 B | 188 B | 2268 | 138 B | 103 B | 197 B | | 5568 | | |
| Thailinm | mo/ka | SB | | 0.68 U | 0.72 U | 0.49 U | 0.76B | 0.48 U | 1.28 | | 1.3 | | |
| Vanadiim | ma/ka | 150 or SB | 1-300 | . 10.3 | 0.09 8 | 21.2 | 7.2 | 12.2 | 18.4 | | 4.6 B | | |
| Zinc | marka | 20 or SB | 9-50 | 22.7 | 1.4 B | 90.2 | 23.0 | 34.8 | 32.7 | | 33.8 | | |
| | 6 | | | | | | | | | | | | |
| Leachable oH | S.U. | | | 7.33 | 7.62 | 7.55 | 7.84 | 9.35 | 7.52 | | 7.24 | | 7.85 |

HSCO = Recommended Soil Cleanup Objectives 1,000 - indicates detected value for organics. Indicates value exceeds TAGM 4046 RSCO

٠

F. IProjectiC81 • Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007HH ReportITables Table Braikdted.xis / ConSump SV

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - Sump

| Sample ID -> | Units | TAGM | GPS 1-1 | GPS 14 |
|--|--|-----------|----------|--------------|
| Depth - > | | 4046 | 10 - 14 | 10 - 14 |
| Date Sampled -> | _ | RSCO | 03/02/06 | 03/02/06 |
| VOLATAES | - | | | |
| Chloromethane | пока | | 201 | ∩ 97 50 C |
| Bromomethane | ng/kg | | 20102 | 797 C |
| Vinyl chionde | 10Kg | 2007 | 0.02 | |
| Chloroetnane | 10xd | 007 | | |
| Meunylerie Grioride | Part of the second seco | 38 | 0 02 | 0.07 |
| | Runn | 310 | 0.02 | 1 20 |
| Variori asullue 1.1. Dichlorecthere | Dalla I | 304 | 1106 | 2611 |
| 1.1-Dichloroethane | | 200 | 2010 | 26 U |
| Chloroform | na/ka | 300 | 2010 | 26 U |
| 1,2-Dichloroethane | LIQ/KG | 100 | 20 U | 26 U |
| 2-Butanone | µg/kg | 300 | 20 U | 26 U |
| 1.1.1-Trichloroethane | tug/kg | 800 | 20 U | 26 U |
| Carbon tetrachtoride | i µg/kg | 60 | 20 U | 26 U |
| Bromodichtoromethane | µg/kg | | 20 U | 26 U |
| 1,2-Dichtoropropane | µg/kg | | 20 U | 26 U |
| cis-1,3-Dichloropropene | pg/kg | - | 20 U | 26 U |
| Trichloroethene | 110/kg | 700 | 3.1 | 7 6 |
| Dibromochloromethane | pg/kg | | 20 U | 26 U |
| 1,1,2-Trichloroelhane | 120'kg | | 2010 | 26 U |
| Benzene | pg/kg | 60 or MDL | 20 G | 2 2 |
| trans-1,3-Dichloropropene | pg/kg | | 20 U | 26 U |
| Bromoform | pg/kg | | 20 U | 26U |
| 4-Methyl-2-pentanone | hg/kg | 1,000 | 20 U | 26 U |
| 2-Hexanone | р9/кд | | 20 U | 26 U |
| Tetrachloroethene | hg/kg | 1,400 | 20 U | 5 J |
| Toluene | pg/kg | 1,500 | 20 U | 26 U |
| 1,1,2,2-Tetrachioroethane | 19%G | 89 | 20 U | 26 U |
| Chtorobenzene | 1:0/kg | 1,700 | 20 U | 26 U |
| Ethylbenzene | 63/61 | 5,500 | 20 U | 260 |
| Styrene | 10/kg | | 20 U | 28 U |
| Total Xylenes | 10/kg | 1,200 | 2010 | 26 U |
| 1,1,2-Trichloro-1,2,2-trilluoroethane | руурц | 1,000 | 2010 | 26 U |
| cis-1,2-Dichloroethene | 10/kg | | 7 J | 7 7 |
| trans-1,2-Dichloroethene | 54/61 | 80 | 2010 | 26 U |
| Dichlorodifluoromethane | 5,67 | | 20 U | 26 U |
| Trichlorofluoromethane | p3/kg | | 20 U | 26 U |
| Methyl acetate | pg/kg | | 20 U | 26 U |
| Methyl tert butyl ether | 10/kg | 120 | 20 U | 26 U |
| Cyclohexane | pg/kg | | 20 U | 26 U |
| Methylcyclohexane | hg/kg | | 20 U | 26U |
| 1,2-Dibromoethane | 19%g | | 20 U | 26 U |
| Isopropylbenzene | hg/kg | | 200 | 26 U |
| 1,3-Dichlorobenzene | pg/kg | 1,600 | 20 U | 26 U |
| 1,4-Dichlorobenzene | pg/kg | 8,500 | 20 0 | 26 U |
| 1,2-Dichlorobenzene | µg/kg | 7,900 | 20 U | 26 U |
| 1.2-Dibromo-3-chloropropane | D3/61 | | 20 U | 2610 |
| 1,2,4-Trichlorobenzene | µ9/kg | 3,400 | 2010 | 26IU |

RSCO = Recommended Soil Cleanup Objectives 1000 | Macates decered value for opping. Macates value exceeds TAGM 4046 RSCO

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8B - Phase 3 GeoProbe Boring Data for Additional Locations

| Sample ID -> | Units | TAGM | SVGP-1 | SVGP-2 | GPD-19 | GPD-29 | GPD-55 | GPD-60 |
|------------------------------|-------|-------------|-----------------|-----------|----------|-----------|-----------|-----------|
| Depth - > | | 4046 | 7-10 ft. | 7-10 ft. | 3-4 ft. | 0.5-4 ft. | 4-7 ft. | 4-7 ft. |
| Date Sampled -> | | RSCO | 9/27/2005 | 9/27/2005 | 9/9/2005 | 9/13/2005 | 9/21/2005 | 9/22/2005 |
| SEMIVOLATILES | | | | | | | | |
| Benzaldehyde | ug/kg | | 2100 U | 1200 U | NS | NS | NS | NS |
| Phenol | ug/kg | 30 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| Bis(2-chloroethyl) ether | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 2-Chlorophenol | ug/kg | 800 | 1000 U | 600 U | NS | NS | NS | NS |
| 2-Methylphenol | ug/kg | 100 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| 2,2'-Oxybis(1-Chloropropane) | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| Acetophenone | ug/kg | | 2100 U | 1200 U | NS | NS | NS | NS |
| 4-Methylphenol | ug/kg | 900 | 1000 U | 600 U | NS | NS | NS | NS |
| N-Nitroso-Di-n-propylamine | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| Hexachloroethane | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| Nitrobenzene | ug/kg | 200 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| Isophorone | ug/kg | 4400 | 1000 U | 600 U | NS | NS | NS | NS |
| 2-Nitrophenol | ug/kg | 330 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| 2,4-Dimethylphenol | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| Bis(2-chloroethoxy) methane | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 2.4-Dichlorophenol | ug/kg | 400 | 1000 U | 600 U | NS | NS | NS | NS |
| Naphthalene | ug/kg | 1,300 | 1000 U | 600 U | NS | NS | NS | NS |
| 4-Chloroaniline | ug/kg | 220 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| Hexachlorobutadiene | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| Caprolactam | ug/kg | | 2100 U | 1200 U | NS | NS | NS | NS |
| 4-Chloro-3-methylphenol | ug/kg | 240 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| 2-Methylnaphthalene | ug/kg | 36,400 | 1000 U | 600 U | NS | NS | NS | NS |
| Hexachlorocyclopentadiene | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 2,4,6-Trichlorophenol | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 2,4,5-Trichlorophenol | ug/kg | 100 | 2500 U | 1400 U | NS | NS | NS | NS |
| Biphenyl | ug/kg | | 2100 U | 1200 U | NS | NS | NS | NS |
| 2-Chloronaphthalene | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 2-Nitroaniline | ug/kg | 430 or MDL | 2500 U | 1400 U | NS | NS | NS | NS |
| Dimethyl phthalate | ug/kg | 2,000 | 1000 U | 600 U | NS | NS | NS | NS · |
| 2,6-Dinitrotoluene | ug/kg | 1,000 | 1000 U | 600 U | NS | NS | NS | NS |
| Acenaphthylene | ug/kg | 41,000 | 1000 U | 600 U | NS | NS | NS | NS |
| 3-Nitroaniline | ug/kg | 500 or MDL | 2500 U | 1400 U | NS | NS | NS | NS |
| Acenaphthene | ug/kg | 50,000 | 1000 U | 600 U | NS | NS | NS | NS |
| 2,4-Dinitrophenol | ug/kg | 200 or MDL | 2500 U | 1400 U | NS | NS | NS | NS |
| 4-Nitrophenol | ug/kg | 100 or MDL | 2500 U | 1400 U | NS | NS | NS | NS |
| Dibenzofuran | ug/kg | 6,200 | 1000 U | 600 U | NS | NS | NS | NS |
| 2,4-Dinitrotoluene | ug/kg | 1,000 | 1000 U | 600 U | NS | NS | NS | NS |
| Diethyl phthalate | ug/kg | 7,100 | 1000 U | 600 U | NS | NS | NS | NS |
| Fluorene | ug/kg | 50,000 | 1000 U | 600 U | NS | NS | NS | NS |
| 4-Chlorophenyl phenyl ether | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 4-Nitroaniline | ug/kg | | 2500 U | 1400 U | NS | NS | NS | NS |
| 4,6-Dinitro-2-methylphenol | ug/kg | | 2500 U | 1400 U | NS | NS | NS | NS |
| N-nitrosodiphenylamine | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| 4-Bromophenyl phenyl ether | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS |
| Hexachlorobenzene | ug/kg | 410 | 1000 U | 000U | NS | NS | NS | NS |
| Atrazine | ug/kg | | 210010 | 1200 U | NS | NS | * 'NS | NS |
| Pentachlorophenol | ug/kg | 1000 or MDL | 250010 | 1400 0 | NS | NS | NS | NS |
| Phenanthrene | ug/kg | 50,000 | 1000 U | 600 U | NS | NS | NS | NS |
| Anthracene | ug/kg | 50,000 | 1000 U | 600 U | NS | NS | NS | NS |
| Carbazole | ug/kg | | 1000 U | 600 0 | NS | NS | NS | NS |
| Di-n-butyl phthalate | ug/kg | 8,100 | 1000 U | 600 U | NS | NS | NS | NS |
| Fluoranthene | ug/kg | 50,000 | | 600 U | NS NS | NS | NS NO | NS |
| Pyrene | ug/kg | 50,000 | U 0001 | 600 U | NS | NS | NS | NS |
| Butyl benzyl phthalate | ug/kg | 50,000 | 1000 U | 600 U | NS | NS | NS | NS |
| 3.3-Dichlorobenzidine | ug/kg | | 1000 U | 600 U | NS | NS | NS | NS NS |
| Benzo(a)anthracene | ug/kg | 224 or MDL | 100010 | 600 U | NS | NS | NS | NS |
| Chrysene | ug/kg | 400 | 1000 U | 600 U | NS | NS | NS | NS |
| Bis(2-ethylhexyl) phthalate | ug/kg | | 81 BJ | 48 BJ | NS | NS | NS | NS |
| Di-n-octyl phthalate | ug/kg | 50,000 | 35 J | 600 U | NS | NS | NS | NS |
| Benzo(b)fluoranthene | ug/kg | 1,100 | <u> 1000 U</u> | 600 U | | NS | I NS | NS |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8B - Phase 3 GeoProbe Boring Data for Additional Locations

| Sample ID -> | Units | TAGM | SVGP-1 | SVGP-2 | GPD-19 | GPD-29 | GPD-55 | GPD-60 |
|------------------------------|-------------|------------------|-----------|-----------|----------|-----------|---|-----------|
| Depth - > | 0.1100 | 4046 | 7-10 ft. | 7-10 ft. | 3-4 ft. | 0.5-4 ft. | 4-7 ft. | 4-7 ft. |
| Date Sampled -> | | RSCO | 9/27/2005 | 9/27/2005 | 9/9/2005 | 9/13/2005 | 9/21/2005 | 9/22/2005 |
| SEMIVOLATILES | | | | | | | ••••••••••••••••••••••••••••••••••••••• | |
| Benzo(k)fluoranthene | ug/kg | 1,100 | 1000 U | 600 U | NS | NS | NS | NS |
| Benzo(a)pyrene | ug/kg | 61 or MDL | 380 J | 600 U | NS | NS | NS | NS |
| Indeno(1,2,3-cd)pyrene | ug/kg | 3,200 | 1000 U | 600 U | NS | NS | NS | NS |
| Dibenzo(a,h)anthracene | ug/kg | 14 or MDL | 1000 U | 600 U | NS | NS | NS | NS |
| Benzo(ghi)perylene | ug/kg | 50,000 | 1000 U | 600 U | NS | NS | NS | NS |
| PETROLEUM PRODUCTS by USEPA | Method 310. | .3 | | | | | | |
| Kerosene | mg/kg | NA | NS | NS | 20 U | 19 U | 17 U | NS |
| Gasoline | mg/kg | NA | NS | NS | 20 U | 19 U | 17 U | NS |
| Motor Oil | mg/kg | NA | NS | NS | 20 U | 6000 | 1700 | NS |
| Fuel Oil#2 | mg/kg | NA | NS | NS | 310 | 19 U | 17 U | NS |
| Fuel Oil #4 | mg/kg | NA | NS | NS | 20 U | 19 U | 17 U | NS |
| Fuel Oil #6 | mg/kg | NA | NS | NS | 20 U | 19 U | 17 U | NS |
| Other | mg/kg | NA | NS | NS | 200 U | 190 U | 170 U | NS |
| POLYCHLORINATED BIPHENYLS by | USEPA Met | hod 8082 | | | | | | |
| Arocior 1016 | mg/kg | | NS | NS | NS | NS | NS | 87 U |
| Arocior 1221 | mg/kg | 1 000 - curfaco | NS | NS | NS | NS | NS | 87 U |
| Aroclor 1232 | mg/kg | soils 10.000 | NS | NS | NS | NS | NS | 87 U |
| Aroclor 1242 | mg/kg | - 0005, 10,000 * | NS | NS | NS | NS | NS | 87 U |
| Aroclor 1248 | mg/kg | subsulidue | NS | NS | NS | NS | NS | 87 U |
| Aroclor 1254 | mg/kg | 30113 | NS | NS | NS | NS | NS | 87 U |
| Aroclor 1260 | mg/kg | | NS | NS | NS | NS | NS | 87 U |

Notes:

Data is preliminary pending data validation

NS = location was not sampled for the identified constituent

 NA = not applicable

 BOLD
 indicates constituent was detected

 SHADED
 detected level exceedsTAGM 4046 recommended site cleanup objective (RSCO)

1. ÷ •

a 1

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8B - Phase 3 GeoProbe Boring Data for Additional Locations

| Sample ID -> | Units | TAGM | DAW-4 | DAW-4 | DAW-4 | MW-13D |
|--------------------------|-------|-------|-------------|----------|----------|----------|
| Depth - > | | 4046 | 13.5 - 14.5 | 16 - 18 | 22 - 24 | 14 - 16 |
| Date Sampled -> | | RSCO | 04/20/06 | 04/24/06 | 04/24/06 | 04/24/06 |
| VOLATILES | | | | | | |
| Vinyl chloride | µg/kg | 200 | 12 J | 11 U | 11 U | 21 J |
| Trichloroethene | µg/kg | 700 | 12 J | 11 U | 11 U | 22 U |
| Tetrachloroethene | µg/kg | 1,400 | 12 J | 11 U | 11 U | 28 |
| trans-1,2-Dichloroethene | µg/kg | 300 | 2 J | 11 U | 11 U | 16 J |
| Dichlorodifluoromethane | µg/kg | | 12 J | 11 U | 11 U | 22 U |

:

x 1

Pioneer Midler Avenue LLC Remedial Investigation Report Table 8 - Phase 3 GeoProbe Boring Data for Source Area Delineation - Sump

| trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | Tetrachloroethene | Trichloroethene | Vinyl chlorida | VOLATILES | Date Sampled -> | Depth - > | Sample ID -> |
|--------------------------|------------------------|-------------------|-----------------|----------------|-----------|-----------------|-----------|--------------|
| pg/kg | pg/kg | µg/kg | µg/kg | µg∕kg | | | | Units |
| 300 | | 1,400 | 700 | 200 | | RSCO | 4046 | TAGM |
| 20 U | נ 7 | 20 U | <u>r</u> [5 | 20 U | | 03/02/06 | 10 - 14 | GPS 1-1 |
| 260 | 71 | 5J | 5 6 | 26 U | | 03/02/06 | 10-14 | GPS 1-4 |

4. + 1

ж. I

RSCO == Recommended Soil Cleanup Objectives 1,003 - Indicates detected value for organics. - Indicates value exceeds TAGM 4046 RSCO

Pioneer Midler Avenue LLC Remedial Investigation Report Table 9 - Phase 1 Surface Soil Data for PCBs/Pesticides

| Sample ID -> | Units | TAGM 4 | 1046 | P-1 0-6-C | P-2 0-6-C | P-3 0-6-C |
|---------------------|-----------|---------------|---------|-----------|------------|-----------|
| Depth - > | | RSCO | Eastern | | 0-6 inches | |
| Date Sampled -> | | | NSA | | 11/18/2004 | |
| PESTICIDES/AROCLOF | <u>3S</u> | | | | | |
| alpha-BHC | ug/kg | 110 | | 19 U | 21 U | 19 U |
| beta-BHC | ng/kg | 200 | | 19 U | 21 U | 19 U |
| delta-BHC | ng/kg | 300 | | 19 U | 21 U | 19 U |
| gamma-BHC (Lindane) | ng/kg | 60 | | 19 U | 21 U | 19 U |
| Heptachlor | ug/kg | 100 | | 4.7 J | 21 U | 19 U |
| Aldrin | ug/kg | 41 | | 19 U | 21 U | 19 U |
| Heptachlor epoxide | ng/kg | 20 | | 35 U | 21 U | 19 U |
| Endosulfan I | ng/kg | 006 | | 19 U | 21 U | 19 U |
| Dieldrin | ng/kg | 44 | | 37 U | 0 O | 38 U |
| 4,4'-DDE | ug/kg | 2,100 | | 30 JP | 40 U | 38 U |
| Endrin | ng/kg | 100 | | 37 U | 40 U | 38 U |
| Endosulfan II | ng/kg | 800 | | 37 U | 40 U | 38 U |
| 4,4'-DDD | ug/kg | 2,900 | | 71 | 40 U | 38 U |
| Endosulfan Sulfate | ng/kg | 100 | | 76 PJ | 24 JP | 38 U |
| 4,4'-DDT | ng/kg | 2,100 | | 140 PJ | 40 P | 38 U |
| Methoxychlor | ug/kg | | | 190 U | 44 JPN | 190 U |
| Endrin ketone | ug/kg | | | 190 U | 40 U | 38 U |
| Endrin aldehyde | ug/kg | | | 37 U | 40 U | 38 U |
| alpha-Chlordane | ng/kg | 540 | | 19 U | 21 U | 19 U |
| gamma-Chlordane | ug/kg | 540 | | 19 U | 21 U | 19 U |
| Toxaphene | ug/kg | | | 1,900 U | 2,100 U | 1900 U |
| Aroclor 1016 | ug/kg | 1 | | 370 U | 400 U | 380 U |
| Aroclor 1221 | ng/kg | 1,000 - | | 760 U | 810 U | 770 U |
| Aroclor 1232 | ug/kg | surface | | 370 U | 400 U | 380 U |
| Arocior 1242 | ug/kg | soils, 10,000 | | 370 U | 400 U | 380 U |
| Aroclor 1248 | ug/kg | - subsurface | | 370 U | 400 U | 380 U |
| Aroclor 1254 | ug/kg | soils | | 370 U | 400 U | 380 U |
| Arocior 1260 | ug/kg | | | 370 U | 400 U | 380 U |
| | | | | | | |

Notes:

BOLD indicates constituent was detected **SHADED** indicates detected level exceeding applicable TAGM 4046 recommended site cleanup objective (RSCO)

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | | trans | |
|-----------|-------------|--------------|------------|---------|----|---------|-----|--------------------|----|---------|----|---------|------------|
| | TAGM 40 | 046 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | | 300 | |
| | Propos | sed SSCOs -> | | 800 | | 2,800 | | 5, 6 00 | | NA | | 1,200 | |
| B-1 | 4 - 6 | 11/12/04 | 38,900 | 8,100 | | 5,800 | | 14,000 | | 11,000 | | 1,800 | U |
| B-2 | 5 - 7 | 11/12/04 | 55 | 11 | J | 5 | J | 21 | | 18 | | 16 | U |
| B-3 | 14 - 16 | 11/11/04 | 408,000 | 16,000 | U | 68,000 | 1 | 310,000 | | 30,000 | | 16,000 | U |
| B-3 | 2 - 4 | 11/11/04 | 22 | 11 | U | 2 | J | 20 | | 11 | U | 11 | U |
| B-4 | 2 - 4 | 11/11/04 | 11 | 12 | U | 3 | J | 8 | J | 12 | υI | 12 | U |
| B-5 | 6 - 8 | 11/12/04 | 62,590 | 3,800 | | 490 | J | 1,200 | J | 54,000 | | 3,100 | |
| B-5 DL | 6 - 8 | 11/12/04 | 63,800 | 3,700 | DJ | 5,800 | U | 2,300 | DJ | 54,000 | D | 3,800 | Dy |
| B-6 | 2 - 4 | 11/11/04 | 0 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| B-7 | 2 - 4 | 11/12/04 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | U |
| B-8 | 2 - 4 | 11/11/04 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | U |
| B-9 | 2 - 4 | 11/11/04 | 17 | 11 | U | 11 | Ų | 17 | | 11 | U | 11 | U |
| B-10 | 3 - 6 | 11/12/04 | 0 | 1,700 | U | 1,700 | U | 1,700 | Ų | 1,700 | U | 1,700 | U |
| LB-8 | 4 - 6 | 11/09/04 | 0 | 15 | U | 15 | U | 15 | U | 15 | U | 15 | U |
| PB-3 | 2 - 4 | 11/22/04 | 0 | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| PB-4 | 2 - 4 | 11/18/04 | 0 | 12 | U | 12 | U | 12 | U | 12 | U | 12 | <u>U</u> |
| PB-7 | 2 - 4 | 11/19/04 | 12 | 12 | UJ | 12 | U | 12 | U | 12 | U | 12 | U |
| PB-12 | 18 - 20 | 11/24/04 | 85 | 17 | UJ | 17 | IUJ | 17 | UJ | 17 | UJ | 17 | UJ |
| MW-1 | 4 - 6 | 11/17/04 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | U |
| MW-2 | 2 - 4 | 11/18/04 | 0 | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| MW-3 | 2 - 4 | 11/18/04 | 46 | 14 | U | 14 | U | 46 | | 14 | U | 14 | , U |
| MW-4 | 2 - 4 | 11/17/04 | 0 | 14 | U | 14 | U | 14 | υ | 14 | υ | 14 | U |
| MW-5 | 2 - 4 | 11/17/04 | 10 | 12 | U | 12 | U | 10 | J | 12 | U | 12 | U |
| MW-6 | 4 - 7 | 11/16/04 | 0 | 13 | U | 13 | U | 13 | U | 13 | U | 13 | U |
| MW-7 | 4 - 6 | 11/16/04 | 11 | 11 | υ | 11 | UJ | 11 | U | 11 | U | 11 | U |
| MW-8 | 2 - 5 | 11/18/04 | 0 | 18 | U | 18 | U | 18 | U | 18 | U | 18 | U |
| MW-2D | 16-18 | 01/27/05 | 0 | 18 | U | 18 | U | 18 | U | 18 | U | 18 | U |
| MW-3D | 20-22 | 01/25/05 | 2,315 | 160 | | 3 | J | 12 | J | 2,000 | J | 140 | / |
| MW-3D DL | 20-22 | 01/25/05 | 2,000 | 4,300 | U | 4,300 | U | 4,300 | U | 2,000 | DJ | 4,300 | U U |
| MW-3D | 24-26 | 01/25/05 | 2 | 14 | U | 14 | U | 2 | J | 14 | U | 14 | , U |
| MW-4D | 14-16 | 01/26/05 | 0 | 13 | U | 13 | U | 13 | U | 13 | U | 13 | i U |
| MW-9D | 16-18 | 01/27/05 | 0 | 16 | U | 16 | U | 16 | U | 16 | U | 16 | i U_ |
| MW-9D | 18-20 | 01/27/05 | 0 | 15 | U | 15 | U | 15 | U | 15 | υ | 15 | U |
| MW-10D | 16-18 | 01/26/05 | 54 | 7 | J | 18 | U | 18 | U | 45 | | 2 | J |
| MW-11D | 20-22 | 01/24/05 | 13,648 | 11 | U | 550 | E | 13,000 | - | £ 96 | | 2 | ؛J |
| MW-11D DL | 20-22 | 01/24/05 | 13,650 | 1,300 | U | 650 | DJ | 13,000 | D | 1,300 | υ | 1,300 | IU |
| GP-2 | 12 - 16 | 03/17/05 | 2,852 | 820 | 9 | 12 | J | 80 | | 1,700 | J | 240 |) |
| GP-2 DL | 12 - 16 | 03/17/05 | 2,560 | 500 | DJ | 2,000 | U | 360 | DJ | 1,700 | DJ | 2,000 | <u>IU</u> |
| GP-2 | 16 - 19 | 03/17/05 | 1,837 | 24 | J | 92 | | 82 | | 1,600 | J | 39 |) |
| GP-2 DL | 16 - 19 | 03/17/05 | 2,310 | 3,500 | U | 3,500 | U | 710 | DJ | 1,600 | DJ | 3,500 | ۱U . |
| GP-3 | 16 - 19 | 03/17/05 | 13,250,000 | 980,000 | U | 250,000 | 7 | 13,000,000 | d; | 980,000 | U | 980,000 | <u>10</u> |
| GP-3 | 19 - 19.5 | 03/17/05 | 6,140,000 | 360,000 | U | 240,000 | J | 5,900,000 | - | 360,000 | υ | 360,000 | 기U 기U |
| GP-4 | 10-12 | 03/17/05 | 254,400 | 80,000 | | 16,000 | U | 4,400 | 5 | 170,000 | | 16,000 | וו |
| GP-7 | 8 - 12 | 03/18/05 | 47 | 5 | J | 20 | U | 20 | U | 37 | | 5 | j J |
| GP-7 | 16 - 18.9 | 03/18/05 | 105 | 3 | J | 3 | J | 29 | U | 89 | | 10 | J |
| GP-9 | 8 - 10.5 | 03/18/05 | 3,298 | 2,700 | EJ | 33 | U | 33 | U | 530 | | 68 | 3 |
| GP-9 DL | 8 - 10.5 | 03/18/05 | 4,900 | 2,700 | DJ | 3,900 | UU_ | 3,900 | U | 2,200 | DJ | 3,900 | <u>10</u> |
| GP-9 | 16 - 18.5 | 03/18/05 | 100 | 4 | J | 14 | J | 20 | U | 69 | | 13 | 3 J |
| GP-10 | 9 - 10 | 03/18/05 | 53 | 10 | J | 29 | U | 29 | U | 32 | | 11 | IJ |
| GP-10 | 14 - 16 | 03/21/05 | 61 | 34 | U | 34 | U | 22 | J | 32 | J | 7 | ′ J |
| GP-11 | 15 - 16 | 03/21/05 | 34 | 28 | U | 28 | U | 14 | J | 20 | J | - 28 | 3 U_ |
| GP-11 | 16 - 18 | 03/21/05 | 31 | 29 | U | 29 | U | 4 | J | 20 | J | 7 | ′ <u>J</u> |
| GP-12 | 8 - 12 | 03/21/05 | 4,100 | 1,300 | J | 1,900 | U | 1,900 | U | 2,800 | | 1,900 | າມ |
| GP-14 | 18.5 - 19.5 | 03/21/05 | 2,396 | 6 | J | 710 | J | 660 | J | 790 | J | 230 | <u>)</u> |

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | | trans | |
|------------|-------------|--------------|---------------|-------------|----------|---------------------|-------------|------------|----------|-----------|-----------|-----------|-----|
| | TAGM 40 | 46 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | | 300 | |
| | Propos | sed SSCOs -> | | 800 | | 2,800 | | 5,600 | | NA | | 1,200 | |
| GP-14 DL | 18.5 - 19.5 | 03/21/05 | 1,370 | 2,700 | U | 710 | DJ | 660 | DJ | 2,700 | U | 2,700 | U |
| GP-15 | 24 - 25 | 03/21/05 | 523,000 | 38,000 | U | 13,000 | J | 510,000 | | 38,000 | U | 38,000 | U |
| SB 2-1 | 5 - 7 | 03/16/05 | 0 | 15 | U | 15 | υ | 15 | U | 15 | U | 15 | U |
| SB 2-1 RE | 5-7 | 03/16/05 | 0 | 15 | υ | 15 | U | 15 | U | 15 | U | 15 | U |
| SB 2-1 | 8 - 10 | 03/16/05 | 0 | 18 | υ | 18 | υ | 18 | U | 18 | U | 18 | U |
| SE 3-1 | 2 - 4 | 03/16/05 | 0 | 34 | υ | 34 | υ | 34 | U | 34 | υ | 34 | υ |
| SB 3-1 | 12 - 14 | 03/16/05 | 0 | 19 | U | 19 | U | 19 | U | 19 | U | 19 | Ũ |
| \$3.7-1 | 2 - 4 | 03/17/05 | 278 | 20 | U | 18 | J | 260 | | 20 | U | 20 | υ |
| SB 7-1 | 16 - 18 | 03/17/05 | 0 | 29 | Ū | 29 | Ū | 29 | U | 29 | U | 29 | U |
| SB 9-1 | 4 - 6 | 03/17/05 | 169 | 15 | Ú | 39 | | 130 | | 15 | υ | 15 | U |
| SB 9-1 | 16 - 18 | 03/17/05 | 553 | 21 | U | 240 | | 64 | | 160 | | 89 | |
| 98-12-1 | 0-2 | 03/18/05 | 224 | 12 | Ŭ | 220 | | 12 | υ | 4 | J | 12 | U |
| SB 12-1 | 16 - 18 | 03/18/05 | 6.800 | 1.600 | Ū | 1.800 | | 5.000 | | 2,700 | U | 1,600 | U |
| SB 13-2 | 12 - 14 | 03/21/05 | 23,260 | 3.200 | - | 18 | U | 18 | U | 20.000 | | 60 | |
| SB 13-2 DI | 12 - 14 | 03/21/05 | 23,200 | 3.200 | D | 2.100 | U | 2.100 | υ | 20,000 | D | 2.100 | U |
| SB 13-2 | 20 - 22 | 03/21/05 | 16,700 | 2,700 | | 2,100 | Ū | 2,100 | U | 14.000 | | 2,100 | U |
| SB 13-4 | 4 - 6 | 03/18/05 | 181 | 120 | | 14 | | 14 | U | 45 | | 2 | J |
| SB 13-4 | 20 - 22 | 03/18/05 | 1 | 1 | IJ | 13 | U | 13 | Ū | 13 | U | 13 | Ū |
| DAV-1 | 16-18 | 07/27/05 | 0 | 12 | Ŭ | 12 | Ŭ | 12 | U | 12 | Ū | 12 | Ū |
| DW-1 | 20-24 | 07/27/05 | 0 | 12 | Ŭ | 12 | Ū | 12 | Ŭ | 12 | U | 12 | U |
| 1146.0 | 20-22 | 07/26/05 | 70 | 14 | U.I | 14 | UJ. | 14 | ŪJ | 14 | ŪJ | 14 | ŪJ |
| DW-2 | 24-26 | 07/26/05 | 60 | 12 | Ū.I | 12 | <u>u</u> j | 12 | UJ. | 12 | ŪJ | 12 | UJ |
| DW-2B | 24-26 | 07/26/05 | 0 | 12 | Ū. | 12 | U | 12 | U | 12 | U | 12 | Ū |
| DW-2 | 40-43 | 07/26/05 | 139 | 12 | Ū.I | 17 | Ĵ | 86 | J | 12 | ŬJ | 12 | ŪJ |
| DW-28 | 40-43 | 07/26/05 | 175 | 12 | U | 25 | - | 150 | - | 12 | U | 12 | Ū |
| DW-3 | 16-18.5 | 07/27/05 | 0 | 19 | U | 19 | U | 19 | U | 19 | Ū | 19 | U |
| DW-4 | 6-8 | 07/28/05 | 1,214 | 210 | J | 52 | U | 52 | Ū | 990 | J | 14 | J |
| DW-4 BI | 6-8 | 07/28/05 | 1,202 | 190 | J | 51 | Ŭ | 51 | Ū | 1.000 | | 12 | J . |
| DW-4 | 16-18.5 | 07/28/05 | 647,210 | 910 | J | 26.000 | | 600,000 | | 20.000 | J | 300 | J |
| DW-4 DI | 16-18.5 | 07/28/05 | 646,000 | 60,000 | Ū. | 26,000 | DJ | 600,000 | D | 20.000 | DJ | 60.000 | Ū |
| DW-4 | 24-28.5 | 07/28/05 | 4 | 12 | Ū. | 12 | lu l | 2 | IJ | 2 | J | 12 | Ū |
| C20.1 | 7 - 9 | 09/06/05 | 39 | 4 | J | 14 | U.I | 14 | IJ | 5 | J | 2 | J |
| GPD-1 DI | 7 - 9 | 09/06/05 | 0 | 69 | Ŭ | 69 | U. | 69 | Ū. | 69 | Ū | 69 | Ū |
| GPD-1 | 11 - 14 | 09/06/05 | 59 | 13 | UJ | 13 | U. | 7 | J | 13 | ŪJ | 13 | ŪJ |
| GPD-1 DI | 11 - 14 | 09/06/05 | 0 | 64 | U | 64 | U | 64 | U | 64 | Ū | 64 | U |
| GPD-2 | 158-175 | 09/06/05 | 4 678 | 60 | Ŭ | 2,200 | | 2.100 | - | 340 | - | 38 | J |
| GPD-2 DI | 15.8 - 17.5 | 09/06/05 | 4 530 | 1 500 | Ŭ | 2 200 | D | 2,100 | D | 230 | DJ | 1,500 | Ū |
| GPD-3 | 4 - 8 | 09/06/05 | 1 000 140 330 | 1,000 | ц ПП | 110.000 | J | 1.E+09 | - | 30,000 | | 330 | J |
| GPD-3 DI | 4-8 | 09/06/05 | 1,000,000,000 | 2 E+09 | | 2 E+09 | iii | 1.E+09 | DJ | 2 E+09 | U | 2 F+09 | Ū |
| GPD-3 | 15.17 | 09/06/05 | 12 002 700 | 1.400 | <u>u</u> | 2 700 | ľ | 12 000 000 | | 1.400 | Ū | 1,400 | ίυ. |
| GPD-3 DI | 15 - 17 | 09/06/05 | 12,310,000 | 1 400 000 | ŭ | 310,000 | DJ | 12,000,000 | BD | 1.400.000 | Ŭ | 1,400,000 | Ū |
| GPD-3 | 17 - 20 | 09/06/05 | 23 004 100 | 1,100,000 | ŭ | 4 100 | | 23,000,000 | | 1,100,000 | U | 1,300 | Ŭ |
| GPD-3 DI | 17 - 20 | 09/06/05 | 23 370 000 | 2 600 000 | Ŭ. | 370,000 | D.I | 23 000 000 | BD | 2 600 000 | ій П | 2 600 000 | Ŭ |
| GPD 3 | 23-26 | 09/06/05 | 8 200 | 1 400 | ŭ | 1 500 | 00 | 6 700 | R | 1 400 | | 1 400 | ŭ |
| CPD-5 | 14 . 15.2 | 09/07/05 | 6,200 | 1,400 | | 1,500 | - | 4 500 | 0 | 550 | 10 | 1,100 | ŭ |
| GPD 5 | 16 - 18 | 09/07/05 | 3 283 | 1,000 | U U | 2 800 | | 4,000 | | 410 | | 62 | |
| | 16-18 | 09/07/05 | 5,205 | 1 500 | U U | 2,000 | n | 2 400 | n | 340 | n.i | 1 500 | 11 |
| | 10-10 | 00/07/05 | 1 000 | 1,500 | ы | 1 500 | | 1 000 | 5 | 1 500 | 10 | 1,000 | ы |
| | 12 12 | 00/07/05 | 1,500 | 1,000 E0 | lu - | 260 | <u> </u> | 1,300 | 1 | 760 | U. | 79 | ۲- |
| | 10 10 | 00/07/05 | 0,00 | 1 500 | | 200 | n | 1 600 | 1 n | 760 | in.i | 1 500 | 11 |
| GPD.6 | 12-13 | 09/07/05 | 2,020 | 1,000 | 1 II | 3 100 | | 2 800 | <u>۲</u> | 1 600 | | 1,000 | ŭ |
| CPD.7 | 10 10 | 00/07/05 | 7,000 | 1,000 | | <u>छ</u> ,क00 11 | | 11 | | 11 | | 1,000 | ŭ |
| CPD 8 | 4-0 | 09/07/09 | 7 | | | 11 | H H H | | | 11 | <u> </u> | 11 | H |
| GPU-0 | 4 - 7.0 | 03/08/02 | 1 | <u> </u> | 1.0 | | <u> </u> | | <u> </u> | <u> </u> | <u>10</u> | L | 10 |

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | | trans | |
|-----------|-----------------|--------------|-----------|-----------|----|-----------|----|-----------|----------|-----------|----|-----------|-------------|
| | TAGM 4 | 046 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | | 300 | |
| | Propo | sed SSCOs -> | | 800 | | 2,800 | | 5,600 | | NA | | 1,200 | |
| GPD-8 | 11.5-15 | 09/19/05 | 70 | 18 | υ | 14 | J | 2 | J | 44 | | 10 | J |
| GPD-10 | 4 - 7.6 | 09/08/05 | 3,452 | 70 | | 2 | J | 12 | U | 3,200 | | 180 | |
| GPD-10 DL | 4 - 7.6 | 09/08/05 | 4,380 | 1,400 | U | 1,400 | U | 180 | DJ | 3,200 | D | 1,000 | DJ |
| GPD-10 | <u> 17 - 19</u> | 09/08/05 | 0 | 14 | U | 14 | U | 14 | U | 14 | U | 14 | U |
| GP0-12 | 4 - 7 | 09/08/05 | 2,024 | 180 | U | 12 | U | 12 | Ų | 2,000 | | 24 | |
| GPD-12 DL | 4 - 7 | 09/08/05 | 2,180 | 180 | DJ | 1,400 | U | 1,400 | U | 2,000 | D | 1,400 | U |
| GPD-12 | 15 - 16 | 09/08/05 | 148 | 4 | J | 20 | | 26 | | 92 | | 6 | J |
| GPD-12 | 16 - 19 | 09/08/05 | 5 | 2 | J | 12 | U | 12 | U | 3 | J | 12 | U |
| GPD-13 | 4 - 7 | 09/08/05 | 226 | 120 | | 4 | J | 13 | U | 100 | | 2 | J |
| GPD-14 | 7 - 9.8 | 09/08/05 | 62,900 | 5,000 | | 5,800 | Ĭ | 7,100 | - | 33,000 | | 12,000 | |
| GPD-14 | 15 - 17.5 | 09/08/05 | 1,019 | 14 | | 84 | | 110 | | 790 | | 21 | |
| GPD-14 DL | 15 - 17.5 | 09/08/05 | 2,010 | 1,300 | U | 480 | DJ | 740 | DJ | 790 | DJ | 1,300 | U |
| GPD-16 | 4 - 7 | 09/09/05 | 46 | 27 | | 12 | U | 12 | U | 19 | | 12 | U |
| GPD-16 | 11 - 15 | 09/09/05 | 13 | 1 | J | 12 | U | 12 | U | 10 | J | 2 | J |
| GPD-17 | 7 - 11 | 09/09/05 | 0 | 19 | U | 19 | U | 19 | U | 19 | U | 19 | U |
| GPD-18 | 4 - 7 | 09/09/05 | 1,515 | 200 | | 11 | U | 11 | U | 1,300 | | 15 | |
| GPD-18 DL | 4 - 7 | 09/09/05 | 1,300 | 1,300 | U | 1,300 | U | 1,300 | U | 1,300 | D | 1,300 | υ |
| GPD-18 | 11 - 15 | 09/09/05 | 2,381 | 100 | | 120 | | 5 | J | 2,100 | | 56 | |
| GPD-18 DL | 11 - 15 | 09/09/05 | 2,580 | 1,700 | U | 480 | DJ | 1,700 | U | 2,100 | D | 1,700 | U |
| GPD-19 | 3 - 4 | 09/09/05 | 5,790 | 1,600 | υ | 440 | J_ | 4,500 | | 850 | J | 1,600 | U |
| GPD-19 | 7 - 11 | 09/09/05 | 20,300 | 9,100 | | 1,300 | U | 1,300 | U | 11,000 | | 200 | J |
| GPD-20 | 2 - 4 | 09/09/05 | 1 | 12 | U | 12 | U | 1 | J | 12 | U | 12 | U |
| GPD-20 | 15 - 17.7 | 09/09/05 | 2 | 11 | U | 11 | U | 11 | U | 2 | J | 11 | U |
| GPD-20 | 17.7 - 19 | 09/09/05 | 0 | 14 | U | 14 | U | 14 | U | 14 | U | 14 | U |
| GPD-21 | 3.3 - 4 | 09/09/05 | 0 | 1,300 | U | 1,300 | U | 1,300 | U | 1,300 | U | 1,300 | U |
| GPD-21 | 15 - 18.2 | 09/09/05 | 5,660 | 660 | J | 1,300 | U | 1,300 | U | 5,000 | | 1,300 | U |
| GPD-21 | 19 - 21 | 09/09/05 | 0 | 14 | U | 14 | U | 14 | U | 14 | U | 14 | U |
| GP0-24 | 2 - 4 | 09/12/05 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | U |
| GPD-24 | 11 - 15 | 09/12/05 | 0 | 11 | U | 11 | Ŭ | 11 | U | 11 | U | 11 | U |
| GPD-24 | <u> 16 - 17</u> | 09/12/05 | 0 | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| GPD-25 | 3 - 3.4 | 09/12/05 | 0 | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| GPD-25 | 11 - 15 | 09/12/05 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | U |
| GPD-26 | 4 - 7 | 09/12/05 | 270,600 | 3,200 | | 29,000 | | 210,000 | | 28,000 | | 400 | J |
| GPD-26 DL | 4 -7 | 09/12/05 | 269,200 | 2,200 | DJ | 29,000 | D | 210,000 | D | 28,000 | D | 15,000 | U |
| GPD-26 | 11 - 15 | 09/12/05 | 2,543,000 | 1,400 | U | 32,000 | E | 2,500,000 | | 11,000 | | 1,400 | U |
| GPD-26 DL | 11 - 15 | 09/12/05 | 2,500,000 | 1,400,000 | U | 1,400,000 | U | 2,500.000 | D | 1,400,000 | U | 1,400,000 | U |
| GPD-26 | 17.5 - 19 | 09/12/05 | 500 | 1,700 | U | 1,700 | U | 500 | J | 1,700 | U | 1,700 | U |
| GPD-27 | 0 - 4 | 09/12/05 | 62 | 51 | U | 23 | J | 39 | J | 51 | U | 51 | U |
| GPD-27 | 7 - 11 | 09/12/05 | 2,995 | 1,400 | 1 | 110 | U | 110 | U | 1,500 | _ | 95 | J |
| GPD-28 | 0.5-4 | 09/13/05 | 93 | 2 | J | 9 | J | 58 | <u> </u> | 20 | | 4 | J |
| GPD-28 | 11 - 15 | 09/13/05 | 0 | 22 | U | 22 | U | 22 | U | 22 | U | 22 | U |
| GPD-29 | 0.5 - 4 | 09/13/05 | 327 | 84 | U | 24 | J | 280 | | 23 | J | 84 | U |
| GPD-29 | 12 - 16 | 09/13/05 | 23 | 23 | U | 3 | J | 4 | J | 8 | J | 8 | J |
| GPD-30 | 0.3 - 4 | 09/13/05 | 68 | 13 | U | 9 | J | 28 | | 24 | | 7 | J |
| GPD-30 | 11 - 15 | 09/13/05 | 25 | 4 | J | 21 | U | 2 | J | 15 | J | 4 | J |
| GPD-32 | 11-15 | 09/14/05 | 27,700 | 3,700 | - | 2,800 | U | 2,800 | U | 24,000 | | 2,800 | U |
| GPD-33 | 15 - 18 | 09/14/05 | 20,530 | 930 | 3 | 1,600 | J | 3,000 | U | 17,000 | | 1,000 | J |
| GPD-34 | 7 - 11 | 09/14/05 | 3,350 | 2,000 | 0 | 2,100 | U | 350 | J | 1,000 | J | 2,100 | U |
| GPD-34 | 15-17 | 09/14/05 | 5,340 | 2,700 | | 2,200 | U | 310 | J | 1,900 | J | 430 | J |
| GPD-36 | 4 - 7 | 09/15/05 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | <u> U</u> _ |
| GPD-36 | 11 - 15 | 09/15/05 | 8,840 | 1,200 | 3 | 1,400 | U | 1,400 | U | 7,100 | | 540 | J |
| GPD-37 | 7 - 11 | 09/15/05 | 10,860 | 2,800 | | 1,400 | U | 1,400 | U | 7,800 | | 260 | J_ |
| GPD-37 | 15-18.3 | 09/15/05 | 8,310 | 1,600 | U | 910 | J | 1,600 | U | 7,400 | | 1,600 | U |

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | | trans | |
|-----------|-----------|--------------|------------|-----------|----|-----------|----|------------|----|-----------|----|-----------|----|
| | TAGM 4 | 046 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | | 300 | |
| | Propo | sed SSCOs -> | | 800 | | 2,800 | | 5,600 | | NA | | 1,200 | |
| GPD-38 | 4 - 7 | 09/15/05 | 13 | | R | 13 | U | 13 | U | | R | 13 | UJ |
| GPD-38 DL | 4 - 7 | 09/15/05 | 357 | 27 | J | 67 | U | 67 | U | 330 | | 67 | U |
| GPD-38 | 15 -17 | 09/15/05 | 7,880 | 170 | J | 230 | J | 1,600 | U | 7,200 | | 280 | J |
| GPD-38 | 17 -19 | 09/15/05 | 22,000 | 1,700 | U | 1,700 | U | 22,000 | | 1,700 | U | 1,700 | U |
| GPD-41 | 7 - 11 | 09/16/05 | 17,400 | 4,400 | | 2,200 | U | 2,200 | U | 13,000 | | 2,200 | U |
| GPD-42 | 11 - 15 | 09/16/05 | 11,800 | 2,200 | | 2,000 | U | 2,000 | U | 9,600 | | 2,000 | U |
| GPD-43 | 11 - 15 | 09/16/05 | 8,500 | 1,700 | | 1,400 | U | 1,400 | U | 6,800 | | 1,400 | U |
| GPD-44 | 4 - 7 | 09/16/05 | 11,600 | 1,800 | | 1,500 | U | 1,500 | U | 9,800 | | 1,500 | U |
| GPD-44 | 15 -17.9 | 09/16/05 | 3,700 | 1,600 | U | 1,600 | U | 1,600 | U | 3,700 | | 1,600 | U |
| GPU-45 | 2 - 4 | 09/19/05 | 61 | 33 | | 11 | U | 1 | J | 27 | | 11 | U |
| GPD-45 | 15-18.3 | 09/19/05 | 21 | 9 | J | 13 | U | 13 | U | 12 | J | 13 | U |
| GPD-45 | 19-22 | 09/19/05 | 0 | 14 | U | 14 | U | 14 | U | 14 | U | 14 | U |
| GPD-47 | 4 - 7 | 09/19/05 | 605 | 170 | | 15 | U | 15 | U | 430 | | 5 | J |
| GPD-47 | 4 - 7 | 09/19/05 | 537 | 97 | D | 60 | Ü | 60 | U | 430 | D | 10 | DJ |
| GPD-47 | 11 - 15 | 09/19/05 | 6,700 | 1.300 | | 1,100 | U | 1,100 | U | 5,400 | | 1,100 | U |
| GPD-47 | 18 -19 | 09/19/05 | 206 | 2 | J | 32 | | 2 | J | 140 | | 30 | |
| GPD-48 | 7 - 11 | 09/19/05 | 264 | 63 | | 18 | U | 18 | U | 190 | | 11 | J |
| GPD-48 | 15 - 17.3 | 09/19/05 | 8 | 2 | J | 11 | U | 11 | U | 6 | J | 11 | U |
| GPD-49 | 11 - 15 | 09/19/05 | 3,490 | 5 | J | 1,500 | | 1,800 | | 85 | | 100 | |
| GPD-48 DL | 11 - 15 | 09/19/05 | 3,300 | 1,400 | U | 1,500 | D | 1,800 | D | 1,400 | U | 1,400 | U |
| GPD-49 DL | 15 -17 | 09/19/05 | 5,922 | 13 | U | 810 | J | 5,100 | | 12 | J | 13 | U |
| GPD-49 DL | 15 -17 | 09/19/05 | 5,910 | 1,600 | U | 810 | DJ | 5,100 | D | 1,600 | U | 1,600 | U |
| GPD-49 | 7 - 11 | 09/19/05 | 2 | 19 | U | 19 | U | 19 | U | 2 | J | 19 | U |
| GPD-49 | 17 - 19 | 09/19/05 | 0 | 14 | U | 14 | Ü | 14 | U | 14 | U | 14 | U |
| GPD-50 | 4 - 7 | 09/19/05 | 115 | 96 | | 12 | U | 12 | U | 9 | J | 10 | J |
| GPD-50 | 11 - 14 | 09/19/05 | 35 | 12 | U | 8 | J | 2 | J | 21 | | 4 | J |
| GPD-50 | 14 - 15 | 09/19/05 | 95 | 1 | J | 4 | J | 12 | U | 60 | | . 30 | |
| GPD-50 | 15 -19 | 09/19/05 | 130 | 11 | U | 75 | | 54 | | 1 | J | 11 | U |
| GPD-51 | 15-18.2 | 09/20/05 | 43,000,000 | 3,200,000 | U | 1,000,000 | J | 42,000,000 | - | 3,200,000 | U | 3,200,000 | U |
| GPD-51 | 19-23 | 09/20/05 | 195 | 4 | J | 6 | J | 180 | - | 5 | J | 12 | U |
| GPD-52 | 15-17.5 | 09/20/05 | 46,800 | 1,600 | U | 4,800 | | 29,000 | 1 | 13,000 | | 1,600 | U |
| GPD-55 | 4 - 7 | 09/21/05 | 12 | 12 | U | 12 | U | 9 | J | 3 | J | 12 | U |
| GPD-55 | 15-18 | 09/21/05 | 409 | 32 | | 32 | | 25 | | 200 | | 120 | |
| GPD-55 DL | 15-18 | 09/21/05 | 290 | 58 | U | 53 | DJ | 9 | DJ | £ 200 | D | 28 | DJ |
| GPD-57 | 0.5-4 | 09/21/05 | 14,000 | 2,400 | U | 2,400 | U | 14,000 | | 2,400 | U | 2,400 | U |
| GPD-57 | 11-14.5 | 09/21/05 | 17 | 12 | U | 2 | J | 2 | J | 7 | J | 6 | J |
| GPD-88 | 15-18.5 | 09/22/05 | 0 | 11 | U | 11 | U | 11 | U | 11 | U | 11 | U |
| GPD-59 | 7 - 11 | 09/22/05 | 522 | 12 | U | 240 | J | 6 | J | 210 | | 66 | |
| GPD-59 DL | 7 - 11 | 09/22/05 | 220 | 52 | U | 45 | DJ | 52 | U | 150 | D | 25 | DJ |
| GPD-59 | 11-14.3 | 09/22/05 | 1,181 | 2 | J | 880 | J | 120 | | 130 | | 49 | |
| GPD-59 DL | 11-14.3 | 09/22/05 | 2,080 | 1,400 | U | 880 | DJ | 780 | DJ | 420 | DJ | 1,400 | U_ |
| GPD-59 | 14.3-15 | 09/22/05 | 2,685 | 920 | J. | 2 | J | 2 | J | 1,700 | J | 61 | J |
| GPD-59 DL | 14.3-15 | 09/22/05 | 7,880 | 1,400 | U | 5,300 | D | 2,400 | D | 180 | DJ | 1,400 | U |
| GPD-60 | 4 - 7 | 09/22/05 | 311 | 46 | | 6 | J | 11 | U | 200 | | 59 | |
| GPD-61 | 15-17.8 | 09/22/05 | 491 | 250 | | 5 | J | 13 | U | 180 | | 56 | |
| GPD-62 | 11 - 15 | 09/22/05 | 14 | 10 | J | 14 | U | 14 | U | 4 | J | 14 | U |
| GPD-62 | 15-16.5 | 09/22/05 | 0 | 12 | U | 12 | U | 12 | U | 12 | υ | 12 | U |
| GPD-62 | 16.5-19 | 09/22/05 | 51 | 35 | | 15 | U | 15 | U | 16 | | 15 | U |
| GPD-60 | 1 - 4 | 09/23/05 | 0 | 14 | U | 14 | U | 14 | U | 14 | U | 14 | U |
| GPD-63 | 15-16.6 | 09/23/05 | 20 | 12 | U | 12 | U | 20 | | 12 | U | 12 | U |
| GPD-84 | 11 - 15 | 09/23/05 | 1,619 | 550 | J | 2 | J | 4 | J | 990 | J | 73 | |
| GPD-64 DL | 11 - 15 | 09/23/05 | 600 | 1,500 | U | 1,500 | U | 600 | DJ | 1,500 | U | 1,500 | U |
| GPD-85 | 11 - 15 | 09/23/05 | 3 | 2 | J | 11 | U | 11 | U | 1 | J | 11 | U |

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | | trans | |
|------------|----------------|--------------|-----------|---------|------------|---------|----|-----------|-------|---------|----|---------|----|
| | TAGM 4 | 046 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | | 300 | |
| | Propo | sed SSCOs -> | | 800 | | 2,800 | | 5,600 | | NA | | 1,200 | |
| GPD-65 | 17.2-19 | 09/23/05 | 0 | 14 | U | 14 | U | 14 | U | 14 | U | 14 | U |
| GPD-68 | 11 - 15 | 09/23/05 | 4,310 | 11 | U | 2,600 | J | 11 | U | 510 | J | 1,200 | J |
| GPD-66 DL | 11 - 15 | 09/23/05 | 370 | 1,300 | U | 1,300 | U | 370 | DJ | 1,300 | U | 1,300 | U |
| GPD-67 | 11 - 15 | 09/23/05 | 8,000 | 11 | υÍ | 5,800 | | 11 | U | 600 | J | 1,600 | |
| GPD-67 DL | 11 - 15 | 09/23/05 | 8,340 | 1.300 | U | 5,800 | D | 340 | DJ | 600 | DJ | 1,600 | D |
| GP3-1 | 10 - 14 | 02/27/06 | 1.630 | 600 | J | 17 | U | 17 | U | 900 | J | 130 | J |
| GP3-1 DL | 10 - 14 | 02/27/06 | 1.630 | 600 | D | 73 | U | 73 | U | 900 | D | 130 | D |
| GP 3-1 | 14 - 18 | 02/27/06 | 1.943 | 340 | J | 43 | J | 19 | U | 1.300 | J | 260 | J |
| GP 3-1 DL | 14 - 18 | 02/27/06 | 1,943 | 340 | D | 43 | DJ | 91 | Ú | 1.300 | D | 260 | D |
| GP 3-2 | 10 - 14 | 02/27/06 | 655 | 260 | | 18 | U | 18 | U | 300 | | 95 | |
| GP 3-2 | 14 - 17.3 | 02/27/06 | 2.070 | | | 270 | | 20 | U | 1.400 | | 260 | |
| GP 3-2 DL | 14 - 17.3 | 02/27/06 | 2.640 | 240 | D | 550 | D | 90 | U | 1,400 | D | 450 | D |
| GP 3-3 | 10 -14 | 02/27/06 | 4.840 | 2,200 | EJ | 18 | U | 18 | U | 2.500 | | 140 | |
| GP 3-3 DL | 10 -14 | 02/27/06 | 2.500 | 2.100 | U | 2.100 | Ŭ | 2.100 | U | 2.500 | D | 2.100 | U |
| GP 3-3 | 14 - 17.5 | 02/27/06 | 3.087 | 210 | | 48 | | 9 | J | 2.700 | | 120 | |
| GP 3-3 DL | 14 - 17.5 | 02/27/06 | 2.700 | 2.300 | U | 2.300 | U | 2.300 | Ũ | 2.700 | D | 2.300 | U |
| GP 3-4 | 10 -14 | 02/28/06 | 1.084 | 890 | U . | 17 | U | 17 | U | 180 | J | 14 | J |
| GP 3-4 | 10 -14 | 02/28/06 | 1.096 | 890 | D | 84 | U | 84 | U | 180 | D | 26 | DJ |
| GP 3-4 | 14 - 17.7 | 02/28/06 | 2.011 | 220 | J | 560 | J | 11 | J | 860 | J | 360 | J |
| GP 3-4 DL | 14 -17.7 | 02/28/06 | 2,035 | 220 | D | 560 | D | 35 | DJ | 860 | D | 360 | D |
| GP 3-5 | 10 -14 | 02/28/06 | 2,460 | 1,000 | J | 150 | J | 18 | U | 920 | J | 390 | J |
| GP 3-5 DL | 10 -1 4 | 02/28/06 | 2,460 | 1.000 | D | 150 | D | 80 | U | 920 | D | 390 | D |
| GP 3-5 | 14 - 17.7 | 02/28/06 | 207 | 42 | | 20 | J | 21 | U | 91 | | 54 | |
| GP 3-6 | 10 -1 4 | 02/28/06 | 705 | 280 | | 15 | J | 18 | U | 240 | | 170 | |
| GP 3-6 | 14 -17 | 02/28/06 | 138 | 28 | | 2 | J | 20 | U | 75 | | 33 | |
| GP 3-7 | 14 - 16.7 | 03/02/06 | 15 | 4 | J | 18 | U | 18 | Ų | 8 | J | 3 | J |
| GP 3-8 | 10 -14 | 02/28/06 | 182,350 | 1,200 | EJ | 10,000 | J | 150,000 | J | 21,000 | J | 150 | |
| GP 3-8 | 10- 14 | 02/28/06 | 181,000 | 11,000 | U | 10,000 | DJ | 150,000 | D | 21,000 | D | 11,000 | U |
| GP 3-8 | 14 -18 | 02/28/06 | 193,559 | 27 | - | 3,200 | J | 190,000 | | 320 | | 12 | J |
| GP 3-8 DL | 14 -18 | 02/28/06 | 193,200 | 12,000 | U | 3,200 | DJ | 190,000 | D | 12,000 | U | 12,000 | U |
| GP 3-9 | 10 -14 | 02/28/06 | 835,600 | 2,200 | U | 3,400 | | 830,000 | | 2,200 | | 2,200 | υ |
| GP 3-9 DL | 10 -14 | 02/28/06 | 830,000 | 44,000 | U | 44,000 | U | 830,000 | BD | 44,000 | U | 44,000 | U |
| GP 3-9 | 14 -18 | 02/28/06 | 4,202,200 | 2,500 | U. | 2,200 | J_ | 4,200,000 | 10000 | 2,500 | U | 2,500 | U |
| GP 3-9 | 14-18 | 02/28/06 | 4,200,000 | 620,000 | U | 620,000 | U | 4,200,000 | D | 620,000 | U | 620,000 | U |
| GP 2-10 | 14 - 18 | 03/01/06 | 2,526 | 240 | | 6 | J | 42 | U | 2,100 | | 180 | |
| GP 3-10 DL | 14 18 | 03/01/06 | 2,610 | 2,400 | U | 2,400 | U | 2,400 | υ | 2,100 | DJ | 510 | DJ |
| GP 3-11 | 14 - 17.5 | 03/01/06 | 2,082 | 1,100 | J - | 2 | J | 21 | U | 860 | J | 120 | J |
| GP 3-11 DE | 14 - 17.5 | 03/01/06 | 2,080 | 1,100 | D | 100 | U | 100 | U | 860 | D | 120 | D |
| GP 3-12 | 14 - 17.5 | 03/01/06 | 1,656 | 660 | J | 19 | U | 19 | U | 910 | D | 86 | J |
| GP 3-12 DL | 14 - 17.5 | 03/01/06 | 1,656 | 660 | D | 96 | U | 96 | U | 910 | D | 86 | DJ |
| GP 3-13 | 10 - 14 | 03/01/06 | 680 | 530 | | 19 | U | 19 | U | 130 | | 20 | |
| GP 3-13 DL | 10 - 14 | 03/01/06 | 725 | 530 | D | 85 | U | 85 | U | 170 | D | 25 | DJ |
| GP 3-13 | 14 - 17 | 03/01/06 | 80 | 50 | _ | 18 | Ų | 18 | U | 30 | | 18 | U |
| GPB 1-1 | 14 - 17 | 03/02/06 | 327,400 | 2,600 | U | 28,000 | | 290,000 | J | 9,400 | | 2,600 | U |
| GPB 1-1 DL | 14 - 17 | 03/02/06 | 324,900 | 52,000 | U | 27,000 | DJ | 290,000 | D | 7,900 | DJ | 52,000 | U |
| GPB 1-2 | 14 - 18 | 03/02/06 | 6,358,360 | 630 | J | 21,000 | | 6,300,000 | l | 36,000 | | 730 | J |
| GPB 1-2 DL | 14 - 18 | 03/02/06 | 6,300,000 | 550,000 | U | 550,000 | U | 6,300,000 | BD | 550,000 | U | 550,000 | U |
| GPB 1-3 | 10 - 11.8 | 03/03/06 | 6,900,000 | 310,000 | U | 310,000 | U | 6,900,000 | | 310,000 | U | 310,000 | U |
| GPB 1-3 DL | 10 - 11.8 | 03/03/06 | 6,900,000 | 620,000 | U | 620,000 | U | 6,900,000 | BD | 620,000 | U | 620,000 | U |
| GPB 1-4 | 14 - 17.6 | 03/03/06 | 4,479,000 | 290,000 | U | 290,000 | U | 4,400,000 | _ | 79,000 | J | 290,000 | U |
| GPB 1-5 | 14 - 17 | 03/03/06 | 280 | 21 | U | 25 | | 42 | - | 200 | | 13 | J |
| GPB 1-6 | 14 - 17.7 | 03/03/06 | 4,810,000 | 260,000 | U | 110,000 | J | 4,700,000 | В | 260,000 | U | 260,000 | U |
| GPB 1-7 | 14 - 18 | 03/06/06 | 19,300 | 2,300 | 5 | 2,500 | U | 2,500 | U | 17,000 | | 2,500 | υ |

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | | trans | |
|-------------|-----------|--------------|------------|-----------|--------|-----------|-----------|------------|------|------------|---------------|-----------|---|
| | TAGM 4 | 046 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | | 300 | |
| | Propo | sed SSCOs -> | | 800 | | 2,800 | | 5,600 | | NA | | 1,200 | |
| GPB 1-8 | 14 - 18 | 03/06/06 | 2,858,000 | 260,000 | U | 260,000 | U | 2,800,000 | | 58,000 | J | 260,000 | U |
| GPB 1-9 | 14 - 17.4 | 03/09/06 | 71,170 | 510 | E | 8,100 | E | 58.000 | E | 4,300 | E | 260 | |
| GPB 1-9 DL | 14 - 17.4 | 03/09/06 | 9,940,000 | 610,000 | U | 140,000 | DJ | 9,800,000 | D | 610,000 | U | 610,000 | U |
| GPB 1-10 | 14 - 16.8 | 03/09/06 | 67,440,000 | 1,800,000 | U | 440,000 | J | 67,000,000 | | 1,800,000 | U | 1,800,000 | U |
| GPB 1-10 DL | 14 - 16.8 | 03/09/06 | 67,000,000 | 3,700,000 | U | 3,700,000 | U | 67,000,000 | D | 3,700,000 | υİ | 3,700,000 | υ |
| GPB 1-11 | 14 - 17 | 03/09/06 | 27,860 | 1,500 | J | 5,900 | J | 2,200 | J | 18,000 | J | 260 | J |
| GPB 1-11 DL | 14 - 17 | 03/09/06 | 28,030 | 1,500 | DJ | 5,900 | D | 2,200 | D | 18,000 | D | 430 | DJ |
| GPB 1-12 | 2.5 - 4 | 03/09/06 | 9.690 | 960 | J. | 730 | J | 2,800 | | 5,200 | | 1,800 | U |
| GPB 1-12 | 10 - 14 | 03/09/06 | 10,100 | 1,900 | J. | 2.100 | U | 2,100 | υ | 8,200 | | 2,100 | U |
| GPB 1-12 | 14 - 18 | 03/09/06 | 1,183 | 130 | | 20 | U | 14 | BJ | 990 | | 49 | |
| GPB 1-12 DL | 14 - 18 | 03/09/06 | 1,197 | 130 | D | 100 | U | - 52 | BD. | 990 | D | 25 | DJ |
| GPB 1-13 | 6 - 10 | 03/10/06 | 2,726 | 1,200 | | 100 | υİ | 100 | υ | 1.500 | | 26 | J |
| GPB 1-13 | 14 - 17.2 | 03/10/06 | 62 | 3 | J | 24 | U | 24 | Ü | 48 | | 11 | J |
| GPB 1-14 | 6 - 10 | 03/10/06 | 40 | 31 | | 22 | Ū | 22 | U | 6 | J | 3 | J |
| GPB 1-15 | 14 - 17 | 03/13/06 | 0 | 20 | U | 20 | Ū | 20 | υ | 20 | Ŭ | 20 | U |
| GPB 3-1 | 14 - 18 | 03/06/06 | 410 | 13 | J | 49 | - | 3 | J | 310 | | 35 | <u> </u> |
| GPB 3-2 | 14 - 18 | 03/06/06 | 683,000 | 23.000 | U | 69.000 | | 600.000 | | 14.000 | Jİ | 23.000 | ĺυ |
| GPB 3-2 DI | 14 - 18 | 03/06/06 | 686,000 | 47,000 | Ŭ | 73.000 | D | 600.000 | D | 13.000 | DJ | 47.000 | Ū |
| GPB 3-3 | 14 - 17.5 | 03/06/06 | 358,000 | 12,000 | Ũ | 100.000 | 7 | 230,000 | - | 28.000 | | 12.000 | Ū |
| GPB 3-3 DI | 14 - 17.5 | 03/06/06 | 347.000 | 30,000 | ũ. | 93,000 | D | 230,000 | D | 24.000 | DJ | 30.000 | Ū |
| GPB 3-4 | 14 - 17 6 | 03/06/06 | 37 | 22 | ũ | 4 | | 22 | U | 24 | | 9 | J |
| GPB 3-5 | 6 - 10 | 03/06/06 | 98 400 | 1 400 | J. | 18.000 | - | 31:000 | | 48.000 | | 2,700 | U |
| GPB 3-5 | 14 - 16 7 | 03/06/06 | 15 300 | 3,600 | Ū I | 12,000 | | 1,900 | J | 1,400 | J | 3.600 | U |
| GPB 3-6 | 0.5 - 4 | 03/06/06 | 2 440 | 1,300 | Ŭ | 640 | IJ | 1.800 | | 1.300 | U | 1,300 | Ŭ |
| GPB 3-6 | 10 - 14 | 03/06/06 | 4 123 | 31 | .l | 350 | Ŭ | 1,900 | | 1,800 | <u> </u> | 42 | J |
| GPB 3-6 DI | 10 - 14 | 03/06/06 | 4 090 | 1.900 | Ū | 390 | DJ | 1,900 | D | 1.800 | DJ | 1.900 | Ū |
| GPB 3-7 | 6 - 10 | 03/07/06 | 278,900 | 5,900 | J | 160.000 | | 38.000 | | 75.000 | | 9,500 | U |
| GPB 3-7 | 14 - 17 | 03/07/06 | 34 500 | 2,800 | Ũ | 3,800 | | 27.000 | 1 | 3,700 | | 2,800 | Ū |
| GPB 3-8 | 14 - 17 | 03/07/06 | 676,700 | 2 300 | ŭ | 53,000 | J | 620,000 | | 3,700 | | 2,300 | Ū |
| GPB 3-8 DI | 14 - 17 | 03/07/06 | 673,000 | 110,000 | Ū | 53,000 | DJ | 620,000 | D | 110.000 | U | 110,000 | U. |
| GPB 3-9 | 14 - 17.5 | 03/07/06 | 7 450 000 | 30,000 | Ŭ | 150.000 | | 7.300.000 | - | 30.000 | Ū | 30.000 | U |
| GPB 3-9 DI | 14 - 17 5 | 03/07/06 | 7 410 000 | 600,000 | ũ | 110.000 | DJ | 7,300,000 | D | 600,000 | Ŭ | 600.000 | Ū |
| GPB 3-10 | 14 - 17.5 | 03/07/06 | 16 200 | 2 200 | ŭ | 3.400 | - | 8.800 | - | 4.000 | • | 2,200 | Ū |
| GPB 3-11 | 14 - 18 | 03/08/06 | 10,200 | 2 400 | Ŭ | 530 | | 570 | J | :9.300 | | 2,400 | Ū |
| GPB 3-12 | 14 - 17 5 | 03/08/06 | 29,100 | 3,100 | Ü | 2 100 | J | 19.000 | - | 8,000 | _ | 3 100 | Ū |
| GPB 3-13 | 6 - 10 | 03/08/06 | 25,000 | 3 200 | Ŭ | 3 100 | li i | 3,100 | ILI. | 20,000 | | 1,800 | t. |
| GPB 3-14 | 14 - 17 | 03/08/06 | 12 000 | 2 800 | σ | 2,800 | Ш. | 2 200 | 1.1 | 9 800 | _ | 2 800 | ň |
| GPB 3-16 | 6 - 10 | 03/08/06 | 11 798 | 70 | J | 690 | Ŭ | 6,400 | J. | 4 600 | .1 | 38 | i. |
| GPB 3 16 DI | 6 - 10 | 03/08/06 | 11,790 | 2 400 | ŭ | 690 | D.I | 6,400 | D | 4 600 | D | 2 400 | ľu |
| GPB 3-16 | 14 - 17 | 03/08/06 | 12 500 | 26 | U I | 6 000 | | 6 100 | No. | 340 | | 60 | |
| GPB 3-16 DI | 14 - 17 | 03/08/06 | 12,000 | 3 200 | 11 | 6,000 | D | 6,100 | D | 720 | D.I | 3 200 | iu i |
| GPB 3-17 | 14 - 18 | 03/08/06 | 1.376.680 | 340 | U | 53,000 | 1 | 1 300 000 | - | 23 000 | .1 | 340 | |
| GPB 3-17 DI | 14 - 18 | 03/08/06 | 1 376 000 | 110,000 | 11 | 53,000 | DI | 1 300 000 | D | 23,000 | ות | 110 000 | iu- |
| GPB 5-1 | 14 - 18 | 03/09/06 | 6 384 | 330 | U I | 1 300 | | 990 | L. | 3 700 | .1 | 64 | i. |
| GPR 5.1 DI | 14 - 18 | 03/09/06 | 5 990 | 2 400 | | 1 300 | DI | 900 | D.I | 3 700 | n | 2 400 | ال ا |
| GPD 5-7 DE | 14-175 | 03/09/00 | 3,990 | 480 | F | 1,000 | 100 | 54 | | 3 600 | <u> </u> | 170 | , i |
| GPB 5-2 DI | 14 - 17 5 | 03/09/00 | 4,034 | 2 600 | | 620 | | 2 600 | 11 | 3 600 | D | 2 600 | |
| CERS O | 6,10 | 03/09/00 | 4,220 | 2,000 | | 020 | | 2,000 | ЫŬ | 1 000 | <u> </u> | 2,000 | |
| CPB 5.2 | 10-14 | 03/00/06 | 1,010 | 170 | 0 | 17 | Hi- | 17 | Ш | 000,1 | | 5 | 1 |
| CPR 5 2 | 14 17 | 03/00/06 | 1 200 | E/ | | 170 | <u>ال</u> | 670 | ۲× | 200 600 | ····· | 24 | |
| | 14 17 | 03/09/00 | 1,000 | 04 | 11 | 170 | | 670 | BD | 080 | | 19 | |
| CPS 1.1 | 10.14 | 03/03/08 | 1,008 | 00 | 0 | 230 | 1 | 070 | | - 090 | 1 | 20 | |
| CPS 14 | 10 - 14 | | 10 | 20 | | 3 | | - 20 | | 7 | u 1 | 20 | 10 |
| GPS 1-4 | 10-14 | 03/02/06 | 21 | 20 | ιu – | 9 | J | <u>⊃</u> | - U | / | ل ا | 20 | <u>40 </u> |

| Sample ID | Depth | Date | Total | VC | | TCE | | PCE | | cis | trans |
|-----------|-----------|--------------|-----------|---------|----|---------|----|-----------|---------|-----------|-----------|
| | TAGM 4 | 046 RSCOs -> | CVOCs | 200 | | 700 | | 1,400 | | NA | 300 |
| | Propo | sed SSCOs -> | | 800 | | 2,800 | | 5,600 | | NA | 1,200 |
| GPCS-1 | 2 - 4 | 03/13/06 | 15 | 15 | υ | 15 | U | 15 | U | 15 U | 15 UJ |
| GPCS-1 | 4.8 - 10 | 03/13/06 | 51 | 31 | | 19 | U | 19 | υ | 20 | 19 U |
| GPCS-1 | 14 - 18 | 03/13/06 | 32 | 10 | J | 21 | U | 21 | U | 22 | 21 U |
| GPCS-2 | 1.3 - 4 | 03/13/06 | 0 | 11 | U | 11 | U | 11 | U | 11 U | 11 U |
| GPCS-2 | 14 - 18 | 03/13/06 | 18 | 5 | J | 19 | U | 19 | υ | 13 J | 19 U |
| GPCS-3 | 14 - 18 | 03/13/06 | 18 | 8 | J | 18 | U | 18 | U | 10 J | 18 U |
| GPCS-4 | 14 - 18 | 03/13/06 | 9 | 4 | J | 22 | Ũ | 22 | υ | 5 J | 22 U |
| GPCS-5 | 2 - 4 | 03/13/06 | 99 | 12 | U | 11 | J | 65 | | 21 | 2 J |
| GPCS-6 | 4 - 6 | 03/13/06 | 17 | 21 | U | 21 | U | 14 | BJ | 3 J | 21 U |
| TP-4 | 3.5-4.2 | 12/03/04 | 0 | 14 | U | 14 | U | 14 | υ | 14 U | 14 U |
| TP-5 | 4.6-5.2 | 12/07/04 | 0 | 15 | U | 15 | U | 15 | U | 15 U | 15 U |
| TP-7 | 4-7 | 12/03/04 | 15 | 13 | J | 15 | U | 15 | U | 2 J | 15 U |
| TP-12 | 3.1-5.1 | 12/07/04 | 0 | 12 | U | 12 | U | 12 | U | 12 U | 12 U |
| TP-13 | 3.5-5.3 | 12/07/04 | 189 | 37 | | 36 | | 67 | | 23 | 26 |
| TP-14 | 4-5 | 12/03/04 | 91,010 | 300 | | 310 | | 83,000 | | 7400 | 16 U |
| TP-14 DL | 4-5 | 12/03/04 | 98,200 | 1,800 | DJ | 6,000 | DJ | 83,000 | D | 7,400 D | 7.200 U |
| GPB1-16 | 15.5 - 17 | 04/19/06 | 7,280 | 680 | J | 2,600 | U_ | 2,600 | U | 6,600 | 2,600 U |
| GPB1-16 | 17 - 18 | 04/19/06 | 290 | 170 | | 14 | U | 14 | U | 120 | 14 U |
| GPB3-18 | 14 - 16.9 | 04/18/06 | 391,000 | 17,000 | U | 46,000 | | 260,000 | 1 | 85,000 | 17,000 U |
| GPB3-18 | 6 - 10 | 04/18/06 | 2,126,000 | 150,000 | U | 160,000 | | 1,900,000 | - | 66,000 J | 150,000 U |
| GPB3-19 | 14 - 18 | 04/18/06 | 0 | 23 | U | 23 | U | 23 | U | 23 U | 23 U |
| GPB3-21 | 14 - 16 | 04/18/06 | 480 | 19 | J | 23 | J | 6 | J | 360 | 72 |
| GPB3-21 | 6 - 10 | 04/18/06 | 605 | 410 | | 22 | U | 22 | U | 180 | 15 J |
| GPB3-22 | 6 - 10 | 04/18/06 | 1,459,000 | 58,000 | U | 29,000 | J. | 1,400,000 | <u></u> | 30,000 J | 58,000 U |
| GPB3-22 | 6 - 10 DL | 04/18/06 | 1,460,000 | 120,000 | U | 31,000 | DJ | 1,400,000 | D | 29,000 DJ | 120,000 U |
| GPB3-24 | 15.5 - 17 | 04/19/06 | 62 | 28 | U | 28 | U | 28 | U | 52 | 10 J |
| GPB3-24 | 6 - 10 | 04/18/06 | 0 | 21 | U | 21 | U | 21 | U | 21 U | 21 U |

Total CVOCs >31,000 ug/kg

One or more CVOC parameters > Site specific cleanup objective

All CVOC parameters < site specific cleanup objective)

ž.,

.

× 1

| Sample ID -> | Units | S-1 | S-1 DL | S-2 | S-4 | S-5 | S-6 | S-7 | S-7 DL |
|---------------------------------------|--------|-------|--------|-------|------------|---------|-------|------------|---------|
| Date Sampled -> | I | | - | | 11/23/2004 | | | | |
| VOLATILES | | | | | | | | | |
| Chloromethane | ug/kg | 15 W | · · | 16 UJ | 2900 U | 8,200 U | 20 UJ | 25 UJ | 3,000 U |
| Bromomethane | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Vinyf chloride | ng/kg | 15 W | | 16 U | 2900 U | 8,200 U | 8 J | 25 UJ | 3,000 U |
| Chioroethane | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Methylene chloride | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 29 U | 3,000 U |
| Acetone | ng/kg | 15 U | | 16 W | 2900 U | 8,200 U | 15 J | 78 | 3,000 U |
| Carbon disulfide | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1,1-Dichloroethene | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1,1-Dichloroethane | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Chloroform | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 0 | 25 U | 3,000 U |
| 1,2-Dichloroethane | ng/kg | 15 UJ | | 16 U | 2900 U | 8,200 U | 20 W | 25 UJ | 3,000 U |
| 2-Butanone | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 33 | 3,000 U |
| 1,1,1-Trichloroethane | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Carbon tetrachioride | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Bromodichloromethane | by/tön | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1.2-Dichloropropane | ug/kg | 15 U | | 16 UJ | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| cis-1,3-Dichloropropene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Trichloroethene | ug/kg | 15 U | | 16 U | 2900 U | 24,000 | 5 1 | <u>г</u> 6 | 3,000 U |
| Dibromochloromethane | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1,1,2-Trichloroethane | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Benzene | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| trans-1,3-Dichloropropene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Bromoform | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 W | 3,000 U |
| 4-Methyl-2-pentanone | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 9 J | 3,000 U |
| 2-Hexanone | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 UJ | 3,000 U |
| Tetrachloroethene | ug/kg | 15 U | | 16 U | 1000 J | 140,000 | 20 U | 25 UJ | 3,000 U |
| Toluene | ng/kg | 15 U | | 16 U | 1600 U | 8,200 U | 20 U | 5,200 | 5,200 D |
| 1,1,2,2-Tetrachloroethane | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Chlorobenzene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 W | 3,000 U |
| Ethylbenzene | ug/kg | 15 U | | 16 U | 1600 J | 8,200 U | 20 U | 11 | 3,000 U |
| Styrene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 W | 3,000 U |
| Total xylenes | 64/6n | 15 U | | 16 U | 0064 | 8,200 U | 20 U | 45 J | 3,000 U |
| 1,1,2-Trichloro-1,2,2-triftuoroethane | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| cis-1,2-Dichloroethene | ug/kg | 15 U | | 16 U | 2900 U | 40,000 | 12 J | Г 6 | 3,000 U |
| trans-1,2-Dichloroethene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 N | 25 U | 3,000 U |
| Dichlorodifluoromethane | ug/kg | 15 UJ | | 16 U | 2900 U | 8,200 U | 20 W | 25 UU | 3,000 U |
| Trichloroftuoromethane | ug/kg | 15 W | | 16 U | 2900 U | 8,200 U | 20 UU | 25 W | 3,000 U |
| Methyl acetate | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Methyl tert butyl ether | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Cyclohexane | ng/kg | 15 U | | 16 UJ | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| Methylcyclohexane | ng/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1,2-Dibromoethane | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 C | 25 W | 3,000 U |
| Isopropylbenzene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 C | 25 U | 3,000 U |
| 1,3-Dichlorobenzene | ug/kg | 15 U | • | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1,4-Dichlorobenzene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 U | 25 U | 3,000 U |
| 1,2-Dichlorobenzene | ug/kg | 15 U | | 16 U | 2900 U | 8,200 U | 20 0 | 25 U | 3,000 U |

Table 11 - Phase 1 Site Utility Sediment Data

Pioneer Midler Avenue LLC Remedial Investigation Report Filproject(C81 - Pioneer Development(C81.002 BCPIClose out and COCIOctober 2007/RI Report Tables Table 11validated xis / A04B320

Page 1 of 8

| | - 11-14- | | 2.0 | 0 | | U U | 20 | C 7 | |
|--|----------|---------|-----------|---------|------------|-----------|----------|---------------------|---------|
| Sample IU -> | | 'n | 0-1 N | 0-Z | 11/23/2004 | 00 | 00 | 50 | 9-1 VL |
| | | 4511 | | 101 | | 0 000 1 | 1100 | 2511 | 3 000 |
| 1,2-Dibromo-3-chloropropane | ug/kg | 0 | | | 0 0067 | 0,200 0 | | 2 2 2 | 0,000 0 |
| 1,2,4-Trichlorobenzene | ug/kg | 15 UJ | | 16 W | 2900 U | 8,200 U | 20 M | 22 M | 3,000 U |
| SEMIVOLATILES | | | | | | | | | |
| Benzaldehyde | ng/kg | 10000 U | 51,000 U | 4800 U | 10000 U | 13,000 U | 11,000 U | 140,000 U | |
| Phenol | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| Bis(2-chioroethvl) ether | uq/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| 2-Chlorophenol | ug/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 000'69 | |
| 2-Methvibhenol | uq/ka | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| 2 2'-Oxvhis/1-Chloropropane) | na/ka | 5100 U | 25.000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 000'69 | |
| Acetonhenone | na/ka | 10000 U | 51.000 U | 4800 U | 10000 U | 13,000 U | 11,000 U | 140,000 U | |
| 4-Mathvinhanol | 10/k0 | 5100 U | 25.000 U | 2400 U | 5200 U | 6.600 U | 5,400 U | 69.000 U | |
| A Nitroon Di a-montamine | | 510011 | 25,00011 | 240013 | 5200 U | 6 600 11 | 5.400 U | 69.000 U | |
| H-HillUsO-Urtit-propylatilitie Hoverbloroethene | By An | 510011 | 25,000 11 | 240011 | 5200 U | 6.600 U | 5.400 U | 69.000 U | |
| | 6.1.65 | 5100 II | 25,000 11 | 240011 | 520011 | 6 600 11 | 5 400 11 | 69,000 U | |
| Nill Obel Izerie | Ru An | 5100 1 | 25,000 U | 2400 11 | 520011 | 6,600 U | 5.400 U | 69.000 U | |
| isupi lui ui is 0. Nitronhanoi | 64/60 | 510011 | 25,000 [1 | 240011 | 5200 U | 6.600 U | 5.400 U | 69.000 U | |
| 2.1 Nimothulahana) | na/ko | 510011 | 25,000 11 | 240011 | 520011 | 6 600 U | 5.400 U | 69.000 U | |
| Z,T-Dilleuiyipilei.ol Bic/2_chloroethow/) methene | | 510011 | 25,000 [1 | 240011 | 5200 11 | 6.600 U | 5.400.U | 69.000 U | |
| Dis(z-Uliuloetioxy) Illetriarie 0.4 Dishloronhend | by bri | 510011 | 25,000 11 | 2400 11 | 520011 | 6 600 [] | 5,400 U | 69.000 U | |
| | hyfin | | | | | 6 600 U | | 60 000 11 | |
| | ngkg | 2000 1 | 2,000 LU | 1 000 | | 0,000 | Z,000 U | 0 000 00 | |
| 4-Chloroaniline | ng/kg | 5100 U | 25,000 U | 2400 U | 0 0029 | 0,000 U | 5,400 U | 00000 | |
| Hexachlorobutadiene | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69 ⁰⁰⁰ U | |
| Caprolactam | ug/kg | 10000 U | 51,000 U | 4800 U | 10000 U | 13,000 U | 11,000 U | 140,000 U | |
| 4-Chloro-3-methylphenol | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| 2-Methylnaphthalene | ng/kg | 1400 J | 1,400 DJ | 230 J | 5400 | 6,600 U | 200 J | 69,000 U | |
| Hexachlorocyclopentadiene | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| 2.4.6-Trichlorophenol | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| 2,4,5-Trichlorophenol | ng/kg | 12000 U | 61,000 U | 5800 U | 13000 U | 16,000 U | 13,000 U | 170,000 U | |
| Biphenyl | ng/kg | 10000 U | 51,000 U | 4800 U | U 00001 | 13,000 U | 11,000 U | 140,000 U | |
| 2-Chloronaphthalene | ng/kg | 5100 U | 25,000 U | 5800 U | 5200 U | 6,600 U | 5,400 U | 69,000 U | |
| 2-Nitroaniline | ng/kg | 12000 U | 61,000 U | 2400 U | 13000 U | 16,000 U | 13,000 U | 170,000 U | |
| Dimethyl phthalate | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |
| 2.6-Dinitrotoluene | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |
| Acenaphthylene | ng/kg | Г 006 | 1,100 DJ | 260 J | 510 J | 460 J | 670 J | 2,600 J | |
| 3-Nitroaniline | ng/kg | 12000 U | 61,000 U | 5800 U | 13000 U | 16,000 ND | 13,000 U | 170,000 U | - |
| Acenaphthene | ng/kg | 3300 J | 3,600 DJ | 840 J | 620 J | 6,600 ND | 260 | 69,000 U | |
| 2.4-Dinitrophenol | ug/kg | 12000 U | 61,000 U | 5800 U | 13000 U | 16,000 ND | 13,000 U | 170,000 U | |
| 4-Nitrophenol | ng/kg | 12000 U | 61,000 U | 5800 U | 13000 U | 16,000 ND | 13,000 U | 170,000 U | |
| Dibenzofuran | ng/kg | 2800 J | 2,800 DJ | 520 J | 360 J | 6,600 ND | 230 | 69,000 U | |
| 2,4-Dinitrotoluene | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |
| Diethyl phthalate | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |
| Fluorene | ug/kg | 4300 J | 4,500 DJ | ۲ 068 | 1300 J | 190 J J | 530 J | 000'69 | |
| 4-Chlorophenyl phenyl ether | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |
| 4-Nitroaniline | ng/kg | 12000 U | 61,000 U | 5800 U | 13000 U | 16,000 ND | 13,000 U | 170,000 U | |
| 4.6-Dinitro-2-methylphenol | ng/kg | 12000 U | 61,000 U | 5800 U | 13000 U | 16,000 ND | 13,000 U | 170,000 U | |
| N-nitrosodiphenylamine | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |
| 4-Bromophenyl phenyl ether | ng/kg | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 ND | 5,400 U | 69,000 U | |

Remedial Investigation Report Table 11 - Phase 1 Site Utility Sediment Data

Pioneer Midler Avenue LLC

FilprojectIC81 - Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007/RI ReportTables/Table11validated.xls / A04B320

Page 2 of 8

| | | • | 2 4 0 | 0.0 | V | и V | S.B | <u>2.7</u> | |
|---------------------------------------|--------|---------|-------------------------|----------|------------|-----------|-----------|------------|---|
| Sample IU -> | 2 5 | 5 | 3 -1 C | 2-0 | 11/23/2004 | 5 | 5 | 5 | |
| | ייט | 510011 | 25 00011 | 240011 | 520010 | 190.1 | 5.400 U | 0000.69 | |
| | | 100001 | 25,000 1 | 4800 11 | 100001 | 13 000 ND | 11 000 11 | 140.000 U | - |
| | ĥy/ĥn | | 20,000 | | | 16 000 11 | 13 000 0 | 170,000 U | - |
| Pentachiorophenol | By/gn | | | | | 10,000 | 0 000 0 | | |
| Phenanthrene | ng/kg | 47000 | 47,000 BU | 14000 15 | 9 0070 | 1,800 0 | 4,400 0 | 09,000 | |
| Anthracene | ug/kg | 7300 | 7,000 DJ | 1700 J | 1200 J | 460 J | r 00/ | 2,100 J | |
| Carbazole | ug/kg | 3800 J | 3,800 DJ | 880 J | 640 J | 220 J | 320 J | 69,000 U | |
| Di-n-butyl phthalate | ng/kg | 5100 U | 25,000 U | 2400 U | 24000 B | 6,600 U | 5,400 U | 69,000 U | |
| Fluoranthene | ng/kg | 46600 | 46,000 DJ | 16000 | 15000 | 3,500 J | 7,400 | 28,000 J | |
| Pvrene | uq/ka | 20000 B | 20,000 BDJ | 5500 B | 2600 U | 6,600 U | 5,400 U | 69,000 U | |
| Butvi benzvi ohthalate | no/ka | 5100 U | 25,000 U | 2400 U | C 066 | 6,600 U | 200 J | 000'69 | |
| 3.3'-Dichlorobenzidine | na/ka | 5100 U | 25,000 U | 2400 U | 5200 U | 6,600 U | 5,400 U | 000'69 | |
| Benzo(a)anthracene | uq/kg | 22000 | 19,000 DJ | 5400 | 4400 J | 1,200 J | 2,200 J | 8,700 J | |
| Chrysene | ua/ka | 22000 | 20,000 DJ | 5900 | 4400 J | 1,300 J | 2,600 J | Г 006'6 | |
| Bis(2-athylhexvl) phthalate | na/ka | 5100 | 25,000 U | 2400 U | 33000 U | 6,600 U | 5,400 U | 69,000 U | |
| Di-n-orthi nhthalate | na/ka | 140 J | 25.000 U | 2400 U | C 0065 | 590 J | 180 J | 69,000 U | |
| Benzo(h)flinianthene | na/ka | 24000 J | 12.000 DJ | 5000 J | 8100 J | 3,000 J | 3,500 J | 15,000 J | |
| Benzo(k)filioranthene | un/ka | 16000 J | 15.000 DJ | 4400 J | 10000 J | 2,900 J | 2,400 J | 7,200 J | |
| Benzo(a)nvrene | ua/ka | 5300 | 4,900 DJ | 1400 J | Г 006 | 460 J | 820 J | 2,500 J | |
| Indenv(1 9 3-vd)nvrane | un/kn | 2300 J | 2.700 DJ | 680 J | 480 J | 250 J | 460 J | U 000,69 | |
| Dihapito(1,4-)0 Vujpjicito | ind/kn | 1800.1 | 2,100 DJ | 520 J | 430 J | 210 J | 280.J | 69.000 ND | |
| Benzolahihandene | na/kn | 510011 | 25,000 [1 | 2400 11 | 5200 U | 6.600 U | 5.400 U | 69.000 U | - |
| | 2 | 2 | | | | | | | - |
| ainha-RHC | ud/ka | 26 U | | 25 U | 110 U | 170 U | 27 U | 180 U | |
| hota BHC | ug/kn | 291 | | 25 U | 110 U | 170 U | 27 U | 180 U | - |
| | Bu/Sn | 281 | | 25 | 11011 | 170 U | 27 U | 180 U | |
| uella-DI IV commo PHC /I indeno) | Bulko | 281 | | 221 | 110 U | 170 U | 27 U | 180 U | |
| garrirra-brio (Lindare) Lootochior | Ryfin | 2007 | | 25 11 | 11011 | 170 U | 27 U | 180 U | |
| A Idrin | By/on | 2611 | | 25 U | 110 U | 170 U | 27 U | 180 U | |
| Diatochlor enovide | Bullon | 2611 | | 25 11 | 63 JPN | 170 U | 27 U | 180 U | |
| Fredreition cooxide Fredreitifan I | ug/ka | 26 [] | | 25 U | 110 UU | 170 U | 27 U | 180 U | |
| Dialdrin | na/ka | 50 U | | 48 U | 210 U | 330 U | 53 U | 340 U | |
| 4 4'-DDF | ua/ka | 50 U | | 48 U | 210 U | 330 U | 53 U | 340 U | |
| Endrin | ug/kg | 50 U | | 48 U | 210 U | 330 U | 53 U | 340 U | |
| Endosultan II | ug/kg | 50 U | | 48 U | 210 U | 330 U | 53 U | 340 U | |
| 4,4'-DDD | ng/kg | 20 ∩ | | 48 U | 210 U | 330 U | 53 U | 73 JP | |
| Endosultan Suitate | ng/kg | 50 U | | 48 U | 210 U | 330 U | 53 U | 340 U | |
| 4,4'-DDT | ng/kg | 50 U | | 48 U | 460 PJ | 330 U | 53 U | 1800 U | |
| Methoxychlor | ng/kg | 260 U | | 100 J | 170 J | 1700 U | 53 U | 1800 U | |
| Endrin ketone | ng/kg | 09 | | 48 U | 210 U | 330 U | 54 | 340 U | |
| Endrin aldehyde | ng/kg | 50 U | | 48 U | 210 U | 330 U | 53 U | 340 U | |
| alpha-Chlordane | ng/kg | 26 U | | 25 U | Æ | 170 U | 27 U | 180 U | |
| gamma-Chlordane | ng/kg | 26 U | | 25 U | В | 170 U | 27 U | 180 U | |
| Toxaphene | ng/kg | 2,600 U | | 2500 U | 11000 U | 17000 U | 2700 U | 18000 U | |
| Aroclor 1016 | ng/kg | 500 U | | 480 U | 2100 U | 3300 U | 530 U | 3400 U | |
| Aroclor 1221 | ng/kg | 1000 U | | 970 U | 4200 U | 6700 U | 1100 U | 0 0069 | |
| Arocior 1232 | ng/kg | 500 U | | 480 U | 2100 U | 3300 U | 530 U | 3400 U | |
| Arocior 1242 | ng/kg | 500 U | | 480 U | 2100 U | 3300 U | 530 U | 3400 U | |

Remedial Investigation Report Table 11 - Phase 1 Site Utility Sediment Data

Pioneer Midler Avenue LLC

F: ProjectIC81 - Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007IAI ReportTablesITable11validated xls / A04B320

Page 3 of 8

| Sample ID -> | Units | | S-1 DL | S-2 | S-4 | S-5 | S-6 | S-7 | S-7 DL |
|-------------------------|-------|-----------|--------|-----------|-----------|------------|-----------|-----------|--------|
| Date Sampled -> | | | - | | 1/23/2004 | | | | |
| Aroclor 1248 | ng/kg | 500 U | | 480 U | 2100 U | 3300 U | 530 U | 3400 U | |
| Aroclor 1254 | ug/kg | 500 U | | 480 U | 2100 U | 8700 | 530 U | 3400 U | |
| Aroclor 1260 | ug/kg | 500 U | | 480 U | 2100 U | 3300 U | 530 U | 3400 U | |
| INORGANICS | | | | | | | | | |
| Aluminum | mg/kg | 6,800 | | 5,500 | 6060 | 11,900 | 4,190 | 22,100 | |
| Antimony | mg/kg | 2.4 BN*J | | 2.1 BN*J | 4 BN*J | 2.7 N* N*J | 1.3 BN*J | 3.3 BN*J | |
| Arsenic | mg/kg | 13.8 N*J | | 10.4 N*J | 14.2 N*J | 17.0 N NJ | 6.8 N*J | 10.8 N*J | |
| Barium | mg/kg | 99.1 8 | | 107 * | 824 * | 333 N* N* | 59.9 * | 226 * | |
| Beryllium | mg/kg | 0.8 | | 0.66 * | 0.6 B* | 0.56* * | 1.1 * | 0.79 B* | |
| Cadmium | mg/kg | 2.5 N* | | 1.7 N* | 11.8 N* | 24.9 N* N* | 1.8 N* | 2 N* | |
| Calcium | mg/kg | 99,400 | | 117,000 | 49900 | 77,700 | 168,000 | 112,000 | |
| Chromium | mg/kg | 26.7 N* | | 15 N* | 54.5 N* | 167 N N | 37.4 N* | 35 N* | |
| Cobalt | mg/kg | 7.6 8 | | 5.5 B* | 9 8 | 23.0* * | 5.3 B* | 87.1 * | |
| Copper | mg/kg | 283 N* | | 104 N* | 415 N* | 680* * | 290 N* | 115 N* | |
| Iron | mg/kg | 49,800 | | 40,400 | 42000 | 50,400 | 13,200 | 16,300 | |
| Lead | mg/kg | 208 8 | | 101 * | 420 * | 1440 | 285 * | 129 * | |
| Magnesium | mg/kg | 12,200 | | 7,220 | 7010 | 10,500 | 35700 | 26,900 | |
| Manganese | mg/kg | 676 N*J | | 1070 N*J | 271 N*J | 456 NJ | 208 N*J | 246 N*J | |
| Mercury | mg/kg | 0.698 *J | | 0.309 *J | 0.444 *J | 0.459 *J | 0.042 U*J | 0.055 U*J | - |
| Nickel | mg/kg | 35.9 * | | 22.7 | 63.5 * | 81.7 | 36 * | 52.1 * | |
| Potassium | mg/kg | 1300 | | 1,030 | 814 B | 1120 | 867 | 783 B | |
| Selenium | mg/kg | 0.72 UN* | | 0.6 UN* | 1.7 UN* | 2.1B* | 0.61 UN* | 1.1 UN* | |
| Silver | mg/kg | 0.89 BN*J | | 0.49 BN*J | 2.1 BN*J | 66.3 NJ | 0.16 *J | 0.29 BN*J | |
| Sodium | mg/kg | 357 B | | 498 B | 577 B | 069 | 283 B | 254 B | |
| Thallium | mg/kg | 0.73 U | | 0.62 UN* | 1.7 UN* | 9.1 N* | 0.63 UN* | 1.1 UN* | |
| Vanadium | mg/kg | 38.8 * | | 22.2 * | 21.3 * | 52.3 | 29.9 * | 30.9 * | |
| Zinc | mg/kg | 659.* | | 583 * | 5460 * | 3480 * | 376 * | 445 * | - |
| WET CHEMISTRY ANAL YSIS | | | | | | | | | |
| Cyanide - Total | ng/kg | 4,000 W | | 4,000 UJ | 4,000 UJ | 4,000 UJ | 4,000 UJ | 4,000 UJ | |
| Leachable pH | S.U. | 7.89 | | 7.83 | 7.03 | 7.68 | 8.11 | 7.16 | |

FiProjectIC81 - Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007IRI Report/Tables/Table11validated.xls / A04B320

-

÷ 1

Page 4 of 8

| | | | - | 17.0 | | 0 |
|---------------------------------------|------------|------------|-------------|-----------------|---------|--------------|
| Sample ID -> | Cutts | 6-2 | S-10 | <u>د-11</u> | S-11 UL | <u>х</u> -12 |
| Date Sampled -> | | - | 1 1/23/2004 | | | |
| VOLATILES | - | | | | | |
| Chloromethane | ng/kg | 14 W | 110,000 U | 3: | | |
| Bromomethane | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Vinyl chloride | ug/kg | 14 W | 110,000 U | 16 J | | 12 W |
| Chloroethane | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Methylene chloride | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Acetone | ug/kg | 14 U | 110,000 U | 17 W | | 12 U |
| Carbon disulfide | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1.1-Dichloroethene | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1,1-Dichloroethane | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Chloroform | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1.2-Dichloroethane | ng/kg | 14 UU | 110,000 U | 17 U | | 12 W |
| 2-Butanone | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1,1,1-Trichloroethane | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Carbon tetrachloride | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Bromodichloromethane | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1.2-Dichloropropane | ug/kg | 14 U | 110,000 U | 17 W | | 12 U |
| cis-1.3-Dichloropropene | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Trichloroethene | ug/kg | 14 U | 1,600,000 | 17 U | | 12 N |
| Dibromochloromethane | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1.1.2-Trichloroethane | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Benzene | ua/ka | 14 U | 110,000 U | 17 U | | 12 U |
| Itrans-1.3-Dichloropropene | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Bromoform | uq/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 4-Methyl-2-pentanone | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 2-Hexanone | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Tetrachloroethene | ug/kg | 14 U | 1,700,000 | 17 U | | 12 U |
| Toluene | ug/kg | 14 U | 140,000 | 17 U | | 12 U |
| 1,1,2,2-Tetrachloroethane | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Chiorobenzene | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Ethylbenzene | ug/kg | 14 U | 110,000 U | <u>з</u> Ј | | 12 U |
| Styrene | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Total xylenes | ng/kg | 14 U | 250,000 | 17 U | | 12 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| cis-1,2-Dichloroethene | ug/kg | 14 | 110,000 U | 24 | | 12 0 |
| Itrans-1,2-Dichloroethene | - Dy/Dn | - 1 | | 2 | | |
| Dichlorodifluoromethane | ng/kg | 14 UN | 110,000 U | <u>n / </u> | | |
| Trichlorofluoromethahe | ng/kg | 14 U | U 000,011 | <u>n</u> : 2 | - | |
| Methyl acetate | ug/kg | 14 U | 110,000 U | 17 U | | 12 0 |
| Methyi tert butyl ether | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Cyclohexane | ug/kg | 14 U | 110,000 U | 17 UJ | | 12 U |
| Methylcyclohexane | ug/kg | 14 U | 180,000 | ٢ 6 | | 12 U |
| 1,2-Dibromoethane | ug/kg | 14 U | 110,000 U | 17 U | | 12 U |
| Isopropylbenzene | ug/kg | 14 U | 110,000 U | ل 7 | | 12 U |
| 1,3-Dichlorobenzene | ng/kg | 14 U | 110,000 U | 17 U | | 12 U |
| 1,4-Dichlorobenzene | ug/kg | 14 U | 110,000 U | 12 U | | 1210 |
| 1,2-Dichlorobenzene | ug/kg | 14 U | 110,000 U | 17 U | | 1210 |

| Sample ID -> | Units | 6-S | S-10 | S-11 | S-11 DL | S-12 |
|------------------------------|-------|-----------|------------|---------|----------|---------|
| Date Sampled -> | | | 11/23/2004 | | | |
| 1,2-Dibromo-3-chloropropane | ug/kg | 14 U | 110,000 U | 12 U | | 12 U |
| 1,2,4-Trichlorobenzene | ug/kg | 14 W | 110,000 U | 17 UJ | | 12 W |
| SEMIVOLATILES | | | | | | |
| Benzaldehyde | ug/kg | 3,800 U | 6,200 U | 5,200 U | 52,000 U | 4,400 U |
| Phenol | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Bis(2-chloroethyl) ether | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2-Chlorophenol | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2-Methylphenol | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2.2'-Oxybis(1-Chloropropane) | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Acetophenone | ug/kg | 3,800 U | 6,200 U | 5,200 U | 52,000 U | 4,400 U |
| 4-Methviphenol | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| N-Nitroso-Di-n-propylamine | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Hexachloroethane | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Nitrobenzene | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Isophorone | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2-Nitrophenol | ua/ka | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2.4-Dimethylphenol | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Bis(2-chloroethoxy) methane | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2.4-Dichtorophenol | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Naphthalene | ug/kg | 100 J | 500 J | 2,600 U | 26,000 U | 360 J |
| 4-Chloroaniline | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Hexachlorobutadiene | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Caprolactam | ug/kg | 3,800 U | 6,200 U | 5,200 U | 52,000 U | 4,400 U |
| 4-Chloro-3-methylphenol | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2-Methylnaphthalene | ug/kg | 74 J | 280 J | 780 J | 770 DJ | 120 J |
| Hexachlorocyclopentadiene | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2,4,6-Trichlorophenol | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2.4.5-Trichlorophenol | ug/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| Biphenyl | ng/kg | 3,800 U | 6,200 U | 5,200 U | 52,000 U | 4,400 U |
| 2-Chloronaphthalene | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2-Nitroaniline | ng/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| Dimethyl phthalate | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 2,6-Dinitrotoluene | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Acenaphthylene | ug/kg | 65 J | 170 J J | 2,600 U | 26,000 U | 330 1 |
| 3-Nitroaniline | ug/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| Acenaphthene | ug/kg | 370 J | 260 J | 1,200 J | 1,400 DJ | 210 J |
| 2,4-Dinitrophenol | ug/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| 4-Nitrophenol | ug/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| Dibenzofuran | ng/kg | 120 J | 140 J | 750 J | 830 DV | 200 J |
| 2,4-Dinitrotoluene | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Diethyl phthalate | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Fluorene | ng/kg | 250 J | 280 J | 2,200 J | 1,800 DJ | 360 J |
| 4-Chlorophenyl phenyl ether | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 4-Nitroaniline | ug/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| 4,6-Dinitro-2-methylphenol | ug/kg | . 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| N-nitrosodiphenylamine | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| 4-Bromophenyl phenyl ether | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |

| Sample ID -> | Units | 6-S | S-10 | S-11 | S-11 DL | S-12 |
|-----------------------------|-------|----------|------------|----------|------------|----------|
| Date Sampled -> | | | 11/23/2004 | | | |
| Hexachlorobenzene | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Atrazine | ng/kg | 3,800 U | 6,200 U | 5,200 U | 52,000 U | 4,400 U |
| Pentachlorophenol | ng/kg | 4,600 U | 7,500 U | 6,400 U | 64,000 U | 5,300 U |
| Phenanthrene | ug/kg | 2,200 B | 3,900 B | 18,000 B | 14,000 BDJ | 3,500 B |
| Anthracene | ng/kg | 520 J | F 006 | 3,000 | 3,000 DJ | 630 J |
| Carbazole | ug/kg | 260 J | 280 J | 1,300 J | 1,300 DJ | 350 J |
| Di-n-butyl phthalate | ug/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Fluoranthene | ug/kg | 5,000 | 16,000 | 17,000 J | 17,000 DJ | 5,300 |
| Pyrene | ug/kg | 1,700 BJ | 2,300 BJ | 6,000 B | 7,700 BDJ | 1,300 BJ |
| Butyl benzyl phthalate | ng/kg | 1,200 J | 1,000 J | 2,600 U | 26,000 U | 2,200 U |
| 3,3'-Dichlorobenzidine | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Benzo(a)anthracene | ug/kg | 1,400 J | 4,200 | 6,500 J | 6,500 DJ | 1,600 J |
| Chrysene | ng/kg | 1,500 J | 5,000 | 6,600 J | 7,100 DJ | 1,800 J |
| Bis(2-ethylhexyl) phthalate | ng/kg | 3,000 U | 4,800 U | 2,600 U | 1,600 BDJ | 2,200 U |
| Di-n-octyl phthalate | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| Benzo(b)fluoranthene | ug/kg | 3,100 J | 5,700 J | 7,400 J | 4,000 DJ | 1,800 J |
| Benzo(k)fluoranthene | ug/kg | 2,900 J | 3,900 J | 4,900 J | 3,500 DJ | 1,800 J |
| Benzo(a)pyrene | ng/kg | 200 J | 1,300 J | 1,400 J | 1,400 DJ | 610 J |
| Indeno(1,2,3-cd)pyrene | ug/kg | 240 J | 470 J | 560 J | 1,200 DJ | 280 J |
| Dibenzo(a,h)anthracene | ng/kg | 190 J | 360 J | 570 J | 1,200 DJ | 210 J |
| Benzo(ghi)perylene | ng/kg | 1,900 U | 3,100 U | 2,600 U | 26,000 U | 2,200 U |
| PESTICIDES/AROCLORS | | | | | | |
| alpha-BHC | ug/kg | 98 U | 65 U | 28 U | | 45 U |
| beta-BHC | ug/kg | 08 U | 65 U | 28 U | | 45 U |
| delta-BHC | ng/kg | 98 U | 65 U | 28 U | | 45 U |
| (gamma-BHC (Lindane) | ug/kg | 98 U | 65 U | 28 U | | 45 U |
| Heptachlor | ng/kg | 98 U | 65 U | 28 U | | 45 U |
| Aldrin | ug/kg | 98 U | 65 U | 28 U | | 45 U |
| Heptachlor epoxide | ug/kg | 98 U | 65 U | 28 U | | 45 U |
| Endosulfan I | ug/kg | 98 U | 65 U | 28 U | | 45 U |
| Dieldrin | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| 4,4'-DDE | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| Endrin | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| Endosulfan il | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| 4,4'-DDD | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| Endosulfan Sulfate | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| 4,4'-DDT | ug/kg | 180 J | 130 U | 53 U | | 88 U |
| Methoxychlor | ug/kg | 980 U | 650 U | 53 U | | 450 U |
| Endrin ketone | ng/kg | 190 U | 130 U | 53 U | - | 88 U |
| Endrin aldehyde | ug/kg | 190 U | 130 U | 53 U | | 88 U |
| alpha-Chlordane | ng/kg | N 86 | 65 U | 28 U | | 45 U |
| gamma-Chlordane | ng/kg | N 86 | 65 U | 28 U | | 45 U |
| Toxaphene | ug/kg | 0086 U | 6500 U | 2800 U | | 4500 U |
| Aroclor 1016 | ug/kg | 1 0061 | 1300 U | 530 U | | 880 U |
| Aroclor 1221 | ug/kg | . 3800 U | 2600 U | 1100 U | | 1800 U |
| Arocior 1232 | ug/kg | 1900 U | 1300 U | 530 U | | 880 U |
| Aroclor 1242 | ug/kg | 1900 U | 1300 U | 530 U | | 880 U |

| | | | | | | 2 |
|-------------------------|-------|-----------|------------|-----------|---------|------------|
| Sample ID -> | Units | S-9 | S-10 | S-11 | S-11 DL | S-12 |
| Date Sampled -> | | | 11/23/2004 | | | |
| Aroclor 1248 | ng/kg | 1900 U | 1300 U | 530 U | | 880 U |
| Arocior 1254 | ng/kg | F 088 | 6300 | 530 U | | 3500 |
| Aroclor 1260 | by/bn | 1900 U | 1300 U | 530 U | | 880 U |
| INORGANICS | | | | | | |
| Aluminum | mg/kg | 4,650 J | 4,620 | 8940 | | 3470 J |
| Antimony | by/6w | 3.0 BN*J | 2.7 BN*J | 0.75 UN*J | | 54.7 N*J |
| Arsenic | mg/kg | 5.9 N*J | 8.2 N*J | 7.3 N*J | | 32.7 N*J |
| Barium | mg/kg | 140 * J | 490 * | 156 * | | 1000 *J |
| Beryllium | mg/kg | 0.69 *J | 0.54 B* | * 66.0 | | 1.2 *J |
| Cadmium | mg/kg | 77.5 N*J | 18.1 N* | 0.16 BN* | | 6.9 N*J |
| Calcium | mg/kg | 65200 J | 112000 | 210000 | | 59000 J |
| Chromium | mg/kg | 68.2 N*J | 296 N* | 85.3 N* | | 153 N*J |
| Cobalt | mg/kg | 10.1 "J | 25.5 * | 6.8 B* | | 23.5 *J |
| Copper | mg/kg | 265 N*J | \$06 N* | 28.7 N* | | 1230.0 N*J |
| Iron | mg/kg | 74,700 J | 47,000 | 18300 | | 220000 J |
| Lead | mg/kg | 331 *J | 1100 * | 20.9 * | | 2940 *J |
| Magnesium | mg/kg | 9,740 J | 9,040 | 30000 | | 2690 J |
| Manganese | mg/kg | 627 N*J | 392 N*J | 477 N*J | | L*N 778 |
| Mercury | mg/kg | 0.218 *J | 0.358 *J | 0.033 U*J | | 3.3 *J |
| Nickel | by/bu | 42.7 *J | 51.4 * | 22.8 * | | 223 *J |
| Potassium | mg/kg | 1,150 J | 972 | 2440 | | 506 BJ |
| Selenium | mg/kg | 0.57 UN*J | 0.81 UN* | 0.76 UN* | | 0.59 UN* |
| Silver | mg/kg | 0.4 *J | 1.7 N*J | 0.1 UN*J | | 4 N*J |
| Sodium | mg/kg | 2510 J | 2340 | 381 B | | 691 J |
| Thallium | mg/kg | 0.58 UN*J | 0.83 UN* | 0.77 U | | 0.6 UN* |
| Vanadium | mg/kg | 23.8 *J | 14.1 * | 161 * | | 24.6 *J |
| Zinc | mg/kg | 332 *J | 2800 * | 61.7 * | | 1330 *J |
| WET CHEMISTRY ANAL YSIS | | | | | | |
| Cyanide - Total | ug/kg | 4,000 UJ | 4,000 UJ | 4,000 UJ | | 4,000 UJ |
| Leachable pH | S.U. | 8.47 | 10.2 | 7.57 | | 8.45 |
| | | | | | | |

Notes:

--

+ 1

BOLD indicates constituent was detected

| | | | | | | | 1 | | = | | |
|---|--------------|-------|---------|-------|---------|---|--------|--------|-------|----------|-------|
| Parameter | Units | IL-1 | IF-1 DF | I-3 | HL-4 | 11/00/00/ | | ₩ - | IL-10 | IL-10 DL | |
| Sample Uale | | | | | 11 000 | 1 | | | | 1 000 | |
| Chloromethane | /ðn | 10 U | Ą | 10 U | 200 N | 0.01 | | 0.01 | 0 00 | | 2 |
| Bromomethane | ng/l | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Vinvl chloride | l/bn | 10 U | AN | 10 U | 500 U | 10 N | 10 U | 10 U | 50 U | 200 U | 10 U |
| Chloroethane | Vui | 10.11 | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Mathulana chlorida | | 10 11 | A | 101 | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Acetono | | 1011 | NA | 10 [] | 360 J | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Protocial Protoco disulfido | | | AN | 101 | 500 11 | 10 11 | 10 11 | 10 11 | 50 U | 200 U | 10 U |
| | 1 | | 5 | | | 2 9 | | 1 9 | | | 101 |
| 1,1-Dichloroethene | 1/6n | 10 0 | AN | 0.01 | 0 009 | 0 0 | 2 | 2 | 000 | | 2 |
| 1,1-Dichloroethane | l/gu | 10 U | NA | 10 U | 500 U | 10 U | 10 U | -0 U | 50 U | 200 U | 10 U |
| Chloroform | ngu | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1 2-Dichloroethane | , nov | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| MEK(9-Bitanona) | Vul | 10 U | AN | 10 U | 1400 NJ | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1 1 1 Trichloroothane | 101 | 101 | NA | 101 | 500 11 | 101 | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1,1,1-1 Indiration taria | | | NA | | 500 1 | 101 | 101 | 10 11 | 50 U | 200 U | 10 U |
| Calbuit (etactionation) Desmodiablecomethene | 1/21 | | VIN | | 500 11 | 101 | 101 | 1011 | 50 11 | 200 | 10 [] |
| | 100 | | | | | | 101 | 1011 | 5011 | | t ct |
| | 100 | | | 2 4 | | | | 2 | 50 11 | | 1 CT |
| cis-1,3-Dichloropropene | ingu | | × | 2 | | | 24 | | | | |
| Trichloroethene | l/ĝn | 10 U | AN | 10 U | 0.009 | 0.01 | 0.01 | 002 | Z,4UU | 2,400 U | 0 0 |
| Dibromochloromethane | µôn | 10 U | NA | 10 U | 500 U | 10 U | ±0 U | 10 U | 50 U | 200 ∪ | 10 U |
| 1.1.2-Trichloroethane | l/6n | ∩ 0‡ | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Benzene | na/ | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| trans-1.3-Dichloropropene | na/ | 10 U | ¥ | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Romotorm | 1/011 | | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| MiRK/4-Methyl-2-nentanone) | | 1011 | AN | 101 | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 2 Hevenone | | 1011 | AN | 101 | 500 11 | 10 [] | 10 U | 10 U | 50 U | 200 U | 10 U |
| | | | | | 5001 | 101 | | 101 | 730 | 720 D | 10 11 |
| l etracmoroemerte | | 2 | | | 2000 | | | | 150 | | 10 11 |
| loluene | - ngu | | ¥. | 2 | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ng/ | 10 N | ¥ | 10 U | 200 N | 10 0 | 10 [| | | 500 0 | |
| Chlorobenzene | ng/l | -10 U | A | 10 U | 200 U | 10 U | 10 0 | 10 U | 50 U | 200 U | 0.01 |
| Ethylbenzene | l/ðn | 10 U | NA | 10 U | 500 U | 10 U | 10 U | 10 U | L 01 | 200 C | 10 U |
| Styrene | J/ ôn | 10 U | NA | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Total Xylenes | µ 6n | 10 U | NA | 10 U | 500 U | 10 U | 10 U | 10 U | 120 | 200 U | 10 U |
| Dichlorodifluoromethane | l/ôn | 10 U | NA | 10 U | 500 UJ | 10 U | 10 U | 10.U | 50 U | 200 U | 10 U |
| Trichlorofluoromethane | ng/l | 10 U | M | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1,1,2-Tricloro-1,2,2,-triflouroethane | /ðn | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| trans-1.2-Dichloroethene | l/bn | 10 U | Ą | 10 U | 500 U | 10 U | 10 U | 10 U | 43 J | 200 U | 10 U |
| Methyl tert butyl ether | * /ðn | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| cis-1.2-Dichloroethene | - 1/011 | 10 U | AN - | 10 U | 500 U | 10 U | л Ч | 10 U | 22 J | 200 U | 10 U |
| Cvclohexane | ng/ | 10 U | AN | 10 N | 500 U | 10 N | 10 U | 10 U | 50 U | 200 U | 10 U |
| Methylcyciohexane | /ðn | 10 U | Ą | 10 U | 500 U | 10 U | 10 U | 10 U | 14 J | 200 U | 10 U |
| 1,2-Dibromoethane | l/ôn | 10 U | Ą | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| Isopropylbenzene | l/ôn | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1.3-Dichlorobenzene | /ðn | 10 U | ¥ | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1,4-Dichlorobenzene | ng/l | 10 U | AN | 10 U | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |
| 1.2-Dichlorobenzene | /ðn | 10 U | AN | -10 Ú | 500 U | 10 U | 10 U | 10 U | 50 U | 200 U | 10 U |

| Parameter | Units | IL-1 | IL-1 DL | IL-3 | L4 | 11/20/20/ | lL-7 | IL-8 | IL-10 | IL-10 DL | IL -11 |
|---|--------|----------------|------------|------------|---------|-------------|--------|----------------|------------|----------|----------------|
| Janipie Vale 1 9 Dibromo - Prohomonone | - Indi | 101 | NA | 1011 | 2001 | 1011 | 1011 | 10.11 | 50.11 | 200 11 | 1011 |
| | | | | | | | | 2 9 | 8 | | |
| 11,2,4-1 richlorobenzene | i/ɓn | 10 0 | A | 0.01 | | 0.01 | 0 | 2 | 2 | | 0 0 |
| Methyl acetate | l∕gu | 10 U | A | 10 U | 200 U | 10 U | -10 U | 10 U | 50 U | 200 U | 10 N |
| Semivolatiles | | | | | | | | | | | |
| Benzaldehyde | l/gu | 9 U | 19 U | 9 U | 950 UJ | U e | 380 UJ | 0 0 | 4 JN | | 90 |
| Phenol | ng/l | 0 f | 19 U | 06 | 64 J | N 6 | 380 UJ | 9 U | 14 | | 9 U |
| Bis (2-chloroethyl) ether | ng/l | U 6 | 19 U | ∩ 6 | 950 UJ | n 6 | 380 UJ | ∩6 | 06 | | 0.6 |
| 2-Chiorophenol | /ôn | О 6 | 19 U | л 6 | 950 UJ | n 6 | 380 UJ | ∩ 6 | n 6 | | 0 G |
| 2-Methytohenol | l/bin | <u>п 6</u> | 19 U | Л 6 | 950 UJ | ∩ 6 | 380 UJ | ∩ 6 | 7- | | ∩ 6 |
| 2.2'- Oxvbis (1-Chloropropane) | na/l | Л б | 19 (| <u>л</u> 6 | 950 UJ | <u> Л 6</u> | 380 UJ | N 6 | 0 f | | Л 6 |
| Acetophenone | na/l | D 6 | 19 U | <u>0</u> 6 | 950 UJ | n 6 | 380 UJ | л 6 | 4 ل | | л 6 |
| 4-Methylphenol | no/ | ∩ 6 | 19 U | 0.6 | 2200 J | n 6 | 380 UJ | 0.6 | ۲ <u>۲</u> | | 0.6 |
| N-Nitroso-Di-n-propylamine | l/bin | Л 6 | 19 U | 9 U | 950 UJ | 0.6 | 380 UJ | 0 6 | Л6 | | 0 G |
| Hexachloroethane | ug/I | Л б | 19 U | 90 | 950 UJ | 0 G | 380 UJ | Л б | N 6 | | Л 6 |
| Nitrobenzene | Νđη | ∩ 6 | 19 U | 90 | 950 UJ | 0 6 | 380 UJ | 0 6 | n 6 | | П6 |
| Isophorone | ng/ | 06 | 19 U | 0.6 | 950 UJ | Л6 | 380 UJ | л 6 | n6 | | л 6 |
| 2-Nitrophenol | /bn | D 6 | 19 (1 | 0 G | 950 UJ | П 6 | 380 UJ | 0.6 | Л6 | | л 6 |
| 2.4-Dimethvtohenol | na/ | D 6 | 19 U | 06 | 950 UJ | Л 6 | 380 UJ | N 6 | 06 | | <u>п 6</u> |
| Bis(2-chloroethoxy) methane | l/6n | D 6 | 19 U | 0.6 | 950 UJ | Л б | 380 UJ | л 6 | ∩6 | | ∩ 6 |
| 2,4-Dichlorophenol | l/bn | П б | 19 U | 0.6 | 950 UJ | лe | 380 UJ | 90 | 0.6 | | 0 G |
| Naphthalene | l/ôn | Лб | 19 U |) e | 950 UJ | 0.6 | 380 UJ | 9 U | 0.6 J | | 9 U |
| 4-Chloroaniline | l/ôn | 0.6 | 19 U | 0 G | 950 UJ | 0.6 | 380 UJ | 06 | 9 U | | 9 U |
| Hexachlorobutadiene | l/ôn | 0.6 | 19 U | N 6 | 950 UJ | 0.6 | 380 UJ | 9 U | 9 U | | 9 U |
| Caprolactam | l/bn | Л 6 | 19 U | 9 U | 950 UJ | 0 f | 380 UJ | Пб | 0 6 | | 0 G |
| 4-Chloro-3-methylphenol | l/bn | N 6 | 19 U | 9 U 📃 | 950 UJ | 0 G | 380 UJ | П6 | 90 | | Лб |
| 2-Methylnaphthalene | l/gu | 0 G | 19 U | 90 | 950 UJ | П 6 | 380 UJ | Л6 | 0 G | | <u> </u> |
| Hexachlorocyclopentadiene | l/bn | N 6 | 19 U | 9 U | 950 UJ | ∩ 6 | 380 UJ | Лб | 90 | | <u>л 6</u> |
| 2,4,6-Trichlorophenol | l/Bn | D 6 | 19 U | 9 U | 950 UJ | 06 | 380 UJ | 9 U | 0 6 | | 0 G |
| 2,4,5-Trichlorophenol | l/ĝn | 24 U | 47 U | 24 U | 2400 UJ | 24 U | 950 UJ | 24 U | 24 U | | 24 U |
| Biphenyl | l/bn | n 6 | 19 U | 9 U | 950 UJ | 9 U | 380 UJ | 9 U | Л 6 | | 0 G |
| 2-Chioronaphthalene | l/Bn | 0 6 | 19 U | 9 U | 950 UJ | 0 G | 380 UJ | 9 U | 0 G | | 0 G |
| 2-Nitroaniline | l/Bn | 24 U | 47 U | 24 U | 2400 UJ | 24 U | 950 UJ | 24 U | 24 U | | 24 U |
| Dimethyl phthalate | l/bn | 0.6 | 19 U | 9 U | 950 UJ | 90 | 380 UJ | 90 | ∩ 6 | | 0 G |
| 2,6-Dinitrotoluene | l/gu | 0.6 | 19 U | 9 U | 950 UJ | 0 G | 380 UJ | Л ө | 0 G | | 0 6 |
| Acenaphthylene | l/bn | ∩ 6 | 19 U | 9 U | 950 UJ | 6 J | 380 UJ | 0 e | 90 | : | ∩6 |
| 3-Nitroaniline | γðn | 24 U | 47 U | 24 U | 2400 UJ | 24 U | 950 UJ | 24 U | 24 U | | 24 U |
| Acenaphthene | + l/gu | N6 | 19 U | 9 U | 950 UJ | 9 U | 380 UJ | 9 0 | л ө | | 9 U |
| 2,4-Dinitrophenol | - i/ɓn | 24 U | 47 U | 24 U | 2400 UJ | 24 U | 950 UJ | 24 U | 24 U | | 24 U |
| 4-Nitrophenoi | l/bn | 24 U | 47 U | 24 U | 2400 UJ | 7 J | 950 UJ | 24 U | 24 U | | 24 U |
| Dibenzofuran | ng/l | 06 | U 61- | 9 U | 950 UJ | 0 G | 380 UJ | 06 | 0 G | | U e |
| 2,4-Dinitrotoluene | ng/l | 0 G | 19 U | 9 U | 950 UJ | 9 U | 380 UJ | 06 | 90 | | U e |
| Diethyl phthalate | l/6n | 0.6 | 19 U | 9 U | 950 UJ | 0 G | 380 UJ | 9 U | 06 | | 06 |
| Fluorene | l/bn | 9 U | 19 U | 9 U | 950 UJ | 0 G | 380 UJ | Лe | <u>л</u> е | | 9 U |
| 4-Chlorophenyl phenyl ether | l/gu | 0 G | 19 U | 9 U | 950 UJ | N 6 | 380 UJ | U e | 06 | | Пб |
| 4-Nitroaniine | na/i | 24 U | 47 U | 24 Ú | 2400 UJ | 24 U | 950 UJ | 24 U | 24 U | | 24 U |
| | | - | | - | | 4 | ~ = | 0 = | 4 | = |
|---|----------------|------------|-------|------------|----------|-------------|------------|------------|------------|-------------|
| Parameter | Units | | | 2 | | 11/29/200 | 17-1 17 | 1-0 | - IS | |
| Janipre Vate 1 6 Dinitro 9 methylohonol | /01 | 11 70 | 47 11 | 11 76 | 2400 111 | 24 [] | 950 UJ | 24 U | 24 U | 24 U |
| 4,0-Difficio-2-fileuryphrenoi M attoocodiaboordemino | 201 | | | | 950 11 | 10 | 380 111 | 0.6 | 16 | 0.6 |
| | /on | 5 | | | 920 00 | n o o | 380 111 | 911 | 10 | 16 |
| 4-bromoprientyi prilanyi eurei | n n n | 0 | | | 920 00 | | 380 111 | 911 | 116 | 0.0 |
| hexacriloroperizerie | 1/20 | 5 | | | 950 00 | 0 0 0 | 380 111 | 91 | | 0.6 |
| Dontechtorohanol | - Por | 11 70 | 47 | 24 11 | 950 UJ | 24 U | 380 UJ | 24 U | 24 U | 24 U |
| Dhenanthrana | /01 | 16 | 19 U | 0.0 | 170 J | 3 J | 30 J | 90 | 0.5 J | 0.6 |
| Anthracana | no/ | 0.6 | 19 0 | Л ө | 950 UJ | 0.6 J | 380 UJ | 90 | 0.6 J | ∩ 6 |
| Carbazole | no/ | N 6 | 19 U | n e | 950 UJ | 0.5 J | 380 UJ | 90 | 0.4 J | 90 |
| Di-n-butvi ohthalate | navi | n 6 | 10 01 | Л 6 | 950 UJ | л 6 | 380 UJ | 0 G | n 6 | 90 |
| Fluoranthene | na/ | N 6 | 19 U | 0.6 | 280 J | 6 J | 73 J | N 6 | л 6 | 0.7 J |
| Pvrene | /an | <u>п</u> 6 | 19 U | <u>0</u> 6 | 220 J | 7 J | 60 J | 9 U | 0.4 J | 0.9 J |
| Butvi benzvi phthalate | na/l | 0.6 | 19 U | <u> 16</u> | L 87 | ∩ 6 | 380 UJ | N 6 | N 6 | 90 |
| 3.3'-Dichlorobenzidine | na/ | D 6 | 19 U | л 6 | 950 UJ | Л 6 | 380 UJ | N 6 | Π6 | 9 U |
| Benzo(a)anthracene | na/ | N 6 | 19 U | 0.6 | 100 J | л З Ј | 26 J | 0 G | N 6 | 9 U |
| Chrysene | na/l | Л 6 | 19 U | <u> </u> | 120 J | л З Ј | 33 J | 0.6 | N 6 | 0.5 J |
| Bis(2-ethylhexyl) ohthalate | l/on | 99 | 66 BD | N 6 | 950 UJ | 19 B | 380 UJ | D 6 | Л6 | 15 B |
| Di-n-octvl ohthalate | ηαΛ | N 6 | 19 U | Л б | 950 UJ | 0.6 | 380 UJ | Л6 | n 6 | 0.6 |
| Benzo(b)fluoranthene | na/ | n 6 | 19 U | 0.6 | L 071 | 6 J | 32 J | ∩ 6 | N 6 | 0.6 J |
| Benzo(k)fluoranthene | na/ | Л 6 | 19 U | 0.6 | 110 J | 5 1 | 24 J | N 6 | 06 | 0.6 J |
| Benzo(a)pvrene | /ðn | 0 6 | 19 U | 0.6 | 93 J | л З Ј | 30 J | 0.6 | 9 U | 0.6 J |
| Indeno(1.2.3-cd)pyrene | /ốn | 0 6 | 19 U | <u>л</u> 6 | 56 J | L F | 20 J | 9 U | 90 | 9 U |
| Dibenzo(a.h)anthracene | /bn | n 6 | 19 U | ∩ 6 | 950 UJ | 0.4 J | 380 UJ | 9 U | 9 U | 0 6 |
| Benzo(g,h,i)perylene | l/Dn | - N 6 | 19 U | 0.6 | 67 J | 2 J | 25 J | 9 U | 9 U | 0 G |
| Pesticides / PCBs | | | | | | | | | | |
| aloha-BHC | l/ôn | 0.047 U | Ą | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| beta-BHC | l/bn | 0.047 U | A | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| delta-BHC | ng/l | 0.047 U | Ą | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| Lindane (camma-BHC) | 1/Bn | 0.047 U | A | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| Heotachlor | l/Bn | 0.047 U | Ą | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| Aldrin | l/Bn | 0.047 U | Ą | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| Hentachtor epoxide | l/gu | 0.047 U | Ą | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| Endosultan I | l/6n | 0.047 U | Ą | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| Dieldrin | l/gu | 0.094 U | AN | 0.094 U | 0.13 JPN | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| 4,4'-DDE | l/gu | 0.094 U | AN | 0.094 U | 0.47 U | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| Endrin | l/ôn | 0.094 U | AN | 0.094 U | 0.2 J | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| Endosulfan li | + i/gu | 0.094 U | Ą | 0.094 U | 0.47 U | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| 4.4'-DDD | - 1/0 n | 0.094 U | AN . | 0.094 U | 0.47 U | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| Endosulfan sulfate | l/bn | 0.094 UJ | A | 0.094 UJ | 0.47 UJ | 0.47 U | 0.47 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| 4.4'-DDT | l/ön | 0.094 U | A | 0.094 U | 0.51 PJ | 0.47 UJ | 0.47 UJ | 0.094 U | 0.094 UJ | 0.2 PNJ |
| Methoxychlor | l/đn | 0.47 U | AN | 0.47 U | 2.4 U | 2.4 U | 2.4 UJ | 0.47 U | 0.47 UJ | 0.47 U |
| Fndrin ketone | l/bn | 0.094 U | AN | 0.094 U | 0.47 U | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| Endrin aldehvde | l/bin | 0.094 U | AN | 0.094 U | 0.47 U | 0.47 U | 0.47 UJ | 0.094 U | 0.094 UJ | 0.094 U |
| alpha-Chlordane | l/gu | 0.047 U | A | 0.047 U | 0.12 J | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| gamma-Chlordane | l/ôn | 0.047 U | AN | 0.047 U | 0.24 U | 0.24 U | 0.24 UJ | 0.047 U | 0.047 UJ | 0.047 U |
| | | | | | | | | | | |

| edial Investigation Report | e 12 - Phase 1 Site Utility Liquids Data |
|----------------------------|--|
| Remedi | Table 1 |
| | Remedial Investigation Report |

| Parameter | Units | [-1 | 17-1 DF | IL-3 | 4 | 1F-9 | IL-7 | IL-8 | IF-10 IF-1 | DL IL-11 | |
|----------------|----------|------------|---------|------------|-----------|-----------|----------|-----------|--------------|----------|---|
| Sample Date | | | | | | 11/29/200 | 4 | | | • | |
| Toxaphene | l/gu | 4.7 U | NA | 4.7 U | 24 U | 24 U | 24 UJ | 4.7 U | 4.7 UJ | 4.7 U | |
| Arochlor 1016 | l/6n | 0.94 U | NA | 0.94 U | 4.7 U | 4.7 U | 4.7 UJ | 0.94 U | 0.94 UJ | 0.94 U | _ |
| Arochlor 1221 | 1/6n | 1.9 U | AN | 1.9 U | 9.4 U | 9.4 U | 9.4 UJ | 1.9 U | 1.9 UJ | 1.9 U | - |
| Arochlor 1232 | l/gu | 0.94 U | NA | 0.94 U | 4.7 U | 4.7 U | 4.7 UJ | 0.94 U | 0.94 UJ | 0.94 U | _ |
| Arochlor 1242 | l/gu | 0.94 U | NA | 0.94 U | 4.7 U | 4.7 U | 4.7 UJ | 0.94 U | 0.94 UJ | 0.94 U | _ |
| Arochior 1248 | l/gu | 0.94 U | AN | 0.94 U | 4.7 U | 4.7 U | 4.7 UJ | 0.94 U | 0.94 UU | 0.94 U | _ |
| Arochlor 1254 | l'gu | 0.94 U | AN | 0.94 U | 4.7 U | 4.7 U | 4.7 UJ | 0.94 U | 0.94 LU | 0.94 U | _ |
| Arochlor 1260 | ug/I | 0.94 U | NA | 0.94 U | 4.7 U | 4.7 U | 4.7 UJ | 0.94 U | 0.94 UJ | 0.94 U | _ |
| Inorganics | | | | | | | | | | | |
| Aluminum | l/6n | 18.4 U ENJ | NA | 18.4 U ENJ | 907 ENJ | 187 ENJ | 1200 ENJ | 55.6 BENJ | 348 ENJ | 108 B | Ĩ |
| Antimony | l/Bn | 5.0 U | AN | 5.0 | 60.2 | 5.0 U | 5.0 U | 5.0 U | 5.0 ND | 5.0 U | |
| Arsenic | l/Bn | 2.6 U | NA | 2.6 | 2.6 U | 2.6 U | 5.7 B | 2.6 U | 2.6 U | 2.6 U | _ |
| Barium | l/bn | 44.4 B | AN | 67.9 B | 3350 | 15 B | 50.2 B | 36.3 B | 38.8 B | 29.9 B | _ |
| Beryllium | l/bn | 0.19 U | AN | 0.2 B | 4.2 B | 0.19 U | 0.19 U | 0.37 B | 0.19 U | 0.20 B | |
| Cadmium | l/gu | 0.34 U | AN | 0.34 U | 38.7 | 0.34 U | 2.1 B B | 0.34 U | 0.34 U | 0.34 U | _ |
| Calcium | γðn | 37700 | AN | 136000 | 136000.00 | 12200 | 28700 | 101000 | 60400 | 74800 | |
| Chromium | l/ôn | 0.65 U | AN | 0.65 U | 58.4 | 0.65 U | 6.6 B | 0.65 U | 8 | 0.65 U | _ |
| Cobalt | l/gu | 0.86 U | AN | 0.86 U | 76.1 | 0.9 U | 2.1 B | 0.96 B | ß | 0.86 U | _ |
| Copper | 1/0n | 2.6 BE | NA | 3.5 BE | 311 E | 5.6 BE | 5.5 BE | 4.4 BE | 229 E | 4.5 B | щ |
| Iron | l/ôn | 179 | NA | 249 | 996000 | 165 | 5280 | 148 | 555 | 693 | |
| Lead | l/ôn | 1.3 U NJ | NA | 44 NJ | 924.0 NJ | 5.2 NJ | 00.8 NJ | 2.0 BNJ | 13.2 NJ | N 0.4 | 2 |
| Magnesium | 1/Bn | 2030 B | NA | 17700 | 86100 | 1260 B | 6730 | 21900 | 587 B | 15600 | |
| Manganese | l/Bn | 1.5 B | AN | 33.2 | 6360 | 12.2 B | 87 | 9.7 B | 8.6 B | 13 B | |
| Mercury | l/đn | 0.087 U | ٩N | 0.087 U | 7.2 | 0.087 U | 0.213 | 0.087 U | B 60.0 | 0.087 U | _ |
| Nickel | ∕bn | 2.1 B | AN | 2.3 B | 336 | 3.5 B | 19.8 B | 4.5 B | 81.6 | 3.3 B | ~ |
| Potassium | l/Bn | 10800 | AN | 4620 B | 241000 B | 852 B | 1340 B | 1840 B | 47100 | 1620 B | |
| Selenium | l/Bn | 5.0 U N | AN | 6.9 BN | 5.0 U N | 5.0 U N | 5.0 U N | 5.0 U N | 5.0 U N | 5.0 U | z |
| Silver | l/gu | 0.69 U | AN | 0.69 U | 1.5 B | 0.69 U | 0.69 U | 0.69 U | 0.69 U | 0.69 U | |
| Sodium | l/gu | 33900 | AN | 90700 | 417000 | 547 B | 4200 B | 186000 | 142000 | 00206 | |
| Thallium | l/6n | 5.1 U | AN | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | _ |
| Vanadium | l∕6⊓ | 0.58 U | NA | 0.58 U | 13.3 B | 1.4 B | 8.80 B | 0.87 B | 9.4 B | 0.58 U | _ |
| Zinc | l/6n | 2.8 B | AN | 11.9 B | 706000 | 38.6 | 450 | 31.8 | 56.6 | 131 | |
| Cyanide | l/gu | 40.0 U | ¥ | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 82.7 J | 40.0 U | |
| На | SU | | | | | | | | | | |
| Total Hardness | l/bm | | | | | | | | | | |
| Conductivity | umhos/cm | ; | | | | | | | _ | | |

. ÷ 1

Notes: U = undetected, J or E = estimated value, RE = re-extraction, D= diluted sample result NA = sample not analyzed for identified constituent 4200 BOLD font indicates analytical parameter was detected in sample

.

| | Depth : Water () | 10/17/0 |
|---|-------------------------------------|----------------------|
| | Groundwater Elevation (ft.) | 07/26/05 |
| | Depth to Water (ft.) | 07/26/05 |
| | Groundwater Elevation (ft.) | 02/11/05 |
| | Depth to Water (ft.) | 05/11/05 |
| | Groundwater Elevation (ft.) | 04/12/05 |
| | Depth to Water (h.) | 04/12/05 |
| | Groundwater Elevation (ft.) | 20/16/10 |
| | Depth to Water (ft.) | 01/31/0S |
| ata | Groandwater Elevation (ft.) | 12/09/04 |
| l Gauging I | Depth to Water (ft.) | 12/09/04 |
| tervals, and | Approximate Screezed | Interval (ft.) |
| Screened Int | Top of Casing Elevation (ft.) | July 2007 Survey |
| LLC Report Vell Depths, | Top of Casing Elevation (ft.) | May 2006 Survey |
| dler Avenue nvestigation Monitoring V | Top of Casing Elevation (A.) | Historical Survey |
| Pioneer Mi Remedial I. Table 13 -] | Monitoring | Ġ |
| | | |

| Monitoring | Top of Casing Elevation (ft.) | Top of Casing Elevation (ft.) | Top of Casing Elevation (ft.) | Approximate Screened | Depth to Water (ft.) | Groundwater Elevation (ft.) | Depth to (Water (ft.) | Froundwater Elevation (ft.) | Depth to (Water (h.) | Groundwater Elevation (f).) | Depth to Water (h.) | Gronndwater Elevation (ft.) | Depth to Water (ft.) | Groundwater Elevation (ft.) | Depth to Water (1.) | Groundwater Elevation (ft.) | Depth to Water (ft.) | Groundwater Elevation (ft.) | Depth to Water (ft.) | Froundwater Elevation (ft.) |
|--------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------|-------------------------|-----------------------------------|---------------------------|--------------------------------|--------------------------|-----------------------------------|------------------------|-----------------------------------|-------------------------|-----------------------------------|------------------------|-----------------------------------|-------------------------|-----------------------------------|-------------------------|-----------------------------------|
| Ēġ | Historical Sarvey | May 2006 Survey | July 2007 Survey | (n.) | 12/09/04 | 12/09/04 | 01/31/05 | 91/31/05 | 04/12/05 | 04/12/05 | 20/11/90 | 05/11/05 | 07/26/05 | 07/26/05 | 10/17/05 | 10/17/05 | 05/16/06 | 90/91/50 | 06/23/07 | 70%23W07 |
| I-WM | 422.92 | 422.95 | 1 | 4 to 14 | 3.54 | 419.38 | 4.00 | 418.92 | 3,40 | 419.52 | 3.69 | 419.23 | 4.07 | 418.85 | 33 | 419.62 | 2.55 | 420.40 | : | : |
| MW-2 | 418.73 | 418.72 | ; | 4 to 14 | 4.60 | 414.13 | 4.82 | 413.91 | 4.40 | 414.33 | 4.65 | 414.08 | 4.91 | 413.82 | 4.6 | 414.13 | 4.82 | 413.90 | 4.93 | 413.79 |
| MW-2D | 418.74 | 422.21 | : | 10 to 20 | | | 4.86 | 413.88 | | | 4.69 | 414.05 | 4.95 | 413.79 | 4.64 | 414.10 | 83 | 413.91 | 8.51 | 413.70 |
| MW-3 | 417.94 | | : | 4 to 14 | 1.61 | 416.33 | 2.15 | 415.79 | ; | ; | 2.12 | 415.82 | 2.14 | 415.80 | 2.18 | 415.76 | 2.66 | 415.28 | : | : |
| QE-WM | 417.95 | 417.94 | : | 15 to 25 | : | : | 2.10 | 415.85 | 1.98 | 415.97 | 2.02 | 415.93 | 2.15 | 415.80 | 1.8 | 416.15 | 2.63 | 415.31 | : | : |
| MW-4 | 416.00 | 416.06 | : | 41014 | 2.65 | 413.35 | 2.86 | 413.14 | 2.32 | 413.68 | 2.60 | 413.40 | 3.98 | 412.02 | 2.66 | 413.34 | 2.58 | 413.48 | : | ; |
| MW-4D | 416.22 | 416.33 | : | 13 to 18 | : | : | 3.01 | 413.21 | | | 2.70 | 413.52 | 3.00 | 413.22 | 2.81 | 413.41 | 2.75 | 413.58 | : | : |
| 8-WM | 418.33 | ; | : | 4 to 14 | 2.62 | 415.71 | 3.74 | 414.59 | 2.16 | 416.17 | 2.60 | 415.73 | ; | | 2.12 | 416.21 | : | : | : | : |
| 9-MW | 420.22 | 420.29 | 1 | 4 to 14 | 2.06 | 418.16 | 2.78 | 417.44 | 1.74 | 418,48 | 2.27 | 417.95 | 2.92 | 417.30 | 1.71 | 418.51 | 1.58 | 418.71 | : | |
| <i>1-W</i> M | 429.16 | 429.21 | : | 5 to 15 | 8.28 | 420.88 | 9.40 | 419.76 | 7.92 | 421.24 | 8.37 | 420.79 | 9.15 | 420.01 | 8.34 | 420.82 | 8.19 | 421.02 | 19:6 | 419.54 |
| MW-8 | 422.37 | 422.41 | : | 4 to 14 | 2.36 | 420.01 | 3.60 | 418.77 | 3.11 | 419.26 | 3.39 | 418.98 | 3.73 | 418.64 | 3.07 | 419.30 | 1.12 | 421.29 | 5.14 | 417.27 |
| Q6-MM | 420.64 | 420.67 | | 8 to 18 | | | 6.86 | 413.78 | 6.55 | 414.09 | | | 6.78 | 413.86 | 6.4 | 414.24 | <i>19</i> '9 | 414.00 | 7.41 | 413.26 |
| MW-10D | 419.75 | 419.76 | : | 8 to 18 | : | : | 6.86 | 412.89 | 6.71 | 413.04 | - | : | 6.91 | 412.84 | 6.65 | 413.10 | 6.8 | 412.96 | 7.16 | 412.60 |
| dii-ww | 420.97 | 1 | ; | 6 to 22 | : | : | 3.25 | 417.72 | 2.54 | 418.43 | 2.80 | 418.18 | 3.12 | 417.85 | 2.41 | 418.56 | : | : | : | |
| MW-12D | ; | 424.62 | 1 | 8.5 to 18.5 | : | : | | : | | • | | | | : | | : | 4.59 | 420.03 | | ; |
| MW-12D-R | 1 | ; | 424.54 | 8.5 to 18.5 | : | : | ; | : | | ; | : | | : | | | : | : | : | 7.29 | 417.25 |
| MW-13D | : | 420.91 | : | 8 to 18 | : | : | 1 | : | : | : | : | | : | - | : | : | 6.27 | 414.64 | 7.75 | 413.16 |
| SB-2-1 | 423.16 | : | : | 16011 | : | ; | : | | 3.89 | 419.27 | 4.18 | 418.98 | 4.55 | 418.61 | 3.83 | 419.33 | : | | ; | : |
| SB-7-1 | 421.55 | : | : | 8 to 18 | : | ; | : | 1 | 2.93 | 418.62 | 3.15 | 418.40 | 3.51 | 418.04 | 2.77 | 418.78 | | : | ; | |
| I-6-81S | 421.94 | : | : | 8.5 to 18.5 | : | ; | : | : | 3.48 | 418.46 | 3.75 | 418.19 | 4.10 | 417.84 | 3.04 | 418.90 | : | : | ; | : |
| SB-12-1 | 419.52 | | : | 12 to 22 | : | | : | : | 1.41 | 418.11 | 1.73 | 417.79 | 2.01 | 417.51 | 1.29 | 418.23 | ; | ; | | ; |
| SB-13-2 | 418.96 | | | 12 to 22 | : | | ; | : | 1.38 | 417.58 | 1.65 | 417.31 | 2.94 | 416.02 | 1.18 | 417.78 | ; | | ; | : |
| SB-13-4 | 421.86 | : | : | 14 to 24 | : | ; | : | : | 5.38 | 416.48 | 5.84 | 416.02 | 6.01 | 415.85 | 5.46 | 416.40 | ! | : | ; | : |
| DAW-1 | 421.11 | 421.16 | : | 32.5 to 37.5 | : | ; | : | : | | | | : | : | ; | 3.38 | 417.73 | 3.12 | 418.04 | : | |
| DAW-2 | 419.82 | 422.59 | : | 46 to 51 | | | ; | : | | | : | : | : | : | 2.42 | 417.40 | 4.76 | 417.83 | ; | : |
| DAW-3 | 418.32 | 418.31 | ;; | 51.5 to 56.5 | : | | : | : | : | : | ; | : | : | ; | -1.8* | 420.12 | -1.17* | 419.48 | : | : |
| DAW-4 | | 424.45 | : | 19 to 29 | ; | 4 | : | ; | ; | - | | : | - | | -1.8* | 420.12 | 628 | 418.17 | : | ; |

---- Data noi avaliable * = Estimated value meanned within a temporary extended rise: Notes: MW-2D and DAW 2 converted to stick-up wells just prior to May 2006 survey

f.

F-Invien/C&1 - Promer Development/C&1.002 BCP/Cose out and COC/Cender 200791 Report/Tables/Table/Late

| | | er Data | |
|-------------------------|------------------------------|-----------------------------|--|
| oneer Midler Avenue LLC | smedial Investigation Report | ble 14 - Phase 1 Groundwate | |

| Pioneer Midler Avenue LLC | | | | | | | | | | | | |
|--|---------|----------|------------|-------|------|--------|-----------|---------|------|----------|------|----------|
| Hemedial Investigation Heport Table 14 - Phase 1 Groundwate | er Data | | | | | | | | | | | |
| Parameter | Units | NYSDEC (| Class GA | MW-1 | MW-2 | WW-3 | MW-3 Dupe | MW-4 | MW-5 | 9-WM | Z-WM | MW-8 |
| Sample Date | | Standard | Guidance | | | | 11/ | 29/2004 | | | | |
| Chloromethane | i/ôn | | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Bromomethane | 1/6n | | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | <u>5</u> | 10 U | 10 U |
| Vinyi chloride | į/ôn | 2 | | 10 U | 10 U | 22 | 28 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Chloroethane | Į/ôn | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 L | 10 U |
| Methylene chloride | l/6n | ഹ | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Acetone | ίδη | | 50 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbon disulfide | l/6n | 99 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 01 | 10 U | 10 U |
| 1,1-Dichloroethene | l/ôn | ы | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 [1 | 10 U | 10 U |
| 1,1-Dichloroethane | l/6n | ۍ ا | | 10 U | 10 U | 10 U | 0 9 | 10 U | 10 U | 10 N | 10 U | 10 U |
| Chloroform | l/gu | 7 | | 10 U | 10 U | 10 U | 0 0 | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,2-Dichloroethane | l/gu | 0.6 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| MEK(2-Butanone) | l/ôn | | 50 | 10 U | 10 U | 10 U | 16 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,1,1-Trichloroethane | l/on | ſ | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbon tetrachioride | l/ôn | 'n | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Bromodichloromethane | l/6n | | 50 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,2-Dichloropropane | j/ôn | | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| cis-1,3-Dichloropropene | l/gu | 0.4 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Trichloroethene | l/gu | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Dibromochloromethane | l/ôn | 5 | | 10 N | 10 U | 10 U | 10 U | -0 - | 10 U | 10 U | 10 U | 10 U |
| 1,1,2-Trichloroethane | l/ĝn | 5 | | 10 U | 10 U | 10 U | ∩ ₽ | 10 U | 10 U | 10 U | 10 U | 10 U |
| Benzene | l/gu | - | | -10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| trans-1,3-Dichloropropene | ∕ôn | 0.4 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Bromoform | ∕ôn | | 50 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| MIBK(4-Methyl-2-pentanone) | l/ôn | | | 10 U | 10 U | 10 U | 10 1 | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Hexanone | l⁄ôn | | ß | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Tetrachloroethene | l⁄ôn | ۍ | | 10 U | 10 U | 10 U | 3 J | 10 U | 10 U | 10 U | 10 U | 10 U |
| Toluene | /ðn | ى م | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,1,2,2-Tetrachloroethane | jōn | ഹ | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Chlorobenzene | -lon | ß | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Ethylbenzene | lôn | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Styrene | l/ôn | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Total Xylenes | l/ôn | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Dichlorodifluoromethane | ∕ðn | 5 | | 10 U | 10 U | 10 U | 10 U | -0 - | 10 U | 10 U | 10 U | 10 U |
| Trichlorofluoromethane | ∫ôn | 5 | * . | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,1,2-Trickoro-1,2,2,-triflouroethane | l/ôn | - 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| trans-1,2-Dichloroethene | l/ôn | 5 | | 10 U | 10 U | 113 | - P/2 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Methyl tert butyl ether | l/gu | 10 | | 10 U | 10 U | 10 U. | 10 U | 10 U | 10 U | 10 U | 10 U | <u>₽</u> |
| cis-1,2-Dichloroethene | l/ôn | ъ | | 10 U | 10 U | 430 | 180 | 2 J | 3 J | 10 U | 3 J | 10 U |
| Cyclohexane | l/ôn | | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Methylcyclohexane | l/ôn | | | 10 U | 10 U | 10 U | 10 U | 10 C | 10 U | 10 U | 10 U | 10 U |
| 1,2-Dibromoethane | l/gu | | | 10 0 | 10 U | 0 0 | 10 U | 10 0 | 10 0 | 10 0 | 10 0 | 10 U |

| idler Avenue LLC | Investigation Report | Phase 1 Groundwater Data |
|---------------------------|---------------------------|--------------------------|
| Pioneer Midler Ave | Remedial Investigs | Table 14 - Phase 1 |

| Parameter | Units | NYSDEC (| Class GA | hw-1 | MW-2 | MW-3 | MW-3 Dupe | MW-4 | MW-5 | 9-WW | 7-WM | MW-8 |
|--------------------------------|-------|----------|----------|------|------------------|-------|-----------|----------|------|-------|------|------|
| Sample Date | | Standard | Guidance | | | | 11 | /29/2004 | | | | |
| Isopropylbenzene | 1/0n | ŝ | | 10 0 | 10 U | 10 0 | 10 U | 10 1 | 10 U | 10 U | 10 U | 10 U |
| 1,3-Dichlorobenzene | l/ôn | e | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,4-Dichtorobenzene | i/ôn | 3 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,2-Dichlorobenzene | ¦∕6n | e | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,2-Dibromo-3-chloropropane | /6n | 0.04 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,2,4-Trichlorobenzene | ∕ôn | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Methyl acetate | l/ôn | | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Semivolatiles | | | | | | | | | | | | |
| Benzaldehyde | ∕ôn | | | 10 U | л6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 0.6 |
| Phenol | ∕6n | - | | 10 U | n 6 | 10 U | 10 U | 20 U | 10 U | 0.9 J | 10 U | 9 U |
| Bis (2-chloroethyl) ether | l/đn | - | | 10 U | л 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| 2-Chlorophenol | l/gn | | | 10 U | <u>п</u> 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| 2-Methyiphenol | l/ôn | - | | 10 U | <u>п</u> 6 | 10 N | 10 U | 20 U | 10 U | 10 U | 10 U | 90 |
| 2.2'- Oxybis (1-Chloropropane) | /ðn | | | 10 U | n 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| Acetophenone |)ôn | | | 10 U | <u>п</u> 6 | 10 U | 10 U | 20 0 | 10 U | 10 U | 10 U | 9 U |
| 4-Methylphenol | l/ôn | - | | 10 U | 0 6 | 10 U | 0.4 J | 20 U | 10 U | 10 U | 10 U | 9 U |
| N-Nitroso-Di-n-propylamine | l/ôn | | | 10 U | n 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| Hexachloroethane | jőn | 5 | | 10 U | ∩ 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| Nitrobenzene | /ðn | 0.4 | | 10 U | л 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| Isophorone | ,/ôn | | 50 | 10 U | <u>ח</u> 6 | 10 U | - 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| 2-Nitrophenol | l/ôn | - | | 10 U | 0 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| 2,4-Dimethyphenol | l/On | | | 10 U | 0 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| Bis(2-chloroethoxy) methane | l/ôn | ഹ | | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| 2,4-Dichlorophenol | | | | 10 U | 9 0 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 06 |
| Naphthalene | l/ôn | | 10 | 10 U | N 6 | 0.5 J | 10 U | 0.7 J | 10 U | 10 U | 10 U | 9 0 |
| 4-Chloroaniline | l/ôn | S | | 10 U | - N 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| Hexachlorobutadiene | l/ôn | 0.5 | | 10 U | 0 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| Caprolactam | γôn | | | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | N 6 |
| 4-Chloro-3-methylphenol | l/6n | - | | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 L | 06 |
| 2-Methylnaphthalene | ļ⁄6n | | | 10 U | 90 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 L | 06 |
| Hexachtorocyclopentadiene | i/6n | 5 | | 10 U | 9 U | 10 U | 0 10 | 20 U | 10 U | 10 U | 10 U | 9 U |
| 2,4,6-Trichlorophenol | l/gu | * | | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| 2,4,5-Trichlorophenol | l/gu | - | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| Bipheny | 1/6n | ی ما | f., | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| 2-Chloronaphthaiene | ∕ðn | , | 10 | 10 N | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 0 6 |
| 2-Nitroaniline | l/ôn | ъ | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| Dimethyl phthalate | /ðn | | 50 | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 0 |
| 2,6-Dinitrotoluene | ∕6n | 5 | | 10 U | 9 U | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 9 U |
| Acenaphthylene | l/ôn | | | 10 U | 9 <mark>0</mark> | 10 U | 10 U | ٦L | 10 U | 10 U | 10 U | 06 |
| 3-Nitroaniline | ļ6n | ۍ | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| Acenaphthene | ļ/ðn | | | 10 U | <u>U</u> 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 06 |

| · Avenue LLC | stigation Report | se 1 Groundwater Data |
|---------------------|-----------------------|------------------------|
| oneer Midler Avenue | emedial Investigation | able 14 - Phase 1 Grou |

| Parameter | Units | NYSDEC | Class GA | MW-1 | MW-2 | MW-3 | MW-3 Dupe | MW-4 | MW-5 | 9-WM | 7-WM | 8-WM |
|-----------------------------|-------|----------|----------|---------|----------------|--------|-----------|----------|---------|---------|----------|------------|
| Sample Date | | Standard | Guidance | | | | 11 | /29/2004 | | | | |
| 2,4-Dinitrophenol | i/ôn | - | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| 4-Nitrophenol | l/6n | - | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| Dibenzofuran | l/ôn | | | 10 U | n 6 | 10 U | 10 U | 20 U | 10 U | 10 N | 10 U | N 6 |
| 2,4-Dinitrotoluene | l/gu | ъ | | 10 U | Лб | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | U 6 |
| Diethyl phthalate | /ôn | | 50 | 10 U | n 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 90 |
| Fluorene | ∕ôn | | 50 | 10 U | D 6 | 10 U | 10 U | 0.8 J | 10 U | 10 U | 10 U | 0 6 |
| 4-Chlorophenył phenyl ether | l/ôn | | | 10 U | 0 G | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 06 |
| 4-Nitroaniline | l/ôn | S | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| 4,6-Dinitro-2-methylphenol | Ŋ | - | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| N-nitrosodiphenylamine | l/gu | | 50 | 10 U | 9 0 | 10 U | 10 N | 20 U | 10 U | 10 U | 10 U | 90 |
| 4-Bromophenyl phenyl ether | l/ôn | | | 10 U | N 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 0 6 |
| Hexachlorobenzene | l/6n | 0.04 | | 10 U | - N 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 0.6 |
| Atrazine | l/gu | 7.5 | | 10.U | л 6 | 10 U | 10 U | 20 U | 10 U | 10 I | 10 U | 9 U |
| Pentachiorophenol | ng/l | - | | 24 U | 24 U | 25 U | 25 U | 49 U | 24 U | 24 U | 24 U | 24 U |
| Phenanthrene | l/gu | | 50 | 0.4 J | 3 J | J.C. | 2 J | ۲9 | 0.6.J | 10 U | 0.7 J | U e |
| Anthracene | l/gu | | 50 | 10 U | Л 6 | 10 U | 10 U | L L | 10 U | 10 U | 10 U | 0 6 |
| Carbazole | l/gu | | | 10 U | N 6 | 10 U | 10 U | 0.8 J | 10 U | 10 U | 10 U | 0 G |
| Di-n-butyl phthalate | l/ôn | 20 | | 10 U | л б | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | Лб |
| Fluoranthene | l/ôn | | 20 | 10 U | 2 J | л Ю | л С | ۲6 | 10 U | 10 N | 10 U | 9 U |
| Pyrene | l/ôn | | 20 | 10 U | 0.6 J | 2 J | L F | ۲8 | 10 U | 10 U | 10 U | 0 6 |
| Butyl benzyl phthalate | J∕0n | | 20 | 10 U | N 6 | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 0 6 |
| 3,3'-Dichlorobenzidine | l/ôn | 5 | | 10 U | 9 U E | 10 U | 10 U | 20 U | 10 U | 10 U | 10 U | 0 6 |
| Benzo(a)anthracene | l/ôn | | 0.002 | 10 U | 06 | 0.9 4 | 0.8.0 | 4.0 | 10 U | 10 U | 10 U | <u>л</u> 6 |
| Chrysene | l/ôn | | 0.002 | 10 U | 0 G | 3.4 | L 8.0 | 74 | 10 U | 10 U | 10 U | 06 |
| Bis(2-ethylhexyl) phthalate | l/ôn | S | | 10 U | n e | 10 0 | 10 U | 20 U | 10 U | 10 U | 160 | 15 B |
| Di-n-octyl phthalate | l/ôn | | 20 | 10 U | n 6 | 10 U | 10 N | 20 U | 10 U | 10 U | 10 11 | Л б |
| Benzo(b)fluoranthene | l/gu | | 0.002 | 10 U | 0 G | 1 50 | 0.8.0 | 3.4 | 10 U | 10 U | 10 U | n 6 |
| Benzo(k)fluoranthene | l/gu | | 0.002 | 10 U | 9 0 | 0.8.1 | P:2:0 | PIE - | 10 U | 10 U | 10 U | n 6 |
| Benzo(a)pyrene | l/đn | Q | | 10 U | 9 0 | 0.9 J | 0.7 J | 4 J | 10 U | 10 U | 10 U |) 6 |
| Indeno(1,2,3-cd)pyrene | l/gu | | 0.002 | 10 U | 9 0 | 10 U | 10 U | 2,0 | 10 U | 10 U | 10 U | 06 |
| Dibenzo(a,h)anthracene | l/gu | | | 10 U | 9 0 | 10 U | 10 L | 1 | 10 U | 10 U | 10 U | 06 |
| Benzo(g,h,i)perylene | l/gu | | | 10 U | 0 6 | 10 U | 10 U | 3 J | 10 U | 10 U | 10 U | 06 |
| Pesticides / PCBs | | | | | | | | | | | | |
| alpha-BHC | ∕ôn | • | Ŧ. | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| beta-BHC | ∕ôn | * | | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| delta-BHC | l\gu | | | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| Lindane (gamma-BHC) | ng/l | | | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| Heptachlor | l/gu | 0.04 | | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| Aldrin | l/ĝn | 2 | | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| Heptachlor epoxide | l/gu | 0.03 | | 0.047 U | 0.047 UJ | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| Endosulfan | l/Bn | | | 0.047 U | 0.047 U | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |

| | | Dat |
|------|--------|------------|
| | ÷ | ter |
| o | ğ | W a |
| Ξ | Ř | ň |
| nue | tion | 20 |
| Ve | iga | Ť |
| er J | vest | lasi |
| Nidl | Ē | Ē |
| er P | dial | 14 |
| one | e E | ble |
| ā | B | Та |

| Darameter | Units | NYSDEC | Class GA | MW-1 | MW-2 | MW-3 | MW-3 Dupe | MW-4 | MW-5 | 9-WW | 7-WM | MW-8 |
|--------------------|-------|----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|----------|
| Samole Date | | Standard | Guidance | | | | 11 | /29/2004 | | | | |
| Dieldrin | /ôn | 0.004 | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0:50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| 4.4'-DDE | l/gu | 0.2 | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| Endrin | l/gu | Q | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| Endosultan II | l/gu | | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| 4,4-DDD | l/gu | 0.3 | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| Endosultan sulfate | l/gu | | | 0.094 UJ | 0.094 UJ | 0.20 UJ | 0.10 UJ | 0.50 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.095 UJ |
| 4.4'-DDT | lĝn | 0.2 | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| Methoxychior | l/gu | 35 | | 0.047 U | 0.047 U | 1.0 U | 0.50 U | 2.5 U | 0.047 U | 0.047 U | 0.047 UJ | 0.48 UJ |
| Endrin ketone | l/ôn | | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| Endrin aldehvde | /ôn | 5 | | 0.094 U | 0.094 U | 0.20 U | 0.10 U | 0.50 U | 0.094 U | 0.094 U | 0.094 UJ | 0.095 UJ |
| aloha-Chlordane | /ôn | 0.05 | | 0.047 U | 0.047 U | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| gamma-Chlordane | l/ôn | 0.05 | | 0.047 U | 0.047 U | 0.10 U | 0.050 U | 0.25 U | 0.047 U | 0.047 U | 0.047 UJ | 0.048 UJ |
| Toxabhene |)ôn | 0.06 | | 4.7 U | 4.7 U | 10 U | 5.0 U | 25 U | 4.7 U | 4.7 U | 4.7 UJ | 4.8 UJ |
| Arochlor 1016 | l/6n | 0.09 | | 0.94 U | 0.94 U | 2.0 U | 1.0 U | 5.0 U | 0.94 U | 0.94 U | 0.94 UJ | 0.95 UJ |
| Arochlor 1221 | l/ôn | 0.09 | | 1.9 U | 1.9.U | 4.0 U | 2.0 U | 10 U | 1.9 U | 1.9 U | 1.9 UJ | 1.9 UJ |
| Arrochlor 1232 | l/bn | 0.09 | | 0.94 U | 0.94 U | 2.0 U | 1.0 U | 5.0 U | 0.94 U | 0.94 U | 0.94 UJ | 0.95 UJ |
| Arochior 1242 | /ðn | 0.09 | | 0.94 U | 0.94 U | 2.0 U | 1.0 U | 5.0 U | 0.94 U | 0.94 U | 0.94 UJ | 0.95 UJ |
| Arrchior 1248 | lon | 0.09 | | 0.94 U | 0.94 U | 2.0 U | 1.0 U | 5.0 U | 0.94 U | 0.94 U | 0.94 UJ | 0.95 UJ |
| Arrochior 1254 | lan | 0.09 | | 0.94 U | 0.94 U | 2.0 U | 1.0 U | 5.0 U | 0.94 U | 0.94 U | 0.94 UJ | 0.95 UJ |
| Arochlor 1260 | ĥ | 0.09 | | 0.94 U | 0.94 U | 2.0 U | 1.0 U | 5.0 U | 0.94 U | 0.94 U | 0.94 UJ | 0.95 UJ |
| Inoraanics | | | | | | | | | | | | |
| Aluminum | l/on | | | 93.9 BENJ | 133 BENJ | 2160 ENJ | 1560 NEJ | 218 ENJ | 301 ENJ | 544 ENJ | 277 ENJ | 388 ENJ |
| Antimony | l/ôn | e | | 5.0 U | 5.0 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U |
| Arsenic | l/on | 25 | | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U |
| Barium | l/bin | 1000 | | 40.9 B | 34.8 B | 96.6 B | 102 B | 139 B | 57.2 B | 109 BJ | 156 B | 153 B |
| Bendlium | no, | | e | 0.30 B | 0.26 B | 0.91 B | 0.94 B | 0.59 B | 0.65 B | 0.39 BJ | 0.87 B | 0.92 B |
| Cadmium | Į2 | 5 | | 0.34 U | 0.34 U | 0.37 B | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U |
| Calcium | /on | | | 158000 | 164000 | 349000 | 386000 | 451000 | 347000 | 178000 | 457000 | 531000 |
| Chromium | /õn | 50 | | 0.65 U | 0.65 U | 3.1 B | 1.9 B | 0.65 U | 0.65 U | 0.65 U | 0.65 ND | 0.69 B |
| Cobalt | l/ôn | | | 0.86 U | 0.86 U | 2.8 B | 3.1B | 1.0 B | 0.86 U | 0.86 U | 1.3 B | 5.1 B |
| Copper | l/gu | 200 | | 1.3 U E | 1.3 U E | 109 EN | 102 E | 1.3 U E | 1.3 U E | 1.3 U E | 1.3 U E | 3.5 BE |
| Iron | ng/ | 300 | | 4040 | 294 | 7540 | 5120 | 12000 | 847 | 6400 | 2500 | 854 |
| Lead | ng/ | 25 | | 1.3 U NJ | 1.3 U NJ | 44.0 N.J | 40,8,NJ | 1.3 U NJ | 1.3 BNJ | 3.0 BNJ | 1.3 U NJ | 1.3 U NJ |
| Magnesium | l/gu | - | 35000 | 11500 | 13300 | 44900 | 100851 | 14000 | 37300 | 24500 | 46800 | 001.21 |
| Manganese | ng/ | 300 | | 158 | 15.1 | 229 | 290 | 476 | 112 | 192 | 1453 | 871 |
| Mercury | | | | 0.087 U | 0.087 U | 0.087 U | 0.087 U | 0.087 U | 0.087 U | 0.087 U | 0.087 U | 0.180 B |
| Nickel | /ðn | 100 | | 2.9 B | 2.3 B | 9.3 B | 8.2 B | 4.2.8 | 3.2 B | 2.8 B | 4.8 B | 13.9 8 |
| Potassium | l/gu | | | 4660 B | 3430 B | 4570 B | 2900 B | 8420 | 5380 B | 13100 B | 3840 B | 3120 B |
| Selenium | l/6n | 10 | | 5.0 U N | 5.0 U N | 5.0 U N | 5 UN | 5.0 U N | 5.0 UN | 5.0 U N | 5.0 U N | 5.0 U N |
| Silver | l/ôn | 50 | | 0.69 U | 0.69 U | U 69'0 | 0.69 U | 0.69 U | 0.69 U | 0.69 U | 0.69 U | 0.691U |
| Sodium | l/ôn | 2000 | | 000826 | 40300 | 1416000 | 338000 | 60360 | 143000 | 307000 | 383200 | 340000 |

•

| Parameter | Units | NYSDEC (| class GA | MW-1 | MW-2 | MW-3 | MW-3 Dupe | MW-4 | MW-5 | 9-WW | 7-WM | MW-8 |
|----------------|----------|----------|----------|--------|--------|--------|-----------|----------|--------|--------|--------|--------|
| Sample Date | | Standard | Guidance | | | | 11 | /29/2004 | | | | |
| Thallium | i/ôn | | 0.5 | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | 5.1 U | |
| Vanadium | l∕6n | | | 0.58 U | 0.58 U | 7.1 B | 6.1 B | 0.75 B | 0.80 B | 1.5 B | 0.58 U | 1.2 B |
| Zinc | ∥ôn | | 2000 | 7.1 B | 2.6 B | 63.4 | 61.4 | 17.5 B | 9.0 B | 13.7 B | 17.0 B | 59.8 |
| Cyanide | | | | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 40.0 U | 40.0 U |
| Hq | SU | | | | | | | | | | | |
| Total Hardness | l/gm | | | | | | | | | | | |
| Conductivity | umhos/cm | | | | | - | | | | | | |
| | | | | | | | | | | | | |

Notes: **1000** - indicates detected value for organic - indicates value exceeds Class GA Standard or Guidance level. ND = not detected, U = undetected, J or E = estimated value, RE = re-extraction

۴.

÷ 1

| с С | anort |
|----------|----------|
| venue L | nation F |
| lidler A | Investi |
| neer N | madial |

| Pioneer Midler Avenue LLC Remedial Investigation Repo | ы | | | | | | | | | | | |
|--|------------|------------|----------------------|-------|----------|------------|-------|--------------------|--------|-----------|--------|-----------|
| Table 15 - Phase 2 Groundw Monitoring Wells | /ater Data | for Clay U | Init | | | | | | | | | |
| Parameter Date Samoled | Units | NYSDEC | Class GA Guidance | MW-2D | MW-3D | MW-3D DL | MW-4D | MW-9D 1/31/2005 | MW-10D | MW-10D DL | MW-11D | MW-11D DL |
| Chloromethane | l/ôn | | | 10 U | 20 U | 800 U | 10 U | 10 U | του | 80 U | 10 U | 500 U |
| Bromomethane | l/6n | | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Vinyl chloride | l/6n | 2 | | 10 U | 170 | 800 U | 10 U | 6.0 | 32 J | 32 DV | 830 | 830 D |
| Chloroethane | l/6n | 22 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Methylene chloride | l/ôn | ى ا | | 10 U | 20 N | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Acetone | l/bn | | 50 | 10 U | 20 U | 800 U | 10 U | 10 U | Р 8 | 80 U | 10 U | 500 U |
| Carbon disulfide | l/ôn | 80 | | 10 U | 20 0 | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,1-Dichloroethene | l/bn | 2 | | 10 U | 101 | 800 U | 10 U | 10 U | 10 U | 80 U | 28 | 500 U |
| 1,1-Dichloroethane | l/bn | 5 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Chloroform | l/bn | 7 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,2-Dichloroethane | l/ôn | 0.6 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| MEK(2-Butanone) | l/ôn | | 20 | 15 | 20 U | ∩ 800 ∩ | 13 | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,1,1.Trichloroethane | l/ôn | ß | | 10 U | 20 N | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Carbon tetrachloride | i/6n | ъ | | 10 U | 50 C | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Bromodichloromethane | ¦∕6n | | 50 | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,2-Dichloropropane | l/bn | - | | 10 N | ∩ \$2 | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| cis-1,3-Dichloropropene | l/gu | 0.4 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Trichloroethene | l/ôn | 2 | | 10 U | 6J | 800 U | 10 U | 10 U | 10 U | 80 U | 2.200 | 2,200 D. |
| Dibromochloromethane | l/gu | ю | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,1,2-Trichloroethane | l/ôn | ъ | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | D 08 | 2 J | 500 U |
| Benzene | l/ĝn | | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| trans-1,3-Dichloropropene | l/ôn | 0.4 | : | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Bromoform | i/ɓn | | 50 | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| MiBK(4-Methyl-2-pentanone) | l/ôn | | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 2-Hexanone | l/ôn | | 50 | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Tetrachloroethene | l/ôn | ß | | 10 U | 8,800 | B,800 D | 10 U | 3 J | 4 1 | 80 U | 6,800 | 6,800 D |
| Toluene | l/ôn | 5 | | | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,1,2,2-Tetrachloroethane | /ôn | ß | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Chlorobenzene | l/gu | 2 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Ethylbenzene | l/ôn | 5 | | 10 U | 20 U | 800 U | 10 U | 10 L | 10 U | 80 U | 10 U | 200 L |
| Styrene | l/bn | 3 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Total Xylenes | l/ôn | ъ | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |

F: Project/C81 - Pioneer Development/C81.002 BCPIClose out and COCIOctober 2007/RI Report/Tables/Table15validated.xis / GW

| Dinneer Midler Avenue LLC | | |
|-----------------------------|-----------|---------------|
| Remedial Investigation Repo | Ĕ | |
| Table 15 - Phase 2 Groundw | ater Data | for Clay Unit |
| Monitoring Wells | | |
| Parameter | Units | NYSDEC Class |
| 7 | | |

| Parameter | Units | NYSDEC (| Class GA | MW-2D | MW-3D | MW-3D DL | MW-4D | De-WM | MW-10D | MW-10D DL | MW-11D | MW-11D DL |
|---------------------------------------|-------|----------|----------|-------|-------|-----------|-------|-----------|--------|-----------|--------|-----------|
| Date Sampled | | Standard | Guidance | | 100 | 57 187 | | 1/31/2005 | | 8 | 3 | |
| Dichlorodifluoromethane | l/ôn | പ | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Trichiorofluoromethane | l/ôn | ю | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,1,2-Tricloro-1,2,2,-triflouroethane | l/ôn | ۍ ۱ | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| trans-1,2-Dichloroethene | l/ôn | ъ | | 10 U | 1/2 | 800 U | 10 U | 10 U | 26 | 46 DV | 130 | 150 0 |
| Methyl tert butyl ether | l/6n | 9 | | 10 UU | 20 U | 800 U | 10 UJ | 10 UJ | 10 UJ | 80 U | 10 UU | 500 U |
| cis-1,2-Dichloroethene | l/6n | ъ | | 10 U | 3,700 | 3,700 D | 10 U | 7 | 700 | 200 D | 8,700 | 6,700 D |
| Cyclohexane | l/Bn | | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 N | -10 U | 500 U |
| Methylcyclohexane | l/bn | | | 10 U | 20 C | 800 U | 10 U | 10 U | 10 U | ∩ 80 | -10 U | 500 U |
| 1,2-Dibromoethane | l/bn | | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| Isopropylbenzene | l/ôn | 2 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,3-Dichlorobenzene | l/gu | e | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,4-Dichlorobenzene | l/6n | e | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,2-Dichlorobenzene | l/Bn | e | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| 1,2-Dibromo-3-chloropropane | l/6n | 0.04 | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 200 U |
| 1,2,4-Trichlorobenzene | l/bn | 5 | | 10 UU | 20 UJ | 800 U | 10 UJ | 10 LU | 10 UU | 80 U | 10 U | 500 U |
| Methyl acetate | ng/l | | | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U | 10 U | 500 U |
| | | | | | | | | | | | | |

Notes: 1,000 - indicates detected value for organics.

indicates value exceeds Class GA Standard or Guidance level.

U = undetected, J or E = estimated value, RE = re-extraction, D = result on diluted samples

÷. ÷.,

+ 1

Pioneer Midler Avenue LLC Demodial Investigation Benort

Remedial Investigation Report Table 16 - Phase 2 Groundwater Data for Temporary Interior Monitoring Wells

| arameter | Units | NYSDE | C Class GA | SB 2-1 | SB 3-1 | SB 7-1 | SB 9-1 | SB 12-1 | SB 12-1 DL | SB 13-2 | SB 13-2 DL | |
|-----------------------------|-------|----------|------------|----------|----------|----------|----------|----------|------------|----------|------------|--|
| | | Standard | Guidance | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/22/05 | 03/22/05 | |
| volatiles | | | | | | | | | | | | |
| Chloromethane | l/ôn | | | 101 | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | |
| Bromomethane | l/ĝn | | | 10 U | 200 U | 10 U | 250 U | |
| /inyl chloride | l/gu | ~ | | 10 U | 10 U | 10 U | 10 U | 820 | 820 D | 3300 | 3,300 U | |
| Chloroethane | l/ĝn | ى م | | 10 UJ | 10 UJ | M 01 | 10 UJ | 10 01 | 200 U | 10 U | 250 U | |
| Aethylene chloride | l/ôn | 2 | | 10 U | 200 U | 10 U | 250 U | |
| Acetone | \Øn | | 20 | 10 U | 200 U | 10 U | 250 U | |
| Carbon disulfide | l/ôn | 8 | | 10 0 | 10 U | 10 U | 10 U | 10 U | 200 U | 10 01 | 250 U | |
| 1,1-Dichloroethene | l/gu | ъ | | 10 U | 10 U | 10 U | 10 U | 22 | 200 U | 70 | 250 U | |
| ,1-Dichloroethane | l/ôn | 2 | | 10 U | 200 U | 10 U | 250 U | |
| Chloroform | l/ôn | 7 | | 10 U | 200 U | 10 U | 250 U | |
| 1,2-Dichloroethane | l/ôn | 0.6 | | 10 U | 200 U | 10 U | 250 U | |
| MEK(2-Butanone) | l/ôn | | 50 | 10 U | 200 U | 10 U | 250 U | |
| 1,1,1-Trichloroethane | l/ôn | S | | 10 U | 200 U | 10 U | 250 U | |
| Carbon tetrachloride | l/ôn | Ω | | 10 U | 200 U | 10 U | 250 U | |
| 3romodichloromethane | l/ôn | | 50 | 10 U | 200 U | 10 U | 250 U | |
| 1,2-Dichloropropane | l/ôn | | | 10 U | 200 U | 10 U | 250 U | |
| is-1,3-Dichloropropene | l⁄on | 0.4 | | 10 U | 200 U | 10 U | 250 U | |
| Trichloroethene | l/ôn | 2 | | 10 U | 10 U | 10 U | 10 U | 22 | 200 U | 280 | 280 D | |
| Dibromochloromethane | l/6n | 2 2 | | 10 U | 200 U | 10 U | 250 U | |
| 1,1,2-Trichloroethane | l/ôn | 2 L | | 10 U | 200 U | 10 U | 250 U | |
| 3enzene | l/ôn | - | | 10 U | 200 U | 10 01 | 250 U | |
| rans-1,3-Dichloropropene | l/ôn | 0.4 | | 10 U | 200 U | 10 U | 250 U | |
| Jromoform | l⁄ôn | | 50 | 10 U | 200 U | 10 U | 250 U | |
| VIBK(4-Methyl-2-pentanone) | l/6n | | | 10 U | 200 U | 10 U | 250 U | |
| 2-Hexanone | l/ôn | | 50 | 10 U | 10 U | 10 U | 10 N | 10 U | 200 U | 10 U | 250 U | |
| Tetrachloroethene | Vpn | ۵ | | 10 U | 10 U | 10 U | 10 U | 14 | 200 U | 340 | 340 D | |
| Toluene | l/ôn | ۍ ا | | 10 U | 200 U | 4 J | 250 U | |
| 1,1,2,2-Tetrachloroethane | l/6n | 5 | | 10 U | 200 U | 10 U | 250 U | |
| Chlorobenzene | l/ôn | 5 | | 10 U | 200 U | 10 U | 250 U | |
| Ethylbenzene | l/ôn | 5 | | 10 U | 200 U | 2 J | 250 U | |
| Styrene | l/ôn | 2 | | , 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | |
| Total Xylenes | l/6n | ß | | 10 U | 200 U | 10 U | 250 U | |

F:|ProjectIC81 - Pioneer DevelopmenthC81.002 BCPIClose out and COCIOctober 2007/HI ReportTables1Table16VALIDATED.xls / GW

Page 1 of 4

Pioneer Midler Avenue LLC Remedial Investigation Report

 Table 16 - Phase 2 Groundwater Data for Temporary

 Interior Monitoring Wells

| Parameter | Units | INSDE | EC Class GA | SB 2-1 | SB 3-1 | SB 7-1 | SB 9-1 | SB 12-1 | SB 12-1 DL | SB 13-2 | SB 13-2 DL |
|---------------------------------------|-------------|----------|-------------|----------|----------|----------|----------|----------|------------|----------|------------|
| | | Standard | Guidance | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/22/05 | 03/22/05 |
| Dichiorodifluoromethane | l/ôn | ъ. | | 10 U | 200 U | 10 U | 250 U |
| Trichlorofluoromethane | l/ôn | 2 2 | - | 10 U | 200 U | 10 U | 250 U |
| 1,1,2-Tricloro-1,2,2,-triftouroethane | l/ôn | ۍ | | 10 U | 200 U | 10 U | 250 U |
| trans-1,2-Dichloroethene | l/ôn | ъ | | 10 U | 10 U | 10 U | 10 U | 26 | 200 U | 190 | 200 D |
| Methyl tert butyl ether | l/ôn | 10 | | 10 U | 10 U | 10 U | 10 U | 10 0 | 200 U | 10 U | 250 U |
| cis-1,2-Dichloroethene | l/ôn | 5 | | 10 U | 10 U | 10 U | 3 J | 2,100 | 2,100 D | 24,000 | 14,000 D |
| Cyclohexane | l/ôn | | | 10 U | 200 U | 10 U | 250 U |
| Methylcyclohexane | l/ôn | | | 10 U | 200 U | 3 J | 250 U |
| 1,2-Dibromoethane | ∥ ôn | | | 10 U | 200 U | 10 U | 250 U |
| Isopropylbenzene | l/ôn | Ω | | 10 U | 200 U | 10 U | 250 U |
| 1,3-Dichlorobenzene | l/Bn | ო | | 10 U | 200 U | 10 U | 250 U |
| 1,4-Dichlorobenzene | l/Bn | e | | 10 U | 200 U | 10 N | 250 U |
| 1,2-Dichlorobenzene | l/ôn | e | | 10 U | 200 U | 10 U | 250 U |
| 1,2-Dibromo-3-chloropropane | ∥ôn | 0.04 | | 10 U | 200 U | 10 U | 250 U |
| 1,2,4-Trichlorobenzene | l/ôn | 5 | | 10 U | 200 U | 10 U | 250 U |
| Methyl acetate | l/gu | | | 10 U | 200 U | 10 U | 250 U |
| Notes: | | | | | | | | | | | |

a renoting veryor sumprise Class GA Sancard of Galacingo large.

U = undetected, J or E = estimated value, RE = re-extraction, D = result on diluted samples BOLD font indicates detected value for organics. F:IProjectIC81 - Pioneer DevelopmentIC81.002 BCPIClose out and COCIOctober 2007RI ReportTables/Table16VALIDATED.xls / GW

+ 1

÷,

Remedial Investigation Report Table 16 - Phase 2 Groundwater Data for Temporary Interior Monitoring Wells **Pioneer Midler Avenue LLC**

| Parameter | Units | NYSDE | EC Class GA | SB 13-2 DL2 | SB 13-4 | SB 13-4 DL |
|----------------------------|--------|----------|-------------|-------------|----------|------------|
| | | Standard | Guidance | 03/22/05 | 03/22/05 | 03/22/05 |
| Volatiles | | | | | | |
| Chloromethane | - l/ôn | | | 2,000 U | 10 U | 200 U |
| Bromomethane | _ ∕ôn | | | 2,000 U | 10 U | 200 U |
| Vinyl chloride | l/ôn | N | | 3,900 D | 1,500 | 1,500 0 |
| Chioroethane | l/ôn | 5 | | 2,000 U | 10 U | 200 U |
| Methylene chloride | l/ôn | S | | 2,000 U | 10 U | 200 U |
| Acetone | l/ôn | | 20 | 2,000 U | 10 U | 200 U |
| Carbon disulfide | l/ôn | 8 | | 2,000 U | 10 U | 200 U |
| 1,1-Dichloroethene | l/ôn | ю | | 2,000 U | 10 U | 200 U |
| 1,1-Dichloroethane | l/6n | ĸ | | 2,000 U | 10 U | 200 U |
| Chloroform | l/ôn | 7 | | 2,000 U | 10 U | 200 U |
| 1,2-Dichloroethane | - l/ôn | 0.6 | | 2,000 U | 10 U | 200 U |
| MEK(2-Butanone) | l/ôn | | 50 | 2,000 U | 10 U | 200 U |
| 1,1,1-Trichloroethane | l/6n | 5 | | 2,000 U | 10 U | 200 U |
| Carbon tetrachloride | l/6n | 5 | | 2,000 U | 10 U | 200 U |
| Bromodichloromethane | Vôn | | 50 | = 2,000 U | 10 U | 200 U |
| 1,2-Dichloropropane | l/6n | +- | | 2,000 U | 10 U | 200 U |
| cis-1,3-Dichloropropene | l/6n | 0.4 | | 2,000 U | 10 U | 200 U |
| Trichloroethene | l/6n | 5 | | 2,000 U | P.9 | 200 U |
| Dibromochloromethane | l/ôn | 5 | | 2,000 U | 10 U | 200 U |
| 1,1,2-Trichloroethane | ∥⁄ðn | 5 | | 2,000 U | 10 U | 200 U |
| Benzene | ∕ôn | + | | 2,000 U | 10 U | 200 U |
| trans-1,3-Dichloropropene | l/6n | 0.4 | | 2,000 U | 10 U | 200 U |
| Bromoform | l/ôn | | 50 | 2,000 U | 10 U | 200 U |
| MIBK(4-Methyl-2-pentanone) | l/gu | | | 2,000 U | 10 U | 200 U |
| 2-Hexanone | t/6n | | 50 | 2,000 U | 10 U | 200 U |
| Tetrachloroethene | l/6n | 5 | | 2,000 U | 10 U | 200 U |
| Toluene | y6n | ۍ | | 2,000 U | 10 U | 200 U |
| 1,1,2,2-Tetrachioroethane | 1/6n | 5 | | 2,000 U | 10 U | 200 U |
| Chlorobenzene | l/6n | 5 | | 2,000 U | 10 U | 200 U |
| Ethylbenzene | 1/6n | 5 | | 2,000 U | 10 U | 200 U |
| Styrene | ł/6n | 5 | • | 2,000 U | 10 U | 200 U |
| Total Xvienes | 1/on | 5 | | 2,000 U | 10 U | 200 U |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 16 - Phase 2 Groundwater Data for Temporary

| Parameter | Units | NVSDE | C Class GA | SB 13-2 DL2 | SB 13-4 | SB 13-4 DL |
|---------------------------------------|-------|----------|------------|-------------|----------|------------|
| | | Standard | Guidance | 03/22/05 | 03/22/05 | 03/22/05 |
| Dichlorodifluoromethane | l/ôn | 5 | | 2,000 U | 10 U | 200 U |
| Trichlorofluoromethane | l/6n | 5 | | 2,000 U | 10 U | 200 U |
| 1,1,2-Tricloro-1,2,2,-triflouroethane | l/gu | S | | 2,000 U | 10 U | 200 U |
| trans-1,2-Dichloroethene | 1/6n | 5 | | 2,000 U | 16 | 200 U |
| Methyi tert butyl ether | l/gu | 10 | | 2,000 U | 10 U | 200 U |
| cis-1,2-Dichloroethene | l/6n | ß | | 24,000 D | 1,000,1 | 1,000 80 |
| Cyclohexane | l/6n | | | 2,000 U | 10 U | 200 U |
| Methylcyclohexane | l/6n | | | 2,000 U | 10 U | 200 U |
| 1,2-Dibromoethane | l/ôn | | | 2,000 U | 10 U | 200 U |
| Isopropylbenzene | l/6n | ß | | 2,000 U | 10 U | 200 U |
| 1,3-Dichlorobenzene | l/gu | n | | 2,000 U | 10 U | 200 U |
| 1,4-Dichlorobenzene | l/6n | n | | 2,000 U | 10 U | 200 U |
| 1,2-Dichlorobenzene | l/6n | e | | 2,000 U | 10 U | 200 U |
| 1,2-Dibromo-3-chloropropane | l/Bn | 0.04 | | 2,000 U | 10 U | 200 U |
| 1,2,4-Trichlorobenzene | l/Bn | 5 | | 2,000 U | 10 U | 200 U |
| Methyl acetate | l/6n | | 1 | 2,000 U | 10 U | 200 U |

- rolicinus vilue anceota Class GA Standard pr Guidance land

U = undetected, J or E = estimated value, RE = re-extraction, D = result on diluted samples

BOLD font indicates detected value for organics.

+ 1

Pioneer Midier Avenue LLC Remedial Investigation Report Table 17 - Phase 3 Groundwater Data for Temporary Sand Unit Wells to Till

| VLLTLES Standard $0/2/10.5$ $0/2/205$ <th< th=""><th>ance 07/27/05 07/28/05 07/28/05 07/28/05 07/28/05 07/28/05 07/28/05</th><th>8 07/27/05 07/27/05</th><th>kuidance 07/27/05</th><th></th><th></th></th<> | ance 07/27/05 07/28/05 07/28/05 07/28/05 07/28/05 07/28/05 07/28/05 | 8 07/27/05 07/27/05 | kuidance 07/27/05 | | |
|--|---|---|-------------------|------------------|-------------------------------------|
| WOLTINES NO TOUL TOU T | | | | Standard Guidant | |
| Chloromethane Up/ Ministret Up/ Location Up/ Location <thup location<<="" td=""><td></td><td></td><td>-</td><td></td><td>OLATILES</td></thup> | | | - | | OLATILES |
| Biomethane ug/ z 101 10 | 10U 10U 10U 10U 10U 10U 10U | 10 U 10 U | 10 0 | 1/6n | Nioromethane |
| Montheres up/ 2 10U | 10U 10U 10U 10U 10U 10U 1 | 10 U 10 U | 10 U | ng/l | romomethane |
| Methodentene up/ 5 101 | 10U 10U 10U 10U 10U 10U | 10 U 10 U | -10 U | ug/i 2 | finyi chloride |
| Methode up/ 5 50 101 <td>10U 10U 10U 10U 10U 10U</td> <td>10 U 10 U</td> <td>10 U</td> <td>ug/1 5</td> <td>hloroethane</td> | 10U 10U 10U 10U 10U 10U | 10 U 10 U | 10 U | ug/1 5 | hloroethane |
| Carbon ug/ 50 10U 10U< | 5U 5U 20U 10U 5U | 5U 5U | £ 0 | ug/1 5 | lethylene chloride |
| (1.1.beh)toordisation vg1 60 61 51 61< | 0 10U 10U 10U 10U 10U | 10 U 10 U | 50 10 U | ug/i 50 | cetone |
| 1.1. Definitionation ugi 5 610 510 701 | 5 U 5 U 10 U 5 U | 5U 5U | 50 | 1g/1 60 | arbon disulfide |
| 1,1-Definitionentane ug/l 5 15/l 10/l 10/l <td>5U 5U 10U 5U</td> <td>5U 5U</td> <td>5 U</td> <td>ug/1 5</td> <td>,1-Dichloroethene</td> | 5U 5U 10U 5U | 5U 5U | 5 U | ug/1 5 | ,1-Dichloroethene |
| Chilocontanie Light of the second of the secon | 5U 5U 00U 10U 5U | 5U 5U | 50 | ng/ S | ,1-Dichloroethane |
| (1) (1) <td>5 0 5 U 10 U 10 U 5 U</td> <td>5U 5U</td> <td>50</td> <td>ug/1 7</td> <td>hloroform</td> | 5 0 5 U 10 U 10 U 5 U | 5U 5U | 50 | ug/1 7 | hloroform |
| Mick(Z: Blaunose) ug/ 50 101 | 5U 5U 20U 10U 5U | 5U 5U | 50 | ug/1 0.6 | 2-Dichloroethane |
| 1.1.1-Trichlocentane ug/l 5 5/0 5/0 6/0 10/0 | 0 10 U 10 U 10 U 10 U 10 U 10 U | 10 U 10 U | 50 10 U | ug/1 50 | IEK(2-Butanone) |
| And for the free bloridie up/l 5 5 5 1 10 | 5 U 5 U 10 U 10 U 5 U | 50 50 | 5 U | ug/1 5 | ,1,1-Trichloroethane |
| Binnockehormethane ug/ 1 50 51 51 101 < | 5 U 5 U 10 U 10 U 5 U | 50 50 | 50 | ug/1 5 | arbon tetrachloride |
| 3.2.Dechlocoroname ug/ 1 5/L | 0 5 0 5 0 10 0 10 0 5 <u> 0 </u> | 5 U 5 U | 50 50 | ng/1 50 | Iromodichioromethane |
| (iii) (iii) (iii) (iii) (iii) (iii) (i) | 5 U 5 U 10 U 10 U 5 U | 5 0 5 0 | 5 U | ug/i 1 | .2-Dichloropropane |
| Trichlocoethere up 5 5 5 5 4 6 4 5 1 0 0 1 | 5U 5U 10U 10U 5U | 50 50 | 5 U | ug/1 0.4 | is-1, 3-Dichloropropene |
| Difference/Incomentane up1 5 1 10 </td <td>5U 5U 4.6J 10U 5U</td> <td>5 U 5 U</td> <td>5 U</td> <td>ugli 5</td> <td>richloroethene</td> | 5U 5U 4.6J 10U 5U | 5 U 5 U | 5 U | ugli 5 | richloroethene |
| 1,1.2. Trichloroethane ug/ 5 ug/ 1 6 10 </td <td>5 U 10 U 5 U 5 U </td> <td>50 50</td> <td>50</td> <td>ugh 5</td> <td>ibromochloromethane</td> | 5 U 10 U 5 U 5 U | 50 50 | 50 | ugh 5 | ibromochloromethane |
| Barcane ug/ 1 s/U 5/U 10/U 10 | 1 5U 5U 10U 10U 5U | 5 U 5 U | 5 U | UQ1 5 | 1.2-Trichloroethane |
| trans-13-Dichloropropene ug/ 0.4 50 5(1) 10(1) 16(1) 16(1) Bromolomn ug/ 50 10(1 10(| | 510 510 | 510 | ugh 1 | lenzene |
| Bornoform ug/ 50 51/0 61/0 10 | 5U 5U 10U 10U 5U | 5U 5U | 5U | ug/ 0.4 | ans-1,3-Dichloropropene |
| MBK(4+Methy/2-pentanone) ugh 50 10/U | 0 5 U 5 U 10 U 5 U | 50 50 | 50 5U | 101 20 | tomotorm |
| 2-Hozanore ug/ 5 10 | 10U 10U 10U 10U 10U 10U | 10U 10U | 101 | l du | IIBK(4-Mathyl-2-pentanone) |
| Tetrachloroetitere ug/l 5 ug/l 5 ug/l 6 ug/l 10 ug/l 6 10lume ug/l 5 5U 5U 5U 10U 10U <td< td=""><td>50 10 U 10 U 10 U 10 U 10 U 10 U 10 U</td><td>10 U 10 U</td><td>50 10 U</td><td>ug/1 50</td><td>Hexanone</td></td<> | 50 10 U 10 U 10 U 10 U 10 U 10 U 10 U | 10 U 10 U | 50 10 U | ug/1 50 | Hexanone |
| Toluene ug/ 5 5 5 5 6 7 10 7 10 7 10 <td>5U 5U 70U 5U</td> <td>5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0</td> <td>5U</td> <td>ug/ 5</td> <td>etrachioroethene</td> | 5U 5U 70U 5U | 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 | 5U | ug/ 5 | etrachioroethene |
| 1.1.2.2-Tertrachtoroethane ug/l 5 U 10U | 5U 5U 10U 10U 5U | 5U 5U | 50 | ug/1 5 | oluene |
| Chlorobentzene ug/l 5 5/U 5/U 5/U 10/U | 5U 5U 5U 20U 10U 5U | 50 50 | 50 | ug/1 5 | ,1,2,2-Tetrachloroethane |
| Ethylbenzene ug/l 5 5/U 5/U 10/U | 5U 5U 20U 10U 5U | 5U 5U | 50 | ug/1 5 | Chlorobenzene |
| Syreme by matrix 5 5 5 10 | 5U 5U 5U 10U 5U | 50 50 | 50 | ug/1 5 | thylbenzene |
| Total Xylenes ug/l 5 5 (U 5 (U 10 (U <t< td=""><td>5U 5U 10U 5U</td><td>5<u>U</u>5U</td><td>5 U</td><td>ug/1 5</td><td>ityrene</td></t<> | 5U 5U 10U 5U | 5 <u>U</u> 5U | 5 U | ug/1 5 | ityrene |
| Dehloconflueromethane ug/l 5 10/l 10/l <td>5 U 5 U 10 U 5 U</td> <td>50 50</td> <td>5 U</td> <td>ug/1 = 5</td> <td>otal Xylenes</td> | 5 U 5 U 10 U 5 U | 50 50 | 5 U | ug/1 = 5 | otal Xylenes |
| Trichlocontentance ug/l 5 5 10 10/L 10 11.2-Trichlocontentane ug/l 5 5 10 10/L 10 10/L 10 11.2-Trichlocontentane ug/l 5 5 10 10/L 10/L <td>10 U 10 U 10 U 10 U 10 U</td> <td>10 U 10 U</td> <td><u>10</u></td> <td>ug/1 5</td> <td>ichlorodifluoromethane</td> | 10 U 10 U 10 U 10 U 10 U | 10 U 10 U | <u>10</u> | ug/1 5 | ichlorodifluoromethane |
| 1.12Triction:-12.2triftourcettrane ug/ 5 5 0 10U 10U <th< td=""><td>5 U 5 U 50 U 50 U 50 U 50 U 50 U 50 U 5</td><td>50</td><td>50</td><td>ug/ 5</td><td>richlorofluoromethane</td></th<> | 5 U 5 U 50 U 50 U 50 U 50 U 50 U 50 U 5 | 50 | 50 | ug/ 5 | richlorofluoromethane |
| trans-12-Dichtoroetheree ug/l 5 5 0 10 | 5 U 5 U 20 U 20 U 5 U | 50 | 50 | nane ug/i 5 | ,1,2-Tricloro-1,2,2,-triflouroethan |
| Methyl fart butyl ether ug/l 10 10/L | 5 U 5 U 50 U 10 U 5 U | 5U 5U | £ 10 | ug/i 5 | "ans-1,2-Dichloroethene |
| Cise 12-Dichtoreatree ug/l 5 5/U 5/U 10/U | 5U 5U 10U 5U | 50 | 5 (| ug/1 10 | Methyl tert butyl ether |
| Occloherane ug/l 10/u | 5U 5U 5U 200 10U 5U | 5U 5U | 50 | ug/i 5 | is-1,2-Dichloroethene |
| Methylcyclohexane ug/l 5/U 5/U 10/U | 10 U 10 U 10 U 10 U 10 U | 10 U 10 U | 10 U | 1/0n | yclohexane |
| 12-Difformentane ug/l 5 U 5 U 10 U | 5 U 5 U 5 U | 5U 5U | 5 U | ngň | Aethylcyclohexane |
| Isoprocyclemate ug/l 5 5U 5U 5U 10U 10U <th< td=""><td>5 U 55 U 55 U 55 U 55 U 55 U 55 U 55 U</td><td>5 U</td><td>5 U</td><td>ligu</td><td>.2-Dibromoethane</td></th<> | 5 U 55 U 55 U 55 U 55 U 55 U 55 U 55 U | 5 U | 5 U | ligu | .2-Dibromoethane |
| 13-Dichlorobenzene ug/l 3 5/U 5/U 10/U | 5U 00C 100C | 5 U 5 U | 5 U | ug/i 5 | sapropylbenzene |
| 1.4.Dichlorobenzene ug/l 3 5/U 5/U 10.U 10/U | 5 U 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 5.U 5.U | 5 U | ug/ 3 | .3-Dichlorobenzene |
| 1.2-Dichlocchemane ug/l 3 5/U 5/U 10/U | <u>2000</u> 2000 2000 2000 | 5 U 5 U | 50 | ug/ 3 | ,4-Dichlorobenzene |
| 1,2-Dibromo-3-chloropropane ug/ 0.04 10/U 10/U 10/U 10/U 10/U 10/U 12/Enchlorobenzene ug/ 5 5/U 5/U 12/Enchlorobenzene ug/ 5 10/U 5/U 5/U 5/U 10/U 5/U 10/U 5/U 10/U 10/U 5/U 10/U 10/U 10/U 10/U 10/U 10/U 10/U 10 | 5 U 55 U | 5IU 5U | 5 U | e Mon | ,2-Dichlorobenzene |
| 12.4-Trichforobenzene ug/ 5 50 50 50 50 70 700 10 5 Methyl acetate 00 50 50 50 50 50 60 60 6 | 1010 1000 1000 | 10 U | 10 U | ug/ 0.04 | 2-Dibromo-3-chloropropane |
| Methyl acetate 1 00/1 1 5/0 5/0 1 10/0 10/0 | | 50 | 5 U | ug/1 5 | ,2,4-Trichlorobenzene |
| | | 1 5U 5U | 1 50 | 1000 | Aethyi acetate |
| and and a strain and a strain and a strain a st | | | | | |

.

Pioneer Midler Avenue LLC Remedial Investigation Report Table 18 - Phase 3 Groundwater Data for Permanent Sand Unit Wells to Till

| /OLATILES Thioromethane | | Standard | Guidance | SUNCAN | concean | annean |
|--------------------------------------|--|------------|----------|--------|---------|-------------|
| thoromethane | | | | | - | |
| | - The second sec | | | 10 U | 1010 | 10 U |
| | | | | 1011 | 1011 | 101 |
| | 100 | • | | 100 | 1011 | |
| | | J 14 | | | 101 | 1011 |
| | | 2 | | 100 | | 1011 |
| ieuryreire Giwinde | | > | 50 | 1011 | 1010 | 101 |
| trations trations | 100 | 8 | 3 | 1011 | 1010 | 10 U |
| 4 Dichtorothene | | 3 40 | | 10[1] | 101 | 10 |
| + Picklewothane | | | | 1011 | 1010 | 101 |
| , I-withiur centaire | | > ~ | | 1011 | 101 | 1011 |
| Alliviousi | | 0.6 | | 1011 | 1010 | 10 U |
| r-Uninotestialie | | 2 | 50 | 10 U | 101 | 101 |
| 1 1.Trichlomethane | | L.C. | | 1010 | 101 | 101 |
| arbon tetrachloride | | - un | | 1010 | 101 | 10 U |
| romodichloromethane | nov. | | 20 | 10 U | 10 U | 10 U |
| 2-Dichloropropane | | + | | 10 U | 101 | 101 |
| s-1.3-Dichloropropene | 100 | 0.4 | | 10 U | 101 | 10 U |
| richloroethene | 1 ² | Q | | 10 U | 94 | 10 U |
| ibromochloromethane | 100 | ŝ | | 10 U | 10 0 | 10 U |
| .1.2-Trichloroethane | [ðn | so. | | 10 U | 10 U | 10 U |
| enzene | /ðn | - | | 10 01 | 10 0 | 10 U |
| ans-1,3-Dichloropropene | 1/on | 0.4 | | 10 U | 10 U | 10 U |
| romoform | Mon | | 50 | 10 U | 10 0 | 10 U |
| IIBK(4-Methyl-2-pentanone) | 1/0n | | | 10 U | 10 U | 10 U |
| -Hexanone | j/ôn | | 50 | 10 U | 10 U | 10 U |
| etrachtoroethene | 1/6n | 5 | | 10 U | 10 | 10 U |
| duene | Vôn | ъ | | 10 U | 10 U | <u>10 U</u> |
| 1,2,2-Tetrachloroethane | - 1/On | ц р | | 10 U | 10 U | 10IU |
| hlorobenzene | 10n | υ | | 10 U | 101 | 101 |
| thylbenzene | - Vôn | 5 | | 10 U | 10 U | D 0F |
| tyrene | √ôn | с, | | 10 U | 10 U | 10.0 |
| otal Xylenes | = l/ôn | ÷ | | 10 U | 10 U | 10 U |
| ichlorodifiuoromethane | - Mgu | £ | | 10 U | 10 U | 00 |
| richlorofluoromethane | - fon | ŝ | | 10 U | 10 U | 101 |
| ,1,2-Trickoro-1,2,2,-triffouroethane | - 1/gu | ŝ | | 10 U | 10 U | 10 U |
| ans-1, 2-Dichlorcethene | ng/j | ഫ | | 10 U | 10 U | 10 U |
| lethyl tert butyl ether | l/on | 10 | | 10 U | 10 U | 10 U |
| is-1,2-Dichloroethene | ngvi | 5 | | 10 U | 24 | 10 U |
| yclohexane | l/ôn | | | 10 U | 10 U | 10 U |
| lethylcyclohexane | ôn | | | 10 U | 10 U | 10 U |
| 2-Dibromoethane | /ôn | | | 10 U | 10 U | 10 U |
| opropylbenzene | l'Qu | 5 | | 10 U | 10 U | 10 U |
| ,3-Dichlorobenzene | 1/0/1 | 3 | | 10 U | 10 U | 10 L |
| ,4-Dichlorobenzene | lygu | æ | | 10 U | 10 U | 10 U |
| 2-Dichlorobenzene | lvou | e | | 10 U | 10 U | 10 U |
| 2-Dibromo-3-chloropropane | l⁄on | 0.04 | | -0 0 | 10U | 10 U |
| ,2,4-Trichlorobenzene | l/g/l | 9 | | 10 U | 10 () | 10 U |
| tethyl acetate | - 1/on - | | | 10 U | 10 U | 10 U |
| | | | | | | 1000 |

Notes: **BOLD** - Indicates detected value for organics exceeds Standard or Guidance value. U = undetected, J or E = estimated value * = as performed by test method SM18 4500Cl

| Midler Avenue LLC | al Investigation Report | 9 - Data for Post-IRM | ons - B3 Area |
|-------------------|-------------------------|-----------------------|---------------|
| oneer Midl | emedial Inv | able 19 - Da | onditions - |

| Pioneer Midler Avenue LLC Remedial Investigation Report Table 19 - Data for Post-IRM Conditions - B3 Area | | | | | | | | | | | | | |
|--|--------|--------------|-----------|------------------|-------------|----------------|--------------------|-----------------|----------|----------|----------|------------|--------------|
| Samia ID - | Midler | VB3 - 1 | VB3 - 1 | VB3 - 1 DL | VB3 - 2 | VB3 - 3 | VB3 - 4 DL | VB3 - 5 | VB3 - 6 | VB3-7 | VB3 - 7 | VB3 - 8 | VB3 - 9 |
| Depth - > | ssco | 5.9 - 9.9 | 5.9 - 9.9 | 5.9 - 9.9 | 16.1 - 20.1 | 18.1 - 22.1 | 8 - 12 | 7 - 11 | 7 - 11 | 7 - 9 | 9 - 11.6 | 7.3 - 11.3 | 8.75 - 12.75 |
| Date Sampled -> | | 03/08/07 | 08/03/07 | 08/03/07 | 05/07/07 | 03/08/07 | 03/08/07 | 05/07/07 | 05/07/07 | 06/06/07 | 06/06/07 | 05/07/07 | 03/07/07 |
| Chloromethane | | 18 UJ | 200 U | 4900 U | 1,500 U | 12 UU | 2,400 U | 0.86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 M |
| Vinyl chloride | 800 | 65 J | 200 C | 4900 U | 1,500 U | 12 UJ 19 II | 2,400 U | 0 86 11 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 50 11 |
| Chloroethane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 0 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 0 |
| 1.1-Dichloroethene | - | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 98 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| Carbon disulfide | | 6 J | 200 U | 4900 U | 1,500 U | 2 J | 2,400 U | 19 J | 3,500 U | 2,800 U | 2,400 U | 3,100 U | ۲ <u>۲</u> |
| Acetone | | 580 | 5700 EJ | 4700 J | 2,000 | 130 B | 5,600 D | 12,000 BEJ | 14,000 | 38,000 J | 15,000 | 28,000 | 2,900 BE |
| Methylene chloride | | 18 U | 100 0 | 4900 U | 1,500 U | 12 U | 2.400 U | 0 00 | 3,500 U | 2,800 U | 2,400 U | 000 rc | 20 U |
| 2-Butanone | | 202 | 1200 U | 4900 U | 820 J | 31 | 1,700 DJ | 2,600 EJ | 3,500 | 7,200 J | 3,200 | 8,300 | 2,200 J |
| Chloroform | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 08 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| 1,1,1-Trichloroethane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 98 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| Carbon tetrachloride | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 0 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 |
| Benzene 1. 3. Dichlomothane | | ⊃ ¤ | 200 0 | 4900 0 | 1 200 1 | 12 U | 2,400 U | 0 80 | 3,500 U | 2.800 U | 2.400 U | 3,100 U | 200 |
| Trichloroethene | 2,800 | 140 | 850 | f 002 | C 092 | 1 7 7 | 2,400 U | 18 J | 3,500 U | 1,200 J | 2,400 U | 3,100 U | 150 |
| 1,2-Dichloropropane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 98 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| Bromodichloromethane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | ∩ 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 C |
| cis-1,3-Dichloropropene | | 180 | 200 U | 4900 U | 1,500 U | 12 U 13 II | 2,400 U | - = 86 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | |
| 4-Metriyi-z-peritariorie | | | 16 U | 4900 U | 1.500 U | 12 U | 2,400 U | 13 J | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 48 |
| trans-1,3-Dichloropropene | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 08 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| 1,1,2-Trichloroethane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 98 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 C |
| Tetrachloroethene | 5,600 | 150 | 43000 EJ | 57000 | 4,400 | Г 6 | 2,400 U | 130 | 1,100 J | 11,000 | 860 J | 10,000 | 280 |
| 2-Hexanone | | 18 0 | 200 0 | 4900 U | 1,500 U | 22 | 2,400 U | 0.86 | 3,500 U | 2,800 U | 2,400 U | | 8 |
| Dibromochioromethane | | | 200 0 | 4900 U | 1,500 U | 15 U | 2,400 U | n 96 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 N |
| Ethylbenzene | | 18 U | 13 J | 4900 J | 1,500 U | 12 U | 2,400 U | 98 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| Styrene | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 086 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 N |
| Bromoform | | 18 0 | 200 U | 4900 U | 1,500 U | - 12 7 7 | 2,400 U | ∩ 86 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | |
| 1,1,2,2-l etrachloroethane | Ì | | 80.1 | 4900 U | 1.500 U | 12 0 | 2.400 U | ∩ 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 130 |
| cis-1,2-Dichloroethene | | 170 | 660 | C 080 | 240 J | 5 J | 4,700 D | 26 J | 3,500 U | 760 J | 2,400 U | 3,100 U | 1,800 J |
| trans-1,2-Dichloroethene | 1,200 | 4 | 11 J | 4900 J | 1,500 U | 12 U | 650 JD | 086 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 14 J |
| Dichlorodifluoromethane | | 18 U | 200 0 | 4900 U | 1,500 U | 12 0 | 2,400 U | | 3,500 U | 2,800 U | 2,400 U | 3, 100 U | |
| 1 1 2-Trichloro-1 2 2-trifficoroethane | | | 200 U | 4900 U | 1.500 U | 12 U | 2,400 U | ∩ 86 | 3.500 U | 2.800 U | 2,400 U | 3,100 U | 20 U |
| Methyl-t-butyl ether (MTBE) | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 08 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| 1,2-Dibromoethane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 98 U | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 0 |
| Isopropytbenzene | | 18 U | 8.3 J | 4900 J | 1,500 U | 12 U | 2,400 U | ∩ = 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 0 |
| 1.4-Dichlorobenzene | | | 13 J | L 4900 J | 1,500 U | 12 U | 2,400 U | 0.86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| 1,2-Dichlorobenzene | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | ∩ 86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| 1,2-Dibromo-3-chloropropane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 0.86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 0 |
| 1,2,4-Trichlorobenzene | | 18 U 18 U | 200 U | 4900 U 4900 U | 1,500 U | 12 U 12 U | 2,400 U 2,400 U | ⊃⊃ ೫8 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 500 |
| Coclohexane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | 0.86 | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |
| Methylcyclohexane | | 18 U | 200 U | 4900 U | 1,500 U | 12 U | 2,400 U | <u>∩ 86</u> | 3,500 U | 2,800 U | 2,400 U | 3,100 U | 20 U |

| neer Midler Avenue LLC | nedial Investigation Report | ie 19 - Data for Post-IRM | ditions - B3 Area |
|------------------------|-----------------------------|---------------------------|-------------------|
| ionee | Remed | able 1 | Conditi |

.

| Sample ID -> | Midler | VB3 - 10 | VB3 - 11 | VB3 - 12 | VB3 - 13 | VB3 - 14 | VB3 - 15 | VB3 - 16 DL | VB3 - 17 | VB3 - 18 | VB3 - 19 | VB3 - 20 |
|---------------------------------------|--------|-------------|---|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Depth - > | SSCO | 14.5 - 18.5 | 10.5 - 14.5 | 14.8 - 18.8 | 7.25 - 11.25 | 15.1 - 19.1 | 17.1 - 21.1 | 14.4 - 18.4 | 14.9 - 18.9 | 14.9 - 18.9 | 15.6 - 19.6 | 16.9 - 20.9 |
| Date Sampled -> | | 05/21/07 | 05/07/07 | 06/06/07 | 03/08/07 | 06/06/07 | 05/08/07 | 03/09/07 | 05/07/07 | 05/08/07 | 06/06/07 | 05/08/07 |
| Chloromethane | | 1,900 U | 33 U | 2,200 U | ∩96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Vinyl chloride | 800 | 1,900 U | 33 U | 2,200 U | 96 U | 240 J | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Bromomethane | | 1,900 U | 33 U | 2,200 U | 096 U | 2300 U | 1,700 U | 290 DJ | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Chloroethane | | 1,900 U | 33 U | 2,200 U | <u>0</u> 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,1-Dichloroethene | | 1,900 U | 33 U | 2,200 U | n 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Carbon disulfide | | 1,900 U | 11 J | 2,200 U | 096 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Acetone | | 10,000 U | 3200 J | 15,000 J | 5600 | 8700 J | 7,600 | 870 DJ | 7,600 | 5,500 | 17,000 J | 11,000 |
| Methylene chloride | | 35 U | 34 B | 2,200 U | 140 U | 2300 U | 1,700 U | 240 DJ | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1 1-Dichloroethane | | 1.900 U | 33 U | 2,200 U | ∩ 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 2-Butanone | | 2,200 | 660 | 4,100 J | 2000 E | 2500 J | 3,000 | 420 DJ | 2,200 | 2,400 | 4,700 J | 4,400 |
| Chloroform | | 1,900 U | 33 U | 2,200 U | ∩ 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1.1.1-Trichloroethane | | 1,900 U | 33 U | 2,200 U | ∩ % | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Carbon tetrachloride | | 1,900 U | n S | 2,200 U | 0 96 0 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Benzene | | 1,900 U | 33 U | 2,200 U | L 71 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,2-Dichloroethane | | 1,900 U | 0 80 | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Tricthloroethene | 2,800 | 1,900 U | 33 U | 6,700 | 220 | 3400 | 1 700 U | 1,800 U | 2,200 U | 720 J | 1,600 J | 2,000 U |
| 1.2-Dichloropropane | | 1,900 U | 33 U | 2,200 U | ∩ 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Bromodichloromethane | | 1,900 U | 33 U | 2,200 U | ∩ 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| cis-1.3-Dichloropropene | - | 1,900 U | 33 (| 2,200 U | ∩ 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 4-Methyl-2-pentanone | | 1.900 U | ∩ 8 | 2.200 U | ∩ 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Tolliana | | 1.900 U | 30 | 2,200 U | 48 J | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| trans-1 3-Dichlorononane | | 1 900 11 | 33.0 | 2,200 U | n 96 | 2300 U | 1.700 U | 1.800 U | 2.200 U | 1.700 U | 2,200 U | 2,000 U |
| 1 1 2. Trichloroethane | | 1 900 1 | 33.0 | 2.200 U | ∩ 96 | 2300 U | 1 700 U | 1.800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Tatrachloroathana | 5 600 | 4 100 | 160 | 31,000 | 320 | 19000 | 2,600 | 2.000 D | 17.000 | 7,400 | 5,700 | 4,900 |
| 1 Ettact itorocaticate | 2225 | 1 900 11 | 33 11 | 2 200 11 | 196 | 2300 U | 1 700 U | 1.800 U | 2.200 U | 1.700 U | 2,200 U | 2,000 U |
| Ditromochloromethane | - | 1 000 1 | 33 11 | 002 6 | 1 96 | 2300 U | 1 700 U | 1.800 U | 2.200 U | 1.700 U | 2.200 U | 2.000 U |
| Chlorohanzana | | 1 000 11 | 8 | 2 200 11 | 36 | 2300 U | 1.700 U | 1.800 U | 2,200 U | 1.700 U | 2,200 U | 2,000 U |
| Clinitudeiteite | | 1 000 1 | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 2 200 11 | 130 | 11 0022 | 1.700 U | 1,800 U | 2.200 U | 1.700 U | 2.200 U | 2.000 U |
| Christians | | | 88 | 2 200 11 | 196 | 2300 U | 1.700 U | 1.800 U | 2.200 U | 1.700 U | 2,200 U | 2,000 U |
| Bromoform | | 1 000 1 | 28 | 2 200 1 | 196 | 2300 U | 1.700 U | 1.800 U | 2.200 U | 1,700 U | 2,200 U | 2,000 U |
| 1 1 2 2-Tetrachloroethane | 1- | 1 900 1 | 33 U | 2.200 U | ∩ 96 | 2300 U | 1.700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Total Xvianas | | 1 900 U | 33.U | 2.200 U | 100 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| cis-1 2-Dichloroethene | | 1.900 U | 33 U | 5,700 | 3100 | 1800 J | 1,700 U | 1,800 U | 2,200 U | L 068 | 2,300 | 2,000 U |
| trans-1.2-Dichloroethene | 1.200 | 1,900 U | 33 U | 2,200 U | 31 J | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 1,900 J | 2,000 U |
| Dichlorodifluoromethane | | 1,900 U | 33 U | 2,200 U | 0 96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Trichlorofluoromethane | | 1,900 U | 0 EE | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1,900 U | 33 U | 2,200 U | 096 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Methyl-t-butyl ether (MTBE) | | 1,900 U | 33 U | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,2-Dibromoethane | | 1,900 U | ∩ SS | 2,200 U | 0 96 N | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Isopropylbenzene | | 1,900 U | 0.65 | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,3-Dichlorobenzene | | 1,900 U | 33 U | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,4-Dichlorobenzene | | 1,900 U | 33 U | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1'700 U | 2,200 U | 2,000 U |
| 1,2-Dichlorobenzene | | 1,900 U | 33 U | 2,200 U | 0 96 N | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,2-Dibromo-3-chloropropane | | U 000 U | 33.0 | 2,200 U | 96 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| 1,2,4-Trichlorobenzene | | 1,900 U | 33 U | 2,200 U | 096 U | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Methyl acetate | | 1,900 U | 33 U | 2,200 U | ∩96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Cyclohexane | | 1,900 U | 33 U | 2,200 U | ∩ % | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |
| Methylcvclohexane | | 1,900 U | ∩ 83 0 | 2,200 U | ∩96 | 2300 U | 1,700 U | 1,800 U | 2,200 U | 1,700 U | 2,200 U | 2,000 U |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 19 - Data for Post-IRM Conditions - B3 Area

| Commits ID - | Midlor | 10.01 | VB2_20 | VB2_02 | VR3 - 24 | VR2 - 25 | VR3 - 25 DI | VR3 - 25 | VR3 - 25 DI | VB3 - 26 Di |
|--|--------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | 18.0-20.0 | 16 - 20 | 16.6 - 20.6 | 16.9 - 20.9 | 15.8 - 19.8 | 15.8 - 19.8 | 15.8 - 19.8 | 15.8 - 19.8 | 15.4 - 19.4 |
| Date Sampled -> | 8 | 05/08/07 | 05/08/07 | 05/21/07 | 05/08/07 | 08/03/07 | 08/03/07 | 08/28/07 | 08/28/07 | 03/07/07 |
| Chloromethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 0.06 |
| Vinvl chloride | 800 | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 06 |
| Bromomethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 90 U |
| Chloroethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | N 06 |
| 1,1-Dichloroethene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 06 |
| Carbon disulfide | | 14 J | 2,200 U | 2,600 U | 2,200 U | 22 JJ | 1,800 U | 170 U | 2,000 U | 12 DJ |
| Acetone | | 13,000 BEJ | 13,000 | 23,000 B | 7,200 | 2,300 J | 2,300 J | 5,600 BEJ | 5,900 J | 1,200 BD |
| Methylene chloride | | 66 U | 2,200 U | 79 U | 2,200 U | 77 UJ | 26 U | 4 ∪ | 48 U | 62 BDJ |
| 1,1-Dichloroethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 66 |
| 2-Butanone | | 3,200 EJ | 4,400 | 7,400 | 3,000 | 750 J | 1,800 JB | 2,400 | 2,000 JB | 360 D |
| Chloroform | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 06 U |
| 1,1,1-Trichloroethane | | D 12 | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 0 06 |
| Carbon tetrachloride | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 90 U |
| Benzene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 3 UJ | 1,800 U | 5.6 J | 2,000 U | 0 06 |
| 1.2-Dichloroethane | | U FT | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 90 N |
| Trichloroethene | 2,800 | 71 U | 2,200 U | 2,900 | f 0/1 | 3,000 J | 3,200 | 590 U | 740 J | 360 D |
| 1,2-Dichloropropane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | л 06 |
| Bromodichloromethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 0 OG |
| cis-1,3-Dichloropropene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 00 U |
| 4-Methyl-2-pentanone | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 00 N |
| Toluene | | 71 U | 2,200 U | 62 J | 2,200 U | 15 W | 1,800 U | 14 U | 2,000 U | 000 |
| trans-1,3-Dichloropropene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 00 U |
| 1,1,2-Trichloroethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 06 |
| Tetrachioroethene | 5,600 | 40 J | 1,600 J | 3,700 | 8,000 | 21,000 EJ | 31,000 | 6,100 EJ | 8,200 B | ∩ 06 |
| 2-Hexanone | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 26 J | 2,000 U | ∩ 06 |
| Dibromochloromethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 0 OG |
| Chlorobenzene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 66 |
| Ethylbenzene | | - 71 U | 2,200 U | 2,600 U | 2,200 U | 4 UJ | 1,800 U | 170 U | 2,000 U | 90 N |
| Styrene | | ЧU | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | n 06 |
| Bromoform | | - 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 6 |
| 1,1,2,2-Tetrachioroethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 06 |
| Total Xylenes | | 71 U | 2,200 U | 190 J | 2,200 U | 64 | 36 J | 35 J | 47 J | 0.06 |
| cis-1,2-Dichloroethene | | 7 0 | 2,200 U | 3,300 | 430 J | r 0/2 | r 012 | DRZ | 210 3 | 280 1 |
| trans-1,2-Dichloroethene | 1,200 | 710 | 2,200 U | 2,600 U | 2,200 U | 2 JMU | 1,800 U | 170 U | 2,000 U | 110 U |
| Dichloroditiuoromethane | | | - 007'Z | 2,000 U | 5,200 U | | 1,000 1 | | 2,000 0 | 5 = 8 8 |
| I richlorofluoromethane | | | 2,200 U | 2,600 U | 2,200 U | 100 M | 1,000 1 | 0 0/1 | | 5 5 8 6 |
| 1, 1, 2- Trichloro-1, 2, 2-trifluoroethane | | D F | 2,200 U | 2,600 U | 2,200 U | | 1,800 U | 0 0/1 | | |
| Methyl-t-butyl ether (MTBE) | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | | 2,000 U | 3 |
| 1,2-Dibromoethane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | n 06 |
| Isopropylbenzene | - | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 120 U | 2,000 U | 0 06 |
| 1, 3-Dichlorobenzene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 0 O |
| 1,4-Dichlorobenzene | | 7 0 | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 06 |
| 1,2-Dichlorobenzene | | D 12 | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 06 |
| 1,2-Dibromo-3-chloropropane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 6 |
| 1,2,4-Trichlorobenzene | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | -) 06 |
| Methyl acetate | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | ∩ 8 |
| Cyclohexane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 120 U | 2,000 U | |
| Methylcyclohexane | | 71 U | 2,200 U | 2,600 U | 2,200 U | 150 UJ | 1,800 U | 170 U | 2,000 U | 90 U |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 19 - Data for Post-IRM Conditions - MW-3D Area

| | | | | | | - |
|---------------------------------------|--------|-------------|-------------|-------------|---------------|-------------|
| Sample ID -> | Midler | V3D - 1 DL | V3D-2.DL | V3D - 3 | V3D - 4 | V3D - 5 |
| Depth - > | ssco | 15.1 - 19.1 | 10.5 - 14.5 | 14.3 - 18.3 | 10.75 - 14.75 | 14.4 - 18.4 |
| Date Sampled -> | | 7/2/2007 | 3/5/2007 | 06/07/07 | 05/08/07 | 06/07/07 |
| Chloromethane | - | 170 U | 81 U | 2,200 U | 90 N | 2,200 U |
| Vinyl chloride | 800 | 170 U | 640 D | 2,200 U | L 6 | 2,200 U |
| Bromomethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Chloroethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,1-Dichloroethene | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Carbon disulfide | | 170 U | 13 DJ | 2,200 U | 15 J | 2,200 U |
| Acetone | | 2,800 B | 170 BD | 9,400 J | 8,200 BEJ | 13,000 J |
| Methylene chloride | | 120 U | 140 BD | 420 U | 25 J | 410 U |
| 1,1-Dichloroethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 2-Butanone | | 860 | 33 D.J | 2,000 J | 3,100 EJ | 4,000 J |
| Chloroform | | 170 U | 81 U | 2,200 U | 90 U | 2,200 U |
| 1.1.1-Trichloroethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Carbon tetrachloride | | 170 U | 81 U | 2,200 U | N 08 | 2,200 U |
| Benzene | | 2.9 J | 81 U | 2,200 U | ∩ 08 | 2,200 U |
| 1.2-Dichloroethane | | 170 U | 81 U | 2,200 U | 080 U | 2,200 U |
| Trichloroethene | 2,800 | 55 J | 14 DJ | 2,200 U | 0 80 ∪ | 2,200 U |
| 1,2-Dichloropropane | | 170 U | 81 U | 2,200 U | 0 08 | 2,200 U |
| Bromodichioromethane | | 170 U | 81 U | 2,200 U | 108 108 | 2,200 U |
| cis-1,3-Dichloropropene | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 4-Methyl-2-pentanone | | 170 U | 81 U | 2,200 U | 16 J | 2,200 U |
| Toluene | | 18 J | 81 U | 2,200 U | 46 J | 2,200 U |
| trans-1.3-Dichtoropropene | | 170 U | 81 U | 2,200 U | 90 U | 2,200 U |
| 1,1,2-Trichloroethane | | 170 U | 81 U | 2,200 U | 90 U | 2,200 U |
| Tetrachioroethene | 5,600 | 2,200 | 81 U | 6,100 | 14 J | 5,900 |
| 2-Hexanone | | 20 J | 81 U | 2,200 U | 28 J | 2,200 U |
| Dibromochloromethane | | 170 U | 81 U | 2,200 U | 0 08 | 2,200 U |
| Chlorobenzene | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Ethylbenzene | | 170 U | 81 U | 2,200 U | 080 U | 2,200 U |
| Styrene | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Bromoform | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,1,2,2-Tetrachloroethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Total Xylenes | | 37 J | 81 U | 2,200 U | ٢L | 2,200 U |
| cis-1,2-Dichloroethene | _ | 170 U | 190 D | 2,200 U | 470 | 2,200 U |
| trans-1,2-Dichloroethene | 1,200 | 170 U | 28 DJ | 2,200 U | 36 J | 2,200 U |
| Dichlorodifluoromethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| Trichlorofluoromethane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 170 U | 81 U | 2,200 U | 90 C | 2,200 U |
| Methyl-t-butyl ether (MTBE) | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,2-Dibromoethane | | 170 U | 81 U | 2,200 U | 90 U | 2,200 U |
| Isopropylbenzene | | 170 U | 81 U | 2,200 U | ∩ 08 | 2,200 U |
| 1,3-Dichlorobenzene | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,4-Dichlorobenzene | | N 0/11 | B1 U | 2,200 U | 80 U | 2,200 U |
| 1,2-Dichlorobenzene | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,2-Dibromo-3-chloropropane | | 170 U | 81 U | 2,200 U | 80 U | 2,200 U |
| 1,2,4-Trichlorobenzene | | 170 U | 81 U | 2,200 U | 080 | 2,200 U |
| Methyl acetate | | 170 U | 81 U | 2,200 U | 08 | 2,200 U |
| Cyclohexane | | 170 U | 81 U | 2,200 U | 8 | 2,200 U |
| Methylcyclohexane | | 170 U | 81 U | 2,200 U | 50 CR | 2,200 U |

<u>بر</u>

Pioneer Midler Avenue LLC Remedial Investigation Report Table 19 - Data for Post-IRM Conditions - B-1 Area

| ample ID ~ | Midler | VB1-1 | VB1-2 | 281-3 | YD1 - 0 LL | 100 101 | 101-102 | | 2 | 1 - 7 - 1 | | | | | | | |
|--|--------|----------------|-------------|-----------|------------|-----------|-------------|-------------|--------------|-------------|-------------|-------------|---|-------------|-------------|-------------|----------|
| soth - > | SSCO | 16.0 - 20.0 | 12.9 - 16.9 | 5.5 - 9.5 | 5.5 - 9.5 | 5.5 - 9.5 | 16.8 - 20.8 | 16.0 - 20.0 | 3.9 - 7.9 | 15.8 - 19.8 | 15.4 - 19.4 | 11.6 - 15.6 | 12.7 - 16.7 | 12.7 - 16.7 | 16.4 - 20.4 | 16.4 - 20.4 | ž |
| ate Sampled -> | | 03/16/07 | 03/16/07 | 08/03/07 | 08/03/07 | 09/04/07 | 03/16/07 | 03/16/07 | 05/10/07 | 20/20/90 | 06/20/07 | 20/20/90 | 08/03/07 | 08/03/07 | 08/03/07 | 08/03/07 | |
| noromethane | | <u>∩</u> 06 | 181 | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| nyl chloride | 800 | ∩ 06 | 6 | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| omomethane | | 006 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| nioroethane | | ∩ 06 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 1001 | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| 1-Dichloroethene | | 006 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| arbon disulfide | | 28.J | 4 J | 200 U | 4,900 U | 2,800 U | U 021 | 5 J | 17 J | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| setone | | 1.300 U | 41 U | 5,700 EJ | 4,700 5 | 7,400 | 01/8 #8 | 140 8 | 14,000 BEJ | 36,000 J | 15,000 U | 10,000 J | 4,100 EJ | 3,700 | 22,000 EJ | ‡6,000 | |
| etholane chinricle | | 2001 | 42 U | 1001 | 120 U | 300 U | 260 BD | 28 U | 130 | 920 U | 86 U | D 040 U | ⊃ 8 | 40 U | 79 U | 2,200 U | |
| 1-Dichloroethane | | 006 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 1001 | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| Butanone | | 580 | 18 U | 1.200 | 4,900 U | 2.800 U | 28 DJ | 50 | 3,000 EJ | 12,000 J | 5,600 | 2,400 J | 1,200 J | 2,100 U | 8,100 EJ | 5,100 | |
| | Í | 11/06 | 181 | 200 U | 4 900 U | 2.800 U | 120 U | 23 U | 100 L | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| 4 + Trichteensthead | | | 181 | 2001 | 4 900 U | 2,800 U | 120 U | 23 U | 1001 | 2.100 U | 2.100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| 1, 2*11 RURACOULIANC | T | 25 | | 2001 | 4 900 1 | 2 2001 | 120 13 | 23 13 | 100 U | 2,100 U | 2.100 U | 1.800 U | 170 U | 2.100 U | 180 U | 2,200 U | ┣ |
| | | 88 | | 2001 | 4 900 1 | 2 800 11 | 120 U | 162 | 1000 | 2.100 U | 2.100 U | 1,800 U | 2 1 | 2,100 U | ٢٢ | 2,200 U | Ļ |
| o Nicklandthaad | | 38 | | 11006 | 1 000 1 | 008 6 | 12011 | 0.82 | 1001 | 2.100 U | 2.100 U | 1.800 U | 170 U | 2.100 U | 180 U | 2,200 U | _ |
| 2-bici iloi vetuaria Veticino ottorio | on o | 85 | 22 | 850 | 2002 | 7 200 | 450 D | Ş | ۲ <i>۵</i> ۲ | 1.800 5 | 130 J | 1.800 U | 32 J | 2,100 U | 73 J | 2.200 U | |
| | 2001 | 38 | 1916 | 2001 | 4 000 1 | 2 800 1 | 12011 | 53 [] | 1001 | 2,100 U | 2.100 U | 1.800 U | 170 Ú | 2100 U | 180 U | 2,200 U | <u> </u> |
| z-uraliologyaphile | | 88 | a a | 200 11 | 4 900 1 | 2 800 1 | 120 11 | 23.U | 100 U | 2.100 U | 2.100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2.200 U | |
| | | 88 | 2 9 | 2007 | | | 19/11 | 331 | 19001 | 2 100 I | 2,500 U | 1.800 U | 170 U | 2.100 U | 180 U | 2.200 U | + |
| -1,3-Lichioroproperie | | 38 | 181 | 2002 | 1000 | 2 800 1 | 1201 | 38 | F 02 | 2,100 U | 2.100 U | 1,800 U | 170 U | 2.100 U | 180 U | 2,200 U | + |
| | | 88 | e e | 16 1 | 4 010 11 | 2,800 1 | 1201 | 3 | 20.1 | 2.100 U | 2.100 U | 1.800 U | ∩6 | 2,100 U | 45 U | 2.200 U | - |
| AUMITE | | 88 | 2 Q | 11006 | | 2 BOD 1 | 12011 | n a | 1001 | 2,100 U | 2.100 U | 1,800 U | 170 U | 2.100 U | 180 U | 2.200 U | + |
| inters, or District Not Opticipation | | 88 | | 1006 | 4 900 1 | 2,800 1 | 12015 | | 1001 | 2,100 U | 2.100 U | 1,800 U | 170 U | 2.100 U | 180 U | 2,200 U | <u>+</u> |
| 1, Z-1 INCRUCKOBUTALIE | 200 | | e e | 13 000 51 | 57 000 | 18,000 | 170 D | 172 | 240 | 6100 | 6.500 | 5.000 L | 4.200 E.I | 3,300 | 4.000 EJ | 4.900 | +- |
| trachioroeusene | nna'o | 200 | 19 0 | 1000 | | 00010 | 12011 | 11 62 | 1 61 | 2.100 U | 2.100 U | 1.800 U | 1 0 Z S | 2.100 U | 180 U | 2.200 U | + |
| | | 88 | | | | | 100+ | | 1001 | 11 WH 6 | 210011 | 1 800 1 | 1701 | 210019 | 180.1 | 2,200 U | ⊢ |
| bromocnioromemane | | 3 | 200 | | 4,800 0 | 2,000 0 | | 38 | | 1001 0 | 2 100 1 | 1 BOOL | 170.1 | 2,10011 | 18011 | 2,200 11 | + |
| liorobenzene | | 3 | 180 | | 4,900.0 | 7,000 0 | | 3 | 3 | 3 2 2 | 1 007 0 | | 12021 | 1 001 6 | 1001 | 2 200 11 | - |
| hylbenzene | | 906 | 18.0 | L ET | 1 000 1 | 1000 | | ន | 1001 | | | | 11021 | 21000 | | 1 000 0 | + |
| rene | | ⊐ 8 | 181 | 2001 | 4,900 U | 5,800 U | | | 0.001 | 2,100 U | 2,100 12 | | 1 | 1 997 9 | | | + |
| Smoform | | ⊃ 06 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | C 23 C | 0.00 | Z,100 U | 2,100 12 | 0.008/1 | 200 | 7 1001 2 | 0.081 | 0.002.2 | - |
| ,2,2-Tetrachioroethane | | <u>∩</u> 06 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 0 | 1001 | D 001'Z | | 1, 200 1 | 0.21 | | | 1 12 | - |
| tal Xylenes | | ⊐ 8 | 18 U | Г 08 | 4,900 J | 2,800 U | 120 U | 23 0 | 1001 | 2,100 U | 2,100 U | D 008'L | 192 | | 8 | 1 000 0 | + |
| -1,2-Dichloroethene | | 450 | 88 | 660 | 380 J | 2 | 1,100 D | 200 | 13 J | z,200 | 2,100 U | 1 009'1 | 121 | 2,100 U | 41.0 | 0.002.2 | + |
| ns-1,2-Dichloroethene | 1,200 | 54 7 | 141 | 11 J | 4,900 J | 2,800 U | 23 DI | 27 | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | | 2,200 U | + |
| chlorodifluoromethane | | <u>ר 06</u> | 181 | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 0 | 2,200 U | - |
| chlorofluoromethane | | <u>∩</u> 06 | 18 ∪ | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | - |
| .2-Trichloro-1.2.2-trifluoroethane | | <u>0</u> 6 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 120 U | 2,100 U | 180 U | 2,200 U | -+ |
| thvi-t-butvi ether (MTBE) | | <u>∩</u> 06 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 0 EZ | 100 U | 2,100 U | 2,100 U | 1,800 U | 120 U | 2,100 U | 180 U | 2,200 U | - |
| 2-Dibromoethane | | <u>ח</u> 06 | 18 U | 200 U | 1 006,4 | 2,800 U | 120 U | 23 U | 100 I | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | - |
| orrowlyseptene | | 106 | 18 U | 8 | 4,900 5 | 2,800 U | 120 U | ∩ ജ | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| 2-Dichlorobanzana | | 06 | 0.81 | 200 U | 4,900 U | 2,800 U | 120 U | ⊓ छ | 100 U | 2,100 U | 2,100 U | 1,800 U | 120 U | 2,100 U | 180 U | 2,200 U | • •• |
| t-Dichtorcherizene | Γ | ⊃ 8 | 18 U | l 51 | 4,900 J | 2,800 U | 120 U | 23 0 | 1001 | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | _ |
| 2.Dichtombanzene | | 106 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 0 83 ∩ | 100 U | 2,100 U | 2,100 U | 1,800 U | 120 U | 2,100 U | 180 U | 2,200 U | |
| 2-Dibmmo-3-chloroorooane | | 06 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| 2.4-Trichlorobenzene | | ⊃ 8 | 18 U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 2,100 U | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| ethyl acetate | | <u>⊓</u> 06 | 18.U | 200 U | 4,900 U | 2,800 U | 120 U | 23 U | 100 U | 460 J | 2,100 U | 1,800 U | 170 U | 2,100 U | 180 U | 2,200 U | |
| volnharane | | 10 | 9 | 1006 | | 1 0000 | 11007 | | 100* | 110010 | | | 12011 | | | | _ |
| | | | | | 2 2004 | 2,800 0 | 120 0 | 230 | 3 | | | 0 000 1 | 221 | | 280 | | 4 |

F./Project/C81 - Pioneer Development/C81.002 BCPIClose out and COC/October 2007RI Report/Data Tables for RitTable19 VALIDATED xis / B-1

•

-

+ 1

Page 5 of 7

Pioneer Midler Avenue LLC Remedial Investigation Report Table 19 - Data for Post-IRM Conditions - B-1 Area

| | VB1 - 13 | VB1 - 14 | VB1 - 14 DL | VB1 - 14 DL2 | VB1 - 14 | CI - 19A | 41 - 10A | VDI - 17 UL | 01 - 10A | VB1 - 19 | VB1 - 2U |
|-------|-------------|--|---|---|---|--|---|--|---|---|---|
| SSCO | 16.1 - 20.1 | 18.1 - 22.1 | 18.1 - 22.1 | 18.1 - 22.1 | 18.1 - 22.1 | 10.2 - 14.2 | 8.8 - 12.8 | 15.5 - 19.5 | 15.9 - 19.9 | 8.8 - 12.8 | 13 - 17 |
| | 08/10/07 | 09/13/07 | 06/13/07 | 09/13/07 | 09/26/07 | 06/11/07 | 20/91/20 | 09/04/07 | 05/10/07 | 05/10/07 | 06/11/07 |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | n 44 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| 800 | 2,100 U | 160 U | 1,900 U | 9,400 U | 0 44 | 2,300 U | 110 U | 2,100 U | 2,000 U | 12 J | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | n 22 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | n 42 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| _ | 2,100 U | 160 U | 1,900 U | 9,400 U | 77 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 710 | 2,300 U | 110 U | 2,100 U | 2,000 U | 17 J | 2,200 U |
| | 5,200 | 5,200 EB. | 12,000 | 12,000 | 1,100 B | 13,000 J | 9,000 EJ | 15,000 | 1,900 J | 17,000 BEJ | 19.000 J |
| | 2,100 U | ∩ 66 | 240 U | 069 | 20 JB | 380 U | U 6≱ | 240 U | 2,000 U | 110 | 2,200 U |
| | 2,100 U | 1081 | 1.900 U | 9,400 U | 140 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,300 | 2,000 | 4,400 | 9,400 U | 410 | 2,400 J | 2,000 | 5,200 | L 037 | 4,100 EJ | 5,000 J |
| | 2.100 U | 160 U | 1.900 U | 9,400 U | n 42 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2.100 U | 160 U | 1,900 U | 9,400 U | 0,44 | 2.300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2.100 U | 1091 | 1,900 L | 9.400 U | 0 42 O | 2.300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2.200 U |
| | 2,100 U | 3.1 | 1.900 U | 9.400 U | 10.12 | 2,300 U | 3 J | 2,100 U | 2,000 U | 17 3 | 2,200 U |
| | 2.100 U | 160 U | 1 900 1 | 9.400 U | N 11 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| 2,800 | 2.100 U | 260 | 1,200 J | 1.200 J | Ω 44 | 2,300 U | 36 J | 930 J | 2,800 | 210 | 2,200 U |
| | 2.100 U | 160 U | 1.900 U | 9.400 U | n 44 | 2,300 U | U 011 | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1.900 U | 9,400 U | 04 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2.100 U | 160 U | 1.900 U | 9,400 U | 0 44 N | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2.100 U | 160 U | 1,900 U | 9,400 U | 04 | 2,300 U | 110 U | 2,100 U | 2,000 U | 54 J | 2,200 U |
| | 2.100 U | 18 U | 8 | 9,400 JB | 1.6 JB | 2,300 U | 6.9 | 45 J | 2,000 U | 48.J | 2,200 U |
| | 2.100 U | 160 U | 1.900 U | 9,400 U | ∩ <i>4</i> | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2.100 U | 160 U | 1.900 U | 9.400 U | N 44 | 2,300 U | 110 U | 2,100 U | 2,000 U | 1 0 FF | 2,200 U |
| 5,600 | 450 J | 10,000 EJ | 100,000 EV | 100,000 | 150 | 2,600 | 750 | 17,000 | 640 J | 580 | 1,400 J |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | N 44 N | 2,300 U | 110 U | 2,100 U | 2,000 U | 38.1 | 2.200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 77 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | n 42 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | ∩ <i>1</i> 4 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 1001 | 1,900 L | 9,400 U | 77 0 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 77 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 77 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 29 J | 300 1 | 240 J | 0 4 | 2,300 U | L 01 | 120] | 2,000 U | 38 | 2,200 U |
| | 8,600 | 5 | 7 0FF | 9,400 U | 0 44 | 2,300 U | 280 | 870.5 | 23,000 | 740 | 1,100 1 |
| 1,200 | 2,100 U | 160 U | 1,900 U | 9,400 U | ה היו | 2,300 U | 5 1 | 2,100 U | 310 J | 16 J | 2,200 U |
| | 2,100 U | 160 | 1,900 U | 9,400 U | <u>0</u> | 2,300 U | | 0.001/2 | Z,000 U | 0.011 | |
| | 2,100 ∪ | - 160 1 | 1,900 U | 9,400 U | n 42 | 2,300 U | 110 0 | 2,100 U | 2,000 U | 1001 | 2,200 U |
| | 2,100 U | - 160 0 | 1,900 U | 9,400 U | n 11 | 2,300 U | 110 U | Z,100 U | 2,000 U | 0.012 | |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 7 U | 2,300 U | 100 | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 199 C | 1,900 U | 9,400 U | 14 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 199 | 1,900 U | 9,400 U | 77 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 7 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 17 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 Ú | 2,200 U |
| | 2,100 U | 1091 | 1,900 U | 9,400 U | n 44 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 1091 | 1,900 U | 9,400 U | N 44 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | 77 U | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | л 24 С | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2.200 U |
| | 2,100 U | 160 U | 1,900 U | 9,400 U | ≂ ₽ | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | 2,100 U | ⊃ 99 | 006'1 | 9,400 U | 71 | 2,300 U | 110 U | 2,100 U | 2,000 U | 110 U | 2,200 U |
| | | 80 2,100 U 2,100 U | 800 2,100 U 180 U 2,100 U 180 U 180 U 2,100 U 180 U 180 U 2,100 U 180 U 180 U 2,100 U 180 U 180 U 2,100 U 180 U 180 U 2,200 U 2,200 U 160 U 2,200 U 2,200 U 160 U 2,200 U 2,200 U 160 U 2,200 U 2,200 U 160 U 2,200 U 2,200 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U 160 U 2,100 U 160 U | 900 2,100 U 160 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 169 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U 2,100 U 166 U 1,900 U | 800 2,100 U 160 U 1,000 U 9,400 U 2,100 U | 800 7,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 9,400 770 2,100 160 1,300 <th>600 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U<th>960 7,100 U 160 U 1,900 U 9,400 U 77 U 2,000 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U</th><th>web 2100U 1990U 9400U 77U 2300U 119U 2100U 2100U 169U 1990U 9400U 77U 2300U 119U 2100U 2100U 169U 1900U 160U 190U 110U 210U 2100U 160U 160U</th><th>800 2100 1 1600 1 5400 1 77 u 2500 1 160 u 2100 u 200 u <</th><th>600 2:000 1:000 3:000 7:00 2:000 2:</th></th> | 600 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U 1,900 U 9,400 U 77 U 2,300 U 2,100 U 160 U <th>960 7,100 U 160 U 1,900 U 9,400 U 77 U 2,000 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U</th> <th>web 2100U 1990U 9400U 77U 2300U 119U 2100U 2100U 169U 1990U 9400U 77U 2300U 119U 2100U 2100U 169U 1900U 160U 190U 110U 210U 2100U 160U 160U</th> <th>800 2100 1 1600 1 5400 1 77 u 2500 1 160 u 2100 u 200 u <</th> <th>600 2:000 1:000 3:000 7:00 2:000 2:</th> | 960 7,100 U 160 U 1,900 U 9,400 U 77 U 2,000 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U 150 U 160 U | web 2100U 1990U 9400U 77U 2300U 119U 2100U 2100U 169U 1990U 9400U 77U 2300U 119U 2100U 2100U 169U 1900U 160U 190U 110U 210U 2100U 160U 160U | 800 2100 1 1600 1 5400 1 77 u 2500 1 160 u 2100 u 200 u < | 600 2:000 1:000 3:000 7:00 2:000 2: |

ية 1 (

21

| neer Midler Avenue LLC | nedial Investigation Report | ile 19 - Data for Post-IRM | nditions - B-5 Area |
|------------------------|-----------------------------|----------------------------|---------------------|
| Pionee | Remed | Table 1 | Condit |

| Sample ID -> | Units | Bottom North | Sottom North DL | Bottom South | Bottom South DI | East Wall | North Wall | Slab North | Slab North UL | Statt South | west wall | West Wall UL |
|---------------------------------------|---------|--------------|-----------------|--------------|-----------------|-------------|------------|---------------|---------------|----------------------|-------------|--------------|
| Depth - > | _ | 12 feet | 12 feet | 14 feet | 14 feet | 6-10 feet | 6 - 8 teet | 6 - 8 teet | 6-8 teet | 8 teet | 6-10 teet | 6-10 teet |
| Date Sampled -> | | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 | 7/18/2006 |
| Old | | 0.7 | 0.7 | 4.5 | 4.5 | 13.2 | 0.3 | 7.1 | 7.1 | 3.8 | 9.7 | 9.7 |
| VOLATILES | ug/kg | 107 | - | 1711 | 76.11 | 100 | 1 | 17[1] | 06.11 | 1611 | 14 | 1 800 1 |
| Chioromethane | ngrkg | | 0 10 | 2 | 0 IZ | 2 2 | | 2 | 000 | | | |
| Bromomethane | ng/kg | 0 910 | | | | 2 0 | - | 160 | | | 12 0 | |
| Vinyi crioriae | 6y/6m | 240 | 2 20 | 141 | | 101 | | 11/11/1 | 0011 | 2 | 15 15 | 1 800 1 |
| Chioroethane | 0k0n | 1 2 1 | 81.0 | 12 12 | 100/ | 0 0 | 0 1 0 0 | 1311 | 000 0 | 10101 | | 1 800 0 |
| metrytene critoride | βy/ĥn | 2 | 0.00 | 2 2 | | 2 2 2 | 2 4 | 2 - | 2 20 | | 2 | |
| Acetone | ng/kg | 0.0 | | 0 / | 9 8 | - ور | 101 | | 000 | ר בי קיים דיים | | |
| Carbon disultide | ng/kg | D 21 | n 18 | 20 | 0 8 | | | <u>-</u> v | | | 0 (| |
| 1,1-Dichloroethene | ng/kg | 180 | 810 | 0 / L | 0 9 9 | 0:1 | 10 | <u>ין מ</u> | | | ייי | 0001 |
| 1,1-Dichloroethane | ug/kg | 18 U | 81 U | 17 U | 75 U | 130 | | 17 0 | 86 U | 16 U | <u>19 1</u> | 1,800 U |
| Chloroform | ug/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | n : 98 | 16 U | 15 U | 1,800 U |
| 1,2-Dichloroethane | ug/kg | 18 U | 81 U | 17 U | 75 U | 13.0 | 16 U | 17 U | -) 98 | 16 U | 15 U | 1,800 U |
| 2-Butanone | ug/kg | 18 U | 81 U | 17 U | 75 U | 8 | 16,0 | 17 U | 86 U | 16 U | 15.0 | 1,800 U |
| 1,1,1-Trichloroethane | ug/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 1210 | 86 U | 191 | 15 U | 1,800 U |
| Carbon tetrachloride | ng/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 96 U | 16 U | 15 U | 1,800 U |
| Bromodichloromethane | ng/kg | 18 U | 81 U | 12 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| 1.2-Dichloropropane | uq/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| cis-1,3-Dichloropropene | uq/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Trichloroethene | ug/kg | 18 | 81 U | 12 J | 12 DJ | 13 U | 16 U | 17 U | 86 U | 16 U | 5 J | 350 DJ |
| Dibromochloromethane | uq/ka | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| 1 1 2-Trichloroethane | ua/ka | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Renzene | ua/ka | 1810 | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| trans-1.3-Dichloropropene | ua/ka | 181 | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Bromoform | ua/ka | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 96 U | 16 U | 15 U | 1,800 U |
| 4-Methyl-2-pentanone | ua/ka | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| 2-Hexanone | uq/ka | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Tetrachloroethene | uq/ka | 18 | 81 U | 7 J | 15 DJ | 13 U | 16 U | 17 U | 96 U | 16 U | 2 1 | 330 DJ |
| Toluene | ug/kg | 18 | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| 1,1,2,2-Tetrachloroethane | ug/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 191 1 | 15 U | 1,800 U |
| Chlorobenzene | ng/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Ethylbenzene | ug/kg | 18 | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Styrene | ug/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| Total xylenes | ng/kg | 18 | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ug/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16 U | 17 U | 86 U | 16 U | 15 U | 1,800 U |
| cis-1,2-Dichloroethene | ug/kg | 390 EJ | 360 D | 850 EJ | 850 D | 25 | 24 | 1,100 EJ | 1,200 D | 140 | 1,300 EJ | 22,000 D |
| trans-1,2-Dichloroethene | ug/kg | 19 | 13 DJ | 8 J | 76 U | 6) | 16 U | | 86 U | 16 U | 140 | 2,600 D |
| Dichlorodifluoromethane | ug/kg | ±8 U | 81 U | 17 U | 75 U | 13 U | 16 U | 12 0 | 86 U | 16 U | 21 | 1,800 U |
| Trichtorofluoromethane | ug/kg | 6 9 | 17 U | 5 U | 12 U | 50 | 5 U | 9 | 15 U | 2 2 | 2 C | 1,800 U |
| Methyl acetate | ug/kg | 18 U | 81 U | 17 U | 75 U | 13 U | 16:U | 17 U | 886 U | 16 U | 15 U | 1,800 U |
| Methyl tert butyl ether | ng/kg | 18 0 | 81 U | 17 U | 2 | 13 0 | 191 | | | | | 1,000 1 |
| Cyclohexane | ug/kg | 18 U | 81 U | 17 U | 75 U | 130 | 191 | n : | 198 | | | 1,800 0 |
| Methylcyclohexane | ug/kg | 18 U | 81 U | 17 U | 75 U | 2 | 16 U | 17 U | B66 U | 16 U | 15 U | 1,800 0 |
| 1,2-Dibromoethane | ug/kg | 18 U | 81 U | 17 U | 75 U | 130 | 16 U | 17 U | 866 U | 16 U | | 1,008,1 |
| Isopropylbenzene | ng/kg | 18 U | 81 U | 17 U | 75 U | 130 | 16 U | 17 U | 86 U | 16 U | 1210 | 1,800 U |
| 1,3-Dichlorobenzene | 1 ug/kg | 18 U | 81 0 | 17 U | <u>) 8/</u> | 130 | | | | | | 0.000+ |
| 1,4-Dichlorobenzene | ng/kg | 180 | 1 10 | 0/1 | 0 8/ | | | | | | | |
| 1,2-Dichlorobenzene | ng/kg | | | | 10 0/ | 29 | | | | 0 1 2 4 | 2 4 | 1 800 1 |
| 1,2-Dibromo-3-chloropropane | ug ky | 2 9 | ⊃ = ō ō | 2 | 75 1 | 2 7 | 24 | 14 | | 181 | 151 | 1 800 1 |
| [1,2,4-Trichlorobenzene | Dy Ch | | a n | 2 2 | 0 0/ | 200 | 20 | 2 | 200 | 2 2 | 2 | > vvv,1 |

| | | VOCs Data |
|-------------|--------------|--------------------|
| e LLC | n Report | iroundwater |
| idler Avenu | Investigatio | Summary G |
| Pioneer Mi | Remedial | Table 20 - |

| ſ | | 10001 | | 1.11.1 | ARA! O | AMA.2 | AAM_A | MME | MM.G | MMM-7 | MW-R | UC-WW | UN-MM | MW-3D DI | MW-4D | MW-9D | WW-10D W | W-10D D1 |
|---|--------------|----------|-----|----------|------------|------------|----------|----------|------------|----------|----------|----------|----------|--------------------|----------|----------|----------|--------------|
| Parameter Sample Date | | | | 11/29/04 | 11/29/04 | 11/29/04 | 11/29/04 | 11/29/04 | 11/29/04 | 11/29/04 | 11/29/04 | 01/31/05 | 01/31/05 | 01/31/05 | 01/31/05 | 01/31/05 | 01/31/05 | 01/31/05 |
| Chloromethane | ja N | | | _ ∩ 0 | 10 F | 10 U | 10 L | 10 L | 10 U | 10 L | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| Bromomethane | | | | | 10 | 10 N | 10 U | 10 | 10 [| 10 Г | 10 [| 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| Vind chloride | | ~ | | | | 100 BG 201 | 10 0 | 10 U | 10 U | 10 [| 10 U | 10 U | 170 | 800 U | 10 U | 1.9 A. | 10 U | NG SS DI |
| Chlorothane | | c, | | D 01 | 10 U | 10 U | 10 U | 10 U | 10 C | 10 € | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| Methylene chloride | 3 | G | | ∩ 0₽ | 10 U | ∩ 0‡ | 10 U | 10 U | 10 L | 10 Ū | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| Acetone | , ja | | ନ୍ତ | -10 L | 10 U | 10 N | 10 C | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 8 ا | 80 U |
| Carbon disulfide | , ja | 8 | + | ∩ 0 | 10 U | ∩ 01 | 10 Ú | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 J |
| 1.1-Dichloroethene | | ۍ ۲ | | 10 U | -10 U | 10 U | 10 U | 10 U | 10 N | 10 U | 10 U | 10 U | 101 | 800 U | 10 U | 10 U | 10 U | 80 J |
| 1.1-Dichloroethane | ja ja | 2 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| Chloroform | 3 | 2 | | 10 U | -10 U | 10 U | 10 U | 10 U | 10 N | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 J |
| 1.2-Dichloroethane | 3 | 0.6 | - | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| MEK(2-Butanone) | 5 | | 50 | 10 U | -1 O | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 15 | 20 U | 800 U | 13 | 10 U | 10 U | 80 U |
| 1.1.1.Trichloroethane | , ja | 5 | | 10 C | 10 U | 10 U | 10 N | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 L | 80 U |
| Carbon tetrachloride | , ja | 5 | | ∩ 0₽ | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| Bromodichloromethane | 1/010 | | 20 | 10 U | 10 N | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 | 800 U | 10 U | D 0 | 10 U | ر 80 |
| 1.2-Dichloropropane | 1/051 | - | | 10 U | -10 N | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 80 U |
| cis-1.3-Dichloropene | 20 | 0.4 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | - O C | 10 U | 80 U |
| Trichloroethene | N | S | | 10 U | 10 N | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 5.1 | 800 U | 10 U | -0 C | 10 U | 80 U |
| Dibromochloromethane | /ôn | ß | - | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | ∩ 80 ∩ |
| 1,1,2-Trichloroethane | /ôn | 2 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 008 | 10 U | 10 U | ∩ ₽ | 80 U |
| Benzene | /ôn | - | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 008 U | 10 U | 10 U | 10 U | л 08 |
| trans-1,3-Dichloropropene | /ôn | 0.4 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 U | 90 U |
| Bromoform | /ðn | | 20 | 10 1 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 900 U | 10 U | 10 C | 10 U | 90 N |
| MIBK(4-Methyl-2-pentanone) |) 09 | | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 900 ∪ | 10 U | 10 U | 10 U | ∩ 80 ∩ |
| 2-Hexanone | l/ôn | | 50 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 008 | ⊃ 0 | 10 U | 10 C | 90 80 |
| Tetrachloroethene | 6 | 2 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 7 200 E | 8, 900;0 ,5 | 10 U | 3 J | 4 | 2 80 0 |
| Toluene | / 0 m | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 800 U | 10 ∪ | 10 (| 10 C | 80 N |
| 1,1,2,2-Tetrachloroethane | 1/05 | S | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 C | 800 U | 10 U | 10 U | ⊃ ₽ | 20 C |
| Chlorobenzene | ja Pa | S | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | ⊃ ₽ | 80 U |
| Ethylbenzene | 1/0n | ß | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 (| 80 U |
| Styrene | Ŋ | ß | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 800 U | ∩ ¢ | 10 U | 10 U | 80 N |
| Total Xylenes | l/ðn | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 C | 10 (| 0 C | 90 F |
| Dichlorodifluoromethane | Ngu | 5 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 G | 800 U | 10 U | 10 U | 10 U | 0 0 |
| Trichlorofluoromethane | l/bn | S | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 | n 008 | 0 0 | 10 0 | 10 0 | 08 |
| 1,1,2-Tricloro-1,2,2,-triflouroethane |)ĝ | 2 | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | ф С | 10 U | 10 U | 200 | 800 U | | 9 C | 0 01 | ∩13 08 |
| trans-1,2-Dichloroethene | i/b'n | 2 | | 10 U | 0 0 U | 13.61 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 (| 1 | 008 800 C | 0 0 | 10 [| 8 | 40 12 |
| Methyl tert butyl ether | ŝ | e | | 10 1 | 10 C | 10 U | 10 C | 10 L | ⊃ : 9 : | - C | 101 | 10 1 | 20.02 | 800 U | 0 | 0.01 | 10.01 | 1000 |
| cis-1,2-Dichloroethene | ŝ | s l | | 2 | | | | n : | | 2 2 | | | | | | 11.01 | 101 | 11.00 |
| Cyclohexane | 3 | | | | 10 1 | | | | | | | | 202 | | | | 0.9 | R OS |
| Methykyckohexane | ŝ, | | | 2 | 2 | 2 | | 2 9 | 2 | | | | 100 | | | 2 4 | 11.01 | 11.00 |
| 1,2-Dibromoethane | <u>8</u> | - | | | | | | | | | 100 | | 20 1 | 008 | 10 L | 10 0 | 10 01 | 0 08 |
| | | 5 | | | | | | 2 | 10 | 101 | 10.11 | 101 | 20 U | 800 U | 10 U | 10 (1 | 10.01 | 80 U |
| 1,3-UICIIUUUUUIIZERIA | | 5 6 | | | | 101 | 10 1 | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 [| 10.01 | 0 08 |
| | 3 | • | Ţ | | | 101 | 101 | 101 | 101 | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10 01 | 90 U |
| 1,2-DICRIOCODELIZERIE | | 20 | | | | | | | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10:01 | 30 U |
| 1,2-DIDIOIIIO-3-GIMIUV/VARIA | | 5 6 | | , ⊒ ₽ | , n , t | 10 U | 100 | 10 0 |) O | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 U | 10.01 | 0 08 |
| 1,2,4-1,1%ittoriounditeore Mathvil acetate | 3 | , | | 10 U | 100 | 10 0 | 1 O O | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 800 U | 10 U | 10 L | 10.0 | 80 U |
| | þ | | 1 | | | | | | | | | | | | | | | |

Notes: Activity - Indicates value exceeds Class, GA Standard of Guidance level. ND = not detected, U = undetected, J or E = estimated value, RE = re-extraction

| | t | vater VOCs Data |
|------------|----------|-----------------|
| LC | 1 Repo | round |
| Avenue | tigatior | nary G |
| Aidler , | Inves | - Sum |
| neer N | nedial | le 20. |
| <u>Pio</u> | Ren | Tab |

| Parameter | Units | NYSDE | EC GA | MW-11D | MW-11D DI | SB 2-1 | SB 3-1 | SB 7-1 | SB 9-1 | SB 12-1 | SB 12-1 DL | SB 13-2 | SB 13-2 DL | SB 13-2 DL2 | SB 13-4 | SB 13-4 DL | DAW-1 | DAW-2 | DAW-3 |
|---------------------------------------|-------------|-------|-------|-----------|-----------|----------|----------|----------|----------|----------|------------|----------|------------|-------------|----------|------------|------------|------------|------------|
| Sample Date | | Std | Guid | 01/31/05 | 01/31/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/21/05 | 03/22/05 | 03/22/05 | 03/22/05 | 03/22/05 | 03/22/05 | 08/30/05 | 08/30/05 | 98/30/05 |
| Chloromethane | ∕ôn | | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Bromomethane | - 100 | | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | ⊃ 9 | ⊐ 0 C | 10 U |
| Vinyl chloride | -0n | ณ | | 1.000 E-1 | 830 D. | 10 U | 10 U | 10 U | 10 U | A BIOLET | 1.800Da | 2,400 E | -3 300 D | S, 900 Div | 13:00 E | 1.500.0.5 | ∩Q | -0 C | 10 U |
| Chloroethane | 1 00 | ŝ | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | ⊃ 9 | 10 U | 10 U |
| Methylene chloride | l/bn | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 C | 200 U | 10 U | 250 U | 2,000 ∪ | 10.0 | 200 U | ⊃ 0 | 10 U | 10 U |
| Acetone | l/Bn | | 20 | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 ∪ | 10 0 | ∩ 800 ∩ | ∩ 9 | 10 C | 10 U |
| Carbon disulfide | /Bin | 8 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10.0 | ⊐ 002 | 10 U | 10 C | 10 U |
| 1,1-Dichloroethene | ⁄651 | 5 | 800 | 1 | 500 U | 10 U | 10 U | 10 U | 10 U | 構成の | 200 U | 0.242 | 250 U | 2,000 U | 10 U | 200 U | ⊃ 9 | -0 10 ⊂ | 10 U |
| 1,1-Dichloroethane | 6 | ъ | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 1 | 250 U | 2,000 U | 10 U | 200 U | ∩ ₽ | ⊃ ₽ | 10 U |
| Chloroform | l/ĝn | ~ | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10.0 | 250 U | 2,000 U | 10 U | 200 N | 10 U | 10 U | 10 U |
| 1.2-Dichloroethane | l/ôn | 0.6 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 N | 250 U | 2,000 U | 10.01 | 200 U | 10 U | 10 U | 10 U |
| MEK(2-Butanone) | l/ôn | | 50 | 10 U | 500 U | 10 U | 10 U | 10 U | 10 N | 10 U | 200 U | 10 0 | 250 U | 2,000 U | 10 U | 200 U | -0 10 | 10 ⊂ | 10 U |
| 1,1,1-Trichtoroethane | l/ôn | 2 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 N | 250 U | 2,000 U | 10 U | 200 U | ∩ 0 | 1 0 ⊂ | 10 U |
| Carbon tetrachloride | /ðn | 2 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 0.01 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 C | 10 U |
| Bromodichloromethane | l/ôn | | 50 | 10 N | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 11 | 250 U | 2,000 U | 10 U | 200 U | 10 C | ⊃ ₽ | 10 U |
| 1,2-Dichloropropane | ļ/ðn | - | | 10 U | 500 U | 10 U | 10 N | 10 U | 10 U | 10 U | 200 U | 10.0 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 0 0 | 10 U |
| cis-1,3-Dichloropropene | i)ôn | 0.4 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10.01 | 250 U | 2,000 U | 10 U | 200 U | 10 Ù | ∩ ₽ | 10 U |
| Trichloroethene | l/ôn | ß | | 2,400,6 | 2,200 0/ | 10 U | 10 U | 10 U | 10 U | 22 | 200 U | 300 E | 2.280 D | 2,000 U | × 8.9 × | 200 U | 10 U | ЗJ | 10 U |
| Dibromochioromethane | 1/001 | ω | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 N | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | 10 U | ∩ o⊑ | ∩o |
| 1,1,2-Trichioroethane | l/bn | 6 | | 2.] | 500 U | 10 U | 10 U | 10 U | 10 U | 10 0 | 200 U | 10.01 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Benzene | l/ôn | - | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| trans-1,3-Dichloropropene | l/bn | 0.4 | | 10 U | 500 LI | 10 U | 10 U | 10 U | 10 U | 10.01 | 200 U | 10 01 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Bromoform | i/ôn | | 50 | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10.0 | 200 U | 10.01 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| MIBK(4-Methyl-2-pentanone) | l/ôn | | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10.0 | 200 U | 10.0 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| 2-Hexanone | l/ôn | | 50 | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10.01 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Tetrachloroethene | ļ/đn | S | 81536 | 5000E | 6,500 D | 10 U | 10 U | 10 U | 10 U | 14 | 200 U | 340 6 | 340.0 | 2,000 U | 10 U | 200 U | 10 U | - 10° - | 10 U |
| Toluene | l/đn | s | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 0 | 200 U | 4 J | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| 1,1,2,2-Tetrachloroethane | l/bn | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Chlorobenzene | l/bu | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10.0 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Ethylbenzene | l/bn | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 2.3 | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | ∩ ₽ |
| Styrene | l/bri | 5 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 U |
| Total Xylenes | 1/Ch | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 0 0 | 200 N | 10 U | 10 U | ∩ ₽ |
| Dichlorodiftuoromethane | l∕₿n | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 L | 250 U | 2,000 U | 10 U | 200 U | 10 U | 10 U | 10 N |
| Trichlorofluoromethane | l∕₿n | 5 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 10 C | 200 U | 10 1 | П 0- | ⊐ ₽ |
| 1,1,2-Trickoro-1,2,2,-triflouroethane | l/bn | S | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 1 | 250 U | 2,000 U | ∩ 0 | 200 U | р Р | 10 U | ∩ ₽ |
| trans-1,2-Dichloroethene | ∕ōn | S | | 130 | POPOS. | 10 U | 10 U | 10 U | 10 U | 13 | 200 U | 192, 751 | 200 04 | 2,000 U | 16 | 200 U | 10 U | 10 U | -0 10 |
| Methyl tert butyl ether | l/Bn | 10 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10.01 | 200 U | 10 U | 250 U | 2,000 U | 10.0 | 200 ∪ | -1 0 | 10 U | 10 C |
| cis-1,2-Dichloroethene | l/bn | S | | 2,600 E | 6.730 DX | 10 U | 10 U | 10 U | 3 J | 3 .400 E | 2,100 D | 2.eooE | 14,000 BDE | C454,000 D | 890 E | 1,000 BD2 | 10 U | | 10 C |
| Cyclohexane | l/Bn | | - | 10 U | 500 U | 10 U | 10 U | 10 Ú | 10 U | 10 U | 200 U | 10 U | 250 U | 2 000 U | 10 U | 200 U | 10 U | 10 U | 9 9 |
| Methylcyclohexane | l/bn | | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 101 | 200 U | 3. | 250 U | 2,000 U | 0.01 | 200 U | 10 U | 10 U | 10 U |
| 1,2-Dibromoethane | /Bn | | | 10.01 | 500 U | 10 U | 10 U | 10 U | 10 U | 10.01 | 200 U | 10 U | 250.1 | 2,000 U | N 01 | 2001 | 10 U | 10 U | 10 U |
| Isopropylbenzene | l/Bri | 5 | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10.0 | 200 U | 10 U | 250 U | 2,000 U | n 01 | 200 U | 10 U | 10 U | 10 U |
| 1,3-Dichlorobenzene | /ôn | e | | 10.01 | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 U | 10 U | 250 U | 2,000 U | 0.0 | 200.0 | 10 U | 10 U | 10 U |
| 1,4-Dichlorobenzene | l/đn | 3 | | 10 U | 500 U | 10 U | 10 U | 10 U | ∩ ₽0 | 10 U | 200 1 | 10 U | 250 U | 2,000 U | 0.01 | 2001 | 10 U | 10 U | 0 0 9 |
| 1,2-Dichlorobenzene | l/gu | ຄ | | 10 U | 500 U | 10 U | 10 U | 10 U | 10 U | 10.0 | 200 1 | 10 U | 250 U | 2,000 U | 10 11 | 200 1 | ⊃ ₽ | -0 19 | 9 9 |
| 1,2-Dibromo-3-chloropropane | l/ôn | 0.04 | | 10.0 | 500 U | 10 U | 10 U | 10 U | 10 U | 10 U | 200 N | 10 U | 250 U | 2,000 U | 101 | 200 f | 9 9 | 10 C | ⊐ ₽ |
| 1,2,4-Trichlorobenzene | l/ôn | ŝ | | 10.0 | D 009 | 1 0 C | 10 L | ₽ ₽ | 10 U | 10 1 | 200 A | 101 | 250 U | 2,000 U | 19 | 200 | ר בי 19 | ∩ 2 ; | ⊃ : ₽ ; |
| Methyl acetate | l∕g⊔ | | | 10 U | 500 L | 10U | 10 U | 10 U | 10 U | 10.0 | 200 U | р Р | 250 U | 2,000 U | 20 | 2001 | -10 C | | 2 |

Notes: [관련] - Indicates value exceeds Class GA Standard or Guidance level. ND = not detected, U = undetected, J or E = estimated value, RE = re-extraction

| | | ter VOCs Data |
|----------------------------------|--------------------------------------|----------------------------|
| Vioneer Midler Avenue LLC | Remedial Investigation Report | able 20 - Summary Groundwa |

| Parameter | Units | NSDEC | GA DW | 1 DW | 1 DW-2 | DW-3 | DW-4 | DW-4 | DW4 | DAW-1 | DAW-2 | DAW-3 | DAW-4 | I-WM | MW-2 | MW-2D | MW-3 | MW-3 DE | MW-3D |
|---------------------------------------|-------|--------|-------------|-----------|---------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|----------|
| Sample Date | | Std | auid 07/27, | 05 07/27/ | 05 07/25/0 | 5 07/26/05 | 07/28/05 | 07/28/05 | 07/28/05 | 05/03/06 | 05/03/06 | 05/03/06 | 05/03/06 | 05/03/06 | 05/02/06 | 5/2/2006 | 5/3/2006 | 5/3/2006 | 5/3/2006 |
| Chloromethane | j/ðn | | 10 | 0 ₽ | U 10 U | - 10 U | ∩ 0 | -0 C | 10 U | 50 U | 10 U | 10 U | 10 U |
| Bromomethane | l/gu | | 9 | ₽ ₽ | U 10 U | ⊇ ₽ - | ⊃ ₽ | ₽ ₽ | 10 U | 10 U | 10 U | 10 U | -10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Vinyl chloride | l/Bn | N | 9 | ē ⊃ | ∩ ₽ ∩ | - ₽ | ⊃ 9 | 10 U | 50 U | THOP IN | 1,100 D | - 100 |
| Chloroethane | l/Bn | 5 | 10 | ē ₽ | U 10 U | 10 0 | .0 ⊡ | ⊐ 0 | 10 U | 10 U | 10 U | 0 Ŭ | 10 U | 10 ⊂ | 10 U | 50 U | 10 U | 10 U | 10 U |
| Methylene chloride | 1/60 | 5 | 2 | 0 S | ⊐ ₽ ₽ | - 10 ∩ | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Acetone | l/ôn | | 50 10 | 0₽ D | 162 N | 6.2 J | 0 0 | -0 C | 10 U | 50 U | 10 U | 10 U | 10 U |
| Carbon disulfide | /ôn | 60 | 2 | U 5.1 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| 1,1-Dichloroethene | ļ/đin | 5 | 2 | U 5.1 | U 01 U | 10 U | 5 U | 5 U | 5 U | 10 N | 10 U | 0 0 ∪ | 10 U | 10 U | 10 U | 50 U | 10 U | 007 0 0 | 1 |
| 1,1-Dichloroethane | l/ĝu | 5 | 5 | U 5 I | U 10 U | 10 U | 5 0 | 5 U | 5 U | D 01 | 10 U | 50 U | 10 N | 10 L | 10. U. |
| Chloroform | Į0n | 7 | 5 | U 5 I | <u>0 10 0</u> | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | -∩ 0₽ | 10 U |
| 1,2-Dichtoroethane | 1/000 | 0.6 | 9 | U 5 1 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| MEK(2-Butanone) | Į0'n | | 50 10 | П 101 | U 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| 1,1,1-Trichloroethane |)ôn | 5 | 2 | U 5 1 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 N | 10 U | 10 U | 10 U |
| Carbon tetrachloride | l/ôn | 5 | 5 | U 5 I | U 01 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Bromodichloromethane | l/ðn | | 50 5 | U 51 | 10 I | 10 0 | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| 1.2-Dichloropropane | l/bn | - | 5 | U 51 | U 10 U | 10 0 | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10.0 |
| cis-1,3-Dichloropropene | l/bn | 0.4 | 5 | U 51 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Trichloroethene | ng/l | ю | 5 | U 51 | J 4.6 J | 10 U | 5 U | 5 U | 5 U | 10 U | 2 J | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | L.007,1 |
| Dibromochloromethane | 1/Bn | 2 C | £ | U 51 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| 1,1,2-Trichloroethane | i/bn | ß | 2 2 | 0 5 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Benzene | i/đn | - | ъ С | U 5 I | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| trans-1,3-Dichloropropene | l/ôn | 0.4 | 5 | U 5 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Bromoform | l/on | | 50 5 | 0 5 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| MIBK(4-Methyl-2-pentanone) | µô∩ | | 10 | U 10 I | U 01 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| 2-Hexanone | µôn | | 50 10 | U 10 | U 11 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Tetrachloroethene | l/đn | ۍ ۲ | 5 C | U 51 | U BARRE | 10 U | 5 U | 5 U | 5 U | 10 U | 5 J | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | - 18 BDI | 8.000 |
| Toluene | i∕6n | 5 | 5 | U 5. | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 37 |
| 1,1,2,2-Tetrachloroethane | l/ôn | S | 5 | U 5 I | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Chlorobenzene | ļ6n | ۍ ا | ъ. | U 5. | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Ethylbenzene | ∕6'n | ŝ | 5 | 0 5 | U 10 U | 10 U | 5 U | 5 U_ | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 2 J |
| Styrene | l/ôn | ŝ | со I | U 5 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| Total Xytenes | l/gu | ŝ | 5 S | U 5. | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 19 |
| Dichlorodifluoromethane | l/gu | S | 10 | U 10 | U 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 C | 10 U | 10 U | 10 0 |
| Trichlorofluoromethane | /ôn | ß | 5 | U 5. | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 C |
| 1,1,2-Tricloro-1,2,2,-triflouroethane | l/6n | ю | S | U 5. | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U |
| trans-1,2-Dichloroethene | l/ôn | 5 | 5 | U 5 | U 10 U | 1 0 1 | 5 U | 5 U | 5 ∪ | 10 U | 50 U | 2 | N B D | 30 |
| Methyl tert buryl ether | ļ⁄6n | 9 | 2 | ر و | U 10 U | 10 U | 5 U | 5 U | 5 C | 10 U | 10 U | 10 U | -10 U | 10 U | 10 U | 50 U | 10 11 | 10 U | 10 U |
| cis-1,2-Dichloroethene | l/ĝu | 2 | 2 | U 5 | 36 | 10 U | 5 U | 50 | 5 U | 10 U | 49 | 10 U | 10 U | 10 U | 10 U | 50 U | 440 | 0.044 | 1,300 |
| Cyclohexane | l/gu | _ | 10 | U 10 | U 10 L | 10 U | 10 U | 10 U | 10 ∪ | 10 U | 50 U | 10 13 | 10 U | 10 U |
| Methylcyclohexane | l/ĝu | | 5 | 0 2 | U 01 | ∩ ₽ | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10.01 | 10 U | ٢J |
| 1,2-Dibromoethane | ∕6n | | 5 | U 5 | U 10 U | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10.01 | 10 C | 10 U |
| Isopropylbenzene | l/Gri | S | 1 5 | u 5 | U 10 U | ∩ ₽ | 5 U | 5 U | 5 U | 10 U | 10 U | D 0₽ | 10 U | 10 U | 10 U | 50 U | 10.01 | 10 U | 10 U |
| 1,3-Dichlorobenzene | l/đn | 3 | - 5 | 0 2 | U 10 U | ⊃ ₽ | 5 U | 5 U | 5 U | 10 U | 10 U | ⊃ ₽ | 10 U | 10 U | 10 U | 50 U | 10 U | -0 C | 10 U |
| 1,4-Dichlorobenzene | l/ôn | 3 | 5 | U 5 | U 10 L | 0 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 C | 10 11 | 10 U | 10 U |
| 1,2-Dichlorobenzene | ng/i | 3 | 5 | U 5 | U 10 U | ₽ Q | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | ∩ 0₽ | 10 U | 50 U | 10.01 | 10 U | 10 U |
| 1,2-Dibromo-3-chloropropane | l/ôn | 0.04 | 9 | ₽ ∩ | U 1.1 J | ₽ ₽ | ∩ ₽ | 10 U | 10 U | 10 U | 10 U | ⊃ ₽ | 10 U | 10 U | ⊃ ₽ | 50 U | 10 11 | 10 U | ₽Q |
| 1,2,4-Trichlorobenzene | ĥ | ŝ | 2 | 0 | U 10 L | ∩ ₽ | 2 ∩ | 5 U | 5 C | ₽ Q | 10 U | 10 U | 10 U | 10 U | ₽ | 20 N | 0 | 10 U | ₽ P |
| Methyl acetate | /ôn | | 5 | 0 5 | 10.0 | 10 U | 5 U | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 0 | 10 U | 10 U |

| | | r VOCs Data |
|--------------------------|------------------------------|------------------------------|
| ioneer Midler Avenue LLC | emedial Investigation Report | able 20 - Summary Groundwate |

| Parameter | Units | NYSDE | EC GA | MW-3D DL | MW-4 | MW-4D | 9-WW | NW-7 | MW-8 | MW-9D | MW-10D | MW-10D DL | MW-12D | MW-12D DL | MW-13D N | W-13D DF | AW-13D RE | MW-13D |
|---------------------------------------|---------------|--------|----------------|-----------|----------|----------|-------------|----------|----------|----------|------------|---------------|-------------|-----------|----------|----------|-----------|----------------|
| Sample Date | | Ъ С | Guid | 5/3/2006 | 5/2/2006 | 5/2/2006 | 5/3/2006 | 5/3/2006 | 5/3/2006 | 5/3/2006 | 05/02/06 | 05/02/06 | 05/03/06 | 05/03/06 | 05/03/06 | 05/03/06 | 05/03/06 | 04/11/07 |
| Chloromethane | ğ | | | 2,000 U | 10 U | Ð | ₽Q | 10 U | ₽ | 20 (| ∩ ₽ | 40 ∪ | 10 U | 200 N | 10 U | 100 U | 20 L | 40 U |
| Bromomethane | i/đn | | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | ກ ເ | 40 U |
| /inyl chloride | i/ôn | N | 9. 39 0 | | 2 J | 10 U | 10 U | 10 U | 10 U | SC 91-3 | 1, 1, 00 J | 0.85 | × 120 J × | 21+00 D4 | 00.35 | 0.000 | 720.0 | 2401 |
| Chloroethane | l/Bn | 5 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 0 0 | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | A0 U |
| vlethylene chloride | ηĝη | ß | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 32 BJ |
| Acetone | i/ôn | | 50 | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 € | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 6,000 |
| Carbon disulfide | 1/ôn | 80 | | 2,000 U | 10 U | Ŀ | 10 U | 10 U | ∩₽ | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 | 20 N | 40 U |
| 1,1-Dichloroethene | j∕ôn | 5 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 C | 40 U | L S | 500 U | ۲ م ۲ | 100 | 50 U | 6 ∪ |
| 1,1-Dichloroethane | l/ðn | S | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40 U |
| Chloroform | jān | 2 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40 U |
| , 2-Dichloroethane | ļĵ | 0.6 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 C | 50 U | 4 U (|
| MEK(2-Butanone) | j,ĵon | | 20 | 2,000 U | 10 U | 0 0 | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 1,300 |
| .1.1-Trichloroethane | l/ön | ъ | | 2,000 U | 10 U | 0 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 10.01 |
| Carbon tetrachloride | , ja | 5 | ľ | 2.000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 N | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40 U |
| Bromodichloromethane | nov I | | 3 | 2.000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40 U |
| 2-Dichloropropane | hon | - | 1. | 2.000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 10 U | 40 U | 10 U | 500 U | 10 U | 100 L | 50 U | 0.01 |
| sis-1,3-Dichloropropene | l jūn | 0.4 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 10.11 |
| Lichloroethene |) Din | 5 | | 700 DV | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 2 J | 40 U | 200 % | SS-BOOKU | 5.9 | 100 U | 50 U | 20 |
| Dibromochloromethane | ĥ | 2 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 Q | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 10.0 |
| 1.1.2-Trichloroethane | 25 | 5 | F | 2.000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 10 11 |
| Senzene | 00 | | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 0 | 10 U | 500 U | 10.0 | 100 U | 50 U | 37.J |
| rans-1.3-Dichloropropene | jõn | 0.4 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 ∩ | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40.0 |
| Bromoform |)ôn | | 50 | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40 U |
| MIBK(4-Methyl-2-pentanone) | Ŋ | | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10.0 | 100 U | 50 U | 170 J |
| 2-Hexanone | Ŋ | | 20 | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 200 U |
| Tetrachioroethene | Ъ́о́п | ŝ | | 38,000 80 | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 00 | 5900 BD | 24 | 36 BDJ | 50 U | 40 U |
| Toluene | lĝ. | S | | 2 000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 20 | 500 U | 10 U | 100 U | 50 U | 4 |
| 1,1,2,2-Tetrachloroethane | jôn | s | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 C | 10 U | 40 U | 10 0 | 500 U | 10 U | 100 U | 50 U | 40 U |
| Chlorobenzene | ∕₿'n | 5 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 (| 10 U | 40 U | 10 U | 500 U | 10 U | 100 U | 50 U | 40 U |
| Ethylbenzene | уðл | 5 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40∪ | 10 | 500 U | 10 U | 100 U | 50 U | 40 U |
| Styrene | Ŋ. | S | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 10 U | 40 U | 9 9 | 200 C | 10 U | 100 U | 50 U | 40 U |
| Total Xylenes | Ŋ | S | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 C | 10 U | 40 U | n of | 200 N | 10 U | 100 U | 50 U | 120 U |
| Dichlorodifluoromethane | l/gu | ŝ | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 N | 10 U | 40 ∪ | 10 U | 500 U | 10 U | 100 U | 20 N | 40 U |
| Frichlorofluoromethane | λĝη | 2 | | 2,000 U | 10 U | 10 U | 10 U | 10 F | 10 U | 20 C | 10 L | 49 ⊃ | 10 C | 200 П | 10 1 | 9 | 20 N | 4 |
| 1,1,2-Tricloro-1,2,2,-trifiouroethane | l/gu | 2 | | 2,000 U | 10 U | 10 U | 10 U | 10 C | 100 | 200 | 10 0 | 40 0 | | 000 | 2: | | 200 | 4 |
| rans-1,2-Dichloroethene | - 100 - | ŝ | | 2,000 U | 10 C | ⊃ 9 | 1 0 1 | р: 9 | ⊃ ₽ | 20 0 | 52.52 | 22.01 | 47 | 200 N | 13 | 13 00 | 13.4 | 8 |
| Methyl tert butyl ether | 3 | 2 | | 2,000 U | | D 2 | 0 | | 0.01 | | | | | 0.000 | 0.00 | 0.001 | 0.00 | |
| cis-1,2-Dichloroethene | ġ, | ß | | 1.600104 | 10 C | 10 U | 10 U | 5 | 0.01 | 5 | 420 | N OLOS | 2 | 3/0.02 | 190 | 1000 | 050 | 200 |
| Cyclohexane | /ôn | | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 0.01 | 20 0 | 10 U | 90 | 0 9 | 500 U | 10.0 | 100 C | D 09 | 40∪ |
| Vethylcyclohexane | l/đn | | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10.01 | 20 0 | 10 U | 4 ∪ | -10 C | 500 U | 10 U | 100 U | 20 M | 4 |
| 1,2-Dibromoethane | l/Din | | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 7 OF | 20 U | 10 U | 40 U | 10 C | 500 U | 00 | 8 | 7 20 C | 9 |
| sopropylbenzene | ng/l | 5 | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 10 C | 20 0 | 10 U | 40 ∪ | 0 Q | 500 U | 10 U | 8 | 20 N | ₽ |
| 1,3-Dichlorobenzene | l/Bn | 6, | | 2,000 U | 10 U | 10 U | 10 U | 10 U | to U | 20 U | 10 U | 40 U | 9 9 | 500 U | 10 U | 18 | 20 N | 9 |
| 1,4-Dichlorobenzene | ģ | e | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 20 | 20 N | 10 U | 40∪ | 2 9 | 500 U | 201 | 8 | 20 N | 40 ∪ |
| 1,2-Dichlorobenzene | λĝ | e | | 2,000 U | 10 U | 10 U | 10 U | 10 U | 201 | 20 U | ₽ ₽ | 4 ∪ | 10 U | 500 U | 0 | 18 | 20 C | 40 U |
| 1,2-Dibromo-3-chloropropane | | 50 | | 2,000 U | 10 C | 10 L | 10 U | 10 1 | | 20 C | ⊃ : ₽ ; | 49 9 7 | 2 | 200 1 | 0 | 181 | 20 1 | - 14 1 1 |
| 1,2,4-Trichlorobenzene | 3 | 2 | | 2,000 U | 10 C | 19 C | 10 1 | 10 C | | |) [] | 9 5 5 | 2 9 | 38 | 2 | 3 | 202 | 2 2 |
| Viethyl acetate | 100 | | | 5,000 U | 0.01 | - N 01 | 101 | | 2 | 20 0 | 2 | € C | 2 | 2000 | 2 | 3 | 200 | 2 |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 20 - Summary Groundwater VOCs Data

| Parameter | Units | NYSD | EC GA | MW-13D | MW-13D DL | MW-2 | MW-2D | Z-WM | 8-WW | De-WM | MW-10D | MW-12D | MW-13D | MW-13D DL |
|---------------------------------------|--------------------|-------------|---------------|-----------|---------------------------------------|----------|----------|----------|----------|------------|----------|----------|----------|-----------|
| Sample Date | | Std | Giếd | 07/20/07 | 07/20/07 | 08/23/07 | 06/23/07 | 08/23/07 | 08/23/07 | 08/23/07 | 08/23/07 | 08/23/07 | 08/23/07 | 08/23/07 |
| Chloromethane | /ôn | | - | 50 U | 800 U | 10 U | 10 U | -10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Bromomethane |)ĝn | | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Vinyl chloride | ôn | 8 | and. | 9,500 E | 17.200 L | 10 U | 10 U | 10 U | 10 U | 5 2 B J. 1 | 78 | 500 U | 19,000 E | 16,000 D |
| Chloroethane | l/ðn | 5 | | 50 U | 800 U | 10 U | 10 N | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Viethylene chloride | l/ôn | 5 | | 2.6 JB | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 2.3 | 500 U | 14.1 | 1,000 U |
| Acetone | l/đn | | 20 | 24 J | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 2,100 | 20.1 | 1,000 U |
| Carbon disulfide | , l/ôn | 8 | | 14 J | 800 U | 10 U | 10 U | 10 U | 10 N | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| 1,1-Dichloroethene | l/ôn | 5 | and a | 20 A. | L CHON | 10 U | 38 | 500 U | 100 U | 1,000 U |
| 1,1-Dichloroethane | -Vôn | 5 | | 50 ∪ | 800 ∪ | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Chloroform | ĥ | 7 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 500 U | 100 U | 1,000 U |
| 1,2-Dichloroethane | ĥ | 0.6 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20.0 | 500 U | 100 U | 1,000 U |
| VEK(2-Butanone) | ĥ | | ទ | 50 U | 008 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 920 | 100 U | 1,000 U |
| 1,1,1-Trichloroethane | Vôn | 5 | | 50 U | 008 00 | 10 U | 20 0 | 500 U | 100 U | 1,000 U |
| Carbon tetrachloride | l/ôn | 5 | 1 | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Sromodichloromethane | /ôn | | 8 | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 101 | 20 0 | 500 U | 100 U | 1,000 U |
| 1,2-Dichloropropane | Ŋ | - | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Xis-1,3-Dichloropropane | μ <mark>0</mark> η | 0.4 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Trichloroethene | 1/Ôn | 9 | | 10 A 10 | 6.98 | 10 U | 20 U | 500 U | 100.00 | 1,000 U |
| Dibromochloromethane | V6n | s | | 50 U | 800 U | 10 Ú | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| 1,1,2-Trichloroethane | ∕ðn | ъ | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Senzene | /ð | ÷ | (here) | 16.11 % | 15.3 | 10 U | 20 02 | 500 U | 100 U | 1,000 U |
| trans-1,3-Dichloropropene | ∕ôn | 0.4 | | 50 U | 000 N | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Bromoform | l/ôn | | 50 | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| VIBK(4-Methyl-2-pentanone) | l/ôn | | | 23 J | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 C | 500 U | (** | 1,000 U |
| 2-Hexanone | ∕ôn | | ß | 50 U | 008 | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Tetrachloroethene | l/ôn | 5 | | 160 | 160.J | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Foltene | ng/l | S | ver. | 18.7 | 16.J | 10 U | 20 U | 500 U | r,21 | 1,000 U |
| 1,1,2,2-Tetrachioroethane |)ôn | S | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Chlorobenzene | ðn | ß | | 50 U | 000 N | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Ethylbenzene | /Bin | ю | | 0.86 J | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Styrene | l/gu | S | Ì | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Fotal Xylenes | 1/0n | 5 | Ì | 4.8 J | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Dichlorodifluoromethane | /ôn | 5 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| Trichloroftuoromethane | λĝη | 5 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | ⊃ 0 | 20 U | 200 N | 100 U | 1,000 U |
| 1,1,2-Tricloro-1,2,2,-triflouroethane | Ŋ | 5 | | ∩ 20 ∩ | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | ∩ R | 500 U | 100 U | 1,000 U |
| trans-1,2-Dichloroethene | j/ôn | 5 | | 8 | 93 J | 10 U | 26 | 500 U | 93 J. | 1,000 U |
| Methyl tert butyl ether | ð, | ₽ | | 20 (| 008 | 10 U | D 02 | 200 U | 100 0 | 1,000 U |
| cis-1,2-Dichloroethene | l⁄ôn | S | 9 38-1 | 3 100 E | 3,200 | - | 2 J | 3J | 10 U | 1.5.1 | 2320 | 61.1 | 1,600 | 1,700 D |
| Oyclohexane | l/ôn | | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20.0 | 500 U | 100 0 | 1,000 U |
| Methykryckohexane | Ŋ | | - | D 03 | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| 1,2-Dibromoethane | ôn | | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| sopropylbenzene | l/ôn | 5 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 C | 1,000 U |
| 1,3-Dichlorobenzene | l/gu | З. | • | 50 U | 000 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 500 U | 100 U | 1,000 U |
| 1,4-Dichlorobenzene | 'n | e | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 U | 500 U | 100 U | 1,000 U |
| 1,2-Dichlorobenzene | βġ | e | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 N | 500 U | 100 U | 1,000 U |
| 1,2-Dibromo-3-chloropropane | ∫ĝn | <u>9</u> .0 | | 50 U | 800 U | 10 U | 10 U | 10 U | 10 U | 10 U | 20 0 | 500 U | 100 U | 1,000 U |
| 1,2,4-Trichlorobenzene | /ôn | ы | | 50 U | 800 U | 10 N | 10 U | 10 U | 10 U | 10 U | 20 N | 500 U | 100 U | 1,000 U |
| Methyl acetate | /ðn | | | 50 U | 800 U | ₽ | 10 U | 10 U | 10 U | 10 U | 20.0 | 500 U | 100 U | 1,000 U |
| | | | | | | | | | | | | | | |

Notes: [[]]] - Indicates value exceeds Class GA Standard or Guidence level. ND = not detected, U = undetected, J or E = estimated value, RE = re-extraction

| ND ND ND ND ND ND ND ND ND ND ND ND ND N |
|--|
| ND ND ND ND ND ND ND ND ND ND ND ND ND N |
| 130 ND ND 81 3 2 17 17 |
| |
| |
| |
| |
| |
| |
| |
| |

Pioneer Midler Avenue LLC Remedial Investigation Report Table 21 - Soil Vapor Sampling Data F:|Project\C81 - Pioneer Development\C81.002 BCP\Close out and COC\October 2007\HI Report\Tables\Table21.xis / Main

Page 1 of 2

| | |)ata |
|----------|----------|---------|
| ų | eport | pling [|
| nue LL | tion Re | or Sam |
| er Avel | 'estiga | il Vapo |
| er Midle | lial Inv | 21 - So |
| Pionee | Remec | Table : |

| Analyte | SV-22 | SV-23 | SV-24 | SV-25 | SV-26 | SV-27 | SV-28 | SV-29 | SV-30 | Trip | Ambient |
|---------------------------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|---------|
| | | | | | | | | | | Blank | |
| Freon 11 | 5.9 | QN | 38 | 3.8 | 11 | 1.8 | QN | 1.8 | 2.5 | QN | 1.7 |
| Freon 113 | 0.1 J | Q | 0.1 J | QZ | QN | QN | Q | a | 0.1 J | QZ | Q |
| Freon 114 | QN | Q | Q | QZ | QN | QN | QN | Q | QN | Q | Q |
| Freon 12 | 3.2 | QN | 8.6 | Q | 5.0 | 2.8 | QN | 2.6 | 3.0 | QN | QN |
| Heptane | 25 | 57 | 10 | 13 | 2 J | 3J | 420 E | 35 | 150 E | g | QN |
| Hexachloro-1,3-butadiene | QN | QN | Q | DN | DN | ΩN | QN | QN | QN | QN | DN |
| Hexane | 94 Е | 220 E | 10 | 16 | 12 | 21 | 1400 E | 440 E | 1200 E | Q | 0.54 |
| Isopropyl alcohol | Q | Q | Q | QN | QN | QN | Q | Q | az | Q | QN |
| m&p-Xylene | 35 | 41 | 34 | 61 | 69 | 36 | 37 | 17 | 25 | QN | 0.2 J |
| Methyl Butyl Ketone | Q | Q | Q | QN | Q | QN | ŊD | DN | DN | Q | Q |
| Methyl Ethyl Ketone | QN | QN | QN | QN | QN | QN | Q | Q | Q | Q | QN |
| Methyl Isobutyl Ketone | QN | QN | QN | Q | Q | QN | QN | QN | QN | QN | QN |
| Methyl tert-butyl ether | QN | DN | 0.1 J | QN | DN | ND | DN | ND | ND | ND | DN |
| Methylene chloride | 5.5 | ND | 6.6 | 3.6 | 6.0 | 4.0 | QN | 7.6 | 17 | QN | 0.53 |
| o-Xylene | 23 | 27 | 20 | 40 | 43 | 24 | 24 | 6.8 | 8.8 | Q | 0.1 J |
| Propylene | g | QN | Q | Q | QN | Q | Q | a | Q | QN | Q |
| Styrene | QN | 13 | Q | 23 | 27 | ЗJ | 13 | 5.2 | 9.7 | QN | QN |
| Tetrachloroethylene | 19 | 3.0 | 2.7 | 2.5 | 3.7 | 2.2 | 2.8 | QN | QN | DN | QN |
| Tetrahydrofuran | ŊD | ND | DN | ŊŊ | DN | QN | DN | DN | DN | DN | Q |
| Toluene | 33 | 41 | 34 | 61 | 66 | 34 | 37 | 15 | 32 | Q | 1.7 |
| trans-1,2-Dichloroethene | QN | QN | DN | Q | QN | QN | Q | DN | QN | ŊŊ | Q |
| trans-1,3-Dichloropropene | Q | QN | DN | QN | QN | DN | DN | ND | ND | DN | QN |
| Trichloroethene | 2.6 | 3.0 | 2.7 | 2.0 | 3.4 | 2.0 | QN | 2.5 | 11 | DN | DN |
| Vinyl acetate | DN | DN | QN | QN | ND | QN | QN | ND | DN | QN | QN |
| Vinyl Bromide | QN | DN | DN | DN | Q | Q | QN | QN | Q | Q | Q |
| Vinyl chloride | DN | DN | DN | ND | ND | DN | ND | ND | 2.3 | DN | 0.1 J |

ND = non-detect

All samples collected on 04/20/06. All data in $\mu g/m^3$

1. | 1.

÷ 1

7

| venue, LLC | gation Report | ndicators Data | |
|-----------------|-----------------|------------------|--|
| ioneer Midler A | emedial Investi | able 22 - MNA Ir | |

| | | October 200 | 7 MNA Indicator Sampling | |
|-------------------------------------|--------------------------------------|--------------------|---|------------------------------|
| Parameter | Result | Units | Interpretation | USEPA Site Criteria Score |
| Field Parameters | | | | |
| Oxidation/Reduction Potential (ORP) | -324 | ٨m | Concentration <-100 mg/L indicate reductive pathway is likely | N |
| Dissolved Oxygen | 0 | mg/L | Concentration <0.5 mg/L indicates reductive pathways are not repressed | ø |
| Laboratory Analytical Parameters | | | | |
| Dissolved Inorganic Carbon | 110 | mg/L | Levels > background indicate microbial metabolism of organic carbon | N |
| Dissolved Organic Carbon | 41 | mg/L | Detections of DOC (or TOC) > 20 mg/L indicates that a non- depleted substrate (electron donor) is abundant | 5 |
| Vinyl Chloride | 8.9 (SiREM) 21 (TA) | mg/L mg/L | Indicates presence of reductive dechlorination of higher isomers | 2 |
| cis-1,2-dichloroethene | 0.56 | mg/L | Indicates presence of reductive dechlorination of higher isomers | 2 |
| Dehalococcoides Enumeration | 2 X 10 ⁸ (gene copies) | per liter | Values > 10 ⁷ /L indicate high concentration of Dehalococcoides (Dhc) | NL |
| Vinyl Chloride Reductase (vcrA) | 6 X 10 ⁷ (gene copies) | per liter | Indicates that 93% of total Dhc are vcrA gene copies | NL |
| Iron (total) | 1.15 | l/gm | | |
| Ferric Iron | 1.2 | mg/L | Ferric Iron (Fe III) is an electron acceptor that competes with dehalorespiration | |
| Ferrous Iron | ND at 0.050 | mg/L | Ferrous Iron (Fe II) >1 mg/L indicates reduced conditions and that anaerobic degradation of organic carbon is likely | 0 |
| Nitrite/Nitrate | ND at 0.050 (both) | mg/L | Absence of nitrate indicates is prerequisite for iron or sulfate reduction to occur | 2 |
| Sulfate | ND at 25 | mg/L | Indicates sulfate is being reduced to sulfide and reductive | |
| Sulfide | 8.0 | mg/L | dechlorination is likely to be efficient | Э |
| Methane | 13 (SiREM) 6 (TA) | mg/L mg/L | Indicates strong reducing conditions are present and likely efficient dechlorination | ო |
| Ethene | 4.6 | mg/L | Indicates strong presence of reductive dechlorination end | |
| Ethane | 0.27 | mg/L | products | 3 |
| | | | Total USEPA Screening Score | 52 |

NL = parameter not included in USEPA Site Screening Score TA = Test America Laboratories

Pioneer Midler Avenue LLC RI Report Table 23 - Comparative Summary of Remedial Alternatives for Soil

| Technology | Land Use (Site | | | Technology Co | mparison Criteria (see S | ection 8.1 for descriptic | Technology Comparison Criteria (see Section 8.1 for descriptions of these criteria) | | | | | | | | | |
|--|-------------------------------|---|---|---|---|---|---|--|---|--|--|--|--|--|--|--|
| | Redevelopment Track) | Overall Protection of Public Health and the Environment | Compliance with SCGs | Longterm Effectiveness and Permanence | Reduction of Toxicity, Mobility, or Volume | Short-term Effectiveness | Implementability | Cost | Community Acceptance | Land Use | | | | | | |
| R Excavation and Off- Site Disposal (see Section 8.5.1 for description) Un | Restricted Use (Track 4) | Could successfully address CVOC impacts if combined with a groundwater remedy and I and EC* | Could achieve SSCOs for CVOCs | Soil removal constitutes a permanent remedy for site soil impacts | Impacted soils would be removed from the site - mobility reduced | Would be effective at removing CVOCs in the short term | Very difficult - deep excavation into soft ground below water table | Very high due to implementability issues | Would be acceptable to community | Could provide protection consistent with intended future use of property | | | | | | |
| | Unrestricted Use (Track 1) | Could successfully impacts if combined with a groundwater remedy and I and EC* | Could achieve Unrestricted Use Soil Cleanup Objectives for all parameters | Soil removal constitutes a permanent remedy for site soil impacts | Impacted soils would be removed from the site - mobility reduced | Would be effective in the short term | Very difficult - deep excavation into soft ground below water table | Very high due to implementability issues | Would be acceptable to community | With gw remedy, could be effective- Track 1 use is not intended use | | | | | | |
| In-Situ Thermal Treatment (see Section 8.5.2 for description) | Restricted Use (Track 4) | Could successfully address CVOC impacts if combined with a groundwater remedy and I and EC* | Could achieve SSCOs for CVOCs | CVOCs would be permanently removed | CVOCs would be permanently destroyed | Would be effective for CVOC impacts in the short term | Very difficult - Few technology providers, extremely resource and energy intensive | Very high due to implementability issues | Would be acceptable to community | Could provide protection consistent with intended future use of property | | | | | | |
| | Unrestricted Use (Track 1) | Could only address volatile parameters- additional actions may be required for SVOCs/metals | Could achieve Unrestricted Use Soil Cleanup Objectives for volatile organic compounds | CVOCs would be permanently removed other parameters not affected | CVOCs would be permanently destroyed - other parameters not affected | Short-term effectiveness for VOC parameters - other parameters not affected | Very difficult - Few technology providers, extremely resource and energy intensive | Very high due to implementability issues | Would be acceptable to community | With gw remedy, could be effective- Track 1 is not intended use | | | | | | |
| Institutional and/or Engineering Controls (I and EC) (see Section 8.5.3 for description) | Restricted Use (Track 4) | Could successfully address identified exposure scenarios if combined with a groundwater remedy | Would not affect ability to achieve SSCOs - addresses exposure scenarios | These controls are effective at mitigating exposure scenarios over the long term | Would not provide reductions - addresses exposure scenarios only | Would provide effective, short-term protection for identified exposure scenarios | Relatively straightforward to implement and enforce | Moderate, long term | Would be acceptable to community | Could provide protection consistent with intended future use of property | | | | | | |
| | Unrestricted Use (Track 1) | Not an appropriate remedy for Track 1 Redevelopment | Would not achieve Unrestricted Use Soil Cleanup Objectives | These controls are not consistent with Track 1 redevelopments | Would not provide reductions - not consistent with Track 1 | These controls are not consistent with Track 1 redevelopments | Easy to implement - not consistent with Track 1 redevelopments | Moderate, long term | May not be acceptable to community | These controls are not consistent with Track 1 redevelopments | | | | | | |
| No Action (see Section 8.7 for description) | Restricted Use (Track 4) | This technology would not achieve required protection for this redevelopment track | Would not achieve SSCOs | Would not provide any long-term or permanent benefits | Would not provide any reductions | Would not provide short term effectiveness | Easy to implement - no actions | Low, no actions | Would likely not be acceptable to community | Not appropriate given intended use of property | | | | | | |
| | Unrestricted Use (Track 1) | This technology would not achieve required protection for this redevelopment track | Would not achieve Unrestricted Use Soil Cleanup Objectives | Would not provide any long-term or permanent benefits | Would not provide any reductions | Would not provide short- term effectiveness | Easy to implement - no actions | Low, no actions | Would likely not be acceptable to community | Not appropriate for unrestricted use of property | | | | | | |

Note: * I and EC = Institutional and Engineering Controls

Pioneer Midler Avenue LLC RI Report Table 24 - Comparative Summary of Remedial Alternatives for Groundwater

| | Land Use (Site Redevelopment Track) | Technology Comparison Criteria (see Section 8.1 for descriptions of these criteria) | | | | | | | | |
|--|---|---|--|--|---|--|--|--|--|---|
| Technology | | Overall Protection of Public Health and the Environment | Compliance with SCGs | Longterm Effectiveness and Permanence | Reduction of Toxicity, Mobility, or Volume | Short-term Effectiveness | Implementability | Cost | Community Acceptance | Land Use |
| In-Situ or Ex-Situ Groundwater Treatment (see Section 8.6.1 for description) | Restricted Use (Track 4) | Could successfully address CVOC impacts if combined with a soil remedy and/or I and EC* | Could eventually achieve Class GA Groundwater Standards for CVOCs | Once gw standards are achieved, the condition would be expected to be permanent | Technology would provide reduction of toxicity and volume | These technologies constitute a relatively long-term (a decade or more) remedy | Ex-situ technologies difficult to implement due to access and space requirements. | High costs due to implementability issues and length of treatment period | Would be acceptable to community | Would provide protection consistent with intended future use of property |
| | Unrestricted Use (Track 1) | Could successfully address CVOC impacts if combined with a soil remedy and/or I and EC* | Could eventually achieve Class GA Groundwater Standards for CVOCs | Once gw standards are achieved, the condition would be expected to be permanent | Technology would provide reduction of toxicity and volume | These technologies constitute a relatively long-term (a decade or more) remedy | In-situ (passive) technologies are generally simpler to implement. | High costs due to implementability issues and length of treatment period | Would be acceptable to community | With soil remedy, could be effective, however, Track 1 is not intended use |
| Monitored Natural Attenuation (see Section 8.6.2 for description) | Restricted Use (Track 4) | Could successfully address CVOC groundwater impacts if combined with I and EC* | Could eventually achieve Class GA Groundwater Standards for CVOCs | Once gw standards are achieved, the condition would be expected to be permanent | Technology would provide reduction of toxicity and volume | This technology constitutes a long-term (several decades or more) remedy | Easy to implement and assess effectiveness | Moderate, though long term | Would be acceptable to community | Would be effective, with institutional controls to limit use of gw during remediation |
| | Unrestricted Use (Track 1) | Could successfully address CVOC groundwater impacts if combined with I and EC* | Could eventually achieve Class GA Standards for CVOCs, Track 1 use (not intended) would require I and/or EC | Once gw standards are achieved, the condition would be expected to be permanent | Technology would provide reduction of toxicity and volume | This technology constitutes a long-term (several decades or more) remedy | Easy to implement and assess effectiveness | Moderate, though long term | Would be acceptable to community | With institutional controls to limit use of gw during remediation, could be effective- Track 1 use is not intended use |
| Institutional and/or Engineering Controls (I and EC) (see Section 8.6.3 for description) | Restricted Use (Track 4) | Could successfully address identified exposure scenarios for gw | Would not directly affect impacted gw - addresses exposure scenarios | These controls are effective at mitigating gw exposure scenarios over the long term | ECs can reduce mobility -otherwise, addresses exposure scenarios only | Effective mainly for mitigating identified exposure scenarios | Straightforward to implement and enforce | Capital and O&M could vary from low to high | Would be acceptable to community | Would provide protection consistent with intended future use of property |
| | Unrestricted Use (Track 1) | Could successfully address identified exposure scenarios for gw-may not be consistent with Track 1 redevelopment | Would not directly affect impacted gw - addresses exposure scenarios-may not be consistent with Track 1 redevelopment | Effective at mitigating gw exposure scenarios over the long term-may not be consistent with Track 1 redevelopment | ECs can reduce mobility -otherwise, addresses exposure scenarios only not consistent with Track 1 redevelopment | Effective mainly for mitigating identified exposure scenarios- may not be consistent with Track 1 redevelopment | Straightforward to implement and enforce | Capital and O&M could vary from low to high | May be acceptable to community | Could provide protection for gw exposure scenarios - may not be consistent with Track 1 redvelopment |
| No Action (see Section 8.7 for description) | Restricted Use (Track 4) | This technology would not achieve required protection for this redevelopment track | Would not provide a framework to determine if natural attenuation is occuring | Would not provide any long-term or permanent benefits | Would not provide any reductions or the ability to monitor the site | Would not be effective in the short-term | Easy to implement - no actions | Low, no actions | Would likely not be acceptable to community | Not appropriate given intended use of property |
| | Unrestricted Use (Track 1) | This technology would not achieve required protection for this redevelopment track | Would not be consistent with a Track 1 redevelopment | Would not provide any long-term or permanent benefits | Would not provide any reductions or the ability to monitor the site | Would not be effective in the short-term | Easy to implement - no actions | Low, no actions | Would likely not be acceptable to community | Not appropriate for unrestricted use of property |

Note: * I and EC = Institutional and/or Engineering Controls

APPENDIX B

HISTORIC AND SUPPLEMENTAL INVESTIGATIONS (BOUND WITH VOLUME 1 OF 5)

HYDRAULIC CONDUCTIVITY TEST DATA

GeoLogic JULY 2006 GROUNDWATER AND CONTAMINANT FLOW REPORT

JULY 2004 PRELIMINARY SITE INVESTIGATION REPORT

INDEPENDENT GEOCHEMISTRY AND MICROBIOLOGY INVESTIGATIONS

+ 1

HYDRAULIC CONDUCTIVITY TEST DATA

€. + •

ж. I


| C&S En | igineers | slug/bail test analysis | Date: 10/26/2005 | Page 2 | | |
|-------------------------------|--------------------------------|-------------------------|--------------------|--|--|--|
| 499 Col. Eileen Collins Blvd. | | BOUWER-RICE's method | Project: Pioneer M | Project: Pioneer Midler Avenue LLC | | |
| ph.(315) 45 | 5-2000 | | Evaluated by: WN | : WNR | | |
| Slua Test | t No. 1 | Test | | · · · · · · · · · · · · · · · · · · · | | |
| | ٥ <u>٦</u> | 14/-11/ | | | | |
| | -, sn | vveii (| vivv-3D | · · · · · · · · · · · · · · · · · · · | | |
| | | | | | | |
| Static wa | ter level: 2.18 ft below datum | | | | | |
| | Pumping test duration | Water level | Drawdown | | | |
| | | | | | | |
| 1 | [min] | [1] | [(1] | | | |
| 2 | 0.00 | 4.88 | 2.73 | | | |
| 3 | 0.02 | 4.86 | 2.68 | | | |
| 4 | 0.03 | 4.83 | 2.65 | | | |
| 5 | 0.04 | 4.83 | 2.65 | | | |
| 6 | 0.05 | 4.81 | 2.63 | | | |
| 7 | 0.06 | 4.80 | 2.62 | | | |
| 8 | 0.07 | 4.80 | 2.62 | | | |
| 9 10 | 80.0 | 4.80 | 2.62 | | | |
| 11 | 0.10 | 4.30 | 2.02 | ······································ | | |
| 12 | 0.11 | 4.78 | 2.60 | | | |
| 13 | 0.12 | 4.76 | 2.58 | | | |
| 14 | 0.13 | 4.76 | 2.58 | | | |
| 15 | 0.14 | 4.76 | 2.58 | ······································ | | |
| 16 | 0.15 | 4.76 | 2.58 | | | |
| 17 | 0.16 | 4.75 | 2.57 | | | |
| 18 | 0.17 | 4.75 | 2.57 | | | |
| 20 | 0.18 | 4.73 | 2.57 | | | |
| 21 | 0.20 | 4.73 | 2.55 | | | |
| 22 | 0.21 | 4.73 | 2.55 | ······ | | |
| 23 | 0.22 | 4.73 | 2.55 | · | | |
| 24 | 0.23 | 4.73 | 2.55 | | | |
| 25 | 0.24 | 4.72 | 2.54 | | | |
| 26 | 0.25 | 4.72 | 2.54 | | | |
| 27 | 0.26 | 4.72 | 2.54 | | | |
| 20 | 0.27 | 4.72 | 2.54 | | | |
| 30 | 0.29 | 4.70 | 2.52 | | | |
| 31 | 0.30 | 4.70 | 2.52 | | | |
| 32 | 0.31 | 4.70 | 2.52 | | | |
| 33 | 0.33 | 4.69 | 2.51 | | | |
| 34 | 0.35 | 4.69 | 2.51 | | | |
| 35 | 0.36 | 4.67 | 2.49 | | | |
| 37 | 0.38 | 4.07 | 2.49 , | | | |
| 38 | 0.40 | 4.07 | 2.49 | ······································ | | |
| 39 | 0.43 | 4.65 | 2.47 | ······································ | | |
| 40 | 0.45 | 4.65 | 2.47 | | | |
| 41 | 0.46 | 4.64 | 2.46 | | | |
| 42 | 0.48 | 4.64 | 2.46 | | | |
| 43 | 0.50 | 4.64 | 2.46 | | | |
| 44 | 0.51 | 4.64 | 2.46 | | | |
| 45 | 0.53 | 4.62 | 2.44 | | | |
| 40 | 06.U | 4.62 | 2.44 | · · · | | |
| 48 | 0.58 | 4.02 4 R1 | 2.44 | | | |
| 49 | 0.60 | 4.61 | 2.43 | | | |
| 50 | 0.61 | 4.61 | 2.43 | | | |

| C&S E | Engineers | slug/bail test analysis | Date: 10/26/20 | 005 Page 3 | |
|-------------------------------|----------------------------------|-------------------------------|----------------|---|--|
| 499 Col, Eileen Collins Blvd. | | BOUWER-RICE's method | Project: Pione | Project: Pioneer Midler Avenue LLC | |
| ph.(315) | 455-2000 | Evaluated by: WNR | | | |
| Slua Te | est No. 1 | Test conducted on: 10/17/2005 | | | |
| Moll M | | | MW/3D | | |
| 77CH 171 | | | | ······································ | |
| | | | · •···· | ····· | |
| Static v | water level: 2.18 ft below datum | | | · · · · · · · · · · · · · · · · · · · | |
| | Pumping test duration | Water level | Drawdown | | |
| | fminl | (ff1) | [ft] | | |
| 51 | 0.63 | 4.61 | 2.43 | ······· | |
| 52 | 0.65 | 4.59 | 2.41 | | |
| 53 | 0.66 | 4.59 | 2.41 | | |
| 54 | 0.68 | 4.59 | 2.41 | | |
| 56 | 0.70 | 4.55 | 2.41 | ······································ | |
| 57 | 0.73 | 4.58 | 2.40 | 99,999 999,000 - 004 000 904 00 404 00 405 00 405 0 406 0 406 0 406 0 406 0 406 0 406 0 406 0 406 0 406 0 406 0 | |
| 58 | 0.75 | 4.58 | 2.40 | | |
| 59 | 0.76 | 4.58 | 2.40 | | |
| 60 | 0.78 | 4.56 | 2.38 | ······································ | |
| 62 | 0.80 | 4.56 | 2.38 | | |
| 63 | 0.83 | 4.56 | 2.38 | | |
| 64 | 0.85 | 4.54 | 2.36 | | |
| 65 | 0.86 | 4.54 | 2.36 | | |
| 66 | 0.88 | 4.54 | 2.36 | | |
| 67 | 0.90 | 4.54 | 2.36 | | |
| 80 03 | 0.91 | 4.53 | 2.35 | | |
| 70 | 0.95 | 4.53 | 2.35 | | |
| 71 | 0.96 | 4.53 | 2.35 | | |
| 72 | 1.16 | 4.48 | 2.30 | | |
| 73 | 1.36 | 4.43 | 2.25 | | |
| 74 | 1.56 | 4.40 | 2.22 | | |
| 76 | 1.96 | 4.34 | 2.16 | | |
| 77 | 2.16 | 4.31 | 2.13 | | |
| 78 | 2.36 | 4.28 | 2.10 | | |
| 79 | 2.56 | 4.25 | 2.07 | <u>.</u> | |
| 80 | 2.76 | 4.21 | 2.03 - | • | |
| 82 | 3 16 | 4.10 | 1 97 | | |
| 83 | 3.36 | 4.12 | 1.94 | | |
| 84 | 3.56 | 4.10 | 1.92 | | |
| 85 | 3.76 | 4.07 | 1.89 | | |
| 86 | 3.96 | 4.04 | 1.86 | ,) | |
| 87 | 4.16 | 4.02 | 1.84 | | |
| 00 89 | 4.50 | 3.99 | 1.01 | | |
| 90 | 4.76 | 3.94 | 1.76 | | |
| 91 | 4.96 | 3.93 | 1.75 | | |
| 92 | 5.16 | 3.90 | 1.72 | | |
| 93 | 5.36 | 3.88 | 1.70 | ······································ | |
| 94 | 5.56 | 3.87 | 1.69 | | |
| - 95 | 5./0 5.08 | 3.83 | 1.00 | | |
| 97 | 6.16 | 3.79 | 1.61 | | |
| 98 | 6.36 | 3.77 | 1.59 | | |
| 99 | 6.56 | 3.76 | 1.58 | | |
| 100 | 6.76 | 3.74 | 1.56 | ······································ | |

| C&S Engineers | | slug/bail test analysis | | a: 10/26/2005 | Page 4 | |
|--|--|--------------------------|----------|------------------------------------|--|--|
| 499 Col. Eileen Collins Blvd. Syracuse, NY 13212 ph (315) 455-2000 | | BOUWER-RICE's method | Proj | Project: Pioneer Midler Avenue LLC | | |
| | | | Eva | luated by: WNR | | |
| Slug Test No. 1 | | Test conducted on: 10/17 | | 05 | | |
| | ח צ | 10/ | | | · · ··· · · · ··· · · · · · · · · · · | |
| | עני ענייי איז איז איז איז איז איז איז איז איז | YV | | | <u>-</u> | |
| | | | | · | · · · · · · · · · · · · · · · · · · · | |
| Static wate | er level: 2.18 ft below datum | | | | | |
| | Pumping test duration | Water level | Drawdown | | | |
| | [min] | F#1 | [[6] | | | |
| 101 | 6.96 | 3.71 | [E5] | 1.53 | •••••••••••••••••••••••••••••••••••••• | |
| 102 | 7.16 | 3.69 | ····· | 1.51 | | |
| 103 | 7.36 | 3.68 | | 1.50 | | |
| 104 | 7.56 | 3.65 | | 1.47 | | |
| 105 | 7.76 | 3.63 | | 1.45 | | |
| 100 | 8 16 | 3.01 | | 1.43 | | |
| 108 | 8.36 | 3.58 | | 1.40 | ••••••••••••••••••••••••••••••••••••••• | |
| 109 | 8.56 | 3.57 | | 1.39 | | |
| 110 | 8.76 | 3.55 | | 1.37 | | |
| 111 | 8.96 | 3.54 | | 1.36 | | |
| 112 | 9.16 | 3.52 | ······ | 1.34 | | |
| 113 | 9.36 | 3.50 | | 1.32 | | |
| 114 | 9.50 | 3.49 | | 1.31 | | |
| 116 | 9.96 | 3.46 | | 1.28 | | |
| 117 | 11.96 | 3.31 | | 1.13 | | |
| 118 | 13.96 | 3.21 | | 1.03 | | |
| 119 | 15.96 | 3.09 | | 0.91 | | |
| 120 | 17.96 | 3.00 | | 0.82 | | |
| 121 | 19.96 | 2.92 | | 0.74 | | |
| 123 | 21.90 | 2.04 | ······ | 0.66 | | |
| 124 | 25,96 | 2.73 | | 0.55 | | |
| 125 | 27.96 | 2.69 | | 0.51 | | |
| 126 | 29.96 | 2.65 | | 0.47 | | |
| 127 | 31.96 | 2.61 | | 0.43 | | |
| 128 | 33.96 | 2.59 | | 0.41 | | |
| 129 | 35.96 | 2.56 | | 0.38 | | |
| 131 | 39.90 | 2.34 | | 0.35 | | |
| 132 | 41.96 | 2.51 | | 0.33 | | |
| 133 | 43.96 | 2.50 | | 0.32 | | |
| 134 | 45.96 | 2.50 | | 0.32 | | |
| 135 | 47.96 | 2.50 | | 0.32 | | |
| 136 | 49.96 | 2.50 | ····· | 0.32 , | | |
| 137 | 51.96 | 2.50 | | 0.32 | | |
| 130 | 53.90 | 2.50 | | 0.32 | ······································ | |
| 140 | 57.96 | 2.50 | | 0.32 | | |
| 141 | 59.96 | 2.50 | | 0.32 | ······ | |
| 142 | 61.96 | 2.50 | | 0.32 | | |
| 143 | 63.96 | 2.50 | | 0.32 | | |
| 144 | 65.96 | 2.50 | | 0.32 | | |
| | | ······ | ····· | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| . 1 | | | | | | |



| C&S Engineers | | slug/bail test analysis BOUWER-RICE's method | | 0/26/2005 | Page 2 | |
|-------------------------------|--|---|-----------------------------|------------------------------------|--|--|
| 499 Col. Eileen Collins Blvd. | | | | Project: Pioneer Midler Avenue LLC | | |
| ph.(315) | 455-2000 | Evaluated by: WNR | | | | |
| Slug Te | est No. 3 | Te | st conducted on: 10/17/2005 | i on: 10/17/2005 | | |
| | | | | | | |
| 14144-95 | , | ····· | 51) 14144-5C | | | |
| | ······································ | · | | | | |
| Static v | water level: 6.40 ft below datum | | | | | |
| | Pumping test duration | Water level | Drawdown | | | |
| | fminl | rff1 | [[†] | | | |
| 1 | 0.00 | 10.51 | 4 | 11 | | |
| 2 | 0.01 | 10.35 | 3 | .95 | | |
| 3 | 0.02 | 10.37 | 3 | .97 | | |
| 4 | 0.03 | 10.35 | 3 | .95 | ······································ | |
| 5 | 0.04 | 10.29 | კკ | .89 .85 | | |
| 7 | 0.05 | 10.23 | 3 | 84 | | |
| 8 | 0.07 | 10.22 | 3 | .82 | | |
| 9 | 0.08 | 10.19 | 3 | .79 | | |
| 10 | 0.09 | 10.18 | 3 | .78 | ναματογραφία ματό στο το το το το το το πραθείο το το το το το το το το πολοτιστο ποι το το Μοι το το το το το Το προφορία ματό το το το το το το προφορία το το το το προφορία το το το πολοτιστο ποι το το Μοι το το το το το | |
| 11 | 0.10 | 10.16 | 3 | .76 | | |
| 12 | 0.11 | 10.16 | 3 | .76 | | |
| 13 | 0.12 | 10.13 | 3 | .73 | | |
| 14 | 0.13 | 10.11 | 3 | 71 | | |
| 16 | 0.15 | 10.10 | 3 | .70 | | |
| 17 | 0.16 | 10.08 | 3 | .68 | ······································ | |
| 18 | 0.17 | 10.07 | 3 | .67 | | |
| 19 | 0.18 | 10.05 | 3 | .65 | | |
| 20 | 0.19 | 10.05 | 3 | .65 | | |
| 21 | 0.20 | 10.03 | 3 | .63 | | |
| 22 | 0.21 | 10.02 | 3 | .60 | ······································ | |
| 24 | 0.23 | 10.00 | | .60 | <i>,</i> | |
| 25 | 0.24 | 9.99 | 2 | .59 | | |
| 26 | 0.25 | 9.97 | 3 | .57 | | |
| 27 | 0.26 | 9.96 | 3 | .56 | | |
| 28 | 0.27 | 9.96 | | .56 | | |
| 29 | 0.28 | 9.94 | | 52 | | |
| 30 | 0.29 | 9.89 | | 49 | | |
| 32 | 0.33 | 9.88 | | .48 | | |
| 33 | 0.34 | 9.86 | : | .46 | | |
| 34 | 0.36 | 9.85 | | .45 | | |
| 35 | 0.38 | 9.83 | | .43 | | |
| 36 | 0.39 | 9.81 | | .41 , | | |
| 37 | 0.41 | 9.80 | | 38 | | |
| 39 | 0.44 | 9.78 | | .38 | | |
| 40 | 0.46 | 9.77 | | 1.37 | ······· | |
| 41 | 0.48 | 9.75 | | 3.35 | | |
| 42 | 0.49 | 9.72 | | 3.32 | · · · · · · · · · · · · · · · · · · · | |
| 43 | 0.51 | 9.72 | | 3.32 | ······································ | |
| 44 | 0.53 | 9.70 | | 3.30 | | |
| 45 | 0.54 | 9.69 | | 27 | | |
| 40 | 06.0 | 0.07 AA D | | 3 26 | | |
| 48 | 0.59 | 9.66 | | 3.26 | | |
| 49 | 0.61 | 9.64 | | 3.24 | | |
| 50 | 0.63 | 9.62 | | 3.22 | · · · · · · · · · · · · · · · · · · · | |

| C&S Er | ngineers | slug/bail test analysis | | Date: 10/26/2005 | Page 3 | |
|-------------|--|---|--|---------------------------------------|--|--|
| 499 Col. | Eileen Collins Blvd. | BOUWER-RICE's method | | Project: Pioneer Midler Avenue LLC | | |
| ph.(315) 48 | 55-2000 | | | Evaluated by: WNR | | |
| Slug Tes | st No. 3 | - • · · · · · · · · · · · · · · · · · · | Test conducted of | on: 10/17/2005 | | |
| MW-9D | | | Well MW-9D | | · ···· · · · · · · · · · · · · · · · · | |
| | n an an ann an an an an an an an an an a | | ************************************** | ····· | ····· | |
| | | | ······ | · · ····· ···· ·· ··· ··· ··· ··· ··· | | |
| Static wa | ater level: 6.40 ft below datum | | | | •• | |
| | Pumping test duration | Water level | Dr | awdown | | |
| | Imini | [61] | | [#1] | | |
| 51 | 0.64 | 9.61 | • • • • • • • • • • • • • • • • • • • | 3.21 | مهري الراهرية المسار المناكبين لالك متنافي | |
| 52 | 0.66 | 9.59 | | 3.19 | | |
| 53 | 0.68 | 9.59 | | 3.19 | | |
| 54 | 0.69 | 9.58 | | 3.18 | | |
| 55 | 0.71 | 9.56 | | 3.16 | | |
| 56 | 0.73 | 9.55 | | 3.15 | | |
| 57 | 0.74 | 9.55 | | 3.15 | ······· =··=·= =······ | |
| 58 | U./6 | 9.53 | | 3.13 | | |
| | U./O | 9.03 0 51 | | 3.13 | | |
| 61 | 0.75 | 9.50 | | 3.10 | | |
| 62 | 0.83 | 9.50 | | 3.10 | | |
| 63 | 0.84 | 9.48 | | 3.08 | а. Талтанан часалан на сели сели сели сели сели сели сели сели | |
| 64 | 0.86 | 9.47 | | 3.07 | | |
| 65 | 0.88 | 9.47 | | 3.07 | | |
| 66 | 0.89 | 9.45 | | 3.05 | | |
| 67 | 0.91 | 9.43 | | 3.03 | | |
| 68 | 0.93 | 9.43 | | 3.03 | | |
| 70 | 0.94 | 9.42 | | 3.02 | | |
| 71 | 1 18 | 9.42 0.70 | | 2.02 | | |
| 72 | 1.36 | 9.20 | | 2.80 | | |
| 73 | 1.56 | 9.14 | | 2.74 | | |
| 74 | 1.76 | 9.07 | | 2.67 | | |
| 75 | 1.96 | 9.01 | | 2.61 | | |
| 76 | 2.16 | 8.96 | | 2.56 | | |
| 77 | 2.36 | 8.91 | | 2.51 | | |
| 78 | 2.56 | 8.87 | | 2.47 | · · · · · · | |
| 79 | 2.76 | 8.85 | | 2.45 | | |
| 80 84 | 2.90 | 8.80 77 0 | | 2.40 | | |
| 82 | 3.36 | 8.77 8.76 | | 2.31 | | |
| 83 | 3.56 | 8.73 | | 2.33 | | |
| 84 | 3.76 | 8.71 | | 2.31 | | |
| 85 | 3.96 | 8.70 | | 2.30 | | |
| 86 | 4.16 | 8.68 | | 2.28 , | | |
| 87 | 4.36 | 8.66 | | 2.26 | | |
| 88 | 4.56 | 8.65 | | 2.25 | | |
| 89 | 4.76 | 8.65 | j [| 2.25 | | |
| 90 | 4.96 | 8.63 | | 2.23 | | |
| 91 | 5.10 | 8.62 | | 2.22 | | |
| 92 | 0C 5.5R | 00.0 Na s | | 2.20 | | |
| 94 | 5.00 | 8.00 8.60 | | 2.20 | | |
| 95 | 5.96 | 8.58 | | 2.18 | | |
| 96 | 6.16 | 8.58 | | 2.18 | | |
| 97 | 6.36 | 8.57 | , | 2.17 | | |
| 98 | 6.56 | 8.57 | • | 2.17 | | |
| 99 | 6.76 | 8.57 | | 2.17 | | |
| 100 | 6.96 | 8.55 | 5 | 2.15 | | |

| C&S Engineers 499 Col. Eileen Collins Blvd. | | slug/bail test analysis | Date: 10/26 | /2005 Page 4 |
|--|--------------------------------|---------------------------------------|--|--|
| | | BOUWER-RICE's method | Project: Pio | neer Midler Avenue LLC |
| ph (315) 455 | 9 13212 5-2000 | Evaluated b | | iy: WNR |
| Slua Test | No. 3 | Tes | t conducted on: 10/17/2005 | |
| | ······ | Wel | I MW-9D | |
| 10100-90 | | | | |
| | | | | |
| Static wat | ter level: 6.40 ft below datum | | - | |
| An / , domain, ve | Pumping test duration | Water level | Drawdown | |
| | íminl | [[1] | [ft] | |
| 101 | 7.16 | 8.55 | 2.15 | |
| 102 | 7.36 | 8.55 | 2.15 | |
| 103 | 7.56 | 8.55 | 2.15 | |
| 104 | 7.70 | 8.54 | 2.14 | 1979 No. 197 |
| 106 | 8.16 | 8.54 | 2.14 | |
| 107 | 8.36 | 8.54 | 2.14 | |
| 108 | 8.56 | 8.54 | 2.14 | |
| 109 | 8.76 | 8.54 | 2.14 | |
| | | | ······································ | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | · · · · · · · · · · · · · · · · · · · | ······ |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | · |
| | | | | |
| } | | | | |
| | | <u></u> | ······································ | · · |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | · · · · · · · · · · · · · · · · · · · |
| | | | | |
| | | | | |
| | | · · · · · · · · · · · · · · · · · · · | | |
| | ***** | | | |



| C&S Engineers | | slug/bail test analysis | Date: 10/26/2 | Date: 10/26/2005 Page 2 | |
|-------------------------------|----------------------------------|-------------------------|-------------------------------|---|--|
| 499 Col. Eileen Collins Blvd. | | BOUWER-RICE's method | Project: Pion | Project: Pioneer Midler Avenue LLC | |
| ph.(315) | 455-2000 | | Evaluated by | : WNR | |
| Slug Te | est No. 4 | | Test conducted op: 10/17/2005 | | |
| 34141 40 | | | | | |
| WIW-10 | | We | | | |
| | | | | | |
| Static v | vater level: 6.65 ft below datum | | | | |
| | Pumping test duration | Water level | Drawdown | · · · · · · · · · · · · · · · · · · · | |
| | | | | | |
| <u>-</u> | [min] | [ft]0 10 | [ft] | | |
| 2 | 0.01 | 9 17 | 2.04 | · · · · · · · · · · · · · · · · · · · | |
| 3 | 0.02 | 9.17 | 2.52 | | |
| 4 | 0.03 | 9.16 | 2.51 | | |
| 5 | 0.04 | 9.19 | 2.54 | | |
| 6 | 0.05 | 9.06 | 2.41 | | |
| 7 | 0.06 | 9.03 | 2.38 | | |
| 8 | 0.07 | 9.02 | 2.37 | | |
| 40 | 0.08 | 8.98 | 2.33 | ····· | |
| 11 | 0.09 | 8.05 | 2.32 | | |
| 12 | 0.11 | 8.94 | 2.30 | | |
| 13 | 0.12 | 8.92 | 2.27 | | |
| 14 | 0.13 | 8.91 | 2.26 | | |
| 15 | 0.14 | 8.89 | 2.24 | ······································ | |
| 16 | 0.15 | 8.87 | 2.22 | | |
| 17 | 0.16 | 8.86 | 2.21 | | |
| 18 | 0.17 | 8.84 | 2.19 | | |
| 19 | 0.18 | 8.83 | 2.18 | | |
| 20 | 0.19 | 8.81 | 2.18 | | |
| 22 | 0.21 | 8.79 | 2.10 | | |
| 23 | 0.22 | 8.78 | 2.13 | | |
| 24 | 0.23 | 8.78 | 2.13 | | |
| 25 | 0.24 | 8.76 | 2.11 | | |
| 26 | 0.25 | 8.75 | 2.10 | | |
| 27 | 0.26 | 8.75 | 2.10 | | |
| 28 | 0.27 | 8.73 | 2.08 | ···· | |
| 30 | 0,28 | 8.72 | 2.07 | <u> </u> | |
| 31 | 0.30 | 8.70 | 2.07 | · | |
| 32 | 0.31 | 8.68 | 2.03 | a a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a dan a | |
| 33 | 0.33 | 8.67 | 2.02 | | |
| 34 | 0.35 | 8.65 | 2.00 | | |
| 35 | 0.36 | 8.64 | 1.99 | | |
| 36 | 0.38 | 8.62 | 1.97 | e | |
| 37 | 0.40 | 8.61 | 1.96 | | |
| 30 30 | 0.41 | 8.59 | 1.94 | | |
| 40 | 0.45 | 8.56 | 1.92 | | |
| 41 | 0.46 | 8.54 | 1.91 | | |
| 42 | 0.48 | 8.54 | 1.89 | | |
| 43 | 0.50 | 8.53 | 1.88 | · · · · · · · · · · · · · · · · · · · | |
| 44 | 0.51 | 8.51 | 1.86 | | |
| 45 | 0.53 | 8.51 | 1.86 | | |
| 46 | 0.55 | 8.50 | 1.85 | | |
| 47 | 0.56 | 8.48 | 1.83 | | |
| 48 | 0.58 | 8.46 | 1.81 | | |
| 49 | 0.00 | 0.40 0 / E | 1.81 | | |
| | 0.01 | 0.40 | 06.0 | | |

| C&S Engineers | | slug/bail test analysis | Date: 10/26/2005 | 5 Page 3 | |
|---|--|---------------------------------------|-------------------------------|--|--|
| 499 Col. Eileen Collins Blvd. Syracuse, NY 13212 | | BOUWER-RICE's method | Project: Pioneer | Midler Avenue LLC | |
| ph.(315) 4 | 55-2000 | Evaluated by: WNR | | NR | |
| Slug Tes | st No. 4 | Tes | Test conducted on: 10/17/2005 | | |
| | · ···································· | ام/۸/ | Ι MW-10D | ··· ····· ··· ··· ··· ··· ··· ··· ···· | |
| | • | | | | |
| ····· | ter e for her de ser bene en denne er en delen som er er er er er en er som er er eger som er er er er er er e | · · · · · · · · · · · · · · · · · · · | | | |
| Static wa | ater level: 6.65 ft below datum | | | | |
| | Pumping test duration | Water level | Drawdown | e e e e e e e e e e e e e e e e e e e | |
| | [min] | (ff1 | (f+1 | | |
| 51 | 0.63 | 8.43 | [it] 1.78 | ···· ····· · ························· | |
| 52 | 0,65 | 8,43 | 1.78 | ····· | |
| 53 | 0.66 | 8.42 | 1.77 | | |
| 54 | 0.68 | 8.42 | 1.77 | | |
| 55 | 0.70 | 8.40 | 1.75 | | |
| 56 | 0.71 | 8.39 | 1.74 | | |
| 57 | 0.73 | 8.39 | 1.74 | | |
| 59 | 0.75 | 8.37 | 1.72 | | |
| 60 | 0.78 | 8.35 | 1.70 | ··· ····· | |
| 61 | 0.80 | 8.34 | 1.69 | | |
| 62 | 0.81 | 8.34 | 1.69 | | |
| 63 | 0.83 | 8.32 | 1.67 | | |
| 64 | 0.85 | 8.32 | 1.67 | | |
| 65 | 0.86 | 8.31 | 1.66 | | |
| 66 | 0.88 | 8.29 | 1.64 | | |
| 67 | 0.90 | 8.29 | 1.64 | | |
| 00 60 | 0.93 | 8.27 | 1.62 | | |
| 70 | 0.95 | 8.26 | 1.62 | | |
| 71 | 0.96 | 8.26 | 1.61 | | |
| 72 | 1.16 | 8.16 | 1.51 | | |
| 73 | 1.36 | 8.09 | 1.44 | | |
| 74 | 1.56 | 8.02 | 1.37 | | |
| 75 | 1.76 | 7.98 | 1.33 | | |
| 76 | 1.96 | 7.93 | 1.28 | | |
| 70 | 2.16 | 7.88 | 1.23 | | |
| 70 | 2.30 | 7.80 | 1.20 | | |
| 80 | 2.76 | 7.30 | 1.13 | | |
| 81 | 2.96 | 7.75 | 1.10 | | |
| 82 | 3.16 | 7.72 | 1.07 | | |
| 83 | 3.36 | 7.69 | 1.04 | | |
| 84 | 3.56 | 7.68 | 1.03 | | |
| 85 | 3.76 | 7.66 | 1.01 | | |
| 86 | 3.96 | 7.64 | 0.99 , | | |
| <u>۲۵</u> | 4.16 | 7.61 | 0.96 | | |
| 89 | 4.30 | 7.00 | 0.95 | | |
| 90 | 4.76 | 7.58 | 0.90 0.03 | | |
| 91 | 4.96 | 7.57 | 0.92 | | |
| 92 | 5.16 | 7.55 | 0.90 | | |
| 93 | 5.36 | 7.54 | 0.89 | · · · · · · · · · · · · · · · · · · · | |
| 94 | 5.56 | 7.52 | 0.87 | | |
| 95 | 5.76 | 7.52 | 0.87 | | |
| 96 | 5.96 | 7.50 | 0.85 | | |
| 97 | 6.16 | 7.50 | 0.85 | | |
| 98 | 6.36 | 7.49 | 0.84 | · · · · · · | |
| 100 | 6.56 | 7.49 | 0.84 | ······································ | |
| 100 | 6.76 | 7.47 | 0.82 | | |

| C&S Engineers | | slug/bail test analysis | | e: 10/26/2005 | Page 4 |
|-------------------------------|----------------------------------|---|---------------------------------------|-------------------|---|
| 499 Col. Eileen Collins Blvd. | | BOUWER-RICE's method | | ject: Pioneer Mid | ller Avenue LLC |
| ph.(315) | 455-2000 | Evaluated by: WNR | | · · · · | |
| Slua Te | est No. 4 | | est conducted on: 10/17/20 | 005 | |
| MM/-10 | Ω | · · · · · · · · · · · · · · · · · · · | /ell MW-10D | | |
| 14144-10 | | ••••••••••••••••••••••••••••••••••••••• | | | ···· · / · · · · |
| | | | | | ····· ··· ··· ··· ··· ··· ··· ··· ··· |
| Static v | vater level: 6.65 ft below datum | | | | |
| | Pumping test duration | Water level | Drawdown | | |
| | [min] | [ft] | fft] | | |
| 101 | 6.96 | 7.46 | | 0.81 | |
| 102 | 7.16 | 7.46 | | 0.81 | |
| 103 | 7.36 | 7.46 | | 0.81 | |
| 104 | 7.50 | 7.40 | · · · · · · · · · · · · · · · · · · · | 0.79 | антанталана организа, на маларатанаранаранара и организација и организација и тек на организација и тек на орга |
| 106 | 7.96 | 7.44 | · | 0.79 | · · · · · · · · · · · · · · · · · · · |
| 107 | 8.16 | 7.44 | | 0.79 | |
| 108 | 8.36 | 7.42 | | 0.77 | |
| 109 | 8.56 | 7.42 | | 0.77 | |
| 110 | 8.76 8.08 | 7.42 | | 0.77 | nananananan alah karangan karangan karangan karangan karangan karangan karangan karangan karangan karangan kar |
| 112 | 9.16 | 7.42 | · · · · · · · · · · · · · · · · · · · | 0.77 | |
| 113 | 9.36 | 7.41 | | 0.76 | ······································ |
| 114 | 9.56 | 7.41 | | 0.76 | ······································ |
| 115 | 9.76 | 7.39 | - | 0.74 | |
| 110 | 9.95 | 7.39 | | 0.74 | |
| 118 | 13.96 | 7,36 | | 0.71 | •••••••••••••••••••••••••••••••••••••• |
| 119 | 15.96 | 7.38 | | 0.71 | |
| 120 | 17.96 | 7.38 | | 0.71 | |
| 121 | 19.96 | 7.35 | | 0.70 | |
| 122 | 21.90 | 7.33 | | 0.68 | ****** |
| 124 | 25.96 | 7.33 | | 0.68 | |
| 125 | 27.96 | 7.33 | | 0.68 | |
| | | | | | |
| | | | | | ***** |
| | | | | | ······································ |
| | | | | | |
| | | | - | | |
| | | | | | · · · · · · · · · · · · · · · · · · · |
| | | <u></u> | | | |
| | | | | | |
| | | | | · | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | ,, |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



| C&S Engineers | | slug/bail test analysis | slug/bail test analysis | | Date: 10/26/2005 Page 2 | |
|-------------------------------|----------------------------------|-------------------------------|-------------------------|---------------------------------------|--|--|
| 499 Col. Eileen Collins Blvd. | | BOUWER-RICE's method | | Project: Pioneer Midler Avenue LLC | | |
| oyracus ph.(315) | 455-2000 | | Evaluated by: WNR | | | |
| Slua T | est No. 2 | Test conducted on: 10/17/2005 | | | | |
| MIN 1 | 10 | | | · · · · · · · · · · · · · · · · · · · | . | |
| 14144-1 | | | | · ····· | · · · · · · · · · · · · · · · · · · · | |
| ···· | | | | | | |
| Static | water level: 2.41 ft below datum | | | ···· · · ···· · · · · · · · · · · · · | | |
| | Pumping test duration | Water level | Drawdov | vn | | |
| | [min] | [ft] | (ft) | | | |
| 1 | 0.00 | 15.40 | | 12.99 | | |
| 2 | 0.01 | 15.29 | | 12.88 | | |
| 3 | 0.02 | 15.11 | | 12.70 | | |
| 4 | 0.03 | 14.99 | | 12.58 | ···· | |
| 5 | 0.04 | 14.88 | | 12.47 | | |
| 0 7 | 0.05 | 14.70 | | 12.30 | | |
| י 8 | 0.00 | 14.61 | | 12.20 | | |
| 9 | 0.08 | 14.53 | | 12.12 | | |
| 10 | 0.09 | 14.46 | | 12.05 | | |
| 11 | 0.10 | 14.40 | | 11.99 | | |
| 12 | 0.11 | 14.35 | | 11.94 | | |
| 13 | 0.12 | 14.31 | | 11.90 | | |
| 14 | 0.13 | 14.26 | | 11.85 | | |
| 15 | 0.14 | 14,21 | | 11.80 | <u>,</u> | |
| 17 | 0.15 | 14.17 | | 11.70 | | |
| 18 | 0.17 | 14.10 | | 11.69 | | |
| 19 | 0.18 | 14.07 | | 11.66 | | |
| 20 | 0.19 | 14.04 | | 11.63 | | |
| 21 | 0.20 | 14.02 | | 11.61 | | |
| 22 | 0.21 | 13.99 | | 11.58 | | |
| 23 | 0.22 | 13.98 | | 11.57 | · | |
| 24 | 0.23 | 13.90 | | 11.55 | | |
| 20 | 0.25 | 13.91 | | 11.52 | | |
| 27 | 0.26 | 13.90 | | 11.49 | | |
| 28 | 0.27 | 13.88 | | 11.47 | | |
| 29 | 0.28 | 13.87 | | 11.46 | | |
| 30 | 0.29 | 13.85 | | 11.44 | | |
| 31 | 0.30 | 13.84 | | 11.43 | | |
| 32 | 0.32 | 13.82 | | 11.41 | | |
| 30 | 0.34 | 13.77 | | 11.39 | | |
| 35 | 0.37 | 13.77 | | 11.36 | | |
| 36 | 0.39 | 13.76 | | 11.35 | | |
| 37 | 0.40 | 13.74 | | 11.33 | | |
| 38 | 0.42 | 13.74 | | 11.33 | | |
| 39 | 0.44 | 13.73 | | 11.32 | | |
| 40 | 0.45 | 13.73 | | 11.32 | | |
| 41 | 0.47 | 13.71 | | 11.30 | ······································ | |
| 42 | 0.49 | 13./1 | | 11.30 | | |
| 43 | 0.52 | 13.69 | | 11.28 | | |
| 45 | 0.54 | 13.69 | | 11.28 | | |
| 46 | 0.55 | 13.68 | | 11.27 | | |
| 47 | 0.57 | 13.68 | | 11.27 | | |
| 48 | 0.59 | 13.68 | | 11.27 | | |
| 49 | 0.60 | 13.68 | | 11.27 | | |
| 50 | 0.62 | 13.68 | | 11.27 | | |

| C&S | Engineers | slug/bail test analysis | Date: 10/26/2 | 2005 | Page 3 |
|-------------------|--|-------------------------|-------------------------------|------------------------------------|--|
| 499 Co Svracus | ol. Eileen Collins Blvd. | BOUWER-RICE's method | Project: Pion | Project: Pioneer Midler Avenue LLC | |
| ph.(315) |) 455-2000 | | Evaluated by; WNR | | |
| Slug T | est No. 2 | Tr | Test conducted on: 10/17/2005 | | |
| MW-1 | | | /ell MW-11D | | · · · · · · · · · · · · · · · · · · · |
| 47173 . | ···· •• •• •• •• •• •• •• •• •• •• •• •• | | | | ······· |
| | | | | | · · · · · · · · · · · · · · · · · · · |
| Static | water level: 2.41 ft below datum | | | | |
| | Pumping test duration | Water level | Drawdown | | |
| | [min] | <i>ff</i> 13 | r (e 3 | | |
| 51 | <u>[min]</u> 0.64 | 13.66 | (R) 11.25 | | |
| 52 | 0.65 | 13.66 | 11.25 | | ····· |
| 53 | 0.67 | 13.66 | 11.25 | | |
| 54 | 0.69 | 13.66 | 11.25 | 1 | |
| 55 | 0.70 | 13.66 | 11.25 | | |
| 56 | 0.72 | 13.66 | 11.25 | | |
| 57 | 0.74 | 13.66 | 11.25 | | |
| 58 | 0.75 | 13.66 | 11.25 | | |
| 59 | 0.77 | 13.66 | 11.25 | | |
| 61 | 0.79 | 13.00 | 11.25 | . | |
| 62 | 0.00 | 13.65 | 11.24 11.24 | | |
| 63 | 0.84 | 13.65 | 11.24 | | |
| 64 | 0.85 | 13.65 | 11.24 | | · · · · · · · · · · · · · · · · · · · |
| 65 | 0.87 | 13.65 | 11.24 | - | |
| 66 | 0.89 | 13.65 | 11.24 | | |
| 67 | 0.90 | 13.65 | 11.24 | - | |
| 68 | 0.92 | 13.65 | 11.24 | - | |
| 69 | 0.94 | 13.65 | 11.24 | | |
| 70 | 0.95 | 13.65 | 11.24 | | |
| 71 | 0.97 | 13.65 | 11.24 | | |
| 73 | 1.1/ | 13.05 | 11.24 | | |
| 74 | 1.57 | 13.63 | 11.24 | | · |
| 75 | 1.77 | 13.63 | 11.22 | | |
| 76 | 1.97 | 13.63 | 11.22 | | <u></u> |
| 77 | 2.17 | 13.63 | 11.22 | | |
| 78 | 2.37 | 13.65 | 11.24 | + | |
| 79 | 2.57 | 13.63 | 11.22 | 1. | |
| 80 | 2.77 | 13.63 | 11.22 * | | |
| 81 | 2.97 | 13.63 | 11.22 | | |
| 82 | 3.17 | 13.63 | 11.22 | | |
| 84 | 3.3/ | 13,03 | 11.22 | | |
| 85 | 3.57 | 13.00 | 11.22 | | |
| 86 | 3.97 | 13.63 | 11.22 | + | |
| 87 | 4.17 | 13.63 | 11.22 | 1 | |
| 88 | 4.37 | 13.63 | 11.22 | | unsession |
| 89 | 4.57 | 13.63 | 11.22 | | |
| 90 | 4.77 | 13.63 | 11.22 | | |
| 91 | 4.97 | 13.63 | 11.22 | | ······································ |
| 92 | 5.17 | 13.63 | 11.22 | | |
| 93 | 5.37 | 13.63 | 11.22 | | |
| 94 | 5.57 | 13.63 | 11.22 | 1 | |
| 95 | 5.// | 13.63 | 11.22 | | |
| 90 | 5.97 | 13.03 | 11.22 | | <u></u> |
| 97 | 0.17 | 13.63 | 11.22 | | |
| 90 | 6.57 | 13.63 | 11.24 | | |
| 100 | 6.77 | 13.65 | 11.22 | | |
| | 0.11 | 10.00 | 11.24 | 1 | |

| C&S | Engineers | slug/bail test analysis | | Date: 10/26/2005 | Page 4 |
|------------------|--|--|--|---------------------------------------|---|
| 499 C Svracu: | ol. Eileen Collins Blvd. se, NY 13212 | BOUWER-RICE's meth | BOUWER-RICE's method | | ler Avenue LLC |
| ph.(315 |) 455-2000 | | | Evaluated by: WNR | |
| Slug 1 | Fest No. 2 | | Test conducted on: 10 | /17/2005 | |
| MW-1 | 1D | | Well MW-11D | | ····· · · · · · · · · · · · · · · · · |
| • • • • • • | | | ······································ | ••• • • • • • • • • • • • • • • • • • | |
| Olatia | | | | | |
| Static | water level: 2.41 it below datum | 14feber Level | . District | ······ | . <u>-</u> <u>-</u> |
| | Pumping test duration | water level | Urawdor | wn | |
| | [min] | [ft] | [ft] | | |
| 101 | 6.97 | 13,65 | | 11.24 | · · · · · · · · · · · · · · · · · · · |
| 102 | 7.17 | 13.65 | | 11.24 | |
| | 1.57 | | | 11.24 | |
| | | | | | |
| | | | | | |
| | ······ | ····· | | | |
| | | 19 19 19 19 19 19 19 19 19 19 19 19 19 1 | | | |
| · | | · _ · · · · · · · · · · · · · · · · · · | | | ····· <u>-</u> ····· <u>-</u> ····· ··· ··· |
| | | | | | |
| | | | | | · · · · · · · · · · · · · · · · · · · |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| , | | | | | |
| | | | | | |
| | | | | | |
| | | | ····· | | |
| | | | | | - |
| | | | | | |
| | | ······ | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | ····· | | |
| | | ······ | | | |
| | | | | | |
| | | · · · · · · · · · · · · · · · · · · · | | | |
| | | | | , | |
| | · · · · · · · · · · · · · · · · · · · | | | | |
| | | | | | |
| | | · | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | ······ |
| | 1 | | | | |
| | | | | | · · · · · · · · · · · · · · · · · · · |
| | | | | | |
| | | | | | |
| | | | | | |

GeoLogic JULY 2006 GROUNDWATER AND CONTAMINANT FLOW REPORT

: .

a 1





GeoLogic NY, Inc.

July 3, 2006

Mr. Steve Vinci C & S Engineers, Inc. 499 Colonel Eileen Collins Blvd. Syracuse, NY 13212

Reference: Site Hydrogeology Midler Avenue Brownfield Clean-Up NYSDEC Brownfield Site # C734103 Midler Avenue Syracuse, NY

Dear Mr. Vinci:

This report summarizes our analysis of the site-specific hydrogeologic characteristics of the Midler Avenue site. Our analysis is based on data obtained by C & S personnel and GeoLogic personnel; and addresses direction of groundwater flow in the upper peat/marl unit and the lower sand unit, hydraulic conductivity of the peat/marl unit, estimated rate of groundwater flow in the peat/marl unit and probable rates of contaminant migration in the peat/marl unit.

The unconsolidated deposits at the site can generally be described as a sequence of surficial fill, peat/marl, clay, sand and glacial till (C & S, Remedial Investigation Data Report, November 2005). The peat/marl unit and the deeper sand unit are the primary water bearing units at the site. The presence of the peat/marl unit is consistent with the mapping by Winkler (1989). Winkler describes the surficial soils as peat and marl formed in post-glacial wetlands.

Fifteen groundwater monitoring wells have been installed in the peat/marl unit. Groundwater elevations from depth to water measurements made on May 16, 2006 are presented on Drawing No. 1. The depth to water in the peat/marl unit is less than 5 feet across most of the site. Groundwater contours as interpolated from the May 16, 2006 data are also presented on Drawing No. 1. The data demonstrates a general north to south direction of groundwater flow. This is consistent with the local topography in the vicinity of the site. The average horizontal hydraulic gradient based on the data is 0.0122.

Artesian conditions (water level rising above the ground surface) have been observed in DAW-3. DAW-3 is screened in the deep sand unit. The presence of artesian conditions at DAW-3 indicates that the clay unit is acting as an aquitard limiting the movement of groundwater between the peat/marl unit and deeper sand unit.

Four groundwater monitoring wells have been completed at the top of the till unit in the deep sand unit. Groundwater elevations in the deep wells as indicated by May 16, 2006 water level measurements are presented on Drawing No. 2 along with the interpolated groundwater contours. The elevations suggest radial flow towards a "trough" in the center of the site with groundwater discharging to the east. An average horizontal hydraulic gradient of between 0.001 and 0.005 is suggested by the May 16, 2006 data from the deep wells.

Midler Avenue Brownfield Clean-Up July 2006 Page 2

In-situ hydraulic conductivity tests (slug tests) were conducted in wells MW-3D, MW-9D, MW-10D and MW-12D on April 13 and 27, 2006. NYSDEC personnel were on site on April 13, 2006 for the tests conducted in MW-3D, MW-9D and MW-10D. These four wells are completed in the peat/marl unit. Each test was conducted using different length slugs (2.5 feet and 5 feet at MW-3D, MW-9D and MW-10D and, 2.5 feet, 5 feet and 7 feet at MW-12D). The change in water level versus time was recorded after the slug was inserted (falling head test) and after the slug was withdrawn (rising head test). Water levels were allowed to return to within at least 95% of the initial water level between tests.

The slug test data was analyzed using an Excel spreadsheet program developed by the United States Geologic Survey (USGS). Spreadsheet analysis follows the Bouwer and Rice methodology. The results of the data analyses are attached. It should be noted that the program requires the selection of an "aquifer material". The choices offered by the program are limited. The classification of "silt, loess" was judged to be the closest to the peat/marl unit; therefore, it was selected. Because the selected aquifer material and the actual material are not the same, the comments on some of the results that K (hydraulic conductivity) is greater than the likely maximum for "silt, loess" should be ignored.

The results of the analyses are summarized on the attached table. The results from the tests in each individual well are consistent between tests (the data from the 5 ft. falling head test in MW-9D are very erratic and, therefore, not included). The average results from wells MW-3D, MW-9D and MW-10D are also similar.

The average hydraulic conductivity for the peat/marl unit using all of the results from wells MW-3D, MW-9D and MW-10D is 3.98×10^{-1} Feet/Day or 1.4×10^{-4} Cm/Sec.

The hydraulic conductivity indicated by the data from MW-12D is one to two orders of magnitude higher than the other wells and is consistent with a fine to medium sand. A review of the stratigraphy indicates the fill is 4 to 6 feet thick in the area of MW-12D. The filter pack at MW-12D extends up to a depth of about 6.5 feet. Given that the depth of the fill unit in the area of MW-12D and the depth to the top of the filter sand are similar, it is our opinion that the hydraulic conductivity test results from MW-12D are reflective of a connection between the fill unit and filter pack and are not indicative of the hydraulic conductivity in the peat/marl unit. Therefore, the results from MW-12D are not included in the peat/marl unit average.

Using the average hydraulic conductivity (K = 3.98×10^{-1} Feet/Day), the average horizontal hydraulic gradient (i = 0.0122) and an assumed porosity (n = 40%), an average linear velocity for groundwater flow in the peat/marl unit can be estimated:

avg. linear velocity (v) = (K/n) x i

= (3.98 x10⁻¹ Feet/Day/0.40) x 0.0122

v = 1.2 x 10⁻² Feet/Day

v = 4.4 Feet/Year

Midler Avenue Brownfield Clean-Up July 2006 Page 3

The contaminants of concern at the site are tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2 dichloroethene and vinyl chloride. The migration of environmental contaminants can vary from the rate of groundwater flow as a result of the site geology and the contaminant physical and chemical properties. In an effort to gauge whether or not the contaminants of concern would be expected to move slower than the estimated rate of groundwater flow, the retardation factor for each of the contaminants was estimated using the USEPA On-Line Tools Site Assessment.

The USEPA calculation requires an estimate of the porosity of the geologic unit and an estimate of the fraction of organic carbon present in the unit. The porosity used in the calculation was again 40%. The value used for fraction organic carbon was 8%. This value represents the mean percentage (minus the highest and lowest value) as reported for 12 samples from the site (C & S letter report, dated December 9, 2005). Print outs of the Retardation Factor calculations are attached and summarized below:

TCE, R = 42

Dichloroethene (undifferentiated isomers) R = 41

Vinyl Chloride, R = 10

Applying the retardation factors to the average linear velocity calculated above results in the following projected rates of migration for the contaminants of concern:

Groundwater, v = 4.4 Feet/Year PCE, $v = 3.1 \times 10^{-2}$ Feet/Year

TCE, $v = 1.0 \times 10^{-1}$ Feet/Year

Dichloroethene (undifferentiated isomers) $v = 1.0 \times 10^{-1}$ Feet/Year

Vinyl Chloride, v = 4.4 x10⁻¹ Feet/Year

Thus, it is anticipated that the average rate of migration for the contaminants of concern would be between 140 times slower (PCE) and 10 times slower (vinyl chloride) than the rate of groundwater flow.

A comparison of the contaminant distribution at the site and the predicted rates of contaminate migration calculated above indicate the actual migration rates are higher than predicted. This is due to several factors. The theoretical calculations are based on average hydraulic conductivities, hydraulic gradients, and organic content. In reality, the subsurface conditions at the site are heterogeneous, varying both vertically and horizontally, with zones where the rates of migration are either higher or lower than predicted. In addition, other processes such as diffusion and biological activity influence the rate of migration. The theoretical rates of migration

Midler Avenue Brownfield Clean-Up July 2006 Page 4

coupled with the actual contaminant distribution (the highest concentrations are centered around the suspected source areas) are indicative of a relatively low flow environment.

We trust we have addressed the issues required for the IRM. Please feel free to call should you have any questions or require any additional information.

Sincerely;

GeoLogic NY, Inc.

Forrest Earl

Principal Hydrogeologist/Vice President

- Reference: Winkler, Steven, 1989, The Hydrogeology of Onondaga County, New York, Department of Geology, Syracuse University, Syracuse, NY
- Enc.: (Drawing Nos. 1 & 2, Summary of Hydraulic Conductivity, Slug Analyses, Retardation Factor Calculations)

CC: File 205006B\Report\Hydro Report





Summary of In-Situ Hydraulic Conductivity Testing Midler City NYSDEC Brown Field Site # C734103 Midler Avenue Syracuse, NY April 2006

| Test | MW-3D | D6-WM | MW-10D | MW-12D | Average w/ MW-12D | Average w/o MW-12D |
|---|--------------|--------------|---------------|--------------------------------|--|--------------------|
| | Feet/Day | Feet/Day | Feet/Day | Feet/Day | I | I |
| 5 Ft. Slug Falling Head | 1.60E-01 | I | 5.50E-01 | 1.40E+01 | | |
| 5 Ft. Slug Rising Head | 9.40E-02 | 5.80E-01 | 3.50E-01 | 1.40E+01 | | |
| 2.5 Ft. Slug Falling Head | 1.00E-01 | 8.80E-01 | 2.90E-01 | | | |
| 2.5 Ft. Slug Rising Head | 1.10E-01 | 6.90E-01 | 2.50E-01 | | | |
| 7 Ft. Slug Falling Head 7 Ft. Slug Rising Head | | | | 1.10E+01 1.40E+01 | | |
| | | | | | | |
| K = Feet/Day Average | 1.16E-01 | 7.17E-01 | 3.60E-01 | 1.33E+01 | 3.61E+00 | 3.98E-01 |
| K = Cm/Sec Average | 4.09E-05 | 2.53E-04 | 1.27E-04 | 4.67E-03 | 1 27E-03 | 1 405-04 |
| | | | | | | |
| Screened Unit | Marl | Mari | Marl | ?Marl? - dat | a is consistent with fine t | o medium sand and |
| | | | | indicates cor well screen f | nmunication between litter pack and overlving t | ill unit |
| | | | | | Sinding to prim yourd inter | |

1



1. .

e 1



Slug_Bouwer-Rice 3D Test 15

~ 1

| WELL | ID: MW-3D | | Reduced Data | 1 |
|--------------------------------------|--|-------|--------------|--------|
| | Local ID: 2.5 Ft Failing Manual | | Time, | Water |
| INPUT | Date: 4/13/2006 | Entry | Hr:Min:Sec | Level |
| Construction: | Time: 17:26 | 1 | 1:00:05.0 | 1.60 |
| Casing dia. (d _c) 2 Inch | | 2 | 1:00:15.0 | 1.00 |
| Annulus dia. (d.,,) 8.25 Inch | J, → K | 3 | 1:00:25.0 | 1,79 |
| Screen Length (L) 10 Feet | | 4 | 1:00:35.0 | 1.80 |
| | | 5 | 1:00:45.0 | 1.81 |
| Depths to: | TOS V | 6 | 1:00:55.0 | 1.82 |
| water level (DTW) 2.6 Feet | | 7 | 1:01:05.0 | 1.83 |
| top of screen (TOS) 15 Feet | | 8 | 1:01:15.0 | 1.84 |
| Base of Aquifer (DTB) 25 Feet | | 9 | 1:01:25.0 | 1.84 |
| | | 10 | 1:01:35.0 | 1.85 |
| Annular Fill: | Rase of Aquifer | 11 | 1:01:45.0 | 1.86 |
| across screen Medium Sand | Dase of Aquiter have the second | 12 | 1:01:55.0 | 1.87 |
| above screen Bentonite | | 13 | 1:02:05.0 | 1.89 |
| | Adjust slope of line to estimate K | 14 | 1:02:15.0 | 1.89 |
| Aquifer Material Silt, Loess | | 15 | 1:02:25.0 | 1.90 |
| | | 16 | 1:02:35.0 | 1.91 |
| COMPUTED | | 17 | 1:02:45.0 | 1.91 |
| Lwetted 10 Feet | | 18 | 1:02:55.0 | 1.93 |
| D = 22.4 Feet | | 19 | 1:03:05.0 | 1.93 |
| H = 22.4 Feet | p | 20 | 1:03:15.0 | 1.94 |
| L/r _w = 29.09 | 1020 | 21 | 1:03:25.0 | 1.95 |
| Values accurate = 1.00 Feet | 1.00 | 22 | 1:03:35.0 | 1.95 |
| Vacuus = 1.19 Feet | | 23 | 1:03:45.0 | 1.96 |
| From look-up table using 1/t | | 24 | 1:03:55.0 | 1.96 |
| | —————————————————————————————————————— | 25 | 1:04:05.0 | 1.97 |
| | | 26 | 1:04:15.0 | 1.98 |
| Fully pepetrate C = 2.041 | | 27 | 1:04:25.0 | 1.99 |
| $\ln(\text{Re/rw}) = 2.998$ | 0.10 - | 28 | 1:04:35.0 | 1,99 |
| Re = 6.89 Feet | | 29 | 1:04:45.0 | 2.00 |
| | | 30 | 1:05:00.0 | 2.00 |
| Slope = 0.000506 log10/sec | r i | 31 | 1:05:10.0 | 2.01 |
| t _{90%} recovery = 1977 sec | | 32 | 1:05:20.0 | 2.02 |
| Input is consistent. | * | 33 | 1:05:30.0 | 2.03 |
| • | | 34 | 1:05:40.0 | 2.03 |
| K = 0.1 Feet/Day | 0.01 D.01 | 35 | 1:05:50.0 | 2.04 |
| | 00:00 02:53 05:46 08:38 11:31 14:24 | 36 | 1:06:00.0 | 2.05 |
| | TIME, Minute:Second | 37 | 1:06:10.0 | 2.05 |
| | | 38 | 1:06:20.0 | , 2.06 |
| | | 39 | 1:06:40.0 | 2.07 |
| REMARKS: | Bouwer and Rice analysis of slug test, WRR 197 | 6 40 | 1:07:00.0 | 2.08 |
| | | 41 | 1:07:20.0 | 2.09 |
| 1 | | 42 | 1:07:40.0 | 2.10 |
| · | | 43 | 1:08:00.0 | 2,11 |
| | | 44 | 1:08:20.0 | 2.12 |
| | | 40 | 1.00.40,0 | 2.12 |
| 1 | | | | |
| | | • | | |

~ ·



Slug_Bouwer-Rice 9D Test 8 Revised

| WELL ID: M | W-9D | | Reduced Data | I | | | |
|---|---|-------|------------------------|-------|-------|-------------------------|-------|
| | Local ID: 5 Ft Rising Manual | | Time, | Water | | Time, | Water |
| INPUT | Date: 4/13/2006 | Entry | Hr:Min:Sec | Level | Entry | Hr:Min:Sec | Level |
| Construction | Time: 8:51 | 1 | 8:51:40.0 | 8.28 | 51 | 8:55:50.0 | 6.88 |
| Casing dia. (d _e) 2 Inch | | 2 | 8:51:45.0 | 8.25 | 52 | 8:55:55.0 | 5.87 |
| Annulus dia. (d _w) 8.25 Inch | | 3 | 8:51;50,0 | 8.07 | 53 | 8:56:00.0 | 6.86 |
| Serena Length (I) 10 East | | A | 8-51-55.0 | 7 87 | 54 | 8-55-05.0 | 6.85 |
| Screen Leigin (L) To reel | | 5 | 8:52:00.0 | 7.81 | 55 | 8:56:10.0 | 6.65 |
| Depiles to: | το | 6 | 8:52:05.0 | 7.96 | 56 | 8:56:15.0 | 6.84 |
| water level (DTW) 6.58 Feet | | 7 | 8:52:10.0 | 7,70 | 57 | 8:56:20.0 | 6.83 |
| top of coreon (TOS) 8 Engl | | â | 8-52-15.0 | 7.63 | 58 | 8-56-25 0 | 6 83 |
| Base of Aquifer (DTB) 18 East | | ä | 8:52:20.0 | 7.60 | 59 | 8:56:30.0 | 6.82 |
| Dase of Addier (DTO) 10 Teet | d. | 10 | 8:52:25.0 | 7.55 | 60 | 8:56:35.0 | 6.82 |
| Annular Fill | | 11 | 8:52:30.0 | 7.53 | 61 | 8:56:40.0 | 6.82 |
| across screen Medium Sand | Base of Aquifer | 12 | 8:52:35,0 | 7.48 | 62 | 8:56:45.0 | 6.80 |
| above screen Bentonite | | 13 | 8:52:40.0 | 7.44 | 63 | 8:56:55.0 | 6,79 |
| | Adjust slope of line to estimate K | 14 | 8:52:45.0 | 7,41 | 64 | 8:57:05,0 | 6.79 |
| Aquifer Material - Silt, Loess | 1.00 | 15 | 8:52:50.0 | 7.39 | 65 | 8:57:15.0 | 6.78 |
| | ĝ. | 16 | 8:52:55.0 | 7.36 | 66 | 8:57:25.0 | 6.77 |
| COMPUTED | | 17 | 8:53:00.0 | 7.34 | 67 | 8:57:35,0 | 6.77 |
| Lund 10 Feet | | 18 | 8:53:05.0 | 7,31 | 68 | 8:57:45.0 | 6.76 |
| D = 11.42 Feet | | 19 | 8:53:10.0 | 7.30 | 69 | 8:57:55.0 | 6.76 |
| H = 11.42 Fee! | | 20 | 8:53:15.0 | 7.28 | 70 | 8:58:05.0 | 6.75 |
| L/r _w = 29.09 | | 21 | 8:53:20.0 | 7.26 | 71 | 8:58:15,0 | 6.75 |
| | | 22 | 8:53:25.0 | 7.24 | 72 | 8:58:25.0 | 675 |
| Variant 2 28 Feet | | 23 | 8:53:30.0 | 7 22 | 73 | 8-58-35.0 | 6 74 |
| 70-5106 - 2.00 Feet | Š I | 24 | B-62-25 0 | 7 40 | 74 | B-EB-4E 0 | 674 |
| From look-up table using Diw | 0.10 - | 76 | 8:62:40.0 | 7.15 | 75 | 0.50.45,0 B(EB)(EE A | 6.79 |
| | | 26 | 8-53-45.0 | 7.15 | 75 | 9-50-05-0 | 6,73 |
| Eully constrate C = 2.041 | | 27 | 8:53:50 0 | 7 14 | 77 | 8:59:15.0 | 672 |
| ln(Re/ny) = 2.603 | | 28 | 8:53:55.0 | 7.13 | 78 | 8:59:25.0 | 6.72 |
| Re = 4.64 Feet | | 29 | 8:54:00.0 | 7.11 | 79 | 8:59:35.0 | 6.72 |
| | | 30 | 8:54:05.0 | 7,10 | 80 | 8:59:45.0 | 6,71 |
| Slope = 0.003213 log ₁₀ /sec | | 31 | 8:54:10.0 | 7.09 | 81 | 9:00:00.0 | 6.71 |
| toou recovery = 311 sec | | 32 | 8:54:15.0 | 7,07 | 82 | 9:00:15.0 | 6.71 |
| Input is consistent | 0 | 33 | 8:54:20.0 | 7.06 | 83 | 9:00:30.0 | 6 70 |
| | | 34 | 8:54:25.0 | 7.05 | 84 | 9:00:45.0 | 6.69 |
| K ≃ 0.58 Feet/Day | 0.01 | 35 | 8:54:30.0 | 7.04 | 85 | 9:01:00,0 | 6.69 |
| | 00:00 14:24 28:48 43:12 57:36 12:00 26:24 | 36 | 8:54:35.0 | 7.02 | 86 | 9:01:15,0 | 6.69 |
| | TIME, Minute:Second | 37 | 8:54:40.0 | 7.01 | 87 | 9:01:30.0 | 6,69 |
| | | 38 | 8:54:45.0 | 7.00 | 88 | 9:01:45.0 | 6.69 |
| K= 0.58 is greater than likely maximum of 0.1 f | or Silt, Loess | 39 | 8:54:50.0 | 6.99 | 89 | 9:02:00.0 | 6.69 |
| REMARKS: | Bouwer and Rice analysis of slug test, WRR 1976 | 40 | 8:54:55.0 | 6.98 | 90 | 9:02:30.0 | 6,69 |
| | | 41 | 8:55:00.0 | 6.96 | 91 | 9:03:00.0 | 6.69 |
| | | 42 | 8:55:05.0 | 6.96 | 92 | 9:03:30.0 | 6,69 |
| | | 43 | 8:55:10.0 | 6.95 | 93 | 9:04:00.0 | 6.68 |
| | | 44 | 8;55;15.0 | 6.95 | 94 | 9:05:00.0 | 6.68 |
| | | 45 | 8:55:20.0 | 5.94 | 95 | 9:06:00.0 | 6.68 |
| | | 40 | 6:55:25.U 9:55:20.0 | 0.94 | 95 | 9:07:00.0 | 6.68 |
| | | 47 | 8-55-35.0 | 6 92 | 91 | 9:00:00.0 | 0,00 |
| L | | 40 | 8:55:40.0 | 6.90 | 99 | 9:12:00.0 | 6.68 |
| | | 50 | 8:55:45.0 | 6.89 | 100 | 9:15:00.0 | 6.67 |
| | | | - | | | | |

₹. ₹



٠

2 1

Slug_Bouwer-Rice 9D Test 9 Revised

| | WELL ID: | MW-9D | | | | Reduced Data | |
|-----------------------------------|------------------|------------------|--|-------------|-------|--------------|-------|
| | | Local ID | : 2.5 Ft Rising Manu | al | | Time, | Water |
| INPUT | - | Date | : 4/13/2006 | | Entry | Hr:Min:Sec | Level |
| Construction: | | Time | : 10:40 | | 1 | 1:00:05.0 | 7.38 |
| Casing dia. (d _c) | 2 Inch | | | | 2 | 1:00:10.0 | 7.34 |
| Annulus dia. (d _w) 8. | 25 Inch | | الاستعاد | | 3 | 1:00:15.0 | 7.30 |
| Screen Length (L) | 10 Feet | <u>*</u> | | | 4 | 1:00:20.0 | 7 28 |
| | 10 1 001 | | | | 5 | 1:00:25.0 | 7.24 |
| Depths to: | | | TOS | | 6 | 1:00:30.0 | 7.22 |
| water level (DTW) 6 | 6.7 Feet | | | | 7 | 1:00:35.0 | 7.21 |
| top of screen (TOS) | 8 Feet | | | | 8 | 1:00:40.0 | 7.20 |
| Base of Aquifer (DTB) | 18 Feet | | <u> </u> t= <u> </u> <u>▼</u> <u>▼</u> | | 9 | 1:00:45.0 | 7.19 |
| ····· | | | {d _₩ { | | 10 | 1:00:50.0 | 7.17 |
| Annular Fill: | | | | | 11 | 1:00:55,0 | 7.15 |
| across screen - Medium | Sand | | Base of Aquiter | | 12 | 1:01:00.0 | 7.13 |
| above screen - Bentonit | te | A diunt n | leve of line to estima | to K | 13 | 1:01:05.0 | 7.12 |
| | | 1.00 C | lope of line to estima | | 14 | 1:01:10.0 | 7.11 |
| Aquifer Material Silt, Loe | SS | FBA. | | | 15 | 1:01:15.0 | 7.10 |
| 01101 | | | | | 10 | 1:01:20.0 | 7.08 |
| yet <u>OMPU</u> | IED | [😵 | | | 17 | 1:01:25.0 | 7.06 |
| wetted | 10 Feet | | | | 18 | 1:01:30.0 | 7.05 |
| D = 11 | 1.3 Feet | | | | 19 | 1:01:35.0 | 7.03 |
| H= 11 | .3 Feet | l Sa | | | 20 | 1:01:40.0 | 7.10 |
| L/r _w = 29.0 | 09 | <u> </u> | | | 21 | 1:01:45.0 | 7.00 |
| Yo-DISPLACEMENT . 0.1 | 68 Feet | | | | 22 | 1:01:50,0 | 6.99 |
| Yo-slug = 1. | 19 Feet | ž | 8 | | 23 | 1:01:55.0 | 6.96 |
| From look-up table using L/rw | | 210 | 9 | | 24 | 1:01:58.0 | 6.95 |
| | | | G | | 25 | 1:02:00.0 | 6.94 |
| | | - | (#150) | | 26 | 1:02:03.0 | 6.92 |
| Fully penetrate C = 2.04 | 41 | ł | œ | - | 27 | 1:02:05.0 | 6.92 |
| ln(Re/rw) = 2.5 | 97 | | Ø | | 28 | 1:02:08.0 | 6.91 |
| Re = 4.0 | 61 Feet | | | | 29 | 1:02:10.0 | 6.91 |
| | 00 laa /000 | r | 0000 | | 21 | 1.02.10.0 | 0.03 |
| Sibpe = 0.0038 | 39 10g10/sec | | | | 31 | 1.02.20.0 | 0.00 |
| t _{90%} recovery = 26 | 61 sec | Ĩ | | | 32 | 1:02:25.0 | 6.87 |
| Input is consistent. | | | ത്താറ | 0 | 33 | 1:02:30.0 | 6.87 |
| | | | | | 34 | 1.02.35.0 | 0.00 |
| <u>κ = 0.6</u> | os reevuay | 0.01 | 05:46 09:29 | <u></u> ; | 36 | 1.02.40.0 | 0.00 |
| | | 00.00 02:53 T | IME. Minute:Second | 11.01 | 37 | 1.02.40.0 | 6.85 |
| | | | | | 38 | 1:02:55.0 | 6.85 |
| K= 0.69 is greater than likel | v maximum of 0.1 | for Silt. Loess | | | 39 | 1:03:00.0 | 6.84 |
| REMARKS [,] | y | Bouwer and Ri | ce analysis of slug tes | t. WRR 1976 | 40 | 1:03:05.0 | 6.84 |
| | | | , | | 41 | 1:03:10.0 | 6,83 |
| | | | | ļ | 42 | 1:03:15.0 | 6.83 |
| | | | | | 43 | 1:03:20.0 | 6.81 |
| | | | | | 44 | 1.03:25.0 | 6.81 |
| | | | | 2 | 45 | 1:03:30.0 | 6.81 |
| | | | | | | | |
| | | | | | | | |
| <u>.</u> | | | | | | | |
| | | | | | | 1. | |
| | | | | | | . · | |
| | | | | | | | |

| | WELL I |): MW-10[|) | | _ | Reduced Data | |
|---------------------------------------|---------------------|-----------------|--|-----------------------|-------|--------------|-------|
| · · · · · · · · · · · · · · · · · · · | | | Local ID: 5 Ft Fallin | ng Manual | | Time, | Water |
| 41 | NPUT | | Date: 4/13/2006 | | Entry | Hr:Min:Sec | Level |
| Construction: | | | Time: 11:37 | | 1 | 1:00:10.0 | 4.80 |
| Casing dia. (d _c) | 2 Inch | | | | 2 | 1:00:35.0 | 5.60 |
| Annulus dia. (d _w) | 8.25 Inch | | ,, →) (| | 3 | 1:00:45.0 | 5.67 |
| Screen Longth (L) | 10 Feet | | | | 4 | 1:00:55.0 | 5.78 |
| Screen Length (L) | 101000 | | | <u></u> | 5 | 1:01:05.0 | 5.89 |
| Denths to: | | | TOS | | 6 | 1:01:15.0 | 5.96 |
| water level (DTW) | 6.77 Feet | | | F I I | 7 | 1:01:25.0 | 6.03 |
| top of screen (TOS) | 8 Feet | | | L H D V V I | 8 | 1:01:40.0 | 6.11 |
| Base of Aquifer (DTB) | 18 Feet | | | <u> </u> | 9 | 1:01:50.0 | 6.16 |
| Dubu er riganer (D (D) | | | d,, | | 10 | 1:02:00.0 | 6.21 |
| Annular Fill: | | | Para of Aqui | for Bally Bally Bally | 11 | 1:02:15.0 | 6.26 |
| across screen M | edium Sand | | Dase of Aqui | | 12 | 1:02:25.0 | 6.30 |
| above screen Be | entonite | | Addition to be and filling the | a actimata K | 13 | 1:02:40.0 | 6.33 |
| | | 100 0- | Adjust stope of line t | | 14 | 1:02:50.0 | 6.36 |
| Aquifer Material Si | It, Loess | | | | 10 | 1:03:00.0 | 0.38 |
| | | L. | | | 10 | 1.03.10.0 | 0.41 |
| CO | MPUTED | - g | | | 17 | 1:03:20.0 | 6.42 |
| Lwetted | 10 Feet | | | | 18 | 1:03:30.0 | 6.44 |
| D = | 11.23 Feet | | | | 19 | 1:03:40.0 | 6,46 |
| H = | 11.23 Feet | 1 | | | 20 | 1:03:50.0 | 0.40 |
| Ļ∕r _w = | 29.09 | 1 | | | 21 | 1:04:00.0 | 0.49 |
| YO-DISPLACEMENT = | 1.97 Feet | [] | | | 22 | 1:04:10.0 | 6.51 |
| Yo-slug = | 2.38 Feet | . ا | | | 23 | 1:04:20,0 | 6.52 |
| From look-up table using I | L/r _w | 5 | | | 24 | 1:04:30.0 | 6.53 |
| | | - 0.10 F | A | | 25 | 1:04:40.0 | 6.54 |
| | | F | 8 | | 26 | 1:04:50.0 | 6.55 |
| Fully penetrate C = | 2.041 | ŀ | 18 | | 27 | 1:05:00.0 | 6.56 |
| In(Re/rw) = | 2.593 | Ĩ | | | 28 | 1:05:10.0 | 6,56 |
| Re = | 4.60 Feet | [| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | 29 | 1:05:20.0 | 6.58 |
| | | ŀ | | | 31 | 1.05.40.0 | 6.59 |
| Slope = 0 | 003047 log10/sec | | | , | 32 | 1:05:50.0 | 6.59 |
| t _{90%} recovery = | 328 sec | | 0 | | 33 | 1:06:00.0 | 6 60 |
| Input is consistent. | | | , | | 34 | 1:06:10.0 | 6.60 |
| <u>г и –</u> | 0.55 Feet/Day | | | | 35 | 1:06:20.0 | 6.61 |
| <u> </u> | 0.00 1 0000049 | 0.01 | 07:12 14:24 21:36 | 28:48 36:00 43:12 | 36 | 1:06:30.0 | 6,61 |
| | | | TIME, Minute:Sec | cond | 37 | 1:06:50.0 | 6.62 |
| | | | | | 38 | 1:07:10.0 | 6.62 |
| K= 0.55 is greater that | n likely maximum of | 0.1 for Silt, L | oess | | 39 | 1:07:30.0 | 6.63 |
| REMARKS: | | Bouv | ver and Rice analysis o | f slug test, WRR 1976 | 40 | 1:07:50.0 | 6.64 |
| · · · · · · · · · · · · · · · · | | | | | 41 | 1:08:10.0 | 6,64 |
| | | | | ł | 42 | 1:08:30.0 | 6.65 |
| | | | | • | 43 | 1:08:50.0 | 6.65 |
| 4 | | | | • | 44 | 1:09:15.0 | 6.65 |
| | | | | ţ | 40 | 1.09.45.0 | 0.07 |
| 1 | | | | | ť., | | |
| | | | | i | ÷ 1, | | |

Slug_Bouwer-Rice 10D Test 10

| W/F | =IIID·MW-1 | 0D | | Reduced Data | |
|--|---------------------|--|------------|--------------|-------|
| | | Local ID: 5 Ft Rising Manual | | Time. | Water |
| | | Date: 4/13/2006 | Entry | Hr Min Sec | Level |
| Construction: | | Time: 12:21 | 1 | 1:00:05.0 | 8 71 |
| Casing dia (d) 2 Inch | | | 2 | 1.00.15 0 | 8 17 |
| | | | 2 | 1:00:25.0 | 0.17 |
| Annulus dia. (d _w) 8.25 inch | | ↓ → ← d. | 3 | 1:00:25.0 | 8,08 |
| Screen Length (L) 10 Feet | | | 4 | 1:00:35.0 | 7.99 |
| | | | 5 | 1:00:45.0 | 7.92 |
| Depths to: | | | 6 | 1:00:55.0 | 7.88 |
| water level (DTW) 6.77 Feet | | | 7 | 1:01:05.0 | 7.83 |
| top of screen (TOS) 8 Feet | | | 8 | 1:01:15.0 | 7.78 |
| Base of Aguifer (DTB) 18 Feet | | | 9 | 1:01:25.0 | 7.73 |
| | | | 10 | 1:01:35.0 | 7.68 |
| Annular Fill: | | Dans of Acuifor Development | 11 | 1:01:45.0 | 7.65 |
| across screen Medium Sand | | Base of Aquiter | 12 | 1:01:55.0 | 7.63 |
| above screen Bentonite | | | 13 | 1:02:05.0 | 7.60 |
| | 1.00.0 | Adjust slope of line to estimate K | 14 | 1:02:15.0 | 7.58 |
| Aquifer Material Silt, Loess | 1,00 0 | | 15 | 1:02:25.0 | 7.56 |
| | (| | 16 | 1:02:35.0 | 7.52 |
| COMPUTED | | | 17 | 1:02:50.0 | 7.49 |
| L _{wetted} 10 Feet | | | 18 | 1:03:00.0 | 7.48 |
| D = 11.23 Feet | | | 19 | 1:03:10.0 | 7.46 |
| H = 11.23 Feet | | | 20 | 1:03:20.0 | 7.44 |
| L/r _w = 29.09 | | | 21 | 1:03:30.0 | 7.42 |
| Vo DISPLACEMENT = 1.94 Feet | | | 22 | 1:03:40.0 | 7,40 |
| Very = 2.38 Feet | | Card Card Card Card Card Card Card Card | 23 | 1.03.50.0 | 7.39 |
| From look up toble using 1/r | Ń | The second secon | 24 | 1:04:00 0 | 7 27 |
| | 0.10 | | 25 | 1:04:10.0 | 7.51 |
| | | | 26 | 1.04.10.0 | 7.30 |
| Fully papatrate C = 2.041 | | - | 27 | 1:04:30.0 | 7.33 |
| lo(Re/on) = 2.593 | | | 28 | 1:04:40.0 | 7.31 |
| Re = 4.60 Feet | - | .] | 29 | 1:04:50.0 | 7.30 |
| | | | 30 | 1:05:00.0 | 7.29 |
| $Slope = 0.001959 \log_{10}/se$ | ec 🛛 | | 31 | 1:05:10.0 | 7.28 |
| | | | 32 | 1:05:20.0 | 7 27 |
| Input is consistent | <u> </u> | | 33 | 1:05:30 0 | 7 26 |
| nipar la constatent. | | | 34 | 1:05:40.0 | 7.25 |
| K = 0.35 Feet/D: | av 0.01 | | 35 | 1:05:50.0 | 7.24 |
| | 00:0 | 00 02:53 05:46 08:38 11:31 14:24 | 36 | 1:06:00.0 | 7.23 |
| | | TIME, Minute:Second | 37 | 1:06:10.0 | 7.22 |
| | | | 38 | 1:06:30.0 | .7.21 |
| K= 0.35 is greater than likely maxim | um of 0.1 for Silt, | Loess | 39 | 1:06:40.0 | 7,20 |
| REMARKS: | Bo | uwer and Rice analysis of slug test, WRR 1976 | 40 | 1:06:50.0 | 7.19 |
| | | | 41 | 1:07:00.0 | 7.18 |
| i | | 1 | 42 | 1:07:20.0 | 7.16 |
| | | | 43 | 1:07:40.0 | 7.15 |
| | | | 44 | 1:08:00.0 | 7.13 |
| | | 1 | 45 | 1:08:20.0 | 7.12 |
| | | | t . | | |
| | | | | | |
| | | | | | |

Slug_Bouwer-Rice 10D Test 11



× 1

| | WELL I | D: MW-1 | 0D | | Reduced Data | 1 |
|--------------------------------|----------------------|---------------|---|----------|--------------|--------------|
| | | | Local ID: 2.5 Ft Rising Manual | _ | Time, | Water |
| | INPUT | | Date: 4/13/2006 | Entry | Hr:Min:Sec | Level |
| Construction: | | | Time: 13:33 | 1 | 1:00:05,0 | 7.74 |
| Casing dia. (d _c) | 2 Inch | | | 2 | 1:00:15.0 | 7.44 |
| Annulus dia. (d _w) | 8.25 Inch | | | 3 | 1:00:22.0 | 7.42 |
| Screen Length (L) | 10 Feet | | | 4 | 1.00.30.0 | 7 27 |
| | 101000 | | | 5 | 1:00:00.0 | 7.36 |
| Depths to: | | | TOS | 6 | 1:00:50.0 | 7.34 |
| water level (DTW) | 6.77 Feet | | | 7 | 1:01:00,0 | 7.31 |
| top of screen (TOS) | 8 Feet | | | 8 | 1-01-10.0 | 7 31 |
| Base of Aquifer (DTB) | 18 Feet | | | 9 | 1:01:20.0 | 7.27 |
| | ······ | l | [[d_v]] | 10 | 1:01:30.0 | 7.25 |
| Annular Fill: | | | Resp of Aquifes | 11 | 1:01:40.0 | 7.24 |
| across screen - I | Medium Sand | | Case of Adriler Media | 12 | 1:01:55.0 | 7.22 |
| above screen - f | Bentonite | _ | Adjust slope of line to estimate K | 13 | 1:02:05.0 | 7.21 |
| 1 | 0 | 1.00 0 | | 14 | 1:02:15.0 | 7.20 |
| Aquiter Material S | Silt, Loess | | | 15 40 | 1:02:25.0 | 7.18 |
| 00 | | (| À | 10 | 1.02:35,0 | 7.17 |
| | | | | 17 | 1:02:45.0 | 7.16 |
| -wetted | 10 Feet | | | 18 | 1:02:55.0 | 7.15 |
| D= | 11.23 Feet | | | 19 | 1:03:05.0 | 7.14 |
| п~ 1/с ~ | 11.23 FEEL | | | 20 | 1.03.15.0 | 7.13 |
| | 29.09 | | | 21 | 1.03.25.0 | 7.13 |
| YD-DISPLACEMENT = | 0.97 Feet | | Constant of the second | 22 | 1:03:35.0 | 7.12 |
| Yo-slug [™] | 1.19 Feet | Ŷ | | 23 | 1:03:45.0 | 7.11 |
| From look-up table using | l L/r _w | 0.10 | | 24 | 1:03:55.0 | 7.10 |
| | | Ę | | 25 | 1:04:10.0 | 7.09 |
| | ~ ~ / / | ł | | 26 | 1:04:20.0 | 7.08 |
| Fully penetrate C = | 2.041 | [| | 27 | 1:04:30.0 | 7.07 |
| Ro = | 2.090 4.60 Feet | - | | 20 | 1.04.40.0 | 7.07 |
| 110 - | 4,00 1 000 | 1 | | 30 | 1:05:00.0 | 7.00 |
| Slope = | 0.001421 log10/sec | ſ | | 31 | 1:05:10.0 | 7.05 |
| terre recoverv = | 704 sec | ŀ | | 32 | 1:05:20.0 | 7.04 |
| Input is consistent. | | - | | 33 | 1:05:30.0 | 7.04 |
| | | | | 34 | 1:05:40.0 | 7,03 |
| K = | 0.25 Feet/Day | 0.01 L | and an alternative state of the strengt of the strength and the strength of the strength of the strength of the | 35 | 1:05:50.0 | 7.02 |
| | | 00:0 | 0 02:53 05:46 08:38 11:31 | 36 | 1:06:00.0 | 7.02 |
| | | | TIME, Minute:Second | 37 | 1:06:10.0 | 7.02 |
| | | | _ | 38 | 1:06:20.0 | 7.01 |
| K= 0.25 is greater tha | in likely maximum of | 0.1 for Silt, | Loess | 39 | 1:06:30.0 | 7.01 |
| REMARKS: | | Во | uwer and Rice analysis of slug test, WRR 1976 | 40 | 1:06:40.0 | 7.00 |
| | | | | 47 | 1:05:50.0 | 7.00 |
| | | | | 42 | 1.07:00.0 | 7,00 6 00 |
| | | | | 44 | 1:07:20 0 | 6 99 |
| | | | Ì | 45 | 1:07:30.0 | 6.98 |
| | | | | <i>*</i> | | |
| | | | | | | |
| | | | | · · · | | |
| | | | | | | |

Slug_Bouwer-Rice 10D Test 13

Slug_Bouwer-Rice 12D 7 In









٢.

2 1

Slug_Bouwer-Rice 12D 7 Out





Slug_Bouwer-Rice 12D 7 Out

1

~ I
Slug_Bouwer-Rice 12D 5 In



REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

۴.

× 1

Slug_Bouwer-Rice 12D 5 Out







REMARKS:

1.

21

المر

U.S. Environmental Protection Agency



EPA On-line Tools for Site Assessment Calculation

Recent Additions | Contact Us |

60

EPA Home > > Ecosystems Research > Modeling Subsurface Petroleum Hydrocarbon Transport > OnSite on-line calculators > Retardation Factor

Retardation Factor

Module Home Objectives Table of Contents Previous < Next >

Retardation Factor Calculator

Retardation Factor R = 1 + $\rho_b k_d^{} \, / \theta$

$$\begin{split} R &= \text{retardation factor} \\ \rho_b &= \text{bulk density} = \rho_s(1{\text{-}}\theta) \\ \rho_s &= \text{solids density} \\ \theta &= \text{porosity} \\ k_d &= (\text{soil}) \text{ distribution coefficient} = f_{oc} \ K_{oc} \\ f_{oc} &= \text{fraction organic carbon} \end{split}$$

 K_{oc} = organic carbon/water partition coefficient

| Example Data | Calculate | Clear |
|--------------|-------------|---------|
| Save Data | Recall Data | Go Back |

Input Parameters

| Site Name | Midler Avenue Brownfield | | |
|---|---|----------------|--------------|
| Date | May 2006 | | Current Date |
| Porosity (θ) | 0.40 | | (Try 0.25) |
| Fraction Organic Carbon (f _{oc}) | 0.08 | | (Try 0.0001) |
| Chemical Data Source | BIOSCREEN or BIOCHLOR user guides | andra Maria | |
| Note: | BIOSCREEN and BIOCHLOR user guides: BIOSCREEN Natural Attenuation Decisions Support System Version 1.3, EPA/600/R-96/087, August 1996. | | |

Data

| revision date | August, 1996 and January, 2000 |
|------------------|---|
| Chemical | (PCE) tetrachloroethene (perchloroethene) |
| De | fault Parameters |
| | Solids Density (ρ _s) 2.65 Default |
| | K _{oc} value 426 L/kg |
| Re | sults |
| | Bulk Density (ρ _b) 1.59 g/cm ³ |
| | k _d 34.08 L/kg |
| | Retardation Factor (R) 140. |
| | |
| | Previous Top ^ Next |
| | Home Glossary Notation Links References Calculators |
| | Page author: Jim Weaver, of U.S. EPA, Office of Research and Development, Athens Georgia who last modified this content on: October 21, 2002 |
| | EPA Home Privacy and Security Notice Contact Us |
| | This page was generated on Friday, May 26, 2006 |
| ١ | /iew the graphical version of this page at: http://www.epa.gov/Athens/learn2model/part-two/onsite/retard.htm |

Souther the BROTECTION

U.S. Environmental Protection Agency EPA On-line Tools for Site Assessment

Calculation

Recent Additions | Contact Us |

GO

EPA Home > > Ecosystems Research > Modeling Subsurface Petroleum Hydrocarbon Transport > OnSite on-line calculators > Retardation Factor

Retardation Factor

Module Home Objectives Table of Contents Previous < Next >

Retardation Factor Calculator

k_d

Retardation Factor R = 1 + $\rho_b k_d / \theta$

$$R = retardation factor$$

$$\rho_{b} = bulk \ density = \rho_{s}(1-\theta)$$

$$\rho_{s} = solids \ density$$

$$\theta = porosity$$

$$= (soil) \ distribution \ coefficient = f_{oc} \ K_{oc}$$

f_{oc} = fraction organic carbon

K_{oc} = organic carbon/water partition coefficient

| Example Data | Calculate | Clear |
|--------------|-------------|---------|
| Save Data | Recall Data | Go Back |

Input Parameters

| Site Name | Midler Avenue Brownfield | | |
|---|---|-----------------|--------------|
| Date | May 2006 | | Current Date |
| Porosity (θ) | 0.40 | | (Try 0.25) |
| Fraction Organic Carbon (f _{oc}) | 0.08 | | (Try 0.0001) |
| Chemical Data Source | BIOSCREEN or BIOCHLOR user guides | 18 ⁸ | |
| Note: | BIOSCREEN and BIOCHLOR user guides: BIOSCREEN Natural Attenuation Decisions Support System Version 1.3, EPA/600/R-96/087, August 1996. | | |
| | | | |

Data

| revision date | August, 199 | 6 and Jar | uary, 2000 | | | | | |
|------------------|---------------|-------------------|------------------------------|--|-------------------|-------------------------------|-------------------------|--------------------------|
| Chemical | (TCE) trichle | oroethene | : | , | 1 | | | |
| De | efault Parame | ters | | | | | | |
| | | | | Solids Density (p | » _s) | 2.65 | Default | |
| | | | | K _{oc} val | le | 130 | L/kg | |
| Re | esults | | | | | | | |
| | | | | Bulk Density | (ρ _b) | 1.59 | g/cm ³ | |
| | | | | | k _d | 10.40 | L/kg | |
| | | | Re | etardation Factor | (R) | 42. | | |
| | | | | | | | | |
| | | | | | | | Previous | Top ^ Next |
| | | Home | Glossary | Notation | Lin | ks Refe | rences | Calculators |
| | | | | | | | | |
| | - | Page auth Athe | nor: Jim Wea ns Georgia v | aver, of U.S. EPA who last modified | , Ol I this | ffice of Reso s content or | earch and h: October | Development, 21, 2002 |
| | | | EPA | Home Privacy and S | Secu | rity Notice Co | ntact Us | f. |
| | | | | | | | | e • |
| | | | | | | | | |
| | | 1 | This page was g | generated on Friday, | Мау | 26, 2006 | | - 1 |

View the graphical version of this page at: http://www.epa.gov/Athens/learn2model/part-two/onsite/retard.htm

.



U.S. Environmental Protection Agency

EPA On-line Tools for Site Assessment Calculation

Recent Additions | Contact Us |

GØ.

....,1

EPA Home > > Ecosystems Research > Modeling Subsurface Petroleum Hydrocarbon Transport > OnSite on-line calculators > Retardation Factor

Retardation Factor

Module Home Objectives Table of Contents Previous < Next >

Retardation Factor Calculator

Retardation Factor R = 1 + $\rho_b k_d$ /0

$$\begin{aligned} \mathsf{R} &= \text{retardation factor} \\ \mathsf{p}_{\mathsf{b}} &= \mathsf{bulk density} = \mathsf{p}_{\mathsf{s}}(1\text{-}\theta) \\ \mathsf{p}_{\mathsf{s}} &= \mathsf{solids density} \end{aligned}$$

$$k_d = (soil) distribution coefficient = f_{oc} K_{oc}$$

 K_{oc} = organic carbon/water partition coefficient

| Example Data | Calculate | Clear |
|--------------|-------------|---------|
| Save Data | Recall Data | Go Back |

Input Parameters

| Site Name | Midler Avenue Brownfield | | |
|---|---|-----|--------------|
| Date | May 2006 | | Current Date |
| Porosity (θ) | 0.40 | | (Try 0.25) |
| Fraction Organic Carbon (f _{oc}) | 0.08 | | (Try 0.0001) |
| Chemical Data Source | BIOSCREEN or BIOCHLOR user guides | ¥ð. | |
| Note: | BIOSCREEN and BIOCHLOR user guides: BIOSCREEN Natural Attenuation Decisions Support System Version 1.3, EPA/600/R-96/087, August 1996. | | |

Data

| revisior date | n August, | 1996 and Ja | inuary, 2000 |) | | | | | |
|------------------|--------------|------------------------------------|------------------|--|-----------------------|--|---|------------------|-----------|
| Chemic | al dichloro | ethene (und | ifferentiated | isomers) | | | | | |
| | Default Para | ameters | | | | | | | |
| | | | | Solids Densil | y (ρ _s) | 2.65 | Default | | |
| | | | | K _{oc} | value | 125 | L/kg | | |
| | Results | | | | | | | | |
| | | | | Bulk Dens | ity (ρ _b) | 1.59 | g/cm ³ | | |
| | | | | | k _d | 10.00 | L/kg | | |
| | | | F | etardation Fac | tor (R) | 41. | | | |
| | | | | | | | | | |
| | | | | | | | Previous | <u>Top ^ Nex</u> | <u>‹t</u> |
| | | <u>Home</u> | <u>Glossar</u> | y <u>Notation</u> | Lin | <u>ks</u> <u>Refe</u> | erences <u>C</u> | alculators | |
| | | | | | | | | | |
| | | | the auto line Ma | aver of U.S. E | | ffice of Dor | acrob and D | ovolonmon | |
| | | Page au Ath | ens Georgia | who last modi | fied this | s content o | n: October 2 | 1, 2002 | ι, |
| | | Maria a Secondaria (Maria) a Maria | | ann an 1949 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an 1940 an | | ada nama anna a suite an an suite an anna an suite an anna an suite an suite an suite an suite an suite an sui | 1911 5 de gament d'anne anna ann ann ann an 2011 1921 | | 22 |
| | | | <u>EP</u> 4 | <u> Home Privacy a</u> | nd Secu | r <u>ity Notice</u> C | ontact Us | с 1 | |
| | | | | | | | | | |
| | | | This page was | generated on Frid | lay, May | 26, 2006 | | | |
| | | | | | - | | | | |

View the graphical version of this page at: http://www.epa.gov/Athens/learn2model/part-two/onsite/retard.htm

Saure Der Starte

U.S. Environmental Protection Agency

EPA On-line Tools for Site Assessment

Recent Additions | Contact Us |

60

EPA Home > > Ecosystems Research > Modeling Subsurface Petroleum Hydrocarbon Transport > OnSite on-line calculators > Retardation Factor

Retardation Factor

Module Home Objectives Table of Contents Previous < Next >

Retardation Factor Calculator

Retardation Factor $R = 1 + \rho_h k_d / \theta$

$$\begin{split} R &= \text{retardation factor} \\ \rho_b &= \text{bulk density} = \rho_s(1{\text{-}}\theta) \\ \rho_s &= \text{solids density} \\ \theta &= \text{porosity} \\ k_d &= (\text{soil}) \text{ distribution coefficient} = f_{oc} \ K_{oc} \\ f_{oc} &= \text{fraction organic carbon} \\ K_{oc} &= \text{organic carbon/water partition coefficient} \end{split}$$

| Example Data | Calculate | Clear |
|--------------|-------------|---------|
| Save Data | Recall Data | Go Back |

Input Parameters

| Site Name | Midler Avenue Brownfield | | |
|---|---|------------|--------------|
| Date | May 2006 | | Current Date |
| Porosity (θ) | 0.40 | | (Try 0.25) |
| Fraction Organic Carbon (f _{oc}) | 0.08 | | (Try 0.0001) |
| Chemical Data Source | BIOSCREEN or BIOCHLOR user guides | iju. At | ÷ / |
| Note: | BIOSCREEN and BIOCHLOR user guides: BIOSCREEN Natural Attenuation Decisions Support System Version 1.3, EPA/600/R-96/087, August 1996. | | |

Data

| revision date | August, 1996 and January, 2000 |
|------------------|---|
| Chemical | (VC) vinyl chloride or chloroethene |
| De | fault Parameters |
| | Solids Density (ρ _s) 2.65 Default |
| | K _{oc} value 29.6 L/kg |
| Re | sults |
| | Bulk Density (ρ _b) 1.59 g/cm ³ |
| | k _d 2.368 L/kg |
| | Retardation Factor (R) 10. |
| | <u>Previous Top ^ Next</u> Home Glossary Notation Links References Calculators |
| | Page author: Jim Weaver, of U.S. EPA, Office of Research and Development, Athens Georgia who last modified this content on: October 21, 2002 |
| | EPA Home Privacy and Security Notice Contact Us |
| | This page was generated on Friday, May 26, 2006 |
| v | ew the graphical version of this page at: http://www.epa.gov/Athens/learn2model/part-two/onsite/retard.htm |

.

JULY 2004 PRELIMINARY SITE INVESTIGATION REPORT

• •

<u>بر</u>



ENGINEERS DESIGN BUILD TECHNICAL RESOURCES OPERATIONS C&S Engineers, Inc. 499 Col. Eileen Collins Boulevard Syracuse, NY 13212 phone 315-455-2000 fax 315-455-9667 www.cscos.com

July 30, 2004

Mr. Jed S. Schneider Senior Vice President of Construction Pioneer Midler Avenue, LLC 250 South Clinton Street Syracuse, New York 13202

Re: PRE-BCA REPORT

File: C81.001.001

Dear Mr. Schneider:

This letter summarizes the findings of pre-BCA activities conducted by C&S Engineers, Inc. at the Pioneer Midler LLC site in Syracuse, New York. The project was undertaken based on the C&S proposal dated June 24, 2004. The objective of this proposed scope of work was to conduct an assessment of specific potentially significant areas of concern as previously identified in reports and discussions. This assessment included excavation of test pits, visual observation, physical screening using field instrumentation, and laboratory analysis of select samples to identify the presence of residual contaminants. The intent of this effort was to provide you with information to assist in making decisions on moving forward with the project and the BCP process. Subsequent to the acceptance of the original scope of work, Pioneer requested the excavation of three additional test pits in the western portion of the property to provide information for the design of a retention basin.

The following sections describe the activities and findings for each area. Copies of the test pit logs are provided in Attachment A and a copy of the analytical report is provided in Attachment B. A figure depicting the site is also attached.

C&D fill area located in the northeastern quadrant of the subject parcel

Three test trenches were excavated in this area: T-1 north zone, T-2 central zone, and T-3 south zone. Each test trench was started as near to the east property boundary as practicable. T-1 was 100-ft long, T-2 was 130-ft, and T-3 was 100-ft. Each test trench was approximately five feet to six feet deep. Water was encountered in each trench at approximately five feet below grade. Material encountered in the trenches consisted of clean fill in the upper three feet; this was predominantly soil and gravel. Below this a variety of material was encountered including foundry sands, foundry slag and glass, scrap wood and metal, concrete, asphalt, and tar. At approximately six feet below grade, a white marl was identified. A six inch stratum of brown peat was found atop the marl in most places. Trenching did not extend more than one foot into the marl.

Mr. Jed S. Schneider July 30, 2004 Page 2



Volatile organic vapors were encountered in the first trench (T-1) approximately 70 feet from the east end of the trench. This material registered 275 ppm on the field photoionization detector during a head space evaluation. The material exhibited a black stain and a slight sheen developed on the surface of the water proximate to the material. A sample of the material was collected for laboratory analysis for volatile organic compounds (VOCs) via EPA method 8260 and PCBs via EPA method 8082.

Volatile organic vapors, stained soil, or sheens were encountered elsewhere in the former C&D area. A composite soil sample from T-2 and T-3 was collected for laboratory analysis for VOCs and PCBs.

Results of the analytical work showed that PCBs were not detected in either sample. The composite sample from trenches T-2 and T-3 also showed no detectable levels of VOCs (other that the laboratory contaminant acetone, which is a common laboratory solvent)). The sample from T-1 showed three detectable VOCs: acetone (a laboratory contaminant), 2-butanone (another probable laboratory contaminant), and tetrachloroethene. The level of tetrachloroethene detected (160 ug/kg) is lower than the State recommended soil cleanup objective of 1,400 ug/kg (TAGM 4046) for this compound.

Former pond area located between Building 1 and Building 3 Loading Dock

One test trench was excavated in the former pond area located between Buildings 1 and 3. The upper four feet of the trench consisted of fill which included scrap wood, bricks, asphalt, concrete, rocks, and miscellaneous refuse (cast iron sink, metal pail, metal cans). At approximately four feet below grade, a gray organic silty clay was encountered that was moist to wet and had a very plastic nature. It appeared to be the bottom of the former pond where silt, clay, and natural organic matter had settled over time. Groundwater was encountered above this silt/clay and varied from three feet below grade in the north end of the trench to as deep as seven feet below grade near the middle of the trench. Groundwater at the southern extent of the trench was four feet below grade.

Two composite soil samples were collected from the Pond trench; one from the southern extent and one from the more northerly extent where marl was encountered. The samples were submitted for laboratory analysis for VOCs and PCBs.

The analytical results did not show the presence of PCBs or VOCs. A reported detection of acetone in both samples is suspected to be laboratory contamination.

Area Q - Former petroleum storage tank location

Two trenches were made across the assumed location of the UST. Both trenches were approximately six feet deep. The northeasterly trench consisted mostly of foundry sand and slag. Water was found at five feet below grade. The southwesterly trench consisted of foundry sand and marble stone fragments with some occurrences of slag. Groundwater was also found at five feet below grade at this location.

No laboratory samples were collected from these trenches.

Mr. Jed S. Schneider July 30, 2004 Page 3



Area S - Former petroleum storage tanks location

The area was trenched in several places. No volatile organic vapors, stained soil, or sheens were encountered in any of the trenches. Foundry sands and slag were the predominant materials found in this area, and water was encountered at approximately four feet below the surface. There was no indication of imported fill material such as clean crushed stone. No samples were collected.

Former Powerhouse

Two wipe samples were collected from the former power house. Three active and one inactive transformers were present in the building. The first sample (Power Bldg Floor - grab) was collected from the floor in an area of oil staining in front of the left-most transformer in the building. The second sample (Power Bldg Transformer - Grab) was collected from an oil-stained area on the front of the middle transformer. Samples were submitted to the laboratory for PCB analysis.

The sample from the floor showed a level of 5.5 μ g/wipe of Aroclor 1260. The sample from the front of the transformer was reported as 1.3 μ g/wipe of Aroclor 1260.

West Area Extra Trenches

Three trenches were excavated for the purpose of determining groundwater levels in the area at the west end of the Property. No samples were collected in this area. The following describes the findings in that area.

South Trench (Midler T-1): Total depth of ten feet. 0-5 feet below the surface consisted of fill composed of slag, foundry sand, and sand/silt. 5-10 feet consisted of black to gray sand; wet at eight feet below grade. A white to pinkish marl was encountered at ten feet below grade. Groundwater entered the trench at eight feet below grade.

Middle Trench (Midler T-2): Total depth of six feet. 0-3 feet below the surface consisted of a brown, dry mixture of top soil and rocks. 4-6 ft consisted of black to gray sand and foundry sand mixed with rocks. Groundwater entered the trench at six feet below grade.

North Trench (Midler T-3): Total depth of three feet. 0-3 below the surface feet consisted of fill composed of slag, foundry sand, sand/silt. Wet marl was encountered at three feet below grade.

Summary

Investigations were conducted at several locations to evaluate potential significant environmental issues relative to future development qt the site. Tasks included excavation of test trenches, observation of excavated materials, analytical testing of soil, and sampling and analysis of oil-stained areas in the powerhouse.

Based on the results of this evaluation, we do not believe that there are environmental issues at the site that would be prohibitively costly to correct or that would prevent development.

Mr. Jed S. Schneider July 30, 2004 Page 4



.

÷ 1

Thank you for the opportunity to assist Pioneer Midler Avenue, LLC with this project. We are available to meet at your convenience to discuss these findings. Please call us if there are any questions.

Sincerely yours,

C&S ENGINEERS, INC.

A Bube

Thomas A. Barba Senior Project Scientist

TAB:cah Attachments

cc: Ken Kamlet, Esq. - Newman Development

m:\private\barba\pioneer midler\pre bca report 1.doc

ATTACHMENT A

Test Pit Logs



f.

÷ 1

499 Col Eileen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Engine | ers, Ind | с. | | TEST PIT LOG | (315) | 455-2000 Fax: (315) 455-9667 |
|--------------|-------------|---------------|------------|--|----------------------|------------------------------|
| Test Pit No: | Pond Nor | th | | Date: 7-22-04 | Page: | 1 of 1 |
| Project: | Midler Aver | nue Pre-BC | A Investig | ation | | |
| Client: | Pioneer Mi | dler Avenu | e, LLC | | Start: | 1300 |
| Contractor: | CRAL Cont | tracting, Ind | C. | | Finish: | 1600 |
| Equipment: | Kobelco SI | K160 LC | | In | spector: | J. Holmquist |
| Scale | Strata | Sample | Sample | | | |
| in | Depth | No. | Depth | Description of Materials | | Remarks |
| Feet | Change | | Range | | | |
| | 0.25 | | | Brown to black sand and silt some | | |
| | 0-0.0 | | | misc construction/demolition debris, moist | | |
| | | | | | | |
| | 3.5 - 4.5 | | | White marl, wet, groundwater at 3-ft | | |
| | 4.5 - 5.5 | | | Brown peat, wet | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | · · · |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | 1 |
| | | | | | | 1 · · |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | * ' |
| | | | | | | |
| | <u> </u> | | 1 | | 12 5 to 11 |) inches diameter): |
| | Groundwat | er Dooth | 4 | Cobbles | s (2.5 to 1t : 5% | o incries diameter): |
| Date | | | | Boulder | s (greater | than 10 inches diameter): |
| | see above | e l | | <pre></pre> | :1% | · |
| | | | 7 | | | |

Engineers, Inc.

499 Col Eileen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Test Pit No: | Pond Sou | th | | Date: 7-22-04 | Page: | 1 of 1 |
|--------------|-------------|--------------|-------------|--|------------------|---------------------------|
| Proiect: | Midler Aven | ue Pre-BC | A Investiga | ation | - | |
| Client: | Pioneer Mic | ller Avenue | | Start: | 1300 | |
| Contractor: | CRAL Cont | racting, Inc | | | Finish: | 1600 |
| Equipment: | Kobelco Sk | (160 LC | | | Inspector: | J. Holmquist |
| Scale | Strata | Sample | Sample | | | |
| in | Depth | No. | Depth | Description of Materials | | Remarks |
| Feet | Change | | Range | | | |
| | 0-4 | | | Foundry sand and slag, scrap wood a | nd wetal. | |
| | 0-4 | | : | misc construction/demolition debris, m | noist | |
| | | | | | | |
| | 4 | | | Black to gray, organic silt/clay, wet | | |
| | | | | Groundwater at 4-ft below grade | | |
| | | | | ······································ | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | 1. |
| | | | | | | · · · |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | a 1 |
| | | | | | | |
| | | | | | | |
| | Groundwate | <u>i</u> | <u> </u> | l | bbles (2.5 to 10 |) inches diameter): |
| Date | Time | Depth | 1 | | < 5% | |
| Juit | | |] | Bo | ulders (greater | than 10 inches diameter): |
| | see above | | - | | < 1% | |
| | | 1 | 1 | | | |

Engineers, Inc.

499 Col Elleen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Test Pit No: | C&D Area | 1 T-2 | | Date: 7-23-04 | Page: | 1 of 1 |
|---------------------|---------------------------|---------------|--------------------------|--|-------------------------|--|
| Project: | Midler Aver | ue Pre-BC | A Investig | ation | | |
| Client: | Pioneer Mic | dler Avenu | e, LLC | | Start: | 0900 |
| Contractor: | CRAL Cont | racting, In | с. | | Finish: | 1100 |
| Equipment: | Kobelco Sk | (160 LC | | | Inspector: | J. Holmquist |
| Scale in Feet | Strata Depth Change | Sample No. | Sample Depth Range | Description of Materials | | Remarks |
| | 0 - 5 | | | Foundry sand and slag, some constru demolition debris, scrap wood and m | uction/ letal, moist | Some VOVs in soil encountered approx 70-ft east of property boundary in trench 3-ft to 5-ft |
| | 5.5 | | | White marl, wet Wet at 5-ft. Groundwater 5-ft below g | grade | below grade. Black stain soil. |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | ~ ! |
| | | | | | | |
| D = +- | Groundwate | Pr. | 4 | Co | obbles (2.5 to 10 | inches diameter): |
| | | Deptn | | Bo | vulders (areater 1 | han 10 inches diameter): |
| ······ | see above | | • | | none | ······································ |

Engineers, Inc.

499 Col Eileen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Test Pit No: | C&D Area | a T-3 | | Date: 7-23-04 | Page: | 1 of 1 |
|--------------|------------|--------------|------------|---|------------------------|--|
| Project: | Midler Ave | nue Pre-BC | A Investig | ation | | |
| Client: | Pioneer Mi | dler Avenu | e, LLC | | Start: | 1100 |
| Contractor: | CRAL Cont | tracting, In | с. | | Finish: | 1200 |
| Equipment: | Kobelco Sl | K160 LC | | | Inspector: | J. Holmquist |
| Scale | Strata | Sample | Sample | | | |
| in | Depth | No. | Depth | Description of Materials | | Remarks |
| Feet | Change | | Range | - | | |
| | 0 - 3 | | | Foundry sand and slag, some construct demolition debris, scrap wood and met root zone at 3-ft | ion/ al, moist, | |
| | 3 - 5 | | | Black to gray, medium sand, some four moist Wet at 4-ft. Groundwater 4-ft below gra | ndry sand | |
| | 5-6 | | | Brown peat, wet | • •••• •••• •••• | |
| | 6 | | | White marl, wet | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | : | | | | ۰ م ۱ |
| | Groundwate | | | | les (0 5 to 10 | in ala an aliana atawa |
| Date | Time | Depth | | Cobe | nes (2.5 to 10 < 5% | mones diameter): |
| | | | | Bould | ders (greater t | han 10 inches diameter): |
| | see above | | | | none | ······································ |
| | | | | | | |

Engineers, Inc.

499 Col Eileen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Test Pit No: | Area S (F | ormer AS | STs) | Date: 7-23-04 | Page | 1 of 1 |
|--------------|-------------|--------------|------------|---|----------------|--------------------------|
| Project: | Midler Aver | ue Pre-RC | A Investig | ation | i ugo. | |
| Client: | Pioneer Mi | dler Avenu | e. LIC | | Start | 1400 |
| Contractor: | CRAL Cont | tracting. In | c. | | Finish: | 1500 |
| Equipment: | Kobelco Sł | <160 LC | | | Inspector: | J. Holmauist |
| Scale | Strata | Sample | Sample | | | |
| in | Depth | No. | Depth | Description of Materials | | Remarks |
| Feet | Change | | Range | | | |
| | 0 - 4 | | | Foundry sand and slag, crushed stone, n Wet at 4-ft. Groundwater 4-ft below grad | noist e | |
| | | | | | | ~ ' |
| | Groundwate | <u>الا</u> | | Cobbl | es (2.5 to 10 | inches diameter): |
| Date | Time | Depth | | | < 5% | |
| | | <u> </u> | 4 | Bould | ers (greater t | han 10 inches diameter): |
| | | I | | | HUILE | |

499 Col Elleen Collins Blvd, Syracuse, New York 13212

Engineers, Inc. **TEST PIT LOG** (315) 455-2000 Fax: (315) 455-9667 Test Pit No: Midler Ave T-1 Date: 7-22-04 Page: 1 of 1 **Project: Midler Avenue Pre-BCA Investigation Client: Pioneer Midler Avenue, LLC** Start: 1100 Contractor: CRAL Contracting, Inc. Finish: 1130 Equipment: Kobelco SK160 LC Inspector: J. Holmquist Scale Strata Sample Sample Depth No. Depth **Description of Materials** in Remarks Feet Change Range

| | 0-5 | | Foundry sand and slag | |
|------|------------|-------|---|---------------------------|
| | 5 - 10 | | Black to gray, medium sand | |
| | 10 | | White marl | |
| | | | Water entering above marl at 8-ft below grade | |
| | | | | |
| | | | | ÷ 1 |
| | Groundwate | r | Cobbles (2.5 to 10 |) inches diameter): |
| Date | Time | Depth | < 5% | |
| | see above | | Boulders (greater none | than 10 inches diameter): |

Engineers, Inc.

499 Col Eileen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Test Pit No: | Midler Av | e T-2 | | Date: 7-22-04 | Page: | 1 of 1 |
|---------------------|---------------------------|---------------------------|--------------------------|---|----------------|--------------------------|
| Project: | Midler Aver | າ <mark>ue Pre-B</mark> C | A investig | ation | | |
| Client: | Pioneer Mid | dler Avenu | e, LLC | | Start: | 1130 |
| Contractor: | CRAL Cont | racting, In | с. | | Finish: | 1200 |
| Equipment: | Kobelco Sł | (160 LC | | r | Inspector: | J. Holmquist |
| Scale in Feet | Strata Depth Change | Sample No. | Sample Depth Range | Description of Materials | | Remarks |
| | 0 - 3 | | | Brown, top soil and rock cobbles, dry | | |
| | 3 - 6 | | | Black to gray, medium sand, foundry san and slag, some rock cobbles Groundwater at 6-ft below grade | đ | |
| | | | | | | • |
| | | | | | | ۰ ۲ |
| | Groundwate | <u>،</u> ۲ | | Cobble | es (2.5 to 10 | inches diameter): |
| Date | Time | Depth | | | < 5% | |
| | | <u> </u> | | Boulde | ers (greater l | han 10 inches diameter): |
| 1 | See above | | | | | |

499 Col Eileen Collins Blvd, Syracuse, New York 13212

TEST PIT LOG

| Engine | ers, Inc | 2. | | TEST PIT LOG | (315) | 455-2000 Fax: (315) 455-9667 |
|--------------|-------------|--------------|-------------|--------------------------------------|------------------|------------------------------|
| Test Pit No: | Midler Av | e T-3 | | Date: 7-22-04 | Page: | 1 of 1 |
| Project: | Midler Aven | ue Pre-BC | A Investiga | ation | | |
| Client: | Pioneer Mic | iler Avenue | e, LLC | | Start: | 1200 |
| Contractor: | CRAL Cont | racting, Inc | : . | | Finish: | 1215 |
| Equipment: | Kobelco Sk | (160 LC | | | Inspector: | J. Holmquist |
| Scale | Strata | Sample | Sample | | | |
| in | Depth | No. | Depth | Description of Materials | | Hemarks |
| Feet | Change | | Range | | | |
| | 0-3 | | | Brown to black, medium sand, foundry | / sand | |
| | | | | and slag, moist | | |
| | | | | | | |
| | 3 | | | vvnite mari | | |
| | | | | Groundwater at 3-ft below grade | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | - |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | 1. • • |
| | | | | | | |
| | | | | | | |
| | | | * | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | Groundwat | ter | - | Co | obdies (2.5 to 1 | u inches diameter): |
| Date | Time | Depth | - | Bo | ulders (greate | r than 10 inches diameter): |
| | see abov | e | - | | none | |
| | | | | | | |

ATTACHMENT B

Analytical Report



1

÷ 1



Tom Barba C&S Engineers, Inc. 499 Col. Eileen Collins Blvd N. Syracuse, NY 13212 Phone: (315) 455-2000 FAX: (315) 455-9667

Laboratory Analysis Report For

C&S Engineers, Inc.

Client Project ID:

Pioneer Midler

LSL Project ID: 0412284 Receive Date/Time: 07/23/04 15:20

Project Received by: MW

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody document submitted with these samples is considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

Life Science Laboratories, Inc.

LSL Central Lab 5854 Butternut Drive East Syracuse, NY 13057 Tel. (315) 445-1105 Fax (315) 445-1301 NYS DOH ELAP #10248 PA DEP #68-2556 LSL North Lab 131 St. Lawrence Avenue Waddington, NY 13694 Tel. (315) 388-4476 Fax (315) 388-4061 NYS DOH ELAP #10900

LSL Finger Lakes Lab 16 N. Main St., PO Box 424 Wayland, NY 14572 Tel. (585) 728-3320 Fax (585) 728-2711 NYS DOH ELAP #11667 LSL Southern Tier Lab 30 East Main Street Cuba, NY 14727 Tel. (585) 968-2640 Fax (585) 968-0906 NYS DOH ELAP #10760

Date:

LSL MidLakes Lab 699 South Main Street Canandaigua, NY 14424 Tel. (585) 396-0270 Fax (585) 396-0377 NYS DOH ELAP #11369

This report was reviewed by:

<u>hinda Waters</u> QC

7/28/04

Page 1 of 11 Date Printed: 7/28/04

C&S Engineers, Inc. N. Syracuse, NY

Power Bldg Floor -GrabLSL Sample ID:0412284-001

Location: Pioneer Midler Sampled: 07/22/04 10:15

07/22/04 10:15 Sampled By: JH

Sample Matrix: Wipe

Sample ID:

| Analytical Method | Result | Units | Prep Date | Analysis Date & Time | Analyst Initials |
|--|-------------------|--------------------|--------------|-------------------------|---------------------|
| (1) NVSDOH 312 3M/EPA 8082 PCB's in Wines | | | | | |
| (1) NYSDOM 312-300 EI A 8082 I CD 3 m Wipes | <0.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| Aroclor-1010 | <0.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| Al 0000-1221 A rodor-1237 | <0.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| Aroclor-1252 | <0.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| Arocior-1248 | <0.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| Aroclor-1254 | <0.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| Aroclor-1260 | 5.5 | ug/wipe | 7/26/04 | 7/27/04 | AMW |
| This target analyte appears to be biologically (| degraded and/or e | nvironmentally wea | thered. | | |
| Surrogate (DCB) | 91 | %R | 7/26/04 | 7/27/04 | AMW |

5. -

* 1

C&S Engineers, Inc. N. Syracuse, NY

| | • | | |
|------------|------------------------------|----------------|-------------|
| Sample ID: | Power Bldg Transformer -Grab | LSL Sample ID: | 0412284-002 |
| | | | |

Sampled By: JH

Location: Pioneer Midler Sampled: 07/22/04 10:16

Sample Matrix: Wipe

Analysis Analyst Prep Analytical Method Initials Date & Time Date Units Result Analyte (1) NYSDOH 312-3M/EPA 8082 PCB's in Wipes AMW 7/27/04 < 0.5 ug/wipe 7/26/04 Aroclor-1016 AMW 7/26/04 7/27/04 <0.5 ug/wipe Aroclor-1221 7/27/04 AMW 7/26/04 < 0.5 ug/wipe Arocior-1232 7/27/04 AMW 7/26/04 < 0.5 ug/wipe Aroclor-1242 AMW 7/27/04 7/26/04 < 0.5 ug/wipe Aroclor-1248 7/27/04 AMW 7/26/04 < 0.5 ug/wipe Aroclor-1254 AMW 7/26/04 7/27/04 1.3 ug/wipe Aroclor-1260 This target analyte appears to be biologically degraded and/or environmentally weathered. 7/27/04 AMW 7/26/04 %R 95 Surrogate (DCB)

5. .

+ 1

C&S Engineers, Inc. N. Syracuse, NY

LSL Sample ID:

0412284-003

Sample ID:Pond A 3'-4' - CompLocation:Pioneer MidlerSampled:07/22/04 15:00Sample Matrix:SHW Dry Wt

| Sampled | By: | JH |
|---------|-----|----|

| Analytical Method | | | Prep | Analysis | Analyst |
|--|--------|-----------|---------|-------------|----------|
| Analytical Method | Result | Units | Date | Date & Time | Initials |
| | | | | | |
| (1) EPA 8082 FCBS | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Arocior-1010 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1221 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1252 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor 1242 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor 1240 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Arociot-1269 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Surrogate (DCB) | 90 | %R | 7/26/04 | 7/28/04 | AMW |
| | | | | | |
| (I) EPA 8260B TCL volatiles | 190 | uo/ko drv | | 7/26/04 | LEF |
| Acetone | <40 | ug/kg dry | | 7/26/04 | LEF |
| Benzene | <40 | ug/kg dry | | 7/26/04 | LEF |
| Bromodichloromethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| Bromoform | <40 | ug/kg dry | | 7/26/04 | LEF |
| Bromomethane | <80 | ug/kg dry | | 7/26/04 | LEF |
| 2-Butanone (MEK) | <40 | ug/kg dry | | 7/26/04 | LEF |
| Carbon disultide | <40 | ug/kg dry | | 7/26/04 | LEF |
| Carbon tetrachloride | <40 | ug/kg drv | | 7/26/04 | LEF |
| Chlorobenzene | <40 | ug/kg dry | | 7/26/04 | LEF |
| Chloroetnane | <40 | ug/kg dry | | 7/26/04 | LEF |
| | <40 | ug/kg dry | | 7/26/04 | LEF |
| Chioromethane Dilasana blanamathana | <40 | ug/kg dry | | 7/26/04 | LEF |
| Dipromocniorometinane | <40 | ug/kg dry | | 7/26/04 | ` LEF |
| 1,1-Dichloroethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1.1. Dichloroethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1,1-Dichloroethene Total | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1.2 Dichloropropage | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1,2-Dichloropropene | <40 | ug/kg dry | | 7/26/04 | LEF |
| trans_1_2_Dichloropropene | <40 | ug/kg dry | | 7/26/04 | LEF |
| Ethyl honzene | <40 | ug/kg dry | | 7/26/04 | LEF |
| 2-Hevenone | <80 | ug/kg dry | | 7/26/04 | LEF |
| Methylene chloride | <80 | ug/kg dry | | 7/26/04 | LEF |
| 4-Methyl-2-pentanone (MIBK) | <80 | ug/kg dry | | 7/26/04 | LEF |
| Styrene | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1.1.2.2-Tetrachloroethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| Tetrachloroethene | <40 | ug/kg dry | | 7/26/04 | LEF |
| Toluene | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1.1.1-Trichloroethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1.1.2-Trichloroethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| Trichloroethene | <40 | ug/kg dry | | 7/26/04 | LEF |
| Vinyl chloride | <40 | ug/kg dry | | 7/26/04 | LEF |
| Xylenes (Total) | <40 | ug/kg dry | | 7/26/04 | |
| Surrogate (1,2-DCA-d4) | 99 | %R | | 7/26/04 | |
| Surrogate (Tol-d8) | 106 | 6 %R | | 7/26/04 | |
| Surrogate (4-BFB) | 117 | %R | | //26/04 | LEF |
| Elevated detection limit due to matrix interference. | | | | | |

Life Science Laboratories, Inc.

Page 4 of 11 7/28/04

Date Printed:

Analysis performed at: (1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes

C&S Engineers, Inc. N. Syracuse, NY

| | | | | | TOT Completion | 0412284-(| 103 |
|---------------------------------|--|----------------|--------|-------|----------------|-------------|----------|
| Sample ID: | Pond A 3'-4' - Comp | | | | LSL Sample ID: | 0417204-0 | 105 |
| Location: | Pioneer Midler | | | | | | |
| Sampled: | 07/22/04 15:00 | Sampled By: JH | | | | | |
| Sample Matrix: | SHW Dry Wt | | | | | Anglucia | Analyst |
| Analytical Meth Analyte | od | | Result | Units | Date | Date & Time | Initials |
| (1) Modified EP. Total Solid | A 160.3 Total Solids ds @ 103-105 C | | 57 | % | 7/28/04 | 7/28/04 | LEF |

1. .

<u>م</u> ا

C&S Engineers, Inc. N. Syracuse, NY

Sampled By: JH

LSL Sample ID:

0412284-004

Sample ID:Pond B 3'-5' - CompLocation:Pioneer MidlerSampled:07/22/04 16:00Sample Matrix:SHW Dry Wt

| | | | Prep | Analysis | Analyst |
|--|--------|-------------|---------|-------------|--------------|
| Analytical Method | Result | Units | Date | Date & Time | Initials |
| Analyte | | | | | |
| (I) EPA 8082 PCB's | <0.4 | malka div | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1016 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1221 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1232 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1242 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1248 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1254 | <0.4 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1260 | -0.4 | WENE OF | 7/26/04 | 7/28/04 | AMW |
| Surrogate (DCB) | 104 | 7010 | | | |
| (1) EPA 8260B TCL Volatiles | | | | 7/26/04 | LEE |
| Acetone | 160 | ug/kg dry | | 7/20/04 | LEF |
| Benzene | <40 | ug/kg dry | | 7/20/04 | LEF |
| Bromodichloromethane | <40 | ug/kg dry | | 7/20/04 | LEF |
| Bromoform | <40 | ug/kg dry | | 7/20/04 | LEF |
| Bromomethane | <40 | ug/kg dry | | 7/20/04 | LEI |
| 2-Butanone (MEK) | <80 | ug/kg dry | | 7/20/04 | LEE |
| Carbon disulfide | <40 | ug/kg dry | | 7/26/04 | LEF |
| Carbon tetrachloride | <40 | ug/kg dry | | 7/26/04 | LEF |
| Chlorobenzene | <40 | ug/kg dry | | 7/26/04 | |
| Chloroethane | <40 | ug/kg dry | | 7/26/04 | LUT |
| Chloroform | <40 | ug/kg dry | | 7/26/04 | LEF |
| Chloromethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| Dibromochloromethane | <40 | ug/kg dry | | 7/26/04 | LEF |
| 1.1-Dichloroethane | <40 | ug/kg dry | | 7/20/04 | LEF |
| 1.2-Dichloroethane | <40 | ug/kg dry | | 7/26/04 | LLI" I CC |
| 1.1-Dichloroethene | <40 | ug/kg dry | | 7/26/04 | |
| 1.2-Dichloroethene, Total | <40 | ug/kg dry | | 7/26/04 | LEI |
| 1.2-Dichloropropane | <40 | ug/kg dry | | 7/26/04 | I DE |
| cis-1.3-Dichloropropene | <40 | ug/kg dry | | 7/26/04 | LET |
| trans-1.3-Dichloropropene | <40 | ug/kg dry | | 7/26/04 | LEI |
| Ethyl benzene | <40 | ug/kg dry | | 7/26/04 | |
| 2-Hexanone | <80 |) ug/kg dry | | 7/26/04 | |
| Methylene chloride | <80 |) ug/kg dry | | 7/26/04 | LCI |
| 4-Methyl-2-pentanone (MIBK) | <80 |) ug/kg dry | | 7/26/04 | LCI |
| Styrene | <4(|) ug/kg dry | | 7/26/04 | LCI |
| 1.1.2.2-Tetrachloroethane | <4(|) ug/kg dry | | 7/26/04 | LEI |
| Tetrachloroethene | <40 |) ug/kg dry | | 7/26/04 | LEI |
| Toluene | <40 |) ug/kg dry | | 7/26/04 | LEI |
| 1 1.1-Trichloroethane | <4 |) ug/kg dry | | 7/26/04 | LEI |
| 1 1 2-Trichloroethane | <4 |) ug/kg dry | | 7/26/04 | LE |
| Trichloroethene | <4 |) ug/kg dry | | 7/26/04 | LE. |
| Vinvi chloride | <4 | 0 ug/kg dry | | 7/26/04 | LE. |
| Xylenes (Total) | <4 | 0 ug/kg dry | | 7/26/04 | LE |
| Surrogate (1.2-DCA-d4) | 11 | 1 %R | | 7/26/04 | LE |
| Surroyate (Tol-d8) | 10 | 3 %R | | 7/26/04 | LE |
| Surrogate (4-BFB) | 11 | 1 %R | | 7/26/04 | LE |
| Elevated detection limit due to matrix interference. | | | | | |

Life Science Laboratories, Inc.

Page 6 of 11 7/28/04

Date Printed:

Analysis performed at: (1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes

N. Syracuse, NY C&S Engineers, Inc.

| | | cus biigiinei | | | | 0412284-0 | 104 |
|------------------|----------------------|----------------|--------|-------|----------------|-------------|----------|
| Sample ID: | Pond B 3'-5' - Comp | | | | LSL Sample ID: | 0412204-0 | <i></i> |
| Location: | Pioneer Midler | | | | | | |
| Sampled: | 07/22/04 16:00 | Sampled By: JH | | | | | |
| Sample Matrix: | SHW Dry Wt | | | | Pren | Analysis | Analyst |
| Analytical Meth | od | | Result | Units | Date | Date & Time | Initials |
| Anaiyte | | | | | | | |
| (1) Modified EP. | A 160.3 Total Solids | | 58 | 0/ | 7/28/04 | 7/28/04 | LEF |
| Total Soli | ds @ 103-105 C | | 20 | 70 | | | |

1. . ·

÷ 1

٢

N. Syracuse, NY C&S Engineers, Inc.

LSL Sample ID:

0412284-005

| Sample ID: | C+D T1 70' West 5 | '-6' - Grab |
|------------|-------------------|-------------|
| Location: | Pioneer Midler | |
| Sampled: | 07/23/04 9:00 | Sample |

Sampled By: JH

Sampled: 4......

| Sample Matrix: SHW Dry Wt | <u></u> | W. W. W. | Prep | Analysis | Analyst |
|---|--------------------------|-------------|---------|-------------|-------------|
| Analytical Method | Result | Units | Date | Date & Time | Initials |
| Analyte | | | | | |
| (1) EPA 8082 PCB's | <0.6 | ma/ka dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1016 | <0.6 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1221 | <0.6 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1232 | <0.0 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1242 | <0.6 | mg/kg drv | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1248 | <0.0 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1254 | <0.6 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1260 | 105 | %R | 7/26/04 | 7/28/04 | AMW |
| Surrogate (DCB) | 105 | 7010 | | | |
| (1) EPA 8260B TCL Volatiles | | | | 7/26/04 | IFF |
| Acetone | 1500 | ug/kg dry | | 7/20/04 | LEF |
| Benzene | <70 | ug/kg dry | | 7/20/04 | LEI |
| Bromodichløromethane | <70 | ug/kg dry | | 7/20/04 | LEI |
| Bromotorm | <70 | ug/kg dry | | 7/26/04 | LET |
| Bromomethane | <70 | ug/kg dry | | 7/20/04 | LEI |
| 2-Butanone (MEK) | 370 | ug/kg dry | | 7/20/04 | LEI I FF |
| Carbon disulfide | <70 | ug/kg dry | | 7/20/04 | LEI |
| Carbon tetrachloride | <70 | ug/kg dry | | 7/20/04 | IFF |
| Chlorobenzene | <70 | ug/kg dry | | 7/20/04 | LEI |
| Chloroethane | <70 | ug/kg dry | | 7/20/04 | LEI |
| Chloreform | <70 | ug/kg dry | | 7/20/04 | LEI |
| Chloromethane | <70 | ug/kg dry | | 7/20/04 | I FI |
| Dibromochloromethane | <70 | ug/kg dry | | 7/20/04 | LEI |
| 1.1-Dichloroethane | <70 | ug/kg dry | | 7/20/04 | - EE |
| 1.2-Dichloroethane | <70 | ug/kg dry | | 7/20/04 | 1 El |
| 1.1-Dichloroethene | <70 | ug/kg dry | | 7/20/04 | LE |
| 1.2-Dichloroethene, Total | <70 | ug/kg dry | | 7/20/04 | LE |
| 1.2-Dichloropropane | <70 | ug/kg dry | | 7/20/04 | LE |
| cis-1.3-Dichloropropene | <70 | ug/kg dry | | 7/20/04 | LE |
| trans-1.3-Dichloropropene | <70 |) ug/kg dry | | 7/20/04 | LE |
| Ethyl benzene | <70 |) ug/kg dry | | 7/20/04 | LE |
| 2-Hexanone | <100 |) ug/kg dry | | 7/20/04 | LE |
| Methylene chloride | <100 |) ug/kg dry | | 7/20/04 | IE |
| 4-Methyl-2-pentanone (MIBK) | <100 |) ug/kg dry | | 7/20/04 | 11 |
| Styrene | <70 |) ug/kg dry | | 7/20/04 | LE I E |
| 1.1.2.2-Tetrachloroethane | <70 |) ug/kg dry | | 7/26/04 | LL 1 E |
| Tetrachloroethene | 16 |) ug/kg dry | | #20/04 | LE |
| Toluene | <7 | 0 ug/kg dry | | 7/20/04 | Г. Г. F. |
| 1.1.1-Trichloroethane | <7 | 0 ug/kg dry | | //20/04 | LI I F |
| 1.1.2-Trichloroethane | <7 | 0 ug/kg dry | | 7/20/04 | LL TF |
| Trichloroethene | <7 | 0 ug/kg dry | | 7/20/04 | 1 |
| Vinvl chloride | <7 | 0 ug/kg dry | | 1/20/04 | 11 |
| Xvienes (Total) | 17 | 0 ug/kg dry | | 7/20/04 | |
| Surrogate (1,2-DCA-d4) | 11 | 5 %R | | 7/26/04 | 1. I |
| Surrogate (Tol-d8) | 11 | 0 %R | | 7/20/04 | T. |
| Surrogate (4-BFB) | 10 | 13 %R | | //26/04 | LI |
| Elevated detection limits due to the presence of a petroleu | m hydrocarbon pattern in | the sample. | | | |

Life Science Laboratories, Inc.

Page 8 of 11 7/28/04 Date Printed:

Analysis performed at: (1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes

| | | C&S Engineers, Inc | c. N. I | Syracus | e, NY | | |
|---------------------------------|--|--------------------|---------|---------------|--------------|----------------|----------|
| Sample ID: C+D T1 70' West 5' | | -6' - Grab | | LSL Sample II | | D: 0412284-005 | |
| Location: | Pioneer Midler | | | | | | |
| Sampled: | 07/23/04 9:00 | Sampled By: JH | | | | | |
| Sample Matrix: | SHW Dry Wt | | | | D | Analusia | Analyst |
| Analytical Meth | od | | Result | Units | Prep Date | Date & Time | Initials |
| (1) Modified EPA Total Solid | A 160.3 Total Solids ds @ 103-105 C | | 35 | % | 7/28/0 |)4 7/28/04 | LEF |

1. .

÷ 1

C&S Engineers, Inc. N. Syracuse, NY

LSL Sample ID:

0412284-006

Sample ID:C+D T2 and T3 2'-5' - CompLocation:Pioneer MidlerSampled:07/23/04 11:00Sampled By: JH

| Oumprear | •••• |
|----------------|------------|
| Sample Matrix: | SHW Dry Wt |

| Analytical Method | | | Prep | Analysis | Analyst |
|--|-----------|-----------|---------|-------------|----------|
| Analyte | Result | Units | Date | Date & Time | Initials |
| (1) EPA 8082 PCB's | | | | | |
| (1) EFA 8082 1 CD 3 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclar 1221 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor 1221 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1252 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor-1242 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Aroclor=1246 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Arocior-1254 | <0.2 | mg/kg dry | 7/26/04 | 7/28/04 | AMW |
| Argelor-1200 | 101 | %R | 7/26/04 | 7/28/04 | AMW |
| Surrogate (DCB) | | | | | |
| (1) EPA 8260B TCL Volatiles | 80 | under der | | 7/26/04 | LEF |
| Acetone | 8U -20 | ug/kg ury | | 7/26/04 | LEF |
| Benzene | <30 | ug/kg diy | | 7/26/04 | LEF |
| Bromodichloromethane | <30 | ug/kg dry | | 7/26/04 | LEF |
| Bromoform | <30 | ug/kg ory | | 7/26/04 | LEF |
| Bromomethane | <30 | ug/kg dry | | 7/26/04 | LEF |
| 2-Butanone (MEK) | <60 | ug/kg ary | | 7/26/04 | LEF |
| Carbon disulfide | <30 | ug/kg ary | | 7/26/04 | LEF |
| Carbon tetrachloride | <30 | ug/kg ory | | 7/26/04 | LEF |
| Chlorobenzene | <30 | ug/kg ary | | 7/26/04 | LEF |
| Chloroethane | <30 | ug/kg dry | | 7/26/04 | LEF |
| Chloroform | <30 | ug/kg dry | | 7/20/04 | LEF |
| Chloromethane | <30 | ug/kg ary | | 7/26/04 | LEF |
| Dibromochloromethane | <30 | ug/kg dry | | 7/26/04 | LEF |
| 1,1-Dichloroethane | <30 | ug/kg dry | | 7/26/04 | LEF |
| 1,2-Dichloroethane | <30 | ug/kg ary | | 7/26/04 | LEF |
| 1,1-Dichloroethene | <30 | ug/kg dry | | 7/26/04 | LEF |
| 1,2-Dichloroethene, Total | <30 | ug/kg ary | | 7/26/04 | LEF |
| 1,2-Dichloropropane | <30 | ug/kg dry | | 7/26/04 | LEF |
| cis-1,3-Dichloropropene | <30 | ug/kg ary | | 7/26/04 | LEF |
| trans-1,3-Dichloropropene | <30 | ug/kg dry | | 7/26/04 | LEF |
| Ethyl benzene | <30 | ug/kg dry | | 7/26/04 | LEF |
| 2-Hexanone | <60 | ug/kg ory | | 7/26/04 | LEF |
| Methylene chloride | <60 | ug/kg ary | | 7/26/04 | LEF |
| 4-Methyl-2-pentanone (MIBK) | <60 | ug/kg ory | | 7/26/04 | LEF |
| Styrene | <30 | ug/kg dry | | 7/26/04 | LEF |
| 1,1,2,2-Tetrachloroethane | <30 | ug/kg ary | | 7726104 | LEF |
| Tetrachloroethene | <30 | ug/kg dry | | 7/26/04 | LEF |
| Toluene | <30 | ug/kg ury | | 7/26/04 | LEF |
| 1,1,1-Trichloroethane | <30 | ug/kg ury | | 7/26/04 | LEF |
| 1,1,2-Trichloroethane | <30 | ug/kg ury | | 7/26/04 | LEF |
| Trichloroethene | U{> | ugrkg ury | | 7/26/04 | LEF |
| Vinyl chloride | <30 | ug/kg dry | | 7/26/04 | LEF |
| Xylenes (Total) | <30 | ugrkg ary | | 7/26/04 | LEF |
| Surrogate (1,2-DCA-d4) | 110 | / %/K | | 7/26/04 | LEF |
| Surrogate (Tol-d8) | 117 | %K | | 7/26/04 | LEF |
| Surrogate (4-BFB) | 103 | > %K | | 1120107 | |
| Elevated detection limit due to matrix interference. | | | | | |

Life Science Laboratories, Inc.

Page 10 of 11 Date Printed: 7/28/04

Analysis performed at: (1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes

C&S Engineers, Inc. N. Syracuse, NY

| and the second second second second second second second second second second second second second second second | | | | | | 0412294 (| 06 |
|--|--|----------------|--------|-------|----------------|-------------|----------|
| Sample ID: | ample ID: C+D T2 and T3 2'-5' - Comp | | | | LSL Sample ID: | 0412204-0 | 100 |
| Location: | Pioneer Midler | | | | | | |
| Sampled: | 07/23/04 11:00 | Sampled By: JH | | | | | |
| Sample Matrix: | SHW Dry Wt | | | | | • • • • • | Amalwat |
| Analytical Meth Analyte | od | | Result | Units | Prep Date | Date & Time | Initials |
| (1) Modified EPA Total Solid | A 160.3 Total Solids Is @ 103-105 C | | 83 | % | 7/28/04 | 7/28/04 | LEF |

1. .

÷ 1


SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

| | | Water | SHW |
|--------------|----------------------------|------------|------------|
| Mathod | Surrogate(s) | Limits, %R | Limits, %R |
| Method | <u>Duriogato(b)</u> | - | |
| | TCMX | 80-120 | NA |
| | DCB | 70-130 | NA |
| | DCAA | 70-130 | NA |
| EPA 594 9 | 1 2-DCA-d4, 4-BFB | 80-120 | NA |
| EPA 525.2 | 1 3-DM-2-NB, TPP, Per-d12 | 70-130 | NA |
| EFA 525.2 | 1.3-DM-2-NB, TPP | 70-130 | NA. |
| EPA 528 | 2-CP-3.4.5.6-d4, 2.4.6-TBP | 70-130 | NA |
| EPA 520 | Decafluorobiphenvi | 80-120 | NA |
| EPA 552 2 | 2 3-DBPA | 80-120 | NA |
| | 2,0 -0.1. | | |
| | 1.2-DCA-d4, Tol-d8, 4-BFB | 70-130 | NA |
| | 1.2-DCA-d4, Tol-d8, 4-BFB | 70-130 | NA |
| | DCB | 30-150 | NA |
| EPA 694 | 1 2-DCA-d4, Tol-d8, 4-BFB | 70-130 | NA |
| | 2-Fluorophenol | 21-110 | NA |
| EDA 625 AF | Phenol-d5 | 10-110 | NA |
| | 2 4.6-Tribromophenol | 10-123 | NA |
| EPA 625 RN | Nitrobenzene-d5 | 35-114 | NA |
| EPA 625 BN | 2-Fluorobiphenvi | 43-116 | NA |
| EPA 625, BN | Tempenvi-d14 | 33-141 | NA |
| | terbuser). | | |
| FPA 8010 | 1.2-DCA-d4, Tol-d8, 4-BFB | 70-130 | 70-130 |
| EPA 8020 | 1.2-DCA-d4, Tol-d8, 4-BFB | 70-130 | 70-130 |
| EPA 8021 | 1.2-DCA-d4, Tol-d8, 4-BFB | 70-130 | 70-130 |
| EPA 8081 | TCMX. DCB | 30-150 | 30-150 |
| EPA 8082 | DCB | 30-150 | . 30-150 |
| EPA 8151 | DCAA | 30-130 | 30-120 |
| EPA 8260 | 1.2-DCA-d4, Tol-d8, 4-BFB | 70-130 | 70-130 |
| EPA 8270 AF | 2-Fiuorophenol | 21-110 | 25-121 |
| EPA 8270 AF | Phenol-d5 | 10-110 | 24-113 |
| EPA 8270 AF | 2.4.6-Tribromophenol | 10-123 | 19-122 |
| EPA 8270, BN | Nitrobenzene-d5 | 35-114 | 23-120 |
| EPA 8270, BN | 2-Fluorobiphenyl | 43-116 | 30-115 |
| EPA 8270 BN | Terphenvl-d14 | 33-141 | 18-137 |
| | | | |
| DOH 310-13 | Dodecane | 40-110 | 40-110 |
| DOH 310-14 | Dodecane | 40-110 | 40-110 |
| DOH 310-15 | Dodecane | 40-110 | 40-110 |
| DOH 310-34* | 4-BFB | 50-150 | 50-150 |
| 8015M GRO* | 4-BFB | 50-150 | 50-150 |
| 8015M_DRO | Terphenyl-d14 | 50-150 | 50-150 |

1.

÷ 1

~********

*Run by GC/MS.

| Units Key: | ug/l = microgram per liter |
|------------|--------------------------------|
| | ug/kg = microgram per kilogram |
| | mg/l = milligram per iller |
| | mg/kg = milligram per kilogram |
| | %R = Percent Recovery |

| D D | LSL Finger 1 - ' | 30 East Main St. | C+SE-2 C+SE-2 | Phone: (585)968-2640 | Fax: (585)968-0906 | | Next Day* 3-Day * X *Additional Charges | 2-Day * 7-Day* 🗂 may apply | eded or Special Instructions: | | zation or P.O. # | lect Number: | Analyses | De Check LSL ID# | PCB Wipe | PCB Wipe | EPA 8260 Totals EPA 8082 Totals | Hao | - S 00 | V (00) | | | s Date Time | id By: | | |
|--------|------------------|------------------|------------------|----------------------|--|---------|---|-----------------------------------|-------------------------------|----------------------|-------------------|--|-----------------|------------------|------------------|-------------------------|------------------------------------|---|------------------------|---------------------|--|--|--------------|-------------|---|---|
| RECORD | | | | | ар — уулаг тараатаан алаасаан а Алаасаан алаасаан алаа | Turnaro | | | Date Need | [| Authorizat | LSL Projec | ontainers | size/type | Wipe | Wide | 8 02 5 1025 | , — — — — — — — — — — — — — — — — — — — | | → — | | | y Transfers | Received | | ne le le le le le le le le le le le le le |
| TODY | | Ave. | 13694 | 4476 | 4061 | | | | | | 7 | | <u>∽</u> | q # | ~ | · | 7 | 2 | 7 | 2 | | | Custod | | 7 | H. |
| - CUS | th Lab | awrence / | gton, N.Y. | (315)388-4 | (315)388- | | | | | 212 | 5-966 | | Preser | Addec | j | 1 | 1 | } | 1 | 1 | | | | ∕2u/s7 | | ture |
| | LSL Nor | 131 St. L | Wadding | Phone: | Fax: | | | | | / 3 | 45 | | | Matrix | <u> </u> | 1 | soit | 50,7 | 50% | 50% | | | | N-HOH | | |
| | • | | 57 | | 1 | | | | | ud Zip | Fax | Midler | Type | grab/comp | grab | diab | COMP | COMP | grab | COMP | | | | 1 By: JO/4N | | ISNED BY: Whit |
| | Lab | nut Drive | 1, N.Y. 130 | 5)445-1105 | 15)445-130 | | | | | N 54 | | | Sample | Time | io:15 | 10:16 | 3 PM | 4 PM | 9AM | II AM | | | | Sampled | | Relinqu |
| | SL Central | 854 Butten | . Syracuse | hone: (31 | ax: (31 | _ | | RBA | 0.P.S | Calli | | Ċ | Sample | Date | 7-22 | 7-22 | 7-22 | 7-22 | 7-23 | 7-23 | | | | <u></u> | | |
| | LUL | | ш | e . | 11. | | | eport Address: ame: MN TOM BAK | ompany: CIS Finaline | treet: 499 Col Ellen | hone: 4/55 - 2000 | imail: ilient Project ID/Client Site ID | Client's Sample | Identifications | Power Blda Floor | Priner Blda Transformer | POND A 3'-4' | PONDB 3'-5' | 240 TI 70 West 5'-6' 1 | 240 T2 and T3 2'-5' | | | SL use only: | | | |

Life Science Laboratories. Inc.

070

APPENDIX C

Site Figure



1



INDEPENDENT GEOCHEMISTRY AND MICROBIOLOGY INVESTIGATIONS

1

+ 1



ENGINEERS DESIGN BUILD TECHNICAL RESOURCES OPERATIONS C&S Engineers, Inc. 499 Col. Eileen Collins Boulevard Syracuse, NY 13212 phone 315-455-2000 fax 315-455-9667 www.cscos.com

October 19, 2007

Ms. Karen Cahill, Project Manager New York State Department of Environmental Conservation 615 Erie Boulevard West Syracuse, New York 13204-2400

Re: Midler City Industrial Park Site Brownfield Cleanup NYSDEC Brownfield Site # C734103

File: C81.001.002.700

Dear Ms. Cahill:

C&S Engineers, Inc., on behalf of our client Pioneer Midler, LLC, submits this letter and accompanying laboratory data that has been gathered to assess whether the Midler Avenue Brownfield Site would be a viable candidate for monitored natural attenuation (MNA) relative to residual chlorinated volatile organic compound (CVOC) contamination that is present in groundwater beneath the site.

The summary hydrogeologic investigations at this site have yet to identify any characteristics that would contraindicate the feasibility of natural attenuation. The presence of high concentrations of Total Organic Carbon within the saturated overburden indicates that the peat/marl unit constitutes an abundant electron donor source. The existence of degradation compounds at declining concentrations in downgradient locations indicates that, if present, inorganic electron acceptors are not inhibiting some level of reductive dechlorination from occurring.

To gain an understanding of the presence of populations of dechlorinating microbes in the site groundwater regime, one sample was collected from each of three site monitoring wells (MW-3D, MW-11D, and SB-7-1) in October 2005, using sample kits provided by Microbial Insights of Rockford, Tennessee. This limited investigation was not a formal part of the RI. The samples were analyzed by Microbial Insights for the presence of Dehalococcoides (dechlorinating bacteria) and for functional genes and phylogenetic groups associated with dechlorinating conditions. The data generated (shown in Attachment A) indicated the presence of Dehalococcoides and functional genes at each of the wells.

To augment the Microbial Insights data, and to better assess post-IRM geochemical and microbiological conditions downgradient of one of the thermal treatment areas, additional groundwater samples were collected from monitoring well MW-13D on October 11, 2007. Field parameters (ORP, DO, temperature) were measured and groundwater samples were submitted to Test America, Inc (formerly STL Inc.) for analysis of a list of MNA indicators, including: dissolved inorganic carbon, dissolved organic carbon, VOCs, iron [total, Fe (II) and Fe (III)], nitrate, nitrite, sulfate, sulfide, and methane. Samples were also sent to SiREM Laboratories in Guelph, Ontario, Canada for other parameters including ethene, ethane, Dehalococcoides, and Vinyl Chloride Reductase (vcrA) gene analysis.

Ms. Karen Cahill October 19, 2007 Page 2



٢.

د م

Table 1 in Attachment B presents the field and laboratory data generated from the October 11, 2007 groundwater sampling. Attachments C and D contain the laboratory reports from Test America and SiREM respectively.

Table 1 summarizes and provides a brief interpretation of the data. The table also provides a calculation of the site screening score using the USEPA's methodology from the 1998 *Technical Protocol for Evaluating Attenuation of Chlorinated Solvents in Ground Water*. A copy of the scoring criteria follows Table 1 (USEPA Table 2.3 and 2.4). According to the USEPA's criteria, a score exceeding 20 indicates that there is strong evidence for reductive dechlorination at the site. The score for the Pioneer Midler Avenue site from the October groundwater sampling at MW-13D is 22. The microbial and gene analysis from the October 2007 sampling and included in Table 1 also indicates the abundant presence of Dehalococcoides which is associated with reductive dechlorination. Of more specific interest is the significant population of Dehalococcoides which possess the Vinyl Chloride Reductase (vcrA) gene capable of reducing vinyl chloride to ethene and carbon dioxide.

Of the four main components of natural attenuation (biodegradation, dispersion, sorption, and volatilization), in our opinion biodegradation would be the dominant parameter at the Midler Avenue site due to the slow-moving groundwater environment. Dispersion, sorption, and volatilization would all have more affect in a groundwater regime with higher rates of flux than are present at the site. This same relatively static environment would offer the ability to periodically assess conditions with ample opportunity to identify and assess a change that might indicate a threat to potential downgradient receptors if they were present.

We hope the Department finds the enclosed lines of evidence helpful in coming to the conclusion that monitored natural attenuation is a viable remedy for the Midler Avenue Site. Should you have any questions or would like to discuss further, please let me know.

Sincerely. S ENGINEERS, INC.

Steven M. Vinci, CPG Managing Geologist

SMV/TAB:cah Attachments

cc: Jed Schneider, Pioneer Midler Avenue, LLC Mary Jane Peachey, NYSDEC Greg Townsend, NYSDEC Chris Magee, NYSDEC

ATTACHMENT A

Microbial Insights Data Report

t. .

. .



2340 Stock Creek Blvd. Rockford TN 37853-3044 Phone: (865) 573-8188 Fax: (865) 573-8133 Email: info@microbe.com

Analysis Report

| Client: | Steven M. Vinci C & S Engineers | , Inc. | | Phone: | (315) 455-2000 |
|--|---|--|---|---|---|
| | 499 Col. Eileen (Syracuse, NY 13 | Collins 212 | | Fax: | (315) 455-9667 |
| MI Identifi | er: 036CJ | Date Rec: | 10/19/2005 | Rep | ort Date: 10/25/2005 |
| Client Pro | ject #: C81.002.0 | 01 | Client Proje | ct Name: Pic | oneer Midler LLC |
| Purchase | Order #: | | | | |
| Analysis I | Requested: | CENSUS (final) | | | |
| Comment | is: | | | | |
| All samples Control Act (in this data p | within this data package (40 CFR part 790). All : package meet the qualit | e were analyzed under samples were process ty assurance requirem | r U.S. EPA Good L ed according to st ents established b | _aboratory Practi andard operating y Microbial Insigl | ce Standards: Toxic Substances procedures. Test results submitted nts, Inc. |
| Reported | By: | | | Review | /ed By: |

Liora M Cylis

Ang a Danies

× 1

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

2340 Stock Creek Blvd. Rockford, TN 37853-3044 Tel: (865) 573-8188; Fax: (865) 573-8133

CENSUS

٢. e 1

م ا

| Client: Project: | C & S Engineers Pioneer Midler Ll | , Inc . _C | | | MI Project Number: Date Received: | 036CJ 10/19/2005 | |
|---------------------------------|--------------------------------------|----------------------|-----------------------------------|------------------------------------|---|----------------------------|--|
| Sample Infor | mation | | | | | | |
| Client Sample Units: | ample ID: Date: | | MW-3D 10/17/2005 celis/bead | MW-11D 10/17/2005 cells/bead | SB-7-1 10/17/2005 cells/bead | | |
| Dechlorinati | ng Bacteria | | | | ······ | | |
| Dehaloc | occoides spp (1) | DHC | 4.13E+03 | 1.74E+03 | 9.69E+01 | | |
| Functional C | Senes | | | | | | |
| BAV1 V TCE R-L | C R-Dase (1) Dase (1) | BVC TCE | 2.9E+03 7.99E+02 | 1.98E+02 8.56E+02 | 1.42E+02 1.12E+02 | | |
| Phylogeneti | c Group | | | | , Million | | |
| Eubacte Methanc Sulfate I | ria ogens Reducing Bacteria | EBAC MGN DSR | 2.76E+08 1.63E+06 9.43E+06 | 6.94E+07 2.37E+06 6.74E+06 | 6.16E+07 7.14E+05 6.04E+06 | | |
| Legend: | | | | | | | |

l = Inhibited NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL < = Result not detected

Notes:

1 Bio-Dechlor Census technology was developed by Dr. Loeffler and colleagues at Georgia Institute of Technology and was licensed for use through Regenesis.

ATTACHMENT B

Summary of October 11, 2007 MNA Indicators

> : - •

> > a 1

| | | october 2007 | ' MNA Indicator Sampling | |
|-------------------------------------|--------------------------------------|--------------|---|------------------------------|
| Parameter | Result | Units | Interpretation | JSEPA Site Criteria Score |
| Field Parameters | | | | |
| Oxidation/Reduction Potential (ORP) | -324 | ٨٣ | Concentration <-100 mg/L indicate reductive pathway is likely | 7 |
| Dissolved Oxygen | 0 | mg/L | Concentration <0.5 mg/L indicates reductive pathways are not repressed | m |
| Laboratory Analytical Parameters | | | | |
| Dissolved Inorganic Carbon | 110 | mg/L | Levels > background indicate microbial metapolism of organic carbon | NL |
| Dissolved Organic Carbon | 41 | mg/L | Detections of DOC (or TOC) > 20 mg/L indicates that a non- depleted substrate (electron donor) is abundant | 2 |
| Vinyl Chloride | 8.9 (SiREM) 21 (TA) | mg/L mg/L | Indicates presence of reductive dechlorination of higher isomers | 7 |
| cis-1,2-dichloroethene | 0.56 | mg/L | Indicates presence of reductive dechlorination of higher isomers | 2 |
| Dehalococcoides Enumeration | 2 X 10 ⁸ (gene copies) | per liter | Values > 10 ⁷ /L indicate high concentration of Dehalococcoides (Dhc) | NL |
| Vinyl Chloride Reductase (vcrA) | 6 X 10 ⁷ (gene copies) | per liter | Indicates that 93% of total Dhc are vcrA gene copies | NL |
| Iron (total) | 1.15 | l/gm | | |
| Ferric Iron | 1.2 | mg/L | Ferric Iron (Fe III) is an electron acceptor that competes with dehalorespiration | |
| Ferrous Iron | ND at 0.050 | mg/L | Ferrous Iron (Fe II) >1 mg/L indicates reduced conditions and that anaerobic degradation of organic carbon is likely | 0 |
| Nitrite/Nitrate | ND at 0.050 (both) | mg/L | Absence of nitrate indicates is prerequisite for iron or sulfate reduction to occur | 2 |
| Sulfate | ND at 25 | mg/L | Indicates sulfate is being reduced to sulfide and reductive | |
| Sulfide | 0.8 | mg/L | dechlorination is likely to be efficient | S |
| Methane | 13 (SiREM) | mg/L | Indicates strong reducing conditions are present and likely | n |
| Ethene | 4.6 | mg/L | Indicates strong presence of reductive dechlorination end | |
| Ethane | 0.27 | mg/L | products | 8 |
| | | | Total USEPA Screening Score | 22 |

NL = parameter not included in USEPA Site Screening Score TA = Test America Laboratories F:\Project\C81 - Pioneer Development\C81.002 BCP\Close out and COC\MNA Workplan\MNA data 10-07 TomB.xls

| | Concentration in | | |
|-------------------------|-------------------------|--|------------|
| Analysis | Wost Contaminated | Interpretation | Value |
| Oxvaen* | <0.5 mg/l. | Tolerated suppresses the reductive pathway at higher | value 2 |
| | oto trigit | concentrations | |
| Oxygen* | >5 mg/L | Not tolerated; however, VC may be oxidized aerobically | -3 |
| Nitrate* | <1 mg/L | At higher concentrations may compete with reductive pathway | 2 |
| Iron II* | >1 mg/L | Reductive pathway possible; VC may be oxidized under Fe(III)- reducing conditions | 3 |
| Sulfate* | <20 mg/L | At higher concentrations may compete with reductive pathway | 2 |
| Sulfide* | ≥1 mg/L | Reductive pathway possible | 3 |
| Methane* | <0.5 mg/L | VC oxidizes | 0 |
| | >0.5 mg/L | Ultimate reductive daughter product, VC Accumulates | 3 |
| Oxidation Reduction | <50 millivolts (mV) | Reductive pathway possible | 1 |
| Potential* (ORP) | <-100mV | Reductive pathway likely | 2 |
| against Ag/AgCl | | | |
| electrode | - | | |
| pH* | 5 < pH < 9 | Optimal range for reductive pathway | 0 |
| | <u>5 > pH >9</u> | Outside optimal range for reductive pathway | -2 |
| 100 | > 20 mg/L | Carbon and energy source; drives dechlorination; can be | 2 |
| T | | natural or anthropogenic | ······ |
| Temperature" | <u>> 20°C</u> | At T >20°C biochemical process is accelerated | 1 |
| Carbon Dioxide | >2x background | Ultimate oxidative daughter product | 1 |
| Alkalinity | >2x background | Results from interaction between CO ₂ and aquifer minerals | 1 |
| | >2x background | Daughter product of organic chlorine | 2 |
| riydrogen | <u>P1 nM</u> | Reductive pathway possible, VC may accumulate | |
| nyarogen | <1 nM | VC oxidized | 0 |
| Volatile Fatty Acids | > 0.1 mg/L | Intermediates resulting from biodegradation of more complex compounds; carbon and energy source | 2 |
| BTEX* | > 0.1 mg/L | Carbon and energy source; drives dechlorination | 2 |
| Tetrachloroethene | | Material released | 0 |
| Trichloroethene* | | Material released | 0 |
| | | Daughter product of PCE | 2ª/ |
| UCE" | | Material released | 0 |
| | | Daughter product of TCE | 2ª |
| | | If cis is > 80% of total DCE it is likely a daughter product | |
| | | 1,1-DCE can be chemical reaction product of TCA | |
| vu | | Material released | 0 |
| 1 1 1. Trichtoroethonot | | Daugnier product of DCE | |
| | | Natenal released | |
| Carbon Totraphlorida | | Daughter product of TCA under reducing conditions | 2 |
| Chloroethano* | | | |
| Shone/Ethane | 50.04m=# | Daughter product of DCA or VC under reducing conditions | 2 |
| zuiene/Eurane | >0.0 Img/L >0.1 mg/L | Jaughter product of VC/ethene | 2 3 |
| Chioroform | | Material released | 0 |
| | ļļ | Daughter product of Carbon Tetrachloride | 2 |
| Jichloromethane | P | Material released | 0 |
| | 1 1 | Daughter product of Chloroform | 2 |

÷

÷

Table 2.3 Analytical Parameters and Weighting for Preliminary Screening for Anaerobic Biodegradation Processes^{a/}

* Required analysis. a/ Points awarded only if it can be shown that the compound is a daughter product (i.e., not a constituent of the source NAPL).

| Score | Interpretation |
|----------|---|
| 0 to 5 | Inadequate evidence for anaerobic biodegradation* of chlorinated organics |
| 6 to 14 | Limited evidence for anaerobic biodegradation* of chlorinated organics |
| 15 to 20 | Adequate evidence for anaerobic biodegradation* of chlorinated organics |
| > 20 | Strong evidence for anaerobic biodegradation* of chlorinated organics |
| | *reductive dechlorination |

:

~ I

Table 2.4 Interpretation of Points Awarded During Screening Step 1

ATTACHMENT C

Test America Data

t. F

ж. I



ANALYTICAL REPORT

Job Number: 220-3037-1 SDG Number: 220-3037 Job Description: STL Buffalo - Pioneer Midler

> For: TestAmerica Laboratories, Inc. 10 Hazelwood Drive Amherst, NY 14228-2298 Attention: Mr. Richard Lafond

Jill M Duhancik Project Manager I jill.duhancik@testamericainc.com 10/17/2007

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Project Manager.

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

TestAmerica Laboratories, Inc.TestAmerica Connecticut128 Long Hill Cross Road, Shelton, CT 06484Tel (203) 929-8140Fax (203) 929-8142www.testamericainc.com



Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) OLM04.2/Vol: The client requested lowest dilution possible. This sample has been run straight and at a 1:200 fold dilution. The straight analysis did have vinyl chloride present, but over-saturated. The diluted run has the correct concentration. The straight run also had a surrogate out of criteria due to the over-saturation. The compliant diluted analysis met all laboratory quality control criteria.

No other analytical or quality issues were noted.

ť. ÷ +

÷ 1

METHOD SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 220-3037-1 Sdg Number: 220-3037

> с. 1

> > ÷ 1

| Description | Lab Location | Method | Preparation Method |
|--|------------------|-------------|--------------------------|
| Matrix: Water | | | |
| CLP Volatile Organic Compounds Purge-and-Trap | TAL CT TAL CT | OLM04.2 OLN | /04.2/Vol SW846 5030B |

Lab References:

TAL CT = TestAmerica Connecticut

Method References:

OLM04.2 = "Statement of Work for Organic Analysis", Multi-Media, Multi-Concentration September 1998

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 220-3037-1 Sdg Number: 220-3037

| Lah Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 220-3037-1 | MW-13D | Water | 10/11/2007 1420 | 10/12/2007 0935 |
| 220-3037-2TB | TRIP BLANK | Water | 10/11/2007 0000 | 10/12/2007 0935 |



+ 1

TestAmerica Connecticut

SAMPLE RESULTS

t. • •

÷ 1

Analytical Data

Job Number: 220-3037-1 Sdg Number: 220-3037

10/11/2007 1420

10/12/2007 0935

HP 5890/5971A GC/MS

Date Sampled:

Date Received:

Instrument ID:

Client: TestAmerica Laboratories, Inc.

OLM04.2/Vol

Client Sample ID: MW-13D

Lab Sample ID: 220-3037-1 Client Matrix: Water

Method:

| Preparation: 5 | 5030B | | La | b File ID: 0140 |)4.D |
|------------------------|---|---------------|-----------|---------------------|------------|
| Dilution: 1 | .0 | | Ini | tial Weight/Volume: | 5 mL |
| Date Analyzed: 1 | 0/12/2007 1341 | | Fir | nal Weight/Volume: | 5 mL |
| Date Prepared: 1 | 0/12/2007 1341 | | | | |
| Analyte | | Result (ug/L) | Qualifier | MDL | RL |
| Chloromethane | a ann an an an an Anna ann an Anna an Anna an an Anna an an an an an an an an an an an an | 10 | Ū | 0.10 | 10 |
| Vinyl chloride | | 650 | Ē | 0.10 | 10 |
| Bromomethane | | 10 | U | 0.10 | 10 |
| Chloroethane | | 10 | Ū | 0,10 | 10 |
| 1,1-Dichloroethene | | 10 | U | 0.10 | 10 |
| Carbon disulfide | | 9.3 | J | 0.10 | 10 |
| Acetone | | 9.6 | J | 0.10 | 10 |
| Methylene Chloride | | 10 | ũ | 0.10 | 10 |
| 1.1-Dichloroethane | | 10 | Ū | 0.10 | 10 |
| Methyl Ethyl Ketone | | 10 | Ū | 0.10 | 10 |
| Chloroform | | 10 | ū | 0.10 | 10 |
| 1,1,1-Trichloroethane | 9 | 10 | Ŭ | 0.10 | 10 |
| Carbon tetrachloride | | 10 | Ŭ | 0.10 | 10 |
| Benzene | | 8.3 | J. | 0.10 | 10 |
| 1.2-Dichloroethane | | 10 | Ŭ, | 0.10 | 10 |
| Trichloroethene | | 10 | Ŭ | 0.10 | 10 |
| 1.2-Dichloropropane | | 10 | Ű | 0.10 | 10 |
| Bromodichlorometha | ne | 10 | Ű | 0.10 | 10 |
| cis-1.3-Dichloroprope | ene | 10 | Ű | 0.10 | 10 |
| nethyl isobutyl keton | e | 14 | Q | 0.10 | 10 |
| Toluene | - | 10 | | 0.10 | 10 |
| trans-1.3-Dichloropro | pene | 10 | 11 | 0.10 | 10 |
| 1.1.2-Trichloroethane | ; F . | 10 | 11 | 0.10 | 5 10 |
| Tetrachloroethene | - | 10 | 1 | 0.10 | · 10 |
| 2-Hexanone | | 10 | 1 | 0.10 | 10 |
| Dibromochlorometha | ne | 10 | 11 | 0.10 | 10 |
| Chlorobenzene | | 10 | 11 | 0.10 | 10 |
| Ethylbenzene | | 0.80 | U I | 0.10 | 10 |
| Styrene | | 10 | 11 | 0.10 | 10 |
| Bromoform | | 10 | 0 | 0.10 | 10 |
| 1 1 2 2-Tetrachloroet | hane | 10 | U | 0.10 | , 10 10 |
| Xylenes Total | nunc | 65 | U I | 0.10 | 10 |
| ris-1.2-Dichloroether | | 310 | 5 | 0.10 | 10 |
| trans-1 2-Dichlorooth | ene | 510 | | 0.10 | 10 |
| Dichlorodifluorometh | | 10 | 14 | 0.10 | 10 |
| Trichlorofluorometha | | 10 | U | 0.10 | 10 |
| 1 1 2-Trichloro, 1 2 2 | trifluoroothono | 10 | U | 0.10 | 10 |
| Mathyl tort-bubl atha | | 10 | U U | 0.10 | 10 |
| 1 2-Dibromoethero | I | 10 | U H | 0.10 | 10 |
| eopropylbonzone | | 0.02 | 114 | 0.10 | 10 |
| sopropyidenzene | | 0.23 | JIVI | 0.10 | 10 |
| La-Dichlorobenzene | | 10 | U | 0.10 | 10 |
| | | 10 | U | 0.10 | 10 |
| 1,2-Dichioropenzene | | 10 | U | 0.10 | 10 |
| 1,2-01010110-3-011010 | phobaue | 10 | U | 0.10 | 10 |
| TestAmerica Conne | ecticut | Page 6 of 1 | .3 | | 10/1 |

OLM04.2/Vol CLP Volatile Organic Compounds

Analysis Batch: 220-10223

10/17/2007

Job Number: 220-3037-1

Sdg Number: 220-3037

Client: TestAmerica Laboratories, Inc.

220-3037-1

Water

Client Sample ID: MW-13D

Lab Sample ID:

Client Matrix:

Date Sampled: 10/11/2007 1420 Date Received: 10/12/2007 0935

OLM04.2/Vol CLP Volatile Organic Compounds

| Method: Preparation: Dilution: Date Analyzed: Date Prepared: | OLM04.2/Vol 5030B 1.0 10/12/2007 1341 10/12/2007 1341 | Analysis Batch: 220-10223 | Instr Lab Initia Fina | ument ID: File ID: al Weight/Vo Il Weight/Vol | HP 589 01404 lume: ume: | 90/5971A GC/M .D 5 mL 5 mL | IS |
|--|---|---------------------------|--------------------------------|--|----------------------------------|-------------------------------------|----|
| Analyte | | Result (ug/L) | Qualifier | MDL | | RL | |
| 1.2.4 Trichloroben | 7000 | 10 | Ŭ | 0.10 | | 10 | |
| Mothyl contate | Zeno | 10 | U | 0.10 | | 10 | |
| | | 10 | U | 0.10 | | 10 | |
| Methylcyclohexan | е | 4.8 | J | 0.10 | | 10 | |
| Surrogate | | %Rec | | Ac | ceptance | e Limits | |
| 1.2 Dichloroethan | e-d4 (Surr) | 75 | * | 7 | '6 - 114 | | |
| A Promofluoroben | | 104 | | 8 | 36 - 115 | | |
| Toluene-d8 (Surr) | | 89 | | 8 | 38 - 110 | | |

б. 4 г

+ 1

Job Number: 220-3037-1

Sdg Number: 220-3037

Client: TestAmerica Laboratories, Inc.

Client Sample ID: MW-13D

 Lab Sample ID:
 220-3037-1
 Date Sampled:
 10/11/2007
 1420

 Client Matrix:
 Water
 Date Received:
 10/12/2007
 0935

OLM04.2/Vol CLP Volatile Organic Compounds Instrument ID: HP 5890/5971A GC/MS Analysis Batch: 220-10223 OLM04.2/Vol Method: O1407.D Lab File ID: Preparation: 5030B Initial Weight/Volume: 5 mL 200 Dilution: 5 mL Final Weight/Volume: Run Type: DL 10/12/2007 1520 Date Analyzed: 10/12/2007 1520 Date Prepared:

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-----|-------------|
| Chloromethane | 2000 | Ų | 20 | 2000 |
| Vinvl chloride | 21000 | | 20 | 2000 |
| Bromomethane | 2000 | U | 20 | 2000 |
| Chloroethane | 2000 | U | 20 | 2000 |
| 1 1-Dichlomethene | 2000 | U | 20 | 2000 |
| Carbon disulfide | 2000 | U | 20 | 2000 |
| Acetone | 2000 | U | 20 | 2000 |
| Methylene Chloride | 49 | JB | 20 | 2000 |
| 1 1-Dichloroethane | 2000 | U | 20 | 2000 |
| Mothyl Ethyl Ketone | 2000 | U | 20 | 2000 |
| Chloroform | 2000 | U | 20 | 2000 |
| 1 1 1-Trichloroethane | 2000 | U | 20 | 2000 |
| Carbon totrachloride | 2000 | U | 20 | 2000 |
| Panzono | 2000 | U | 20 | 2000 |
| 1 2-Dichloroethane | 2000 | U | 20 | 2000 |
| Trichloroethene | 2000 | U | 20 | 2000 |
| 1.2 Diebloropropage | 2000 | Ū | 20 | 2000 |
| Remediableromethane | 2000 | Ū | 20 | 2000 |
| sis 1.2 Dichloropropene | 2000 | Ũ | 20 | 2000 |
| mothyl isobutyl ketope | 2000 | U | 20 | 2000 |
| Teluono | 2000 | Ú | 20 | 2000 |
| trong 1.2 Dichloropropene | 2000 | Ŭ | 20 | . 2000 |
| 1 1 2 Trichleroothana | 2000 | Ŭ | 20 | 2000 |
| | 2000 | Ū | 20 | 2000 |
| | 2000 | Ű | 20 | 2000 |
| 2-Mexanone Diverse ableromethono | 2000 | Ŭ | 20 | 2000 |
| Olipromociliorometriane | 2000 | Ũ | 20 | 2000 |
| Chloropenzene | 2000 | ŭ | 20 | 2000 |
| Etnylbenzene | 2000 | Ű | 20 | 2000 |
| Styrene | 2000 | U U | 20 | 2000 |
| Bromotorn | 2000 | Ŭ | 20 | 2000 |
| 1,1,2,2-1 etrachioroethane | 2000 | Ü Ü | 20 | 2000 |
| Xylenes, i otal | 2000 | | 20 | 2000 |
| cis-1,2-Dichloroethene | 2000 | Ŭ | 20 | 2000 |
| trans-1,2-Dichloroethene | 2000 | U | 20 | 2000 |
| Dichlorodifiuoromethane | 2000 | U U | 20 | 2000 |
| I richlorofluoromethane | 2000 | U U | 20 | 2000 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2000 | U U | 20 | 2000 |
| Methyl tert-butyl ether | 2000 | 11 | 20 | 2000 |
| 1,2-Dibromoethane | 2000 | 0 | 20 | 2000 |
| lsopropylbenzene | 2000 | 0 | 20 | 2000 |
| 1,3-Dichlorobenzene | 2000 | 0 | 20 | 2000 |
| 1,4-Dichlorobenzene | 2000 | 0 | 20 | 2000 |
| 1,2-Dichlorobenzene | 2000 | U | 20 | 2000 |
| 1,2-Dibromo-3-Chloropropane | 2000 | U | 20 | 2000 |

Analytical Data

Job Number: 220-3037-1

1. .

÷ 1

Sdg Number: 220-3037

Client: TestAmerica Laboratories, Inc.

Client Sample ID: MW-13D

| Lab Sample ID: | 220-3037-1 | Date Sampled: | 10/11/2007 1420 |
|----------------|------------|----------------|-----------------|
| Client Matrix: | Water | Date Received: | 10/12/2007 0935 |
| | | | |

OLM04.2/Vol CLP Volatile Organic Compounds

| Method: OLM04.2/Vol Preparation: 5030B | | Analysis Batch: 220-10223 | Instri Lab I | iment ID: File ID: | O1407 | 7.D | |
|---|------------------------------------|---------------------------|-----------------|-----------------------|----------|----------|--|
| Dilution: | 200 | | Initia | I Weight/Volu | ume: | 5 mL | |
| Date Analyzed: Date Prepared: | 10/12/2007 1520 10/12/2007 1520 | Run Type: DL | Final | Weight/Volu | ıme: | 5 mL | |
| Analyte | | Result (ug/L) | Qualifier | MDL | | RL | |
| 1.2.4-Trichlorobenz | zene | 2000 | U | 20 | | 2000 | |
| Methyl acetate | | 2000 | U | 20 | | 2000 | |
| Cyclohexane | | 2000 | U | 20 | | 2000 | |
| Methylcyclohexane | 9 | 2000 | U | 20 | | 2000 | |
| Surrogate | | %Rec | | Acc | ceptance | e Limits | |
| 1.2-Dichloroethane | ə-d4 (Surr) | 97 | | 76 | 5 - 114 | | |
| 4-Bromofluoroben | zene | 100 | | 86 | 5 - 115 | | |
| Toluene-d8 (Surr) | | 93 | | 88 | 3 - 110 | | |

Analytical Data

Job Number: 220-3037-1

Sdg Number: 220-3037

Client: TestAmerica Laboratories, Inc.

Client Sample ID: TRIP BLANK

| Leh Sample ID. | 220-3037-2TB | Date Sampled: | 10/11/2007 | 0000 |
|----------------|---|----------------|------------|------|
| Client Matrix | Water | Date Received: | 10/12/2007 | 0935 |
| Ollow Maana | • | | | |

OLM04.2/Vol CLP Volatile Organic Compounds

| Method: Preparation: Dilution: Date Analyzed: Date Prepared: | OLM04.2/Vol 5030B 1.0 10/12/2007 1317 10/12/2007 1317 | Analysis Batch: 220-10223 | Instrument ID: Lab File ID: Initial Weight/Vo Final Weight/Vol | HP 58 O1403 lume: lume: | 390/5971A GC/MS 3.D 5 mL 5 mL |
|--|---|---------------------------|---|----------------------------------|--|
|--|---|---------------------------|---|----------------------------------|--|

| Analyta | Result (ug/L) | Qualifier | MDL | RL. | |
|---------------------------------------|---------------|-----------|------|------------|--|
| Analyte | 10 | U | 0.10 | 10 | |
| | 10 | Ū | 0.10 | 10 | |
| Vinyi chioride | 10 | Ŭ | 0.10 | 10 | |
| Bromometnane | 10 | Ū | 0.10 | 10 | |
| Chloroethane | 10 | ŭ | 0.10 | 10 | |
| 1,1-Dichloroethene | 10 | 11 | 0.10 | 10 | |
| Carbon disulfide | 10 | 11 | 0.10 | 10 | |
| Acetone | 10 | IR | 0.10 | 10 | |
| Methylene Chloride | 0.20 | 11 | 0.10 | 10 | |
| 1,1-Dichloroethane | 10 | 1 | 0.10 | 10 | |
| Methyl Ethyl Ketone | 10 | U U | 0.10 | 10 | |
| Chloroform | 10 | 0 | 0.10 | 10 | |
| 1,1,1-Trichloroethane | 10 | U | 0.10 | 10 | |
| Carbon tetrachloride | 10 | 0 | 0.10 | 10 | |
| Benzene | 10 | U | 0.10 | 10 | |
| 1,2-Dichloroethane | 10 | 0 | 0.10 | 10 | |
| Trichloroethene | 10 | U | 0.10 | 10 | |
| 1,2-Dichloropropane | 10 | U | 0.10 | 10 | |
| Bromodichloromethane | 10 | U | 0.10 | 10 | |
| cis-1,3-Dichloropropene | 10 | U | 0.10 | 10 | |
| methyl isobutyl ketone | 10 | U | 0.10 | 10 | |
| Toluene | 10 | U | 0.10 | 10 | |
| trans-1,3-Dichloropropene | 10 | U | 0.10 | (IU 10 | |
| 1.1.2-Trichloroethane | 10 | U | 0.10 | 10 | |
| Tetrachloroethene | 10 | U | 0.10 | 10 | |
| 2-Hexanone | 10 | U | 0.10 | 10 | |
| Dibromochloromethane | 10 | U | 0.10 | 10 | |
| Chlorobenzene | 10 | U | 0.10 | 10 | |
| Fthylbenzene | 10 | U | 0.10 | 10 | |
| Styrene | 10 | U | 0.10 | 10 | |
| Bromoform | 10 | U | 0.10 | + · 10 | |
| 1 1 2 2-Tetrachloroethane | 10 | U | 0.10 | 10 | |
| Xvlenes Total | 10 | U | 0.10 | 10 | |
| cis-1 2-Dichloroethene | 10 | U | 0.10 | 10 | |
| trans-1 2-Dichloroethene | 10 | U | 0.10 | 10 | |
| Dichlorodifluoromethane | 10 | U | 0.10 | 10 | |
| Trichlorofluoromethane | 10 | U | 0.10 | 10 | |
| 1 1 2 Trichloro 1 2 2-trifluoroethane | 10 | U | 0.10 | 10 | |
| Anthyl fort butyl other | 10 | U | 0.10 | 10 | |
| | 10 | U | 0.10 | 10 | |
| | 10 | U | 0.10 | 10 | |
| | 10 | Ű | 0.10 | 10 | |
| | 10 | U | 0.10 | 10 | |
| | 10 | Ū | 0.10 | 10 | |
| 1,2-Dichlorobenzene | 10 | ũ | 0.10 | 10 | |
| 1,2-Dibromo-3-Chioropropane | 10 | - | | | |

Job Number: 220-3037-1

: •

÷ 1

Sdg Number: 220-3037

Client: TestAmerica Laboratories, Inc.

Client Sample ID: TRIP BLANK

 Lab Sample ID:
 220-3037-2TB
 Date Sampled:
 10/11/2007
 0000

 Client Matrix:
 Water
 Date Received:
 10/12/2007
 0935

OLM04.2/Vol CLP Volatile Organic Compounds

| Method: Preparation: Dilution: Date Analyzed: Date Prepared: | OLM04.2/Vol 5030B 1.0 10/12/2007 1317 10/12/2007 1317 | Analysis Batch: 220-10223 | Ins Lat Init Fin | trument ID: o File ID: ial Weight/Volu al Weight/Volu | HP 5890/5971A GC/MS O1403.D ume: 5 mL ume: 5 mL | |
|--|---|---------------------------|--|--|--|--|
| Analyte | | Result (ug/L) | Qualifier | MDL | RL | |
| 1.2.4-Trichlorobenz | /ene | 10 | Ű | 0.10 | 10 | |
| Mothyl acetate | | 10 | U | 0.10 | 10 | |
| Cyclobevane | | 10 | U | 0.10 | 10 | |
| Methylcyclohexane | • | 10 | U | 0.10 | 10 | |
| Surrogate | | %Rec | | Acc | ceptance Limits | |
| 1.2-Dichloroethane | -d4 (Surr) | 96 | and the second second second second second second second second second second second second second second second | 76 | 6 - 114 | |
| 4.Bromofluorohen | zene | 102 | | 86 | 6 - 115 | |
| Toluene-d8 (Surr) | | 95 | | 88 | 8 - 110 | |

DATA REPORTING QUALIFIERS

Client: TestAmerica Laboratories, Inc.

Job Number: 220-3037-1 Sdg Number: 220-3037

> 1. - -

> > 21

| Lab Section | Qualifier | Description |
|-------------|-----------|---|
| GC/MS VOA | | |
| | U | Analyzed for but not detected. |
| | E | Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis. |
| | J | Indicates an estimated value. |
| | Μ | Manual integrated compound. |
| | * | Surrogate exceeds the control limit |
| | В | The analyte was found in an associated blank, as well as in the sample. |

| Chain of Custody Record | TRENT SILL SOJ | |
|--|--|-----|
| Client CT & May M. W. W. J. Project Manager J. M. M. | $\sqrt{N_{cc}}$ $\frac{2}{3}$ $\frac{2}{3}$ $\frac{Date}{16}$ $\frac{1}{11}$ $\frac{1}{10}$ Chain of Oustody Number | |
| Address Niff Cal, Eyer Callin F. B.W. Direphone Number Area Code/Fax Nu | LOD / C/S/ D D C Lab Number Page _ of _ | |
| OIV Sile Contact Sight Zip Code Sile Contact Lab Con | | |
| Project Name and Location (State) | いた Special Instructio | |
| Contract/Purchase Order/Quote No. | Containers & トーゴ N W V Conditions of Hec | ٥ť |
| Sample I.D. No. and Description (Containers for each sample may be combined on one line) Date Time is a b b b b combined on one line) | HOPN HOPN HOPN HOPN HOPN HOPN HOPN HOPN | |
| 1 1 22/1 a/11/21 <221-cm | | |
| (MN1, 13 D 1, 9425 | | Vov |
| M. M. W 13D 1. 1920 1. | | |
| 11 11 11 11 11 11 11 11 11 11 11 11 11 | D 4 SHOV | d' |
| WY Extris Quantities New Mitryin 1, 14 40 | DIC | 202 |
| 2 / 2 MM - 12 MM - 1445 | | |
| (1 - 13) = 13 | | |
| M.W -13 D 1, 1455 | | |
| (WW - 13 1) II ISWO | 2. X X | |
| D TRIP NIK | | 1 |
| | | |
| Samila Distocal | | |
| Possible Hazard Identification | Oisposal By Lab 🗌 Archive For Months for than 1 month) | - |
| Tum Around Time Required | Baptirements (Specify Ca). B ON APP 1201 Whe Amalysics | |
| T. Relinquished By ANALY NAME Date 11/07/1705 30 11 | Asceived By 5 Parts of the Parts 5 Parts 1 Parts 5 Parts 5 Parts 1 Par | Â |
| 2. Relinquished By Time 2: | Received By Mar I W and I W w 7 I W | |
| 31 Geninquished BY - 5 5 / 5 / 15 / 10/11 / 07 / 19 3. | Account By Icol 12/02 W | 6 |
| Siments RUN BYISSOLVEC MR HAMAN & Strong | 1- NONCHIMEd 0.6°C PASSED | - |
| DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample; PINK - Freid Copy | NUILAD | 3 |

C & S - Syracuse New York Office C & S - Midler MNA Testing

Sample ID: MW-13D Lab Sample ID: A7870701 Date Collected: 10/11/2007 Time Collected: 15:00 Date Received: 10/12/2007 Project No: NY4A9350 Client No: 428424 Site No:

1. - - -

÷ 1

| Parameter | Result | <u>Flag</u> | Detection Limit | <u>Units</u> | Method | —Date/Time Analyzed | Analyst |
|--|-----------------------------|-------------|--|--|--|--|--------------------------------|
| Metals Analysis Iron - Total | 1150 | | 50.0 | UG/L | 6010 | 10/15/2007 13:37 | |
| Wet Chemistry Analysis Ferric Iron Ferrous Iron Nitrate Nitrite Sulfate | 1.2 ND ND ND ND | | 0.10 0.10 0.050 0.050 25.0 | MG/L MG/L MG/L-N MG/L-N MG/L | 3500FE-D 3500D 353.2 353.2 300.0 | 10/16/2007 10/12/2007 12:00 10/15/2007 10:29 10/15/2007 10:29 10/15/2007 15:49 | MMB KD LRM LRM AEG |

,

| Date: 10/16/2007 Time: 17:01:16 | C & S - Syracuse New York C & S - Midler MNA Test | Office ing | | | Rept: AN1178 |
|---|--|--------------------|-------|-----------------|---|
| Sample ID: MW-13D Lab Sample ID: A7B80801 Date Collected: 10/11/2007 Time Collected: 14:50 | | | | Date Pr (| Received: 10/13/2007 oject No: NY4A9350 Client No: 428424 Site No: |
| Parameter | Result Flag |)etection Limit | Units | Method | ——Date/Time—— Analyzed Analyst |
| C&S - RSK 175 - METHANE - W | 6000 | 110 | UG/L | RSK175 | 10/15/2007 12:02 DJB |

Methane

.

t. E t

÷ '

1

Page:



ANALYTICAL REPORT

Job Number: 560-6994-1 Job Description: Midler MNA Analysis

For: TestAmerica Laboratories, Inc. 10 Hazelwood Drive Amherst, NY 14228-2298 Attention: Mr. Richard Lafond

Erica # Padilla

Erica Padilla Project Manager I epadilla@stl-inc.com 10/16/2007

The test results entered in this report meet all NELAC requirements for accredited parameters. Any exceptions to NELAC requirements are noted in the report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Corpus Christi Certifications and Approvals: NELAC TX T104704210-06-TX, NELAC KS E-10362, Oklahoma 9968, USDA Soil Permit S-42935 Revised.



Job Narrative 560-J6994-1

General Chemistry

Sample 560-6994-1 was analyzed for dissolved inorganic carbon (DIC) and dissolved organic carbon (DOC) using EPA method 415.1. Insufficient sample volume was received to prep/analyze a matrix spike/matrix spike duplicate (MS/MSD) for this sample.

: - -

<u>بر</u>

EXECUTIVE SUMMARY - Detections

Client: TestAmerica Laboratories, Inc.

t.

ar t

| Lab Sample ID Analyte | Client Sample ID | Result / C | ualifier | Reporting Limit | Units | Method | and the second second second second second second second second second second second second second second second |
|---|------------------------|------------|----------|--------------------|--------------|----------------|--|
| 560-6994-1 | MW-13D | | | | | | |
| <i>Dissolved</i> Dissolved Organic Dissolved Inorgani | Carbon-D c Carbon-D | 41 110 | B B | 1.0 1.0 | mg/L mg/L | 415.1 415.1 | |

METHOD SUMMARY

| Client: TestAmerica Laboratories, Inc. | | | Job Number: 560-6994-1 | |
|---|------------------|-------------|------------------------|--|
| Description | Lab Location | Method | Preparation Method | |
| Matrix: Water | ······ | | | |
| Dissolved Organic Carbon, Combustion or Oxidation Sample Filtration performed in the Field | TAL CC TAL CC | MCAWW 415.1 | FIELD_FLTRD | |
| Lab References: | | | | |
| TAL CC = TestAmerica Corpus Christi | | | | |
| Method References: | | | | |

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

1

<u>ا</u> م

METHOD / ANALYST SUMMARY

Client: TestAmerica Laboratories, Inc.

Method

MCAWW 415.1

Analyst Henny, April

AH

Analyst ID

Job Number: 560-6994-1

1. .

÷ 1

TestAmerica Corpus Christi

SAMPLE SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 560-6994-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 560-6994-1 | MW-13D | Water | 10/11/2007 1455 | 10/12/2007 0920 |



ہ ج

TestAmerica Corpus Christi
Job Number: 560-6994-1

1. + •

÷ 1

Mr. Richard Lafond TestAmerica Laboratories, Inc. 10 Hazelwood Drive Amherst, NY 14228-2298

| Client Sample ID: Lab Sample ID: | MW-13D 560-6994-1 | | | Date Date Clier | Sampled: 7 Received: 7 ht Matrix: 1 | 10/11/2007 1455 10/12/2007 0920 Water | |
|--|-------------------------|----------|----------|-----------------------|---|---|----------|
| Analyte | | Result/Q | ualifier | Unit | MDL | RL | Dilution |
| Method: Dissolved Dissolved Inorganic (| -415.1 Carbon | 110 | В | Date Ar mg/L | nalyzed: 0.29 | 10/12/2007 1324 1.0 | 1.0 |
| Method: Dissolved Dissolved Organic Ca | -415.1 arbon | 41 | В | Date Ar mg/L | nalyzed: 0.29 | 10/12/2007 1622 1.0 | 1.0 |

DATA REPORTING QUALIFIERS

Client: TestAmerica Laboratories, Inc.

Job Number: 560-6994-1

•

÷ 1

| Lab Section | Qualifier | Description |
|-------------------|-----------|--|
| General Chemistry | | |
| | В | Compound was found in the blank and sample. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

QUALITY CONTROL RESULTS

TestAmerica Corpus Christi

10/16/2007

t. e •

÷ 1

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Job Number: 560-6994-1

Client: TestAmerica Laboratories, Inc.

Method Blank - Batch: 560-16288

Lab Sample ID: MB 560-16288/3

1.0

Date Analyzed: 10/12/2007 1324

Lab Sample ID: LCS 560-16288/4

Client Matrix: Water

Date Prepared: N/A

Dilution:

Method: 415.1 Preparation: N/A

Preparation: N/A

Instrument ID: TOC OI Analytical 1020A

| Prep Batch: N/A Lab File ID: N/A Units: mg/L Initial Weight/Volume: Final Weight/Volume: 40 mL | Analysis Batch: Prep Batch: N/A Units: mg/L | 560-16288 | Instrument ID: TOC OI Analytical 1020A Lab File ID: N/A Initial Weight/Volume: Final Weight/Volume: 40 mL |
|--|---|-----------|--|
|--|---|-----------|--|

| Analyte | Result | Qual | MDL | RL | |
|--------------------------------------|--------|------|----------------|-----|--|
| Dissolved Inorganic Carbon-D | 0.31 | J | 0.29 | 1.0 | |
| Lab Control Spike - Batch: 560-16288 | | 1 | Viethod: 415.1 | | |

Lab Control Spike - Batch: 560-16288

| Client Matrix: Dilution: Date Analyzed: Date Prepared: | Water 1.0 10/12/2007 1324 N/A | Prep Batch: N/A Units: mg/L | | Lab Fil Initial \ Final V | le ID: N/A Weight/Volume: Veight/Volume: 40 | mL |
|---|--|--------------------------------|--------|---------------------------------|---|------|
| Analyte | | Spike Amount | Result | % Rec. | Limit | Qual |
| Dissolved Inorg | anic Carbon-D | 100 | 104 | 104 | 80 - 120 | • |

Analysis Batch: 560-16288

. .

÷ 1

1.

Quality Control Results

t. • •

÷ 1

Job Number: 560-6994-1

Client: TestAmerica Laboratories, Inc.

Method Blank - Batch: 560-16294

Method: 415.1 Preparation: N/A

| Lab Sample ID: MB 560-16294/3 Client Matrix: Water Dilution: 1.0 Date Analyzed: 10/12/2007 1622 Date Prepared: N/A | Analysis Batch: 560-16294 Prep Batch: N/A Units: mg/L | | | Instrument ID: TOC OI Analytical 1020A Lab File ID: N/A Initial Weight/Volume: Final Weight/Volume: 40 mL | | |
|--|---|-----------|------|--|--|--|
| Analyte | Result | | Qual | MDL | RL | |
| Dissolved Organic Carbon-D | 0.41 | | J | 0.29 | 1.0 | |
| Lab Control Spike - Batch: 560-16294 | | | | Method: 415.1 Preparation: N// | A | |
| Lab Sample ID:LCS 560-16294/4Client Matrix:WaterDilution:1.0Date Analyzed:10/12/2007 1622Date Prepared:N/A | Analysis Batch: Prep Batch: N/A Units: mg/L | 560-16294 | | Instrument ID: TO Lab File ID: N/A Initial Weight/Volu Final Weight/Volu | C OI Analytical 1020A \ me: me: 40 mL | |
| Analyte | Spike Amount | Result | % Re | ec. Limit | Qual | |
| Dissolved Organic Carbon-D | 100 | 104 | 104 | 80 - 1 | 20 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

| LE C | Chain of Custory Number Page of Special Instructions/ Conditions of Receipt | WORLS TO CONDITION | и и и и и и и и и и и и и и и и и и и | C A WARES are ratained assessed if samples are ratained month) C A WARES Data |
|---|--|---|--|---|
| INTERNAL STL INTERNAL STL Vern Trent Laboratories, Inc. | Date | | | Ispacity Ed. B On Apricon 1 Spacity Cod. B On Apricon 1 Tan 1 Man 1 |
| | Project Managet Telephone Number Telephone Number Sile Contact Sile Contact Cerner/Waybil Number Matrix Containers & Matrix Preservatives | HOWN HOWN ICH SCH EONH FOSZH FORT FOR FOS FOS FOS FOS FOS FOS FOS FOS FOS FOS | 2 2 3 3 1 1 1 1 3 3 1 1 3 3 1 1 3 3 1 1 3 3 1 1 3 3 1 1 3 3 1 3 3 1 3 3 1 3 3 1 3 3 1 3 3 1 3 3 1 3 3 1 1 3 1 1 3 1 3 1 1 3 1 3 1 3 1 3 1 1 3 1 1 3 1 3 1 1 1 3 1 1 3 1 3 1 1 1 3 1 | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ |
| Chain of Custody Record | Cient 255 ENGINOUR Tal Cient 255 ENGINDERT Tal Adriness 499 Lat, Et le a Callin Bud City Structure Mill 17212 Project Namil and Location Sites and Tap Code Project Namil and Location Sites Mill 17212 Project Namil and Location Sites Mill 17212 Project Namil and Location Sites Mill 17212 | Sample I.D. No. and Description (Containers for each sample may be combined on one line) Date (I) WW- (3 B (6/11/8) 1/1 MW- (3 B (1/2) 1/1 MW- 13 B (1/2) 1/1 | | Possible Hazard Identification Possible Hazard Identification Non-Hazard Efammable Skin Imfant Pouson B Tum Around Time Required 24 Hours 24 Hours 7 Days 14 Days 21 Day 1. Astinguished By 3. Relinquished By Comments CUN VLSSEUVEC |

·----

Page 12 of 13

10/16/2007

Client: TestAmerica Laboratories, Inc.

Job Number: 560-6994-1

| Login Number: 6994 Creator: Kellogg, Timothy L. | List Source: TestAmerica Corpus (| | | | |
|--|-----------------------------------|-----------------------|--|--|--|
| List Number: 1 | | | | | |
| Question | T / F/ NA | Comment | | | |
| Radioactivity either was not measured or, if measured, is at or below | N/A | | | | |
| background The cooler's custody seal, if present, is intact, | True | | | | |
| The cooler or samples do not appear to have been compromised or tampered with | True | | | | |
| Samples were received on ice. | True | | | | |
| Cooler Temperature is acceptable. | True | | | | |
| Cooler Temperature is recorded. | True | 4.4 C | | | |
| COC is present. | True | | | | |
| COC is filled out in ink and legible. | True | | | | |
| COC is filled out with all pertinent information. | True | | | | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | | | | |
| Samples are received within Holding Time. | True | | | | |
| Sample containers have legible labels. | True | | | | |
| Containers are not broken or leaking. | True | | | | |
| Sample collection date/times are provided. | True | | | | |
| Appropriate sample containers are used. | True | | | | |
| Sample bottles are completely filled. | True | | | | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | | | | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | Not for VOC analysis. | | | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | | | | |
| Multiphasic samples are not present. | True | | | | |
| Samples do not require splitting or compositing. | True | | | | |
| | | 5. 2 4 | | | |
| | | | | | |

+ 1

ATTACHMENT D

SIREM Laboratory Data

•

+ 1



Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results

1) Background:

Dehalococcoides group organisms (*Dhc*) are the only known microorganisms capable of complete dechlorination of chloroethenes (i.e., tetrachloroethene, trichloroethene, *cis*-dichloroethene, vinyl chloride to non-toxic ethene. The detection of the *Dhc* 16S ribosomal ribonucleic acid (rRNA) gene has been correlated with the complete biological dechlorination of chlorinated ethenes to ethene at contaminated sites (Hendrickson et. al., 2002, *Applied and Environmental Microbiology*, 68: 485-495). The Quantitative Gene-Trac *Dehalococcoides* test is a quantitative polymerase chain reaction (PCR) test used to determine the concentration of the *Dhc* 16S rRNA gene in soil and groundwater samples.

2) Interpretation of Test Results:

The Quantitative Gene-Trac test reports two types of results, *"Dehalococcoides* 16S rRNA Gene Copies" is a raw value whereas *"% Dehalococcoides* in Microbial Population" is the raw value expressed as percentage of total microbial population. A detailed explanation of the two types of results is provided below.

a) Dehalococcoides 16S rRNA Gene Copies

This value is the direct number of *Dhc* 16S rRNA gene copies detected in the sample. Results may be reported either per liter (for groundwater) or per gram (for soil). This number is generally interpreted as equivalent to the number of viable *Dhc* present in the sample when certain reasonable assumptions are made, including that the DNA quantified belongs to viable *Dhc* (i.e., not from dead *Dhc*) and that each *Dhc* cell contains only one 16S rRNA gene. Guidelines for relating this value to observable dechlorination impacts for groundwater samples are provided below.

- Values of 10³ gene copies per liter or lower, indicate the sample contains low concentrations of *Dhc* organisms which may indicate that site conditions are sub-optimal for high rates of dechlorination. Increases in *Dhc* concentrations at the site may be possible if conditions are modified (e.g., electron donor addition).
- Values of 10⁴-10⁶ gene copies per liter, indicates the sample contains moderate concentrations of *Dhc* which may, or may not, be associated with observable dechlorination impacts (i.e., ethene).
- Values at or above 10⁷ gene copies per liter, indicate the samples contains high concentrations of *Dhc* which is often associated with high rates of dechlorination and the production of ethene. Test results exceeding 10⁹ gene copies/liter are rarely observed.



Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results

b) % Dehalococcoides in Microbial Population (% Dhc)

This value presents the percentage of *Dhc* (% *Dhc*) relative to other microorganisms in the sample based on the formulas below. % *Dhc* is a measure of the predominance of *Dhc and*, in general, the higher this percentage the better.

%
$$Dhc = \frac{Number Dhc}{Number Dhc + Number other Bacteria}$$

Where:

Number other Bacteria =
$$\frac{Total DNA in sample (ng) - DNA attributed to Dhc(ng)}{4.0 \times 10^{-6} ng DNA per bacterial cell}$$

The number of non-*Dhc* bacteria is estimated by assuming each non-*Dhc* bacterium contains 4.0×10^{-6} nanograms (ng) of DNA (Paul and Clark. 1996. Soil Microbiology and Biochemistry). Because the total mass of DNA in a sample is determined (by fluorometry) the total number of bacteria present can be estimated. For perspective, the % *Dhc* can range from very low fractions of percentages, in samples that have low numbers of *Dhc* and high numbers of other bacteria (incompletely colonized by *Dhc*), to greater than 50% in *Dhc* enriched cultures such as KB-1TM (fully colonized by *Dhc*).

In addition to determining the predominance of *Dhc*, this value is also used for interpretation of *Dhc* counts from different sampling locations or the same location over time, because it is normalized to total bacteria. In particular, the % *Dhc* value can be used to correct *Dhc* counts where samples are biased low due to non-representative sampling of biomass (bacteria). Example 1 below illustrates a scenario where the % *Dhc* value improves the interpretation of data where one sampling event was biased.

Example 1, use of % Dhc Value to interpret raw data

Example 1 presents results from monitoring well MW-1 sampled in April, May and June. Based on the raw *Dhc* counts alone (*Dehalococcoides* 16S rRNA Gene Copies) it might be assumed that the number of *Dhc* decreased 10-fold between April and May; however, based on the percentage of *Dhc* it is clear that the proportion of *Dhc* actually increased from April to May and that the low count is probably a case of sampling variability (biased low). The higher raw count and the higher percentage of *Dhc* in June confirms the trend of increasing *Dhc* concentrations over time.

| Sample | Dehalococcoides 16S rRNA Gene Copies | % Dhc | Interpretation Based on % Dhc |
|--------------|--|----------|---|
| MW-1- | 1.0 x 10 ⁵ /Liter | 0.1% | Dhc is a low proportion of total microbial population |
| MW-1– May | 1.0 x 10 ⁴ /Liter | 1% | <i>Dhc</i> predominance increased 10-fold from April, low count from low biomass sampled, non-biased sample would be $[(1 0/0 1) \times 1.0 \times 10^5] = 10^6$ /Liter |
| MW-1 June | 1.0 x 10 ⁷ /Liter | 10% | <i>Dhc</i> predominance moderate and has increased 100- fold from April |

Leading Science. Lasting Solutions



Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results

3) Explanation of Notes

Quantitation limit: The quantitation limit of Gene-Trac test is 2,150 *Dhc* 16S rRNA gene copies per liter. Note, the specific quantitation limit for each test varies depending on the volume of sample used in the DNA extraction process. For example, if only a ½ liter of water was used the quantitation limit would increase two-fold to 4300 gene copies per liter. The specific quantitation limit is provided only where *Dhc* is not detected.

Value is an estimated quantity between the quantitation limit and detection limit: This is applicable in situations where *Dhc* DNA is detected above the detection limit, but below the quantitation limit, of the standard curve. In such cases an estimated value is provided which is based on extrapolation of the standard curve.

Sample inhibited testing: Each Quantitative Gene-Trac test includes a quantification of the amount of DNA extracted from the sample and a second test to determine if the extracted DNA is suitable for *Dhc* testing (PCR with a universal Bacteria primer). If a sample is determined to contain DNA and PCR with universal primers is negative, it suggests that the extracted DNA inhibited the PCR. Inhibition may be caused by compounds present in the original groundwater sample (e.g., humic acids). Where inhibition occurs there is an increased likelihood of false negatives since *Dhc* DNA, if present, may not be detected.

DNA not extracted from the sample: If DNA is not detected in the sample then "DNA not extracted from the sample" is reported. This is commonly due to samples that contain little or no biomass (bacteria). In some cases sampling may not capture bacteria (e.g., when attached bacteria are not dislodged from the aquifer matrix).

4) Converting Standard Gene-Trac to Dhc 16S rRNA Gene Copies/Liter

Quantitative Gene-Trac provides quantitative results in *Dhc* 16S rRNA Gene Copies/Liter, whereas standard Gene-Trac provides semi-quantitative results using a plus scale. Based on parallel analysis of standard versus Quantitative Gene-Trac estimates of the number of *Dhc* gene copies for each + score in the standard test were determined. Note, the conversion factors do not apply in all cases and are meant to be used as a rule of thumb for relating standard Gene-Trac results to Quantitative-Gene-Trac.

| tandard Gene-Trac Intensity Score + ++ | Approximate Range of 16S rRNA Gene Copies/Liter | | | | |
|--|--|--|--|--|--|
| * | 10 ³ -10 ⁵ | | | | |
| ++ | 10 ⁴ -10 ⁶ | | | | |
| +++ | 10 ⁵ -10 ⁷ | | | | |
| *** | 10 ⁶ -10 ⁸ | | | | |

Estimated 16S rRNA Gene Copies/Liter for Standard Gene-Trac Intensity Scores

SEREN 6

130 Research Lane, Suite 2 Guelph, Ontario, N1G 5G3 Canada Tei: (519) 822-2265 Fax: (519) 822-3151

SIREM File Reference: S-1137

Analytical Results

Client Project Number: Client Project Number: Dals Samples Received: October 12, 2007 Dats Samples Analysed: October 15, 2007

| | | | | _ | _ | | | |
|--------|--------------------|--------|---------|-----------|--------------|------|-------|-----|
| | PCE | | mg/L | | 2 | | 001 | |
| | 1,1,2- TCA | | mg/L | 50, | 5 | | 0.01 | |
| | TCE | | mg/L | 101 | 2 | | 0.01 | |
| | 1,1,1- TCA | | mg/L | * • • • | 1.02 | | 0.01 | |
| | 1,2- DCA | | mg/L | | 177 | | 60 | |
| | Chloro- form | | mg/L | | 5 | | 0.01 | |
| | cis-1,2- DCE | | mg/L | - | 0.32 | | 0.01 | |
| | 1,1 DCA | | ma/L | | -0- | | 0.01 | i |
| | trans-1,2- DCE | | ma/L | | <0.1 | | 0.01 | |
| ~ _ | 1,1- DCE 1 | | malt | | <u>60.1</u> | | 0.01 | |
| | DCM | | mail. | | £0.1 | | 0.01 | |
| | Acetone | | -line | * | ê. | | 0.01 | |
| ĺ | Ethanol | | () L | | 5 | | - | |
| | Chtoro- ethane | | Į, m | | <u>5</u> | | 0,01 | |
| | Vinyt- hlorida | | 1 | | 8.9 | | 0.01 | |
| | ethanol c | | | | ¢10 | | - | |
| | hloro- athang M | | | | | | 0.01 | |
| | hane C | | = | -1/50 | 10.77 | | 0.01 | |
| | E energy | | | | 3 6 | 2 | 100 | - |
| | | | | maß | 54 | 2 | 1 1 1 | 5.5 |
| | | ampie | lution | actor | | - | | - |
| | | (n | ÷ | date f | | | - | |
| | | | Clier | a ample | | 2 | ľ | 5 |
| | | | | famme [] | an an insidi | 1079 | | |
| | | | | COLUMN DA | SURGER NG | -10 | | |
| | | | | | | | | |
| | | | | - | umple ID | 13D | | |
| | | | | * | Client St | -WW | | |
| | | | | | | | | |
| | | | | - | - | | | |

Comments:

Method: GC/FID headspace CL = Quantitation limit J = associated value is estimated; compound positively detected < = compound analysed for but not detected, associated value is QL. Sample QL is corrected for dilution. E = compound exceeded calibration limits

Kila Kempertek Analyst

R. Scholield, Laboratory Technician

A sirel Results approved:

16-Oct-07

£.

.

ł

÷ 1

Jeff Roberts Senior Laboratory Technictan

Date:



www.siremiab.com

430 Research Lane, Suite 2 Guelph, Ontario - M16 563 Phone 15491 832-2265 Fax 15191 832-3151

Certificate of Analysis: Quantitative Gene-Trac Dehalococcoides Assay

Customer: Tom Barba, C&S Engineers, Inc. Project: Midler Customer Reference: C81.002.001 SiREM Reference: S-1137 Report Issued: 17-Oct-07 Data Files: DHC-UP-0390/QPCR-0283

Table 1: Test Results

| Customer Sample ID | SiREM Sample ID | Sample Collection Date | Sample Matrix | Percent Dhc ^A | <i>Dehalococcoides</i> Ennumeration ^B |
|-----------------------|--------------------|------------------------------|------------------|-----------------------------|---|
| MW-13D | DHC-3387 | 11-Oct-07 | Groundwater | 100% | 2 x 10 ⁸ /liter |

Notes:

Analyst:

^A Percent *Dehalococcoides* (Dhc) in microbial population. This value is calculated by dividing the number of Dhc 16S ribosomal ribonucleic acid (rRNA) gene copies by the total number of bacteria as estimated by the mass of DNA extracted from the sample. Range represents normal variation in Dhc enumeration.

^BBased on quantification of Dhc 16S rRNA gene copies. Dhc are generally reported to contain one 16S rRNA gene copy per cell; therefore, this number is often interpreted to represent the number of Dhc cells present in the sample.

(Wilkinson

Approved:

Vimena Druar

Ximena Druar, B.Sc. Molecular Biology Coordinator

Jennifer Wilkinson Biotechnology Technologist



www.sitemiab.com

130 Acres of Lone, Suite 2 Guelph, Ontario - N1G SG3 Phone 1519(-822-2265 #ax 1519) 822-3151

Certificate of Analysis: Gene-Trac-VC, Vinyl Chloride Reductase (vcrA) Assay

Customer: Tom Barba, C&S Engineers, Inc. Project: Midler Customer Reference: C81.002.001 SiREM Reference: S-1137 Report Issued: 17-Oct-07 Data Files: VC-QPCR-0100 VC-QPCR check-gel-0116

Table 1: Test Results

| Customer Sample ID | SiREM Sample ID | Sample Collection Date | Sample Matrix | Percent <i>vcrA</i> ^A | Vinyl Chloride Reductase (<i>vcrA</i>) Gene Copies |
|-----------------------|--------------------|------------------------------|------------------|-------------------------------------|--|
| MW-13D | VCR-0637 | 11-Oct-07 | Groundwater | >93% | 6 x 10 ⁷ /liter |

Notes:

^A Percent *vcrA* in microbial population. This value is calculated by dividing the number of vinyl chloride reductase A (*vcrA*) gene copies quantified by the total number of bacteria estimated to be in the sample based on the mass of DNA extracted from the sample. Range represents normal variation in enumeration of *vcrA*.

¹Defined as "greater than" as total DNA extracted is below the sample specific quantitation limit. This value represents the minimum % *Dehalococcoides* assuming DNA is at the quantitation threshold.

J Wilkinson

.

Jumena Druar

Ximena Druar, B.Sc. Molecular Biology Coordinator

Analyst:

Jennifer Wilkinson Biotechnology Technologist

Approved:



Table 2: Detailed Test Parameters, GeneTrac Test Reference S-1137

| Customer Sample ID | | MW-13D |
|---|--|--|
| SiREM Test ID | | DHC-3387/VCR-0637 |
| Date Received | | 12-Oct-07 |
| Sample Temperature | | 4.1 °C |
| Volume Used for DNA Extraction | | 100 mL |
| DNA Extraction Date | | 15-Oct-07 |
| DNA Concentration in Sample (extract: | able) | ND ⁽¹⁾ |
| Extracted DNA Quality Test (universal F | PCR primers) | Passed |
| Secondary DNA Purification | | NR |
| Dhc qPCR Analysis Date | | 16-Oct-07 |
| vcrA qPCR Analysis Date | | 16-Oct-07 |
| gPCR Controls (see Table 3) | | Passed |
| Comments | | |
| Notes: Refer to Table 3 for detailed results of controls. ¹ < detection limit of 1.2 ng/L. ND = not detected NR = not required | PCR = polymerase chain reaction qPCR = quantitative PCR Dhc = <i>Dehalococcoides</i> ng/L = nanograms per liter | °C = degrees Celsius mL = millitiers DNA = Deoxyribonucleic acid |

1.

<u>ب</u> م



Table 3: Gene-Trac-Dhc Experimental Control Results, Gene-Trac Test Reference S-1137

| Laboratory Control | Analysis Date | Control Description | Spiked Dhc 16S rRNA Gene Copies per Reaction | Recovered Dhc 16S rRNA Gene Copies per Reaction | Comments |
|----------------------|---------------|---|--|---|---------------------|
| Positive Control | 16-Oct-07 | qPCR with KB1 genomic DNA (1.2 x 10 ⁵ copies) | 1.2 x 10 ⁵ | 1.0 × 10 ⁵ | Normal ¹ |
| DNA Extraction Blank | 16-Oct-07 | DNA extraction sterile water (DB-0657) | 0 | ŊŊ | Normal |
| Negative Control | 16-Oct-07 | Tris Reagent Blank | 0 | QN | Normal |

Notes:

¹ Within defined limits of +/- 50% Dhc = *Dehalococcoides* DNA = Deoxyribonucleic acid ND = not detected qPCR = quantitative PCR 16S rRNA = 16S ribosomal ribonucleic acid

 4/5



Table 4: Gene-Trac-VC Experimental Control Results, Gene-Trac Test Reference S-1137

| Laboratory Control | Analysis Date | Control Description | Spiked <i>vcrA</i> reductase Gene Copies per Reaction | Recovered <i>vcrA</i> reductase Gene Copies per Reaction | Comments |
|--|---------------|--|---|--|--|
| Positive Control Low Concentration | 16-Oct-07 | qPCR with cloned vinyl chloride dehalogenase gene (2.8 x 10 ⁵ copies) | 2.8 x 10 ⁵ | 1.8 x 10 ⁵ | Normal ¹ |
| Positive Control High Concentration | 16-Oct-07 | qPCR with cloned vinyl chloride dehalogenase gene (2.8 x 10 ⁷ copies) | 2.8 × 10 ⁷ | 1.6 x 10 ⁷ | Normal ¹ |
| DNA Extraction Blank | 16-Oct-07 | DNA extraction sterile water (DB-0657) | 0 | 3.5 × 10 ³ | Detected within acceptable limits ² |
| Negative Control | 16-Oct-07 | Tris Reagent Blank | 0 | DN | Normal |

Notes:

ND = not detected

 1 Within defined limits of +/- 50%

²Acceptable where background is less than 2 orders of magnitude below sample result

qPCR = quantitative PCR

Dhc = Dehalococcoldes

DNA = Deoxyribonucleic acid vcrA = vinyl chloride reductase 5. . . 5/5

| NO 1425 S 32 7/37 Page of 0 | | | Preservative Key 6. None | 7 1. HCL 2. Other | 3. Other | 6. Other | 6. Other | Other Information | | | | | | | bute Only | | | | ad By: Sionature | 5 | Printed Name | Firm | Date/func | |
|---|-------------------|-------------------|--------------------------|----------------------|------------------------|----------------------|--------------------------|------------------------|----------|-------------|--|--|--|--|---------------------|---------------------|--------------------|----------|---------------------|-----------------------------|--------------------------|-----------|-------------------------|---|
| i1-1747 Fax (519) 822-3151 | Analysis | | | | | | | | | | | | | | 1 | | | | Relinquishe | 'n | Printed Name | Firm | Date/fime | |
| 0dy Form 1519) 822-2265 or toll free 1-866-25 on | | reservative (M) [| 1 2751 | I WIN | 2 C 20 20 - | | 1 J J M M | | | | X | | | | | | | | Received By: | - Adrenation | Printed Name | Firm | Date/Time | |
| Chain-Of-CuSử ph, Ontario, Canada N1G 5G3 / Phone www.siremlab.ce | COL MAL MAL | d | | | 410 cuse, NY 13212 | 5-947 | AMOR CLUNKEX | Ting Matrix containers | 1 MM 1 | 1 (VOD NOW) | 1400 WM 6 | | | | Invoice Information | | | D # | Relinquished By: | Signature . | Printed Name | Firm | Date/Time | |
| 130 Research Lane, Suite 2 🤟 Gue | Project # | dAc | | neers it nc. | in Collins Blud., S | A - 315- 45 | Ume Sampler's Printed-TM | Lab ID Date | 10/11/02 | lah ka | | | | | pt P:0.# | 2.7 | | Quotatio | Received By: | Signature | Printed K- it - MOINC | Fim SikEN | Date/fime | Lab Copy: Pink - Retained by Client |
| S REM Ste Recent & Management | Project Name M. I | Project Manager | Email Address | COMPANY CAS ENGI | Notress 499 Cal. E. A. | Phone # 315-455- 200 | Sampler's Alennin CUW | Client Sample tD | MILLIZD | | 11111111111111111111111111111111111111 | | | | Cooler Condition: | Cooler lemperature: | Custody Seals: Yes | | Relinquished By: | Signaryon Signaryon Chesher | Prince The second second | | Date/Time 1. 1 ~ 1/12.0 | Cistribunon, White - Rendra to Originator: Yellow |

In the absence of an executed agreement, submission of samples to SIREM implies consent for performance of analyses specified on this Chain-of-Outrody form and agreement wate the terms and conditions of the SiREM (aborator/ Services Agreement. The enviry submitting samples shall be responsible for payment in full for said analyses.