LIBRARY COPY

*Headquarters, Air Combat Command*
*Langley Air Force Base,*
*Virginia*

# *DRAFT FINAL*
# *PHASE I AND PHASE II*
# *RCRA FACILITY INVESTIGATION REPORT*

*SITE AOC-1001*
*HOLLOMAN AIR FORCE BASE, NEW MEXICO*

*DECEMBER 1997*

*49 CES/CEV*
*Holloman Air Force Base,*
*New Mexico*

# DRAFT FINAL
# PHASE I AND PHASE II
# RCRA FACILITY INVESTIGATION REPORT
# SITE AOC-1001
# HOLLOMAN AIR FORCE BASE, NEW MEXICO

Prepared for:

49 CES/CEVR
Holloman Air Force Base, NM

and

HQ ACC/ESVR
Langley Air Force Base, VA

Prepared by:


Foster Wheeler Environmental Corporation
143 Union Blvd., Suite 1010
Lakewood, Colorado 80228-1824

and

Groundwater Technology
Government Services, Inc.
2501 Yale Blvd., S.E.
Albuquerque, New Mexico 87106



Under Contract No. DACW-45-94-D-0003

Delivery Order 8, Work Authorization Directive 29

U.S. Army Corps of Engineers
Omaha District
Omaha, Nebraska

December 1997


HAFB\AOC1001.RPT

# TABLE OF CONTENTS

LIST OF FIGURES . . . . . ii

LIST OF TABLES . . . . . iii

LIST OF APPENDICES . . . . . iv

LIST OF ACRONYMS . . . . . v

1.0 INTRODUCTION . . . . . 1-1
- 1.1 Purpose and Scope . . . . . 1-1
- 1.2 Document Organization . . . . . 1-3

2.0 RFI AT SITE AOC-1001 . . . . . 2-1
- 2.1 Site Description and Background . . . . . 2-1
- 2.2 Investigation Objective and Methods . . . . . 2-3
  - *2.2.1 Passive Soil Vapor Survey* . . . . . 2-3
  - *2.2.2 Soil Sampling* . . . . . 2-4
  - *2.2.3 Groundwater Sampling* . . . . . 2-5
  - *2.2.4 Surveying* . . . . . 2-6
- 2.3 Soil Vapor Survey Results . . . . . 2-7
- 2.4 Soil Sampling Results . . . . . 2-7
  - *2.4.1 Phase I Soil Sampling Results* . . . . . 2-7
  - *2.4.2 Phase II Soil Sampling Results* . . . . . 2-13
- 2.5 Groundwater Sampling and Monitoring Results . . . . . 2-16
  - *2.5.1 Phase I Results* . . . . . 2-16
  - *2.5.2 Phase II Results* . . . . . 2-23
- 2.6 IDW Handling/Characterization . . . . . 2-26
- 2.7 Conclusions and Recommendations . . . . . 2-28

3.0 QUALITY CONTROL SUMMARY REPORT . . . . . 3-1
- 3.1 Introduction . . . . . 3-1
- 3.2 Approach and Mechanisms . . . . . 3-1
- 3.3 QA/QC Summary for AOC-1001 . . . . . 3-2
  - *3.3.1 Daily Reports* . . . . . 3-2
  - *3.3.2 Soil Vapor Survey* . . . . . 3-2
  - *3.3.3 VOCs In Soil Samples* . . . . . 3-3
  - *3.3.4 Explosives in Soil Samples* . . . . . 3-4
  - *3.3.5 VOCs in Groundwater* . . . . . 3-4
  - *3.3.6 Explosives in Groundwater* . . . . . 3-5
- 3.4 Deviations . . . . . 3-6

4.0 REFERENCES . . . . . 4-1

## LIST OF FIGURES

1-1 Site Location Map . . . . . 1-2

2-1 AOC-1001 Site Map . . . . . 2-2

2-2 AOC-1001 Passive Soil Vapor Survey Analytical Results, June 1996 . . . . . 2-9

2-3 AOC-1001 Soil Analytical Results . . . . . 2-12

2-4 AOC-1001 Groundwater Analytical Results . . . . . 2-22

2-5 AOC-1001 Groundwater Elevation Contour Map, June 1996 . . . . . 2-24

2-6 AOC-1001 Groundwater Elevation Contour Map, June 1997 . . . . . 2-27

## LIST OF TABLES

2-1 Soil Vapor Survey Analytical Results for AOC-1001, Holloman AFB, New Mexico, June 1996 . . . . . 2-8

2-2 Soil Analytical Results for AOC-1001, Holloman AFB, New Mexico, Phase I RFI, June 1996 . . . . . 2-10

2-3 Soil Analytical Results for AOC-1001, Holloman AFB, New Mexico, Phase II RFI - Mobile Laboratory, June 1997 . . . . . 2-14

2-4 Soil Analytical Results for AOC-1001, Holloman AFB, New Mexico, Phase II RFI - Fixed-Base Laboratory, June 1997 . . . . . 2-15

2-5 Groundwater Analytical Results for AOC-1001, Holloman AFB, New Mexico, Phase I RFI, June 1996 . . . . . 2-17

2-6 Groundwater Analytical Results - DPT Points For AOC-1001, Holloman AFB, New Mexico, Phase II RFI, May 1997 . . . . . 2-18

2-7 Groundwater Analytical Results - Monitoring Wells For AOC-1001, Holloman AFB, New Mexico, Phase II RFI, May 1997 . . . . . 2-21

2-8 Groundwater Level Data for AOC-1001, Holloman AFB, New Mexico, 1996 - 1997 . . . . . 2-25

# LIST OF APPENDICES

A. Drilling and Well Completion Logs

B. Survey Data

C. Soil Vapor Survey Analytical Report

D. Soil Laboratory Analytical Reports

E. Groundwater Laboratory Analytical Reports

F. Daily Quality Control Reports

G. Field Change Procedure Requests

# LIST OF ACRONYMS

| | |
|---|---|
| AFB | Air Force Base |
| AOC | Area of Concern |
| AST | Aboveground Storage Tank |
| BFB | Bromofluorobenzene |
| bgs | Below Ground Surface |
| BTEX | Benzene, Toluene, Ethylbenzene, and Xylenes |
| COC | Chain-of-Custody |
| DBFM | Dibromofluoromethane |
| DCA | Dichloroethane |
| DDD | 1,1-bis(4-chlorophenyl)-2,2-dichloroethane |
| DPT | Direct Push Technology |
| DQCSR | Daily Quality Control Summary Report |
| EPA | U.S. Environmental Protection Agency |
| FSP | Field Sampling Plan |
| FWENC | Foster Wheeler Environmental Corporation |
| HASP | Health and Safety Plan |
| HSA | Hollow-stem Auger |
| IDW | Investigation-Derived Waste |
| IRP | Installation Restoration Program |
| LCS | Laboratory Control Sample |
| MB | Method Blank |
| mg/kg | Milligrams per Kilogram |
| MRD | Missouri River Division |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| NFA | No Further Action |
| NMED | New Mexico Environment Department |
| OWS | Oil/Water Separator |
| PID | Photoionization Detector |
| QA | Quality Assurance |
| QC | Quality Control |
| QL | Quantitation Limit |
| QAPP | Quality Assurance Project Plan |
| QCSR | Quality Control Summary Report |

## LIST OF ACRONYMS (Concluded)

| | |
|---|---|
| RCRA | Resource Conservation and Recovery Act of 1976 |
| RFI | RCRA Facility Investigation |
| RI | Remedial Investigation |
| RL | Reporting Limit |
| RPD | Relative Percent Difference |
| SAP | Sampling and Analysis Plan |
| SVOC | Semi-Volatile Organic Compound |
| SWMU | Solid Waste Management Unit |
| TCE | Trichloroethene |
| TEG | Transglobal Environmental Geosciences Northwest, Inc. |
| TERC | Total Environmental Restoration Contract |
| TNT | Trinitrotoluene |
| TPH | Total Petroleum Hydrocarbons |
| µg | Micrograms |
| µg/kg | Micrograms per Kilogram |
| µg/l | Micrograms per Liter |
| USACE | U.S. Army Corps of Engineers |
| USCS | Unified Soil Classification System |
| VOC | Volatile Organic Compound |

# 1.0 INTRODUCTION

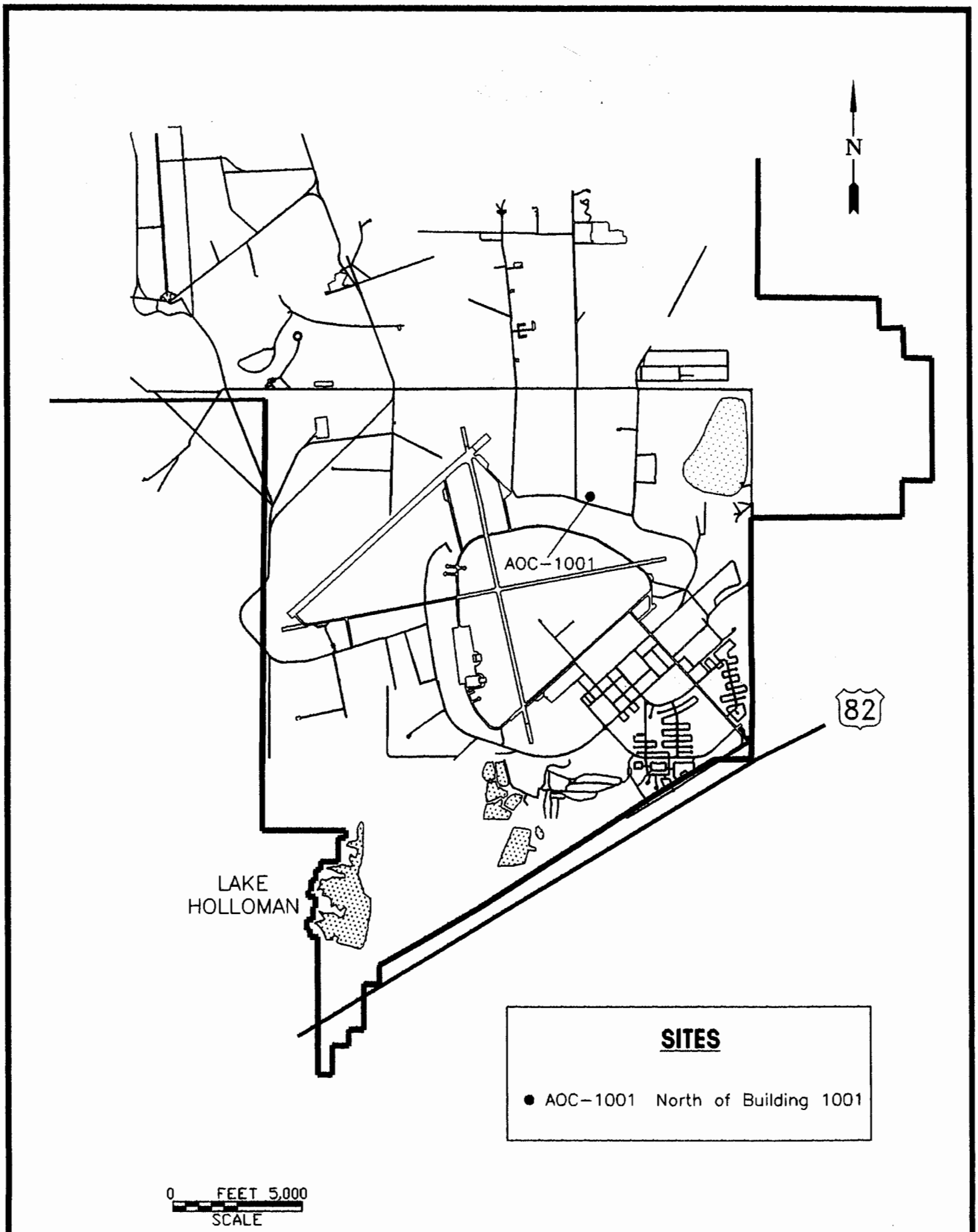
Groundwater Technology Government Services, Inc. (Groundwater Technology) was contracted by Foster Wheeler Environmental Corporation (FWENC) to conduct a Resource, Conservation and Recovery Act of 1976 (RCRA) Facility Investigation (RFI) of Table 1 Area of Concern (AOC) 1001 at Holloman Air Force Base (AFB), New Mexico. The purpose of the characterization was to determine the source and if possible, extent of contamination observed during the Phase II RCRA RFI Table 1 Investigation conducted at Solid Waste Management Unit (SWMU) 104, the Former Army Landfill (Installation Restoration Program [IRP] Site LF-29) (Radian, June 1995). The work was directed by the US Army Corps of Engineers (USACE) under the Total Environmental Restoration Contract (TERC) Number DACW-45-94-D0003. Figure 1-1 is a map of the main Base area indicating the location of AOC-1001.

The RFI was conducted in two phases. The first phase (Phase I) was conducted in accordance with the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP) (FWENC/Groundwater Technology, May 1996a) and the Health and Safety Plan (HASP) addendum (FWENC/Groundwater Technology, May 1996b) prepared for Site AOC-1001. Phase II activities were conducted in accordance with Addendum Work Plans for Additional Characterization of AOC-1001 (April 1997). Phase I RFI field activities were conducted from May to July 1996. Phase II activities were conducted from May to June 1997. This document presents both investigation findings and the Quality Control Summary Report (QCSR).

## 1.1 Purpose and Scope

The purpose of these investigations was to determine the probable source(s) of the benzene (3,100 micrograms per liter [µg/l]) and 1,2-dichloroethane (DCA) (350 µg/l) found in well MW-29-05 during the Phase II RFI Table 1 Investigation at SWMU 104 (Radian, June 1995). Additionally, 2,4,6-trinitrotoluene (TNT) and 1,3,5-trinitrobenzene were detected in the well at 0.23 µg/l and 2.6 µg/l, respectively. The secondary purpose of the RFI was to attempt to define the lateral and vertical extent of contamination present in the area of well MW-29-05.

The Phase I scope of the RFI included the following field activities in the area upgradient of well MW-29-05:




2208SITE

**FIGURE 1-1. Site Location Map**

- A passive soil vapor survey which included 49 sample points spread over a 50-foot spacing grid. The intent of the soil vapor survey was to identify "target" areas for soil and groundwater collection.

- Based upon the results of the soil vapor survey, ten soil borings were installed and soil and groundwater samples were collected for chemical analysis using Direct Push Technology (DPT).

The Phase II investigation focused on the area south of the bermed areas and east of Building 1001, and east of SWMU 104. Because benzene and 1,2-DCA were identified in groundwater during Phase I, Phase II consisted of:

- Collection of soil and groundwater samples with a DPT rig followed by onsite analysis using a mobile laboratory.

- Installation and sampling of four monitoring wells in critical areas identified through DPT sampling to better define groundwater quality and flow direction.

- Installation and gauging of four piezometers to better characterize groundwater elevation and flow direction across the entire site.

## 1.2 Document Organization

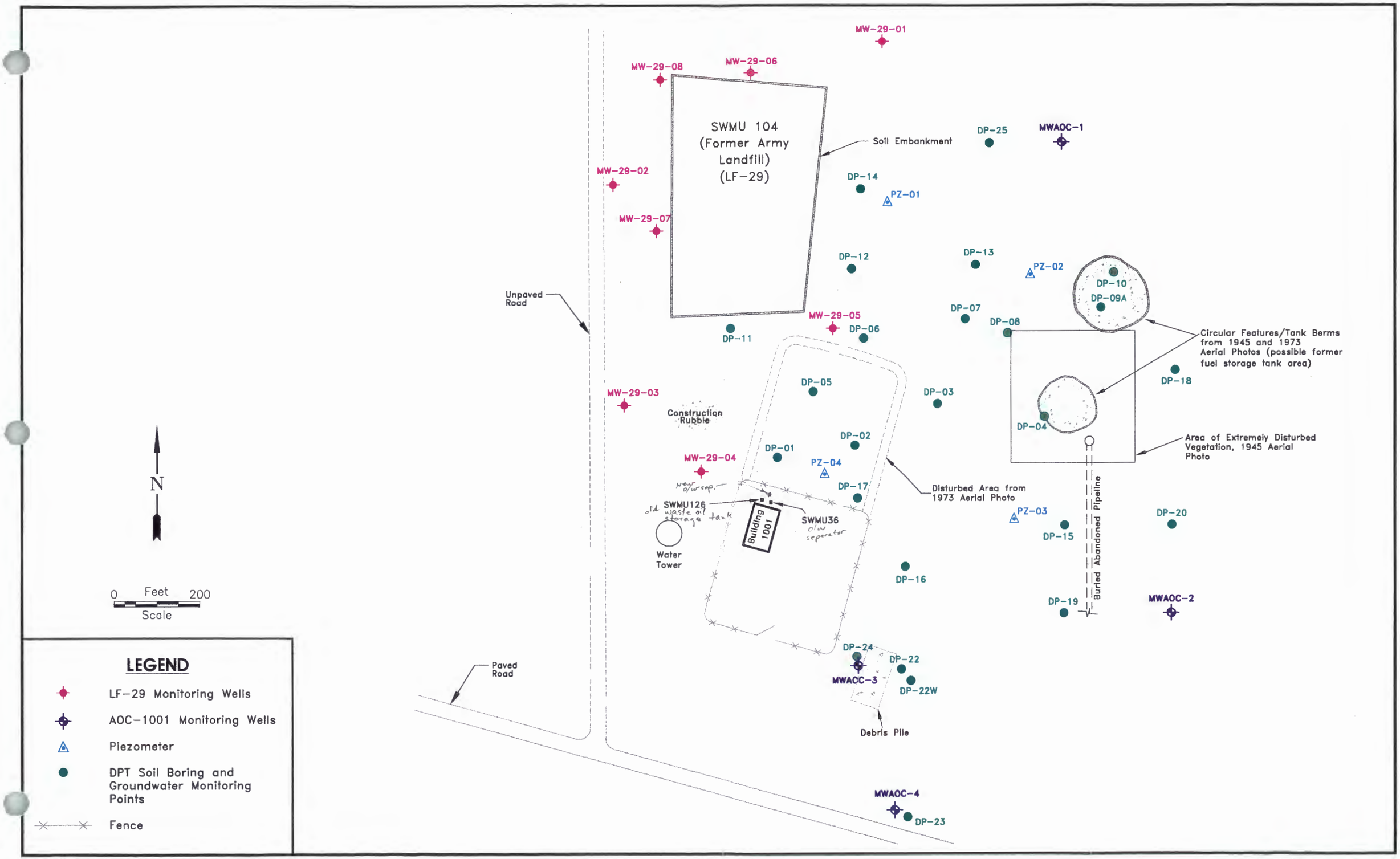
Section 2.0 presents the results of both phases of the RFI, data analysis, and recommendations. The FSP and the QAPP are referenced for detailed explanations. Section 3.0 contains the QCSR and references are provided in Section 4.0. Specific variations in sampling due to field conditions or equipment limitations are explained in detail in Sections 2.0 and 3.0. Supporting documentation including laboratory analytical results and lithologic boring logs are provided in the Appendices.

# 2.0 RFI AT SITE AOC-1001

## 2.1 Site Description and Background

Initially, AOC-1001 was defined as the area surrounding monitoring well MW-29-05, which is located southeast of IRP Site LF-29, the Former Army Landfill (SWMU 104) and north of Building 1001 (Figure 2-1). At present, the area has been expanded to include the area east of Building 1001 and south of the old fuel storage berms. The Former Army Landfill was used to dispose of ammunition and missiles. Nearby units include SWMU 36 (Oil/Water Separator [OWS]) and SWMU 126 (waste oil storage tank), which are located on the north side of Building 1001. Approximately five other sites are located within 1,250 feet of AOC-1001. These SWMUs are OWS, surface runoff ponds, and waste oil tanks and have either been investigated under the Basewide RFI or the IRP. Section 2.4 of the FSP discusses the results of previous investigations conducted at these nearby units.

The SWMU 104, the Former Army Landfill, was investigated during Phase I of the IRP (29 Sites Remedial Investigation [RI] (Radian, October 1992)) and Phase II of the Table 1 RFI. Groundwater monitoring wells MW-29-01 through MW-29-04 were installed in 1991. The IRP investigation detected low concentrations of lead (2 µg/l), chloroform (22 µg/l) and 1,1-bis(4-chlorophenyl)-2,2-dichloroethane (DDD) (0.028 µg/l). In November 1992, the U.S. Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) directed the Base to install additional groundwater monitoring wells to determine if a release had occurred and to better define the groundwater flow. During the Phase II Table 1 RFI, four additional groundwater monitoring wells (MW-29-05 through MW-29-08) were installed and a complete round of groundwater sampling and analysis was conducted at the landfill. Upgradient well MW-29-05 contained benzene at 3,100 µg/l, 1,2-DCA at 350 µg/l, TNT at 0.23 µg/l, and 1,3,5-trinitrobenzene at 2.6 µg/l. No constituents were detected in wells MW-29-01 through MW-29-04 and MW-29-06 through MW-29-08, with the exception of MW-29-08, which contained 8.7 µg/l of 1,2-dichloroethane. The investigation determined that groundwater flow direction was northwest. Based upon these results, a recommendation for No Further Action (NFA) status was requested for SWMU 104. The source of the benzene and TNT detected in well MW-29-08 was not determined. Based upon the groundwater flow direction, the contamination was believed to be from a source upgradient of the landfill.




0502-SP.DWG (1:200) 11-24-97

**Figure 2-1: AOC-1001 Site Map**

The SWMU 36, the OWS at Building 1001, was removed in July 1995. Soil impacted by Total Petroleum Hydrocarbons (TPH) in excess of 1,000 milligrams per kilogram (mg/kg) was identified in the side walls and bottom of the excavation (FWENC/Groundwater Technology, November 1995). Additional characterization of this area was conducted in January 1996.

SWMU 126, the waste oil tank at Building 1001, has apparently been removed and was not present during the July 1995 removal of SWMU 36. A new OWS is located in the approximate location of SWMU 126. Based upon soil samples collected from borings immediately adjacent to the tank during the Phase I Table 2 RFI Investigation (Radian, June 1995), NFA status was proposed for SWMU 126.

Historical aerial photos from 1942, 1945, 1973, 1984, and 1987 were reviewed to determine previous land use in the vicinity of AOC-1001. Detailed results of the photo review are presented in the FSP. Circular features which appeared to be tank berms for above ground storage tanks (ASTs) were identified in several of the photos (Figure 2-1).

## 2.2 Investigation Objective and Methods

The objective of both phases of the RFI at AOC-1001 was to determine the source and extent of impact to soil and groundwater related to the benzene concentrations detected in well MW-29-05 during the Phase II Table 1 RFI at SWMU 104. The Phase I RFI activities at AOC-1001 included collecting and analyzing soil vapor, soil, and groundwater samples. Phase II RFI activities involved the installation of additional DPT soil and groundwater points and sampling with analysis by an onsite mobile laboratory. Four groundwater monitoring wells were installed to define contaminant conditions and groundwater flow direction in suspect areas. In addition, four piezometers were installed to define groundwater flow across the entire site. Investigation activities were conducted in accordance with the FSP.

### *2.2.1 Passive Soil Vapor Survey*

During Phase I, a passive soil vapor survey was performed at the site in an effort to focus subsequent investigation efforts. Forty-nine passive soil vapor points (Gore-Sorbers$^{SM}$) were installed three feet below grade in a 50-foot spaced grid pattern on May 22 and 23, 1996. The survey focused on the immediate area upgradient of well MW-29-05 and within the area believed to be a former fuel storage area. The Gore-Sorbers$^{SM}$ were analyzed at W. L. Gore

laboratory in Elkton, Maryland after approximately two weeks of exposure for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and explosives by using thermal desorption, gas chromatography, and mass selective detection laboratory analysis.

### *2.2.2 Soil Sampling*

***Phase I Soil Sampling***

Ten soil borings were installed during the Phase I RFI (DP-01 through DP-10) (Figure 2-1). Eleven soil borings were actually completed since work on DP-09 had to be stopped due to adverse weather conditions. Work on DP-09 on June 26, 1996 was stopped at 21 feet total depth due to a thunderstorm and subsequent muddy conditions, which created safety hazards for several days. Boring DP-09 was later redrilled as DP-09A on June 29, 1996. Since the soil vapor survey generally failed to identify potential target areas, borings were placed in a pattern which covered the area upgradient (southeast) of MW-29-05. Soil samples were collected continuously from 3-foot DPT cores to the total depth of each boring (21-30 feet). A soil boring log was completed during DPT boring activities to describe the lithology and to record VOC headspace readings collected with a photoionization detector (PID). The DPT borings were advanced a minimum of two to three feet below the water table. Drill logs are presented in Appendix A.

Three soil samples from each DPT boring (one from the groundwater interface and the other two from the intervals with the highest headspace VOC readings) were selected for chemical analysis. The samples were shipped under strict chain-of-custody (COC) to NEI/GTEL Laboratories (NEI/GTEL) in Wichita, Kansas. The soil samples were analyzed for VOCs and explosives by EPA Method 8260A and EPA Method 8330, respectively. Soil and water samples for EPA Method 8330 (explosives) analysis were transferred to Southwest Laboratory of Oklahoma, Inc. Southwest Laboratory is a USACE Certified Laboratory for EPA Method 8330.

***Phase II Soil Sampling***

Fourteen soil borings (DP-11 through DP-20 and DP-22 through DP-25 [DP-21 not installed]) and four monitoring wells (MWAOC-1 through MWAOC-4) were installed during the Phase II RFI (Figure 2-1). The purpose of the borings and wells were to delineate a potential benzene, toluene, ethylbenzene, and xylenes (BTEX) source northeast of Building 1001 and west of the bermed area. Borings DP-11 through DP-14 were installed to define the lateral extent of groundwater contamination north, northeast, and northwest of DP-06 and

DP-07. Borings DP-15 through DP-17 were installed to define the lateral extent of groundwater contamination south and southeast (farther upgradient) of borings DP-02 and DP-03. Borings DP-18 and DP-19 were installed to define the upgradient extent of contamination east of DP-04 and DP-09A. Additional DPT points (DP-20 and DP-22 through DP-25) were installed as "step-out" borings based on field conditions encountered during the drilling program.

Soil samples were collected continuously from 3-foot DPT cores to the total depth (20-34 feet) of select borings. The lithology of the cores was described and VOC headspace readings were collected with a PID. Borings DP-13, DP-14, DP-19, DP-20, and DP-25 were drilled directly to the water table for groundwater sampling purposes only and no soil cores were collected. Drill logs containing lithologic descriptions and the VOC headspace readings are provided in Appendix A.

Four monitoring wells (MWAOC-1 through MWAOC-4) were installed in the locations shown in Figure 2-1 to better define groundwater flow direction at the site and to aid in verifying and delineating VOC concentrations detected during the Phase I investigation. The wells were installed using hollow-stem auger (HSA) drilling techniques to total depths ranging from 22 to 35 feet, or approximately 5 feet below the water table. Soil samples were collected every five feet with 2-inch diameter split-spoon samplers.

Soil sample analysis during Phase II was performed on one sample per borehole. Soil samples were collected from nine of 14 DPT boreholes for chemical analysis and all four of the monitoring wells. Additionally, the samples were only analyzed for VOCs by EPA Methods 8010/8020. Sample selection was based upon field headspace screening or other criteria such as staining or odors. All samples were analyzed by the onsite Transglobal Environmental Geosciences (TEG) Northwest, Inc. mobile laboratory. Twenty percent of the samples were split and analyzed for VOCs by EPA Methods 8010/8020 by the fixed-base laboratory, Laucks Testing Laboratory, Inc. (Laucks), as a quality assurance procedure.

### *2.2.3 Groundwater Sampling*

***Phase I Groundwater Sampling***

Ten groundwater samples were collected during Phase I of the RFI. Groundwater sample locations were the same as the 10 Phase I DPT soil sampling locations (DP-01 through DP-10). These sampling locations were all upgradient or crossgradient of well MW-29-05.

Groundwater was to be pumped to the surface through Teflon tubing using a peristaltic pump. However, since groundwater was deeper than expected (22-28 feet below ground surface [bgs]), the peristaltic pump was not capable of lifting the water to the surface. Therefore, water samples were collected by carefully pulling the Teflon tubing up out of the well under a vacuum and draining the water column out of the tubing. In accordance with the FSP, one tubing volume of groundwater was purged prior to sample collection. New tubing was used at each location.

Groundwater samples were collected from June 24 to 29, 1996 from sample points DP-01 through DP-10. The samples were shipped under strict COC procedures to NEI/GTEL. Groundwater samples were analyzed for VOCs by EPA Method 8260A and for explosives by EPA Method 8330. After sample collection, the DPT boreholes were abandoned by backfilling with bentonite pellets and the site was restored in accordance with the FSP.

***Phase II Groundwater Sampling***

Phase II groundwater sampling was conducted by installing and sampling 14 DPT well points (DP-11 through DP-20 and DP-22 through DP-25) and four groundwater monitoring wells (MWAOC-1 through MWAOC-4). One existing well, MW-29-05, was also sampled. The DPT points were sampled and then abandoned as described above for the Phase I investigation. The new monitoring wells were developed and all wells were then purged of three volumes in accordance with the FSP. Groundwater samples were then collected from each well using disposable bailers. A minimum of two weeks elapsed between well development and actual sampling. All DPT samples were analyzed by the TEG mobile laboratory for VOCs by EPA Methods 8010/8020. Twenty percent of all DPT samples were split and all five monitoring well samples were analyzed by the fixed-based laboratory, Laucks, for VOCs per EPA Method 8010/8020.

### *2.2.4 Surveying*

After each phase of the RFI, a registered surveyor located all sampling stations and tied their northing and easting locations to the Base coordinate system. Additionally, the surveyor re-surveyed the vertical elevations of measuring points on existing monitoring wells at SWMU 104 (Former Army Landfill). Resurveying the vertical measuring points of these wells was performed to confirm groundwater flow direction at the site. Survey coordinates for the soil vapor survey grid, DPT borings (DP-01 through DP-20 and DP-22 through DP-25), piezometers (PZ-1 through PZ-4), and monitoring wells (MW-29-01 through MW-29-08 and

MWAOC-1 through MWAOC-4), and top of casing elevations for the wells and piezometers are provided on the survey map included in Appendix B.

## 2.3 Soil Vapor Survey Results

On June 6, 1996, after approximately two weeks of exposure, the Gore-Sorber℠ passive soil vapor devices were retrieved from the 49 grid locations. The sorbent material in each Gore-Sorber℠ was analyzed for VOCs, SVOCs, and explosives using thermal desorption gas chromatography, and mass selective detection laboratory analysis. Analytical results are summarized in Table 2-1 and Figure 2-2. A trace of BTEX was detected in only one sample (120513) at 1.12 micrograms (µg). The 1.12 µg BTEX result consisted of 0.80 µg of toluene and 0.32 µg xylenes. Sample 120513 was installed on the northwest side of the AST berm area (Figure 2-2). Undecane was detected in 22 Gore-Sorbers℠ at concentrations ranging from 0.02 to 0.26 µg. Diesel range alkanes (C11, C13, and C15) were also detected in sample 120467 at a concentration of 0.26 µg. Undecane and diesel range alkanes were also detected at 0.10 µg in a laboratory blank so the true presence in the samples is suspect. Therefore, only those compounds that were detected at concentrations above the method blank are reported in Table 2-1 and Figure 2-2. No SVOCs or explosives were detected above method reporting limits (RLs) in any of the Gore-Sorbers℠. Gore-Sorber℠ laboratory analytical reports are presented in Appendix C.

## 2.4 Soil Sampling Results

During both phases of the RFI, soil cores were examined and logged in accordance with the Unified Soil Classification System (USCS). Drill logs are included in Appendix A. Soils underlying the site were mostly fine-grained silts, clays, and sands. From grade to approximately 14 feet, soils were predominantly dry silty sands and sandy silts. Gypsum cementation and crystals pervaded sandy clay, clayey sand, and silty sand from approximately 14 feet to groundwater. The groundwater table occurs at approximately 14 to 30 feet bgs.

### *2.4.1 Phase I Soil Sampling Results*

Phase I soil sampling analytical results are summarized in Table 2-2. Additionally, the analytical results are plotted on Figure 2-3. Laboratory analytical reports are presented in Appendix D. Methylene chloride was detected in soil samples collected from borings DP-09A

# TABLE 2-1
# SOIL VAPOR SURVEY ANALYTICAL RESULTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# JUNE 1996

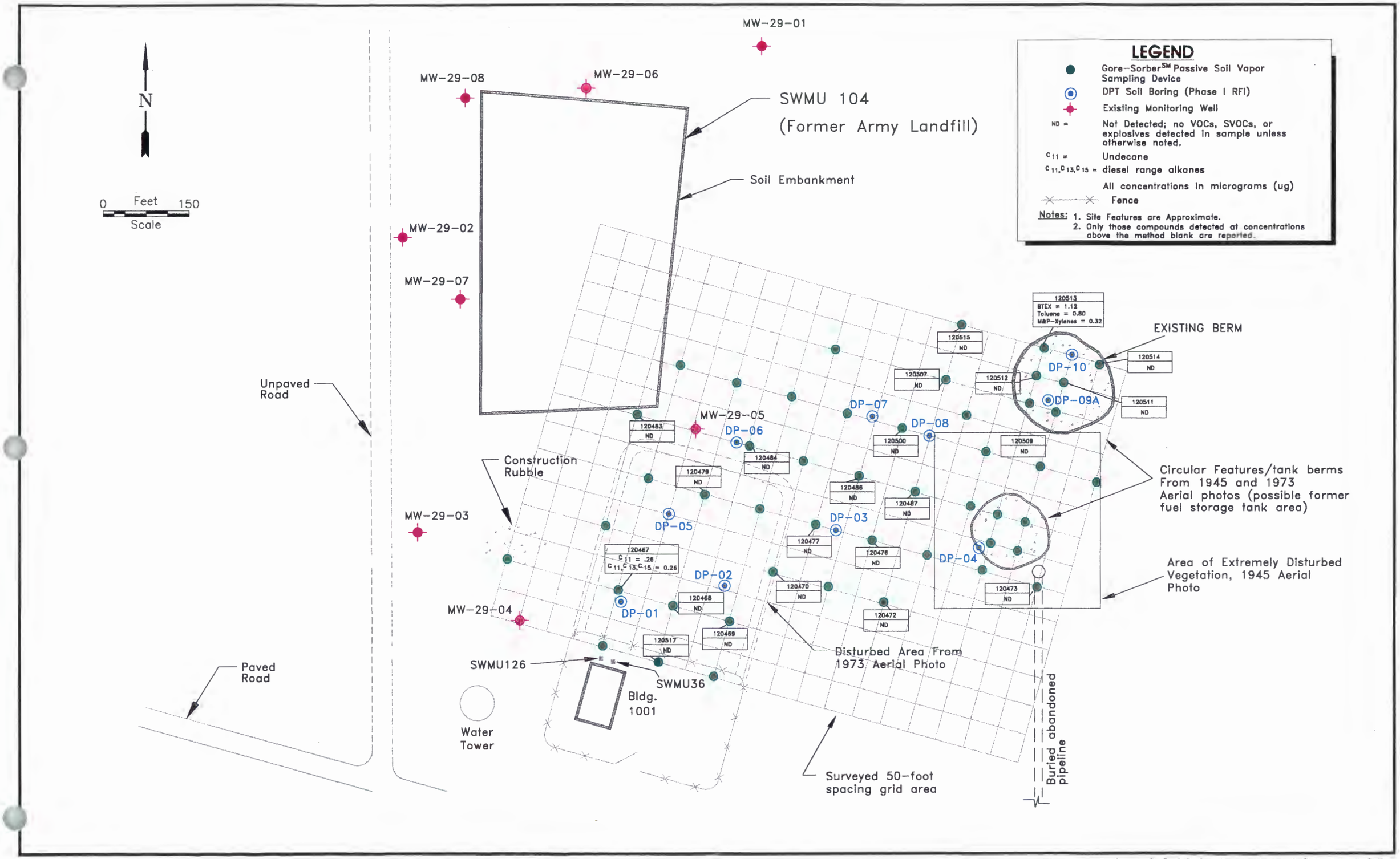
| SAMPLE NO. | BTEX (µg) | TOLUENE (µg) | m+p XYLENES (µg) | C11, C13, C15 (µg) | UNDECANE (µg) |
|---|---|---|---|---|---|
| 120467 | 0 | 0 | 0 | 0.26 | 0.26 |
| 120513 | 1.12 | 0.80 | 0.32 | <MB | <MB |

1 Samples analyzed by thermal desorption, gas chromatography, mass selective detection.

2 Only those compounds with concentrations above the method blank are reported in table. Method blank "BLK1" contained 0.10 µg C11, C13, and C15 and 0.10 µg undecane.

<MB Indicates compound detected at concentration less than method blank concentration.

µg Micrograms.




2208PSVS.DWG (1:150) 11-24-97

**Figure 2-2: AOC-1001 PASSIVE SOIL VAPOR SURVEY ANALYTICAL RESULTS, JUNE 1996**

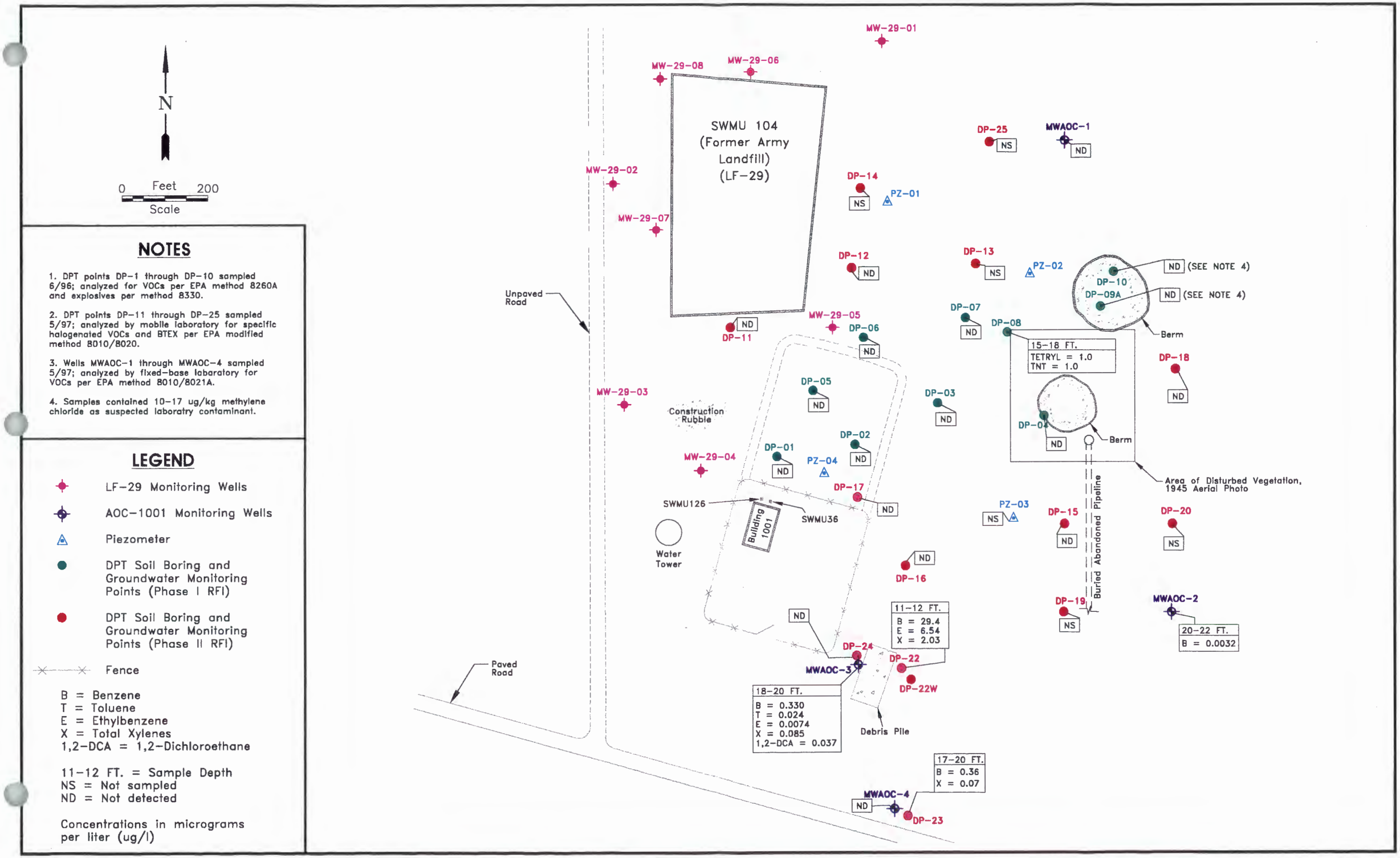
# TABLE 2-2
# SOIL ANALYTICAL RESULTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE I RFI, JUNE 1996

| SAMPLE ID | SAMPLE DEPTH (ft) | VOCs (EPA 8260A) (µg/kg) | EXPLOSIVES (EPA 8330) (µg/kg) |
|---|---|---|---|
| 1001-DP01-9-12 | 9-12 | <RL | <QL |
| 1001-DP01-15-18 | 15-18 | <RL | <QL |
| 1001-DP01-18-21 | 18-21 | <RL | <QL |
| 1001-DP02-9-12 | 9-12 | <RL | <QL |
| 1001-DP02-15-18 | 15-18 | <RL | <QL |
| 1001-DP02-18-21 | 18-21 | <RL | <QL |
| 1001-DP03-9-12 | 9-12 | <RL | <QL |
| 1001-DP03-15-18 | 15-18 | <RL | <QL |
| 1001-DP03-18-21 | 18-21 | <RL | <QL |
| 1001-DP04-9-12 | 9-12 | <RL | <QL |
| 1001-DP04-15-18 | 15-18 | <RL | <QL |
| 1001-DP04-24-27 | 24-27 | <RL | <QL |
| 1001-DP05-9-12 | 9-12 | <RL | <QL |
| 1001-DP05-12-15 | 12-15 | <RL | <QL |
| 1001-DP05-15-18 | 15-18 | <RL | <QL |
| 1001-DP06-6-9 | 6-9 | <RL | <QL |
| 1001-DP06-12-15 | 12-15 | <RL | <QL |
| 1001-DP06-18-21 | 18-21 | <RL | <QL |
| 1001-DP07-9-12 | 9-12 | <RL | <QL |
| 1001-DP07-15-18 | 15-18 | <RL | <QL |
| 1001-DP07-18-21 | 18-21 | <RL | <QL |
| 1001-DP08-9-12 | 9-12 | <RL | <QL |
| 1001-DP08-15-18 | 15-18 | <RL | Tetryl 1,000<br>TNT 1,000 |

# TABLE 2-2 (Concluded)
# SOIL ANALYTICAL RESULTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE I RFI, JUNE 1996

| SAMPLE ID | SAMPLE DEPTH (ft) | VOCs (EPA 8260A) (µg/kg) | EXPLOSIVES (EPA 8330) (µg/kg) |
|---|---|---|---|
| 1001-DP08-21-24 | 21-24 | <RL | <QL |
| 1001-DP09A-18-21 | 18-21 | <RL | <QL |
| 1001-DP09A-21-24 | 21-24 | Methylene chloride 13 (1) | <QL |
| 1001-DP09A-24-27 | 24-27 | Methylene chloride 17 | <QL |
| 1001-DP10-18-21 | 18-21 | Methylene chloride 10 | <QL |
| 1001-DP10-21-24 | 21-24 | Methylene chloride 15 | <QL |
| 1001-DP10-24-27 | 24-27 | Methylene chloride 17 | <QL |

| | |
|---|---|
| 1 | Only detected constituents are presented in the table. |
| (1) | Methylene chloride detected in method blank at 3.86 µg/l. |
| | |
| < | Indicates compound not detected at or above the RL. |
| QL | Quantitation limit |
| RL | Reporting limit |
| TNT | 2,4,6-Trinitrotoluene |
| ug/kg | Micrograms per kilogram |
| VOCs | Volatile organic compounds |




0502-SAR.DWG (1:200) 11-24-97

**Figure 2-3: Soil Analytical Results (mg/kg)**

and DP-10 at concentrations ranging from 10 to 17 micrograms per kilogram (µg/kg). Methylene chloride was also detected in the method blank (MB) at a concentration of 3.86 µg/l. No other VOCs were detected in the soil samples. The soil sample collected from DP-08 from 15-18 feet contained two explosives, tetryl at 1,000 µg/kg and TNT at 1,000 µg/kg.

### *2.4.2 Phase II Soil Sampling Results*

Phase II soil sampling analytical results are summarized in Tables 2-3 (mobile laboratory) and 2-4 (fixed-base laboratory) and plotted on Figure 2-3. Laboratory analytical reports are presented in Appendix D. Select soil samples were analyzed onsite by the mobile laboratory for specific halogenated hydrocarbons and BTEX per Modified EPA Methods 8010/8020. These results are provided in Table 2-3. BTEX was only identified in two samples. Sample AOC-1001-DP-22, collected from 11 to 12 feet bgs, contained 37.97 mg/kg total BTEX, and sample AOC-1001-DP-23, collected from 17 to 20 feet bgs, contained 0.43 mg/kg total BTEX. No other volatile organic constituents were detected in the soil samples analyzed by the mobile laboratory.

Two of the DPT soil samples and the four soil samples collected during the installation of wells MWAOC-1 through MWAOC-4 were analyzed at the fixed-base laboratory for halogenated hydrocarbons and BTEX per EPA Methods 8010/8020. These results are provided in Table 2-4. Benzene (3.2 µg/kg) was detected in the 20- to 22-foot sample collected from MWAOC-2. The soil sample collected from MWAOC-3 at 18-20 feet contained 446.4 µg/kg total BTEX and 37 µg/kg 1,2-DCA. No other VOCs were detected in any of the soil samples.

Five additional DPT points for groundwater monitoring were installed than scoped in the workplan. This modification to the original scope was directed by the onsite USACE representative, Mr. Steve Pearson. A procedures field change request form for this variance is presented in Appendix G.

The following significant observations were made during the Phase II DPT installation:

- A debris pile containing mainly broken asphalt paving with some other debris (concrete, metal engine parts, rusted piping or conduit, a 5-gallon oil or gas container, and crushed oil filters) was encountered just east of the perimeter fence for Building 1001. In addition, a sump or possible oil/water separator was noted in this area, along with a building foundation.

# TABLE 2-3
# SOIL ANALYTICAL RESULTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE II RFI - MOBILE LABORATORY
# MAY 1997

| SAMPLE ID | SAMPLE DEPTH (ft) | VOCs (EPA Modified 8010/8020) (mg/kg) |
|---|---|---|
| AOC-1001 DP-11 16-19 | 16-19 | ND |
| AOC-1001 DP-11 16-19DUP | 16-19 | ND |
| AOC-1001 DP-12 16-19 | 16-19 | ND |
| AOC-1001 DP-13 | No Sample | NA |
| AOC-1001 DP-14 | No Sample | NA |
| AOC-1001 DP-15 18-21 | 18-21 | ND |
| AOC-1001 DP-16 12-15 | 12-15 | ND |
| AOC-1001 DP-17 14-17 | 14-17 | ND |
| AOC-1001 DP-18 19-22 | 19-22 | ND |
| AOC-1001 DP-18 19-22DUP | 19-22 | ND |
| AOC-1001 DP-19 | No Sample | NA |
| AOC-1001 DP-20 | No Sample | NA |
| AOC-1001 DP-22 11-12 | 11-12 | Benzene 29.4<br>Ethylbenzene 6.54<br>Xylenes 2.03 |
| AOC-1001 DP-23 17-20 | 17-20 | Benzene 0.36<br>Xylenes 0.07 |
| AOC-1001 DP-24 17-20 | 17-20 | ND |
| AOC-1001 DP-25 | No Sample | NA |

1 Only detected constituents are presented in the table.

DUP Duplicate sample
mg/kg Milligrams per kilogram
NA Not analyzed
ND Not detected at the detection limit
VOCs Volatile organic compounds

# TABLE 2-4
# SOIL ANALYTICAL RESULTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE II RFI - FIXED-BASE LABORATORY
# MAY 1997

| SAMPLE ID | SAMPLE DEPTH (ft) | VOCs (EPA 8010/8021A) (µg/kg) | |
|---|---|---|---|
| AOC1001DP11 | 16-19 | <RL | |
| AOC1001DP18 | 19-22 | <RL | |
| MWAOC-1 | 30-32 | <RL | |
| MWAOC-2 | 20-22 | benzene | 3.2 |
| MWAOC-3 | 18-20 | benzene | 330 |
| | | toluene | 24 |
| | | ethylbenzene | 7.4 |
| | | xylenes | 85 |
| | | 1,2-DCA | 37 |
| MWAOC-4 | 15-17 | <RL | |

1 Only detected constituents are presented in the table.

< Indicated compound not detected at or above the RL
1,2-DCA 1,2-Dichloroethane
RL Reporting limit
ug/kg Micrograms per kilogram
VOCs Volatile organic compounds

- A hard, possible metallic surface was encountered at approximately 11 feet bgs at DP-22 which is located adjacent to the debris pile. The borehole was discontinued and redrilled adjacent to the initial hole. An electromagnetic (EM-61) survey conducted in September 1997 in the area of the asphalt debris pile did not confirm the presence of the possible metal object hit by DP-22. A larger area/anomaly, however, was located north-northeast of DP-22.

- It appeared that free product was present in boring DP-24. However, monitoring well MWAOC-3, located adjacent to DP-24, did not detect measurable free product.

## 2.5 Groundwater Sampling and Monitoring Results

Phase I and II groundwater analytical results are presented in Tables 2-5 through 2-7 and Figure 2-4. Laboratory analytical reports are presented in Appendix E. Phase I samples were analyzed for VOCs by EPA Method 8260A and explosives by EPA Method 8330. Phase II groundwater samples were analyzed for VOCs by EPA Methods 8010/8020. The VOC analytical list was shortened for Phase II because only BTEX constituents and 1,2-DCA were identified in the groundwater samples collected during Phase I. Because the holding time was exceeded for some of the Phase I explosives samples, six of the Phase II DPT points were also sampled for explosives analyses.

Groundwater elevations were measured during Phase I and II. Phase II included measurements from four new monitoring wells (MWAOC-1 through MWAOC-4) and four new piezometers (AOCPZ-1 through AOCPZ-4).

### *2.5.1 Phase I Results*

Phase I groundwater analytical results are summarized in Table 2-5 (note: for all samples GP=DP for sample location) and Figure 2-4. Laboratory analytical reports are presented in Appendix E. Groundwater samples were analyzed for VOCs and explosives. Benzene concentrations were detected in groundwater samples from seven of the 10 DPT borings. Benzene concentrations in these seven borings ranged from 80 µg/l (DP-09A) to 7,200 µg/l in DP-02. Ethylbenzene (890 µg/l) was detected in DP-02 and xylene was detected in DP-02 (13 µg/l), DP-03 (31 µg/l), and DP-06 (18 µg/l). Concentrations of 1,2-DCA were also detected in groundwater samples collected from DP-05 (140 µg/l) and DP-09A (18 µg/l). No other VOCs were detected in the groundwater samples. Analytical results did not indicate any explosives constituents above laboratory quantitation limits (QLs) in any of the groundwater samples.

# TABLE 2-5
# GROUNDWATER ANALYTICAL RESULTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE I RFI, JUNE 1996

| ANALYTES | 1001-GP01 | 1001-GP02 | 1001-GP03 | 1001-GP04 | 1001-GP05 | 1001-GP06 | 1001-GP07 | 1001-GP08 | 1001-GP09A | 1001-GP10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs - EPA Method 8260A (µg/l)** | | | | | | | | | | |
| Benzene | <5.0 | 7,200 | 3,400 | 96 | <5.0 | 6,000 | 1,900 | 570 | 80 | <5.0 |
| Ethylbenzene | <5.0 | 890 | <5.0 | <5.0 | <5.0 | <50 | <5.0 | <5.0 | <5.0 | <5.0 |
| Toluene | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Total xylenes | <5.0 | 13 | 31 | <5.0 | <5.0 | 18 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,2-Dichloroethane | <5.0 | <5.0 | <5.0 | <5.0 | 140 | <50 | <5.0 | <5.0 | 18 | <5.0 |
| **Explosives - EPA Method 8330 (µg/l)** | | | | | | | | | | |
| All constituents | <QL | <QL | <QL | <QL | <QL | <QL | <QL | <QL | <QL | <QL |

1 Only detected constituents are presented in the table.

< Indicates compound not detected at the stated reporting limit or quantitation limit
QL Quantitation limit
µg/l Micrograms per liter
VOCs Volatile organic compounds

# TABLE 2-6
# GROUNDWATER ANALYTICAL RESULTS - DPT POINTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE II RFI, MAY 1997

| ANALYTES | AOC-1001 GP-11 (1) | AOC-1001 GP-11Dup | AOC-1001 GP-12 | AOC-1001 GP-12Dup | AOC-1001 GP-13 | AOC-1001 GP-14 | AOC-1001 GP-15 (1) | AOC-1001 (2) GP-16 | AOC-1001 GP-17 | AOC-1001 GP-18 | AOC-1001 GP-18Dup |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs - EPA Method 8010/8020 (µg/l) (Mobile Laboratory)** | | | | | | | | | | | |
| Benzene | 7.9 | 10.1 | 1,900* | 2,200 | 704 | 1,420 | 2.8 | 4,080 | 3,900 | <1 | <1 |
| Ethylbenzene | <1 | <1 | <1 | <50 | <1 | <1 | <1 | 308 | 40 | <1 | <1 |
| Toluene | <1 | <1 | <1 | <50 | <1 | <1 | <1 | 2,600 | <1 | <1 | <1 |
| Total xylenes | <1 | <1 | <1 | <50 | 4.9 | 30 | <1 | 2,400 | 17 | <1 | <1 |
| 1,2-Dichloroethane | 87 | 104 | 118* | 102 | 47 | 60 | 3.8 | 178 | 315 | <1 | <1 |
| Trichloroethene | <1 | <1 | <1 | <50 | <1 | <1 | 5.6 | <1 | <1 | <1 | <1 |
| **Explosives - EPA Method 8330 (µg/l) (Fixed-Base Laboratory)** | | | | | | | | | | | |
| All constituents | ND | NA | ND | NA | ND | ND | ND | NA | NA | NA | NA |

# TABLE 2-6 (Continued)
# GROUNDWATER ANALYTICAL RESULTS - DPT POINTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE II RFI, MAY 1997

| ANALYTES | AOC-1001 GP-19 | AOC-1001 GP-20 | AOC-1001 GP-22 | AOC-1001 GP-23 | AOC-1001 GP-24 | AOC-1001 GP-25 |
|---|---|---|---|---|---|---|
| **VOCs - EPA Method 8010A/8020A (µg/l) (Mobile Laboratory)** | | | | | | |
| Benzene | 922 | 59 | 8,640 | 640 | 5,100 | <1 |
| Ethylbenzene | 336 | <1 | 523 | 140 | 230 | <1 |
| Toluene | <1 | <1 | 3,620 | 460 | 1,030 | <1 |
| Total xylenes | 6 | <1 | 1,140 | 940 | 3,800 | <1 |
| 1,2-Dichloroethane | 13.1 | <1 | 310 | 21 | 288 | <1 |
| Trichloroethene | <1 | 14 | <80 | <1 | <20 | <1 |
| **Explosives - EPA Method 8330 (µg/l) (Fixed-Base Laboratory)** | | | | | | |
| RDX | NA | NA | 35 | NA | NA | NA |
| Nitrobenzene | NA | NA | 7.4 | NA | NA | NA |
| 1,3,5-Trinitrobenzene | NA | NA | 13 | NA | NA | NA |
| Tetryl | NA | NA | 1.6* | NA | NA | NA |
| All other constituents | NA | NA | ND | NA | NA | NA |

# TABLE 2-6 (Concluded)
# GROUNDWATER ANALYTICAL RESULTS - DPT POINTS
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# PHASE II RFI, MAY 1997

| | |
|---|---|
| * | Concentration is estimated. |
| 1 | Only detected constituents are presented in the table. |
| (1) | Split samples also analyzed at fixed-base laboratory (EPA 8010/8021A). Compounds detected include (µg/l): |

| DP-11 | | DP-15 | |
|---|---|---|---|
| methylene chloride | 3.6 | chloroform | 0.24 |
| chloroform | 1.1 | 1,2-DCA | 5.3 |
| 1,2-DCA | 57 | 1,1-DCA | 0.41 |
| benzene | 1.4 | TCE | 14 |
| | | 1,3-dichlorobenzene | 1.1 |
| | | 1,2-dichlorobenzene | 8.9 |
| | | benzene | 4.6 |
| | | ethlybenzene | 0.21 |

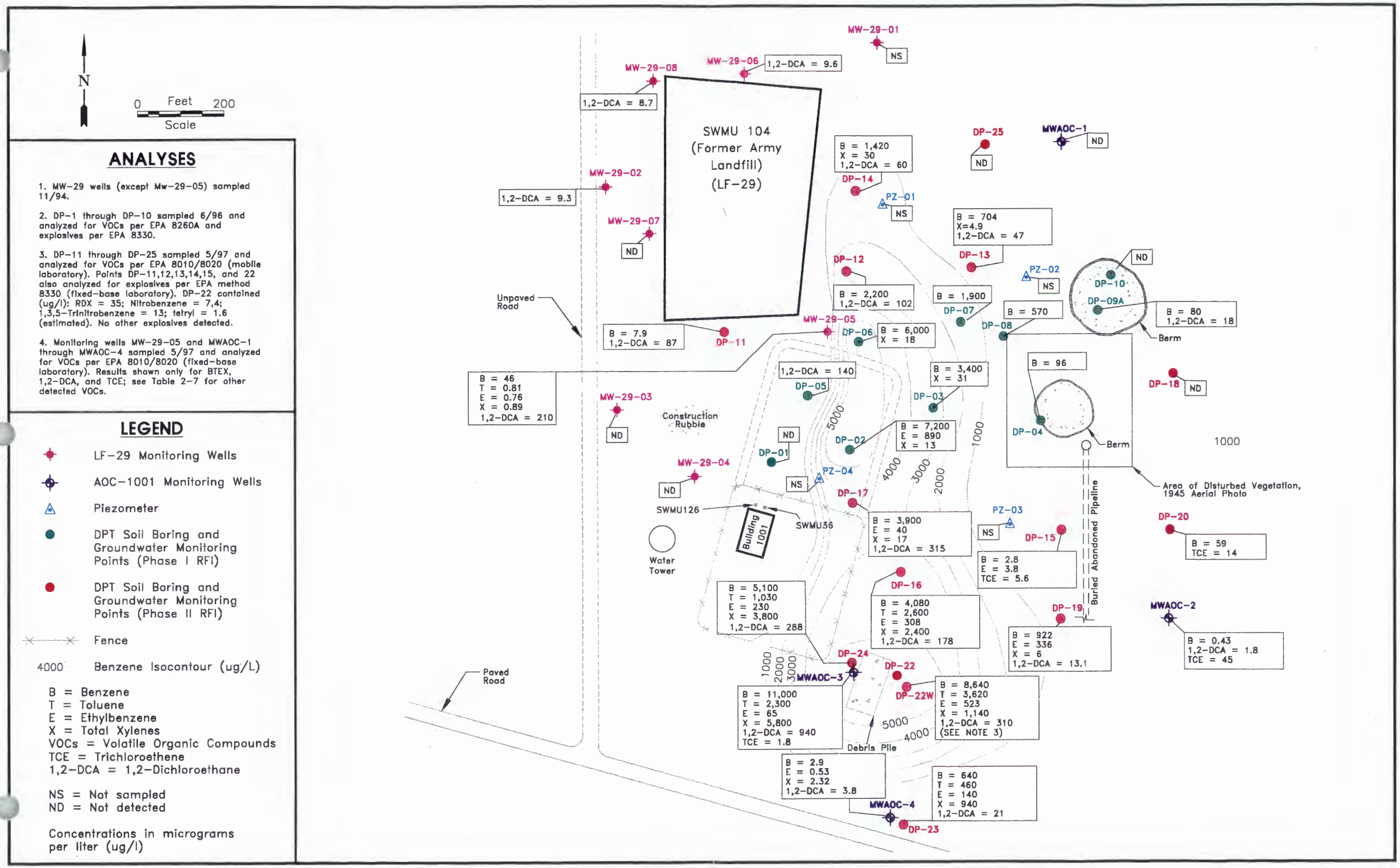
| | |
|---|---|
| (2) | Sample also analyzed for gasoline, diesel, and oil by Modified EPA Method 8015 (mobile laboratory). Only gasoline detected at 41,000 µg/l. |
| < | Indicates compound not detected at the stated reporting limit. |
| NA | Not analyzed |
| ND | Not detected to the sample detection limit |
| µg/l | Micrograms per kilogram |
| VOCs | Volatile organic compounds |

# TABLE 2-7
# GROUNDWATER ANALYTICAL RESULTS - MONITORING WELLS FOR AOC-1001 HOLLOMAN AFB, NEW MEXICO PHASE II RFI, JUNE 1997

| ANALYTES | MW-29-05 | MWAOC-1 | MWAOC-2 | MWAOC-3 | MWAOC-4 | MWAOC-4 DP |
|---|---|---|---|---|---|---|
| **VOCs - EPA Method 8010/8020 (µg/l)** | | | | | | |
| Benzene | 46 | <RL | 0.43 | 11,000 | 2.9 | 2.2 |
| Toluene | 0.81 | <RL | <RL | 2,300 | <RL | <RL |
| Ethylbenzene | 0.76 | <RL | <RL | 65 | 0.53 | <RL |
| Total xylenes | 0.89 | <RL | <RL | 5,800 | 2.32 | 3.2 |
| Chloroform | 0.26 | <RL | 2.5 | 3.6 | 0.52 | 0.29 |
| 1,2-Dichloroethane | 210 | <RL | 1.8 | 940 | 3.8 | 3.4 |
| 1,2-Dichloropropane | 0.40 | <RL | <RL | 1.6 | <RL | <RL |
| Dibromomethane | 0.30 | <RL | <RL | 6.8 | <RL | <RL |
| cis-1,3-Dichloropropene | 0.27 | <RL | <RL | <RL | <RL | <RL |
| trans-1,3-Dichloropropene | 0.22 | <RL | <RL | <RL | <RL | <RL |
| Chlorobenzene | 0.65 | <RL | <RL | <RL | <RL | <RL |
| Chloromethane | <RL | <RL | 0.22 | <RL | 0.20 | <RL |
| 1,1-Dichloroethane | <RL | <RL | 1.1 | <RL | <RL | <RL |
| Trichloroethene | <RL | <RL | 45 | 1.8 | <RL | <RL |
| 1,3-Dichlorobenzene | <RL | <RL | 1.9 | <RL | <RL | <RL |
| 1,4-Dichlorobenzene | <RL | <RL | 1.2 | <RL | <RL | <RL |
| 1,2-Dichlorobenzene | <RL | <RL | 5.3 | <RL | <RL | <RL |
| Chloroethane | <RL | <RL | <RL | 5.4 | <RL | <RL |
| Bromoform | <RL | <RL | <RL | 1.6 | <RL | <RL |

1 Only detected constituents are presented in the table.

< Indicates compound not detected at the stated reporting limit.
DP Duplicate sample
RL Reporting Limit
VOC Volatile organic compounds
µg/l Micrograms per liter




0502-GAR.DWG (1:200) 11-24-97

**Figure 2-4: Groundwater Analytical Results (ug/l)**

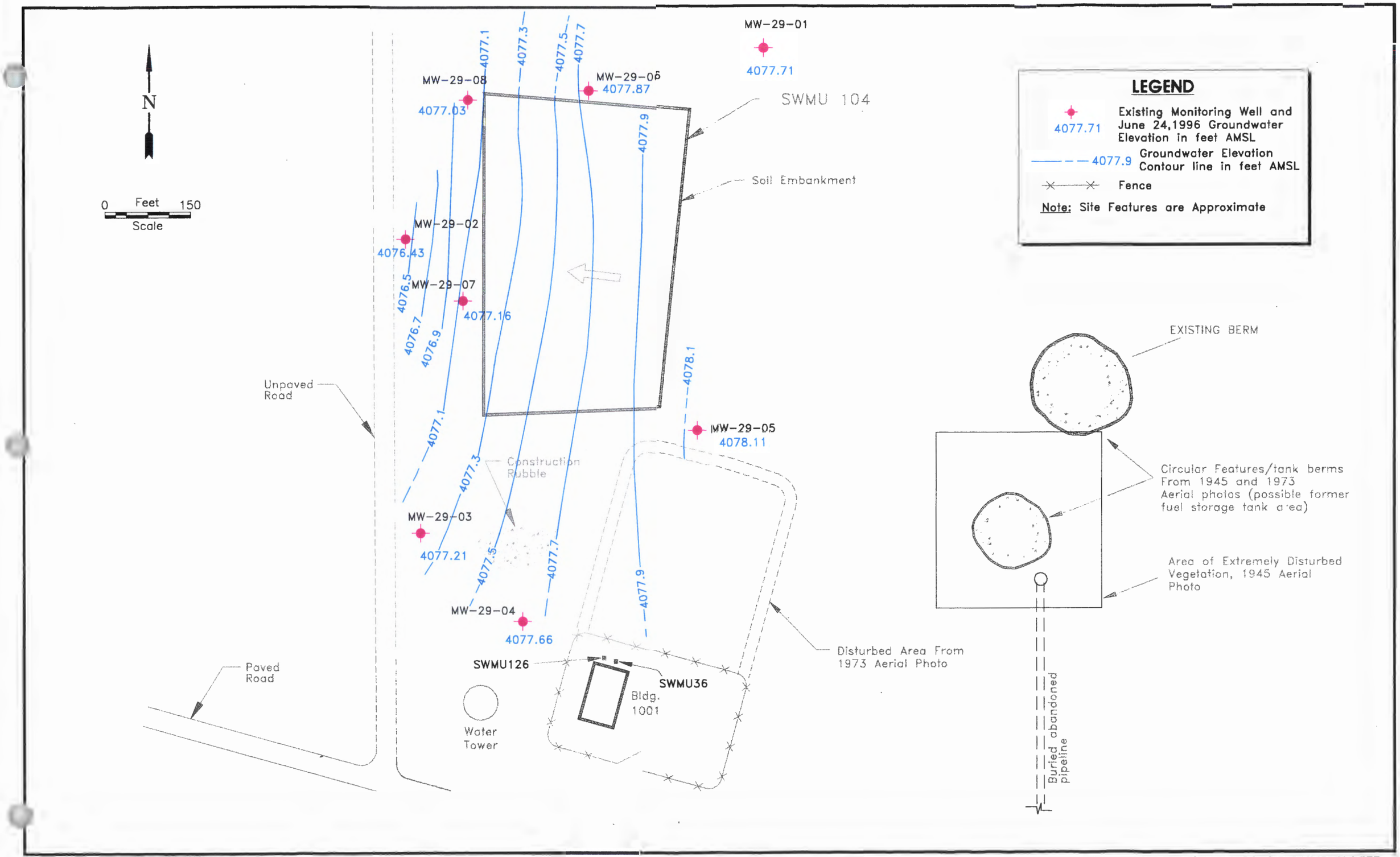
Depth to groundwater under the site, as encountered during DPT boring, varied from 22 feet in DP-01, DP-02, DP-06, and DP-07, to 28 feet in DP-04 and DP-09A. Fluid levels were also measured in the monitoring wells at the site on June 24, 1996. Depth to water in the wells ranged from 19.93 to 25.71 feet below top of casing. The June 1996 groundwater monitoring data indicates that groundwater flows west-northwest under a gradient that ranges from approximately 0.002 to 0.005 ft/ft. A groundwater elevation contour map is presented in Figure 2-5. Table 2-8 summarizes the June 24, 1996 water level data.

### *2.5.2 Phase II Results*

Phase II groundwater analytical results are summarized in Table 2-6 and 2-7 and Figure 2-4. This figure also presents Phase I results. Laboratory analytical reports are presented in Appendix E. Groundwater samples were obtained from all 14 DPT points and analyzed onsite by the mobile laboratory for specific halogenated hydrocarbons and BTEX per Modified EPA Methods 8010/8020. One water sample (DP-16) was also analyzed for gasoline, diesel, and oil by Modified EPA Method 8015. These results are summarized in Table 2-6. Benzene was detected in samples from all but two of the DPT locations and ranged from 2.8 µg/l (DP-15) to 8,640 µg/l (DP-22). Ethylbenzene was detected at six DPT locations, ranging from 40 µg/l (DP-17) to 523 µg/l (DP-22). Toluene, detected in four DPT samples, ranged from 460 µg/l (DP-23) to 3,620 µg/l (DP-22). Total xylene concentrations were detected at eight locations, ranging from 4.9 µg/l (DP-13) to 3,800 µg/l (DP-24). 1,2-DCA was detected at all but three DPT points and ranged from 13.1 µg/l (DP-19) to 315 µg/l (DP-17). Trichloroethene (TCE) was the only other VOC detected and was found only in DP-15 (5.6 µg/l) and DP-20 (14 µg/l). The water sample from DP-16 was also analyzed for gasoline, diesel, and oil by Modified EPA Method 8015. This analysis was performed to characterize the possible source of the contamination. Only gasoline was detected in the sample at 41,000 µg/l.

Groundwater samples from six of the DPT points were also analyzed by the fixed-base laboratory (Laucks) for explosives (Table 2-6). Explosives were detected only in the DP-22 sample; four compounds were detected at levels ranging from 1.6 to 35 µg/l.

Groundwater samples were also obtained from five monitoring wells at the site (MW-29-05 and MWAOC-1 through MWAOC-4) and analyzed at Laucks for VOCs by EPA Methods 8010/8020. These results are summarized in Table 2-7. Benzene was detected in all wells




2208GCM.DWG (1:150) 11-24-97

**Figure 2-5: AOC-1001 GROUNDWATER CONTOUR MAP**

# TABLE 2-8
# GROUNDWATER LEVEL DATA
# FOR AOC-1001
# HOLLOMAN AFB, NEW MEXICO
# 1996-1997

| Well | TOC Elevation (ft) | DTW (ft) | | Groundwater Elevation (ft) | |
|---|---|---|---|---|---|
| | | 6/24/96 | 6/5/97 | 6/24/96 | 6/5/97 |
| MW-29-01 | 4103.42 | 25.71 | 24.85 | 4077.71 | 4078.57 |
| MW-29-02 | 4097.81 | 21.41 | NM | 4076.40 | NM |
| MW-29-03 | 4097.14 | 19.93 | 19.34 | 4077.21 | 4077.80 |
| MW-29-04 | 4098.54 | 20.90 | 20.26 | 4077.64 | 4078.28 |
| MW-29-05 | 4101.70 | 23.59 | 23.00 | 4078.11 | 4078.70 |
| MW-29-06 | 4101.94 | 24.07 | 23.45 | 4077.87 | 4078.49 |
| MW-29-07 | 4098.56 | 21.40 | 20.79 | 4077.16 | 4077.77 |
| MW-29-08 | 4100.72 | 23.69 | 23.08 | 4077.03 | 4077.64 |
| AOC-MW-1 | 4110.06 | NA | 30.69 | NA | 4079.37 |
| AOC-MW-2 | 4103.11 | NA | 21.90 | NA | 4081.21 |
| AOC-MW-3 | 4098.41 | NA | 18.27 | NA | 4080.14 |
| AOC-MW-4 | 4095.41 | NA | 14.22 | NA | 4081.19 |
| PZ-01 | 4104.17 | NA | 25.41 | NA | 4078.76 |
| PZ-02 | 4110.08 | NA | 30.34 | NA | 4079.74 |
| PZ-03 | 4103.10 | NA | 22.72 | NA | 4080.38 |
| PZ-04 | 4100.64 | NA | 21.13 | NA | 4079.51 |

DTW Depth to water
NA Not analyzed
NM Not measured
TOC Top of casing elevation

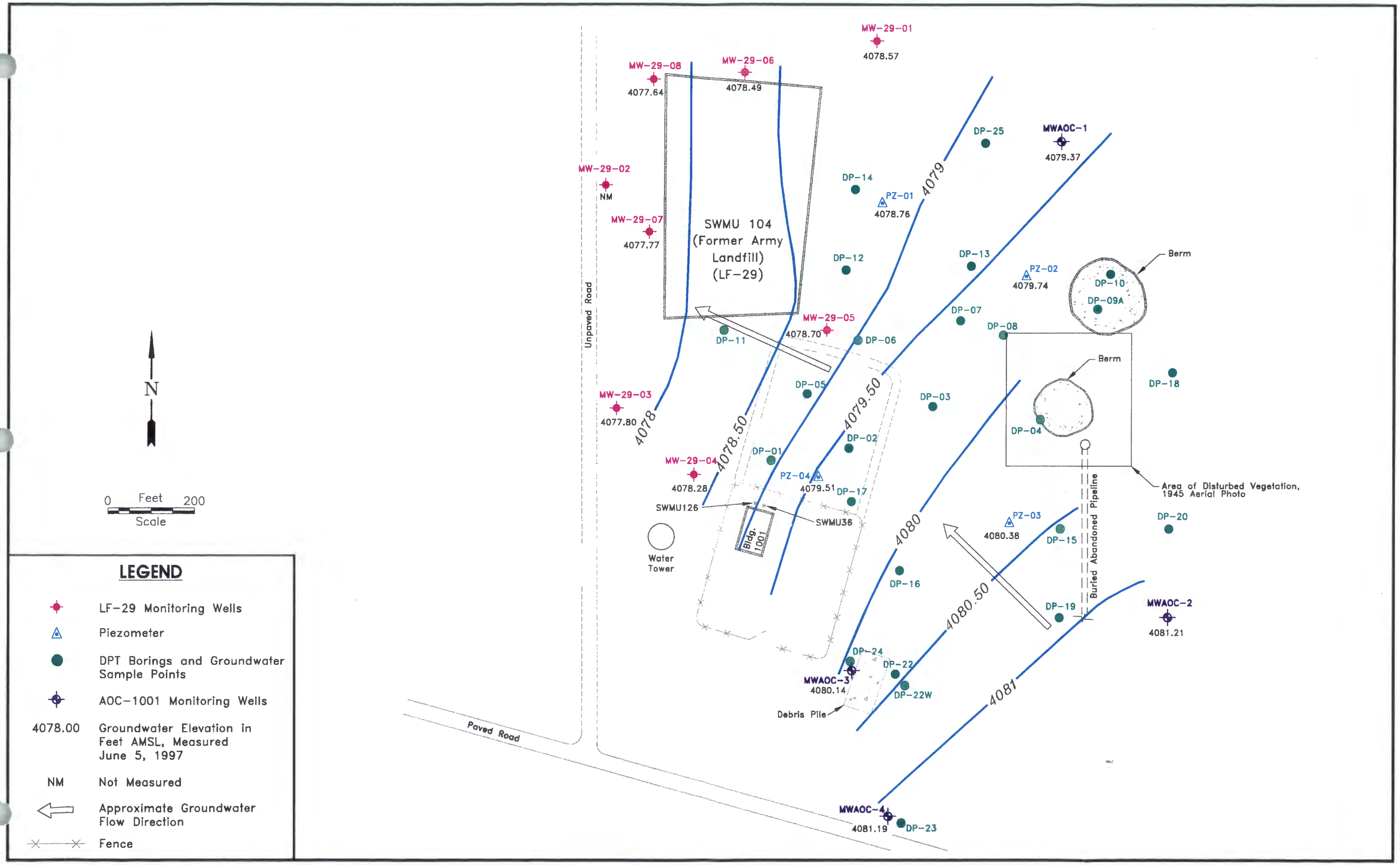
except MWAOC-1 at concentrations ranging from 0.43 µg/l (MWAOC-2) to 11,000 µg/l (MWAOC-3). Maximum total BTEX concentrations (19,165 µg/l) were detected in MWAOC-3. 1,2-DCA was also detected in all wells except MWAOC-1; levels ranged from 1.8 µg/l (MWAOC-2) to 940 µg/l (MWAOC-3). Trichloroethene was detected in MWAOC-2 (45 µg/l) and MWAOC-3 (1.8 µg/l). Low levels of various other VOCs were detected in the samples from all wells except MWAOC-1.

Groundwater elevations were measured at 15 locations across the site on June 5, 1997 (Table 2-8). Depth to water ranged from 14.22 feet at MWAOC-4 to 30.69 feet below top of casing at MWAOC-1. Figure 2-6 is a groundwater contour map for June 1997. Groundwater flow direction is generally toward the northwest at an average gradient of 0.003 ft/ft.

## 2.6 IDW Handling/Characterization

During Phase I and II, DPT split spoons and groundwater sampling screen attachments were decontaminated between soil sampling intervals and groundwater sampling locations in accordance with the FSP. Phase I decontamination procedures generated approximately 25 gallons of soapy water. The investigation-derived waste (IDW) water was placed in a labeled 55-gallon drum in accordance with the FSP. On June 29, 1996, after all sampling activities were completed, IDW water sample "DR 11-DECON" was collected from the drum in accordance with the FSP. The sample was shipped under strict COC to NEI/GTEL for analysis of VOCs in accordance with EPA Method 8260A. No VOCs were detected above laboratory RLs in sample "DR 11-DECON". A copy of the laboratory analytical report is provided in Appendix E. Since no VOCs were detected in the IDW water, the water was discharged to the ground surface.

Phase II sampling generated approximately 10 gallons of soapy water and 220 gallons of purge and development water from the four monitoring wells. The water was turned over to FWENC for subsequent disposal. Soil cuttings from the HSA drilling were screened for headspace vapors with a PID. Per Base approval, the cuttings were thin-spread on site once the soil was determined to be clean via the PID.




0502-JUN.DWG (1:200) 11-24-97

**Figure 2-6: Groundwater Countour Map June 1997**

## 2.7 Conclusions and Recommendations

Phase I and Phase II of the RFI was conducted at Site AOC-1001 from May 1996 through June 1997. During these two investigations, a passive soil vapor survey was conducted, 24 DPT points, four monitoring wells, and four piezometers were installed. Soil and groundwater samples were collected for both on- and offsite analysis for VOCs and/or explosives and groundwater monitoring was conducted. The results of these investigations are summarized as follows:

1. The passive soil vapor survey provided inconclusive results. Low levels of toluene (0.80 µg) and xylenes (0.32 µg) were detected in only one (Gore-Sorber℠ 120513) of 49 passive soil vapor sampling devices. Sample 120513 was installed on the northeast side of the bermed area, which had surrounded former ASTs. Traces of diesel range alkanes and of undecane detected in 22 Gore-Sorbers℠ are suspect given the concentrations indicated in a laboratory blank and a trip blank. No other VOCs, SVOCs, or explosives were detected in the soil vapor samples.

2. As determined during the drilling program, soil impact is limited mainly to the area southeast of Building 1001. Maximum BTEX concentrations (37.97 mg/kg) were detected in DP-22 at 11 to 12 feet bgs. This borehole is immediately adjacent to a mounded area which contains mainly broken asphalt paving and some other debris such as oil filters and concrete demolition rubble. Borehole DP-22 hit a possible metal object at approximately 11 feet bgs. Lower levels of BTEX (0.003 to 0.446 mg/kg) were detected at three other locations (DP-23, MWAOC-3, and MWAOC-2) in the southern portion of the site. No VOCs were detected at DPT locations in the central and northern portions of the site. Explosives were detected in one soil sample collected from 15-18 feet from boring DP-08. Concentrations of 1,000 µg/kg tetryl and 1,000 µg/kg TNT were detected in this sample.

3. VOCs were detected in groundwater across the majority of the site, from Building 1001 and the Former Army Landfill eastward. Elevated levels of BTEX and 1,2-DCA were the main constituents detected. Maximum benzene concentrations (11,000 µg/l) were detected at MWAOC-3. Other gasoline VOCs included toluene with a maximum concentration of 3,620 µg/l (DP-22), ethylbenzene at 890 µg/l (DP-02) and xylenes at 5,800 µg/l (MWAOC-3). In addition, 1,2-DCA was identified at 13 locations with a

maximum concentration of 940 µg/l (MWAOC-3). DPT groundwater sampling point DP-22 and monitoring well MWAOC-3 are located adjacent to the mounded area of debris discovered just east of the perimeter fence for Building 1001.

4. Boreholes installed during the RFI encountered mostly silt and sand down to the water table. The water table occurs at approximately 14 to 30 feet bgs. Groundwater flow across the site is generally to the northwest with an average gradient of 0.003 ft/ft.

5. DPT probe refusal was noted at approximately 11 feet bgs in boring DP-22. The driller's opinion was that the DPT probe tip encountered metal. The borehole was drilled adjacent to the debris pile where elevated concentrations of BTEX were detected in soil and groundwater samples.

Based upon these conclusions, the following recommendations for further actions are made:

1. Free product, which is the Base's present action level for remediation of groundwater, was not encountered at the site. However, at a minimum, routine monitoring and sampling of the monitoring wells on a bi-annual basis is recommended to assess future groundwater conditions at this site.

2. Additional investigation in the area of the debris mound and DP-22 should be performed to determine if a potential source (such as drums or tanks) for the elevated BTEX and 1,2-DCA levels is present. A magnetometer and electromagnetic survey may be useful for identifying potential buried metallic objects and locating additional soil boring/DPT borehole locations.

3. Although the concentrations of benzene and other BTEX constituents are decreasing to the south of the debris mound area, two monitoring wells should be installed across Dezonia Road, where the 46th Test Group is located, to delineate the impacted area to the south. An additional well should be installed west of MWAOC-3 to delineate the western extent of dissolved VOCs in this area.

When is work to resume?

# 3.0 QUALITY CONTROL SUMMARY REPORT

## 3.1 Introduction

The analytical program for Phase I and II of the RFI at AOC 1001 consisted of chemical testing performed by in NEI/GTEL Wichita, Kansas and Laucks in Seattle, Washington. Analytical methods for chemical analysis are taken from the latest revision of USEPA Test Methods for Evaluating Solid Waste, SW-846 Third Edition (USEPA 1986). The specific analytical methods used for this program are as follows:

- VOCs - Method 8010
- BTEX - Method 8020
- RCRA metals - Method 6010A, 7000

Other analyses were conducted by W.L. Gore & Associates, Inc., Southwest Laboratory of Oklahoma, Inc., and TEG, Inc. of Seattle, Washington.

Additionally, quality assurance (QA) samples (split duplicate samples and trip blanks) were submitted to the USACE Missouri River Division (MRD) Analytical Laboratory in Omaha, Nebraska. The results of these analyses are not presented in this report.

## 3.2 Approach and Mechanisms

The technical approach, mechanisms, and procedures for collection and analysis of soil vapor and soil and groundwater samples were specified in the original and addendum FSP and QAPP prepared prior to implementation of each phase of the investigation. The FSP was used to control the actions and specify sample collection procedures and sampling locations. The QAPP provided direction to the laboratories in the performance of various sampling control procedures. The data validation procedure used for the Additional Characterization of the AOC 1001 is in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic and Inorganic Data Review (USEPA 1994). One hundred percent of the analytical data was reviewed for the following criteria:

- Completeness of data deliverables
- Extraction and analysis holding times

- Blank data
- System monitoring compounds (surrogate recoveries)
- Matrix spike/matrix spike duplicate recovery
- Laboratory control sample recovery
- Overall data assessment

The passive soil vapor survey and the TEG mobile laboratory had separate QAPPs provided by the vendors. A copy of the W.L. Gore and Associates, Inc. QAPP is provided in the site FSP and QAPP while the TEG Inc. QAPP is supplied in the addendum Sampling and Analysis Plan (SAP) and QAPP.

## 3.3 QA/QC Summary for AOC-1001

### *3.3.1 Daily Reports*

The Daily Quality Control Summary Reports (DQCSRs) which summarize the activities conducted on site were prepared daily by the field team leader. The reports were provided to the FWENC on-site representative. The reports describe the activities conducted during the work day including problems encountered and any deviations. Copies of the DQCSRs are presented in Appendix F.

### *3.3.2 Soil Vapor Survey*

Forty-nine passive soil vapor sample devices (Gore-Sorber℠) were collected and analyzed from AOC-1001. Soil vapor survey locations and results are summarized in Figure 2-2 and Table 2-1. The passive soil vapor survey laboratory analytical report is provided in Appendix C. A Gore-Sorber℠ screening survey was performed for VOCs, SVOCs, and explosives using thermal desorption, gas chromatography, and mass selective detection laboratory analysis. The Gore-Sorbers℠ were collected after approximately two weeks of exposure to soil gas 3 feet bgs.

The QC analyses related to the Gore-Sorber℠ survey included five trip blanks and two method blanks. Analytical results indicated 0.10 µg of C11, C13, and C15 diesel range alkanes and 0.10 µg undecane in method blank "BLK1". Trip blank "TB5" also contained 0.03 µg of each of these compounds. Given the presence of these compounds in two quality

control (QC) samples, the undecane and alkane concentrations detected in the field samples are suspect. Only one sample (120467 with 0.26 µg of undecane) of the 22 field samples which reportedly contained undecane, had an undecane concentration which was higher than the 0.10 µg detected in method blank "BLK1".

### *3.3.3 VOCs In Soil Samples*

During Phase I activities, thirty-three soil samples (including three duplicates) were collected at AOC-1001. VOCs were analyzed by NEI/GTEL in accordance with EPA Method 8260A. Except for low levels of methylene chloride in DP-09A and DP-10, no VOCs were detected in the soil samples. The laboratory analytical reports are provided in Appendix D. Matrix spike (MS) and matrix spike duplicate (MSD) sample analyses were performed for VOCs on soil samples analyzed by the laboratory. All MS and MSD results were within the acceptable ranges of 61 to 145%. Surrogate recovery analyses for dibromofluoromethane (DBFM), bromofluorobenzene (4-BFB), and toluene D-8 were performed and reported for each sample. Surrogate recovery was within the method recovery limits for the individual compounds, and was presented with each sample result. Laboratory control sample (LCS) recoveries were all within acceptability limits. Method blank results did not indicate the presence of any VOCs above method RLs except for common laboratory contaminant methylene chloride at 3.86 µg/l in QC Batch Number 071096JK-1. Three duplicate samples were collected for a frequency of approximately 10%. Duplicate samples were analyzed with the actual samples. Duplicate soil samples were collected from DPT boring DP-09A at the three sample depth intervals: 18-21 feet, 21-24 feet, and 24-27 feet. Since VOCs were not detected (except for methylene chloride as a suspected laboratory contaminant), a comparison of relative percent difference (RPD) with actual samples was not performed.

During Phase II, nine soil samples were analyzed using the TEG mobile laboratory for VOCs by EPA Methods 8010/8020. Two split duplicate samples were also analyzed by the laboratory. On-site analyses were performed by TEG for halogenated VOCs (Method 8010) and BTEX (Method 8020). The QC associated with the on-site analyses includes method blanks, MS/MSD samples, replicate analyses, and surrogate spikes. The recovery data associated with these QC samples indicates the on-site laboratory achieved the data quality required for this project.

### *3.3.4 Explosives in Soil Samples*

During Phase I, thirty-three soil samples (including three duplicates) collected at AOC-1001 were also analyzed by Southwest Laboratory of Oklahoma, Inc. in accordance with EPA Method 8330 for explosives. Soil analytical results are summarized in Table 2-2 and Figure 2-3. The laboratory analytical reports are provided in Appendix D. Soil samples were collected with the DPT rig split-spoon samplers.

Matrix spike and MSD sample analyses were performed on explosives soil samples, and all MS and MSD results were within the acceptable ranges stated in the analytical reports. The LCS recoveries were all within acceptability limits. Method blank results did not indicate the presence of any explosives above method RLs.

Three duplicate samples (1001-DP09A-18-21DUP, 1001-DP09A-21-24DUP, and 1001-DP09A-24-27DUP) were collected, corresponding to a frequency of approximately 10%. Duplicate samples were analyzed with the actual samples. Since explosives were not detected, a comparison of RPD with actual samples was not performed.

No soil samples were analyzed for explosives during Phase II of the RFI.

### *3.3.5 VOCs in Groundwater*

During Phase I, ten groundwater samples were collected at AOC-1001 and analyzed for VOCs by EPA Method 8260A. The samples were analyzed by NEI/GTEL. The laboratory analytical reports are provided in Appendix E. One duplicate sample was collected for a frequency of approximately 10%. The QC results are summarized as follows:

1. Two MBs were analyzed with the samples. No VOCs were detected in the blank samples.

2. Surrogate recovery results for DBFM, toluene-D8, and 4-BFB are included with each sample result. All surrogate recoveries were within acceptable limits except for the 139% recovery of 4-BFB in sample 1001-GP09A. The 4-BFB recovery acceptability range is 86 to 115%. The surrogate spike recovery was unacceptably high because of

an unidentified matrix interference. The result was duplicated during re-analysis. Sample results, therefore, are estimated.

3. The MS and MSD percent recovery and RPD limits were not exceeded.

4. The LCS recoveries were all within acceptability limits.

One duplicate sample from DP-07 was collected and analyzed. A benzene concentration of 1,900 µg/l was detected in sample 1001-GP-07 and 1,600 µg/l benzene was detected in sample 1001-GP-07DUP. The RPD value for the duplicate sample is 17.1% which is less than the 25% RPD limit stated in the QAPP. No other VOCs were detected above laboratory RLs in these two samples. One trip blank was also submitted with the samples for VOC analysis. No VOCs were detected in the trip blank.

During Phase II, 14 groundwater samples and two split duplicate samples were collected and analyzed for VOCs by EPA Methods 8010/8020 by the TEG mobile laboratory and Laucks Laboratory. Two split samples in the DPT groundwater points were monitoring well samples (four).

Five MS/MSD samples were analyzed for VOCs by Method 8010, and four MS/MSD samples were analyzed for BTEX by Method 8020. The recoveries for all of the MS/MSD samples were within the method-specific control limits for the BTEX analytes. The recoveries for one MS/MSD for 1,2-DCA were below the control limits due to the high concentration of 1,2-DCA in the field sample. One MSD recovery for 1,2,3-trichloropropane was just above the upper acceptance limit at 126 percent. The LCS recoveries associated with this batch of samples are within the control limits. Matrix spike recoveries for VOCs indicate minimal matrix interference associated with the sample analysis. Matrix spike recoveries for BTEX indicate matrix interference associated with the sample analysis.

### *3.3.6 Explosives in Groundwater*

During Phase I, ten groundwater samples from AOC-1001 were also analyzed for explosives in accordance with EPA Method 8330. One duplicate sample was collected and analyzed for a frequency of 10%. The groundwater samples were collected from the DPT borings using Teflon tubing. Groundwater samples were analyzed for explosives by Southwest Laboratory

of Oklahoma, Inc. Groundwater analytical results are summarized in Table 2-5 and Figure 2-4. The laboratory analytical reports which include QC result summaries are provided in Appendix E. The QC results are summarized as follows:

1. Method blanks were analyzed with the samples. No explosives were detected above laboratory QLs in the MBs; and,

2. The LCS recoveries were all within acceptability limits except for methyl-2,4,6-trinitrophenylnitramine (tetryl) with 178.5% recovery which exceeds the 1-109% acceptable recovery range. Tetryl may have exceeded the recovery range due to interference. Conformational analysis did not confirm tetryl in any of the associated samples in which tetryl was detected.

Since explosives were not detected, a comparison of RPD with actual samples was not performed.

During Phase I, the holding times for six groundwater samples were exceeded by one to two days. As a remedy, six confirmational samples were collected from Phase II locations to confirm the levels of constituents detected during Phase I. LCS recoveries for explosives were within the methodology control limits; therefore, analytical procedures were within control at the time of analysis.

## 3.4 Deviations

**Phase I Deviations**

Minor deviations from the FSP and QAPP occurred during Phase I of the RFI. The deviations or variances are as follows:

- A soil sample was collected from the sampling interval at or just above the groundwater interface in the DPT borings instead of from the interval at the total depth (bottom);

- Since groundwater was deeper than expected (22-28 feet bgs) the peristaltic pump was not capable of lifting the water to ground surface. Water samples were collected

by carefully pulling the Teflon tubing up out of the well under a vacuum and draining the water column out of the tubing; and

- Eleven DPT borings were installed and logged instead of ten. Adverse weather conditions prevented the safe completion of work on DP-09, thus DP-09A was redrilled as DP-09A three days later.

- Holding times of groundwater samples for explosives by Method 8330 were exceeded at six locations. Both the samples analyzed within the holding times and the samples which had expired did not contain detectable concentrations of explosives. Additional confirmational samples were collected during Phase II to assure that similar locations did not contain explosives.

**Phase II Deviations**

- Phase II deviations were limited to the addition of extra sample locations and limiting the number of soil samples analyzed. Limiting the number of soil samples analyzed permitted the mobile laboratory and DPT sampling crew to collect more water samples within the budgeted time period.

None of the deviations from the FSP or QAPP have compromised the goals or data integrity of the investigation.

# 4.0 REFERENCES

EPA, 1986. SW-846 Test Methods for Evaluating Solid Waste.

EPA, 1994. National Functional Guidelines for Organic and Inorganic Data Review. Contract Laboratory Program.

FWENC/Groundwater Technology, November 1995, Draft Closure Report for POL-Contaminated Sites and Oil/Water Separator Removals, Holloman AFB, New Mexico, July-November 1995.

FWENC/Groundwater Technology, May 1996a, Draft Final Work Plans; Field Sampling and Analysis Plan and Quality Assurance Project Plan for Characterization of AOC-1001, Holloman AFB, New Mexico.

FWENC/Groundwater Technology, May 1996b, Draft Final Addendum to the Basewide Health and Safety Plan for Holloman AFB, New Mexico, for Characterization of AOC-1001.

FWENC/Groundwater Technology, April 1997, Addendum Draft Final Work Plans; Field Sampling and Analysis Plan and Quality Assurance Project Plan for Characterization of AOC-1001, Holloman AFB, New Mexico.

Radian, October 1992, Remedial Investigation Report; Investigation, Study, and Recommendation for 29 Waste Sites, Holloman AFB, New Mexico.

Radian, June 1995, Draft Final Phase II RCRA Facility Investigation Report, Table 1 Solid Waste Management Units.

# APPENDIX A
## Drilling and Well Completion Logs

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-01 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 DO8 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: 10' South of "100N, 150E" | |
| | 9. SURFACE ELEVATION: ~4097.5' amsl. | |
| | 10. DATE STARTED: 24 June 1996 | 11. DATE COMPLETED: 24 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~22' | |
| 13. DEPTH DRILLED INTO ROCK: NONE | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 24' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

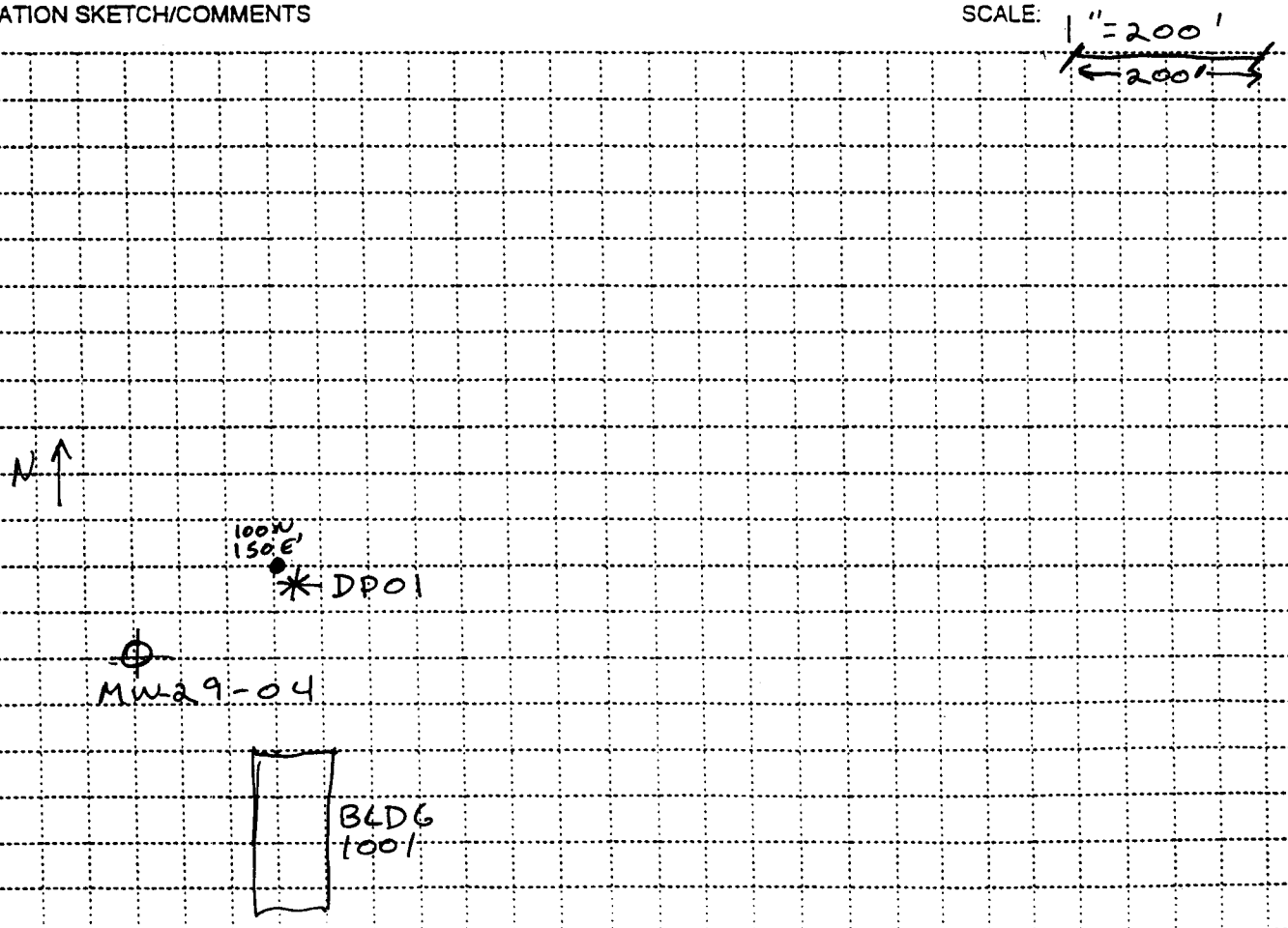
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | NONE |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3, 1 | | Explosives 3, 1 | | | 100 % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR STEVENSON |
|---|---|---|---|---|
| backfilled w/ bentonite. | | | | S. A. Stevenson |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




| PROJECT | HOLE NO. |
|---|---|
| DACW-45-94-D0003 DO 8 WAD 29, Addl. Char. at AOC 1001 | DP-01 |

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-01

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: L.S. STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) (ft) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | silty fine sand, tan 5YR 8/1, dry, soft SM | 0.2 | | | | |
| | 1 | | 0 | | | | |
| | 2 | silty fine sand, pink 5YR 8/3 SM | 0 | | | | |
| | 3 | | 0 | | | | |
| | 4 | | 0 | | | | |
| | 5 | silty fine sand, pink, 5YR 7/4, dry, soft, SM | 0 | | | | |
| | 6 | | 0 | | | | |
| | 7 | | 0 | | | | |
| | 8 | | 0 | | | | |
| | 9 | silty fine sand, pink 5YR 6/4, trace moisture, firm SM | 0 | | 1001-DP01-9-12 11:00 | | gypsum lens ~ 1mm thick at ~ 9.5' |
| | 10 | | 0 | | | | |
| | 11 | | 0 | | | | |
| | 12 | occasional gyp. xtals appearing, moisture increasing. | 0 | | | | |
| | 13 | clayey silt, brown. 5YR 6/3, moist, firm to hard ML | 0 | | | | soils becoming slightly cohesive, moisture increasing. |
| | 14 | clayey silt, tan 10YR 8/2, w/ gyp. xtal's ML | 0 | | | | |
| | 15 | silty fine sand, dark red 5YR 4/4, w gyp web, firm to hard SM | | | 1001-DP01-15-18 11:05 | | |
| | 16 | clayey silt, dark red, w/ numerous gyp. xtals. 5YR 4/4, hard ML | 0 | | | | |
| | 17 | silty sand, white 10YR 7/1, gypsum cemented, hard SM | | | | | Very hard lens at 17' |
| | 18 | clayey silt, grey/pink 10YR 7/2, soft ML | | | 1001-DP01-18-21 11:10 | | |
| | 19 | clayey sand, red 5YR 6/6, moist, hard, lots of gyp. xtals. SC | 0 | | | | |
| | 20 | | | | | | |

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-01

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP01

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: L.S. STEVENSON

SHEET 3 OF 3

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | silt, clay, dark red, 5YR 3/4, moist, sl. cohesive, sl. plastic, hard. CL | 0 | | | | |
| | 21 | | | | | | approx. |
| | | clayey silt, dark red, 5YR 5/4, hard. ML | 0 | | | | |
| | 22 | | | | | | |
| | | | 0 | | | | |
| | 23 | | | | | | |
| | | silt, grey, 10YR 7/1, ~~wet~~, trace odor. ML | 33.1 | | | | |
| | 24 | | | | | | |

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP01

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-02 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons; | 8. HOLE LOCATION: ~60' NW of "100N, 350E" | |
| | 9. SURFACE ELEVATION: | |
| | 10. DATE STARTED: 24 JUNE 1996 | 11. DATE COMPLETED: 24 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~22' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 27' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

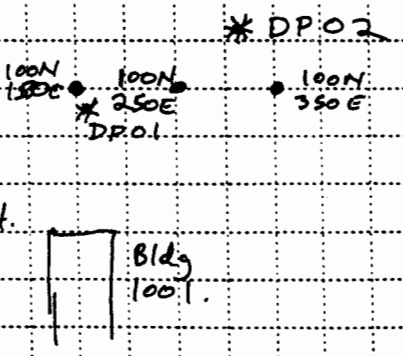
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | NONE |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY % |
|---|---|---|---|---|---|---|
| 4, 3 soil, 1 water | 3, 1 | | Explosives 3, 1 | | | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | w/ bentonite | | | Scott Stevenson (TB) |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




| | |
|---|---|
| PROJECT: DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001 | HOLE NO. DP-02 |

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-02

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 1 | silt, tan to white 10YR 8/1, dry, powdery ML | 0 | | | | 24" recovery. 36" |
| | 2 | silt, light brown 10YR 7/2, dry, soft ML | | | | | |
| | 3 | silty fine sand, mottled brown + white, 10YR 8/2 SM | 0 | | | | 24" recovery. Lens of loose brown sand, flowing (dry) at ~3' depth. |
| | 4 | | | | | | |
| | 5 | silty fine sand, tan 7YR 7/3, soft to firm, sand % decreasing SM ~~ML~~ | | | | | |
| | 6 | fine sand w/ some silt, pink 5YR 7/3, dry, soft, SM | 1.2, recheked | | | | |
| | 7 | | 0 | | | | |
| | 8 | | | | | | |
| | 9 | | | | 1001-DP02-9-12 | | |
| | 10 | | 0 | | | | |
| | 11 | | | | 13:50 | | |
| | 12 | | | | | | trace moisture |
| | 13 | silty sand, tan 7.5YR 8/2, dry, soft to firm SM | 0 | | | | |
| | 14 | | | | | | |
| | 15 | silt, red, w/ gyp cementing ML; silty sand, red 5YR 5/6, moist, gyp. cemented, hard SM | | | 1001-DP02-15-18 | | |
| | 16 | | 0 | | | | |
| | 17 | sand, brown, soft to firm, well sorted (4" lens) SP; clayey silt/silty clay, red-brown 5YR 5/4, moist, hard CL | | | 14:08 | | |
| | 18 | | | | | | |
| | 19 | clayey silt, white-gray, 10YR 8/1, moist, firm. ML | 1.1 | | 1001-DP02-18-21 14:05 | | |
| | 20 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-02

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-02

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: LS STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | Sandy clay, red 5YR 4/4, firm, w/ gyp. streaks CL | | | | | |
| | 21 | fine sand, brown 5YR 5/4 wet, flowing (at bottom of lens) SP | | | | | ▽ "juicy sand" |
| | 22 | clay-silt, red, 5YR 4/6, moist, hard CL | 2.4 | | | | |
| | 23 | silty sand, brown, 7.5YR 6/3 SM | | | | | |
| | 24 | wet slough, orange. | | | | | |
| | 25 | | 6.2 | | | | |
| | 26 | silt, grey, hard, dry some odor. ML | | | | | |
| | 27 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP02

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-03 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: ~40' E of "300N, 450E" | |
| | 9. SURFACE ELEVATION: ~4099.5 | |
| | 10. DATE STARTED: 24 JUN 1996 | 11. DATE COMPLETED: 24 JUN 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~23' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 29' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

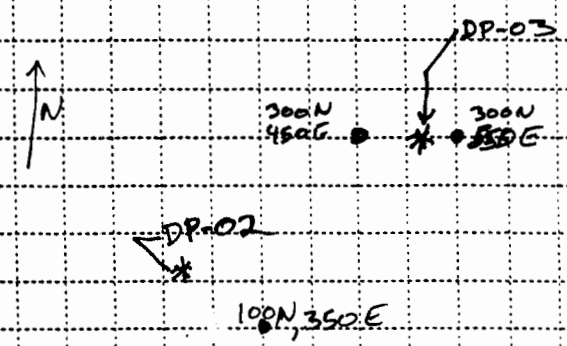
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3+1 | — | EXPLOSIVES | — | — | 100 % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR STEVENSON. |
|---|---|---|---|---|
| | w/bentonite | — | — | Lee Scott Stevenson |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




PROJECT DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-03

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER DP-03

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 1 | silty sand, white 10YR 8/1, dry, soft SM | 0 | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| | 4 | fine sand w/ silt, pink 5YR 7/3, dry, soft SM | 0 | | | | |
| | 5 | | | | | | |
| | 6 | fine sand w/ silt, pink 5YR 8/3 SM | | | | | |
| | 7 | | 0 | | | | |
| | 8 | | | | | | |
| | 9 | | | | 1001-DP03-9-12 | | |
| | 10 | | 0 | | | | |
| | 11 | | | | | | |
| | 12 | sand, tan 5YR 6/6, soft to firm SP | | | 16:42 | | |
| | 13 | | 0 | | | | |
| | 14 | clayey silt, brown, 5YR 5/4, w gypsum streaks, firm ML | | | | | |
| | 15 | sandy clay, red, w/ gyp CL | | | 1001-DP03-15-18 | | |
| | 16 | silt, grey, 10YR 8/1 ML | | | | | |
| | | clay, red 5YR 4/6 CL | 0 | | | | |
| | 17 | sand and clay SC | | | | | |
| | | silty sand w/ some gyp., brown 5YR 5/6, moist, hard SM | | | 16:48 | | |
| | 18 | fine sand, brown 5YR 5/4, SP | | | 1001-DP03-18-21 | | |
| | 19 | clayey sand, brown 5YR 4/4 SC | 0 | | | | |
| | 20 | | | | 16:50 | | |

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-03

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-03

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 3 OF 3

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | silty grey, 10YR 8/1 ML | 0 | | | | |
| | 21 | clay & gyp | | | | | |
| | | sand, brown 5YR 6/3, wet, soft to firm, SM | | | | | |
| | 22 | clayey silt, orange 5YR 5/6 ML | 0.1 | | | | |
| | 23 | | | | | | ▽ hole collapsed. slow recharge |
| | 24 | clay, red 5YR 4/4, gyp. cemented, hard, | 14. | | | | |
| | 25 | CL | | | | | |
| | 26 | silt/clay, brown, 5YR 5/4 ML | | | | | |
| | | sand/silt/clay, ML | | | | | |
| | 27 | silty sand SM | | | | | |
| | | clay w/ gypsum fragments to ~ 1/4", orange. CL | 1.0 | | | | |
| | 28 | | | | | | |
| | | sand, grey 10YR 7/2 SM | | | | | |
| | 29 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-03

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-04 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: 15' W of 350N, 750E" | |
| | 9. SURFACE ELEVATION: ~4105.5' amsl | |
| | 10. DATE STARTED: 25 JUNE 1996 | 11. DATE COMPLETED: 25 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~28' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 30' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

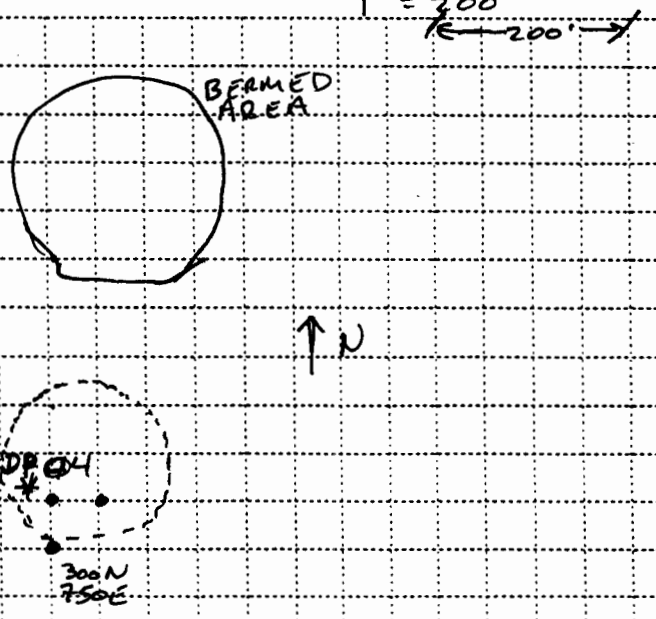
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY % |
|---|---|---|---|---|---|---|
| 3 + 1 (soil/water) | 3 + 1 | | EXPLOSIVES | | | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | w/ bentonite | | | L.S. Stevenson STEVENSON |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




| PROJECT | HOLE NO. |
|---|---|
| DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001 | DP-04 |

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-04

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) ppm | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 1, 2 | fine silt, cream 10YR 8/2, dry, soft ML | 0 | | | | |
| | 3 | sand, pink 5YR 7/3 SP | | | | | |
| | 4, 5, 6 | silty sand, pink 5YR 8/3, dry, soft to firm SM | 0 | | | | |
| | 7, 8 | silty fine sand, pink 5YR 8/4 SM | 0 | | | | |
| | 9 | cemented caliche layer, white 10YR 8/1 ML | | | 1001-DP04-9-12 | | 2" calcium cemented. |
| | 10, 11, 12 | silty fine sand, pink 5YR 8/4 SM | 0 | | 09:25 | | |
| | 13, 14 | silty fine sand, pink, 5YR 7/6 SM | 0 | | | | |
| | 15, 16, 17 | silty sand, pink 5YR 7/6, slightly moist, trace gypsum, firm SM | 0 | | 1001-DP04-15-18 | | |
| | 18 | clayey silt w/ gypsum streaks, red 5YR 5/4, ML | 0 | | 09:30 | | |
| | 19, 20 | silty sand, white 10YR 8/1 SM | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO.

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER DP-04

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 21 | silty sand, streaked pink band white gyp, 5YR 7/4, fine SM | ↑ 0 | | | | |
| | 22 | sand, red 5YR 6/4, mod. dense SP | | | | | |
| | 23 | silty clayey sand, red 5YR 5/4 w/ gyp., hard SM | 0 | | | | |
| | | coarse sand, brown 7.5YR 6/4, loose SP | | | | | |
| | 24 | clay w/ gyp xtals CL | | | 1001-DP04-24-27 | | |
| | 25 | sandy clay, red 2.5YR 5/6, moist, w/ band of coarse sand at 26.5' | 0 | | | | |
| | 26 | CL | | | | | |
| | 27 | | | | 09:35 | | |
| | 28 | clayey sand & clay, red 5YR 6/4, moist, hard, SC | 0 | | | | ▽ |
| | 29 | | | | | | |
| | 30 | | | | | | |

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-04

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | |
|---|---|
| DISTRICT | OMAHA |
| HOLE NUMBER | DP-05 |
| 1. COMPANY NAME | FLUOR DANIEL GTI, INC |
| 2. DRILL SUBCONTRACTOR | TEG |
| SHEET / SHEETS | 1 OF 3 |
| 3. PROJECT | DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC 1001 |
| 4. LOCATION | Holloman AFB, N.M. |
| 5. NAME OF DRILLER | Karis Vandehey |
| 6. MANUFACTURER'S DESIGNATION OF DRILL | STRATAPROBE |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT | 2" Ø x 36" long stainless steel split spoons. |
| 8. HOLE LOCATION | 70' SW of "300N, 150E" |
| 9. SURFACE ELEVATION | ~4098 amsl. |
| 10. DATE STARTED | 25 JUNE 1996 |
| 11. DATE COMPLETED | 25 JUNE 1996 |
| 12. OVERBURDEN THICKNESS | NA |
| 15. DEPTH GROUNDWATER ENCOUNTERED | 24' then rose to 20' |
| 13. DEPTH DRILLED INTO ROCK | NA |
| 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED | — |
| 14. TOTAL DEPTH OF HOLE | 27 |
| 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) | — |

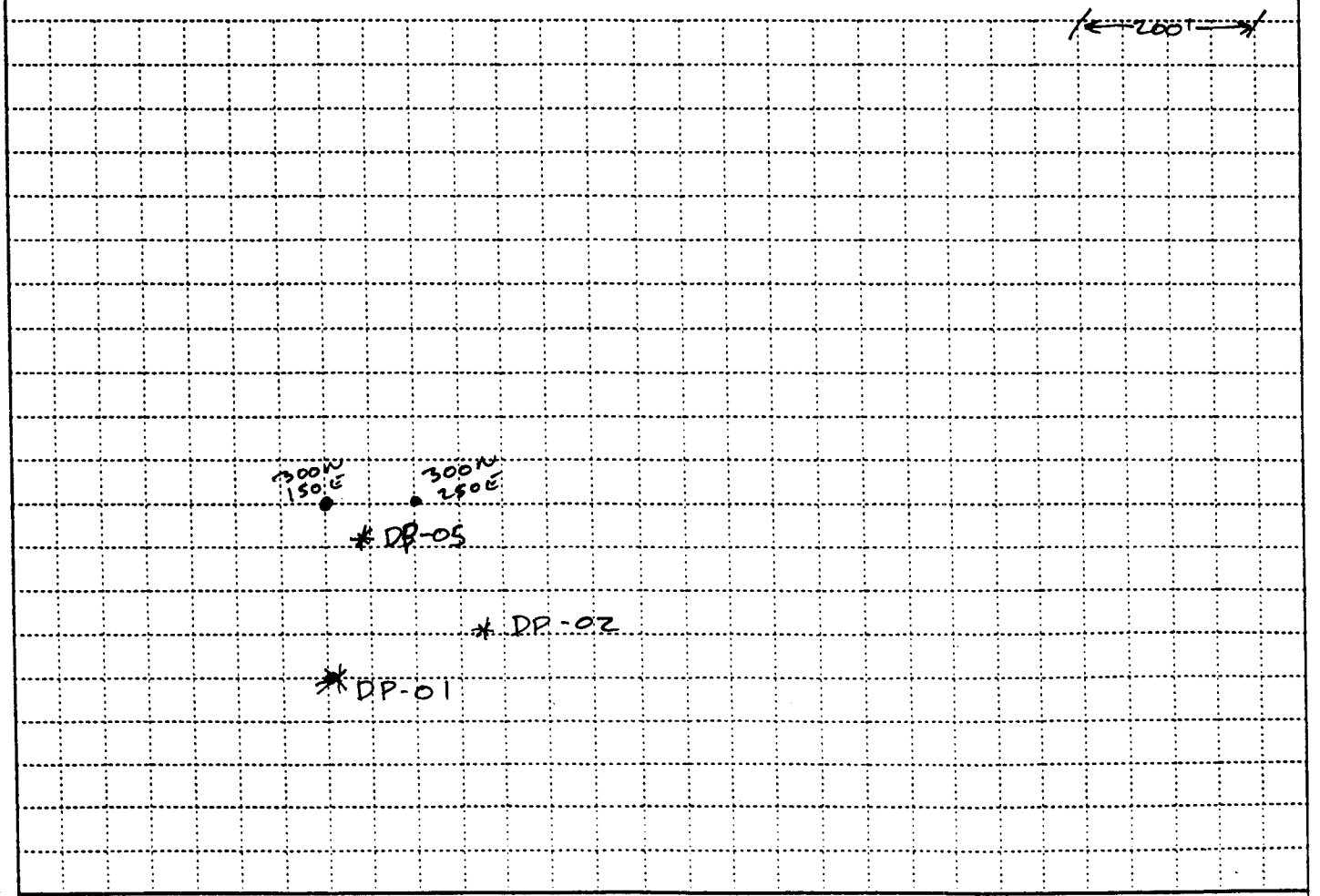
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY % |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3 + 1 | | Explosives 3+1 | | | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| abd. | w/bentonite | | | L.S. Stevenson |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




PROJECT DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001

HOLE NO.

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-05

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | silty sand, brown, soft SM | | | | | |
| | 1 | | | | | | |
| | | silty sand, cream 10YR 8/2, w/ cemented layers ~ 6" thick, hard SM | 0 | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| | 4 | silty fine sand, pink 5YR 7/4, soft to firm, dry SM | 0 | | | | |
| | 5 | | | | | | |
| | 6 | | | | | | |
| | 7 | | 0 | | | | |
| | 8 | | | | | | |
| | 9 | | | | 1001-DP05-9-12 | | |
| | 10 | | 0 | | | | |
| | 11 | | | | 13:15 | | |
| | 12 | clayey fine sand, red 5YR 4/4, damp, some SC gyp. | | | 1001-DP05-12-15 | | |
| | 13 | silty sand, tan 5YR 6/3, w/ gypsum crystals, | 0 | | | | |
| | 14 | | | | 13:20 | | |
| | 15 | SM | | | 1001-DP05-15-18 | | |
| | 16 | clayey fine sand, red, 5YR 4/4, w gyp xtals, moist, hard | 0 | | | | |
| | 17 | SC | | | | | |
| | 18 | | | | 13:25 | | |
| | | silty fine sand, grey 10YR 7/1 (3" layer) SM | | | | | |
| | 19 | clay, red, 2.5YR 4/6, w/ gyp xtals, hard, CL | 0 | | | | |
| | 20 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO.

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-05

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | clay, red, 2.5YR 4/6, w/ gyp. hard CL | ↑ 0 | | | | |
| | 21 | clay w/ no gyp, moist, soft CL | | | | | |
| | 22 | sandy clay, red 2.5YR 4/4, w/ gyp streaks, hard to very hard CL | 0 | | | | |
| | 23 | | | | | | |
| | 24 | clayey fine sand, brown 5YR 5/3, wet, firm to hard, SC | | | | | water 1st encountered at 24', rose to 20' |
| | 25 | silty sand, tan 10YR 7/1, | | | | | |
| | 26 | SM | | | | | |
| | 27 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO.

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-06 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 DO8 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons; | 8. HOLE LOCATION: 10' W of "400N, 300E" | |
| | 9. SURFACE ELEVATION: ~4100' amsl. | |
| | 10. DATE STARTED: 25 JUNE 1996 | 11. DATE COMPLETED: 25 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~22' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 27' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

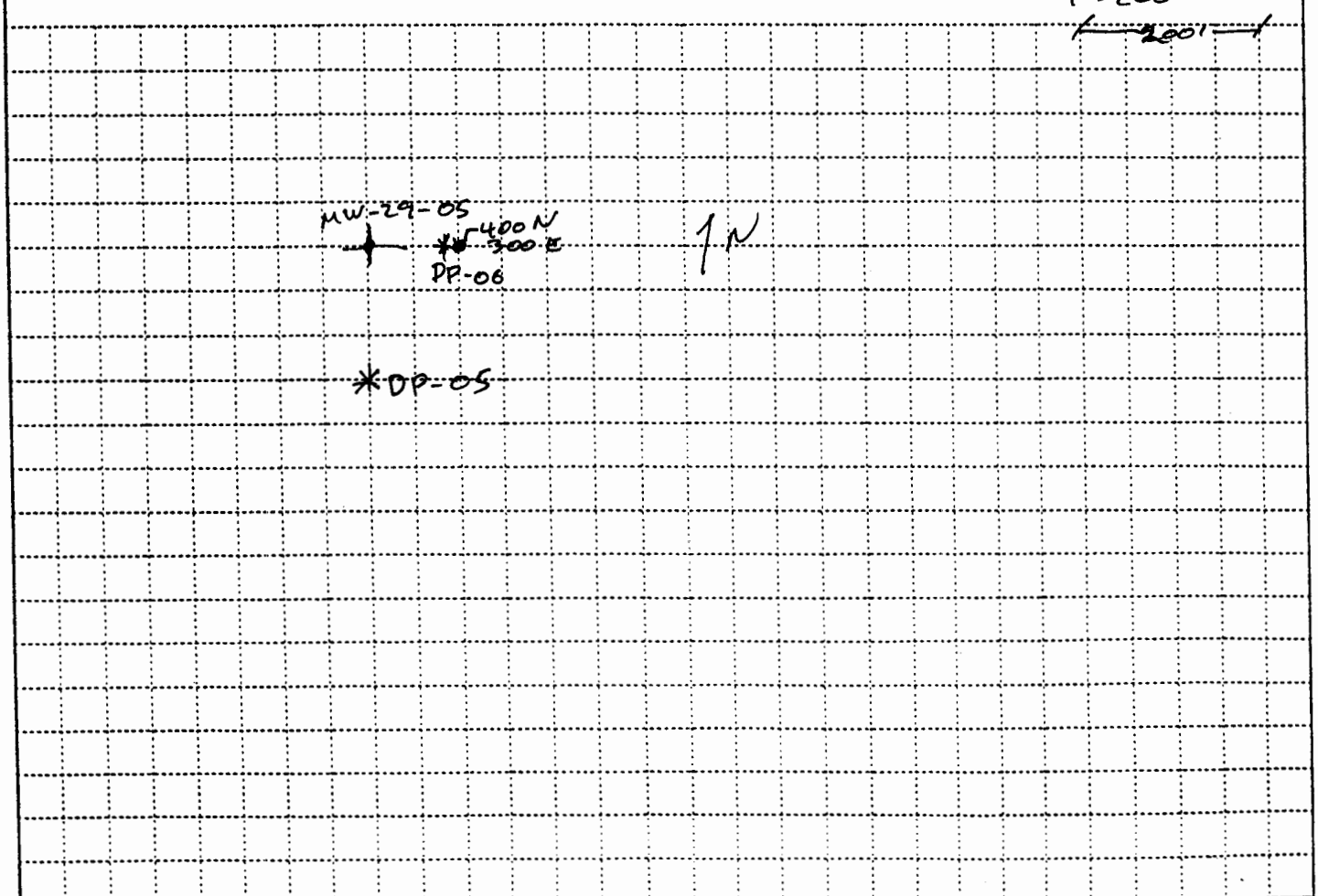
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY % |
|---|---|---|---|---|---|---|
| 3 soil, 1 groundwater. | | | | | | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| aband. | w/bentonite | | | Scott Stevenson (TB) |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




| | |
|---|---|
| PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001 | HOLE NO. DP-06 |

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-06

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | Silty sand, brown. SM | | | | | |
| | 1 | silt, white to pink, 10YR 8/1, dry, firm | 0 | | | | |
| | 2 | ML | | | | | |
| | 3 | silty fine sand, pink, 5YR 6/6, dry, soft. | | | | | 18" recovery |
| | 4 | | 0 | | | | |
| | 5 | SM | | | | | |
| | 6 | silty fine sand, pink, 5YR 7/4, dry, soft | | | 1001-DP06-6-9 | | |
| | 7 | SM | 0.8 | | | | |
| | 8 | | | | | | |
| | 9 | | | | 16:00 | | |
| | 10 | | 0.7 | | | | |
| | 11 | | | | | | |
| | 12 | | | | 1001-DP06-12-15 | | |
| | 13 | silty fine sand, light brown 7.5YR 6/3, trace moisture, w/ gyp & some clay. | 0 | | | | |
| | 14 | SM | | | | | |
| | 15 | silt/clay w/ gyp, red. 5YR 6/6, hard | | | 16:05 | | |
| | 16 | CL | 0 | | | | |
| | 17 | sand, brown, 1" lens SP | | | | | |
| | 18 | silt/clay w/ gyp, red 5YR 6/6, hard CL | | | 1001-DP06-18-21 | | |
| | 19 | sand-silty grey 2.5YR 7/2, 4" thick lens SM | 0.8 | | | | |
| | 20 | silt/clay as above CL | | | 16:10 | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-06

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER DP-06

PROJECT D ACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | sand, silt, clay, red 5YR 5/6 hard ML | ↑ 0.8 | | ↑ | | |
| | 21 | silt/clay, red 2.5YR 5/8, w/ sand stringers + occas. lenses | | | | | |
| | 22 | | 16.2 | | | | ▽ |
| | 23 | ML | | | | | |
| | 24 | silty sand, pink, 5YR 7/4 | | | | | |
| | 25 | SM | | | | | |
| | 26 | silty sand, tan 5YR 8/2 SM | | | | | |
| | 27 | | | | | | |

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-06

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-Ø7 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |

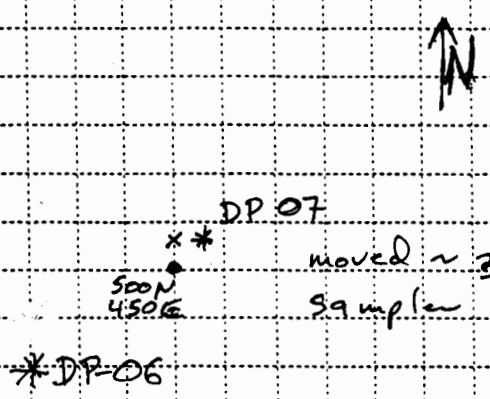
| | |
|---|---|
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: ~40' NE of "500N, 450E" |
| | 9. SURFACE ELEVATION: ~4101.5 amsl. |
| | 10. DATE STARTED: 26 JUNE 1996 / 11. DATE COMPLETED: 26 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~22' |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — |
| 14. TOTAL DEPTH OF HOLE: 30' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | - | - | - |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY % |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3 + 1 | | explosives 3+1 | | | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | | | | Scott Stevenson (TB) |

LOCATION SKETCH/COMMENTS — SCALE:




PROJECT DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001 — HOLE NO. DP-Ø7

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-07

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 1 | silty fine sand, tan 5YR 7/2, dry, soft, loose SM | 0 | | | | moved ~30' E of 1st attempted boring. Sampler stuck @ 6' depth. 1st 6' similar in both borings. |
| | 2 | | | | | | |
| | 3 | silty sand, cream 7.5YR 8/2 dry, very hard, cemented SM | | | | | |
| | 4 | silty fine sand, tan to pink 5YR 7/4, dry, soft. SM | 0 | | | | |
| | 5 | | | | | | |
| | 6 | | | | | | 30" recovery |
| | 7 | | 0 | | | | |
| | 8 | | | | | | |
| | 9 | | | | 1001-DP07-9-12 | | |
| | 10 | | 0 | | | | |
| | 11 | | | | | | |
| | 12 | | | | 10:18 | | |
| | 13 | | 0 | | | | |
| | 14 | silty sand w/ some clay + small gypsum inclusions, red 5YR 7/4, hard SM | | | | | |
| | 15 | clayey sand w/ some gyp, red 5YR 5/6 SC | | | 1001-DP07-15-18 | | |
| | 16 | silty fine sand, cream 7.5YR 8/1, SM | 0 | | | | |
| | 17 | silty sand, tan, 7.5YR 7/2 SM | | | | | |
| | 18 | silty fine sand, grey 7.5YR 7/1 SM | | | 10:22 | | |
| | 19 | fine sand, brown 5YR 3/4 some silt, soft, ~~moist~~ to firm, SP | 0 | | 1001-DP07-18-21 10:26 | | |
| | 20 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO.

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER DP-07

PROJECT D ACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | clay, red 2.5YR 4/4, w/ gyp streaks CL | 0 | | | | |
| | 21 | sand, brown 5YR 5/3 SP | | | | | |
| | | clay as above CL | | | | | ▽ |
| | 22 | clayey fine sand, white 10YR 8/1, wet, soft SC | 0 | | | | |
| | 23 | sandy clay, red 2.5YR 4/4 w/ gyp. CL | | | | | |
| | 24 | sand, brown 5YR 5/3, moist SP | | | | | |
| | 25 | clay, red 2.5YR 4/5, w/ gyp. CL | 0.1 | | | | |
| | 26 | | | | | | |
| | 27 | sandy clay, red 2.5YR 5/6, w/ gyp. CL | | | | | |
| | 28 | | 1.6 | | | | |
| | 29 | clay, light brown 5YR 6/3, moist, soft, plastic CL | | | | | |
| | 30 | silt, tan 10YR 7/2 ML | | | | | |

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-07

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-08 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: 30' E of "500N, 550E" | |
| | 9. SURFACE ELEVATION: ~4103' amsl | |
| | 10. DATE STARTED: 26 JUNE 1996 | 11. DATE COMPLETED: 26 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: ~ 26' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 30' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) | |

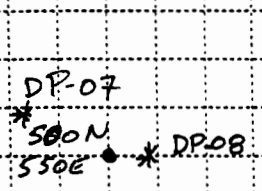
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | — | — | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY % |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3+1 | | explosives 3+1 | — | — | |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR STEVENSON. |
|---|---|---|---|---|
| abandoned | w/bentonite | — | — | L. S. Stevenson |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




PROJECT DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-08

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER DP-08

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 1 | silt, white 10YR 8/2, Dry, soft to firm | 0 | | | | |
| | 2 | ML | | | | | |
| | 3 | silty fine sand, pink 5YR 8/4, dry, soft | | | | | |
| | 4 | | | | | | |
| | 5 | | 0 | | | | |
| | 6 | SM | | | | | |
| | 7 | | 0 | | | | |
| | 8 | | | | | | |
| | 9 | silty fine sand, pink 5YR 7/4, tr. moisture, hard | | | 1001-DP08- | | |
| | 10 | | 0 | | 9-12 | | |
| | 11 | SM | | | | | |
| | 12 | | | | 13:20 | | |
| | 13 | silty fine sand, pink 5YR 8/3, soft | 0 | | | | |
| | 14 | SM | | | | | |
| | 15 | silty fine sand, pink, dense w/ gyp streaks | | | 1001-DP08- | | |
| | 16 | SM | | | 15-18 | | |
| | 17 | clayey silt, brown 7.5YR 5/4, w gyp., hard ML | 0 | | | | |
| | 18 | silt, tan, 10YR 7/2, firm to hard ML | | | 13:25 | | |
| | | clayey silt, brown 5YR 5/3, w/ gyp. streaks ML | | | | | |
| | 19 | clayey silt, grey 10YR 7/1, ML | 0 | | | | |
| | 20 | | | | | | |

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-08

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-08

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 3 OF 3

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | silt, grey 10YR 7/1, hard, some gyp streaks ML | 0 | | | | |
| | 21 | clayey fine sand, red 2.5YR 5/8, w/ gyp streaks SC | | | 1001-DP08-21-24 | | |
| | 22 | sand, brown 5YR 5/4, moist, firm SP | 0 | | | | |
| | 23 | clayey silt, brown ML | | | | | |
| | 24 | silt, cream 10YR 7/1 ML | | | 13:30 | | |
| | 25 | clay & silt, pink to grey 10YR 8/1, moist, soft, plastic CL | | | | | |
| | 26 | sandy clay, red 5YR 5/6 w/ gyp. x'tals, hard CL | 0 | | | | ▽ |
| | 27 | sandy clay, red 2.5YR 5/6, mod. stiff CL | | | | | |
| | 28 | | 0 | | | | |
| | 29 | | | | | | |
| | 30 | | | | | | |

PROJECT: DACW-45-94-D0003 DO8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-08

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

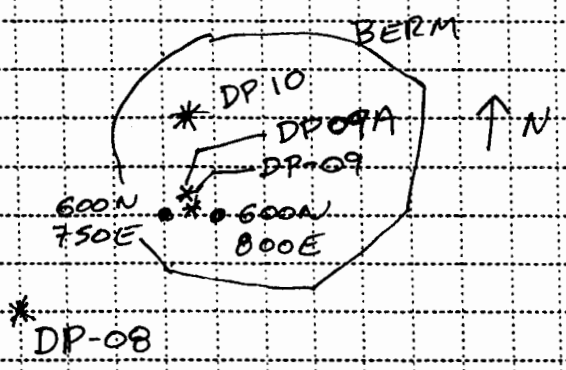
| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-09 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 DO8 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: 25' W of "600N, 800E" | |
| | 9. SURFACE ELEVATION: ~ 4107.5 amsl | |
| | 10. DATE STARTED: 26 June 1996 | 11. DATE COMPLETED: |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: Not found | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 21 | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY |
|---|---|---|---|---|---|---|
| NONE | | | | | | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| abandoned | w/ bentonite | | | L.S. Stevenson STEVENSON |

LOCATION SKETCH/COMMENTS SCALE:




PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001 | HOLE NO. DP-09

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

| PROJECT | INSPECTOR | HOLE NUMBER | SHEET / SHEETS |
|---|---|---|---|
| DACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001 | STEVENSON | DP-09 | 2 OF 3 |

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | Pea Gravel | (ppm) | | | | |
| | 1 | silt, white to cream 7.5 YR 8/2, dry, hard ML | | | | | |
| | 2 | Silty Sand, pink, 5YR 8/2, dry, soft. | | | | | |
| | 3 | | | | | | |
| | 4 | SM. | 0 | | | | |
| | 5 | | | | | | |
| | 6 | Caliche | | | | | 2" calcium cemented hard. |
| | 7 | sand with silt, pink, 5 YR 8/3 SM | 1.4 | | | | |
| | 8 | silty sand, red 2.5YR 7/4, dry, powdery soft SM | | | | | |
| | 9 | clayey fine sand, red 5 YR 6/4, streaked, SC hard | | | | | |
| | 10 | silty fine sand, brown 5YR 5/4, dry, soft to firm | 3.5 | | | | |
| | 11 | SM | | | | | |
| | 12 | clay/silt w/ sand stringer, red 5 YR 4/4, hard, not plastic ML | | | | | 12 |
| | 13 | interbedded sand, silty clay, coarse sand, stiff clay w/ gyp - to 14.5'. all red brown 5 YR 6/3 | 16.4 | | | | SM CL SP CL CL 13 |
| | 14 | | | | | | 14 |
| | 15 | fine sand, cream 10YR 8/1, dry, soft SP | | | | | |
| | 16 | banded silty sands, (grey, green, orange, pink) dry, hard, dense | 16.9 | | | | |
| | 17 | SM | 38.1 | | | | |
| | 18 | clayey fine sand, SC hard | 97.2 | | | | strong solvent odor |
| | 19 | silty sand white 10YR 8/1, very hard + stiff SM | 75.8 | | | | |
| | 20 | silty sand, pink 5YR 8/3, hard to very hard SM | 66.7 | | | | |

PROJECT DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001 — HOLE NO. DP-09

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-09

PROJECT: D ACW-45-94-D0003
DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 21 | sandy clay, mottled red, w/ gyp. streaks, dry hard CL | 73.2 | | | | |
| | | boring terminated due to lightning & impending rain. | | | | | |

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-09

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-09A |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: 25'W of "600N, 800E" - 3' N of DP-09 | |
| | 9. SURFACE ELEVATION: ~4107.5' amsl | |
| | 10. DATE STARTED: 29 JUNE 1996 | 11. DATE COMPLETED: 29 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: 28' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 30' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

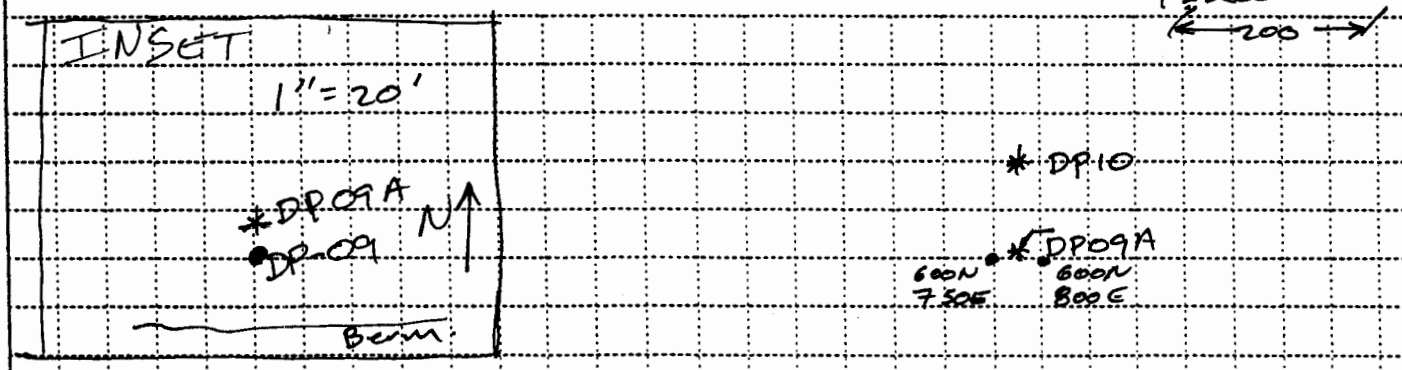
| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3 + 1 | | explosives 3 + 1 | | | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | | | | Scott Stevenson (TB) |

LOCATION SKETCH/COMMENTS

SCALE: 1" = 200'




PROJECT DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP09A

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP09-A

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | pea gravel | | | | | |
| | 1 | silty fine sand, cream 10YR 8/3, dry, soft, powdery | 0 | | | | |
| | 2 | SM | | | | | |
| | 3 | silty fine sand, pink 5YR 8/3, dry, soft | | | | | |
| | 4 | | 0 | | | | |
| | 5 | SM | | | | | |
| | 6 | | | | | | |
| | 7 | | 0 | | | | |
| | 8 | silty sand (increasing silt), red, 5YR 7/3, firm to hard | | | | | |
| | 9 | SM | | | | | |
| | 10 | silty very fine sand, red 2.5YR 5/4, dry, soft | 0 | | | | |
| | 11 | SM | | | | | |
| | 12 | as above, banded w/ gypsum streaks ML | | | | | |
| | 13 | silty clay, red 2.5YR 4/6, damp, stiff CL | 0 | | | | |
| | 14 | fine sand w/ some silt, white 2.5Y 8/1, hard SP | | | | | |
| | 15 | banded fine sands w/ trace silt, orange + white 10YR 8/3, very hard SP | | | | | |
| | 16 | silty fine sand, pink 5YR 8/3, mod. hard | 0 | | | | |
| | 17 | SM | | | | | |
| | 18 | clay, red 2.5YR 4/4, hard CL | | | 1001-DP09A 18-21 09:40 | | 2" clay layer |
| | 19 | sand, pink 5YR 7/4, dry, loose-soft | 0 | | | | |
| | 20 | SP | | | | | |

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-09A

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP09-A

PROJECT: DACW-45-94-D0003 D08 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: C.S. STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | | clayey silt, brown 2.5YR 5/4, w/ gyp., hard ML | 13 | | | | odor noted |
| | 21 | silty clayey fine sand, tan 5YR 6/3, sl. moist, firm, slighty cohesive | | | 1001-DP09A-21-24 | | |
| | 22 | | 18 | | | | |
| | 23 | SC | | | 09:51 | | |
| | 24 | silt, cream 2.5YR 8/2, hard ML | | | 1001-DP09A-24-27 | | |
| | 25 | silty fine sand, pink 5YR 8/4 soft ML | 0 | | | | |
| | 26 | sandy clay, red 2.5YR 5/4, stiff CL | | | | | |
| | 27 | sand/clay (sand fraction med/coarse), orange 5YR 5/4 SC | | | 09:39 | | |
| | 28 | silt/sand/clay, orange 5YR 6/4 SC | 0 | | | | ▽ hole collaped to 28' |
| | 29 | silty sand, orange 5YR 6/4, moist, soft SM | | | | | |
| | 30 | clayey silt, orange, stiff ML | | | | | |

PROJECT: DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP09-A

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG

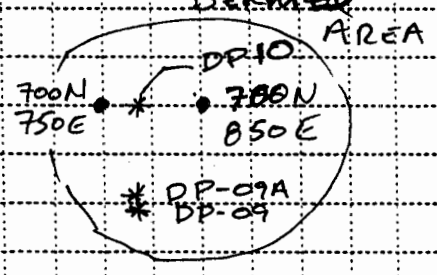
| | | |
|---|---|---|
| DISTRICT: OMAHA | | HOLE NUMBER: DP-10 |
| 1. COMPANY NAME: FLUOR DANIEL GTI, INC | 2. DRILL SUBCONTRACTOR: TEG | SHEET 1 OF 3 SHEETS |
| 3. PROJECT: DACW-45-94-D0003 D08 WAD 29, Addl. Char. at AOC1001 | 4. LOCATION: Holloman AFB, N.M. | |
| 5. NAME OF DRILLER: Karis Vandehey | 6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Ø x 36" long stainless steel split spoons. | 8. HOLE LOCATION: 55' w of "700 N, 850 E" | |
| | 9. SURFACE ELEVATION: ~4107.5' amsl | |
| | 10. DATE STARTED: 29 JUNE 1996 | 11. DATE COMPLETED: 29 JUNE 1996 |
| 12. OVERBURDEN THICKNESS: NA | 15. DEPTH GROUNDWATER ENCOUNTERED: 27' | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: — | |
| 14. TOTAL DEPTH OF HOLE: 30' | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): — | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| NONE | | | — |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHER (SPECIFY) | OTHER (SPECIFY) | OTHER (SPECIFY) | 21. TOTAL CORE RECOVERY |
|---|---|---|---|---|---|---|
| 3 soil, 1 water | 3+1 | | Explosives 3+1 | | | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHER (SPECIFY) | 23. SIGNATURE OF INSPECTOR STEVENSON |
|---|---|---|---|---|
| abandoned | bentonite | | | C.S. Stevenson |

LOCATION SKETCH/COMMENTS SCALE:




PROJECT DACW-45-94-D0003 D08 WAD 29; Addl. Char. at AOC 1001 | HOLE NO. DP-10

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-10

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 2 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 1 | silty fine sand, cream 5YR 8/3, dry, mod firm | | | | | |
| | 2 | SM | | | | | |
| | 3 | fine sand, pink, 5YR 7/3, loose SP | | | | | |
| | 4 | silty fine sand, light pink, 2.5YR 8/2, grading to medium sand @ 5.5', dry, loose, soft | | | | | 32" recovery 3/4" thick caliche layer @ 3.5' |
| | 5 | | | | | | |
| | 6 | SP | | | | | |
| | 7 | silty fine sand, light brown 5YR 7/4, firm | | | | | |
| | 8 | | | | | | |
| | 9 | SM | | | | | |
| | 10 | silty fine sand, pink 5YR 7/6, firm | | | | | |
| | 11 | SM | | | | | |
| | 12 | | | | | | |
| | 13 | | | | | | |
| | 14 | | | | | | |
| | 15 | | | | | | |
| | 16 | | | | | | |
| | 17 | | | | | | |
| | 18 | | | | 1001-DP10-18-21 | | |
| | 19 | | | | | | |
| | 20 | silty fine sand, brown 5YR 7/4 firm SM | | | 12:41 | | |

PROJECT: DACW-45-94-D0003
DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-10

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

# HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: DP-10

PROJECT: D ACW-45-94-D0003 DO 8 WAD 29; Addl. Char @ AOC 1001

INSPECTOR: STEVENSON

SHEET 3 OF 3 SHEETS

| ELEV. (a) | DEPTH (b) | DESCRIPTION OF MATERIALS (c) | FIELD SCREENING RESULTS (d) | GEOTECH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h) |
|---|---|---|---|---|---|---|---|
| | 21 | clayey fine sand w/ gyp, brown 5YR 5/4, SC firm, sl. cohesive | | | | | |
| | 22 | clay, red 2.5YR 4/6, w/ gyp streaks, firm CL | | | 1001-DP10 21-24 | | |
| | 23 | silt/clay, tan 7.5YR 7/4, w/ gyp., firm ML | | | | | |
| | 24 | silty fine sand, white 10YR 8/1, firm, not cohesive SM | | | 12:44 | | |
| | 25 | silty fine sand, white 10YR 8/2, moist, slighty cohesive, soft to firm SM | | | 1001-DP10-24-27 | | |
| | 26 | clay, red, 2.5YR 4/6, w/ gyp. CL | | | | | |
| | 27 | sandy clay w/ gyp, very hard | | | 12:47 | | ▽ |
| | 28 | CL | | | | | |
| | 29 | | | | | | |
| | 30 | | | | | | |

PROJECT: DACW-45-94-D0003 DO 8 WAD 29; Addl. Char. at AOC 1001

HOLE NO. DP-10

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

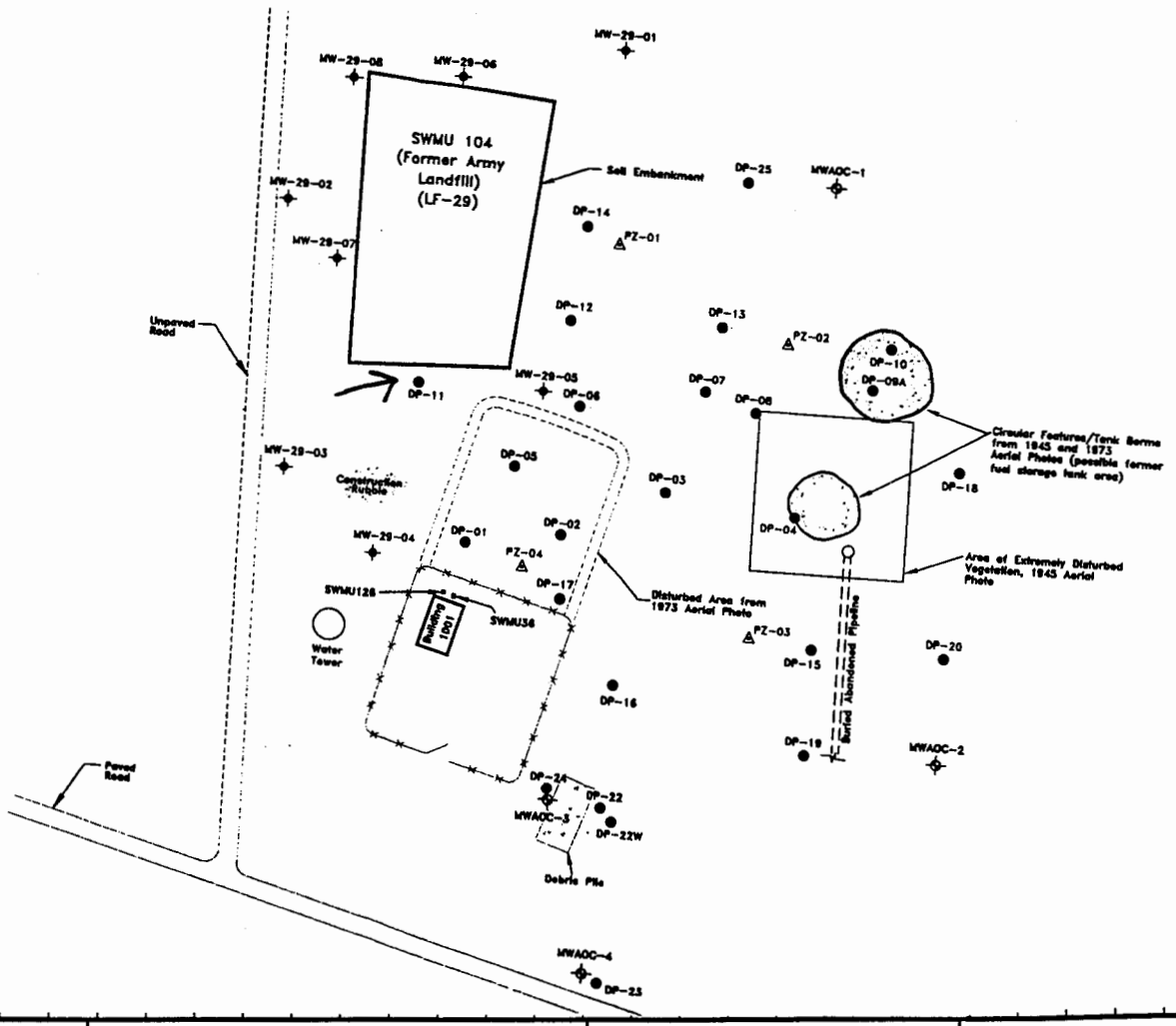
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-11 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 677304.73N, 549005.88E | |
| | 9. SURFACE ELEVATION: 4098.05 ft. MSL | |
| | 10. DATE STARTED: 05/06/97 | 11. DATE COMPLETED: 05/06/97 |
| 12. OVERBURDEN THICKNESS: 28 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 18 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 28 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-11 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-11 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4096 | 2 | 2-5 ft: (SP) Very fine sand, well sorted, slightly moist, no fines, very light yellow. | PID=0.7 ppm | | | | |
| 4094 | 4 | 5-8 ft: (SP) Very fine sand, well sorted, very light yellow to white, some cementation. | PID=0.4 ppm | | | | |
| 4092 | 6 | | | | | | |
| 4090 | 8 | 8-11 ft: (SM) Silt to very fine sand, some black flecks, light pinkish white 7.5YR 8/2. | PID=0.9 ppm | | | | |
| 4088 | 10 | 11-14 ft: (Same as above) | PID=0.8 ppm | | | | |
| 4086 | 12 | Refusal (moved over 3 feet). Easier penetration (easy to very easy) | PID=0.5 ppm | | | | |
| 4084 | 14 | 14-17 ft: (ML) Silt to sandy silt, 7.5YR 8/2 pinkish white. Sample is moist @ 13.75 feet. | | | | | |
| 4082 | 16 | (SP) Very fine sand, mottled or varigated appearance, moist, plastic, 5YR 4/4 reddish brown. 17-20 ft: | PID=0.1 ppm | | AOC-1001-DP-11 | | |
| 4080 | 18 | (ML) Silt to sand silt 7.5YR 8/2 pinkish white, moist. | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-11 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | 20-23 ft: (SP) Sandy silt, mottled/varigated in appearance, moist, plastic, 5YR 4/4 reddish brown. | PID=1.1 ppm | | | | |
| 4078 | 20 | | | | | | |
| | | Shut down to test level of water in hole. | | | | | |
| 4076 | 22 | | | | | | |
| | | Very easy penetration. Lithology same as above, but, increase in number of elongated, narrow crystals (gypsum?), some carbonaceous matter, probably decayed plant, more moist than before. | | | | | |
| 4074 | 24 | Very, very soft - probe fell for one foot. | | | | | |
| | | Same as above, larger crystals, saturated. | | | | | Rods saturated for bottom ten feet of boring. |
| 4072 | 26 | | | | | | |
| 4070 | 28 | Total depth 28 feet. | | | | | |
| 4068 | 30 | | | | | | |
| 4066 | 32 | | | | | | |
| 4064 | 34 | | | | | | |
| 4062 | 36 | | | | | | |

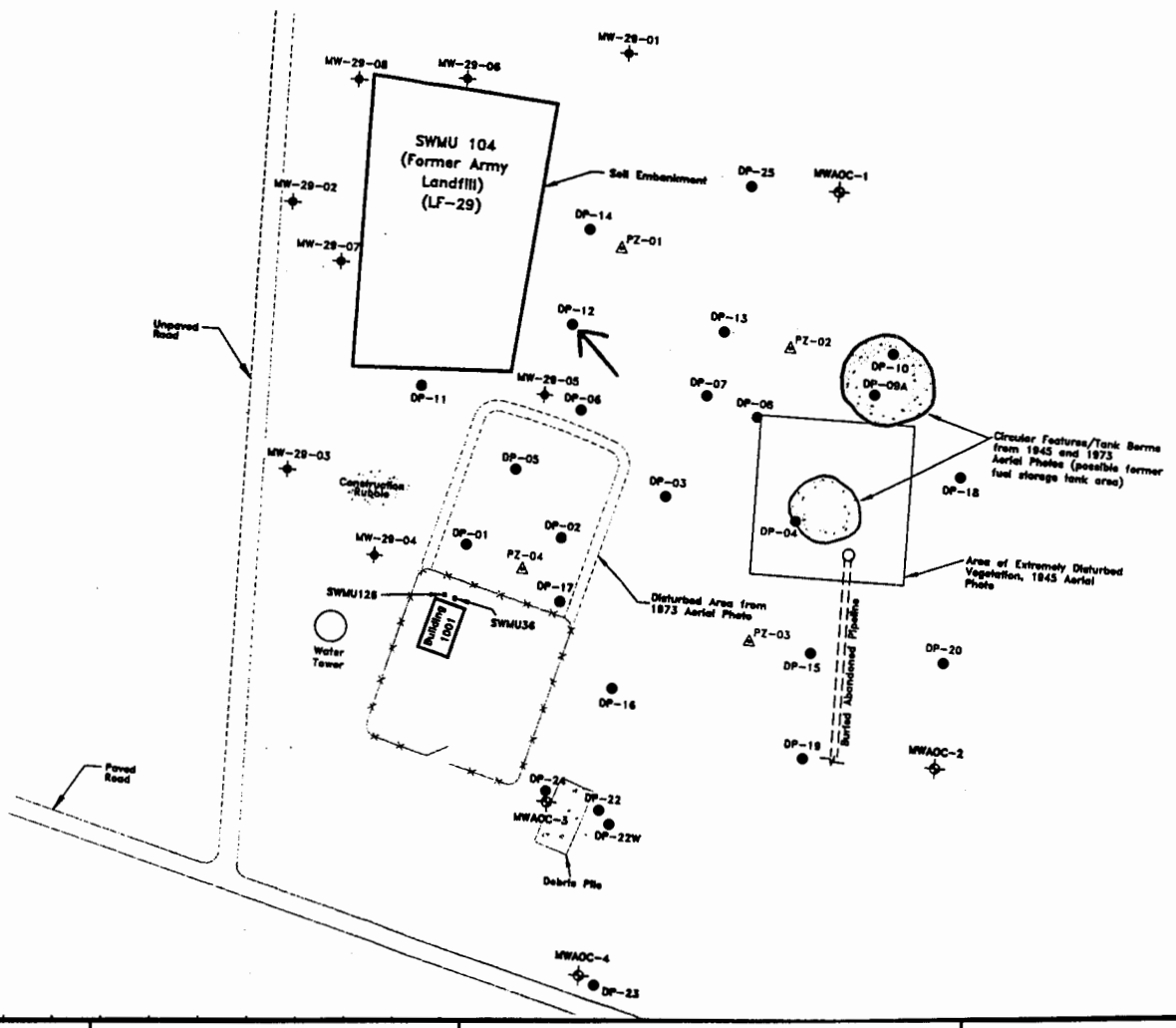
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-12 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 677490.94N, 549267.83E | |
| | 9. SURFACE ELEVATION: 4099.85 ft. MSL | |
| | 10. DATE STARTED: 05/07/97 | 11. DATE COMPLETED: 05/07/97 |
| 12. OVERBURDEN THICKNESS: 29.5 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 26.5 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 29.5 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | |
|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903<br>SITE NAME: DO 8 WAD 29 AOC-1001 RFI | HOLE NO.: DP-12 |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-12 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Light silty sand, dry | | | | | Drilled 5 feet slowly (no sampling) for utility clearance |
| 4098 | 2 | | | | | | |
| 4096 | 4 | | | | | | |
| | | 5-8 ft: (ML) Silt, dry, minor very fine sand, some gypsum crystals, 2.5YR 6/4 light reddish brown. | PID=0.1 ppm | | | | Difficult drilling, slow penetration, no odor. |
| 4094 | 6 | | | | | | |
| 4092 | 8 | 8-11 ft: (ML) Silt, slightly moist, very minore very fine sand, some gypsum cystals, 2.5YR 6/4. | PID=0.3 ppm | | | | No odor, difficult drilling |
| 4090 | 10 | | | | | | |
| | | 11-14 ft: (ML) Silt, slightly moist, not cohesive, very minor very fine sand, gypsum crystals slightly more 2.5YR 5/6. | PID=0.0 ppm | | | | |
| 4088 | 12 | | | | | | Hard drilling<br>Becoming very hard at 13-14 feet, no odor. |
| 4086 | 14 | 14-17 ft: (ML) Silt, slightly more moist, slight to moderately cohesive, gypsum is more abundant and is very abundant at base, slightly darker. | PID=0.4 ppm | | AOC-1001-DP-12 | | Very hard drilling, no odor. |
| 4084 | 16 | | | | | | |
| 4082 | 18 | 17-20 ft: (ML) Silt with very fine sand and abundaunt gypsum. 5YR 4/6. Moderately moist, moderately cohesive, very slightly plastic. | | | | | Rods stuck in boring for 1 hour, added water to lube rods. No soil sample collected. |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-12 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4080 | 20 | | | | | | Started new boring a few feet from original hole. Drove down (no sampling) to retrieve groundwater sample |
| 4078 | 22 | | | | | | |
| 4076 | 24 | | | | | | |
| 4074 | 26 | | | | | | |
| 4072 | 28 | | | | | | |
| 4070 | 30 | Refusal at 29.5 feet, total depth 29.5 feet. | | | | | |
| 4068 | 32 | | | | | | |
| 4066 | 34 | | | | | | |
| 4064 | 36 | | | | | | |

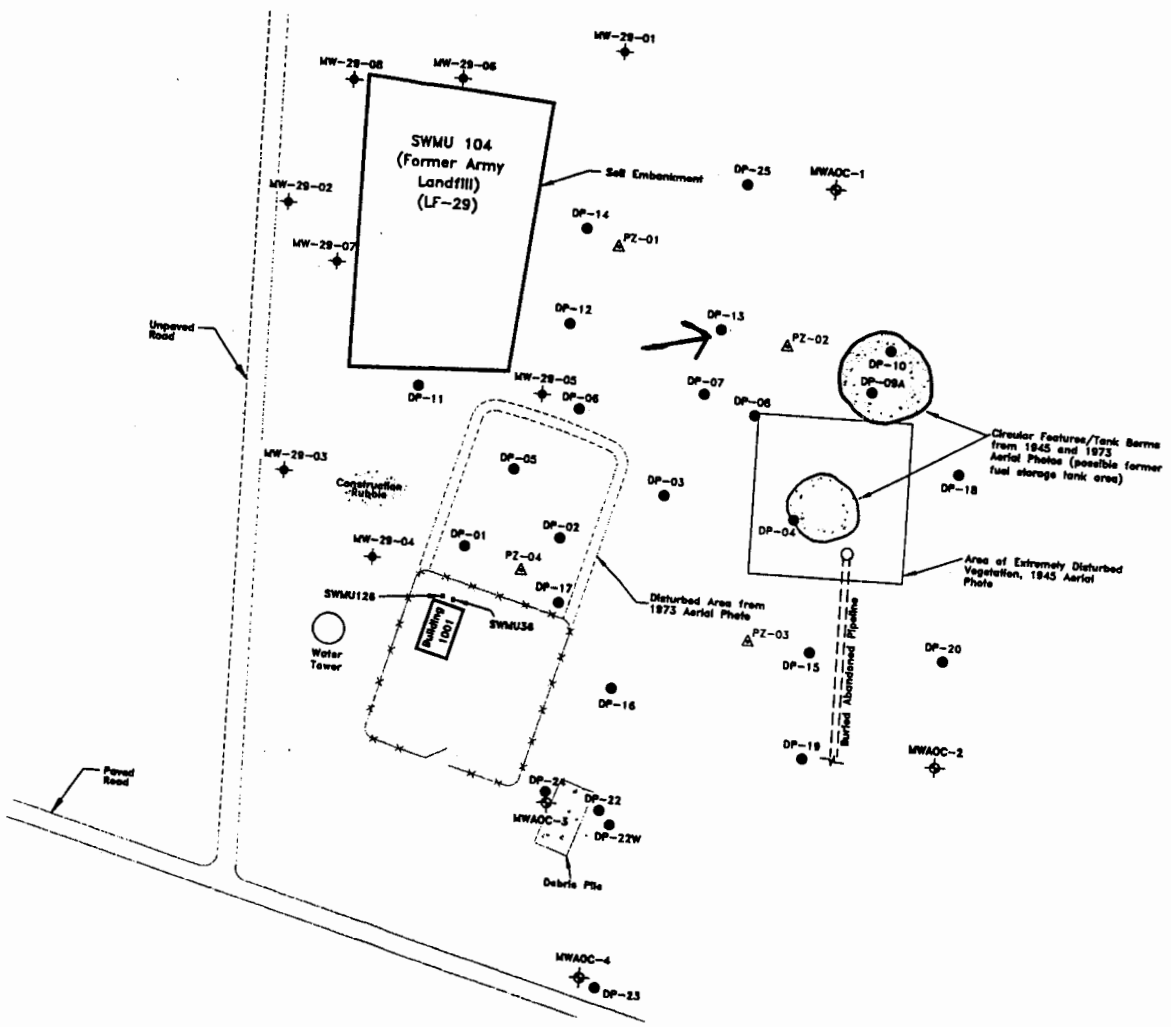
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-13 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 677504.23N, 549550.90E | |
| | 9. SURFACE ELEVATION: 4103.22 ft. MSL | |
| | 10. DATE STARTED: 05/08/97 | 11. DATE COMPLETED: 05/08/97 |
| 12. OVERBURDEN THICKNESS: 34 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 26 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 6. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 34 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-13 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-13 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Drilled straight down to 34 feet for groundwater sample only, no soil sampling or description done. | | | | | Moderate drilling rate |
| 4101 | 2 | | | | | | |
| 4099 | 4 | | | | | | |
| 4097 | 6 | | | | | | |
| 4095 | 8 | | | | | | |
| 4093 | 10 | | | | | | |
| 4091 | 12 | | | | | | |
| 4089 | 14 | | | | | | |
| | | | | | | | Hard drilling |
| 4087 | 16 | | | | | | Softer (moderate drilling) at 16-18 feet. |
| 4085 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-13 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Hard penetration. |
| 4083 | 20 | | | | | | Hard penetration (note: no soft layer encountered) |
| 4081 | 22 | | | | | | |
| 4079 | 24 | | | | | | |
| 4077 | 26 | | | | | | |
| 4075 | 28 | | | | | | |
| 4073 | 30 | | | | | | |
| 4071 | 32 | | | | | | |
| 4069 | 34 | Total depth 34 feet | | | | | 8 feet of water in hole at time of water sampling. |
| 4067 | 36 | | | | | | |

ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI

PROJECT #: 872200082903

SITE NAME DO 8 WAD 29 AOC-1001 RFI

HOLE NO.: DP-13

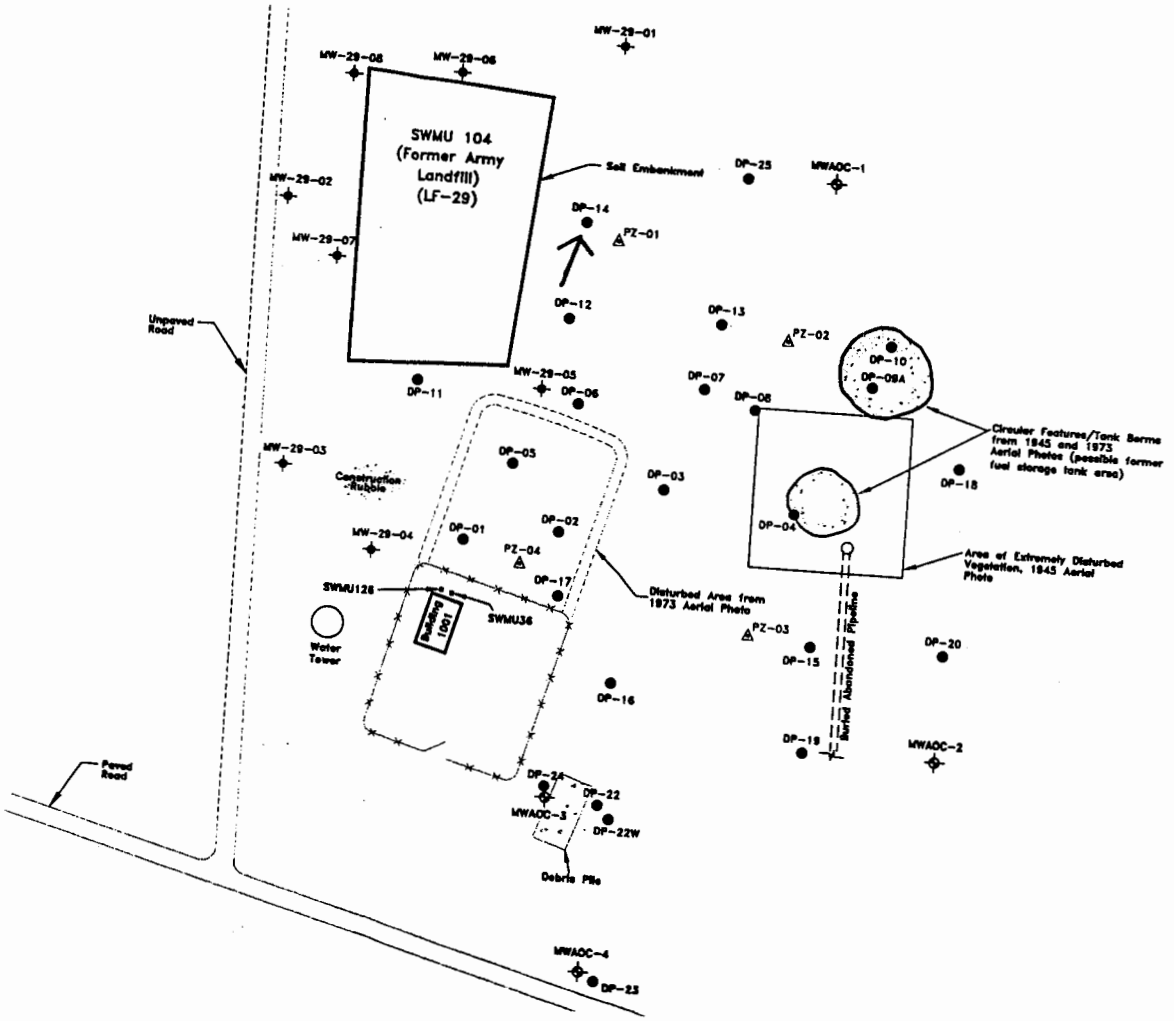
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-14 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 677674.46N, 549308.12E | |
| | 9. SURFACE ELEVATION: 4099.83 ft. MSL | |
| | 10. DATE STARTED: 05/08/97 | 11. DATE COMPLETED: 05/08/97 |
| 12. OVERBURDEN THICKNESS: 30 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 27 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 30 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-14 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-14 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Drilled straight down to 30 feet for groundwater sample only, no soil sampling or description done. | | | | | Soft to easy penetration |
| 4098 | 2 | | | | | | |
| 4096 | 4 | | | | | | Medium hard drilling from 4-24 feet. |
| 4094 | 6 | | | | | | |
| 4092 | 8 | | | | | | |
| 4090 | 10 | | | | | | |
| 4088 | 12 | | | | | | |
| 4086 | 14 | | | | | | |
| 4084 | 16 | | | | | | |
| 4082 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-14 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4080 | 20 | | | | | | |
| 4078 | 22 | | | | | | |
| 4076 | 24 | | | | | | Hard to very hard drilling from 24-30 feet. |
| 4074 | 26 | | | | | | |
| 4072 | 28 | | | | | | |
| 4070 | 30 | Total depth 30 feet | | | | | Refusal at 30 feet. |
| 4068 | 32 | | | | | | |
| 4066 | 34 | | | | | | |
| 4064 | 36 | | | | | | |

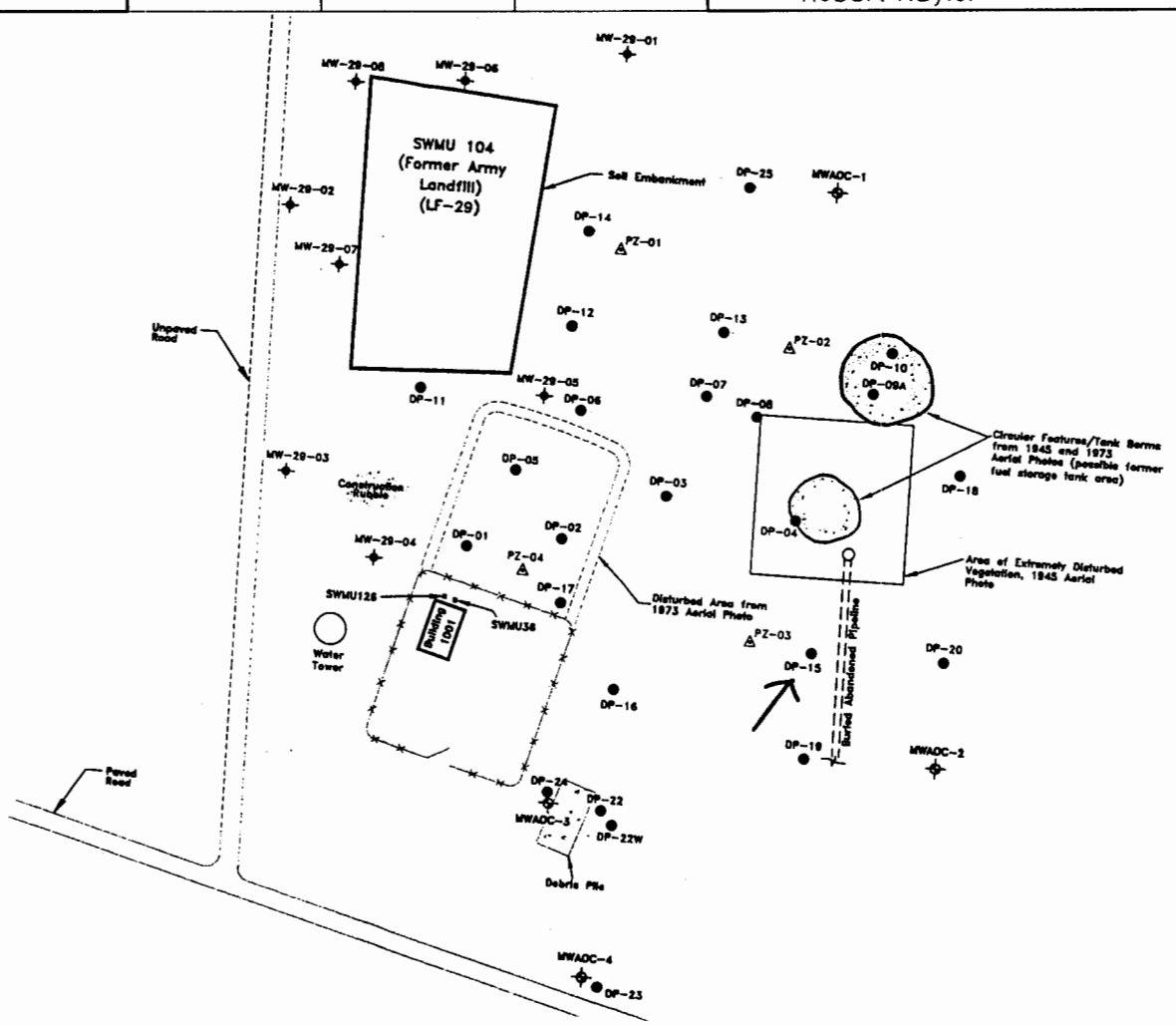
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-15 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676867.21N, 549753.76E | |
| | 9. SURFACE ELEVATION: 4101.40 ft. MSL | |
| | 10. DATE STARTED: 05/06/97 | 11. DATE COMPLETED: 05/06/97 |
| 12. OVERBURDEN THICKNESS: 25 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 21.5 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 25 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: | DP-15 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-15 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | 1-3 ft: (SC) Light silty sand with small gypsum crystals, 10YR 8/1, white, dry. | | | | | PID probably detected moisture, no odor. |
| 4099 | 2 | | | | | | |
| | | 3-6 ft: (SC) Silty sand, dry, no odor, 10YR 7/4, pink. | | | | | No odor, backgound PID 0.7 ppm, could be from rig. |
| 4097 | 4 | | | | | | |
| 4095 | 6 | 6-9 ft: (SC) Silty sand, dry, no odor, 7.5YR 7/4, pink. | | | | | No odor. |
| 4093 | 8 | | | | | | |
| | | 9-12 ft: (SC) Silty sand, very fine 7.5YR 7/4, pink, some moisture. | | | | | No odor. |
| 4091 | 10 | | | | | | |
| 4089 | 12 | 12-15 ft: (SC) Silty sand, very fine 7.5YR 7/4, pink, but becoming more white, damp, no odor. | | | | | No odor. |
| 4087 | 14 | | | | | | |
| | | 15-18 ft: (CL) Silty clay, very red, damp with gypsum, 2.5YR 5/6 red, no odor. | | | | | |
| 4085 | 16 | | | | | | |
| 4083 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-15 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | 18-21 ft: (CL) Clayey silt, damp, plastic with gypsum 2.5YR 5/4 reddish brown. | | | AOC-1001-DP-15 | | No odor. |
| 4081 | 20 | | | | | | |
| | | | | | | | Measured water at 21.5 |
| 4079 | 22 | | | | | | Soft at 22 feet |
| 4077 | 24 | | | | | | |
| | | End of boring, Total depth 25 feet. | | | | | |
| 4075 | 26 | | | | | | |
| 4073 | 28 | | | | | | |
| 4071 | 30 | | | | | | |
| 4069 | 32 | | | | | | |
| 4067 | 34 | | | | | | |
| 4065 | 36 | | | | | | |

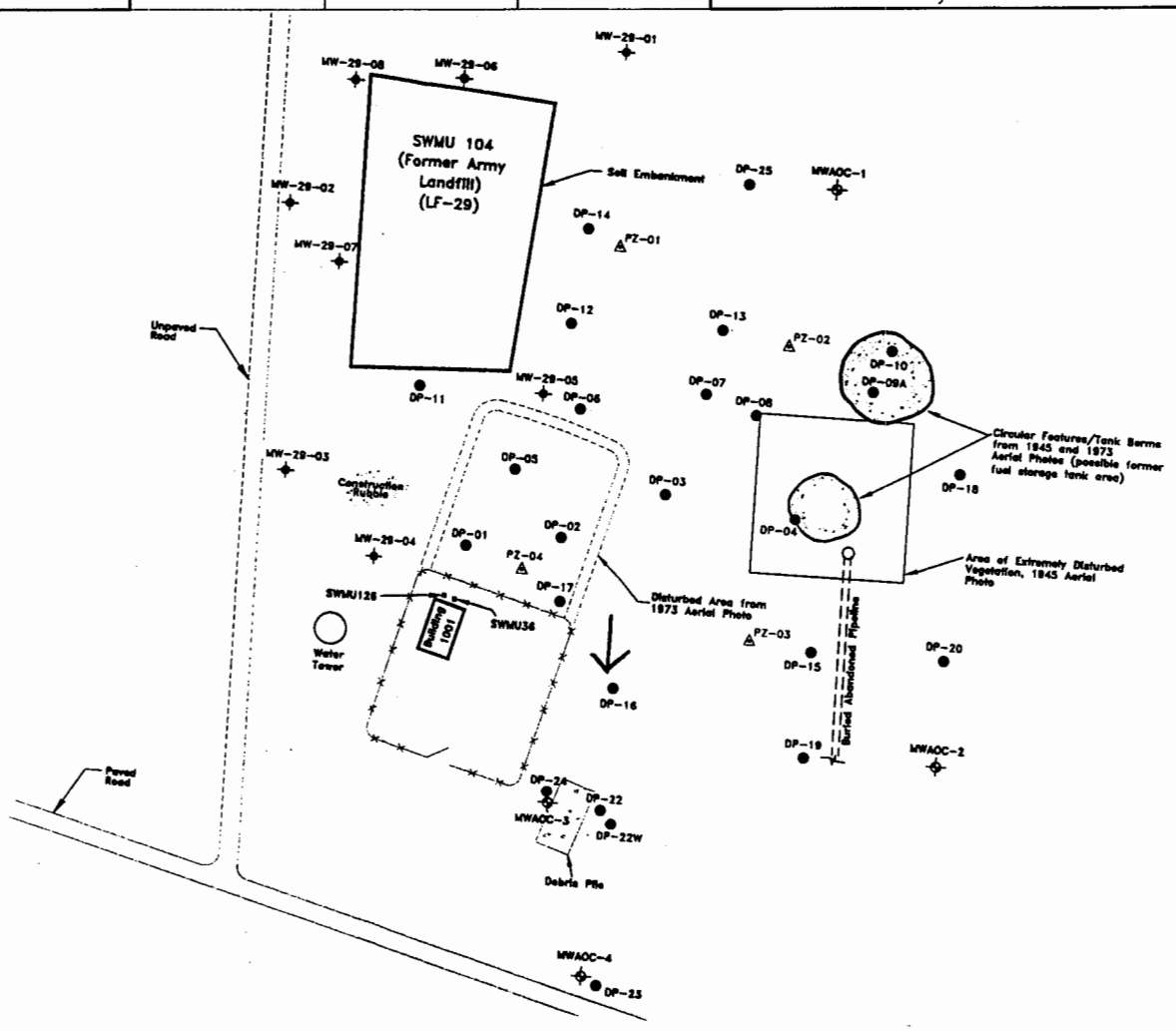
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-16 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676791.76N, 549475.97E | |
| | 9. SURFACE ELEVATION: 4097.56 ft. MSL | |
| | 10. DATE STARTED: 05/06/97 | 11. DATE COMPLETED: 05/06/97 |
| 12. OVERBURDEN THICKNESS: 20 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 16 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 20 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-16 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-16 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | 0-3 ft: (ML) Silty sand 7.5YR 7/3 pink brown, dry. | PID=0.2 ppm | | | | |
| 4096 | 2 | | | | | | 50% recovery |
| 4094 | 4 | 3-6 ft: (ML) Fine light brown, pink, silty t sand, dry 7.5YR 8/3. | PID=0.4 ppm | | | | 100% recovery |
| 4092 | 6 | | | | | | |
| | | 6-9 ft: (ML) Same as above. | PID=0.3 ppm | | | | 100% recovery |
| 4090 | 8 | | | | | | |
| 4088 | 10 | 9-12 ft: (ML) Sandy silty, damp, with gypsum crystals, 5YR 6/4 light reddish brown. | PID=0.0 ppm | | | | Hard drive, split sleeve. |
| 4086 | 12 | | | | | | |
| | | 12-15 ft: (ML) Sandy silt, damp, with gypsum crystals 5YR 6/4, light reddish brown. | PID=0.1 ppm | | AOC-1001-DP-16 | | 100% recovery |
| 4084 | 14 | | | | | | |
| 4082 | 16 | 15-18 ft: (ML) Sandy silt, wet, red brown yellowish red, 5YR 5/8. | PID=0.0 ppm | | | | 100% recovery, sample saturated |
| 4080 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-16 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Water at 16 feet. | | | | | |
| 4078 | 20 | End of boring, Total depth 20 feet. | | | | | Water sampled from 20 feet |
| 4076 | 22 | | | | | | |
| 4074 | 24 | | | | | | |
| 4072 | 26 | | | | | | |
| 4070 | 28 | | | | | | |
| 4068 | 30 | | | | | | |
| 4066 | 32 | | | | | | |
| 4064 | 34 | | | | | | |
| 4062 | 36 | | | | | | |

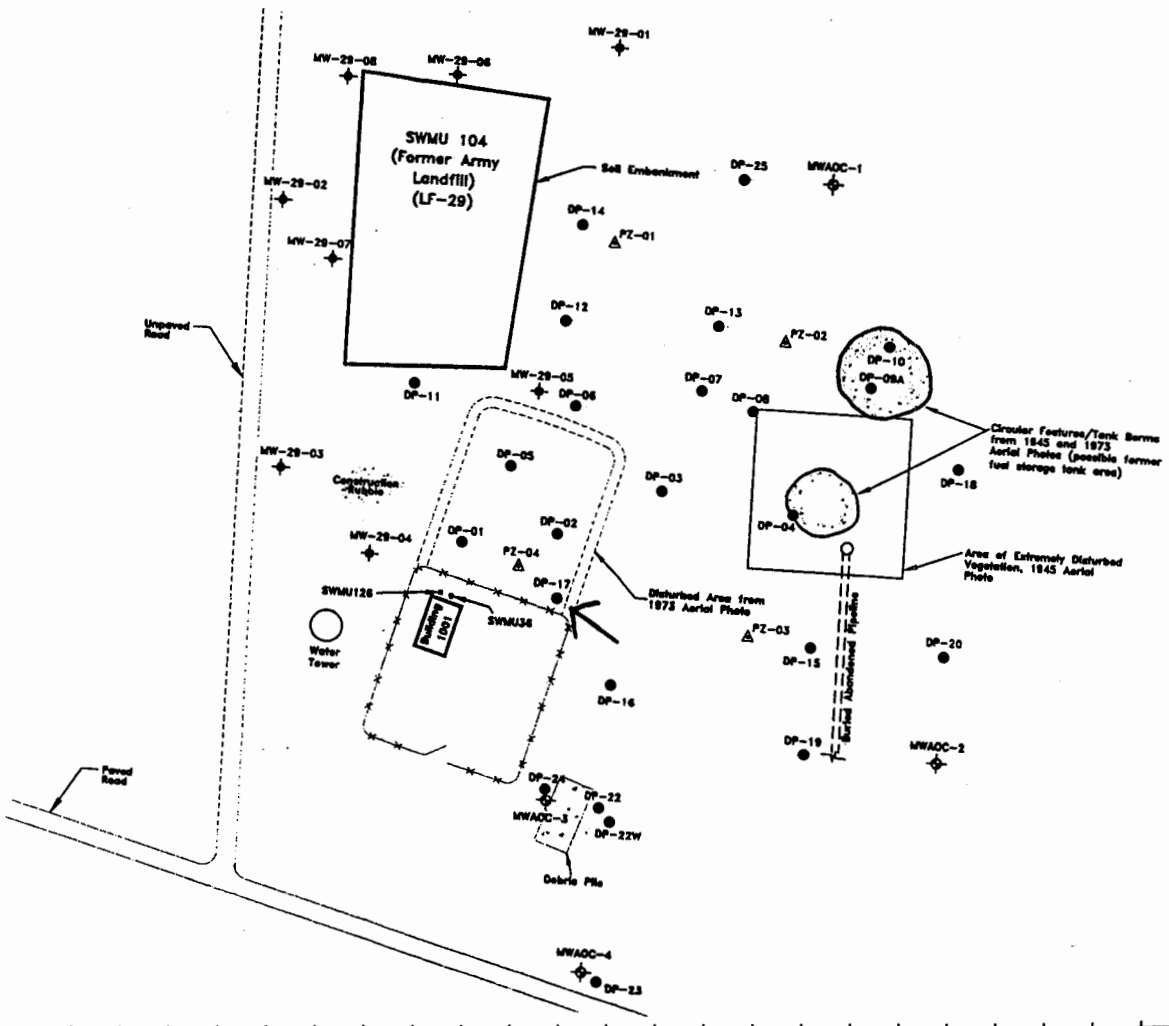
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-17 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676938.22N, 549410.54E | |
| | 9. SURFACE ELEVATION: 4097.79 ft. MSL | |
| | 10. DATE STARTED: 05/08/97 | 11. DATE COMPLETED: 05/08/97 |
| 12. OVERBURDEN THICKNESS: 29 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 27.5 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 29 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-17 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-17 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Medium penetration rate, not logged, slowly penetrate with point for utility check. |
| 4096 | 2 | | | | | | |
| 4094 | 4 | | | | | | |
| | | 5-8 ft: (ML) Silt, dry, very little cohesive, very little very fine sand, no odor. 5YR 5/6 | PID=0.0 ppm | | | | 90% recovery, medium penetration |
| 4092 | 6 | | | | | | |
| 4090 | 8 | 8-11 ft: (ML) Silt, dry, very little cohesive, some very fine sand, gypsum crystals present, no odor, 5YR 6/4. | PID=0.0 ppm | | | | 90% recovery |
| 4088 | 10 | | | | | | |
| | | 11-14 ft: (ML) As above, except 13-14 feet which appears gleyed (2.5YR 8/2), no odor, moist, cohesive, clayey silt | PID=0.5 ppm | | | | 85% recovery |
| 4086 | 12 | | | | | | |
| 4084 | 14 | 14-17 ft: (CL:ML) More clay than above, very moist, cohesive, plastc, gypsum is more prevalent (much more), much redder in appearance 2.5YR 4/6. | PID=0.0 ppm | | AOC-1001-DP-17 | | Became soft at 16 feet, 60% recovery, no odor. |
| 4082 | 16 | | | | | | |
| | | 17-20 ft: 17-18 feet 5YR 4/4 reddish brown, 19-20 feet 5YR 8/1 white, many large (>1/4 inch) gypsum crystals. Bottom 18 inches is gleyed, some black cabanaceous | PID=0.0 ppm | | | | Hard drilling at 19 feet, 90% recovery. Appears to be saturated for entire length. |
| 4080 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-17 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | matter, possibly decayed plant?, moist, cohesive, plastic, standing water is 6 inches in boring after 5 minutes. Soil not sampled due to being saturated. | | | | | |
| 4078 | 20 | | | | | | |
| | | | | | | | Harder at 21 feet |
| 4076 | 22 | | | | | | |
| 4074 | 24 | | | | | | |
| 4072 | 26 | | | | | | |
| 4070 | 28 | | | | | | |
| | | End of boring, Total depth 29 feet. | | | | | Drilling very hard at 29 feet. About 1.5 feet of water in boring after 10 minutes. |
| 4068 | 30 | | | | | | |
| 4066 | 32 | | | | | | |
| 4064 | 34 | | | | | | |
| 4062 | 36 | | | | | | |

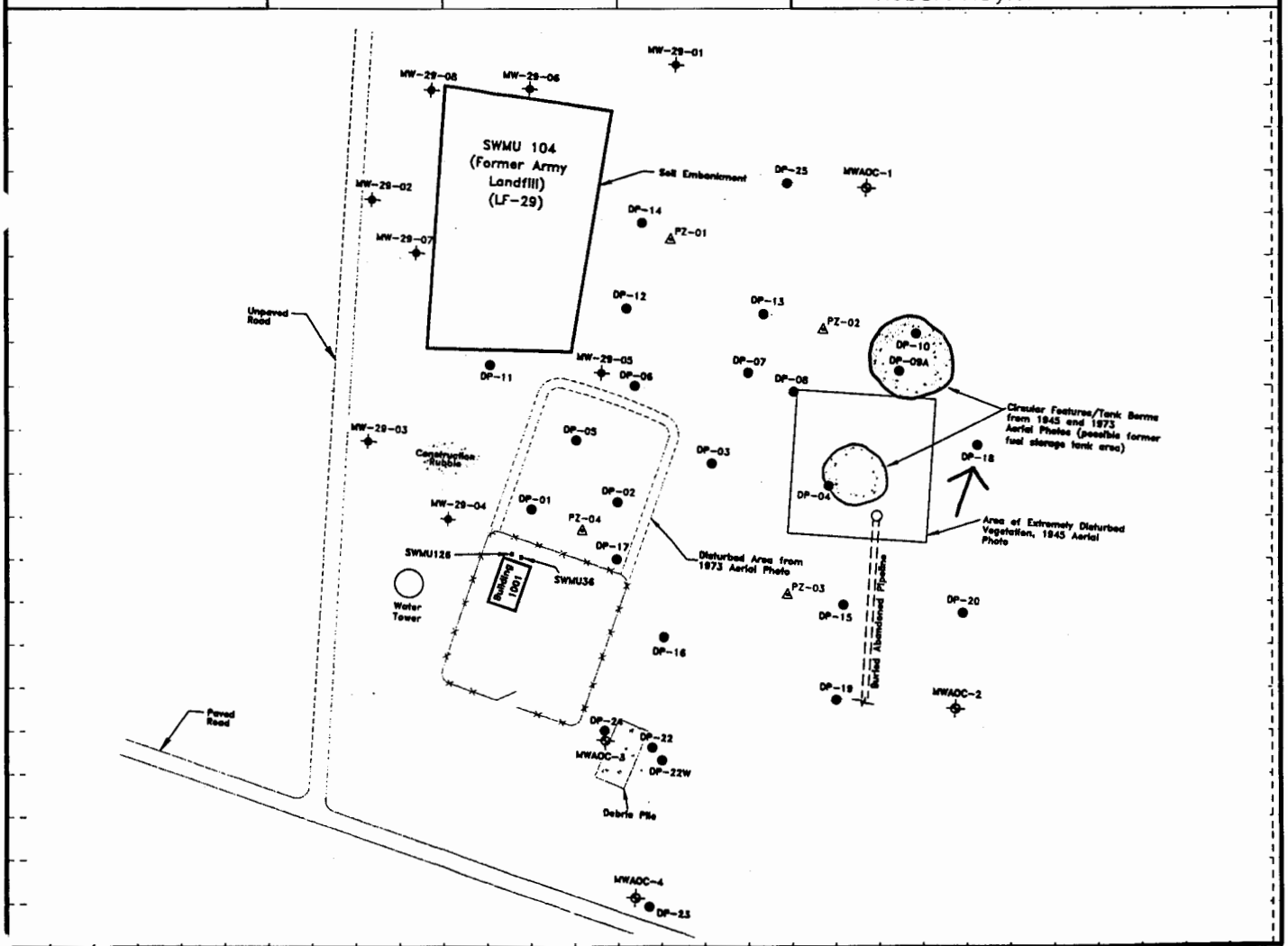
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-18 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 677129.22N, 549997.00E | |
| | 9. SURFACE ELEVATION: 4104.48 ft. MSL | |
| | 10. DATE STARTED: 05/07/97 | 11. DATE COMPLETED: 05/07/97 |
| 12. OVERBURDEN THICKNESS: 34 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 24 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 34 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-18 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-18 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Bored 5 feet for utility clearance. | | | | | Moderate penetration rate |
| 4102 | 2 | | | | | | |
| 4100 | 4 | | | | | | |
| | | 5-8 ft: (SM) Very fine silty sand, light, dry, not cohesive 7.5YR 5/8 brown. | PID=0.0 ppm | | | | No odor |
| 4098 | 6 | | | | | | |
| 4096 | 8 | 8-11 ft: (SM) Very fine silty sand, light, dry, not cohesive 2.5YR 7/6 light red. | PID=0.3 ppm | | | | No odor |
| 4094 | 10 | | | | | | |
| | | 11-14 ft: (SM) Very fine silty sand, slightly more moist and cohesive, 2.5YR 6/4 ight reddish brown. | PID=0.4 ppm | | | | No odor, moderate penetration. |
| 4092 | 12 | | | | | | |
| 4090 | 14 | 14-17 ft: (SM) Sandy silt (very fine sand, maybe 10%), cohesive, moist (slightly), gypsum crystals 5YR 4/4 reddish brown, sample much darker and redder. | PID=0.5 ppm | | | | No odor, moderate penetration |
| 4088 | 16 | | | | | | |
| | | 17-19 ft: (SM) White, wet (very moist), silt with minor clay, cohesive, slightly plastic, 10YR 8/2. | PID=0.6 ppm | | | | Hole sloughed in, so only went to 19 feet, no odor, moderate penetration. |
| 4086 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-18 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | 19-22 ft: (CL) Clay with minor silt, more gypsum present, moist, plastic, cohesive. 10YR 5/6. | PID=0.4 ppm | | AOC-1001-DP-18 | | No odor |
| 4084 | 20 | | | | | | |
| 4082 | 22 | 22-25 ft: Roots and wood chips at 22.5-22.75 feet. (ML) Silt, saturated, some very fine sand, plastic, cohesive, no clay, 5YR 5/6 yellowish red. | | | | | Saturated at 24 feet. Core with no sleeves, no sample collected due to moisture. |
| 4080 | 24 | | | | | | |
| | | End of boring, Total depth 25 feet. | | | | | |
| 4078 | 26 | | | | | | |
| 4076 | 28 | | | | | | |
| 4074 | 30 | | | | | | |
| 4072 | 32 | | | | | | |
| 4070 | 34 | | | | | | |
| 4068 | 36 | | | | | | |

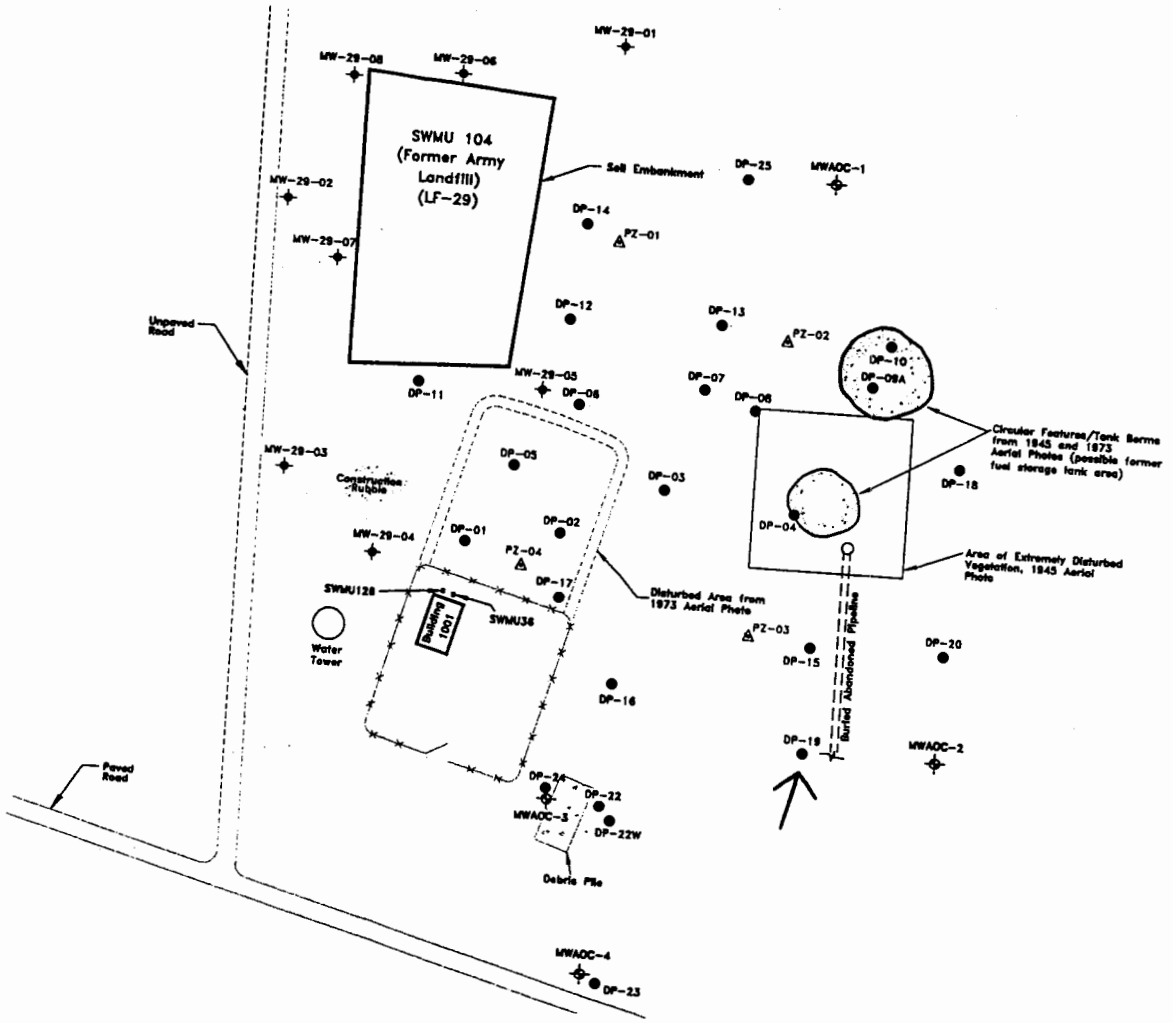
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-19 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676724.92N, 549725.59E | |
| | 9. SURFACE ELEVATION: 4098.64 ft. MSL | |
| | 10. DATE STARTED: 05/08/97 | 11. DATE COMPLETED: 05/08/97 |
| 12. OVERBURDEN THICKNESS: 30 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 29 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 30 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-19 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-19 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Drilled straight down to 30 feet for groundwater sample only, no soil sampling or description done. | | | | | 0-8 feet Moderate easy penetration. |
| 4097 | 2 | | | | | | |
| 4095 | 4 | | | | | | |
| 4093 | 6 | | | | | | |
| 4091 | 8 | | | | | | Very easy. 9-11 feet Penetration very soft. |
| 4089 | 10 | | | | | | 11-21 feet Moderate penetration. |
| 4087 | 12 | | | | | | |
| 4085 | 14 | | | | | | |
| 4083 | 16 | | | | | | |
| 4081 | 18 | | | | | | |

ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI

PROJECT #: 872200082903
SITE NAME DO 8 WAD 29 AOC-1001 RFI

HOLE NO.: DP-19

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-19 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4079 | 20 | | | | | | Drilling becomes hard, difficult penetration. |
| 4077 | 22 | | | | | | |
| 4075 | 24 | | | | | | Penetration is hard. |
| 4073 | 26 | | | | | | |
| 4071 | 28 | | | | | | |
| 4069 | 30 | Total depth 30 feet | | | | | Refusal at 30 feet, End of boring. |
| 4067 | 32 | | | | | | |
| 4065 | 34 | | | | | | |
| 4063 | 36 | | | | | | |

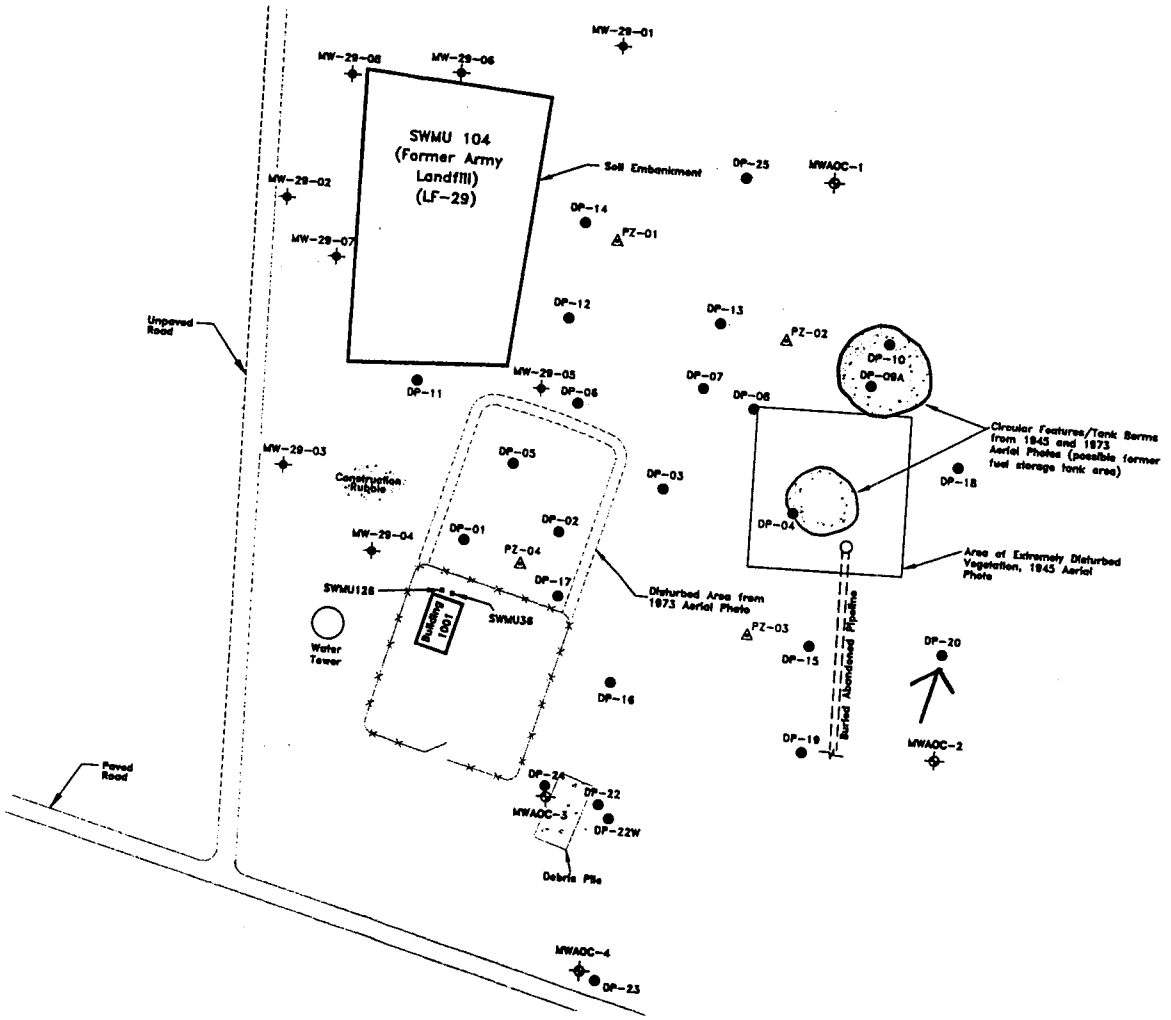
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-20 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676827.68N, 549928.71E | |
| | 9. SURFACE ELEVATION: 4100.87 ft. MSL | |
| | 10. DATE STARTED: 05/08/97 | 11. DATE COMPLETED: 05/08/97 |
| 12. OVERBURDEN THICKNESS: 30 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: NONE | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 30 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-20 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-20 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Drilled straight down to 30 feet for groundwater sample only, no soil sampling or description done. | | | | | Difficult drilling. |
| 4099 | 2 | | | | | | |
| 4097 | 4 | | | | | | |
| 4095 | 6 | | | | | | |
| 4093 | 8 | | | | | | |
| 4091 | 10 | | | | | | |
| 4089 | 12 | | | | | | |
| 4087 | 14 | | | | | | Soft for about 1 to 2 feet, pushing without hammer. |
| 4085 | 16 | | | | | | Very hard drilling for about 6 inches. |
| | | | | | | | Medium hard drilling again. |
| 4083 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-20 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4081 | 20 | | | | | | Medium hard drilling. |
| 4079 | 22 | | | | | | |
| 4077 | 24 | | | | | | |
| 4075 | 26 | | | | | | |
| 4073 | 28 | | | | | | Very hard drilling. |
| 4071 | 30 | Total depth 30 feet | | | | | Refusal at 30 feet, very hard, End of boring. |
| 4069 | 32 | | | | | | |
| 4067 | 34 | | | | | | |
| 4065 | 36 | | | | | | |

18 20 22 24 26 28 30 32 34 36

ENG FORM 5056-R, AUG 94
by Fluor Daniel GTI

PROJECT #: 872200082903
SITE NAME DO 8 WAD 29 AOC-1001 RFI

HOLE NO.: DP-20

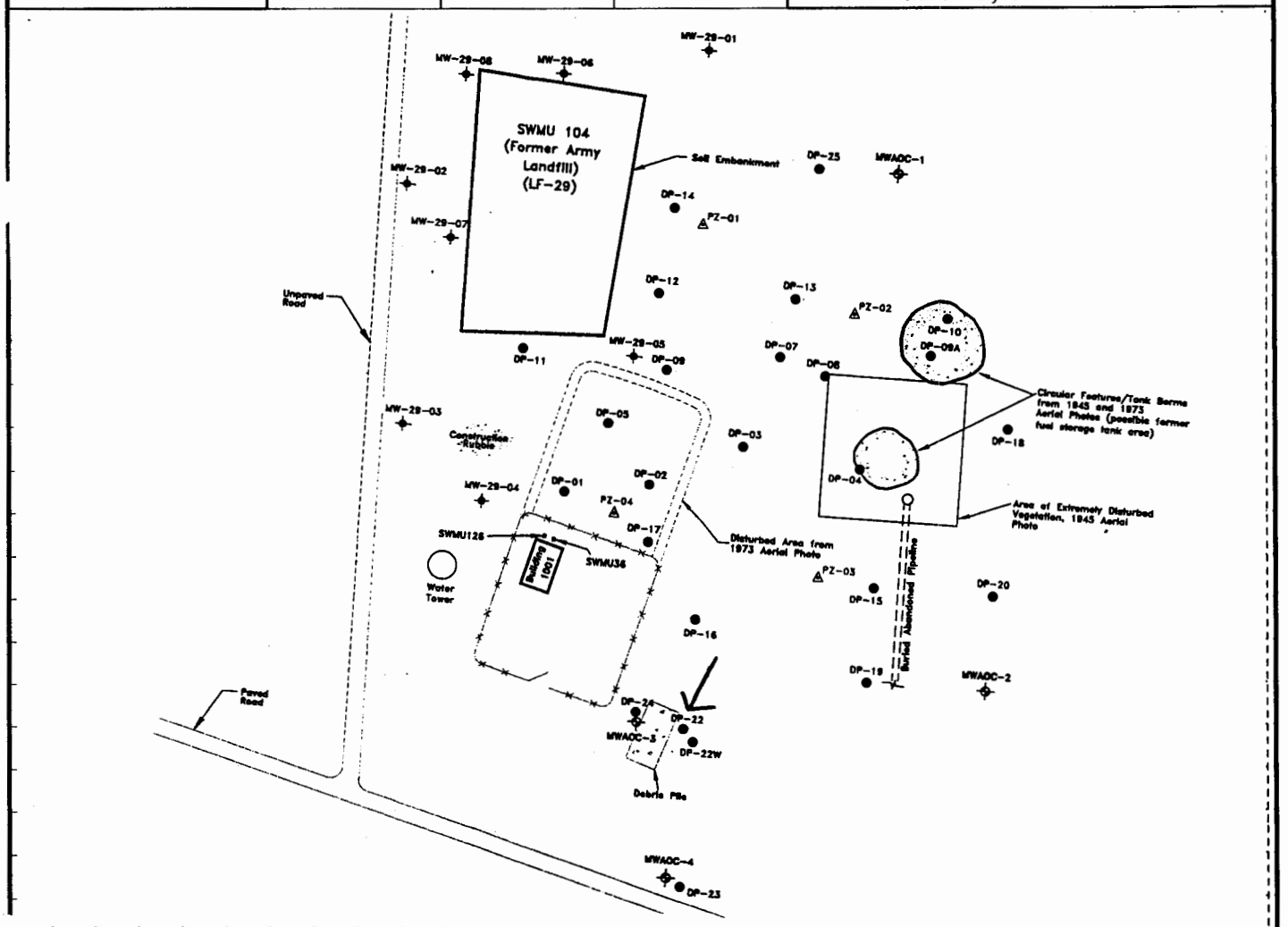
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-22 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676614.47N, 549441.19E | |
| | 9. SURFACE ELEVATION: 4095.20 ft. MSL | |
| | 10. DATE STARTED: 05/07/97 | 11. DATE COMPLETED: 05/07/97 |
| 12. OVERBURDEN THICKNESS: 26 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 18 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 26 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-22 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-22 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | 0 | | | | | | Not sampled, slowly pushed through for utility clearance, very soft drilling |
| 4093 | 2 | | | | | | |
| 4091 | 4 | | | | | | |
| | | 5-8 ft: (SM) Sandy silt with rounded gravel, slightly moist, not cohesive, 7.5YR 4/3 brown. | | | | | Very soft, 40% recovery, no odor. Insufficient recovery for headspace reading. |
| 4089 | 6 | | | | | | |
| 4087 | 8 | 8-11 ft: (SM) Sandy silt, visibly stained, strong PHC odor, light brown, moist and cohesive. | PID=1.0 ppm | | | | 50% recovery, strong gasoline odor (diesel maybe?), smells like aged gasoline, 430 ppm measured with PID inside drill rods, 0% LEL. |
| 4085 | 10 | | | | | | |
| | | End of boring, refusal. Driller says it feels like a metallic object, possibly a UST. 1 Gley 6/1 greenish gray. Moved about 25 feet east and redrilled hole to 12 feet before continuing logging cuttings. | PID=1792 ppm | | AOC-1001-DP-22 | | Very strong hydrocarbon odor, visible staining. |
| 4083 | 12 | 12-15 ft: (ML:CL) Some asphalt (?) at about 13.5 feet. Gravel and coarse gravel in upper foot (destroyed sleeve), visible discoloration in areas of the core near the base. Clayey silt, with lots of gypsum 5YR 4/6. | PID=0.6 ppm | | | | Very difficult penetration, very slight hydrocarbon odor. |
| 4081 | 14 | | | | | | |
| | | 15-18 ft: (ML:CL) Very moist, cohesive, slight very light greenish colorization, clayey silt, 5YR 4/6. | PID=19.5 ppm | | | | Medium soft penetration, cores very moist, 6 inches of water in boring after 5 minutes, no odor. |
| 4079 | 16 | | | | | | |
| 4077 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-22 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | No further soil sampling due to saturated condition. | | | | | Very soft penetration from 18-19.5 feet then medium hard to 22 feet, 22-26 feet medium soft. |
| 4075 | 20 | | | | | | |
| 4073 | 22 | | | | | | |
| 4071 | 24 | | | | | | |
| 4069 | 26 | End of boring, Total depth 26 feet. >8 feet of water in boring. | | | | | |
| 4067 | 28 | | | | | | |
| 4065 | 30 | | | | | | |
| 4063 | 32 | | | | | | |
| 4061 | 34 | | | | | | |
| 4059 | 36 | | | | | | |

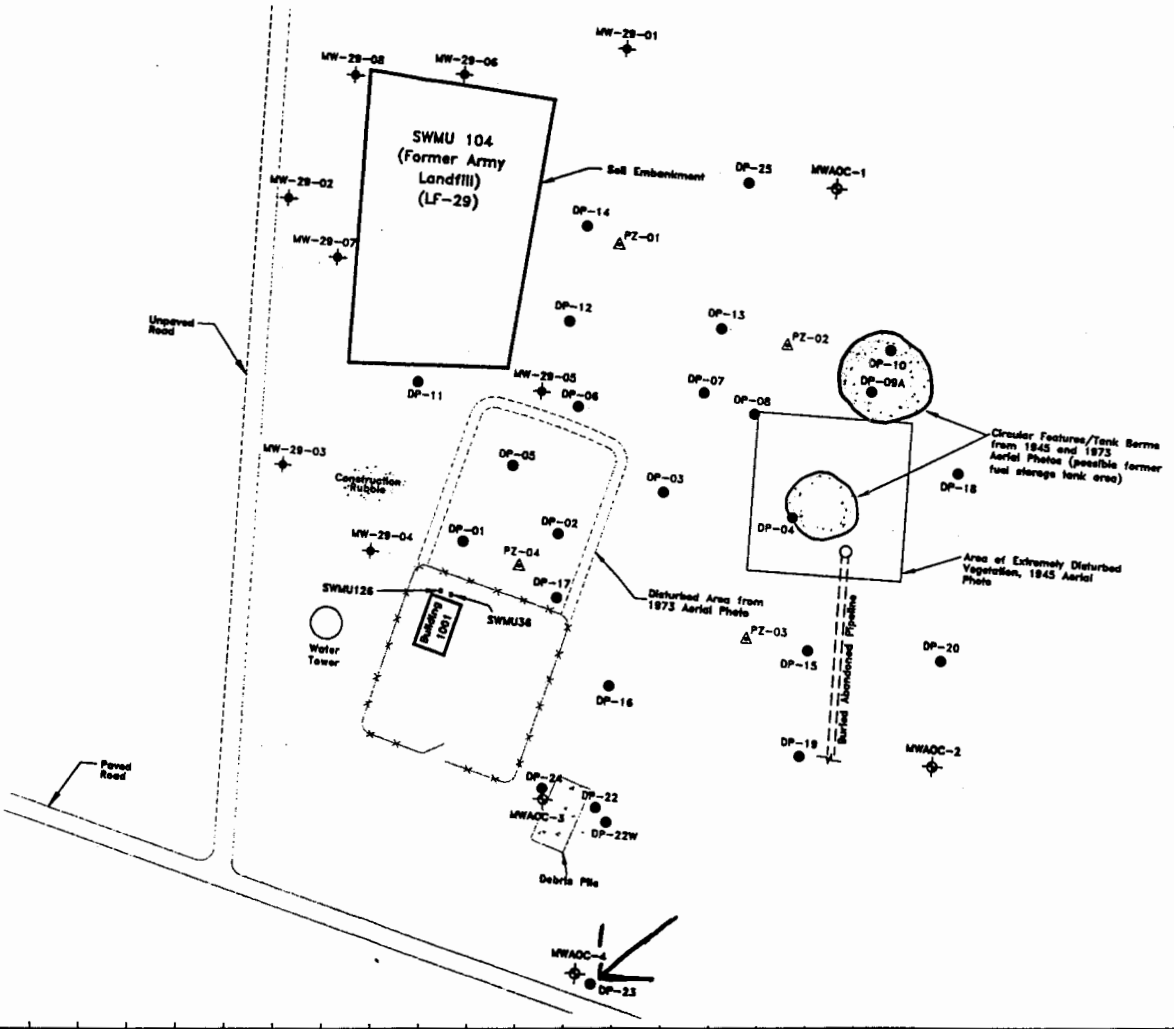
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-23 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676477.23N, 549396.43E | |
| | 9. SURFACE ELEVATION: 4092.96 ft. MSL | |
| | 10. DATE STARTED: 05/09/97 | 11. DATE COMPLETED: 05/09/97 |
| 12. OVERBURDEN THICKNESS: 20 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 17 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 20 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |



# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-23 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | 0 | | | | | | Medium penetration rate. |
| 4091 | 2 | | | | | | |
| | | | | | | | Very soft penetration. |
| 4089 | 4 | | | | | | |
| | | 5-8 ft: Clayey silt (ML), very slightly cohesive, 5-7 feet: homogeneous, red-brown, moist silt. | PID=0.0 ppm | | | | 80% recovery, no odor, very soft from 5-7 feet, moderate 7-8 feet. |
| 4087 | 6 | | | | | | |
| | | 7-8 ft: Gleyed, clayey silt (ML), very little moisture, gray-white. | | | | | |
| 4085 | 8 | 8-11 ft: (CL:ML) Clay silt, moist, plastic, gypsum crystals, 5YR 5/4. | PID=0.0 ppm | | | | 100% recovery, no odor, moderate hard penetration. |
| 4083 | 10 | | | | | | |
| | | 11-14 ft: (CL:ML) Clay, silt, moist, cohesive, some gypsum, very plastic, 5YR 5/4. | PID=0.0 ppm | | | | 100% recovery, soft 12-13.5 feet, no odor. |
| 4081 | 12 | | | | | | |
| 4079 | 14 | 14-17 ft: (CL) Clay, moist, plastic, cohesive, color is lighter thatn above, fair amount of gypsum (crystalline and non crystals) 7.5YR 5/4. | PID=17.1 ppm | | | | 100% recovery, no odor, soft 14-16 feet. |
| 4077 | 16 | | | | | | |
| | | 17-20 ft: This core saturated, measured 5 feet of standing water in hole, strong solvent odor. Lithology as above, except last 0.5 feet gleyed, silty clay, 2.5YR 8 - white. | PID=909.4 ppm | | AOC-1001-DP-23 | | Hard 17-18.5 feet. |
| 4075 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-23 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Soft drilling 18.5-20 feet. |
| 4073 | 20 | End of boring, Total depth 20 feet. | | | | | Total depth at 20 feet. |
| 4071 | 22 | | | | | | |
| 4069 | 24 | | | | | | |
| 4067 | 26 | | | | | | |
| 4065 | 28 | | | | | | |
| 4063 | 30 | | | | | | |
| 4061 | 32 | | | | | | |
| 4059 | 34 | | | | | | |
| 4057 | 36 | | | | | | |

18 20 22 24 26 28 30 32 34 36

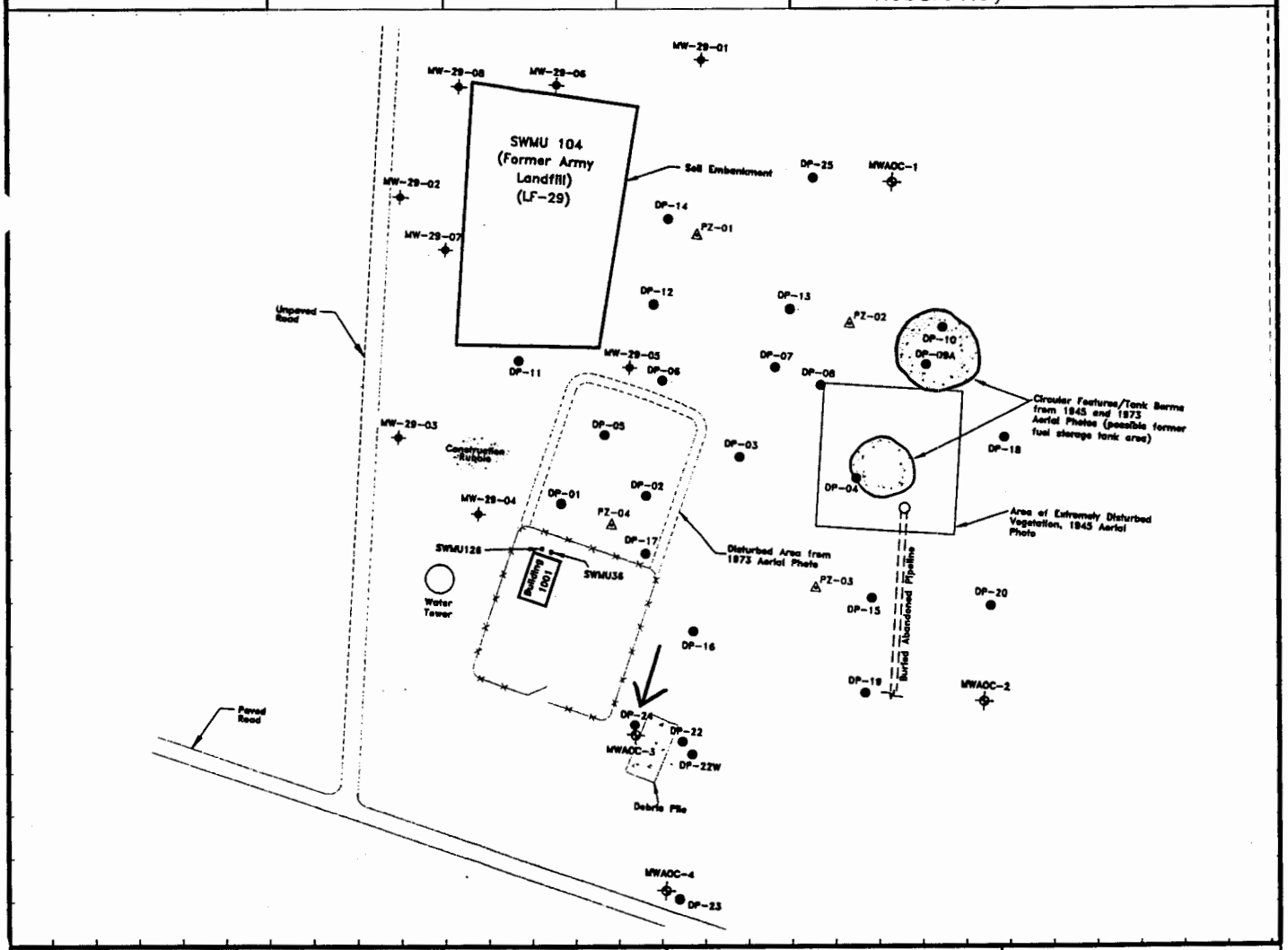
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | HOLE NO.: DP-24 | |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 676695.15N, 549372.63E | |
| | 9. SURFACE ELEVATION: 4095.57 ft. MSL | |
| | 10. DATE STARTED: 05/09/97 | 11. DATE COMPLETED: 05/09/97 |
| 12. OVERBURDEN THICKNESS: 23 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 20 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 23 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-24 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-24 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Hard for 1-2 feet, then pushed from 3-5 feet. |
| 4094 | 2 | | | | | | |
| 4092 | 4 | | | | | | |
| | | 5-8 ft: (ML) Fill from 5-6 feet, slight moisture, slight cohesive, silt, 7.5YR 6/6. | PID=0.0 ppm | | | | Moderately hard drilling, no odor, 100% recovery. |
| 4090 | 6 | | | | | | |
| 4088 | 8 | 8-11 ft: (ML) Silt with some gypsum, very slight moisture, cohesive, 7.5YR 6/6. | PID=0.2 ppm | | | | 100% recovery, no odor. |
| 4086 | 10 | | | | | | |
| | | 11-14 ft: (ML) Clayey silt, moist, very cohesive, plastic, 5YR 4/4, no gypsum, very homogenous, upper foot appears gleyed (white). | PID=0.0 ppm | | | | 100% recovery, possible slight undefined odor. |
| 4084 | 12 | | | | | | |
| 4082 | 14 | 14-17 ft: (ML) Clayey silt, slightly moist, moderate cohesive, gleyed, some large gypsum crystals, 2.5YR 8/1 white. | PID=3.1 ppm | | | | 80% recovery, no odor. |
| 4080 | 16 | | | | | | |
| | | 17-20 ft: (ML) Clayey silt, homogenous, cohesive, plastic, 2.5YR 4/4. | PID=79.1 ppm | | AOC-1001-DP-24 | | 100% recovery, possible slight odor |
| 4078 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-24 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4076 | 20 | 20-23 ft: (ML) Clayey silt, very homogenous, very moist, plastic, cohesive, 5YR 5/6. | | | | | Hit water at 20 feet. |
| 4074 | 22 | | | | | | |
| | | End of boring, Total depth 23 feet. | | | | | |
| 4072 | 24 | | | | | | |
| 4070 | 26 | | | | | | |
| 4068 | 28 | | | | | | |
| 4066 | 30 | | | | | | |
| 4064 | 32 | | | | | | |
| 4062 | 34 | | | | | | |
| 4060 | 36 | | | | | | |

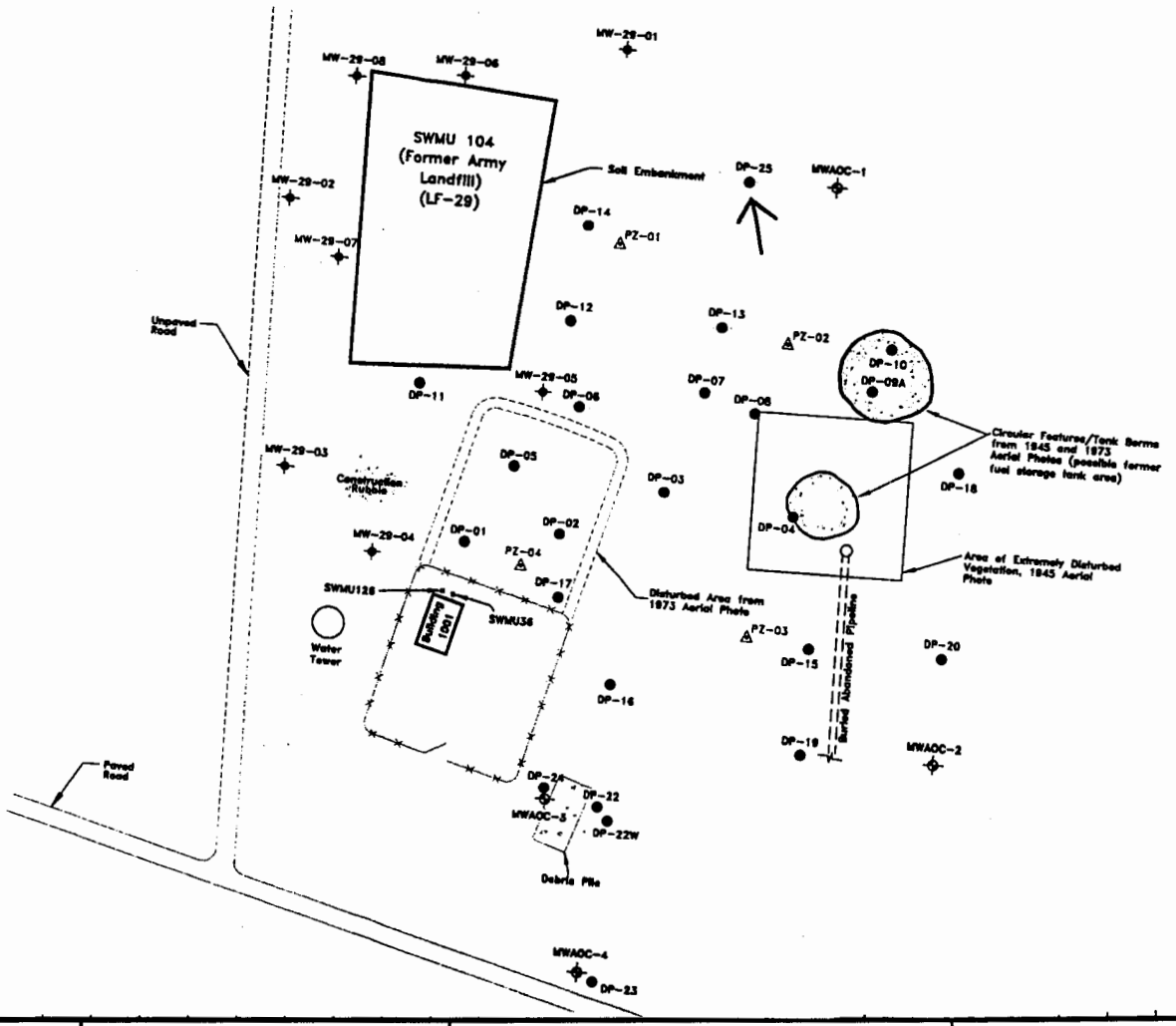
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: DP-25 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Transglobal Environmental Geosciences | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Todd Klein | 6. MANUFACTURERS DESIGNATION OF DRILL: Strataprobe DPT | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: DPT Strataprobe; 2" split spoon sampler; 2.5" borehole | 8. HOLE LOCATION: 677817.55N, 549470.50E | |
| | 9. SURFACE ELEVATION: 4102.76 ft. MSL | |
| | 10. DATE STARTED: 05/09/97 | 11. DATE COMPLETED: 05/09/97 |
| 12. OVERBURDEN THICKNESS: 32 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 26 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 32 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| | Y | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: DP-25 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-25 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Drilled straight to 32 feet for groundwater sample only, no soil sampling or description done. | | | | | Moderately hard drilling |
| 4101 | 2 | | | | | | |
| | | | | | | | Soft drilling |
| 4099 | 4 | | | | | | Moderately hard drilling |
| 4097 | 6 | | | | | | |
| | | | | | | | Soft drilling |
| 4095 | 8 | | | | | | Moderately hard drilling |
| 4093 | 10 | | | | | | |
| 4091 | 12 | | | | | | |
| 4089 | 14 | | | | | | Very, very soft at 14 feet. |
| 4087 | 16 | | | | | | |
| | | | | | | | Very hard for 6 inches |
| | | | | | | | Very soft .d-20 Medium penetration rate |
| 4085 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | DP-25 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4083 | 20 | | | | | | |
| 4081 | 22 | | | | | | |
| 4079 | 24 | | | | | | Medium hard |
| 4077 | 26 | | | | | | Very soft |
| 4075 | 28 | | | | | | |
| 4073 | 30 | | | | | | Medium to medium hard penetration |
| 4071 | 32 | End of boring, Total depth 32 feet. | | | | | Refusal at 32 feet. |
| 4069 | 34 | | | | | | |
| 4067 | 36 | | | | | | |

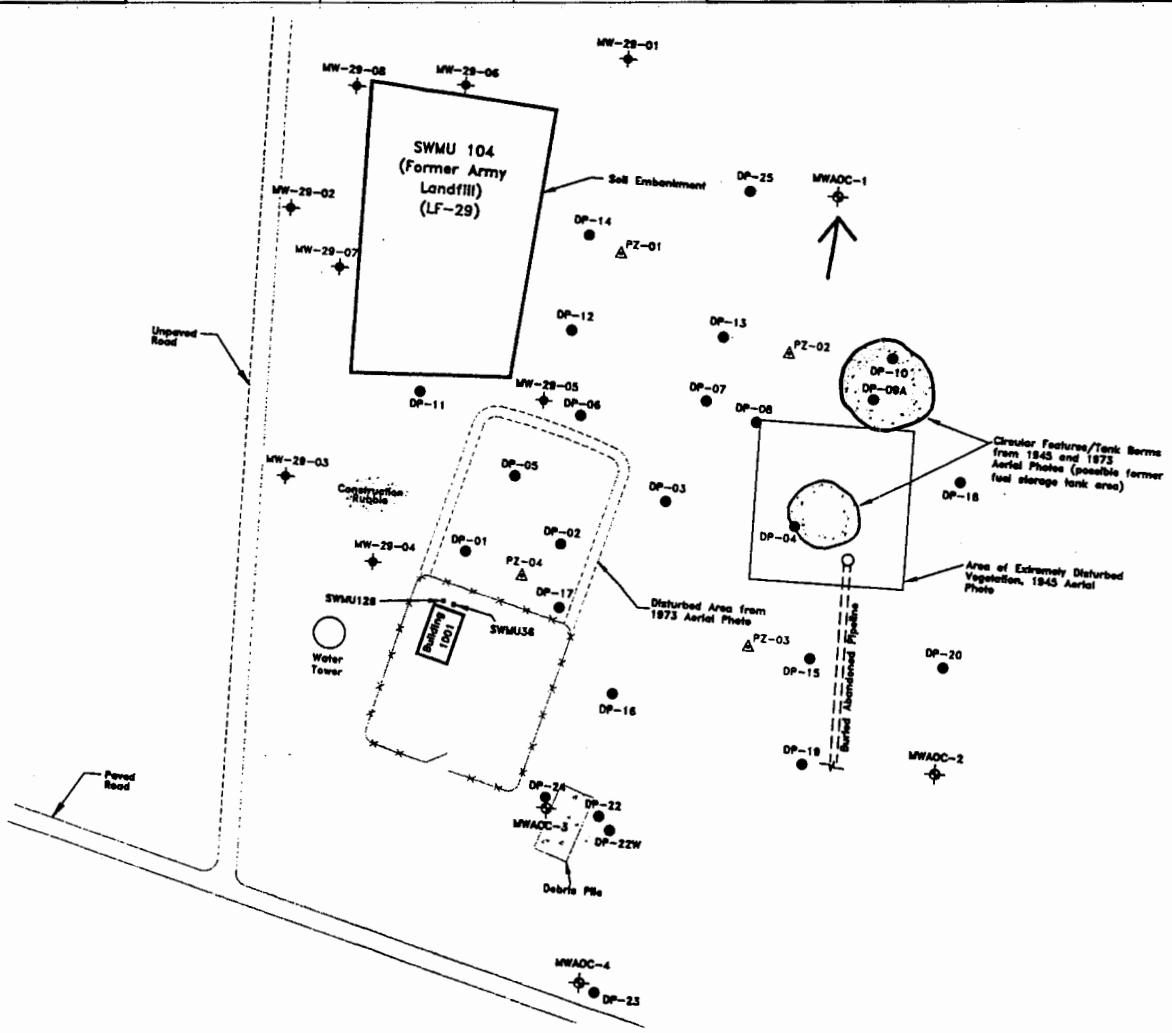
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: MWAOC-1 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 2" Modified SS; 140 lb hammer | 8. HOLE LOCATION: 677780.94N, 549753.47E | |
| | 9. SURFACE ELEVATION: 4110.06 ft. MSL | |
| | 10. DATE STARTED: 05/12/97 | 11. DATE COMPLETED: 05/12/97 |
| 12. OVERBURDEN THICKNESS: 35 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 34 ft. | |
| 13. DEPTH DRILLED INTO ROCK: NA | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 35 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): 30.79 | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Monitoring Well | N | N | N | Robert Naylor |




| | | |
|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903<br>SITE NAME: DO 8 WAD 29 AOC-1001 RFI | HOLE NO.: MWAOC-1 |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-1 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Fine silt, dry, not very cohesive |
| 4108 | 2 | | | | | | |
| 4106 | 4 | | | | | | |
| | | 5-7 ft: (SC) Silt, very minor very fine sand, very slight moisture, not very cohesive; homogeneous. | | | | | 40% recovery, not enough for sample. No odor. |
| 4104 | 6 | | PID=0.6 ppm | | | 12<br>10<br>11<br>10 | |
| | | | | | | | Turns red at 8 feet. Appears to be more moist. |
| 4102 | 8 | | | | | | |
| 4100 | 10 | 10-12 ft: (SC) Silt, very slight moisture, not very cohesive, homogeneous 7.5YR 7/4 pink. | | | | | 40% recovery, not enough for a lab sample. No odor. |
| | | | PID=0.4 ppm | | | 10<br>13<br>32<br>28 | |
| 4098 | 12 | | | | | | |
| 4096 | 14 | | | | | | |
| | | 15-17 ft: (SC) Silt, very slight moisture, not very cohesive, homogeous 7.5YR 7/4 pink. | | | | | |
| 4094 | 16 | | | | | 20<br>45<br>68<br>80+ | |
| | | | | | | | Rig stalled at 17.5 feet. Cuttings are |
| 4092 | 18 | | | | | | |

| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: MWAOC-1 |
|---|---|---|
| | SITE NAME DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-1 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | darker red brown with slightly more moisture. |
| 4090 | 20 | 20-22 ft: (CL) Silty clay, moist, gypsum crystals, plastic, cohesive, gleyed at bottom, 20-21 feet, 5YR 4/6. | | | | 10 >50 | Very hard. Stopped hammering at 50 counts. Cuttings moist. No odor. 20% recovery - insufficient for sample. |
| 4088 | 22 | | | | | | Still hard drilling, slow penetration. |
| 4086 | 24 | | | | | | Slightly softer. |
| | | 25-27 ft: (CL) Sandy clay, darker, moderate moisture, slightly plastic, lots of gypsum crystals 7.5YR 4/6. | | | | | |
| 4084 | 26 | | | | | 13 22 27 29 | |
| 4082 | 28 | | | | | | |
| 4080 | 30 | 30-32 ft: (SC) Silt, moderately moist, abundant gypsum with small black flecks 10YR 6/3. | | | | | Slow penetration, 100% recovery for 30-31 feet. |
| | | | | | MW AOC-1 | 19 >50 | |
| 4078 | 32 | | | | | | Well screened from 25-35 feet, 0.020 inch slot. |
| 4076 | 34 | | | | | | Moist from 34=35 feet. |
| | | Total depth 35 | | | | | |
| 4074 | 36 | | | | | | |

| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: MWAOC-1 |
|---|---|---|
| | SITE NAME DO 8 WAD 29 AOC-1001 RFI | |

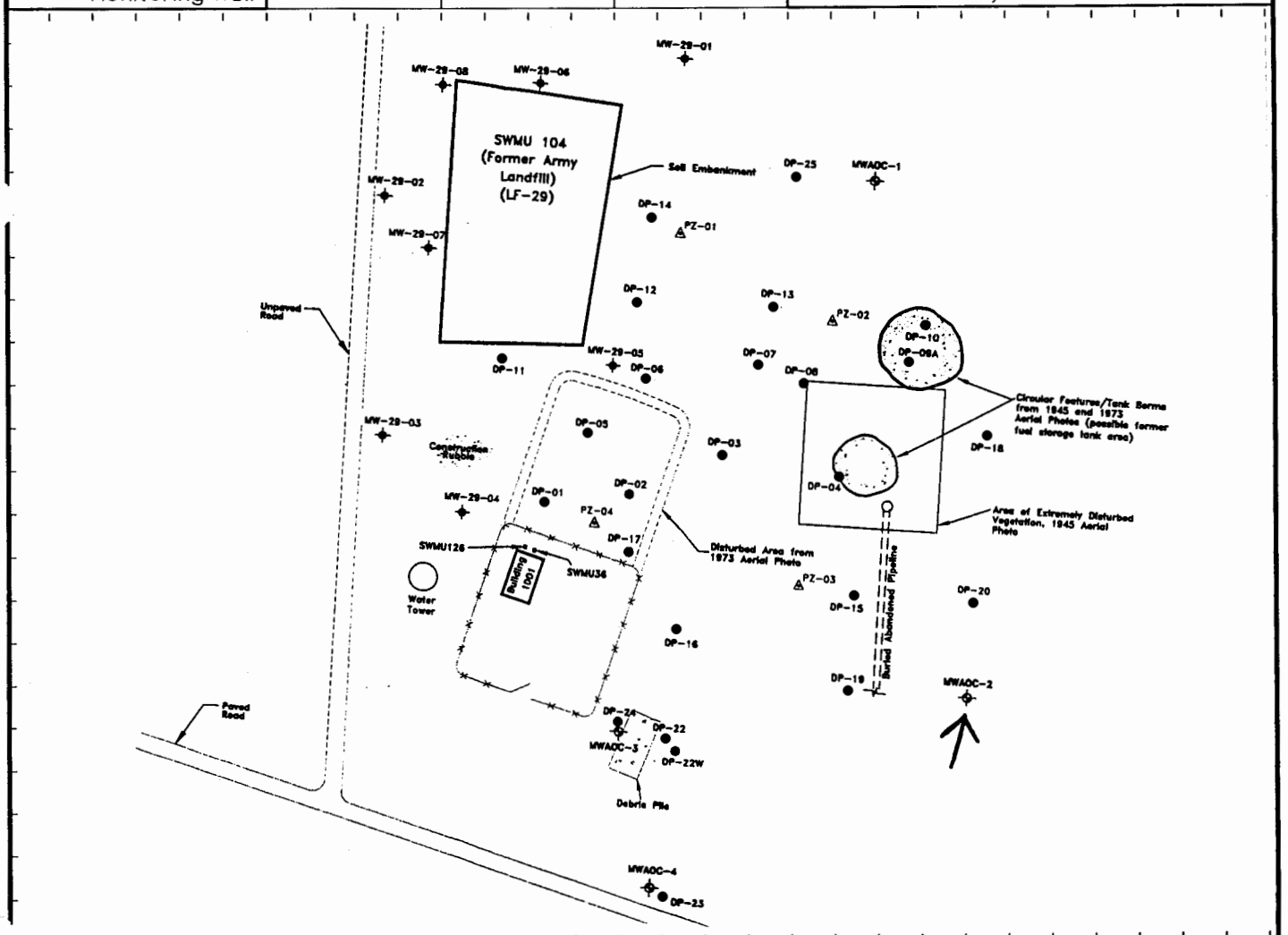
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: MWAOC-2 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 2" Modified SS; 140 lb hammer | 8. HOLE LOCATION: 676647.86N, 549919.01E | |
| | 9. SURFACE ELEVATION: 4103.11 ft. MSL | |
| | 10. DATE STARTED: 05/12/97 | 11. DATE COMPLETED: 05/13/97 |
| 12. OVERBURDEN THICKNESS: 27 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 21 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 6. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 27 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): 21.90 | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Monitoring Well | N | N | N | Robert Naylor |




| | | |
|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903<br>SITE NAME: DO 8 WAD 29 AOC-1001 RFI | HOLE NO.: MWAOC-2 |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-2 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4101 | 2 | | | | | | |
| 4099 | 4 | | | | | | |
| | | 5-7 ft: (ML) Clayey silt, dry, not cohesive 10YR 8/2 very pale brown. | | | | | 75% recovery. No odor. |
| 4097 | 6 | | PID=0.0 ppm | | | 14<br>25<br>33<br>32 | |
| 4095 | 8 | | | | | | |
| 4093 | 10 | 10-12 ft: (ML) Clayey silt, dry, not cohesive, some gypsum, 5YR 8/2 pinkish white. | | | | | 50% recovery. |
| | | | PID=0.7 ppm | | | 14<br>32<br>37<br>38 | |
| 4091 | 12 | | | | | | |
| 4089 | 14 | | | | | | |
| | | 15-17 ft: (ML) Very moist, clayey silt, cohesive, homogeneous, 2.5YR 7/2 light gray. | | | | | 50% recovery. No odor. |
| 4087 | 16 | | | | | 6<br>5<br>4<br>4 | |
| | | | | | | | Screened from 17-27 feet, 0.020 inch slot. |
| 4085 | 18 | Very moist cuttings | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-2 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4083 | 20 | 20-22 ft: (ML) Clayey silt, slots of gypsum crystals, 5YR 5/4. Very moist, some very little water standing in hole after a few minutes. | PID=24 ppm | | MWAOC-2 | 5<br>8<br>14<br>14 | 100% recovery. |
| 4081 | 22 | | | | | | Turns redder at 22.5 to 23 feet |
| 4079 | 24 | | | | | | |
| 4077 | 26 | | | | | | Total depth for today (5/12/97)<br>6 feet of water in boring. Drilled 2 more feet so to have 8 feet of water in well |
| | | Total depth 27 | | | | | Total Depth at 27 feet. |
| 4075 | 28 | | | | | | |
| 4073 | 30 | | | | | | |
| 4071 | 32 | | | | | | |
| 4069 | 34 | | | | | | |
| 4067 | 36 | | | | | | |

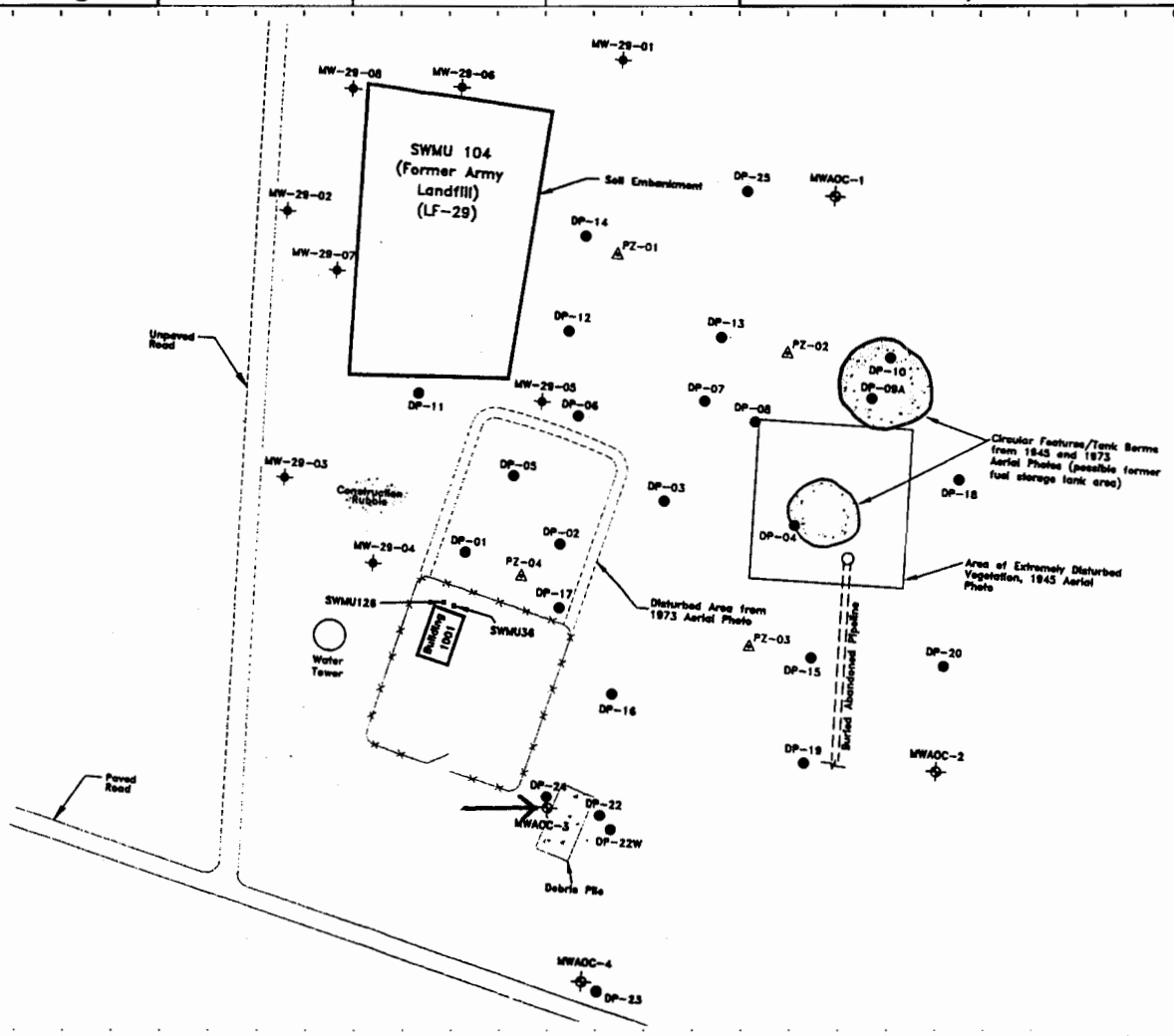
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: MWAOC-3 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 2" Modified SS; 140 lb hammer | 8. HOLE LOCATION: 676687.92N, 549372.51E | |
| | 9. SURFACE ELEVATION: 4098.41 ft. MSL | |
| | 10. DATE STARTED: 05/13/97 | 11. DATE COMPLETED: 05/13/97 |
| 12. OVERBURDEN THICKNESS: 25 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 18 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 25 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): 18.33 | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Monitoring Well | N | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903<br>SITE NAME: DO 8 WAD 29 AOC-1001 RFI | HOLE NO.: MWAOC-3 | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-3 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | Slow drilling for 0-5 feet as precaution regarding utilities. | | | | | Becomes slightly darker at 1 foot. |
| 4096 | 2 | | | | | | |
| 4094 | 4 | | | | | | Becomes slightly more moiste at 4 feet. |
| | | 5-7 ft: (ML) Silt with some very minor gypsum, homogeneous, slight cohesive, 7.5YR 6/5 | | | | | 90% recovery. No odor. |
| 4092 | 6 | | PID=0.8 ppm | | | 11<br>13<br>12<br>14 | |
| | | | | | | | Becomes reddish at 7-8 feet. |
| 4090 | 8 | | | | | | |
| 4088 | 10 | 10-12 ft: (ML) Clayey silt, cohesive, slight to moderate moisture, abundant gypsum. 2.5YR 4/6 | | | | | 100% recovery. No odor. |
| | | | PID=0.6 ppm | | | 10<br>25<br>36<br>>50 | |
| 4086 | 12 | | | | | | |
| | | Red brown clay, homogeneous, moist, cohesive, plastic. | | | | | Slightly more moisture, sofy, easy penetration |
| 4084 | 14 | | | | | | |
| 4082 | 16 | | | | | | |
| 4080 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-3 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | 18-20 ft: (CL) Clay, moist, cohesive, plastic, moderate gypsum present, 5YR 5/6. | | | MWAOC-3 | 7<br>13<br>16<br>16 | 100% recovery. No odor. Entire length of spoon is saturated |
| 4078 | 20 | | | | | | |
| | | Not logged due to saturation | | | | | Screened from 15-25 feet, 0.020 inch slot. |
| 4076 | 22 | | | | | | |
| 4074 | 24 | | | | | | |
| | | Total depth 25 | | | | | Total Depth at 25 feet. |
| 4072 | 26 | | | | | | |
| 4070 | 28 | | | | | | |
| 4068 | 30 | | | | | | |
| 4066 | 32 | | | | | | |
| 4064 | 34 | | | | | | |
| 4062 | 36 | | | | | | |

ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI

PROJECT #: 872200082903

SITE NAME DO 8 WAD 29 AOC-1001 RFI

HOLE NO.: MWAOC-3

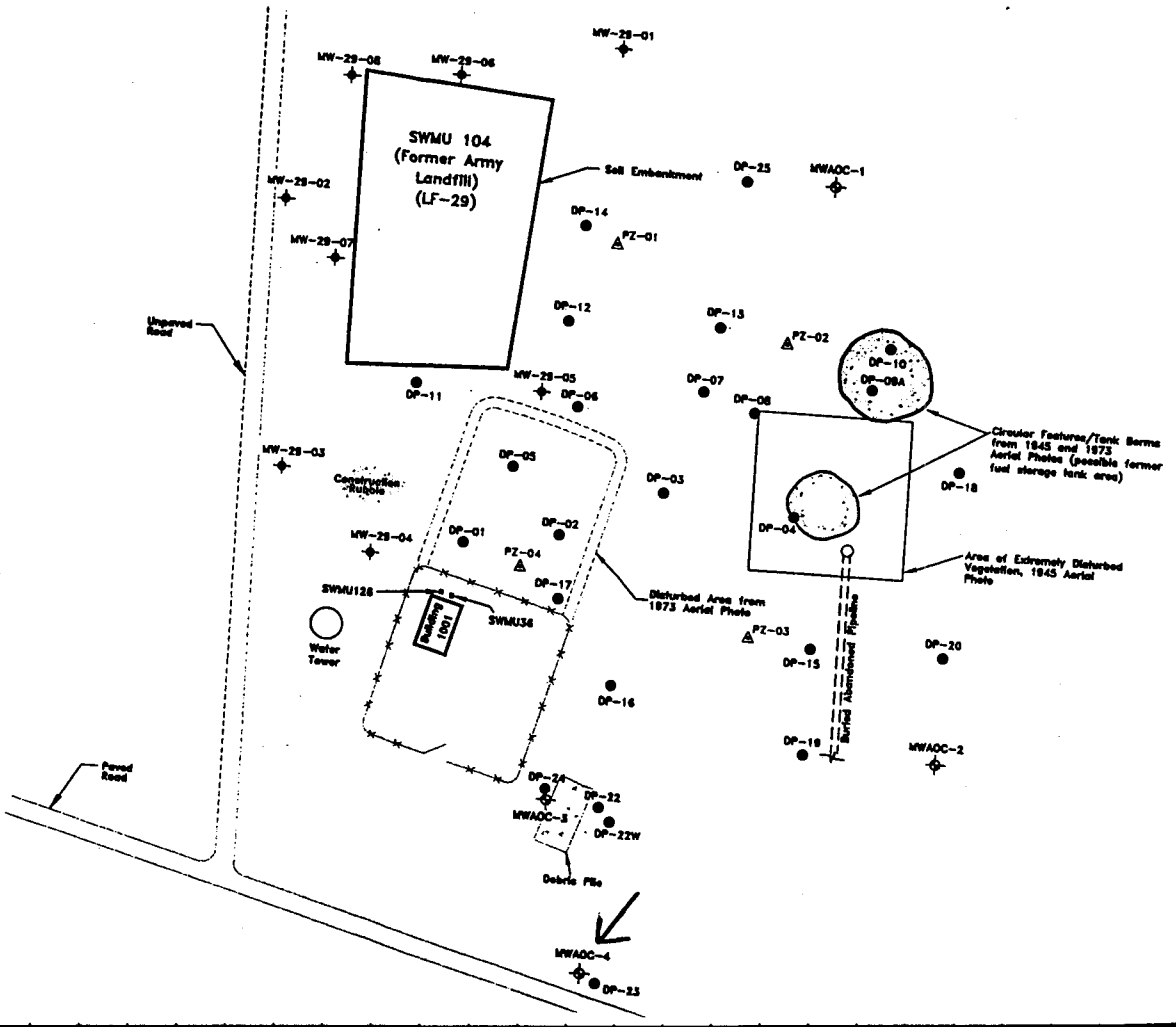
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: MWAOC-4 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 2" Modified SS; 140 lb hammer | 8. HOLE LOCATION: 676480.54N, 549391.57E | |
| | 9. SURFACE ELEVATION: 4095.41 ft. MSL | |
| | 10. DATE STARTED: 05/13/97 | 11. DATE COMPLETED: 05/13/97 |
| 12. OVERBURDEN THICKNESS: 22 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 17 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 22 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 1 | Y | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Monitoring Well | N | N | N | Robert Naylor |




| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: MWAOC-4 |
|---|---|---|
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-4 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4093 | 2 | | | | | | Becomes darker at 2 feet, more moisture. |
| 4091 | 4 | | | | | | |
| | | 5-7 ft: (ML) Clayey silt, slightly moist, cohesive, gypsum present, 5YR 5/6. | | | | | Very soft, 40% recovery, not enough to sample. No odor. |
| 4089 | 6 | | PID=0.2 ppm | | | 2<br>1<br>3<br>2 | |
| | | | | | | | Increase in moisture at 7.5 feet. |
| 4087 | 8 | | | | | | |
| 4085 | 10 | 10-12 ft: (CL) Clay, moist, cohesive, plastic, gypsum present, gleyed at 11 feet, 2.5YR 6/4 light yellowish brown. | | | | | 100% recovery. No odor. |
| | | | PID=0.7 ppm | | | 11<br>14<br>15<br>15 | |
| 4083 | 12 | | | | | | |
| 4081 | 14 | | | | | | Cuttings very moist. |
| | | 15-17 ft: (CL) Clay, large gypsum crystals, moist, plastic, cohesive, 2.5YR 4/6. | | | | | 100% recovery, No odor. |
| 4079 | 16 | | PID=3.7 ppm | | MWAOC-4 | 5<br>15<br>11<br>17 | |
| 4077 | 18 | | | | | | Wet to total depth. Screened from 12-22 feet 0.020 inch slot. |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | MWAOC-4 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4075 | 20 | | | | | | |
| 4073 | 22 | Total depth 22 | | | | | Total Depth at 22 feet. |
| 4071 | 24 | | | | | | |
| 4069 | 26 | | | | | | |
| 4067 | 28 | | | | | | |
| 4065 | 30 | | | | | | |
| 4063 | 32 | | | | | | |
| 4061 | 34 | | | | | | |
| 4059 | 36 | | | | | | |

ENG FORM 5056-R, AUG 94
by Fluor Daniel GTI

PROJECT #: 872200082903
SITE NAME DO 8 WAD 29 AOC-1001 RFI

HOLE NO.: MWAOC-4

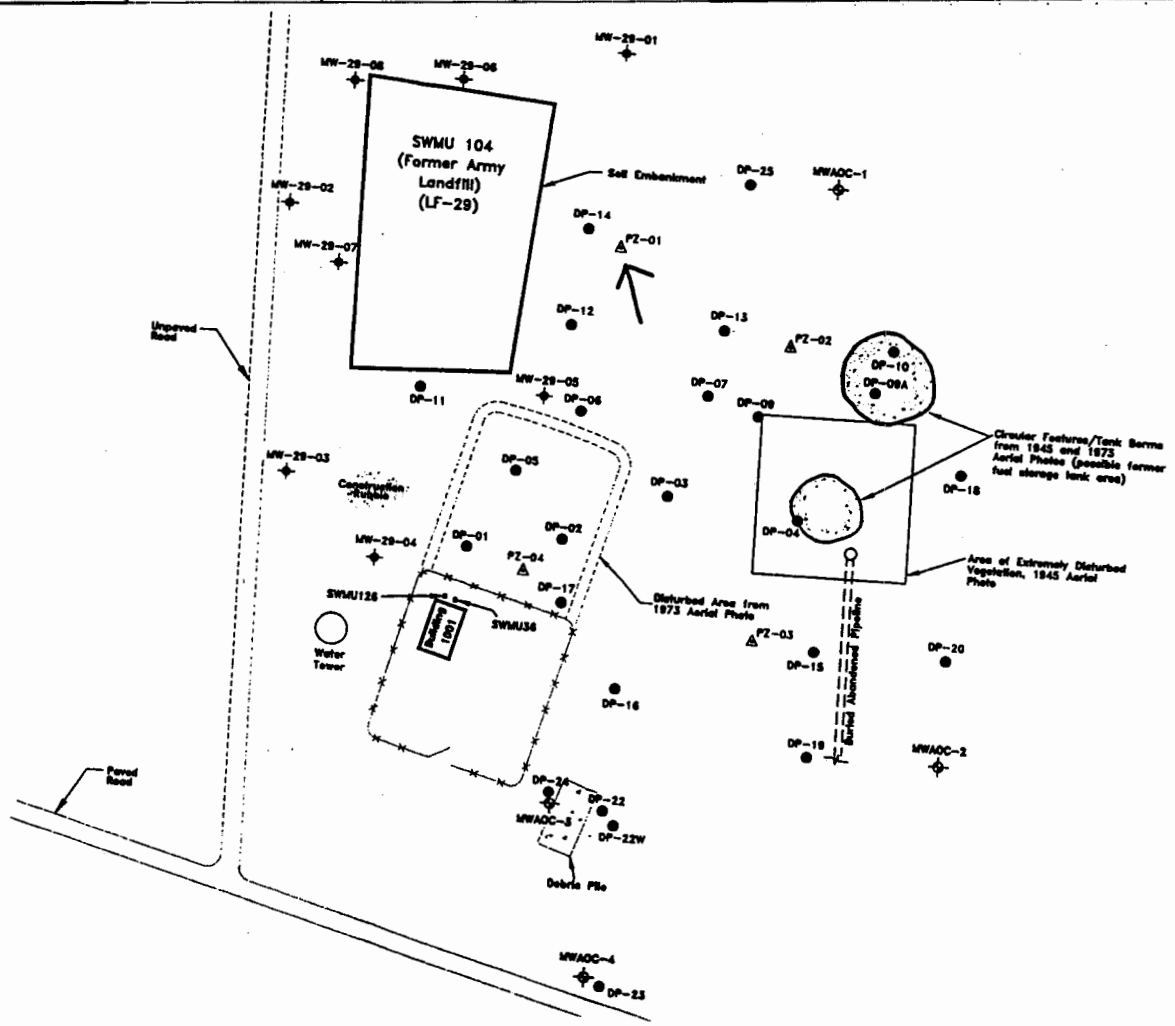
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: PZAOC-1 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 140 lb hammer | 8. HOLE LOCATION: 677651.91N, 549391.62E | |
| | 9. SURFACE ELEVATION: 4104.17 ft. MSL | |
| | 10. DATE STARTED: 05/14/97 | 11. DATE COMPLETED: 05/14/97 |
| 12. OVERBURDEN THICKNESS: 35 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 26 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 35 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 0 | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Piezometer Well | N | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: PZAOC-1 | |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-1 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Logged drill cuttings |
| 4102 | 2 | (ML) Silt, dry, white, with minor gypsum, not cohesive, homogeneous. | | | | | Soft, easy drilling |
| 4100 | 4 | | | | | | |
| | | | | | | | Time - 1450 |
| 4098 | 6 | (ML) Becomes reddish at 6 feet 5YR 5/6, silt homogeneous, moist, cohesive. | | | | | |
| 4096 | 8 | | | | | | |
| 4094 | 10 | | | | | | Time - 1456 |
| 4092 | 12 | | | | | | |
| | | (ML) Becomes light brown, silt, at 12.5 feet | | | | | |
| 4090 | 14 | | | | | | |
| | | (ML) At 15 feetm silt, homogeneous, moderate cohesive. | | | | | Time - 1502 |
| 4088 | 16 | | | | | | |
| | | (ML) Becomes darker and more moist, 2.5YR 4/6, clay, silt, moderate moisture, cohesive. | | | | | |
| 4086 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-1 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | (ML) Silt, becomes gray with some gypsum present, 2.5YR 6/2. | | | | | Time - 1510 |
| 4084 | 20 | | | | | | |
| | | (ML) Silt, brown, moist, homogeneous, plastic, clay with silt, 5YR 4/6. | | | | | |
| 4082 | 22 | | | | | | |
| 4080 | 24 | | | | | | |
| 4078 | 26 | | | | | | |
| | | As above, but with some minor gypsum crystals | | | | | |
| 4076 | 28 | | | | | | |
| 4074 | 30 | Very slow drilling, hard. | | | | | Time - 1525 |
| 4072 | 32 | | | | | | Well screened from 32.5-35 feet, 0.020 inch slot. |
| 4070 | 34 | Becomes softer at 34.5 feet. Cuttings appear very moist. | | | | | |
| | | (ML) Silt, large gypsum crystals present. Silty clay 7.5YR 4/6 strong brown. Total depth 35 | | | | | Time - 1535, Total Depth at 35 feet. |
| 4068 | 36 | | | | | | |

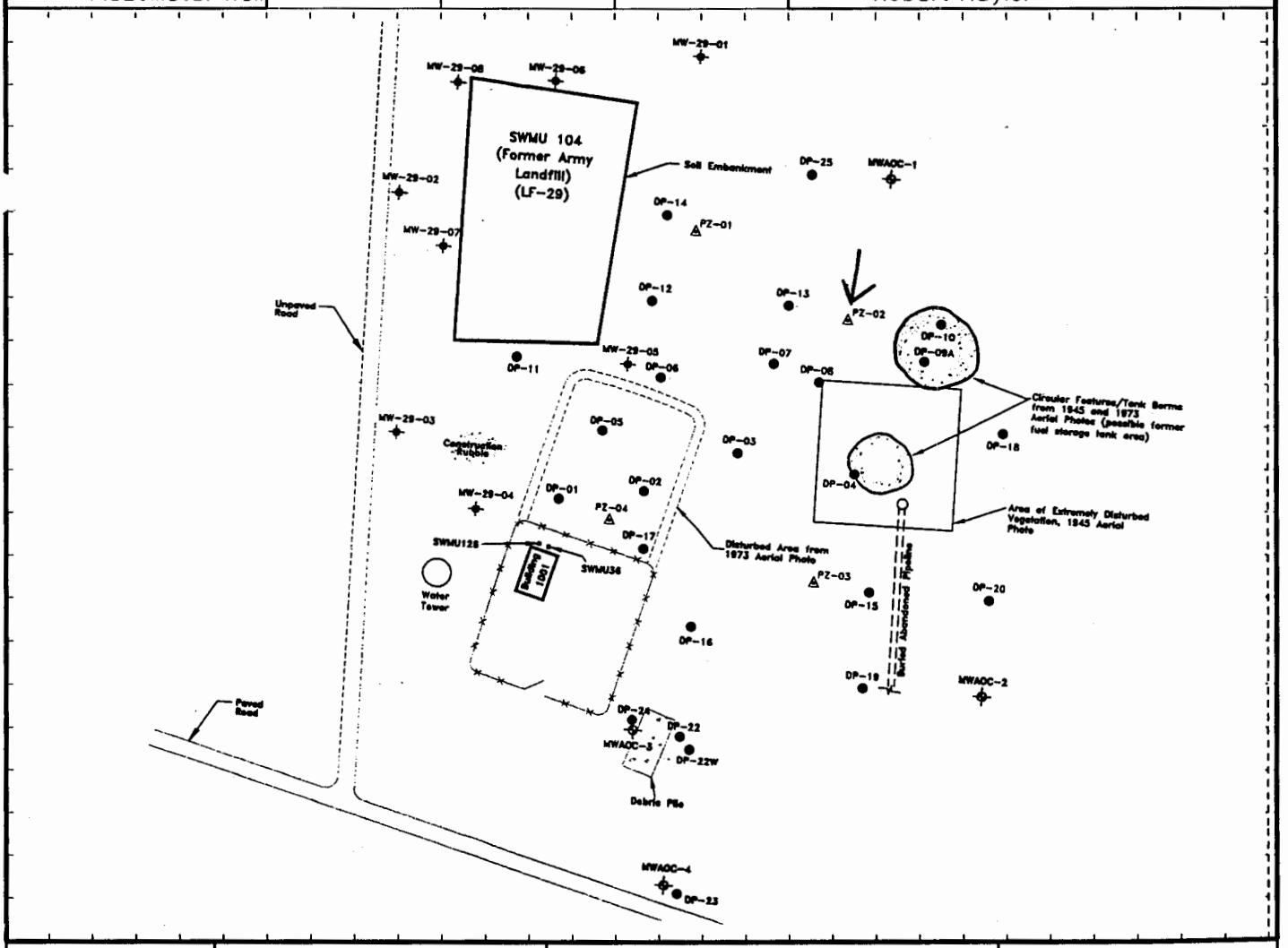
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: PZAOC-2 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 140 lb hammer | 8. HOLE LOCATION: 677462.02N, 549734.92E | |
| | 9. SURFACE ELEVATION: 4110.08 ft. MSL | |
| | 10. DATE STARTED: 05/14/97 | 11. DATE COMPLETED: 05/16/97 |
| 12. OVERBURDEN THICKNESS: 35 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 34 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 27 | |
| 14. TOTAL DEPTH OF HOLE: 35 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 0 | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Piezometer Well | N | N | N | Robert Naylor |




| | | |
|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903<br>SITE NAME: DO 8 WAD 29 AOC-1001 RFI | HOLE NO.: PZAOC-2 |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-2 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Start Time - 1630, Logged drill cuttings. |
| | | (ML) Silt, dry, homogeneous, slightly cohesive, 2.5YR 8/3. | | | | | |
| 4108 | 2 | | | | | | Soft, easy drilling |
| | | (ML) Silt, becomes more pink 7.5YR 6/6. | | | | | |
| 4106 | 4 | | | | | | |
| | | Slight moisture and cohesive. | | | | | Time - 1635 |
| 4104 | 6 | | | | | | |
| 4102 | 8 | | | | | | |
| 4100 | 10 | | | | | | Time - 1640 |
| 4098 | 12 | | | | | | |
| 4096 | 14 | | | | | | |
| | | | | | | | Becomes harder, slower drilling |
| 4094 | 16 | Same as above. | | | | | |
| 4092 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-2 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | (SC) Silty clay, 7.5YR 5/6, Strong brown, silty clay, slight-moderate moisture, cohesive, moderate plastic. | | | | | |
| 4090 | 20 | (CL) 2.5YR 4/6 - Red clay with very minor gypsum crystals, homogeneous, only slight moisture, cohesive, slight-moderate plastic. | | | | | Moderate drilling rate |
| 4088 | 22 | | | | | | |
| 4086 | 24 | (SC) Silty clay, 5YR 5/6, yellowish red, slightly more moisture than above, some (minor gypsum), moderate-very cohesive. | | | | | Time = 1705 |
| 4084 | 26 | | | | | | |
| 4082 | 28 | | | | | | |
| | | (SC) Becomes reddish 2.5YR 4/6 - red. | | | | | |
| 4080 | 30 | | | | | | Time = 1710 |
| 4078 | 32 | | | | | | Well screened from 32.5-35 feet, 0.020 inch slot. Note: Cuttings are only slightly moist, NOT saturated. Noted only 9 inches of saturated soil on bottom of auger after pulling up the auger flights. |
| 4076 | 34 | (CL) Becomes much harder at 34 feet. Large gypsum crystals present, silty clay 7.5YR 4/6 strong brown. | | | | | |
| | | Total depth 35 | | | | | |
| 4074 | 36 | | | | | | |

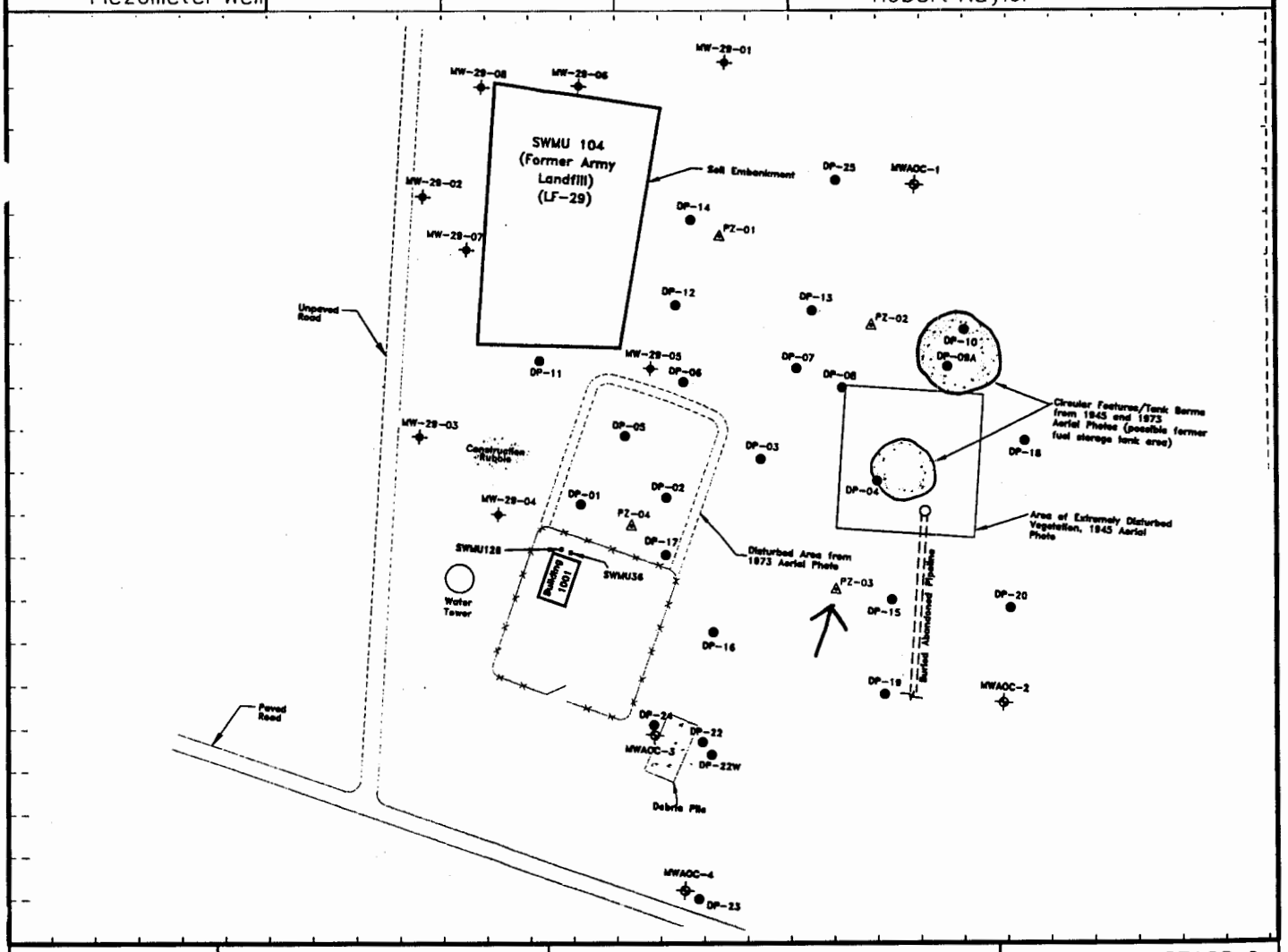
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | HOLE NO.: PZAOC-3 | |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 140 lb hammer | 8. HOLE LOCATION: 676903.27N, 549655.40E | |
| | 9. SURFACE ELEVATION: 4103.10 ft. MSL | |
| | 10. DATE STARTED: 05/16/97 | 11. DATE COMPLETED: 05/16/97 |
| 12. OVERBURDEN THICKNESS: 30 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 24 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 6. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 30 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 0 | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Piezometer Well | N | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: PZAOC-3 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-3 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Start Time 1320, Logged drill cuttings. |
| | | (ML) Fine white silt, dry, not cohesive. | | | | | |
| 4101 | 2 | | | | | | |
| | | (ML) Silt, as above, but slightly more moist and darker. | | | | | |
| 4099 | 4 | | | | | | |
| | | | | | | | Time 1325/1328 |
| 4097 | 6 | | | | | | |
| 4095 | 8 | 7.5YR 6/6 reddish yellow. | | | | | |
| 4093 | 10 | | | | | | Time 1330/1334 |
| 4091 | 12 | 7.5YR 5/6. | | | | | |
| 4089 | 14 | | | | | | |
| | | (ML) Becomes moderate moist and cohesive, silty clay, some small gypsum crystals, darker brown. | | | | | Time 1336/1341 |
| 4087 | 16 | | | | | | |
| 4085 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-3 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| 4083 | 20 | (ML) Moist, cohesive, plastic, silty clay with minor gypsum, gleyed pinkish gray. | | | | | Time 1343/1350 |
| 4081 | 22 | | | | | | |
| | | (ML) Silty clay, becomes reddish, 2.5YR 4/6 | | | | | |
| 4079 | 24 | | | | | | |
| | | | | | | | Time 1352/1357 |
| 4077 | 26 | | | | | | |
| | | | | | | | Well screened from 27.5-30 feet, 0.020 inch slot. |
| 4075 | 28 | | | | | | |
| 4073 | 30 | | | | | | Total Depth at 30 feet. |
| 4071 | 32 | | | | | | |
| 4069 | 34 | | | | | | |
| | | Slight odor (stale gasoline?) noted on silty clay caked on bottom of auger when pulling augers. Total Depth 30 feet. | | | | | |
| 4067 | 36 | | | | | | |

ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI

PROJECT #: 872200082903

SITE NAME DO 8 WAD 29 AOC-1001 RFI

HOLE NO.: PZAOC-3

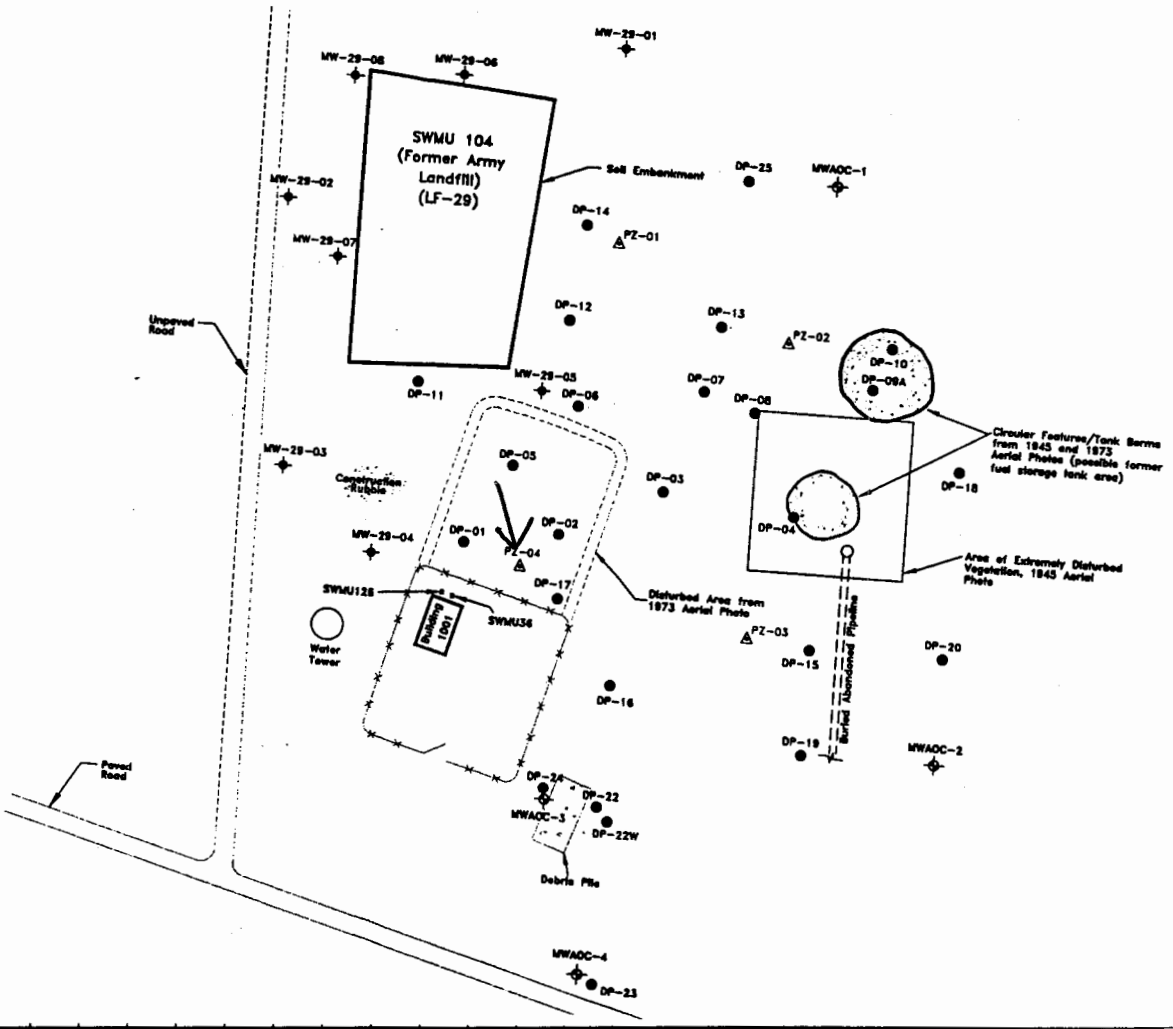
# HTRW DRILLING LOG

| | | |
|---|---|---|
| DISTRICT: OMAHA TERC | | HOLE NO.: PZAOC-4 |
| 1. COMPANY NAME: Fluor Daniel GTI | 2. DRILLING SUBCONTRACTOR: Raba-Kistner | SHEET 1 OF 3 SHEETS |
| 3. SITE: DO 8 WAD 29 AOC-1001 RFI | 4. LOCATION: HAFB, NM | |
| 5. NAME OF DRILLER: Manny Duenez | 6. MANUFACTURERS DESIGNATION OF DRILL: CME 75 | |
| 7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID; 9" nominal OD; 5 feet flights; 140 lb hammer | 8. HOLE LOCATION: 677006.15N, 549353.47E | |
| | 9. SURFACE ELEVATION: 4100.64 ft. MSL | |
| | 10. DATE STARTED: 05/16/97 | 11. DATE COMPLETED: 05/16/97 |
| 12. OVERBURDEN THICKNESS: 35 ft. | 15. DEPTH GROUNDWATER ENCOUNTERED: 29 ft. | |
| 13. DEPTH DRILLED INTO ROCK: 0 ft. | 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA | |
| 14. TOTAL DEPTH OF HOLE: 35 ft. | 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | |

| 18. GEOTECHNICAL SAMPLES | DISTURBED | UNDISTURBED | 19. TOTAL NUMBER OF CORE BOXES |
|---|---|---|---|
| 0 | 0 | 0 | 0 |

| 20. SAMPLES FOR CHEMICAL ANALYSIS | VOC | METALS | OTHERS (SPECIFY) | OTHERS (SPECIFY) | OTHERS (SPECIFY) | 21. TOTAL CORE REC. |
|---|---|---|---|---|---|---|
| 0 | N | N | N | N | N | % |

| 22. DISPOSITION OF HOLE | BACKFILLED | MONITORING WELL | OTHERS (SPECIFY) | 23. SIGNATURE OF INSPECTOR |
|---|---|---|---|---|
| Piezometer Well | N | N | N | Robert Naylor |




| | | | |
|---|---|---|---|
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: PZAOC-4 |
| | SITE NAME: DO 8 WAD 29 AOC-1001 RFI | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-4 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 2 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | | | | | | Logged drill cuttings. |
| | | (ML) Silt with a little caliche, 2.5YR 8/3, no odor, dry, not cohesive | | | | | Moderately soft drilling. |
| 4099 | 2 | | | | | | |
| 4097 | 4 | | | | | | |
| | | | | | | | Time 1045 |
| 4095 | 6 | | | | | | |
| | | (ML) Silt, becomes light reddish brown 5YR 6/4, no odor, very slight moisture, slight cohesive. | | | | | |
| 4093 | 8 | | | | | | |
| 4091 | 10 | | | | | | Time 1050 |
| 4089 | 12 | (ML) Silt and very fine sand, sand is gritty, subrounded, and other minerals. Becomes less red, more brown 7.5YR 6/4 light brown. | | | | | |
| 4087 | 14 | | | | | | |
| | | | | | | | Time 1105 |
| 4085 | 16 | (ML) Slight more moisture, more cohesive, sandy silt. | | | | | |
| 4083 | 18 | | | | | | |

# HTRW DRILLING LOG

| DISTRICT | HOLE NO. |
|---|---|
| OMAHA TERC | PZAOC-4 |

| 1. PROJECT # | 2. INSPECTOR | SHEET 3 |
|---|---|---|
| 872200082903 | Robert Naylor | OF 3 SHEETS |

| ELEV. a | DEPTH b | DESCRIPTION OF MATERIALS c | FIELD SCREENING RESULTS d | GEOTECH SAMPLE OR CORE BOX NO. e | ANALYTICAL SAMPLE NO. f | BLOW COUNTS g | COMMENTS h |
|---|---|---|---|---|---|---|---|
| | | (SM) Very moist, sandy silt, becomes plastic, cohesive, and light brown 7.5YR 6/4. | | | | | |
| 4081 | 20 | | | | | | Time 1115, Soft drilling. |
| 4079 | 22 | | | | | | |
| 4077 | 24 | (SM) Becomes slightly more reddish silt, minor sand, moist, cohesive, moderate plastic, minor gypsum crystals, 5YR 4/6. | | | | | |
| | | | | | | | Time 1120, Becomes moderately to very hard drilling. |
| 4075 | 26 | | | | | | |
| | | Few to no cuttings (cutter head may be plugged with silt?) | | | | | |
| 4073 | 28 | | | | | | |
| 4071 | 30 | | | | | | Time 1130, Hard drilling to very hard. |
| | | Very few cuttings | | | | | |
| 4069 | 32 | | | | | | |
| | | | | | | | Well screened from 32.5-35 feet, 0.020 inch slot. |
| 4067 | 34 | Note: After pulled augers, bottom flight (30-35 feet bgs) was caked with gray clayey silt, saturated. Bottom 2.5 feet is discolored (greenish-gray). Slight odor. | PID=79.3 ppm | | | | |
| | | Total depth 35 feet. | | | | | Total depth at 35 feet. |
| 4065 | 36 | | | | | | |

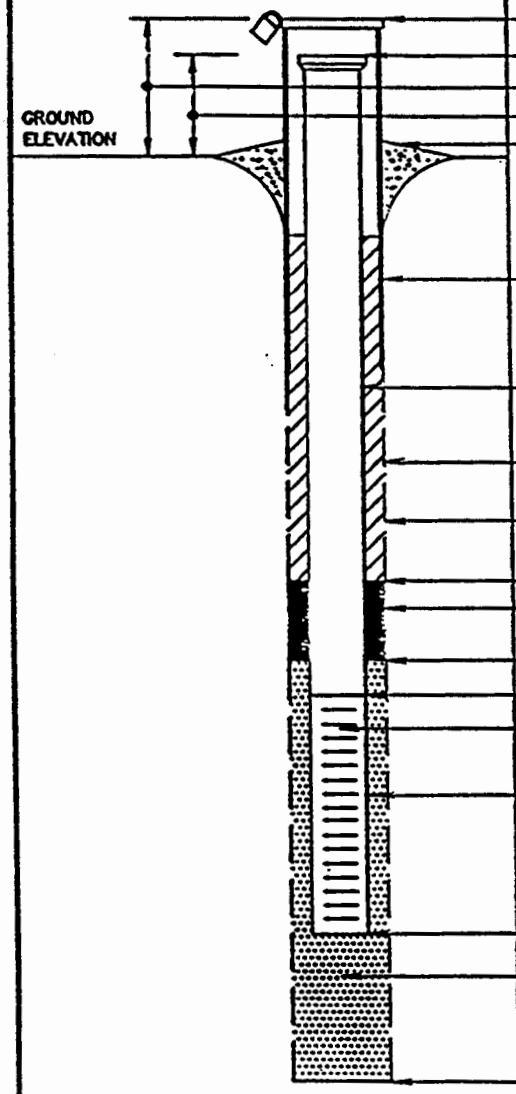
| ENG FORM 5056-R, AUG 94 by Fluor Daniel GTI | PROJECT #: 872200082903 | HOLE NO.: PZAOC-4 |
|---|---|---|
| | SITE NAME DO 8 WAD 29 AOC-1001 RFI | |

OVERBURDEN
MONITORING WELL SHEET

WELL NO. MWAOC-1

PROJECT AOC 1001 Phase II RFI
PROJECT NO.
BORING NO. MWAOC-1
ELEVATION 4110.06
DATE 5/12/97
FIELD GEOLOGIST Robert Naylor

DRILLER Rabb-Kistner
DRILLING METHOD HSA
DEVELOPMENT METHOD Bailing




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4110.06
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 6"
TYPE OF SURFACE CASING: Steel

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: bentonite/cement grout

DEPTH TOP OF SEAL: 19'
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 22'
DEPTH TOP OF SCREEN: 25'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.020" X 10'
TYPE OF SAND PACK: 10-20 Silica SAND

DEPTH BOTTOM OF SCREEN: 35'
DEPTH BOTTOM OF SAND PACK: 35'
TYPE OF BACKFILL BELOW OBSERVATION WELL: NA

DEPTH OF HOLE 35'

NOT TO SCALE

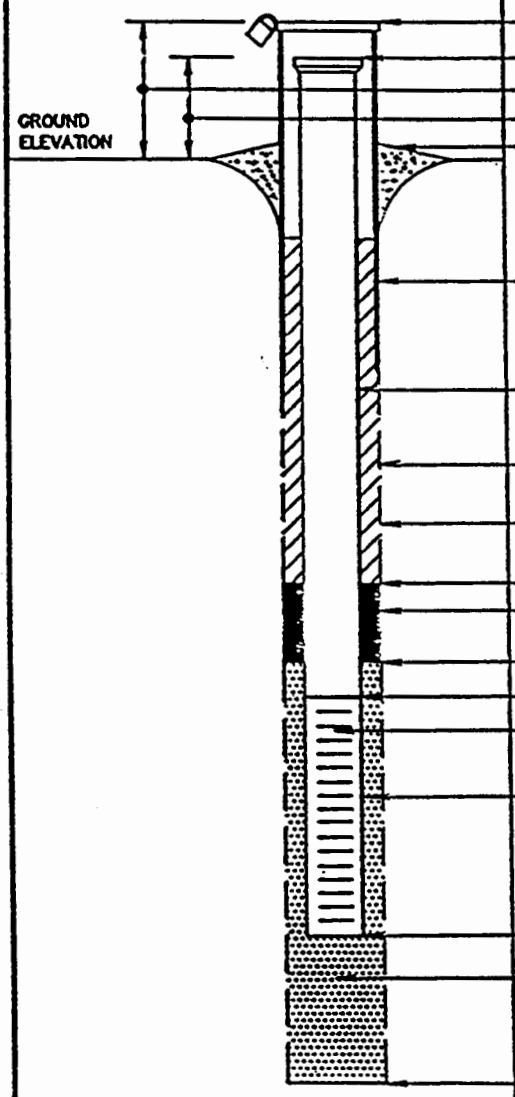
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. MWAOC-2

PROJECT AOC 1001 Phase II RFI
PROJECT NO.
BORING NO. MWAOC-2
ELEVATION 4103.11
DATE 5/12-13/97
FIELD GEOLOGIST Robert Naylor

DRILLER RABA-KISTNER
DRILLING METHOD HSA
DEVELOPMENT METHOD Bailing




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4103.11
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 6"
TYPE OF SURFACE CASING: steel

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: bentonite/cement grout

DEPTH TOP OF SEAL: 11.5'
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 14.5'

DEPTH TOP OF SCREEN: 17'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.020" x 10'

TYPE OF SAND PACK: 10-20 silica SAND

DEPTH BOTTOM OF SCREEN: 27'

DEPTH BOTTOM OF SAND PACK: 27'

TYPE OF BACKFILL BELOW OBSERVATION WELL: —

DEPTH OF HOLE 27'

NOT TO SCALE

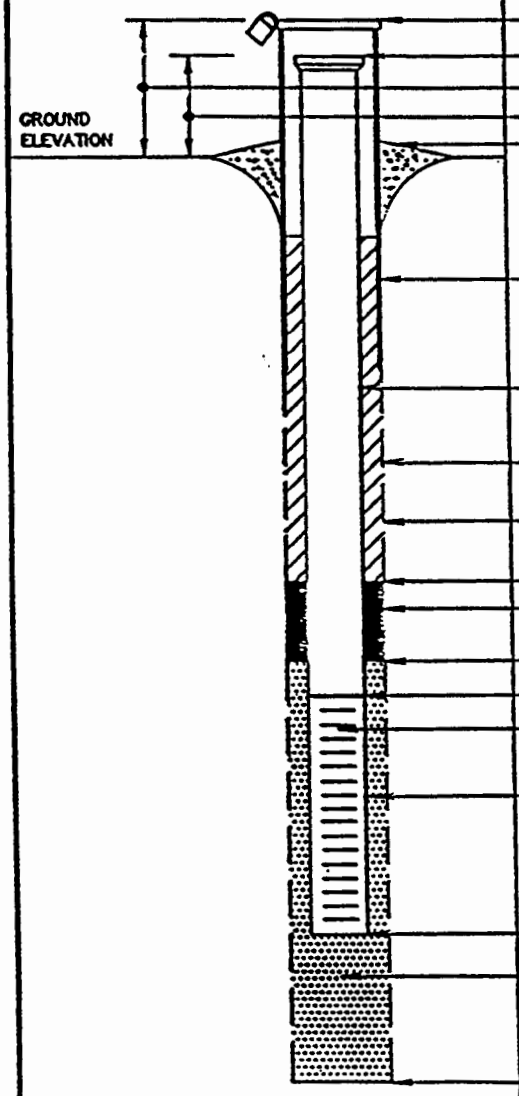
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. MWAOC-3

PROJECT: AOC 1001 Phase II RFI
PROJECT NO.:
BORING NO.: MWAOC-3
ELEVATION: 4098.41
DATE: 5/13/97
FIELD GEOLOGIST: Robert Naylor

DRILLER: BABA KISTNER
DRILLING METHOD: HSA
DEVELOPMENT METHOD: Bailing




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4098.41
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 6"
TYPE OF SURFACE CASING: Steel

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: bentonite/cement grout

DEPTH TOP OF SEAL: 9'
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 12'
DEPTH TOP OF SCREEN: 15'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.020" X 10'
TYPE OF SAND PACK: 10-20 silica SAND

DEPTH BOTTOM OF SCREEN: 25'
DEPTH BOTTOM OF SAND PACK: 25'
TYPE OF BACKFILL BELOW OBSERVATION WELL: —

DEPTH OF HOLE 25'

NOT TO SCALE

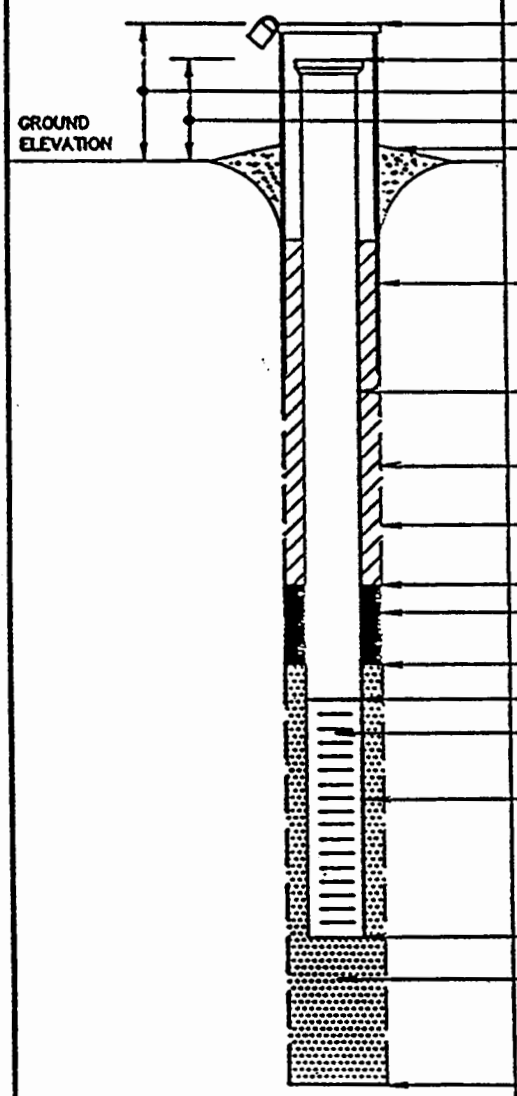
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. MWAOC-4

PROJECT: AOC 1001 Phase II RFI
PROJECT NO.:
BORING NO.: MWAOC-4
ELEVATION: 4095.41
DATE: 5/13/97
FIELD GEOLOGIST: Robert Naylor

DRILLER: RABA-KISTNER
DRILLING METHOD: HSA
DEVELOPMENT METHOD: Bailing




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4095.41
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING: Flushmount

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: bentonite/cement grout

DEPTH TOP OF SEAL: '
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 9'
DEPTH TOP OF SCREEN: 12'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.020 X 10'
TYPE OF SAND PACK: 10-20 SILICA SAND

DEPTH BOTTOM OF SCREEN: 22'
DEPTH BOTTOM OF SAND PACK: 22'
TYPE OF BACKFILL BELOW OBSERVATION WELL: NA

DEPTH OF HOLE 22'

NOT TO SCALE

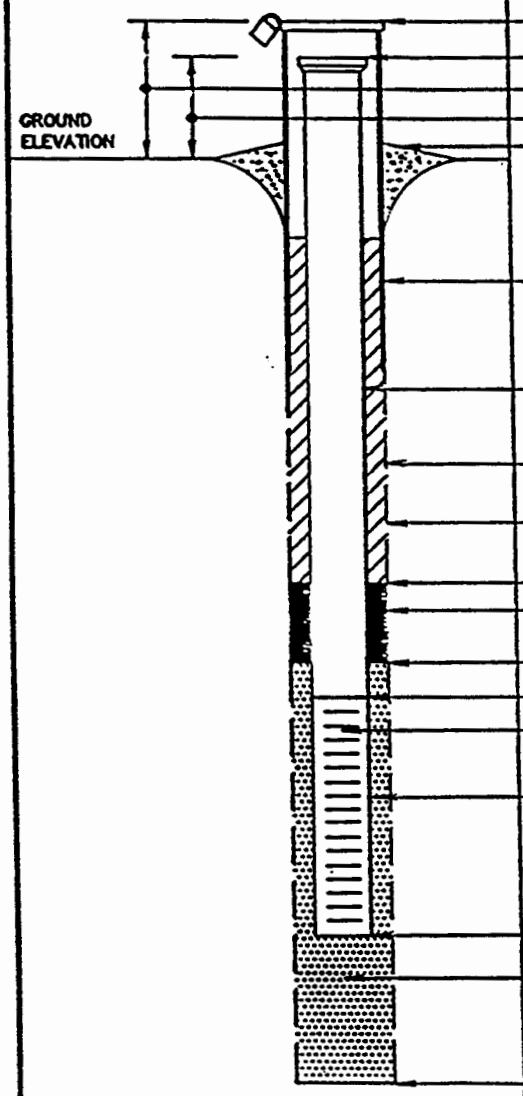
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. PZ-01

PROJECT AOC 1001 Phase II RFI
PROJECT NO. _____ BORING NO. PZ-01
ELEVATION 4104.17 DATE 3/14/97
FIELD GEOLOGIST Robert Naylor

DRILLER RABA KISTNER
DRILLING METHOD HSA
DEVELOPMENT METHOD —




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4104.17
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: cuttings

I.D. OF SURFACE CASING: 2"
TYPE OF SURFACE CASING: galvanized pipe

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: drill cuttings

DEPTH TOP OF SEAL: 29.5'
TYPE OF SEAL: bentonite

DEPTH TOP OF SAND PACK: 30'
DEPTH TOP OF SCREEN: 32.5'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.010" X 2.5'
TYPE OF SAND PACK: 10-20 silica SAND

DEPTH BOTTOM OF SCREEN: 35'
DEPTH BOTTOM OF SAND PACK: 35'
TYPE OF BACKFILL BELOW OBSERVATION WELL: —

DEPTH OF HOLE 35'

NOT TO SCALE

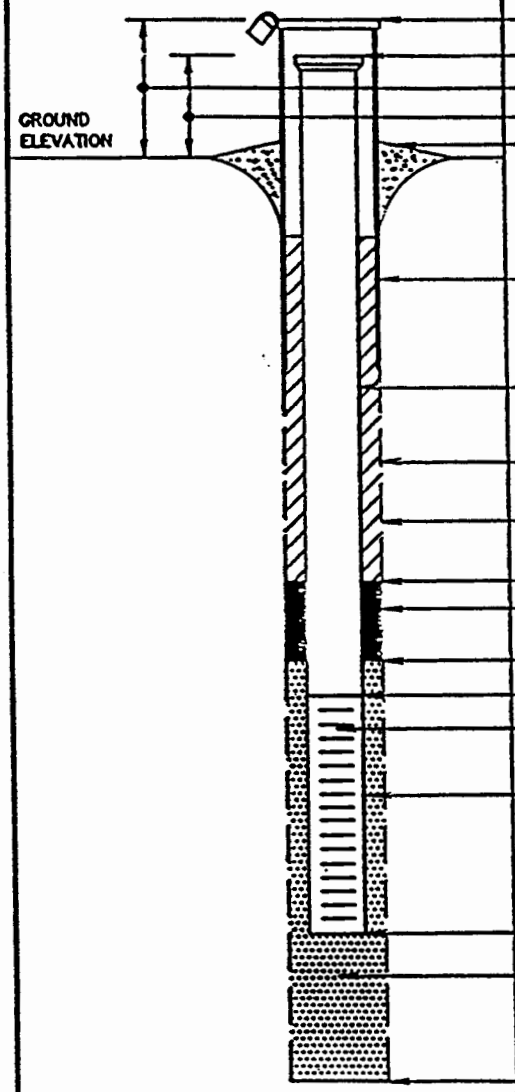
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. PZ-02

PROJECT: AOC 1001 Phase II RFI
PROJECT NO.:
BORING NO.: PZ-02
ELEVATION: 4110.08
DATE: 5
FIELD GEOLOGIST: Robert Naylor

DRILLER: RABA KISTNER
DRILLING METHOD: HSA
DEVELOPMENT METHOD: —




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4110.08
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: cuttings

I.D. OF SURFACE CASING: 2"
TYPE OF SURFACE CASING: galvanized pipe

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: drill cuttings

DEPTH TOP OF SEAL: 29.5'
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 30'
DEPTH TOP OF SCREEN: 32.5'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.010" X 2.5'
TYPE OF SAND PACK: 10-20 silica SAND

DEPTH BOTTOM OF SCREEN: 35'
DEPTH BOTTOM OF SAND PACK: 35'
TYPE OF BACKFILL BELOW OBSERVATION WELL: —

DEPTH OF HOLE 35'

NOT TO SCALE

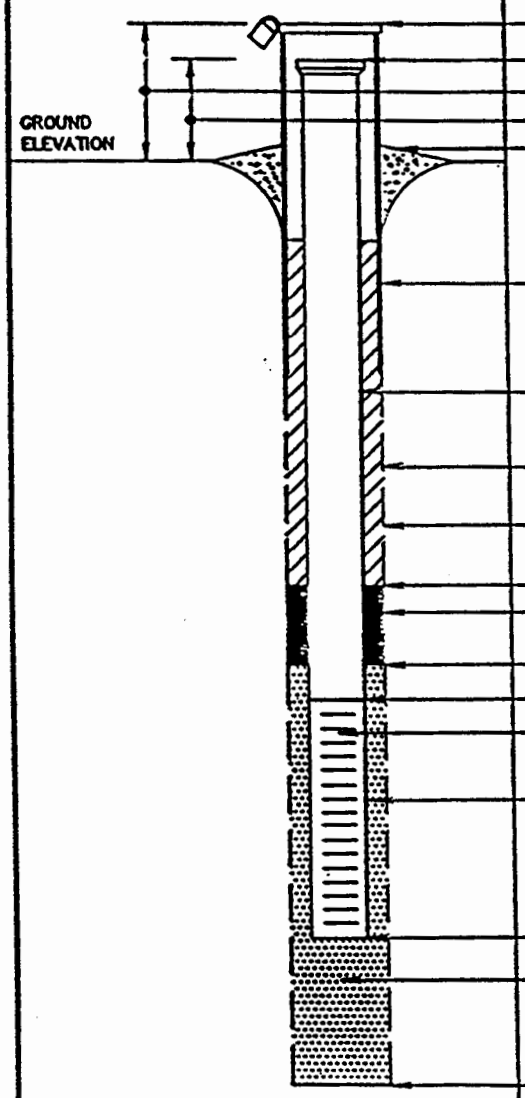
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. PZ-03

PROJECT: ADC 1001 Phase II RFI
PROJECT NO.:
BORING NO.: PZ-03
ELEVATION: 4103.10'
DATE: 5/16/97
FIELD GEOLOGIST: Robert Naylor

DRILLER: RABA KISTNER
DRILLING METHOD: HSA
DEVELOPMENT METHOD: —




ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: 4103.10'
STICK-UP TOP OF SURFACE CASING: —
STICK-UP RISER PIPE: —
TYPE OF SURFACE SEAL: cuttings

I.D. OF SURFACE CASING: 2"
TYPE OF SURFACE CASING: galvanized pipe

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: drill cuttings

DEPTH TOP OF SEAL: 24.5'
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 25'
DEPTH TOP OF SCREEN: 27.5'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.010" X 2.5'
TYPE OF SAND PACK: 10-20 silica sand

DEPTH BOTTOM OF SCREEN: 30'
DEPTH BOTTOM OF SAND PACK: 30'
TYPE OF BACKFILL BELOW OBSERVATION WELL: —

DEPTH OF HOLE 30'

NOT TO SCALE

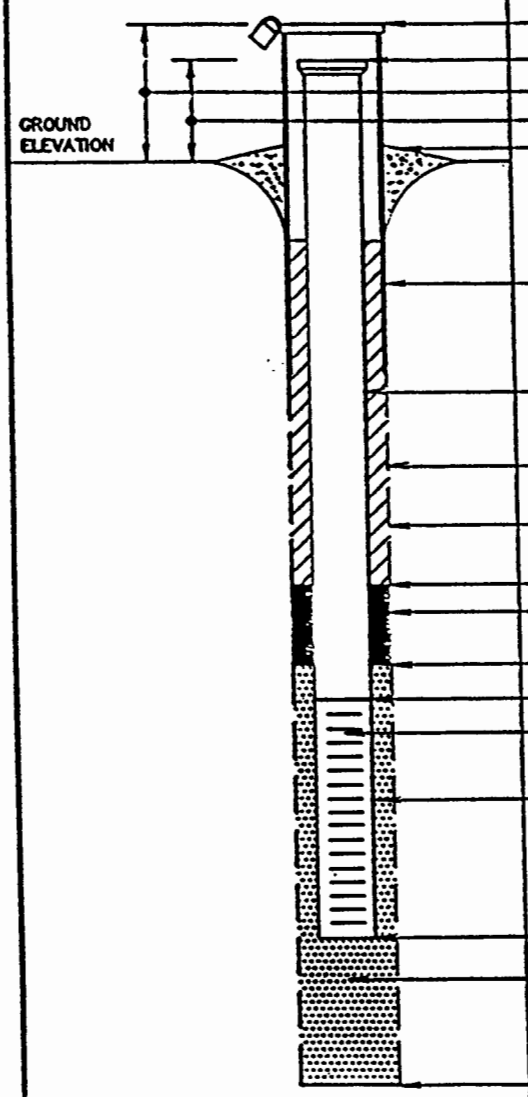
**Overburden Monitoring Well Construction Diagram**

OVERBURDEN
MONITORING WELL SHEET

WELL NO. PZ-04

PROJECT: AOC 1001 Phase II RFI
PROJECT NO.:
ELEVATION: 4100.64'
FIELD GEOLOGIST: Robert Naylor
BORING NO.: PZ-04
DATE: 5/16/97

DRILLER: RABA KISTNER
DRILLING METHOD: HSA
DELVELOPMENT METHOD: –




ELEVATION OF TOP OF SURFACE CASING: –
ELEVATION OF TOP OF RISER PIPE: 4100.64'
STICK-UP TOP OF SURFACE CASING: –
STICK-UP RISER PIPE: –
TYPE OF SURFACE SEAL: cuttings

I.D. OF SURFACE CASING: 2"
TYPE OF SURFACE CASING: galvanized pipe

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 9"

TYPE OF BACKFILL: drill cuttings

DEPTH TOP OF SEAL: 29'
TYPE OF SEAL: Bentonite

DEPTH TOP OF SAND PACK: 29.5'
DEPTH TOP OF SCREEN: 32.5'
TYPE OF SCREEN: PVC
SLOT SIZE X LENGTH: 0.010" x 2.5'
TYPE OF SAND PACK: 10-20 SILICA SAND

DEPTH BOTTOM OF SCREEN: 35'
DEPTH BOTTOM OF SAND PACK: 35'
TYPE OF BACKFILL BELOW OBSERVATION WELL: –

DEPTH OF HOLE 35'

NOT TO SCALE

**Overburden Monitoring Well Construction Diagram**

# APPENDIX B
## Survey Data

**TO VIEW THE MAP AND/OR MAPS WITH THIS DOCUMENT, PLEASE CALL THE HAZARDOUS WASTE BUREAU AT 505-476-6000 TO MAKE AN APPOINTMENT**

# APPENDIX C
## Soil Vapor Survey Analytical Report

W. L. GORE & ASSOCIATES, INC.
101 LEWISVILLE ROAD • P.O. BOX 1100 • ELKTON, MARYLAND 21922-1100 PHONE: 410/392-3300
FAX: 410/996-3325 • TELEX 467637 GORE FB ELKT
ENVIRONMENTAL PRODUCTS GROUP

Creative Technologies Worldwide

# GORE-SORBER[SM] Screening Survey
# Final Report

**Holloman AFB, AOC Building 1001**
**New Mexico**

June 25, 1996

Prepared For:
Fluor Daniel GTI
2501 Yale Boulevard Southeast, Suite 204
Albuquerque, NM 87106

**W.L. Gore & Associates, Inc.**
Written/Submitted by

Jay W. Hodny, M.S.
Associate

**W.L. Gore & Associates, Inc.**
Reviewed/Approved by

Ray F. Fenstermacher, P.G.
Associate

I:\PROJECTS\FDGTI\HOLL_AFB.NM\960621R.DOC

***This document shall not be reproduced, except in full, without written approval of W.L. Gore & Associates***

FORM 11R.3
*Rev 06/13/96*


GORE-TEX and GORE-SORBER are trademarks of W. L. Gore & Associates, Inc.
GORE-SORBER Screening Survey is a registered service mark of W. L. Gore & Associates, Inc.

# GORE-SORBER[sm] Screening Survey
# Final Report

**REPORT DATE:** June 25, 1996 **AUTHOR:** JWH

## SITE INFORMATION

**Site Reference:** Hollman AFB, AOC Building 1001, New Mexico
**Customer Purchase Order Number:** 006233
**Gore Production Order Number:** 068516 **Gore Site Code:** OT

## FIELD PROCEDURES

**# Modules shipped:** 54
**Installation Date(s):** May 22, 23, 1996 **# Modules Installed:** 49
**Field work performed by:** Chuck Schick, Scott Stevenson (Fluor Daniel GTI)

**Retrieval date(s):** Junr 6, 1996 **Exposure Time:** 14, 15 **[days]**
**# Modules Retrieved:** 49 **# Trip Blanks Returned:** 5
**# Modules Lost in Field:** 0 **# Unused Modules Returned:** 0

**Date/Time Received by Gore:** June 7, 1996 **By:** CJF
**Recorded Cooler/Water Temperature Control Blank temperature:** 5.2 **[°C]**
**Chain of Custody Form attached:** √
**Chain of Custody discrepancies:** None.
**Comments:** None.

# GORE-SORBER[sm] Screening Survey
# Final Report

## ANALYTICAL PROCEDURES

W.L. Gore & Associates' Screening Module Laboratory operates under the guidelines of its Quality Assurance Manual, Operating Procedures and Methods. The quality assurance program is consistent with Good Laboratory Practices (GLP) and ISO Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories", third edition, 1990. The Laboratory is audited regularly by a quality system design, development and auditing company.

Instrumentation consists of Hewlett-Packard 5890 gas chromatographs and 5971 mass selective detectors, as well as Perkin-Elmer ATD 400 automated thermal desorption units. Sample preparation simply involves cutting the tip off the bottom of the sample module and transferring one or more exposed sorbent containers (sorbers, each containing 40mg of a suitable granular adsorbent) to a thermal desorption tube for analysis. Sorbers remain clean and protected from dirt, soil, and ground water by the insertion/retrieval cord, and require no further sample preparation.

**Screening Method Quality Assurance:**

Before each run sequence, two instrument blanks, a sorber containing 5µg BFB (Bromofluorobenzene), and a method blank are analyzed. The BFB mass spectra must meet the criteria set forth in Statement of Work (SOW) for Organic Analysis Multi-Media Multi-Concentration (SOW OLM 010.0 and revisions) before samples can be analyzed. A sorber containing BFB is also analyzed after every 30 samples and/or trip blanks, as is a method blank. Standards containing the selected target compounds at three calibration levels of 5, 20, and 50µg are analyzed at the beginning of each run. The criterion for each target compound is less than 35% RPD. If this criterion is not met for any target compound, the analyst has the option of generating second- or third-order standard curves, as appropriate. A second-source reference standard, at a level of 20µg per target compound, is analyzed after every ten samples and/or trip blanks, and at the end of the run sequence. Positive identification of target compounds is determined by the presence of the target ion and at least two secondary ions, retention time versus reference standard, and the analyst's judgment. Data deliverables can be provided for all samples and blanks analyzed as an option.

* Relative Percent Difference (RPD) is a measure of the precision of duplicate measurements, calculated as follows:
$RPD = 100 * (R_1 - R_2) / ((R_1 + R_2) / 2)$ where $R_1$, $R_2$ are observed values and $R_1 > R_2$

**NOTE: All data have been archived. Any replicate sorbers not used in the initial analysis will be discarded thirty (30) days from the date of this report.**

**Laboratory analysis:** thermal desorption, gas chromatography, mass selective detection
**Quality Assurance Level:** 2 (ANA-4)
**Instrument ID:** # 1 **Chemist:** JW **Data Subdirectory:** 068516
**Compounds/mixtures requested:** Gore GS3; Standard VOCs, SVOCs, and explosives target list (A6).
**Deviations from Standard Method:** Two point calibration was used for quantification of 2-amino-4,6dinitroluene. Due to lab error, the explosives reference standard was not injected after the fifth set of 10 field samples.
**Comments:** Soil vapor analytes and abbreviations are tabulated in the Data Table Key (page 4 & 5).

# GORE-SORBER[sm] Screening Survey
# Final Report

## DATA TABULATION

**# MAPS ENCLOSED:** One (1) B-size site map showing the module locations.
One (1) B-size proportional BTEX symbol map.

**NOTE: All data values presented in Appendix A represent masses of compound(s) desorbed from the GORE-SORBER Screening Modules received and analyzed by W.L. Gore, as identified in the Chain of Custody (Appendix A). The measurement traceability and instrument performance are reproducible and accurate for the measurement process documented. Semi-quantitation of the compound mass is based on either a single-level (QA Level 1) or three-level (QA Level 2) standard calibration.**

### Comments:

- Stacked total ion chromatograms (TIC's) are included in Appendix A. The last three digits of each module number are incorporated into the TIC identification (e.g.: OT471TC.D represents module 120471).
- Target analytes were reported in low or non-detectable levels precluding contour mapping.

GORE-SORBER is a registered trademark of W. L. Gore & Associates, Inc.

# GORE-SORBER[sm] Screening Survey
# Final Report

## KEY TO DATA TABLE
## Holloman AFB, AOC Building 1001, New Mexico

**UNITS**

| | |
|---|---|
| µg | micrograms (per sorber), reported for compounds for which we run external standards. |

**ANALYTES**

| | |
|---|---|
| BTEX | combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics) |
| C11,C13&C15 | combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes) |
| MTBE | methyl t-butyl ether |
| t12DCE | trans-1,2-dichloroethene |
| 11DCA | 1,1-dichloroethane |
| c12DCE | cis-1,2-dichloroethene |
| $CHCl_3$ | chloroform |
| 111TCA | 1,1,1-trichloroethane |
| 12DCA | 1,2-dichloroethane |
| BENZ | benzene |
| $CCl_4$ | carbon tetrachloride |
| TCE | trichloroethylene |
| TOL | toluene |
| OCT | octane |
| PCE | tetrachloroethene |
| ClBENZ | chlorobenzene |
| EtBENZ | ethylbenzene |
| mpXYL | m-, p-xylene |
| oXYL | o-xylene |
| PHENOL | phenol |
| 135TMB | 1,3,5-trimethylbenzene |
| 124TMB | 1,2,4-trimethylbenzene |
| TMBs | 1,2,4- & 1,3,5-trimethylbenzene |
| NAPH&2-MN | naphthalene & 2-methylnaphthalene |
| 14DCB | 1,4-dichlorobenzene |
| UNDEC | undecane |
| NAPH | naphthalene |
| TRIDEC | tridecane |
| 2MeNAPH | 2-methyl naphthalene |
| PENTADEC | pentadecane |
| NiBENZ | nitrobenzene |
| 2NiTOL | 2-nitrotoluene |
| 3NiTOL | 3-nitrotoluene |
| 4NiTOL | 4-nitrotoluene |
| 13DNB | 1,3-dinitrobenzene |

# GORE-SORBER[sm] Screening Survey
# Final Report

| | |
|---|---|
| 26DNT | 2,6-dinitrotoluene |
| 24DNT | 2,4-dinitrotoluene |
| 135TNB | 1,3,5-trinitrobenzene |
| 246TNT | 2,4,6-trinitrotoluene |
| 4Amino26DNT | 4-amino-2,6-dinitrotoluene |
| 2Amino46DNT | 2-amino-4,6-dinitrotoluene |

**BLANKS**

| | |
|---|---|
| TB n | unexposed trip blanks, which traveled with the exposed modules |
| BLK n | method blank, retained at Gore |

# APPENDIX A:

1. CHAIN OF CUSTODY
2. DATA TABLE
3. STACKED TOTAL ION CHROMATOGRAMS
4. MAPS

# GORE-SORBER® Screening Survey Chain of Custody

For W.L. Gore & Associates use only
Production Order # 68516

W. L. Gore & Associates, Inc., Environmental Products Group
*101 Lewisville Road • Elkton, Maryland 21921 • Tel: (410) 392-3300 • Fax (410) 996-3325*

*Instructions: Customer must complete ALL shaded cells*

| | | | |
|---|---|---|---|
| Customer Name: | GROUNDWATER TECHNOLOGY INC | Site Name: | AOC BLDG 1001 |
| Address: | 223 WILMINGTON WEST CHESTER PIKE CHADDS FORD PA 19317 | Site Address: | DELIVERY ORDER 8 HOLLOMAN AFB NM |
| | | Project Manager: | CHUCK SCHICK |
| Phone: | 610 558 1730 | Customer Project No.: | |
| FAX: | 610 558 4295 | Customer P.O. #: | 6233 Quote #: BK 4246 |

| Serial # of Modules Shipped | | | # of Modules for Installation 49 | #.of Trip Blanks 5 |
|---|---|---|---|---|
| # 120467 | through | # 120496 | Total Modules Shipped: 54 | Pieces |
| # 120500 | through | # 120523 | Total Modules Received: 54 | Pieces |
| # | through | # | Total Modules Installed: 49 | Pieces |
| # | through | # | Serial # of Trip Blanks (*Client Decides*) | #120519 ✓ |
| # | through | # | # 120520 ✓ # 120521 ✓ | # 120522 ✓ |
| # | through | # | # 120523 ✓ # | # |
| # | through | # | # # | # |

| | |
|---|---|
| Installation Performed By: | Installation Method(s) (*circle those that apply*): |
| Name (*please print*): CHUCK SCHICK | Slide Hammer Hammer Drill Auger |
| Company/Affiliation: GTI | Other: |

| | | |
|---|---|---|
| Installation Start Date and Time: | 22 / MAY / 1996 | : 08:05 AM PM |
| Installation Complete Date and Time: | 23 / MAY / 1996 | : 0910 AM PM |

| | | |
|---|---|---|
| Retrieval Performed By: | Total Modules Retrieved: 49 | Pieces |
| Name (*please print*): SCOTT STEVENSON | Total Modules Lost in Field: 0 | Pieces |
| Company/Affiliation: GTI | Total Unused Modules Returned: — | Pieces |

| | | |
|---|---|---|
| Retrieval Start Date and Time: | 6 June / 1996 | : 07:37 AM PM |
| Retrieval Complete Date and Time: | 6 June / 1996 | : 10:44 AM PM |

| | | |
|---|---|---|
| Target Analytes to be Mapped (*Check Options or List as appropriate*): | To Be Determined Pending Completion of Lab Analysis [X] or write "None", if applicable. | |
| Analyte #1: | Analyte #2: | Analyte #3: |

Other Instructions, if any:

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By CJ Jordan<br>Affiliation: W.L. Gore & Associates, Inc. | Date 5/10/96 | Time 15:00 | Received By: [signature]<br>Affiliation: GTI | Date 5/22/96 | Time 0800 |
| Relinquished By Scott Stevenson<br>Affiliation: Flown Daniel GTI | Date 6 Jun 96 | Time | Received By: FEDX #<br>Affiliation: 799 8295946 - | Date | Time |
| Relinquished By<br>Affiliation | Date | Time | Received By: CJ Jordan<br>Affiliation: W.L. Gore & Associates, Inc. | Date 6/7/96 | Time 12:00 |
| | Temperature of Samples When Received By Gore | | | 5.2 | °C |

*GORE-SORBER ® Screening Survey is a registered service mark of W.L. Gore & Associates, Inc.*

# GORE-SORBER® Screening Survey
## Installation and Retrieval Log

Page 1 of 2

**SITE NAME & LOCATION**

AOC BLDG 1001, Del. Order 8, WAD 29
HOLLOMAN AFB, NM 88330
Order 68516, Quote BK 4246

| LINE # | MODULE # | INSTALLATION DATE/TIME | RETREIVAL DATE/TIME | EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate) LPH | ODOR | NONE | MODULE IN WATER (check one) YES | NO | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 120467 ✓ | 100N 150E 5-22-96 805 | 6 June 96/0737 | | | X | | X | |
| 2. | 120468 ✓ | 100N 250E 5-22-96 900 | /0739 | | | X | | X | |
| 3. | 120469 ✓ | 100N 350E 5-22-96 905 AM | /0741 | | | X | | X | west (S) 6' |
| 4. | 120470 ✓ | 200N 400E 5-22-96 920 AM | 0745 | | | X | | X | 6' EAST OF MAR |
| 5. | 120471 ✓ | 200N 500E 5-22-96 925 | 0747 | | | X | | X | |
| 6. | 120472 ✓ | 200N 600E 5-22-96 930 | 0749 | | | X | | X | |
| 7. | 120473 ✓ | 300N 650E 5-22-96 945 | 0752 | | | X | | X | |
| 8. | 120474 ✓ | 300N 750E 5-22-96 1005 | 0754 | | | X | | X | |
| 9. | 120475 ✓ | 300N 650E 5-22-96 1010 | 0757 | | | X | | X | unable to pull — excavated — packed |
| 10. | 120476 ✓ | 300N 550E 5-22-96 1015 | 0759 | | | X | | X | ? 1 sub-[illegible] in hole |
| 11. | 120477 ✓ | 300N 450E 5-22-96 1020 | 0852 | | | X | | X | 2' EAST OF MARK |
| 12. | 120478 ✓ | 300N 350E 5-22-96 1025 | 0856 | | | X | | X | |
| 13. | 120479 ✓ | 300N 250E 5-22-96 1035 | 0858 | | | X | | X | |
| 14. | 120480 ✓ | 300N 150E 5-22-96 1045 | 0900 | | | X | | X | |
| 15. | 120481 ✓ | 200N 100E 5-22-96 1105 | 0902 | | | X | | X | 4' EAST of mark |
| 16. | 120482 ✓ | 100N-50E 5-22-96 1110 | 0905 | | | X | | X | |
| 17. | 120483 ✓ 100 | 100N 100E 5-22-96 1120 | 0910 | | | X | | X | HARD 3' N of Mark |
| 18. | 120484 ✓ | 400N 300E 5-22-96 1140 | 0912 | | | X | | X | |
| 19. | 120485 ✓ | 400N 400E 5-22-96 1145 | 0914 | | | X | | X | |
| 20. | 120486 ✓ | 400N 550E 5-22-96 1155 | 0916 | | | X | | X | |
| 21. | 120487 ✓ | 400N 600E 5-22-96 1205 | 0919 | | | X | | X | 2' N of mark |
| 22. | 120488 ✓ | 400N 700E 5-22-96 1225 | 0921 | | | X | | X | |
| 23. | 120489 ✓ | 400N 750E 5-22-96 1240 | 0922 | | | X | | X | |
| 24. | 120490 ✓ | 400N 800E 5-22-96 1250 | 0924 | | | X | | X | 4' N of Mark |
| 25. | 120491 ✓ | 400N 900E 5-22-96 1330 | 0935 | | | X | | X | |
| 26. | 120492 ✓ | 350N 750E 155 pm 5-22-96 | 0937 | | | X | | X | |
| 27. | 120493 ✓ | 300N 800E 200 pm | 0939 | | | X | | X | |
| 28. | 120494 ✓ | 500N 900E 205 pm 5/22 | 0941 | | | X | | X | |
| 29. | 120495 ✓ | 500N 800E 210 pm 5/22 | 0947 | | | X | | X | |
| 30. | 120496 ✓ | 500N 700E 220 5/22 | 0944 | | | X | | X | 4' S of Mark |
| 31. | 120497 ✓ | 500N 550E 240 5/22 | 0947 | | | X | | X | |
| 32. | 120501 ✓ | 500N 450E 255 pm 5/22 | 0949 | | | X | | X | |
| 33. | 120502 ✓ | 500N 350E 305 pm 5/22 | 0951 | | | X | | X | 2' S of mark |
| 34. | 120503 ✓ | 500N 250E 312 5/22 | 0953 | | | X | | X | |
| 35. | 120504 ✓ | 500N 150E 320 5/22 | 0955 | | | X | | X | |
| 36. | 120505 ✓ | 600N 150E 330 pm 5/22 | 0959 | | | X | | X | 3' South of flow |
| 37. | 120506 ✓ | 600N 600E 400 5/22 | 1001 | | | X | | X | |
| 38. | 120507 ✓ | 600N 600E 0750 5/23 | 1003 | | | X | | X | |
| 39. | 120508 ✓ | 650N 650E 0755 5/23 | 1005 | | | X | | X | N550/E650 |
| 40. | 120509 ✓ | 600N 700E 0800 5/23 | 1009 | | | X | | X | |
| 41. | 120510 ✓ | 600N 750E 0805 5/23 | 1011 | | | X | | X | |
| 42. | 120511 ✓ | 650N 800E 0815 5/23 | 1013 | | | X | | X | |

# GORE-SORBER® Screening Survey
## Installation and Retrieval Log

Page 2 of 2

**SITE NAME & LOCATION**

AOC BLDG 1001, Deliv. order 8, WAD 29
Holloman AFB, NM. ~~8710~~ 88330
Quote BK 4246

| LINE # | MODULE # | INSTALLATION DATE/TIME | RETRIEVAL DATE/TIME | EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate) | | | MODULE IN WATER (check one) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LPH | ODOR | NONE | YES | NO | |
| 43. | 125012 ✓ | 650N750E 0815 5/23 | 6 June 96 1009 | | | X | | X | |
| 44. | 125013 ✓ | 700N750E 0820 5/23 | 1015 | | | X | | X | |
| 45. | 125014 ✓ | 700N850E 0830 5/23 | 1017 | | | X | | X | |
| 46. | 125015 ✓ | 700N600E 837 5/23 | 1020 | | | X | | X | 41' EAST of 1 mile |
| 47. | 125016 ✓ | 00N350E 850 5/23 | 1040 | | | X | | X | offset to north of fence line |
| 48. | 125017 ✓ | 00N250E 5/23 9 20 | 1042 | | | X | | X | |
| 49. | 125018 ✓ | 00N150E 910 5/23 | 1044 | | | X | | X | |
| 50. | | | | | | | | | |
| 51. | | | | | | | | | |
| 52. | | | | | | | | | |
| 53. | | | | | | | | | |
| 54. | | | | | | | | | |
| 55. | | | | | | | | | |
| 56. | | | | | | | | | |
| 57. | | | | | | | | | |
| 58. | | | | | | | | | |
| 59. | | | | | | | | | |
| 60. | | | | | | | | | |
| 61. | | | | | | | | | |
| 62. | | | | | | | | | |
| 63. | | | | | | | | | |
| 64. | | | | | | | | | |
| 65. | | | | | | | | | |
| 66. | | | | | | | | | |
| 67. | | | | | | | | | |
| 68. | | | | | | | | | |
| 69. | | | | | | | | | |
| 70. | | | | | | | | | |
| 71. | | | | | | | | | |
| 72. | | | | | | | | | |
| 73. | | | | | | | | | |
| 74. | | | | | | | | | |
| 75. | | | | | | | | | |
| 76. | | | | | | | | | |
| 77. | | | | | | | | | |
| 78. | | | | | | | | | |
| 79. | | | | | | | | | |
| 80. | | | | | | | | | |
| 81. | | | | | | | | | |
| 82. | | | | | | | | | |
| 83. | | | | | | | | | |
| 84. | | | | | | | | | |
| 85. | | | | | | | | | |

*GORE-SORBER ® Screening Survey is a registered service mark of W.L. Gore & Associates, Inc.*

GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATE ANALYZED | DATAFILE NAME | BTEX, ug | BENZ, ug | TOL, ug | EtBENZ, ug | mpXYL, ug | oXYL, ug | C11,C13&C15, ug | UNDEC, ug | TRIDEC, ug | PENTADEC, ug |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MDL | 0.02 | 0.03 | 0.03 | 0.02 | 0.02 | 0.03 | 0.02 | 0.04 | 0.02 | 0.03 |
| 6/10/96 | 120467 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.00 |
| 6/10/96 | 120468 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/10/96 | 120469 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/10/96 | 120470 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/10/96 | 120471 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/10/96 | 120472 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/10/96 | 120473 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/10/96 | 120474 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/10/96 | 120475 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/10/96 | 120476 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/10/96 | 120477 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 |
| 6/10/96 | 120478 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/10/96 | 120479 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 |
| 6/10/96 | 120480 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120481 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120482 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120483 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 |
| 6/11/96 | 120484 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/11/96 | 120485 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120486 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 |
| 6/11/96 | 120487 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/11/96 | 120488 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120489 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120490 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120491 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120492 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120493 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120494 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120495 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120496 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120500 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.00 |
| 6/11/96 | 120501 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATE ANALYZED | DATAFILE NAME | BTEX, ug | BENZ, ug | TOL, ug | EtBENZ, ug | mpXYL, ug | oXYL, ug | C11,C13&C15, ug | UNDEC, ug | TRIDEC, ug | PENTADEC, ug |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MDL | 0.02 | 0.03 | 0.03 | 0.02 | 0.02 | 0.03 | 0.02 | 0.04 | 0.02 | 0.03 |
| 6/11/96 | 120502 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120503 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120504 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120505 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120506 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120507 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/11/96 | 120508 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120509 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/11/96 | 120510 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120511 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/11/96 | 120512 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.00 |
| 6/11/96 | 120513 | 1.12 | 0.00 | 0.80 | 0.00 | 0.32 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/11/96 | 120514 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.00 |
| 6/11/96 | 120515 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 |
| 6/11/96 | 120516 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | 120517 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 6/12/96 | 120518 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | |
| 6/10/96 | TB 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | TB 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | TB 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | TB 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6/11/96 | TB 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 |
| | | | | | | | | | | | |
| 6/10/96 | BLK 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.00 |
| 6/11/96 | BLK 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | |
| | Max Observed | 1.12 | 0.00 | 0.80 | 0.00 | 0.32 | 0.00 | 0.26 | 0.26 | 0.00 | 0.00 |

GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATAFILE NAME | NAPH&2-MN, ug | NAPH, ug | 2MeNAPH, ug | TMBs, ug | 135TMB, ug | 124TMB, ug | t12DCE, ug | 11DCA, ug | c12DCE, ug | CHCl3, ug | PCE, ug |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MDL | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.05 | 0.01 | 0.02 | 0.01 | 0.03 |
| 120467 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120468 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120469 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120470 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120471 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120472 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120473 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120474 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120475 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120476 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120477 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120478 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120479 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120480 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120481 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120482 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120483 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120484 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120485 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120486 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120487 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120488 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120489 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120490 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120491 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120492 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120493 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120494 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120495 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120496 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120500 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120501 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATAFILE NAME | NAPH&2-MN, ug | NAPH, ug | 2MeNAPH, ug | TMBs, ug | 135TMB, ug | 124TMB, ug | t12DCE, ug | 11DCA, ug | c12DCE, ug | CHCl3, ug | PCE, ug |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MDL | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.05 | 0.01 | 0.02 | 0.01 | 0.03 |
| 120502 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120503 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120504 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120505 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120506 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120507 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120508 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120509 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120510 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120511 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120512 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120513 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120514 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120515 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120516 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120517 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120518 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | |
| TB 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | |
| BLK 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BLK 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | |
| Max Observed | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATAFILE NAME | 111TCA, ug | 12DCA, ug | MTBE, ug | CCl4, ug | TCE, ug | OCT, ug | ClBENZ, ug | 14DCB, ug | NIBENZ, ug | 2NITOL, ug | 3NITOL, ug | 4NITOL, ug | 13DNB, ug |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MDL | 0.02 | 0.02 | 0.16 | 0.04 | 0.02 | 0.02 | 0.02 | 0.02 | 0.09 | 0.05 | 0.08 | 0.11 | 0.18 |
| 120467 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120468 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120469 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120470 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120471 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120472 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120473 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120474 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120475 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120476 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120477 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120478 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120479 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120480 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120481 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120482 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120483 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120484 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120485 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120486 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120487 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120488 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120489 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120490 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120491 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120492 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120493 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120494 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120495 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120496 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120500 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120501 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATAFILE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAME | 111TCA, ug | 12DCA, ug | MTBE, ug | CCl4, ug | TCE, ug | OCT, ug | ClBENZ, ug | 14DCB, ug | NiBENZ, ug | 2NiTOL, ug | 3NITOL, ug | 4NITOL, ug | 13DNB, ug |
| MDL | 0.02 | 0.02 | 0.16 | 0.04 | 0.02 | 0.02 | 0.02 | 0.02 | 0.09 | 0.05 | 0.08 | 0.11 | 0.18 |
| 120502 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120503 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120504 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120505 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120506 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120507 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120508 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120509 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120510 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120511 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120512 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120513 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120514 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120515 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120516 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120517 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120518 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | | | |
| TB 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 2 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 4 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 5 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | | | |
| BLK 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BLK 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | | | |
| Max Observed | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

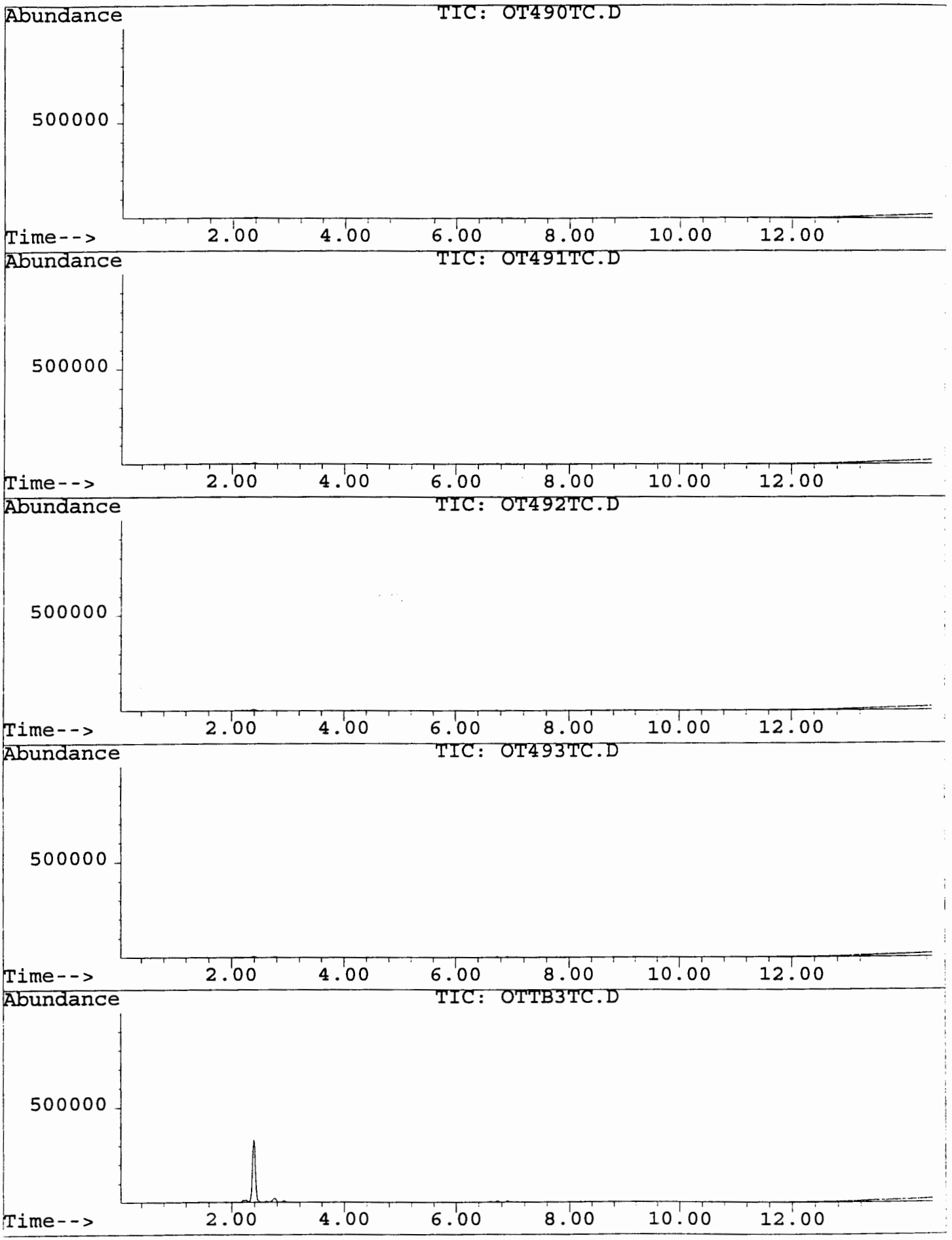
GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

| DATAFILE NAME | 26DNT, ug | 24DNT, ug | 135TNB, ug | 246TNT, ug | 4Amino26DNT | 2Amino46DNT |
|---|---|---|---|---|---|---|
| MDL | 0.12 | 0.14 | 0.14 | 0.16 | 0.23 | 0.21 |
| 120467 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120468 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120469 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120470 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120471 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120472 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120473 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120474 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120475 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120476 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120477 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120478 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120479 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120480 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120481 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120482 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120483 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120484 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120485 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120486 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120487 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120488 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120489 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120490 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120491 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120492 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120493 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120494 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120495 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120496 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120500 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120501 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

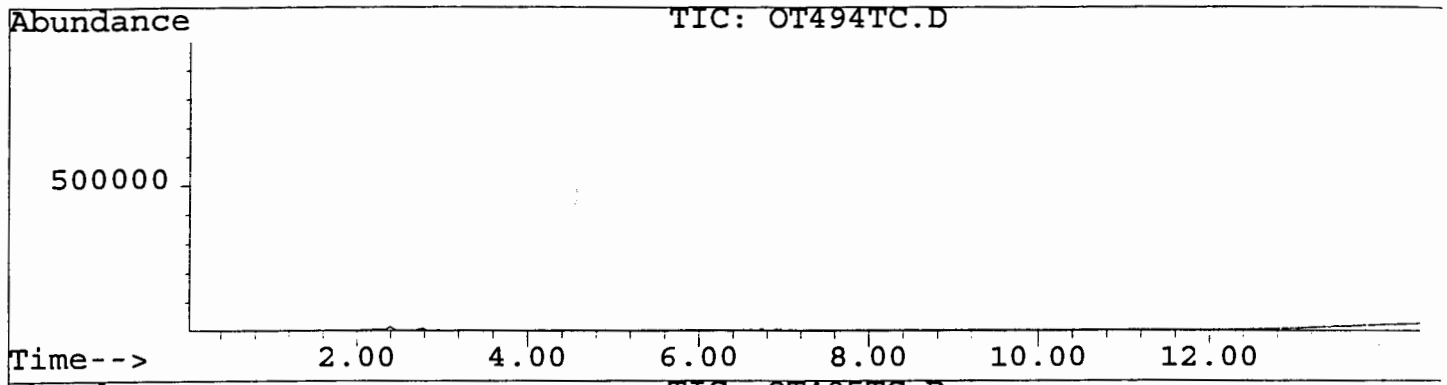
GORE-SORBER Screening Survey Analytical Results
Fluor Daniel GTI, Albuquerque, NM
A6 Target Compound List
Holloman AFB, AOC Building, 1001, NM
Site OT - Production Order #068516

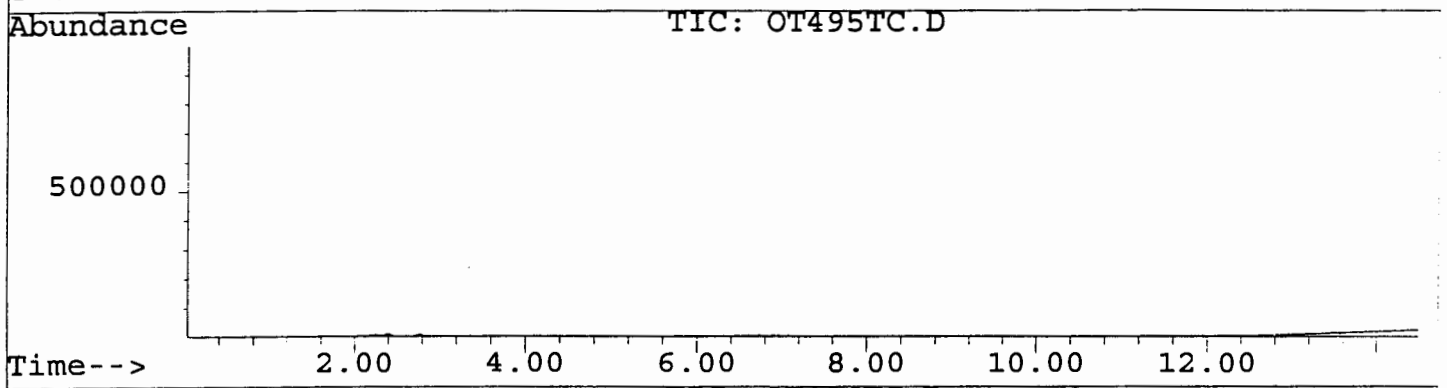
| DATAFILE NAME | 26DNT, ug | 24DNT, ug | 135TNB, ug | 246TNT, ug | 4Amino26DNT | 2Amino46DNT |
|---|---|---|---|---|---|---|
| MDL | 0.12 | 0.14 | 0.14 | 0.16 | 0.23 | 0.21 |
| 120502 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120503 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120504 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120505 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120506 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120507 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120508 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120509 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120510 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120511 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120512 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120513 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120514 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120515 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120516 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120517 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120518 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | |
| TB 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TB 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | |
| BLK 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BLK 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | |
| Max Observed | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

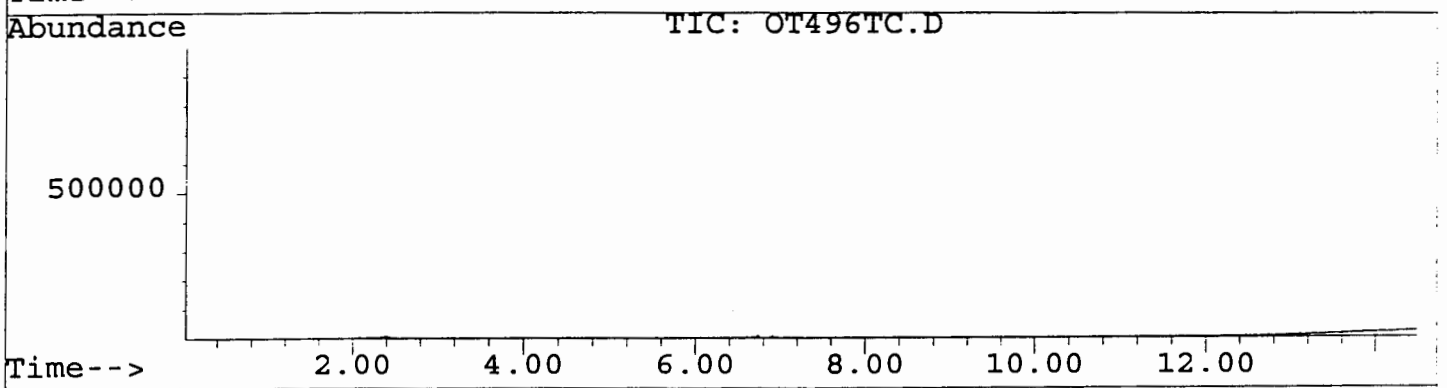
TIC - SITE OT - AOCHOLL - 068516
In sequence order

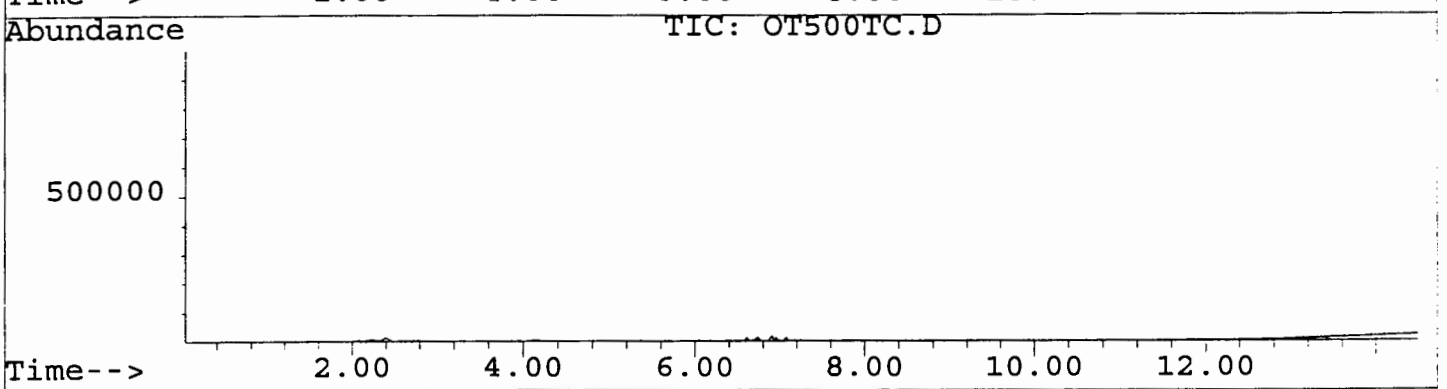


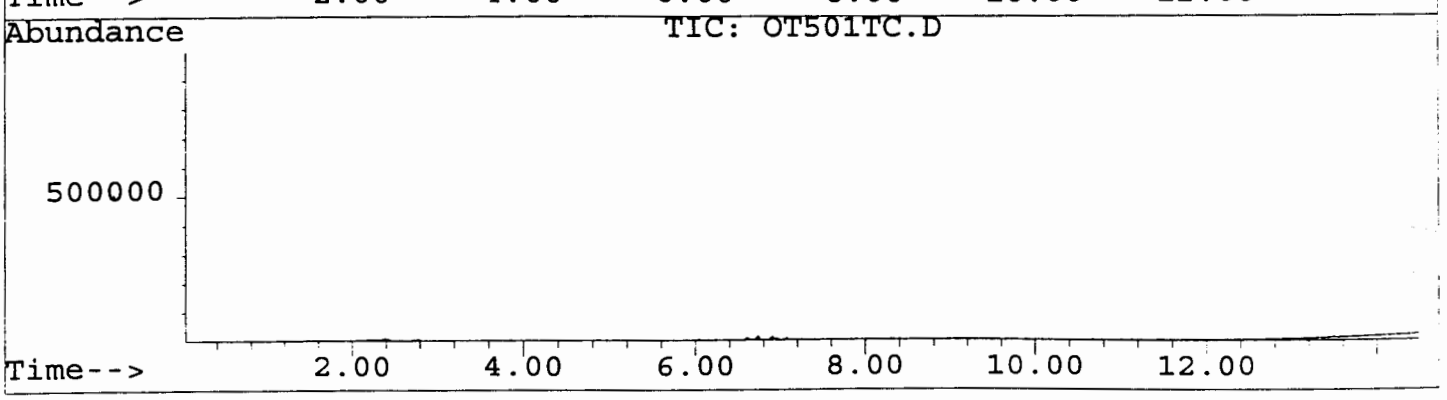
TIC - SITE OT - AOCHOLL - 068516
In sequence order



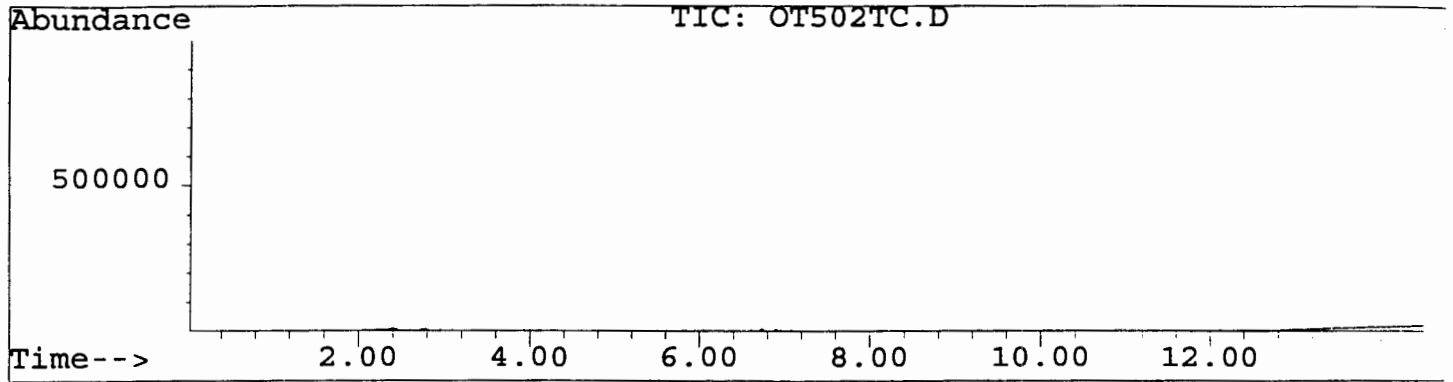



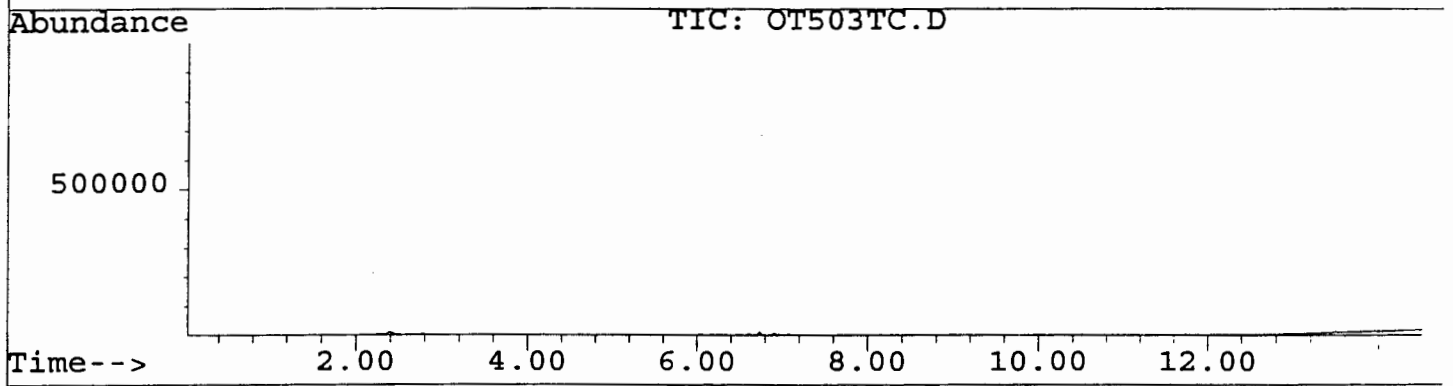



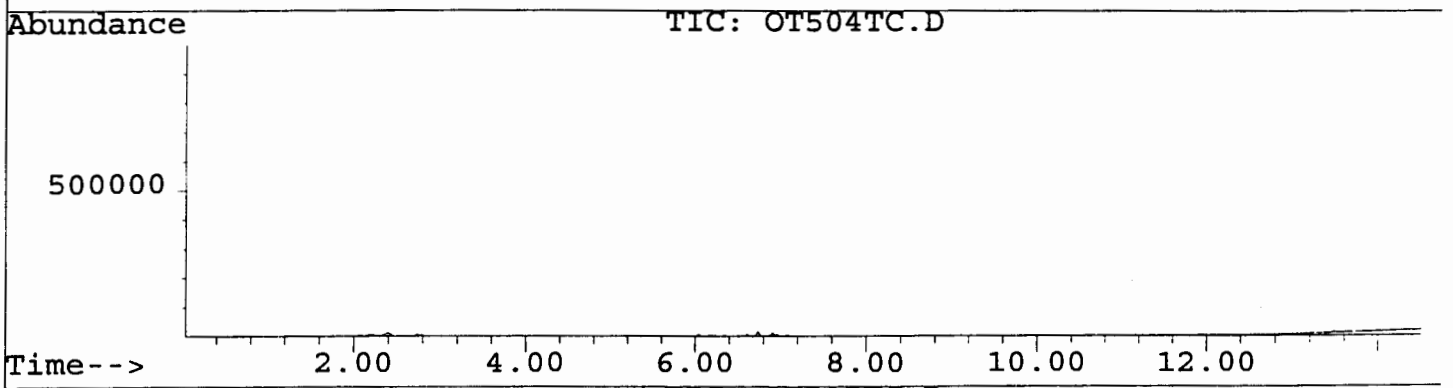



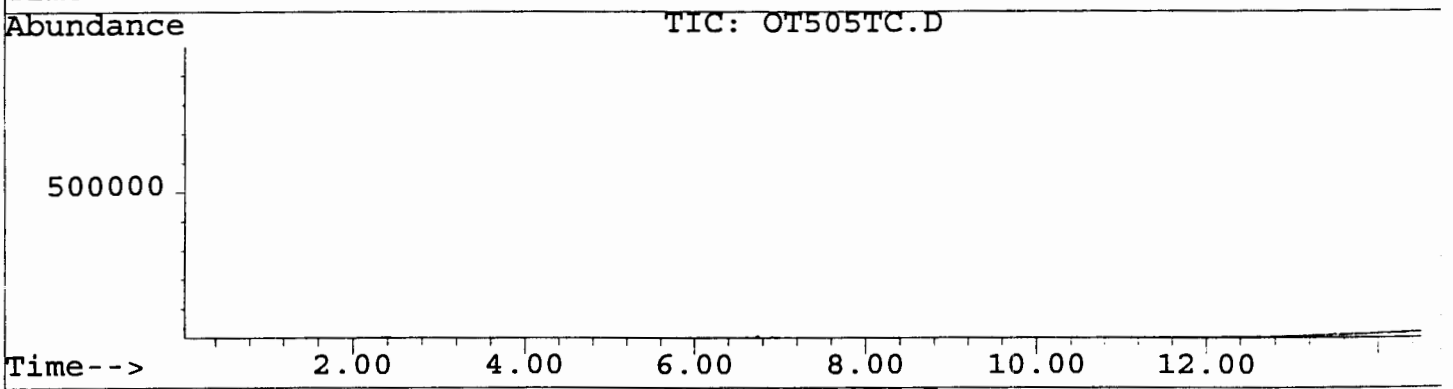



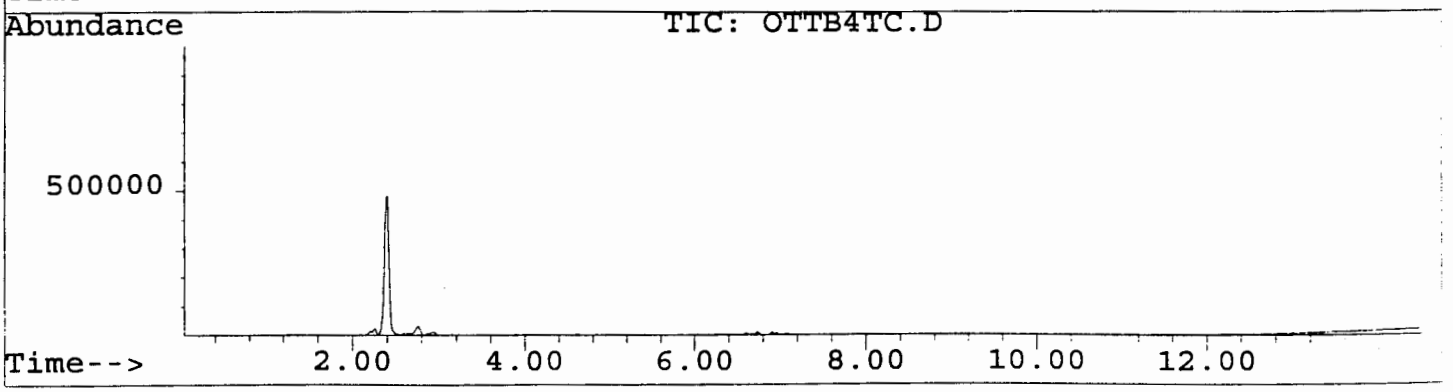
TIC - SITE OT - AOCHOLL - 068516
In sequence order



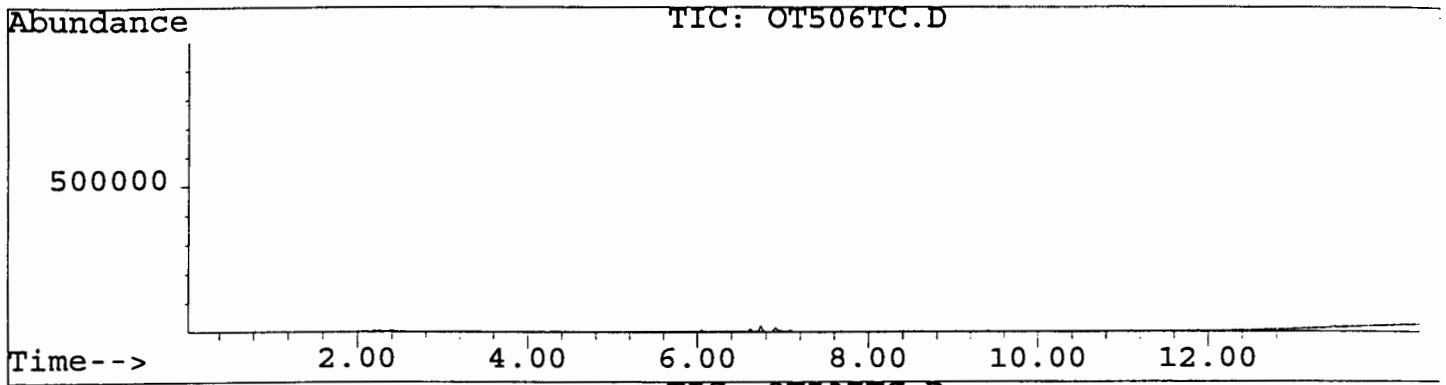



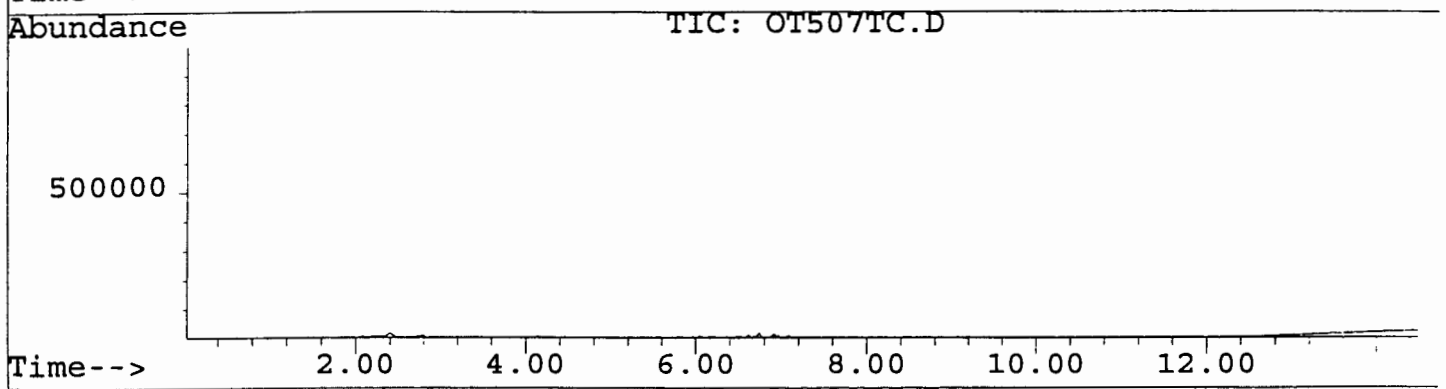



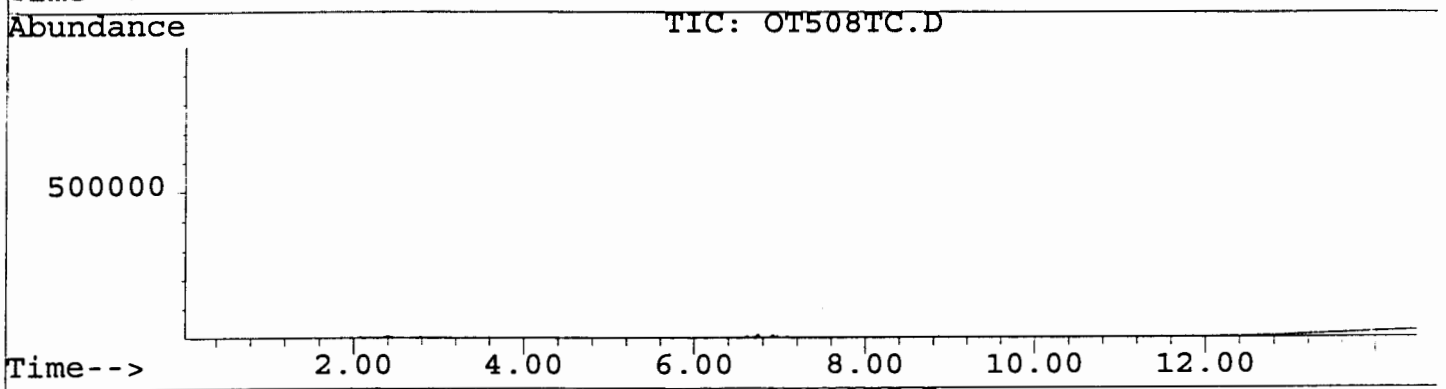



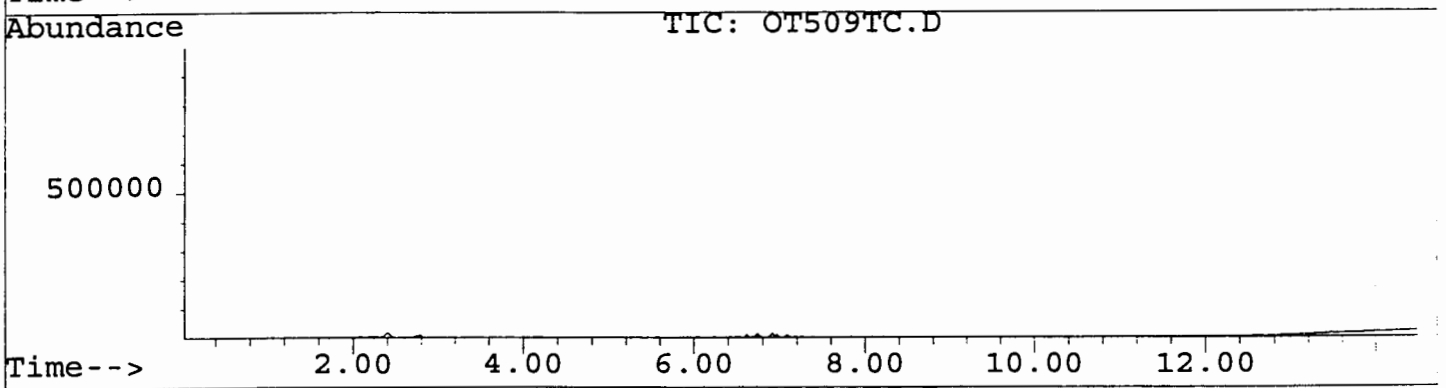



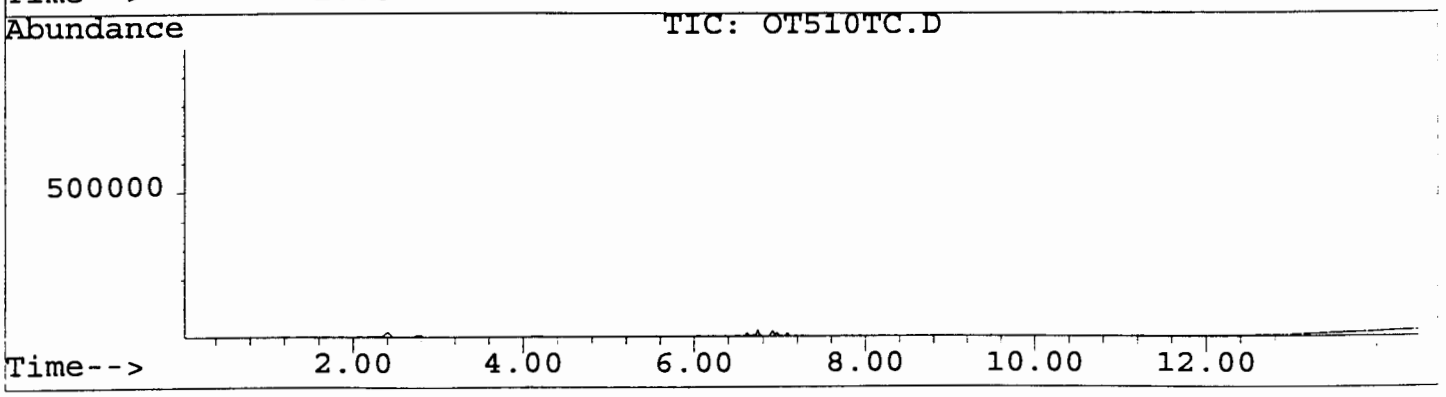
TIC - SITE OT - AOCHOLL - 068516
In sequence order



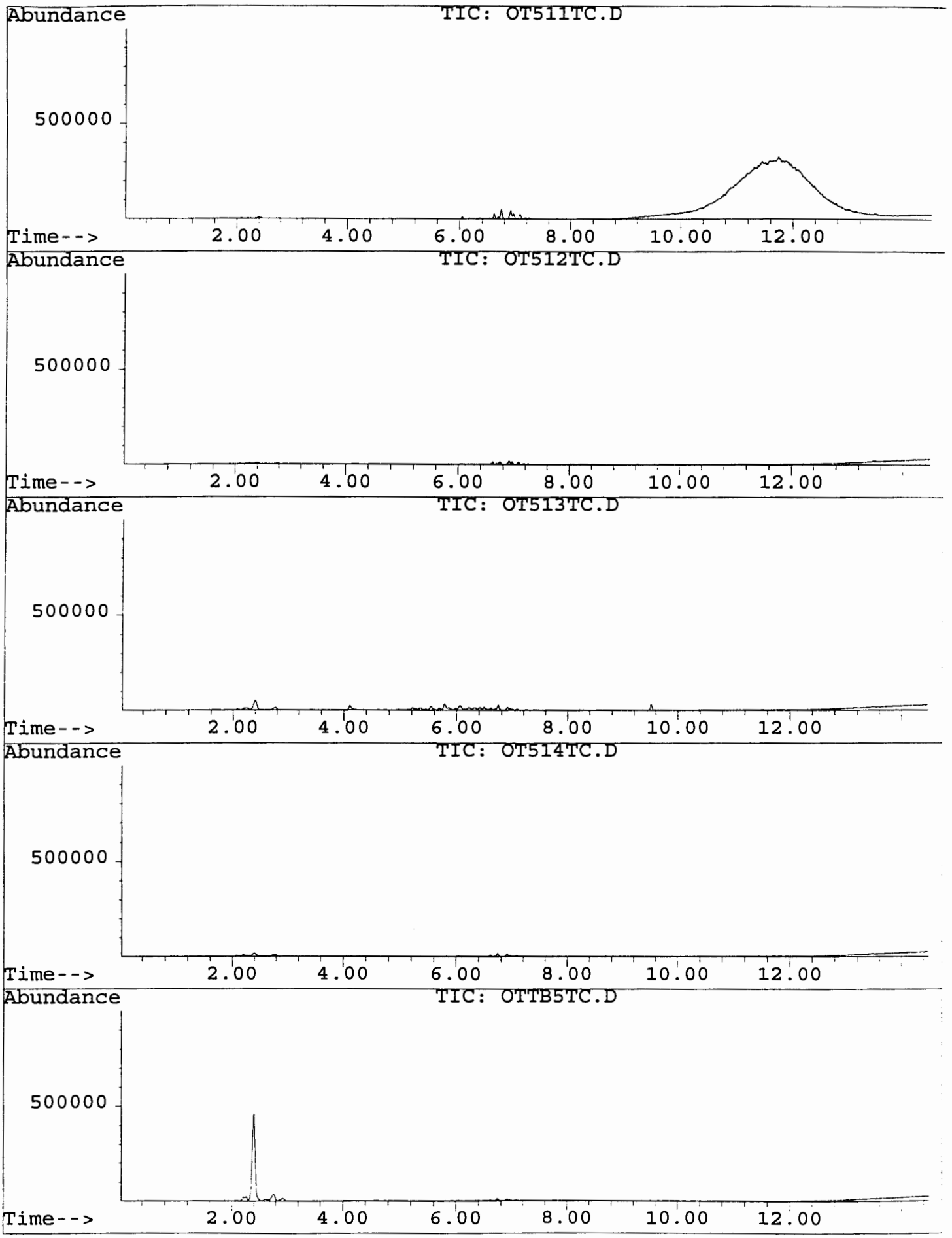



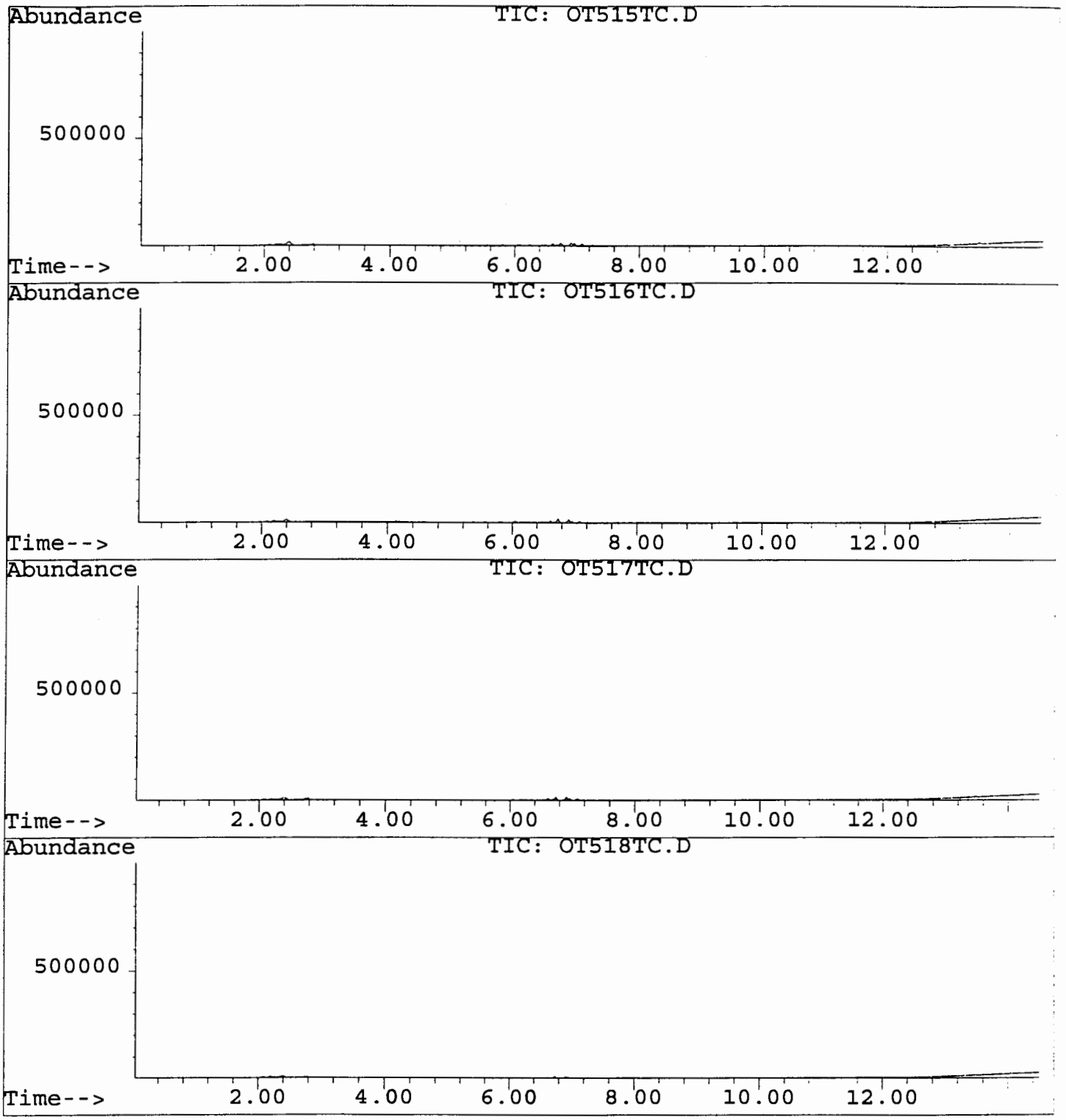



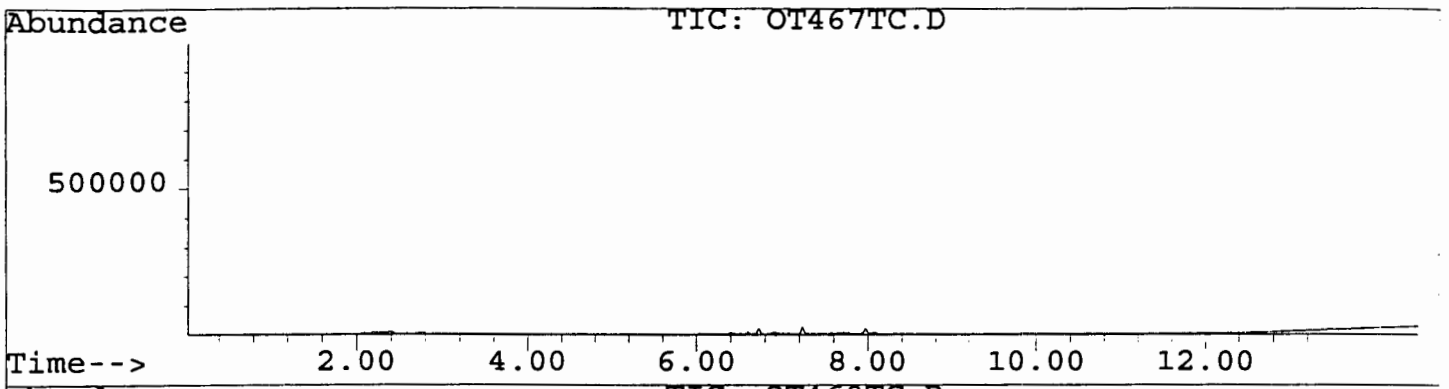
_C - SITE OT - AOCHOLL - 068516
In sequence order

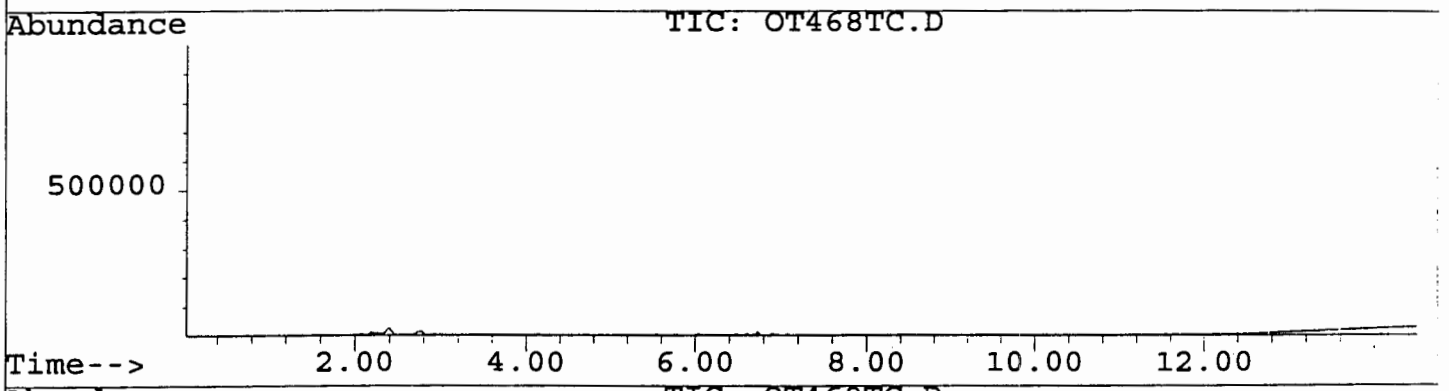


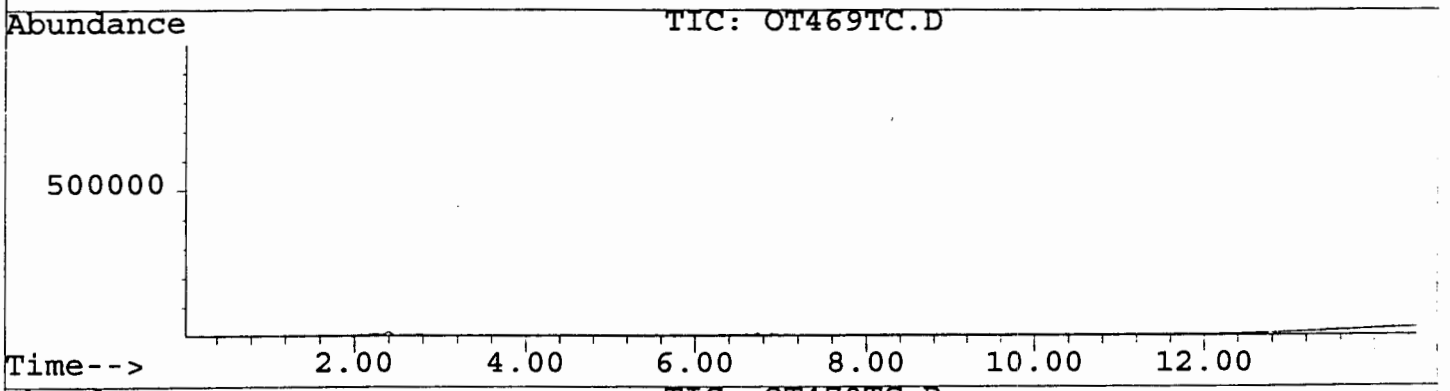
TIC - SITE OT - AOCHOLL - 068516
In sequence order

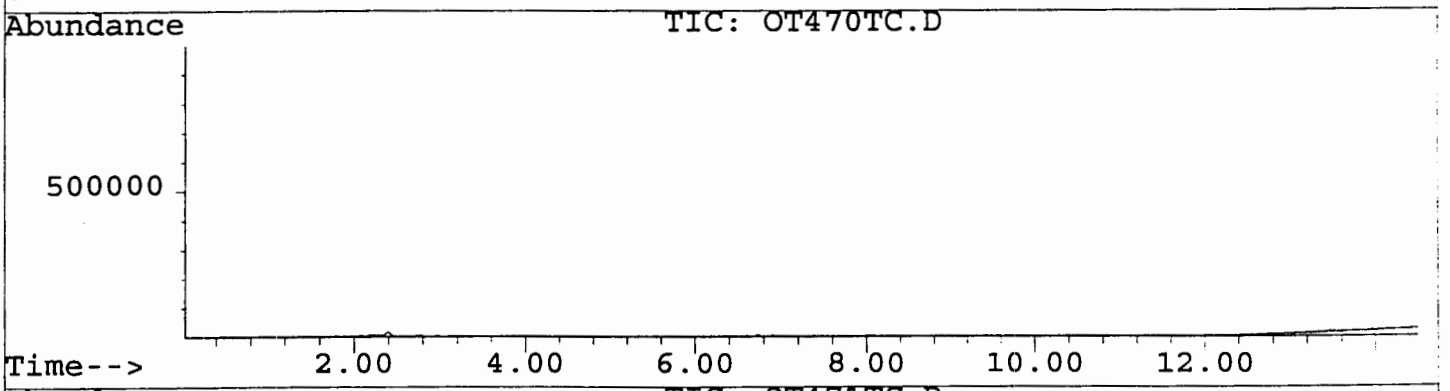


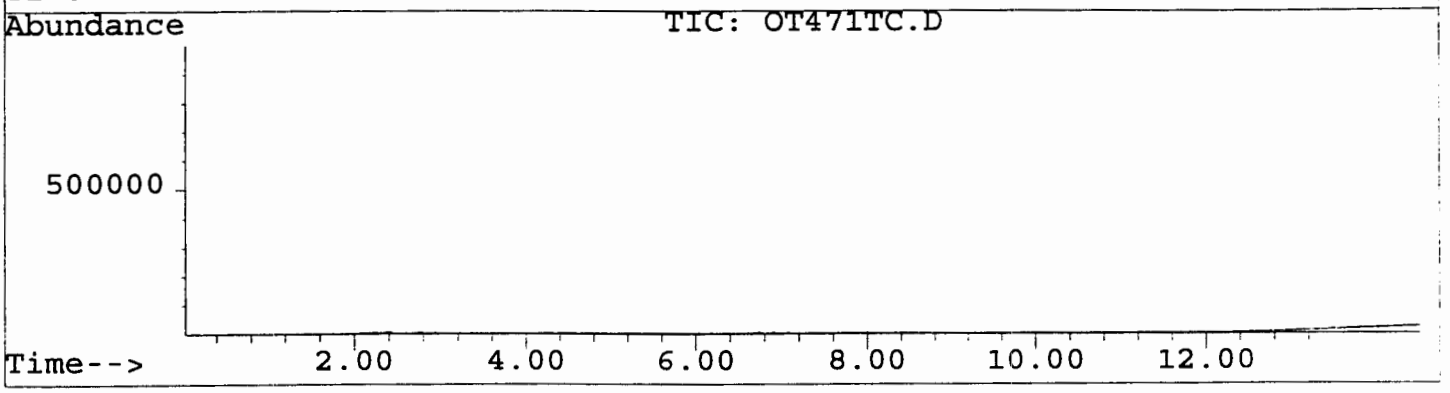
TIC - SITE OT - AOCHOLL - 068516
In sequence order



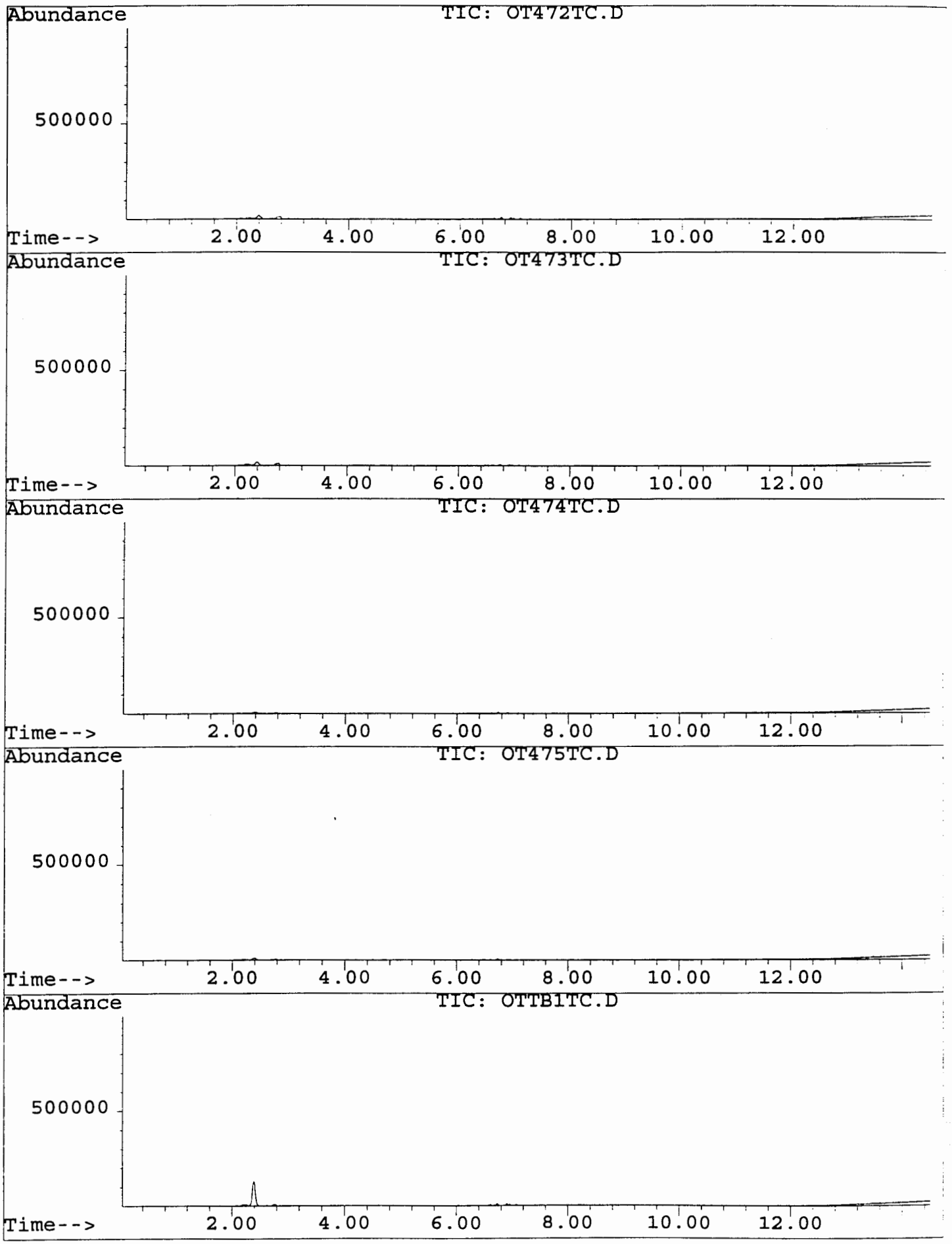



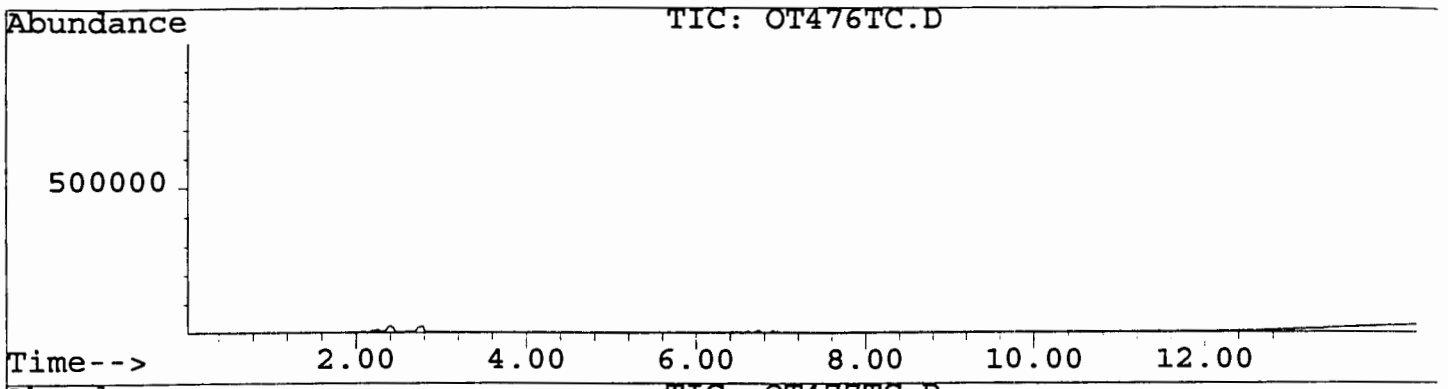



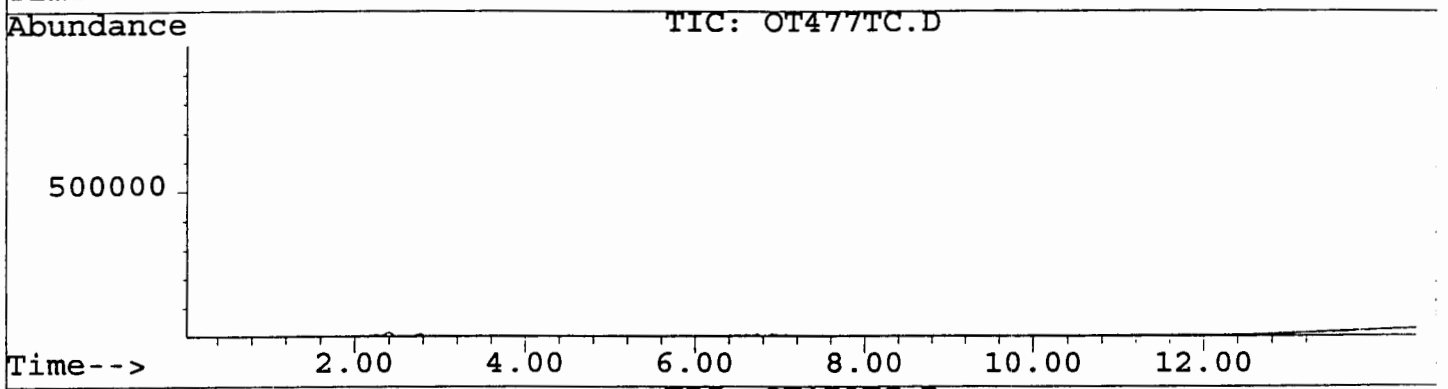



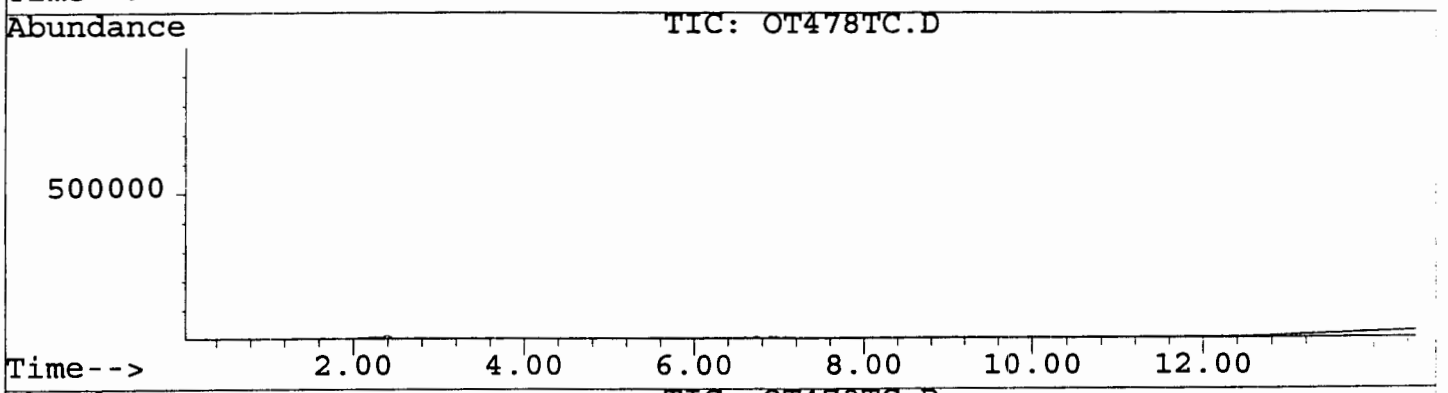
TIC - SITE OT - AOCHOLL - 068516
In sequence order

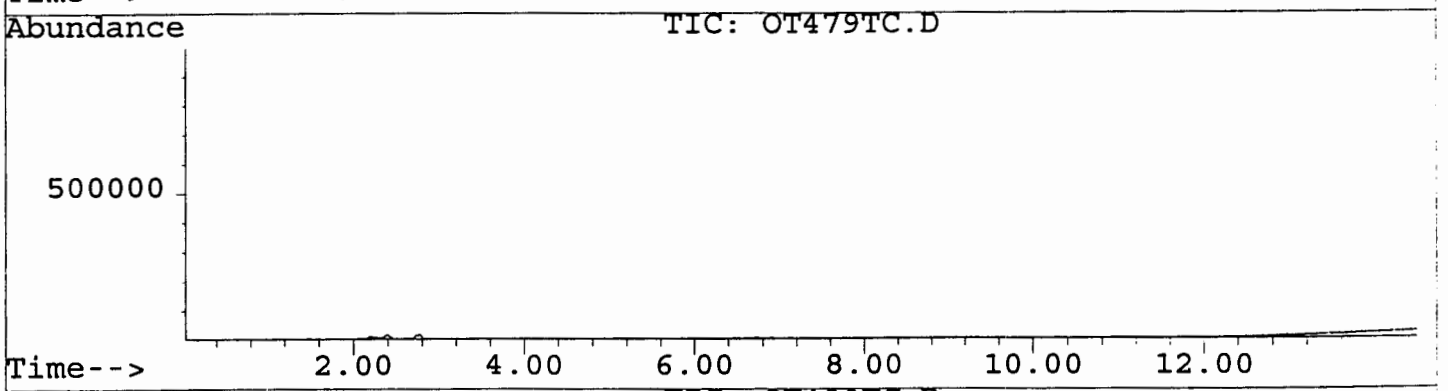


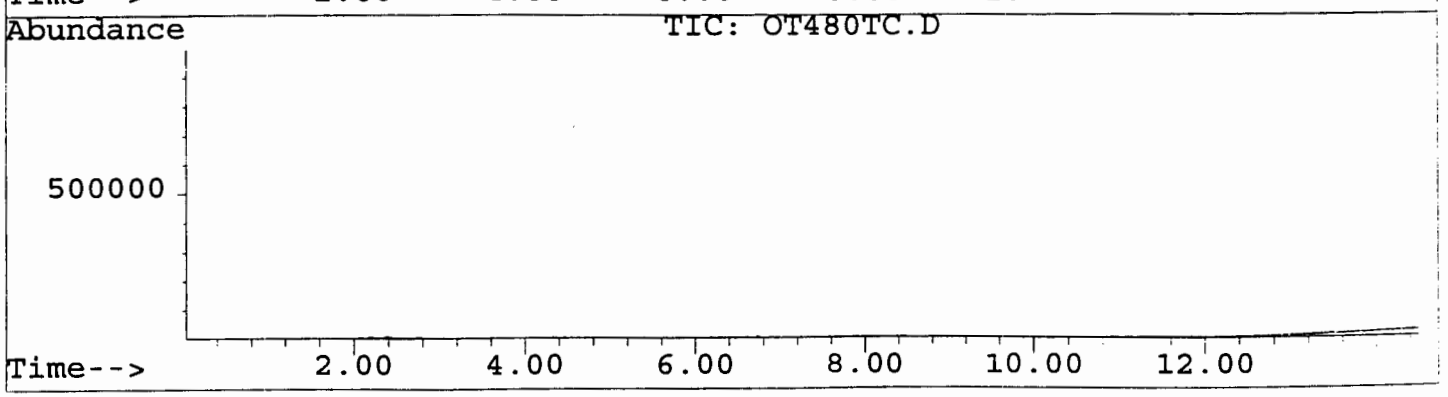
TIC - SITE OT - AOCHOLL - 068516
In sequence order



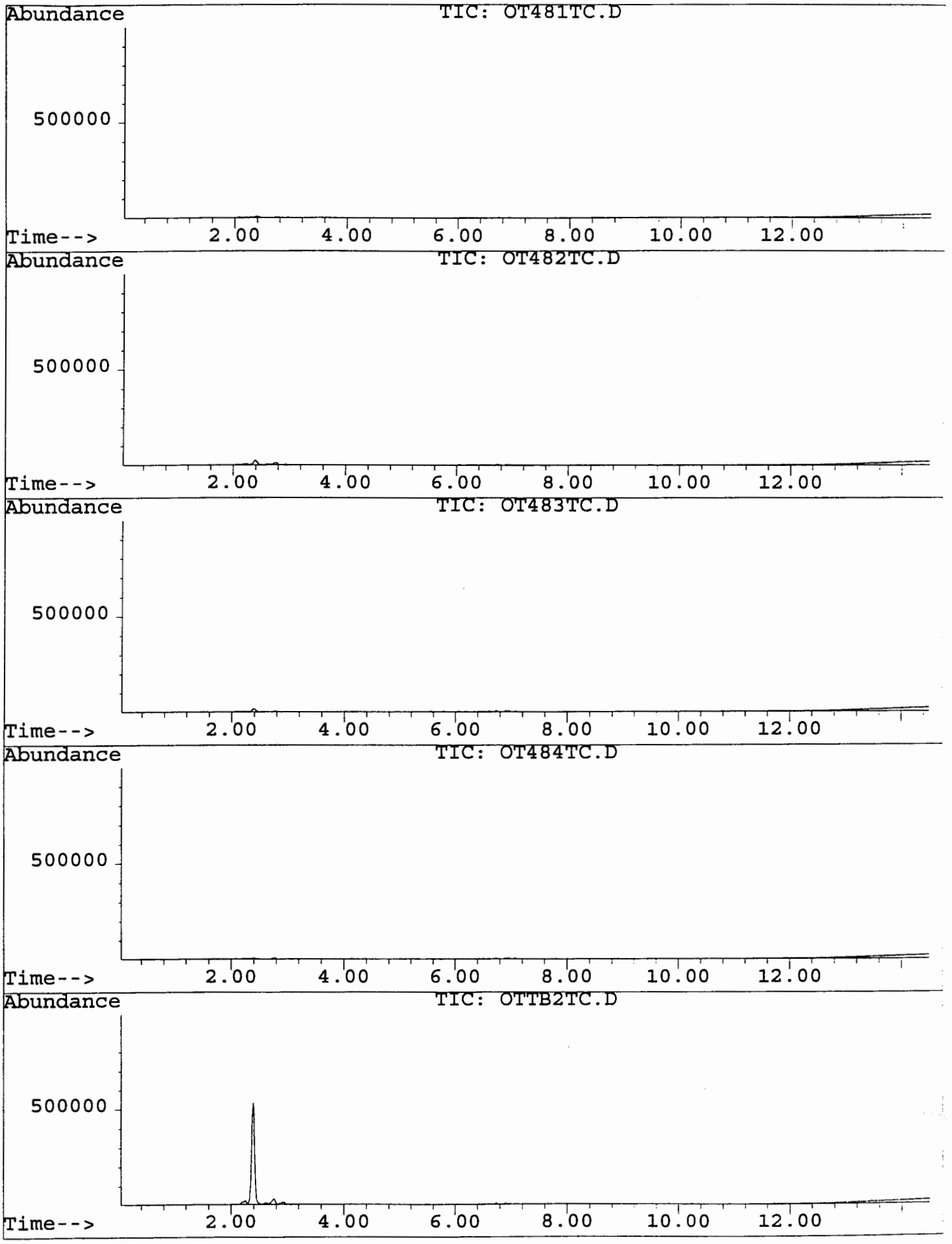



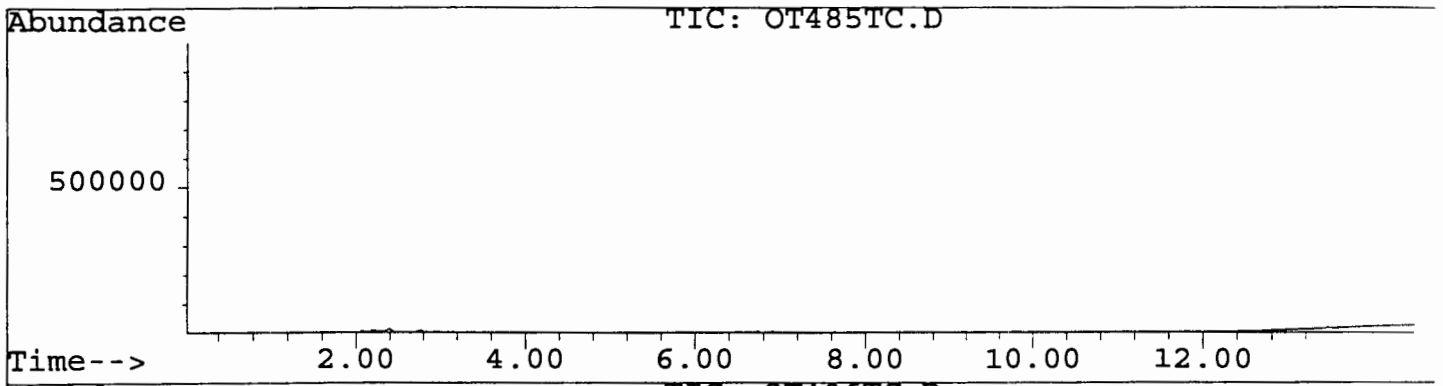



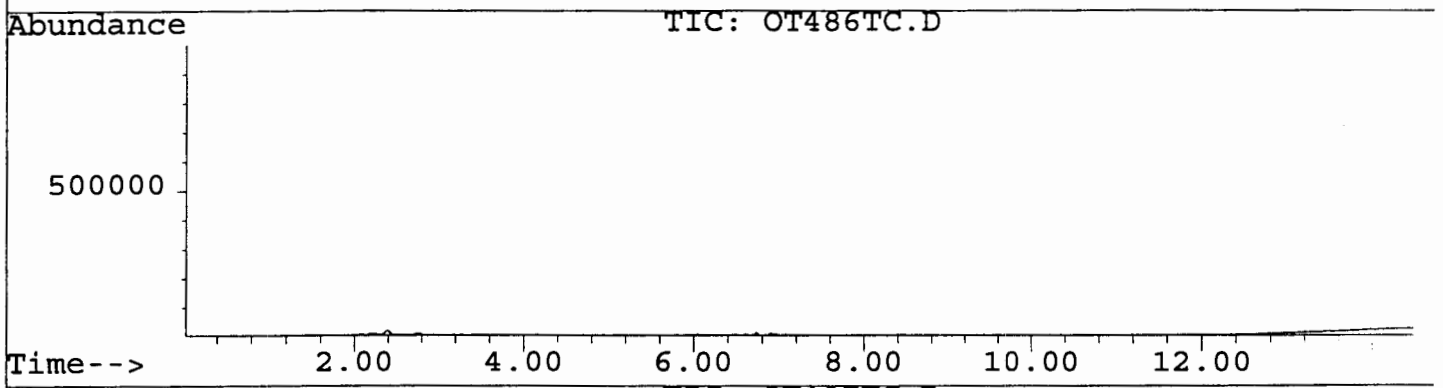



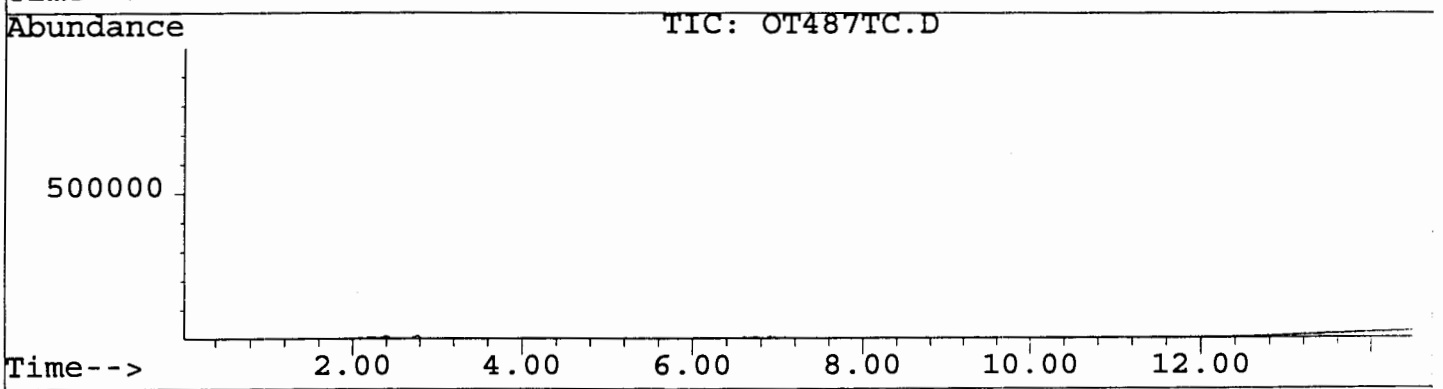
TIC - SITE OT - AOCHOLL - 068516
In sequence order

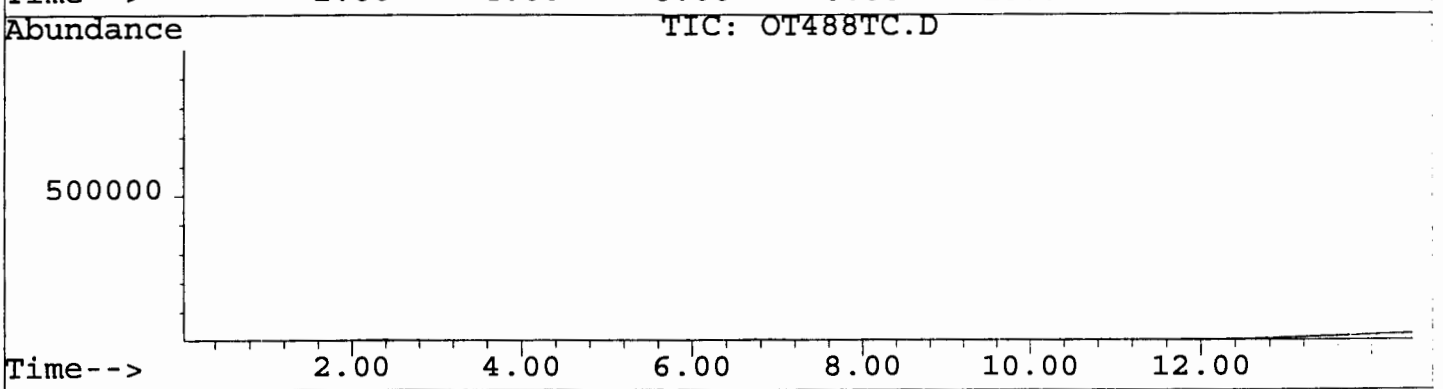


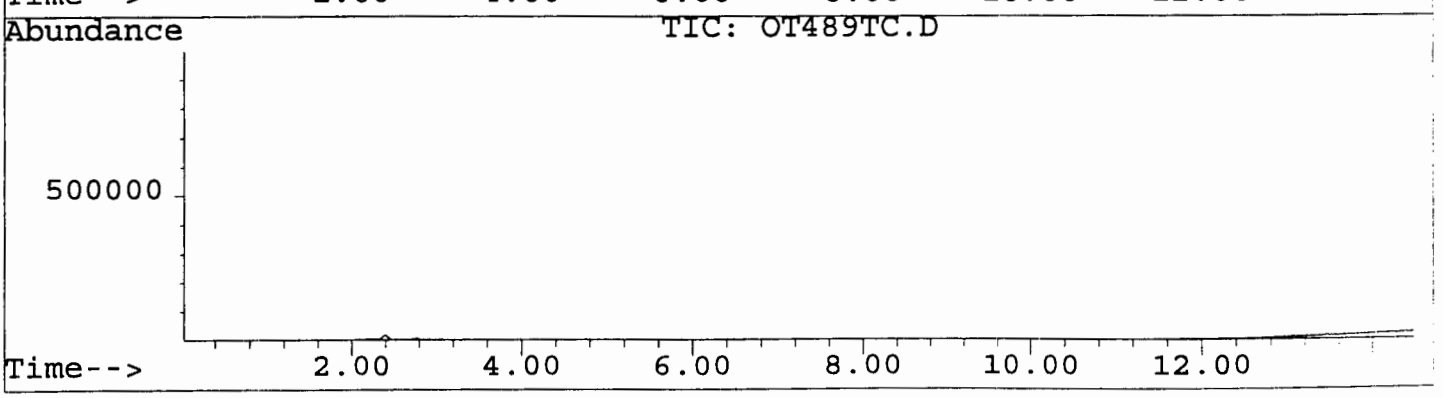
TIC - SITE OT - AOCHOLL - 068516
In sequence order



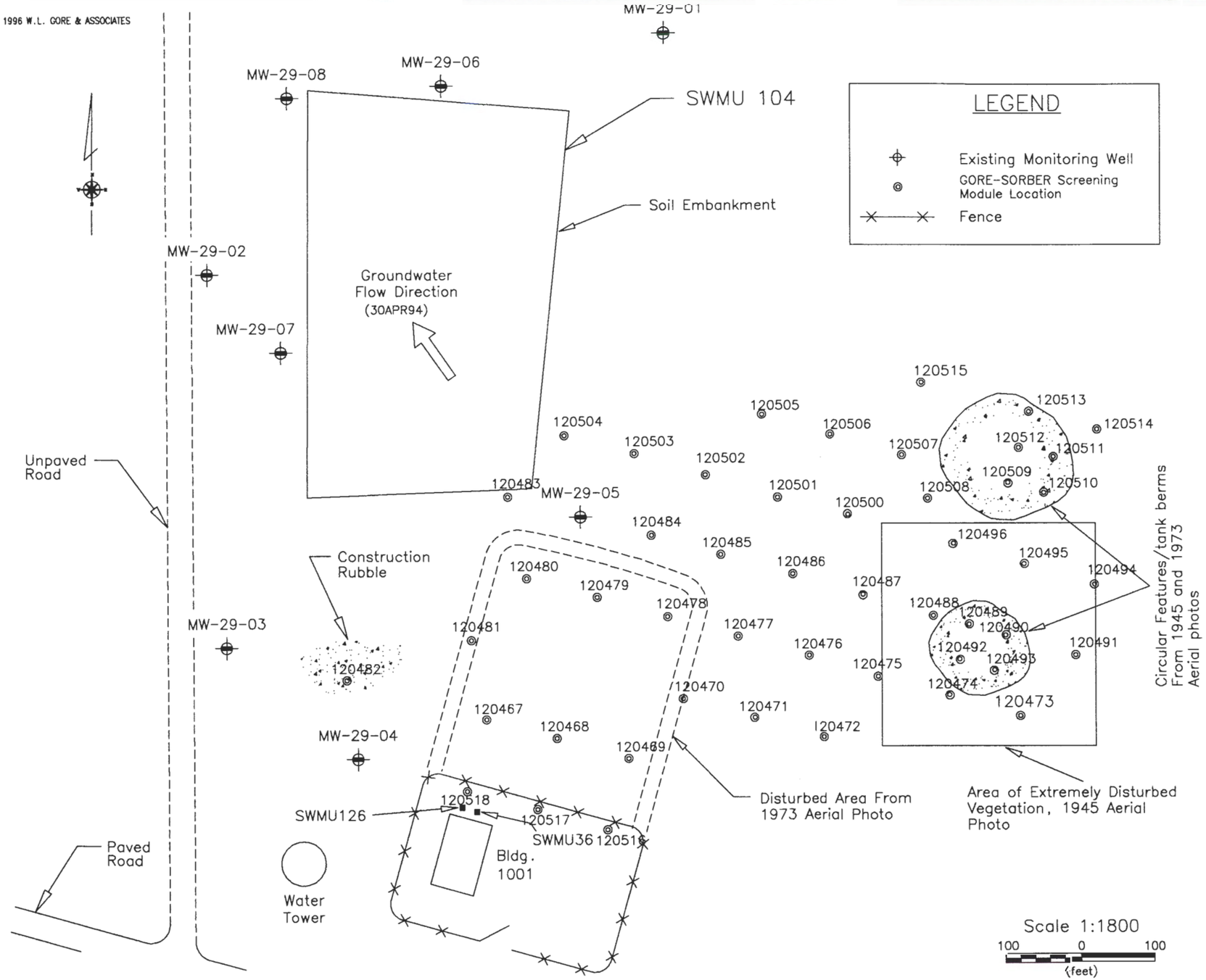



© 1996 W.L. GORE & ASSOCIATES




## LEGEND

- Existing Monitoring Well
- GORE-SORBER Screening Module Location
- Fence

# GORE-SORBER SCREENING SURVEY

W.L. GORE & ASSOCIATES, INC.
P.O. BOX 1100
101 LEWISVILLE ROAD
ELKTON, MD 21922-1100
(410) 392-3300

HOLLOMAN AFB, AOC BUILDING 1001, NM

BASEMAP

FLUOR DANIEL GTI, ALBUQUERQUE, NM

REV. #: 0

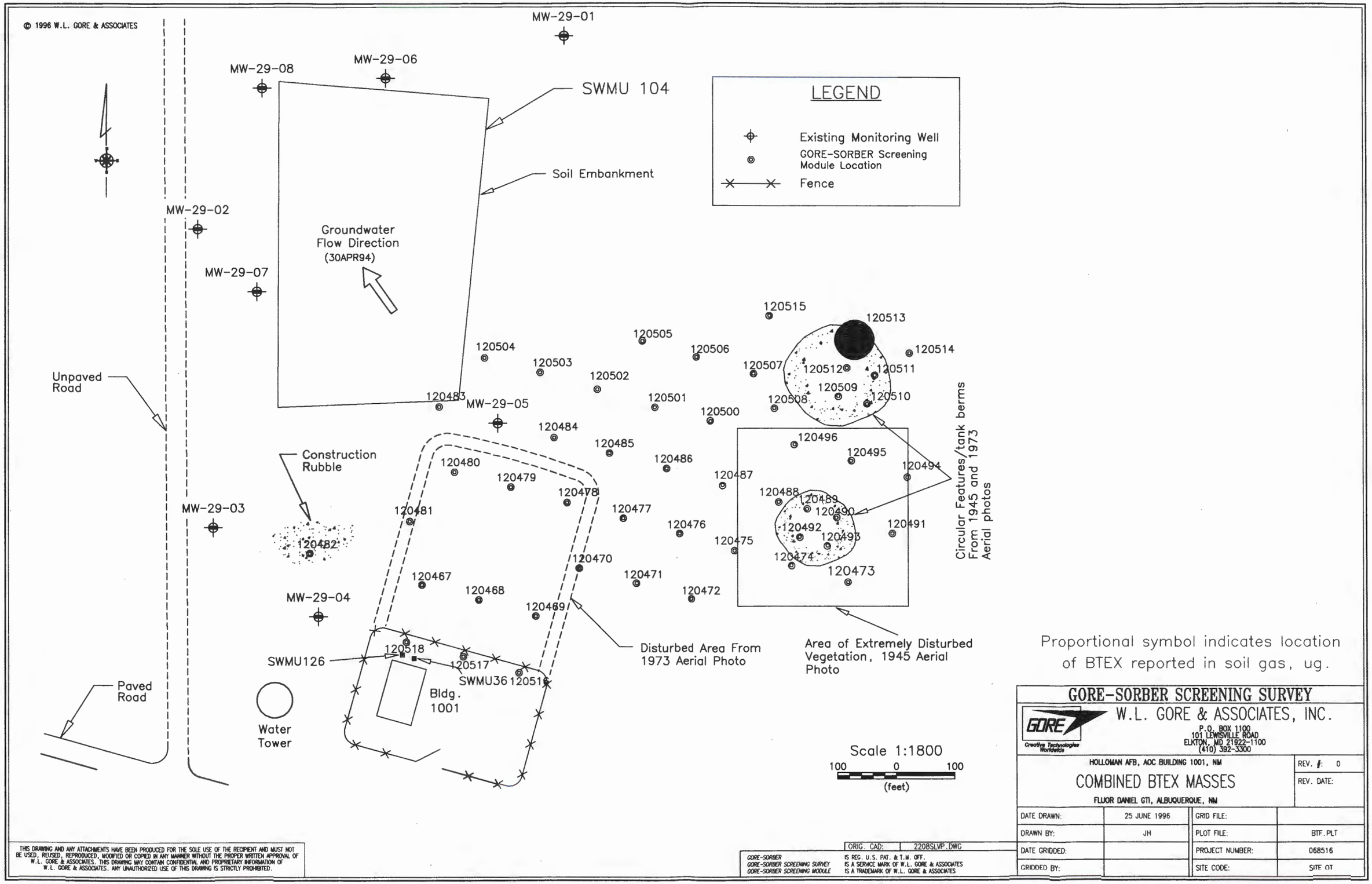
REV. DATE:

| | | | |
|---|---|---|---|
| DATE DRAWN: | 5 JUNE 1996 | GRID FILE: | |
| DRAWN BY: | [illegible] | PLOT FILE: | SITEMAP.PLT |
| DATE GRIDDED: | | PROJECT NUMBER: | 068516 |
| GRIDDED BY: | | SITE CODE: | |

ORIG. CAD: 2208SLVP.DWG

GORE-SORBER IS REG. U.S. PAT. & T.M. OFF.
GORE-SORBER SCREENING SURVEY IS A SERVICE MARK OF W.L. GORE & ASSOCIATES
GORE-SORBER SCREENING MODULE IS A TRADEMARK OF W.L. GORE & ASSOCIATES

THIS DRAWING AND ANY ATTACHMENTS HAVE BEEN PRODUCED FOR THE SOLE USE OF THE RECIPIENT AND MUST NOT BE USED, REUSED, REPRODUCED, MODIFIED OR COPIED IN ANY MANNER WITHOUT THE PROPER WRITTEN APPROVAL OF W.L. GORE & ASSOCIATES. THIS DRAWING MAY CONTAIN CONFIDENTIAL AND PROPRIETARY INFORMATION OF W.L. GORE & ASSOCIATES. ANY UNAUTHORIZED USE OF THIS DRAWING IS STRICTLY PROHIBITED.


© 1996 W.L. GORE & ASSOCIATES
MW-29-01
MW-29-06
MW-29-08
SWMU 104
Soil Embankment
LEGEND
Existing Monitoring Well
GORE-SORBER Screening Module Location
Fence
MW-29-02
Groundwater Flow Direction (30APR94)
MW-29-07
Unpaved Road
Construction Rubble
MW-29-03
MW-29-04
Paved Road
Water Tower
SWMU126
Bldg. 1001
SWMU36
120482
120483
120484
120485
120486
120487
120488
120489
120490
120491
120492
120493
120494
120495
120496
120473
120474
120475
120476
120477
120478
120479
120480
120481
120467
120468
120469
120470
120471
120472
120501
120502
120503
120504
120505
120506
120507
120508
120509
120510
120511
120512
120513
120514
120515
120500
120517
120518
MW-29-05
Circular Features/tank berms From 1945 and 1973 Aerial photos
Disturbed Area From 1973 Aerial Photo
Area of Extremely Disturbed Vegetation, 1945 Aerial Photo
Proportional symbol indicates location of BTEX reported in soil gas, ug.
Scale 1:1800
100 0 100
(feet)
GORE-SORBER SCREENING SURVEY
W.L. GORE & ASSOCIATES, INC.
P.O. BOX 1100
101 LEWISVILLE ROAD
ELKTON, MD 21922-1100
(410) 392-3300
HOLLOMAN AFB, AOC BUILDING 1001, NM
COMBINED BTEX MASSES
FLUOR DANIEL GTI, ALBUQUERQUE, NM
REV. #: 0
REV. DATE:
DATE DRAWN: 25 JUNE 1996
DRAWN BY: JH
DATE GRIDDED:
GRIDDED BY:
GRID FILE:
PLOT FILE: BTF.PLT
PROJECT NUMBER: 068516
SITE CODE: SITE OT
ORIG. CAD: 2208SLVP.DWG
GORE-SORBER IS REG. U.S. PAT. & T.M. OFF.
GORE-SORBER SCREENING SURVEY IS A SERVICE MARK OF W.L. GORE & ASSOCIATES
GORE-SORBER SCREENING MODULE IS A TRADEMARK OF W.L. GORE & ASSOCIATES
THIS DRAWING AND ANY ATTACHMENTS HAVE BEEN PRODUCED FOR THE SOLE USE OF THE RECIPIENT AND MUST NOT BE USED, REUSED, REPRODUCED, MODIFIED OR COPIED IN ANY MANNER WITHOUT THE PROPER WRITTEN APPROVAL OF W.L. GORE & ASSOCIATES. THIS DRAWING MAY CONTAIN CONFIDENTIAL AND PROPRIETARY INFORMATION OF W.L. GORE & ASSOCIATES. ANY UNAUTHORIZED USE OF THIS DRAWING IS STRICTLY PROHIBITED.

# APPENDIX D
## Soil Laboratory Analytical Reports

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

RECEIVED
JUL 19 1996

July 16, 1996

Chuck Schick
Fluor Daniel GTI
2501 Yale Blvd. S.E.
Albuquerque, NM 87106

---

| | |
|---|---|
| RE: GTEL Client ID: | 8722000829 |
| Login Number: | W6060491 |
| Project ID (number): | 8722000829 |
| Project ID (name): | Holloman Air Force Base/AOC1001 |

---

Dear Chuck Schick:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 06/28/96 under Chain-of-Custody Number(s) 42303.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the U.S. Army Corp of Engineers Laboratory Validation, expiration date March 18, 1997.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

John O. Seeber
QA/QC Manager for

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-01 | -- | -- | -- |
| Client ID | TRIP BLANK | -- | -- | -- |
| Date Sampled | | -- | -- | -- |
| Date Analyzed | 07/12/96 | -- | -- | -- |
| Dilution Factor | 1.00 | -- | -- | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/L | < 10. | -- | -- | -- |
| Bromomethane | 10. | ug/L | < 10. | -- | -- | -- |
| Vinyl chloride | 10. | ug/L | < 10. | -- | -- | -- |
| Chloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Methylene chloride | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Acetone | 100 | ug/L | < 100 | -- | -- | -- |
| Carbon disulfide | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Vinyl acetate | 20. | ug/L | < 20. | -- | -- | -- |
| 1,1-Dichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Butanone | 50. | ug/L | < 50. | -- | -- | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Chloroform | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Carbon tetrachloride | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Benzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,2-Dichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Trichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,2-Dichloropropane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Bromodichloromethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Chloroethylvinyl ether | 10. | ug/L | < 10. | -- | -- | -- |
| 4-Methyl-2-pentanone | 50. | ug/L | < 50. | -- | -- | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Toluene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Hexanone | 50. | ug/L | < 50. | -- | -- | -- |
| Tetrachloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Dibromochloromethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Chlorobenzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Ethylbenzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| m+p-Xylene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| o-Xylene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Styrene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Bromoform | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,3-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |
| 1,4-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-01 | -- | -- | -- |
| Client ID | TRIP BLANK | -- | -- | -- |
| Date Sampled | | -- | -- | -- |
| Date Analyzed | 07/12/96 | -- | -- | -- |
| Dilution Factor | 1.00 | -- | -- | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

| Conformance Item | Volatile Organics | Semi-Volatile Organics | Inorganics (MT, WC) |
|---|---|---|---|
| GC/MS Tune | -- | -- | NA |
| Initial Calibration | -- | -- | -- |
| Continuing Calibration | -- | -- | -- |
| Surrogate Recovery | X | -- | NA |
| Holding Time | X | -- | -- |
| Method Accuracy | X | -- | -- |
| Method Precision | X | -- | -- |
| Blank Contamination | X | -- | -- |

Comments:

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8260A
Matrix: Aqueous

Surrogate Results

| QC Batch No. | Reference | Sample ID | DBFM | TOL-D8 | 4-BFB |
|---|---|---|---|---|---|
| Method: EPA 8260A | | Acceptability Limits: | 80-120% | 88-110% | 86-115% |
| 071096RJG-1 | BW071096HP4 | Method Blank Water | 97.6 | 101. | 106. |
| 071096RJG-2 | LW071096HP4 | Laboratory Control | 98.1 | 102. | 105. |
| 071096RJG-3 | LWD071096HP4 | LCS Water Duplicat | 97.5 | 101. | 107. |
| 071096RJG-4 | BW071196HP4B | Method Blank Water | 100. | 99.7 | 103. |
| 071096RJG-5 | MS07012301 | Matrix Spike | 93.2 | 101. | 99.9 |
| 071096RJG-6 | MD07012301 | Matrix Spike Dupli | 96.1 | 99.9 | 104. |
| -- | 06049101 | TRIP BLANK | 94.5 | 101. | 101. |
| -- | 06049105 | 1001-GP01 | 100. | 95.0 | 102. |
| -- | 06049109 | 1001-GP02 | 87.2 | 102. | 107. |
| -- | 06049114 | 1001-GP06 | 103. | 95.2 | 108. |
| -- | 06049118 | 1001-GP07 | 99.8 | 93.8 | 102. |
| -- | 06049119 | 1001-GP07DUP | 102. | 97.7 | 100. |
| -- | 06049123 | 1001-GP08 | 95.1 | 96.1 | 106. |
| -- | 06049124 | 1001-GP03 | 95.3 | 98.6 | 104. |
| -- | 06049131 | 1001-GP04 | 101. | 95.2 | 104. |
| -- | 06049132 | 1001-GP05 | 97.1 | 94.7 | 103. |

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Method Blank Results

| QC Batch No: | 071096RJG-1 | 071096RJG-4 |
|---|---|---|
| Date Analyzed: | 10-JUL-96 | 12-JUL-96 |
| Analyte | Method:EPA 8260A | Concentration: ug/L |
| Dichlorodifluoromethane | < 10.0 | < 10.0 |
| Chloromethane | < 10.0 | < 10.0 |
| Dichlorofluoromethane | < 10.0 | < 10.0 |
| Bromomethane | < 10.0 | < 10.0 |
| Vinyl chloride | < 2.00 | < 2.00 |
| Iodomethane | < 5.00 | < 5.00 |
| Chloroethane | < 10.0 | < 10.0 |
| Trichlorofluoromethane | < 5.00 | < 5.00 |
| Allyl Chloride | < 10.0 | < 10.0 |
| Acrolein | < 20.0 | < 20.0 |
| 1,1-Dichloroethene | < 5.00 | < 5.00 |
| Methylene chloride | < 5.00 | < 5.00 |
| Acetone | < 20.0 | < 20.0 |
| Carbon disulfide | < 5.00 | < 5.00 |
| Acrylonitrile | < 20.0 | < 20.0 |
| MTBE | < 5.00 | < 5.00 |
| trans-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Vinyl acetate | < 20.0 | < 20.0 |
| 1,1-Dichloroethane | < 5.00 | < 5.00 |
| 2-Butanone | < 20.0 | < 20.0 |
| 2,2-Dichloropropane | < 5.00 | < 5.00 |
| cis-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Chloroform | < 5.00 | < 5.00 |
| Bromochloromethane | < 5.00 | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 | < 5.00 |
| 1,1-Dichloropropene | < 5.00 | < 5.00 |
| Carbon tetrachloride | < 5.00 | < 5.00 |
| Benzene | < 5.00 | < 5.00 |
| 1,2-Dichloroethane | < 5.00 | < 5.00 |
| Trichloroethene | < 5.00 | < 5.00 |
| Methacrylonitrile | < 5.00 | < 5.00 |
| 1,2-Dichloropropane | < 5.00 | < 5.00 |
| Bromodichloromethane | < 5.00 | < 5.00 |
| Dibromomethane | < 5.00 | < 5.00 |
| Methyl methacrylate | < 5.00 | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 | < 10.0 |
| 4-Methyl-2-pentanone | < 20.0 | < 20.0 |
| cis-1,3-Dichloropropene | < 5.00 | < 5.00 |
| Toluene | < 5.00 | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 | < 5.00 |
| 1,2-Dibromoethane | < 5.00 | < 5.00 |
| 2-Hexanone | < 20.0 | < 20.0 |
| Tetrachloroethene | < 5.00 | < 5.00 |

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8260A
Matrix: Aqueous

Method Blank Results

| | | |
|---|---|---|
| 1,3-Dichloropropane | < 5.00 | < 5.00 |
| Dibromochloromethane | < 5.00 | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 | < 5.00 |
| Chlorobenzene | < 5.00 | < 5.00 |
| Ethylbenzene | < 5.00 | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 | < 5.00 |
| m+p-Xylene | < 5.00 | < 5.00 |
| o-Xylene | < 5.00 | < 5.00 |
| Styrene | < 5.00 | < 5.00 |
| Bromoform | < 5.00 | < 5.00 |
| Isopropylbenzene | < 5.00 | < 5.00 |
| 1,1,2,2-Tetrachloroethane | < 5.00 | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 | < 5.00 |
| n-Propylbenzene | < 5.00 | < 5.00 |
| Bromobenzene | < 5.00 | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 | < 5.00 |
| 2-Chlorotoluene | < 5.00 | < 5.00 |
| 4-Chlorotoluene | < 5.00 | < 5.00 |
| tert-Butylbenzene | < 5.00 | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 | < 5.00 |
| sec-Butylbenzene | < 5.00 | < 5.00 |
| p-Isopropyltoluene | < 5.00 | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,4-Dichlorobenzene | < 10.0 | < 10.0 |
| n-Butylbenzene | < 5.00 | < 5.00 |
| 1,2-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,2-Dibromo-3-chloropropane | < 5.00 | < 5.00 |
| 1,2,4-Trichlorobenzene | < 5.00 | < 5.00 |
| Hexachloroethane | < 5.00 | < 5.00 |
| Hexachlorobutadiene | < 5.00 | < 5.00 |
| Naphthalene | < 5.00 | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 | < 5.00 |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 826(
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6070123-01 MS ID:MS07012301 MSD ID:MD07012301
Analysis Date: 10-JUL-96 12-JUL-96 12-JUL-96

| Units: ug/L | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 49.2 | 98.4 | 50.7 | 101. | 2.60 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 56.5 | 113. | 56.8 | 114. | 0.900 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 48.5 | 97.0 | 50.1 | 100. | 3.00 | 14 | 71-120 |
| Toluene | < 5.00(0.000) | 50.0 | 50.0 | 51.4 | 103. | 51.8 | 104. | 1.00 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.000) | 50.0 | 50.0 | 48.6 | 97.2 | 49.8 | 99.6 | 2.40 | 13 | 75-130 |

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

| Analyte | Spike Amount | LCS Concentration | LCS Recovery, % | LCS Duplicate Concentration | LCS Duplicate Recovery, % | RPD, % | Acceptability Limits RPD, % | Acceptability Limits Recovery, % |
|---|---|---|---|---|---|---|---|---|
| EPA 8260A Units: ug/L | | QC Batch:071096RJG-3 | | | | | | |
| 1,1-Dichloroethene | 50.0 | 48.8 | 97.6 | 50.3 | 101. | 3.42 | 14 | 61-145% |
| Trichloroethene | 50.0 | 49.5 | 99.0 | 48.0 | 96.0 | 3.08 | 14 | 71-120% |
| Benzene | 50.0 | 58.7 | 117. | 58.2 | 116. | 0.858 | 11 | 76-127% |
| Toluene | 50.0 | 53.4 | 107. | 50.9 | 102. | 4.78 | 13 | 76-125% |
| Chlorobenzene | 50.0 | 49.6 | 99.2 | 48.1 | 96.2 | 3.07 | 13 | 75-130% |

Notes:

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| | | | | | |
|---|---|---|---|---|---|
| GTEL Sample Number | | W6060491-02 | W6060491-03 | W6060491-04 | W6060491-06 |
| Client ID | | 1001-DP01-9-12 | 1001-DP01-15-18 | 1001-DP01-18-21 | 1001-DP02-9-12 |
| Date Sampled | | 06/24/96 | 06/24/96 | 06/24/96 | 06/24/96 |
| Date Analyzed | | 07/03/96 | 07/01/96 | 07/01/96 | 07/01/96 |
| Dilution Factor | | 1.00 | 1.00 | 1.00 | 1.00 |
| Analyte | Reporting Limit / Units | Concentration:Dry Weight | | | |
| Chloromethane | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 ug/kg | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. ug/kg | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. ug/kg | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Styrene | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| | | | | | |
|---|---|---|---|---|---|
| GTEL Sample Number | | W6060491-02 | W6060491-03 | W6060491-04 | W6060491-06 |
| Client ID | | 1001-DP01-9-12 | 1001-DP01-15-18 | 1001-DP01-18-21 | 1001-DP02-9-12 |
| Date Sampled | | 06/24/96 | 06/24/96 | 06/24/96 | 06/24/96 |
| Date Analyzed | | 07/03/96 | 07/01/96 | 07/01/96 | 07/01/96 |
| Dilution Factor | | 1.00 | 1.00 | 1.00 | 1.00 |
| Analyte | Reporting Limit / Units | Concentration:Dry Weight | | | |
| 1,2-Dichlorobenzene | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| Percent Solids | -- % | 85.0 | 83.2 | 77.2 | 88.5 |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-07 | W6060491-08 | W6060491-10 | W6060491-11 |
|---|---|---|---|---|
| Client ID | 1001-DP02-15-18 | 1001-DP02-18-21 | 1001-DP03-9-12 | 1001-DP03-15-18 |
| Date Sampled | 06/24/96 | 06/24/96 | 06/24/96 | 06/24/96 |
| Date Analyzed | 07/01/96 | 07/01/96 | 07/03/96 | 07/02/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-07 | W6060491-08 | W6060491-10 | W6060491-11 |
|---|---|---|---|---|
| Client ID | 1001-DP02-15-18 | 1001-DP02-18-21 | 1001-DP03-9-12 | 1001-DP03-15-18 |
| Date Sampled | 06/24/96 | 06/24/96 | 06/24/96 | 06/24/96 |
| Date Analyzed | 07/01/96 | 07/01/96 | 07/03/96 | 07/02/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Percent Solids | -- | % | 77.2 | 69.2 | 68.6 | 80.3 |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-12 | W6060491-13 | W6060491-15 | W6060491-16 |
|---|---|---|---|---|
| Client ID | 1001-DP03-18-21 | 1001-DP06-18-21 | 1001-DP07-9-12 | 1001-DP07-15-18 |
| Date Sampled | 06/24/96 | 06/25/96 | 06/26/96 | 06/26/96 |
| Date Analyzed | 07/02/96 | 07/02/96 | 07/04/96 | 07/03/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| | | | | | |
|---|---|---|---|---|---|
| GTEL Sample Number | | W6060491-12 | W6060491-13 | W6060491-15 | W6060491-16 |
| Client ID | | 1001-DP03-18-21 | 1001-DP06-18-21 | 1001-DP07-9-12 | 1001-DP07-15-18 |
| Date Sampled | | 06/24/96 | 06/25/96 | 06/26/96 | 06/26/96 |
| Date Analyzed | | 07/02/96 | 07/02/96 | 07/04/96 | 07/03/96 |
| Dilution Factor | | 1.00 | 1.00 | 1.00 | 1.00 |
| Analyte | Reporting Limit / Units | Concentration:Dry Weight | | | |
| 1,2-Dichlorobenzene | 10. ug/kg | < 10. | < 10. | < 10. | < 10. |
| Percent Solids | -- % | 67.6 | 79.5 | 85.8 | 79.5 |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-17 | W6060491-20 | W6060491-21 | W6060491-22 |
| Client ID | 1001-DP07-18-21 | 1001-DP08-9-12 | 1001-DP08-15-18 | 1001-DP08-21-24 |
| Date Sampled | 06/26/96 | 06/26/96 | 06/26/96 | 06/26/96 |
| Date Analyzed | 07/03/96 | 07/04/96 | 07/03/96 | 07/04/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-17 | W6060491-20 | W6060491-21 | W6060491-22 |
|---|---|---|---|---|
| Client ID | 1001-DP07-18-21 | 1001-DP08-9-12 | 1001-DP08-15-18 | 1001-DP08-21-24 |
| Date Sampled | 06/26/96 | 06/26/96 | 06/26/96 | 06/26/96 |
| Date Analyzed | 07/03/96 | 07/04/96 | 07/03/96 | 07/04/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Percent Solids | -- | % | 82.5 | 86.9 | 82.1 | 82.1 |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-25 | W6060491-26 | W6060491-27 | W6060491-28 |
|---|---|---|---|---|
| Client ID | 1001-DP04-9-12 | 1001-DP04-15-18 | 1001-DP04-24-27 | 1001-DP05-9-12 |
| Date Sampled | 06/25/96 | 06/25/96 | 06/25/96 | 06/25/96 |
| Date Analyzed | 07/02/96 | 07/02/96 | 07/02/96 | 07/02/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-25 | W6060491-26 | W6060491-27 | W6060491-28 |
|---|---|---|---|---|
| Client ID | 1001-DP04-9-12 | 1001-DP04-15-18 | 1001-DP04-24-27 | 1001-DP05-9-12 |
| Date Sampled | 06/25/96 | 06/25/96 | 06/25/96 | 06/25/96 |
| Date Analyzed | 07/02/96 | 07/02/96 | 07/02/96 | 07/02/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Percent Solids | -- | % | 76.2 | 82.7 | 77.4 | 86.0 |

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260A:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| GTEL Sample Number | W6060491-29 | W6060491-30 | W6060491-33 | W6060491-34 |
|---|---|---|---|---|
| Client ID | 1001-DP05-12-15 | 1001-DP05-15-18 | 1001-DP06-6-9 | 1001-DP06-12-15 |
| Date Sampled | 06/25/96 | 06/25/96 | 06/25/96 | 06/25/96 |
| Date Analyzed | 07/02/96 | 07/02/96 | 07/03/96 | 07/03/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-29 | W6060491-30 | W6060491-33 | W6060491-34 |
| Client ID | 1001-DP05-12-15 | 1001-DP05-15-18 | 1001-DP06-6-9 | 1001-DP06-12-15 |
| Date Sampled | 06/25/96 | 06/25/96 | 06/25/96 | 06/25/96 |
| Date Analyzed | 07/02/96 | 07/02/96 | 07/03/96 | 07/03/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | < 10. |
| Percent Solids | -- | % | 77.9 | 79.5 | 88.1 | 80.3 |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 826(
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

| Conformance Item | Volatile Organics | Semi-Volatile Organics | Inorganics (MT, WC) |
|---|---|---|---|
| GC/MS Tune | -- | -- | NA |
| Initial Calibration | -- | -- | -- |
| Continuing Calibration | -- | -- | -- |
| Surrogate Recovery | X | -- | NA |
| Holding Time | X | -- | -- |
| Method Accuracy | X | -- | -- |
| Method Precision | X | -- | -- |
| Blank Contamination | X | -- | -- |

Comments:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Low Soil

Surrogate Results

| QC Batch No. | Reference | Sample ID | DBFM | TOL-D8 | 4-BFB |
|---|---|---|---|---|---|
| Method: EPA 8260A | | Acceptability Limits: | 74-127% | 81-117% | 74-121% |
| 062896HP3-10 | BL070296HP3 | Method blanks low | 113. | 93.4 | 107. |
| 062896HP3-11 | LS070296HP3 | Laboratory control | 103. | 103. | 104. |
| 062896HP3-12 | BL070396HP3 | Method blanks low | 108. | 92.8 | 107. |
| 062896HP3-13 | LS070396HP3 | Laboratory control | 110. | 99.2 | 113. |
| 062896HP3-14 | MS06049127 | Matrix Spike | 107. | 96.8 | 114. |
| 062896HP3-15 | MD06049127 | Matrix Spike Dupli | 108. | 99.7 | 114. |
| 062896HP3-16 | BL070496HP3 | Method blanks low | 102. | 93.5 | 106. |
| 062896HP3-17 | MS06049122 | Matrix Spike | 99.1 | 100. | 104. |
| 062896HP3-18 | MD06049122 | Matrix Spike Dupli | 96.4 | 98.8 | 103. |
| 062896HP3-19 | LS070496HP3 | Laboratory control | 109. | 99.2 | 115. |
| 062896HP3-7 | MS06049102 | Matrix Spike | 103. | 104. | 101. |
| 062896HP3-8 | MD06049102 | Matrix Spike Dupli | 94.0 | 98.1 | 106. |
| 062896HP3-9 | BL070196HP3 | Method blanks low | 102. | 97.8 | 109. |
| -- | 06049102 | 1001-DP01-9-12 | 110. | 98.3 | 104. |
| -- | 06049103 | 1001-DP01-15-18 | 109. | 96.1 | 98.1 |
| -- | 06049104 | 1001-DP01-18-21 | 110. | 96.1 | 104. |
| -- | 06049106 | 1001-DP02-9-12 | 104. | 96.1 | 105. |
| -- | 06049107 | 1001-DP02-15-18 | 112. | 97.6 | 107. |
| -- | 06049108 | 1001-DP02-18-21 | 110. | 96.4 | 109. |
| -- | 06049110 | 1001-DP03-9-12 | 109. | 92.3 | 103. |
| -- | 06049111 | 1001-DP03-15-18 | 104. | 97.4 | 98.9 |
| -- | 06049112 | 1001-DP03-18-21 | 103. | 97.5 | 101. |
| -- | 06049113 | 1001-DP06-18-21 | 103. | 96.6 | 103. |
| -- | 06049115 | 1001-DP07-9-12 | 101. | 94.4 | 104. |
| -- | 06049116 | 1001-DP07-15-18 | 110. | 91.6 | 107. |
| -- | 06049117 | 1001-DP07-18-21 | 107. | 93.2 | 104. |
| -- | 06049120 | 1001-DP08-9-12 | 101. | 94.7 | 104. |
| -- | 06049121 | 1001-DP08-15-18 | 116. | 92.7 | 104. |
| -- | 06049122 | 1001-DP08-21-24 | 106. | 94.9 | 106. |
| -- | 06049125 | 1001-DP04-9-12 | 106. | 90.1 | 105. |
| -- | 06049126 | 1001-DP04-15-18 | 100. | 92.6 | 106. |
| -- | 06049127 | 1001-DP04-24-27 | 101. | 95.5 | 105. |
| -- | 06049128 | 1001-DP05-9-12 | 99.3 | 95.2 | 111. |
| -- | 06049129 | 1001-DP05-12-15 | 104. | 98.0 | 112. |
| -- | 06049130 | 1001-DP05-15-18 | 102. | 95.8 | 110. |
| -- | 06049133 | 1001-DP06-6-9 | 108. | 97.1 | 108. |
| -- | 06049134 | 1001-DP06-12-15 | 111. | 93.8 | 114. |

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Low Soil

Method Blank Results

| QC Batch No: | 062896HP3-10 | 062896HP3-12 | 062896HP3-16 |
|---|---|---|---|
| Date Analyzed: | 02-JUL-96 | 03-JUL-96 | 04-JUL-96 |
| Analyte | Method:EPA 8260A | Concentration: ug/kg | |
| Dichlorodifluoromethane | < 10.0 | < 10.0 | < 10.0 |
| Chloromethane | < 10.0 | < 10.0 | < 10.0 |
| Dichlorofluoromethane | < 10.0 | < 10.0 | < 10.0 |
| Bromomethane | < 10.0 | < 10.0 | < 10.0 |
| Vinyl chloride | < 2.00 | < 2.00 | < 2.00 |
| Iodomethane | < 5.00 | < 5.00 | < 5.00 |
| Chloroethane | < 10.0 | < 10.0 | < 10.0 |
| Trichlorofluoromethane | < 5.00 | < 5.00 | < 5.00 |
| Allyl Chloride | < 10.0 | < 10.0 | < 10.0 |
| Acrolein | < 20.0 | < 20.0 | < 20.0 |
| 1,1-Dichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Methylene chloride | < 10.0 | < 10.0 | < 10.0 |
| Acetone | < 20.0 | < 20.0 | < 20.0 |
| Carbon disulfide | < 5.00 | < 5.00 | < 5.00 |
| Acrylonitrile | < 20.0 | < 20.0 | < 20.0 |
| MTBE | < 5.00 | < 5.00 | < 5.00 |
| trans-1,2-Dichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Vinyl acetate | < 20.0 | < 20.0 | < 20.0 |
| 1,1-Dichloroethane | < 5.00 | < 5.00 | < 5.00 |
| 2-Butanone | < 20.0 | < 20.0 | < 20.0 |
| 2,2-Dichloropropane | < 5.00 | < 5.00 | < 5.00 |
| cis-1,2-Dichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Chloroform | < 5.00 | < 5.00 | < 5.00 |
| Tetrahydrofuran | < 5.00 | < 5.00 | < 5.00 |
| Bromochloromethane | < 5.00 | < 5.00 | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 | < 5.00 | < 5.00 |
| 1,1-Dichloropropene | < 5.00 | < 5.00 | < 5.00 |
| Carbon tetrachloride | < 5.00 | < 5.00 | < 5.00 |
| Benzene | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dichloroethane | < 5.00 | < 5.00 | < 5.00 |
| Trichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Methacrylonitrile | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dichloropropane | < 5.00 | < 5.00 | < 5.00 |
| Bromodichloromethane | < 5.00 | < 5.00 | < 5.00 |
| Dibromomethane | < 5.00 | < 5.00 | < 5.00 |
| Propionitrile | < 5.00 | < 5.00 | < 5.00 |
| Methyl methacrylate | < 5.00 | < 5.00 | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 | < 10.0 | < 10.0 |
| 4-Methyl-2-pentanone | < 20.0 | < 20.0 | < 20.0 |
| cis-1,3-Dichloropropene | < 5.00 | < 5.00 | < 5.00 |
| Toluene | < 5.00 | < 5.00 | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 | < 5.00 | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dibromoethane | < 5.00 | < 5.00 | < 5.00 |

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8260A
Matrix: Low Soil

Method Blank Results

| | | | |
|---|---|---|---|
| 2-Hexanone | < 20.0 | < 20.0 | < 20.0 |
| Tetrachloroethene | < 5.00 | < 5.00 | < 5.00 |
| 1,3-Dichloropropane | < 5.00 | < 5.00 | < 5.00 |
| Dibromochloromethane | < 5.00 | < 5.00 | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 | < 5.00 | < 5.00 |
| Chlorobenzene | < 5.00 | < 5.00 | < 5.00 |
| Ethylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 | < 5.00 | < 5.00 |
| m+p-Xylene | < 5.00 | < 5.00 | < 5.00 |
| o-Xylene | < 5.00 | < 5.00 | < 5.00 |
| Styrene | < 5.00 | < 5.00 | < 5.00 |
| Bromoform | < 5.00 | < 5.00 | < 5.00 |
| Isopropylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,1,2,2-Tetrachloroethane | < 5.00 | < 5.00 | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 | < 5.00 | < 5.00 |
| n-Propylbenzene | < 5.00 | < 5.00 | < 5.00 |
| Bromobenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 2-Chlorotoluene | < 5.00 | < 5.00 | < 5.00 |
| 4-Chlorotoluene | < 5.00 | < 5.00 | < 5.00 |
| tert-Butylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 | < 5.00 | < 5.00 |
| sec-Butylbenzene | < 5.00 | < 5.00 | < 5.00 |
| p-Isopropyltoluene | < 5.00 | < 5.00 | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 | < 10.0 | < 10.0 |
| 1,4-Dichlorobenzene | < 10.0 | < 10.0 | < 10.0 |
| n-Butylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dichlorobenzene | < 10.0 | < 10.0 | < 10.0 |
| 1,2-Dibromo-3-chloropropane | < 5.00 | < 5.00 | < 5.00 |
| 1,2,4-Trichlorobenzene | < 5.00 | < 5.00 | < 5.00 |
| Hexachloroethane | < 5.00 | < 5.00 | < 5.00 |
| Hexachlorobutadiene | < 5.00 | < 5.00 | < 5.00 |
| Naphthalene | < 5.00 | < 5.00 | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 | < 5.00 | < 5.00 |

| QC Batch No: | 062896HP3-9 | 062896HP3-12 | 062896HP3-16 |
|---|---|---|---|
| Date Analyzed: | 01-JUL-96 | 03-JUL-96 | 04-JUL-96 |
| Analyte | Method:EPA 8260A | Concentration: ug/kg | |
| Dichlorodifluoromethane | < 10.0 | < 10.0 | < 10.0 |
| Chloromethane | < 10.0 | < 10.0 | < 10.0 |
| Bromomethane | < 10.0 | < 10.0 | < 10.0 |
| Vinyl chloride | < 10.0 | < 10.0 | < 10.0 |
| Iodomethane | < 5.00 | < 2.00 | < 2.00 |
| Chloroethane | < 10.0 | < 5.00 | < 5.00 |
| Trichlorofluoromethane | < 5.00 | < 10.0 | < 10.0 |
| Allyl Chloride | < 10.0 | < 5.00 | < 5.00 |
| Acrolein | < 20.0 | < 10.0 | < 10.0 |

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Low Soil

Method Blank Results

| | | | |
|---|---|---|---|
| 1,1-Dichloroethene | < 5.00 | < 20.0 | < 20.0 |
| Methylene chloride | < 10.0 | < 5.00 | < 5.00 |
| Acetone | < 20.0 | < 10.0 | < 10.0 |
| Carbon disulfide | < 5.00 | < 20.0 | < 20.0 |
| Acrylonitrile | < 20.0 | < 5.00 | < 5.00 |
| MTBE | < 5.00 | < 20.0 | < 20.0 |
| trans-1,2-Dichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Vinyl acetate | < 20.0 | < 5.00 | < 5.00 |
| 1,1-Dichloroethane | < 5.00 | < 20.0 | < 20.0 |
| 2-Butanone | < 20.0 | < 5.00 | < 5.00 |
| 2,2-Dichloropropane | < 5.00 | < 20.0 | < 20.0 |
| cis-1,2-Dichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Chloroform | < 5.00 | < 5.00 | < 5.00 |
| Tetrahydrofuran | < 5.00 | < 5.00 | < 5.00 |
| Bromochloromethane | < 5.00 | < 5.00 | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 | < 5.00 | < 5.00 |
| 1,1-Dichloropropene | < 5.00 | < 5.00 | < 5.00 |
| Carbon tetrachloride | < 5.00 | < 5.00 | < 5.00 |
| Benzene | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dichloroethane | < 5.00 | < 5.00 | < 5.00 |
| Trichloroethene | < 5.00 | < 5.00 | < 5.00 |
| Methacrylonitrile | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dichloropropane | < 5.00 | < 5.00 | < 5.00 |
| Bromodichloromethane | < 5.00 | < 5.00 | < 5.00 |
| Dibromomethane | < 5.00 | < 5.00 | < 5.00 |
| Propionitrile | < 5.00 | < 5.00 | < 5.00 |
| Methyl methacrylate | < 5.00 | < 5.00 | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 | < 5.00 | < 5.00 |
| 4-Methyl-2-pentanone | < 20.0 | < 10.0 | < 10.0 |
| cis-1,3-Dichloropropene | < 5.00 | < 20.0 | < 20.0 |
| Toluene | < 5.00 | < 5.00 | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 | < 5.00 | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 | < 5.00 | < 5.00 |
| 1,2-Dibromoethane | < 5.00 | < 5.00 | < 5.00 |
| 2-Hexanone | < 20.0 | < 5.00 | < 5.00 |
| Tetrachloroethene | < 5.00 | < 20.0 | < 20.0 |
| 1,3-Dichloropropane | < 5.00 | < 5.00 | < 5.00 |
| Dibromochloromethane | < 5.00 | < 5.00 | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 | < 5.00 | < 5.00 |
| Chlorobenzene | < 5.00 | < 5.00 | < 5.00 |
| Ethylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 | < 5.00 | < 5.00 |
| m+p-Xylene | < 5.00 | < 5.00 | < 5.00 |
| o-Xylene | < 5.00 | < 5.00 | < 5.00 |
| Styrene | < 5.00 | < 5.00 | < 5.00 |
| Bromoform | < 5.00 | < 5.00 | < 5.00 |
| Isopropylbenzene | < 5.00 | < 5.00 | < 5.00 |

| | | | |
|---|---|---|---|
| GTEL Client ID: | 8722000829 | QUALITY CONTROL RESULTS | |
| Login Number: | W6060491 | | Volatile Organics |
| Project ID (number): | 8722000829 | | Method: EPA 8260A |
| Project ID (name): | Holloman Air Force Base/AOC1001 | | Matrix: Low Soil |

Method Blank Results

| | | | |
|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | < 5.00 | < 5.00 | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 | < 5.00 | < 5.00 |
| n-Propylbenzene | < 5.00 | < 5.00 | < 5.00 |
| Bromobenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 2-Chlorotoluene | < 5.00 | < 5.00 | < 5.00 |
| 4-Chlorotoluene | < 5.00 | < 5.00 | < 5.00 |
| tert-Butylbenzene | < 5.00 | < 5.00 | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 | < 5.00 | < 5.00 |
| sec-Butylbenzene | < 5.00 | < 5.00 | < 5.00 |
| p-Isopropyltoluene | < 5.00 | < 5.00 | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 | < 5.00 | < 5.00 |
| 1,4-Dichlorobenzene | < 10.0 | < 10.0 | < 10.0 |
| n-Butylbenzene | < 5.00 | < 10.0 | < 10.0 |
| 1,2-Dichlorobenzene | < 10.0 | < 5.00 | < 5.00 |
| 1,2-Dibromo-3-chloropropane | < 5.00 | < 10.0 | < 10.0 |
| 1,2,4-Trichlorobenzene | < 5.00 | < 5.00 | < 5.00 |
| Hexachloroethane | < 5.00 | < 5.00 | < 5.00 |
| Hexachlorobutadiene | < 5.00 | < 5.00 | < 5.00 |
| Naphthalene | < 5.00 | < 5.00 | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 | < 5.00 | < 5.00 |

Notes:

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

"J" indicates the presence of a compound that meets the identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

"U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 82
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Low So

Laboratory Control Sample Summary

| Analyte | Spike Amount | Check Sample Concentration | QC Percent Recovery | Acceptability Limits Recovery |
|---|---|---|---|---|
| EPA 8260A Units:ug/kg | QC Batch:062896HP3-11 | | | |
| 1,1-Dichloroethene | 50.0 | 55.1 | 110. | 59-172% |
| Trichloroethene | 50.0 | 48.0 | 96.0 | 62-127% |
| Benzene | 50.0 | 50.5 | 101. | 66-142% |
| Toluene | 50.0 | 46.4 | 92.8 | 59-139% |
| Chlorobenzene | 50.0 | 48.7 | 97.4 | 60-133% |
| EPA 8260A Units:ug/kg | QC Batch:062896HP3-13 | | | |
| 1,1-Dichloroethene | 50.0 | 66.1 | 132. | 59-172% |
| Trichloroethene | 50.0 | 56.3 | 113. | 62-127% |
| Benzene | 50.0 | 54.4 | 109. | 66-142% |
| Toluene | 50.0 | 50.5 | 101. | 59-139% |
| Chlorobenzene | 50.0 | 53.1 | 106. | 60-133% |
| EPA 8260A Units:ug/kg | QC Batch:062896HP3-19 | | | |
| 1,1-Dichloroethene | 50.0 | 68.1 | 136. | 59-172% |
| Trichloroethene | 50.0 | 58.2 | 116. | 62-127% |
| Benzene | 50.0 | 59.3 | 119. | 66-142% |
| Toluene | 50.0 | 55.2 | 110. | 59-139% |
| Chlorobenzene | 50.0 | 56.5 | 113. | 60-133% |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Low Soil

## Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6060491-02 MS ID:MS06049102 MSD ID:MD06049102
Analysis Date: 03-JUL-96 01-JUL-96 02-JUL-96

| Units: ug/kg | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 61.3 | 123. | 55.3 | 111. | 10.3 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 53.1 | 106. | 49.5 | 99.0 | 6.80 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 54.1 | 108. | 53.5 | 107. | 0.900 | 14 | 71-120 |
| Toluene | < 5.00(0.000) | 50.0 | 50.0 | 51.5 | 103. | 48.3 | 96.6 | 6.40 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.000) | 50.0 | 50.0 | 50.9 | 102. | 48.5 | 97.0 | 5.00 | 13 | 75-130 |

GTEL Sample ID:W6060491-22 MS ID:MS06049122 MSD ID:MD06049122
Analysis Date: 04-JUL-96 04-JUL-96 04-JUL-96

| Units: ug/kg | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 63.2 | 126. | 63.0 | 126. | 0.00 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 56.6 | 113. | 59.6 | 119. | 5.20 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 54.8 | 110. | 58.7 | 117. | 6.20 | 14 | 71-120 |
| Toluene | < 5.00(0.000) | 50.0 | 50.0 | 54.9 | 110. | 55.2 | 110. | 0.00 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.000) | 50.0 | 50.0 | 55.5 | 111. | 54.9 | 110. | 0.900 | 13 | 75-130 |

GTEL Sample ID:W6060491-27 MS ID:MS06049127 MSD ID:MD06049127
Analysis Date: 02-JUL-96 03-JUL-96 04-JUL-96

| Units: ug/kg | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 65.4 | 131. | 66.9 | 134. | 2.30 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 60.7 | 121. | 57.5 | 115. | 5.10 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 59.3 | 119. | 59.1 | 118. | 0.800 | 14 | 71-120 |
| Toluene | < 5.00(0.000) | 50.0 | 50.0 | 52.9 | 106. | 56.7 | 113. | 6.40 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.000) | 50.0 | 50.0 | 53.9 | 108. | 56.5 | 113. | 4.50 | 13 | 75-130 |

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

**GTEL** ENVIRONMENTAL LABORATORIES, INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42303

Company Name: FLUOR DANIEL GTI - GST

Phone #: 505 242 3113

FAX #: 505 242 1103

Company Address: 2501 YALE, SE ALBUQUERQUE, NM.

Site Location: DOE NAD 79 HARD NM AOC 1001

Project Manager: Chuck Schick

Client Project ID: (#) 87220008 2903

(NAME) AOC 1001

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): LEE SCOTT STEVENSON

ANALYSIS REQUEST | OTHER

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | HNO3 | H2SO4 | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TRH/IR 418.1 ☐ SM-503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | 8260 A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIP BLANK | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP01-9-12 | 02 | 1 | | X | | | | | | | | | | | 27 JUN 96 | 11:00 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP01-15-18 | 03 | 1 | | X | | | | | | | | | | | " | 11:05 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP01-18-21 | 04 | 1 | | X | | | | | | | | | | | " | 11:10 | | | | | | | | | | | | | | | | | | | | | |
| 1001-GP01 | 05 | 2 | X | | | | | | X | | | | | | " | 11:40 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP02-9-12 | 06 | 1 | | X | | | | | | | | | | | " | 13:40 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP02-15-18 | 07 | 1 | | X | | | | | | | | | | | " | 14:00 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP02-18-21 | 08 | 1 | | X | | | | | | | | | | | " | 14:35 | | | | | | | | | | | | | | | | | | | | | |
| 1001-GP02 | 09 | 2 | X | | | | | | X | | | | | | " | 14:15 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP03-9-12 | 10 | 1 | | X | | | | | | | | | | | " | 15:42 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP03-15-18 | 11 | 1 | | X | | | | | | | | | | | " | 16:48 | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP03-18-21 | 12 | 1 | | X | | | | | | | | | | | " | 16:50 | | | | | | | | | | | | | | | | | | | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS:

Lab Use Only Lot #: Seals Intact

Storage Location 3°C

Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: Lee Scott Stevenson | Date 27JUN96 | Time 13:10 | Received by: FEDX 7598 2959 13 |
|---|---|---|---|
| Relinquished by: | Date | Time | Received by: |
| Relinquished by: | Date 6/ 96 | Time 0810 | Received by Laboratory: Waybill # 7598 2959 13 |

**GTEL** ENVIRONMENTAL LABORATORIES, INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42302

Company Name: FLUOR DANIEL GTI
Phone #: 505 242 3113
FAX #: 505 242 1103
Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM
Site Location: KAFB, NM. DOE WA029 AOC1001
Project Manager: CHUCK SCHICK
Client Project ID: (#) 872200082903
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): SCOTT STEVENSON

ANALYSIS REQUEST | OTHER

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | 8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-GP03 | 24 | 2 | ✓ | | | | | | | | | | | | JUN 96 | 17:10 | ✓ |
| 1001-DP04-9-12 | 25 | 1 | | ✓ | | | | | | | | | | | JUN 96 | 0925 | ✓ |
| 1001-DP04-15-18 | 26 | 1 | | ✓ | | | | | | | | | | | " | 0930 | ✓ |
| 1001-DP04-24-27 | 27 | 1 | | ✓ | | | | | | | | | | | " | 0935 | ✓ |
| 1001-DP05-9-12 | 28 | 1 | | ✓ | | | | | | | | | | | " | 13:15 | ✓ |
| 1001-DP05-~~15-18~~ 12-15 | 29 | 1 | | ✓ | | | | | | | | | | | " | 13:20 | ✓ |
| 1001-DP05-15-18 | 30 | 1 | | | | | | | | | | | | | " | 13:25 | ✓ |
| 1001-GP04 | 31 | 2 | ✓ | | | | | | | | | | | | " | 11:22 | ✓ |
| 1001-GP05 | 32 | 2 | ✓ | | | | | | | | | | | | " | 13:25 | ✓ |
| 1001-DP06-6-9 | 33 | 2 | | ✓ | | | | | | | | | | | | 16:00 | |
| 1001-DP06-12-15 | 34 | 2 | | ✓ | | | | | | | | | | | | 16:05 | |

ANALYSIS REQUEST: BTEX 602 ☐ 8020 ☐ with MTBE ☐; BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐; Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐; Hydrocarbon Profile (SIMDIS) ☐; Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐; TPH/IR 418.1 ☐ SM 503 ☐; EDB by 504 ☐ DBCP by 504 ☐; EPA 503.1 ☐ EPA 502.2 ☐; EPA 601 ☐ EPA 8010 ☐; EPA 602 ☐ EPA 8020 ☐; EPA 608 ☐ 8080 ☐ PCB only ☐; EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐; EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐; EPA 610 ☐ 8310 ☐; EP TOX Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐; EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐; CAM Metals TTLC ☐ STLC ☐; Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐; Organic Lead ☐; Corrosivity ☐ Flash Point ☐ Reactivity ☐

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:

Lab Use Only Lot #: Seals Intact
Storage Location: 3°C
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| LEE SCOTT STEVENSON | 27 JUN 96 | 13:10 | FEDX # 7598295913 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | 6/28/96 | 0810 | Waybill # 7598295913 |

**GTEL** ENVIRONMENTAL LABORATORIES, INC

~~4211 MAY AVE.~~
WICHITA, KS 67209
(316) 945-2624
~~(800) 633-7936~~

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42301

Company Name: FLUOR DANIEL GTE
Phone #: 505 242 3113
FAX #: 504 242 1103

Company Address: 2501 YALE, S.E. #204 ALBUQUERQUE, NM
Site Location: HAFB, NM. DOB WAD79, AOC1001

Project Manager: CHUCK SCHECK
Client Project ID: (#) 87220008-2903 (NAME)

I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | Matrix: SOIL | Matrix: AIR | Matrix: SLUDGE | Matrix: PRODUCT | Matrix: OTHER | Method Preserved: HCl | Method Preserved: $HNO_3$ | Method Preserved: $H_2SO_4$ | Method Preserved: ICE | Method Preserved: UNPRESERVED | Method Preserved: OTHER (Specify) | Sampling: DATE | Sampling: TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | 8260 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP06-1-12 | 13 | 2 | | ✓ | | | | | | | | | | | 25 JUN 96 | 16:10 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP06 | 14 | 2 | ✓ | | | | | | | | | | | | " | 16:13 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP07-9-12 | 15 | 2 | | ✓ | | | | | | | | | | | 26 JUN 96 | 10:10 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP07-15-18 | 16 | 2 | | ✓ | | | | | | | | | | | " | 10:15 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP07-18-21 | 17 | 2 | | ✓ | | | | | | | | | | | " | 10:[illegible] | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP07 | 18 | 2 | ✓ | | | | | | | | | | | | " | 10:40 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP07DUP | 19 | 2 | ✓ | | | | | | | | | | | | " | 10:40 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP08-9-12 | 20 | 2 | | ✓ | | | | | | | | | | | " | 13:20 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP08-15-18 | 21 | 2 | | ✓ | | | | | | | | | | | " | 13:25 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP08-21-24 | 22 | 2 | | ✓ | | | | | | | | | | | " | 13:30 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP08 | 23 | 2 | ✓ | | | | | | | | | | | | " | 13:35 | | | | | | | | | | | | | | | | | | | ✓ | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact: _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:

Lab Use Only Lot #: Seals Intact 32
Storage Location
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 25JUN96 | 13:10 | FEDX ~~47302~~ 759879513 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | 6/96 | 0810 | Waybill # 759829513 Tammy Nielsen |

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

RECEIVED
AUG 2 2 1996

August 21, 1996

Chuck Schick
Fluor Daniel GTI
2501 Yale Blvd. S.E.
Albuquerque, NM 87106

---

| | |
|---|---|
| RE: GTEL Client ID: | 8722000829 |
| Login Number: | W6070039 |
| Project ID (number): | 8722000829-03 |
| Project ID (name): | HOLLOMAN/D08WAD29/HOLLOMAN/NM |

---

Dear Chuck Schick:

This report, previously dated 08/15/96, is a reissue.

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 07/03/96 under Chain-of-Custody Number(s) 42297 & 42298.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the U.S. Army Corp of Engineers Laboratory Validation, expiration date March 18, 1997.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

John O. Sattler
QA/QC Manager for,
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6070039-01 | W6070039-02 | W6070039-03 | -- |
| Client ID | 1001-DP09A-18-21 | 1001-DP09A-18-21 DUP | 1001-DP09A-21-24 | -- |
| Date Sampled | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | 07/10/96 | 07/10/96 | 07/10/96 | -- |
| Dilution Factor | 1.00 | 1.00 | 1.00 | -- |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Methylene chloride | 10. | ug/kg | < 10. | < 10. | **13.** | -- |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | -- |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | -- |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Low Soil

| | | | | | |
|---|---|---|---|---|---|
| GTEL Sample Number | | W6070039-01 | W6070039-02 | W6070039-03 | -- |
| Client ID | | 1001-DP09A-18-21 | 1001-DP09A-18-21 DUP | 1001-DP09A-21-24 | -- |
| Date Sampled | | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | | 07/10/96 | 07/10/96 | 07/10/96 | -- |
| Dilution Factor | | 1.00 | 1.00 | 1.00 | -- |
| Analyte | Reporting Limit / Units | Concentration:Dry Weight | | | |
| 1,2-Dichlorobenzene | 10. ug/kg | < 10. | < 10. | < 10. | -- |
| Percent Solids | -- % | 83.3 | 82.4 | 80.9 | -- |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

**W6070039-03:**

Methylene chloride is a common laboratory contaminant.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6070039-04 | W6070039-05 | W6070039-06 | -- |
| Client ID | 1001-DP09A-21-24 DUP | 1001-DP09A-24-27 | 1001-DP09A-24-27 DUP | |
| Date Sampled | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | 07/10/96 | 07/10/96 | 07/10/96 | -- |
| Dilution Factor | 1.00 | 1.00 | 1.00 | -- |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Methylene chloride | 10. | ug/kg | **17.** | **17.** | **16.** | -- |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | -- |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | -- |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6070039-04 | W6070039-05 | W6070039-06 | -- |
| Client ID | 1001-DP09A-21-24 DUP | 1001-DP09A-24-27 | 1001-DP09A-24-27 DUP | |
| Date Sampled | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | 07/10/96 | 07/10/96 | 07/10/96 | -- |
| Dilution Factor | 1.00 | 1.00 | 1.00 | -- |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Percent Solids | -- | % | 81.3 | 79.7 | 68.6 | -- |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

**W6070039-04:**

Methylene chloride is a common laboratory contaminant.

**W6070039-05:**

Methylene chloride is a common laboratory contaminant.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6070039-08 | W6070039-09 | W6070039-10 | -- |
| Client ID | 1001-DP10-18-21 | 1001-DP10-21-24 | 1001-DP10-24-27 | -- |
| Date Sampled | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | 07/10/96 | 07/10/96 | 07/10/96 | -- |
| Dilution Factor | 1.00 | 1.00 | 1.00 | -- |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Bromomethane | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Vinyl chloride | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Chloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Methylene chloride | 10. | ug/kg | **10.** | **15.** | **17.** | -- |
| Acetone | 100 | ug/kg | < 100 | < 100 | < 100 | -- |
| Carbon disulfide | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Vinyl acetate | 20. | ug/kg | < 20. | < 20. | < 20. | -- |
| 1,1-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Butanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Chloroform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Carbon tetrachloride | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Benzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Trichloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloropropane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromodichloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Chloroethylvinyl ether | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| 4-Methyl-2-pentanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Toluene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Hexanone | 50. | ug/kg | < 50. | < 50. | < 50. | -- |
| Tetrachloroethene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Dibromochloromethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Chlorobenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Ethylbenzene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| m+p-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| o-Xylene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Styrene | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromoform | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/kg | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,3-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| 1,4-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Low Soil

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6070039-08 | W6070039-09 | W6070039-10 | -- |
| Client ID | 1001-DP10-18-21 | 1001-DP10-21-24 | 1001-DP10-24-27 | -- |
| Date Sampled | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | 07/10/96 | 07/10/96 | 07/10/96 | -- |
| Dilution Factor | 1.00 | 1.00 | 1.00 | -- |

| Analyte | Reporting Limit | Units | Concentration:Dry Weight | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/kg | < 10. | < 10. | < 10. | -- |
| Percent Solids | -- | % | 83.6 | 80.5 | 81.4 | -- |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

**W6070039-08:**

Methylene chloride is a common laboratory contaminant.

**W6070039-09:**

Methylene chloride is a common laboratory contaminant.

**W6070039-10:**

Methylene chloride is a common laboratory contaminant.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 826(
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

| Conformance Item | Volatile Organics | Semi-Volatile Organics | Inorganics (MT, WC) |
|---|---|---|---|
| GC/MS Tune | -- | -- | NA |
| Initial Calibration | -- | -- | -- |
| Continuing Calibration | -- | -- | -- |
| Surrogate Recovery | X | -- | NA |
| Holding Time | X | -- | -- |
| Method Accuracy | X | -- | -- |
| Method Precision | X | -- | -- |
| Blank Contamination | * | -- | -- |

Comments:

Methylene chloride was found in the method blank, and in samples W6070039 (03-09). Methylene chloride is a common laboratory contaminant.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 8260A
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Low Soil

Surrogate Results

| QC Batch No. | Reference | Sample ID | DBFM | TOL-D8 | 4-BFB |
|---|---|---|---|---|---|
| Method: EPA 8260A | | Acceptability Limits: | 74-127% | 81-117% | 74-121% |
| 071096JK-1 | BW071096AFN1 | Method Blank Water | 91.1 | 96.3 | 106. |
| 071096JK-2 | LW071096AFN1 | Laboratory Control | 91.8 | 98.0 | 104. |
| 071096JK-3 | LWD071096FN1 | LCS Water Duplicat | 102. | 103. | 96.1 |
| 071096JK-4 | MS07003901 | Matrix Spike | 104. | 103. | 95.7 |
| 071096JK-5 | MD07003901 | Matrix Spike Dupli | 102. | 103. | 99.2 |
| -- | 07003901 | 1001-DP09A-18-21 | 104. | 99.6 | 97.8 |
| -- | 07003902 | 1001-DP09A-18-21 D | 105. | 101. | 100. |
| -- | 07003903 | 1001-DP09A-21-24 | 98.4 | 103. | 100. |
| -- | 07003904 | 1001-DP09A-21-24 D | 102. | 98.9 | 97.7 |
| -- | 07003905 | 1001-DP09A-24-27 | 100. | 97.4 | 97.4 |
| -- | 07003906 | 1001-DP09A-24-27 D | 99.8 | 100. | 98.5 |
| -- | 07003908 | 1001-DP10-18-21 | 98.7 | 101. | 98.9 |
| -- | 07003909 | 1001-DP10-21-24 | 101. | 99.9 | 95.6 |
| -- | 07003910 | 1001-DP10-24-27 | 104. | 101. | 96.3 |

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 8260
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Low Soil

Method Blank Results

QC Batch No: 071096JK-1
Date Analyzed: 10-JUL-96

| Analyte | Method:EPA 8260A Concentration: ug/L |
|---|---|
| Dichlorodifluoromethane | < 10.0 |
| Chloromethane | < 10.0 |
| Dichlorofluoromethane | < 10.0 |
| Bromomethane | < 10.0 |
| Vinyl chloride | < 2.00 |
| Iodomethane | < 5.00 |
| Chloroethane | < 10.0 |
| Trichlorofluoromethane | < 5.00 |
| Allyl Chloride | < 10.0 |
| Acrolein | < 20.0 |
| 1,1-Dichloroethene | < 5.00 |
| Methylene chloride | 3.86* |
| Acetone | < 20.0 |
| Carbon disulfide | < 5.00 |
| Acrylonitrile | < 20.0 |
| MTBE | < 5.00 |
| trans-1,2-Dichloroethene | < 5.00 |
| Vinyl acetate | < 20.0 |
| 1,1-Dichloroethane | < 5.00 |
| 2-Butanone | < 20.0 |
| 2,2-Dichloropropane | < 5.00 |
| cis-1,2-Dichloroethene | < 5.00 |
| Chloroform | < 5.00 |
| Tetrahydrofuran | < 5.00 |
| Bromochloromethane | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 |
| 1,1-Dichloropropene | < 5.00 |
| Carbon tetrachloride | < 5.00 |
| Benzene | < 5.00 |
| 1,2-Dichloroethane | < 5.00 |
| Trichloroethene | < 5.00 |
| Methacrylonitrile | < 5.00 |
| 1,2-Dichloropropane | < 5.00 |
| Bromodichloromethane | < 5.00 |
| Dibromomethane | < 5.00 |
| Propionitrile | < 5.00 |
| Methyl methacrylate | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 |
| 4-Methyl-2-pentanone | < 20.0 |
| cis-1,3-Dichloropropene | < 5.00 |
| Toluene | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 |
| 1,2-Dibromoethane | < 5.00 |

| | | | |
|---|---|---|---|
| GTEL Client ID: | 8722000829 | QUALITY CONTROL RESULTS | |
| Login Number: | W6070039 | | Volatile Organics |
| Project ID (number): | 8722000829-03 | | Method: EPA 8260A |
| Project ID (name): | HOLLOMAN/D08WAD29/HOLLOMAN/NM | | Matrix: Low Soil |

Method Blank Results

| | |
|---|---|
| 2-Hexanone | < 20.0 |
| Tetrachloroethene | < 5.00 |
| 1,3-Dichloropropane | < 5.00 |
| Dibromochloromethane | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 |
| Chlorobenzene | < 5.00 |
| Ethylbenzene | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 |
| m+p-Xylene | < 5.00 |
| o-Xylene | < 5.00 |
| Styrene | < 5.00 |
| Bromoform | < 5.00 |
| Isopropylbenzene | < 5.00 |
| 1,1,2,2-Tetrachloroethane | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 |
| n-Propylbenzene | < 5.00 |
| Bromobenzene | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 |
| 2-Chlorotoluene | < 5.00 |
| 4-Chlorotoluene | < 5.00 |
| tert-Butylbenzene | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 |
| sec-Butylbenzene | < 5.00 |
| p-Isopropyltoluene | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 |
| 1,4-Dichlorobenzene | < 10.0 |
| n-Butylbenzene | < 5.00 |
| 1,2-Dichlorobenzene | < 10.0 |
| 1,2-Dibromo-3-chloropropane | < 5.00 |
| 1,2,4-Trichlorobenzene | < 5.00 |
| Hexachloroethane | < 5.00 |
| Hexachlorobutadiene | < 5.00 |
| Naphthalene | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organic
Project ID (number): 8722000829-03 Method: EPA 826
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6070039-01 MS ID:MS07003901 MSD ID:MD07003901
Analysis Date: 10-JUL-96 10-JUL-96 10-JUL-96

| Units: ug/kg | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 62.6 | 125. | 55.7 | 111 | 11.9 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 44.5 | 89.0 | 47.1 | 94.2 | 5.70 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 43.4 | 86.8 | 45.0 | 90.0 | 3.60 | 14 | 71-120 |
| Toluene | < 5.00(0.0230) | 50.0 | 50.0 | 43.0 | 86.0 | 48.0 | 96.0 | 11.0 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.0610) | 50.0 | 50.0 | 45.6 | 91.1 | 47.4 | 94.7 | 3.90 | 13 | 75-130 |

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 8260A
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Low Soil

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

| Analyte | Spike Amount | LCS Concentration | LCS Recovery, % | LCS Duplicate Concentration | LCS Duplicate Recovery, % | RPD, % | Acceptability Limits RPD, % | Acceptability Limits Recovery, % |
|---|---|---|---|---|---|---|---|---|
| EPA 8260A Units: ug/L | | QC Batch:071096JK-3 | | | | | | |
| 1,1-Dichloroethene | 50.0 | 50.1 | 100. | 47.9 | 95.8 | 4.29 | 14 | 61-145% |
| Trichloroethene | 50.0 | 43.3 | 86.6 | 42.2 | 84.4 | 2.57 | 14 | 71-120% |
| Benzene | 50.0 | 45.3 | 90.6 | 42.0 | 84.0 | 7.56 | 11 | 76-127% |
| Toluene | 50.0 | 46.6 | 93.2 | 45.1 | 90.2 | 3.27 | 13 | 76-125% |
| Chlorobenzene | 50.0 | 45.2 | 90.4 | 43.7 | 87.4 | 3.37 | 13 | 75-130% |

Notes:

**GTEL** ENVIRONMENTAL LABORATORIES INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42297

Company Name: FLUOR DANIEL GTE
Phone #: 505 242 3113
FAX #: 505 242 1103
Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM 87106
Site Location: HAFB, NM DOBWAD29, AOC 1001
Project Manager: CHUCK SCHICK
Client Project ID: (#) 872200082903
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | VOCs by 8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP09A-18-21 | 1 | 1 | | ✓ | | | | | | | | | | | 29 JUL 1996 | 09:40 | ✓ |
| 1001-DP09A-18-21 DUP | 2 | 1 | | ✓ | | | | | | | | | | | " | 09:40 | ✓ |
| 1001-DP09A-21-24 | 3 | 2 | | ✓ | | | | | | | | | | | " | 09:51 | ✓ |
| 1001-DP09A-21-24 DUP | 4 | 2 | | ✓ | | | | | | | | | | | " | 09:51 | ✓ |
| 1001 DP09A 24-27 | 5 | 2 | | ✓ | | | | | | | | | | | " | 09:39 | ✓ |
| 1001 DP09A 24-27 DUP | 6 | 2 | | ✓ | | | | | | | | | | | " | 09:39 | ✓ |
| 1001-GP09A | 7 | 2 | ✓ | | | | | | | | | | | | " | 10:27 | ✓ |
| 1001-DP10-18-21 | 8 | 1 | | ✓ | | | | | | | | | | | " | 12:41 | ✓ |
| 1001-DP10-21-24 | 9 | 1 | | ✓ | | | | | | | | | | | " | 12:44 | ✓ |
| 1001-DP10 24-27 | 10 | 1 | | ✓ | | | | | | | | | | | " | 12:47 | ✓ |
| 1001-GP10 | 11 | 2 | ✓ | | | | | | | | | | | | " | 12:51 | ✓ |

ANALYSIS REQUEST: BTEX 602 ☐ 8020 ☐ with MTBE ☐; BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐; Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐; Hydrocarbon Profile (SIMDIS) ☐; Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐; TPH/IR 418.1 ☐ SM 503 ☐; EDB by 504 ☐ DBCP by 504 ☐; EPA 503.1 ☐ EPA 502.2 ☐; EPA 601 ☐ EPA 8010 ☐; EPA 602 ☐ EPA 8020 ☐; EPA 608 ☐ 8080 ☐ PCB only ☐; EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐; EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐; EPA 610 ☐ 8310 ☐; EP TOX Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐; EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐; CAM Metals TTLC ☐ STLC ☐; Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐; Organic Lead ☐; Corrosivity ☐ Flash Point ☐ Reactivity ☐; OTHER

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☑
Other ____ Business Days ☐

**Special Handling**
GTEL Contact ____
Quote/Contract # ____
Confirmation # ____
P.O. # ____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ ____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS: DACW-45-94-D0003

Lab Use Only Lot #: Seals Intact
Storage Location 2°C
Work Order #:

## CUSTODY RECORD

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 25 July 96 | 17:30 | Airborne 925197 2621 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | 7 | 961040 | Waybill # Tommy Delion |

**GTEL** ENVIRONMENTAL LABORATORIES, INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42298

Company Name: FLUOR DANIEL GTI
Phone #: 505 242 3113
FAX #: 505 242 1103
Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM 87106
Site Location: HAFB, NM D08WAD29 A0C1001
Project Manager: CHUCK SCHICK
Client Project ID: (#) 872200082903
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | VOC's by 8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRILL-DECON | 123 | 3 | ✓ | | | | | | ✓ | | | ✓ | | | 29JUL96 | 13:30 | | | | | | | | | | | | | | | | | | | | | ✓ | |
| | W607099 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:
DACW-45-94-D0003

Lab Use Only Lot #: Seals Intact
Storage Location 20C
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: Lee Scott Stevenson | Date 29July96 | Time 17:30 | Received by: Airborne 925192 2621 |
|---|---|---|---|
| Relinquished by: | Date | Time | Received by: |
| Relinquished by: | Date 7/29/96 | Time 0840 | Received by Laboratory: Tammy Nielsen |
| | | | Waybill # |

RECEIVED

AUG 1 9 1996

**NEI/GTEL**
ENVIRONMENTAL LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

August 16, 1996

Vern Herschberger
Flour Daniel GTI
2501 Yale Boulevard Southeast, Suite 204
Albuquerque, NM 87106

| | | |
|---|---|---|
| RE: | GTEL Client ID: | 8722000829 |
| | Login Number: | W6060491 |
| | Project ID (number): | 8722000829 |
| | Project ID (name): | Holloman AFB/ AOC1001 |

Mr. Herschberger:

Enclosed please find the analytical results for the samples subcontracted to Southwest Laboratory of Oklahoma, Inc. on 06/ /96 under Chain-of-Custody Number(s) 42280, 42299, 42300.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely
NEI/GTEL Environmental Laboratories, Inc.

John O. Sander
QA/QC Manager for,
Terry R. Loucks
Laboratory Director

NEI:GTEL WO: W6060491

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

July 30, 1996

John Sattler
**GTEL ENVIRONMENTAL LABORATORIES, INC.**
4211 May Ave.
Wichita, KS 67209

PROJECT: HOLLOMAN AFB
SWLO ID : 26181.01 - 26181.05, 26181.07 - 26181.09, 26181.11 - 26181.13, 26181.15 - 26181.17, 26181.19 - 26181.21, 26181.23 - 26181.25, 26181.27 - 26181.29, 26181.32 - 26181.36

Dear Mr. Sattler:

Please find the enclosed analytical results for your samples received in our laboratory on June 28, 1996, for the above captioned project.

This data is for soil samples only. The data for the water samples will be sent to you upon completion.

If, in your review, you should have any questions or require additional information, do not hesitate to call.

Sincerely,

Mike Butler
Project Officer

MB/kl
Enclosures

1700 West Albany • Broken Arrow, OK 74012-1421 • (918) 251-2858 • Fax (918) 251-2599

**GTEL** ENVIRONMENTAL LABORATORIES INC

4211 ~~MAY~~ AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

SOUTHWEST LABS
1700 ~~BROKEN ARROW~~
ALBANY
BROKEN ARROW, OK

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42280

Company Name: BT FLUOR DANIEL GTI
Phone #: 505 242 3113
FAX #: 505 242 7103

Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM 87106
Site Location: HARB, NM DOB, WAD79 AOC1001

Project Manager: CHUCK SCHICK
Client Project ID: (#) 87270008 2903 (NAME)

I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

ANALYSIS REQUEST | OTHER

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | EXP by 8330 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP01-9-12 | 35 | 1 | | X | | | | | | | | | | | 24 Jun 1996 | 11:00 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP01-15-18 | 36 | 1 | | X | | | | | | | | | | | " | 11:05 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP01-18-21 | 37 | 1 | | X | | | | | | | | | | | " | 11:10 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-GP01 | 38 | 1 | X | | | | | | | | | | | | " | 11:40 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP02-9-12 | 39 | 1 | | X | | | | | | | | | | | " | 13:50 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP02-15-18 | 40 | 1 | | X | | | | | | | | | | | " | 14:00 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP02-18-21 | 41 | 1 | | X | | | | | | | | | | | " | 14:05 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-GP02 | 42 | 1 | X | | | | | | | | | | | | " | 14:15 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP03-9-12 | 43 | 1 | | X | | | | | | | | | | | " | 16:42 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP03-15-18 | 44 | 1 | | X | | | | | | | | | | | " | 16:48 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP03-18-21 | 45 | 1 | | X | | | | | | | | | | | " | 16:50 | | | | | | | | | | | | | | | | | | | | ✓ |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:
DACW-45-94-D0003

Lab Use Only Lot #:
Storage Location
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 27JUN96 | 13:00 | FEDX 759829 5935 |
| Relinquished by: | Date | Time | Received by: |
| | | | |

**GTEL** ENVIRONMENTAL LABORATORIES INC

~~4211 MAY AVE.~~ SOUTHWEST LAB OF OKL.
WICHITA, KS 67209 1700 W. ALBANY
(316) ~~945~~-2624 BROKEN ARROW, OK
(800) ~~633-7936~~

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42300

Company Name: FLUOR DANIEL GTE
Phone #: 505 242 3113 74012-1421
FAX #: 505 242 1103

Company Address: 2501 YALE, SE. ALBUQUERQUE, NM. 87106
Site Location: HAFB, NM D08WAD29 AOC1001

Project Manager: CHUCK SCHECK
Client Project ID: (#) 8722 00 082903
(NAME)

I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

ANALYSIS REQUEST | OTHER

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | Exp. by 8330 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP06-18-21 | 46 | 2 | | X | 35 | | | | | | | | | | 25JUN 96 | 16:10 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-GP06 | 47 | 1 | ✓ | | 36 | | | | | | | | | | " | 16:13 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-DP07-9-12 | 48 | 2 | | X | 37 | | | | | | | | | | 26JUN 96 | 10:18 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-DP07-15-18 | 49 | 2 | | X | 38 | | | | | | | | | | | 10:22 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-DP07-18-21 | 50 | 2 | | X | 39 | | | | | | | | | | | 10:26 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-GP07 | 51 | 1 | ✓ | | 40 | | | | | | | | | | | 10:40 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-GP07DUP | 52 | 1 | ✓ | | 41 | | | | | | | | | | | 10:40 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-DP08 9-12 | 53 | 2 | | X | | | | | | | | | | | | 13:20 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-DP08-15-18 | 54 | 2 | | X | | | | | | | | | | | | 13:25 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-DP08-21-24 | 55 | 2 | | X | | | | | | | | | | | | 13:30 | | | | | | | | | | | | | | | | | | | ✓ | |
| 1001-GP08 | 56 | 1 | ✓ | | | | | | | | | | | | | 13:55 | | | | | | | | | | | | | | | | | | | ✓ | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other ____
Business Days ☐

**Special Handling**
GTEL Contact ____
Quote/Contract # ____
Confirmation # ____
P.O. # ____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ ____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:
DACW-45-94-D0003

Lab Use Only Lot #:
Storage Location
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 27JUN96 | 13:00 | FEDX 759829 5935 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | 6/27/96 | 0930 | Waybill # |

**GTEL** ENVIRONMENTAL LABORATORIES INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

SOUTHWEST LABS
1700 W. ALBANY
BROKEN ARROW, OK.

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42299

Company Name: FLUOR DANIEL GTE

Phone #: 505 242-3113

FAX #: 505 242 1103

Company Address: 2501 YALE, SE. #204 ALBUQUERQUE, NM 87106

Site Location: HAFB, NM. DOB WAD 29 AOC 1001

Project Manager: CHUCK SCHICK

Client Project ID: (#) 87220008 2903

(NAME)

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): LEE SCOTT STEVENSON

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | EXFL by 8330 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-GP03 | 57 | 1 | ✓ | | | ✓ | | | | | | | | | 24 JUN 96 | 17:10 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP04-9-12 | 58 | 1 | | ✓ | | | | | | | | | | | 25 JUN96 | 0925 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP04-15-18 | 59 | 1 | | ✓ | | | | | | | | | | | " | 0930 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP04-24-27 | 60 | 1 | | ✓ | | | | | | | | | | | " | 0935 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-GP04 | 64 | 1 | ✓ | | | | | | | | | | | | " | 1012 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP05-9-12 | 61 | 1 | | ✓ | | | | | | | | | | | " | 1315 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP05-12-15 | 62 | 1 | | ✓ | | | | | | | | | | | " | 1320 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP05-15-18 | 63 | 1 | | ✓ | | | | | | | | | | | " | 1325 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-GP05 | 65 | 1 | ✓ | | | | | | | | | | | | " | 1325 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP06-6-9 | 66 | 2 | | ✓ | | | | | | | | | | | " | 1600 | | | | | | | | | | | | | | | | | | | ✓ | | | | |
| 1001-DP06-12-15 | 67 | 2 | | ✓ | | | | | | | | | | | " | 1605 | | | | | | | | | | | | | | | | | | | ✓ | | | | |

**TAT**
- Priority (24 hr) ☐
- Expedited (48 hr) ☐
- 7 Business Days ☐
- Other _____
- Business Days ☐

**Special Handling**
- GTEL Contact _____
- Quote/Contract # _____
- Confirmation # _____
- P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS: DACW-45-94-D0003

Lab Use Only Lot #:

Storage Location

Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 27JUN96 | 13:00 | FEDX 759829593S |
| Relinquished by: | Date | Time | Received by: |
| | | | |

# SOUTHWEST LABORATORY OF OKLAHOMA
# CASE NARRATIVE

July 29, 1996

CLIENT : NIGGTEL
CASE : HOLLOMAN AFB
EPISODE : 26181
FRACTION : EXPLOSIVES
SAMPLES : 1001-DP01-9-12, 1001-DP-9-12 MS, 1001-DP01-9-12 MSD, 1001-DP01-15-18, 1001-DP01-18-21, 1001-DP02-9-12, 1001-DP02-15-18, 1001-DP02-18-21, 1001-DP03-9-12, 1001-DP03-15-18, 1001-DP03-18-21, 1001-DP04-9-12, 1001-DP04-15-18, 1001-DP04-24-27, 1001-DP05-9-12, 1001-DP05-12-15, 1001-DP05-15-18, 1001-DP06-6-9, 1001-DP06-12-15, 1001-DP06-18-21, 1001-DP07-9-12, 1001-DP07-15-18, 1001-DP07-18-21, 1001-DP08-9-12, 1001-DP08-15-18, 1001-DP08-21-24, 1001-DP08-21-24 MS, 1001-DP08-21-24 MSD

This case consisted of 24 soil samples with applicable MS and MSD for explosives analysis. The samples, blanks and spikes were extracted and analyzed according to EPA protocol, SW-846, method, 8330, REV. 0, 1994.

For soil samples, the percent moisture is determined by drying them at 105° C at the time of receipt. Additional portion of the samples are air-dried prior to analysis. The results are reported on the basis of the air-dried samples. For high level water samples, direct injection method is used. For low level water samples, salting out method is used. All of the samples are diluted by a factor of two prior to analysis according to method 8330. The samples are diluted in order to be the same consistency as the Mobile Phase.

## CASE SUMMARY:

Since the laboratory does not analyze 2ADNT and 4ADNT routinely, QC limits provided by the clients were used for the MS and MSD and the LCS and LCSD.

All of the compounds in the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) and Laboratory Control Spike (LCS), and Laboratory Control Spike Duplicate (LCSD) were within the QC limits.

The explosives referred to in the data package by the abbreviations found in method 8330 are as follows: HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine), RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine), TNB (1,3,5-Trinitrobenzene), DNB (1,3-Dinitrobenzene), Tetryl (Methyl-2,4,6-

trinitrophenylnitramine), NB (Nitrobenzene), TNT (2,4,6- Trinitrotoluene), 24DNT (2,4-Dinitrotoluene), 26DNT (2,6-Dinitrotoluene), 2NT (o-Nitrotoluene), 3NT (m-Nitrotoluene), 4NT (p-Nitrotoluene) , PETN (Pentaerythritol tetranitrate), 2ADNT (2-Amino-4,6-dinitrotoluene), 4ADNT (4-Amino-2,6-dinitrotoluene).

Flags shown on Form 1D's in the "Q" column conform to definitions in the EPA SOW OLM01.08 analytical protocol for BNA's, VOA's and Pest/PCB's. We use the following flags where appropriate. "J" - indicates a quantitated result which is below the quantitation limit, but above the detection limit and has been confirmed by the second column. "E"- indicates an out of range value, i.e., a peak that is off-scale or out of the linear calibration range of the detector. The value reported is not to be used. The sample must be diluted and re-run. "D" - indicates a value derived from a secondary dilution. "U" - indicates the compound that is undetected above the quantitation limit. "X" - indicates a comment which is explained in the case narrative. ``ND'' - indicates not determine.

SHAHRIAR SHAHREZA

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP01-9-12
SWOK SAMPLE ID : 26181.01
FILENAME : 1 1EX0711,20
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP01-15-18
SWOK SAMPLE ID : 26181.04
FILENAME : 1 1EX0711,27
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP01-18-21
SWOK SAMPLE ID : 26181.05
FILENAME : 1 1EX0711,28
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP02-9-12
SWOK SAMPLE ID : 26181.07
FILENAME : 1 1EX0711,29
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP02-15-18
SWOK SAMPLE ID : 26181.08
FILENAME : 1 1EX0711,30
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP02-18-21
SWOK SAMPLE ID : 26181.09
FILENAME : 1 1EX0711,31
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP03-9-12
SWOK SAMPLE ID : 26181.11
FILENAME : 1 1EX0711,34
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP03-15-18
SWOK SAMPLE ID : 26181.12
FILENAME : 1 1EX0711,35
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP03-18-21
SWOK SAMPLE ID : 26181.13
FILENAME : 1 1EX0711,36
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP04-9-12
SWOK SAMPLE ID : 26181.15
FILENAME : 1 1EX0711,37
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP04-15-18
SWOK SAMPLE ID : 26181.16
FILENAME : 1 1EX0711,38
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP04-24-27
SWOK SAMPLE ID : 26181.17
FILENAME : 1 1EX0711,39
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP04-9-12
SWOK SAMPLE ID : 26181.19
FILENAME : 1 1EX0711,40
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP05-12-15
SWOK SAMPLE ID : 26181.20
FILENAME : 1 1EX0711,41
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP05-15-18
SWOK SAMPLE ID : 26181.21
FILENAME : 1 1EX0711,44
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP06-6-9
SWOK SAMPLE ID : 26181.23
FILENAME : 1 1EX0711,45
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP06-12-15
SWOK SAMPLE ID : 26181.24
FILENAME : 1 1EX0711,46
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP06-18-21
SWOK SAMPLE ID : 26181.25
FILENAME : 1 1EX0711,47
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP07-9-12
SWOK SAMPLE ID : 26181.27
FILENAME : 1 1EX0711A,7
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP07-15-18
SWOK SAMPLE ID : 26181.28
FILENAME : 1 1EX0711A,8
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/12/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP07-18-21
SWOK SAMPLE ID : 26181.29
FILENAME : 1 1EX0711A,11
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/13/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP08-9-12
SWOK SAMPLE ID : 26181.32
FILENAME : 1 1EX0711A,12
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/13/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP08-15-18
SWOK SAMPLE ID : 26181.33
FILENAME : 1 1EX0711A,13
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/13/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 1000 | |
| DNB | 250 | 250 | U |
| TNT | 250 | 1000 | |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP08-21-24
SWOK SAMPLE ID : 26181.34
FILENAME : 1 1EX0711A,14
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/13/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: BL0701SB
SWOK SAMPLE ID : BL0701SB
FILENAME : 1 1EX0711,14
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : --
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/11/96
REPORT DATE : 7/29/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES LABORATORY CONTROL SPIKE RECOVERY FORM

CLIENT : NIGGTEL
CLIENT SAMPLE ID: LC0701SA

LABORATORY CONTROL SPIKE INFORMATION:

SWOK SAMPLE ID : LC0701SA
FILENAME : 1 1EX0711,16,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0 g
EXT. VOLUME : 10.0 mL
DILUTION FACTOR : 2
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/11/96

| | | | RECOVERY DATA | | |
|---|---|---|---|---|---|
| | LCS ADDED | AMT.FOUND SMP. | AMT.FOUND LCS | % REC LCS | QC LIMIT REC. |
| | ug/Kg | | ug/Kg | | |
| HMX | 16000 | 0 | 14800 | 93 | 57-137 |
| RDX | 6250 | 0 | 5730 | 92 | 77-113 |
| TNB | 5750 | 0 | 5370 | 93 | 64-125 |
| TETRYL | 3825 | 0 | 2620 | 68 | 23-124 |
| DNB | 4875 | 0 | 4510 | 93 | 82-118 |
| TNT | 5000 | 0 | 4700 | 94 | 75-118 |
| NB | 3500 | 0 | 3460 | 99 | 69-143 |
| 26DNT | 3875 | 0 | 3680 | 95 | 78-117 |
| 24DNT | 2400 | 0 | 2400 | 100 | 74-126 |
| 2NT | 7250 | 0 | 6820 | 94 | 78-123 |
| 4NT | 4750 | 0 | 4430 | 93 | 79-125 |
| 3NT | 5000 | 0 | 4680 | 94 | 78-121 |
| 4ADNT | 18800 | 0 | 18500 | 98 | 68-157 |
| 2ADNT | 17200 | 0 | 16800 | 98 | 63-142 |

SOUTHWEST LABORATORY OF OKLAHOMA :
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES LABORATORY CONTROL SPIKE RECOVERY FORM

CLIENT : NIGGTEL
CLIENT SAMPLE ID: LD0701SA

LABORATORY CONTROL SPIKE INFORMATION:

SWOK SAMPLE ID : LD0701SA
FILENAME : 1 1EX0711,17,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0 g
EXT. VOLUME : 10.0 mL
DILUTION FACTOR : 2
DATE EXTRACTED : 07/01/96
DATE ANALYZED : 07/11/96

| | | | RECOVERY DATA | | |
|---|---|---|---|---|---|
| | LCS ADDED | AMT.FOUND SMP. | AMT.FOUND LCS | % REC LCS | QC LIMIT REC. |
| | ug/Kg | | ug/Kg | | |
| HMX | 16000 | 0 | 14800 | 93 | 57-137 |
| RDX | 6250 | 0 | 5760 | 92 | 77-113 |
| TNB | 5750 | 0 | 5340 | 93 | 64-125 |
| TETRYL | 3825 | 0 | 2400 | 63 | 23-124 |
| DNB | 4875 | 0 | 4520 | 93 | 82-118 |
| TNT | 5000 | 0 | 4660 | 93 | 75-118 |
| NB | 3500 | 0 | 3430 | 98 | 69-143 |
| 26DNT | 3875 | 0 | 3670 | 95 | 78-117 |
| 24DNT | 2400 | 0 | 2390 | 100 | 74-126 |
| 2NT | 7250 | 0 | 6830 | 94 | 78-123 |
| 4NT | 4750 | 0 | 4460 | 94 | 79-125 |
| 3NT | 5000 | 0 | 4700 | 94 | 78-121 |
| 4ADNT | 18800 | 0 | 17900 | 95 | 68-157 |
| 2ADNT | 17200 | 0 | 16400 | 95 | 63-142 |

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY FORM

CLIENT :NIGGTEL
CLIENT SAMPLE ID:1001-DP01-9-12

| MATRIX SPIKE INFORMATION: | | MATRIX SPIKE DUPLICATE INFORMATION: | |
|---|---|---|---|
| CLIENT SAMPLE ID: | 1001-DP01-912MSA | CLIENT ID: | 1001-DP01-912MSDA |
| SWOK SAMPLE ID : | 26181.02MSA | SWOK ID : | 26181.03MSDA |
| FILENAME : | 1 1EX0711,21,1 | FILENAME : | 1 1EX0711,25,1 |
| SAMPLE MATRIX : | SOIL | MATRIX : | SOIL |
| AMT. EXTRACTED : | 2 g | AMT. EXTD: | 2 g |
| % MOISTURE : | 0 | % MOISTURE: | .00 |
| EXT. VOLUME : | 10.0 mL | EXT. VOL : | 10.0 mL |
| DILUTION FACTOR : | 2 | DILUTION : | 2 |
| DATE EXTRACTED : | 07/01/96 | EXTRACTED: | 07/01/96 |
| DATE ANALYZED : | 07/12/96 | ANALYZED : | 07/12/96 |

RECOVERY DATA

| | SPIKE ADDED | AMT. FOUND | AMOUNT FOUND | % REC. MS | AMOUNT FOUND | % REC MSD | RPD | REC. LIMTS |
|---|---|---|---|---|---|---|---|---|
| | ug/Kg | | ug/kg | | ug/Kg | | | |
| HMX | 16000 | 0 | 14500 | 91 | 14700 | 92 | 1.4 | 54-128 |
| RDX | 6250 | 0 | 5370 | 86 | 5540 | 89 | 3.1 | 66-109 |
| TNB | 5750 | 0 | 5350 | 93 | 5430 | 94 | 1.5 | 57-130 |
| TETRYL | 3825 | 0 | 3280 | 86 | 3260 | 85 | 1 | 32-119 |
| DNB | 4875 | 0 | 4460 | 91 | 4520 | 93 | 1.3 | 74-122 |
| TNT | 5000 | 0 | 4610 | 92 | 4650 | 93 | .9 | 44-124 |
| NB | 3500 | 0 | 3380 | 97 | 3430 | 98 | 1.5 | 70-135 |
| 26DNT | 3875 | 0 | 3800 | 98 | 3710 | 96 | 2.4 | 58-128 |
| 24DNT | 2400 | 0 | 2490 | 104 | 2440 | 102 | 2.0 | 59-120 |
| 2NT | 7250 | 0 | 6720 | 93 | 6770 | 93 | .7 | 79-124 |
| 4NT | 4750 | 0 | 4370 | 92 | 4340 | 91 | .7 | 74-128 |
| 3NT | 5000 | 0 | 4620 | 92 | 4660 | 93 | .9 | 79-121 |

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY FORM

CLIENT :NIGGTEL
CLIENT SAMPLE ID:1001-DP01-9-12

| MATRIX SPIKE INFORMATION: | | MATRIX SPIKE DUPLICATE INFORMATION: | |
|---|---|---|---|
| CLIENT SAMPLE ID: | 1001-DP01-912MSB | CLIENT ID: | 1001-DP01-912MSDB |
| SWOK SAMPLE ID : | 26181.02MSB | SWOK ID : | 26181.03MSDB |
| FILENAME : | 1 1EX0711,22,1 | FILENAME : | 1 1EX0711,26,1 |
| SAMPLE MATRIX : | SOIL | MATRIX : | SOIL |
| AMT. EXTRACTED : | 2 g | AMT. EXTD: | 2 g |
| % MOISTURE : | 0 | % MOISTURE: | .00 |
| EXT. VOLUME : | 10.0 mL | EXT. VOL : | 10.0 mL |
| DILUTION FACTOR : | 2 | DILUTION : | 2 |
| DATE EXTRACTED : | 07/01/96 | EXTRACTED: | 07/01/96 |
| DATE ANALYZED : | 07/12/96 | ANALYZED : | 07/12/96 |

RECOVERY DATA

| | SPIKE ADDED | AMT. FOUND | AMOUNT FOUND | % REC. MS | AMOUNT FOUND | % REC MSD | RPD | REC. LIMTS |
|---|---|---|---|---|---|---|---|---|
| | ug/Kg | | ug/kg | | ug/Kg | | | |
| 4ADNT | 18800 | 0 | 18600 | 99 | 18800 | 100 | 1.1 | 68-157 |
| 2ADNT | 17200 | 0 | 17000 | 99 | 17200 | 100 | 1.2 | 63-142 |

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY FORM

CLIENT :NIGGTEL
CLIENT SAMPLE ID:1001-DP08-21-24

| MATRIX SPIKE INFORMATION: | | MATRIX SPIKE DUPLICATE INFORMATION: | |
|---|---|---|---|
| CLIENT SAMPLE ID: | 1001-DP08-2124MSA | CLIENT ID: | 1001-DP08-2124MSDA |
| SWOK SAMPLE ID : | 26181.35MSA | SWOK ID : | 26181.36MSDA |
| FILENAME : | 1 1EX0711A,15,1 | FILENAME : | 1 1EX0711A,17,1 |
| SAMPLE MATRIX : | SOIL | MATRIX : | SOIL |
| AMT. EXTRACTED : | 2 g | AMT. EXTD: | 2 g |
| % MOISTURE : | 0 | % MOISTURE: | .00 |
| EXT. VOLUME : | 10.0 mL | EXT. VOL : | 10.0 mL |
| DILUTION FACTOR : | 2 | DILUTION : | 2 |
| DATE EXTRACTED : | 07/01/96 | EXTRACTED: | 07/01/96 |
| DATE ANALYZED : | 07/13/96 | ANALYZED : | 07/13/96 |

RECOVERY DATA

| | SPIKE ADDED | AMT. FOUND | AMOUNT FOUND | % REC. MS | AMOUNT FOUND | % REC MSD | RPD | REC. LIMTS |
|---|---|---|---|---|---|---|---|---|
| | ug/Kg | | ug/kg | | ug/Kg | | | |
| HMX | 16000 | 0 | 14600 | 91 | 14600 | 91 | .0 | 54-128 |
| RDX | 6250 | 0 | 5430 | 87 | 5420 | 87 | .2 | 66-109 |
| TNB | 5750 | 0 | 5340 | 93 | 5310 | 92 | .6 | 57-130 |
| TETRYL | 3825 | 0 | 3270 | 85 | 3470 | 91 | 6 | 32-119 |
| DNB | 4875 | 0 | 4450 | 91 | 4480 | 92 | .7 | 74-122 |
| TNT | 5000 | 0 | 4580 | 92 | 4610 | 92 | .7 | 44-124 |
| NB | 3500 | 0 | 3390 | 97 | 3380 | 97 | .3 | 70-135 |
| 26DNT | 3875 | 0 | 3630 | 94 | 3690 | 95 | 1.6 | 58-128 |
| 24DNT | 2400 | 0 | 2350 | 98 | 2450 | 102 | 4.2 | 59-120 |
| 2NT | 7250 | 0 | 6810 | 94 | 6770 | 93 | .6 | 79-124 |
| 4NT | 4750 | 0 | 4420 | 93 | 4440 | 93 | .5 | 74-128 |
| 3NT | 5000 | 0 | 4640 | 93 | 4640 | 93 | .0 | 79-121 |

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY FORM

CLIENT :NIGGTEL
CLIENT SAMPLE ID:1001-DP08-21-24

| MATRIX SPIKE INFORMATION: | | MATRIX SPIKE DUPLICATE INFORMATION: | |
|---|---|---|---|
| CLIENT SAMPLE ID | :1001-DP08-2124MSB | CLIENT ID: | 1001-DP08-2124MSDB |
| SWOK SAMPLE ID | :26181.35MSB | SWOK ID : | 26181.36MSDB |
| FILENAME | :1 1EX0711A,16,1 | FILENAME : | 1 1EX0711A,18,1 |
| SAMPLE MATRIX | :SOIL | MATRIX : | SOIL |
| AMT. EXTRACTED | :2 g | AMT. EXTD: | 2 g |
| % MOISTURE | : 0 | % MOISTURE: | .00 |
| EXT. VOLUME | :10.0 mL | EXT. VOL : | 10.0 mL |
| DILUTION FACTOR | : 2 | DILUTION : | 2 |
| DATE EXTRACTED | :07/01/96 | EXTRACTED: | 07/01/96 |
| DATE ANALYZED | :07/13/96 | ANALYZED : | 07/13/96 |

RECOVERY DATA

| | SPIKE ADDED | AMT. FOUND | AMOUNT FOUND | % REC. MS | AMOUNT FOUND | % REC MSD | RPD | REC. LIMTS |
|---|---|---|---|---|---|---|---|---|
| | ug/Kg | | ug/kg | | ug/Kg | | | |
| 4ADNT | 18800 | 0 | 18300 | 97 | 18600 | 99 | 1.6 | 68-157 |
| 2ADNT | 17200 | 0 | 16800 | 98 | 17000 | 99 | 1.2 | 63-142 |

RECEIVED

AUG 1 9 1996

**NEI/GTEL**
ENVIRONMENTAL LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

August 14, 1996
Vern Herschberger
Flour Daniel GTI
2501 Yale Boulevard Southeast, Suite 204
Albuquerque, NM 87106

| | | |
|---|---|---|
| RE: | GTEL Client ID: | 8722000829 |
| | Login Number: | W6070039 |
| | Project ID (number): | 8722000829-03 |
| | Project ID (name): | Holloman AFB/ AOC1001 |

Mr. Herschberger:

Enclosed please find the analytical results for the samples subcontracted to Southwest Laboratory of Oklahoma, Inc. on 07/03/96 under Chain-of-Custody Number(s) 42296.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely
NEI/GTEL Environmental Laboratories, Inc.

John C. Sattler
QA/QC Manager for
Terry R. Loucks
Laboratory Director

NEI/GTEL WO: W6070039

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

July 30, 1996

John Sattler
**GTEL ENVIRONMENTAL LABORATORIES, INC.**
4211 May Ave.
Wichita, KS 67209

PROJECT: HOLLOMAN AFB
SWLO ID : 26211.01 - 26211.08, 26211.10 - 26211.12

Dear Mr. Sattler:

Please find the enclosed analytical results for your samples received in our laboratory on July 3, 1996, for the above captioned project.

This data is for soil samples only. The data for the water samples will be sent to you upon completion.

If, in your review, you should have any questions or require additional information, do not hesitate to call.

Sincerely,

Mike Butler
Project Officer

MB/kl
Enclosures

1700 West Albany • Broken Arrow, OK 74012-1421 • (918) 251-2858 • Fax (918) 251-2599

**GTEL** ENVIRONMENTAL LABORATORIES, INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

SOUTHWEST LABS
1700 W ALBANY
BROKEN ARROW
OK 74012

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42296

Company Name: FLUOR DANIEL GTI
Phone #: 505 242 3113
FAX #: 505 242 1103
Company Address: 2501 YALE, SE. #204 ALBUQUERQUE, NM 87106
Site Location: KAFB, NM D08 WAD29 AOC1001
Project Manager: CHUCK SCHECK
Client Project ID: (#) 8722 00082903
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Lee S. Stevenson

ANALYSIS REQUEST | OTHER

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | Expl. by 8330 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP09A-18-21 | 13 | 1 | | ✓ | | | | | | | | ✓ | | | 29 Jul 1996 | 09:40 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP09A-18-21 DUP | 14 | 1 | | ✓ | | | | | | | | ✓ | | | " | 09:40 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP09A-21-24 | 15 | 2 | | ✓ | | | | | | | | ✓ | | | ✓ | 09:51 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP09A-21-24 DUP | 16 | 2 | | ✓ | | | | | | | | ✓ | | | ✓ | 09:51 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP09A-24-27 | 17 | 1 | | ✓ | | | | | | | | ✓ | | | | 09:39 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP09A-24-27 DUP | 18 | 1 | | ✓ | | | | | | | | ✓ | | | | 09:39 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-GP09A | 19 | 1 | ✓ | | | | | | | | | ✓ | | | | 10:27 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP10-18-21 | 20 | 1 | | ✓ | | | | | | | | ✓ | | | | 12:41 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP10-21-24 | 21 | 1 | | ✓ | | | | | | | | ✓ | | | | 12:44 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-DP10-24-27 | 22 | 1 | | ✓ | | | | | | | | ✓ | | | | 12:47 | | | | | | | | | | | | | | | | | | | | ✓ |
| 1001-GP10 | 23 | 1 | ✓ | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | ✓ |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS: Limited quantity of sample on ~~DF~~ GP10 due to imminent T-storm. LSS - DACW-45-94-D0003

Lab Use Only Lot #:
Storage Location
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee S. Stevenson | 25 July 1996 | 16:55 | Airborne 9251922724 |
| Relinquished by: | Date | Time | Received by: |
| | | | |

# SOUTHWEST LABORATORY OF OKLAHOMA
# CASE NARRATIVE

July 26, 1996

CLIENT : NIGGTEL
CASE : HOLLOMAN AFB
EPISODE : 26211
FRACTION : EXPLOSIVES
SAMPLES : 1001-DP09A-18-21, 1001-DP09A-18-21 MS, 1001-DP09A-18-21 MSD, 1001-DP09A-18-21 DUP, 1001-DP09A-21-24, 1001-DP09A-21-24 DUP, 1001-DP09A-24-27, 1001-DP09A-24-27 DUP, 1001-DP10-18-21, 1001-DP10-21-24, 1001-DP10-24-27

This case consisted of 9 soil samples with applicable MS and MSD for explosives analysis. The samples, blanks and spikes were extracted and analyzed according to EPA protocol, SW-846, method, 8330, REV. 0, 1994.

For soil samples, the percent moisture is determined by drying them at 105° C at the time of receipt. Additional portion of the samples are air-dried prior to analysis. The results are reported on the basis of the air-dried samples. For high level water samples, direct injection method is used. For low level water samples, salting out method is used. All of the samples are diluted by a factor of two prior to analysis according to method 8330. The samples are diluted in order to be the same consistency as the Mobile Phase.

## CASE SUMMARY:

All of the compounds in the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) and Laboratory Control Spike (LCS), and Laboratory Control Spike Duplicate (LCSD) were within the QC limits.

The explosives referred to in the data package by the abbreviations found in method 8330 are as follows: HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine), RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine), TNB (1,3,5-Trinitrobenzene), DNB (1,3-Dinitrobenzene), Tetryl (Methyl-2,4,6-trinitrophenylnitramine), NB (Nitrobenzene), TNT (2,4,6- Trinitrotoluene), 24DNT (2,4-Dinitrotoluene), 26DNT (2,6-Dinitrotoluene), 2NT (o-Nitrotoluene), 3NT (m-Nitrotoluene), 4NT (p-Nitrotoluene) , PETN (Pentaerythritol tetranitrate), 2ADNT (2-Amino-4,6-dinitrotoluene), 4ADNT (4-Amino-2,6-dinitrotoluene).

Flags shown on Form 1D's in the "Q" column conform to definitions in the EPA SOW OLM01.08 analytical protocol for BNA's, VOA's and Pest/PCB's. We use the following flags where appropriate. "J" - indicates a quantitated result which is below the quantitation limit, but above the detection limit and has been confirmed by the second column. "E"- indicates an out of range value, i.e., a peak that is off-scale or out of the linear calibration range of the detector. The value reported is not to be used. The sample must be diluted and re-run. "D" - indicates a value derived from a secondary dilution. "U" - indicates the compound that is undetected above the quantitation limit. "X" - indicates a comment which is explained in the case narrative. ``ND'' - indicates not determine.

SHAHRIAR SHAHREZA

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP09A-18-21
SWOK SAMPLE ID : 26211.01
FILENAME : 1 1EX0711D,9,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP09A-18-21DUP
SWOK SAMPLE ID : 26211.04DUP
FILENAME : 1 1EX0711D,16,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP09A-21-24
SWOK SAMPLE ID : 26211.05
FILENAME : 1 1EX0711D,17,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP09A-21-24DUP
SWOK SAMPLE ID : 26211.06DUP
FILENAME : 1 1EX0711D,18,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP09A-24-27
SWOK SAMPLE ID : 26211.07
FILENAME : 1 1EX0711D,19,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP09A-24-27DUP
SWOK SAMPLE ID : 26211.08
FILENAME : 1 1EX0711D,20,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP10-18-21
SWOK SAMPLE ID : 26211.10
FILENAME : 1 1EX0711D,21,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP10-21-24
SWOK SAMPLE ID : 26211.11
FILENAME : 1 1EX0711D,24,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-DP10-24-27
SWOK SAMPLE ID : 26211.12
FILENAME : 1 1EX0711D,25,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/17/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY

SW-846 METHOD 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: BL0703SD
SWOK SAMPLE ID : BL0703SD
FILENAME : 1 1EX0711D,3,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0
EXT. VOLUME : 10.0
DILUTION FACTOR : 2.0
DATE RECEIVED :
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96
REPORT DATE : 7/25/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/Kg) | AMOUNT FOUND ug/Kg | |
|---|---|---|---|
| HMX | 2200 | 2200 | U |
| RDX | 1000 | 1000 | U |
| TNB | 250 | 250 | U |
| TETRYL | 650 | 650 | U |
| DNB | 250 | 250 | U |
| TNT | 250 | 250 | U |
| NB | 260 | 260 | U |
| 26DNT | 260 | 260 | U |
| 24DNT | 250 | 250 | U |
| 2NT | 250 | 250 | U |
| 4NT | 250 | 250 | U |
| 3NT | 250 | 250 | U |
| 4ADNT | 250 | 250 | U |
| 2ADNT | 250 | 250 | U |

FLAG DEFINITIONS: U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA :
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY FORM

CLIENT :NIGGTEL
CLIENT SAMPLE ID:1001-DP09A-18-21

| MATRIX SPIKE INFORMATION: | | MATRIX SPIKE DUPLICATE INFORMATION: | |
|---|---|---|---|
| CLIENT SAMPLE ID | :1001-DP09A1821MSA | CLIENT ID: | 1001-DP09A-18-21MSDA |
| SWOK SAMPLE ID | :26211.02MSA | SWOK ID : | 26211.03MSDA |
| FILENAME | :1 1EX0711D,10,1 | FILENAME : | 1 1EX0711D,14,1 |
| SAMPLE MATRIX | :SOIL | MATRIX : | SOIL |
| AMT. EXTRACTED | :2 g | AMT. EXTD: | 2 g |
| % MOISTURE | : 0 | % MOISTURE: | .00 |
| EXT. VOLUME | :10.0 mL | EXT. VOL : | 10.0 mL |
| DILUTION FACTOR | : 2 | DILUTION : | 2 |
| DATE EXTRACTED | :07/03/96 | EXTRACTED: | 07/03/96 |
| DATE ANALYZED | :07/16/96 | ANALYZED : | 07/16/96 |

RECOVERY DATA

| | SPIKE ADDED | AMT. FOUND | AMOUNT FOUND | % REC. MS | AMOUNT FOUND | % REC MSD | RPD | REC. LIMTS |
|---|---|---|---|---|---|---|---|---|
| | ug/Kg | | ug/kg | | ug/Kg | | | |
| HMX | 16000 | 0 | 13700 | 86 | 14300 | 89 | 4.3 | 54-128 |
| RDX | 6250 | 0 | 4700 | 75 | 4890 | 78 | 4.0 | 66-109 |
| TNB | 5750 | 0 | 4950 | 86 | 5100 | 89 | 3.0 | 57-130 |
| TETRYL | 3825 | 0 | 3090 | 81 | 3240 | 85 | 5 | 32-119 |
| DNB | 4875 | 0 | 4240 | 87 | 4370 | 90 | 3.0 | 74-122 |
| TNT | 5000 | 0 | 4290 | 86 | 4430 | 89 | 3.2 | 44-124 |
| NB | 3500 | 0 | 3120 | 89 | 3240 | 93 | 3.8 | 70-135 |
| 26DNT | 3875 | 0 | 3450 | 89 | 3580 | 92 | 3.7 | 58-128 |
| 24DNT | 2400 | 0 | 2340 | 98 | 2390 | 100 | 2.1 | 59-120 |
| 2NT | 7250 | 0 | 6230 | 86 | 6500 | 90 | 4.2 | 79-124 |
| 4NT | 4750 | 0 | 4040 | 85 | 4250 | 89 | 5.1 | 74-128 |
| 3NT | 5000 | 0 | 4300 | 86 | 4500 | 90 | 4.5 | 79-121 |

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY FORM

CLIENT :NIGGTEL
CLIENT SAMPLE ID:1001-DP09A-18-21B

| MATRIX SPIKE INFORMATION: | | MATRIX SPIKE DUPLICATE INFORMATION: | |
|---|---|---|---|
| CLIENT SAMPLE ID: | 1001-DP09A-1821MSB | CLIENT ID: | 1001-DP09A-18-21MSDB |
| SWOK SAMPLE ID : | 26211.02MSB | SWOK ID : | 26211.03MSDB |
| FILENAME : | 1 1EX0711D,13,1 | FILENAME : | 1 1EX0711D,15,1 |
| SAMPLE MATRIX : | SOIL | MATRIX : | SOIL |
| AMT. EXTRACTED : | 2 g | AMT. EXTD: | 2 g |
| % MOISTURE : | 0 | % MOISTURE: | .00 |
| EXT. VOLUME : | 10.0 mL | EXT. VOL : | 10.0 mL |
| DILUTION FACTOR : | 2 | DILUTION : | 2 |
| DATE EXTRACTED : | 07/03/96 | EXTRACTED: | 07/03/96 |
| DATE ANALYZED : | 07/16/96 | ANALYZED : | 07/16/96 |

RECOVERY DATA

| | SPIKE ADDED | AMT. FOUND | AMOUNT FOUND | % REC. MS | AMOUNT FOUND | % REC MSD | RPD | REC. LIMTS |
|---|---|---|---|---|---|---|---|---|
| | ug/Kg | | ug/kg | | ug/Kg | | | |
| 4ADNT | 18800 | 0 | 18000 | 96 | 18300 | 97 | 1.7 | 68-157 |
| 2ADNT | 17200 | 0 | 16300 | 95 | 16600 | 97 | 1.8 | 63-142 |

SOUTHWEST LABORATORY OF OKLAHOMA :
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES LABORATORY CONTROL SPIKE RECOVERY FORM

CLIENT : NIGGTEL
CLIENT SAMPLE ID: LD0703SD

LABORATORY CONTROL SPIKE INFORMATION:

SWOK SAMPLE ID : LD0703SD
FILENAME : 1 1EX0711D,6,1
SAMPLE MATRIX : SOIL
AMT. EXTRACTED : 2.0 g
EXT. VOLUME : 10.0 mL
DILUTION FACTOR : 2
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/16/96

| | | | RECOVERY DATA | | |
|---|---|---|---|---|---|
| | LCS ADDED | AMT.FOUND SMP. | AMT.FOUND LCS | % REC LCS | QC LIMIT REC. |
| | ug/Kg | | ug/Kg | | |
| HMX | 16000 | 0 | 14500 | 91 | 57-137 |
| RDX | 6250 | 0 | 5690 | 91 | 77-113 |
| TNB | 5750 | 0 | 5080 | 88 | 64-125 |
| TETRYL | 3825 | 0 | 1480 | 39 | 23-124 |
| DNB | 4875 | 0 | 4420 | 91 | 82-118 |
| TNT | 5000 | 0 | 4710 | 94 | 75-118 |
| NB | 3500 | 0 | 3410 | 97 | 69-143 |
| 26DNT | 3875 | 0 | 3550 | 92 | 78-117 |
| 24DNT | 2400 | 0 | 2310 | 96 | 74-126 |
| 2NT | 7250 | 0 | 6580 | 91 | 78-123 |
| 4NT | 4750 | 0 | 4300 | 91 | 79-125 |
| 3NT | 5000 | 0 | 4540 | 91 | 78-121 |
| 4ADNT | 18800 | 0 | 18100 | 96 | ~~ND~~ 68-157 |
| 2ADNT | 17200 | 0 | 16600 | 97 | ~~ND~~ 63-142 |

EJB 7/26/96

# TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

**7110 38th Drive SE**
**Lacey, Washington 98503**

**Mobile Environmental Laboratories**
**Environmental Sampling Services**

**Telephone:** **360-459-4670**
**Fax:** **360-459-3432**


May 29, 1997

Chuck Schick
Fluor Daniel GTI
2501 Yale Blvd. SE, # 204
Albuquerque, NM 87106

Re: P.O. #K65630000; K6558000; G/L #2208-000-44 00; WBS #2208.99.999
Contract #DACW45-94-D-003/008
P.O. #K65640000; G/L #2211-000-44 00; WBS #2211.99
Contract #DACW45-94-D-003/011

Dear Mr. Schick:

Please find enclosed the analytical report for the D08W29/AOC-1001 Project in Alamogordo, New Mexico. The StrataProbe collected soil and water samples at the project site on May 6, 7, 8 and 9, 1997. The samples were analyzed on-site for Specific Halogenated Hydrocarbons and BTEX by Modified EPA Method 8010/8020. One water sample was analyzed for Gasoline, Diesel and Oil by Modified EPA Method 8015.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. The invoice for this project has been sent to Government Operations, 1220 Ward Avenue, Suite 200, in West Chester, Pennsylvania, for payment.

TEG Northwest appreciates the opportunity to have provided analytical and geosampling services to Fluor Daniel GTI for this project. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec

Michael A. Korosec
*President*

# QA/QC FOR ANALYTICAL METHODS

## GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

## ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

**TPH-Gasoline, TPH-Diesel**
**(Gasoline and/or Diesel, Modified EPA 8015)**

A check standard is run at the beginning of the day. 1) A close standard is run at the end of the day. 2) Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

**Purgeable Volatile Aromatics**
**(BTEX, EPA 602/8020)**

A check standard is run at the beginning of the day. The check standard is run at the end of the day. Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. At least 1 method blank is run per day.

**Purgeable Volatile Halocarbons**
**(Chlorinated Hydrocarbons, EPA 601/8010,8021)**

A calibration standard is run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.



D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

| Sample-Number | MDL | Method Blank | AOC-1001 DP-11 16-19 | AOC-1001 DP-11 16-19 Dup | AOC-1001 DP-16 12-15 | Method Blank | AOC-1001 DP-15 18-21 |
|---|---|---|---|---|---|---|---|
| Date | | 05/06/97 | 05/06/97 | 05/06/97 | 05/06/97 | 05/07/97 | 05/07/97 |
| | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | 0.05 | nd | nd | nd | nd | nd | nd |
| Toluene | 0.05 | nd | nd | nd | nd | nd | nd |
| Ethylbenzene | 0.05 | nd | nd | nd | nd | nd | |
| Total-Xylene | 0.05 | nd | nd | nd | nd | nd | [illegible] |
| 1,1 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Dichloromethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trans-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Cis-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Chloroform | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Carbon Tetrachloride | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,2 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Tetrachloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Spike Recovery (%) | | 102 | 115 | 116 | 93 | 132 | 93 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

| Sample-Number | MDL | AOC-1001 DP-18 19-22 | AOC-1001 DP-18 19-22 Dup | AOC-1001 DP-12 16-19 | AOC-1001 DP-22 11-12 | Method Blank | AOC-1001 DP-17 14-17 |
|---|---|---|---|---|---|---|---|
| Date | | 05/07/97 | 05/07/97 | 05/07/97 | 05/07/97 | 05/08/97 | 05/08/97 |
| | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | 0.05 | nd | nd | nd | 29.4 | nd | nd |
| Toluene | 0.05 | nd | nd | nd | nd | nd | nd |
| Ethylbenzene | 0.05 | nd | nd | nd | 6.54 | nd | nd |
| Total-Xylene | 0.05 | nd | nd | nd | 2.03 | nd | nd |
| 1,1 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Dichloromethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trans-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Cis-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Chloroform | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Carbon Tetrachloride | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,2 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Tetrachloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Spike Recovery (%) | | 114 | 88 | 112 | 128 | 134 | 103 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

| Sample-Number | MDL | Method Blank | AOC-1001 DP-23 17-20 | AOC-1001 DP-24 17-20 |
|---|---|---|---|---|
| Date | | 05/09/97 | 05/09/97 | 05/09/97 |
| | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | 0.05 | nd | 0.36 | nd |
| Toluene | 0.05 | nd | nd | nd |
| Ethylbenzene | 0.05 | nd | nd | nd |
| Total-Xylene | 0.05 | nd | 0.07 | nd |
| 1,1 Dichloroethene | 0.05 | nd | nd | nd |
| Dichloromethane | 0.05 | nd | nd | nd |
| Trans-1,2 Dichloroethene | 0.05 | nd | nd | nd |
| 1,1 Dichloroethane | 0.05 | nd | nd | nd |
| Cis-1,2 Dichloroethene | 0.05 | nd | nd | nd |
| Chloroform | 0.05 | nd | nd | nd |
| 1,1,1 Trichloroethane | 0.05 | nd | nd | nd |
| Carbon Tetrachloride | 0.05 | nd | nd | nd |
| 1,2 Dichloroethane | 0.05 | nd | nd | nd |
| Trichloroethene | 0.05 | nd | nd | nd |
| 1,1,2 Trichloroethane | 0.05 | nd | nd | nd |
| Tetrachloroethene | 0.05 | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 0.05 | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 0.05 | nd | nd | nd |
| Spike Recovery (%) | | 123 | 101 | 92 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.



D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | Method Blank | AOC-1001 GP-11 20 | AOC-1001 GP-11 20 Dup | Method Blank | AOC-1001 GP-12 30 | AOC-1001 GP-12 30 Dup |
|---|---|---|---|---|---|---|---|
| Date | | 05/06/97 | 05/06/97 | 05/06/97 | 05/07/97 | 05/07/97 | 05/07/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | nd | 7.9 | 10.1 | nd | 1900* | 2200 |
| Toluene | 1 | nd | nd | nd | nd | nd | <50 |
| Ethylbenzene | 1 | nd | nd | nd | nd | nd | <50 |
| Total-Xylene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1 Dichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| Dichloromethane | 1 | nd | nd | nd | nd | nd | <50 |
| Trans-1,2 Dichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1 Dichloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Cis-1,2 Dichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| Chloroform | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,1 Trichloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Carbon Tetrachloride | 1 | nd | nd | nd | nd | nd | <50 |
| 1,2 Dichloroethane | 1 | nd | 87 | 104 | nd | 118* | 102 |
| Trichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,2 Trichloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Tetrachloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,1,2-Tetrachloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,2,2-Tetrachloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Spike Recovery (%) | | 88 | 112 | 128 | 91 | 93 | 107 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-15 29 | AOC-1001 GP-16 21 | AOC-1001 GP-16 21 | AOC-1001 GP-18 28 | AOC-1001 GP-18 28 Dup | Method Blank |
|---|---|---|---|---|---|---|---|
| Date | | 05/07/97 | 05/07/97 | 05/07/97 | 05/07/97 | 05/07/97 | 05/08/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 2.8 | 1800* | 4080 | nd | nd | nd |
| Toluene | 1 | nd | 1600* | 2600 | nd | nd | nd |
| Ethylbenzene | 1 | nd | 370* | 308 | nd | nd | |
| Total-Xylene | 1 | nd | 2700* | 2400 | nd | nd | nd |
| 1,1 Dichloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| Dichloromethane | 1 | nd | nd | <40 | nd | nd | nd |
| Trans-1,2 Dichloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1 Dichloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Cis-1,2 Dichloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| Chloroform | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1,1 Trichloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Carbon Tetrachloride | 1 | nd | nd | <40 | nd | nd | nd |
| 1,2 Dichloroethane | 1 | 3.8 | 131* | 178 | nd | nd | nd |
| Trichloroethene | 1 | 5.6 | nd | <40 | nd | nd | nd |
| 1,1,2 Trichloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Tetrachloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Spike Recovery (%) | | 69 | 82 | 100 | 133 | 102 | 104 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-19 30 | AOC-1001 GP-19 30 | AOC-1001 GP-14 30 | AOC-1001 GP-14 30 | AOC-1001 GP-17 29 | AOC-1001 GP-17 29 |
|---|---|---|---|---|---|---|---|
| Date | | 05/08/97 | 05/08/97 | 05/08/97 | 05/08/97 | 05/08/97 | 05/08/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 850* | 922 | 630* | 1420 | 2000* | 3900 |
| Toluene | 1 | nd | <40 | nd | <20 | nd | <40 |
| Ethylbenzene | 1 | 300* | 336 | nd | <20 | 110* | 40 |
| Total-Xylene | 1 | 6.0 | <40 | 28 | 30 | 17 | <40 |
| 1,1 Dichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| Dichloromethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Trans-1,2 Dichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1 Dichloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Cis-1,2 Dichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| Chloroform | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,1 Trichloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Carbon Tetrachloride | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,2 Dichloroethane | 1 | 13.1 | <40 | 66* | 60 | 270* | 315 |
| Trichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,2 Trichloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Tetrachloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,1,2-Tetrachloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,2,2-Tetrachloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Spike Recovery (%) | | 90 | 82 | 103 | 126 | 139 | 79 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-20 30 | AOC-1001 GP-22 30 | AOC-1001 GP-22 30 | Method Blank | AOC-1001 GP-13 30 | AOC-1001 GP-13 30 |
|---|---|---|---|---|---|---|---|
| Date | | 05/08/97 | 05/08/97 | 05/08/97 | 05/09/97 | 05/09/97 | 05/09/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 59 | 1200* | 8640 | nd | 970* | 704 |
| Toluene | 1 | nd | 2400* | 3620 | nd | nd | <20 |
| Ethylbenzene | 1 | nd | 110* | 523 | nd | nd | · |
| Total-Xylene | 1 | nd | 430* | 1140 | nd | 4.9 | <20 |
| 1,1 Dichloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| Dichloromethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Trans-1,2 Dichloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1 Dichloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Cis-1,2 Dichloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| Chloroform | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1,1 Trichloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Carbon Tetrachloride | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,2 Dichloroethane | 1 | nd | -- | 310 | nd | 46 | 47 |
| Trichloroethene | 1 | 14 | -- | <80 | nd | nd | <20 |
| 1,1,2 Trichloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Tetrachloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1,1,2-Tetrachloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1,2,2-Tetrachloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Spike Recovery (%) | | 60 | 62 | 134 | 109 | 107 | 112 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-24 23 | AOC-1001 GP-24 23 | AOC-1001 GP-25 32 | AOC-1001 GP-23 20 | AOC-1001 GP-23 20 |
|---|---|---|---|---|---|---|
| Date | | 05/09/97 | 05/09/97 | 05/09/97 | 05/09/97 | 05/09/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 5500* | 5100 | nd | 700* | 640 |
| Toluene | 1 | 1300* | 1030 | nd | 480* | 460 |
| Ethylbenzene | 1 | 165 | 230 | nd | 180* | 140 |
| Total-Xylene | 1 | 3600* | 3800 | nd | 1100* | 940 |
| 1,1 Dichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| Dichloromethane | 1 | <20 | <400 | nd | nd | <10 |
| Trans-1,2 Dichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| 1,1 Dichloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Cis-1,2 Dichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| Chloroform | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,1 Trichloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Carbon Tetrachloride | 1 | <20 | <400 | nd | nd | <10 |
| 1,2 Dichloroethane | 1 | 288 | <400 | nd | 21 | 17 |
| Trichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,2 Trichloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Tetrachloroethene | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,1,2-Tetrachloroethane | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,2,2-Tetrachloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Spike Recovery (%) | | 107 | 60 | 62 | 66 | 77 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Gasoline, Diesel and Oil in Water by Modified EPA 8015

| Sample Number | Date | Recovery * | Gasoline ug/l | Diesel ug/l | Heavy Oil ug/l |
|---|---|---|---|---|---|
| Meth. Blank | 05/07/97 | 96 | nd | nd | nd |
| AOC1001-GP-16 21 | 05/07/97 | 116 | 41000 | nd | nd |
| MDL | | | 100 | 200 | 400 |

"nd" Indicates not detected at the listed detection Limit.
"int" Indicates that interference peaks prevent determination.

QA/QC REPORT - CALIBRATION DA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/06/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 59 | 19.6 | 6.1% | 3 | 7.3 | 59 | 19.7 | 6.4% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 328 | 109.3 | 4.6% | 3 | 6.7 | 361 | 120.3 | 15.2% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 125 | 41.7 | 7.4% | 3 | 5.3 | 115 | 38.3 | 14.8% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 244 | 81.3 | 14.7% | 3 | 7.7 | 320 | 106.7 | 11.9% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 76 | 25.2 | 5.7% | 3 | 3.7 | 69 | 23.0 | 14.1% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 308 | 102.7 | 12.0% | 3 | 6.1 | 402 | 134.0 | 14.8% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 299 | 99.7 | 7.8% | 3 | 4.7 | 350 | 116.7 | 7.9% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 350 | 116.7 | 4.0% | 3 | 4.4 | 431 | 143.7 | 16.2% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 295 | 98.3 | 2.0% | 3 | 12.9 | 336 | 112.0 | 16.2% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 102 | 34.0 | 4.8% | 3 | 15.4 | 82 | 27.3 | 15.7% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 341 | 113.7 | 6.1% | 3 | 18.9 | 373 | 124.3 | 16.0% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 160 | 53.3 | 4.8% | 3 | 12.6 | 147 | 49.0 | 12.5% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 158 | 52.5 | 0.9% | 3 | 12.6 | 137 | 45.7 | 13.8% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 148 | 49.3 | 2.5% | 3 | 8.8 | 133 | 44.3 | 7.9% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 71 | 23.5 | 8.6% | 3 | 2.5 | 72 | 24.0 | 6.7% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 409 | 136.3 | 11.3% | 3 | 7.6 | 425 | 141.7 | 15.7% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 334 | 111.3 | 2.2% | 3 | 15.1 | 404 | 134.7 | 18.2% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 128 | 42.7 | 7.1% | 3 | 15.4 | 118 | 39.3 | 14.3% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 292 | 48.7 | 3.3% | 3 | 11.6 | 263 | 43.8 | 12.9% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.6 | 137 | 45.7 | 0.3% | 3 | 15.8 | 120 | 40.0 | 12.6% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/06/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 65 | 13.1 | 0.2% | 5 | 7.3 | 66 | 13.2 | 0.9% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 194 | 38.8 | 1.5% | 5 | 6.7 | 228 | 45.6 | 19.2% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 115 | 23.0 | 1.0% | 5 | 5.3 | 115 | 22.9 | 0.6% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 175 | 35.0 | 4.1% | 5 | 7.7 | 201.0 | 40.2 | 19.6% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 56 | 11.3 | 1.6% | 5 | 3.7 | 54 | 10.8 | 2.2% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 205 | 41.0 | 5.3% | 5 | 6.1 | 231 | 46.2 | 18.7% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 218 | 43.6 | 3.4% | 5 | 4.7 | 237 | 47.4 | 12.4% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 260 | 52.0 | 2.8% | 5 | 4.4 | 284 | 56.8 | 12.3% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 106 | 21.2 | 6.1% | 5 | 12.9 | 104 | 20.8 | 4.1% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 123 | 24.6 | 2.7% | 3 | 15.4 | 110 | 22.0 | 8.2% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 90 | 18.0 | 7.4% | 5 | 18.9 | 95 | 19.0 | 2.0% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 83 | 16.6 | 4.0% | 5 | 12.6 | 69 | 13.8 | 13.8% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 119 | 23.8 | 1.4% | 5 | 12.6 | 114 | 22.8 | 2.9% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 125 | 25.0 | 0.4% | 5 | 8.8 | 114 | 22.8 | 8.4% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 54 | 10.9 | 4.1% | 5 | 2.5 | 45 | 9.1 | 12.9% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 127 | 25.4 | 15.6% | 5 | 7.6 | 132 | 26.4 | 20.2% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 8 | 1.6 | 16.7% | 5 | 15.1 | 7 | 1.4 | 1.5% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 83 | 16.6 | 8.8% | 5 | 15.4 | 69 | 13.8 | 9.6% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 161 | 16.1 | 9.1% | 10 | 11.6 | 141 | 14.1 | 4.5% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 86 | 13.1 | 5.3% | 5 | 15.8 | 59 | 11.8 | 5.4% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/07/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE AREA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 55 | 18.3 | 0.8% | 3 | 7.3 | 52 | 17.5 | 5.5% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 317 | 105.7 | 1.1% | 3 | 6.7 | 332 | 110.7 | 5.9% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 114 | 38.0 | 15.6% | 3 | 5.3 | 113 | 37.7 | 16.3% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 325 | 108.3 | 13.6% | 3 | 7.7 | 277 | 92.3 | 3.2% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 70 | 23.3 | 12.8% | 3 | 3.7 | 68 | 22.6 | 15.6% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 396 | 132.0 | 13.1% | 3 | 6.1 | 375 | 125.0 | 7.1% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 348 | 116.0 | 7.3% | 3 | 4.7 | 344 | 114.7 | 6.1% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 412 | 137.3 | 13.0% | 3 | 4.4 | 413 | 137.7 | 13.3% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 327 | 109.0 | 13.0% | 3 | 12.9 | 316 | 105.3 | 9.2% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 80 | 26.7 | 17.8% | 3 | 15.4 | 78 | 26.0 | 19.8% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 373 | 124.3 | 16.0% | 3 | 18.9 | 378 | 126.0 | 17.6% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 148 | 49.3 | 11.9% | 3 | 12.6 | 149 | 49.7 | 11.3% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 135 | 45.0 | 15.1% | 3 | 12.6 | 134 | 44.7 | 15.7% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 130 | 43.3 | 10.0% | 3 | 8.8 | 129 | 43.0 | 10.7% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 71 | 23.7 | 8.0% | 3 | 2.5 | 79 | 26.3 | 2.4% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 420 | 140.0 | 14.3% | 3 | 7.6 | 431 | 143.7 | 17.3% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 360 | 120.0 | 5.4% | 3 | 15.1 | 380 | 126.7 | 11.2% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 121 | 40.3 | 12.1% | 3 | 15.4 | 131 | 43.7 | 4.9% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 270 | 45.0 | 10.6% | 6 | 11.6 | 338 | 56.3 | 11.9% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 125 | 41.7 | 9.0% | 3 | 15.8 | 137 | 45.7 | 0.3% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/07/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE AREA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 53 | 10.7 | 18.6% | 5 | 7.3 | 65 | 12.9 | 1.5% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 36.24 | 5 | 6.7 | 204 | 40.8 | 6.7% | 5 | 6.7 | 210 | 42.0 | 9.8% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 94 | 18.8 | 17.4% | 5 | 5.3 | 91 | 18.2 | 20.0% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 181 | 36.2 | 7.7% | 5 | 7.7 | 154.0 | 30.8 | 8.4% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 48 | 9.6 | 13.4% | 5 | 3.7 | 48 | 9.6 | 13.4% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 214 | 42.8 | 9.9% | 5 | 6.1 | 166 | 33.2 | 14.7% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 246 | 49.6 | 17.6% | 5 | 4.7 | 219 | 43.8 | 3.9% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 225 | 45.0 | 11.1% | 5 | 4.4 | 283 | 56.6 | 11.9% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 91 | 18.2 | 8.9% | 5 | 12.9 | 96 | 19.6 | 1.9% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 105 | 21.0 | 12.4% | 5 | 15.4 | 96 | 19.2 | 19.9% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 16.9 | 107 | 21.4 | 10.4% | 5 | 16.9 | 81 | 16.2 | 16.5% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 65 | 13.0 | 18.8% | 5 | 12.6 | 68 | 13.6 | 15.0% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 96 | 19.2 | 18.2% | 5 | 12.6 | 104 | 20.8 | 11.4% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 135 | 27.0 | 8.4% | 5 | 8.8 | 104 | 20.8 | 16.5% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 56 | 11.2 | 7.2% | 5 | 2.5 | 56 | 11.2 | 7.4% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 101 | 20.2 | 8.1% | 5 | 7.6 | 116 | 23.2 | 5.6% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 7 | 1.5 | 10.7% | 5 | 15.1 | 7 | 1.4 | 4.5% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 67 | 13.4 | 12.2% | 5 | 15.4 | 79 | 15.9 | 3.9% | 61.0 | 91.8 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 125 | 12.5 | 15.3% | 10 | 11.6 | 138 | 13.8 | 6.5% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 63 | 12.6 | 1.0% | 5 | 15.8 | 51 | 10.2 | 16.3% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/08/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 45 | 14.9 | 19.4% | 3 | 7.3 | 49 | 16.3 | 11.6% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 350 | 116.7 | 11.6% | 3 | 6.7 | 362 | 120.7 | 15.5% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 120 | 40.1 | 11.0% | 3 | 5.3 | 112 | 37.3 | 17.1% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 315 | 105.0 | 10.1% | 3 | 7.7 | 300 | 100.0 | 4.9% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 71 | 23.5 | 12.2% | 3 | 3.7 | 69 | 23.0 | 14.1% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 394 | 131.3 | 12.5% | 3 | 6.1 | 397 | 132.3 | 13.4% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 106.10 | 3 | 4.7 | 369 | 123.0 | 13.8% | 3 | 4.7 | 352 | 117.3 | 8.5% | 259.4 | 369.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 400 | 133.3 | 9.7% | 3 | 4.4 | 412 | 137.3 | 13.0% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 322 | 107.3 | 11.3% | 3 | 12.9 | 311 | 103.7 | 7.5% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 82 | 27.4 | 15.6% | 3 | 15.4 | 80 | 26.7 | 17.8% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 322 | 107.3 | 0.2% | 3 | 18.9 | 370 | 123.3 | 15.1% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 153 | 51.0 | 9.0% | 3 | 12.6 | 144 | 48.0 | 14.3% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 140 | 46.7 | 11.9% | 3 | 12.6 | 133 | 44.3 | 16.3% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 136 | 45.3 | 5.8% | 3 | 8.8 | 129 | 43.0 | 10.7% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 74 | 24.8 | 3.7% | 3 | 2.5 | 71 | 23.7 | 8.0% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 431 | 143.7 | 17.3% | 3 | 7.6 | 410 | 136.7 | 11.6% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 358 | 119.3 | 4.8% | 3 | 15.1 | 379 | 126.3 | 10.9% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 123 | 41.0 | 10.7% | 3 | 15.4 | 117 | 39.0 | 15.1% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 273 | 45.5 | 9.6% | 6 | 11.6 | 259 | 43.2 | 14.2% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 129 | 43.0 | 6.1% | 3 | 15.8 | 116 | 38.7 | 15.6% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/08/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 55 | 11.0 | 15.7% | 5 | 7.3 | 53 | 10.6 | 19.1% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 219 | 43.8 | 14.5% | 5 | 6.7 | 180 | 36.0 | 5.9% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 91 | 18.3 | 19.7% | 5 | 5.3 | 92 | 18.4 | 19.2% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 168 | 33.6 | 0.1% | 5 | 7.7 | 194.0 | 38.8 | 15.4% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 44 | 8.9 | 20.0% | 5 | 3.7 | 44 | 8.9 | 19.9% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 178 | 35.6 | 8.6% | 5 | 6.1 | 216 | 43.2 | 11.0% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 214 | 42.8 | 1.5% | 5 | 4.7 | 219 | 43.8 | 3.9% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 274 | 54.8 | 8.3% | 5 | 4.4 | 254 | 50.8 | 0.4% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.96 | 5 | 12.9 | 84 | 16.8 | 15.9% | 5 | 12.9 | 81 | 16.3 | 18.6% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 97 | 19.5 | 18.7% | 5 | 15.4 | 98 | 19.6 | 18.2% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 79 | 15.8 | 18.5% | 5 | 18.9 | 88 | 17.6 | 9.2% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 64 | 12.8 | 20.0% | 5 | 12.6 | 66 | 13.2 | 17.5% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 100 | 20.0 | 14.8% | 5 | 12.6 | 103 | 20.6 | 12.2% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 120 | 24.0 | 3.6% | 5 | 8.8 | 103 | 20.6 | 17.3% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 47 | 9.5 | 9.3% | 5 | 2.5 | 50 | 10.0 | 4.1% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 120 | 24.0 | 9.2% | 5 | 7.6 | 105 | 21.0 | 4.4% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 8 | 1.5 | 13.4% | 5 | 15.1 | 7 | 1.4 | 7.5% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 89 | 17.8 | 16.6% | 5 | 15.4 | 65 | 13.0 | 14.8% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 133 | 13.3 | 9.9% | 10 | 11.6 | 128 | 12.8 | 13.3% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 50 | 10.0 | 19.9% | 5 | 15.8 | 52 | 10.5 | 16.2% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/09/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 64 | 21.4 | 16.0% | 3 | 7.3 | 49 | 16.3 | 11.6% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 372 | 124.0 | 18.7% | 3 | 6.7 | 268 | 89.3 | 14.5% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 118 | 39.3 | 12.6% | 3 | 5.3 | 111 | 37.0 | 17.6% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 258 | 86.0 | 9.8% | 3 | 7.7 | 238 | 78.7 | 17.5% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 71 | 23.7 | 11.6% | 3 | 3.7 | 68 | 22.0 | 17.8% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 378 | 128.0 | 6.0% | 3 | 6.1 | 290 | 96.7 | 17.2% | 260.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 325 | 108.3 | 0.2% | 3 | 4.7 | 266 | 86.7 | 18.0% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 418 | 139.3 | 14.7% | 3 | 4.4 | 337 | 112.3 | 7.5% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 305 | 101.7 | 5.4% | 3 | 12.9 | 275 | 91.7 | 4.9% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 81 | 27.0 | 16.7% | 3 | 15.4 | 78 | 26.0 | 19.8% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 370 | 123.3 | 15.1% | 3 | 18.9 | 257 | 85.7 | 20.0% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 147 | 49.0 | 12.5% | 3 | 12.6 | 145 | 48.3 | 13.7% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 139 | 46.3 | 12.8% | 3 | 12.6 | 132 | 44.0 | 17.0% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 132 | 44.0 | 8.6% | 3 | 8.6 | 130 | 43.3 | 10.0% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 70 | 23.3 | 9.3% | 3 | 2.5 | 69 | 23.0 | 10.6% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 423 | 141.0 | 15.1% | 3 | 7.6 | 321 | 107.0 | 12.6% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 398 | 132.7 | 16.5% | 3 | 15.1 | 280 | 93.3 | 18.0% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 122 | 40.7 | 11.4% | 3 | 15.4 | 120 | 40.0 | 12.9% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 264 | 44.0 | 12.6% | 3 | 11.6 | 262 | 43.7 | 13.3% | 120.6 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 124 | 41.3 | 9.7% | 3 | 15.6 | 116 | 38.7 | 15.6% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/09/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 59 | 11.8 | 9.9% | 3 | 7.3 | 55 | 11.0 | 16.0% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 202 | 40.4 | 5.6% | 3 | 6.7 | 178 | 35.6 | 6.9% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 97 | 19.4 | 14.8% | 3 | 5.3 | 94 | 18.9 | 17.2% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 193 | 38.6 | 14.8% | 3 | 7.7 | 158.0 | 31.6 | 6.0% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 46 | 9.2 | 17.0% | 3 | 3.7 | 45 | 8.9 | 19.5% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 221 | 44.2 | 13.5% | 3 | 6.1 | 179 | 35.8 | 8.0% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 232 | 46.4 | 10.1% | 3 | 4.7 | 198 | 39.2 | 7.0% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 296 | 59.2 | 17.0% | 3 | 4.4 | 256 | 51.2 | 1.2% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 103 | 20.6 | 3.1% | 3 | 12.9 | 102 | 20.4 | 2.1% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 97 | 19.4 | 19.0% | 3 | 15.4 | 98 | 19.2 | 19.9% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 111 | 22.2 | 14.5% | 3 | 18.9 | 87 | 17.4 | 10.3% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 65 | 13.0 | 18.8% | 3 | 12.6 | 88 | 17.6 | 10.0% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 94 | 18.8 | 19.9% | 3 | 12.6 | 101 | 20.2 | 13.9% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 100 | 20.0 | 19.7% | 3 | 8.8 | 109 | 21.8 | 12.4% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 49 | 9.8 | 6.0% | 3 | 2.5 | 46 | 9.3 | 11.0% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 130 | 26.0 | 18.3% | 3 | 7.6 | 120 | 24.0 | 9.2% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 7 | 1.3 | 0.0% | 3 | 15.1 | 7 | 1.5 | 10.4% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 67 | 13.4 | 12.2% | 3 | 15.4 | 63 | 12.6 | 17.4% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 132 | 13.2 | 10.6% | 3 | 11.6 | 121 | 12.1 | 18.0% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 53 | 10.6 | 15.1% | 3 | 15.8 | 65 | 13.0 | 4.2% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - MS/MSD

INSTRUMENT: SHIMADZU GC14A

DATE 5/09/97

| COMPOUND | DETECTOR | SPIKE MG/KG | MS RECOV. | %RECOV | MSD RECOV. | %RECOV | RPD | ACCEPTABLE RPD | ACCEPTABLE RECOVERY |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-DICHLORO ETHENE | PID | 5 | 4.0 | 80.0% | 4.5 | 90.0% | 11.8% | 35% | 40%-160% |
| METHYLENE CHLORIDE | HALL | 5 | 5.1 | 102.0% | 5.7 | 114.0% | 11.1% | 35% | 40%-160% |
| TRANS-1,2-DICHLORO ETHENE | PID | 5 | 4.0 | 80.0% | 4.3 | 86.0% | 7.2% | 35% | 40%-160% |
| 1,1-DICHLOROETHANE | HALL | 5 | 5.8 | 116.0% | 5.8 | 116.0% | 0.0% | 35% | 40%-160% |
| CIS-1,2-DICHLOROETHENE | PID | 5 | 4.0 | 80.0% | 4.2 | 84.0% | 4.9% | 35% | 40%-160% |
| CHLOROFORM | HALL | 5 | 5.6 | 112.0% | 6.2 | 124.0% | 10.2% | 35% | 40%-160% |
| 1,1,1-TRICHLORO ETHANE | HALL | 5 | 5.2 | 104.0% | 5.5 | 110.0% | 5.6% | 35% | 40%-160% |
| CARBON TETRACHLORIDE | HALL | 5 | 5.0 | 100.0% | 5.8 | 116.0% | 14.8% | 35% | 40%-160% |
| 1,2-DICHLOROETHANE | HALL | 5 | 4.1 | 82.0% | 5.2 | 104.0% | 23.7% | 35% | 40%-160% |
| TRICHLORO ETHENE | PID | 5 | 4.1 | 82.0% | 4.0 | 80.0% | 2.5% | 35% | 40%-160% |
| 1,1,2-TRICHLOROETHANE | HALL | 5 | 4.6 | 92.0% | 5.7 | 114.0% | 21.4% | 35% | 40%-160% |
| BENZENE | PID | 5 | 4.4 | 88.0% | 4.0 | 80.0% | 9.5% | 35% | 40%-160% |
| TOLUENE | PID | 5 | 4.8 | 96.0% | 4.0 | 80.0% | 18.2% | 35% | 40%-160% |
| TETRACHLOROETHENE | PID | 5 | 4.8 | 96.0% | 4.7 | 94.0% | 2.1% | 35% | 40%-160% |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 5 | 5.4 | 108.0% | 6.0 | 119.0% | 9.7% | 35% | 40%-160% |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 5 | 6.2 | 124.0% | 5.0 | 100.0% | 21.4% | 35% | 40%-160% |
| ETHYLBENZENE | PID | 5 | 4.3 | 86.0% | 4.4 | 88.0% | 2.3% | 35% | 40%-160% |
| M,P-XYLENE | PID | 10 | 8.7 | 87.0% | 9.0 | 90.0% | 3.4% | 35% | 40%-160% |
| O-XYLENE | PID | 5 | 4.2 | 84.0% | 4.2 | 84.0% | 0.0% | 35% | 40%-160% |
| SURROGATE | PID | 5 | 4.1 | 82.0% | 4.1 | 82.0% | 0.0% | 35% | 40%-160% |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - MS/MSD

INSTRUMENT: SHIMADZU GC14A

DATE 5/09/97

| COMPOUND | DETECTOR | SPIKE MG/KG | MS RECOV. | %RECOV | MSD RECOV. | %RECOV | RPD | ACCEPTABLE RPD | ACCEPTABLE RECOVERY |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-DICHLORO ETHENE | PID | 1 | 0.88 | 88.0% | 0.96 | 96.0% | 8.7% | 35% | 40%-160% |
| METHYLENE CHLORIDE | HALL | 1 | 0.82 | 82.0% | 0.82 | 82.0% | 0.0% | 35% | 40%-160% |
| TRANS-1,2-DICHLORO ETHENE | PID | 1 | 0.89 | 89.0% | 0.89 | 89.0% | 0.0% | 35% | 40%-160% |
| 1,1-DICHLOROETHANE | HALL | 1 | 0.80 | 80.0% | 0.80 | 80.0% | 0.0% | 35% | 40%-160% |
| CIS-1,2-DICHLOROETHENE | PID | 1 | 0.83 | 83.0% | 0.85 | 85.0% | 2.4% | 35% | 40%-160% |
| CHLOROFORM | HALL | 1 | 0.80 | 80.0% | 0.80 | 80.0% | 0.0% | 35% | 40%-160% |
| 1,1,1-TRICHLORO ETHANE | HALL | 1 | 0.82 | 82.0% | 0.90 | 90.0% | 9.3% | 35% | 40%-160% |
| CARBON TETRACHLORIDE | HALL | 1 | 0.84 | 84.0% | 0.92 | 92.0% | 9.1% | 35% | 40%-160% |
| 1,2-DICHLOROETHANE | HALL | 1 | 0.84 | 84.0% | 0.88 | 88.0% | 4.7% | 35% | 40%-160% |
| TRICHLORO ETHENE | PID | 1 | 0.81 | 81.0% | 0.80 | 80.0% | 1.2% | 35% | 40%-160% |
| 1,1,2-TRICHLOROETHANE | HALL | 1 | 0.86 | 86.0% | 0.82 | 82.0% | 4.8% | 35% | 40%-160% |
| BENZENE | PID | 1 | 0.84 | 84.0% | 0.85 | 85.0% | 1.2% | 35% | 40%-160% |
| TOLUENE | PID | 1 | 1.05 | 105.0% | 0.97 | 97.0% | 7.9% | 35% | 40%-160% |
| TETRACHLOROETHENE | PID | 1 | 0.99 | 99.0% | 0.92 | 92.0% | 7.3% | 35% | 40%-160% |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 1 | 0.86 | 86.0% | 0.87 | 87.0% | 1.2% | 35% | 40%-160% |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1 | 0.83 | 83.0% | 0.86 | 86.0% | 3.6% | 35% | 40%-160% |
| ETHYLBENZENE | PID | 1 | 0.87 | 87.0% | 0.87 | 87.0% | 0.0% | 35% | 40%-160% |
| M,P-XYLENE | PID | 2 | 1.80 | 90.0% | 1.75 | 87.5% | 2.8% | 35% | 40%-160% |
| O-XYLENE | PID | 1 | 0.90 | 90.0% | 0.92 | 92.0% | 2.2% | 35% | 40%-160% |
| SURROGATE | PID | 1 | 0.89 | 89.0% | 0.87 | 87.0% | 2.3% | 35% | 40%-160% |

ANALYSES PERFORMED BY: Sherry Chilcutt

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

# CHAIN-OF-CUSTODY RECORD

CLIENT: FDGT

ADDRESS: 2501 Yale BLVD SE ABQ, NM 87106

PHONE (505) 242-3113 FAX: (505) 242-1103

CLIENT PROJECT #: 872200829 PROJECT MANAGER: SCHICK

DATE: 5/6/97 PAGE 1 OF 1

PROJECT NAME: D08 W29/AOC-1001

LOCATION: HAFB

COLLECTOR: Naylore + Madewell DATE OF COLLECTION 5-6-97

| Sample Number | Depth | Time | Sample Type | Container Type | VOA 601/8010 | VOA 602/8020 | VOA 624/8240 | Semi Vol 625/8270 | TPH 418.1 | TPH 8015 (gasoline) | TPH (8015 (diesel) | TPH 8015 (g & d) | PAH 610/8100 | PEST/PCBs 8080 | HEX CHROME | ORGANIC LEAD | TOTAL LEAD | pH | ASBESTOS | FIELD NOTES | Total Number of Containers | Laboratory Note Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AOC-1001-GP-11 | 20 | 1135 | WAT | VOA | X | X | | | | | | | | | | | | | | 8010/8020 | 3 | |
| AOC-1001-DP-11 | 16-19 | 1050 | Soil | stainless | X | X | | | | | | | | | | | | | | 8010/8020 | 1 | |
| AOC1001DP-16 | 12-15 | 1420 | Soil | stainless | X | X | | | | | | | | | | | | | | 8010/8020 | 1 | |
| AOC1001DP-16 | 21 | 1530 | Water | VOA | X | X | | | | | | | | | | | | | | 8010/8020/muddy | 2 | |
| AOC1001DP-15 | 18-21 | 1730 | Soil | stainless | X | X | | | | | | | | | | | | | | 8010/8020/Above WT. | 1 | |
| AOC1001GP15 | 25 | 1815 | Water | VOA | X | X | | | | | | | | | | | | | | 8010/8020 | 3 | |

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
|---|---|---|---|
| RHNel | 5/6/97; 1845 | [illegible] | 5/6/97 1845 |
| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
| | | | |

**SAMPLE DISPOSAL INSTRUCTIONS**

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

| SAMPLE RECEIPT | |
|---|---|
| TOTAL NUMBER OF CONTAINERS | 11 |
| CHAIN OF CUSTODY SEALS Y/N/NA | |
| SEALS INTACT? Y/N/NA | |
| RECEIVED GOOD COND./COLD | Y |
| NOTES: | |

LABORATORY NOTES:

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

# CHAIN-OF-CUSTODY RECORD

CLIENT: FDGT

ADDRESS: 2501 Yale Blvd SE ABQ, NM 87106

PHONE (505)242-3113 FAX: (505)242-1103

CLIENT PROJECT #: 8722020829 PROJECT MANAGER: SCHICK

DATE: 5/7/97 PAGE 1 OF

PROJECT NAME: DO&W29 AOC-1001

LOCATION: HAFB

COLLECTOR: SCHICK, NAYLOR

DATE OF COLLECTION 5-7-97 5-9 +5-8

| Sample Number | Depth | Time | Sample Type | Container Type | VOA 601/8010 | VOA 602/8020 | VOA 624/8240 | Semi Vol 625/8270 | TPH 418.1 | TPH 8015 (gasoline) | TPH (8015 (diesel) | TPH 8015 (g & d) | PAH 610/8100 | PEST/PCBs 8080 | HEX CHROME | ORGANIC LEAD | TOTAL LEAD | pH | ASBESTOS | FIELD NOTES | Total Number of Containers | Laboratory Note Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AOC1001GP15 | 29 | 820 | W | VOA | X | X | | | | | | | | | | | | | | Replace sample on 5/6 | 2 | |
| AOC1001DP8 | 19-22 | 1030 | Soil | Stainless | X | X | | | | | | | | | | | | | | | 1 | |
| AOC1001-GP-18 | 28 | 1110 | W | VOA | X | X | | | | | | | | | | | | | | TURBID - | 2 | |
| AOC1001GP-12 | 30 | 1500 | W | VOA | X | X | | | | | | | | | | | | | | Clear | 2 | |
| AOC1001-DP-12 | 14-17 | 1300 | Soil | Stainless | X | X | | | VP | | | | | | | | | | | - | 1 | |
| AOC1001-DP-22 | 11-12 | 1700 | soil | stainless | X | X | | | | | | | | | | | | | | above UST? | 1 | |
| AOC1001GP22 | 30 | 1800 | W | VOA | X | X | | | | | | | | | | | | | | | 2 | |
| AOC1001GP19 | 30 | 0825 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001GP14 | 30 | 0945 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001DP17 | 14-17 | 1100 | soil | Stainless | X | X | | | | | | | | | | | | | | | 1 | |
| AOC1001GP17 | 29 | 1200 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001GP20 | 30 | 1440 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001GP13 | 30 | 1600 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| 5-9 AOC1001GP24 | 23 | 0835 | W | VOA | X | X | | | | | | | | | | | | | | Product | 2 | |
| AOC1001DP24 | 17-20 | | S | Stainless | X | X | | | | | | | | | | | | | | | 1 | |
| AOC1001GP25 | 32 | 1130 | W | VOA | X | X | | | | | | | | | | | | | | | 2 | |
| AOC1001GP23 | 20 | 1310 | W | VOA | X | X | | | | | | | | | | | | | | | 2 | |
| AOC1001DP23 | 17-20 | 1255 | S | Stainless | X | X | | | | | | | | | | | | | | | 1 | |

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
|---|---|---|---|
| [signature] | 5/7/97 | [signature] | 5-9-97 |
| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
| | | | |

| SAMPLE RECEIPT | |
|---|---|
| TOTAL NUMBER OF CONTAINERS | 35 |
| CHAIN OF CUSTODY SEALS Y/N/NA | |
| SEALS INTACT? Y/N/NA | |
| RECEIVED GOOD COND./COLD | Y |
| NOTES: | |

LABORATORY NOTES:

**SAMPLE DISPOSAL INSTRUCTIONS**

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

# Sample Results

G0802

BTEX by SW8020 /8021A

MPC 6/9/97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001DP11**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 24

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0802

Lab Sample ID: 9705221-01

Lab File ID: N5200718.D

Date Collected: 05/06/97

Date Received: 05/08/97

Date Prepared: 05/20/97

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/Kg | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2.6 | U | 2.6 |
| 108-88-3 | Toluene | 3.9 | U | 3.9 |
| 100-41-4 | Ethyl Benzene | 2.6 | U | 2.6 |
| 108-38-3 | m,p-Xylene | 5.3 | U | 5.3 |
| 95-47-6 | o-Xylene | 2.6 | U | 2.6 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC1001DP11**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705221-01

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5200718.d | File (2): N5200718.d

Date Analyzed (1) 05/20/97 | Date Analyzed (2): 05/20/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/Kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

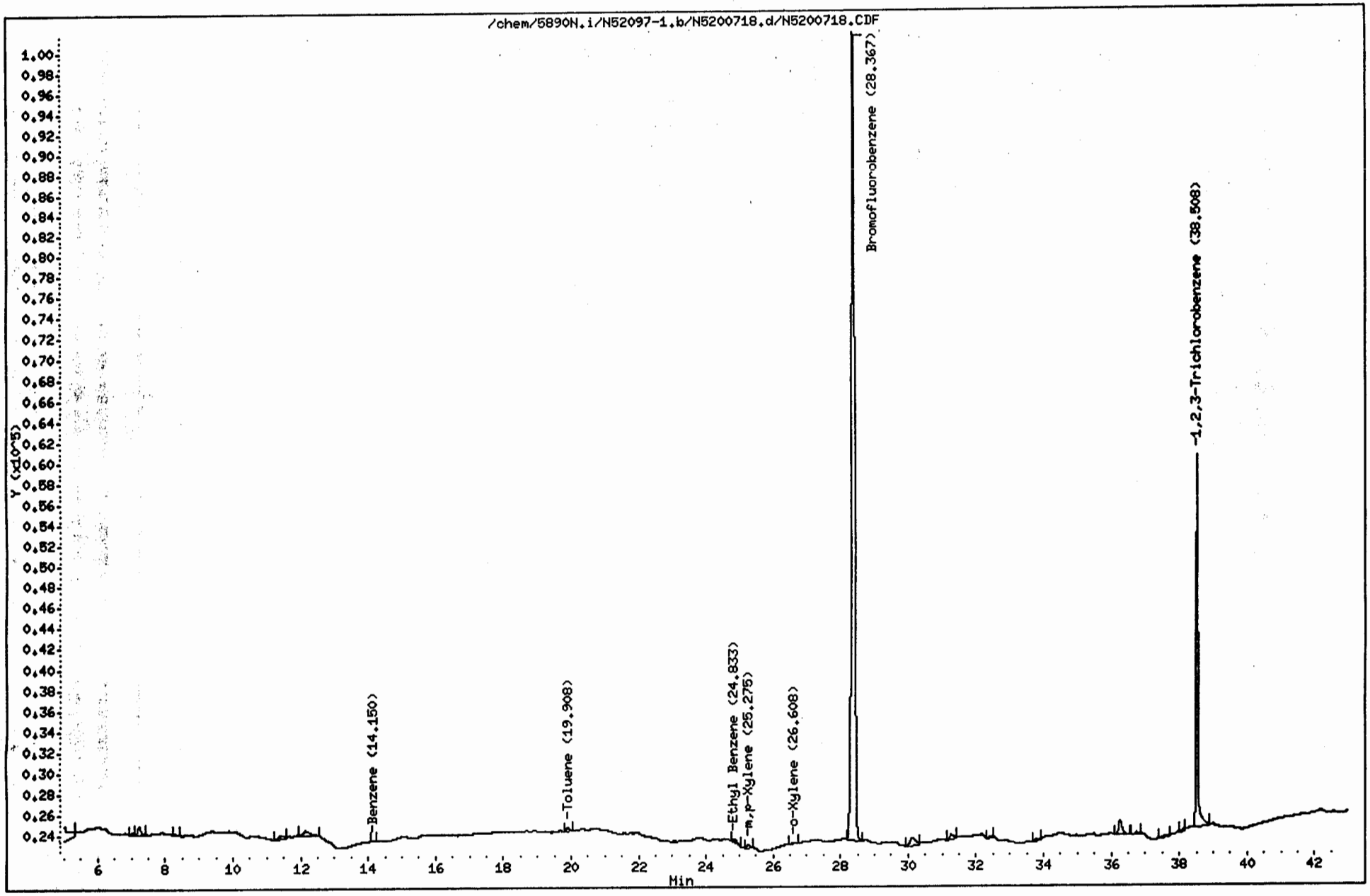
32

Data File: /chem/5890N.i/N52097-1.b/N5200718.d
Date : 20-MAY-97 10:57:00
Client ID: AOC1001DP11
Sample Info: 9705221-01

Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-1.b/N5200718.d
Injection Date : 20-MAY-97 10:57:00
Sample Info : 9705221-01
Misc. Info : None
Laboratory ID : 9705221-01 Client ID : AOC1001DP11
Instrument ID : 5890N.i
Method : 511VPA08.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 24 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 0.43 | | 6985 | | | |
| | 1.65 | | 30443 | | | |
| | 3.35 | | 569 | | | |
| | 3.69 | | 9320 | | | |
| | 4.24 | | 4482 | | | |
| | 4.93 | | 37245 | | | |
| | 7.04 | | 992 | | | |
| | 7.22 | | 5096 | | | |
| | 8.29 | | 822 | | | |
| | 11.45 | | 3306 | | | |
| | 12.15 | | 7659 | | | |
| Benzene | 14.15 | 14.10 - 14.20 | 122 | M | 0.032578 | 0.0429 |
| Toluene | 19.91 | 19.81 - 20.01 | 2367 | | 0.70478 | 0.927 |
| Ethyl Benzene | 24.83 | 24.75 - 24.95 | 2598 | M | 0.87780 | 1.16 |
| m,p-Xylene | 25.28 | 25.17 - 25.37 | 1993 | | 0.58268 | 0.767 |
| o-Xylene | 26.61 | 26.48 - 26.68 | 1084 | M | 0.38390 | 0.505 |
| Bromofluorobenzene | 28.37 | 28.27 - 28.47 | 518503 | | 189.17 | 249 |
| | 30.13 | | 7961 | | | |
| | 31.28 | | 3813 | | | |
| | 32.42 | | 1466 | | | |
| | 33.84 | | 1807 | | | |
| | 36.26 | | 11049 | | | |
| | 36.76 | | 1705 | | | |
| | 37.66 | | 2887 | | | |
| | 38.12 | | 790 | | | |
| 1,2,3-Trichlorobenzene | 38.51 | 38.41 - 38.61 | 135348 | | 95.528 | 126 |

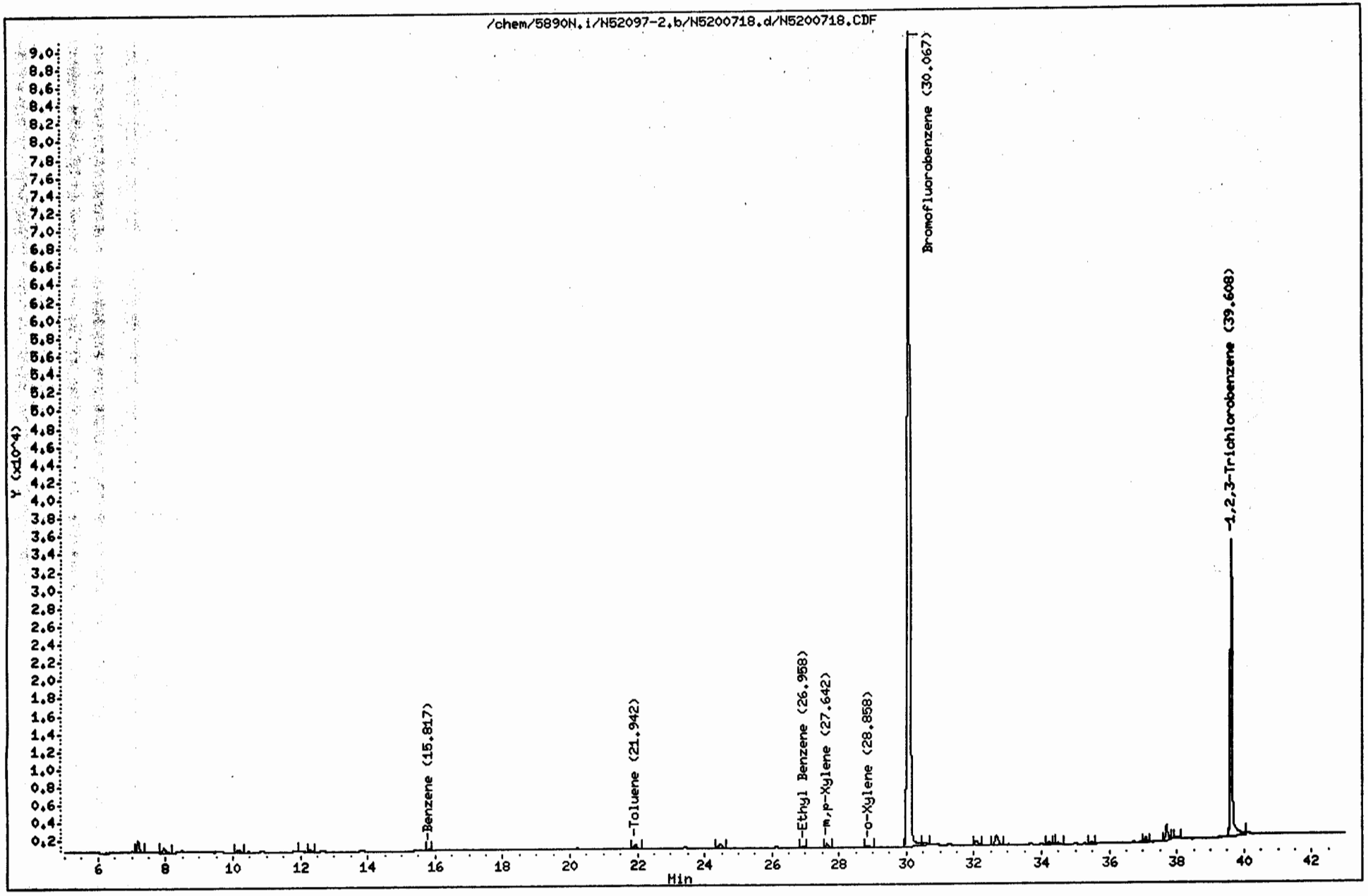
Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N52097-2.b/N5200718.d
Date : 20-MAY-97 10:57:00
Client ID: AOC1001DP11
Sample Info: 9705221-01

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45

Column phase: DB-VRX



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-2.b/N5200718.d
Injection Date : 20-MAY-97 10:57:00
Sample Info : 9705221-01
Misc. Info : None
Laboratory ID : 9705221-01 Client ID : AOC1001DP11
Instrument ID : 5890N.i
Method : 511VPB08.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 24 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 2.10 | | 1260 | | | |
| | 3.76 | | 3429 | | | |
| | 4.22 | | 15281 | | | |
| | 7.18 | | 7130 | | | |
| | 7.96 | | 3354 | | | |
| | 10.16 | | 1507 | | | |
| | 12.04 | | 1013 | | | |
| | 12.28 | | 1249 | | | |
| Benzene | 15.82 | 15.77 - 15.87 | 1092 | M | 0.28869 | 0.380 |
| Toluene | 21.94 | 21.84 - 22.04 | 2768 | | 0.84445 | 1.11 |
| | 24.46 | | 3310 | | | |
| Ethyl Benzene | 26.96 | 26.84 - 27.04 | 785 | M | 0.27264 | 0.359 |
| m,p-Xylene | 27.64 | 27.52 - 27.72 | 2294 | | 0.68350 | 0.899 |
| o-Xylene | 28.86 | 28.74 - 28.94 | 1477 | | 0.53586 | 0.705 |
| Bromofluorobenzene | 30.07 | 29.95 - 30.15 | 496311 | | 188.86 | 248 |
| | 30.55 | | 2625 | | | |
| | 32.07 | | 2809 | | | |
| | 32.68 | | 8360 | | | |
| | 34.22 | | 1156 | | | |
| | 34.49 | | 1174 | | | |
| | 35.46 | | 1350 | | | |
| | 37.08 | | 2105 | | | |
| | 37.69 | | 8733 | | | |
| | 37.99 | | 1325 | | | |
| 1,2,3-Trichlorobenzene | 39.61 | 39.50 - 39.70 | 130149 | | 101.54 | 134 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001DP18**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0802

Matrix: (soil/water) SOIL

Lab Sample ID: 9705221-02

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5202318.D

% Moisture: 18

Date Collected: 05/07/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/Kg | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2.4 | U | 2.4 |
| 108-88-3 | Toluene | 3.7 | U | 3.7 |
| 100-41-4 | Ethyl Benzene | 2.4 | U | 2.4 |
| 108-38-3 | m,p-Xylene | 4.9 | U | 4.9 |
| 95-47-6 | o-Xylene | 2.4 | U | 2.4 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC1001DP18**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705221-02 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5202318.d | File (2): | N5202318.d |
| Date Analyzed (1) | 05/20/97 | Date Analyzed (2): | 05/20/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | TO | CONCENTRATION Final Units: ug/Kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

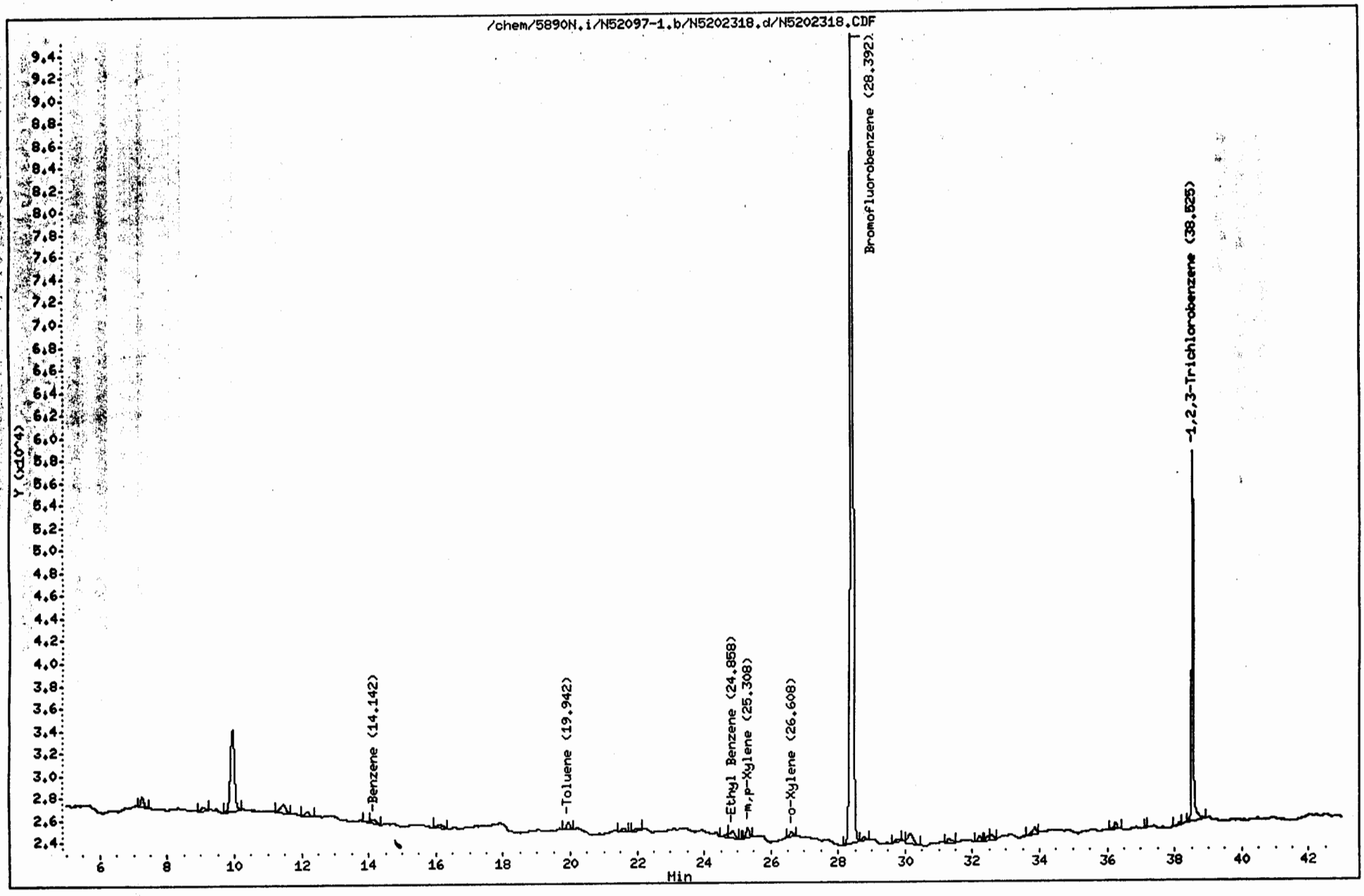
38

Data File: /chem/5890N.i/N52097-1.b/N5202318.d
Date : 20-MAY-97 23:36:00
Client ID: AOC1001DP18
Sample Info: 9705221-02

Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-I.b/N5202318.d
Injection Date : 20-MAY-97 23:36:00
Sample Info : 9705221-02
Misc. Info : None
Laboratory ID : 9705221-02 Client ID : AOC1001DP18
Instrument ID : 5890N.i
Method : 511VPA08.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 18 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 0.48 | | 11684 | | | |
| | 0.89 | | 8294 | | | |
| | 3.08 | | 4007 | | | |
| | 7.27 | | 6168 | | | |
| | 9.08 | | 2867 | | | |
| | 9.94 | | 62176 | | | |
| | 11.44 | | 8033 | | | |
| | 12.17 | | 4336 | | | |
| | 13.96 | | 952 | | | |
| Benzene | 14.14 | 14.10 - 14.20 | 4237 | M | 1.1312 | 1.38 |
| | 16.13 | | 3719 | | | |
| Toluene | 19.94 | 19.81 - 20.01 | 4191 | M | 1.2479 | 1.52 |
| | 21.60 | | 2095 | | | |
| | 22.05 | | 2640 | | | |
| | 24.73 | | 2364 | | | |
| Ethyl Benzene | 24.86 | 24.75 - 24.95 | 6206 | M | 2.0965 | 2.56 |
| | 25.02 | | 141 | | | |
| m,p-Xylene | 25.31 | 25.17 - 25.37 | 6063 | M | 1.7726 | 2.16 |
| o-Xylene | 26.61 | 26.48 - 26.68 | 2976 | M | 1.0549 | 1.29 |
| Bromofluorobenzene | 28.39 | 28.27 - 28.47 | 473596 | M | 172.79 | 211 |
| | 28.77 | | 2273 | | | |
| | 29.79 | | 2305 | | | |
| | 30.15 | | 10158 | | | |
| | 31.29 | | 2968 | | | |
| | 32.21 | | 3365 | | | |
| | 32.44 | | 2218 | | | |
| | 32.57 | | 3877 | | | |
| | 33.85 | | 5872 | | | |
| | 36.26 | | 3649 | | | |
| | 37.17 | | 438 | | | |
| | 38.14 | | 1709 | | | |

**Response is in area units.**
**M - The peak was manually integrated.**
**E - The quantitated amount exceeds the calibration range.**

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5202318.d
Injection Date : 20-MAY-97 23:36:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| 1,2,3-Trichlorobenzene | 38.52 | 38.41 - 38.61 | 121838 | M | 85.993 | 105 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data F /chem/5890N.i/N52097-2.b/N5202318.d

Date : 20-MAY-97 23:36:00

Client ID: AOC1001DP18

Sample Info: 9705221-02

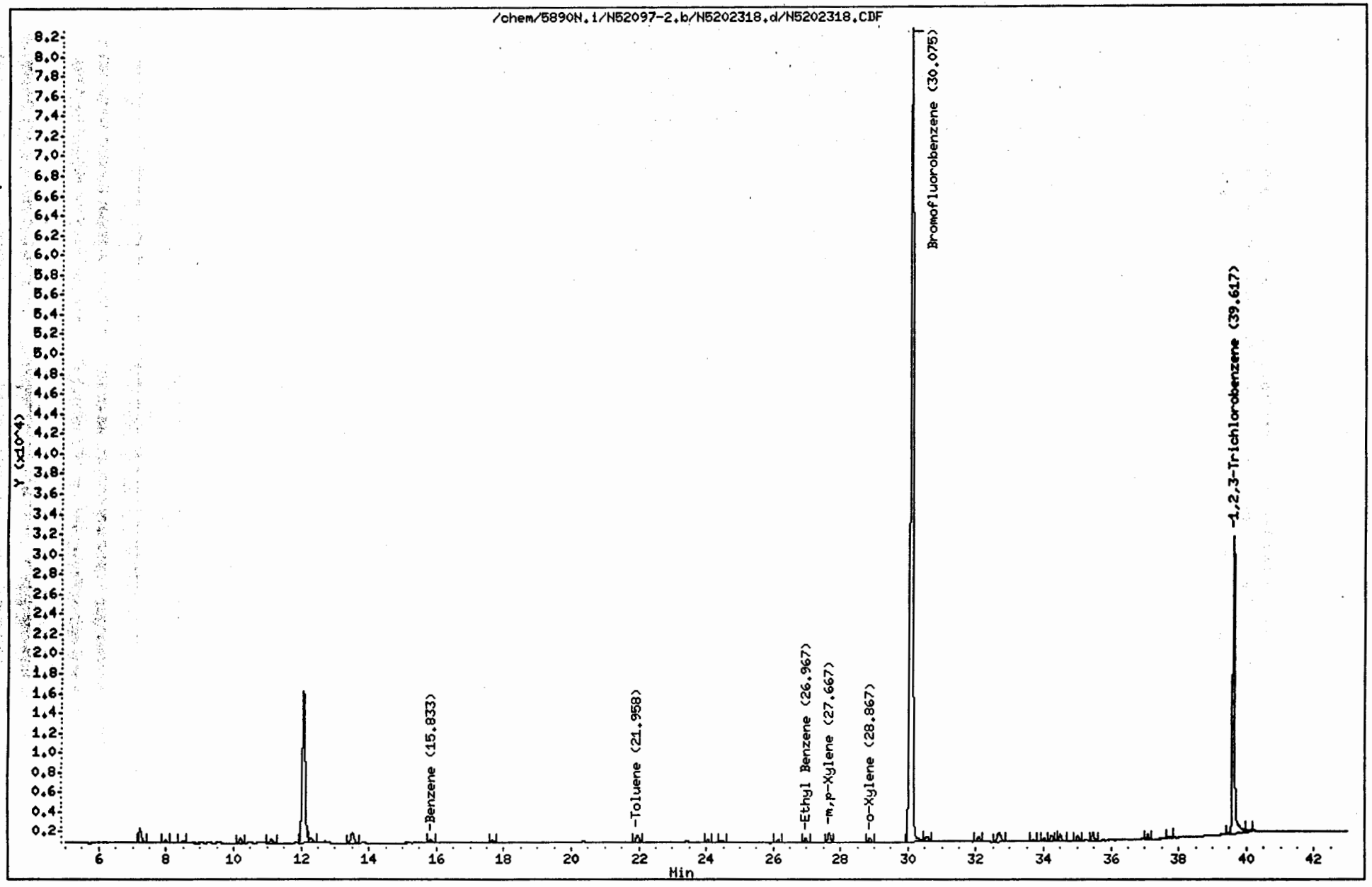
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45

Page 41



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-2.b/N5202318.d
Injection Date : 20-MAY-97 23:36:00
Sample Info : 9705221-02
Misc. Info : None
Laboratory ID : 9705221-02 Client ID : AOC1001DP18
Instrument ID : 5890N.i
Method : 511VPB08.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 18 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 3.82 | | 2699 | | |
| | 4.21 | | 3496 | | |
| | 4.29 | | 3128 | | |
| | 7.22 | | 7880 | | |
| | 7.98 | | 1587 | | |
| | 8.50 | | 1484 | | |
| | 10.19 | | 2476 | | |
| | 11.12 | | 2085 | | |
| | 12.08 | | 93583 | | |
| | 12.29 | | 3243 | | |
| | 13.51 | | 7308 | | |
| Benzene | 15.83 | 15.77 - 15.87 | 2038 | 0.53878 | 0.657 |
| | 17.67 | | 1124 | | |
| Toluene | 21.96 | 21.84 - 22.04 | 4164 | 1.2703 | 1.55 |
| | 24.04 | | 1686 | | |
| | 24.48 | | 1545 | | |
| | 26.13 | | 1773 | | |
| Ethyl Benzene | 26.97 | 26.84 - 27.04 | 2509 | 0.87140 | 1.06 |
| m,p-Xylene | 27.67 | 27.52 - 27.72 | 5972 | 1.7794 | 2.17 |
| o-Xylene | 28.87 | 28.74 - 28.94 | 2893 | 1.0496 | 1.28 |
| Bromofluorobenzene | 30.08 | 29.95 - 30.15 | 447858 | 170.42 | 208 |
| | 30.57 | | 2498 | | |
| | 32.08 | | 2732 | | |
| | 32.68 | | 7852 | | |
| | 33.69 | | 1069 | | |
| | 34.01 | | 1812 | | |
| | 34.23 | | 3882 | | |
| | 34.49 | | 4030 | | |
| | 35.01 | | 2656 | | |
| | 35.46 | | 3958 | | |
| | 37.08 | | 1738 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5202318.d
Injection Date : 20-MAY-97 23:36:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 37.70 | | 1460 | | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.50 - 39.70 | 119241 | 93.027 | 113 |
| | 40.02 | | 2147 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

# Sample Results

G0802

Volatiles by Method 8010 / 8021A

mae 6/5/97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001DP11**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 24

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0802

Lab Sample ID: 9705221-01

Lab File ID: N5200718.D

Date Collected: 05/06/97

Date Received: 05/08/97

Date Prepared: 05/20/97

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2.6 | U | 2.6 |
| 74-87-3 | Chloromethane | 2.6 | U | 2.6 |
| 75-01-4 | Vinyl chloride | 2.6 | U | 2.6 |
| 74-83-9 | Bromomethane | 5.3 | U | 5.3 |
| 75-00-3 | Chloroethane | 2.6 | U | 2.6 |
| 75-69-4 | Trichlorofluoromethane | 2.6 | U | 2.6 |
| 75-35-4 | 1,1-Dichloroethene | 2.6 | U | 2.6 |
| 75-09-2 | Methylene chloride | 39 | U | 39 |
| 156-60-5 | trans-1,2-Dichloroethene | 2.6 | U | 2.6 |
| 75-34-3 | 1,1-Dichloroethane | 2.6 | U | 2.6 |
| 156-59-2 | cis-1,2-Dichloroethene | 2.6 | U | 2.6 |
| 67-66-3 | Chloroform | 2.6 | U | 2.6 |
| 71-55-6 | 1,1,1-Trichloroethane | 2.6 | U | 2.6 |
| 56-23-5 | Carbon tetrachloride | 2.6 | U | 2.6 |
| 107-06-2 | 1,2-Dichloroethane | 2.6 | U | 2.6 |
| 79-01-6 | Trichloroethene | 2.6 | U | 2.6 |
| 78-87-5 | 1,2-Dichloropropane | 2.6 | U | 2.6 |
| 74-95-3 | Dibromomethane | 2.6 | U | 2.6 |
| 75-27-4 | Bromodichloromethane | 2.6 | U | 2.6 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2.6 | U | 2.6 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2.6 | U | 2.6 |
| 79-00-5 | 1,1,2-Trichloroethane | 2.6 | U | 2.6 |
| 127-18-4 | Tetrachloroethene | 2.6 | U | 2.6 |
| 124-48-1 | Chlorodibromomethane | 2.6 | U | 2.6 |
| 108-90-7 | Chlorobenzene | 2.6 | U | 2.6 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2.6 | U | 2.6 |
| 75-25-2 | Bromoform | 2.6 | U | 2.6 |
| 108-86-1 | Bromobenzene | 11 | U | 11 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.6 | U | 2.6 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.6 | U | 2.6 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.6 | U | 2.6 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.6 | U | 2.6 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001DP11**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0802

Matrix: (soil/water) SOIL

Lab Sample ID: 9705221-01

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5200718.D

% Moisture: 24

Date Collected: 05/06/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 5.3 | U | 5.3 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.6 | U | 2.6 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC1001DP11**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705221-01 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5200718.d | File (2): | N5200718.d |
| Date Analyzed (1) | 05/20/97 | Date Analyzed (2): | 05/20/97 |

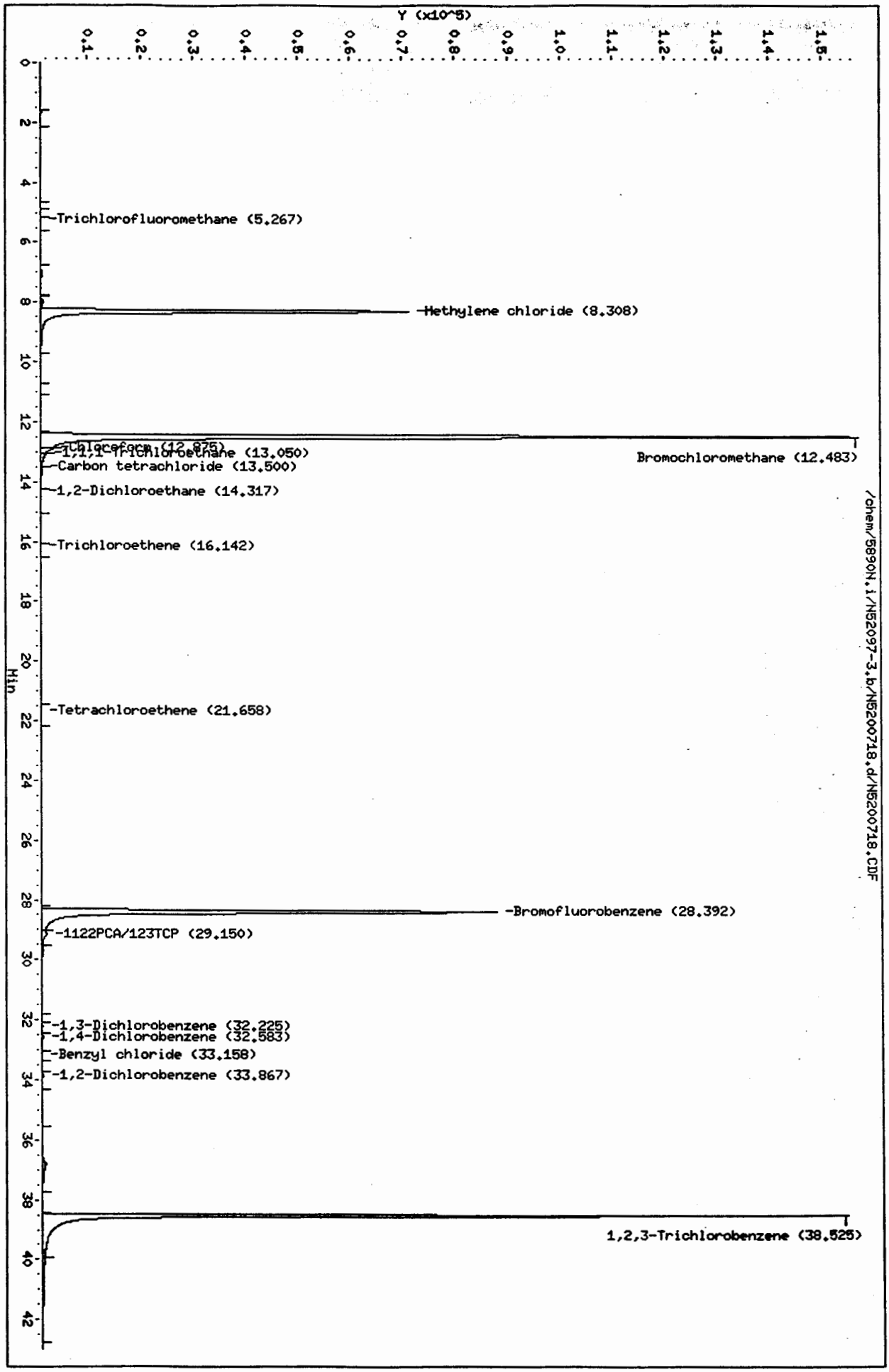
| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data Fi /chem/5890N.i/N52097-3.b/N5200718.d
Date : 20-MAY-97 10:57:00
Client ID: AOC1001DP11
Sample Info: 9705221-01

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53

Column phase: DB-624




/chem/5890N.i/N52097-3.b/N5200718.d/N5200718.CDF

Page :

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-3.b/N5200718.d
Injection Date : 20-MAY-97 10:57:00
Sample Info : 9705221-01
Misc. Info : None
Laboratory ID : 9705221-01 Client ID : AOC1001DP11
Instrument ID : 5890N.i
Method : 511HVA08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 24 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg | |
|---|---|---|---|---|---|---|---|
| | 1.67 | | 2148 | | | | |
| | 4.69 | | 529 | | | | |
| Trichlorofluoromethane | 5.27 | 5.22 - 5.32 | 997 | | ~~0.083183~~ | ~~0.109~~ | <RL |
| | 7.03 | | 5213 | | | | |
| | 8.02 | | 5759 | | | | |
| Methylene chloride | 8.31 | 8.28 - 8.38 | 491085 | | 53.284 | 70.1 | See VRx |
| | 10.83 | | 530 | | | | |
| Bromochloromethane | 12.48 | 12.40 - 12.60 | 1108797 | M | 96.327 | 127 | |
| Chloroform | 12.88 | 12.82 - 13.02 | 18970 | M | 0.99682 | ~~1.32~~ | |
| 1,1,1-Trichloroethane | 13.05 | 13.03 - 13.23 | 15033 | M | 0.84791 | ~~1.12~~ | |
| Carbon tetrachloride | 13.50 | 13.47 - 13.67 | 6234 | M | 0.33785 | 0.444 | <RL |
| 1,2-Dichloroethane | 14.30 | 14.22 - 14.42 | 2696 | M | 0.18568 | 0.244 | |
| Trichloroethene | 16.14 | 16.02 - 16.22 | 941 | | 0.056659 | 0.0746 | |
| Tetrachloroethene | 21.66 | 21.49 - 21.69 | 1186 | | 0.066971 | 0.0881 | |
| Bromofluorobenzene | 28.39 | 28.28 - 28.48 | 666463 | | 154.00 | 203 | |
| 1122PCA/123TCP | 29.15 | 29.03 - 29.23 | 16482 | M | ~~1.8539~~ | ~~2.44~~ | <RL |
| | 29.55 | | 11342 | | | | |
| 1,3-Dichlorobenzene | 32.22 | 32.09 - 32.29 | 1923 | | 0.22418 | ~~0.295~~ | <RL |
| 1,4-Dichlorobenzene | 32.58 | 32.44 - 32.64 | 2675 | | 0.28314 | 0.372 | |
| Benzyl chloride | 33.16 | 33.02 - 33.22 | 922 | M | 0.32020 | 0.421 | |
| 1,2-Dichlorobenzene | 33.87 | 33.73 - 33.93 | 2756 | | 0.30893 | 0.406 | |
| | 36.80 | | 22066 | | | | |
| 1,2,3-Trichlorobenzene | 38.52 | 38.42 - 38.62 | 766231 | M | 86.137 | 113 | |
| | 39.95 | | 30061 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MA 6-3-97

Data File: /chem/5890N.i/N52097-4.b/N5200718.d

Date : 20-MAY-97 10:57:00

Client ID: AOC1001DP11

Sample Info: 9705221-01

Column phase: DB-VRX

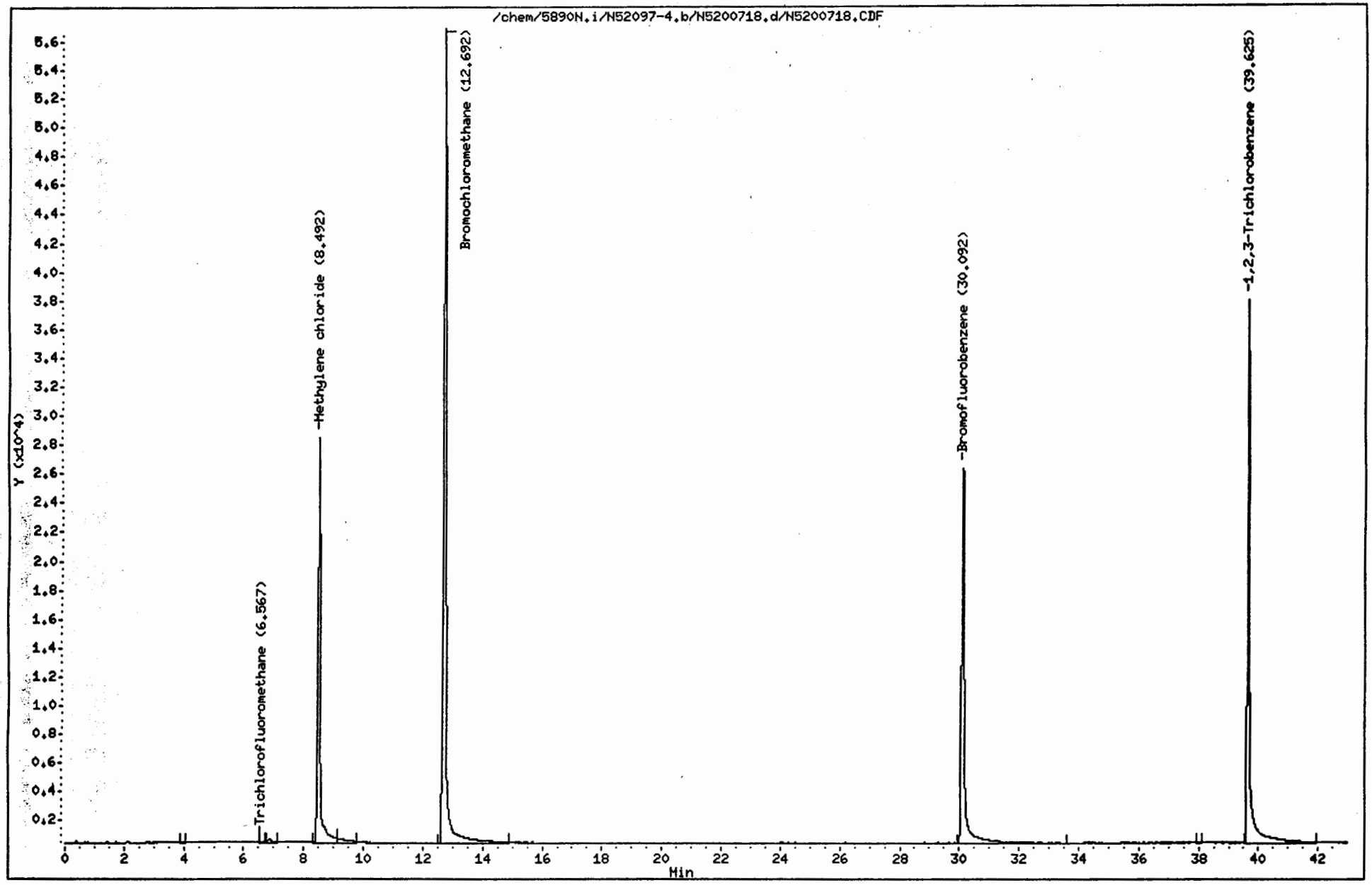
Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45



175



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-4.b/N5200718.d
Injection Date : 20-MAY-97 10:57:00
Sample Info : 9705221-01
Misc. Info : None
Laboratory ID : 9705221-01 Client ID : AOC1001DP11
Instrument ID : 5890N.i
Method : 511HVB08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 24 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 3.97 | | 1160 | | | |
| Trichlorofluoromethane | 6.57 | 6.54 - 6.64 | 1044 | | 0.24311 | 0.320 |
| | 6.84 | | 3368 | | | |
| Methylene chloride | 8.49 | 8.46 - 8.56 | 159910 | | ~~29.581~~ | ~~38.9~~ <RL |
| | 9.11 | | 8410 | | | |
| Bromochloromethane | 12.69 | 12.65 - 12.75 | 355410 | M | 93.149 | 122 |
| Bromofluorobenzene | 30.09 | 29.97 - 30.17 | 186288 | M | 144.36 | 190 |
| | 38.00 | | 1036 | | | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 219187 | M | 82.815 | 109 |

MH 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001DP18**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0802

Matrix: (soil/water) SOIL

Lab Sample ID: 9705221-02

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5202318.D

% Moisture: 18

Date Collected: 05/07/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2.4 | U | 2.4 |
| 74-87-3 | Chloromethane | 2.4 | U | 2.4 |
| 75-01-4 | Vinyl chloride | 2.4 | U | 2.4 |
| 74-83-9 | Bromomethane | 4.9 | U | 4.9 |
| 75-00-3 | Chloroethane | 2.4 | U | 2.4 |
| 75-69-4 | Trichlorofluoromethane | 2.4 | U | 2.4 |
| 75-35-4 | 1,1-Dichloroethene | 2.4 | U | 2.4 |
| 75-09-2 | Methylene chloride | 37 | U | 37 |
| 156-60-5 | trans-1,2-Dichloroethene | 2.4 | U | 2.4 |
| 75-34-3 | 1,1-Dichloroethane | 2.4 | U | 2.4 |
| 156-59-2 | cis-1,2-Dichloroethene | 2.4 | U | 2.4 |
| 67-66-3 | Chloroform | 2.4 | U | 2.4 |
| 71-55-6 | 1,1,1-Trichloroethane | 2.4 | U | 2.4 |
| 56-23-5 | Carbon tetrachloride | 2.4 | U | 2.4 |
| 107-06-2 | 1,2-Dichloroethane | 2.4 | U | 2.4 |
| 79-01-6 | Trichloroethene | 2.4 | U | 2.4 |
| 78-87-5 | 1,2-Dichloropropane | 2.4 | U | 2.4 |
| 74-95-3 | Dibromomethane | 2.4 | U | 2.4 |
| 75-27-4 | Bromodichloromethane | 2.4 | U | 2.4 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2.4 | U | 2.4 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2.4 | U | 2.4 |
| 79-00-5 | 1,1,2-Trichloroethane | 2.4 | U | 2.4 |
| 127-18-4 | Tetrachloroethene | 2.4 | U | 2.4 |
| 124-48-1 | Chlorodibromomethane | 2.4 | U | 2.4 |
| 108-90-7 | Chlorobenzene | 2.4 | U | 2.4 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2.4 | U | 2.4 |
| 75-25-2 | Bromoform | 2.4 | U | 2.4 |
| 108-86-1 | Bromobenzene | 9.8 | U | 9.8 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.4 | U | 2.4 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.4 | U | 2.4 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.4 | U | 2.4 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.4 | U | 2.4 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001DP18**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0802

Matrix: (soil/water) SOIL

Lab Sample ID: 9705221-02

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5202318.D

% Moisture: 18

Date Collected: 05/07/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 4.9 | U | 4.9 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.4 | U | 2.4 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC1001DP18**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705221-02 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5202318.d | File (2): | N5202318.d |
| Date Analyzed (1) | 05/20/97 | Date Analyzed (2): | 05/20/97 |

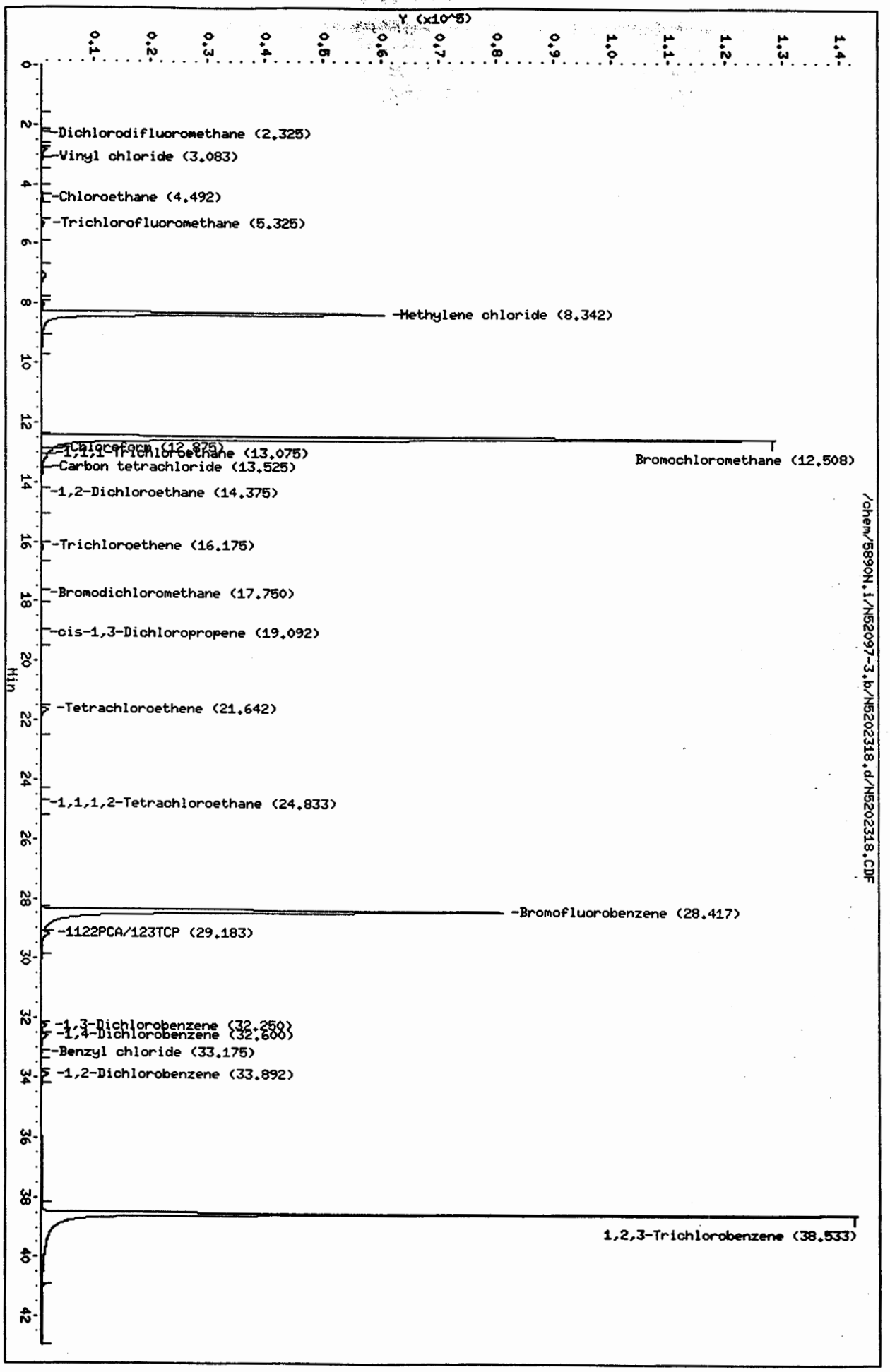
| ANALYTE | COL | RT | RT WINDOW FROM | TO | CONCENTRATION Final Units:ug/kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data File: /chem/5890N.i/N52097-3.b/N5202318.d
Date : 20-MAY-97 23:36:00
Client ID: AOC1001DP18
Sample Info: 9705221-02

Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-3.b/N5202318.d
Injection Date : 20-MAY-97 23:36:00
Sample Info : 9705221-02
Misc. Info : None
Laboratory ID : 9705221-02 Client ID : AOC1001DP18
Instrument ID : 5890N.i
Method : 511HVA08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 18 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg | |
|---|---|---|---|---|---|---|---|
| | 1.79 | | 988 | | | | |
| Dichlorodifluoromethane | 2.32 | 2.23 - 2.33 | 571 | | 0.076206 | 0.0929 | |
| | 2.84 | | 7718 | | | | |
| Vinyl chloride | 3.08 | 3.07 - 3.17 | 2054 | M | 0.20540 | 0.250 | |
| | 3.45 | | 1112 | | | | |
| | 4.32 | | 1299 | | | | <RL |
| Chloroethane | 4.49 | 4.41 - 4.51 | 2721 | M | 0.31276 | 0.381 | |
| | 4.59 | | 2413 | | | | |
| Trichlorofluoromethane | 5.32 | 5.22 - 5.32 | 4787 | | 0.39940 | 0.487 | |
| | 7.05 | | 11592 | | | | |
| | 8.04 | | 5474 | | | | |
| Methylene chloride | 8.34 | 8.28 - 8.38 | 409183 | | 44.397 | 54.1 | see VOX |
| | 9.12 | | 8062 | | | | |
| Bromochloromethane | 12.51 | 12.40 - 12.60 | 925970 | M | 80.444 | 98.1 | |
| Chloroform | 12.88 | 12.82 - 13.02 | 19438 | M | 1.0215 | 1.24 | |
| 1,1,1-Trichloroethane | 13.08 | 13.03 - 13.23 | 14098 | M | 0.79517 | 0.970 | |
| Carbon tetrachloride | 13.52 | 13.47 - 13.67 | 4711 | M | 0.25535 | 0.311 | |
| 1,2-Dichloroethane | 14.38 | 14.22 - 14.42 | 3105 | M | 0.21385 | 0.261 | <RL |
| Trichloroethene | 16.18 | 16.02 - 16.22 | 3876 | | 0.23338 | 0.285 | |
| Bromodichloromethane | 17.75 | 17.57 - 17.77 | 560 | | 0.042128 | 0.0514 | |
| cis-1,3-Dichloropropene | 19.09 | 18.92 - 19.12 | 607 | | 0.048691 | 0.0594 | |
| Tetrachloroethene | 21.64 | 21.49 - 21.69 | 12586 | | 0.71071 | 0.867 | |
| | 24.52 | | 515 | | | | |
| 1,1,1,2-Tetrachloroethane | 24.83 | 24.64 - 24.84 | 649 | | 0.035958 | 0.0438 | |
| Bromofluorobenzene | 28.42 | 28.28 - 28.48 | 632174 | | 146.08 | 178 | |
| 1122PCA/123TCP | 29.18 | 29.03 - 29.23 | 22363 | | 2.5155 | 3.07 | see VOX not Conf |
| | 29.84 | | 10951 | | | | |
| 1,3-Dichlorobenzene | 32.25 | 32.09 - 32.29 | 8605 | | 1.0031 | 1.22 | <RL |
| 1,4-Dichlorobenzene | 32.60 | 32.44 - 32.64 | 12612 | | 1.3349 | 1.63 | |
| Benzyl chloride | 33.18 | 33.02 - 33.22 | 1832 | | 0.63624 | 0.776 | |
| | 33.71 | | 2017 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

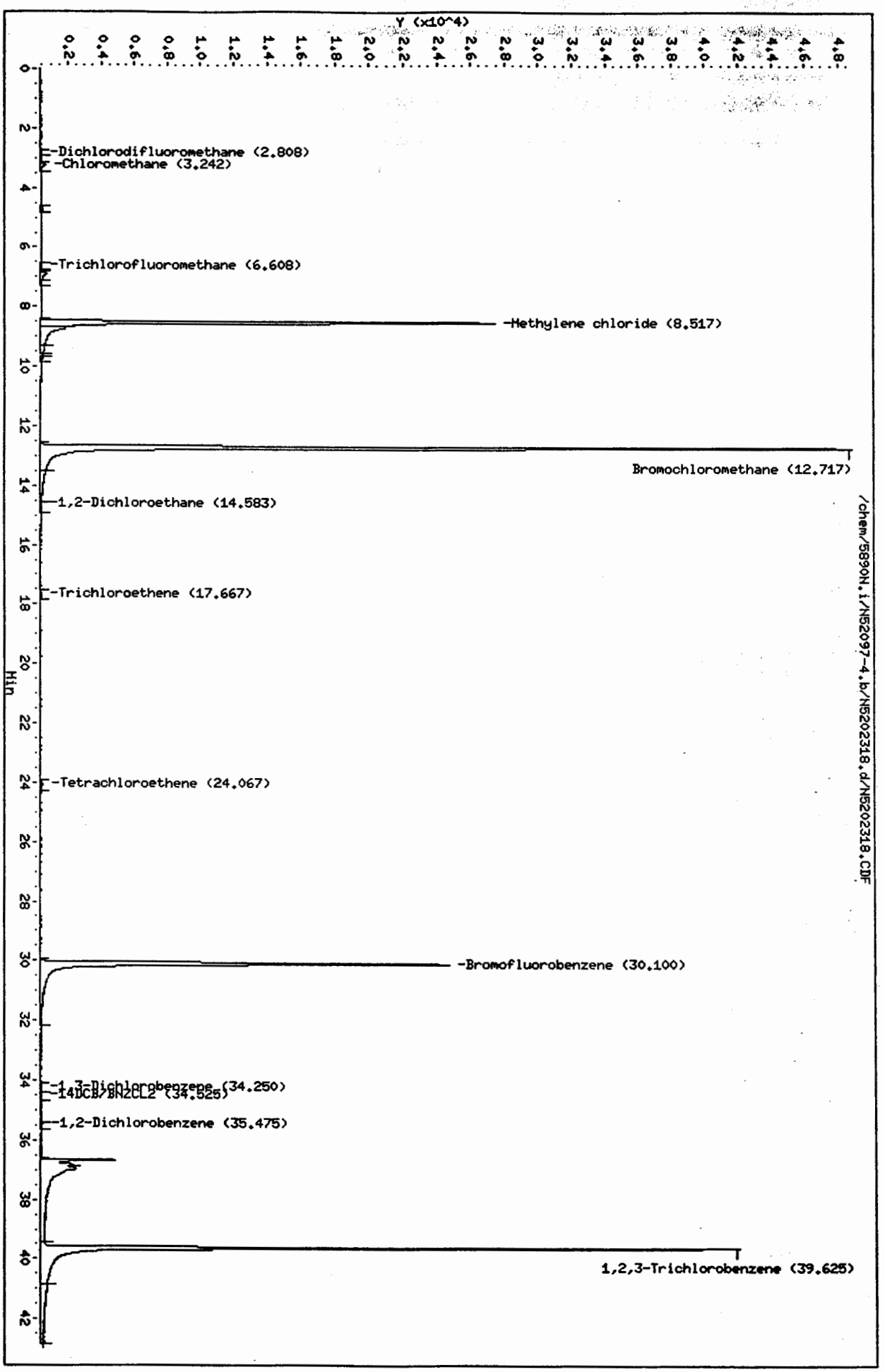
Data File : N5202318.d
Injection Date : 20-MAY-97 23:36:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 33.89 | 33.73 - 33.93 | 12397 | | 1.3896 | 1.69 |
| | 37.85 | | 30307 | | | |
| 1,2,3-Trichlorobenzene | 38.53 | 38.42 - 38.62 | 774889 | M | 87.110 | 106 |
| | 40.93 | | 24294 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data Fi. /chem/5890N.i/N52097-4.b/N5202318.d
Date : 20-MAY-97 23:36:00
Client ID: AOC1001DP18
Sample Info: 9705221-02
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45




Page 1

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-4.b/N5202318.d
Injection Date : 20-MAY-97 23:36:00
Sample Info : 9705221-02
Misc. Info : None
Laboratory ID : 9705221-02 Client ID : AOC1001DP18
Instrument ID : 5890N.i
Method : 511HVB08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 18 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.81 | 2.76 - 2.86 | 900 | M | 0.39802 | 0.485 |
| Chloromethane | 3.24 | 3.17 - 3.27 | 2443 | | 0.57068 | 0.696 |
| | 4.69 | | 1673 | | | |
| Trichlorofluoromethane | 6.61 | 6.54 - 6.64 | 1016 | M | 0.23659 | 0.288 |
| | 6.88 | | 4142 | | | |
| | 7.15 | | 1105 | | | |
| Methylene chloride | 8.52 | 8.46 - 8.56 | 145976 | M | ~~27.003~~ | ~~32.9~~ ERL |
| | 8.69 | | 23158 | | | |
| | 9.35 | | 3592 | | | |
| | 9.71 | | 1139 | | | |
| Bromochloromethane | 12.72 | 12.65 - 12.75 | 295711 | | 77.502 | 94.5 |
| | 13.53 | | 11761 | | | |
| 1,2-Dichloroethane | 14.58 | 14.46 - 14.66 | 2024 | M | 0.51225 | 0.625 |
| Trichloroethene | 17.67 | 17.56 - 17.76 | 1145 | M | 0.20141 | 0.246 |
| Tetrachloroethene | 24.07 | 23.93 - 24.13 | 1495 | | 0.28154 | 0.343 |
| Bromofluorobenzene | 30.10 | 29.97 - 30.17 | 175736 | M | 136.19 | 166 |
| 1,3-Dichlorobenzene | 34.25 | 34.13 - 34.33 | 1252 | M | 0.54115 | 0.660 |
| 14DCB/BNZCL2 | 34.52 | 34.38 - 34.58 | 1252 | | 0.65619 | 0.800 |
| 1,2-Dichlorobenzene | 35.48 | 35.36 - 35.56 | 1089 | | 0.39498 | 0.482 |
| | 36.68 | | 108154 | | | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 232218 | M | 87.739 | 107 |
| | 40.90 | | 32011 | | | |

MA 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

COMPANY: Fluor Daniel GTI
ADDRESS: 2501 Yale Blvd
ALBQ NM 87106
ATTENTION: Chuck Schick
PROJECT NAME: DOE WAD 29
PROJECT CONTACT: Chuck Schick
TELEPHONE: 505-242-3113 FAX: 505-242-1103
JOB/P.O. NO.: 812200082903

CHAIN OF CUSTODY RECORD 01832

SDG # 6-0802

PAGE 1 OF

WORK ORDER ID# 9705220

SUBMITTED AT:

**Laucks Testing Laboratories, Inc.**

☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

TESTS TO PERFORM

| LAB SA# | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | EPA Method 8021A | EPA Method 8330 | OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|---|
| 1 | ADC100 1GP11 | 5/6 | 1235 | W | 6 | 4 | 2 | |
| 2 | ADC1001GP15 | 5/7 | 0815 | W | 6 | 4 | 2 | |
| 3 | ADC100 1DP11 | 5/6 | 1100 | S | 1 | 1 | | |
| 4 | ADC1001DP18 | 5/7 | 1000 | S | 1 | 1 | | |
| 5 | ADC10011 | | | | | | | |
| 5/8/97 | | | | | | | | |

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS
1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

*BILLING INFORMATION, IF DIFFERENT THAN ABOVE
NAME
ADDRESS
ATTN:
CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
☒ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☐ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER:
☐ TEMP:
CUSTODY SEAL: ☐Y ☐N ☐N/A

| RELINQUISHED BY (SIGN AND PRINT) | DATE / TIME | RECEIVED BY (SIGN AND PRINT) | DATE / TIME |
|---|---|---|---|
| Charles Madewell | 5-7-97 1400 | Linda Smith | 5/8/97 0845 |

FILE COPY

# Sample Results

G0803

9705477

BTEX by method 8020 /8021A

MC 6/4/97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-1**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 20

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-01

Lab File ID: N5252221.D

Date Collected: 05/12/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/Kg | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2.5 | U | 2.5 |
| 108-88-3 | Toluene | 3.8 | U | 3.8 |
| 100-41-4 | Ethyl Benzene | 2.5 | U | 2.5 |
| 108-38-3 | m,p-Xylene | 5.0 | U | 5.0 |
| 95-47-6 | o-Xylene | 2.5 | U | 2.5 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-1**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705477-01 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5252221.d | File (2): | N5252221.d |
| Date Analyzed (1) | 05/26/97 | Date Analyzed (2): | 05/26/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units:ug/Kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data File: /chem/5890N.i/N52597-2.b/N5252221.d
Date : 26-MAY-97 05:03:00
Client ID: MWAOC-1
Sample Info: 9705477-01

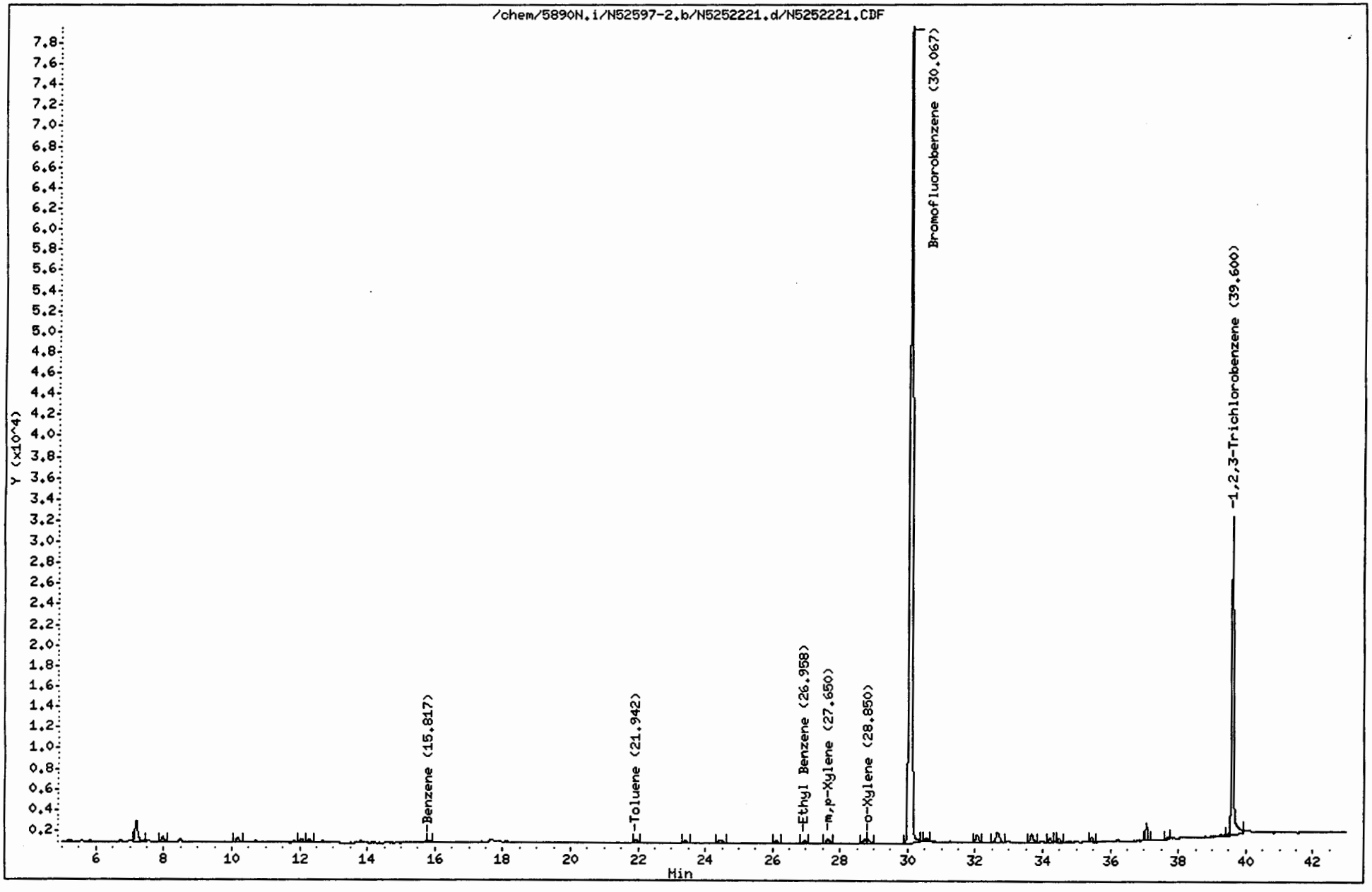
Instrument: 5890N.i

Operator: JimH

Column phase: DB-VRX

Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-2.b/N5252221.d
Injection Date : 26-MAY-97 05:03:00
Sample Info : 9705477-01
Misc. Info : None
Laboratory ID : 9705477-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 511VPB11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 20 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 3.78 | | 4213 | | |
| | 4.23 | | 11092 | | |
| | 7.19 | | 11554 | | |
| | 7.97 | | 2407 | | |
| | 10.18 | | 2666 | | |
| | 12.06 | | 2413 | | |
| | 12.28 | | 2083 | | |
| Benzene | 15.82 | 15.78 - 15.88 | 1147 | 0.30323 | 0.379 |
| Toluene | 21.94 | 21.86 - 22.06 | 1568 | 0.47836 | 0.598 |
| | 23.41 | | 1780 | | |
| | 24.45 | | 2494 | | |
| | 26.12 | | 1195 | | |
| Ethyl Benzene | 26.96 | 26.87 - 27.07 | 1188 | 0.41260 | 0.516 |
| m,p-Xylene | 27.65 | 27.54 - 27.74 | 2670 | 0.79554 | 0.994 |
| | 28.72 | | 1874 | | |
| o-Xylene | 28.85 | 28.77 - 28.97 | 1757 | 0.63744 | 0.797 |
| Bromofluorobenzene | 30.07 | 29.98 - 30.18 | 427850 | 162.81 | 204 |
| | 30.55 | | 1735 | | |
| | 32.06 | | 4094 | | |
| | 32.67 | | 7648 | | |
| | 33.68 | | 4657 | | |
| | 34.22 | | 1952 | | |
| | 34.48 | | 2073 | | |
| | 35.45 | | 2240 | | |
| | 37.07 | | 5156 | | |
| | 37.69 | | 1074 | | |
| 1,2,3-Trichlorobenzene | 39.60 | 39.51 - 39.71 | 117755 | 91.867 | 115 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

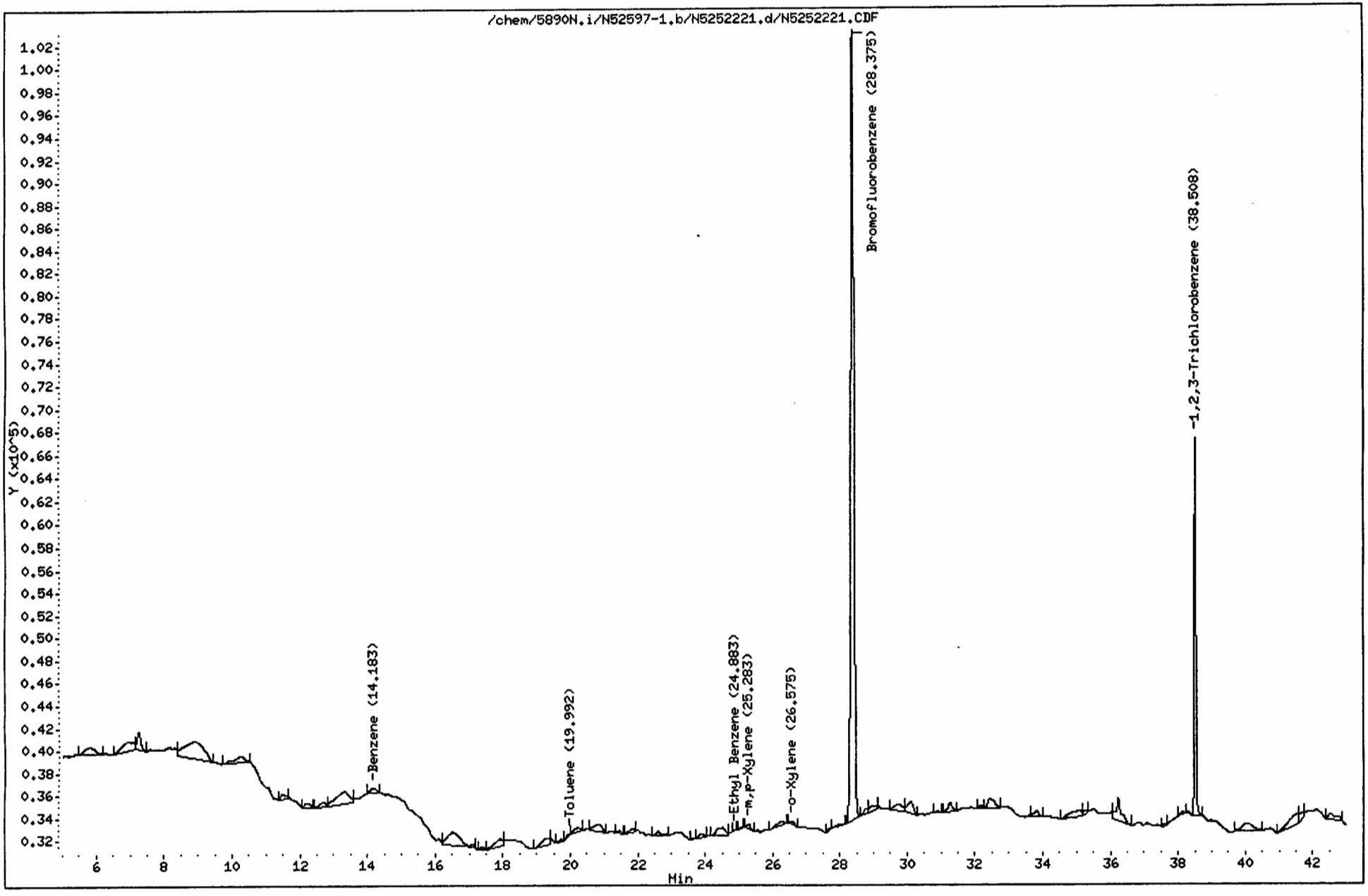
222

Data File: /chem/5890N.i/N52597-1.b/N5252221.d
Date : 26-MAY-97 05:03:00
Client ID: MWAOC-1
Sample Info: 9705477-01

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53

Column phase: DB-624



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-1.b/N5252221.d
Injection Date : 26-MAY-97 05:03:00
Sample Info : 9705477-01
Misc. Info : None
Laboratory ID : 9705477-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 511VPA11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 20 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 0.34 | | 5243 | | | |
| | 2.15 | | 42381 | | | |
| | 3.92 | | 44685 | | | |
| | 5.78 | | 13453 | | | |
| | 6.95 | | 19326 | | | |
| | 7.24 | | 12623 | | | |
| | 8.89 | | 62948 | | | |
| | 10.30 | | 13722 | | | |
| | 11.50 | | 3840 | | | |
| | 12.18 | | 5214 | | | |
| | 12.68 | | 5574 | | | |
| | 13.33 | | 30175 | | | |
| Benzene | 14.18 | 14.11 - 14.21 | 4846 | M | 1.2941 | 1.62 |
| | 16.51 | | 31746 | | | |
| | 17.39 | | 2079 | | | |
| | 17.93 | | 10369 | | | |
| | 19.31 | | 9913 | | | |
| | 19.73 | | 1923 | | | |
| Toluene | 19.99 | 19.82 - 20.02 | 808 | M | 0.24058 | 0.301 |
| | 20.24 | | 4309 | | | |
| | 20.82 | | 11808 | | | |
| | 21.46 | | 2390 | | | |
| | 21.85 | | 4032 | | | |
| | 22.60 | | 4094 | | | |
| | 23.65 | | 731 | | | |
| | 23.90 | | 3568 | | | |
| | 24.52 | | 12275 | | | |
| Ethyl Benzene | 24.88 | 24.77 - 24.97 | 614 | M | 0.20746 | 0.259 |
| | 25.08 | | 332 | | | |
| m,p-Xylene | 25.28 | 25.18 - 25.38 | 3482 | M | 1.0180 | 1.27 |
| | 26.27 | | 4866 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252221.d
Injection Date : 26-MAY-97 05:03:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| o-Xylene | 26.58 | 26.49 - 26.69 | 1944 | M | 0.68876 | 0.861 |
| | 27.70 | | 1102 | | | |
| | 28.08 | | 3094 | | | |
| Bromofluorobenzene | 28.38 | 28.28 - 28.48 | 453829 | M | 165.57 | 207 |
| | 28.58 | | 29 | | | |
| | 28.78 | | 3066 | | | |
| | 29.07 | | 6591 | | | |
| | 29.75 | | 10922 | | | |
| | 30.10 | | 13379 | | | |
| | 30.88 | | 1285 | | | |
| | 31.27 | | 7613 | | | |
| | 32.18 | | 1656 | | | |
| | 32.43 | | 11530 | | | |
| | 33.81 | | 4046 | | | |
| | 35.07 | | 12565 | | | |
| | 35.24 | | 2735 | | | |
| | 36.23 | | 22675 | | | |
| | 37.62 | | 1448 | | | |
| | 38.12 | | 1319 | | | |
| 1,2,3-Trichlorobenzene | 38.51 | 38.42 - 38.62 | 113548 | M | 80.142 | 100 |
| | 40.08 | | 15116 | | | |
| | 41.54 | | 19192 | | | |
| | 41.72 | | 5308 | | | |
| | 42.53 | | 9127 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-2**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 23

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-02

Lab File ID: N5252321.D

Date Collected: 05/12/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/Kg | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 3.2 | | 2.6 |
| 108-88-3 | Toluene | 3.9 | U | 3.9 |
| 100-41-4 | Ethyl Benzene | 2.6 | U | 2.6 |
| 108-38-3 | m,p-Xylene | 5.2 | U | 5.2 |
| 95-47-6 | o-Xylene | 2.6 | U | 2.6 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-2**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705477-02

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5252321.d  File (2): N5252321.d

Date Analyzed (1) 05/26/97  Date Analyzed (2): 05/26/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units:ug/Kg | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.15 | 14.11 | 14.21 | 3.25 X | 24.9 |
| | 2 | 15.82 | 15.78 | 15.88 | 4.06 | |

X = Concentration Reported

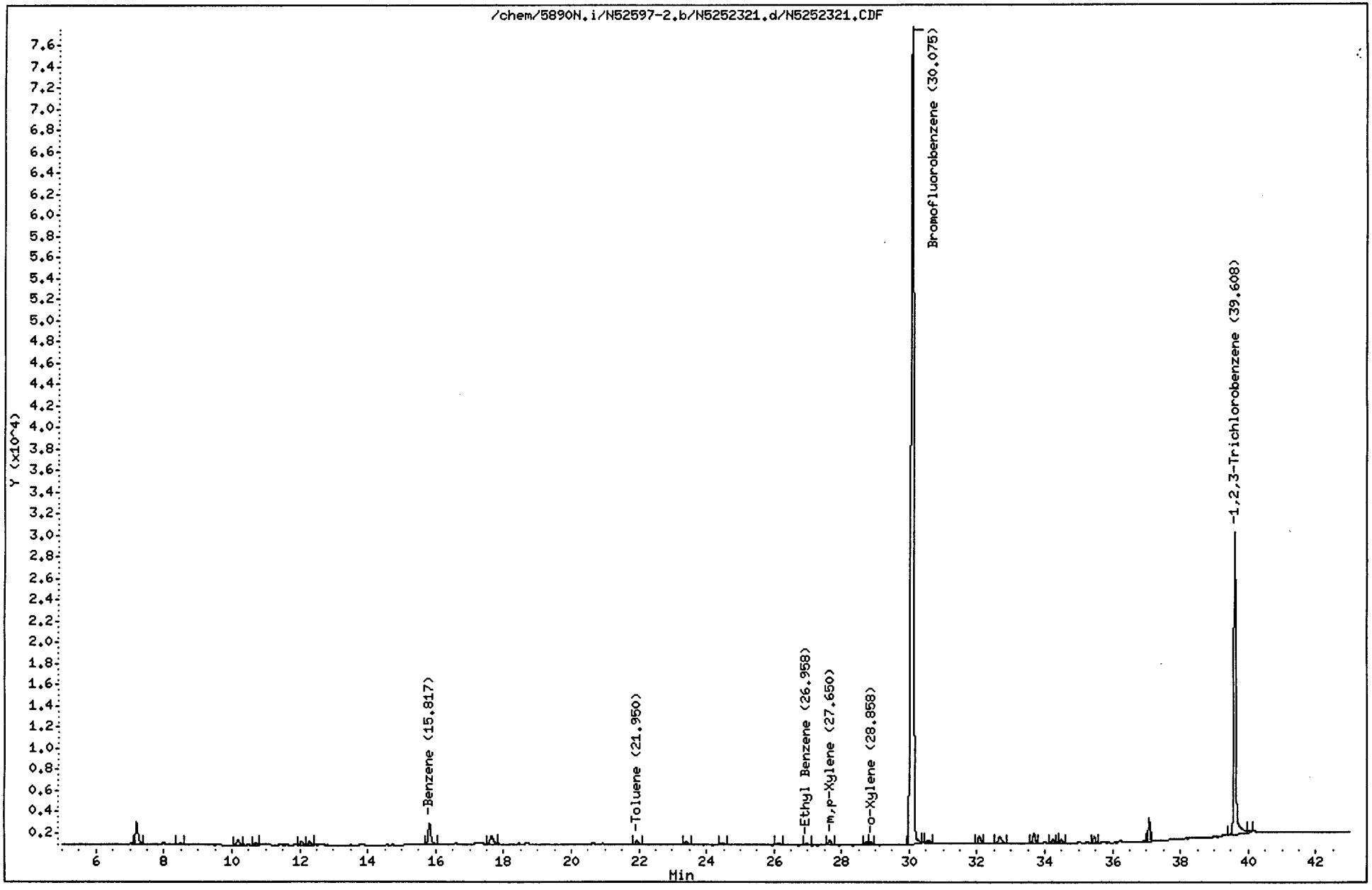
Data Fi. /chem/5890N.i/N52597-2.b/N5252321.d
Date : 26-MAY-97 05:51:00
Client ID: MWAOC-2
Sample Info: 9705477-02

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45

Column phase: DB-VRX

227



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-2.b/N5252321.d
Injection Date : 26-MAY-97 05:51:00
Sample Info : 9705477-02
Misc. Info : None
Laboratory ID : 9705477-02 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 511VPB11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 23 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 2.11 | | 1005 | | |
| | 3.78 | | 3151 | | |
| | 3.97 | | 1749 | | |
| | 4.25 | | 8112 | | |
| | 7.19 | | 11221 | | |
| | 8.48 | | 1079 | | |
| | 10.18 | | 2946 | | |
| | 10.72 | | 1191 | | |
| | 12.05 | | 2225 | | |
| | 12.28 | | 1850 | | |
| Benzene | 15.82 | 15.78 - 15.88 | 11811 | 3.1225 | 4.06 Conf |
| | 17.65 | | 4850 | | |
| Toluene | 21.95 | 21.86 - 22.06 | 2328 | 0.71022 | 0.922 |
| | 23.42 | | 1931 | | |
| | 24.47 | | 1779 | | |
| | 26.12 | | 1021 | | |
| Ethyl Benzene | 26.96 | 26.87 - 27.07 | 1028 | 0.35703 | 0.464 |
| m,p-Xylene | 27.65 | 27.54 - 27.74 | 3012 | 0.89744 | 1.16 |
| | 28.73 | | 1797 | | |
| o-Xylene | 28.86 | 28.77 - 28.97 | 1521 | 0.55182 | 0.717 |
| Bromofluorobenzene | 30.08 | 29.98 - 30.18 | 421146 | 160.26 | 208 |
| | 30.56 | | 1502 | | |
| | 32.07 | | 3905 | | |
| | 32.68 | | 5014 | | |
| | 33.68 | | 5042 | | |
| | 34.23 | | 1988 | | |
| | 34.49 | | 2013 | | |
| | 35.46 | | 2885 | | |
| | 37.07 | | 6800 | | |
| 1,2,3-Trichlorobenzene | 39.61 | 39.51 - 39.71 | 111760 | 87.190 | 113 |
| | 40.02 | | 1644 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

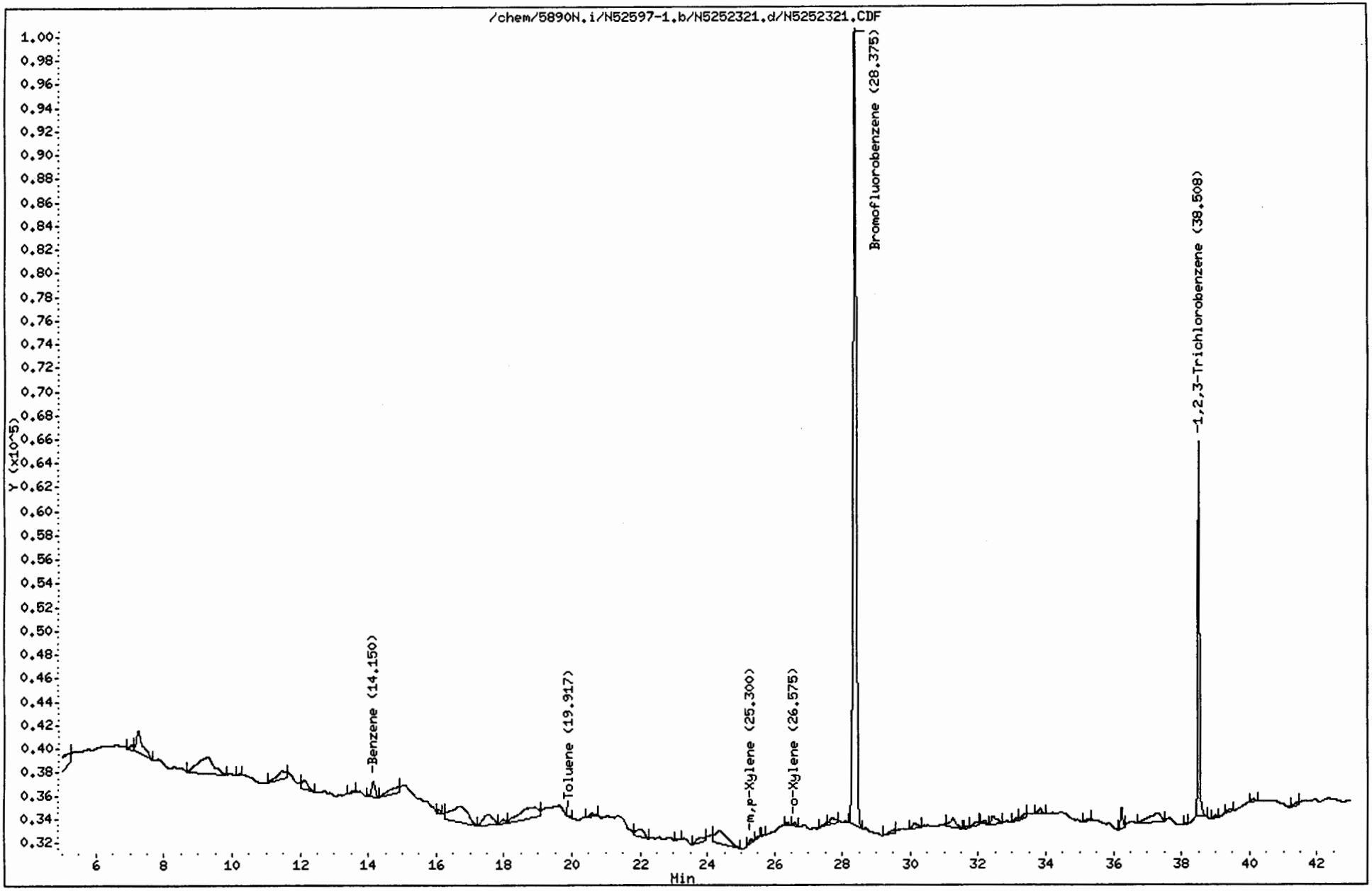
229

Data Fi /chem/5890N.i/N52597-1.b/N5252321.d
Date : 26-MAY-97 05:51:00
Client ID: MWAOC-2
Sample Info: 9705477-02

Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-1.b/N5252321.d
Injection Date : 26-MAY-97 05:51:00
Sample Info : 9705477-02
Misc. Info : None
Laboratory ID : 9705477-02 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 511VPA11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 23 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 0.93 | | 6575 | | | |
| | 1.65 | | 3327 | | | |
| | 2.13 | | 5137 | | | |
| | 2.68 | | 2665 | | | |
| | 3.75 | | 2624 | | | |
| | 4.11 | | 8582 | | | |
| | 5.22 | | 25626 | | | |
| | 7.04 | | 3534 | | | |
| | 7.23 | | 23638 | | | |
| | 9.28 | | 48629 | | | |
| | 10.22 | | 550 | | | |
| | 11.46 | | 11900 | | | |
| | 12.13 | | 9024 | | | |
| | 13.57 | | 1620 | | | |
| Benzene | 14.15 | 14.11 - 14.21 | 9381 | | 2.5051 | 3.25 |
| | 14.87 | | 10942 | | | |
| | 16.09 | | 1932 | | | |
| | 16.68 | | 46225 | | | |
| | 17.57 | | 17401 | | | |
| | 18.00 | | 2969 | | | |
| | 18.92 | | 34392 | | | |
| Toluene | 19.92 | 19.82 - 20.02 | 607 | M | 0.18074 | 0.235 |
| | 20.60 | | 2546 | | | |
| | 22.03 | | 10734 | | | |
| | 23.14 | | 991 | | | |
| | 23.90 | | 6086 | | | |
| | 24.38 | | 27609 | | | |
| m,p-Xylene | 25.30 | 25.18 - 25.38 | 2290 | M | 0.66952 | 0.870 |
| | 25.55 | | 672 | | | |
| | 25.68 | | 334 | | | |
| | 26.38 | | 1689 | | | |

MP 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252321.d
Injection Date : 26-MAY-97 05:51:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| o-Xylene | 26.58 | 26.49 - 26.69 | 1892 | M | 0.67033 | 0.870 |
| | 27.52 | | 1663 | | | |
| | 27.70 | | 6311 | | | |
| Bromofluorobenzene | 28.38 | 28.28 - 28.48 | 442154 | M | 161.31 | 209 |
| | 29.51 | | 3476 | | | |
| | 30.13 | | 4771 | | | |
| | 31.27 | | 9008 | | | |
| | 31.68 | | 918 | | | |
| | 31.95 | | 3506 | | | |
| | 32.18 | | 2156 | | | |
| | 32.43 | | 7444 | | | |
| | 33.18 | | 2075 | | | |
| | 33.41 | | 3425 | | | |
| | 33.82 | | 2862 | | | |
| | 35.27 | | 1376 | | | |
| | 36.23 | | 7998 | | | |
| | 37.28 | | 18930 | | | |
| | 38.16 | | 417 | | | |
| 1,2,3-Trichlorobenzene | 38.51 | 38.42 - 38.62 | 111000 | M | 78.343 | 102 |
| | 38.99 | | 1180 | | | |
| | 39.47 | | 2721 | | | |
| | 40.12 | | 2469 | | | |
| | 41.42 | | 2057 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0803

Matrix: (soil/water) SOIL

Lab Sample ID: 9705477-03

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5252421.D

% Moisture: 21

Date Collected: 05/13/97

Extraction: PURGE&TRAP

Date Received: 05/15/97

Date Prepared: 05/25/97

Dilution Factor: 1.0

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/Kg | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 330 | | 2.5 |
| 108-88-3 | Toluene | 24 | | 3.8 |
| 100-41-4 | Ethyl Benzene | 7.4 | P | 2.5 |
| 108-38-3 | m,p-Xylene | 53 | | 5.1 |
| 95-47-6 | o-Xylene | 32 | | 2.5 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705477-03

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5252421.d  File (2): N5252421.d

Date Analyzed (1) 05/26/97  Date Analyzed (2): 05/26/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/Kg | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.15 | 14.11 | 14.21 | 359 | 7.5 |
| | 2 | 15.82 | 15.78 | 15.88 | 334 X | |
| Toluene | 1 | 19.91 | 19.82 | 20.02 | 24.5 X | 0 |
| | 2 | 21.94 | 21.86 | 22.06 | 24.5 | |
| Ethyl Benzene | 1 | 24.85 | 24.77 | 24.97 | 9.67 | 30 |
| | 2 | 26.95 | 26.87 | 27.07 | 7.44 X | |
| m,p-Xylene | 1 | 25.28 | 25.18 | 25.38 | 53.4 | .9 |
| | 2 | 27.65 | 27.54 | 27.74 | 52.9 X | |
| o-Xylene | 1 | 26.58 | 26.49 | 26.69 | 32.1 X | 1.2 |
| | 2 | 28.86 | 28.77 | 28.97 | 32.5 | |

X = Concentration Reported

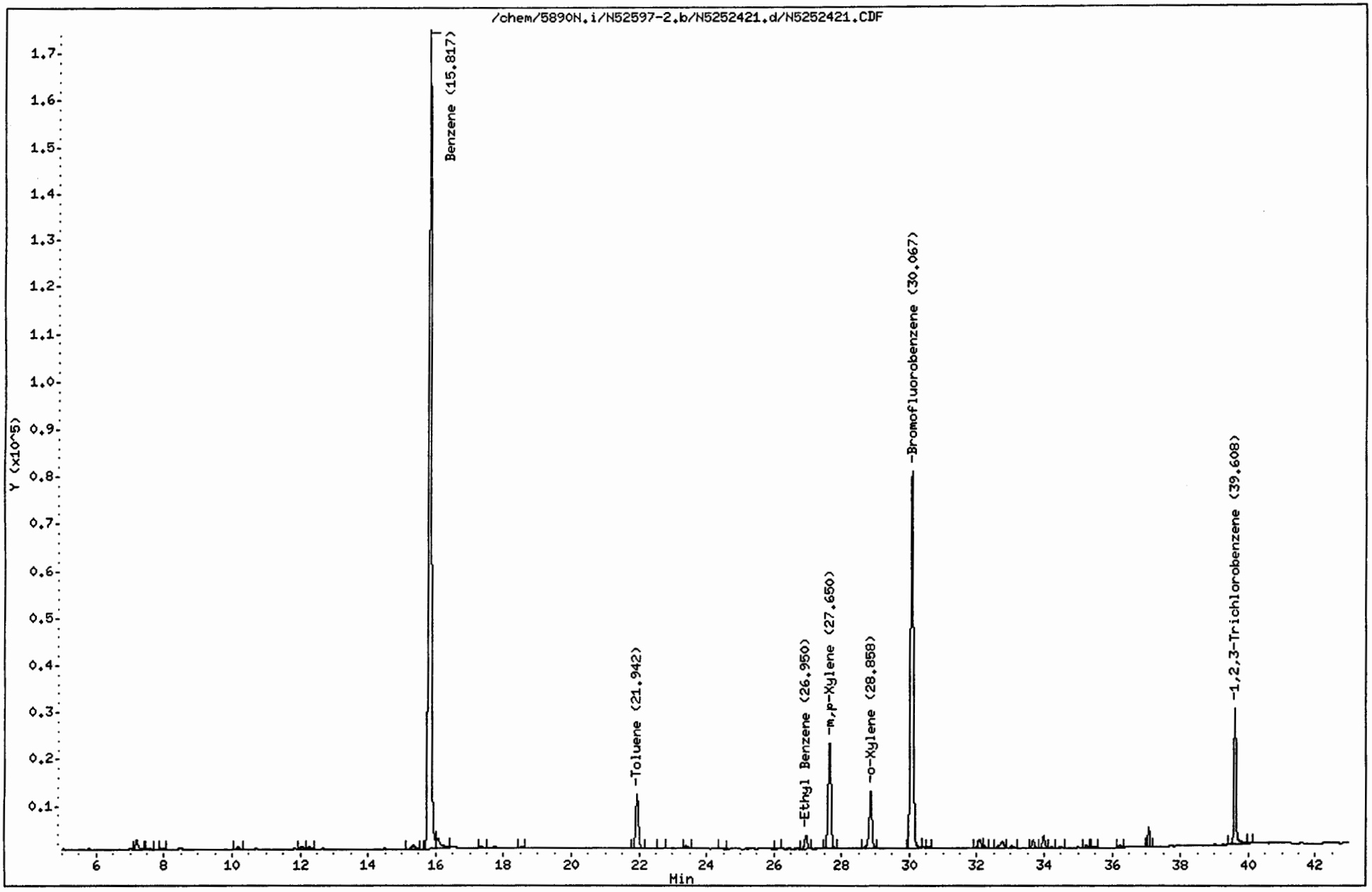
Data File: /chem/5890N.i/N52597-2.b/N5252421.d
Date : 26-MAY-97 06:39:00
Client ID: MWAOC-3
Sample Info: 9705477-03

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45

Column phase: DB-VRX

234



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-2.b/N5252421.d
Injection Date : 26-MAY-97 06:39:00
Sample Info : 9705477-03
Misc. Info : None
Laboratory ID : 9705477-03 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 511VPB11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 21 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 3.78 | | 5671 | | |
| | 4.08 | | 8358 | | |
| | 4.25 | | 7479 | | |
| | 7.19 | | 11001 | | |
| | 7.58 | | 1606 | | |
| | 7.98 | | 1381 | | |
| | 10.18 | | 2609 | | |
| | 12.06 | | 4005 | | |
| | 12.28 | | 2289 | | |
| | 15.35 | | 6391 | | |
| Benzene | 15.82 | 15.78 - 15.88 | 998733 | 264.03 | 334 Conf |
| | 16.07 | | 19680 | | |
| | 17.35 | | 1010 | | |
| | 18.55 | | 1672 | | |
| Toluene | 21.94 | 21.86 - 22.06 | 63569 | 19.393 | 24.5 Conf |
| | 22.65 | | 1156 | | |
| | 23.41 | | 3224 | | |
| | 24.47 | | 1645 | | |
| | 26.12 | | 1111 | | |
| Ethyl Benzene | 26.95 | 26.87 - 27.07 | 16934 | 5.8813 | 7.44 Conf |
| m,p-Xylene | 27.65 | 27.54 - 27.74 | 140372 | 41.824 | 52.9 Conf |
| o-Xylene | 28.86 | 28.77 - 28.97 | 70865 | 25.710 | 32.5 Conf |
| Bromofluorobenzene | 30.07 | 29.98 - 30.18 | 445966 | 169.70 | 215 |
| | 30.55 | | 1127 | | |
| | 32.08 | | 11417 | | |
| | 32.22 | | 2793 | | |
| | 32.75 | | 11326 | | |
| | 33.04 | | 3158 | | |
| | 33.68 | | 9924 | | |
| | 33.99 | | 15010 | | |
| | 34.22 | | 1740 | | |

MA 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252421.d
Injection Date : 26-MAY-97 06:39:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 34.48 | | 1970 | | |
| | 35.25 | | 2478 | | |
| | 35.46 | | 1874 | | |
| | 36.22 | | 2115 | | |
| | 37.07 | | 12824 | | |
| 1,2,3-Trichlorobenzene | 39.61 | 39.51 - 39.71 | 114601 | 89.407 | 113 |
| | 40.02 | | 1665 | | |

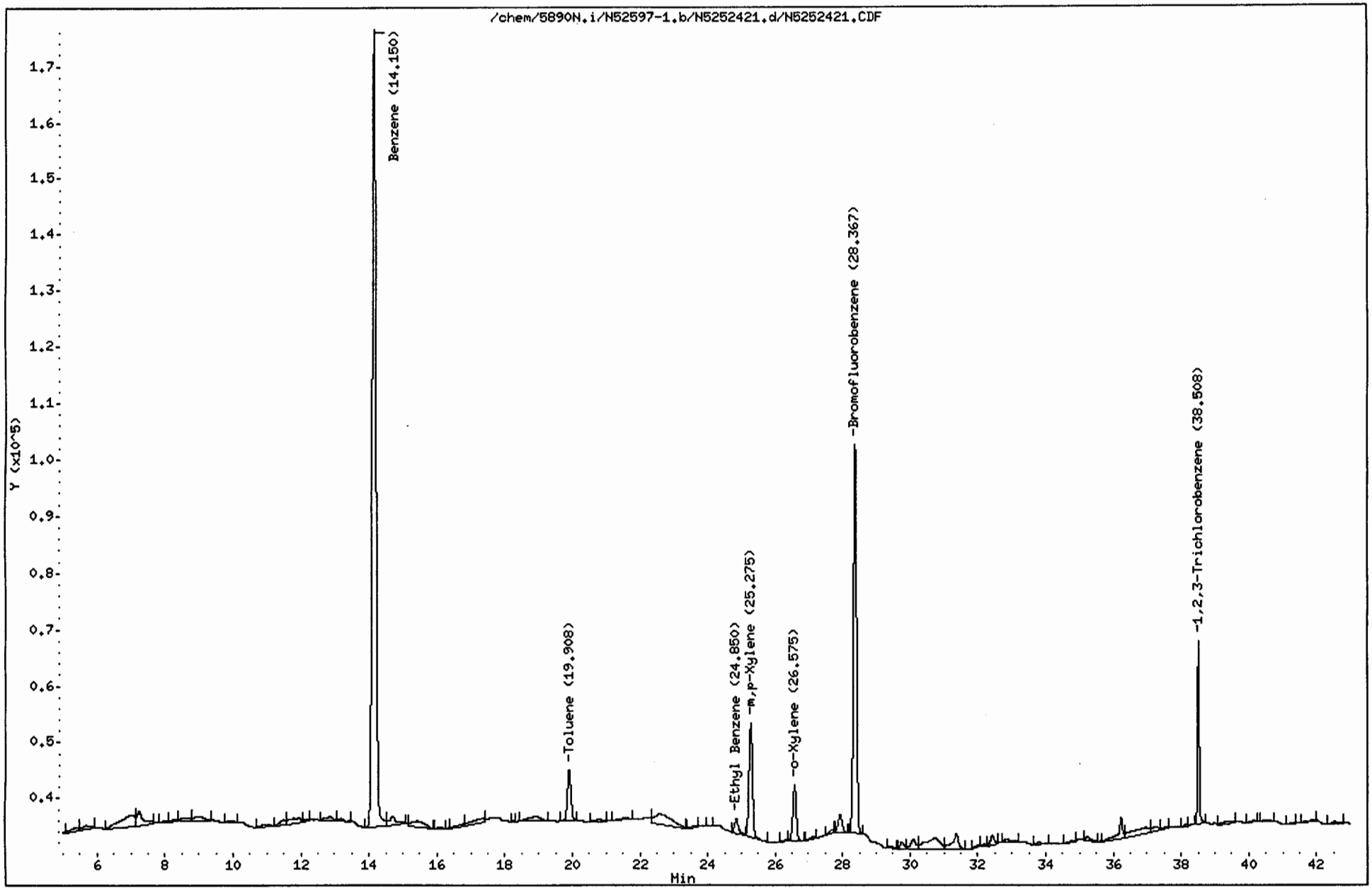
Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data Fi. 'chem/5890N.i/N52597-1.b/N5252421.d
Date : 26-MAY-97 06:39:00
Client ID: MWAOC-3
Sample Info: 9705477-03

Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-1.b/N5252421.d
Injection Date : 26-MAY-97 06:39:00
Sample Info : 9705477-03
Misc. Info : None
Laboratory ID : 9705477-03 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 511VPA11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 21 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| | 1.46 | | 10491 | | |
| | 1.79 | | 6357 | | |
| | 3.37 | | 2422 | | |
| | 4.05 | | 18401 | | |
| | 4.71 | | 3225 | | |
| | 5.06 | | 1627 | | |
| | 5.43 | | 11580 | | |
| | 5.68 | | 14500 | | |
| | 7.04 | | 66910 | | |
| | 7.23 | | 38827 | | |
| | 8.03 | | 2566 | | |
| | 8.31 | | 4763 | | |
| | 8.64 | | 13273 | | |
| | 9.08 | | 16647 | | |
| | 9.94 | | 2644 | | |
| | 10.95 | | 7206 | | |
| | 11.49 | | 12452 | | |
| | 11.78 | | 20849 | | |
| | 12.15 | | 3650 | | |
| | 12.87 | | 13012 | | |
| | 13.18 | | 5900 | | |
| Benzene | 14.15 | 14.11 - 14.21 | 1061471 | 283.45 | 359 |
| | 14.71 | | 25589 | | |
| | 15.44 | | 28504 | | |
| | 16.08 | | 2668 | | |
| | 16.76 | | 6128 | | |
| | 17.34 | | 20234 | | |
| | 18.25 | | 759 | | |
| | 18.92 | | 20035 | | |
| Toluene | 19.91 | 19.82 - 20.02 | 65046 | 19.368 | 24.5 |
| | 20.81 | | 6087 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252421.d
Injection Date : 26-MAY-97 06:39:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 21.61 | | 8410 | | | |
| | 22.58 | | 63345 | | | |
| | 23.62 | | 3157 | | | |
| | 24.08 | | 643 | | | |
| Ethyl Benzene | 24.85 | 24.77 - 24.97 | 22608 | | 7.6387 | 9.67 |
| m,p-Xylene | 25.28 | 25.18 - 25.38 | 144361 | | 42.206 | 53.4 |
| | 26.30 | | 1648 | | | |
| o-Xylene | 26.58 | 26.49 - 26.69 | 71495 | | 25.344 | 32.1 |
| | 27.15 | | 2837 | | | |
| | 27.69 | | 4941 | | | |
| | 27.75 | | 323 | | | |
| | 27.93 | | 26771 | | | |
| Bromofluorobenzene | 28.37 | 28.28 - 28.48 | 448176 | M | 163.51 | 207 |
| | 29.41 | | 3951 | | | |
| | 29.76 | | 10230 | | | |
| | 30.09 | | 18347 | | | |
| | 30.72 | | 57444 | | | |
| | 31.37 | | 35001 | | | |
| | 32.02 | | 3569 | | | |
| | 32.18 | | 3308 | | | |
| | 32.42 | | 13151 | | | |
| | 32.83 | | 6918 | | | |
| | 33.79 | | 4178 | | | |
| | 34.84 | | 5410 | | | |
| | 35.24 | | 7019 | | | |
| | 36.23 | | 30975 | | | |
| | 36.97 | | 36373 | | | |
| | 37.24 | | 9400 | | | |
| | 37.58 | | 3033 | | | |
| | 38.15 | | 2410 | | | |
| 1,2,3-Trichlorobenzene | 38.51 | 38.42 - 38.62 | 112286 | M | 79.251 | 100 |
| | 39.36 | | 9833 | | | |
| | 40.15 | | 2780 | | | |
| | 40.52 | | 2910 | | | |
| | 41.28 | | 1851 | | | |
| | 41.91 | | 4693 | | | |
| | 42.55 | | 5632 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0803

Matrix: (soil/water) SOIL

Lab Sample ID: 9705477-04

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5252521.D

% Moisture: 22

Date Collected: 05/13/97

Extraction: PURGE&TRAP

Date Received: 05/15/97

Date Prepared: 05/25/97

Dilution Factor: 1.0

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/Kg | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2.6 | U | 2.6 |
| 108-88-3 | Toluene | 3.8 | U | 3.8 |
| 100-41-4 | Ethyl Benzene | 2.6 | U | 2.6 |
| 108-38-3 | m,p-Xylene | 5.1 | U | 5.1 |
| 95-47-6 | o-Xylene | 2.6 | U | 2.6 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-4**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705477-04 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5252521.d | File (2): | N5252521.d |
| Date Analyzed (1) | 05/26/97 | Date Analyzed (2): | 05/26/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/Kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

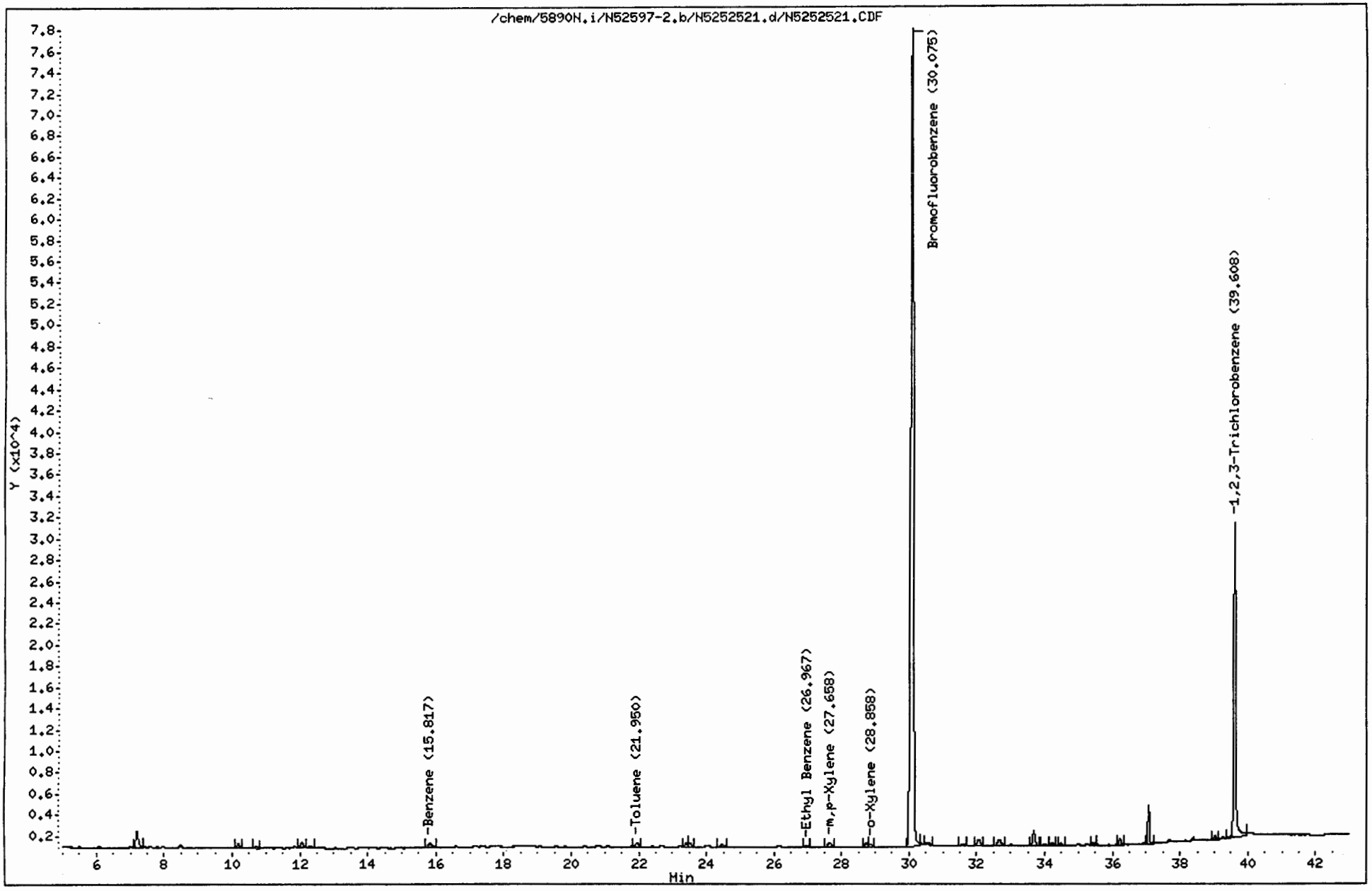
Data File: /chem/5890N.i/N52597-2.b/N5252521.d
Date : 26-MAY-97 07:26:00
Client ID: MWAOC-4
Sample Info: 9705477-04

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45

Column phase: DB-VRX

242



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-2.b/N5252521.d
Injection Date : 26-MAY-97 07:26:00
Sample Info : 9705477-04
Misc. Info : None
Laboratory ID : 9705477-04 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 511VPB11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 22 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 3.78 | | 2750 | | | |
| | 3.95 | | 1083 | | | |
| | 4.17 | | 1393 | | | |
| | 4.23 | | 2545 | | | |
| | 7.19 | | 8894 | | | |
| | 10.18 | | 1816 | | | |
| | 10.71 | | 1129 | | | |
| | 12.06 | | 3634 | | | |
| | 12.28 | | 1400 | | | |
| Benzene | 15.82 | 15.78 - 15.88 | 3158 | | 0.83488 | 1.07 |
| Toluene | 21.95 | 21.86 - 22.06 | 2111 | | 0.64402 | 0.826 |
| | 23.42 | | 1967 | | | |
| | 23.52 | | 2135 | | | <RL |
| | 24.46 | | 1549 | | | |
| Ethyl Benzene | 26.97 | 26.87 - 27.07 | 1034 | M | 0.35912 | 0.460 |
| m,p-Xylene | 27.66 | 27.54 - 27.74 | 2453 | | 0.73088 | 0.937 |
| | 28.73 | | 2105 | | | |
| o-Xylene | 28.86 | 28.77 - 28.97 | 1430 | | 0.51880 | 0.665 |
| Bromofluorobenzene | 30.08 | 29.98 - 30.18 | 427270 | | 162.59 | 208 |
| | 30.56 | | 1502 | | | |
| | 31.60 | | 1117 | | | |
| | 32.06 | | 3334 | | | |
| | 32.67 | | 4341 | | | |
| | 33.68 | | 7593 | | | |
| | 34.00 | | 1014 | | | |
| | 34.22 | | 1302 | | | |
| | 34.48 | | 1169 | | | |
| | 35.45 | | 1116 | | | |
| | 36.22 | | 2575 | | | |
| | 37.07 | | 11849 | | | |
| | 39.01 | | 1352 | | | |

MH 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252521.d
Injection Date : 26-MAY-97 07:26:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| 1,2,3-Trichlorobenzene | 39.61 | 39.51 - 39.71 | 114988 | 89.709 | 115 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

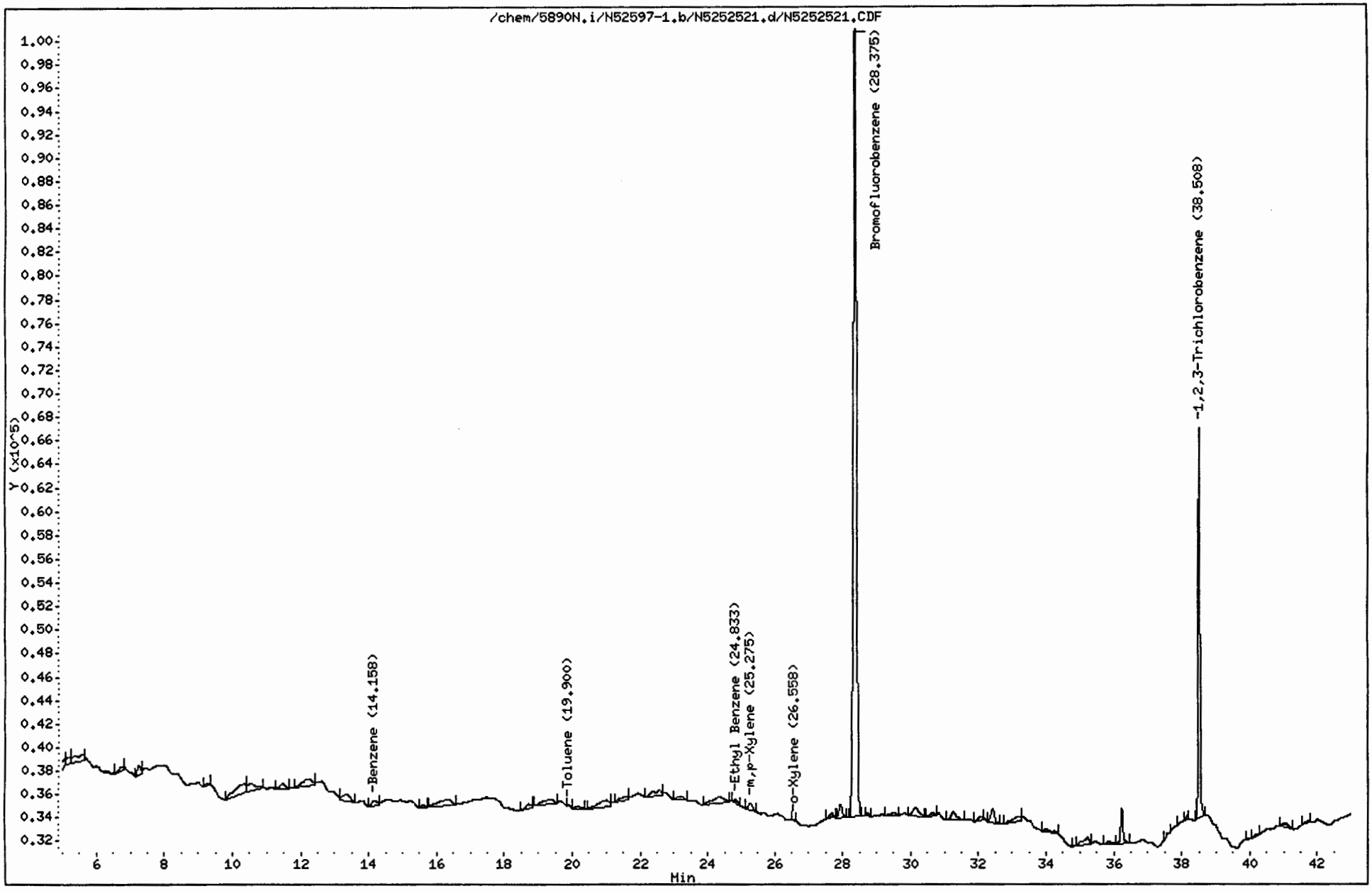
Data Fil  chem/5890N.i/N52597-1.b/N5252521.d
Date : 26-MAY-97 07:26:00
Client ID: MWAOC-4
Sample Info: 9705477-04

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53

Column phase: DB-624

245



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-1.b/N5252521.d
Injection Date : 26-MAY-97 07:26:00
Sample Info : 9705477-04
Misc. Info : None
Laboratory ID : 9705477-04 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 511VPA11.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 22 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 0.76 | | 5840 | | | |
| | 1.19 | | 5984 | | | |
| | 1.65 | | 9186 | | | |
| | 3.11 | | 8180 | | | |
| | 4.09 | | 26212 | | | |
| | 4.82 | | 5026 | | | |
| | 5.06 | | 4973 | | | |
| | 5.18 | | 4666 | | | |
| | 5.36 | | 11253 | | | |
| | 6.75 | | 4129 | | | |
| | 7.25 | | 5450 | | | |
| | 9.28 | | 1523 | | | |
| | 10.33 | | 20533 | | | |
| | 10.54 | | 11377 | | | |
| | 11.46 | | 4583 | | | |
| | 12.18 | | 11393 | | | |
| | 13.33 | | 8902 | | | |
| Benzene | 14.16 | 14.11 - 14.21 | 4583 | | 1.2238 | 1.57 |
| | 15.61 | | 1374 | | | |
| | 16.32 | | 14700 | | | |
| | 18.72 | | 4340 | | | |
| | 19.32 | | 10035 | | | |
| Toluene | 19.90 | 19.82 - 20.02 | 532 | M | 0.15840 | 0.203 |
| | 20.16 | | 2192 | | | |
| | 21.00 | | 14286 | | | |
| | 21.57 | | 4865 | | | |
| | 22.38 | | 8491 | | | |
| | 23.15 | | 4059 | | | |
| | 24.36 | | 14546 | | | |
| Ethyl Benzene | 24.83 | 24.77 - 24.97 | 2288 | M | 0.77272 | 0.991 |
| m,p-Xylene | 25.28 | 25.18 - 25.38 | 5021 | M | 1.4677 | 1.88 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252521.d
Injection Date : 26-MAY-97 07:26:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| o-Xylene | 26.56 | 26.49 - 26.69 | 470 | M | 0.16661 | 0.214 |
| | 27.68 | | 3334 | | | |
| | 27.94 | | 7800 | | | |
| Bromofluorobenzene | 28.38 | 28.28 - 28.48 | 441674 | M | 161.14 | 206 |
| | 28.72 | | 1175 | | | |
| | 29.39 | | 3660 | | | |
| | 30.15 | | 10476 | | | |
| | 30.67 | | 2887 | | | |
| | 31.26 | | 7483 | | | |
| | 32.07 | | 2882 | | | |
| | 32.42 | | 10318 | | | |
| | 33.18 | | 7070 | | | |
| | 34.01 | | 4588 | | | |
| | 34.83 | | 436 | | | |
| | 35.22 | | 9303 | | | |
| | 35.86 | | 1758 | | | |
| | 36.23 | | 15096 | | | |
| | 37.58 | | 441 | | | |
| | 38.06 | | 782 | | | |
| | 38.15 | | 1584 | | | |
| 1,2,3-Trichlorobenzene | 38.51 | 38.42 - 38.62 | 114504 | M | 80.817 | 104 |
| | 39.98 | | 157 | | | |
| | 40.21 | | 708 | | | |
| | 41.08 | | 3876 | | | |
| | 41.71 | | 928 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

# Sample Results

G0803

9705477

Volatiles by Method 8010/8021A

mjc 6/4/97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-1**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0803

Matrix: (soil/water) SOIL

Lab Sample ID: 9705477-01

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5252221.D

% Moisture: 20

Date Collected: 05/12/97

Extraction: PURGE&TRAP

Date Received: 05/15/97

Date Prepared: 05/25/97

Dilution Factor: 1.0

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2.5 | U | 2.5 |
| 74-87-3 | Chloromethane | 2.5 | U | 2.5 |
| 75-01-4 | Vinyl chloride | 2.5 | U | 2.5 |
| 74-83-9 | Bromomethane | 5.0 | U | 5.0 |
| 75-00-3 | Chloroethane | 2.5 | U | 2.5 |
| 75-69-4 | Trichlorofluoromethane | 2.5 | U | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | 2.5 | U | 2.5 |
| 75-09-2 | Methylene chloride | 38 | U | 38 |
| 156-60-5 | trans-1,2-Dichloroethene | 2.5 | U | 2.5 |
| 75-34-3 | 1,1-Dichloroethane | 2.5 | U | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | 2.5 | U | 2.5 |
| 67-66-3 | Chloroform | 2.5 | U | 2.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 2.5 | U | 2.5 |
| 56-23-5 | Carbon tetrachloride | 2.5 | U | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | 2.5 | U | 2.5 |
| 79-01-6 | Trichloroethene | 2.5 | U | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | 2.5 | U | 2.5 |
| 74-95-3 | Dibromomethane | 2.5 | U | 2.5 |
| 75-27-4 | Bromodichloromethane | 2.5 | U | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2.5 | U | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2.5 | U | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 2.5 | U | 2.5 |
| 127-18-4 | Tetrachloroethene | 2.5 | U | 2.5 |
| 124-48-1 | Chlorodibromomethane | 2.5 | U | 2.5 |
| 108-90-7 | Chlorobenzene | 2.5 | U | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2.5 | U | 2.5 |
| 75-25-2 | Bromoform | 2.5 | U | 2.5 |
| 108-86-1 | Bromobenzene | 10 | U | 10 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.5 | U | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.5 | U | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.5 | U | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.5 | U | 2.5 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-1**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 20

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-01

Lab File ID: N5252221.D

Date Collected: 05/12/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 5.0 | U | 5.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.5 | U | 2.5 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-1**

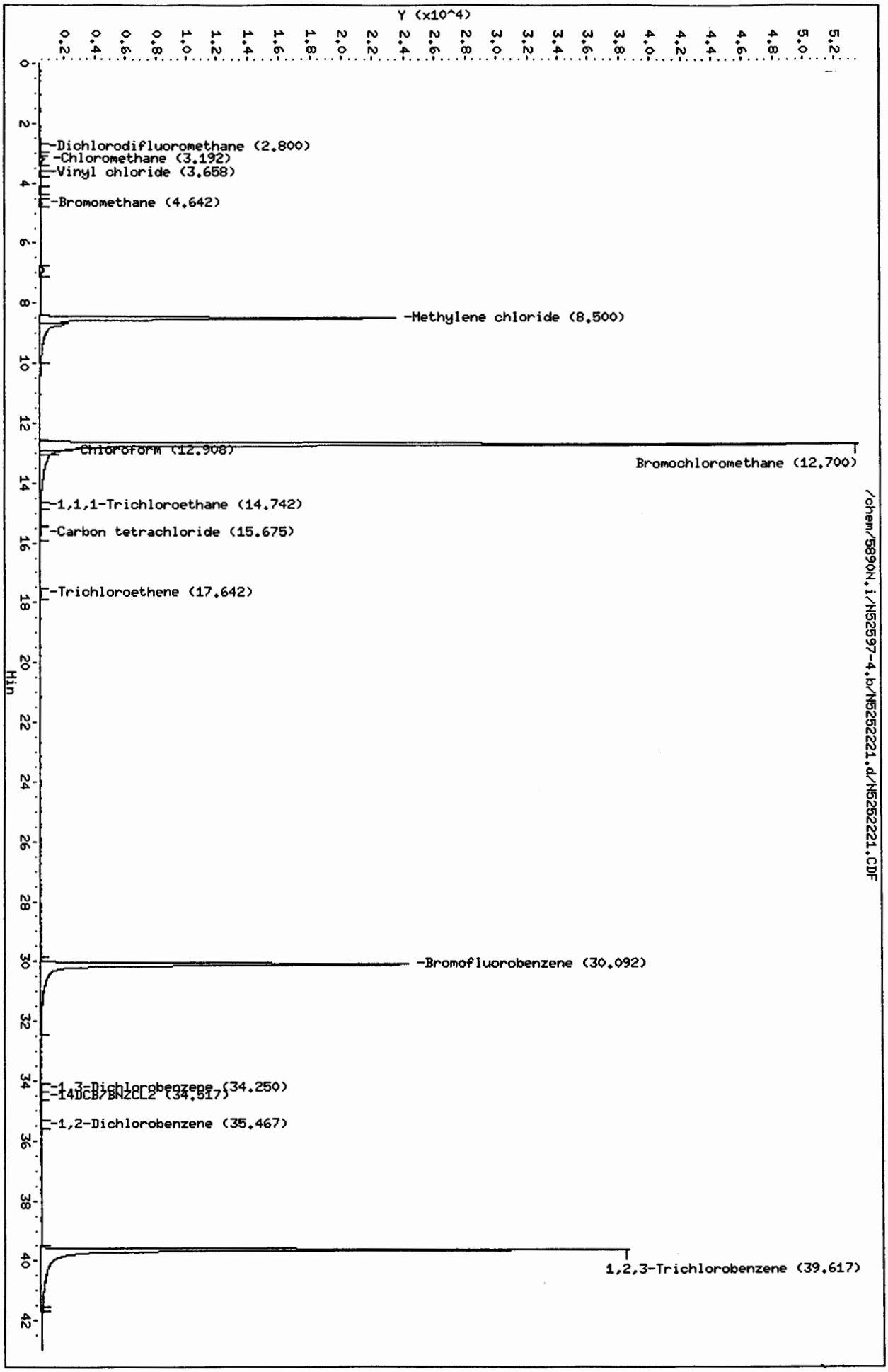
| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705477-01 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5252221.d | File (2): | N5252221.d |
| Date Analyzed (1) | 05/26/97 | Date Analyzed (2): | 05/26/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data : /chem/5890N.i/N52597-4.b/N5252221.d
Date : 26-MAY-97 05:03:00
Client ID: MWAOC-1
Sample Info: 9705477-01
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-4.b/N5252221.d
Injection Date : 26-MAY-97 05:03:00
Sample Info : 9705477-01
Misc. Info : None
Laboratory ID : 9705477-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 511HVB11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 20 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

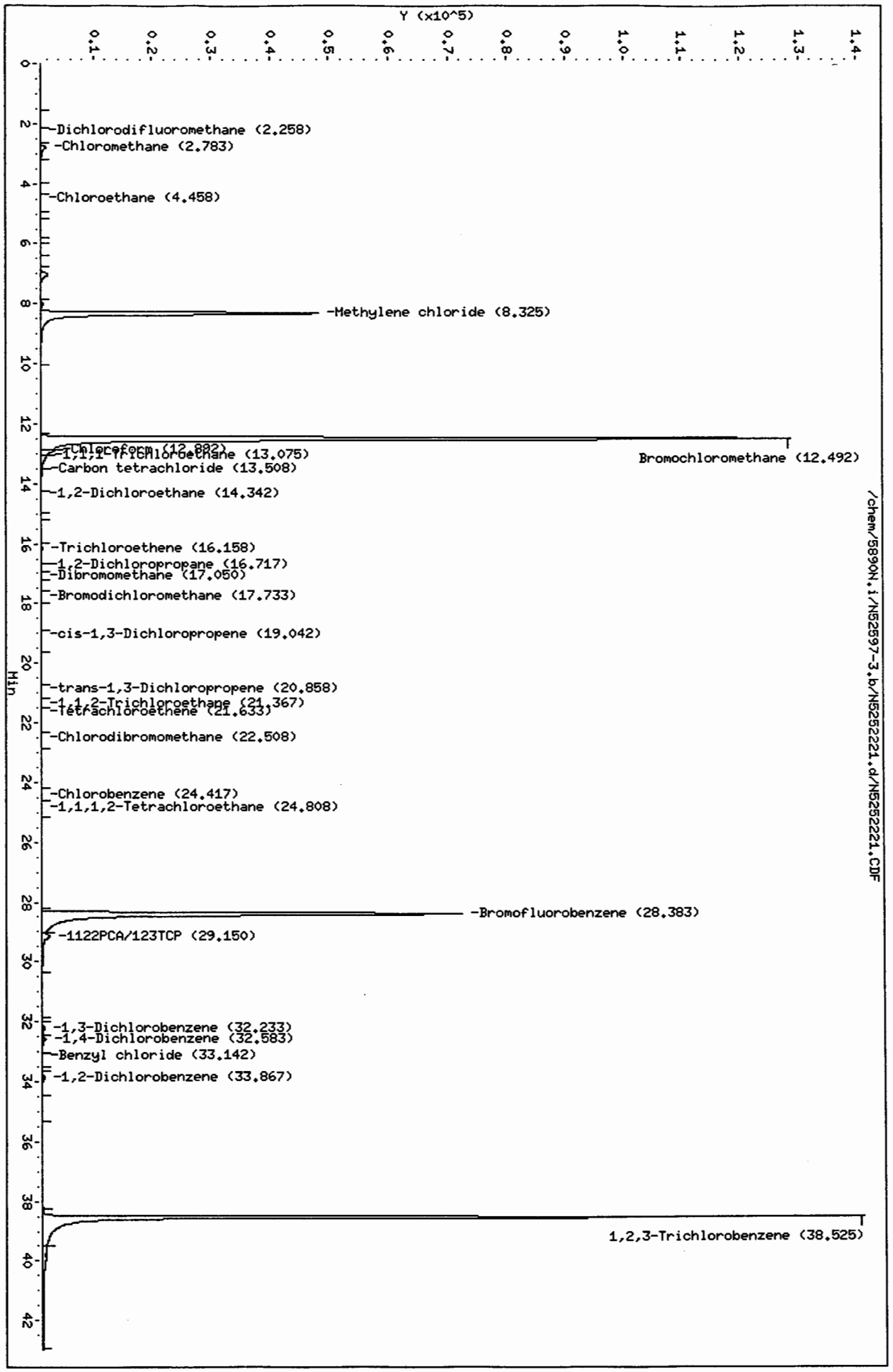
| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg | |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.80 | 2.71 - 2.81 | 1010 | M | 0.44716 | 0.559 | |
| Chloromethane | 3.19 | 3.13 - 3.23 | 3156 | | 0.73724 | 0.922 | |
| Vinyl chloride | 3.66 | 3.59 - 3.69 | 1269 | | 0.34752 | 0.434 | |
| | 4.22 | | 1460 | | | | <RL |
| Bromomethane | 4.64 | 4.55 - 4.65 | 1912 | | 1.3468 | 1.68 | |
| | 6.87 | | 3402 | | | | |
| Methylene chloride | 8.50 | 8.45 - 8.55 | 120917 | | 22.368 | 28.0 | |
| | 8.71 | | 31371 | | | | |
| Bromochloromethane | 12.70 | 12.65 - 12.75 | 296140 | M | 77.615 | 97.0 | |
| Chloroform | 12.91 | 12.89 - 12.99 | 11013 | M | 1.6026 | 2.00 | |
| | 13.08 | | 25102 | | | | <RL |
| 1,1,1-Trichloroethane | 14.74 | 14.64 - 14.84 | 1227 | | 0.20593 | 0.257 | |
| | 14.90 | | 1857 | | | | |
| Carbon tetrachloride | 15.68 | 15.55 - 15.75 | 1062 | M | 0.17018 | 0.213 | |
| Trichloroethene | 17.64 | 17.57 - 17.77 | 884 | M | 0.15550 | 0.194 | |
| Bromofluorobenzene | 30.09 | 29.99 - 30.19 | 173693 | M | 134.60 | 168 | |
| 1,3-Dichlorobenzene | 34.25 | 34.15 - 34.35 | 949 | M | 0.41019 | 0.513 | |
| 14DCB/BNZCL2 | 34.52 | 34.41 - 34.61 | 1088 | M | 0.57024 | 0.713 | <RL |
| 1,2-Dichlorobenzene | 35.47 | 35.38 - 35.58 | 1126 | M | 0.40840 | 0.510 | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 220624 | M | 83.358 | 104 | |
| | 41.56 | | 1070 | | | | |

MA 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Dat e: /chem/5890N.i/N52597-3.b/N5252221.d
Date : 26-MAY-97 05:03:00
Client ID: MWAOC-1
Sample Info: 9705477-01
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




Pa

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-3.b/N5252221.d
Injection Date : 26-MAY-97 05:03:00
Sample Info : 9705477-01
Misc. Info : None
Laboratory ID : 9705477-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 511HVA11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 20 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 1.72 | | 764 | | | |
| Dichlorodifluoromethane | 2.26 | 2.18 - 2.28 | 258 | M | 0.034299 | 0.0429 |
| Chloromethane | 2.78 | 2.69 - 2.79 | 9358 | M | 1.4941 | 1.87 |
| | 3.18 | | 2417 | | | |
| | 4.17 | | 1451 | | | |
| Chloroethane | 4.46 | 4.37 - 4.47 | 1962 | | 0.22552 | 0.282 |
| | 5.29 | | 1513 | | | |
| | 6.16 | | 545 | | | |
| | 7.02 | | 15759 | | | |
| | 7.99 | | 3866 | | | |
| Methylene chloride | 8.32 | 8.27 - 8.37 | 338820 | | 36.763 | 46.0 |
| Bromochloromethane | 12.49 | 12.40 - 12.60 | 908549 | | 78.931 | 98.7 |
| Chloroform | 12.89 | 12.81 - 13.01 | 24062 | M | 1.2644 | 1.58 |
| 1,1,1-Trichloroethane | 13.08 | 13.04 - 13.24 | 13196 | M | 0.74429 | 0.930 |
| Carbon tetrachloride | 13.51 | 13.48 - 13.68 | 4452 | M | 0.24131 | 0.302 |
| 1,2-Dichloroethane | 14.34 | 14.22 - 14.42 | 2184 | | 0.15042 | 0.188 |
| | 14.98 | | 383 | | | |
| | 15.33 | | 776 | | | |
| Trichloroethene | 16.16 | 16.02 - 16.22 | 2200 | | 0.13246 | 0.166 |
| 1,2-Dichloropropane | 16.72 | 16.61 - 16.81 | 338 | M | 0.024548 | 0.0307 |
| Dibromomethane | 17.05 | 16.94 - 17.14 | 226 | M | 0.027967 | 0.0350 |
| | 17.22 | | 221 | | | |
| Bromodichloromethane | 17.73 | 17.58 - 17.78 | 378 | M | 0.028361 | 0.0354 |
| cis-1,3-Dichloropropene | 19.04 | 18.92 - 19.12 | 518 | M | 0.041552 | 0.0519 |
| trans-1,3-Dichloropropene | 20.86 | 20.72 - 20.92 | 340 | M | 0.031820 | 0.0398 |
| 1,1,2-Trichloroethane | 21.37 | 21.22 - 21.42 | 296 | M | 0.021612 | 0.0270 |
| Tetrachloroethene | 21.63 | 21.50 - 21.70 | 905 | | 0.051104 | 0.0639 |
| Chlorodibromomethane | 22.51 | 22.38 - 22.58 | 242 | M | 0.023478 | 0.0293 |
| Chlorobenzene | 24.42 | 24.27 - 24.47 | 346 | M | 0.053697 | 0.0671 |
| 1,1,1,2-Tetrachloroethane | 24.81 | 24.64 - 24.84 | 727 | | 0.040280 | 0.0503 |
| Bromofluorobenzene | 28.38 | 28.29 - 28.49 | 578855 | | 133.76 | 167 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MA 6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252221.d
Injection Date : 26-MAY-97 05:03:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| 1122PCA/123TCP | 29.15 | 29.04 - 29.24 | 27523 | | 3.0959 | 3.87 |
| | 31.90 | | 583 | | | |
| 1,3-Dichlorobenzene | 32.23 | 32.10 - 32.30 | 5340 | | 0.62252 | 0.778 |
| 1,4-Dichlorobenzene | 32.58 | 32.45 - 32.65 | 7164 | | 0.75829 | 0.948 |
| Benzyl chloride | 33.14 | 33.04 - 33.24 | 1859 | | 0.64562 | 0.807 |
| 1,2-Dichlorobenzene | 33.87 | 33.73 - 33.93 | 6837 | | 0.76638 | 0.958 |
| | 38.23 | | 14202 | | | |
| 1,2,3-Trichlorobenzene | 38.52 | 38.42 - 38.62 | 690586 | M | 77.633 | 97.0 |
| | 39.54 | | 52079 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-2**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 23

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-02

Lab File ID: N5252321.D

Date Collected: 05/12/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2.6 | U | 2.6 |
| 74-87-3 | Chloromethane | 2.6 | U | 2.6 |
| 75-01-4 | Vinyl chloride | 2.6 | U | 2.6 |
| 74-83-9 | Bromomethane | 5.2 | U | 5.2 |
| 75-00-3 | Chloroethane | 2.6 | U | 2.6 |
| 75-69-4 | Trichlorofluoromethane | 2.6 | U | 2.6 |
| 75-35-4 | 1,1-Dichloroethene | 2.6 | U | 2.6 |
| 75-09-2 | Methylene chloride | 39 | U | 39 |
| 156-60-5 | trans-1,2-Dichloroethene | 2.6 | U | 2.6 |
| 75-34-3 | 1,1-Dichloroethane | 2.6 | U | 2.6 |
| 156-59-2 | cis-1,2-Dichloroethene | 2.6 | U | 2.6 |
| 67-66-3 | Chloroform | 2.6 | U | 2.6 |
| 71-55-6 | 1,1,1-Trichloroethane | 2.6 | U | 2.6 |
| 56-23-5 | Carbon tetrachloride | 2.6 | U | 2.6 |
| 107-06-2 | 1,2-Dichloroethane | 2.6 | U | 2.6 |
| 79-01-6 | Trichloroethene | 2.6 | U | 2.6 |
| 78-87-5 | 1,2-Dichloropropane | 2.6 | U | 2.6 |
| 74-95-3 | Dibromomethane | 2.6 | U | 2.6 |
| 75-27-4 | Bromodichloromethane | 2.6 | U | 2.6 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2.6 | U | 2.6 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2.6 | U | 2.6 |
| 79-00-5 | 1,1,2-Trichloroethane | 2.6 | U | 2.6 |
| 127-18-4 | Tetrachloroethene | 2.6 | U | 2.6 |
| 124-48-1 | Chlorodibromomethane | 2.6 | U | 2.6 |
| 108-90-7 | Chlorobenzene | 2.6 | U | 2.6 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2.6 | U | 2.6 |
| 75-25-2 | Bromoform | 2.6 | U | 2.6 |
| 108-86-1 | Bromobenzene | 10 | U | 10 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.6 | U | 2.6 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.6 | U | 2.6 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.6 | U | 2.6 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.6 | U | 2.6 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-2**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 23

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-02

Lab File ID: N5252321.D

Date Collected: 05/12/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 5.2 | U | 5.2 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.6 | U | 2.6 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-2**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705477-02 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5252321.d | File (2): | N5252321.d |
| Date Analyzed (1) | 05/26/97 | Date Analyzed (2): | 05/26/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | TO | CONCENTRATION Final Units:ug/kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data .e: /chem/5890N.i/N52597-4.b/N5252321.d

Date : 26-MAY-97 05:51:00

Client ID: MWAOC-2

Sample Info: 9705477-02

Column phase: DB-VRX

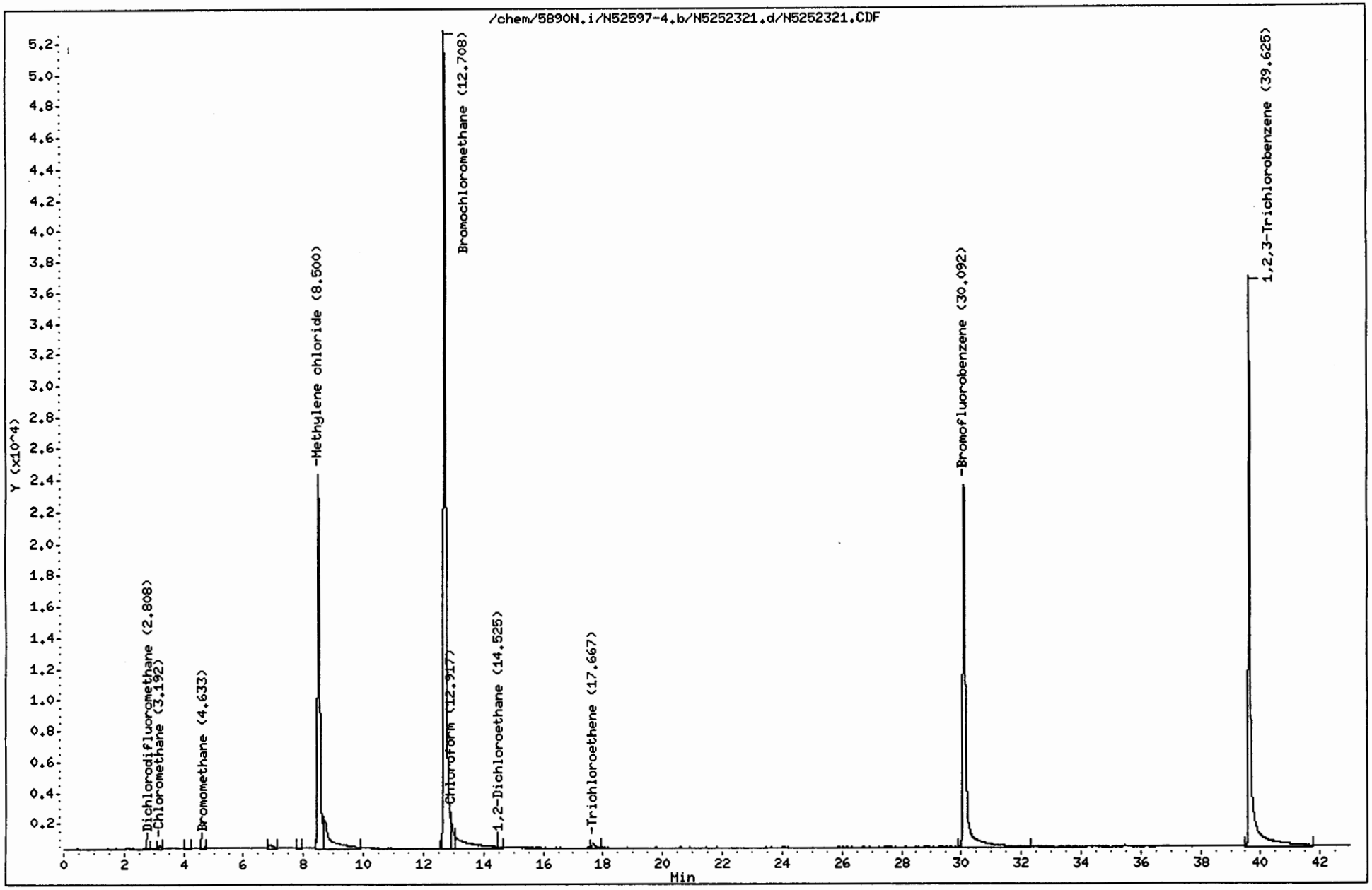
Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45







Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-4.b/N5252321.d
Injection Date : 26-MAY-97 05:51:00
Sample Info : 9705477-02
Misc. Info : None
Laboratory ID : 9705477-02 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 511HVB11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 23 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

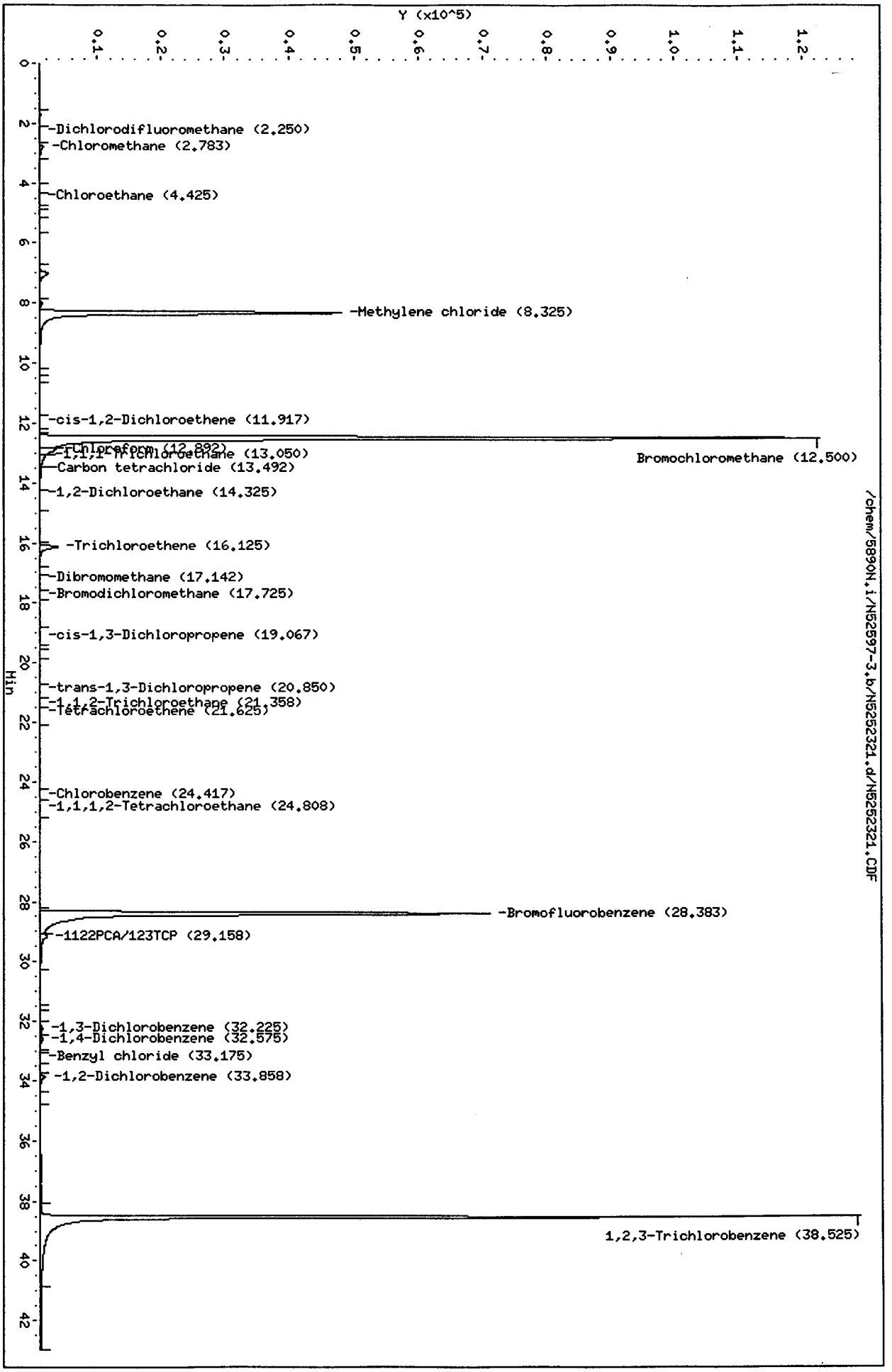
| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.81 | 2.71 - 2.81 | 743 | M | 0.32895 | 0.427 |
| Chloromethane | 3.19 | 3.13 - 3.23 | 1668 | | 0.38964 | 0.506 |
| | 4.08 | | 1179 | | | |
| Bromomethane | 4.63 | 4.55 - 4.65 | 1154 | | 0.81288 | 1.06 LRL |
| | 6.88 | | 3402 | | | |
| | 7.87 | | 1011 | | | |
| Methylene chloride | 8.50 | 8.45 - 8.55 | 126573 | | 23.414 | 30.4 |
| | 8.72 | | 34576 | | | |
| Bromochloromethane | 12.71 | 12.65 - 12.75 | 298200 | M | 78.154 | 101 |
| Chloroform | 12.92 | 12.89 - 12.99 | 9932 | M | 1.4453 | 1.88 LRL |
| | 13.04 | | 26603 | | | |
| 1,2-Dichloroethane | 14.52 | 14.47 - 14.67 | 1069 | | 0.27069 | 0.352 |
| Trichloroethene | 17.67 | 17.57 - 17.77 | 2834 | | 0.49851 | 0.647 |
| Bromofluorobenzene | 30.09 | 29.99 - 30.19 | 168249 | M | 130.39 | 169 |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 207778 | M | 78.504 | 102 |

MA 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data : /chem/5890N.i/N52597-3.b/N52523 21.d
Date : 26-MAY-97 05:51:00
Client ID: MWAOC-2
Sample Info: 9705477-02
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




Pag

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-3.b/N5252321.d
Injection Date : 26-MAY-97 05:51:00
Sample Info : 9705477-02
Misc. Info : None
Laboratory ID : 9705477-02 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 511HVA11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 23 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 1.69 | | 1461 | | | |
| Dichlorodifluoromethane | 2.25 | 2.18 - 2.28 | 444 | M | 0.059123 | 0.0768 |
| Chloromethane | 2.78 | 2.69 - 2.79 | 6224 | M | 0.99386 | 1.29 |
| | 3.19 | | 1992 | | | |
| | 4.16 | | 913 | | | |
| Chloroethane | 4.42 | 4.37 - 4.47 | 1170 | | 0.13448 | 0.175 |
| | 4.93 | | 629 | | | |
| | 5.28 | | 1230 | | | |
| | 7.02 | | 16198 | | | |
| | 7.99 | | 3682 | | | |
| Methylene chloride | 8.32 | 8.27 - 8.37 | 337310 | | 36.599 | 47.5 |
| | 10.28 | | 368 | | | |
| | 10.44 | | 229 | | | |
| cis-1,2-Dichloroethene | 11.92 | 11.78 - 11.98 | 156 | M | 0.0098968 | 0.0128 |
| Bromochloromethane | 12.50 | 12.40 - 12.60 | 882707 | | 76.686 | 99.6 |
| Chloroform | 12.89 | 12.81 - 13.01 | 24784 | M | 1.3024 | 1.69 |
| 1,1,1-Trichloroethane | 13.05 | 13.04 - 13.24 | 14038 | M | 0.79178 | 1.03 |
| Carbon tetrachloride | 13.49 | 13.48 - 13.68 | 5498 | M | 0.29801 | 0.387 |
| 1,2-Dichloroethane | 14.32 | 14.22 - 14.42 | 2439 | | 0.16798 | 0.218 |
| Trichloroethene | 16.12 | 16.02 - 16.22 | 24252 | | 1.4602 | 1.90 |
| | 16.82 | | 372 | | | |
| Dibromomethane | 17.14 | 16.94 - 17.14 | 568 | M | 0.070477 | 0.0915 |
| Bromodichloromethane | 17.72 | 17.58 - 17.78 | 396 | M | 0.029716 | 0.0386 |
| | 17.96 | | 803 | | | |
| cis-1,3-Dichloropropene | 19.07 | 18.92 - 19.12 | 596 | M | 0.047809 | 0.0621 |
| | 19.40 | | 117 | | | |
| | 19.52 | | 183 | | | |
| trans-1,3-Dichloropropene | 20.85 | 20.72 - 20.92 | 368 | M | 0.034440 | 0.0447 |
| 1,1,2-Trichloroethane | 21.36 | 21.22 - 21.42 | 298 | M | 0.021758 | 0.0282 |
| Tetrachloroethene | 21.62 | 21.50 - 21.70 | 586 | | 0.033090 | 0.0430 |
| Chlorobenzene | 24.42 | 24.27 - 24.47 | 312 | M | 0.048265 | 0.0627 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252321.d
Injection Date : 26-MAY-97 05:51:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 24.81 | 24.64 - 24.84 | 716 | 0.039670 | 0.0515 |
| Bromofluorobenzene | 28.38 | 28.29 - 28.49 | 566491 | 130.90 | 170 |
| 1122PCA/123TCP | 29.16 | 29.04 - 29.24 | 22492 | 2.5300 | 3.28 |
| | 31.51 | | 590 | | |
| 1,3-Dichlorobenzene | 32.22 | 32.10 - 32.30 | 4135 | 0.48204 | 0.626 |
| 1,4-Dichlorobenzene | 32.58 | 32.45 - 32.65 | 4940 | 0.52289 | 0.679 |
| Benzyl chloride | 33.18 | 33.04 - 33.24 | 1566 | 0.54386 | 0.706 |
| 1,2-Dichlorobenzene | 33.86 | 33.73 - 33.93 | 8439 | 0.94596 | 1.23 |
| | 37.82 | | 19259 | | |
| 1,2,3-Trichlorobenzene | 38.52 | 38.42 - 38.62 | 678491 | 76.273 | 99.0 |
| | 40.91 | | 16976 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 21

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-03

Lab File ID: N5252421.D

Date Collected: 05/13/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2.5 | U | 2.5 |
| 74-87-3 | Chloromethane | 2.5 | U | 2.5 |
| 75-01-4 | Vinyl chloride | 2.5 | U | 2.5 |
| 74-83-9 | Bromomethane | 5.1 | U | 5.1 |
| 75-00-3 | Chloroethane | 2.5 | U | 2.5 |
| 75-69-4 | Trichlorofluoromethane | 2.5 | U | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | 2.5 | U | 2.5 |
| 75-09-2 | Methylene chloride | 38 | U | 38 |
| 156-60-5 | trans-1,2-Dichloroethene | 2.5 | U | 2.5 |
| 75-34-3 | 1,1-Dichloroethane | 2.5 | U | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | 2.5 | U | 2.5 |
| 67-66-3 | Chloroform | 2.5 | U | 2.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 2.5 | U | 2.5 |
| 56-23-5 | Carbon tetrachloride | 2.5 | U | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | 37 | | 2.5 |
| 79-01-6 | Trichloroethene | 2.5 | U | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | 2.5 | U | 2.5 |
| 74-95-3 | Dibromomethane | 2.5 | U | 2.5 |
| 75-27-4 | Bromodichloromethane | 2.5 | U | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2.5 | U | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2.5 | U | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 2.5 | U | 2.5 |
| 127-18-4 | Tetrachloroethene | 2.5 | U | 2.5 |
| 124-48-1 | Chlorodibromomethane | 2.5 | U | 2.5 |
| 108-90-7 | Chlorobenzene | 2.5 | U | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2.5 | U | 2.5 |
| 75-25-2 | Bromoform | 2.5 | U | 2.5 |
| 108-86-1 | Bromobenzene | 10 | U | 10 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.5 | U | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.5 | U | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.5 | U | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.5 | U | 2.5 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0803

Matrix: (soil/water) SOIL

Lab Sample ID: 9705477-03

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5252421.D

% Moisture: 21

Date Collected: 05/13/97

Extraction: PURGE&TRAP

Date Received: 05/15/97

Date Prepared: 05/25/97

Dilution Factor: 1.0

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 5.1 | U | 5.1 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.5 | U | 2.5 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705477-03

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5252421.d  File (2): N5252421.d

Date Analyzed (1) 05/26/97  Date Analyzed (2): 05/26/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/kg | %D |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | 1 | 14.31 | 14.22 | 14.42 | 36.8 X | 16 |
| | 2 | 14.57 | 14.47 | 14.67 | 42.7 | |

X = Concentration Reported

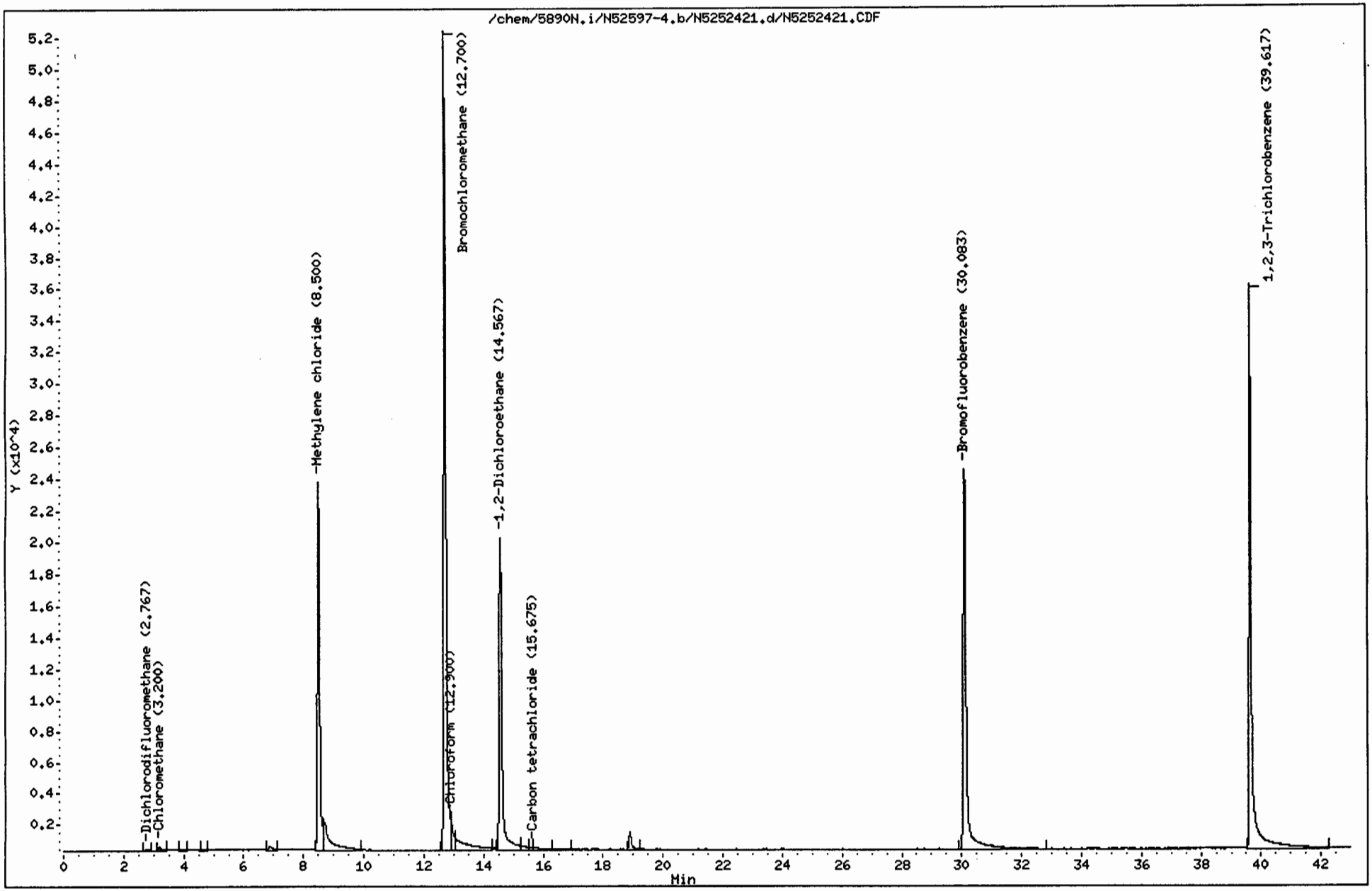
Data : /chem/5890N.i/N52597-4.b/N5252421.d
Date : 26-MAY-97 06:39:00
Client ID: MWAOC-3
Sample Info: 9705477-03

Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-4.b/N5252421.d
Injection Date : 26-MAY-97 06:39:00
Sample Info : 9705477-03
Misc. Info : None
Laboratory ID : 9705477-03 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 511HVB11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 21 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

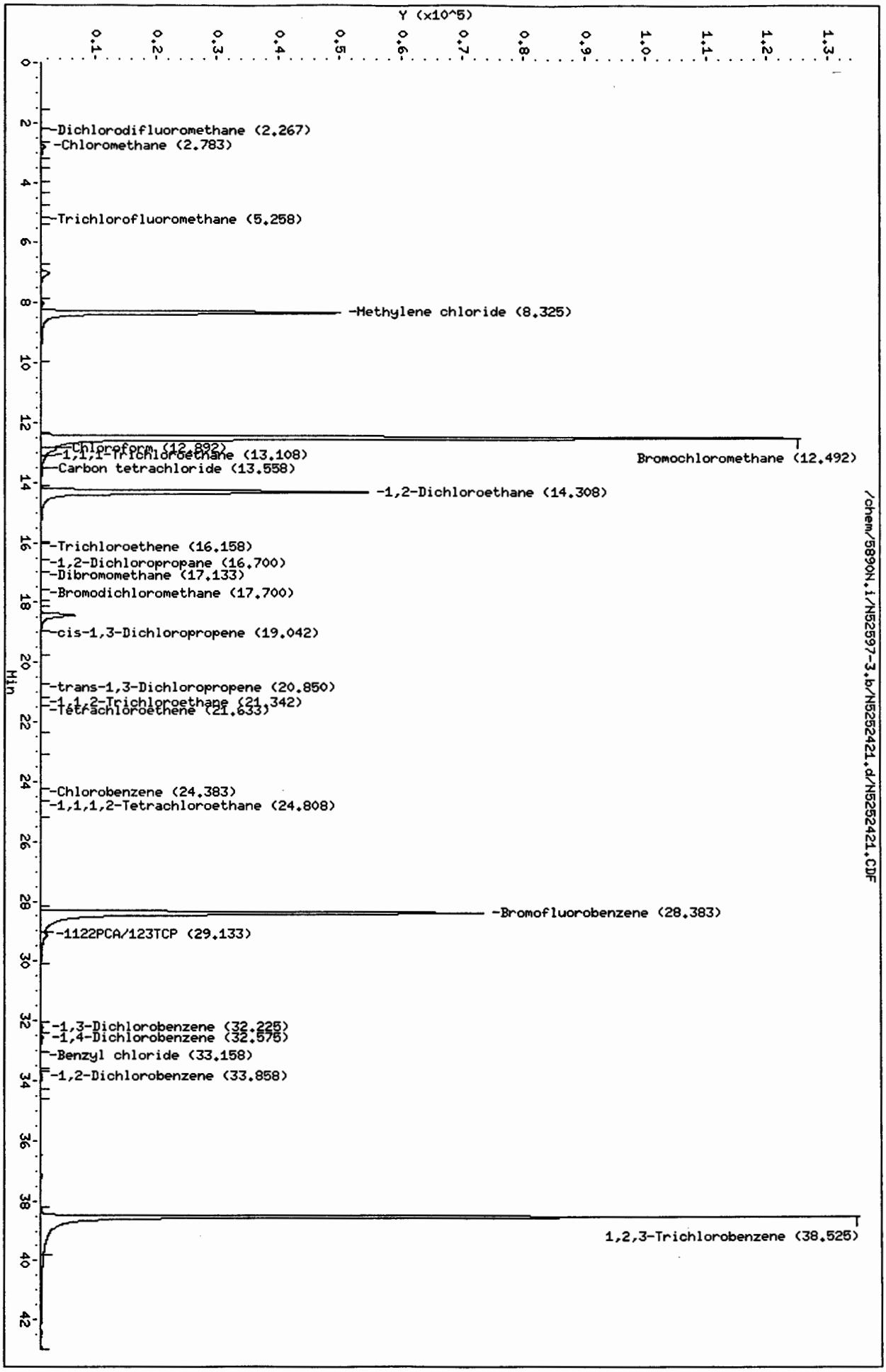
| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg | |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.77 | 2.71 - 2.81 | 883 | M | 0.39093 | ~~0.495~~ | |
| Chloromethane | 3.20 | 3.13 - 3.23 | 2337 | | 0.54592 | ~~0.691~~ | |
| | 4.00 | | 1272 | | | | |
| | 4.68 | | 1202 | | | | <RL |
| | 6.86 | | 2911 | | | | |
| Methylene chloride | 8.50 | 8.45 - 8.55 | 121373 | | ~~22.452~~ | 28.4 | |
| | 8.72 | | 32005 | | | | |
| Bromochloromethane | 12.70 | 12.65 - 12.75 | 288668 | M | 75.657 | 95.8 | |
| Chloroform | 12.90 | 12.89 - 12.99 | 13254 | M | ~~1.9286~~ | ~~2.44~~ | <RL |
| | 13.08 | | 23453 | | | | |
| 1,2-Dichloroethane | 14.57 | 14.47 - 14.67 | 133274 | | 33.747 | 42.7 | Cont |
| | 15.28 | | 3696 | | | | |
| | 15.55 | | 1457 | | | | |
| Carbon tetrachloride | 15.68 | 15.55 - 15.75 | 4456 | M | ~~0.71390~~ | ~~0.904~~ | <RL |
| | 16.42 | | 2279 | | | | |
| | 18.90 | | 7386 | | | | |
| Bromofluorobenzene | 30.08 | 29.99 - 30.19 | 176559 | M | 136.83 | 173 | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 214087 | M | 80.888 | 102 | |

6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data : /chem/5890N.i/N52597-3.b/N52524 21.d
Date : 26-MAY-97 06:39:00
Client ID: MWAOC-3
Sample Info: 9705477-03
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-3.b/N5252421.d
Injection Date : 26-MAY-97 06:39:00
Sample Info : 9705477-03
Misc. Info : None
Laboratory ID : 9705477-03 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 511HVA11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 21 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 1.71 | | 832 | | | |
| Dichlorodifluoromethane | 2.27 | 2.18 - 2.28 | 226 | M | 0.030029 | 0.0380 |
| Chloromethane | 2.78 | 2.69 - 2.79 | 6480 | M | 1.0347 | 1.31 |
| | 3.18 | | 826 | | | |
| | 3.54 | | 752 | | | |
| | 4.17 | | 791 | | | |
| | 4.48 | | 1064 | | | |
| Trichlorofluoromethane | 5.26 | 5.18 - 5.28 | 845 | | 0.070501 | 0.0892 |
| | 7.01 | | 17310 | | | |
| | 8.00 | | 3729 | | | |
| Methylene chloride | 8.32 | 8.27 - 8.37 | 345302 | | 37.466 | 47.4 |
| Bromochloromethane | 12.49 | 12.40 - 12.60 | 898139 | | 78.026 | 98.8 |
| Chloroform | 12.89 | 12.81 - 13.01 | 27791 | M | 1.4604 | 1.85 |
| 1,1,1-Trichloroethane | 13.11 | 13.04 - 13.24 | 10676 | M | 0.60210 | 0.762 |
| Carbon tetrachloride | 13.56 | 13.48 - 13.68 | 4678 | M | 0.25356 | 0.321 |
| 1,2-Dichloroethane | 14.31 | 14.22 - 14.42 | 422074 | | 29.070 | 36.8 |
| Trichloroethene | 16.16 | 16.02 - 16.22 | 1996 | | 0.12018 | 0.152 |
| 1,2-Dichloropropane | 16.70 | 16.61 - 16.81 | 1006 | M | 0.073064 | 0.0925 |
| Dibromomethane | 17.13 | 16.94 - 17.14 | 1314 | M | 0.16333 | 0.207 |
| Bromodichloromethane | 17.70 | 17.58 - 17.78 | 630 | | 0.047394 | 0.0600 |
| | 18.01 | | 266 | | | |
| | 18.42 | | 47008 | | | |
| cis-1,3-Dichloropropene | 19.04 | 18.92 - 19.12 | 2440 | | 0.19573 | 0.248 |
| trans-1,3-Dichloropropene | 20.85 | 20.72 - 20.92 | 577 | | 0.054000 | 0.0684 |
| 1,1,2-Trichloroethane | 21.34 | 21.22 - 21.42 | 412 | M | 0.030009 | 0.0380 |
| Tetrachloroethene | 21.63 | 21.50 - 21.70 | 1344 | | 0.075893 | 0.0961 |
| | 22.67 | | 716 | | | |
| Chlorobenzene | 24.38 | 24.27 - 24.47 | 338 | M | 0.052300 | 0.0662 |
| 1,1,1,2-Tetrachloroethane | 24.81 | 24.64 - 24.84 | 565 | | 0.031304 | 0.0396 |
| Bromofluorobenzene | 28.38 | 28.29 - 28.49 | 570437 | | 131.81 | 167 |
| 1122PCA/123TCP | 29.13 | 29.04 - 29.24 | 23795 | | 2.6766 | 3.39 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5252421.d
Injection Date : 26-MAY-97 06:39:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 30.32 | | 9825 | | | |
| 1,3-Dichlorobenzene | 32.22 | 32.10 - 32.30 | 4053 | | 0.47248 | 0.598 |
| 1,4-Dichlorobenzene | 32.58 | 32.45 - 32.65 | 5744 | | 0.60799 | 0.770 |
| Benzyl chloride | 33.16 | 33.04 - 33.24 | 2342 | | 0.81336 | 1.03 |
| | 33.67 | | 523 | | | |
| 1,2-Dichlorobenzene | 33.86 | 33.73 - 33.93 | 4459 | | 0.49982 | 0.633 |
| | 37.20 | | 18165 | | | |
| 1,2,3-Trichlorobenzene | 38.52 | 38.42 - 38.62 | 687328 | M | 77.267 | 97.8 |
| | 39.86 | | 35441 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) SOIL

Sample wt/vol: 1 (g/ml) g

% Moisture: 22

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0803

Lab Sample ID: 9705477-04

Lab File ID: N5252521.D

Date Collected: 05/13/97

Date Received: 05/15/97

Date Prepared: 05/25/97

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2.6 | U | 2.6 |
| 74-87-3 | Chloromethane | 2.6 | U | 2.6 |
| 75-01-4 | Vinyl chloride | 2.6 | U | 2.6 |
| 74-83-9 | Bromomethane | 5.1 | U | 5.1 |
| 75-00-3 | Chloroethane | 2.6 | U | 2.6 |
| 75-69-4 | Trichlorofluoromethane | 2.6 | U | 2.6 |
| 75-35-4 | 1,1-Dichloroethene | 2.6 | U | 2.6 |
| 75-09-2 | Methylene chloride | 38 | U | 38 |
| 156-60-5 | trans-1,2-Dichloroethene | 2.6 | U | 2.6 |
| 75-34-3 | 1,1-Dichloroethane | 2.6 | U | 2.6 |
| 156-59-2 | cis-1,2-Dichloroethene | 2.6 | U | 2.6 |
| 67-66-3 | Chloroform | 2.6 | U | 2.6 |
| 71-55-6 | 1,1,1-Trichloroethane | 2.6 | U | 2.6 |
| 56-23-5 | Carbon tetrachloride | 2.6 | U | 2.6 |
| 107-06-2 | 1,2-Dichloroethane | 2.6 | U | 2.6 |
| 79-01-6 | Trichloroethene | 2.6 | U | 2.6 |
| 78-87-5 | 1,2-Dichloropropane | 2.6 | U | 2.6 |
| 74-95-3 | Dibromomethane | 2.6 | U | 2.6 |
| 75-27-4 | Bromodichloromethane | 2.6 | U | 2.6 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2.6 | U | 2.6 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2.6 | U | 2.6 |
| 79-00-5 | 1,1,2-Trichloroethane | 2.6 | U | 2.6 |
| 127-18-4 | Tetrachloroethene | 2.6 | U | 2.6 |
| 124-48-1 | Chlorodibromomethane | 2.6 | U | 2.6 |
| 108-90-7 | Chlorobenzene | 2.6 | U | 2.6 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2.6 | U | 2.6 |
| 75-25-2 | Bromoform | 2.6 | U | 2.6 |
| 108-86-1 | Bromobenzene | 10 | U | 10 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.6 | U | 2.6 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.6 | U | 2.6 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.6 | U | 2.6 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.6 | U | 2.6 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0803

Matrix: (soil/water) SOIL

Lab Sample ID: 9705477-04

Sample wt/vol: 1 (g/ml) g

Lab File ID: N5252521.D

% Moisture: 22

Date Collected: 05/13/97

Extraction: PURGE&TRAP

Date Received: 05/15/97

Date Prepared: 05/25/97

Dilution Factor: 1.0

Date Analyzed: 05/26/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/kg | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 5.1 | U | 5.1 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.6 | U | 2.6 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-4**

| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9705477-04 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N5252521.d | File (2): | N5252521.d |
| Date Analyzed (1) | 05/26/97 | Date Analyzed (2): | 05/26/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/kg | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data : /chem/5890N.i/N52597-4.b/N5252521.d

Date : 26-MAY-97 07:26:00

Client ID: MWADC-4

Sample Info: 9705477-04

Column phase: DB-VRX

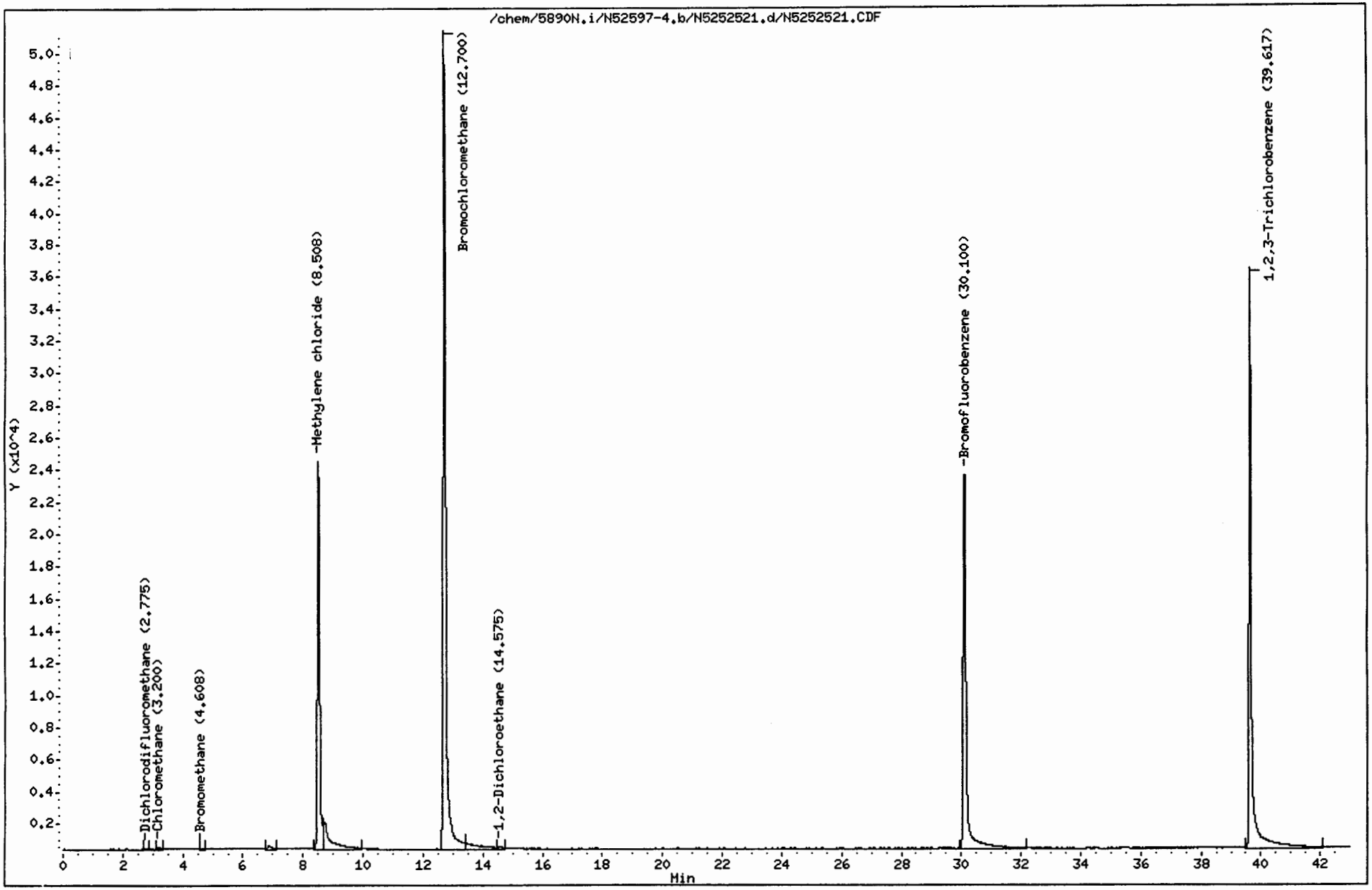
Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45







Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-4.b/N5252521.d
Injection Date : 26-MAY-97 07:26:00
Sample Info : 9705477-04
Misc. Info : None
Laboratory ID : 9705477-04 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 511HVB11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 22 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

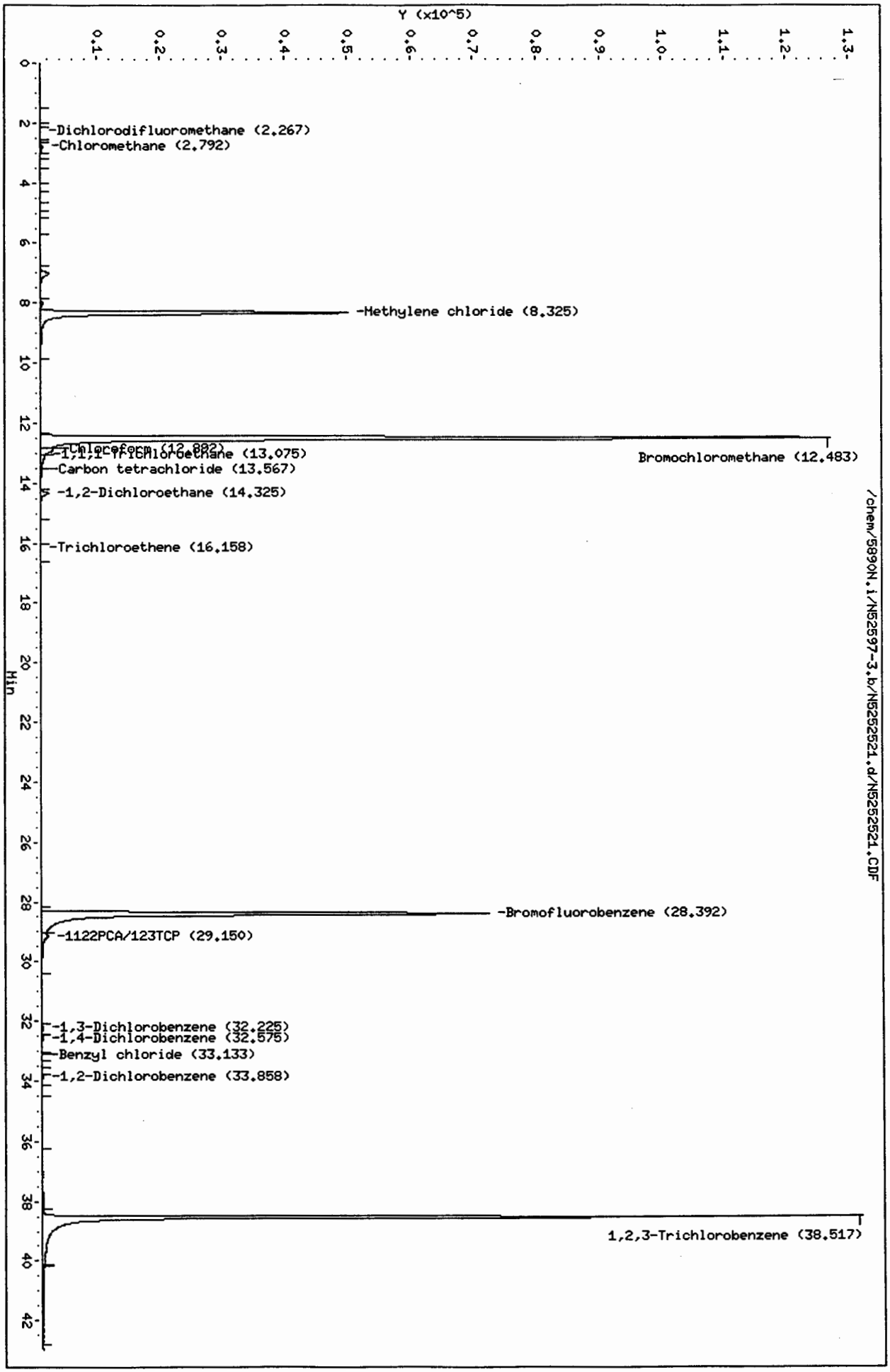
| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.78 | 2.71 - 2.81 | 728 | M | 0.32231 | ~~0.413~~ |
| Chloromethane | 3.20 | 3.13 - 3.23 | 1698 | | 0.39665 | ~~0.508~~ |
| Bromomethane | 4.61 | 4.55 - 4.65 | 1031 | | 0.72624 | ~~0.931~~ <RL |
| | 6.88 | | 3035 | | | |
| Methylene chloride | 8.51 | 8.45 - 8.55 | 124839 | | ~~23.093~~ | 29.6 |
| | 8.71 | | 33055 | | | |
| Bromochloromethane | 12.70 | 12.65 - 12.75 | 317178 | | 83.129 | 106 |
| | 13.41 | | 14072 | | | |
| 1,2-Dichloroethane | 14.58 | 14.47 - 14.67 | 2441 | | ~~0.61810~~ | ~~0.793~~ <RL |
| Bromofluorobenzene | 30.10 | 29.99 - 30.19 | 167835 | M | 130.06 | 167 |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 210754 | M | 79.629 | 102 |

6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data : /chem/5890N.i/N52597-3.b/N5252521.d
Date : 26-MAY-97 07:26:00
Client ID: MWAOC-4
Sample Info: 9705477-04
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




/chem/5890N.i/N52597-3.b/N5252521.d/N5252521.CDF

Page

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52597-3.b/N5252521.d
Injection Date : 26-MAY-97 07:26:00
Sample Info : 9705477-04
Misc. Info : None
Laboratory ID : 9705477-04 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 511HVA11.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleWeight: 1 g
Moisture : 22 %
FinalVolume : 1.e+004 ul
AliquotVol : 100 ul

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/Kg |
|---|---|---|---|---|---|---|
| | 1.71 | | 736 | | | |
| Dichlorodifluoromethane | 2.27 | 2.18 - 2.28 | 256 | M | 0.034166 | 0.0438 |
| Chloromethane | 2.79 | 2.69 - 2.79 | 4004 | M | 0.63936 | 0.820 |
| | 2.99 | | 1046 | | | |
| | 3.23 | | 678 | | | |
| | 4.17 | | 599 | | | |
| | 4.75 | | 564 | | | |
| | 5.29 | | 1569 | | | |
| | 7.02 | | 16364 | | | |
| | 7.99 | | 3954 | | | |
| Methylene chloride | 8.32 | 8.27 - 8.37 | 342116 | | 37.120 | 47.6 |
| Bromochloromethane | 12.48 | 12.40 - 12.60 | 908985 | | 78.969 | 101 |
| Chloroform | 12.89 | 12.81 - 13.01 | 22680 | M | 1.1918 | 1.53 |
| 1,1,1-Trichloroethane | 13.08 | 13.04 - 13.24 | 10820 | M | 0.61028 | 0.782 |
| Carbon tetrachloride | 13.57 | 13.48 - 13.68 | 4598 | M | 0.24917 | 0.319 |
| 1,2-Dichloroethane | 14.32 | 14.22 - 14.42 | 12401 | | 0.85410 | 1.10 |
| Trichloroethene | 16.16 | 16.02 - 16.22 | 860 | | 0.051782 | 0.0664 |
| Bromofluorobenzene | 28.39 | 28.29 - 28.49 | 566518 | | 130.91 | 168 |
| 1122PCA/123TCP | 29.15 | 29.04 - 29.24 | 20765 | | 2.3357 | 2.99 |
| | 30.51 | | 4984 | | | |
| 1,3-Dichlorobenzene | 32.22 | 32.10 - 32.30 | 1974 | | 0.23012 | 0.295 |
| 1,4-Dichlorobenzene | 32.58 | 32.45 - 32.65 | 3021 | | 0.31976 | 0.410 |
| Benzyl chloride | 33.13 | 33.04 - 33.24 | 681 | | 0.23650 | 0.303 |
| | 33.42 | | 501 | | | |
| 1,2-Dichlorobenzene | 33.86 | 33.73 - 33.93 | 1518 | | 0.17016 | 0.218 |
| | 34.22 | | 981 | | | |
| | 38.21 | | 11671 | | | |
| 1,2,3-Trichlorobenzene | 38.52 | 38.42 - 38.62 | 674198 | | 75.791 | 97.2 |
| | 40.14 | | 26025 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

COMPANY: Fluor Daniel GTF
ADDRESS: 2501 Yale Blvd SE, #204
ALBQ, NM 87106
ATTENTION: Chuck Schick
PROJECT NAME: HAFB AOC-1001 D08WAD29
PROJECT CONTACT: Chuck Schick
TELEPHONE: 505-242-3113 FAX: 505-242-1103
JOB/P.O. NO.: 812200082903

# CHAIN OF CUSTODY RECORD

01828

SDG # _____

PAGE 1 OF _____

WORK ORDER ID# 9705477

**Laucks Testing Laboratories, Inc.**

SUBMITTED AT:
☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

TESTS TO PERFORM

| LAB SA# | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | BTEX, Chlorobenzene & 1,2-DCA by 8010/8020 | OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|
| 1 | MWAOC-1 | 5/12/97 | 1230 | Soil | 2 | X | 30-32 ft |
| 2 | MWAOC-2 | ↓ | 1700 | ↓ | 2 | X | 20-22 ft |
| 3 | MWAOC-3 | 5/13/97 | 1515 | ↓ | 2 | X | 18-20 ft |
| 4 | MWAOC-4 | ↓ | 1100 | ↓ | 2 | X | 15-17 ft |

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS
1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

*BILLING INFORMATION, IF DIFFERENT THAN ABOVE
NAME
ADDRESS
ATTN:
CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

8 TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
☒ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☐ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER: _____
☐ TEMP: _____

| RELINQUISHED BY (SIGN AND PRINT) | DATE / TIME | RECEIVED BY (SIGN AND PRINT) | DATE / TIME |
|---|---|---|---|
| Charles Madewell | 5/14/97 1400 | | |
| | | Rosemary Adams | 5/15/97 8:45 |

CUSTODY SEAL: ☐ Y ☐ N ☐ N/A

# APPENDIX E
## Groundwater Laboratory Analytical Reports

RECEIVED

SEP 0 6 1996

**NEI/GTEL**
ENVIRONMENTAL LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

September 5, 1996

Terry Bennett
Fluor Daniel GTI
2501 Yale Blvd. S.E.
Albuquerque, NM 87106

---

| | |
|---|---|
| RE: GTEL Client ID: | 8722000829 |
| Login Number: | W6060491 |
| Project ID (number): | 8722000829 |
| Project ID (name): | Holloman Air Force Base/AOC1001 |

---

Dear Terry Bennett:

This report, previously dated 07/16/96, is a reissue.

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 06/28/96 under Chain-of-Custody Number(s) 42303.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

John O. Sander
QA Manager for,

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-01 | -- | -- | -- |
| Client ID | TRIP BLANK | -- | -- | -- |
| Date Sampled | | -- | -- | -- |
| Date Analyzed | 07/12/96 | -- | -- | -- |
| Dilution Factor | 1.00 | -- | -- | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/L | < 10. | -- | -- | -- |
| Bromomethane | 10. | ug/L | < 10. | -- | -- | -- |
| Vinyl chloride | 10. | ug/L | < 10. | -- | -- | -- |
| Chloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Methylene chloride | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Acetone | 100 | ug/L | < 100 | -- | -- | -- |
| Carbon disulfide | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Vinyl acetate | 20. | ug/L | < 20. | -- | -- | -- |
| 1,1-Dichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Butanone | 50. | ug/L | < 50. | -- | -- | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Chloroform | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Carbon tetrachloride | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Benzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,2-Dichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Trichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,2-Dichloropropane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Bromodichloromethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Chloroethylvinyl ether | 10. | ug/L | < 10. | -- | -- | -- |
| 4-Methyl-2-pentanone | 50. | ug/L | < 50. | -- | -- | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Toluene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Hexanone | 50. | ug/L | < 50. | -- | -- | -- |
| Tetrachloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Dibromochloromethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Chlorobenzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Ethylbenzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| m+p-Xylene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| o-Xylene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Styrene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Bromoform | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,3-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |
| 1,4-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-01 | -- | -- | -- |
| Client ID | TRIP BLANK | -- | -- | -- |
| Date Sampled | | -- | -- | -- |
| Date Analyzed | 07/12/96 | -- | -- | -- |
| Dilution Factor | 1.00 | -- | -- | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

| Conformance Item | Volatile Organics | Semi-Volatile Organics | Inorganics (MT, WC) |
|---|---|---|---|
| GC/MS Tune | -- | -- | NA |
| Initial Calibration | -- | -- | -- |
| Continuing Calibration | -- | -- | -- |
| Surrogate Recovery | X | -- | NA |
| Holding Time | X | -- | -- |
| Method Accuracy | X | -- | -- |
| Method Precision | X | -- | -- |
| Blank Contamination | X | -- | -- |

Comments:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Surrogate Results

| QC Batch No. | Reference | Sample ID | DBFM | TOL-D8 | 4-BFB |
|---|---|---|---|---|---|
| Method: EPA 8260A | | Acceptability Limits: | 80-120% | 88-110% | 86-115% |
| 071096RJG-1 | BW071096HP4 | Method Blank Water | 97.6 | 101. | 106. |
| 071096RJG-2 | LW071096HP4 | Laboratory Control | 98.1 | 102. | 105. |
| 071096RJG-3 | LWD071096HP4 | LCS Water Duplicat | 97.5 | 101. | 107. |
| 071096RJG-4 | BW071196HP4B | Method Blank Water | 100. | 99.7 | 103. |
| 071096RJG-5 | MS07012301 | Matrix Spike | 93.2 | 101. | 99.9 |
| 071096RJG-6 | MD07012301 | Matrix Spike Dupli | 96.1 | 99.9 | 104. |
| -- | 06049101 | TRIP BLANK | 94.5 | 101. | 101. |
| -- | 06049105 | 1001-GP01 | 100. | 95.0 | 102. |
| -- | 06049109 | 1001-GP02 | 87.2 | 102. | 107. |
| -- | 06049114 | 1001-GP06 | 103. | 95.2 | 108. |
| -- | 06049118 | 1001-GP07 | 99.8 | 93.8 | 102. |
| -- | 06049119 | 1001-GP07DUP | 102. | 97.7 | 100. |
| -- | 06049123 | 1001-GP08 | 95.1 | 96.1 | 106. |
| -- | 06049124 | 1001-GP03 | 95.3 | 98.6 | 104. |
| -- | 06049131 | 1001-GP04 | 101. | 95.2 | 104. |
| -- | 06049132 | 1001-GP05 | 97.1 | 94.7 | 103. |

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Method Blank Results

| QC Batch No: | 071096RJG-1 | 071096RJG-4 |
|---|---|---|
| Date Analyzed: | 10-JUL-96 | 12-JUL-96 |
| Analyte | Method:EPA 8260A | Concentration: ug/L |
| Dichlorodifluoromethane | < 10.0 | < 10.0 |
| Chloromethane | < 10.0 | < 10.0 |
| Dichlorofluoromethane | < 10.0 | < 10.0 |
| Bromomethane | < 10.0 | < 10.0 |
| Vinyl chloride | < 2.00 | < 2.00 |
| Iodomethane | < 5.00 | < 5.00 |
| Chloroethane | < 10.0 | < 10.0 |
| Trichlorofluoromethane | < 5.00 | < 5.00 |
| Allyl Chloride | < 10.0 | < 10.0 |
| Acrolein | < 20.0 | < 20.0 |
| 1,1-Dichloroethene | < 5.00 | < 5.00 |
| Methylene chloride | < 5.00 | < 5.00 |
| Acetone | < 20.0 | < 20.0 |
| Carbon disulfide | < 5.00 | < 5.00 |
| Acrylonitrile | < 20.0 | < 20.0 |
| MTBE | < 5.00 | < 5.00 |
| trans-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Vinyl acetate | < 20.0 | < 20.0 |
| 1,1-Dichloroethane | < 5.00 | < 5.00 |
| 2-Butanone | < 20.0 | < 20.0 |
| 2,2-Dichloropropane | < 5.00 | < 5.00 |
| cis-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Chloroform | < 5.00 | < 5.00 |
| Bromochloromethane | < 5.00 | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 | < 5.00 |
| 1,1-Dichloropropene | < 5.00 | < 5.00 |
| Carbon tetrachloride | < 5.00 | < 5.00 |
| Benzene | < 5.00 | < 5.00 |
| 1,2-Dichloroethane | < 5.00 | < 5.00 |
| Trichloroethene | < 5.00 | < 5.00 |
| Methacrylonitrile | < 5.00 | < 5.00 |
| 1,2-Dichloropropane | < 5.00 | < 5.00 |
| Bromodichloromethane | < 5.00 | < 5.00 |
| Dibromomethane | < 5.00 | < 5.00 |
| Methyl methacrylate | < 5.00 | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 | < 10.0 |
| 4-Methyl-2-pentanone | < 20.0 | < 20.0 |
| cis-1,3-Dichloropropene | < 5.00 | < 5.00 |
| Toluene | < 5.00 | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 | < 5.00 |
| 1,2-Dibromoethane | < 5.00 | < 5.00 |
| 2-Hexanone | < 20.0 | < 20.0 |
| Tetrachloroethene | < 5.00 | < 5.00 |

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

QUALITY CONTROL RESULTS

Volatile Organic
Method: EPA 8260.
Matrix: Aqueou

Method Blank Results

| | | |
|---|---|---|
| 1,3-Dichloropropane | < 5.00 | < 5.00 |
| Dibromochloromethane | < 5.00 | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 | < 5.00 |
| Chlorobenzene | < 5.00 | < 5.00 |
| Ethylbenzene | < 5.00 | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 | < 5.00 |
| m+p-Xylene | < 5.00 | < 5.00 |
| o-Xylene | < 5.00 | < 5.00 |
| Styrene | < 5.00 | < 5.00 |
| Bromoform | < 5.00 | < 5.00 |
| Isopropylbenzene | < 5.00 | < 5.00 |
| 1,1,2,2-Tetrachloroethane | < 5.00 | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 | < 5.00 |
| n-Propylbenzene | < 5.00 | < 5.00 |
| Bromobenzene | < 5.00 | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 | < 5.00 |
| 2-Chlorotoluene | < 5.00 | < 5.00 |
| 4-Chlorotoluene | < 5.00 | < 5.00 |
| tert-Butylbenzene | < 5.00 | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 | < 5.00 |
| sec-Butylbenzene | < 5.00 | < 5.00 |
| p-Isopropyltoluene | < 5.00 | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,4-Dichlorobenzene | < 10.0 | < 10.0 |
| n-Butylbenzene | < 5.00 | < 5.00 |
| 1,2-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,2-Dibromo-3-chloropropane | < 5.00 | < 5.00 |
| 1,2,4-Trichlorobenzene | < 5.00 | < 5.00 |
| Hexachloroethane | < 5.00 | < 5.00 |
| Hexachlorobutadiene | < 5.00 | < 5.00 |
| Naphthalene | < 5.00 | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 | < 5.00 |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organic
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6070123-01 MS ID:MS07012301 MSD ID:MD07012301
Analysis Date: 10-JUL-96 12-JUL-96 12-JUL-96

| Units: ug/L | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 49.2 | 98.4 | 50.7 | 101. | 2.60 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 56.5 | 113. | 56.8 | 114. | 0.900 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 48.5 | 97.0 | 50.1 | 100. | 3.00 | 14 | 71-120 |
| Toluene | < 5.00(0.000) | 50.0 | 50.0 | 51.4 | 103. | 51.8 | 104. | 1.00 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.000) | 50.0 | 50.0 | 48.6 | 97.2 | 49.8 | 99.6 | 2.40 | 13 | 75-130 |

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8260A
Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

| Analyte | Spike Amount | LCS Concentration | LCS Recovery, % | LCS Duplicate Concentration | LCS Duplicate Recovery, % | RPD, % | Acceptability Limits RPD, % | Acceptability Limits Recovery, % |
|---|---|---|---|---|---|---|---|---|
| EPA 8260A Units: ug/L | | QC Batch:071096RJG-3 | | | | | | |
| 1,1-Dichloroethene | 50.0 | 48.8 | 97.6 | 50.3 | 101. | 3.42 | 14 | 61-145% |
| Trichloroethene | 50.0 | 49.5 | 99.0 | 48.0 | 96.0 | 3.08 | 14 | 71-120% |
| Benzene | 50.0 | 58.7 | 117. | 58.2 | 116. | 0.858 | 11 | 76-127% |
| Toluene | 50.0 | 53.4 | 107. | 50.9 | 102. | 4.78 | 13 | 76-125% |
| Chlorobenzene | 50.0 | 49.6 | 99.2 | 48.1 | 96.2 | 3.07 | 13 | 75-130% |

Notes:

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| GTEL Sample Number | W6060491-05 | W6060491-09 | W6060491-14 | W6060491-18 |
|---|---|---|---|---|
| Client ID | 1001-GP01 | 1001-GP02 | 1001-GP06 | 1001-GP07 |
| Date Sampled | 06/24/96 | 06/24/96 | 06/25/96 | 06/26/96 |
| Date Analyzed | 06/28/96 | 06/28/96 | 06/28/96 | 06/28/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Acetone | 100 | ug/L | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/L | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 100 | ug/L | < 100 | < 100 | < 100 | < 100 |
| cis-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/L | < 5.0 | **7200** | **6000** | **1900** |
| 1,2-Dichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/L | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/L | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/L | < 5.0 | **890** | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/L | < 5.0 | **13.** | **18.** | < 5.0 |
| Styrene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| GTEL Sample Number | W6060491-05 | W6060491-09 | W6060491-14 | W6060491-18 |
|---|---|---|---|---|
| Client ID | 1001-GP01 | 1001-GP02 | 1001-GP06 | 1001-GP07 |
| Date Sampled | 06/24/96 | 06/24/96 | 06/25/96 | 06/26/96 |
| Date Analyzed | 06/28/96 | 06/28/96 | 06/28/96 | 06/28/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

**W6060491-14:**

GC/MS data indicates the presence of non-target hydrocarbons.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| GTEL Sample Number | W6060491-19 | W6060491-23 | W6060491-24 | W6060491-31 |
|---|---|---|---|---|
| Client ID | 1001-GP07DUP | 1001-GP08 | 1001-GP03 | 1001-GP04 |
| Date Sampled | 06/26/96 | 06/26/96 | 06/24/96 | 06/25/96 |
| Date Analyzed | 06/28/96 | 06/28/96 | 06/28/96 | 06/28/96 |
| Dilution Factor | 1.00 | 1.00 | 1.00 | 1.00 |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Bromomethane | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Vinyl chloride | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| Chloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Acetone | 100 | ug/L | < 100 | < 100 | < 100 | < 100 |
| Carbon disulfide | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl acetate | 20. | ug/L | < 20. | < 20. | < 20. | < 20. |
| 1,1-Dichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Butanone | 50. | ug/L | < 50. | < 50. | < 50. | < 50. |
| cis-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,1-Trichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5.0 | ug/L | **1600** | **570** | **3400** | **96.** |
| 1,2-Dichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloropropane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromodichloromethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Chloroethylvinyl ether | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| 4-Methyl-2-pentanone | 50. | ug/L | < 50. | < 50. | < 50. | < 50. |
| cis-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2-Trichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 2-Hexanone | 50. | ug/L | < 50. | < 50. | < 50. | < 50. |
| Tetrachloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Dibromochloromethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| m+p-Xylene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-Xylene | 5.0 | ug/L | < 5.0 | < 5.0 | **31.** | < 5.0 |
| Styrene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Bromoform | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,3-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |
| 1,4-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | < 10. |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | | |
|---|---|---|---|---|---|
| GTEL Sample Number | | W6060491-19 | W6060491-23 | W6060491-24 | W6060491-31 |
| Client ID | | 1001-GP07DUP | 1001-GP08 | 1001-GP03 | 1001-GP04 |
| Date Sampled | | 06/26/96 | 06/26/96 | 06/24/96 | 06/25/96 |
| Date Analyzed | | 06/28/96 | 06/28/96 | 06/28/96 | 06/28/96 |
| Dilution Factor | | 1.00 | 1.00 | 1.00 | 1.00 |
| Analyte | Reporting Limit / Units | Concentration: | | | |
| 1,2-Dichlorobenzene | 10. ug/L | < 10. | < 10. | < 10. | < 10. |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-32 | -- | -- | -- |
| Client ID | 1001-GP05 | -- | -- | -- |
| Date Sampled | 06/25/96 | -- | -- | -- |
| Date Analyzed | 06/28/96 | -- | -- | -- |
| Dilution Factor | 1.00 | -- | -- | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/L | < 10. | -- | -- | -- |
| Bromomethane | 10. | ug/L | < 10. | -- | -- | -- |
| Vinyl chloride | 10. | ug/L | < 10. | -- | -- | -- |
| Chloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Methylene chloride | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Acetone | 100 | ug/L | < 100 | -- | -- | -- |
| Carbon disulfide | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Vinyl acetate | 20. | ug/L | < 20. | -- | -- | -- |
| 1,1-Dichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Butanone | 50. | ug/L | < 50. | -- | -- | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Chloroform | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Carbon tetrachloride | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Benzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,2-Dichloroethane | 5.0 | ug/L | **140** | -- | -- | -- |
| Trichloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,2-Dichloropropane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Bromodichloromethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Chloroethylvinyl ether | 10. | ug/L | < 10. | -- | -- | -- |
| 4-Methyl-2-pentanone | 50. | ug/L | < 50. | -- | -- | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Toluene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 2-Hexanone | 50. | ug/L | < 50. | -- | -- | -- |
| Tetrachloroethene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Dibromochloromethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Chlorobenzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Ethylbenzene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| m+p-Xylene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| o-Xylene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Styrene | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| Bromoform | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/L | < 5.0 | -- | -- | -- |
| 1,3-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |
| 1,4-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6060491
Project ID (number): 8722000829
Project ID (name): Holloman Air Force Base/AOC1001

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6060491-32 | -- | -- | -- |
| Client ID | 1001-GP05 | -- | -- | -- |
| Date Sampled | 06/25/96 | -- | -- | -- |
| Date Analyzed | 06/28/96 | -- | -- | -- |
| Dilution Factor | 1.00 | -- | -- | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10. | ug/L | < 10. | -- | -- | -- |

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8260A:**

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.



GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client ID: 8722000829

QUALITY CONTROL RESULTS

Login Number: W6060491

Volatile Organics

Project ID (number): 8722000829

Method: EPA 8260/

Project ID (name): Holloman Air Force Base/AOC1001

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

| Conformance Item | Volatile Organics | Semi-Volatile Organics | Inorganics (MT, WC) |
|---|---|---|---|
| GC/MS Tune | -- | -- | NA |
| Initial Calibration | -- | -- | -- |
| Continuing Calibration | -- | -- | -- |
| Surrogate Recovery | X | -- | NA |
| Holding Time | X | -- | -- |
| Method Accuracy | X | -- | -- |
| Method Precision | -- | -- | -- |
| Blank Contamination | X | -- | -- |

Comments:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Surrogate Results

| QC Batch No. | Reference | Sample ID | DBFM | TOL-D8 | 4-BFB |
|---|---|---|---|---|---|
| Method: EPA 8260A | | Acceptability Limits: | 80-120% | 88-110% | 86-115% |
| 062896HP3-1 | BW062896HP3 | Method Blank Water | 103. | 98.0 | 99.2 |
| 062896HP3-2 | LW062896HP3 | Laboratory Control | 99.2 | 99.0 | 107. |
| 062896HP3-5 | BW070196HP3 | Method Blank Water | 107. | 97.9 | 105. |
| 062896HP3-6 | LW070196HP3 | Laboratory Control | 105. | 103. | 106. |
| -- | 06049105 | 1001-GP01 | 100. | 95.0 | 102. |
| -- | 06049109 | 1001-GP02 | 87.2 | 102. | 107. |
| -- | 06049114 | 1001-GP06 | 103. | 95.2 | 108. |
| -- | 06049118 | 1001-GP07 | 99.8 | 93.8 | 102. |
| -- | 06049119 | 1001-GP07DUP | 102. | 97.7 | 100. |
| -- | 06049123 | 1001-GP08 | 95.1 | 96.1 | 106. |
| -- | 06049124 | 1001-GP03 | 95.3 | 98.6 | 104. |
| -- | 06049131 | 1001-GP04 | 101. | 95.2 | 104. |
| -- | 06049132 | 1001-GP05 | 97.1 | 94.7 | 103. |

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Method Blank Results

| QC Batch No: | 062896HP3-1 | 062896HP3-5 |
|---|---|---|
| Date Analyzed: | 28-JUN-96 | 01-JUL-96 |
| Analyte | Method:EPA 8260A | Concentration: ug/L |
| Dichlorodifluoromethane | < 10.0 | < 10.0 |
| Chloromethane | < 10.0 | < 10.0 |
| Dichlorofluoromethane | < 10.0 | < 10.0 |
| Bromomethane | < 10.0 | < 10.0 |
| Vinyl chloride | < 2.00 | < 2.00 |
| Iodomethane | < 5.00 | < 5.00 |
| Chloroethane | < 10.0 | < 10.0 |
| Trichlorofluoromethane | < 5.00 | < 5.00 |
| Allyl Chloride | < 10.0 | < 10.0 |
| Acrolein | < 20.0 | < 20.0 |
| 1,1-Dichloroethene | < 5.00 | < 5.00 |
| Methylene chloride | < 5.00 | < 5.00 |
| Acetone | < 20.0 | < 20.0 |
| Carbon disulfide | < 5.00 | < 5.00 |
| Acrylonitrile | < 20.0 | < 20.0 |
| MTBE | < 5.00 | < 5.00 |
| trans-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Vinyl acetate | < 20.0 | < 20.0 |
| 1,1-Dichloroethane | < 5.00 | < 5.00 |
| 2-Butanone | < 20.0 | < 20.0 |
| 2,2-Dichloropropane | < 5.00 | < 5.00 |
| cis-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Chloroform | < 5.00 | < 5.00 |
| Tetrahydrofuran | < 5.00 | < 5.00 |
| Bromochloromethane | < 5.00 | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 | < 5.00 |
| 1,1-Dichloropropene | < 5.00 | < 5.00 |
| Carbon tetrachloride | < 5.00 | < 5.00 |
| Benzene | < 5.00 | < 5.00 |
| 1,2-Dichloroethane | < 5.00 | < 5.00 |
| Trichloroethene | < 5.00 | < 5.00 |
| Methacrylonitrile | < 5.00 | < 5.00 |
| 1,2-Dichloropropane | < 5.00 | < 5.00 |
| Bromodichloromethane | < 5.00 | < 5.00 |
| Dibromomethane | < 5.00 | < 5.00 |
| Propionitrile | < 5.00 | < 5.00 |
| Methyl methacrylate | < 5.00 | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 | < 10.0 |
| 4-Methyl-2-pentanone | < 20.0 | < 20.0 |
| cis-1,3-Dichloropropene | < 5.00 | < 5.00 |
| Toluene | < 5.00 | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 | < 5.00 |
| 1,2-Dibromoethane | < 5.00 | < 5.00 |

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260A
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Method Blank Results

| | | |
|---|---|---|
| 2-Hexanone | < 20.0 | < 20.0 |
| Tetrachloroethene | < 5.00 | < 5.00 |
| 1,3-Dichloropropane | < 5.00 | < 5.00 |
| Dibromochloromethane | < 5.00 | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 | < 5.00 |
| Chlorobenzene | < 5.00 | < 5.00 |
| Ethylbenzene | < 5.00 | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 | < 5.00 |
| m+p-Xylene | < 5.00 | < 5.00 |
| o-Xylene | < 5.00 | < 5.00 |
| Styrene | < 5.00 | < 5.00 |
| Bromoform | < 5.00 | < 5.00 |
| Isopropylbenzene | < 5.00 | < 5.00 |
| 1,1,2,2-Tetrachloroethane | < 5.00 | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 | < 5.00 |
| n-Propylbenzene | < 5.00 | < 5.00 |
| Bromobenzene | < 5.00 | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 | < 5.00 |
| 2-Chlorotoluene | < 5.00 | < 5.00 |
| 4-Chlorotoluene | < 5.00 | < 5.00 |
| tert-Butylbenzene | < 5.00 | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 | < 5.00 |
| sec-Butylbenzene | < 5.00 | < 5.00 |
| p-Isopropyltoluene | < 5.00 | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,4-Dichlorobenzene | < 10.0 | < 10.0 |
| n-Butylbenzene | < 5.00 | < 5.00 |
| 1,2-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,2-Dibromo-3-chloropropane | < 5.00 | < 5.00 |
| 1,2,4-Trichlorobenzene | < 5.00 | < 5.00 |
| Hexachloroethane | < 5.00 | < 5.00 |
| Hexachlorobutadiene | < 5.00 | < 5.00 |
| Naphthalene | < 5.00 | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 | < 5.00 |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6060491 Volatile Organics
Project ID (number): 8722000829 Method: EPA 8260
Project ID (name): Holloman Air Force Base/AOC1001 Matrix: Aqueous

Laboratory Control Sample Summary

| Analyte | Spike Amount | Check Sample Concentration | QC Percent Recovery | Acceptability Limits Recovery |
|---|---|---|---|---|
| **EPA 8260A Units:ug/L** | **QC Batch:062896HP3-2** | | | |
| 1,1-Dichloroethene | 50.0 | 52.4 | 105. | 61-145% |
| Trichloroethene | 50.0 | 48.1 | 96.2 | 71-120% |
| Benzene | 50.0 | 52.2 | 104. | 76-127% |
| Toluene | 50.0 | 45.3 | 90.6 | 76-125% |
| Chlorobenzene | 50.0 | 46.4 | 92.8 | 75-130% |
| **EPA 8260A Units:ug/L** | **QC Batch:062896HP3-6** | | | |
| 1,1-Dichloroethene | 50.0 | 61.1 | 122. | 61-145% |
| Trichloroethene | 50.0 | 52.3 | 105. | 71-120% |
| Benzene | 50.0 | 55.7 | 111. | 76-127% |
| Toluene | 50.0 | 50.3 | 101. | 76-125% |
| Chlorobenzene | 50.0 | 51.2 | 102. | 75-130% |

Notes:

**GTEL** ENVIRONMENTAL LABORATORIES INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42303

Company Name: FLUOR DANIEL GTI - GST

Phone #: 505 242 3113

FAX #: 505 242 1103

Company Address: 2501 YALE, SE ALBUQUERQUE, NM.

Site Location: DOE NAD 79 HARS NM AOC 1001

Project Manager: Chuck Schick

Client Project ID: (#) 87220008290 3 (NAME) AOC 1001

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): LEE SCOTT STEVENSON

ANALYSIS REQUEST

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | Matrix: SOIL | Matrix: AIR | Matrix: SLUDGE | Matrix: PRODUCT | Matrix: OTHER | Method Preserved: HCl | Method Preserved: $HNO_3$ | Method Preserved: $H_2SO_4$ | Method Preserved: ICE | Method Preserved: UNPRESERVED | Method Preserved: OTHER (Specify) | Sampling: DATE | Sampling: TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | TBR 60 ft | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~TRIP BLANK~~ | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 1001-DP01-9-12 | 02 | 1 | | X | | | | | | | | | | | 27 JUN 96 | 11:00 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 2 1001-DP01-15-18 | 03 | 1 | | X | | | | | | | | | | | " | 11:05 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 3 1001-DP01-18-21 | 04 | 1 | | X | | | | | | | | | | | " | 11:10 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 4 1001-GP01 | 05 | 2 | X | | | | | | X | | | | | | " | 11:40 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 5 1001-DP02-9-12 | 06 | 1 | | X | | | | | | | | | | | " | 13:15 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 6 1001-DP02-15-18 | 07 | 1 | | X | | | | | | | | | | | " | 14:00 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 7 1001-DP02-18-21 | 08 | 1 | | X | | | | | | | | | | | " | 14:05 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 8 1001-GP02 | 09 | 2 | X | | | | | | X | | | | | | " | 14:15 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 9 1001-DP03-9-12 | 10 | 1 | | X | | | | | | | | | | | " | 15:42 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 10 1001-DP03-15-18 | 11 | 1 | | X | | | | | | | | | | | " | 16:48 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 11 1001-DP03-18-21 | 12 | 1 | | X | | | | | | | | | | | " | 16:50 | | | | | | | | | | | | | | | | | | | | ✓ | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS:

Lab Use Only Lot #: Seals Intact

Storage Location 3°C

Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 27JUN96 | 13:10 | FEDX 7598 2959 13 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | | | |

**GTEL** ENVIRONMENTAL LABORATORIES INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42302

Company Name: FLUOR DANIEL GTI
Phone #: 505 242 3113
FAX #: 505 242 1103
Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM
Site Location: KAFB, NM. DOB WAD29 AOC1001
Project Manager: CHUCK SCHICK
Client Project ID: (#) 872200082903
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): SCOTT STEVENSON

ANALYSIS REQUEST

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | 8260 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-GP03 | 24 | 2 | ✓ | | | | | | | | | | | | 27 JUN 96 | 17:10 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP04-9-12 | 25 | 1 | | ✓ | | | | | | | | | | | 5 JUN 96 | 0925 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP04-15-18 | 26 | 1 | | ✓ | | | | | | | | | | | " | 0930 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP04-24-27 | 27 | 1 | | ✓ | | | | | | | | | | | " | 0935 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP05-9-12 | 28 | 1 | | ✓ | | | | | | | | | | | " | 13:15 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP05 ~~15-18~~ 12-15 | 29 | 1 | | ✓ | | | | | | | | | | | " | 13:20 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP05-15-18 | 30 | 1 | | | | | | | | | | | | | " | 13:25 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP04 | 31 | 2 | ✓ | | | | | | | | | | | | " | 11:22 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP05 | 32 | 2 | ✓ | | | | | | | | | | | | " | 13:25 | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP06-6-9 | 33 | 2 | | ✓ | | | | | | | | | | | | 16:00 | | | | | | | | | | | | | | | | | | | | | | |
| 1001-DP06-12-15 | 34 | 2 | | ✓ | | | | | | | | | | | | 16:05 | | | | | | | | | | | | | | | | | | | | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact: _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:

Lab Use Only Lot #: Seals Intact
Storage Location: 3°C
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| LEE S. STEVENSON | 27 JUN 96 | 13:10 | FEDX # 7598295913 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | 6/27/96 | 0810 | Waybill # 7598295913 |

**GTEL** ENVIRONMENTAL LABORATORIES INC

~~4211 MAY AVE.~~
WICHITA, KS 67209
(316) 945-2624
~~(800) 633-7936~~

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42301

Company Name: FLUOR DANIEL GTE

Phone #: 505 242 3113

FAX #: 504 242 1103

Company Address: 2501 YALE, S.E. #204 ALBUQUERQUE, NM

Site Location: HAFB, NM. DOB WAD79, AOC1001

Project Manager: CHUCK SCHICK

Client Project ID: (#) 872200082903 (NAME)

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): LEE SCOTT STEVENSON

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | 8260 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP06-18-21 | 13 | 2 | | ✓ | | | | | | | | | | | 25 JUN 96 | 16:10 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP06 | 14 | 2 | ✓ | | | | | | | | | | | | " | 16:13 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP07-9-12 | 15 | 2 | | ✓ | | | | | | | | | | | 26 JUN 96 | 10:1[illegible] | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP09-15-18 | 16 | 2 | | ✓ | | | | | | | | | | | " | 10:2[illegible] | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP07-18-21 | 17 | 2 | | ✓ | | | | | | | | | | | " | 10:[illegible] | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP07 | 18 | 2 | ✓ | | | | | | | | | | | | " | 10:40 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP07DUP | 19 | 2 | ✓ | | | | | | | | | | | | " | 10:[illegible] | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP08-9-12 | 20 | 2 | | ✓ | | | | | | | | | | | " | 13:20 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP08-15-18 | 21 | 2 | | ✓ | | | | | | | | | | | " | 13:25 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP08-21-24 | 22 | 2 | | ✓ | | | | | | | | | | | " | 13:30 | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP08- | 23 | 2 | ✓ | | | | | | | | | | | | " | 13:55 | | | | | | | | | | | | | | | | | | | | ✓ | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact: _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS:

Lab Use Only Lot #: Seals Intact 32

Storage Location

Work Order #:

## CUSTODY RECORD

| Relinquished by: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 27JUN96 | 13:10 | FEDX ~~47302~~ 759879591 3 |
| Relinquished by: | Date | Time | Received by: |
| Relinquished by: | Date | Time | Received by Laboratory: |

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

RECEIVED
AUG 2 2 1996

August 21, 1996

Chuck Schick
Fluor Daniel GTI
2501 Yale Blvd. S.E.
Albuquerque, NM 87106

---

| | |
|---|---|
| RE: GTEL Client ID: | 8722000829 |
| Login Number: | W6070039 |
| Project ID (number): | 8722000829-03 |
| Project ID (name): | HOLLOMAN/D08WAD29/HOLLOMAN/NM |

---

Dear Chuck Schick:

This report, previously dated 08/15/96, is a reissue.

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 07/03/96 under Chain-of-Custody Number(s) 42297 & 42298.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the U.S. Army Corp of Engineers Laboratory Validation, expiration date March 18, 1997.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

John O. Sattler
QA/QC Manager for,
Terry R. Loucks
Laboratory Director

**GTEL** ENVIRONMENTAL LABORATORIES, INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

FW 42287

Company Name: FLUOR DANIEL GTE
Phone #: 505 242 3113
FAX #: 505 242 1103
Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM 87106
Site Location: KAFB, NM DOBWAD29, AOC 1001
Project Manager: CHUCK SCHICK
Client Project ID: (#) 87220008 2903
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

ANALYSIS REQUEST | OTHER

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | HNO3 | H2SO4 | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | VOCs by 8260 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1001-DP09A-18-21 | 1 | 1 | | ✓ | | | | | | | | | | | 24 JUL 1996 | 09:40 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP09A-18-21 DUP | 2 | 1 | | ✓ | | | | | | | | | | | " | 09:40 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP09A-21-24 | 3 | 2 | | ✓ | | | | | | | | | | | " | 09:51 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP09A-21-24 DUP | 4 | 2 | | ✓ | | | | | | | | | | | " | 09:57 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP09A 24-27 | 5 | 2 | | ✓ | | | | | | | | | | | " | 09:37 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP09A 24-27 DUP | 6 | 2 | | ✓ | | | | | | | | | | | " | 09:39 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP09A | 7 | 2 | ✓ | | | | | | | | | | | | " | 10:27 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP10-18-21 | 8 | 1 | | ✓ | | | | | | | | | | | " | 12:41 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP10-21-24 | 9 | 1 | | ✓ | | | | | | | | | | | " | 12:44 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-DP10 24-27 | 10 | 1 | | ✓ | | | | | | | | | | | " | 12:47 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| 1001-GP10 | 11 | 2 | ✓ | | | | ✓ | | | | | | | | " | 12:51 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☑
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:
DACW-45-94-D0003

Lab Use Only Lot #: Seals Intact
Storage Location 2°C
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 25 July 96 | 17:30 | Airborne 925197 2621 |
| Relinquished by: | Date | Time | Received by: |
| | | | |
| Relinquished by: | Date | Time | Received by Laboratory: |
| | 7/31/96 | 0840 | Waybill #: |

**GTEL** ENVIRONMENTAL LABORATORIES INC

4211 MAY AVE.
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

42298

Company Name: FLUOR DANIEL GTI
Phone #: 505 242 3113
FAX #: 505 242 1103

Company Address: 2501 YALE, SE #204 ALBUQUERQUE, NM 87106
Site Location: HAFB, NM D08WAD29 A0C1001

Project Manager: CHUCK SCHICK
Client Project ID: (#) 872200082903
(NAME)

I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): LEE SCOTT STEVENSON

| Field Sample ID | GTEL Lab # (Lab Use only) | # CONTAINERS | Matrix: WATER | SOIL | AIR | SLUDGE | PRODUCT | OTHER | Method Preserved: HCl | $HNO_3$ | $H_2SO_4$ | ICE | UNPRESERVED | OTHER (Specify) | Sampling: DATE | TIME | BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐ | Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐ | Hydrocarbon Profile (SIMDIS) ☐ | Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐ | TPH/IR 418.1 ☐ SM 503 ☐ | EDB by 504 ☐ DBCP by 504 ☐ | EPA 503.1 ☐ EPA 502.2 ☐ | EPA 601 ☐ EPA 8010 ☐ | EPA 602 ☐ EPA 8020 ☐ | EPA 608 ☐ 8080 ☐ PCB only ☐ | EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐ | EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐ | EPA 610 ☐ 8310 ☐ | EP TOX Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐ | EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐ | CAM Metals TTLC ☐ STLC ☐ | Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐ | Organic Lead ☐ | Corrosivity ☐ Flash Point ☐ Reactivity ☐ | Subcoby 8260 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRILL DECON | 123 | 3 | ✓ | | | | | | ✓ | | | ✓ | | | 24 JUL 96 | 13:30 | | | | | | | | | | | | | | | | | | | | | ✓ | | | |
| | 6982 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0090 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**TAT**
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

**Special Handling**
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

**QA/QC Level**
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS: DACW-45-94-D0003

Lab Use Only Lot # Seals Intact 22°C
Storage Location
Work Order #:

**CUSTODY RECORD**

| Relinquished by Sampler: | Date | Time | Received by: |
|---|---|---|---|
| Lee Scott Stevenson | 24July96 | 17:30 | Airborne 9251927621 |
| Relinquished by: | Date | Time | Received by: |
| | | | |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Aqueous

| | | | | |
|---|---|---|---|---|
| GTEL Sample Number | W6070039-07 | W6070039-11 | W6070039-12 | -- |
| Client ID | 1001-GP09A | 1001-GP10 | DR 11-DECON | -- |
| Date Sampled | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | 07/10/96 | 07/12/96 | 07/12/96 | -- |
| Dilution Factor | 1.00 | 1.00 | 1.00 | -- |

| Analyte | Reporting Limit | Units | Concentration: | | | |
|---|---|---|---|---|---|---|
| Chloromethane | 10. | ug/L | < 10. | < 10. | < 10. | -- |
| Bromomethane | 10. | ug/L | < 10. | < 10. | < 10. | -- |
| Vinyl chloride | 10. | ug/L | < 10. | < 10. | < 10. | -- |
| Chloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Methylene chloride | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Acetone | 100 | ug/L | < 100 | < 100 | < 100 | -- |
| Carbon disulfide | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Vinyl acetate | 20. | ug/L | < 20. | < 20. | < 20. | -- |
| 1,1-Dichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Butanone | 50. | ug/L | < 50. | < 50. | < 50. | -- |
| cis-1,2-Dichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Chloroform | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,1-Trichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Carbon tetrachloride | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Benzene | 5.0 | ug/L | **80.** | < 5.0 | < 5.0 | -- |
| 1,2-Dichloroethane | 5.0 | ug/L | **18.** | < 5.0 | < 5.0 | -- |
| Trichloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,2-Dichloropropane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromodichloromethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Chloroethylvinyl ether | 10. | ug/L | < 10. | < 10. | < 10. | -- |
| 4-Methyl-2-pentanone | 50. | ug/L | < 50. | < 50. | < 50. | -- |
| cis-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Toluene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| trans-1,3-Dichloropropene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2-Trichloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 2-Hexanone | 50. | ug/L | < 50. | < 50. | < 50. | -- |
| Tetrachloroethene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Dibromochloromethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Chlorobenzene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Ethylbenzene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| m+p-Xylene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| o-Xylene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Styrene | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| Bromoform | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,1,2,2-Tetrachloroethane | 5.0 | ug/L | < 5.0 | < 5.0 | < 5.0 | -- |
| 1,3-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | -- |
| 1,4-Dichlorobenzene | 10. | ug/L | < 10. | < 10. | < 10. | -- |

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 8722000829
Login Number: W6070039
Project ID (number): 8722000829-03
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM

Method: EPA 8260A
Matrix: Aqueous

| | | | | | |
|---|---|---|---|---|---|
| GTEL Sample Number | | W6070039-07 | W6070039-11 | W6070039-12 | -- |
| Client ID | | 1001-GP09A | 1001-GP10 | DR 11-DECON | -- |
| Date Sampled | | 06/29/96 | 06/29/96 | 06/29/96 | -- |
| Date Analyzed | | 07/10/96 | 07/12/96 | 07/12/96 | -- |
| Dilution Factor | | 1.00 | 1.00 | 1.00 | -- |
| Analyte | Reporting Limit / Units | Concentration: | | | |
| 1,2-Dichlorobenzene | 10. ug/L | < 10. | < 10. | < 10. | -- |

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260A:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W6070039-07:

GC/MS Data indicates the presence of non-target compounds. Results are estimated because 1 out of 3 surrogate spike recoveries was outside of acceptability limits due to an unidentified matrix interference. The result was verified by re-analysis of the sample in question.

W6070039-12:

GC/MS Data indicates the presence of non-target compounds.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 8260A
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

| Conformance Item | Volatile Organics | Semi-Volatile Organics | Inorganics (MT, WC) |
|---|---|---|---|
| GC/MS Tune | -- | -- | NA |
| Initial Calibration | -- | -- | -- |
| Continuing Calibration | -- | -- | -- |
| Surrogate Recovery | * | -- | NA |
| Holding Time | X | -- | -- |
| Method Accuracy | X | -- | -- |
| Method Precision | X | -- | -- |
| Blank Contamination | X | -- | -- |

Comments:

The surrogate spike recovery for 4-Bromofluorobenzene on sample W6-07-0039-07 was unacceptably high because of an unidentified matrix interference. The result was duplicated during re-analysis. Sample results, therefore, are estimated.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organic
Project ID (number): 8722000829-03 Method: EPA 826C
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Aqueou

Surrogate Results

| QC Batch No. | Reference | Sample ID | DBFM | TOL-D8 | 4-BFB |
|---|---|---|---|---|---|
| Method: EPA 8260A | | Acceptability Limits: | 80-120% | 88-110% | 86-115% |
| 071096RJG-1 | BW071096HP4 | Method Blank Water | 97.6 | 101. | 106. |
| 071096RJG-2 | LW071096HP4 | Laboratory Control | 98.1 | 102. | 105. |
| 071096RJG-4 | BW071196HP4B | Method Blank Water | 100. | 99.7 | 103. |
| 071096RJG-5 | MS07012301 | Matrix Spike | 93.2 | 101. | 99.9 |
| 071096RJG-6 | MD07012301 | Matrix Spike Dupli | 96.1 | 99.9 | 104. |
| -- | 07003907 | 1001-GP09A | 93.9 | 99.0 | 139.* |
| -- | 07003911 | 1001-GP10 | 96.5 | 99.9 | 105. |
| -- | 07003912 | DR 11-DECON | 85.7 | 105. | 105. |

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 8260A
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Aqueous

Method Blank Results

| QC Batch No: | 071096RJG-1 | 071096RJG-4 |
|---|---|---|
| Date Analyzed: | 10-JUL-96 | 12-JUL-96 |
| Analyte | Method:EPA 8260A | Concentration: ug/L |
| Dichlorodifluoromethane | < 10.0 | < 10.0 |
| Chloromethane | < 10.0 | < 10.0 |
| Dichlorofluoromethane | < 10.0 | < 10.0 |
| Bromomethane | < 10.0 | < 10.0 |
| Vinyl chloride | < 2.00 | < 2.00 |
| Iodomethane | < 5.00 | < 5.00 |
| Chloroethane | < 10.0 | < 10.0 |
| Trichlorofluoromethane | < 5.00 | < 5.00 |
| Allyl Chloride | < 10.0 | < 10.0 |
| Acrolein | < 20.0 | < 20.0 |
| 1,1-Dichloroethene | < 5.00 | < 5.00 |
| Methylene chloride | < 5.00 | < 5.00 |
| Acetone | < 20.0 | < 20.0 |
| Carbon disulfide | < 5.00 | < 5.00 |
| Acrylonitrile | < 20.0 | < 20.0 |
| MTBE | < 5.00 | < 5.00 |
| trans-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Vinyl acetate | < 20.0 | < 20.0 |
| 1,1-Dichloroethane | < 5.00 | < 5.00 |
| 2-Butanone | < 20.0 | < 20.0 |
| 2,2-Dichloropropane | < 5.00 | < 5.00 |
| cis-1,2-Dichloroethene | < 5.00 | < 5.00 |
| Chloroform | < 5.00 | < 5.00 |
| Bromochloromethane | < 5.00 | < 5.00 |
| 1,1,1-Trichloroethane | < 5.00 | < 5.00 |
| 1,1-Dichloropropene | < 5.00 | < 5.00 |
| Carbon tetrachloride | < 5.00 | < 5.00 |
| Benzene | < 5.00 | < 5.00 |
| 1,2-Dichloroethane | < 5.00 | < 5.00 |
| Trichloroethene | < 5.00 | < 5.00 |
| Methacrylonitrile | < 5.00 | < 5.00 |
| 1,2-Dichloropropane | < 5.00 | < 5.00 |
| Bromodichloromethane | < 5.00 | < 5.00 |
| Dibromomethane | < 5.00 | < 5.00 |
| Methyl methacrylate | < 5.00 | < 5.00 |
| 2-Chloroethyl vinyl ether | < 10.0 | < 10.0 |
| 4-Methyl-2-pentanone | < 20.0 | < 20.0 |
| cis-1,3-Dichloropropene | < 5.00 | < 5.00 |
| Toluene | < 5.00 | < 5.00 |
| trans-1,3-Dichloropropene | < 5.00 | < 5.00 |
| 1,1,2-Trichloroethane | < 5.00 | < 5.00 |
| 1,2-Dibromoethane | < 5.00 | < 5.00 |
| 2-Hexanone | < 20.0 | < 20.0 |
| Tetrachloroethene | < 5.00 | < 5.00 |

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organic
Project ID (number): 8722000829-03 Method: EPA 8260
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Aqueou

Method Blank Results

| | | |
|---|---|---|
| 1,3-Dichloropropane | < 5.00 | < 5.00 |
| Dibromochloromethane | < 5.00 | < 5.00 |
| trans-1,4-Dichloro-2-butene | < 5.00 | < 5.00 |
| Chlorobenzene | < 5.00 | < 5.00 |
| Ethylbenzene | < 5.00 | < 5.00 |
| 1,1,1,2-Tetrachloroethane | < 5.00 | < 5.00 |
| m+p-Xylene | < 5.00 | < 5.00 |
| o-Xylene | < 5.00 | < 5.00 |
| Styrene | < 5.00 | < 5.00 |
| Bromoform | < 5.00 | < 5.00 |
| Isopropylbenzene | < 5.00 | < 5.00 |
| 1,1,2,2-Tetrachloroethane | < 5.00 | < 5.00 |
| 1,2,3-Trichloropropane | < 5.00 | < 5.00 |
| n-Propylbenzene | < 5.00 | < 5.00 |
| Bromobenzene | < 5.00 | < 5.00 |
| 1,3,5-Trimethylbenzene | < 5.00 | < 5.00 |
| 2-Chlorotoluene | < 5.00 | < 5.00 |
| 4-Chlorotoluene | < 5.00 | < 5.00 |
| tert-Butylbenzene | < 5.00 | < 5.00 |
| 1,2,4-Trimethylbenzene | < 5.00 | < 5.00 |
| sec-Butylbenzene | < 5.00 | < 5.00 |
| p-Isopropyltoluene | < 5.00 | < 5.00 |
| 1,3-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,4-Dichlorobenzene | < 10.0 | < 10.0 |
| n-Butylbenzene | < 5.00 | < 5.00 |
| 1,2-Dichlorobenzene | < 10.0 | < 10.0 |
| 1,2-Dibromo-3-chloropropane | < 5.00 | < 5.00 |
| 1,2,4-Trichlorobenzene | < 5.00 | < 5.00 |
| Hexachloroethane | < 5.00 | < 5.00 |
| Hexachlorobutadiene | < 5.00 | < 5.00 |
| Naphthalene | < 5.00 | < 5.00 |
| 1,2,3-Trichlorobenzene | < 5.00 | < 5.00 |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organics
Project ID (number): 8722000829-03 Method: EPA 8260A
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Aqueous

Laboratory Control Sample Summary

| Analyte | Spike Amount | Check Sample Concentration | QC Percent Recovery | Acceptability Limits Recovery |
|---|---|---|---|---|
| EPA 8260A Units:ug/L | QC Batch:071096RJG-2 | | | |
| 1,1-Dichloroethene | 50.0 | 50.3 | 101. | 61-145% |
| Trichloroethene | 50.0 | 48.0 | 96.0 | 71-120% |
| Benzene | 50.0 | 58.2 | 116. | 76-127% |
| Toluene | 50.0 | 50.9 | 102. | 76-125% |
| Chlorobenzene | 50.0 | 48.1 | 96.2 | 75-130% |

Notes:

GTEL Client ID: 8722000829 QUALITY CONTROL RESULTS
Login Number: W6070039 Volatile Organic
Project ID (number): 8722000829-03 Method: EPA 8260
Project ID (name): HOLLOMAN/D08WAD29/HOLLOMAN/NM Matrix: Aqueou

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6070123-01 MS ID:MS07012301 MSD ID:MD07012301
Analysis Date: 10-JUL-96 12-JUL-96 12-JUL-96

| Units: ug/L | Sample | Spikes Added | | MS | MS | MSD | MSD | | Acceptability Limits | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Conc. | MS | MSD | Conc. | % Rec. | Conc. | % Rec. | RPD | RPD | %Rec. |
| 1,1-Dichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 49.2 | 98.4 | 50.7 | 101. | 2.60 | 14 | 61-145 |
| Benzene | < 5.00(0.000) | 50.0 | 50.0 | 56.5 | 113. | 56.8 | 114. | 0.900 | 11 | 76-127 |
| Trichloroethene | < 5.00(0.000) | 50.0 | 50.0 | 48.5 | 97.0 | 50.1 | 100. | 3.00 | 14 | 71-120 |
| Toluene | < 5.00(0.000) | 50.0 | 50.0 | 51.4 | 103. | 51.8 | 104. | 1.00 | 13 | 76-125 |
| Chlorobenzene | < 5.00(0.000) | 50.0 | 50.0 | 48.6 | 97.2 | 49.8 | 99.6 | 2.40 | 13 | 75-130 |

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

**NEI/GTEL**
ENVIRONMENTAL
LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

August 12, 1996

Vern Herschberger
Flour Daniel GTI
2501 Yale Boulevard Southeast, Suite 204
Albuquerque, NM 87106

**RE: HAFB AOC 1001, Explosives Data from Southwest Laboratory, Inc.**

Dear Mr. Herschberger:

Enclosed please find the SW 846 Method 8330 analytical results for the NEI/GTEL work order W6060491, Project ID(name): HOLLOMAN/D08WAD29/HOLLOMAN/NM.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.
John O. Sattler
QA Manager for,
Terry R. Loucks
Laboratory Director

NEI/GTEL W6060491

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

August 5, 1996

John Sattler
**GTEL ENVIRONMENTAL LABORATORIES, INC.**
4211 May Ave.
Wichita, KS 67209

PROJECT: HOLLOMAN AFB
SWLO ID : 26181.06, 26181.10, 26181.14, 26181.18, 26181.22, 26181.26, 26181.30, 26181.31, 26181.37

Dear Mr. Sattler:

Please find the enclosed analytical results (explosives - waters) for your samples received in our laboratory on June 28, 1996, for the above captioned project.

If, in your review, you should have any questions or require additional information, do not hesitate to call.

Sincerely,

Mike Butler
Project Officer

MB/kl
Enclosures

1700 West Albany • Broken Arrow, OK 74012-1421 • (918) 251-2858 • Fax (918) 251-2599

# SOUTHWEST LABORATORY OF OKLAHOMA
# CASE NARRATIVE

August 2, 1996

CLIENT : NIGGTEL
CASE : HOLLOMAN AFB
EPISODE : 26181
FRACTION : EXPLOSIVES
SAMPLES : 1001-GP01, 1001-GP02, 1001-GP03, 1001-GP04, 1001-GP05, 1001-GP06, 1001-GP07, 1001-GP07 DUP, 1001-GP08

This case consisted of 9 water samples for low level water explosives analysis. The samples, blanks and spikes were extracted and analyzed according to EPA protocol, SW-846, method, 8330, REV. 0, 1994.

For soil samples, the percent moisture is determined by drying them at 105° C at the time of receipt. Additional portion of the samples are air-dried prior to analysis. The results are reported on the basis of the air-dried samples. For high level water samples, direct injection method is used. For low level water samples, salting out method is used. All of the samples are diluted by a factor of two prior to analysis according to method 8330. The samples are diluted in order to be the same consistency as the Mobile Phase.

## CASE SUMMARY:

Tetryl exceeded QC limits in the LD0703WC. The compound was out of the QC limits possibly due to interference. Confirmational analysis did not confirm Tetryl in any of the associated samples, in which the compound was detected.

The explosives referred to in the data package by the abbreviations found in method 8330 are as follows: HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine), RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine), TNB (1,3,5-Trinitrobenzene), DNB (1,3-Dinitrobenzene), Tetryl (Methyl-2,4,6-trinitrophenylnitramine), NB (Nitrobenzene), TNT (2,4,6- Trinitrotoluene), 24DNT (2,4-Dinitrotoluene), 26DNT (2,6-Dinitrotoluene), 2NT (o-Nitrotoluene), 3NT (m-Nitrotoluene), 4NT (p-Nitrotoluene) , PETN (Pentaerythritol tetranitrate), 2ADNT (2-Amino-4,6-dinitrotoluene), 4ADNT (4-Amino-2,6-dinitrotoluene).

Flags shown on Form 1D's in the "Q" column conform to definitions in the EPA SOW OLM01.08 analytical protocol for BNA's, VOA's and Pest/PCB's. We use the following flags where appropriate. "J" - indicates a quantitated result which is

below the quantitation limit, but above the detection limit and has been confirmed by the second column. "E"- indicates an out of range value, i.e., a peak that is off-scale or out of the linear calibration range of the detector. The value reported is not to be used. The sample must be diluted and re-run. "D" - indicates a value derived from a secondary dilution. "U" - indicates the compound that is undetected above the quantitation limit. "X" - indicates a comment which is explained in the case narrative. ``ND'' - indicates not determine.

SHAHRIAR SHAHREZA

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP01
SWOK SAMPLE ID : 26181.06
FILENAME : 1 1E0725WD,3,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

:LIENT : NIGGTEL
:LIENT SAMPLE ID: 1001-GP02
:WOK SAMPLE ID : 26181.10
'ILENAME : 1 1E0725WD,11,1
:AMPLE MATRIX : WATER
.MT. EXTRACTED : 770 mL
'INAL VOLUME : 5.0 mL
)ILUTION FACTOR : 2
)ATE RECEIVED : 06/28/96
)ATE EXTRACTED : 07/03/96
)ATE ANALYZED : 07/26/96
:EPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

---

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP03
SWOK SAMPLE ID : 26181.14
FILENAME : 1 1E0725WD,4,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

---

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP04
SWOK SAMPLE ID : 26181.18
FILENAME : 1 1E0725WD,12,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/27/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP05
SWOK SAMPLE ID : 26181.22
FILENAME : 1 1E0725WD,5,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

:LIENT : NIGGTEL
:LIENT SAMPLE ID: 1001-GP06
;WOK SAMPLE ID : 26181.26
'ILENAME : 1 1E0725WD,6,1
;AMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
'INAL VOLUME : 5.0 mL
)ILUTION FACTOR : 2
)ATE RECEIVED : 06/28/96
)ATE EXTRACTED : 07/03/96
)ATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP07
SWOK SAMPLE ID : 26181.30
FILENAME : 1 1E0725WD,7,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP07DUP
SWOK SAMPLE ID : 26181.31
FILENAME : 1 1E0725WD,8,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

CLIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP08
SWOK SAMPLE ID : 26181.37
FILENAME : 1 1E0725WD,9,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 06/28/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

:LIENT : NIGGTEL
:LIENT SAMPLE ID: BL0703WC
WOK SAMPLE ID : BL0703WC
ILENAME : 1 1E0725WC,16,1
AMPLE MATRIX : WATER
MT. EXTRACTED : 770 mL
INAL VOLUME : 5.0 mL
ILUTION FACTOR : 2
ATE RECEIVED :
ATE EXTRACTED : 07/03/96
ATE ANALYZED : 07/25/96
EPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| MX | .88 | .88 | U |
| DX | .73 | .73 | U |
| ,3,5-TNB | .19 | .19 | U |
| ETRYL | .19 | .19 | U |
| ,3-DNB | .06 | .06 | U |
| ITROBENZENE | .24 | .24 | U |
| ,6-DNT | .20 | .20 | U |
| ,4-DNT | .08 | .08 | U |
| ,4,6-TNT | .12 | .12 | U |
| NT | .78 | .78 | U |
| NT | .65 | .65 | U |
| NT | .65 | .65 | U |
| ADNT | .03 | .03 | U |
| ADNT | .06 | .06 | U |

LAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES LABORATORY CONTROL SPIKE RECOVERY FORM

CLIENT : NIGGTEL
CLIENT SAMPLE ID: LD0703WC

LABORATORY CONTROL SPIKE INFORMATION:

SWOK SAMPLE ID : LD0703WC
FILENAME : 1 1E0725W,19,1
SAMPLE MATRIX : WATER
DILUTION FACTOR : 2
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/25/96

RECOVERY DATA

| | LCS ADDED ug/L | AMT. FOUND SMP. ug/L | AMT. FOUND LCS (ug/L) | | % REC. LCS | QC LIMIT RECOVERY |
|---|---|---|---|---|---|---|
| HMX | 15.58 | 0 | 11.9 | | 76.4 | 60-132 |
| RDX | 12.99 | 0 | 8.51 | | 65.5 | 57-131 |
| TNB | 2.60 | 0 | 2.13 | | 81.9 | 42-97 |
| TETRYL | 2.60 | 0 | 4.64 | * | 178.5 | 1-109 |
| ,NB | 1.30 | 0 | .96 | | 74.1 | 43-132 |
| TNT | 2.34 | 0 | 1.92 | | 82.1 | 17-93 |
| NB | 5.19 | 0 | 3.54 | | 68.2 | 7-117 |
| 26DNT | 3.90 | 0 | 2.87 | | 73.6 | 40-115 |
| 24DNT | 1.56 | 0 | 1.18 | | 75.6 | 53-110 |
| 2NT | 15.58 | 0 | 11.8 | | 75.7 | 41-95 |
| 4NT | 12.99 | 0 | 9.54 | | 73.4 | 40-91 |
| 3NT | 12.99 | 0 | 9.56 | | 73.6 | 45-96 |
| 2ADNT | 14.61 | 0 | 11.0 | | 75.3 | 51-98 |
| 4ADNT | 14.61 | 0 | 10.6 | | 72.6 | 49-91 |

**NEI/GTEL**
ENVIRONMENTAL
LABORATORIES, INC.

**Midwest Region**
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

August 12, 1996

Vern Herschberger
Flour Daniel GTI
2501 Yale Boulevard Southeast, Suite 204
Albuquerque, NM 87106

**RE: HAFB AOC 1001, Explosives Data from Southwest Laboratory, Inc.**

Dear Mr. Herschberger:

Enclosed please find the SW 846 Method 8330 analytical results for the NEI/GTEL work order W6070039, Project ID(name): HOLLOMAN/D08WAD29/HOLLOMAN/NM.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.
John O. Sattler
QA Manager for
Terry R. Loucks
Laboratory Director

NEI/GTEL W6070039

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

August 5, 1996

John Sattler
**GTEL ENVIRONMENTAL LABORATORIES, INC.**
4211 May Ave.
Wichita, KS 67209

PROJECT: HOLLOMAN AFB
SWLO ID : 26211.09, 26211.13

Dear Mr. Sattler:

Please find the enclosed analytical results (explosives - waters) for your samples received in our laboratory on July 3, 1996, for the above captioned project.

If, in your review, you should have any questions or require additional information, do not hesitate to call.

Sincerely,

Mike Butler
Project Officer

MB/kl
Enclosures

1700 West Albany • Broken Arrow, OK 74012-1421 • (918) 251-2858 • Fax (918) 251-2599

# SOUTHWEST LABORATORY OF OKLAHOMA
# CASE NARRATIVE

August 2, 1996

CLIENT : NIGGTEL
CASE : HOLLOMAN AFB
EPISODE : 26211
FRACTION : EXPLOSIVES
SAMPLES : 1001-GP09A, 1001-GP10

This case consisted of 2 water samples for low level water explosives analysis. The samples, blanks and spikes were extracted and analyzed according to EPA protocol, SW-846, method, 8330, REV. 0, 1994.

For soil samples, the percent moisture is determined by drying them at 105° C at the time of receipt. Additional portion of the samples are air-dried prior to analysis. The results are reported on the basis of the air-dried samples. For high level water samples, direct injection method is used. For low level water samples, salting out method is used. All of the samples are diluted by a factor of two prior to analysis according to method 8330. The samples are diluted in order to be the same consistency as the Mobile Phase.

## CASE SUMMARY:

Due to insufficient amount of the sample, only 578 mL of the sample 1001-GP10 was extracted.

Tetryl exceeded the QC limits in the LD0703WC. The compound was out of the QC limits possibly due to interference. Confirmational analysis did not confirm Tetryl in any of the associated samples, in which the compound was detected.

The explosives referred to in the data package by the abbreviations found in method 8330 are as follows: HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine), RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine), TNB (1,3,5-Trinitrobenzene), DNB (1,3-Dinitrobenzene), Tetryl (Methyl-2,4,6-trinitrophenylnitramine), NB (Nitrobenzene), TNT (2,4,6- Trinitrotoluene), 24DNT (2,4-Dinitrotoluene), 26DNT (2,6-Dinitrotoluene), 2NT (o-Nitrotoluene), 3NT (m-Nitrotoluene), 4NT (p-Nitrotoluene) , PETN (Pentaerythritol tetranitrate), 2ADNT (2-Amino-4,6-dinitrotoluene), 4ADNT (4-Amino-2,6-dinitrotoluene).

Flags shown on Form 1D's in the "Q" column conform to definitions in the EPA SOW OLM01.08 analytical protocol for BNA's, VOA's and Pest/PCB's. We use the following flags where appropriate. "J" - indicates a quantitated result which is below the quantitation limit, but above the detection limit and has been confirmed by the second column. "E"- indicates an out of range value, i.e., a peak that is off-scale or out of the linear calibration range of the detector. The value reported is not to be used. The sample must be diluted and re-run. "D" - indicates a value derived from a secondary dilution. "U" - indicates the compound that is undetected above the quantitation limit. "X" - indicates a comment which is explained in the case narrative. ``ND'' - indicates not determine.

SHAHRIAR SHAHREZA

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

LIENT : NIGGTEL
CLIENT SAMPLE ID: 1001-GP09A
SWOK SAMPLE ID : 26211.09
FILENAME : 1 1E0725WC,12,1
SAMPLE MATRIX : WATER
AMT. EXTRACTED : 770 mL
FINAL VOLUME : 5.0 mL
DILUTION FACTOR : 2
DATE RECEIVED : 07/03/96
DATE EXTRACTED : 07/03/96
DATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 1,3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

:LIENT : NIGGTEL
:LIENT SAMPLE ID: 1001-GP10
;WOK SAMPLE ID : 26211.13
'ILENAME : 1 1E0725WC,13,1
;AMPLE MATRIX : WATER
AMT. EXTRACTED : 578 mL
'INAL VOLUME : 5.0 mL
)ILUTION FACTOR : 2
)ATE RECEIVED : 07/03/96
)ATE EXTRACTED : 07/03/96
)ATE ANALYZED : 07/26/96
REPORT DATE : 8/ 2/96

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | 1.52 | 1.52 | U |
| RDX | 1.26 | 1.26 | U |
| 1,3,5-TNB | .33 | .33 | U |
| TETRYL | .33 | .33 | U |
| 1,3-DNB | .10 | .10 | U |
| NITROBENZENE | .42 | .42 | U |
| 2,6-DNT | .35 | .35 | U |
| 2,4-DNT | .14 | .14 | U |
| 2,4,6-TNT | .21 | .21 | U |
| 2NT | 1.35 | 1.35 | U |
| 4NT | 1.12 | 1.12 | U |
| 3NT | 1.12 | 1.12 | U |
| 2ADNT | .05 | .05 | U |
| 4ADNT | .10 | .10 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS CHROMATOGRAPHY LABORATORY
FORM I
METHOD: SW846 - 8330

| | |
|---|---|
| CLIENT | : NIGGTEL |
| CLIENT SAMPLE ID | : BL0703WC |
| SWOK SAMPLE ID | : BL0703WC |
| FILENAME | : 1 1E0725WC,16,1 |
| SAMPLE MATRIX | : WATER |
| AMT. EXTRACTED | : 770 mL |
| FINAL VOLUME | : 5.0 mL |
| DILUTION FACTOR | : 2 |
| DATE RECEIVED | : |
| DATE EXTRACTED | : 07/03/96 |
| DATE ANALYZED | : 07/25/96 |
| REPORT DATE | : 8/ 2/96 |

EXPLOSIVE QUANTITATION REPORT

| EXPLOSIVE | QUANTITATION LIMIT (ug/L) | AMOUNT FOUND ug/L | FLAG |
|---|---|---|---|
| HMX | .88 | .88 | U |
| RDX | .73 | .73 | U |
| 1,3,5-TNB | .19 | .19 | U |
| TETRYL | .19 | .19 | U |
| 3-DNB | .06 | .06 | U |
| NITROBENZENE | .24 | .24 | U |
| 2,6-DNT | .20 | .20 | U |
| 2,4-DNT | .08 | .08 | U |
| 2,4,6-TNT | .12 | .12 | U |
| 2NT | .78 | .78 | U |
| 4NT | .65 | .65 | U |
| 3NT | .65 | .65 | U |
| 2ADNT | .03 | .03 | U |
| 4ADNT | .06 | .06 | U |

FLAG DEFINITIONS:
U -- NOT DETECTED ABOVE QUANTITATION LIMIT
B -- COMPOUND FOUND IN BLANK
J -- ESTIMATED VALUE (BELOW QUANTITATION LIMIT)
I -- NOT QUANTITATIBLE DUE TO MATRIX INTERFERENCE

SOUTHWEST LABORATORY OF OKLAHOMA
GAS/LIQUID CHROMATOGRAPHY LABORATORY

EXPLOSIVES LABORATORY CONTROL SPIKE RECOVERY FORM

'LIENT : NIGGTEL
'LIENT SAMPLE ID: LD0703WC

ABORATORY CONTROL SPIKE INFORMATION:

WOK SAMPLE ID : LD0703WC
'ILENAME : 1 1E0725W,19,1
AMPLE MATRIX : WATER
ILUTION FACTOR : 2
ATE EXTRACTED : 07/03/96
ATE ANALYZED : 07/25/96

RECOVERY DATA

| | LCS ADDED ug/L | AMT. FOUND SMP. ug/L | AMT. FOUND LCS (ug/L) | | % REC. LCS | QC LIMIT RECOVERY |
|---|---|---|---|---|---|---|
| MX | 15.58 | 0 | 11.9 | | 76.4 | 60-132 |
| RDX | 12.99 | 0 | 8.51 | | 65.5 | 57-131 |
| TNB | 2.60 | 0 | 2.13 | | 81.9 | 42-97 |
| TETRYL | 2.60 | 0 | 4.64 | * | 178.5 | 1-109 |
| 3 | 1.30 | 0 | .96 | | 74.1 | 43-132 |
| TNT | 2.34 | 0 | 1.92 | | 82.1 | 17-93 |
| NB | 5.19 | 0 | 3.54 | | 68.2 | 7-117 |
| 26DNT | 3.90 | 0 | 2.87 | | 73.6 | 40-115 |
| 24DNT | 1.56 | 0 | 1.18 | | 75.6 | 53-110 |
| 2NT | 15.58 | 0 | 11.8 | | 75.7 | 41-95 |
| 4NT | 12.99 | 0 | 9.54 | | 73.4 | 40-91 |
| 3NT | 12.99 | 0 | 9.56 | | 73.6 | 45-96 |
| 2ADNT | 14.61 | 0 | 11.0 | | 75.3 | 51-98 |
| 4ADNT | 14.61 | 0 | 10.6 | | 72.6 | 49-91 |

# TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

**7110 38th Drive SE**
**Lacey, Washington 98503**

**Mobile Environmental Laboratories**
**Environmental Sampling Services**

**Telephone:** **360-459-4670**
**Fax:** **360-459-3432**


May 29, 1997

Chuck Schick
Fluor Daniel GTI
2501 Yale Blvd. SE, # 204
Albuquerque, NM 87106

Re: P.O. #K65630000; K6558000; G/L #2208-000-44 00; WBS #2208.99.999
Contract #DACW45-94-D-003/008
P.O. #K65640000; G/L #2211-000-44 00; WBS #2211.99
Contract #DACW45-94-D-003/011

Dear Mr. Schick:

Please find enclosed the analytical report for the D08W29/AOC-1001 Project in Alamogordo, New Mexico. The StrataProbe collected soil and water samples at the project site on May 6, 7, 8 and 9, 1997. The samples were analyzed on-site for Specific Halogenated Hydrocarbons and BTEX by Modified EPA Method 8010/8020. One water sample was analyzed for Gasoline, Diesel and Oil by Modified EPA Method 8015.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. The invoice for this project has been sent to Government Operations, 1220 Ward Avenue, Suite 200, in West Chester, Pennsylvania, for payment.

TEG Northwest appreciates the opportunity to have provided analytical and geosampling services to Fluor Daniel GTI for this project. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec

Michael A. Korosec
*President*

# QA/QC FOR ANALYTICAL METHODS

## GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

## ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

### TPH-Gasoline, TPH-Diesel
### (Gasoline and/or Diesel, Modified EPA 8015)

A check standard is run at the beginning of the day. 1) A close standard is run at the end of the day. 2) Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

**Purgeable Volatile Aromatics**
**(BTEX, EPA 602/8020)**

A check standard is run at the beginning of the day. The check standard is run at the end of the day. Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. At least 1 method blank is run per day.

**Purgeable Volatile Halocarbons**
**(Chlorinated Hydrocarbons, EPA 601/8010,8021)**

A calibration standard is run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.



D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

| Sample-Number | MDL | Method Blank | AOC-1001 DP-11 16-19 | AOC-1001 DP-11 16-19 Dup | AOC-1001 DP-16 12-15 | Method Blank | AOC-1001 DP-15 18-21 |
|---|---|---|---|---|---|---|---|
| Date | | 05/06/97 | 05/06/97 | 05/06/97 | 05/06/97 | 05/07/97 | 05/07/97 |
| | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | 0.05 | nd | nd | nd | nd | nd | nd |
| Toluene | 0.05 | nd | nd | nd | nd | nd | nd |
| Ethylbenzene | 0.05 | nd | nd | nd | nd | nd | [illegible] |
| Total-Xylene | 0.05 | nd | nd | nd | nd | nd | [illegible] |
| 1,1 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Dichloromethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trans-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Cis-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Chloroform | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Carbon Tetrachloride | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,2 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Tetrachloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Spike Recovery (%) | | 102 | 115 | 116 | 93 | 132 | 93 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

| Sample-Number | MDL | AOC-1001 DP-18 19-22 | AOC-1001 DP-18 19-22 Dup | AOC-1001 DP-12 16-19 | AOC-1001 DP-22 11-12 | Method Blank | AOC-1001 DP-17 14-17 |
|---|---|---|---|---|---|---|---|
| Date | | 05/07/97 | 05/07/97 | 05/07/97 | 05/07/97 | 05/08/97 | 05/08/97 |
| | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | 0.05 | nd | nd | nd | 29.4 | nd | nd |
| Toluene | 0.05 | nd | nd | nd | nd | nd | nd |
| Ethylbenzene | 0.05 | nd | nd | nd | 6.54 | nd | nd |
| Total-Xylene | 0.05 | nd | nd | nd | 2.03 | nd | nd |
| 1,1 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Dichloromethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trans-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Cis-1,2 Dichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| Chloroform | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Carbon Tetrachloride | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,2 Dichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Trichloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2 Trichloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Tetrachloroethene | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 0.05 | nd | nd | nd | nd | nd | nd |
| Spike Recovery (%) | | 114 | 88 | 112 | 128 | 134 | 103 |

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.



D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

| Sample-Number | MDL | Method Blank | AOC-1001 DP-23 17-20 | AOC-1001 DP-24 17-20 |
|---|---|---|---|---|
| Date | | 05/09/97 | 05/09/97 | 05/09/97 |
| | mg/kg | mg/kg | mg/kg | mg/kg |
| Benzene | 0.05 | nd | 0.36 | nd |
| Toluene | 0.05 | nd | nd | nd |
| Ethylbenzene | 0.05 | nd | nd | nd |
| Total-Xylene | 0.05 | nd | 0.07 | nd |
| 1,1 Dichloroethene | 0.05 | nd | nd | nd |
| Dichloromethane | 0.05 | nd | nd | nd |
| Trans-1,2 Dichloroethene | 0.05 | nd | nd | nd |
| 1,1 Dichloroethane | 0.05 | nd | nd | nd |
| Cis-1,2 Dichloroethene | 0.05 | nd | nd | nd |
| Chloroform | 0.05 | nd | nd | nd |
| 1,1,1 Trichloroethane | 0.05 | nd | nd | nd |
| Carbon Tetrachloride | 0.05 | nd | nd | nd |
| 1,2 Dichloroethane | 0.05 | nd | nd | nd |
| Trichloroethene | 0.05 | nd | nd | nd |
| 1,1,2 Trichloroethane | 0.05 | nd | nd | nd |
| Tetrachloroethene | 0.05 | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 0.05 | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 0.05 | nd | nd | nd |
| Spike Recovery (%) | | 123 | 101 | 92 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.



D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | Method Blank | AOC-1001 GP-11 20 | AOC-1001 GP-11 20 Dup | Method Blank | AOC-1001 GP-12 30 | AOC-1001 GP-12 30 Dup |
|---|---|---|---|---|---|---|---|
| Date | | 05/06/97 | 05/06/97 | 05/06/97 | 05/07/97 | 05/07/97 | 05/07/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | nd | 7.9 | 10.1 | nd | 1900* | 2200 |
| Toluene | 1 | nd | nd | nd | nd | nd | <50 |
| Ethylbenzene | 1 | nd | nd | nd | nd | nd | <50 |
| Total-Xylene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1 Dichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| Dichloromethane | 1 | nd | nd | nd | nd | nd | <50 |
| Trans-1,2 Dichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1 Dichloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Cis-1,2 Dichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| Chloroform | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,1 Trichloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Carbon Tetrachloride | 1 | nd | nd | nd | nd | nd | <50 |
| 1,2 Dichloroethane | 1 | nd | 87 | 104 | nd | 118* | 102 |
| Trichloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,2 Trichloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Tetrachloroethene | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,1,2-Tetrachloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| 1,1,2,2-Tetrachloroethane | 1 | nd | nd | nd | nd | nd | <50 |
| Spike Recovery (%) | | 88 | 112 | 128 | 91 | 93 | 107 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-15 29 | AOC-1001 GP-16 21 | AOC-1001 GP-16 21 | AOC-1001 GP-18 28 | AOC-1001 GP-18 28 Dup | Method Blank |
|---|---|---|---|---|---|---|---|
| Date | | 05/07/97 | 05/07/97 | 05/07/97 | 05/07/97 | 05/07/97 | 05/08/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 2.8 | 1800* | 4080 | nd | nd | nd |
| Toluene | 1 | nd | 1600* | 2600 | nd | nd | nd |
| Ethylbenzene | 1 | nd | 370* | 308 | nd | nd | nd |
| Total-Xylene | 1 | nd | 2700* | 2400 | nd | nd | nd |
| 1,1 Dichloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| Dichloromethane | 1 | nd | nd | <40 | nd | nd | nd |
| Trans-1,2 Dichloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1 Dichloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Cis-1,2 Dichloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| Chloroform | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1,1 Trichloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Carbon Tetrachloride | 1 | nd | nd | <40 | nd | nd | nd |
| 1,2 Dichloroethane | 1 | 3.8 | 131* | 178 | nd | nd | nd |
| Trichloroethene | 1 | 5.6 | nd | <40 | nd | nd | nd |
| 1,1,2 Trichloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Tetrachloroethene | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1,1,2-Tetrachloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| 1,1,2,2-Tetrachloroethane | 1 | nd | nd | <40 | nd | nd | nd |
| Spike Recovery (%) | | 69 | 82 | 100 | 133 | 102 | 104 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-19 30 | AOC-1001 GP-19 30 | AOC-1001 GP-14 30 | AOC-1001 GP-14 30 | AOC-1001 GP-17 29 | AOC-1001 GP-17 29 |
|---|---|---|---|---|---|---|---|
| Date | | 05/08/97 | 05/08/97 | 05/08/97 | 05/08/97 | 05/08/97 | 05/08/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 850* | 922 | 630* | 1420 | 2000* | 3900 |
| Toluene | 1 | nd | <40 | nd | <20 | nd | <40 |
| Ethylbenzene | 1 | 300* | 336 | nd | <20 | 110* | 40 |
| Total-Xylene | 1 | 6.0 | <40 | 28 | 30 | 17 | <40 |
| 1,1 Dichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| Dichloromethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Trans-1,2 Dichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1 Dichloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Cis-1,2 Dichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| Chloroform | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,1 Trichloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Carbon Tetrachloride | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,2 Dichloroethane | 1 | 13.1 | <40 | 66* | 60 | 270* | 315 |
| Trichloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,2 Trichloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Tetrachloroethene | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,1,2-Tetrachloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| 1,1,2,2-Tetrachloroethane | 1 | nd | <40 | nd | <20 | nd | <40 |
| Spike Recovery (%) | | 90 | 82 | 103 | 126 | 139 | 79 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-20 30 | AOC-1001 GP-22 30 | AOC-1001 GP-22 30 | Method Blank | AOC-1001 GP-13 30 | AOC-1001 GP-13 30 |
|---|---|---|---|---|---|---|---|
| Date | | 05/08/97 | 05/08/97 | 05/08/97 | 05/09/97 | 05/09/97 | 05/09/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 59 | 1200* | 8640 | nd | 970* | 704 |
| Toluene | 1 | nd | 2400* | 3620 | nd | nd | <20 |
| Ethylbenzene | 1 | nd | 110* | 523 | nd | nd | [illegible] |
| Total-Xylene | 1 | nd | 430* | 1140 | nd | 4.9 | [illegible] |
| 1,1 Dichloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| Dichloromethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Trans-1,2 Dichloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1 Dichloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Cis-1,2 Dichloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| Chloroform | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1,1 Trichloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Carbon Tetrachloride | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,2 Dichloroethane | 1 | nd | -- | 310 | nd | 46 | 47 |
| Trichloroethene | 1 | 14 | -- | <80 | nd | nd | <20 |
| 1,1,2 Trichloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Tetrachloroethene | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1,1,2-Tetrachloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| 1,1,2,2-Tetrachloroethane | 1 | nd | -- | <80 | nd | nd | <20 |
| Spike Recovery (%) | | 60 | 62 | 134 | 109 | 107 | 112 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

| Sample-Number | MDL | AOC-1001 GP-24 23 | AOC-1001 GP-24 23 | AOC-1001 GP-25 32 | AOC-1001 GP-23 20 | AOC-1001 GP-23 20 |
|---|---|---|---|---|---|---|
| Date | | 05/09/97 | 05/09/97 | 05/09/97 | 05/09/97 | 05/09/97 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| Benzene | 1 | 5500* | 5100 | nd | 700* | 640 |
| Toluene | 1 | 1300* | 1030 | nd | 480* | 460 |
| Ethylbenzene | 1 | 165 | 230 | nd | 180* | 140 |
| Total-Xylene | 1 | 3600* | 3800 | nd | 1100* | 940 |
| 1,1 Dichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| Dichloromethane | 1 | <20 | <400 | nd | nd | <10 |
| Trans-1,2 Dichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| 1,1 Dichloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Cis-1,2 Dichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| Chloroform | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,1 Trichloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Carbon Tetrachloride | 1 | <20 | <400 | nd | nd | <10 |
| 1,2 Dichloroethane | 1 | 288 | <400 | nd | 21 | 17 |
| Trichloroethene | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,2 Trichloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Tetrachloroethene | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,1,2-Tetrachloroethane | 1 | <20 | <400 | nd | nd | <10 |
| 1,1,2,2-Tetrachloroethane | 1 | <20 | <400 | nd | nd | <10 |
| Spike Recovery (%) | | 107 | 60 | 62 | 66 | 77 |

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.
"*" Indicates that the concentration is estimated.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

D08W29/AOC-1001 PROJECT
Alamogordo, New Mexico
Fluor Daniel GTI
Project No.: 872200829

Gasoline, Diesel and Oil in Water by Modified EPA 8015

| Sample Number | Date | Recovery * | Gasoline ug/l | Diesel ug/l | Heavy Oil ug/l |
|---|---|---|---|---|---|
| Meth. Blank | 05/07/97 | 96 | nd | nd | nd |
| AOC1001-GP-16 21 | 05/07/97 | 116 | 41000 | nd | nd |
| MDL | | | 100 | 200 | 400 |

"nd" Indicates not detected at the listed detection Limit.
"int" Indicates that interference peaks prevent determination.

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/06/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 59 | 19.6 | 6.1% | 3 | 7.3 | 59 | 19.7 | 6.4% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 328 | 109.3 | 4.6% | 3 | 8.7 | 361 | 120.3 | 15.2% | 250.8 | 378.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 125 | 41.7 | 7.4% | 3 | 5.3 | 115 | 38.3 | 14.8% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 244 | 81.3 | 14.7% | 3 | 7.7 | 320 | 106.7 | 11.9% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 78 | 25.2 | 5.7% | 3 | 3.7 | 89 | 23.0 | 14.1% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 118.70 | 3 | 6.1 | 308 | 102.7 | 12.0% | 3 | 6.1 | 402 | 134.0 | 14.8% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 299 | 99.7 | 7.8% | 3 | 4.7 | 350 | 116.7 | 7.9% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 350 | 116.7 | 4.0% | 3 | 4.4 | 431 | 143.7 | 18.2% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 295 | 98.3 | 2.0% | 3 | 12.9 | 336 | 112.0 | 16.2% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 102 | 34.0 | 4.8% | 3 | 15.4 | 82 | 27.3 | 15.7% | 77.8 | 118.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 341 | 113.7 | 6.1% | 3 | 18.9 | 373 | 124.3 | 16.0% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 160 | 53.3 | 4.8% | 3 | 12.6 | 147 | 49.0 | 12.5% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 158 | 52.5 | 0.9% | 3 | 12.6 | 137 | 45.7 | 13.8% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 148 | 49.3 | 2.5% | 3 | 8.8 | 133 | 44.3 | 7.9% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 71 | 23.5 | 8.6% | 3 | 2.5 | 72 | 24.0 | 6.7% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 409 | 136.3 | 11.3% | 3 | 7.6 | 425 | 141.7 | 15.7% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 334 | 111.3 | 2.2% | 3 | 15.1 | 404 | 134.7 | 18.2% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 128 | 42.7 | 7.1% | 3 | 15.4 | 118 | 39.3 | 14.3% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 292 | 48.7 | 3.3% | 3 | 11.6 | 263 | 43.8 | 12.9% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 137 | 45.7 | 0.3% | 3 | 15.8 | 120 | 40.0 | 12.6% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/06/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 65 | 13.1 | 0.2% | 5 | 7.3 | 66 | 13.2 | 0.9% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 194 | 38.8 | 1.5% | 5 | 6.7 | 228 | 45.6 | 19.2% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 115 | 23.0 | 1.0% | 5 | 5.3 | 115 | 22.9 | 0.6% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 175 | 35.0 | 4.1% | 5 | 7.7 | 201.0 | 40.2 | 19.6% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 56 | 11.3 | 1.6% | 5 | 3.7 | 54 | 10.8 | 2.2% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 205 | 41.0 | 5.3% | 5 | 6.1 | 231 | 46.2 | 18.7% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 218 | 43.6 | 3.4% | 5 | 4.7 | 237 | 47.4 | 12.4% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 260 | 52.0 | 2.8% | 5 | 4.4 | 284 | 56.8 | 12.3% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 106 | 21.2 | 6.1% | 5 | 12.9 | 104 | 20.8 | 4.1% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 123 | 24.6 | 2.7% | 3 | 15.4 | 110 | 22.0 | 8.2% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 90 | 18.0 | 7.4% | 5 | 18.9 | 95 | 19.0 | 2.0% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 63 | 18.6 | 4.0% | 5 | 12.6 | 69 | 13.8 | 13.8% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 119 | 23.8 | 1.4% | 5 | 12.6 | 114 | 22.8 | 2.9% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 125 | 25.0 | 0.4% | 5 | 8.8 | 114 | 22.8 | 8.4% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 54 | 10.9 | 4.1% | 5 | 2.5 | 45 | 9.1 | 12.9% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 127 | 25.4 | 15.6% | 5 | 7.6 | 132 | 26.4 | 20.2% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 8 | 1.6 | 16.7% | 5 | 15.1 | 7 | 1.4 | 1.5% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 83 | 16.6 | 8.8% | 5 | 15.4 | 69 | 13.8 | 9.6% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 161 | 16.1 | 9.1% | 10 | 11.6 | 141 | 14.1 | 4.5% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.46 | 5 | 15.8 | 66 | 13.1 | 5.3% | 5 | 15.8 | 59 | 11.8 | 5.4% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/07/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 55 | 18.3 | 0.8% | 3 | 7.3 | 52 | 17.5 | 5.5% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 317 | 105.7 | 1.1% | 3 | 6.7 | 332 | 110.7 | 5.9% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 114 | 38.0 | 15.6% | 3 | 5.3 | 113 | 37.7 | 16.3% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 325 | 108.3 | 13.6% | 3 | 7.7 | 277 | 92.3 | 3.2% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 70 | 23.3 | 12.8% | 3 | 3.7 | 68 | 22.6 | 15.6% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 396 | 132.0 | 13.1% | 3 | 6.1 | 375 | 125.0 | 7.1% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 348 | 116.0 | 7.3% | 3 | 4.7 | 344 | 114.7 | 6.1% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 412 | 137.3 | 13.0% | 3 | 4.4 | 413 | 137.7 | 13.3% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 327 | 109.0 | 13.0% | 3 | 12.9 | 316 | 105.3 | 9.2% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 80 | 26.7 | 17.8% | 3 | 15.4 | 78 | 26.0 | 19.8% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 373 | 124.3 | 18.0% | 3 | 18.9 | 378 | 126.0 | 17.6% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 148 | 49.3 | 11.9% | 3 | 12.6 | 149 | 49.7 | 11.3% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 135 | 45.0 | 15.1% | 3 | 12.6 | 134 | 44.7 | 15.7% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 130 | 43.3 | 10.0% | 3 | 8.8 | 129 | 43.0 | 10.7% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 71 | 23.7 | 8.0% | 3 | 2.5 | 79 | 26.3 | 2.4% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 420 | 140.0 | 14.3% | 3 | 7.6 | 431 | 143.7 | 17.3% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 360 | 120.0 | 5.4% | 3 | 15.1 | 380 | 126.7 | 11.2% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 121 | 40.3 | 12.1% | 3 | 15.4 | 131 | 43.7 | 4.9% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 270 | 45.0 | 10.6% | 6 | 11.6 | 338 | 56.3 | 11.9% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 125 | 41.7 | 9.0% | 3 | 15.8 | 137 | 45.7 | 0.3% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/07/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 53 | 10.7 | 18.6% | 5 | 7.3 | 65 | 12.9 | 1.5% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 204 | 40.8 | 6.7% | 5 | 6.7 | 210 | 42.0 | 9.8% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 94 | 18.8 | 17.4% | 5 | 5.3 | 91 | 18.2 | 20.0% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 181 | 36.2 | 7.7% | 5 | 7.7 | 154.0 | 30.8 | 8.4% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 48 | 9.6 | 13.4% | 5 | 3.7 | 48 | 9.6 | 13.4% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 214 | 42.8 | 9.9% | 5 | 6.1 | 166 | 33.2 | 14.7% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 248 | 49.6 | 17.6% | 5 | 4.7 | 219 | 43.8 | 3.9% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 225 | 45.0 | 11.1% | 5 | 4.4 | 283 | 56.6 | 11.9% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 91 | 18.2 | 8.9% | 5 | 12.9 | 98 | 19.6 | 1.9% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 105 | 21.0 | 12.4% | 5 | 15.4 | 96 | 19.2 | 19.9% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 107 | 21.4 | 10.4% | 5 | 18.9 | 81 | 16.2 | 16.5% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 65 | 13.0 | 18.8% | 5 | 12.6 | 68 | 13.6 | 15.0% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 96 | 19.2 | 18.2% | 5 | 12.6 | 104 | 20.8 | 11.4% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 135 | 27.0 | 8.4% | 5 | 8.8 | 104 | 20.8 | 16.5% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 56 | 11.2 | 7.2% | 5 | 2.5 | 56 | 11.2 | 7.4% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 101 | 20.2 | 8.1% | 5 | 7.6 | 116 | 23.2 | 5.6% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 7 | 1.5 | 10.7% | 5 | 15.1 | 7 | 1.4 | 4.5% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 67 | 13.4 | 12.2% | 5 | 15.4 | 79 | 15.9 | 3.9% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 125 | 12.5 | 15.3% | 10 | 11.6 | 138 | 13.8 | 6.5% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 63 | 12.6 | 1.0% | 5 | 15.8 | 51 | 10.2 | 18.3% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/08/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 45 | 14.9 | 19.4% | 3 | 7.3 | 49 | 16.3 | 11.6% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 350 | 116.7 | 11.6% | 3 | 6.7 | 362 | 120.7 | 15.5% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 120 | 40.1 | 11.0% | 3 | 5.3 | 112 | 37.3 | 17.1% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 315 | 105.0 | 10.1% | 3 | 7.7 | 300 | 100.0 | 4.9% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 71 | 23.5 | 12.2% | 3 | 3.7 | 69 | 23.0 | 14.1% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 394 | 131.3 | 12.5% | 3 | 6.1 | 397 | 132.3 | 13.4% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 369 | 123.0 | 13.8% | 3 | 4.7 | 352 | 117.3 | 8.5% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 400 | 133.3 | 9.7% | 3 | 4.4 | 412 | 137.3 | 13.0% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 322 | 107.3 | 11.3% | 3 | 12.9 | 311 | 103.7 | 7.5% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 82 | 27.4 | 15.6% | 3 | 15.4 | 80 | 26.7 | 17.8% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 322 | 107.3 | 0.2% | 3 | 18.9 | 370 | 123.3 | 15.1% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 153 | 51.0 | 9.0% | 3 | 12.6 | 144 | 48.0 | 14.3% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 140 | 46.7 | 11.9% | 3 | 12.6 | 133 | 44.3 | 16.3% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 136 | 45.3 | 5.8% | 3 | 8.8 | 129 | 43.0 | 10.7% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 74 | 24.8 | 3.7% | 3 | 2.5 | 71 | 23.7 | 8.0% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 431 | 143.7 | 17.3% | 3 | 7.6 | 410 | 136.7 | 11.6% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 358 | 119.3 | 4.8% | 3 | 15.1 | 379 | 126.3 | 10.9% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 123 | 41.0 | 10.7% | 3 | 15.4 | 117 | 39.0 | 15.1% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 273 | 45.5 | 9.6% | 6 | 11.6 | 259 | 43.2 | 14.2% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 129 | 43.0 | 6.1% | 3 | 15.8 | 116 | 38.7 | 15.6% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/08/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 55 | 11.0 | 15.7% | 5 | 7.3 | 53 | 10.6 | 19.1% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 219 | 43.8 | 14.5% | 5 | 6.7 | 180 | 36.0 | 5.9% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 91 | 18.3 | 19.7% | 5 | 5.3 | 92 | 18.4 | 19.2% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 168 | 33.6 | 0.1% | 5 | 7.7 | 194.0 | 38.8 | 15.4% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 44 | 8.9 | 20.0% | 5 | 3.7 | 44 | 8.9 | 19.9% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 178 | 35.6 | 8.6% | 5 | 6.1 | 216 | 43.2 | 11.0% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 214 | 42.8 | 1.5% | 5 | 4.7 | 219 | 43.8 | 3.9% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 274 | 54.8 | 8.3% | 5 | 4.4 | 254 | 50.8 | 0.4% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 84 | 16.8 | 15.9% | 5 | 12.9 | 81 | 16.3 | 18.6% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 97 | 19.5 | 18.7% | 5 | 15.4 | 98 | 19.6 | 18.2% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 79 | 15.8 | 18.5% | 5 | 18.9 | 88 | 17.6 | 9.2% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 64 | 12.8 | 20.0% | 5 | 12.6 | 66 | 13.2 | 17.5% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 100 | 20.0 | 14.8% | 5 | 12.6 | 103 | 20.6 | 12.2% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 120 | 24.0 | 3.6% | 5 | 8.8 | 103 | 20.6 | 17.3% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 47 | 9.5 | 9.3% | 5 | 2.5 | 50 | 10.0 | 4.1% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 120 | 24.0 | 9.2% | 5 | 7.6 | 105 | 21.0 | 4.4% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 8 | 1.5 | 13.4% | 5 | 15.1 | 7 | 1.4 | 7.5% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 89 | 17.8 | 16.6% | 5 | 15.4 | 65 | 13.0 | 14.8% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 133 | 13.3 | 9.9% | 10 | 11.6 | 128 | 12.8 | 13.3% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 50 | 10.0 | 19.9% | 5 | 15.8 | 52 | 10.5 | 16.2% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - CALIBRATION DATA

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 SOILS

DATE 5/09/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 18.48 | 3 | 7.3 | 64 | 21.4 | 16.0% | 3 | 7.3 | 49 | 16.3 | 11.6% | 44.4 | 66.5 |
| METHYLENE CHLORIDE | HALL | 104.50 | 3 | 6.7 | 372 | 124.0 | 18.7% | 3 | 6.7 | 268 | 89.3 | 14.5% | 250.8 | 376.2 |
| TRANS-1,2-DICHLORO ETHENE | PID | 45.01 | 3 | 5.3 | 118 | 39.3 | 12.6% | 3 | 5.3 | 111 | 37.0 | 17.8% | 108.0 | 162.0 |
| 1,1-DICHLOROETHANE | HALL | 95.36 | 3 | 7.7 | 258 | 86.0 | 9.6% | 3 | 7.7 | 236 | 78.7 | 17.5% | 228.9 | 343.3 |
| CIS-1,2-DICHLOROETHENE | PID | 26.77 | 3 | 3.7 | 71 | 23.7 | 11.6% | 3 | 3.7 | 66 | 22.0 | 17.8% | 64.2 | 96.4 |
| CHLOROFORM | HALL | 116.70 | 3 | 6.1 | 378 | 126.0 | 8.0% | 3 | 6.1 | 290 | 96.7 | 17.2% | 280.1 | 420.1 |
| 1,1,1-TRICHLORO ETHANE | HALL | 108.10 | 3 | 4.7 | 325 | 108.3 | 0.2% | 3 | 4.7 | 266 | 88.7 | 18.0% | 259.4 | 389.2 |
| CARBON TETRACHLORIDE | HALL | 121.50 | 3 | 4.4 | 418 | 139.3 | 14.7% | 3 | 4.4 | 337 | 112.3 | 7.5% | 291.6 | 437.4 |
| 1,2-DICHLOROETHANE | HALL | 96.42 | 3 | 12.9 | 305 | 101.7 | 5.4% | 3 | 12.9 | 275 | 91.7 | 4.9% | 231.4 | 347.1 |
| TRICHLORO ETHENE | PID | 32.43 | 3 | 15.4 | 81 | 27.0 | 16.7% | 3 | 15.4 | 78 | 26.0 | 19.8% | 77.8 | 116.7 |
| 1,1,2-TRICHLOROETHANE | HALL | 107.15 | 3 | 18.9 | 370 | 123.3 | 15.1% | 3 | 18.9 | 257 | 85.7 | 20.0% | 257.2 | 385.7 |
| CHLOROBENZENE | PID | 56.02 | 3 | 12.6 | 147 | 49.0 | 12.5% | 3 | 12.6 | 145 | 48.3 | 13.7% | 134.4 | 201.7 |
| BENZENE | PID | 52.99 | 3 | 12.6 | 139 | 46.3 | 12.6% | 3 | 12.6 | 132 | 44.0 | 17.0% | 127.2 | 190.8 |
| TOLUENE | PID | 48.14 | 3 | 8.8 | 132 | 44.0 | 8.6% | 3 | 8.8 | 130 | 43.3 | 10.0% | 115.5 | 173.3 |
| TETRACHLOROETHENE | PID | 25.72 | 3 | 2.5 | 70 | 23.3 | 9.3% | 3 | 2.5 | 69 | 23.0 | 10.6% | 61.7 | 92.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 122.49 | 3 | 7.6 | 423 | 141.0 | 15.1% | 3 | 7.6 | 321 | 107.0 | 12.6% | 294.0 | 440.9 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 113.89 | 3 | 15.1 | 398 | 132.7 | 16.5% | 3 | 15.1 | 280 | 93.3 | 18.0% | 273.3 | 410.0 |
| ETHYLBENZENE | PID | 45.91 | 3 | 15.4 | 122 | 40.7 | 11.4% | 3 | 15.4 | 120 | 40.0 | 12.9% | 110.2 | 165.3 |
| M,P-XYLENE | PID | 50.34 | 6 | 11.6 | 264 | 44.0 | 12.6% | 3 | 11.6 | 262 | 43.7 | 13.3% | 120.8 | 181.2 |
| O-XYLENE | PID | 45.79 | 3 | 15.8 | 124 | 41.3 | 9.7% | 3 | 15.8 | 116 | 38.7 | 15.6% | 109.9 | 164.8 |

INSTRUMENT: SHIMADZU GC14A SRI ELCD/PID #1 WATERS

DATE 5/09/97

| | | | OPENING STANDARD | | | | | CLOSING STANDARD | | | | | ACCECPTABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | DETECTOR | RF | MASS | RT | AREA | RF | %DIFF | MASS | RT | AREA | RF | %DIFF | AREA | |
| 1,1-DICHLORO ETHENE | PID | 13.10 | 5 | 7.3 | 59 | 11.8 | 9.9% | 3 | 7.3 | 55 | 11.0 | 16.0% | 52.4 | 78.6 |
| METHYLENE CHLORIDE | HALL | 38.24 | 5 | 6.7 | 202 | 40.4 | 5.6% | 3 | 6.7 | 178 | 35.6 | 6.9% | 153.0 | 229.4 |
| TRANS-1,2-DICHLORO ETHENE | PID | 22.77 | 5 | 5.3 | 97 | 19.4 | 14.8% | 3 | 5.3 | 94 | 18.9 | 17.2% | 91.1 | 136.6 |
| 1,1-DICHLOROETHANE | HALL | 33.62 | 5 | 7.7 | 193 | 38.6 | 14.8% | 3 | 7.7 | 158.0 | 31.6 | 6.0% | 134.5 | 201.7 |
| CIS-1,2-DICHLOROETHENE | PID | 11.08 | 5 | 3.7 | 46 | 9.2 | 17.0% | 3 | 3.7 | 45 | 8.9 | 19.5% | 44.3 | 66.5 |
| CHLOROFORM | HALL | 38.93 | 5 | 6.1 | 221 | 44.2 | 13.5% | 3 | 6.1 | 179 | 35.8 | 8.0% | 155.7 | 233.6 |
| 1,1,1-TRICHLORO ETHANE | HALL | 42.16 | 5 | 4.7 | 232 | 46.4 | 10.1% | 3 | 4.7 | 196 | 39.2 | 7.0% | 168.6 | 253.0 |
| CARBON TETRACHLORIDE | HALL | 50.60 | 5 | 4.4 | 296 | 59.2 | 17.0% | 3 | 4.4 | 256 | 51.2 | 1.2% | 202.4 | 303.6 |
| 1,2-DICHLOROETHANE | HALL | 19.98 | 5 | 12.9 | 103 | 20.6 | 3.1% | 3 | 12.9 | 102 | 20.4 | 2.1% | 79.9 | 119.9 |
| TRICHLORO ETHENE | PID | 23.96 | 5 | 15.4 | 97 | 19.4 | 19.0% | 3 | 15.4 | 96 | 19.2 | 19.9% | 95.8 | 143.8 |
| 1,1,2-TRICHLOROETHANE | HALL | 19.39 | 5 | 18.9 | 111 | 22.2 | 14.5% | 3 | 18.9 | 87 | 17.4 | 10.3% | 77.6 | 116.3 |
| CHLOROBENZENE | PID | 16.00 | 5 | 12.6 | 65 | 13.0 | 18.8% | 3 | 12.6 | 88 | 17.6 | 10.0% | 64.0 | 96.0 |
| BENZENE | PID | 23.47 | 5 | 12.6 | 94 | 18.8 | 19.9% | 3 | 12.6 | 101 | 20.2 | 13.9% | 93.9 | 140.8 |
| TOLUENE | PID | 24.90 | 5 | 8.8 | 100 | 20.0 | 19.7% | 3 | 8.8 | 109 | 21.8 | 12.4% | 99.6 | 149.4 |
| TETRACHLOROETHENE | PID | 10.43 | 5 | 2.5 | 49 | 9.8 | 6.0% | 3 | 2.5 | 46 | 9.3 | 11.0% | 41.7 | 62.6 |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 21.97 | 5 | 7.6 | 130 | 26.0 | 18.3% | 3 | 7.6 | 120 | 24.0 | 9.2% | 87.9 | 131.8 |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1.34 | 5 | 15.1 | 7 | 1.3 | 0.0% | 3 | 15.1 | 7 | 1.5 | 10.4% | 5.4 | 8.0 |
| ETHYLBENZENE | PID | 15.26 | 5 | 15.4 | 67 | 13.4 | 12.2% | 3 | 15.4 | 63 | 12.6 | 17.4% | 61.0 | 91.6 |
| M,P-XYLENE | PID | 14.76 | 10 | 11.6 | 132 | 13.2 | 10.6% | 3 | 11.6 | 121 | 12.1 | 18.0% | 59.0 | 88.6 |
| O-XYLENE | PID | 12.48 | 5 | 15.8 | 53 | 10.6 | 15.1% | 3 | 15.8 | 65 | 13.0 | 4.2% | 49.9 | 74.9 |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - MS/MSD

INSTRUMENT: SHIMADZU GC14A

DATE 5/09/97

| COMPOUND | DETECTOR | SPIKE MG/KG | MS RECOV. | %RECOV | MSD RECOV. | %RECOV | RPD | ACCEPTABLE RPD | ACCEPTABLE RECOVERY |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-DICHLORO ETHENE | PID | 5 | 4.0 | 80.0% | 4.5 | 90.0% | 11.8% | 35% | 40%-160% |
| METHYLENE CHLORIDE | HALL | 5 | 5.1 | 102.0% | 5.7 | 114.0% | 11.1% | 35% | 40%-160% |
| TRANS-1,2-DICHLORO ETHENE | PID | 5 | 4.0 | 80.0% | 4.3 | 86.0% | 7.2% | 35% | 40%-160% |
| 1,1-DICHLOROETHANE | HALL | 5 | 5.8 | 116.0% | 5.8 | 116.0% | 0.0% | 35% | 40%-160% |
| CIS-1,2-DICHLOROETHENE | PID | 5 | 4.0 | 60.0% | 4.2 | 84.0% | 4.9% | 35% | 40%-160% |
| CHLOROFORM | HALL | 5 | 5.6 | 112.0% | 6.2 | 124.0% | 10.2% | 35% | 40%-160% |
| 1,1,1-TRICHLORO ETHANE | HALL | 5 | 5.2 | 104.0% | 5.5 | 110.0% | 5.6% | 35% | 40%-160% |
| CARBON TETRACHLORIDE | HALL | 5 | 5.0 | 100.0% | 5.6 | 116.0% | 14.8% | 35% | 40%-160% |
| 1,2-DICHLOROETHANE | HALL | 5 | 4.1 | 82.0% | 5.2 | 104.0% | 23.7% | 35% | 40%-160% |
| TRICHLORO ETHENE | PID | 5 | 4.1 | 82.0% | 4.0 | 80.0% | 2.5% | 35% | 40%-160% |
| 1,1,2-TRICHLOROETHANE | HALL | 5 | 4.6 | 92.0% | 5.7 | 114.0% | 21.4% | 35% | 40%-160% |
| BENZENE | PID | 5 | 4.4 | 88.0% | 4.0 | 80.0% | 9.5% | 35% | 40%-160% |
| TOLUENE | PID | 5 | 4.8 | 96.0% | 4.0 | 80.0% | 18.2% | 35% | 40%-160% |
| TETRACHLOROETHENE | PID | 5 | 4.8 | 96.0% | 4.7 | 94.0% | 2.1% | 35% | 40%-160% |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 5 | 5.4 | 108.0% | 6.0 | 119.0% | 9.7% | 35% | 40%-160% |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 5 | 6.2 | 124.0% | 5.0 | 100.0% | 21.4% | 35% | 40%-160% |
| ETHYLBENZENE | PID | 5 | 4.3 | 66.0% | 4.4 | 88.0% | 2.3% | 35% | 40%-160% |
| M,P-XYLENE | PID | 10 | 8.7 | 87.0% | 9.0 | 90.0% | 3.4% | 35% | 40%-160% |
| O-XYLENE | PID | 5 | 4.2 | 84.0% | 4.2 | 84.0% | 0.0% | 35% | 40%-160% |
| SURROGATE | PID | 5 | 4.1 | 82.0% | 4.1 | 82.0% | 0.0% | 35% | 40%-160% |

ANALYSES PERFORMED BY: Sherry Chilcutt

QA/QC REPORT - MS/MSD

INSTRUMENT: SHIMADZU GC14A

DATE 5/09/97

| COMPOUND | DETECTOR | SPIKE MG/KG | MS RECOV. | %RECOV | MSD RECOV. | %RECOV | RPD | ACCEPTABLE RPD | ACCEPTABLE RECOVERY |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-DICHLORO ETHENE | PID | 1 | 0.88 | 88.0% | 0.96 | 96.0% | 8.7% | 35% | 40%-160% |
| METHYLENE CHLORIDE | HALL | 1 | 0.82 | 82.0% | 0.82 | 82.0% | 0.0% | 35% | 40%-160% |
| TRANS-1,2-DICHLORO ETHENE | PID | 1 | 0.89 | 89.0% | 0.89 | 89.0% | 0.0% | 35% | 40%-160% |
| 1,1-DICHLOROETHANE | HALL | 1 | 0.80 | 80.0% | 0.80 | 80.0% | 0.0% | 35% | 40%-160% |
| CIS-1,2-DICHLOROETHENE | PID | 1 | 0.83 | 83.0% | 0.85 | 85.0% | 2.4% | 35% | 40%-160% |
| CHLOROFORM | HALL | 1 | 0.80 | 80.0% | 0.80 | 80.0% | 0.0% | 35% | 40%-160% |
| 1,1,1-TRICHLORO ETHANE | HALL | 1 | 0.82 | 82.0% | 0.90 | 90.0% | 9.3% | 35% | 40%-160% |
| CARBON TETRACHLORIDE | HALL | 1 | 0.84 | 84.0% | 0.92 | 92.0% | 9.1% | 35% | 40%-160% |
| 1,2-DICHLOROETHANE | HALL | 1 | 0.84 | 84.0% | 0.88 | 88.0% | 4.7% | 35% | 40%-160% |
| TRICHLORO ETHENE | PID | 1 | 0.81 | 81.0% | 0.80 | 80.0% | 1.2% | 35% | 40%-160% |
| 1,1,2-TRICHLOROETHANE | HALL | 1 | 0.86 | 86.0% | 0.82 | 82.0% | 4.8% | 35% | 40%-160% |
| BENZENE | PID | 1 | 0.84 | 84.0% | 0.85 | 85.0% | 1.2% | 35% | 40%-160% |
| TOLUENE | PID | 1 | 1.05 | 105.0% | 0.97 | 97.0% | 7.9% | 35% | 40%-160% |
| TETRACHLOROETHENE | PID | 1 | 0.99 | 99.0% | 0.92 | 92.0% | 7.3% | 35% | 40%-160% |
| 1,1,1,2-TETRACHLOROETHANE | HALL | 1 | 0.86 | 86.0% | 0.87 | 87.0% | 1.2% | 35% | 40%-160% |
| 1,1,2,2-TETRACHLOROETHANE | HALL | 1 | 0.83 | 83.0% | 0.86 | 86.0% | 3.6% | 35% | 40%-160% |
| ETHYLBENZENE | PID | 1 | 0.87 | 87.0% | 0.87 | 87.0% | 0.0% | 35% | 40%-160% |
| M,P-XYLENE | PID | 2 | 1.80 | 90.0% | 1.75 | 87.5% | 2.8% | 35% | 40%-160% |
| O-XYLENE | PID | 1 | 0.90 | 90.0% | 0.92 | 92.0% | 2.2% | 35% | 40%-160% |
| SURROGATE | PID | 1 | 0.89 | 89.0% | 0.87 | 87.0% | 2.3% | 35% | 40%-160% |

ANALYSES PERFORMED BY: Sherry Chilcutt

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

# CHAIN-OF-CUSTOD' RECORD

CLIENT: FDGT

ADDRESS: 2501 Yale BLVD SE ABQ, NM 87106

PHONE (505) 242-3113 FAX: (505) 242-1103

CLIENT PROJECT #: 872200829 PROJECT MANAGER: SCHICK

DATE: 5/6/97 PAGE 1 OF 1

PROJECT NAME: DOE WD9/AOC-1001

LOCATION: HAFB

COLLECTOR: Naylore + Madewell DATE OF COLLECTION 5-6-97

| Sample Number | Depth | Time | Sample Type | Container Type | VOA 601/8010 | VOA 602/8020 | VOA 624/8240 | Semi Vol 625/8270 | TPH 418.1 | TPH 8015 (gasoline) | TPH (8015 (diesel) | TPH 8015 (g & d) | PAH 610/8100 | PEST/PCBs 8080 | HEX CHROME | ORGANIC LEAD | TOTAL LEAD | pH | ASBESTOS | FIELD NOTES | Total Number of Containers | Laboratory Note Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AOC-1001-GP-11 | 20 | 1135 | WAT | VOA | X | X | | | | | | | | | | | | | | 8010/8020 | 3 | |
| AOC-1001-DP-11 | 16-19 | 1050 | Soil | Stainless | X | X | | | | | | | | | | | | | | 8010/8020 | 1 | |
| AOC-1001DP-16 | 12-15 | 1220 | Soil | Stainless | X | X | | | | | | | | | | | | | | 8010/8020 | 1 | |
| AOC1001DP-16 | 21 | 1630 | Water | VOA | X | X | | | | | | | | | | | | | | 8010/8020/muddy | 2 | |
| AOC1001DP-15 | 18-21 | 1730 | Soil | Stainless | X | X | | | | | | | | | | | | | | 8010/8020/Above WT. | 1 | |
| AOC1001GP-15 | 25 | 1815 | Water | VOA | X | X | | | | | | | | | | | | | | 8010/8020 | 3 | |

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
|---|---|---|---|
| RHNel | 5/6/97; 1845 | [illegible] | 5/6/97 1845 |
| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
| | | | |

**SAMPLE DISPOSAL INSTRUCTIONS**

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

| SAMPLE RECEIPT | |
|---|---|
| TOTAL NUMBER OF CONTAINERS | 11 |
| CHAIN OF CUSTODY SEALS Y/N/NA | |
| SEALS INTACT? Y/N/NA | |
| RECEIVED GOOD COND./COLD | Y |
| NOTES: | |

LABORATORY NOTES:

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

# CHAIN-OF-CUSTODY RECORD

CLIENT: FDGT

ADDRESS: 2501 Yale Blvd SE ABQ, NM 87106

PHONE (505)242-3113 FAX: (505)242-1103

CLIENT PROJECT #: 8722020829 PROJECT MANAGER: SCHICK

DATE: 5/7/97 PAGE 1 OF

PROJECT NAME: DOE W29 AOC-1001

LOCATION: HAFB

COLLECTOR: SCHICK, NAYLOR

DATE OF COLLECTION 5-7-97 5-9 +5-8

| Sample Number | Depth | Time | Sample Type | Container Type | VOA 601/8010 | VOA 602/8020 | VOA 624/8240 | Semi Vol 625/8270 | TPH 418.1 | TPH 8015 (gasoline) | TPH (8015 (diesel) | TPH 8015 (g & d) | PAH 610/8100 | PEST/PCBs 8080 | HEX CHROME | ORGANIC LEAD | TOTAL LEAD | pH | ASBESTOS | FIELD NOTES | Total Number of Containers | Laboratory Note Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AOC1001GP-15 | 29 | 820 | W | VOA | X | X | | | | | | | | | | | | | | Replace sample on 5/6 | 2 | |
| AOC1001-DP-8 | 19-22 | 1030 | Soil | Stainless | X | X | | | | | | | | | | | | | | | 1 | |
| AOC1001-GP-18 | 28 | 1110 | W | VOA | X | X | | | | | | | | | | | | | | TURBID - | 2 | |
| AOC1001GP-12 | 30 | 1500 | W | VOA | X | X | | | | | | | | | | | | | | Clear | 2 | |
| AOC1001-DP-12 | 14-17 | 1300 | Soil | Stainless | X | X | | | | VP | | | | | | | | | | - | 1 | |
| AOC1001-DP-22 | 11-12 | 1700 | Soil | stainless | X | X | | | | | | | | | | | | | | above UST? | 1 | |
| AOC1001GP22 | 30 | 1800 | W | VOA | X | X | | | | | | | | | | | | | | | 2 | |
| AOC1001GP19 | 30 | 0825 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001GP14 | 30 | 0945 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001DP17 | 14-17 | 1100 | Soil | Stainless | X | X | | | | | | | | | | | | | | | 1 | |
| AOC1001GP17 | 29 | 1200 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001GP20 | 30 | 1440 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| AOC1001GP13 | 30 | 1600 | W | VOA | X | X | | | | | | | | | | | | | | | 3 | |
| 5-9 AOC1001GP24 | 23 | 0835 | W | VOA | X | X | | | | | | | | | | | | | | Product | 2 | |
| AOC1001DP24 | 17-20 | | S | Stainless | X | X | | | | | | | | | | | | | | | 1 | |
| AOC1001GP25 | 32 | 1130 | W | VOA | X | X | | | | | | | | | | | | | | | 2 | |
| AOC1001GP23 | 20 | 1310 | W | VOA | X | X | | | | | | | | | | | | | | | 2 | |
| AOC1001DP23 | 17-20 | 1255 | S | stainless | X | X | | | | | | | | | | | | | | | 1 | |

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
|---|---|---|---|
| [signature] | 5/7/97 | [signature] | 5-9-97 |
| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) | DATE/TIME |
| | | | |

**SAMPLE DISPOSAL INSTRUCTIONS**

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

| SAMPLE RECEIPT | |
|---|---|
| TOTAL NUMBER OF CONTAINERS | 35 |
| CHAIN OF CUSTODY SEALS Y/N/NA | |
| SEALS INTACT? Y/N/NA | |
| RECEIVED GOOD COND./COLD | Y |
| NOTES: | |

LABORATORY NOTES:

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001GP11**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 10 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0801

Lab Sample ID: 9705220-01

Lab File ID: N5200818.D

Date Collected: 05/06/97

Date Received: 05/08/97

Date Prepared: 05/20/97

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 1.4 | | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.20 | U | 0.20 |
| 108-38-3 | m,p-Xylene | 0.20 | U | 0.20 |
| 95-47-6 | o-Xylene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001GP15**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 10 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0801

Lab Sample ID: 9705220-02

Lab File ID: N5202118.D

Date Collected: 05/07/97

Date Received: 05/08/97

Date Prepared: 05/20/97

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 4.6 | | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.21 | P | 0.20 |
| 108-38-3 | m,p-Xylene | 0.20 | U | 0.20 |
| 95-47-6 | o-Xylene | 0.20 | U | 0.20 |

RL = Reporting Limit

# Sample Results

G0801

9705220

Volatiles by Method 8010/8021A

[illegible] 4/1/97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001GP11**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 10 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0801

Lab Sample ID: 9705220-01

Lab File ID: N5200818.D

Date Collected: 05/06/97

Date Received: 05/08/97

Date Prepared: 05/20/97

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.6 | P | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 1.1 | | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 57 | P | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit



RESULT FORM

FormVer 1.0 11/23/96

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001GP11**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0801

Matrix: (soil/water) WATER

Lab Sample ID: 9705220-01

Purge Volume: 10 ml

Lab File ID: N5200818.D

% Moisture: N/A

Date Collected: 05/06/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC1001GP11**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705220-01

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5200818.d  File (2): N5200818.d

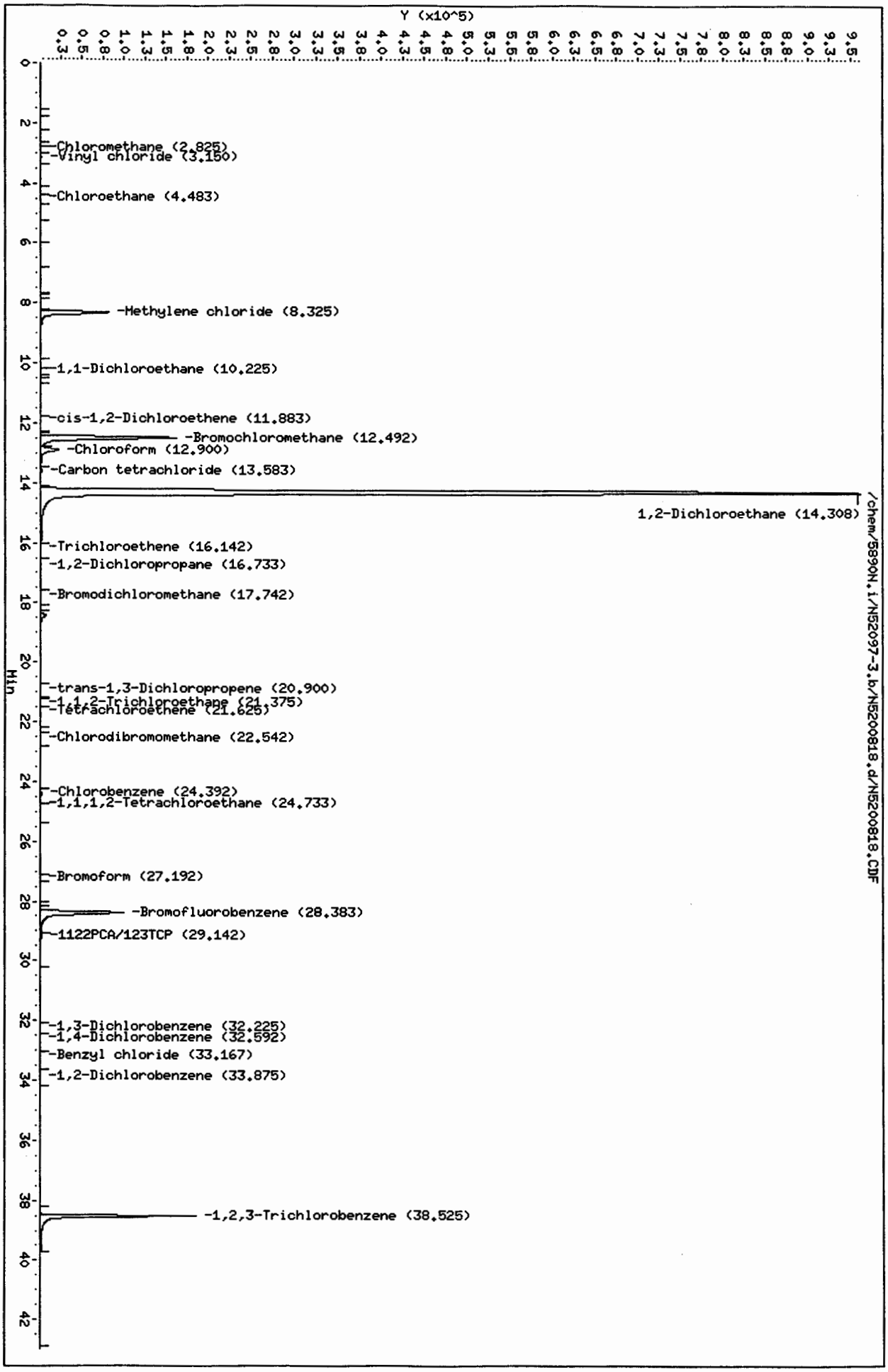
Date Analyzed (1) 05/20/97  Date Analyzed (2): 05/20/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Methylene chloride | 1 | 8.32 | 8.28 | 8.38 | 5.96 | 66.9 |
| | 2 | 8.51 | 8.46 | 8.56 | 3.57 X | |
| Chloroform | 1 | 12.90 | 12.82 | 13.02 | 1.14 X | 8.8 |
| | 2 | 12.93 | 12.89 | 12.99 | 1.24 | |
| 1,2-Dichloroethane | 1 | 14.31 | 14.22 | 14.42 | 57.4 X | 33.4 |
| | 2 | 14.56 | 14.46 | 14.66 | 76.6 | |

X = Concentration Reported

Data : /chem/5890N.i/N52097-3.b/N5200818.d
Date : 3-MAY-97 11:45:00
Client ID: AOC1001GP11
Sample Info: 9705220-01
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-3.b/N5200818.d
Injection Date : 20-MAY-97 11:45:00
Sample Info : 9705220-01
Misc. Info : None
Laboratory ID : 9705220-01 Client ID : AOC1001GP11
Instrument ID : 5890N.i
Method : 511HVA08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.68 | | 3147 | | | | |
| | 1.91 | | 9397 | | | | |
| | 2.35 | | 8056 | | | | |
| | 2.69 | | 2678 | | | | |
| Chloromethane | 2.82 | 2.73 - 2.83 | 4575 | | 0.73054 | 0.0730 | |
| Vinyl chloride | 3.15 | 3.07 - 3.17 | 9674 | M | 0.96778 | 0.0968 | LR |
| | 3.39 | | 9624 | | | | |
| | 4.23 | | 3367 | | | | |
| Chloroethane | 4.48 | 4.41 - 4.51 | 6122 | M | 0.70368 | 0.0704 | |
| | 4.70 | | 4630 | | | | |
| | 5.42 | | 5137 | | | | |
| | 7.05 | | 6722 | | | | |
| | 7.79 | | 554 | | | | |
| | 8.02 | | 5533 | | | | |
| Methylene chloride | 8.32 | 8.28 - 8.38 | 549708 | | 59.644 | 5.96 | C-uP |
| 1,1-Dichloroethane | 10.22 | 10.19 - 10.29 | 621 | | 0.044230 | 0.00442 | LR |
| | 10.51 | | 531 | | | | |
| cis-1,2-Dichloroethene | 11.88 | 11.78 - 11.98 | 700 | | 0.044409 | 0.00444 | |
| Bromochloromethane | 12.49 | 12.40 - 12.60 | 1109145 | | 96.358 | 9.64 | |
| Chloroform | 12.90 | 12.82 - 13.02 | 216110 | | 11.356 | 1.14 | |
| Carbon tetrachloride | 13.58 | 13.47 - 13.67 | 16195 | | ~~0.87703~~ | ~~0.0878~~ | LRL |
| 1,2-Dichloroethane | 14.31 | 14.22 - 14.42 | 8339325 | | 574.36 | 57.4 | P |
| Trichloroethene | 16.14 | 16.02 - 16.22 | 20058 | | ~~1.2077~~ | ~~0.121~~ | LRL |
| 1,2-Dichloropropane | 16.73 | 16.61 - 16.81 | 28860 | | 2.0960 | 0.210 | NotC |
| Bromodichloromethane | 17.74 | 17.57 - 17.77 | 10659 | | 0.80187 | 0.0802 | |
| | 18.16 | | 3101 | | | | |
| | 18.42 | | 85299 | | | | |
| trans-1,3-Dichloropropene | 20.90 | 20.72 - 20.92 | 3755 | | 0.35142 | 0.0351 | LRL |
| 1,1,2-Trichloroethane | 21.38 | 21.22 - 21.42 | 1862 | | 0.13595 | 0.0136 | |
| Tetrachloroethene | 21.62 | 21.49 - 21.69 | 7106 | | 0.40126 | 0.0401 | |
| | 22.19 | | 1234 | | | | |
| Chlorodibromomethane | 22.54 | 22.37 - 22.57 | 3543 | | 0.34516 | 0.0345 | |
| | 22.81 | | 9537 | | | | |
| Chlorobenzene | 24.39 | 24.26 - 24.46 | 15264 | M | 2.3689 | 0.237 | NotC |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

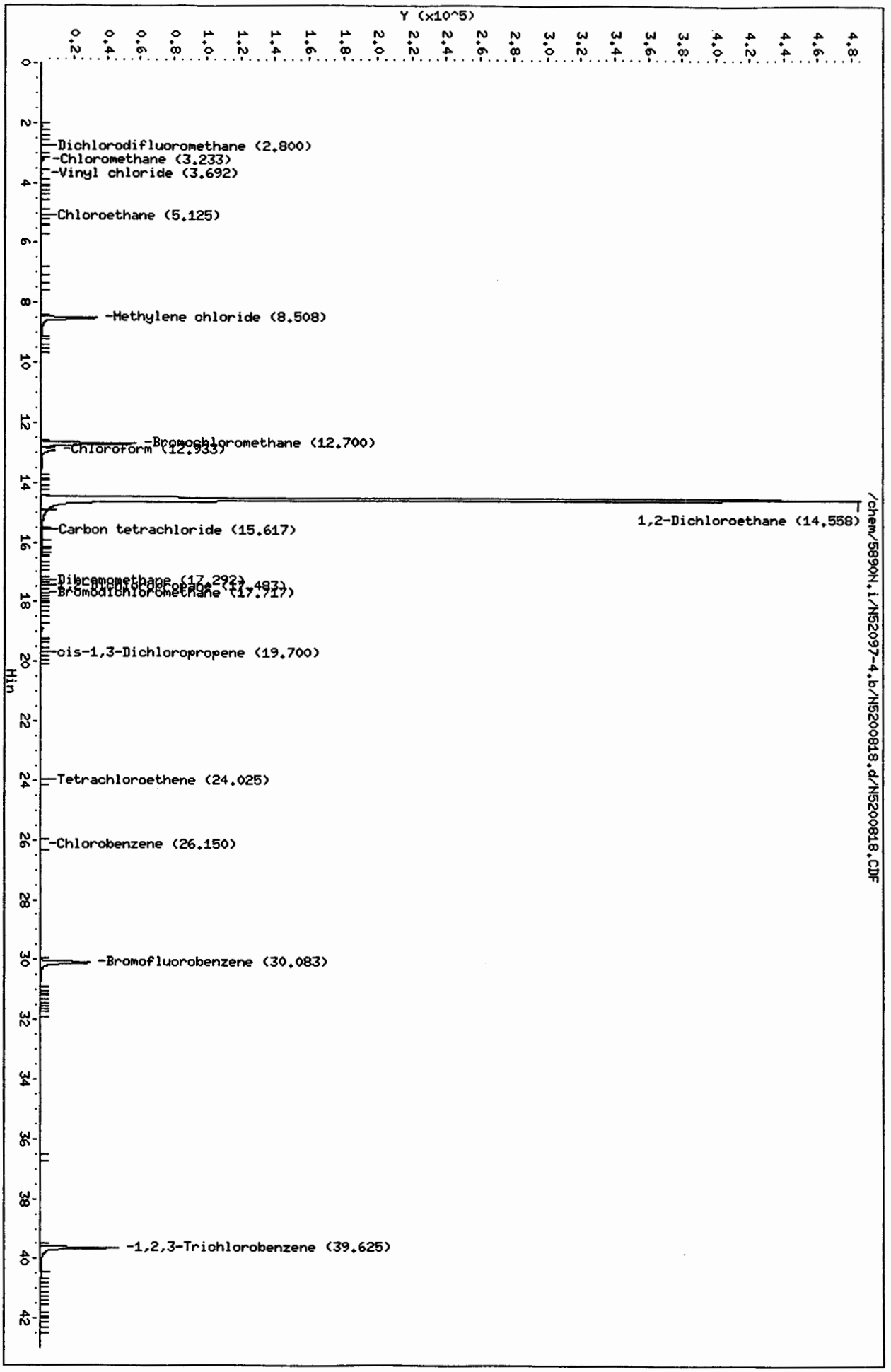
Data File : N5200818.d
Injection Date : 20-MAY-97 11:45:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 24.73 | 24.64 - 24.84 | 5384 | M | 0.29830 | 0.0298 | 2RL |
| | 26.43 | | 10008 | | | | |
| Bromoform | 27.19 | 27.06 - 27.26 | 1563 | | 0.24409 | 0.0244 | |
| | 28.03 | | 814 | | | | |
| Bromofluorobenzene | 28.38 | 28.28 - 28.48 | 761139 | | 175.88 | 17.6 | |
| 1122PCA/123TCP | 29.14 | 29.03 - 29.23 | 33496 | | 3.7678 | 0.377 | NotCon |
| | 30.21 | | 17547 | | | | |
| 1,3-Dichlorobenzene | 32.22 | 32.09 - 32.29 | 4559 | | 0.53147 | 0.0531 | |
| 1,4-Dichlorobenzene | 32.59 | 32.44 - 32.64 | 6681 | | 0.70717 | 0.0707 | 2RL |
| Benzyl chloride | 33.17 | 33.02 - 33.22 | 4377 | | 1.5201 | 0.152 | |
| 1,2-Dichlorobenzene | 33.88 | 33.73 - 33.93 | 5280 | | 0.59185 | 0.0592 | |
| | 34.76 | | 27092 | | | | |
| 1,2,3-Trichlorobenzene | 38.52 | 38.42 - 38.62 | 899817 | | 101.15 | 10.1 | |
| | 39.73 | | 52431 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N52097-4.b/N5200818.d
Date : 20-MAY-97 11:45:00
Client ID: AOC1001GP11
Sample Info: 9705220-01
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-4.b/N5200818.d
Injection Date : 20-MAY-97 11:45:00
Sample Info : 9705220-01
Misc. Info : None
Laboratory ID : 9705220-01 Client ID : AOC1001GP11
Instrument ID : 5890N.i
Method : 511HVB08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.12 | | 2817 | | | |
| | 2.30 | | 1123 | | | |
| | 2.42 | | 1176 | | | |
| Dichlorodifluoromethane | 2.80 | 2.76 - 2.86 | 2593 | | 1.1480 | 0.115 |
| | 3.06 | | 1323 | | | |
| Chloromethane | 3.23 | 3.17 - 3.27 | 12325 | | 2.8791 | 0.288 |
| Vinyl chloride | 3.69 | 3.63 - 3.73 | 4072 | | 1.1151 | 0.112 |
| | 3.89 | | 1701 | | | |
| | 4.18 | | 1505 | | | |
| | 4.28 | | 1016 | | | |
| | 4.72 | | 2641 | | | |
| Chloroethane | 5.12 | 5.05 - 5.15 | 1394 | | 0.40186 | 0.0402 |
| | 5.24 | | 1092 | | | |
| | 5.48 | | 1668 | | | |
| | 6.89 | | 3256 | | | |
| | 7.44 | | 1287 | | | |
| Methylene chloride | 8.51 | 8.46 - 8.56 | 193137 | | 35.727 | 3.57 P |
| | 9.21 | | 3613 | | | |
| | 9.57 | | 1711 | | | |
| Bromochloromethane | 12.70 | 12.65 - 12.75 | 300933 | | 78.871 | 7.89 |
| Chloroform | 12.93 | 12.89 - 12.99 | 85227 | | 12.402 | 1.24 Conf |
| | 13.76 | | 2605 | | | |
| | 13.97 | | 2074 | | | |
| | 14.15 | | 1928 | | | |
| | 14.29 | | 1402 | | | |
| 1,2-Dichloroethane | 14.56 | 14.46 - 14.66 | 3027364 | M | 766.58 | 76.6 Conf |
| | 14.94 | | 62077 | | | |
| | 15.58 | | 2794 | | | |
| Carbon tetrachloride | 15.62 | 15.53 - 15.73 | 13603 | | 2.1798 | 0.218 |
| | 15.93 | | 7908 | | | |
| | 16.22 | | 3574 | | | |
| | 16.38 | | 2521 | | | |
| | 16.49 | | 4419 | | | |
| | 16.69 | | 2671 | | | |

MA 6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5200818.d
Injection Date : 20-MAY-97 11:45:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 17.01 | | 3602 | | |
| Dibromomethane | 17.29 | 17.23 - 17.43 | 1607 | 0.80192 | 0.0802 |
| | 17.39 | | 1416 | | |
| 1,2-Dichloropropane | 17.48 | 17.40 - 17.60 | 2286 | 0.~~54163~~ | ~~0.0542~~ |
| Bromodichloromethane | 17.72 | 17.68 - 17.88 | 1729 | 0.32679 | 0.0327 |
| | 17.89 | | 1437 | | |
| | 18.07 | | 1778 | | |
| | 18.35 | | 1805 | | |
| | 18.89 | | 13783 | | |
| | 19.29 | | 1234 | | |
| | 19.38 | | 1414 | | |
| cis-1,3-Dichloropropene | 19.70 | 19.67 - 19.87 | 1131 | 0.29622 | 0.0296 |
| | 19.98 | | 1125 | | |
| Tetrachloroethene | 24.02 | 23.93 - 24.13 | 1028 | 0.19360 | 0.0194 |
| Chlorobenzene | 26.15 | 26.02 - 26.22 | 2131 | ~~0.80087~~ | ~~0.0801~~ |
| Bromofluorobenzene | 30.08 | 29.97 - 30.17 | 199437 | 154.56 | 15.4 |
| | 31.05 | | 1306 | | |
| | 31.20 | | 1559 | | |
| | 31.46 | | 1033 | | |
| | 31.65 | | 1020 | | |
| | 31.78 | | 1302 | | |
| | 36.62 | | 1031 | | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 251440 | 95.002 | 9.50 |
| | 40.70 | | 3028 | | |
| | 40.96 | | 3112 | | |
| | 41.28 | | 1721 | | |
| | 41.40 | | 1967 | | |
| | 41.87 | | 1306 | | |
| | 42.02 | | 1002 | | |
| | 42.36 | | 1050 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001GP15**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 10 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0801

Lab Sample ID: 9705220-02

Lab File ID: N5202118.D

Date Collected: 05/07/97

Date Received: 05/08/97

Date Prepared: 05/20/97

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.0 | U | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.41 | P | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.24 | P | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 5.3 | | 0.20 |
| 79-01-6 | Trichloroethene | 14 | | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.1 | P | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.75 | X | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC1001GP15**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0801

Matrix: (soil/water) WATER

Lab Sample ID: 9705220-02

Purge Volume: 10 ml

Lab File ID: N5202118.D

% Moisture: N/A

Date Collected: 05/07/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 8.9 | | 0.20 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC1001GP15**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705220-02

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5202118.d  File (2): N5202118.d

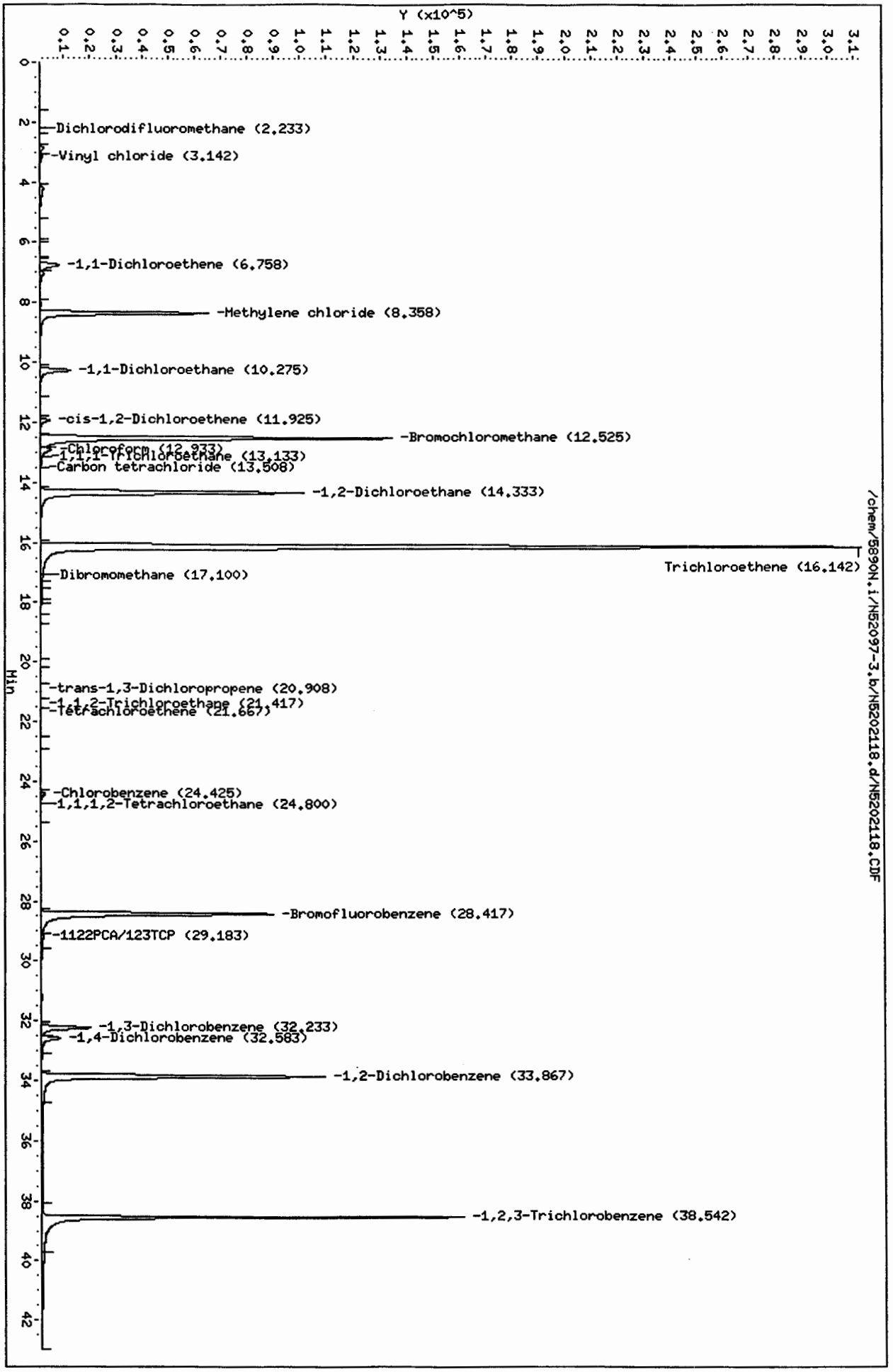
Date Analyzed (1) 05/20/97  Date Analyzed (2): 05/20/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 1 | 10.28 | 10.19 | 10.29 | 0.696 | 69.8 |
| | 2 | 10.87 | 10.78 | 10.88 | 0.41 X | |
| Chloroform | 1 | 12.93 | 12.82 | 13.02 | 0.236 X | 34.7 |
| | 2 | 12.94 | 12.89 | 12.99 | 0.318 | |
| 1,2-Dichloroethane | 1 | 14.33 | 14.22 | 14.42 | 5.3 X | 15.1 |
| | 2 | 14.58 | 14.46 | 14.66 | 6.1 | |
| Trichloroethene | 1 | 16.14 | 16.02 | 16.22 | 14.7 | 1.4 |
| | 2 | 17.68 | 17.56 | 17.76 | 14.5 X | |
| 1,3-Dichlorobenzene | 1 | 32.23 | 32.09 | 32.29 | 1.67 | 56.1 |
| | 2 | 34.26 | 34.13 | 34.33 | 1.07 X | |
| 1,4-Dichlorobenzene | 1 | 32.58 | 32.44 | 32.64 | 0.75 X | 10.1 |
| | 2 | 34.52 | 34.38 | 34.58 | 0.826 | |
| 1,2-Dichlorobenzene | 1 | 33.87 | 33.73 | 33.93 | 9.48 | 6.6 |
| | 2 | 35.48 | 35.36 | 35.56 | 8.89 X | |

X = Concentration Reported

Data File: /chem/5890N.i/N52097-3.b/N5202118.d
Date : 20-MAY-97 22:01:00
Client ID: AOC1001GP15
Sample Info: 9705220-02
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-3.b/N5202118.d
Injection Date : 20-MAY-97 22:01:00
Sample Info : 9705220-02
Misc. Info : None
Laboratory ID : 9705220-02 Client ID : AOC1001GP15
Instrument ID : 5890N.i
Method : 511HVA08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.77 | | 4152 | | | |
| Dichlorodifluoromethane | 2.23 | 2.23 - 2.33 | 646 | | 0.086216 | 0.00862 |
| | 2.44 | | 867 | | | |
| | 2.85 | | 15764 | | | <RL |
| Vinyl chloride | 3.14 | 3.07 - 3.17 | 14761 | | 1.4768 | 0.148 |
| | 4.22 | | 34937 | | | |
| | 5.33 | | 2785 | | | |
| | 6.23 | | 1354 | | | Not |
| 1,1-Dichloroethene | 6.76 | 6.72 - 6.82 | 69501 | | 7.1566 | 0.716 Conf |
| | 7.03 | | 21185 | | | |
| | 8.03 | | 5665 | | | |
| Methylene chloride | 8.36 | 8.28 - 8.38 | 435583 | | 47.262 | 4.73 see VB |
| 1,1-Dichloroethane | 10.28 | 10.19 - 10.29 | 97734 | | 6.9610 | 0.696 C |
| cis-1,2-Dichloroethene | 11.92 | 11.78 - 11.98 | 30217 | | 1.9170 | 0.192 <RL |
| Bromochloromethane | 12.52 | 12.40 - 12.60 | 940054 | | 81.668 | 8.17 |
| Chloroform | 12.93 | 12.82 - 13.02 | 45004 | M | 2.3650 | 0.236 P |
| 1,1,1-Trichloroethane | 13.13 | 13.03 - 13.23 | 10455 | M | 0.58969 | 0.0590 <RL |
| Carbon tetrachloride | 13.51 | 13.47 - 13.67 | 4603 | M | 0.24950 | 0.0249 |
| 1,2-Dichloroethane | 14.33 | 14.22 - 14.42 | 768999 | | 52.964 | 5.30 |
| Trichloroethene | 16.14 | 16.02 - 16.22 | 2440395 | | 146.94 | 14.7 Conf |
| Dibromomethane | 17.10 | 16.95 - 17.15 | 11372 | M | 1.4135 | 0.141 <RL |
| | 17.29 | | 7510 | | | |
| | 17.52 | | 7913 | | | |
| | 17.94 | | 2182 | | | |
| | 18.08 | | 5356 | | | |
| | 18.48 | | 3876 | | | |
| | 20.01 | | 1381 | | | |
| trans-1,3-Dichloropropene | 20.91 | 20.72 - 20.92 | 2271 | | 0.21254 | 0.0212 <R |
| 1,1,2-Trichloroethane | 21.42 | 21.22 - 21.42 | 1773 | | 0.12946 | 0.0129 |
| Tetrachloroethene | 21.67 | 21.49 - 21.69 | 5942 | | 0.33553 | 0.0336 |
| | 22.64 | | 1375 | | | |
| Chlorobenzene | 24.42 | 24.26 - 24.46 | 15804 | | 2.4527 | 0.245 see V |
| 1,1,1,2-Tetrachloroethane | 24.80 | 24.64 - 24.84 | 3103 | | 0.17192 | 0.0172 <RL |
| Bromofluorobenzene | 28.42 | 28.28 - 28.48 | 675781 | | 156.16 | 15.6 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

VA 6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

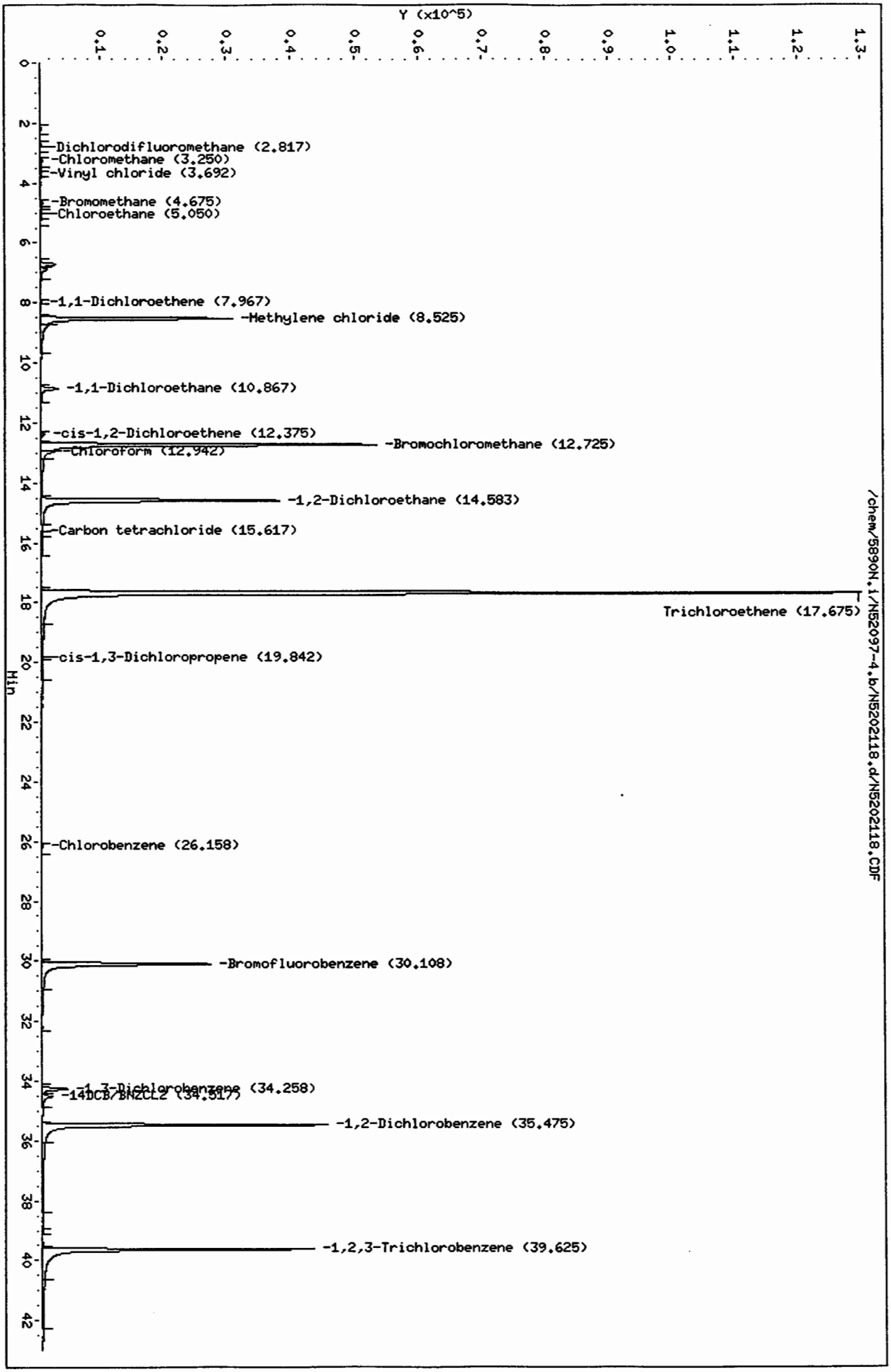
Data File : N5202118.d
Injection Date : 20-MAY-97 22:01:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| 1122PCA/123TCP | 29.18 | 29.03 - 29.23 | 18941 | | ~~2.1306~~ | ~~0.213~~ Not Co |
| | 31.18 | | 28688 | | | |
| 1,3-Dichlorobenzene | 32.23 | 32.09 - 32.29 | 143356 | | 16.712 | 1.67 Cont |
| 1,4-Dichlorobenzene | 32.58 | 32.44 - 32.64 | 70884 | M | 7.5029 | 0.750 |
| | 33.08 | | 8485 | | | |
| 1,2-Dichlorobenzene | 33.87 | 33.73 - 33.93 | 846094 | | 94.842 | 9.48 Cont |
| | 34.76 | | 105162 | | | |
| 1,2,3-Trichlorobenzene | 38.54 | 38.42 - 38.62 | 840878 | | 94.528 | 9.45 |
| | 39.69 | | 80115 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data : /chem/5890N.i/N52097-4.b/N5202118.d
Date : 20-MAY-97 22:01:00
Client ID: AOC10010P15
Sample Info: 9705220-02
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-4.b/N5202118.d
Injection Date : 20-MAY-97 22:01:00
Sample Info : 9705220-02
Misc. Info : None
Laboratory ID : 9705220-02 Client ID : AOC1001GP15
Instrument ID : 5890N.i
Method : 511HVB08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.16 | | 1352 | | | |
| | 2.71 | | 720 | | | |
| Dichlorodifluoromethane | 2.82 | 2.76 - 2.86 | 964 | M | 0.42680 | 0.0427 |
| | 3.09 | | 544 | | | |
| Chloromethane | 3.25 | 3.17 - 3.27 | 3818 | | 0.89188 | 0.0892 |
| Vinyl chloride | 3.69 | 3.63 - 3.73 | 1440 | | 0.39434 | 0.0394 |
| Bromomethane | 4.68 | 4.58 - 4.68 | 3050 | | 2.1484 | 0.215 |
| | 4.92 | | 1003 | | | |
| Chloroethane | 5.05 | 5.05 - 5.15 | 1075 | | 0.30990 | 0.0310 |
| | 5.26 | | 1070 | | | |
| | 6.72 | | 15736 | | | |
| | 6.88 | | 9805 | | | |
| 1,1-Dichloroethene | 7.97 | 7.90 - 8.00 | 1091 | | 0.27783 | 0.0278 |
| Methylene chloride | 8.52 | 8.46 - 8.56 | 158153 | M | ~~29.256~~ | ~~2.92~~ <RL |
| | 8.70 | | 27228 | | | |
| 1,1-Dichloroethane | 10.87 | 10.78 - 10.88 | 19189 | | 4.0992 P | 0.410 |
| cis-1,2-Dichloroethene | 12.38 | 12.30 - 12.40 | 3504 | | 0.71649 | 0.0716 |
| Bromochloromethane | 12.72 | 12.65 - 12.75 | 289014 | | 75.747 | 7.57 |
| Chloroform | 12.94 | 12.89 - 12.99 | 21876 | M | 3.1834 | 0.318 Conf |
| | 13.21 | | 19993 | | | |
| 1,2-Dichloroethane | 14.58 | 14.46 - 14.66 | 241104 | | 61.051 | 6.10 Conf |
| Carbon tetrachloride | 15.62 | 15.53 - 15.73 | 2521 | | 0.40398 | 0.0404 |
| | 15.82 | | 5941 | | | |
| Trichloroethene | 17.68 | 17.56 - 17.76 | 824602 | | 145.05 | 14.5 |
| | 18.72 | | 21243 | | | |
| cis-1,3-Dichloropropene | 19.84 | 19.67 - 19.87 | 1209 | | 0.31664 | 0.0317 |
| | 19.91 | | 6899 | | | |
| Chlorobenzene | 26.16 | 26.02 - 26.22 | 1932 | | 0~~.72608~~ | ~~0.0726~~ <RL |
| Bromofluorobenzene | 30.11 | 29.97 - 30.17 | 186171 | | 144.27 | 14.4 |
| | 30.93 | | 12326 | | | |
| 1,3-Dichlorobenzene | 34.26 | 34.13 - 34.33 | 24713 | | 10.682 | 1.07 |
| 14DCB/BNZCL2 | 34.52 | 34.38 - 34.58 | 15764 | | 8.2622 Conf | 0.826 |
| 1,2-Dichlorobenzene | 35.48 | 35.36 - 35.56 | 245224 | | 88.943 | 8.89 |
| | 36.05 | | 35593 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N5202118.d
Injection Date : 20-MAY-97 22:01:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 38.98 | | 1033 | | |
| 1,2,3-Trichlorobenzene | 39.62 | 39.52 - 39.72 | 239991 | 90.676 | 9.07 |
| | 40.62 | | 23217 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC10011**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0801

Matrix: (soil/water) WATER

Lab Sample ID: 9705220-03

Purge Volume: 10 ml

Lab File ID: N5202018.D

% Moisture: N/A

Date Collected: 05/06/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 4.2 | P | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.20 | U | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**AOC10011**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0801

Matrix: (soil/water) WATER

Lab Sample ID: 9705220-03

Purge Volume: 10 ml

Lab File ID: N5202018.D

% Moisture: N/A

Date Collected: 05/06/97

Extraction: PURGE&TRAP

Date Received: 05/08/97

Date Prepared: 05/20/97

Dilution Factor: 1.0

Date Analyzed: 05/20/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**AOC10011**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9705220-03

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N5202018.d  File (2): N5202018.d

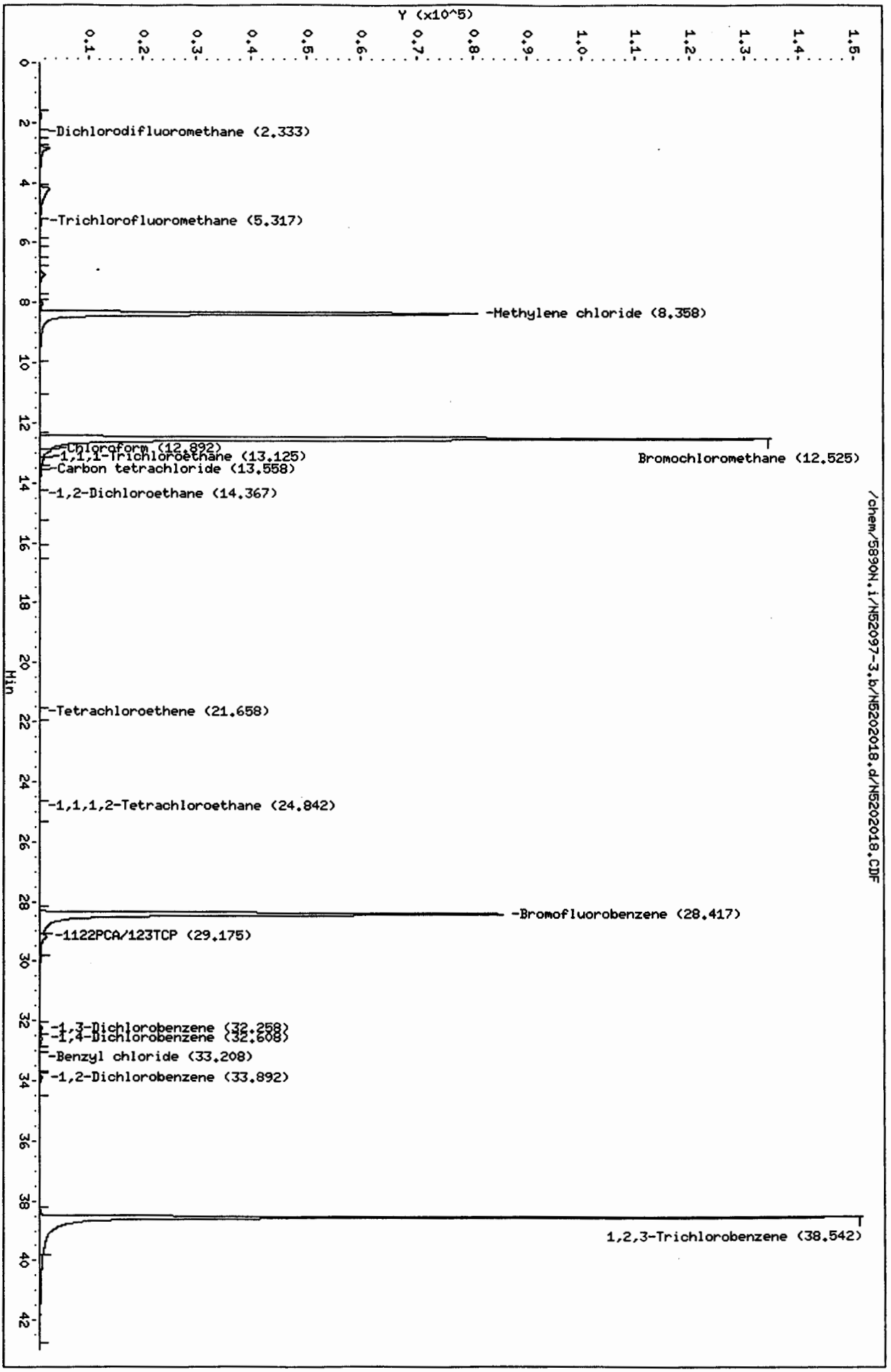
Date Analyzed (1) 05/20/97  Date Analyzed (2): 05/20/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Methylene chloride | 1 | 8.36 | 8.28 | 8.38 | 5.95 | 40.7 |
| | 2 | 8.53 | 8.46 | 8.56 | 4.23 X | |

X = Concentration Reported

Data F /chem/5890N.i/N52097-3.b/N5202018.d
Date : 27-MAY-97 21:13:00
Client ID: AOC10011
Sample Info: 9705220-03
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




/chem/5890N.i/N52097-3.b/N5202018.d/N5202018.CDF

Page

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-3.b/N5202018.d
Injection Date : 20-MAY-97 21:13:00
Sample Info : 9705220-03
Misc. Info : None
Laboratory ID : 9705220-03 Client ID : AOC10011
Instrument ID : 5890N.i
Method : 511HVA08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

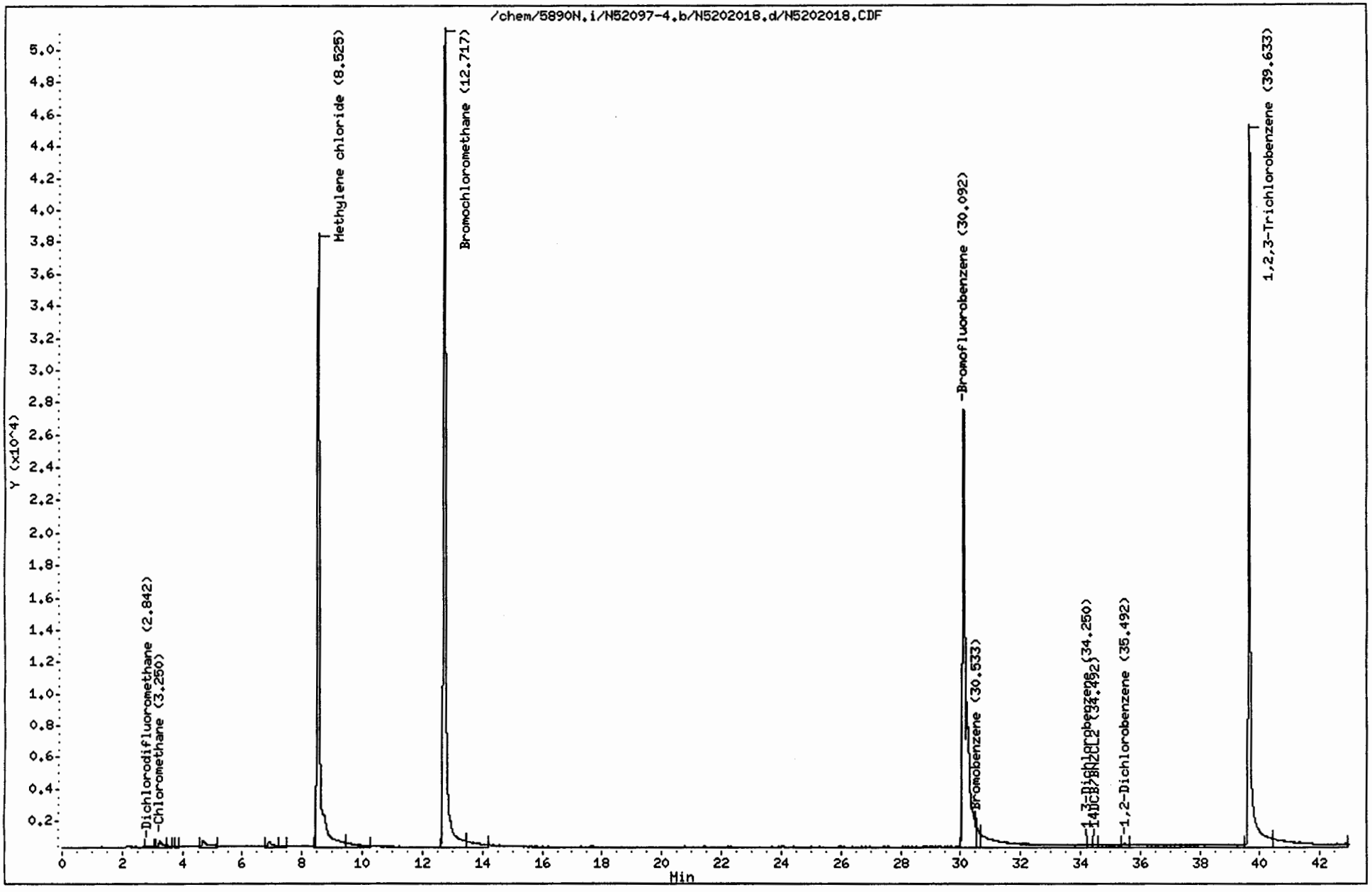
| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.78 | | 3725 | | | |
| Dichlorodifluoromethane | 2.33 | 2.23 - 2.33 | 590 | | 0.078742 | 0.00787 |
| | 2.86 | | 23311 | | | <RL |
| | 4.21 | | 40655 | | | |
| Trichlorofluoromethane | 5.32 | 5.22 - 5.32 | 3376 | | 0.28167 | 0.0282 |
| | 6.19 | | 801 | | | |
| | 7.06 | | 11960 | | | |
| | 8.03 | | 4877 | | | |
| Methylene chloride | 8.36 | 8.28 - 8.38 | 548416 | | 59.504 | 5.95 See VR |
| | 10.06 | | 2957 | | | |
| Bromochloromethane | 12.52 | 12.40 - 12.60 | 950964 | M | 82.616 | 8.26 |
| Chloroform | 12.89 | 12.82 - 13.02 | 21184 | M | 1.1132 | 0.111 |
| 1,1,1-Trichloroethane | 13.12 | 13.03 - 13.23 | 10031 | M | 0.56578 | 0.0566 |
| | 13.42 | | 2060 | | | <RL |
| Carbon tetrachloride | 13.56 | 13.47 - 13.67 | 4768 | M | 0.25844 | 0.0258 |
| 1,2-Dichloroethane | 14.36 | 14.22 - 14.42 | 3656 | M | 0.25173 | 0.0252 |
| | 16.22 | | 838 | | | |
| Tetrachloroethene | 21.66 | 21.49 - 21.69 | 1017 | | 0.057428 | 0.00574 |
| 1,1,1,2-Tetrachloroethane | 24.84 | 24.64 - 24.84 | 654 | | 0.036235 | 0.00362 |
| Bromofluorobenzene | 28.42 | 28.28 - 28.48 | 645486 | | 149.16 | 14.9 |
| 1122PCA/123TCP | 29.18 | 29.03 - 29.23 | 22335 | M | ~~2.5124~~ | ~~0.251~~ Not C |
| | 29.83 | | 11190 | | | |
| 1,3-Dichlorobenzene | 32.26 | 32.09 - 32.29 | 4586 | | 0.53462 | 0.0535 |
| 1,4-Dichlorobenzene | 32.61 | 32.44 - 32.64 | 5620 | | 0.59486 | 0.0595 <RL |
| Benzyl chloride | 33.21 | 33.02 - 33.22 | 2533 | | 0.87969 | 0.0880 |
| 1,2-Dichlorobenzene | 33.89 | 33.73 - 33.93 | 6055 | | 0.67873 | 0.0679 |
| | 36.75 | | 13994 | | | |
| 1,2,3-Trichlorobenzene | 38.54 | 38.42 - 38.62 | 763401 | | 85.819 | 8.58 |
| | 39.82 | | 37427 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-3-97

Data File: /chem/5890N.i/N52097-4.b/N5202018.d
Date : -MAY-97 21:13:00
Client ID: AOC10011
Sample Info: 9705220-03
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N52097-4.b/N5202018.d
Injection Date : 20-MAY-97 21:13:00
Sample Info : 9705220-03
Misc. Info : None
Laboratory ID : 9705220-03 Client ID : AOC10011
Instrument ID : 5890N.i
Method : 511HVB08.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.84 | 2.76 - 2.86 | 1082 | | 0.47904 | 0.0479 |
| Chloromethane | 3.25 | 3.17 - 3.27 | 3811 | | 0.89025 | 0.0890 |
| | 3.52 | | 1261 | | | |
| | 3.79 | | 1020 | | | |
| | 4.69 | | 7056 | | | |
| | 6.90 | | 4334 | | | |
| | 7.25 | | 1195 | | | |
| Methylene chloride | 8.52 | 8.46 - 8.56 | 228755 | | 42.316 | 4.23 |
| | 9.49 | | 7184 | | | |
| Bromochloromethane | 12.72 | 12.65 - 12.75 | 306929 | | 80.443 | 8.04 |
| | 13.48 | | 10410 | | | |
| Bromofluorobenzene | 30.09 | 29.97 - 30.17 | 230424 | M | 178.57 | 17.8 |
| Bromobenzene | 30.53 | 30.46 - 30.66 | 8559 | | 5.4371 | 0.544 |
| | 30.66 | | 55199 | | | |
| 1,3-Dichlorobenzene | 34.25 | 34.13 - 34.33 | 2005 | | 0.86662 | 0.0867 |
| 14DCB/BNZCL2 | 34.49 | 34.38 - 34.58 | 1940 | | 1.0168 | 0.102 |
| | 35.35 | | 6424 | | | |
| 1,2-Dichlorobenzene | 35.49 | 35.36 - 35.56 | 2536 | | 0.91981 | 0.0920 |
| | 38.70 | | 33456 | | | |
| 1,2,3-Trichlorobenzene | 39.63 | 39.52 - 39.72 | 230510 | M | 87.094 | 8.71 |
| | 40.47 | | 39951 | | | |

6-3-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING * (SEE BELOW)

CHAIN OF CUSTODY RECORD 01832 SDG # 9705220

PAGE 1 OF ____

WORK ORDER ID# 9705220

**Laucks Testing Laboratories, Inc.**

SUBMITTED AT:
☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

10

COMPANY: Fluor Daniel GTI
ADDRESS: 2501 Yale Blvd
ALBQ NM 87106
ATTENTION: Chuck Schick
PROJECT NAME: DOE WAD 29
PROJECT CONTACT: Chuck Schick
TELEPHONE: 505-242-3113 FAX: 505-242-1103
JOB/P.O. NO.: 812200082903

TESTS TO PERFORM

| LAB SA# | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | EPA Method 8021A | EPA Method 8330 | OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|---|
| 1) 1 | AOC1001GP11 | 5/6 | 1235 | W | 6 | 4 | 2 | |
| 2) 2 | AOC1001GP15 | 5/7 | 0815 | W | 6 | 4 | 2 | |
| 3 | AOC100IDP11 | 5/6 | 1100 | S | 1 | 1 | | |
| 4 | AOC1001DP18 | 5/7 | 1000 | S | 1 | 1 | | |
| 3) 5 | AOC10011 | | | | | | | |
| 5/8/97 | | | | | | | | |

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS
1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

*BILLING INFORMATION, IF DIFFERENT THAN ABOVE
NAME ADDRESS
ATTN: CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
☒ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☐ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER:
☐ TEMP:
CUSTODY SEAL: ☐Y ☐N ☐N/A

| RELINQUISHED BY (SIGN AND PRINT) | DATE TIME | RECEIVED BY (SIGN AND PRINT) | DATE TIME |
|---|---|---|---|
| Charles Madewell | 5-7-97 1400 | Linda Smith / Linda Smith | 5/8/97 0845 |
| / | | / | |

FINAL REPORT COPY

# SAMPLE DATA

SDG# G0803

Lab No. 9705281

Ordnance by 8330

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705281-01
Client ID : AOC1001GP13

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 4.9
Percent Moist : 100

Collection Date: 05/08/97
Date Received : 05/10/97
Ext Started : 05/13/97
Ext Completed : 05/14/97
Date Analyzed : 05/20/97
Date Confirmed : 05/20/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.4 | U | 0.27 |
| 121-82-4---- | RDX | 0.78 | U | 0.16 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 0.83 | U | 0.17 |
| 99-65-0----- | 1,3-Dinitrobenzene | 0.88 | U | 0.18 |
| 98-95-3----- | Nitrobenzene | 1.5 | U | 0.29 |
| 479-45-8---- | Tetryl | 1.2 | U | 0.24 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 0.88 | U | 0.18 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 1.6 | U | 0.31 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 0.88 | U | 0.18 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.1 | U | 0.41 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.2 | U | 0.23 |
| 88-72-2----- | 2-Nitrotoluene | 2.0 | U | 0.38 |
| 99-08-1----- | 4-Nitrotoluene | 2.0 | U | 0.38 |
| 99-99-0----- | 3-Nitrotoluene | 2.0 | U | 0.38 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

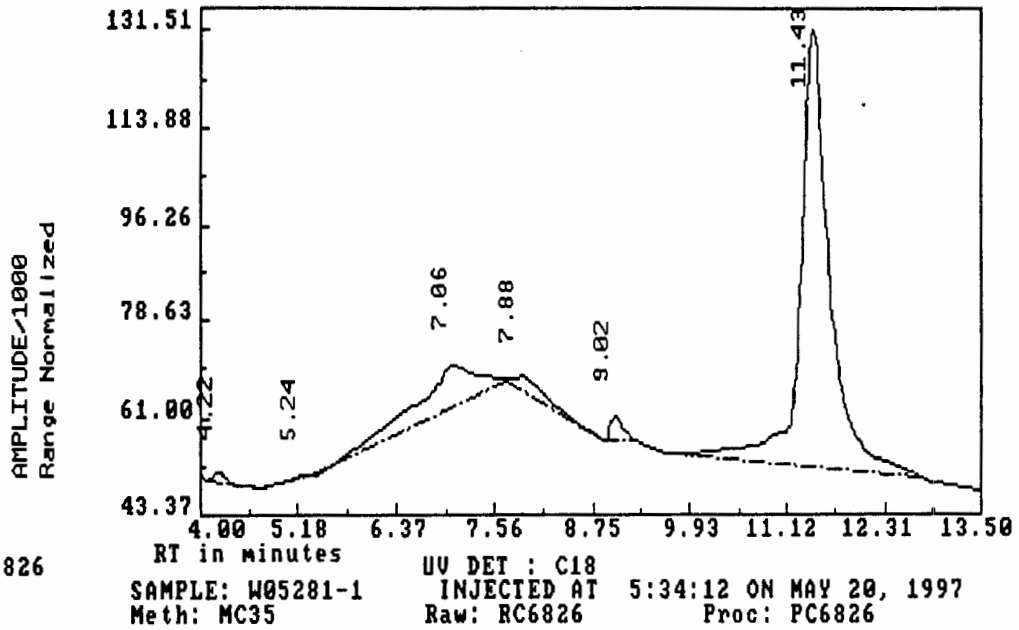
Sample ID : 9705281-01
Client ID : AOC1001GP13

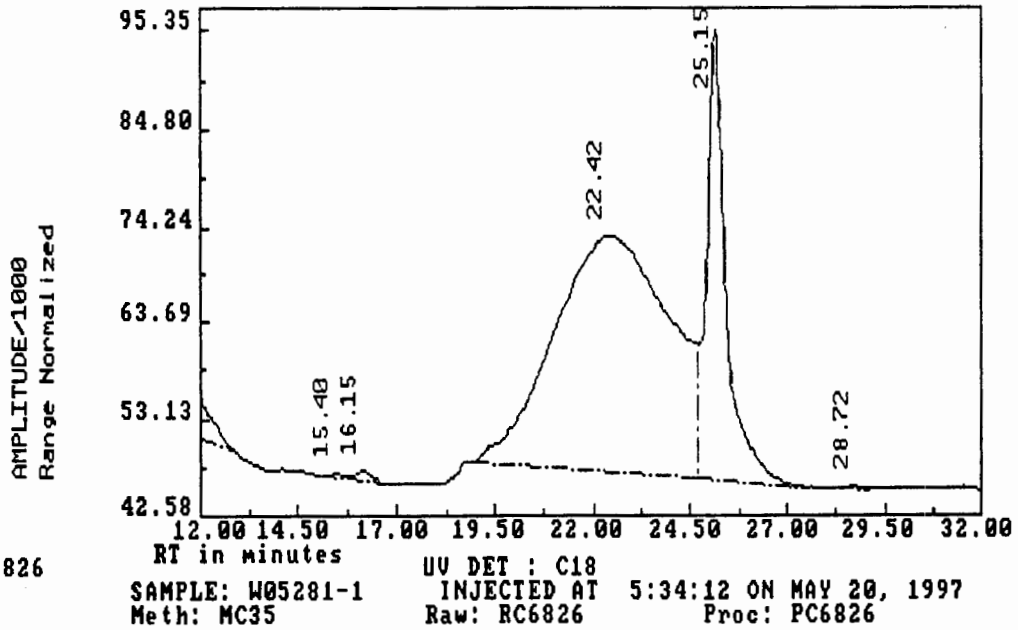
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6826 | RD6835 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

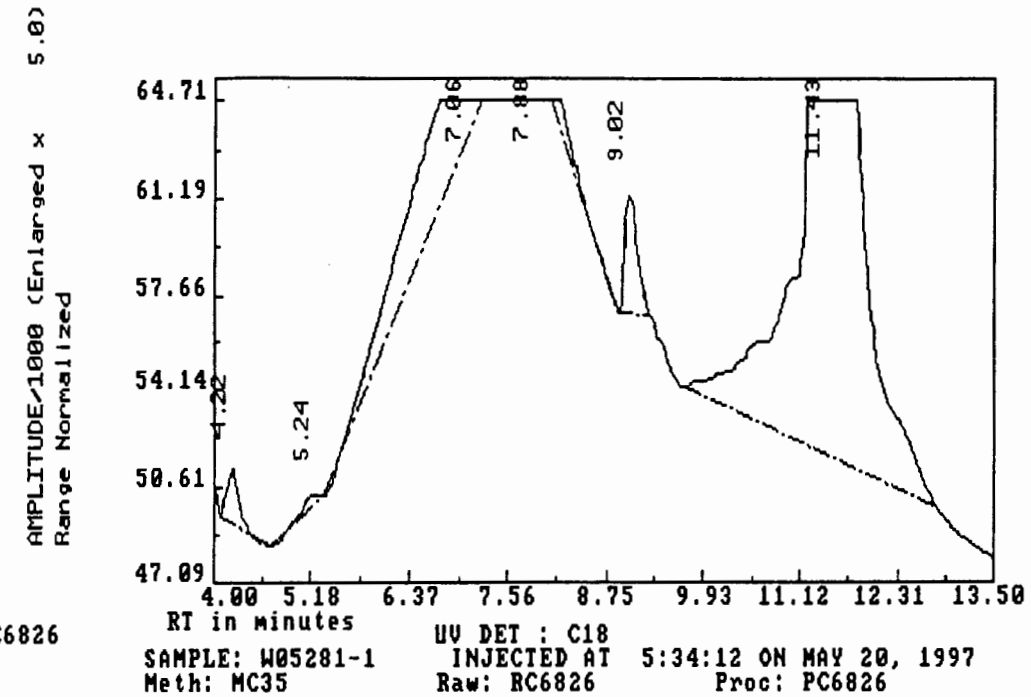
| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|

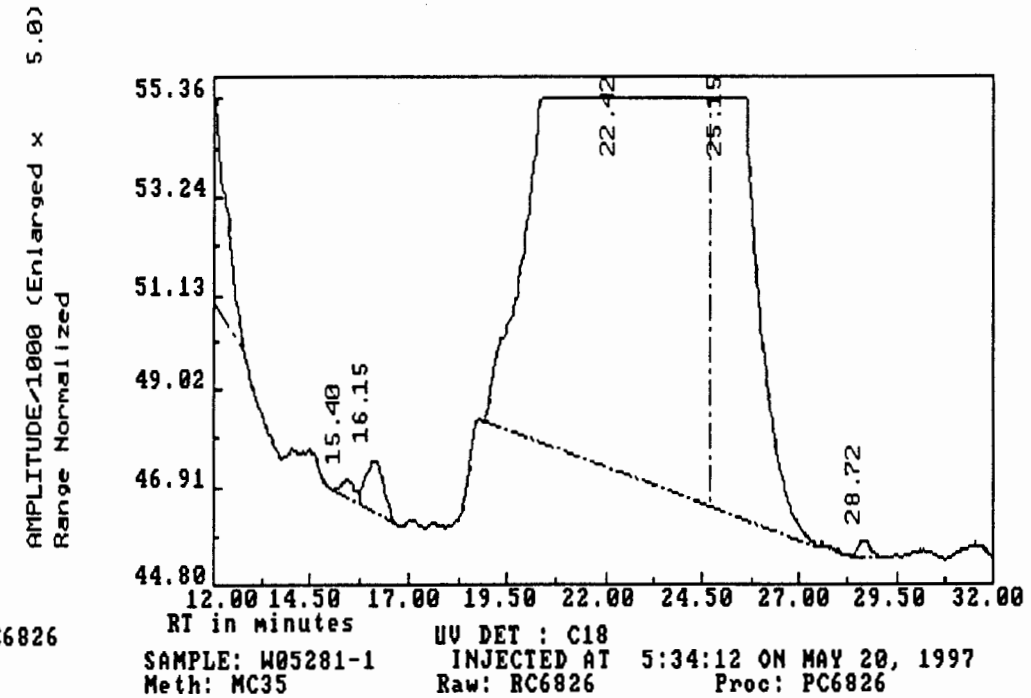
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF


131.51
113.88
96.26
78.63
61.00
43.37
AMPLITUDE/1000
Range Normalized
4.22
5.24
7.06
7.88
9.02
11.43
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6826
UV DET : C18
SAMPLE: W05281-1
INJECTED AT 5:34:12 ON MAY 20, 1997
Meth: MC35
Raw: RC6826
Proc: PC6826


95.35
84.80
74.24
63.69
53.13
42.58
AMPLITUDE/1000
Range Normalized
15.48
16.15
22.42
25.15
28.72
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6826
UV DET : C18
SAMPLE: W05281-1
INJECTED AT 5:34:12 ON MAY 20, 1997
Meth: MC35
Raw: RC6826
Proc: PC6826


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
64.71
61.19
57.66
54.14
50.61
47.09
4.22
5.24
7.06
7.88
9.02
11.43
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6826
UV DET : C18
SAMPLE: W05281-1
INJECTED AT 5:34:12 ON MAY 20, 1997
Meth: MC35
Raw: RC6826
Proc: PC6826


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
55.36
53.24
51.13
49.02
46.91
44.80
15.40
16.15
22.42
25.15
28.72
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6826
UV DET : C18
SAMPLE: W05281-1
INJECTED AT 5:34:12 ON MAY 20, 1997
Meth: MC35
Raw: RC6826
Proc: PC6826

FILE:RC6826 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10594.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05281-1 INJECTED AT 5:34:12 ON MAY 20, 1997

ESTD METHOD: MC0515 SEQ: SC0519 SUBSQ/SAMP: 1/ 26

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

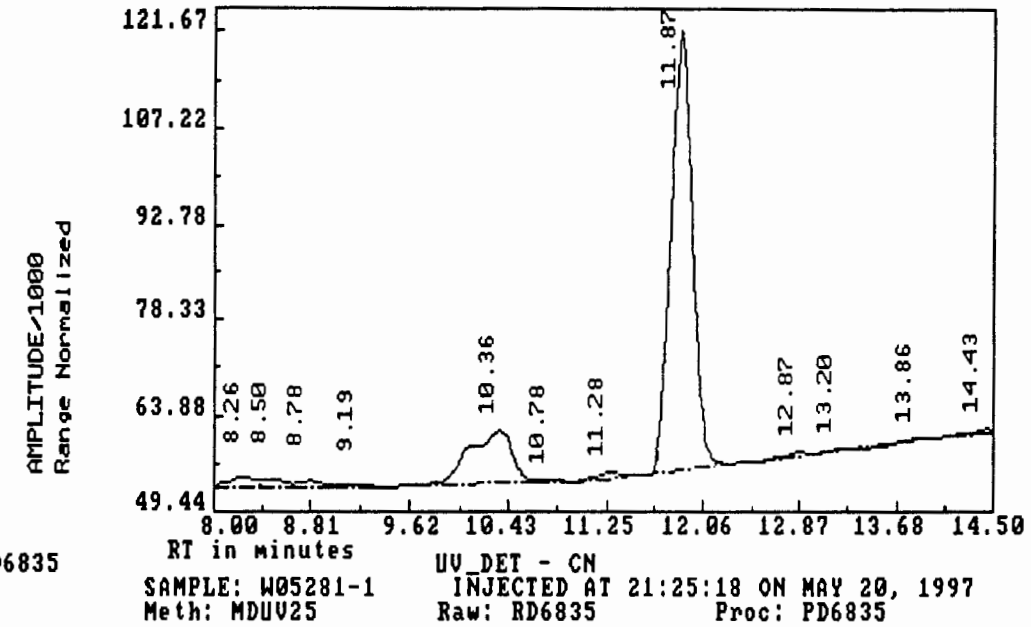
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 1.33 | | 0.0000E+ 0 | 2084 | BB | 0.000 | |
| 3.15 | | 0.0000E+ 0 | 47493 | BV | 0.000 | |
| 3.42 | | 0.0000E+ 0 | 105332 | VV | 0.000 | |
| 3.78 | | 0.0000E+ 0 | 2300 | VF | 0.000 | |
| 4.22 | | 0.0000E+ 0 | 4337 | BV | 0.000 | |
| 5.24 | | 0.0000E+ 0 | 1481 | VV | 0.000 | |
| 7.06 | | 0.0000E+ 0 | 98341 | VB | 0.000 | |
| 7.88 | 7.96 | 6.8847E- 6 | 13981 | BV | .096 | ~~RDX~~ Not on CN |
| 9.02 | | 0.0000E+ 0 | 11635 | VF | 0.000 | |
| 11.43 | 11.43# | 4.3299E- 6 | 520931 | BF | 2.256 | #1-2-DNB |
| 15.40 | 15.39 | 3.9471E- 6 | 2283 | VV | .009 | ~~TETRYL~~ <SDL |
| 16.15 | 16.23 | 2.9334E- 6 | 8572 | VV | .025 | ~~NBE~~ Not on CN |
| 22.42 | 22.64 | 2.2063E- 6 | 1329225 | BV | 2.933 | ~~DNT-24~~ RT off |
| 25.15 | 26.10 | 7.4212E- 6 | 425756 | VB | 3.160 | ~~NT-2~~ RT off |
| 28.72 | 29.26 | 6.7408E- 6 | 1717 | VB | .012 | ~~NT-3~~ RT off |
| 34.33 | | 0.0000E+ 0 | 22169 | BF | 0.000 | |

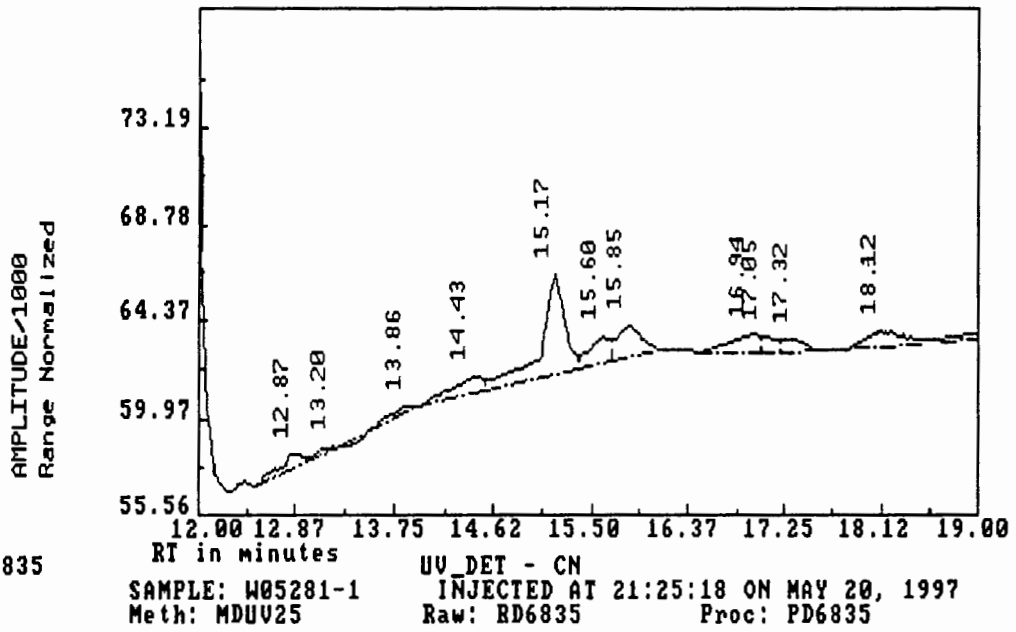
TOTAL AREA = 2597641 TOTAL PPM = 8.490

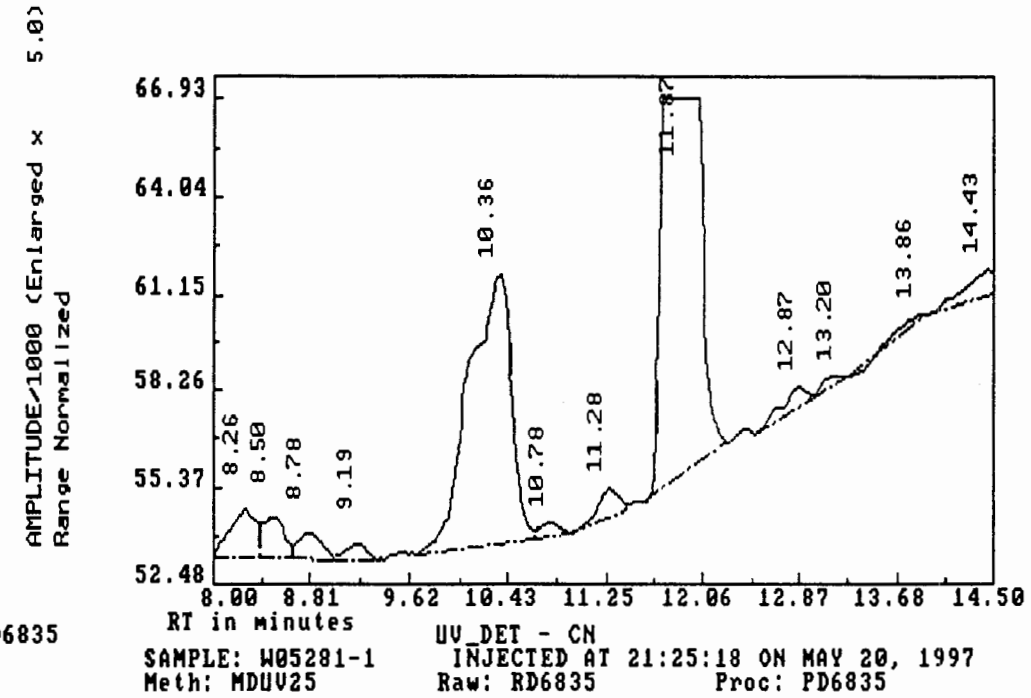
PROCESSED DATA FILE: PC6826 RAW DATA FILE: RC6826

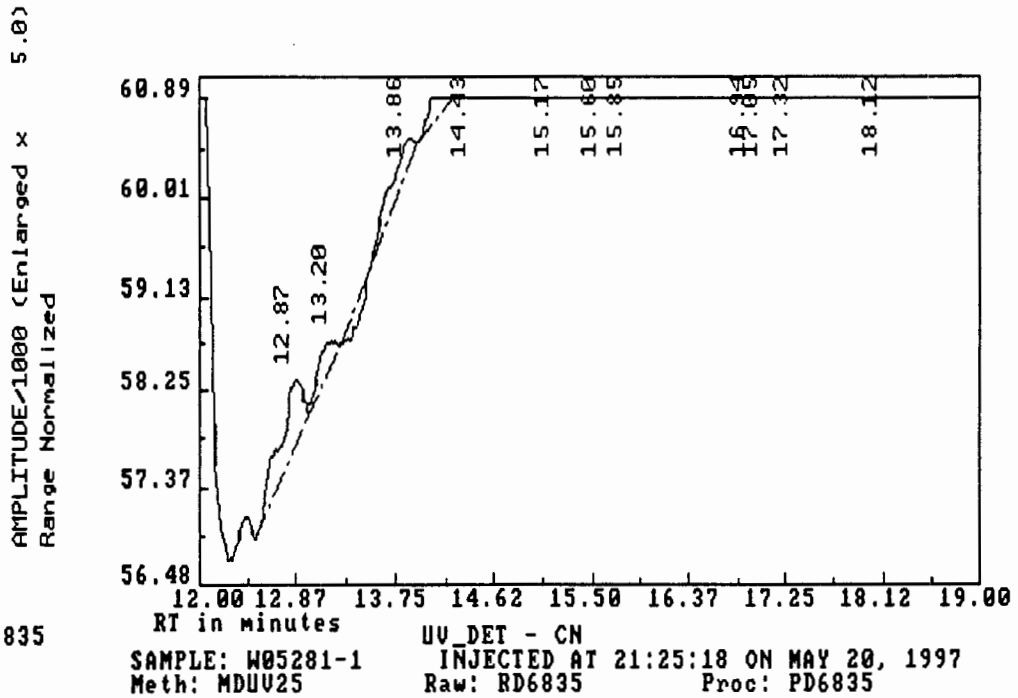
HM 05-21-97

DONE


121.67
107.22
92.78
78.33
63.88
49.44
AMPLITUDE/1000
Range Normalized
8.26
8.50
8.78
9.19
10.36
10.78
11.28
11.87
12.87
13.20
13.86
14.43
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
__PD6835
UV_DET - CN
SAMPLE: W05281-1
INJECTED AT 21:25:18 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6835
Proc: PD6835


73.19
68.78
64.37
59.97
55.56
AMPLITUDE/1000
Range Normalized
12.87
13.20
13.86
14.43
15.17
15.60
15.85
16.94
17.05
17.32
18.12
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
__PD6835
UV_DET - CN
SAMPLE: W05281-1
INJECTED AT 21:25:18 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6835
Proc: PD6835


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
66.93
64.04
61.15
58.26
55.37
52.48
8.26
8.50
8.78
9.19
10.36
10.78
11.28
11.87
12.87
13.20
13.86
14.43
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6835
UV_DET - CN
SAMPLE: W05281-1
INJECTED AT 21:25:18 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6835
Proc: PD6835


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
60.89
60.01
59.13
58.25
57.37
56.48
12.87
13.20
13.86
14.43
15.17
15.60
15.85
16.94
17.05
17.32
18.12
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6835
UV_DET - CN
SAMPLE: W05281-1
INJECTED AT 21:25:18 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6835
Proc: PD6835

FILE:RD6835 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15729.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05281-1 INJECTED AT 21:25:18 ON MAY 20, 1997

ESTD METHOD: MD0520 SEQ: SD0519 SUBSQ/SAMP: 1/ 35

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.32 | | 0.0000E+ 0 | 10658 | BV | 0.000 | |
| 5.58 | | 0.0000E+ 0 | 24603 | VV | 0.000 | |
| 6.46 | | 0.0000E+ 0 | 47909 | VV | 0.000 | |
| 7.17 | | 0.0000E+ 0 | 9917 | VV | 0.000 | |
| 7.42 | | 0.0000E+ 0 | 195610 | VF | 0.000 | |
| 8.26 | | 0.0000E+ 0 | 5301 | BV | 0.000 | |
| 8.50 | 8.59 | 2.6330E- 6 | 3712 | VV | .010 | ~~NBE~~ < SDL |
| 8.78 | | 0.0000E+ 0 | 2574 | VV | 0.000 | |
| 9.19 | 9.01 | 3.3659E- 6 | 1277 | VB | .004 | ~~DNB-13~~ RT off |
| 10.36 | 10.48 | 2.9146E- 6 | 49150 | VV | .143 | ~~NT-3~~ RT off |
| 10.78 | | 0.0000E+ 0 | 1059 | VV | 0.000 | |
| 11.28 | 11.11 | 1.7512E- 6 | 2586 | VV | .005 | ~~DNT-24~~ < SDL |
| 11.87 | 11.87# | 7.6894E- 6 | 208974 | VB | 1.607 | #1-2-DNB |
| 12.87 | 12.77 | 8.1500E- 6 | 2433 | VV | .020 | ~~DNT-4A26~~ < SDL |
| 13.20 | 13.18 | 5.4259E- 6 | 910 | VV | .005 | ~~DNT-2A46~~ < SDL |
| 13.86 | 13.71 | 1.2715E- 5 | 830 | VB | .011 | ~~RDX~~ < SDL |
| 14.43 | | 0.0000E+ 0 | 4013 | BV | 0.000 | |
| 15.17 | | 0.0000E+ 0 | 17141 | VV | 0.000 | |
| 15.60 | 15.67 | 6.5041E- 6 | 4092 | VV | .027 | ~~TETRYL~~ < SDL |
| 15.85 | | 0.0000E+ 0 | 5625 | VB | 0.000 | |
| 16.94 | | 0.0000E+ 0 | 3743 | VV | 0.000 | |
| 17.05 | | 0.0000E+ 0 | 1725 | VV | 0.000 | |
| 17.32 | 17.59 | 1.4992E- 5 | 1898 | VB | .028 | ~~HMX~~ Not on C18 |
| 18.12 | | 0.0000E+ 0 | 4876 | BV | 0.000 | |
| 19.18 | | 0.0000E+ 0 | 3149 | VB | 0.000 | |
| 20.14 | | 0.0000E+ 0 | 2756 | VV | 0.000 | |
| 20.82 | | 0.0000E+ 0 | 2474 | VV | 0.000 | |
| 20.94 | | 0.0000E+ 0 | 1613 | VV | 0.000 | |
| 21.14 | | 0.0000E+ 0 | 1868 | VB | 0.000 | |

TOTAL AREA = 622476 TOTAL PPM = 1.859

PROCESSED DATA FILE: PD6835 RAW DATA FILE: RD6835

HM 05-21-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705281-01RE
Client ID : AOC1001GP13RE

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 4.7
Percent Moist : 100

Collection Date: 05/08/97
Date Received : 05/10/97
Ext Started : 05/22/97
Ext Completed : 05/22/97
Date Analyzed : 05/22/97
Date Confirmed : 05/22/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.3 | U | 0.26 |
| 121-82-4---- | RDX | 0.75 | U | 0.15 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 0.80 | U | 0.16 |
| 99-65-0----- | 1,3-Dinitrobenzene | 0.85 | U | 0.17 |
| 98-95-3----- | Nitrobenzene | 1.4 | U | 0.28 |
| 479-45-8---- | Tetryl | 1.1 | U | 0.24 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 0.85 | U | 0.17 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 1.5 | U | 0.30 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 0.85 | U | 0.17 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.0 | U | 0.39 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.1 | U | 0.22 |
| 88-72-2----- | 2-Nitrotoluene | 1.9 | U | 0.37 |
| 99-08-1----- | 4-Nitrotoluene | 1.9 | U | 0.37 |
| 99-99-0----- | 3-Nitrotoluene | 1.9 | U | 0.37 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

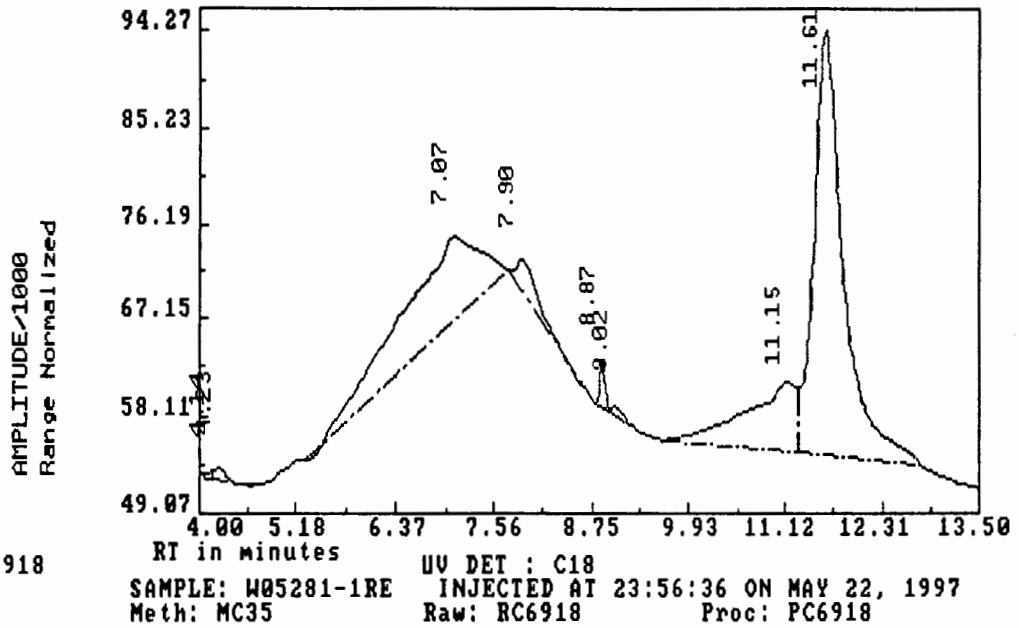
Sample ID : 9705281-01RE
Client ID : AOC1001GP13RE

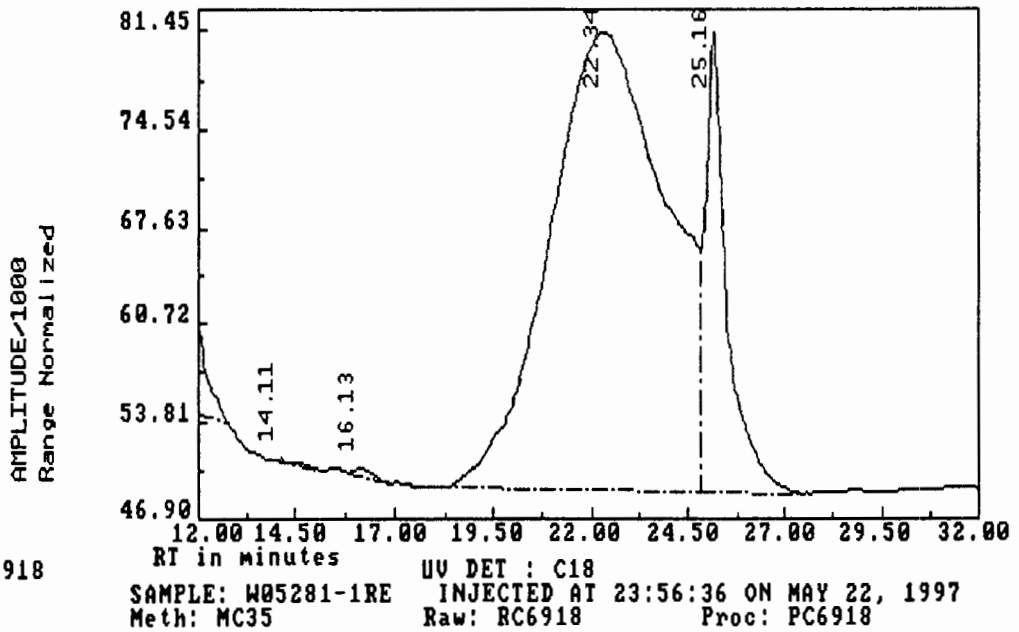
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6918 | RD6907 |
| Calib File | RC6907 | RD6904 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

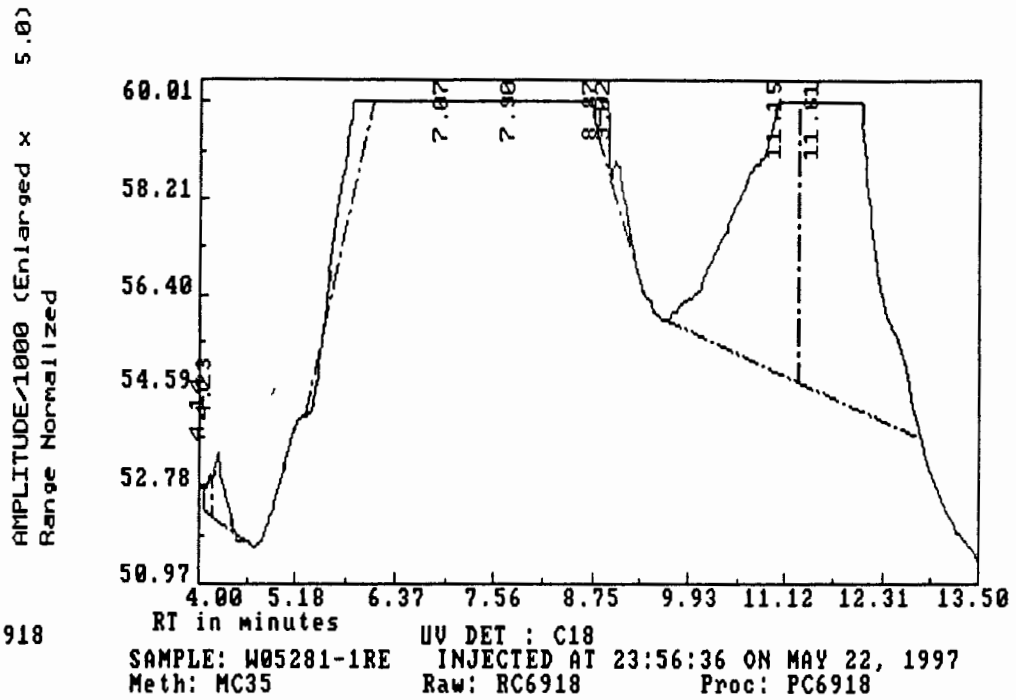
| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|

Q = Reported result
MS = Result confirmed by GC/MS

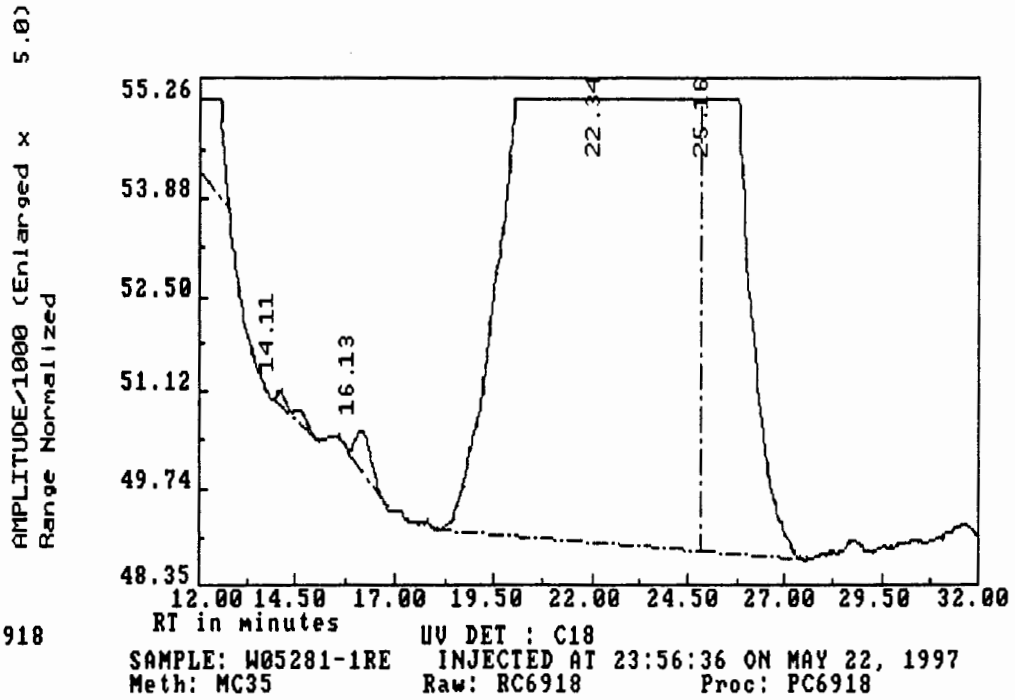
FORM GC CONF


94.27
85.23
76.19
67.15
58.11
49.07
AMPLITUDE/1000
Range Normalized
4.23
7.07
7.90
8.87
9.02
11.15
11.61
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6918
UV DET : C18
SAMPLE: W05281-1RE
INJECTED AT 23:56:36 ON MAY 22, 1997
Meth: MC35
Raw: RC6918
Proc: PC6918


81.45
74.54
67.63
60.72
53.81
46.90
AMPLITUDE/1000
Range Normalized
14.11
16.13
22.34
25.16
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6918
UV DET : C18
SAMPLE: W05281-1RE
INJECTED AT 23:56:36 ON MAY 22, 1997
Meth: MC35
Raw: RC6918
Proc: PC6918




PC6918




PC6918

FILE:RC6918 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10614.11 CHANNEL: 32 UV DET : C18

S .PLE: W05281-1RE INJECTED AT 23:56:36 ON MAY 22, 1997

ESTD METHOD: MC0522 SEQ: SC0522 SUBSQ/SAMP: 1/ 18

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

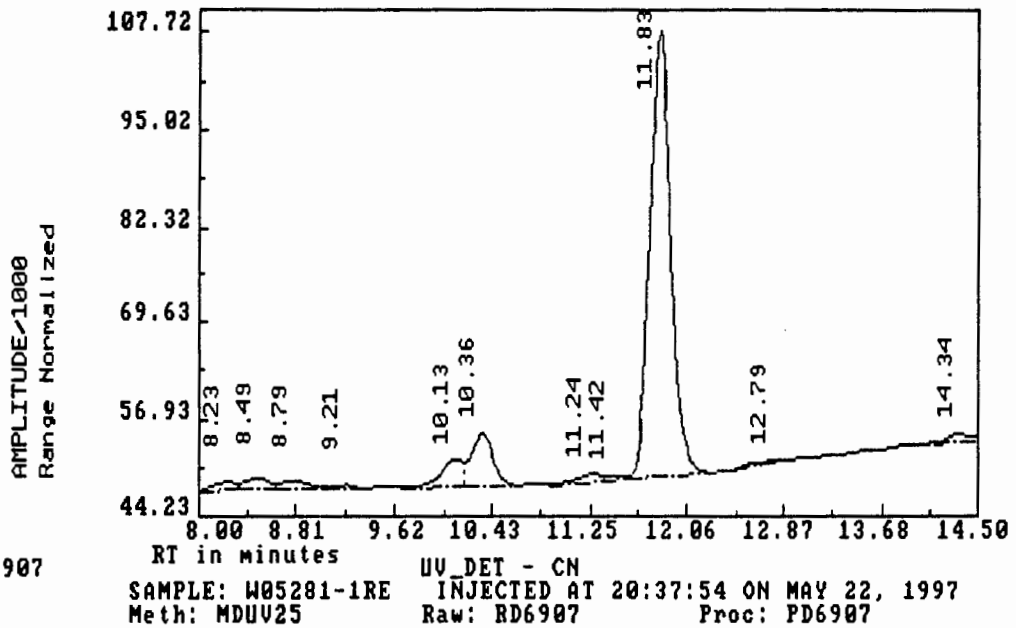
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 3.06 | | 0.0000E+ 0 | 86404 | VV | 0.000 | |
| 3.46 | | 0.0000E+ 0 | 220557 | VF | 0.000 | |
| 4.14 | | 0.0000E+ 0 | 1065 | VV | 0.000 | |
| 4.23 | | 0.0000E+ 0 | 2478 | VV | 0.000 | |
| 7.07 | | 0.0000E+ 0 | 139246 | VB | 0.000 | |
| 7.90 | 7.99 | 6.8847E- 6 | 7601 | BV | .052 | ~~RDX~~ Not on w |
| 8.87 | | 0.0000E+ 0 | 4243 | VV | 0.000 | |
| 9.02 | | 0.0000E+ 0 | 1566 | VF | 0.000 | |
| ..15 | 10.98 | 3.1255E- 6 | 66161 | BV | .207 | ~~TNB-135~~ RT off |
| 11.61 | 11.61# | 4.3299E- 6 | 251228 | VF | 1.088 | #1-2-DNB |
| 14.11 | 13.85 | 2.1017E- 6 | 2047 | BB | .004 | ~~DNB-13~~ RT off |
| 16.13 | 16.27 | 2.9334E- 6 | 3324 | BB | .010 | ~~NBE~~ < 5 ppb |
| 22.34 | 22.00 | 4.8567E- 6 | 1682114 | BV | 8.170 | ~~DNT-26~~ RT off |
| 25.16 | | 0.0000E+ 0 | 321813 | VB | 0.000 | |
| 34.48 | | 0.0000E+ 0 | 8958 | VF | 0.000 | |

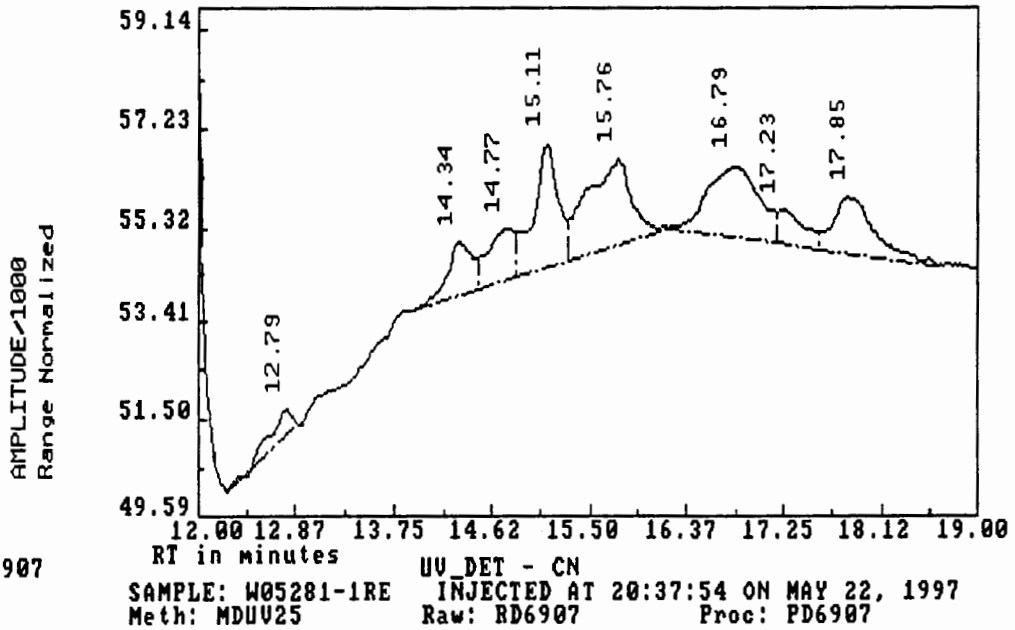
TOTAL AREA = 2798806 TOTAL PPM = 9.531

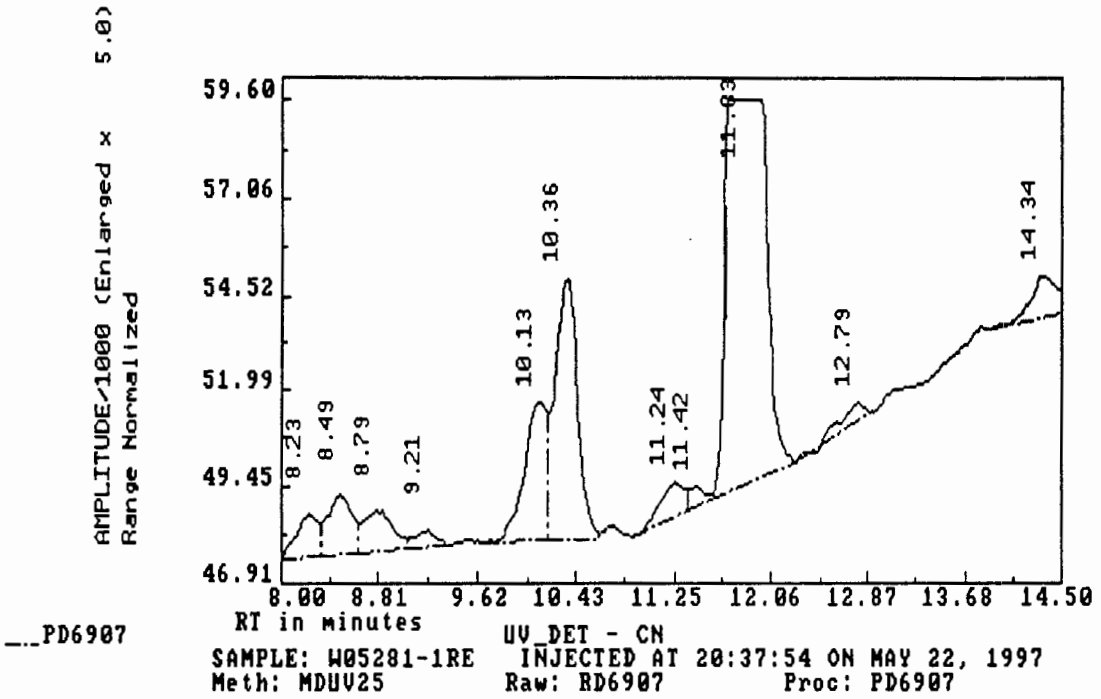
PROCESSED DATA FILE: PC6918 RAW DATA FILE: RC6918

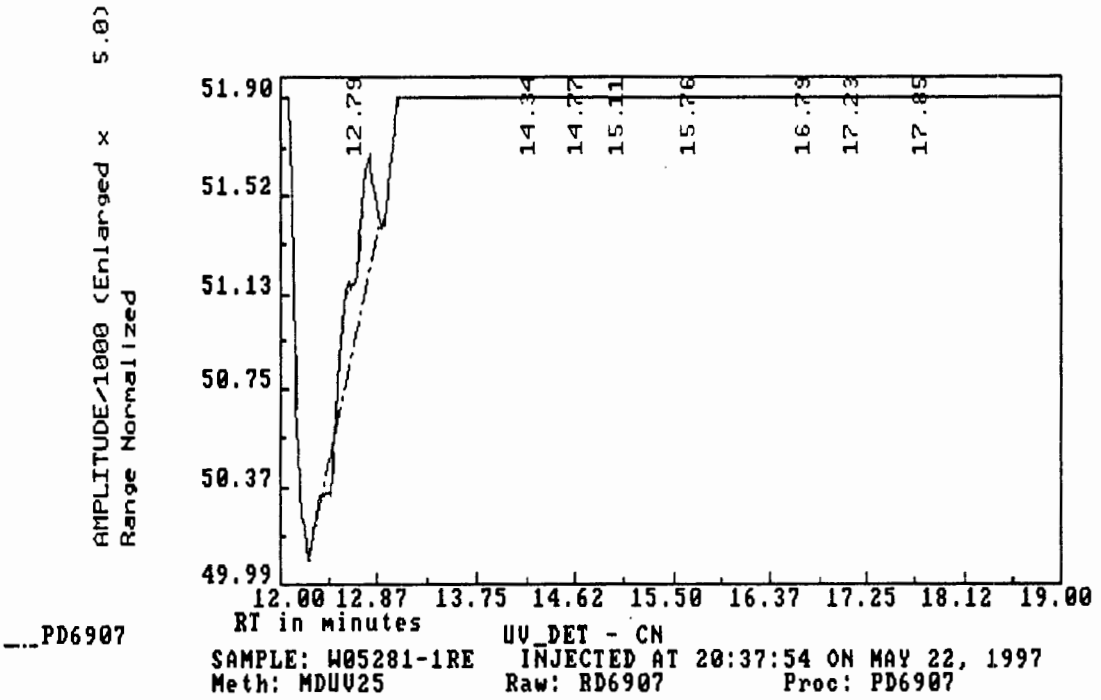
dtm 05-23-97

DONE


107.72
95.02
82.32
69.63
56.93
44.23
AMPLITUDE/1000
Range Normalized
8.23
8.49
8.79
9.21
10.13
10.36
11.24
11.42
11.83
12.79
14.34
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6907
UV_DET - CN
SAMPLE: W05281-1RE
INJECTED AT 20:37:54 ON MAY 22, 1997
Meth: MDUV25
Raw: RD6907
Proc: PD6907


59.14
57.23
55.32
53.41
51.50
49.59
AMPLITUDE/1000
Range Normalized
12.79
14.34
14.77
15.11
15.76
16.79
17.23
17.85
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6907
UV_DET - CN
SAMPLE: W05281-1RE
INJECTED AT 20:37:54 ON MAY 22, 1997
Meth: MDUV25
Raw: RD6907
Proc: PD6907


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
59.60
57.06
54.52
51.99
49.45
46.91
8.23
8.49
8.79
9.21
10.13
10.36
11.24
11.42
11.83
12.79
14.34
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6907
UV_DET - CN
SAMPLE: W05281-1RE
INJECTED AT 20:37:54 ON MAY 22, 1997
Meth: MDUV25
Raw: RD6907
Proc: PD6907


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
51.90
51.52
51.13
50.75
50.37
49.99
12.79
14.34
14.77
15.11
15.76
16.79
17.23
17.85
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6907
UV_DET - CN
SAMPLE: W05281-1RE
INJECTED AT 20:37:54 ON MAY 22, 1997
Meth: MDUV25
Raw: RD6907
Proc: PD6907

FILE:RD6907 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15744.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05281-1RE INJECTED AT 20:37:54 ON MAY 22, 1997

ESTD METHOD: MD0520 SEQ: SD0522 SUBSQ/SAMP: 1/ 7

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.033 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.30 | | 0.0000E+ 0 | 6307 | BV | 0.000 | |
| 5.73 | | 0.0000E+ 0 | 41802 | VV | 0.000 | |
| 6.49 | | 0.0000E+ 0 | 54867 | VV | 0.000 | |
| 7.14 | | 0.0000E+ 0 | 11972 | VV | 0.000 | |
| 7.42 | | 0.0000E+ 0 | 162100 | VF | 0.000 | |
| 8.23 | | 0.0000E+ 0 | 3214 | BV | 0.000 | |
| 8.49 | 8.56 | 2.6330E- 6 | 5336 | VV | .014 | ~~NBE~~ Not on C18 |
| 8.79 | 8.98 | 3.3659E- 6 | 4353 | VV | .015 | ~~DNB-13~~ RT off |
| 9.21 | | 0.0000E+ 0 | 1548 | VB | 0.000 | |
| 10.13 | 10.18 | 2.9146E- 6 | 11732 | BV | .034 | ~~NT-2~~ RT off |
| 10.36 | 10.44 | 2.9146E- 6 | 22327 | VV | .065 | ~~NT-3~~ Not on C18 |
| 11.24 | 11.07 | 1.7512E- 6 | 3140 | VV | .005 | ~~DNT-24~~ RT off |
| 11.42 | | 0.0000E+ 0 | 1176 | VV | 0.000 | |
| 11.83 | 11.83# | 7.6894E- 6 | 177146 | VB | 1.362 | #1-2-DNB |
| 12.79 | 12.73 | 8.1500E- 6 | 1886 | BV | .015 | ~~DNT-4A26~~ CSDL |
| 14.34 | 13.67 | 1.2715E- 5 | 4117 | BV | .052 | ~~RDX~~ RT off |
| 14.77 | | 0.0000E+ 0 | 4477 | VV | 0.000 | |
| 15.11 | | 0.0000E+ 0 | 9351 | VV | 0.000 | |
| 15.76 | 15.62 | 6.5041E- 6 | 11976 | VB | .078 | ~~TETRYL~~ Not on C18 |
| 16.79 | | 0.0000E+ 0 | 11144 | BV | 0.000 | |
| 17.23 | 17.53 | 1.4992E- 5 | 2697 | VV | .040 | ~~HMX~~ Not on C18 |
| 17.85 | | 0.0000E+ 0 | 7170 | VB | 0.000 | |
| 19.68 | | 0.0000E+ 0 | 1036 | VV | 0.000 | |
| 19.78 | | 0.0000E+ 0 | 6170 | VV | 0.000 | |
| 20.34 | | 0.0000E+ 0 | 26399 | VV | 0.000 | |
| 21.24 | | 0.0000E+ 0 | 100528 | VF | 0.000 | |

TOTAL AREA = 693974 TOTAL PPM = 1.682

PROCESSED DATA FILE: PD6907 RAW DATA FILE: RD6907

HM 05-23-97

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

COMPANY: Fluor Daniel GTI

ADDRESS: 2501 Yale Blvd SE, #204
ABQ, NM 87106

ATTENTION: Chuck Schick

PROJECT NAME: AOC-1001 HAFB

PROJECT CONTACT: Chuck Schick

TELEPHONE: 505-242-3113 FAX: 505-242-1103

JOB/P.O. NO.: 812200082903

CHAIN OF CUSTODY RECORD 01814

SDG # 00803

PAGE 1 OF

WORK ORDER ID# 9705281

**Laucks Testing Laboratories, Inc.**

SUBMITTED AT:
☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 248-265

TESTS TO PERFORM

| LAR SA# | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | EPA Method 8330 | OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|
| 1) | AOC1001GP13 | 5/8/97 | 1600 | W | 2 | 2 | |

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS
1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

*BILLING INFORMATION, IF DIFFERENT THAN ABOVE
NAME ADDRESS
ATTN: CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

2 TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
☒ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☐ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER:
☐ TEMP:
CUSTODY SEAL ☐Y ☐N ☐N/A

| RELINQUISHED BY (SIGN AND PRINT) | DATE TIME | RECEIVED BY (SIGN AND PRINT) | DATE TIME |
|---|---|---|---|
| Charles Madewell | 5-9-97 1400 | PAM R. JOHNSON | 5/10/97 0900 |
| | | | |

FINAL REPORT COPY

# SAMPLE DATA

SDG# G0801

Lab No. 9705220 and 9705270

Ordnance by 8330

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705220-01
Client ID : AOC1001GP11

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 4.4
Percent Moist : 100

Collection Date: 05/06/97
Date Received : 05/08/97
Ext Started : 05/13/97
Ext Completed : 05/14/97
Date Analyzed : 05/20/97
Date Confirmed : 05/20/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 0.66 | J | 0.25 |
| 121-82-4---- | RDX | 0.70 | U | 0.14 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 0.75 | U | 0.15 |
| 99-65-0----- | 1,3-Dinitrobenzene | 0.79 | U | 0.16 |
| 98-95-3----- | Nitrobenzene | 1.3 | U | 0.26 |
| 479-45-8---- | Tetryl | 1.1 | U | 0.22 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 0.79 | U | 0.16 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 1.4 | U | 0.28 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 0.79 | U | 0.16 |
| 606-20-2---- | 2,6-Dinitrotoluene | 1.8 | U | 0.37 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.1 | U | 0.20 |
| 88-72-2----- | 2-Nitrotoluene | 1.8 | U | 0.34 |
| 99-08-1----- | 4-Nitrotoluene | 1.8 | U | 0.34 |
| 99-99-0----- | 3-Nitrotoluene | 1.8 | U | 0.34 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

Sample ID : 9705220-01
Client ID : AOC1001GP11

| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6819 | RD6827 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Column 1 | 4.94 | 4.79 | 5.09 | _ | _ | 57.6 | |
| | Column 2 | 17.35 | 17.23 | 18.19 | _ | _ | 64.3 | 11. |

Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

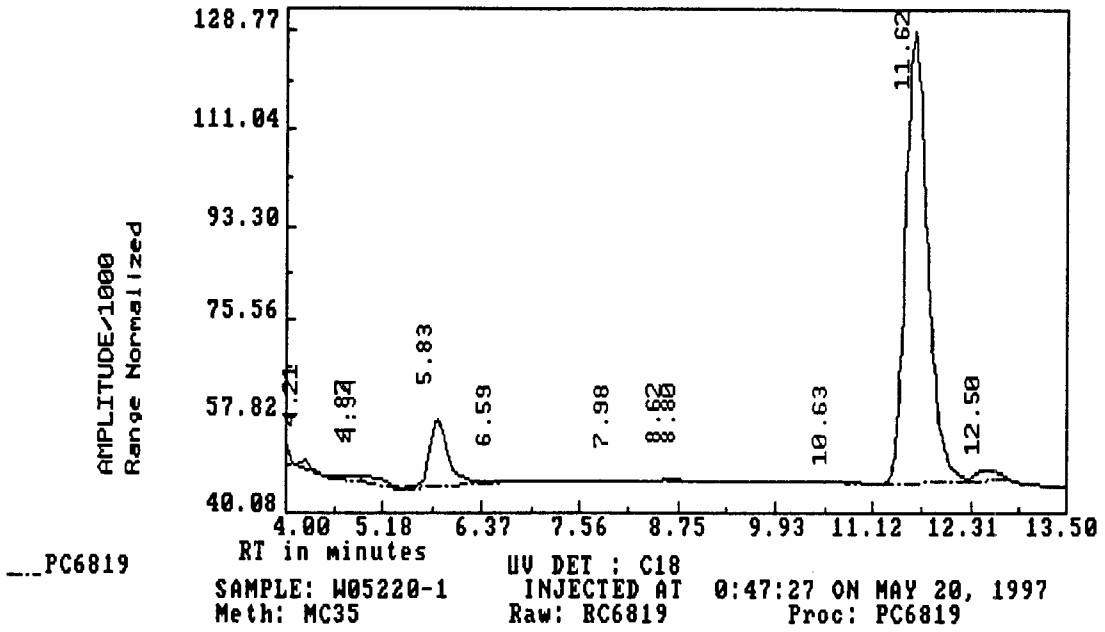
Sample ID : 9705220-02
Client ID : AOC1001GP15

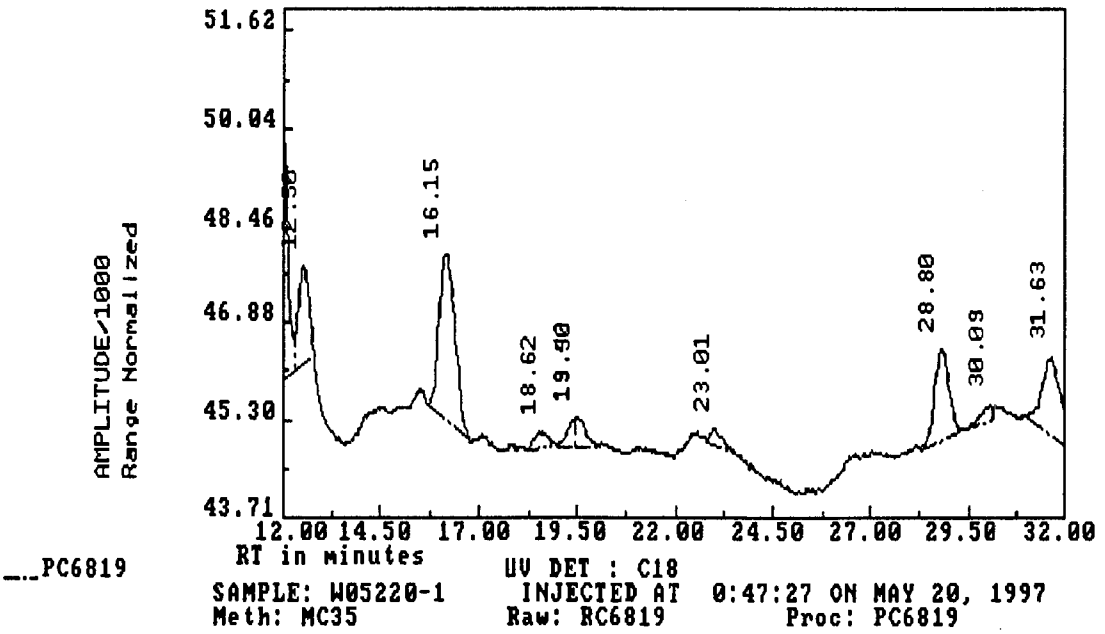
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6820 | RD6828 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

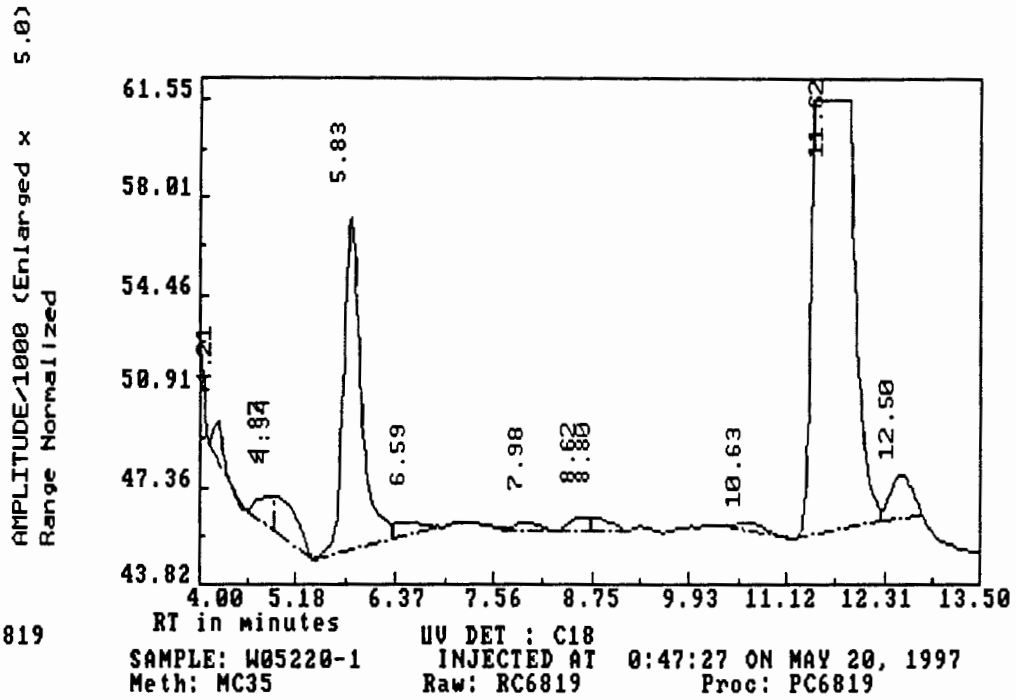
| Analyte Name | | Samp RT | Calib RT Window | | Q MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|

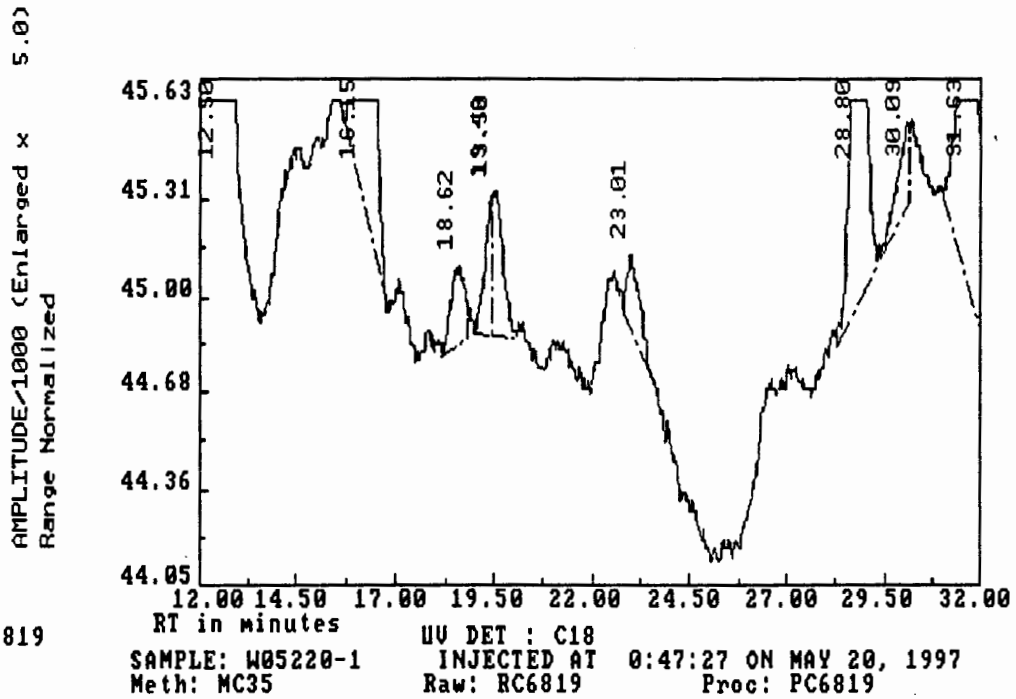
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF


128.77
111.04
93.30
75.56
57.82
40.08
AMPLITUDE/1000
Range Normalized
4.21
4.87
5.83
6.59
7.98
8.62
8.80
10.63
11.62
12.50
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6819
UV DET : C18
SAMPLE: W05220-1
INJECTED AT 0:47:27 ON MAY 20, 1997
Meth: MC35
Raw: RC6819
Proc: PC6819


51.62
50.04
48.46
46.88
45.30
43.71
AMPLITUDE/1000
Range Normalized
16.15
18.62
19.50
23.01
28.80
30.03
31.63
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6819
UV DET : C18
SAMPLE: W05220-1
INJECTED AT 0:47:27 ON MAY 20, 1997
Meth: MC35
Raw: RC6819
Proc: PC6819


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
61.55
58.01
54.46
50.91
47.36
43.82
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
5.83
4.87
6.59
7.98
8.62
8.80
10.63
11.62
12.50
PC6819
UV DET : C18
SAMPLE: W05220-1
INJECTED AT 0:47:27 ON MAY 20, 1997
Meth: MC35
Raw: RC6819
Proc: PC6819


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
45.63
45.31
45.00
44.68
44.36
44.05
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
18.62
19.48
23.01
28.80
30.09
31.63
PC6819
UV DET : C18
SAMPLE: W05220-1
INJECTED AT 0:47:27 ON MAY 20, 1997
Meth: MC35
Raw: RC6819
Proc: PC6819

FILE:RC6819 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10587.11 CHANNEL: 32 UV DET : C18

. MPLE: W05220-1 INJECTED AT 0:47:27 ON MAY 20, 1997

ESTD METHOD: MC0515 SEQ: SC0519 SUBSQ/SAMP: 1/ 19

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

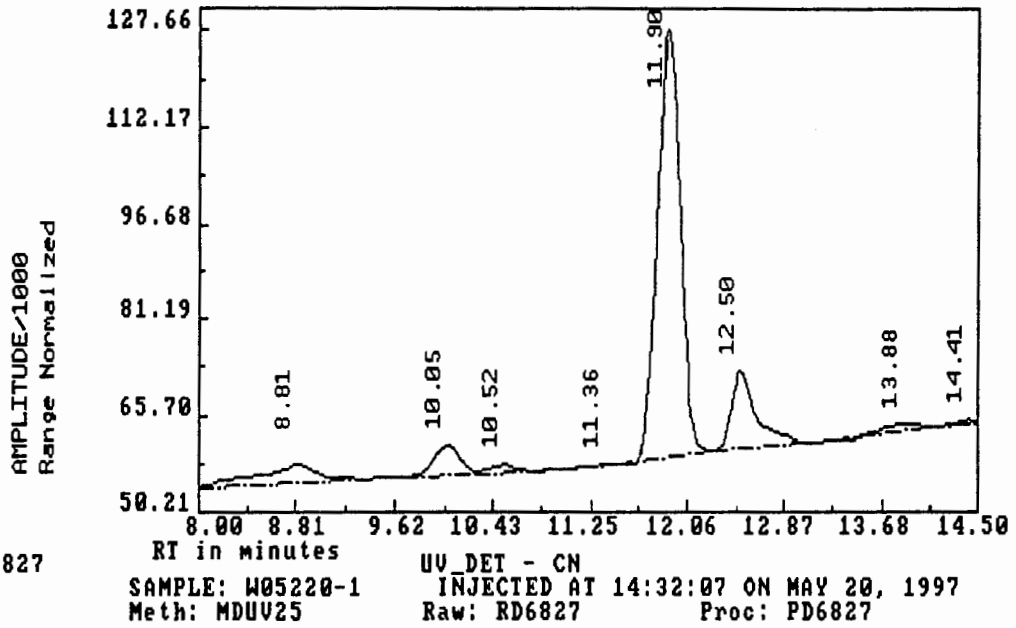
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 3.49 | | 0.0000E+ 0 | 120046 | BV | 0.000 | |
| 3.91 | | 0.0000E+ 0 | 1702 | VF | 0.000 | |
| 4.21 | | 0.0000E+ 0 | 1879 | BV | 0.000 | |
| 4.87 | | 0.0000E+ 0 | 3571 | VV | 0.000 | |
| 4.94 | 4.99 | 8.9485E- 6 | 6440 | VV | .058 | HMX |
| 5.83 | | 0.0000E+ 0 | 45994 | VV | 0.000 | |
| 6.59 | | 0.0000E+ 0 | 2469 | VB | 0.000 | |
| 7.98 | 8.06 | 6.8847E- 6 | 1313 | BV | .009 | ~~RDX~~ <SDL |
| 3.62 | | 0.0000E+ 0 | 1889 | VV | 0.000 | |
| 8.80 | | 0.0000E+ 0 | 1893 | VF | 0.000 | |
| 10.63 | 10.98 | 3.1255E- 6 | 1569 | BV | .005 | ~~TNB-135~~ <SDL |
| 11.62 | 11.62# | 4.3299E- 6 | 389959 | VV | 1.688 | #1-2-DNB |
| 12.50 | | 0.0000E+ 0 | 7559 | VF | 0.000 | |
| 16.15 | 16.40 | 2.9334E- 6 | 19006 | BV | .056 | ~~NBE~~ Not on CN |
| 18.62 | 18.42 | 2.9771E- 6 | 1560 | VV | .005 | ~~TNT-246~~ RT off |
| 19.43 | | 0.0000E+ 0 | 1407 | BV | 0.000 | |
| 19.50 | 20.06 | 4.9689E- 6 | 2128 | VV | .011 | ~~DNT-4A26~~ RT off |
| 23.01 | 22.92 | 2.2063E- 6 | 1346 | BB | .003 | ~~DNT-24~~ <SDL |
| 28.80 | 28.32 | 8.5727E- 6 | 9443 | VV | .081 | ~~NT-4~~ RT off |
| 30.09 | 29.74 | 6.7408E- 6 | 1493 | VV | .010 | ~~NT-3~~ RT off |
| 31.63 | 32.73 | 4.4474E- 4 | 13541 | BV | 6.022 | #DUMMY |

TOTAL AREA = 636210 TOTAL PPM = 7.947

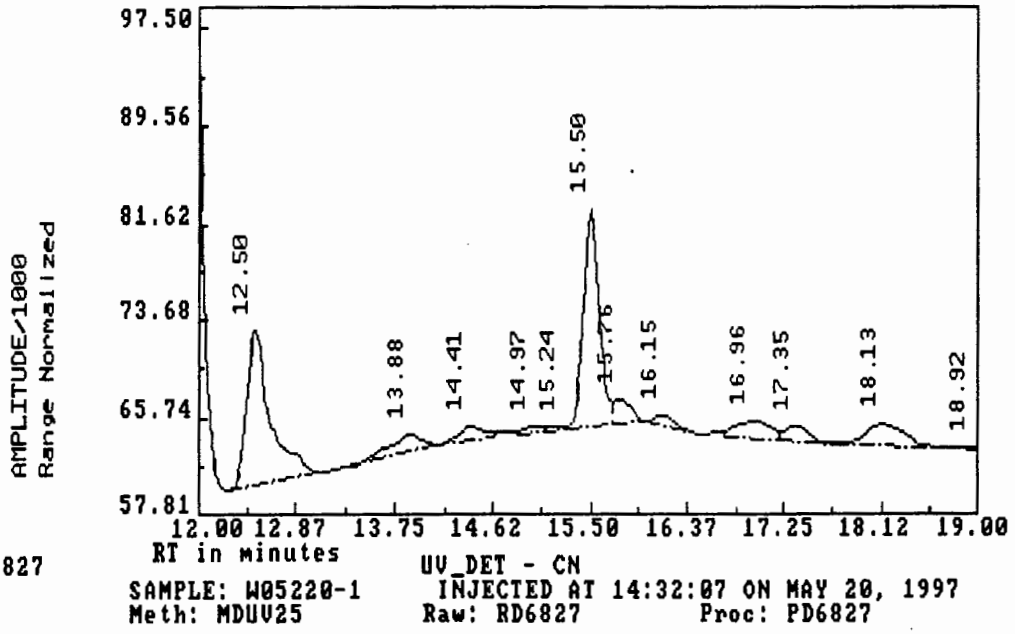
PROCESSED DATA FILE: PC6819 RAW DATA FILE: RC6819

HM 05-20-97

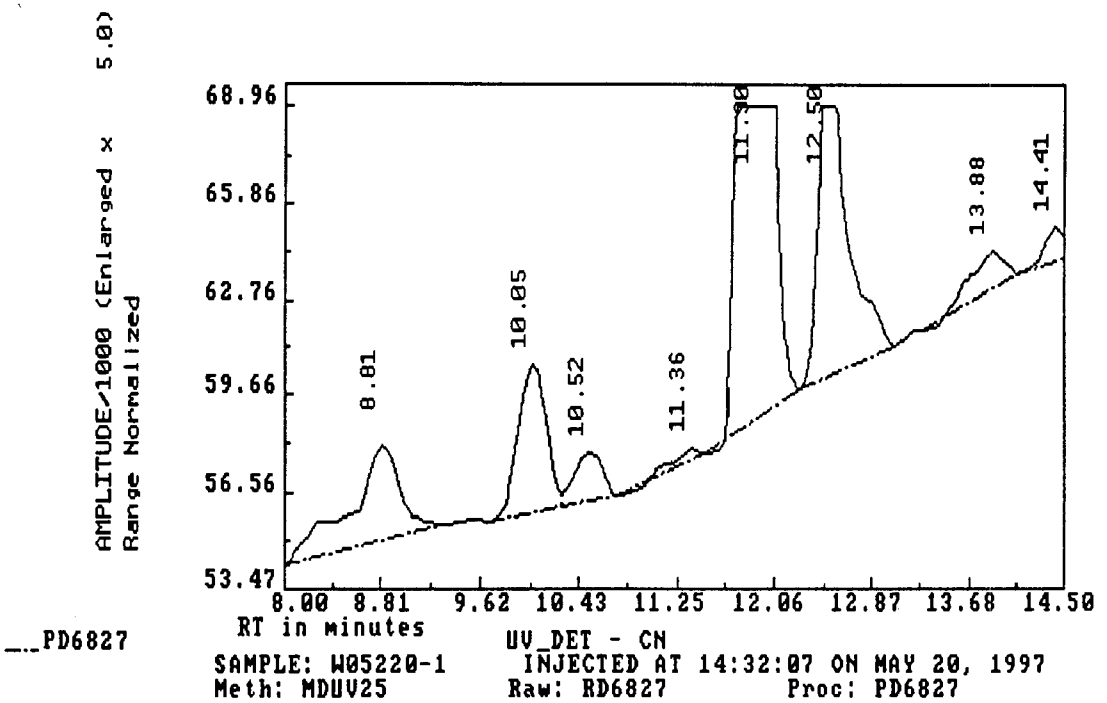
DONE

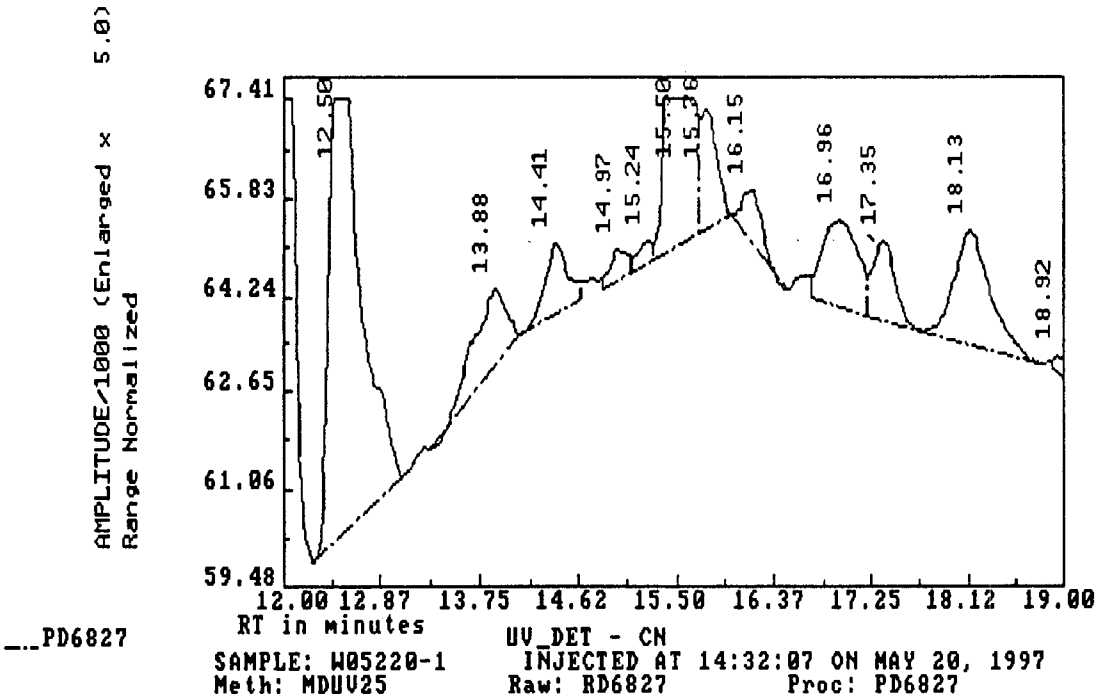



PD6827

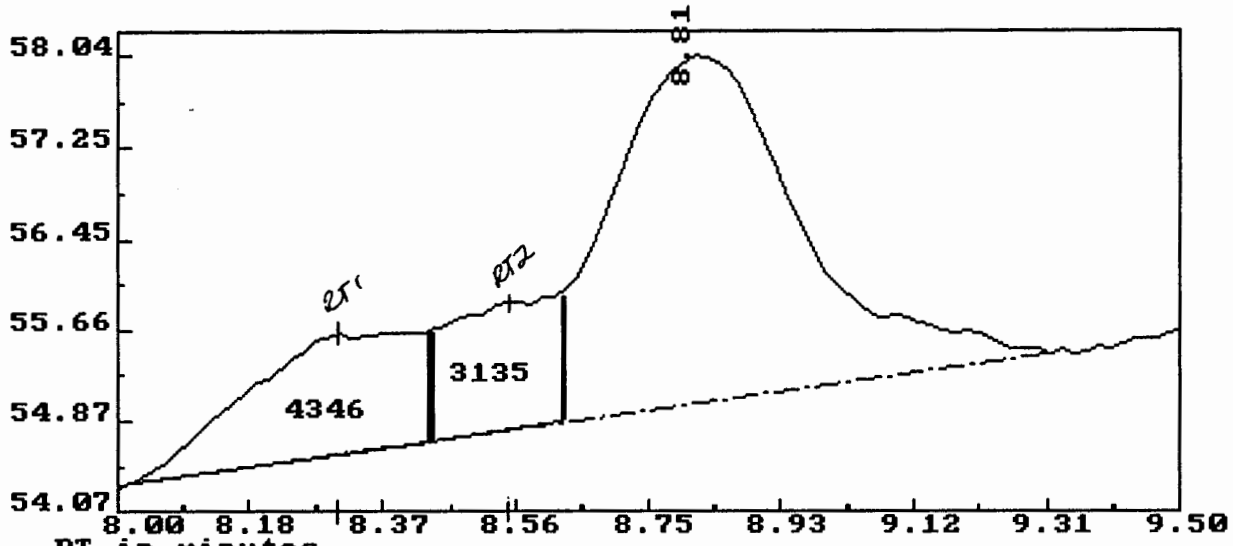



PD6827


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
68.96
65.86
62.76
59.66
56.56
53.47
8.81
10.05
10.52
11.36
11.90
12.50
13.88
14.41
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6827
UV_DET - CN
SAMPLE: W05220-1
INJECTED AT 14:32:07 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6827
Proc: PD6827


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
67.41
65.83
64.24
62.65
61.06
59.48
12.50
13.88
14.41
14.97
15.24
15.50
15.76
16.15
16.96
17.35
18.13
18.92
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6827
UV_DET - CN
SAMPLE: W05220-1
INJECTED AT 14:32:07 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6827
Proc: PD6827

Fr-12-50
Mt




...PD6827

SAMPLE: W05220-1 INJECTED AT 14:32:07 ON MAY 20, 1997
Meth: MDUV25 Raw: RD6827 Proc: PD6827

$RT_1 = 8.18 + \frac{12}{18}(8.37 - 8.18) = 8.31$

$RT_2 = 8.37 + \frac{17}{18}(8.56 - 8.37) = 8.55$

FILE:RD6827 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15721.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05220-1 INJECTED AT 14:32:07 ON MAY 20, 1997

ESTD METHOD: MD0520 SEQ: SD0519 SUBSQ/SAMP: 1/ 27

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.15 | | 0.0000E+ 0 | 2696 | BV | 0.000 | |
| 5.58 | | 0.0000E+ 0 | 4608 | VV | 0.000 | |
| 6.49 | | 0.0000E+ 0 | 2101 | VV | 0.000 | |
| 7.47 | | 0.0000E+ 0 | 52556 | VF | 0.000 | |
| 8.81 | 9.03 | 3.3659E- 6 | 21731 | BB | .073 | ~~DNB-13~~ RT off |
| 10.05 | 10.24 | 2.9146E- 6 | 18442 | VV | .054 | ~~NT-2~~ ~~CSDL~~ RT off |
| 10.52 | 10.50 | 2.9146E- 6 | 6086 | VV | .018 | ~~NT-3~~ ~~CSDL~~ |
| 11.36 | 11.14 | 1.7512E- 6 | 938 | VV | .002 | ~~DNT-24~~ CSDL/Not on C18 |
| 11.90 | 11.90# | 7.6894E- 6 | 229598 | VB | 1.765 | #1-2-DNB |
| 12.50 | 12.80 | 8.1500E- 6 | 45838 | BV | .374 | ~~DNT-4A26~~ Not on C18 |
| 13.88 | 13.75 | 1.2715E- 5 | 6188 | VB | .079 | ~~RDX~~ ~~CSDL~~ Not on C18 |
| 14.41 | | 0.0000E+ 0 | 3946 | BV | 0.000 | |
| 14.97 | | 0.0000E+ 0 | 1388 | VV | 0.000 | |
| 15.24 | | 0.0000E+ 0 | 886 | VV | 0.000 | |
| 15.50 | | 0.0000E+ 0 | 44148 | VV | 0.000 | |
| 15.76 | 15.71 | 6.5041E- 6 | 4964 | VB | .032 | ~~TETRYL~~ CSDL |
| 16.15 | | 0.0000E+ 0 | 2335 | BV | 0.000 | |
| 16.96 | | 0.0000E+ 0 | 7891 | VV | 0.000 | |
| 17.35 | 17.63 | 1.4992E- 5 | 4288 | VB | .064 | HMX |
| 18.13 | | 0.0000E+ 0 | 10877 | BB | 0.000 | |
| 18.92 | | 0.0000E+ 0 | 1954 | VV | 0.000 | |
| 20.19 | | 0.0000E+ 0 | 5312 | BV | 0.000 | |
| 20.68 | | 0.0000E+ 0 | 859 | VV | 0.000 | |
| 20.96 | | 0.0000E+ 0 | 20708 | VV | 0.000 | |
| 22.07 | | 0.0000E+ 0 | 17630 | VV | 0.000 | |
| 22.56 | | 0.0000E+ 0 | 62123 | VF | 0.000 | |

TOTAL AREA = 580095 TOTAL PPM = 2.461

PROCESSED DATA FILE: PD6827 RAW DATA FILE: RD6827

8.31 4346

8.55 3135 ~~INB~~ RT off

HM 05-21-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705220-01RE
Client ID : AOC1001GP11RE

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 6.7
Percent Moist : 100

Collection Date: 05/06/97
Date Received : 05/08/97
Ext Started : 05/22/97
Ext Completed : 05/22/97
Date Analyzed : 05/22/97
Date Confirmed : 05/22/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.9 | U | 0.38 |
| 121-82-4---- | RDX | 1.1 | U | 0.21 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.1 | U | 0.23 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.2 | U | 0.24 |
| 98-95-3----- | Nitrobenzene | 2.0 | U | 0.40 |
| 479-45-8---- | Tetryl | 1.6 | U | 0.34 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.2 | U | 0.24 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 2.1 | U | 0.43 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.2 | U | 0.24 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.8 | U | 0.56 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.6 | U | 0.31 |
| 88-72-2----- | 2-Nitrotoluene | 2.7 | U | 0.52 |
| 99-08-1----- | 4-Nitrotoluene | 2.7 | U | 0.52 |
| 99-99-0----- | 3-Nitrotoluene | 2.7 | U | 0.52 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

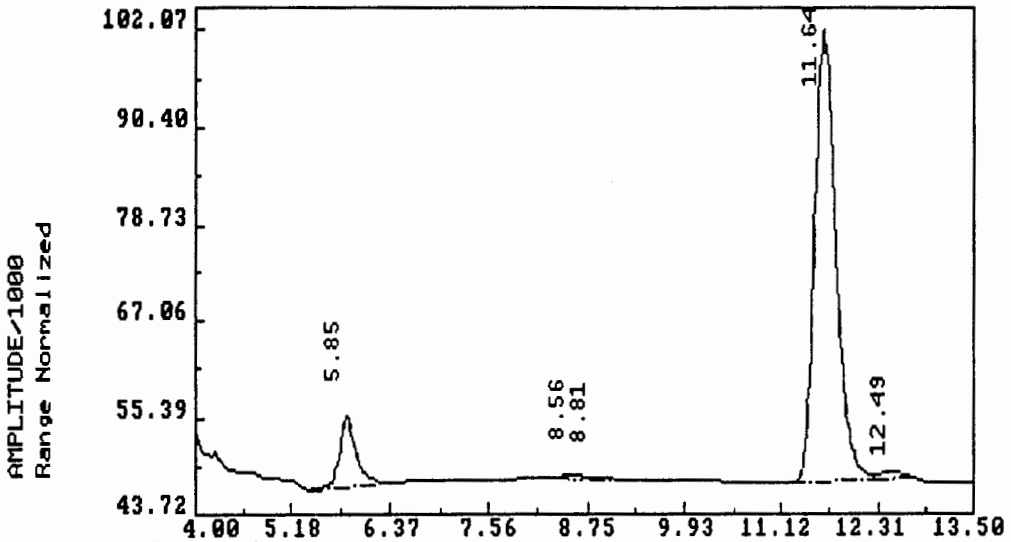
Sample ID : 9705220-01RE
Client ID : AOC1001GP11RE

| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6911 | RD6905 |
| Calib File | RC6907 | RD6904 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|

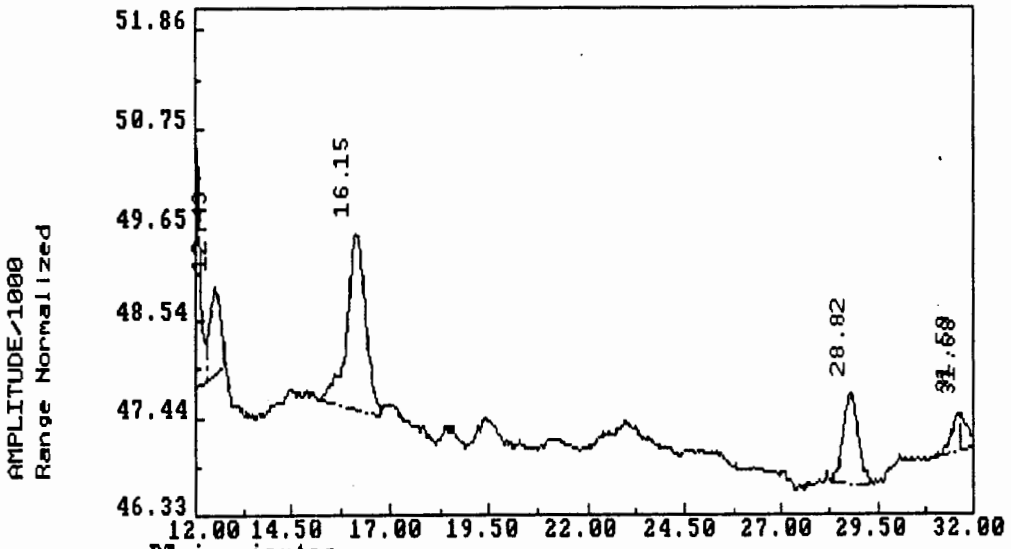
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF



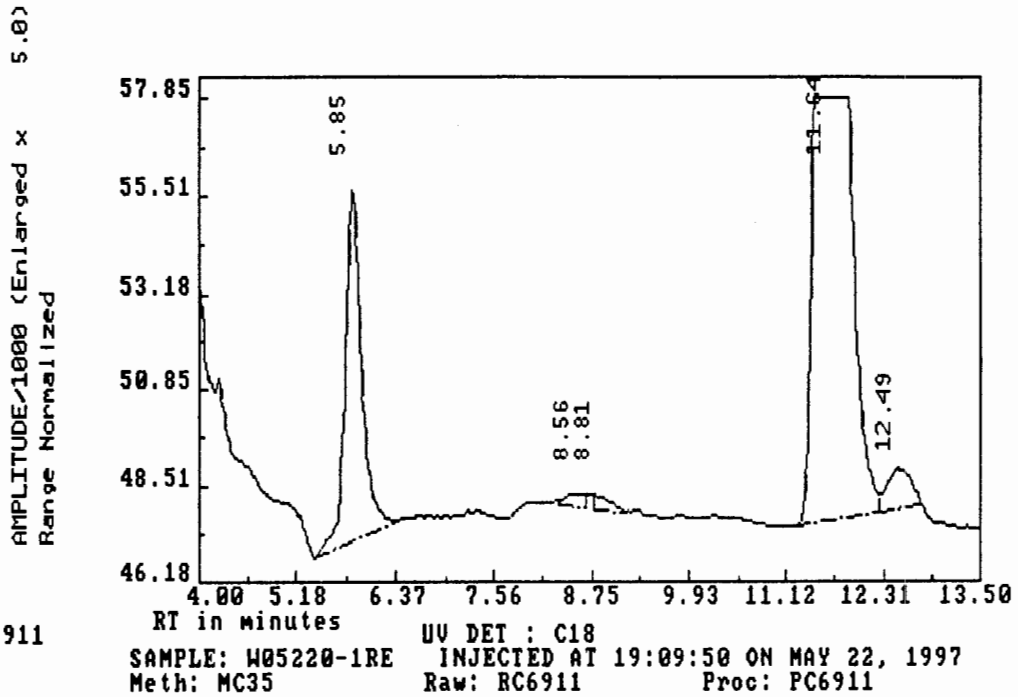

__PC6911

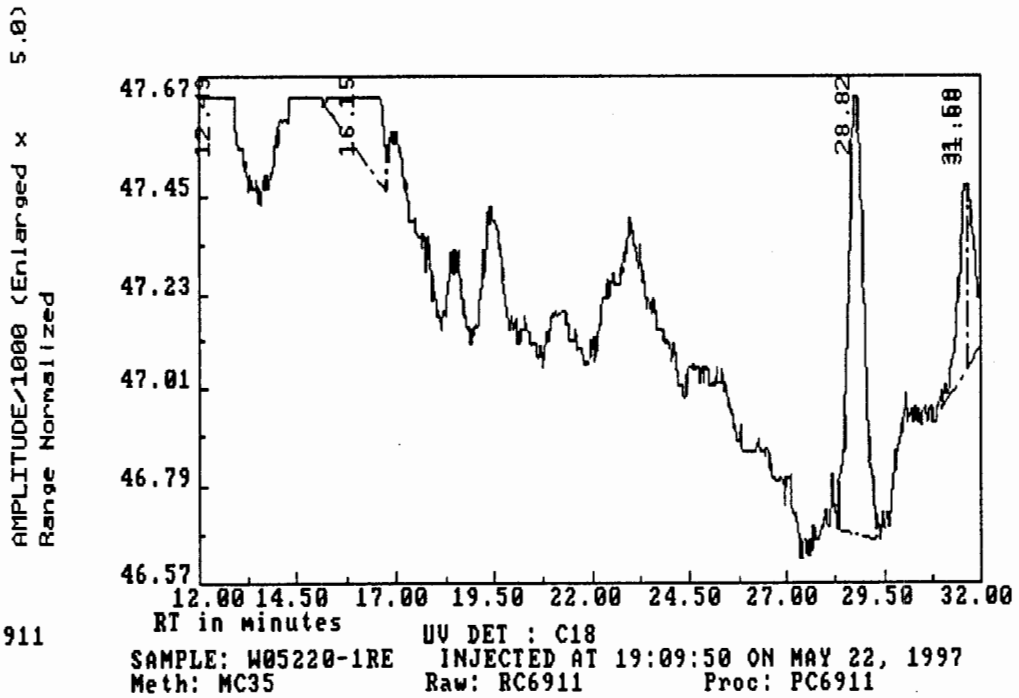
UV DET : C18
SAMPLE: W05220-1RE INJECTED AT 19:09:50 ON MAY 22, 1997
Meth: MC35 Raw: RC6911 Proc: PC6911




__PC6911

UV DET : C18
SAMPLE: W05220-1RE INJECTED AT 19:09:50 ON MAY 22, 1997
Meth: MC35 Raw: RC6911 Proc: PC6911


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
57.85
55.51
53.18
50.85
48.51
46.18
5.85
8.56
8.81
11.64
12.49
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6911
UV DET : C18
SAMPLE: W05220-1RE INJECTED AT 19:09:50 ON MAY 22, 1997
Meth: MC35 Raw: RC6911 Proc: PC6911


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
47.67
47.45
47.23
47.01
46.79
46.57
28.82
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6911
UV DET : C18
SAMPLE: W05220-1RE INJECTED AT 19:09:50 ON MAY 22, 1997
Meth: MC35 Raw: RC6911 Proc: PC6911

FILE:RC6911 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10607.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05220-1RE INJECTED AT 19:09:50 ON MAY 22, 1997

ESTD METHOD: MC0522 SEQ: SC0522 SUBSQ/SAMP: 1/ 11

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

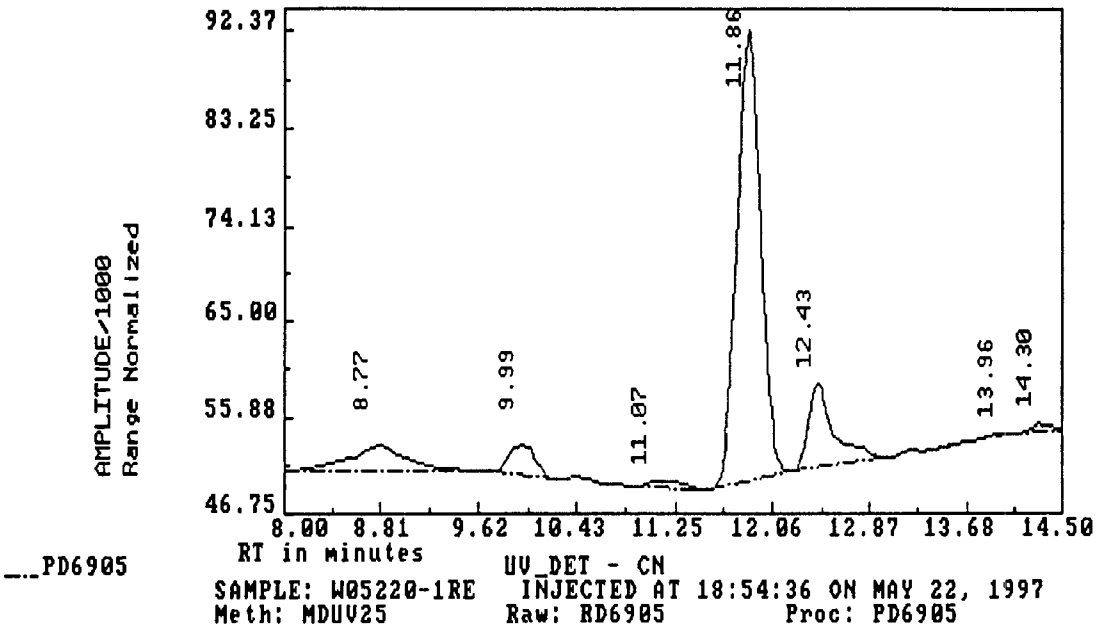
| RT | ITM | FACTOR | AREA | PPM | NAME |
|---|---|---|---|---|---|
| 3.05 | | 0.0000E+ 0 | 75741 BV | 0.000 | |
| 3.48 | | 0.0000E+ 0 | 306273 VF | 0.000 | |
| 5.85 | | 0.0000E+ 0 | 30001 VB | 0.000 | |
| 8.56 | | 0.0000E+ 0 | 1356 VV | 0.000 | |
| 8.81 | | 0.0000E+ 0 | 1121 VV | 0.000 | |
| 11.64 | 11.64# | 4.3299E- 6 | 252225 BV | 1.092 | #1-2-DNB |
| 12.49 | | 0.0000E+ 0 | 4851 VF | 0.000 | |
| 16.15 | 16.33 | 2.9334E- 6 | 16670 BV | .049 | ~~NBE~~ not on CN |
| 28.82 | 28.31 | 8.5727E- 6 | 6871 VV | .059 | ~~NT-4~~ Bragg |
| 31.59 | | 0.0000E+ 0 | 1691 VV | 0.000 | |
| 31.68 | 32.59 | 4.4474E- 4 | 1353 VB | .602 | #DUMMY |

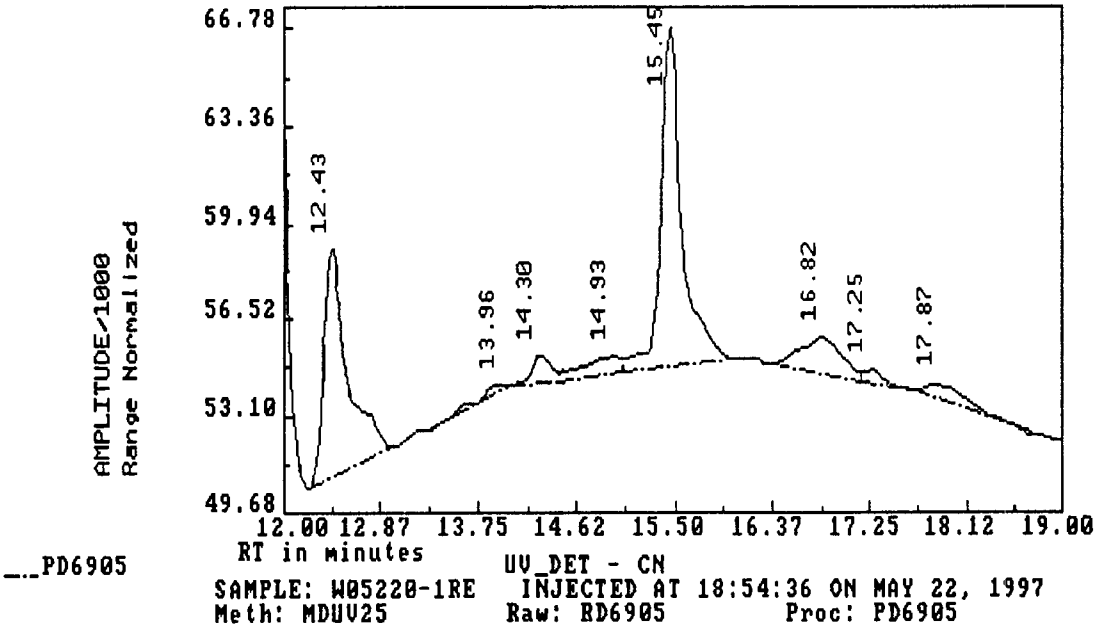
TOTAL AREA = 698154 TOTAL PPM = 1.802

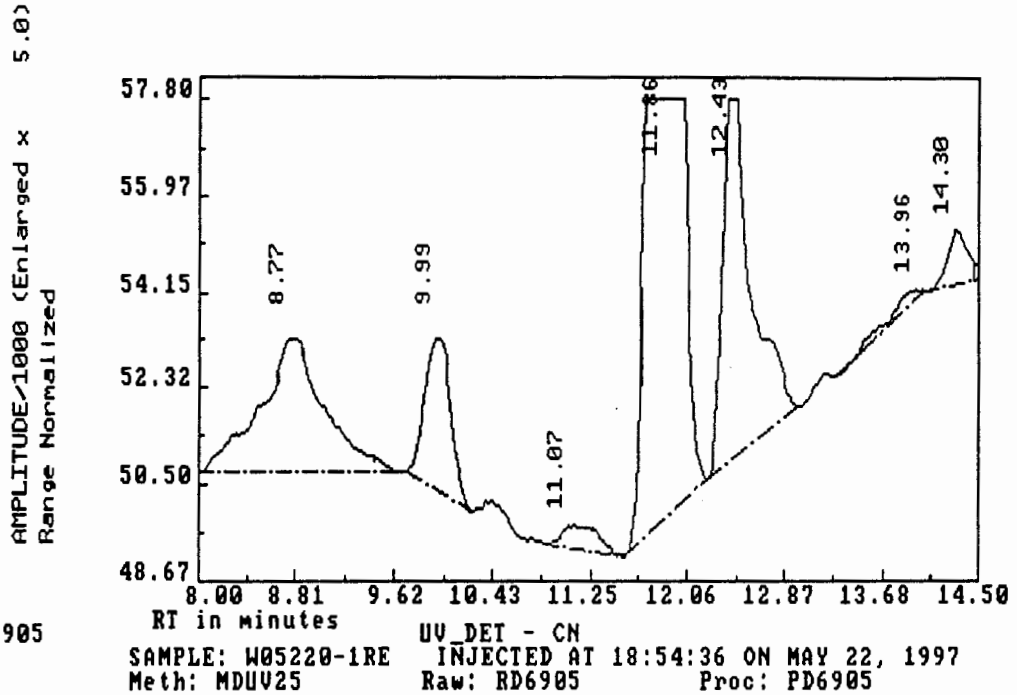
PROCESSED DATA FILE: PC6911 RAW DATA FILE: RC6911

HM 05-23-97

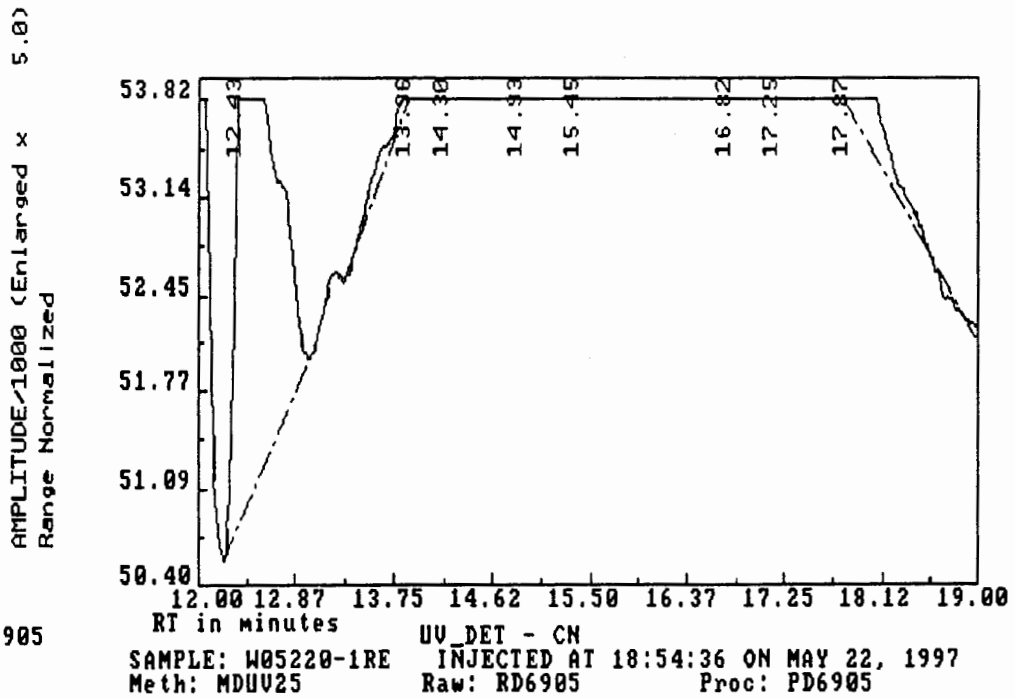
DONE


92.37
83.25
74.13
65.00
55.88
46.75
AMPLITUDE/1000
Range Normalized
8.77
9.99
11.07
11.86
12.43
13.96
14.30
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6905
UV_DET - CN
SAMPLE: W05220-1RE INJECTED AT 18:54:36 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6905 Proc: PD6905

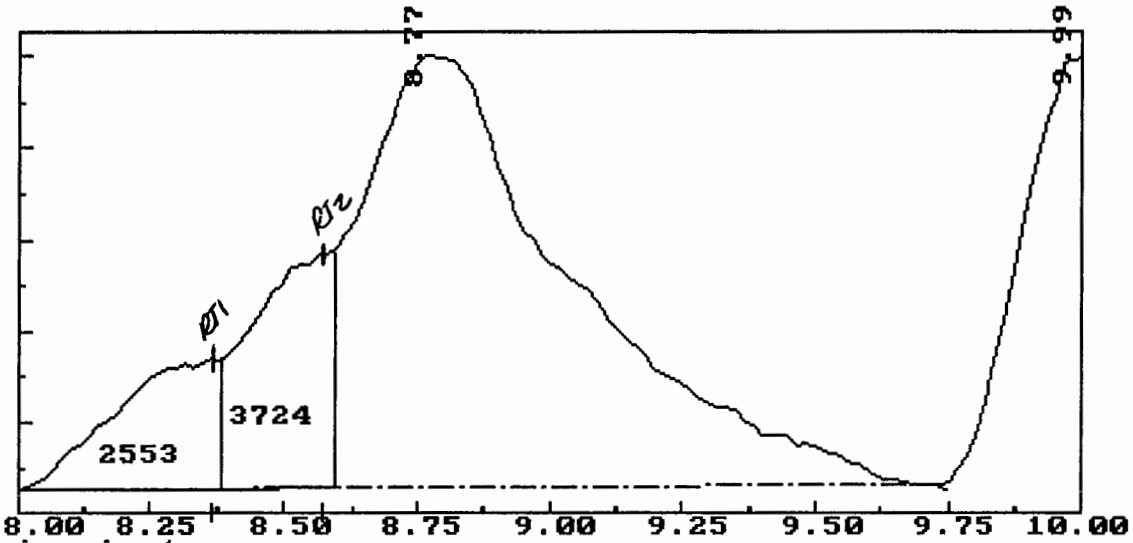

66.78
63.36
59.94
56.52
53.10
49.68
AMPLITUDE/1000
Range Normalized
12.43
13.96
14.30
14.93
15.45
16.82
17.25
17.87
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6905
UV_DET - CN
SAMPLE: W05220-1RE INJECTED AT 18:54:36 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6905 Proc: PD6905




PD6905




PD6905




SAMPLE: W05220-1RE INJECTED AT 18:54:36 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6905 Proc: PD6905

PD6905

05-23-97 tm

$RT1 = 8.25 + \frac{8}{16}(8.50 - 8.25) = 8.375$

$RT2 = 8.50 + \frac{5}{16}(8.75 - 8.50) = 8.578$

FILE:RD6905 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15742.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05220-1RE INJECTED AT 18:54:36 ON MAY 22, 1997

ESTD METHOD: MD0520 SEQ: SD0522 SUBSQ/SAMP: 1/ 5

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.57 | | 0.0000E+ 0 | 3918 | BB | 0.000 | |
| 7.47 | | 0.0000E+ 0 | 24071 | BF | 0.000 | |
| 8.77 | 8.58 | 2.6330E- 6 | 24085 | BB | .063 | ~~NBE~~ ~~Not on C18~~ RT off |
| 9.99 | 10.21 | 2.9146E- 6 | 10625 | BV | .031 | ~~NT-2~~ RT off |
| 11.07 | 11.10 | 1.7512E- 6 | 2366 | VV | .004 | ~~DNT-24~~ Not on C18 |
| 11.86 | 11.86# | 7.6894E- 6 | 146280 | VB | 1.125 | #1-2-DNB |
| 12.43 | 12.76 | 8.1500E- 6 | 30092 | BV | .245 | ~~DNT-4A26~~ Not on C18 |
| 13.96 | 13.70 | 1.2715E- 5 | 1570 | VB | .020 | ~~RDX~~ Not on C18 |
| 14.30 | | 0.0000E+ 0 | 2944 | BV | 0.000 | |
| 14.93 | | 0.0000E+ 0 | 4012 | VV | 0.000 | |
| 15.45 | 15.66 | 6.5041E- 6 | 39177 | VB | .255 | ~~TETRYL~~ RT off |
| 16.82 | | 0.0000E+ 0 | 8392 | VV | 0.000 | |
| 17.25 | | 0.0000E+ 0 | 1414 | VB | 0.000 | |
| 17.87 | 17.57 | 1.4992E- 5 | 2762 | BB | .041 | ~~HMX~~ Not on C18 |
| 19.92 | | 0.0000E+ 0 | 5144 | BV | 0.000 | |
| 20.47 | | 0.0000E+ 0 | 1274 | VV | 0.000 | |
| 20.54 | | 0.0000E+ 0 | 12649 | VV | 0.000 | |
| 21.28 | | 0.0000E+ 0 | 5153 | VV | 0.000 | |
| 21.71 | | 0.0000E+ 0 | 5742 | VV | 0.000 | |
| 21.82 | | 0.0000E+ 0 | 8075 | VV | 0.000 | |
| 22.06 | | 0.0000E+ 0 | 59028 | VF | 0.000 | |

TOTAL AREA = 398775 TOTAL PPM = 1.785

PROCESSED DATA FILE: PD6905 RAW DATA FILE: RD6905

8.38 2553

8.58 3724 0.019 ~~TNB~~ <SDL

TNB= $5.17 \times 10^{-6} \times 3724 = 0.0193$

DONE

HM 05-23-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705220-02
Client ID : AOC1001GP15

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 6.6
Percent Moist : 100

Collection Date: 05/07/97
Date Received : 05/08/97
Ext Started : 05/13/97
Ext Completed : 05/14/97
Date Analyzed : 05/20/97
Date Confirmed : 05/20/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.8 | U | 0.37 |
| 121-82-4---- | RDX | 1.1 | U | 0.21 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.1 | U | 0.22 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.2 | U | 0.24 |
| 98-95-3----- | Nitrobenzene | 2.0 | U | 0.40 |
| 479-45-8---- | Tetryl | 1.6 | U | 0.33 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.2 | U | 0.24 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 2.1 | U | 0.42 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.2 | U | 0.24 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.8 | U | 0.55 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.6 | U | 0.30 |
| 88-72-2----- | 2-Nitrotoluene | 2.6 | U | 0.51 |
| 99-08-1----- | 4-Nitrotoluene | 2.6 | U | 0.51 |
| 99-99-0----- | 3-Nitrotoluene | 2.6 | U | 0.51 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

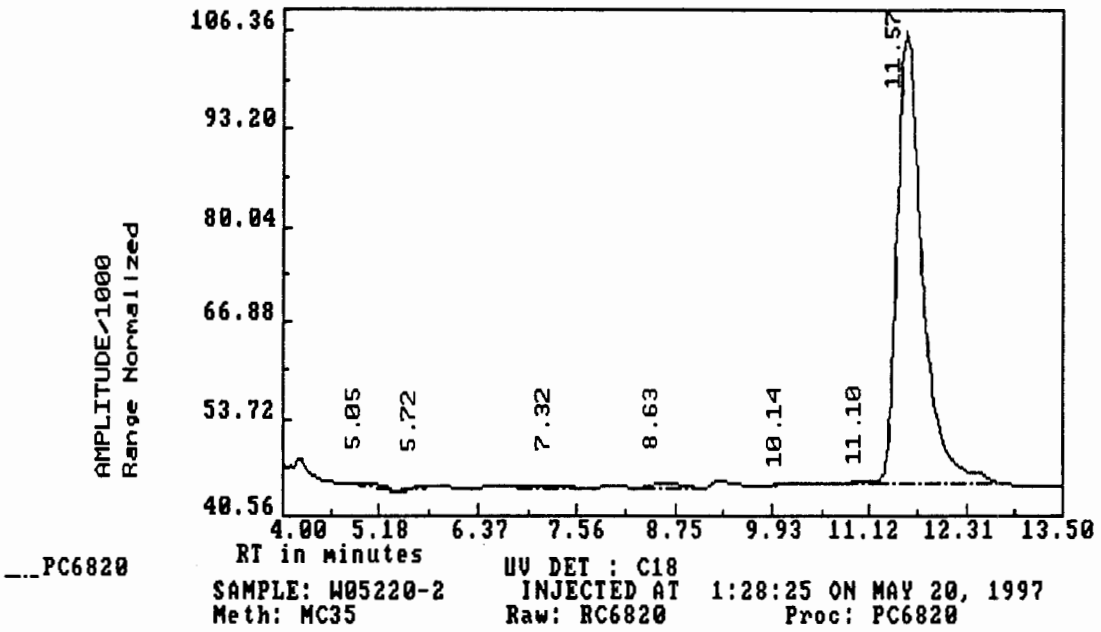
Sample ID : 9705220-02
Client ID : AOC1001GP15

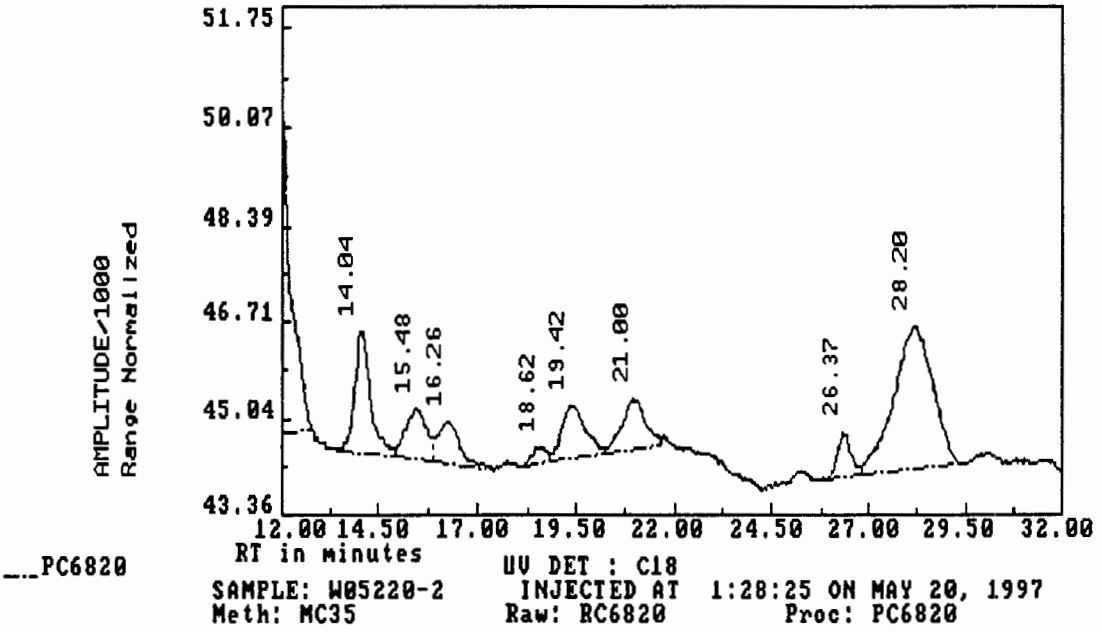
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6820 | RD6828 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

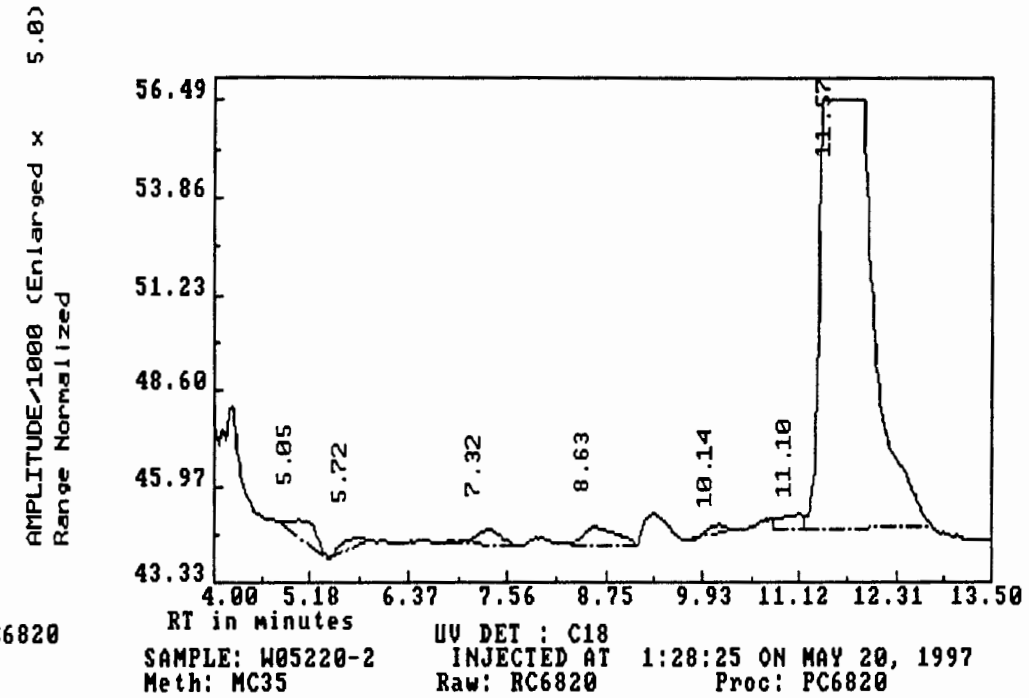
| Analyte Name | | Samp RT | Calib RT Window | | Q MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|

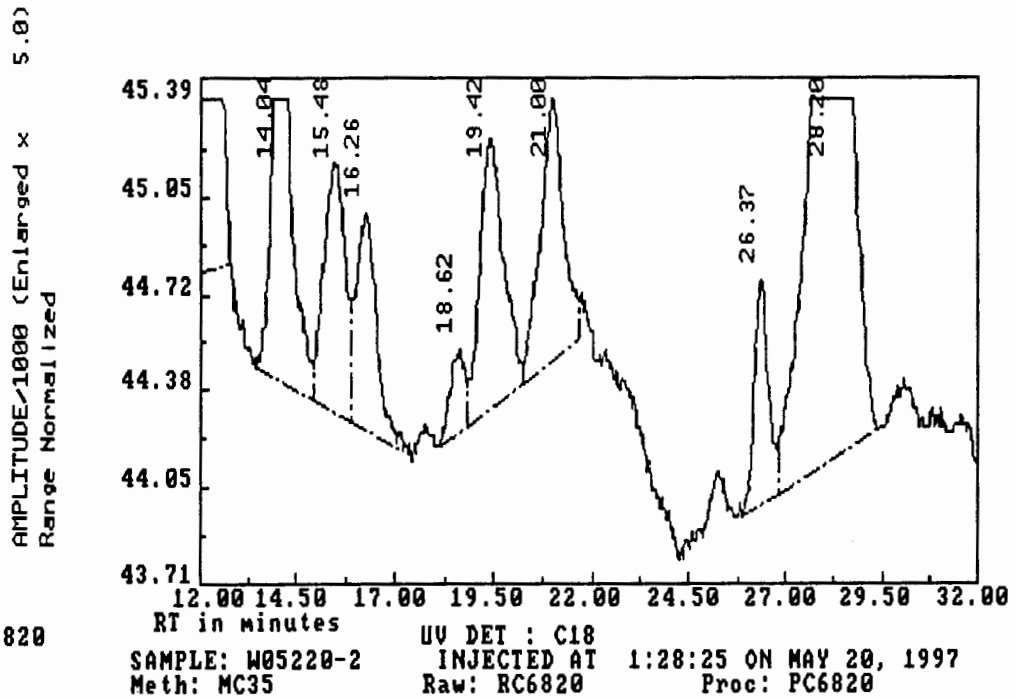
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF


106.36
93.20
80.04
66.88
53.72
40.56
AMPLITUDE/1000
Range Normalized
5.05
5.72
7.32
8.63
10.14
11.10
11.57
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6820
UV DET : C18
SAMPLE: W05220-2
INJECTED AT 1:28:25 ON MAY 20, 1997
Meth: MC35
Raw: RC6820
Proc: PC6820


51.75
50.07
48.39
46.71
45.04
43.36
AMPLITUDE/1000
Range Normalized
14.04
15.48
16.26
18.62
19.42
21.00
26.37
28.20
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6820
UV DET : C18
SAMPLE: W05220-2
INJECTED AT 1:28:25 ON MAY 20, 1997
Meth: MC35
Raw: RC6820
Proc: PC6820


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
56.49
53.86
51.23
48.60
45.97
43.33
5.05
5.72
7.32
8.63
10.14
11.10
11.57
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6820
UV DET : C18
SAMPLE: W05220-2
INJECTED AT 1:28:25 ON MAY 20, 1997
Meth: MC35
Raw: RC6820
Proc: PC6820


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
45.39
45.05
44.72
44.38
44.05
43.71
14.04
15.48
16.26
18.62
19.42
21.00
26.37
28.40
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6820
UV DET : C18
SAMPLE: W05220-2
INJECTED AT 1:28:25 ON MAY 20, 1997
Meth: MC35
Raw: RC6820
Proc: PC6820

FILE:RC6820 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10588.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05220-2 INJECTED AT 1:28:25 ON MAY 20, 1997

ESTD METHOD: MC0515 SEQ: SC0519 SUBSQ/SAMP: 1/ 20

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES .

ENDED NOT ON BL

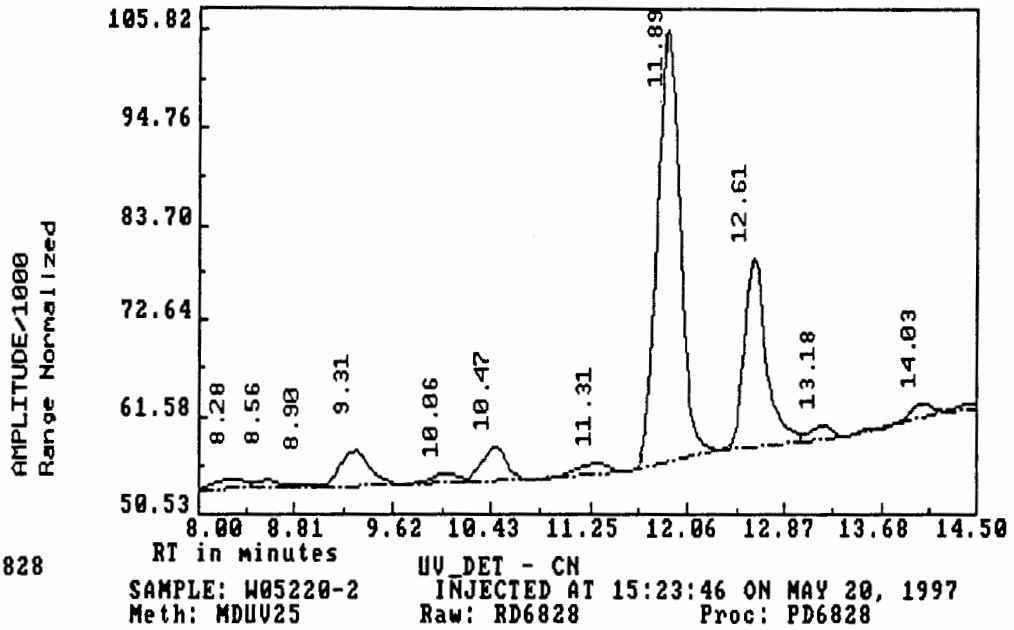
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 2.92 | | 0.0000E+ 0 | 14847 | BV | 0.000 | |
| 3.11 | | 0.0000E+ 0 | 9892 | VV | 0.000 | |
| 3.45 | | 0.0000E+ 0 | 97726 | VV | 0.000 | |
| 3.76 | | 0.0000E+ 0 | 3496 | VF | 0.000 | |
| 5.05 | 4.97 | 8.9485E- 6 | 2406 | VV | .022 | ~~HMX~~ < SDL |
| 5.72 | | 0.0000E+ 0 | 1216 | VB | 0.000 | |
| 7.32 | | 0.0000E+ 0 | 2346 | VV | 0.000 | |
| 8.63 | | 0.0000E+ 0 | 3467 | VF | 0.000 | |
| [illegible].14 | | 0.0000E+ 0 | 1064 | VB | 0.000 | |
| 11.10 | 10.93 | 3.1255E- 6 | 2049 | VV | .006 | ~~TNB-135~~ RTolls |
| 11.57 | 11.57# | 4.3299E- 6 | 336483 | VF | 1.457 | #1-2-DNB |
| 14.04 | 13.68 | 2.1017E- 6 | 15223 | BV | .032 | ~~DNB-13~~ RTolls |
| 15.48 | 15.61 | 3.9471E- 6 | 8310 | VV | .033 | ~~TETRYL~~ < SDL |
| 16.26 | 16.33 | 2.9334E- 6 | 6738 | VB | .020 | ~~NBE~~ < SDL |
| 18.62 | 18.33 | 2.9771E- 6 | 1746 | BV | .005 | ~~TNT-246~~ RTolls |
| 19.42 | 19.97 | 4.9689E- 6 | 9827 | VV | .049 | ~~DNT-4A26~~ RTolls |
| 21.00 | 20.69 | 2.8893E- 6 | 9251 | VV | .027 | ~~DNT-2A4~~6 RTolls |
| 26.37 | 26.58 | 7.4212E- 6 | 5037 | VV | .037 | ~~NT-2~~ < SDL |
| 28.20 | 28.20 | 8.5727E- 6 | 43842 | VV | .376 | ~~NT-4~~ Not on CN |
| 34.27 | | 0.0000E+ 0 | 24393 | BF | 0.000 | |

TOTAL AREA = 599360 TOTAL PPM = 2.063

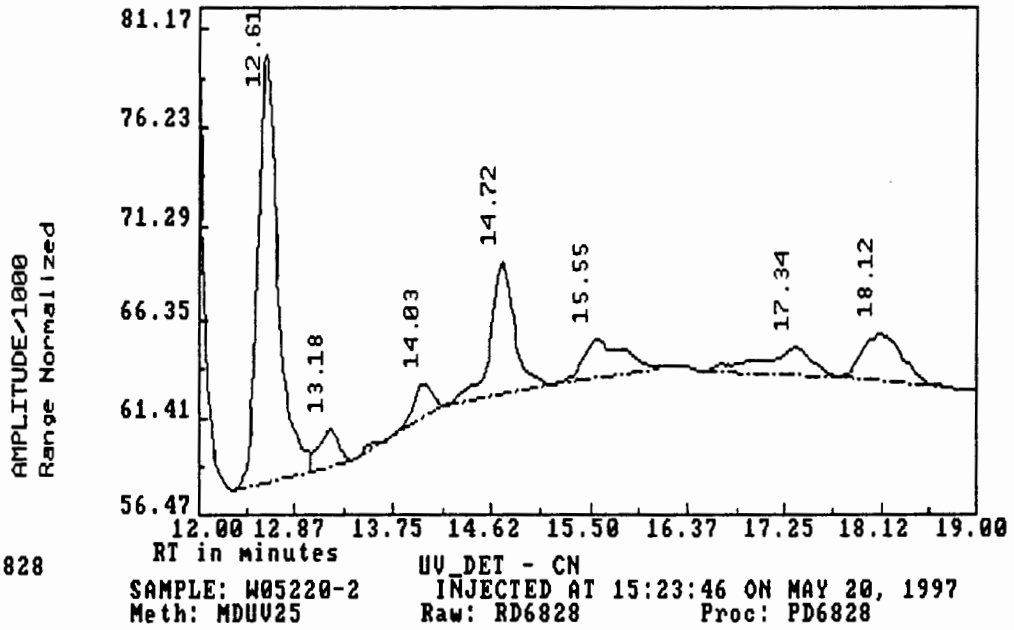
PROCESSED DATA FILE: PC6820 RAW DATA FILE: RC6820

HM 05-21-97

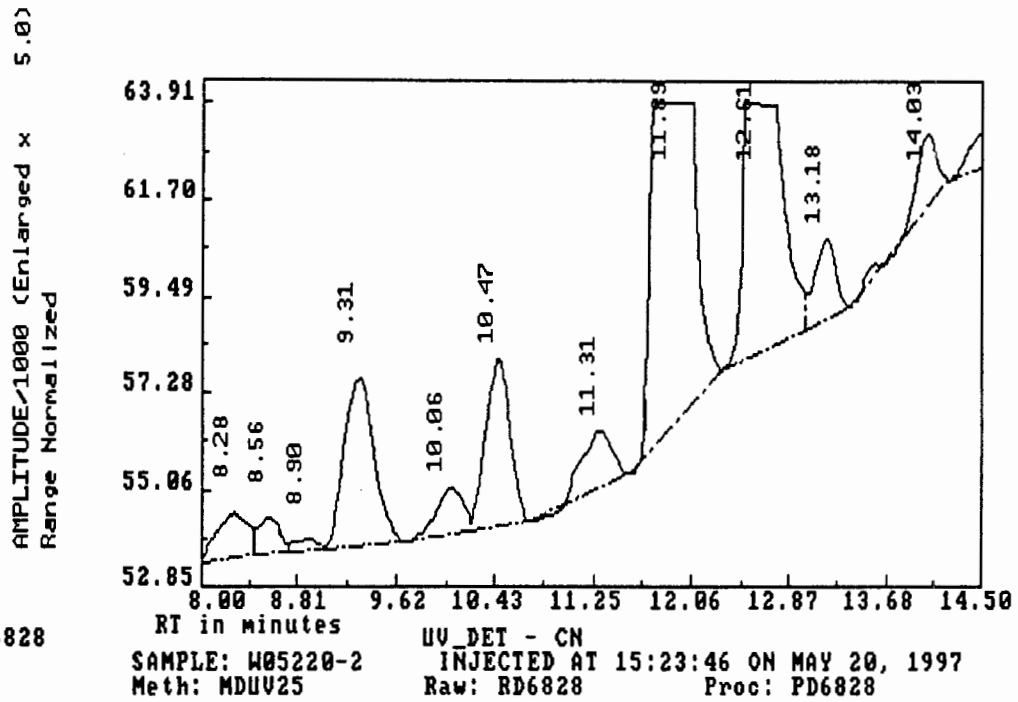
DONE



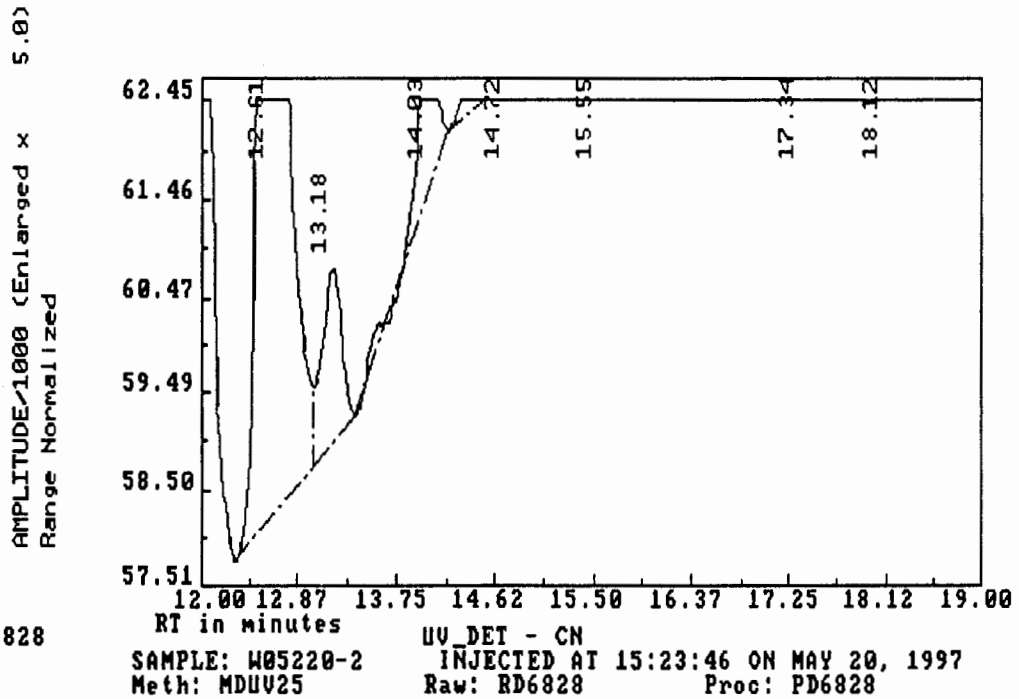

__PD6828




__PD6828




PD6828




PD6828

FILE:RD6828 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15722.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05220-2 INJECTED AT 15:23:46 ON MAY 20, 1997

ESTD METHOD: MD0520 SEQ: SD0519 SUBSQ/SAMP: 1/ 28

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.55 | | 0.0000E+ 0 | 8611 | BV | 0.000 | |
| 6.46 | | 0.0000E+ 0 | 33623 | VV | 0.000 | |
| 7.52 | | 0.0000E+ 0 | 17044 | VF | 0.000 | |
| 8.28 | | 0.0000E+ 0 | 4741 | BV | 0.000 | |
| 8.56 | 8.61 | 2.6330E- 6 | 2653 | VV | .007 | ~~NBE~~ CSDL |
| 8.90 | 9.02 | 3.3659E- 6 | 1040 | VV | .003 | ~~DNB-13~~ RT off |
| 9.31 | | 0.0000E+ 0 | 16409 | VB | 0.000 | |
| 10.06 | 10.24 | 2.9146E- 6 | 4014 | BV | .012 | ~~NT-2~~ CSDL |
| 10.47 | 10.50 | 2.9146E- 6 | 13333 | VV | .039 | ~~NT-3~~ CSDL |
| 11.31 | 11.13 | 1.7512E- 6 | 5670 | VV | .010 | ~~DNT-24~~ Not on C18 |
| 11.89 | 11.89# | 7.6894E- 6 | 164071 | VB | 1.262 | #1-2-DNB |
| 12.61 | 12.79 | 8.1500E- 6 | 69304 | BV | .565 | ~~DNT-4A2~~6 RT off |
| 13.18 | 13.20 | 5.4259E- 6 | 5745 | VV | .031 | ~~DNT-2A4~~6 CSDL |
| 14.03 | 13.74 | 1.2715E- 5 | 5178 | VB | .066 | ~~RDX~~ Not on C18 |
| 14.72 | | 0.0000E+ 0 | 25380 | BV | 0.000 | |
| 15.55 | 15.70 | 6.5041E- 6 | 12642 | VB | .082 | ~~TETRYL~~ CSDL |
| 17.34 | 17.62 | 1.4992E- 5 | 10885 | VB | .163 | ~~HMX~~ Not on C18 |
| 18.12 | | 0.0000E+ 0 | 15460 | BB | 0.000 | |
| 19.87 | | 0.0000E+ 0 | 1252 | VB | 0.000 | |
| 22.09 | | 0.0000E+ 0 | 49215 | VF | 0.000 | |

TOTAL AREA = 466269 TOTAL PPM = 2.240

PROCESSED DATA FILE: PD6828 RAW DATA FILE: RD6828

HM 05-21-97

DONE

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705220-02RE
Client ID : AOC1001GP15RE

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 7.4
Percent Moist : 100

Collection Date: 05/07/97
Date Received : 05/08/97
Ext Started : 05/22/97
Ext Completed : 05/22/97
Date Analyzed : 05/22/97
Date Confirmed : 05/22/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 2.1 | U | 0.41 |
| 121-82-4---- | RDX | 1.2 | U | 0.24 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.3 | U | 0.25 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.3 | U | 0.27 |
| 98-95-3----- | Nitrobenzene | 2.2 | U | 0.44 |
| 479-45-8---- | Tetryl | 1.8 | U | 0.37 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.3 | U | 0.27 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 2.4 | U | 0.47 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 0.47 | J | 0.27 |
| 606-20-2---- | 2,6-Dinitrotoluene | 3.1 | U | 0.62 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.8 | U | 0.34 |
| 88-72-2----- | 2-Nitrotoluene | 3.0 | U | 0.58 |
| 99-08-1----- | 4-Nitrotoluene | 3.0 | U | 0.58 |
| 99-99-0----- | 3-Nitrotoluene | 3.0 | U | 0.58 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

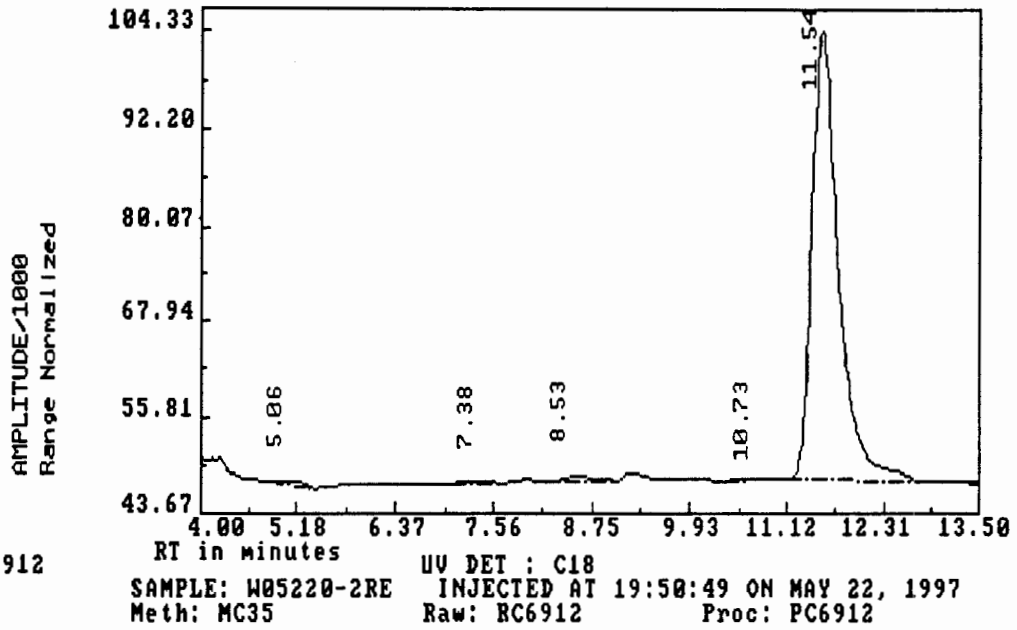
Sample ID : 9705220-02RE
Client ID : AOC1001GP15RE

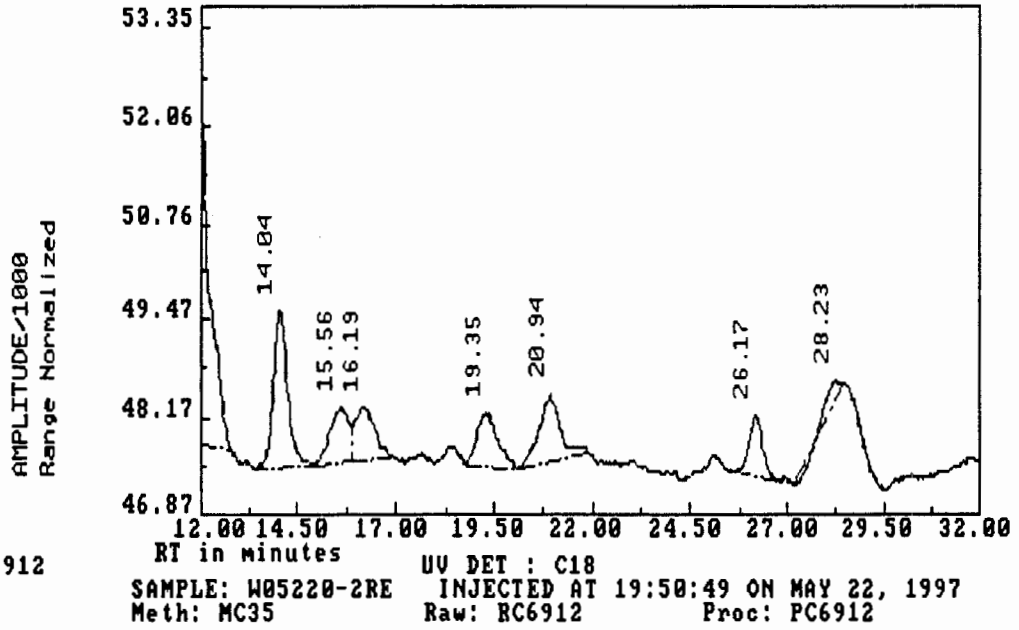
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6912 | RD6906 |
| Calib File | RC6907 | RD6904 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

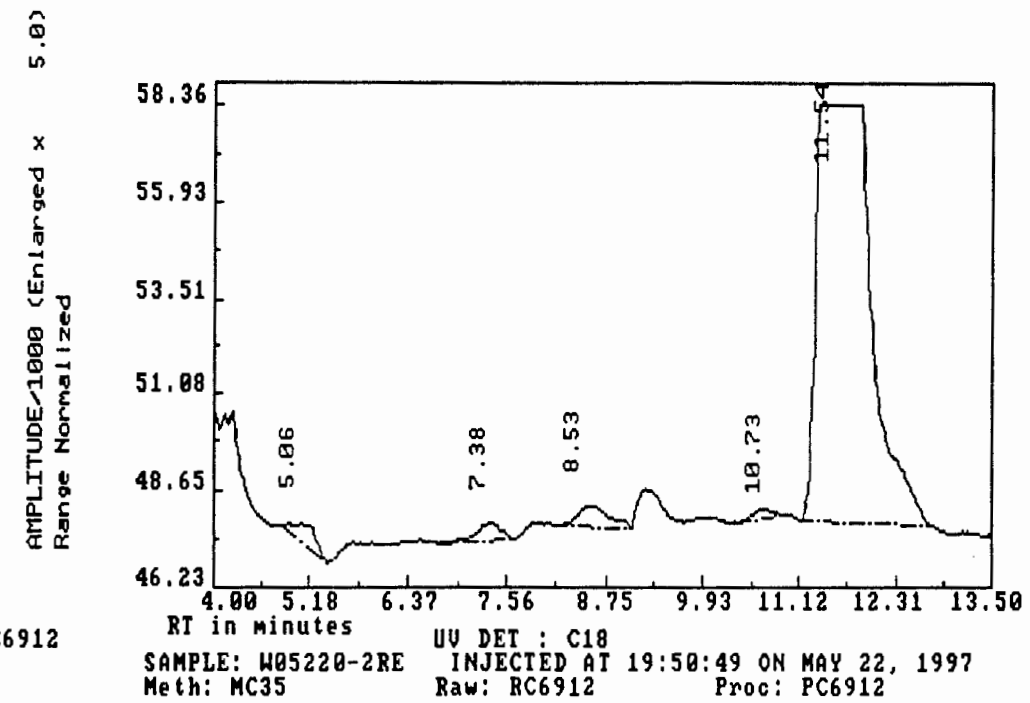
| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|
| 2-Amino-4,6-Dinitrotoluen | Column 1 | 20.94 | 20.53 | 21.07 | _ | _ | 24.4 | |
| | Column 2 | 13.10 | 13.03 | 13.31 | _ | _ | 26.8 | 9. |

Q = Reported result
MS = Result confirmed by GC/MS

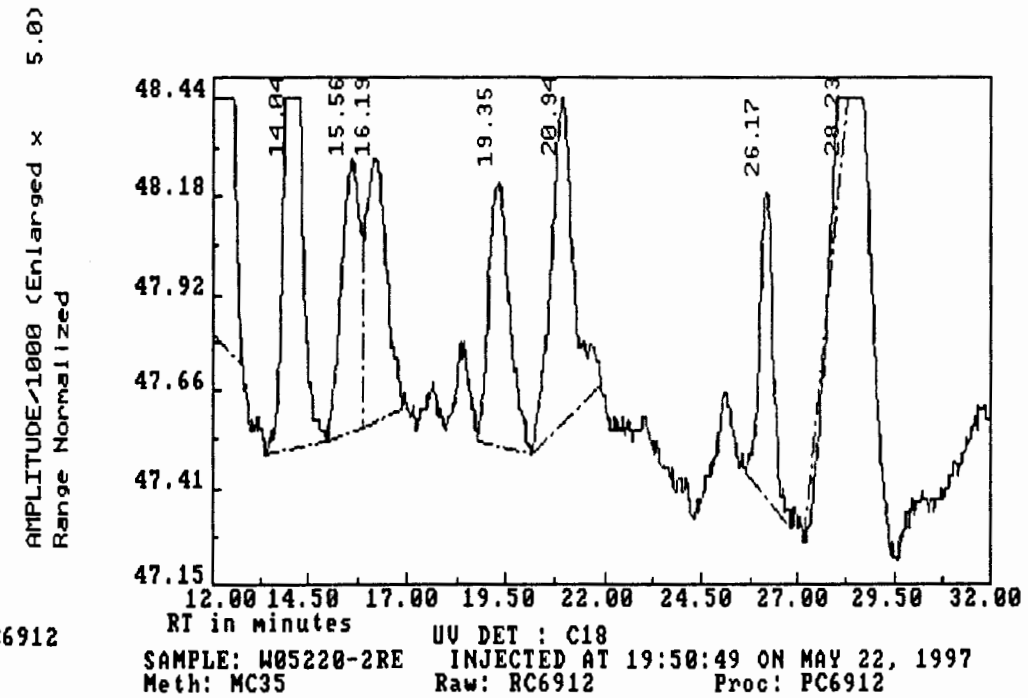
FORM GC CONF


104.33
92.20
80.07
67.94
55.81
43.67
AMPLITUDE/1000
Range Normalized
5.06
7.38
8.53
10.73
11.54
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6912
UV DET : C18
SAMPLE: W05220-2RE INJECTED AT 19:50:49 ON MAY 22, 1997
Meth: MC35 Raw: RC6912 Proc: PC6912

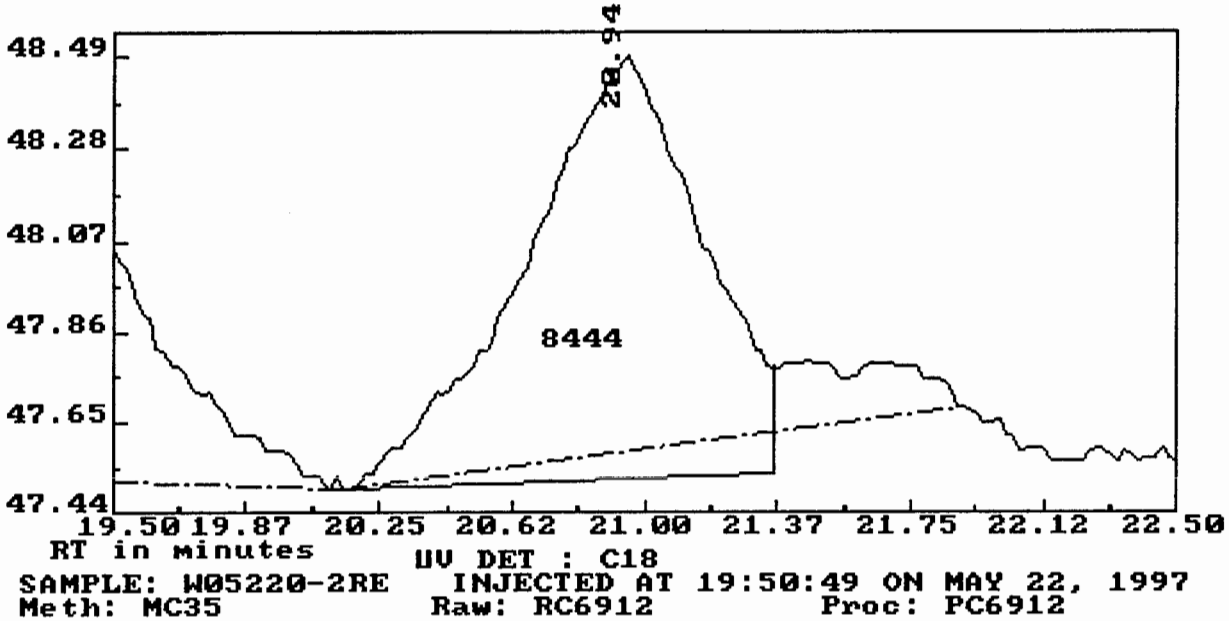

53.35
52.06
50.76
49.47
48.17
46.87
AMPLITUDE/1000
Range Normalized
14.84
15.56
16.19
19.35
20.94
26.17
28.23
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6912
UV DET : C18
SAMPLE: W05220-2RE INJECTED AT 19:50:49 ON MAY 22, 1997
Meth: MC35 Raw: RC6912 Proc: PC6912




PC6912




PC6912




xm 5-23-97

PC6912

FILE:RC6912 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10608.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05220-2RE INJECTED AT 19:50:49 ON MAY 22, 1997

ESTD METHOD: MC0522 SEQ: SC0522 SUBSQ/SAMP: 1/ 12

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

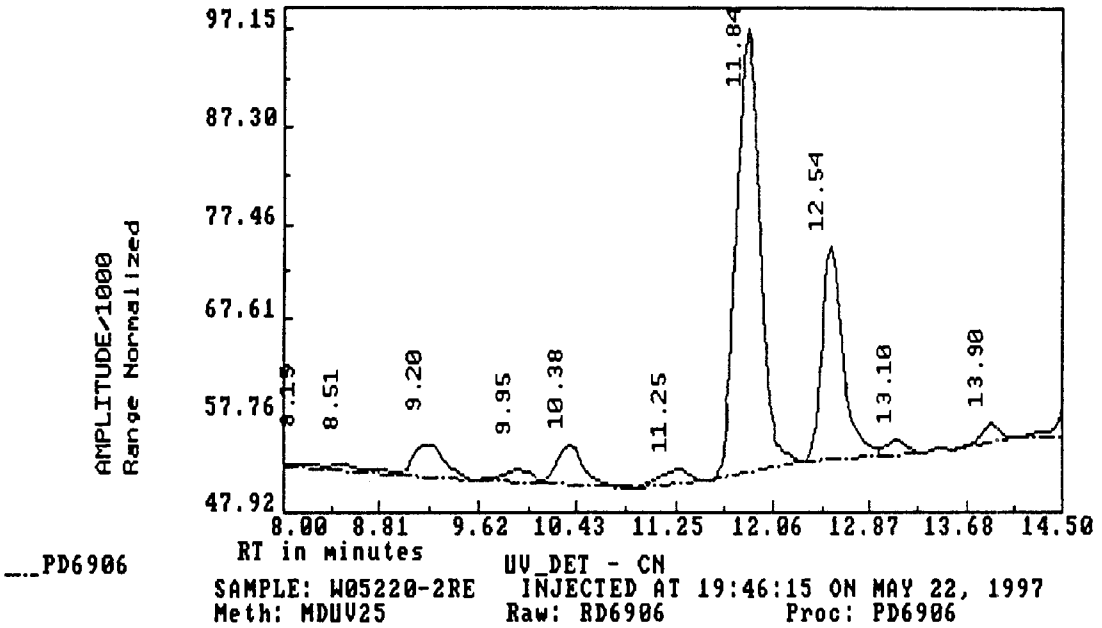
| RT | ITM | FACTOR | | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|---|
| .80 | | 0.0000E+ 0 | | 1050 | BV | 0.000 | |
| 1.16 | | 0.0000E+ 0 | | 3540 | VV | 0.000 | |
| 1.28 | | 0.0000E+ 0 | | 4971 | VV | 0.000 | |
| 3.01 | | 0.0000E+ 0 | | 56921 | VV | 0.000 | |
| 3.49 | | 0.0000E+ 0 | | 272946 | VV | 0.000 | |
| 5.06 | 4.94 | 8.9485E- 6 | | 2298 | VV | .021 | ~~HMX~~ CSDL |
| 7.38 | | 0.0000E+ 0 | | 1858 | BV | 0.000 | |
| 8.53 | | 0.0000E+ 0 | | 3613 | BV | 0.000 | |
| 10.73 | 10.85 | 3.1255E- 6 | | 1104 | BB | .003 | ~~TNB-135~~ CSDL |
| 11.54 | 11.54# | 4.3299E- 6 | | 323752 | BF | 1.402 | #1-2-DNB |
| 14.04 | 13.68 | 2.1017E- 6 | | 13105 | BV | .028 | ~~DNB-13~~ RT off |
| 15.56 | 15.56 | 3.9471E- 6 | | 6071 | VV | .024 | ~~TETRYL~~ CSDL |
| 16.19 | 16.19 | 2.9334E- 6 | | 6306 | VV | .018 | ~~NBE~~ CSDL |
| 19.35 | 20.13 | 4.9689E- 6 | | 6439 | VV | .032 | ~~DNT-4A26~~ RT off |
| 20.94 | 20.81 | 2.8893E- 6 | 8444 | ~~8514~~ | VB | .~~025~~ | DNT-2A46 |
| 26.17 | 26.46 | 7.4212E- 6 | | 5118 | BV | .038 | ~~NT-2~~ RT off |
| 28.23 | 28.06 | 8.5727E- 6 | | 1821 | BB | .016 | ~~NT-4~~ CSDL |
| 34.19 | | 0.0000E+ 0 | | 26849 | BF | 0.000 | |

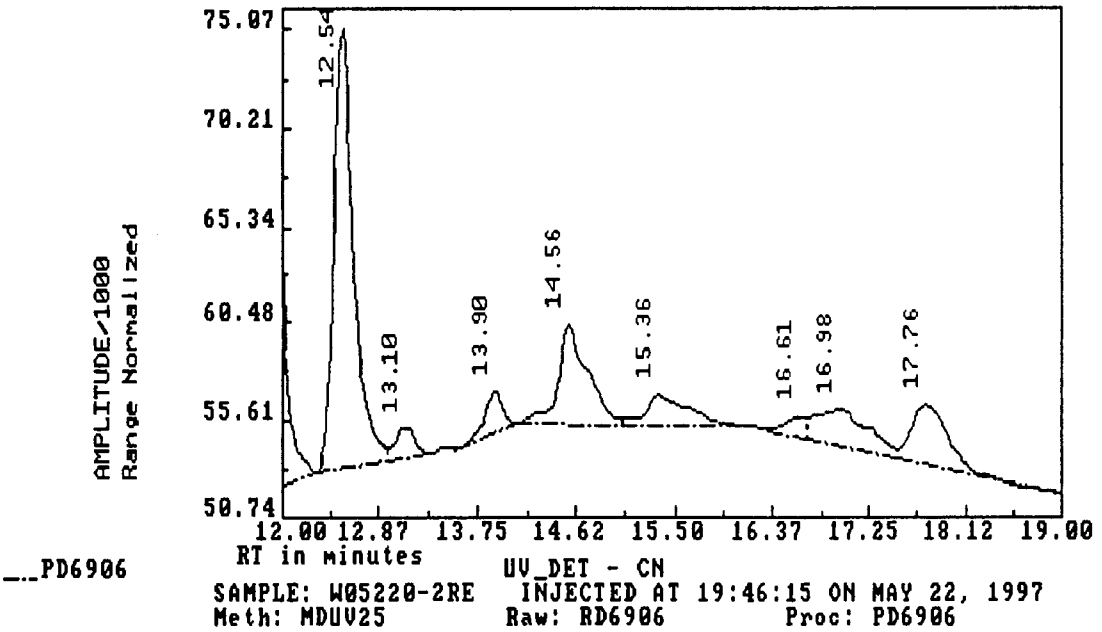
TOTAL AREA = 746278 TOTAL PPM = 1.606

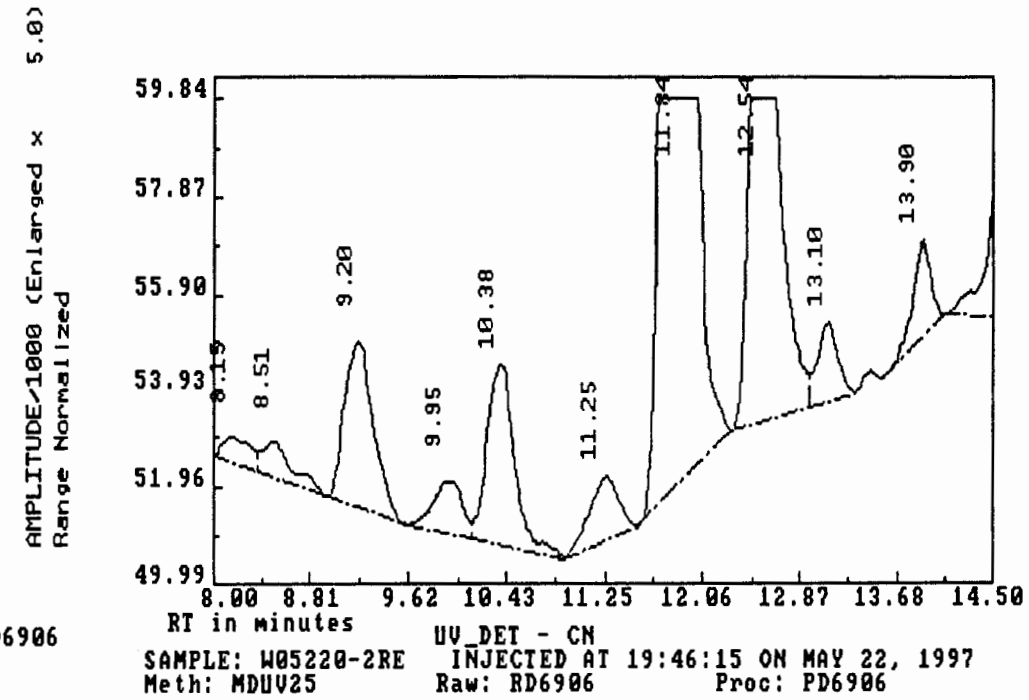
PROCESSED DATA FILE: PC6912 RAW DATA FILE: RC6912

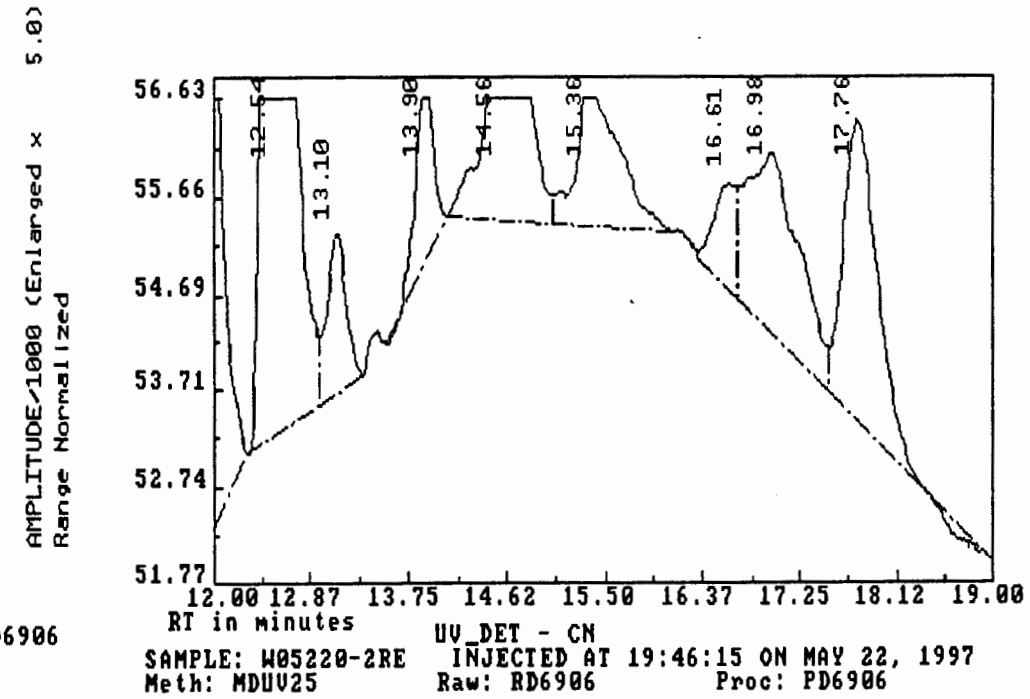
HM
05-23-97

DONE


97.15
87.30
77.46
67.61
57.76
47.92
AMPLITUDE/1000
Range Normalized
8.19
8.51
9.20
9.95
10.38
11.25
11.84
12.54
13.10
13.90
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6906
UV_DET - CN
SAMPLE: W05220-2RE INJECTED AT 19:46:15 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6906 Proc: PD6906


75.07
70.21
65.34
60.48
55.61
50.74
AMPLITUDE/1000
Range Normalized
12.54
13.10
13.90
14.56
15.36
16.61
16.98
17.76
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6906
UV_DET - CN
SAMPLE: W05220-2RE INJECTED AT 19:46:15 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6906 Proc: PD6906


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
59.84
57.87
55.90
53.93
51.96
49.99
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
8.51
9.20
9.95
10.38
11.25
13.10
13.90
PD6906
UV_DET - CN
SAMPLE: W05220-2RE
INJECTED AT 19:46:15 ON MAY 22, 1997
Meth: MDUV25
Raw: RD6906
Proc: PD6906


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
56.63
55.66
54.69
53.71
52.74
51.77
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
13.10
16.61
PD6906
UV_DET - CN
SAMPLE: W05220-2RE
INJECTED AT 19:46:15 ON MAY 22, 1997
Meth: MDUV25
Raw: RD6906
Proc: PD6906

FILE:PD6906 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15743.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05220-2RE INJECTED AT 19:46:15 ON MAY 22, 1997

ESTD METHOD: MD0520 SEQ: SD0522 SUBSQ/SAMP: 1/ 6

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.56 | | 0.0000E+ 0 | 13707 | BV | 0.000 | |
| 6.40 | | 0.0000E+ 0 | 39695 | VV | 0.000 | |
| 7.50 | | 0.0000E+ 0 | 11487 | VF | 0.000 | |
| 8.15 | | 0.0000E+ 0 | 2279 | BV | 0.000 | |
| 8.51 | 8.57 | 2.6330E- 6 | 3199 | VV | .008 | ~~NBE~~ Not on LIB |
| 9.20 | 8.99 | 3.3659E- 6 | 14123 | VB | .048 | ~~DNB-1~~ 3 RT off |
| 9.95 | 10.20 | 2.9146E- 6 | 4390 | BV | .013 | ~~NT-2~~ < SDL |
| 10.38 | 10.46 | 2.9146E- 6 | 14413 | VV | .042 | ~~NT-3~~ < SDL |
| 11.25 | 11.09 | 1.7512E- 6 | 5504 | VV | .010 | ~~DNT-24~~ RT off |
| 11.84 | 11.84# | 7.6894E- 6 | 156171 | VB | 1.201 | #1-2-DNB |
| 12.54 | 12.75 | 8.1500E- 6 | 68014 | BV | .554 | ~~DNT-4A26~~ RT off |
| 13.10 | 13.15 | 5.4259E- 6 | 4948 | VV | .027 | DNT-2A46 |
| 13.90 | 13.69 | 1.2715E- 5 | 5232 | VB | .067 | ~~RDX~~ Not on LIB |
| 14.56 | | 0.0000E+ 0 | 22735 | BV | 0.000 | |
| 15.36 | 15.64 | 6.5041E- 6 | 9697 | VB | .063 | ~~TETRYL~~ RT off |
| 16.61 | | 0.0000E+ 0 | 3570 | VV | 0.000 | |
| 16.98 | | 0.0000E+ 0 | 14958 | VV | 0.000 | |
| 17.76 | 17.55 | 1.4992E- 5 | 15559 | VB | .233 | ~~HMX~~ Not on LIB |
| 19.86 | | 0.0000E+ 0 | 890 | VV | 0.000 | |
| 21.72 | | 0.0000E+ 0 | 3753 | BV | 0.000 | |
| 22.06 | | 0.0000E+ 0 | 5850 | VV | 0.000 | |
| 22.17 | | 0.0000E+ 0 | 2569 | VV | 0.000 | |
| 22.28 | | 0.0000E+ 0 | 2626 | VV | 0.000 | |
| 22.36 | | 0.0000E+ 0 | 47069 | VF | 0.000 | |

TOTAL AREA = 472440 TOTAL PPM = 2.265

PROCESSED DATA FILE: PD6906 RAW DATA FILE: RD6906

HM
05-23-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705270-01
Client ID : AOC1001GP12

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 9.7
Percent Moist : 100

Collection Date: 05/07/97
Date Received : 05/09/97
Ext Started : 05/13/97
Ext Completed : 05/14/97
Date Analyzed : 05/20/97
Date Confirmed : 05/20/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 2.7 | U | 0.54 |
| 121-82-4---- | RDX | 1.6 | U | 0.31 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.6 | U | 0.33 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.7 | U | 0.35 |
| 98-95-3----- | Nitrobenzene | 2.9 | U | 0.58 |
| 479-45-8---- | Tetryl | 2.3 | U | 0.48 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.7 | U | 0.35 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 3.1 | U | 0.62 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.7 | U | 0.35 |
| 606-20-2---- | 2,6-Dinitrotoluene | 4.1 | U | 0.81 |
| 121-14-2---- | 2,4-Dinitrotoluene | 2.3 | U | 0.45 |
| 88-72-2----- | 2-Nitrotoluene | 3.9 | U | 0.76 |
| 99-08-1----- | 4-Nitrotoluene | 3.9 | U | 0.76 |
| 99-99-0----- | 3-Nitrotoluene | 3.9 | U | 0.76 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

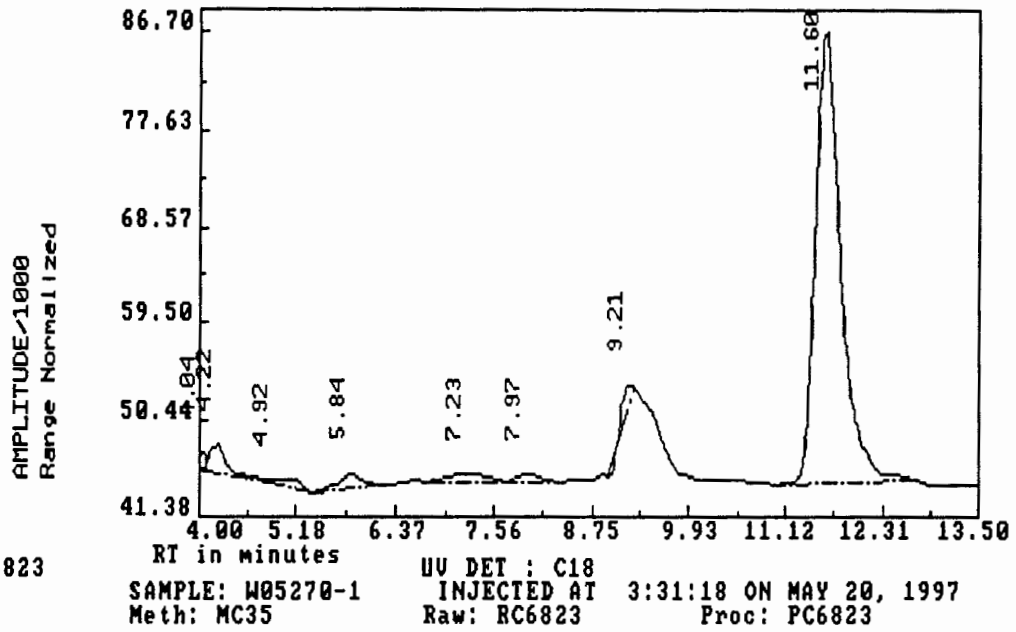
Sample ID : 9705270-01
Client ID : AOC1001GP12

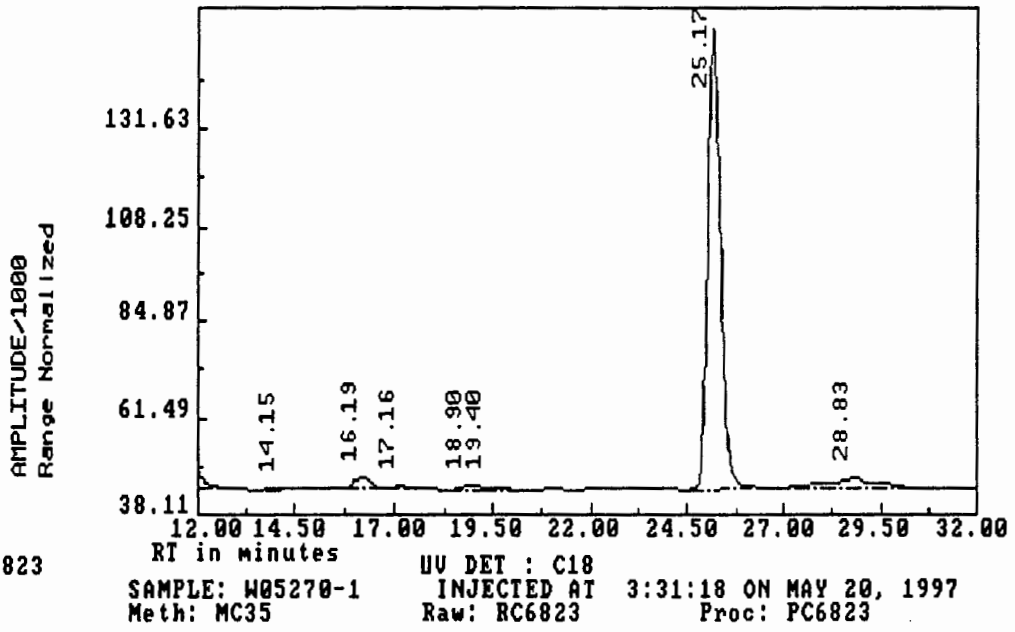
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6823 | RD6832 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

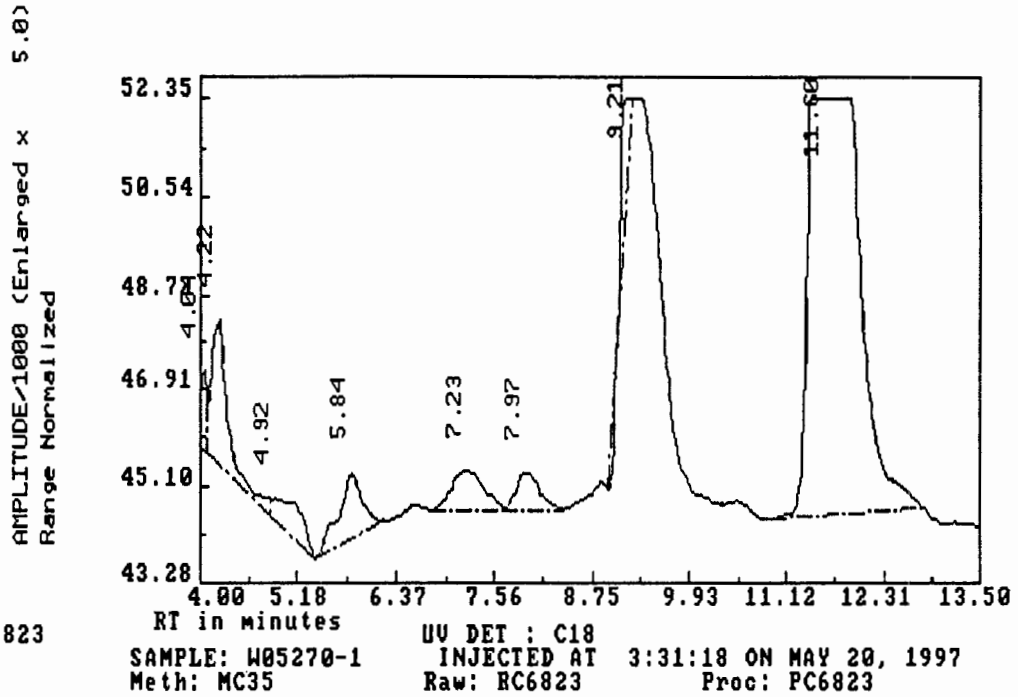
| Analyte Name | | Samp RT | Calib RT Window | | Q MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|

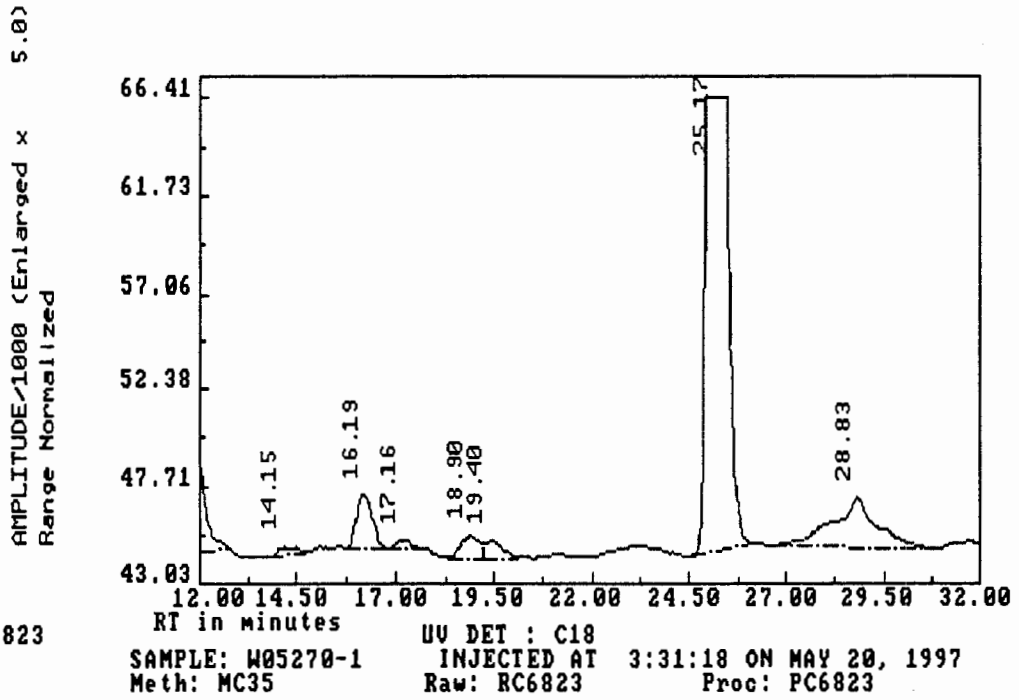
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF


86.70
77.63
68.57
59.50
50.44
41.38
AMPLITUDE/1000
Range Normalized
4.04
4.22
4.92
5.84
7.23
7.97
9.21
11.60
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6823
UV DET : C18
SAMPLE: W05270-1
INJECTED AT 3:31:18 ON MAY 20, 1997
Meth: MC35
Raw: RC6823
Proc: PC6823


131.63
108.25
84.87
61.49
38.11
AMPLITUDE/1000
Range Normalized
14.15
16.19
17.16
18.90
19.40
25.17
28.83
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6823
UV DET : C18
SAMPLE: W05270-1
INJECTED AT 3:31:18 ON MAY 20, 1997
Meth: MC35
Raw: RC6823
Proc: PC6823


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
52.35
50.54
48.71
46.91
45.10
43.28
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
4.22
4.92
5.84
7.23
7.97
9.21
11.60
PC6823
UV DET : C18
SAMPLE: W05270-1
INJECTED AT 3:31:18 ON MAY 20, 1997
Meth: MC35
Raw: RC6823
Proc: PC6823


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
66.41
61.73
57.06
52.38
47.71
43.03
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
14.15
16.19
17.16
18.90
19.40
25.17
28.83
PC6823
UV DET : C18
SAMPLE: W05270-1
INJECTED AT 3:31:18 ON MAY 20, 1997
Meth: MC35
Raw: RC6823
Proc: PC6823

FILE:RC6823 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10591.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05270-1 INJECTED AT 3:31:18 ON MAY 20, 1997

ESTD METHOD: MC0515 SEQ: SC0519 SUBSQ/SAMP: 1/ 23

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

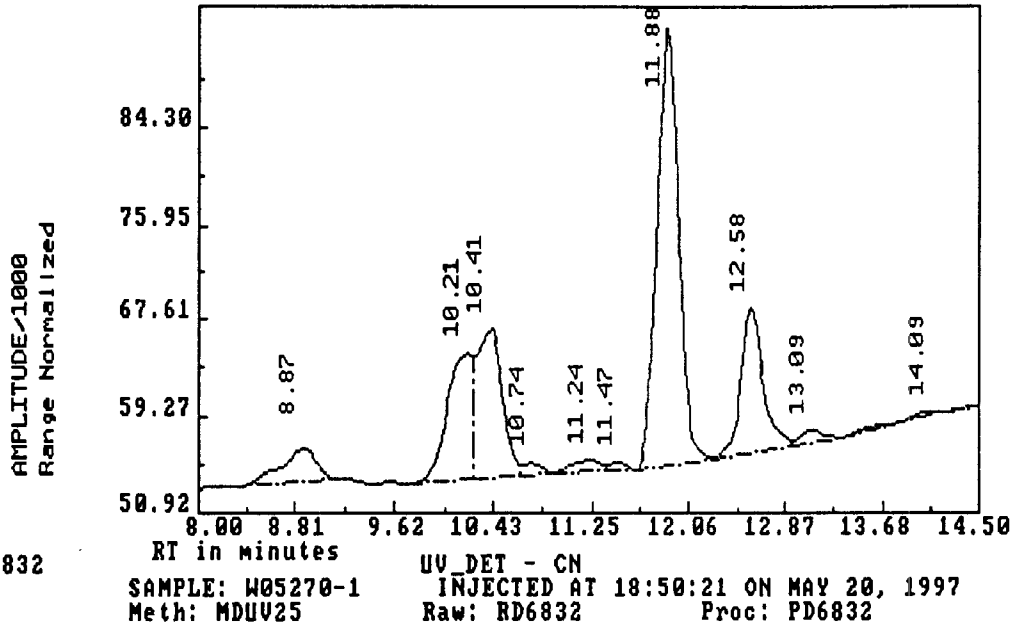
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 3.12 | | 0.0000E+ 0 | 26250 | BV | 0.000 | |
| 3.51 | | 0.0000E+ 0 | 108053 | VF | 0.000 | |
| 4.04 | | 0.0000E+ 0 | 1548 | BV | 0.000 | |
| 4.22 | | 0.0000E+ 0 | 9090 | VV | 0.000 | |
| 4.92 | 4.98 | 8.9485E- 6 | 3251 | VV | .029 | ~~HMX~~ csdx |
| 5.84 | | 0.0000E+ 0 | 6113 | VV | 0.000 | |
| 7.23 | | 0.0000E+ 0 | 5016 | BV | 0.000 | |
| 7.97 | 8.04 | 6.8847E- 6 | 3257 | VV | .022 | ~~RDX~~ csdx |
| 9.21 | | 0.0000E+ 0 | 5577 | VF | 0.000 | |
| 11.60 | 11.60# | 4.3299E- 6 | 231964 | BF | 1.004 | #1-2-DNB |
| 14.15 | 13.71 | 2.1017E- 6 | 2952 | BV | .006 | ~~DNB-13~~ csdx |
| 16.19 | 16.37 | 2.9334E- 6 | 18395 | BV | .054 | ~~NBE~~ Notonly |
| 17.16 | | 0.0000E+ 0 | 2824 | VB | 0.000 | |
| 18.90 | 18.38 | 2.9771E- 6 | 8321 | BV | .025 | ~~TNT-246~~ RTaff |
| 19.40 | 20.03 | 4.9689E- 6 | 5747 | VV | .029 | ~~DNT-4A26~~ RTaff |
| 25.17 | | 0.0000E+ 0 | 620589 | BB | 0.000 | |
| 28.83 | 28.27 | 8.5727E- 6 | 45893 | BB | .393 | ~~NT-4~~ RTaff |
| 34.48 | | 0.0000E+ 0 | 33269 | BF | 0.000 | |

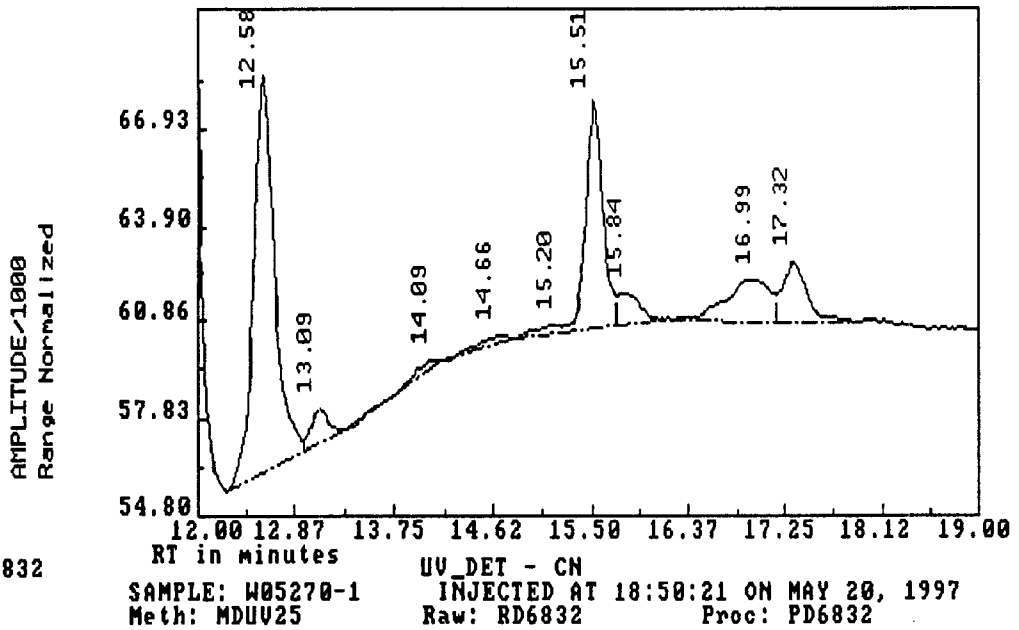
TOTAL AREA = 1138110 TOTAL PPM = 1.563

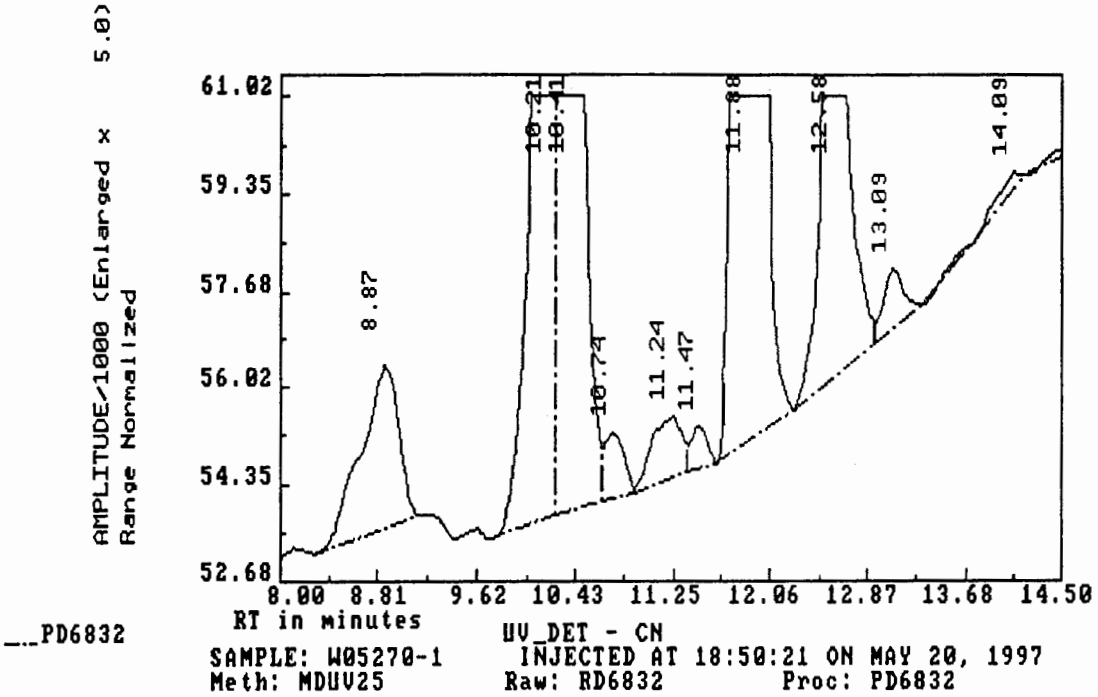
PROCESSED DATA FILE: PC6823 RAW DATA FILE: RC6823

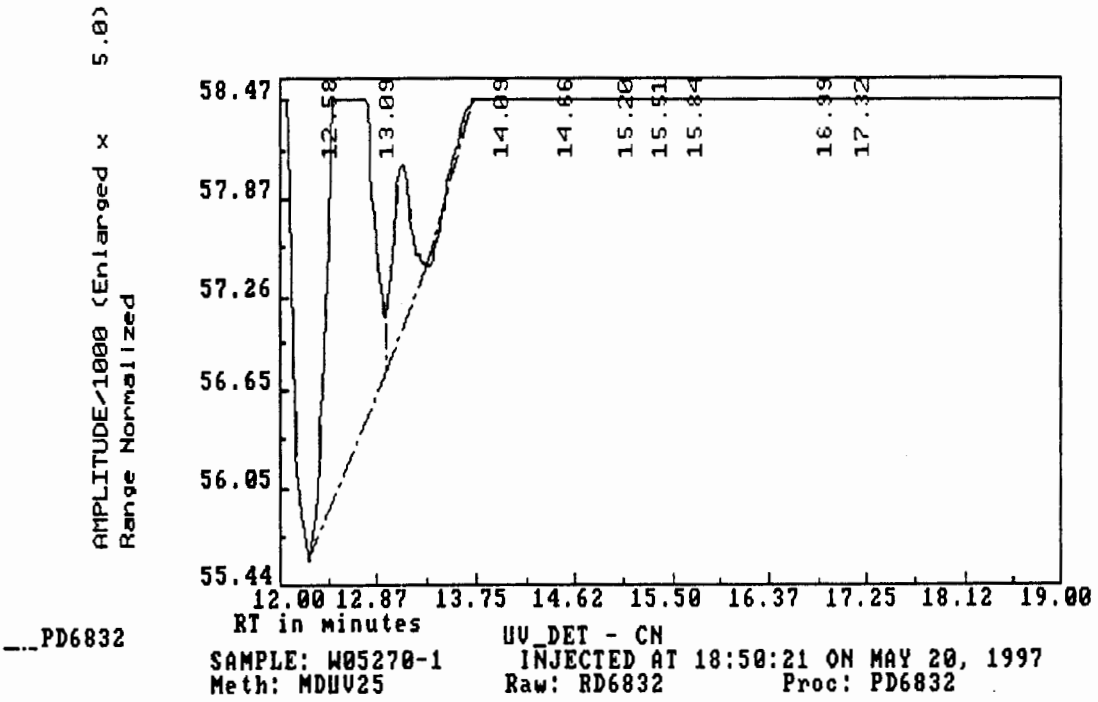
htm 05-20-97

DONE


AMPLITUDE/1000
Range Normalized
84.30
75.95
67.61
59.27
50.92
8.87
10.21
10.41
10.74
11.24
11.47
11.88
12.58
13.09
14.09
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6832
UV_DET - CN
SAMPLE: W05270-1
INJECTED AT 18:50:21 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6832
Proc: PD6832


AMPLITUDE/1000
Range Normalized
66.93
63.90
60.86
57.83
54.80
12.58
13.09
14.09
14.66
15.20
15.51
15.84
16.99
17.32
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6832
UV_DET - CN
SAMPLE: W05270-1
INJECTED AT 18:50:21 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6832
Proc: PD6832


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
61.02
59.35
57.68
56.02
54.35
52.68
8.87
10.21
10.41
10.74
11.24
11.47
11.88
12.58
13.09
14.09
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6832
UV_DET - CN
SAMPLE: W05270-1
INJECTED AT 18:50:21 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6832
Proc: PD6832


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
58.47
57.87
57.26
56.65
56.05
55.44
12.58
13.09
14.09
14.66
15.20
15.51
15.84
16.99
17.32
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6832
UV_DET - CN
SAMPLE: W05270-1
INJECTED AT 18:50:21 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6832
Proc: PD6832

FILE:RD6832 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15726.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05270-1 INJECTED AT 18:50:21 ON MAY 20, 1997

ESTD METHOD: MD0520 SEQ: SD0519 SUBSQ/SAMP: 1/ 32

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.32 | | 0.0000E+ 0 | 2819 | VV | 0.000 | |
| 5.55 | | 0.0000E+ 0 | 19886 | VV | 0.000 | |
| 6.48 | | 0.0000E+ 0 | 17420 | VV | 0.000 | |
| 6.79 | | 0.0000E+ 0 | 2546 | VV | 0.000 | |
| 7.18 | | 0.0000E+ 0 | 12045 | VV | 0.000 | |
| 7.40 | | 0.0000E+ 0 | 582821 | VF | 0.000 | |
| 8.87 | 9.01 | 3.3659E- 6 | 14991 | VB | .050 | ~~DNB-13~~ RT off |
| 10.21 | 10.23 | 2.9146E- 6 | 40240 | VV | .117 | ~~NT-2~~ RT off |
| 10.41 | 10.49 | 2.9146E- 6 | 46033 | VV | .134 | ~~NT-3~~ RT off |
| 10.74 | | 0.0000E+ 0 | 3106 | VV | 0.000 | |
| 11.24 | 11.12 | 1.7512E- 6 | 4877 | VV | .009 | ~~DNT-24~~ <SOL |
| 11.47 | | 0.0000E+ 0 | 1776 | VV | 0.000 | |
| 11.88 | 11.88# | 7.6894E- 6 | 119395 | VB | .918 | #1-2-DNB |
| 12.58 | 12.78 | 8.1500E- 6 | 40418 | BV | .329 | ~~DNT-4A26~~ RT off |
| 13.09 | 13.19 | 5.4259E- 6 | 3148 | VV | .017 | ~~DNT-2A46~~ RT off |
| 14.09 | 13.73 | 1.2715E- 5 | 1360 | VB | .017 | ~~RDX~~ RT off |
| 14.66 | | 0.0000E+ 0 | 850 | BB | 0.000 | |
| 15.20 | | 0.0000E+ 0 | 961 | BV | 0.000 | |
| 15.51 | | 0.0000E+ 0 | 18920 | VV | 0.000 | |
| 15.84 | 15.68 | 6.5041E- 6 | 3474 | VB | .023 | ~~TETRYL~~ <SOL |
| 16.99 | | 0.0000E+ 0 | 9632 | VV | 0.000 | |
| 17.32 | 17.60 | 1.4992E- 5 | 7467 | VB | .112 | ~~HMX~~ Not on LIB |
| 22.25 | | 0.0000E+ 0 | 11567 | BF | 0.000 | |

TOTAL AREA = 965755 TOTAL PPM = 1.727

PROCESSED DATA FILE: PD6832 RAW DATA FILE: RD6832

tm 05-21-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705270-01RE
Client ID : AOC1001GP12RE

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 5.9
Percent Moist : 100

Collection Date: 05/07/97
Date Received : 05/09/97
Ext Started : 05/22/97
Ext Completed : 05/22/97
Date Analyzed : 05/22/97
Date Confirmed : 05/22/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.7 | U | 0.33 |
| 121-82-4---- | RDX | 0.94 | U | 0.19 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.0 | U | 0.20 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.1 | U | 0.21 |
| 98-95-3----- | Nitrobenzene | 1.8 | U | 0.35 |
| 479-45-8---- | Tetryl | 1.4 | U | 0.30 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.1 | U | 0.21 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 1.9 | U | 0.38 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.1 | U | 0.21 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.5 | U | 0.50 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.4 | U | 0.27 |
| 88-72-2----- | 2-Nitrotoluene | 2.4 | U | 0.46 |
| 99-08-1----- | 4-Nitrotoluene | 2.4 | U | 0.46 |
| 99-99-0----- | 3-Nitrotoluene | 2.4 | U | 0.46 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

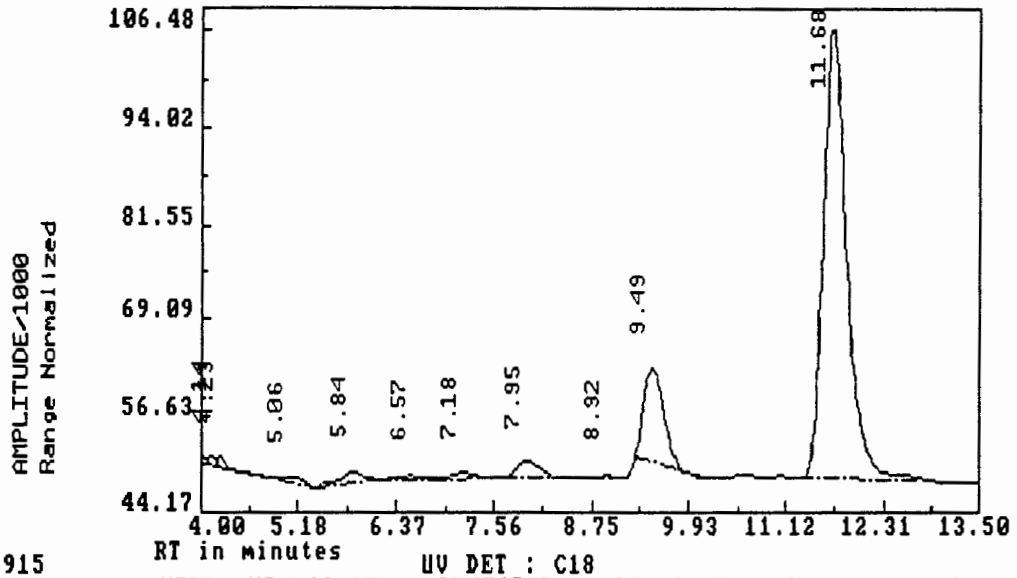
Sample ID : 9705270-01RE
Client ID : AOC1001GP12RE

| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6915 | RD6910 |
| Calib File | RC6907 | RD6904 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

| Analyte Name | | Samp RT | Calib RT Window | | Q MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|

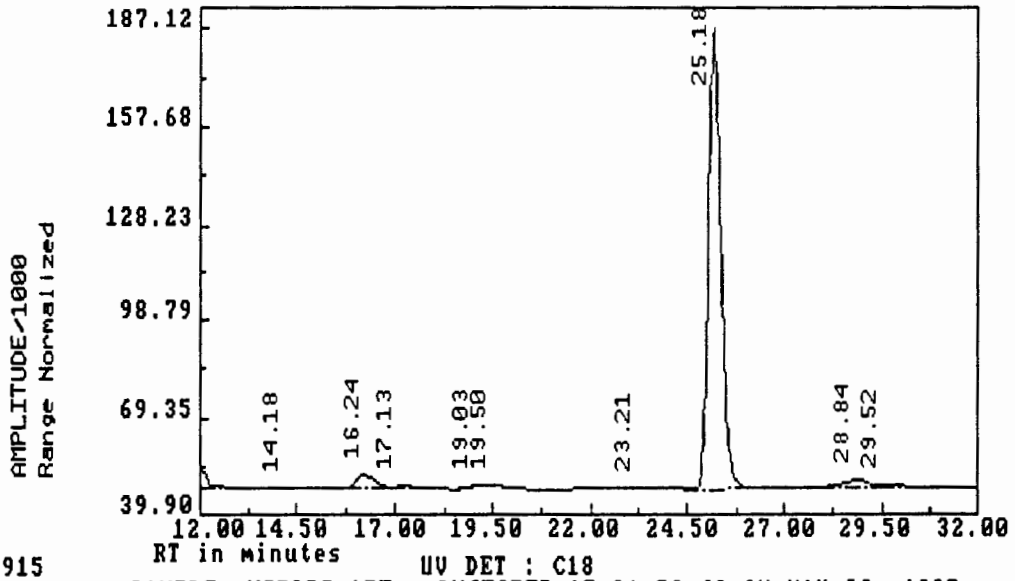
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF



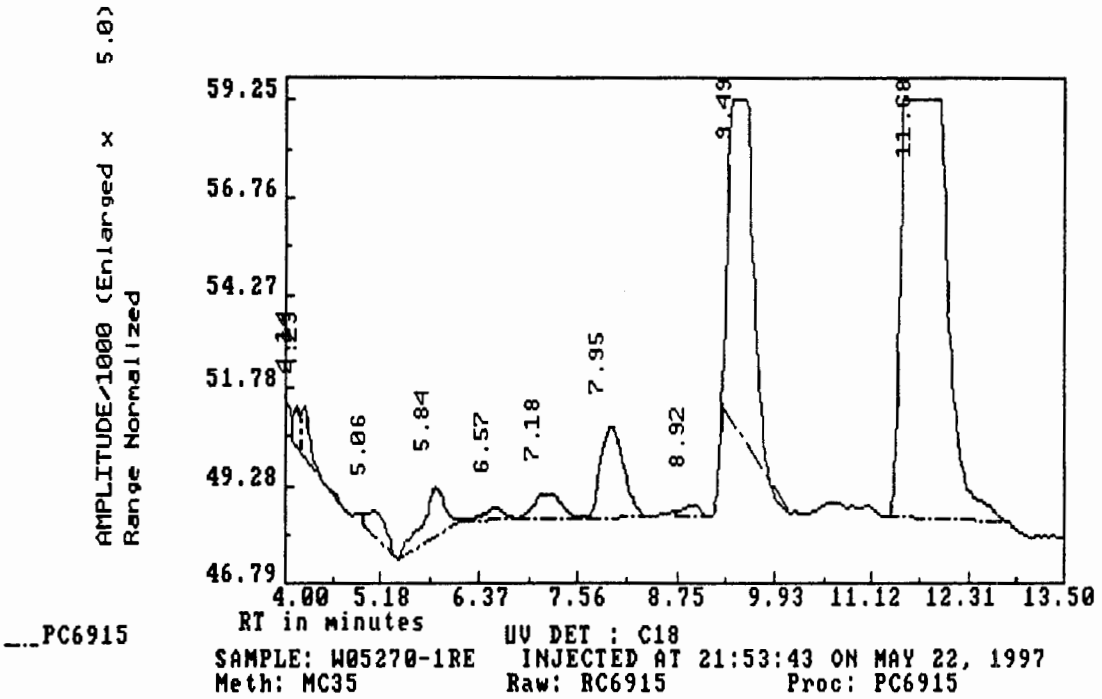

___PC6915

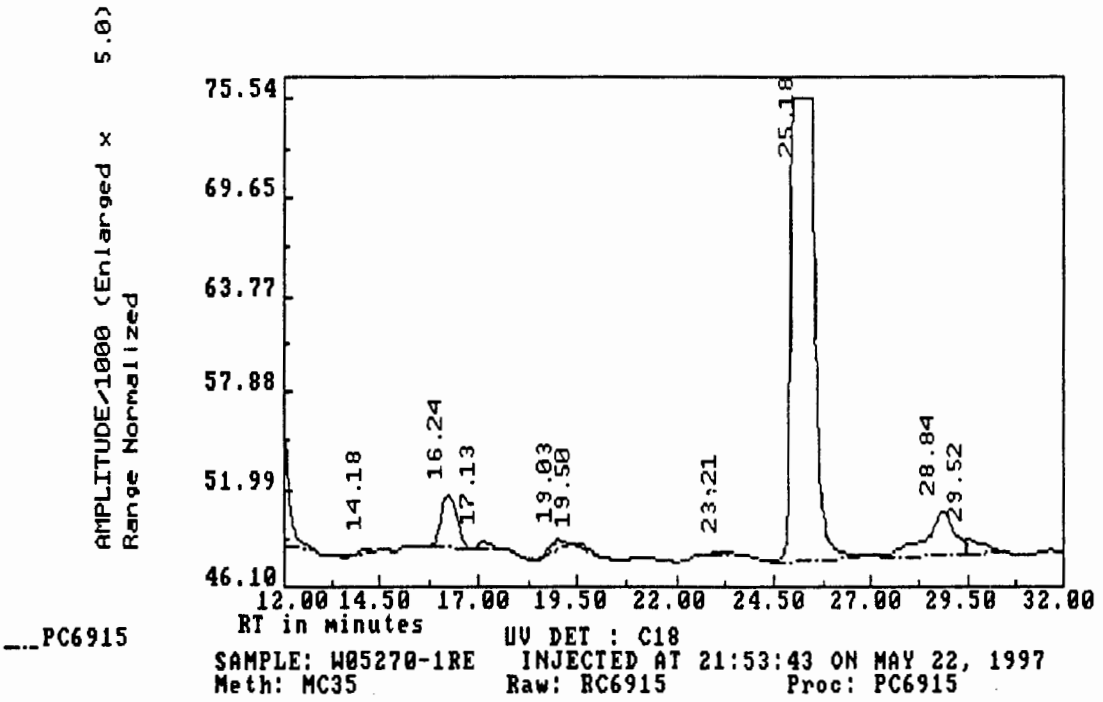
UV DET : C18
SAMPLE: W05270-1RE INJECTED AT 21:53:43 ON MAY 22, 1997
Meth: MC35 Raw: RC6915 Proc: PC6915

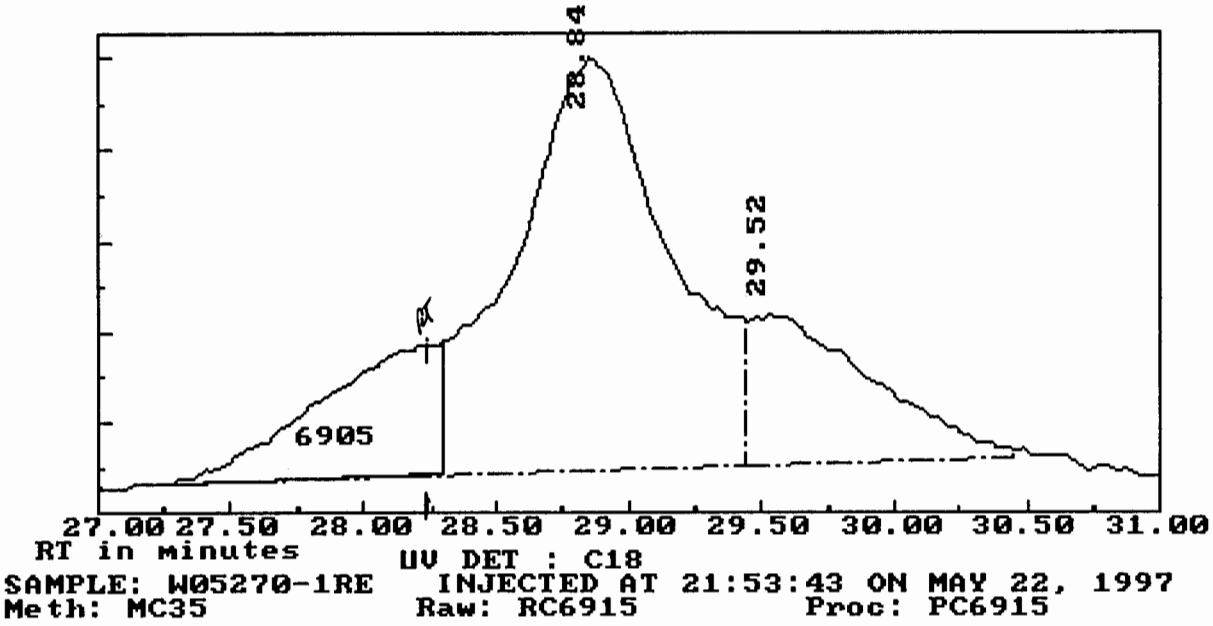



___PC6915

UV DET : C18
SAMPLE: W05270-1RE INJECTED AT 21:53:43 ON MAY 22, 1997
Meth: MC35 Raw: RC6915 Proc: PC6915


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
59.25
56.76
54.27
51.78
49.28
46.79
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
5.06
5.84
6.57
7.18
7.95
8.92
9.49
11.68
PC6915
UV DET : C18
SAMPLE: W05270-1RE INJECTED AT 21:53:43 ON MAY 22, 1997
Meth: MC35 Raw: RC6915 Proc: PC6915


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
75.54
69.65
63.77
57.88
51.99
46.10
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
14.18
16.24
17.13
19.03
19.50
23.21
25.18
28.84
29.52
PC6915
UV DET : C18
SAMPLE: W05270-1RE INJECTED AT 21:53:43 ON MAY 22, 1997
Meth: MC35 Raw: RC6915 Proc: PC6915




AMPLITUDE/1000
Range Normalized

PC6915

HM 05-23-97

$RT = 28.00 + \frac{8}{16}(28.50 - 28.00) = 28.25$

FILE:RC6915 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10611.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05270-1RE INJECTED AT 21:53:43 ON MAY 22, 1997

ESTD METHOD: MC0522 SEQ: SC0522 SUBSQ/SAMP: 1/ 15

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

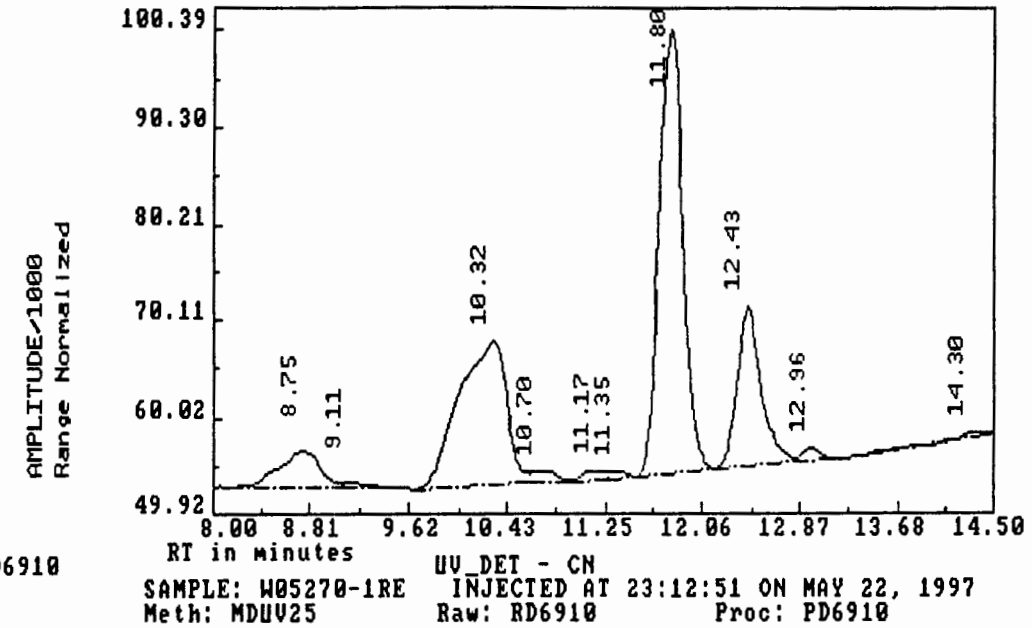
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 1.33 | | 0.0000E+ 0 | 1020 | BV | 0.000 | |
| 3.56 | | 0.0000E+ 0 | 352616 | VV | 0.000 | |
| 4.14 | | 0.0000E+ 0 | 1408 | VV | 0.000 | |
| 4.23 | | 0.0000E+ 0 | 1872 | VV | 0.000 | |
| 5.06 | 5.00 | 8.9485E- 6 | 2719 | VV | .024 | ~~HMX~~ cs0L |
| 5.84 | | 0.0000E+ 0 | 5585 | VB | 0.000 | |
| 6.57 | | 0.0000E+ 0 | 1409 | BB | 0.000 | |
| 7.18 | | 0.0000E+ 0 | 3855 | BV | 0.000 | |
| 7.95 | 8.06 | 6.8847E- 6 | 11381 | VV | .078 | ~~RDX~~ Not on W |
| 8.92 | | 0.0000E+ 0 | 1404 | VF | 0.000 | |
| 9.49 | | 0.0000E+ 0 | 48955 | BV | 0.000 | |
| 11.68 | 11.68# | 4.3299E- 6 | 291366 | VF | 1.262 | #1-2-DNB |
| 14.18 | 13.85 | 2.1017E- 6 | 1762 | BV | .004 | ~~DNB-13~~ RT off |
| 16.24 | 16.39 | 2.9334E- 6 | 22821 | BV | .067 | ~~NBE~~ Not on W |
| 17.13 | | 0.0000E+ 0 | 2989 | VB | 0.000 | |
| 19.03 | 18.53 | 2.9771E- 6 | 2474 | BB | .007 | ~~TNT-246~~ Not on W |
| 19.50 | 20.38 | 4.9689E- 6 | 1128 | VV | .006 | ~~DNT-4A26~~ RT off |
| 23.21 | 23.01 | 2.2063E- 6 | 1416 | BV | .003 | ~~DNT-24~~ RT off |
| 25.18 | | 0.0000E+ 0 | 768630 | BB | 0.000 | |
| 28.84 | 28.41 | 8.5727E- 6 | ~~33776~~ | BV | ~~.290~~ | ~~NT-4~~ RT off |
| 29.52 | 29.83 | 6.7408E- 6 | 7588 | VV | .051 | ~~NT-3~~ cs0L |
| 34.52 | | 0.0000E+ 0 | 40565 | BF | 0.000 | |
| 28.25 | | | 6905 | | | ~~NT-4~~ RT off |

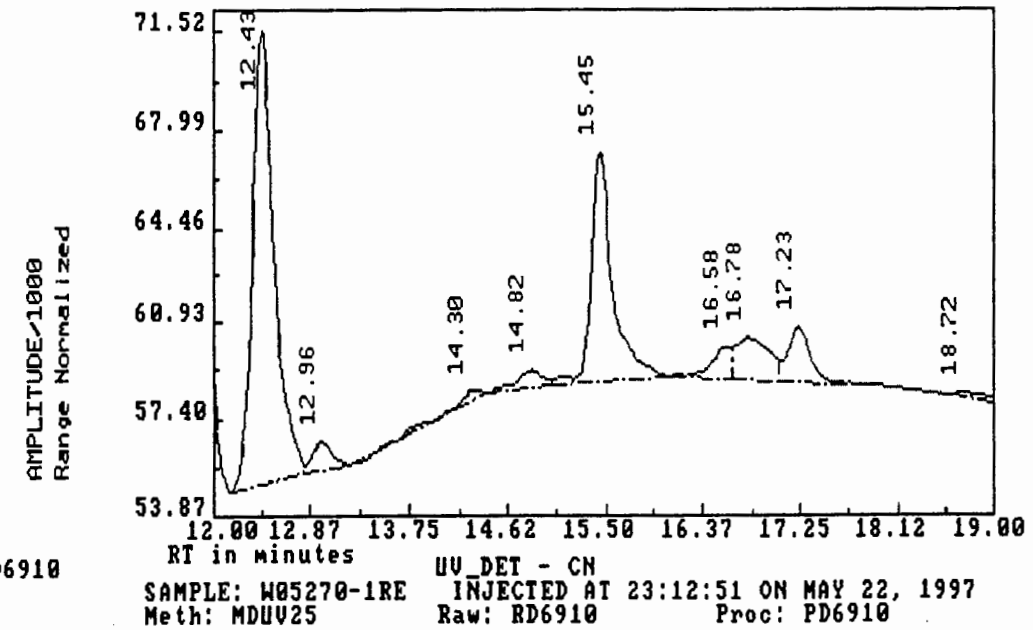
TOTAL AREA = 1606739 TOTAL PPM = 1.792

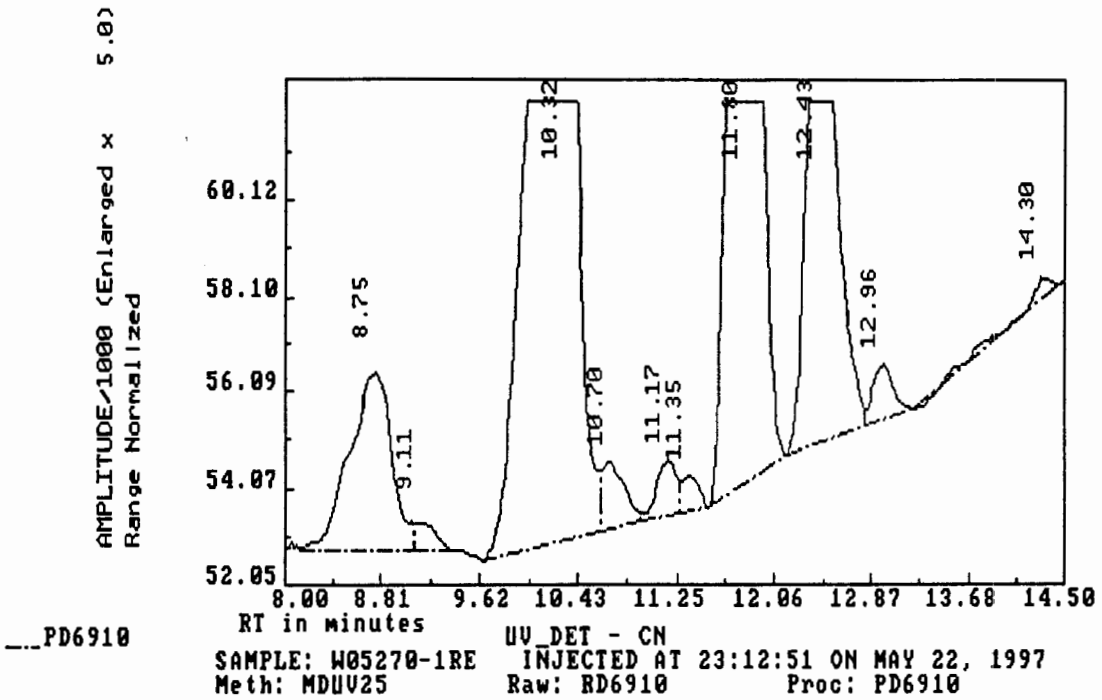
PROCESSED DATA FILE: PC6915 RAW DATA FILE: RC6915

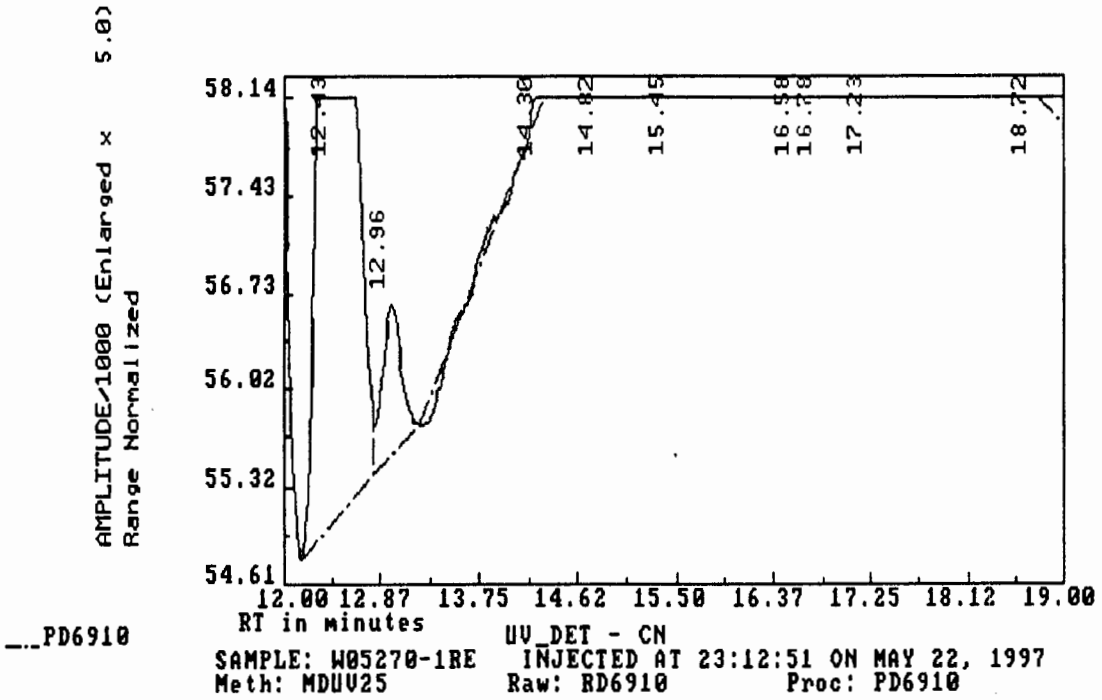
HM 05-23-97

ONE


100.39
90.30
80.21
70.11
60.02
49.92
AMPLITUDE/1000
Range Normalized
8.75
9.11
10.32
10.70
11.17
11.35
11.80
12.43
12.96
14.30
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6910
UV_DET - CN
SAMPLE: W05270-1RE INJECTED AT 23:12:51 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6910 Proc: PD6910


71.52
67.99
64.46
60.93
57.40
53.87
AMPLITUDE/1000
Range Normalized
12.43
12.96
14.30
14.82
15.45
16.58
16.78
17.23
18.72
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6910
UV_DET - CN
SAMPLE: W05270-1RE INJECTED AT 23:12:51 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6910 Proc: PD6910


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
60.12
58.10
56.09
54.07
52.05
8.75
9.11
10.32
10.70
11.17
11.35
11.90
12.43
12.96
14.30
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
UV_DET - CN
PD6910
SAMPLE: W05270-1RE INJECTED AT 23:12:51 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6910 Proc: PD6910


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
58.14
57.43
56.73
56.02
55.32
54.61
12.13
12.96
14.36
14.82
15.45
16.58
16.78
17.23
18.72
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
UV_DET - CN
PD6910
SAMPLE: W05270-1RE INJECTED AT 23:12:51 ON MAY 22, 1997
Meth: MDUV25 Raw: RD6910 Proc: PD6910

FILE:RD6910 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15747.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05270-1RE INJECTED AT 23:12:51 ON MAY 22, 1997

ESTD METHOD: MD0520 SEQ: SD0522 SUBSQ/SAMP: 1/ 10

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.34 | | 0.0000E+ 0 | 1779 | BV | 0.000 | |
| 5.50 | | 0.0000E+ 0 | 2008 | VV | 0.000 | |
| 6.43 | | 0.0000E+ 0 | 11878 | VV | 0.000 | |
| 7.12 | | 0.0000E+ 0 | 11644 | VV | 0.000 | |
| 7.34 | | 0.0000E+ 0 | 724237 | VF | 0.000 | |
| 8.75 | | 0.0000E+ 0 | 23049 | VV | 0.000 | |
| 9.11 | 8.95 | 3.3659E- 6 | 1753 | VB | .006 | ~~DNB-13~~ RT only |
| 10.32 | 10.41 | 2.9146E- 6 | 103779 | VV | .302 | ~~NT-3~~ Not on C18 |
| 10.70 | | 0.0000E+ 0 | 4583 | VV | 0.000 | |
| 11.17 | 11.05 | 1.7512E- 6 | 3399 | VV | .006 | ~~DNT-24~~ RT only |
| 11.35 | | 0.0000E+ 0 | 1723 | VV | 0.000 | |
| 11.80 | 11.80# | 7.6894E- 6 | 156825 | VB | 1.206 | #1-2-DNB |
| 12.43 | 12.69 | 8.1500E- 6 | 56279 | BV | .459 | ~~DNT-4A26~~ RT only |
| 12.96 | 13.10 | 5.4259E- 6 | 3243 | VV | .018 | ~~DNT-2A46~~ RT only |
| 14.30 | 13.63 | 1.2715E- 5 | 920 | VB | .012 | ~~RDX~~ RT only |
| 14.82 | | 0.0000E+ 0 | 2840 | BV | 0.000 | |
| 15.45 | 15.58 | 6.5041E- 6 | 28190 | VB | .183 | ~~TETRYL~~ Not on C18 |
| 16.58 | | 0.0000E+ 0 | 3407 | BV | 0.000 | |
| 16.78 | | 0.0000E+ 0 | 7716 | VV | 0.000 | |
| 17.23 | 17.48 | 1.4992E- 5 | 6362 | VB | .095 | ~~HMX~~ Not on C18 |
| 18.72 | | 0.0000E+ 0 | 1089 | BV | 0.000 | |
| 19.71 | | 0.0000E+ 0 | 991 | VB | 0.000 | |
| 22.02 | | 0.0000E+ 0 | 1846 | BV | 0.000 | |
| 22.09 | | 0.0000E+ 0 | 25850 | VF | 0.000 | |

~~20.25~~

TOTAL AREA = 1185393 TOTAL PPM = 2.287

PROCESSED DATA FILE: PD6910 RAW DATA FILE: RD6910

HM 05-23-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705270-02
Client ID : AOC1001GP22

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 6.4
Percent Moist : 100

Collection Date: 05/07/97
Date Received : 05/09/97
Ext Started : 05/13/97
Ext Completed : 05/14/97
Date Analyzed : 05/20/97
Date Confirmed : 05/20/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.8 | U | 0.36 |
| 121-82-4---- | RDX | 16 | | 0.20 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 2.6 | Z | 0.22 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.2 | U | 0.23 |
| 98-95-3----- | Nitrobenzene | 5.3 | Z | 0.38 |
| 479-45-8---- | Tetryl | 1.1 | J | 0.32 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.2 | U | 0.23 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 2.0 | U | 0.41 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.2 | U | 0.23 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.7 | U | 0.54 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.5 | U | 0.29 |
| 88-72-2----- | 2-Nitrotoluene | 2.6 | U | 0.50 |
| 99-08-1----- | 4-Nitrotoluene | 2.6 | U | 0.50 |
| 99-99-0----- | 3-Nitrotoluene | 2.6 | U | 0.50 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

Sample ID : 9705270-02
Client ID : AOC1001GP22

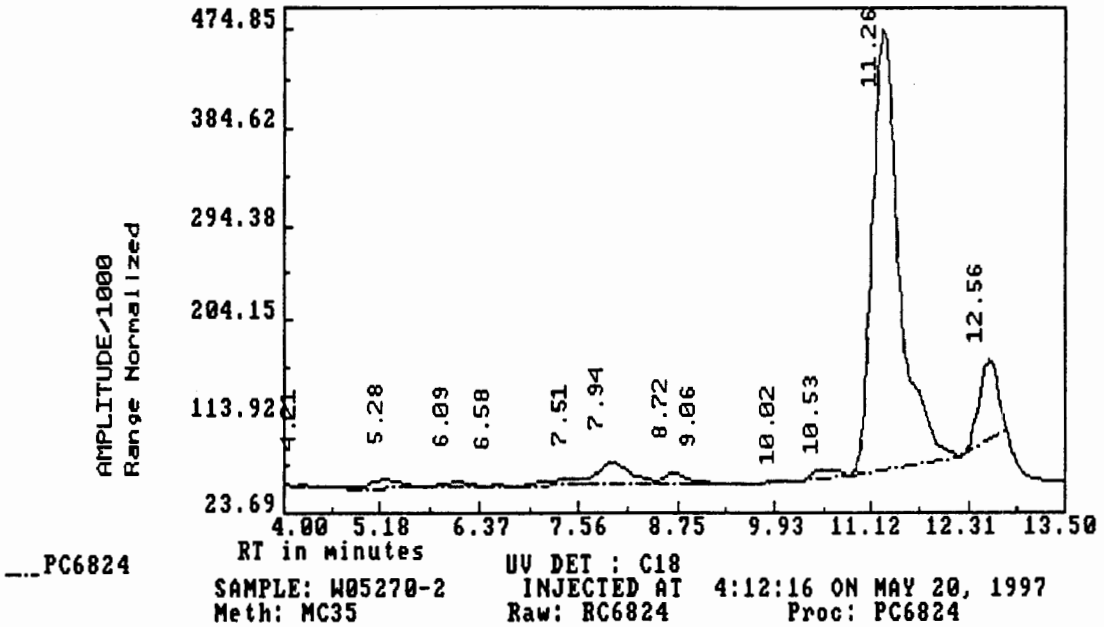
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6824 | RD6833 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

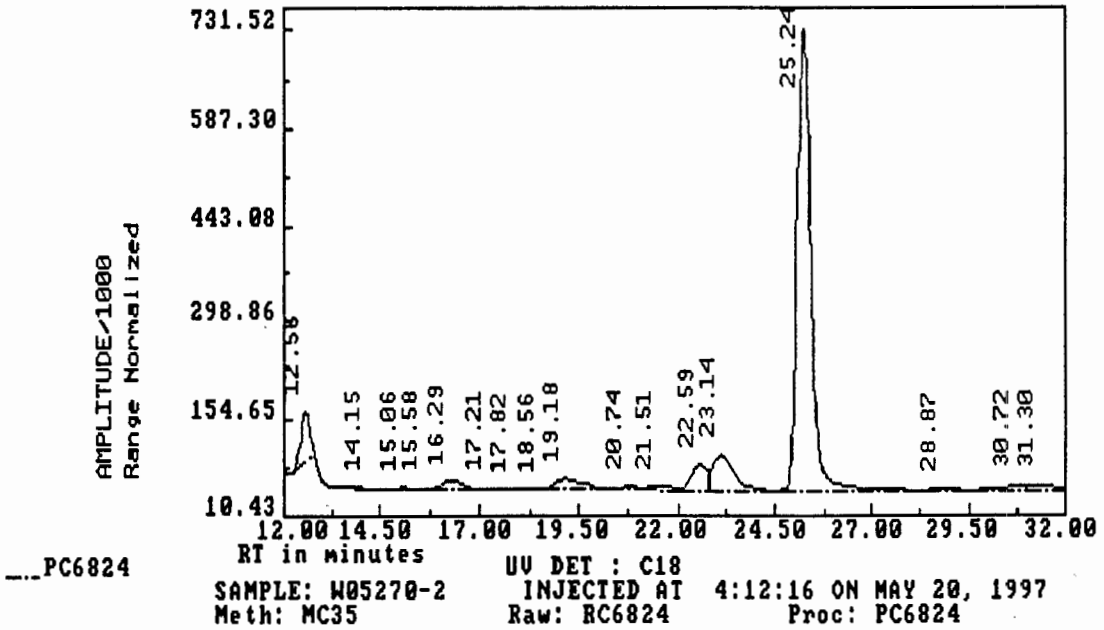
| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|
| RDX | Column 1 | 7.94 | 7.80 | 8.16 | _ | _ | 946 | |
| P | Column 2 | 14.04 | 13.58 | 14.04 | _ | _ | 2020 | 114 |
| 1,3,5-Trinitrobenzene | Column 1 | 10.53 | 10.62 | 11.04 | _ | _ | 159 | |
| Z | Column 2 | 8.62 | 8.56 | 8.74 | _ | _ | | ~~100~~ |
| Nitrobenzene | Column 1 | 16.29 | 16.06 | 16.50 | _ | _ | 320 | |
| Z | Column 2 | 8.62 | 8.56 | 8.74 | _ | _ | | ~~100~~ |
| Tetryl | Column 1 | 15.58 | 15.34 | 15.82 | _ | _ | 66.3 | |
| | Column 2 | 15.90 | 15.54 | 16.02 | _ | _ | 57.6 | 15. |

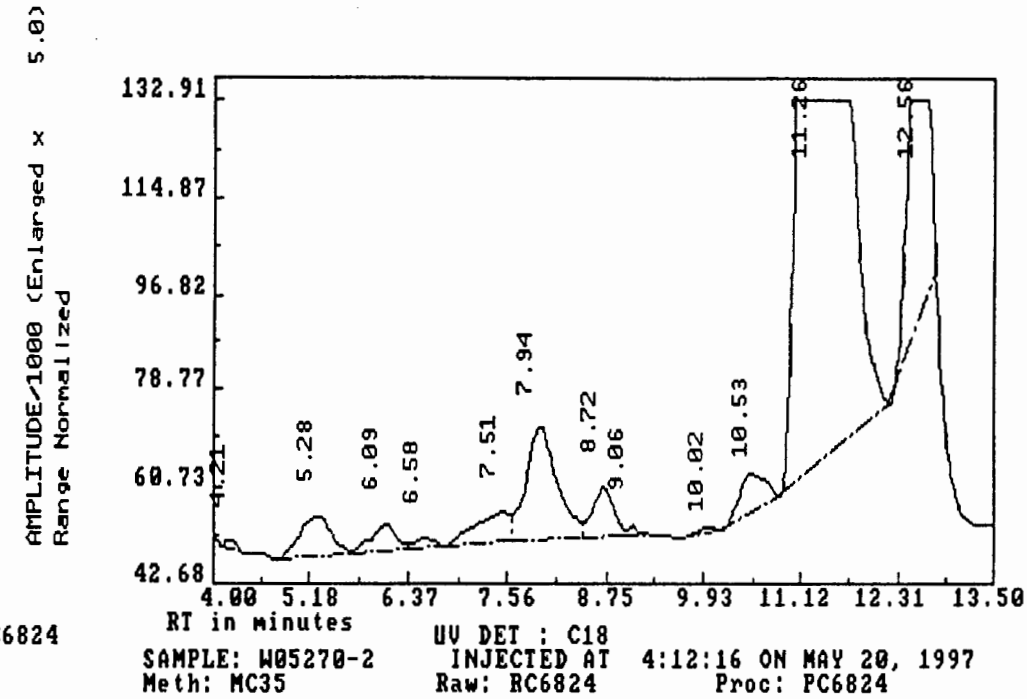
HM 06 05-97

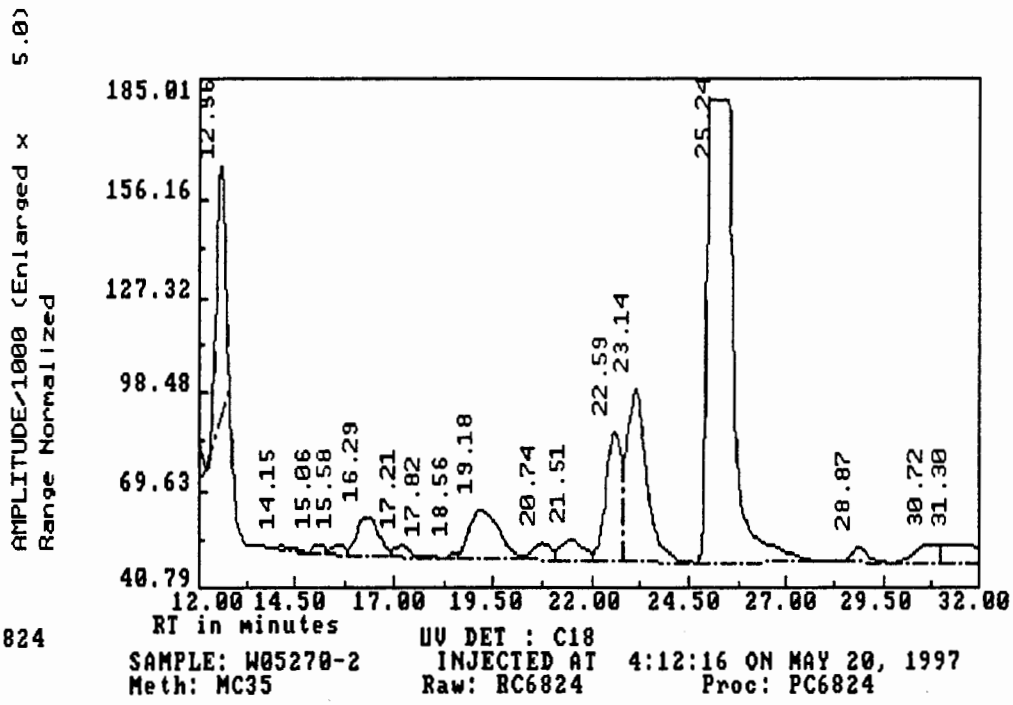
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF

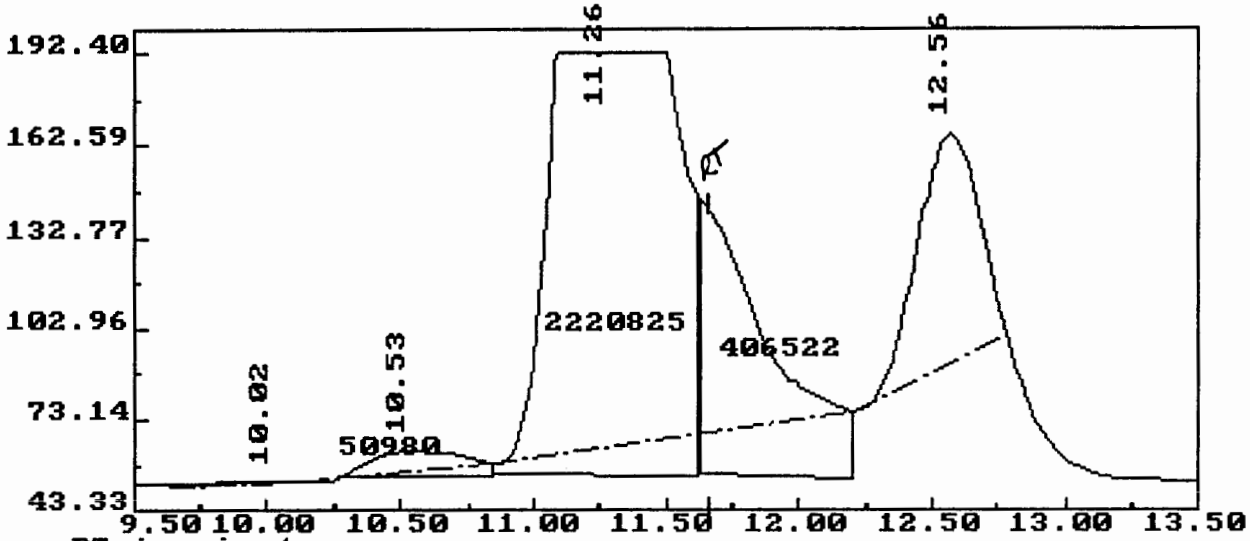

474.85
384.62
294.38
204.15
113.92
23.69
AMPLITUDE/1000
Range Normalized
4.21
5.28
6.09
6.58
7.51
7.94
8.72
9.06
10.02
10.53
11.26
12.56
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6824
UV DET : C18
SAMPLE: W05270-2
INJECTED AT 4:12:16 ON MAY 20, 1997
Meth: MC35
Raw: RC6824
Proc: PC6824


731.52
587.30
443.08
298.86
154.65
10.43
AMPLITUDE/1000
Range Normalized
12.58
14.15
15.06
15.58
16.29
17.21
17.82
18.56
19.18
20.74
21.51
22.59
23.14
25.24
28.87
30.72
31.30
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6824
UV DET : C18
SAMPLE: W05270-2
INJECTED AT 4:12:16 ON MAY 20, 1997
Meth: MC35
Raw: RC6824
Proc: PC6824


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
132.91
114.87
96.82
78.77
60.73
42.68
4.21
5.28
6.09
6.58
7.51
7.94
8.72
9.06
10.02
10.53
11.26
12.56
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6824
UV DET : C18
SAMPLE: W05270-2
INJECTED AT 4:12:16 ON MAY 20, 1997
Meth: MC35
Raw: RC6824
Proc: PC6824


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
185.01
156.16
127.32
98.48
69.63
40.79
12.96
14.15
15.06
15.58
16.29
17.21
17.82
18.56
19.18
20.74
21.51
22.59
23.14
25.24
28.87
30.72
31.30
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6824
UV DET : C18
SAMPLE: W05270-2
INJECTED AT 4:12:16 ON MAY 20, 1997
Meth: MC35
Raw: RC6824
Proc: PC6824

AMPLITUDE/1000 (Enlarged x 3
Range Normalized




RT in minutes

UV DET : C18

SAMPLE: W05270-2 INJECTED AT 4:12:16 ON MAY 20, 1997

Meth: MC35 Raw: RC6824 Proc: PC6824

PC6824

05-21-97

RT= 11.50 + $\frac{5}{18}$(12.00 - 11.50) = 11.64

FILE:RC6824 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10592.21 CHANNEL: 32 UV DET : C18

SAMPLE: W05270-2 INJECTED AT 4:12:16 ON MAY 20, 1997

ESTD METHOD: MC0515 SEQ: SC0519 SUBSQ/SAMP: 1/ 24

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

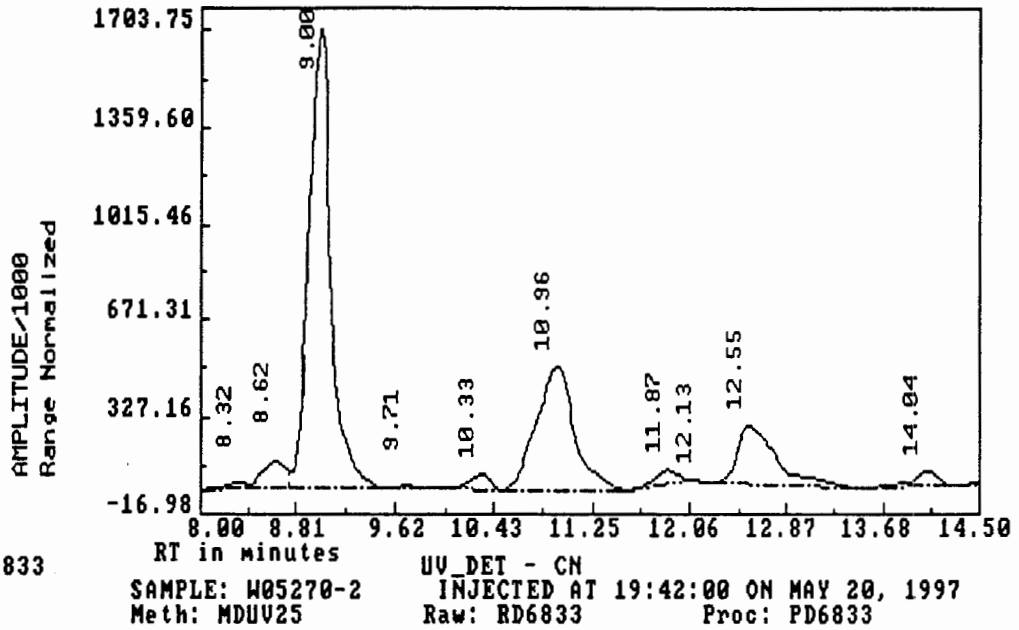
ENDED NOT ON BL

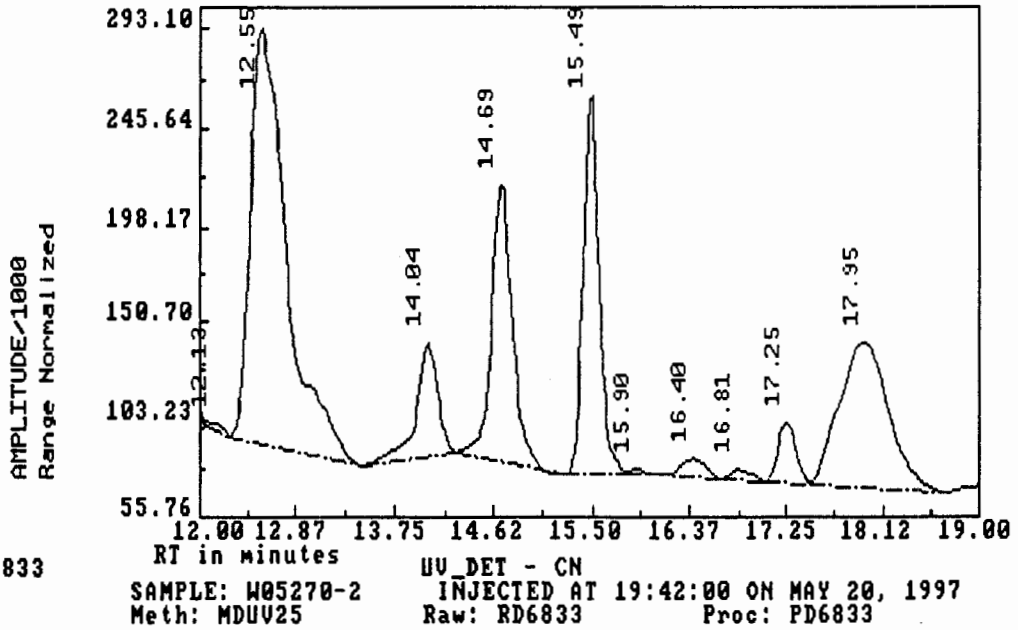
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 3.45 | | 0.0000E+ 0 | 291213 | BV | 0.000 | |
| 3.82 | | 0.0000E+ 0 | 3403 | VF | 0.000 | |
| 4.21 | | 0.0000E+ 0 | 2844 | VV | 0.000 | |
| 5.28 | | 0.0000E+ 0 | 45025 | VV | 0.000 | |
| 6.09 | | 0.0000E+ 0 | 24951 | VV | 0.000 | |
| 6.58 | | 0.0000E+ 0 | 7336 | VB | 0.000 | |
| 7.51 | | 0.0000E+ 0 | 44036 | BV | 0.000 | |
| 7.94 | 7.84 | 6.8847E- 6 | 137416 | VV | .946 | RDX |
| 8.72 | | 0.0000E+ 0 | 39714 | VV | 0.000 | |
| 9.06 | | 0.0000E+ 0 | 3686 | VF | 0.000 | |
| 10.02 | | 0.0000E+ 0 | 2890 | BV | 0.000 | |
| 10.53 | 10.61 | 3.1255E- 6 | 50980 ~~37872~~ | VV | ~~.118~~ | TNB-135 |
| 11.26 | 11.26# | 4.3299E- 6 | 2220625 ~~2370360~~ | VV | ~~10.264~~ | ~~#1-2 DNB~~ |
| 12.56 | | 0.0000E+ 0 | 300085 | VF | 0.000 | |
| 14.15 | | 0.0000E+ 0 | 8964 | BV | 0.000 | |
| 15.06 | 15.24 | 3.9471E- 6 | 14253 | VV | .056 | TETRYL |
| 15.58 | | 0.0000E+ 0 | 16807 | VV | 0.000 | |
| 16.29 | 16.10 | 2.9334E- 6 | 108944 | VV | .320 | NBE |
| 17.21 | | 0.0000E+ 0 | 19294 | VV | 0.000 | |
| 17.82 | 17.98 | 2.9771E- 6 | 5371 | VV | .016 | ~~TNT-246~~ RT off |
| 18.56 | | 0.0000E+ 0 | 4476 | VV | 0.000 | |
| 19.18 | 19.55 | 4.9689E- 6 | 182951 | VV | .909 | ~~DNT-4A26~~ RT off |
| 20.74 | 20.48 | 2.8893E- 6 | 40646 | VV | .117 | ~~DNT-2A46~~ Not on CN |
| 21.51 | 21.73 | 4.8567E- 6 | 60028 | VV | .292 | ~~DNT-26~~ RT off |
| 22.59 | 22.55 | 2.2063E- 6 | 261105 | VV | .576 | ~~DNT-24~~ |
| 23.14 | | 0.0000E+ 0 | 450223 | VV | 0.000 | |
| 25.24 | 26.03 | 7.4212E- 6 | 4045202 | VB | 30.020 | ~~NT-2~~ RT off |
| 28.87 | 29.21 | 6.7408E- 6 | 25759 | BV | .174 | ~~NT-3~~ RT off |
| 30.72 | | 0.0000E+ 0 | 57719 | VV | 0.000 | |
| 31.30 | | 0.0000E+ 0 | 81196 | VV | 0.000 | |
| 32.32 | 32.32# | 4.4474E- 4 | 38106 | VV | 16.947 | #DUMMY |
| 34.30 | | 0.0000E+ 0 | 473555 | VF | 0.000 | |
| 11.64 | | | 406522 | | 1.760 | 1,2-DNB |

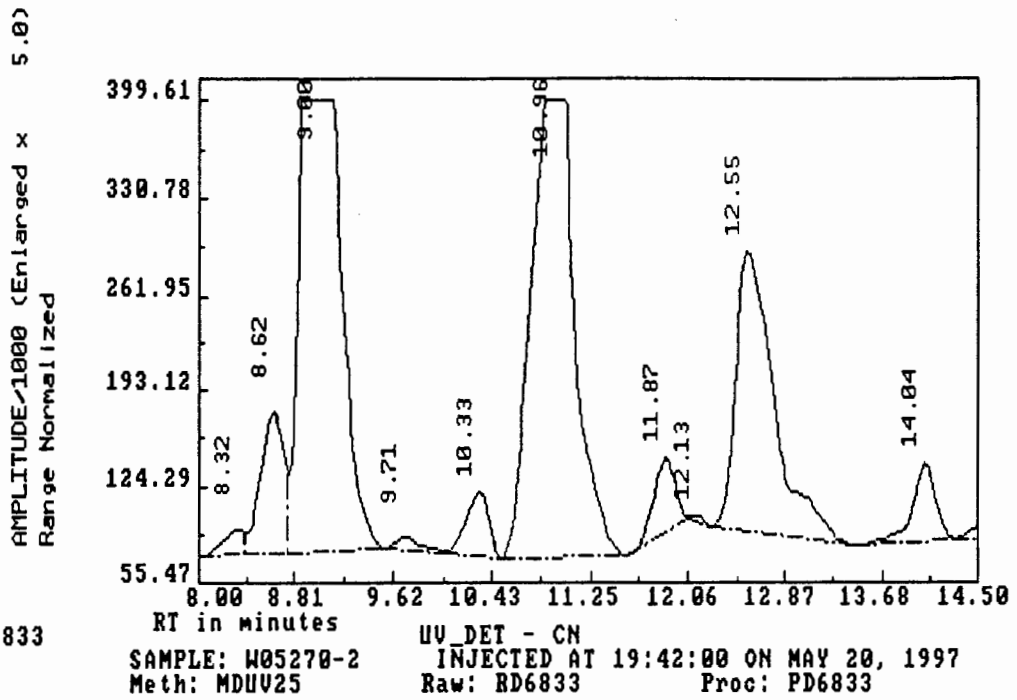
TOTAL AREA = 9205436 TOTAL PPM = 60.755

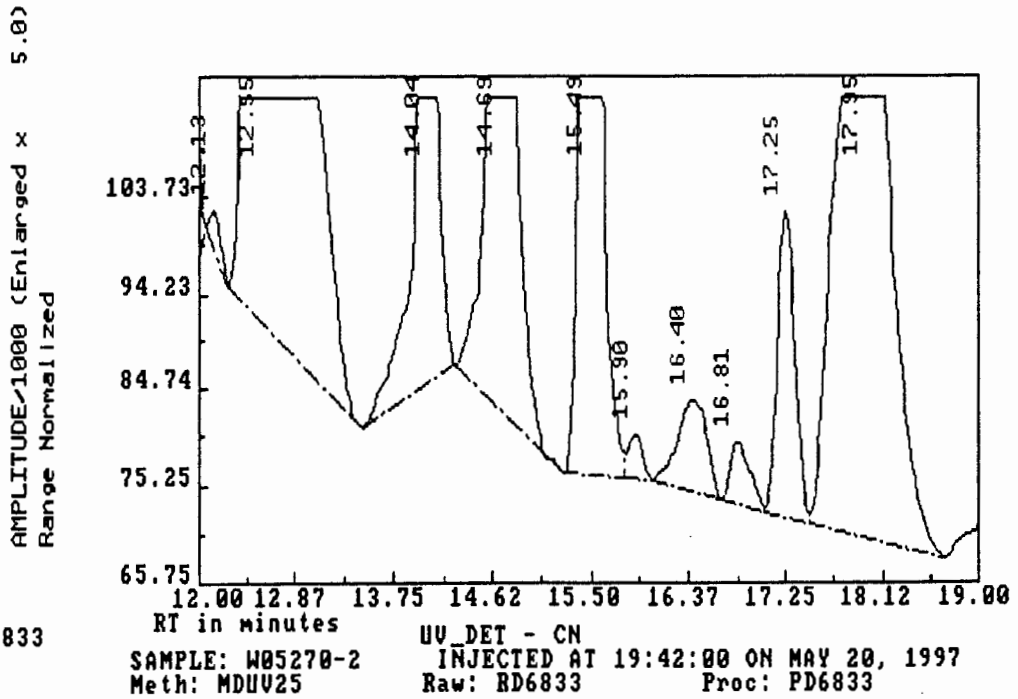


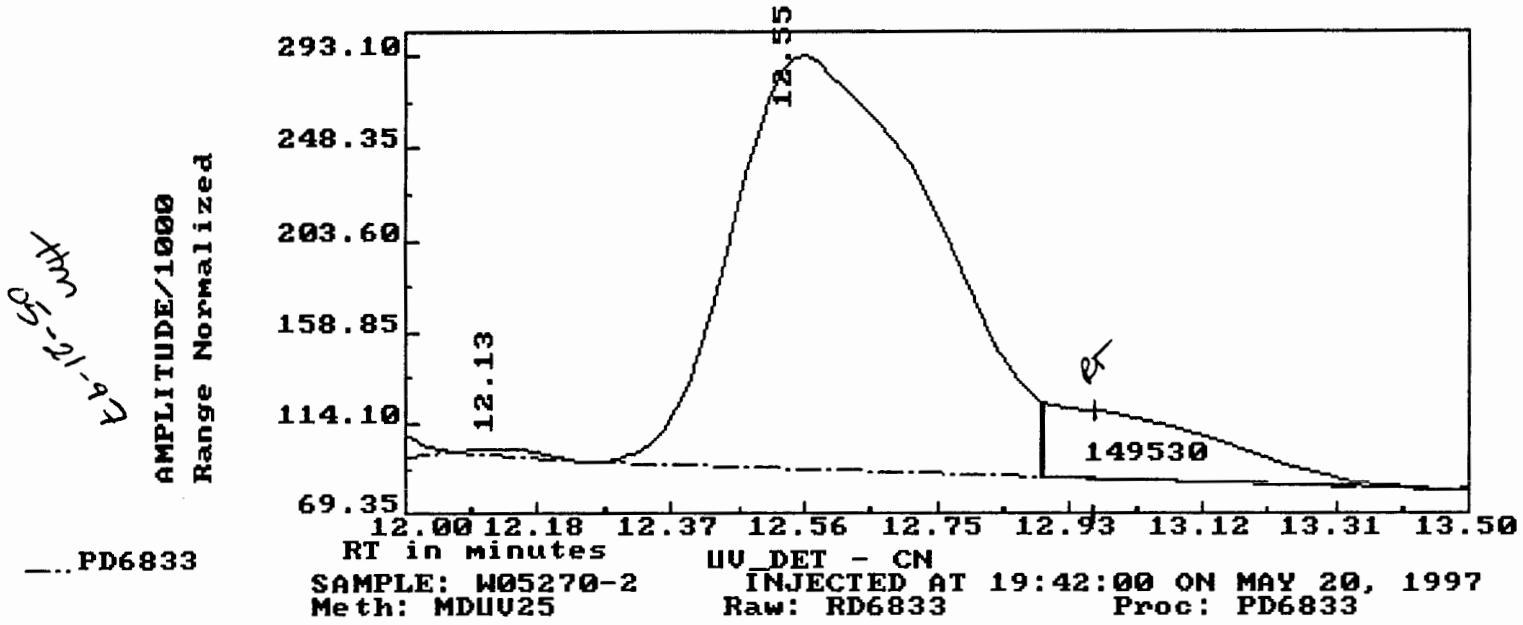
HM 05-27-97
06-05-97


1703.75
1359.60
1015.46
671.31
327.16
-16.98
AMPLITUDE/1000
Range Normalized
8.32
8.62
9.00
9.71
10.33
10.96
11.87
12.13
12.55
14.04
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
__PD6833
UV_DET - CN
SAMPLE: W05270-2
INJECTED AT 19:42:00 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6833
Proc: PD6833


293.10
245.64
198.17
150.70
103.23
55.76
AMPLITUDE/1000
Range Normalized
12.55
12.13
14.04
14.69
15.49
15.98
16.40
16.81
17.25
17.35
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
__PD6833
UV_DET - CN
SAMPLE: W05270-2
INJECTED AT 19:42:00 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6833
Proc: PD6833

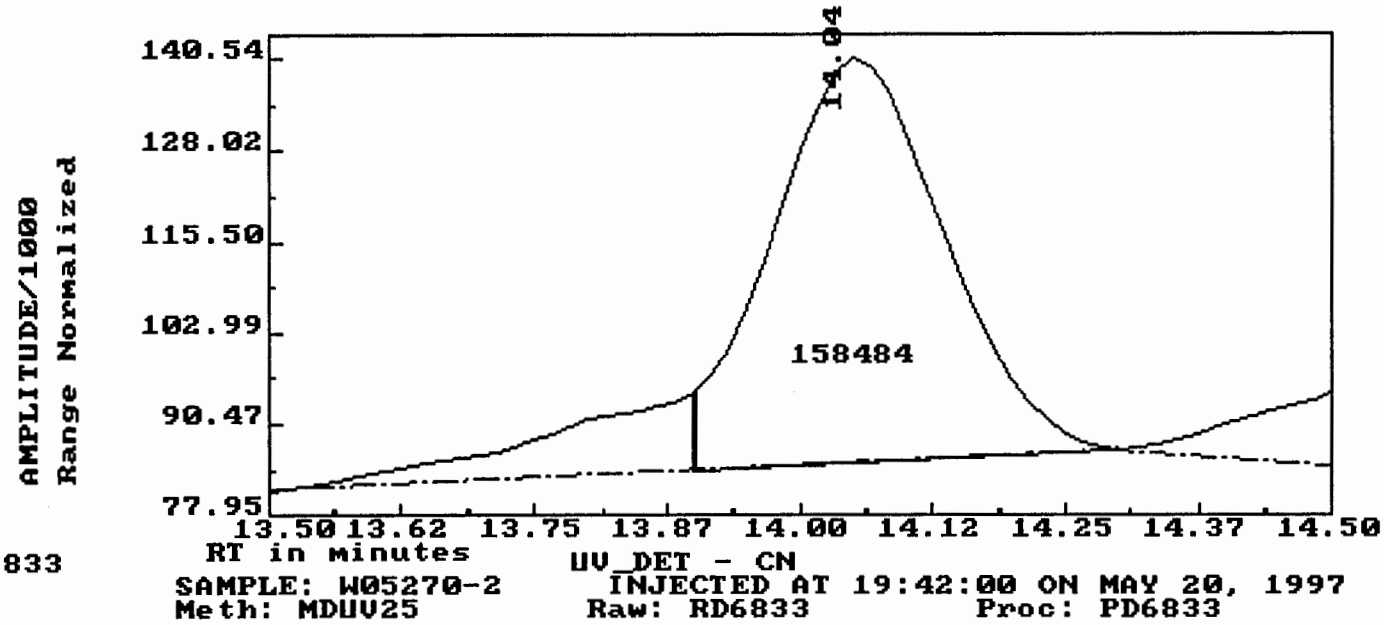

AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
399.61
330.78
261.95
193.12
124.29
55.47
8.32
8.62
9.00
9.71
10.33
10.96
11.87
12.13
12.55
14.04
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6833
UV_DET - CN
SAMPLE: W05270-2
INJECTED AT 19:42:00 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6833
Proc: PD6833


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
103.73
94.23
84.74
75.25
65.75
12.13
12.35
14.04
14.69
15.49
15.90
16.40
16.81
17.25
17.95
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6833
UV_DET - CN
SAMPLE: W05270-2
INJECTED AT 19:42:00 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6833
Proc: PD6833




05-21-97

$RT = 12.93 + \frac{3}{18}(13.12 - 12.93) = 12.96$




PD6833

05-21-97

430

FILE:RD6833 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15727.21 CHANNEL: 1 UV_DET - CN

S PLE: W05270-2 INJECTED AT 19:42:00 ON MAY 20, 1997

ESTD METHOD: MD0520 SEQ: SD0519 SUBSQ/SAMP: 1/ 33

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.033 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.38 | | 0.0000E+ 0 | 19186 | BV | 0.000 | |
| 5.59 | | 0.0000E+ 0 | 36851 | VV | 0.000 | |
| 6.55 | | 0.0000E+ 0 | 1498206 | VV | 0.000 | |
| 6.99 | | 0.0000E+ 0 | 61136 | VV | 0.000 | |
| 7.38 | | 0.0000E+ 0 | 4248427 | VF | 0.000 | |
| 8.32 | | 0.0000E+ 0 | 57023 | BV | 0.000 | |
| 8.62 | 8.59 | 2.6330E- 6 | 350587 | VV | ~~.923~~ | NBE /TNB |
| 9.00 | 9.01 | 3.3659E- 6 | 5220390 | VB | 17.571 | ~~DNB-13~~ Not on CB |
| 9.71 | | 0.0000E+ 0 | 31505 | BV | 0.000 | |
| .33 | 10.22 | 2.9146E- 6 | 143360 | VV | .418 | ~~NT-2~~ RT off |
| 10.96 | 11.12 | 1.7512E- 6 | 2303814 | VV | 4.034 | ~~DNT-24~~ RT off |
| 11.87 | 11.87# | 7.6894E- 6 | 159009 | VB | 1.223 | #1-2-DNB |
| 12.13 | | 0.0000E+ 0 | 5472 | BV | 0.000 | |
| 12.55 | 12.78 | 8.1500E- 6 | ~~1142036~~ | VV | 9.308 | ~~DNT-4A26~~ RT off |
| 14.04 | 13.72 | 1.2715E- 5 15814 | ~~183220~~ | VB | ~~2.330~~ | RDX |
| 14.69 | | 0.0000E+ 0 | 431475 | BV | 0.000 | |
| 15.49 | 15.68 | 6.5041E- 6 | 453688 | VV | 2.951 | ~~TETRYL~~ RT off |
| 15.90 | | 0.0000E+ 0 | 8854 | VB 0.058 | ~~0.000~~ | Tetryl |
| 16.40 | | 0.0000E+ 0 | 41168 | BV | 0.000 | |
| 16.81 | | 0.0000E+ 0 | 19147 | VV | 0.000 | |
| 17.25 | 17.60 | 1.4992E- 5 | 80006 | VV | 1.199 | ~~HMX~~ Not on CB |
| 17.95 | | 0.0000E+ 0 | 539937 | VB | 0.000 | |
| 19.12 | | 0.0000E+ 0 | 31349 | BV | 0.000 | |
| 19.72 | | 0.0000E+ 0 | 110670 | VV | 0.000 | |
| 20.71 | | 0.0000E+ 0 | 121874 | VV | 0.000 | |
| 20.94 | | 0.0000E+ 0 | 145045 | VV | 0.000 | |
| 21.71 | | 0.0000E+ 0 | 102471 | VV | 0.000 | |
| 23.11 | | 0.0000E+ 0 | 46256 | VV | 0.000 | |
| 24.26 | | 0.0000E+ 0 | 34215 | VF | 0.000 | |
| 12.96 | | | 149530 | | | ~~DNT-4A26~~ RT off |

TOTAL AREA = 17626380 TOTAL PPM = 39.956

PROCESSED DATA FILE: PD6833 RAW DATA FILE: RD6833



tm 05-21-97
06-05-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705270-02RE
Client ID : AOC1001GP22RE

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 9.7
Percent Moist : 100

Collection Date: 05/07/97
Date Received : 05/09/97
Ext Started : 05/22/97
Ext Completed : 05/22/97
Date Analyzed : 05/22/97
Date Confirmed : 05/23/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 2.7 | U | 0.54 |
| 121-82-4---- | RDX | 35 | P | 0.31 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 13 | Z | 0.33 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.7 | U | 0.35 |
| 98-95-3----- | Nitrobenzene | 7.4 | Z | 0.58 |
| 479-45-8---- | Tetryl | 1.6 | J | 0.48 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.7 | U | 0.35 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 3.1 | U | 0.62 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.7 | U | 0.35 |
| 606-20-2---- | 2,6-Dinitrotoluene | 4.1 | U | 0.81 |
| 121-14-2---- | 2,4-Dinitrotoluene | 2.3 | U | 0.45 |
| 88-72-2----- | 2-Nitrotoluene | 3.9 | U | 0.76 |
| 99-08-1----- | 4-Nitrotoluene | 3.9 | U | 0.76 |
| 99-99-0----- | 3-Nitrotoluene | 3.9 | U | 0.76 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

Sample ID : 9705270-02RE
Client ID : AOC1001GP22RE

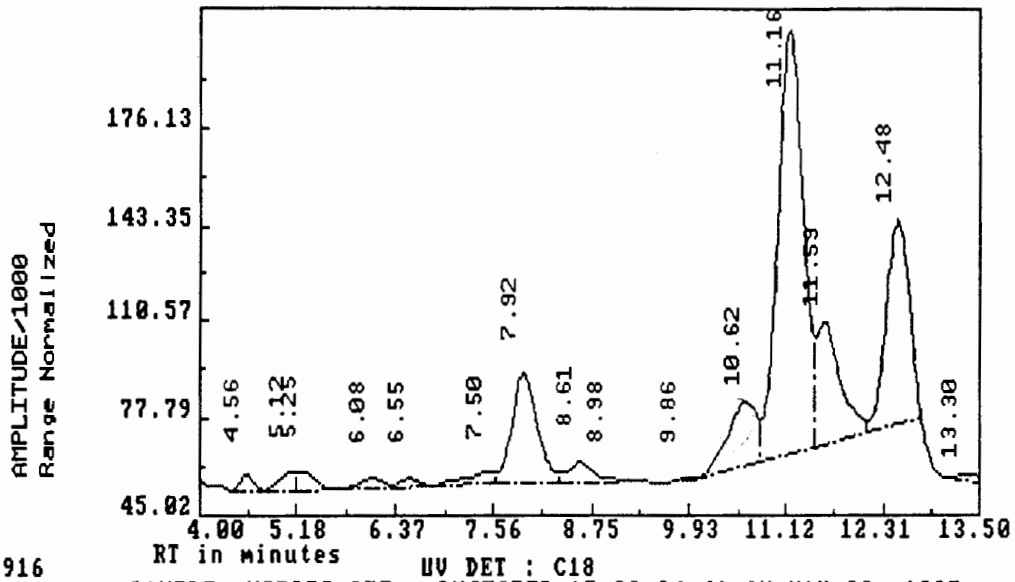
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6916 | RD6911 |
| Calib File | RC6907 | RD6904 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|
| RDX | Column 1 | 7.92 | 7.79 | 8.15 | _ | _ | 1380 | |
| | Column 2 | 13.91 | 13.51 | 13.97 | _ | _ | 1190 | 16. |
| 1,3,5-Trinitrobenzene | Column 1 | 10.62 | 10.67 | 11.09 | _ | _ | 516 | |
| 2 | Column 2 | 8.53 | 8.48 | 8.66 | _ | _ | | 100 |
| Nitrobenzene | Column 1 | 16.19 | 15.96 | 16.40 | _ | _ | 294 | |
| 2 | Column 2 | 8.53 | 8.48 | 8.66 | _ | _ | | 100 |
| Tetryl | Column 1 | 15.49 | 15.30 | 15.78 | _ | _ | 65.0 | |
| | Column 2 | 15.78 | 15.48 | 15.96 | _ | _ | 52.7 | 23. |

HM 06-05-97

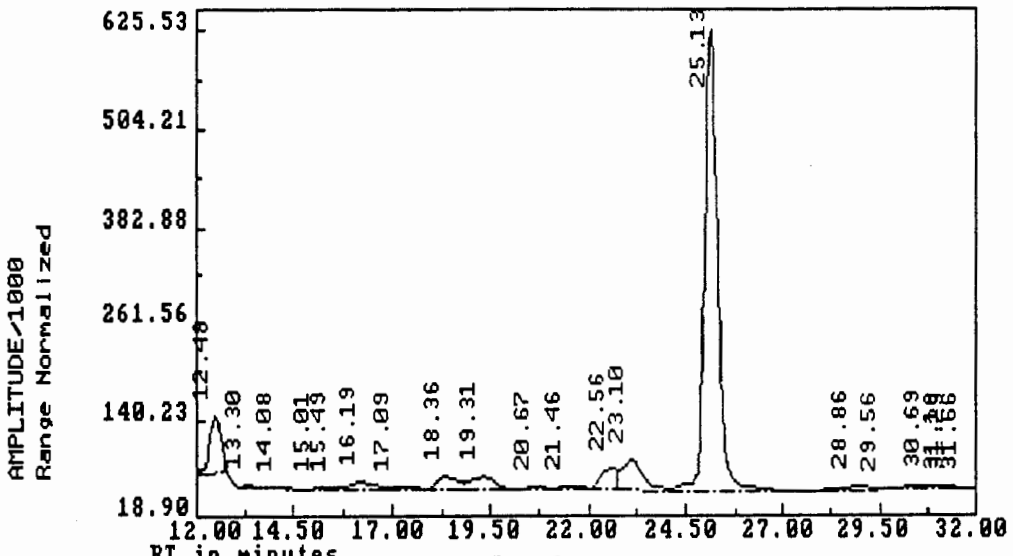
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF



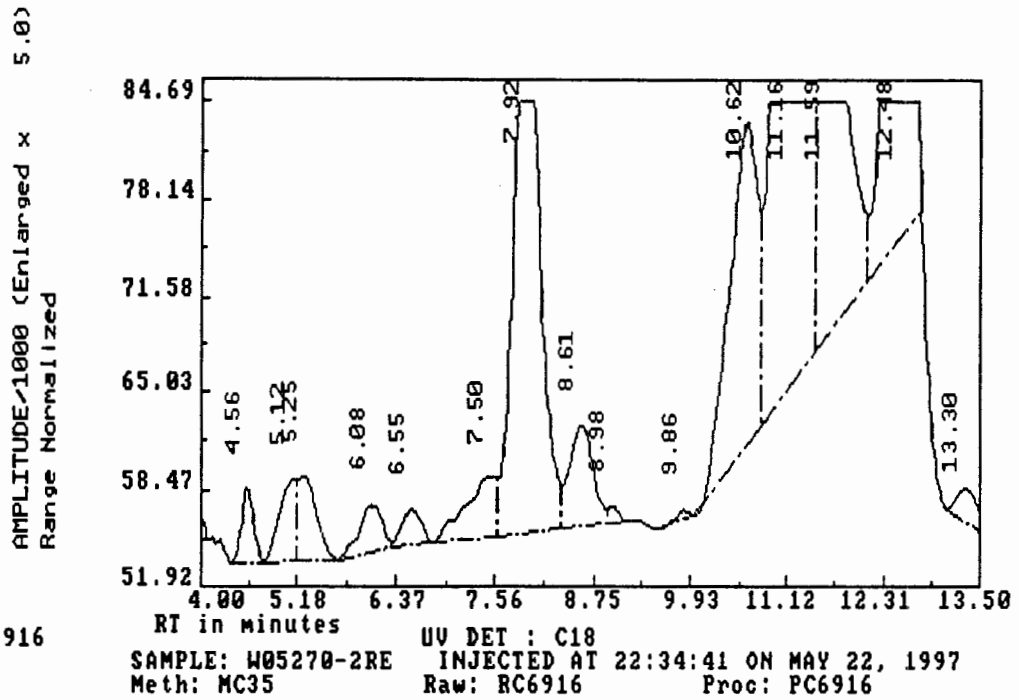

PC6916

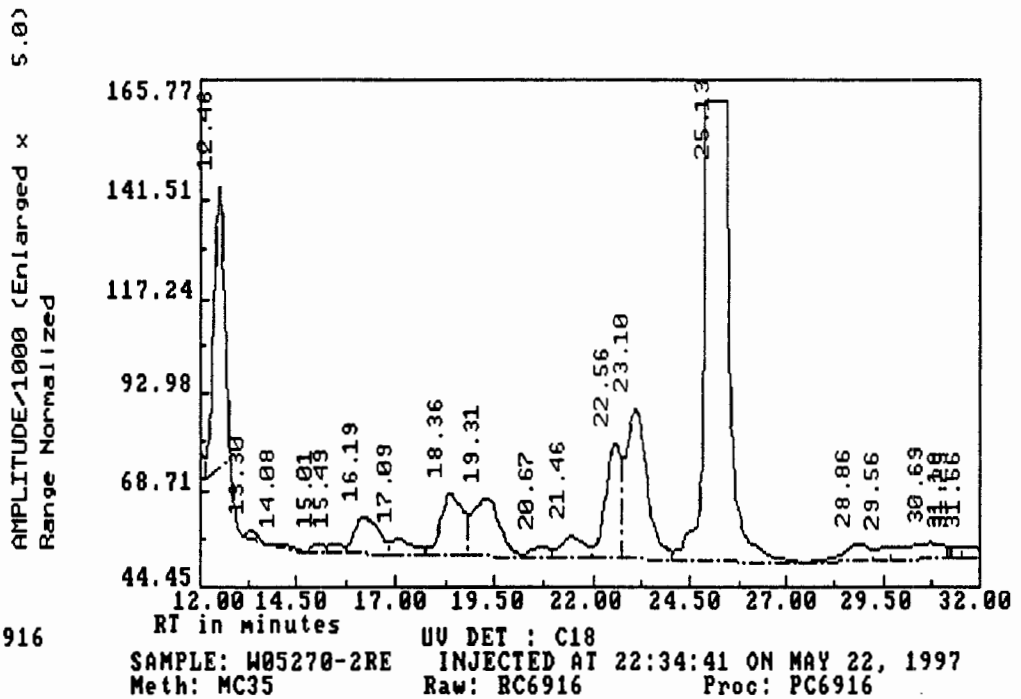
UV DET : C18
SAMPLE: W05270-2RE INJECTED AT 22:34:41 ON MAY 22, 1997
Meth: MC35 Raw: RC6916 Proc: PC6916



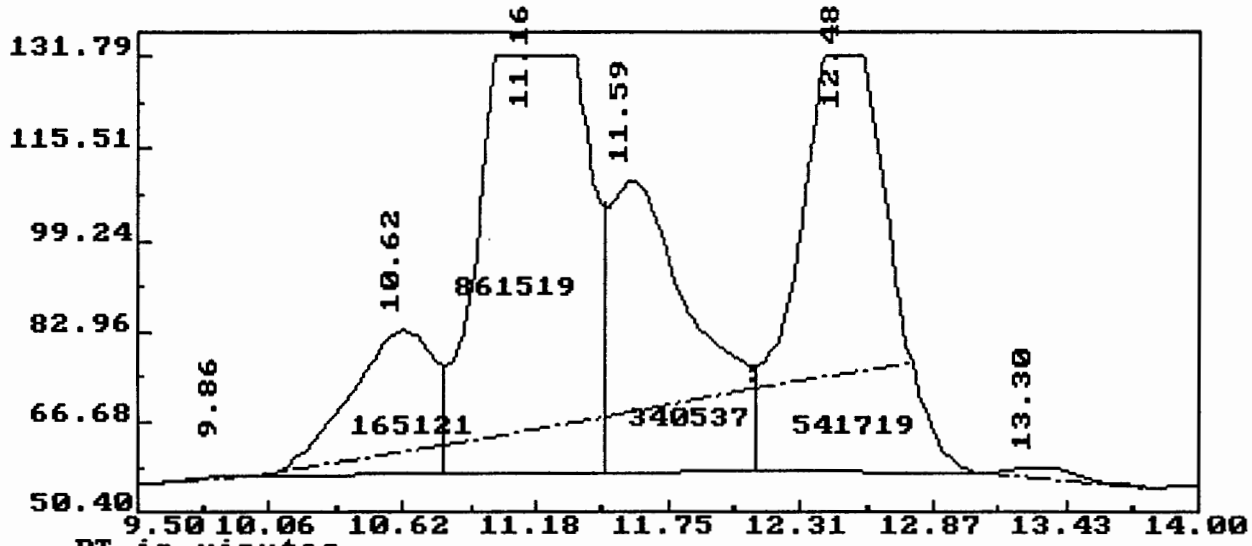

PC6916

UV DET : C18
SAMPLE: W05270-2RE INJECTED AT 22:34:41 ON MAY 22, 1997
Meth: MC35 Raw: RC6916 Proc: PC6916


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
84.69
78.14
71.58
65.03
58.47
51.92
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
4.56
5.12
5.25
6.08
6.55
7.50
7.92
8.61
8.98
9.86
10.62
11.16
11.59
12.48
13.30
PC6916
UV DET : C18
SAMPLE: W05270-2RE INJECTED AT 22:34:41 ON MAY 22, 1997
Meth: MC35 Raw: RC6916 Proc: PC6916


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
165.77
141.51
117.24
92.98
68.71
44.45
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
12.46
13.30
14.08
15.01
15.43
16.19
17.09
18.36
19.31
20.67
21.46
22.56
23.10
25.13
28.86
29.56
30.69
PC6916
UV DET : C18
SAMPLE: W05270-2RE INJECTED AT 22:34:41 ON MAY 22, 1997
Meth: MC35 Raw: RC6916 Proc: PC6916

AMPLITUDE/1000 (Enlarged x 2
Range Normalized




UV DET : C18
SAMPLE: W05270-2RE INJECTED AT 22:34:41 ON MAY 22, 1997
Meth: MC35 Raw: RC6916 Proc: PC6916

PC6916

AM 05-23-97

FILE:RC6916 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10612.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05270-2RE INJECTED AT 22:34:41 ON MAY 22, 1997

ESTD METHOD: MC0522 SEQ: SC0522 SUBSQ/SAMP: 1/ 16

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

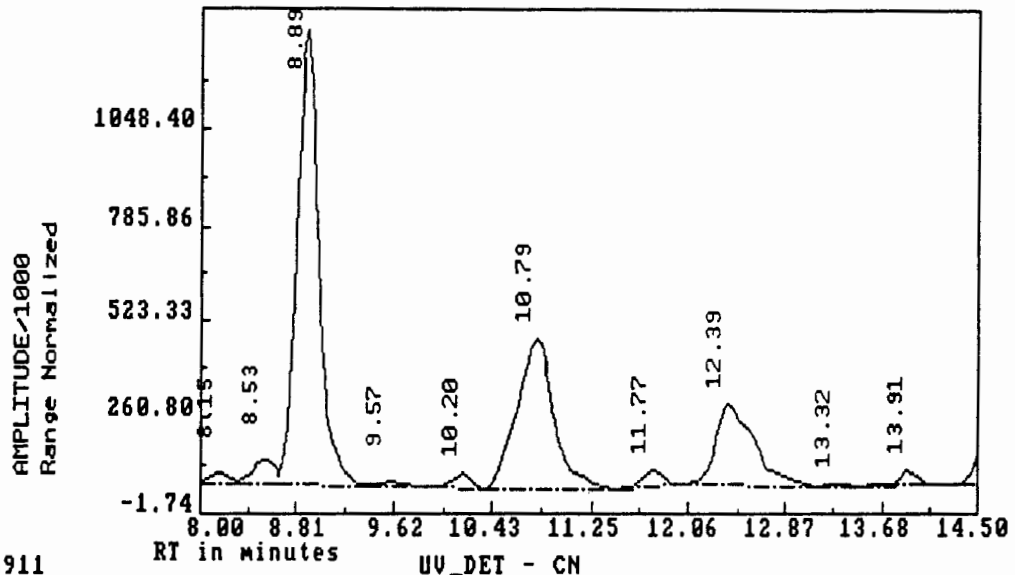
| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

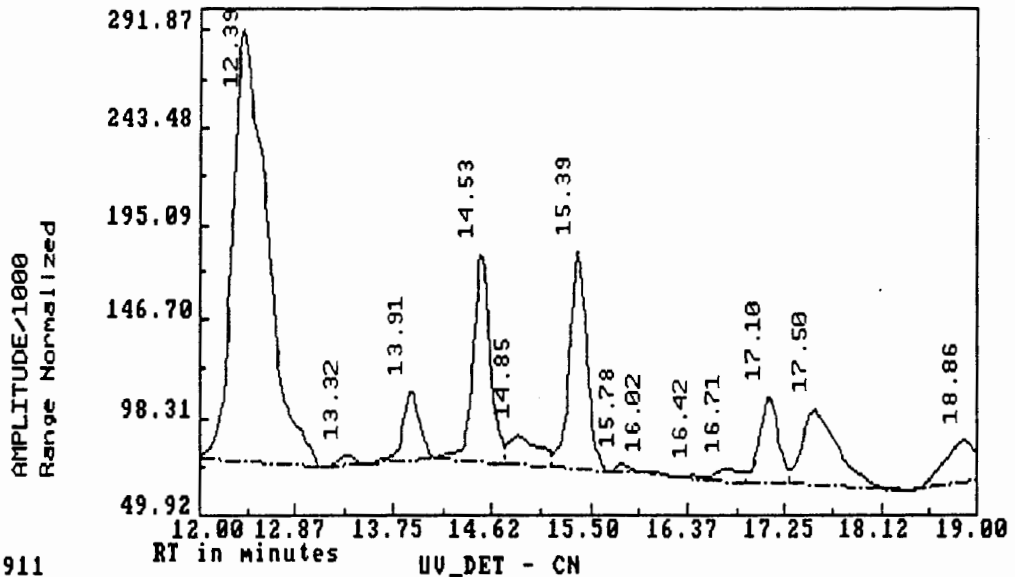
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 3.44 | | 0.0000E+ 0 | 636540 | BV | 0.000 | |
| 3.91 | | 0.0000E+ 0 | 1046 | VF | 0.000 | |
| 4.56 | | 0.0000E+ 0 | 12830 | VV | 0.000 | |
| 5.12 | 4.96 | 8.9485E- 6 | 18506 | VV | .166 | ~~HMX~~ RT off |
| 5.25 | | 0.0000E+ 0 | 21212 | VV | 0.000 | |
| 6.08 | | 0.0000E+ 0 | 15355 | VV | 0.000 | |
| 6.55 | | 0.0000E+ 0 | 9808 | VB | 0.000 | |
| 7.50 | | 0.0000E+ 0 | 24657 | BV | 0.000 | |
| .92 | 7.99 | 6.8847E- 6 | 200028 | VV | 1.377 | RDX |
| 8.61 | | 0.0000E+ 0 | 33631 | VV | 0.000 | |
| 8.98 | | 0.0000E+ 0 | 2818 | VF | 0.000 | |
| 9.86 | | 0.0000E+ 0 | 1465 | BV | 0.000 | |
| 10.62 | | 0.0000E+ 0 | 165121 ~~132666~~ | VV | ~~0.000~~ | ~~TNB-135~~ |
| 11.16 | 10.90 | 3.1255E- 6 | 861519 ~~786789~~ | VV | 2.459 | ~~TNB-135~~ RT off |
| 11.59 | 11.59# | 4.3299E- 6 | 310537 ~~210162~~ | VV | .910 | #1-2-DNB |
| 12.48 | | 0.0000E+ 0 | 541719 ~~341815~~ | VF | 0.000 | |
| 13.30 | | 0.0000E+ 0 | 10273 | BV | 0.000 | |
| 14.08 | 13.73 | 2.1017E- 6 | 7272 | VV | .015 | ~~DNB-13~~ RT off |
| 15.01 | | 0.0000E+ 0 | 11442 | VV | 0.000 | |
| 15.49 | 15.61 | 3.9471E- 6 | 16472 | VV | .065 | TETRYL |
| 16.19 | 16.24 | 2.9334E- 6 | 100077 | VV | .294 | NBE |
| 17.09 | | 0.0000E+ 0 | 40375 | VV | 0.000 | |
| 18.36 | 18.34 | 2.9771E- 6 | 150146 | VV | .447 | ~~TNT-246~~ Not on CN |
| 19.31 | 20.16 | 4.9689E- 6 | 170714 | VV | .848 | ~~DNT-4A26~~ RT off |
| 20.67 | 20.85 | 2.8893E- 6 | 19670 | VV | .057 | ~~DNT-2A46~~ RT off |
| 21.46 | 22.07 | 4.8567E- 6 | 55936 | VV | .272 | ~~DNT-26~~ RT off |
| 22.56 | 22.76 | 2.2063E- 6 | 205970 | VV | .454 | DNT-24 |
| 23.10 | | 0.0000E+ 0 | 348107 | VV | 0.000 | |
| 25.13 | | 0.0000E+ 0 | 3283239 | VB | 0.000 | |
| 28.86 | | 0.0000E+ 0 | 45245 | BV | 0.000 | |
| 29.56 | 29.48 | 6.7408E- 6 | 16514 | VV | .111 | ~~NT-3~~ Not on CN |
| 30.69 | | 0.0000E+ 0 | 67517 | VV | 0.000 | |
| 31.19 | | 0.0000E+ 0 | 3535 | VV | 0.000 | |
| .29 | | 0.0000E+ 0 | 8362 | VV | 0.000 | |

HM 05-23-97



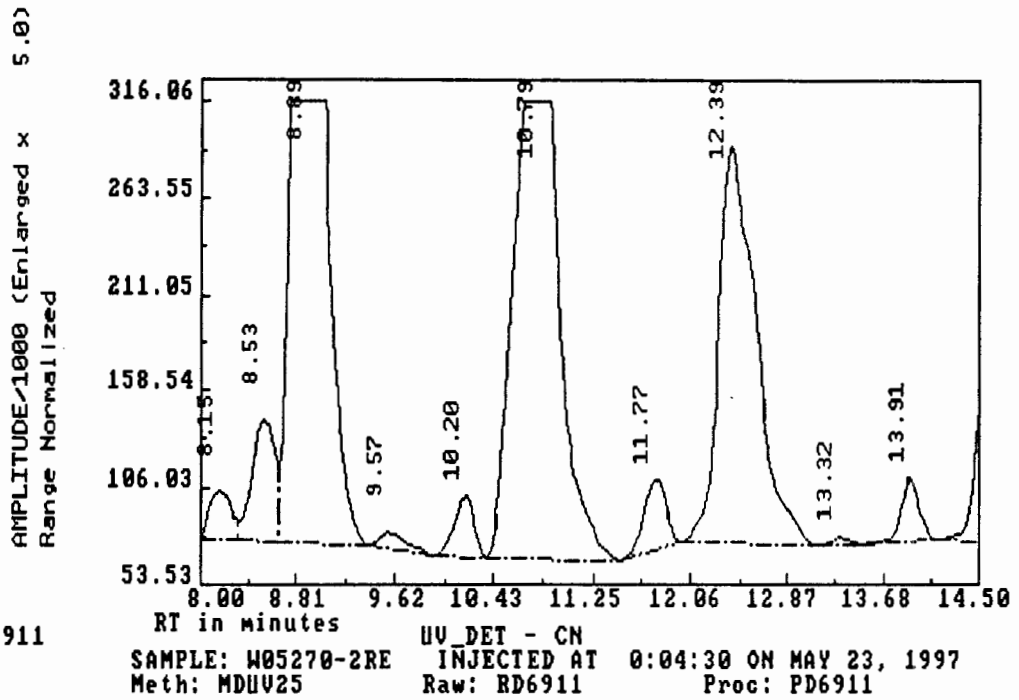

PD6911

UV_DET - CN
SAMPLE: W05270-2RE INJECTED AT 0:04:30 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6911 Proc: PD6911

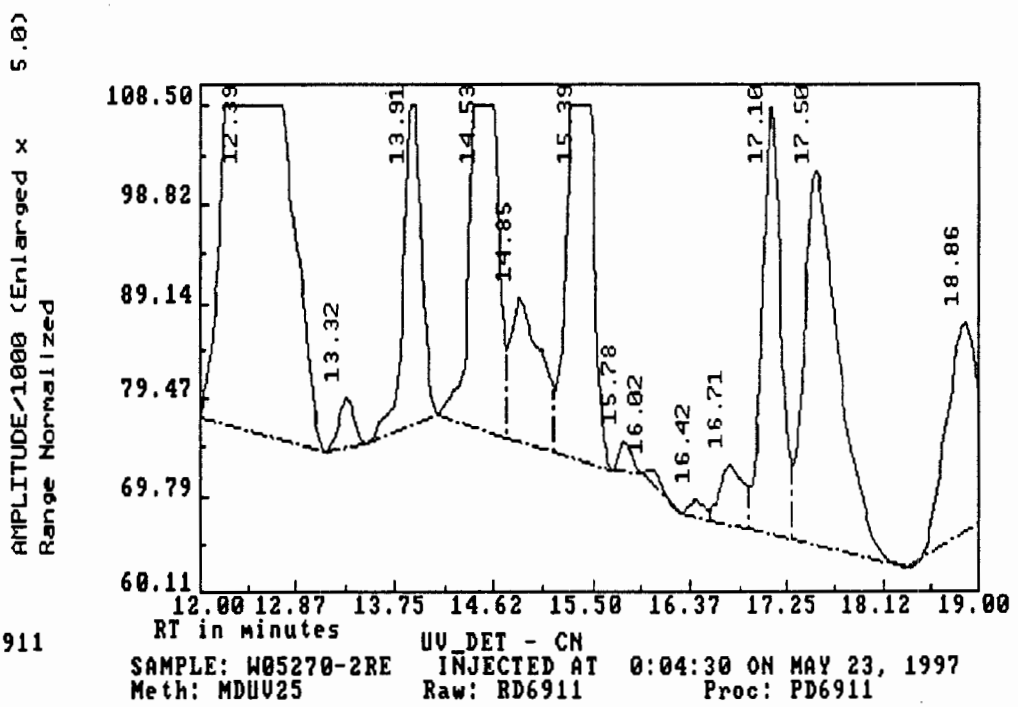



PD6911

UV_DET - CN
SAMPLE: W05270-2RE INJECTED AT 0:04:30 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6911 Proc: PD6911

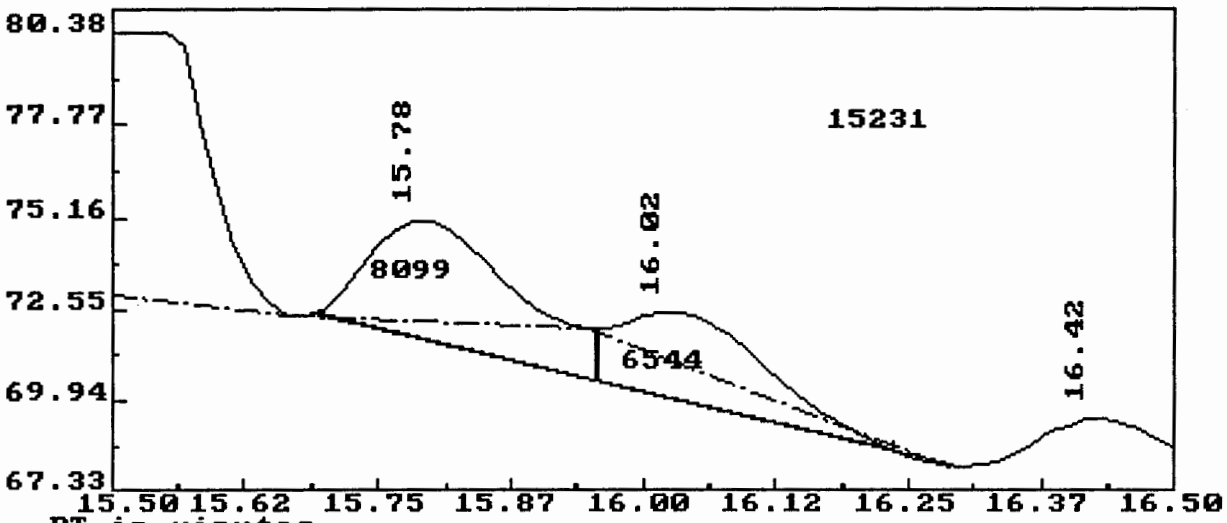



PD6911




PD6911

AMPLITUDE/1000 (Enlarged x 3
Range Normalized




SAMPLE: W05270-2RE INJECTED AT 0:04:30 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6911 Proc: PD6911

PD6911

HM 05-23-97

FILE:RD6911 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15748.21 CHANNEL: 1 UV_DET - CN

!PLE: W05270-2RE INJECTED AT 0:04:30 ON MAY 23, 1997

ESTD METHOD: MD0520 SEQ: SD0522 SUBSQ/SAMP: 1/ 11

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.35 | | 0.0000E+ 0 | 18231 | BV | 0.000 | |
| 5.53 | | 0.0000E+ 0 | 28581 | VV | 0.000 | |
| 6.47 | | 0.0000E+ 0 | 644537 | VV | 0.000 | |
| 6.92 | | 0.0000E+ 0 | 132300 | VV | 0.000 | |
| 7.32 | | 0.0000E+ 0 | 3153384 | VF | 0.000 | |
| 8.15 | | 0.0000E+ 0 | 79346 | BV | 0.000 | |
| 8.53 | 8.52 | 2.6330E- 6 | 216925 | VV | ~~.571~~ | NBE/TNB |
| 8.89 | 8.93 | 3.3659E- 6 | 3919833 | VB | 13.194 | ~~DNB-13~~ Not on C18 |
| 9.57 | | 0.0000E+ 0 | 37302 | BV | 0.000 | |
| 10.20 | 10.14 | 2.9146E- 6 | 90110 | VV | .263 | ~~NT-2~~ RT off |
| 10.79 | 11.02 | 1.7512E- 6 | 2080190 | VV | 3.643 | ~~DNT-24~~ RT off |
| 11.77 | 11.77# | 7.6894E- 6 | 112555 | VB | .865 | #1-2-DNB |
| 12.39 | 12.67 | 8.1500E- 6 | 1167306 | BV | 9.514 | ~~DNT-4A26~~ Not on C18 |
| 13.32 | 13.07 | 5.4259E- 6 | 11697 | VV | .063 | ~~DNT-2A46~~ RT off |
| 13.91 | 13.60 | 1.2715E- 5 | 93377 | VB | 1.187 | RDX |
| 14.53 | | 0.0000E+ 0 | 277094 | BV | 0.000 | |
| 14.85 | | 0.0000E+ 0 | 65224 | VV | 0.000 | |
| 15.39 | 15.54 | 6.5041E- 6 | 278583 | VV | 1.812 | ~~TETRYL~~ RT off |
| 15.78 | | 0.0000E+ 0 | 5615 | VB | ~~0.000~~ | Tetryl |
| 16.02 | | 0.0000E+ 0 | 2338 | BV | 0.000 | |
| 16.42 | | 0.0000E+ 0 | 3851 | VV | 0.000 | |
| 16.71 | | 0.0000E+ 0 | 21989 | VV | 0.000 | |
| 17.10 | | 0.0000E+ 0 | 128431 | VV | 0.000 | |
| 17.50 | 17.45 | 1.4992E- 5 | 204142 | VB | 3.061 | ~~HMX~~ Not on C18 |
| 18.86 | | 0.0000E+ 0 | 112004 | BB | 0.000 | |
| 19.52 | | 0.0000E+ 0 | 51985 | BV | 0.000 | |
| 20.82 | | 0.0000E+ 0 | 24878 | VV | 0.000 | |
| 21.18 | | 0.0000E+ 0 | 16414 | VV | 0.000 | |
| 21.61 | | 0.0000E+ 0 | 77606 | VV | 0.000 | |
| 22.74 | | 0.0000E+ 0 | 39436 | VV | 0.000 | |
| 23.73 | | 0.0000E+ 0 | 49263 | VV | 0.000 | |
| 24.77 | 25.44 | 1.0000E+ 0 | 2007 | VF | 2006.94 | #DUMMY |

TOTAL AREA = 13146538 TOTAL PPM = 2041.110



tmg 05-23-97
06-05-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705270-03
Client ID : AOC1001GP14

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 6.9
Percent Moist : 100

Collection Date: 05/08/97
Date Received : 05/09/97
Ext Started : 05/13/97
Ext Completed : 05/14/97
Date Analyzed : 05/20/97
Date Confirmed : 05/20/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 1.9 | U | 0.39 |
| 121-82-4---- | RDX | 1.1 | U | 0.22 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.2 | U | 0.23 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.2 | U | 0.25 |
| 98-95-3----- | Nitrobenzene | 2.1 | U | 0.41 |
| 479-45-8---- | Tetryl | 1.7 | U | 0.34 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.2 | U | 0.25 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 2.2 | U | 0.44 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.2 | U | 0.25 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.9 | U | 0.58 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.7 | U | 0.32 |
| 88-72-2----- | 2-Nitrotoluene | 2.8 | U | 0.54 |
| 99-08-1----- | 4-Nitrotoluene | 2.8 | U | 0.54 |
| 99-99-0----- | 3-Nitrotoluene | 2.8 | U | 0.54 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

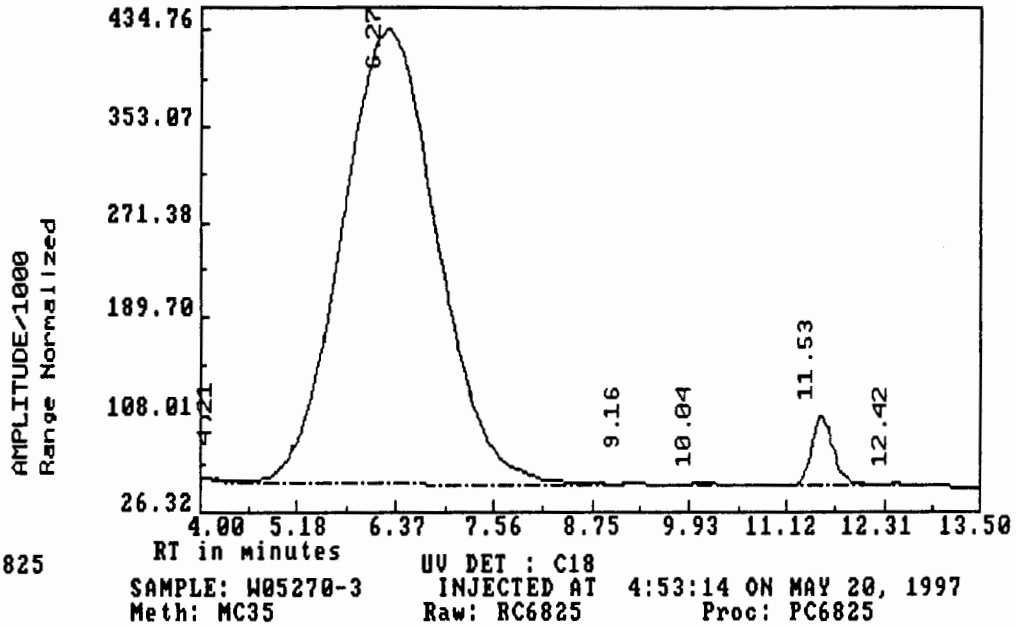
Sample ID : 9705270-03
Client ID : AOC1001GP14

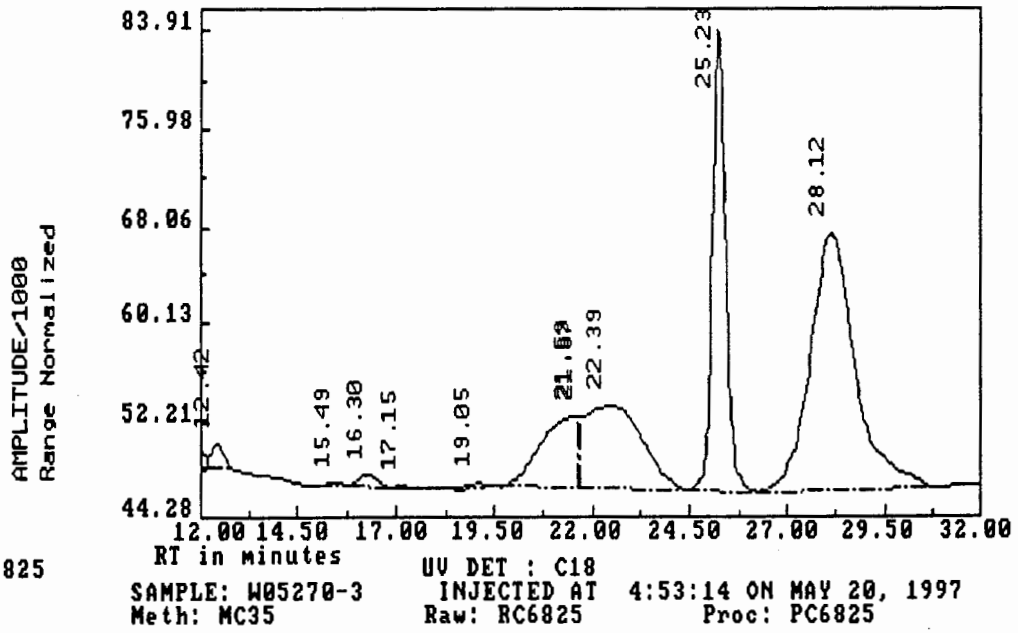
| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6825 | RD6834 |
| Calib File | RC6815 | RD6825 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

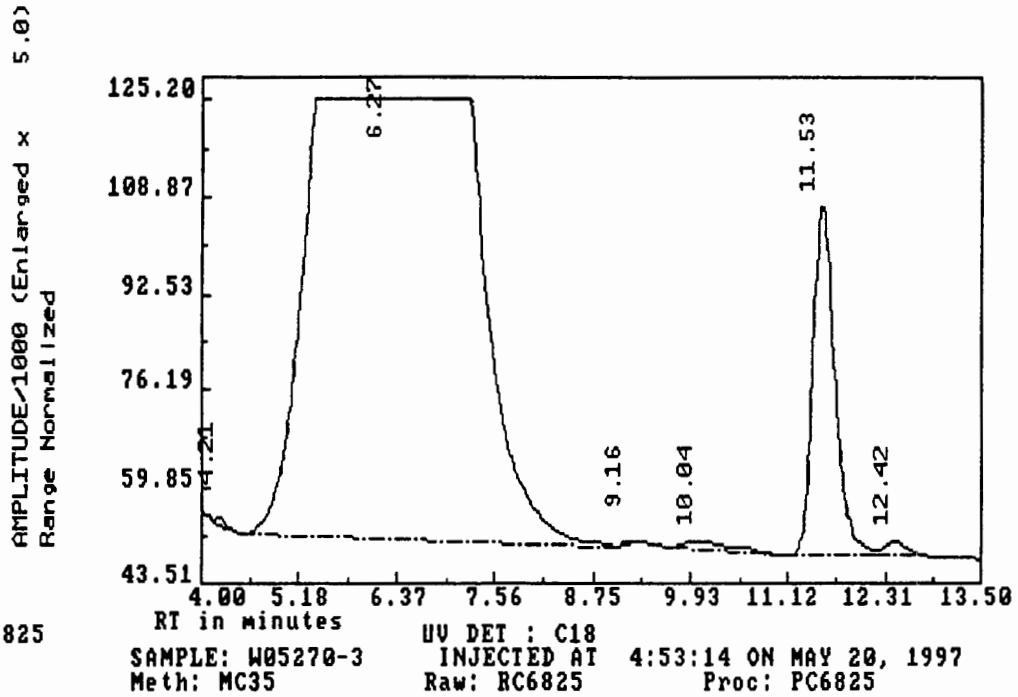
| Analyte Name | | Samp RT | Calib RT Window | | Q | MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|---|

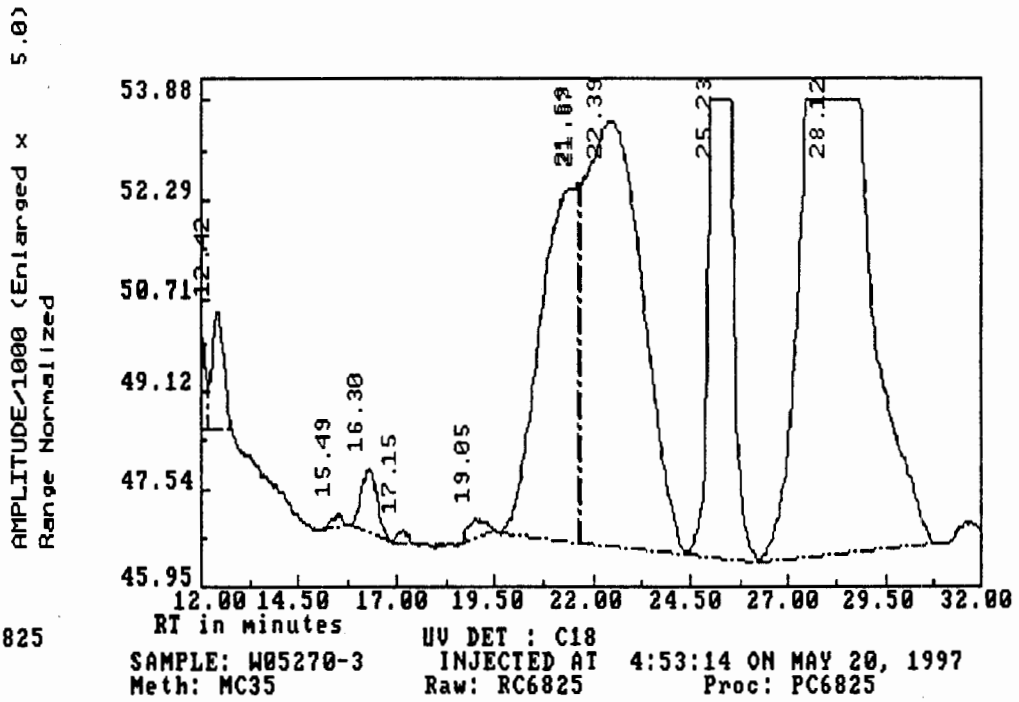
Q = Reported result
MS = Result confirmed by GC/MS

FORM GC CONF


434.76
353.07
271.38
189.70
108.01
26.32
AMPLITUDE/1000
Range Normalized
6.27
4.21
9.16
10.04
11.53
12.42
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
PC6825
UV DET : C18
SAMPLE: W05270-3
INJECTED AT 4:53:14 ON MAY 20, 1997
Meth: MC35
Raw: RC6825
Proc: PC6825


83.91
75.98
68.06
60.13
52.21
44.28
AMPLITUDE/1000
Range Normalized
25.23
28.12
22.39
12.42
15.49
16.30
17.15
19.05
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
PC6825
UV DET : C18
SAMPLE: W05270-3
INJECTED AT 4:53:14 ON MAY 20, 1997
Meth: MC35
Raw: RC6825
Proc: PC6825


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
125.20
108.87
92.53
76.19
59.85
43.51
6.27
11.53
4.21
9.16
10.04
12.42
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6825
UV DET : C18
SAMPLE: W05270-3
INJECTED AT 4:53:14 ON MAY 20, 1997
Meth: MC35
Raw: RC6825
Proc: PC6825


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
53.88
52.29
50.71
49.12
47.54
45.95
12.42
15.49
16.30
17.15
19.05
21.69
22.39
25.23
28.12
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6825
UV DET : C18
SAMPLE: W05270-3
INJECTED AT 4:53:14 ON MAY 20, 1997
Meth: MC35
Raw: RC6825
Proc: PC6825

FILE:RC6825 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10593.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05270-3 INJECTED AT 4:53:14 ON MAY 20, 1997

ESTD METHOD: MC0515 SEQ: SC0519 SUBSQ/SAMP: 1/ 25

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.033 MINUTES

ENDED NOT ON BL

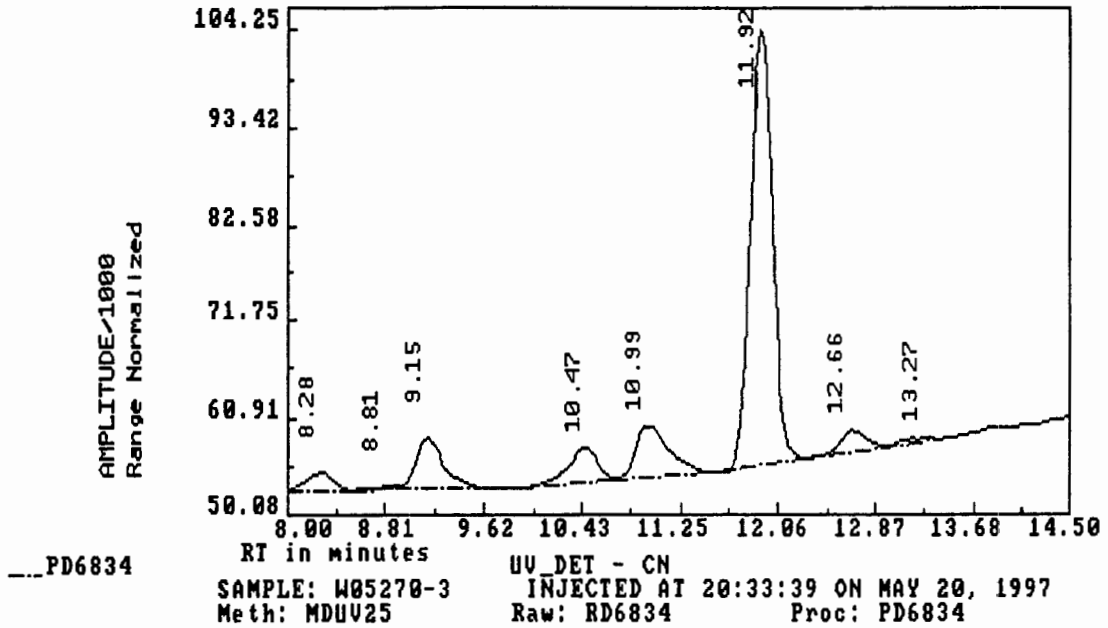
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 1.43 | | 0.0000E+ 0 | 2149 | BV | 0.000 | |
| 2.78 | | 0.0000E+ 0 | 12623 | VV | 0.000 | |
| 3.45 | | 0.0000E+ 0 | 182142 | VV | 0.000 | |
| 3.70 | | 0.0000E+ 0 | 8520 | VF | 0.000 | |
| 4.21 | | 0.0000E+ 0 | 1822 | VV | 0.000 | |
| 6.27 | | 0.0000E+ 0 | 7701601 | VB | 0.000 | |
| 9.16 | | 0.0000E+ 0 | 1845 | BF | 0.000 | |
| 10.04 | | 0.0000E+ 0 | 11720 | BV | 0.000 | |
| 11.53 | 11.53# | 4.3299E- 6 | 274881 | VV | 1.190 | #1-2-DNB |
| 12.42 | | 0.0000E+ 0 | 9687 | VF | 0.000 | |
| 15.49 | 15.52 | 3.9471E- 6 | 1185 | BB | .005 | ~~TETRYL~~ CSDL |
| 16.30 | 16.37 | 2.9334E- 6 | 7383 | BV | .022 | ~~NBE~~ ~~RT off~~ CSDL |
| 17.15 | | 0.0000E+ 0 | 1017 | VB | 0.000 | |
| 19.05 | 19.84 | 4.9689E- 6 | 2500 | BB | .012 | ~~DNT-4A26~~ RT off |
| 21.59 | | 0.0000E+ 0 | 93668 | BV | 0.000 | |
| 21.67 | 22.02 | 4.8567E- 6 | 7621 | VV | .037 | ~~DNT-26~~ RT off |
| 22.39 | | 0.0000E+ 0 | 172322 | VV | 0.000 | |
| 25.23 | 26.32 | 7.4212E- 6 | 219580 | VB | 1.630 | ~~NT-2~~ RT off |
| 28.12 | 28.24 | 8.5727E- 6 | 424755 | BV | 3.641 | ~~NT-4~~ Not on CN |
| 34.52 | | 0.0000E+ 0 | 12110 | BF | 0.000 | |

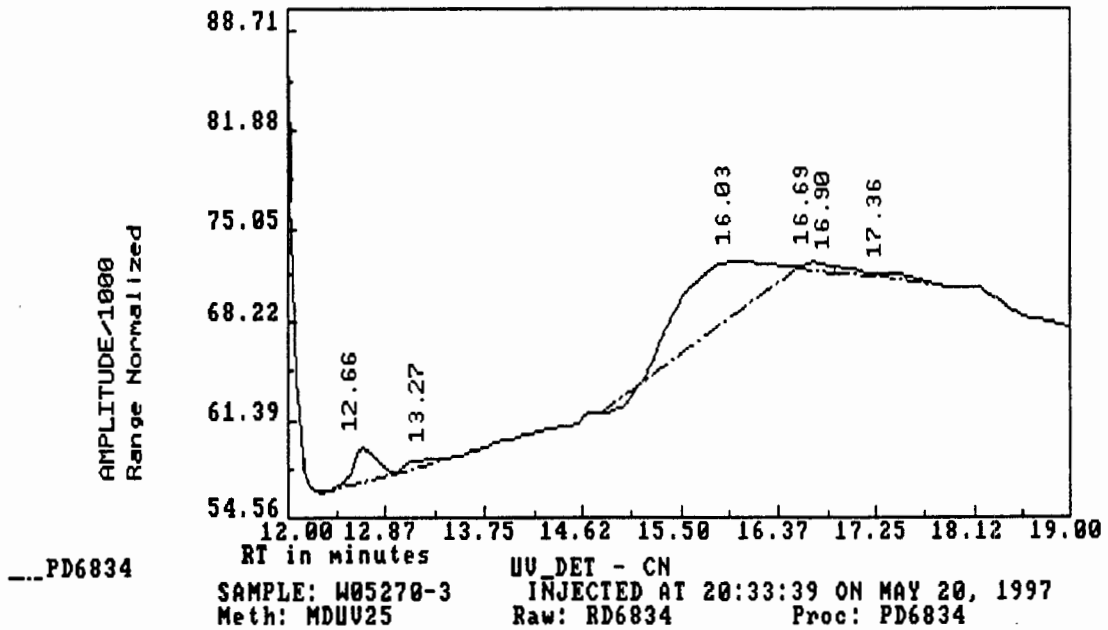
TOTAL AREA = 9149136 TOTAL PPM = 6.537

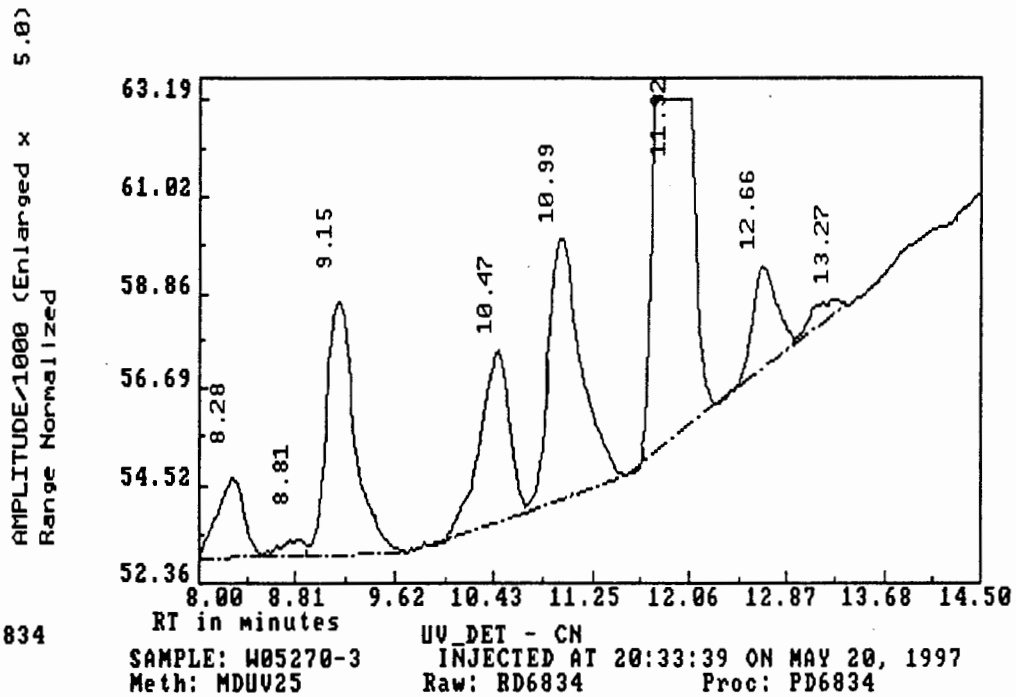
PROCESSED DATA FILE: PC6825 RAW DATA FILE: RC6825

HM 05-21-97

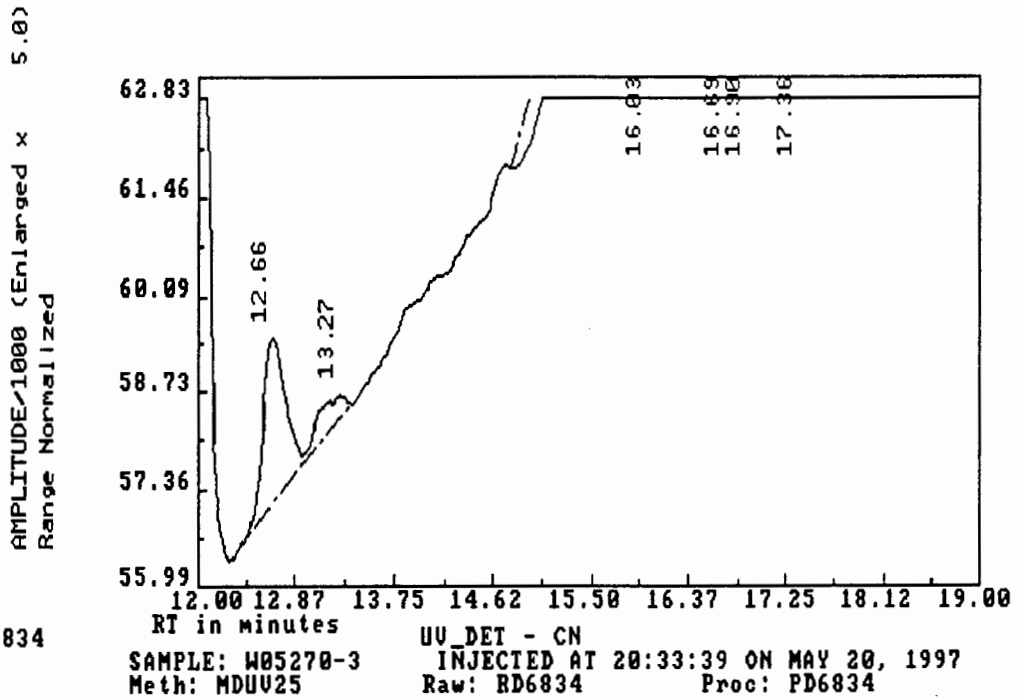
DONE


104.25
93.42
82.58
71.75
60.91
50.08
AMPLITUDE/1000
Range Normalized
8.28
8.81
9.15
10.47
10.99
11.92
12.66
13.27
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6834
UV_DET - CN
SAMPLE: W05270-3
INJECTED AT 20:33:39 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6834
Proc: PD6834


88.71
81.88
75.05
68.22
61.39
54.56
AMPLITUDE/1000
Range Normalized
12.66
13.27
16.03
16.69
16.90
17.36
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6834
UV_DET - CN
SAMPLE: W05270-3
INJECTED AT 20:33:39 ON MAY 20, 1997
Meth: MDUV25
Raw: RD6834
Proc: PD6834




PD6834




PD6834

FILE:RD6834 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15728.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05270-3 INJECTED AT 20:33:39 ON MAY 20, 1997

ESTD METHOD: MD0520 SEQ: SD0519 SUBSQ/SAMP: 1/ 34

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

ENDED NOT ON BL

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.14 | | 0.0000E+ 0 | 8094 | BV | 0.000 | |
| 5.59 | | 0.0000E+ 0 | 31784 | VV | 0.000 | |
| 6.54 | | 0.0000E+ 0 | 11940 | VV | 0.000 | |
| 7.43 | | 0.0000E+ 0 | 205217 | VF | 0.000 | |
| 8.28 | | 0.0000E+ 0 | 6405 | BV | 0.000 | |
| 8.81 | 8.63 | 2.6330E- 6 | 1149 | VV | .003 | ~~NBE~~ RT off |
| 9.15 | 9.04 | 3.3659E- 6 | 22888 | VB | .077 | ~~DNB-13~~ Not on C18 |
| 9.47 | 10.52 | 2.9146E- 6 | 16149 | BV | .047 | ~~NT-3~~ CSDL |
| 9.99 | 11.16 | 1.7512E- 6 | 28169 | VV | .049 | ~~DNT-24~~ Not on C18 |
| 11.92 | 11.92# | 7.6894E- 6 | 157377 | VB | 1.210 | #1-2-DNB |
| 12.66 | 12.82 | 8.1500E- 6 | 8165 | BV | .067 | ~~DNT-4A26~~ RT off |
| 13.27 | 13.23 | 5.4259E- 6 | 1963 | VV | .011 | ~~DNT-2A46~~ CSDL |
| 16.03 | 15.73 | 6.5041E- 6 | 54904 | BB | .357 | ~~TETRYL~~ Not on C18 |
| 16.69 | | 0.0000E+ 0 | 1906 | BV | 0.000 | |
| 16.90 | | 0.0000E+ 0 | 2323 | VV | 0.000 | |
| 17.36 | 17.66 | 1.4992E- 5 | 2184 | VB | .033 | ~~HMX~~ CSDL |

TOTAL AREA = 560617 TOTAL PPM = 1.854

PROCESSED DATA FILE: PD6834 RAW DATA FILE: RD6834

DONE

HM 05-21-97

Organics Analysis Data Sheet

Lab Name: LAUCKS TESTING LABS

Lab Sample ID : 9705270-03RE
Client ID : AOC1001GP14RE

Matrix : WATER
Reporting Units: ug/L

Sample Size : 770 ml
Final Ext Vol : 7.0
Percent Moist : 100

Collection Date: 05/08/97
Date Received : 05/09/97
Ext Started : 05/22/97
Ext Completed : 05/22/97
Date Analyzed : 05/22/97
Date Confirmed : 05/23/97
Dil Factor : 2.0

| CAS No. | Compound | Result | | SDL |
|---|---|---|---|---|
| 2691-41-0--- | HMX | 2.0 | U | 0.39 |
| 121-82-4---- | RDX | 1.1 | U | 0.22 |
| 99-35-4----- | 1,3,5-Trinitrobenzene | 1.2 | U | 0.24 |
| 99-65-0----- | 1,3-Dinitrobenzene | 1.3 | U | 0.25 |
| 98-95-3----- | Nitrobenzene | 2.1 | U | 0.42 |
| 479-45-8---- | Tetryl | 1.7 | U | 0.35 |
| 118-96-7---- | 2,4,6-Trinitrotoluene | 1.3 | U | 0.25 |
| 1946-51-0--- | 4-Amino-2,6-Dinitrotoluen | 2.2 | U | 0.45 |
| 355-72-78-2- | 2-Amino-4,6-Dinitrotoluen | 1.3 | U | 0.25 |
| 606-20-2---- | 2,6-Dinitrotoluene | 2.9 | U | 0.59 |
| 121-14-2---- | 2,4-Dinitrotoluene | 1.7 | U | 0.32 |
| 88-72-2----- | 2-Nitrotoluene | 2.8 | U | 0.55 |
| 99-08-1----- | 4-Nitrotoluene | 2.8 | U | 0.55 |
| 99-99-0----- | 3-Nitrotoluene | 2.8 | U | 0.55 |

SDL = Sample Detection Limit

Form OADS GC

Compound Confirmation

Lab Name: LAUCKS TESTING LABS

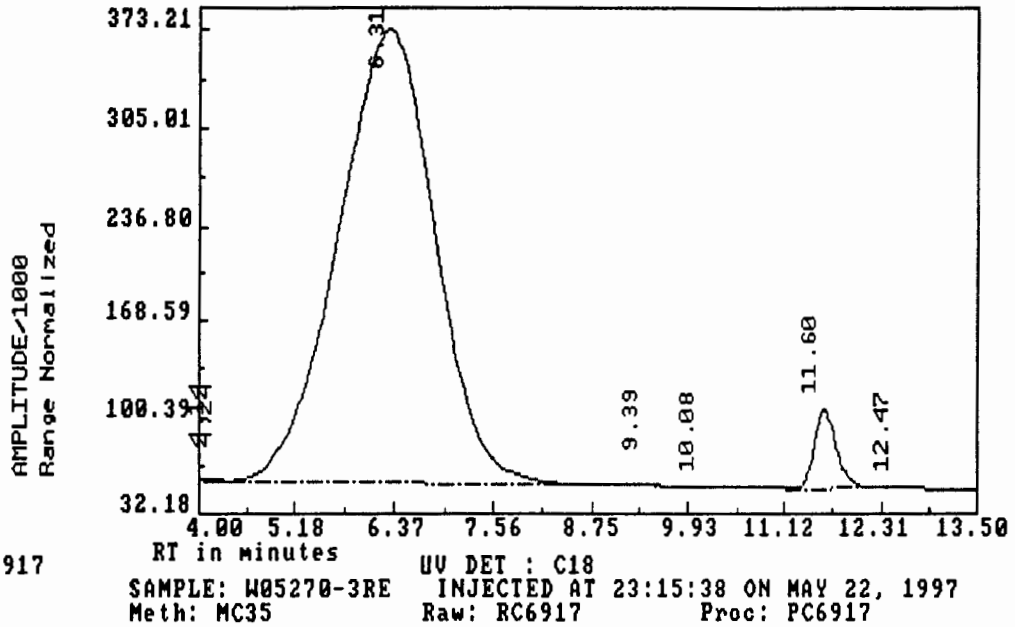
Sample ID : 9705270-03RE
Client ID : AOC1001GP14RE

| | Column 1 | Column 2 |
|---|---|---|
| Data File | RC6917 | RD6912 |
| Calib File | RC6907 | RD6904 |
| GC Col ID | C18UV | CNUV |
| Inst ID | HPLC4 | HPLC2 |

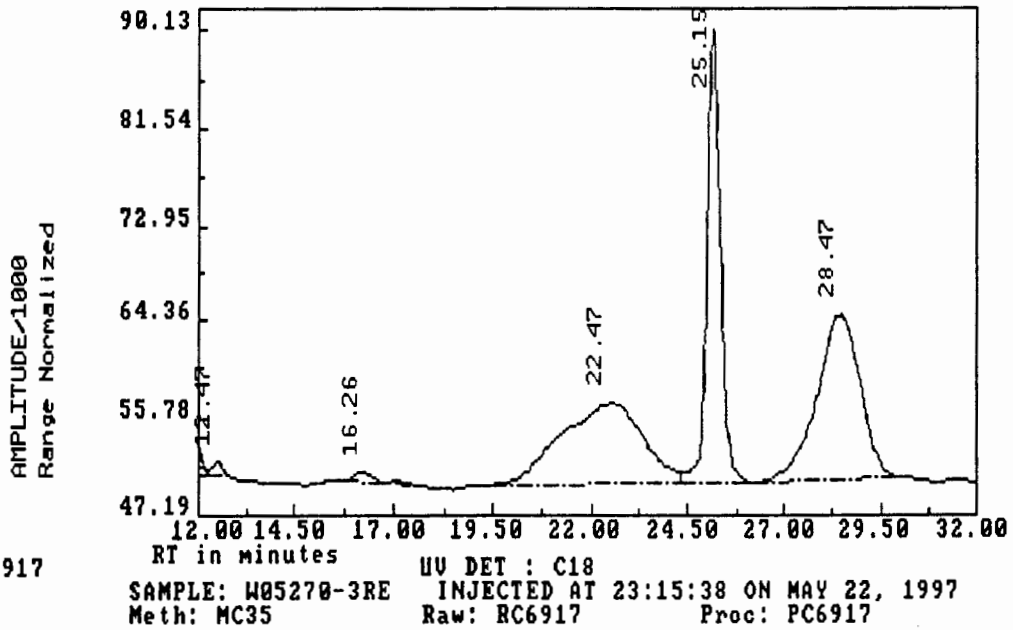
| Analyte Name | | Samp RT | Calib RT Window | | Q MS | Extract Conc. | %D |
|---|---|---|---|---|---|---|---|

Q = Reported result
MS = Result confirmed by GC/MS

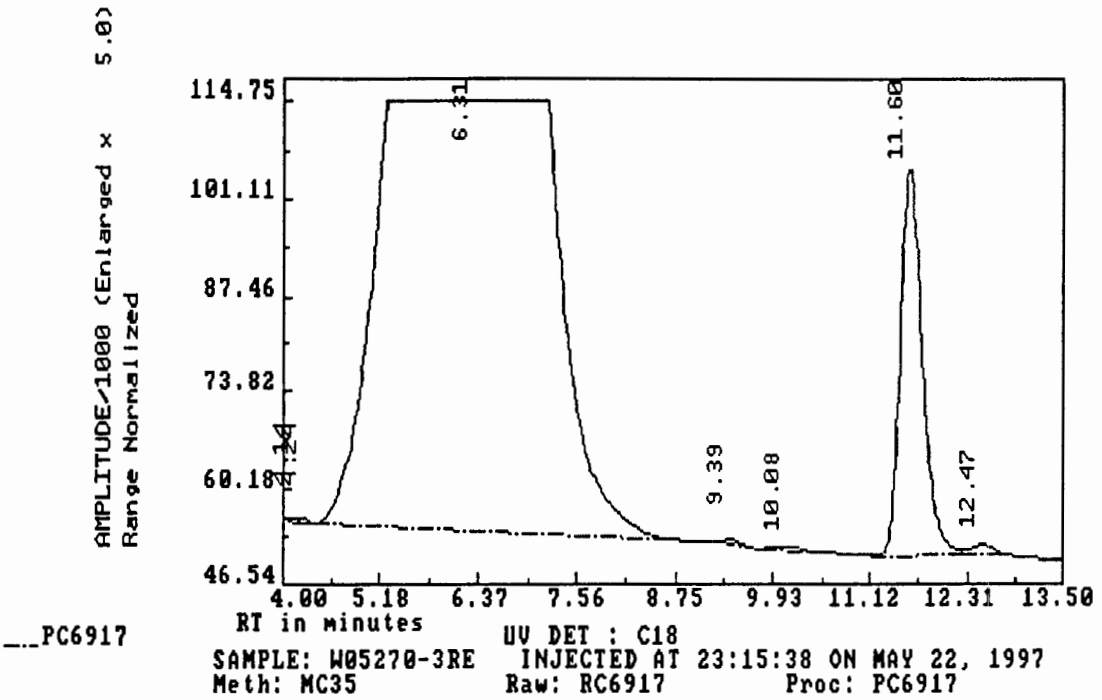
FORM GC CONF

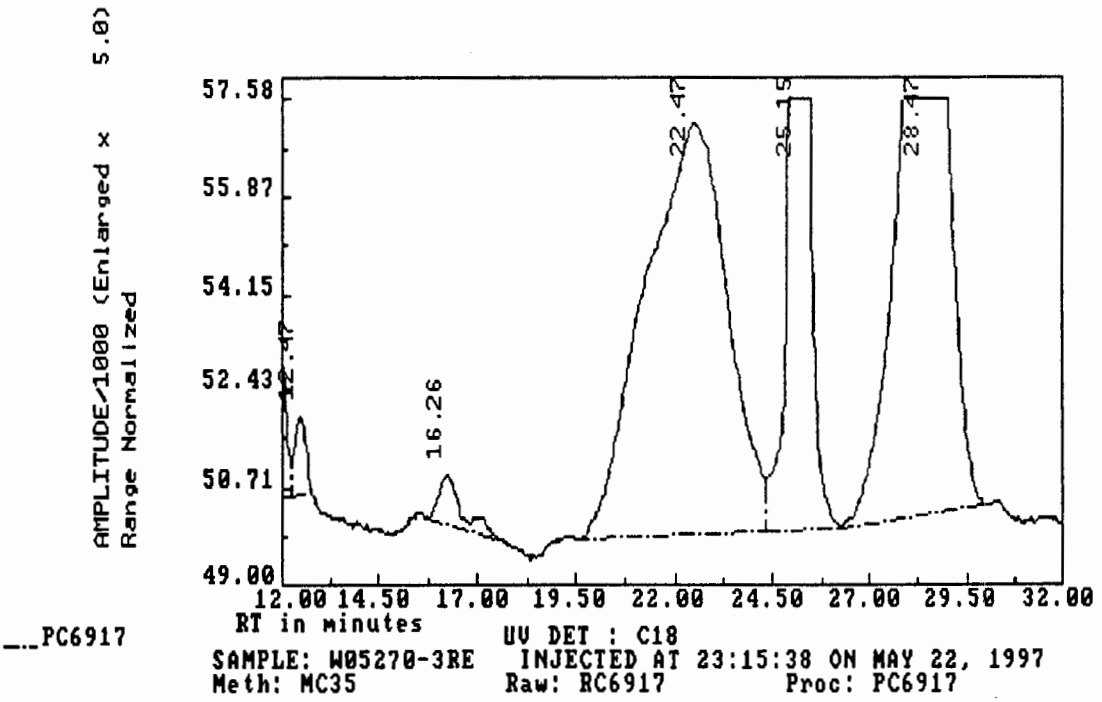



PC6917




PC6917


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
114.75
101.11
87.46
73.82
60.18
46.54
6.31
11.60
4.14
9.39
10.08
12.47
4.00 5.18 6.37 7.56 8.75 9.93 11.12 12.31 13.50
RT in minutes
__PC6917
UV DET : C18
SAMPLE: W05270-3RE INJECTED AT 23:15:38 ON MAY 22, 1997
Meth: MC35 Raw: RC6917 Proc: PC6917


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
57.58
55.87
54.15
52.43
50.71
49.00
22.47
25.15
28.47
12.47
16.26
12.00 14.50 17.00 19.50 22.00 24.50 27.00 29.50 32.00
RT in minutes
__PC6917
UV DET : C18
SAMPLE: W05270-3RE INJECTED AT 23:15:38 ON MAY 22, 1997
Meth: MC35 Raw: RC6917 Proc: PC6917

FILE:RC6917 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 10613.11 CHANNEL: 32 UV DET : C18

SAMPLE: W05270-3RE INJECTED AT 23:15:38 ON MAY 22, 1997

ESTD METHOD: MC0522 SEQ: SC0522 SUBSQ/SAMP: 1/ 17

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | .50 | 1000 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 35.017 MINUTES

ENDED NOT ON BL

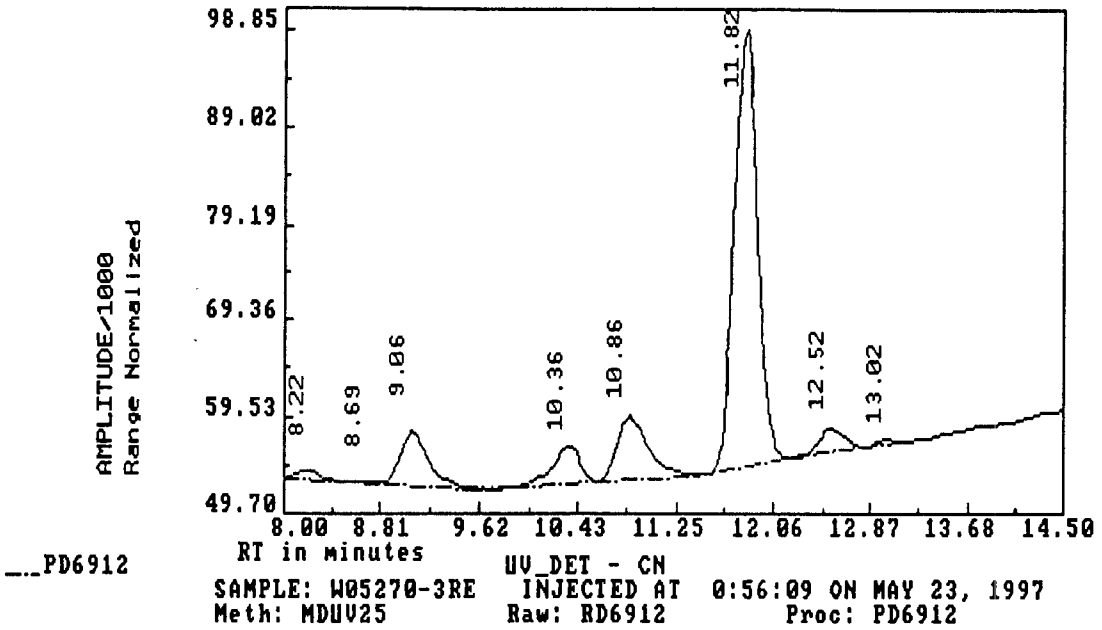
| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 3.02 | | 0.0000E+ 0 | 91850 | BV | 0.000 | |
| 3.47 | | 0.0000E+ 0 | 342984 | VV | 0.000 | |
| 4.14 | | 0.0000E+ 0 | 1218 | VV | 0.000 | |
| 4.24 | | 0.0000E+ 0 | 1350 | VV | 0.000 | |
| 6.31 | | 0.0000E+ 0 | 6498803 | VB | 0.000 | |
| 9.39 | | 0.0000E+ 0 | 1734 | BV | 0.000 | |
| 10.08 | | 0.0000E+ 0 | 3577 | VV | 0.000 | |
| 11.60 | 11.60# | 4.3299E- 6 | 260729 | VV | 1.129 | #1-2-DNB |
| 12.47 | | 0.0000E+ 0 | 6859 | VF | 0.000 | |
| 16.26 | 16.26 | 2.9334E- 6 | 8793 | BB | .026 | ~~NBE~~ Not on CN |
| 22.47 | 22.78 | 2.2063E- 6 | 264080 | BV | .583 | ~~DNT-24~~ Not on CN |
| 25.15 | | 0.0000E+ 0 | 241629 | VB | 0.000 | |
| 28.47 | 28.19 | 8.5727E- 6 | 285902 | BV | 2.451 | ~~NT-4~~ RT off |
| 34.45 | | 0.0000E+ 0 | 11596 | BF | 0.000 | |

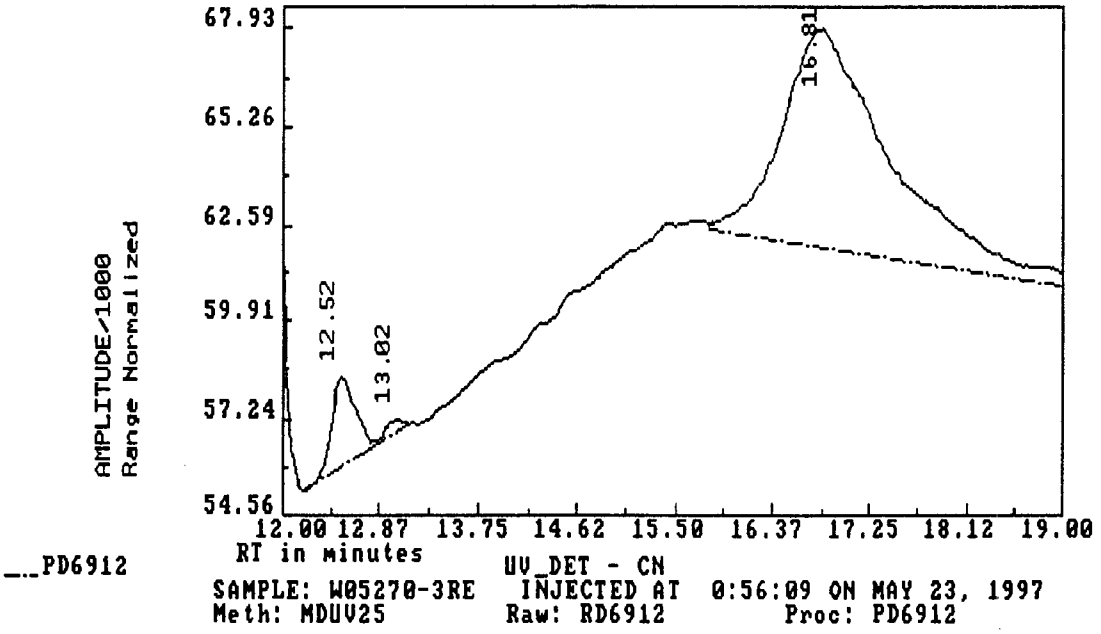
TOTAL AREA = 8021112 TOTAL PPM = 4.188

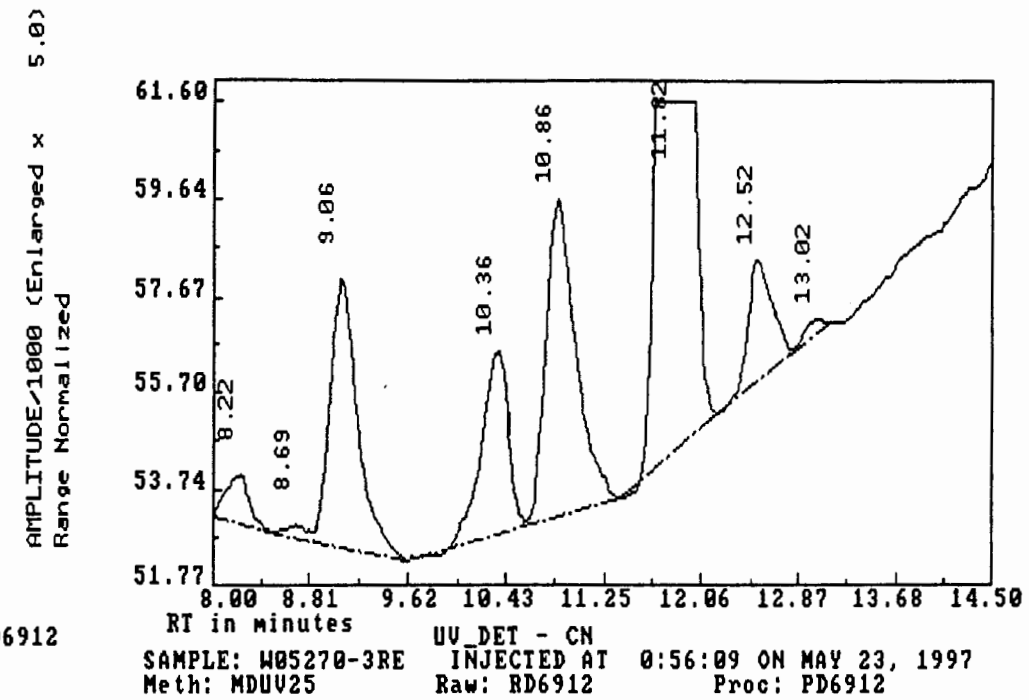
PROCESSED DATA FILE: PC6917 RAW DATA FILE: RC6917

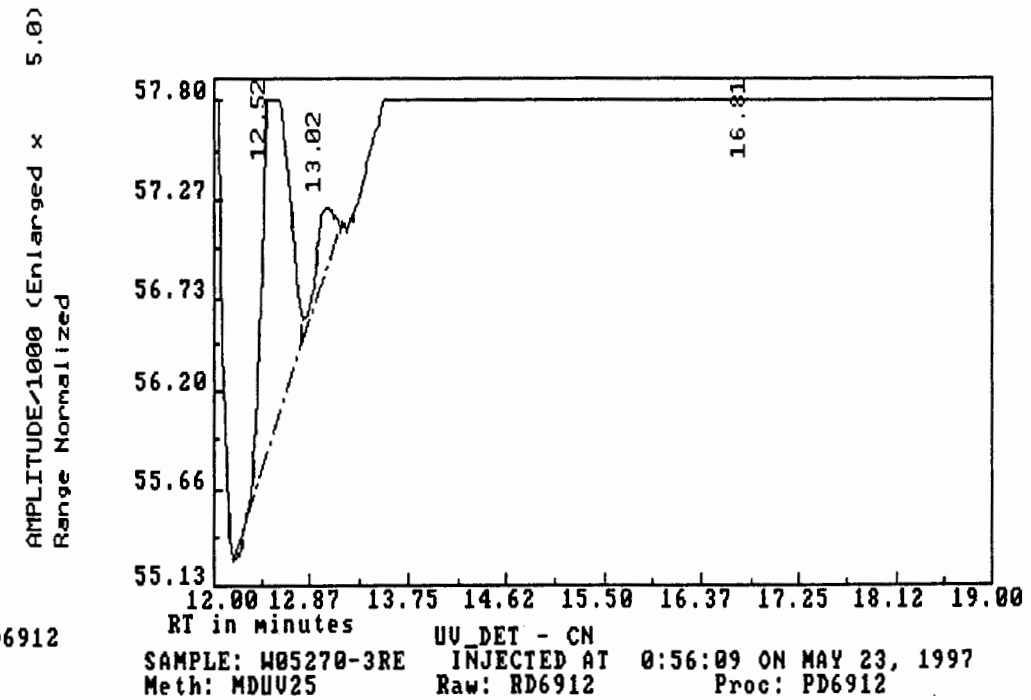
HM 05-23-97

DONE


98.85
89.02
79.19
69.36
59.53
49.70
AMPLITUDE/1000
Range Normalized
8.22
8.69
9.06
10.36
10.86
11.82
12.52
13.02
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6912
UV_DET - CN
SAMPLE: W05270-3RE INJECTED AT 0:56:09 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6912 Proc: PD6912


67.93
65.26
62.59
59.91
57.24
54.56
AMPLITUDE/1000
Range Normalized
12.52
13.02
16.81
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6912
UV_DET - CN
SAMPLE: W05270-3RE INJECTED AT 0:56:09 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6912 Proc: PD6912


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
61.60
59.64
57.67
55.70
53.74
51.77
8.22
8.69
9.06
10.36
10.86
11.82
12.52
13.02
8.00 8.81 9.62 10.43 11.25 12.06 12.87 13.68 14.50
RT in minutes
PD6912
UV_DET - CN
SAMPLE: W05270-3RE INJECTED AT 0:56:09 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6912 Proc: PD6912


AMPLITUDE/1000 (Enlarged x 5.0)
Range Normalized
57.80
57.27
56.73
56.20
55.66
55.13
12.52
13.02
16.81
12.00 12.87 13.75 14.62 15.50 16.37 17.25 18.12 19.00
RT in minutes
PD6912
UV_DET - CN
SAMPLE: W05270-3RE INJECTED AT 0:56:09 ON MAY 23, 1997
Meth: MDUV25 Raw: RD6912 Proc: PD6912

FILE:RD6912 LAUCKS TESTING LABORATORIES -- LAS INTEGRATION REPORT PAGE 1

REPORT: 15749.11 CHANNEL: 1 UV_DET - CN

SAMPLE: W05270-3RE INJECTED AT 0:56:09 ON MAY 23, 1997

ESTD METHOD: MD0520 SEQ: SD0522 SUBSQ/SAMP: 1/ 12

| SL-WDTH | MV/MIN | DELAY | MIN-AR | BUNCH |
|---|---|---|---|---|
| 1.000 | .050 | 5.00 | 750 | NO |

| SUP-UNK | DVT | ID-LVL | REF-RTW | %RTW | %DIL-F | ISO |
|---|---|---|---|---|---|---|
| NO | 0.00 | 100 | .250 | 5.000 | 100.00 | NO |

ACTUAL RUN TIME: 25.017 MINUTES

| RT | ITM | FACTOR | AREA | | PPM | NAME |
|---|---|---|---|---|---|---|
| 5.54 | | 0.0000E+ 0 | 2474 | VV | 0.000 | |
| 7.38 | | 0.0000E+ 0 | 205215 | VF | 0.000 | |
| 8.22 | | 0.0000E+ 0 | 3266 | BB | 0.000 | |
| 8.69 | 8.56 | 2.6330E- 6 | 862 | BV | .002 | ~~NBE~~ RT off |
| 9.06 | 8.97 | 3.3659E- 6 | 21725 | VB | .073 | ~~DNB-13~~ Not on C18 |
| 10.36 | 10.44 | 2.9146E- 6 | 14521 | VV | .042 | ~~NT-3~~ Not on C18 |
| 10.86 | 11.07 | 1.7512E- 6 | 28670 | VV | .050 | ~~DNT-24~~ RT off |
| 11.82 | 11.82# | 7.6894E- 6 | 149283 | VB | 1.148 | #1-2-DNB |
| 12.52 | 12.72 | 8.1500E- 6 | 8735 | BV | .071 | ~~DNT-4A26~~ RT off |
| 13.02 | 13.13 | 5.4259E- 6 | 1046 | VV | .006 | ~~DNT-2A46~~ RT off |
| 16.81 | 17.52 | 1.4992E- 5 | 103128 | VB | 1.546 | ~~HMX~~ RT off |
| 22.47 | | 0.0000E+ 0 | 831 | BV | 0.000 | |
| 22.76 | | 0.0000E+ 0 | 1708 | VB | 0.000 | |

TOTAL AREA = 541465 TOTAL PPM = 2.939

PROCESSED DATA FILE: PD6912 RAW DATA FILE: RD6912

HM 05-23-97

DONE

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

COMPANY: Fluor Daniel GTI
ADDRESS: 2501 Yale Blvd
ALBQ NM 87106
ATTENTION: Chuck Schick
PROJECT NAME: DOE WAD 29
PROJECT CONTACT: Chuck Schick
TELEPHONE: 505-242-3113 FAX: 505-242-1103
JOB/P.O. NO.: 812200082903

# CHAIN OF CUSTODY RECORD

01832

SDG # 0W8Q2

PAGE 1 OF ____

WORK ORDER ID# 9705220

SUBMITTED AT:

**Lauck Testing Laboratories, Inc.**
☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

12

TESTS TO PERFORM

| LAB SA# | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | EPA Method 8021A | EPA Method 8330 | | | | | | | | | | | | | | OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AOC1001GP11 | 5/6 | 1235 | W | 6 | 4 | 2 | | | | | | | | | | | | | | |
| | AOC1001GP15 | 5/7 | 0815 | W | 6 | 4 | 2 | | | | | | | | | | | | | | |
| | AOC1001DP11 | 5/6 | 1100 | S | 1 | 1 | | | | | | | | | | | | | | | |
| | AOC1001DP18 | 5/7 | 1000 | S | 1 | 1 | | | | | | | | | | | | | | | |
| | AOC10011 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

VS 5/8/97

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

**INSTRUCTIONS**

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

***BILLING INFORMATION, IF DIFFERENT THAN ABOVE**

NAME ADDRESS

ATTN: CITY, STATE, ZIP

*** RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL**

**TOTAL NO. OF CONTAINERS**

TURNAROUND REQUEST
☒ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☐ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER: ____
☐ TEMP: ____
CUSTODY SEAL: ☐Y ☐N ☐N/A

| RELINQUISHED BY (SIGN AND PRINT) | DATE / TIME | RECEIVED BY (SIGN AND PRINT) | DATE / TIME |
|---|---|---|---|
| Charles Madewell | 5-7-97 1400 | Linda Smith / Linda Smith | 5/8/97 0845 |
| / | | / | |

S INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

MPANY: Fluor Daniel GTI
RESS: 2501 Yale Blvd SE, #204
Albq, NM 87106
ENTION: Chuck Schick
JECT NAME: AOC-1001 HAFB
JECT CONTACT: Chuck Schick
EPHONE: 505-242-3113 FAX: 505-242-1103
3/P.O. NO.: 872200082903

# CHAIN OF CUSTODY RECORD

SDG # _____

01831

PAGE 1 OF ____

WORK ORDER ID# 9705270

**Laucks Testing Laboratories, Inc.**

SUBMITTED AT:
☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

TESTS TO PERFORM

| SA# | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | EPA Method 8330 | OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|
| 1) | AOC1001GP12 | 5/7 | 1500 | W | 2 | 2 | |
| 2) | AOC1001GP22 | 5/7 | 1800 | W | 2 | 2 | |
| 3) | AOC1001GP14 | 5/8 | 0945 | W | 2 | 2 | |

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS
1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

*BILLING INFORMATION, IF DIFFERENT THAN ABOVE
NAME ADDRESS
ATTN: CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

6 TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
☒ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☐ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER: ____
☐ TEMP: ____
CUSTODY SE ☐Y ☐N ☐N/A

| RELINQUISHED BY (SIGN AND PRINT) | DATE / TIME | RECEIVED BY (SIGN AND PRINT) | DATE / TIME |
|---|---|---|---|
| Charles Madewell | 5-8-97 1400 | PAM R. JOHNSON | 5/9/97 1110 |

# Sample Results

G0804

Volatiles by Method 8010

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-1**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-01

Purge Volume: 10 ml

Lab File ID: N6170927.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/17/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.0 | PB | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.20 | U | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit



RESULT FORM

FormVer 1.0 11/23/96

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-1**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-01

Purge Volume: 10 ml

Lab File ID: N6170927.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/17/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-1**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-01

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6170927.d | File (2): N6170927.d

Date Analyzed (1) 06/17/97 | Date Analyzed (2): 06/17/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Methylene chloride | 1 | 8.20 | 8.14 | 8.24 | 4.3 | 41.9 |
| | 2 | 8.93 | 8.88 | 8.97 | 3.03 X | |

X = Concentration Reported

Data Fi /chem/5890N.i/N61797-3.b/N6170927.d

Date : 17-JUN-97 21:08:00

Client ID: MWAOC-1

Sample Info: 9706220-01

Purge Volume: 10.0

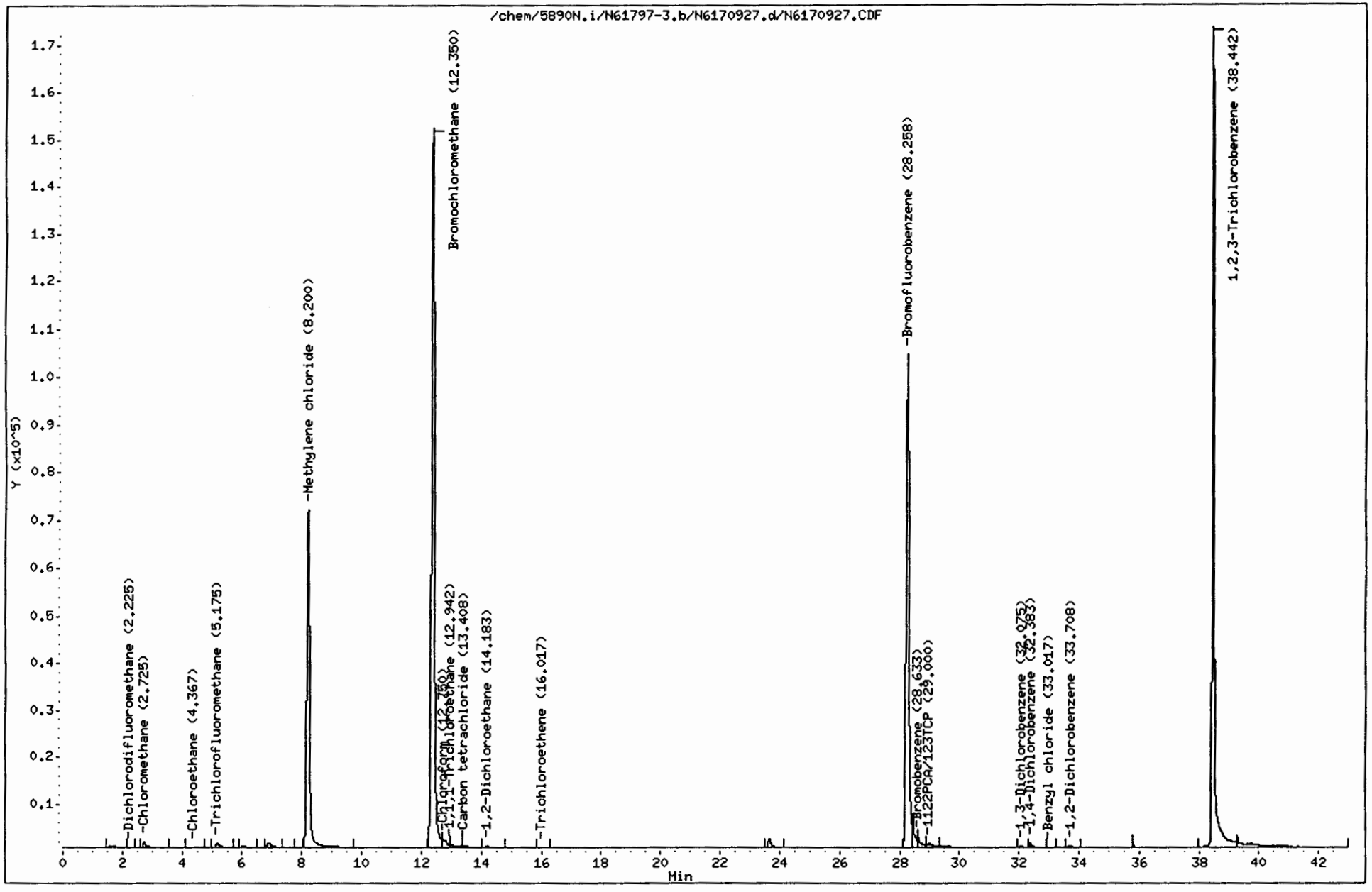
Column phase: DB-624

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.53






324

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-3.b/N6170927.d
Injection Date : 17-JUN-97 21:08:00
Sample Info : 9706220-01
Misc. Info : None
Laboratory ID : 9706220-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 616HVA02.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.63 | | 6236 | | | |
| Dichlorodifluoromethane | 2.22 | 2.13 - 2.23 | 592 | | 0.094765 | 0.00948 |
| Chloromethane | 2.72 | 2.63 - 2.73 | 9641 | | 1.2394 | 0.124 |
| Chloroethane | 4.37 | 4.28 - 4.38 | 2621 | | 0.29896 | 0.0299 <R |
| Trichlorofluoromethane | 5.18 | 5.09 - 5.19 | 8652 | | 0.81978 | 0.0820 |
| | 6.05 | | 3551 | | | |
| | 6.90 | | 10563 | | | |
| | 7.89 | | 1065 | | | |
| Methylene chloride | 8.20 | 8.14 - 8.24 | 487140 | | 43.010 | 4.30 see DB VA |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1057386 | | 95.170 | 9.52 |
| Chloroform | 12.75 | 12.66 - 12.86 | 17319 | M | 1.0488 | 0.105 |
| 1,1,1-Trichloroethane | 12.94 | 12.88 - 13.08 | 8650 | M | 0.57189 | 0.0572 |
| Carbon tetrachloride | 13.41 | 13.32 - 13.52 | 4770 | M | 0.27674 | 0.0277 <R |
| 1,2-Dichloroethane | 14.18 | 14.05 - 14.25 | 4153 | | 0.32159 | 0.0322 |
| Trichloroethene | 16.02 | 15.86 - 16.06 | 1404 | | 0.094455 | 0.00944 |
| | 23.65 | | 13767 | | | |
| Bromofluorobenzene | 28.26 | 28.13 - 28.33 | 714618 | | 185.07 | 18.5 |
| | 28.46 | | 30953 | | | |
| Bromobenzene | 28.63 | 28.50 - 28.70 | 15650 | M | 3.5521 | 0.355 Not Co |
| 1122PCA/123TCP | 29.00 | 28.88 - 29.08 | 12154 | | 1.5372 | 0.154 |
| | 29.33 | | 13814 | | | |
| 1,3-Dichlorobenzene | 32.08 | 31.93 - 32.13 | 2485 | | 0.33418 | 0.0334 <RL |
| 1,4-Dichlorobenzene | 32.38 | 32.29 - 32.49 | 4401 | | 0.55238 | 0.0552 |
| Benzyl chloride | 33.02 | 32.88 - 33.08 | 940 | | 0.47400 | 0.0474 |
| 1,2-Dichlorobenzene | 33.71 | 33.58 - 33.78 | 2711 | | 0.33824 | 0.0338 |
| | 35.78 | | 17086 | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 816042 | | 97.071 | 9.71 |
| | 39.28 | | 58913 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

NK 6-30-97

Data F /chem/5890N.i/N61797-4.b/N6170927.d

Date : 17-JUN-97 21:08:00

Client ID: MWAOC-1

Sample Info: 9706220-01

Purge Volume: 10.0

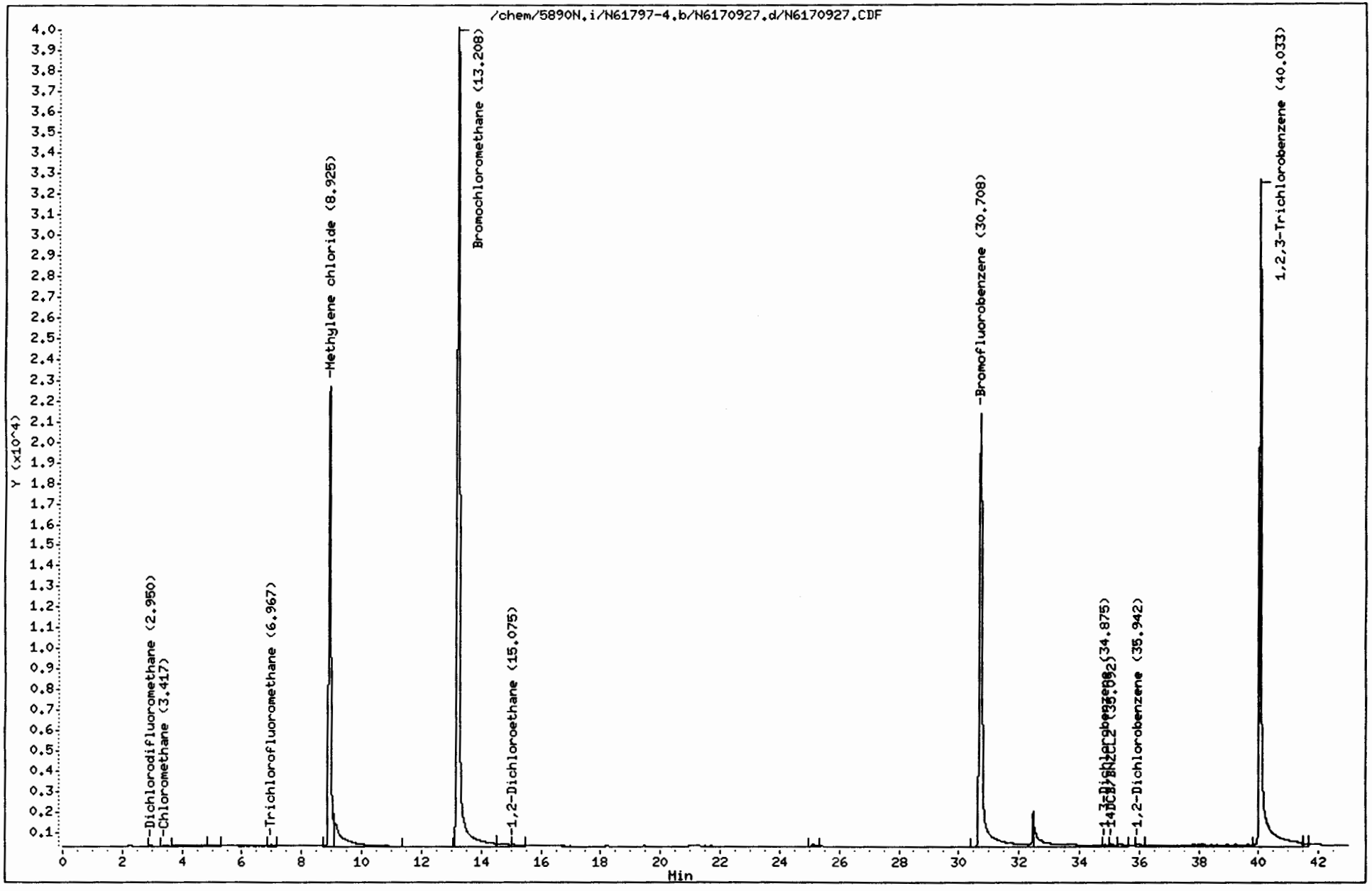
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-4.b/N6170927.d
Injection Date : 17-JUN-97 21:08:00
Sample Info : 9706220-01
Misc. Info : None
Laboratory ID : 9706220-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 616HVB02.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.95 | 2.89 - 2.99 | 514 | M | 0.34231 | 0.0342 |
| Chloromethane | 3.42 | 3.34 - 3.44 | 968 | M | 0.48484 | 0.0485 |
| | 4.54 | | 3244 | | | |
| | 4.97 | | 1668 | | | |
| Trichlorofluoromethane | 6.97 | 6.90 - 7.00 | 1255 | | 0.39564 | 0.0396 |
| Methylene chloride | 8.92 | 8.88 - 8.98 | 119302 | M | 30.340 | 3.03 PB |
| | 9.08 | | 26429 | | | |
| Bromochloromethane | 13.21 | 13.16 - 13.26 | 254652 | M | 86.219 | 8.62 |
| | 14.51 | | 3829 | | | |
| 1,2-Dichloroethane | 15.08 | 14.99 - 15.19 | 2370 | | 0.80712 | 0.0807 |
| | 25.12 | | 1369 | | | |
| Bromofluorobenzene | 30.71 | 30.62 - 30.82 | 157812 | M | 136.93 | 13.7 |
| | 32.48 | | 24712 | | | |
| 1,3-Dichlorobenzene | 34.88 | 34.77 - 34.97 | 1133 | | 0.60596 | 0.0606 |
| 14DCB/BNZCL2 | 35.09 | 34.99 - 35.19 | 1664 | | 1.1961 | 0.120 |
| | 35.30 | | 2206 | | | |
| 1,2-Dichlorobenzene | 35.94 | 35.84 - 36.04 | 2095 | | 0.94989 | 0.0950 |
| | 39.65 | | 20210 | | | |
| 1,2,3-Trichlorobenzene | 40.03 | 39.93 - 40.13 | 192483 | | 74.031 | 7.40 |
| | 41.52 | | 1452 | | | |

MA 6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-02

Purge Volume: 2 ml

Lab File ID: N6182628.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1.0 | U | 1.0 |
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 |
| 74-83-9 | Bromomethane | 2.0 | U | 2.0 |
| 75-00-3 | Chloroethane | 5.4 | P | 1.0 |
| 75-69-4 | Trichlorofluoromethane | 1.0 | U | 1.0 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 |
| 75-09-2 | Methylene chloride | 15 | U | 15 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 67-66-3 | Chloroform | 3.6 | | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 |
| 107-06-2 | 1,2-Dichloroethane | 400 | PE | 1.0 |
| 79-01-6 | Trichloroethene | 1.8 | P | 1.0 |
| 78-87-5 | 1,2-Dichloropropane | 1.6 | | 1.0 |
| 74-95-3 | Dibromomethane | 6.8 | | 1.0 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 |
| 124-48-1 | Chlorodibromomethane | 1.0 | U | 1.0 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 75-25-2 | Bromoform | 1.6 | | 1.0 |
| 108-86-1 | Bromobenzene | 4.0 | U | 4.0 |
| 96-18-4 | 1,2,3-Trichloropropane | 1.0 | U | 1.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U | 1.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U | 1.0 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-02

Purge Volume: 2 ml

Lab File ID: N6182628.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 2.0 | U | 2.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U | 1.0 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-02

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6182628.d | File (2): N6182628.d

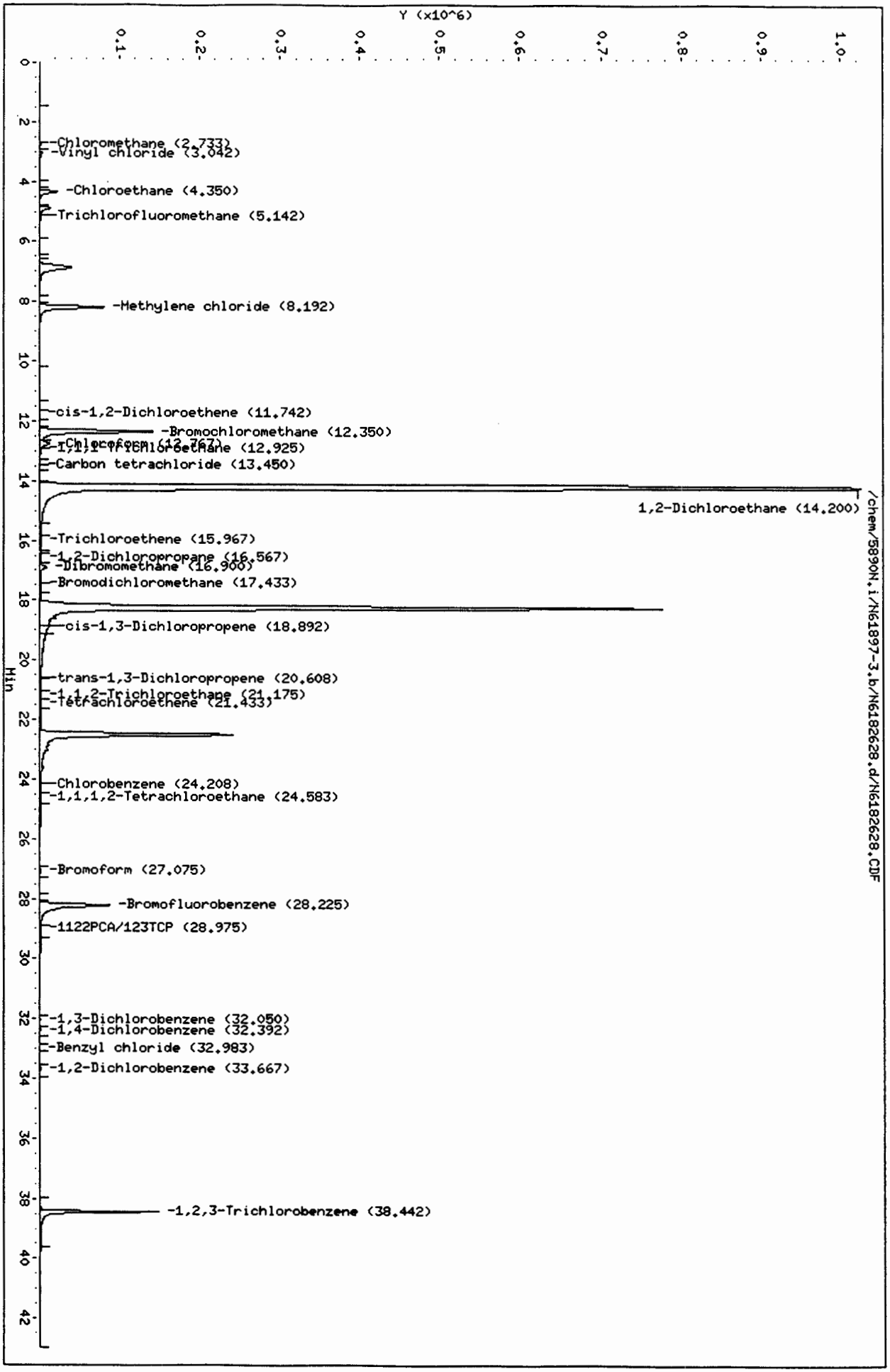
Date Analyzed (1) 06/19/97 | Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroethane | 1 | 4.35 | 4.29 | 4.39 | 8.61 | 59.4 |
| | 2 | 5.47 | 5.39 | 5.49 | 5.4 X | |
| Chloroform | 1 | 12.77 | 12.66 | 12.86 | 3.58 X | 15.6 |
| | 2 | 13.52 | 13.46 | 13.56 | 4.14 | |
| 1,2-Dichloroethane | 1 | 14.20 | 14.05 | 14.25 | 400 X | 49.5 |
| | 2 | 15.18 | 15.06 | 15.26 | 598 | |
| Trichloroethene | 1 | 15.97 | 15.86 | 16.06 | 1.78 X | 33.8 |
| | 2 | 18.31 | 18.18 | 18.38 | 1.33 | |
| 1,2-Dichloropropane | 1 | 16.57 | 16.44 | 16.64 | 1.57 X | 22.7 |
| | 2 | 18.16 | 18.03 | 18.23 | 1.28 | |
| Dibromomethane | 1 | 16.90 | 16.78 | 16.98 | 6.78 X | 16.1 |
| | 2 | 18.01 | 17.88 | 18.08 | 5.84 | |
| Bromoform | 1 | 27.08 | 26.90 | 27.10 | 1.63 X | 1.2 |
| | 2 | 28.30 | 28.16 | 28.36 | 1.65 | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-3.b/N61826 28.d
Date : 19-JUN-97 09:18:00
Client ID: MWAOC-3
Sample Info: 9706220-02
Purge Volume: 2.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-3.b/N6182628.d
Injection Date : 19-JUN-97 09:18:00
Sample Info : 9706220-02
Misc. Info : None
Laboratory ID : 9706220-02 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 616HVA03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.58 | | 22942 | | | | |
| Chloromethane | 2.73 | 2.65 - 2.75 | 10149 | | ~~1.3047~~ | ~~0.652~~ | <RL |
| Vinyl chloride | 3.04 | 2.97 - 3.07 | 38490 | | ~~4.5147~~ | ~~2.26~~ | Not Co |
| | 4.12 | | 1830 | | | | |
| Chloroethane | 4.35 | 4.29 - 4.39 | 150904 | | 17.213 | 8.61 | See VR |
| | 4.88 | | 98456 | | | | |
| Trichlorofluoromethane | 5.14 | 5.11 - 5.21 | 31094 | | ~~2.9462~~ | ~~1.47~~ | Not Cov |
| | 6.05 | | 3774 | | | | |
| | 6.88 | | 469637 | | | | |
| | 7.87 | | 2747 | | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 620679 | | 54.801 | 27.4 | See VR |
| | 11.52 | | 871 | | | | |
| cis-1,2-Dichloroethene | 11.74 | 11.62 - 11.82 | 927 | | ~~0.067733~~ | ~~0.0339~~ | < |
| | 12.12 | | 570 | | | | |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1057866 | | 95.213 | 47.6 | |
| Chloroform | 12.77 | 12.66 - 12.86 | 118169 | M | 7.1560 | 3.58 | |
| 1,1,1-Trichloroethane | 12.92 | 12.88 - 13.08 | 23984 | M | ~~1.5858~~ | ~~0.793~~ | <RL |
| | 13.30 | | 4281 | | | | |
| Carbon tetrachloride | 13.45 | 13.32 - 13.52 | 2780 | M | 0.16128 | ~~0.0806~~ | |
| | 13.81 | | 2821 | | | | |
| 1,2-Dichloroethane | 14.20 | 14.05 - 14.25 | 10335393 | | 800.32 | E | |
| | 15.43 | | 60684 | | | | |
| Trichloroethene | 15.97 | 15.86 - 16.06 | 52952 | | 3.5624 | 1.78 | |
| 1,2-Dichloropropane | 16.57 | 16.44 - 16.64 | 38279 | | 3.1466 | 1.57 | |
| Dibromomethane | 16.90 | 16.78 - 16.98 | 102959 | M | 13.567 | 6.78 | |
| Bromodichloromethane | 17.43 | 17.42 - 17.62 | 20435 | M | ~~1.6543~~ | ~~0.827~~ | <RL |
| | 18.24 | | 6635564 | | | | |
| cis-1,3-Dichloropropene | 18.89 | 18.76 - 18.96 | 155743 | | ~~14.496~~ | ~~7.25~~ | Not Cov |
| | 19.13 | | 370951 | | | | |
| trans-1,3-Dichloropropene | 20.61 | 20.56 - 20.76 | 4625 | | 0.51127 | 0.258 | <RL |
| | 20.82 | | 46978 | | | | |
| 1,1,2-Trichloroethane | 21.18 | 21.06 - 21.26 | 24215 | | 1.9722 | 0.986 | |
| Tetrachloroethene | 21.43 | 21.32 - 21.52 | 26164 | M | 1.6988 | 0.849 | |
| | 22.50 | | 2334372 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

NA 6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

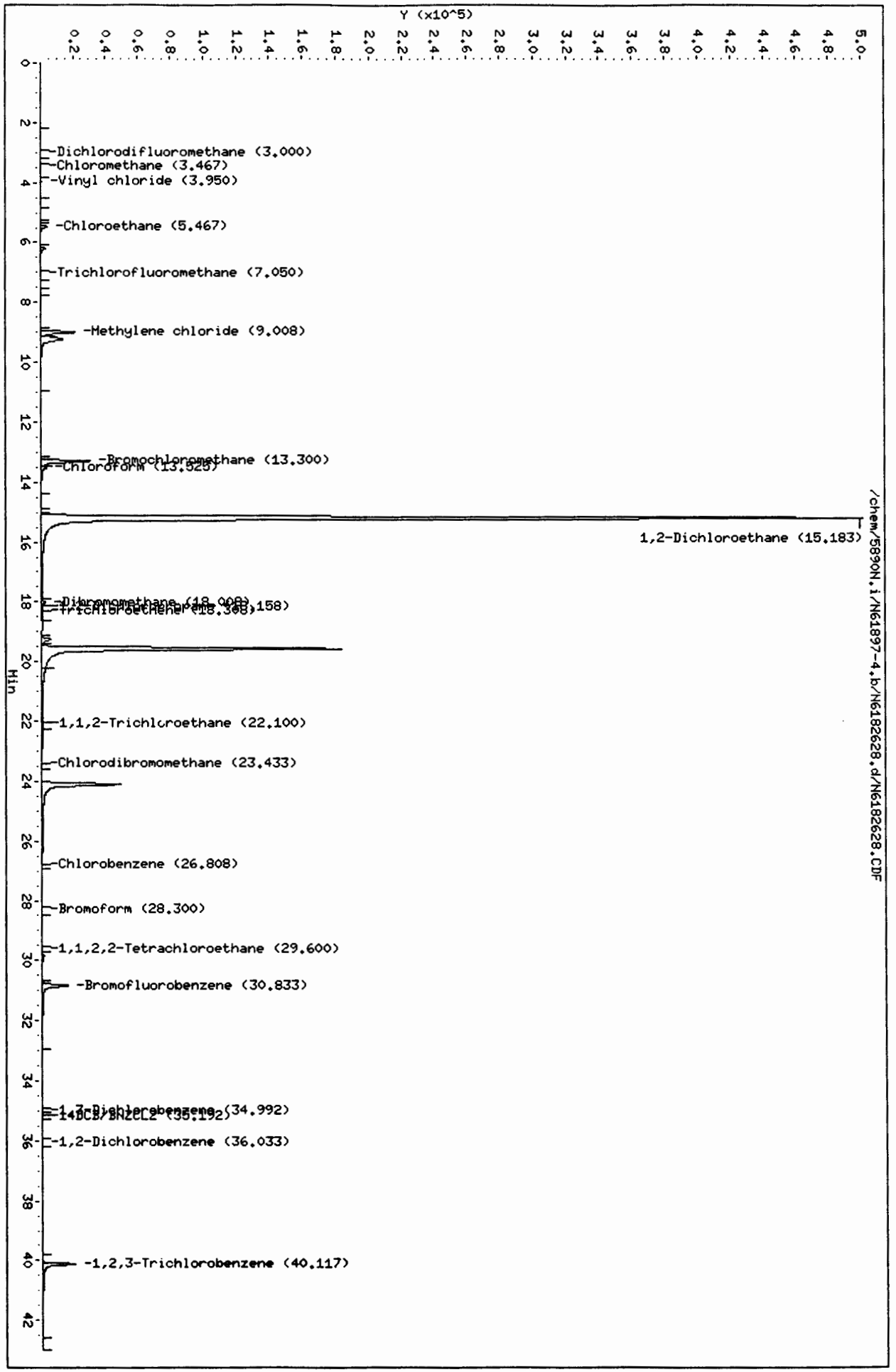
Data File : N6182628.d
Injection Date : 19-JUN-97 09:18:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| Chlorobenzene | 24.21 | 24.10 - 24.30 | 31309 | | 5.4132 | 2.71 | SacVAX |
| 1,1,1,2-Tetrachloroethane | 24.58 | 24.48 - 24.68 | 28316 | | ~~1.7539~~ | ~~0.877~~ | <RL |
| | 24.88 | | 104977 | | | | |
| Bromoform | 27.08 | 26.90 - 27.10 | 19660 | M | 3.2576 | 1.63 | |
| | 27.31 | | 19840 | | | | |
| | 28.08 | | 10787 | | | | |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 862146 | M | 223.27 | 112 | |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 36418 | M | ~~4.6060~~ | ~~2.30~~ | Not Con |
| | 29.32 | | 112910 | | | | |
| 1,3-Dichlorobenzene | 32.05 | 31.93 - 32.13 | 14288 | | 1.9214 | ~~0.961~~ | <RL |
| 1,4-Dichlorobenzene | 32.39 | 32.28 - 32.48 | 13731 | M | 1.~~7234~~ | 0.862 | |
| | 32.58 | | 7535 | | | | |
| Benzyl chloride | 32.98 | 32.87 - 33.07 | 5316 | | ~~2.6806~~ | ~~1.34~~ | Not Conf |
| | 33.53 | | 12074 | | | | |
| 1,2-Dichlorobenzene | 33.67 | 33.58 - 33.78 | 15762 | M | ~~1.9665~~ | ~~0.983~~ | <RL |
| | 37.28 | | 105263 | | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 787759 | M | 93.707 | 46.8 | |
| | 39.62 | | 88374 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61897-4.b/N6182628.d
Date : 19-JUN-97 09:18:00
Client ID: MWAOC-3
Sample Info: 9706220-02
Purge Volume: 2.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-4.b/N6182628.d
Injection Date : 19-JUN-97 09:18:00
Sample Info : 9706220-02
Misc. Info : None
Laboratory ID : 9706220-02 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 616HVB03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 2.26 | | 1846 | | | | |
| Dichlorodifluoromethane | 3.00 | 2.93 - 3.03 | 826 | M | 0.54943 | 0.275 | |
| | 3.31 | | 510 | | | | |
| Chloromethane | 3.47 | 3.38 - 3.48 | 2619 | | 1.3131 | 0.656 | |
| Vinyl chloride | 3.95 | 3.88 - 3.98 | 4818 | | ~~1.9279~~ | ~~0.964~~ | <RL |
| | 5.02 | | 1221 | | | | |
| Chloroethane | 5.47 | 5.39 - 5.49 | 28245 | | 10.800 | 5.40 | P |
| | 6.20 | | 26885 | | | | |
| Trichlorofluoromethane | 7.05 | 6.96 - 7.06 | 3158 | | ~~0.99555~~ | ~~0.498~~ | <RL |
| | 7.32 | | 2016 | | | | |
| | 7.58 | | 1187 | | | | |
| Methylene chloride | 9.01 | 8.93 - 9.03 | 113485 | | ~~28.860~~ | ~~14.4~~ | <RL |
| | 9.23 | | 158329 | | | | |
| Bromochloromethane | 13.30 | 13.22 - 13.32 | 174421 | | 59.055 | 29.5 | |
| Chloroform | 13.52 | 13.46 - 13.56 | 43390 | | 8.2847 | 4.14 | |
| | 14.42 | | 6198 | | | | |
| 1,2-Dichloroethane | 15.18 | 15.06 - 15.26 | 3514351 | | 1196.8 | 598 | |
| Dibromomethane | 18.01 | 17.88 - 18.08 | 18448 | M | 11.672 | 5.84 | |
| 1,2-Dichloropropane | 18.16 | 18.03 - 18.23 | 8079 | M | 2.5607 | 1.28 | |
| Trichloroethene | 18.31 | 18.18 - 18.38 | 11017 | | 2.6624 | 1.33 | |
| | 19.26 | | 41886 | | | | |
| | 19.57 | | 1302235 | | | | |
| | 20.28 | | 109760 | | | | |
| 1,1,2-Trichloroethane | 22.10 | 21.98 - 22.18 | 6910 | | 1.8151 | 0.908 | |
| | 22.38 | | 29532 | | | | |
| Chlorodibromomethane | 23.43 | 23.29 - 23.49 | 4688 | | 1.8632 | 0.932 | |
| | 24.10 | | 474366 | | | | |
| Chlorobenzene | 26.81 | 26.73 - 26.93 | 3487 | | 1.5619 | 0.781 | |
| | 26.97 | | 24968 | | | | |
| Bromoform | 28.30 | 28.16 - 28.36 | 5657 | M | 3.2995 | 1.65 | |
| | 28.50 | | 15758 | | | | |
| 1,1,2,2-Tetrachloroethane | 29.60 | 29.43 - 29.63 | 2906 | | 1.2076 | 0.604 | |
| | 29.85 | | 24230 | | | | |
| Bromofluorobenzene | 30.83 | 30.70 - 30.90 | 162232 | M | 140.77 | 70.4 | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

VH 6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182628.d
Injection Date : 19-JUN-97 09:18:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 33.03 | | 26646 | | | |
| 1,3-Dichlorobenzene | 34.99 | 34.85 - 35.05 | 1826 | M | 0.97606 | 0.488 |
| | 35.07 | | 993 | | | |
| 14DCB/BNZCL2 | 35.19 | 35.07 - 35.27 | 2082 | M | ~~1.4959~~ | ~~0.748~~ 2-RL |
| | 35.28 | | 7454 | | | |
| 1,2-Dichlorobenzene | 36.03 | 35.90 - 36.10 | 3212 | M | 1.4559 | 0.728 |
| | 36.20 | | 33596 | | | |
| 1,2,3-Trichlorobenzene | 40.12 | 39.99 - 40.19 | 165094 | | 63.497 | 31.7 |
| | 42.56 | | 5206 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3DL**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 0.2 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0804

Lab Sample ID: 9706220-02DL

Lab File ID: N6181328.D

Date Collected: 06/05/97

Date Received: 06/07/97

Date Prepared: 06/18/97

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 10 | U | 10 |
| 74-87-3 | Chloromethane | 10 | U | 10 |
| 75-01-4 | Vinyl chloride | 10 | U | 10 |
| 74-83-9 | Bromomethane | 20 | U | 20 |
| 75-00-3 | Chloroethane | 10 | U | 10 |
| 75-69-4 | Trichlorofluoromethane | 10 | U | 10 |
| 75-35-4 | 1,1-Dichloroethene | 10 | U | 10 |
| 75-09-2 | Methylene chloride | 150 | U | 150 |
| 156-60-5 | trans-1,2-Dichloroethene | 10 | U | 10 |
| 75-34-3 | 1,1-Dichloroethane | 10 | U | 10 |
| 156-59-2 | cis-1,2-Dichloroethene | 10 | U | 10 |
| 67-66-3 | Chloroform | 15 | P | 10 |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U | 10 |
| 56-23-5 | Carbon tetrachloride | 10 | U | 10 |
| 107-06-2 | 1,2-Dichloroethane | 940 | | 10 |
| 79-01-6 | Trichloroethene | 10 | U | 10 |
| 78-87-5 | 1,2-Dichloropropane | 10 | U | 10 |
| 74-95-3 | Dibromomethane | 10 | U | 10 |
| 75-27-4 | Bromodichloromethane | 10 | U | 10 |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U | 10 |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U | 10 |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U | 10 |
| 127-18-4 | Tetrachloroethene | 10 | U | 10 |
| 124-48-1 | Chlorodibromomethane | 10 | U | 10 |
| 108-90-7 | Chlorobenzene | 10 | U | 10 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 10 | U | 10 |
| 75-25-2 | Bromoform | 10 | U | 10 |
| 108-86-1 | Bromobenzene | 40 | U | 40 |
| 96-18-4 | 1,2,3-Trichloropropane | 10 | U | 10 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U | 10 |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U | 10 |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U | 10 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3DL**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-02DL

Purge Volume: 0.2 ml

Lab File ID: N6181328.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 20 | U | 20 |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U | 10 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3DL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-02DL

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181328.d  File (2): N6181328.d

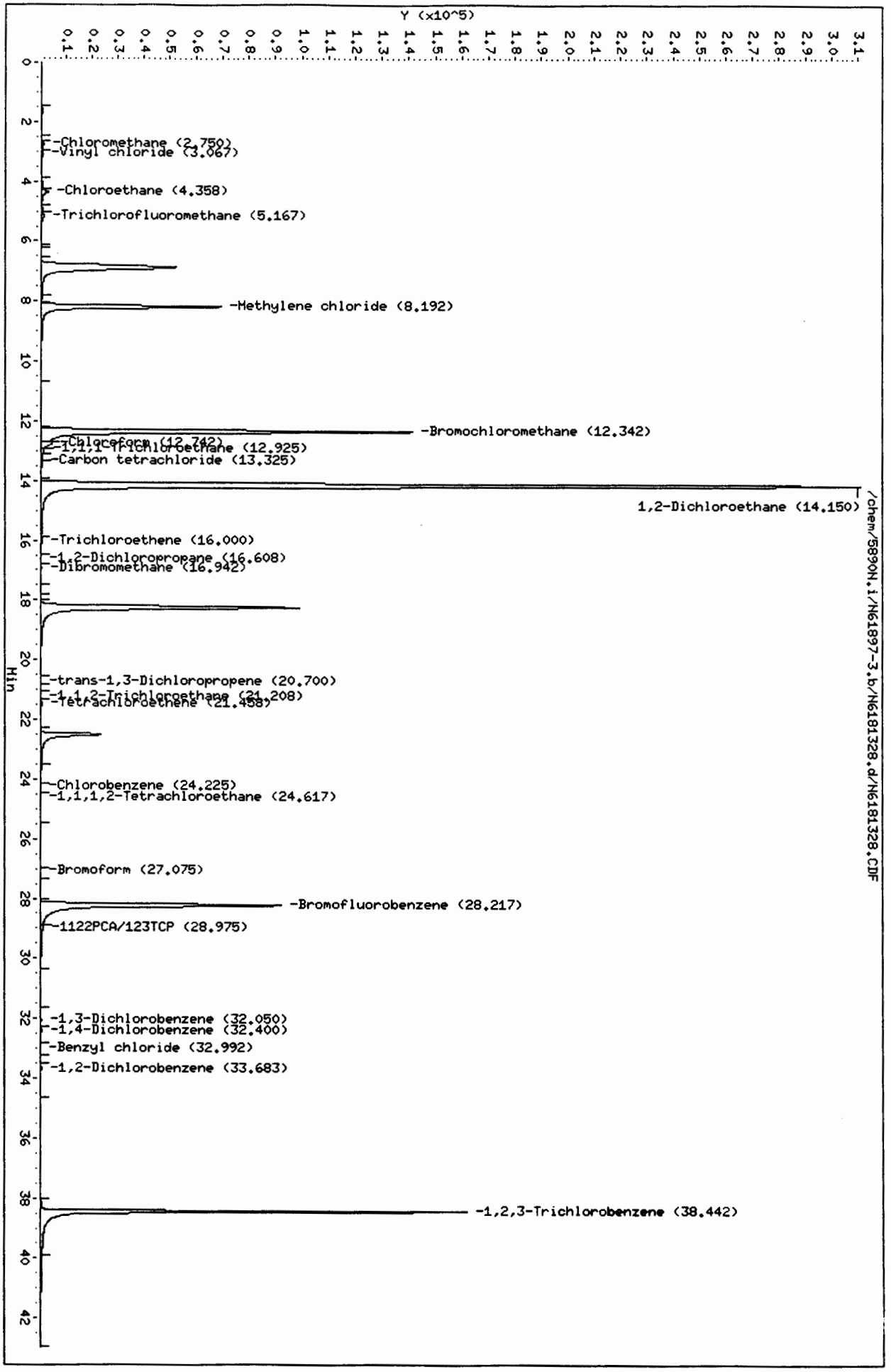
Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroform | 1 | 12.74 | 12.66 | 12.86 | 15 X | 28.7 |
| | 2 | 13.48 | 13.46 | 13.56 | 19.3 | |
| 1,2-Dichloroethane | 1 | 14.15 | 14.05 | 14.25 | 938 X | 12.1 |
| | 2 | 15.16 | 15.06 | 15.26 | 837 | |

X = Concentration Reported

Data F /chem/5890N.i/N61897-3.b/N6181328.d
Date : 18-JUN-97 22:56:00
Client ID: MWAOC-3DL
Sample Info: 9706220-02DL
Purge Volume: 0.2
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




Page

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-3.b/N6181328.d
Injection Date : 18-JUN-97 22:56:00
Sample Info : 9706220-02DL
Misc. Info : None
Laboratory ID : 9706220-02DL
Client ID : MWAOC-3DL
Instrument ID : 5890N.i
Method : 616HVA03.m
Sublist : all
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-624
Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 0.2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.62 | | 10135 | | | | |
| | 2.58 | | 1233 | | | | |
| Chloromethane | 2.75 | 2.65 - 2.75 | 8025 | | 1.0317 | ~~5.16~~ | <RL |
| Vinyl chloride | 3.07 | 2.97 - 3.07 | 9788 | | 1.1~~481~~ | 5.74 | |
| | 4.11 | | 8227 | | | | |
| Chloroethane | 4.36 | 4.29 - 4.39 | 26293 | | 2.~~9991~~ | ~~15.0~~ | Not C... See V... |
| | 4.93 | | 6855 | | | | |
| Trichlorofluoromethane | 5.17 | 5.11 - 5.21 | 16937 | | ~~1.6048~~ | ~~8.02~~ | <RL |
| | 6.24 | | 815 | | | | |
| | 6.87 | | 605347 | | | | |
| | 7.88 | | 3858 | | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 520901 | | ~~45.991~~ | ~~230~~ | See VR |
| Bromochloromethane | 12.34 | 12.25 - 12.45 | 1029403 | | 92.651 | 463 | |
| Chloroform | 12.74 | 12.66 - 12.86 | 49560 | M | 3.0011 | 15.0 | P |
| 1,1,1-Trichloroethane | 12.92 | 12.88 - 13.08 | 11596 | M | ~~0.76669~~ | ~~3.83~~ | <RL |
| | 13.12 | | 7773 | | | | |
| Carbon tetrachloride | 13.32 | 13.32 - 13.52 | 9976 | M | ~~0.57871~~ | ~~2.89~~ | <RL |
| 1,2-Dichloroethane | 14.15 | 14.05 - 14.25 | 2421946 | | 187.54 | 938 | |
| Trichloroethene | 16.00 | 15.86 - 16.06 | 7980 | | 0.53686 | ~~2.68~~ | |
| 1,2-Dichloropropane | 16.61 | 16.44 - 16.64 | 3848 | M | 0.31631 | 1.58 | <RL |
| Dibromomethane | 16.94 | 16.78 - 16.98 | 6351 | | 0.~~83687~~ | 4.18 | |
| | 17.94 | | 816 | | | | |
| | 18.24 | | 829026 | | | | |
| trans-1,3-Dichloropropene | 20.70 | 20.56 - 20.76 | 2056 | | 0.22728 | ~~1.14~~ | <RL |
| 1,1,2-Trichloroethane | 21.21 | 21.06 - 21.26 | 1817 | | 0.14799 | 0.740 | |
| Tetrachloroethene | 21.46 | 21.32 - 21.52 | 9230 | | 0.59931 | 3.00 | |
| | 22.50 | | 210616 | | | | |
| | 23.62 | | 7890 | | | | |
| Chlorobenzene | 24.22 | 24.10 - 24.30 | 2855 | | 0.49362 | ~~2.47~~ | <RL |
| 1,1,1,2-Tetrachloroethane | 24.62 | 24.48 - 24.68 | 5699 | | 0.35301 | 1.76 | |
| | 26.58 | | 4992 | | | | |
| Bromoform | 27.08 | 26.90 - 27.10 | 978 | | ~~0.16205~~ | ~~0.81~~0 | <RL |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 758035 | | 196.31 | 982 | |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 39120 | | ~~4.9477~~ | ~~24.7~~ | Not C |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97



311

Laucks Testing Labs, Inc.
Quantitation Report

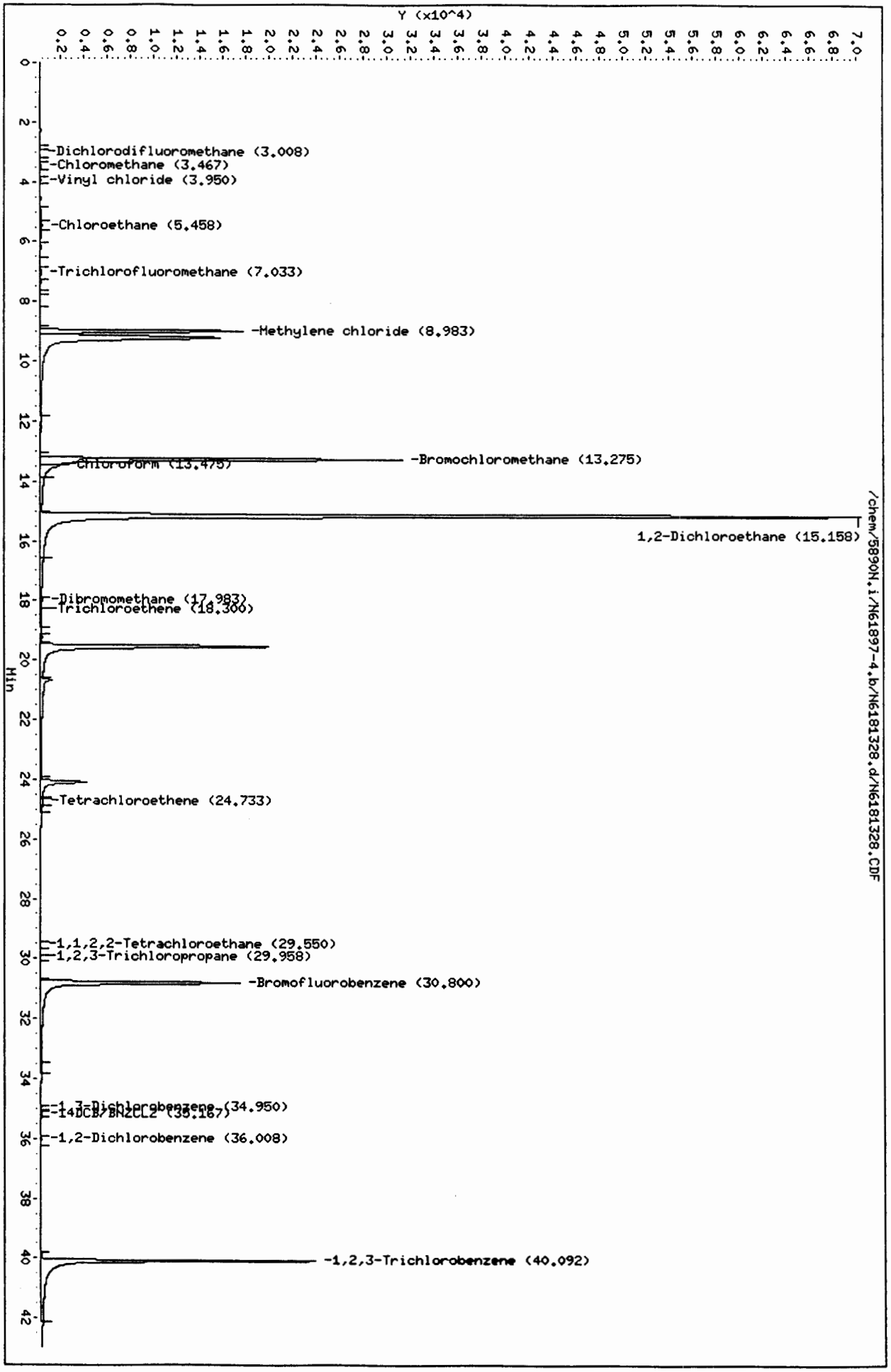
Data File : N6181328.d
Injection Date : 18-JUN-97 22:56:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 30.51 | | 11972 | | | |
| 1,3-Dichlorobenzene | 32.05 | 31.93 - 32.13 | 6200 | | 0.83378 | 4.17 |
| 1,4-Dichlorobenzene | 32.40 | 32.28 - 32.48 | 6209 | | 0.77930 | 3.90 |
| Benzyl chloride | 32.99 | 32.87 - 33.07 | 3065 | | 1.5456 | 7.73 <RL |
| | 33.42 | | 2138 | | | |
| 1,2-Dichlorobenzene | 33.68 | 33.58 - 33.78 | 10459 | | 1.3049 | 6.52 |
| | 38.02 | | 32795 | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 829507 | M | 98.673 | 493 |
| | 39.89 | | 51734 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61897-4.b/N6181328.d
Date : 18-JUN-97 22:56:00
Client ID: MWAOC-3DL
Sample Info: 9706220-02DL
Purge Volume: 0.2
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-4.b/N6181328.d
Injection Date : 18-JUN-97 22:56:00
Sample Info : 9706220-02DL
Misc. Info : None
Laboratory ID : 9706220-02DL
Client ID : MWAOC-3DL
Instrument ID : 5890N.i
Method : 616HVB03.m
Sublist : all
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-VRX
Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 0.2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.88 | | 68 | | | |
| Dichlorodifluoromethane | 3.01 | 2.93 - 3.03 | 506 | M | 0.33698 | 1.68 |
| | 3.32 | | 181 | | | |
| Chloromethane | 3.47 | 3.38 - 3.48 | 1126 | M | 0.56456 | 2.82 |
| | 3.62 | | 571 | | | |
| Vinyl chloride | 3.95 | 3.88 - 3.98 | 798 | M | 0.31891 | 1.59 |
| | 4.52 | | 2229 | | | |
| | 5.01 | | 2363 | | | |
| Chloroethane | 5.46 | 5.39 - 5.49 | 2052 | M | ~~0.78425~~ | ~~3.92~~ <RL |
| | 5.62 | | 1563 | | | |
| | 6.18 | | 1683 | | | |
| Trichlorofluoromethane | 7.03 | 6.96 - 7.06 | 1447 | | 0.45616 | 2.28 |
| | 7.32 | | 1315 | | | |
| | 7.87 | | 1019 | | | |
| Methylene chloride | 8.98 | 8.93 - 9.03 | 91270 | | 2~~3.211~~ | ~~116~~ <RL |
| | 9.21 | | 182104 | | | |
| Bromochloromethane | 13.28 | 13.22 - 13.32 | 181696 | M | 61.518 | 308 |
| Chloroform | 13.48 | 13.46 - 13.56 | 20234 | M | 3.8634 | 19.3 |
| | 13.88 | | 16716 | | | |
| 1,2-Dichloroethane | 15.16 | 15.06 - 15.26 | 491742 | | 167.47 | 837 |
| | 16.56 | | 17777 | | | |
| Dibromomethane | 17.98 | 17.88 - 18.08 | 3201 | | 2.0252 | 10.1 |
| Trichloroethene | 18.30 | 18.18 - 18.38 | 5121 | | 1.2376 | 6.19 |
| | 19.25 | | 2591 | | | |
| | 19.54 | | 152646 | | | |
| | 20.68 | | 38020 | | | |
| | 24.09 | | 33548 | | | |
| Tetrachloroethene | 24.73 | 24.62 - 24.82 | 2877 | M | 0.67478 | 3.37 |
| | 24.88 | | 2170 | | | |
| 1,1,2,2-Tetrachloroethane | 29.55 | 29.43 - 29.63 | 284 | M | 0.11802 | 0.590 |
| | 29.83 | | 380 | | | |
| 1,2,3-Trichloropropane | 29.96 | 29.88 - 30.08 | 284 | M | 0.13604 | 0.680 |
| | 30.12 | | 650 | | | |
| Bromofluorobenzene | 30.80 | 30.70 - 30.90 | 143640 | M | 124.64 | 623 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6.30.97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181328.d
Injection Date : 18-JUN-97 22:56:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 33.50 | | 1655 | | | |
| 1,3-Dichlorobenzene | 34.95 | 34.85 - 35.05 | 542 | M | 0.28988 | 1.45 |
| 14DCB/BNZCL2 | 35.17 | 35.07 - 35.27 | 676 | M | 0.48521 | 2.43 |
| 1,2-Dichlorobenzene | 36.01 | 35.90 - 36.10 | 1036 | | 0.46973 | 2.35 |
| 1,2,3-Trichlorobenzene | 40.09 | 39.99 - 40.19 | 166349 | M | 63.980 | 320 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-03

Purge Volume: 10 ml

Lab File ID: N6181228.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | P | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.0 | U | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.52 | P | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 3.8 | | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-03

Purge Volume: 10 ml

Lab File ID: N6181228.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-4**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-03

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181228.d | File (2): N6181228.d

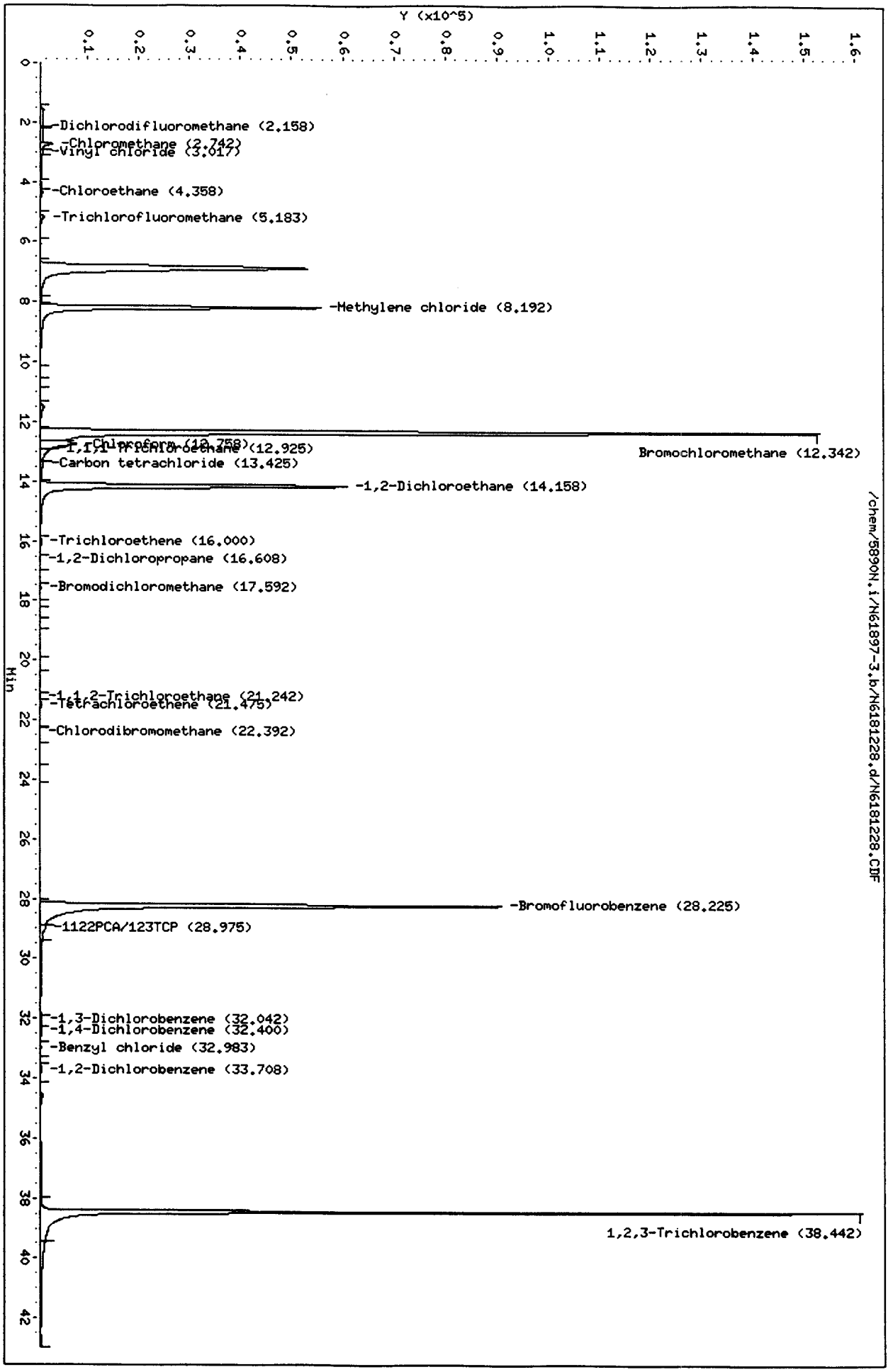
Date Analyzed (1) 06/18/97 | Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloromethane | 1 | 2.74 | 2.65 | 2.75 | 0.203 X | 70.4 |
| | 2 | 3.47 | 3.38 | 3.48 | 0.346 | |
| Chloroform | 1 | 12.76 | 12.66 | 12.86 | 0.519 X | 55.9 |
| | 2 | 13.49 | 13.46 | 13.56 | 0.333 | |
| 1,2-Dichloroethane | 1 | 14.16 | 14.05 | 14.25 | 3.79 X | 21.1 |
| | 2 | 15.16 | 15.06 | 15.26 | 3.13 | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-3.b/N6181228.d
Date : 18-JUN-97 22:09:00
Client ID: MWAOC-4
Sample Info: 9706220-03
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-3.b/N6181228.d
Injection Date : 18-JUN-97 22:09:00
Sample Info : 9706220-03
Misc. Info : None
Laboratory ID : 9706220-03 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 616HVA03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.58 | | 20822 | | | |
| Dichlorodifluoromethane | 2.16 | 2.15 - 2.25 | 1400 | | ~~0.22411~~ | ~~0.0224~~ <RL |
| | 2.28 | | 16000 | | | |
| Chloromethane | 2.74 | 2.65 - 2.75 | 15773 | | 2.0277 | 0.203 |
| Vinyl chloride | 3.02 | 2.97 - 3.07 | 6062 | M | 0.71105 | 0.0711 |
| | 3.12 | | 9967 | | | |
| | 4.08 | | 4564 | | | |
| Chloroethane | 4.36 | 4.29 - 4.39 | 6973 | | 0.79536 | 0.0795 <RL |
| Trichlorofluoromethane | 5.18 | 5.11 - 5.21 | 10133 | | 0.96011 | 0.0960 |
| | 6.06 | | 2772 | | | |
| | 6.88 | | 606534 | | | |
| | 7.88 | | 4156 | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 416584 | | 36.781 | 3.68 See Note |
| | 10.58 | | 903 | | | |
| | 11.52 | | 11671 | | | |
| Bromochloromethane | 12.34 | 12.25 - 12.45 | 1122579 | | 101.04 | 10.1 |
| Chloroform | 12.76 | 12.66 - 12.86 | 85702 | M | 5.1898 | 0.519 |
| 1,1,1-Trichloroethane | 12.92 | 12.88 - 13.08 | 24964 | M | 1.6506 | ~~0.165~~ |
| Carbon tetrachloride | 13.42 | 13.32 - 13.52 | 13092 | | ~~0.75955~~ | 0.0760 <RL |
| 1,2-Dichloroethane | 14.16 | 14.05 - 14.25 | 489105 | | 37.874 | 3.79 |
| Trichloroethene | 16.00 | 15.86 - 16.06 | 5046 | | 0.33947 | 0.0339 |
| 1,2-Dichloropropane | 16.61 | 16.44 - 16.64 | 2057 | | 0.16909 | 0.0169 <RL |
| Bromodichloromethane | 17.59 | 17.42 - 17.62 | 3011 | | 0.24375 | 0.0244 |
| | 18.28 | | 1403 | | | |
| | 18.65 | | 1111 | | | |
| | 20.02 | | 666 | | | |
| 1,1,2-Trichloroethane | 21.24 | 21.06 - 21.26 | 525 | | 0.042760 | 0.00428 |
| Tetrachloroethene | 21.48 | 21.32 - 21.52 | 4591 | | 0.29810 | 0.0298 <RL |
| Chlorodibromomethane | 22.39 | 22.22 - 22.42 | 736 | | 0.076553 | 0.00766 |
| | 23.68 | | 1222 | | | |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 755903 | | 195.76 | 19.6 |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 21757 | M | 2.7517 | ~~0.275~~ Note |
| | 29.42 | | 30336 | | | |
| 1,3-Dichlorobenzene | 32.04 | 31.93 - 32.13 | 4081 | | 0.54881 | ~~0.0549~~ <RL |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6.30.97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181228.d
Injection Date : 18-JUN-97 22:09:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 32.40 | 32.28 - 32.48 | 5279 | | 0.66258 | 0.0662 |
| Benzyl chloride | 32.98 | 32.87 - 33.07 | 3468 | | 1.7488 | 0.175 <RL |
| 1,2-Dichlorobenzene | 33.71 | 33.58 - 33.78 | 5704 | | 0.71166 | 0.0712 |
| | 34.59 | | 37835 | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 807144 | M | 96.013 | 9.60 |
| | 39.42 | | 65698 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data F /chem/5890N.i/N61897-4.b/N6181228.d

Date : 18-JUN-97 22:09:00

Client ID: MWAOC-4

Sample Info: 9706220-03

Purge Volume: 10.0

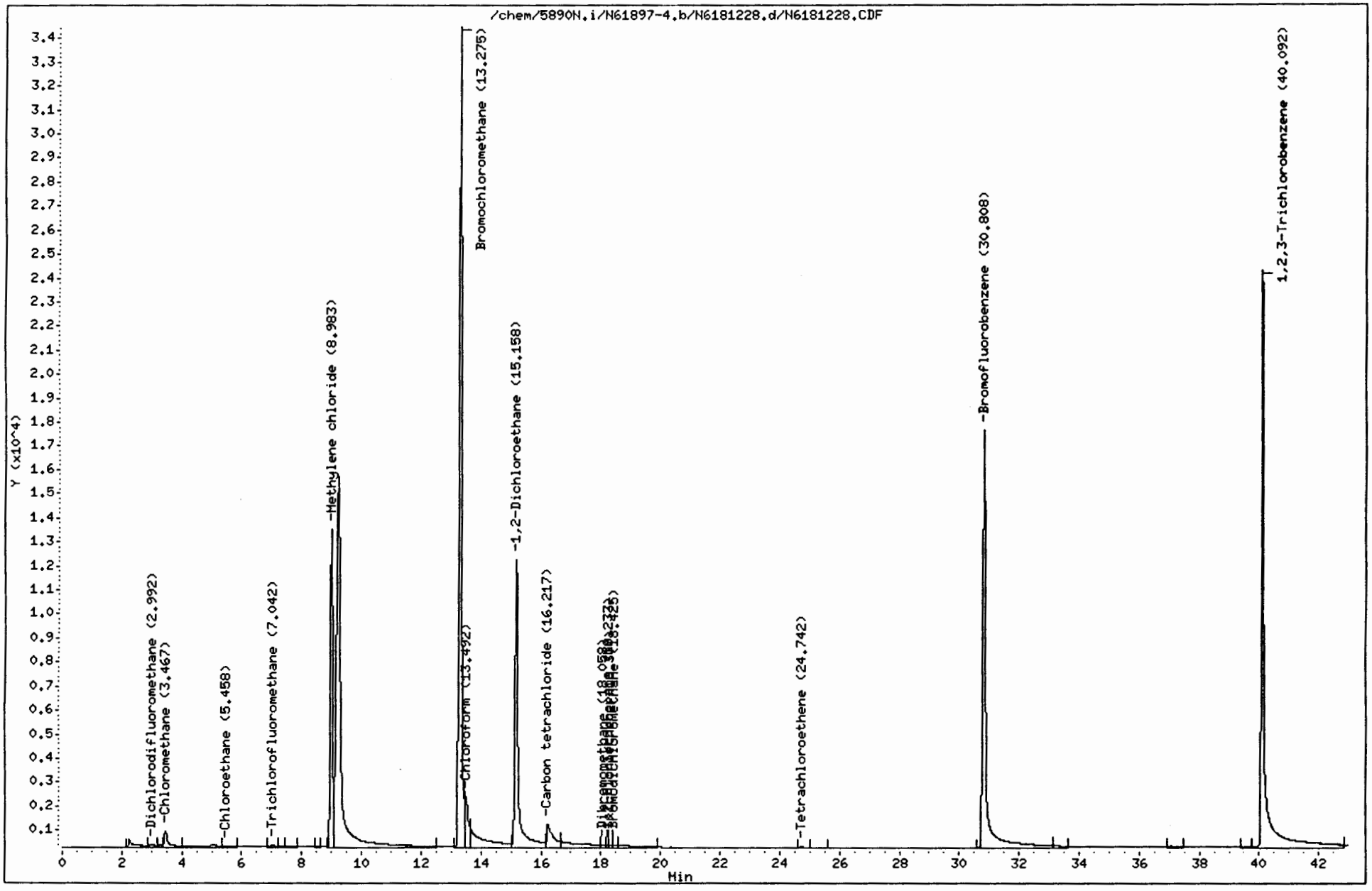
Column phase: DB-VRX

Page

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-4.b/N6181228.d
Injection Date : 18-JUN-97 22:09:00
Sample Info : 9706220-03
Misc. Info : None
Laboratory ID : 9706220-03 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 616HVB03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.25 | | 5081 | | | |
| Dichlorodifluoromethane | 2.99 | 2.93 - 3.03 | 1991 | | 1.3260 | 0.132 |
| | 3.28 | | 825 | | | |
| Chloromethane | 3.47 | 3.38 - 3.48 | 6895 | | 3.4571 | 0.346 |
| | 5.02 | | 5908 | | | |
| Chloroethane | 5.46 | 5.39 - 5.49 | 1976 | | 0.75557 | 0.0756 |
| Trichlorofluoromethane | 7.04 | 6.96 - 7.06 | 1510 | | 0.47602 | 0.0476 |
| | 7.31 | | 919 | | | |
| | 7.59 | | 1401 | | | |
| | 8.51 | | 675 | | | |
| Methylene chloride | 8.98 | 8.93 - 9.03 | 69944 | | ~~17.788~~ | ~~1.78~~ CRL |
| | 9.22 | | 180226 | | | |
| Bromochloromethane | 13.28 | 13.22 - 13.32 | 196834 | | 66.643 | 6.66 |
| Chloroform | 13.49 | 13.46 - 13.56 | 17442 | M | 3.3303 | 0.333 |
| | 13.62 | | 27316 | | | |
| 1,2-Dichloroethane | 15.16 | 15.06 - 15.26 | 92015 | | 31.336 | 3.13 |
| Carbon tetrachloride | 16.22 | 16.16 - 16.36 | 15320 | M | 2.8798 | 0.288 |
| | 16.66 | | 13934 | | | |
| Dibromomethane | 18.06 | 17.88 - 18.08 | 1448 | M | 0.91611 | 0.0916 |
| 1,2-Dichloropropane | 18.23 | 18.03 - 18.23 | 711 | M | 0.22536 | 0.0225 |
| Trichloroethene | 18.30 | 18.18 - 18.38 | 996 | M | 0.24046 | 0.0240 |
| Bromodichloromethane | 18.42 | 18.32 - 18.52 | 1473 | M | 0.33762 | 0.0338 |
| | 18.62 | | 6452 | | | |
| Tetrachloroethene | 24.74 | 24.62 - 24.82 | 602 | M | 0.14119 | 0.0141 |
| | 25.19 | | 711 | | | |
| Bromofluorobenzene | 30.81 | 30.70 - 30.90 | 140566 | M | 121.97 | 12.2 |
| | 33.21 | | 2710 | | | |
| | 37.05 | | 1856 | | | |
| | 39.71 | | 1241 | | | |
| 1,2,3-Trichlorobenzene | 40.09 | 39.99 - 40.19 | 177079 | M | 68.106 | 6.81 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MA 6-30-97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4DP**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 10 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0804

Lab Sample ID: 9706220-04

Lab File ID: N6181128.D

Date Collected: 06/05/97

Date Received: 06/07/97

Date Prepared: 06/18/97

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.0 | U | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.29 | | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 3.4 | | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4DP**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-04

Purge Volume: 10 ml

Lab File ID: N6181128.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-4DP**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-04

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181128.d  File (2): N6181128.d

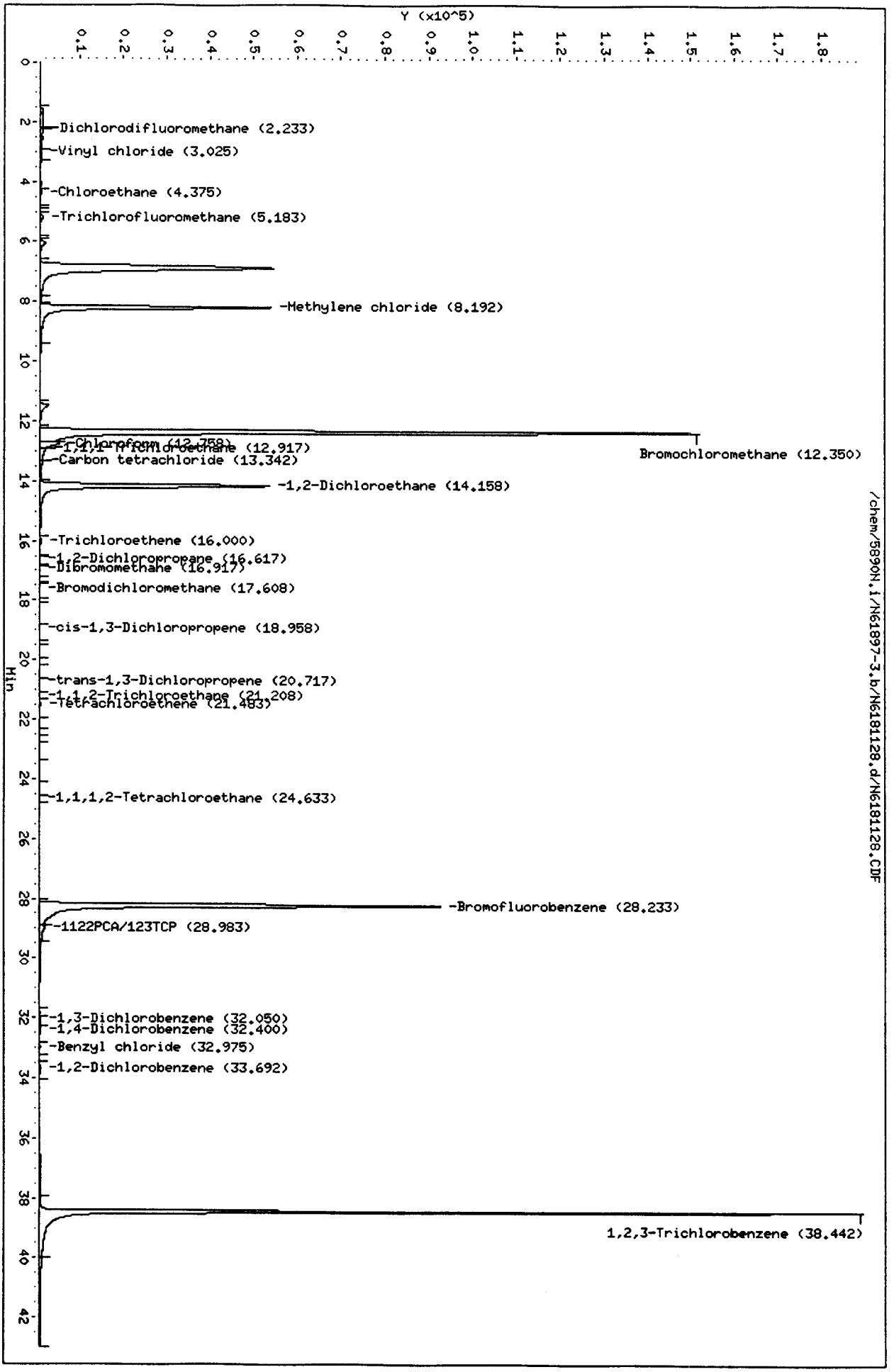
Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroform | 1 | 12.76 | 12.66 | 12.86 | 0.293 X | 13 |
| | 2 | 13.47 | 13.46 | 13.56 | 0.331 | |
| 1,2-Dichloroethane | 1 | 14.16 | 14.05 | 14.25 | 3.38 X | 9 |
| | 2 | 15.16 | 15.06 | 15.26 | 3.1 | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-3.b/N6181128.d
Date : 18-JUN-97 21:21:00
Client ID: MWAOC-4DP
Sample Info: 9706220-04
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-3.b/N6181128.d
Injection Date : 18-JUN-97 21:21:00
Sample Info : 9706220-04
Misc. Info : None
Laboratory ID : 9706220-04 Client ID : MWAOC-4DP
Instrument ID : 5890N.i
Method : 616HVA03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.59 | | 22066 | | | | |
| Dichlorodifluoromethane | 2.23 | 2.15 - 2.25 | 1501 | | 0.24027 | 0.0240 | |
| | 2.53 | | 18646 | | | | |
| Vinyl chloride | 3.02 | 2.97 - 3.07 | 6201 | | 0.72736 | 0.0727 | <RL |
| | 4.09 | | 9014 | | | | |
| Chloroethane | 4.38 | 4.29 - 4.39 | 3857 | | 0.43994 | 0.0440 | |
| | 5.01 | | 806 | | | | |
| Trichlorofluoromethane | 5.18 | 5.11 - 5.21 | 9356 | | 0.88649 | 0.0886 | |
| | 6.05 | | 14077 | | | | |
| | 6.88 | | 637390 | | | | |
| | 7.88 | | 4722 | | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 407771 | | 36.003 | 3.60 | See VR |
| | 9.42 | | 10080 | | | | |
| | 11.48 | | 25558 | | | | |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1117544 | | 100.58 | 10.0 | |
| Chloroform | 12.76 | 12.66 - 12.86 | 48425 | M | 2.9325 | 0.293 | |
| 1,1,1-Trichloroethane | 12.92 | 12.88 - 13.08 | 22988 | M | 1.5200 | 0.152 | <RL |
| Carbon tetrachloride | 13.34 | 13.32 - 13.52 | 13175 | M | 0.76437 | 0.0764 | |
| 1,2-Dichloroethane | 14.16 | 14.05 - 14.25 | 437201 | | 33.855 | 3.38 | |
| Trichloroethene | 16.00 | 15.86 - 16.06 | 5357 | | 0.36040 | 0.0360 | |
| 1,2-Dichloropropane | 16.62 | 16.44 - 16.64 | 1814 | | 0.14911 | 0.0149 | <RL |
| Dibromomethane | 16.92 | 16.78 - 16.98 | 1872 | | 0.24667 | 0.0247 | |
| | 17.23 | | 969 | | | | |
| Bromodichloromethane | 17.61 | 17.42 - 17.62 | 3356 | | 0.27168 | 0.0272 | |
| | 18.32 | | 4342 | | | | <RL |
| cis-1,3-Dichloropropene | 18.96 | 18.76 - 18.96 | 2543 | | 0.23670 | 0.0237 | |
| | 19.41 | | 517 | | | | |
| | 20.02 | | 721 | | | | |
| trans-1,3-Dichloropropene | 20.72 | 20.56 - 20.76 | 1211 | | 0.13387 | 0.0134 | <RL |
| 1,1,2-Trichloroethane | 21.21 | 21.06 - 21.26 | 674 | | 0.054896 | 0.00549 | |
| Tetrachloroethene | 21.48 | 21.32 - 21.52 | 3713 | | 0.24109 | 0.0241 | |
| | 21.96 | | 1341 | | | | |
| | 22.59 | | 630 | | | | |
| | 23.68 | | 2257 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181128.d
Injection Date : 18-JUN-97 21:21:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 24.63 | 24.48 - 24.68 | 694 | | 0.042988 | 0.00430 |
| Bromofluorobenzene | 28.23 | 28.12 - 28.32 | 738441 | | 191.24 | 19.1 |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 24418 | M | 3.0883 | 0.309 |
| | 29.42 | | 27799 | | | |
| | 31.84 | | 2021 | | | |
| 1,3-Dichlorobenzene | 32.05 | 31.93 - 32.13 | 4282 | | 0.57584 | 0.0576 |
| 1,4-Dichlorobenzene | 32.40 | 32.28 - 32.48 | 6024 | | 0.75608 | 0.0756 |
| Benzyl chloride | 32.98 | 32.87 - 33.07 | 3320 | | 1.6741 | 0.167 |
| | 33.33 | | 1443 | | | |
| 1,2-Dichlorobenzene | 33.69 | 33.58 - 33.78 | 5886 | | 0.73437 | 0.0734 |
| | 37.86 | | 31231 | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 948164 | M | 112.79 | 11.3 |
| | 39.97 | | 54889 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data F /chem/5890N.i/N61897-4.b/N6181128.d

Date : 18-JUN-97 21:21:00

Client ID: MWAOC-4DP

Sample Info: 9706220-04

Purge Volume: 10.0

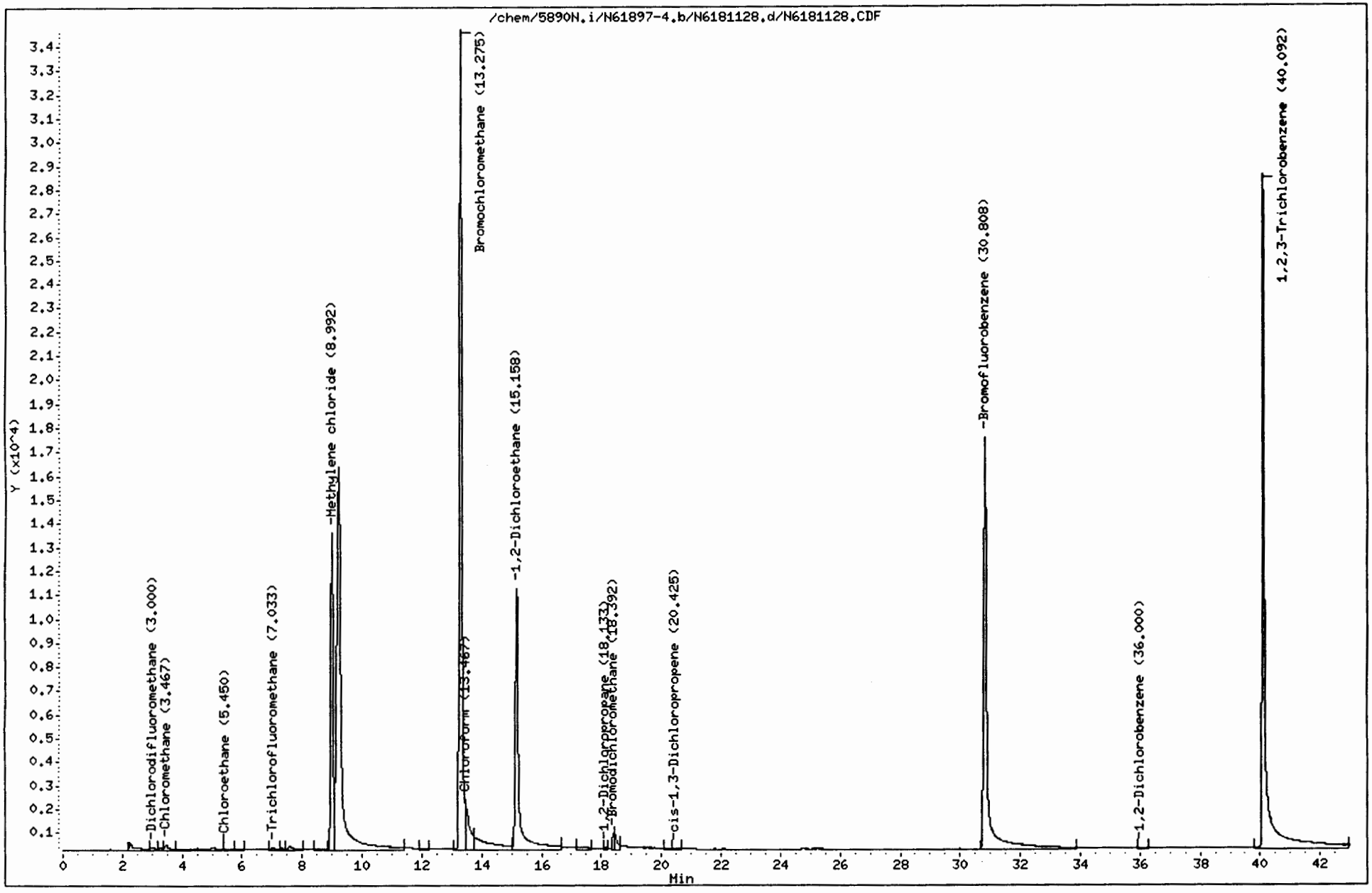
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-4.b/N6181128.d
Injection Date : 18-JUN-97 21:21:00
Sample Info : 9706220-04
Misc. Info : None
Laboratory ID : 9706220-04 Client ID : MWAOC-4DP
Instrument ID : 5890N.i
Method : 616HVB03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.25 | | 5111 | | | |
| Dichlorodifluoromethane | 3.00 | 2.93 - 3.03 | 1670 | | 1.1122 | 0.111 |
| | 3.28 | | 827 | | | |
| Chloromethane | 3.47 | 3.38 - 3.48 | 2898 | | 1.4530 | 0.145 |
| | 5.02 | | 7331 | | | |
| Chloroethane | 5.45 | 5.39 - 5.49 | 1466 | | 0.56056 | 0.0560 |
| | 5.86 | | 1001 | | | |
| Trichlorofluoromethane | 7.03 | 6.96 - 7.06 | 1553 | | 0.48958 | 0.0490 |
| | 7.32 | | 972 | | | |
| | 7.59 | | 2955 | | | |
| | 8.52 | | 1673 | | | |
| Methylene chloride | 8.99 | 8.93 - 9.03 | 70175 | | ~~17.846~~ | ~~1.78~~ LRC |
| | 9.22 | | 180605 | | | |
| | 11.98 | | 1368 | | | |
| Bromochloromethane | 13.28 | 13.22 - 13.32 | 201572 | M | 68.247 | 6.82 |
| Chloroform | 13.47 | 13.46 - 13.56 | 17318 | M | 3.3066 | 0.331 |
| | 13.72 | | 23129 | | | |
| 1,2-Dichloroethane | 15.16 | 15.06 - 15.26 | 91169 | | 31.048 | 3.10 |
| | 17.19 | | 2725 | | | |
| 1,2-Dichloropropane | 18.13 | 18.03 - 18.23 | 574 | M | 0.18193 | 0.0182 |
| Bromodichloromethane | 18.39 | 18.32 - 18.52 | 3708 | M | 0.84990 | 0.0850 |
| | 18.47 | | 3858 | | | |
| | 20.20 | | 1039 | | | |
| cis-1,3-Dichloropropene | 20.42 | 20.31 - 20.51 | 1340 | | 0.45273 | 0.0453 |
| Bromofluorobenzene | 30.81 | 30.70 - 30.90 | 147497 | M | 127.98 | 12.8 |
| 1,2-Dichlorobenzene | 36.00 | 35.90 - 36.10 | 1200 | | 0.54409 | 0.0544 |
| 1,2,3-Trichlorobenzene | 40.09 | 39.99 - 40.19 | 199998 | M | 76.921 | 7.69 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MA 6-30-97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-2**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-05

Purge Volume: 10 ml

Lab File ID: N6190929.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/19/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.22 | P | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.0 | U | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 1.1 | | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 2.5 | P | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 1.8 | P | 0.20 |
| 79-01-6 | Trichloroethene | 45 | P | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.9 | P | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.2 | PX | 0.20 |

RL = Reporting Limit



RESULT FORM

FormVer 1.0 11/23/96

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-2**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-05

Purge Volume: 10 ml

Lab File ID: N6190929.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/19/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.3 | P | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-2**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-05

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6190929.d  File (2): N6190929.d

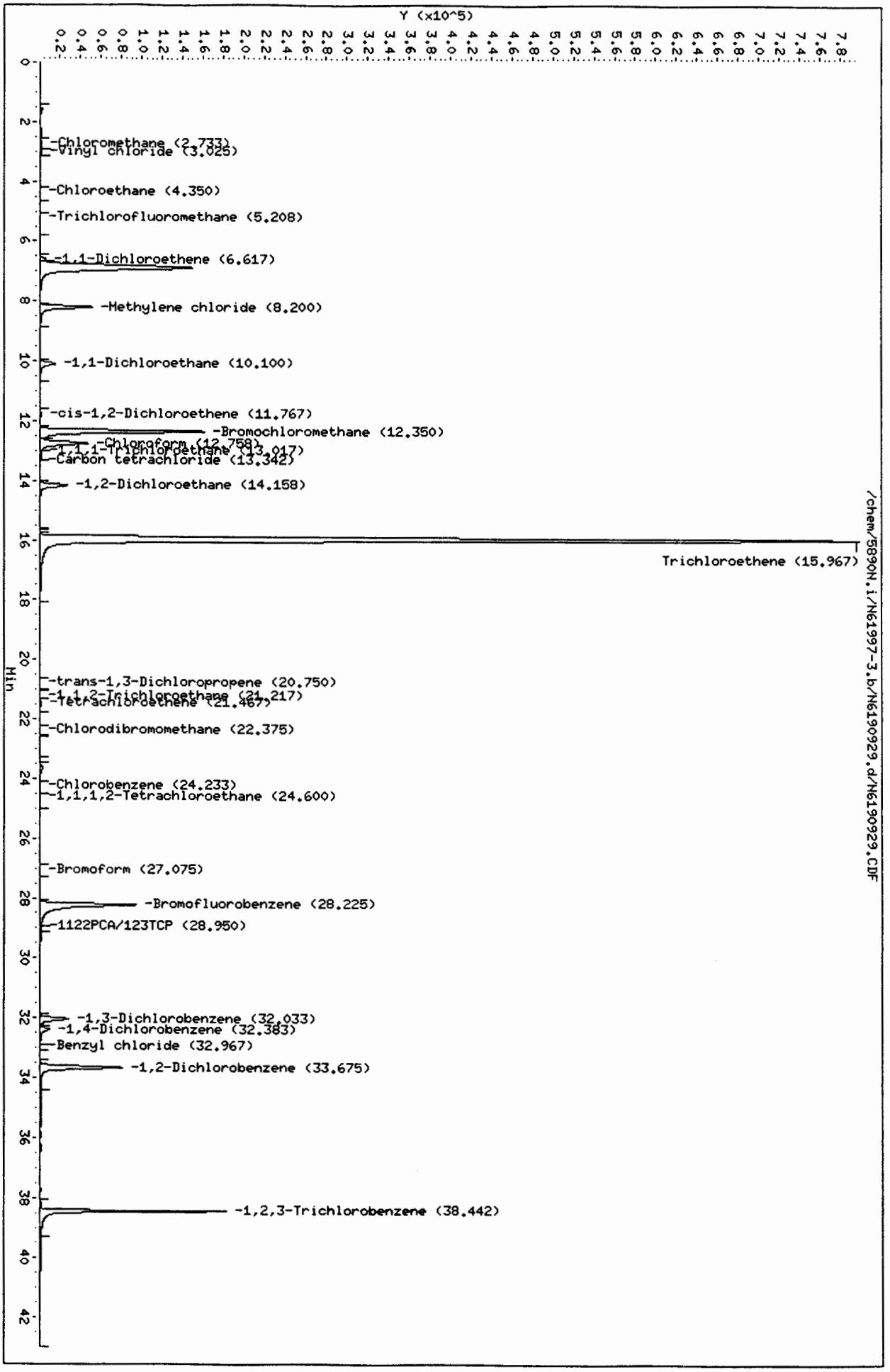
Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloromethane | 1 | 2.73 | 2.66 | 2.76 | 0.22 X | 29.1 |
| | 2 | 3.48 | 3.42 | 3.52 | 0.284 | |
| 1,1-Dichloroethane | 1 | 10.10 | 10.04 | 10.14 | 1.06 X | 14.7 |
| | 2 | 11.43 | 11.36 | 11.46 | 0.924 | |
| Chloroform | 1 | 12.76 | 12.65 | 12.85 | 2.46 X | 46.4 |
| | 2 | 13.57 | 13.50 | 13.60 | 1.68 | |
| 1,2-Dichloroethane | 1 | 14.16 | 14.05 | 14.25 | 1.75 X | 26.8 |
| | 2 | 15.22 | 15.10 | 15.30 | 1.38 | |
| Trichloroethene | 1 | 15.97 | 15.85 | 16.05 | 45.4 X | 47.4 |
| | 2 | 18.36 | 18.23 | 18.43 | 30.8 | |
| 1,3-Dichlorobenzene | 1 | 32.03 | 31.92 | 32.12 | 2.91 | 50.8 |
| | 2 | 35.01 | 34.88 | 35.08 | 1.93 X | |
| 1,4-Dichlorobenzene | 1 | 32.38 | 32.28 | 32.48 | 1.25 X | 104.8 |
| | 2 | 35.22 | 35.09 | 35.29 | 2.56 | |
| 1,2-Dichlorobenzene | 1 | 33.68 | 33.56 | 33.76 | 8.12 | 52.1 |
| | 2 | 36.05 | 35.93 | 36.13 | 5.34 X | |

X = Concentration Reported

Data File: /chem/5890N.i/N61997-3.b/N6190929.d
Date : 19-JUN-97 20:31:00
Client ID: MWAOC-2
Sample Info: 9706220-05
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




/chem/5890N.i/N61997-3.b/N6190929.d/N6190929.CDF

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-3.b/N6190929.d
Injection Date : 19-JUN-97 20:31:00
Sample Info : 9706220-05
Misc. Info : None
Laboratory ID : 9706220-05 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 616HVA04.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.59 | | 51551 | | | | |
| Chloromethane | 2.73 | 2.66 - 2.76 | 17110 | | 2.1996 | 0.220 | |
| Vinyl chloride | 3.02 | 2.98 - 3.08 | 12276 | M | 1.4398 | 0.144 | |
| | 3.14 | | 30312 | | | | |
| Chloroethane | 4.35 | 4.30 - 4.40 | 11310 | | 1.2900 | 0.129 | 2RC |
| | 4.70 | | 8606 | | | | |
| Trichlorofluoromethane | 5.21 | 5.11 - 5.21 | 12723 | | 1.2055 | 0.120 | |
| | 6.07 | | 7701 | | | | |
| 1,1-Dichloroethene | 6.62 | 6.58 - 6.68 | 40364 | | ~~4.3333~~ | ~~0.433~~ | Not C |
| | 6.88 | | 1768132 | | | | |
| Methylene chloride | 8.20 | 8.14 - 8.24 | 385957 | M | 34.077 | 3.415 | see VRX |
| | 8.87 | | 18016 | | | | |
| 1,1-Dichloroethane | 10.10 | 10.04 - 10.14 | 135852 | M | 10.557 | 1.06 | |
| | 10.67 | | 10689 | | | | |
| cis-1,2-Dichloroethene | 11.77 | 11.62 - 11.82 | 21464 | | ~~1.5683~~ | ~~0.157~~ | <RL |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1163477 | | 104.72 | 10.5 | |
| Chloroform | 12.76 | 12.65 - 12.85 | 406440 | M | 24.613 | 2.46 | |
| 1,1,1-Trichloroethane | 13.02 | 12.87 - 13.07 | 20828 | M | 1.3771 | ~~0.138~~ | <RL |
| Carbon tetrachloride | 13.34 | 13.32 - 13.52 | 12446 | M | ~~0.72202~~ | 0.0722 | |
| 1,2-Dichloroethane | 14.16 | 14.05 - 14.25 | 226381 | | 17.530 | 1.75 | |
| | 15.68 | | 679 | | | | |
| Trichloroethene | 15.97 | 15.85 - 16.05 | 6741758 | | 453.56 | 45.4 | |
| | 18.14 | | 65261 | | | | |
| trans-1,3-Dichloropropene | 20.75 | 20.55 - 20.75 | 8525 | | 0.94239 | 0.0942 | |
| 1,1,2-Trichloroethane | 21.22 | 21.06 - 21.26 | 8180 | | 0.66624 | 0.0666 | |
| Tetrachloroethene | 21.47 | 21.32 - 21.52 | 19236 | M | 1.2490 | 0.125 | |
| | 21.75 | | 11122 | | | | |
| Chlorodibromomethane | 22.38 | 22.22 - 22.42 | 6660 | | 0.69272 | 0.0693 | <R |
| | 22.82 | | 13428 | | | | |
| | 23.65 | | 39428 | | | | |
| Chlorobenzene | 24.23 | 24.10 - 24.30 | 10736 | | 1.8562 | 0.186 | |
| 1,1,1,2-Tetrachloroethane | 24.60 | 24.48 - 24.68 | 9105 | | 0.56398 | 0.0564 | |
| | 25.44 | | 23898 | | | | |
| Bromoform | 27.08 | 26.90 - 27.10 | 4634 | | 0.76784 | 0.0768 | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

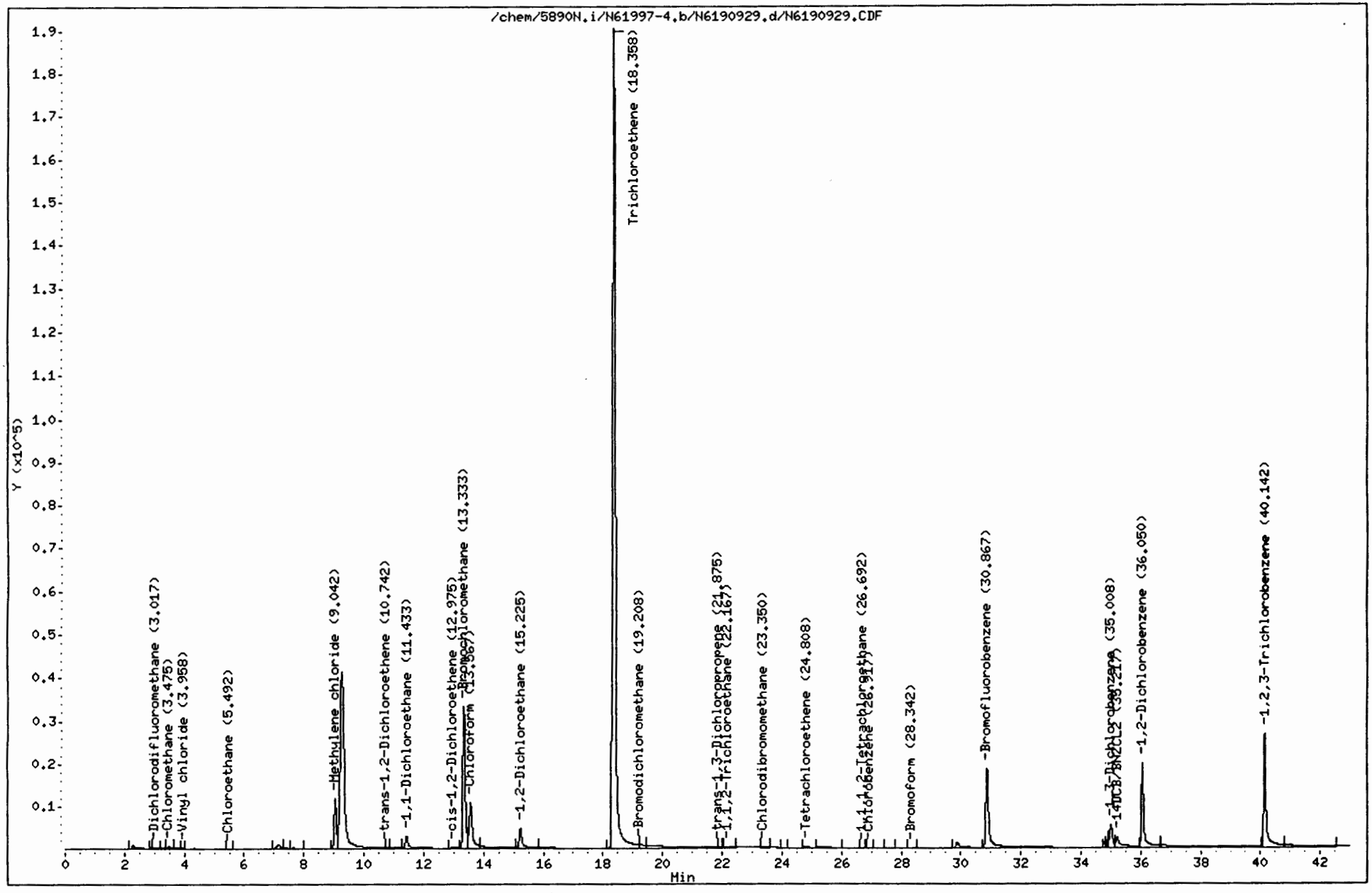
Data File : N6190929.d
Injection Date : 19-JUN-97 20:31:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 27.32 | | 8012 | | | | |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 885190 | M | 229.24 | 22.9 | |
| 1122PCA/123TCP | 28.95 | 28.88 - 29.08 | 16820 | M | ~~2.1273~~ | ~~0.213~~ | N-tC |
| | 29.12 | | 63972 | | | | |
| 1,3-Dichlorobenzene | 32.03 | 31.92 - 32.12 | 216412 | | 29.103 | 2.91 | See vr |
| 1,4-Dichlorobenzene | 32.38 | 32.28 - 32.48 | 99725 | | 12.517 | 1.25 | |
| Benzyl chloride | 32.97 | 32.86 - 33.06 | 6556 | M | 3.3059 | 0.330 | |
| | 33.08 | | 8546 | | | | |
| 1,2-Dichlorobenzene | 33.68 | 33.56 - 33.76 | 650668 | | 81.181 | 8.12 | See vr |
| | 34.46 | | 145218 | | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 915514 | M | 108.90 | 10.9 | |
| | 39.29 | | 134415 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61997-4.b/N6190929.d
Date : 19-JUN-97 20:31:00
Client ID: HWAOC-2
Sample Info: 9706220-05
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-4.b/N6190929.d
Injection Date : 19-JUN-97 20:31:00
Sample Info : 9706220-05
Misc. Info : None
Laboratory ID : 9706220-05 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 616HVB04.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.28 | | 9248 | | | |
| | 2.89 | | 1587 | | | |
| Dichlorodifluoromethane | 3.02 | 2.96 - 3.06 | 3270 | | 2.1777 | 0.218 |
| | 3.28 | | 1926 | | | |
| Chloromethane | 3.48 | 3.42 - 3.52 | 5656 | M | 2.8353 | 0.284 |
| | 3.66 | | 2678 | | | |
| Vinyl chloride | 3.96 | 3.91 - 4.01 | 1416 | M | 0.56660 | 0.0566 |
| | 4.32 | | 10890 | | | |
| Chloroethane | 5.49 | 5.42 - 5.52 | 1631 | M | 0.62365 | 0.0624 |
| | 7.15 | | 9845 | | | |
| | 7.34 | | 2910 | | | |
| | 7.62 | | 3169 | | | |
| Methylene chloride | 9.04 | 8.97 - 9.07 | 61907 | | 15.~~744~~ | ~~1.57~~ <RL |
| | 9.27 | | 411755 | | | |
| trans-1,2-Dichloroethene | 10.74 | 10.71 - 10.81 | 2210 | M | 0.66686 | 0.0667 |
| | 10.89 | | 5751 | | | |
| 1,1-Dichloroethane | 11.43 | 11.36 - 11.46 | 34255 | | 9.2380 | 0.924 |
| cis-1,2-Dichloroethene | 12.98 | 12.90 - 13.00 | 4607 | | 1.2821 | 0.128 |
| Bromochloromethane | 13.33 | 13.27 - 13.37 | 190470 | | 64.489 | 6.45 |
| Chloroform | 13.57 | 13.50 - 13.60 | 88071 | M | 16.816 | 1.68 |
| | 13.89 | | 23185 | | | |
| 1,2-Dichloroethane | 15.22 | 15.10 - 15.30 | 40664 | M | 13.848 | 1.38 |
| | 15.84 | | 16601 | | | |
| Trichloroethene | 18.36 | 18.23 - 18.43 | 1276009 | M | 308.37 | 30.8 |
| Bromodichloromethane | 19.21 | 18.36 - 18.56 | 11172 | M | 2.5605 | 0.256 |
| | 19.42 | | 59176 | | | |
| trans-1,3-Dichloropropene | 21.88 | 21.72 - 21.92 | 2183 | | 0.96741 | 0.0967 |
| 1,1,2-Trichloroethane | 22.17 | 22.02 - 22.22 | 6505 | | 1.7088 | 0.171 |
| Chlorodibromomethane | 23.35 | 23.33 - 23.53 | 3264 | | 1.2973 | 0.130 |
| | 24.03 | | 2260 | | | |
| Tetrachloroethene | 24.81 | 24.67 - 24.87 | 4477 | | 1.0500 | 0.105 |
| | 25.28 | | 10073 | | | |
| 1,1,1,2-Tetrachloroethane | 26.69 | 26.58 - 26.78 | 1027 | | 0.26369 | 0.0264 |
| Chlorobenzene | 26.92 | 26.78 - 26.98 | 1462 | | 0.65486 | 0.0655 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MR 6-30

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6190929.d
Injection Date : 19-JUN-97 20:31:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 27.46 | | 1858 | | | |
| Bromoform | 28.34 | 28.20 - 28.40 | 1317 | | 0.76815 | 0.0768 |
| | 29.87 | | 16873 | | | |
| Bromofluorobenzene | 30.87 | 30.74 - 30.94 | 170038 | M | 147.54 | 14.8 |
| | 34.75 | | 5826 | | | |
| | 34.91 | | 8147 | | | |
| 1,3-Dichlorobenzene | 35.01 | 34.88 - 35.08 | 36106 | | 19.310 | 1.93 |
| 14DCB/BNZCL2 | 35.22 | 35.09 - 35.29 | 35660 | | 25.633 | 2.56 |
| 1,2-Dichlorobenzene | 36.05 | 35.93 - 36.13 | 117760 | | 53.393 | 5.34 |
| | 36.68 | | 58701 | | | |
| 1,2,3-Trichlorobenzene | 40.14 | 40.02 - 40.22 | 160245 | M | 61.632 | 6.16 |
| | 40.80 | | 38804 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MW-29-05**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-06

Purge Volume: 10 ml

Lab File ID: N6182228.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.0 | U | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.26 | | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 100 | PE | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.40 | | 0.20 |
| 74-95-3 | Dibromomethane | 0.30 | P | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.27 | | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.22 | | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.65 | P | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MW-29-05**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-06

Purge Volume: 10 ml

Lab File ID: N6182228.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MW-29-05**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-06

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6182228.d  File (2): N6182228.d

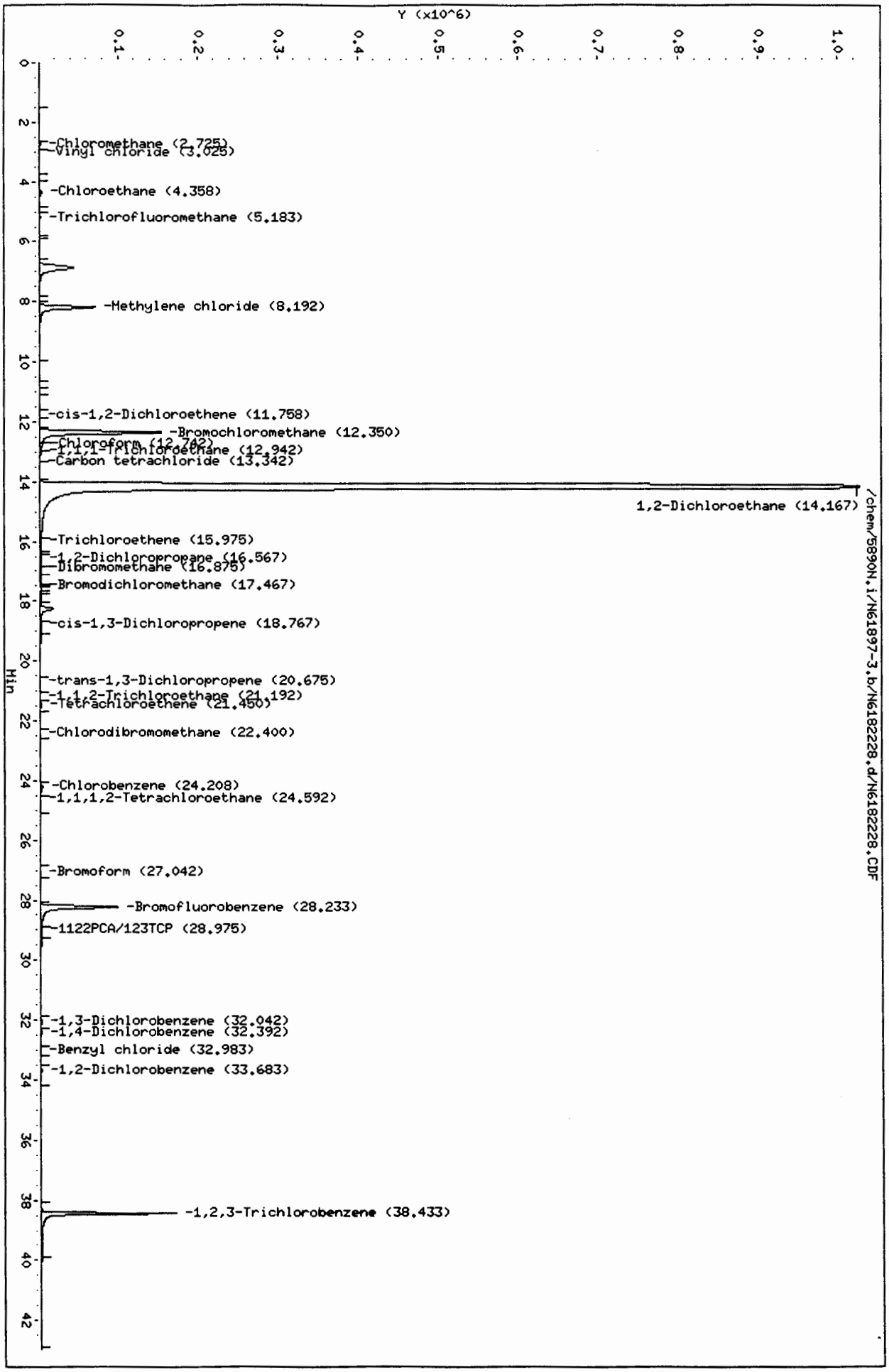
Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroform | 1 | 12.74 | 12.66 | 12.86 | 0.26 X | 5.3 |
| | 2 | 13.48 | 13.46 | 13.56 | 0.247 | |
| 1,2-Dichloroethane | 1 | 14.17 | 14.05 | 14.25 | 99.8 X | 44.3 |
| | 2 | 15.18 | 15.06 | 15.26 | 144 | |
| 1,2-Dichloropropane | 1 | 16.57 | 16.44 | 16.64 | 0.397 X | 17.1 |
| | 2 | 18.16 | 18.03 | 18.23 | 0.465 | |
| Dibromomethane | 1 | 16.88 | 16.78 | 16.98 | 0.303 X | 36 |
| | 2 | 17.96 | 17.88 | 18.08 | 0.412 | |
| cis-1,3-Dichloropropene | 1 | 18.77 | 18.76 | 18.96 | 0.273 X | 1.1 |
| | 2 | 20.46 | 20.31 | 20.51 | 0.276 | |
| trans-1,3-Dichloropropene | 1 | 20.68 | 20.56 | 20.76 | 0.22 X | 8.2 |
| | 2 | 21.80 | 21.68 | 21.88 | 0.238 | |
| Chlorobenzene | 1 | 24.21 | 24.10 | 24.30 | 0.652 X | 105.7 |
| | 2 | 26.86 | 26.73 | 26.93 | 0.317 | |

X = Concentration Reported

Data Fi /chem/5890N.i/N61897-3.b/N6182228.d
Date : 19-JUN-97 06:07:00
Client ID: MW-29-05
Sample Info: 9706220-06
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-3.b/N6182228.d
Injection Date : 19-JUN-97 06:07:00
Sample Info : 9706220-06
Misc. Info : None
Laboratory ID : 9706220-06 Client ID : MW-29-05
Instrument ID : 5890N.i
Method : 616HVA03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.73 | | 26652 | | | |
| Chloromethane | 2.72 | 2.65 - 2.75 | 12137 | | 1.5603 | ~~0.156~~ <RL |
| Vinyl chloride | 3.02 | 2.97 - 3.07 | 8815 | | 1.0340 | 0.103 |
| Chloroethane | 4.36 | 4.29 - 4.39 | 29413 | | ~~3.3550~~ | ~~0.335~~ Not C |
| | 4.92 | | 1436 | | | |
| Trichlorofluoromethane | 5.18 | 5.11 - 5.21 | 12009 | | ~~1.1379~~ | ~~0.114~~ <RL |
| | 6.06 | | 3088 | | | |
| | 6.87 | | 518874 | | | |
| | 7.88 | | 2853 | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 546553 | | 48.256 | 4.82 5e-V |
| | 10.16 | | 5828 | | | |
| | 10.89 | | 1069 | | | |
| cis-1,2-Dichloroethene | 11.76 | 11.62 - 11.82 | 1501 | | 0.10967 | 0.0110 |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1139002 | | 102.52 | 10.2 |
| Chloroform | 12.74 | 12.66 - 12.86 | 42930 | M | 2.5997 | 0.260 |
| 1,1,1-Trichloroethane | 12.94 | 12.88 - 13.08 | 21120 | M | 1.3965 | ~~0.140~~ <RL |
| Carbon tetrachloride | 13.34 | 13.32 - 13.52 | 14016 | M | ~~0.81316~~ | 0.0813 |
| 1,2-Dichloroethane | 14.17 | 14.05 - 14.25 | 12884222 | | 997.69 | E |
| Trichloroethene | 15.98 | 15.86 - 16.06 | 59971 | | ~~4.0346~~ | ~~0.403~~ Not C |
| | 16.39 | | 5807 | | | |
| 1,2-Dichloropropane | 16.57 | 16.44 - 16.64 | 48328 | M | 3.9725 | 0.397 |
| Dibromomethane | 16.88 | 16.78 - 16.98 | 22978 | M | 3.0277 | 0.303 |
| | 17.12 | | 23340 | | | |
| Bromodichloromethane | 17.47 | 17.42 - 17.62 | 3951 | | ~~0.31984~~ | ~~0.0320~~ <RL |
| | 17.72 | | 4802 | | | |
| | 17.92 | | 21299 | | | |
| | 18.25 | | 177602 | | | |
| cis-1,3-Dichloropropene | 18.77 | 18.76 - 18.96 | 29351 | | 2.7320 | 0.273 |
| | 19.18 | | 67572 | | | |
| trans-1,3-Dichloropropene | 20.68 | 20.56 - 20.76 | 19920 | | 2.2020 | 0.220 |
| 1,1,2-Trichloroethane | 21.19 | 21.06 - 21.26 | 11885 | M | 0.96800 | 0.0968 |
| Tetrachloroethene | 21.45 | 21.32 - 21.52 | 19381 | M | 1.2584 | ~~0.126~~ <RL |
| | 21.71 | | 20170 | | | |
| Chlorodibromomethane | 22.40 | 22.22 - 22.42 | 10959 | | ~~1.1399~~ | 0.114 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 23.64 | | 45783 | | | |
| Chlorobenzene | 24.21 | 24.10 - 24.30 | 37742 | | 6.5254 | 0.652 |
| 1,1,1,2-Tetrachloroethane | 24.59 | 24.48 - 24.68 | 22298 | | 1.3812 | 0.138 |
| | 25.17 | | 42797 | | | |
| Bromoform | 27.04 | 26.90 - 27.10 | 8917 | | 1.4775 | 0.148 |
| | 27.33 | | 18398 | | | |
| Bromofluorobenzene | 28.23 | 28.12 - 28.32 | 769164 | | 199.19 | 19.9 |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 32922 | | ~~4.1638~~ | ~~0.416~~ |
| | 29.39 | | 94381 | | | |
| 1,3-Dichlorobenzene | 32.04 | 31.93 - 32.13 | 18680 | | 2.5121 | 0.251 |
| 1,4-Dichlorobenzene | 32.39 | 32.28 - 32.48 | 25027 | | 3.1412 | 0.314 |
| Benzyl chloride | 32.98 | 32.87 - 33.07 | 8088 | | 4.0785 | 0.408 |
| | 33.29 | | 12479 | | | |
| 1,2-Dichlorobenzene | 33.68 | 33.58 - 33.78 | 23403 | | 2.9199 | 0.292 |
| | 34.33 | | 94507 | | | |
| 1,2,3-Trichlorobenzene | 38.43 | 38.34 - 38.54 | 895514 | M | 106.52 | 10.6 |
| | 39.89 | | 84853 | | | |

<RL

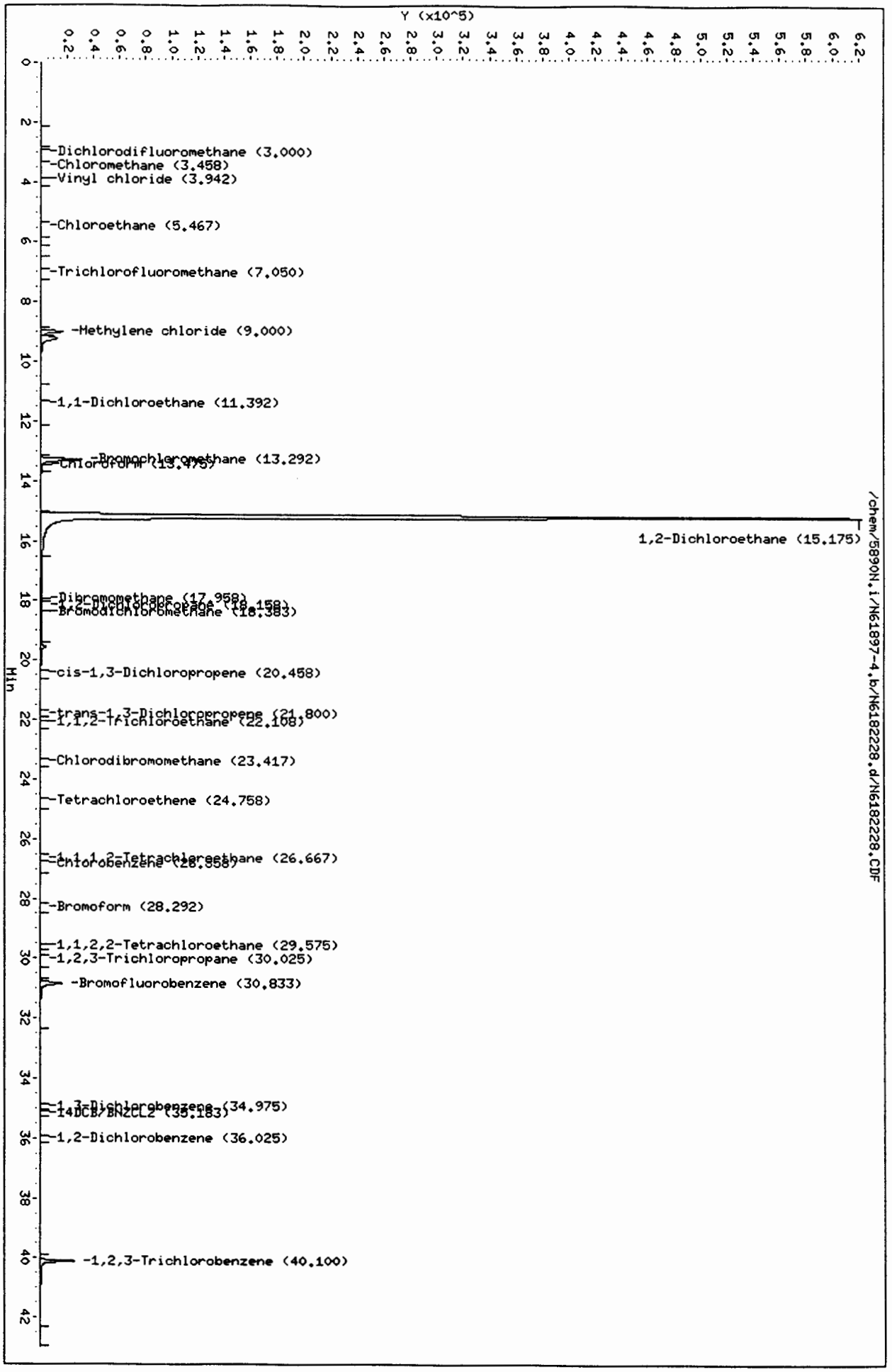
Not Con

see VA

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61897-4.b/N6182228.d
Date : 19-JUN-97 06:07:00
Client ID: MW-29-05
Sample Info: 9706220-06
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-4.b/N6182228.d
Injection Date : 19-JUN-97 06:07:00
Sample Info : 9706220-06
Misc. Info : None
Laboratory ID : 9706220-06 Client ID : MW-29-05
Instrument ID : 5890N.i
Method : 616HVB03.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.28 | | 2518 | | | |
| Dichlorodifluoromethane | 3.00 | 2.93 - 3.03 | 1160 | | 0.77253 | 0.0772 |
| Chloromethane | 3.46 | 3.38 - 3.48 | 2642 | | 1.3247 | 0.132 |
| Vinyl chloride | 3.94 | 3.88 - 3.98 | 1012 | | 0.40494 | 0.0405 |
| Chloroethane | 5.47 | 5.39 - 5.49 | 3669 | | ~~1.4029~~ | ~~0.140~~ <RL |
| | 6.19 | | 1068 | | | |
| Trichlorofluoromethane | 7.05 | 6.96 - 7.06 | 1398 | | 0.44072 | 0.0441 |
| Methylene chloride | 9.00 | 8.93 - 9.03 | 91503 | | ~~23.270~~ | ~~2.33~~ <RL |
| | 9.22 | | 149014 | | | |
| 1,1-Dichloroethane | 11.39 | 11.32 - 11.42 | 3753 | | 1.0121 | 0.101 |
| Bromochloromethane | 13.29 | 13.22 - 13.32 | 189363 | M | 64.114 | 6.41 |
| Chloroform | 13.48 | 13.46 - 13.56 | 12922 | M | 2.4673 | 0.247 |
| | 13.68 | | 22637 | | | |
| 1,2-Dichloroethane | 15.18 | 15.06 - 15.26 | 4241204 | | 1444.4 | 144 |
| | 16.52 | | 83950 | | | |
| Dibromomethane | 17.96 | 17.88 - 18.08 | 6506 | M | 4.1155 | 0.412 |
| 1,2-Dichloropropane | 18.16 | 18.03 - 18.23 | 14663 | M | 4.6476 | 0.465 |
| Bromodichloromethane | 18.38 | 18.32 - 18.52 | 39030 | M | 8.9457 | 0.894 |
| | 19.56 | | 54114 | | | |
| cis-1,3-Dichloropropene | 20.46 | 20.31 - 20.51 | 8173 | M | 2.7613 | 0.276 |
| | 20.63 | | 27669 | | | |
| trans-1,3-Dichloropropene | 21.80 | 21.68 - 21.88 | 5364 | M | 2.3771 | 0.238 |
| | 21.92 | | 2584 | | | |
| 1,1,2-Trichloroethane | 22.11 | 21.98 - 22.18 | 6255 | M | 1.6431 | 0.164 |
| | 22.31 | | 20075 | | | |
| Chlorodibromomethane | 23.42 | 23.29 - 23.49 | 4510 | M | 1.7925 | 0.179 |
| | 23.62 | | 16624 | | | |
| Tetrachloroethene | 24.76 | 24.62 - 24.82 | 5229 | | 1.2264 | 0.123 |
| | 25.22 | | 20299 | | | |
| 1,1,1,2-Tetrachloroethane | 26.67 | 26.53 - 26.73 | 2541 | | 0.65242 | 0.0652 |
| Chlorobenzene | 26.86 | 26.73 - 26.93 | 7071 | M | 3.1673 | 0.317 |
| | 27.13 | | 11861 | | | |
| Bromoform | 28.29 | 28.16 - 28.36 | 3108 | M | 1.8128 | 0.181 |
| | 28.47 | | 10059 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 29.58 | 29.43 - 29.63 | 2018 | M | 0.83859 | 0.0838 |
| | 29.78 | | 1479 | | | |
| 1,2,3-Trichloropropane | 30.02 | 29.88 - 30.08 | 3595 | | 1.7220 | 0.172 |
| | 30.32 | | 3198 | | | |
| Bromofluorobenzene | 30.83 | 30.70 - 30.90 | 151875 | M | 131.78 | 13.2 |
| | 32.43 | | 32138 | | | |
| 1,3-Dichlorobenzene | 34.98 | 34.85 - 35.05 | 2024 | M | 1.0825 | 0.108 |
| | 35.09 | | 967 | | | |
| 14DCB/BNZCL2 | 35.18 | 35.07 - 35.27 | 2223 | M | 1.5980 | 0.160 |
| | 35.28 | | 6444 | | | |
| 1,2-Dichlorobenzene | 36.02 | 35.90 - 36.10 | 2925 | M | 1.3262 | 0.133 |
| | 36.17 | | 34270 | | | |
| 1,2,3-Trichlorobenzene | 40.10 | 39.99 - 40.19 | 188162 | M | 72.369 | 7.24 |
| | 42.38 | | 9816 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MW-29-05DL**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-06DL

Purge Volume: 2 ml

Lab File ID: N6190829.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/19/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1.0 | U | 1.0 |
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 |
| 74-83-9 | Bromomethane | 2.0 | U | 2.0 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 |
| 75-69-4 | Trichlorofluoromethane | 1.0 | U | 1.0 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 |
| 75-09-2 | Methylene chloride | 15 | U | 15 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 67-66-3 | Chloroform | 1.6 | | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 |
| 107-06-2 | 1,2-Dichloroethane | 210 | | 1.0 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 |
| 74-95-3 | Dibromomethane | 1.0 | U | 1.0 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 |
| 124-48-1 | Chlorodibromomethane | 1.0 | U | 1.0 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 75-25-2 | Bromoform | 1.0 | U | 1.0 |
| 108-86-1 | Bromobenzene | 4.0 | U | 4.0 |
| 96-18-4 | 1,2,3-Trichloropropane | 1.0 | U | 1.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U | 1.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U | 1.0 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MW-29-05DL**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-06DL

Purge Volume: 2 ml

Lab File ID: N6190829.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/19/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 2.0 | U | 2.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U | 1.0 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MW-29-05DL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-06DL

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6190829.d  File (2): N6190829.d

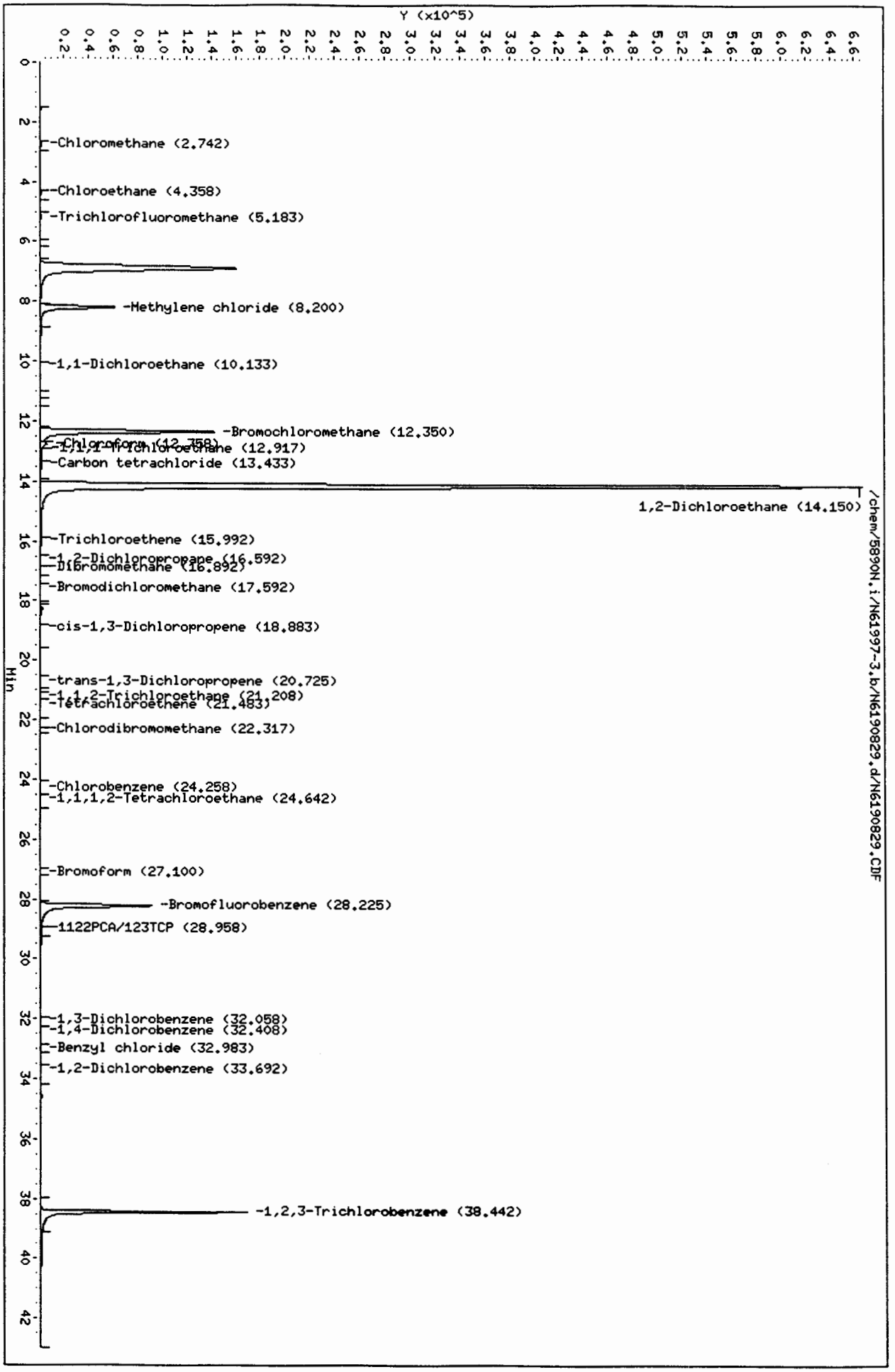
Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroform | 1 | 12.76 | 12.65 | 12.85 | 1.65 X | 25 |
| | 2 | 13.52 | 13.50 | 13.60 | 1.32 | |
| 1,2-Dichloroethane | 1 | 14.15 | 14.05 | 14.25 | 207 X | 19 |
| | 2 | 15.21 | 15.10 | 15.30 | 174 | |

X = Concentration Reported

Data File: /chem/5890N.i/N61997-3.b/N6190829.d
Date : 19-JUN-97 19:44:00
Client ID: HW-29-05DL
Sample Info: 9706220-06DL
Purge Volume: 2.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-3.b/N6190829.d
Injection Date : 19-JUN-97 19:44:00
Sample Info : 9706220-06DL
Misc. Info : None
Laboratory ID : 9706220-06DL
Client ID : MW-29-05DL
Instrument ID : 5890N.i
Method : 616HVA04.m
Sublist : all
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-624
Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.58 | | 16175 | | | | |
| Chloromethane | 2.74 | 2.66 - 2.76 | 10530 | M | 1.3537 | 0.677 | |
| | 4.28 | | 8756 | | | | |
| Chloroethane | 4.36 | 4.30 - 4.40 | 10150 | M | 1.1576 | 0.579 | <RL |
| | 4.62 | | 3144 | | | | |
| Trichlorofluoromethane | 5.18 | 5.11 - 5.21 | 15669 | | 1.4846 | 0.742 | |
| | 6.04 | | 1152 | | | | |
| | 6.88 | | 1924702 | | | | |
| Methylene chloride | 8.20 | 8.14 - 8.24 | 468402 | M | 41.356 | 20.7 | See VR |
| | 8.88 | | 28858 | | | | |
| 1,1-Dichloroethane | 10.13 | 10.04 - 10.14 | 9200 | | 0.71492 | 0.357 | <RL |
| | 11.26 | | 1668 | | | | |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1045973 | | 94.142 | 47.1 | |
| Chloroform | 12.76 | 12.65 - 12.85 | 54481 | M | 3.2992 | 1.65 | |
| 1,1,1-Trichloroethane | 12.92 | 12.87 - 13.07 | 25048 | M | 1.6562 | 0.828 | <RL |
| Carbon tetrachloride | 13.43 | 13.32 - 13.52 | 21031 | | 1.2201 | 0.610 | |
| 1,2-Dichloroethane | 14.15 | 14.05 - 14.25 | 5357936 | | 414.89 | 207 | |
| Trichloroethene | 15.99 | 15.85 - 16.05 | 19833 | | 1.3343 | 0.667 | |
| 1,2-Dichloropropane | 16.59 | 16.43 - 16.63 | 9921 | | 0.81552 | 0.408 | <RL |
| Dibromomethane | 16.89 | 16.78 - 16.98 | 6800 | M | 0.89591 | 0.448 | |
| | 17.17 | | 5068 | | | | |
| Bromodichloromethane | 17.59 | 17.41 - 17.61 | 11809 | | 0.95597 | 0.478 | |
| | 18.28 | | 29137 | | | | |
| cis-1,3-Dichloropropene | 18.88 | 18.76 - 18.96 | 11206 | | 1.0430 | 0.522 | |
| | 19.64 | | 8836 | | | | |
| trans-1,3-Dichloropropene | 20.72 | 20.55 - 20.75 | 3737 | | 0.41310 | 0.206 | <RL |
| 1,1,2-Trichloroethane | 21.21 | 21.06 - 21.26 | 2116 | | 0.17234 | 0.0862 | |
| Tetrachloroethene | 21.48 | 21.32 - 21.52 | 8982 | | 0.58321 | 0.292 | |
| | 21.98 | | 2703 | | | | |
| Chlorodibromomethane | 22.32 | 22.22 - 22.42 | 1808 | | 0.18805 | 0.0940 | |
| | 22.47 | | 10955 | | | | |
| Chlorobenzene | 24.26 | 24.10 - 24.30 | 5477 | | 0.94695 | 0.473 | |
| 1,1,1,2-Tetrachloroethane | 24.64 | 24.48 - 24.68 | 3999 | M | 0.24770 | 0.124 | |
| | 24.99 | | 10303 | | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6190829.d
Injection Date : 19-JUN-97 19:44:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Bromoform | 27.10 | 26.90 - 27.10 | 1280 | | 0.~~21209~~ | ~~0.106~~ <RL |
| | 28.08 | | 5272 | | | |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 732958 | M | 189.82 | 94.9 |
| 1122PCA/123TCP | 28.96 | 28.88 - 29.08 | 20626 | M | 2.6087 | 1.30 Not Con |
| | 29.38 | | 53641 | | | |
| 1,3-Dichlorobenzene | 32.06 | 31.92 - 32.12 | 5852 | | 0.78698 | ~~0.393~~ |
| 1,4-Dichlorobenzene | 32.41 | 32.28 - 32.48 | 8892 | | 1.1160 | 0.558 |
| Benzyl chloride | 32.98 | 32.86 - 33.06 | 3649 | M | 1.~~8400~~ | 0.920 <RL |
| | 33.32 | | 5548 | | | |
| 1,2-Dichlorobenzene | 33.69 | 33.56 - 33.76 | 8113 | | 1.0122 | 0.506 |
| | 34.58 | | 50285 | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 831497 | | 98.910 | 49.4 |
| | 39.12 | | 112602 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data Fi /chem/5890N.i/N61997-4.b/N6190829.d

Date : 19-JUN-97 19:44:00

Client ID: MW-29-05DL

Sample Info: 9706220-06DL

Purge Volume: 2.0

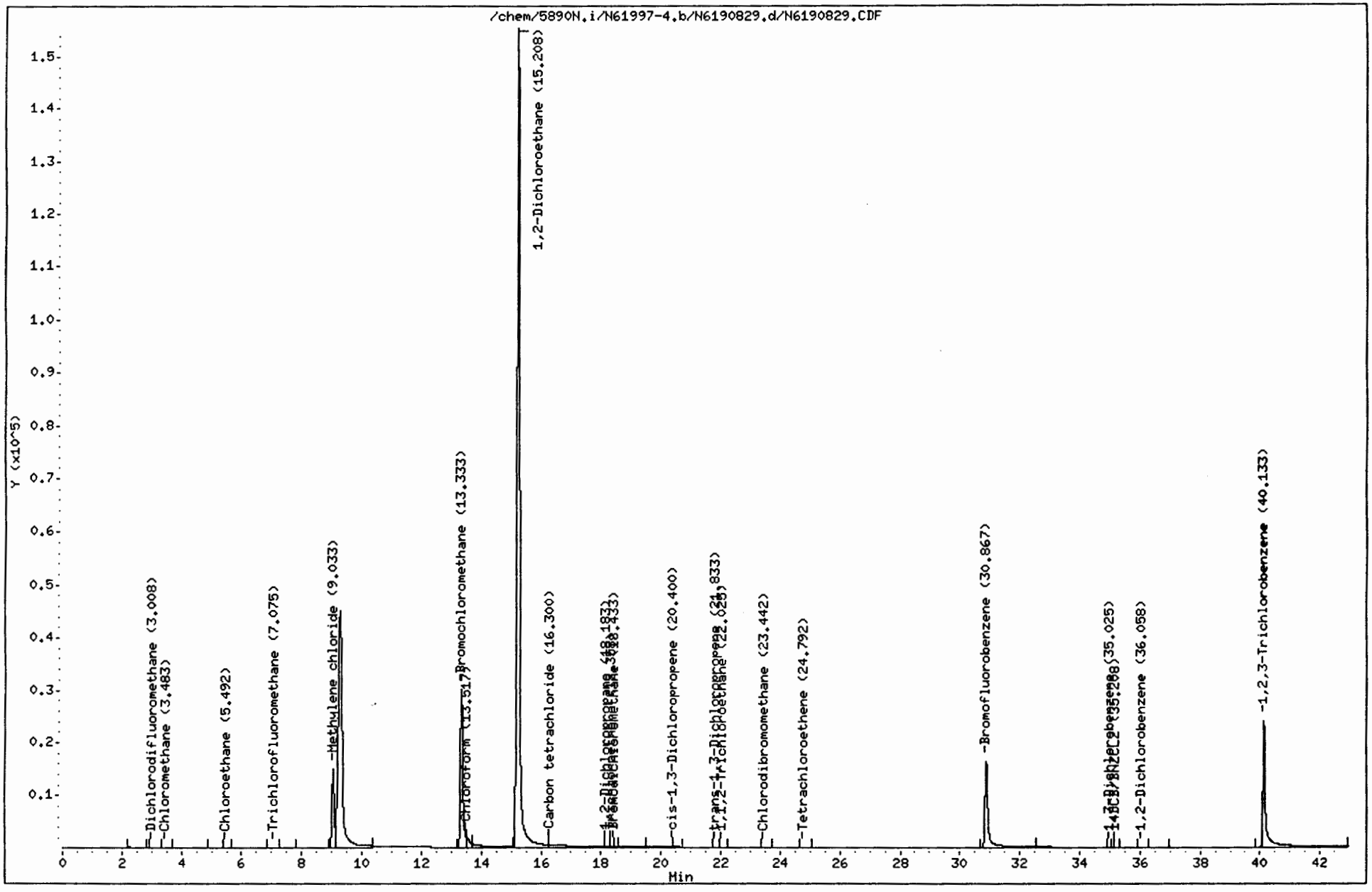
Column phase: DB-VRX



Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45




395

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-4.b/N6190829.d
Injection Date : 19-JUN-97 19:44:00
Sample Info : 9706220-06DL
Misc. Info : None
Laboratory ID : 9706220-06DL
Client ID : MW-29-05DL
Instrument ID : 5890N.i
Method : 616HVB04.m
Sublist : all
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-VRX
Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.27 | | 1495 | | | |
| | 2.89 | | 196 | | | |
| Dichlorodifluoromethane | 3.01 | 2.96 - 3.06 | 710 | M | 0.47284 | 0.236 |
| Chloromethane | 3.48 | 3.42 - 3.52 | 1127 | M | 0.56506 | 0.282 |
| | 4.46 | | 3032 | | | |
| | 5.06 | | 1838 | | | |
| Chloroethane | 5.49 | 5.42 - 5.52 | 1173 | M | 0.44852 | 0.224 |
| | 5.69 | | 2738 | | | |
| Trichlorofluoromethane | 7.08 | 6.99 - 7.09 | 1566 | | 0.49368 | 0.247 |
| | 7.36 | | 1643 | | | |
| Methylene chloride | 9.03 | 8.97 - 9.07 | 76500 | | ~~19.455~~ | ~~9.73~~ <RL |
| | 9.26 | | 443204 | | | |
| Bromochloromethane | 13.33 | 13.27 - 13.37 | 177890 | M | 60.229 | 30.1 |
| Chloroform | 13.52 | 13.50 - 13.60 | 13868 | M | 2.6477 | 1.32 |
| | 13.69 | | 26689 | | | |
| 1,2-Dichloroethane | 15.21 | 15.10 - 15.30 | 1019368 | M | 347.15 | 174 |
| Carbon tetrachloride | 16.30 | 16.20 - 16.40 | 39454 | M | 7.4164 | 3.71 |
| 1,2-Dichloropropane | 18.18 | 18.08 - 18.28 | 2783 | M | 0.88210 | 0.441 |
| Trichloroethene | 18.36 | 18.23 - 18.43 | 2077 | M | 0.50194 | 0.251 |
| Bromodichloromethane | 18.43 | 18.36 - 18.56 | 2430 | M | 0.55674 | 0.278 |
| | 18.61 | | 10208 | | | |
| | 19.61 | | 10403 | | | |
| cis-1,3-Dichloropropene | 20.40 | 20.36 - 20.56 | 2675 | M | 0.90377 | 0.452 |
| | 20.74 | | 6866 | | | |
| trans-1,3-Dichloropropene | 21.83 | 21.72 - 21.92 | 1377 | M | 0.61023 | 0.305 |
| 1,1,2-Trichloroethane | 22.02 | 22.02 - 22.22 | 1414 | M | 0.37117 | 0.186 |
| | 22.24 | | 5233 | | | |
| Chlorodibromomethane | 23.44 | 23.33 - 23.53 | 1470 | | 0.58425 | 0.292 |
| Tetrachloroethene | 24.79 | 24.67 - 24.87 | 1446 | | 0.33915 | 0.170 |
| Bromofluorobenzene | 30.87 | 30.74 - 30.94 | 134701 | | 116.88 | 58.4 |
| | 32.53 | | 14101 | | | |
| 1,3-Dichlorobenzene | 35.02 | 34.88 - 35.08 | 638 | M | 0.34068 | 0.170 |
| | 35.11 | | 401 | | | |
| 14DCB/BNZCL2 | 35.21 | 35.09 - 35.29 | 802 | M | 0.57650 | 0.288 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6.30.97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6190829.d
Injection Date : 19-JUN-97 19:44:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 36.06 | 35.93 - 36.13 | 1293 | M | 0.58625 | 0.293 |
| | 37.09 | | 10559 | | | |
| 1,2,3-Trichlorobenzene | 40.13 | 40.02 - 40.22 | 179978 | M | 69.221 | 34.6 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**CDS**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-07

Purge Volume: 10 ml

Lab File ID: N6172327.D

% Moisture: N/A

Date Collected: 06/06/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.22 | P | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.5 | PB | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.32 | | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 67 | PE | 0.20 |
| 79-01-6 | Trichloroethene | 2.1 | | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.26 | P | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**CDS**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-07

Purge Volume: 10 ml

Lab File ID: N6172327.D

% Moisture: N/A

Date Collected: 06/06/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.27 | P | 0.20 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**CDS**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-07

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6172327.d  File (2): N6172327.d

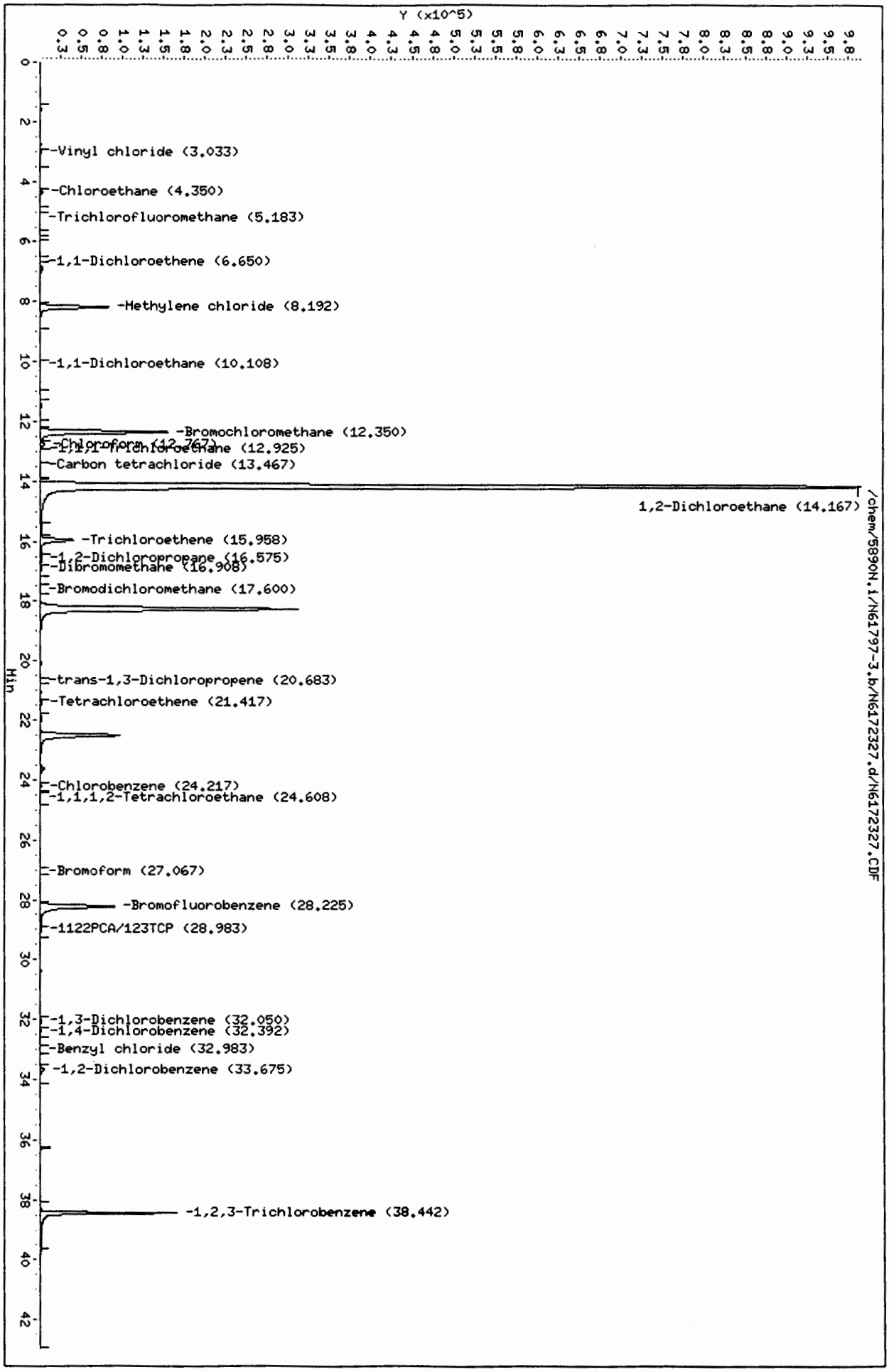
Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroethane | 1 | 4.35 | 4.28 | 4.38 | 0.315 | 41.3 |
| | 2 | 5.40 | 5.33 | 5.43 | 0.223 X | |
| Methylene chloride | 1 | 8.19 | 8.14 | 8.24 | 4.93 | 42.5 |
| | 2 | 8.93 | 8.88 | 8.97 | 3.46 X | |
| Chloroform | 1 | 12.77 | 12.66 | 12.86 | 0.323 X | 12.7 |
| | 2 | 13.42 | 13.39 | 13.49 | 0.364 | |
| 1,2-Dichloroethane | 1 | 14.17 | 14.05 | 14.25 | 66.6 X | 26.9 |
| | 2 | 15.08 | 14.99 | 15.19 | 84.5 | |
| Trichloroethene | 1 | 15.96 | 15.86 | 16.06 | 2.18 | 4.8 |
| | 2 | 18.22 | 18.12 | 18.32 | 2.08 X | |
| Dibromomethane | 1 | 16.91 | 16.79 | 16.99 | 0.263 X | 84 |
| | 2 | 17.90 | 17.80 | 18.00 | 0.484 | |
| 1,2-Dichlorobenzene | 1 | 33.68 | 33.58 | 33.78 | 0.607 | 121.5 |
| | 2 | 35.93 | 35.84 | 36.04 | 0.274 X | |

X = Concentration Reported

Data F /chem/5890N.i/N61797-3.b/N6172327.d
Date : 18-JUN-97 08:19:00
Client ID: CDS
Sample Info: 9706220-07
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




Page

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-3.b/N6172327.d
Injection Date : 18-JUN-97 08:19:00
Sample Info : 9706220-07
Misc. Info : None
Laboratory ID : 9706220-07 Client ID : CDS
Instrument ID : 5890N.i
Method : 616HVA02.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.58 | | 59005 | | | | |
| Vinyl chloride | 3.03 | 2.95 - 3.05 | 23914 | | ~~2.8050~~ | ~~0.280~~ | Not Cu |
| | 3.52 | | 15955 | | | | |
| Chloroethane | 4.35 | 4.28 - 4.38 | 27643 | | 3.1530 | 0.315 | See VR |
| | 4.92 | | 2998 | | | | |
| Trichlorofluoromethane | 5.18 | 5.09 - 5.19 | 10278 | | 0.97385 | ~~0.0974~~ | <RL |
| | 5.82 | | 1363 | | | | |
| 1,1-Dichloroethene | 6.65 | 6.57 - 6.67 | 1302 | | ~~0.13978~~ | 0.0140 | |
| | 6.89 | | 45210 | | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 558842 | | 49.341 | 4.93 | See VRX |
| | 8.98 | | 10550 | | | | |
| 1,1-Dichloroethane | 10.11 | 10.03 - 10.13 | 4859 | | 0.37759 | ~~0.0378~~ | <RL |
| | 11.46 | | 19967 | | | | |
| | 12.12 | | 1306 | | | | |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1069621 | | 96.271 | 9.63 | |
| Chloroform | 12.77 | 12.66 - 12.86 | 53296 | M | 3.2274 | 0.323 | |
| 1,1,1-Trichloroethane | 12.92 | 12.88 - 13.08 | 11657 | M | 0.77079 | ~~0.0771~~ | <RL |
| Carbon tetrachloride | 13.47 | 13.32 - 13.52 | 5815 | | ~~0.33737~~ | 0.0337 | |
| 1,2-Dichloroethane | 14.17 | 14.05 - 14.25 | 8606594 | | 666.45 | E | |
| | 15.50 | | 24087 | | | | |
| Trichloroethene | 15.96 | 15.86 - 16.06 | 323400 | | 21.757 | 2.18 | See VRX |
| 1,2-Dichloropropane | 16.58 | 16.45 - 16.65 | 20919 | | ~~1.7196~~ | ~~0.172~~ | <RL |
| Dibromomethane | 16.91 | 16.79 - 16.99 | 19982 | | 2.6330 | 0.263 | |
| | 17.31 | | 6623 | | | | |
| Bromodichloromethane | 17.60 | 17.42 - 17.62 | 9653 | | 0.78144 | ~~0.0781~~ | |
| | 18.25 | | 2508538 | | | | |
| trans-1,3-Dichloropropene | 20.68 | 20.56 - 20.76 | 4671 | | 0.51635 | 0.0516 | <RL |
| | 21.06 | | 16983 | | | | |
| Tetrachloroethene | 21.42 | 21.32 - 21.52 | 24730 | | ~~1.6057~~ | 0.160 | |
| | 22.50 | | 841189 | | | | |
| Chlorobenzene | 24.22 | 24.11 - 24.31 | 12271 | | ~~2.1216~~ | ~~0.212~~ | Not |
| 1,1,1,2-Tetrachloroethane | 24.61 | 24.48 - 24.68 | 12326 | | 0.76349 | ~~0.0763~~ | |
| | 25.12 | | 36055 | | | | |
| Bromoform | 27.07 | 26.91 - 27.11 | 3518 | | 0.58292 | 0.0583 | <RL |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

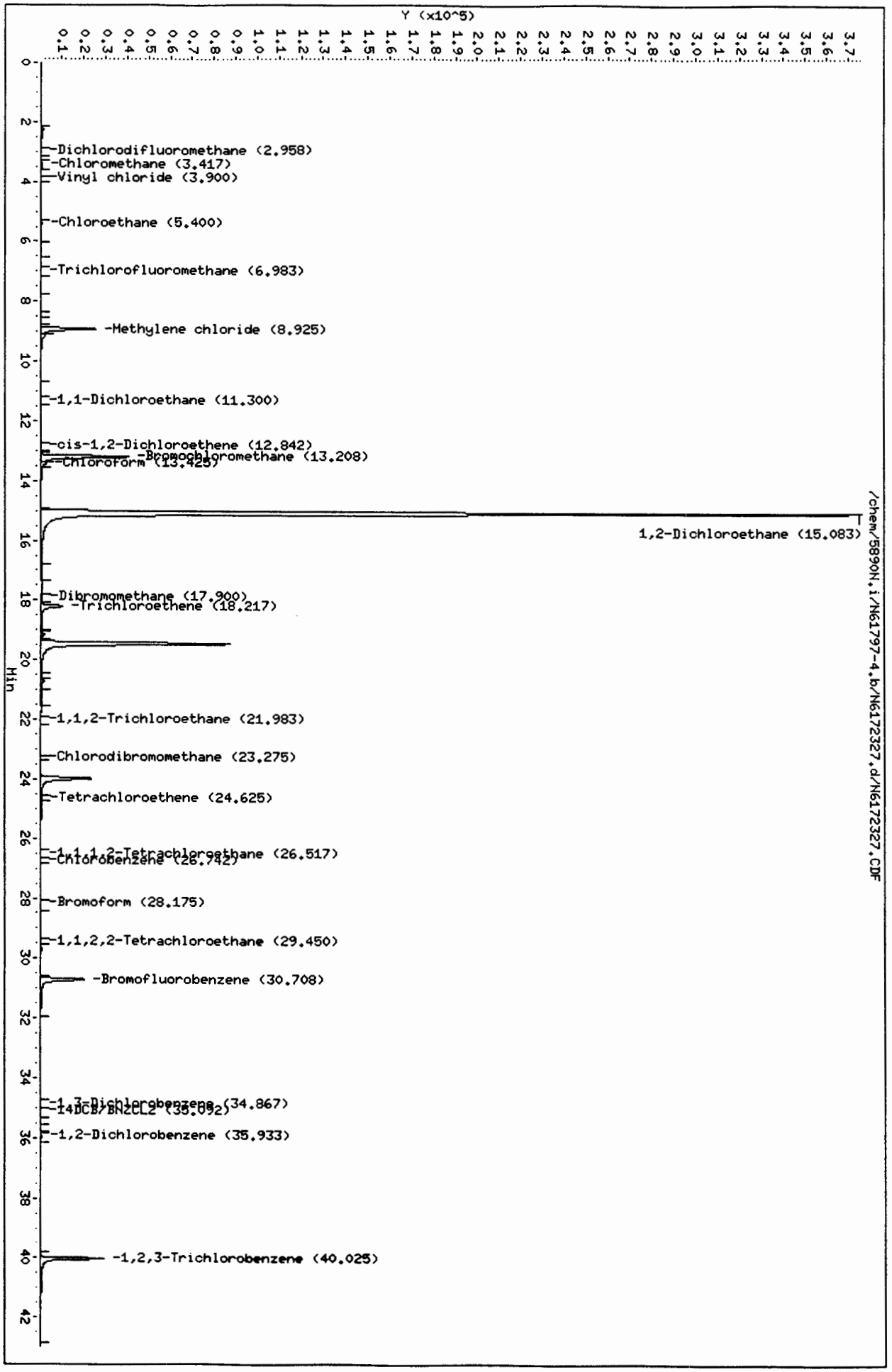
Data File : N6172327.d
Injection Date : 18-JUN-97 08:19:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|
| | 28.03 | | 11774 | | | |
| Bromofluorobenzene | 28.22 | 28.13 - 28.33 | 743916 | 192.65 | 19.3 | |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 18604 | 2.3529 | 0.235 | Not Cont |
| | 30.38 | | 61095 | | | |
| 1,3-Dichlorobenzene | 32.05 | 31.93 - 32.13 | 17668 | 2.3760 | 0.238 | Not Cont |
| 1,4-Dichlorobenzene | 32.39 | 32.29 - 32.49 | 10970 | ~~1.3769~~ | ~~0.138~~ | <RL |
| | 32.62 | | 4761 | | | |
| Benzyl chloride | 32.98 | 32.88 - 33.08 | 4722 | 2.3811 | 0.238 | Not Cont |
| | 33.30 | | 5814 | | | |
| 1,2-Dichlorobenzene | 33.68 | 33.58 - 33.78 | 48676 | 6.0731 | 0.607 | See VR |
| | 36.27 | | 91225 | | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 801023 | 95.285 | 9.53 | |
| | 39.61 | | 78247 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61797-4.b/N6172327.d
Date : 18-JUN-97 08:19:00
Client ID: CDS
Sample Info: 9706220-07
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-4.b/N6172327.d
Injection Date : 18-JUN-97 08:19:00
Sample Info : 9706220-07
Misc. Info : None
Laboratory ID : 9706220-07 Client ID : CDS
Instrument ID : 5890N.i
Method : 616HVB02.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.23 | | 18899 | | | |
| Dichlorodifluoromethane | 2.96 | 2.89 - 2.99 | 3540 | | 2.3576 | 0.236 |
| | 3.22 | | 1980 | | | |
| Chloromethane | 3.42 | 3.34 - 3.44 | 8716 | M | 4.3696 | 0.437 |
| | 3.61 | | 2701 | | | |
| Vinyl chloride | 3.90 | 3.83 - 3.93 | 2294 | M | 0~~.91792~~ ~~0.0918~~ | <RL |
| | 4.01 | | 10288 | | | |
| Chloroethane | 5.40 | 5.33 - 5.43 | 5828 | | 2.2285 | 0.223 |
| | 6.13 | | 2408 | | | |
| Trichlorofluoromethane | 6.98 | 6.90 - 7.00 | 1810 | | 0.57060 | 0.0570 |
| | 7.25 | | 2838 | | | |
| | 8.45 | | 1027 | | | |
| Methylene chloride | 8.92 | 8.88 - 8.98 | 136269 | | 34.655 | 3.46 |
| | 9.14 | | 36357 | | | |
| | 10.78 | | 1039 | | | |
| 1,1-Dichloroethane | 11.30 | 11.25 - 11.35 | 478 | M | 0.12891 | 0.0129 |
| cis-1,2-Dichloroethene | 12.84 | 12.79 - 12.89 | 170 | M | 0.047312 | 0.00473 |
| Bromochloromethane | 13.21 | 13.16 - 13.26 | 233918 | | 79.199 | 7.92 |
| Chloroform | 13.42 | 13.39 - 13.49 | 19040 | M | 3.6354 | 0.364 |
| | 13.55 | | 23513 | | | |
| 1,2-Dichloroethane | 15.08 | 14.99 - 15.19 | 2481088 | | 844.96 | 84.5 |
| | 16.83 | | 14868 | | | |
| Dibromomethane | 17.90 | 17.80 - 18.00 | 7653 | | 4.8418 | 0.484 |
| Trichloroethene | 18.22 | 18.12 - 18.32 | 85904 | | 20.760 | 2.08 |
| | 19.15 | | 16007 | | | |
| | 19.46 | | 611404 | | | |
| | 20.55 | | 7233 | | | |
| | 20.71 | | 19098 | | | |
| | 21.02 | | 13074 | | | |
| 1,1,2-Trichloroethane | 21.98 | 21.91 - 22.11 | 4489 | | 1.1792 | 0.118 |
| | 22.24 | | 14107 | | | |
| Chlorodibromomethane | 23.28 | 23.22 - 23.42 | 1658 | | 0.65897 | 0.0659 |
| | 23.99 | | 176773 | | | |
| Tetrachloroethene | 24.62 | 24.55 - 24.75 | 5582 | M | 1.3092 | 0.131 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6172327.d
Injection Date : 18-JUN-97 08:19:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 25.12 | | 29553 | | | |
| 1,1,1,2-Tetrachloroethane | 26.52 | 26.46 - 26.66 | 3151 | | 0.80904 | 0.0809 |
| Chlorobenzene | 26.74 | 26.66 - 26.86 | 2062 | M | 0.92317 | 0.0923 |
| | 26.84 | | 10866 | | | |
| Bromoform | 28.18 | 28.07 - 28.27 | 3106 | | 1.8116 | 0.181 |
| | 28.67 | | 6094 | | | |
| 1,1,2,2-Tetrachloroethane | 29.45 | 29.35 - 29.55 | 1356 | | 0.56350 | 0.0563 |
| | 29.72 | | 9989 | | | |
| Bromofluorobenzene | 30.71 | 30.62 - 30.82 | 163603 | M | 141.96 | 14.2 |
| | 32.22 | | 24239 | | | |
| 1,3-Dichlorobenzene | 34.87 | 34.77 - 34.97 | 2373 | | 1.2691 | 0.127 |
| 14DCB/BNZCL2 | 35.09 | 34.99 - 35.19 | 2573 | | 1.8495 | 0.185 |
| | 35.62 | | 1648 | | | |
| 1,2-Dichlorobenzene | 35.93 | 35.84 - 36.04 | 6040 | M | 2.7386 | 0.274 |
| | 36.78 | | 25598 | | | |
| 1,2,3-Trichlorobenzene | 40.02 | 39.93 - 40.13 | 199316 | M | 76.658 | 7.66 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**CDSDL**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-07DL

Purge Volume: 2 ml

Lab File ID: N6181628.D

% Moisture: N/A

Date Collected: 06/06/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1.0 | U | 1.0 |
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 |
| 74-83-9 | Bromomethane | 2.0 | U | 2.0 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 |
| 75-69-4 | Trichlorofluoromethane | 1.0 | U | 1.0 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 |
| 75-09-2 | Methylene chloride | 15 | U | 15 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 67-66-3 | Chloroform | 1.3 | | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 |
| 107-06-2 | 1,2-Dichloroethane | 100 | | 1.0 |
| 79-01-6 | Trichloroethene | 3.1 | P | 1.0 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 |
| 74-95-3 | Dibromomethane | 1.0 | U | 1.0 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 |
| 124-48-1 | Chlorodibromomethane | 1.0 | U | 1.0 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 75-25-2 | Bromoform | 1.0 | U | 1.0 |
| 108-86-1 | Bromobenzene | 4.0 | U | 4.0 |
| 96-18-4 | 1,2,3-Trichloropropane | 1.0 | U | 1.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U | 1.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U | 1.0 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**CDSDL**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-07DL

Purge Volume: 2 ml

Lab File ID: N6181628.D

% Moisture: N/A

Date Collected: 06/06/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 2.0 | U | 2.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U | 1.0 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**CDSDL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-07DL

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181628.d  File (2): N6181628.d

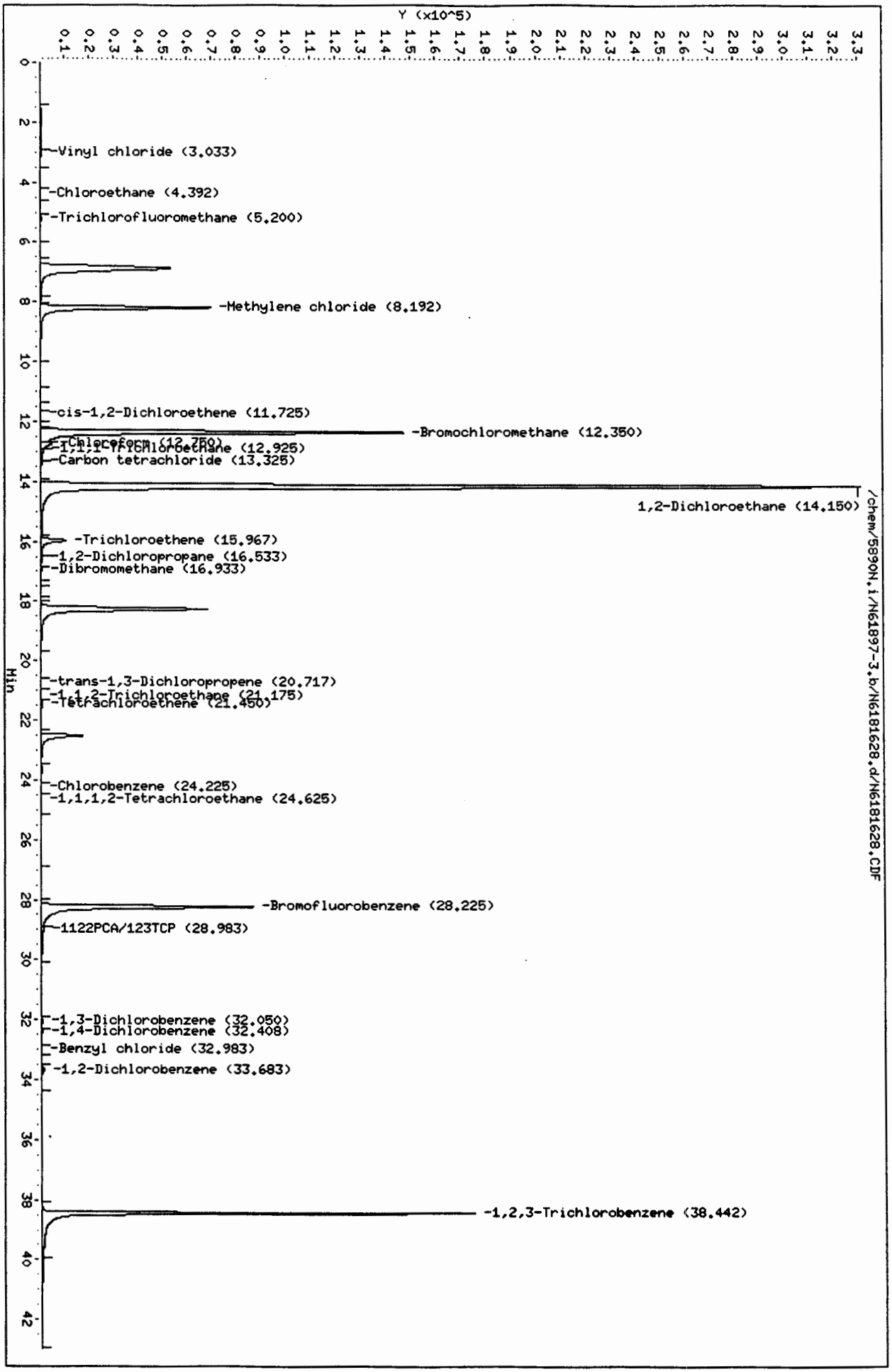
Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Chloroform | 1 | 12.75 | 12.66 | 12.86 | 1.34 X | 11.2 |
| | 2 | 13.46 | 13.46 | 13.56 | 1.49 | |
| 1,2-Dichloroethane | 1 | 14.15 | 14.05 | 14.25 | 101 X | 5.9 |
| | 2 | 15.16 | 15.06 | 15.26 | 95.4 | |
| Trichloroethene | 1 | 15.97 | 15.86 | 16.06 | 3.06 X | 33.6 |
| | 2 | 18.31 | 18.18 | 18.38 | 2.29 | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-3.b/N6181628.d
Date : 19-JUN-97 01:20:00
Client ID: CDSDL
Sample Info: 9706220-07DL
Purge Volume: 2.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-3.b/N6181628.d
Injection Date : 19-JUN-97 01:20:00
Sample Info : 9706220-07DL
Misc. Info : None
Laboratory ID : 9706220-07DL
Client ID : CDSDL
Instrument ID : 5890N.i
Method : 616HVA03.m
Sublist : all
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-624
Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 1.59 | | 50656 | | | | |
| Vinyl chloride | 3.03 | 2.97 - 3.07 | 11443 | M | 1.3422 | 0.671 | |
| | 3.51 | | 5139 | | | | |
| Chloroethane | 4.39 | 4.29 - 4.39 | 3877 | | 0.44222 | 0.221 | <RL |
| Trichlorofluoromethane | 5.20 | 5.11 - 5.21 | 8565 | | 0.81154 | 0.406 | |
| | 6.88 | | 622236 | | | | |
| | 7.88 | | 4768 | | | | |
| Methylene chloride | 8.19 | 8.14 - 8.24 | 518699 | | 45.797 | 22.9 | see VB |
| | 10.18 | | 3598 | | | | |
| | 11.59 | | 607 | | | | |
| cis-1,2-Dichloroethene | 11.72 | 11.62 - 11.82 | 1201 | | 0.087753 | 0.0439 | <RL |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1069029 | | 96.218 | 48.1 | |
| Chloroform | 12.75 | 12.66 - 12.86 | 44414 | M | 2.6896 | 1.34 | |
| 1,1,1-Trichloroethane | 12.92 | 12.88 - 13.08 | 17471 | M | 1.1552 | 0.578 | <RL |
| Carbon tetrachloride | 13.32 | 13.32 - 13.52 | 7760 | M | 0.45015 | 0.225 | |
| 1,2-Dichloroethane | 14.15 | 14.05 - 14.25 | 2606795 | | 201.86 | 101 | |
| Trichloroethene | 15.97 | 15.86 - 16.06 | 91084 | M | 6.1277 | 3.06 | |
| 1,2-Dichloropropane | 16.53 | 16.44 - 16.64 | 6580 | M | 0.54088 | 0.270 | <RL |
| Dibromomethane | 16.93 | 16.78 - 16.98 | 6153 | | 0.81078 | 0.405 | |
| | 17.62 | | 3496 | | | | |
| | 18.26 | | 575406 | | | | |
| | 20.09 | | 8386 | | | | |
| trans-1,3-Dichloropropene | 20.72 | 20.56 - 20.76 | 2642 | | 0.29206 | 0.146 | |
| 1,1,2-Trichloroethane | 21.18 | 21.06 - 21.26 | 2143 | | 0.17454 | 0.0873 | |
| Tetrachloroethene | 21.45 | 21.32 - 21.52 | 13988 | | 0.90826 | 0.454 | |
| | 22.52 | | 148280 | | | | 2RL |
| | 23.65 | | 9950 | | | | |
| Chlorobenzene | 24.22 | 24.10 - 24.30 | 3307 | | 0.57177 | 0.286 | |
| 1,1,1,2-Tetrachloroethane | 24.62 | 24.48 - 24.68 | 4731 | | 0.29305 | 0.146 | |
| | 25.16 | | 6445 | | | | |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 707697 | | 183.27 | 91.6 | |
| 1122PCA/123TCP | 28.98 | 28.88 - 29.08 | 33157 | | 4.1935 | 2.10 | Not Cou |
| | 30.38 | | 17788 | | | | |
| 1,3-Dichlorobenzene | 32.05 | 31.93 - 32.13 | 6686 | | 0.89913 | 0.450 | <RL |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MK 6-30-9

Laucks Testing Labs, Inc.
Quantitation Report

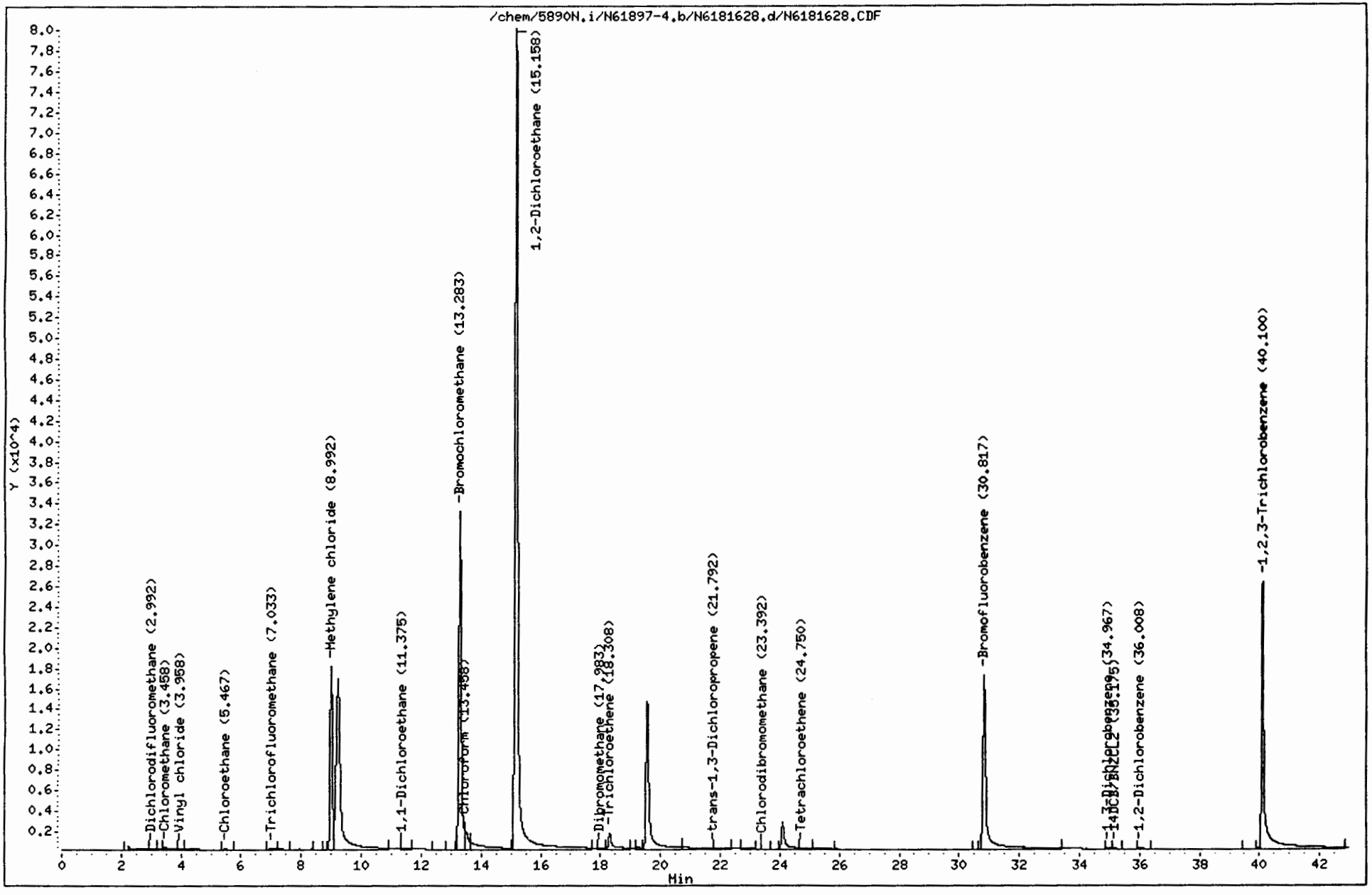
Data File : N6181628.d
Injection Date : 19-JUN-97 01:20:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 32.41 | 32.28 - 32.48 | 6610 | 0.82963 | 0.415 |
| Benzyl chloride | 32.98 | 32.87 - 33.07 | 2070 | 1.0438 | 0.522 <RL |
| | 33.34 | | 2260 | | |
| 1,2-Dichlorobenzene | 33.68 | 33.58 - 33.78 | 14833 | 1.8508 | 0.925 |
| | 37.74 | | 25142 | | |
| 1,2,3-Trichlorobenzene | 38.44 | 38.34 - 38.54 | 870348 | 103.53 | 51.8 |
| | 39.96 | | 46813 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data Fi /chem/5890N.i/N61897-4.b/N6181628.d
Date : 19-JUN-97 01:20:00
Client ID: CDSDL
Sample Info: 9706220-07DL
Purge Volume: 2.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45




454

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-4.b/N6181628.d
Injection Date : 19-JUN-97 01:20:00
Sample Info : 9706220-07DL
Misc. Info : None
Laboratory ID : 9706220-07DL
Client ID : CDSDL
Instrument ID : 5890N.i
Method : 616HVB03.m
Sublist : all
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-VRX
Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.25 | | 5502 | | | |
| Dichlorodifluoromethane | 2.99 | 2.93 - 3.03 | 1966 | | 1.3093 | 0.655 |
| | 3.28 | | 1170 | | | |
| Chloromethane | 3.46 | 3.38 - 3.48 | 3745 | | 1.8777 | 0.939 |
| Vinyl chloride | 3.96 | 3.88 - 3.98 | 1315 | | 0.52618 | 0.263 |
| | 4.52 | | 5245 | | | |
| Chloroethane | 5.47 | 5.39 - 5.49 | 1601 | | 0.61218 | 0.306 |
| | 6.18 | | 3638 | | | |
| Trichlorofluoromethane | 7.03 | 6.96 - 7.06 | 1717 | | 0.54128 | 0.271 |
| | 7.32 | | 1663 | | | |
| | 8.49 | | 1115 | | | |
| Methylene chloride | 8.99 | 8.93 - 9.03 | 92297 | | 23.~~472~~ | ~~11.7~~ <RL |
| | 9.22 | | 184459 | | | |
| 1,1-Dichloroethane | 11.38 | 11.32 - 11.42 | 2250 | | 0.60679 | 0.303 |
| | 12.42 | | 1299 | | | |
| Bromochloromethane | 13.28 | 13.22 - 13.32 | 191509 | M | 64.840 | 32.4 |
| Chloroform | 13.46 | 13.46 - 13.56 | 15582 | M | 2.9750 | 1.49 |
| | 13.64 | | 26648 | | | |
| 1,2-Dichloroethane | 15.16 | 15.06 - 15.26 | 560117 | | 190.75 | 95.4 |
| Dibromomethane | 17.98 | 17.88 - 18.08 | 3075 | | 1.9455 | 0.973 |
| Trichloroethene | 18.31 | 18.18 - 18.38 | 18948 | | 4.5791 | 2.29 |
| | 19.26 | | 2993 | | | |
| | 19.55 | | 117106 | | | |
| | 20.80 | | 10174 | | | |
| trans-1,3-Dichloropropene | 21.79 | 21.68 - 21.88 | 3831 | | 1.6977 | 0.849 |
| | 22.72 | | 2164 | | | |
| Chlorodibromomethane | 23.39 | 23.29 - 23.49 | 1153 | | 0.45826 | 0.229 |
| | 24.09 | | 23899 | | | |
| Tetrachloroethene | 24.75 | 24.62 - 24.82 | 3943 | | 0.92480 | 0.462 |
| | 25.22 | | 3826 | | | |
| | 30.49 | | 350 | | | |
| Bromofluorobenzene | 30.82 | 30.70 - 30.90 | 145421 | M | 126.18 | 63.1 |
| 1,3-Dichlorobenzene | 34.97 | 34.85 - 35.05 | 1016 | | 0.54338 | 0.272 |
| 14DCB/BNZCL2 | 35.18 | 35.07 - 35.27 | 1222 | | 0.87840 | 0.439 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MKF 6 30 97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181628.d
Injection Date : 19-JUN-97 01:20:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 36.01 | 35.90 - 36.10 | 1941 | | 0.88006 | 0.440 |
| | 39.88 | | 1547 | | | |
| 1,2,3-Trichlorobenzene | 40.10 | 39.99 - 40.19 | 186036 | M | 71.551 | 35.8 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**Trip Blank**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-08

Purge Volume: 10 ml

Lab File ID: N6170827.D

% Moisture: N/A

Date Collected:

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/17/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U | 0.20 |
| 74-87-3 | Chloromethane | 0.20 | U | 0.20 |
| 75-01-4 | Vinyl chloride | 0.20 | U | 0.20 |
| 74-83-9 | Bromomethane | 0.40 | U | 0.40 |
| 75-00-3 | Chloroethane | 0.20 | U | 0.20 |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U | 0.20 |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U | 0.20 |
| 75-09-2 | Methylene chloride | 3.7 | PB | 3.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 67-66-3 | Chloroform | 0.20 | U | 0.20 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| 56-23-5 | Carbon tetrachloride | 0.20 | U | 0.20 |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U | 0.20 |
| 79-01-6 | Trichloroethene | 0.20 | U | 0.20 |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 74-95-3 | Dibromomethane | 0.20 | U | 0.20 |
| 75-27-4 | Bromodichloromethane | 0.20 | U | 0.20 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| 127-18-4 | Tetrachloroethene | 0.20 | U | 0.20 |
| 124-48-1 | Chlorodibromomethane | 0.20 | U | 0.20 |
| 108-90-7 | Chlorobenzene | 0.20 | U | 0.20 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 75-25-2 | Bromoform | 0.20 | U | 0.20 |
| 108-86-1 | Bromobenzene | 0.80 | U | 0.80 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U | 0.20 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**Trip Blank**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-08

Purge Volume: 10 ml

Lab File ID: N6170827.D

% Moisture: N/A

Date Collected:

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/17/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 100-44-7 | Benzyl Chloride | 0.40 | U | 0.40 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U | 0.20 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**Trip Blank**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-08

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6170827.d | File (2): N6170827.d

Date Analyzed (1) 06/17/97 | Date Analyzed (2): 06/17/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Methylene chloride | 1 | 8.20 | 8.14 | 8.24 | 5.13 | 38.6 |
| | 2 | 8.93 | 8.88 | 8.97 | 3.7 X | |

X = Concentration Reported

Data Fi /chem/5890N.i/N61797-3.b/N6170827.d

Date : 17-JUN-97 20:21:00

Client ID: Trip Blank

Sample Info: 9706220-08

Purge Volume: 10.0

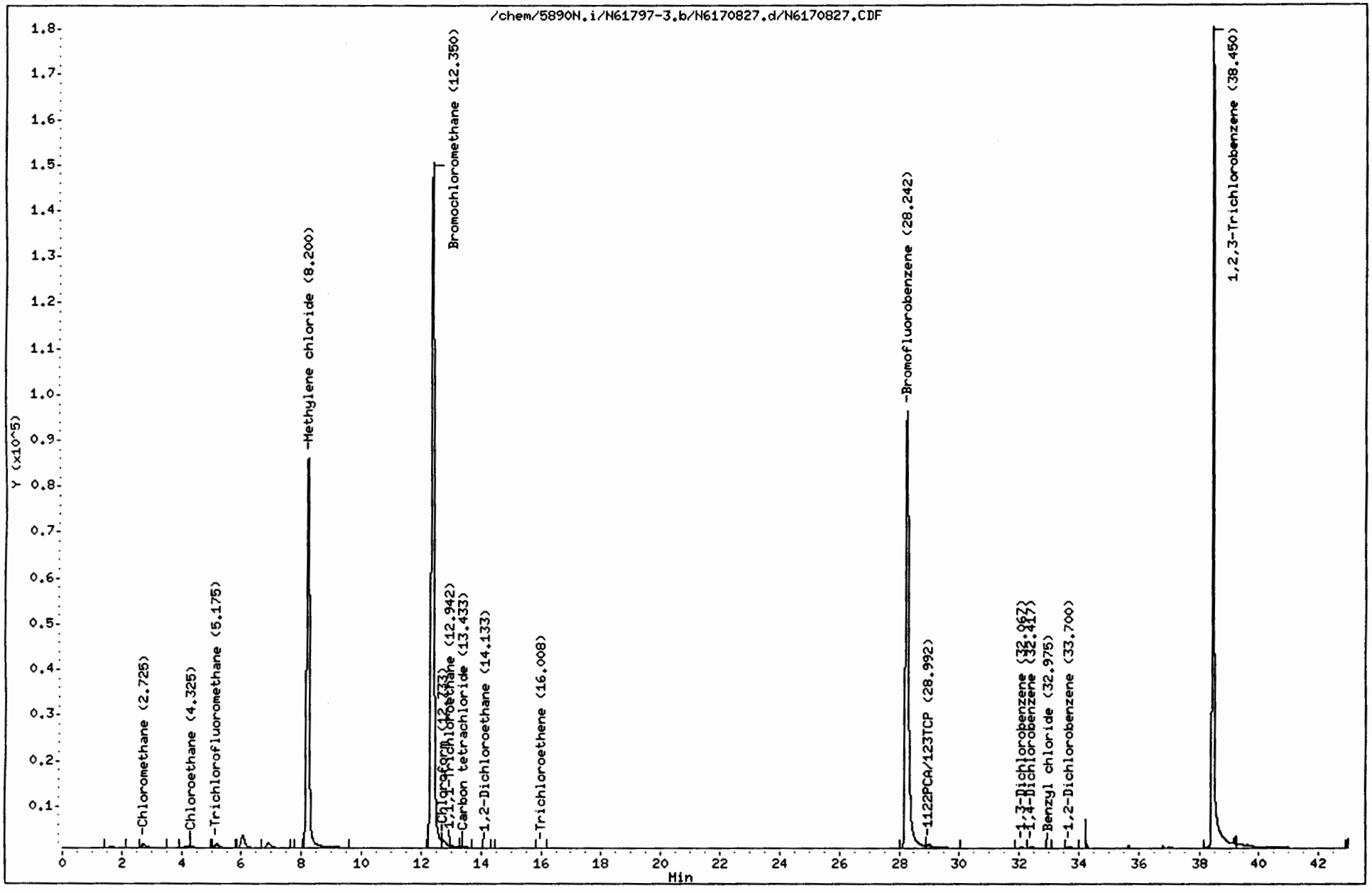
Column phase: DB-624

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.53





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-3.b/N6170827.d
Injection Date : 17-JUN-97 20:21:00
Sample Info : 9706220-08
Misc. Info : None
Laboratory ID : 9706220-08 Client ID : Trip Blank
Instrument ID : 5890N.i
Method : 616HVA02.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.63 | | 4128 | | | |
| Chloromethane | 2.72 | 2.63 - 2.73 | 10011 | | 1.2870 | 0.129 |
| | 4.26 | | 2783 | | | |
| Chloroethane | 4.32 | 4.28 - 4.38 | 4516 | | 0.51511 | 0.0515 <RL |
| Trichlorofluoromethane | 5.18 | 5.09 - 5.19 | 9721 | | 0.92107 | 0.0921 |
| | 6.03 | | 28449 | | | |
| | 6.89 | | 13790 | | | |
| | 7.89 | | 1062 | | | |
| Methylene chloride | 8.20 | 8.14 - 8.24 | 580598 | | 51.262 | 5.13 See VL |
| Bromochloromethane | 12.35 | 12.25 - 12.45 | 1043019 | | 93.876 | 9.39 |
| Chloroform | 12.73 | 12.66 - 12.86 | 19438 | M | 1.1771 | 0.118 |
| 1,1,1-Trichloroethane | 12.94 | 12.88 - 13.08 | 7901 | M | 0.52243 | 0.0522 |
| | 13.30 | | 1158 | | | |
| Carbon tetrachloride | 13.43 | 13.32 - 13.52 | 2824 | M | 0.16384 | 0.0164 <RL |
| | 13.70 | | 1933 | | | |
| 1,2-Dichloroethane | 14.13 | 14.05 - 14.25 | 972 | M | 0.075267 | 0.00753 |
| | 14.36 | | 505 | | | |
| Trichloroethene | 16.01 | 15.86 - 16.06 | 1339 | | 0.090082 | 0.00901 |
| Bromofluorobenzene | 28.24 | 28.13 - 28.33 | 733559 | | 189.97 | 19.0 |
| 1122PCA/123TCP | 28.99 | 28.88 - 29.08 | 17917 | | ~~2.2660~~ | ~~0.227~~ NotC |
| | 30.06 | | 5817 | | | |
| 1,3-Dichlorobenzene | 32.07 | 31.93 - 32.13 | 2581 | | 0.34709 | 0.0347 |
| 1,4-Dichlorobenzene | 32.42 | 32.29 - 32.49 | 4090 | | 0.51334 | 0.0513 |
| Benzyl chloride | 32.98 | 32.88 - 33.08 | 591 | | 0.29802 | 0.0298 <RL |
| 1,2-Dichlorobenzene | 33.70 | 33.58 - 33.78 | 3169 | | 0.39538 | 0.0395 |
| | 34.22 | | 23898 | | | |
| 1,2,3-Trichlorobenzene | 38.45 | 38.34 - 38.54 | 818919 | | 97.414 | 9.74 |
| | 42.92 | | 58814 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

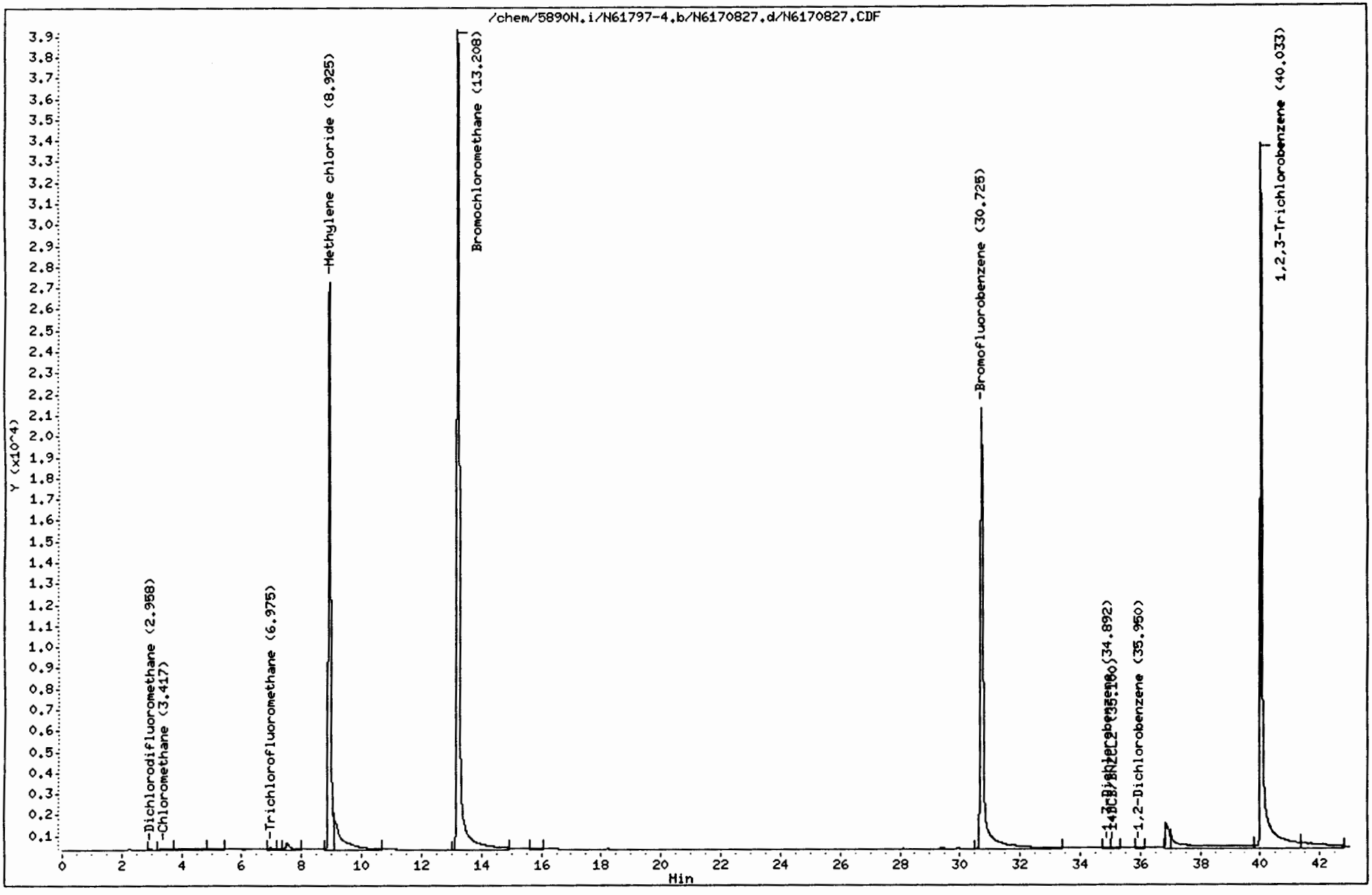
6-30-97



411

Data Fi /chem/5890N.i/N61797-4.b/N6170827.d
Date : 17-JUN-97 20:21:00
Client ID: Trip Blank
Sample Info: 9706220-08
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-4.b/N6170827.d
Injection Date : 17-JUN-97 20:21:00
Sample Info : 9706220-08
Misc. Info : None
Laboratory ID : 9706220-08 Client ID : Trip Blank
Instrument ID : 5890N.i
Method : 616HVB02.m Sublist : all
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

UnitFactor : 1
SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.96 | 2.89 - 2.99 | 478 | M | 0.31834 | 0.0318 |
| Chloromethane | 3.42 | 3.34 - 3.44 | 1423 | | 0.71347 | 0.0713 |
| | 4.50 | | 3140 | | | |
| | 4.98 | | 2238 | | | |
| Trichlorofluoromethane | 6.98 | 6.90 - 7.00 | 1290 | | 0.40667 | 0.0407 |
| | 7.25 | | 681 | | | |
| | 7.52 | | 4246 | | | |
| Methylene chloride | 8.92 | 8.88 - 8.98 | 145626 | M | 37.034 | 3.70 BP |
| | 9.10 | | 28274 | | | |
| Bromochloromethane | 13.21 | 13.16 - 13.26 | 250295 | | 84.744 | 8.47 |
| | 15.70 | | 1346 | | | |
| Bromofluorobenzene | 30.72 | 30.62 - 30.82 | 155318 | M | 134.77 | 13.5 |
| 1,3-Dichlorobenzene | 34.89 | 34.77 - 34.97 | 1340 | | 0.71667 | 0.0717 |
| 14DCB/BNZCL2 | 35.10 | 34.99 - 35.19 | 1326 | | 0.95316 | 0.0953 |
| 1,2-Dichlorobenzene | 35.95 | 35.84 - 36.04 | 1446 | | 0.65563 | 0.0656 |
| | 36.85 | | 9220 | | | |
| | 37.03 | | 27462 | | | |
| 1,2,3-Trichlorobenzene | 40.03 | 39.93 - 40.13 | 198112 | | 76.196 | 7.62 |
| | 41.35 | | 16096 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

# Sample Results

G0804

BTEX by Method 8020

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-1**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-01

Purge Volume: 10 ml

Lab File ID: N6170927.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/17/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 0.20 | U | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.20 | U | 0.20 |
| 108-38-3 | m,p-Xylene | 0.20 | U | 0.20 |
| 95-47-6 | o-Xylene | 0.20 | U | 0.20 |

RL = Reporting Limit



RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-1**

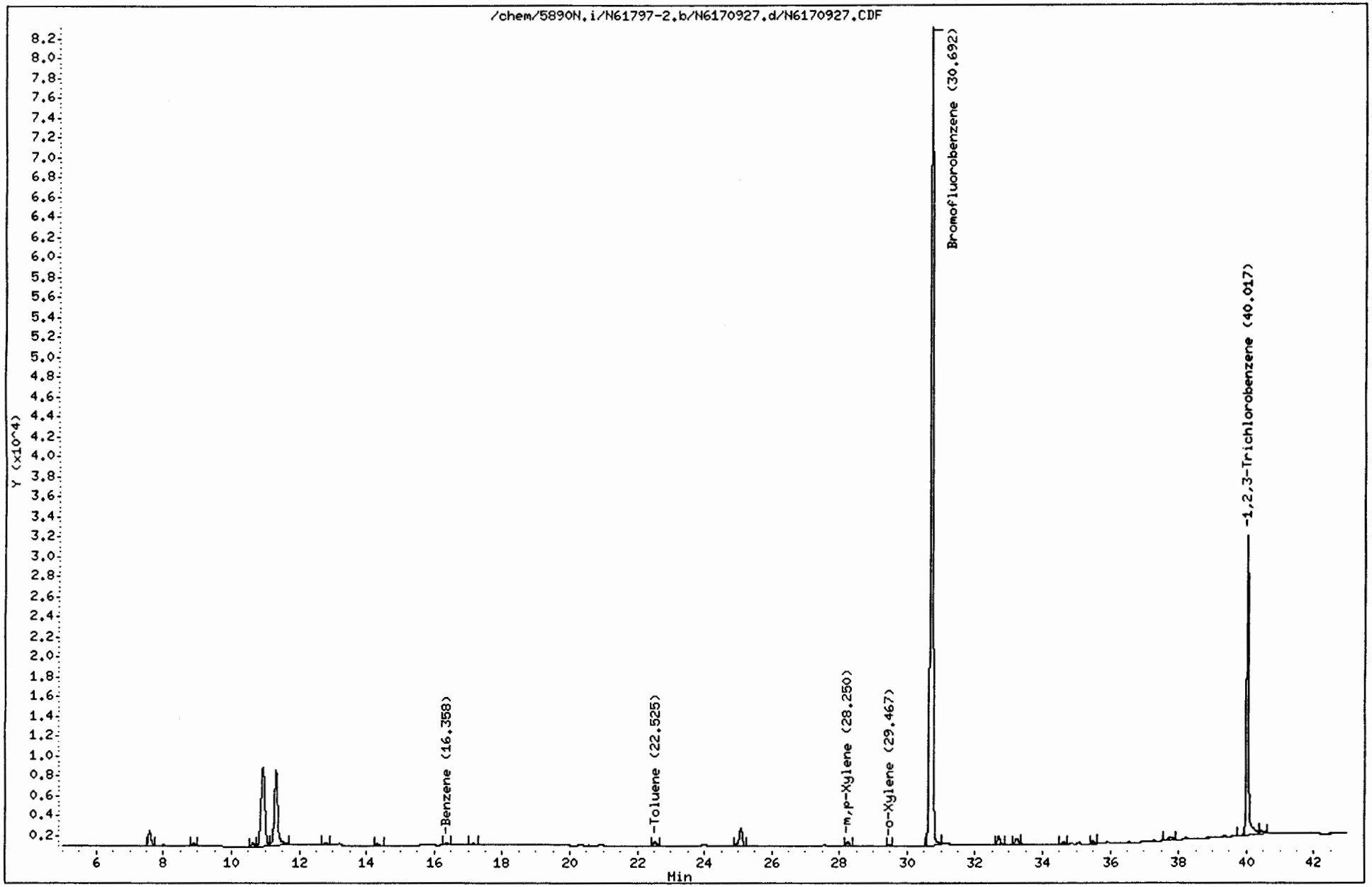
| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9706220-01 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N6170927.d | File (2): | N6170927.d |
| Date Analyzed (1) | 06/17/97 | Date Analyzed (2): | 06/17/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data File: /chem/5890N.i/N61797-2.b/N6170927.d
Date : 17-JUN-97 21:08:00
Client ID: MWAOC-1
Sample Info: 9706220-01
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-2.b/N6170927.d
Injection Date : 17-JUN-97 21:08:00
Sample Info : 9706220-01
Misc. Info : None
Laboratory ID : 9706220-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 616VPB02.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

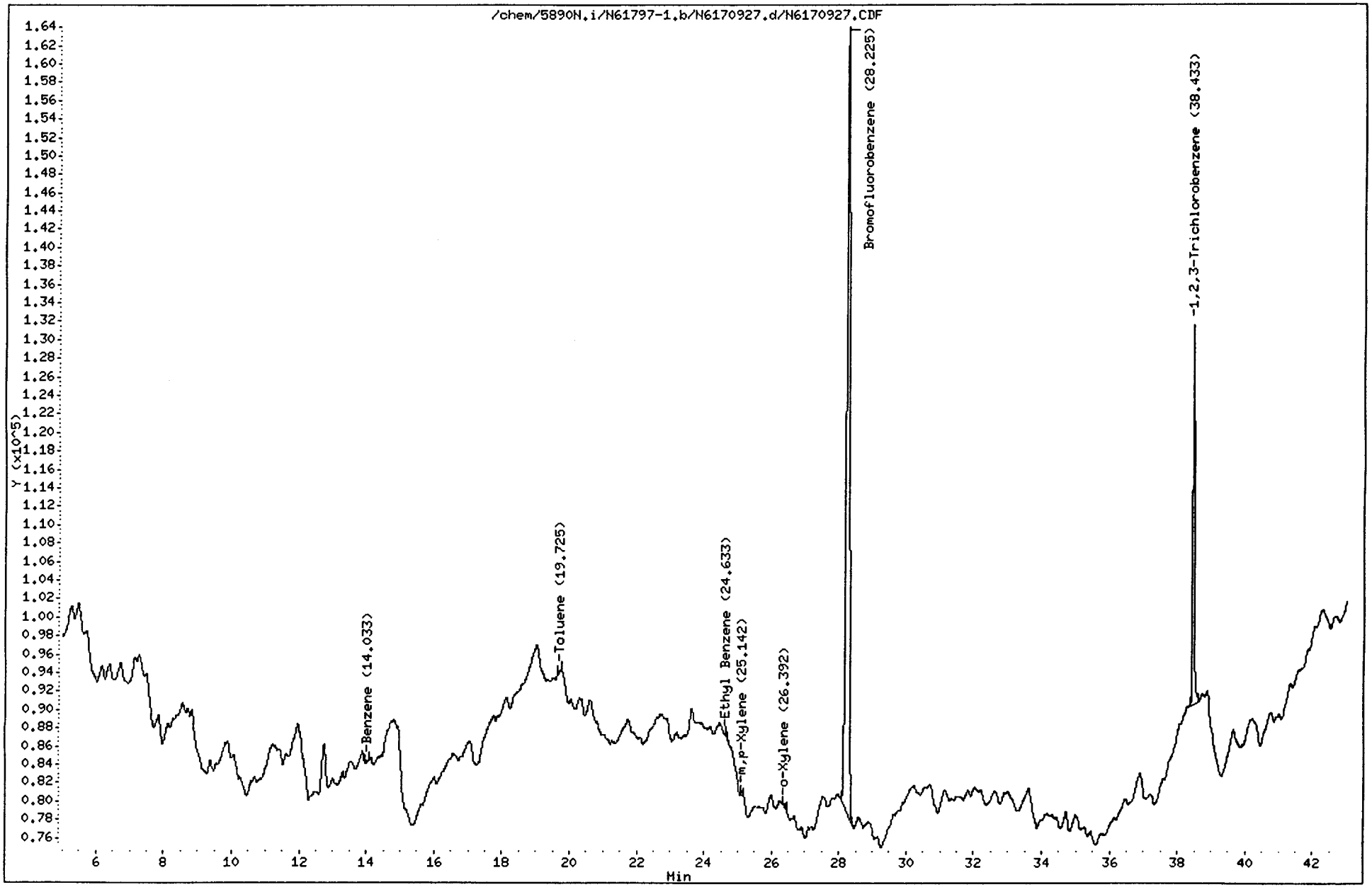
| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.24 | | 4330 | | |
| | 4.02 | | 5283 | | |
| | 4.52 | | 17164 | | |
| | 7.58 | | 8451 | | |
| | 8.90 | | 1388 | | |
| | 10.62 | | 1695 | | |
| | 10.92 | | 62069 | | |
| | 11.30 | | 55685 | | |
| | 12.78 | | 1064 | | |
| | 14.32 | | 1101 | | |
| Benzene | 16.36 | 16.32 - 16.42 | 1447 | 0.46618 | 0.0466 |
| | 17.16 | | 1088 | | |
| Toluene | 22.52 | 22.44 - 22.64 | 2210 | 0.80763 | 0.0808 <RL |
| | 25.08 | | 11774 | | |
| m,p-Xylene | 28.25 | 28.14 - 28.34 | 2646 | 0.96097 | 0.0961 |
| o-Xylene | 29.47 | 29.38 - 29.58 | 1028 | 0.46555 | 0.0466 |
| Bromofluorobenzene | 30.69 | 30.60 - 30.80 | 449711 | 212.79 | 21.3 |
| | 32.69 | | 5333 | | |
| | 33.23 | | 4291 | | |
| | 34.62 | | 1763 | | |
| | 35.50 | | 1604 | | |
| | 37.76 | | 3936 | | |
| 1,2,3-Trichlorobenzene | 40.02 | 39.92 - 40.12 | 128809 | 116.19 | 11.6 |
| | 40.42 | | 3240 | | |

AH 6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61797-1.b/N6170927.d
Date : 17-JUN-97 21:08:00
Client ID: MWAOC-1
Sample Info: 9706220-01
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-1.b/N6170927.d
Injection Date : 17-JUN-97 21:08:00
Sample Info : 9706220-01
Misc. Info : None
Laboratory ID : 9706220-01 Client ID : MWAOC-1
Instrument ID : 5890N.i
Method : 616VPA02.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Benzene | 14.03 | 13.95 - 14.05 | 608 | M | 0.16992 | 0.0170 |
| Toluene | 19.72 | 19.66 - 19.86 | 812 | M | 0.24814 | 0.0248 |
| Ethyl Benzene | 24.63 | 24.60 - 24.80 | 328 | M | 0.11400 | 0.0114 |
| m,p-Xylene | 25.14 | 25.02 - 25.22 | 1662 | M | 0.49277 | 0.0493 |
| o-Xylene | 26.39 | 26.32 - 26.52 | 1308 | M | 0.50182 | 0.0502 |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 562966 | M | 216.64 | 21.7 |
| 1,2,3-Trichlorobenzene | 38.43 | 38.33 - 38.53 | 148730 | M | 116.78 | 11.7 |

6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 2 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0804

Lab Sample ID: 9706220-02

Lab File ID: N6182628.D

Date Collected: 06/05/97

Date Received: 06/07/97

Date Prepared: 06/18/97

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2300 | E | 1.0 |
| 108-88-3 | Toluene | 1500 | E | 1.5 |
| 100-41-4 | Ethyl Benzene | 65 | | 1.0 |
| 108-38-3 | m,p-Xylene | 1800 | E | 1.0 |
| 95-47-6 | o-Xylene | 1700 | E | 1.0 |

RL = Reporting Limit



RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-02

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6182628.d  File (2): N6182628.d

Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

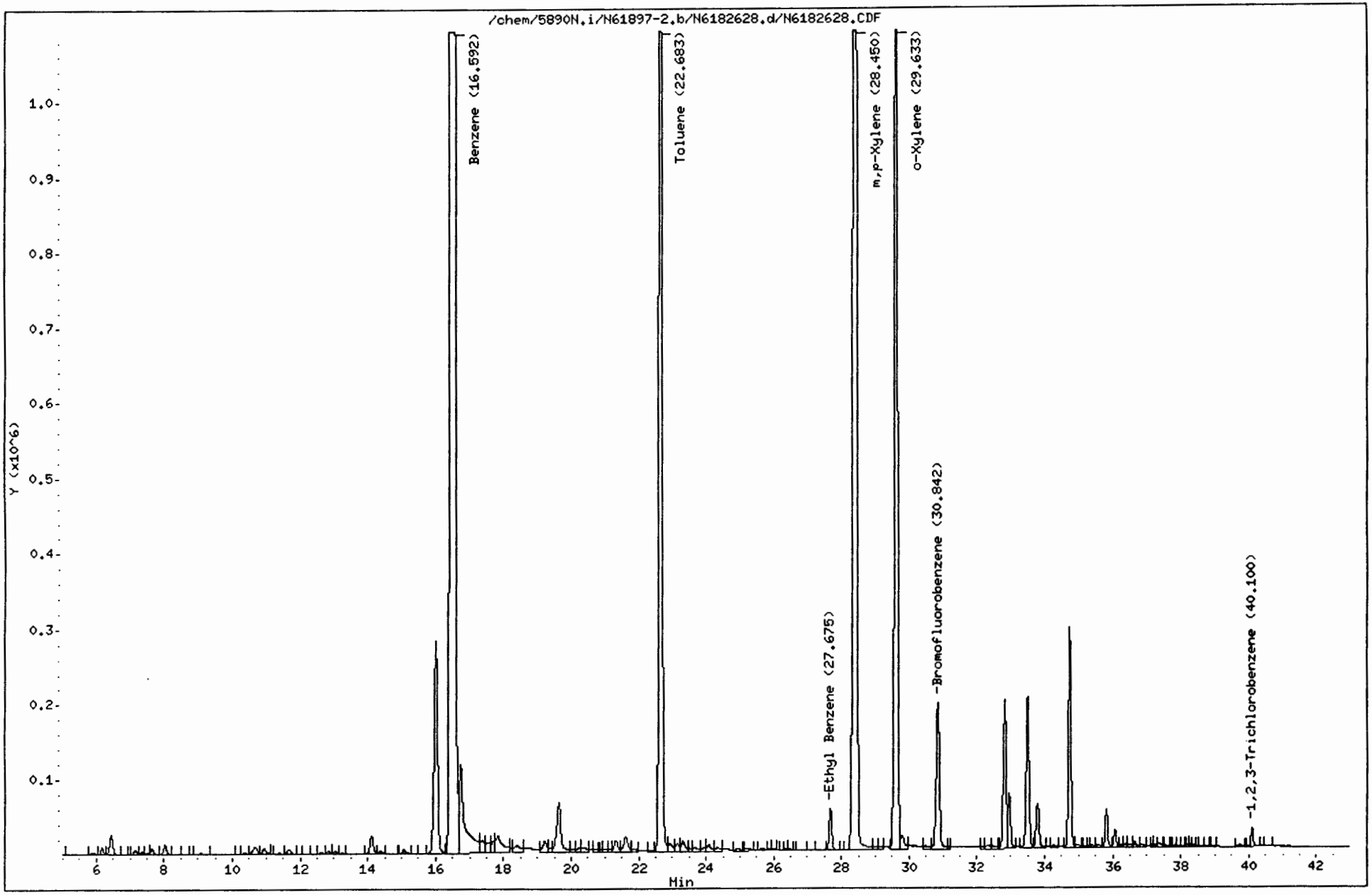
| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.16 | 13.94 | 14.04 | 2410 | 3.9 |
| | 2 | 16.59 | 16.38 | 16.48 | 2320 X | |
| Toluene | 1 | 19.82 | 19.66 | 19.86 | 1510 X | .7 |
| | 2 | 22.68 | 22.51 | 22.71 | 1520 | |
| Ethyl Benzene | 1 | 24.70 | 24.60 | 24.80 | 65.1 X | 3.5 |
| | 2 | 27.68 | 27.55 | 27.75 | 67.4 | |
| m,p-Xylene | 1 | 25.22 | 25.01 | 25.21 | 1790 X | 11.2 |
| | 2 | 28.45 | 28.22 | 28.42 | 1990 | |
| o-Xylene | 1 | 26.48 | 26.32 | 26.52 | 1750 | .6 |
| | 2 | 29.63 | 29.46 | 29.66 | 1740 X | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-2.b/N6182628.d
Date : 19-JUN-97 09:18:00
Client ID: MWAOC-3
Sample Info: 9706220-02
Purge Volume: 2.0
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-2.b/N6182628.d
Injection Date : 19-JUN-97 09:18:00
Sample Info : 9706220-02
Misc. Info : None
Laboratory ID : 9706220-02 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 616VPB03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 2 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.25 | | 15252 | | |
| | 2.81 | | 3717 | | |
| | 3.95 | | 2573 | | |
| | 4.09 | | 7060 | | |
| | 4.55 | | 17561 | | |
| | 4.92 | | 3898 | | |
| | 5.91 | | 14711 | | |
| | 6.18 | | 43463 | | |
| | 6.45 | | 169436 | | |
| | 6.79 | | 1329 | | |
| | 7.16 | | 30590 | | |
| | 7.35 | | 16267 | | |
| | 7.52 | | 9700 | | |
| | 7.65 | | 40906 | | |
| | 8.03 | | 72974 | | |
| | 8.32 | | 2585 | | |
| | 8.61 | | 3286 | | |
| | 9.10 | | 9517 | | |
| | 10.18 | | 1392 | | |
| | 10.38 | | 7449 | | |
| | 10.68 | | 79898 | | |
| | 10.94 | | 42329 | | |
| | 11.38 | | 5984 | | |
| | 11.68 | | 42776 | | |
| | 12.18 | | 2633 | | |
| | 12.64 | | 8066 | | |
| | 12.83 | | 21038 | | |
| | 13.03 | | 21760 | | |
| | 13.24 | | 5722 | | |
| | 14.12 | | 165940 | | |
| | 14.39 | | 18096 | | |
| | 14.67 | | 4833 | | |
| | 15.08 | | 35571 | | |
| | 15.41 | | 1837 | | |
| | 15.62 | | 3168 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6·30·97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182628.d
Injection Date : 19-JUN-97 09:18:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L | |
|---|---|---|---|---|---|---|---|
| | 16.01 | | 1990876 | | | | |
| Benzene | 16.59 | 16.38 - 16.48 | 14401426 | M | 4639.7 | 2320 | E |
| | 16.74 | | 1427971 | | | | |
| | 17.38 | | 178840 | | | | |
| | 17.55 | | 126508 | | | | |
| | 17.72 | | 109045 | | | | |
| | 17.83 | | 351635 | | | | |
| | 18.40 | | 131982 | | | | |
| | 19.22 | | 131477 | | | | |
| | 19.35 | | 47864 | | | | |
| | 19.64 | | 606045 | | | | |
| | 20.06 | | 48991 | | | | |
| | 20.26 | | 47525 | | | | |
| | 20.37 | | 75273 | | | | |
| | 20.72 | | 32643 | | | | |
| | 20.92 | | 20312 | | | | |
| | 21.02 | | 32824 | | | | |
| | 21.14 | | 28672 | | | | |
| | 21.32 | | 125056 | | | | |
| | 21.62 | | 204953 | | | | |
| | 21.86 | | 36704 | | | | |
| | 22.38 | | 22584 | | | | |
| Toluene | 22.68 | 22.51 - 22.71 | 8343925 | M | 3049.2 | 1520 | E |
| | 22.93 | | 101832 | | | | |
| | 23.15 | | 90785 | | | | |
| | 23.32 | | 115940 | | | | |
| | 23.50 | | 29766 | | | | |
| | 23.67 | | 56019 | | | | |
| | 23.98 | | 45972 | | | | |
| | 24.08 | | 72937 | | | | |
| | 24.34 | | 46881 | | | | |
| | 24.93 | | 31913 | | | | |
| | 25.20 | | 37504 | | | | |
| | 25.64 | | 28449 | | | | |
| | 25.88 | | 18457 | | | | |
| | 25.98 | | 18684 | | | | |
| | 26.25 | | 9805 | | | | |
| | 26.35 | | 14135 | | | | |
| | 26.46 | | 13674 | | | | |
| | 26.82 | | 13086 | | | | |
| | 27.08 | | 5757 | | | | |
| Ethyl Benzene | 27.68 | 27.55 - 27.75 | 313596 | | 134.72 | 67.4 | |
| m,p-Xylene | 28.45 | 28.22 - 28.42 | 10939016 | M | 3972.8 | 1990 | E |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182628.d
Injection Date : 19-JUN-97 09:18:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 28.98 | | 30179 | | | |
| | 29.14 | | 37345 | | | |
| o-Xylene | 29.63 | 29.46 - 29.66 | 7701668 | M | 3487.9 | 1740 E |
| | 29.79 | | 152612 | | | |
| | 30.49 | | 58225 | | | |
| Bromofluorobenzene | 30.84 | 30.68 - 30.88 | 1346293 | M | 637.03 | 318 |
| | 31.13 | | 20162 | | | |
| | 32.16 | | 21231 | | | |
| | 32.33 | | 45033 | | | |
| | 32.46 | | 39167 | | | |
| | 32.82 | | 1150832 | | | |
| | 32.96 | | 427823 | | | |
| | 33.50 | | 1193283 | | | |
| | 33.79 | | 387608 | | | |
| | 34.26 | | 38098 | | | |
| | 34.73 | | 1552925 | | | |
| | 34.98 | | 40969 | | | |
| | 35.12 | | 8975 | | | |
| | 35.18 | | 16831 | | | |
| | 35.30 | | 19539 | | | |
| | 35.39 | | 26602 | | | |
| | 35.58 | | 40332 | | | |
| | 35.82 | | 240472 | | | |
| | 36.07 | | 121125 | | | |
| | 36.27 | | 27661 | | | |
| | 36.38 | | 28504 | | | |
| | 36.48 | | 29657 | | | |
| | 36.63 | | 49884 | | | |
| | 36.86 | | 29914 | | | |
| | 37.15 | | 20703 | | | |
| | 37.23 | | 21692 | | | |
| | 37.35 | | 40291 | | | |
| | 37.53 | | 22176 | | | |
| | 37.74 | | 8204 | | | |
| | 37.84 | | 16910 | | | |
| | 37.92 | | 14293 | | | |
| | 38.02 | | 13253 | | | |
| | 38.18 | | 14254 | | | |
| | 38.26 | | 16305 | | | |
| | 38.37 | | 13617 | | | |
| | 38.46 | | 10518 | | | |
| | 38.56 | | 10597 | | | |
| | 38.78 | | 15239 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182628.d
Injection Date : 19-JUN-97 09:18:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 38.93 | | 6425 | | |
| | 39.75 | | 15608 | | |
| 1,2,3-Trichlorobenzene | 40.10 | 39.98 - 40.18 | 100828 | 90.950 | 45.5 |
| | 40.52 | | 2385 | | |

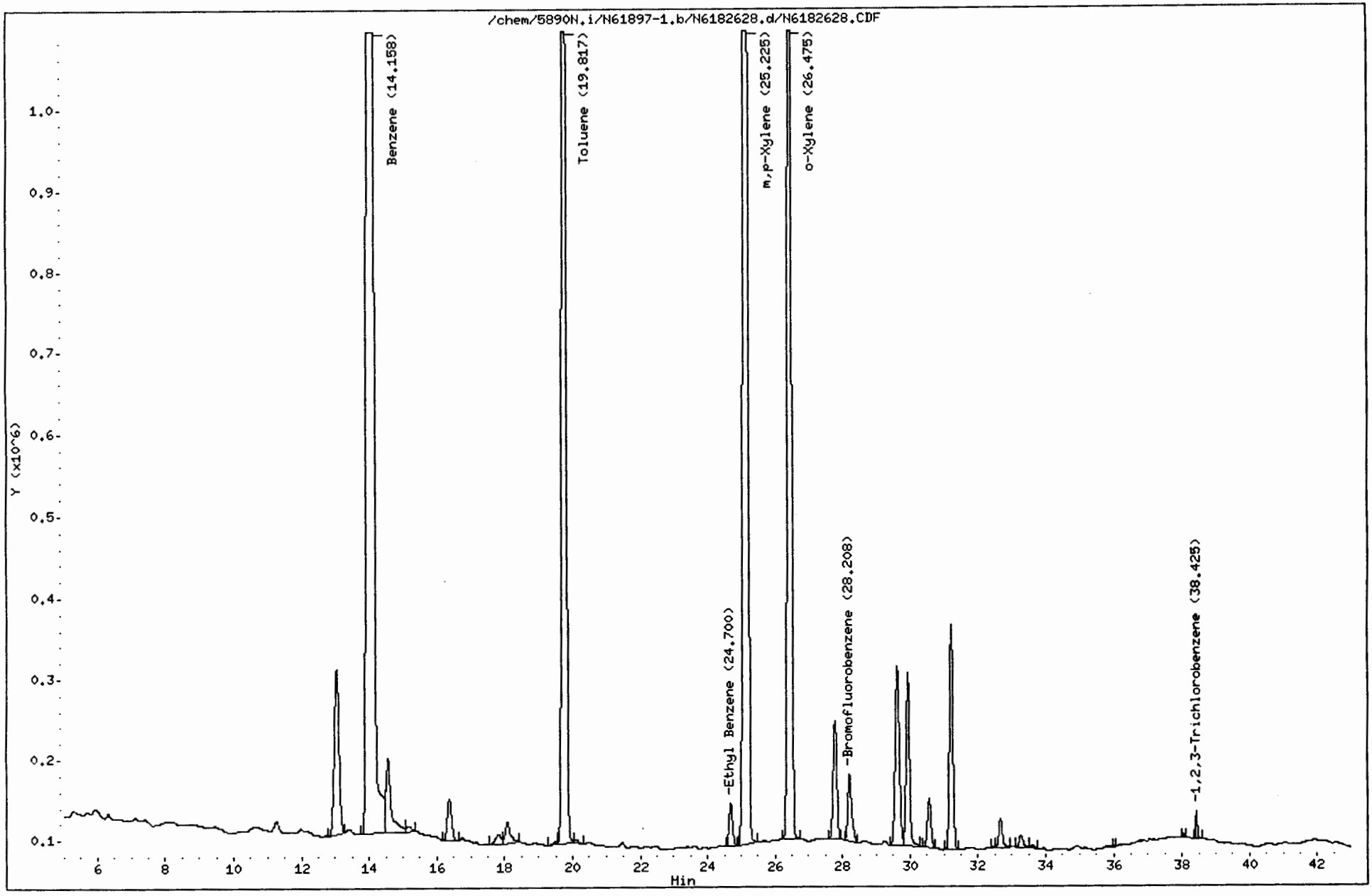
Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data F /chem/5890N.i/N61897-1.b/N6182628.d
Date : 19-JUN-97 09:18:00
Client ID: MWAOC-3
Sample Info: 9706220-02
Purge Volume: 2.0
Column phase: DB-624

Page

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-1.b/N6182628.d
Injection Date : 19-JUN-97 09:18:00
Sample Info : 9706220-02
Misc. Info : None
Laboratory ID : 9706220-02 Client ID : MWAOC-3
Instrument ID : 5890N.i
Method : 616VPA03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 13.05 | | 1972706 | | | |
| Benzene | 14.16 | 13.94 - 14.04 | 17190185 | M | 4812.2 | 2410 |
| | 14.57 | | 1024312 | | | |
| | 15.18 | | 60104 | | | |
| | 16.38 | | 456602 | | | |
| | 17.82 | | 140590 | | | |
| | 18.09 | | 287784 | | | |
| | 19.53 | | 30155 | | | |
| Toluene | 19.82 | 19.66 - 19.86 | 9902332 | | 3029.8 | 1510 |
| | 20.12 | | 43005 | | | |
| Ethyl Benzene | 24.70 | 24.60 - 24.80 | 374785 | M | 130.26 | 65.1 |
| m,p-Xylene | 25.22 | 25.01 - 25.21 | 12063718 | M | 3576.8 | 1790 |
| o-Xylene | 26.48 | 26.32 - 26.52 | 9136724 | M | 3508.0 | 1750 |
| | 27.78 | | 1081912 | | | |
| Bromofluorobenzene | 28.21 | 28.11 - 28.31 | 634990 | M | 244.35 | 122 |
| | 29.61 | | 1939845 | | | |
| | 29.93 | | 1582580 | | | |
| | 30.57 | | 418663 | | | |
| | 31.22 | | 1911346 | | | |
| | 32.48 | | 5502 | | | |
| | 32.67 | | 269080 | | | |
| | 33.28 | | 135443 | | | |
| | 33.62 | | 36145 | | | |
| | 36.03 | | 2261 | | | |
| | 38.04 | | 14551 | | | |
| 1,2,3-Trichlorobenzene | 38.42 | 38.33 - 38.53 | 119537 | M | 93.862 | 46.9 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3DL**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-02DL

Purge Volume: 0.2 ml

Lab File ID: N6181328.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 9900 | E | 10 |
| 108-88-3 | Toluene | 2000 | | 15 |
| 100-41-4 | Ethyl Benzene | 50 | P | 10 |
| 108-38-3 | m,p-Xylene | 3400 | E | 10 |
| 95-47-6 | o-Xylene | 2000 | | 10 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3DL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-02DL

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181328.d  File (2): N6181328.d

Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.00 | 13.94 | 14.04 | 10400 | 4.9 |
| | 2 | 16.44 | 16.38 | 16.48 | 9910 X | |
| Toluene | 1 | 19.75 | 19.66 | 19.86 | 2120 | 6.5 |
| | 2 | 22.62 | 22.51 | 22.71 | 1990 X | |
| Ethyl Benzene | 1 | 24.69 | 24.60 | 24.80 | 49.6 X | 41.9 |
| | 2 | 27.65 | 27.55 | 27.75 | 70.4 | |
| m,p-Xylene | 1 | 25.12 | 25.01 | 25.21 | 3530 | 2.3 |
| | 2 | 28.34 | 28.22 | 28.42 | 3450 X | |
| o-Xylene | 1 | 26.42 | 26.32 | 26.52 | 2140 | 7.5 |
| | 2 | 29.56 | 29.46 | 29.66 | 1990 X | |

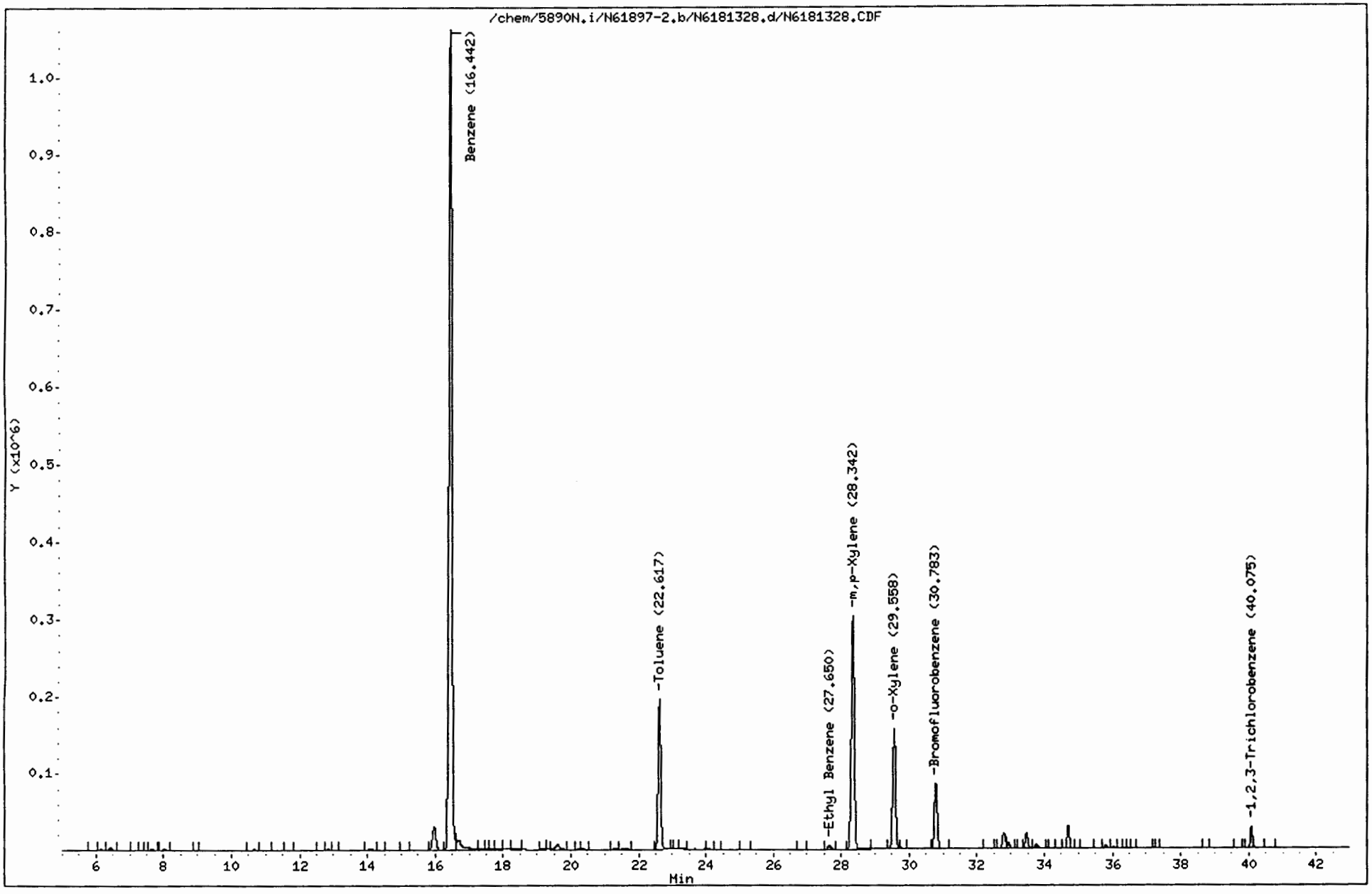
X = Concentration Reported

Data F. . /chem/5890N.i/N61897-2.b/N6181328.d
Date : 18-JUN-97 22:56:00
Client ID: MWAOC-3DL
Sample Info: 9706220-02DL
Purge Volume: 0.2
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-2.b/N6181328.d
Injection Date : 18-JUN-97 22:56:00
Sample Info : 9706220-02DL
Misc. Info : None
Laboratory ID : 9706220-02DL
Client ID : MWAOC-3DL
Instrument ID : 5890N.i
Method : 616VPB03.m
Sublist : btex
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-VRX
Column Size: 30.00m L- 0.45mm ID

SampleVolume: 0.2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.28 | | 4170 | | | |
| | 4.08 | | 5687 | | | |
| | 4.53 | | 20905 | | | |
| | 5.88 | | 1632 | | | |
| | 6.16 | | 4419 | | | |
| | 6.42 | | 17252 | | | |
| | 7.13 | | 3204 | | | |
| | 7.32 | | 1681 | | | |
| | 7.48 | | 1198 | | | |
| | 7.64 | | 9825 | | | |
| | 8.03 | | 7178 | | | |
| | 8.97 | | 1112 | | | |
| | 10.68 | | 9507 | | | |
| | 10.92 | | 6084 | | | |
| | 11.65 | | 4203 | | | |
| | 12.62 | | 2009 | | | |
| | 12.82 | | 5776 | | | |
| | 13.02 | | 2216 | | | |
| | 14.09 | | 17553 | | | |
| | 14.38 | | 2092 | | | |
| | 15.08 | | 3352 | | | |
| | 15.98 | | 212598 | | | |
| Benzene | 16.44 | 16.38 - 16.48 | 6149598 | M | 1981.2 | 9910 E |
| | 16.69 | | 171222 | | | |
| | 17.34 | | 18283 | | | |
| | 17.52 | | 13277 | | | |
| | 17.70 | | 13198 | | | |
| | 17.81 | | 24776 | | | |
| | 18.40 | | 15753 | | | |
| | 19.20 | | 12414 | | | |
| | 19.62 | | 61438 | | | |
| | 20.23 | | 4311 | | | |
| | 20.34 | | 6570 | | | |
| | 21.31 | | 11195 | | | |
| | 21.59 | | 17825 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181328.d
Injection Date : 18-JUN-97 22:56:00

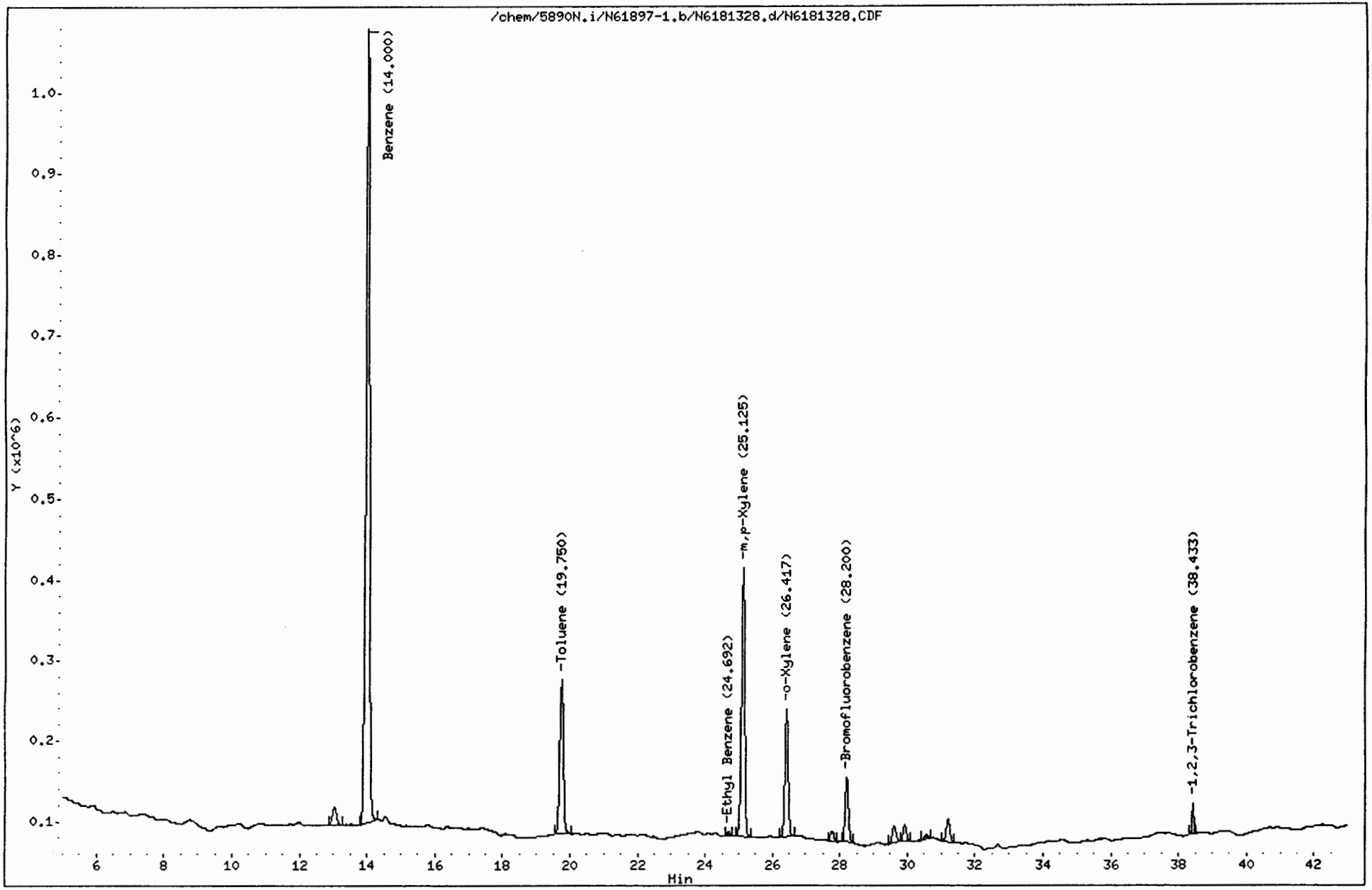
| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| Toluene | 22.62 | 22.51 - 22.71 | 1090474 | 398.51 | 1990 |
| | 23.12 | | 2592 | | |
| | 23.30 | | 5174 | | |
| | 24.07 | | 3601 | | |
| | 24.31 | | 1102 | | |
| | 25.10 | | 2680 | | |
| | 26.82 | | 1236 | | |
| Ethyl Benzene | 27.65 | 27.55 - 27.75 | 32799 | 14.090 | 70.4 |
| m,p-Xylene | 28.34 | 28.22 - 28.42 | 1901376 | 690.54 | 3450 |
| o-Xylene | 29.56 | 29.46 - 29.66 | 878144 | 397.69 | 1990 |
| | 29.75 | | 9939 | | |
| Bromofluorobenzene | 30.78 | 30.68 - 30.88 | 502120 | 237.59 | 1190 |
| | 32.31 | | 2311 | | |
| | 32.79 | | 112854 | | |
| | 32.93 | | 39624 | | |
| | 33.32 | | 1666 | | |
| | 33.47 | | 115981 | | |
| | 33.76 | | 34449 | | |
| | 34.23 | | 1051 | | |
| | 34.71 | | 155208 | | |
| | 34.92 | | 2537 | | |
| | 35.57 | | 3344 | | |
| | 35.79 | | 20274 | | |
| | 36.04 | | 8731 | | |
| | 36.35 | | 1468 | | |
| | 36.48 | | 1014 | | |
| | 36.61 | | 2154 | | |
| | 37.22 | | 1005 | | |
| | 37.33 | | 1557 | | |
| | 38.74 | | 1219 | | |
| | 39.72 | | 2017 | | |
| 1,2,3-Trichlorobenzene | 40.08 | 39.98 - 40.18 | 112876 | 101.82 | 509 |
| | 40.52 | | 1371 | | |

P
E

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61897-1.b/N6181328.d
Date : 18-JUN-97 22:56:00
Client ID: MWAOC-3DL
Sample Info: 9706220-02DL
Purge Volume: 0.2
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-1.b/N6181328.d
Injection Date : 18-JUN-97 22:56:00
Sample Info : 9706220-02DL
Misc. Info : None
Laboratory ID : 9706220-02DL
Client ID : MWAOC-3DL
Instrument ID : 5890N.i
Method : 616VPA03.m
Sublist : btex
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-624
Column Size: 30.00m L- 0.53mm ID

SampleVolume: 0.2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 13.03 | | 194437 | | | |
| Benzene | 14.00 | 13.94 - 14.04 | 7466440 | M | 2090.2 | 10400 |
| Toluene | 19.75 | 19.66 - 19.86 | 1387092 | M | 424.40 | 2120 |
| Ethyl Benzene | 24.69 | 24.60 - 24.80 | 28540 | M | 9.9196 | 49.6 |
| m,p-Xylene | 25.12 | 25.01 - 25.21 | 2383847 | M | 706.79 | 3530 |
| o-Xylene | 26.42 | 26.32 - 26.52 | 1116675 | M | 428.74 | 2140 |
| | 27.78 | | 83661 | | | |
| Bromofluorobenzene | 28.20 | 28.11 - 28.31 | 526952 | M | 202.78 | 1010 |
| | 29.61 | | 179158 | | | |
| | 29.92 | | 137732 | | | |
| | 30.57 | | 38104 | | | |
| | 31.21 | | 203580 | | | |
| 1,2,3-Trichlorobenzene | 38.43 | 38.33 - 38.53 | 127348 | M | 99.995 | 500 |

NK 6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-3DL2**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-02DL2

Purge Volume: 0.02 ml

Lab File ID: N6190729.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/19/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 11000 | | 100 |
| 108-88-3 | Toluene | 2300 | | 150 |
| 100-41-4 | Ethyl Benzene | 100 | U | 100 |
| 108-38-3 | m,p-Xylene | 3700 | | 100 |
| 95-47-6 | o-Xylene | 2100 | | 100 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-3DL2**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-02DL2

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6190729.d  File (2): N6190729.d

Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 13.99 | 13.94 | 14.04 | 11400 | 5.6 |
| | 2 | 16.48 | 16.42 | 16.52 | 10800 X | |
| Toluene | 1 | 19.75 | 19.65 | 19.85 | 2380 | 4.4 |
| | 2 | 22.67 | 22.55 | 22.75 | 2280 X | |
| m,p-Xylene | 1 | 25.12 | 25.01 | 25.21 | 3710 X | 2.7 |
| | 2 | 28.38 | 28.27 | 28.47 | 3810 | |
| o-Xylene | 1 | 26.42 | 26.31 | 26.51 | 2250 | 5.6 |
| | 2 | 29.61 | 29.50 | 29.70 | 2130 X | |

X = Concentration Reported

Data File: /chem/5890N.i/N61997-2.b/N6190729.d

Date : 19-JUN-97 18:56:00

Client ID: MWAOC-3DL2

Sample Info: 9706220-02DL2

Purge Volume: 0.0

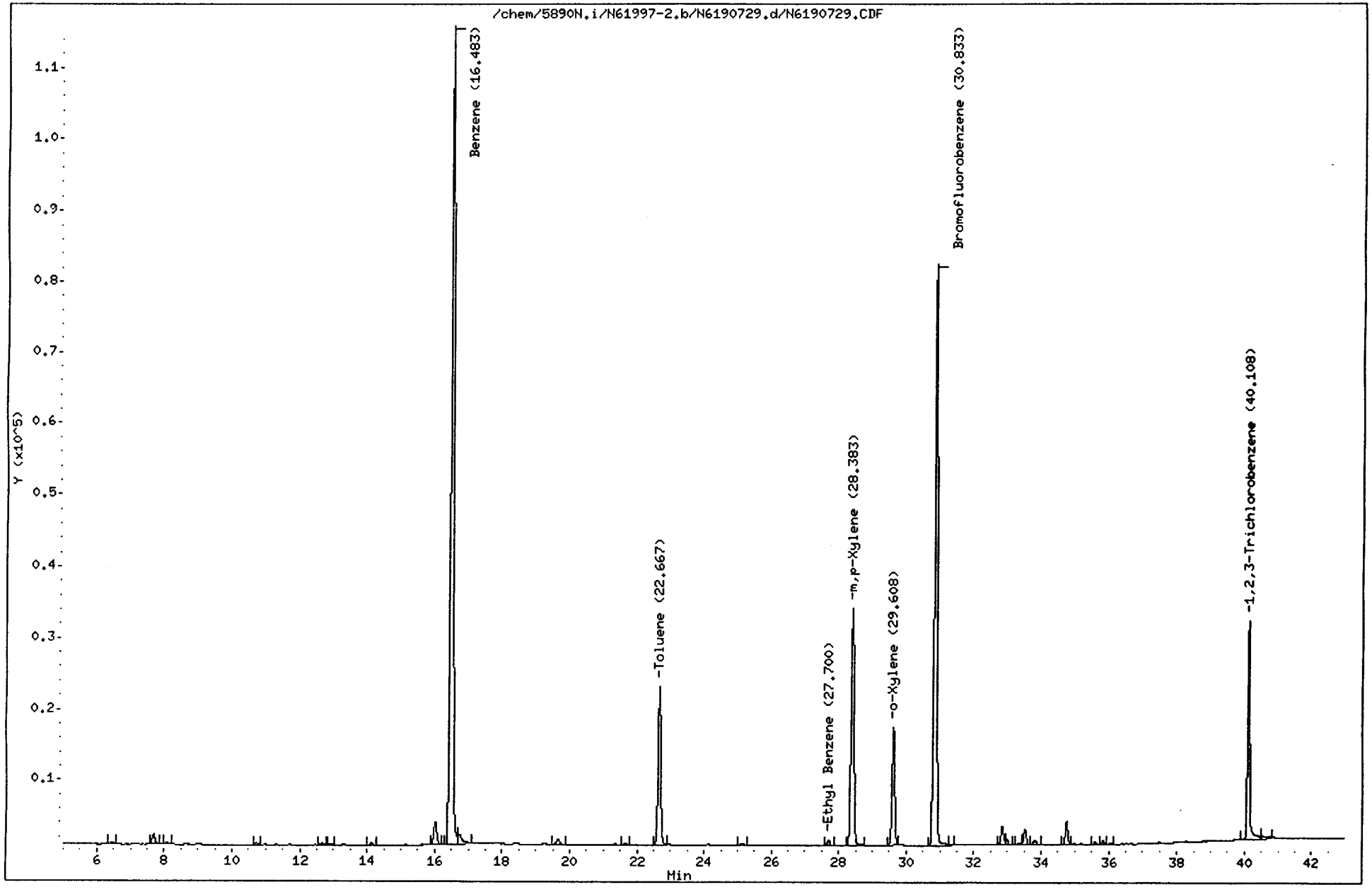
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-2.b/N6190729.d
Injection Date : 19-JUN-97 18:56:00
Sample Info : 9706220-02DL2
Misc. Info : None
Laboratory ID : 9706220-02 Client ID : MWAOC-3DL2
Instrument ID : 5890N.i
Method : 616VPB04.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 2.e-002 ml

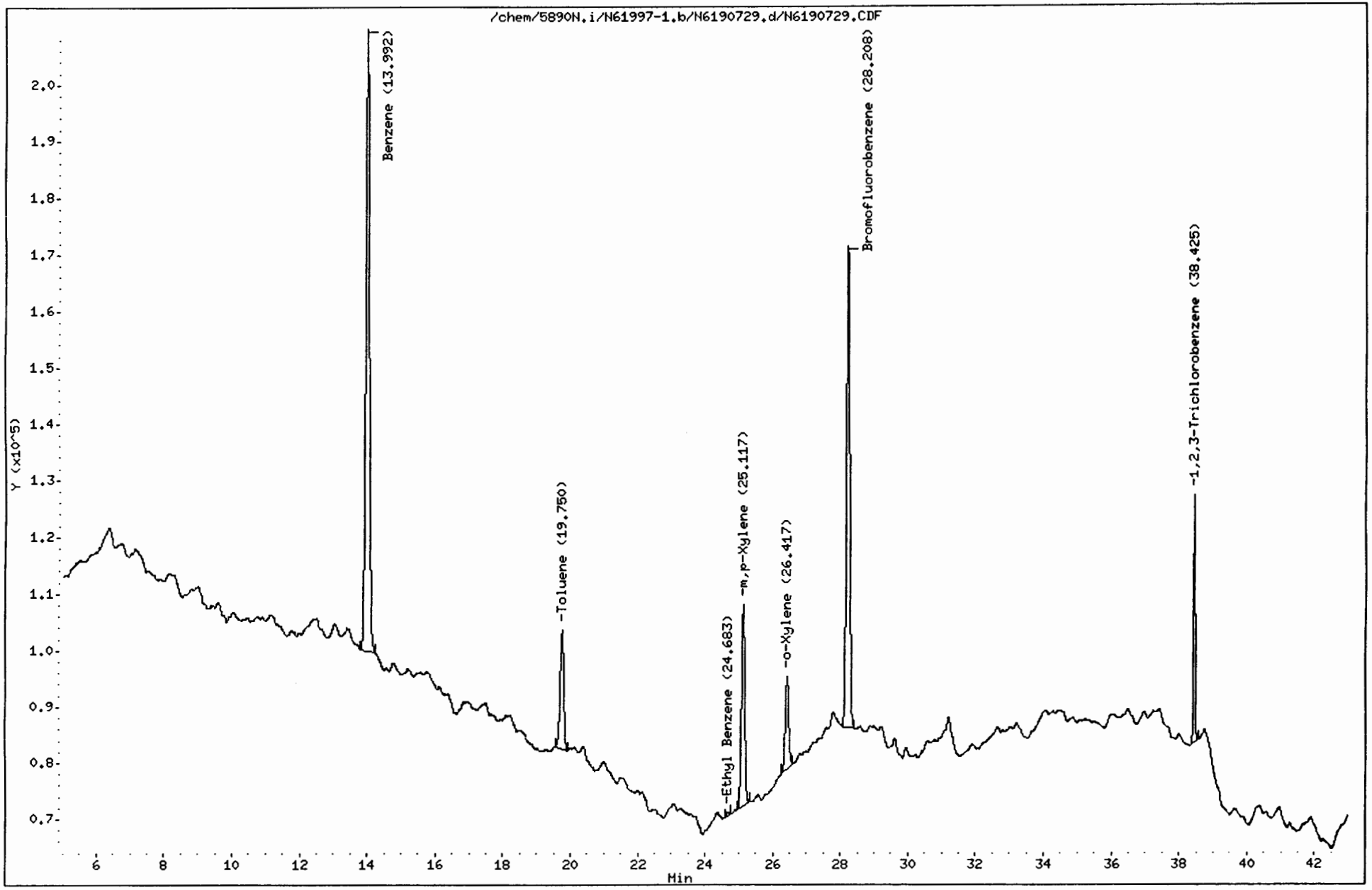
| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.31 | | 1316 | | |
| | 4.11 | | 3157 | | |
| | 4.56 | | 12401 | | |
| | 6.46 | | 1668 | | |
| | 7.68 | | 7692 | | |
| | 8.09 | | 1128 | | |
| | 10.72 | | 1538 | | |
| | 12.67 | | 1541 | | |
| | 12.89 | | 1061 | | |
| | 14.14 | | 1878 | | |
| | 16.02 | | 21881 | | |
| Benzene | 16.48 | 16.42 - 16.52 | 667464 | 215.04 | 10800 |
| | 16.74 | | 13743 | | |
| | 19.67 | | 5228 | | |
| | 21.64 | | 1105 | | |
| Toluene | 22.67 | 22.55 - 22.75 | 125087 | 45.712 | 2280 |
| | 25.14 | | 2085 | | |
| Ethyl Benzene | 27.70 | 27.59 - 27.79 | 4548 | 1.9538 | 97.7 |
| m,p-Xylene | 28.38 | 28.27 - 28.47 | 209870 | 76.220 | 3810 |
| o-Xylene | 29.61 | 29.50 - 29.70 | 93894 | 42.522 | 2130 |
| Bromofluorobenzene | 30.83 | 30.72 - 30.92 | 460118 | 217.72 | 10900 |
| | 31.33 | | 1146 | | |
| | 32.85 | | 14609 | | |
| | 32.98 | | 4607 | | |
| | 33.36 | | 1900 | | |
| | 33.52 | | 12885 | | |
| | 33.82 | | 4207 | | |
| | 34.76 | | 17721 | | |
| | 35.61 | | 2011 | | |
| | 35.83 | | 2469 | | |
| | 36.08 | | 1625 | | |
| 1,2,3-Trichlorobenzene | 40.11 | 40.01 - 40.21 | 133896 | 120.78 | 6040 |
| | 40.54 | | 4714 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61997-1.b/N6190729.d
Date : 19-JUN-97 18:56:00
Client ID: MWAOC-3DL2
Sample Info: 9706220-02DL2
Purge Volume: 0.0
Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-1.b/N6190729.d
Injection Date : 19-JUN-97 18:56:00
Sample Info : 9706220-02DL2
Misc. Info : None
Laboratory ID : 9706220-02 Client ID : MWAOC-3DL2
Instrument ID : 5890N.i
Method : 616VPA04.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 2.e-002 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Benzene | 13.99 | 13.94 - 14.04 | 817450 | M | 228.84 | 11400 |
| Toluene | 19.75 | 19.65 - 19.85 | 155734 | M | 47.649 | 2380 |
| Ethyl Benzene | 24.68 | 24.59 - 24.79 | 3432 | M | 1.1928 | 59.6 |
| m,p-Xylene | 25.12 | 25.01 - 25.21 | 250180 | M | 74.176 | 3710 |
| o-Xylene | 26.42 | 26.31 - 26.51 | 117083 | M | 44.953 | 2250 |
| Bromofluorobenzene | 28.21 | 28.10 - 28.30 | 564095 | M | 217.07 | 10800 |
| 1,2,3-Trichlorobenzene | 38.42 | 38.32 - 38.52 | 146767 | M | 115.24 | 5760 |

6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-03

Purge Volume: 10 ml

Lab File ID: N6181228.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2.9 | | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.53 | | 0.20 |
| 108-38-3 | m,p-Xylene | 1.6 | P | 0.20 |
| 95-47-6 | o-Xylene | 0.72 | P | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-4**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-03

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181228.d  File (2): N6181228.d

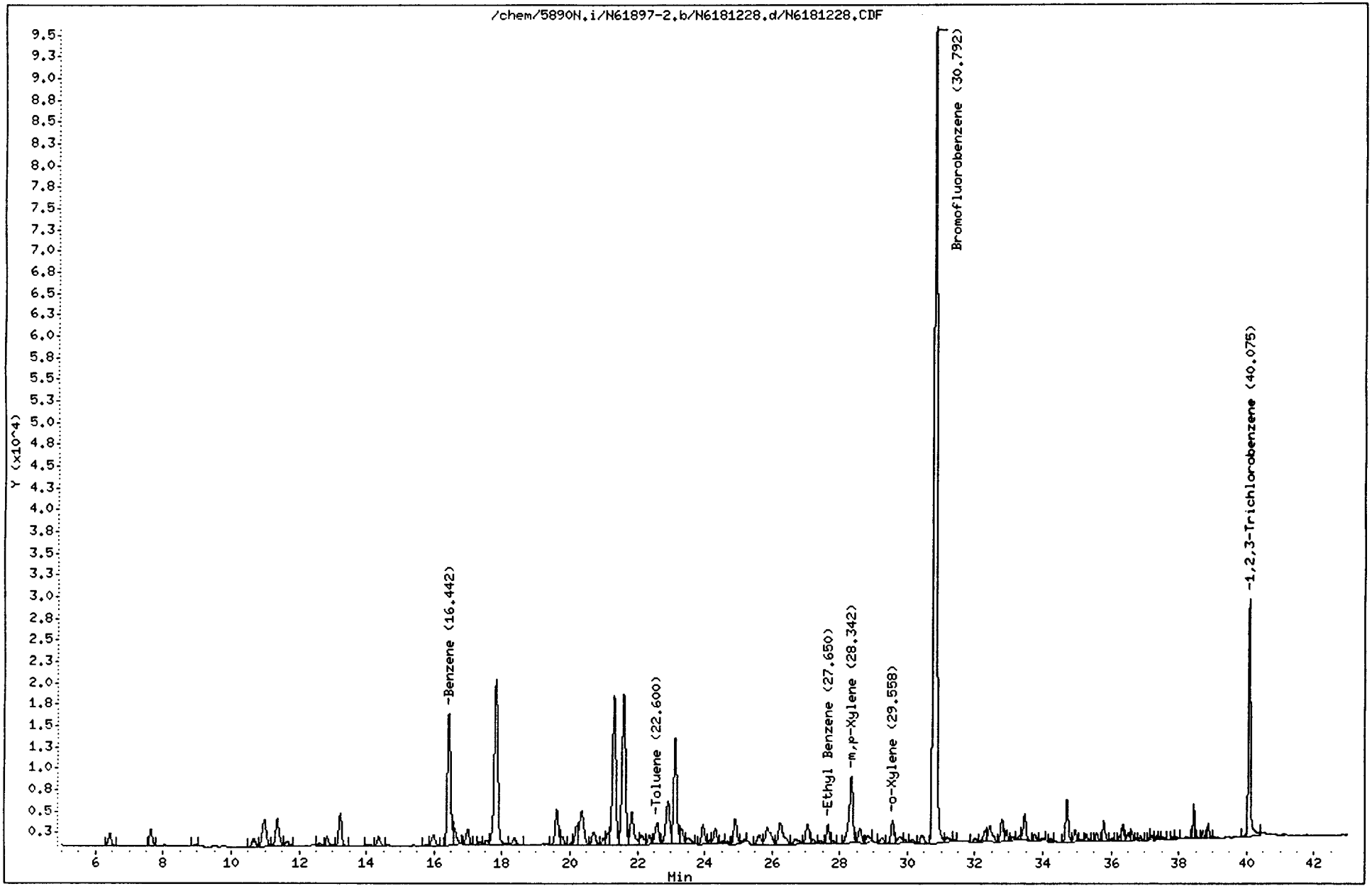
Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.00 | 13.94 | 14.04 | 2.9 X | 5.5 |
| | 2 | 16.44 | 16.38 | 16.48 | 3.06 | |
| Ethyl Benzene | 1 | 24.68 | 24.60 | 24.80 | 0.56 | 5.1 |
| | 2 | 27.65 | 27.55 | 27.75 | 0.533 X | |
| m,p-Xylene | 1 | 25.12 | 25.01 | 25.21 | 1.55 X | 40 |
| | 2 | 28.34 | 28.22 | 28.42 | 2.17 | |
| o-Xylene | 1 | 26.42 | 26.32 | 26.52 | 1.34 | 86.1 |
| | 2 | 29.56 | 29.46 | 29.66 | 0.72 X | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-2.b/N6181228.d
Date : 18-JUN-97 22:09:00
Client ID: MWAOC-4
Sample Info: 9706220-03
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-2.b/N6181228.d
Injection Date : 18-JUN-97 22:09:00
Sample Info : 9706220-03
Misc. Info : None
Laboratory ID : 9706220-03 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 616VPB03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.24 | | 320188 | | |
| | 2.80 | | 3819 | | |
| | 3.99 | | 1019 | | |
| | 4.08 | | 3689 | | |
| | 4.36 | | 7188 | | |
| | 4.42 | | 2804 | | |
| | 4.52 | | 3444 | | |
| | 6.42 | | 9420 | | |
| | 7.63 | | 11092 | | |
| | 8.95 | | 1386 | | |
| | 10.67 | | 6352 | | |
| | 10.98 | | 26367 | | |
| | 11.36 | | 22747 | | |
| | 11.65 | | 3411 | | |
| | 12.62 | | 2422 | | |
| | 12.82 | | 7033 | | |
| | 13.22 | | 22330 | | |
| | 14.09 | | 1800 | | |
| | 14.38 | | 7336 | | |
| | 15.78 | | 1310 | | |
| | 15.98 | | 9173 | | |
| Benzene | 16.44 | 16.38 - 16.48 | 95102 | 30.639 | 3.06 |
| | 16.60 | | 12553 | | |
| | 16.99 | | 10737 | | |
| | 17.35 | | 2127 | | |
| | 17.54 | | 3014 | | |
| | 17.82 | | 150840 | | |
| | 18.37 | | 5842 | | |
| | 19.62 | | 29235 | | |
| | 19.77 | | 6016 | | |
| | 20.08 | | 1271 | | |
| | 20.20 | | 14414 | | |
| | 20.35 | | 34595 | | |
| | 20.71 | | 10484 | | |
| | 21.00 | | 3742 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181228.d
Injection Date : 18-JUN-97 22:09:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 21.13 | | 8393 | | |
| | 21.31 | | 121523 | | |
| | 21.59 | | 128843 | | |
| | 21.83 | | 29752 | | |
| | 22.12 | | 9895 | | |
| | 22.37 | | 6845 | | |
| Toluene | 22.60 | 22.51 - 22.71 | 19866 | 7.2599 | 0.726 See DB-6 |
| | 22.91 | | 40810 | | |
| | 23.13 | | 83930 | | |
| | 23.31 | | 12421 | | |
| | 23.50 | | 7359 | | |
| | 23.96 | | 15298 | | |
| | 24.18 | | 2628 | | |
| | 24.32 | | 11783 | | |
| | 24.54 | | 1670 | | |
| | 24.68 | | 1578 | | |
| | 24.92 | | 19307 | | |
| | 25.18 | | 1987 | | |
| | 25.61 | | 9640 | | |
| | 25.86 | | 22304 | | |
| | 26.24 | | 25869 | | |
| | 26.70 | | 6624 | | |
| | 27.04 | | 16007 | | |
| | 27.21 | | 3593 | | |
| | 27.42 | | 2303 | | |
| Ethyl Benzene | 27.65 | 27.55 - 27.75 | 12414 | 5.3329 | 0.533 |
| | 27.81 | | 1939 | | |
| m,p-Xylene | 28.34 | 28.22 - 28.42 | 59795 | 21.716 | 2.17 P |
| | 28.59 | | 11061 | | |
| | 28.83 | | 5579 | | |
| | 29.25 | | 4729 | | |
| o-Xylene | 29.56 | 29.46 - 29.66 | 15909 | 7.2047 | 0.720 P |
| | 29.78 | | 6309 | | |
| | 29.92 | | 2234 | | |
| | 30.15 | | 3264 | | |
| | 30.43 | | 8505 | | |
| Bromofluorobenzene | 30.79 | 30.68 - 30.88 | 597544 | 282.74 | 28.3 |
| | 31.18 | | 5086 | | |
| | 31.38 | | 1075 | | |
| | 32.00 | | 3758 | | |
| | 32.31 | | 8808 | | |
| | 32.43 | | 15482 | | |
| | 32.79 | | 14770 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181228.d
Injection Date : 18-JUN-97 22:09:00

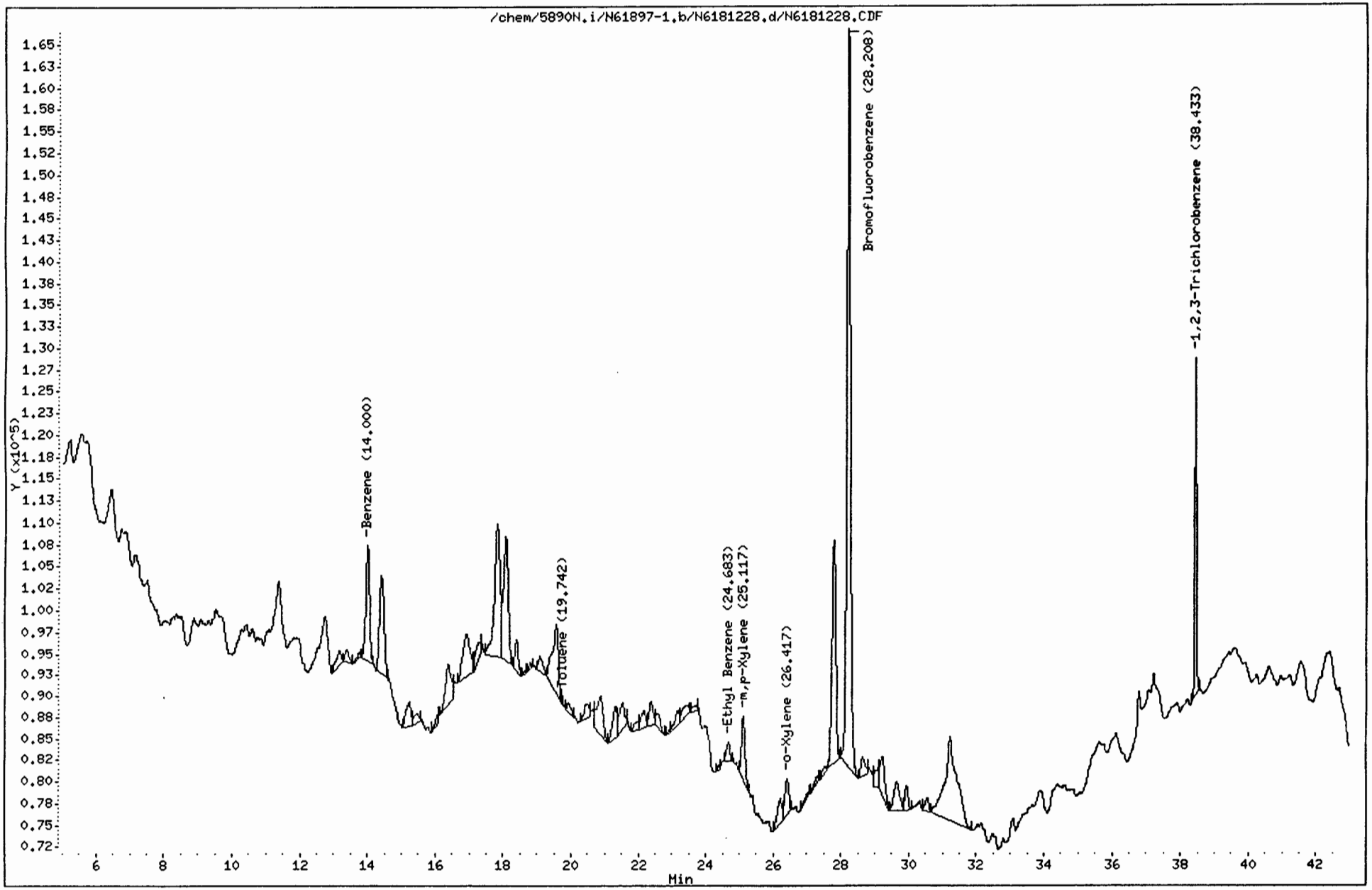
| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 32.93 | | 5825 | | |
| | 33.11 | | 2334 | | |
| | 33.33 | | 3162 | | |
| | 33.47 | | 18218 | | |
| | 33.76 | | 4699 | | |
| | 34.00 | | 1548 | | |
| | 34.23 | | 1838 | | |
| | 34.71 | | 27728 | | |
| | 34.95 | | 8212 | | |
| | 35.13 | | 1135 | | |
| | 35.28 | | 4402 | | |
| | 35.58 | | 4989 | | |
| | 35.78 | | 12133 | | |
| | 36.02 | | 1684 | | |
| | 36.25 | | 2241 | | |
| | 36.35 | | 8266 | | |
| | 36.52 | | 5120 | | |
| | 36.62 | | 3270 | | |
| | 36.88 | | 2260 | | |
| | 37.15 | | 1035 | | |
| | 37.20 | | 1959 | | |
| | 37.33 | | 1516 | | |
| | 37.43 | | 1202 | | |
| | 37.53 | | 1429 | | |
| | 37.82 | | 1052 | | |
| | 37.92 | | 1162 | | |
| | 38.44 | | 12854 | | |
| | 38.71 | | 3466 | | |
| | 38.87 | | 6624 | | |
| 1,2,3-Trichlorobenzene | 40.08 | 39.98 - 40.18 | 115928 | 104.57 | 10.4 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61897-1.b/N6181228.d
Date : 18-JUN-97 22:09:00
Client ID: MWAOC-4
Sample Info: 9706220-03
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-1.b/N6181228.d
Injection Date : 18-JUN-97 22:09:00
Sample Info : 9706220-03
Misc. Info : None
Laboratory ID : 9706220-03 Client ID : MWAOC-4
Instrument ID : 5890N.i
Method : 616VPA03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 13.18 | | 17436 | | | |
| | 13.38 | | 12619 | | | |
| | 13.75 | | 5330 | | | |
| Benzene | 14.00 | 13.94 - 14.04 | 103591 | M | 28.999 | 2.90 |
| | 14.41 | | 104386 | | | |
| | 15.23 | | 28535 | | | |
| | 15.46 | | 12327 | | | |
| | 16.08 | | 8804 | | | |
| | 16.38 | | 57823 | | | |
| | 16.92 | | 74060 | | | |
| | 17.28 | | 19895 | | | |
| | 17.82 | | 182590 | | | |
| | 18.08 | | 141211 | | | |
| | 18.39 | | 24974 | | | |
| | 18.63 | | 1484 | | | |
| | 18.80 | | 2879 | | | |
| | 19.08 | | 16061 | | | |
| | 19.56 | | 99507 | | | |
| Toluene | 19.74 | 19.66 - 19.86 | 1094 | M | 0.33473 | 0.0335 <RL |
| | 19.92 | | 8159 | | | |
| | 20.47 | | 17914 | | | |
| | 20.88 | | 57292 | | | |
| | 21.31 | | 35371 | | | |
| | 21.52 | | 32579 | | | |
| | 21.95 | | 8027 | | | |
| | 22.17 | | 19088 | | | |
| | 22.38 | | 22921 | | | |
| | 22.56 | | 16630 | | | |
| | 22.92 | | 1562 | | | |
| | 23.18 | | 16510 | | | |
| | 23.46 | | 19477 | | | |
| | 23.61 | | 6785 | | | |
| | 24.39 | | 2307 | | | |
| Ethyl Benzene | 24.68 | 24.60 - 24.80 | 16119 | M | 5.6025 | 0.560 |
| m,p-Xylene | 25.12 | 25.01 - 25.21 | 52292 | M | 15.504 | 1.55 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

MR 6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181228.d
Injection Date : 18-JUN-97 22:09:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 26.22 | | 25400 | | | |
| o-Xylene | 26.42 | 26.32 - 26.52 | 35035 | | 13.452 | 1.34 |
| | 27.03 | | 3734 | | | |
| | 27.31 | | 7390 | | | |
| | 27.57 | | 5659 | | | |
| | 27.78 | | 194276 | | | |
| Bromofluorobenzene | 28.21 | 28.11 - 28.31 | 603697 | M | 232.31 | 23.2 |
| | 28.63 | | 19747 | | | |
| | 29.11 | | 18255 | | | |
| | 29.21 | | 42137 | | | |
| | 29.65 | | 40562 | | | |
| | 29.93 | | 20091 | | | |
| | 30.55 | | 10648 | | | |
| | 31.22 | | 239746 | | | |
| 1,2,3-Trichlorobenzene | 38.43 | 38.33 - 38.53 | 134130 | M | 105.32 | 10.5 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-4DP**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-04

Purge Volume: 10 ml

Lab File ID: N6181128.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 2.2 | P | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.20 | U | 0.20 |
| 108-38-3 | m,p-Xylene | 2.1 | P | 0.20 |
| 95-47-6 | o-Xylene | 1.1 | P | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-4DP**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-04

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181128.d  File (2): N6181128.d

Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.01 | 13.94 | 14.04 | 2.25 X | 54.7 |
| | 2 | 16.44 | 16.38 | 16.48 | 3.48 | |
| m,p-Xylene | 1 | 25.13 | 25.01 | 25.21 | 2.09 X | 207.7 |
| | 2 | 28.32 | 28.22 | 28.42 | 6.43 | |
| o-Xylene | 1 | 26.42 | 26.32 | 26.52 | 2.57 | 144.8 |
| | 2 | 29.56 | 29.46 | 29.66 | 1.05 X | |

X = Concentration Reported

Data F. . /chem/5890N.i/N61897-2.b/N6181128.d

Date : 18-JUN-97 21:21:00

Client ID: MWAOC-4DP

Sample Info: 9706220-04

Purge Volume: 10.0

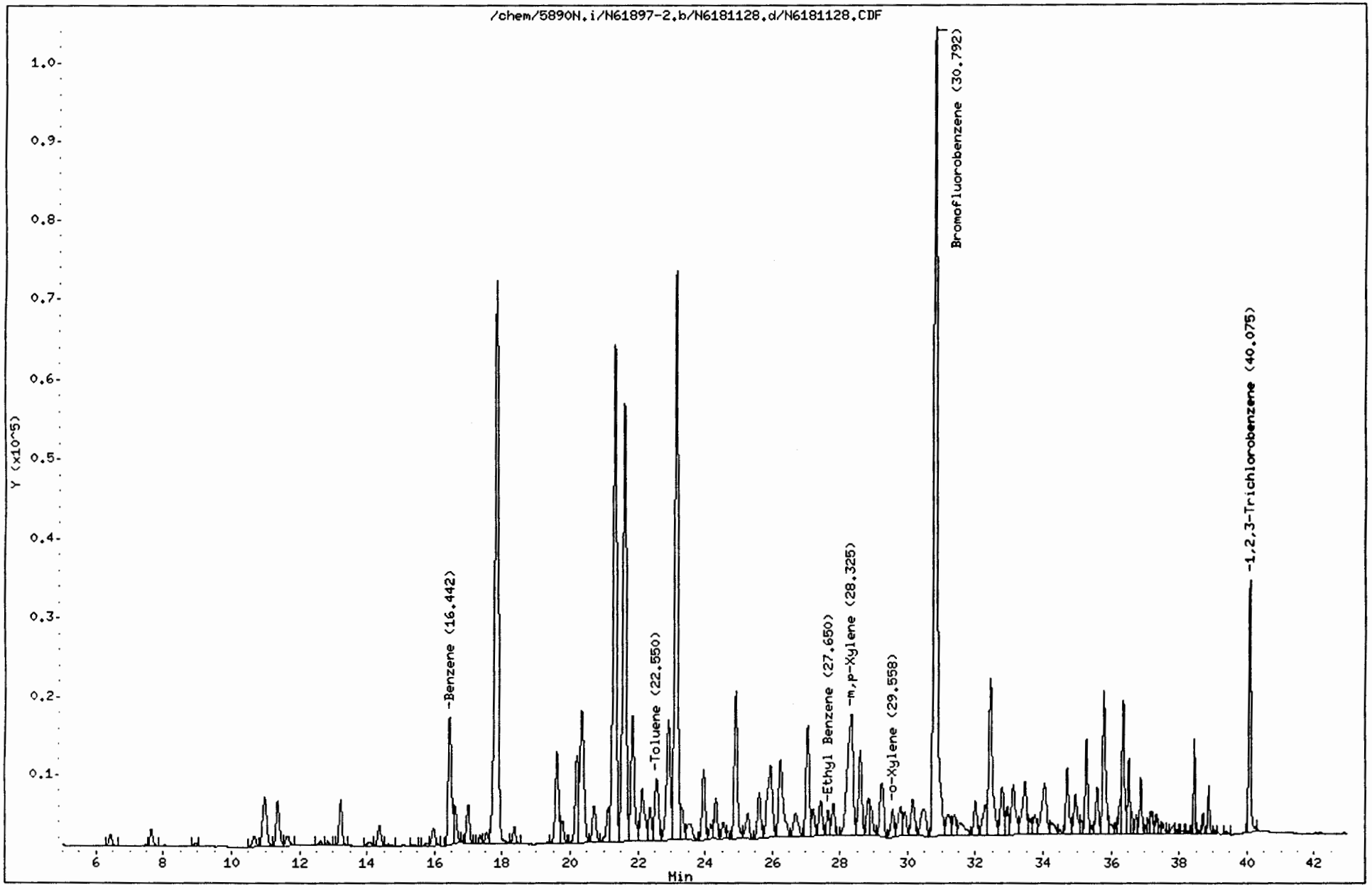
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45





Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-2.b/N6181128.d
Injection Date : 18-JUN-97 21:21:00
Sample Info : 9706220-04
Misc. Info : None
Laboratory ID : 9706220-04 Client ID : MWAOC-4DP
Instrument ID : 5890N.i
Method : 616VPB03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.25 | | 334344 | | |
| | 2.80 | | 2495 | | |
| | 3.99 | | 1286 | | |
| | 4.08 | | 4415 | | |
| | 4.28 | | 4524 | | |
| | 4.52 | | 10388 | | |
| | 6.42 | | 9829 | | |
| | 7.64 | | 11551 | | |
| | 8.94 | | 2162 | | |
| | 10.67 | | 9445 | | |
| | 10.98 | | 53061 | | |
| | 11.36 | | 38845 | | |
| | 11.65 | | 9502 | | |
| | 12.62 | | 3918 | | |
| | 12.83 | | 3215 | | |
| | 13.22 | | 33299 | | |
| | 14.08 | | 4460 | | |
| | 14.37 | | 18149 | | |
| | 14.64 | | 1886 | | |
| | 15.40 | | 1110 | | |
| | 15.78 | | 2427 | | |
| | 15.98 | | 15640 | | |
| Benzene | 16.44 | 16.38 - 16.48 | 108098 | 34.826 | 3.48 |
| | 16.61 | | 30595 | | |
| | 16.99 | | 31759 | | |
| | 17.35 | | 6549 | | |
| | 17.54 | | 8961 | | |
| | 17.82 | | 549738 | | |
| | 18.37 | | 13973 | | |
| | 19.62 | | 82288 | | |
| | 19.77 | | 17183 | | |
| | 20.21 | | 69191 | | |
| | 20.34 | | 141128 | | |
| | 20.72 | | 33874 | | |
| | 21.12 | | 28392 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6 30 97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181128.d
Injection Date : 18-JUN-97 21:21:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 21.31 | | 438838 | | |
| | 21.59 | | 406521 | | |
| | 21.84 | | 120070 | | |
| | 22.12 | | 56687 | | |
| | 22.37 | | 27562 | | |
| Toluene | 22.55 | 22.51 - 22.71 | 64129 | 23.436 | 2.34 Not Cont |
| | 22.92 | | 121797 | | |
| | 23.13 | | 483550 | | |
| | 23.31 | | 25718 | | |
| | 23.57 | | 24709 | | |
| | 23.96 | | 55334 | | |
| | 24.18 | | 10841 | | |
| | 24.32 | | 33430 | | |
| | 24.54 | | 13205 | | |
| | 24.68 | | 4705 | | |
| | 24.92 | | 126881 | | |
| | 25.28 | | 24497 | | |
| | 25.61 | | 43117 | | |
| | 25.95 | | 96908 | | |
| | 26.24 | | 91456 | | |
| | 26.69 | | 29512 | | |
| | 27.05 | | 92233 | | |
| | 27.22 | | 20979 | | |
| | 27.44 | | 30983 | | |
| Ethyl Benzene | 27.65 | 27.55 - 27.75 | 17915 | 7.6961 | 0.770 Note |
| | 27.81 | | 23377 | | |
| m,p-Xylene | 28.32 | 28.22 - 28.42 | 177118 | 64.326 | 6.43 P |
| | 28.58 | | 74165 | | |
| | 28.82 | | 29279 | | |
| | 28.92 | | 18348 | | |
| | 29.23 | | 54073 | | |
| o-Xylene | 29.56 | 29.46 - 29.66 | 23206 | 10.509 | 1.05 P |
| | 29.78 | | 29292 | | |
| | 29.92 | | 18733 | | |
| | 30.14 | | 34793 | | |
| | 30.48 | | 37391 | | |
| Bromofluorobenzene | 30.79 | 30.68 - 30.88 | 715212 | 338.42 | 33.8 |
| | 31.18 | | 24951 | | |
| | 31.38 | | 17263 | | |
| | 31.56 | | 21821 | | |
| | 32.00 | | 28721 | | |
| | 32.29 | | 29557 | | |
| | 32.43 | | 152660 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181128.d
Injection Date : 18-JUN-97 21:21:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 32.78 | | 41419 | | |
| | 32.93 | | 21409 | | |
| | 33.11 | | 53903 | | |
| | 33.46 | | 61556 | | |
| | 33.61 | | 11453 | | |
| | 33.75 | | 18344 | | |
| | 34.05 | | 64884 | | |
| | 34.27 | | 15866 | | |
| | 34.51 | | 3439 | | |
| | 34.71 | | 53330 | | |
| | 34.95 | | 37031 | | |
| | 35.12 | | 10360 | | |
| | 35.28 | | 63402 | | |
| | 35.42 | | 5151 | | |
| | 35.58 | | 34966 | | |
| | 35.78 | | 107680 | | |
| | 35.98 | | 9196 | | |
| | 36.15 | | 6069 | | |
| | 36.26 | | 18065 | | |
| | 36.35 | | 85034 | | |
| | 36.52 | | 43644 | | |
| | 36.62 | | 9532 | | |
| | 36.74 | | 11271 | | |
| | 36.88 | | 32243 | | |
| | 37.04 | | 4322 | | |
| | 37.11 | | 7202 | | |
| | 37.20 | | 17091 | | |
| | 37.33 | | 11115 | | |
| | 37.42 | | 5206 | | |
| | 37.52 | | 6714 | | |
| | 37.65 | | 1893 | | |
| | 37.83 | | 7253 | | |
| | 37.92 | | 2439 | | |
| | 38.02 | | 1585 | | |
| | 38.08 | | 1834 | | |
| | 38.17 | | 1474 | | |
| | 38.25 | | 1687 | | |
| | 38.44 | | 39003 | | |
| | 38.54 | | 2863 | | |
| | 38.71 | | 10576 | | |
| | 38.87 | | 21527 | | |
| | 39.05 | | 1725 | | |
| | 39.40 | | 1837 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181128.d
Injection Date : 18-JUN-97 21:21:00

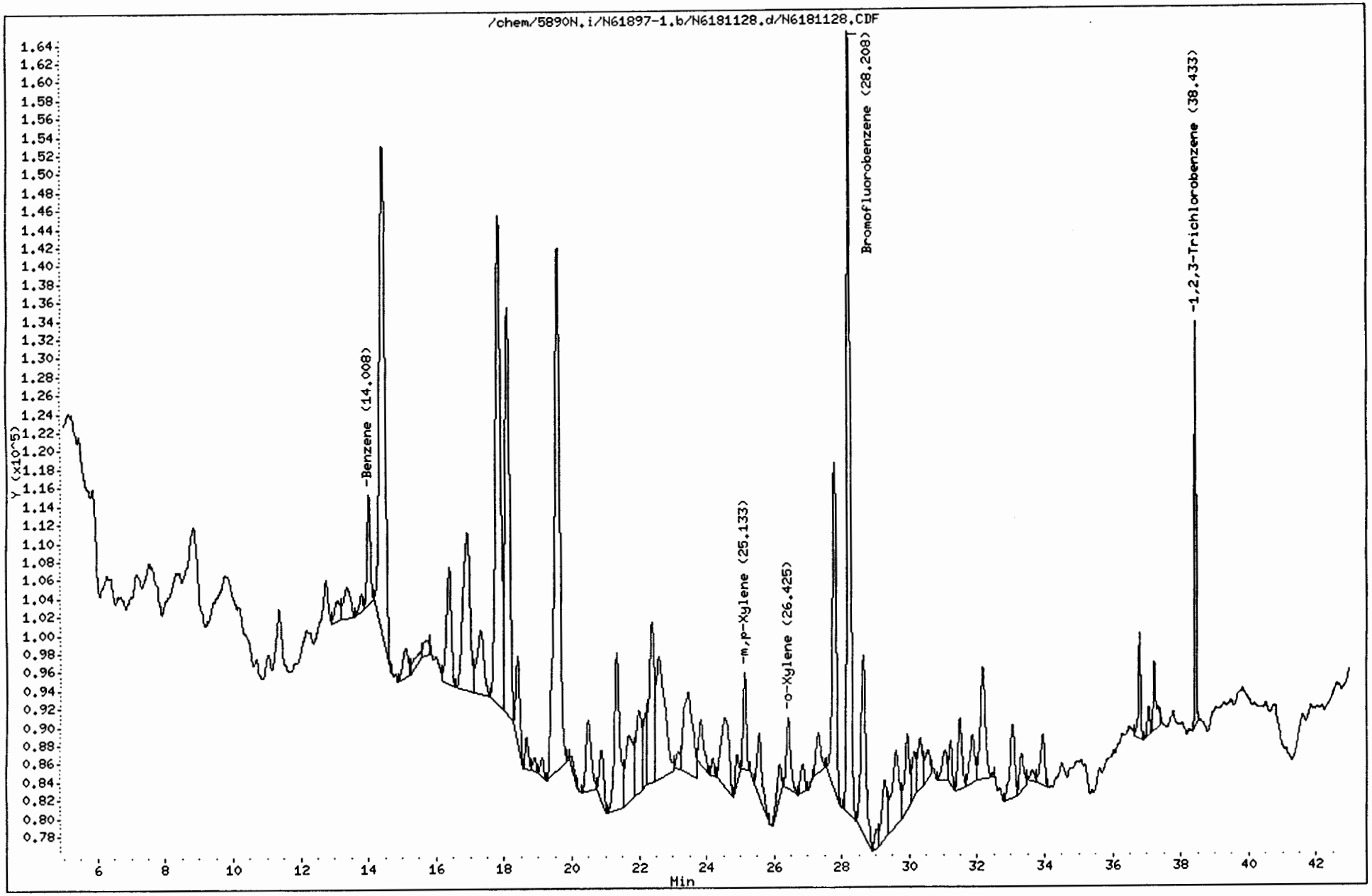
| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| 1,2,3-Trichlorobenzene | 40.08 | 39.98 - 40.18 | 128796 | 116.18 | 11.6 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61897-1.b/N6181128.d
Date : 18-JUN-97 21:21:00
Client ID: MWAOC-4DP
Sample Info: 9706220-04
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-1.b/N6181128.d
Injection Date : 18-JUN-97 21:21:00
Sample Info : 9706220-04
Misc. Info : None
Laboratory ID : 9706220-04 Client ID : MWAOC-4DP
Instrument ID : 5890N.i
Method : 616VPA03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 13.07 | | 24419 | | | |
| | 13.36 | | 48026 | | | |
| | 13.79 | | 14109 | | | |
| Benzene | 14.01 | 13.94 - 14.04 | 80420 | M | 22.512 | 2.25 |
| | 14.42 | | 590005 | | | |
| | 15.08 | | 35979 | | | |
| | 15.53 | | 19067 | | | |
| | 15.66 | | 19412 | | | |
| | 16.38 | | 120777 | | | |
| | 16.92 | | 248098 | | | |
| | 17.32 | | 99016 | | | |
| | 17.83 | | 543652 | | | |
| | 18.10 | | 444766 | | | |
| | 18.39 | | 70514 | | | |
| | 18.66 | | 22830 | | | |
| | 18.91 | | 10751 | | | |
| | 19.12 | | 13228 | | | |
| | 19.58 | | 645690 | | | |
| | 19.88 | | 1473 | | | |
| | 19.97 | | 10976 | | | |
| | 20.48 | | 85023 | | | |
| | 20.88 | | 50981 | | | |
| | 21.33 | | 198028 | | | |
| | 21.70 | | 107918 | | | |
| | 21.99 | | 109994 | | | |
| | 22.22 | | 62992 | | | |
| | 22.38 | | 193961 | | | |
| | 22.58 | | 230416 | | | |
| | 23.16 | | 13442 | | | |
| | 23.46 | | 170073 | | | |
| | 23.82 | | 49847 | | | |
| | 24.19 | | 10926 | | | |
| | 24.53 | | 126616 | | | |
| | 24.91 | | 18543 | | | |
| m,p-Xylene | 25.13 | 25.01 - 25.21 | 70637 | M | 20.943 | 2.09 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6·30·97



C3

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6181128.d
Injection Date : 18-JUN-97 21:21:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 25.56 | | 69663 | | | |
| | 26.17 | | 35461 | | | |
| o-Xylene | 26.42 | 26.32 - 26.52 | 67014 | M | 25.730 | 2.57 |
| | 26.84 | | 26540 | | | |
| | 27.31 | | 41115 | | | |
| | 27.78 | | 269725 | | | |
| Bromofluorobenzene | 28.21 | 28.11 - 28.31 | 576379 | M | 221.80 | 22.2 |
| | 28.62 | | 198564 | | | |
| | 29.03 | | 16186 | | | |
| | 29.26 | | 71063 | | | |
| | 29.59 | | 130187 | | | |
| | 29.93 | | 83700 | | | |
| | 30.13 | | 43427 | | | |
| | 30.32 | | 55056 | | | |
| | 30.53 | | 34136 | | | |
| | 31.05 | | 32043 | | | |
| | 31.22 | | 31705 | | | |
| | 31.49 | | 64020 | | | |
| | 31.85 | | 53145 | | | |
| | 32.16 | | 131307 | | | |
| | 33.05 | | 81618 | | | |
| | 33.32 | | 35064 | | | |
| | 33.62 | | 10440 | | | |
| | 33.95 | | 50240 | | | |
| | 36.78 | | 52303 | | | |
| | 37.04 | | 15231 | | | |
| | 37.20 | | 46373 | | | |
| 1,2,3-Trichlorobenzene | 38.43 | 38.33 - 38.53 | 145976 | M | 114.62 | 11.5 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MWAOC-2**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-05

Purge Volume: 10 ml

Lab File ID: N6190929.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/19/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 0.43 | P | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.20 | U | 0.20 |
| 108-38-3 | m,p-Xylene | 0.20 | U | 0.20 |
| 95-47-6 | o-Xylene | 0.20 | U | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MWAOC-2**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-05

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6190929.d | File (2): N6190929.d

Date Analyzed (1) 06/19/97 | Date Analyzed (2): 06/19/97

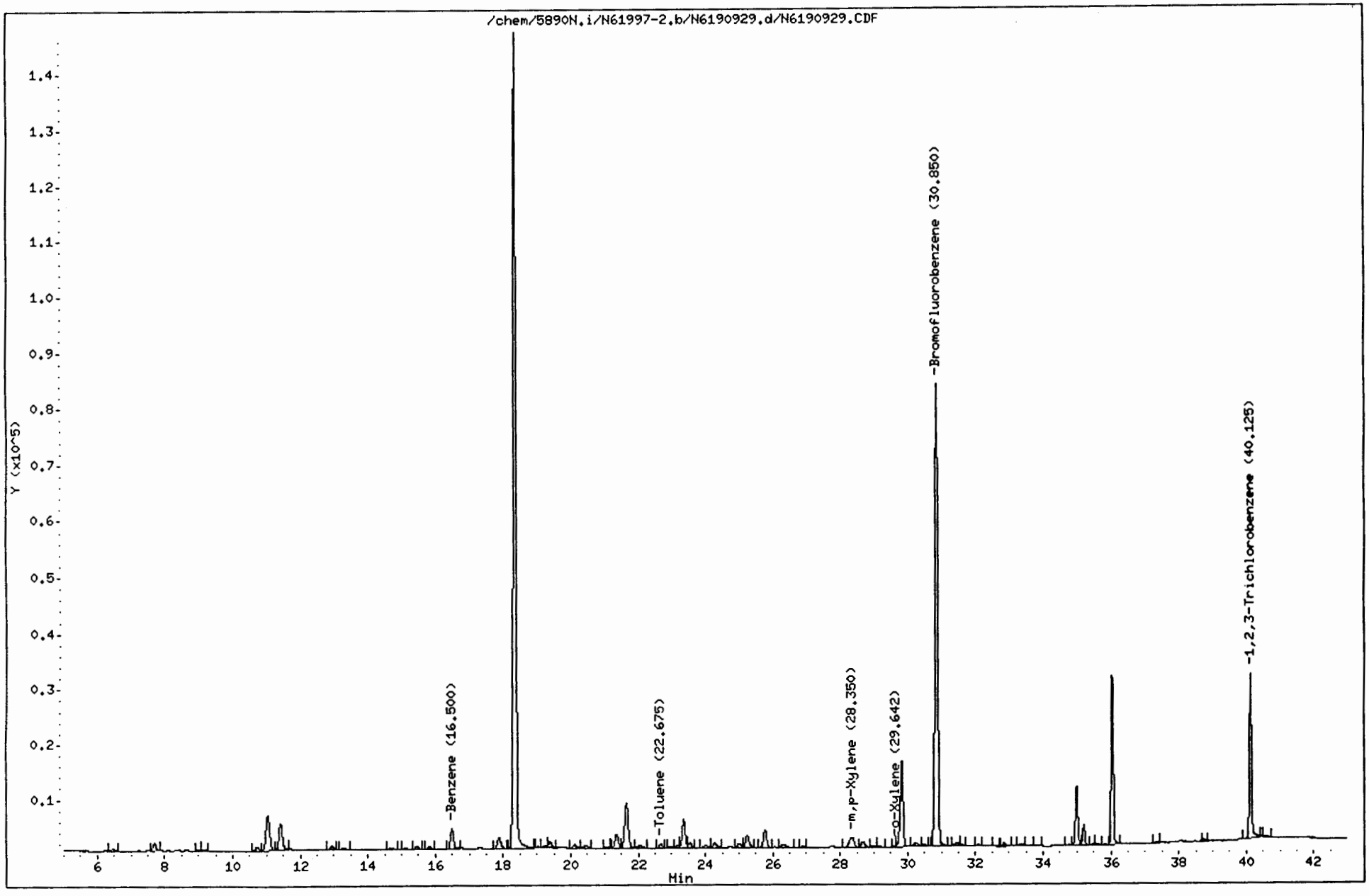
| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.02 | 13.94 | 14.04 | 0.428 X | 73.6 |
| | 2 | 16.50 | 16.42 | 16.52 | 0.743 | |

X = Concentration Reported

Data F /chem/5890N.i/N61997-2.b/N6190929.d
Date : 19-JUN-97 20:31:00
Client ID: MWAOC-2
Sample Info: 9706220-05
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-2.b/N6190929.d
Injection Date : 19-JUN-97 20:31:00
Sample Info : 9706220-05
Misc. Info : None
Laboratory ID : 9706220-05 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 616VPB04.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.27 | | 4035339 | | |
| | 3.29 | | 21777 | | |
| | 4.10 | | 7849 | | |
| | 4.31 | | 1085 | | |
| | 4.58 | | 6802 | | |
| | 6.47 | | 2514 | | |
| | 7.70 | | 8029 | | |
| | 9.02 | | 1106 | | |
| | 9.16 | | 1006 | | |
| | 10.73 | | 5549 | | |
| | 11.04 | | 50329 | | |
| | 11.42 | | 32177 | | |
| | 12.95 | | 4718 | | |
| | 13.29 | | 2319 | | |
| | 14.70 | | 3413 | | |
| | 15.14 | | 2398 | | |
| | 15.46 | | 4167 | | |
| | 15.84 | | 3244 | | |
| Benzene | 16.50 | 16.42 - 16.52 | 23054 | 7.4273 | 0.743 |
| | 17.88 | | 16061 | | |
| | 18.34 | | 815512 | | |
| | 19.04 | | 1249 | | |
| | 19.25 | | 2454 | | |
| | 19.39 | | 7422 | | |
| | 20.12 | | 3783 | | |
| | 20.47 | | 3386 | | |
| | 21.07 | | 1410 | | |
| | 21.37 | | 16653 | | |
| | 21.66 | | 60521 | | |
| | 22.07 | | 4258 | | |
| Toluene | 22.68 | 22.55 - 22.75 | 4563 | ~~1.6675~~ | ~~0.167~~ <R |
| | 22.98 | | 1261 | | |
| | 23.19 | | 2603 | | |
| | 23.36 | | 32229 | | |
| | 23.54 | | 5207 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97



74

Laucks Testing Labs, Inc.
Quantitation Report

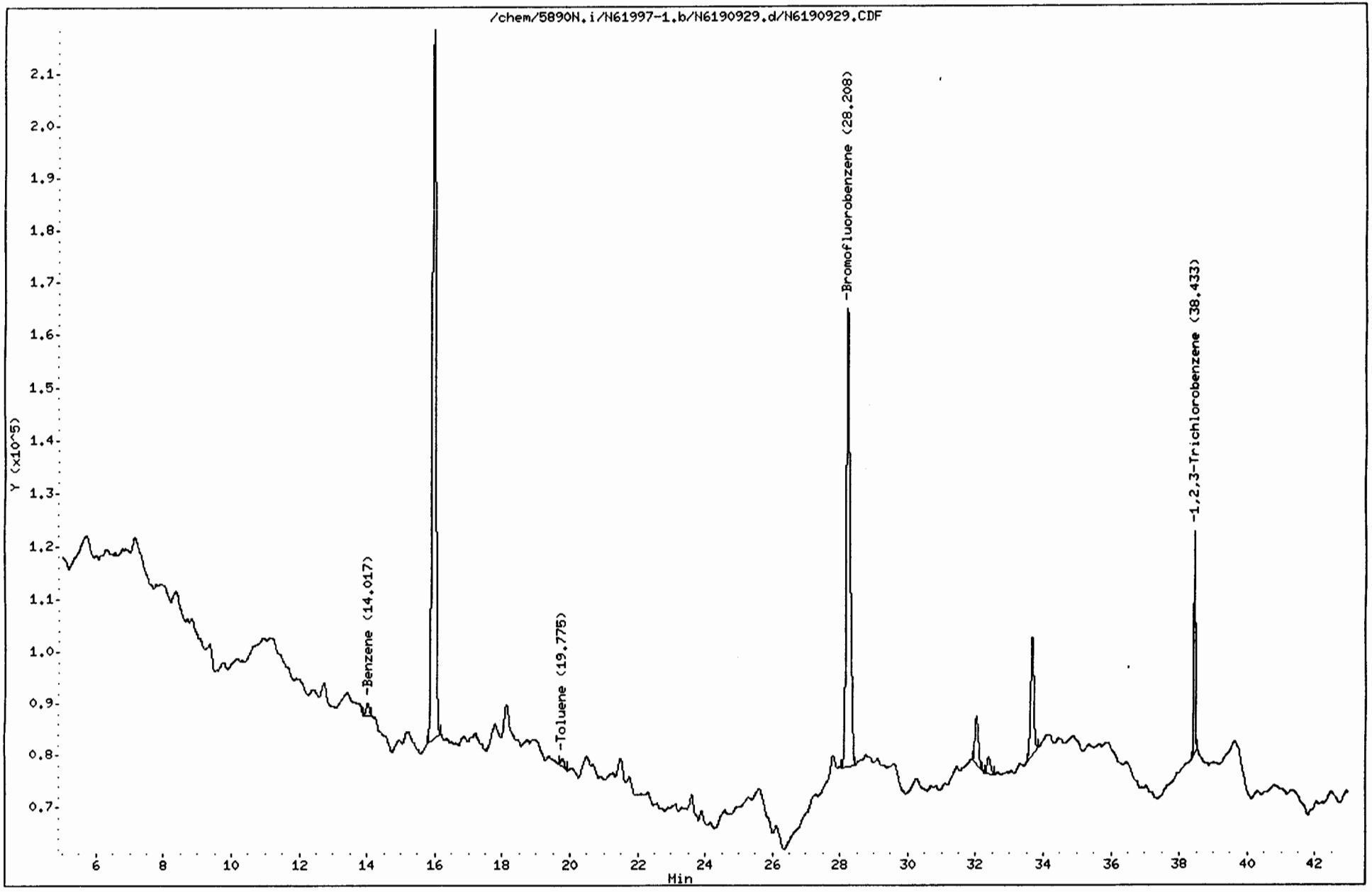
Data File : N6190929.d
Injection Date : 19-JUN-97 20:31:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 24.02 | | 4283 | | |
| | 24.28 | | 6835 | | |
| | 25.00 | | 4965 | | |
| | 25.24 | | 15658 | | |
| | 25.78 | | 21153 | | |
| | 26.31 | | 5521 | | |
| | 26.89 | | 1390 | | |
| m,p-Xylene | 28.35 | 28.27 - 28.47 | 17691 | 6.4250 | 0.642 Not Cont |
| | 28.68 | | 8138 | | |
| | 28.99 | | 1688 | | |
| | 29.17 | | 1355 | | |
| o-Xylene | 29.64 | 29.50 - 29.70 | 1282 | ~~0.58058~~ | ~~0.0580~~ <RL |
| | 29.82 | | 92541 | | |
| | 30.26 | | 5284 | | |
| | 30.49 | | 1372 | | |
| Bromofluorobenzene | 30.85 | 30.72 - 30.92 | 468705 | 221.78 | 22.2 |
| | 31.47 | | 3330 | | |
| | 31.58 | | 2224 | | |
| | 32.09 | | 1572 | | |
| | 32.60 | | 1020 | | |
| | 32.86 | | 3970 | | |
| | 33.38 | | 3033 | | |
| | 33.81 | | 1085 | | |
| | 34.77 | | 1178 | | |
| | 34.99 | | 53009 | | |
| | 35.21 | | 17782 | | |
| | 35.48 | | 1094 | | |
| | 35.61 | | 1937 | | |
| | 36.03 | | 123554 | | |
| | 37.33 | | 1687 | | |
| | 38.74 | | 1739 | | |
| 1,2,3-Trichlorobenzene | 40.12 | 40.01 - 40.21 | 127297 | 114.83 | 11.5 |
| | 40.54 | | 1349 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61997-1.b/N6190929.d
Date : 19-JUN-97 20:31:00
Client ID: MWAOC-2
Sample Info: 9706220-05
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61997-1.b/N6190929.d
Injection Date : 19-JUN-97 20:31:00
Sample Info : 9706220-05
Misc. Info : None
Laboratory ID : 9706220-05 Client ID : MWAOC-2
Instrument ID : 5890N.i
Method : 616VPA04.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Benzene | 14.02 | 13.94 - 14.04 | 15302 | M | 4.2836 | 0.428 |
| | 15.96 | | 950189 | | | |
| Toluene | 19.78 | 19.65 - 19.85 | 10242 | M | 3.1337 | 0.313 |
| Bromofluorobenzene | 28.21 | 28.10 - 28.30 | 673871 | M | 259.31 | 25.9 |
| | 32.02 | | 64144 | | | |
| | 32.38 | | 26059 | | | |
| | 33.66 | | 155865 | | | |
| 1,2,3-Trichlorobenzene | 38.43 | 38.32 - 38.52 | 141365 | M | 111.00 | 11.1 |

6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**MW-29-05**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-06

Purge Volume: 10 ml

Lab File ID: N6182228.D

% Moisture: N/A

Date Collected: 06/05/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/18/97

Dilution Factor: 1.0

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 46 | | 0.20 |
| 108-88-3 | Toluene | 0.81 | | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.76 | P | 0.20 |
| 108-38-3 | m,p-Xylene | 0.44 | P | 0.20 |
| 95-47-6 | o-Xylene | 0.45 | P | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**MW-29-05**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-06

Instrument ID (1): 5890N.i | Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm) | Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6182228.d | File (2): N6182228.d

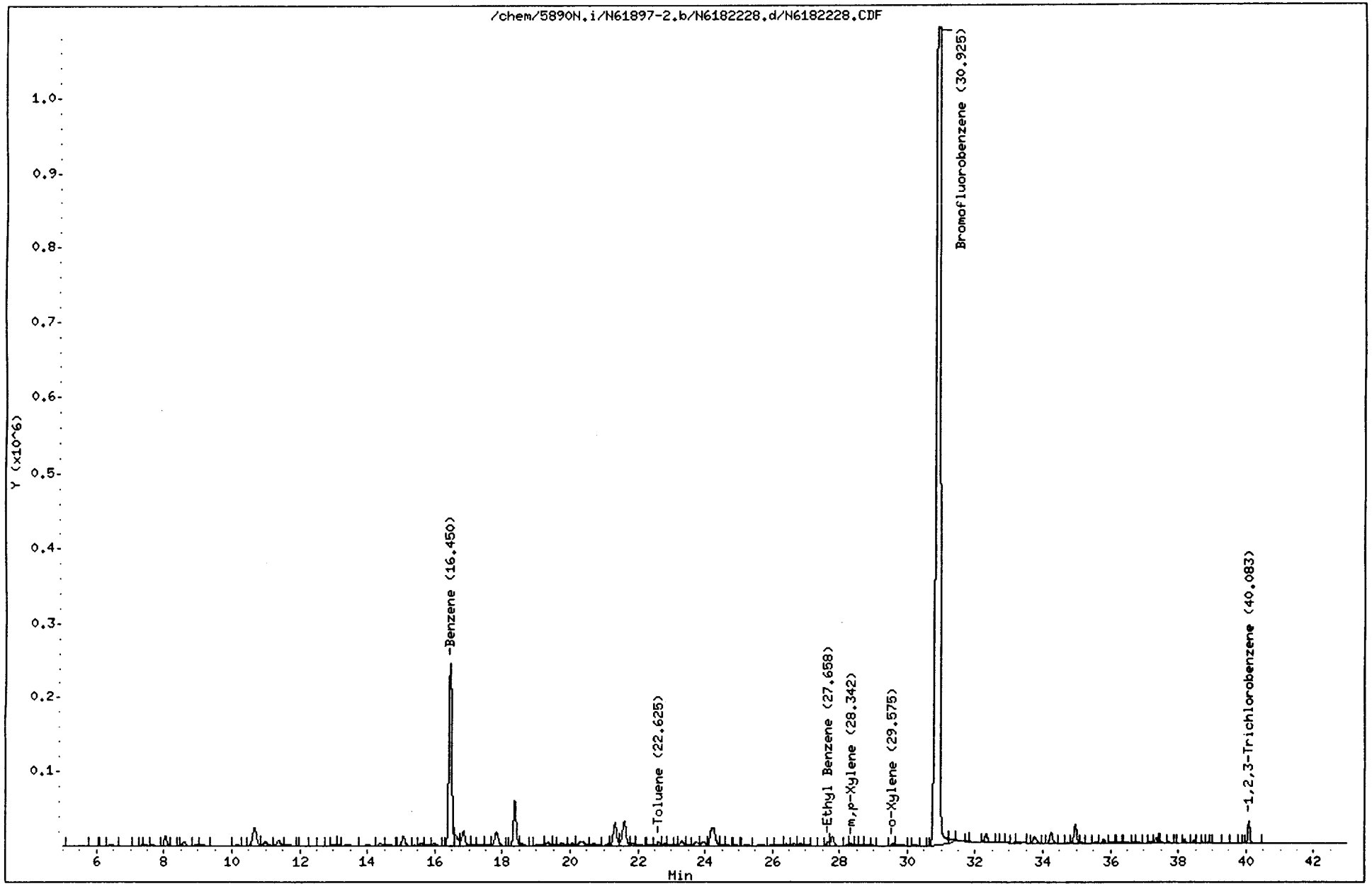
Date Analyzed (1) 06/19/97 | Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.00 | 13.94 | 14.04 | 48.6 | 6.8 |
| | 2 | 16.45 | 16.38 | 16.48 | 45.5 X | |
| Toluene | 1 | 19.74 | 19.66 | 19.86 | 0.808 X | 21.9 |
| | 2 | 22.62 | 22.51 | 22.71 | 0.985 | |
| Ethyl Benzene | 1 | 24.69 | 24.60 | 24.80 | 0.757 X | 73.1 |
| | 2 | 27.66 | 27.55 | 27.75 | 1.31 | |
| m,p-Xylene | 1 | 25.10 | 25.01 | 25.21 | 0.443 X | 33.2 |
| | 2 | 28.34 | 28.22 | 28.42 | 0.59 | |
| o-Xylene | 1 | 26.42 | 26.32 | 26.52 | 0.453 X | 43.7 |
| | 2 | 29.58 | 29.46 | 29.66 | 0.651 | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-2.b/N6182228.d
Date : 19-JUN-97 06:07:00
Client ID: MW-29-05
Sample Info: 9706220-06
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-2.b/N6182228.d
Injection Date : 19-JUN-97 06:07:00
Sample Info : 9706220-06
Misc. Info : None
Laboratory ID : 9706220-06 Client ID : MW-29-05
Instrument ID : 5890N.i
Method : 616VPB03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.28 | | 49689 | | |
| | 2.80 | | 3307 | | |
| | 4.08 | | 7055 | | |
| | 4.22 | | 3310 | | |
| | 4.55 | | 14556 | | |
| | 4.91 | | 10802 | | |
| | 5.90 | | 4344 | | |
| | 6.18 | | 2443 | | |
| | 6.43 | | 16607 | | |
| | 7.15 | | 1254 | | |
| | 7.34 | | 4133 | | |
| | 7.47 | | 10539 | | |
| | 7.65 | | 13288 | | |
| | 8.04 | | 75149 | | |
| | 8.25 | | 7924 | | |
| | 8.47 | | 1245 | | |
| | 8.60 | | 32700 | | |
| | 8.95 | | 7726 | | |
| | 9.12 | | 18242 | | |
| | 10.17 | | 7642 | | |
| | 10.37 | | 1763 | | |
| | 10.68 | | 192338 | | |
| | 10.99 | | 50344 | | |
| | 11.38 | | 53712 | | |
| | 11.66 | | 18564 | | |
| | 12.12 | | 3326 | | |
| | 12.62 | | 2219 | | |
| | 12.84 | | 4074 | | |
| | 13.02 | | 14959 | | |
| | 13.16 | | 5497 | | |
| | 13.40 | | 21074 | | |
| | 14.02 | | 13328 | | |
| | 14.38 | | 27863 | | |
| | 14.65 | | 15714 | | |
| | 15.07 | | 90750 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 15.41 | | 5057 | | |
| | 15.60 | | 21847 | | |
| | 15.79 | | 10594 | | |
| | 15.98 | | 25110 | | |
| Benzene | 16.45 | 16.38 - 16.48 | 1412059 | 454.92 | 45.5 |
| | 16.62 | | 105066 | | |
| | 16.84 | | 140735 | | |
| | 17.12 | | 9180 | | |
| | 17.36 | | 9754 | | |
| | 17.55 | | 14546 | | |
| | 17.82 | | 139226 | | |
| | 18.37 | | 346863 | | |
| | 18.57 | | 13621 | | |
| | 19.15 | | 15676 | | |
| | 19.34 | | 25820 | | |
| | 19.52 | | 1870 | | |
| | 19.78 | | 24648 | | |
| | 20.06 | | 20837 | | |
| | 20.34 | | 57798 | | |
| | 20.72 | | 18173 | | |
| | 21.14 | | 16026 | | |
| | 21.32 | | 211527 | | |
| | 21.61 | | 259955 | | |
| | 21.84 | | 21570 | | |
| | 22.02 | | 15998 | | |
| | 22.38 | | 4629 | | |
| Toluene | 22.62 | 22.51 - 22.71 | 26954 | 9.8502 | 0.985 |
| | 22.80 | | 17579 | | |
| | 22.93 | | 10947 | | |
| | 23.14 | | 7752 | | |
| | 23.31 | | 39707 | | |
| | 23.49 | | 6550 | | |
| | 23.75 | | 30509 | | |
| | 23.96 | | 40641 | | |
| | 24.23 | | 238894 | | |
| | 24.49 | | 8547 | | |
| | 24.64 | | 3047 | | |
| | 24.93 | | 2809 | | |
| | 25.25 | | 8107 | | |
| | 25.63 | | 16230 | | |
| | 25.96 | | 2320 | | |
| | 26.24 | | 15885 | | |
| | 26.42 | | 14833 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 26.65 | | 18154 | | | |
| | 26.83 | | 12474 | | | |
| | 27.05 | | 5244 | | | |
| | 27.23 | | 1638 | | | |
| Ethyl Benzene | 27.66 | 27.55 - 27.75 | 30513 | | 13.108 | 1.31 |
| | 27.78 | | 75845 | | | |
| | 28.28 | | 6794 | | | |
| m,p-Xylene | 28.34 | 28.22 - 28.42 | 16256 | M | 5.9038 | 0.590 |
| | 28.48 | | 4303 | | | |
| | 28.62 | | 6936 | | | |
| | 28.81 | | 3298 | | | |
| | 28.97 | | 1109 | | | |
| o-Xylene | 29.58 | 29.46 - 29.66 | 14372 | | 6.5087 | 0.651 |
| | 29.78 | | 16654 | | | |
| | 30.06 | | 1536 | | | |
| | 30.22 | | 8925 | | | |
| | 30.46 | | 2086 | | | |
| Bromofluorobenzene | 30.92 | 30.68 - 30.88 | 10623521 | M | 5026.8 | 503 |
| | 31.29 | | 39544 | | | |
| | 31.78 | | 1468 | | | |
| | 32.32 | | 64758 | | | |
| | 32.80 | | 4653 | | | |
| | 32.93 | | 2920 | | | |
| | 33.33 | | 12753 | | | |
| | 33.77 | | 50583 | | | |
| | 34.25 | | 84455 | | | |
| | 34.73 | | 3832 | | | |
| | 34.97 | | 143979 | | | |
| | 35.16 | | 2565 | | | |
| | 35.58 | | 5061 | | | |
| | 35.80 | | 18075 | | | |
| | 36.02 | | 10517 | | | |
| | 36.26 | | 3963 | | | |
| | 36.49 | | 6243 | | | |
| | 36.68 | | 5816 | | | |
| | 36.83 | | 3528 | | | |
| | 37.20 | | 3863 | | | |
| | 37.36 | | 27956 | | | |
| | 37.43 | | 7489 | | | |
| | 37.53 | | 5482 | | | |
| | 37.74 | | 3329 | | | |
| | 37.92 | | 1166 | | | |
| | 38.18 | | 17956 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 38.45 | | 12642 | | |
| | 38.72 | | 6063 | | |
| | 38.88 | | 3469 | | |
| | 38.92 | | 4065 | | |
| | 39.37 | | 4195 | | |
| | 39.80 | | 1852 | | |
| 1,2,3-Trichlorobenzene | 40.08 | 39.98 - 40.18 | 119744 | 108.01 | 10.8 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data : /chem/5890N.i/N61897-1.b/N6182228.d

Date : 19-JUN-97 06:07:00

Client ID: MW-29-05

Sample Info: 9706220-06

Purge Volume: 10.0

Column phase: DB-624

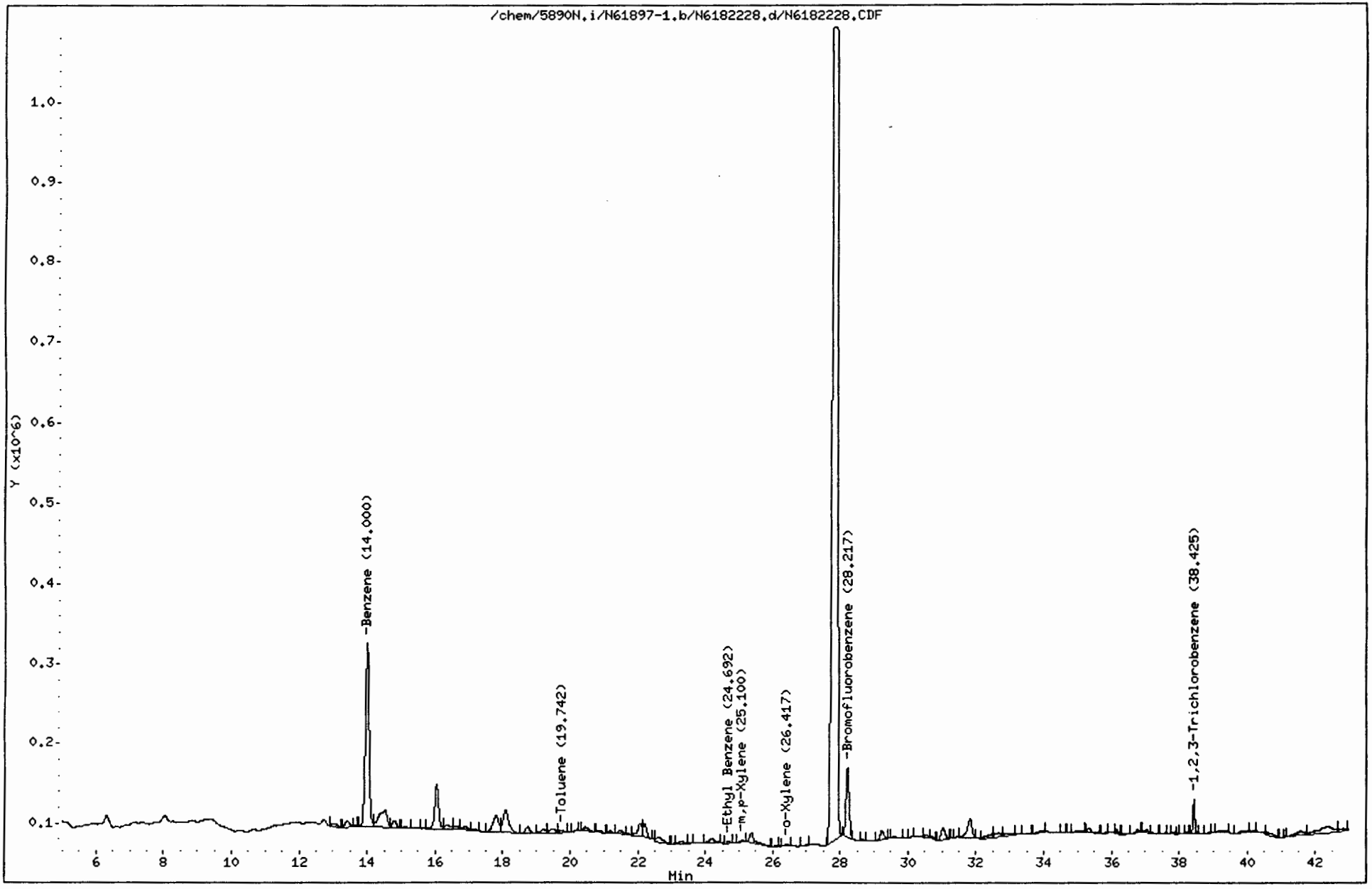
Instrument: 5890N.i

Operator: JimH

Column diameter: 0.53







Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-1.b/N6182228.d
Injection Date : 19-JUN-97 06:07:00
Sample Info : 9706220-06
Misc. Info : None
Laboratory ID : 9706220-06 Client ID : MW-29-05
Instrument ID : 5890N.i
Method : 616VPA03.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 13.02 | | 46817 | | | |
| | 13.42 | | 74024 | | | |
| | 13.68 | | 7591 | | | |
| Benzene | 14.00 | 13.94 - 14.04 | 1736110 | | 486.01 | 48.6 |
| | 14.52 | | 354208 | | | |
| | 14.80 | | 68619 | | | |
| | 15.14 | | 12469 | | | |
| | 15.43 | | 7860 | | | |
| | 16.05 | | 469430 | | | |
| | 16.36 | | 69332 | | | |
| | 16.62 | | 47982 | | | |
| | 16.89 | | 47663 | | | |
| | 17.18 | | 7746 | | | |
| | 17.81 | | 257974 | | | |
| | 18.08 | | 356574 | | | |
| | 18.74 | | 83065 | | | |
| | 19.22 | | 54068 | | | |
| | 19.50 | | 63565 | | | |
| Toluene | 19.74 | 19.66 - 19.86 | 26422 | | 8.0842 | 0.808 |
| | 20.21 | | 17965 | | | |
| | 20.46 | | 65235 | | | |
| | 20.87 | | 25200 | | | |
| | 21.20 | | 22524 | | | |
| | 21.49 | | 38747 | | | |
| | 22.07 | | 152193 | | | |
| | 22.20 | | 125624 | | | |
| | 22.64 | | 87916 | | | |
| | 23.08 | | 3009 | | | |
| | 23.28 | | 32987 | | | |
| | 23.58 | | 5470 | | | |
| | 24.19 | | 50200 | | | |
| Ethyl Benzene | 24.69 | 24.60 - 24.80 | 21780 | M | 7.5700 | 0.757 |
| | 24.90 | | 1987 | | | |
| m,p-Xylene | 25.10 | 25.01 - 25.21 | 14940 | M | 4.4293 | 0.443 |
| | 25.37 | | 136204 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 26.09 | | 11500 | | | |
| o-Xylene | 26.42 | 26.32 - 26.52 | 11794 | M | 4.5282 | 0.453 |
| | 27.06 | | 9059 | | | |
| | 27.88 | | 12152429 | | | |
| Bromofluorobenzene | 28.22 | 28.11 - 28.31 | 536447 | M | 206.43 | 20.6 |
| | 28.64 | | 8558 | | | |
| | 29.23 | | 87030 | | | |
| | 29.62 | | 16998 | | | |
| | 29.99 | | 3145 | | | |
| | 30.37 | | 9347 | | | |
| | 30.55 | | 23145 | | | |
| | 30.72 | | 16172 | | | |
| | 31.03 | | 129311 | | | |
| | 31.33 | | 765 | | | |
| | 31.82 | | 230536 | | | |
| | 32.48 | | 63071 | | | |
| | 32.66 | | 66805 | | | |
| | 32.98 | | 56907 | | | |
| | 33.46 | | 14115 | | | |
| | 33.97 | | 28031 | | | |
| | 34.59 | | 3222 | | | |
| | 34.77 | | 2263 | | | |
| | 35.01 | | 35353 | | | |
| | 35.34 | | 53525 | | | |
| | 35.86 | | 6092 | | | |
| | 36.15 | | 23206 | | | |
| | 36.44 | | 11298 | | | |
| | 36.78 | | 29349 | | | |
| | 37.04 | | 31959 | | | |
| | 37.20 | | 7627 | | | |
| | 37.58 | | 4668 | | | |
| | 37.83 | | 12689 | | | |
| | 38.12 | | 3060 | | | |
| | 38.22 | | 3406 | | | |
| 1,2,3-Trichlorobenzene | 38.42 | 38.33 - 38.53 | 149882 | M | 117.69 | 11.8 |
| | 38.88 | | 6400 | | | |
| | 39.19 | | 27076 | | | |
| | 40.03 | | 42844 | | | |
| | 40.08 | | 32236 | | | |
| | 40.60 | | 61554 | | | |
| | 41.00 | | 3420 | | | |
| | 41.57 | | 114796 | | | |
| | 42.36 | | 297501 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6182228.d
Injection Date : 19-JUN-97 06:07:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 42.83 | | 45719 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**CDS**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-07

Purge Volume: 10 ml

Lab File ID: N6172327.D

% Moisture: N/A

Date Collected: 06/06/97

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/18/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 210 | E | 0.20 |
| 108-88-3 | Toluene | 24 | | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.20 | U | 0.20 |
| 108-38-3 | m,p-Xylene | 54 | | 0.20 |
| 95-47-6 | o-Xylene | 63 | | 0.20 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**CDS**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-07

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6172327.d  File (2): N6172327.d

Date Analyzed (1) 06/18/97  Date Analyzed (2): 06/18/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.02 | 13.95 | 14.05 | 220 | 2.8 |
| | 2 | 16.37 | 16.32 | 16.42 | 214 X | |
| Toluene | 1 | 19.76 | 19.66 | 19.86 | 24.3 | 1.3 |
| | 2 | 22.52 | 22.44 | 22.64 | 24 X | |
| m,p-Xylene | 1 | 25.12 | 25.02 | 25.22 | 54.5 | 1.7 |
| | 2 | 28.25 | 28.14 | 28.34 | 53.6 X | |
| o-Xylene | 1 | 26.42 | 26.32 | 26.52 | 67.2 | 6.2 |
| | 2 | 29.47 | 29.38 | 29.58 | 63.3 X | |

X = Concentration Reported

Data F /chem/5890N.i/N61797-2.b/N6172327.d

Date : 18-JUN-97 08:19:00

Client ID: CDS

Sample Info: 9706220-07

Purge Volume: 10.0

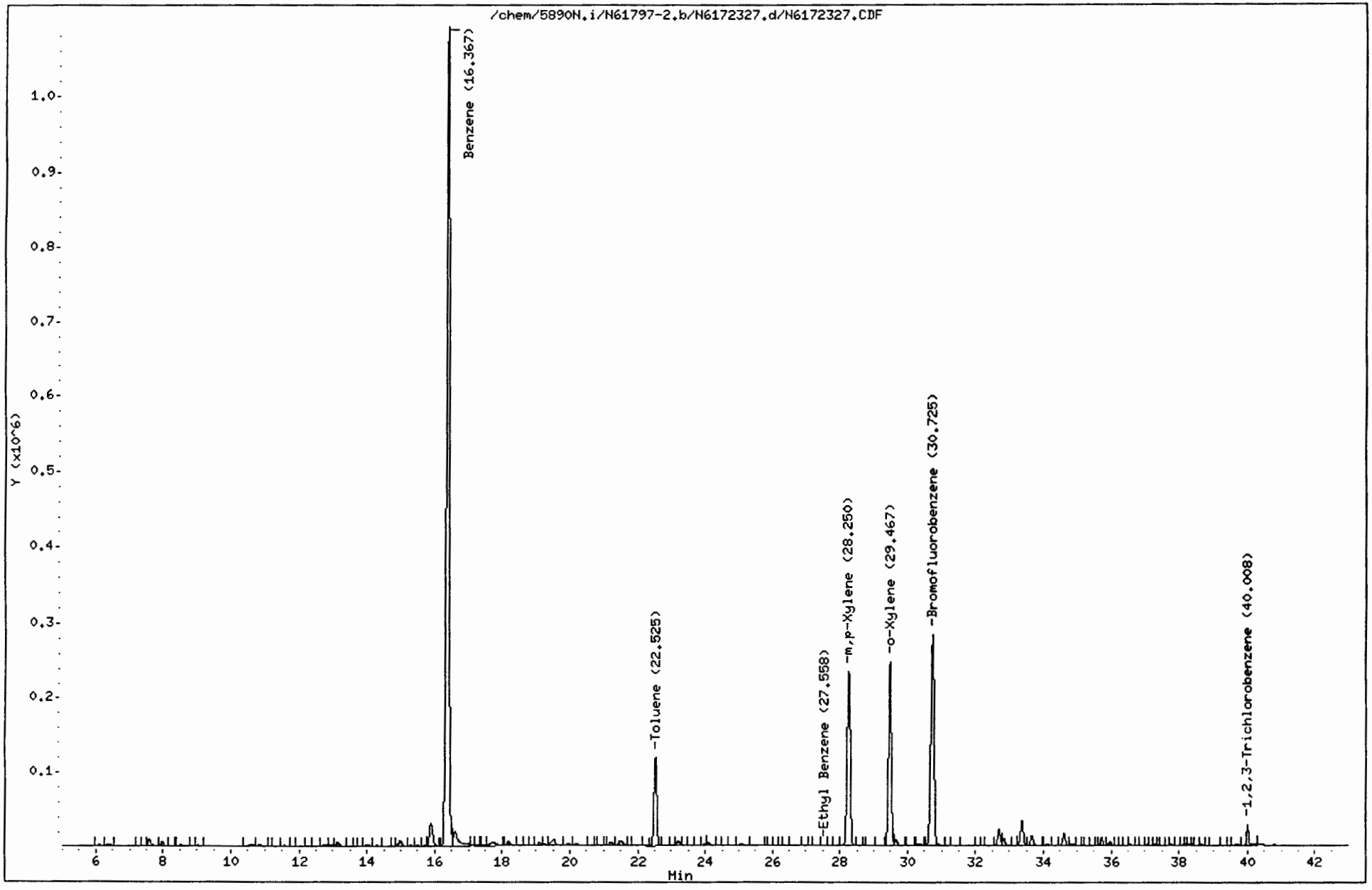
Column phase: DB-VRX

Instrument: 5890N.i

Operator: JimH

Column diameter: 0.45

Page



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-2.b/N6172327.d
Injection Date : 18-JUN-97 08:19:00
Sample Info : 9706220-07
Misc. Info : None
Laboratory ID : 9706220-07 Client ID : CDS
Instrument ID : 5890N.i
Method : 616VPB02.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 2.22 | | 2611721 | | | |
| | 3.22 | | 11588 | | | |
| | 4.02 | | 8196 | | | |
| | 4.51 | | 4522 | | | |
| | 6.11 | | 4856 | | | |
| | 6.38 | | 15944 | | | |
| | 7.28 | | 2317 | | | |
| | 7.41 | | 3433 | | | |
| | 7.58 | | 52606 | | | |
| | 7.98 | | 28815 | | | |
| | 8.23 | | 1432 | | | |
| | 8.52 | | 5923 | | | |
| | 8.92 | | 1180 | | | |
| | 9.03 | | 6385 | | | |
| | 10.60 | | 23269 | | | |
| | 10.86 | | 11595 | | | |
| | 11.32 | | 3433 | | | |
| | 11.58 | | 6290 | | | |
| | 12.03 | | 1786 | | | |
| | 12.48 | | 3047 | | | |
| | 12.75 | | 11119 | | | |
| | 12.95 | | 7017 | | | |
| | 13.14 | | 33837 | | | |
| | 13.44 | | 1435 | | | |
| | 13.82 | | 1339 | | | |
| | 14.02 | | 16870 | | | |
| | 14.30 | | 5720 | | | |
| | 14.52 | | 2998 | | | |
| | 14.98 | | 49559 | | | |
| | 15.32 | | 4807 | | | |
| | 15.52 | | 4512 | | | |
| | 15.71 | | 2260 | | | |
| | 15.89 | | 212128 | | | |
| Benzene | 16.37 | 16.32 - 16.42 | 6628542 | M | 2135.5 | 214 E |
| | 16.62 | | 204560 | | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97



92

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6172327.d
Injection Date : 18-JUN-97 08:19:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 17.24 | | 17577 | | |
| | 17.45 | | 12996 | | |
| | 17.73 | | 65007 | | |
| | 18.20 | | 44160 | | |
| | 18.48 | | 7011 | | |
| | 18.93 | | 1298 | | |
| | 19.11 | | 27951 | | |
| | 19.25 | | 14192 | | |
| | 19.52 | | 73583 | | |
| | 19.96 | | 13332 | | |
| | 20.22 | | 23664 | | |
| | 20.62 | | 1838 | | |
| | 20.91 | | 9805 | | |
| | 21.03 | | 2281 | | |
| | 21.22 | | 36407 | | |
| | 21.51 | | 67576 | | |
| | 21.74 | | 3389 | | |
| | 21.89 | | 5638 | | |
| | 22.26 | | 1620 | | |
| Toluene | 22.52 | 22.44 - 22.64 | 656720 | 240.00 | 24.0 |
| | 22.82 | | 14439 | | |
| | 23.04 | | 8331 | | |
| | 23.21 | | 46658 | | |
| | 23.39 | | 9963 | | |
| | 23.56 | | 5610 | | |
| | 23.82 | | 9108 | | |
| | 23.98 | | 12494 | | |
| | 24.09 | | 29058 | | |
| | 24.40 | | 1933 | | |
| | 24.55 | | 1994 | | |
| | 24.83 | | 2057 | | |
| | 25.08 | | 16254 | | |
| | 25.62 | | 13347 | | |
| | 25.97 | | 1537 | | |
| | 26.12 | | 5153 | | |
| | 26.25 | | 4108 | | |
| | 26.33 | | 4417 | | |
| | 26.72 | | 8153 | | |
| | 26.95 | | 1257 | | |
| | 27.28 | | 1677 | | |
| Ethyl Benzene | 27.56 | 27.47 - 27.67 | 3985 | ~~1.7119~~ | ~~0.171~~ <RL |
| | 27.68 | | 1012 | | |
| m,p-Xylene | 28.25 | 28.14 - 28.34 | 1475346 | 535.82 | 53.6 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

Data File : N6172327.d
Injection Date : 18-JUN-97 08:19:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 28.56 | | 5768 | | |
| | 28.87 | | 3814 | | |
| o-Xylene | 29.47 | 29.38 - 29.58 | 1397839 | 633.04 | 63.3 |
| | 29.66 | | 43603 | | |
| | 30.11 | | 3944 | | |
| | 30.34 | | 7586 | | |
| Bromofluorobenzene | 30.72 | 30.60 - 30.80 | 1809286 | 856.11 | 85.6 |
| | 31.32 | | 1697 | | |
| | 32.07 | | 1476 | | |
| | 32.20 | | 1717 | | |
| | 32.70 | | 122840 | | |
| | 32.83 | | 54611 | | |
| | 33.24 | | 5366 | | |
| | 33.37 | | 193186 | | |
| | 33.66 | | 80960 | | |
| | 34.13 | | 10317 | | |
| | 34.61 | | 90112 | | |
| | 34.86 | | 16095 | | |
| | 35.07 | | 1449 | | |
| | 35.30 | | 1064 | | |
| | 35.49 | | 2392 | | |
| | 35.72 | | 47415 | | |
| | 35.97 | | 27446 | | |
| | 36.18 | | 2315 | | |
| | 36.29 | | 2755 | | |
| | 36.42 | | 2099 | | |
| | 36.56 | | 6638 | | |
| | 36.78 | | 1595 | | |
| | 36.90 | | 2397 | | |
| | 37.08 | | 2643 | | |
| | 37.16 | | 1936 | | |
| | 37.28 | | 5994 | | |
| | 37.37 | | 1739 | | |
| | 37.48 | | 1756 | | |
| | 37.68 | | 1432 | | |
| | 37.78 | | 2161 | | |
| | 38.12 | | 3154 | | |
| | 38.19 | | 2184 | | |
| | 38.29 | | 4808 | | |
| | 38.38 | | 4390 | | |
| | 38.66 | | 2906 | | |
| | 38.82 | | 2137 | | |
| | 39.30 | | 1727 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Laucks Testing Labs, Inc.
Quantitation Report

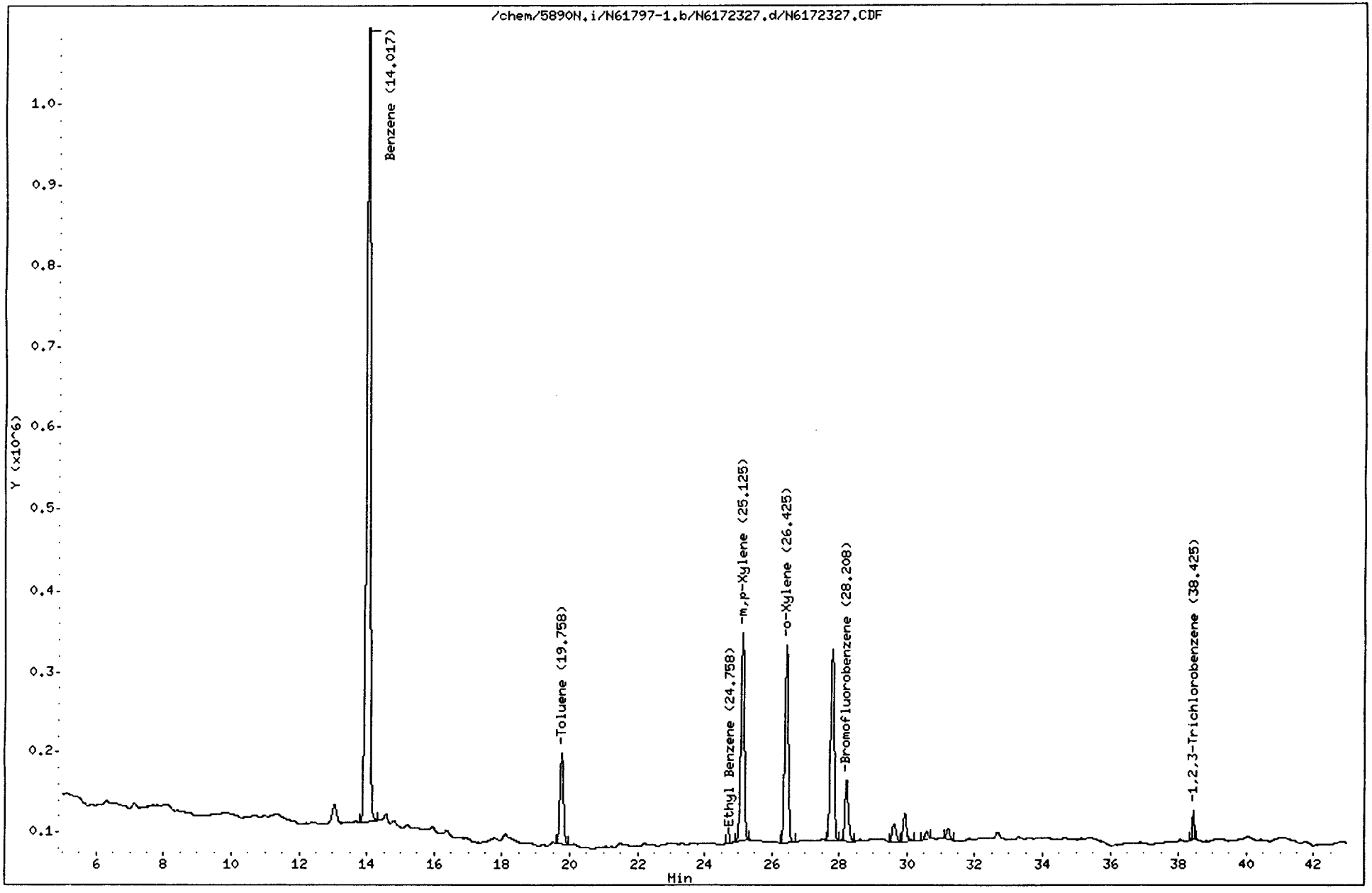
Data File : N6172327.d
Injection Date : 18-JUN-97 08:19:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 39.67 | | 7888 | | |
| 1,2,3-Trichlorobenzene | 40.01 | 39.92 - 40.12 | 110698 | 99.854 | 9.98 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File: /chem/5890N.i/N61797-1.b/N6172327.d
Date : 18-JUN-97 08:19:00
Client ID: CDS
Sample Info: 9706220-07
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-1.b/N6172327.d
Injection Date : 18-JUN-97 08:19:00
Sample Info : 9706220-07
Misc. Info : None
Laboratory ID : 9706220-07 Client ID : CDS
Instrument ID : 5890N.i
Method : 616VPA02.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| | 1.58 | | 3484420 | | | |
| Benzene | 14.02 | 13.95 - 14.05 | 7847600 | M | 2196.9 | 220 |
| Toluene | 19.76 | 19.66 - 19.86 | 794288 | M | 243.02 | 24.3 |
| Ethyl Benzene | 24.76 | 24.60 - 24.80 | 1386 | M | 0.48173 | 0.0482 |
| m,p-Xylene | 25.12 | 25.02 - 25.22 | 1839706 | M | 545.46 | 54.5 |
| o-Xylene | 26.42 | 26.32 - 26.52 | 1751800 | M | 672.59 | 67.2 |
| | 27.78 | | 1758226 | | | |
| Bromofluorobenzene | 28.21 | 28.12 - 28.32 | 545677 | | 209.98 | 21.0 |
| | 29.61 | | 183924 | | | |
| | 29.93 | | 248281 | | | |
| | 30.58 | | 60021 | | | |
| | 31.22 | | 97935 | | | |
| 1,2,3-Trichlorobenzene | 38.42 | 38.33 - 38.53 | 125731 | M | 98.725 | 9.87 |

6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**CDSDL**

Lab Name: LAUCKS TESTING LABS

Matrix: (soil/water) WATER

Purge Volume: 2 ml

% Moisture: N/A

Extraction: PURGE&TRAP

Dilution Factor: 1.0

SDG No.: G0804

Lab Sample ID: 9706220-07DL

Lab File ID: N6181628.D

Date Collected: 06/06/97

Date Received: 06/07/97

Date Prepared: 06/18/97

Date Analyzed: 06/19/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 280 | | 1.0 |
| 108-88-3 | Toluene | 30 | | 1.5 |
| 100-41-4 | Ethyl Benzene | 1.0 | U | 1.0 |
| 108-38-3 | m,p-Xylene | 70 | | 1.0 |
| 95-47-6 | o-Xylene | 80 | | 1.0 |

RL = Reporting Limit

RESULT FORM

FormVer 1.0 11/23/96

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**CDSDL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: 9706220-07DL

Instrument ID (1): 5890N.i  Instrument ID (2): 5890N.i

Column (1): DB-624 ID 0.53 (mm)  Column (2): DB-VRX ID: 0.45 (mm)

File (1): N6181628.d  File (2): N6181628.d

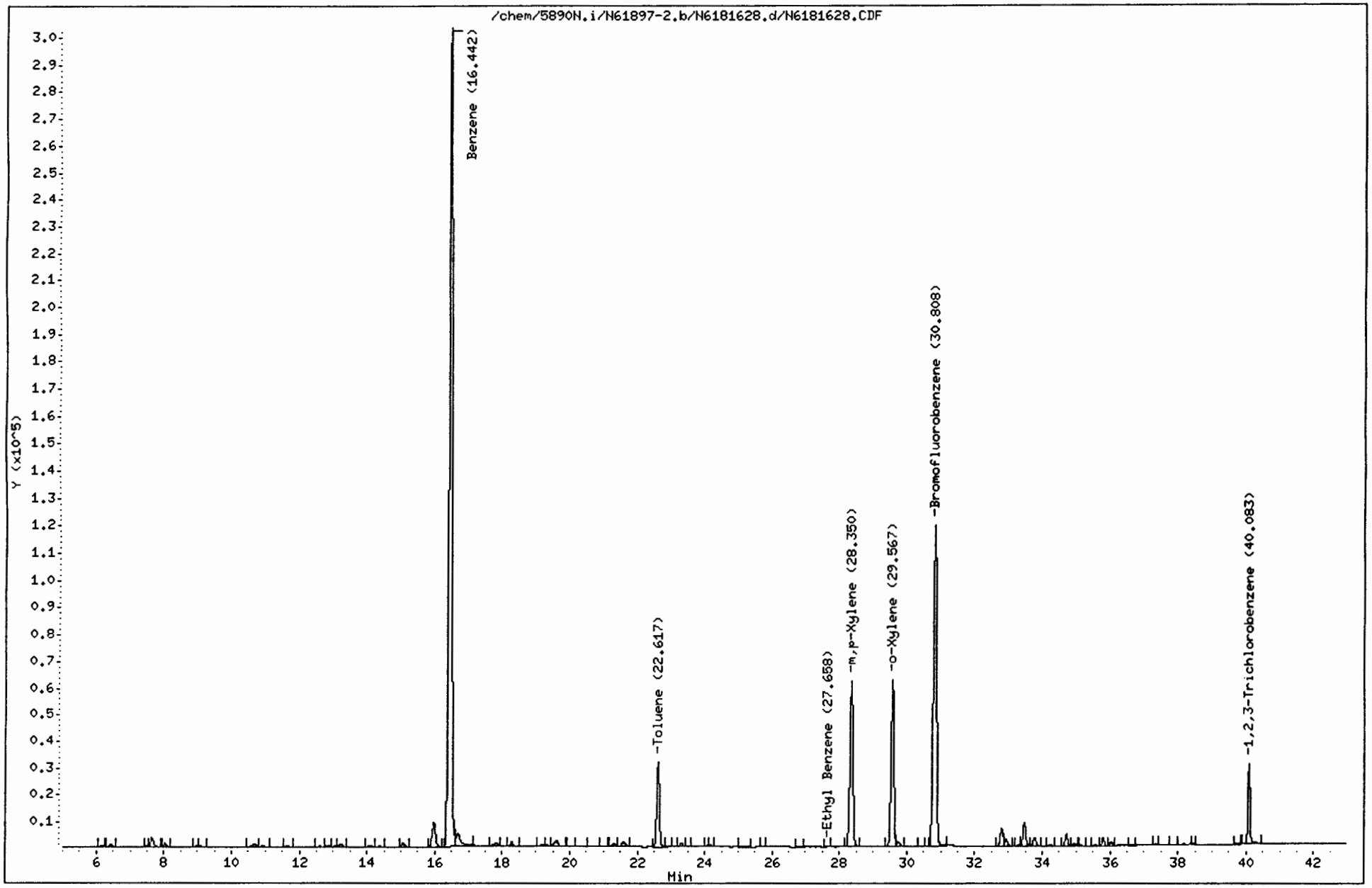
Date Analyzed (1) 06/19/97  Date Analyzed (2): 06/19/97

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|
| Benzene | 1 | 14.00 | 13.94 | 14.04 | 295 | 5.4 |
| | 2 | 16.44 | 16.38 | 16.48 | 280 X | |
| Toluene | 1 | 19.76 | 19.66 | 19.86 | 30.5 X | 5.9 |
| | 2 | 22.62 | 22.51 | 22.71 | 32.3 | |
| m,p-Xylene | 1 | 25.12 | 25.01 | 25.21 | 70.3 X | .6 |
| | 2 | 28.35 | 28.22 | 28.42 | 70.7 | |
| o-Xylene | 1 | 26.42 | 26.32 | 26.52 | 82.9 | 3.5 |
| | 2 | 29.57 | 29.46 | 29.66 | 80.1 X | |

X = Concentration Reported

Data File: /chem/5890N.i/N61897-2.b/N6181628.d
Date : 19-JUN-97 01:20:00
Client ID: CDSDL
Sample Info: 9706220-07DL
Purge Volume: 2.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-2.b/N6181628.d
Injection Date : 19-JUN-97 01:20:00
Sample Info : 9706220-07DL
Misc. Info : None
Laboratory ID : 9706220-07DL  Client ID : CDSDL
Instrument ID : 5890N.i
Method : 616VPB03.m  Sublist : btex
Quantitation : ESTD  Integrator : Falcon
Dilution Factor : 1  Sample Type: SAMPLE
Column : DB-VRX  Column Size: 30.00m L- 0.45mm ID

SampleVolume: 2 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.25 | | 467445 | | |
| | 2.80 | | 4636 | | |
| | 4.08 | | 2408 | | |
| | 4.39 | | 1193 | | |
| | 4.52 | | 3286 | | |
| | 6.17 | | 1267 | | |
| | 6.43 | | 4196 | | |
| | 7.47 | | 1048 | | |
| | 7.64 | | 19169 | | |
| | 8.04 | | 6476 | | |
| | 8.98 | | 1022 | | |
| | 9.09 | | 1323 | | |
| | 10.68 | | 8065 | | |
| | 10.93 | | 2580 | | |
| | 11.66 | | 1798 | | |
| | 12.62 | | 1739 | | |
| | 12.84 | | 3578 | | |
| | 13.02 | | 1517 | | |
| | 13.22 | | 6744 | | |
| | 14.10 | | 4530 | | |
| | 14.39 | | 1676 | | |
| | 15.07 | | 8987 | | |
| | 15.98 | | 60632 | | |
| Benzene | 16.44 | 16.38 - 16.48 | 1736189 | 559.35 | 280 |
| | 16.70 | | 46249 | | |
| | 17.82 | | 8629 | | |
| | 18.28 | | 8774 | | |
| | 19.21 | | 4904 | | |
| | 19.34 | | 2606 | | |
| | 19.62 | | 19167 | | |
| | 20.06 | | 2050 | | |
| | 20.32 | | 4018 | | |
| | 21.01 | | 1400 | | |
| | 21.31 | | 8173 | | |
| | 21.60 | | 14819 | | |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Laucks Testing Labs, Inc.
Quantitation Report

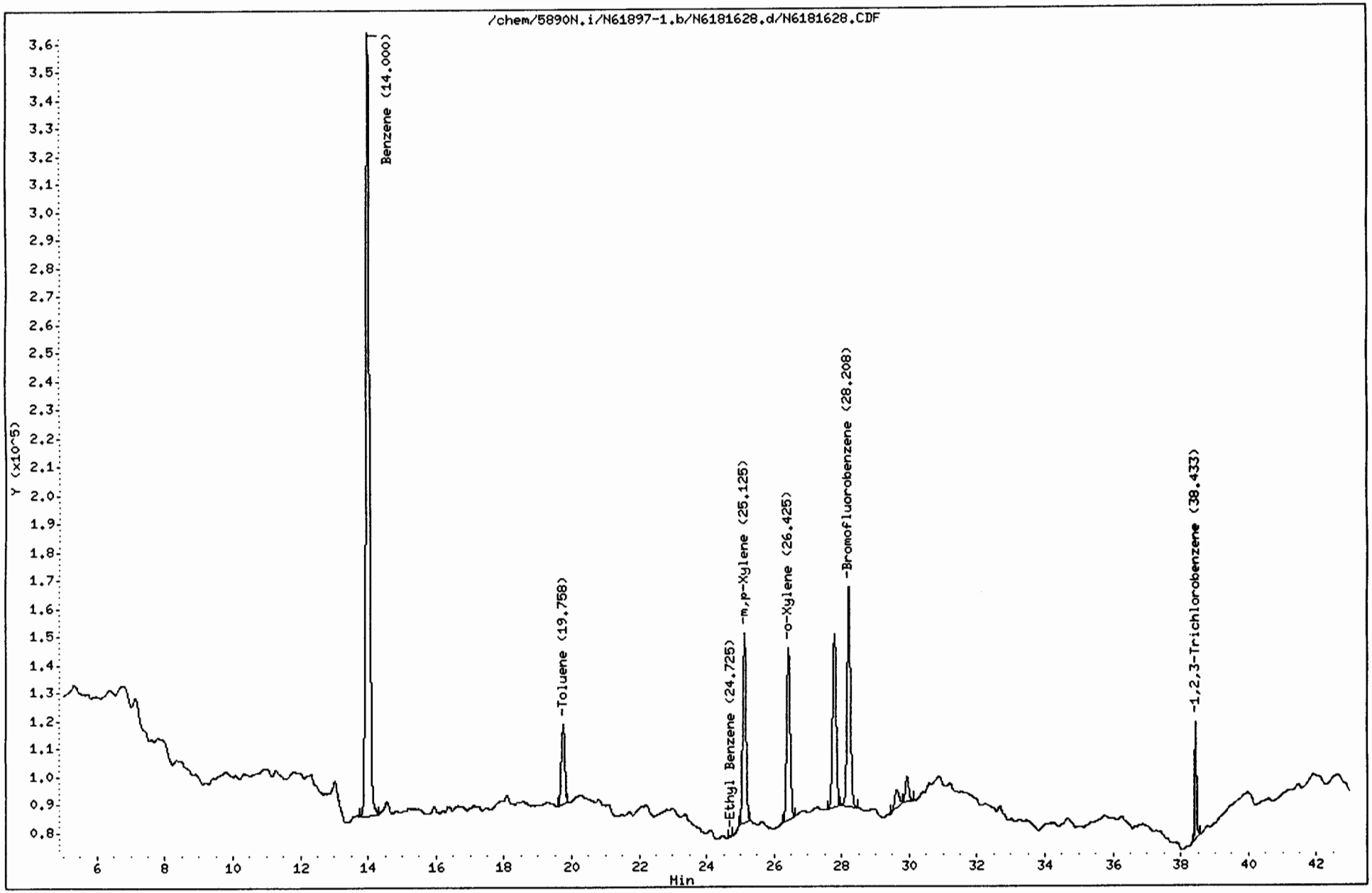
Data File : N6181628.d
Injection Date : 19-JUN-97 01:20:00

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| Toluene | 22.62 | 22.51 - 22.71 | 176791 | 64.607 | 32.3 |
| | 22.92 | | 4276 | | |
| | 23.13 | | 2506 | | |
| | 23.30 | | 8683 | | |
| | 23.49 | | 1328 | | |
| | 24.08 | | 2091 | | |
| | 24.18 | | 3168 | | |
| | 25.18 | | 4983 | | |
| | 25.72 | | 1413 | | |
| | 26.83 | | 1604 | | |
| Ethyl Benzene | 27.66 | 27.55 - 27.75 | 1981 | ~~0.85101~~ | ~~0.428~~ <RL |
| m,p-Xylene | 28.35 | 28.22 - 28.42 | 389403 | 141.42 | 70.7 |
| o-Xylene | 29.57 | 29.46 - 29.66 | 353773 | 160.21 | 80.1 |
| | 29.76 | | 8874 | | |
| | 30.44 | | 1290 | | |
| Bromofluorobenzene | 30.81 | 30.68 - 30.88 | 786540 | 372.17 | 186 |
| | 32.80 | | 36360 | | |
| | 32.94 | | 15016 | | |
| | 33.32 | | 2880 | | |
| | 33.48 | | 50568 | | |
| | 33.77 | | 18377 | | |
| | 34.24 | | 2734 | | |
| | 34.72 | | 24206 | | |
| | 34.95 | | 5092 | | |
| | 35.16 | | 1527 | | |
| | 35.57 | | 2078 | | |
| | 35.80 | | 11526 | | |
| | 36.04 | | 6779 | | |
| | 36.62 | | 1525 | | |
| | 37.35 | | 1864 | | |
| | 37.91 | | 2512 | | |
| | 38.44 | | 1105 | | |
| | 39.73 | | 1925 | | |
| 1,2,3-Trichlorobenzene | 40.08 | 39.98 - 40.18 | 123966 | 111.82 | 55.9 |

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

Data File /chem/5890N.i/N61897-1.b/N6181628.d
Date : 19-JUN-97 01:20:00
Client ID: CDSDL
Sample Info: 9706220-07DL
Purge Volume: 2.0
Column phase: DB-624

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.53




103

Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61897-1.b/N6181628.d
Injection Date : 19-JUN-97 01:20:00
Sample Info : 9706220-07DL
Misc. Info : None
Laboratory ID : 9706220-07DL
Client ID : CDSDL
Instrument ID : 5890N.i
Method : 616VPA03.m
Sublist : btex
Quantitation : ESTD
Integrator : Falcon
Dilution Factor : 1
Sample Type: SAMPLE
Column : DB-624
Column Size: 30.00m L- 0.53mm ID

SampleVolume: 2 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Benzene | 14.00 | 13.94 - 14.04 | 2105636 | M | 589.45 | 295 |
| Toluene | 19.76 | 19.66 - 19.86 | 199410 | M | 61.013 | 30.5 |
| Ethyl Benzene | 24.72 | 24.60 - 24.80 | 1791 | M | 0.62215 | 0.311 |
| m,p-Xylene | 25.12 | 25.01 - 25.21 | 474048 | M | 140.55 | 70.3 |
| o-Xylene | 26.42 | 26.32 - 26.52 | 431725 | M | 165.76 | 82.9 |
| | 27.78 | | 451819 | | | |
| Bromofluorobenzene | 28.21 | 28.11 - 28.31 | 543684 | M | 209.22 | 105 |
| | 29.62 | | 58923 | | | |
| | 29.93 | | 60465 | | | |
| 1,2,3-Trichlorobenzene | 38.43 | 38.33 - 38.53 | 147636 | M | 115.92 | 58.0 |

6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE ID

**Trip Blank**

Lab Name: LAUCKS TESTING LABS

SDG No.: G0804

Matrix: (soil/water) WATER

Lab Sample ID: 9706220-08

Purge Volume: 10 ml

Lab File ID: N6170827.D

% Moisture: N/A

Date Collected:

Extraction: PURGE&TRAP

Date Received: 06/07/97

Date Prepared: 06/17/97

Dilution Factor: 1.0

Date Analyzed: 06/17/97

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | ug/L | Q | RL |
|---|---|---|---|---|
| 71-43-2 | Benzene | 0.20 | U | 0.20 |
| 108-88-3 | Toluene | 0.30 | U | 0.30 |
| 100-41-4 | Ethyl Benzene | 0.20 | U | 0.20 |
| 108-38-3 | m,p-Xylene | 0.20 | U | 0.20 |
| 95-47-6 | o-Xylene | 0.20 | U | 0.20 |

RL = Reporting Limit

CONFIRMATION SUMMARY WORKSHEET
FOR SINGLE COMPONENT ANALYTES

Client Sample ID

**Trip Blank**

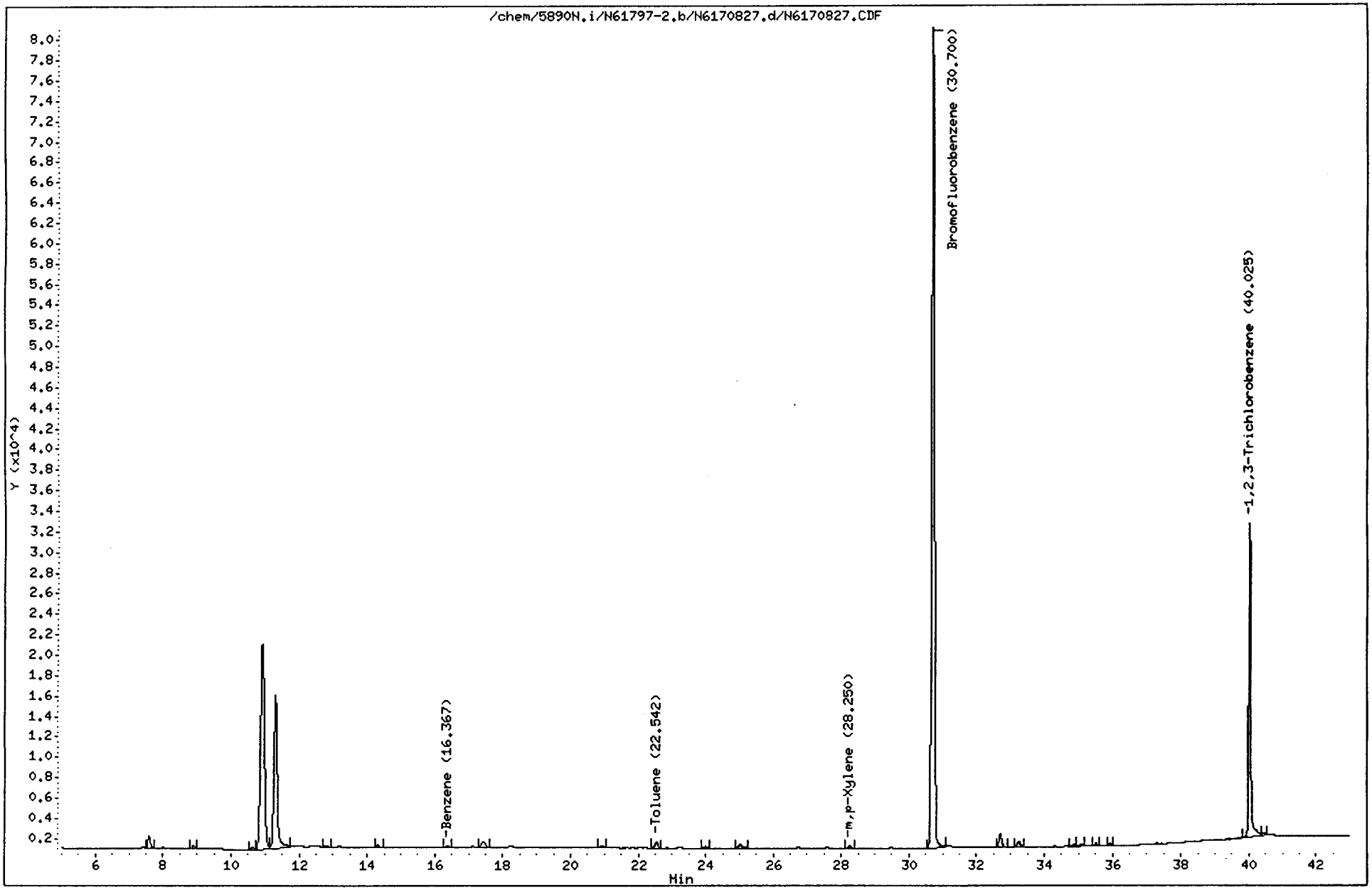
| | | | |
|---|---|---|---|
| Lab Name: | Laucks Testing Labs, Inc. | | |
| Lab Sample ID: | 9706220-08 | | |
| Instrument ID (1): | 5890N.i | Instrument ID (2): | 5890N.i |
| Column (1): | DB-624 ID 0.53 (mm) | Column (2): | DB-VRX ID: 0.45 (mm) |
| File (1): | N6170827.d | File (2): | N6170827.d |
| Date Analyzed (1) | 06/17/97 | Date Analyzed (2): | 06/17/97 |

| ANALYTE | COL | RT | RT WINDOW FROM | RT WINDOW TO | CONCENTRATION Final Units: ug/L | %D |
|---|---|---|---|---|---|---|

X = Concentration Reported

Data Fi /chem/5890N.i/N61797-2.b/N6170827.d
Date : 17-JUN-97 20:21:00
Client ID: Trip Blank
Sample Info: 9706220-08
Purge Volume: 10.0
Column phase: DB-VRX

Instrument: 5890N.i
Operator: JimH
Column diameter: 0.45



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-2.b/N6170827.d
Injection Date : 17-JUN-97 20:21:00
Sample Info : 9706220-08
Misc. Info : None
Laboratory ID : 9706220-08 Client ID : Trip Blank
Instrument ID : 5890N.i
Method : 616VPB02.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-VRX Column Size: 30.00m L- 0.45mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|
| | 2.24 | | 1595 | | |
| | 3.95 | | 1461 | | |
| | 4.03 | | 3936 | | |
| | 4.52 | | 16969 | | |
| | 7.59 | | 6584 | | |
| | 8.91 | | 1391 | | |
| | 10.62 | | 1438 | | |
| | 10.92 | | 155349 | | |
| | 11.30 | | 103633 | | |
| | 12.78 | | 1072 | | |
| | 14.32 | | 1445 | | |
| Benzene | 16.37 | 16.32 - 16.42 | 1057 | 0.34053 | 0.0340 |
| | 17.44 | | 4650 | | |
| | 20.93 | | 1462 | | |
| Toluene | 22.54 | 22.44 - 22.64 | 3459 | 1.2641 | 0.126 |
| | 24.00 | | 1155 | | |
| | 25.02 | | 2859 | | |
| m,p-Xylene | 28.25 | 28.14 - 28.34 | 1794 | 0.65154 | 0.0652 |
| Bromofluorobenzene | 30.70 | 30.60 - 30.80 | 442804 | 209.52 | 21.0 |
| | 32.70 | | 8023 | | |
| | 33.24 | | 3753 | | |
| | 34.86 | | 1009 | | |
| | 35.08 | | 1520 | | |
| | 35.51 | | 1174 | | |
| | 35.93 | | 1072 | | |
| 1,2,3-Trichlorobenzene | 40.02 | 39.92 - 40.12 | 130738 | 117.93 | 11.8 |
| | 40.44 | | 2129 | | |

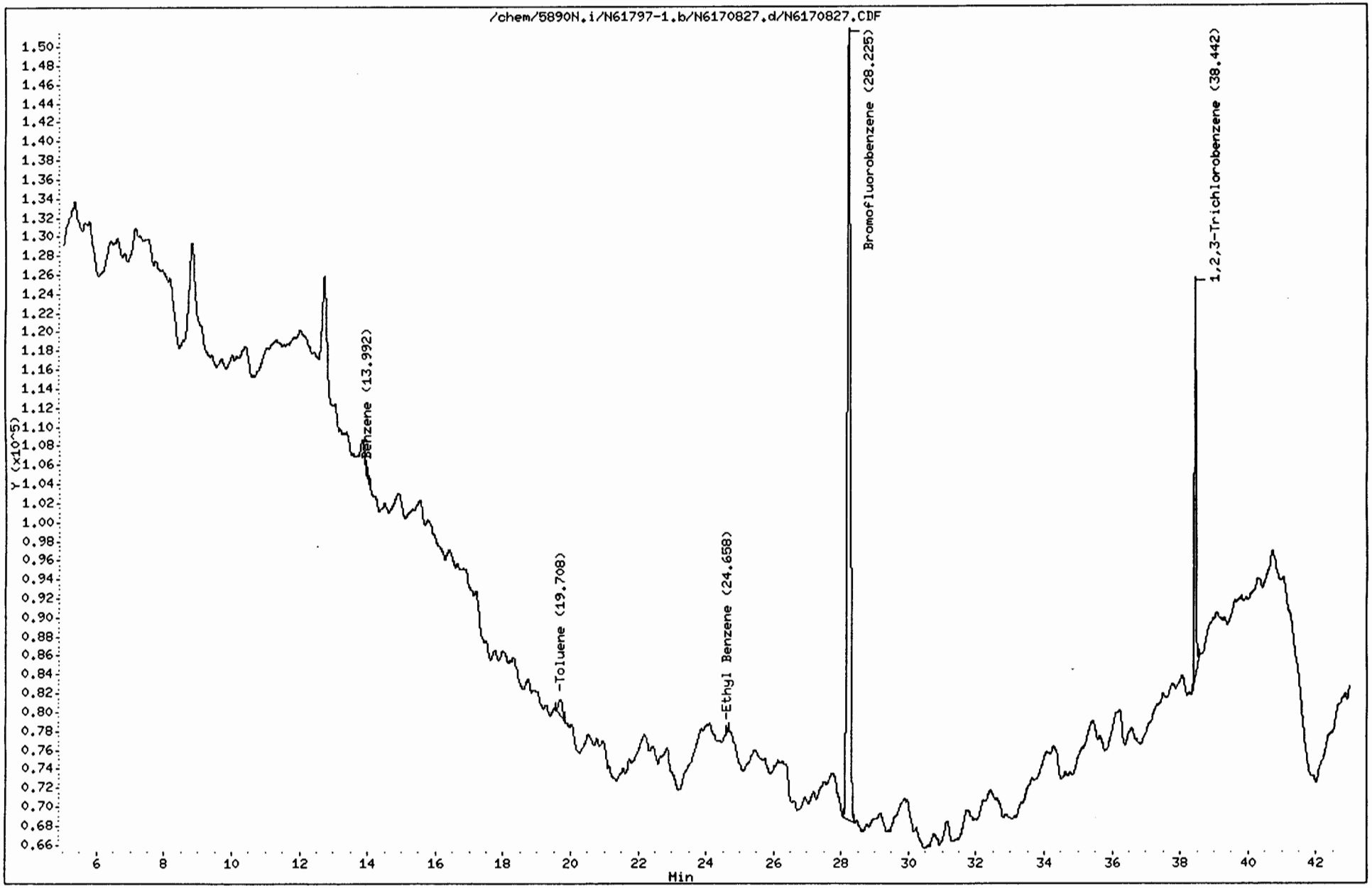
Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

6-30-97

Data Fil /chem/5890N.i/N61797-1.b/N6170827.d
Date : 17-JUN-97 20:21:00
Client ID: Trip Blank
Sample Info: 9706220-08
Purge Volume: 10.0
Column phase: DB-624

Instrument: 5890N.i

Operator: JimH
Column diameter: 0.53



Laucks Testing Labs, Inc.
Quantitation Report

Data File : /chem/5890N.i/N61797-1.b/N6170827.d
Injection Date : 17-JUN-97 20:21:00
Sample Info : 9706220-08
Misc. Info : None
Laboratory ID : 9706220-08 Client ID : Trip Blank
Instrument ID : 5890N.i
Method : 616VPA02.m Sublist : btex
Quantitation : ESTD Integrator : Falcon
Dilution Factor : 1 Sample Type: SAMPLE
Column : DB-624 Column Size: 30.00m L- 0.53mm ID

SampleVolume: 10 ml

| Compound | RT | RT Window | Response | | Concentrations Soln ng | Final ug/L |
|---|---|---|---|---|---|---|
| Benzene | 13.99 | 13.95 - 14.05 | 1569 | M | 0.43923 | 0.0439 |
| Toluene | 19.71 | 19.66 - 19.86 | 13822 | M | 4.2291 | 0.423 |
| Ethyl Benzene | 24.66 | 24.60 - 24.80 | 944 | M | 0.32810 | 0.0328 |
| Bromofluorobenzene | 28.22 | 28.12 - 28.32 | 547658 | M | 210.74 | 21.1 |
| 1,2,3-Trichlorobenzene | 38.44 | 38.33 - 38.53 | 144090 | M | 113.14 | 11.3 |

6-30-97

Response is in area units.
M - The peak was manually integrated.
E - The quantitated amount exceeds the calibration range.

THIS INFORMATION WILL BE USED FOR REPORTING BILLING* (SEE BELOW)

COMPANY: Fluor Daniel GTI

ADDRESS: 2501 Yale SE #204
ABQ NM 87106

ATTENTION: Chuck Schick

PROJECT NAME: HAFB D08 WAD 29 AT AOC-1001

PROJECT CONTACT: Chuck Schick

TELEPHONE: (505) 242-3113 FAX: (505) 242-1103

JOB/P.O. NO.: 87220 0829.05

# CHAIN OF CUSTODY RECORD

00851

SDG # _____

PAGE 1 OF 1

WORK ORDER ID# 9706220

**Laucks Testing Laboratories, Inc.**

SUBMITTED AT: [ ] 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
[ ] 1806 Fedwick Ave., Yakima, WA 98902 (509) 248-1670 FAX 452-1265

TESTS TO PERFORM

| LAB SAMPLE | SAMPLE ID / LOCATION | DATE | TIME | MATRIX: WATER, SOIL OR SPECIFY | NO. OF CONTAINERS | BTEX, chloro benzenes and 1,2-DCA by 8010/8020 | OBSERVATIONS COMMENTS SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|
| 1 | mw AOC-1 | 6/5/97 | 1415 | WATER | 4 | X | |
| 2 | mw AOC-3 | | 1630 | | 4 | X | |
| 3 | mw AOC-4 | | 1715 | | 4 | X | |
| 4 | mw AOC-4DP | | 1715 | | 4 | X | |
| 5 | mw AOC-2 | | 1750 | | 4 | X | |
| 6 | mw-29-05 | | 1840 | | 4 | X | |
| 7 | CDS | 6/6/97 | 0800 | | 4 | X | |

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

*BILLING INFORMATION, IF DIFFERENT THAN ABOVE

NAME | ADDRESS

ATTN: | CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST

[X] STD. 10-14 WORKING DAYS
*[ ] 24-48 HRS. (100% SUR)
*[ ] 72 HRS. (75% SUR)
*[ ] 5 DAYS (50% SUR)
[ ] OTHER: _____
[ ] TEMP: _____

CUSTODY SEAL [ ] Y [ ] N [ ] N/A

| RELINQUISHED BY (SIGN AND PRINT) | DATE / TIME | RECEIVED BY (SIGN AND PRINT) | DATE / TIME |
|---|---|---|---|
| Kevin Cook / Kevin Cook | 6/6/97 1400 | PAM R. JOHNSON | A) 6/6/97 0940 |

# APPENDIX F
## Daily Quality Control Reports

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 008 Date: 5-22-96
Contract No.: DACW-45-94D-0003
Project Title & Location: Sum/HOT
Weather: HOT Precipitation: _____ In.: ___ Temp.: _____ Min.: 85 Max.: 98

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| SCHICK | GEO | 9.5 | | |
| SPURGEON | HSO | 9.5 | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| DRIVE/TILE ROD | 5-22 | 5-22 | 9.5 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

INSTALLED 37 POINTS

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

REVIEW CORE SORBER PROCEDURES

5. Tests Performed and Test Results: (Identify test requirement byu paragraph number in specifications and/or sheet number in plans).

INSTALLED 37 POINTS

6. Material Received: (Note inspection results and storage provided).

None

7. Submittals Reviewed: 0

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken: 0

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

HS TAILGATE

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Welded Slam bar / Tile Probe. Caliche is making work difficult. Heat Also a problem

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

5-22-96

CQC System Manager Date

# TAILGATE MEETING FORM

Project Name: D08W29 Date: 5-22-96

Project Number: 83CW12208.22 Presented by: SCHICK

Check the Topics/Information Reviewed:

- ☒ safety glasses, hard hat, safety boots
- ☒ site safety plan review and location
- ☐ equipment and machinery familiarization
- ☐ employee Right-To-Know/MSDS location
- ☐ open pits, excavations, and site hazards
- ☐ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☐ overhead utility locations and clearance
- ☐ first aid, safety, and PPE location
- ☒ sharp object, rebar, and scrap metal hazards
- ☐ safety is everyone's responsibility
- ☒ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at: FID/PID (___ eV) >___ ppm
- ☐ work stoppage at: FID/PID(___ eV) >___ ppm, % LEL > 10%
- ☒ slips, trips, and falls
- ☐ directions to hospital
- ☐ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☐ orderly site and housekeeping
- ☐ smoking in designated areas
- ☐ leather gloves for protection
- ☐ effects of the night before
- ☐ vibration related injuries
- ☐ fire extinguisher locations
- ☒ eye wash station locations
- ☒ decontamination procedures
- ☐ daily work scope
- ☐ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☐ strains and sprains
- ☐ noise hazards
- ☐ no horseplay
- ☐ heat and cold stress
- ☐ backing up hazards
- ☐ accidents are costly
- ☐ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards

Discussion/Comments/Follow-up Actions:

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| SCHICK | [signature] | FD-GT |
| Spurgeon | James Spurgeon | IFS |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

FLUOR DANIEL GTI
(FIRM NAME)

# DAILY QUALITY CONTROL REPORT

Daily Report No.: 47 Date: 6 June 1996
Contract No.: DACW-45-94-D0003 DO8, WAD29
Project Title & Location: AOC 1001
Weather: p cloudy Precipitation: none In.: ___ Temp.: 65° Min.: 100° Max.: ___

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | SCIENTIST | 6.0. | FLUOR DANIEL GTI | AOC1001 - pull GORE SORBERS |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| NONE | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

SAFETY REVIEW; CHECK IN AT TRAILER; GO to AOC 1001 (area north) & retrieve Gore samples.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

SOP Checklist for W.L. GORE: All req. equip on hand: Stress on no contamination for gloves; storage locations.

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

NONE

6. Material Received: (Note inspection results and storage provided).

NONE

7. Submittals Reviewed: NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Review Tailgate Safety form; note potential for snakes + for. dust devils: Carried extra water + wide brimmed hat.

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

All gore sorbent retrieved. Shipped FedEx # 7598 2959 46

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Lee Scott Stevenson 7 June 1996

CQC System Manager Date

# TAILGATE MEETING FORM

**Project Name:** AOC 1001

**Date:** 6 June 1996

**Project Number:** B30012208

**Presented by:** Scott Stevenson

**Check the Topics/Information Reviewed:**

- ☑ safety glasses, hard hat, safety boots — wide brimmed sun shade
- ☑ site safety plan review and location
- ☐ equipment and machinery familiarization
- ☐ employee Right-To-Know/MSDS location
- ☑ open pits, excavations, and site hazards
- ☑ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☐ overhead utility locations and clearance
- ☑ first aid, safety, and PPE location
- ☑ sharp object, rebar, and scrap metal hazards
- ☐ safety is everyone's responsibility
- ☑ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at: FID/PID (___ eV) >___ ppm
- ☐ work stoppage at: FID/PID(___ eV) >___ ppm, % LEL > 10%
- ☑ slips, trips, and falls
- ☑ directions to hospital
- ☐ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☐ orderly site and housekeeping
- ☐ smoking in designated areas
- ☐ leather gloves for protection
- ☑ effects of the night before
- ☐ vibration related injuries
- ☑ fire extinguisher locations
- ☑ eye wash station locations
- ☐ decontamination procedures
- ☒ Snakes, other S/O
- ☑ daily work scope
- ☐ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☑ strains and sprains
- ☐ noise hazards
- ☐ no horseplay
- ☐ heat and cold stress
- ☑ backing up hazards
- ☐ accidents are costly
- ☑ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☑ flying debris hazards
- ☒ dust devils.

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Scott Stevenson | [signature] | Fluor Daniel GTI |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 5 Date: 24 June 1996
Contract No.: DACW-45-94-D0003
Project Title & Location: DO 8 WAD 29 - AOC 1001
Weather: HOT Precipitation: None In.: Temp.: 75 Min.: 98 Max.:

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | SCIENTIST | 07:15 - 18:00 | FDGTI | AOC-1001 - Log + sample |
| VandeHey | Driller | " - " | TEG | " - Drill |
| Todd Klein | Helper | " - " | TEG | " - Drillers helper |
| ~~DEE~~ WARD | Helper | " - 17:30 | IFS | Gauge LLs - assist w/ drilling/logging |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| STRATA PROBE | 24 June 96 | | 9 | - | |
| WATER LEVEL SENS. | - | | 1 | - | |
| PID | - | | 6 | - | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

SEE NEXT PAGE

Meeting w/ Crew re: work scope.
Gauged water levels in wells.
Drilled + sampled DP-01, DP-02, DP-03 w/ STRATAPROBE DPT RIG. Collected water samples using peristaltic pump + new tubing @ each well, from ~ 4' below water table.
Put decon water in Drum #11 (Labeled 960624-1)

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

Calibrated PID. Inspected Rig for cleanliness of spoons + augers.

5. Tests Performed and Test Results: (Identify test requirement byu paragraph number in specifications and/or sheet number in plans).

Field screened soil samples. All negative except at or below capillary fringe.
Trace of odor @ DP-01, DP-02 below water table (~ 1-2 ft).

6. Material Received: (Note inspection results and storage provided).

Sample containers fr. ~~GTC~~ NEI-GTEL.

7. Submittals Reviewed:

NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Reviewed Sasewide & project HSSP's. Held daily meeting, w/ part. attn. to wind, heat, sun

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Attempting to minimize impact on vegetation;

**Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.**

Scott Stevenson 25 June 96.

CQC System Manager Date

# TAILGATE MEETING FORM

Project Name: AOC 1001

Date: 24 June 1996

Project Number:

Presented by: Scott Stevenson

Check the Topics/Information Reviewed:

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [ ] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [ ] vehicle safety and driving/road conditions
- [ ] portable tool safety and awareness
- [ ] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [x] sharp object, rebar, and scrap metal hazards
- [ ] safety is everyone's responsibility
- [ ] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [ ] upgrade to level c at: FID/PID (___ eV) >___ ppm
- [ ] work stoppage at: FID/PID(___ eV) >___ ppm, % LEL > 10%
- [ ] kill on rig
- [ ] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- No [x] smoking ~~in designated areas~~
- [ ] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [ ] fire extinguisher locations
- [ ] eye wash station locations
- [x] decontamination procedures
- [x] daily work scope
- [ ] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [ ] strains and sprains
- [ ] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [ ] backing up hazards
- [ ] accidents are costly
- [x] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [x] flying debris hazards

Discussion/Comments/Follow-up Actions:

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Scott Stevenson | Scott Stevenson | FD GTI |
| KARIS VANDEHEY | Karis Vandehey | TEG |
| Todd Klein | Todd Klein | TEG |
| Del Mack Ward | Del Mack Ward | Indian Environmental |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

Fluor Daniel GTI
~~Groundwater~~
(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: ~~D~~ 6 Date: 25 JUN 96
Contract No.: DACW-45-94-D0003
Project Title & Location: AOC 1001 - DOBWAD29
Weather: hot, clear Precipitation: none In.: Temp.: 75 Min.: 105 Max.:

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | Scientist | 0630-16:35 | FDGTI | AOC 1001 - Log & sample wells |
| Vandelhey | Driller | 0630-16:35 | TEG | " - DPT operator |
| | Drillers helper | 0630-16:35 | TEG | " & assist |
| Ward | Assist. | 0630-16:35 | IFS | " " |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| STRATAPROBE | | | 10 | - | - |
| PID | | | 8 | - | - |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Drilled & sampled DP04, DP05, DP06.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

Calib. PID

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Field Screen on soil samples:
No readings over 0 except for @ DP06 -
small readings of 0.5 - 1.0 @ 6'-12' area.

6. Material Received: (Note inspection results and storage provided).

NONE

7. Submittals Reviewed:

NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Site Safety meeting (daily). Light breeze. No PID readings over 0 in Breathing zone

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Very hot & dry. some atmospheric dust.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Lee Scott Stevenson 26 June 96

CQC System Manager Date

# TAILGATE MEETING FORM

Project Name: AOC 1001 Date: 25 June 1996

Project Number: Presented by: Scott Stevens

Check the Topics/Information Reviewed:

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [ ] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [ ] vehicle safety and driving/road conditions
- [ ] portable tool safety and awareness
- [x] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [ ] safety is everyone's responsibility
- [x] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: FID/PID (___ eV) >___ ppm no upgrade
- [x] work stoppage at: FID/PID(___ eV) >___ ppm, % LEL > 10%
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [ ] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [ ] fire extinguisher locations
- [ ] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [ ] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [ ] strains and sprains
- [ ] noise hazards
- [ ] no horseplay
- [x] heat and cold stress
- [ ] backing up hazards
- [ ] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [x] flying debris hazards

DUST STORM

Discussion/Comments/Follow-up Actions:

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Scott Stevens | [signature] | FD GTI |
| Karen Vandehey | [signature] | TEG |
| Todd Klein | [signature] | TEG |
| Del Mack Ward | [signature] | Indian Environmental |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 7 Date: 26 JUNE 1996

Contract No.: DACW-45-94-D0003

Project Title & Location: AOC 1001 - DOB WAD 29

Weather: hot, dry, thun clouds w/ threat of storms Precipitation: - In.: Temp.: 75 Min.: 98 Max.:

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | Scientish | 0630-1630 | FDGTI | AOC1001 - log + sample |
| Vandehey | Driller | " " | TEG | " - drill |
| Klein | helper | " " | TEG | " - assist |
| Ward | helper | " " | IFS. | " - " |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| STRATAPROBE | 24 JUNE | | 10 | — | — |
| PID | | | 8 | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

See next page.

INSTALLED DP07, DP08 + partial on DP09.
Collected soil + GW samples.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

Calib. PID.
Inspect areas for minimizing vegetation impact.

5. Tests Performed and Test Results: (Identify test requirement byu paragraph number in specifications and/or sheet number in plans).

Field Screening on soils - No positive readings on DP07, DP08. ODOR noted @ DP09 @ ~12' PID readings in 70 - 100 ppm range.

6. Material Received: (Note inspection results and storage provided).

Replacement sampler (2"x36" Split Spoon).
for STRATAPROBE

7. Submittals Reviewed:
NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:
NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Daily Safety meeting. Checked open hole @ DP09 on noting odor in sample - no readings on PID.

10. Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Brian Jordan - USACE - visiting in am.
Had to leave DP09 @ 21' due to impending T'storm.
Area is not accessible when ground is wet.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Lee Scott Stumm 27 June 1996.

CQC System Manager Date

# TAILGATE MEETING FORM

Project Name: AOC 1001

Date: 26 June 1996

Project Number: D08WAD29

Presented by: Scott Stevenson

Check the Topics/Information Reviewed:

- ☑ safety glasses, hard hat, safety boots
- ☑ site safety plan review and location
- ☐ equipment and machinery familiarization
- ☑ employee Right-To-Know/MSDS location
- ☐ open pits, excavations, and site hazards
- ☑ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☑ overhead utility locations and clearance
- ☑ first aid, safety, and PPE location
- ☐ sharp object, rebar, and scrap metal hazards
- ☐ safety is everyone's responsibility
- ☑ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at FID/PID (___ eV) >___ ppm
- ☐ work stoppage at FID/PID(___ eV) >___ ppm, % LEL > 10%
- ☐ slips, trips, and falls
- ☑ directions to hospital
- ☐ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☐ orderly site and housekeeping
- ☐ smoking in designated areas
- ☐ leather gloves for protection
- ☐ effects of the night before
- ☐ vibration related injuries
- ☑ fire extinguisher locations
- ☑ eye wash station locations
- ☐ decontamination procedures
- ☑ daily work scope
- ☐ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☐ strains and sprains
- ☐ noise hazards
- ☐ no horseplay
- ☐ heat and cold stress
- ☐ backing up hazards
- ☐ accidents are costly
- ☑ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards

Discussion/Comments/Follow-up Actions:

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Scott Stevenson | [signature] | FDGTI |
| Karis Vandehey | [signature] | TEG |
| Todd Klein | [signature] | TEG |
| Del Mack Ward | [signature] | Indian Environmental |
| BRIAN JORDAN | [signature] | USACE |
| | | |
| | | |
| | | |
| | | |
| | | |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

FLUOR DANIEL GTI
(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 8 Date: 27 JUNE 1996
Contract No.: DACW-45-94-D0003
Project Title & Location: DOB WAD 27- AOC 1001
Weather: rain Precipitation: In.: Temp.: 65 Min.: 75 Max.:

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | Scientist | 0630-1400 | FDGTI | AOC 1001; Attempt to drill; Pickup sampl |
| Vandehey | Driller | 0630-0930 | TEG | " |
| Klein | Assist | 0630-0930 | TEG | " |
| Ward | Assist | 0630-0930 | IFS | " |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| STRATAPROBE | 24JUN96/ | – | – | – | – |
| PID | | | – | – | – |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Attempt to reset to Do borings DP09; DP10. Walked route in; attempted to drive in. stuck in mud.

Packed & shipped samples on COCs
42299; 42300; 42280; 42302, 42301, 42303; 42281

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

Checked road for safe driving conditions.

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

NONE

6. Material Received: (Note inspection results and storage provided).

NONE

7. Submittals Reviewed:

NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Daily site safety meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Could not access AOC 1001 area; soil wet & soft & sticky. Drill Rig & support vehicle got stuck; dug out. DPT rig released until ~14:00 to allow soils to dry.
Moved to other job in afternoon.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Lee Scott Freeman 28 Jan 96

CQC System Manager Date

# TAILGATE MEETING FORM

Project Name: AOC 1001 + 5047

Date: 27 June 96

Project Number:

Presented by: [illegible]

Check the Topics/Information Reviewed:

- ☒ safety glasses, hard hat, safety boots
- ☐ site safety plan review and location
- ☐ equipment and machinery familiarization
- ☐ employee Right-To-Know/MSDS location
- ☐ open pits, excavations, and site hazards
- ☐ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☐ overhead utility locations and clearance
- ☐ first aid, safety, and PPE location
- ☐ sharp object, rebar, and scrap metal hazards
- ☐ safety is everyone's responsibility
- ☐ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at: FID/PID (___ eV) >___ ppm
- ☒ work stoppage at: FID/PID(___ eV) >___ ppm, % LEL > 10%
- ☐ slips, trips, and falls
- ☐ directions to hospital
- ☐ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☐ orderly site and housekeeping
- ☐ smoking in designated areas
- ☐ leather gloves for protection
- ☐ effects of the night before
- ☐ vibration related injuries
- ☐ fire extinguisher locations
- ☐ eye wash station locations
- ☐ decontamination procedures
- ☒ daily work scope
- ☐ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☐ strains and sprains
- ☐ noise hazards
- ☐ no horseplay
- ☐ heat and cold stress
- ☐ backing up hazards
- ☐ accidents are costly
- ☐ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards

✓ watch for soft dirt.

Discussion/Comments/Follow-up Actions:

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| S. [illegible] | [illegible] | GTI |
| Del Mack Ward | [illegible] | Indian Environmental |
| Kurtis Vandehey | [illegible] | TEG |
| Todd Klein | [illegible] | TEG |
| RAY BATTALORA | [illegible] | FOSTER WHEELER |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

Flour Daniel GTI
(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 09 Date: 28 June 1996
Contract No.: DACW-45-94-D0003
Project Title & Location: DOB WAD 29 - Addl. char. @ AOC 1001
Weather:_____ Precipitation:_____ In.:___ Temp.:_____ Min.:_____ Max.:_

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | Scientist | 15:00-16:00 | FDGTI | AOC 1001 - Inspect for possibility |
| Vandehey | Driller | " " | TEG | do |
| Klein | Assist. | " " | TEG | do |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Operating Plant or Equipment. (Not hand tools)

NONE

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Carefully walked access route to DP09 & DP10 area to see if vehicles would be able to drive there. Made decision to attempt to complete borings Sat Morn

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

NONE

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

NONE

6. Material Received: (Note inspection results and storage provided).

NONE

7. Submittals Reviewed:
NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Checked for safe access.

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Arrangement w/ Dino Bonaldo (EW) + Brian Jordan (USACE to drill Sat if site accessible; Brian J to be onsite

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Lee S. [illegible] 29 June 198[illegible]

CQC System Manager Date

Fluor Daniel GTI
(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 10 Date: 29 June 1996
Contract No.: DACW-45-94-D0003
Project Title & Location: DOD WAD 29 - AOC 1001
Weather: Cloudy w/ threatening Thunder Precipitation: pending. In.: Temp.: 75 Min.: 85 Max.:

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| STEVENSON | Scientist | 07:00 - 14:00 | FDGTI | AOC 1001 - Log & sample |
| | | | | IDW yard - Sample decon water |
| Vandehey | Driller | 07:00 - 1300 | TEG | Install DP09, DP10 @ AOC1001 |
| Klein | Assist | 07:00 1300 | TGE | " " |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| STRATAPROBE | 24 June/29 June 96 | - | 6 | - | - |
| PID | | | 6 | - | - |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Installed borings DP09A, DP10. DP09A is restart of DP09 which had to be stopped because of rain.
Logged & sampled.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

Calib. PID; ok.

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Field screened soils w/ PID. No positive response anywhere on DP10. DP09A had odor + positive PID readings around the 21' depth. Response was not as strong as at DP09; (3 ft south).

6. Material Received: (Note inspection results and storage provided).

NONE.

7. Submittals Reviewed:

NONE

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate meeting - partic. attn to not being in a hurry, & to threatening weather, Had to leave due to lightning & potential for rain which would prevent vehicles from leaving.

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Only able to collect 0.5 l ~~from~~ of $H_2O$ for Explosive analysis from DP 10 due to imminent rain & lightning. Brian Jordan USACE, on site & doing QA, concurred w/ need to leave.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Lee Scott Stevenson 1 July 1996.

CQC System Manager Date

# TAILGATE MEETING FORM

Project Name: AOC 1001

Date: 29 JUN 1996

Project Number:

Presented by: S Stevenson

Check the Topics/Information Reviewed:

- ☑ safety glasses, hard hat, safety boots
- ☑ site safety plan review and location
- ☐ equipment and machinery familiarization
- ☐ employee Right-To-Know/MSDS location
- ☐ open pits, excavations, and site hazards
- ☐ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☐ overhead utility locations and clearance
- ☐ first aid, safety, and PPE location
- ☐ sharp object, rebar, and scrap metal hazards
- ☐ safety is everyone's responsibility
- ☐ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at FID/PID (___ eV) >___ ppm
- ☐ work stoppage at FID/PID (10.6 eV) >___ ppm, % LEL > 10%

- ☑ slips, trips, and falls
- ☑ directions to hospital
- ☑ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☑ orderly site and housekeeping
- ☐ smoking in designated areas
- ☐ leather gloves for protection
- ☐ effects of the night before
- ☐ vibration related injuries
- ☑ fire extinguisher locations
- ☑ eye wash station locations
- ☐ decontamination procedures

- ☑ daily work scope
- ☐ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☐ strains and sprains
- ☐ noise hazards
- ☐ no horseplay
- ☐ heat and cold stress
- ☐ backing up hazards
- ☐ accidents are costly
- ☑ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards

Discussion/Comments/Follow-up Actions: Don't be in too big a hurry, watch for wind,

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Scott STEVENSON | [signature] | FDGTI |
| Karl VANDEHEY | [signature] | TEG |
| Todd Klein | [signature] | TEG |
| BRIAN JORDAN | [signature] | USACE |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities. Complete form by checking off specific topics and/or hazards.
- Obtain signatures from all GTI staff and GTI subcontractors.
- Follow-up on any noted items and document resolution of any action items.

Foster Wheeler/Groundwater Technology
(FIRM NAME)

# DAILY QUALITY CONTROL REPORT

Daily Report No.: 001 Date: 6 May 97
Contract No.: DACW-45 94D -00023
Project Title & Location: HAFB DD8 W29 AOC-1001
Weather: Cloudy Precipitation: 0 In.: 0 Temp.: 85 Min.: 60 Max.: 98

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| Schick | GEO | 8 | FDGT | AOC-1001 |
| Nelson | GEO | 11 | ↓ | ↓ |
| Mobewell | H+S | 3 | ↓ | ↓ |
| Eric Nassar | ~~EE~~ Driller | 11 | TEG | ↓ |
| Todd Klein | " | 11 | ↓ | ↓ |
| Sharon Chilcott | LAB | 11 | ↓ | ↓ |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| DPT R16 | 6 May | 6 May | 10 | | |
| Mobile Lab | ↓ | ↓ | 10 | | |
| field vehicle | ↓ | ↓ | 10 | | |
| PID | ↓ | ↓ | 10 | | |
| H+S meters | ↓ | ↓ | 10 | | |
| pH/Cond/Temp meter | ↓ | ↓ | 10 | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

① Mobilized to site ADC-1001
② DPT Boring: DP-11, DP-15, + DP-18

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

H2S monitoring, Headspace

6. Material Received: (Note inspection results and storage provided).

Coolers and sample bottles &
Calibration Gases

7. Submittals Reviewed: D

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

None

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

H+S Introduction, H+S Toilgate

10. Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

① Work went well. Lost Charles Madewell to stomach flu. Unrelated to Job.

② Mobile lab working well. Some locations have low water yield

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Robert H. Naylor 5/7/97

[redacted]nager Date

For

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 **Date:** 5-6-97

**Project Number:** 87220008290 3 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [x] equipment and machinery familiarization
- [ ] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [x] vehicle safety and driving/road conditions
- [x] portable tool safety and awareness
- [x] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [ ] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) > 25 ppm, % LEL > 10%
- [x] driller killswitch works
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [x] fire extinguisher locations
- [x] eye wash station locations
- [x] decontamination procedures
- [x] daily work scope
- [x] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Sherry Lee Chilcutt | Sherry L Chilcutt | TEG NW |
| Todd R. Klein | [illegible] | TEG NW |
| Eric Nassau | [illegible] | TEG NW |
| Bob NAYLOR | [illegible] | FD-GT1 |
| Chuck SCHICK | [illegible] | FD-GT |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

Foster Wheeler/Groundwater Technology
(FIRM NAME)

# DAILY QUALITY CONTROL REPORT

Daily Report No.: 002 Date: 5-7-97
Contract No.: DACW-45-94D-0003
Project Title & Location: HAFB DOE WAD29 AOC-1001
Weather: Sunny/windy Precipitation: 0 In.: 0 Temp.: 85 Min.: 60 Max. 90

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| Chuck Schrich | GEO | 11.3 | Flour Daniel GTI | AOC-1001 DPT Drilling |
| Charles Madewell | ET/HS | 11.3 | ↓ | ↓ |
| Robert Naylor | GEO | 11.3 | ↓ | ↓ |
| Eric Nasson | Driller | 11.3 | TEG | ↓ |
| Todd Klein | Driller | 11.3 | ↓ | ↓ |
| Sherry Chilcutt | LAB | 11.0 | ↓ | ↓ |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| DPT RIG | 5-7-97 | 5-7-97 | 11 | | |
| Mobile Lab | ↓ | ↓ | 11 | | |
| pH/Cond/Temp Mtr | ↓ | ↓ | 11 | | |
| PID | ↓ | ↓ | 11 | | |
| LEL | ↓ | ↓ | 11 | | |
| Field Vehicle | ↓ | ↓ | 11 | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Collected groundwater Sample at DP-15 after flushing down to water. Drilled DP-12, collected soil and groundwater. Groundwater was collected from adjacent boring due to problems per section #10. DPT Drilling at DP-22 collected soil + groundwater. Groundwater from DP-22 was collected from adjacent new boring due to obstruction in original boring. DPT Drilling at DP-18 and collected soil + groundwater Samples

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Headspace + H+S monitoring (work zone + Breathing zone checks)

6. Material Received: (Note inspection results and storage provided).

NONE

7. Submittals Reviewed: Ø

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

None

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate Safety Meeting

10. Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

- Delay at DP-12. The bore rods became stuck and it took 1 hour to break loose.
- Directed by Steve Pearson to proceed with PPT Drilling at DP-22.

Contractor 's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

5-7-97

CQC System Manager Date

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 **Date:** 5-7-97

**Project Number:** 872200082903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [x] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [x] vehicle safety and driving/road conditions
- [x] portable tool safety and awareness
- [ ] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [x] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) > 25 ppm, % LEL > 10%
- [x] driller killswitch works
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [x] fire extinguisher locations
- [x] eye wash station locations
- [x] decontamination procedures
- [x] daily work scope
- [x] emergency protocol
- [x] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Sherry Chilcutt | Sherry Chilcutt | TEG NW |
| Todd Klein | Todd Klein | TEG NW |
| Eric Nassau | Eric Nassau | TEG NW |
| Bob NAYLOR | [illegible] | FD-GTI |
| CHUCK SCHICK | [illegible] | FD-GTI |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 003 Date: 5-8-97
Contract No.: DACW45-94D-0003
Project Title & Location: HAFB AOC-1001
Weather: Sunny Precipitation: 0 In.: 0 Temp.: 85 Min.: 60 Max.: 90

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK | | |
|---|---|---|---|---|---|---|
| C. Nadeau | ET/SSHO | 9.5 | FDGTI | AOC-1001 | DPT | Drilling |
| B. Naylor | Geo | 9.5 | FDGTI | ↓ | ↓ | ↓ |
| T. Klein | Driller | 9.5 | TEG, Inc | ↓ | ↓ | ↓ |
| E. Nassau | Driller | 9.5 | TEG, Inc | ↓ | ↓ | ↓ |
| S. Chilcutt | Chemist | 9.5 | TEG, Inc | ↓ | ↓ | ↓ |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| DPT Drill Rig | 5-8-97 | 5-8-97 | | | |
| Mobile Lab | ↓ | ↓ | | | |
| Field Vehicle | ↓ | ↓ | | | |
| PID meter | ↓ | ↓ | | | |
| LEL " | ↓ | ↓ | | | |
| pH/Cond/Temp " | ↓ | ↓ | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

DPT Drilling at ADC-1001. Borings DP-19, 14, 17, 20 + 13 done
Collected groundwater samples at all wells. Collected explosive samples AT DP-14 + DP-13.
Collected soil sample at DP-17 only.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

H2S monitoring + Headspace

6. Material Received: (Note inspection results and storage provided).

None

7. Submittals Reviewed:

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

NONE

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tail

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Directed to collect groundwater only samples at DP-19, 14, 20, +13, NO soil samples collected

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

CQC System Manager

5-8-97
Date

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 **Date:** 5-8-97

**Project Number:** 872200082903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [ ] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [ ] vehicle safety and driving/road conditions
- [ ] portable tool safety and awareness
- [ ] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [ ] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) >25 ppm, % LEL > 10%
- [x] driller killswitch works
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [x] fire extinguisher locations
- [x] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [ ] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Todd Klein | [signature] | TEG NW |
| Eric Nassau | [signature] | TEG NW |
| ~~Bob Nagle~~ Bob Nagle | [signature] | FD-GTI |
| Sherry Chilcutt | [signature] | TEG NW |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 004 Date: 5-9-97
Contract No.: DACW45-94-D-0003
Project Title & Location: HAFB AOC-1001 + POL Tank 15
Weather: Sunny Precipitation: 0 In.: 0 Temp.: 85 Min.: 60 Max.: 90

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| C. Nadewell | ET/SSHO | 10.5 | FDGII | AOC-1001 + POL Tank 15 |
| B. Naylor | GEO | 10.5 | FDGII | ↓ |
| | | | | |
| E. Nassau | Driller | 10.0 | TEG, INC | ↓ |
| T. Klein | Driller | 10.0 | TEG, INC | ↓ |
| S. Chilcutt | Chemist | 10.0 | TEG, Inc | ↓ |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| DPT Drill Rig | 5-9-97 | 5-9-97 | 10 | | |
| Mobile Lab | ↓ | ↓ | ↓ | | |
| Field Vehicle | ↓ | ↓ | ↓ | | |
| PID meter | ↓ | ↓ | ↓ | | |
| LEL | ↓ | ↓ | ↓ | | |
| pH/Cond/Temp ↓ | ↓ | ↓ | ↓ | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Site AOC-1001 DPT Drilling. DP-24, 25 + 23. Redrilled DP-25 due to first boring was dry. Collected groundwater samples from all wells. Collected soil samples at DP-24 + 23. Sample analyzed by Mobile Laboratory. Pack & shipped explosive samples from DP-13 via FedEx
Site POL Tank 15- DPT Drilling DP-1 + DP-2 and collected groundwater + soil samples.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

H+S monitoring + Headspace

6. Material Received: (Note inspection results and storage provided).

None

7. Submittals Reviewed:

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate Safety meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

5-9-97

CQC System Manager Date

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 **Date:** 5-9-97

**Project Number:** 8722000 82903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [ ] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [x] vehicle safety and driving/road conditions
- [ ] portable tool safety and awareness
- [ ] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [ ] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [x] effects of the night before
- [ ] vibration related injuries
- [ ] fire extinguisher locations
- [ ] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [x] emergency protocol
- [x] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) ≥ 25 ppm, % LEL > 10%
- [x] driller killswitch works

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Eric Nassau | [signature] | TEG NW |
| Todd Klein | [signature] | TEG NW |
| Bob Naylor | [signature] | FD-GTI |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 006 Date: 5-12-97
Contract No.: DACW-45-94D-0003
Project Title & Location: HAFB ADC-1001
Weather: Sunny Precipitation: 0 In.: 0 Temp.: 80 Min.: 60 Max.: 85

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| C. Madewell | ET/SSHO | 10 | FDGTI | ADC-1001 HSA Drilling |
| C. Schick | Geo | 8.5 | ↓ | ↓ ↓ ↓ |
| R. Naylor | Geo | 10 | ↓ | ↓ ↓ ↓ |
| | | | | |
| Val Morales | Driller | 8.5 | Raba Kistner | ↓ ↓ ↓ |
| Manuel Dueñez | Driller | 8.5 | ↓ ↓ | ↓ ↓ ↓ |
| Carlos Villegas | Driller | 8.5 | ↓ ↓ | ↓ ↓ ↓ |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| HSA Rig | 5-12-97 | 5-12-97 | 8.5 | | |
| Field Vehicle | ↓ | ↓ | 10 | | |
| PID meter | ↓ | ↓ | 10 | | |
| LEL " | ↓ | ↓ | 10 | | |
| Truck W/Trailer | ↓ | ↓ | 8.5 | | |
| | | | | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

Pack + ship cores with samples from POL Tank 15.

ADC-1001 HSA drilling MWADC-1 + Partial MWADC-2. Installed well 2" PVC in MWADC-1. Added sand, 3' Bentonite, + grout to surface and placed a metal well protective case

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

HS monitoring & Headspace

6. Material Received: (Note inspection results and storage provided).

None

7. Submittals Reviewed:

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

None

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Review SSHP & sign, Tailgate Safety Meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

CQC System Manager 5-12-93 Date

# DAILY SAFETY MEETING

**Project Name:** HAFB ADC-1001 **Date:** 5-12-97

**Project Number:** 87220008Q903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [x] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [x] vehicle safety and driving/road conditions
- [x] portable tool safety and awareness
- [x] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [x] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) > 25 ppm, % LEL > 10%
- [x] driller killswitch works
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [x] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [x] effects of the night before
- [ ] vibration related injuries
- [x] fire extinguisher locations
- [x] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [x] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| MANUEL DUENEZ | Manuel Duenez | RABA-KISTNER |
| CARLOS VILLEGAS | Carlos Villegas | " " |
| HAL MORALES | Hal Morales | " " |
| CHUCK SCHUK | Chuck Schuk | FDGTI |
| BOB NAYLOR | [illegible] | FDGTI |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 007 Date: 5/13/97
Contract No.: DACW45-94-D-0003
Project Title & Location: AOC-1001 HAFB
Weather: Sunny Precipitation: 0 In.: 0 Temp.: 90 Min.: 65 Max.: 95

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| C. Schick | Geo II | 6 | FDGTI | AOC-1001 HSA Drilling |
| C. Madewell | ET/SSHO | 11.5 | " | |
| R. Naylor | Geo | 11.5 | " | |
| | | | | |
| M. Duenez | Driller | 11.5 | Raba-Kistner | |
| C. Villegas | Driller | 11.5 | " " | |
| V. Morales | Driller | 11.5 | " " | |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| HSA Drilling Rig | 5/13/97 | 5/13/97 | 11.5 | | |
| Truck w/Trailer | | | 11.5 | | |
| Field Truck | | | 11.5 | | |
| PID Meter | | | 11.5 | | |
| LEL " | | | 11.5 | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

AOC-1001 HSA Drilling MWADC-2 3 & 4 Installed 2-inch PVC monitoring ~~tes~~ wells in all wells. Set well under casing's

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

H & S monitoring of work zone & Breathing zone and headspace

6. Material Received: (Note inspection results and storage provided).

None

7. Submittals Reviewed: 0

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

None

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate Safety Meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

5-13-97

CQC System Manager Date

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 HAFB **Date:** 5-13-97

**Project Number:** 872200082903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- ☒ safety glasses, hard hat, safety boots
- ☒ site safety plan review and location
- ☐ equipment and machinery familiarization
- ☒ employee Right-To-Know/MSDS location
- ☐ open pits, excavations, and site hazards
- ☒ vehicle safety and driving/road conditions
- ☒ portable tool safety and awareness
- ☒ overhead utility locations and clearance
- ☒ first aid, safety, and PPE location
- ☒ sharp object, rebar, and scrap metal hazards
- ☒ safety is everyone's responsibility
- ☒ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☒ slips, trips, and falls
- ☒ directions to hospital
- ☐ anticipated visitors
- ☐ electrical ground fault
- ☒ public safety and fences
- ☐ excavator swing and loading
- ☒ orderly site and housekeeping
- ☒ smoking in designated areas
- ☒ leather gloves for protection
- ☒ effects of the night before
- ☐ vibration related injuries
- ☒ fire extinguisher locations
- ☒ eye wash station locations
- ☐ decontamination procedures
- ☒ daily work scope
- ☒ emergency protocol
- ☒ parking and laydown
- ☐ hot work permits
- ☒ strains and sprains
- ☒ noise hazards
- ☒ no horseplay
- ☒ heat and cold stress
- ☒ backing up hazards
- ☒ accidents are costly
- ☐ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards
- ☒ upgrade to level c at: PID (___ eV) > 5 ppm
- ☒ work stoppage at: PID(___ eV) >25 ppm, % LEL > 10%
- ☒ driller killswitch works

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Bob Naylor | [illegible] | FDGTI |
| V. Morales | V. Morales | Raba Kistner |
| Manuel Duenez | Manuel Duenez | Raba-Kistner |
| Carlos Villegas | Carlos Villegas | Raba-Kistner |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 008 Date: 5-14-97
Contract No.: DACW45-94-D-0003
Project Title & Location: HAFB BX Service Station + AOC-1001
Weather: Precipitation: In.: Temp.: Min.: Max.:

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| C. Madewell | ET/SSHO | 11.3 | FDGTI | AOC-1001 + BX Service Station |
| R. Naylor | Geo | 11.3 | FDGTI | ↓ ↓ |
| | | | | |
| M. Duenez | Driller | 11.3 | Raba-Kistner | ↓ ↓ |
| C. Villagas | Driller | 11.3 | ↓ | ↓ ↓ |
| V. Morales | Driller | 11.3 | ↓ | ↓ ↓ |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| HSA Drill Rig | 5/14/97 | 5/14/97 | 11.3 | | |
| Truck w/Trailer | ↓ | ↓ | 11.3 | | |
| Field Vehicle | ↓ | ↓ | 11.3 | | |
| PID Meter | ↓ | ↓ | 11.3 | | |
| LEL " | ↓ | ↓ | 11.3 | | |
| | | | | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

BX Service Station - Abandoned two monitoring wells + installed 2 2-inch PVC 10' screen wells. Installed concrete pad + manhole around 1 well by Shoppette Pack + shipped soil sample from AOC-1001 MW wells via FedEx to Lavlks Labs. AOC-1001 - Drill PZAOC-1 & PZAOC-2

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

None

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

Health + Safety Monitoring & Headspace

6. Material Received: (Note inspection results and storage provided).

None

7. Submittals Reviewed:

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate Safety meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

CQC System Manager 5-14-97 Date

# DAILY SAFETY MEETING

**Project Name:** BX Service Station HAFB **Date:** 5-14-97

**Project Number:** 87220004017 **Presented by:** Charles Maberry

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [x] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [x] vehicle safety and driving/road conditions
- [x] portable tool safety and awareness
- [x] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [x] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [ ] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) > 25 ppm, % LEL > 10%
- [x] driller killswitch works
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [x] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [ ] fire extinguisher locations
- [ ] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [x] emergency protocol
- [x] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| MANUEL DUENEZ | Manuel Duenez | RABA-KISTNER |
| Carlos VILLEGAS | Carlos Villegas | RABA-KISTNER |
| VAL MORALES | Val Morales | " |
| Bob NAYLOR | Bob Naylor | ED-GT I |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 009 Date: 5-15-97
Contract No.: DACW45-94-D-0003
Project Title & Location: ADC-1001 + BX Service Station
Weather: Sunny-Slight cloudy Precipitation: 0 In.: 0 Temp.: 80 Min.: 60 Max.: 85

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| C. Malewell | ET/SSHO | 10.5 | FDGTF | ADC-1001 + BX Gas Station |
| R. Naylor | Geo | 10.5 | " | ↓ ↓ |
| M. Duenez | Driller | 10 | Robin Kustner | ↓ ↓ |
| C. Villegas | Driller | 6 | ↓ | ↓ ↓ |
| V. Morales | Driller | 10 | ↓ | ↓ ↓ |
| G. Fregoso | Driller Helper | 4 | ↓ | ↓ ↓ |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| Truck w/Trailer | 5/15/97 | 5/15/97 | 10 | | |
| HSA Drill Rig | ↓ | ↓ | | 10 | |
| Field Vehicle | ↓ | ↓ | 10 | | |
| PID Meter | ↓ | ↓ | 10 | | |
| LEL " | ↓ | ↓ | 10 | | |
| pH/Cond/Temp " | ↓ | ↓ | 10 | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

AOC-1001 Develop Wells MWAOC-1, 2, 3, + 4 Drummed water + Labeled 2 drums. Completed Benchs, aprons + pad on MWAOC-1, +2. Complete Posts + Frame for Apron at MWAOC-3+4.

BX Gas Station Develop BX-1, + 2 wells. Drum + Labeled 1 drum

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

NANE

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

H+S monitoring

6. Material Received: (Note inspection results and storage provided).

Piezometer well PVC materials - OK

7. Submittals Reviewed: 0

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

None

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate Safety Meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

[illegible signature] 5/15/97

CQC System Manager Date

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 **Date:** 5-15-97

**Project Number:** 87220008 2903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [x] site safety plan review and location
- [x] equipment and machinery familiarization
- [x] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [x] vehicle safety and driving/road conditions
- [x] portable tool safety and awareness
- [ ] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [x] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [x] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) > 25 ppm, % LEL > 10%
- [ ] driller killswitch works
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [x] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [x] effects of the night before
- [x] vibration related injuries
- [x] fire extinguisher locations
- [x] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [x] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [x] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| V. MORALES | Val Morales | RABA-KISTNER |
| Bob NAYLOR | Bob Naylor | FD-GTI |
| CARLOS VILLEGAS | Carlos Villegas | RABA-Kistner |
| MANUEL DUENEZ | Manuel Duenez | " " |
| GABRIEL FREGOSO | Gabriel Fregoso | " " |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: 010 Date: 5-16-97
Contract No.: DACW-45-94-D-0003
Project Title & Location: HAFB ADC-1001 & BX Gas Station
Weather: Sunny Partly Cloudy Precipitation: 0 In.: 0 Temp.: 80 Min.: 60 Max.: 85

1. Contract/Subcontractors and Area of Responsibility:

| NUMBER | TRADE | HOURS | EMPLOYER | LOCATION/DESCRIPTION WORK |
|---|---|---|---|---|
| C. Madewell | ET/SSHO | 12 | FDGTI | ADC-1001 & BX Gas Station |
| R. Naylor | GEO | 12 | " | " " |
| | | | | |
| M. Duenez | Driller | 12 | Rotta-Kustrel | ADC-1001 |
| V. Morales | Driller | 12 | " | " |
| G. Fregoso | Driller/Helper | 12 | " | " |
| | | | | |
| A. Garcia | Surveyor | 8 | Southwest Eng | ADC-1001 & BX Gas Station |
| K. Pierce | Surveyor | 8 | " | " " |
| R. Piper | Surveyor | 8 | " | " " |
| | | | | " |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Operating Plant or Equipment. (Not hand tools)

| Plant/Equipment | Date of Arrival/ Departure | Date of Safety Check | Hours Used | Hours Idle | Hours Repair |
|---|---|---|---|---|---|
| Truck w/Trailer | 5-16-97 | 5-16-97 | 12 | | |
| HSA Drill Rig | ↓ | ↓ | 12 | | |
| Field Vehicle | ↓ | ↓ | 12 | | |
| PID Meter | ↓ | ↓ | 12 | | |
| LEL | ↓ | ↓ | 12 | | |
| Surveyor Vehicle/Equip. | ↓ | ↓ | 8 | | |
| | | | | | |

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

AOC-1001 - Raba-Kistner - HSA Drilling Installed PZ4OC-1, 2, 3, + 4
Finish concrete aprons on MWAOC-3, +4. Drummed Deion water from Decon
Pad into drums: 2 drums with fluid + 1 drum with sludge
Southwest engineering - Surveyed BX. Gas Station + AOC-1001
SWMU-17/121 - HSA drill 1 hole + logged hole.

4. Control Activities Performed:
Preparatory Inspections: (Identify feature of work and attached minutes).
Initial Inspections: (Identify feature of work and attach minutes).
Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

NONE

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

H+S Monitoring

6. Material Received: (Note inspection results and storage provided).

NONE

7. Submittals Reviewed:

| (a) Submittal No. | (b) Spec/Plan Reference | (c) By Whom | (d) Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Off-site Surveillance Activities, Including Action Taken:

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

Tailgate Safety Meeting

10.Remarks: (Instructions received or given. Conflicts(s) in Plans and/or specifications. Delays encountered.).

1/2 hour delay in finding suitable drums for drumming the Decon pad water + sludge.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

CQC System Manager — Date 5-16-97

# DAILY SAFETY MEETING

**Project Name:** AOC-1001 **Date:** 5-16-97

**Project Number:** 872200082903 **Presented by:** Charles Madewell

**Check the Topics/Information Reviewed:**

- [x] safety glasses, hard hat, safety boots
- [ ] site safety plan review and location
- [ ] equipment and machinery familiarization
- [ ] employee Right-To-Know/MSDS location
- [ ] open pits, excavations, and site hazards
- [ ] vehicle safety and driving/road conditions
- [ ] portable tool safety and awareness
- [ ] overhead utility locations and clearance
- [x] first aid, safety, and PPE location
- [ ] sharp object, rebar, and scrap metal hazards
- [x] safety is everyone's responsibility
- [ ] latex gloves inner/nitrile gloves outer
- [ ] excavation/trenching inspections/documentation
- [ ] full face respirators with proper cartridges
- [x] slips, trips, and falls
- [x] directions to hospital
- [ ] anticipated visitors
- [ ] electrical ground fault
- [ ] public safety and fences
- [ ] excavator swing and loading
- [ ] orderly site and housekeeping
- [x] smoking in designated areas
- [x] leather gloves for protection
- [ ] effects of the night before
- [ ] vibration related injuries
- [x] fire extinguisher locations
- [x] eye wash station locations
- [ ] decontamination procedures
- [x] daily work scope
- [ ] emergency protocol
- [ ] parking and laydown
- [ ] hot work permits
- [x] strains and sprains
- [x] noise hazards
- [x] no horseplay
- [x] heat and cold stress
- [x] backing up hazards
- [ ] accidents are costly
- [ ] dust and vapor control
- [ ] refueling procedures
- [ ] confined space entry
- [ ] flying debris hazards
- [x] upgrade to level c at: PID (___ eV) > 5 ppm
- [x] work stoppage at: PID(___ eV) > 25 ppm, % LEL > 10%
- [x] driller killswitch works

**Discussion/Comments/Follow-up Actions:**

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| VAL MORALES | Val Morales | RABA KISTNER |
| GABRIEL FREGOSO | Gabriel Fregoso | RABA KISTNER |
| MANUEL DUENEZ | Manuel Duenez | " " |
| BOB NAYLOR | Bob Naylor | |
| ALEX GARCIA | [illegible] | SOUTHWEST ENG |
| KENNETH PIERCE | Kenneth Pierce | S.W.E. |
| Robert Piper | [illegible] | SOUTHWEST ENG. |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

# DAILY SAFETY MEETING

**Project Name:** HAFB D08 WAD 29 AT AOC/001 **Date:** 6/5/97

**Project Number:** 872200829 **Presented by:** Kevin Cook

**Check the Topics/Information Reviewed:**

- ☑ safety glasses, hard hat, safety boots
- ☑ site safety plan review and location
- ☑ equipment and machinery familiarization
- ☑ employee Right-To-Know/MSDS location
- ☑ open pits, excavations, and site hazards
- ☑ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☐ overhead utility locations and clearance
- ☑ first aid, safety, and PPE location
- ☑ sharp object, rebar, and scrap metal hazards
- ☑ safety is everyone's responsibility
- ☑ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at: PID (___ eV ) >___ ppm
- ☐ work stoppage at: PID(___ eV) >___ ppm, % LEL > 10%
- ☐ driller killswitch works
- ☑ slips, trips, and falls
- ☑ directions to hospital
- ☑ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☑ orderly site and housekeeping
- ☑ smoking in designated areas
- ☐ leather gloves for protection
- ☑ effects of the night before
- ☐ vibration related injuries
- ☑ fire extinguisher locations
- ☑ eye wash station locations
- ☑ decontamination procedures
- ☑ daily work scope
- ☑ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☑ strains and sprains
- ☐ noise hazards
- ☑ no horseplay
- ☑ heat and cold stress
- ☐ backing up hazards
- ☑ accidents are costly
- ☐ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards

**Discussion/Comments/Follow-up Actions:** CAUTION DUE TO EXCESSIVE HEAT/SUN
USE SUNSCREEN. SNAKES, SPIDERS USE CAUTION

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Kevin Cook | [illegible] | Fluor Daniel GTI |
| Bob Naylor | [illegible] | Fluor Daniel GTI |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

# DAILY SAFETY MEETING

**Project Name:** HAFB DOB WAD 29 @ AOC 1001 **Date:** 6/6/97

**Project Number:** 8722 **Presented by:** _____

**Check the Topics/Information Reviewed:**

- ☑ safety glasses, hard hat, safety boots
- ☑ site safety plan review and location
- ☑ equipment and machinery familiarization
- ☑ employee Right-To-Know/MSDS location
- ☑ open pits, excavations, and site hazards
- ☑ vehicle safety and driving/road conditions
- ☐ portable tool safety and awareness
- ☐ overhead utility locations and clearance
- ☑ first aid, safety, and PPE location
- ☑ sharp object, rebar, and scrap metal hazards
- ☑ safety is everyone's responsibility
- ☑ latex gloves inner/nitrile gloves outer
- ☐ excavation/trenching inspections/documentation
- ☐ full face respirators with proper cartridges
- ☐ upgrade to level c at: PID (___ eV) >___ ppm
- ☐ work stoppage at: PID(___ eV) >___ ppm, % LEL > 10%
- ☐ driller killswitch works
- ☑ slips, trips, and falls
- ☑ directions to hospital
- ☑ anticipated visitors
- ☐ electrical ground fault
- ☐ public safety and fences
- ☐ excavator swing and loading
- ☑ orderly site and housekeeping
- ☑ smoking in designated areas
- ☐ leather gloves for protection
- ☑ effects of the night before
- ☐ vibration related injuries
- ☑ fire extinguisher locations
- ☑ eye wash station locations
- ☐ decontamination procedures
- ☑ daily work scope
- ☑ emergency protocol
- ☐ parking and laydown
- ☐ hot work permits
- ☑ strains and sprains
- ☐ noise hazards
- ☑ no horseplay
- ☑ heat and cold stress
- ☐ backing up hazards
- ☑ accidents are costly
- ☐ dust and vapor control
- ☐ refueling procedures
- ☐ confined space entry
- ☐ flying debris hazards

**Discussion/Comments/Follow-up Actions:** Caution due to heavy lifting; moving heavy drums.

| NAME | SIGNATURE | COMPANY |
|---|---|---|
| Bob Naylor | R. H. N | FD-GT1 |
| K. Cook | K. Cook | FD-GT1 |

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities.
- Complete form, obtain signatures, and file with the Daily Summary.
- Follow-up on any noted items and document resolution of any action items.

# APPENDIX G
## Field Change Procedure Request

# PROCEDURES CHANGE REQUEST FORM



Procedure No. 001
Procedure Change Request: 001

**DESCRIPTION**

**1. Current Description: (Include SOP No., Page(s), Paragraph No., etc.)**

page 3-5 3.3 of the work plan

Install 5-groundwater monitoring wells at locations marked on Figure 3-1.

**2. Recommended Change:**

Per Steve Pearson USACE: Install 4-groundwater monitoring wells and 5-1" diameter piezometers at location identified by Steve Pearson. Piezometers will provide groundwater elevation data for the entire site while monitoring wells will provide groundwater elevation and quality data.

**3. Initiator Signature/Date:** **4. QA Manager Signature/Date:** **5. Responsible Project Manager:**

**6. Reason For Change:**

Permit coverage of entire site without significant impact to the project Budget.

**RESOLUTION**

**7. Is change implemented?** Yes: X No: ____

**8. If yes, attach procedure and mark Procedure Change Notice.**

**APPROVAL**

**9. QA Manager Signature/Date:** ____

**10. Program Manager Signature/Date:** ____

NOTE: All appropriate signatures/dates must be obtained prior to disposition.

# PROCEDURES CHANGE REQUEST FORM



Procedure No. 002
Procedure Change Request: 002

**DESCRIPTION**

**1. Current Description: (Include SOP No., Page(s), Paragraph No., etc.)**
Continuously sample all DPT boreholes and select 1-sample from each borehole for laboratory analysis. Section 3.1 page 3-2 of the addendum work plan

**2. Recommended Change:** Per Mr. Steve Reeves, USACE
DPT boreholes DP-13, DP-14, DP-19, DP-20 and DP-25 were sampled for groundwater only. This would help relieve extra costs for sampling more boreholes by eliminating mobile lab costs and extra labor. Soil did not contain evidence of contamination at these locations

**3. Initiator Signature/Date:** **4. QA Manager Signature/Date:** **5. Responsible Project Manager:**

**6. Reason For Change:**

**RESOLUTION**

**7. Is change implemented?** Yes: X No: ____

**8. If yes, attach procedure and mark Procedure Change Notice.**

**APPROVAL**

**9. QA Manager Signature/Date:** ____

**10. Program Manager Signature/Date:** ____

NOTE: All appropriate signatures/dates must be obtained prior to disposition.