PHIBRO-TECH, INC.

March 4, 2003

Ms. Rebecca Chou
California RWQCB, L.A. Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Mr. Ron Leach
USEPA, Region IX (H-4-4)
75 Hawthorne Avenue
San Francisco, CA 94105

Dear Mss. Chou and Mr. Leach:

Enclosed is the Fourth Quarter 2002 Groundwater Monitoring Report and the 2002 Annual Groundwater Monitoring Report for Phibro-Tech, Inc., Santa Fe Springs' facility. The Report includes analytical results and physical measurements obtained October 22 – 24, 2002, and December 30, 2002 from selected monitoring wells at Phibro-Tech. Since this Report includes portions of the RCRA Facility Investigation (USEPA Docket No. RCRA 09-89-0001), this Report will also be submitted to the EPA.

Based on a technical review by our consultant, Camp Dresser and McKee, a groundwater-monitoring program is included which was implemented beginning with the April 1991 groundwater monitoring. Additional wells and parameters changed at the request of EPA are included in this Groundwater Monitoring Report. The changes are described in the Report.

Please contact me if you have any questions or comments concerning this report.

Sincerely,

Alonso F. Alatorre
Plant Manager

Enclosure

cc: see following page

cc: Mark Alling (no enclosure)
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8851 Dice Road
Santa Fe Springs, CA 90670

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PLEASE RECYCLE

CDM

# Phibro-Tech, Inc.

## October 2002 Quarterly Sampling Report and 2002 Annual Groundwater Monitoring Report Santa Fe Springs, California

February 28, 2003

*Prepared for:*

Phibro-Tech, Inc. (PTI)
8851 Dice Road
Santa Fe Springs, California 90670

*Prepared by:*

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18581 Teller Avenue, Suite 200
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Project No. 2279-36882-REP.REPT

CDM
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February 28, 2003

Ms. Kathy San Miguel
Hazardous Substances Engineer
State of California
Department of Toxic Substances Control
Southern California Region
5796 Corporate Avenue
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Subject: Submittal of October 2002 Quarterly Sampling Report and
2002 Annual Groundwater Monitoring Report
Phibro-Tech, Inc., Santa Fe Springs Facility
EPA I.D. Number CAD 008 488 025
CDM Project No: 2279-36882-REP.REPT

Dear Ms. San Miguel:

On behalf of Phibro-Tech, Inc. (PTI), Camp Dresser & McKee Inc. (CDM) is pleased to submit two copies of the October 2002 Quarterly Sampling Report and 2002 Annual Groundwater Monitoring Report for PTI's Santa Fe Springs facility, for your use. Please feel free to call me at 949/752-5452 if you have any questions regarding the submittal.

Sincerely,

CAMP DRESSER & MCKEE INC.

Sharon Wallin

Sharon Wallin, R.G.
Project Manager

cc: Mark Alling, PTI
Zachary Walton, Paul Hastings

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# Phibro-Tech, Inc.

## October 2002 Quarterly Sampling Report and 2002 Annual Groundwater Monitoring Report Santa Fe Springs, California

February 28, 2003

*Prepared for:*

Phibro-Tech, Inc. (PTI)
8851 Dice Road
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*Prepared by:*

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Project No. 2279-36882-REP.REPT

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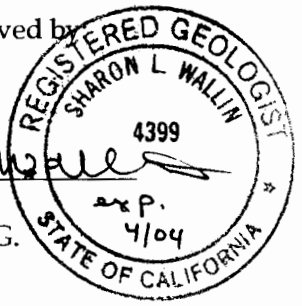
The information contained in the October 2002 Quarterly Sampling Report and 2002 Annual Groundwater Monitoring Report for the Phibro-Tech, Inc. Santa Fe Springs, California, facility has received appropriate technical review and approval. The activities outlined in the report were performed under the supervision of a Registered Geologist or a California Professional Engineer.

Reviewed and Approved by




Sharon L. Wallin, R.G.
Project Manager

# 1 Section One

# Section 1
# Introduction

This report summarizes the October 2002 quarterly groundwater monitoring and sampling event at the Phibro-Tech, Inc. (PTI), Santa Fe Springs, California facility (formerly referred to as Southern California Chemical). This report presents the fourth quarter groundwater analysis for 2002. Contained herein are the results of laboratory analyses of groundwater samples and water level measurements obtained during the period of October 22 to October 24, 2002, and December 30, 2002.

The purpose of this monitoring program, which began in March 1985, is to determine if compounds of concern detected in groundwater beneath the site are migrating from the facility. This objective is accomplished through the comparison of background or up gradient water quality and groundwater quality beneath the site. Statistically significant increases in contaminant concentrations between known areas of groundwater contamination and down gradient wells would indicate that migration is occurring. In the past, statistical analysis was performed annually and was included in the July quarterly monitoring reports. Statistical analysis is now conducted for each sampling event and is included in the corresponding monitoring report.

To date, three types of contaminants have generally been detected in the groundwater beneath the site: soluble metals (primarily chromium and cadmium), purgeable aromatic organic compounds (toluene, ethylbenzene and total xylenes [BTEX]) and purgeable halogenated organic compounds (i.e., solvents, primarily trichloroethene [TCE]). Groundwater modeling completed in January 1993, and groundwater monitoring conducted since 1985, indicates that the purgeable aromatic plume originated up gradient from the PTI facility. The distribution of TCE appears to be ubiquitous, although somewhat elevated concentrations exist in the vicinity of Pond 1, a RCRA-regulated former surface impoundment area. Elevated concentrations of soluble metals have also been consistently detected in the vicinity of Pond 1. Soluble metal concentrations at the down gradient property line and in deeper wells, however, continue to be near or below detection.

Approximately 17 years of quarterly groundwater monitoring at the PTI facility has indicated that dissolved hexavalent chromium is not migrating. During groundwater modeling performed by CDM in 1993, a retardation factor of 50 was selected based on the observed distribution of hexavalent chromium in the groundwater. Previous data analysis indicated that the most likely basis for the relatively high (but within the range of reasonable and appropriate values) retardation factor would be the existence of reducing conditions in the saturated zone, promoting the chemical reduction of hexavalent chromium to trivalent chromium (Cr 3+). Trivalent chromium, having a very low solubility in water, tends to precipitate and sorb to the soil, inhibiting migration. During four quarterly sampling events conducted in 1996, additional laboratory analyses (iron and redox potential) were performed on groundwater samples collected from wells MW-04, MW-09, and MW-14S. These additional data, along with the pH, total chromium, and hexavalent chromium data, provided a better

understanding of the mechanisms controlling chromium migration in groundwater underlying the facility and supported the above hypothesis. Please refer to Section 6.4 (Chromium Fate and Transport) of the October 1996 Quarterly Sampling Report for a detailed discussion of this conclusion.

In addition to the data obtained during the October 2002 sampling, this report contains tables listing detection limits of the parameters analyzed (Appendix A). Historical sampling results for selected analyses from January 1989 to April 2001 are presented in Appendix B. Copies of the original laboratory results for the October 2002 sampling event are included in Appendix C. Chain-of-custody records for the October 2002 sampling are included in Appendix D. Appendix E contains background groundwater concentrations of contaminants for the Santa Fe Springs area for the year 2001. Appendix F contains the complete quarterly statistical analysis. Appendix G contains the Annual Groundwater Monitoring Report.

Prior to October 1993, quarterly reports have included analytical result summary tables from all previous sampling rounds. Starting with the October 1993 quarterly report, historical water quality data tables were no longer included in the report as an appendix. Please refer to Appendix B in the July 1993 Quarterly Sampling Report for a summary of historical groundwater analytical data. As previously discussed, a summary table of selected historical results since January 1989 is provided in Appendix B of this report.

# 2

# Section Two

# Section 2
# Monitoring Well Sampling

CDM personnel conducted groundwater sampling of existing on-site monitoring wells between October 22 and 24, and December 30, 2002. Field activities were performed in general accordance with the groundwater sampling protocols as outlined in Section 4.3.3 of the approved RCRA Facility Investigation (RFI) Work Plan (CDM, June 1990). Prior to the submittal of the RFI Work Plan for regulatory agency review and approval, the J.H. Kleinfelder and Associates (Kleinfelder) Quality Assurance Project Plan (QAPP, May 1988) was used as the primary groundwater sampling guidance document. Proposed deviations from the RFI Work Plan (i.e., well purging using a submersible pump and sample collection using disposable bailers) were discussed in October 1994 correspondence to the DTSC. These changes were implemented during the October 1994 and all subsequent sampling events.

Twenty-four monitoring wells exist on-site. The locations of these wells are shown on Figure 2-1. One well, MW-06A, historically has not been sampled for groundwater analysis because it is screened in the Gage Aquifer, which is unsaturated below the PTI facility. The remaining wells are screened in the Hollydale Aquifer; 16 in the upper portion and 7 in the lower portion of the aquifer.

Beginning in February 1985, Kleinfelder initiated groundwater sampling, utilizing monitoring wells MW-01 through MW-06B. Six additional wells (MW-04A and MW-07 through MW-11) were installed at the site in July 1985, thereby increasing the total number of active wells to 12. Quarterly sampling of the 12 wells was initiated in March 1986.

Commencing with the January 1989 sampling event, CDM has been responsible for all groundwater-monitoring activities at the facility. Ten wells (MW-01D, MW-06D, MW-12S, MW-12D, MW-13S, MW-13D, MW-14S, MW-14D, MW-15S and MW-15D) were installed as part of the first phase of the RFI program and were first sampled during the October 1990 sampling round.

Groundwater analysis of the 22 wells that existed during the RFI program from October 1990 to January 1991, indicated that the number of wells sampled could be reduced and yield comparable results to sampling all the wells. During sampling rounds in April, July, and October 1991, and in January 1992, 11 wells were sampled. Wells screened in the upper portion of the Hollydale Aquifer included MW-01S, MW-03, MW-04, MW-07, MW-09, MW-11, MW-14S, and MW-15S, and wells screened in the lower portion of the Hollydale Aquifer included MW-01D, MW-04A, and MW-15D.

Beginning with the April 1992 sampling round, three additional wells (MW-06B, MW-06D, and MW-16) were included in the quarterly monitoring program, bringing the total number of sampled wells to 14. Well MW-16, constructed in March 1992 as part of the Phase II RFI program, was sampled for the first time during the April 1992

sampling round. The same 14 wells have been sampled during all subsequent sampling rounds. On several occasions, additional laboratory analyses have been performed and additional wells included in quarterly sampling, at the request of the U.S. EPA. Additional analyses and wells are noted in the comment column of Table 2-1, which summarizes the groundwater-monitoring program at the site.

In April 2000, the frequency of groundwater monitoring was reduced from quarterly to semi-annually. In April 2001, as requested by the California Department of Toxic Substances Control (DTSC), quarterly sampling was re-implemented.

The 14 wells currently included in quarterly sampling are MW-01S, MW-01D, MW-03, MW-04, MW-04A, MW-06B, MW-06D, MW-07, MW-09, MW-11, MW-14S, MW-15S, MW-15D, and MW-16. Ten shallow and four deep wells are analyzed for pH, metals (cadmium [Cd], chromium [Cr], and copper [Cu]) using EPA Method 6010A; hexavalent chromium (EPA Method 7199), and volatile organic compounds (EPA Method 8260). During the July 2001 and October 2001 sampling events, DTSC requested that samples from wells MW-01S, MW-04, MW-09 and MW-11 be analyzed for 1,4-Dioxane. In late 2002, DTSC requested that PTI conduct limited annual analyses for the Appendix IX suite of parameters. The four wells designated for Pond 1 monitoring (CDM, March 1996) (MW-04, MW-07, MW-11, and MW-14S) were selected for Appendix 1X sampling and analysis. Because the fourth quarter 2002 sampling had already been completed, CDM collected groundwater samples for Appendix IX analyses on December 30, 2002. A detailed listing of analytical parameters per sampling event is provided in Table 2-1.

The 14 on site wells were purged and sampled in the following order: MW-01D, MW-01S, MW-03, MW-15D, MW-15S, MW-06D, MW-06B, MW-07, MW-14S, MW-04A, MW-04, MW-16, MW-09, and MW-11.

## 2.1 Sampling Procedure

Field sampling was conducted in general accordance with procedures detailed in the RFI Work Plan. Sampling practices included the following: check for floating product and hydrocarbon vapors at each well; measure static water level and total depth of each well in order to calculate pre-sampling evacuation volumes; purge each well and collect a groundwater sample for laboratory analysis; decontaminate sampling equipment; and handle sample-filled containers in accordance with Section 4.3.3.5 of the RFI Work Plan.

### 2.1.1 Organic Vapor Check

Standard field procedures included checking the interior of each well with a photoionization detector (PID) (equipped with a 10.0 eV lamp) for the presence of organic vapors whenever the well casing was opened. With the sampling team members standing upwind of the well, the well cap was opened slightly, allowing for the insertion of the PID probe tip inside the well. Readings were monitored until they stabilized, which was usually at zero parts per million (ppm). The final reading, as

well as the peak reading, were recorded in the field logbook. The cap was then removed and the well allowed to vent for a short period of time prior to measuring the static water level. The maximum PID readings taken during the collection of water level measurements are shown in Table 5-1 in Section 5.

### 2.1.2 Detection of Immiscible Layers

In order to detect the presence of floating, immiscible layers on top of the groundwater surface, a clear bailer was lowered approximately one-half the length of the bailer below the surface of the water in each well. The bailer was removed from the well and its contents checked for immiscible layers or iridescence. The bailer was decontaminated and the sampling line discarded after each use. If immiscible fluids had been detected, a sample would have been collected for laboratory analysis of purgeable halocarbons and aromatics (EPA Method 8260) and total petroleum hydrocarbons (California Department of Health Services [CA DHS] Method) using a new bailer. As in all previous quarterly groundwater sampling at the PTI facility by CDM, immiscible layers were not detected during the October 2002 sampling event.

### 2.1.3 Static Water Level/Well Depth Measurement

On October 22, 2002, prior to the initiation of on-site well pumping, the static water level at 23 of the 24 on-site wells was measured three times at each well location with a decontaminated electric water level indicator (sounder) and recorded. The measurements collected in the wells were identical, therefore, there was no need to collect additional measurements or average the data of these wells. The results of these measurements are shown in Table 5-1 and discussed in Section 5. One well (MW-06A) was dry, and MW-02 was not measured due to its proximity to MW-12S.

The water level in each well was also measured immediately prior to initiating well evacuation procedures for calculation of well purge volume. During measurement, the measuring (reference) point used was noted (i.e., the top of the steel casing), and the depth to water below the reference point was measured to the nearest 0.01 foot and recorded in the field logbook. Wellhead elevation data was used with depth to water measurements to calculate groundwater elevation at each well location.

The total depth of each well sampled was also measured with the sounder to the nearest 0.1 foot. The amount of fill material in the bottom of the well was calculated from well construction data and noted in the logbook. Prior to first use, the sounder was calibrated and the meter response checked. The sounder probe and line were decontaminated after each use.

### 2.1.4 Purge Volume Determination/Well Evacuation

Saturated casing volume was calculated at each well by using the depth to water and bottom sounding measurements obtained immediately prior to purging, to calculate the amount (height) of the saturated well casing. The inside diameter of the casing was then measured, and the following formula applied:

$$\text{Volume} = \pi (\text{radius}^2) \times \text{height}$$

A minimum of three saturated casing volumes of water was evacuated from each well prior to collecting a groundwater sample for laboratory analysis.

During the October 2002 sampling round, all 14 of the wells currently monitored were purged using a portable Grundfos 2-inch diameter submersible pump, and each well was sampled using a new disposable bailer.

Field parameters were measured during well evacuation using Myron-L multimeter and Hach turbidity meter for all wells. These instruments were calibrated or field checked prior to use with standard solutions in accordance with manufacturer's directions. The instruments are used to determine the stability of discharge water field parameters prior to collection of a sample for laboratory analysis.

Periodically during well evacuation, the field parameters of the discharge water were measured and recorded in the logbook. The physical appearance of the water (turbidity, color, sediment content, etc.) was also noted and recorded. Initial field turbidity measurements generally ranged from 2 to greater than 1,000 NTUs (nephelometric turbidity units) at the start of well evacuation. At the end of well evacuation, measurements were generally less than 10 NTUs. Higher turbidity at the start of purging seems to be related to agitating the water column and resuspending material from the bottom of the well during pump installation. After a minimum of three saturated casing volumes of water were evacuated from each well and the field parameters stabilized (change between readings of less than 5 to 10 percent), a sample for laboratory analysis was collected.

All purge water collected from each well was contained in a 250-gallon truck-mounted portable tank and then discharged directly into the PTI facility's wastewater treatment system.

### 2.1.5 Sample Collection and Handling

Groundwater samples were collected with a new disposable bailer from the approximate middle of the perforated section, and poured directly into previously labeled sample bottles. During sample collection, the bailer was carefully and gently lowered past the air/water interface to minimize agitation and aeration of water during sample collection. The sample bottles were placed inside plastic zip-lock bags and then placed immediately into an ice-cooled chest. Prior to shipment, the bottles were cushioned with bubble wrap or plastic bags to avoid breakage. Samples collected for total metals analysis were field filtered using a 0.45-micron filter. A volume of groundwater equal to two times the capacity of the filtering device was passed through the filter and discarded prior to filtering each sample for total dissolved metals (Cd, Cu, and Cr) analysis. Filters were discarded after each use.

The October 2002 groundwater samples were collected for laboratory analysis of the following parameters:

- Volatile Organic Compounds by EPA method 8260
- Metals (Cd, Cu, and Cr) EPA method 6010
- Hexavalent Chromium ($Cr^{+6}$) EPA method 7199
- pH

In addition to the above parameters, samples collected December 30, 2002 from Pond 1 monitoring wells MW-04, MW-07, MW-11, and MW-14S were analyzed for the Appendix IX suite of analytes, which includes:

- Organochlorine Pesticides by EPA 3510C/8081A
- Organophosphorus Pesticides by EPA method 8141A
- Polychlorinated Biphenyls by EPA 3510C/8082
- Title 22 Metals by EPA 6010B/7470A
- Total Cyanide by EPA SM4500
- Sulfide by EPA 376.2
- Chlorinated Herbicides by EPA 8151A
- Semivolatile Organic Compounds by EPA 8270C
- Dioxins and Furans by EPA 8290

Groundwater sample bottles were numbered using the following format:

PTI-MW01S-055

Where:

| | | |
|---|---|---|
| PTI | - | designates site acronym |
| MW01S | - | designates sample location number (MW = Monitoring Well) |
| EB | - | designates equipment blank sample |
| TB | - | designates travel blank sample |
| 055 | - | designates sequential sample number (per sampling event) |

This was the 54th round of sampling conducted by CDM, however, due to a previous labeling inconsistency, a 055 sequence number was assigned to all groundwater

samples collected during this round. Sample label information included date and time of sampling, CDM sample number, and analytical parameters.

Chain-of-custody forms that indicated the label information as well as the responsible person during each step of the transportation process accompanied all filled sample containers that were collected from each well. All samples collected during October 2002 were sent by courier to Severn Trent Laboratories (STL) in Santa Ana, California on the day that they were collected, and a copy of the chain-of-custody form for that day was retained by CDM field personnel. Samples collected December 30, 2002 for Appendix IX analyses were submitted to Del Mar Analytical, Irvine, California. Copies of completed chain-of-custody forms are included in Appendix C. The laboratory was notified at the time of delivery that one or more hexavalent chromium (Cr+6) sample(s) were contained in the shipment to ensure that the samples would be analyzed within the prescribed 24-hour holding period.

## 2.2 Equipment Decontamination Procedures

The following sections describe the procedures utilized to decontaminate groundwater-sampling equipment.

### 2.2.1 Sampling Pump/Lines Decontamination

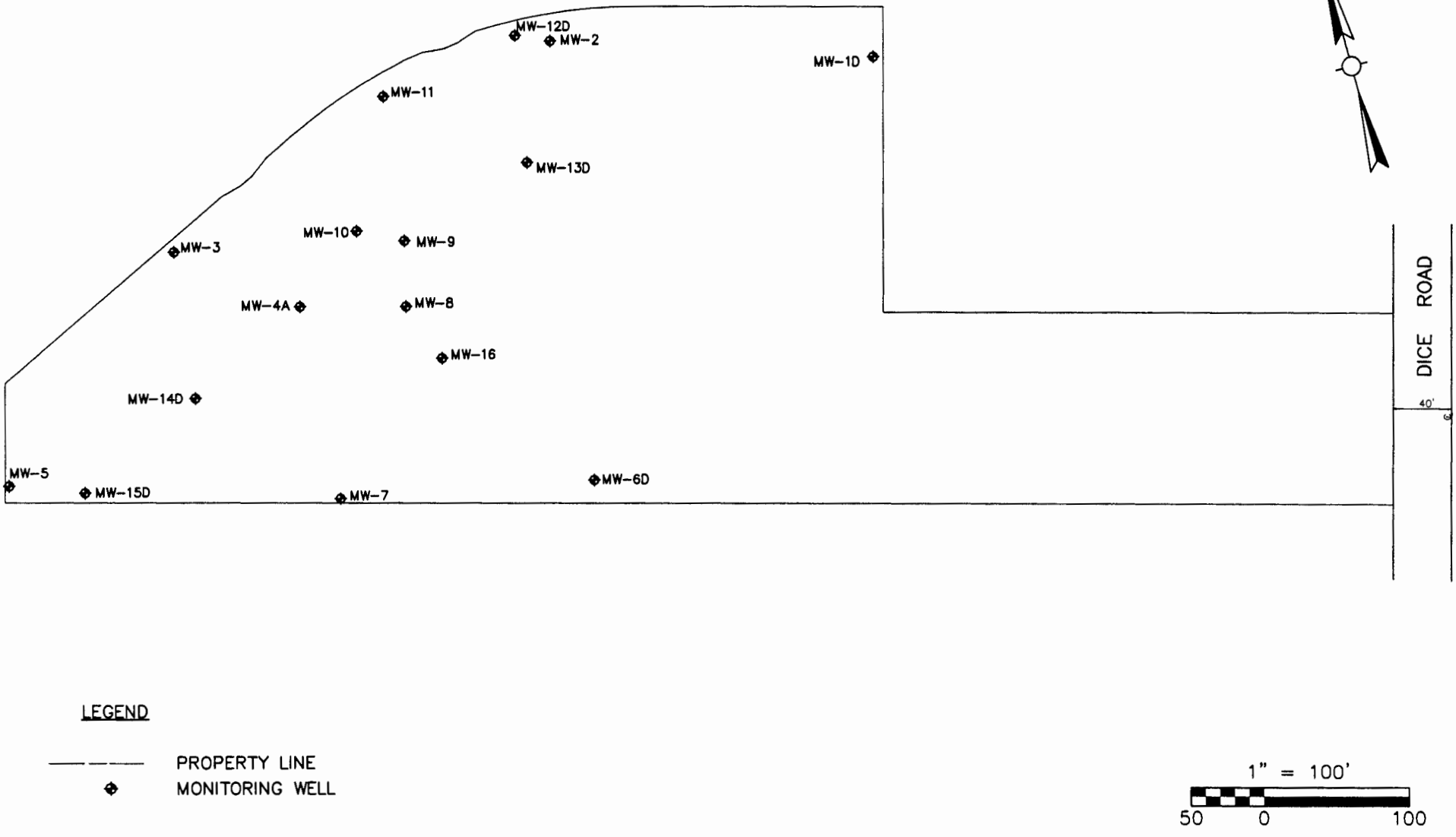
The submersible pump and discharge tubing used for well purging were decontaminated to reduce the possibility of cross-contamination between monitoring wells. The first step in the decontamination procedure was to submerge the pump into a 4-foot section of 4-inch diameter PVC pipe containing a soap (Alconox, a laboratory-grade detergent) and water mixture. Then, at least five gallons of the solution were pumped through the system. The pump assembly was then submerged in another section of PVC pipe filled with tap water and at least 10 gallons were pumped through the system. The final decontamination step was accomplished by submerging the pump into another section of PVC pipe containing deionized (DI) water and pumping approximately five gallons of DI water through the system.

The exterior of the pump and discharge tubing was steam cleaned, as well as the exterior of the reel holding the tubing. The decontamination of the exterior pump line was performed over a stainless steel containment basin located on the groundwater-sampling rig. The spent water was recovered and discharged into the facility's wastewater treatment system.

### 2.2.2 Accessory Sampling Equipment Decontamination

Accessory sampling equipment such as the water level sounder was also decontaminated to minimize the possibility of cross-contamination between the monitoring wells. The sounder was decontaminated first by washing in a bucket of soap and water, followed by a tap water rinse, followed by a final DI water rinse. Bailers used to test for an immiscible layer were decontaminated and reused. The bailers and nylon rope that were used to sample wells were discarded immediately after use.

DATE: Feb 21, 2 :0:26am XREFS:
DWG: P:\2279\2 11\CAD\FIG_2-1.DWG USER: negretegd




PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## Monitoring Well Location Map

CDM

Figure 2-1

Table 2-1
PHIBRO-TECH, INC.
Groundwater Monitoring Program Summary

| Sampling Event | Indicator Parameters | Trace Metals | Hexavalent Chromium | Chloride | Nitrate | Volatile Organics | Appendix IX | 1,4-Dioxane | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 3/85 | Quad | Cu & Zn | X | X | X | -- | -- | -- | Sampled wells MW-1, 2, 3, 4, 5, & 6B. Sulfide, nickel, copper and zinc requested by DOHS and RWQCB. Also Appendix III parameters and water quality parameters (see footnote). |
| 7/85 | Quad | Cd, Cr | X | -- | X | -- | -- | -- | Sampled wells MW-4A, 7, 8, 10 and 11 |
| 3/86 | Quad | Cu & Zn | X | X | X | -- | -- | -- | Sampled 12 wells (MW1, 2, 3, 4, 4A, 5, 6B, 7, 8, 9, 10 & 11). Also Appendix III parameters and water quality parameters (see footnote). |
| 7/86, 9/86, 12/86 | Quad | Cd, Cr, Cu, Zn | X | X | X | 624 | -- | -- | Sampled all 12 wells (as previous) |
| 3/87 | Quad | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | Sampled 11 wells, not 4A |
| 7/87, 10/87, 2/88 | Quad | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | After July 1987, all 12 wells were sampled during each event |
| 6/88 | X (not Quad) | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | Performed statistical analysis (t-test) on Indicator Parameters (IPs). |
| 9/88 | -- | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | IPs & volatile organics from MW1, 2, 4A, 5, 6, 7 analyzed semi-annually in June/Dec. |
| 1/89 | Quad | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | After Jan. 1989, volatile organics analyzed for all 12 wells. |
| 4/89 | -- | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | |
| 7/89 | Quad | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | Performed statistical analysis of Jan. thru July 1989 data (IPs, total and hexavalent chromium). |
| 10/89 | -- | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | |
| 1/90 | Quad | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | |
| 4/90 | -- | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | |

TABLE 2-1
PHIBRO-TECH, INC.
Groundwater Monitoring Program Summary
(continued)

| Sampling Event | Indicator Parameters | Trace Metals | Hexavalent Chromium | Chloride | Nitrate | Volatile Organics | Appendix IX | 1,4-Dioxane | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 7/90 | Quad | Cd, Cr, Cu, Zn | X | X | X | 601/602 | -- | -- | Performed statistical analysis of Jan. 1989 data (IPs, total and hexavalent chromium). |
| 10/90 | -- | Cd, Cr, Cu, Fe, Ni, Pb, Zn | X | X | X | 601/602 | X | -- | Sampled 22 wells, Appendix IX parameters analyses were performed on wells 4, 4A, 6B, 6D, 12S, 12D, 15S, 15D, plus a duplicate of 4. |
| 1/91 | Quad | Cd, Cr, Cu, Fe, Ni, Pb, Zn | X | X | X | 601/602 | -- | -- | Sampled 22 wells. |
| 4/91 | pH | Cd, Cr, Cu | X | -- | -- | 601/602 | -- | -- | New sampling program was initiated. Sampled 11 wells including wells MW-01S, MW-01D, -03, -04, -04A, -07, -09, -11, -14S, -15S, -15D. |
| 7/91 | pH | Cd, Cr, Cu | X | -- | -- | 601/602 | -- | -- | Performed annual statistical analysis. |
| 10/91 | pH | Cd, Cr, Cu | X | -- | -- | 601/602 | -- | -- | |
| 1/92 | pH only (all) TOC only (MW-01 & -04) | Cd, Cr, Cu | X | -- | Ammonia as nitrogen (MW-01 & -04) | 601/602 | -- | -- | Ammonia & TOC analyses added at MW-01S and MW-04. |
| 4/92 | pH only TOC only (MW-01 , -04, -09, -14S) | Cd, Cr, Cu-all see comments | X | -- | Ammonia as nitrogen (MW-01, -04, -09, -14S) | 601/602 | EDB (MW-04) TPH (W-16) | -- | Sampled 14 wells including Wells MW-01S, -01D, -03, -04, -04A, -06B, -06D, -07, -09, -11, -14S, -15S, -15D, -16. Additional analysis as part of Phase II RFI; unfiltered metals on MW-04S and -14S. Pb and Ni on wells 1, 4, 14S, 15S, 16; Fe, Zn on well 16. |
| 7/92 | pH | Cd, Cr, Cu | X | -- | -- | 601/602 | -- | -- | Sampled 14 wells. Performed annual statistical analysis. |
| 10/92 | pH | Cd, Cr, Cu | X | -- | -- | 601/602 | -- | -- | Sampled 14 wells. |

TABLE 2-1
PHIBRO-TECH, INC.
Groundwater Monitoring Program Summary
(continued)

| Sampling Event | Indicator Parameters | Trace Metals | Hexavalent Chromium | Chloride | Nitrate | Volatile Organics | Appendix IX | 1,4-Dioxane | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1/93, 4/93 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 | -- | -- | Sampled 14 wells. |
| 7/93 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 (TVPH, TEPH) | -- | -- | Sampled 15 wells. (MW-13S was added) TVPH and TEPH analysis on MW-09, 13S, and 16 only. Performed annual statistical analysis. |
| 10/93 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 | -- | -- | Sampled 15 wells (MW-13S not analyzed for metals and pH)<br>TVPH & TEPH analysis on MW-04, 07, 09, 13S, and 16 only.<br>Performed statistical analysis. |
| 1/94, 4/94 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 | -- | -- | Sampled 14 wells<br>Performed statistical analysis. |
| 7/94 | pH | Cd, Cr, Cu | X | See comment | -- | 8010/8020 | -- | -- | Sampled 14 wells, chloride and sulfate analyses on MW-04, MW-09, MW-14S, MW-15S, MW-15D, and MW-16.<br>Performed statistical analysis |
| 10/94, 1/95, 4/95, 7/95, 10/95 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 | -- | -- | Sampled 14 wells<br>Performed statistical analysis. |
| 1/96 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 | -- | -- | Sampled 14 wells<br>Performed statistical analysis.<br>1995 Annual Report included as Appendix F. |
| 4/96, 7/96 | pH | Cd, Cr, Cu | X | -- | -- | 8010/8020 | -- | -- | Sampled 14 wells<br>Performed statistical analysis. |

TABLE 2-1
PHIBRO-TECH, INC.
Groundwater Monitoring Program Summary
(continued)

| Sampling Event | Indicator Parameters | Trace Metals | Hexavalent Chromium | Chloride | Nitrate | Volatile Organics | Appendix IX | 1,4-Dioxane | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 10/96 | pH | Cd, Cr, Cu | X | -- | -- | 8010/ 8020 | -- | -- | Sampled 14 wells<br>Performed statistical analysis.<br>1996 Annual Report included as Appendix F. |
| 1/97 | pH | Cd, Cr, Cu | X | -- | -- | 8260, MTBE | -- | -- | Sampled 14 wells<br>Performed statistical analysis. |
| 4/97, 7/97 | pH | Cd, Cr, Cu | X | -- | -- | 8260 | -- | -- | Sampled 14 wells<br>Performed statistical analysis. |
| 10/97 | pH | Cd, Cr, Cu | X | -- | -- | 8260 | -- | -- | Sampled 14 wells<br>Performed statistical analysis.<br>1997 Annual Report included as Appendix F. |
| 1/98 | pH | Cd, Cr, Cu | X | -- | -- | 8260 | -- | -- | Sampled 14 wells<br>Performed statistical analysis. Hexavalent Chromium by Method 7196 in all wells; and by Method 218.6 in wells MW-4A, MW-14S, MW-15S, and MW-15D. |
| 4/98, 7/98 | pH | Cd, Cr, Cu | X | -- | -- | 8260 | -- | -- | Sampled 14 wells<br>Performed statistical analysis. |
| 10/98 | pH | Cd, Cr, Cu | X | -- | -- | 8260 | -- | -- | Sampled 14 wells<br>Performed statistical analysis.<br>1998 Annual Report included as Appendix F. |
| 1/99, 4/99, 7/99, 10/99, 01/00, 04/00, 10/00, 04/01 | pH | Cd,Cr,Cu | X* | -- | -- | 8260 | _ | -- | Sampled 14 wells<br>Performed statistical analysis.<br>Monitoring and reporting frequency changed from quarterly to semi-annually in April 2000.<br>Monitoring and reporting frequency changed back from semi-annually to quarterly in April 2001. |

TABLE 2-1
PHIBRO-TECH, INC.
Groundwater Monitoring Program Summary
(continued)

| Sampling Event | Indicator Parameters | Trace Metals | Hexavalent Chromium | Chloride | Nitrate | Volatile Organics | Appendix IX | 1,4-Dioxane | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 07/01, 10/01 | pH | Cd,Cr,Cu | X* | -- | -- | 8260 | - | MW-015<br>MW-04<br>MW-09<br>MW-11<br>MW-06D<br>MW-15D | Sampled 14 wells<br>Performed statistical analysis.<br>2001 Annual Report included as Appendix G (10/01)<br>1,4-Dioxane sampled in selected wells (MW-01S, MW-04, MW-04A, MW-06D, MW-11, and MW-15D) during 07/01 and 10/01. |
| 1/02, 4/02, 7/02 | pH | Cd,Cr, Cu | X | - | - | 8260B | - | - | Sampled 14 wells<br>Performed statistical analysis. |
| 10/02 | pH | Title 22 Metals | X | - | - | 8260B | X | - | Sampled 14 wells<br>Performed statistical analysis. Annual Report included results for Appendix IX analyses. |

Appendix III Parameters - As, Ba, Cd, Cr, F, Pb, Hg, N, Se, Ag, Endrin, Lindane, Methoxychlor, Toxaphene, 2,4-D, 2,4,5-TP (Silvex), Radium, Gross Alpha & Beta, Turbidity, coliform bacteria.
Water Quality Parameters - Cl, Fe, Mn, Phenols, Na, SO4
Indicator Parameters (IP) - TOX, TOC, pH, EC (quadruplicate)
624 - Volatile organics analysis
601/602 - Purgeable halocarbons/aromatics analysis
8010/8020 - Purgeable halocarbons/aromatic analysis
8260 - Purgeable halocarbons/aromatic analysis
MTBE - Methyl tertiary butyl ether
Appendix IX Parameters - See Appendix F in the October 1990 Quarterly Sampling Report for a complete listing of parameters.
* - Analytical method changed from EPA 7196 to 7199 beginning with the October 2000 Sampling Event

# Section Three

# Section 3
# Laboratory Testing

As previously discussed, Severn Trent Laboratories provided analysis of the 23 aqueous samples collected during the October 2002 monitoring event. Fourteen monitoring well samples, two blind duplicate samples from MW-04 and MW-09, and one DI sample were collected and submitted to STL for analysis of purgeable halocarbons/aromatics (EPA Method 8260). In addition, three equipment blank samples (EB) were submitted for analysis. Three travel blanks (TB) were also submitted each day to STL for analysis of purgeable halogenated/aromatic organics. Del Mar Analytical provided analysis of the four samples collected for Appendix IX parameters on December 30, 2002.

October 2002 groundwater analytical results are discussed in Section 6 and summarized in Tables 6-1 and 6-2. Quality assurance analytical results (duplicates, equipment blanks, and travel blanks) are discussed in Section 4.0 and summarized in Table 4-1. Individual analytical reports for October 2002 are contained in Appendix C.

# 4

# Section Four

# Section 4
# Quality Assurance

To verify the accuracy and validity of analytical data, certain quality assurance procedures were implemented. The field and laboratory quality assurance results were checked for deviations from the Quality Assurance (QA) guidelines discussed in the RFI Work Plan.

## 4.1 Field Quality Assurance

The field QA procedures included the use of duplicate samples, equipment blanks, travel blanks, and the use of chain-of-custody forms. The results of the QA analyses have been compiled in Table 4-1. Detection limits of parameters analyzed are shown in the analytical reports contained in Appendix C. Relative Percent Difference (RPD) between original and duplicate samples is also listed in Table 4-1.

### 4.1.1 Duplicate Samples

Standard accepted practice is to submit one duplicate sample for analysis for approximately every tenth sample collected; a ratio of 1 to 10. During the October 2002 round of sampling, duplicate samples were collected from monitoring wells MW-04 and MW-09. The duplicate samples were submitted to the analytical laboratory as blind samples, and were designated MW-37 and MW-39, respectively, on the chain of custody forms. Monitoring wells MW-04 and MW-09 were selected due to elevated concentrations of certain contaminants detected during previous sampling rounds. Analytical results for the duplicate samples for October 2002 are shown in Table 4-1.

Relative percent differences between samples and duplicates collected from wells MW-09 and MW-04 is less than 20 percent for all parameters (Table 4-1).

### 4.1.2 Equipment Blanks

Three equipment blank samples were taken during the October 2002 sampling event. Equipment blanks EB-01 and EB-02 were obtained by allowing deionized water to run off the decontaminated submersible pump that was used to pump the groundwater samples for the entire October 2002 sampling event, after sampling wells MW-01D and MW-07, respectively. The purpose of these two equipment blanks was to assure that the pump was being sufficiently decontaminated between wells. Equipment blank EB-03 was obtained by allowing the deionized water to run through a new, precleaned, disposable bailer after sampling well MW-11. The purpose of this equipment blank was to evaluate and ensure the effectiveness of factory cleaning of the disposable bailer. The samples were collected in the appropriate containers and submitted for laboratory analysis of volatile organic compounds (EPA Method 8260), cadmium, chromium (total and hexavalent), copper, and pH. The laboratory provided water used for the collection of the equipment blanks.

Analytical results for the equipment blanks collected are shown in Table 4-1. Analytical results did not indicate any compound above method detection limits in the equipment blanks.

### 4.1.3 Travel Blanks

The detection of compounds in travel blanks is generally indicative of systematic contamination from sample transport, laboratory glassware cleaning, laboratory storage, or analytical procedures. During the October 2002 sampling event, one laboratory-prepared travel blank (TB01) consisting of organic-free water was labeled and submitted to the laboratory for volatile organic compound analysis by EPA Method 8260. The travel blank was placed inside the cooler containing samples for volatile organic compounds.

Table 4-1 shows the results of the travel blank analyses. No compounds were detected above the method reporting limits.

### 4.1.4 Sample Control

All sample containers were labeled immediately prior to sampling with the sample identification information completed with a waterproof pen. Samples were transported under chain-of-custody and hand delivered by courier to the laboratory in ice-cooled chests. Copies of the chain-of-custody records are included in Appendix C.

## 4.2 Laboratory Quality Assurance

Internal laboratory QA/QC results were provided with each sample analytical report. Matrix spike, matrix spike duplicate, method blank, and duplicate control sample results are noted in the QA/QC reports. In addition, surrogate recoveries are also noted for volatile organics analyses.

Although the MW-07 method blank (EPA 8290) sample had one compound (OCDD) at 110 ppq that is just above the RL of 100 ppq, the laboratory QA/QC results were within acceptable limits for the October 2002 sampling overall. The laboratory control sample results were also within acceptable limits.

Table 4-1
Phibro-Tech, Inc.
Groundwater Analytical Results - October 2003
Field Quality Control Sample Analytical Summary

| Well ID | Sample Date | Sample Type | Metals (mg/L) | | | | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cadmium | Chromium | Cr+6 | Copper | Benzene | Toluene | Ethyl-benzene | Xylenes, Total | PCE | TCE | 1,1-DCE | 1,1-DCA | 1,2-DCA | CFM | cis-1,2-DCE | MCL |
| MW-04 | 10/23/2002 | | 0.6 | 29 | 32.6 | 0.12 U | 12 U | 12 U | 820 | 1650 | 12 U | 130 | 76 | 200 | 31 | 20 | 240 | 87 |
| | | K | 0.63 | 30.6 | 30.3 | 0.12 U | 12 U | 12 U | 880 | 1760 | 12 U | 140 | 82 | 210 | 28 | 21 | 250 | 90 |
| | | RPD | 4.9 % | 5.4 % | 7.3 % | | | | 7.1 % | 6.5 % | | 7.4 % | 7.6 % | 4.9 % | 10.1 % | 4.9 % | 4.1 % | 3.4 % |
| MW-09 | 10/24/2002 | | 0.005 U | 4.5 | 4.3 | 0.025 U | 10 U | 10 U | 10 U | 20 u | 10 U | 530 | 140 | 530 | 190 | 300 | 23 | 230 |
| | | K | 0.005 U | 4.8 | 4.4 | 0.025 U | 10 U | 10 U | 10 U | 20 u | 12 | 640 | 160 | 630 | 210 | 360 | 28 | 270 |
| | | RPD | | 6.5 % | 2.3 % | | | | | | | 18.8 % | 13.3 % | 17.2 % | 10 % | 18.2 % | 19.6 % | 16 % |
| DI | 10/23/2002 | N | 0.005 U | 0.01 U | 0.001 U | 0.025 U | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| EB | 10/22/2002 | N | 0.005 U | 0.01 U | 0.001 U | 0.025 U | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| | 10/23/2002 | N | 0.005 U | 0.01 U | 0.001 U | 0.025 U | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| | 10/24/2002 | N | 0.005 U | 0.01 U | 0.001 U | 0.025 U | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| TB | 10/24/2002 | TB | | | | | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |

***Notes:***

PCE = Tetrachloroethene; TCE = Trichloroethene; DCE = Dichloroethene; DCA = Dichloroethane; CFM = Chloroform; MCL = Methylene chloride.

U = Not detected at a concentration greater than the reporting limit shown.

Sample Type:
K = Duplicate (split) Sample
TB = Trip Blank
N = Equipment Decontamination Blank
RPD = Relative Percent Difference between original and duplicate samples (%)

# 5

# Section Five

# Section 5
# Groundwater Elevation

On October 22, 2002 prior to the initiation of well evacuation procedures, the depth to groundwater was measured in 23 of the 24 on-site monitoring wells. Groundwater elevations were calculated by subtracting the depth to static water level from the surveyed elevation of the corresponding monitoring well.

All of the monitoring well casing elevations were surveyed during the RFI and three wells (MW-04, MW-09, and MW-10) were resurveyed in January 1996 following wellhead repair. In July 1998, wellhead repairs were performed on wells MW-03, MW-06A, MW-06B, MW-06D, MW-08, MW-11, MW-12S, MW-12D, MW-13S, MW-13D, and MW-16. These wells were resurveyed during the July 1998 monitoring event. During the April 2000 monitoring event, two additional wellheads were repaired (MW-14S and MW-14D). Wells MW-14S and MW-14D were resurveyed during September 2001.

During the October 2002 sampling event, water level measurements were taken at shallow wells MW-01S, MW-03, MW-04, MW-05, MW-06B, MW-07, MW-08, MW-09, MW-10, MW-11, MW-12S, MW-13S, MW-14S, MW-15S, and MW-16. Water level measurements were also taken at deep wells MW-01D, MW-04A, MW-06D, MW-12D, MW-13D, MW-14D, and MW-15D. These wells were measured to evaluate the direction and gradient of groundwater flow underlying the facility and to help characterize the shallow and deep aquifer interaction. Well MW-02 was not measured due to its proximity to MW-12S. Well MW-06A was measured and found to be dry.

Table 5-1 lists the depths to water and groundwater elevations for each well sampled. Figure 5-1 shows the approximate groundwater surface elevation of the upper Hollydale Aquifer for wells screened in the shallow interval (45 to 77 feet below ground surface) using data collected during the October 2002 sampling round. The contours shown in Figures 5-1 and 5-2 were generated by D.C.A., a surface contouring software developed by Softdisk, which is commonly used in conjunction with CADD (Computer Aided Drafting and Design) to produce contour maps and other graphics.

The direction of groundwater flow in the shallow monitoring wells is approximately southwest at an average gradient of 0.32 feet per 100 feet in the western portion of the facility, where the majority of the monitoring wells are located. The gradient in the shallow wells is slightly less than the July 2002 sampling event, which had a gradient of 0.39 feet per 100 feet.

Figure 5-2 shows the approximate groundwater elevation of the lower Hollydale Aquifer for wells screened in the deeper interval (78.3 to 123.5 feet below ground surface). Groundwater contours for the deeper wells follow the same general trend as those of the shallow wells, with a direction of groundwater flow towards the southwest at an average gradient of 0.37 feet per 100 feet. This is similar to the average gradient of 0.38 during the previous quarter.

With the 23 wells measured for water levels during the October 2002 sampling round, there were seven locations where a deep well was measured adjacent to a shallow well. Shallow wells are screened within the interval of 45 to 77 feet bgs. Deep wells are screened within the interval of 78.3 to 107 feet bgs, with the exception of MW-15D, which is screened from 108.5 to 123.5 feet bgs.

Of the well pairs, groundwater elevations at deep wells MW-12D, MW-13D, MW-01S, and MW-15D were slightly lower (0.03 feet to 0.05 feet) than the corresponding shallow well elevations. The groundwater elevations at deep wells MW-14D, MW-04A and MW-06D were slightly higher (0.06 feet to 0.6 feet) than the corresponding shallow well elevations. Based on these and past groundwater elevation comparisons among shallow and deep well pairs, it does not appear that a well-defined vertical gradient between shallow and deep intervals exists.

Average groundwater elevations during the October 2002 sampling event decreased compared to the previous sampling event by an average of 3.45 feet. The maximum groundwater elevation decrease occurred in well MW-05, which decreased by 3.61 feet.

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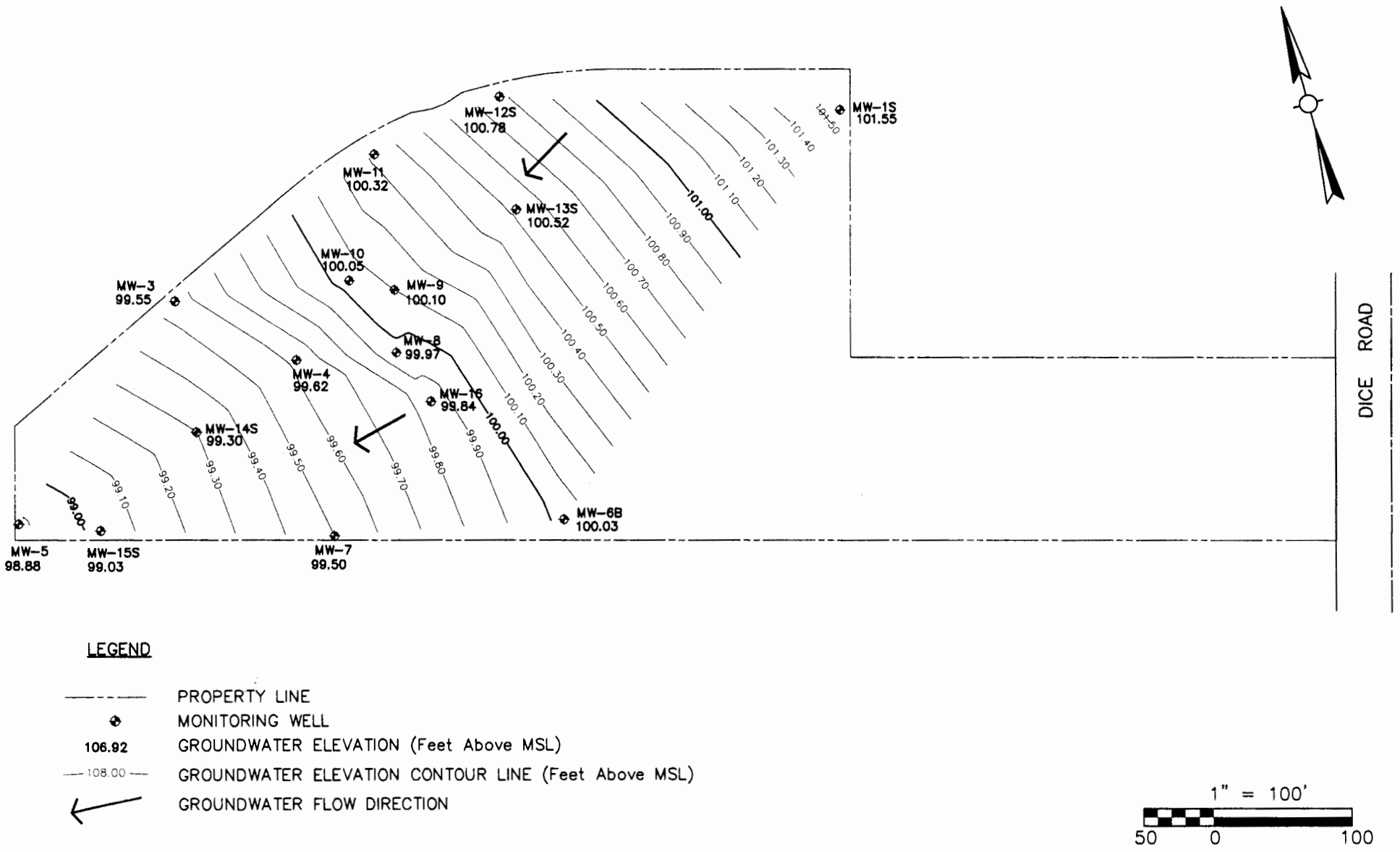


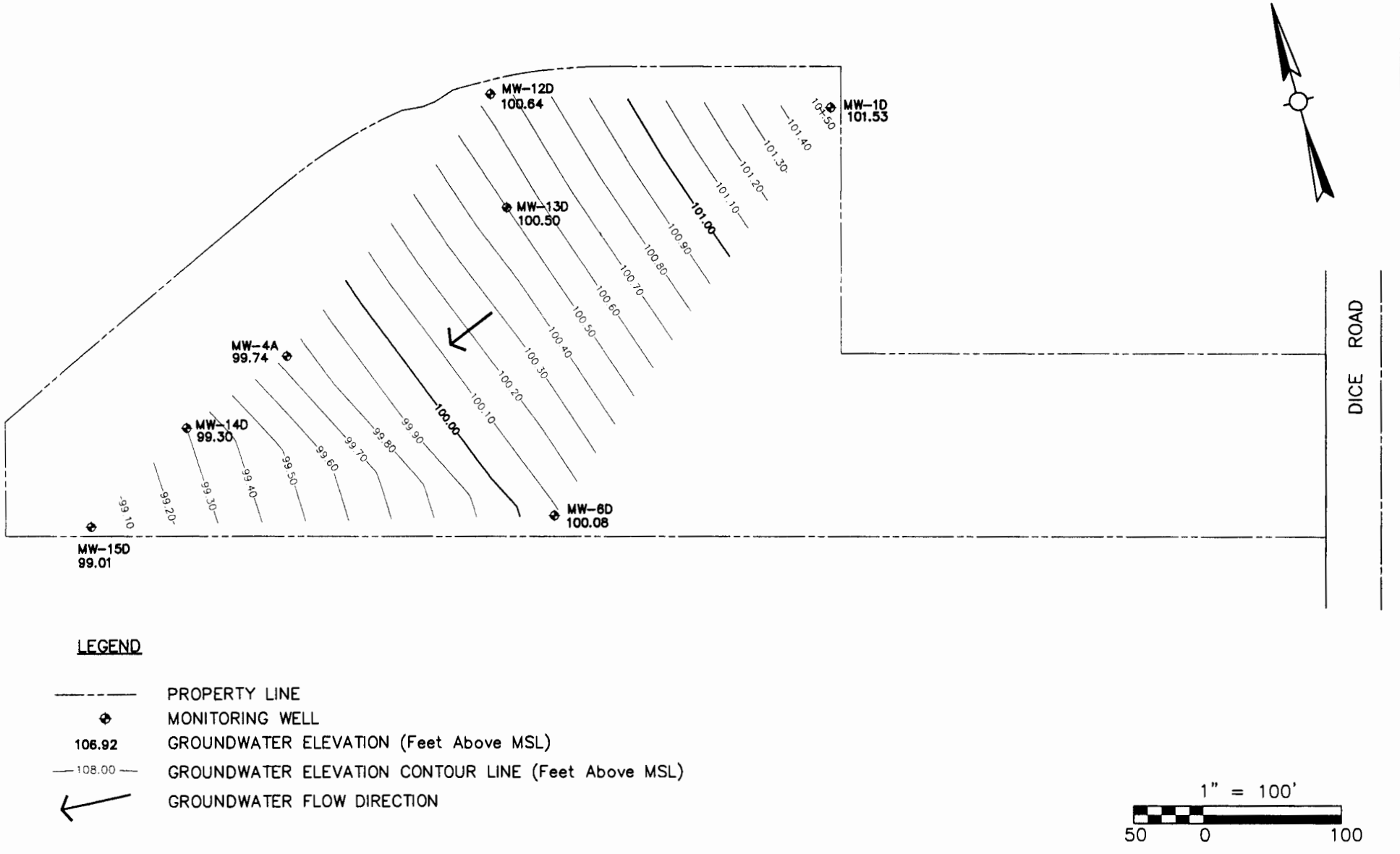

PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## Groundwater Elevation Contours - Shallow Wells
## October 2002

CDM

Figure 5-1

DATE: Jan 17, 20 :40pm XREFS:
DWG: P:\2279\2279-111\CAD\2002-10\Fig5-02.dwg USER: negretegd




PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## Groundwater Elevation Contours - Deep Wells
## October 2002

CDM

Figure 5-2

TABLE 5-1

PHIBRO-TECH, INC.

October 2002 Quarterly Monitoring Well Sampling

Groundwater Elevation Data

| Well No. | Well Headspace* (ppm) | Total Depth Constructed (ft) (bgs) | Total Depth Measured (ft) (bgs) | Perforated Intervals (ft) | Calculated Casing Fill (ft) | M.P. Elevation (ft) | Depth to Water (ft below MP) | Groundwater Elevation (ft above MSL) October 2002 | Groundwater Elevation (ft above MSL) July 2002 |
|---|---|---|---|---|---|---|---|---|---|
| 1S | 53.6 / 0.0 | 62.5 | 62.3 | 47-62.5 | 0.2 | 152.63 | 51.08 | 101.55 | 104.84 |
| 1D | 43.9 / 0.0 | 94.8 | 96.0 | 79.5-94.5 | --- | 152.60 | 51.07 | 101.53 | 104.84 |
| 3 | 19.6 / 0.6 | 74.1 | 73.3 | 45-75 | 0.8 | 154.75 | 55.20 | 99.55 | 103.08 |
| 4 | 3.8 / 0.1 | 67.5 | 70.5 | 45-75 | --- | 152.37 | 52.75 | 99.62 | 103.10 |
| 4A | 3.4 / 0.1 | 107.0 | 106.8 | 87-107 | 0.2 | 152.46 | 52.72 | 99.74 | 103.19 |
| 5 | 0.1 / 0.1 | 75.0 | 73.3 | 45-75 | 1.7 | 153.26 | 54.38 | 98.88 | 102.49 |
| 6A | 0.1 / 0.1 | --- | 29.2 | 10-30 | --- | --- | --- | Dry | Dry |
| 6B | 0.1 / 0.1 | 77.6 | 76.4 | 45-75 | 1.2 | 149.53 | 49.50 | 100.03 | 103.44 |
| 6D | 13.7 / 0.0 | 95.5 | 92.9 | 79-94 | 2.6 | 150.13 | 50.05 | 100.08 | 103.48 |
| 7 | 0.1 / 0.1 | 71.5 | 71.2 | 45-75 | 0.3 | 149.42 | 49.92 | 99.50 | 102.96 |
| 8 | 4.8 / 0.0 | 71.0 | 70.3 | 41-71 | 0.8 | 150.17 | 50.20 | 99.97 | 103.44 |
| 9 | 12.0 / 0.1 | 73.5 | 72.8 | 44-77 | 0.7 | 152.96 | 52.86 | 100.10 | 103.51 |
| 10 | 1.0 / 0.0 | 75.0 | 76.4 | 45-75 | --- | 153.89 | 53.84 | 100.05 | 103.51 |
| 11 | 3.4 / 0.1 | 75.5 | 75.1 | 55-75 | 0.4 | 155.76 | 55.44 | 100.32 | 103.76 |
| 12S | 33.3 / 0.0 | 72.0 | 74.8 | 51-72 | --- | 155.79 | 55.01 | 100.78 | 104.20 |
| 12D | 10.2 / 0.0 | 101.0 | 99.7 | 84.5-100 | 1.3 | 155.72 | 55.08 | 100.64 | 104.07 |
| 13S | 29.3 / 0.0 | 70.3 | 69.3 | 50.3-70.3 | 1.0 | 151.72 | 51.20 | 100.52 | 103.94 |
| 13D | 29.3 / 0.1 | 93.3 | 93.8 | 78.3-93.3 | --- | 151.68 | 51.18 | 100.50 | 103.92 |
| 14S | 31.7 / 0.2 | 71.5 | 71.0 | 46-72 | 0.5 | 150.54 | 51.24 | 99.30 | 102.84 |
| 14D | 35.8 / 0.0 | 109.0 | 104.0 | 88-103 | 5.0 | 150.60 | 51.30 | 99.30 | 102.72 |
| 15S | 30.8 / 0.1 | 71.5 | 71.0 | 51.5-71.5 | 0.5 | 151.01 | 51.98 | 99.03 | 102.57 |
| 15D | 38.1 / 0.0 | 123.8 | 123.8 | 108.5-123.5 | 0.0 | 150.96 | 51.95 | 99.01 | 102.36 |
| 16 | 2.8 / 0.0 | 62.5 | 62.2 | 42-62 | 0.3 | 150.27 | 50.43 | 99.84 | 103.31 |

M.P. = Measuring point (top of steel casing)

--- = Not measured or not calculated.

bgs = below ground surface

ppm = parts per million

MSL = mean sea level

* Measured with PID prior to sampling (casing/background).

Note: Depth to water measurements collected on October 22, 2002 prior to purging/sampling on-site wells.

# 6

# Section Six

# Section 6
# Groundwater Quality

In order to compare the analytical data with the previous sampling events (1989 through April 2001 quarterly events), historical sampling results were compiled and presented in Appendix B. The Appendix B tables summarize selected groundwater analytical parameters (hexavalent and total chromium, cadmium, copper, purgeable aromatics and trichloroethene) and groundwater elevations at shallow-well and deep-well locations sampled prior to April 2001. Analytical results for the period from July 2001 to the present are summarized in Tables 6-1 and 6-2. Laboratory analytical reports from all wells sampled during the October 2002 sampling round are located in Appendix C.

Consistent with the results of laboratory testing performed on the groundwater samples collected since January 1989 from the on-site monitoring wells, three contaminant plumes in the Hollydale Aquifer were identified. Historically, these plumes have been present at varying concentrations and lateral extent. One small plume, consisting primarily of chromium, has been aligned in a northeasterly to southwesterly direction in the vicinity of wells MW-04 and MW-14S. The second, consisting of purgeable aromatics, has also been aligned in a northeasterly to southwesterly direction with the highest concentrations generally found in wells MW-04, MW-14S, and MW-09. The third plume consists of TCE and related parameters with highest concentrations generally detected in wells MW-04, MW-09, MW-11, and MW-14S.

## 6.1 Halogenated Volatile Organic Compounds

Table 6-1 shows the analytical results for deep and shallow wells sampled during October 2002. TCE was the primary compound detected, with miscellaneous other halogenated organics also detected. The table also shows, for comparison purposes, maximum contaminant limits (MCLs) where established.

### Trichloroethene (TCE)

TCE was detected in all 14 of the groundwater monitoring wells sampled. The highest concentration of TCE detected was 700 µg/L in well MW-11, which is located along the northern boundary of the site. This concentration represents a decrease from the result of 1,500 µg/L in the previous quarter. The TCE detected in well MW-11 likely originated from an off-site up gradient source. The second highest concentration of TCE detected was 530 µg/L in well MW-09, an increase from the result of 480 µg/L in the previous quarter. Of the fourteen wells sampled, twelve wells contained concentrations of TCE that exceeded the MCL of 5 µg/L.

Concentrations of TCE detected in shallow and deep wells are shown on Figures 6-1 and 6-2, respectively. Compared to July 2002, TCE concentrations increased in five of the ten shallow wells sampled. Excluding MW-11 and MW-09, TCE concentrations ranged from 8.3 µg/L (MW-01S) to 360 µg/L (MW-14S). Shallow wells that had

decreases in TCE concentration compared to July 2002 were MW-03, MW-07, MW-11, and MW-16.

TCE concentrations increased in three of the four deep wells sampled, compared with the July 2002 results. Deep-well TCE concentrations ranged from 1.8 µg/L (MW-01D) to 36 µg/L (MW-04A) in October 2002.

A review of the historical analytical results contained in Appendix B reveals that, with minor exceptions, TCE has historically been detected in all on-site monitoring wells, including the up gradient wells. Past discussions with Department of Health Services (now Cal EPA DTSC) and Regional Water Quality Control Board staff indicate that TCE and other halogenated organic are generally recognized as regional groundwater contaminants.

### Other Halogenated Organics

During the October 2002 sampling, other halogenated organics were detected in most of the on-site wells (Table 6-1). Halogenated organics detected in October 2002 other than TCE included 1,1-dichloroethane (1,1-DCA), 1,2-DCA, tetrachloroethene (PCE), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), carbon tetrachloride, trans-1,2-dichloroethene, chloroform, and methylene chloride. Wells with significant concentrations of halogenated organic compounds included MW-04, MW-07, MW-09, MW-11, and MW-14S.

1,1-DCA was detected in nine of the wells sampled, with concentrations ranging from 2.5 µg/l in MW-15S to 530 µg/L in MW-09. The MCL for 1,1-DCA is 5 µg/L. Compared with July 2002, concentrations of 1,1-DCA increased in six of the wells that had detectable concentrations.

1,2-DCA was also present above reporting limits in nine of the sampled wells, with concentrations ranging from 1.1 µg/l in MW-01S to 190 µg/L in MW-09. The MCL for 1,2-DCA is 0.5 µg/L.

Detectable concentrations of cis-1,2-DCE occurred in eight of the wells sampled in October 2002. Among wells with detections, concentrations ranged from 2.2 µg/L in MW-01S to 240 µg/L in MW-04. The MCL for cis-1,2-DCE is 6 µg/L.

The compounds PCE, 1,1-DCE, 1,1,1-TCA, carbon tetrachloride, chloroform and methylene chloride were also detected in several wells. Detections of these other halogenated organic compounds are assumed to be related to the TCE plume. The presence of trans-1,2-dichloroethene could be a result of anaerobic degradation of TCE.

## 6.2 Aromatic Volatile Organic Compounds

According to PTI personnel, organic chemicals have not historically been used on-site in any of the production processes. Two 10,000-gallon underground storage tanks (containing diesel and gasoline), however, were located in the approximate center of

the facility, due east of the drum wash area. During tank removal activities in July 1989, petroleum hydrocarbon contamination was discovered in the tank excavation. The RFI report indicated that petroleum hydrocarbon contamination was not detected at depths below 30 feet near the former tank locations. Although they have not been used on-site, aromatic compounds have been historically detected in groundwater underlying the facility. The primary aromatic organic compounds of concern are toluene, ethylbenzene and total xylenes, which vary in both concentration and lateral extent. The RFI report indicated that these compounds appeared to be migrating onto the subject property from the property to the north. According to Los Angeles County Department of Public Works files, leaks from tanks containing purgeable aromatic compounds with subsequent groundwater contamination are known to have occurred at the property to the north of PTI.

Aromatic volatile organic compound results for October 2002 are presented in Table 6-1. Concentrations of total aromatics (BTEX) for the shallow wells are illustrated on Figure 6-3. Historic sampling results indicate that purgeable aromatic contamination originated off-site to the north and has migrated onto the subject property. During previous sampling events, elevated concentrations of toluene, ethylbenzene and xylenes were detected in MW-11 and MW-03 along the northern perimeter of the property.

Since approximately July 1991, elevated concentrations of these compounds have been detected in wells MW-04 and MW-14S, indicating that the plume may be migrating down gradient. Total BTEX concentrations in MW-04 began to gradually decrease in October 1998 until January 2000, at which time MW-04 had a total BTEX concentration of 11.1 µg/L. Concentrations began to increase in MW-04 between October 2000 until October 2001, when the total BTEX concentrations reached 6,500 µg/L. Although concentrations have fluctuated significantly since January 2002, the October 2002 BTEX concentration in well MW-04 was 2,494 µg/L. This is the highest BTEX concentration of all site wells. For the purposes of this calculation, non-detected parameters are counted as equal to their reporting limit.

In addition, relatively high BTEX concentrations have also been detected in well MW-09 beginning in January 1992. Ethylbenzene was detected at a concentration of 440 µg/L in MW-09 in July 2001 and 8.1 µg/L in October 2001. However, BTEX compounds in well MW-09 have remained below reporting limits since January 2002.

The total BTEX concentration at well MW-14S decreased from 910 µg/L in July 2002 to 34 µg/L in October 2002. Well MW-14S had the highest total BTEX concentration in July 2002.

## Benzene

Of the 14 wells sampled in October 2002, only well MW-15D had a benzene concentration (1.2 µg/L) above the reporting limit of 1.0 µg/L. Historical evidence indicates that benzene is not a contaminant of concern for the facility.

### Toluene

During the October 2002 sampling, toluene was not detected above the reporting limit in any of the 14 wells sampled. Toluene occurs sporadically in most of the wells on site. Significant toluene concentrations were detected during July 1990 to July 1991 (MW-11), July 1991 to January 1992 (MW-04), July 1992 to July 1993 (MW-09), and July 1994 to January 1995 (MW-09). Concentrations were also detected at location MW-04 during January 1993. Historically, elevated ethylbenzene and total xylene concentrations have generally been associated with elevated toluene concentrations.

### Ethylbenzene

During the October 2002 sampling round, ethylbenzene was detected at concentrations greater than the reporting limit in MW-03, MW-04, MW-11, MW-14S, and MW-15D. The highest concentration of ethylbenzene (820 µg/L) was detected in MW-04, which was an increase from July 2002, when the concentration was 220 µg/L. This concentration exceeds the MCL of 700 µg/L.

The second highest concentration of ethylbenzene (390 µg/L) was detected in MW-11, which is an increase from a concentration of less than the reporting limit of 50 µg/L in the previous quarter.

Since the last sampling event, ethylbenzene concentrations increased in wells MW-03, MW-04, MW-11, and MW-15D, and decreased in well MW-14S. In July 2002, MW14S had the highest concentration at 860 µg/L, but the ethylbenzene concentration dropped to 14 µg/L in October 2002.

### Total Xylenes

Total xylenes were detected above the reporting limit in three wells during the October 2002 sampling event. In well MW-04, the concentration of total xylenes was 1650 µg/L. Results from the previous event indicated that only well MW-04 contained reportable concentrations of total xylenes at a concentration of 328 µg/L.

## 6.3 1,4-Dioxane

Table 6-1 includes the analytical results for 1,4-Dioxane during the July and October 2001 sampling events, when groundwater samples from wells MW-01S, MW-04, MW-06D, MW-09, MW-11 and MW-15D were analyzed for 1,4-Dioxane. The highest concentration (140 µg/L) was detected during the October 2001 sampling event in well MW-01S, which represents the site's shallow up gradient well. 1,4-Dioxane analysis has not been performed since the October 2001 event.

## 6.4 Inorganic and Miscellaneous Parameters

Table 6-2 shows the analytical results for inorganic parameters (cadmium, total and hexavalent chromium, copper, and pH) for sampling events since October 2001.

## Hexavalent Chromium ($Cr^{+6}$)

During the October 2002 sampling, hexavalent chromium was analyzed using EPA Method 7199 with a typical reporting limit of 0.001 mg/L. Prior to the April 2001 sampling event, hexavalent chromium was analyzed using EPA Method 7196 with a typical reporting limit of 0.02 mg/L.

Hexavalent chromium was detected in eight of the fourteen wells sampled. Well MW-04 contained the highest concentration of hexavalent chromium at 32.6 mg/L. Well MW-04 also contained the highest concentration during the previous event, at 25.1 mg/L. The other reportable concentrations of hexavalent chromium ranged from 0.0025 mg/L (MW-06D) to 4.3 mg/L (MW-09) during October 2002. Figure 6-4 shows the concentrations of hexavalent chromium detected in the shallow wells during October 2002.

Water purged from MW-04 has typically been bright yellow in color since CDM began sampling the wells on a quarterly basis in January 1989. During the October 2002 sampling round, the color of water from MW-04 was again noted as yellow.

Figure 6-5 shows the concentrations of hexavalent chromium and groundwater elevations in MW-04 over time. The concentrations of hexavalent chromium at MW-04 decreased from July 1989 (120 mg/L) to July 1993 (1.8 mg/L), while groundwater elevations increased. Since July 1993, hexavalent chromium concentrations have fluctuated while groundwater elevations have remained fairly constant. Historically, hexavalent chromium has been detected (detection limit was 0.02 mg/L) in four other wells other than MW-04, although the highest concentration has always been detected at MW-04.

At MW-14S from October 1990 to January 1993, hexavalent chromium concentrations generally decreased, with analytical non-detections reported for the six sampling rounds before October 1994. Since October 1994, detections have been sporadic, ranging from 0.017 to 0.11 mg/L during 16 of the last 30 sampling events. Well MW-14S had a hexavalent chromium concentration of 0.42 mg/L in October 2002, an increase over the 0.017 mg/L concentration in July 2002.

Hexavalent chromium concentrations decreased in MW-09 between October 1989 and January 1991. Then between January 1992 and July 1998 hexavalent chromium concentrations were not detected above the reported detection limits (except for a trace amount detected in October 1991). Between October 1998 and October 2002, ten of the fifteen sampling events indicated detectable concentrations of hexavalent chromium in well MW-09.

## Total Chromium (Cr[T])

Total chromium was detected above its reporting limit in three monitoring wells during the October 2002 sampling event. The highest concentration was detected in well MW-04 at a concentration of 29.0 mg/L, which is a slight decrease from 32.4

mg/L last quarter. Total chromium was also detected in MW-09 (4.5 mg/L) and MW-14S (0.42 mg/L). Figure 6-6 shows the concentrations of total chromium detected in shallow monitoring wells during October 2002. Figure 6-7 shows the concentrations of total chromium and corresponding groundwater elevations in MW-04 over time. Comparison of historical total chromium data with present data (Appendix B) indicates that total chromium concentrations, like those of hexavalent chromium, generally decreased from January 1989 to July 1993, and have fluctuated up and down since July 1993. Historically, the highest total chromium concentrations have been detected in MW-04. Sporadic detections of total chromium close to the detection limit have occurred historically in nearly all-shallow wells on site.

## Cadmium (Cd)

During the October 2002 sampling event, cadmium was detected at concentrations greater than the reporting limit in two wells. Cadmium was detected in wells MW-04 and MW-14S at a concentrations of 0.60 and 0.0074 mg/L. These detections represent slight increases compared to last quarter's concentration of 0.50 mg/L at MW-04 and less than 0.005 mg/L at MW-14S.

Previous concentrations in MW-04 have ranged from 0.028 mg/L in January 1989 to 0.86 mg/L in July 1992. Figure 6-8 shows the cadmium concentrations detected in the on-site wells during October 2002. Figure 6-9 shows the concentrations of cadmium and corresponding groundwater elevations in MW-04 over time. As shown on Figure 6-9, cadmium concentrations have fluctuated considerably (i.e., from non-detectable at a detection limit of 0.005 mg/L during July 1993 to 0.86 mg/L during July 1992) since July 1990.

Cadmium has been detected consistently only in well MW-04. Historically, cadmium has been detected once at 0.01 mg/L in MW-01 during July 1989. Cadmium was detected in MW-14S at concentrations ranging from 0.005 mg/L to 0.018 mg/L between October 1990 through July 1991 and at a concentration of 0.0055 mg/L during July 1995, as well as the present quarter. Cadmium was also detected in MW-15S at concentrations close to the detection limit from July 1991 to January 1993. Detected concentrations in MW-15S ranged from 0.005 mg/L in July 1992 to 0.02 mg/L during October 1991.

## Copper (Cu)

Copper was detected at a concentration greater than the reporting limit only in wells MW-06D (0.043 mg/L) and MW-14S (0.04 mg/L). These concentrations represent increases compared to the previous quarter, at which time MW-06D was less than the reporting limit of 0.025 mg/L and 0.031 mg/L was detected in well MW-14S. These concentrations do not exceed the secondary MCL of 1.3 mg/L. Figure 6-10 shows the copper concentrations detected in the on-site wells during October 2002. Historically, with the exception of well MW-14S, concentrations of copper above the secondary MCL have not been detected in on-site monitoring wells.

## pH

Groundwater samples from all wells were measured for pH in the field during purging activities, and also by the analytical laboratory on the samples submitted for analysis. Field pH measurements were recorded in the field logbook during well purging. In October 2002, the field measurements of pH generally correlated with the values shown in Table 6-2, which range from 6.7 to 7.6.

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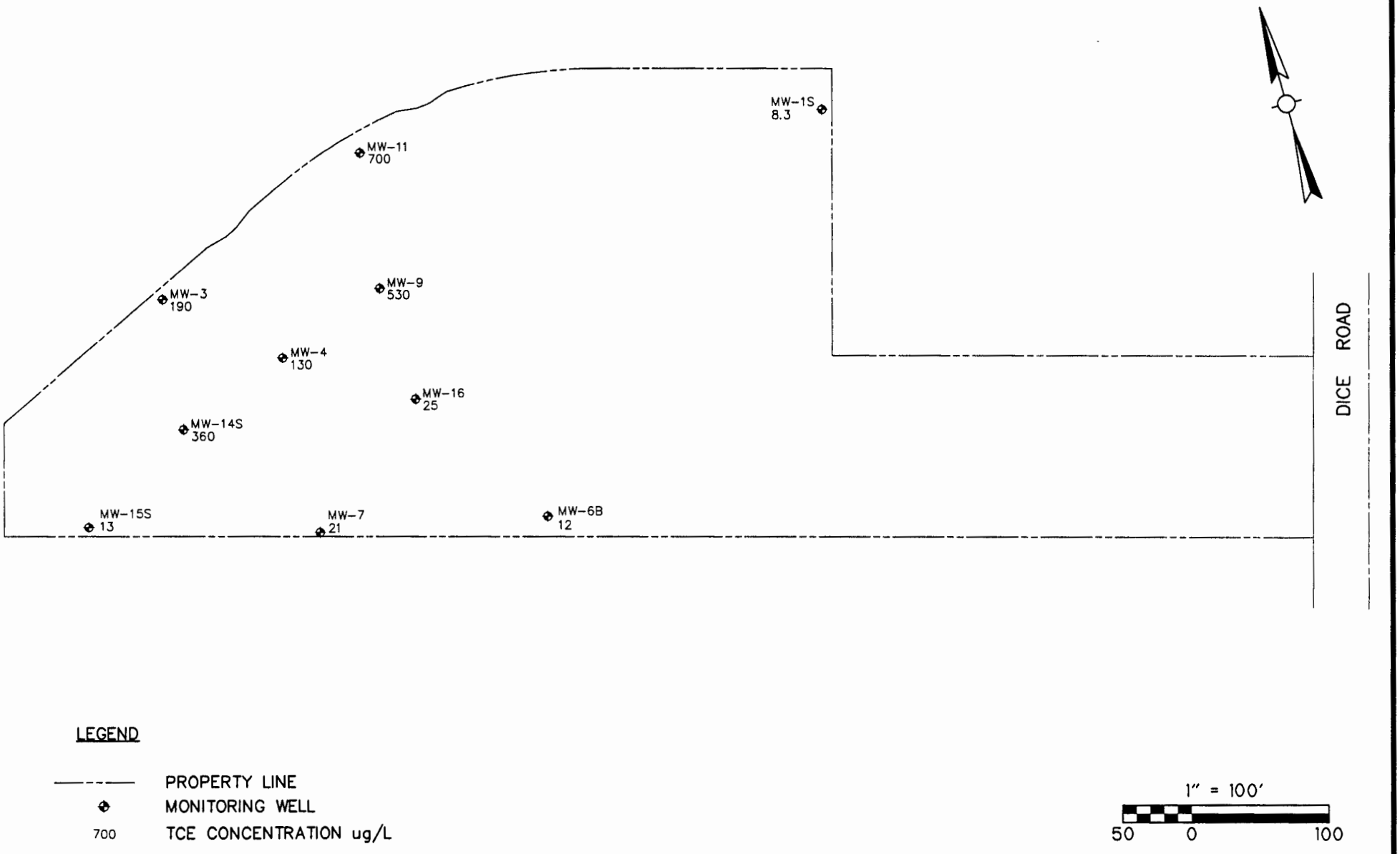


PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## TCE Concentrations - Shallow Wells
## October 2002

CDM

Figure 6-1

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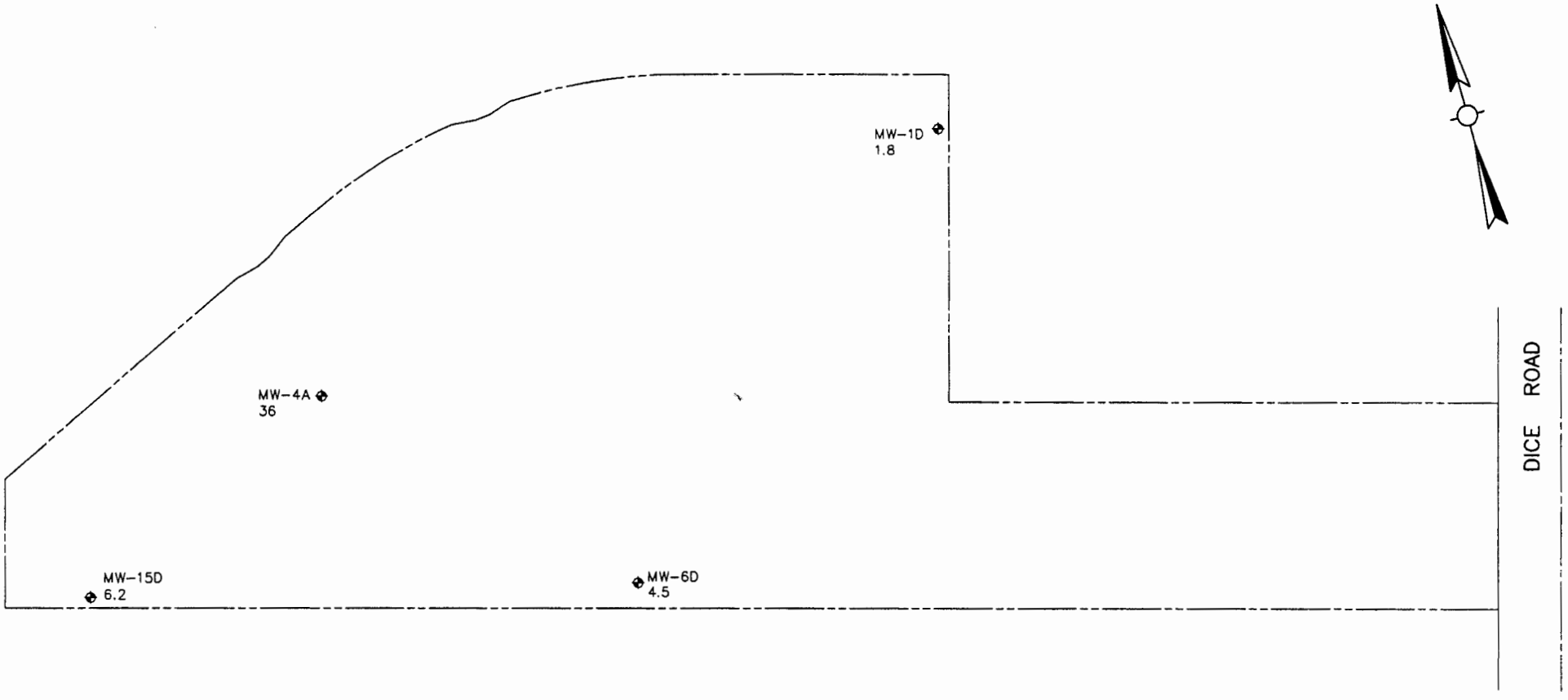


PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## TCE Concentrations - Deep Wells
## October 2002

CDM

Figure 6-2

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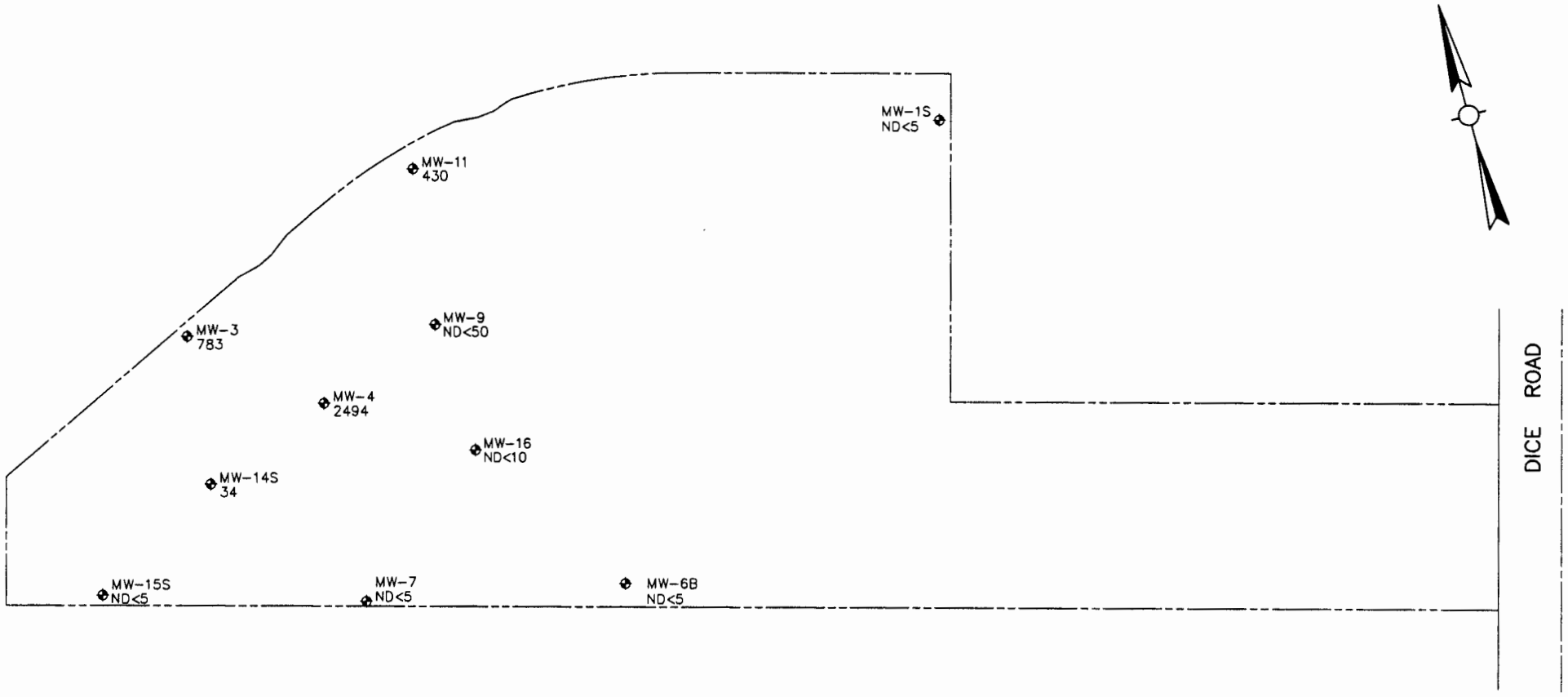



LEGEND

| | |
|---|---|
| ——— | PROPERTY LINE |
| ◆ | MONITORING WELL |
| 2,470 | TOTAL BTEX CONCENTRATION (ug/L) |
| ND | NOT DETECTED |
| BTEX | BENZENE, TOLUENE, ETHYLBENZENE, XYLENE |

1" = 100'

50 0 100

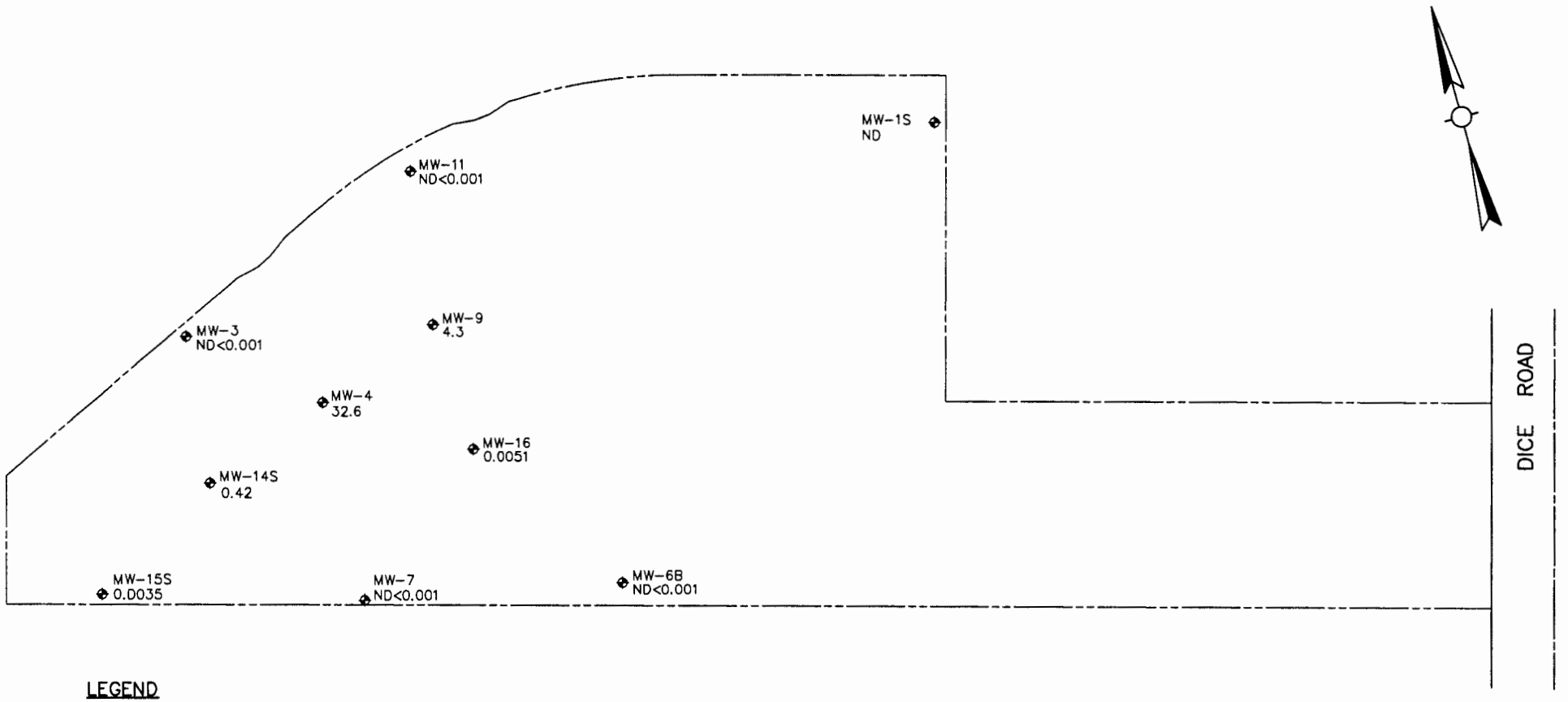
PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

**Total BTEX Concentrations - Shallow Wells**
**October 2002**

CDM

Figure 6-3

DATE: Feb 27, 2 3:55pm XREFS:
DWG: P:\2279\2 11\CAD\2002-10\Fig6-04.dwg USER: negretegd

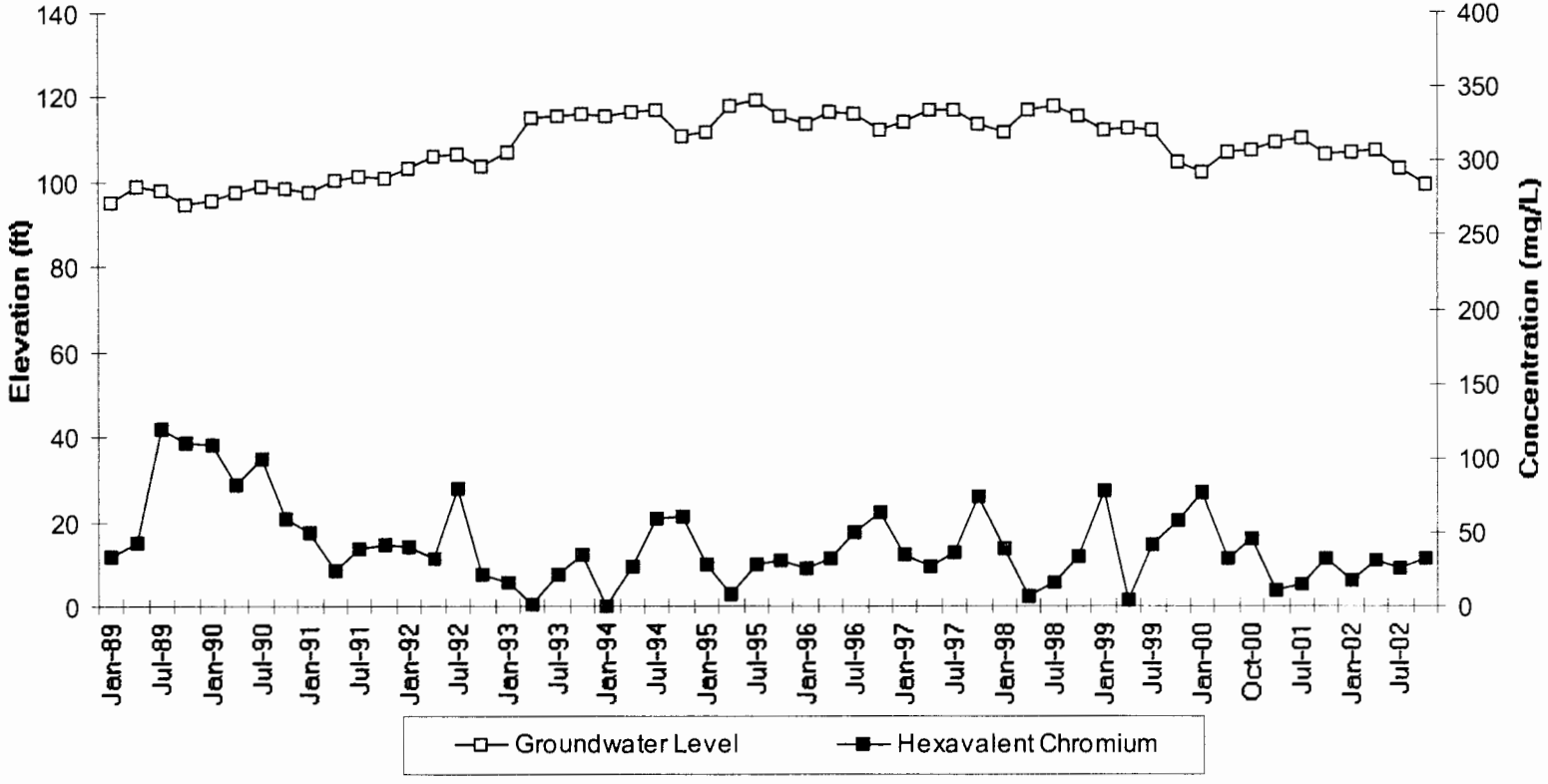



PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## Hexavalent Chromium Concentrations - Shallow Wells
## October 2002

CDM

Figure 6-4

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**Hexavalent Chromium Concentration**
**Groundwater Elevation MW-04**
**January 1989 - October 2002**

CDM

Figure 6-5

DATE: Feb 21, 20 1:23am XREFS:
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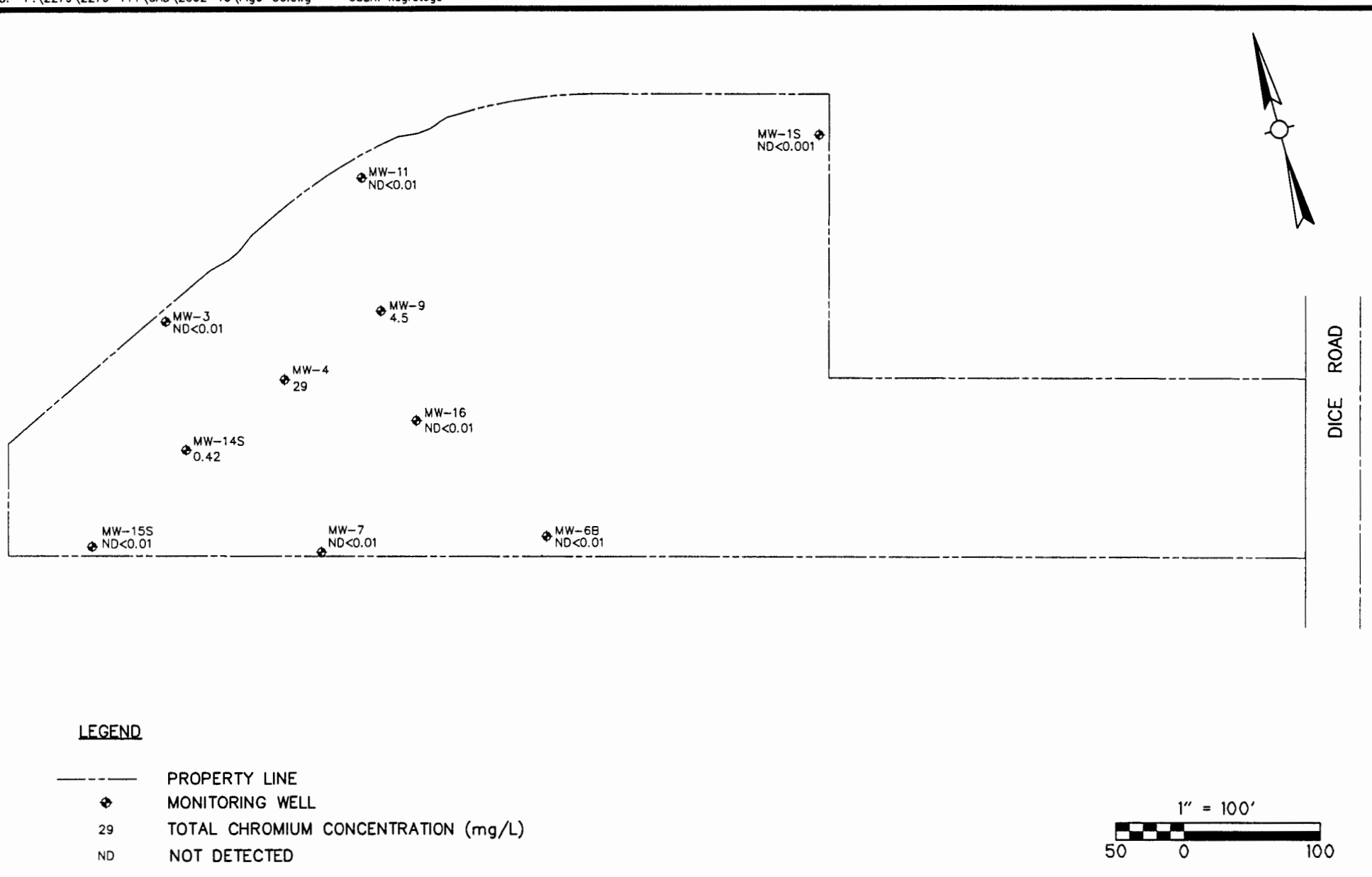


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## Total Chromium Concentrations - Shallow Wells
## October 2002

CDM

Figure 6-6

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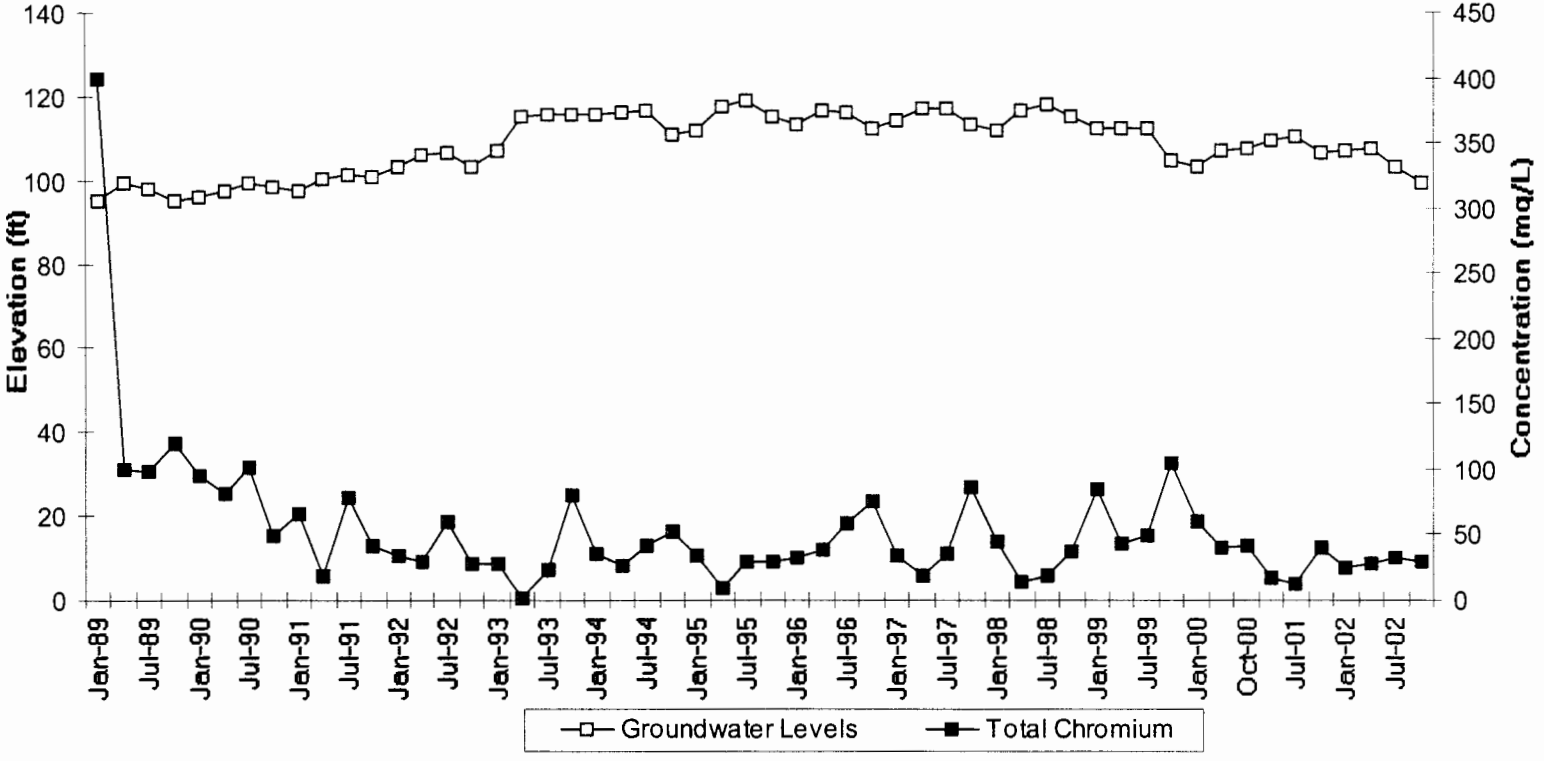


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**Total Chromium Concentration**
**Groundwater Elevation MW-04**
**January 1989 - October 2002**

CDM

Figure 6-7

DATE: Feb 21, 2 11:27am XREFS:
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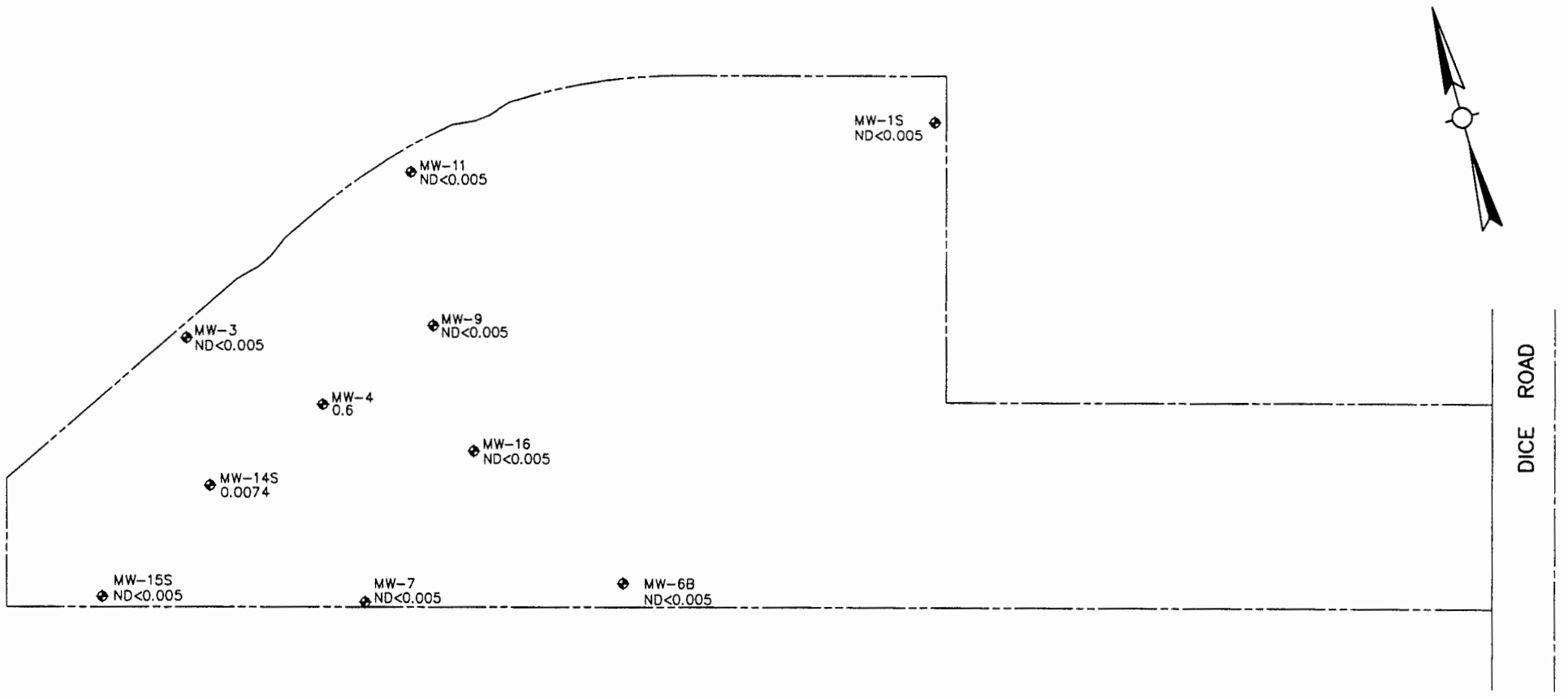



LEGEND

| | |
|---|---|
| ——— | PROPERTY LINE |
| ◆ | MONITORING WELL |
| 0.6 | CADMIUM CONCENTRATION (mg/L) |
| ND | NOT DETECTED |

1" = 100'

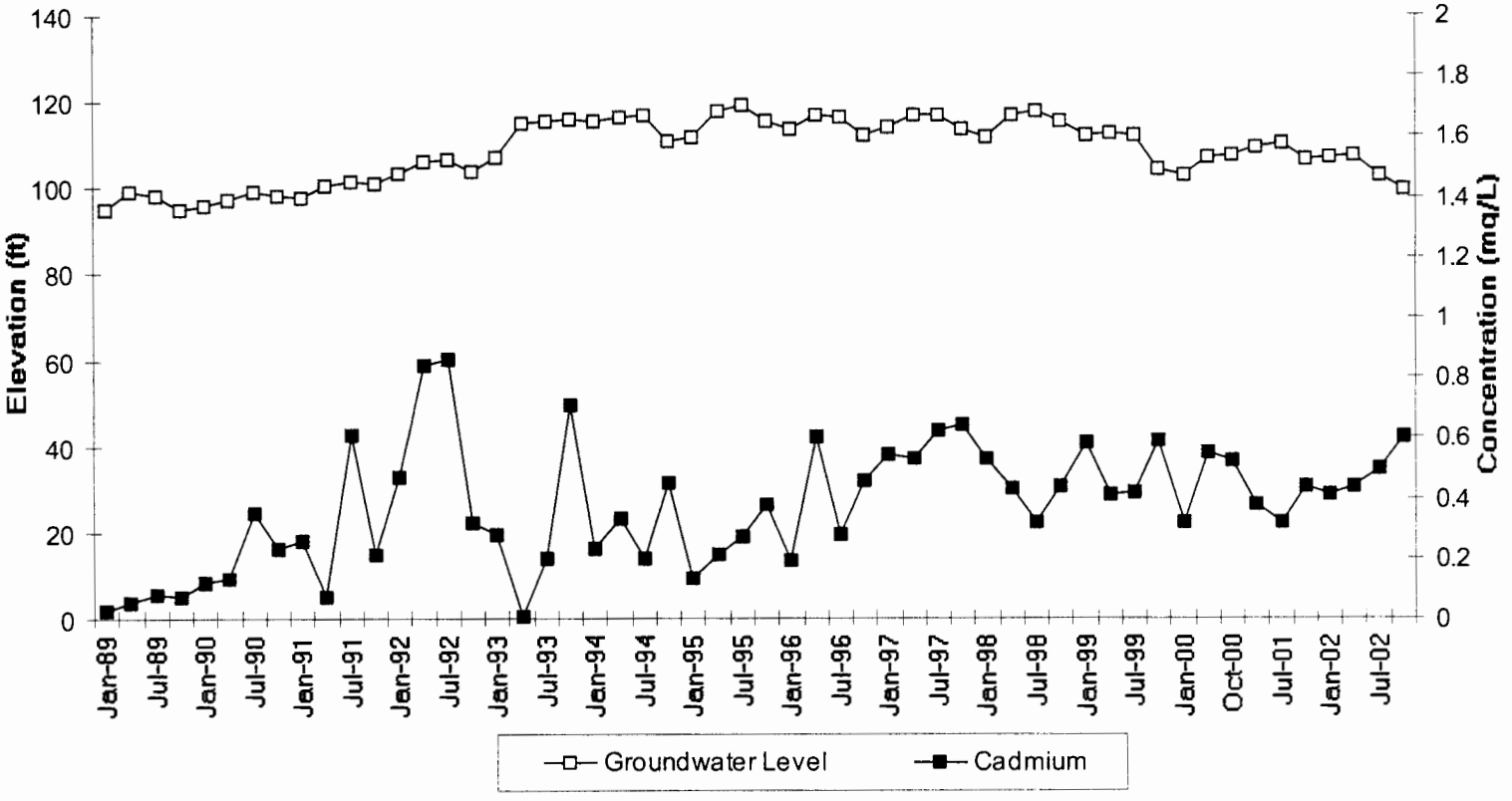
50 0 100

PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

## Cadmium Concentrations - Shallow Wells
## October 2002

CDM

Figure 6-8




PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

**Cadmium Concentration**
**Groundwater Elevation MW-04**
**January 1989 - October 2002**

CDM

Figure 6-9

DATE: Feb 21, 11:29am XREFS:
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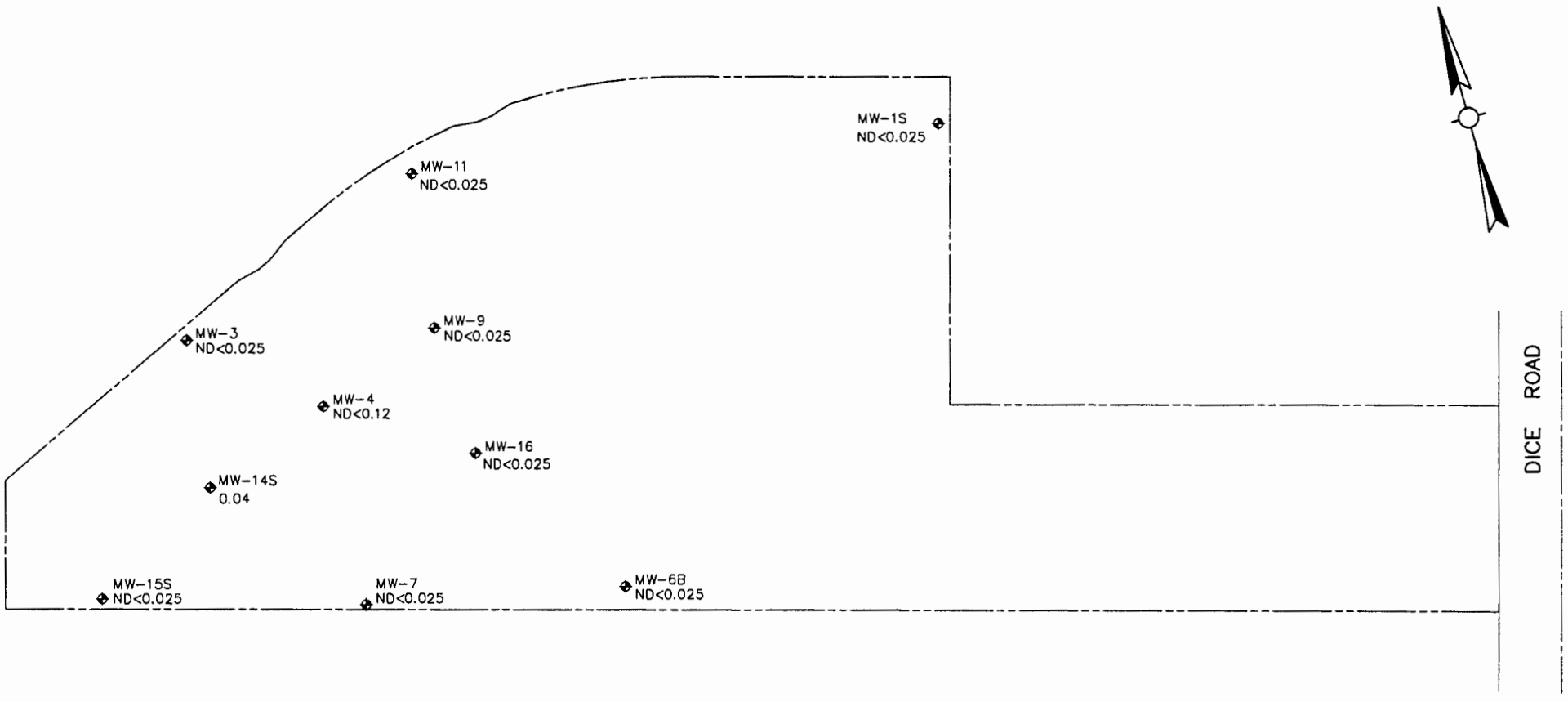



LEGEND

| | |
|---|---|
| ——— | PROPERTY LINE |
| ◆ | MONITORING WELL |
| 0.031 | COPPER CONCENTRATION (mg/L) |
| ND | NOT DETECTED |

1" = 100'

50 0 100

PHIBRO-TECH, INC., SANTA FE SPRINGS, CA

# Copper Concentrations - Shallow Wells
# October 2002

CDM

Figure 6-10

# Table 6-1
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Volatile Organic Compounds (VOCs) and 1,4-Dioxane Analytical Summary

| Well Number | Sample Date | Sample Type | Benzene (1) | Toluene (150) | Ethyl-benzene (700) | Xylenes, Total (1,750) | PCE (5) | 1,1,1-TCA (200) | TCE (5) | 1,1-DCE (6) | 1,1-DCA (5) | 1,2-DCA (0.5) | CCl4 (0.5) | CFM (100) | cis-1,2-DCE (6) | trans-1,2-DCE (10) | MCL (5) | 1,4-Dioxane (3#) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-01D | 10/16/2001 | | 1.5 | 1 U | 1 U | 1.5 | 5.3 | 1 U | 3.5 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 01/15/2002 | | 1.6 | 1 U | 1 U | 1 U | 2.5 | 1 U | 1.8 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 04/16/2002 | | 1 U | 1 U | 1 U | 2 U | 3.9 | 1 U | 3.3 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 07/24/2002 | | 1 U | 1 U | 1 U | 2 U | 1.7 | 1 U | 2.8 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 10/22/2002 | | 1 U | 1 U | 1 U | 2 u | 2.5 | 1 U | 1.8 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| MW-01S | 10/16/2001 | | 1 U | 1 U | 1 U | 1 u | 1 U | 1 U | 13 | 1 U | 1.9 | 1.1 | 1 U | 1 U | 6.7 | 1 U | 1 U | 140 |
| | 01/15/2002 | | 1 U | 1 U | 1 U | 1 U | 1.6 | 1 U | 7 | 1 U | 1 U | 1.3 | 1 U | 1 U | 1.2 | 1 U | 1 U | |
| | 04/16/2002 | | 1 U | 1 U | 1 U | 2 U | 1.2 | 1 U | 5.3 | 1 U | 1 U | 1.2 | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 07/24/2002 | | 1 U | 1 U | 1 U | 2 U | 1.2 | 1 U | 6.2 | 1 U | 1 U | 1 U | 1 U | 1 U | 1.8 | 1 U | 1 U | |
| | 10/22/2002 | | 1 U | 1 U | 1 U | 2 u | 1.4 | 1 U | 8.3 | 1 U | 1 U | 1.1 | 1 U | 1 U | 2.2 | 1 U | 1 U | |
| MW-03 | 10/17/2001 | | 5 U | 5 U | 5 U | 5 u | 5.1 | 5 U | 290 | 35 | 35 | 5 U | 39 | 35 | 5 U | 5 U | 5 U | |
| | 01/16/2002 | | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5.6 | 2.5 U | 220 | 28 | 30 | 2.5 U | 33 | 30 | 2.5 U | 2.5 U | 2.5 U | |
| | 04/16/2002 | | 5 U | 5 U | 5 U | 10 U | 5 U | 5 U | 280 | 35 | 44 | 5 U | 36 | 38 | 5 U | 5 U | 5 U | |
| | 07/24/2002 | | 5 U | 5 U | 5 U | 10 U | 5.5 | 5 U | 260 | 36 | 34 | 5 U | 28 | 31 | 5 U | 5 U | 5 U | |
| | 10/22/2002 | | 10 U | 10 U | 63 | 700 | 10 U | 10 U | 190 | 30 | 17 | 25 | 10 U | 13 | 10 U | 10 U | 10 U | |
| MW-04 | 10/18/2001 | | 50 U | 50 U | 3700 | 50 u | 50 U | 50 U | 170 | 50 U | 73 | 50 U | 50 U | 50 U | 65 | 50 U | 50 U | 37 |
| | | K | 50 U | 50 U | 2800 | 50 u | 50 U | 50 U | 220 | 50 U | 90 | 50 U | 50 U | 50 U | 81 | 50 U | 59 | 36 |
| | 01/17/2002 | | 10 U | 10 U | 680 | 10 U | 10 U | 10 U | 130 | 31 | 55 | 160 | 10 U | 10 U | 63 | 10 U | 20 | |
| | | K | 10 U | 10 U | 720 | 10 U | 10 U | 10 U | 140 | 32 | 58 | 160 | 10 U | 10 U | 70 | 10 U | 24 | |
| | 04/18/2002 | | 50 U | 50 U | 2200 | 170 | 50 U | 50 U | 260 | 57 | 100 | 50 U | 50 U | 50 U | 86 | 50 U | 58 | |
| | | K | 50 U | 50 U | 1900 | 160 | 50 U | 50 U | 260 | 65 | 100 | 50 U | 50 U | 50 U | 84 | 50 U | 60 | |
| | 07/25/2002 | | 7.7 | 5 U | 220 | 328 | 5 U | 5 U | 210 | 110 | 180 | 32 | 5 U | 18 | 210 | 5 U | 85 | |
| | | | 3.8 | 0.37 J | 51 | | 1.9 J | 2.5 U | 85 | 45 | 110 | 67 | 2.5 U | 8.1 | 130 E | 2.3 J | 30 | |
| | | K | 7.6 | 5 U | 200 | 317 | 5 U | 5 U | 210 | 110 | 170 | 32 | 5 U | 18 | 200 | 5 U | 84 | |
| | 10/23/2002 | | 12 U | 12 U | 820 | 1650 | 12 U | 12 U | 130 | 76 | 200 | 31 | 12 U | 20 | 240 | 12 U | 87 | |
| | | K | 12 U | 12 U | 880 | 1760 | 12 U | 12 U | 140 | 82 | 210 | 28 | 12 U | 21 | 250 | 12 U | 90 | |
| | 12/30/2002 | K | 3.8 J | 0.4 J | 49 | | 2.1 J | 5 U | 99 | 48 | 120 | 64 | 5 U | 9.7 | 140 | 2.8 J | 36 | |
| | | K | | | | | | | | | | | | | | | | |

# Table 6-1
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Volatile Organic Compounds (VOCs) and 1,4-Dioxane Analytical Summary

| Well Number | Sample Date | Sample Type | Benzene (1) | Toluene (150) | Ethyl-benzene (700) | Xylenes, Total (1,750) | PCE (5) | 1,1,1-TCA (200) | TCE (5) | 1,1-DCE (6) | 1,1-DCA (5) | 1,2-DCA (0.5) | CCl4 (0.5) | CFM (100) | cis-1,2-DCE (6) | trans-1,2-DCE (10) | MCL (5) | 1,4-Dioxane (3#) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-04A | 10/17/2001 | | 1 U | 1 U | 1 U | 1 u | 2 | 1 U | 22 | 6.2 | 25 | 1 U | 1 U | 1.1 | 1.7 | 1 U | 1 U | 0.95 U |
| | 01/16/2002 | | 1 U | 1 U | 1 U | 1 U | 1.7 | 1 U | 3.5 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 04/17/2002 | | 2 U | 2 U | 2 U | 4 U | 3.6 | 2 U | 71 | 18 | 93 | 2 U | 2 U | 4.4 | 7.3 | 2 U | 2 U | |
| | 07/25/2002 | | 1 U | 1 U | 1 U | 2 U | 1.3 | 1 U | 7.1 | 1.8 | 6.1 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 10/23/2002 | | 1 U | 1 U | 1 U | 2 u | 2.6 | 1 U | 36 | 11 | 33 | 1 U | 1 U | 1.3 | 1.9 | 1 U | 1 U | |
| MW-06B | 10/17/2001 | | 1 U | 1 U | 1 U | 1 u | 1 U | 1 U | 4.6 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 01/16/2002 | | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 5.1 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 04/17/2002 | | 1 U | 1 U | 1 U | 2 U | 1 U | 1 U | 3.1 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 07/25/2002 | | 1 U | 1 U | 1 U | 2 U | 1 U | 1 U | 5 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 10/23/2002 | | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 12 | 1.1 | 11 | 1.8 | 1 U | 1 U | 3.4 | 1 U | 1 U | |
| MW-06D | 10/17/2001 | | 1 U | 1 U | 1 U | 1 u | 1.1 | 1 U | 4.6 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 0.95 U |
| | 01/16/2002 | | 1 U | 1 U | 1 U | 1 U | 1.1 | 1 U | 6.6 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 04/17/2002 | | 1 U | 1 U | 1 U | 2 U | 1 U | 1 U | 3.5 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 07/25/2002 | | 1 U | 1 U | 1 U | 2 U | 1 U | 1 U | 3.9 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 10/23/2002 | | 1 U | 1 U | 1 U | 2 u | 1 U | 1 U | 4.5 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| MW-07 | 10/18/2001 | | 2 U | 2 U | 2 U | 2 u | 2 U | 2 U | 160 | 16 | 78 | 27 | 2 U | 2.8 | 36 | 4.8 | 2 U | |
| | 01/17/2002 | | 1 U | 1 U | 1 U | 1 U | 1.4 | 1 U | 15 | 1.2 | 8.7 | 15 | 1 U | 1 U | 2.1 | 1 U | 1 U | |
| | 04/18/2002 | | 1 U | 1 U | 1 U | 2 U | 1 U | 1 U | 38 | 4.1 | 34 | 52 | 1 U | 1 U | 7.9 | 1.1 | 1 U | |
| | 07/26/2002 | | 0.057 J | 1 U | 1 U | | 1 | 1 U | 13 | 1.8 | 13 | 1.8 | 1 U | 0.29 J | 3 | 0.38 J | 0.6 J | |
| | | | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U | 2.5 U | 100 | 11 | 58 | 15 | 2.5 U | 2.5 U | 24 | 3.4 | 2.5 U | |
| | 10/23/2002 | | 1 U | 1 U | 1 U | 2 u | 3.8 | 1 U | 21 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| MW-09 | 10/18/2001 | | 5 U | 5 U | 8.1 | 5 u | 6.5 | 8.8 | 440 | 89 | 260 | 240 | 5 U | 110 | 15 | 5 U | 69 | 75 |
| | | K | 5 U | 5 U | 33 | 5 u | 5 U | 5 U | 340 | 64 | 160 | 250 | 5 U | 65 | 7.6 | 5 U | 68 | 88 |
| | 01/17/2002 | | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 4.4 | 3.6 | 200 | 43 | 89 | 140 | 2.5 U | 35 | 5.3 | 2.5 U | 14 | |
| | | K | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 4.2 | 3.8 | 200 | 44 | 91 | 150 | 2.5 U | 36 | 5.3 | 2.5 U | 15 | |
| | 04/18/2002 | | 2.5 U | 2.5 U | 2.5 U | 5 U | 4.2 | 12 | 140 | 33 | 110 | 64 | 2.5 U | 26 | 11 | 2.5 U | 6.9 | |
| | | K | 2.5 U | 2.5 U | 2.5 U | 5 U | 6 | 20 | 190 | 48 | 160 | 56 | 2.5 U | 36 | 16 | 2.5 U | 10 | |

# Table 6-1
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Volatile Organic Compounds (VOCs) and 1,4-Dioxane Analytical Summary

| Well Number | Sample Date | Sample Type | Benzene (1) | Toluene (150) | Ethyl-benzene (700) | Xylenes, Total (1,750) | PCE (5) | 1,1,1-TCA (200) | TCE (5) | 1,1-DCE (6) | 1,1-DCA (5) | 1,2-DCA (0.5) | CCl4 (0.5) | CFM (100) | cis-1,2-DCE (6) | trans-1,2-DCE (10) | MCL (5) | 1,4-Dioxane (3#) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-09 | 07/26/2002 | | 25 U | 25 U | 25 U | 50 U | 25 U | 25 U | 480 | 89 | 320 | 340 | 25 U | 150 | 25 U | 25 U | 280 | |
| | | K | 10 U | 10 U | 10 U | 20 U | 10 U | 10 U | 570 | 130 | 360 | 380 | 10 U | 170 | 13 | 10 U | 320 | |
| | 10/24/2002 | | 10 U | 10 U | 10 U | 20 u | 10 U | 10 U | 530 | 140 | 530 | 190 | 10 U | 300 | 23 | 10 U | 230 | |
| | | K | 10 U | 10 U | 10 U | 20 u | 12 | 10 U | 640 | 160 | 630 | 210 | 10 U | 360 | 28 | 10 U | 270 | |
| MW-11 | 10/18/2001 | | 25 U | 25 U | 90 | 122 | 25 U | 27 | 1500 | 98 | 410 | 25 U | 25 U | 50 | 51 | 25 U | 25 U | 12 |
| | 01/17/2002 | | 25 U | 31 | 1900 | 530 | 25 U | 25 U | 630 | 44 | 120 | 25 U | 25 U | 25 U | 54 | 25 U | 25 U | |
| | 04/18/2002 | | 25 U | 25 U | 300 | 50 U | 25 U | 27 | 1300 | 89 | 360 | 25 U | 25 U | 44 | 66 | 25 U | 25 U | |
| | 07/26/2002 | | 1.4 J | 20 U | 31 | | 3.4 J | 20 U | 550 | 42 | 110 | 100 | 20 U | 15 J | 22 | 20 U | 20 U | |
| | | | 50 U | 50 U | 50 U | 100 U | 50 U | 50 U | 1500 | 110 | 410 | 50 U | 50 U | 50 U | 58 | 50 U | 50 U | |
| | 10/24/2002 | | 10 U | 10 U | 390 | 20 u | 10 U | 10 U | 700 | 59 | 140 | 130 | 10 U | 24 | 39 | 10 U | 10 U | |
| MW-14S | 10/17/2001 | | 2 U | 2 U | 2.4 | 2 u | 2.4 | 2 U | 170 | 39 | 56 | 6.4 | 22 | 23 | 5.2 | 2 U | 2 U | |
| | 01/16/2002 | | 50 U | 50 U | 2700 | 1100 | 50 U | 50 U | 91 | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | |
| | 04/17/2002 | | 2 U | 2 U | 2 U | 3.8 | 2 U | 2 U | 130 | 30 | 41 | 13 | 18 | 18 | 5.3 | 2 U | 2 U | |
| | 07/25/2002 | | 25 U | 25 U | 860 | 50 U | 25 U | 25 U | 150 | 39 | 43 | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | |
| | | | 1.2 J | 10 U | 130 | | 1.7 J | 10 U | 190 | 35 | 50 | 56 | 7.2 J | 13 | 12 | 10 U | 2.7 J | |
| | 10/23/2002 | | 5 U | 5 U | 14 | 10 u | 5 U | 5 U | 360 | 71 | 85 | 6.9 | 15 | 28 | 9 | 5 U | 5 U | |
| MW-15D | 10/17/2001 | | 2.2 | 1 U | 1 U | 1 u | 2.4 | 1 U | 6.7 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 0.95 U |
| | 01/16/2002 | | 1 U | 1 U | 1 U | 1 U | 8 | 1 U | 6.4 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 04/17/2002 | | 1.1 | 1 U | 1 U | 2 U | 1.6 | 1 U | 6.1 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 07/25/2002 | | 1 U | 1 U | 1 U | 2 U | 1.9 | 1 U | 3.4 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| | 10/22/2002 | | 1.2 | 1 U | 3.8 | 4.9 | 2.4 | 1 U | 6.2 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | |
| MW-15S | 10/17/2001 | | 1 U | 1 U | 1 U | 1 u | 1.2 | 1 U | 2.8 | 1 U | 1 U | 8.2 | 2 | 3.5 | 1 U | 1 U | 1 U | |
| | 01/16/2002 | | 1 U | 1 U | 1 U | 1 U | 1.1 | 1 U | 2.7 | 1 U | 1 U | 8.6 | 1.4 | 2.9 | 1 U | 1 U | 1 U | |
| | 04/17/2002 | | 1 U | 1 U | 1 U | 2 U | 1.1 | 1 U | 2.9 | 1 U | 1 U | 3 | 2.9 | 4 | 1 U | 1 U | 12 | |
| | 07/24/2002 | | 1 U | 1 U | 1 U | 2 U | 1.2 | 1 U | 4.4 | 1 U | 1 U | 3 | 1.3 | 2.8 | 1 U | 1 U | 1 U | |
| | 10/23/2002 | | 1 U | 1 U | 1 U | 2 u | 1.5 | 1 U | 13 | 1.3 | 2.5 | 2.8 | 3.6 | 9.7 | 1 U | 1 U | 1 U | |
| MW-16 | 10/18/2001 | | 2 U | 2 U | 41 | 2 u | 2 U | 2 U | 34 | 13 | 130 | 49 | 2 U | 2 U | 14 | 2.8 | 2 U | |

## Table 6-1
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Volatile Organic Compounds (VOCs) and 1,4-Dioxane Analytical Summary

| Well Number | Sample Date | Sample Type | Benzene (1) | Toluene (150) | Ethyl-benzene (700) | Xylenes, Total (1,750) | PCE (5) | 1,1,1-TCA (200) | TCE (5) | 1,1-DCE (6) | 1,1-DCA (5) | 1,2-DCA (0.5) | CCl4 (0.5) | CFM (100) | cis-1,2-DCE (6) | trans-1,2-DCE (10) | MCL (5) | 1,4-Dioxane (3#) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-16 | 01/17/2002 | | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 31 | 11 | 100 | 39 | 2 U | 2 U | 8.3 | 2 U | 2 U | |
| | 04/18/2002 | | 2 U | 2 U | 2 U | 4 U | 2 U | 2 U | 37 | 10 | 110 | 90 | 2 U | 2 U | 6.5 | 2 U | 2 U | |
| | 07/26/2002 | | 5 U | 5 U | 5 U | 10 U | 5 U | 5 U | 47 | 22 | 220 | 35 | 5 U | 5 U | 27 | 5.5 | 5 U | |
| | 10/24/2002 | | 2 U | 2 U | 2 U | 4 u | 2 U | 2 U | 25 | 16 | 120 | 13 | 2 U | 2 U | 20 | 4.2 | 2 U | |

***Notes:***

PCE = Tetrachloroethene; TCE = Trichloroethene; TCA = Trichloroethane; DCE = Dichloroethene; DCA = Dichloroethane; CFM = Chloroform; MCL = Methylene chloride; and CCl4 = Carbon tetrachloride.

California Maximum Contaminant Levels (MCLs) are shown in parenthesis. MCL shown for chloroform is the sum of trihalomethane isomers
# = California Action Level.

Samples analyzed by EPA Method 8260.
All concentrations are reported in micrograms per liter (ug/L).
Only compounds detected in one or more samples are listed.
U = Not detected at a concentration greater than the reporting limit shown.

Sample Type:
K = Split sample

# Table 6-2
# Phibro-Tech, Inc.
# Groundwater Analytical Results - October 2002
# Metals and pH Analytical Summary

| Well Number | Sample Date | Sample Type | pH | Cadmium (0.005) | Chromium (0.05) | Cr (+6) | Copper (1.3) |
|---|---|---|---|---|---|---|---|
| MW-01D | 10/16/2001 | | 7.4 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 01/15/2002 | | 7.5 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 04/16/2002 | | 7.5 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 07/24/2002 | | 7.5 | 0.005 U | 0.01 U | 0.005 | 0.025 U |
| | 10/22/2002 | | 7.4 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| MW-01S | 10/16/2001 | | 6.8 | 0.005 U | 0.01 U | 0.0062 | 0.025 U |
| | 01/15/2002 | | 7.1 | 0.005 U | 0.01 U | 0.02 U | 0.025 U |
| | 04/16/2002 | | 7.1 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 07/24/2002 | | 7 | 0.005 U | 0.01 U | 0.0018 | 0.025 U |
| | 10/22/2002 | | 6.9 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| MW-03 | 10/17/2001 | | 7.1 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 01/16/2002 | | 7.2 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 04/16/2002 | | 7.1 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 07/24/2002 | | 7.1 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| | 10/22/2002 | | 7.2 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| MW-04 | 10/18/2001 | | 6.9 | 0.44 | 39.8 | 32 | 0.05 U |
| | | K | 6.8 | 0.4 | 28.9 | 33 | 0.05 U |
| | 01/17/2002 | | 6.7 | 0.41 | 24.4 | 18 | 0.05 U |
| | | K | 6.9 | 0.35 | 18.9 | 18 | 0.025 U |
| | 04/18/2002 | | 6.8 | 0.44 | 27.4 | 31 | 0.05 U |
| | | K | 6.8 | 0.43 | 26.3 | 31 | 0.05 U |
| | 07/25/2002 | | 6.7 | 0.5 | 32.7 | 25.1 | 0.12 U |
| | | K | 6.7 | 0.49 | 29.8 | 30.5 | 0.12 U |
| | 10/23/2002 | | 6.7 | 0.6 | 29 | 32.6 | 0.12 U |
| | | K | 6.7 | 0.63 | 30.6 | 30.3 | 0.12 U |
| MW-04A | 10/17/2001 | | 7.5 | 0.005 U | 0.01 U | 0.0077 | 0.025 U |
| | 01/16/2002 | | 5.9 | 0.005 U | 0.01 U | 0.0052 | 0.025 U |
| | 04/17/2002 | | 7.3 | 0.005 U | 0.01 U | 0.0068 | 0.025 U |
| | 07/25/2002 | | 7.6 | 0.005 U | 0.01 U | 0.0062 | 0.025 U |
| | 10/23/2002 | | 7.3 | 0.005 U | 0.01 U | 0.0061 | 0.025 U |
| MW-06B | 10/17/2001 | | 7.5 | 0.005 U | 0.01 U | 0.0049 | 0.025 U |
| | 01/16/2002 | | 7.4 | 0.005 U | 0.01 U | 0.0051 | 0.025 U |
| | 04/17/2002 | | 7.4 | 0.005 U | 0.01 U | 0.0066 | 0.025 U |
| | 07/25/2002 | | 7.4 | 0.005 U | 0.01 U | 0.0036 | 0.025 U |
| | 10/23/2002 | | 7.3 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| MW-06D | 10/17/2001 | | 7.6 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 01/16/2002 | | 7.4 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 04/17/2002 | | 7.5 | 0.005 U | 0.01 U | 0.0027 | 0.025 U |
| | 07/25/2002 | | 7.4 | 0.005 U | 0.01 U | 0.0015 | 0.025 U |

# Table 6-2
# Phibro-Tech, Inc.
# Groundwater Analytical Results - October 2002
# Metals and pH Analytical Summary

| Well Number | Sample Date | Sample Type | pH | Cadmium (0.005) | Chromium (0.05) | Cr (+6) | Copper (1.3) |
|---|---|---|---|---|---|---|---|
| MW-06D | 10/23/2002 | | 7.4 | 0.005 U | 0.01 U | 0.0025 | 0.043 |
| MW-07 | 10/18/2001 | | 6.7 | 0.01 U | 0.02 U | 0.002 U | 0.073 |
| | 01/17/2002 | | 7.2 | 0.005 U | 0.01 U | 0.002 U | 0.034 |
| | 04/18/2002 | | 7.1 | 0.005 U | 0.01 U | 0.002 U | 0.057 |
| | 07/26/2002 | | 6.9 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| | 10/23/2002 | | 7.5 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| MW-09 | 10/18/2001 | | 6.9 | 0.005 U | 1.3 | 1.1 | 0.025 U |
| | | K | 6.9 | 0.005 U | 1.4 | 1.1 | 0.025 U |
| | 01/17/2002 | | 7.1 | 0.005 U | 0.16 | 0.28 | 0.025 U |
| | | K | 7.1 | 0.005 U | 0.15 | 0.23 | 0.025 U |
| | 04/18/2002 | | 7.1 | 0.005 U | 0.16 | 0.14 | 0.025 U |
| | | K | 7.1 | 0.005 U | 0.15 | 0.14 | 0.025 U |
| | 07/26/2002 | | 6.7 | 0.005 U | 9.1 | 10 | 0.025 U |
| | | K | 6.7 | 0.005 U | 9.3 | 10.2 | 0.025 U |
| | 10/24/2002 | | 6.5 | 0.005 U | 4.5 | 4.3 | 0.025 U |
| | | K | 6.5 | 0.005 U | 4.8 | 4.4 | 0.025 U |
| MW-11 | 10/18/2001 | | 6.7 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 01/17/2002 | | 7.1 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 04/18/2002 | | 6.8 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 07/26/2002 | | 6.7 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| | 10/24/2002 | | 7.1 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| MW-14S | 10/17/2001 | | 7.2 | 0.005 U | 0.14 | 0.002 U | 0.042 |
| | 01/16/2002 | | 7.4 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 04/17/2002 | | 7.2 | 0.005 U | 0.043 | 0.035 | 0.029 |
| | 07/25/2002 | | 7.3 | 0.005 U | 0.065 | 0.017 | 0.031 |
| | 10/23/2002 | | 7 | 0.0074 | 0.42 | 0.42 | 0.04 |
| MW-15D | 10/17/2001 | | 7.6 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 01/16/2002 | | 7.6 | 0.005 U | 0.01 U | 0.0081 | 0.025 U |
| | 04/17/2002 | | 7.5 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 07/25/2002 | | 7.6 | 0.005 U | 0.01 U | 0.0047 | 0.025 U |
| | 10/22/2002 | | 7.5 | 0.005 U | 0.01 U | 0.0016 | 0.025 U |
| MW-15S | 10/17/2001 | | 7.5 | 0.005 U | 0.01 U | 0.0088 | 0.025 U |
| | 01/16/2002 | | 7.5 | 0.005 U | 0.011 | 0.0091 | 0.025 U |
| | 04/17/2002 | | 7.4 | 0.005 U | 0.01 U | 0.01 | 0.025 U |
| | 07/24/2002 | | 7.4 | 0.005 U | 0.01 U | 0.006 | 0.025 U |
| | 10/23/2002 | | 7.4 | 0.005 U | 0.01 U | 0.0035 | 0.025 U |
| MW-16 | 10/18/2001 | | 7 | 0.005 U | 0.01 U | 0.002 U | 0.025 U |
| | 01/17/2002 | | 7.2 | 0.005 U | 0.11 | 0.096 | 0.025 U |
| | 04/18/2002 | | 7.1 | 0.005 U | 0.012 | 0.002 U | 0.025 U |

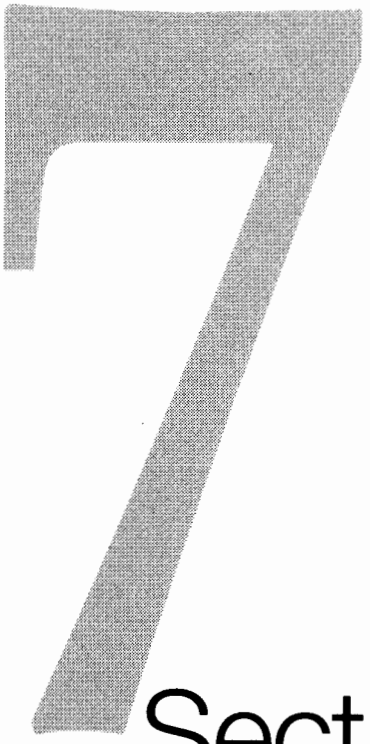
## Table 6-2
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Metals and pH Analytical Summary

| Well Number | Sample Date | Sample Type | pH | Cadmium (0.005) | Chromium (0.05) | Cr (+6) | Copper (1.3) |
|---|---|---|---|---|---|---|---|
| MW-16 | 07/26/2002 | | 7 | 0.005 U | 0.01 U | 0.001 U | 0.025 U |
| | 10/24/2002 | | 6.9 | 0.005 U | 0.01 U | 0.0051 | 0.025 U |

***Notes:***
California Maximum Contaminant Levels (MCLs) are shown in parenthesis. Secondary MCL is shown for copper.

All concentrations are reported in milligrams per liter (mg/L).
Metals analyzed by EPA Method 6010B, except for Cr (+6), which was analyzed by EPA Method 7199.
pH analyzed by EPA Method 9040B.
U = Not detected at a concentration greater than the reporting limit shown
Analyte not analyzed or not reported if left blank.

Sample Type:
K = Split sample



# Section Seven

# Section 7
# Statistical Evaluation

The following subsections contain a statistical treatment of the monitoring data designed to determine if on-site wells have been impacted by metals, BTEX compounds (benzene, toluene, ethylbenzene, xylenes) or TCE (trichloroethene). The statistical evaluation was performed using the Compliance and Remediation Statistics (CARStat) software. A detailed explanation of the software and statistical methods used is presented in Gibbons (1994). The statistical methods used are in compliance with applicable California Code of Regulations (Title 22, Division 4.5, Chapter 14, Article 6, Section 66264.97 [General Water Quality Monitoring and System Requirements]).

## 7.1 Determination of Background Prediction Interval

### Overview

The prediction interval is a method that is typically used in compliance monitoring to compare on-site or downgradient monitoring well analytical data to upgradient or background monitoring well data. The prediction interval represents the range for which the next measurement will be contained at a specified confidence level. For instance, an upper prediction limit (UPL) with 95 percent coverage and a 95 percent confidence level represents a value which, with 95 percent confidence, any new measurement in the background well will be exceeded less than 5 percent of the time.

For this evaluation, CDM has calculated UPLs for the background well (MW-1S) and compared this value to each individual on-site analytical result using a confidence level and coverage of 95 percent. When on-site wells exceed the background UPL consistently, it suggests that a significant difference from background may exist.

### Results

The statistical evaluation results are presented in Appendix F. Appendix F-1 includes all of the tabular data output from the CARStat evaluation. Table 1 lists the background data from monitoring well MW-1S that were used to calculate the UPLs. Table 2 lists the current on-site data (from the October 2002 monitoring event). The frequencies of detection for each parameter in the background well and onsite wells is provided in Table 3. Table 4 lists the background well distribution results, based on the Shapiro-Wilk test for normality. In all cases except for TCE, the low detection frequencies required the use of the nonparametric prediction limit (a normal prediction limit was used for TCE). Table 5 presents background well summary statistics, including the prediction limit and associated confidence level. A UPL calculation sheet for each compound is presented in Appendix F-2.

## 7.2 Comparison of Background and On-site Wells

### Overview

The on-site monitoring well data were compared to the UPL for each compound. All historical and current on-site analytical data are compared to the background UPL in verification resampling mode. Verification resampling means that a compound fails the test if an on-site monitoring well's UPL exceeds background for 2 consecutive monitoring events. Constituent-location combinations that failed the current statistical evaluation or need to be verified are highlighted by the statistical program.

### Results

The results of the UPL tests are included in Appendixes F-1 through F-3. Table 6 inAppendix F-1 lists the constituent-location combinations that failed the current evaluation. Appendix F-3 shows concentration versus time charts for each constituent and on-site well location. All data are shown on the concentration versus time charts and the exceedances are flagged on the individual charts.

A summary of the statistical evaluation is presented in Table 7-1. Exceedances were observed for MW-3 (ethylbenzene, total xlyenes, and TCE), MW-4 (hexavalent chromium, total chromium, cadmium, ethylbenzene, total xlyenes, and TCE), MW-9 (hexavalent chromium, total chromium, and TCE), MW-11 (ethylbenzene and TCE), MW-14S (hexavalent chromium, total chromium, cadmium, ethylbenzene, and TCE), MW-15D (benzene and total xylenes), and MW-16 (TCE). These results are very similar to those presented in previous monitoring reports, even though a different statistical evaluation was used. However, unlike previous statistical evaluations, only those compounds actually detected above the prediction limits were identified as an exceedance. The compounds with detection limits (for non-detects) that were higher than the background UPL were not flagged as an exceedance.

## Table 7-1 Comparison of Background and On-Site Wells Quarterly Data: January 1989 to October 2002 at Phibro-Tech, Inc.

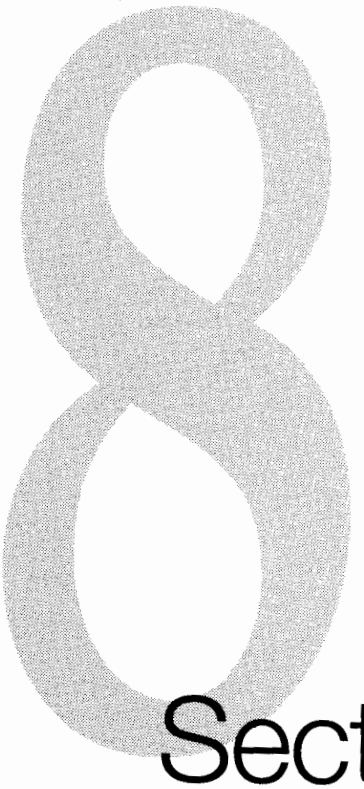
| Parameter | MW-1D | MW-3 | MW-4 | MW-4A | MW-6B | MW-7 | MW-9 | MW-11 | MW-14S | MW-15S | MW-15D | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Metals (mg/L)** | | | | | | | | | | | | |
| Hexavalent chromium [1] | | | * | | | | * | | * | | | |
| Total chromium [1] | | | * | | | | * | | * | | | |
| Cadmium [1] | | | * | | | | | | * | | | |
| Copper [1] | | | | | | | | | | | | |
| **Aromatics (µg/L)** | | | | | | | | | | | | |
| Benzene [1] | | | | | | | | | | | * | |
| Toluene [1] | | | | | | | | | | | | |
| Ethylbenzene [1] | | * | * | | | | | * | * | | * | |
| Total xylenes [1] | | * | * | | | | | | | | | |
| **Halocarbons (µg/L)** | | | | | | | | | | | | |
| Trichloroethene [2] | | * | * | * | | | * | * | * | | | * |

[1] Background to onsite using nonparametric prediction limit

[2] Background to onsite comparison using the normal prediction limit

* Significantly increased over background

No exceedance observed



# Section Eight

# Section 8
# Assessment of Quarterly Groundwater Monitoring Program Status

In the October 1990 groundwater monitoring report, changes in the quarterly groundwater-sampling program were proposed. These changes were first implemented during the April 1991 sampling event and included reducing the number of wells sampled and parameters analyzed in each well. The current groundwater-sampling program will only be used as an interim program, until the Site conceptual model has been completed and the drat sampling and analysis plan finalized). Based on over 17 years of quarterly monitoring at the site, off-site migration of the soluble metals plume has not been observed.

The analytical parameters for the October 2002 quarterly monitoring were as follows:

| Wells | Volatile Organic Compounds (EPA 8260) | Chromium, Cadmium, Copper | Hexavalent Chromium | pH | Appendix IX |
|---|---|---|---|---|---|
| MW-01S, MW-01D | X, X | X, X | X, X | X, X | -,- |
| MW-03, MW-04A | X, X | X, X | X, X | X, X | -,- |
| MW-11, MW-06B | X, X | X, X | X, X | X, X | X,- |
| MW-06D, MW-07 | X, X | X, X | X, X | X, X | -,X |
| MW-09, MW-04 | X, X | X, X | X, X | X, X | -,X |
| MW-14S, MW-15S | X, X | X, X | X, X | X, X | X,- |
| MW-15D, MW-16 | X, X | X, X | X, X | X, X | -,- |

Beginning with the January 1997 sampling event, EPA Method 8010/8020 was replaced with EPA Method 8260. This change was requested by the analytical laboratory, which no longer performs 8010/8020 analysis. Methyl tertiary butyl ether (MTBE) analysis was performed once, in January 1997. Since there were no detections of MTBE in any of the groundwater samples, this analysis was discontinued. Starting with the October 2000 sampling event, the analytical method for hexavalent chromium was changed from EPA Method 7196 to 7199. DTSC requested that six selected wells be analyzed for 1,4-Dioxane in July 2001 and October 2001. After these two events, 1,4-Dioxane analysis was discontinued. In late 2002, DTSC requested that samples from the Pond 1 wells (MW-04, MW-07, MW-11, and MW-14S), be analyzed for a full Appendix IX suite annually. This request was implemented on December 30, 2002, with results presented starting with the October 2002 report submitted February 28, 2003.

Statistical analysis was historically conducted annually. Beginning with the October 1993 sampling event, statistical analysis has been performed on a quarterly basis, as requested by DTSC.

During 2000, three sampling events were performed (January, April and October). Sampling and reporting frequency was changed from quarterly to semi-annual after the April 2000 sampling event. However, quarterly groundwater monitoring resumed in April 2001 at the request of DTSC. The next quarterly event will occur in January 2003. During the next event, 14 on-site wells will be sampled and analyzed for volatile organics using EPA Method 8260, chromium, cadmium, copper, hexavalent chromium, and pH. The water levels at the 14 wells sampled, in addition to the remaining unsampled wells (with the exception of MW-02), will also be measured.

# 9 Section Nine

# Section 9
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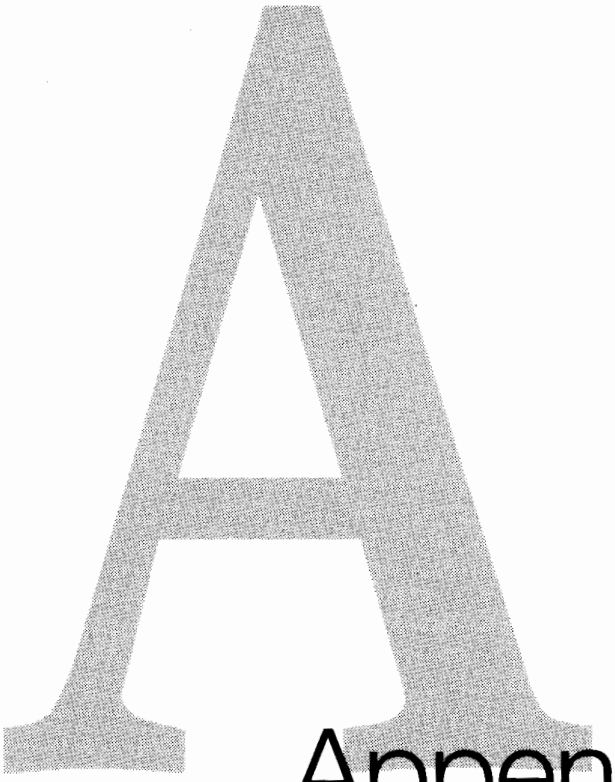

# Appendix A

# Appendix A
# General Analytical Detection Limits

TABLE A-1

PHIBRO-TECH, INC.

HEAVY METALS AND INORGANICS ANALYSIS

Typical Detection Limits

| Method | Parameter | Detection Limit | Units |
|---|---|---|---|
| EPA 6010-L | Antimony | 0.06 | mg/L |
| EPA 6010-L | Barium | 0.01 | mg/L |
| EPA 6010-L | Beryllium | 0.002 | mg/L |
| EPA 6010-L | Cadmium | 0.005 | mg/L |
| EPA 6010-L | Chromium | 0.01 | mg/L |
| EPA 6010-L | Cobalt | 0.01 | mg/L |
| EPA 6010-L | Copper | 0.02 | mg/L |
| EPA 6010-L | Lead | 0.05 | mg/L |
| EPA 6010-L | Molybdenum | 0.02 | mg/L |
| EPA 6010-L | Nickel | 0.04 | mg/L |
| EPA 6010-L | Silver | 0.01 | mg/L |
| EPA 6010-L | Thallium | 0.5 | mg/L |
| EPA 6010-L | Tin | 0.1 | mg/L |
| EPA 6010-L | Vanadium | 0.01 | mg/L |
| EPA 6010-L | Zinc | 0.02 | mg/L |
| EPA 7199 | Chromium, Hexavalent | 0.001 | mg/L |
| EPA 7061-L | Arsenic | 0.005 | mg/L |
| EPA 9012 | Cyanide, Total | 0.01 | mg/L |
| EPA 7470 | Mercury | 0.001 | mg/L |
| EPA 300.0 | Chloride | 5 | mg/L |
| EPA 300.0 | Nitrate | 0.2 | mg/L |
| EPA 7741-L | Selenium | 0.1 | mg/L |
| EPA 376.2 | Sulfide, as Sulfur | 1.2 | mg/L |

TABLE A-2

PHIBRO-TECH, INC.

VOLATILE ORGANIC COMPOUNDS

Typical Detection Limits

| Method Number | Analytical Parameter | Detection Limit | Units |
|---|---|---|---|
| EPA 8260 | Benzene | 0.5 | µg/L |
| EPA 8260 | Toluene | 1.0 | µg/L |
| EPA 8260 | Ethylbenzene | 1.0 | µg/L |
| EPA 8260 | Xylenes, Total | 1.0 | µg/L |
| | | | |
| EPA 8260 | Chloromethane | 1.0 | µg/L |
| EPA 8260 | Bromomethane | 1.0 | µg/L |
| EPA 8260 | Vinyl Chloride | 1.0 | µg/L |
| EPA 8260 | Chloroethane | 1.0 | µg/L |
| EPA 8260 | Methylene Chloride | 1.0 | µg/L |
| EPA 8260 | Trichlorofluoromethane | 1.0 | µg/L |
| EPA 8260 | 1,1-Dichloroethene | 1.0 | µg/L |
| EPA 8260 | 1,1-Dichloroethane | 1.0 | µg/L |
| EPA 8260 | trans-1,2-Dichloroethene | 1.0 | µg/L |
| EPA 8260 | Chloroform | 1.0 | µg/L |
| EPA 8260 | 1,2-Dichloroethane | 1.0 | µg/L |
| EPA 8260 | 1,1,1-Trichloroethane | 1.0 | µg/L |
| EPA 8260 | Carbon Tetrachloride | 1.0 | µg/L |
| EPA 8260 | Bromodichloromethane | 1.0 | µg/L |
| EPA 8260 | 1,2-Dichloropropane | 1.0 | µg/L |
| EPA 8260 | trans-1,3-Dichloropropene | 1.0 | µg/L |
| EPA 8260 | Trichloroethene | 1.0 | µg/L |
| EPA 8260 | Dibromochloromethane | 1.0 | µg/L |
| EPA 8260 | 1,1,2-Trichloroethane | 1.0 | µg/L |
| EPA 8260 | cis-1,3-Dichloropropene | 1.0 | µg/L |
| EPA 8260 | 2-Chloroethylvinyl ether | 1.0 | µg/L |
| EPA 8260 | Bromoform | 1.0 | µg/L |
| EPA 8260 | Tetrachloroethene | 1.0 | µg/L |
| EPA 8260 | 1,1,2,2-Tetrachloroethane | 1.0 | µg/L |
| EPA 8260 | Chlorobenzene | 1.0 | µg/L |
| EPA 8260 | 1,2-Dichlorobenzene | 1.0 | µg/L |
| EPA 8260 | 1,3-Dichlorobenzene | 1.0 | µg/L |
| EPA 8260 | 1,4-Dichlorobenzene | 1.0 | µg/L |

**TABLE A-3**

**PHIBRO-TECH, INC.**

**Appendix IX Parameters**

**Typical Detection Limits**

| Analytical Parameter | Detection Limit | Units |
|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | 0.01 | mg/L |
| 1,2,4-TRICHLOROBENZENE | 0.01 | mg/L |
| 1,2-DICHLOROBENZENE | 0.01 | mg/L |
| 1,3,5-Trinitrobenzene | 0.01 | mg/L |
| 1,3-DICHLOROBENZENE | 0.01 | mg/L |
| 1,3-Dinitrobenzene | 0.02 | mg/L |
| 1,4-DICHLOROBENZENE | 0.01 | mg/L |
| 1,4-Naphthoquinone | 0.02 | mg/L |
| 1,4-Phenylenediamine | 0.05 | mg/L |
| 1-Naphthylamine | 0.01 | mg/L |
| 2,3,4,6-Tetrachlorophenol | 0.01 | mg/L |
| 2,4,5-TRICHLOROPHENOL | 0.01 | mg/L |
| 2,4,6-TRICHLOROPHENOL | 0.01 | mg/L |
| 2,4-DICHLOROPHENOL | 0.01 | mg/L |
| 2,4-DIMETHYLPHENOL | 0.01 | mg/L |
| 2,4-DINITROPHENOL | 0.05 | mg/L |
| 2,4-DINITROTOLUENE | 0.01 | mg/L |
| 2,6-Dichlorophenol | 0.01 | mg/L |
| 2,6-DINITROTOLUENE | 0.01 | mg/L |
| 2-Acetylaminofluorene | 0.02 | mg/L |
| 2-CHLORONAPHTHALENE | 0.01 | mg/L |
| 2-CHLOROPHENOL | 0.01 | mg/L |
| 2-METHYLNAPHTHALENE | 0.01 | mg/L |
| 2-METHYLPHENOL | 0.01 | mg/L |
| 2-Naphthylamine | 0.01 | mg/L |
| 2-NITROANILINE | 0.05 | mg/L |
| 2-NITROPHENOL | 0.01 | mg/L |
| 2-Picoline | 0.01 | mg/L |
| 3,3´-Dichlorobenzidine | 0.02 | mg/L |
| 3,3´-Dimethylbenzidine | 0.01 | mg/L |
| 3-Methylcholanthrene | 0.01 | mg/L |
| 3-Methylphenol | 0.01 | mg/L |
| 3-NITROANILINE | 0.05 | mg/L |
| 4,4'-DDD | 0.0001 | mg/L |

| Analytical Parameter | Detection Limit | Units |
|---|---|---|
| 4,4'-DDE | 0.0001 | mg/L |
| 4,4'-DDT | 0.0001 | mg/L |
| 4,6-DINITRO-2-METHYLPHENOL | 0.05 | mg/L |
| 4-Aminobiphenyl | 0.02 | mg/L |
| 4-BROMOPHENYL-PHENYL ETHER | 0.01 | mg/L |
| 4-CHLORO-3-METHYLPHENOL | 0.02 | mg/L |
| 4-CHLOROANILINE | 0.02 | mg/L |
| 4-CHLOROPHENYL-PHENYL ETHER | 0.01 | mg/L |
| 4-METHYLPHENOL | 0.01 | mg/L |
| 4-NITROANILINE | 0.05 | mg/L |
| 4-NITROPHENOL | 0.05 | mg/L |
| 4-Nitroquinoline-n-oxide | 0.05 | mg/L |
| 5-Nitro-o-toluidine | 0.01 | mg/L |
| 7,12-Dimethylbenz (a) anthrace | 0.01 | mg/L |
| a,a-Dimethylphenethylamine | 0.01 | mg/L |
| ACENAPHTHENE | 0.01 | mg/L |
| ACENAPHTHYLENE | 0.01 | mg/L |
| Acetophenone | 0.01 | mg/L |
| ALDRIN | 0.0001 | mg/L |
| ALPHA-BHC | 0.0001 | mg/L |
| ANILINE | 0.01 | mg/L |
| ANTHRACENE | 0.01 | mg/L |
| Aramite | 0.2 | mg/L |
| BENZO (B & K) FLOURANTHENES | 0.01 | mg/L |
| BENZO(A)ANTHRACENE | 0.01 | mg/L |
| BENZO(A)PYRENE | 0.01 | mg/L |
| BENZO(G,H,I)PERYLENE | 0.01 | mg/L |
| BENZYL ALCOHOL (PHENYLMETHANOL) | 0.02 | mg/L |
| BERYLLIUM | 0.004 | mg/L |
| BETA-BHC | 0.0001 | mg/L |
| BIS(2-CHLOROETHOXY)METHANE | 0.01 | mg/L |
| BIS(2-CHLOROETHYL)ETHER | 0.01 | mg/L |
| BIS(2-CHLOROISOPROPYL)ETHER | 0.01 | mg/L |
| BUTYL BENZYL PHTHALATE | 0.01 | mg/L |
| CHLORDANE | 0.001 | mg/L |
| CHLOROBENZILATE | 0.01 | mg/L |
| CHRYSENE | 0.01 | mg/L |
| COBALT | 0.01 | mg/L |

| Analytical Parameter | Detection Limit | Units |
|---|---|---|
| CYANIDE, TOTAL | 0.025 | mg/L |
| DELTA-BHC | 0.0002 | mg/L |
| Diallate (cis or trans) | 0.01 | mg/L |
| DIBENZO(A,H)ANTHRACENE | 0.01 | mg/L |
| DIBENZOFURAN (DIPHENYLENE OXIDE) | 0.01 | mg/L |
| DIELDRIN | 0.0001 | mg/L |
| DIETHYL PHTHALATE | 0.01 | mg/L |
| DIMETHOATE | 0.02 | mg/L |
| DIMETHOATE (CYGON) | 0.02 | mg/L |
| DIMETHYL PHTHALATE | 0.01 | mg/L |
| Dimethylaminoazobenzene | 0.01 | mg/L |
| DI-N-BUTYL PHTHALATE | 0.01 | mg/L |
| DI-N-OCTYL PHTHALATE | 0.01 | mg/L |
| Diphenylamine | 0.01 | mg/L |
| ENDOSULFAN I | 0.0001 | mg/L |
| ENDOSULFAN II | 0.0001 | mg/L |
| ENDOSULFAN SULFATE | 0.0002 | mg/L |
| ENDRIN | 0.0001 | mg/L |
| ENDRIN ALDEHYDE | 0.0001 | mg/L |
| ENDRINE KETONE | 0.0001 | mg/L |
| ETHYL METHACRYLATE | 0.01 | mg/L |
| Ethyl methanesulfonate | 0.02 | mg/L |
| Famphur | 0.2 | mg/L |
| FLUORANTHENE | 0.01 | mg/L |
| FLUORENE (ALPHA-DIPHENYLENEMETHANE) | 0.01 | mg/L |
| GAMMA-BHC (LINDANE) | 0.0001 | mg/L |
| HEPTACHLOR | 0.0001 | mg/L |
| HEPTACHLOR EPOXIDE | 0.0001 | mg/L |
| HEXACHLOROBENZENE | 0.01 | mg/L |
| HEXACHLOROBUTADIENE | 0.01 | mg/L |
| HEXACHLOROCYCLOPENTADIENE | 0.01 | mg/L |
| HEXACHLOROETHANE (PERCHLOROETHANE) | 0.01 | mg/L |
| Hexachlorophene | 0.2 | mg/L |
| Hexachloropropene | 0.01 | mg/L |
| Indeno (1,2,3-cd) pyrene | 0.01 | mg/L |
| Isodrin | 0.02 | mg/L |
| ISOPHORONE | 0.01 | mg/L |
| Isosafrole | 0.01 | mg/L |

| Analytical Parameter | Detection Limit | Units |
|---|---|---|
| KEPONE | 0.2 | mg/L |
| LEAD | 0.005 | mg/L |
| MERCURY | 0.0002 | mg/L |
| Methapyrilene | 0.1 | mg/L |
| METHOXYCHLOR | 0.0001 | mg/L |
| Methyl methanesulfonate | 0.01 | mg/L |
| MOLYBDENUM | 0.02 | mg/L |
| NAPHTHALENE | 0.01 | mg/L |
| NICKEL | 0.01 | mg/L |
| NITROBENZENE | 0.01 | mg/L |
| N-NITROSODIMETHYLAMINE | 0.02 | mg/L |
| N-Nitrosodi-n-butylamine | 0.01 | mg/L |
| N-NITROSO-DI-N-PROPYLAMINE | 0.01 | mg/L |
| N-NITROSODIPHENYLAMINE | 0.01 | mg/L |
| N-Nitrosomethylethylamine | 0.01 | mg/L |
| N-Nitrosomorpholine | 0.01 | mg/L |
| N-Nitrosopiperidine | 0.02 | mg/L |
| N-Nitrosopyrrolidine | 0.04 | mg/L |
| O,O,O-Triethyl phosphorothioat | 0.01 | mg/L |
| o-Toluidine | 0.01 | mg/L |
| PCB-1016 (AROCLOR 1016) | 0.001 | mg/L |
| PCB-1221 (AROCLOR 1221) | 0.001 | mg/L |
| PCB-1232 (AROCLOR 1232) | 0.001 | mg/L |
| PCB-1242 (AROCLOR 1242) | 0.001 | mg/L |
| PCB-1248 (AROCLOR 1248) | 0.001 | mg/L |
| PCB-1254 (AROCLOR 1254) | 0.001 | mg/L |
| PCB-1260 (AROCLOR 1260) | 0.001 | mg/L |
| PENTACHLOROBENZENE | 0.01 | mg/L |
| Pentachloroethane | 0.01 | mg/L |
| PENTACHLORONITROBENZENE | 0.02 | mg/L |
| PENTACHLOROPHENOL (PCP) | 0.05 | mg/L |
| Phenacetin | 0.02 | mg/L |
| PHENANTHRENE | 0.01 | mg/L |
| PHENOL | 0.01 | mg/L |
| Pronamide | 0.01 | mg/L |
| PYRENE | 0.01 | mg/L |
| Pyridine | 0.01 | mg/L |
| Safrole | 0.01 | mg/L |

| Analytical Parameter | Detection Limit | Units |
|---|---|---|
| SELENIUM | 0.005 | mg/L |
| SILVER | 0.01 | mg/L |
| THALLIUM | 0.005 | mg/L |
| THIONAZIN | 0.02 | mg/L |
| TOXAPHENE | 0.005 | mg/L |
| VANADIUM | 0.01 | mg/L |
| Parathion-methyl | 0.00047 | mg/L |
| PCB-1016 (AROCLOR 1016) | 0.001 | mg/L |
| PCB-1221 (AROCLOR 1221) | 0.001 | mg/L |
| PCB-1232 (AROCLOR 1232) | 0.001 | mg/L |
| PCB-1242 (AROCLOR 1242) | 0.001 | mg/L |
| PCB-1248 (AROCLOR 1248) | 0.001 | mg/L |
| PCB-1254 (AROCLOR 1254) | 0.001 | mg/L |
| PCB-1260 (AROCLOR 1260) | 0.001 | mg/L |
| PENTACHLOROBENZENE | 0.01 | mg/L |
| Pentachloroethane | 0.01 | mg/L |
| PENTACHLORONITROBENZENE | 0.02 | mg/L |
| PENTACHLOROPHENOL (PCP) | 0.05 | mg/L |
| Phenacetin | 0.02 | mg/L |
| PHENANTHRENE | 0.01 | mg/L |
| PHENOL | 0.01 | mg/L |
| PHORATE | 0.00047 | mg/L |
| Pronamide | 0.01 | mg/L |
| PYRENE | 0.01 | mg/L |
| Pyridine | 0.01 | mg/L |
| RONNEL | 0.00047 | mg/L |
| Safrole | 0.01 | mg/L |
| SELENIUM | 0.005 | mg/L |
| SILVER | 0.01 | mg/L |
| Stirophos | 0.00094 | mg/L |
| Sulfotep | 0.00047 | mg/L |
| THALLIUM | 0.005 | mg/L |
| THIONAZIN | 0.00047 | mg/L |
| Tokuthion (Prothiofos) | 0.00047 | mg/L |
| TOXAPHENE | 0.005 | mg/L |
| Trichloronate | 0.00047 | mg/L |

# Appendix B

# Appendix B
# Historical Sampling Results

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 1S | | | | | | | | | | |
| Jan-89 | 96.74 | ND < 0.01 | 0.014 | ND < 0.003 | ND < 0.009 | ND < 0.01 | ND < 0.0 | ND < 0.0 | ND < 0.0 | 19 |
| Apr-89 | 100.45 | ND < 0.05 | 0.1 | ND < 0.01 | ND < 0.02 | ND < 0.7 | ND < 1.0 | ND < 1.0 | 3.0 | 23 |
| Jul-89 | 99.00 | ND < 0.05 | 0.06 | 0.01 | 0.03 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 13 |
| Oct-89 | 96.76 | ND < 0.05 | ND < 0.02 | ND < 0.01 | ND < 0.05 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 12 |
| Jan-90 | 97.73 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 1.0 | 16 |
| Apr-90 | 99.30 | ND < 0.02 | 0.02 | ND < 0.0050 | 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 20 |
| Jul-90 | 100.83 | ND < 0.02 | ND < 0.01 | ND < 0.01 | 0.03 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 1.0 | 18 |
| Oct-90 | 99.81 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | 0.023 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 18 |
| Jan-91 | 99.19 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 26 |
| Apr-91 | 101.95 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 22 |
| Jul-91 | 102.94 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 17 |
| Oct-91 | 102.33 | ND < 0.02 | 0.01 | ND < 0.0050 | 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 14 |
| Jan-92 | 104.60 | 0.10 | 0.0081 | ND < 0.0027 | 0.04 | ND < 1 | 1.5 | 1.2 | 4.3 | 13 |
| Apr-92 | 107.28 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | 9.9 |
| Jul-92 | 107.87 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 10 |
| Oct-92 | 105.53 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | 0.035 | 0.95 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 11 |
| Jan-93 | 109.82 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | 2.2 | 1.3 | 5.6 | 9.2 |
| Apr-93 | 116.01 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 5.7 |
| Jul-93 | 116.59 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | 1.7 | 1.7 | 4.0 | 11 |
| Oct-93 | 116.50 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.2 | 4.3 | 14 |
| Jan-94 | 116.60 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 9.3 |
| Apr-94 | 117.10 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 14 |
| Jul-94 | 117.80 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 7.9 |
| Oct-94 | 112.23 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 5.8 | 13 |
| Jan-95 | 113.59 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 5.2 |
| Apr-95 | 118.78 | ND < 0.02 | 0.0029 | ND < 0.01 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.3 | 1.0 | 4.4 |
| Jul-95 | 120.06 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | 1.2 | 3.5 | 6.1 | 6.2 |
| Oct-95 | 116.48 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.7 | 3.9 | 15 |
| Jan-96 | 114.84 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.7 | 5.1 | 8.4 |
| Apr-96 | 118.03 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 3.4 | 4.9 | 2.9 |
| Jul-96 | 117.42 | ND < 0.01 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.2 | 3.7 | 9.7 |
| Oct-96 | 113.85 | ND < 0.01 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.1 | 2.8 | 16 |
| Jan-97 | 115.73 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | 0.022 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 2.0 | 6.0 |
| Apr-97 | 118.21 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.4 | 1.2 | 15 |
| Jul-97 | 118.18 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 14 |
| Oct-97 | 114.82 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | 0.023 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 12 |
| Jan-98 | 113.23 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 12 |
| Apr-98 | 118.16 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | 0.021 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 14 |
| Jul-98 | 119.12 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 14 |
| Oct-98 | 116.57 | ND < 0.02 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 7.8 |
| Jan-99 | 113.94 | ND < 0.01 | ND < 0.01 | ND < 0.0050 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.0 | ND < 1.0 | 10 |
| Apr-99 | 114.01 | ND < 0.025 | ND < 0.01 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 2.0 | 7.2 |
| Jul-99 | 113.62 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | 0.052 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 9.1 |
| Oct-99 | 106.70 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 2.0 | 9.1 |
| Jan-00 | 102.73 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 9.9 |
| Apr-00 | 108.83 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 16 |
| Oct-00 | 109.09 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 8.9 |
| Apr-01 | 101.55 | ND < 0.0020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 13 |

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 3 | | | | | | | | | | |
| Jan-89 | 95.02 | ND < 0.01 | 0.014 | 0.003 | ND < 0.009 | 7.4 | 17.0 | 4900.0 | 1500.0 | 74 |
| Apr-89 | 99.29 | ND < 0.5 | 0.07 | ND < 0.01 | ND < 0.02 | ND < 50 | ND < 50.0 | 1200.0 | 60.0 | 110 |
| Jul-89 | 98.21 | ND < 0.5 | 0.06 | ND < 0.01 | ND < 0.02 | ND < 7 | ND < 10.0 | ND < 10.0 | ND < 10.0 | 120 |
| Oct-89 | 94.75 | ND < 0.5 | ND < 0.02 | ND < 0.01 | ND < 0.05 | ND < 50 | ND < 100.0 | 1600.0 | 150.0 | ND < 100 |
| Jan-90 | 95.98 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 5 | ND < 5.0 | 110.0 | ND < 10.0 | 65 |
| Apr-90 | 97.72 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | ND < 50.0 | 2100.0 | 720.0 | 74 |
| Jul-90 | 99.27 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 5 | ND < 5.0 | ND < 5.0 | ND < 10.0 | 130 |
| Oct-90 | 97.29 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 9 | 2.0 | ND < 1.0 | ND < 1.0 | 130 |
| Jan-91 | 97.69 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 38 |
| Apr-91 | 99.81 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 27 |
| Jul-91 | 101.63 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 28 |
| Oct-91 | 100.99 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.03 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 71 |
| Jan-92 | 103.44 | ND < 0.5 | 0.0081 | ND < 0.0027 | 0.02 | ND < 1 | ND < 1.0 | ND < 1.0 | 4.0 | 76 |
| Apr-92 | 106.04 | ND < 0.02 | ND < 0.02 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 5.0 | 25 |
| Jul-92 | 106.61 | ND < 0.02 | ND < 0.02 | ND < 0.005 | 0.13 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 76 |
| Oct-92 | 103.93 | ND < 0.02 | ND < 0.02 | ND < 0.005 | 0.038 | 0.52 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 130 |
| Jan-93 | 107.28 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.096 | ND < 2.5 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 84 |
| Apr-93 | 115.17 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 12 |
| Jul-93 | 115.92 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 3.3 | 2.6 | 5.9 | 16 |
| Oct-93 | 115.67 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.6 | 4.8 | 17 |
| Jan-94 | 115.59 | ND<0.02/0.4** | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 10 |
| Apr-94 | 116.33 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 15 |
| Jul-94 | 116.91 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 26 |
| Oct-94 | 110.85 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 1.2 | 3.5 | 1.5 | 12.0 | 76 |
| Jan-95 | 111.83 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 72 |
| Apr-95 | 117.83 | ND < 0.02 | 0.0023 | ND < 0.001 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.3 | ND < 1.0 | 57 |
| Jul-95 | 119.20 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 2.0 | 5.2 | 8.8 | 9.5 |
| Oct-95 | 115.45 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.7 | 3.3 | 30 |
| Jan-96 | 113.41 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 5.1 | 26 |
| Apr-96 | 116.73 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.6 | 3.6 | 46 |
| Jul-96 | 116.33 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.8 | 9.0 | 12.0 | 17 |
| Oct-96 | 112.45 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 5.4 | 6.2 | 21 |
| Jan-97 | 114.19 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 2.6 | 1.1 | 4.2 | 28 |
| Apr-97 | 117.13 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 4.3 | 2.1 | 3.0 | 13 |
| Jul-97 | 117.18 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.5 | 3.7 | 13 |
| Oct-97 | 113.60 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 0.57 | ND < 1.0 | 1.7 | 1.2 | 24 |
| Jan-98 | 111.68 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.3 | ND < 1.0 | 25 |
| Apr-98 | 116.82 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 18 |
| Jul-98 | 118.02 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 25 |
| Oct-98 | 115.40 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 24 |
| Jan-99 | 112.48 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.3 | ND < 1.0 | 26 |
| Apr-99 | 112.49 | ND < 0.025 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 1.1 | ND < 2.0 | 21 |
| Jul-99 | 112.31 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 1.3 | ND < 1.0 | 43 |
| Oct-99 | 104.42 | ND < 0.010 | 0.017 | ND < 0.0050 | ND < 0.025 | ND < 5.0 | ND < 5.0 | 200 | ND < 10 | 150 |
| Jan-00 | 100.50 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 2.5 | ND < 2.5 | 54 | 70 | 170 |
| Apr-00 | 107.20 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 2.5 | ND < 2.5 | 65 | 2.5 | 170 |
| Oct-00 | 107.46 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 2 | ND < 1.0 | 43 |
| Apr-01 | 99.55 | 0.0007 | 0.017 | ND < 0.0050 | ND < 0.025 | ND <2.0 | ND < 2.0 | 12 | 3.1 | 150 |

** Hexavalent chromium sample or result for MW03 likely switched with MW30 (duplicate of MW04).

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 4 | | | | | | | | | | |
| Jan-89 | 95.21 | 33.0 | 400.0 | 0.028 | ND < 0.009 | ND < 0.5 | 10.0 | 15.0 | 29.0 | 120 |
| Apr-89 | 99.19 | 43.0 | 100.0 | 0.05 | 0.02 | ND < 5 | 23.0 | 15.0 | 50.0 | 280 |
| Jul-89 | 98.19 | 120.0 | 98.0 | 0.08 | 0.06 | ND < 14 | ND < 20.0 | 140.0 | 40.0 | 290 |
| Oct-89 | 94.92 | 110.0 | 120.0 | 0.07 | ND < 0.05 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 250 |
| Jan-90 | 95.87 | 109.0 | 95.1 | 0.12 | ND < 0.02 | ND < 12 | ND < 12.0 | ND < 12.0 | ND < 25.0 | 220 |
| Apr-90 | 97.50 | 81.7 | 80.7 | 0.13 | 0.02 | ND < 10 | ND < 10.0 | ND < 10.0 | ND < 20.0 | 280 |
| Jul-90 | 99.20 | 100.0 | 101.0 | 0.35 | ND < 0.02 | ND < 50 | ND < 50.0 | 1600.0 | 170.0 | 320 |
| Oct-90 | 98.33 | 58.9 | 48.4 | 0.23 | 0.022 | ND < 0.5 | 17.0 | 230.0 | 650.0 | 250 |
| Jan-91 | 97.68 | 49.4 | 65.3 | 0.26 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 1200.0 | 180 |
| Apr-91 | 100.50 | 23.8 | 18.4 | 0.076 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 730.0 | ND < 1.0 | 170 |
| Jul-91 | 101.47 | 39.1 | 78.5 | 0.61 | ND < 0.02 | ND < 0.5 | 16000.0 | 6700.0 | 18000 | 190 |
| Oct-91 | 100.91 | 42.0 | 40.8 | 0.21 | ND < 0.01 | ND < 0.5 | 6900.0 | 4100.0 | 10000 | ND < 400 |
| Jan-92 | 103.33 | 41.0 | 34.0 | 0.47 | 0.045 | ND < 250 | 18,000 | 10,000 | 17,200 | ND < 250 |
| Apr-92 | 105.94 | 32.2 | 29.2 | 0.84 | 0.053 | 6.7 | 7.2 | 960.0 | 1010.0 | 280 |
| Jul-92 | 106.5 | 79.9 | 59.7 | 0.86 | ND < 0.02 | ND < 5 | ND < 10.0 | 200.0 | 280.0 | 280 |
| Oct-92 | 103.92 | 21.6 | 27.1 | 0.32 | ND < 0.02 | 71 | ND < 10.0 | 1300.0 | 230.0 | 230 |
| Jan-93 | 107.13 | 16.4 | 27.4 | 0.28 | ND < 0.02 | ND < 130 | 10000.0 | 10000 | 19000 | ND < 250 |
| Apr-93 | 115 | 1.8 | 2.2 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 88.0 | 13.0 | 25 |
| Jul-93 | 115.52 | 21.0 | 23.2 | 0.2 | 0.056 | 0.6 | 2.0 | 1.8 | 11.0 | 100 |
| Oct-93 | 115.76 | * 35.5/99.2 | 80.3 | 0.71 | ND < 0.2 | 1.3 | ND < 1.0 | ND < 1.0 | 40.0 | 290 |
| Jan-94 | 115.42 | 0.36 | 36.0 | 0.23 | ND < 0.02 | 0.81 | ND < 1.0 | 8.3 | 14.0 | 130 |
| Apr-94 | 116.20 | 26.9 | 26.4 | 0.33 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 4.0 | 6.5 | 190 |
| Jul-94 | 116.76 | 59.0 | 41.4 | 0.20 | 0.038 | 0.58 | ND < 1.0 | ND < 1.0 | 4.2 | 340 |
| Oct-94 | 110.86 | 60.7 | 52.8 | 0.45 | ND < 0.02 | ND < 5 | ND < 10.0 | 270.0 | 39.0 | 390 |
| Jan-95 | 111.88 | 28.8 | 34.3 | 0.13 | 0.026 | ND < 5 | ND < 10.0 | 350.0 | 130.0 | 190 |
| Apr-95 | 117.69 | 8.6 | 9.1 | 0.21 | 0.052 | ND < 100 | 1600.0 | 1700.0 | 2900.0 | 67 |
| Jul-95 | 119.05 | * 28.1/20.8 | 29.6 | 0.27 | *.10/ND < 0.02 | ND < 10 | * 270/410 | * 260/380 | * 890/1300 | 90 |
| Oct-95 | 115.35 | **30.8 | 28.9 | 0.38 | ND < 0.02 | ND < 2.5 | ND < 5.0 | 75.0 | 21.0 | 150 |
| Jan-96 | 113.37 | 25.7 | 32.4 | 0.19 | ND < 0.02 | ND < 50 | 100.0 | 2100.0 | 1400.0 | 160 |
| Apr-96 | 116.65 | * 32.2/24.6 | 38.0 | 0.60 | ND < 0.02 | ND < 25 | 680.0 | 1300.0 | 1400.0 | 130 |
| Jul-96 | 116.17 | 50 | 58.9 | 0.28 | ND < 0.02 | ND < 50 | ND < 100.0 | 1000.0 | 270.0 | 140 |
| Oct-96 | 112.38 | 63.8 | 75.7 | 0.46 | ND < 0.04 | ND < 50 | 380.0 | 1100.0 | 1900.0 | 310 |
| Jan-97 | 114.07 | *45.9/34.9 | 34.5 | 0.54 | 0.02 | ND < 6.2 | ND < 12.0 | 1100.0 | ND < 12.0 | 330 |
| Apr-97 | 116.96 | 27.3 | 18.8 | 0.53 | ND < 0.02 | ND < 12 | 35.0 | 1300.0 | 620.0 | 150 |
| Jul-97 | 117.04 | 36.0 | 35.2 | 0.62 | ND < 0.02 | ND < 5 | ND < 10.0 | 810.0 | 110.0 | 150 |
| Oct-97 | 113.46 | 73.8 | 85.3 | 0.64 | ND < 0.08 | ND < 5 | ND < 10.0 | 460.0 | 31.0 | 230 |
| Jan-98 | 111.66 | 39.2 | 44.0 | 0.53 | ND < 0.02 | ND < 5 | ND < 10.0 | 530.0 | 420.0 | 180 |
| Apr-98 | 116.69 | 7.2 | 14.1 | 0.43 | ND < 0.02 | 2.9 | ND < 5.0 | 320.0 | ND < 5.0 | 92 |
| Jul-98 | 117.95 | 16.3 | 18.9 | 0.32 | ND < 0.02 | ND < 12 | ND < 25.0 | 1200.0 | 300.0 | 120 |
| Oct-98 | 115.31 | 34.1 | 36.2 | 0.44 | 0.030 | ND < 6.2 | ND < 12.0 | 740.0 | 240.0 | 120 |
| Jan-99 | 112.41 | 78.6 | 85.2 | 0.58 | ND < 0.04 | ND < 5 | ND < 10 | 520.0 | 31.0 | 260 |
| Apr-99 | 112.43 | *0.57/4.6 | 42.8 | 0.41 | ND < 0.05 | 3.5 | ND < 2.5 | 220 | 9.9 | 190 |
| Jul-99 | 112.33 | 41.1 | 49.7 | 0.42 | ND < 0.050 | ND < 10 | ND < 10 | 670 | 67 | 140 |
| Oct-99 | 104.49 | 58.2 | 105 | 0.59 | ND < 0.075 | ND < 5.0 | ND < 5.0 | 92 | 11 | 210 |
| Jan-00 | 100.66 | 76.3 | 60.0 | 0.32 | ND < 0.050 | 5.1 | ND < 2.5 | ND < 2.5 | 6.0 | 160 |
| Apr-00 | **107.01** | **32.9** | **39.3** | **0.55** | **ND < 0.050** | **ND < 5.0** | **ND < 5.0** | **46** | **8.6** | **240** |
| Oct-00 | **107.42** | **45.6** | **42.1** | **0.52** | **ND < 0.050** | **ND < 50** | **2500** | **2500** | **ND < 50** | **170** |
| Apr-01 | 99.62 | 11.0 | 16.8 | 0.38 | ND < 0.025 | ND < 50 | 120 | 3,100 | 830 | 150 |

* 35.5/99.2 = original sample/duplicate sample (both results presented because duplicate result deviation is >20%)

** Analyzed after holding time had expired.

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 6B | | | | | | | | | | |
| Jan-89 | 95.12 | ND < 0.01 | ND < 0.014 | ND < 0.003 | ND < 0.009 | ND < 0.01 | ND < 0.0 | ND < 0.0 | ND < 0.0 | 57 |
| Apr-89 | 99.11 | ND < 0.05 | 0.06 | ND < 0.01 | ND < 0.02 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 37 |
| Jul-89 | 98.39 | ND < 0.05 | 0.04 | ND < 0.01 | ND < 0.02 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 29 |
| Oct-89 | 95.35 | ND < 0.05 | ND < 0.02 | ND < 0.01 | ND < 0.05 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 29 |
| Jan-90 | 96.1 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 1.0 | 46 |
| Apr-90 | 97.76 | ND < 0.02 | 0.02 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 61 |
| Jul-90 | 99.28 | ND < 0.02 | 0.02 | ND < 0.01 | ND < 0.02 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 1.0 | 51 |
| Oct-90 | 98.45 | ND < 0.02 | 0.012 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 52 |
| Jan-91 | 97.87 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 59 |
| Apr-92 | 105.86 | ND < 0.02 | 0.014 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 0.5 | 1.1 | 0.8 | 19 |
| Jul-92 | 106.57 | ND < 0.02 | 0.019 | ND < 0.005 | 0.054 | ND < 0.5 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 10 |
| Oct-92 | 104.12 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 12.0 | 2.9 | 13.0 | 9.3 |
| Jan-93 | 107.23 | ND < 0.02 | 0.011 | ND < 0.005 | 0.038 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 6.9 |
| Apr-93 | 114.64 | ND < 0.02 | 0.014 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 64.0 | 26.0 | 88.0 | 2.6 |
| Jul-93 | 115.34 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 2.2 | 2.0 | 5.5 | 2.7 |
| Oct-93 | 115.46 | ND < 0.02 | 0.011 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 5.9 |
| Jan-94 | 115.37 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 2.7 |
| Apr-94 | 116.15 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 2.0 |
| Jul-94 | 116.67 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.1 | ND < 1.0 | 1.9 | 2.9 |
| Oct-94 | 111.13 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.5 | ND < 1.0 | 8.2 | 1.5 |
| Jan-95 | 112.19 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1 | 110.0 | 89.0 | 110.0 | 8.6 |
| Apr-95 | 117.42 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.6 | 9.1 | 6.2 | 2.3 |
| Jul-95 | 118.93 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.1 | 4.0 | 5.1 | 8.8 |
| Oct-95 | 115.45 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 1.0 | 2.6 |
| Jan-96 | 113.47 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1 | 28.0 | 27.0 | 53.0 | 14 |
| Apr-96 | 116.65 | ND < 0.02 | 0.011 | ND < 0.005 | ND < 0.02 | ND < 1 | 4.2 | 37.0 | 50.0 | 2.9 |
| Jul-96 | 116.18 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.3 | 3.5 | 2.3 |
| Oct-96 | 112.66 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.0 | 2.1 | 2.8 | 6.1 |
| Jan-97 | 114.20 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 4.3 | 4.3 | 6.4 | 5.0 |
| Apr-97 | 116.95 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 3.6 | 1.7 | ND < 1.0 | 5.2 |
| Jul-97 | 117.01 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 6.6 |
| Oct-97 | 113.71 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 6.4 |
| Jan-98 | 112.06 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 15.0 | 32.0 | 39.0 | 17.0 |
| Apr-98 | 116.76 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.6 | 4.2 | 6.0 | 7.7 |
| Jul-98 | 117.95 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 4.3 |
| Oct-98 | 114.83 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 9.9 |
| Jan-99 | 112.74 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 5.0 | 24.0 | 29.0 | 17.0 |
| Apr-99 | 112.56 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1.0 | 19 | 42 | 33.9 | 31 |
| Jul-99 | 112.43 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND <1.0 | ND <1.0 | 1.2 | ND < 1.0 | 8.2 |
| Oct-99 | 105.04 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 4.8 | ND < 1.0 | 12.0 |
| Jan-00 | 101.26 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND <1.0 | ND <1.0 | 2.0 | ND < 1.0 | 13.0 |
| Apr-00 | 107.21 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND <1.0 | ND <1.0 | 1.1 | ND < 1.0 | 7.0 |
| Oct-00 | 107.55 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 9.2 |
| Apr-01 | 100.03 | 0.0051 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 5.9 |

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 7 | | | | | | | | | | |
| Jan-89 | 89.47 | ND < 0.01 | ND < 0.014 | ND < 0.003 | ND < 0.009 | ND < 0.5 | 1.4 | 1.2 | 3.6 | 35 |
| Apr-89 | 98.83 | ND < 0.05 | 0.02 | ND < 0.01 | ND < 0.02 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 47 |
| Jul-89 | 97.90 | ND < 0.05 | 0.03 | ND < 0.01 | ND < 0.05 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 25 |
| Oct-89 | 94.72 | ND < 0.05 | ND < 0.02 | ND < 0.01 | ND < 0.05 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 44 |
| Jan-90 | 95.58 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 39 |
| Apr-90 | 97.32 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 46 |
| Jul-90 | 98.85 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 1 | ND < 1.0 | ND < 1.0 | ND < 2.0 | 34 |
| Oct-90 | 98.02 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 19 |
| Jan-91 | 97.41 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 1.8 |
| Apr-91 | 100.06 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 30 |
| Jul-91 | 101.20 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 53 |
| Oct-91 | 100.62 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.01 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 54 |
| Jan-92 | 102.90 | 0.07 | ND < 0.0081 | ND < 0.0027 | 0.14 | ND < 1 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 120 |
| Apr-92 | 105.54 | ND < 0.02 | 0.013 | ND < 0.005 | 0.032 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 55 |
| Jul-92 | 103.13 | ND < 0.02 | 0.095 | ND < 0.005 | 0.21 | ND < 1 | ND < 2.0 | ND < 2.0 | ND < 2.0 | 53 |
| Oct-92 | 103.68 | ND < 0.02 | 0.063 | ND < 0.005 | 0.65 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 98 |
| Jan-93 | 106.82 | ND < 0.02 | 0.033 | ND < 0.005 | 0.19 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 73 |
| Apr-93 | 114.54 | ND < 0.02 | 0.011 | ND < 0.005 | ND < 0.02 | ND 1.2 | ND < 2.5 | 90.0 | 5.6 | 23 |
| Jul-93 | 115.14 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5 | ND < 10.0 | 210.0 | ND < 10.0 | 43 |
| Oct-93 | 115.23 | ND < 0.2 | ND < 0.01 | ND < 0.005 | 0.02 | 0.82 | ND < 1.0 | 7.2 | ND < 1.0 | 44 |
| Jan-94 | 115.08 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 1.4 | ND < 1.0 | 33.0 | ND < 1.0 | 53 |
| Apr-94 | 115.88 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND< 2.5 | ND < 5.0 | 200.0 | ND < 5.0 | 96 |
| Jul-94 | 116.44 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.023 | 0.88 | ND < 1.0 | 7.7 | 1.2 | 140 |
| Oct-94 | 110.69 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 5.1 | 5.5 | 98 |
| Jan-95 | 111.59 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.026 | ND < 0.5 | 7.0 | 8.7 | 10.0 | 170 |
| Apr-95 | 117.24 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.3 | ND < 1.0 | 26 |
| Jul-95 | 118.63 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.1 | 3.4 | 53 |
| Oct-95 | 115.08 | ND < 0.02 | 0.014 | ND < 0.005 | 0.079 | 0.74 | ND < 1.0 | 3.8 | 1.4 | 98 |
| Jan-96 | 112.98 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.043 | 1.0 | 4.2 | 4.9 | 10.0 | 85 |
| Apr-96 | 116.39 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.3 | 11.0 | 14.0 | 37 |
| Jul-96 | 115.83 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 1.0 | ND < 1.0 | 1.6 | 2.7 | 87 |
| Oct-96 | 112.17 | ND < 0.01 | ND < 0.01 | ND < 0.005 | 0.036 | 0.96 | ND < 1.0 | 1.4 | 1.5 | 150 |
| Jan-97 | 113.76 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.029 | ND < 0.5 | ND < 1.0 | 1.7 | 2.8 | 95 |
| Apr-97 | 116.62 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.1 | 1.2 | ND < 1.0 | 63 |
| Jul-97 | 116.74 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 0.56 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 54 |
| Oct-97 | 111.27 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.025 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 85 |
| Jan-98 | 111.47 | ND < 0.02 | 0.01 | ND < 0.005 | 0.044 | ND < 0.5 | 2.2 | 5.2 | 6.8 | 97 |
| Apr-98 | 116.38 | ND < 0.02 | 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.6 | 1.8 | 23 |
| Jul-98 | 117.62 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 53 |
| Oct-98 | 115.06 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.042 | 0.68 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 88 |
| Jan-99 | 112.28 | ND < 0.02 | ND < 0.01 | 0.0056 | 0.05 | ND < 1.2 | ND < 2.5 | ND < 2.5 | ND < 2.5 | 160 |
| Apr-99 | 112.11 | ND < 0.01 | ND < 0.01 | ND < 0.005 | 0.042 | ND < 2.0 | 3.0 | 11 | 6.8 | 80 |
| Jul-99 | 112.09 | ND < 0.020 | ND < 0.020 | ND < 0.010 | 0.068 | ND < 1.0 | ND < 1.0 | 1.3 | ND < 1.0 | 65 |
| Oct-99 | 104.50 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | 0.071 | ND < 2.0 | ND < 2.0 | ND < 2.0 | ND < 2.0 | 130 |
| Jan-00 | 100.67 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 47 |
| Apr-00 | 106.84 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | 0.035 | ND < 1.0 | ND < 1.0 | 1.2 | ND < 1.0 | 48 |
| Oct-00 | 107.24 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | 0.057 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 2.5 | 110 |
| Apr-01 | 99.50 | 0.001 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 78 |

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW-9 | | | | | | | | | | |
| Jan-89 | 95.55 | 0.45 | 0.33 | ND < 0.003 | ND < 0.009 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 1.0 | 55 |
| Apr-89 | 99.67 | ND < 0.02 | 0.06 | ND < 0.01 | ND < 0.02 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 24 |
| Jul-89 | 98.77 | ND < 0.05 | 0.17 | ND < 0.01 | 0.02 | ND < 0.7 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 57 |
| Oct-89 | 95.62 | 2.5 | 1.8 | ND < 0.01 | ND < 0.05 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 110 |
| Jan-90 | 96.44 | 2.28 | 2.2 | ND < 0.01 | ND < 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 100 |
| Apr-90 | 98.26 | 0.8 | 0.81 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 150 |
| Jul-90 | 99.78 | 0.03 | 0.04 | ND < 0.01 | ND < 0.02 | ND < 2.5 | ND < 2.5 | ND < 2.5 | ND < 5.0 | 64 |
| Oct-90 | 98.69 | 0.25 | 0.19 | ND < 0.005 | 0.062 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 17 |
| Jan-91 | 98.04 | 0.124 | 0.085 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 6.6 | 1.4 | 9.0 | 26 |
| Apr-91 | 100.83 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 26 |
| Jul-91 | 101.88 | ND < 0.02 | 0.027 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 99.0 | ND < 1.0 | 41 |
| Oct-91 | 101.30 | 0.05 | 0.07 | ND < 0.005 | ND < 0.01 | ND < 0.5 | ND < 1.0 | 94.0 | ND < 1.0 | 120 |
| Jan-92 | 103.62 | ND < 0.05 | ND < 0.0081 | ND < 0.0027 | 0.031 | ND < 1 | ND < 1.0 | 1220.0 | 92.0 | 45 |
| Apr-92 | 106.27 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.05 | 2800.0 | 3600.0 | 6190.0 | 52 |
| Jul-92 | 106.93 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.05 | 34000.0 | 7900.0 | 24000 | ND < 1000 |
| Oct-92 | 104.3 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1000 | 83000.0 | 13000 | 58000 | ND < 1000 |
| Jan-93 | 107.56 | ND < 0.02 | 0.057 | ND < 0.005 | 0.053 | ND < 50 | 400.0 | 3900.0 | 5300.0 | ND < 100 |
| Apr-93 | 115.26 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | 5100.0 | 4000.0 | 9200.0 | 110 |
| Jul-93 | 115.81 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 16 | ND < 33.0 | 160.0 | 74.0 | 1100 |
| Oct-93 | 115.79 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 5.0 | 120.0 | 45.0 | 390 |
| Jan-94 | 115.76 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 10 | 48.0 | 290.0 | 220.0 | 230 |
| Apr-94 | 116.51 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 500 | 17000.0 | 12000 | 32000 | 270 |
| Jul-94 | 117.03 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1000 | 56000.0 | 15000 | 40000 | 200 |
| Oct-94 | 111.17 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 500 | 57000.0 | 11000 | 34000 | 350 |
| Jan-95 | 112.25 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 250 | 8200.0 | 9800.0 | 2000.0 | 310 |
| Apr-95 | 117.92 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | ND < 100.0 | 650.0 | 480.0 | 670 |
| Jul-95 | 119.31 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 10 | 69.0 | 780.0 | 340.0 | 540 |
| Oct-95 | 115.67 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 25 | 110.0 | 670.0 | 1900.0 | 320 |
| Jan-96 | 113.73 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | 100.0 | 4300.0 | 6100.0 | 500 |
| Apr-96 | 117.00 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 3.3 | 5.5 | 24.0 | 22.0 | 580 |
| Jul-96 | 116.49 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | 4.6 | ND < 2.0 | 42.0 | 4.3 | 570 |
| Oct-96 | 112.73 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | ND < 100.0 | 2900.0 | 350.0 | 470 |
| Jan-97 | 114.46 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 400 |
| Apr-97 | 117.29 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5 | ND < 10.0 | 18.0 | ND < 10.0 | 770 |
| Jul-97 | 117.34 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 25 | ND < 50.0 | 2500.0 | 860.0 | 850 |
| Oct-97 | 113.75 | ND < 0.02 | 0.048 | ND < 0.005 | ND < 0.02 | ND < 25 | 150.0 | 1900.0 | 4800.0 | ND < 50 |
| Jan-98 | 112.06 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5 | ND < 10.0 | 690.0 | 260.0 | 270 |
| Apr-98 | 117.07 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5 | ND < 10,0 | 23.0 | ND < 10.0 | 390 |
| Jul-98 | 118.26 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 12 | ND < 25.0 | 73.0 | ND < 25.0 | 1300 |
| Oct-98 | 115.49 | 3.3 | 1.3 | 0.0075 | 0.34 | 7.4 | ND < 12.0 | 390.0 | ND < 12.0 | 1200 |
| Jan-99 | 112.68 | 3.3 | 2.4 | ND < 0.005 | ND < 0.02 | ND < 6.2 | ND < 12.0 | 100.0 | 83.0 | 550 |
| Apr-99 | 112.77 | ND < 0.01 | 0.64 | ND < 0.005 | ND < 0.025 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 350 |
| Jul-99 | 112.57 | 5.8 | 5.6 | ND < 0.010 | ND < 0.050 | ND < 25 | ND < 25 | ND < 25 | ND < 25 | 810 |
| Oct-99 | 104.91 | 4.0 | 4.2 | ND < 0.0050 | ND < 0.025 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 280 |
| Jan-00 | 101.15 | 14.1 | 13.9 | ND < 0.0050 | ND < 0.025 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 170 |
| Apr-00 | 107.56 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 370 |
| Oct-00 | 107.81 | ND < 0.020 | 0.014 | ND < 0.0050 | ND < 0.025 | ND < 5.0 | ND < 5.0 | 29.0 | ND < 5.0 | 160 |
| Apr-01 | 100.10 | 0.0043 | 0.011 | ND < 0.0050 | ND < 0.025 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 200 |

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| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 11 | | | | | | | | | | |
| Jan-89 | 95.97 | ND < 0.01 | ND < 0.014 | ND < 0.003 | ND < 0.009 | ND < 0.5 | ND < 0.5 | 43.0 | 1.5 | 34 |
| Apr-89 | 99.85 | ND < 0.02 | 0.04 | ND < 0.01 | ND < 0.02 | ND < 500 | 7500.0 | 2600.0 | 11000 | 39 |
| Jul-89 | 98.95 | ND < 0.05 | ND < 0.02 | ND < 0.01 | 0.13 | ND < 7 | ND < 10.0 | ND < 10.0 | 90.0 | 29 |
| Oct-89 | 95.77 | ND < 0.05 | ND < 0.02 | ND < 0.01 | ND < 0.05 | ND < 5 | ND < 10.0 | 200.0 | ND < 10.0 | 35 |
| Jan-90 | 96.72 | ND < 0.02 | ND < 0.01 | ND < 0.01 | ND < 0.02 | ND < 5 | ND < 5.0 | 83.0 | ND < 10.0 | 46 |
| Apr-90 | 98.44 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | 2.6 | 370.0 | 150.0 | 33 |
| Jul-90 | 100.00 | ND < 0.02 | ND < 0.01 | ND < 0.01 | 0.03 | ND < 25 | 440.0 | 1000.0 | 760.0 | 65 |
| Oct-90 | 98.97 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 15000.0 | 3000.0 | 10000 | ND < 1 |
| Jan-91 | 98.29 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 15000.0 | 4700.0 | 12000 | ND < 1 |
| Apr-91 | 101.17 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 8500.0 | 3300.0 | 7500.0 | 63 |
| Jul-91 | 102.19 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 57.0 | 520.0 | 220.0 | 61 |
| Oct-91 | 101.61 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.01 | ND < 0.5 | 140.0 | 2000.0 | 660.0 | 110 |
| Jan-92 | 104.09 | 0.10 | ND < 0.0081 | ND < 0.0027 | 0.02 | ND < 1 | 7.3 | 230.0 | 26.0 | 85 |
| Apr-92 | 106.61 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.01 | ND < 0.05 | 1.7 | 130.0 | 2.3 | 70 |
| Jul-92 | 107.12 | ND < 0.02 | 0.02 | ND < 0.005 | 0.09 | ND < 0.05 | ND < 0.1 | 17.0 | ND < 0.1 | 160 |
| Oct-92 | 104.55 | ND < 0.02 | 0.011 | ND < 0.005 | ND < 0.01 | ND < 0.05 | ND < 0.1 | 11.0 | ND < 0.1 | 160 |
| Jan-93 | 108.27 | ND < 0.02 | 0.013 | ND < 0.005 | 0.088 | ND < 1.2 | ND < 2.5 | 110.0 | ND < 2.5 | 86 |
| Apr-93 | 115.6 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.05 | ND < 1.0 | 2.0 | ND < 1.0 | 59 |
| Jul-93 | 116.07 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.05 | 2.5 | 1.8 | 6.4 | 230 |
| Oct-93 | 116.01 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.1 | 3.1 | 150 |
| Jan-94 | 116.03 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.5 | 2.8 | 190 |
| Apr-94 | 116.83 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 80 |
| Jul-94 | 117.23 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | 1.6 | 180 |
| Oct-94 | 111.30 | ND < 0.02 | 0.011 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 4.5 | ND < 1.0 | 360 |
| Jan-95 | 112.53 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 10 | 660.0 | 850.0 | 1100.0 | 660 |
| Apr-95 | 118.26 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | ND < 100.0 | 1900.0 | 1000.0 | 74 |
| Jul-95 | 119.51 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 5.0 | 160.0 | 37.0 | 140 |
| Oct-95 | 115.80 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 5.8 | 2.2 | 180 |
| Jan-96 | 113.98 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 25 | 520.0 | 460.0 | 1000.0 | 620 |
| Apr-96 | 117.37 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.023 | ND < 25 | 160.0 | 1100.0 | 1400.0 | 240 |
| Jul-96 | 116.75 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 10 | ND < 20.0 | 460.0 | 290.0 | 220 |
| Oct-96 | 112.95 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.9 | 20.0 | 8.0 | 250 |
| Jan-97 | 114.78 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.029 | ND < 0.5 | 9.4 | 84.0 | 88.0 | 160 |
| Apr-97 | 117.60 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 5.0 | 120.0 | 8.2 | 370 |
| Jul-97 | 117.61 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.15 | ND < 2.5 | ND < 5.0 | 8.3 | ND < 5.0 | 240 |
| Oct-97 | 114.02 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.1 | ND < 2.5 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 350 |
| Jan-98 | 112.23 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 12 | 770.0 | 1800.0 | 2200.0 | 390 |
| Apr-98 | 117.36 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.077 | ND < 1.2 | 63.0 | 150.0 | 210.0 | 180 |
| Jul-98 | 118.57 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.077 | ND < 1.2 | ND < 2.5 | 41.0 | 4.8 | 150 |
| Oct-98 | 115.91 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.041 | ND < 5 | ND < 10.0 | ND < 10.0 | ND < 10.0 | 430 |
| Jan-99 | 113.05 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 6.2 | 260.0 | 750.0 | 970.0 | 690 |
| Apr-99 | 113.14 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 25 | 670 | 1600 | 1270 | 480 |
| Jul-99 | 112.88 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 10 | ND < 10 | 85 | ND < 10 | 740 |
| Oct-99 | 105.05 | 0.057 | 0.02 | ND < 0.0050 | ND < 0.025 | ND < 10 | ND < 10 | 480 | 52 | 650 |
| Jan-00 | 101.31 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 12 | ND < 12 | ND < 12 | ND < 12 | 820 |
| Apr-00 | 107.91 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 12 | ND < 12 | 55 | 17 | 1100 |
| Oct-00 | 108.06 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 50 | ND < 50 | ND < 50 | ND < 50 | 2900 |
| Apr-01 | 100.32 | ND < 0.0020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 25 | ND < 25 | 48 | ND < 25 | 1700 |

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 14S | | | | | | | | | | |
| Oct-90 | 98.07 | 3.2 | 2.2 | 0.018 | 5.3 | ND < 0.5 | ND < 1.0 | 1750.0 | ND < 1.0 | 180 |
| Jan-91 | 97.38 | 0.4 | 0.94 | 0.007 | 1 | ND < 0.5 | ND < 1.0 | 2800.0 | 5900.0 | 108 |
| Apr-91 | 99.26 | 0.39 | 0.41 | 0.005 | 0.15 | ND < 0.5 | ND < 1.0 | 4100.0 | ND < 1.0 | 84 |
| Jul-91 | 101.27 | 0.02 | 0.31 | 0.005 | 0.11 | ND < 0.5 | ND < 1.0 | 31.0 | ND < 1.0 | 55 |
| Oct-91 | 100.66 | 0.13 | 0.23 | ND < 0.005 | 0.05 | ND < 0.5 | ND < 1.0 | 680.0 | ND < 1.0 | 81 |
| Jan-92 | 103.08 | 0.27 | 0.15 | ND < 0.0027 | 0.093 | ND < 1 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 59 |
| Apr-92 | 105.70 | 0.13 | 0.16 | ND < 0.005 | 0.04 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | 56 |
| Jul-92 | 106.38 | 0.1 | 0.33 | ND < 0.005 | 0.56 | 0.6 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 44 |
| Oct-92 | 103.72 | 0.16 | 0.54 | ND < 0.005 | 0.72 | ND < 1 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 71 |
| Jan-93 | 107.00 | 0.056 | 0.24 | ND < 0.005 | 0.33 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 56 |
| Apr-93 | 114.80 | ND < 0.02 | 0.018 | ND < 0.005 | 0.032 | ND < 0.5 | 24.0 | 40.0 | 55.0 | 18 |
| Jul-93 | 115.36 | ND < 0.02 | 0.20 | ND < 0.005 | 0.023 | ND < 0.5 | 1.3 | 1.2 | 3.8 | 25 |
| Oct-93 | 115.42 | ND < 0.02 | 0.01 | ND < 0.005 | 0.021 | ND < 0.5 | ND < 1.0 | 2.1 | 3.7 | 25 |
| Jan-94 | 115.28 | ND < 0.02 | 0.015 | ND < 0.005 | 0.022 | ND < 0.5 | ND < 1.0 | 3.2 | 1.4 | 21 |
| Apr-94 | 116.06 | ND < 0.02 | 0.022 | ND < 0.005 | ND < 0.020 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 29 |
| Jul-94 | 116.64 | ND < 0.02 | 0.016 | ND < 0.005 | ND < 0.020 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 15 |
| Oct-94 | 110.70 | 0.035 | 0.064 | ND < 0.005 | ND < 0.020 | 0.53 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 58 |
| Feb-95 | 113.10 | ND < 0.02 | 0.016 | ND < 0.005 | 0.020 | ND < 50 | ND < 100.0 | 3000.0 | 690.0 | 50 |
| Apr-95 | 117.50 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.020 | ND < 5 | 76.0 | 120.0 | 190.0 | 20 |
| Jul-95 | 118.93 | ND < 0.02 | ND < 0.01 | 0.0055 | ND < 0.020 | ND < 0.5 | 2.8 | 26.0 | 12.0 | 22 |
| Oct-95 | 115.25 | 0.022 | 0.046 | ND < 0.005 | ND < 0.020 | ND < 0.5 | ND < 1.0 | 2.1 | 2.0 | 35 |
| Jan-96 | 113.13 | ND < 0.02 | 0.034 | ND < 0.005 | 0.024 | ND < 1 | 4.7 | 87.0 | 58.0 | 42 |
| Apr-96 | 116.52 | 0.021 | 0.028 | ND < 0.005 | ND < 0.020 | ND < 2.5 | 54.0 | 120.0 | 110.0 | 51 |
| Jul-96 | 116.04 | ND < 0.01 | 0.069 | ND < 0.005 | ND < 0.020 | 0.58 | ND < 1.0 | 20.0 | 10.0 | 37 |
| Oct-96 | 112.22 | 0.052 | 0.082 | ND < 0.005 | ND < 0.020 | ND < 0.5 | ND < 1.0 | 13.0 | 2.9 | 61 |
| Jan-97 | 113.85 | 0.024 | 0.031 | ND < 0.005 | ND < 0.020 | ND < 2.5 | ND < 5.0 | 470.0 | ND < 5.0 | 90 |
| Apr-97 | 116.82 | ND < 0.02 | 0.032 | 0.0053 | ND < 0.020 | 0.58 | 2.9 | 91.0 | 36.0 | 45 |
| Jul-97 | 117.21 | ND < 0.02 | 0.016 | ND < 0.005 | ND < 0.020 | ND < 5 | ND < 1.0 | 14.0 | 1.0 | 35 |
| Oct-97 | 113.39 | 0.1 | 0.013 | ND < 0.005 | ND < 0.020 | ND < 0.5 | ND < 1.0 | 20.0 | 1.8 | 57 |
| Jan-98 | 111.43 | * ND/0.0103 | 0.018 | ND < 0.005 | 0.020 | ND < 0.5 | 1.1 | 19.0 | 5.0 | 50 |
| Apr-98 | 116.47 | ND < 0.02 | 0.018 | ND < 0.005 | 0.023 | ND < 12 | ND < 25.0 | 1500.0 | 150.0 | 38 |
| Jul-98 | 117.79 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.020 | 0.51 | ND < 1.0 | 18.0 | 8.4 | 18 |
| Oct-98 | 115.19 | 0.032 | 0.044 | ND < 0.005 | 0.027 | ND < 1.2 | ND < 2.5 | 120.0 | 29.0 | 62 |
| Jan-99 | 112.31 | 0.058 | 0.032 | ND < 0.005 | ND < 0.020 | 1.1 | ND < 2.0 | 77.0 | 64.0 | 98 |
| Apr-99 | 112.21 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 12 | ND < 12 | 820 | 47 | 84 |
| Jul-99 | 112.19 | ND < 0.020 | 0.038 | ND < 0.0050 | 0.037 | ND < 50 | ND < 50 | 3,000 | ND < 50 | 74 |
| Oct-99 | 104.31 | 0.035 | 0.15 | 0.006 | 0.044 | 2.1 | ND < 2.0 | 120 | ND < 2.0 | 180 |
| Jan-00 | 100.43 | 0.11 | 0.26 | 0.0094 | 0.031 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | 230 |
| Apr-00 | 106.91 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | 0.025 | 3.2 | ND < 2.0 | 110 | ND < 2.0 | 60 |
| Oct-00 | 107.06 | 0.039 | 0.09 | ND < 0.0050 | 0.087 | ND < 5.0 | ND < 5.0 | 230 | ND < 5.0 | 170 |
| Apr-01 | 99.30 | 0.057 | 0.043 | ND < 0.0050 | 0.03 | 2.1 | ND < 2.0 | 9 | ND < 2.0 | 130 |

* ND/10.3 = EPA method 7196/EPA Method 218.6 (Sample was analyzed for hexavalent chromium by two methods.)

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 15S | | | | | | | | | | |
| Oct-90 | 97.71 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 21 |
| Jan-91 | 97.10 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 4.0 | 1.6 | 4.0 | 13 |
| Apr-91 | 99.71 | ND < 0.02 | ND < 0.01 | 0.011 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 28 |
| Jul-91 | 100.94 | ND < 0.02 | ND < 0.01 | 0.014 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 17 |
| Oct-91 | 100.35 | ND < 0.02 | 0.01 | 0.02 | 0.06 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 13 |
| Jan-92 | 102.72 | ND < 0.051 | ND < 0.0081 | 0.008 | 0.01 | ND < 1 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 15 |
| Apr-92 | 105.29 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.01 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | 4.1 |
| Jul-92 | 105.95 | ND < 0.02 | 0.04 | 0.005 | 0.27 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | 2.9 |
| Oct-92 | 103.37 | ND < 0.02 | ND < 0.02 | 0.0073 | 0.047 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 1 |
| Jan-93 | 106.58 | ND < 0.02 | 0.014 | 0.0085 | 0.1 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 9.0 |
| Apr-93 | 114.41 | ND < 0.02 | 0.013 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 14.0 | 10.0 | 22.0 | 4.6 |
| Jul-93 | 115.01 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.2 | ND < 1.0 | 2.4 | 2.4 |
| Oct-93 | 115.07 | ND < 0.04 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 3.2 |
| Jan-94 | 114.90 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 1.9 |
| Apr-94 | 115.72 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 3.1 |
| Jul-94 | 116.31 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 2.1 |
| Oct-94 | 110.42 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 6.0 |
| Jan-95 | 111.14 | 0.048 | 0.044 | ND < 0.005 | ND < 0.02 | ND < 1 | 4.0 | 64.0 | 27.0 | 3.7 |
| Apr-95 | 117.15 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | 60.0 | 82.0 | 130.0 | 2.8 |
| Jul-95 | 118.61 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 2.5 | 18.0 | 12.0 | 5.2 |
| Oct-95 | 114.45 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.0 | ND < 1.0 | 3.9 |
| Jan-96 | 112.69 | ND < 0.02 | 0.012 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.8 | 25.0 | 22.0 | 3.8 |
| Apr-96 | 116.09 | ND < 0.02 | 0.015 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 13.0 | 40.0 | 45.0 | 2.8 |
| Jul-96 | 115.69 | ND < 0.01 | 0.014 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 9.7 | 5.4 | 3.2 |
| Oct-96 | 111.81 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 2.9 | 2.6 | 5.3 |
| Jan-97 | 113.42 | ND < 0.02 | 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 5.5 | 69.0 | 1.0 | 5.1 |
| Apr-97 | 116.35 | ND < 0.02 | 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 9.3 | 21.0 | 8.5 | 3.3 |
| Jul-97 | 116.60 | ND < 0.02 | 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 8.2 | 1.3 | 4.1 |
| Oct-97 | 113.08 | ND < 0.02 | 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 17.0 | 1.7 | 5.2 |
| Jan-98 | 111.06 | * ND/0.0177 | 0.021 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 12.0 | 3.7 | 5.0 |
| Apr-98 | 116.05 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 60.0 | 7.2 | 3.1 |
| Jul-98 | 117.47 | ND < 0.02 | 0.014 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 10.0 | 2.9 | 3.4 |
| Oct-98 | 114.87 | ND < 0.02 | 0.017 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 45.0 | 12.0 | 3.9 |
| Jan-99 | 111.98 | 0.024 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 19.0 | 2.2 | 7.0 |
| Apr-99 | 111.85 | ND < 0.01 | 0.013 | ND < 0.005 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 23 | 2.2 | 4.2 |
| Jul-99 | 111.89 | ND < 0.020 | 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 29 | 23 | 3.9 |
| Oct-99 | 104.07 | 0.014 | 0.015 | ND < 0.0050 | ND < 0.025 | ND < 2.0 | ND < 2.0 | 12 | ND < 2.0 | 6.7 |
| Jan-00 | 100.09 | ND < 0.020 | ND < 0.010 | 0.012 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 9.3 | ND < 1.0 | 25 |
| Apr-00 | 106.56 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 17 |
| Oct-00 | 106.82 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 17 | ND < 1.0 | 6.7 |
| Apr-01 | 99.03 | 0.0053 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 3 |

* ND/0.0177 = EPA method 7196/EPA Method 218.6 (Sample was analyzed for hexavalent chromium by two methods.)

Shallow Wells
PHIBRO-TECH, INC.
Historical Results
January 1989 to July 2001

| | | METALS | | | | VOLATILE ORGANIC COMPOUNDS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 16 | | | | | | | | | | |
| Apr-92 | 105.99 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.01 | ND < 0.5 | 0.7 | 1.0 | 1.6 | 52 |
| Jul-92 | 106.7 | ND < 0.02 | 0.03 | ND < 0.02 | 0.35 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 35 |
| Oct-92 | 104.07 | ND < 0.02 | 0.011 | ND < 0.005 | 0.15 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 72 |
| Jan-93 | 107.3 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.44 | ND < 1.2 | ND < 2.5 | ND < 2.5 | ND < 2.5 | 51 |
| Apr-93 | 114.9 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 25 | 55.0 | 2300.0 | 1200.0 | 42 |
| Jul-93 | 115.54 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 50 | ND < 100.0 | 3100.0 | 2000.0 | 15 |
| Oct-93 | 115.51 | ND < 0.04 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5.0 | ND < 10.0 | 340.0 | ND < 10.0 | 24 |
| Jan-94 | 115.46 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.02 | ND < 20.0 | 1000.0 | ND < 20.0 | 22 |
| Apr-94 | 116.25 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 10 | ND < 20.0 | 820.0 | ND < 20.0 | 37 |
| Jul-94 | 116.78 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 25 | ND < 50.0 | 1300.0 | 730.0 | 76 |
| Oct-94 | 111.02 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.5 | 2.4 | 9.7 | 91 |
| Jan-95 | 112.08 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 17 |
| Apr-95 | 117.60 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5 | 16.0 | 36.0 | 55.0 | 34 |
| Jul-95 | 118.99 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 10 | ND < 20.0 | * 540/370 | ND < 20.0 | 67 |
| Oct-95 | 115.45 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 1.8 | 1.3 | 60 |
| Jan-96 | 113.49 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 11.0 | 9.7 | 26 |
| Apr-96 | 116.72 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 9.8 | 30.0 | 33.0 | 36 |
| Jul-96 | 116.24 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 6.6 | 3.6 | 110 |
| Oct-96 | 112.59 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 5 | 49.0 | 130.0 | 230.0 | 73 |
| Jan-97 | 114.18 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1 | 4.6 | 23.0 | ND < 2.0 | 32 |
| Apr-97 | 117.01 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1 | ND < 2.0 | 7.2 | 2.4 | 31 |
| Jul-97 | 117.12 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1.2 | ND < 2.5 | 6.5 | ND < 2.5 | 30 |
| Oct-97 | 113.66 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND < 5.0 | 8.2 | ND < 5.0 | 53 |
| Jan-98 | 111.92 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1.0 | 12.0 | ND < 3.8 | 29 |
| Apr-98 | 116.79 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.023 | ND < 0.5 | ND < 1.0 | 28.0 | 2.7 | 29 |
| Jul-98 | 118.00 | ND < 0.02 | ND < 0.01 | ND < 0.005 | 0.031 | ND < 0.5 | ND < 1.0 | 6.0 | 1.8 | 28 |
| Oct-98 | 115.42 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 2.5 | ND <5.0 | 16.0 | ND < 5.0 | 58 |
| Jan-99 | 112.68 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 1.0 | ND < 2.0 | 11.0 | ND < 2.0 | 36 |
| Apr-99 | 112.59 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 2.0 | ND < 2.0 | 6.1 | ND < 2.0 | 39 |
| Jul-99 | 112.43 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 2.0 | ND < 2.0 | 33 | ND < 2.0 | 29 |
| Oct-99 | 104.81 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 2.0 | ND < 2.0 | ND < 2.0 | ND < 5.0 | 42 |
| Jan-00 | 101.03 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 18 |
| Apr-00 | 107.25 | ND < 0.010 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 2.0 | ND < 2.0 | ND < 2.0 | ND < 2.0 | 26 |
| Oct-00 | 107.51 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | 0.3 | ND < 2.5 | ND < 2.5 | 7 | ND < 2.5 | 36 |
| Apr-01 | 99.84 | 0.0003 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 2.0 | ND < 2.0 | 39.0 | 11.6 | 36 |

ND = Below detection limit as noted

MSL = Mean Sea Level

* 540/370 = original sample/duplicate sample (both results presented because duplicate result deviation is >20%)

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Deep Wells

PHIBRO-TECH, INC.

July 2001 Monitoring

Historical Results

| | | Metals | | | | Volatile Organic Compounds | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Well No. / Date | Groundwater Elevation ( Feet MSL) | Hexavalent Chromium (mg/L) | Total Chromium (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-Benzene (ug/L) | Total Xylenes (ug/L) | Trichloroethene (ug/L) |
| MW - 1D | | | | | | | | | | |
| Jan-99 | 114.00 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1 | 1 | ND < 1 | 2 |
| Apr-99 | 114.01 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 2 | 2.1 |
| Jul-99 | 113.67 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 2 | 2.7 |
| Oct-99 | 106.55 | 0.014 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 1 | 2 |
| Jan-00 | 152.60 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 1 | 7.1 |
| Apr-00 | 108.84 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | 1.7 | ND < 1 | ND < 1 | 3.3 |
| Oct-00 | 108.98 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 3.1 |
| Apr-01 | 101.53 | 0.00066 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 2.7 |
| MW - 4A | | | | | | | | | | |
| Jan-99 | 112.63 | 0.02 | 0.025 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1 | ND < 1 | ND < 1 | 10 |
| Apr-99 | 112.58 | ND < 0.02 | 0.012 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 2.9 | 1.7 | 7 |
| Jul-99 | 112.46 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 670 | 67 | 5.2 |
| Oct-99 | 104.64 | 0.017 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 2 | 4.5 |
| Jan-00 | 152.46 | ND < 0.02 | 0.015 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 1 | 4.2 |
| Apr-00 | 107.30 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 1 | 8.6 |
| Oct-00 | 107.48 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 7.4 |
| Apr-01 | 99.74 | 0.0056 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 19 |
| MW - 6D | | | | | | | | | | |
| Jan-99 | 112.78 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | 1.2 | 5.8 | 6.4 | 7.1 |
| Apr-99 | 112.62 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | 4 | 14 | 11.5 | 10 |
| Jul-99 | 112.43 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 4.4 | ND < 2 | 23 |
| Oct-99 | 105.10 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 2.9 | ND < 2 | 8.8 |
| Jan-00 | 150.13 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 1.8 | ND < 1 | 9.2 |
| Apr-00 | 107.25 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 1 | ND < 1 | 4.3 |
| Oct-00 | 107.59 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 10 |
| Apr-01 | 100.08 | 0.0026 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | ND < 1.0 | ND < 1.0 | 10 |
| MW -15D | | | | | | | | | | |
| Jan-99 | 111.92 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.02 | ND < 0.5 | ND < 1 | 15 | 2.1 | 5.4 |
| Apr-99 | 111.81 | ND < 0.02 | 0.35 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 12 | 1.6 | 25 |
| Jul-99 | 111.74 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 34 | ND < 2 | 9 |
| Oct-99 | 103.88 | ND < 0.01 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | 6 | ND < 2 | 5.1 |
| Jan-00 | 150.96 | ND < 0.02 | ND < 0.01 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 1 | 9.7 |
| Apr-00 | 106.54 | 0.016 | 0.013 | ND < 0.005 | ND < 0.025 | ND < 1 | ND < 1 | ND < 1 | ND < 1 | 13 |
| Oct-00 | 106.69 | ND < 0.020 | ND < 0.010 | ND < 0.0050 | ND < 0.025 | 1.8 | ND < 1.0 | 2.9 | ND < 1.0 | 8.7 |
| Apr-01 | 99.01 | 0.014 | 0.025 | ND < 0.0050 | ND < 0.025 | ND < 1.0 | ND < 1.0 | 11 | 2.1 | 12 |

ND = Below detection limit as noted

MSL = Mean Sea Level

* 540/370 = original sample/duplicate sample (both results presented because duplicate result deviation is >20%)

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# Appendix C

# Appendix C
# Severn Trent Laboratories Analytical Reports

SEVERN
TRENT
SERVICES

**STL Los Angeles**
1721 South Grand Avenue
Santa Ana, CA 92705-4808

Tel: 714 258 8610
Fax: 714 258 0921
www.stl-inc.com

October 31, 2002

STL LOT NUMBER: E2J220297
NELAP Certification Number: 01118CA
PO/CONTRACT: 2279-11462-111.FLD

Sharon Wallin
Camp, Dresser, McKee
18581 Teller Avenue
Suite 200
Irvine, CA 92612

Dear Ms. Wallin,

This report contains the analytical results for the five samples received under chain of custody by STL Los Angeles on October 22, 2002. These samples are associated with your PTI - Santa Fe Springs project.

All applicable quality control procedures met method-specified acceptance criteria. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at (714) 258-8610 extension 309.

Sincerely,

Diane Suzuki
Project Manager

CC: Project File

# Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (0901)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| CDM | SHARON WALLIN | 10/22/02 | 141055 |
| **Address** | **Telephone Number (Area Code)/Fax Number** | **Lab Number** | **Page 1 of 1** |
| | 949.752.5452 / 949.752.1307 | EN22 0297 | |
| **City** | **State** | **Zip Code** | **Site Contact** | **Lab Contact** |
| IRVINE | CA | | | DIANE OR SONIA |
| **Project Name and Location (State)** | **Carrier/Waybill Number** | |
| PHIBROTECH, L.A., CA | | |
| **Contract/Purchase Order/Quote No.** | | |

200002

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed | Soil | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: Cr(VI) 7199 | Cr-Cd | 8260 | PH | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PTI-MW01D-055 | 10/22/02 | 1255 | | X | | | X | | X | X | X | | X | X | X | X | |
| PTI-MW01S-055 | 10/22/02 | 1400 | | | | | | | | | | | | | | | |
| PTI-EB01-055 | | 1415 | | | | | | | | | | | | | | | |
| PTI-MW03-055 | | 1510 | | | | | | | | | | | | | | | |
| PTI-MW15D-055 | | 1615 | | | | | | | | | | | | | | | |

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

**Turn Around Time Required**
☐ 24 Hours ☐ 48 Hours ☒ 7 Days (STANDARD TAT) ☐ 14 Days ☐ 21 Days ☐ Other _____

**QC Requirements (Specify)**

| | Relinquished By | Date | Time | Received By | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 10/22/02 | 1630 | | 10/22/02 | 1630 |
| 2 | | 10/22/02 | 17:30 | | 10/22/02 | 1730 |
| 3 | | | | | | |

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# STL LOS ANGELES
## PROJECT RECEIPT CHECKLIST

Date: 10/22/02

Quantims Lot #: E2J220297
Quote #: 29765
Client Name: CDM
Project: Phibrotech, LA, CA
Received by: RE
Date/Time Received: 10/22/02 1730
Delivered by : ☐Client ☐Airborne ☐Fed Ex ☐DHL ☐In-House Courier ☐Rey B. ☐UPS ☒DES ☐Other

Initial / Date

Custody Seal Status: ☐Intact ☐Broken ☒None ..... SL 10-22-02
Custody Seal #(s): ☒No Seal # .....
Sample Container(s): ☒STL-LA ☐Client ☐N/A .....
Temperature(s) (Cooler/blank) in °C: 5.6°C Correction factor -0.2°C (Corrected Temp.) 5.4°C
Thermometer Used : ID: B ☒IR (Infra-red) ☐Digital (Probe) .....
Samples: ☒Intact ☐Broken ☐Other .....
Anomalies: ☒No ☐Yes (See Clouseau) .....
Labeled by .....
Labeling checked by .....

Turn Around Time: ☐RUSH-24HR ☐RUSH-48HR ☐RUSH-72HR ☒NORMAL ..... RS 10/22/02
Short-Hold Notification: ☒Ph ☒Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :

N/A

LEAVE NO BLANK SPACES ; USE N/A

| Fraction | 1→5 | | | | | | | | | | PH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VOAh /* | 3 | | | | | | | | | | N/A |
| 125mLPB | 1 | | | | | | | | | | — |
| 500PBn | 1 | | | | | | | | | | <2 |
| 250PB | 1 | | | | | | | | | | — |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |

h:HCl na:Sodium Hydoxide znna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve
* Number of VOA's w/ Headspace present

LOGGED BY/DATE: 10/22/02 REVIEWED BY/DATE: MT 10/23/02

PRC Ver 6 081401 KRF QANACA01\N\Precise\Sample Control Forms

000003

SEVERN
TRENT
SERVICES

# Analytical Report

# EXECUTIVE SUMMARY - Detection Highlights

**E2J220297**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PT1-MW01D-055 10/22/02 12:55 001** | | | | |
| Tetrachloroethene | 2.5 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 1.8 | 1.0 | ug/L | SW846 8260B |
| pH | 7.4 | 0.10 | No Units | SW846 9040B |
| **PT1-MW01S-055 10/22/02 14:00 002** | | | | |
| 1,2-Dichloroethane | 1.1 | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 2.2 | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 1.4 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 8.3 | 1.0 | ug/L | SW846 8260B |
| pH | 6.9 | 0.10 | No Units | SW846 9040B |
| **PT1-EB01-055 10/22/02 14:15 003** | | | | |
| pH | 6.1 | 0.10 | No Units | SW846 9040B |
| **PT1-MW03-055 10/22/02 15:10 004** | | | | |
| Chloroform | 13 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 17 | 10 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 25 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 30 | 10 | ug/L | SW846 8260B |
| Ethylbenzene | 63 | 10 | ug/L | SW846 8260B |
| Trichloroethene | 190 | 10 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | 690 | 10 | ug/L | SW846 8260B |
| pH | 7.2 | 0.10 | No Units | SW846 9040B |
| **PT1-MW15D-055 10/22/02 16:15 005** | | | | |
| Benzene | 1.2 | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | 3.8 | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 2.4 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 6.2 | 1.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | 3.9 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0016 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.5 | 0.10 | No Units | SW846 9040B |

# METHODS SUMMARY

**E2J220297**

| PARAMETER | ANALYTICAL METHOD | PREPARATION METHOD |
|---|---|---|
| pH Aqueous | SW846 9040B | SW846 9040B |
| Hexavalent Chromium | SW846 7199 | SW846 7199 |
| Inductively Coupled Plasma (ICP) Metals | SW846 6010B | SW846 3005A |
| Volatile Organics by GC/MS | SW846 8260B | SW846 5030B/826 |

**References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

**E2J220297**

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|---|---|---|---|---|
| FAJWN | 001 | PT1-MW01D-055 | 10/22/02 | 12:55 |
| FAJWV | 002 | PT1-MW01S-055 | 10/22/02 | 14:00 |
| FAJWW | 003 | PT1-EB01-055 | 10/22/02 | 14:15 |
| FAJW0 | 004 | PT1-MW03-055 | 10/22/02 | 15:10 |
| FAJW1 | 005 | PT1-MW15D-055 | 10/22/02 | 16:15 |

**NOTE(S):**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW01D-055

GC/MS Volatiles

**Lot-Sample #...:** E2J220297-001 **Work Order #...:** FAJWN1AA **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 12:55 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/23/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 03:13
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **2.5** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **1.8** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 113 | (65 - 135) |
| Toluene-d8 | 103 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW01D-055

TOTAL Metals

**Lot-Sample #**...: E2J220297-001 **Matrix**.....: WATER
**Date Sampled**...: 10/22/02 12:55 **Date Received**..: 10/22/02 17:30

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2295484 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWN1AC |
| | | Analysis Time..: 13:14 | | MS Run #.....: 2295245 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWN1AD |
| | | Analysis Time..: 13:14 | | MS Run #.....: 2295245 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWN1AE |
| | | Analysis Time..: 13:14 | | MS Run #.....: 2295245 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW01D-055

General Chemistry

**Lot-Sample #...:** E2J220297-001 **Work Order #...:** FAJWN **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 12:55 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.4** | **0.10** | **No Units** | **SW846 9040B** | **10/22/02** | **2295553** |
| | Analysis Time..: 18:18 | | MS Run #.....: 2295292 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/22/02 | 2295549 |
| | Analysis Time..: 17:58 | | MS Run #.....: 2295290 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW01S-055

GC/MS Volatiles

**Lot-Sample #...:** E2J220297-002 **Work Order #...:** FAJWV1AA **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 14:00 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/23/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 03:36
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| **1,2-Dichloroethane** | **1.1** | **1.0** | **ug/L** | **0.40** |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| **cis-1,2-Dichloroethene** | **2.2** | **1.0** | **ug/L** | **0.30** |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **1.4** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **8.3** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 100 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 113 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |

PHIBRO-TECH, INC.

**Client Sample ID: PT1-MW01S-055**

**TOTAL Metals**

**Lot-Sample #...:** E2J220297-002 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 14:00 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2295484 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWV1AC |
| | | Analysis Time..: 13:22 | | MS Run #.....: 2295245 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWV1AD |
| | | Analysis Time..: 13:22 | | MS Run #.....: 2295245 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWV1AE |
| | | Analysis Time..: 13:22 | | MS Run #.....: 2295245 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW01S-055

General Chemistry

**Lot-Sample #...:** E2J220297-002 **Work Order #...:** FAJWV **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 14:00 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **6.9** | **0.10** | **No Units** | **SW846 9040B** | **10/22/02** | **2295553** |
| | Analysis Time..: 18:24 | | MS Run #.....: 2295292 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/22/02 | 2295549 |
| | Analysis Time..: 18:41 | | MS Run #.....: 2295290 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-EB01-055

GC/MS Volatiles

**Lot-Sample #...:** E2J220297-003 **Work Order #...:** FAJWW1AA **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 14:15 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/22/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 22:34
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 98 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 113 | (65 - 135) |
| Toluene-d8 | 105 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PT1-EB01-055

TOTAL Metals

**Lot-Sample #...:** E2J220297-003 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 14:15 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2295484 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWW1AC |
| | | Analysis Time..: 13:30 | | MS Run #.....: 2295245 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWW1AD |
| | | Analysis Time..: 13:30 | | MS Run #.....: 2295245 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJWW1AE |
| | | Analysis Time..: 13:30 | | MS Run #.....: 2295245 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-EB01-055

General Chemistry

**Lot-Sample #...:** E2J220297-003 **Work Order #...:** FAJWW **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 14:15 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **6.1** | **0.10** | **No Units** | **SW846 9040B** | **10/22/02** | **2295553** |
| | Analysis Time..: 18:27 | | MS Run #.....: 2295292 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/22/02 | 2295549 |
| | Analysis Time..: 18:58 | | MS Run #.....: 2295290 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW03-055

GC/MS Volatiles

**Lot-Sample #...:** E2J220297-004 **Work Order #...:** FAJW01AA **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 15:10 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/23/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 02:50
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 10 | ug/L | 3.0 |
| Bromodichloromethane | ND | 10 | ug/L | 3.0 |
| Bromoform | ND | 10 | ug/L | 3.0 |
| Bromomethane | ND | 20 | ug/L | 10 |
| Carbon tetrachloride | ND | 10 | ug/L | 3.0 |
| Chlorobenzene | ND | 10 | ug/L | 3.0 |
| Dibromochloromethane | ND | 10 | ug/L | 4.0 |
| Chloroethane | ND | 20 | ug/L | 3.0 |
| **Chloroform** | **13** | **10** | **ug/L** | **3.0** |
| Chloromethane | ND | 20 | ug/L | 3.0 |
| 1,2-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,3-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,4-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| **1,1-Dichloroethane** | **17** | **10** | **ug/L** | **2.0** |
| **1,2-Dichloroethane** | **25** | **10** | **ug/L** | **4.0** |
| **1,1-Dichloroethene** | **30** | **10** | **ug/L** | **3.0** |
| cis-1,2-Dichloroethene | ND | 10 | ug/L | 3.0 |
| trans-1,2-Dichloroethene | ND | 10 | ug/L | 3.0 |
| 1,2-Dichloropropane | ND | 10 | ug/L | 3.0 |
| cis-1,3-Dichloropropene | ND | 10 | ug/L | 3.0 |
| trans-1,3-Dichloropropene | ND | 10 | ug/L | 5.0 |
| **Ethylbenzene** | **63** | **10** | **ug/L** | **2.0** |
| Methylene chloride | ND | 10 | ug/L | 3.0 |
| 1,1,2,2-Tetrachloroethane | ND | 10 | ug/L | 4.0 |
| Tetrachloroethene | ND | 10 | ug/L | 3.0 |
| Toluene | ND | 10 | ug/L | 3.0 |
| 1,1,1-Trichloroethane | ND | 10 | ug/L | 2.0 |
| 1,1,2-Trichloroethane | ND | 10 | ug/L | 3.0 |
| **Trichloroethene** | **190** | **10** | **ug/L** | **3.0** |
| Trichlorofluoromethane | ND | 20 | ug/L | 3.0 |
| Vinyl chloride | ND | 20 | ug/L | 3.0 |
| **m-Xylene & p-Xylene** | **690** | **10** | **ug/L** | **5.0** |
| o-Xylene | ND | 10 | ug/L | 2.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 100 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 108 | (65 - 135) |
| Toluene-d8 | 102 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW03-055

TOTAL Metals

**Lot-Sample #...:** E2J220297-004 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 15:10 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2295484 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJW01AC |
| | | Analysis Time..: 12:58 | | MS Run #.....: 2295245 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJW01AD |
| | | Analysis Time..: 12:58 | | MS Run #.....: 2295245 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJW01AE |
| | | Analysis Time..: 12:58 | | MS Run #.....: 2295245 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW03-055

General Chemistry

**Lot-Sample #...:** E2J220297-004 **Work Order #...:** FAJW0 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 15:10 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.2** | **0.10** | **No Units** | **SW846 9040B** | **10/22/02** | **2295553** |
| | Analysis Time..: 18:30 | | | MS Run #.....: 2295292 | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/22/02 | 2295549 |
| | Analysis Time..: 19:15 | | | MS Run #.....: 2295290 | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW15D-055

GC/MS Volatiles

**Lot-Sample #...:** E2J220297-005 **Work Order #...:** FAJW11AA **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 16:15 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/22/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 23:21
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| **Benzene** | **1.2** | **1.0** | **ug/L** | **0.30** |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| **Ethylbenzene** | **3.8** | **1.0** | **ug/L** | **0.20** |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **2.4** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **6.2** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| **m-Xylene & p-Xylene** | **3.9** | **1.0** | **ug/L** | **0.50** |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 98 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 112 | (65 - 135) |
| Toluene-d8 | 101 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW15D-055

TOTAL Metals

**Lot-Sample #...:** E2J220297-005 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 16:15 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2295484 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJW11AC |
| | | Analysis Time..: 13:06 | | MS Run #.....: 2295245 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJW11AD |
| | | Analysis Time..: 13:06 | | MS Run #.....: 2295245 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJW11AE |
| | | Analysis Time..: 13:06 | | MS Run #.....: 2295245 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PT1-MW15D-055

General Chemistry

**Lot-Sample #...:** E2J220297-005 **Work Order #...:** FAJW1 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 16:15 **Date Received..:** 10/22/02 17:30

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.5** | **0.10** | **No Units** | **SW846 9040B** | **10/22/02** | **2295553** |
| | Analysis Time..: 18:33 | | MS Run #.....: 2295292 | | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | **0.0016** | **0.0010** | **mg/L** | **SW846 7199** | **10/22/02** | **2295549** |
| | Analysis Time..: 19:49 | | MS Run #.....: 2295290 | | MDL.....: 0.00030 | |

SEVERN TRENT SERVICES

# QA/QC

# QC DATA ASSOCIATION SUMMARY

**E2J220297**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | SW846 9040B | | 2295553 | 2295292 |
| | WATER | SW846 8260B | | 2296653 | 2296331 |
| | WATER | SW846 6010B | | 2295484 | 2295245 |
| | WATER | SW846 7199 | | 2295549 | 2295290 |
| 002 | WATER | SW846 9040B | | 2295553 | 2295292 |
| | WATER | SW846 8260B | | 2296653 | 2296331 |
| | WATER | SW846 6010B | | 2295484 | 2295245 |
| | WATER | SW846 7199 | | 2295549 | 2295290 |
| 003 | WATER | SW846 9040B | | 2295553 | 2295292 |
| | WATER | SW846 8260B | | 2296653 | 2296331 |
| | WATER | SW846 6010B | | 2295484 | 2295245 |
| | WATER | SW846 7199 | | 2295549 | 2295290 |
| 004 | WATER | SW846 9040B | | 2295553 | 2295292 |
| | WATER | SW846 8260B | | 2296653 | 2296331 |
| | WATER | SW846 6010B | | 2295484 | 2295245 |
| | WATER | SW846 7199 | | 2295549 | 2295290 |
| 005 | WATER | SW846 9040B | | 2295553 | 2295292 |
| | WATER | SW846 8260B | | 2296653 | 2296331 |
| | WATER | SW846 6010B | | 2295484 | 2295245 |
| | WATER | SW846 7199 | | 2295549 | 2295290 |

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J220297 **Work Order #...:** FAMML1AA **Matrix.....:** WATER
**MB Lot-Sample #:** E2J230000-653

**Prep Date.....:** 10/22/02 **Analysis Time..:** 20:13
**Analysis Date..:** 10/22/02 **Prep Batch #...:** 2296653

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 2.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | SW846 8260B |
| o-Xylene | ND | 1.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 99 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 111 | (65 - 135) |
| Toluene-d8 | 101 | (80 - 130) |

**NOTE(S) :**

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

## METHOD BLANK REPORT

### TOTAL Metals

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **MB Lot-Sample #:** E2J220000-484 **Prep Batch #...:** 2295484 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJKP1AF |
| | | Analysis Time..: 11:24 | | | | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJKP1AH |
| | | Analysis Time..: 11:24 | | | | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/23-10/24/02 | FAJKP1AJ |
| | | Analysis Time..: 11:24 | | | | |

**NOTE(S):**

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

## METHOD BLANK REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #: FAJ0H1AA | | MB Lot-Sample #: | E2J220000-549 | |
| | ND | 0.0010 | mg/L | SW846 7199 | 10/22/02 | 2295549 |
| | | Analysis Time..: 17:41 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J220297 **Work Order #...:** FAMML1AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J230000-653
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/22/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 19:27

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Benzene** | **105** | **(75 - 120)** | **SW846 8260B** |
| **Chlorobenzene** | **102** | **(75 - 120)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **112** | **(70 - 140)** | **SW846 8260B** |
| **Toluene** | **108** | **(75 - 125)** | **SW846 8260B** |
| **Trichloroethene** | **100** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |

**NOTE(S):**

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

**Bold print denotes control parameters**

## LABORATORY CONTROL SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J220297 **Work Order #...:** FAMML1AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J230000-653
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/22/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 19:27

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **10.0** | **10.5** | **ug/L** | **105** | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **10.2** | **ug/L** | **102** | **SW846 8260B** |
| **1,1-Dichloroethene** | **10.0** | **11.2** | **ug/L** | **112** | **SW846 8260B** |
| **Toluene** | **10.0** | **10.8** | **ug/L** | **108** | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **9.98** | **ug/L** | **100** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2J220000-484 **Prep Batch #...:** 2295484 | | | | | |
| Cadmium | 97 | (80 - 120) | SW846 6010B | 10/23-10/24/02 | FAJKP1A2 |
| | | Analysis Time..: 11:30 | | | |
| Chromium | 97 | (85 - 120) | SW846 6010B | 10/23-10/24/02 | FAJKP1A4 |
| | | Analysis Time..: 11:30 | | | |
| Copper | 98 | (80 - 120) | SW846 6010B | 10/23-10/24/02 | FAJKP1A5 |
| | | Analysis Time..: 11:30 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2J220000-484 **Prep Batch #...:** 2295484 | | | | | | | |
| Cadmium | 0.0500 | 0.0486 | mg/L | 97 | SW846 6010B | 10/23-10/24/02 | FAJKP1A2 |
| | | | Analysis Time..: 11:30 | | | | |
| Chromium | 0.200 | 0.195 | mg/L | 97 | SW846 6010B | 10/23-10/24/02 | FAJKP1A4 |
| | | | Analysis Time..: 11:30 | | | | |
| Copper | 0.250 | 0.244 | mg/L | 98 | SW846 6010B | 10/23-10/24/02 | FAJKP1A5 |
| | | | Analysis Time..: 11:30 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| pH | | Work Order #: FAJ0N1AA LCS Lot-Sample#: E2J220000-553 | | | |
| | 100 | (90 - 110) | SW846 9040B | 10/22/02 | 2295553 |
| | | Analysis Time..: 18:15 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| pH | | | Work Order #: FAJ0N1AA | | LCS Lot-Sample#: | E2J220000-553 | |
| | 9.18 | 9.22 | No Units | 100 | SW846 9040B | 10/22/02 | 2295553 |
| | | | Analysis Time..: 18:15 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #: FAJ0H1AC | LCS Lot-Sample#: E2J220000-549 | | |
| | 98 | (90 - 110) | SW846 7199 | 10/22/02 | 2295549 |
| | | Analysis Time..: 17:32 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: FAJ0H1AC LCS Lot-Sample#: E2J220000-549 | | | | | | |
| | 0.0200 | 0.0197 | mg/L | 98 | SW846 7199 | 10/22/02 | 2295549 |
| | | Analysis Time..: 17:32 | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J220297 **Work Order #...:** FAJXC1AK-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J220299-001 FAJXC1AL-MSD
**Date Sampled...:** 10/22/02 11:19 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/23/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 04:45

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **113** | **(75 - 120)** | | | **SW846 8260B** |
| | **111** | **(75 - 120)** | **1.3** | **(0-25)** | **SW846 8260B** |
| **Chlorobenzene** | **106** | **(75 - 120)** | | | **SW846 8260B** |
| | **105** | **(75 - 120)** | **0.38** | **(0-25)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **101** | **(70 - 140)** | | | **SW846 8260B** |
| | **104** | **(70 - 140)** | **3.0** | **(0-25)** | **SW846 8260B** |
| **Toluene** | **110** | **(75 - 125)** | | | **SW846 8260B** |
| | **112** | **(75 - 125)** | **1.4** | **(0-25)** | **SW846 8260B** |
| **Trichloroethene** | **109** | **(70 - 130)** | | | **SW846 8260B** |
| | **108** | **(70 - 130)** | **1.0** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| ›mofluorobenzene | 101 | (75 - 130) |
| | 106 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 111 | (65 - 135) |
| | 111 | (65 - 135) |
| Toluene-d8 | 103 | (80 - 130) |
| | 106 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J220297 **Work Order #...:** FAJXC1AK-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J220299-001 FAJXC1AL-MSD
**Date Sampled...:** 10/22/02 11:19 **Date Received..:** 10/22/02 17:30 **MS Run #.....:** 2296331
**Prep Date.....:** 10/22/02 **Analysis Date..:** 10/23/02
**Prep Batch #...:** 2296653 **Analysis Time..:** 04:45

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Benzene** | **ND** | **10.0** | **11.3** | **ug/L** | **113** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.1** | **ug/L** | **111** | **1.3** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **10.6** | **ug/L** | **106** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.5** | **ug/L** | **105** | **0.38** | **SW846 8260B** |
| **1,1-Dichloroethene** | **ND** | **10.0** | **10.1** | **ug/L** | **101** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.4** | **ug/L** | **104** | **3.0** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **11.0** | **ug/L** | **110** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.2** | **ug/L** | **112** | **1.4** | **SW846 8260B** |
| **Trichloroethene** | **ND** | **10.0** | **10.9** | **ug/L** | **109** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.8** | **ug/L** | **108** | **1.0** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| | 106 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 111 | (65 - 135) |
| | 111 | (65 - 135) |
| Toluene-d8 | 103 | (80 - 130) |
| | 106 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2J220297 **Matrix.....:** WATER
**Date Sampled...:** 10/19/02 13:55 **Date Received..:** 10/22/02 10:10

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2J180176-036 **Prep Batch #...:** 2295484 | | | | | | | |
| Cadmium | 98 | (80 - 120) | | | SW846 6010B | 10/23-10/24/02 | FAHD41DH |
| | 97 | (80 - 120) | 0.94 | (0-20) | SW846 6010B | 10/23-10/24/02 | FAHD41DJ |
| | | Analysis Time..: 12:00 | | | | | |
| | | MS Run #.....: 2295245 | | | | | |
| Chromium | 99 | (85 - 120) | | | SW846 6010B | 10/23-10/24/02 | FAHD41DM |
| | 97 | (85 - 120) | 2.2 | (0-20) | SW846 6010B | 10/23-10/24/02 | FAHD41DN |
| | | Analysis Time..: 12:00 | | | | | |
| | | MS Run #.....: 2295245 | | | | | |
| Copper | 100 | (80 - 120) | | | SW846 6010B | 10/23-10/24/02 | FAHD41DP |
| | 98 | (80 - 120) | 2.0 | (0-20) | SW846 6010B | 10/23-10/24/02 | FAHD41DQ |
| | | Analysis Time..: 12:00 | | | | | |
| | | MS Run #.....: 2295245 | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2J220297 **Matrix.....:** WATER
**Date Sampled...:** 10/19/02 13:55 **Date Received..:** 10/22/02 10:10

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2J180176-036 **Prep Batch #...:** 2295484 | | | | | | | | | |
| Cadmium | | | | | | | | | |
| | ND | 0.0500 | 0.0500 | mg/L | 98 | | SW846 6010B | 10/23-10/24/02 | FAHD41DH |
| | ND | 0.0500 | 0.0495 | mg/L | 97 | 0.94 | SW846 6010B | 10/23-10/24/02 | FAHD41DJ |
| | | | Analysis Time..: 12:00 | | | | | | |
| | | | MS Run #.....: 2295245 | | | | | | |
| Chromium | | | | | | | | | |
| | ND | 0.200 | 0.200 | mg/L | 99 | | SW846 6010B | 10/23-10/24/02 | FAHD41DM |
| | ND | 0.200 | 0.195 | mg/L | 97 | 2.2 | SW846 6010B | 10/23-10/24/02 | FAHD41DN |
| | | | Analysis Time..: 12:00 | | | | | | |
| | | | MS Run #.....: 2295245 | | | | | | |
| Copper | | | | | | | | | |
| | ND | 0.250 | 0.255 | mg/L | 100 | | SW846 6010B | 10/23-10/24/02 | FAHD41DP |
| | ND | 0.250 | 0.250 | mg/L | 98 | 2.0 | SW846 6010B | 10/23-10/24/02 | FAHD41DQ |
| | | | Analysis Time..: 12:00 | | | | | | |
| | | | MS Run #.....: 2295245 | | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 12:55 **Date Received..:** 10/22/02 17:30

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #...: FAJWN1AH | | MS Lot-Sample #: | E2J220297-001 |
| | 107 | (80 - 120) | SW846 7199 | 10/22/02 | 2295549 |
| | | Analysis Time..: 17:58 | | | |
| | | MS Run #.....: 2295290 | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Matrix.....:** WATER
**Date Sampled...:** 10/22/02 12:55 **Date Received..:** 10/22/02 17:30

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | | Work Order #...: FAJWN1AH | | | MS Lot-Sample #: E2J220297-001 | | |
| | ND | 0.020 | 0.0214 | mg/L | 107 | SW846 7199 | 10/22/02 | 2295549 |
| | | | Analysis Time..: 17:58 | | | | | |
| | | | MS Run #.....: 2295290 | | | | | |

**NOTE(S):**

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

## SAMPLE DUPLICATE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Work Order #...:** FAJWN-SMP FAJWN-DUP **Matrix.....:** WATER

**Date Sampled...:** 10/22/02 12:55 **Date Received..:** 10/22/02 17:30

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| pH | | | | | | SD Lot-Sample #: | E2J220297-001 | |
| | 7.4 | 7.4 | No Units | 0.16 | (0-10) | SW846 9040B | 10/22/02 | 2295553 |

Analysis Time..: 18:18 MS Run Number..: 2295292

## SAMPLE DUPLICATE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J220297 **Work Order #...:** FAJWN-SMP FAJWN-DUP **Matrix.....:** WATER

**Date Sampled...:** 10/22/02 12:55 **Date Received..:** 10/22/02 17:30

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | | | | | SD Lot-Sample #: E2J220297-001 | | |
| | ND | ND | mg/L | 0 | (0-20) | SW846 7199 | 10/22/02 | 2295549 |

Analysis Time..: 17:58 MS Run Number..: 2295290

SEVERN TRENT SERVICES

**STL Los Angeles**
1721 South Grand Avenue
Santa Ana, CA 92705-4808

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October 31, 2002

STL LOT NUMBER: E2J230355
NELAP Certification Number: 01118CA
PO/CONTRACT: 2279-11462-111.FLD

Sharon Wallin
Camp, Dresser, McKee
18581 Teller Avenue
Suite 200
Irvine, CA 92612

Dear Ms. Wallin,

This report contains the analytical results for the 11 samples received under chain of custody by STL Los Angeles on October 23, 2002. These samples are associated with your PTI - Santa Fe Springs project.

All applicable quality control procedures met method-specified acceptance criteria. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at (714) 258-8610 extension 309.

Sincerely,

Diane Suzuki
Project Manager

CC: Project File

# Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (0901)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| CDM | SHARON MALLIN | 10/23/02 | 141054 |
| **Address** | **Telephone Number (Area Code)/Fax Number** | **Lab Number** | **Page 1 of 1** |
| | 949 752 5452 / 949.752.1307 | E2J230355 | |
| **City** IRVINE | **State** | **Zip Code** | **Site Contact** | **Lab Contact** |
| **Project Name and Location (State)** PNIBROTECH | **Carrier/Waybill Number** | |
| **Contract/Purchase Order/Quote No.** | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed | Soil | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: 8260 | 7199 (Cr+6) | pH | 6-Cr-Cd | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. PTI-MW15D-055 | 10/23/02 | 0800 | | X | | | X | | X | X | X | | X | X | X | X | |
| 2. PTI-MW06D-055 | | 0910 | | | | | | | | | | | | | | | |
| 3. PTI-MW06B-055 | | 1005 | | | | | | | | | | | | | | | |
| 4. PTI-MW07-055 | | 1310 | | | | | | | | | | | | | | | |
| 5. PTI-MW14S-055 | | 1420 | | | | | | | | | | | | | | | |
| 6. PTI-MW04A-055 | | 1520 | | | | | | | | | | | | | | | |
| 7. PTI-~~EB~~02-055 | | 1335 | | | | | | | | | | | | | | | |
| 8. PTI-~~FB~~02-055 | | 1200 | | | | | | | | | | | X | | | | |
| 9. PTI-DI-055 | | 1200 | | | | | X | | X | X | X | | X | X | X | X | |
| 10. PTI-MW04-055 | | 1600 | | | | | | | | | | | | | | | |
| 11. PTI-MW37-055 | | 1135 | | | | | | | | | | | | | | | |

000002

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

**Turn Around Time Required**
☐ 24 Hours ☐ 48 Hours ☒ 7 Days STANDARD TAT ☐ 14 Days ☐ 21 Days ☐ Other _____

**QC Requirements (Specify)**

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| 1. Relinquished By | 10/23/02 | 1635 | 1. Received By | 10/23/02 | 1635 |
| 2. Relinquished By | 10/23/02 | 1725 | 2. Received By | 10/23/02 | 1725 |
| 3. Relinquished By | | | 3. Received By | | |

Comments

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# STL LOS ANGELES
## PROJECT RECEIPT CHECKLIST

Date: 10/23/02

Quantims Lot #: E2S230355
Quote #: 29756
Client Name: CDM
Project: Phibrotech
Received by: R.S.
Date/Time Received: 10/23/12 1725
Delivered by : ☐Client ☐Airborne ☐Fed Ex ☐DHL ☐In-House Courier ☐Rey B. ☐UPS ☒DES ☐Other

Initial / Date

Custody Seal Status: ☐Intact ☐Broken ☒None ..... SL 10-23-02
Custody Seal #(s): ☒No Seal # .....
Sample Container(s): ☐STL-LA ☐Client ☐N/A .....
Temperature(s) (Cooler/blank) in °C: 4.3°C Correction factor -0.2°C (Corrected Temp.) 4.1°C ...
Thermometer Used : ID: B ☒IR (Infra-red) ☐Digital (Probe) .....
Samples: ☒Intact ☐Broken ☐Other .....
Anomalies: ☐No ☒Yes (See Clouseau) .....
Labeled by ..... MT 10/24/02
Labeling checked by .....

Turn Around Time: ☐RUSH-24HR ☐RUSH-48HR ☐RUSH-72HR ☒NORMAL .....
Short-Hold Notification: ☐Ph ☒Wet Chem ☐Metals (Filter/Pres) ☐Encore ☐N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :

N/A

LEAVE NO BLANK SPACES ; USE N/A

| Fraction | 1→7 | 8 | 9→11 | | | | | | | | PH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VOAh /* | 3 | 3 | 3 | | | | | | | | N/A |
| 500PBn | 1 | | 1 | | | | | | | | |
| 250PB | 1 | | 1 | | | | | | | | |
| 100PB | 1 | | 1 | | | | | | | | |
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h:HCl na:Sodium Hydoxide znna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve
* Number of VOA's w/ Headspace present

LOGGED BY/DATE: 10/23/02 REVIEWED BY/DATE: MT 10/24/02

PRC Ver 5 081401 KRF QANACA01\N:\Precise\Sample Control Forms

RSL

SEVERN
TRENT
SERVICES

# Analytical Report

# EXECUTIVE SUMMARY - Detection Highlights

**E2J230355**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PTI-MW15D-055 10/23/02 08:00 001** | | | | |
| Carbon tetrachloride | 3.6 | 1.0 | ug/L | SW846 8260B |
| Chloroform | 9.7 | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 2.5 | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 2.8 | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 1.3 | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 1.5 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 13 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0035 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.4 | 0.10 | No Units | SW846 9040B |
| **PTI-MW06D-055 10/23/02 09:10 002** | | | | |
| Copper | 0.043 | 0.025 | mg/L | SW846 6010B |
| Trichloroethene | 4.5 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0025 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.4 | 0.10 | No Units | SW846 9040B |
| **PTI-MW06B-055 10/23/02 10:05 003** | | | | |
| 1,1-Dichloroethane | 11 | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 1.8 | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 1.1 | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 3.4 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 12 | 1.0 | ug/L | SW846 8260B |
| pH | 7.3 | 0.10 | No Units | SW846 9040B |
| **PTI-MW07-055 10/23/02 13:10 004** | | | | |
| Tetrachloroethene | 3.8 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 21 | 1.0 | ug/L | SW846 8260B |
| pH | 7.5 | 0.10 | No Units | SW846 9040B |
| **PTI-MW14S-055 10/23/02 14:20 005** | | | | |
| Cadmium | 0.0074 | 0.0050 | mg/L | SW846 6010B |
| Chromium | 0.42 | 0.010 | mg/L | SW846 6010B |
| Copper | 0.040 | 0.025 | mg/L | SW846 6010B |
| Carbon tetrachloride | 15 | 5.0 | ug/L | SW846 8260B |
| Chloroform | 28 | 5.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 85 | 5.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 6.9 | 5.0 | ug/L | SW846 8260B |

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

**E2J230355**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PTI-MW14S-055 10/23/02 14:20 005** | | | | |
| 1,1-Dichloroethene | 71 | 5.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 9.0 | 5.0 | ug/L | SW846 8260B |
| Ethylbenzene | 14 | 5.0 | ug/L | SW846 8260B |
| Trichloroethene | 360 | 5.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.42 | 0.010 | mg/L | SW846 7199 |
| pH | 7.0 | 0.10 | No Units | SW846 9040B |
| **PTI-MW04A-055 10/23/02 15:20 006** | | | | |
| Chloroform | 1.3 | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 33 | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 11 | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 1.9 | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 2.6 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 36 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0061 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.3 | 0.10 | No Units | SW846 9040B |
| **PTI-EB02-055 10/23/02 13:35 007** | | | | |
| pH | 6.1 | 0.10 | No Units | SW846 9040B |
| **PTI-DI-055 10/23/02 12:00 009** | | | | |
| pH | 6.0 | 0.10 | No Units | SW846 9040B |
| **PTI-MW04-055 10/23/02 16:00 010** | | | | |
| Cadmium | 0.60 | 0.025 | mg/L | SW846 6010B |
| Chromium | 29.0 | 0.050 | mg/L | SW846 6010B |
| Chloroform | 20 | 12 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 200 | 12 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 31 | 12 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 76 | 12 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 240 | 12 | ug/L | SW846 8260B |
| Ethylbenzene | 820 | 12 | ug/L | SW846 8260B |
| Methylene chloride | 87 | 12 | ug/L | SW846 8260B |
| Trichloroethene | 130 | 12 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | 1100 | 12 | ug/L | SW846 8260B |
| o-Xylene | 550 | 12 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 32.6 | 1.0 | mg/L | SW846 7199 |

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

**E2J230355**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PTI-MW04-055 10/23/02 16:00 010** | | | | |
| pH | 6.7 | 0.10 | No Units | SW846 9040B |
| **PTI-MW37-055 10/23/02 11:35 011** | | | | |
| Cadmium | 0.63 | 0.025 | mg/L | SW846 6010B |
| Chromium | 30.6 | 0.050 | mg/L | SW846 6010B |
| Chloroform | 21 | 12 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 210 | 12 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 28 | 12 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 82 | 12 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 250 | 12 | ug/L | SW846 8260B |
| Ethylbenzene | 880 | 12 | ug/L | SW846 8260B |
| Methylene chloride | 90 | 12 | ug/L | SW846 8260B |
| Trichloroethene | 140 | 12 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | 1200 | 12 | ug/L | SW846 8260B |
| o-Xylene | 560 | 12 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 30.3 | 1.0 | mg/L | SW846 7199 |
| pH | 6.7 | 0.10 | No Units | SW846 9040B |

# METHODS SUMMARY

**E2J230355**

| PARAMETER | ANALYTICAL METHOD | PREPARATION METHOD |
|---|---|---|
| pH Aqueous | SW846 9040B | SW846 9040B |
| Hexavalent Chromium | SW846 7199 | SW846 7199 |
| Inductively Coupled Plasma (ICP) Metals | SW846 6010B | SW846 3005A |
| Volatile Organics by GC/MS | SW846 8260B | SW846 5030B/826 |

**References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

**E2J230355**

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|---|---|---|---|---|
| FAMMV | 001 | PTI-MW15D-055 | 10/23/02 | 08:00 |
| FAMMX | 002 | PTI-MW06D-055 | 10/23/02 | 09:10 |
| FAMM0 | 003 | PTI-MW06B-055 | 10/23/02 | 10:05 |
| FAMM1 | 004 | PTI-MW07-055 | 10/23/02 | 13:10 |
| FAMM3 | 005 | PTI-MW14S-055 | 10/23/02 | 14:20 |
| FAMM4 | 006 | PTI-MW04A-055 | 10/23/02 | 15:20 |
| FAMM5 | 007 | PTI-EB02-055 | 10/23/02 | 13:35 |
| FAMM6 | 008 | PTI-FB02-055 | 10/23/02 | 12:00 |
| FAMM7 | 009 | PTI-DI-055 | 10/23/02 | 12:00 |
| FAMM8 | 010 | PTI-MW04-055 | 10/23/02 | 16:00 |
| FAMNA | 011 | PTI-MW37-055 | 10/23/02 | 11:35 |

**NOTE(S):**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW15D-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-001 **Work Order #...:** FAMMV1AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 08:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298004
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 16:12
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| **Carbon tetrachloride** | **3.6** | **1.0** | **ug/L** | **0.30** |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| **Chloroform** | **9.7** | **1.0** | **ug/L** | **0.30** |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| **1,1-Dichloroethane** | **2.5** | **1.0** | **ug/L** | **0.20** |
| **1,2-Dichloroethane** | **2.8** | **1.0** | **ug/L** | **0.40** |
| **1,1-Dichloroethene** | **1.3** | **1.0** | **ug/L** | **0.30** |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **1.5** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **13** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 90 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 96 | (65 - 135) |
| Toluene-d8 | 95 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW15D-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-001 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 08:00 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMMV1AC |
| | | Analysis Time..: 12:32 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMMV1AD |
| | | Analysis Time..: 12:32 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMMV1AE |
| | | Analysis Time..: 12:32 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW15D-055

General Chemistry

**Lot-Sample #...:** E2J230355-001 **Work Order #...:** FAMMV **Matrix.....:** WG
**Date Sampled...:** 10/23/02 08:00 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.4** | **0.10** | **No Units** | **SW846 9040B** | **10/23/02** | **2296686** |
| | Analysis Time..: 18:35 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | **0.0035** | **0.0010** | **mg/L** | **SW846 7199** | **10/23/02** | **2296685** |
| | Analysis Time..: 18:22 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW06D-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-002 **Work Order #...:** FAMMX1AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 09:10 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 22:23
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **4.5** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 91 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 115 | (65 - 135) |
| Toluene-d8 | 96 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW06D-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-002 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 09:10 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMMX1AC |
| | | Analysis Time..: 12:40 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMMX1AD |
| | | Analysis Time..: 12:40 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| **Copper** | **0.043** | **0.025** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMMX1AE** |
| | | Analysis Time..: 12:40 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW06D-055

General Chemistry

**Lot-Sample #...:** E2J230355-002 **Work Order #...:** FAMMX **Matrix.....:** WG
**Date Sampled...:** 10/23/02 09:10 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.4** | **0.10** | **No Units** | **SW846 9040B** | **10/23/02** | **2296686** |
| | Analysis Time..: 18:41 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | **0.0025** | **0.0010** | **mg/L** | **SW846 7199** | **10/23/02** | **2296685** |
| | Analysis Time..: 18:39 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW06B-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-003 **Work Order #...:** FAMM01AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 10:05 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298004
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 17:12
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| **,1-Dichloroethane** | **11** | **1.0** | **ug/L** | **0.20** |
| **,2-Dichloroethane** | **1.8** | **1.0** | **ug/L** | **0.40** |
| **1,1-Dichloroethene** | **1.1** | **1.0** | **ug/L** | **0.30** |
| **cis-1,2-Dichloroethene** | **3.4** | **1.0** | **ug/L** | **0.30** |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **12** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 94 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 80 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW06B-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-003 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 10:05 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM01AC |
| | | Analysis Time..: 12:48 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM01AD |
| | | Analysis Time..: 12:48 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM01AE |
| | | Analysis Time..: 12:48 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW06B-055

General Chemistry

**Lot-Sample #...:** E2J230355-003 **Work Order #...:** FAMM0 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 10:05 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.3** | **0.10** | **No Units** | **SW846 9040B** | **10/23/02** | **2296686** |
| | Analysis Time..: 18:44 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 18:56 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW07-055

GC/MS Volatiles

| | | |
|---|---|---|
| **Lot-Sample #...:** E2J230355-004 | **Work Order #...:** FAMM11AA | **Matrix.....:** WG |
| **Date Sampled...:** 10/23/02 13:10 | **Date Received..:** 10/23/02 17:25 | **MS Run #.....:** 2298004 |
| **Prep Date.....:** 10/24/02 | **Analysis Date..:** 10/24/02 | |
| **Prep Batch #...:** 2298091 | **Analysis Time..:** 17:42 | |
| | **Method.....:** SW846 8260B | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **3.8** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **21** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 92 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 87 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW07-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-004 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 13:10 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM11AC |
| | | Analysis Time..: 12:56 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM11AD |
| | | Analysis Time..: 12:56 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM11AE |
| | | Analysis Time..: 12:56 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW07-055

General Chemistry

**Lot-Sample #...:** E2J230355-004 **Work Order #...:** FAMM1 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 13:10 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.5** | **0.10** | **No Units** | **SW846 9040B** | **10/23/02** | **2296686** |
| | Analysis Time..: 18:47 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 19:13 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW14S-055

GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Lot-Sample #...:** | E2J230355-005 | **Work Order #...:** | FAMM31AA | **Matrix.....:** | WG |
| **Date Sampled...:** | 10/23/02 14:20 | **Date Received..:** | 10/23/02 17:25 | **MS Run #.....:** | 2298004 |
| **Prep Date.....:** | 10/24/02 | **Analysis Date..:** | 10/24/02 | | |
| **Prep Batch #...:** | 2298091 | **Analysis Time..:** | 18:12 | | |
| | | **Method.....:** | SW846 8260B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 5.0 | ug/L | 1.5 |
| Bromodichloromethane | ND | 5.0 | ug/L | 1.5 |
| Bromoform | ND | 5.0 | ug/L | 1.5 |
| Bromomethane | ND | 10 | ug/L | 5.0 |
| **Carbon tetrachloride** | **15** | **5.0** | **ug/L** | **1.5** |
| Chlorobenzene | ND | 5.0 | ug/L | 1.5 |
| Dibromochloromethane | ND | 5.0 | ug/L | 2.0 |
| Chloroethane | ND | 10 | ug/L | 1.5 |
| **Chloroform** | **28** | **5.0** | **ug/L** | **1.5** |
| Chloromethane | ND | 10 | ug/L | 1.5 |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/L | 1.5 |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/L | 1.5 |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/L | 1.5 |
| **1-Dichloroethane** | **85** | **5.0** | **ug/L** | **1.0** |
| **2-Dichloroethane** | **6.9** | **5.0** | **ug/L** | **2.0** |
| **1,1-Dichloroethene** | **71** | **5.0** | **ug/L** | **1.5** |
| **cis-1,2-Dichloroethene** | **9.0** | **5.0** | **ug/L** | **1.5** |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/L | 1.5 |
| 1,2-Dichloropropane | ND | 5.0 | ug/L | 1.5 |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/L | 1.5 |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/L | 2.5 |
| **Ethylbenzene** | **14** | **5.0** | **ug/L** | **1.0** |
| Methylene chloride | ND | 5.0 | ug/L | 1.5 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/L | 2.0 |
| Tetrachloroethene | ND | 5.0 | ug/L | 1.5 |
| Toluene | ND | 5.0 | ug/L | 1.5 |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/L | 1.0 |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/L | 1.5 |
| **Trichloroethene** | **360** | **5.0** | **ug/L** | **1.5** |
| Trichlorofluoromethane | ND | 10 | ug/L | 1.5 |
| Vinyl chloride | ND | 10 | ug/L | 1.5 |
| m-Xylene & p-Xylene | ND | 5.0 | ug/L | 2.5 |
| o-Xylene | ND | 5.0 | ug/L | 1.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 85 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 86 | (65 - 135) |
| Toluene-d8 | 98 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW14S-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-005 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 14:20 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| **Cadmium** | **0.0074** | **0.0050** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMM31AC** |
| | | Analysis Time..: 13:04 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| **Chromium** | **0.42** | **0.010** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMM31AD** |
| | | Analysis Time..: 13:04 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| **Copper** | **0.040** | **0.025** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMM31AE** |
| | | Analysis Time..: 13:04 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW14S-055

General Chemistry

**Lot-Sample #...:** E2J230355-005 **Work Order #...:** FAMM3 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 14:20 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| pH | 7.0 | 0.10 | No Units | SW846 9040B | 10/23/02 | 2296686 |
| | Analysis Time..: 18:50 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | 0.42 | 0.010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 19:40 | | MS Run #.....: 2296346 | | MDL.....: 0.0030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW04A-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-006 **Work Order #...:** FAMM41AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 15:20 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298004
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 18:42
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| **Chloroform** | **1.3** | **1.0** | **ug/L** | **0.30** |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| **1,1-Dichloroethane** | **33** | **1.0** | **ug/L** | **0.20** |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| **1,1-Dichloroethene** | **11** | **1.0** | **ug/L** | **0.30** |
| **cis-1,2-Dichloroethene** | **1.9** | **1.0** | **ug/L** | **0.30** |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **2.6** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **36** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 93 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 87 | (65 - 135) |
| Toluene-d8 | 101 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW04A-055

TOTAL Metals

**Lot-Sample #**...: E2J230355-006 **Matrix**.....: WG
**Date Sampled**...: 10/23/02 15:20 **Date Received**..: 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM41AC |
| | | Analysis Time..: 13:12 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM41AD |
| | | Analysis Time..: 13:12 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM41AE |
| | | Analysis Time..: 13:12 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW04A-055

General Chemistry

**Lot-Sample #...:** E2J230355-006 **Work Order #...:** FAMM4 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 15:20 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| pH | 7.3 | 0.10 | No Units | SW846 9040B | 10/23/02 | 2296686 |
| | Analysis Time..: 18:53 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | 0.0061 | 0.0010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 20:18 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-EB02-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-007 **Work Order #...:** FAMM51AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 13:35 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298004
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 19:12
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 89 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-EB02-055

TOTAL Metals

**Lot-Sample #**...: E2J230355-007 **Matrix**.....: WG
**Date Sampled**...: 10/23/02 13:35 **Date Received**..: 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM51AC |
| | | Analysis Time..: 13:20 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM51AD |
| | | Analysis Time..: 13:20 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM51AE |
| | | Analysis Time..: 13:20 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-EB02-055

General Chemistry

**Lot-Sample #...:** E2J230355-007 **Work Order #...:** FAMM5 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 13:35 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **6.1** | **0.10** | **No Units** | **SW846 9040B** | **10/23/02** | **2296686** |
| | Analysis Time..: 18:56 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 20:35 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-FB02-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-008 **Work Order #...:** FAMM61AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 12:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 18:27
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 95 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 90 | (65 - 135) |
| Toluene-d8 | 98 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-DI-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-009 **Work Order #...:** FAMM71AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 12:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 21:54
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| ,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 94 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 96 | (65 - 135) |
| luene-d8 | 100 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-DI-055

TOTAL Metals

**Lot-Sample #**...: E2J230355-009 **Matrix**.....: WG
**Date Sampled**...: 10/23/02 12:00 **Date Received**..: 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM71AC |
| | | Analysis Time..: 13:26 | | MS Run #.....: 2297120 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM71AD |
| | | Analysis Time..: 13:26 | | MS Run #.....: 2297120 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM71AE |
| | | Analysis Time..: 13:26 | | MS Run #.....: 2297120 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-DI-055

General Chemistry

**Lot-Sample #**...: E2J230355-009 **Work Order #**...: FAMM7 **Matrix**.....: WG
**Date Sampled**...: 10/23/02 12:00 **Date Received**..: 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **6.0** | **0.10** | **No Units** | **SW846 9040B** | **10/23/02** | **2296686** |
| | Analysis Time..: 18:59 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 20:52 | | MS Run #.....: 2296346 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW04-055

GC/MS Volatiles

**Lot-Sample #...:** E2J230355-010 **Work Order #...:** FAMM81AA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 16:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 22:53
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 12 | ug/L | 3.8 |
| Bromodichloromethane | ND | 12 | ug/L | 3.8 |
| Bromoform | ND | 12 | ug/L | 3.8 |
| Bromomethane | ND | 25 | ug/L | 12 |
| Carbon tetrachloride | ND | 12 | ug/L | 3.8 |
| Chlorobenzene | ND | 12 | ug/L | 3.8 |
| Dibromochloromethane | ND | 12 | ug/L | 5.0 |
| Chloroethane | ND | 25 | ug/L | 3.8 |
| **Chloroform** | **20** | **12** | **ug/L** | **3.8** |
| Chloromethane | ND | 25 | ug/L | 3.8 |
| 1,2-Dichlorobenzene | ND | 12 | ug/L | 3.8 |
| 1,3-Dichlorobenzene | ND | 12 | ug/L | 3.8 |
| 1,4-Dichlorobenzene | ND | 12 | ug/L | 3.8 |
| **1,1-Dichloroethane** | **200** | **12** | **ug/L** | **2.5** |
| **1,2-Dichloroethane** | **31** | **12** | **ug/L** | **5.0** |
| **1,1-Dichloroethene** | **76** | **12** | **ug/L** | **3.8** |
| **cis-1,2-Dichloroethene** | **240** | **12** | **ug/L** | **3.8** |
| trans-1,2-Dichloroethene | ND | 12 | ug/L | 3.8 |
| 1,2-Dichloropropane | ND | 12 | ug/L | 3.8 |
| cis-1,3-Dichloropropene | ND | 12 | ug/L | 3.8 |
| trans-1,3-Dichloropropene | ND | 12 | ug/L | 6.2 |
| **Ethylbenzene** | **820** | **12** | **ug/L** | **2.5** |
| **Methylene chloride** | **87** | **12** | **ug/L** | **3.8** |
| 1,1,2,2-Tetrachloroethane | ND | 12 | ug/L | 5.0 |
| Tetrachloroethene | ND | 12 | ug/L | 3.8 |
| Toluene | ND | 12 | ug/L | 3.8 |
| 1,1,1-Trichloroethane | ND | 12 | ug/L | 2.5 |
| 1,1,2-Trichloroethane | ND | 12 | ug/L | 3.8 |
| **Trichloroethene** | **130** | **12** | **ug/L** | **3.8** |
| Trichlorofluoromethane | ND | 25 | ug/L | 3.8 |
| Vinyl chloride | ND | 25 | ug/L | 3.8 |
| **m-Xylene & p-Xylene** | **1100** | **12** | **ug/L** | **6.2** |
| **o-Xylene** | **550** | **12** | **ug/L** | **2.5** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 98 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 96 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW04-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-010 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 16:00 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| **Cadmium** | **0.60** | **0.025** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMM81AC** |
| | | Analysis Time..: 17:15 | | MS Run #.....: 2297120 | MDL.....: 0.0030 | |
| **Chromium** | **29.0** | **0.050** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMM81AD** |
| | | Analysis Time..: 17:15 | | MS Run #.....: 2297120 | MDL.....: 0.0050 | |
| Copper | ND G | 0.12 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMM81AE |
| | | Analysis Time..: 17:15 | | MS Run #.....: 2297120 | MDL.....: 0.020 | |

**NOTE(S):**

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW04-055

General Chemistry

**Lot-Sample #**...: E2J230355-010 **Work Order #**...: FAMM8 **Matrix**.....: WG
**Date Sampled**...: 10/23/02 16:00 **Date Received**..: 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | 6.7 | 0.10 | No Units | SW846 9040B | 10/23/02 | 2296686 |
| | Analysis Time..: 19:05 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | 32.6 | 1.0 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 21:09 | | MS Run #.....: 2296346 | | MDL.....: 0.30 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW37-055

GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Lot-Sample #...:** | E2J230355-011 | **Work Order #...:** | FAMNA1AA | **Matrix.....:** | WG |
| **Date Sampled...:** | 10/23/02 11:35 | **Date Received..:** | 10/23/02 17:25 | **MS Run #.....:** | 2298246 |
| **Prep Date.....:** | 10/24/02 | **Analysis Date..:** | 10/24/02 | | |
| **Prep Batch #...:** | 2298468 | **Analysis Time..:** | 23:22 | | |
| | | **Method.....:** | SW846 8260B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 12 | ug/L | 3.8 |
| Bromodichloromethane | ND | 12 | ug/L | 3.8 |
| Bromoform | ND | 12 | ug/L | 3.8 |
| Bromomethane | ND | 25 | ug/L | 12 |
| Carbon tetrachloride | ND | 12 | ug/L | 3.8 |
| Chlorobenzene | ND | 12 | ug/L | 3.8 |
| Dibromochloromethane | ND | 12 | ug/L | 5.0 |
| Chloroethane | ND | 25 | ug/L | 3.8 |
| **Chloroform** | **21** | **12** | **ug/L** | **3.8** |
| Chloromethane | ND | 25 | ug/L | 3.8 |
| 1,2-Dichlorobenzene | ND | 12 | ug/L | 3.8 |
| 1,3-Dichlorobenzene | ND | 12 | ug/L | 3.8 |
| 1,4-Dichlorobenzene | ND | 12 | ug/L | 3.8 |
| **,1-Dichloroethane** | **210** | **12** | **ug/L** | **2.5** |
| **,2-Dichloroethane** | **28** | **12** | **ug/L** | **5.0** |
| **1,1-Dichloroethene** | **82** | **12** | **ug/L** | **3.8** |
| **cis-1,2-Dichloroethene** | **250** | **12** | **ug/L** | **3.8** |
| trans-1,2-Dichloroethene | ND | 12 | ug/L | 3.8 |
| 1,2-Dichloropropane | ND | 12 | ug/L | 3.8 |
| cis-1,3-Dichloropropene | ND | 12 | ug/L | 3.8 |
| trans-1,3-Dichloropropene | ND | 12 | ug/L | 6.2 |
| **Ethylbenzene** | **880** | **12** | **ug/L** | **2.5** |
| **Methylene chloride** | **90** | **12** | **ug/L** | **3.8** |
| 1,1,2,2-Tetrachloroethane | ND | 12 | ug/L | 5.0 |
| Tetrachloroethene | ND | 12 | ug/L | 3.8 |
| Toluene | ND | 12 | ug/L | 3.8 |
| 1,1,1-Trichloroethane | ND | 12 | ug/L | 2.5 |
| 1,1,2-Trichloroethane | ND | 12 | ug/L | 3.8 |
| **Trichloroethene** | **140** | **12** | **ug/L** | **3.8** |
| Trichlorofluoromethane | ND | 25 | ug/L | 3.8 |
| Vinyl chloride | ND | 25 | ug/L | 3.8 |
| **m-Xylene & p-Xylene** | **1200** | **12** | **ug/L** | **6.2** |
| **o-Xylene** | **560** | **12** | **ug/L** | **2.5** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 99 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 98 | (65 - 135) |
| Toluene-d8 | 99 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW37-055

TOTAL Metals

**Lot-Sample #...:** E2J230355-011 **Matrix.....:** WG
**Date Sampled...:** 10/23/02 11:35 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2297224 | | | | | | |
| **Cadmium** | **0.63** | **0.025** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMNA1AC** |
| | | Analysis Time..: 17:21 | | MS Run #.....: 2297120 | MDL.....: 0.0030 | |
| **Chromium** | **30.6** | **0.050** | **mg/L** | **SW846 6010B** | **10/24-10/25/02** | **FAMNA1AD** |
| | | Analysis Time..: 17:21 | | MS Run #.....: 2297120 | MDL.....: 0.0050 | |
| Copper | ND G | 0.12 | mg/L | SW846 6010B | 10/24-10/25/02 | FAMNA1AE |
| | | Analysis Time..: 17:21 | | MS Run #.....: 2297120 | MDL.....: 0.020 | |

**NOTE(S):**

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW37-055

General Chemistry

**Lot-Sample #...:** E2J230355-011 **Work Order #...:** FAMNA **Matrix.....:** WG
**Date Sampled...:** 10/23/02 11:35 **Date Received..:** 10/23/02 17:25

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| pH | 6.7 | 0.10 | No Units | SW846 9040B | 10/23/02 | 2296686 |
| | Analysis Time..: 19:08 | | MS Run #.....: 2296345 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | 30.3 | 1.0 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | Analysis Time..: 21:26 | | MS Run #.....: 2296346 | | MDL.....: 0.30 | |

SEVERN TRENT SERVICES

# QA/QC

# QC DATA ASSOCIATION SUMMARY

**E2J230355**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298091 | 2298004 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 002 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298468 | 2298246 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 003 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298091 | 2298004 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 004 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298091 | 2298004 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 005 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298091 | 2298004 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 006 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298091 | 2298004 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 007 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298091 | 2298004 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 008 | WG | SW846 8260B | | 2298468 | 2298246 |
| 009 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298468 | 2298246 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |

(Continued on next page)

# QC DATA ASSOCIATION SUMMARY

**E2J230355**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 010 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298468 | 2298246 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |
| 011 | WG | SW846 9040B | | 2296686 | 2296345 |
| | WG | SW846 8260B | | 2298468 | 2298246 |
| | WG | SW846 6010B | | 2297224 | 2297120 |
| | WG | SW846 7199 | | 2296685 | 2296346 |

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAQG31AA **Matrix.....:** WATER
**MB Lot-Sample #:** E2J250000-091

**Prep Date.....:** 10/24/02 **Analysis Time..:** 09:55
**Analysis Date..:** 10/24/02 **Prep Batch #...:** 2298091

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| ?-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| ?1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 2.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | SW846 8260B |
| o-Xylene | ND | 1.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 88 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 84 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |

**TE(S):**

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

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FATJ11AA **Matrix.....:** WATER
**MB Lot-Sample #:** E2J250000-468

**Prep Date.....:** 10/24/02 **Analysis Time..:** 17:58
**Analysis Date..:** 10/24/02 **Prep Batch #...:** 2298468

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 2.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | SW846 8260B |
| o-Xylene | ND | 1.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 95 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 94 | (65 - 135) |
| Toluene-d8 | 96 | (80 - 130) |

**NOTE(S):**

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

## METHOD BLANK REPORT

### TOTAL Metals

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **MB Lot-Sample #:** E2J240000-224 **Prep Batch #...:** 2297224 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/24-10/25/02 | FAM7L1AL |
| | | Analysis Time..: 11:26 | | | | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/24-10/25/02 | FAM7L1AN |
| | | Analysis Time..: 11:26 | | | | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/24-10/25/02 | FAM7L1AP |
| | | Analysis Time..: 11:26 | | | | |

**NOTE(S):**

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

## METHOD BLANK REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #: FAMRH1AA | | MB Lot-Sample #: | E2J230000-685 | |
| | ND | 0.0010 | mg/L | SW846 7199 | 10/23/02 | 2296685 |
| | | Analysis Time..: 18:05 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAQG31AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-091
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 09:11

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Benzene** | **108** | **(75 - 120)** | **SW846 8260B** |
| **Chlorobenzene** | **104** | **(75 - 120)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **109** | **(70 - 140)** | **SW846 8260B** |
| **Toluene** | **110** | **(75 - 125)** | **SW846 8260B** |
| **Trichloroethene** | **102** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 86 | (65 - 135) |
| Toluene-d8 | 98 | (80 - 130) |

**NOTE(S):**

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

d print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAQG31AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-091
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 09:11

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **10.0** | **10.8** | **ug/L** | **108** | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **10.4** | **ug/L** | **104** | **SW846 8260B** |
| **1,1-Dichloroethene** | **10.0** | **10.9** | **ug/L** | **109** | **SW846 8260B** |
| **Toluene** | **10.0** | **11.0** | **ug/L** | **110** | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **10.2** | **ug/L** | **102** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 86 | (65 - 135) |
| Toluene-d8 | 98 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FATJ11AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-468
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 17:29

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Benzene** | **109** | **(75 - 120)** | **SW846 8260B** |
| **Chlorobenzene** | **105** | **(75 - 120)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **113** | **(70 - 140)** | **SW846 8260B** |
| **Toluene** | **108** | **(75 - 125)** | **SW846 8260B** |
| **Trichloroethene** | **111** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 105 | (80 - 130) |

**NOTE(S):**

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

'd print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FATJ11AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-468
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 17:29

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **10.0** | **10.9** | **ug/L** | **109** | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **10.5** | **ug/L** | **105** | **SW846 8260B** |
| **1,1-Dichloroethene** | **10.0** | **11.3** | **ug/L** | **113** | **SW846 8260B** |
| **Toluene** | **10.0** | **10.8** | **ug/L** | **108** | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **11.1** | **ug/L** | **111** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 105 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2J240000-224 **Prep Batch #...:** 2297224 | | | | | |
| Cadmium | 95 | (80 - 120) | SW846 6010B | 10/24-10/25/02 | FAM7L1CD |
| | | Analysis Time..: 11:32 | | | |
| Chromium | 96 | (85 - 120) | SW846 6010B | 10/24-10/25/02 | FAM7L1CF |
| | | Analysis Time..: 11:32 | | | |
| Copper | 99 | (80 - 120) | SW846 6010B | 10/24-10/25/02 | FAM7L1CG |
| | | Analysis Time..: 11:32 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2J240000-224 **Prep Batch #...:** 2297224 | | | | | | | |
| Cadmium | 0.0500 | 0.0474 | mg/L | 95 | SW846 6010B | 10/24-10/25/02 | FAM7L1CD |
| | | | Analysis Time..: 11:32 | | | | |
| Chromium | 0.200 | 0.191 | mg/L | 96 | SW846 6010B | 10/24-10/25/02 | FAM7L1CF |
| | | | Analysis Time..: 11:32 | | | | |
| Copper | 0.250 | 0.248 | mg/L | 99 | SW846 6010B | 10/24-10/25/02 | FAM7L1CG |
| | | | Analysis Time..: 11:32 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| pH | | Work Order #: FAMRG1AA | LCS Lot-Sample#: E2J230000-686 | | |
| | 101 | (90 - 110) | SW846 9040B | 10/23/02 | 2296686 |
| | | Analysis Time..: 18:32 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| pH | | | Work Order #: FAMRG1AA | LCS Lot-Sample#: E2J230000-686 | | | |
| | 9.18 | 9.23 | No Units | 101 | SW846 9040B | 10/23/02 | 2296686 |
| | | | Analysis Time..: 18:32 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: FAMRH1AC | | LCS Lot-Sample#: E2J230000-685 | | |
| | 101 | (90 - 110) | SW846 7199 | 10/23/02 | 2296685 |
| | | Analysis Time..: 17:56 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: FAMRH1AC LCS Lot-Sample#: E2J230000-685 | | | | | | |
| | 0.0200 | 0.0202 | mg/L | 101 | SW846 7199 | 10/23/02 | 2296685 |
| | | | Analysis Time..: 17:56 | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAMN01AC-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J230358-001 FAMN01AD-MSD
**Date Sampled...:** 10/23/02 09:21 **Date Received..:** 10/23/02 17:35 **MS Run #.....:** 2298004
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 14:38

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **106** | **(75 - 120)** | | | **SW846 8260B** |
| | **109** | **(75 - 120)** | **2.8** | **(0-25)** | **SW846 8260B** |
| **Chlorobenzene** | **103** | **(75 - 120)** | | | **SW846 8260B** |
| | **109** | **(75 - 120)** | **5.5** | **(0-25)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **101** | **(70 - 140)** | | | **SW846 8260B** |
| | **108** | **(70 - 140)** | **6.8** | **(0-25)** | **SW846 8260B** |
| **Toluene** | **107** | **(75 - 125)** | | | **SW846 8260B** |
| | **109** | **(75 - 125)** | **1.5** | **(0-25)** | **SW846 8260B** |
| **Trichloroethene** | **102** | **(70 - 130)** | | | **SW846 8260B** |
| | **103** | **(70 - 130)** | **1.3** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| )mofluorobenzene | 101 | (75 - 130) |
| | 100 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 100 | (65 - 135) |
| | 101 | (65 - 135) |
| Toluene-d8 | 96 | (80 - 130) |
| | 99 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAMN01AC-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J230358-001 FAMN01AD-MSD
**Date Sampled...:** 10/23/02 09:21 **Date Received..:** 10/23/02 17:35 **MS Run #.....:** 2298004
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298091 **Analysis Time..:** 14:38

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Benzene** | **ND** | **10.0** | **10.6** | **ug/L** | **106** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.9** | **ug/L** | **109** | **2.8** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **10.3** | **ug/L** | **103** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.9** | **ug/L** | **109** | **5.5** | **SW846 8260B** |
| **1,1-Dichloroethene** | **ND** | **10.0** | **10.1** | **ug/L** | **101** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.8** | **ug/L** | **108** | **6.8** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **10.7** | **ug/L** | **107** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.9** | **ug/L** | **109** | **1.5** | **SW846 8260B** |
| **Trichloroethene** | **ND** | **10.0** | **11.0** | **ug/L** | **102** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.1** | **ug/L** | **103** | **1.3** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| | 100 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 100 | (65 - 135) |
| | 101 | (65 - 135) |
| Toluene-d8 | 96 | (80 - 130) |
| | 99 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAMM71AH-MS **Matrix.....:** WG
**MS Lot-Sample #:** E2J230355-009 FAMM71AJ-MSD
**Date Sampled...:** 10/23/02 12:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 01:50

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **118** | **(75 - 120)** | | | **SW846 8260B** |
| | **109** | **(75 - 120)** | **7.8** | **(0-25)** | **SW846 8260B** |
| **Chlorobenzene** | **111** | **(75 - 120)** | | | **SW846 8260B** |
| | **105** | **(75 - 120)** | **5.3** | **(0-25)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **123** | **(70 - 140)** | | | **SW846 8260B** |
| | **115** | **(70 - 140)** | **6.6** | **(0-25)** | **SW846 8260B** |
| **Toluene** | **118** | **(75 - 125)** | | | **SW846 8260B** |
| | **111** | **(75 - 125)** | **6.3** | **(0-25)** | **SW846 8260B** |
| **Trichloroethene** | **114** | **(70 - 130)** | | | **SW846 8260B** |
| | **107** | **(70 - 130)** | **6.3** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| ›mofluorobenzene | 109 | (75 - 130) |
| | 102 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 112 | (65 - 135) |
| | 107 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |
| | 103 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J230355 **Work Order #...:** FAMM71AH-MS **Matrix.....:** WG
**MS Lot-Sample #:** E2J230355-009 FAMM71AJ-MSD
**Date Sampled...:** 10/23/02 12:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 01:50

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Benzene** | **ND** | **10.0** | **11.8** | **ug/L** | **118** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.9** | **ug/L** | **109** | **7.8** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **11.1** | **ug/L** | **111** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.5** | **ug/L** | **105** | **5.3** | **SW846 8260B** |
| **1,1-Dichloroethene** | **ND** | **10.0** | **12.3** | **ug/L** | **123** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.5** | **ug/L** | **115** | **6.6** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **11.8** | **ug/L** | **118** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.1** | **ug/L** | **111** | **6.3** | **SW846 8260B** |
| **Trichloroethene** | **ND** | **10.0** | **11.4** | **ug/L** | **114** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.7** | **ug/L** | **107** | **6.3** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 109 | (75 - 130) |
| | 102 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 112 | (65 - 135) |
| | 107 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |
| | 103 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2J230355 **Matrix.....:** WATER
**Date Sampled...:** 10/23/02 11:00 **Date Received..:** 10/23/02 17:20

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2J230364-002 **Prep Batch #...:** 2297224 | | | | | | | |
| Cadmium | 95 | (80 - 120) | | | SW846 6010B | 10/24-10/25/02 | FAMQ51CW |
| | 95 | (80 - 120) | 0.44 | (0-20) | SW846 6010B | 10/24-10/25/02 | FAMQ51CX |
| | | Analysis Time..: 12:02 | | | | | |
| | | MS Run #.....: 2297120 | | | | | |
| Chromium | 95 | (85 - 120) | | | SW846 6010B | 10/24-10/25/02 | FAMQ51C2 |
| | 95 | (85 - 120) | 0.37 | (0-20) | SW846 6010B | 10/24-10/25/02 | FAMQ51C3 |
| | | Analysis Time..: 12:02 | | | | | |
| | | MS Run #.....: 2297120 | | | | | |
| Copper | 105 | (80 - 120) | | | SW846 6010B | 10/24-10/25/02 | FAMQ51C4 |
| | 102 | (80 - 120) | 3.0 | (0-20) | SW846 6010B | 10/24-10/25/02 | FAMQ51C5 |
| | | Analysis Time..: 12:02 | | | | | |
| | | MS Run #.....: 2297120 | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2J230355 **Matrix.....:** WATER
**Date Sampled...:** 10/23/02 11:00 **Date Received..:** 10/23/02 17:20

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2J230364-002 **Prep Batch #...:** 2297224 | | | | | | | | | |
| Cadmium | | | | | | | | | |
| | ND | 0.0500 | 0.0477 | mg/L | 95 | | SW846 6010B | 10/24-10/25/02 | FAMQ51CW |
| | ND | 0.0500 | 0.0475 | mg/L | 95 | 0.44 | SW846 6010B | 10/24-10/25/02 | FAMQ51CX |
| | | | Analysis Time..: 12:02 | | | | | | |
| | | | MS Run #.....: 2297120 | | | | | | |
| Chromium | | | | | | | | | |
| | 0.054 | 0.200 | 0.244 | mg/L | 95 | | SW846 6010B | 10/24-10/25/02 | FAMQ51C2 |
| | 0.054 | 0.200 | 0.245 | mg/L | 95 | 0.37 | SW846 6010B | 10/24-10/25/02 | FAMQ51C3 |
| | | | Analysis Time..: 12:02 | | | | | | |
| | | | MS Run #.....: 2297120 | | | | | | |
| Copper | | | | | | | | | |
| | ND | 0.250 | 0.262 | mg/L | 105 | | SW846 6010B | 10/24-10/25/02 | FAMQ51C4 |
| | ND | 0.250 | 0.254 | mg/L | 102 | 3.0 | SW846 6010B | 10/24-10/25/02 | FAMQ51C5 |
| | | | Analysis Time..: 12:02 | | | | | | |
| | | | MS Run #.....: 2297120 | | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER
**Date Sampled...:** 10/23/02 12:08 **Date Received..:** 10/23/02 17:35

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #...: FAMN21AE | | MS Lot-Sample #: | E2J230358-003 |
| | 105 | (80 - 120) | SW846 7199 | 10/23/02 | 2296685 |
| | | Analysis Time..: 22:00 | | | |
| | | MS Run #.....: 2296346 | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Matrix.....:** WATER
**Date Sampled...:** 10/23/02 12:08 **Date Received..:** 10/23/02 17:35

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | | Work Order #...: FAMN21AE | | | MS Lot-Sample #: E2J230358-003 | | |
| | ND | 0.020 | 0.0210 | mg/L | 105 | SW846 7199 | 10/23/02 | 2296685 |
| | | | Analysis Time..: 22:00 | | | | | |
| | | | MS Run #.....: 2296346 | | | | | |

**NOTE(S):**

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

## SAMPLE DUPLICATE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Work Order #...:** FAMMV-SMP FAMMV-DUP **Matrix.....:** WG

**Date Sampled...:** 10/23/02 08:00 **Date Received..:** 10/23/02 17:25

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| pH | | | | | | SD Lot-Sample #: | E2J230355-001 | |
| | 7.4 | 7.4 | No Units | 0.068 | (0-10) | SW846 9040B | 10/23/02 | 2296686 |

Analysis Time..: 18:35 MS Run Number..: 2296345

## SAMPLE DUPLICATE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J230355 **Work Order #...:** FAMN2-SMP FAMN2-DUP **Matrix.....:** WATER

**Date Sampled...:** 10/23/02 12:08 **Date Received..:** 10/23/02 17:35

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | | | | | SD Lot-Sample #: E2J230358-003 | | |
| | ND | ND | mg/L | 0 | (0-20) | SW846 7199 | 10/23/02 | 2296685 |

Analysis Time..: 22:00 MS Run Number..: 2296346

SEVERN TRENT SERVICES

**STL Los Angeles**
1721 South Grand Avenue
Santa Ana, CA 92705-4808

Tel: 714 258 8610
Fax: 714 258 0921
www.stl-inc.com

October 31, 2002

STL LOT NUMBER: E2J240244
NELAP Certification Number: 01118CA
PO/CONTRACT: 2279-11462-111.FLD

Sharon Wallin
Camp, Dresser, McKee
18581 Teller Avenue
Suite 200
Irvine, CA 92612

Dear Ms. Wallin,

This report contains the analytical results for the six samples received under chain of custody by STL Los Angeles on October 24, 2002. These samples are associated with your PTI - Santa Fe Springs project.

All applicable quality control procedures met method-specified acceptance criteria. See Project Receipt Checklist for container temperature and conditions. Temperature reading between 2 to 6 degrees Celsius is considered within acceptable criteria. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the tests performed at our facility meet all NELAP requirements for parameters for which accreditation is required or available. The case narrative is an integral part of the report. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at (714) 258-8610 extension 309.

Sincerely,

Diane Suzuki
Project Manager

CC: Project File

# Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (0901)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| CDM | SHARON MULLIN | 10/24/02 | 141044 |
| **Address** | **Telephone Number (Area Code)/Fax Number** | **Lab Number** | **Page 1 of 1** |
| | 949.752.5452 / 949.752.1307 | | |
| **City** | **State** | **Zip Code** | **Site Contact** | **Lab Contact** |
| IRVINE | | | | |
| **Project Name and Location (State)** | **Carrier/Waybill Number** | |
| PHIBROTECH | | |
| **Contract/Purchase Order/Quote No.** | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed. | Soil | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: 8260 | Cr(VI)-7199 | Cr-Cu-Ni | pH | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 000002 PTI-MW16-055 | 10/24/02 | 0820 | | X | | | X | | X | X | X | | X | X | X | X | |
| PTI-MW39-055 | | 0725 | | X | | | X | | X | X | X | | X | X | X | X | |
| PTI-MW09-055 | | 0905 | | X | | | X | | X | X | X | | X | X | X | X | |
| PTI-~~MW~~EB03-055 | | 0930 | | X | | | X | | X | X | X | | X | X | X | X | |
| PTI-MW11-055 | | 1005 | | X | | | X | | X | X | X | | X | X | X | X | |
| PTI-TB03-055 | | ~~1200~~ * MT | | X | | | | | | X | | | X | | | | |
| | | | | | | | | | | | | | | | | | * PER JOHN B. 10/24/02 MT |

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

**Turn Around Time Required**
☐ 24 Hours ☐ 48 Hours ☒ ~~7~~ Days STANDARD MT ☐ 14 Days ☐ 21 Days ☐ Other _____

**QC Requirements (Specify)**

| 1. Relinquished By | Date | Time | 1. Received By | Date | Time |
|---|---|---|---|---|---|
| [signature] | 10/24/02 | 1115 | [signature] | 10/24.02 | 11.15A |
| 2. Relinquished By | Date | Time | 2. Received By | Date | Time |
| | | | | | |
| 3. Relinquished By | Date | Time | 3. Received By | Date | Time |
| | | | | | |

Comments

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# STL LOS ANGELES
## PROJECT RECEIPT CHECKLIST

Date: 10-24-02

Quantims Lot #: E2J240244
Client Name: C.D.M
Received by: MLT
Quote #:
Project: PHIBROTECH
Date/Time Received: 10-24-02 11:15AM

Delivered by : [x] Client [ ] Airborne [ ] Fed Ex [ ] DHL [ ] In-House Courier [ ] Rey B. [ ] UPS [ ] DES [ ] Other

Initial / Date

Custody Seal Status: [x] Intact [ ] Broken [ ] None ..... MLT 10-24-02
Custody Seal #(s): [ ] No Seal # .....
Sample Container(s): [x] STL-LA [ ] Client [ ] N/A .....
Temperature(s) (Cooler/blank) in °C: 3.7° Correction factor -0.2°C (Corrected Temp.) 3.5°C
Thermometer Used : ID: B [x] IR (Infra-red) [ ] Digital (Probe) .....
Samples: [x] Intact [ ] Broken [ ] Other .....
Anomalies: [x] No [ ] Yes (See Clouseau) .....
Labeled by .....
Labeling checked by .....

Turn Around Time: [ ] RUSH-24HR [ ] RUSH-48HR [ ] RUSH-72HR [x] NORMAL .....
Short-Hold Notification: [ ] Ph [x] Wet Chem [ ] Metals (Filter/Pres) [ ] Encore [ ] N/A ...
Outside Analysis(es) (Test/Lab/Date Sent Out) :
~~FB 10-21-02~~ MLT 10/24/02

LEAVE NO BLANK SPACES ; USE N/A

| Fraction | 1->5 | 6 FB | | | | | | | | | PH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VOAh /* | 3 | 3 | | | | | | | | | N/A |
| 500m PB | 1 | - | | | | | | | | | <2 |
| 250m PB | 1 | - | | | | | | | | | - |
| 125m PB | 1 | - | | | | | | | | | - |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |

h:HCl na:Sodium Hydoxide znna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered
CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve
* Number of VOA's w/ Headspace present

LOGGED BY/DATE: AB 10/24/02 REVIEWED BY/DATE: MLT 10/24/02

PRC ver 6 081401 KRF QANACA01\N\Projects\Sample Control Forms

SEVERN
TRENT
SERVICES

# Analytical Report

# EXECUTIVE SUMMARY - Detection Highlights

**E2J240244**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PTI-MW16-055 10/24/02 08:20 001** | | | | |
| 1,1-Dichloroethane | 120 | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 13 | 2.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 16 | 2.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 20 | 2.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | 4.2 | 2.0 | ug/L | SW846 8260B |
| Trichloroethene | 25 | 2.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0051 | 0.0010 | mg/L | SW846 7199 |
| pH | 6.9 | 0.10 | No Units | SW846 9040B |
| **PTI-MW39-055 10/24/02 07:25 002** | | | | |
| Chromium | 4.8 | 0.010 | mg/L | SW846 6010B |
| Chloroform | 360 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 630 | 10 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 210 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 160 | 10 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 28 | 10 | ug/L | SW846 8260B |
| Methylene chloride | 270 | 10 | ug/L | SW846 8260B |
| Tetrachloroethene | 12 | 10 | ug/L | SW846 8260B |
| Trichloroethene | 640 | 10 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 4.4 | 0.10 | mg/L | SW846 7199 |
| pH | 6.5 | 0.10 | No Units | SW846 9040B |
| **PTI-MW09-055 10/24/02 09:05 003** | | | | |
| Chromium | 4.5 | 0.010 | mg/L | SW846 6010B |
| Chloroform | 300 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 530 | 10 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 190 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 140 | 10 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 23 | 10 | ug/L | SW846 8260B |
| Methylene chloride | 230 | 10 | ug/L | SW846 8260B |
| Trichloroethene | 530 | 10 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 4.3 | 0.10 | mg/L | SW846 7199 |
| pH | 6.5 | 0.10 | No Units | SW846 9040B |

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

E2J240244

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PTI-EB03-055 10/24/02 09:30 004** | | | | |
| pH | 6.1 | 0.10 | No Units | SW846 9040B |
| **PTI-MW11-055 10/24/02 10:05 005** | | | | |
| Chloroform | 24 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 140 | 10 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 130 | 10 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 59 | 10 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | 39 | 10 | ug/L | SW846 8260B |
| Ethylbenzene | 390 | 10 | ug/L | SW846 8260B |
| Trichloroethene | 700 | 10 | ug/L | SW846 8260B |
| pH | 7.1 | 0.10 | No Units | SW846 9040B |

# METHODS SUMMARY

**E2J240244**

| PARAMETER | ANALYTICAL METHOD | PREPARATION METHOD |
|---|---|---|
| pH Aqueous | SW846 9040B | SW846 9040B |
| Hexavalent Chromium | SW846 7199 | SW846 7199 |
| Inductively Coupled Plasma (ICP) Metals | SW846 6010B | SW846 3005A |
| Volatile Organics by GC/MS | SW846 8260B | SW846 5030B/826 |

**References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

**E2J240244**

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|---|---|---|---|---|
| FAN61 | 001 | PTI-MW16-055 | 10/24/02 | 08:20 |
| FAN7K | 002 | PTI-MW39-055 | 10/24/02 | 07:25 |
| FAN7N | 003 | PTI-MW09-055 | 10/24/02 | 09:05 |
| FAN7Q | 004 | PTI-EB03-055 | 10/24/02 | 09:30 |
| FAN7R | 005 | PTI-MW11-055 | 10/24/02 | 10:05 |
| FAN7X | 006 | PTI-TB03-055 | 10/24/02 | |

**NOTE(S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW16-055

GC/MS Volatiles

**Lot-Sample #...:** E2J240244-001 **Work Order #...:** FAN611AA **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 23:52
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 2.0 | ug/L | 0.60 |
| Bromodichloromethane | ND | 2.0 | ug/L | 0.60 |
| Bromoform | ND | 2.0 | ug/L | 0.60 |
| Bromomethane | ND | 4.0 | ug/L | 2.0 |
| Carbon tetrachloride | ND | 2.0 | ug/L | 0.60 |
| Chlorobenzene | ND | 2.0 | ug/L | 0.60 |
| Dibromochloromethane | ND | 2.0 | ug/L | 0.80 |
| Chloroethane | ND | 4.0 | ug/L | 0.60 |
| Chloroform | ND | 2.0 | ug/L | 0.60 |
| Chloromethane | ND | 4.0 | ug/L | 0.60 |
| 1,2-Dichlorobenzene | ND | 2.0 | ug/L | 0.60 |
| 1,3-Dichlorobenzene | ND | 2.0 | ug/L | 0.60 |
| 1,4-Dichlorobenzene | ND | 2.0 | ug/L | 0.60 |
| **1,1-Dichloroethane** | **120** | **2.0** | **ug/L** | **0.40** |
| **1,2-Dichloroethane** | **13** | **2.0** | **ug/L** | **0.80** |
| **1,1-Dichloroethene** | **16** | **2.0** | **ug/L** | **0.60** |
| **cis-1,2-Dichloroethene** | **20** | **2.0** | **ug/L** | **0.60** |
| **trans-1,2-Dichloroethene** | **4.2** | **2.0** | **ug/L** | **0.60** |
| 1,2-Dichloropropane | ND | 2.0 | ug/L | 0.60 |
| cis-1,3-Dichloropropene | ND | 2.0 | ug/L | 0.60 |
| trans-1,3-Dichloropropene | ND | 2.0 | ug/L | 1.0 |
| Ethylbenzene | ND | 2.0 | ug/L | 0.40 |
| Methylene chloride | ND | 2.0 | ug/L | 0.60 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | ug/L | 0.80 |
| Tetrachloroethene | ND | 2.0 | ug/L | 0.60 |
| Toluene | ND | 2.0 | ug/L | 0.60 |
| 1,1,1-Trichloroethane | ND | 2.0 | ug/L | 0.40 |
| 1,1,2-Trichloroethane | ND | 2.0 | ug/L | 0.60 |
| **Trichloroethene** | **25** | **2.0** | **ug/L** | **0.60** |
| Trichlorofluoromethane | ND | 4.0 | ug/L | 0.60 |
| Vinyl chloride | ND | 4.0 | ug/L | 0.60 |
| m-Xylene & p-Xylene | ND | 2.0 | ug/L | 1.0 |
| o-Xylene | ND | 2.0 | ug/L | 0.40 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 105 | (65 - 135) |
| Toluene-d8 | 99 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW16-055

TOTAL Metals

**Lot-Sample #**...: E2J240244-001 **Matrix**.....: WATER
**Date Sampled**...: 10/24/02 08:20 **Date Received**..: 10/24/02 11:15

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2298236 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN611AC |
| | | Analysis Time..: 15:00 | | MS Run #.....: 2299042 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN611AD |
| | | Analysis Time..: 15:00 | | MS Run #.....: 2299042 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN611AE |
| | | Analysis Time..: 15:00 | | MS Run #.....: 2299042 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW16-055

General Chemistry

**Lot-Sample #...:** E2J240244-001 **Work Order #...:** FAN61 **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | 6.9 | 0.10 | No Units | SW846 9040B | 10/24/02 | 2297423 |
| | Analysis Time..: 13:37 | | MS Run #.....: 2297247 | | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | 0.0051 | 0.0010 | mg/L | SW846 7199 | 10/24/02 | 2297422 |
| | Analysis Time..: 13:53 | | MS Run #.....: 2297277 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW39-055

GC/MS Volatiles

**Lot-Sample #...:** E2J240244-002 **Work Order #...:** FAN7K1AA **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 07:25 **Date Received..:** 10/24/02 11:15 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 00:21
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 10 | ug/L | 3.0 |
| Bromodichloromethane | ND | 10 | ug/L | 3.0 |
| Bromoform | ND | 10 | ug/L | 3.0 |
| Bromomethane | ND | 20 | ug/L | 10 |
| Carbon tetrachloride | ND | 10 | ug/L | 3.0 |
| Chlorobenzene | ND | 10 | ug/L | 3.0 |
| Dibromochloromethane | ND | 10 | ug/L | 4.0 |
| Chloroethane | ND | 20 | ug/L | 3.0 |
| **Chloroform** | **360** | **10** | **ug/L** | **3.0** |
| Chloromethane | ND | 20 | ug/L | 3.0 |
| 1,2-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,3-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,4-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| **1-Dichloroethane** | **630** | **10** | **ug/L** | **2.0** |
| **,2-Dichloroethane** | **210** | **10** | **ug/L** | **4.0** |
| **1,1-Dichloroethene** | **160** | **10** | **ug/L** | **3.0** |
| **cis-1,2-Dichloroethene** | **28** | **10** | **ug/L** | **3.0** |
| trans-1,2-Dichloroethene | ND | 10 | ug/L | 3.0 |
| 1,2-Dichloropropane | ND | 10 | ug/L | 3.0 |
| cis-1,3-Dichloropropene | ND | 10 | ug/L | 3.0 |
| trans-1,3-Dichloropropene | ND | 10 | ug/L | 5.0 |
| Ethylbenzene | ND | 10 | ug/L | 2.0 |
| **Methylene chloride** | **270** | **10** | **ug/L** | **3.0** |
| 1,1,2,2-Tetrachloroethane | ND | 10 | ug/L | 4.0 |
| **Tetrachloroethene** | **12** | **10** | **ug/L** | **3.0** |
| Toluene | ND | 10 | ug/L | 3.0 |
| 1,1,1-Trichloroethane | ND | 10 | ug/L | 2.0 |
| 1,1,2-Trichloroethane | ND | 10 | ug/L | 3.0 |
| **Trichloroethene** | **640** | **10** | **ug/L** | **3.0** |
| Trichlorofluoromethane | ND | 20 | ug/L | 3.0 |
| Vinyl chloride | ND | 20 | ug/L | 3.0 |
| m-Xylene & p-Xylene | ND | 10 | ug/L | 5.0 |
| o-Xylene | ND | 10 | ug/L | 2.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 93 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 106 | (65 - 135) |
| Toluene-d8 | 99 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW39-055

TOTAL Metals

**Lot-Sample #**...: E2J240244-002 **Matrix**.....: WATER
**Date Sampled**...: 10/24/02 07:25 **Date Received**..: 10/24/02 11:15

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2298236 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7K1AC |
| | | Analysis Time..: 15:44 | | MS Run #.....: 2299042 | MDL.....: 0.00060 | |
| **Chromium** | **4.8** | **0.010** | **mg/L** | **SW846 6010B** | **10/25-10/26/02** | **FAN7K1AD** |
| | | Analysis Time..: 15:44 | | MS Run #.....: 2299042 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7K1AE |
| | | Analysis Time..: 15:44 | | MS Run #.....: 2299042 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW39-055

General Chemistry

**Lot-Sample #...:** E2J240244-002 **Work Order #...:** FAN7K **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 07:25 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| pH | 6.5 | 0.10 | No Units | SW846 9040B | 10/24/02 | 2297423 |
| | Analysis Time..: 13:43 | | MS Run #.....: 2297247 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | 4.4 | 0.10 | mg/L | SW846 7199 | 10/24/02 | 2297422 |
| | Analysis Time..: 14:10 | | MS Run #.....: 2297277 | | MDL.....: 0.030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW09-055

GC/MS Volatiles

**Lot-Sample #...:** E2J240244-003 **Work Order #...:** FAN7N1AA **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 09:05 **Date Received..:** 10/24/02 11:15 **MS Run #.....:** 2298302
**Prep Date.....:** 10/25/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298600 **Analysis Time..:** 16:37
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 10 | ug/L | 3.0 |
| Bromodichloromethane | ND | 10 | ug/L | 3.0 |
| Bromoform | ND | 10 | ug/L | 3.0 |
| Bromomethane | ND | 20 | ug/L | 10 |
| Carbon tetrachloride | ND | 10 | ug/L | 3.0 |
| Chlorobenzene | ND | 10 | ug/L | 3.0 |
| Dibromochloromethane | ND | 10 | ug/L | 4.0 |
| Chloroethane | ND | 20 | ug/L | 3.0 |
| **Chloroform** | **300** | **10** | **ug/L** | **3.0** |
| Chloromethane | ND | 20 | ug/L | 3.0 |
| 1,2-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,3-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,4-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| **1,1-Dichloroethane** | **530** | **10** | **ug/L** | **2.0** |
| **1,2-Dichloroethane** | **190** | **10** | **ug/L** | **4.0** |
| **1,1-Dichloroethene** | **140** | **10** | **ug/L** | **3.0** |
| **cis-1,2-Dichloroethene** | **23** | **10** | **ug/L** | **3.0** |
| trans-1,2-Dichloroethene | ND | 10 | ug/L | 3.0 |
| 1,2-Dichloropropane | ND | 10 | ug/L | 3.0 |
| cis-1,3-Dichloropropene | ND | 10 | ug/L | 3.0 |
| trans-1,3-Dichloropropene | ND | 10 | ug/L | 5.0 |
| Ethylbenzene | ND | 10 | ug/L | 2.0 |
| **Methylene chloride** | **230** | **10** | **ug/L** | **3.0** |
| 1,1,2,2-Tetrachloroethane | ND | 10 | ug/L | 4.0 |
| Tetrachloroethene | ND | 10 | ug/L | 3.0 |
| Toluene | ND | 10 | ug/L | 3.0 |
| 1,1,1-Trichloroethane | ND | 10 | ug/L | 2.0 |
| 1,1,2-Trichloroethane | ND | 10 | ug/L | 3.0 |
| **Trichloroethene** | **530** | **10** | **ug/L** | **3.0** |
| Trichlorofluoromethane | ND | 20 | ug/L | 3.0 |
| Vinyl chloride | ND | 20 | ug/L | 3.0 |
| m-Xylene & p-Xylene | ND | 10 | ug/L | 5.0 |
| o-Xylene | ND | 10 | ug/L | 2.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 90 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 103 | (65 - 135) |
| Toluene-d8 | 94 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW09-055

TOTAL Metals

**Lot-Sample #...:** E2J240244-003 **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 09:05 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2298236 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7N1AC |
| | | Analysis Time..: 15:52 | | MS Run #.....: 2299042 | MDL.....: 0.00060 | |
| **Chromium** | **4.5** | **0.010** | **mg/L** | **SW846 6010B** | **10/25-10/26/02** | **FAN7N1AD** |
| | | Analysis Time..: 15:52 | | MS Run #.....: 2299042 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7N1AE |
| | | Analysis Time..: 15:52 | | MS Run #.....: 2299042 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW09-055

General Chemistry

**Lot-Sample #...:** E2J240244-003 **Work Order #...:** FAN7N **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 09:05 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| pH | 6.5 | 0.10 | No Units | SW846 9040B | 10/24/02 | 2297423 |
| | Analysis Time..: 13:46 | | MS Run #.....: 2297247 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | 4.3 | 0.10 | mg/L | SW846 7199 | 10/24/02 | 2297422 |
| | Analysis Time..: 14:27 | | MS Run #.....: 2297277 | | MDL.....: 0.030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-EB03-055

GC/MS Volatiles

**Lot-Sample #...:** E2J240244-004 **Work Order #...:** FAN7Q1AA **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 09:30 **Date Received..:** 10/24/02 11:15 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 19:27
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| ,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 93 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 83 | (65 - 135) |
| Toluene-d8 | 101 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-EB03-055

TOTAL Metals

**Lot-Sample #**...: E2J240244-004 **Matrix**.....: WATER
**Date Sampled**...: 10/24/02 09:30 **Date Received**..: 10/24/02 11:15

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #**...: 2298236 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7Q1AC |
| | | Analysis Time..: 16:01 | | MS Run #.....: 2299042 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7Q1AD |
| | | Analysis Time..: 16:01 | | MS Run #.....: 2299042 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7Q1AE |
| | | Analysis Time..: 16:01 | | MS Run #.....: 2299042 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-EB03-055

General Chemistry

**Lot-Sample #...:** E2J240244-004 **Work Order #...:** FAN7Q **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 09:30 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **6.1** | **0.10** | **No Units** | **SW846 9040B** | **10/24/02** | **2297423** |
| | Analysis Time..: 13:49 | | MS Run #.....: 2297247 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/24/02 | 2297422 |
| | Analysis Time..: 16:17 | | MS Run #.....: 2297277 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW11-055

GC/MS Volatiles

**Lot-Sample #...:** E2J240244-005 **Work Order #...:** FAN7R1AA **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 10:05 **Date Received..:** 10/24/02 11:15 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 01:20
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 10 | ug/L | 3.0 |
| Bromodichloromethane | ND | 10 | ug/L | 3.0 |
| Bromoform | ND | 10 | ug/L | 3.0 |
| Bromomethane | ND | 20 | ug/L | 10 |
| Carbon tetrachloride | ND | 10 | ug/L | 3.0 |
| Chlorobenzene | ND | 10 | ug/L | 3.0 |
| Dibromochloromethane | ND | 10 | ug/L | 4.0 |
| Chloroethane | ND | 20 | ug/L | 3.0 |
| **Chloroform** | **24** | **10** | **ug/L** | **3.0** |
| Chloromethane | ND | 20 | ug/L | 3.0 |
| 1,2-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,3-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| 1,4-Dichlorobenzene | ND | 10 | ug/L | 3.0 |
| **1,1-Dichloroethane** | **140** | **10** | **ug/L** | **2.0** |
| **1,2-Dichloroethane** | **130** | **10** | **ug/L** | **4.0** |
| **1,1-Dichloroethene** | **59** | **10** | **ug/L** | **3.0** |
| **cis-1,2-Dichloroethene** | **39** | **10** | **ug/L** | **3.0** |
| trans-1,2-Dichloroethene | ND | 10 | ug/L | 3.0 |
| 1,2-Dichloropropane | ND | 10 | ug/L | 3.0 |
| cis-1,3-Dichloropropene | ND | 10 | ug/L | 3.0 |
| trans-1,3-Dichloropropene | ND | 10 | ug/L | 5.0 |
| **Ethylbenzene** | **390** | **10** | **ug/L** | **2.0** |
| Methylene chloride | ND | 10 | ug/L | 3.0 |
| 1,1,2,2-Tetrachloroethane | ND | 10 | ug/L | 4.0 |
| Tetrachloroethene | ND | 10 | ug/L | 3.0 |
| Toluene | ND | 10 | ug/L | 3.0 |
| 1,1,1-Trichloroethane | ND | 10 | ug/L | 2.0 |
| 1,1,2-Trichloroethane | ND | 10 | ug/L | 3.0 |
| **Trichloroethene** | **700** | **10** | **ug/L** | **3.0** |
| Trichlorofluoromethane | ND | 20 | ug/L | 3.0 |
| Vinyl chloride | ND | 20 | ug/L | 3.0 |
| m-Xylene & p-Xylene | ND | 10 | ug/L | 5.0 |
| o-Xylene | ND | 10 | ug/L | 2.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 114 | (65 - 135) |
| Toluene-d8 | 107 | (80 - 130) |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW11-055

TOTAL Metals

**Lot-Sample #...:** E2J240244-005 **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 10:05 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2298236 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7R1AC |
| | | Analysis Time..: 16:06 | | MS Run #.....: 2299042 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7R1AD |
| | | Analysis Time..: 16:06 | | MS Run #.....: 2299042 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/25-10/26/02 | FAN7R1AE |
| | | Analysis Time..: 16:06 | | MS Run #.....: 2299042 | MDL.....: 0.0040 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-MW11-055

General Chemistry

**Lot-Sample #...:** E2J240244-005 **Work Order #...:** FAN7R **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 10:05 **Date Received..:** 10/24/02 11:15

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.1** | **0.10** | **No Units** | **SW846 9040B** | **10/24/02** | **2297423** |
| | Analysis Time..: 13:52 | | MS Run #.....: 2297247 | | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 10/24/02 | 2297422 |
| | Analysis Time..: 15:09 | | MS Run #.....: 2297277 | | MDL.....: 0.00030 | |

PHIBRO-TECH, INC.

Client Sample ID: PTI-TB03-055

GC/MS Volatiles

**Lot-Sample #...:** E2J240244-006 **Work Order #...:** FAN7X1AA **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 **Date Received..:** 10/24/02 11:15 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 18:57
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 90 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 101 | (80 - 130) |

SEVERN
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# QA/QC

# QC DATA ASSOCIATION SUMMARY

**E2J240244**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | SW846 9040B | | 2297423 | 2297247 |
| | WATER | SW846 8260B | | 2298468 | 2298246 |
| | WATER | SW846 6010B | | 2298236 | 2299042 |
| | WATER | SW846 7199 | | 2297422 | 2297277 |
| 002 | WATER | SW846 9040B | | 2297423 | 2297247 |
| | WATER | SW846 8260B | | 2298468 | 2298246 |
| | WATER | SW846 6010B | | 2298236 | 2299042 |
| | WATER | SW846 7199 | | 2297422 | 2297277 |
| 003 | WATER | SW846 9040B | | 2297423 | 2297247 |
| | WATER | SW846 8260B | | 2298600 | 2298302 |
| | WATER | SW846 6010B | | 2298236 | 2299042 |
| | WATER | SW846 7199 | | 2297422 | 2297277 |
| 004 | WATER | SW846 9040B | | 2297423 | 2297247 |
| | WATER | SW846 8260B | | 2298468 | 2298246 |
| | WATER | SW846 6010B | | 2298236 | 2299042 |
| | WATER | SW846 7199 | | 2297422 | 2297277 |
| 005 | WATER | SW846 9040B | | 2297423 | 2297247 |
| | WATER | SW846 8260B | | 2298468 | 2298246 |
| | WATER | SW846 6010B | | 2298236 | 2299042 |
| | WATER | SW846 7199 | | 2297422 | 2297277 |
| 006 | WATER | SW846 8260B | | 2298468 | 2298246 |

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FATJ11AA **Matrix.....:** WATER
**MB Lot-Sample #:** E2J250000-468

**Prep Date.....:** 10/24/02 **Analysis Time..:** 17:58
**Analysis Date..:** 10/24/02 **Prep Batch #...:** 2298468

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 2.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | SW846 8260B |
| o-Xylene | ND | 1.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 95 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 94 | (65 - 135) |
| Toluene-d8 | 96 | (80 - 130) |

**NOTE(S):**

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

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FAVAC1AA **Matrix.....:** WATER
**MB Lot-Sample #:** E2J250000-600

**Prep Date.....:** 10/25/02 **Analysis Time..:** 10:17
**Analysis Date..:** 10/25/02 **Prep Batch #...:** 2298600

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| ?-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| ,1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 2.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | SW846 8260B |
| o-Xylene | ND | 1.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 85 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 79 | (65 - 135) |
| Toluene-d8 | 96 | (80 - 130) |

**TE(S):**

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

## METHOD BLANK REPORT

### TOTAL Metals

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **MB Lot-Sample #:** E2J250000-236 **Prep Batch #...:** 2298236 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 10/25-10/26/02 | FAQ301AE |
| | | Analysis Time..: 14:47 | | | | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 10/25-10/26/02 | FAQ301AF |
| | | Analysis Time..: 14:47 | | | | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 10/25-10/26/02 | FAQ301AM |
| | | Analysis Time..: 14:47 | | | | |

**NOTE(S):**

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

## METHOD BLANK REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: FAPRJ1AA | | | MB Lot-Sample #: | E2J240000-422 | |
| | ND | 0.0010 | mg/L | SW846 7199 | 10/24/02 | 2297422 |
| | | Analysis Time..: 13:36 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FATJ11AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-468
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 17:29

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Benzene** | **109** | **(75 - 120)** | **SW846 8260B** |
| **Chlorobenzene** | **105** | **(75 - 120)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **113** | **(70 - 140)** | **SW846 8260B** |
| **Toluene** | **108** | **(75 - 125)** | **SW846 8260B** |
| **Trichloroethene** | **111** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 105 | (80 - 130) |

**NOTE(S) :**

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FATJ11AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-468
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/24/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 17:29

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **10.0** | **10.9** | **ug/L** | **109** | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **10.5** | **ug/L** | **105** | **SW846 8260B** |
| **1,1-Dichloroethene** | **10.0** | **11.3** | **ug/L** | **113** | **SW846 8260B** |
| **Toluene** | **10.0** | **10.8** | **ug/L** | **108** | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **11.1** | **ug/L** | **111** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 95 | (65 - 135) |
| Toluene-d8 | 105 | (80 - 130) |

**NOTE(S):**

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

[d] print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FAVAC1AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-600
**Prep Date.....:** 10/25/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298600 **Analysis Time..:** 09:44

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Benzene** | **104** | **(75 - 120)** | **SW846 8260B** |
| **Chlorobenzene** | **103** | **(75 - 120)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **112** | **(70 - 140)** | **SW846 8260B** |
| **Toluene** | **105** | **(75 - 125)** | **SW846 8260B** |
| **Trichloroethene** | **108** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 94 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 92 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FAVAC1AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2J250000-600
**Prep Date.....:** 10/25/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298600 **Analysis Time..:** 09:44

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **10.0** | **10.4** | **ug/L** | **104** | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **10.3** | **ug/L** | **103** | **SW846 8260B** |
| **1,1-Dichloroethene** | **10.0** | **11.2** | **ug/L** | **112** | **SW846 8260B** |
| **Toluene** | **10.0** | **10.5** | **ug/L** | **105** | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **10.8** | **ug/L** | **108** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 94 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 92 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |

**NOTE(S):**

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

ld print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2J250000-236 **Prep Batch #...:** 2298236 | | | | | |
| Cadmium | 96 | (80 - 120) | SW846 6010B | 10/25-10/26/02 | FAQ301AX |
| | | Analysis Time..: 14:52 | | | |
| Chromium | 97 | (85 - 120) | SW846 6010B | 10/25-10/26/02 | FAQ301A0 |
| | | Analysis Time..: 14:52 | | | |
| Copper | 99 | (80 - 120) | SW846 6010B | 10/25-10/26/02 | FAQ301A6 |
| | | Analysis Time..: 14:52 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2J250000-236 **Prep Batch #...:** 2298236 | | | | | | | |
| Cadmium | 0.0500 | 0.0478 | mg/L | 96 | SW846 6010B | 10/25-10/26/02 | FAQ301AX |
| | | | Analysis Time..: 14:52 | | | | |
| Chromium | 0.200 | 0.194 | mg/L | 97 | SW846 6010B | 10/25-10/26/02 | FAQ301A0 |
| | | | Analysis Time..: 14:52 | | | | |
| Copper | 0.250 | 0.248 | mg/L | 99 | SW846 6010B | 10/25-10/26/02 | FAQ301A6 |
| | | | Analysis Time..: 14:52 | | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| pH | | Work Order #: FAPGA1AA | LCS Lot-Sample#: E2J240000-423 | | |
| | 100 | (90 - 110) | SW846 9040B | 10/24/02 | 2297423 |
| | | Analysis Time..: 13:34 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #**...: E2J240244 **Matrix**.....: WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| pH | | | Work Order #: FAPGA1AA LCS Lot-Sample#: E2J240000-423 | | | | |
| | 9.18 | 9.20 | No Units | 100 | SW846 9040B | 10/24/02 | 2297423 |
| | | | Analysis Time..: 13:34 | | | | |

**NOTE(S)** :

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: FAPRJ1AC | | LCS Lot-Sample#: E2J240000-422 | | |
| | 98 | (90 - 110) | SW846 7199 | 10/24/02 | 2297422 |
| | | Analysis Time..: 13:27 | | | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: FAPRJ1AC LCS Lot-Sample#: E2J240000-422 | | | | | | |
| | 0.0200 | 0.0196 | mg/L | 98 | SW846 7199 | 10/24/02 | 2297422 |

Analysis Time..: 13:27

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2J240244 | **Work Order #...:** | FAMM71AH-MS | **Matrix.....:** | WATER |
| **MS Lot-Sample #:** | E2J230355-009 | | FAMM71AJ-MSD | | |
| **Date Sampled...:** | 10/23/02 12:00 | **Date Received..:** | 10/23/02 17:25 | **MS Run #.....:** | 2298246 |
| **Prep Date.....:** | 10/24/02 | **Analysis Date..:** | 10/25/02 | | |
| **Prep Batch #...:** | 2298468 | **Analysis Time..:** | 01:50 | | |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **118** | **(75 - 120)** | | | **SW846 8260B** |
| | **109** | **(75 - 120)** | **7.8** | **(0-25)** | **SW846 8260B** |
| **Chlorobenzene** | **111** | **(75 - 120)** | | | **SW846 8260B** |
| | **105** | **(75 - 120)** | **5.3** | **(0-25)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **123** | **(70 - 140)** | | | **SW846 8260B** |
| | **115** | **(70 - 140)** | **6.6** | **(0-25)** | **SW846 8260B** |
| **Toluene** | **118** | **(75 - 125)** | | | **SW846 8260B** |
| | **111** | **(75 - 125)** | **6.3** | **(0-25)** | **SW846 8260B** |
| **Trichloroethene** | **114** | **(70 - 130)** | | | **SW846 8260B** |
| | **107** | **(70 - 130)** | **6.3** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 109 | (75 - 130) |
| | 102 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 112 | (65 - 135) |
| | 107 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |
| | 103 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FAMM71AH-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J230355-009 FAMM71AJ-MSD
**Date Sampled...:** 10/23/02 12:00 **Date Received..:** 10/23/02 17:25 **MS Run #.....:** 2298246
**Prep Date.....:** 10/24/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298468 **Analysis Time..:** 01:50

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Benzene** | **ND** | **10.0** | **11.8** | **ug/L** | **118** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.9** | **ug/L** | **109** | **7.8** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **11.1** | **ug/L** | **111** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.5** | **ug/L** | **105** | **5.3** | **SW846 8260B** |
| **1,1-Dichloroethene** | **ND** | **10.0** | **12.3** | **ug/L** | **123** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.5** | **ug/L** | **115** | **6.6** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **11.8** | **ug/L** | **118** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.1** | **ug/L** | **111** | **6.3** | **SW846 8260B** |
| **Trichloroethene** | **ND** | **10.0** | **11.4** | **ug/L** | **114** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.7** | **ug/L** | **107** | **6.3** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| ›mofluorobenzene | 109 | (75 - 130) |
| | 102 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 112 | (65 - 135) |
| | 107 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |
| | 103 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FAQEW1AE-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J240358-004 FAQEW1AF-MSD
**Date Sampled...:** 10/24/02 12:50 **Date Received..:** 10/24/02 18:00 **MS Run #.....:** 2298302
**Prep Date.....:** 10/25/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298600 **Analysis Time..:** 15:04

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **108** | **(75 - 120)** | | | **SW846 8260B** |
| | **109** | **(75 - 120)** | **1.0** | **(0-25)** | **SW846 8260B** |
| **Chlorobenzene** | **103** | **(75 - 120)** | | | **SW846 8260B** |
| | **103** | **(75 - 120)** | **0.48** | **(0-25)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **109** | **(70 - 140)** | | | **SW846 8260B** |
| | **111** | **(70 - 140)** | **1.6** | **(0-25)** | **SW846 8260B** |
| **Toluene** | **104** | **(75 - 125)** | | | **SW846 8260B** |
| | **106** | **(75 - 125)** | **1.7** | **(0-25)** | **SW846 8260B** |
| **Trichloroethene** | **102** | **(70 - 130)** | | | **SW846 8260B** |
| | **99** | **(70 - 130)** | **2.6** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 97 | (75 - 130) |
| | 99 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 105 | (65 - 135) |
| | 108 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |
| | 101 | (80 - 130) |

**NOTE(S) :**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2J240244 **Work Order #...:** FAQEW1AE-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2J240358-004 FAQEW1AF-MSD
**Date Sampled...:** 10/24/02 12:50 **Date Received..:** 10/24/02 18:00 **MS Run #.....:** 2298302
**Prep Date.....:** 10/25/02 **Analysis Date..:** 10/25/02
**Prep Batch #...:** 2298600 **Analysis Time..:** 15:04

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Benzene** | **ND** | **10.0** | **10.8** | **ug/L** | **108** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.9** | **ug/L** | **109** | **1.0** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **10.3** | **ug/L** | **103** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.3** | **ug/L** | **103** | **0.48** | **SW846 8260B** |
| **1,1-Dichloroethene** | **2.3** | **10.0** | **13.2** | **ug/L** | **109** | | **SW846 8260B** |
| | **2.3** | **10.0** | **13.4** | **ug/L** | **111** | **1.6** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **10.4** | **ug/L** | **104** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.6** | **ug/L** | **106** | **1.7** | **SW846 8260B** |
| **Trichloroethene** | **4.7** | **10.0** | **14.9** | **ug/L** | **102** | | **SW846 8260B** |
| | **4.7** | **10.0** | **14.5** | **ug/L** | **99** | **2.6** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| ɔmofluorobenzene | 97 | (75 - 130) |
| | 99 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 105 | (65 - 135) |
| | 108 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |
| | 101 | (80 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2J240244 **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2J240244-001 **Prep Batch #...:** 2298236 | | | | | | | |
| Cadmium | 93 | (80 - 120) | | | SW846 6010B | 10/25-10/26/02 | FAN611AL |
| | 96 | (80 - 120) | 3.2 | (0-20) | SW846 6010B | 10/25-10/26/02 | FAN611AM |
| | | Analysis Time..: 15:14 | | | | | |
| | | MS Run #.....: 2299042 | | | | | |
| Chromium | 96 | (85 - 120) | | | SW846 6010B | 10/25-10/26/02 | FAN611AN |
| | 98 | (85 - 120) | 1.9 | (0-20) | SW846 6010B | 10/25-10/26/02 | FAN611AP |
| | | Analysis Time..: 15:14 | | | | | |
| | | MS Run #.....: 2299042 | | | | | |
| Copper | 102 | (80 - 120) | | | SW846 6010B | 10/25-10/26/02 | FAN611AQ |
| | 104 | (80 - 120) | 2.1 | (0-20) | SW846 6010B | 10/25-10/26/02 | FAN611AR |
| | | Analysis Time..: 15:14 | | | | | |
| | | MS Run #.....: 2299042 | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2J240244 **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2J240244-001 **Prep Batch #...:** 2298236 | | | | | | | | | |
| Cadmium | | | | | | | | | |
| | ND | 0.0500 | 0.0474 | mg/L | 93 | | SW846 6010B | 10/25-10/26/02 | FAN611AL |
| | ND | 0.0500 | 0.0489 | mg/L | 96 | 3.2 | SW846 6010B | 10/25-10/26/02 | FAN611AM |
| | | | Analysis Time..: 15:14 | | | | | | |
| | | | MS Run #.....: 2299042 | | | | | | |
| Chromium | | | | | | | | | |
| | ND | 0.200 | 0.196 | mg/L | 96 | | SW846 6010B | 10/25-10/26/02 | FAN611AN |
| | ND | 0.200 | 0.200 | mg/L | 98 | 1.9 | SW846 6010B | 10/25-10/26/02 | FAN611AP |
| | | | Analysis Time..: 15:14 | | | | | | |
| | | | MS Run #.....: 2299042 | | | | | | |
| Copper | | | | | | | | | |
| | ND | 0.250 | 0.263 | mg/L | 102 | | SW846 6010B | 10/25-10/26/02 | FAN611AQ |
| | ND | 0.250 | 0.268 | mg/L | 104 | 2.1 | SW846 6010B | 10/25-10/26/02 | FAN611AR |
| | | | Analysis Time..: 15:14 | | | | | | |
| | | | MS Run #.....: 2299042 | | | | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Matrix.....:** WATER
**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #...: FAN611AJ | | MS Lot-Sample #: | E2J240244-001 |
| | 95 | (80 - 120) | SW846 7199 | 10/24/02 | 2297422 |
| | | Analysis Time..: 13:53 | | | |
| | | MS Run #.....: 2297277 | | | |

**NOTE(S):**

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

## MATRIX SPIKE SAMPLE DATA REPORT

### General Chemistry

**Client Lot #**...: E2J240244 **Matrix**.....: WATER
**Date Sampled**...: 10/24/02 08:20 **Date Received**..: 10/24/02 11:15

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #...: FAN611AJ | | | | | MS Lot-Sample #: E2J240244-001 | | |
| | 0.0051 | 0.020 | 0.0240 | mg/L | 95 | SW846 7199 | 10/24/02 | 2297422 |
| | | | Analysis Time..: 13:53 | | | | | |
| | | | MS Run #.....: 2297277 | | | | | |

**NOTE(S)**:

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

## SAMPLE DUPLICATE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Work Order #...:** FAN61-SMP FAN61-DUP **Matrix.....:** WATER

**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| pH | | | | | | SD Lot-Sample #: | E2J240244-001 | |
| | 6.9 | 6.9 | No Units | 0.19 | (0-10) | SW846 9040B | 10/24/02 | 2297423 |

Analysis Time..: 13:37 MS Run Number..: 2297247

## SAMPLE DUPLICATE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2J240244 **Work Order #...:** FAN61-SMP FAN61-DUP **Matrix.....:** WATER

**Date Sampled...:** 10/24/02 08:20 **Date Received..:** 10/24/02 11:15

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | | | | | SD Lot-Sample #: E2J240244-001 | | |
| | 0.0051 | 0.0052 | mg/L | 1.8 | (0-20) | SW846 7199 | 10/24/02 | 2297422 |

Analysis Time..: 13:53 MS Run Number..: 2297277

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# LABORATORY REPORT

Prepared For: Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project: Phibro-Tech Appendix IX

Sampled: 12/30/02
Received: 12/30/02
Issued: 02/20/03

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## CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 7°C, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
Selected results were reported in QC batches with LCS/LCSD sets in place of MS/MSD sets due to lack of additional sample volume to perform MS/MSD.
EPA 8260 cis-1,2-Dichloroethene result for sample ILL1698-03 was originally analyzed within hold time, but the result was greater than the high calibration standard on the instrument. The sample was re-analyzed at a higher dilution, but 4 days outside of the 14 day hold time.
EPA 8270 SVOC had one of the six surrogate recoveries outside acceptance limits. The surrogate Terphenyl-d14 recovery was below acceptance limits, but could not be extracted due to hold time constraints. All other samples and QC in the batch had acceptable surrogate recoveries.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.
EPA 6010B ICP metals were reported from dilutions for samples ILL1698-03 and -05 due to relatively high levels of non-target compounds that caused interference. The reporting limits were elevated as a result of the dilution multiplication factors.
The Hexavalent Chromium result for sample ILL1698-03 was greater than the Total Chromium result most likely due to dilution error during the Hexavalent Chromium analysis. The large dilution required for Hexavalent Chromium may have produced a large error due to multiplication of result by large dilution factor. Any small dilution error would have been magnified and caused a biased result. The sample could not be re-analyzed due to 24 hour hold time constraints.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

| LABORATORY ID | CLIENT ID | MATRIX |
|---|---|---|
| ILL1698-01 | PTI-MW14S-056 | Water |
| ILL1698-02 | PTI-MW07-056 | Water |
| ILL1698-03 | PTI-MW04-056 | Water |
| ILL1698-04 | PTI-MW11-056 | Water |
| ILL1698-05 | PTI-MW35-056 | Water |
| ILL1698-06 | PTI-EB01-056 | Water |

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Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| Aldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| alpha-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| beta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| delta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| gamma-BHC (Lindane) | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Chlordane | EPA 3510C/8081A | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| 4,4'-DDD | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| 4,4'-DDE | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| 4,4'-DDT | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Dieldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Endosulfan I | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Endosulfan II | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Endosulfan sulfate | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Endrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Endrin aldehyde | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Endrin ketone | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Heptachlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Heptachlor epoxide | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Methoxychlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| Toxaphene | EPA 3510C/8081A | 2L31027 | N/A | 5.0 | ND | 0.962 | 12/31/02 | 01/07/03 | |
| *Surrogate: Tetrachloro-m-xylene (35-120%)* | | | | | *106 %* | | | | |
| *Surrogate: Decachlorobiphenyl (45-120%)* | | | | | *120 %* | | | | |

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Aldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| alpha-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| beta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| delta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| gamma-BHC (Lindane) | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Chlordane | EPA 3510C/8081A | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| 4,4'-DDD | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| 4,4'-DDE | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| 4,4'-DDT | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Dieldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endosulfan I | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endosulfan II | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endosulfan sulfate | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endrin aldehyde | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endrin ketone | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Heptachlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Heptachlor epoxide | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Methoxychlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Toxaphene | EPA 3510C/8081A | 2L31027 | N/A | 5.0 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| *Surrogate: Tetrachloro-m-xylene (35-120%)* | | | | | *103 %* | | | | |
| *Surrogate: Decachlorobiphenyl (45-120%)* | | | | | *112 %* | | | | |

**el Mar Analytical, Irvine**
itty Mata
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C[illegible] Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| Aldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| alpha-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| beta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| delta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| gamma-BHC (Lindane) | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Chlordane | EPA 3510C/8081A | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| 4,4'-DDD | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| 4,4'-DDE | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| 4,4'-DDT | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Dieldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endosulfan I | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endosulfan II | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endosulfan sulfate | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| En[illegible]in | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| E[illegible] aldehyde | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Endrin ketone | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Heptachlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Heptachlor epoxide | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Methoxychlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| Toxaphene | EPA 3510C/8081A | 2L31027 | N/A | 5.0 | ND | 0.98 | 12/31/02 | 01/07/03 | |
| *Surrogate: Tetrachloro-m-xylene (35-120%)* | | | | | *102 %* | | | | |
| *Surrogate: Decachlorobiphenyl (45-120%)* | | | | | *115 %* | | | | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Aldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| alpha-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| beta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| delta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 1 | 12/31/02 | 01/07/03 | |
| gamma-BHC (Lindane) | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Chlordane | EPA 3510C/8081A | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/07/03 | |
| 4,4'-DDD | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| 4,4'-DDE | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| 4,4'-DDT | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Dieldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Endosulfan I | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Endosulfan II | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Endosulfan sulfate | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 1 | 12/31/02 | 01/07/03 | |
| Endrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Endrin aldehyde | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Endrin ketone | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Heptachlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Heptachlor epoxide | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Methoxychlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 1 | 12/31/02 | 01/07/03 | |
| Toxaphene | EPA 3510C/8081A | 2L31027 | N/A | 5.0 | ND | 1 | 12/31/02 | 01/07/03 | |
| *Surrogate: Tetrachloro-m-xylene (35-120%)* | | | | | *114 %* | | | | |
| *Surrogate: Decachlorobiphenyl (45-120%)* | | | | | *107 %* | | | | |

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Patty Mata
Project Manager

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| Aldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| alpha-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| beta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| delta-BHC | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| gamma-BHC (Lindane) | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Chlordane | EPA 3510C/8081A | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| 4,4'-DDD | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| 4,4'-DDE | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| 4,4'-DDT | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Dieldrin | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Endosulfan I | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Endosulfan II | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Endosulfan sulfate | EPA 3510C/8081A | 2L31027 | N/A | 0.20 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| E[illegible]n | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| E[illegible] aldehyde | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Endrin ketone | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Heptachlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Heptachlor epoxide | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Methoxychlor | EPA 3510C/8081A | 2L31027 | N/A | 0.10 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| Toxaphene | EPA 3510C/8081A | 2L31027 | N/A | 5.0 | ND | 0.943 | 12/31/02 | 01/07/03 | |
| *Surrogate: Tetrachloro-m-xylene (35-120%)* | | | | | *101 %* | | | | |
| *Surrogate: Decachlorobiphenyl (45-120%)* | | | | | *101 %* | | | | |

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# POLYCHLORINATED BIPHENYLS (EPA 3510C/8082)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| Aroclor 1016 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| Aroclor 1221 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| Aroclor 1232 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| Aroclor 1242 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| Aroclor 1248 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| Aroclor 1254 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| Aroclor 1260 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.962 | 12/31/02 | 01/02/03 | |
| *Surrogate: Decachlorobiphenyl (35-135%)* | | | | | *91 %* | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Aroclor 1016 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1221 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1232 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1242 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1248 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1254 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1260 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| *Surrogate: Decachlorobiphenyl (35-135%)* | | | | | *90 %* | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| Aroclor 1016 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1221 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1232 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1242 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1248 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1254 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| Aroclor 1260 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.98 | 12/31/02 | 01/02/03 | |
| *Surrogate: Decachlorobiphenyl (35-135%)* | | | | | *89 %* | | | | |

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'atty Mata
'roject Manager

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18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## POLYCHLORINATED BIPHENYLS (EPA 3510C/8082)

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Aroclor 1016 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| Aroclor 1221 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| Aroclor 1232 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| Aroclor 1242 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| Aroclor 1248 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| Aroclor 1254 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| Aroclor 1260 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 1 | 12/31/02 | 01/02/03 | |
| *Surrogate: Decachlorobiphenyl (35-135%)* | | | | | *93 %* | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| Aroclor 1016 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| Aroclor 1221 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| Aroclor 1232 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| Aroclor 1242 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| Aroclor 1248 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| Aroclor 1254 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| Aroclor 1260 | EPA 3510/8082 | 2L31027 | N/A | 1.0 | ND | 0.943 | 12/31/02 | 01/02/03 | |
| *Surrogate: Decachlorobiphenyl (35-135%)* | | | | | *91 %* | | | | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| Antimony | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Arsenic** | EPA 6010B | 2L30066 | N/A | 0.0050 | **0.011** | 1 | 12/30/02 | 01/02/03 | |
| **Barium** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.42** | 1 | 12/30/02 | 01/02/03 | |
| Beryllium | EPA 6010B | 2L30066 | N/A | 0.0040 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cadmium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Chromium** | EPA 6010B | 2L30066 | N/A | 0.0050 | **0.014** | 1 | 12/30/02 | 01/02/03 | |
| Cobalt | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Copper** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.042** | 1 | 12/30/02 | 01/02/03 | |
| Lead | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Mercury | EPA 7470A | 3A07034 | N/A | 0.00020 | ND | 1 | 01/07/03 | 01/07/03 | |
| Molybdenum | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 1 | 12/30/02 | 01/02/03 | |
| Nickel | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Selenium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Silver | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Thallium** | EPA 6010B | 2L30066 | N/A | 0.0050 | **0.0074** | 1 | 12/30/02 | 01/02/03 | |
| Vanadium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Zinc** | EPA 6010B | 2L30066 | N/A | 0.020 | **0.13** | 1 | 12/30/02 | 01/02/03 | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Antimony | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Arsenic | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Barium** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.40** | 1 | 12/30/02 | 01/02/03 | |
| Beryllium | EPA 6010B | 2L30066 | N/A | 0.0040 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cadmium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Chromium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cobalt | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Copper | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Lead | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Mercury** | EPA 7470A | 3A07034 | N/A | 0.00020 | **0.00039** | 1 | 01/07/03 | 01/07/03 | |
| Molybdenum | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 1 | 12/30/02 | 01/02/03 | |
| Nickel | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Selenium** | EPA 6010B | 2L30066 | N/A | 0.0050 | **0.0085** | 1 | 12/30/02 | 01/02/03 | |
| Silver | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Thallium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Vanadium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Zinc** | EPA 6010B | 2L30066 | N/A | 0.020 | **0.14** | 1 | 12/30/02 | 01/02/03 | |

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), Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| Antimony | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Arsenic | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Barium** | EPA 6010B | 2L30066 | N/A | 0.020 | **0.34** | 2 | 12/30/02 | 01/02/03 | |
| Beryllium | EPA 6010B | 2L30066 | N/A | 0.0080 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Cadmium** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.26** | 2 | 12/30/02 | 01/02/03 | |
| **Chromium** | EPA 6010B | 2L30066 | N/A | 0.010 | **9.2** | 2 | 12/30/02 | 01/02/03 | |
| Cobalt | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Copper | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Lead | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Mercury** | EPA 7470A | 3A07034 | N/A | 0.00020 | **0.0012** | 1 | 01/07/03 | 01/07/03 | |
| Molybdenum | EPA 6010B | 2L30066 | N/A | 0.040 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Nickel | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Selenium** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.016** | 2 | 12/30/02 | 01/02/03 | |
| Silver | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| [illegible]um | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Vanadium | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Zinc | EPA 6010B | 2L30066 | N/A | 0.040 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Antimony | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Arsenic | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Barium** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.32** | 1 | 12/30/02 | 01/02/03 | |
| Beryllium | EPA 6010B | 2L30066 | N/A | 0.0040 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cadmium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Chromium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cobalt | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Copper | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Lead | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Mercury | EPA 7470A | 3A07034 | N/A | 0.00020 | ND | 1 | 01/07/03 | 01/07/03 | |
| Molybdenum | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 1 | 12/30/02 | 01/02/03 | |
| Nickel | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Selenium** | EPA 6010B | 2L30066 | N/A | 0.0050 | **0.0078** | 1 | 12/30/02 | 01/02/03 | |
| Silver | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Thallium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Vanadium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| **Zinc** | EPA 6010B | 2L30066 | N/A | 0.020 | **0.16** | 1 | 12/30/02 | 01/02/03 | |

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Patty Mata
Project Manager

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18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# METALS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| Antimony | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Arsenic | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Barium** | EPA 6010B | 2L30066 | N/A | 0.020 | **0.66** | 2 | 12/30/02 | 01/02/03 | |
| Beryllium | EPA 6010B | 2L30066 | N/A | 0.0080 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Cadmium** | EPA 6010B | 2L30066 | N/A | 0.010 | **0.25** | 2 | 12/30/02 | 01/02/03 | |
| **Chromium** | EPA 6010B | 2L30066 | N/A | 0.010 | **9.4** | 2 | 12/30/02 | 01/02/03 | |
| Cobalt | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Copper | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Lead | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Mercury** | EPA 7470A | 3A07034 | N/A | 0.00020 | **0.0014** | 1 | 01/07/03 | 01/07/03 | |
| Molybdenum | EPA 6010B | 2L30066 | N/A | 0.040 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Nickel | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Selenium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Silver | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Thallium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| Vanadium | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 2 | 12/30/02 | 01/02/03 | RL-3 |
| **Zinc** | EPA 6010B | 2L30066 | N/A | 0.040 | **0.16** | 2 | 12/30/02 | 01/02/03 | |
| **Sample ID: ILL1698-06 (PTI-EB01-056 - Water)** | | | | | | | | | |
| Antimony | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Arsenic | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Barium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Beryllium | EPA 6010B | 2L30066 | N/A | 0.0040 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cadmium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Chromium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Cobalt | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Copper | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Lead | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Mercury | EPA 7470A | 3A07034 | N/A | 0.00020 | ND | 1 | 01/07/03 | 01/07/03 | |
| Molybdenum | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 1 | 12/30/02 | 01/02/03 | |
| Nickel | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Selenium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Silver | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Thallium | EPA 6010B | 2L30066 | N/A | 0.0050 | ND | 1 | 12/30/02 | 01/02/03 | |
| Vanadium | EPA 6010B | 2L30066 | N/A | 0.010 | ND | 1 | 12/30/02 | 01/02/03 | |
| Zinc | EPA 6010B | 2L30066 | N/A | 0.020 | ND | 1 | 12/30/02 | 01/02/03 | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| **Chromium VI** | EPA 7199 | 2L30065 | N/A | 0.0010 | **0.0042** | 1 | 12/30/02 | 12/30/02 | |
| Total Cyanide | SM4500-CN-C,E | 2L31042 | N/A | 0.025 | ND | 1 | 12/31/02 | 12/31/02 | |
| Sulfide | EPA 376.2 | 3A02036 | N/A | 0.10 | ND | 1 | 01/02/03 | 01/02/03 | |
| | | | pH Units | pH Units | pH Units | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| **pH** | EPA 150.1 | 2L30059 | N/A | NA | **7.09** | 1 | 12/30/02 | 12/30/02 | |
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Chromium VI | EPA 7199 | 2L30065 | N/A | 0.0010 | ND | 1 | 12/30/02 | 12/30/02 | |
| Total Cyanide | SM4500-CN-C,E | 2L31042 | N/A | 0.025 | ND | 1 | 12/31/02 | 12/31/02 | |
| Sulfide | EPA 376.2 | 3A02036 | N/A | 0.10 | ND | 1 | 01/02/03 | 01/02/03 | |
| | | | pH Units | pH Units | pH Units | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| **pH** | EPA 150.1 | 2L30059 | N/A | NA | **7.45** | 1 | 12/30/02 | 12/30/02 | |
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| **Chromium VI** | EPA 7199 | 2L30065 | N/A | 0.20 | **11** | 200 | 12/30/02 | 12/30/02 | |
| Total Cyanide | SM4500-CN-C,E | 2L31042 | N/A | 0.025 | ND | 1 | 12/31/02 | 12/31/02 | |
| Sulfide | EPA 376.2 | 3A02036 | N/A | 0.10 | ND | 1 | 01/02/03 | 01/02/03 | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# INORGANICS

| Analyte | Method | Batch | MDL | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | pH Units | pH Units | pH Units | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| **pH** | EPA 150.1 | 2L30059 | N/A | NA | **7.39** | 1 | 12/30/02 | 12/30/02 | |
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Chromium VI | EPA 7199 | 2L30065 | N/A | 0.0010 | ND | 1 | 12/30/02 | 12/30/02 | |
| Total Cyanide | SM4500-CN-C,E | 2L31042 | N/A | 0.025 | ND | 1 | 12/31/02 | 12/31/02 | |
| **Sulfide** | EPA 376.2 | 3A02036 | N/A | 0.10 | **0.19** | 1 | 01/02/03 | 01/02/03 | |
| | | | pH Units | pH Units | pH Units | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| **pH** | EPA 150.1 | 2L30059 | N/A | NA | **7.03** | 1 | 12/30/02 | 12/30/02 | |
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| **Chromium VI** | EPA 7199 | 2L30065 | N/A | 0.20 | **9.4** | 200 | 12/30/02 | 12/30/02 | |
| Total Cyanide | SM4500-CN-C,E | 2L31042 | N/A | 0.025 | ND | 1 | 12/31/02 | 12/31/02 | |
| Sulfide | EPA 376.2 | 3A02036 | N/A | 0.10 | ND | 1 | 01/02/03 | 01/02/03 | |
| | | | pH Units | pH Units | pH Units | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| **pH** | EPA 150.1 | 2L30059 | N/A | NA | **6.71** | 1 | 12/30/02 | 12/30/02 | |

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'atty Mata
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Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## INORGANICS

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | mg/l | mg/l | mg/l | | | | |
| **Sample ID: ILL1698-06 (PTI-EB01-056 - Water)** | | | | | | | | | |
| Chromium VI | EPA 7199 | 2L30065 | N/A | 0.0010 | ND | 1 | 12/30/02 | 12/30/02 | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| Azinphos methyl | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Bolstar | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Chlorpyrifos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Coumaphos | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Demeton | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Diazinon | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Dichlorvos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Dimethoate | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Disulfoton | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ethion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ethoprop | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| EPN | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Fensulfothion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Fenthion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Malathion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Merphos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Mevinphos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Monocrotophos | EPA 8141A | 3A06026 | N/A | 2.4 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Naled | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Parathion-ethyl | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Parathion-methyl | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Phorate | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ronnel | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Stirophos | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Sulfotep | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Thionazin | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Tokuthion (Prothiofos) | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Trichloronate | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| *Surrogate: Triphenyl phosphate (10-182%)* | | | | | *110 %* | | | | |

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Patty Mata
Project Manager

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Azinphos methyl | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Bolstar | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Chlorpyrifos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Coumaphos | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Demeton | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Diazinon | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Dichlorvos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Dimethoate | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Disulfoton | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ethion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ethoprop | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| EPN | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Fensulfothion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| F[illegible]ion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| M[illegible]ion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Merphos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Mevinphos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Monocrotophos | EPA 8141A | 3A06026 | N/A | 2.4 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Naled | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Parathion-ethyl | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Parathion-methyl | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Phorate | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ronnel | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Stirophos | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Sulfotep | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Thionazin | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Tokuthion (Prothiofos) | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Trichloronate | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| *Surrogate: Triphenyl phosphate (10-182%)* | | | | | *113 %* | | | | |

**el Mar Analytical, Irvine**
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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| Azinphos methyl | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Bolstar | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Chlorpyrifos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Coumaphos | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Demeton | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Diazinon | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Dichlorvos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Dimethoate | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Disulfoton | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ethion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ethoprop | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| EPN | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Fensulfothion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Fenthion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Malathion | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Merphos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Mevinphos | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Monocrotophos | EPA 8141A | 3A06026 | N/A | 2.4 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Naled | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Parathion-ethyl | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Parathion-methyl | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Phorate | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Ronnel | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Stirophos | EPA 8141A | 3A06026 | N/A | 0.94 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Sulfotep | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Thionazin | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Tokuthion (Prothiofos) | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| Trichloronate | EPA 8141A | 3A06026 | N/A | 0.47 | ND | 0.943 | 01/06/03 | 01/10/03 | |
| *Surrogate: Triphenyl phosphate (10-182%)* | | | | | *124 %* | | | | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Azinphos methyl | EPA 8141A | 3A06026 | N/A | 0.95 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Bolstar | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Chlorpyrifos | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Coumaphos | EPA 8141A | 3A06026 | N/A | 0.95 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Demeton | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Diazinon | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Dichlorvos | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Dimethoate | EPA 8141A | 3A06026 | N/A | 0.95 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Disulfoton | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Ethion | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Ethoprop | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| EPN | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Fensulfothion | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| F hion | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| K thion | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Merphos | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Mevinphos | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Monocrotophos | EPA 8141A | 3A06026 | N/A | 2.4 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Naled | EPA 8141A | 3A06026 | N/A | 0.95 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Parathion-ethyl | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Parathion-methyl | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Phorate | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Ronnel | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Stirophos | EPA 8141A | 3A06026 | N/A | 0.95 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Sulfotep | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Thionazin | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Tokuthion (Prothiofos) | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| Trichloronate | EPA 8141A | 3A06026 | N/A | 0.48 | ND | 0.952 | 01/06/03 | 01/10/03 | |
| *Surrogate: Triphenyl phosphate (10-182%)* | | | | | *122 %* | | | | |

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atty Mata
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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| Azinphos methyl | EPA 8141A | 3A06026 | N/A | 0.99 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Bolstar | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Chlorpyrifos | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Coumaphos | EPA 8141A | 3A06026 | N/A | 0.99 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Demeton | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Diazinon | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Dichlorvos | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Dimethoate | EPA 8141A | 3A06026 | N/A | 0.99 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Disulfoton | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Ethion | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Ethoprop | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| EPN | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Fensulfothion | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Fenthion | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Malathion | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Merphos | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Mevinphos | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Monocrotophos | EPA 8141A | 3A06026 | N/A | 2.5 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Naled | EPA 8141A | 3A06026 | N/A | 0.99 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Parathion-ethyl | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Parathion-methyl | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Phorate | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Ronnel | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Stirophos | EPA 8141A | 3A06026 | N/A | 0.99 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Sulfotep | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Thionazin | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Tokuthion (Prothiofos) | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| Trichloronate | EPA 8141A | 3A06026 | N/A | 0.50 | ND | 0.99 | 01/06/03 | 01/10/03 | |
| *Surrogate: Triphenyl phosphate (10-182%)* | | | | | *124 %* | | | | |

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atty Mata
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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Chlorinated Herbicides by EPA Method 8151A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| 2,4-D | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| 2,4-DB | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| 2,4,5-T | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| 2,4,5-TP (Silvex) | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dalapon | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dicamba | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dichlorprop | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dinoseb | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| MCPA | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| MCPP | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| *Surrogate: Dichlorophenylacetic acid (48-138%)* | | | | | *81.5 %* | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| 2,4-D | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| B | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| -T | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| 2,4,5-TP (Silvex) | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| Dalapon | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| Dicamba | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| Dichlorprop | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| Dinoseb | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| MCPA | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| MCPP | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.957 | 01/03/03 | 01/08/03 | |
| *Surrogate: Dichlorophenylacetic acid (48-138%)* | | | | | *85.4 %* | | | | |

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'roject Manager

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Chlorinated Herbicides by EPA Method 8151A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| 2,4-D | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| 2,4-DB | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| 2,4,5-T | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| 2,4,5-TP (Silvex) | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| Dalapon | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| Dicamba | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| Dichlorprop | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| Dinoseb | EPA 8151A | 3A03006 | N/A | 0.98 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| MCPA | EPA 8151A | 3A03006 | N/A | 490 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| MCPP | EPA 8151A | 3A03006 | N/A | 490 | ND | 0.98 | 01/03/03 | 01/08/03 | |
| *Surrogate: Dichlorophenylacetic acid (48-138%)* | | | | | *66.9 %* | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| 2,4-D | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| 2,4-DB | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| 2,4,5-T | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| 2,4,5-TP (Silvex) | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dalapon | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dicamba | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dichlorprop | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| Dinoseb | EPA 8151A | 3A03006 | N/A | 0.95 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| MCPA | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| MCPP | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.952 | 01/03/03 | 01/08/03 | |
| *Surrogate: Dichlorophenylacetic acid (48-138%)* | | | | | *98.3 %* | | | | |

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Patty Mata
Project Manager

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Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Chlorinated Herbicides by EPA Method 8151A

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| 2,4-D | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| 2,4-DB | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| 2,4,5-T | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| 2,4,5-TP (Silvex) | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| Dalapon | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| Dicamba | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| Dichlorprop | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| Dinoseb | EPA 8151A | 3A03006 | N/A | 0.96 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| MCPA | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| MCPP | EPA 8151A | 3A03006 | N/A | 480 | ND | 0.962 | 01/03/03 | 01/08/03 | |
| *Surrogate: Dichlorophenylacetic acid (48-138%)* | | | | | *59.6 %* | | | | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| Acetone | EPA 8260B | 3010233 | 18 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| Acetonitrile | EPA 8260B | 3010233 | 190 | 1000 | ND | 10 | 01/13/03 | 01/13/03 | |
| Acrolein | EPA 8260B | 3010233 | 18 | 200 | ND | 10 | 01/13/03 | 01/13/03 | |
| Acrylonitrile | EPA 8260B | 3010233 | 11 | 200 | ND | 10 | 01/13/03 | 01/13/03 | |
| Allyl chloride | EPA 8260B | 3010233 | 9.8 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Benzene** | EPA 8260B | 3010233 | 0.50 | 10 | **1.2** | 10 | 01/13/03 | 01/13/03 | J |
| Bromodichloromethane | EPA 8260B | 3010233 | 0.50 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| Bromoform | EPA 8260B | 3010233 | 1.1 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| Bromomethane | EPA 8260B | 3010233 | 1.9 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 2-Butanone | EPA 8260B | 3010233 | 7.0 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| Carbon disulfide | EPA 8260B | 3010233 | 14 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Carbon tetrachloride** | EPA 8260B | 3010233 | 0.60 | 10 | **7.2** | 10 | 01/13/03 | 01/13/03 | J |
| **Chlorobenzene** | EPA 8260B | 3010233 | 0.70 | 10 | **1.8** | 10 | 01/13/03 | 01/13/03 | J |
| Chloroethane | EPA 8260B | 3010233 | 1.1 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Chloroform** | EPA 8260B | 3010233 | 0.70 | 10 | **13** | 10 | 01/13/03 | 01/13/03 | |
| Chloromethane | EPA 8260B | 3010233 | 1.4 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| Chloroprene | EPA 8260B | 3010233 | 50 | 50 | ND | 10 | 01/13/03 | 01/13/03 | |
| Dibromochloromethane | EPA 8260B | 3010233 | 0.60 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,2-Dibromoethane (EDB) | EPA 8260B | 3010233 | 0.40 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| Dibromomethane | EPA 8260B | 3010233 | 0.90 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| trans-1,4-Dichloro-2-butene | EPA 8260B | 3010233 | 17 | 200 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,2-Dichlorobenzene | EPA 8260B | 3010233 | 1.1 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,3-Dichlorobenzene | EPA 8260B | 3010233 | 1.3 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,4-Dichlorobenzene | EPA 8260B | 3010233 | 1.1 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| Dichlorodifluoromethane | EPA 8260B | 3010233 | 0.90 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethane** | EPA 8260B | 3010233 | 0.40 | 10 | **50** | 10 | 01/13/03 | 01/13/03 | |
| **1,2-Dichloroethane** | EPA 8260B | 3010233 | 0.80 | 10 | **56** | 10 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethene** | EPA 8260B | 3010233 | 0.60 | 10 | **35** | 10 | 01/13/03 | 01/13/03 | |
| **cis-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.90 | 10 | **12** | 10 | 01/13/03 | 01/13/03 | |
| trans-1,2-Dichloroethene | EPA 8260B | 3010233 | 0.90 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,2-Dichloropropane | EPA 8260B | 3010233 | 0.70 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| cis-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.80 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| trans-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.70 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Ethylbenzene** | EPA 8260B | 3010233 | 1.0 | 10 | **130** | 10 | 01/13/03 | 01/13/03 | |
| Ethyl methacrylate | EPA 8260B | 3010233 | 16 | 50 | ND | 10 | 01/13/03 | 01/13/03 | |
| 2-Hexanone | EPA 8260B | 3010233 | 9.6 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| Iodomethane | EPA 8260B | 3010233 | 8.0 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| Isobutanol | EPA 8260B | 3010233 | 200 | 5000 | ND | 10 | 01/13/03 | 01/13/03 | |
| Methacrylonitrile | EPA 8260B | 3010233 | 17 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Methylene chloride** | EPA 8260B | 3010233 | 0.60 | 10 | **2.7** | 10 | 01/13/03 | 01/13/03 | J |
| Methyl methacrylate | EPA 8260B | 3010233 | 16 | 50 | ND | 10 | 01/13/03 | 01/13/03 | |

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Patty Mata
Project Manager

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| 4-Methyl-2-pentanone | EPA 8260B | 3010233 | 11 | 100 | ND | 10 | 01/13/03 | 01/13/03 | |
| Propionitrile | EPA 8260B | 3010233 | 150 | 1000 | ND | 10 | 01/13/03 | 01/13/03 | |
| Styrene | EPA 8260B | 3010233 | 0.90 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | 3010233 | 1.7 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,1,1,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.80 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Tetrachloroethene** | EPA 8260B | 3010233 | 0.80 | 10 | **1.7** | 10 | 01/13/03 | 01/13/03 | J |
| Toluene | EPA 8260B | 3010233 | 0.70 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,1,2-Trichloroethane | EPA 8260B | 3010233 | 0.80 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| 1,1,1-Trichloroethane | EPA 8260B | 3010233 | 0.50 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| **Trichloroethene** | EPA 8260B | 3010233 | 0.60 | 10 | **190** | 10 | 01/13/03 | 01/13/03 | |
| Trichlorofluoromethane | EPA 8260B | 3010233 | 0.70 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| Vinyl acetate | EPA 8260B | 3010233 | 16 | 200 | ND | 10 | 01/13/03 | 01/13/03 | |
| Vinyl chloride | EPA 8260B | 3010233 | 0.60 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| **m Xylene** | EPA 8260B | 3010233 | 2.1 | 10 | **110** | 10 | 01/13/03 | 01/13/03 | |
| o ene | EPA 8260B | 3010233 | 0.70 | 10 | ND | 10 | 01/13/03 | 01/13/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *104 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *102 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *104 %* | | | | |
| *Surrogate: 4-Bromofluorobenzene (86-119%)* | | | | | *105 %* | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Acetone | EPA 8260B | 3010233 | 1.8 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Acetonitrile | EPA 8260B | 3010233 | 19 | 100 | ND | 1 | 01/13/03 | 01/13/03 | |
| Acrolein | EPA 8260B | 3010233 | 1.8 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| Acrylonitrile | EPA 8260B | 3010233 | 1.1 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| Allyl chloride | EPA 8260B | 3010233 | 0.98 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Benzene** | EPA 8260B | 3010233 | 0.050 | 1.0 | **0.057** | 1 | 01/13/03 | 01/13/03 | J |
| Bromodichloromethane | EPA 8260B | 3010233 | 0.050 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Bromoform | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Bromomethane | EPA 8260B | 3010233 | 0.19 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 2-Butanone | EPA 8260B | 3010233 | 0.70 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Carbon disulfide | EPA 8260B | 3010233 | 1.4 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Carbon tetrachloride | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chlorobenzene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chloroethane | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Chloroform** | EPA 8260B | 3010233 | 0.070 | 1.0 | **0.29** | 1 | 01/13/03 | 01/13/03 | J |
| Chloromethane | EPA 8260B | 3010233 | 0.14 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chloroprene | EPA 8260B | 3010233 | 5.0 | 5.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Dibromochloromethane | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1, bromoethane (EDB) | EPA 8260B | 3010233 | 0.040 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| D nomethane | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | EPA 8260B | 3010233 | 1.7 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,2-Dichlorobenzene | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,3-Dichlorobenzene | EPA 8260B | 3010233 | 0.13 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,4-Dichlorobenzene | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Dichlorodifluoromethane** | EPA 8260B | 3010233 | 0.090 | 1.0 | **0.090** | 1 | 01/13/03 | 01/13/03 | J |
| **1,1-Dichloroethane** | EPA 8260B | 3010233 | 0.040 | 1.0 | **13** | 1 | 01/13/03 | 01/13/03 | |
| **1,2-Dichloroethane** | EPA 8260B | 3010233 | 0.080 | 1.0 | **1.8** | 1 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethene** | EPA 8260B | 3010233 | 0.060 | 1.0 | **1.8** | 1 | 01/13/03 | 01/13/03 | |
| **cis-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.090 | 1.0 | **3.0** | 1 | 01/13/03 | 01/13/03 | |
| **trans-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.090 | 1.0 | **0.38** | 1 | 01/13/03 | 01/13/03 | J |
| 1,2-Dichloropropane | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| cis-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| trans-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Ethylbenzene | EPA 8260B | 3010233 | 0.10 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Ethyl methacrylate | EPA 8260B | 3010233 | 1.6 | 5.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 2-Hexanone | EPA 8260B | 3010233 | 0.96 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Iodomethane | EPA 8260B | 3010233 | 0.80 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Isobutanol | EPA 8260B | 3010233 | 20 | 500 | ND | 1 | 01/13/03 | 01/13/03 | |
| Methacrylonitrile | EPA 8260B | 3010233 | 1.7 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Methylene chloride** | EPA 8260B | 3010233 | 0.060 | 1.0 | **0.60** | 1 | 01/13/03 | 01/13/03 | J |
| Methyl methacrylate | EPA 8260B | 3010233 | 1.6 | 5.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 4-Methyl-2-pentanone | EPA 8260B | 3010233 | 1.1 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Propionitrile | EPA 8260B | 3010233 | 15 | 100 | ND | 1 | 01/13/03 | 01/13/03 | |
| Styrene | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.17 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,1,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Tetrachloroethene** | EPA 8260B | 3010233 | 0.080 | 1.0 | **1.0** | 1 | 01/13/03 | 01/13/03 | |
| Toluene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,2-Trichloroethane | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,1-Trichloroethane | EPA 8260B | 3010233 | 0.050 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Trichloroethene** | EPA 8260B | 3010233 | 0.060 | 1.0 | **13** | 1 | 01/13/03 | 01/13/03 | |
| Trichlorofluoromethane | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Vinyl acetate | EPA 8260B | 3010233 | 1.6 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Vinyl chloride** | EPA 8260B | 3010233 | 0.060 | 1.0 | **0.12** | 1 | 01/13/03 | 01/13/03 | J |
| m,p-Xylene | EPA 8260B | 3010233 | 0.21 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| o-Xylene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *107 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *105 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *102 %* | | | | |
| *Surrogate: 4-Bromofluorobenzene (86-119%)* | | | | | *107 %* | | | | |

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atty Mata
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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| Acetone | EPA 8260B | 3010233 | 4.5 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Acetonitrile | EPA 8260B | 3010233 | 48 | 250 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Acrolein | EPA 8260B | 3010233 | 4.6 | 50 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Acrylonitrile | EPA 8260B | 3010233 | 2.8 | 50 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Allyl chloride | EPA 8260B | 3010233 | 2.4 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **Benzene** | EPA 8260B | 3010233 | 0.12 | 2.5 | **3.8** | 2.5 | 01/13/03 | 01/13/03 | |
| Bromodichloromethane | EPA 8260B | 3010233 | 0.12 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Bromoform | EPA 8260B | 3010233 | 0.28 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Bromomethane | EPA 8260B | 3010233 | 0.48 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 2-Butanone | EPA 8260B | 3010233 | 1.8 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Carbon disulfide | EPA 8260B | 3010233 | 3.4 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Carbon tetrachloride | EPA 8260B | 3010233 | 0.15 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **Chlorobenzene** | EPA 8260B | 3010233 | 0.18 | 2.5 | **1.5** | 2.5 | 01/13/03 | 01/13/03 | J |
| **C roethane** | EPA 8260B | 3010233 | 0.28 | 2.5 | **0.47** | 2.5 | 01/13/03 | 01/13/03 | J |
| **oform** | EPA 8260B | 3010233 | 0.18 | 2.5 | **8.1** | 2.5 | 01/13/03 | 01/13/03 | |
| Chloromethane | EPA 8260B | 3010233 | 0.35 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Chloroprene | EPA 8260B | 3010233 | 12 | 12 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Dibromochloromethane | EPA 8260B | 3010233 | 0.15 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,2-Dibromoethane (EDB) | EPA 8260B | 3010233 | 0.10 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Dibromomethane | EPA 8260B | 3010233 | 0.22 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| trans-1,4-Dichloro-2-butene | EPA 8260B | 3010233 | 4.2 | 50 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,2-Dichlorobenzene | EPA 8260B | 3010233 | 0.28 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,3-Dichlorobenzene | EPA 8260B | 3010233 | 0.32 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,4-Dichlorobenzene | EPA 8260B | 3010233 | 0.28 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Dichlorodifluoromethane | EPA 8260B | 3010233 | 0.22 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethane** | EPA 8260B | 3010233 | 0.10 | 2.5 | **110** | 2.5 | 01/13/03 | 01/13/03 | |
| **1,2-Dichloroethane** | EPA 8260B | 3010233 | 0.20 | 2.5 | **67** | 2.5 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethene** | EPA 8260B | 3010233 | 0.15 | 2.5 | **45** | 2.5 | 01/13/03 | 01/13/03 | |
| **cis-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.22 | 2.5 | **130** | 2.5 | 01/13/03 | 01/13/03 | E |
| **trans-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.22 | 2.5 | **2.3** | 2.5 | 01/13/03 | 01/13/03 | J |
| 1,2-Dichloropropane | EPA 8260B | 3010233 | 0.18 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| cis-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.20 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| trans-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.18 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **Ethylbenzene** | EPA 8260B | 3010233 | 0.25 | 2.5 | **51** | 2.5 | 01/13/03 | 01/13/03 | |
| Ethyl methacrylate | EPA 8260B | 3010233 | 4.0 | 12 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 2-Hexanone | EPA 8260B | 3010233 | 2.4 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Iodomethane | EPA 8260B | 3010233 | 2.0 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Isobutanol | EPA 8260B | 3010233 | 50 | 1200 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Methacrylonitrile | EPA 8260B | 3010233 | 4.4 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **lene chloride** | EPA 8260B | 3010233 | 0.15 | 2.5 | **30** | 2.5 | 01/13/03 | 01/13/03 | |
| Methyl methacrylate | EPA 8260B | 3010233 | 4.0 | 12 | ND | 2.5 | 01/13/03 | 01/13/03 | |

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Project Manager

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| 4-Methyl-2-pentanone | EPA 8260B | 3010233 | 2.7 | 25 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Propionitrile | EPA 8260B | 3010233 | 37 | 250 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Styrene | EPA 8260B | 3010233 | 0.22 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.42 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,1,1,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.20 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **Tetrachloroethene** | EPA 8260B | 3010233 | 0.20 | 2.5 | **1.9** | 2.5 | 01/13/03 | 01/13/03 | J |
| **Toluene** | EPA 8260B | 3010233 | 0.18 | 2.5 | **0.37** | 2.5 | 01/13/03 | 01/13/03 | J |
| 1,1,2-Trichloroethane | EPA 8260B | 3010233 | 0.20 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| 1,1,1-Trichloroethane | EPA 8260B | 3010233 | 0.12 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **Trichloroethene** | EPA 8260B | 3010233 | 0.15 | 2.5 | **85** | 2.5 | 01/13/03 | 01/13/03 | |
| Trichlorofluoromethane | EPA 8260B | 3010233 | 0.18 | 2.5 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| Vinyl acetate | EPA 8260B | 3010233 | 4.1 | 50 | ND | 2.5 | 01/13/03 | 01/13/03 | |
| **Vinyl chloride** | EPA 8260B | 3010233 | 0.15 | 2.5 | **0.39** | 2.5 | 01/13/03 | 01/13/03 | J |
| **m,p-Xylene** | EPA 8260B | 3010233 | 0.52 | 2.5 | **65** | 2.5 | 01/13/03 | 01/13/03 | |
| **o-Xylene** | EPA 8260B | 3010233 | 0.18 | 2.5 | **16** | 2.5 | 01/13/03 | 01/13/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *107 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *100 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *103 %* | | | | |
| *Surrogate: 4-Bromofluorobenzene (86-119%)* | | | | | *106 %* | | | | |
| **Sample ID: ILL1698-03RE1 (PTI-MW04-056 - Water)** | | | | | | | | | **HT-04** |
| **cis-1,2-Dichloroethene** | EPA 8260B | 3010399 | 0.45 | 5.0 | **130** | 5 | 01/17/03 | 01/17/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *111 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *113 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *103 %* | | | | |
| *Surrogate: 4-Bromofluorobenzene (86-119%)* | | | | | *106 %* | | | | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Acetone | EPA 8260B | 3010233 | 36 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| Acetonitrile | EPA 8260B | 3010233 | 380 | 2000 | ND | 20 | 01/13/03 | 01/13/03 | |
| Acrolein | EPA 8260B | 3010233 | 37 | 400 | ND | 20 | 01/13/03 | 01/13/03 | |
| Acrylonitrile | EPA 8260B | 3010233 | 22 | 400 | ND | 20 | 01/13/03 | 01/13/03 | |
| Allyl chloride | EPA 8260B | 3010233 | 20 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| **Benzene** | EPA 8260B | 3010233 | 1.0 | 20 | **1.4** | 20 | 01/13/03 | 01/13/03 | J |
| Bromodichloromethane | EPA 8260B | 3010233 | 1.0 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Bromoform | EPA 8260B | 3010233 | 2.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Bromomethane | EPA 8260B | 3010233 | 3.8 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 2-Butanone | EPA 8260B | 3010233 | 14 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| Carbon disulfide | EPA 8260B | 3010233 | 27 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| Carbon tetrachloride | EPA 8260B | 3010233 | 1.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| **Chlorobenzene** | EPA 8260B | 3010233 | 1.4 | 20 | **3.5** | 20 | 01/13/03 | 01/13/03 | J |
| C[illegible]roethane | EPA 8260B | 3010233 | 2.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| [illegible]oform | EPA 8260B | 3010233 | 1.4 | 20 | **15** | 20 | 01/13/03 | 01/13/03 | J |
| Chloromethane | EPA 8260B | 3010233 | 2.8 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Chloroprene | EPA 8260B | 3010233 | 100 | 100 | ND | 20 | 01/13/03 | 01/13/03 | |
| Dibromochloromethane | EPA 8260B | 3010233 | 1.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,2-Dibromoethane (EDB) | EPA 8260B | 3010233 | 0.80 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Dibromomethane | EPA 8260B | 3010233 | 1.8 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| trans-1,4-Dichloro-2-butene | EPA 8260B | 3010233 | 34 | 400 | ND | 20 | 01/13/03 | 01/13/03 | |
| **1,2-Dichlorobenzene** | EPA 8260B | 3010233 | 2.2 | 20 | **3.2** | 20 | 01/13/03 | 01/13/03 | J |
| 1,3-Dichlorobenzene | EPA 8260B | 3010233 | 2.6 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,4-Dichlorobenzene | EPA 8260B | 3010233 | 2.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Dichlorodifluoromethane | EPA 8260B | 3010233 | 1.8 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethane** | EPA 8260B | 3010233 | 0.80 | 20 | **110** | 20 | 01/13/03 | 01/13/03 | |
| **1,2-Dichloroethane** | EPA 8260B | 3010233 | 1.6 | 20 | **100** | 20 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethene** | EPA 8260B | 3010233 | 1.2 | 20 | **42** | 20 | 01/13/03 | 01/13/03 | |
| **cis-1,2-Dichloroethene** | EPA 8260B | 3010233 | 1.8 | 20 | **22** | 20 | 01/13/03 | 01/13/03 | |
| trans-1,2-Dichloroethene | EPA 8260B | 3010233 | 1.8 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,2-Dichloropropane | EPA 8260B | 3010233 | 1.4 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| cis-1,3-Dichloropropene | EPA 8260B | 3010233 | 1.6 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| trans-1,3-Dichloropropene | EPA 8260B | 3010233 | 1.4 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| **Ethylbenzene** | EPA 8260B | 3010233 | 2.0 | 20 | **31** | 20 | 01/13/03 | 01/13/03 | |
| Ethyl methacrylate | EPA 8260B | 3010233 | 32 | 100 | ND | 20 | 01/13/03 | 01/13/03 | |
| 2-Hexanone | EPA 8260B | 3010233 | 19 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| Iodomethane | EPA 8260B | 3010233 | 16 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| Isobutanol | EPA 8260B | 3010233 | 400 | 10000 | ND | 20 | 01/13/03 | 01/13/03 | |
| Methacrylonitrile | EPA 8260B | 3010233 | 35 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| M[illegible]lene chloride | EPA 8260B | 3010233 | 1.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Methyl methacrylate | EPA 8260B | 3010233 | 32 | 100 | ND | 20 | 01/13/03 | 01/13/03 | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| 4-Methyl-2-pentanone | EPA 8260B | 3010233 | 22 | 200 | ND | 20 | 01/13/03 | 01/13/03 | |
| Propionitrile | EPA 8260B | 3010233 | 290 | 2000 | ND | 20 | 01/13/03 | 01/13/03 | |
| Styrene | EPA 8260B | 3010233 | 1.8 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | 3010233 | 3.4 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,1,1,2-Tetrachloroethane | EPA 8260B | 3010233 | 1.6 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| **Tetrachloroethene** | EPA 8260B | 3010233 | 1.6 | 20 | **3.4** | 20 | 01/13/03 | 01/13/03 | J |
| Toluene | EPA 8260B | 3010233 | 1.4 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,1,2-Trichloroethane | EPA 8260B | 3010233 | 1.6 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| 1,1,1-Trichloroethane | EPA 8260B | 3010233 | 1.0 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| **Trichloroethene** | EPA 8260B | 3010233 | 1.2 | 20 | **550** | 20 | 01/13/03 | 01/13/03 | |
| Trichlorofluoromethane | EPA 8260B | 3010233 | 1.4 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| Vinyl acetate | EPA 8260B | 3010233 | 33 | 400 | ND | 20 | 01/13/03 | 01/13/03 | |
| Vinyl chloride | EPA 8260B | 3010233 | 1.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| m,p-Xylene | EPA 8260B | 3010233 | 4.2 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| o-Xylene | EPA 8260B | 3010233 | 1.4 | 20 | ND | 20 | 01/13/03 | 01/13/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *106 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *103 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *102 %* | | | | |
| *Surrogate: 4-Bromofluorobenzene (86-119%)* | | | | | *106 %* | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| Acetone | EPA 8260B | 3010233 | 9.0 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| Acetonitrile | EPA 8260B | 3010233 | 96 | 500 | ND | 5 | 01/13/03 | 01/13/03 | |
| Acrolein | EPA 8260B | 3010233 | 9.2 | 100 | ND | 5 | 01/13/03 | 01/13/03 | |
| Acrylonitrile | EPA 8260B | 3010233 | 5.6 | 100 | ND | 5 | 01/13/03 | 01/13/03 | |
| Allyl chloride | EPA 8260B | 3010233 | 4.9 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Benzene** | EPA 8260B | 3010233 | 0.25 | 5.0 | **3.8** | 5 | 01/13/03 | 01/13/03 | J |
| Bromodichloromethane | EPA 8260B | 3010233 | 0.25 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| Bromoform | EPA 8260B | 3010233 | 0.55 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| Bromomethane | EPA 8260B | 3010233 | 0.95 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 2-Butanone | EPA 8260B | 3010233 | 3.5 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| Carbon disulfide | EPA 8260B | 3010233 | 6.8 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| Carbon tetrachloride | EPA 8260B | 3010233 | 0.30 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Chlorobenzene** | EPA 8260B | 3010233 | 0.35 | 5.0 | **1.6** | 5 | 01/13/03 | 01/13/03 | J |
| Chloroethane | EPA 8260B | 3010233 | 0.55 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Chloroform** | EPA 8260B | 3010233 | 0.35 | 5.0 | **9.7** | 5 | 01/13/03 | 01/13/03 | |
| Chloromethane | EPA 8260B | 3010233 | 0.70 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| Chloroprene | EPA 8260B | 3010233 | 25 | 25 | ND | 5 | 01/13/03 | 01/13/03 | |
| Dibromochloromethane | EPA 8260B | 3010233 | 0.30 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,2-Dibromoethane (EDB) | EPA 8260B | 3010233 | 0.20 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| Dibromomethane | EPA 8260B | 3010233 | 0.45 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |

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Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | EPA 8260B | 3010233 | 8.4 | 100 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,2-Dichlorobenzene | EPA 8260B | 3010233 | 0.55 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,3-Dichlorobenzene | EPA 8260B | 3010233 | 0.65 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,4-Dichlorobenzene | EPA 8260B | 3010233 | 0.55 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| Dichlorodifluoromethane | EPA 8260B | 3010233 | 0.45 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethane** | EPA 8260B | 3010233 | 0.20 | 5.0 | **120** | 5 | 01/13/03 | 01/13/03 | |
| **1,2-Dichloroethane** | EPA 8260B | 3010233 | 0.40 | 5.0 | **64** | 5 | 01/13/03 | 01/13/03 | |
| **1,1-Dichloroethene** | EPA 8260B | 3010233 | 0.30 | 5.0 | **48** | 5 | 01/13/03 | 01/13/03 | |
| **cis-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.45 | 5.0 | **140** | 5 | 01/13/03 | 01/13/03 | |
| **trans-1,2-Dichloroethene** | EPA 8260B | 3010233 | 0.45 | 5.0 | **2.8** | 5 | 01/13/03 | 01/13/03 | J |
| 1,2-Dichloropropane | EPA 8260B | 3010233 | 0.35 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| cis-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.40 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| trans-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.35 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| **E' 'benzene** | EPA 8260B | 3010233 | 0.50 | 5.0 | **49** | 5 | 01/13/03 | 01/13/03 | |
| E nethacrylate | EPA 8260B | 3010233 | 8.0 | 25 | ND | 5 | 01/13/03 | 01/13/03 | |
| 2-Hexanone | EPA 8260B | 3010233 | 4.8 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| Iodomethane | EPA 8260B | 3010233 | 4.0 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| Isobutanol | EPA 8260B | 3010233 | 100 | 2500 | ND | 5 | 01/13/03 | 01/13/03 | |
| Methacrylonitrile | EPA 8260B | 3010233 | 8.7 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Methylene chloride** | EPA 8260B | 3010233 | 0.30 | 5.0 | **36** | 5 | 01/13/03 | 01/13/03 | |
| Methyl methacrylate | EPA 8260B | 3010233 | 8.0 | 25 | ND | 5 | 01/13/03 | 01/13/03 | |
| 4-Methyl-2-pentanone | EPA 8260B | 3010233 | 5.4 | 50 | ND | 5 | 01/13/03 | 01/13/03 | |
| Propionitrile | EPA 8260B | 3010233 | 74 | 500 | ND | 5 | 01/13/03 | 01/13/03 | |
| Styrene | EPA 8260B | 3010233 | 0.45 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.85 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,1,1,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.40 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Tetrachloroethene** | EPA 8260B | 3010233 | 0.40 | 5.0 | **2.1** | 5 | 01/13/03 | 01/13/03 | J |
| **Toluene** | EPA 8260B | 3010233 | 0.35 | 5.0 | **0.40** | 5 | 01/13/03 | 01/13/03 | J |
| 1,1,2-Trichloroethane | EPA 8260B | 3010233 | 0.40 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| 1,1,1-Trichloroethane | EPA 8260B | 3010233 | 0.25 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Trichloroethene** | EPA 8260B | 3010233 | 0.30 | 5.0 | **99** | 5 | 01/13/03 | 01/13/03 | |
| Trichlorofluoromethane | EPA 8260B | 3010233 | 0.35 | 5.0 | ND | 5 | 01/13/03 | 01/13/03 | |
| Vinyl acetate | EPA 8260B | 3010233 | 8.2 | 100 | ND | 5 | 01/13/03 | 01/13/03 | |
| **Vinyl chloride** | EPA 8260B | 3010233 | 0.30 | 5.0 | **0.34** | 5 | 01/13/03 | 01/13/03 | J |
| **m,p-Xylene** | EPA 8260B | 3010233 | 1.0 | 5.0 | **62** | 5 | 01/13/03 | 01/13/03 | |
| **o-Xylene** | EPA 8260B | 3010233 | 0.35 | 5.0 | **16** | 5 | 01/13/03 | 01/13/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *108 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *107 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *104 %* | | | | |
| *S ate: 4-Bromofluorobenzene (86-119%)* | | | | | *108 %* | | | | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-06 (PTI-EB01-056 - Water)** | | | | | | | | | |
| Acetone | EPA 8260B | 3010233 | 1.8 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Acetonitrile | EPA 8260B | 3010233 | 19 | 100 | ND | 1 | 01/13/03 | 01/13/03 | |
| Acrolein | EPA 8260B | 3010233 | 1.8 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| Acrylonitrile | EPA 8260B | 3010233 | 1.1 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| Allyl chloride | EPA 8260B | 3010233 | 0.98 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Benzene | EPA 8260B | 3010233 | 0.050 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Bromodichloromethane | EPA 8260B | 3010233 | 0.050 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Bromoform | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Bromomethane | EPA 8260B | 3010233 | 0.19 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 2-Butanone | EPA 8260B | 3010233 | 0.70 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Carbon disulfide | EPA 8260B | 3010233 | 1.4 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Carbon tetrachloride | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chlorobenzene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chloroethane | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chloroform | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chloromethane | EPA 8260B | 3010233 | 0.14 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Chloroprene | EPA 8260B | 3010233 | 5.0 | 5.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Dibromochloromethane | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,2-Dibromoethane (EDB) | EPA 8260B | 3010233 | 0.040 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Dibromomethane | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| trans-1,4-Dichloro-2-butene | EPA 8260B | 3010233 | 1.7 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,2-Dichlorobenzene | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,3-Dichlorobenzene | EPA 8260B | 3010233 | 0.13 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,4-Dichlorobenzene | EPA 8260B | 3010233 | 0.11 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Dichlorodifluoromethane | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1-Dichloroethane | EPA 8260B | 3010233 | 0.040 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,2-Dichloroethane | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1-Dichloroethene | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| cis-1,2-Dichloroethene | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| trans-1,2-Dichloroethene | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,2-Dichloropropane | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| cis-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| trans-1,3-Dichloropropene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Ethylbenzene | EPA 8260B | 3010233 | 0.10 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Ethyl methacrylate | EPA 8260B | 3010233 | 1.6 | 5.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 2-Hexanone | EPA 8260B | 3010233 | 0.96 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Iodomethane | EPA 8260B | 3010233 | 0.80 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Isobutanol | EPA 8260B | 3010233 | 20 | 500 | ND | 1 | 01/13/03 | 01/13/03 | |
| Methacrylonitrile | EPA 8260B | 3010233 | 1.7 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| **Methylene chloride** | EPA 8260B | 3010233 | 0.060 | 1.0 | **0.86** | 1 | 01/13/03 | 01/13/03 | J |
| Methyl methacrylate | EPA 8260B | 3010233 | 1.6 | 5.0 | ND | 1 | 01/13/03 | 01/13/03 | |

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, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Volatile Organic Compounds by EPA Method 8260B

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-06 (PTI-EB01-056 - Water)** | | | | | | | | | |
| 4-Methyl-2-pentanone | EPA 8260B | 3010233 | 1.1 | 10 | ND | 1 | 01/13/03 | 01/13/03 | |
| Propionitrile | EPA 8260B | 3010233 | 15 | 100 | ND | 1 | 01/13/03 | 01/13/03 | |
| Styrene | EPA 8260B | 3010233 | 0.090 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.17 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,1,2-Tetrachloroethane | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Tetrachloroethene | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Toluene | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,2-Trichloroethane | EPA 8260B | 3010233 | 0.080 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| 1,1,1-Trichloroethane | EPA 8260B | 3010233 | 0.050 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Trichloroethene | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Trichlorofluoromethane | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| Vinyl acetate | EPA 8260B | 3010233 | 1.6 | 20 | ND | 1 | 01/13/03 | 01/13/03 | |
| Vinyl chloride | EPA 8260B | 3010233 | 0.060 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| m ylene | EPA 8260B | 3010233 | 0.21 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| o ne | EPA 8260B | 3010233 | 0.070 | 1.0 | ND | 1 | 01/13/03 | 01/13/03 | |
| *Surrogate: Dibromofluoromethane (84-122%)* | | | | | *108 %* | | | | |
| *Surrogate: 1,2-Dichloroethane-d4 (74-135%)* | | | | | *102 %* | | | | |
| *Surrogate: Toluene-d8 (84-119%)* | | | | | *102 %* | | | | |
| *Surrogate: 4-Bromofluorobenzene (86-119%)* | | | | | *104 %* | | | | |

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| Acenaphthene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Acenaphthylene | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| **Acetophenone** | EPA 8270C | 3010041 | 10 | 10 | **26** | 1 | 01/03/03 | 02/06/03 | |
| 2-Acetylaminofluorene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Aminobiphenyl | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Aniline | EPA 8270C | 3010041 | 5.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Anthracene | EPA 8270C | 3010041 | 0.80 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Aramite | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (a) anthracene | EPA 8270C | 3010041 | 0.53 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (b+k) fluoranthene (total) | EPA 8270C | 3010041 | 1.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (g,h,i) perylene | EPA 8270C | 3010041 | 0.98 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (a) pyrene | EPA 8270C | 3010041 | 0.97 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzyl alcohol | EPA 8270C | 3010041 | 3.1 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Bis(2-chloroethoxy)methane | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Bis(2-chloroethyl)ether | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Bis(2-chloroisopropyl)ether | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| **Bis(2-ethylhexyl)phthalate** | EPA 8270C | 3010041 | 3.6 | 10 | **6.0** | 1 | 01/03/03 | 02/06/03 | J |
| 4-Bromophenyl phenyl ether | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Butyl benzyl phthalate | EPA 8270C | 3010041 | 0.91 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Chloroaniline | EPA 8270C | 3010041 | 2.9 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Chlorobenzilate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Chloro-3-methylphenol | EPA 8270C | 3010041 | 4.0 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Chloronaphthalene | EPA 8270C | 3010041 | 3.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Chlorophenol | EPA 8270C | 3010041 | 4.9 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Chlorophenyl phenyl ether | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Chrysene | EPA 8270C | 3010041 | 0.96 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Diallate (cis or trans) | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dibenz (a,h) anthracene | EPA 8270C | 3010041 | 0.89 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dibenzofuran | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Di-n-butyl phthalate | EPA 8270C | 3010041 | 0.92 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,2-Dichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,3-Dichlorobenzene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,4-Dichlorobenzene | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3,3´-Dichlorobenzidine | EPA 8270C | 3010041 | 5.0 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dichlorophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,6-Dichlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Diethyl phthalate | EPA 8270C | 3010041 | 1.2 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dimethylaminoazobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dimethoate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 7,12-Dimethylbenz (a) anthracene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3,3´-Dimethylbenzidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |

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Project Manager

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| a,a-Dimethylphenethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dimethylphenol | EPA 8270C | 3010041 | 6.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dimethyl phthalate | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,3-Dinitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4,6-Dinitro-2-methylphenol | EPA 8270C | 3010041 | 2.2 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dinitrophenol | EPA 8270C | 3010041 | 1.3 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dinitrotoluene | EPA 8270C | 3010041 | 1.3 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,6-Dinitrotoluene | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Di-n-octyl phthalate | EPA 8270C | 3010041 | 0.93 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Diphenylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Ethyl methacrylate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Ethyl methanesulfonate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Famphur | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Fl··nthene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| F··ne | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorobenzene | EPA 8270C | 3010041 | 1.7 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorobutadiene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorocyclopentadiene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachloroethane | EPA 8270C | 3010041 | 2.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorophene | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachloropropene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Indeno (1,2,3-cd) pyrene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Isodrin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Isophorone | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Isosafrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Kepone | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Methapyrilene | EPA 8270C | 3010041 | 100 | 100 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3-Methylcholanthrene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Methyl methanesulfonate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Methylnaphthalene | EPA 8270C | 3010041 | 3.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Methylphenol | EPA 8270C | 3010041 | 5.3 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3-Methylphenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Methylphenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Naphthalene | EPA 8270C | 3010041 | 3.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,4-Naphthoquinone | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Nitroaniline | EPA 8270C | 3010041 | 2.6 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3-Nitroaniline | EPA 8270C | 3010041 | 4.0 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-N··niline | EPA 8270C | 3010041 | 5.0 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| Nitrobenzene | EPA 8270C | 3010041 | 3.3 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |

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Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-01 (PTI-MW14S-056 - Water)** | | | | | | | | | |
| 2-Nitrophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Nitrophenol | EPA 8270C | 3010041 | 1.7 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodi-n-butylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodiethylamine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodimethylamine | EPA 8270C | 3010041 | 2.4 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodiphenylamine | EPA 8270C | 3010041 | 2.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodi-n-propylamine | EPA 8270C | 3010041 | 3.7 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosomethylethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosomorpholine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosopiperidine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosopyrrolidine | EPA 8270C | 3010041 | 40 | 40 | ND | 1 | 01/03/03 | 02/06/03 | |
| 5-Nitro-o-toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Nitroquinoline-n-oxide | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pentachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pentachloroethane | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pentachloronitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pentachlorophenol | EPA 8270C | 3010041 | 2.1 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| Phenacetin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Phenanthrene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Phenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,4-Phenylenediamine | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Picoline | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pronamide | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pyrene | EPA 8270C | 3010041 | 0.72 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pyridine | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Safrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,2,4,5-Tetrachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,3,4,6-Tetrachlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Thionazin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| o-Toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,2,4-Trichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4,5-Trichlorophenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4,6-Trichlorophenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| O,O,O-Triethyl phosphorothioate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,3,5-Trinitrobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| *Surrogate: 2-Fluorophenol (15-103%)* | | | | | *56 %* | | | | |
| *Surrogate: Phenol-d6 (18-115%)* | | | | | *61 %* | | | | |
| *Surrogate: Nitrobenzene-d5 (39-103%)* | | | | | *69 %* | | | | |
| *Surrogate: 2-Fluorobiphenyl (40-124%)* | | | | | *69 %* | | | | |
| *Surrogate: 2,4,6-Tribromophenol (11-142%)* | | | | | *69 %* | | | | |
| *Surrogate: Terphenyl-d14 (56-139%)* | | | | | *29 %* | | | | *S-BN* |

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Project Manager

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| Acenaphthene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Acenaphthylene | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Acetophenone | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Acetylaminofluorene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Aminobiphenyl | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Aniline | EPA 8270C | 3010041 | 5.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Anthracene | EPA 8270C | 3010041 | 0.80 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Aramite | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (a) anthracene | EPA 8270C | 3010041 | 0.53 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (b+k) fluoranthene (total) | EPA 8270C | 3010041 | 1.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (g,h,i) perylene | EPA 8270C | 3010041 | 0.98 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzo (a) pyrene | EPA 8270C | 3010041 | 0.97 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Benzyl alcohol | EPA 8270C | 3010041 | 3.1 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Bi[2-chloroethoxy)methane | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| B[illegible]chloroethyl)ether | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Bis(2-chloroisopropyl)ether | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| **Bis(2-ethylhexyl)phthalate** | EPA 8270C | 3010041 | 3.6 | 10 | **9.6** | 1 | 01/03/03 | 02/06/03 | J |
| 4-Bromophenyl phenyl ether | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Butyl benzyl phthalate | EPA 8270C | 3010041 | 0.91 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Chloroaniline | EPA 8270C | 3010041 | 2.9 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Chlorobenzilate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Chloro-3-methylphenol | EPA 8270C | 3010041 | 4.0 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Chloronaphthalene | EPA 8270C | 3010041 | 3.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Chlorophenol | EPA 8270C | 3010041 | 4.9 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Chlorophenyl phenyl ether | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Chrysene | EPA 8270C | 3010041 | 0.96 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Diallate (cis or trans) | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dibenz (a,h) anthracene | EPA 8270C | 3010041 | 0.89 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dibenzofuran | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Di-n-butyl phthalate | EPA 8270C | 3010041 | 0.92 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,2-Dichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,3-Dichlorobenzene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,4-Dichlorobenzene | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3,3'-Dichlorobenzidine | EPA 8270C | 3010041 | 5.0 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dichlorophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,6-Dichlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Diethyl phthalate | EPA 8270C | 3010041 | 1.2 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dimethylaminoazobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dimethoate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 7[illegible]imethylbenz (a) anthracene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3,3[illegible]imethylbenzidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| a,a-Dimethylphenethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dimethylphenol | EPA 8270C | 3010041 | 6.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Dimethyl phthalate | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,3-Dinitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4,6-Dinitro-2-methylphenol | EPA 8270C | 3010041 | 2.2 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dinitrophenol | EPA 8270C | 3010041 | 1.3 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4-Dinitrotoluene | EPA 8270C | 3010041 | 1.3 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,6-Dinitrotoluene | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Di-n-octyl phthalate | EPA 8270C | 3010041 | 0.93 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Diphenylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Ethyl methacrylate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Ethyl methanesulfonate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Famphur | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Fluoranthene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Fluorene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorobenzene | EPA 8270C | 3010041 | 1.7 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorobutadiene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorocyclopentadiene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachloroethane | EPA 8270C | 3010041 | 2.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachlorophene | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Hexachloropropene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Indeno (1,2,3-cd) pyrene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Isodrin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Isophorone | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Isosafrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Kepone | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/06/03 | |
| Methapyrilene | EPA 8270C | 3010041 | 100 | 100 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3-Methylcholanthrene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Methyl methanesulfonate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Methylnaphthalene | EPA 8270C | 3010041 | 3.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Methylphenol | EPA 8270C | 3010041 | 5.3 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3-Methylphenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Methylphenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Naphthalene | EPA 8270C | 3010041 | 3.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,4-Naphthoquinone | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Nitroaniline | EPA 8270C | 3010041 | 2.6 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 3-Nitroaniline | EPA 8270C | 3010041 | 4.0 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Nitroaniline | EPA 8270C | 3010041 | 5.0 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| Nitrobenzene | EPA 8270C | 3010041 | 3.3 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-02 (PTI-MW07-056 - Water)** | | | | | | | | | |
| 2-Nitrophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Nitrophenol | EPA 8270C | 3010041 | 1.7 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodi-n-butylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodiethylamine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodimethylamine | EPA 8270C | 3010041 | 2.4 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodiphenylamine | EPA 8270C | 3010041 | 2.8 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosodi-n-propylamine | EPA 8270C | 3010041 | 3.7 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosomethylethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosomorpholine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosopiperidine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| N-Nitrosopyrrolidine | EPA 8270C | 3010041 | 40 | 40 | ND | 1 | 01/03/03 | 02/06/03 | |
| 5-Nitro-o-toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 4-Nitroquinoline-n-oxide | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| P chlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| chloroethane | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pentachloronitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pentachlorophenol | EPA 8270C | 3010041 | 2.1 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| Phenacetin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| Phenanthrene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Phenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,4-Phenylenediamine | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2-Picoline | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pronamide | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pyrene | EPA 8270C | 3010041 | 0.72 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Pyridine | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Safrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,2,4,5-Tetrachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,3,4,6-Tetrachlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| Thionazin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/06/03 | |
| o-Toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,2,4-Trichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4,5-Trichlorophenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 2,4,6-Trichlorophenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| O,O,O-Triethyl phosphorothioate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| 1,3,5-Trinitrobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/06/03 | |
| *Surrogate: 2-Fluorophenol (15-103%)* | | | | | *50 %* | | | | |
| *Surrogate: Phenol-d6 (18-115%)* | | | | | *59 %* | | | | |
| *Surrogate: Nitrobenzene-d5 (39-103%)* | | | | | *62 %* | | | | |
| *Surrogate: 2-Fluorobiphenyl (40-124%)* | | | | | *66 %* | | | | |
| *ate: 2,4,6-Tribromophenol (11-142%)* | | | | | *91 %* | | | | |
| *Surrogate: Terphenyl-d14 (56-139%)* | | | | | *77 %* | | | | |

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Patty Mata
Project Manager

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| Acenaphthene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Acenaphthylene | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Acetophenone | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Acetylaminofluorene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Aminobiphenyl | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Aniline | EPA 8270C | 3010041 | 5.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Anthracene | EPA 8270C | 3010041 | 0.80 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Aramite | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (a) anthracene | EPA 8270C | 3010041 | 0.53 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (b+k) fluoranthene (total) | EPA 8270C | 3010041 | 1.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (g,h,i) perylene | EPA 8270C | 3010041 | 0.98 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (a) pyrene | EPA 8270C | 3010041 | 0.97 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzyl alcohol | EPA 8270C | 3010041 | 3.1 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroethoxy)methane | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroethyl)ether | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroisopropyl)ether | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| **Bis(2-ethylhexyl)phthalate** | EPA 8270C | 3010041 | 3.6 | 10 | **5.0** | 1 | 01/03/03 | 02/07/03 | J |
| 4-Bromophenyl phenyl ether | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Butyl benzyl phthalate | EPA 8270C | 3010041 | 0.91 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chloroaniline | EPA 8270C | 3010041 | 2.9 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Chlorobenzilate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chloro-3-methylphenol | EPA 8270C | 3010041 | 4.0 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Chloronaphthalene | EPA 8270C | 3010041 | 3.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Chlorophenol | EPA 8270C | 3010041 | 4.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chlorophenyl phenyl ether | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Chrysene | EPA 8270C | 3010041 | 0.96 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diallate (cis or trans) | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dibenz (a,h) anthracene | EPA 8270C | 3010041 | 0.89 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dibenzofuran | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di-n-butyl phthalate | EPA 8270C | 3010041 | 0.92 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2-Dichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3-Dichlorobenzene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Dichlorobenzene | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3,3´-Dichlorobenzidine | EPA 8270C | 3010041 | 5.0 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dichlorophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,6-Dichlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diethyl phthalate | EPA 8270C | 3010041 | 1.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethylaminoazobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethoate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 7,12-Dimethylbenz (a) anthracene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3,3´-Dimethylbenzidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |

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Patty Mata
Project Manager

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, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| a,a-Dimethylphenethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dimethylphenol | EPA 8270C | 3010041 | 6.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethyl phthalate | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3-Dinitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4,6-Dinitro-2-methylphenol | EPA 8270C | 3010041 | 2.2 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dinitrophenol | EPA 8270C | 3010041 | 1.3 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dinitrotoluene | EPA 8270C | 3010041 | 1.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,6-Dinitrotoluene | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di-n-octyl phthalate | EPA 8270C | 3010041 | 0.93 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diphenylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Ethyl methacrylate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Ethyl methanesulfonate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Famphur | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| F anthene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| F ne | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorobenzene | EPA 8270C | 3010041 | 1.7 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorobutadiene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorocyclopentadiene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachloroethane | EPA 8270C | 3010041 | 2.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorophene | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachloropropene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Indeno (1,2,3-cd) pyrene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isodrin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isophorone | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isosafrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Kepone | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Methapyrilene | EPA 8270C | 3010041 | 100 | 100 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Methylcholanthrene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Methyl methanesulfonate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Methylnaphthalene | EPA 8270C | 3010041 | 3.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Methylphenol | EPA 8270C | 3010041 | 5.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Methylphenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Methylphenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Naphthalene | EPA 8270C | 3010041 | 3.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Naphthoquinone | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Nitroaniline | EPA 8270C | 3010041 | 2.6 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Nitroaniline | EPA 8270C | 3010041 | 4.0 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4 aniline | EPA 8270C | 3010041 | 5.0 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Nitrobenzene | EPA 8270C | 3010041 | 3.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-03 (PTI-MW04-056 - Water)** | | | | | | | | | |
| 2-Nitrophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitrophenol | EPA 8270C | 3010041 | 1.7 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodi-n-butylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodiethylamine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodimethylamine | EPA 8270C | 3010041 | 2.4 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodiphenylamine | EPA 8270C | 3010041 | 2.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodi-n-propylamine | EPA 8270C | 3010041 | 3.7 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosomethylethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosomorpholine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosopiperidine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosopyrrolidine | EPA 8270C | 3010041 | 40 | 40 | ND | 1 | 01/03/03 | 02/07/03 | |
| 5-Nitro-o-toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitroquinoline-n-oxide | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachloroethane | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachloronitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachlorophenol | EPA 8270C | 3010041 | 2.1 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenacetin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenanthrene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Phenylenediamine | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Picoline | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pronamide | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pyrene | EPA 8270C | 3010041 | 0.72 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pyridine | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Safrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2,4,5-Tetrachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,3,4,6-Tetrachlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Thionazin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| o-Toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2,4-Trichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4,5-Trichlorophenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4,6-Trichlorophenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| O,O,O-Triethyl phosphorothioate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3,5-Trinitrobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| *Surrogate: 2-Fluorophenol (15-103%)* | | | | | *25 %* | | | | |
| *Surrogate: Phenol-d6 (18-115%)* | | | | | *65 %* | | | | |
| *Surrogate: Nitrobenzene-d5 (39-103%)* | | | | | *76 %* | | | | |
| *Surrogate: 2-Fluorobiphenyl (40-124%)* | | | | | *81 %* | | | | |
| *Surrogate: 2,4,6-Tribromophenol (11-142%)* | | | | | *82 %* | | | | |
| *Surrogate: Terphenyl-d14 (56-139%)* | | | | | *70 %* | | | | |

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Project Manager

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| Acenaphthene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Acenaphthylene | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Acetophenone | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Acetylaminofluorene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Aminobiphenyl | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Aniline | EPA 8270C | 3010041 | 5.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Anthracene | EPA 8270C | 3010041 | 0.80 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Aramite | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (a) anthracene | EPA 8270C | 3010041 | 0.53 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (b+k) fluoranthene (total) | EPA 8270C | 3010041 | 1.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (g,h,i) perylene | EPA 8270C | 3010041 | 0.98 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (a) pyrene | EPA 8270C | 3010041 | 0.97 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzyl alcohol | EPA 8270C | 3010041 | 3.1 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| B[illegible]chloroethoxy)methane | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| B[illegible]chloroethyl)ether | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroisopropyl)ether | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| **Bis(2-ethylhexyl)phthalate** | EPA 8270C | 3010041 | 3.6 | 10 | **78** | 1 | 01/03/03 | 02/07/03 | |
| 4-Bromophenyl phenyl ether | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Butyl benzyl phthalate | EPA 8270C | 3010041 | 0.91 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chloroaniline | EPA 8270C | 3010041 | 2.9 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Chlorobenzilate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chloro-3-methylphenol | EPA 8270C | 3010041 | 4.0 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Chloronaphthalene | EPA 8270C | 3010041 | 3.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Chlorophenol | EPA 8270C | 3010041 | 4.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chlorophenyl phenyl ether | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Chrysene | EPA 8270C | 3010041 | 0.96 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diallate (cis or trans) | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dibenz (a,h) anthracene | EPA 8270C | 3010041 | 0.89 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dibenzofuran | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di-n-butyl phthalate | EPA 8270C | 3010041 | 0.92 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2-Dichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3-Dichlorobenzene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Dichlorobenzene | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3,3'-Dichlorobenzidine | EPA 8270C | 3010041 | 5.0 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dichlorophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,6-Dichlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diethyl phthalate | EPA 8270C | 3010041 | 1.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethylaminoazobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di[illegible]thoate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 7[illegible]imethylbenz (a) anthracene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3,3'-Dimethylbenzidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |

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[illegible]atty Mata
[illegible]roject Manager

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| a,a-Dimethylphenethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dimethylphenol | EPA 8270C | 3010041 | 6.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethyl phthalate | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3-Dinitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4,6-Dinitro-2-methylphenol | EPA 8270C | 3010041 | 2.2 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dinitrophenol | EPA 8270C | 3010041 | 1.3 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dinitrotoluene | EPA 8270C | 3010041 | 1.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,6-Dinitrotoluene | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di-n-octyl phthalate | EPA 8270C | 3010041 | 0.93 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diphenylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Ethyl methacrylate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Ethyl methanesulfonate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Famphur | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Fluoranthene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Fluorene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorobenzene | EPA 8270C | 3010041 | 1.7 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorobutadiene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorocyclopentadiene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachloroethane | EPA 8270C | 3010041 | 2.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorophene | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachloropropene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Indeno (1,2,3-cd) pyrene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isodrin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isophorone | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isosafrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Kepone | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Methapyrilene | EPA 8270C | 3010041 | 100 | 100 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Methylcholanthrene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Methyl methanesulfonate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Methylnaphthalene | EPA 8270C | 3010041 | 3.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Methylphenol | EPA 8270C | 3010041 | 5.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Methylphenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Methylphenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Naphthalene | EPA 8270C | 3010041 | 3.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Naphthoquinone | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Nitroaniline | EPA 8270C | 3010041 | 2.6 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Nitroaniline | EPA 8270C | 3010041 | 4.0 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitroaniline | EPA 8270C | 3010041 | 5.0 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Nitrobenzene | EPA 8270C | 3010041 | 3.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |

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'atty Mata
'roject Manager

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Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-04 (PTI-MW11-056 - Water)** | | | | | | | | | |
| 2-Nitrophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitrophenol | EPA 8270C | 3010041 | 1.7 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodi-n-butylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodiethylamine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodimethylamine | EPA 8270C | 3010041 | 2.4 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodiphenylamine | EPA 8270C | 3010041 | 2.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodi-n-propylamine | EPA 8270C | 3010041 | 3.7 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosomethylethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosomorpholine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosopiperidine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosopyrrolidine | EPA 8270C | 3010041 | 40 | 40 | ND | 1 | 01/03/03 | 02/07/03 | |
| 5-Nitro-o-toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitroquinoline-n-oxide | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| P[illegible]hlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| P[illegible]hloroethane | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachloronitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachlorophenol | EPA 8270C | 3010041 | 2.1 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenacetin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenanthrene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Phenylenediamine | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Picoline | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pronamide | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pyrene | EPA 8270C | 3010041 | 0.72 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pyridine | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Safrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2,4,5-Tetrachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,3,4,6-Tetrachlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Thionazin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| o-Toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2,4-Trichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4,5-Trichlorophenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4,6-Trichlorophenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| O,O,O-Triethyl phosphorothioate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3,5-Trinitrobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| *Surrogate: 2-Fluorophenol (15-103%)* | | | | | *34 %* | | | | |
| *Surrogate: Phenol-d6 (18-115%)* | | | | | *71 %* | | | | |
| *Surrogate: Nitrobenzene-d5 (39-103%)* | | | | | *77 %* | | | | |
| *Surrogate: 2-Fluorobiphenyl (40-124%)* | | | | | *88 %* | | | | |
| *Surrogate: 2,4,6-Tribromophenol (11-142%)* | | | | | *103 %* | | | | |
| *Surrogate: Terphenyl-d14 (56-139%)* | | | | | *100 %* | | | | |

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Patty Mata
Project Manager

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Camp, Dresser & McKee
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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| Acenaphthene | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Acenaphthylene | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Acetophenone | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Acetylaminofluorene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Aminobiphenyl | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Aniline | EPA 8270C | 3010041 | 5.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Anthracene | EPA 8270C | 3010041 | 0.80 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Aramite | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (a) anthracene | EPA 8270C | 3010041 | 0.53 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (b+k) fluoranthene (total) | EPA 8270C | 3010041 | 1.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (g,h,i) perylene | EPA 8270C | 3010041 | 0.98 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzo (a) pyrene | EPA 8270C | 3010041 | 0.97 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Benzyl alcohol | EPA 8270C | 3010041 | 3.1 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroethoxy)methane | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroethyl)ether | EPA 8270C | 3010041 | 3.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Bis(2-chloroisopropyl)ether | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| **Bis(2-ethylhexyl)phthalate** | EPA 8270C | 3010041 | 3.6 | 10 | **5.8** | 1 | 01/03/03 | 02/07/03 | J |
| 4-Bromophenyl phenyl ether | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Butyl benzyl phthalate | EPA 8270C | 3010041 | 0.91 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chloroaniline | EPA 8270C | 3010041 | 2.9 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Chlorobenzilate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chloro-3-methylphenol | EPA 8270C | 3010041 | 4.0 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Chloronaphthalene | EPA 8270C | 3010041 | 3.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Chlorophenol | EPA 8270C | 3010041 | 4.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Chlorophenyl phenyl ether | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Chrysene | EPA 8270C | 3010041 | 0.96 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diallate (cis or trans) | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dibenz (a,h) anthracene | EPA 8270C | 3010041 | 0.89 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dibenzofuran | EPA 8270C | 3010041 | 2.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di-n-butyl phthalate | EPA 8270C | 3010041 | 0.92 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2-Dichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3-Dichlorobenzene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Dichlorobenzene | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3,3´-Dichlorobenzidine | EPA 8270C | 3010041 | 5.0 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dichlorophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,6-Dichlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diethyl phthalate | EPA 8270C | 3010041 | 1.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethylaminoazobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethoate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 7,12-Dimethylbenz (a) anthracene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3,3´-Dimethylbenzidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| a,a-Dimethylphenethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dimethylphenol | EPA 8270C | 3010041 | 6.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Dimethyl phthalate | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3-Dinitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4,6-Dinitro-2-methylphenol | EPA 8270C | 3010041 | 2.2 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dinitrophenol | EPA 8270C | 3010041 | 1.3 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4-Dinitrotoluene | EPA 8270C | 3010041 | 1.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,6-Dinitrotoluene | EPA 8270C | 3010041 | 1.9 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Di-n-octyl phthalate | EPA 8270C | 3010041 | 0.93 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Diphenylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Ethyl methacrylate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Ethyl methanesulfonate | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Famphur | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| F anthene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| ne | EPA 8270C | 3010041 | 2.6 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorobenzene | EPA 8270C | 3010041 | 1.7 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorobutadiene | EPA 8270C | 3010041 | 3.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorocyclopentadiene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachloroethane | EPA 8270C | 3010041 | 2.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachlorophene | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Hexachloropropene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Indeno (1,2,3-cd) pyrene | EPA 8270C | 3010041 | 0.78 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isodrin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isophorone | EPA 8270C | 3010041 | 3.2 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Isosafrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Kepone | EPA 8270C | 3010041 | 200 | 200 | ND | 1 | 01/03/03 | 02/07/03 | |
| Methapyrilene | EPA 8270C | 3010041 | 100 | 100 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Methylcholanthrene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Methyl methanesulfonate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Methylnaphthalene | EPA 8270C | 3010041 | 3.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Methylphenol | EPA 8270C | 3010041 | 5.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Methylphenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Methylphenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Naphthalene | EPA 8270C | 3010041 | 3.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Naphthoquinone | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Naphthylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Nitroaniline | EPA 8270C | 3010041 | 2.6 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 3-Nitroaniline | EPA 8270C | 3010041 | 4.0 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4 aniline | EPA 8270C | 3010041 | 5.0 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Nitrobenzene | EPA 8270C | 3010041 | 3.3 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |

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Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Method | Batch | MDL Limit | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| | | | ug/l | ug/l | ug/l | | | | |
| **Sample ID: ILL1698-05 (PTI-MW35-056 - Water)** | | | | | | | | | |
| 2-Nitrophenol | EPA 8270C | 3010041 | 4.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitrophenol | EPA 8270C | 3010041 | 1.7 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodi-n-butylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodiethylamine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodimethylamine | EPA 8270C | 3010041 | 2.4 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodiphenylamine | EPA 8270C | 3010041 | 2.8 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosodi-n-propylamine | EPA 8270C | 3010041 | 3.7 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosomethylethylamine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosomorpholine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosopiperidine | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| N-Nitrosopyrrolidine | EPA 8270C | 3010041 | 40 | 40 | ND | 1 | 01/03/03 | 02/07/03 | |
| 5-Nitro-o-toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 4-Nitroquinoline-n-oxide | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachloroethane | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachloronitrobenzene | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pentachlorophenol | EPA 8270C | 3010041 | 2.1 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenacetin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenanthrene | EPA 8270C | 3010041 | 1.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Phenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,4-Phenylenediamine | EPA 8270C | 3010041 | 50 | 50 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2-Picoline | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pronamide | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pyrene | EPA 8270C | 3010041 | 0.72 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Pyridine | EPA 8270C | 3010041 | 2.1 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Safrole | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2,4,5-Tetrachlorobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,3,4,6-Tetrachlorophenol | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| Thionazin | EPA 8270C | 3010041 | 20 | 20 | ND | 1 | 01/03/03 | 02/07/03 | |
| o-Toluidine | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,2,4-Trichlorobenzene | EPA 8270C | 3010041 | 3.4 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4,5-Trichlorophenol | EPA 8270C | 3010041 | 4.0 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 2,4,6-Trichlorophenol | EPA 8270C | 3010041 | 4.5 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| O,O,O-Triethyl phosphorothioate | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| 1,3,5-Trinitrobenzene | EPA 8270C | 3010041 | 10 | 10 | ND | 1 | 01/03/03 | 02/07/03 | |
| *Surrogate: 2-Fluorophenol (15-103%)* | | | | | *52 %* | | | | |
| *Surrogate: Phenol-d6 (18-115%)* | | | | | *69 %* | | | | |
| *Surrogate: Nitrobenzene-d5 (39-103%)* | | | | | *73 %* | | | | |
| *Surrogate: 2-Fluorobiphenyl (40-124%)* | | | | | *80 %* | | | | |
| *Surrogate: 2,4,6-Tribromophenol (11-142%)* | | | | | *101 %* | | | | |
| *Surrogate: Terphenyl-d14 (56-139%)* | | | | | *73 %* | | | | |

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[illegible], Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# SHORT HOLD TIME DETAIL REPORT

| | Hold Time (in days) | Date/Time Sampled | Date/Time Received | Date/Time Extracted | Date/Time Analyzed |
|---|---|---|---|---|---|
| **Sample ID: PTI-MW14S-056 (ILL1698-01) - Water** | | | | | |
| EPA 150.1 | 1 | 12/30/2002 08:30 | 12/30/2002 16:47 | 12/30/2002 15:10 | 12/30/2002 20:05 |
| EPA 7199 | 1 | 12/30/2002 08:30 | 12/30/2002 16:47 | 12/30/2002 13:37 | 12/30/2002 22:08 |
| **Sample ID: PTI-MW07-056 (ILL1698-02) - Water** | | | | | |
| EPA 150.1 | 1 | 12/30/2002 10:20 | 12/30/2002 16:47 | 12/30/2002 15:10 | 12/30/2002 20:05 |
| EPA 7199 | 1 | 12/30/2002 10:20 | 12/30/2002 16:47 | 12/30/2002 13:37 | 12/30/2002 22:17 |
| **Sample ID: PTI-MW04-056 (ILL1698-03) - Water** | | | | | |
| EPA 150.1 | 1 | 12/30/2002 13:10 | 12/30/2002 16:47 | 12/30/2002 15:10 | 12/30/2002 20:05 |
| EPA 7199 | 1 | 12/30/2002 13:10 | 12/30/2002 16:47 | 12/30/2002 13:37 | 12/30/2002 23:05 |
| **Sample ID: PTI-MW11-056 (ILL1698-04) - Water** | | | | | |
| EPA 150.1 | 1 | 12/30/2002 14:45 | 12/30/2002 16:47 | 12/30/2002 15:10 | 12/30/2002 20:05 |
| EPA 7199 | 1 | 12/30/2002 14:45 | 12/30/2002 16:47 | 12/30/2002 13:37 | 12/30/2002 23:15 |
| **Sample ID: PTI-MW35-056 (ILL1698-05) - Water** | | | | | |
| EPA 150.1 | 1 | 12/30/2002 07:30 | 12/30/2002 16:47 | 12/30/2002 15:10 | 12/30/2002 20:05 |
| EPA 7199 | 1 | 12/30/2002 07:30 | 12/30/2002 16:47 | 12/30/2002 13:37 | 12/30/2002 23:25 |
| **Sample ID: PTI-EB01-056 (ILL1698-06) - Water** | | | | | |
| [illegible]199 | 1 | 12/30/2002 14:00 | 12/30/2002 16:47 | 12/30/2002 13:37 | 12/30/2002 23:34 |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L31027 Extracted: 12/31/02** | | | | | | | | | | | |
| **Blank Analyzed: 01/07/03 (2L31027-BLK1)** | | | | | | | | | | | |
| Aldrin | ND | 0.10 | N/A | ug/l | | | | | | | |
| Alpha-BHC | ND | 0.10 | N/A | ug/l | | | | | | | |
| Beta-BHC | ND | 0.10 | N/A | ug/l | | | | | | | |
| Delta-BHC | ND | 0.20 | N/A | ug/l | | | | | | | |
| Gamma-BHC (Lindane) | ND | 0.10 | N/A | ug/l | | | | | | | |
| Chlordane | ND | 1.0 | N/A | ug/l | | | | | | | |
| 4,4'-DDD | ND | 0.10 | N/A | ug/l | | | | | | | |
| 4,4'-DDE | ND | 0.10 | N/A | ug/l | | | | | | | |
| 4,4'-DDT | ND | 0.10 | N/A | ug/l | | | | | | | |
| Dieldrin | ND | 0.10 | N/A | ug/l | | | | | | | |
| Endosulfan I | ND | 0.10 | N/A | ug/l | | | | | | | |
| Endosulfan II | ND | 0.10 | N/A | ug/l | | | | | | | |
| Endosulfan sulfate | ND | 0.20 | N/A | ug/l | | | | | | | |
| Endrin | ND | 0.10 | N/A | ug/l | | | | | | | |
| Endrin aldehyde | ND | 0.10 | N/A | ug/l | | | | | | | |
| Endrin ketone | ND | 0.10 | N/A | ug/l | | | | | | | |
| Heptachlor | ND | 0.10 | N/A | ug/l | | | | | | | |
| Heptachlor epoxide | ND | 0.10 | N/A | ug/l | | | | | | | |
| Methoxychlor | ND | 0.10 | N/A | ug/l | | | | | | | |
| Toxaphene | ND | 5.0 | N/A | ug/l | | | | | | | |
| *Surrogate: Tetrachloro-m-xylene* | *0.520* | | | *ug/l* | *0.500* | | *104* | *35-120* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.549* | | | *ug/l* | *0.500* | | *110* | *45-120* | | | |
| **LCS Analyzed: 01/07/03 (2L31027-BS1)** | | | | | | | | | | | |
| Aldrin | 0.469 | 0.10 | N/A | ug/l | 0.500 | | 94 | 45-115 | | | |
| Alpha-BHC | 0.465 | 0.10 | N/A | ug/l | 0.500 | | 93 | 50-115 | | | |
| Beta-BHC | 0.518 | 0.10 | N/A | ug/l | 0.500 | | 104 | 65-115 | | | |
| Delta-BHC | 0.485 | 0.20 | N/A | ug/l | 0.500 | | 97 | 70-115 | | | |
| Gamma-BHC (Lindane) | 0.467 | 0.10 | N/A | ug/l | 0.500 | | 93 | 55-115 | | | |
| 4,4'-DDD | 0.482 | 0.10 | N/A | ug/l | 0.500 | | 96 | 65-120 | | | |
| 4,4'-DDE | 0.479 | 0.10 | N/A | ug/l | 0.500 | | 96 | 65-115 | | | |
| 4,4'-DDT | 0.534 | 0.10 | N/A | ug/l | 0.500 | | 107 | 70-120 | | | |
| Dieldrin | 0.478 | 0.10 | N/A | ug/l | 0.500 | | 96 | 60-115 | | | |
| Endosulfan I | 0.511 | 0.10 | N/A | ug/l | 0.500 | | 102 | 60-115 | | | |
| Endosulfan II | 0.529 | 0.10 | N/A | ug/l | 0.500 | | 106 | 55-115 | | | |
| Endosulfan sulfate | 0.530 | 0.20 | N/A | ug/l | 0.500 | | 106 | 65-120 | | | |

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Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## ORGANOCHLORINE PESTICIDES (EPA 3510C/8081A)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L31027 Extracted: 12/31/02** | | | | | | | | | | | |
| **LCS Analyzed: 01/07/03 (2L31027-BS1)** | | | | | | | | | | | |
| Endrin | 0.483 | 0.10 | N/A | ug/l | 0.500 | | 97 | 65-115 | | | |
| Endrin aldehyde | 0.547 | 0.10 | N/A | ug/l | 0.500 | | 109 | 65-115 | | | |
| Endrin ketone | 0.476 | 0.10 | N/A | ug/l | 0.500 | | 95 | 65-115 | | | |
| Heptachlor | 0.463 | 0.10 | N/A | ug/l | 0.500 | | 93 | 55-120 | | | |
| Heptachlor epoxide | 0.504 | 0.10 | N/A | ug/l | 0.500 | | 101 | 60-115 | | | |
| Methoxychlor | 0.523 | 0.10 | N/A | ug/l | 0.500 | | 105 | 70-115 | | | |
| *Surrogate: Tetrachloro-m-xylene* | *0.461* | | | *ug/l* | *0.500* | | *92* | *35-120* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.502* | | | *ug/l* | *0.500* | | *100* | *45-120* | | | |
| **up Analyzed: 01/07/03 (2L31027-BSD1)** | | | | | | | | | | | **M-NR1** |
| Aldrin | 0.487 | 0.10 | N/A | ug/l | 0.500 | | 97 | 45-115 | 4 | 20 | |
| alpha-BHC | 0.482 | 0.10 | N/A | ug/l | 0.500 | | 96 | 50-115 | 4 | 20 | |
| beta-BHC | 0.549 | 0.10 | N/A | ug/l | 0.500 | | 110 | 65-115 | 6 | 20 | |
| delta-BHC | 0.517 | 0.20 | N/A | ug/l | 0.500 | | 103 | 70-115 | 6 | 20 | |
| gamma-BHC (Lindane) | 0.491 | 0.10 | N/A | ug/l | 0.500 | | 98 | 55-115 | 5 | 20 | |
| 4,4'-DDD | 0.496 | 0.10 | N/A | ug/l | 0.500 | | 99 | 65-120 | 3 | 20 | |
| 4,4'-DDE | 0.497 | 0.10 | N/A | ug/l | 0.500 | | 99 | 65-115 | 4 | 20 | |
| 4,4'-DDT | 0.572 | 0.10 | N/A | ug/l | 0.500 | | 114 | 70-120 | 7 | 20 | |
| Dieldrin | 0.494 | 0.10 | N/A | ug/l | 0.500 | | 99 | 60-115 | 3 | 20 | |
| Endosulfan I | 0.529 | 0.10 | N/A | ug/l | 0.500 | | 106 | 60-115 | 3 | 20 | |
| Endosulfan II | 0.545 | 0.10 | N/A | ug/l | 0.500 | | 109 | 55-115 | 3 | 20 | |
| Endosulfan sulfate | 0.545 | 0.20 | N/A | ug/l | 0.500 | | 109 | 65-120 | 3 | 20 | |
| Endrin | 0.495 | 0.10 | N/A | ug/l | 0.500 | | 99 | 65-115 | 2 | 20 | |
| Endrin aldehyde | 0.566 | 0.10 | N/A | ug/l | 0.500 | | 113 | 65-115 | 3 | 20 | |
| Endrin ketone | 0.485 | 0.10 | N/A | ug/l | 0.500 | | 97 | 65-115 | 2 | 20 | |
| Heptachlor | 0.508 | 0.10 | N/A | ug/l | 0.500 | | 102 | 55-120 | 9 | 20 | |
| Heptachlor epoxide | 0.528 | 0.10 | N/A | ug/l | 0.500 | | 106 | 60-115 | 5 | 20 | |
| Methoxychlor | 0.525 | 0.10 | N/A | ug/l | 0.500 | | 105 | 70-115 | 0 | 20 | |
| *Surrogate: Tetrachloro-m-xylene* | *0.480* | | | *ug/l* | *0.500* | | *96* | *35-120* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.514* | | | *ug/l* | *0.500* | | *103* | *45-120* | | | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## POLYCHLORINATED BIPHENYLS (EPA 3510C/8082)

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L31027 Extracted: 12/31/02** | | | | | | | | | | | |
| **Blank Analyzed: 01/02/03 (2L31027-BLK1)** | | | | | | | | | | | |
| Aroclor 1016 | ND | 1.0 | N/A | ug/l | | | | | | | |
| Aroclor 1221 | ND | 1.0 | N/A | ug/l | | | | | | | |
| Aroclor 1232 | ND | 1.0 | N/A | ug/l | | | | | | | |
| Aroclor 1242 | ND | 1.0 | N/A | ug/l | | | | | | | |
| Aroclor 1248 | ND | 1.0 | N/A | ug/l | | | | | | | |
| Aroclor 1254 | ND | 1.0 | N/A | ug/l | | | | | | | |
| Aroclor 1260 | ND | 1.0 | N/A | ug/l | | | | | | | |
| *Surrogate: Decachlorobiphenyl* | *0.441* | | | *ug/l* | *0.500* | | *88* | *35-135* | | | |
| **LCS Analyzed: 01/02/03 (2L31027-BS2)** | | | | | | | | | | | |
| Aroclor 1016 | 3.66 | 1.0 | N/A | ug/l | 4.00 | | 92 | 45-115 | | | |
| Aroclor 1260 | 3.87 | 1.0 | N/A | ug/l | 4.00 | | 97 | 55-115 | | | |
| *Surrogate: Decachlorobiphenyl* | *0.498* | | | *ug/l* | *0.500* | | *100* | *35-135* | | | |
| **LCS Dup Analyzed: 01/02/03 (2L31027-BSD2)** | | | | | | | | | | | **M-NR1** |
| Aroclor 1016 | 3.81 | 1.0 | N/A | ug/l | 4.00 | | 95 | 45-115 | 4 | 20 | |
| Aroclor 1260 | 3.85 | 1.0 | N/A | ug/l | 4.00 | | 96 | 55-115 | 1 | 20 | |
| *Surrogate: Decachlorobiphenyl* | *0.490* | | | *ug/l* | *0.500* | | *98* | *35-135* | | | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# METHOD BLANK/QC DATA

## METALS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L30066 Extracted: 12/30/02** | | | | | | | | | | | |
| **Blank Analyzed: 01/02/03 (2L30066-BLK1)** | | | | | | | | | | | |
| Antimony | ND | 0.010 | N/A | mg/l | | | | | | | |
| Arsenic | ND | 0.0050 | N/A | mg/l | | | | | | | |
| Barium | ND | 0.010 | N/A | mg/l | | | | | | | |
| Beryllium | ND | 0.0040 | N/A | mg/l | | | | | | | |
| Cadmium | ND | 0.0050 | N/A | mg/l | | | | | | | |
| Chromium | ND | 0.0050 | N/A | mg/l | | | | | | | |
| Cobalt | ND | 0.010 | N/A | mg/l | | | | | | | |
| Copper | ND | 0.010 | N/A | mg/l | | | | | | | |
| Lead | ND | 0.0050 | N/A | mg/l | | | | | | | |
| Molybdenum | ND | 0.020 | N/A | mg/l | | | | | | | |
| Nickel | ND | 0.010 | N/A | mg/l | | | | | | | |
| Selenium | ND | 0.0050 | N/A | mg/l | | | | | | | |
| Silver | ND | 0.010 | N/A | mg/l | | | | | | | |
| Thallium | ND | 0.0050 | N/A | mg/l | | | | | | | |
| Vanadium | ND | 0.010 | N/A | mg/l | | | | | | | |
| Zinc | ND | 0.020 | N/A | mg/l | | | | | | | |
| **LCS Analyzed: 01/02/03 (2L30066-BS1)** | | | | | | | | | | | |
| Antimony | 1.08 | 0.010 | N/A | mg/l | 1.00 | | 108 | 80-120 | | | |
| Arsenic | 0.997 | 0.0050 | N/A | mg/l | 1.00 | | 100 | 80-120 | | | |
| Barium | 1.00 | 0.010 | N/A | mg/l | 1.00 | | 100 | 80-120 | | | |
| Beryllium | 1.01 | 0.0040 | N/A | mg/l | 1.00 | | 101 | 80-120 | | | |
| Cadmium | 1.00 | 0.0050 | N/A | mg/l | 1.00 | | 100 | 80-120 | | | |
| Chromium | 0.996 | 0.0050 | N/A | mg/l | 1.00 | | 100 | 80-120 | | | |
| Cobalt | 0.992 | 0.010 | N/A | mg/l | 1.00 | | 99 | 80-120 | | | |
| Copper | 1.03 | 0.010 | N/A | mg/l | 1.00 | | 103 | 80-120 | | | |
| Lead | 0.984 | 0.0050 | N/A | mg/l | 1.00 | | 98 | 80-120 | | | |
| Molybdenum | 1.02 | 0.020 | N/A | mg/l | 1.00 | | 102 | 80-120 | | | |
| Nickel | 1.01 | 0.010 | N/A | mg/l | 1.00 | | 101 | 80-120 | | | |
| Selenium | 0.979 | 0.0050 | N/A | mg/l | 1.00 | | 98 | 80-120 | | | |
| Silver | 0.504 | 0.010 | N/A | mg/l | 0.500 | | 101 | 80-120 | | | |
| Thallium | 0.957 | 0.0050 | N/A | mg/l | 1.00 | | 96 | 80-120 | | | |
| Vanadium | 1.01 | 0.010 | N/A | mg/l | 1.00 | | 101 | 80-120 | | | |
| Zinc | 0.991 | 0.020 | N/A | mg/l | 1.00 | | 99 | 80-120 | | | |

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# METHOD BLANK/QC DATA

## METALS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L30066 Extracted: 12/30/02** | | | | | | | | | | | |
| **Matrix Spike Analyzed: 01/02/03 (2L30066-MS1)** | | | | | | **Source: ILL1698-01** | | | | | |
| Antimony | 1.13 | 0.010 | N/A | mg/l | 1.00 | 0.0041 | 113 | 75-125 | | | |
| Arsenic | 1.06 | 0.0050 | N/A | mg/l | 1.00 | 0.011 | 105 | 75-125 | | | |
| Barium | 1.39 | 0.010 | N/A | mg/l | 1.00 | 0.42 | 97 | 75-125 | | | |
| Beryllium | 1.02 | 0.0040 | N/A | mg/l | 1.00 | 0.0030 | 102 | 75-125 | | | |
| Cadmium | 0.985 | 0.0050 | N/A | mg/l | 1.00 | 0.0046 | 98 | 75-125 | | | |
| Chromium | 1.02 | 0.0050 | N/A | mg/l | 1.00 | 0.014 | 101 | 75-125 | | | |
| Cobalt | 0.985 | 0.010 | N/A | mg/l | 1.00 | 0.0042 | 98 | 75-125 | | | |
| Copper | 1.21 | 0.010 | N/A | mg/l | 1.00 | 0.042 | 117 | 75-125 | | | |
| Lead | 0.982 | 0.0050 | N/A | mg/l | 1.00 | ND | 98 | 75-125 | | | |
| Molybdenum | 1.04 | 0.020 | N/A | mg/l | 1.00 | 0.0035 | 104 | 75-125 | | | |
| Nickel | 1.00 | 0.010 | N/A | mg/l | 1.00 | 0.0085 | 99 | 75-125 | | | |
| Selenium | 1.03 | 0.0050 | N/A | mg/l | 1.00 | 0.0043 | 103 | 75-125 | | | |
| Silver | 0.540 | 0.010 | N/A | mg/l | 0.500 | ND | 108 | 75-125 | | | |
| Thallium | 0.974 | 0.0050 | N/A | mg/l | 1.00 | 0.0074 | 97 | 75-125 | | | |
| Vanadium | 1.05 | 0.010 | N/A | mg/l | 1.00 | ND | 105 | 75-125 | | | |
| Zinc | 1.15 | 0.020 | N/A | mg/l | 1.00 | 0.13 | 102 | 75-125 | | | |
| **Matrix Spike Dup Analyzed: 01/02/03 (2L30066-MSD1)** | | | | | | **Source: ILL1698-01** | | | | | |
| Antimony | 1.11 | 0.010 | N/A | mg/l | 1.00 | 0.0041 | 111 | 75-125 | 2 | 20 | |
| Arsenic | 1.05 | 0.0050 | N/A | mg/l | 1.00 | 0.011 | 104 | 75-125 | 1 | 20 | |
| Barium | 1.37 | 0.010 | N/A | mg/l | 1.00 | 0.42 | 95 | 75-125 | 1 | 20 | |
| Beryllium | 1.02 | 0.0040 | N/A | mg/l | 1.00 | 0.0030 | 102 | 75-125 | 0 | 20 | |
| Cadmium | 0.963 | 0.0050 | N/A | mg/l | 1.00 | 0.0046 | 96 | 75-125 | 2 | 20 | |
| Chromium | 1.00 | 0.0050 | N/A | mg/l | 1.00 | 0.014 | 99 | 75-125 | 2 | 20 | |
| Cobalt | 0.960 | 0.010 | N/A | mg/l | 1.00 | 0.0042 | 96 | 75-125 | 3 | 20 | |
| Copper | 1.18 | 0.010 | N/A | mg/l | 1.00 | 0.042 | 114 | 75-125 | 3 | 20 | |
| Lead | 0.967 | 0.0050 | N/A | mg/l | 1.00 | ND | 97 | 75-125 | 2 | 20 | |
| Molybdenum | 1.03 | 0.020 | N/A | mg/l | 1.00 | 0.0035 | 103 | 75-125 | 1 | 20 | |
| Nickel | 0.978 | 0.010 | N/A | mg/l | 1.00 | 0.0085 | 97 | 75-125 | 2 | 20 | |
| Selenium | 1.01 | 0.0050 | N/A | mg/l | 1.00 | 0.0043 | 101 | 75-125 | 2 | 20 | |
| Silver | 0.529 | 0.010 | N/A | mg/l | 0.500 | ND | 106 | 75-125 | 2 | 20 | |
| Thallium | 0.966 | 0.0050 | N/A | mg/l | 1.00 | 0.0074 | 96 | 75-125 | 1 | 20 | |
| Vanadium | 1.02 | 0.010 | N/A | mg/l | 1.00 | ND | 102 | 75-125 | 3 | 20 | |
| Zinc | 1.13 | 0.020 | N/A | mg/l | 1.00 | 0.13 | 100 | 75-125 | 2 | 20 | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX
Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## METALS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3A07034 Extracted: 01/07/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/07/03 (3A07034-BLK1)** | | | | | | | | | | | |
| Mercury | ND | 0.00020 | N/A | mg/l | | | | | | | |
| **LCS Analyzed: 01/07/03 (3A07034-BS1)** | | | | | | | | | | | |
| Mercury | 0.00815 | 0.00020 | N/A | mg/l | 0.00800 | | 102 | 90-115 | | | |
| **Matrix Spike Analyzed: 01/07/03 (3A07034-MS1)** | | | | | | **Source: ILL1698-01** | | | | | |
| Mercury | 0.00745 | 0.00020 | N/A | mg/l | 0.00800 | 0.00012 | 92 | 75-120 | | | |
| **Matrix Spike Dup Analyzed: 01/07/03 (3A07034-MSD1)** | | | | | | **Source: ILL1698-01** | | | | | |
| Mercury | 0.00765 | 0.00020 | N/A | mg/l | 0.00800 | 0.00012 | 94 | 75-120 | 3 | 20 | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## INORGANICS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L30059 Extracted: 12/30/02** | | | | | | | | | | | |
| **Duplicate Analyzed: 12/30/02 (2L30059-DUP1)** | | | | | | **Source: ILL1673-01** | | | | | |
| pH | 9.47 | NA | N/A | pH Units | | 9.49 | | | 0 | 5 | |
| **Batch: 2L30065 Extracted: 12/30/02** | | | | | | | | | | | |
| **Blank Analyzed: 12/30/02 (2L30065-BLK1)** | | | | | | | | | | | |
| Chromium VI | ND | 0.0010 | N/A | mg/l | | | | | | | |
| **LCS Analyzed: 12/30/02 (2L30065-BS1)** | | | | | | | | | | | |
| Chromium VI | 0.0491 | 0.0010 | N/A | mg/l | 0.0500 | | 98 | 90-110 | | | |
| **Matrix Spike Analyzed: 12/30/02 (2L30065-MS1)** | | | | | | **Source: ILL1691-19** | | | | | |
| Chromium VI | 0.0447 | 0.0010 | N/A | mg/l | 0.0500 | 0.00040 | 89 | 80-115 | | | |
| **Matrix Spike Dup Analyzed: 12/30/02 (2L30065-MSD1)** | | | | | | **Source: ILL1691-19** | | | | | |
| Chromium VI | 0.0448 | 0.0010 | N/A | mg/l | 0.0500 | 0.00040 | 89 | 80-115 | 0 | 15 | |
| **Batch: 2L31042 Extracted: 12/31/02** | | | | | | | | | | | |
| **Blank Analyzed: 12/31/02 (2L31042-BLK1)** | | | | | | | | | | | |
| Total Cyanide | ND | 0.025 | N/A | mg/l | | | | | | | |
| **LCS Analyzed: 12/31/02 (2L31042-BS1)** | | | | | | | | | | | |
| Total Cyanide | 0.203 | 0.025 | N/A | mg/l | 0.200 | | 102 | 90-110 | | | |
| **Matrix Spike Analyzed: 12/31/02 (2L31042-MS1)** | | | | | | **Source: ILL1726-01** | | | | | |
| Total Cyanide | 0.160 | 0.025 | N/A | mg/l | 0.200 | ND | 80 | 70-115 | | | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## INORGANICS

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 2L31042 Extracted: 12/31/02** | | | | | | | | | | | |
| **Matrix Spike Dup Analyzed: 12/31/02 (2L31042-MSD1)** | | | | | | **Source: ILL1726-01** | | | | | |
| Total Cyanide | 0.163 | 0.025 | N/A | mg/l | 0.200 | ND | 82 | 70-115 | 2 | 15 | |
| **Batch: 3A02036 Extracted: 01/02/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/02/03 (3A02036-BLK1)** | | | | | | | | | | | |
| Sulfide | ND | 0.10 | N/A | mg/l | | | | | | | |
| **LCS Analyzed: 01/02/03 (3A02036-BS1)** | | | | | | | | | | | |
| Sulfide | 0.720 | 0.10 | N/A | mg/l | 0.660 | | 109 | 80-120 | | | |
| **M Spike Analyzed: 01/02/03 (3A02036-MS1)** | | | | | | **Source: ILL1703-01** | | | | | |
| Sulfide | 0.414 | 0.10 | N/A | mg/l | 0.396 | ND | 105 | 70-130 | | | |
| **Matrix Spike Dup Analyzed: 01/02/03 (3A02036-MSD1)** | | | | | | **Source: ILL1703-01** | | | | | |
| Sulfide | 0.317 | 0.10 | N/A | mg/l | 0.396 | ND | 80 | 70-130 | 27 | 30 | |

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Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3A06026 Extracted: 01/06/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/10/03 (3A06026-BLK1)** | | | | | | | | | | | |
| Azinphos methyl | ND | 1.0 | N/A | ug/l | | | | | | | |
| Bolstar | ND | 0.50 | N/A | ug/l | | | | | | | |
| Chlorpyrifos | ND | 0.50 | N/A | ug/l | | | | | | | |
| Coumaphos | ND | 1.0 | N/A | ug/l | | | | | | | |
| Demeton | ND | 0.50 | N/A | ug/l | | | | | | | |
| Diazinon | ND | 0.50 | N/A | ug/l | | | | | | | |
| Dichlorvos | ND | 0.50 | N/A | ug/l | | | | | | | |
| Dimethoate | ND | 1.0 | N/A | ug/l | | | | | | | |
| Disulfoton | ND | 0.50 | N/A | ug/l | | | | | | | |
| Ethion | ND | 0.50 | N/A | ug/l | | | | | | | |
| Ethoprop | ND | 0.50 | N/A | ug/l | | | | | | | |
| EPN | ND | 0.50 | N/A | ug/l | | | | | | | |
| Fensulfothion | ND | 0.50 | N/A | ug/l | | | | | | | |
| Fenthion | ND | 0.50 | N/A | ug/l | | | | | | | |
| Malathion | ND | 0.50 | N/A | ug/l | | | | | | | |
| Merphos | ND | 0.50 | N/A | ug/l | | | | | | | |
| Mevinphos | ND | 0.50 | N/A | ug/l | | | | | | | |
| Monocrotophos | ND | 2.5 | N/A | ug/l | | | | | | | |
| Naled | ND | 1.0 | N/A | ug/l | | | | | | | |
| Parathion-ethyl | ND | 0.50 | N/A | ug/l | | | | | | | |
| Parathion-methyl | ND | 0.50 | N/A | ug/l | | | | | | | |
| Phorate | ND | 0.50 | N/A | ug/l | | | | | | | |
| Tonnel | ND | 0.50 | N/A | ug/l | | | | | | | |
| Stirophos | ND | 1.0 | N/A | ug/l | | | | | | | |
| Sulfotep | ND | 0.50 | N/A | ug/l | | | | | | | |
| Thionazin | ND | 0.50 | N/A | ug/l | | | | | | | |
| Tokuthion (Prothiofos) | ND | 0.50 | N/A | ug/l | | | | | | | |
| Trichloronate | ND | 0.50 | N/A | ug/l | | | | | | | |
| *Surrogate: Triphenyl phosphate* | *1.36* | | | *ug/l* | *1.25* | | *109* | *10-182* | | | |

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Sampled: 12/30/02
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## METHOD BLANK/QC DATA

## Organophosphorus Pesticides by EPA Method 8141A

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3A06026 Extracted: 01/06/03** | | | | | | | | | | | |
| **LCS Analyzed: 01/10/03 (3A06026-BS1)** | | | | | | | | | | | |
| Diazinon | 1.10 | 0.50 | N/A | ug/l | 1.25 | | 88 | 25-160 | | | |
| Disulfoton | 1.10 | 0.50 | N/A | ug/l | 1.25 | | 88 | 10-170 | | | |
| Parathion-methyl | 1.12 | 0.50 | N/A | ug/l | 1.25 | | 90 | 10-154 | | | |
| *Surrogate: Triphenyl phosphate* | *1.36* | | | *ug/l* | *1.25* | | *109* | *10-182* | | | |
| **LCS Dup Analyzed: 01/10/03 (3A06026-BSD1)** | | | | | | | | | | | |
| Diazinon | 1.15 | 0.50 | N/A | ug/l | 1.25 | | 92 | 25-160 | 4 | 48 | |
| Disulfoton | 1.15 | 0.50 | N/A | ug/l | 1.25 | | 92 | 10-170 | 4 | 48 | |
| Parathion-methyl | 1.18 | 0.50 | N/A | ug/l | 1.25 | | 94 | 10-154 | 5 | 64 | |
| *Surrogate: Triphenyl phosphate* | *1.13* | | | *ug/l* | *1.25* | | *90* | *10-182* | | | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Chlorinated Herbicides by EPA Method 8151A

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3A03006 Extracted: 01/03/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/08/03 (3A03006-BLK1)** | | | | | | | | | | | |
| 2,4-D | ND | 1.0 | N/A | ug/l | | | | | | | |
| 2,4-DB | ND | 1.0 | N/A | ug/l | | | | | | | |
| 2,4,5-T | ND | 1.0 | N/A | ug/l | | | | | | | |
| 2,4,5-TP (Silvex) | ND | 1.0 | N/A | ug/l | | | | | | | |
| Dalapon | ND | 1.0 | N/A | ug/l | | | | | | | |
| Dicamba | ND | 1.0 | N/A | ug/l | | | | | | | |
| Dichlorprop | ND | 1.0 | N/A | ug/l | | | | | | | |
| Dinoseb | ND | 1.0 | N/A | ug/l | | | | | | | |
| MCPA | ND | 500 | N/A | ug/l | | | | | | | |
| MCPP | ND | 500 | N/A | ug/l | | | | | | | |
| *Surrogate: Dichlorophenylacetic acid* | *2.25* | | | *ug/l* | *2.50* | | *90* | *48-138* | | | |
| **LCS Analyzed: 01/08/03 (3A03006-BS1)** | | | | | | | | | | | |
| 2,4-D | 1.18 | 1.0 | N/A | ug/l | 1.25 | | 94 | 83-164 | | | |
| 2,4,5-T | 1.03 | 1.0 | N/A | ug/l | 1.25 | | 82 | 79-151 | | | |
| 2,4,5-TP (Silvex) | 1.05 | 1.0 | N/A | ug/l | 1.25 | | 84 | 66-134 | | | |
| *Surrogate: Dichlorophenylacetic acid* | *2.07* | | | *ug/l* | *2.50* | | *83* | *48-138* | | | |
| **LCS Dup Analyzed: 01/08/03 (3A03006-BSD1)** | | | | | | | | | | | |
| 2,4-D | 1.08 | 1.0 | N/A | ug/l | 1.25 | | 86 | 83-164 | 9 | 44 | |
| 2,4,5-T | 1.03 | 0.50 | N/A | ug/l | 1.25 | | 82 | 79-151 | 0 | 36 | |
| 2,4,5-TP (Silvex) | 0.908 | 0.50 | N/A | ug/l | 1.25 | | 73 | 66-134 | 15 | 20 | |
| *Surrogate: Dichlorophenylacetic acid* | *1.91* | | | *ug/l* | *2.50* | | *76* | *48-138* | | | |

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Patty Mata
Project Manager

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, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010233 Extracted: 01/13/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/13/03 (3010233-BLK1)** | | | | | | | | | | | |
| Acetone | ND | 10 | 1.8 | ug/l | | | | | | | |
| Acetonitrile | ND | 100 | 19 | ug/l | | | | | | | |
| Acrolein | ND | 20 | 1.8 | ug/l | | | | | | | |
| Acrylonitrile | ND | 20 | 1.1 | ug/l | | | | | | | |
| Allyl chloride | ND | 10 | 0.98 | ug/l | | | | | | | |
| Benzene | ND | 1.0 | 0.050 | ug/l | | | | | | | |
| Bromodichloromethane | ND | 1.0 | 0.050 | ug/l | | | | | | | |
| Bromoform | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| Br[illegible]methane | ND | 1.0 | 0.19 | ug/l | | | | | | | |
| [illegible]one | ND | 10 | 0.70 | ug/l | | | | | | | |
| Carbon disulfide | ND | 10 | 1.4 | ug/l | | | | | | | |
| Carbon tetrachloride | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| Chlorobenzene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| Chloroethane | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| Chloroform | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| Chloromethane | ND | 1.0 | 0.14 | ug/l | | | | | | | |
| Chloroprene | ND | 5.0 | 5.0 | ug/l | | | | | | | |
| Dibromochloromethane | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| ,2-Dibromoethane (EDB) | ND | 1.0 | 0.040 | ug/l | | | | | | | |
| Dibromomethane | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| rans-1,4-Dichloro-2-butene | ND | 20 | 1.7 | ug/l | | | | | | | |
| ,2-Dichlorobenzene | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| ,3-Dichlorobenzene | ND | 1.0 | 0.13 | ug/l | | | | | | | |
| ,4-Dichlorobenzene | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| Dichlorodifluoromethane | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ,1-Dichloroethane | ND | 1.0 | 0.040 | ug/l | | | | | | | |
| ,2-Dichloroethane | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| ,1-Dichloroethene | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| is-1,2-Dichloroethene | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| rans-1,2-Dichloroethene | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ,2-Dichloropropane | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| is-1,3-Dichloropropene | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| rans-1,3-Dichloropropene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| Ethylbenzene | ND | 1.0 | 0.10 | ug/l | | | | | | | |
| Eth[illegible]thacrylate | ND | 5.0 | 1.6 | ug/l | | | | | | | |
| -Hexanone | ND | 10 | 0.96 | ug/l | | | | | | | |

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Camp, Dresser & McKee
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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010233 Extracted: 01/13/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/13/03 (3010233-BLK1)** | | | | | | | | | | | |
| odomethane | ND | 10 | 0.80 | ug/l | | | | | | | |
| sobutanol | ND | 500 | 20 | ug/l | | | | | | | |
| Methacrylonitrile | ND | 10 | 1.7 | ug/l | | | | | | | |
| Methylene chloride | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| Methyl methacrylate | ND | 5.0 | 1.6 | ug/l | | | | | | | |
| l-Methyl-2-pentanone | ND | 10 | 1.1 | ug/l | | | | | | | |
| Propionitrile | ND | 100 | 15 | ug/l | | | | | | | |
| Styrene | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ,1,2,2-Tetrachloroethane | ND | 1.0 | 0.17 | ug/l | | | | | | | |
| ,1,1,2-Tetrachloroethane | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| Tetrachloroethene | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| Toluene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| ,1,2-Trichloroethane | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| ,1,1-Trichloroethane | ND | 1.0 | 0.050 | ug/l | | | | | | | |
| Trichloroethene | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| Trichlorofluoromethane | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| Vinyl acetate | ND | 20 | 1.6 | ug/l | | | | | | | |
| Vinyl chloride | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| n,p-Xylene | ND | 1.0 | 0.21 | ug/l | | | | | | | |
| o-Xylene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *6.32* | | | *ug/l* | *6.00* | | *105* | *84-122* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *5.87* | | | *ug/l* | *6.00* | | *98* | *74-135* | | | |
| *Surrogate: Toluene-d8* | *6.08* | | | *ug/l* | *6.00* | | *101* | *84-119* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *6.34* | | | *ug/l* | *6.00* | | *106* | *86-119* | | | |
| **LCS Analyzed: 01/13/03 (3010233-BS1)** | | | | | | | | | | | |
| Benzene | 5.14 | 1.0 | 0.050 | ug/l | 5.00 | | 103 | 81-118 | | | |
| Chlorobenzene | 5.09 | 1.0 | 0.070 | ug/l | 5.00 | | 102 | 88-119 | | | |
| ,1-Dichloroethene | 5.03 | 1.0 | 0.060 | ug/l | 5.00 | | 101 | 77-121 | | | |
| Toluene | 5.00 | 1.0 | 0.070 | ug/l | 5.00 | | 100 | 84-119 | | | |
| Trichloroethene | 5.69 | 1.0 | 0.060 | ug/l | 5.00 | | 114 | 83-126 | | | |
| *Surrogate: Dibromofluoromethane* | *6.36* | | | *ug/l* | *6.00* | | *106* | *84-122* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *6.28* | | | *ug/l* | *6.00* | | *105* | *74-135* | | | |
| *Surrogate: Toluene-d8* | *6.35* | | | *ug/l* | *6.00* | | *106* | *84-119* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *6.16* | | | *ug/l* | *6.00* | | *103* | *86-119* | | | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010233 Extracted: 01/13/03** | | | | | | | | | | | |
| **LCS Dup Analyzed: 01/13/03 (3010233-BSD1)** | | | | | | | | | | | |
| Benzene | 4.88 | 1.0 | 0.050 | ug/l | 5.00 | | 98 | 81-118 | 5 | 20 | |
| Chlorobenzene | 4.92 | 1.0 | 0.070 | ug/l | 5.00 | | 98 | 88-119 | 3 | 20 | |
| ,1-Dichloroethene | 4.78 | 1.0 | 0.060 | ug/l | 5.00 | | 96 | 77-121 | 5 | 20 | |
| Toluene | 4.71 | 1.0 | 0.070 | ug/l | 5.00 | | 94 | 84-119 | 6 | 20 | |
| Trichloroethene | 5.39 | 1.0 | 0.060 | ug/l | 5.00 | | 108 | 83-126 | 5 | 20 | |
| *Surrogate: Dibromofluoromethane* | *6.45* | | | *ug/l* | *6.00* | | *108* | *84-122* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *6.22* | | | *ug/l* | *6.00* | | *104* | *74-135* | | | |
| *Surrogate: Toluene-d8* | *6.20* | | | *ug/l* | *6.00* | | *103* | *84-119* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *6.26* | | | *ug/l* | *6.00* | | *104* | *86-119* | | | |
| **Batch: 3010399 Extracted: 01/17/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/17/03 (3010399-BLK1)** | | | | | | | | | | | |
| Acetone | ND | 10 | 1.8 | ug/l | | | | | | | |
| Acetonitrile | ND | 100 | 19 | ug/l | | | | | | | |
| Acrolein | ND | 20 | 1.8 | ug/l | | | | | | | |
| Acrylonitrile | ND | 20 | 1.1 | ug/l | | | | | | | |
| Allyl chloride | ND | 10 | 0.98 | ug/l | | | | | | | |
| Benzene | ND | 1.0 | 0.050 | ug/l | | | | | | | |
| Bromodichloromethane | ND | 1.0 | 0.050 | ug/l | | | | | | | |
| Bromoform | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| Bromomethane | ND | 1.0 | 0.19 | ug/l | | | | | | | |
| 2-Butanone | ND | 10 | 0.70 | ug/l | | | | | | | |
| Carbon disulfide | ND | 10 | 1.4 | ug/l | | | | | | | |
| Carbon tetrachloride | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| Chlorobenzene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| Chloroethane | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| Chloroform | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| Chloromethane | ND | 1.0 | 0.14 | ug/l | | | | | | | |
| Chloroprene | ND | 5.0 | 5.0 | ug/l | | | | | | | |
| Dibromochloromethane | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| ,2-Dibromoethane (EDB) | ND | 1.0 | 0.040 | ug/l | | | | | | | |
| Dibromomethane | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 20 | 1.7 | ug/l | | | | | | | |
| ,2-Dichlorobenzene | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| ,3-Dichlorobenzene | ND | 1.0 | 0.13 | ug/l | | | | | | | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010399 Extracted: 01/17/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/17/03 (3010399-BLK1)** | | | | | | | | | | | |
| ,4-Dichlorobenzene | ND | 1.0 | 0.11 | ug/l | | | | | | | |
| )ichlorodifluoromethane | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ,1-Dichloroethane | ND | 1.0 | 0.040 | ug/l | | | | | | | |
| ,2-Dichloroethane | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| ,1-Dichloroethene | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| is-1,2-Dichloroethene | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ans-1,2-Dichloroethene | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ,2-Dichloropropane | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| is-1,3-Dichloropropene | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| ans-1,3-Dichloropropene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| thylbenzene | ND | 1.0 | 0.10 | ug/l | | | | | | | |
| thyl methacrylate | ND | 5.0 | 1.6 | ug/l | | | | | | | |
| -Hexanone | ND | 10 | 0.96 | ug/l | | | | | | | |
| odomethane | ND | 10 | 0.80 | ug/l | | | | | | | |
| obutanol | ND | 500 | 20 | ug/l | | | | | | | |
| lethacrylonitrile | ND | 10 | 1.7 | ug/l | | | | | | | |
| lethylene chloride | 0.122 | 1.0 | 0.060 | ug/l | | | | | | | J |
| lethyl methacrylate | ND | 5.0 | 1.6 | ug/l | | | | | | | |
| -Methyl-2-pentanone | ND | 10 | 1.1 | ug/l | | | | | | | |
| ropionitrile | ND | 100 | 15 | ug/l | | | | | | | |
| tyrene | ND | 1.0 | 0.090 | ug/l | | | | | | | |
| ,1,2,2-Tetrachloroethane | ND | 1.0 | 0.17 | ug/l | | | | | | | |
| ,1,1,2-Tetrachloroethane | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| etrachloroethene | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| oluene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| ,1,2-Trichloroethane | ND | 1.0 | 0.080 | ug/l | | | | | | | |
| ,1,1-Trichloroethane | ND | 1.0 | 0.050 | ug/l | | | | | | | |
| richloroethene | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| richlorofluoromethane | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| inyl acetate | ND | 20 | 1.6 | ug/l | | | | | | | |
| inyl chloride | ND | 1.0 | 0.060 | ug/l | | | | | | | |
| ,p-Xylene | ND | 1.0 | 0.21 | ug/l | | | | | | | |
| -Xylene | ND | 1.0 | 0.070 | ug/l | | | | | | | |
| *urrogate: Dibromofluoromethane* | *6.34* | | | *ug/l* | *6.00* | | *106* | *84-122* | | | |
| *urrogate: 1,2-Dichloroethane-d4* | *6.49* | | | *ug/l* | *6.00* | | *108* | *74-135* | | | |
| *urrogate: Toluene-d8* | *6.22* | | | *ug/l* | *6.00* | | *104* | *84-119* | | | |

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roject Manager

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010399 Extracted: 01/17/03** | | | | | | | | | | | |
| **Blank Analyzed: 01/17/03 (3010399-BLK1)** | | | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *6.46* | | | *ug/l* | *6.00* | | *108* | *86-119* | | | |
| **LCS Analyzed: 01/17/03 (3010399-BS1)** | | | | | | | | | | | |
| Benzene | 4.96 | 1.0 | 0.050 | ug/l | 5.00 | | 99 | 81-118 | | | |
| Chlorobenzene | 4.94 | 1.0 | 0.070 | ug/l | 5.00 | | 99 | 88-119 | | | |
| 1,1-Dichloroethene | 4.80 | 1.0 | 0.060 | ug/l | 5.00 | | 96 | 77-121 | | | |
| Toluene | 4.79 | 1.0 | 0.070 | ug/l | 5.00 | | 96 | 84-119 | | | |
| Trichloroethene | 5.32 | 1.0 | 0.060 | ug/l | 5.00 | | 106 | 83-126 | | | |
| *Surrogate: Dibromofluoromethane* | *6.46* | | | *ug/l* | *6.00* | | *108* | *84-122* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *6.26* | | | *ug/l* | *6.00* | | *104* | *74-135* | | | |
| *Surrogate: Toluene-d8* | *6.24* | | | *ug/l* | *6.00* | | *104* | *84-119* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *6.36* | | | *ug/l* | *6.00* | | *106* | *86-119* | | | |
| **LCS Dup Analyzed: 01/17/03 (3010399-BSD1)** | | | | | | | | | | | |
| Benzene | 4.93 | 1.0 | 0.050 | ug/l | 5.00 | | 99 | 81-118 | 1 | 20 | |
| Chlorobenzene | 5.03 | 1.0 | 0.070 | ug/l | 5.00 | | 101 | 88-119 | 2 | 20 | |
| 1,1-Dichloroethene | 4.84 | 1.0 | 0.060 | ug/l | 5.00 | | 97 | 77-121 | 1 | 20 | |
| Toluene | 4.83 | 1.0 | 0.070 | ug/l | 5.00 | | 97 | 84-119 | 1 | 20 | |
| Trichloroethene | 5.46 | 1.0 | 0.060 | ug/l | 5.00 | | 109 | 83-126 | 3 | 20 | |
| *Surrogate: Dibromofluoromethane* | *6.46* | | | *ug/l* | *6.00* | | *108* | *84-122* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *6.31* | | | *ug/l* | *6.00* | | *105* | *74-135* | | | |
| *Surrogate: Toluene-d8* | *6.20* | | | *ug/l* | *6.00* | | *103* | *84-119* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *6.31* | | | *ug/l* | *6.00* | | *105* | *86-119* | | | |

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Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010041 Extracted: 01/03/03** | | | | | | | | | | | |
| **Blank Analyzed: 02/06/03 (3010041-BLK1)** | | | | | | | | | | | |
| Acenaphthene | ND | 10 | 2.6 | ug/l | | | | | | | |
| Acenaphthylene | ND | 10 | 2.5 | ug/l | | | | | | | |
| Acetophenone | ND | 10 | 10 | ug/l | | | | | | | |
| 2-Acetylaminofluorene | ND | 20 | 20 | ug/l | | | | | | | |
| 4-Aminobiphenyl | ND | 20 | 20 | ug/l | | | | | | | |
| Aniline | ND | 10 | 5.0 | ug/l | | | | | | | |
| Anthracene | ND | 10 | 0.80 | ug/l | | | | | | | |
| Aramite | ND | 200 | 200 | ug/l | | | | | | | |
| Benzo (a) anthracene | ND | 10 | 0.53 | ug/l | | | | | | | |
| Benzo (b+k) fluoranthene (total) | ND | 10 | 1.8 | ug/l | | | | | | | |
| Benzo (g,h,i) perylene | ND | 10 | 0.98 | ug/l | | | | | | | |
| Benzo (a) pyrene | ND | 10 | 0.97 | ug/l | | | | | | | |
| Benzyl alcohol | ND | 20 | 3.1 | ug/l | | | | | | | |
| Bis(2-chloroethoxy)methane | ND | 10 | 3.6 | ug/l | | | | | | | |
| Bis(2-chloroethyl)ether | ND | 10 | 3.6 | ug/l | | | | | | | |
| Bis(2-chloroisopropyl)ether | ND | 10 | 4.0 | ug/l | | | | | | | |
| Bis(2-ethylhexyl)phthalate | ND | 10 | 3.6 | ug/l | | | | | | | |
| 4-Bromophenyl phenyl ether | ND | 10 | 2.1 | ug/l | | | | | | | |
| Butyl benzyl phthalate | ND | 10 | 0.91 | ug/l | | | | | | | |
| 4-Chloroaniline | ND | 20 | 2.9 | ug/l | | | | | | | |
| Chlorobenzilate | ND | 10 | 10 | ug/l | | | | | | | |
| 4-Chloro-3-methylphenol | ND | 20 | 4.0 | ug/l | | | | | | | |
| 2-Chloronaphthalene | ND | 10 | 3.0 | ug/l | | | | | | | |
| 2-Chlorophenol | ND | 10 | 4.9 | ug/l | | | | | | | |
| 4-Chlorophenyl phenyl ether | ND | 10 | 2.6 | ug/l | | | | | | | |
| Chrysene | ND | 10 | 0.96 | ug/l | | | | | | | |
| Diallate (cis or trans) | ND | 10 | 10 | ug/l | | | | | | | |
| Dibenz (a,h) anthracene | ND | 10 | 0.89 | ug/l | | | | | | | |
| Dibenzofuran | ND | 10 | 2.5 | ug/l | | | | | | | |
| Di-n-butyl phthalate | ND | 10 | 0.92 | ug/l | | | | | | | |
| 1,2-Dichlorobenzene | ND | 10 | 3.4 | ug/l | | | | | | | |
| 1,3-Dichlorobenzene | ND | 10 | 3.1 | ug/l | | | | | | | |
| 1,4-Dichlorobenzene | ND | 10 | 3.2 | ug/l | | | | | | | |
| 3,3'-Dichlorobenzidine | ND | 20 | 5.0 | ug/l | | | | | | | |
| 2,4-Dichlorophenol | ND | 10 | 4.8 | ug/l | | | | | | | |
| 2,6-Dichlorophenol | ND | 10 | 10 | ug/l | | | | | | | |

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Patty Mata
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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010041 Extracted: 01/03/03** | | | | | | | | | | | |
| **Blank Analyzed: 02/06/03 (3010041-BLK1)** | | | | | | | | | | | |
| Diethyl phthalate | ND | 10 | 1.2 | ug/l | | | | | | | |
| Dimethylaminoazobenzene | ND | 10 | 10 | ug/l | | | | | | | |
| Dimethoate | ND | 20 | 20 | ug/l | | | | | | | |
| ,12-Dimethylbenz (a) anthracene | ND | 10 | 10 | ug/l | | | | | | | |
| ,3'-Dimethylbenzidine | ND | 10 | 10 | ug/l | | | | | | | |
| ,a-Dimethylphenethylamine | ND | 10 | 10 | ug/l | | | | | | | |
| ,4-Dimethylphenol | ND | 10 | 6.0 | ug/l | | | | | | | |
| Dimethyl phthalate | ND | 10 | 1.9 | ug/l | | | | | | | |
| ,3 trobenzene | ND | 20 | 20 | ug/l | | | | | | | |
| ,6 tro-2-methylphenol | ND | 50 | 2.2 | ug/l | | | | | | | |
| ,4-Dinitrophenol | ND | 50 | 1.3 | ug/l | | | | | | | |
| ,4-Dinitrotoluene | ND | 10 | 1.3 | ug/l | | | | | | | |
| ,6-Dinitrotoluene | ND | 10 | 1.9 | ug/l | | | | | | | |
| Di-n-octyl phthalate | ND | 10 | 0.93 | ug/l | | | | | | | |
| Diphenylamine | ND | 10 | 10 | ug/l | | | | | | | |
| thyl methacrylate | ND | 10 | 10 | ug/l | | | | | | | |
| thyl methanesulfonate | ND | 20 | 20 | ug/l | | | | | | | |
| amphur | ND | 200 | 200 | ug/l | | | | | | | |
| luoranthene | ND | 10 | 0.78 | ug/l | | | | | | | |
| luorene | ND | 10 | 2.6 | ug/l | | | | | | | |
| lexachlorobenzene | ND | 10 | 1.7 | ug/l | | | | | | | |
| lexachlorobutadiene | ND | 10 | 3.1 | ug/l | | | | | | | |
| lexachlorocyclopentadiene | ND | 10 | 1.4 | ug/l | | | | | | | |
| lexachloroethane | ND | 10 | 2.4 | ug/l | | | | | | | |
| lexachlorophene | ND | 200 | 200 | ug/l | | | | | | | |
| lexachloropropene | ND | 10 | 10 | ug/l | | | | | | | |
| ideno (1,2,3-cd) pyrene | ND | 10 | 0.78 | ug/l | | | | | | | |
| sodrin | ND | 20 | 20 | ug/l | | | | | | | |
| sophorone | ND | 10 | 3.2 | ug/l | | | | | | | |
| sosafrole | ND | 10 | 10 | ug/l | | | | | | | |
| epone | ND | 200 | 200 | ug/l | | | | | | | |
| lethapyrilene | ND | 100 | 100 | ug/l | | | | | | | |
| -Methylcholanthrene | ND | 10 | 10 | ug/l | | | | | | | |
| leth methanesulfonate | ND | 10 | 10 | ug/l | | | | | | | |
| -M naphthalene | ND | 10 | 3.5 | ug/l | | | | | | | |
| -Methylphenol | ND | 10 | 5.1 | ug/l | | | | | | | |

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Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010041 Extracted: 01/03/03** | | | | | | | | | | | |
| **Blank Analyzed: 02/06/03 (3010041-BLK1)** | | | | | | | | | | | |
| -Methylphenol | ND | 10 | 10 | ug/l | | | | | | | |
| -Methylphenol | ND | 10 | 4.5 | ug/l | | | | | | | |
| Naphthalene | ND | 10 | 3.8 | ug/l | | | | | | | |
| ,4-Naphthoquinone | ND | 20 | 20 | ug/l | | | | | | | |
| -Naphthylamine | ND | 10 | 10 | ug/l | | | | | | | |
| -Naphthylamine | ND | 10 | 10 | ug/l | | | | | | | |
| -Nitroaniline | ND | 50 | 2.6 | ug/l | | | | | | | |
| -Nitroaniline | ND | 50 | 4.0 | ug/l | | | | | | | |
| -Nitroaniline | ND | 50 | 5.0 | ug/l | | | | | | | |
| Nitrobenzene | ND | 10 | 3.3 | ug/l | | | | | | | |
| -Nitrophenol | ND | 10 | 4.8 | ug/l | | | | | | | |
| -Nitrophenol | ND | 50 | 1.7 | ug/l | | | | | | | |
| N-Nitrosodi-n-butylamine | ND | 10 | 10 | ug/l | | | | | | | |
| N-Nitrosodiethylamine | ND | 20 | 20 | ug/l | | | | | | | |
| N-Nitrosodimethylamine | ND | 20 | 2.4 | ug/l | | | | | | | |
| N-Nitrosodiphenylamine | ND | 10 | 2.8 | ug/l | | | | | | | |
| N-Nitrosodi-n-propylamine | ND | 10 | 3.7 | ug/l | | | | | | | |
| N-Nitrosomethylethylamine | ND | 10 | 10 | ug/l | | | | | | | |
| N-Nitrosomorpholine | ND | 10 | 10 | ug/l | | | | | | | |
| N-Nitrosopiperidine | ND | 20 | 20 | ug/l | | | | | | | |
| N-Nitrosopyrrolidine | ND | 40 | 40 | ug/l | | | | | | | |
| -Nitro-o-toluidine | ND | 10 | 10 | ug/l | | | | | | | |
| -Nitroquinoline-n-oxide | ND | 50 | 50 | ug/l | | | | | | | |
| entachlorobenzene | ND | 10 | 10 | ug/l | | | | | | | |
| entachloroethane | ND | 10 | 10 | ug/l | | | | | | | |
| entachloronitrobenzene | ND | 20 | 20 | ug/l | | | | | | | |
| entachlorophenol | ND | 50 | 2.1 | ug/l | | | | | | | |
| henacetin | ND | 20 | 20 | ug/l | | | | | | | |
| henanthrene | ND | 10 | 1.4 | ug/l | | | | | | | |
| henol | ND | 10 | 4.0 | ug/l | | | | | | | |
| ,4-Phenylenediamine | ND | 50 | 50 | ug/l | | | | | | | |
| -Picoline | ND | 10 | 10 | ug/l | | | | | | | |
| ronamide | ND | 10 | 10 | ug/l | | | | | | | |
| yrene | ND | 10 | 0.72 | ug/l | | | | | | | |
| yridine | ND | 10 | 2.1 | ug/l | | | | | | | |
| afrole | ND | 10 | 10 | ug/l | | | | | | | |

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Attention: Sharon Wallin

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Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010041 Extracted: 01/03/03** | | | | | | | | | | | |
| **Blank Analyzed: 02/06/03 (3010041-BLK1)** | | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 10 | 10 | ug/l | | | | | | | |
| 2,3,4,6-Tetrachlorophenol | ND | 10 | 10 | ug/l | | | | | | | |
| Thionazin | ND | 20 | 20 | ug/l | | | | | | | |
| o-Toluidine | ND | 10 | 10 | ug/l | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 10 | 3.4 | ug/l | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 10 | 4.0 | ug/l | | | | | | | |
| 2,4,6-Trichlorophenol | ND | 10 | 4.5 | ug/l | | | | | | | |
| O,O,O-Triethyl phosphorothioate | ND | 10 | 10 | ug/l | | | | | | | |
| 1,[illegible]-trinitrobenzene | ND | 10 | 10 | ug/l | | | | | | | |
| *Surrogate: 2-Fluorophenol* | *114* | | | *ug/l* | *150* | | *76* | *15-103* | | | |
| *Surrogate: Phenol-d6* | *123* | | | *ug/l* | *150* | | *82* | *18-115* | | | |
| *Surrogate: Nitrobenzene-d5* | *86.1* | | | *ug/l* | *100* | | *86* | *39-103* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *92.7* | | | *ug/l* | *100* | | *93* | *40-124* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *136* | | | *ug/l* | *150* | | *91* | *11-142* | | | |
| *Surrogate: Terphenyl-d14* | *94.0* | | | *ug/l* | *100* | | *94* | *56-139* | | | |
| **LCS Analyzed: 02/06/03 (3010041-BS1)** | | | | | | | | | | | |
| Acenaphthene | 98.0 | 10 | 2.6 | ug/l | 100 | | 98 | 58-120 | | | |
| 4-Chloro-3-methylphenol | 99.3 | 20 | 4.0 | ug/l | 100 | | 99 | 51-116 | | | |
| 2-Chlorophenol | 87.5 | 10 | 4.9 | ug/l | 100 | | 88 | 28-111 | | | |
| 1,4-Dichlorobenzene | 86.9 | 10 | 3.2 | ug/l | 100 | | 87 | 29-108 | | | |
| 2,4-Dinitrotoluene | 98.8 | 10 | 1.3 | ug/l | 100 | | 99 | 60-114 | | | |
| 4-Nitrophenol | 121 | 50 | 1.7 | ug/l | 100 | | 121 | 25-148 | | | |
| N-Nitrosodi-n-propylamine | 94.8 | 10 | 3.7 | ug/l | 100 | | 95 | 29-119 | | | |
| Pentachlorophenol | 100 | 50 | 2.1 | ug/l | 100 | | 100 | 40-131 | | | |
| Phenol | 82.0 | 10 | 4.0 | ug/l | 100 | | 82 | 22-117 | | | |
| Pyrene | 101 | 10 | 0.72 | ug/l | 100 | | 101 | 52-127 | | | |
| 1,2,4-Trichlorobenzene | 92.1 | 10 | 3.4 | ug/l | 100 | | 92 | 24-131 | | | |
| *Surrogate: 2-Fluorophenol* | *109* | | | *ug/l* | *150* | | *73* | *15-103* | | | |
| *Surrogate: Phenol-d6* | *129* | | | *ug/l* | *150* | | *86* | *18-115* | | | |
| *Surrogate: Nitrobenzene-d5* | *89.7* | | | *ug/l* | *100* | | *90* | *39-103* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *92.2* | | | *ug/l* | *100* | | *92* | *40-124* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *152* | | | *ug/l* | *150* | | *101* | *11-142* | | | |
| *Surrogate: Terphenyl-d14* | *99.7* | | | *ug/l* | *100* | | *100* | *56-139* | | | |

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Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 8270C

| Analyte | Result | Reporting Limit | MDL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 3010041 Extracted: 01/03/03** | | | | | | | | | | | |
| **LCS Dup Analyzed: 02/06/03 (3010041-BSD1)** | | | | | | | | | | | |
| Acenaphthene | 95.6 | 10 | 2.6 | ug/l | 100 | | 96 | 58-120 | 2 | 27 | |
| 4-Chloro-3-methylphenol | 98.7 | 20 | 4.0 | ug/l | 100 | | 99 | 51-116 | 1 | 30 | |
| 2-Chlorophenol | 88.3 | 10 | 4.9 | ug/l | 100 | | 88 | 28-111 | 1 | 39 | |
| 1,4-Dichlorobenzene | 90.6 | 10 | 3.2 | ug/l | 100 | | 91 | 29-108 | 4 | 41 | |
| 2,4-Dinitrotoluene | 92.6 | 10 | 1.3 | ug/l | 100 | | 93 | 60-114 | 6 | 22 | |
| 4-Nitrophenol | 116 | 50 | 1.7 | ug/l | 100 | | 116 | 25-148 | 4 | 44 | |
| N-Nitrosodi-n-propylamine | 98.6 | 10 | 3.7 | ug/l | 100 | | 99 | 29-119 | 4 | 44 | |
| Pentachlorophenol | 97.5 | 50 | 2.1 | ug/l | 100 | | 98 | 40-131 | 3 | 33 | |
| Phenol | 86.8 | 10 | 4.0 | ug/l | 100 | | 87 | 22-117 | 6 | 33 | |
| Pyrene | 97.5 | 10 | 0.72 | ug/l | 100 | | 98 | 52-127 | 4 | 25 | |
| 1,2,4-Trichlorobenzene | 93.8 | 10 | 3.4 | ug/l | 100 | | 94 | 24-131 | 2 | 48 | |
| *Surrogate: 2-Fluorophenol* | *108* | | | *ug/l* | *150* | | *72* | *15-103* | | | |
| *Surrogate: Phenol-d6* | *134* | | | *ug/l* | *150* | | *89* | *18-115* | | | |
| *Surrogate: Nitrobenzene-d5* | *91.9* | | | *ug/l* | *100* | | *92* | *39-103* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *93.2* | | | *ug/l* | *100* | | *93* | *40-124* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *149* | | | *ug/l* | *150* | | *99* | *11-142* | | | |
| *Surrogate: Terphenyl-d14* | *95.7* | | | *ug/l* | *100* | | *96* | *56-139* | | | |

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Sampled: 12/30/02
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## DATA QUALIFIERS AND DEFINITIONS

| | |
|---|---|
| **E** | The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. |
| **HT-04** | This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose. |
| **J** | Estimated value. |
| **M-NR1** | There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate. |
| **RL-3** | Reporting limit raised due to high concentrations of non-target analytes. |
| **S-BN** | Base/Neutral surrogate recovery outside control limits. The data was accepted based on valid recovery of remaining two base/neutral surrogates. |
| **ND** | Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified. |
| **RPD** | Relative Percent Difference |

## ADDITIONAL COMMENTS

**For 8260 analyses:**

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

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'atty Mata
'roject Manager

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Camp, Dresser & McKee
18581 Teller Avenue, #200
Irvine, CA 92612
Attention: Sharon Wallin

Project ID: Phibro-Tech Appendix IX

Report Number: ILL1698

Sampled: 12/30/02
Received: 12/30/02

# Certification Summary

## Subcontracted Laboratories

**Sequoia Analytical - Morgan Hill** *CA ELAP Cert #1210 and AZ DHS Licence #01117CA*

Methods Performed: EPA 8141A
Samples: ILL1698-01, ILL1698-02, ILL1698-03, ILL1698-04, ILL1698-05

EPA 8151A
Samples: ILL1698-01, ILL1698-02, ILL1698-03, ILL1698-04, ILL1698-05

**Sequoia Analytical - Petaluma** *CA ELAP Cert #2374*

Methods Performed: EPA 8260B
Samples: ILL1698-01, ILL1698-02, ILL1698-03, ILL1698-03RE1, ILL1698-04, ILL1698-05, ILL1698-06

EPA 8270C
Samples: ILL1698-01, ILL1698-02, ILL1698-03, ILL1698-04, ILL1698-05

**Del Mar Analytical, Irvine**
Patty Mata
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.*

Del Mar Analytical
2852 A[illegible] Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., [illegible] Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-[illegible], Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

100924

# CHAIN OF CUSTODY FORM

Quote No.: _____ Page: 1 of 1

| | |
|---|---|
| Client Name: CDM | P.O./Project Number: |
| Address: | Project Name: PHIBROTECH |
| City: IRVINE, CA State: Zip: | Project Manager: SHARON WALLIN / JOHN BENNETT |
| Tel: 949 752 5452 Fax.: | Sampler(s) (signature): [signature] |

| Sample I.D. | Matrix | Date Sampled | Time | Preservation | Number of Containers | Type of Containers | 8015 (Gas) ☐ 8020 (BTEX) ☐ MTBE (8020) ☐ 8015/8020/MTBE ☐ | 8015 (Diesel) ☐ simulated fuel distillation ☐ fingerprint ☐ | Oil & Grease - EPA 413.2 | ~~TRPH - EPA 418.1~~ SULFIDE | EPA 8010 ☐ EPA 8010/8020 ☐ | EPA 8270 | Title 22 Metals EPA 6010/7000 ☐ +Cr VI ☐ | EPA 8260 ☒ + Oxygenates ☐ +MTBE ☐ MTBE only ☐ | ~~LUFT~~ TITLE 22 METALS | pH | CN | Cr(VI) 7199 | 8081 | 8082 | 8141 | 8151 | 8290 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PTI-MW 45-056 | W | 12/30/02 | 0830 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-MW ~~4~~ 07-056 | ↓ | ↓ | 1020 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-MW 04-056 | ↓ | ↓ | 1310 | | ~~16~~ 15 | | | | | X | | X | | X | X | X | X | X | X | ~~X~~ 10 | X | X | X |
| PTI-MW 11-056 | ↓ | ↓ | 1445 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-MW 35-056 | ↓ | ↓ | 0730 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-~~MW~~ EB01-056 | ↓ | ↓ | ~~1200~~ 1400 | | 5 | | | | | | | | | X | X | | | X | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| Relinquished by: [signature] | Date/Time: 1647 12/30/02 | Received by: | Date/Time: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |
| Relinquished by: | Date/Time: | Received in Lab by: [signature] 12/30/02 | Date/Time: 16:47 |

Remarks:

Turnaround Time: (check one):
Same Day ___ 72 hours ___
24 Hours ___ 5 Days ___
48 Hours ___ Standard X

Sample Integrity:
Intact: X On Ice 7C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days.

COC-GT

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

February 20, 2003

Camp, Dresser & McKee
18581 Teller, #200
Irvine, CA 92612

Attention: Sharon Wallin

Project: Phibro-Tech Appendix IX, Sampled 12/30/02
Del Mar Analytical project: ILL1698

Dear Ms. Wallin:

Triangle Laboratories performed the EPA 8290 Dioxin/Furans analysis for the project referenced above. Please use the following table when reviewing the enclosed subcontract lab reports.

| Client ID | Del Mar – Irvine ID | Triangle Lab ID |
|---|---|---|
| PTI-MW14S-056 | ILL1698-01 | 59312 / U004302 |
| PTI-MW07-056 | ILL1698-02 | 59312 / U004303 |
| PTI-MW04-056 | ILL1698-03 | 59312 / U004304 |
| PTI-MW11-056 | ILL1698-04 | 59312 / U004305 |
| PTI-MW35-056 | ILL1698-05 | 59312 / U004306 |

Sample data starts on page 24 of the Triangle report package. Please note that target Dioxin and Furan compounds were detected at trace levels below the Detection Limit in the method blank. All associated sample detections were flagged with 'B' qualifiers to note the trace levels detected in the method blank.
If you have any questions or require further assistance, please contact me at (949) 261-1022, extension 213.

Sincerely yours,

DEL MAR ANALYTICAL

Patty Mata
Project Manager

Enclosure

# SAMPLE DATA



2445 S. Alston Ave. • Durham, NC 27713 • (919) 544-5729 • FAX (919) 544-5491
*www.trianglelabs.com*

TRIANGLE LABORATORIES, INC.
LAB CONTROL SPIKE RECOVERY ANALYSIS AND COMPARISON

Project: 59312 - r1
Matrix: WATER
Method: 8290

| Isomer | U004301 ID: TLI Blank Sample (pg/l) | U004307 ID: TLI LCS With Spike (pg/l) | Percent Recovery | U004308 ID: TLI LCSD Spike Dup (pg/l) | Percent Recovery | Relative Percent Difference |
|---|---|---|---|---|---|---|
| 2378-TCDD | 8.5 | 381 | 93.2 | 403 | 98.5 | 5.53 |
| 12378-PeCDD | 9.7 | 1910 | 95.1 | 2020 | 100 | 5.02 |
| 123478-HxCDD | 5.4 | 1620 | 80.5 | 1750 | 87.5 | 8.33 |
| 123678-HxCDD | 6.2 | 1670 | 83.4 | 1800 | 89.7 | 7.28 |
| 123789-HxCDD | 7.4 | 1770 | 88.1 | 1830 | 91.2 | 3.46 |
| 1234678-HpCDD | [4.5] | 1690 | 84.4 | 1780 | 88.7 | 4.97 |
| OCDD | 11.8 | 3410 | 84.9 | 3590 | 89.5 | 5.28 |
| 2378-TCDF | 6.3 | 329 | 80.7 | 357 | 87.6 | 8.20 |
| 12378-PeCDF | 10.8 | 1670 | 82.9 | 1770 | 88.2 | 6.20 |
| 23478-PeCDF | 6.8 | 1760 | 87.7 | 1860 | 92.7 | 5.54 |
| 123478-HxCDF | 7.1 | 1930 | 96.2 | 2140 | 107 | 10.6 |
| 123678-HxCDF | 6.9 | 1850 | 92.1 | 2030 | 101 | 9.22 |
| 234678-HxCDF | 5.6 | 2050 | 102 | 2260 | 113 | 10.2 |
| 123789-HxCDF | 10.0 | 2220 | 111 | 2330 | 116 | 4.41 |
| 1234678-HpCDF | 5.8 | 1820 | 90.6 | 1950 | 97.2 | 7.03 |
| 1234789-HpCDF | 8.0 | 2070 | 103 | 2350 | 117 | 12.7 |
| OCDF | 9.4 | 2960 | 73.8 | 3140 | 78.4 | 6.04 |

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.16
GRY_PSUM v1.11

Processed By: _____ Date: 01/20/03

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
TCDD/TCDF..: 0.4 ng
PeCDD/PeCDF: 2.0 ng
HxCDD/HxCDF: 2.0 ng
HpCDD/HpCDF: 2.0 ng
OCDD/OCDF..: 4.0 ng

| Data File | U004301 | | U004302 | | U004303 | | U004304 | |
|---|---|---|---|---|---|---|---|---|
| Sample ID | TLI Blank | | ILL1698-01O | | ILL1698-02O | | ILL1698-03N | |
| Units | pg/l | | pg/l | | pg/l | | pg/l | |
| Extraction Date | 01/08/2003 | | 01/08/2003 | | 01/08/2003 | | 01/08/2003 | |
| Analysis Date | 01/09/2003 | | 01/09/2003 | | 01/09/2003 | | 01/09/2003 | |
| Instrument | U | | U | | U | | U | |
| Matrix | WATER | | WATER | | WATER | | WATER | |
| Extraction Type | | | | | | | | |
| Analytes | | | | | | | | |
| 2378-TCDD | 8.5 | J | (1.6) | | (1.2) | | (1.3) | |
| 12378-PeCDD | 9.7 | J | (2.0) | | (1.3) | | 2.8 | JB |
| 123478-HxCDD | 5.4 | J | (1.6) | | 1.9 | JB | (1.2) | |
| 123678-HxCDD | 6.2 | J | (1.6) | | {1.9} | JB | (1.2) | |
| 123789-HxCDD | 7.4 | J | (1.6) | | {2.3} | JB | {1.3} | JB |
| 1234678-HpCDD | {4.5} | J | 7.8 | JB | 15.2 | JB | 4.1 | JB |
| OCDD | 11.8 | J | 48.5 | JB | 119 | B | 42.2 | JB |
| 2378-TCDF | 6.3 | J | (1.1) | | 3.9 | JB | (0.9) | |
| 12378-PeCDF | 10.8 | J | 2.4 | JB | 2.7 | JB | {2.0} | JB |
| 23478-PeCDF | 6.8 | J | {2.9} | JB | {2.2} | JB | (0.8) | |
| 123478-HxCDF | 7.1 | J | 3.3 | JB | 4.9 | JB | {2.3} | JB |
| 123678-HxCDF | 6.9 | J | 2.0 | JB | {2.0} | JB | 1.5 | JB |
| 234678-HxCDF | 5.6 | J | 2.1 | JB | 2.9 | JB | 1.9 | JB |
| 123789-HxCDF | 10.0 | J | (1.5) | | {2.4} | JB | 1.6 | JB |
| 1234678-HpCDF | 5.8 | J | 3.3 | JB | 5.7 | JB | 2.0 | JB |
| 1234789-HpCDF | 8.0 | J | (2.2) | | (1.5) | | (1.7) | |
| OCDF | 9.4 | J | 7.1 | JB | 12.5 | JB | 5.6 | JB |
| TOTAL TCDD | 14.4 | | (1.6) | | (1.2) | | {2.4} | |
| TOTAL PeCDD | 9.7 | | (2.0) | | (1.3) | | 2.8 | |
| TOTAL HxCDD | 19.0 | | (1.6) | | 1.9 | | {5.4} | |
| TOTAL HpCDD | {4.5} | | 14.1 | | 30.2 | | 10.0 | |
| TOTAL TCDF | 8.1 | | {3.3} | X | 3.9 | X | (0.9) | |
| TOTAL PeCDF | 17.6 | | 2.4 | | 17.4 | X | {2.0} | |
| TOTAL HxCDF | 29.6 | | 7.4 | | 24.1 | X | 5.0 | |
| TOTAL HpCDF | 13.9 | | 3.3 | | 5.7 | | 2.0 | |
| Other Standards Percent Recovery Summary (% Rec) | | | | | | | | |
| 37Cl-TCDD | 53.7 | | 58.5 | | 60.4 | | 56.6 | |
| Other Standards Percent Recovery Summary (% Rec) | | | | | | | | |
| 13C12-PeCDF 234 | 69.2 | | 71.8 | | 81.5 | | 75.2 | |
| 13C12-HxCDF 478 | 63.6 | | 80.4 | | 72.5 | | 71.9 | |
| 13C12-HxCDD 478 | 77.3 | | 94.7 | | 82.0 | | 80.1 | |
| 13C12-HpCDF 789 | 74.9 | | 82.2 | | 78.6 | | 72.3 | |
| Other Standards Percent Recovery Summary (% Rec) | | | | | | | | |
| 13C12-HxCDF 789 | 75.0 | | 86.1 | | 81.5 | | 75.7 | |
| 13C12-HxCDF 234 | 77.4 | | 88.1 | | 83.8 | | 81.7 | |
| Internal Standards Percent Recovery Summary (% Rec) | | | | | | | | |
| 13C12-2378-TCDF | 54.6 | | 57.7 | | 57.0 | | 58.5 | |
| 13C12-2378-TCDD | 49.9 | | 54.4 | | 55.1 | | 54.6 | |

| Data File | U004301 | U004302 | U004303 | U004304 |
|---|---|---|---|---|
| Sample ID | TLI Blank | ILL1698-010 | ILL1698-020 | ILL1698-03N |
| Units | pg/l | pg/l | pg/l | pg/l |
| Extraction Date | 01/08/2003 | 01/08/2003 | 01/08/2003 | 01/08/2003 |
| Analysis Date | 01/09/2003 | 01/09/2003 | 01/09/2003 | 01/09/2003 |
| Instrument | U | U | U | U |
| Matrix | WATER | WATER | WATER | WATER |
| Extraction Type | | | | |
| Internal Standards Percent Recovery Summary (% Rec) | | | | |
| 13C12-PeCDF 123 | 63.7 | 68.2 | 72.3 | 68.9 |
| 13C12-PeCDD 123 | 60.3 | 66.7 | 73.4 | 67.1 |
| 13C12-HxCDF 678 | 63.1 | 76.7 | 67.3 | 68.8 |
| 13C12-HxCDD 678 | 71.7 | 86.1 | 77.5 | 75.0 |
| 13C12-HpCDF 678 | 62.5 | 73.1 | 67.5 | 62.0 |
| 13C12-HpCDD 678 | 71.6 | 84.0 | 83.5 | 77.5 |
| 13C12-OCDD | 87.8 | 98.7 | 95.5 | 90.0 |

| Data File | U004305 | | U004306 | | U004307 | U004308 |
|---|---|---|---|---|---|---|
| Sample ID | ILL1698-040 | | ILL1698-050 | | TLI LCS | TLI LCSD |
| Units | pg/l | | pg/l | | pg/l | pg/l |
| Extraction Date | 01/08/2003 | | 01/08/2003 | | 01/08/2003 | 01/08/2003 |
| Analysis Date | 01/10/2003 | | 01/10/2003 | | 01/10/2003 | 01/10/2003 |
| Instrument | U | | U | | U | U |
| Matrix | WATER | | WATER | | WATER | WATER |
| Extraction Type | | | | | | |
| Analytes | | | | | | |
| 2378-TCDD | (1.3) | | 3.5 | JB | 381 | 403 |
| 12378-PeCDD | (1.7) | | {6.8} | JB | 1910 | 2020 |
| 123478-HxCDD | (1.2) | | 4.3 | JB | 1620 | 1750 |
| 123678-HxCDD | (1.2) | | 4.7 | JB | 1670 | 1800 |
| 123789-HxCDD | (1.2) | | 5.6 | JB | 1770 | 1830 |
| 1234678-HpCDD | {2.7} | JB | 9.1 | JB | 1690 | 1780 |
| OCDD | {13.6} | JB | 56.6 | JB | 3410 | 3590 |
| 2378-TCDF | (1.0) | | 3.8 | JB | 329 | 357 |
| 12378-PeCDF | (0.8) | | 8.6 | JB | 1670 | 1770 |
| 23478-PeCDF | (0.9) | | {6.5} | JB | 1760 | 1860 |
| 123478-HxCDF | 1.6 | JB | 6.5 | JB | 1930 | 2140 |
| 123678-HxCDF | 1.1 | JB | {5.6} | JB | 1850 | 2030 |
| 234678-HxCDF | (1.0) | | 4.8 | JB | 2050 | 2260 |
| 123789-HxCDF | (1.2) | | 6.9 | JB | 2220 | 2330 |
| 1234678-HpCDF | 1.7 | JB | 5.6 | JB | 1820 | 1950 |
| 1234789-HpCDF | (1.7) | | 6.0 | JB | 2070 | 2350 |
| OCDF | (2.1) | | 9.4 | JB | 2960 | 3140 |
| TOTAL TCDD | {2.0} | | 3.5 | | | |
| TOTAL PeCDD | {5.3} | | 3.3 | | | |
| TOTAL HxCDD | {3.8} | | 14.5 | | | |
| TOTAL HpCDD | 3.7 | | 18.1 | | | |
| TOTAL TCDF | {3.4} | | 6.4 | | | |
| TOTAL PeCDF | {1.7} | X | 8.6 | | | |
| TOTAL HxCDF | 2.7 | | 18.2 | | | |
| TOTAL HpCDF | 1.7 | | 11.6 | | | |
| Other Standards Percent Recovery Summary (% Rec) | | | | | | |
| 37Cl-TCDD | 53.2 | | 52.5 | | 58.8 | 65.9 |
| Other Standards Percent Recovery Summary (% Rec) | | | | | | |
| 13C12-PeCDF 234 | 74.7 | | 70.3 | | 87.5 | 93.3 |
| 13C12-HxCDF 478 | 70.4 | | 71.1 | | 82.1 | 77.2 |
| 13C12-HxCDD 478 | 86.6 | | 74.5 | | 93.6 | 96.2 |
| 13C12-HpCDF 789 | 76.3 | | 68.6 | | 87.8 | 90.3 |
| Other Standards Percent Recovery Summary (% Rec) | | | | | | |
| 13C12-HxCDF 789 | 81.3 | | 73.7 | | 94.9 | 95.4 |
| 13C12-HxCDF 234 | 74.9 | | 71.0 | | 91.4 | 96.1 |
| Internal Standards Percent Recovery Summary (% Rec) | | | | | | |
| 13C12-2378-TCDF | 54.2 | | 53.3 | | 61.6 | 65.6 |
| 13C12-2378-TCDD | 51.9 | | 49.4 | | 58.2 | 61.9 |

| Data File | U004305 | U004306 | U004307 | U004308 |
|---|---|---|---|---|
| Sample ID | ILL1698-040 | ILL1698-050 | TLI LCS | TLI LCSD |
| Units | pg/l | pg/l | pg/l | pg/l |
| Extraction Date | 01/08/2003 | 01/08/2003 | 01/08/2003 | 01/08/2003 |
| Analysis Date | 01/10/2003 | 01/10/2003 | 01/10/2003 | 01/10/2003 |
| Instrument | U | U | U | U |
| Matrix | WATER | WATER | WATER | WATER |
| Extraction Type | | | | |
| Internal Standards | Percent Recovery | Summary (% Rec) | | |
| 13C12-PeCDF 123 | 69.4 | 64.5 | 80.2 | 87.0 |
| 13C12-PeCDD 123 | 65.6 | 65.4 | 85.8 | 87.4 |
| 13C12-HxCDF 678 | 66.8 | 67.7 | 77.3 | 78.9 |
| 13C12-HxCDD 678 | 77.2 | 71.2 | 87.6 | 89.5 |
| 13C12-HpCDF 678 | 66.1 | 57.9 | 75.4 | 73.7 |
| 13C12-HpCDD 678 | 81.9 | 73.1 | 86.5 | 89.0 |
| 13C12-OCDD | 99.5 | 80.7 | 99.3 | 107 |

{Estimated Maximum Possible Concentration}, (Detection Limit).

# CASE NARRATIVE

**Analysis of Samples for the Presence of**

**Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by**

**High-Resolution Chromatography / High-Resolution Mass Spectrometry**

**Method 8290 Rev. 0 (9/94)**

---

| | |
|---|---|
| **Date:** | January 20, 2003 |
| **Client ID:** | Del Mar Analytical |
| **P.O. Number:** | ILL1698 |
| **TLI Project Number:** | 59312r1 |

---

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## Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the water samples.

## Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples are extracted and analyzed along with each batch of samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

## Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

***Sample receipt:*** Five water samples were received from Del Mar Analytical at 6.0°C in good condition on January 3, 2003 and stored in a refrigerator at 4°C. The client's chain-of-custody did not indicate whether or not chemical preservatives were utilized prior to shipment.

***Sample Preparation Laboratory:*** None

***Mass Spectrometry:*** None

***Data Review:*** None

***Other Comments:*** No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar

Analytical have any questions or comments regarding this data package, please feel free to contact one of our Project Scientists at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released by,

Kenneth Varley

Kenneth Varley

Report Preparation Chemist

The total number of pages in the data package is : 221 .

***Method 8290 Sample Calculations:***

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

| | | |
|---|---|---|
| $C_{(\sigma)}$ | = | concentration or amount of a given analyte |
| $A_\sigma$ | = | integrated current for the characteristic ions of the analyte |
| $A_\beta$ | = | integrated current of the characteristic ions of the corresponding internal standard |
| $Q_\beta$ | = | amount of internal standard added to the sample before extraction |
| $RRF_{(\sigma)}$ | = | mean analyte relative response factor from the initial calibration |
| W | = | sample weight or volume |

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

| | | |
|---|---|---|
| $DL_{(\sigma)}$ | = | estimated detection limit for a target analyte |
| 2.5 | = | minimum response required for a GC signal |
| H | = | sum heights of the noise |
| $H_\beta$ | = | sum of peak heights of the characteristic ions of the corresponding internal standard |
| $Q_\beta$ | = | amount of internal standard added to the sample before extraction |
| $RRF_{(\sigma)}$ | = | mean analyte relative response factor from the initial calibration |
| W | = | sample weight or volume |

*Data Flags*

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the concentration of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An 'S' flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

ACCREDITED IN ACCORDANCE WITH nelac
FL-E87769 NJ-NC851

Triangle Laboratories, Inc.

**TRIANGLE LABORATORIES, INC.**

LIST OF CERTIFICATIONS AND ACCREDITATIONS

**ENVIRONMENTAL**

**Primary NELAC Certificate**: **Florida Department of Health, #E87769; SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA/CERCLA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles. Expires June 30, 2003.

**Primary NELAC Certificate**: **State of New Jersey, Department of Environmental Protection.** ID #NC851. **CAA**, Methods 0023A and MM5 (Sampling Train). **Secondary NELAC Certificate**: **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA/CERCLA**, Method 8290, PCDD/PCDF & totals. Expires June 30, 2003.

**State of Alabama, Department of Environmental Management.** Laboratory ID # 40950. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires 31 July 2003.

**State of Alaska, Department of Environmental Conservation.** Lab ID #NC-06-00. Certificate number NC00140. 2,3,7,8- TCDD (Dioxin) in drinking water. Expires December 21, 2002.

**State of Arizona, Department of Health Services.** Certificate #AZ0423. Drinking Water for Dioxin, Dioxins in Waste Water and Solid or Hazardous Waste. Expires May 25, 2003.

**State of Arkansas, Department of Environmental Quality.** Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furans. Expires 8 January 2003.

**Secondary NELAC Certificate**: **State of California, Department of Health Services, Certificate No. 01167CA. SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA/CERCLA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles. Expires October 31, 2002.

**State of Colorado, Department of Public Health and Environment. SDWA,** Dioxin by EPA 1613. Expires April 30, 2003.

**State of Connecticut, Department of Health Services.** Registration # PH-0117. **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA/CERCLA**, Methods 8280/8290, PCDD/PCDF & totals. Expires September 30, 2003.



2445 S. Alston Ave. - Durham, NC 27713 - (919) 544-5729 - FAX (919) 544-5491
*www.trianglelabs.com*

**Delaware Health and Social Services.** Dioxin Certification waived for out-of-state laboratories; accept home-state Certifications.

Primary NELAC Certificates: **Florida Department of Health, #E87769;** SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; RCRA/CERCLA, Methods 8280/8290, PCDD/PCDF & totals; CAA, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles. Expires June 30, 2003.

**Georgia Department of Environmental Quality.** Chemical Certification of Drinking Water for Dioxins, method 1613, reciprocity based on North Carolina Certification. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; RCRA/CERCLA, Methods 8280/8290, PCDD/PCDF & totals; CAA, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles; reciprocity based on **FL-DOH NELAC Certificates**. Certificate # 953, expires June 30, 2003.

**Hawaii Department of Health.** Certified for Dioxin under the Safe Drinking Water Act. "Accepted" status for regulatory purposes. Expires June 30, 2003.

**Idaho Department of Health and Welfare.** Dioxin in drinking water, EPA Method 1613. Expires December 31, 2002.

Secondary NELAC Certificate: **Illinois Environmental Protection Agency.** Accreditation Number #200007, Certificate #000468; **Drinking Water**, Method 1613, 2,3,7,8-TCDD; **Wastewater, Organic**, Methods 1613 and 613; **Hazardous and Solid Waste, Organic**, Methods 8280A and 8290. Expires 30 September 2002.

**Indiana Department of Health.** Dioxin in drinking water, EPA method 1613. Lab ID # C-NC-01. Expires July 31, 2003.

Secondary NELAC Certificate: **State of Kansas, Department of Health and Environment**. Cert. # E-10215. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF; RCRA/CERCLA, Methods 8280/8290, PCDD/PCDF & totals. Expires 31 January 2003.

**Commonwealth of Kentucky, Department for Environmental Protection.** Lab ID #90060. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires December 31, 2002.

Secondary NELAC Certificate: **State of Louisiana Department of Environmental Quality.** Certificate # 01979. CAA, TO-9A and TO-13A; CWA, Method 613 2,3,7,8-TCDD and Method 1613 PCDDs/PCDFs; Solid and Hazardous Waste Methods 8280A & 8290 PCDDs/PCDFs; Misc. Methods 1613, 8280A & 8290. Expires 30 June 2003.

Secondary NELAC Certificate: **State of Louisiana Department of Health & Hospitals.** Dioxin (2,3,7,8-TCDD) in Drinking Water. Certificate # LA020003. Expires December 31, 2002.

**Maine Department of Human Services.** Certification #: NC140. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF. Expires May 30, 2004.

**Maryland Department of Health and Mental Hygiene.** Certification # 235, SOC 2 (Dioxin). Expires September 30, 2003.

**Commonwealth of Massachusetts, Department of Environmental Protection,** does not require Certification for Drinking Water Dioxin/Furan analysis.

**State of Michigan, Department of Environmental Quality.** 2,3,7,8 TCDD by Method 1613. Expires 31 July 2003.

**Minnesota Department of Health.** The certification program in MN does not include dioxins/furans for CWA, SDWA of RCRA/CERCLA. See **U.S. EPA Region V.**

**Mississippi State Department of Health.** Dioxin in drinking water. No expiration date.

**Montana Department of Health and Environmental Services.** CERT0019. Dioxin in drinking water. Expires December 31, 2002.

**State of Nebraska Department of Health.** Reciprocal certification through the North Carolina Department of Health and Human services and Florida DOH NELAC Certification. **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA/CERCLA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles. Expires July 31, 2002.

**State of Nevada, Department of Conservation and Natural Resources.** Lab Certificate No. NC-00140-2003-66, expires July 31, 2003. **CWA**, Method 1613, PCDD/PCDF & totals, expires December 31, 2002.

**State of Nevada, Department of Human Resources.** Lab Certificate No. NC-00140-2003-66, expires July 31, 2003. **SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water, expires December 31, 2002.

**Primary NELAC Certificate**: **State of New Jersey, Department of Environmental Protection.** ID #NC851. **CAA**, Methods 0023A and MM5 (Sampling Train). **Secondary NELAC Certificate**: **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA/CERCLA**, Method 8290, PCDD/PCDF & totals. Expires June 30, 2003.

**State of New Mexico, Environment Department**. Safe Drinking Water Act; 2,3,7,8-TCDD by Method 1613. Expires 30 June 2003.

**Secondary NELAC Certificate**: **New York State Department of Health, LAB ID #11026.** Potable Water, 2,3,7,8-TCDD, EPA 1613, Serial # 16965; Non-Potable Water, 2,3,7,8-TCDD, EPA 1613, Serial # 16966. Valid through 1 April 2003.

**State of North Carolina, Department of Health and Human Services.** Certificate # 37751. Dioxin in drinking water. Expires July 31, 2003.

**North Dakota State Department of Health and Consolidated Laboratories.** Certificate # R-076. Dioxin in drinking water. Expires June 30, 2002.

**Ohio EPA.** Ohio does not offer out-of-state lab certifications; certification by EPA Region 5 is honored.

**Oklahoma Department of Environmental Quality.** Laboratory #9612. 2,3,7,8 TCDD (Dioxin). Expires August 31, 2003.

Secondary NELAC Certificate: **Oregon Environmental Laboratory Accreditation Program.** Certificate No:-911918452. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; RCRA/CERCLA, Methods 8280/8290, PCDD/PCDF & totals; CAA, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles. Expires January 31, 2003.

**State of South Carolina, Department of Health and Environmental Control.** Certificate number #99040001 (Other parameters). Dioxin/Furans by method 1613B - Safe Drinking Water Act; 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste. Reciprocal certification with New York. Expires June 03, 2001. Certificate # 99040002 Solid Hazardous Waste- Dioxins/Furans by 8280A and 8290. Expires August 31, 2001. **Renewal pending.*

**State of Tennessee. Department of Environment and Conservation.** ID #02992. Dioxin in Drinking water. Expires February 20, 2005.

**Texas Natural Resource Conservation Commission.** Certification Number: TX264-2002A. **SDWA:** Chemistry, Dioxin (2378-TCDD), EPA 1613. Expires January 31, 2004.

**U.S. Army Corps of Engineers.** Validated to perform EPA SW-846, Method 8290, water and solids. Validation expires May 2, 2004.

**Department of the Navy, Naval Facilities Engineering Service Center (NFESC).** Letter of Acceptance for analysis of water and solids by Methods 8280 and 8290. Expires June 30, 2003.

**U.S. EPA Region V.** 2,3,7,8 TCDD (Dioxin) in drinking water by method 1613B. Expires January 19, 2003. [Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin]

**U.S. EPA Region VIII, for the State of Wyoming.** EPA Method 1613 for Dioxin in drinking water. Expires December 30, 2002.

Secondary NELAC Certificate: **State of Utah, Department of Health.** ID # TRIA, Account # 9195445729 SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF & totals; RCRA/CERCLA, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2003.

**Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services.** ID # 00341. 2,3,7,8-TCDD (Dioxin) in drinking water, EPA Method 1613B. Expires June 30, 2003.

**State of Washington, Department of Ecology.** Lab Accreditation Number C067. Scope of Accreditation applies to Dioxins (PCDDs/PCDFs) by EPA methods 1613, 8280, and 8290 in potable and non-potable water. Expires September 11, 2003.

**State of Washington, Department of Health.** Dioxin by 1613 in drinking water. Lab ID 129. Expires April 30, 2003.

**State of West Virginia, Department of Health.** Certificate No. 9923(C). 2,3,7,8-TCDD (Dioxin) in drinking water, SOC III. Expires December 31, 2002.

**State of Wisconsin, Department of Natural Resources.** Laboratory ID Number 999869530. Certified for 2,3,7,8-TCDD (Dioxin) in drinking water and for PCDD/PCDF. Expires August 31, 2003.

**State of Wyoming,** see **U.S. EPA Region VIII** above.

## PHARMACEUTICAL

**Drug Enforcement Agency (DEA).** Registration number RT0195835. Controlled substance registration for schedules 1,2,3,3N,4,5. Expires November 30, 2002.

**N.C. Department of Human Resources.** Registration number NC-PT 0000 0031. North Carolina controlled substances registration for schedules 1, 2, 2N, 3, 3N, 4, 5, 6. Expires October 31, 2002.

**Food & Drug Administration (FDA) Registration.** ID #'s 001500 1053481(ATL). Annual registration of drug establishment. Current for 2002.

## OTHER

**Clinical Laboratory Improvement Amendments (CLIA) Registration.** ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration. Certificate for the Acceptance of Human Specimens for the purposes of performing laboratory examinations or procedures - Chemistry, Toxicology, HCFA. Expires May 30, 2003.

**U.S. Department of Agriculture Soil Permit.** Permit No. S-56724. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis. Expires March 31, 2007.

**U.S. EPA Large Quantity Hazardous Waste Generator.** EPA ID #NCR000137232. Permit indicates that the laboratory is a large generator of hazardous waste. No expiration date.

**U.S. Fish and Wildlife Permit. Number LE027890-1.** Authorization to import/export wildlife and/or wildlife products. Expires April 30, 2003.

# DOCUMENT CONTROL

**SUBCONTRACT ORDER**

**Del Mar Analytical, Irvine**

**Project ID # ILL1698**

**SENDING LABORATORY:**

Del Mar Analytical, Irvine
2852 Alton Parkway
Irvine, CA 92606
Phone: (949) 261-1022
Fax: (949) 261-1228
Project Manager: Patty Mata

**RECEIVING LABORATORY:**

Triangle Laboratories-SUB
801 Capitola Drive
Durham, NC 27713
Phone :(919) 544-5729
Fax: (919) 544-5491

COPY

**Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____**

| Analysis | Expiration | Comments |
|---|---|---|
| **Sample ID: ILL1698-01 Water** | **Sampled: 12/30/02 08:30** | |
| 8290-Dioxin-HR | 01/06/03 08:30 | Sub to Triangle Labs |
| **Containers Supplied:** | | |
| 1 L Amber (ILL1698-01O) | | |
| 1 L Amber (ILL1698-01P) | | |
| **Sample ID: ILL1698-02 Water** | **Sampled: 12/30/02 10:20** | |
| 8290-Dioxin-HR | 01/06/03 10:20 | Sub to Triangle Labs |
| **Containers Supplied:** | | |
| 1 L Amber (ILL1698-02O) | | |
| 1 L Amber (ILL1698-02P) | | |
| **Sample ID: ILL1698-03 Water** | **Sampled: 12/30/02 13:10** | |
| 8290-Dioxin-HR | 01/06/03 13:10 | Sub to Triangle Labs |
| **Containers Supplied:** | | |
| 1 L Amber (ILL1698-03N) | | |
| 1 L Amber (ILL1698-03O) | | |
| **Sample ID: ILL1698-04 Water** | **Sampled: 12/30/02 14:45** | |
| 8290-Dioxin-HR | 01/06/03 14:45 | Sub to Triangle Labs |
| **Containers Supplied:** | | |
| 1 L Amber (ILL1698-04O) | | |
| 1 L Amber (ILL1698-04P) | | |
| **Sample ID: ILL1698-05 Water** | **Sampled: 12/30/02 07:30** | |
| 8290-Dioxin-HR | 01/06/03 07:30 | Sub to Triangle Labs |
| **Containers Supplied:** | | |
| 1 L Amber (ILL1698-05O) | | |
| 1 L Amber (ILL1698-05P) | | |

Release Notes:

Samples Received at (temp): _____
All containers intact: ☐ Yes ☐ No
Sample labels/COC agree: ☐ Yes ☐ No
Samples Preserved Properly: ☐ Yes ☐ No
Custody Seals Present: ☐ Yes ☐ No

| Released By | Date | Time | Received By | Date | Time |
|---|---|---|---|---|---|
| | 12/30/02 | | | 12/30/02 | 10:30 |
| Released By | Date | Time | Received By | Date | Time |
| | | | | | |

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 59312
Client: DMA01 - Del Mar Analytical
Project: ILL1698

Book 345

Date Received 01/03/03 By

Page 9

Ice Chest ICE/ICE PACKS Temp 6.0 C

Carrier and Number FED EX

| TLI Number.. .....Client Sample ID..... .....Matrix<br>mR/H:CPM. .....Client COC ID.....* Location..... | To LAB Date/Init | To STORAGE Date/Init | To LAB Date/Init | To STORAGE Date/Init | To LAB Date/Init | To STORAGE Date/Init | To LAB Date/Init | To STORAGE Date/Init | DISPOSED Date/Init |
|---|---|---|---|---|---|---|---|---|---|
| 345-9-1A ILL1698-01O WATER<br>ILL1698-01O CO2 | BKH | BKH used 01/05/03 | | | | | | | |
| 345-9-1B ILL1698-01P WATER<br>ILL1698-01P CO2 | BKH | BKH used 01/08/03 | | | | | | | |
| 345-9-2A ILL1698-02O WATER<br>ILL1698-02O CO2 | BKH | BKH used 01/05/03 | | | | | | | |
| 345-9-2B ILL1698-02P WATER<br>ILL1698-02P CO2 | BKH | BKH used 01/08/03 | | | | | | | |
| 345-9-3A ILL1698-03N WATER<br>ILL1698-03N CO2 | BKH | BKH used 01/05/03 | | | | | | | |
| 345-9-3B ILL1698-03O WATER<br>ILL1698-03O CO2 | BKH | BKH used 01/03/03 | | | | | | | |
| 345-9-4A ILL1698-04O WATER<br>ILL1698-04O CO2 | BKH | BKH used 01/05/03 | | | | | | | |
| 345-9-4B ILL1698-04P WATER<br>ILL1698-04P CO2 | BKH | BKH used 01/08/03 | | | | | | | |
| 345-9-5A ILL1698-05O WATER<br>ILL1698-05O CO2 | BKH | BKH used 01/05/03 | | | | | | | |
| 345-9-5B ILL1698-05P WATER<br>ILL1698-05P CO2 | BKH | BKH used 01/08/03 | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Receiving Remarks:

Archive Remarks:

TRIANGLE LABORATORIES, INC.
SAMPLE TRACKING AND PROJECT MANAGEMENT FORM

----------ADMINISTRATIVE INFORMATION----------

| | | |
|---|---|---|
| TLI Proj#: 59312-r1 | Samples: 5 | TurnAround.: 18 Day(s) |
| Prod Code: D01001 | Matrix.: Water | Hold Time..: 30 Day(s) |
| DetectLim: 10 ppq | Type...: B | Start Date.: 01/03/03 |
| | Recvd..: 01/03/03 | Ship By....: 01/19/03 |
| | | DWL Due Dt.: 01/10/03 |

Analyte List.: Tetra - Octa

Method.....: M 8290: Tetra-Octa Dioxin/Furan
Client Proj..: ILL1698
Client.....: Del Mar Analytical (DMA01)

| | |
|---|---|
| P.O. No.....: ILL1698 | Collect Dt/Tm: 12/30/02 08:30 |
| Contact.....: Patty Mata | Phone.....: 949-261-1022 |
| Proj. Mgr....: Lauren Tochacek | Fax.....: 949-261-1228 |
| | Sample Origin: |

----------SPECIAL INSTRUCTIONS / QA REQUIREMENTS----------

TEF.....: EPA  Prespike Standard: n/a

----------REPORTING REQUIREMENTS----------

Reporting Format: Report Option II

See MILES for Instructions/Communications.

Completed by: AC / [signature] DATE: 1-3-03

Reviewed by: AC / [signature] DATE: 1-8-03 (PMGT0197

TRIANGLE LABORATORIES, INC.
Wet Lab Extraction and Observations
Project: 59312-r1



| Sample # | crd | TLI_Number.. | Customer.Sample.Id..... | Init. pH... | NaOH mL.. | Adj. pH.1. | H2SO4 mL... | Adj. pH.2. | Appearance. | Color..... | Odor... | Vol. | Entered.By..... | Date.... | Time.... | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | | TLI Blank | TLI Blank | 7.00 | n/a | n/a | n/a | n/a | HPLC H2O | NO | NO | 1000 | HARRISON | 01/08/03 | 23:16:24 | F |
| 002 | | 345-9-1B | ILL1698-010 | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | TAN | NO | 1050 | gatchet | 01/08/03 | 16:35:26 | F |
| 003 | | 345-9-2B | ILL1698-020 | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | TAN | NO | 1050 | HARRISON | 01/08/03 | 23:16:24 | F |
| | | | | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | TAN | NO | 1040 | gatchet | 01/08/03 | 16:35:26 | F |
| 004 | | 345-9-3B | ILL1698-03N | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | YELLOW | NO | 1030 | HARRISON | 01/08/03 | 23:16:24 | F |
| | | | | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | YELLOW | NO | 990 | gatchet | 01/08/03 | 16:35:27 | F |
| 005 | | 345-9-4B | ILL1698-040 | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | GRAY | NO | 1050 | HARRISON | 01/08/03 | 23:16:24 | F |
| | | | | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | GRAY | NO | 1000 | gatchet | 01/08/03 | 16:35:27 | F |
| 006 | | 345-9-5B | ILL1698-050 | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | YELLOW | NO | 1030 | HARRISON | 01/08/03 | 23:16:24 | F |
| | | | | 7.00 | n/a | n/a | n/a | n/a | CLOUDY | YELLOW | NO | 1050 | gatchet | 01/08/03 | 16:35:28 | F |
| 007 | | TLI LCS | TLI LCS | 7.00 | n/a | n/a | n/a | n/a | HPLC H2O | NO | NO | 1000 | HARRISON | 01/08/03 | 23:16:24 | F |
| 008 | | TLI LCSD | TLI LCSD | 7.00 | n/a | n/a | n/a | n/a | HPLC H2O | NO | NO | 1000 | HARRISON | 01/08/03 | 23:16:24 | F |

*** End of Report ***

## Extraction

Type: Soxhlet / Jar / Sep Funnel / Steam Dist / Cont LL / ASE / Waste Dilution / Solid Phase

S.O.P: DSP161 Version: 18

Time On: 21:30
Time Off: 23:15

| Solvents/Acids | Lot Numbers |
|---|---|
| $MeCl_2$ | 023325 |
| | |
| | |

Comments / Observations: LCS, LCSD and Blank were made with HPLC Water, Lot # 026723
Sample 345-9-1B+2B were tan, cloudy, ph7 and no odor.
Sample 345-9-4B was gray, cloudy, ph7 and no odor. BKH 01/08/03
Sample 345-9-3B+5B was yellow, cloudy, ph7 and no odor.

## Concentration

Analyst(s): AA 1/9/03

Type: Rotovap / KD / Speedvac

S.O.P: 124 Version: 18

| Solvent Exchange | Lot Number |
|---|---|
| Heptane | 028631 |

Tridecane Lot # FT-1-25-307M

Division: 20%/80% (Process 20%) 50%/50% 5ml/20ml (for lipid determination)

Comments / Observations: _____

## Cleanup

S.O.P: 260 Version: 16 Analyst: L.P. 1/9/03
S.O.P: _____ Version: _____ Analyst: _____
S.O.P: _____ Version: _____ Analyst: _____

| MeCl2/Hept Solutions | |
|---|---|
| 2% ID: | CDSP1-19-100-1 |
| 20% ID: | CDSP1-19-100-2 |
| 6% ID: | |

If DSP 280 needed complete the following areas:
Glasswool Lot #: _____ Heptane Lot#: _____
Sodium Sulfate Lot #: _____
Acid Coated Silica Gel Lot #: _____
50g used for: 100g used for:

Comments / Observations: _____

## Transfers

Analyst(s): DThorpe 1/9/03

S.O.P: 272 Version: 10

Division: 90%/10%

| Solvent | Lot Number |
|---|---|
| Heptane | 028631 |

Comments: _____

Method: 8290
Matrix: Water
Ext. Date: 01/08/03
Analyst: Bryant Harrison

| Project-Sample ID / TLI ID | | | Gross Weight Before | Gross Weight After | Sample Size g / mL | BKH 84030 USF-AIS 08/13/03 01/08/03 21:30 0.10 ug/mL 20 uL | BKH 8405C USF-MX 04/29/03 01/08/03 21:30 0.01 ug/mL 40 uL | AA 83332 USF-C 08/26/03 1/9/03 08:30 0.01 ug/mL 20 uL | / / / / / : ug/mL uL | Chemist Spike # Spike ID " Exp. " Date " Time Concen. Volume |
|---|---|---|---|---|---|---|---|---|---|---|
| 59312 r1 | 7 | TLI LCS | | | 1000 | BKH 01/08/03 | BKH 01/08/03 | AA | | Any Left ~~Yes / No~~ N/A |
| 59312 r1 | 8 | TLI LCSD | | | 1000 | | BKH 01/08/03 | | | ~~Yes / No~~ N/A |
| 59312 r1 | 1 | TLI Blank | | | 1000 | | | | | ~~Yes / No~~ N/A |
| 59312 r1 | 2 | 345-9-1B | 1550 ~~1440~~ | 500 | 1050 | | | | | Yes / No |
| 59312 r1 | 3 | 345-9-2B | 1550 ~~1440~~ | 500 | 1050 | | | | | Yes / No |
| 59312 r1 | 4 | 345-9-3B | 1530 | 500 | 1030 | | | | | Yes / No |
| 59312 r1 | 5 | 345-9-4B | 1550 | 500 | 1050 | | | | | Yes / No |
| 59312 r1 | 6 | 345-9-5B | 1530 | 500 | 1030 | BKH 01/08/03 | | AA | | Yes / No |
| | | | | | | | | | | Yes / No |
| | | | | | | | | | | Yes / No |
| | | | | | | | | | | Yes / No |
| | | | | | | | | | | Yes / No |
| | | | | | | | | | | Yes / No |
| | | | | | | | | | | Yes / No |

BKH 01/08/03 N/A

| Project-Sample ID / TLI ID | | | 1 | 2 | 3 | 4 | 7 | 8 | 9 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59312 r1 | 7 | TLI LCS | BKH 01/08/03 | AA 1/8/03 | AA 1/8/03 | AA 1/8/03 | AA 1/8/03 | LP 1/9/03 | JJ 1/9/03 | | | | | |
| 59312 r1 | 8 | TLI LCSD | | | | | | | | | | | | |
| 59312 r1 | 1 | TLI Blank | | | | | | | | | | | | |
| 59312 r1 | 2 | 345-9-1B | | | | | | | | | | | | |
| 59312 r1 | 3 | 345-9-2B | | | | | | | | | | | | |
| 59312 r1 | 4 | 345-9-3B | | | | | | | | | | | | |
| 59312 r1 | 5 | 345-9-4B | | | | | | | | | | | | |
| 2 r1 | 6 | 345-9-5B | BKH 01/08/03 | AA 1/8/03 | AA 1/8/03 | AA 1/8/03 | AA 1/8/03 | LP 1/9/03 | JJ 1/9/03 | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

BKH 01/08/03 N/A

1) Extraction 2) Spike after extraction 3) Add Tridecane 4) Concentrate {40mL / 10 mL / Tridecane} 5) Combine

6) Divide / Lipid Determ. 7) Solvent Exchange 8) Cleanup {DSP260 / DSP280 / _____} 9) Transfer ( ) Other:

TRIANGLE LABORATORIES, INC.
Transfer Chain-of-Custody Form
Project 59312-r1

Transfer From: DWLL5 To: DMS5

| | Initials.. | Date..... | Time... |
|---|---|---|---|
| Released by: | JJ | 1/9/03 | 19:45 |
| Accepted by: | DJD | 1/9/03 | 20:00 |

| MILES.ID..... | TLI_No..... | Cust.Id..... |
|---|---|---|
| 59312-r1 -001 | TLI Blank | TLI Blank |
| 59312-r1 -002 | 345-9-1B | ILL1698-010 |
| 59312-r1 -003 | 345-9-2B | ILL1698-020 |
| 59312-r1 -004 | 345-9-3B | ILL1698-03N |
| 59312-r1 -005 | 345-9-4B | ILL1698-040 |
| 59312-r1 -006 | 345-9-5B | ILL1698-050 |
| 59312-r1 -007 | TLI LCS | TLI LCS |
| 59312-r1 -008 | TLI LCSD | TLI LCSD |

XfrCOC (Rev 11/01/94)

Additional comments or instructions:

TRIANGLE LABORATORIES, INC.

Method: M 8290: Tetra-Octa Dioxin/Furan HR GC/HRMS ANALYSIS

Required Detection Limit: 10 ppq PROJECT: 59312r1

SAMPLE INFORMATION — RS Conc 20 µl @ 100.0 PG/µl

| S#.crd | TLI / SAMPLE ID / CLIENT SAMPLE ID | 1ST COLUMN GC/MS FILENAME / COLUMN: DB5 | CONFIRM | 2ND COLUMN CONFIRM FILENAME / COLUMN: | USF-RS100 VOLUME 20ul / SOLN ID 8408A | USF-RS100 INIT ISD / DATE 1/9/03 @ 20:10 | ANALYSIS COMMENTS |
|---|---|---|---|---|---|---|---|
| r1 001 | TLI Blank / TLI Blank | U004301 | | | | | |
| r1 002 | 345-9-1B / ILL1698-01O | U004302 | N | | | | |
| r1 003 | 345 9-2B / ILL1698-02O | U004303 | N | | | | |
| r1 004 | 345-9-3B / ILL1698-03N | U004304 | N | | | | |
| r1 005 | 345-9-4B / ILL1698-04O | U004305 | N | | | | |
| r1 00[illegible] | 345-9-5B / ILL1698-05O | U004306 | N | | | | |
| r1 007 | TLI LCS / TLI LCS | U004307 | — | | | | |
| r1 008 | TLI LCSD / TLI LCSD | U004308 | | | | | |

Comments: _____ Type: B

Spike File: SPMIT22S

Amt of Extract: 100%

REV 03/07/95 (PSTMF 6)

Triangle Laboratories, Inc.
Run Log

| Instrument ID | Column Type | Column ID | Plot Name | Inj. Vol. | Acquisition | G/C |
|---|---|---|---|---|---|---|
| 700-810 | DB5 | 2389216 | TO2 | 2 OuL | NDB50S | NDB50S |

Amy Jay Dixon
Signature

1/8/03
Date

| Filename | Date* | Time* | Project # | Sample# | No. | Client Sample ID | Syr | 332 | Operator/Date | Comments** |
|---|---|---|---|---|---|---|---|---|---|---|
| U003804 | 1/8/03 | 23:45 | 59293A | 344-89-1A | 2 | 415979602 | Auto | 2.7 CY | IJD 1/8/03 | |
| U003805 | 1/9/03 | 00:33 | 593026 | 345-3-1 | 2 | Primary Sludge | Auto | 5.3 CY | IJD 1/8/03 | |
| U030039 | 1/9/03 | 02:07 | — | 8349 | — | XS-100 | Aut | 1.0 CY | [illegible] 1/9/03 | clear [illegible] 1/9/03 |
| U030040 | 1/9/03 | 1637 | — | 8327 | — | 8290/1613 concal | Auto | 1.4 E8 | TTF 1/9/03 | NIG. CCDF > 20%. TTF 1/9/03 |
| U030041 | 1/9/03 | 18:07 | — | 8327 | — | 8290/1613 Concal | Auto | 1.2 E8 | IJD 1/9/03 | GOOD 8290T-0. IJD 1/9/03. |
| U030042 | 1/9/03 | 19:33 | — | 8406 | — | RTCHK | Auto | 12% | IJD 1/9/03 | |
| U004301 | 1/9/03 | 21:01 | 59312-1 | TLIBLANK | 1 | TLI BLANK | Auto | 1.0 CY | IJD 1/9/03 | |
| -02 | ↓ | 21:49 | ↓ | 345-9-1B | 2 | ILL1698-010 | ↓ | 8.2 CY | ↓ | |
| -03 | ↓ | 22:38 | ↓ | -2B | 3 | -020 | ↓ | 9.1 CY | ↓ | |
| -04 | 1/9/03 | 23:26 | ↓ | -3B | 4 | -03N | ↓ | 9.2 CY | ↓ | |
| -05 | 1/10/03 | 00:14 | ↓ | -4B | 5 | -040 | ↓ | ↓ | ↓ | |
| -06 | ↓ | 01:02 | ↓ | 345-9-5B | 6 | ILL1698-050 | ↓ | 1.2 CY | ↓ | |
| U004307 ~~U004300~~ | 1/10/03 | 01:50 | 59312-1 | TLILCS | 7 | TLILCS | Auto | 1.3 CY | IJD 1/9/03 | |

* (ie ID) Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____
ConCal Due: _____

srvr1/qa/forms/hrrunlog.doc (02/05/97)

Run Log

| Instrument ID | Column Type | Column ID | Plot Name | Inj. Vol. | Acquisition | G/C |
|---|---|---|---|---|---|---|
| 70U-86 | DB5 | 2389216 | T02 | 2.0uL | NDB5US | NDB5US |

Signature: Troy Jay Dixon  Date: 1/9/03

| Filename | Date* | Time* | Project # | Sample# | No. | Client Sample ID | Syr | 332 | Operator/Date | Comments** |
|---|---|---|---|---|---|---|---|---|---|---|
| U004308 | 1/10/03 | 02:38 | 59312r1 | TLI LCSD | 8 | TLI LCSD | Auto | 1.3 E8 | IJD 1/9/03 | |
| U030044 | 1/10/03 | 03:27 | 59236r1 | 344-32-1 | 2 | DEP-7 | Auto | 1.0 E8 | [illegible] 1/10/03 | |
| U030045 | 1/10/03 | 04:22 | — | 8327 | — | 8290/1613 Concal 10 | Auto | 1.2 E8 | [illegible] 1/10/03 | Good 8290 FTB, [illegible] Good 1613 BTO [illegible] |
| U004601 | | | — | 8406 | — | KTCHK | Auto | | [illegible] 1/10/03 | |
| 02 | | | 59282r1 | OPR | 0 | OPR | | | | |
| 03 | | | ↓ | Tri Blank | 1 | Tri Blank | | | | |
| 04 | | | 59282r1 | 344-78-1B | 2 | WELL #2 | | | | |
| 05 | | | 59337 | 345-34-1A | 2 | 51 | | | | |
| 06 | | | 59336 | 345-33-1A | 2 | 50 | | | | |
| 07 | | | 59323 | OPR | 0 | OPR | | | | |
| 08 | | | ↓ | Tri Blank | 1 | Tri Blank | | | | |
| 09 | | | 59323 | 345-20-1A | 2 | DA031-07 | | | | |
| U004610 | | | 59240r1 | 344-36-1B | 2 | PLL0610-01M | Auto | | [illegible] 1/10/03 | |

* Transcribed from chromatographic data

** Dated initials required

ConCal Due: _____

ConCal Due: _____

srvr1/qa/forms/hrrunlog.doc (02/05/97)

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI Blank** Analysis File: **U004301**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | **ILL1698** | | | | |
| Sample Matrix: | **WATER** | Date Received: | / / | Spike File: | **SPMIT32S** |
| TLI ID: | **TLI Blank** | Date Extracted: | **01/08/2003** | ICal: | **UF57092** |
| | | Date Analyzed: | **01/09/2003** | ConCal: | **U030041** |
| Sample Size: | **1.000 L** | Dilution Factor: | **n/a** | % Moisture: | **n/a** |
| Dry Weight: | **n/a** | Blank File: | **U004301** | % Lipid: | **n/a** |
| GC Column: | **DB-5** | Analyst: | **IJD** | % Solids: | **n/a** |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 8.5 | | | 0.79 | 26:48 | J__ |
| 1,2,3,7,8-PeCDD | 9.7 | | | 1.62 | 31:03 | J__ |
| 1,2,3,4,7,8-HxCDD | 5.4 | | | 1.41 | 34:11 | J__ |
| 1,2,3,6,7,8-HxCDD | 6.2 | | | 1.11 | 34:16 | J__ |
| 1,2,3,7,8,9-HxCDD | 7.4 | | | 1.05 | 34:36 | J__ |
| 1,2,3,4,6,7,8-HpCDD | EMPC | | 4.5 | | | J__ |
| 1,2,3,4,6,7,8,9-OCDD | 11.8 | | | 0.97 | 41:13 | J__ |
| 2,3,7,8-TCDF | 6.3 | | | 0.88 | 26:05 | J__ |
| 1,2,3,7,8-PeCDF | 10.8 | | | 1.57 | 30:02 | J__ |
| 2,3,4,7,8-PeCDF | 6.8 | | | 1.43 | 30:42 | J__ |
| 1,2,3,4,7,8-HxCDF | 7.1 | | | 1.12 | 33:30 | J__ |
| 1,2,3,6,7,8-HxCDF | 6.9 | | | 1.31 | 33:35 | J__ |
| 2,3,4,6,7,8-HxCDF | 5.6 | | | 1.08 | 34:04 | J__ |
| 1,2,3,7,8,9-HxCDF | 10.0 | | | 1.22 | 34:51 | J__ |
| 1,2,3,4,6,7,8-HpCDF | 5.8 | | | 1.06 | 36:31 | J__ |
| 1,2,3,4,7,8,9-HpCDF | 8.0 | | | 0.99 | 38:04 | J__ |
| 1,2,3,4,6,7,8,9-OCDF | 9.4 | | | 0.83 | 41:25 | J__ |

| Totals | Conc. (pg/L) | Number | DL | EMPC | Flags |
|---|---|---|---|---|---|
| Total TCDD | 14.4 | 2 | | 18.9 | ___ |
| Total PeCDD | 9.7 | 1 | | | ___ |
| Total HxCDD | 19.0 | 3 | | 21.4 | ___ |
| Total HpCDD | EMPC | | | 4.5 | ___ |
| Total TCDF | 8.1 | 2 | | 9.5 | ___ |
| Total PeCDF | 17.6 | 2 | | | ___ |
| Total HxCDF | 29.6 | 4 | | | ___ |
| Total HpCDF | 13.9 | 2 | | | ___ |



MIT3_PSR v1.00, LARS 6.25.05

**Triangle Laboratories, Inc.®**
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Printed: 11:39 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI Blank** Analysis File: **U004301**

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1090 | 54.6 | 40%-135% | 0.80 | 26:04 | |
| $^{13}C_{12}$-2,3,7,8-TCDD | 998 | 49.9 | 40%-135% | 0.80 | 26:47 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1270 | 63.7 | 40%-135% | 1.62 | 30:00 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1210 | 60.3 | 40%-135% | 1.61 | 31:02 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1260 | 63.1 | 40%-135% | 0.52 | 33:35 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1430 | 71.7 | 40%-135% | 1.24 | 34:16 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1250 | 62.5 | 40%-135% | 0.46 | 36:30 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1430 | 71.6 | 40%-135% | 1.06 | 37:33 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3510 | 87.8 | 40%-135% | 0.87 | 41:12 | |

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1380 | 69.2 | 40%-135% | 1.65 | 30:42 | |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1270 | 63.6 | 40%-135% | 0.52 | 33:29 | |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1550 | 77.3 | 40%-135% | 1.25 | 34:10 | |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1500 | 74.9 | 40%-135% | 0.45 | 38:03 | |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 107 | 53.7 | 40%-135% | 26:48 | |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1500 | 75.0 | 40%-135% | 0.51 | 34:50 | |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1550 | 77.4 | 40%-135% | 0.51 | 34:04 | |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.79 | 26:37 | |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.23 | 34:34 | |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6.25.05

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Printed: 11:39 01/20/2003

# Del Mar Analytical

TLI Project: **59312r1** — Toxicity Equivalents Report
Client Sample: **TLI Blank** — Analysis File: **U004301**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/03 | Spike File: | SPMIT32S |
| TLI ID: | TLI Blank | Date Extracted: | 01/08/03 | ICal: | UF57092 |
| | | Date Analyzed: | 01/09/03 | ConCal: | U030041 |
| Sample Size: | 1.000 L | Dilution Factor: | 1 | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | | TEF | | Equivalent |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 8.5 | x | 1. | = | 8.5 |
| 1,2,3,7,8-PeCDD | 9.7 | x | 0.5 | = | 4.9 |
| 1,2,3,4,7,8-HxCDD | 5.4 | x | 0.1 | = | 0.54 |
| 1,2,3,6,7,8-HxCDD | 6.2 | x | 0.1 | = | 0.62 |
| 1,2,3,7,8,9-HxCDD | 7.4 | x | 0.1 | = | 0.74 |
| 1,2,3,4,6,7,8-HpCDD | [4.5] | x | 0.01 | = | 0.045 |
| 1,2,3,4,6,7,8,9-OCDD | 11.8 | x | 0.001 | = | 0.0118 |
| TOTAL PCDD | | | | | 15.4 |
| 2,3,7,8-TCDF | 6.3 | x | 0.1 | = | 0.63 |
| 1,2,3,7,8-PeCDF | 10.8 | x | 0.05 | = | 0.540 |
| 2,3,4,7,8-PeCDF | 6.8 | x | 0.5 | = | 3.4 |
| 1,2,3,4,7,8-HxCDF | 7.1 | x | 0.1 | = | 0.71 |
| 1,2,3,6,7,8-HxCDF | 6.9 | x | 0.1 | = | 0.69 |
| 2,3,4,6,7,8-HxCDF | 5.6 | x | 0.1 | = | 0.56 |
| 1,2,3,7,8,9-HxCDF | 10.0 | x | 0.1 | = | 1.00 |
| 1,2,3,4,6,7,8-HpCDF | 5.8 | x | 0.01 | = | 0.058 |
| 1,2,3,4,7,8,9-HpCDF | 8.0 | x | 0.01 | = | 0.080 |
| 1,2,3,4,6,7,8,9-OCDF | 9.4 | x | 0.001 | = | 0.0094 |
| TOTAL PCDF | | | | | 7.7 |

**Total EPA TEFs, 1989a: 23.0 pg/L**

**[...] indicates that the value is that of an EMPC.**



GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:07 01/20/03

Initial ....Date...

Data Review By: [signature] 1/20/03

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside
"io limits has been recalculated according to method requirements.

Page No. 1 Listing of U004301B.dbf
01/20/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | | | 0.65-0.89 | | | | 0.873-1.074 | | | |
| 304-306 | DC | NL | | | | Height | 19.07 | 10.17 | 8.90 | | | | |
| | | | | 26:05 | | 0.88 | 277.66 | 129.91 | 147.75 | 1.001 | 2378-TCDF | AN | J |
| | | | | 26:59 | RO | 0.52 | 61.28 | 26.66 | 51.20 | 1.035 | | | J |
| A | | | | 27:10 | | 0.74 | 81.00 | 34.40 | 46.60 | 1.042 | | | J |
| 304-306 | | | 3 | Peaks | | | 419.94 | | | | | | |
| 13C12-TCDF | | | | | | 0.65-0.89 | | | | 0.962-1.038 | | | |
| 316-318 | DC | NL | | | | Height | 14.78 | 7.17 | 7.61 | | | | |
| | | | | 25:22 | RO | 0.59 | 121.23 | 52.74 | 89.34 | 0.973 | | | |
| | | | | 25:41 | | 0.73 | 611.58 | 258.05 | 353.53 | 0.985 | | | |
| | | | | 26:04 | | 0.80 | 78,434.60 | 34,744.90 | 43,689.70 | 1.000 | 13C12-2378-TCDF | ISO | |
| | | | | | | Height | 20,542.55 | 9,119.45 | 11,423.10 | | | | |
| | | | | 26:38 | RO | 1.01 | 136.31 | 78.07 | 77.01 | 1.022 | | | |
| 316-318 | | | 4 | Peaks | | | 79,303.72 | | | | | | |
| ---------- Above: TCDF / TCDD Follows ---------- | | | | | | | | | | | | | |
| TCDD | | | | | | 0.65-0.89 | | | | 0.900-1.043 | | | |
| 320-322 | DC | NL | | | | Height | 9.03 | 5.17 | 3.86 | | | | |
| M | | | | 26:04 | RO | 1.41 | 73.63 | 58.80 | 41.60 | 0.973 | | | J |
| | | | | 26:41 | | 0.67 | 175.70 | 70.32 | 105.38 | 0.996 | | | J |
| | | | | 26:48 | | 0.79 | 254.68 | 112.63 | 142.05 | 1.001 | 2378-TCDD | AN | J |
| | | | | 26:58 | RO | 0.94 | 59.38 | 25.83 | 27.62 | 1.007 | | | J |
| 320-322 | | | 4 | Peaks | | | 563.39 | | | | | | |
| 37Cl-TCDD | | | | | | | | | | 0.925-1.075 | | | |
| 328 | DC | NL | | | | Height | 4.31 | 4.31 | | | | | |
| | DC | WL | | 24:15 | | | 5.72 | | | 0.905 | | | |
| | DC | WL | | 24:21 | | | 7.44 | | | 0.909 | | | |
| | DC | WL | | 24:30 | | | 17.81 | | | 0.915 | | | |
| | DC | WL | | 24:44 | | | 5.92 | | | 0.923 | | | |
| | DC | SN | | 24:53 | | | 9.66 | | | 0.929 | | | |
| | DC | SN | | 24:57 | | | 9.55 | | | 0.932 | | | |
| | DC | SN | | 25:17 | | | 7.57 | | | 0.944 | | | |
| | | | | 25:27 | | | 82.00 | 82.00 | | 0.950 | | | |
| | DC | SN | | 25:40 | | | 10.71 | | | 0.958 | | | |
| | DC | SN | | 25:52 | | | 13.19 | | | 0.966 | | | |
| | DC | SN | | 26:04 | | | 25.79 | | | 0.973 | | | |
| | DC | SN | | 26:25 | | | 8.75 | | | 0.986 | | | |
| | | | | 26:48 | | | 5,773.89 | 5,773.89 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | | 27:05 | | | 19.21 | 19.21 | | 1.011 | | | |
| | | | | 27:14 | | | 21.37 | 21.37 | | 1.017 | | | |
| | | | | 27:25 | | | 22.86 | 22.86 | | 1.024 | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DC | SN | | 27:52 | | | 9.49 | | | 1.040 | | | |
| | DC | SN | | 28:06 | | | 10.97 | | | 1.049 | | | |
| 328 | | | 5 | Peaks | | | 5,919.33 | | | | | | |
| 13C12-TCDD | | | | | 0.65-0.89 | | | | | 0.925-1.075 | | | |
| 332-334 | DC | NL | | | | Height | 26.22 | 17.31 | 8.91 | | | | |
| | | | | 26:37 | | 0.79 | 89,653.70 | 39,658.90 | 49,994.80 | 0.994 | 13C12-1234-TCDD | RS1 | |
| | | | | 26:47 | | 0.80 | 50,521.30 | 22,449.10 | 28,072.20 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | | | Height | 14,557.04 | 6,347.16 | 8,209.88 | | | | |
| 332-334 | | | 2 | Peaks | | | 140,175.00 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | | 1.32-1.78 | | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | | | Height | 11.35 | 5.62 | 5.73 | | | | |
| | DC | SN | | 29:39 | RO | 0.77 | 6.60 | | | 0.988 | | | |
| | DC | SN | | 29:47 | RO | 2.18 | 12.70 | | | 0.993 | | | |
| | | | | 30:02 | | 1.57 | 431.61 | 263.44 | 168.17 | 1.001 | 12378-PeCDF | AN | J |
| | | | | 30:42 | | 1.43 | 266.72 | 156.82 | 109.90 | 1.023 | 23478-PeCDF | AN | J |
| D | D | SN | | 31:41 | | 1.53 | 30.92 | | | 1.056 | | | |
| 340-342 | | | 2 | Peaks | | | 698.33 | | | | | | |
| 13C12-PeCDF | | | | | 1.32-1.78 | | | | | 0.867-1.133 | | | |
| 352-354 | DC | NL | | | | Height | 8.15 | 4.21 | 3.94 | | | | |
| | | | | 29:10 | RO | 1.81 | 240.41 | 170.75 | 94.28 | 0.972 | | | |
| | | | | 30:00 | | 1.62 | 63,720.60 | 39,443.20 | 24,277.40 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | | | Height | 19,560.60 | 12,045.70 | 7,514.90 | | | | |
| | | | | 30:17 | | 1.65 | 834.32 | 519.69 | 314.63 | 1.009 | | | |
| | | | | 30:42 | | 1.65 | 69,412.10 | 43,195.10 | 26,217.00 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | | 31:41 | | 1.66 | 812.06 | 506.74 | 305.32 | 1.056 | | | |
| 352-354 | | | 5 | Peaks | | | 135,019.49 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | | 1.32-1.78 | | | | | 0.937-1.021 | | | |
| 356-358 | DC | NL | | | | Height | 6.88 | 3.51 | 3.37 | | | | |
| | DC | SN | | 29:47 | | 1.72 | 19.64 | | | 0.960 | | | |
| | DC | SN | | 30:00 | | 1.40 | 58.21 | | | 0.967 | | | |
| | DC | SN | | 30:31 | RO | 1.83 | 11.86 | | | 0.983 | | | |
| D | D | SN | | 30:42 | RO | 2.23 | 56.25 | | | 0.989 | | | |
| K | | | | 31:03 | | 1.62 | 196.75 | 121.67 | 75.08 | 1.001 | 12378-PeCDD | AN | J |
| | DC | SN | | 31:32 | RO | 2.52 | 27.11 | | | 1.016 | | | |
| | DC | WH | | 31:57 | RO | 0.97 | 23.51 | | | 1.030 | | | |
| 356-358 | | | 1 | Peak | | | 196.75 | | | | | | |
| 13C12-PeCDD | | | | | 1.32-1.78 | | | | | 0.871-1.129 | | | |
| 368-370 | DC | NL | | | | Height | 5.62 | 3.29 | 2.33 | | | | |
| | | | | 29:57 | | 1.59 | 83.75 | 51.41 | 32.34 | 0.965 | | | |
| | | | | 30:06 | RO | 1.22 | 162.26 | 77.69 | 63.63 | 0.970 | | | |
| | | | | 30:17 | | 1.53 | 62.54 | 37.79 | 24.75 | 0.976 | | | |
| | | | | 30:43 | RO | 1.16 | 64.18 | 29.21 | 25.17 | 0.990 | | | |
| | | | | 31:02 | | 1.61 | 35,928.60 | 22,147.50 | 13,781.10 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | | | Height | 11,261.58 | 7,025.60 | 4,235.98 | | | | |

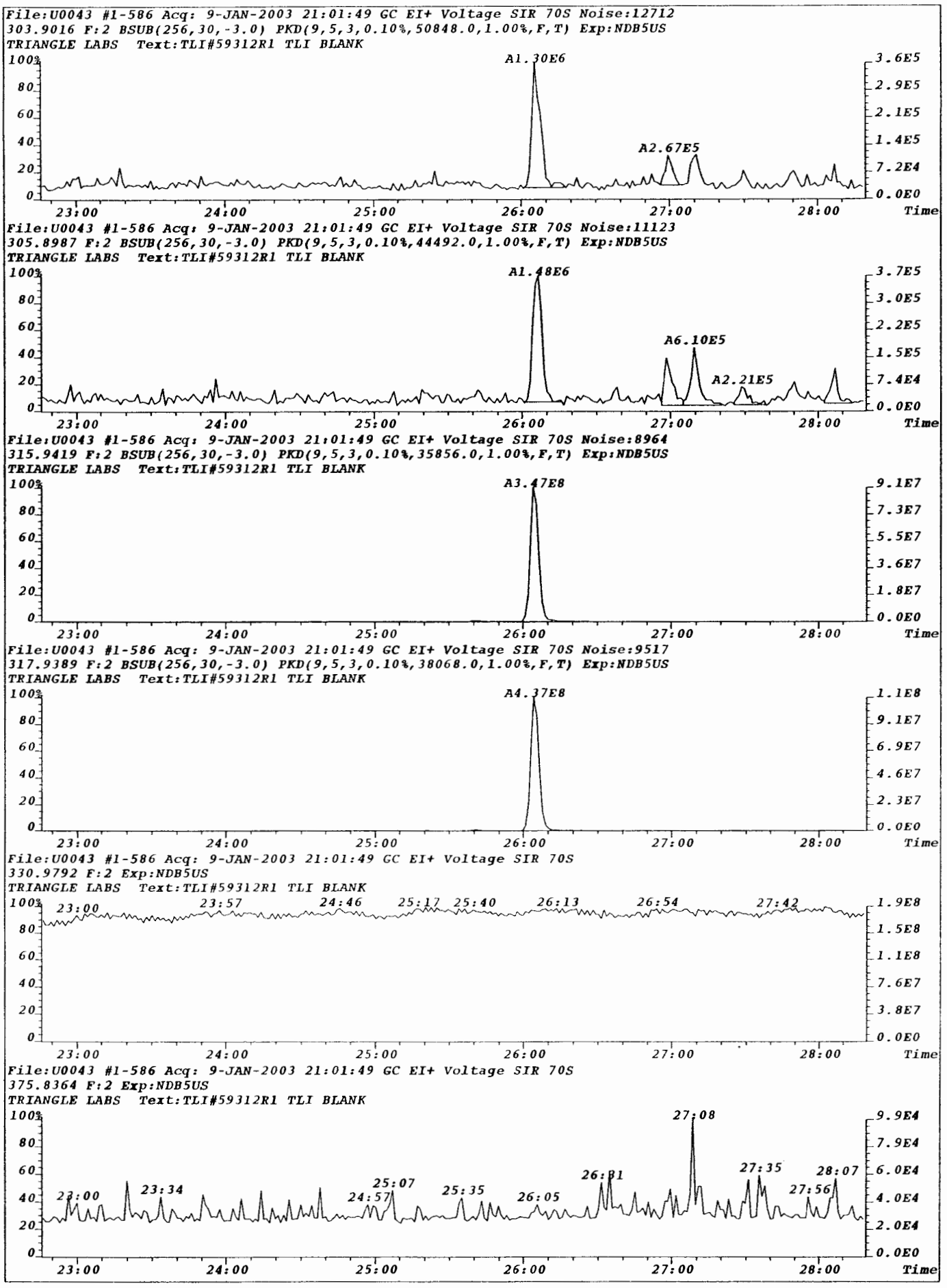
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 31:26 | | 1.36 | 67.73 | 39.04 | 28.69 | 1.013 | | | |
| | DC | SN | | 31:36 | RO | 3.56 | 17.16 | | | 1.018 | | | |
| 368-370 | | | 6 | Peaks | | | 36,369.06 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |
| HxCDF | | | | | | 1.05-1.43 | | | | 0.964-1.045 | | | |
| 374-376 | DC | NL | | | | Height | 6.11 | 3.58 | 2.53 | | | | |
| | | | | 33:30 | | 1.12 | 245.93 | 129.81 | 116.12 | 0.998 | 123478-HxCDF | AN | J |
| | | | | 33:35 | | 1.31 | 249.43 | 141.47 | 107.96 | 1.000 | 123678-HxCDF | AN | J |
| | | | | 34:04 | | 1.08 | 177.85 | 92.43 | 85.42 | 1.014 | 234678-HxCDF | AN | J |
| | DC | SN | | 34:11 | RO | 2.92 | 23.90 | | | 1.018 | | | |
| | DC | SN | | 34:34 | | 1.24 | 38.07 | | | 1.029 | | | |
| | | | | 34:51 | | 1.22 | 260.35 | 142.98 | 117.37 | 1.038 | 123789-HxCDF | AN | J |
| 374-376 | | | 4 | Peaks | | | 933.56 | | | | | | |
| 13C12-HxCDF | | | | | | 0.43-0.59 | | | | 0.881-1.119 | | | |
| 384-386 | DC | NL | | | | Height | 16.05 | 6.09 | 9.96 | | | | |
| | | | | 32:30 | | 0.54 | 98.77 | 34.63 | 64.14 | 0.968 | | | |
| | | | | 33:29 | | 0.52 | 61,053.50 | 20,865.20 | 40,188.30 | 0.997 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:35 | | 0.52 | 60,414.20 | 20,555.90 | 39,858.30 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | | | Height | 19,464.69 | 6,563.69 | 12,901.00 | | | | |
| | | | | 33:53 | | 0.50 | 159.49 | 52.95 | 106.54 | 1.009 | | | |
| | | | | 34:04 | | 0.51 | 68,169.10 | 22,907.90 | 45,261.20 | 1.014 | 13C12-HxCDF 234 | ALT2 | |
| | | | | 34:50 | | 0.51 | 52,486.70 | 17,679.30 | 34,807.40 | 1.037 | 13C12-HxCDF 789 | ALT1 | |
| 384-386 | | | 6 | Peaks | | | 242,381.76 | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | | | | | |
| HxCDD | | | | | | 1.05-1.43 | | | | 0.958-1.013 | | | |
| 390-392 | DC | NL | | | | Height | 6.18 | 2.66 | 3.52 | | | | |
| | DC | SN | | 33:01 | RO | 1.01 | 22.33 | | | 0.964 | | | |
| | DC | SN | | 33:07 | | 1.17 | 11.08 | | | 0.966 | | | |
| D | D | SN | | 33:29 | RO | 1.61 | 58.58 | | | 0.977 | | | |
| D | D | SN | | 33:35 | | 1.39 | 74.78 | | | 0.980 | | | |
| | DC | SN | | 33:47 | RO | 0.50 | 10.21 | | | 0.986 | | | |
| | DC | SN | | 33:56 | RO | 0.74 | 8.62 | | | 0.990 | | | |
| | | | | 34:04 | RO | 1.73 | 64.69 | 50.09 | 28.88 | 0.994 | | | J |
| | | | | 34:11 | | 1.41 | 141.37 | 82.65 | 58.72 | 0.998 | 123478-HxCDD | AN | J |
| | | | | 34:16 | | 1.11 | 164.57 | 86.53 | 78.04 | 1.000 | 123678-HxCDD | AN | J |
| | | | | 34:36 | | 1.05 | 191.53 | 98.13 | 93.40 | 1.010 | 123789-HxCDD | AN | J |
| | DC | WH | | 34:50 | RO | 1.46 | 61.38 | | | 1.017 | | | |
| | DC | WH | | 34:57 | RO | 0.39 | 8.73 | | | 1.020 | | | |
| 390-392 | | | 4 | Peaks | | | 562.16 | | | | | | |
| 13C12-HxCDD | | | | | | 1.05-1.43 | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | | | Height | 13.94 | 8.09 | 5.85 | | | | |
| | | | | 33:39 | | 1.09 | 390.40 | 203.54 | 186.86 | 0.982 | | | |
| | | | | 34:10 | | 1.25 | 47,073.40 | 26,155.20 | 20,918.20 | 0.997 | 13C12-HxCDD 478 | SUR3 | |
| | | | | 34:16 | | 1.24 | 48,283.80 | 26,748.40 | 21,535.40 | 1.000 | 13C12-HxCDD 678 | IS5 | |
| | | | | | | Height | 15,570.67 | 8,657.16 | 6,913.51 | | | | |
| | | | | 34:34 | | 1.23 | 64,808.80 | 35,799.40 | 29,009.40 | 1.009 | 13C12-HxCDD 789 | RS2 | |

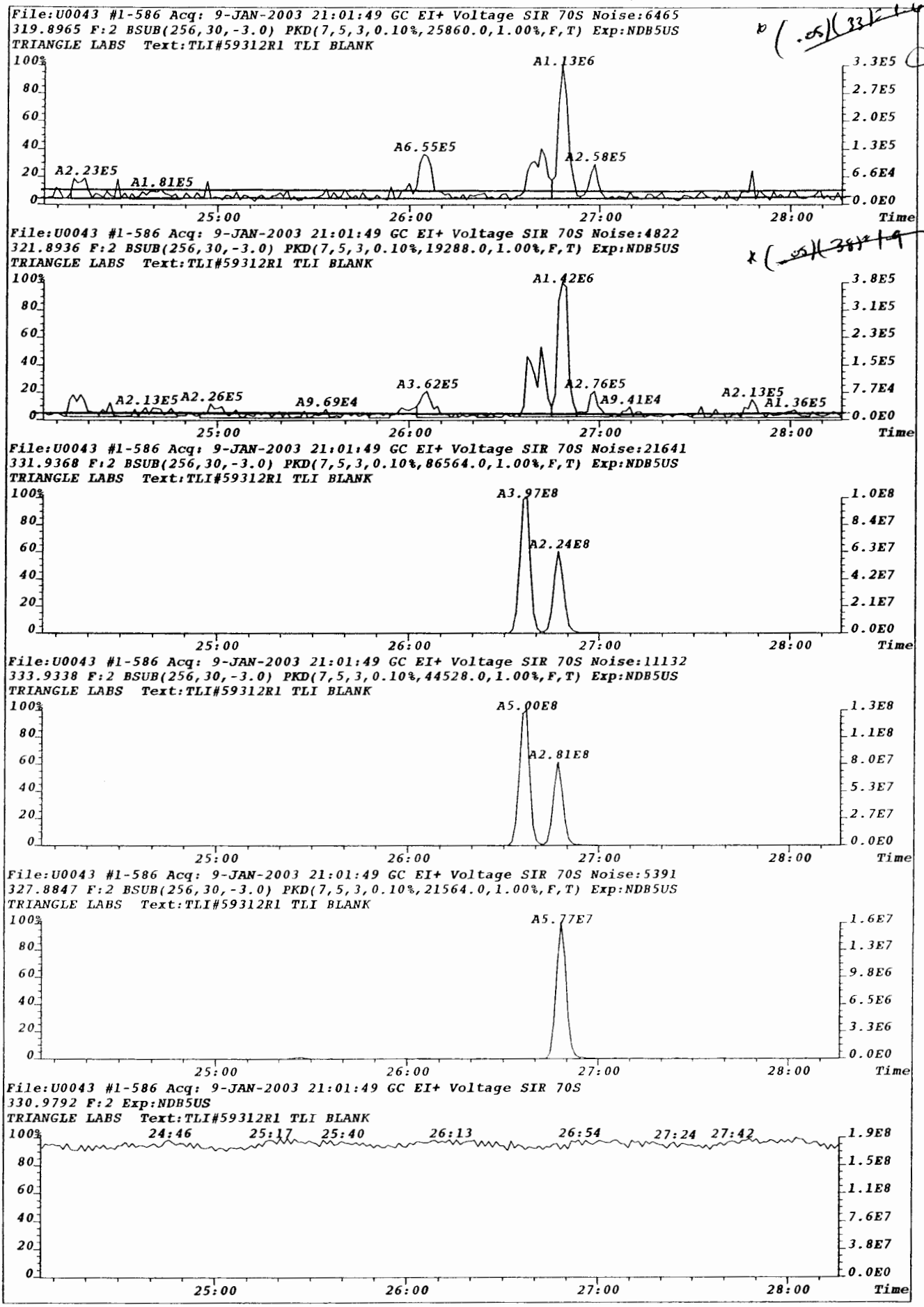
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 402-404 | | | 4 Peaks | | | | 160,556.40 | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | | | | | |
| HpCDF | | | | | | 0.88-1.20 | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | | | Height | 4.88 | 2.63 | 2.25 | | | | |
| M | | | | 36:31 | | 1.06 | 179.30 | 92.30 | 87.00 | 1.000 | 1234678-HpCDF | AN | J |
| | DC | SN | | 36:58 | RO | 2.20 | 9.65 | | | 1.013 | | | |
| M | | | | 38:04 | | 0.99 | 175.20 | 87.20 | 88.00 | 1.043 | 1234789-HpCDF | AN | J |
| 408-410 | | | 2 Peaks | | | | 354.50 | | | | | | |
| 13C12-HpCDF | | | | | | 0.37-0.51 | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | | | Height | 7.61 | 4.20 | 3.41 | | | | |
| | | | | 36:30 | | 0.46 | 42,556.50 | 13,472.80 | 29,083.70 | 1.000 | 13C12-HpCDF 678 | IS6 | |
| | | | | | | Height | 12,001.36 | 3,811.12 | 8,190.24 | | | | |
| | | | | 38:03 | | 0.45 | 35,827.80 | 11,190.20 | 24,637.60 | 1.042 | 13C12-HpCDF 789 | SUR4 | |
| 418-420 | | | 2 Peaks | | | | 78,384.30 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |
| HpCDD | | | | | | 0.88-1.20 | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | | | Height | 5.08 | 3.04 | 2.04 | | | | |
| | DC | WL | | 36:31 | RO | 1.94 | 51.51 | | | 0.972 | | | |
| M | | | | 37:34 | RO | 0.85 | 85.72 | 43.70 | 51.30 | 1.000 | 1234678-HpCDD | AN | J |
| | DC | WH | | 37:55 | | 0.99 | 17.03 | | | 1.010 | | | |
| | DC | WH | | 38:02 | RO | 2.07 | 40.82 | | | 1.013 | | | |
| 424-426 | | | 1 Peak | | | | 85.72 | | | | | | |
| 13C12-HpCDD | | | | | | 0.88-1.20 | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | | | Height | 10.97 | 5.81 | 5.16 | | | | |
| | | | | 36:46 | RO | 0.77 | 51.55 | 26.28 | 34.07 | 0.979 | | | |
| | | | | 37:33 | | 1.06 | 37,528.60 | 19,337.50 | 18,191.10 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | | | Height | 9,770.39 | 5,021.09 | 4,749.30 | | | | |
| 436-438 | | | 2 Peaks | | | | 37,580.15 | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | | | | | |
| OCDF | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | | | Height | 7.34 | 3.71 | 3.63 | | | | |
| | DC | SN | | 38:01 | RO | 3.56 | 10.96 | | | 0.923 | | | |
| | DC | SN | | 39:28 | RO | 0.74 | 22.15 | | | 0.958 | | | |
| M | | | | 41:25 | | 0.83 | 218.10 | 99.10 | 119.00 | 1.005 | OCDF | AN | J |
| | DC | SN | | 42:50 | RO | 0.40 | 19.13 | | | 1.040 | | | |
| | DC | SN | | 43:30 | RO | 1.70 | 23.95 | | | 1.056 | | | |
| | DC | SN | | 43:54 | RO | 1.08 | 18.56 | | | 1.066 | | | |
| | DC | SN | | 44:05 | RO | 0.43 | 12.81 | | | 1.070 | | | |
| 442-444 | | | 1 Peak | | | | 218.10 | | | | | | |
| OCDD | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 4.47 | 2.10 | 2.37 | | | | |
| M | | | | 41:13 | | 0.97 | 202.60 | 99.60 | 103.00 | 1.000 | OCDD | AN | J |
| | DC | SN | | 41:37 | RO | 0.39 | 7.67 | | | 1.010 | | | |

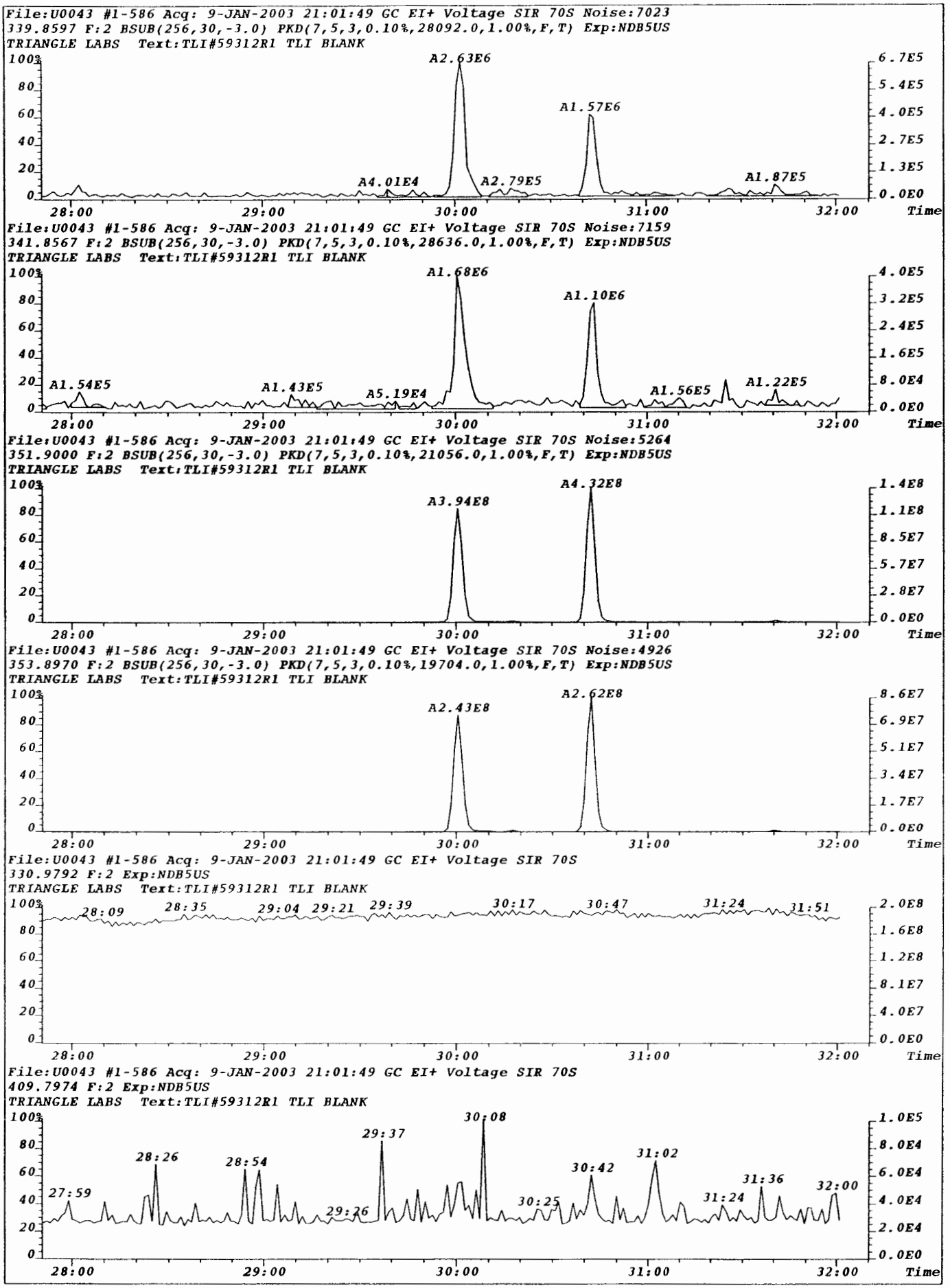
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -460 | | | 1 Peak | | | | 202.60 | | | | | | |
| 13C12-OCDD | | | | 0.76-1.02 | | | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | Height | | | 4.62 | 2.21 | 2.41 | | | | |
| | | | | 41:12 | | 0.87 | 62,251.20 | 28,906.50 | 33,344.70 | 1.000 | 13C12-OCDD | | IS8 |
| | | | | Height | | | 13,212.49 | 6,205.42 | 7,007.07 | | | | |
| 470-472 | | | 1 Peak | | | | 62,251.20 | | | | | | |

| Column Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

*** End of Report ***


File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:12712
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,50848.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.30E6
A2.67E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:11123
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,44492.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.48E6
A6.10E5
A2.21E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:8964
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,35856.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A3.47E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:9517
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,38068.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A4.37E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
27:08
Time


File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:6465
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,25860.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.13E6
A6.55E5
A2.58E5
A2.23E5
A1.81E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4822
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19288.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.42E6
A3.62E5
A2.76E5
A2.13E5
A2.26E5
A9.69E4
A9.41E4
A2.13E5
A1.36E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:21641
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,86564.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A3.97E8
A2.24E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:11132
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,44528.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A5.00E8
A2.81E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:5391
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21564.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A5.77E7
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
24:46
25:17
25:40
26:13
26:54
27:24
27:42
25:00
26:00
27:00
28:00
Time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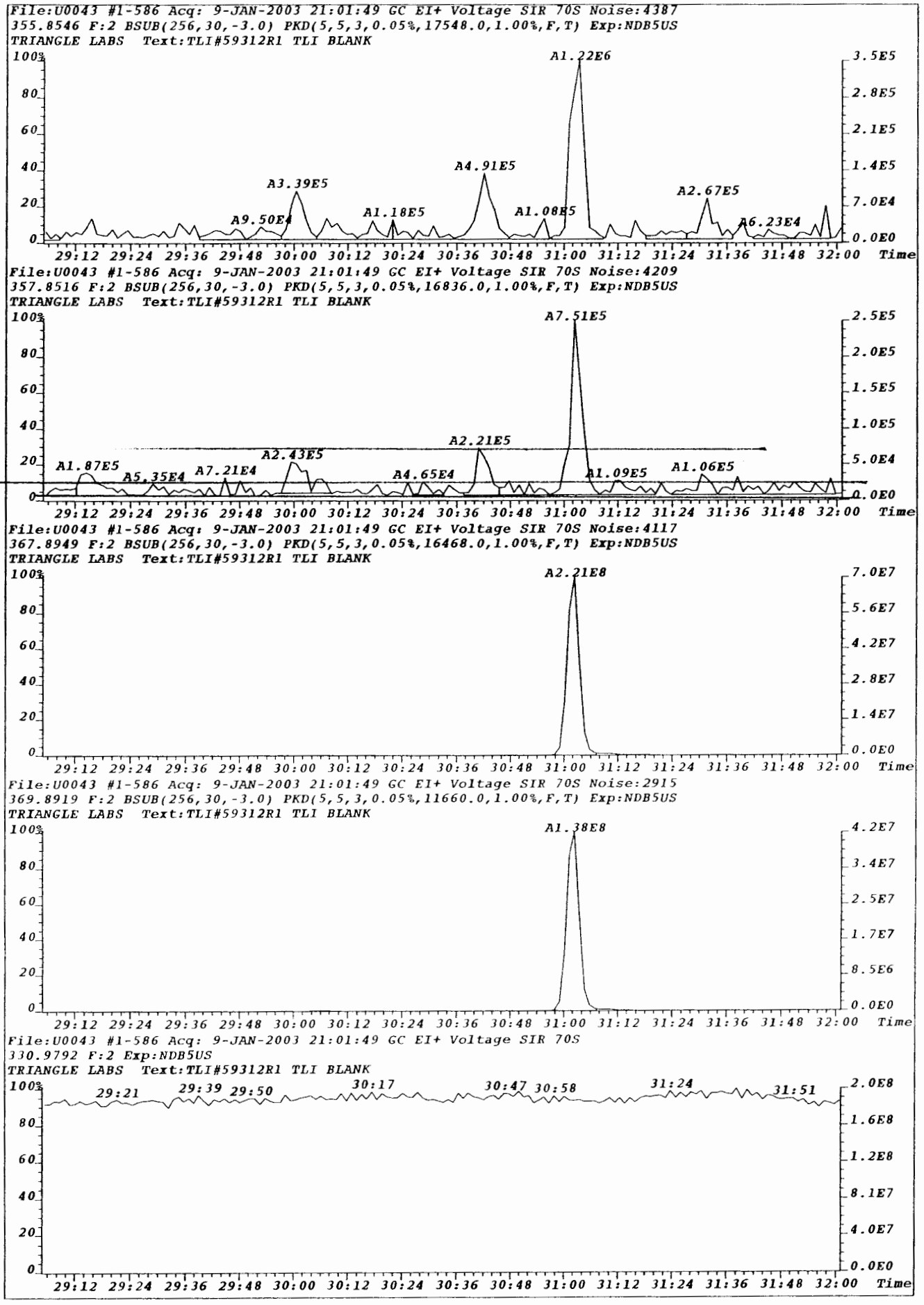
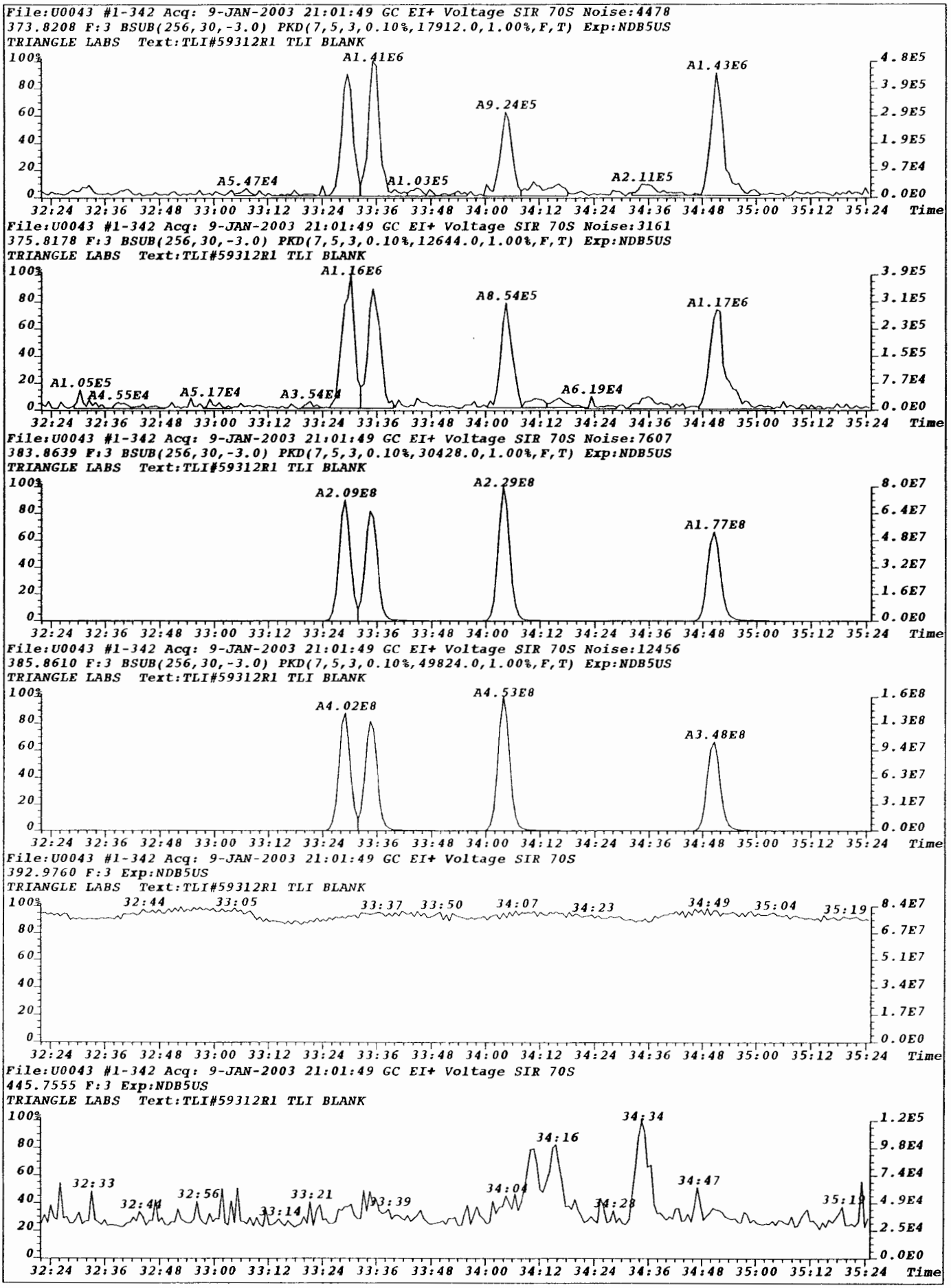
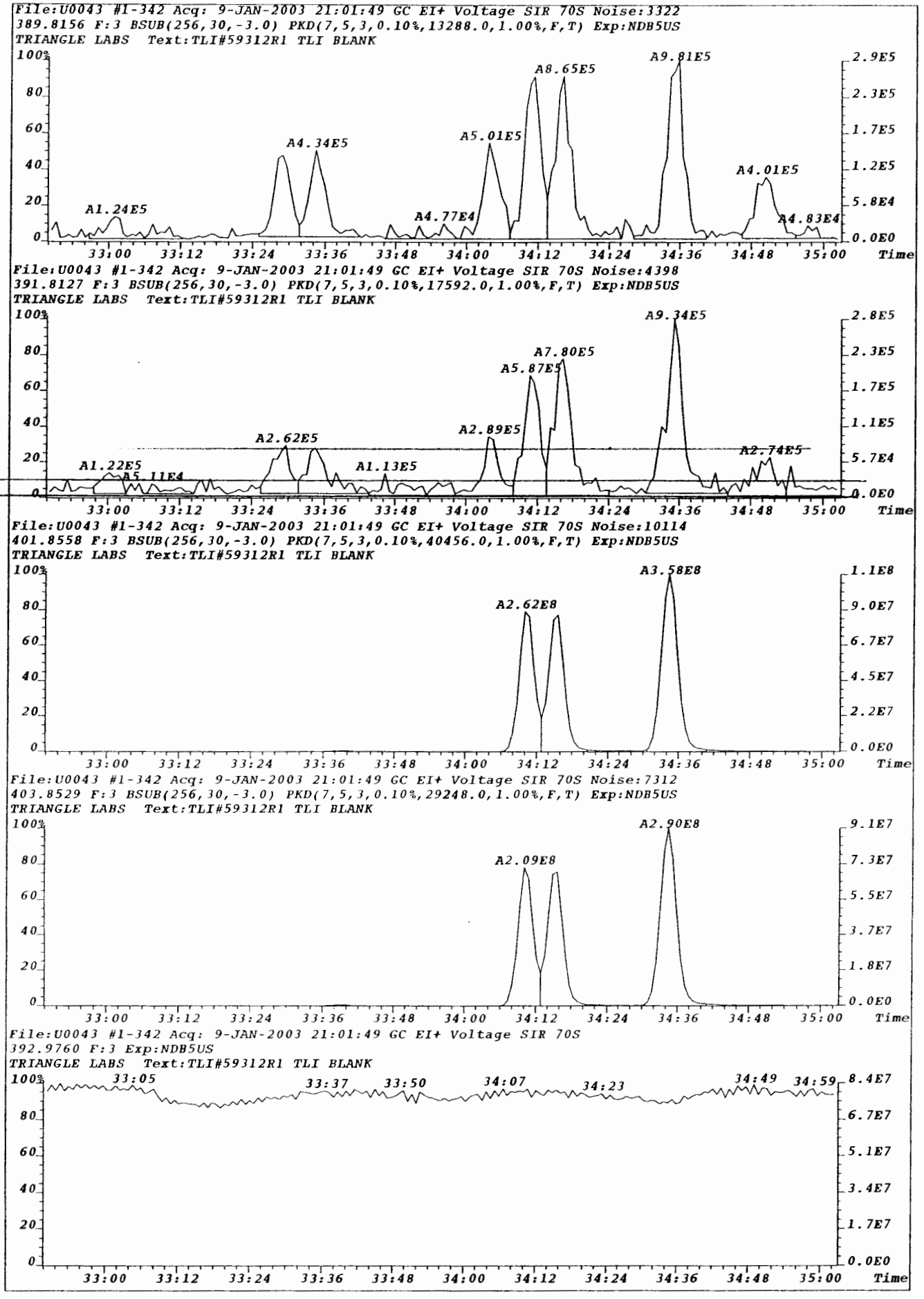
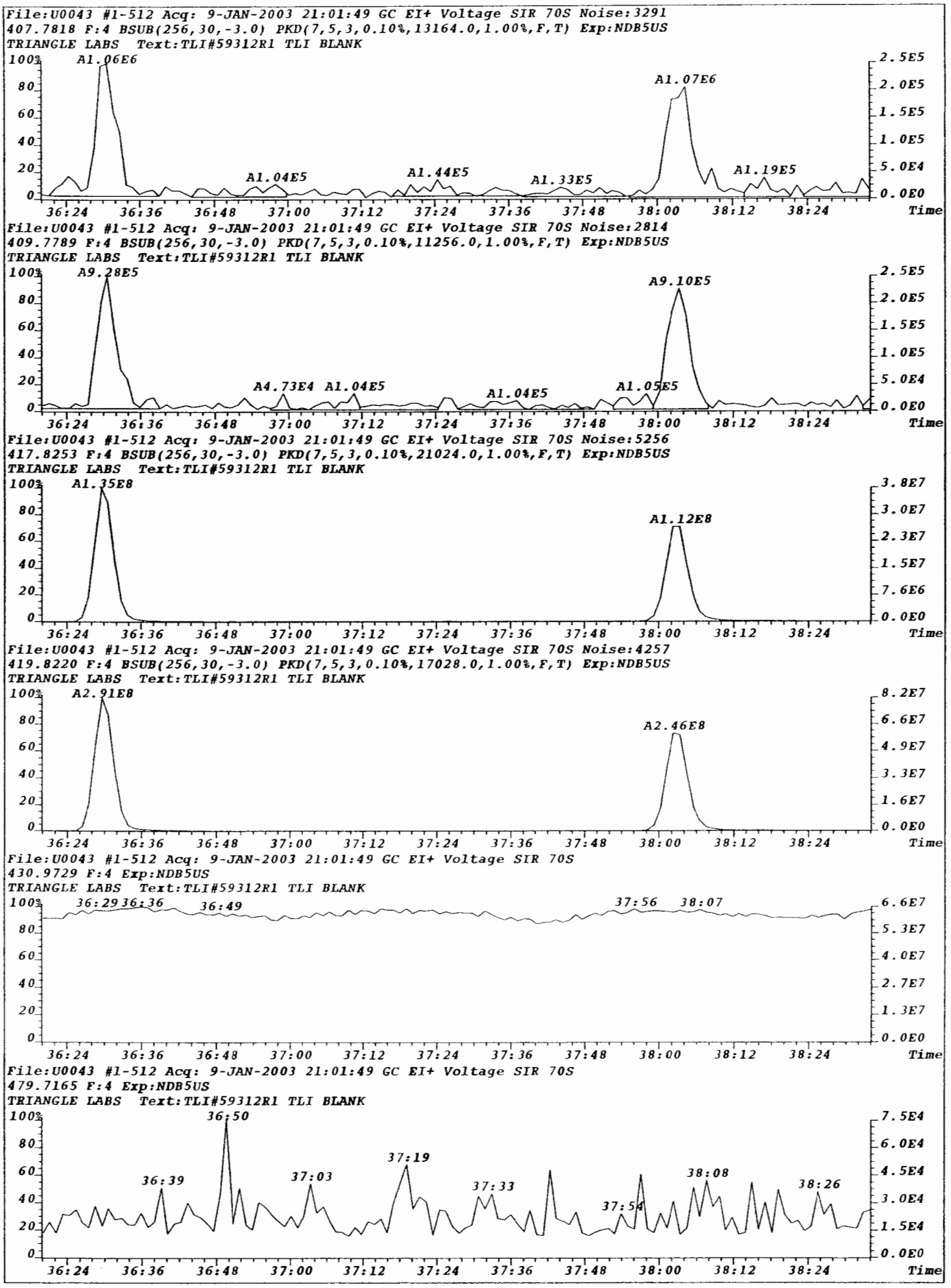
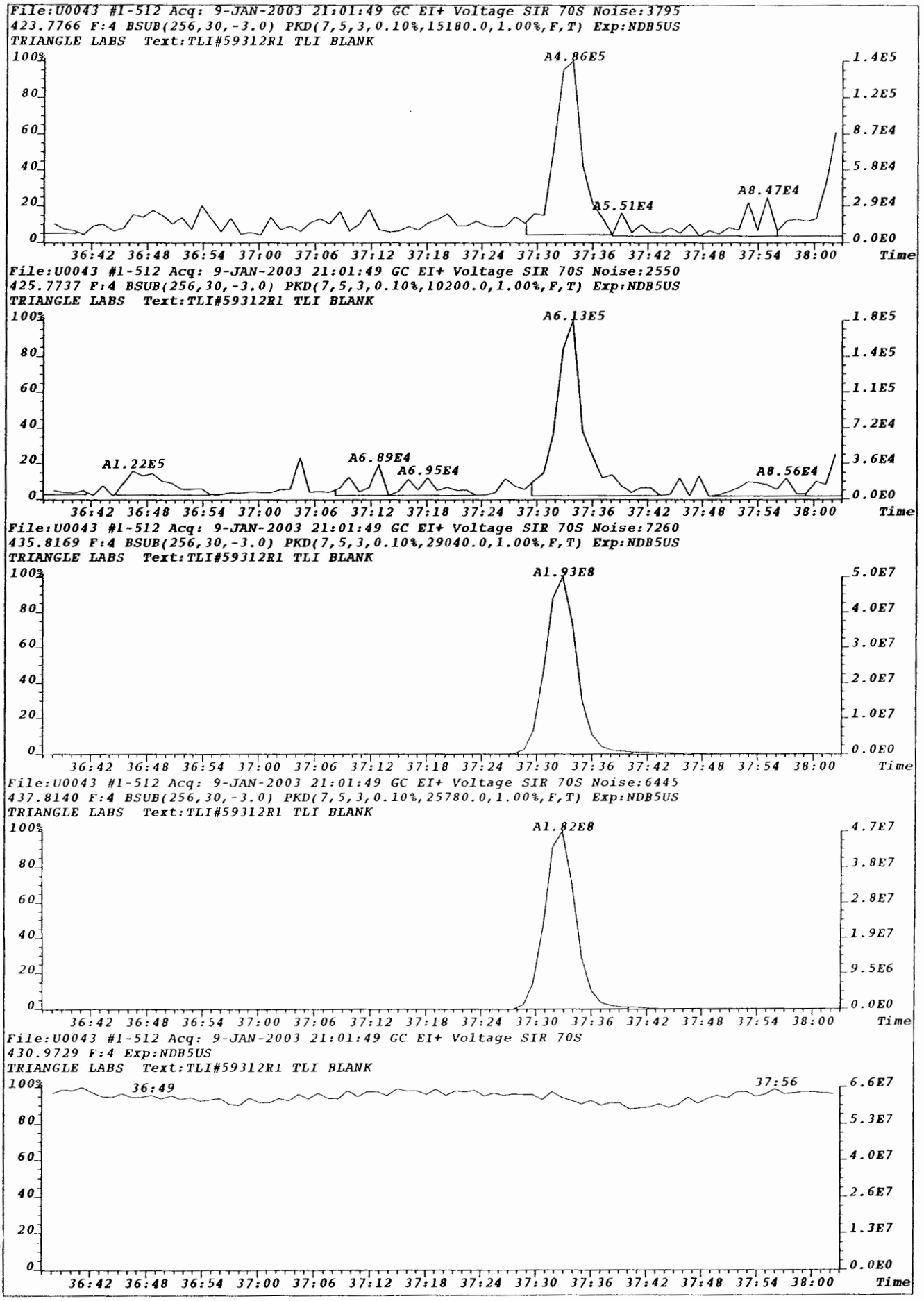
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.63E6
A1.57E6
A4.01E4
A2.79E5
A1.87E5
6.7E5
5.4E5
4.0E5
2.7E5
1.3E5
0.0E0
28:00
29:00
30:00
31:00
32:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:7159
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,28636.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.68E6
A1.10E6
A1.54E5
A1.43E5
A5.19E4
A1.56E5
A1.22E5
4.0E5
3.2E5
2.4E5
1.6E5
8.0E4
0.0E0
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:5264
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21056.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A4.32E8
A3.94E8
1.4E8
1.1E8
8.5E7
5.7E7
2.8E7
0.0E0
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4926
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19704.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.62E8
A2.43E8
8.6E7
6.9E7
5.1E7
3.4E7
1.7E7
0.0E0
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
28:09
28:35
29:04
29:21
29:39
30:17
30:47
31:24
31:51
2.0E8
1.6E8
1.2E8
8.1E7
4.0E7
0.0E0
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
30:08
29:37
28:26
28:54
31:02
30:42
31:36
27:59
29:26
30:25
31:24
32:00
1.0E5
8.0E4
6.0E4
4.0E4
2.0E4
0.0E0

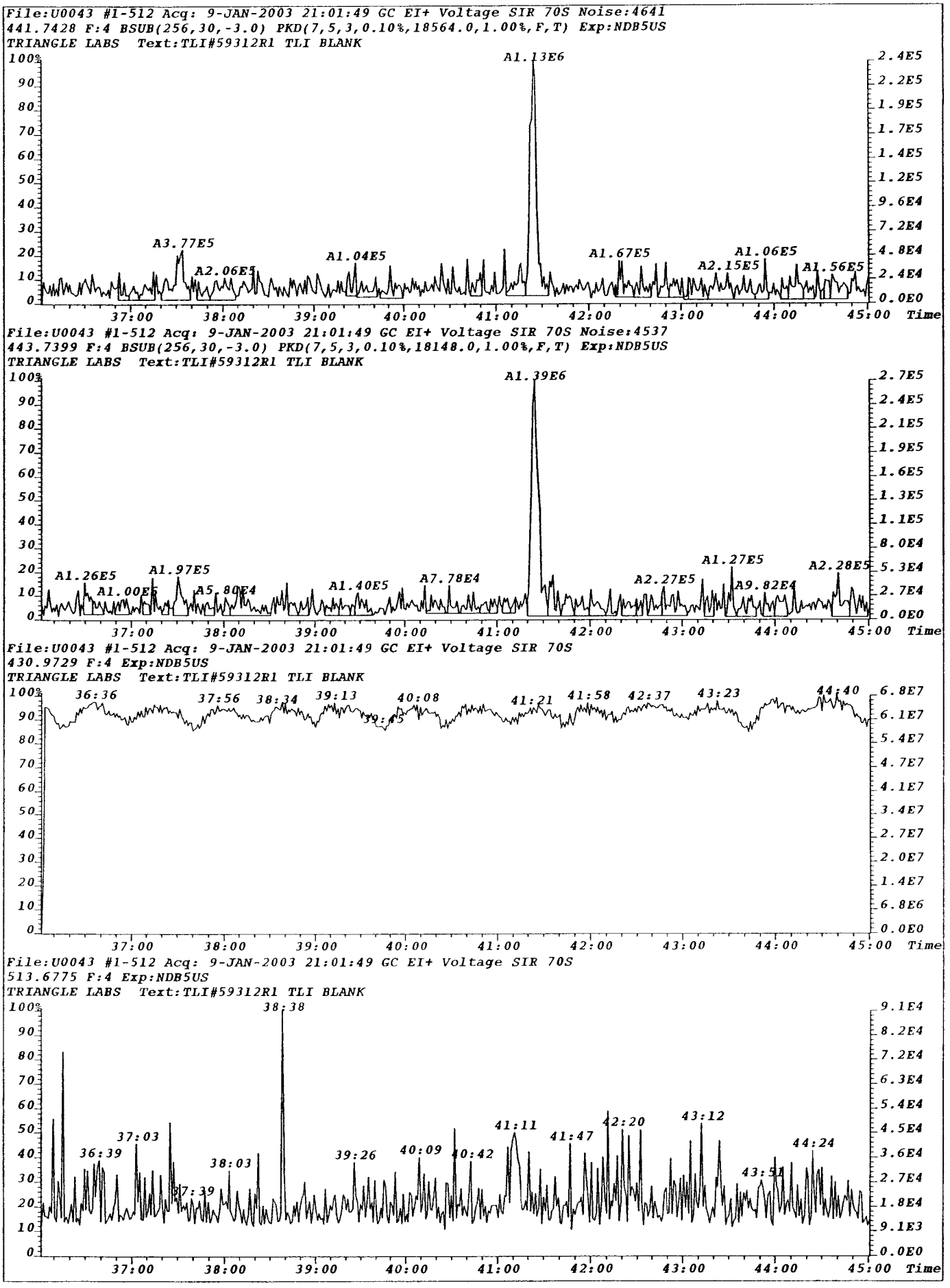

File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4387
355.8546 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17548.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.22E6
A4.91E5
A3.39E5
A2.67E5
A9.50E4
A1.18E5
A1.08E5
A6.23E4
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4209
357.8516 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,16836.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A7.51E5
A2.21E5
A2.43E5
A1.87E5
A5.35E4
A7.21E4
A4.65E4
A1.09E5
A1.06E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4117
367.8949 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,16468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.21E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:2915
369.8919 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,11660.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.38E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
29:21
29:39
29:50
30:17
30:47
30:58
31:24
31:51
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time


File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4478
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17912.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.41E6
A1.43E6
A9.24E5
A5.47E4
A1.03E5
A2.11E5
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:3161
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12644.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.16E6
A8.54E5
A1.17E6
A1.05E5
A4.55E4
A5.17E4
A3.54E4
A6.19E4
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:7607
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,30428.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.09E8
A2.29E8
A1.77E8
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:12456
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,49824.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A4.02E8
A4.53E8
A3.48E8
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
34:34
34:16
34:47
32:33
32:56
33:21
34:04
Time

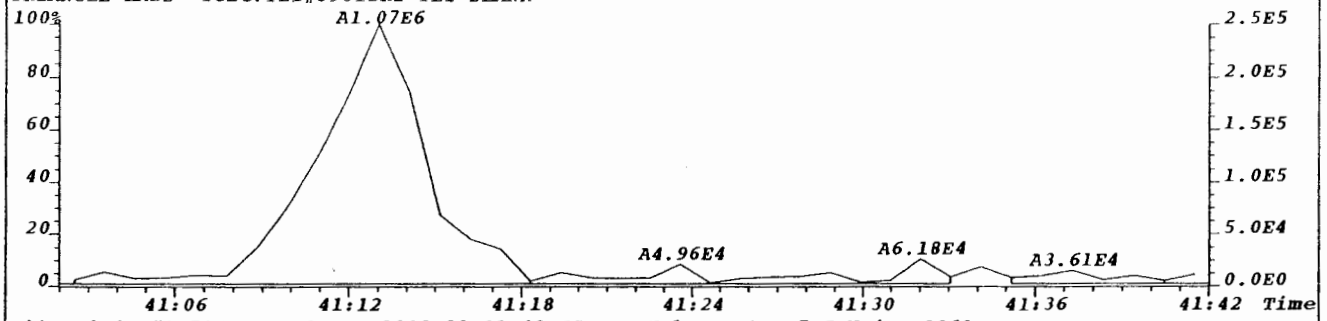

File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:3322
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13288.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.24E5
A4.34E5
A4.77E4
A5.01E5
A8.65E5
A9.81E5
A4.01E5
A4.83E4
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4398
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17592.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.22E5
A5.11E4
A2.62E5
A1.13E5
A2.89E5
A5.87E5
A7.80E5
A9.34E5
A2.74E5
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:10114
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,40456.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.62E8
A3.58E8
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:7312
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,29248.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.09E8
A2.90E8
File:U0043 #1-342 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
33:05
33:37
33:50
34:07
34:23
34:49
34:59
Time


File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:3291
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13164.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.06E6
A1.07E6
A1.04E5
A1.44E5
A1.33E5
A1.19E5
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:2814
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11256.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A9.28E5
A9.10E5
A4.73E4 A1.04E5
A1.04E5
A1.05E5
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:5256
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21024.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.35E8
A1.12E8
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4257
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17028.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A2.91E8
A2.46E8
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
36:29 36:36
36:49
37:56
38:07
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
36:50
36:39
37:03
37:19
37:33
37:54
38:08
38:26
36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24
Time

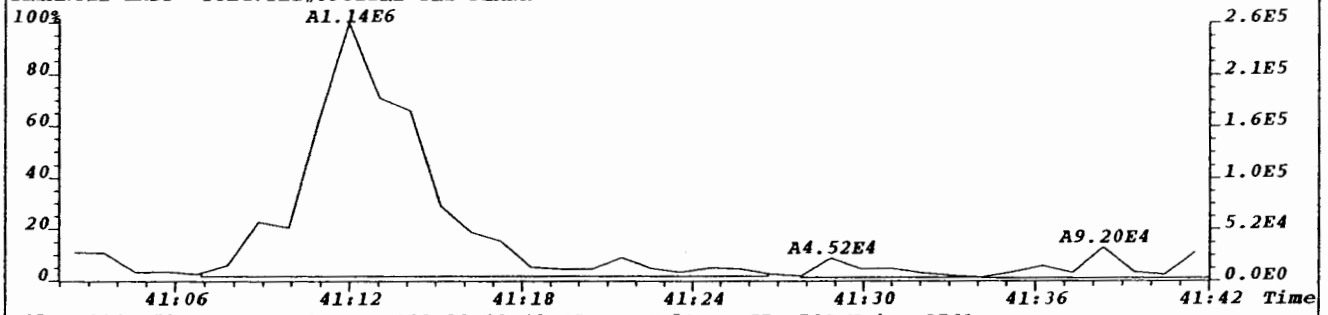

File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:3795
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15180.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A4.86E5
A5.51E4
A8.47E4
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:2550
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10200.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A6.13E5
A1.22E5
A6.89E4
A6.95E4
A8.56E4
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:7260
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,29040.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.93E8
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:6445
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,25780.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.82E8
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
36:49
37:56
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time


File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4641
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18564.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.13E6
A3.77E5
A2.06E5
A1.04E5
A1.67E5
A1.06E5
A2.15E5
A1.56E5
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:4537
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18148.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
A1.39E6
A1.26E5
A1.97E5
A1.00E5
A5.80E4
A1.40E5
A7.78E4
A2.27E5
A1.27E5
A9.82E4
A2.28E5
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
36:36
37:56
38:34
39:13
40:08
41:21
41:58
42:37
43:23
44:40
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK
38:38
37:03
36:39
38:03
39:26
40:09
40:42
41:11
41:47
42:20
43:12
44:24
37:00
38:00
39:00
40:00
41:00
42:00
43:00
44:00
45:00
Time

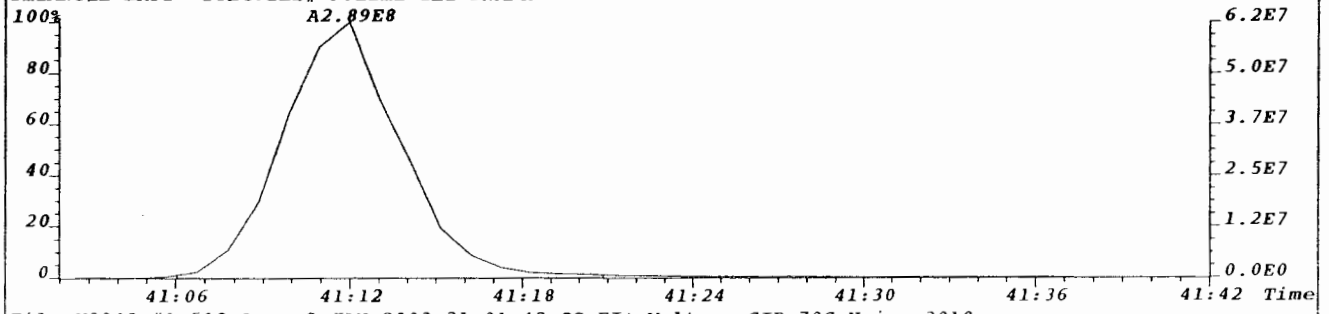
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:2625
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10500.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK



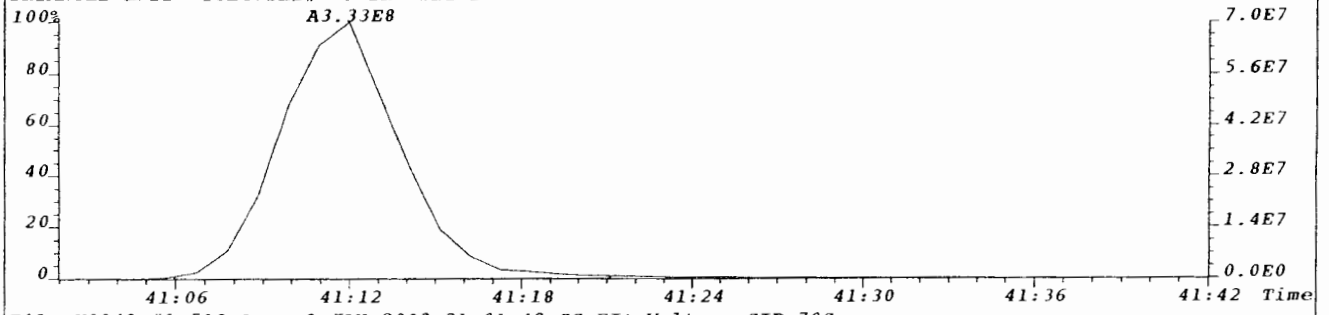

File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:2961
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11844.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK



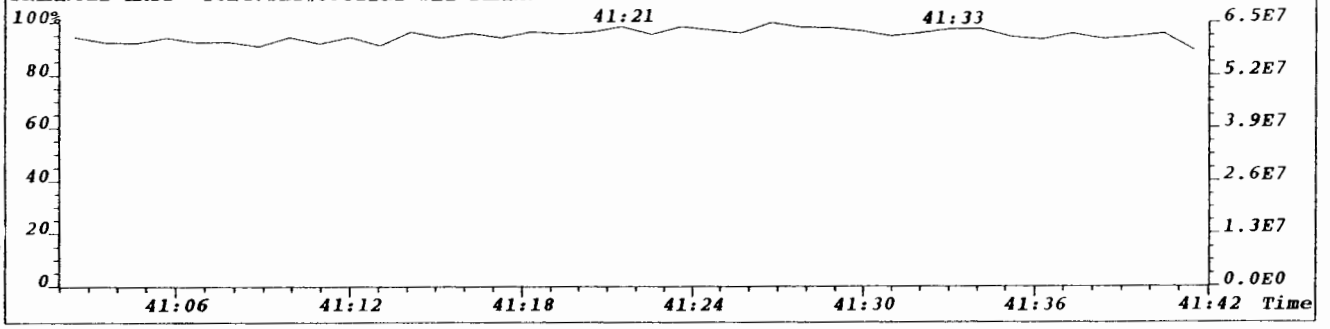

File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:2761
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11044.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK

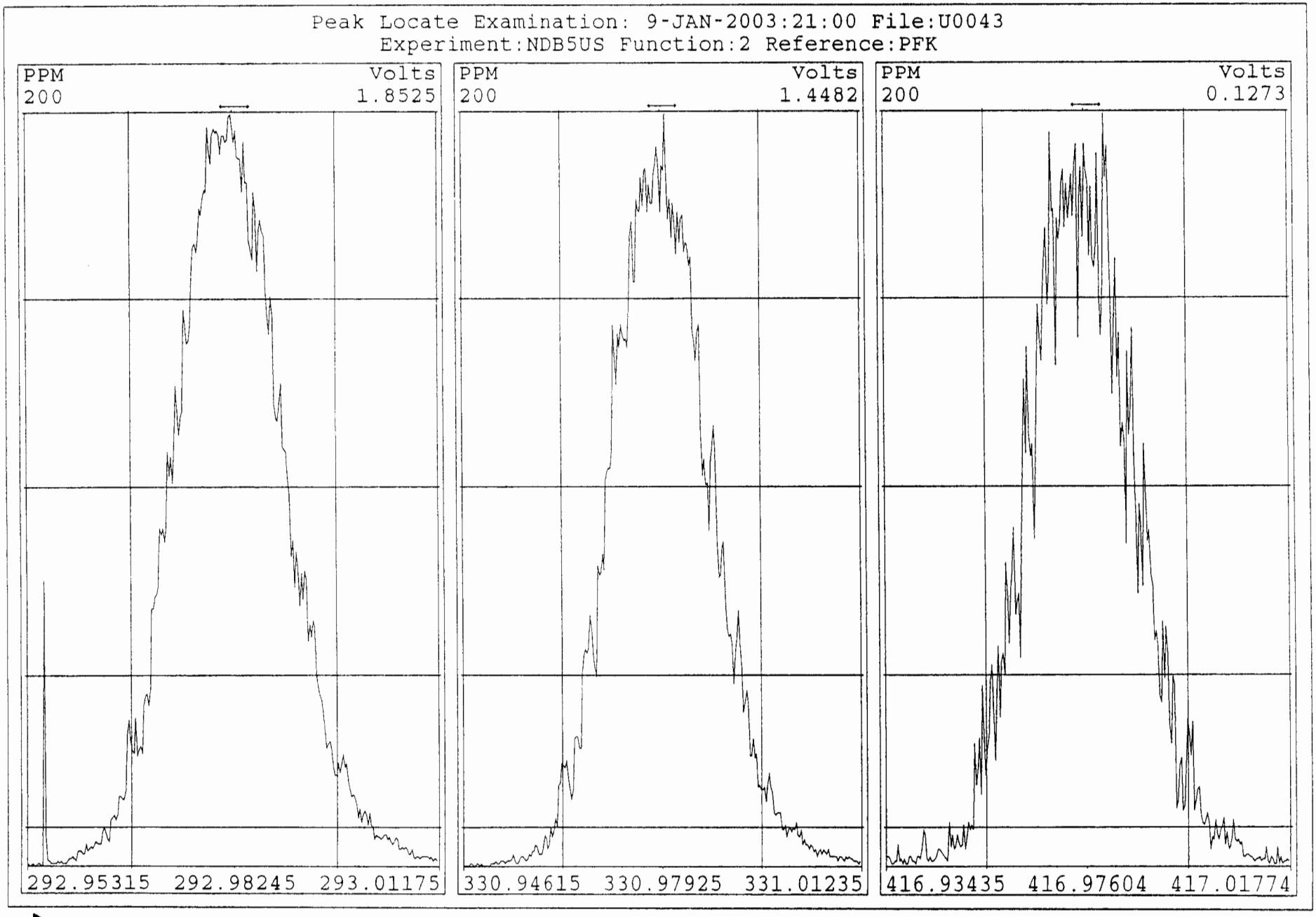


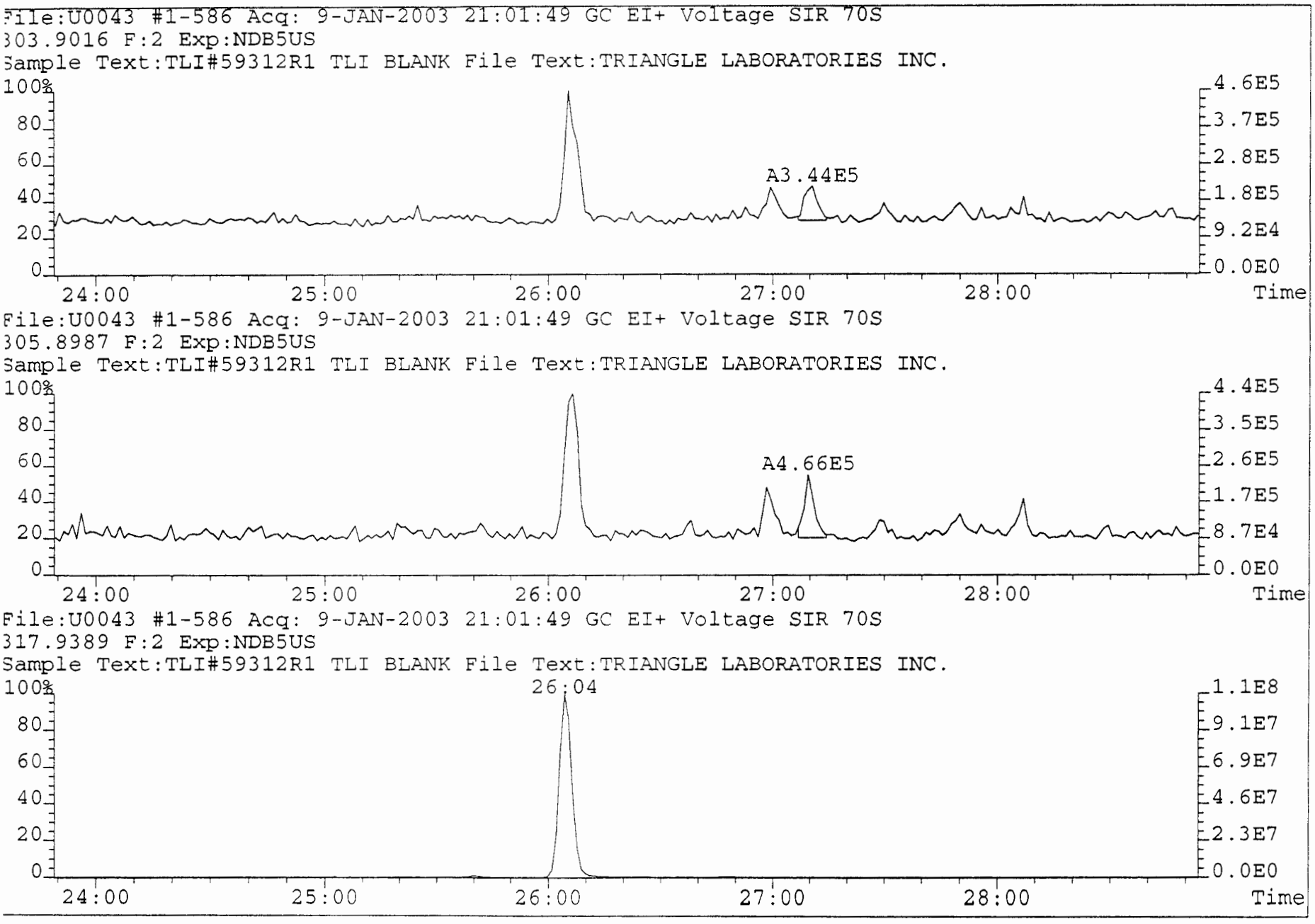

File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S Noise:3018
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12072.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK




File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 TLI BLANK

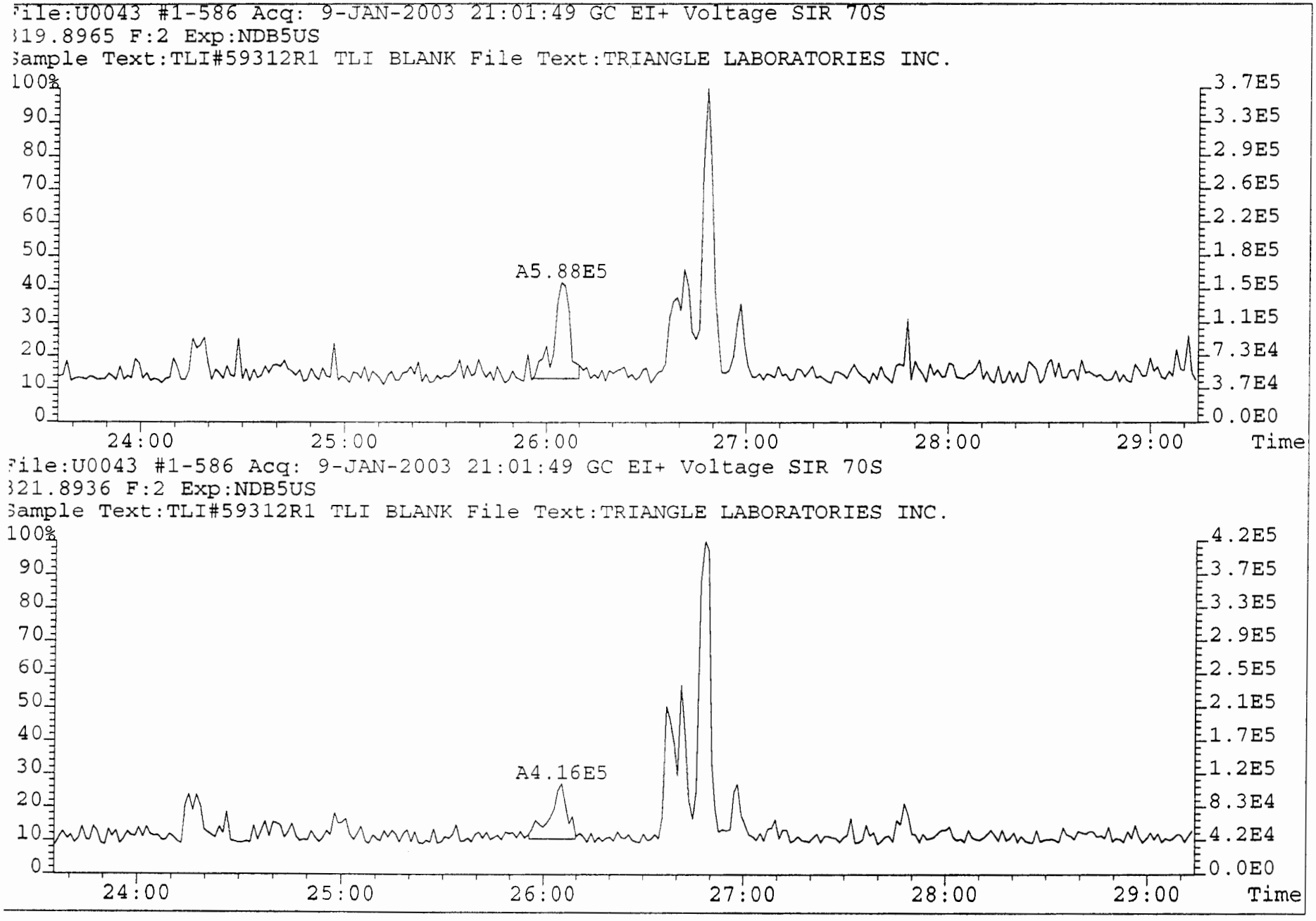


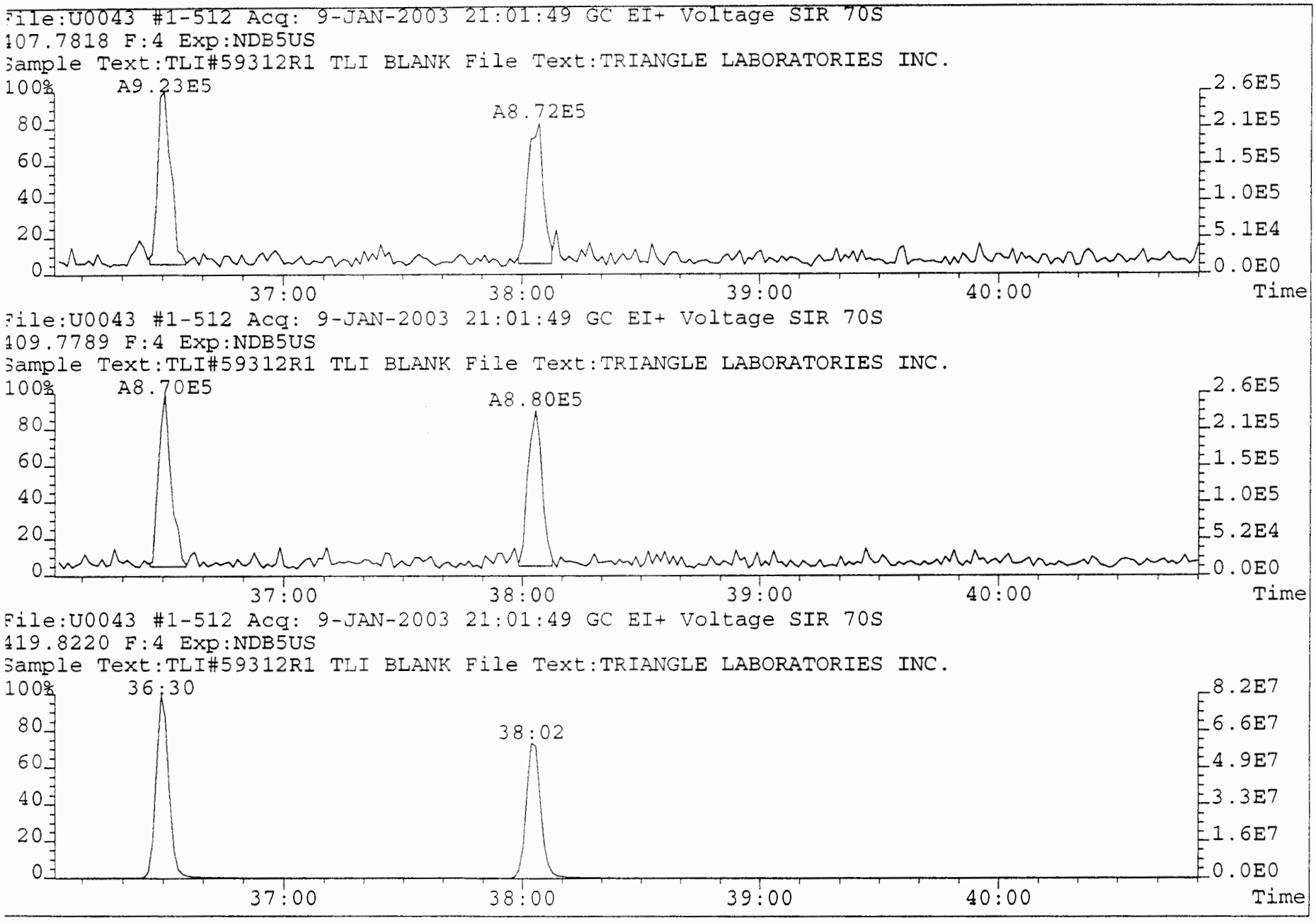

Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774


File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
303.9016 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.44E5
4.6E5
3.7E5
2.8E5
1.8E5
9.2E4
0.0E0
24:00
25:00
26:00
27:00
28:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
305.8987 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A4.66E5
4.4E5
3.5E5
2.6E5
1.7E5
8.7E4
0.0E0
24:00
25:00
26:00
27:00
28:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
317.9389 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
26:04
1.1E8
9.1E7
6.9E7
4.6E7
2.3E7
0.0E0
24:00
25:00
26:00
27:00
28:00
Time



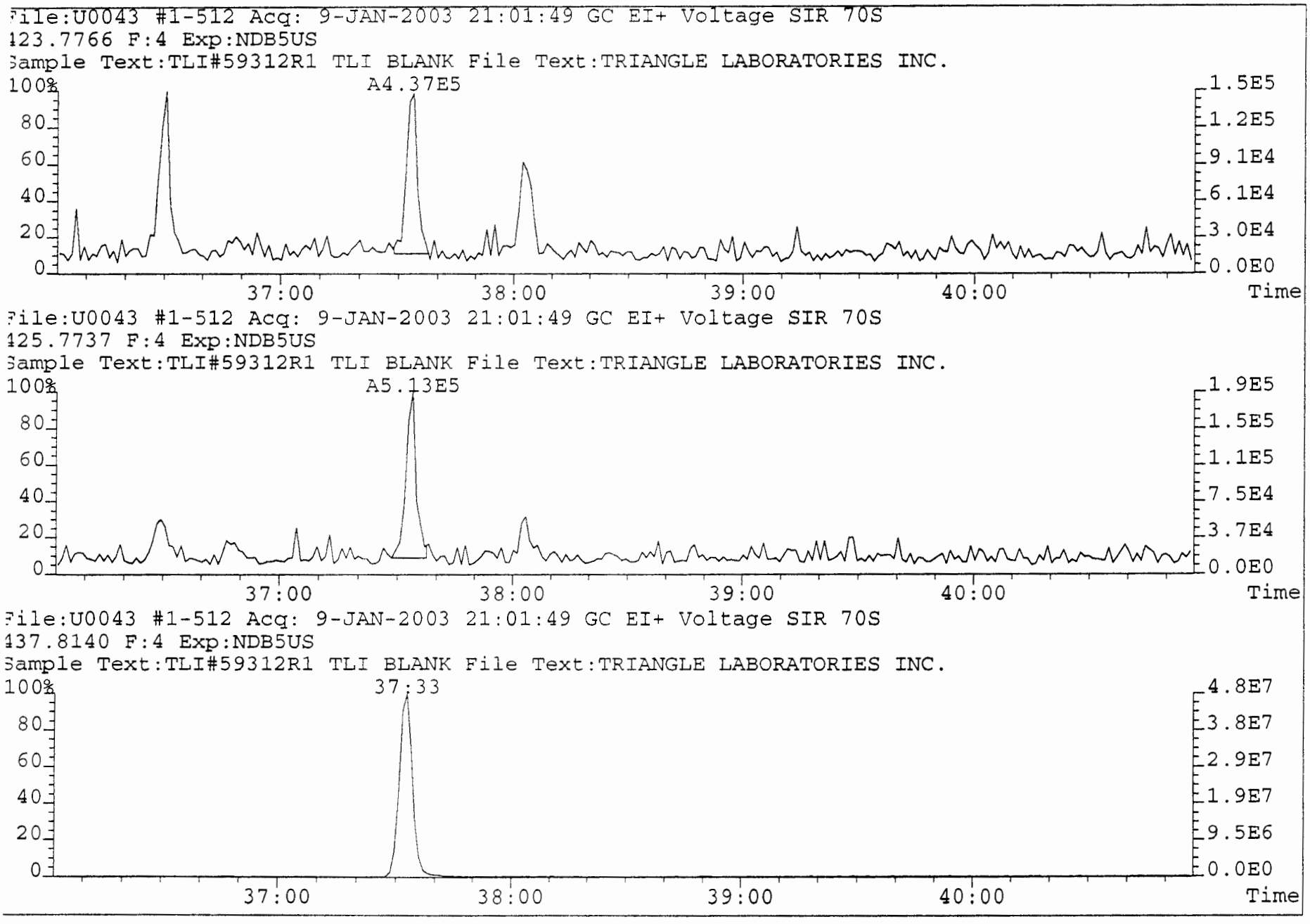
#/12/03

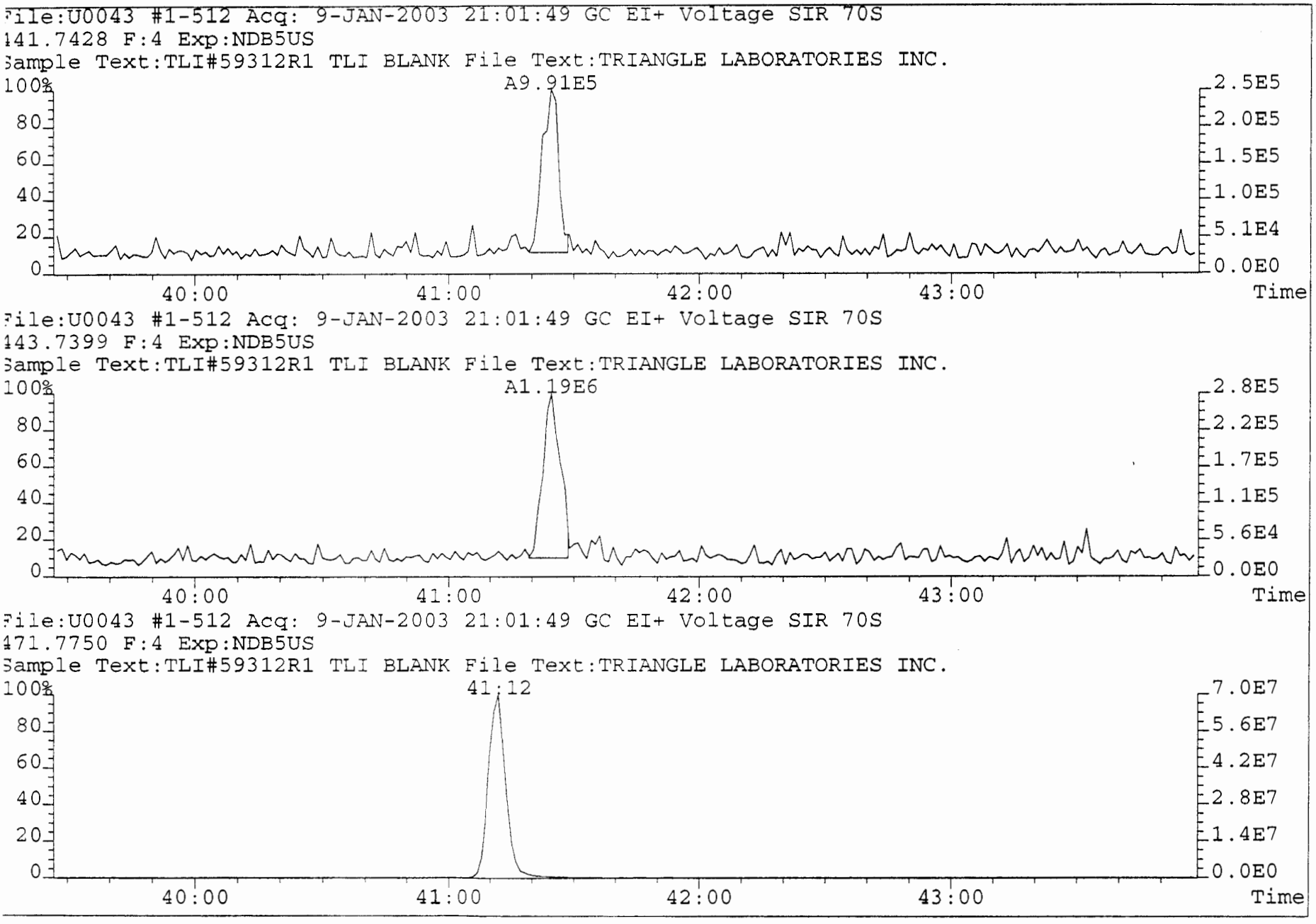

File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
319.8965 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
90
80
70
60
50
40
30
20
10
0
A5.88E5
3.7E5
3.3E5
2.9E5
2.6E5
2.2E5
1.8E5
1.5E5
1.1E5
7.3E4
3.7E4
0.0E0
24:00
25:00
26:00
27:00
28:00
29:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
321.8936 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
90
80
70
60
50
40
30
20
10
0
A4.16E5
4.2E5
3.7E5
3.3E5
2.9E5
2.5E5
2.1E5
1.7E5
1.2E5
8.3E4
4.2E4
0.0E0
24:00
25:00
26:00
27:00
28:00
29:00
Time


File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
407.7818 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
A9.23E5
A8.72E5
80
60
40
20
0
2.6E5
2.1E5
1.5E5
1.0E5
5.1E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
409.7789 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
A8.70E5
A8.80E5
80
60
40
20
0
2.6E5
2.1E5
1.5E5
1.0E5
5.2E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
419.8220 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
36:30
38:02
80
60
40
20
0
8.2E7
6.6E7
4.9E7
3.3E7
1.6E7
0.0E0
37:00
38:00
39:00
40:00
Time



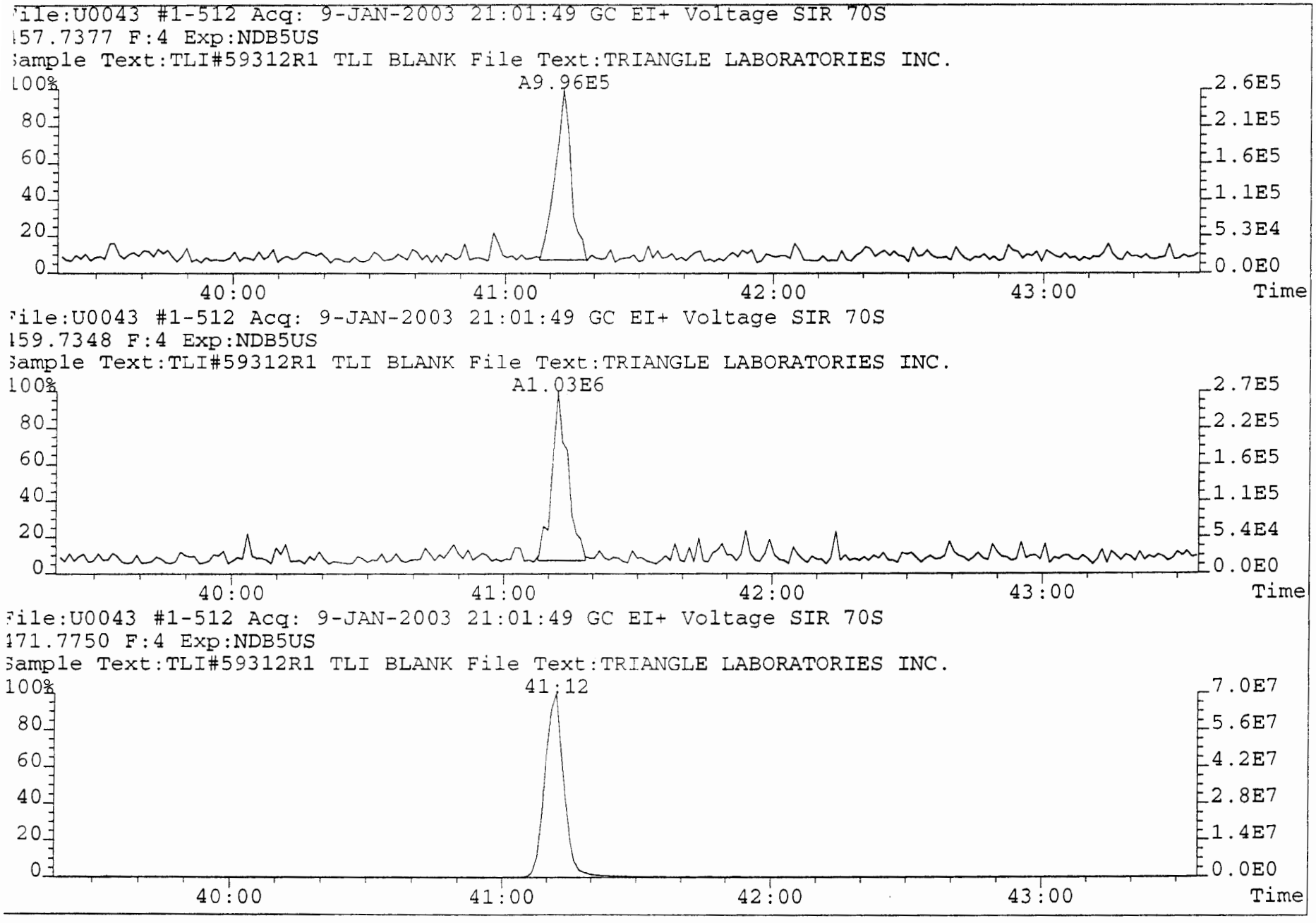
1/27/03


File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
423.7766 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
A4.37E5
80
60
40
20
0
1.5E5
1.2E5
9.1E4
6.1E4
3.0E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
425.7737 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
A5.13E5
80
60
40
20
0
1.9E5
1.5E5
1.1E5
7.5E4
3.7E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
437.8140 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
37:33
80
60
40
20
0
4.8E7
3.8E7
2.9E7
1.9E7
9.5E6
0.0E0
37:00
38:00
39:00
40:00
Time


File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
141.7428 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
A9.91E5
100%
80
60
40
20
0
2.5E5
2.0E5
1.5E5
1.0E5
5.1E4
0.0E0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
143.7399 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
A1.19E6
100%
80
60
40
20
0
2.8E5
2.2E5
1.7E5
1.1E5
5.6E4
0.0E0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
471.7750 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
41.12
100%
80
60
40
20
0
7.0E7
5.6E7
4.2E7
2.8E7
1.4E7
0.0E0
40:00
41:00
42:00
43:00
Time



11/27/03


File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
157.7377 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
A9.96E5
80
60
40
20
0
2.6E5
2.1E5
1.6E5
1.1E5
5.3E4
0.0E0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
159.7348 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
A1.03E6
80
60
40
20
0
2.7E5
2.2E5
1.6E5
1.1E5
5.4E4
0.0E0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 21:01:49 GC EI+ Voltage SIR 70S
171.7750 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 TLI BLANK File Text:TRIANGLE LABORATORIES INC.
100%
41:12
80
60
40
20
0
7.0E7
5.6E7
4.2E7
2.8E7
1.4E7
0.0E0
40:00
41:00
42:00
43:00
Time

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-01O** Analysis File: **U004302**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/2003 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-1B | Date Extracted: | 01/08/2003 | ICal: | UF57092 |
| | | Date Analyzed: | 01/09/2003 | ConCal: | U030041 |
| Sample Size: | 1.050 L | Dilution Factor: | n/a | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 1.6 | | | | ___ |
| 1,2,3,7,8-PeCDD | ND | 2.0 | | | | ___ |
| 1,2,3,4,7,8-HxCDD | ND | 1.6 | | | | ___ |
| 1,2,3,6,7,8-HxCDD | ND | 1.6 | | | | ___ |
| 1,2,3,7,8,9-HxCDD | ND | 1.6 | | | | ___ |
| 1,2,3,4,6,7,8-HpCDD | 7.8 | | | 0.99 | 37:32 | JB_ |
| 1,2,3,4,6,7,8,9-OCDD | 48.5 | | | 0.91 | 41:11 | JB_ |
| 2,3,7,8-TCDF | ND | 1.1 | | | | ___ |
| 1,2,3,7,8-PeCDF | 2.4 | | | 1.56 | 30:00 | JB_ |
| 2,3,4,7,8-PeCDF | EMPC | | 2.9 | | | JB_ |
| 1,2,3,4,7,8-HxCDF | 3.3 | | | 1.05 | 33:28 | JB_ |
| 1,2,3,6,7,8-HxCDF | 2.0 | | | 1.21 | 33:34 | JB_ |
| 2,3,4,6,7,8-HxCDF | 2.1 | | | 1.09 | 34:04 | JB_ |
| 1,2,3,7,8,9-HxCDF | ND | 1.5 | | | | ___ |
| 1,2,3,4,6,7,8-HpCDF | 3.3 | | | 1.16 | 36:29 | JB_ |
| 1,2,3,4,7,8,9-HpCDF | ND | 2.2 | | | | ___ |
| 1,2,3,4,6,7,8,9-OCDF | 7.1 | | | 0.84 | 41:24 | JB_ |

| Totals | Conc. (pg/L) | Number | DL | EMPC | Flags |
|---|---|---|---|---|---|
| Total TCDD | ND | | 1.6 | | ___ |
| Total PeCDD | ND | | 2.0 | | ___ |
| Total HxCDD | ND | | 1.6 | | ___ |
| Total HpCDD | 14.1 | 2 | | | ___ |
| Total TCDF | EMPC | | | 3.3 | X__ |
| Total PeCDF | 2.4 | 1 | | 7.6 | ___ |
| Total HxCDF | 7.4 | 3 | | | ___ |
| Total HpCDF | 3.3 | 1 | | | ___ |



MIT3_PSR v1.00, LARS 6.25.05

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Printed: 12:03 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-01O** Analysis File: **U004302**

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1100 | 57.7 | 40%-135% | 0.80 | 26:03 | ___ |
| $^{13}C_{12}$-2,3,7,8-TCDD | 1040 | 54.4 | 40%-135% | 0.78 | 26:45 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1300 | 68.2 | 40%-135% | 1.62 | 29:59 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1270 | 66.7 | 40%-135% | 1.63 | 31:01 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1460 | 76.7 | 40%-135% | 0.51 | 33:34 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1640 | 86.1 | 40%-135% | 1.25 | 34:15 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1390 | 73.1 | 40%-135% | 0.46 | 36:29 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1600 | 84.0 | 40%-135% | 1.07 | 37:31 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3760 | 98.7 | 40%-135% | 0.90 | 41:10 | ___ |

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1370 | 71.8 | 40%-135% | 1.62 | 30:41 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1530 | 80.4 | 40%-135% | 0.51 | 33:28 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1800 | 94.7 | 40%-135% | 1.24 | 34:09 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1570 | 82.2 | 40%-135% | 0.45 | 38:02 | ___ |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 111 | 58.5 | 40%-135% | 26:46 | ___ |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1640 | 86.1 | 40%-135% | 0.51 | 34:50 | ___ |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1680 | 88.1 | 40%-135% | 0.52 | 34:03 | ___ |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.80 | 26:34 | ___ |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.26 | 34:33 | ___ |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6.25.05

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# Del Mar Analytical

TLI Project: **59312r1** — Toxicity Equivalents Report
Client Sample: **ILL1698-01O** — Analysis File: **U004302**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/03 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-1B | Date Extracted: | 01/08/03 | ICal: | UF57092 |
| | | Date Analyzed: | 01/09/03 | ConCal: | U030041 |
| Sample Size: | 1.050 L | Dilution Factor: | 1 | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | | TEF | | Equivalent |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | {1.6} | x | 1. | = | 1.6 |
| 1,2,3,7,8-PeCDD | {2.0} | x | 0.5 | = | 1.0 |
| 1,2,3,4,7,8-HxCDD | {1.6} | x | 0.1 | = | 0.16 |
| 1,2,3,6,7,8-HxCDD | {1.6} | x | 0.1 | = | 0.16 |
| 1,2,3,7,8,9-HxCDD | {1.6} | x | 0.1 | = | 0.16 |
| 1,2,3,4,6,7,8-HpCDD | 7.8 | x | 0.01 | = | 0.078 |
| 1,2,3,4,6,7,8,9-OCDD | 48.5 | x | 0.001 | = | 0.0485 |
| TOTAL PCDD | | | | | 3.2 |
| 2,3,7,8-TCDF | {1.1} | x | 0.1 | = | 0.11 |
| 1,2,3,7,8-PeCDF | 2.4 | x | 0.05 | = | 0.12 |
| 2,3,4,7,8-PeCDF | [2.9] | x | 0.5 | = | 1.5 |
| `,4,7,8-HxCDF | 3.3 | x | 0.1 | = | 0.33 |
| ,6,7,8-HxCDF | 2.0 | x | 0.1 | = | 0.20 |
| 2,3,4,6,7,8-HxCDF | 2.1 | x | 0.1 | = | 0.21 |
| 1,2,3,7,8,9-HxCDF | {1.5} | x | 0.1 | = | 0.15 |
| 1,2,3,4,6,7,8-HpCDF | 3.3 | x | 0.01 | = | 0.033 |
| 1,2,3,4,7,8,9-HpCDF | {2.2} | x | 0.01 | = | 0.022 |
| 1,2,3,4,6,7,8,9-OCDF | 7.1 | x | 0.001 | = | 0.0071 |
| TOTAL PCDF | | | | | 2.7 |

**Total EPA TEFs, 1989a: 5.9 pg/L**

[...] indicates that the value is that of an EMPC.
{...} indicates that the value is that of a Detection Limit.



GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:07 01/20/03

Initial ....Date...

Data Review By: JK 1/26/03

Calculated Noise Height: 4.20

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U004302B.dbf
01/20/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | 0.65-0.89 | | | | | 0.873-1.074 | | | | |
| 304-306 | DC | NL | | Height | | | 20.75 | 10.67 | 10.08 | | | | |
| X | | X | | 27:07 | RO | 0.63 | 115.58 | 50.28 | 79.93 | 1.041 | | | J |
| 304-306 | | 1 | Peak | | | | 115.58 | | | | | | |
| 13C12-TCDF | | | | 0.65-0.89 | | | | | 0.962-1.038 | | | | |
| 316-318 | DC | NL | | Height | | | 15.22 | 7.05 | 8.17 | | | | |
| | | | | 25:18 | | 0.77 | 138.03 | 60.12 | 77.91 | 0.971 | | | |
| | | | | 25:38 | | 0.76 | 480.27 | 207.92 | 272.35 | 0.984 | | | |
| | | | | 26:03 | | 0.80 | 60,029.90 | 26,694.30 | 33,335.60 | 1.000 | 13C12-2378-TCDF | IS0 | |
| | | | | | | Height | 15,495.29 | 6,840.98 | 8,654.31 | | | | |
| 316-318 | | 3 | Peaks | | | | 60,648.20 | | | | | | |
| ---------- Above: TCDF / TCDD Follows ---------- | | | | | | | | | | | | | |
| TCDD | | | | 0.65-0.89 | | | | | 0.900-1.043 | | | | |
| 320-322 | DC | NL | | Height | | | 9.59 | 4.67 | 4.92 | | | | |
| | DC | SN | | 25:03 | RO | 5.92 | 4.57 | | | 0.936 | | | |
| | DC | SN | | 25:22 | RO | 0.34 | 8.44 | | | 0.948 | | | |
| | DC | SN | | 25:44 | RO | 1.36 | 13.20 | | | 0.962 | | | |
| D | D | SN | | 26:38 | RO | 1.19 | 40.48 | | | 0.996 | | | |
| D | D | SN | | 26:47 | | 0.76 | 73.79 | | | 1.001 | 2378-TCDD | AN | |
| | DC | SN | | 27:18 | RO | 1.03 | 20.71 | | | 1.021 | | | |
| 320-322 | | 0 | Peaks | | | | 0.00 | | | | | | |
| 37Cl-TCDD | | | | | | | | | 0.925-1.075 | | | | |
| 328 | DC | NL | | Height | | | 5.91 | 5.91 | | | | | |
| | DC | WL | | 24:37 | | | 18.99 | | | 0.920 | | | |
| | | | | 25:24 | | | 1,412.03 | 1,412.03 | | 0.950 | | | |
| | DC | SN | | 25:36 | | | 13.73 | | | 0.957 | | | |
| | | | | 26:46 | | | 4,551.76 | 4,551.76 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | | 27:09 | | | 93.98 | 93.98 | | 1.015 | | | |
| | DC | SN | | 27:24 | | | 18.95 | | | 1.024 | | | |
| | DC | SN | | 27:58 | | | 8.34 | | | 1.045 | | | |
| | | | | 28:06 | | | 162.34 | 162.34 | | 1.050 | | | |
| | | | | 28:16 | | | 35.19 | 35.19 | | 1.057 | | | |
| 328 | | 5 | Peaks | | | | 6,255.30 | | | | | | |
| 13C12-TCDD | | | | 0.65-0.89 | | | | | 0.925-1.075 | | | | |
| 332-334 | DC | NL | | Height | | | 29.68 | 18.98 | 10.70 | | | | |
| | | | | 26:34 | | 0.80 | 64,887.90 | 28,846.70 | 36,041.20 | 0.993 | 13C12-1234-TCDD | RS1 | |
| | | | | 26:45 | | 0.78 | 39,822.60 | 17,502.50 | 22,320.10 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | | | Height | 10,527.68 | 4,608.39 | 5,919.29 | | | | |
| 332-334 | | 2 | Peaks | | | | 104,710.50 | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | 1.32-1.78 | | | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | Height | | | 11.19 | 5.78 | 5.41 | | | | |
| M | | | | 29:09 | RO | 1.26 | 74.36 | 45.20 | 35.90 | 0.972 | | | J |
| | DC | SN | | 29:21 | RO | 1.04 | 42.76 | | | 0.979 | | | |
| M | | | | 30:00 | | 1.56 | 78.10 | 47.60 | 30.50 | 1.001 | 12378-PeCDF | AN | J |
| | | | | 30:41 | RO | 1.28 | 93.76 | 47.11 | 36.77 | 1.023 | 23478-PeCDF | AN | J |
| 340-342 | | | 3 | Peaks | | | 246.22 | | | | | | |
| 13C12-PeCDF | | | | 1.32-1.78 | | | | | | 0.867-1.133 | | | |
| 352-354 | DC | NL | | Height | | | 9.05 | 4.02 | 5.03 | | | | |
| | | | | 29:07 | RO | 1.79 | 229.30 | 161.33 | 89.92 | 0.971 | | | |
| | | | | 29:59 | | 1.62 | 49,404.10 | 30,576.90 | 18,827.20 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | Height | | | 15,289.79 | 9,347.09 | 5,942.70 | | | | |
| | | | | 30:16 | | 1.41 | 775.01 | 453.27 | 321.74 | 1.009 | | | |
| | | | | 30:41 | | 1.62 | 52,138.40 | 32,219.90 | 19,918.50 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | | 31:39 | | 1.67 | 643.48 | 402.24 | 241.24 | 1.056 | | | |
| 352-354 | | | 5 | Peaks | | | 103,190.29 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | 1.32-1.78 | | | | | | 0.937-1.021 | | | |
| 356-358 | DC | NL | | Height | | | 8.18 | 4.30 | 3.88 | | | | |
| | DC | SN | | 29:14 | RO | 0.03 | 15.04 | | | 0.943 | | | |
| | DC | SN | | 29:29 | RO | 0.18 | 15.60 | | | 0.951 | | | |
| | DC | SN | | 30:41 | | 1.45 | 62.43 | | | 0.989 | | | |
| | DC | SN | | 31:11 | RO | 0.07 | 12.55 | | | 1.005 | | | |
| | DC | SN | | 31:19 | RO | 2.88 | 10.79 | | | 1.010 | | | |
| | DC | WH | | 31:47 | RO | 1.11 | 31.67 | | | 1.025 | | | |
| -358 | | | 0 | Peaks | | | 0.00 | | | | | | |
| 13C12-PeCDD | | | | 1.32-1.78 | | | | | | 0.871-1.129 | | | |
| 368-370 | DC | NL | | Height | | | 6.82 | 3.65 | 3.17 | | | | |
| | | | | 29:56 | | 1.61 | 89.22 | 54.98 | 34.24 | 0.965 | | | |
| | | | | 30:05 | | 1.53 | 131.81 | 79.81 | 52.00 | 0.970 | | | |
| | DC | SN | | 30:17 | RO | 2.27 | 40.37 | | | 0.976 | | | |
| | DC | SN | | 30:42 | RO | 1.25 | 46.97 | | | 0.990 | | | |
| | | | | 31:01 | | 1.63 | 28,787.40 | 17,837.20 | 10,950.20 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | Height | | | 8,962.82 | 5,574.28 | 3,388.54 | | | | |
| | | | | 31:21 | | 1.72 | 52.71 | 33.31 | 19.40 | 1.011 | | | |
| 368-370 | | | 4 | Peaks | | | 29,061.14 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |
| HxCDF | | | | 1.05-1.43 | | | | | | 0.964-1.045 | | | |
| 374-376 | DC | NL | | Height | | | 7.27 | 4.09 | 3.18 | | | | |
| D | D | SN | | 32:39 | RO | 0.96 | 42.61 | | | 0.973 | | | |
| | | | | 33:28 | | 1.05 | 89.12 | 45.75 | 43.37 | 0.997 | 123478-HxCDF | AN | J |
| | | | | 33:34 | | 1.21 | 58.60 | 32.13 | 26.47 | 1.000 | 123678-HxCDF | AN | J |
| | DC | SN | | 33:45 | RO | 0.93 | 29.97 | | | 1.005 | | | |
| | | | | 34:04 | | 1.09 | 52.14 | 27.17 | 24.97 | 1.015 | 234678-HxCDF | AN | J |

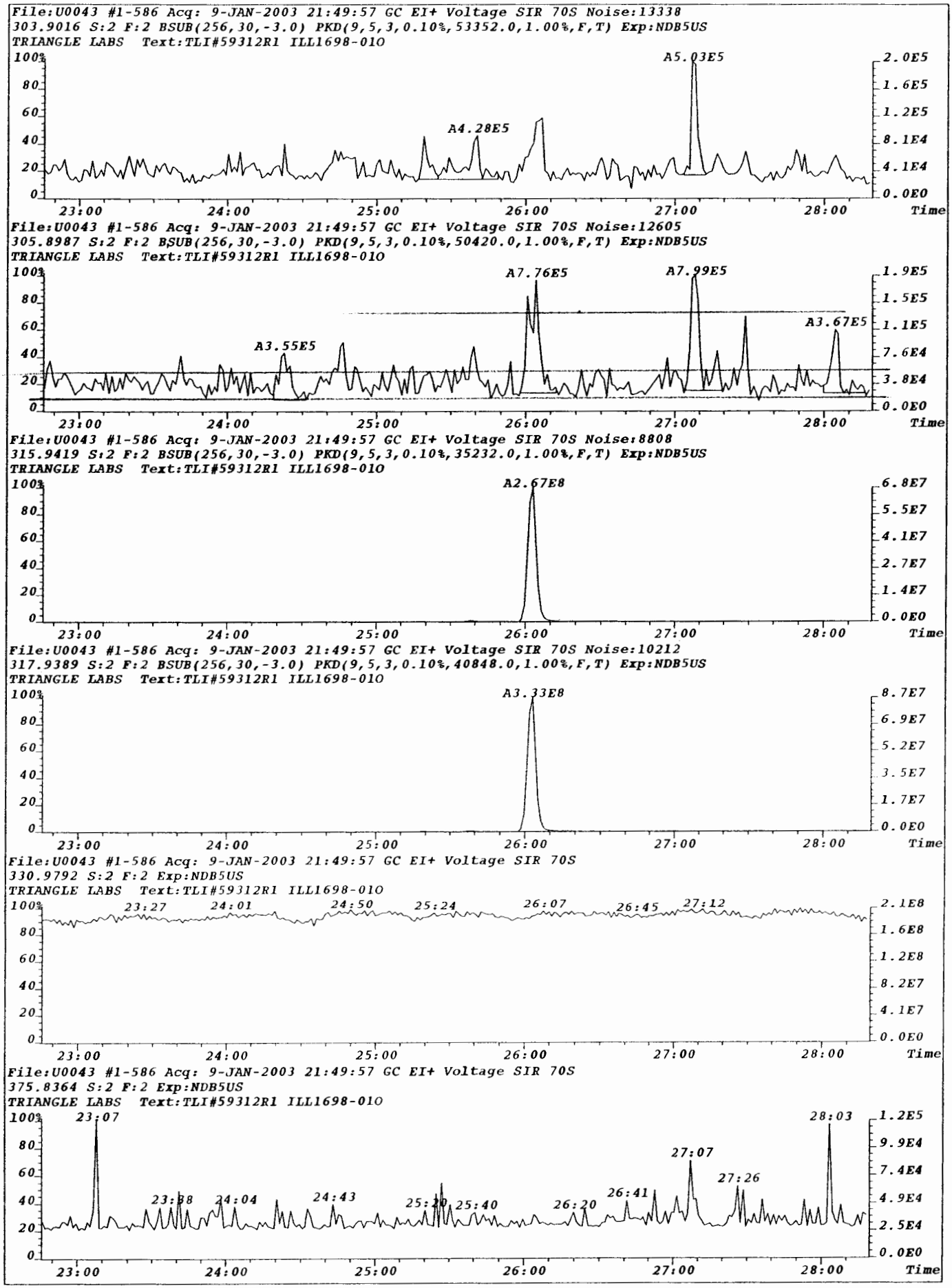
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DC | SN | | 34:09 | RO | 0.62 | 19.17 | | | 1.017 | | | |
| | DC | SN | | 34:33 | RO | 0.85 | 21.66 | | | 1.029 | | | |
| D | D | SN | | 34:50 | | 1.43 | 71.72 | | | 1.038 | 123789-HxCDF | AN | |
| 374-376 | | | 3 Peaks | | | | 199.86 | | | | | | |
| 13C12-HxCDF | | | | 0.43-0.59 | | | | | | 0.881-1.119 | | | |
| 384-386 | DC | NL | | Height | | | 14.04 | 5.41 | 8.63 | | | | |
| | | | | 32:30 | RO | 0.40 | 72.92 | 24.63 | 61.80 | 0.968 | | | |
| | | | | 33:28 | | 0.51 | 47,933.30 | 16,109.20 | 31,824.10 | 0.997 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:34 | | 0.51 | 45,566.90 | 15,445.80 | 30,121.10 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | Height | | | 15,431.05 | 5,256.65 | 10,174.40 | | | | |
| | | | | 33:51 | RO | 0.72 | 174.66 | 58.99 | 81.76 | 1.008 | | | |
| | | | | 34:03 | | 0.52 | 48,191.80 | 16,424.20 | 31,767.60 | 1.014 | 13C12-HxCDF 234 | ALT2 | |
| | | | | 34:50 | | 0.51 | 37,386.90 | 12,670.60 | 24,716.30 | 1.038 | 13C12-HxCDF 789 | ALT1 | |
| 384-386 | | | 6 Peaks | | | | 179,326.48 | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | | | | | |
| HxCDD | | | | 1.05-1.43 | | | | | | 0.958-1.013 | | | |
| 390-392 | DC | NL | | Height | | | 5.93 | 2.77 | 3.16 | | | | |
| D | D | SN | | 33:28 | | 1.41 | 66.48 | | | 0.977 | | | |
| D | D | SN | | 33:34 | RO | 2.05 | 40.41 | | | 0.980 | | | |
| | DC | SN | | 33:41 | RO | 0.46 | 16.73 | | | 0.983 | | | |
| | DC | SN | | 33:50 | RO | 0.24 | 4.62 | | | 0.988 | | | |
| D | D | SN | | 34:03 | RO | 1.46 | 54.12 | | | 0.994 | | | |
| D | D | SN | | 34:10 | RO | 1.66 | 25.58 | | | 0.998 | 123478-HxCDD | AN | |
| D | D | SN | | 34:15 | RO | 4.01 | 19.02 | | | 1.000 | 123678-HxCDD | AN | |
| D | D | SN | | 34:34 | RO | 1.46 | 50.09 | | | 1.009 | 123789-HxCDD | AN | |
| | DC | WH | | 34:50 | RO | 1.61 | 50.62 | | | 1.017 | | | |
| 390-392 | | | 0 Peaks | | | | 0.00 | | | | | | |
| 13C12-HxCDD | | | | 1.05-1.43 | | | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | Height | | | 11.72 | 6.56 | 5.16 | | | | |
| | | | | 33:38 | | 1.16 | 301.30 | 161.73 | 139.57 | 0.982 | | | |
| | | | | 34:09 | | 1.24 | 35,804.40 | 19,818.50 | 15,985.90 | 0.997 | 13C12-HxCDD 478 | SUR3 | |
| | | | | 34:15 | | 1.25 | 35,984.30 | 19,977.20 | 16,007.10 | 1.000 | 13C12-HxCDD 678 | IS5 | |
| | | | | Height | | | 11,430.70 | 6,335.97 | 5,094.73 | | | | |
| | | | | 34:33 | | 1.26 | 40,236.30 | 22,413.00 | 17,823.30 | 1.009 | 13C12-HxCDD 789 | RS2 | |
| | | | | 34:49 | | 1.35 | 185.63 | 106.63 | 79.00 | 1.017 | | | |
| 402-404 | | | 5 Peaks | | | | 112,511.93 | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | | | | | |
| HpCDF | | | | 0.88-1.20 | | | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | Height | | | 6.64 | 4.00 | 2.64 | | | | |
| AN | | | | 36:29 | | 1.16 | 77.20 | 41.50 | 35.70 | 1.000 | 1234678-HpCDF | AN | J |
| | DC | SN | | 36:55 | RO | 1.34 | 47.94 | | | 1.012 | | | |
| 408-410 | | | 1 Peak | | | | 77.20 | | | | | | |
| 13C12-HpCDF | | | | 0.37-0.51 | | | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | Height | | | 7.86 | 4.20 | 3.66 | | | | |
| | | | | 36:29 | | 0.46 | 30,868.20 | 9,728.20 | 21,140.00 | 1.000 | 13C12-HpCDF 678 | IS6 | |
| | | | | Height | | | 8,972.55 | 2,795.50 | 6,177.05 | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 38:02 | | 0.45 | 24,425.87 | 7,608.67 | 16,817.20 | 1.042 | 13C12-HpCDF 789 | SUR4 | |
| -420 | | | | 2 Peaks | | | 55,294.07 | | | | | | |
| | | | | ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | |
| HpCDD | | | | | | 0.88-1.20 | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | | | Height | 5.31 | 2.38 | 2.93 | | | | |
| M | | | | 36:48 | | 0.98 | 91.10 | 45.00 | 46.10 | 0.981 | | | J |
| M | | | | 37:32 | | 0.99 | 113.00 | 56.20 | 56.80 | 1.000 | 1234678-HpCDD | AN | J |
| | DC | WH | | 38:03 | RO | 0.68 | 27.80 | | | 1.014 | | | |
| 424-426 | | | | 2 Peaks | | | 204.10 | | | | | | |
| 13C12-HpCDD | | | | | | 0.88-1.20 | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | | | Height | 10.31 | 5.48 | 4.83 | | | | |
| | DC | SN | | 36:46 | RO | 0.61 | 32.68 | | | 0.980 | | | |
| | | | | 37:31 | | 1.07 | 27,338.70 | 14,112.90 | 13,225.80 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | | | Height | 7,253.35 | 3,701.14 | 3,552.21 | | | | |
| 436-438 | | | | 1 Peak | | | 27,338.70 | | | | | | |
| | | | | ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | |
| OCDF | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | | | Height | 6.34 | 2.69 | 3.65 | | | | |
| | DC | SN | | 38:43 | | 0.79 | 18.16 | | | 0.940 | | | |
| | DC | SN | | 38:50 | RO | 1.37 | 17.41 | | | 0.943 | | | |
| | DC | SN | | 39:14 | RO | 1.89 | 3.59 | | | 0.953 | | | |
| | DC | SN | | 39:43 | | 0.93 | 37.06 | | | 0.965 | | | |
| | DC | SN | | 40:01 | RO | 12.38 | 1.44 | | | 0.972 | | | |
| | DC | SN | | 40:12 | RO | 2.83 | 5.24 | | | 0.977 | | | |
| | DC | SN | | 41:10 | | 0.83 | 19.27 | | | 1.000 | | | |
| M | | | | 41:24 | | 0.84 | 121.30 | 55.40 | 65.90 | 1.006 | OCDF | AN | J |
| | DC | SN | | 42:23 | | 0.98 | 24.92 | | | 1.030 | | | |
| | DC | SN | | 42:33 | RO | 2.13 | 8.52 | | | 1.034 | | | |
| | DC | SN | | 42:59 | RO | 2.24 | 15.29 | | | 1.044 | | | |
| | DC | SN | | 43:08 | RO | 1.72 | 15.44 | | | 1.048 | | | |
| 442-444 | | | | 1 Peak | | | 121.30 | | | | | | |
| OCDD | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 4.96 | 2.47 | 2.49 | | | | |
| | | | | 41:11 | | 0.91 | 612.15 | 290.82 | 321.33 | 1.000 | OCDD | AN | J |
| 458-460 | | | | 1 Peak | | | 612.15 | | | | | | |
| 13C12-OCDD | | | | | | 0.76-1.02 | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | | | Height | 4.86 | 2.38 | 2.48 | | | | |
| | | | | 41:10 | | 0.90 | 43,453.10 | 20,638.20 | 22,814.90 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 9,243.00 | 4,331.61 | 4,911.39 | | | | |
| 470-472 | | | | 1 Peak | | | 43,453.10 | | | | | | |

Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

| Column Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

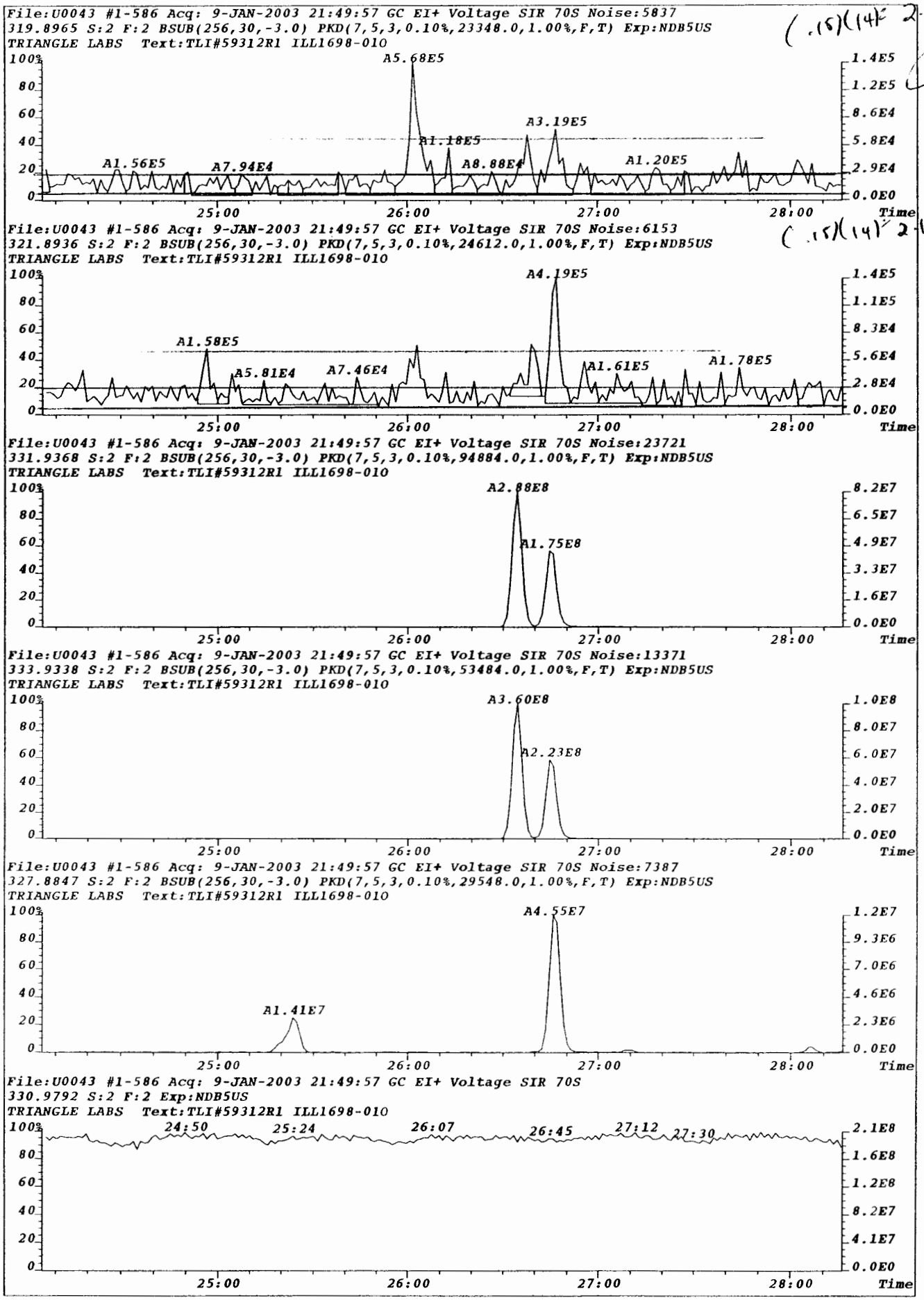
*** End of Report ***

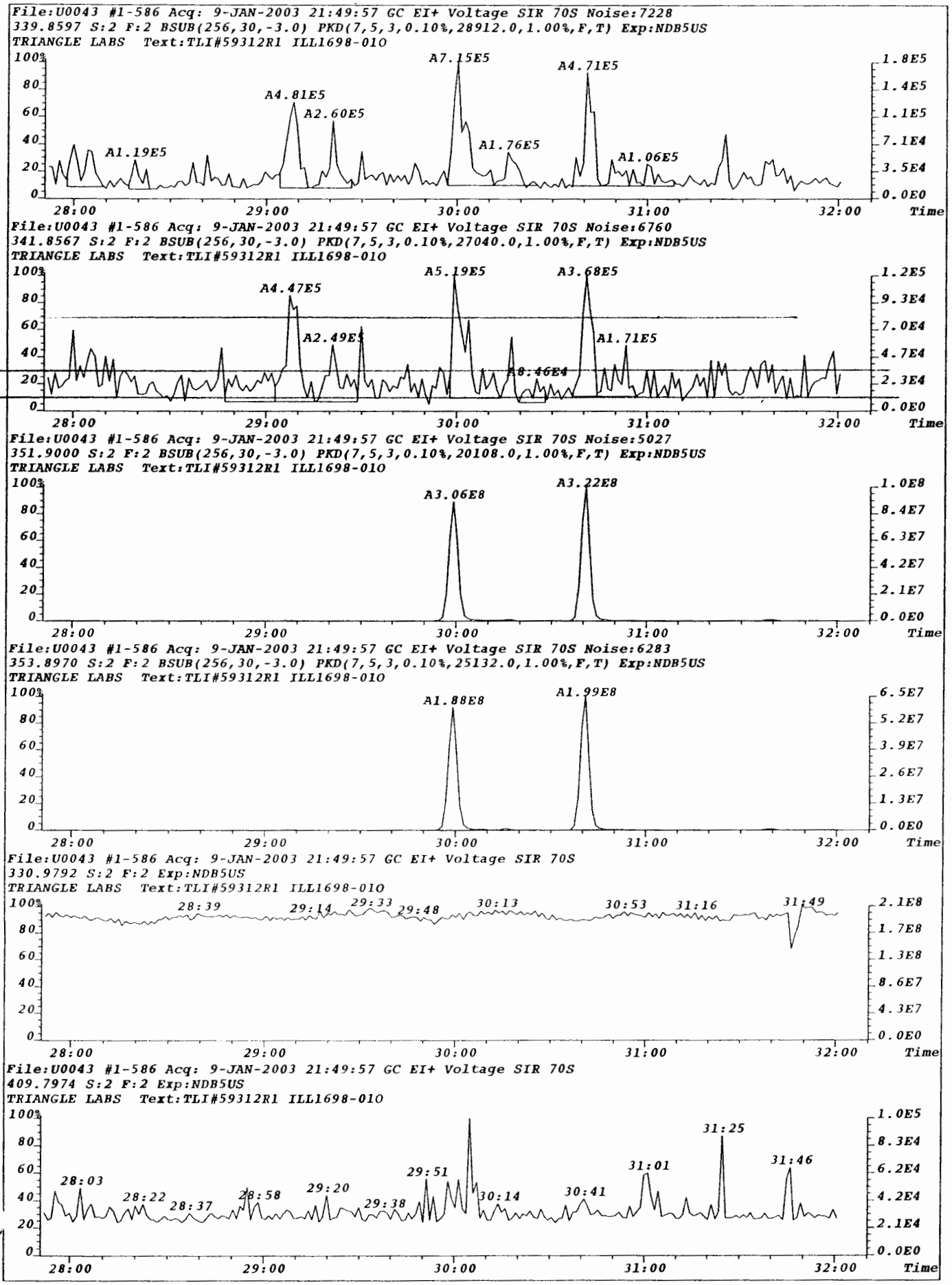

File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:13338
303.9016 S:2 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,53352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A5.03E5
A4.28E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:12605
305.8987 S:2 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,50420.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A7.76E5
A7.99E5
A3.67E5
A3.55E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:8808
315.9419 S:2 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,35232.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A2.67E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:10212
317.9389 S:2 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,40848.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A3.33E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
330.9792 S:2 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
23:27
24:01
24:50
25:24
26:07
26:45
27:12
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
375.8364 S:2 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
23:07
23:38
24:04
24:43
25:20
25:40
26:20
26:41
27:07
27:26
28:03
Time

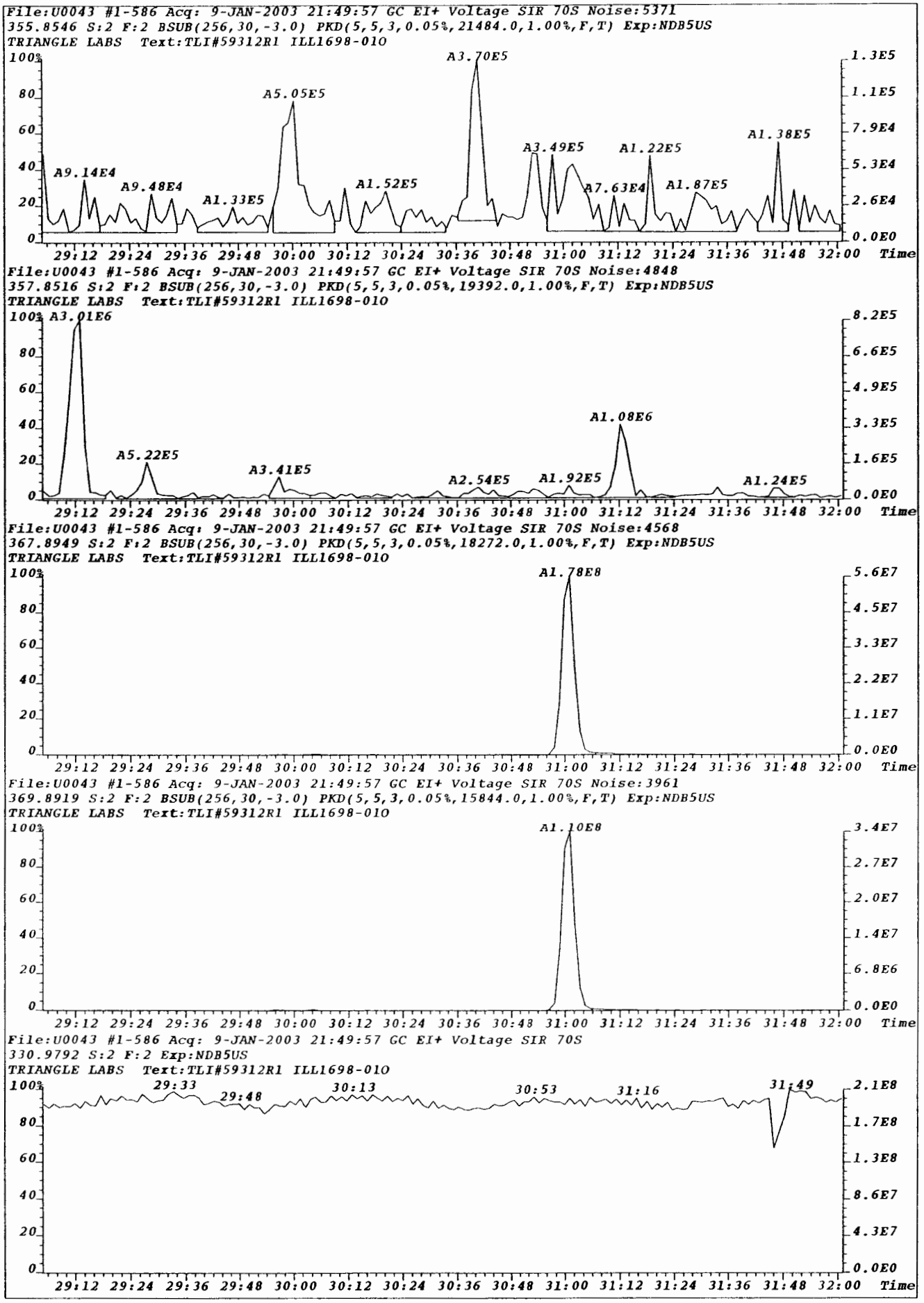
N= 2.1+2.1= 4.2

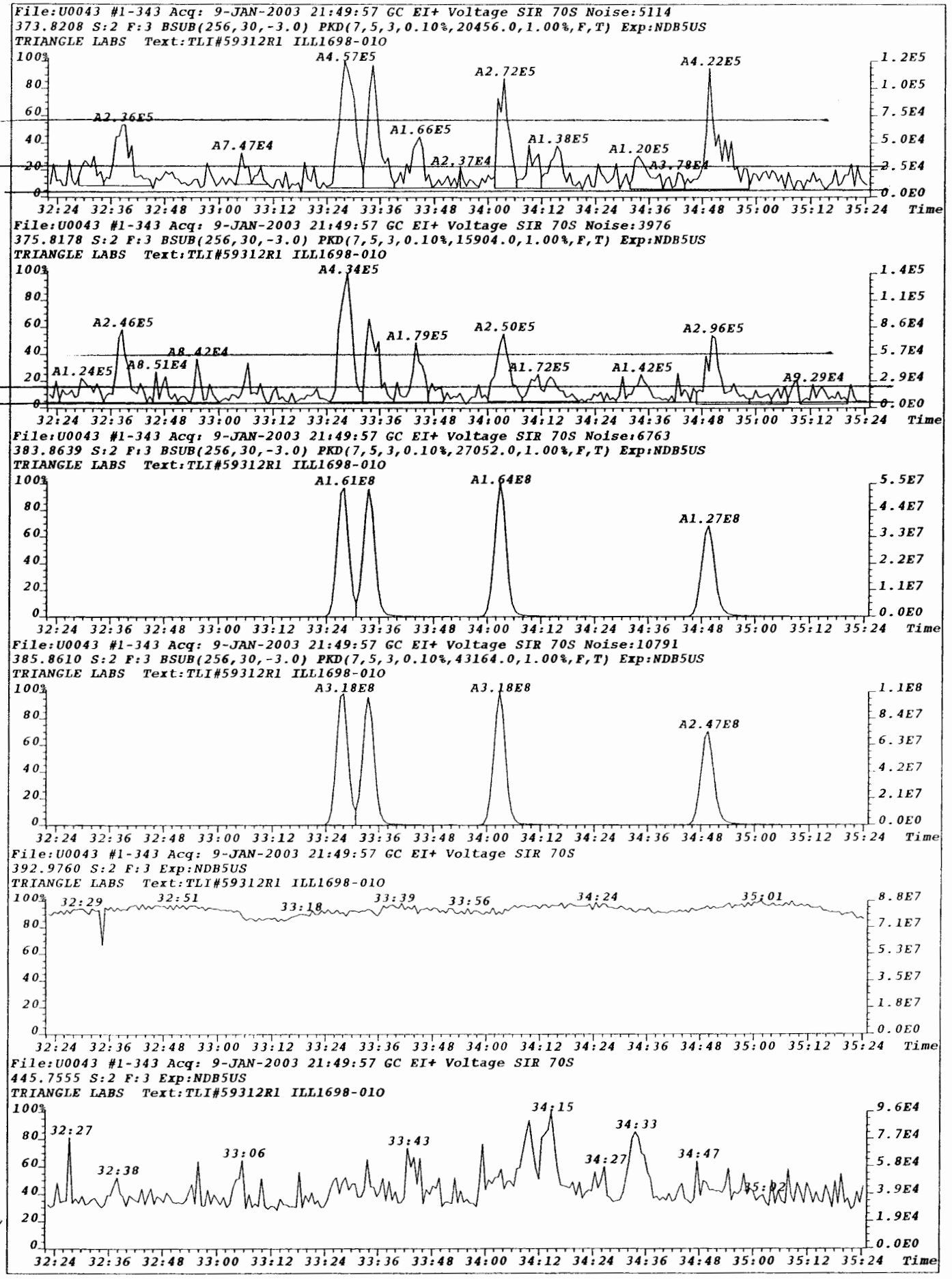
(.15)(14)= 2.1

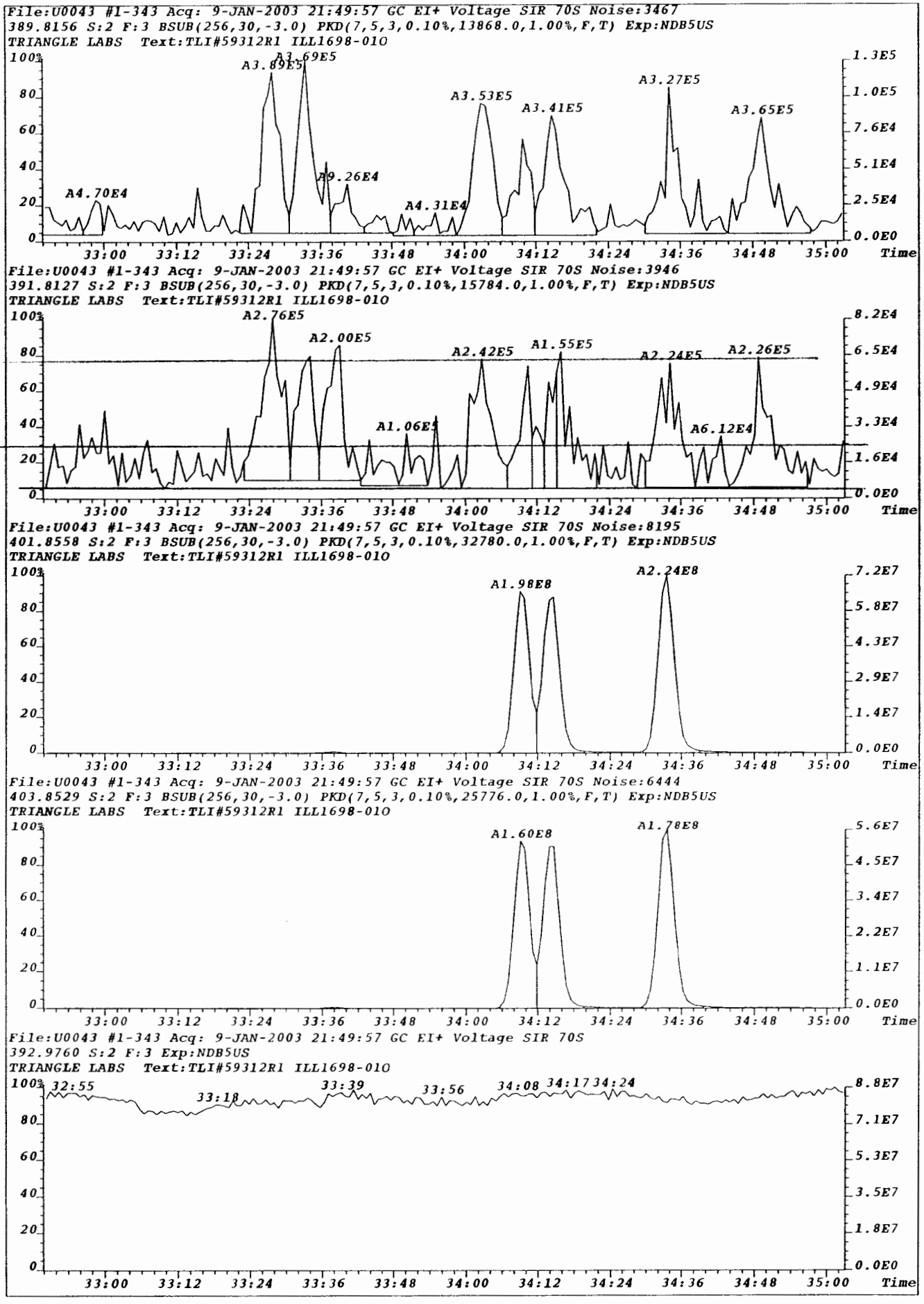
Jan 4/9/03

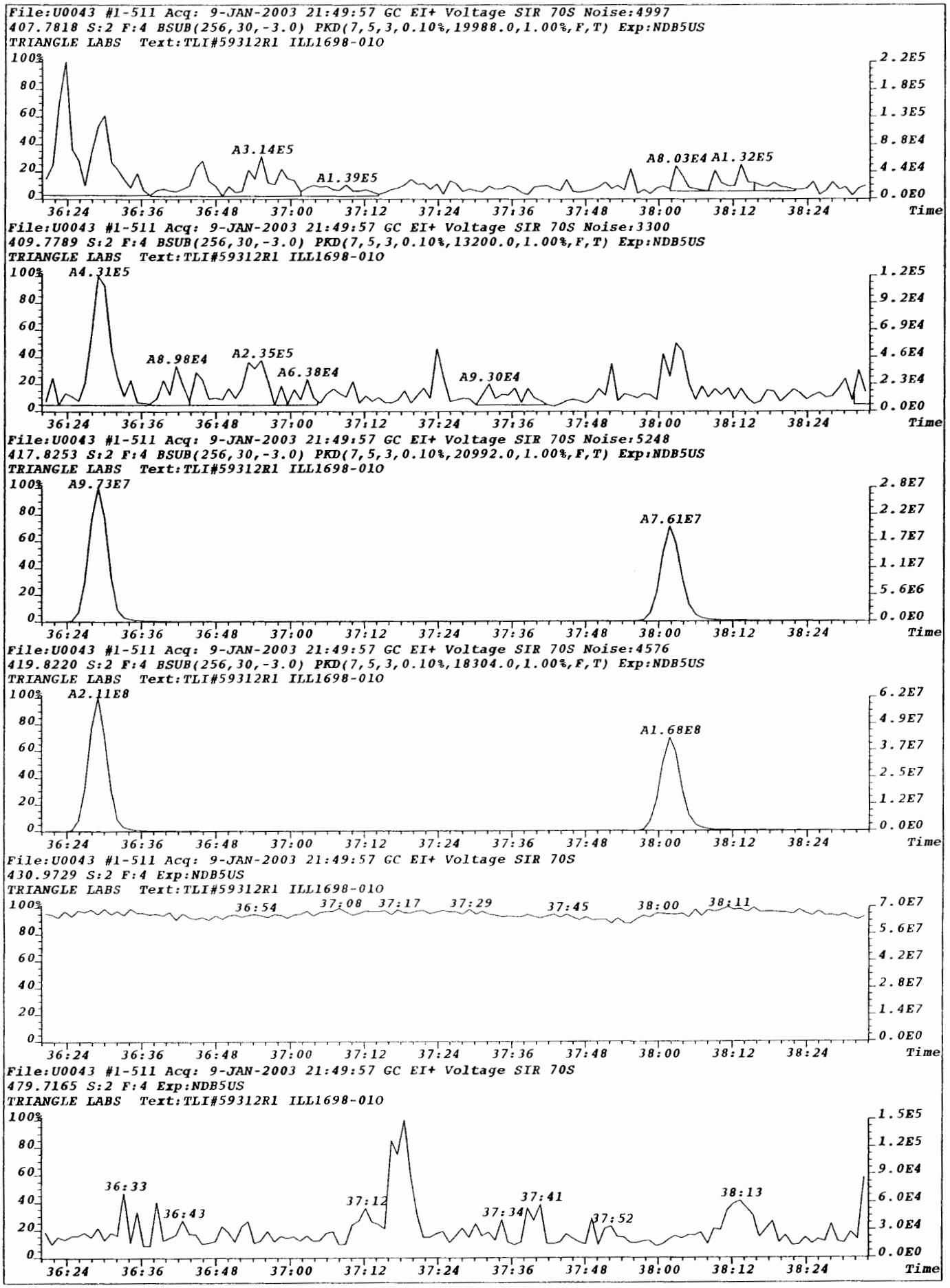


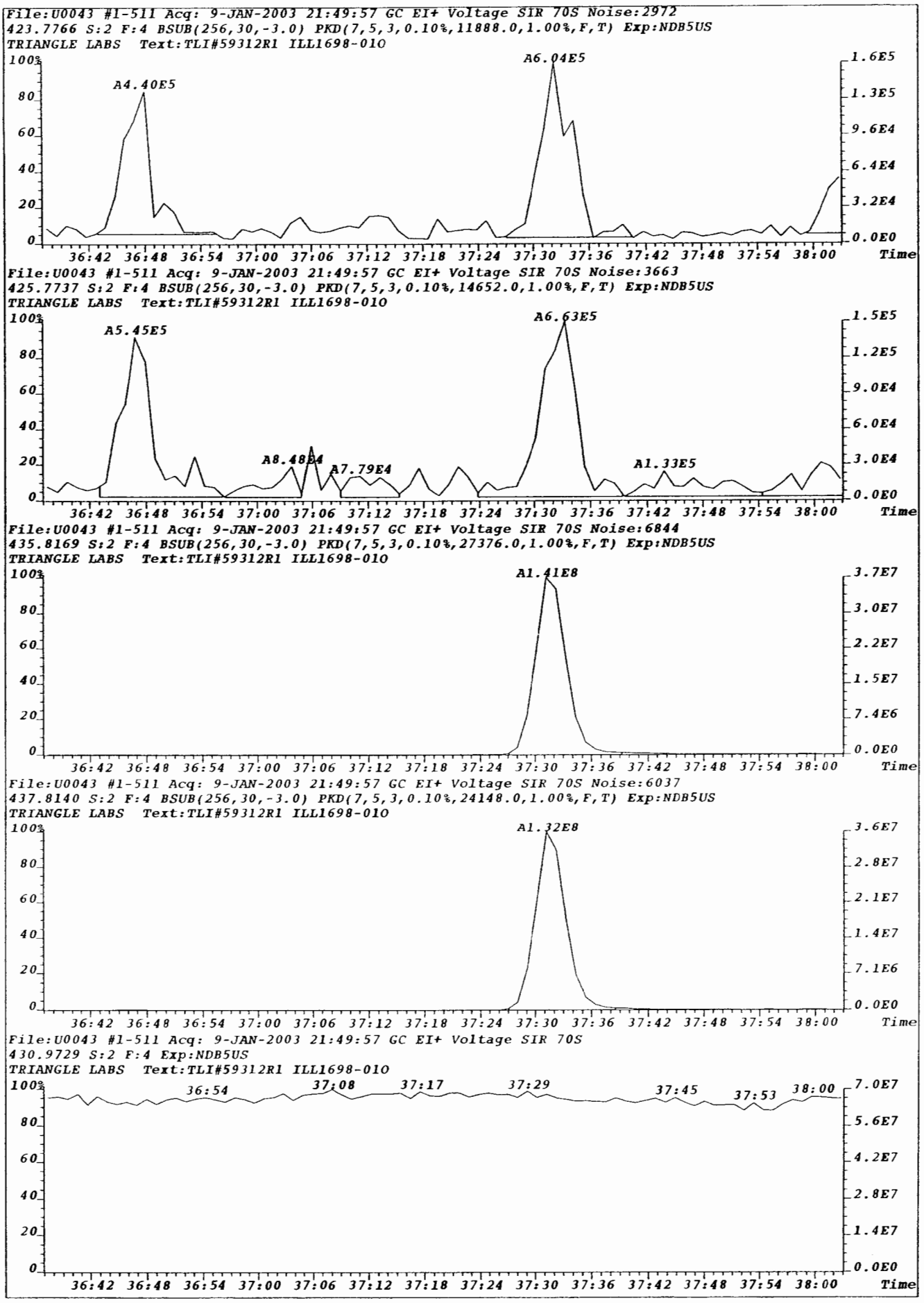

File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:7228
339.8597 S:2 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,28912.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.19E5
A4.81E5
A2.60E5
A7.15E5
A1.76E5
A4.71E5
A1.06E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:6760
341.8567 S:2 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27040.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A4.47E5
A2.49E5
A5.19E5
A3.68E5
A1.71E5
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:5027
351.9000 S:2 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20108.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A3.06E8
A3.22E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:6283
353.8970 S:2 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,25132.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.88E8
A1.99E8
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
330.9792 S:2 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
28:39
29:14
29:33
29:48
30:13
30:53
31:16
31:49
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
409.7974 S:2 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
28:03
28:22
28:37
28:58
29:20
29:38
29:51
30:14
30:41
31:01
31:25
31:46
28:00
29:00
30:00
31:00
32:00
Time

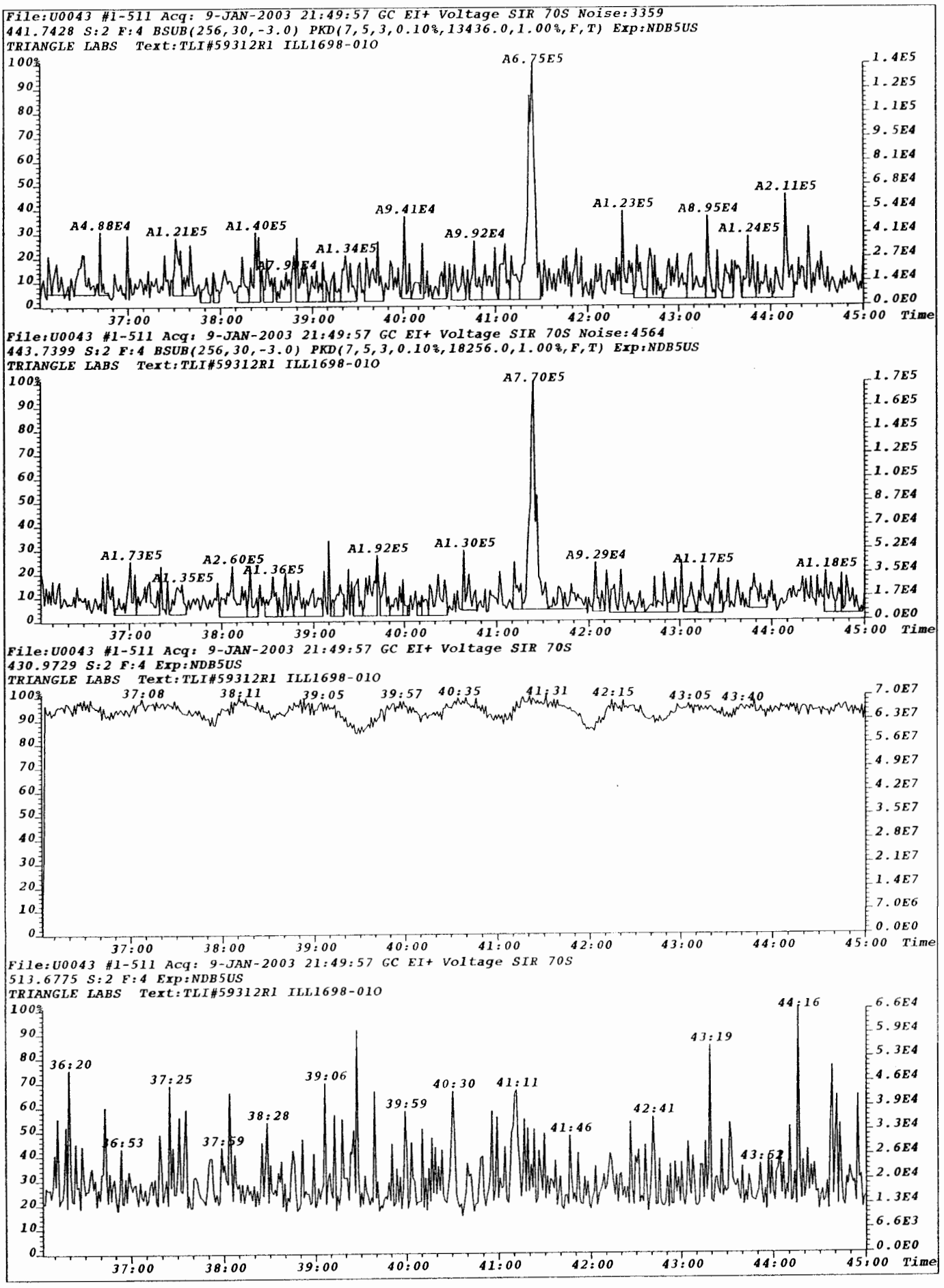

File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:5371
355.8546 S:2 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,21484.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A9.14E4
A9.48E4
A1.33E5
A5.05E5
A1.52E5
A3.70E5
A3.49E5
A7.63E4
A1.22E5
A1.87E5
A1.38E5
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:4848
357.8516 S:2 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,19392.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A3.01E6
A5.22E5
A3.41E5
A2.54E5
A1.92E5
A1.08E6
A1.24E5
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:4568
367.8949 S:2 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,18272.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.78E8
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3961
369.8919 S:2 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,15844.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.10E8
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
330.9792 S:2 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
29:33
29:48
30:13
30:53
31:16
31:49
Time


File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:5114
373.8208 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20456.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A2.36E5
A4.57E5
A7.47E4
A1.66E5
A2.37E4
A2.72E5
A1.38E5
A1.20E5
A3.78E4
A4.22E5
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3976
375.8178 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15904.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A1.24E5
A2.46E5
A8.51E4
A8.42E4
A4.34E5
A1.79E5
A2.50E5
A1.72E5
A1.42E5
A2.96E5
A9.29E4
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:6763
383.8639 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27052.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A1.61E8
A1.64E8
A1.27E8
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:10791
385.8610 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,43164.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A3.18E8
A3.18E8
A2.47E8
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
392.9760 S:2 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
32:29
32:51
33:18
33:39
33:56
34:24
35:01
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
445.7555 S:2 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
32:27
32:38
33:06
33:43
34:15
34:27
34:33
34:47
35:02
Time

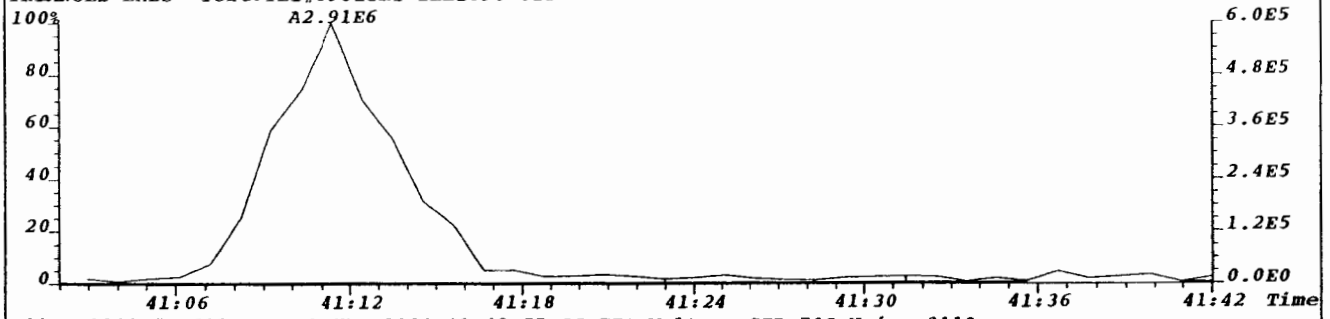

File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3467
389.8156 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13868.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A4.70E4
A3.89E5
A3.69E5
A9.26E4
A4.31E4
A3.53E5
A3.41E5
A3.27E5
A3.65E5
Time
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3946
391.8127 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15784.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A2.76E5
A2.00E5
A1.06E5
A2.42E5
A1.55E5
A2.24E5
A2.26E5
A6.12E4
Time
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:8195
401.8558 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,32780.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.98E8
A2.24E8
Time
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:6444
403.8529 S:2 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,25776.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.60E8
A1.78E8
Time
File:U0043 #1-343 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
392.9760 S:2 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
32:55
33:18
33:39
33:56
34:08
34:17
34:24
Time


File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:4997
407.7818 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19988.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A3.14E5
A1.39E5
A8.03E4
A1.32E5
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3300
409.7789 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13200.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A4.31E5
A8.98E4
A2.35E5
A6.38E4
A9.30E4
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:5248
417.8253 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20992.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A9.73E7
A7.61E7
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:4576
419.8220 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18304.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A2.11E8
A1.68E8
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
430.9729 S:2 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
36:54
37:08
37:17
37:29
37:45
38:00
38:11
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
479.7165 S:2 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
36:33
36:43
37:12
37:34
37:41
37:52
38:13
Time

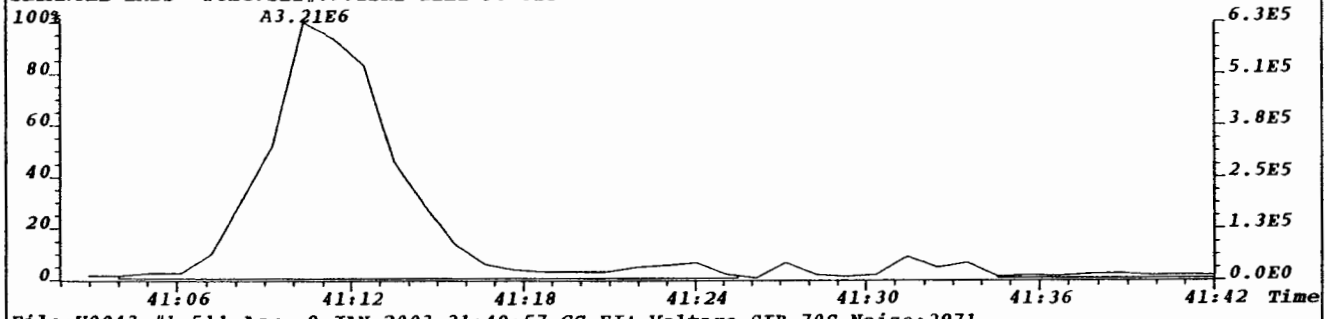

File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:2972
423.7766 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11888.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A4.40E5
A6.04E5
1.6E5
1.3E5
9.6E4
6.4E4
3.2E4
0.0E0
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3663
425.7737 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14652.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A5.45E5
A6.63E5
A8.48E4
A7.79E4
A1.33E5
1.5E5
1.2E5
9.0E4
6.0E4
3.0E4
0.0E0
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:6844
435.8169 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.41E8
3.7E7
3.0E7
2.2E7
1.5E7
7.4E6
0.0E0
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:6037
437.8140 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,24148.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
A1.32E8
3.6E7
2.8E7
2.1E7
1.4E7
7.1E6
0.0E0
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
430.9729 S:2 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-010
36:54
37:08
37:17
37:29
37:45
37:53
38:00
7.0E7
5.6E7
4.2E7
2.8E7
1.4E7
0.0E0
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time


File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3359
441.7428 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13436.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A6.75E5
A4.88E4
A1.21E5
A1.40E5
A9.41E4
A1.34E5
A9.92E4
A1.23E5
A8.95E4
A1.24E5
A2.11E5
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:4564
443.7399 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18256.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
A7.70E5
A1.73E5
A1.35E5
A2.60E5
A1.36E5
A1.92E5
A1.30E5
A9.29E4
A1.17E5
A1.18E5
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
430.9729 S:2 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
37:08
38:11
39:05
39:57
40:35
41:31
42:15
43:05
43:40
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
513.6775 S:2 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O
36:20
36:53
37:25
37:59
38:28
39:06
39:59
40:30
41:11
41:46
42:41
43:19
43:52
44:16
Time

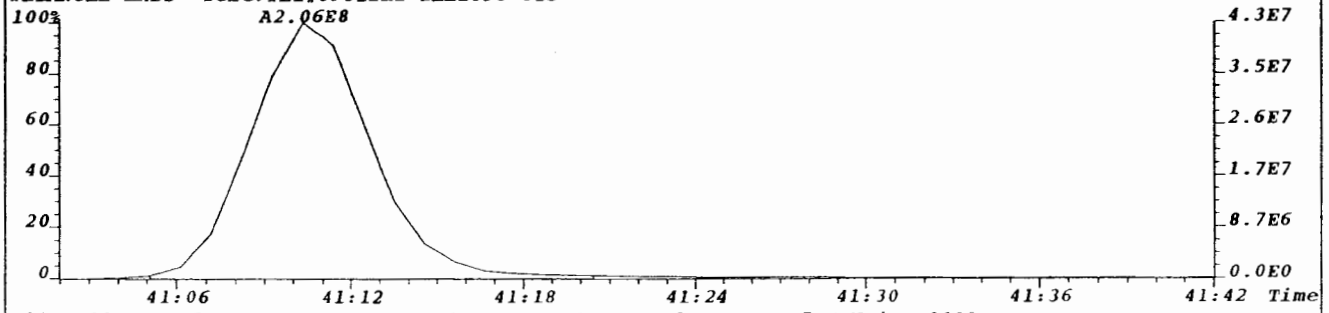
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3087
457.7377 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O



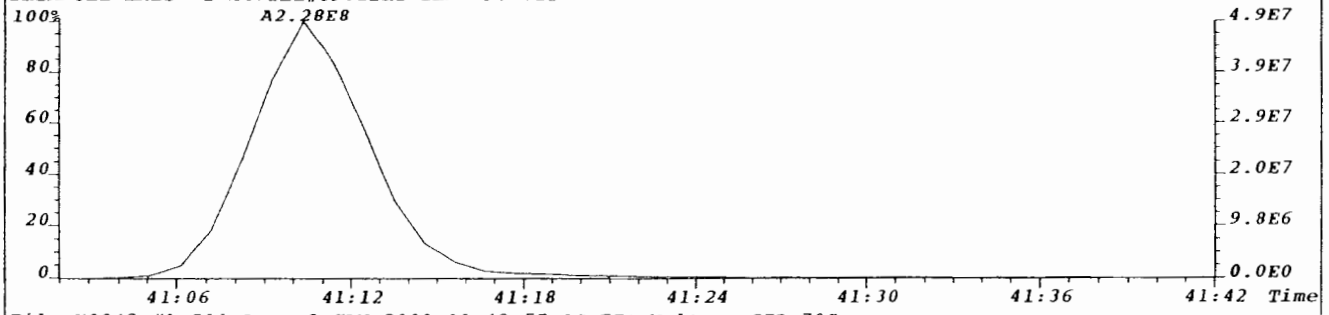

File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3118
459.7348 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12472.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O



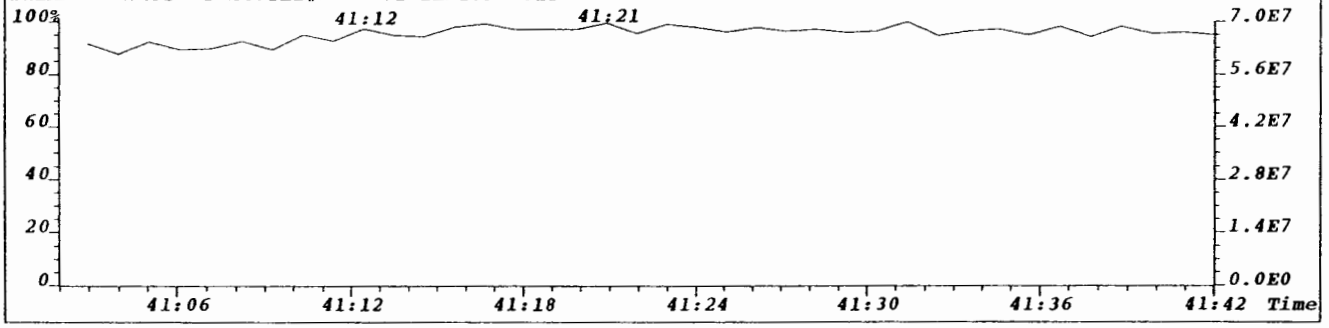

File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:2971
469.7779 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11884.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O

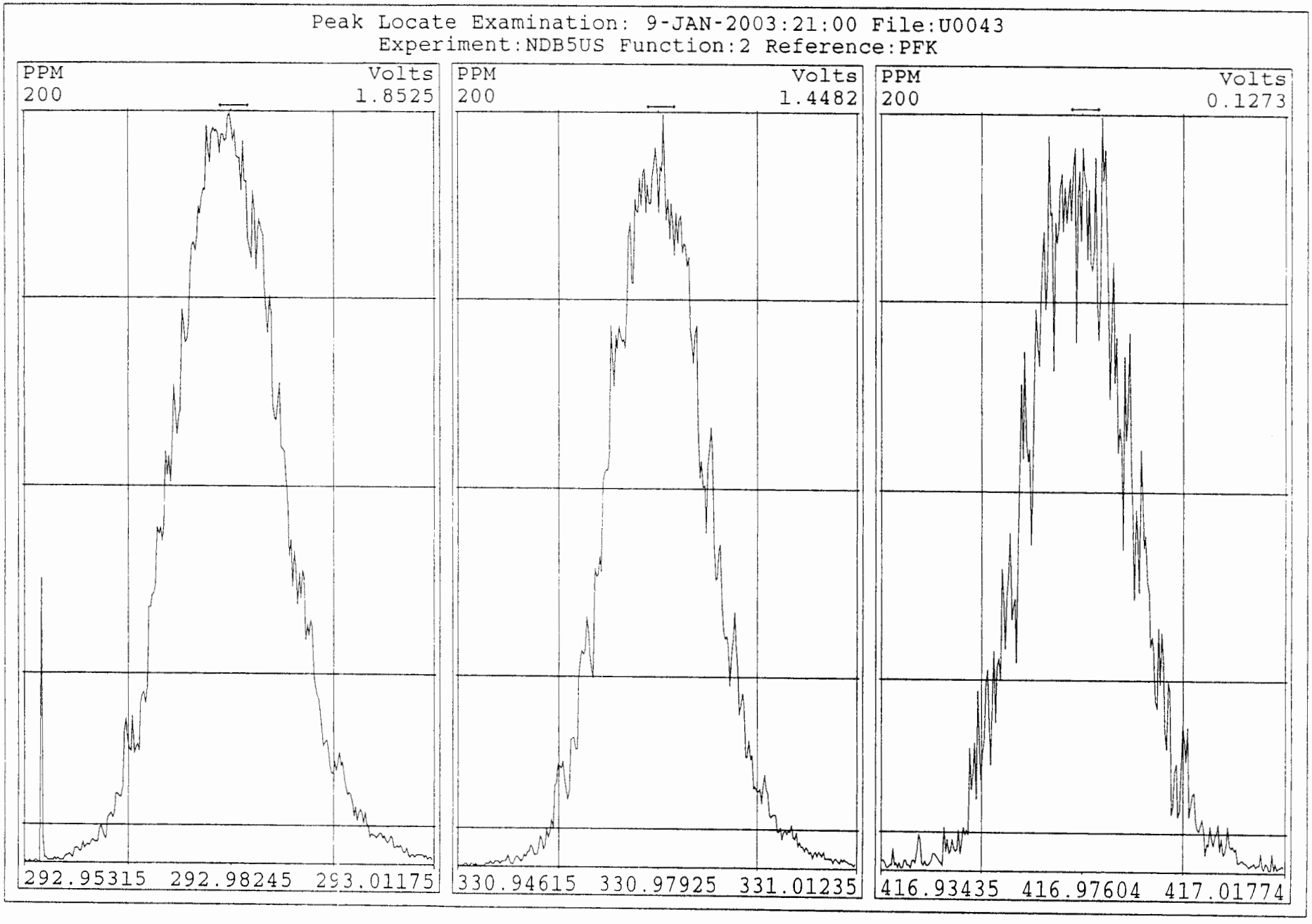


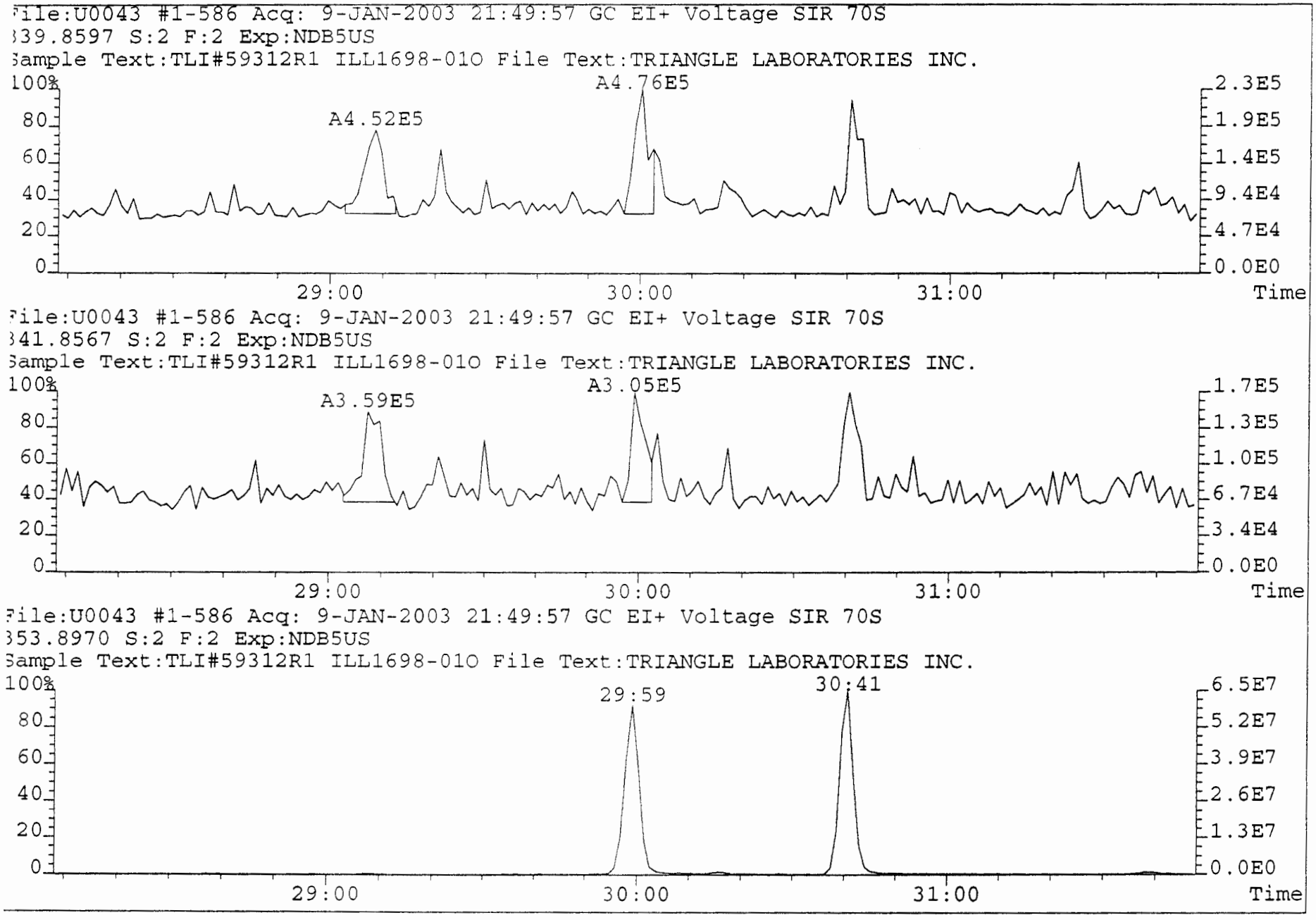

File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S Noise:3099
471.7750 S:2 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12396.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O




File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
430.9729 S:2 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-01O

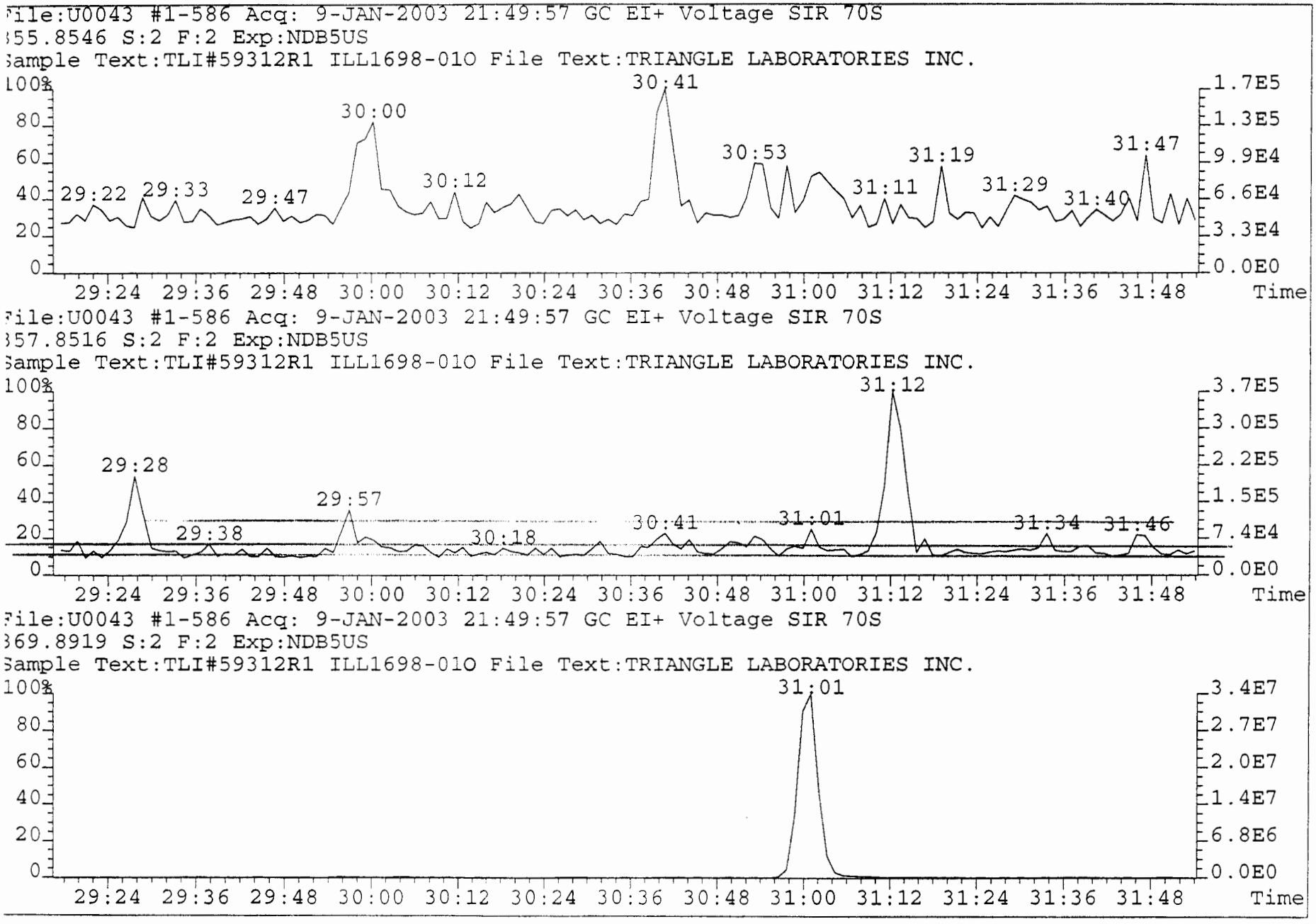



Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774


File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
339.8597 S:2 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A4.52E5
A4.76E5
2.3E5
1.9E5
1.4E5
9.4E4
4.7E4
0.0E0
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
341.8567 S:2 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.59E5
A3.05E5
1.7E5
1.3E5
1.0E5
6.7E4
3.4E4
0.0E0
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
353.8970 S:2 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
29:59
30:41
6.5E7
5.2E7
3.9E7
2.6E7
1.3E7
0.0E0
29:00
30:00
31:00
Time

74

1/27/03


File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
355.8546 S:2 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-01O File Text:TRIANGLE LABORATORIES INC.
29:22 29:33 29:47 30:00 30:12 30:41 30:53 31:11 31:19 31:29 31:40 31:47
1.7E5 1.3E5 9.9E4 6.6E4 3.3E4 0.0E0
29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
357.8516 S:2 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-01O File Text:TRIANGLE LABORATORIES INC.
29:28 29:38 29:57 30:18 30:41 31:01 31:12 31:34 31:46
3.7E5 3.0E5 2.2E5 1.5E5 7.4E4 0.0E0
29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 Time
File:U0043 #1-586 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
369.8919 S:2 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-01O File Text:TRIANGLE LABORATORIES INC.
31:01
3.4E7 2.7E7 2.0E7 1.4E7 6.8E6 0.0E0
29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 Time

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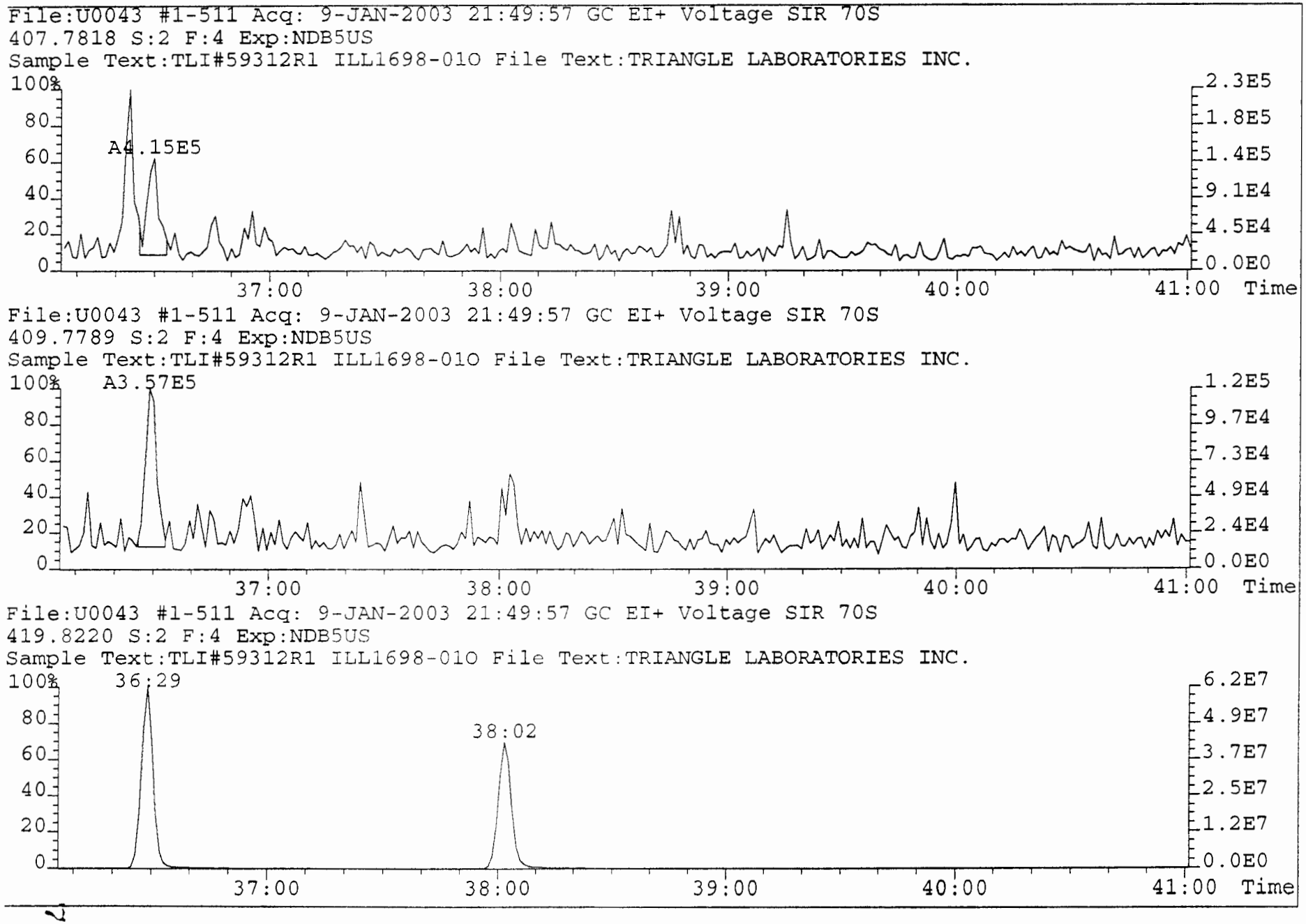
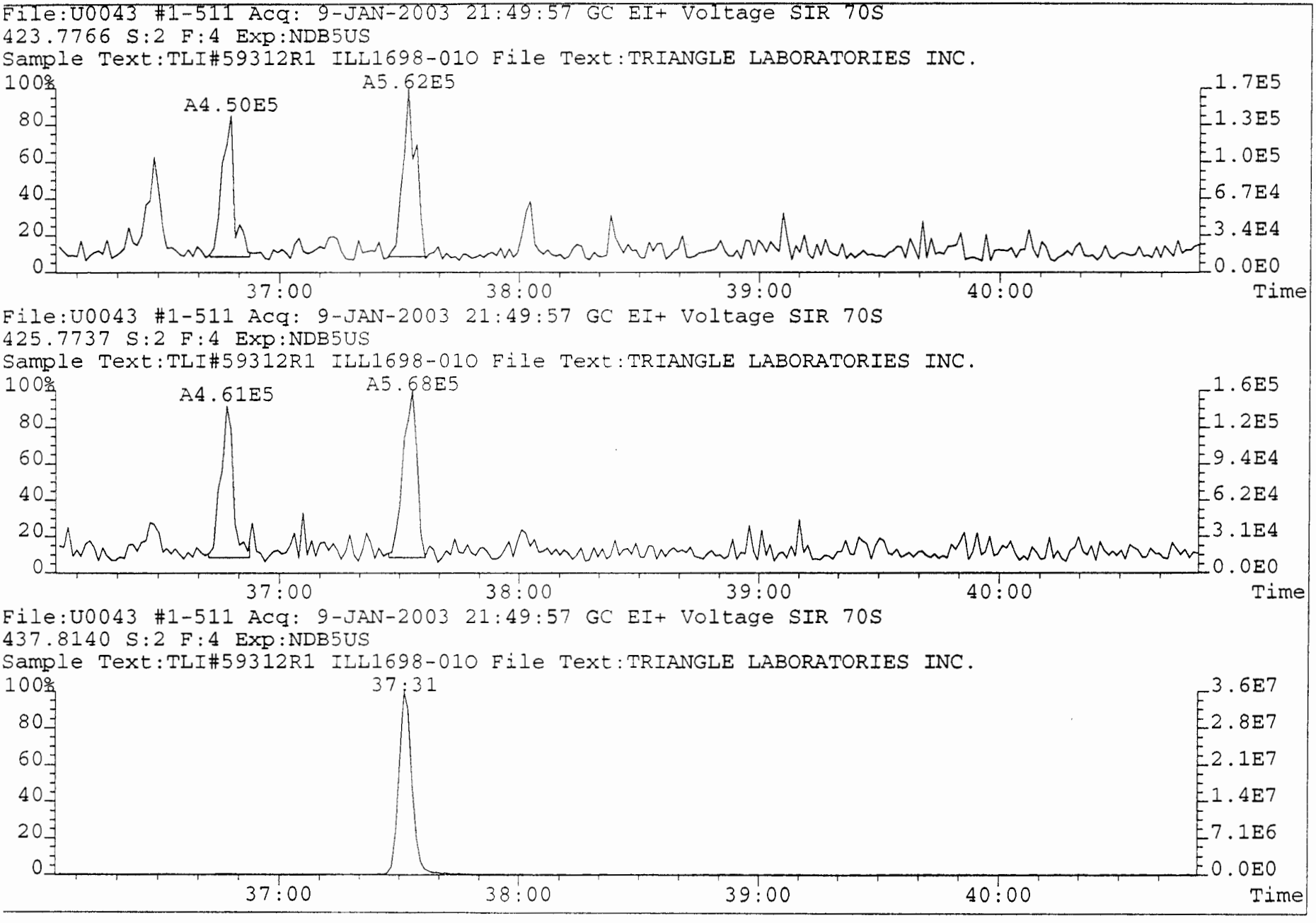
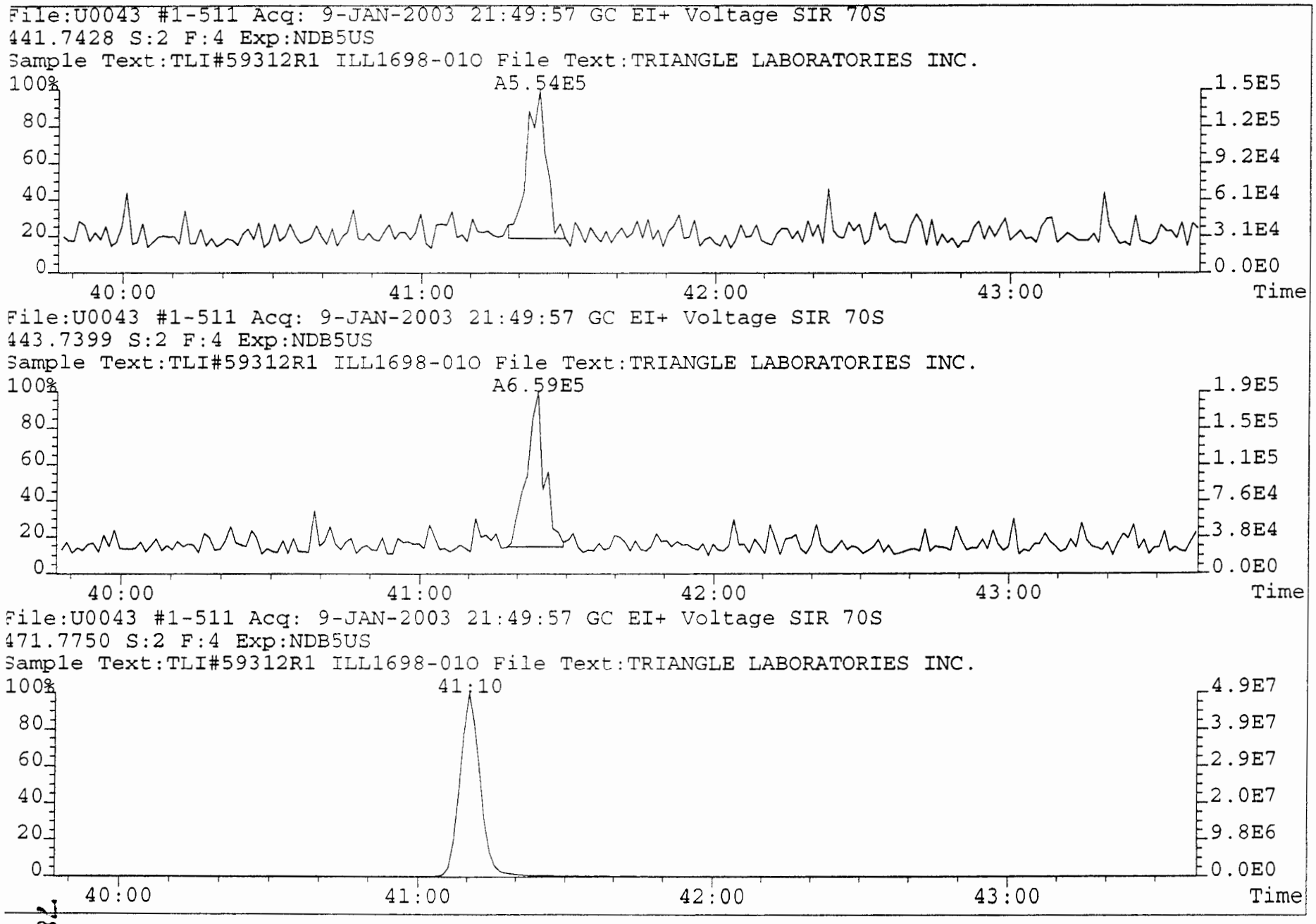
1/2013


File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
407.7818 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A4.15E5
2.3E5
1.8E5
1.4E5
9.1E4
4.5E4
0.0E0
37:00
38:00
39:00
40:00
41:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
409.7789 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
A3.57E5
1.2E5
9.7E4
7.3E4
4.9E4
2.4E4
0.0E0
37:00
38:00
39:00
40:00
41:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
419.8220 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
36:29
38:02
6.2E7
4.9E7
3.7E7
2.5E7
1.2E7
0.0E0
37:00
38:00
39:00
40:00
41:00
Time


File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
423.7766 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
A4.50E5
A5.62E5
100%
80
60
40
20
0
1.7E5
1.3E5
1.0E5
6.7E4
3.4E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
425.7737 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
A4.61E5
A5.68E5
100%
80
60
40
20
0
1.6E5
1.2E5
9.4E4
6.2E4
3.1E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
437.8140 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
37:31
100%
80
60
40
20
0
3.6E7
2.8E7
2.1E7
1.4E7
7.1E6
0.0E0
37:00
38:00
39:00
40:00
Time

22

1/24/03


File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
441.7428 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
A5.54E5
1.5E5
1.2E5
9.2E4
6.1E4
3.1E4
0.0E0
80
60
40
20
0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
443.7399 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
A6.59E5
1.9E5
1.5E5
1.1E5
7.6E4
3.8E4
0.0E0
80
60
40
20
0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-511 Acq: 9-JAN-2003 21:49:57 GC EI+ Voltage SIR 70S
471.7750 S:2 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-010 File Text:TRIANGLE LABORATORIES INC.
100%
41:10
4.9E7
3.9E7
2.9E7
2.0E7
9.8E6
0.0E0
80
60
40
20
0
40:00
41:00
42:00
43:00
Time

8

1/29/03

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-02O** Analysis File: **U004303**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | **ILL1698** | | | | |
| Sample Matrix: | **WATER** | Date Received: | **01/03/2003** | Spike File: | **SPMIT32S** |
| TLI ID: | **345-9-2B** | Date Extracted: | **01/08/2003** | ICal: | **UF57092** |
| | | Date Analyzed: | **01/09/2003** | ConCal: | **U030041** |
| Sample Size: | **1.050 L** | Dilution Factor: | **n/a** | % Moisture: | **n/a** |
| Dry Weight: | **n/a** | Blank File: | **U004301** | % Lipid: | **n/a** |
| GC Column: | **DB-5** | Analyst: | **IJD** | % Solids: | **n/a** |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 1.2 | | | | ___ |
| 1,2,3,7,8-PeCDD | ND | 1.3 | | | | ___ |
| 1,2,3,4,7,8-HxCDD | 1.9 | | | 1.20 | 34:10 | JB_ |
| 1,2,3,6,7,8-HxCDD | EMPC | | 1.9 | | | JB_ |
| 1,2,3,7,8,9-HxCDD | EMPC | | 2.3 | | | JB_ |
| 1,2,3,4,6,7,8-HpCDD | 15.2 | | | 1.15 | 37:33 | JB_ |
| 1,2,3,4,6,7,8,9-OCDD | 119 | | | 0.90 | 41:11 | B__ |
| 2,3,7,8-TCDF | 3.9 | | | 0.87 | 26:03 | JB_ |
| 1,2,3,7,8-PeCDF | 2.7 | | | 1.38 | 29:59 | JB_ |
| 2,3,4,7,8-PeCDF | EMPC | | 2.2 | | | JB_ |
| 1,2,3,4,7,8-HxCDF | 4.9 | | | 1.31 | 33:28 | JB_ |
| 3,6,7,8-HxCDF | EMPC | | 2.0 | | | JB_ |
| 4,6,7,8-HxCDF | 2.9 | | | 1.18 | 34:03 | JB_ |
| 1,2,3,7,8,9-HxCDF | EMPC | | 2.4 | | | JB_ |
| 1,2,3,4,6,7,8-HpCDF | 5.7 | | | 1.02 | 36:29 | JB_ |
| 1,2,3,4,7,8,9-HpCDF | ND | 1.5 | | | | ___ |
| 1,2,3,4,6,7,8,9-OCDF | 12.5 | | | 0.78 | 41:22 | JB_ |

| Totals | Conc. (pg/L) | Number | DL | EMPC | Flags |
|---|---|---|---|---|---|
| Total TCDD | ND | | 1.2 | | ___ |
| Total PeCDD | ND | | 1.3 | | ___ |
| Total HxCDD | 1.9 | 1 | | 15.0 | ___ |
| Total HpCDD | 30.2 | 2 | | | ___ |
| Total TCDF | 3.9 | 1 | | 55.3 | X__ |
| Total PeCDF | 17.4 | 5 | | 43.9 | X__ |
| Total HxCDF | 24.1 | 5 | | 32.0 | X__ |
| Total HpCDF | 5.7 | 1 | | | ___ |



MIT3_PSR v1.00, LARS 6.25.05

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Printed: 13:40 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-02O** Analysis File: **U004303**

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1090 | 57.0 | 40%-135% | 0.80 | 26:02 | ___ |
| $^{13}C_{12}$-2,3,7,8-TCDD | 1050 | 55.1 | 40%-135% | 0.78 | 26:45 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1380 | 72.3 | 40%-135% | 1.61 | 29:58 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1400 | 73.4 | 40%-135% | 1.63 | 31:00 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1280 | 67.3 | 40%-135% | 0.51 | 33:34 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1480 | 77.5 | 40%-135% | 1.25 | 34:14 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1280 | 67.5 | 40%-135% | 0.46 | 36:28 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1590 | 83.5 | 40%-135% | 1.05 | 37:32 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3640 | 95.5 | 40%-135% | 0.90 | 41:11 | ___ |

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1550 | 81.5 | 40%-135% | 1.62 | 30:40 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1380 | 72.5 | 40%-135% | 0.51 | 33:27 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1560 | 82.0 | 40%-135% | 1.25 | 34:09 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1500 | 78.6 | 40%-135% | 0.45 | 38:02 | ___ |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 115 | 60.4 | 40%-135% | 26:46 | ___ |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1550 | 81.5 | 40%-135% | 0.51 | 34:49 | ___ |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1600 | 83.8 | 40%-135% | 0.52 | 34:03 | ___ |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.79 | 26:33 | ___ |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.24 | 34:33 | ___ |

Data Reviewer: _____ 01/20/2003



MFT3_PSR v1.00, LARS 6.25.05

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Printed: 13:40 01/20/2003

# Del Mar Analytical

TLI Project: **59312r1** — Toxicity Equivalents Report
Client Sample: **ILL1698-02O** — Analysis File: **U004303**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/03 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-2B | Date Extracted: | 01/08/03 | ICal: | UF57092 |
| | | Date Analyzed: | 01/09/03 | ConCal: | U030041 |
| Sample Size: | 1.050 L | Dilution Factor: | 1 | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | | TEF | | Equivalent |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | {1.2} | x | 1. | = | 1.2 |
| 1,2,3,7,8-PeCDD | {1.3} | x | 0.5 | = | 0.65 |
| 1,2,3,4,7,8-HxCDD | 1.9 | x | 0.1 | = | 0.19 |
| 1,2,3,6,7,8-HxCDD | [1.9] | x | 0.1 | = | 0.19 |
| 1,2,3,7,8,9-HxCDD | [2.3] | x | 0.1 | = | 0.23 |
| 1,2,3,4,6,7,8-HpCDD | 15.2 | x | 0.01 | = | 0.152 |
| 1,2,3,4,6,7,8,9-OCDD | 119 | x | 0.001 | = | 0.119 |
| TOTAL PCDD | | | | | 2.7 |
| 2,3,7,8-TCDF | 3.9 | x | 0.1 | = | 0.39 |
| 1,2,3,7,8-PeCDF | 2.7 | x | 0.05 | = | 0.14 |
| 2,3,4,7,8-PeCDF | [2.2] | x | 0.5 | = | 1.1 |
| 1,2,3,4,7,8-HxCDF | 4.9 | x | 0.1 | = | 0.49 |
| 1,2,3,6,7,8-HxCDF | [2.0] | x | 0.1 | = | 0.20 |
| 2,3,4,6,7,8-HxCDF | 2.9 | x | 0.1 | = | 0.29 |
| 1,2,3,7,8,9-HxCDF | [2.4] | x | 0.1 | = | 0.24 |
| 1,2,3,4,6,7,8-HpCDF | 5.7 | x | 0.01 | = | 0.057 |
| 1,2,3,4,7,8,9-HpCDF | {1.5} | x | 0.01 | = | 0.015 |
| 1,2,3,4,6,7,8,9-OCDF | 12.5 | x | 0.001 | = | 0.0125 |
| TOTAL PCDF | | | | | 2.9 |

**Total EPA TEFs, 1989a: 5.7 pg/L**

**[...] indicates that the value is that of an EMPC.**
**{...} indicates that the value is that of a Detection Limit.**



GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:07 01/20/03

Initial ....Date...

Data Review By: [signature] 1/20/03

Calculated Noise Height: 3.75

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U004303B.dbf
01/20/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | 0.65-0.89 | | | | | 0.873-1.074 | | | | |
| 304-306 | DC | NL | | Height | | | 23.60 | 12.74 | 10.86 | | | | |
| AN | | | | 26:03 | | 0.87 | 158.60 | 73.90 | 84.70 | 1.001 | 2378-TCDF | AN | J |
| D | D | SN | | 26:29 | RO | 1.06 | 54.98 | | | 1.017 | | | |
| X | | X | | 26:51 | RO | 0.74 | 228.64 | 97.13 | 131.51 | 1.031 | | | J |
| X | | X | | 27:07 | RO | 0.69 | 915.29 | 372.53 | 542.76 | 1.042 | | | |
| X | | X | | 27:27 | RO | 0.84 | 973.06 | 444.71 | 528.35 | 1.054 | | | |
| | DC | WH | | 28:05 | | 0.71 | 413.26 | | | 1.079 | | | |
| 304-306 | | | 4 | Peaks | | | 2,275.59 | | | | | | |
| 13C12-TCDF | | | | 0.65-0.89 | | | | | 0.962-1.038 | | | | |
| 316-318 | DC | NL | | Height | | | 17.66 | 8.91 | 8.75 | | | | |
| | | | | 25:18 | | 0.88 | 136.24 | 63.96 | 72.28 | 0.972 | | | |
| | | | | 25:38 | | 0.80 | 567.06 | 252.68 | 314.38 | 0.985 | | | |
| | | | | 26:02 | | 0.80 | 69,455.70 | 30,900.00 | 38,555.70 | 1.000 | 13C12-2378-TCDF | ISO | |
| | | | | | Height | | 18,533.32 | 8,215.02 | 10,318.30 | | | | |
| | | | | 26:23 | RO | 1.35 | 225.82 | 171.98 | 127.58 | 1.013 | | | |
| 316-318 | | | 4 | Peaks | | | 70,384.82 | | | | | | |

---------- Above: TCDF / TCDD Follows ----------

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD | | | | 0.65-0.89 | | | | | 0.900-1.043 | | | | |
| 320-322 | DC | NL | | Height | | | 8.89 | 4.77 | 4.12 | | | | |
| D | D | SN | | 26:02 | RO | 1.36 | 74.04 | | | 0.973 | | | |
| | DC | SN | | 26:22 | RO | 3.86 | 8.20 | | | 0.986 | | | |
| D | D | SN | | 26:46 | RO | 0.62 | 43.05 | | | 1.001 | 2378-TCDD | AN | |
| | DC | SN | | 26:56 | | 0.66 | 20.52 | | | 1.007 | | | |
| | DC | SN | | 27:32 | RO | 0.50 | 21.91 | | | 1.029 | | | |
| 320-322 | | | 0 | Peaks | | | 0.00 | | | | | | |
| 37Cl-TCDD | | | | | | | | | 0.925-1.075 | | | | |
| 328 | DC | NL | | Height | | | 6.19 | 6.19 | | | | | |
| | DC | WL | | 24:11 | | | 9.82 | | | 0.904 | | | |
| | DC | WL | | 24:38 | | | 27.83 | | | 0.921 | | | |
| | | | | 25:24 | | | 1,688.81 | 1,688.81 | | 0.950 | | | |
| | DC | SN | | 25:50 | | | 24.08 | | | 0.966 | | | |
| | | | | 26:46 | | | 5,509.96 | 5,509.96 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | | 27:08 | | | 334.21 | 334.21 | | 1.014 | | | |
| | | | | 28:06 | | | 469.37 | 469.37 | | 1.050 | | | |
| | | | | 28:16 | | | 32.48 | 32.48 | | 1.057 | | | |
| 328 | | | 5 | Peaks | | | 8,034.83 | | | | | | |
| 13C12-TCDD | | | | 0.65-0.89 | | | | | 0.925-1.075 | | | | |
| 332-334 | DC | NL | | Height | | | 36.05 | 23.51 | 12.54 | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 26:33 | | 0.79 | 75,955.90 | 33,544.50 | 42,411.40 | 0.993 | 13C12-1234-TCDD | RS1 | |
| | | | | 26:45 | | 0.78 | 47,218.40 | 20,654.80 | 26,563.60 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | | Height | | 12,905.48 | 5,747.42 | 7,158.06 | | | | |
| 332-334 | | | 2 Peaks | | | | 123,174.30 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | | 1.32-1.78 | | | | | 0.928-1.061 | | | |
| 340-342 | | DC | NL | | Height | | 12.05 | 5.84 | 6.21 | | | | |
| | | DC | WL | 27:48 | RO | 1.22 | 44.78 | | | 0.928 | | | |
| | D | D | SN | 28:00 | | 1.41 | 179.51 | | | 0.934 | | | |
| | | | | 28:18 | RO | 1.26 | 114.31 | 69.48 | 55.21 | 0.944 | | | J |
| | | | | 28:44 | RO | 0.98 | 138.65 | 84.28 | 85.60 | 0.959 | | | J |
| | | DC | SN | 28:56 | | 1.64 | 33.88 | | | 0.966 | | | |
| | | | | 29:06 | | 1.37 | 164.92 | 95.38 | 69.54 | 0.971 | | | J |
| | | | | 29:20 | | 1.62 | 231.81 | 143.23 | 88.58 | 0.979 | | | J |
| | M | | | 29:30 | | 1.46 | 109.30 | 64.80 | 44.50 | 0.984 | | | J |
| | A | | | 29:54 | RO | 1.26 | 90.48 | 55.00 | 43.70 | 0.998 | | | J |
| | AN | | | 29:59 | | 1.38 | 108.30 | 62.80 | 45.50 | 1.001 | 12378-PeCDF | AN | J |
| | MXT | | X | 30:02 | RO | 1.26 | 236.90 | 144.00 | 114.00 | 1.002 | | | J |
| | | | | 30:17 | RO | 0.96 | 81.09 | 49.29 | 51.33 | 1.011 | | | J |
| | M | | | 30:41 | RO | 1.27 | 86.21 | 52.40 | 41.20 | 1.024 | 23478-PeCDF | AN | J |
| | M | | | 30:54 | | 1.49 | 83.80 | 50.20 | 33.60 | 1.031 | | | J |
| | | | | 31:24 | RO | 1.21 | 316.02 | 149.67 | 123.93 | 1.048 | | | J |
| 340-342 | | | 12 Peaks | | | | 1,761.79 | | | | | | |
| 13C12-PeCDF | | | | | 1.32-1.78 | | | | | 0.867-1.133 | | | |
| 352-354 | | DC | NL | | Height | | 10.42 | 4.76 | 5.66 | | | | |
| | | | | 29:08 | | 1.56 | 302.13 | 184.06 | 118.07 | 0.972 | | | |
| | | | | 29:58 | | 1.61 | 61,328.70 | 37,801.50 | 23,527.20 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | | Height | | 17,978.32 | 11,062.50 | 6,915.82 | | | | |
| | | | | 30:16 | | 1.45 | 791.36 | 468.82 | 322.54 | 1.010 | | | |
| | | | | 30:40 | | 1.62 | 69,328.50 | 42,851.10 | 26,477.40 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | | 31:38 | | 1.47 | 886.71 | 528.43 | 358.28 | 1.056 | | | |
| 352-354 | | | 5 Peaks | | | | 132,637.40 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | | 1.32-1.78 | | | | | 0.937-1.021 | | | |
| 356-358 | | DC | NL | | Height | | 8.77 | 4.59 | 4.18 | | | | |
| | | DC | SN | 29:13 | RO | 0.07 | 24.63 | | | 0.942 | | | |
| | | DC | SN | 29:27 | RO | 0.07 | 10.45 | | | 0.950 | | | |
| | D | D | SN | 29:57 | RO | 0.94 | 61.63 | | | 0.966 | | | |
| | | DC | SN | 30:06 | | 1.43 | 31.72 | | | 0.971 | | | |
| | D | D | SN | 30:40 | | 1.49 | 71.16 | | | 0.989 | | | |
| | D | D | SN | 31:01 | RO | 1.27 | 51.15 | | | 1.001 | 12378-PeCDD | AN | |
| | | DC | SN | 31:37 | RO | 0.95 | 17.46 | | | 1.020 | | | |
| 356-358 | | | 0 Peaks | | | | 0.00 | | | | | | |
| 13C12-PeCDD | | | | | 1.32-1.78 | | | | | 0.871-1.129 | | | |
| 368-370 | | DC | NL | | Height | | 6.81 | 3.58 | 3.23 | | | | |
| | | | | 29:57 | | 1.50 | 96.33 | 57.74 | 38.59 | 0.966 | | | |

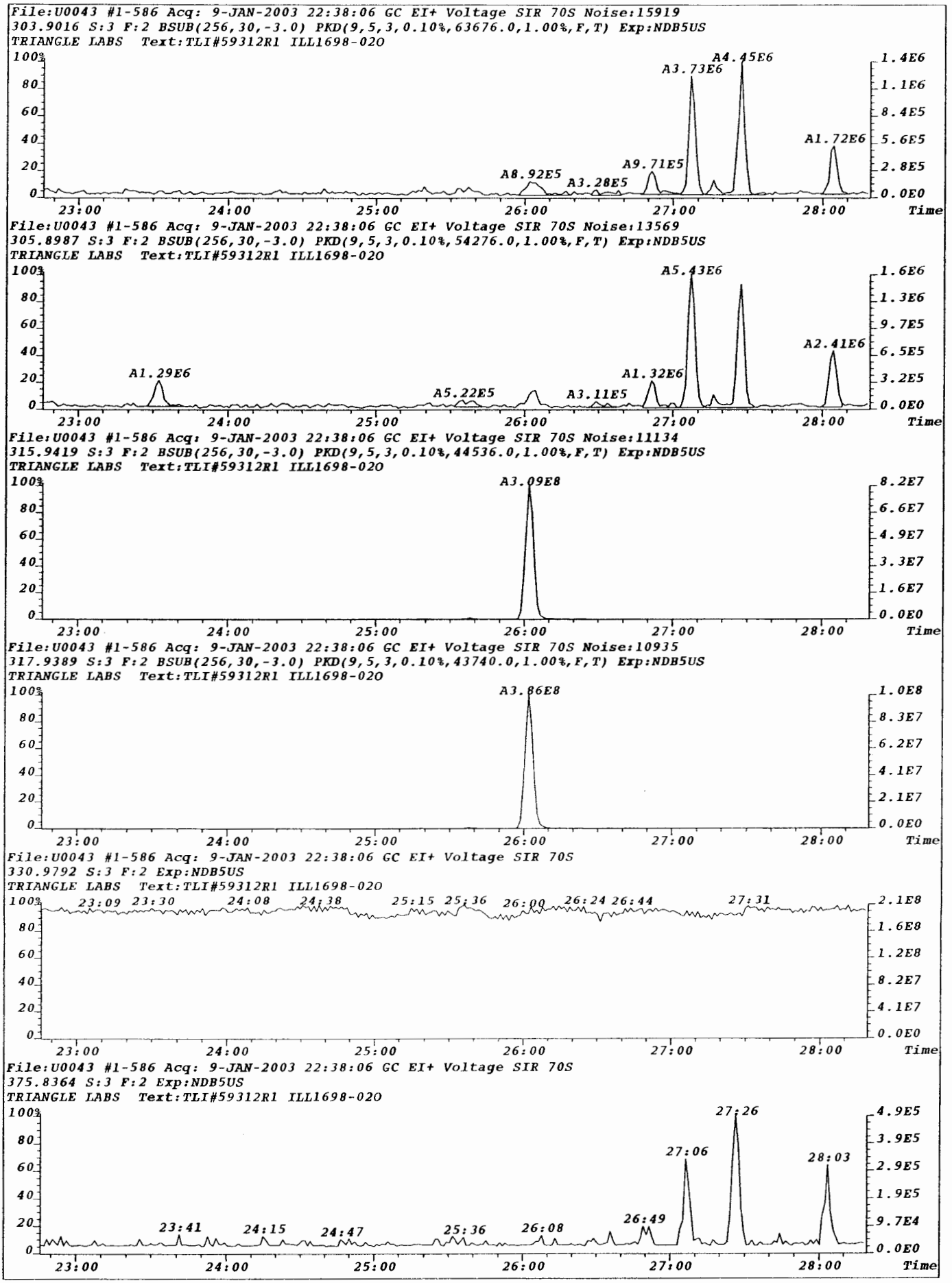
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 30:04 | | 1.76 | 152.18 | 96.96 | 55.22 | 0.970 | | | |
| | DC | SN | | 30:15 | RO | 1.13 | 67.42 | | | 0.976 | | | |
| | DC | SN | | 30:42 | RO | 0.83 | 31.24 | | | 0.990 | | | |
| | | | | 31:00 | | 1.63 | 37,055.40 | 22,962.80 | 14,092.60 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | | | Height | 11,920.37 | 7,342.05 | 4,578.32 | | | | |
| 368-370 | | | 3 Peaks | | | | 37,303.91 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |
| HxCDF | | | | | | 1.05-1.43 | | | | 0.964-1.045 | | | |
| 374-376 | DC | NL | | | | Height | 8.82 | 6.00 | 2.82 | | | | |
| D | D | SN | | 32:31 | RO | 0.59 | 26.09 | | | 0.969 | | | |
| | | | | 32:38 | | 1.13 | 162.42 | 86.25 | 76.17 | 0.972 | | | J |
| | | | | 32:48 | | 1.20 | 193.09 | 105.34 | 87.75 | 0.977 | | | J |
| | DC | SN | | 32:57 | RO | 1.54 | 21.39 | | | 0.982 | | | |
| | | | | 33:06 | | 1.06 | 176.51 | 90.84 | 85.67 | 0.986 | | | J |
| D | D | SN | | 33:12 | | 1.36 | 61.24 | | | 0.989 | | | |
| | DC | SN | | 33:20 | | 1.20 | 27.41 | | | 0.993 | | | |
| | | | | 33:28 | | 1.31 | 171.40 | 97.27 | 74.13 | 0.997 | 123478-HxCDF | AN | J |
| | | | | 33:35 | RO | 0.97 | 72.37 | 40.06 | 41.35 | 1.000 | 123678-HxCDF | AN | J |
| X | | X | | 33:43 | RO | 1.27 | 115.49 | 64.56 | 50.93 | 1.004 | | | J |
| | | | | 34:03 | | 1.18 | 92.82 | 50.18 | 42.64 | 1.014 | 234678-HxCDF | AN | J |
| D | D | SN | | 34:11 | | 1.17 | 29.74 | | | 1.018 | | | |
| | DC | SN | | 34:14 | | 1.23 | 29.00 | | | 1.020 | | | |
| | DC | SN | | 34:34 | RO | 1.90 | 25.74 | | | 1.030 | | | |
| | | | | 34:50 | RO | 1.63 | 64.44 | 46.94 | 28.77 | 1.038 | 123789-HxCDF | AN | J |
| | DC | WH | | 35:19 | RO | 0.77 | 28.51 | | | 1.052 | | | |
| 374-376 | | | 8 Peaks | | | | 1,048.54 | | | | | | |
| 13C12-HxCDF | | | | | | 0.43-0.59 | | | | 0.881-1.119 | | | |
| 384-386 | DC | NL | | | | Height | 21.42 | 9.13 | 12.29 | | | | |
| | | | | 32:29 | | 0.53 | 118.88 | 41.24 | 77.64 | 0.968 | | | |
| | | | | 32:37 | RO | 0.68 | 90.54 | 30.58 | 44.67 | 0.972 | | | |
| | | | | 33:27 | | 0.51 | 63,174.60 | 21,397.40 | 41,777.20 | 0.997 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:34 | | 0.51 | 58,477.30 | 19,789.90 | 38,687.40 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | | | Height | 18,784.55 | 6,316.05 | 12,468.50 | | | | |
| | | | | 34:03 | | 0.52 | 66,964.80 | 22,856.50 | 44,108.30 | 1.014 | 13C12-HxCDF 234 | ALT2 | |
| | | | | 34:49 | | 0.51 | 51,729.60 | 17,582.10 | 34,147.50 | 1.037 | 13C12-HxCDF 789 | ALT1 | |
| 384-386 | | | 6 Peaks | | | | 240,555.72 | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | | | | | |
| HxCDD | | | | | | 1.05-1.43 | | | | 0.958-1.013 | | | |
| 390-392 | DC | NL | | | | Height | 7.94 | 3.30 | 4.64 | | | | |
| | DC | SN | | 32:52 | RO | 0.88 | 8.74 | | | 0.960 | | | |
| D | D | SN | | 33:00 | | 1.14 | 54.99 | | | 0.964 | | | |
| | | | | 33:27 | RO | 1.78 | 70.56 | 55.93 | 31.50 | 0.977 | | | J |
| | | | | 33:33 | RO | 1.63 | 53.07 | 38.53 | 23.69 | 0.980 | | | J |
| | | | | 33:38 | RO | 0.83 | 53.51 | 29.62 | 35.54 | 0.982 | | | J |
| | DC | SN | | 33:48 | RO | 0.65 | 12.25 | | | 0.987 | | | |
| | DC | SN | | 33:53 | RO | 0.59 | 8.00 | | | 0.990 | | | |
| | | | | 34:03 | RO | 1.55 | 65.72 | 45.35 | 29.34 | 0.995 | | | J |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 34:10 | | 1.20 | 50.52 | 27.53 | 22.99 | 0.998 | 123478-HxCDD | AN | J |
| M | | | | 34:15 | RO | 0.98 | 51.66 | 28.60 | 29.20 | 1.000 | 123678-HxCDD | AN | J |
| | DC | SN | | 34:24 | RO | 3.60 | 6.54 | | | 1.005 | | | |
| M | | | | 34:34 | RO | 1.44 | 61.15 | 39.40 | 27.30 | 1.010 | 123789-HxCDD | AN | J |
| | DC | WH | | 34:49 | RO | 2.89 | 36.65 | | | 1.017 | | | |
| 390-392 | | | 7 | Peaks | | | 406.19 | | | | | | |
| 13C12-HxCDD | | | | 1.05-1.43 | | | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | Height | | | 15.76 | 8.85 | 6.91 | | | | |
| | | | | 33:37 | | 1.31 | 410.83 | 233.19 | 177.64 | 0.982 | | | |
| | | | | 34:09 | | 1.25 | 45,304.60 | 25,199.80 | 20,104.80 | 0.998 | 13C12-HxCDD 478 | SUR3 | |
| | | | | 34:14 | | 1.25 | 47,332.70 | 26,297.70 | 21,035.00 | 1.000 | 13C12-HxCDD 678 | IS5 | |
| | | | | Height | | | 15,520.59 | 8,588.91 | 6,931.68 | | | | |
| | | | | 34:33 | | 1.24 | 58,797.50 | 32,575.40 | 26,222.10 | 1.009 | 13C12-HxCDD 789 | RS2 | |
| 402-404 | | | 4 | Peaks | | | 151,845.63 | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | | | | | |
| HpCDF | | | | 0.88-1.20 | | | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | Height | | | 7.98 | 4.46 | 3.52 | | | | |
| MT | | | | 36:29 | | 1.02 | 178.70 | 90.20 | 88.50 | 1.000 | 1234678-HpCDF | AN | J |
| D | D | SN | | 36:55 | | 0.98 | 194.19 | | | 1.012 | | | |
| D | D | SN | | 38:01 | | 0.98 | 69.96 | | | 1.043 | 1234789-HpCDF | AN | |
| 408-410 | | | 1 | Peak | | | 178.70 | | | | | | |
| 13C12-HpCDF | | | | 0.37-0.51 | | | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | Height | | | 9.08 | 4.39 | 4.69 | | | | |
| | | | | 36:28 | | 0.46 | 41,645.30 | 13,146.70 | 28,498.60 | 1.000 | 13C12-HpCDF 678 | IS6 | |
| | | | | Height | | | 11,788.09 | 3,660.28 | 8,127.81 | | | | |
| | | | | 38:02 | | 0.45 | 34,093.50 | 10,604.10 | 23,489.40 | 1.043 | 13C12-HpCDF 789 | SUR4 | |
| -420 | | | 2 | Peaks | | | 75,738.80 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |
| HpCDD | | | | 0.88-1.20 | | | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | Height | | | 6.02 | 3.41 | 2.61 | | | | |
| | | | | 36:46 | | 1.08 | 315.79 | 163.75 | 152.04 | 0.980 | | | J |
| | | | | 37:33 | | 1.15 | 319.78 | 170.83 | 148.95 | 1.000 | 1234678-HpCDD | AN | J |
| | DC | WH | | 38:02 | RO | 1.89 | 41.82 | | | 1.013 | | | |
| 424-426 | | | 2 | Peaks | | | 635.57 | | | | | | |
| 13C12-HpCDD | | | | 0.88-1.20 | | | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | Height | | | 10.53 | 5.56 | 4.97 | | | | |
| | | | | 36:45 | RO | 1.24 | 53.18 | 32.30 | 26.07 | 0.979 | | | |
| | | | | 37:32 | | 1.05 | 39,715.00 | 20,320.50 | 19,394.50 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | Height | | | 10,456.86 | 5,372.60 | 5,084.26 | | | | |
| 436-438 | | | 2 | Peaks | | | 39,768.18 | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | | | | | |
| OCDF | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | Height | | | 7.54 | 3.53 | 4.01 | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DC | SN | | 38:42 | RO | 2.38 | 13.02 | | | 0.940 | | | |
| | DC | SN | | 39:04 | RO | 0.62 | 13.74 | | | 0.949 | | | |
| | DC | SN | | 39:10 | RO | 0.25 | 6.26 | | | 0.951 | | | |
| | DC | SN | | 40:30 | RO | 0.12 | 4.27 | | | 0.983 | | | |
| | DC | SN | | 40:47 | RO | 2.01 | 16.88 | | | 0.990 | | | |
| | | | | 41:22 | | 0.78 | 301.40 | 132.53 | 168.87 | 1.004 | OCDF | AN | J |
| | DC | SN | | 42:56 | RO | 1.40 | 15.61 | | | 1.042 | | | |
| | DC | SN | | 43:08 | RO | 0.71 | 25.42 | | | 1.047 | | | |
| | DC | SN | | 43:20 | RO | 1.19 | 20.34 | | | 1.052 | | | |
| 442-444 | | | 1 | Peak | | | 301.40 | | | | | | |
| OCDD | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 6.02 | 3.52 | 2.50 | | | | |
| | | | | 41:11 | | 0.90 | 2,131.24 | 1,009.89 | 1,121.35 | 1.000 | OCDD | AN | |
| 458-460 | | | 1 | Peak | | | 2,131.24 | | | | | | |
| 13C12-OCDD | | | | | | 0.76-1.02 | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | | | Height | 4.39 | 2.24 | 2.15 | | | | |
| | | | | 41:11 | | 0.90 | 61,445.70 | 29,186.40 | 32,259.30 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 12,820.08 | 6,111.32 | 6,708.76 | | | | |
| 470-472 | | | 1 | Peak | | | 61,445.70 | | | | | | |

| Column Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

*** End of Report ***

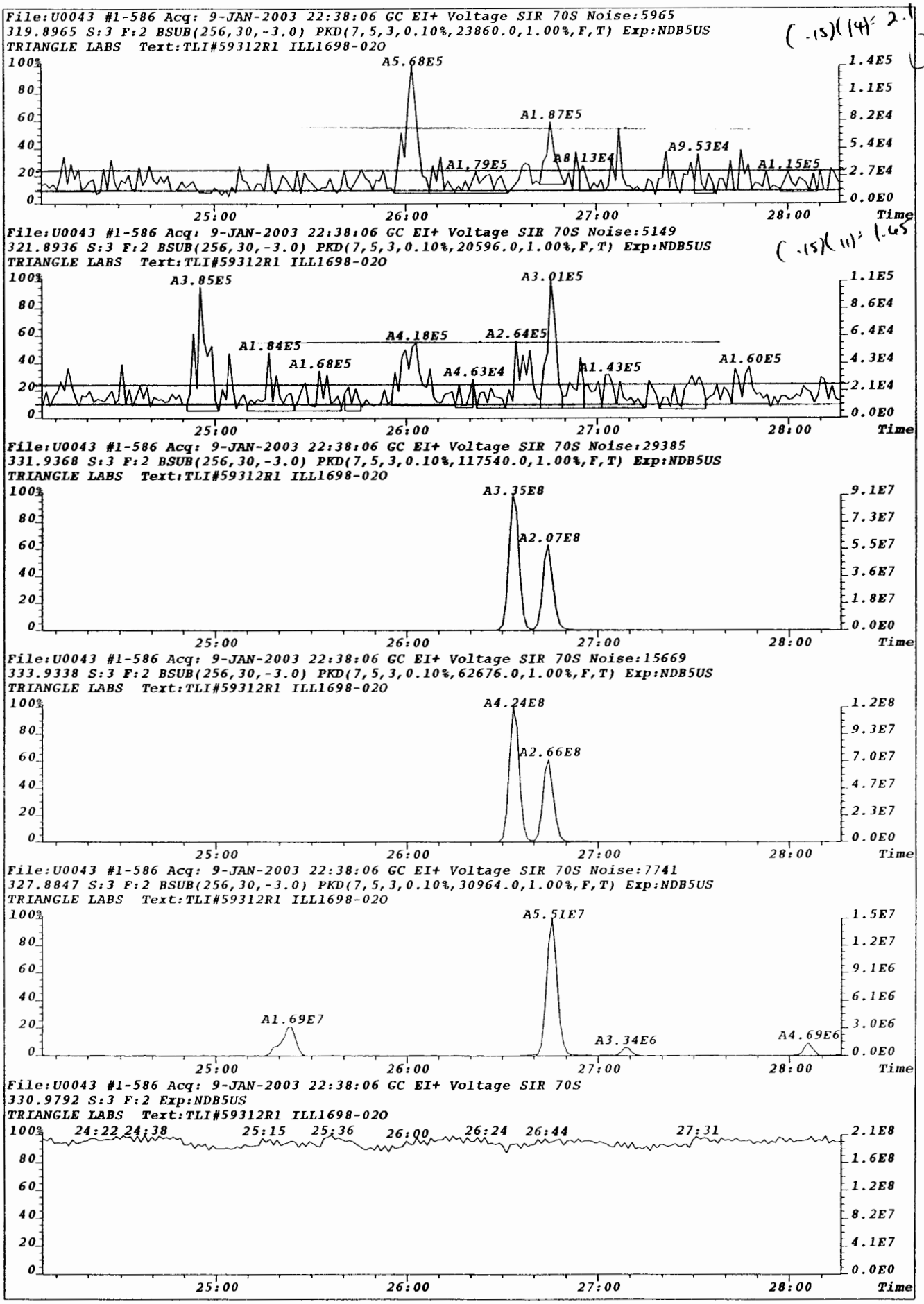

File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:15919
303.9016 S:3 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,63676.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A4.45E6
A3.73E6
A1.72E6
A9.71E5
A8.92E5
A3.28E5
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:13569
305.8987 S:3 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,54276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A5.43E6
A2.41E6
A1.29E6
A1.32E6
A5.22E5
A3.11E5
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:11134
315.9419 S:3 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,44536.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A3.09E8
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:10935
317.9389 S:3 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,43740.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A3.06E8
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
23:09 23:30 24:08 24:38 25:15 25:36 26:00 26:24 26:44 27:31
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
375.8364 S:3 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
27:26
27:06
28:03
23:41
24:15
24:47
25:36
26:08
26:49
Time

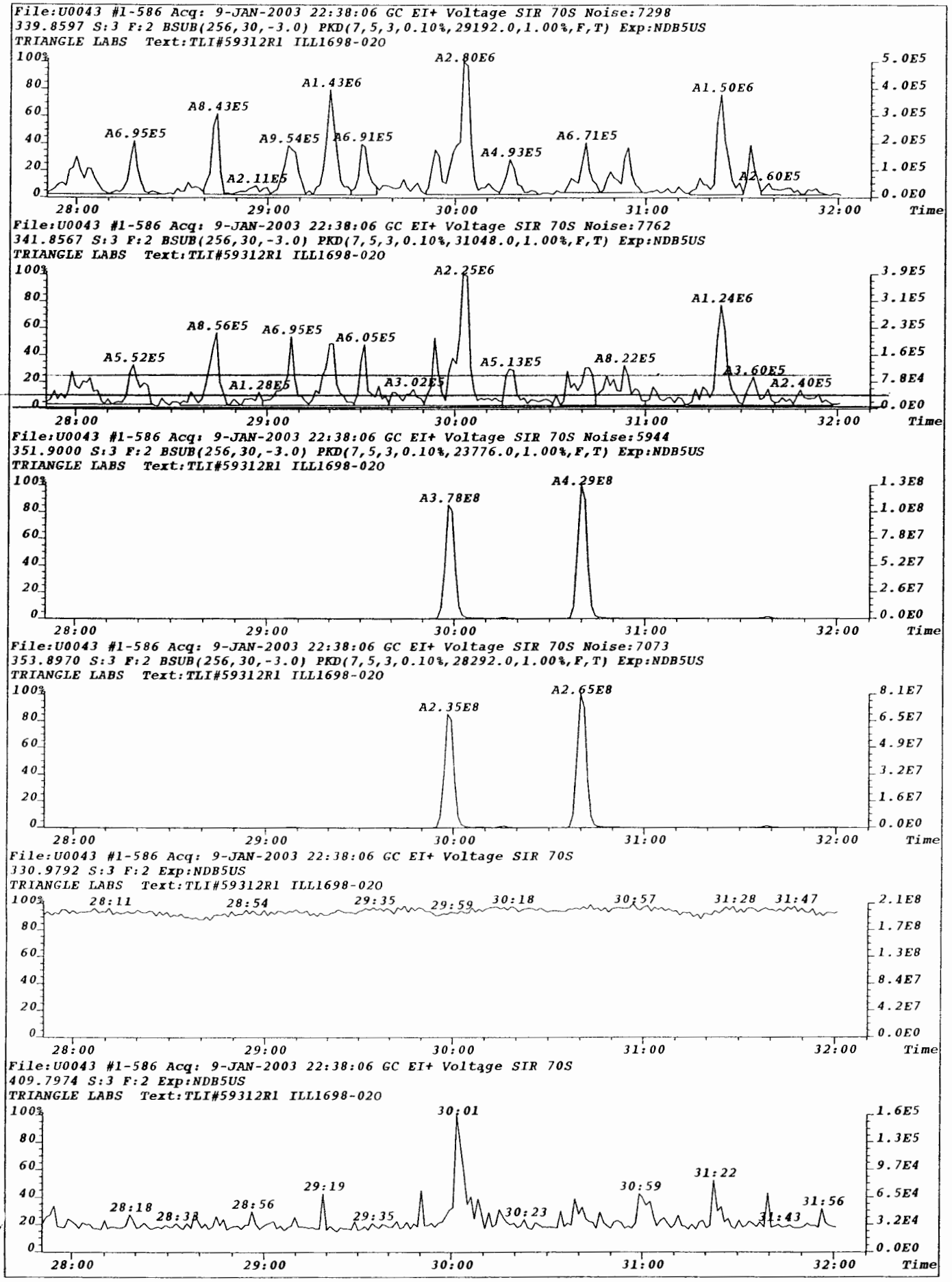
N= 2.1 + 1.65 = 3.75

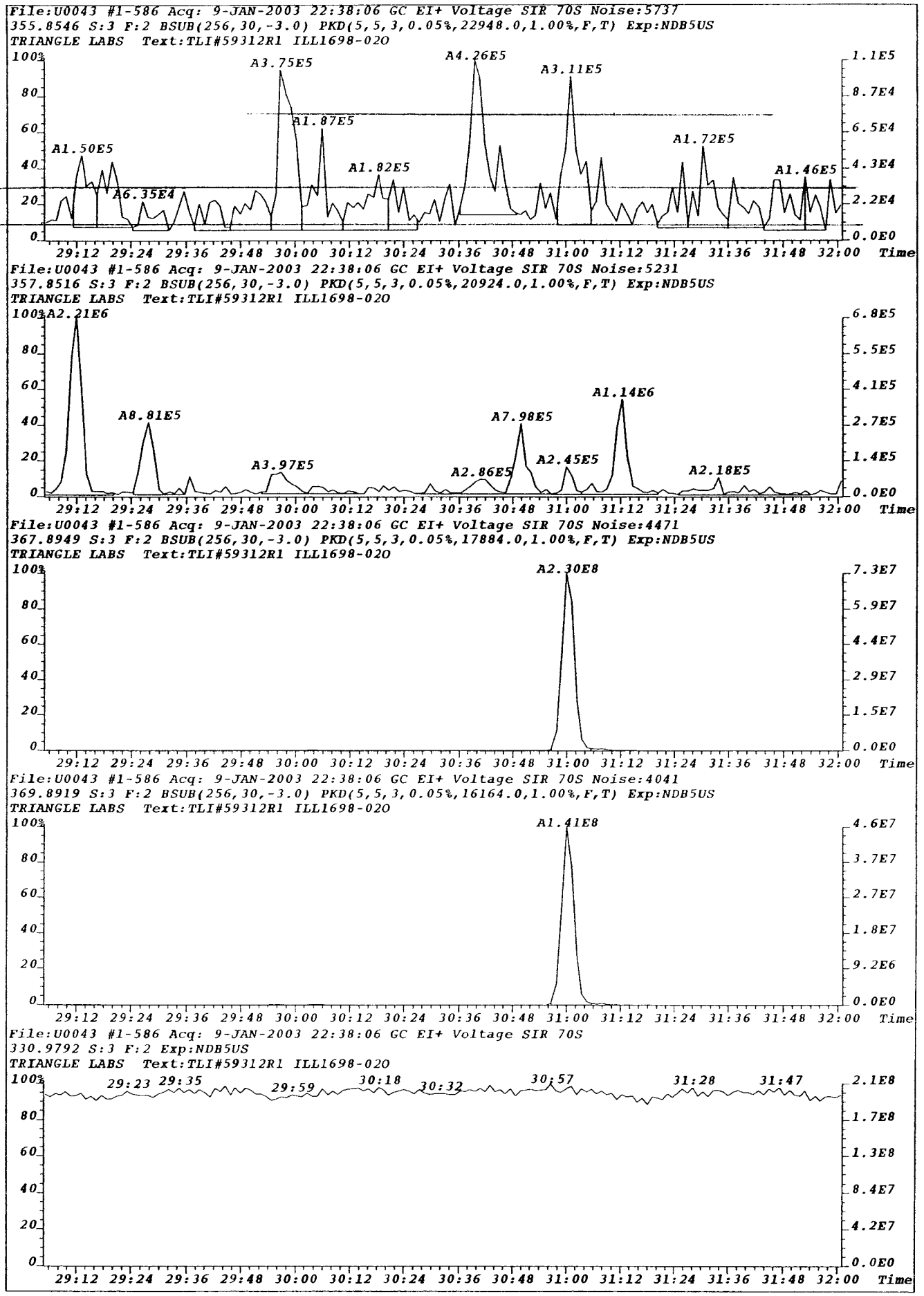
(.15)(14) = 2.1

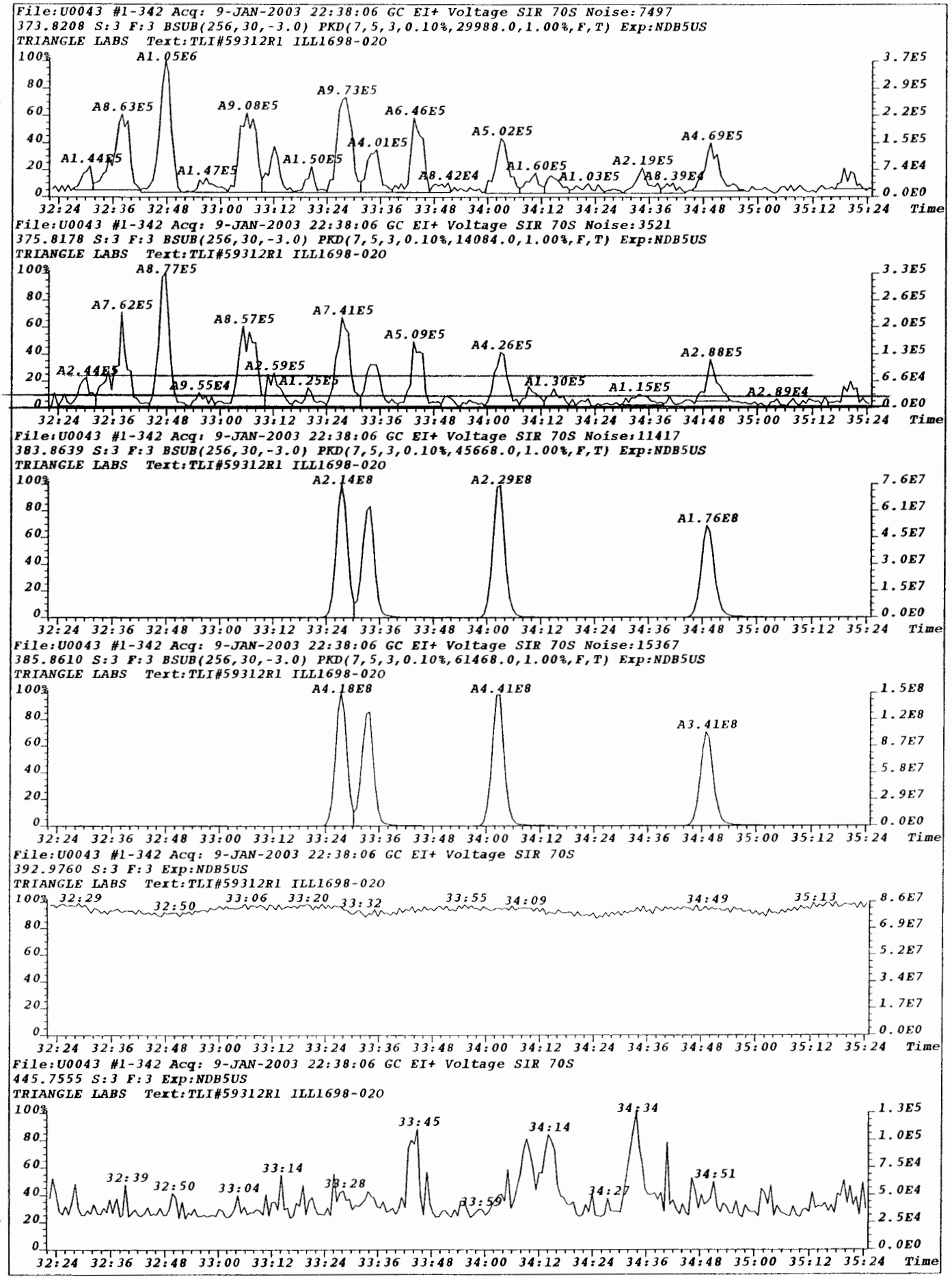
(.15)(11) = 1.65

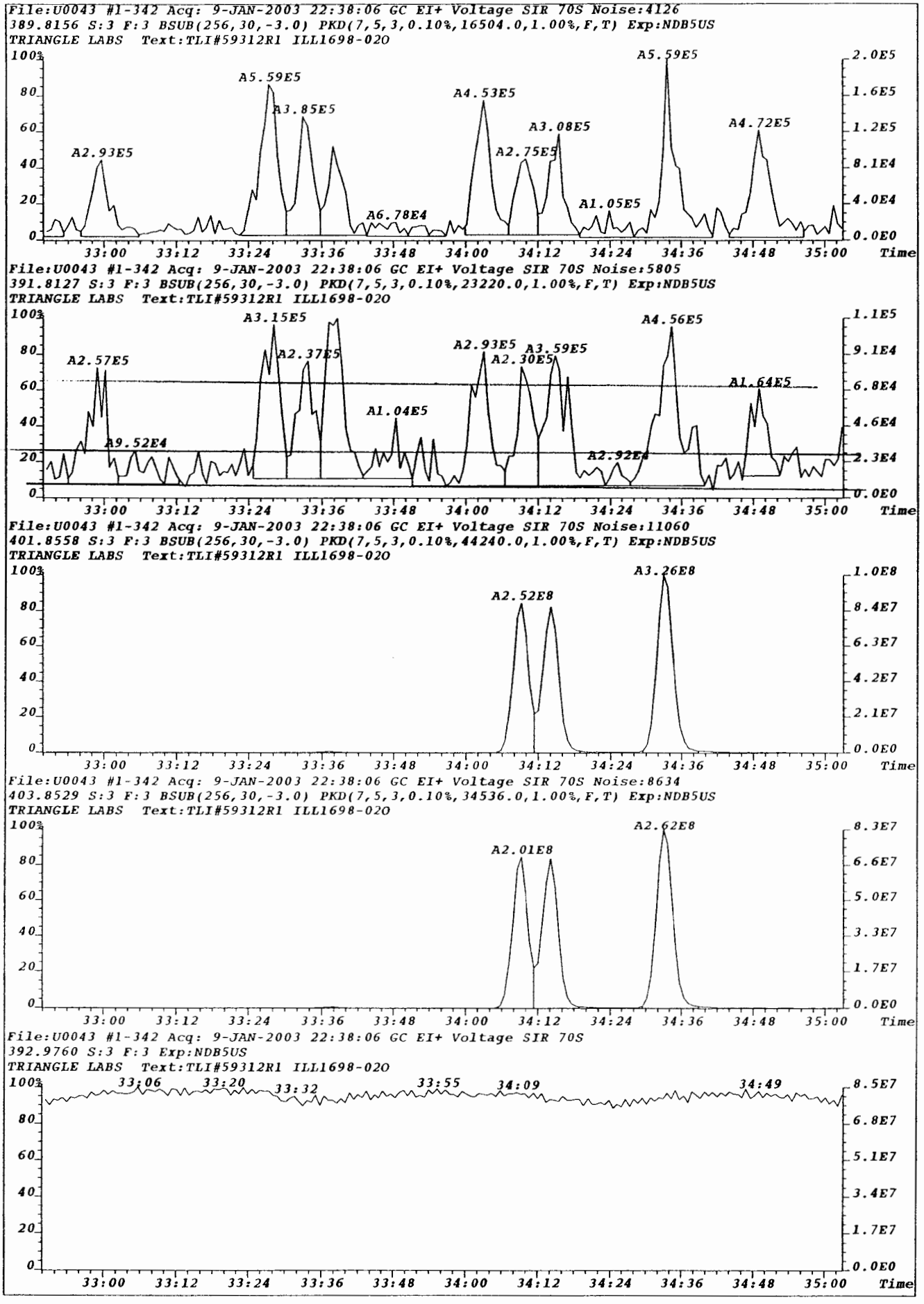
1/9/03

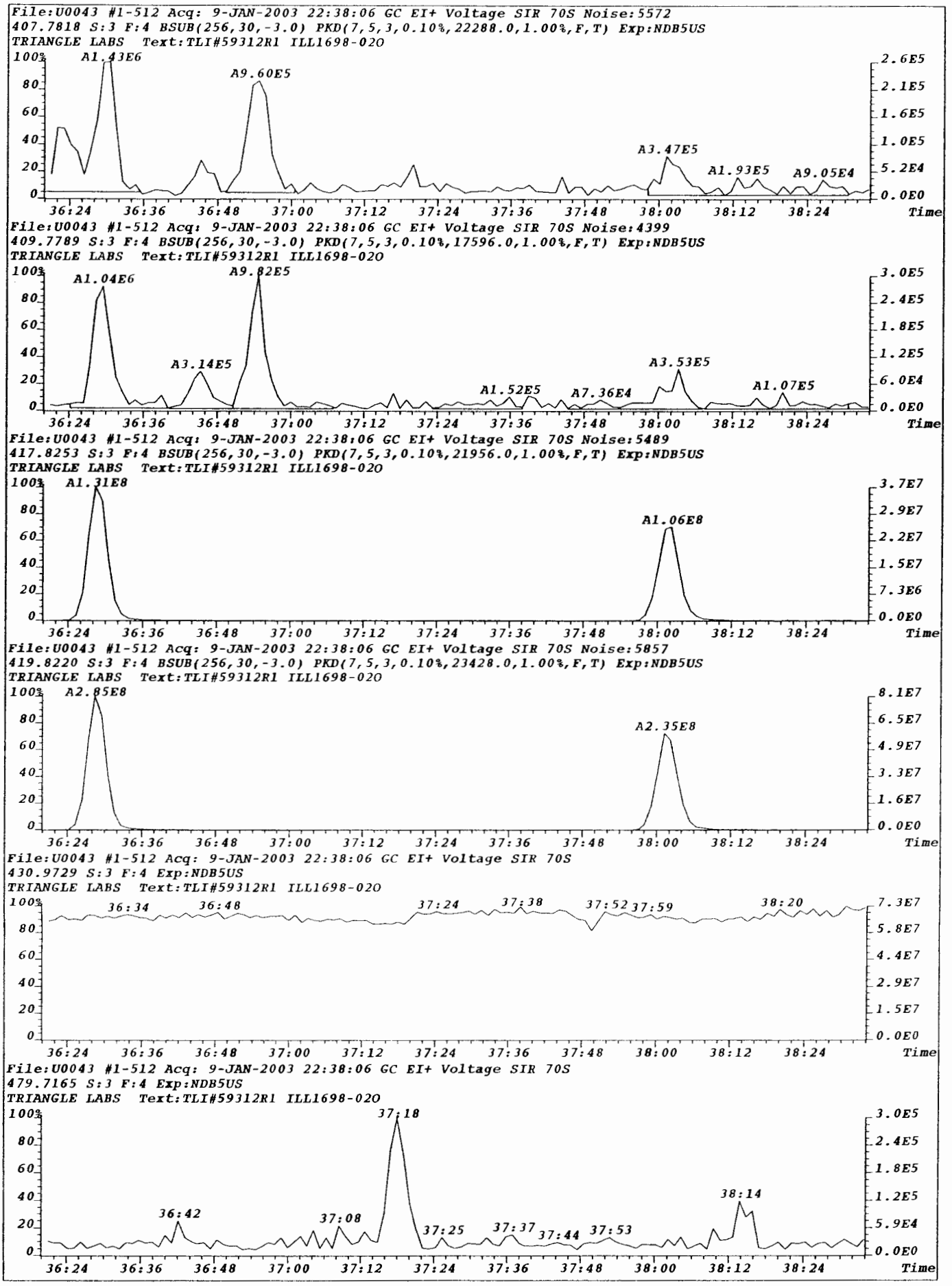


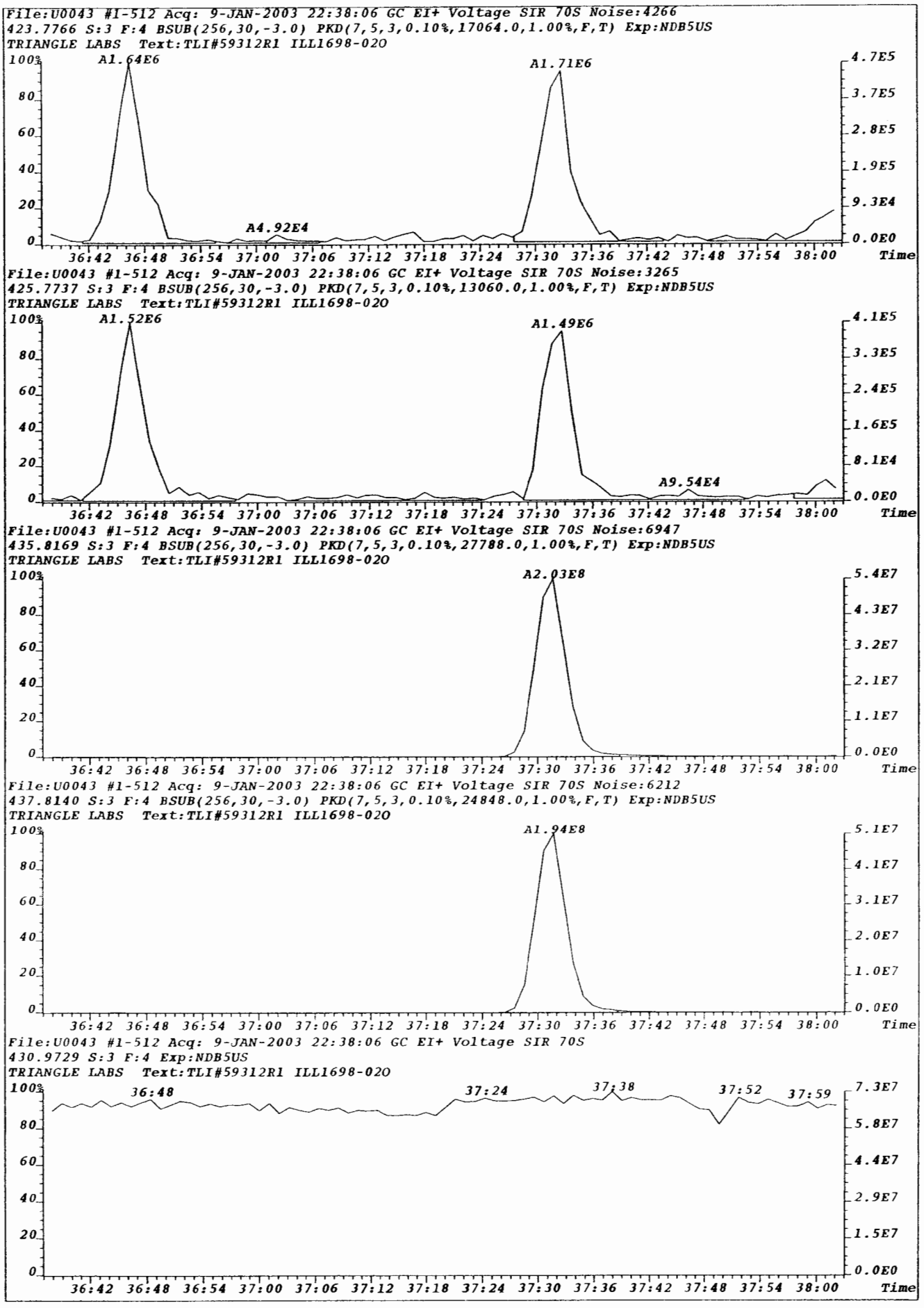

File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:7298
339.8597 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,29192.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A6.95E5
A8.43E5
A2.11E5
A9.54E5
A1.43E6
A6.91E5
A2.80E6
A4.93E5
A6.71E5
A1.50E6
A2.60E5
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:7762
341.8567 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,31048.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A5.52E5
A8.56E5
A1.28E5
A6.95E5
A6.05E5
A3.02E5
A2.25E6
A5.13E5
A8.22E5
A1.24E6
A3.60E5
A2.40E5
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5944
351.9000 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23776.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A3.78E8
A4.29E8
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:7073
353.8970 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,28292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.35E8
A2.65E8
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
28:11
28:54
29:35
29:59
30:18
30:57
31:28
31:47
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
409.7974 S:3 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
28:18
28:38
28:56
29:19
29:35
30:01
30:23
30:59
31:22
31:43
31:56
Time

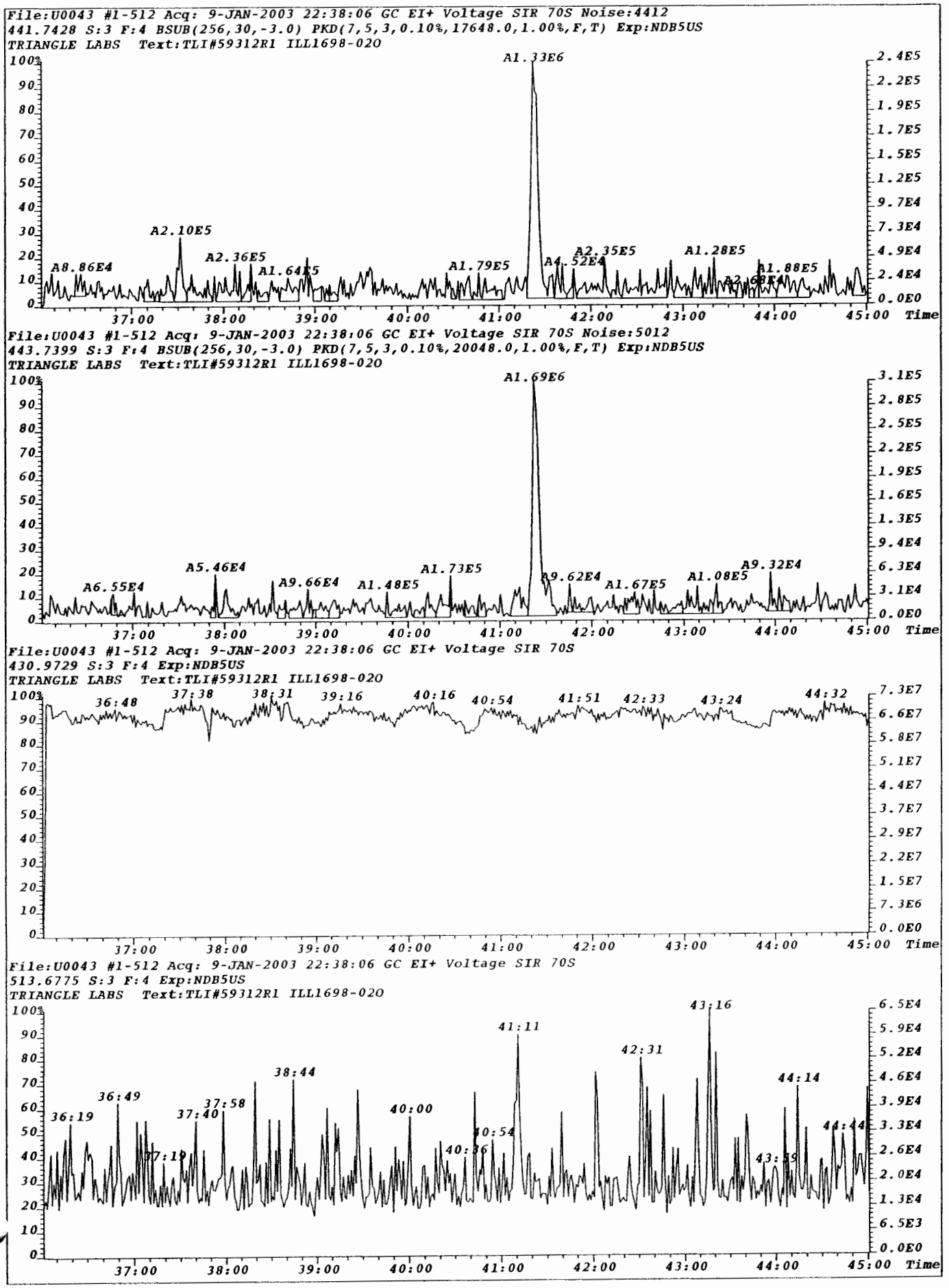

File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5737
355.8546 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,22948.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.50E5
A6.35E4
A3.75E5
A1.87E5
A1.82E5
A4.26E5
A3.11E5
A1.72E5
A1.46E5
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5231
357.8516 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,20924.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.21E6
A8.81E5
A3.97E5
A2.86E5
A7.98E5
A2.45E5
A1.14E6
A2.18E5
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4471
367.8949 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17884.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.30E8
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4041
369.8919 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,16164.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.41E8
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
29:23 29:35 29:59 30:18 30:32 30:57 31:28 31:47
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time


File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:7497
373.8208 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,29988.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.05E6
A8.63E5
A9.08E5
A9.73E5
A6.46E5
A5.02E5
A4.69E5
A4.01E5
A1.44E5
A1.47E5
A1.50E5
A8.42E4
A1.60E5
A1.03E5
A2.19E5
A8.39E4
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:3521
375.8178 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14084.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A8.77E5
A7.62E5
A8.57E5
A7.41E5
A5.09E5
A4.26E5
A2.88E5
A2.44E5
A2.59E5
A9.55E4
A1.25E5
A1.30E5
A1.15E5
A2.89E4
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:11417
383.8639 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,45668.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.14E8
A2.29E8
A1.76E8
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:15367
385.8610 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,61468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A4.18E8
A4.41E8
A3.41E8
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
392.9760 S:3 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
445.7555 S:3 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
Time

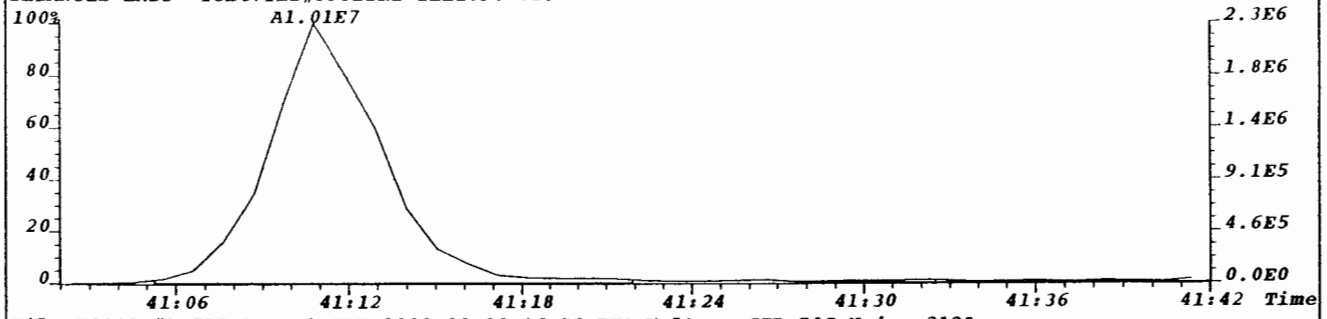

File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4126
389.8156 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16504.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.93E5
A5.59E5
A3.85E5
A6.78E4
A4.53E5
A2.75E5
A3.08E5
A1.05E5
A5.59E5
A4.72E5
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5805
391.8127 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23220.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.57E5
A3.15E5
A2.37E5
A9.52E4
A1.04E5
A2.93E5
A2.30E5
A3.59E5
A2.92E4
A4.56E5
A1.64E5
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:11060
401.8558 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,44240.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.52E8
A3.26E8
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:8634
403.8529 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,34536.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.01E8
A2.62E8
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
392.9760 S:3 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
33:06
33:20
33:32
33:55
34:09
34:49
Time


File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5572
407.7818 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,22288.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.43E6
A9.60E5
A3.47E5
A1.93E5
A9.05E4
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4399
409.7789 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17596.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.04E6
A9.82E5
A3.14E5
A1.52E5
A7.36E4
A3.53E5
A1.07E5
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5489
417.8253 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21956.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.31E8
A1.06E8
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5857
419.8220 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23428.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.85E8
A2.35E8
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
479.7165 S:3 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
37:18
36:42
37:08
37:25
37:37
37:44
37:53
38:14
Time

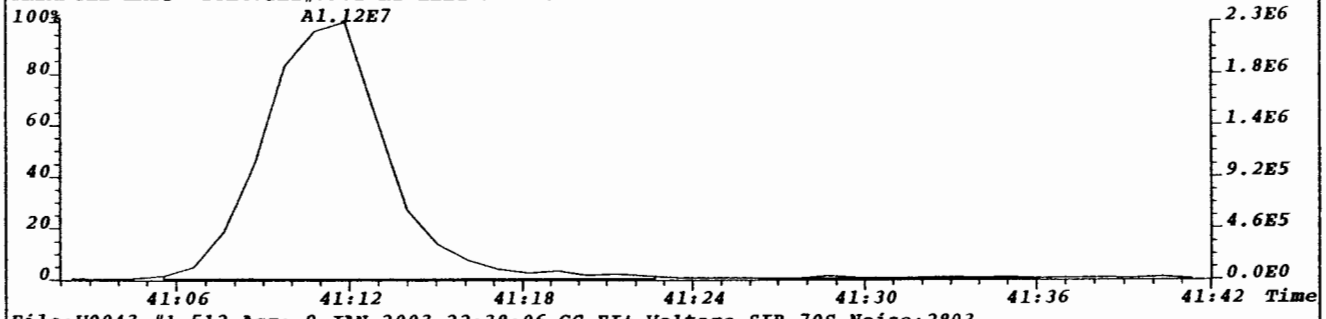

File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4266
423.7766 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17064.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.64E6
A1.71E6
A4.92E4
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:3265
425.7737 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13060.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.52E6
A1.49E6
A9.54E4
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:6947
435.8169 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27788.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A2.03E8
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:6212
437.8140 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,24848.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.94E8
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
36:48
37:24
37:38
37:52
37:59
Time


File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4412
441.7428 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17648.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.33E6
A2.10E5
A2.36E5
A1.64E5
A8.86E4
A1.79E5
A4.52E4
A2.35E5
A1.28E5
A1.88E5
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:5012
443.7399 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20048.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
A1.69E6
A5.46E4
A6.55E4
A9.66E4
A1.48E5
A1.73E5
A9.62E4
A1.67E5
A1.08E5
A9.32E4
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
36:48
37:38
38:31
39:16
40:16
40:54
41:51
42:33
43:24
44:32
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
513.6775 S:3 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020
36:19
36:49
37:40
37:58
38:44
40:00
40:36
40:54
41:11
42:31
43:16
43:39
44:14
44:44
Time

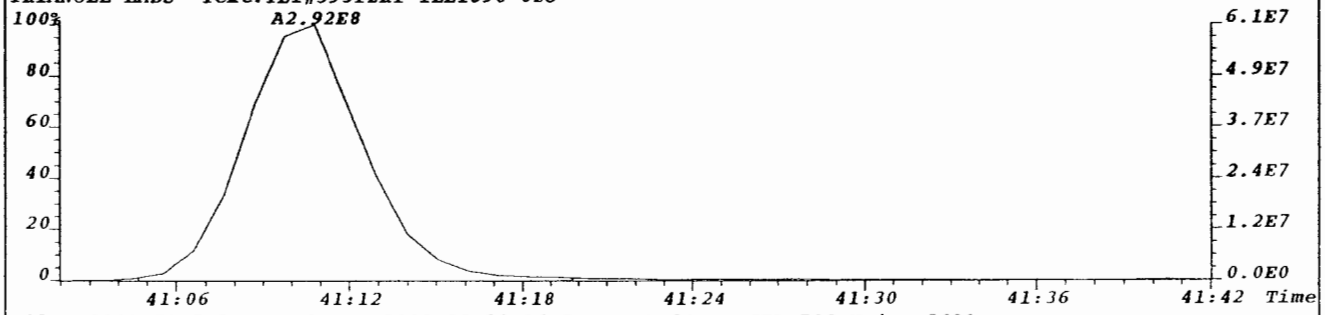
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:4399
457.7377 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17596.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020



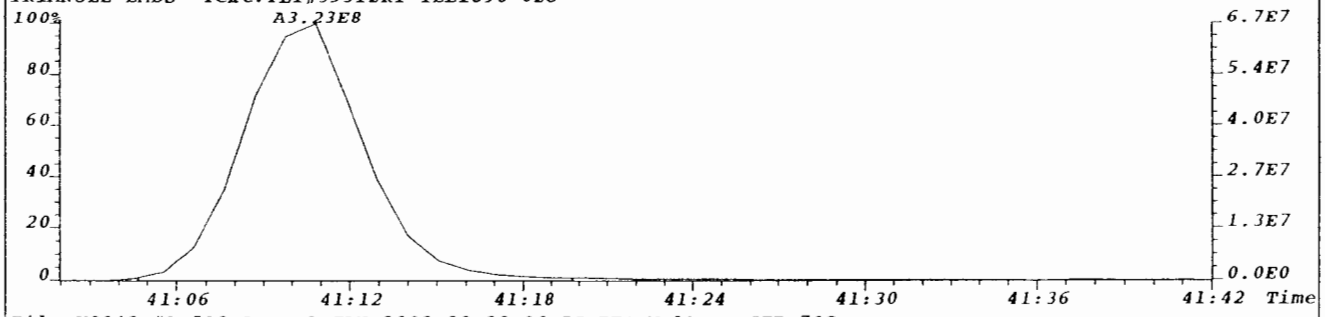

File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:3128
459.7348 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12512.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020



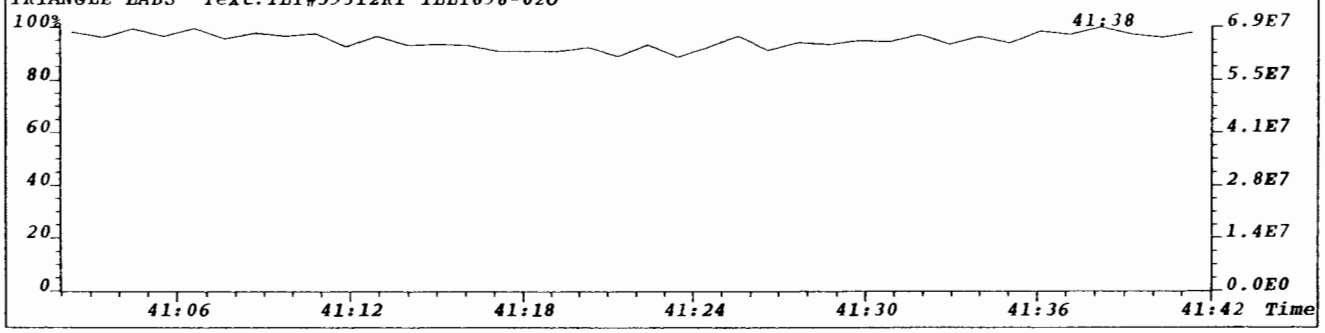

File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:2803
469.7779 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11212.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020

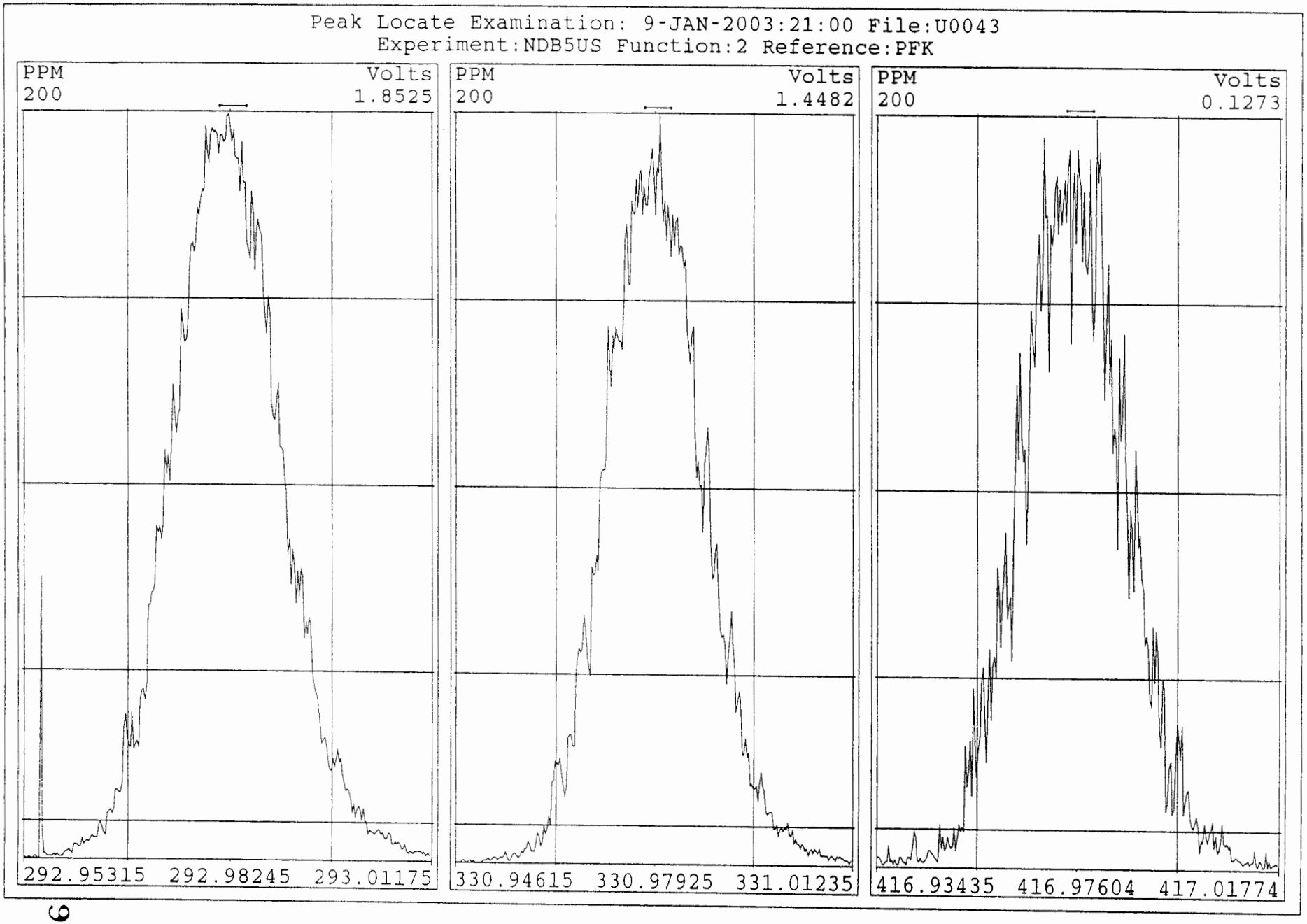


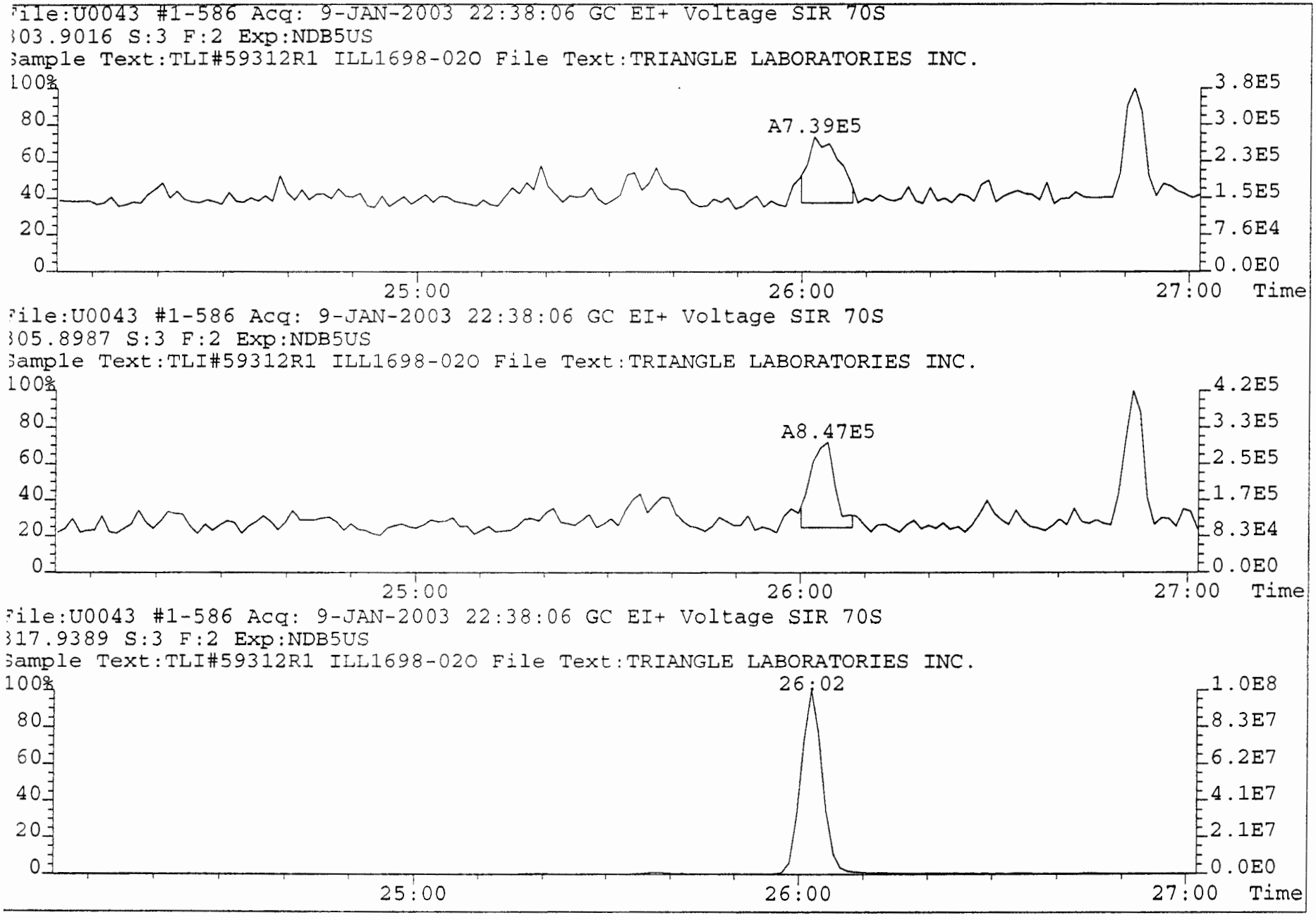

File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S Noise:2690
471.7750 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10760.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020

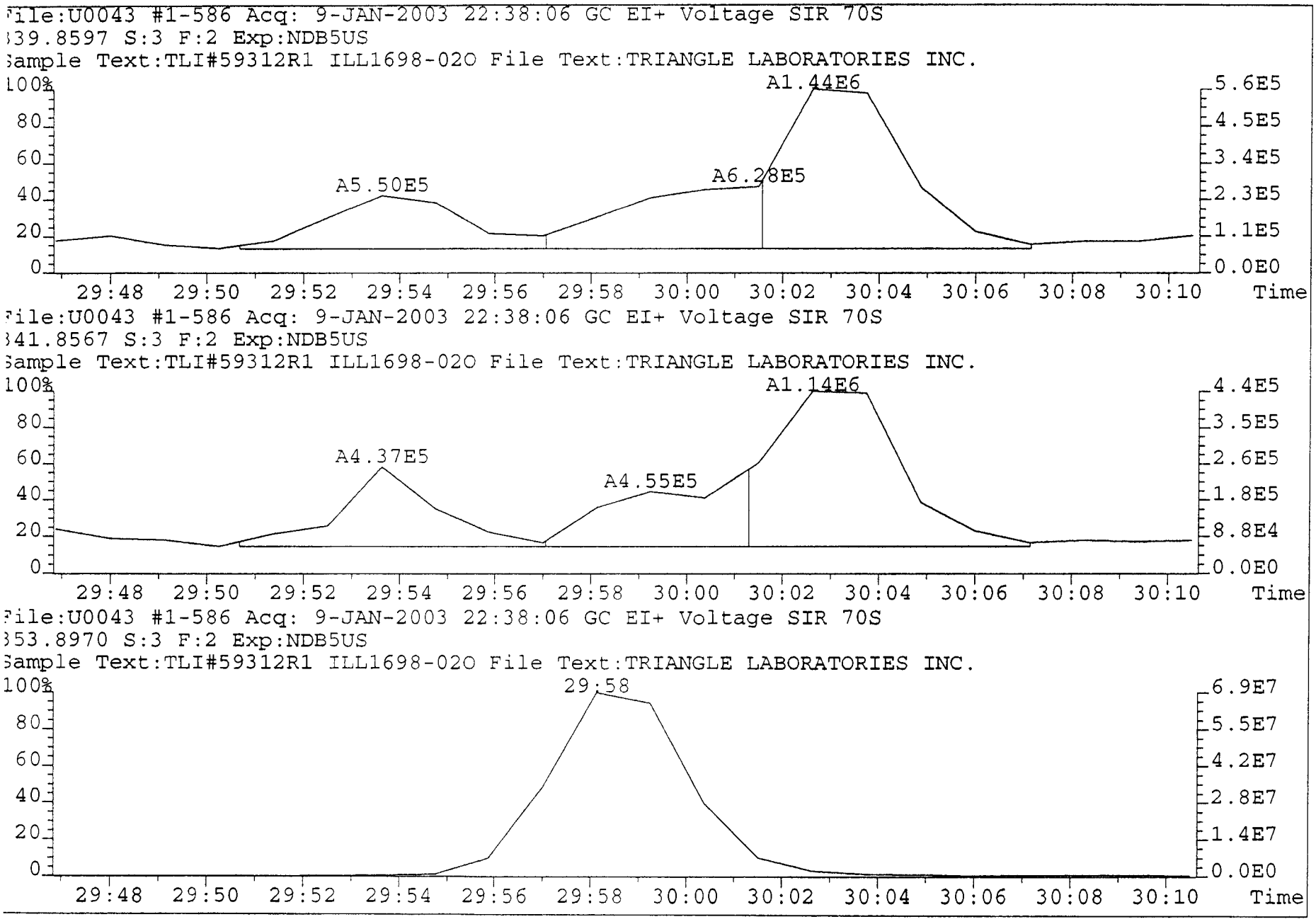



File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-020



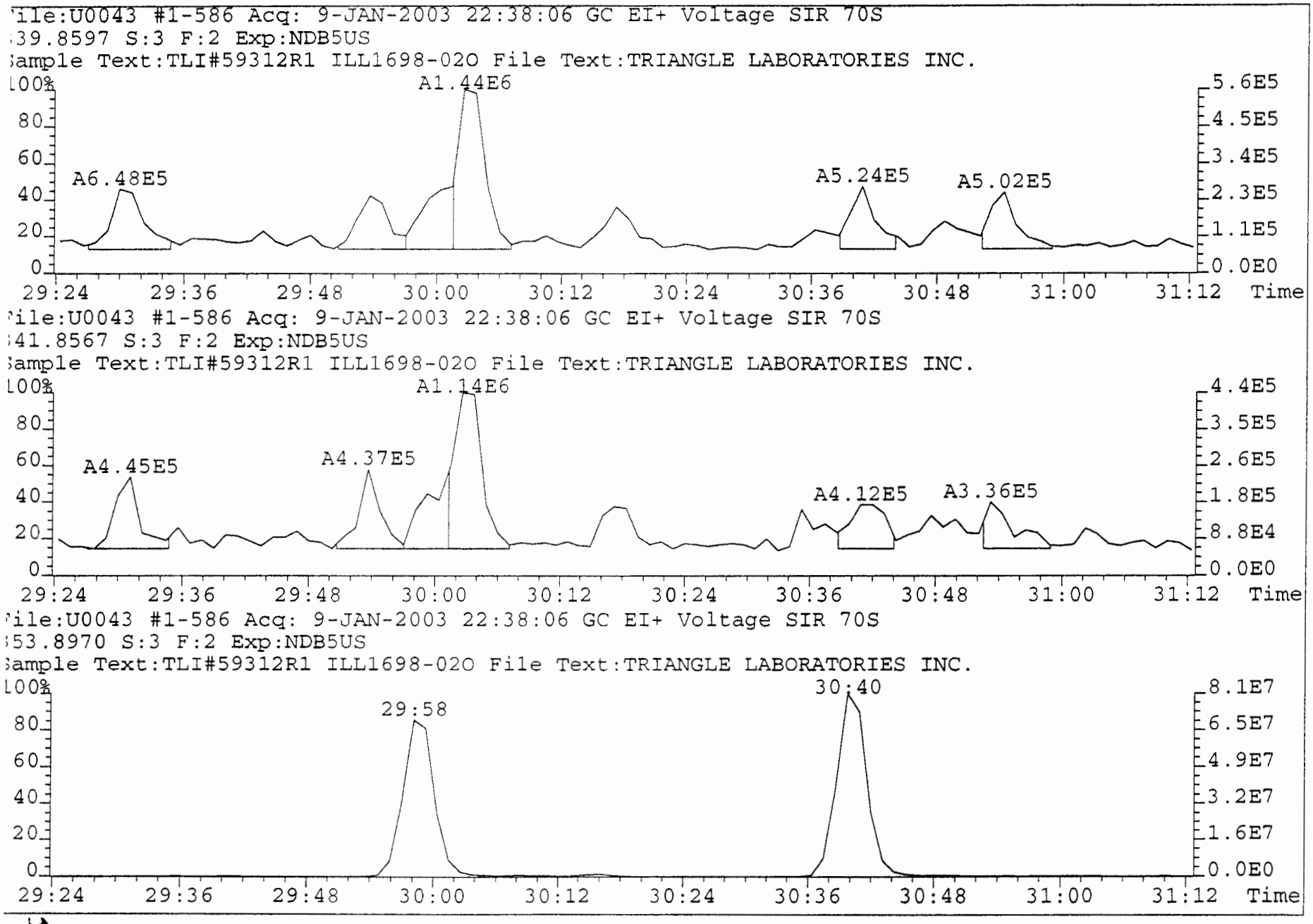

Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774


File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
303.9016 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A7.39E5
3.8E5
3.0E5
2.3E5
1.5E5
7.6E4
0.0E0
25:00
26:00
27:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
305.8987 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A8.47E5
4.2E5
3.3E5
2.5E5
1.7E5
8.3E4
0.0E0
25:00
26:00
27:00
Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
317.9389 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
26:02
1.0E8
8.3E7
6.2E7
4.1E7
2.1E7
0.0E0
25:00
26:00
27:00
Time


File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
339.8597 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
A1.44E6
A5.50E5
A6.28E5
5.6E5
4.5E5
3.4E5
2.3E5
1.1E5
0.0E0
100%
80
60
40
20
0
29:48 29:50 29:52 29:54 29:56 29:58 30:00 30:02 30:04 30:06 30:08 30:10 Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
341.8567 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
A1.14E6
A4.37E5
A4.55E5
4.4E5
3.5E5
2.6E5
1.8E5
8.8E4
0.0E0
100%
80
60
40
20
0
29:48 29:50 29:52 29:54 29:56 29:58 30:00 30:02 30:04 30:06 30:08 30:10 Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
353.8970 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
29:58
6.9E7
5.5E7
4.2E7
2.8E7
1.4E7
0.0E0
100%
80
60
40
20
0
29:48 29:50 29:52 29:54 29:56 29:58 30:00 30:02 30:04 30:06 30:08 30:10 Time

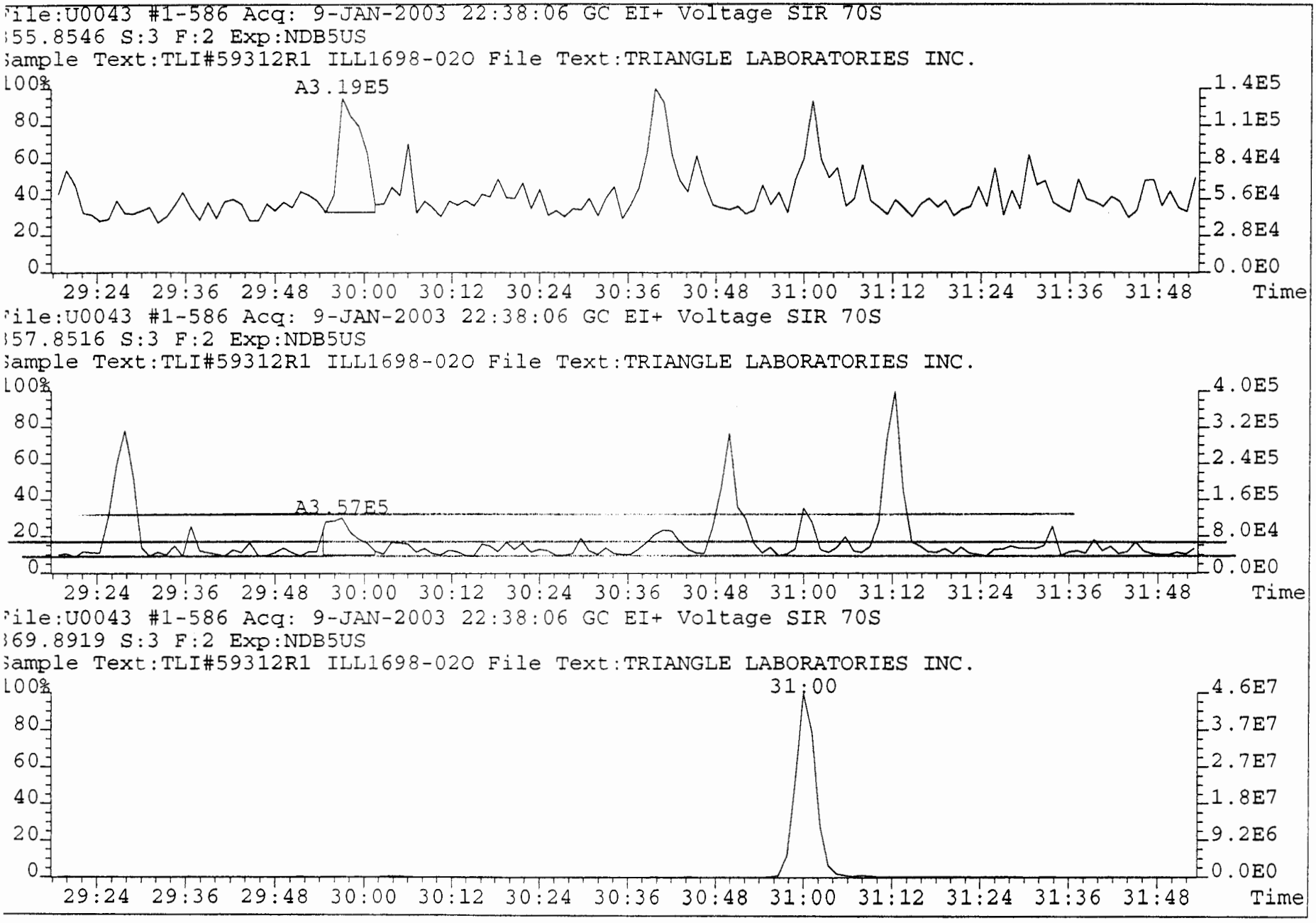


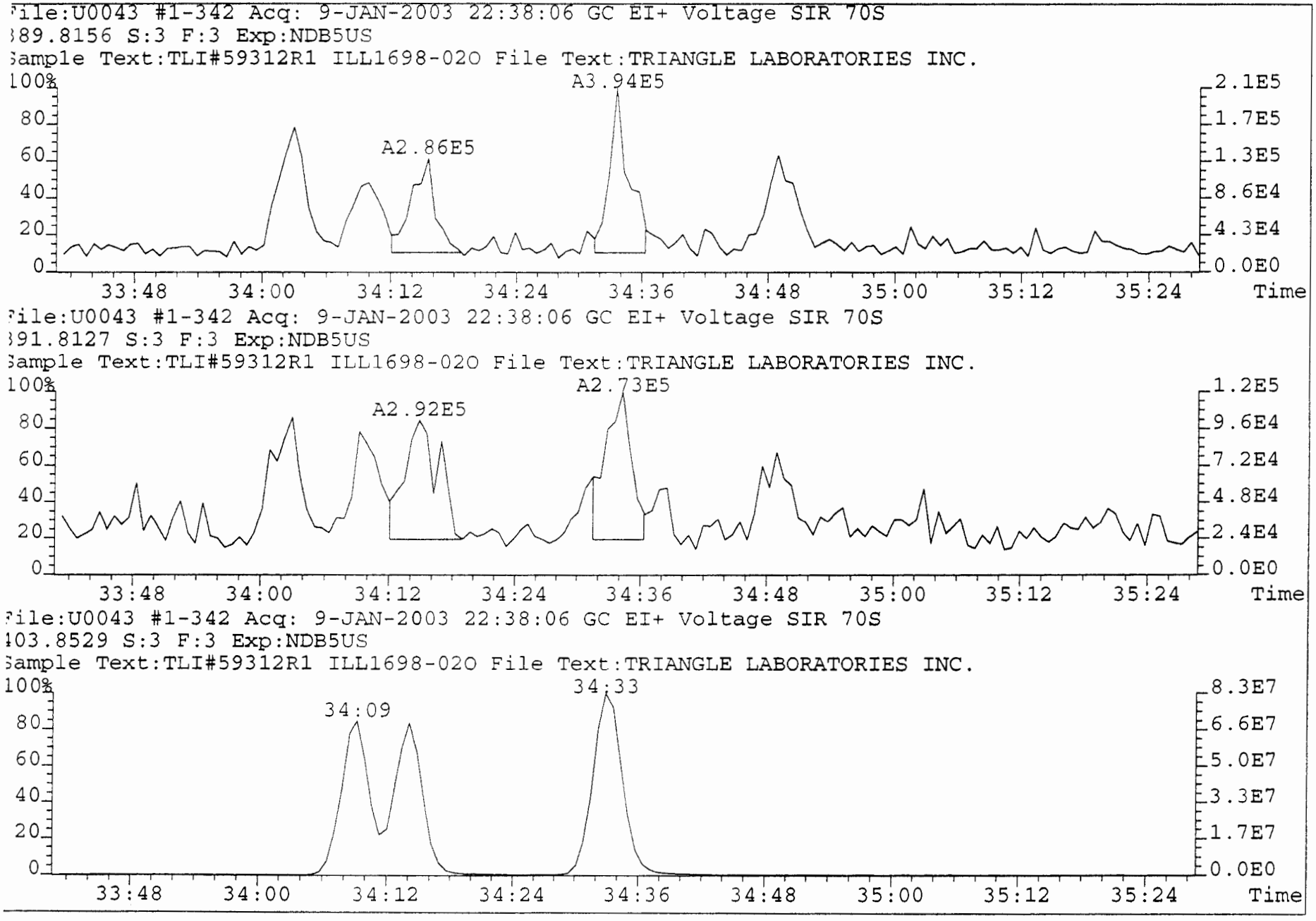
11/20/13


File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
339.8597 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A1.44E6
A6.48E5
A5.24E5
A5.02E5
5.6E5
4.5E5
3.4E5
2.3E5
1.1E5
0.0E0
29:24
29:36
29:48
30:00
30:12
30:24
30:36
30:48
31:00
31:12
Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
341.8567 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A1.14E6
A4.45E5
A4.37E5
A4.12E5
A3.36E5
4.4E5
3.5E5
2.6E5
1.8E5
8.8E4
0.0E0
29:24
29:36
29:48
30:00
30:12
30:24
30:36
30:48
31:00
31:12
Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
353.8970 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
29:58
30:40
8.1E7
6.5E7
4.9E7
3.2E7
1.6E7
0.0E0
29:24
29:36
29:48
30:00
30:12
30:24
30:36
30:48
31:00
31:12
Time

100

1/27/03


File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
355.8546 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
A3.19E5
100%
80
60
40
20
0
1.4E5
1.1E5
8.4E4
5.6E4
2.8E4
0.0E0
29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48
Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
357.8516 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
A3.57E5
100%
80
60
40
20
0
4.0E5
3.2E5
2.4E5
1.6E5
8.0E4
0.0E0
29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48
Time
File:U0043 #1-586 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
369.8919 S:3 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
31:00
100%
80
60
40
20
0
4.6E7
3.7E7
2.7E7
1.8E7
9.2E6
0.0E0
29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48
Time


File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
389.8156 S:3 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.94E5
A2.86E5
2.1E5
1.7E5
1.3E5
8.6E4
4.3E4
0.0E0
33:48
34:00
34:12
34:24
34:36
34:48
35:00
35:12
35:24
Time
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
391.8127 S:3 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A2.73E5
A2.92E5
1.2E5
9.6E4
7.2E4
4.8E4
2.4E4
0.0E0
33:48
34:00
34:12
34:24
34:36
34:48
35:00
35:12
35:24
Time
File:U0043 #1-342 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
403.8529 S:3 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
34:33
34:09
8.3E7
6.6E7
5.0E7
3.3E7
1.7E7
0.0E0
33:48
34:00
34:12
34:24
34:36
34:48
35:00
35:12
35:24
Time

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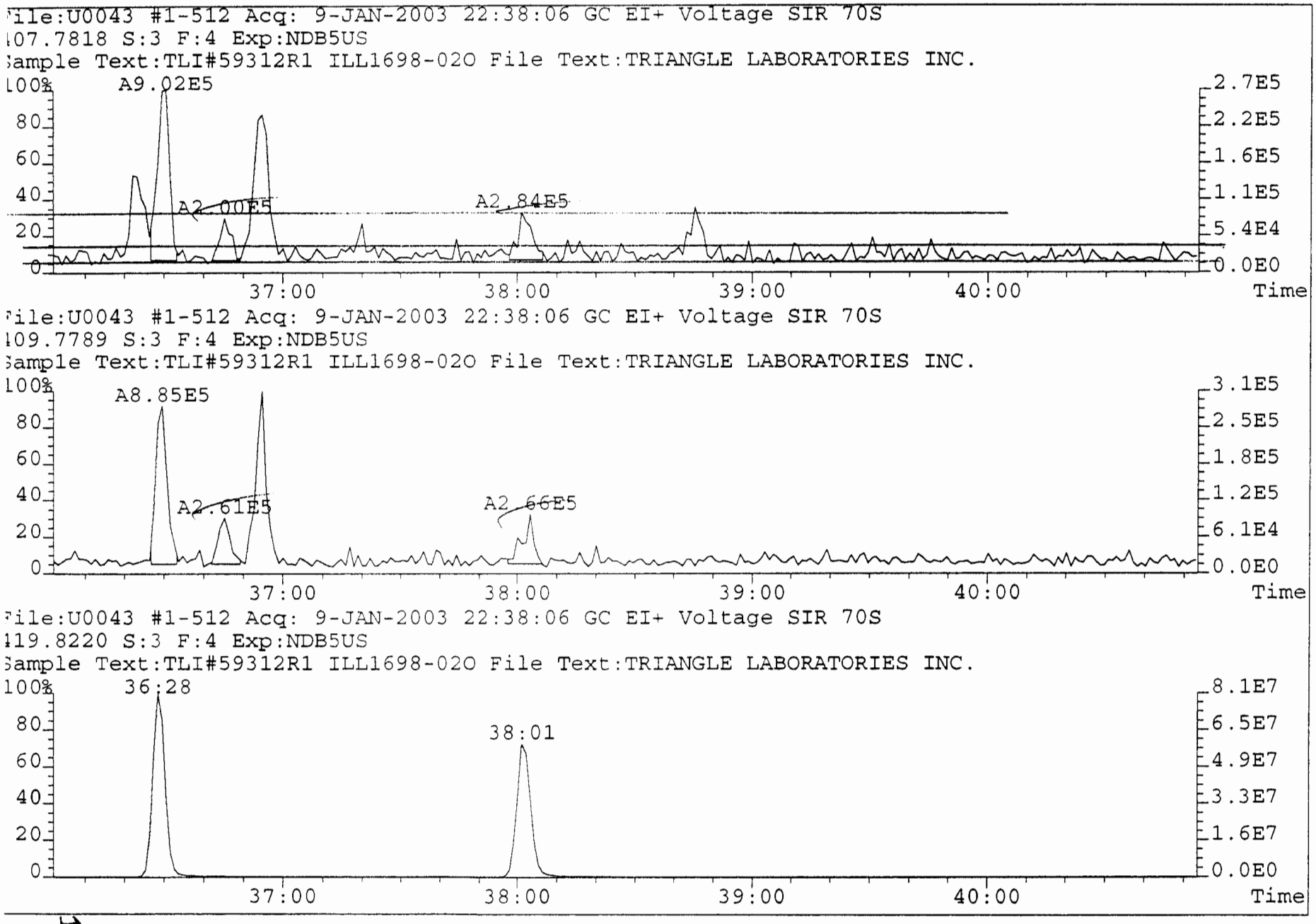
11/24/03


File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
407.7818 S:3 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
A9.02E5
A2.00E5
A2.84E5
2.7E5
2.2E5
1.6E5
1.1E5
5.4E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
409.7789 S:3 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
A8.85E5
A2.61E5
A2.66E5
3.1E5
2.5E5
1.8E5
1.2E5
6.1E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 22:38:06 GC EI+ Voltage SIR 70S
419.8220 S:3 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-020 File Text:TRIANGLE LABORATORIES INC.
100%
36:28
38:01
8.1E7
6.5E7
4.9E7
3.3E7
1.6E7
0.0E0
37:00
38:00
39:00
40:00
Time

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# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-03N** Analysis File: **U004304**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | **ILL1698** | | | | |
| Sample Matrix: | **WATER** | Date Received: | **01/03/2003** | Spike File: | **SPMIT32S** |
| TLI ID: | **345-9-3B** | Date Extracted: | **01/08/2003** | ICal: | **UF57092** |
| | | Date Analyzed: | **01/09/2003** | ConCal: | **U030041** |
| Sample Size: | **1.030 L** | Dilution Factor: | **n/a** | % Moisture: | **n/a** |
| Dry Weight: | **n/a** | Blank File: | **U004301** | % Lipid: | **n/a** |
| GC Column: | **DB-5** | Analyst: | **IJD** | % Solids: | **n/a** |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 1.3 | | | | ___ |
| 1,2,3,7,8-PeCDD | 2.8 | | | 1.44 | 31:02 | JB_ |
| 1,2,3,4,7,8-HxCDD | ND | 1.2 | | | | ___ |
| 1,2,3,6,7,8-HxCDD | ND | 1.2 | | | | ___ |
| 1,2,3,7,8,9-HxCDD | EMPC | | 1.3 | | | JB_ |
| 1,2,3,4,6,7,8-HpCDD | 4.1 | | | 1.02 | 37:33 | JB_ |
| 1,2,3,4,6,7,8,9-OCDD | 42.2 | | | 0.96 | 41:11 | JB_ |
| 2,3,7,8-TCDF | ND | 0.9 | | | | ___ |
| 1,2,3,7,8-PeCDF | EMPC | | 2.0 | | | JB_ |
| 2,3,4,7,8-PeCDF | ND | 0.8 | | | | ___ |
| 1,2,3,4,7,8-HxCDF | EMPC | | 2.3 | | | JB_ |
| 1,2,3,6,7,8-HxCDF | 1.5 | | | 1.08 | 33:34 | JB_ |
| 1,2,3,7,8,9-HxCDF | 1.9 | | | 1.11 | 34:03 | JB_ |
| 1,2,3,7,8,9-HxCDF | 1.6 | | | 1.08 | 34:50 | JB_ |
| 1,2,3,4,6,7,8-HpCDF | 2.0 | | | 0.98 | 36:30 | JB_ |
| 1,2,3,4,7,8,9-HpCDF | ND | 1.7 | | | | ___ |
| 1,2,3,4,6,7,8,9-OCDF | 5.6 | | | 0.80 | 41:23 | JB_ |

| Totals | Conc. (pg/L) | Number | DL | EMPC | Flags |
|---|---|---|---|---|---|
| Total TCDD | EMPC | | | 2.4 | ___ |
| Total PeCDD | 2.8 | 1 | | | ___ |
| Total HxCDD | EMPC | | | 5.4 | ___ |
| Total HpCDD | 10.0 | 2 | | | ___ |
| Total TCDF | ND | | 0.9 | | ___ |
| Total PeCDF | EMPC | | | 2.0 | ___ |
| Total HxCDF | 5.0 | 3 | | 7.4 | ___ |
| Total HpCDF | 2.0 | 1 | | | ___ |





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Printed: 14:10 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-03N** Analysis File: **U004304**

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1140 | 58.5 | 40%-135% | 0.80 | 26:02 | ___ |
| $^{13}C_{12}$-2,3,7,8-TCDD | 1060 | 54.6 | 40%-135% | 0.79 | 26:45 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1340 | 68.9 | 40%-135% | 1.64 | 29:58 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1300 | 67.1 | 40%-135% | 1.63 | 31:00 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1340 | 68.8 | 40%-135% | 0.52 | 33:33 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1460 | 75.0 | 40%-135% | 1.25 | 34:14 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1200 | 62.0 | 40%-135% | 0.46 | 36:29 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1510 | 77.5 | 40%-135% | 1.06 | 37:32 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3490 | 90.0 | 40%-135% | 0.90 | 41:10 | ___ |

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1460 | 75.2 | 40%-135% | 1.67 | 30:40 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1400 | 71.9 | 40%-135% | 0.51 | 33:28 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1550 | 80.1 | 40%-135% | 1.25 | 34:09 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1400 | 72.3 | 40%-135% | 0.47 | 38:02 | ___ |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 110 | 56.6 | 40%-135% | 26:46 | ___ |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1470 | 75.7 | 40%-135% | 0.51 | 34:49 | ___ |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1590 | 81.7 | 40%-135% | 0.52 | 34:03 | ___ |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.79 | 26:34 | ___ |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.25 | 34:33 | ___ |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6.25.05

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# Del Mar Analytical

TLI Project: **59312r1** — Toxicity Equivalents Report
Client Sample: **ILL1698-03N** — Analysis File: **U004304**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/03 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-3B | Date Extracted: | 01/08/03 | ICal: | UF57092 |
| | | Date Analyzed: | 01/09/03 | ConCal: | U030041 |
| Sample Size: | 1.030 L | Dilution Factor: | 1 | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | | TEF | | Equivalent |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | {1.3} | x | 1. | = | 1.3 |
| 1,2,3,7,8-PeCDD | 2.8 | x | 0.5 | = | 1.4 |
| 1,2,3,4,7,8-HxCDD | {1.2} | x | 0.1 | = | 0.12 |
| 1,2,3,6,7,8-HxCDD | {1.2} | x | 0.1 | = | 0.12 |
| 1,2,3,7,8,9-HxCDD | [1.3] | x | 0.1 | = | 0.13 |
| 1,2,3,4,6,7,8-HpCDD | 4.1 | x | 0.01 | = | 0.041 |
| 1,2,3,4,6,7,8,9-OCDD | 42.2 | x | 0.001 | = | 0.0422 |
| TOTAL PCDD | | | | | 3.2 |
| 2,3,7,8-TCDF | {0.9} | x | 0.1 | = | 0.09 |
| 1,2,3,7,8-PeCDF | [2.0] | x | 0.05 | = | 0.10 |
| 2,3,4,7,8-PeCDF | {0.8} | x | 0.5 | = | 0.4 |
| 1,2,3,4,7,8-HxCDF | [2.3] | x | 0.1 | = | 0.23 |
| 1,2,3,6,7,8-HxCDF | 1.5 | x | 0.1 | = | 0.15 |
| 2,3,4,6,7,8-HxCDF | 1.9 | x | 0.1 | = | 0.19 |
| 1,2,3,7,8,9-HxCDF | 1.6 | x | 0.1 | = | 0.16 |
| 1,2,3,4,6,7,8-HpCDF | 2.0 | x | 0.01 | = | 0.020 |
| 1,2,3,4,7,8,9-HpCDF | {1.7} | x | 0.01 | = | 0.017 |
| 1,2,3,4,6,7,8,9-OCDF | 5.6 | x | 0.001 | = | 0.0056 |
| TOTAL PCDF | | | | | 1.4 |

**Total EPA TEFs, 1989a: 4.5 pg/L**

**[...] indicates that the value is that of an EMPC.**
**{...} indicates that the value is that of a Detection Limit.**



GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:07 01/20/03

Initial ....Date...

Data Review By: NK 1/20/03

Calculated Noise Height: 3.79

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U004304B.dbf
01/20/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | 0.65-0.89 | | | | | | 0.873-1.074 | | | |
| 304-306 | DC | NL | | Height | | | 20.01 | 10.63 | 9.38 | | | | |
| D | D | SN | 27:07 | RO | | 1.22 | 45.08 | | | 1.042 | | | |
| 304-306 | | | 0 Peaks | | | | 0.00 | | | | | | |
| 13C12-TCDF | | | | 0.65-0.89 | | | | | | 0.962-1.038 | | | |
| 316-318 | DC | NL | | Height | | | 15.16 | 7.78 | 7.38 | | | | |
| | | | 25:18 | RO | | 1.14 | 111.53 | 71.96 | 63.01 | 0.972 | | | |
| | | | 25:39 | | | 0.85 | 541.75 | 249.26 | 292.49 | 0.985 | | | |
| | | | 26:02 | | | 0.80 | 69,415.00 | 30,903.00 | 38,512.00 | 1.000 | 13C12-2378-TCDF | IS0 | |
| | | | | Height | | | 18,187.96 | 8,204.08 | 9,983.88 | | | | |
| 316-318 | | | 3 Peaks | | | | 70,068.28 | | | | | | |
| ---------- Above: TCDF / TCDD Follows ---------- | | | | | | | | | | | | | |
| TCDD | | | | 0.65-0.89 | | | | | | 0.900-1.043 | | | |
| 320-322 | DC | NL | | Height | | | 9.68 | 5.14 | 4.54 | | | | |
| | | | 26:01 | RO | | 1.18 | 67.58 | 45.01 | 38.18 | 0.973 | | | J |
| | DC | SN | 26:45 | RO | | 1.13 | 43.01 | | | 1.000 | 2378-TCDD | AN | |
| | DC | SN | 27:13 | RO | | 1.06 | 9.72 | | | 1.017 | | | |
| 320-322 | | | 1 Peak | | | | 67.58 | | | | | | |
| 37Cl-TCDD | | | | | | | | | | 0.925-1.075 | | | |
| 328 | DC | NL | | Height | | | 5.93 | 5.93 | | | | | |
| | DC | WL | 24:10 | | | | 11.48 | | | 0.903 | | | |
| | | | 25:23 | | | | 605.99 | 605.99 | | 0.949 | | | |
| | | | 26:46 | | | | 5,025.03 | 5,025.03 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | 27:10 | | | | 51.69 | 51.69 | | 1.016 | | | |
| | | | 28:06 | | | | 105.10 | 105.10 | | 1.050 | | | |
| 328 | | | 4 Peaks | | | | 5,787.81 | | | | | | |
| 13C12-TCDD | | | | 0.65-0.89 | | | | | | 0.925-1.075 | | | |
| 332-334 | DC | NL | | Height | | | 35.12 | 22.62 | 12.50 | | | | |
| | | | 26:34 | | | 0.79 | 73,964.30 | 32,738.90 | 41,225.40 | 0.993 | 13C12-1234-TCDD | RS1 | |
| | | | 26:45 | | | 0.79 | 45,554.80 | 20,142.00 | 25,412.80 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | Height | | | 12,306.33 | 5,381.54 | 6,924.79 | | | | |
| 332-334 | | | 2 Peaks | | | | 119,519.10 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | 1.32-1.78 | | | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | Height | | | 10.93 | 5.41 | 5.52 | | | | |
| | | | 29:59 | RO | | 0.98 | 74.62 | 45.36 | 46.27 | 1.001 | 12378-PeCDF | AN | J |
| | DC | SN | 30:17 | RO | | 0.36 | 16.48 | | | 1.011 | | | |

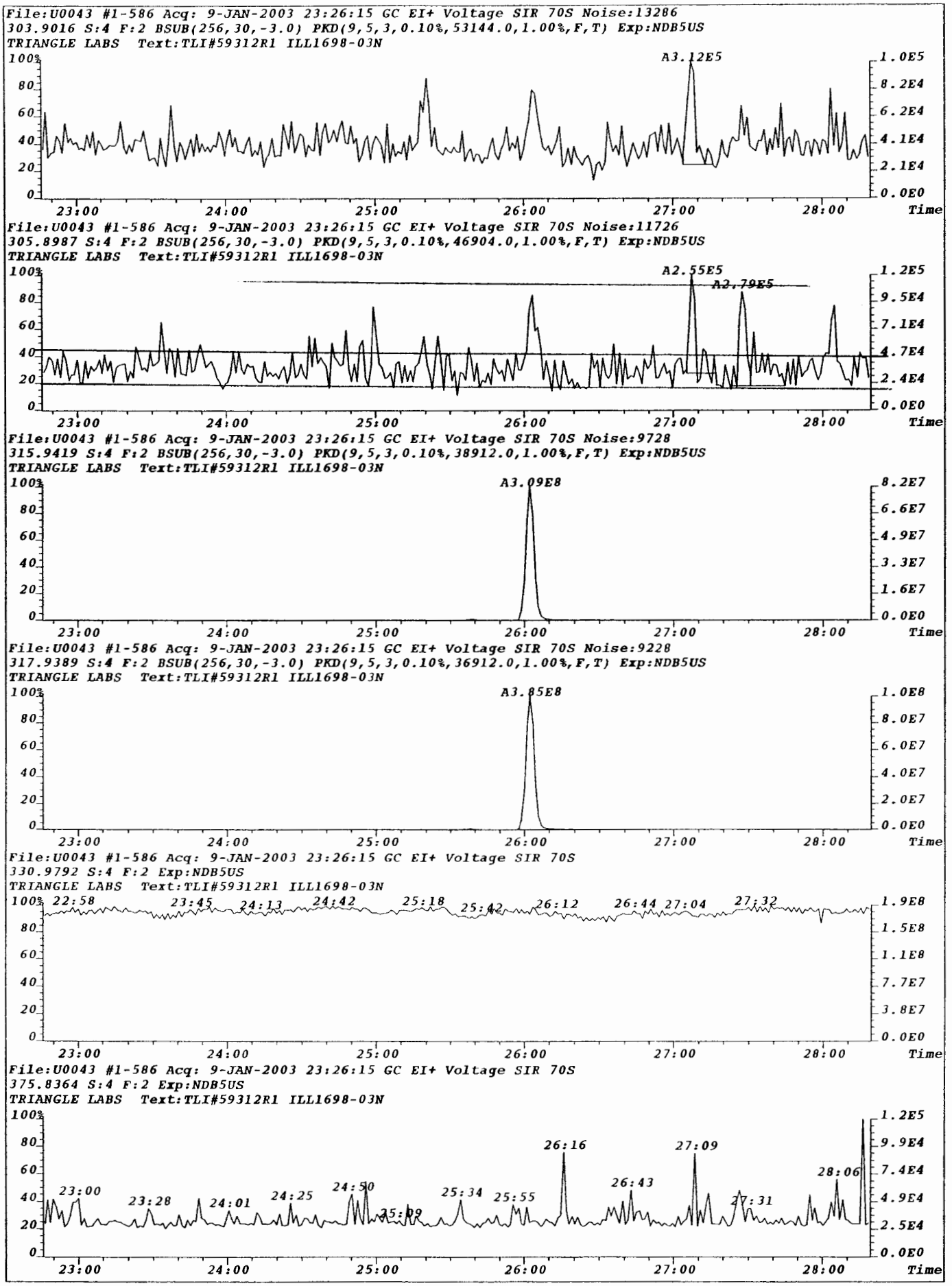
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D | D | SN | 30:40 | RO | 1.04 | 68.09 | | | 1.023 | 23478-PeCDF | AN | |
| -342 | | | 1 Peak | | | | 74.62 | | | | | | |
| 13C12-PeCDF | | | | 1.32-1.78 | | | | | 0.867-1.133 | | | | |
| 352-354 | | DC | NL | | Height | | 7.04 | 3.90 | 3.14 | | | | |
| | | | | 29:08 | RO | 1.26 | 317.83 | 156.87 | 124.64 | 0.972 | | | |
| | | | | 29:58 | | 1.64 | 56,905.80 | 35,341.70 | 21,564.10 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | | Height | | 17,828.58 | 11,041.00 | 6,787.58 | | | | |
| | | | | 30:16 | | 1.34 | 762.89 | 436.30 | 326.59 | 1.010 | | | |
| | | | | 30:40 | | 1.67 | 62,239.30 | 38,885.80 | 23,353.50 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | | 31:38 | | 1.45 | 768.59 | 454.64 | 313.95 | 1.056 | | | |
| 352-354 | | | 5 Peaks | | | | 120,994.41 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | 1.32-1.78 | | | | | 0.937-1.021 | | | | |
| 356-358 | | DC | NL | | Height | | 7.97 | 3.88 | 4.09 | | | | |
| | D | D | SN | 29:58 | RO | 1.13 | 53.78 | | | 0.967 | | | |
| | D | D | SN | 30:40 | | 1.50 | 55.45 | | | 0.989 | | | |
| | | | | 31:02 | | 1.44 | 54.43 | 32.12 | 22.31 | 1.001 | 12378-PeCDD | AN | J |
| | | DC | SN | 31:13 | RO | 0.63 | 41.49 | | | 1.007 | | | |
| | | DC | SN | 31:37 | RO | 2.05 | 25.63 | | | 1.020 | | | |
| 356-358 | | | 1 Peak | | | | 54.43 | | | | | | |
| 13C12-PeCDD | | | | 1.32-1.78 | | | | | 0.871-1.129 | | | | |
| 368-370 | | DC | NL | | Height | | 6.93 | 3.95 | 2.98 | | | | |
| | | | | 29:56 | | 1.77 | 78.53 | 50.23 | 28.30 | 0.966 | | | |
| | | | | 30:04 | RO | 1.90 | 113.50 | 84.48 | 44.51 | 0.970 | | | |
| | | DC | SN | 30:15 | RO | 2.95 | 30.35 | | | 0.976 | | | |
| | | | | 31:00 | | 1.63 | 32,994.80 | 20,426.40 | 12,568.40 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | | Height | | 10,924.08 | 6,727.70 | 4,196.38 | | | | |
| | | DC | SN | 31:29 | RO | 1.08 | 63.62 | | | 1.016 | | | |
| 368-370 | | | 3 Peaks | | | | 33,186.83 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |
| HxCDF | | | | 1.05-1.43 | | | | | 0.964-1.045 | | | | |
| 374-376 | | DC | NL | | Height | | 6.85 | 3.87 | 2.98 | | | | |
| | | DC | SN | 32:38 | RO | 2.23 | 15.21 | | | 0.973 | | | |
| | | | | 33:28 | RO | 1.02 | 77.30 | 42.79 | 41.85 | 0.998 | 123478-HxCDF | AN | J |
| | M | | | 33:34 | | 1.08 | 51.90 | 26.90 | 25.00 | 1.000 | 123678-HxCDF | AN | J |
| | | | | 34:03 | | 1.11 | 57.07 | 29.96 | 27.11 | 1.015 | 234678-HxCDF | AN | J |
| | | DC | SN | 34:11 | RO | 1.79 | 44.40 | | | 1.019 | | | |
| | | DC | SN | 34:35 | RO | 1.72 | 25.22 | | | 1.031 | | | |
| | M | | | 34:50 | | 1.08 | 40.80 | 21.20 | 19.60 | 1.038 | 123789-HxCDF | AN | J |
| 374-376 | | | 4 Peaks | | | | 227.07 | | | | | | |
| 13C12-HxCDF | | | | 0.43-0.59 | | | | | 0.881-1.119 | | | | |
| 384-386 | | DC | NL | | Height | | 19.05 | 11.31 | 7.74 | | | | |
| | | | | 32:30 | | 0.43 | 100.81 | 30.08 | 70.73 | 0.969 | | | |
| | | | | 33:28 | | 0.51 | 58,797.70 | 19,892.70 | 38,905.00 | 0.998 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:33 | | 0.52 | 56,093.00 | 19,155.50 | 36,937.50 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | | Height | | 19,159.89 | 6,472.29 | 12,687.60 | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 34:03 | | 0.52 | 61,293.10 | 20,931.30 | 40,361.80 | 1.015 | 13C12-HxCDF | 234 | ALT2 |
| | | | | 34:49 | | 0.51 | 45,143.10 | 15,272.80 | 29,870.30 | 1.038 | 13C12-HxCDF | 789 | ALT1 |
| 384-386 | | | 5 Peaks | | | | 221,427.71 | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | | | | | |
| HxCDD | | | | | | 1.05-1.43 | | | | 0.958-1.013 | | | |
| 390-392 | DC | NL | | | | Height | 6.72 | 3.15 | 3.57 | | | | |
| | DC | SN | | 32:59 | | 1.30 | 32.53 | | | 0.963 | | | |
| | | | | 33:28 | RO | 1.89 | 57.79 | 48.80 | 25.80 | 0.978 | | | J |
| M | | | | 33:34 | RO | 1.82 | 41.66 | 33.90 | 18.60 | 0.981 | | | J |
| D | D | SN | | 34:03 | RO | 1.52 | 62.63 | | | 0.995 | | | |
| D | D | SN | | 34:09 | RO | 1.03 | 42.70 | | | 0.998 | 123478-HxCDD | AN | |
| D | D | SN | | 34:16 | RO | 0.71 | 32.08 | | | 1.001 | 123678-HxCDD | AN | |
| M | | | | 34:34 | RO | 0.84 | 31.07 | 17.20 | 20.40 | 1.010 | 123789-HxCDD | AN | J |
| | DC | WH | | 34:49 | RO | 1.77 | 47.91 | | | 1.017 | | | |
| | DC | WH | | 35:00 | RO | 0.27 | 5.58 | | | 1.022 | | | |
| 390-392 | | | 3 Peaks | | | | 130.52 | | | | | | |
| 13C12-HxCDD | | | | | | 1.05-1.43 | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | | | Height | 15.80 | 8.26 | 7.54 | | | | |
| | | | | 33:37 | | 1.07 | 367.86 | 190.42 | 177.44 | 0.982 | | | |
| | | | | 34:09 | | 1.25 | 41,517.50 | 23,105.80 | 18,411.70 | 0.998 | 13C12-HxCDD | 478 | SUR3 |
| | | | | 34:14 | | 1.25 | 43,040.70 | 23,949.90 | 19,090.80 | 1.000 | 13C12-HxCDD | 678 | IS5 |
| | | | | | | Height | 13,852.07 | 7,703.56 | 6,148.51 | | | | |
| | | | | 34:33 | | 1.25 | 55,201.40 | 30,678.00 | 24,523.40 | 1.009 | 13C12-HxCDD | 789 | RS2 |
| 402-404 | | | 4 Peaks | | | | 140,127.46 | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | | | | | |
| HpCDF | | | | | | 0.88-1.20 | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | | | Height | 6.17 | 2.79 | 3.38 | | | | |
| M | | | | 36:30 | | 0.98 | 54.50 | 27.00 | 27.50 | 1.000 | 1234678-HpCDF | AN | J |
| | DC | WH | | 38:30 | RO | 1.23 | 6.08 | | | 1.055 | | | |
| 408-410 | | | 1 Peak | | | | 54.50 | | | | | | |
| 13C12-HpCDF | | | | | | 0.37-0.51 | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | | | Height | 7.37 | 4.11 | 3.26 | | | | |
| | | | | 36:29 | | 0.46 | 35,937.60 | 11,397.10 | 24,540.50 | 1.000 | 13C12-HpCDF | 678 | IS6 |
| | | | | | | Height | 10,468.84 | 3,294.15 | 7,174.69 | | | | |
| | | | | 38:02 | | 0.47 | 29,467.14 | 9,410.14 | 20,057.00 | 1.042 | 13C12-HpCDF | 789 | SUR4 |
| 418-420 | | | 2 Peaks | | | | 65,404.74 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |
| HpCDD | | | | | | 0.88-1.20 | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | | | Height | 4.94 | 2.54 | 2.40 | | | | |
| | | | | 36:47 | | 1.09 | 106.19 | 55.26 | 50.93 | 0.980 | | | J |
| | DC | SN | | 37:04 | RO | 1.76 | 11.12 | | | 0.988 | | | |
| M | | | | 37:33 | | 1.02 | 73.80 | 37.20 | 36.60 | 1.000 | 1234678-HpCDD | AN | J |
| | DC | WH | | 38:02 | | 1.16 | 46.93 | | | 1.013 | | | |
| 424-426 | | | 2 Peaks | | | | 179.99 | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-HpCDD | | | | | | 0.88-1.20 | | | | 0.973-1.027 | | | |
| 6-438 | DC | NL | | | | Height | 10.60 | 5.34 | 5.26 | | | | |
| | | | | 37:32 | | 1.06 | 34,626.40 | 17,805.80 | 16,820.60 | 1.000 | 13C12-HpCDD | 678 | IS7 |
| | | | | | | Height | 8,926.00 | 4,591.78 | 4,334.22 | | | | |
| 436-438 | | | 1 | Peak | | | 34,626.40 | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | | | | | |
| OCDF | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | | | Height | 7.34 | 3.72 | 3.62 | | | | |
| | DC | SN | | 39:14 | | 0.85 | 13.58 | | | 0.953 | | | |
| | DC | SN | | 40:28 | RO | 0.27 | 11.28 | | | 0.983 | | | |
| | DC | SN | | 40:45 | RO | 0.34 | 11.09 | | | 0.990 | | | |
| | | | | 41:23 | | 0.80 | 115.81 | 51.43 | 64.38 | 1.005 | OCDF | AN | J |
| 442-444 | | | 1 | Peak | | | 115.81 | | | | | | |
| OCDD | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 4.77 | 2.01 | 2.76 | | | | |
| M | | | | 41:11 | | 0.96 | 654.00 | 320.00 | 334.00 | 1.000 | OCDD | AN | J |
| | DC | SN | | 41:25 | RO | 2.17 | 22.40 | | | 1.006 | | | |
| | DC | SN | | 41:35 | RO | 0.63 | 15.74 | | | 1.010 | | | |
| 458-460 | | | 1 | Peak | | | 654.00 | | | | | | |
| 13C12-OCDD | | | | | | 0.76-1.02 | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | | | Height | 5.13 | 2.33 | 2.80 | | | | |
| | | | | 41:10 | | 0.90 | 54,344.60 | 25,750.20 | 28,594.40 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 11,733.14 | 5,596.34 | 6,136.80 | | | | |
| 470-472 | | | 1 | Peak | | | 54,344.60 | | | | | | |

| umn Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

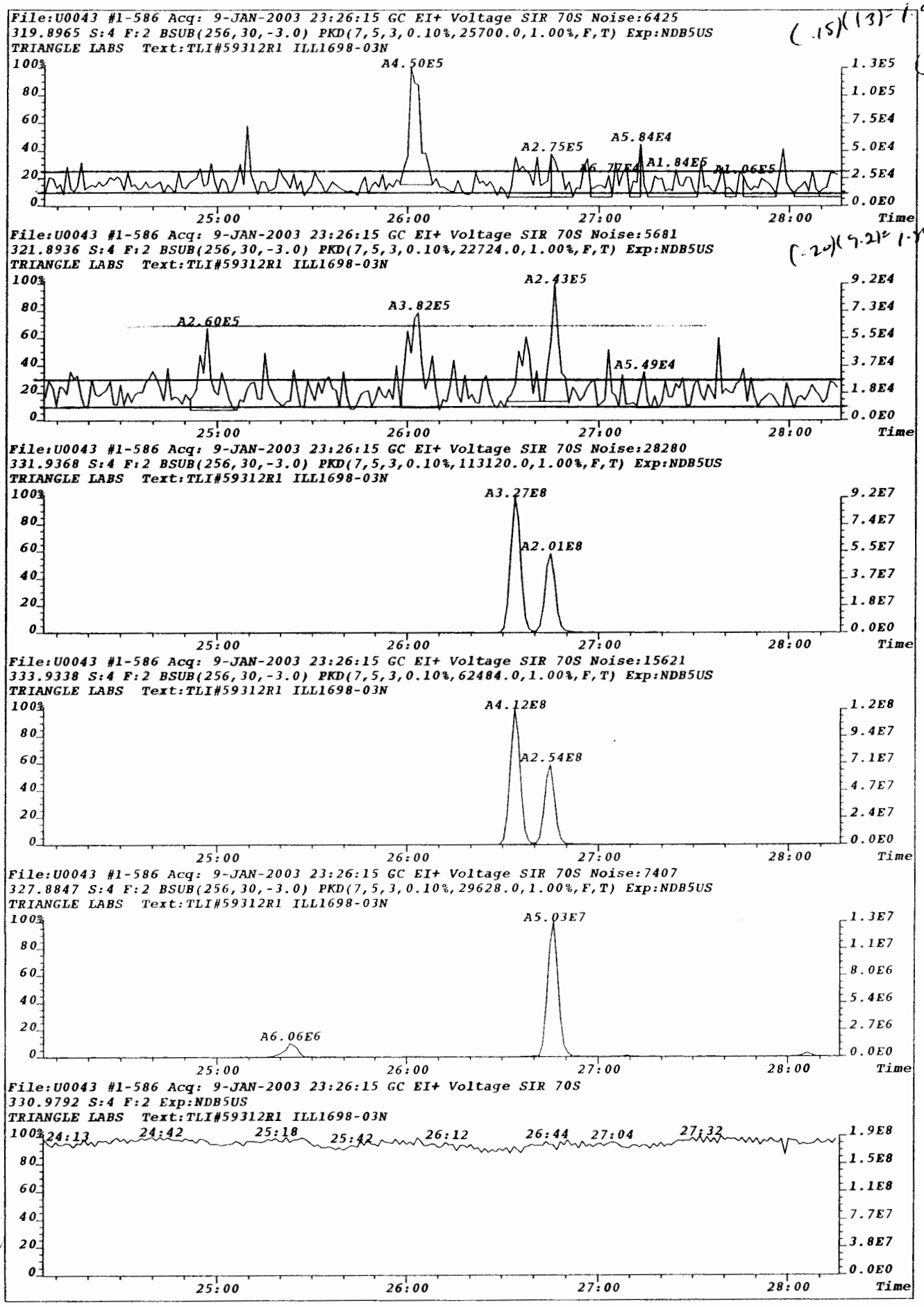
*** End of Report ***

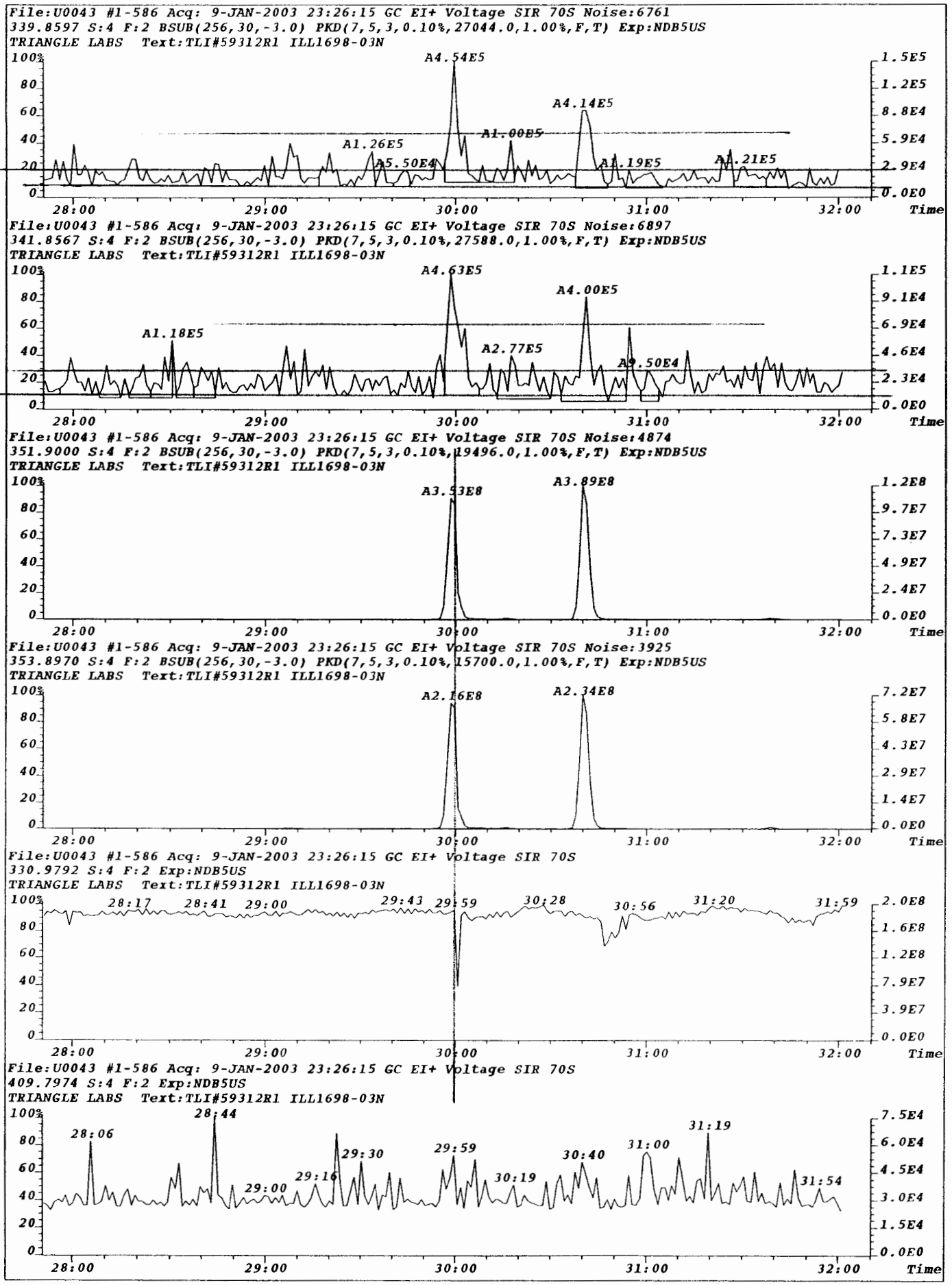

File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:13286
303.9016 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,53144.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.12E5
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:11726
305.8987 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,46904.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A2.55E5
A2.79E5
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:9728
315.9419 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,38912.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.09E8
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:9228
317.9389 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,36912.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.85E8
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
330.9792 S:4 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
22:58
23:45
24:13
24:42
25:18
25:42
26:12
26:44
27:04
27:32
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
375.8364 S:4 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
23:00
23:28
24:01
24:25
24:50
25:09
25:34
25:55
26:16
26:43
27:09
27:31
28:06
Time

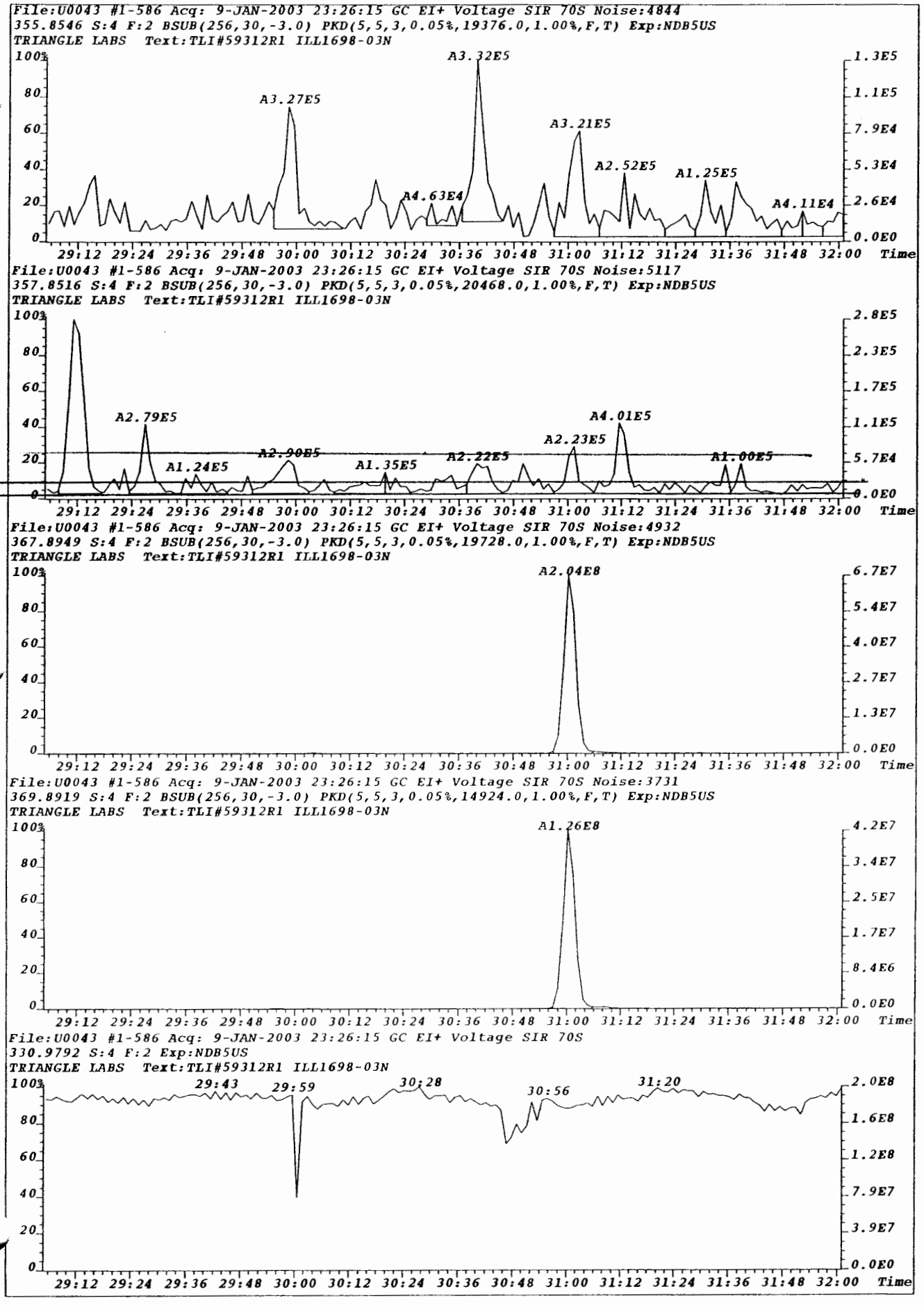
N= 1.45+1.84= 3.29

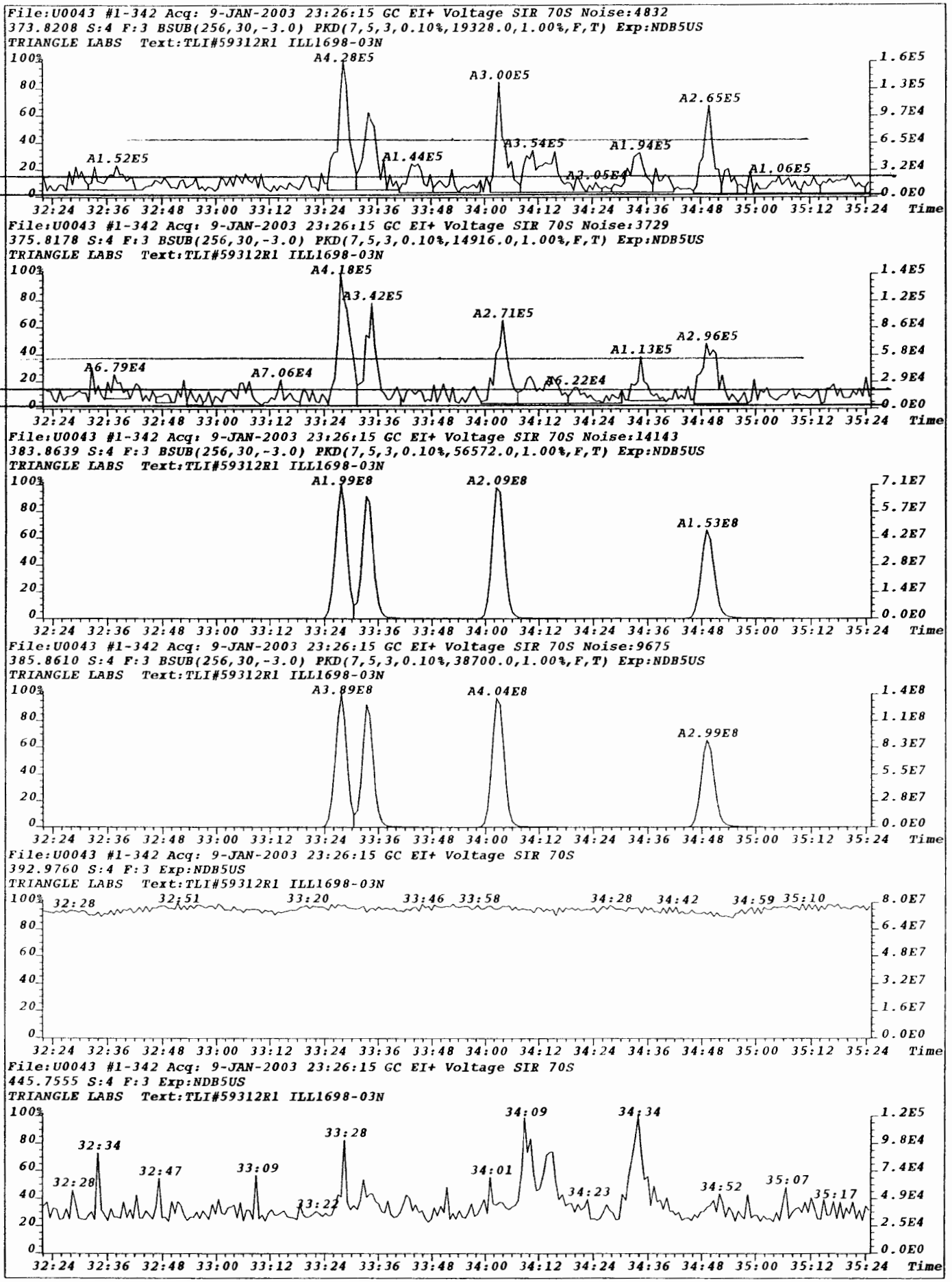
(.15)(13)= 1.95

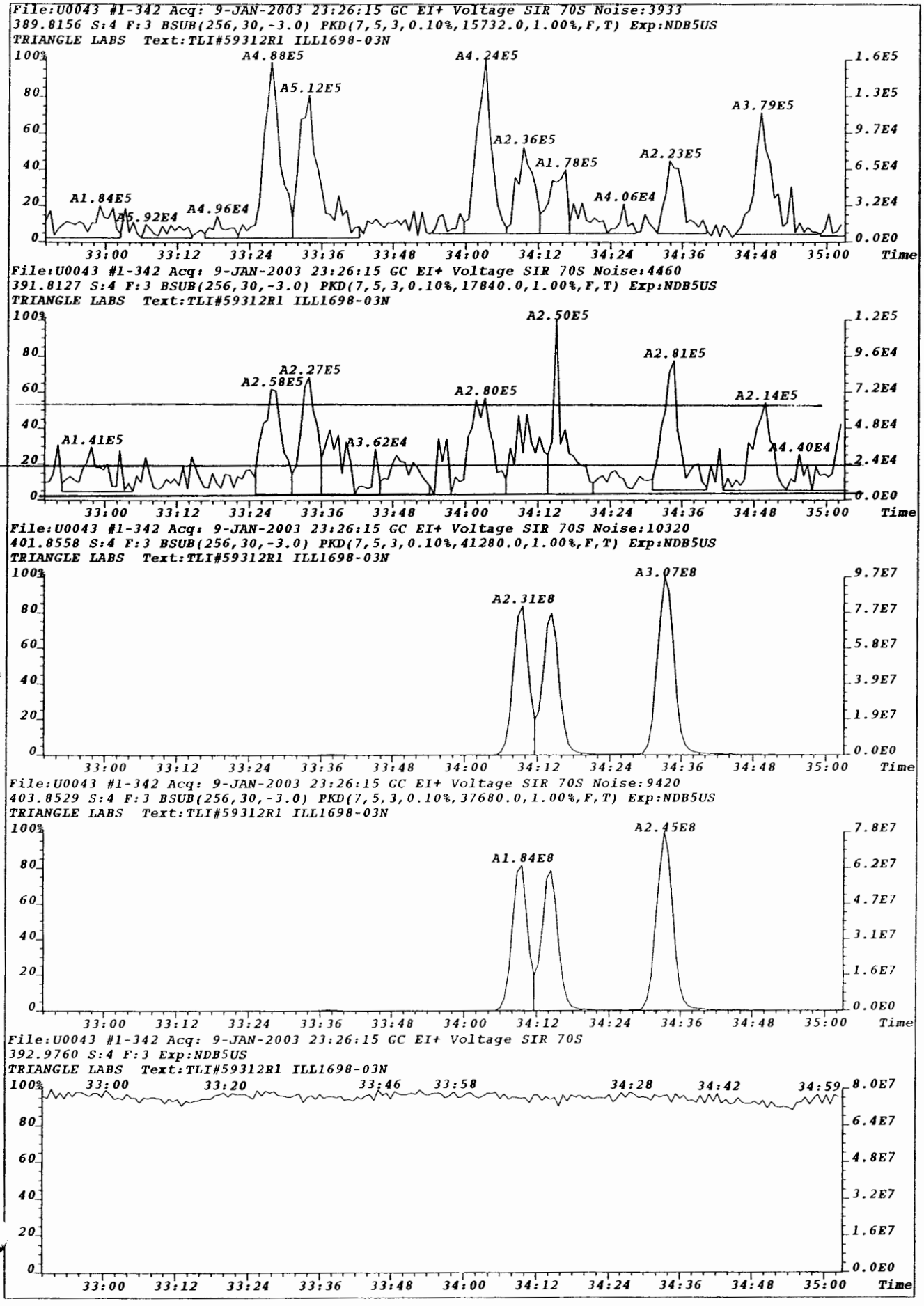
Jan 10/03




File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:6761
339.8597 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27044.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A4.54E5
A4.14E5
A1.26E5
A1.00E5
A5.50E4
A1.19E5
A1.21E5
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:6897
341.8567 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27588.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A4.63E5
A4.00E5
A1.18E5
A2.77E5
A9.50E4
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4874
351.9000 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19496.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.89E8
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3925
353.8970 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15700.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A2.16E8
A2.34E8
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
330.9792 S:4 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
28:17
28:41
29:00
29:43
29:59
30:28
30:56
31:20
31:59
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
409.7974 S:4 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
28:06
28:44
29:00
29:16
29:30
29:59
30:19
30:40
31:00
31:19
31:54
28:00
29:00
30:00
31:00
32:00
Time


File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4844
355.8546 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,19376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.27E5
A3.32E5
A3.21E5
A2.52E5
A1.25E5
A4.63E4
A4.11E4
Time
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:5117
357.8516 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,20468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A2.79E5
A1.24E5
A2.90E5
A1.35E5
A2.22E5
A2.23E5
A4.01E5
A1.00E5
Time
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4932
367.8949 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,19728.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A2.04E8
Time
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3731
369.8919 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,14924.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A1.26E8
Time
File:U0043 #1-586 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
330.9792 S:4 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
29:43
29:59
30:28
30:56
31:20
Time


File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4832
373.8208 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A4.28E5
A3.00E5
A2.65E5
A1.52E5
A1.44E5
A3.54E5
A1.94E5
A2.05E4
A1.06E5
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3729
375.8178 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14916.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A4.18E5
A3.42E5
A2.71E5
A2.96E5
A1.13E5
A6.79E4
A7.06E4
A6.22E4
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:14143
383.8639 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,56572.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A1.99E8
A2.09E8
A1.53E8
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:9675
385.8610 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,38700.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.89E8
A4.04E8
A2.99E8
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
392.9760 S:4 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
32:28
32:51
33:20
33:46
33:58
34:28
34:42
34:59
35:10
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
445.7555 S:4 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
32:28
32:34
32:47
33:09
33:22
33:28
34:01
34:09
34:23
34:34
34:52
35:07
35:17
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 Time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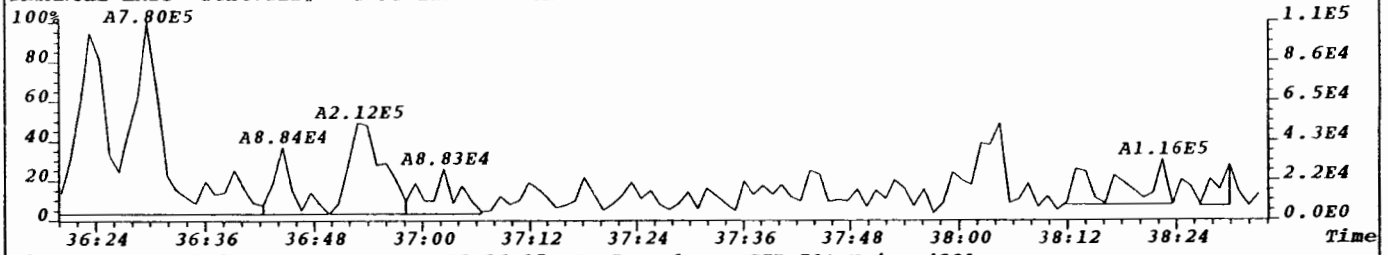
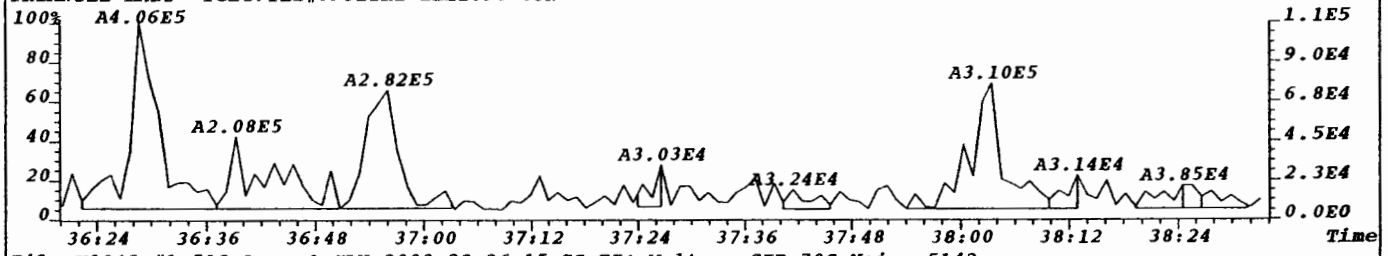
389.8156 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15732.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A4.88E5
A5.12E5
A4.24E5
A3.79E5
A2.36E5
A1.78E5
A2.23E5
A1.84E5
A5.92E4
A4.96E4
A4.06E4
Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4460
391.8127 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17840.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A2.50E5
A2.81E5
A2.27E5
A2.58E5
A2.80E5
A2.14E5
A1.41E5
A3.62E4
A4.40E4
Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:10320
401.8558 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,41280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A3.07E8
A2.31E8
Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:9420
403.8529 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,37680.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A2.45E8
A1.84E8
Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
392.9760 S:4 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
Time

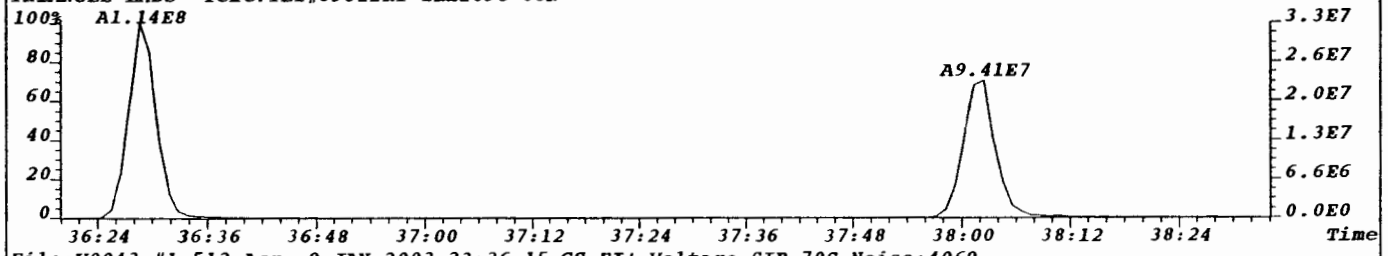
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3492
407.7818 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13968.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



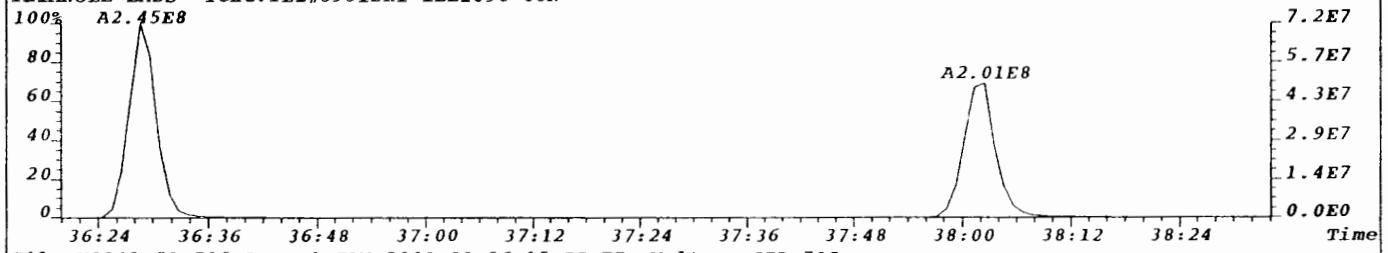

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4221
409.7789 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16884.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



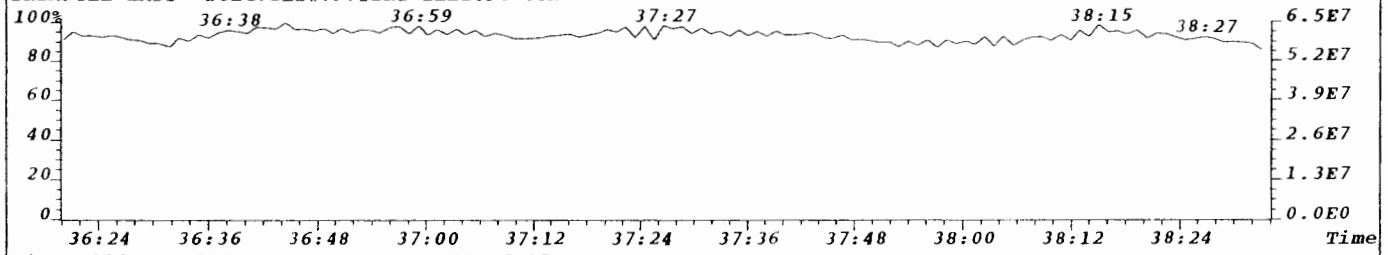

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:5142
417.8253 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20568.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



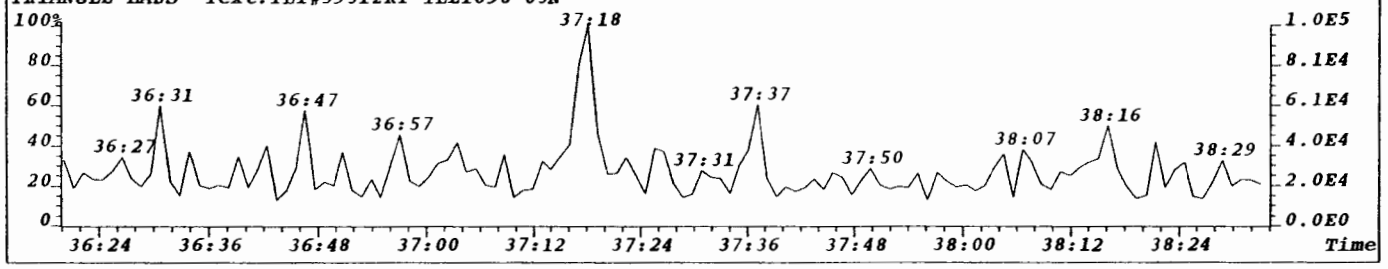

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4069
419.8220 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N

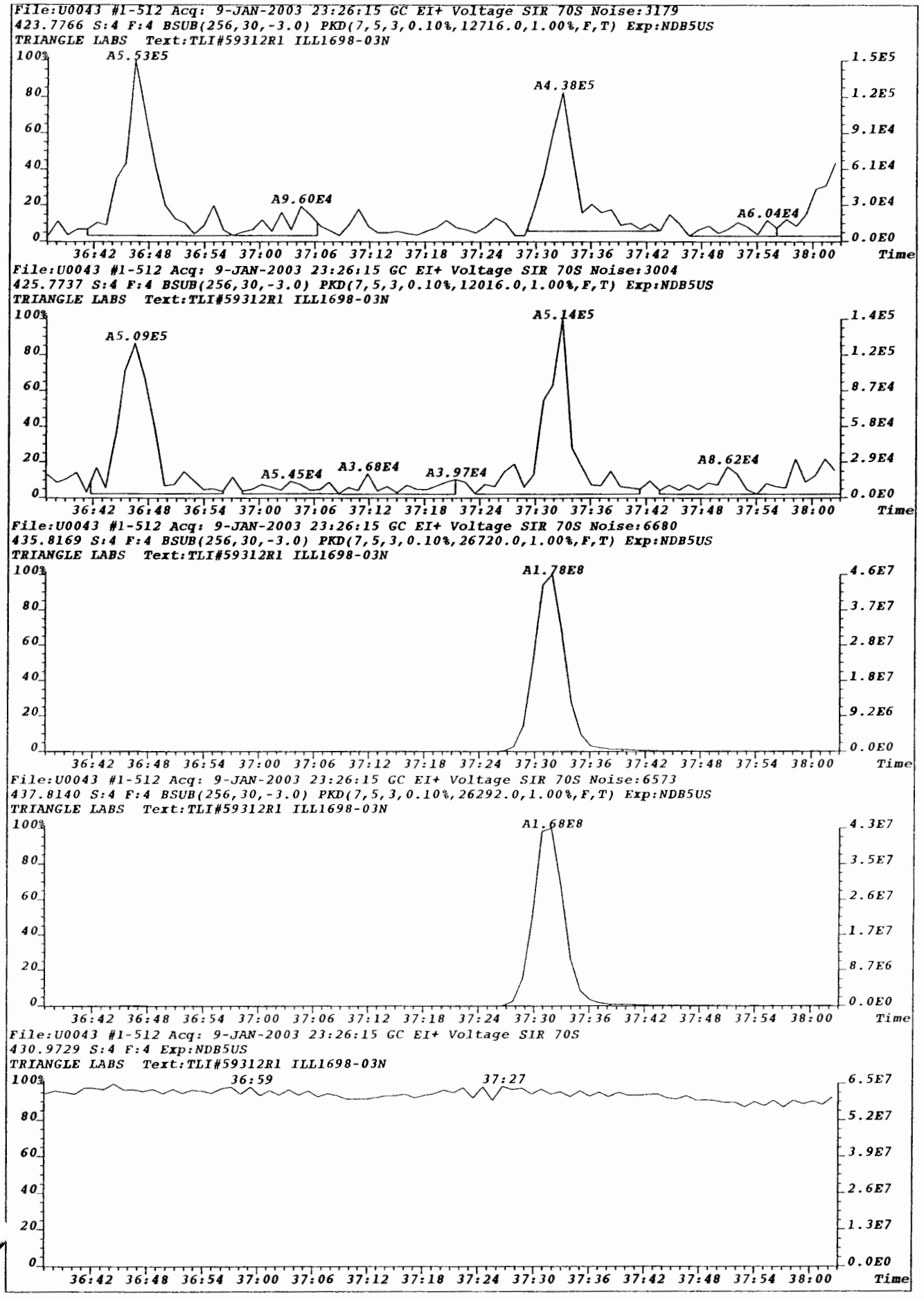


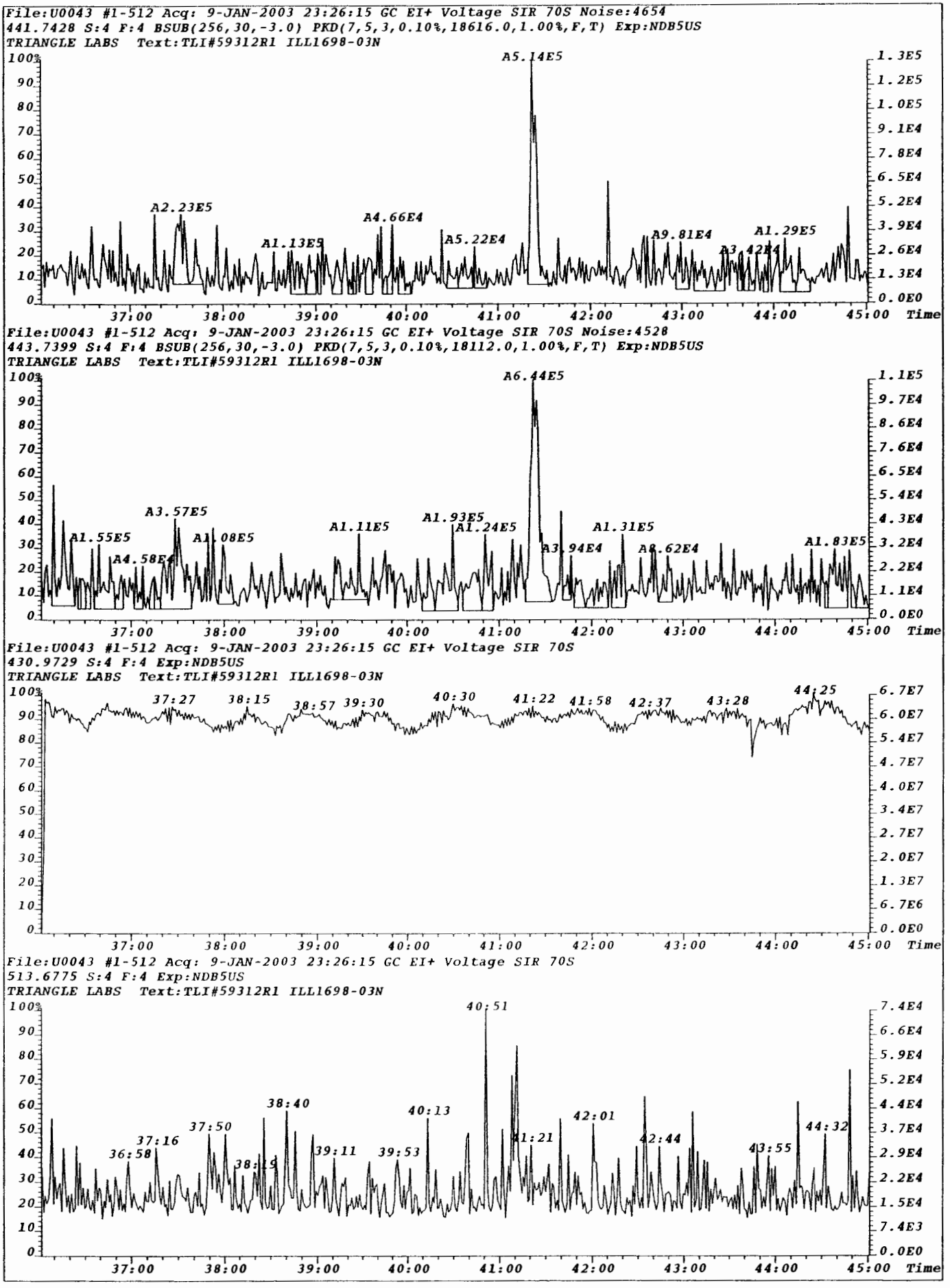

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



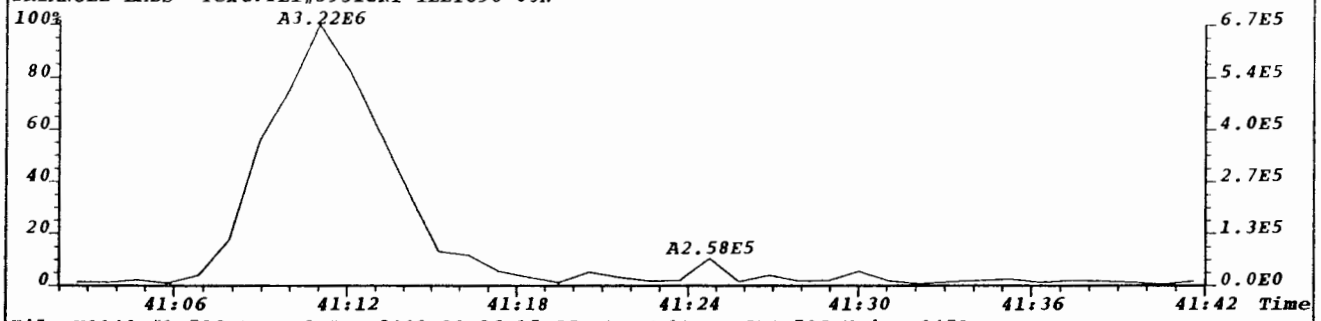

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
479.7165 S:4 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



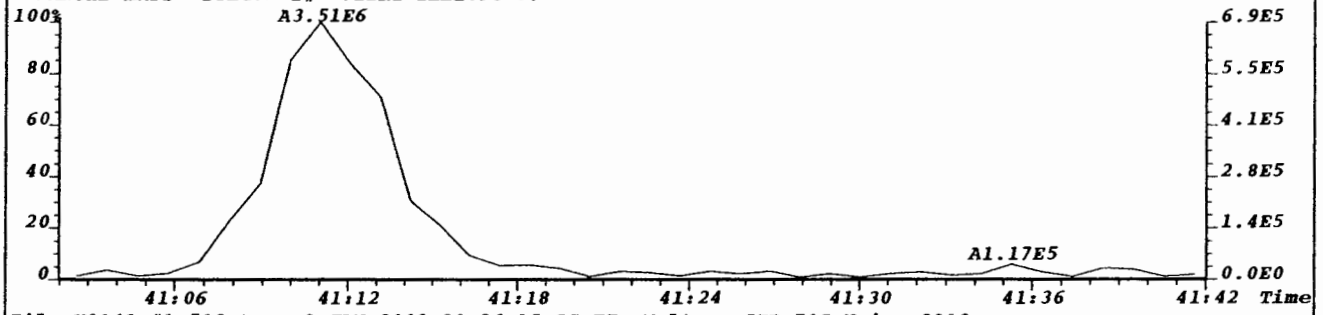

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3179
423.7766 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12716.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A5.53E5
A4.38E5
A9.60E4
A6.04E4
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3004
425.7737 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12016.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A5.14E5
A5.09E5
A5.45E4
A3.68E4
A3.97E4
A8.62E4
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:6680
435.8169 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,26720.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A1.78E8
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:6573
437.8140 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,26292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A1.68E8
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
36:59
37:27
Time


File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4654
441.7428 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18616.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A5.14E5
A2.23E5
A4.66E4
A1.13E5
A5.22E4
A9.81E4
A1.29E5
A3.42E4
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:4528
443.7399 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18112.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
A6.44E5
A3.57E5
A1.55E5
A1.08E5
A1.11E5
A1.93E5
A1.24E5
A1.31E5
A4.58E4
A3.94E4
A1.83E5
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
37:27
38:15
38:57
39:30
40:30
41:22
41:58
42:37
43:28
44:25
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
513.6775 S:4 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N
40:51
38:40
40:13
37:50
37:16
36:58
39:11
39:53
41:21
42:01
42:44
43:55
44:32
Time

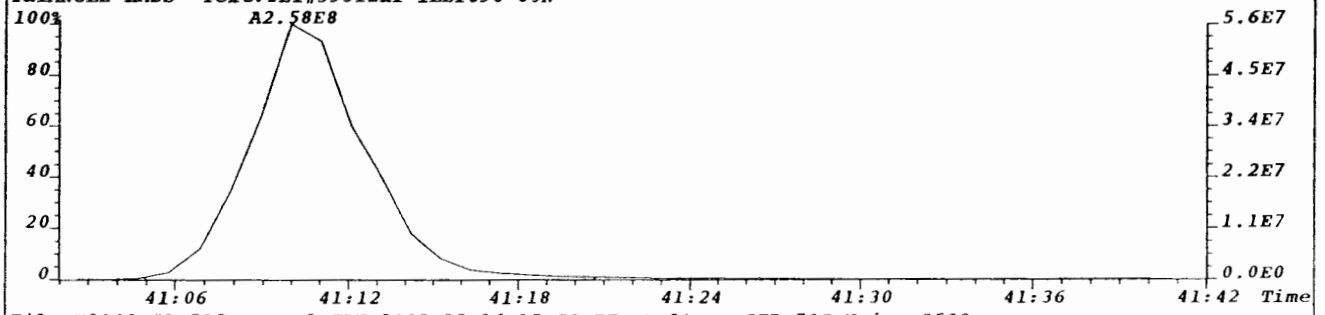
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:2518
457.7377 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10072.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



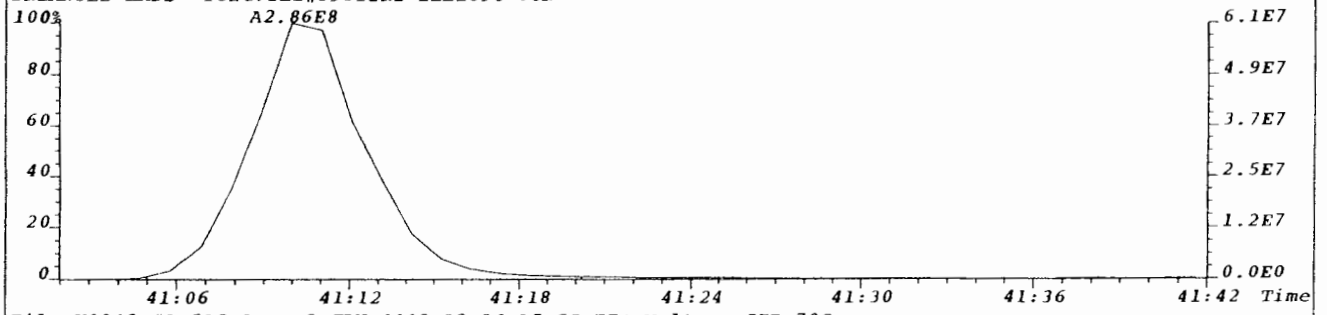

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3451
459.7348 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13804.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N



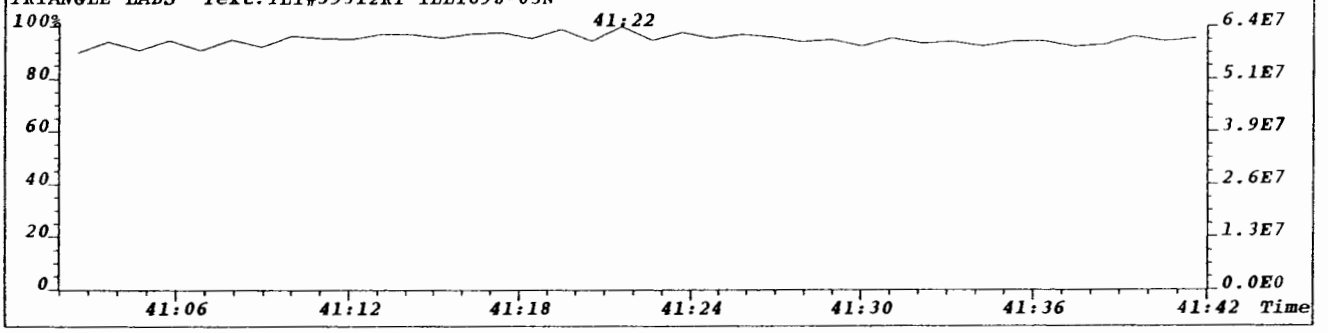

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:2913
469.7779 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11652.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N

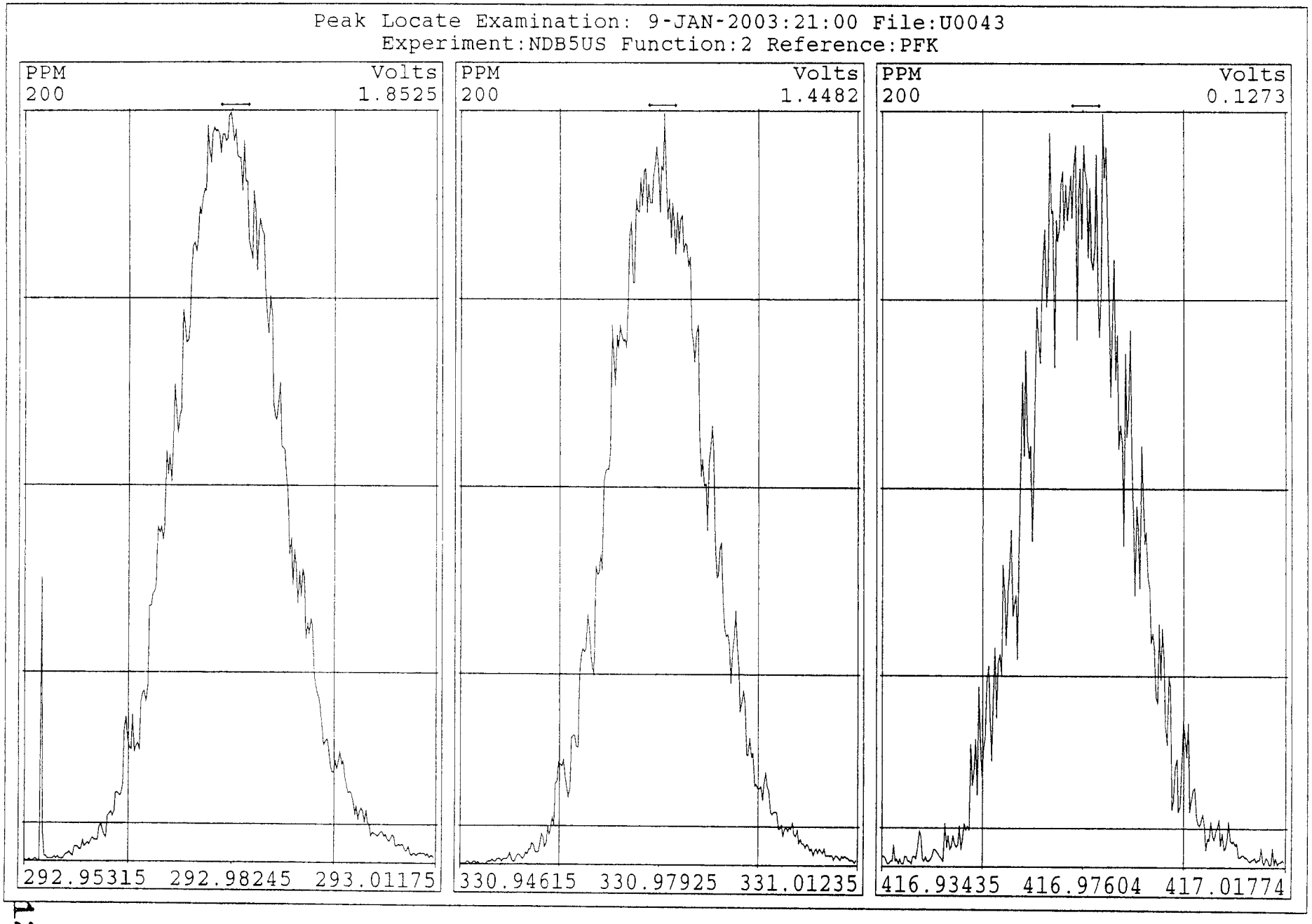


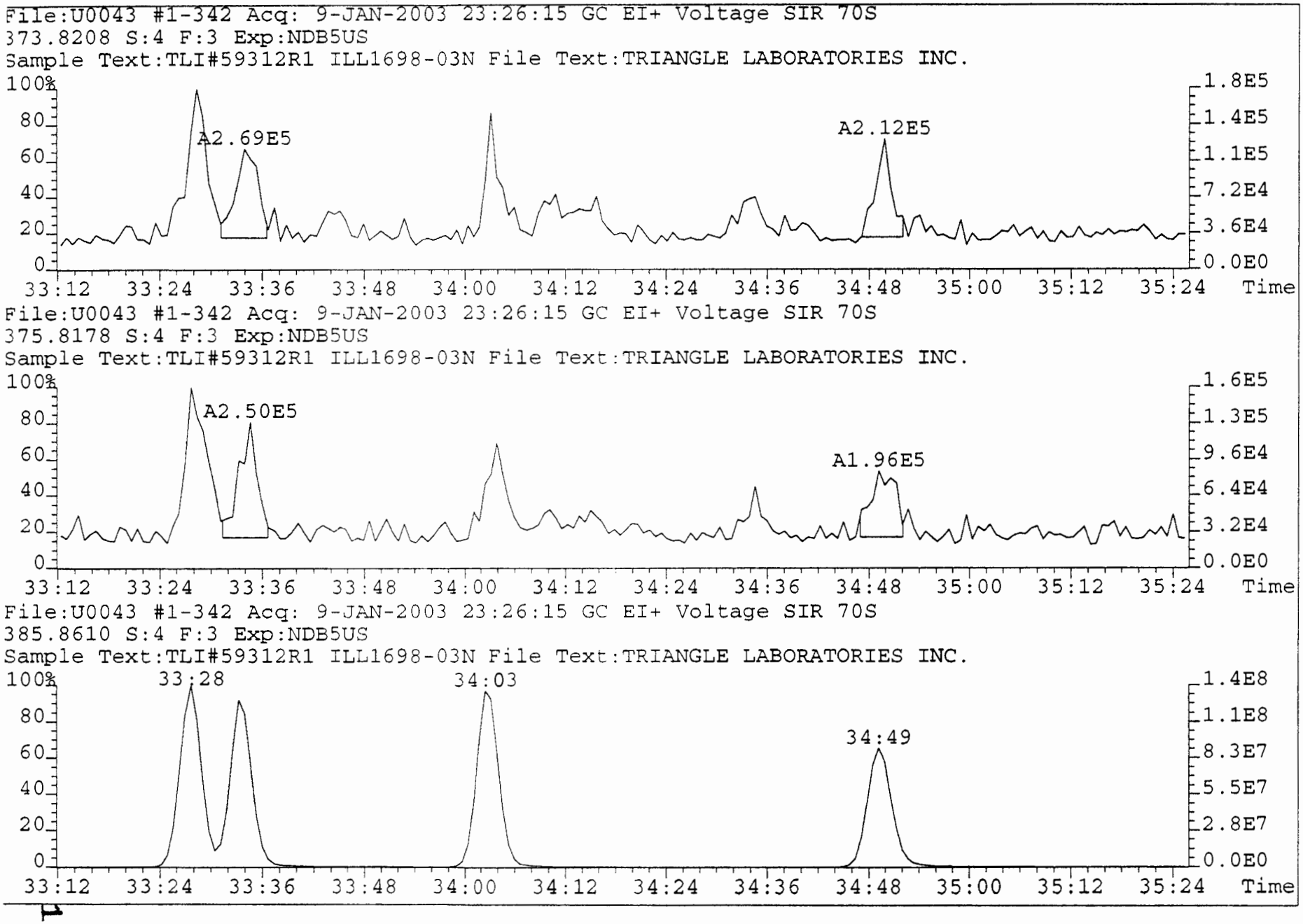

File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S Noise:3502
471.7750 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14008.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N




File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-03N




Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774


File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
373.8208 S:4 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A2.69E5
A2.12E5
1.8E5
1.4E5
1.1E5
7.2E4
3.6E4
0.0E0
33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
375.8178 S:4 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A2.50E5
A1.96E5
1.6E5
1.3E5
9.6E4
6.4E4
3.2E4
0.0E0
33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
385.8610 S:4 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
33:28
34:03
34:49
1.4E8
1.1E8
8.3E7
5.5E7
2.8E7
0.0E0
33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 Time

122

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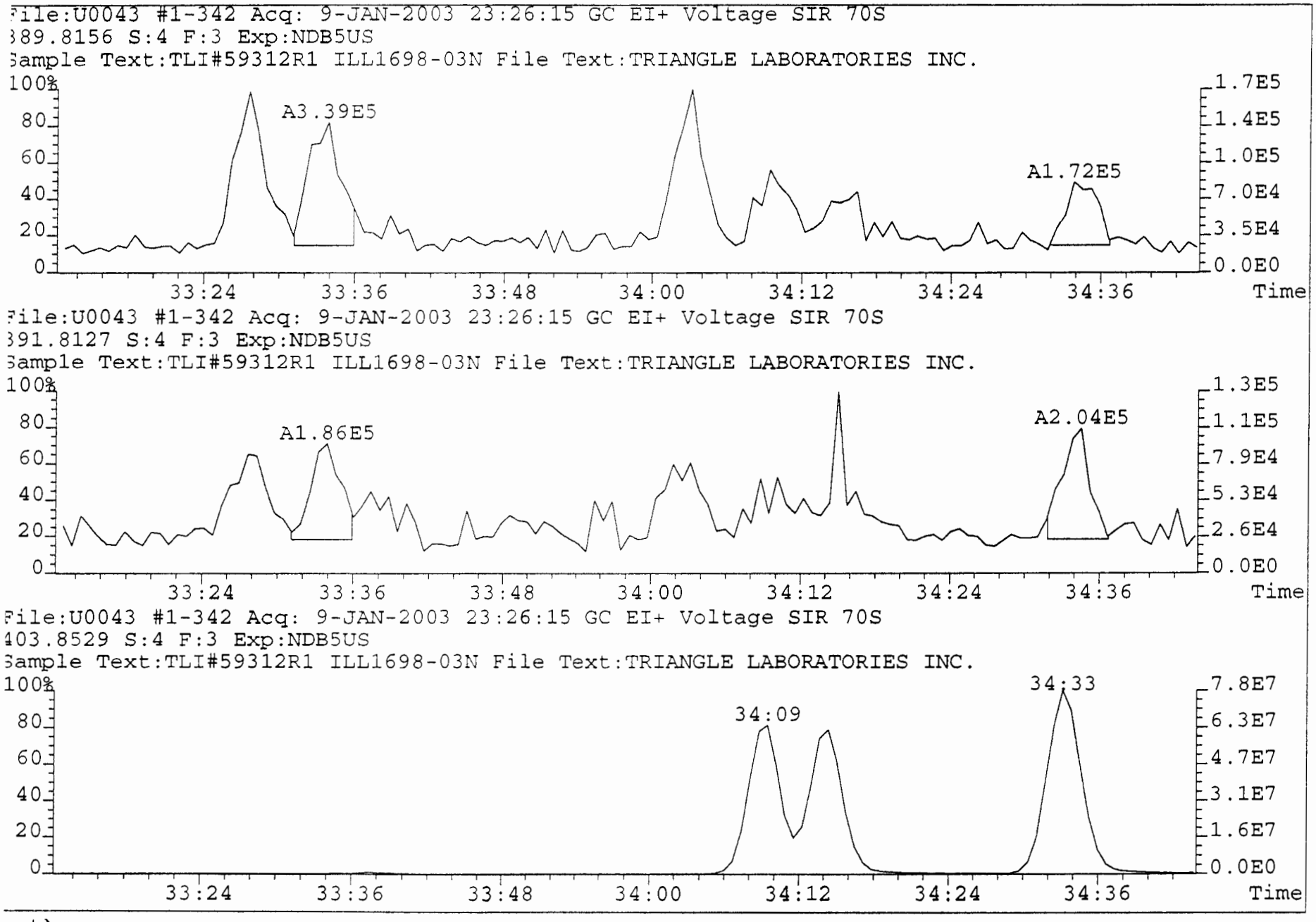
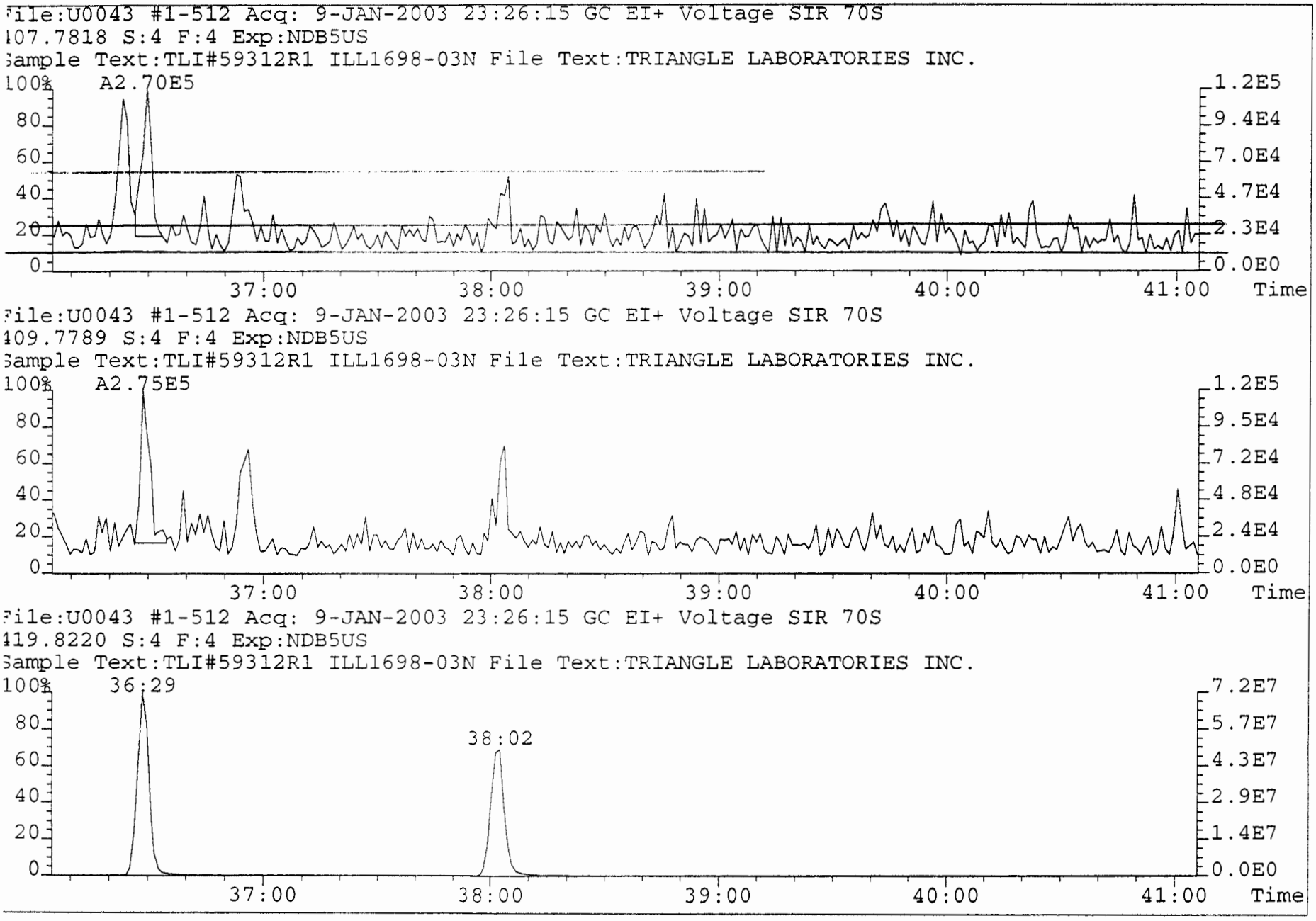
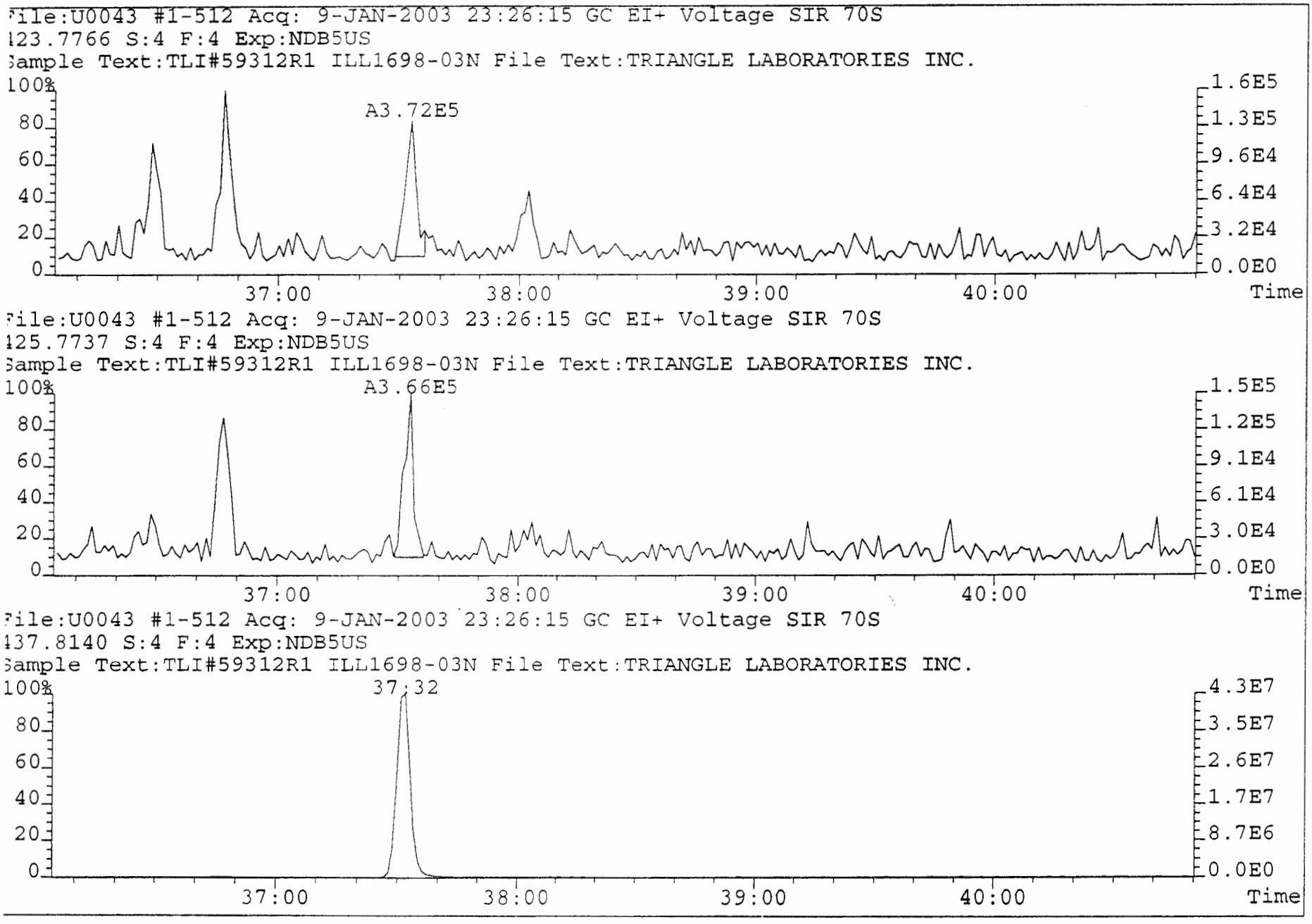
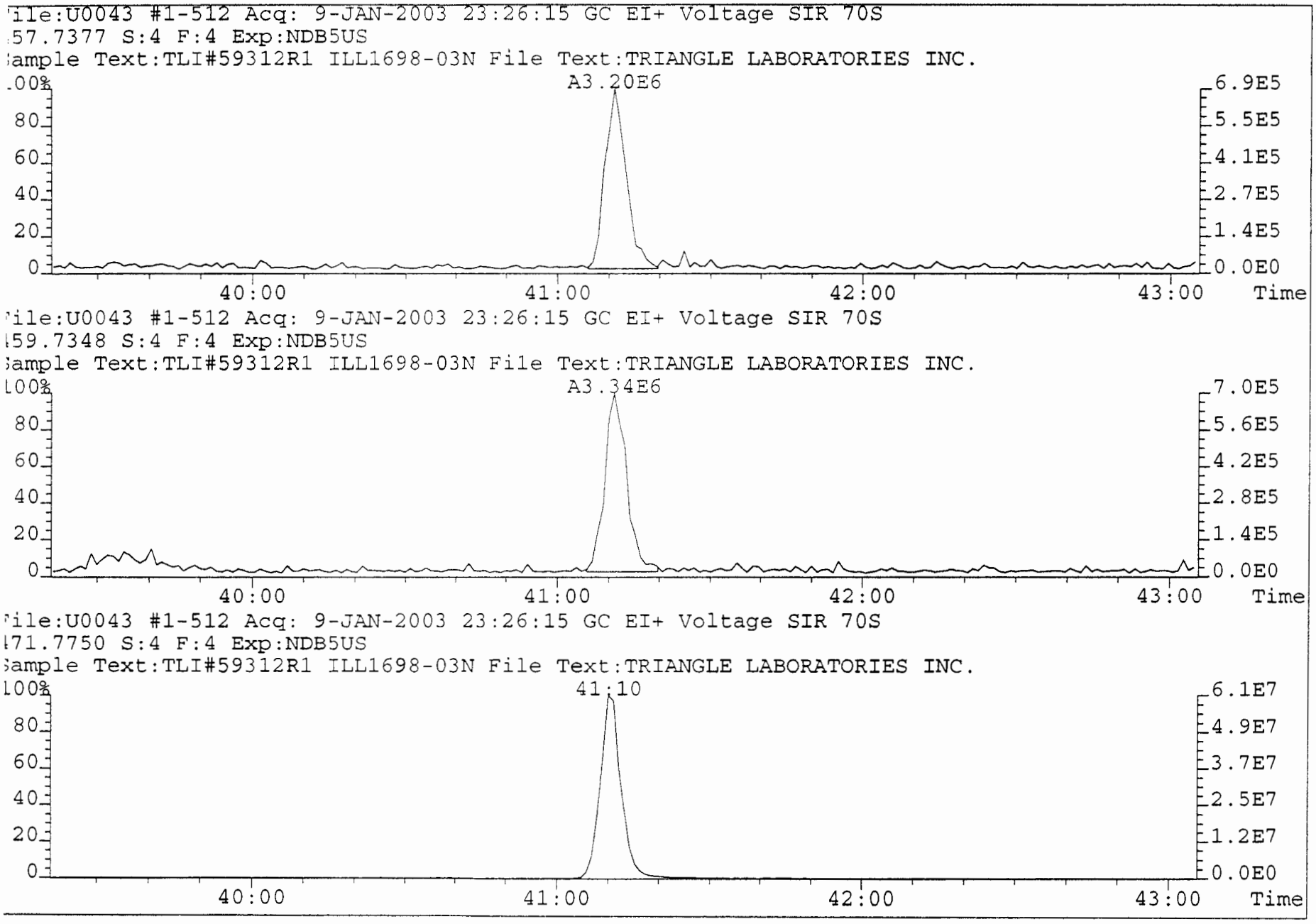

File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
389.8156 S:4 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.39E5
A1.72E5
1.7E5
1.4E5
1.0E5
7.0E4
3.5E4
0.0E0
33:24
33:36
33:48
34:00
34:12
34:24
34:36
Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
391.8127 S:4 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A1.86E5
A2.04E5
1.3E5
1.1E5
7.9E4
5.3E4
2.6E4
0.0E0
33:24
33:36
33:48
34:00
34:12
34:24
34:36
Time
File:U0043 #1-342 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
403.8529 S:4 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
34:09
34:33
7.8E7
6.3E7
4.7E7
3.1E7
1.6E7
0.0E0
33:24
33:36
33:48
34:00
34:12
34:24
34:36
Time


File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
407.7818 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100% A2.70E5
1.2E5
9.4E4
7.0E4
4.7E4
2.3E4
0.0E0
37:00
38:00
39:00
40:00
41:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
409.7789 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100% A2.75E5
1.2E5
9.5E4
7.2E4
4.8E4
2.4E4
0.0E0
37:00
38:00
39:00
40:00
41:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
419.8220 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100% 36:29
38:02
7.2E7
5.7E7
4.3E7
2.9E7
1.4E7
0.0E0
37:00
38:00
39:00
40:00
41:00
Time



1/27/03


File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
123.7766 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.72E5
1.6E5
1.3E5
9.6E4
6.4E4
3.2E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
125.7737 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.66E5
1.5E5
1.2E5
9.1E4
6.1E4
3.0E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
137.8140 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
37.32
4.3E7
3.5E7
2.6E7
1.7E7
8.7E6
0.0E0
37:00
38:00
39:00
40:00
Time


File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
57.7377 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
A3.20E6
100%
80
60
40
20
0
6.9E5
5.5E5
4.1E5
2.7E5
1.4E5
0.0E0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
59.7348 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
A3.34E6
100%
80
60
40
20
0
7.0E5
5.6E5
4.2E5
2.8E5
1.4E5
0.0E0
40:00
41:00
42:00
43:00
Time
File:U0043 #1-512 Acq: 9-JAN-2003 23:26:15 GC EI+ Voltage SIR 70S
71.7750 S:4 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-03N File Text:TRIANGLE LABORATORIES INC.
41:10
100%
80
60
40
20
0
6.1E7
4.9E7
3.7E7
2.5E7
1.2E7
0.0E0
40:00
41:00
42:00
43:00
Time

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-04O** Analysis File: **U004305**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/2003 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-4B | Date Extracted: | 01/08/2003 | ICal: | UF57092 |
| | | Date Analyzed: | 01/10/2003 | ConCal: | U030041 |
| Sample Size: | 1.050 L | Dilution Factor: | n/a | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 1.3 | | | | ___ |
| 1,2,3,7,8-PeCDD | ND | 1.7 | | | | ___ |
| 1,2,3,4,7,8-HxCDD | ND | 1.2 | | | | ___ |
| 1,2,3,6,7,8-HxCDD | ND | 1.2 | | | | ___ |
| 1,2,3,7,8,9-HxCDD | ND | 1.2 | | | | ___ |
| 1,2,3,4,6,7,8-HpCDD | EMPC | | 2.7 | | | JB_ |
| 1,2,3,4,6,7,8,9-OCDD | EMPC | | 13.6 | | | JB_ |
| 2,3,7,8-TCDF | ND | 1.0 | | | | ___ |
| 1,2,3,7,8-PeCDF | ND | 0.8 | | | | ___ |
| 2,3,4,7,8-PeCDF | ND | 0.9 | | | | ___ |
| 1,2,3,4,7,8-HxCDF | 1.6 | | | 1.25 | 33:29 | JB_ |
| 1,2,3,6,7,8-HxCDF | 1.1 | | | 1.24 | 33:34 | JB_ |
| 2,3,4,6,7,8-HxCDF | ND | 1.0 | | | | ___ |
| 1,2,3,7,8,9-HxCDF | ND | 1.2 | | | | ___ |
| 1,2,3,4,6,7,8-HpCDF | 1.7 | | | 1.00 | 36:30 | JB_ |
| 1,2,3,4,7,8,9-HpCDF | ND | 1.7 | | | | ___ |
| 1,2,3,4,6,7,8,9-OCDF | ND | 2.1 | | | | ___ |

| Totals | Conc. (pg/L) | Number | DL | EMPC | Flags |
|---|---|---|---|---|---|
| Total TCDD | EMPC | | | 2.0 | ___ |
| Total PeCDD | EMPC | | | 5.3 | ___ |
| Total HxCDD | EMPC | | | 3.8 | ___ |
| Total HpCDD | 3.7 | 1 | | 6.4 | ___ |
| Total TCDF | EMPC | | | 3.4 | ___ |
| Total PeCDF | EMPC | | | 1.7 | X__ |
| Total HxCDF | 2.7 | 2 | | | ___ |
| Total HpCDF | 1.7 | 1 | | | ___ |



MIT3_PSR v1.00, LARS 6.25.05

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Printed: 17:27 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)

ient Sample: **ILL1698-04O** Analysis File: **U004305**

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1030 | 54.2 | 40%-135% | 0.77 | 26:02 | ___ |
| $^{13}C_{12}$-2,3,7,8-TCDD | 989 | 51.9 | 40%-135% | 0.80 | 26:45 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1320 | 69.4 | 40%-135% | 1.63 | 29:59 | ___ |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1250 | 65.6 | 40%-135% | 1.63 | 31:01 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1270 | 66.8 | 40%-135% | 0.51 | 33:34 | ___ |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1470 | 77.2 | 40%-135% | 1.26 | 34:14 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1260 | 66.1 | 40%-135% | 0.46 | 36:29 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1560 | 81.9 | 40%-135% | 1.07 | 37:31 | ___ |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3790 | 99.5 | 40%-135% | 0.90 | 41:10 | ___ |

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1420 | 74.7 | 40%-135% | 1.62 | 30:41 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1340 | 70.4 | 40%-135% | 0.50 | 33:27 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1650 | 86.6 | 40%-135% | 1.26 | 34:09 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1450 | 76.3 | 40%-135% | 0.46 | 38:02 | ___ |

| her Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 101 | 53.2 | 40%-135% | 26:46 | ___ |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1550 | 81.3 | 40%-135% | 0.52 | 34:50 | ___ |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1430 | 74.9 | 40%-135% | 0.53 | 34:04 | ___ |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.82 | 26:34 | ___ |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.25 | 34:33 | ___ |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6.25.05

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# Del Mar Analytical

TLI Project: **59312r1** — Toxicity Equivalents Report
Client Sample: **ILL1698-04O** — Analysis File: **U004305**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/03 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-4B | Date Extracted: | 01/08/03 | ICal: | UF57092 |
| | | Date Analyzed: | 01/10/03 | ConCal: | U030041 |
| Sample Size: | 1.050 L | Dilution Factor: | 1 | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | | TEF | | Equivalent |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | {1.3} | x | 1. | = | 1.3 |
| 1,2,3,7,8-PeCDD | {1.7} | x | 0.5 | = | 0.85 |
| 1,2,3,4,7,8-HxCDD | {1.2} | x | 0.1 | = | 0.12 |
| 1,2,3,6,7,8-HxCDD | {1.2} | x | 0.1 | = | 0.12 |
| 1,2,3,7,8,9-HxCDD | {1.2} | x | 0.1 | = | 0.12 |
| 1,2,3,4,6,7,8-HpCDD | [2.7] | x | 0.01 | = | 0.027 |
| 1,2,3,4,6,7,8,9-OCDD | [13.6] | x | 0.001 | = | 0.0136 |
| TOTAL PCDD | | | | | 2.6 |
| 2,3,7,8-TCDF | {1.0} | x | 0.1 | = | 0.10 |
| 1,2,3,7,8-PeCDF | {0.8} | x | 0.05 | = | 0.04 |
| 2,3,4,7,8-PeCDF | {0.9} | x | 0.5 | = | 0.5 |
| 1,2,3,4,7,8-HxCDF | 1.6 | x | 0.1 | = | 0.16 |
| 1,2,3,6,7,8-HxCDF | 1.1 | x | 0.1 | = | 0.11 |
| 2,3,4,6,7,8-HxCDF | {1.0} | x | 0.1 | = | 0.10 |
| 1,2,3,7,8,9-HxCDF | {1.2} | x | 0.1 | = | 0.12 |
| 1,2,3,4,6,7,8-HpCDF | 1.7 | x | 0.01 | = | 0.017 |
| 1,2,3,4,7,8,9-HpCDF | {1.7} | x | 0.01 | = | 0.017 |
| 1,2,3,4,6,7,8,9-OCDF | {2.1} | x | 0.001 | = | 0.0021 |
| TOTAL PCDF | | | | | 1.2 |

**Total EPA TEFs, 1989a: 3.7 pg/L**

**[...] indicates that the value is that of an EMPC.**
**{...} indicates that the value is that of a Detection Limit.**



GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:07 01/20/03

Initial ....Date...

Data Review By: KW 1/20/03

Calculated Noise Height: 4.28

? Total Area for each peak with an ion abundance ratio outside
tio limits has been recalculated according to method requirements.

Page No. 1 Listing of U004305B.dbf
01/20/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | | | 0.65-0.89 | | | | 0.873-1.074 | | | |
| 304-306 | DC | NL | | | | Height | 19.06 | 9.71 | 9.35 | | | | |
| | DC | SN | | 26:03 | RO | 1.17 | 66.04 | | | 1.001 | 2378-TCDF | AN | |
| | | | | 27:08 | RO | 1.09 | 139.62 | 85.85 | 78.88 | 1.042 | | | J |
| | DC | WH | | 28:04 | | 0.84 | 62.28 | | | 1.078 | | | |
| 304-306 | | 1 | Peak | | | | 139.62 | | | | | | |
| 13C12-TCDF | | | | | | 0.65-0.89 | | | | 0.962-1.038 | | | |
| 316-318 | DC | NL | | | | Height | 15.80 | 8.29 | 7.51 | | | | |
| | | | | 25:37 | | 0.75 | 583.72 | 249.93 | 333.79 | 0.984 | | | |
| | | | | 26:02 | | 0.77 | 69,225.10 | 30,101.70 | 39,123.40 | 1.000 | 13C12-2378-TCDF | IS0 | |
| | | | | | | Height | 17,948.61 | 7,743.11 | 10,205.50 | | | | |
| | | | | 26:33 | RO | 1.72 | 56.82 | 55.25 | 32.10 | 1.020 | | | |
| 316-318 | | 3 | Peaks | | | | 69,865.64 | | | | | | |
| ---------- Above: TCDF / TCDD Follows ---------- | | | | | | | | | | | | | |
| TCDD | | | | | | 0.65-0.89 | | | | 0.900-1.043 | | | |
| 320-322 | DC | NL | | | | Height | 9.02 | 4.66 | 4.36 | | | | |
| | DC | SN | | 24:41 | RO | 1.08 | 16.66 | | | 0.923 | | | |
| | DC | SN | | 24:57 | RO | 0.46 | 51.08 | | | 0.933 | | | |
| | | | | 26:03 | RO | 1.94 | 56.62 | 62.12 | 31.99 | 0.974 | | | J |
| | DC | SN | | 26:29 | RO | 1.01 | 12.46 | | | 0.990 | | | |
| | DC | SN | | 26:36 | RO | 1.12 | 12.50 | | | 0.994 | | | |
| D | D | SN | | 26:46 | RO | 0.23 | 17.75 | | | 1.001 | 2378-TCDD | AN | |
| | DC | SN | | 26:56 | | 0.87 | 37.98 | | | 1.007 | | | |
| | DC | SN | | 27:06 | RO | 3.36 | 8.48 | | | 1.013 | | | |
| 320-322 | | 1 | Peak | | | | 56.62 | | | | | | |
| 37C1-TCDD | | | | | | | | | | 0.925-1.075 | | | |
| 328 | DC | NL | | | | Height | 5.10 | 5.10 | | | | | |
| | | | | 25:24 | | | 343.83 | 343.83 | | 0.950 | | | |
| | DC | SN | | 26:03 | | | 23.84 | | | 0.974 | | | |
| | | | | 26:46 | | | 5,081.91 | 5,081.91 | | 1.001 | 37C1-TCDD | CLS | |
| | DC | SN | | 27:04 | | | 19.76 | | | 1.012 | | | |
| | | | | 27:08 | | | 44.11 | 44.11 | | 1.014 | | | |
| | DC | SN | | 27:19 | | | 3.22 | | | 1.021 | | | |
| | DC | SN | | 27:25 | | | 6.35 | | | 1.025 | | | |
| | | | | 27:37 | | | 47.09 | 47.09 | | 1.032 | | | |
| | DC | SN | | 27:53 | | | 7.64 | | | 1.042 | | | |
| | | | | 28:17 | | | 41.46 | 41.46 | | 1.057 | | | |
| 328 | | 5 | Peaks | | | | 5,558.40 | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C12-TCDD | | | | 0.65-0.89 | | | | | | 0.925-1.075 | | | |
| 332-334 | DC | NL | | | | Height | 36.07 | 23.78 | 12.29 | | | | |
| | | | | 26:34 | | 0.82 | 79,645.60 | 35,775.70 | 43,869.90 | 0.993 | 13C12-1234-TCDD | RS1 | |
| | | | | 26:45 | | 0.80 | 46,703.60 | 20,738.80 | 25,964.80 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | | | Height | 12,806.25 | 5,674.51 | 7,131.74 | | | | |
| 332-334 | | | | 2 Peaks | | | 126,349.20 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | 1.32-1.78 | | | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | | | Height | 11.35 | 5.14 | 6.21 | | | | |
| MX | | X | | 30:04 | RO | 1.33 | 69.10 | 39.50 | 29.60 | 1.003 | | | J |
| | DC | SN | | 30:18 | RO | 0.58 | 29.19 | | | 1.011 | | | |
| | DC | SN | | 31:25 | | 1.45 | 38.06 | | | 1.048 | | | |
| 340-342 | | | | 1 Peak | | | 69.10 | | | | | | |
| 13C12-PeCDF | | | | 1.32-1.78 | | | | | | 0.867-1.133 | | | |
| 352-354 | DC | NL | | | | Height | 7.90 | 3.96 | 3.94 | | | | |
| | | | | 29:09 | | 1.55 | 278.32 | 169.35 | 108.97 | 0.972 | | | |
| | | | | 29:59 | | 1.63 | 61,666.70 | 38,181.40 | 23,485.30 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | | | Height | 19,349.21 | 11,948.90 | 7,400.31 | | | | |
| | | | | 30:16 | | 1.62 | 813.88 | 503.26 | 310.62 | 1.009 | | | |
| | | | | 30:41 | | 1.62 | 66,606.40 | 41,229.20 | 25,377.20 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | | 31:39 | | 1.59 | 749.86 | 460.47 | 289.39 | 1.056 | | | |
| 352-354 | | | | 5 Peaks | | | 130,115.16 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | 1.32-1.78 | | | | | | 0.937-1.021 | | | |
| 356-358 | DC | NL | | | | Height | 7.32 | 3.58 | 3.74 | | | | |
| | DC | SN | | 29:29 | RO | 1.12 | 16.16 | | | 0.951 | | | |
| | DC | SN | | 29:34 | RO | 2.98 | 7.45 | | | 0.953 | | | |
| K | | | | 29:59 | RO | 2.45 | 49.65 | 47.74 | 19.47 | 0.967 | | | J |
| K | | | | 30:41 | RO | 1.82 | 60.03 | 42.85 | 23.54 | 0.989 | | | J |
| | DC | SN | | 30:52 | RO | 0.64 | 11.19 | | | 0.995 | | | |
| 356-358 | | | | 2 Peaks | | | 109.68 | | | | | | |
| 13C12-PeCDD | | | | 1.32-1.78 | | | | | | 0.871-1.129 | | | |
| 368-370 | DC | NL | | | | Height | 6.15 | 3.86 | 2.29 | | | | |
| | | | | 29:57 | | 1.76 | 90.51 | 57.71 | 32.80 | 0.966 | | | |
| | | | | 30:05 | | 1.59 | 152.82 | 93.82 | 59.00 | 0.970 | | | |
| | | | | 30:16 | PO | 1.13 | 52.33 | 23.25 | 20.52 | 0.976 | | | |
| | DC | SN | | 30:42 | RO | 0.45 | 18.61 | | | 0.990 | | | |
| | | | | 31:01 | | 1.63 | 34,722.90 | 21,503.40 | 13,219.50 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | | | Height | 10,681.33 | 6,706.46 | 3,974.87 | | | | |
| | DC | SN | | 31:20 | | 1.36 | 33.88 | | | 1.010 | | | |
| 368-370 | | | | 4 Peaks | | | 35,018.56 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |
| HxCDF | | | | 1.05-1.43 | | | | | | 0.964-1.045 | | | |
| 374-376 | DC | NL | | | | Height | 7.45 | 3.83 | 3.62 | | | | |

| Compound/ " Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DC | SN | | 32:30 | RO | 1.00 | 14.22 | | | 0.968 | | | |
| | | | | 33:29 | | 1.25 | 53.25 | 29.58 | 23.67 | 0.998 | 123478-HxCDF | AN | J |
| | | | | 33:34 | | 1.24 | 40.97 | 22.69 | 18.28 | 1.000 | 123678-HxCDF | AN | J |
| | DC | SN | | 33:45 | RO | 1.48 | 39.36 | | | 1.005 | | | |
| | DC | SN | | 34:04 | | 1.09 | 39.70 | | | 1.015 | 234678-HxCDF | AN | |
| | DC | SN | | 34:35 | RO | 2.24 | 19.04 | | | 1.030 | | | |
| | DC | SN | | 34:51 | RO | 0.97 | 29.23 | | | 1.038 | 123789-HxCDF | AN | |
| 374-376 | | 2 | Peaks | | | | 94.22 | | | | | | |
| 13C12-HxCDF | | | | 0.43-0.59 | | | | | | 0.881-1.119 | | | |
| 384-386 | DC | NL | | | | Height | 15.33 | 4.07 | 11.26 | | | | |
| | | | | 32:29 | | 0.48 | 110.51 | 35.83 | 74.68 | 0.968 | | | |
| | | | | 32:38 | | 0.49 | 86.00 | 28.26 | 57.74 | 0.972 | | | |
| | | | | 33:27 | | 0.50 | 59,904.30 | 20,093.30 | 39,811.00 | 0.997 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:34 | | 0.51 | 56,648.50 | 19,187.00 | 37,461.50 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | | | Height | 19,719.32 | 6,686.92 | 13,032.40 | | | | |
| | | | | 34:04 | | 0.53 | 58,487.80 | 20,140.50 | 38,347.30 | 1.015 | 13C12-HxCDF 234 | ALT2 | |
| | | | | 34:50 | | 0.52 | 50,416.80 | 17,203.60 | 33,213.20 | 1.038 | 13C12-HxCDF 789 | ALT1 | |
| 384-386 | | 6 | Peaks | | | | 225,653.91 | | | | | | |

---------- Above: HxCDF / HxCDD Follows ----------

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HxCDD | | | | 1.05-1.43 | | | | | | 0.958-1.013 | | | |
| 390-392 | DC | NL | | | | Height | 6.22 | 2.79 | 3.43 | | | | |
| | | | | 33:28 | RO | 2.27 | 49.21 | 49.88 | 21.97 | 0.978 | | | J |
| D | D | SN | | 33:34 | RO | 3.81 | 30.44 | | | 0.981 | | | |
| | | | | 34:04 | RO | 1.80 | 50.98 | 41.03 | 22.76 | 0.995 | | | J |
| | DC | SN | | 34:11 | | 1.28 | 29.37 | | | 0.999 | | | |
| D | D | SN | | 34:16 | RO | 1.58 | 35.86 | | | 1.001 | 123678-HxCDD | AN | |
| | DC | SN | | 34:27 | RO | 0.95 | 7.14 | | | 1.006 | | | |
| | DC | SN | | 34:35 | | 1.33 | 35.92 | | | 1.010 | | | |
| | DC | WH | | 34:49 | RO | 1.48 | 59.27 | | | 1.017 | | | |
| | DC | WH | | 35:01 | RO | 0.66 | 11.71 | | | 1.023 | | | |
| 390-392 | | 2 | Peaks | | | | 100.19 | | | | | | |
| 13C12-HxCDD | | | | 1.05-1.43 | | | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | | | Height | 14.41 | 7.15 | 7.26 | | | | |
| | | | | 33:38 | | 1.41 | 383.51 | 224.09 | 159.42 | 0.982 | | | |
| | | | | 34:09 | | 1.26 | 46,706.40 | 26,027.80 | 20,678.60 | 0.998 | 13C12-HxCDD 478 | SUR3 | |
| | | | | 34:14 | | 1.26 | 46,084.20 | 25,650.40 | 20,433.80 | 1.000 | 13C12-HxCDD 678 | IS5 | |
| | | | | | | Height | 15,381.09 | 8,474.83 | 6,906.26 | | | | |
| | | | | 34:33 | | 1.25 | 57,446.30 | 31,875.50 | 25,570.80 | 1.009 | 13C12-HxCDD 789 | RS2 | |
| | | | | 34:56 | RO | 2.21 | 60.41 | 59.57 | 26.97 | 1.020 | | | |
| 402-404 | | 5 | Peaks | | | | 150,680.82 | | | | | | |

---------- Above: HxCDD / HpCDF Follows ----------

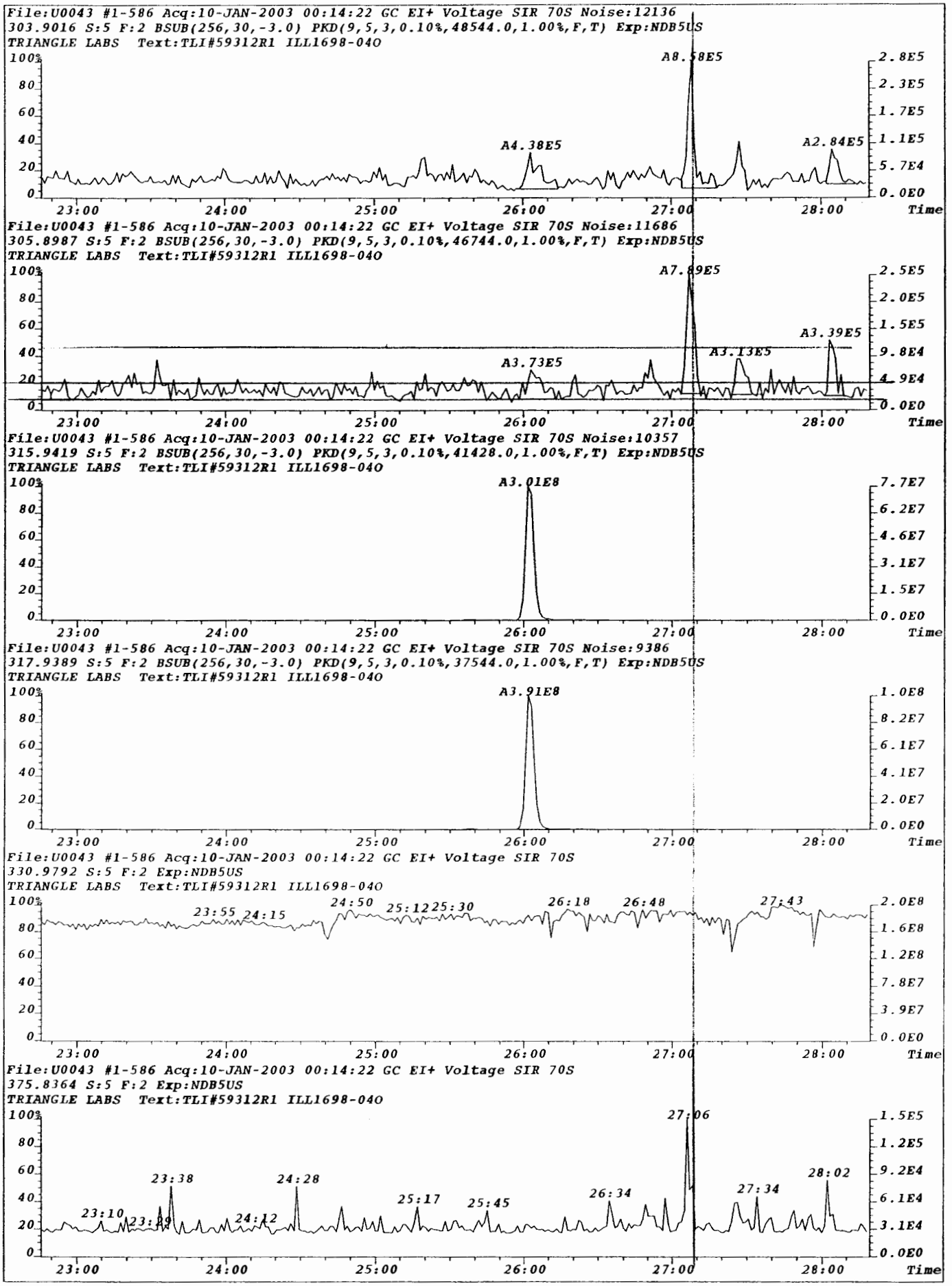
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HpCDF | | | | 0.88-1.20 | | | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | | | Height | 5.85 | 3.39 | 2.46 | | | | |
| M | | | | 36:30 | | 1.00 | 52.10 | 26.00 | 26.10 | 1.000 | 1234678-HpCDF | AN | J |
| | DC | SN | | 36:54 | | 0.94 | 37.39 | | | 1.011 | | | |
| 408-410 | | 1 | Peak | | | | 52.10 | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C12-HpCDF | | | | 0.37-0.51 | | | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | | | Height | 8.89 | 5.24 | 3.65 | | | | |
| | | | | 36:29 | | 0.46 | 39,877.50 | 12,635.70 | 27,241.80 | 1.000 | 13C12-HpCDF 678 | IS6 | |
| | | | | | | Height | 11,645.73 | 3,698.07 | 7,947.66 | | | | |
| | | | | 38:02 | | 0.46 | 32,366.00 | 10,203.60 | 22,162.40 | 1.042 | 13C12-HpCDF 789 | SUR4 | |
| 418-420 | | | 2 | Peaks | | | 72,243.50 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |
| HpCDD | | | | 0.88-1.20 | | | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | | | Height | 4.57 | 2.59 | 1.98 | | | | |
| | | | | 36:46 | | 0.88 | 74.71 | 34.92 | 39.79 | 0.980 | | | J |
| | DC | SN | | 37:06 | RO | 0.31 | 6.43 | | | 0.989 | | | |
| M | | | | 37:31 | RO | 0.79 | 53.75 | 27.40 | 34.50 | 1.000 | 1234678-HpCDD | AN | J |
| | DC | WH | | 38:02 | RO | 2.37 | 33.66 | | | 1.014 | | | |
| 424-426 | | | 2 | Peaks | | | 128.46 | | | | | | |
| 13C12-HpCDD | | | | 0.88-1.20 | | | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | | | Height | 11.73 | 6.72 | 5.01 | | | | |
| | | | | 36:47 | | 1.06 | 63.86 | 32.80 | 31.06 | 0.980 | | | |
| | | | | 37:31 | | 1.07 | 38,074.50 | 19,690.10 | 18,384.40 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | | | Height | 10,321.97 | 5,371.66 | 4,950.31 | | | | |
| | | | | 37:53 | RO | 0.87 | 113.59 | 57.91 | 66.55 | 1.010 | | | |
| 436-438 | | | 3 | Peaks | | | 38,251.95 | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | | | | | |
| OCDF | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | | | Height | 6.68 | 3.24 | 3.44 | | | | |
| | DC | SN | | 37:16 | RO | 0.69 | 20.47 | | | 0.905 | | | |
| | DC | SN | | 37:31 | RO | 2.02 | 27.08 | | | 0.911 | | | |
| | DC | SN | | 39:31 | RO | 1.13 | 16.90 | | | 0.960 | | | |
| | DC | SN | | 39:39 | RO | 4.37 | 3.89 | | | 0.963 | | | |
| | DC | SN | | 40:06 | RO | 5.64 | 2.27 | | | 0.974 | | | |
| | DC | SN | | 40:31 | RO | 1.28 | 13.74 | | | 0.984 | | | |
| | DC | SN | | 40:50 | RO | 0.30 | 10.32 | | | 0.992 | | | |
| D | D | SN | | 41:22 | | 0.80 | 98.52 | | | 1.005 | OCDF | AN | |
| | DC | SN | | 42:58 | RO | 1.89 | 10.53 | | | 1.044 | | | |
| | DC | SN | | 43:35 | RO | 0.62 | 20.66 | | | 1.059 | | | |
| 442-444 | | | 0 | Peaks | | | 0.00 | | | | | | |
| OCDD | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 4.66 | 2.26 | 2.40 | | | | |
| M | | | | 41:11 | RO | 1.15 | 247.59 | 150.00 | 131.00 | 1.000 | OCDD | AN | J |
| 458-460 | | | 1 | Peak | | | 247.59 | | | | | | |
| 13C12-OCDD | | | | 0.76-1.02 | | | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | | | Height | 4.41 | 2.33 | 2.08 | | | | |
| | | | | 41:10 | | 0.90 | 62,505.30 | 29,666.80 | 32,838.50 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 13,212.03 | 6,299.84 | 6,912.19 | | | | |
| 470-472 | | | 1 | Peak | | | 62,505.30 | | | | | | |

Compound/
"... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

| Column Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

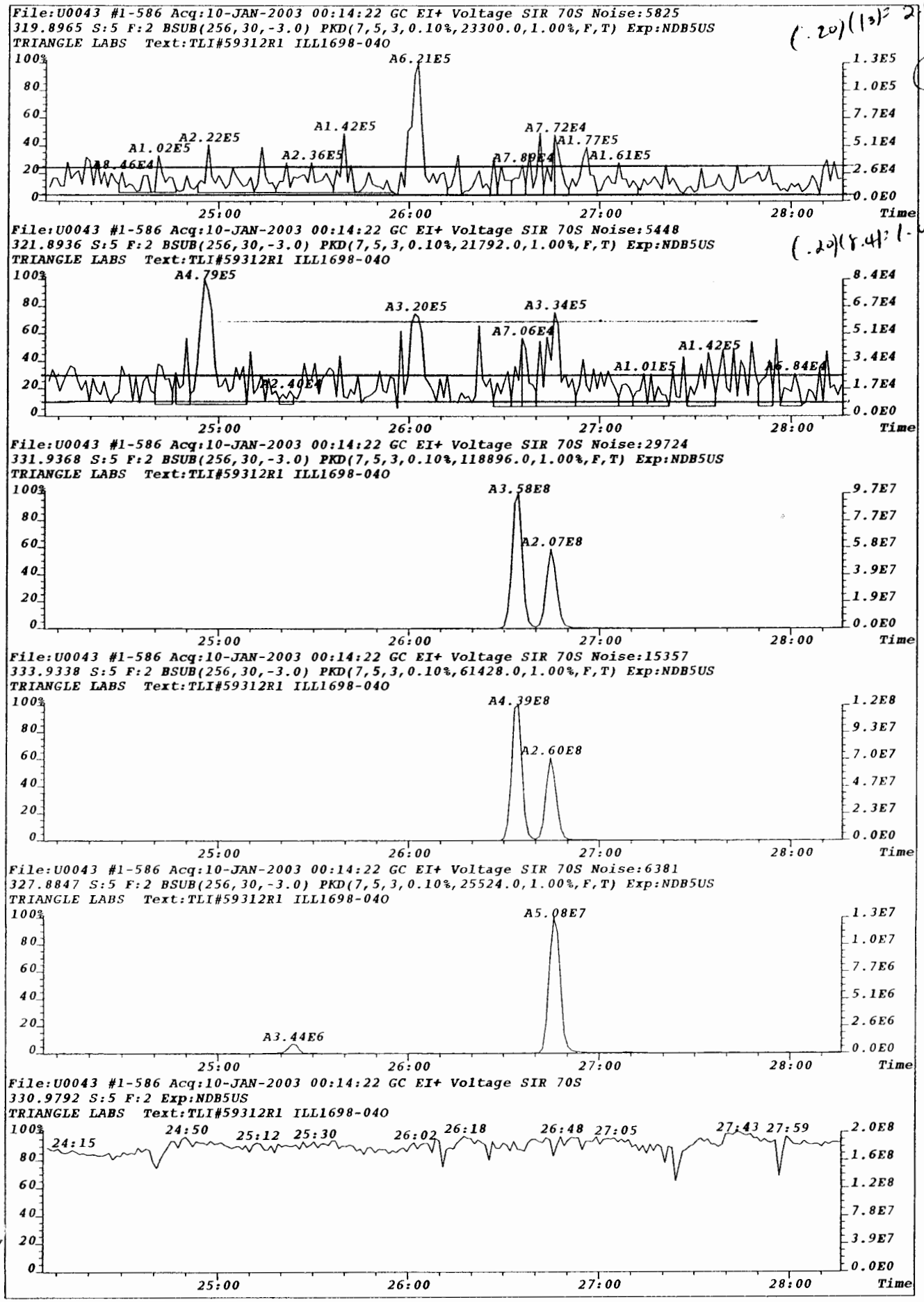
*** End of Report ***

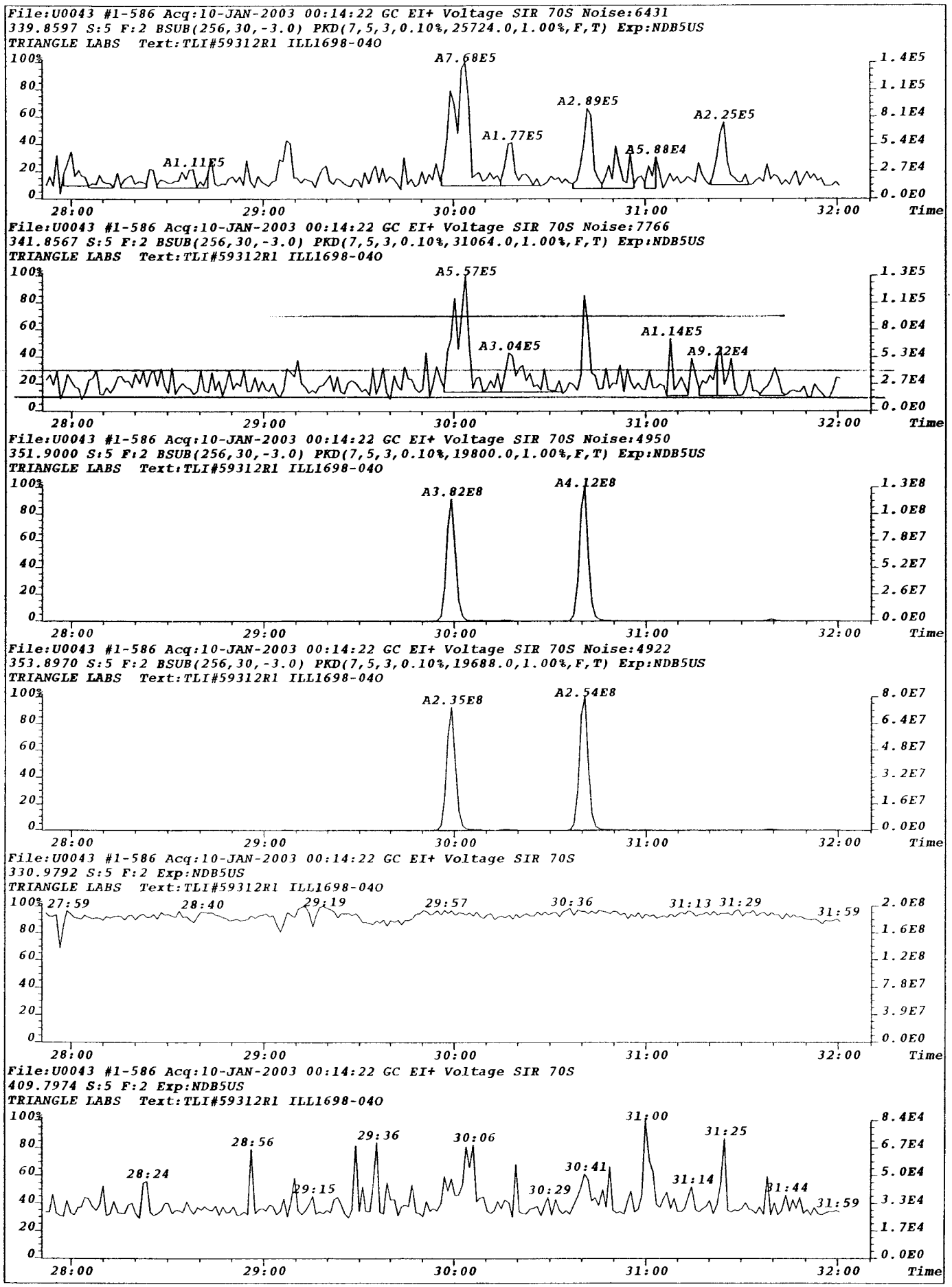

File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:12136
303.9016 S:5 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,48544.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A8.58E5
A4.38E5
A2.84E5
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:11686
305.8987 S:5 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,46744.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A7.89E5
A3.39E5
A3.13E5
A3.73E5
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:10357
315.9419 S:5 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,41428.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A3.01E8
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:9386
317.9389 S:5 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,37544.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A3.91E8
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
330.9792 S:5 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
23:55
24:15
24:50
25:12
25:30
26:18
26:48
27:43
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
375.8364 S:5 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
27:06
23:38
24:28
23:10
23:19
24:12
25:17
25:45
26:34
27:34
28:02
23:00
24:00
25:00
26:00
27:00
28:00
Time

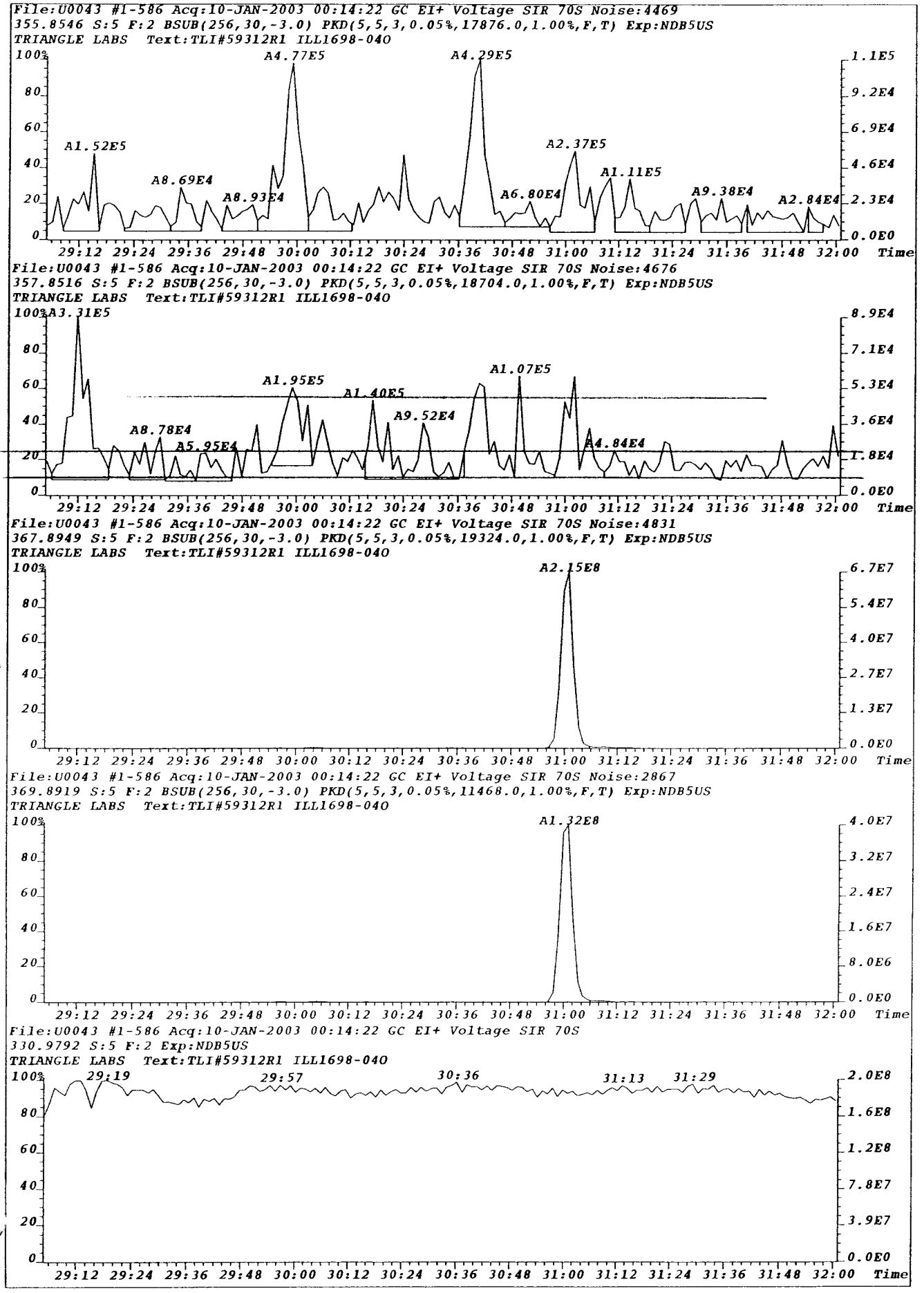
N = 2.4 + 1.6Y = 4.28

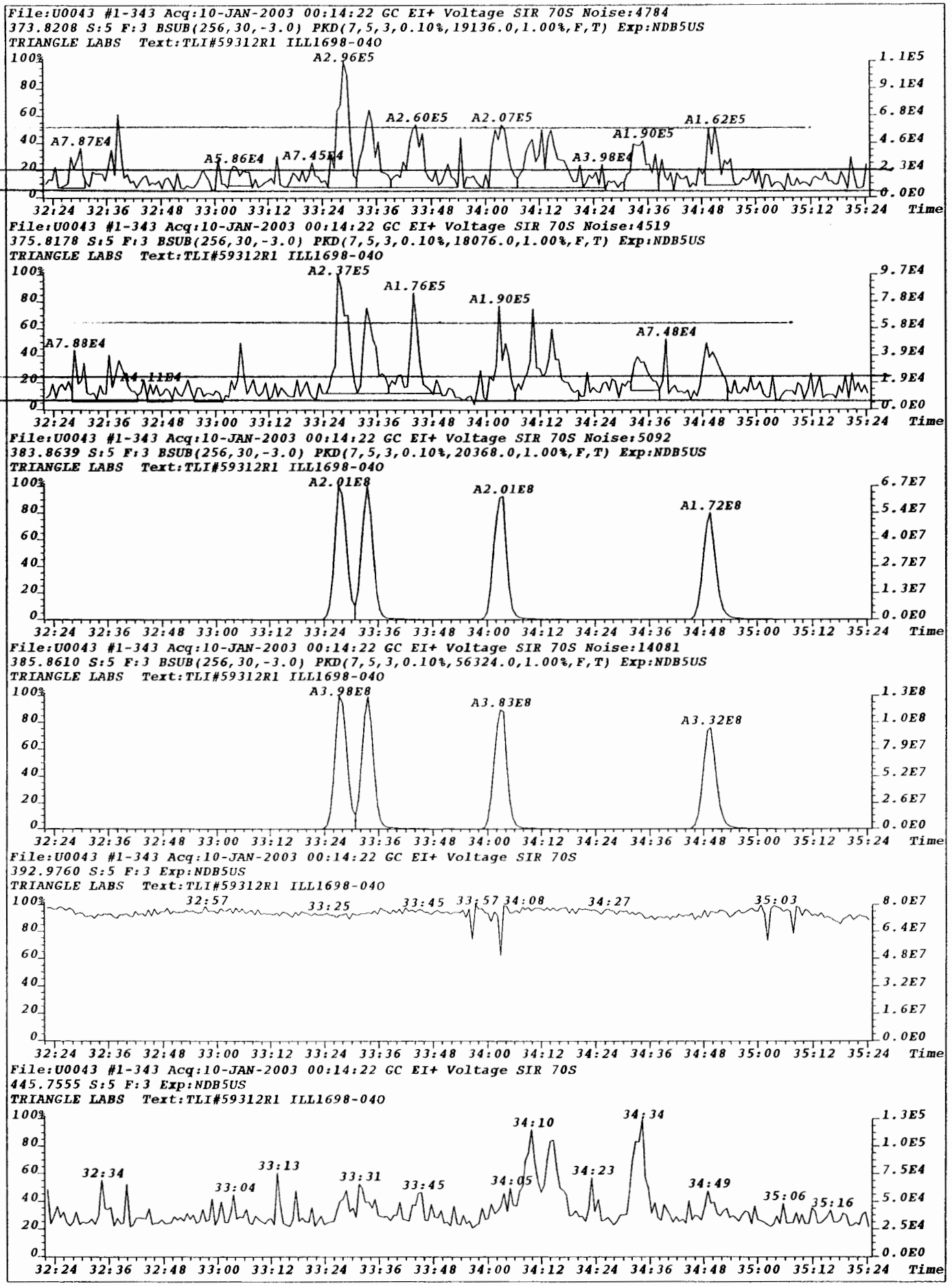
(.20)(13) = 2.6

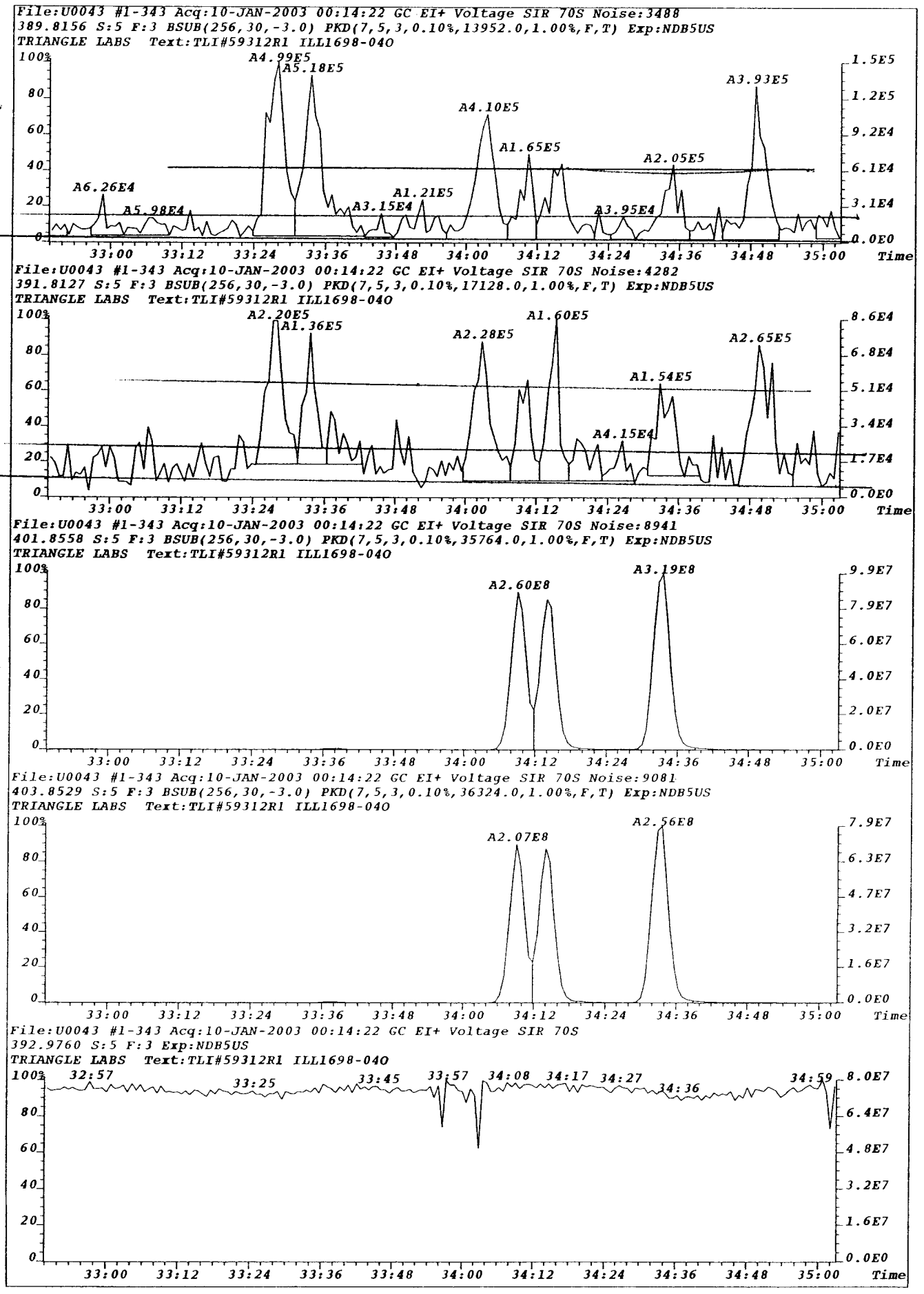
(.20)(8.4) = 1.68



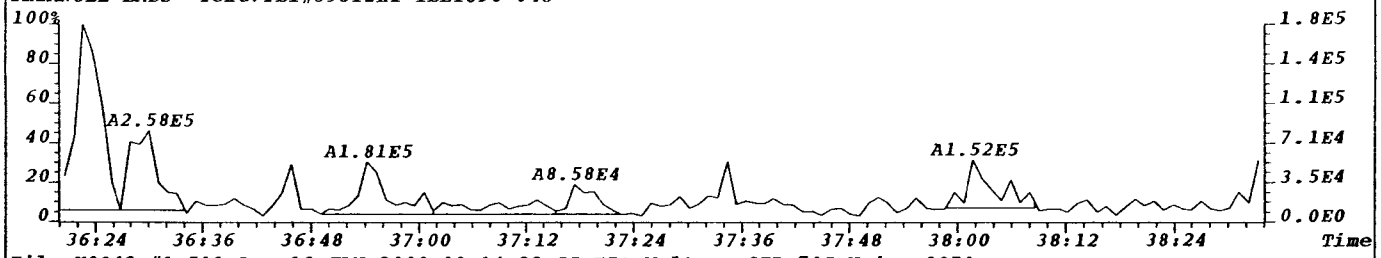

File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:6431
339.8597 S:5 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,25724.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A7.68E5
A2.89E5
A2.25E5
A1.77E5
A5.88E4
A1.11E5
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:7766
341.8567 S:5 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,31064.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A5.57E5
A1.14E5
A3.04E5
A9.22E4
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4950
351.9000 S:5 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19800.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A3.82E8
A4.12E8
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4922
353.8970 S:5 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19688.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.35E8
A2.54E8
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
330.9792 S:5 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
27:59
28:40
29:19
29:57
30:36
31:13
31:29
31:59
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
409.7974 S:5 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
28:24
28:56
29:15
29:36
30:06
30:29
30:41
31:00
31:14
31:25
31:44
31:59
28:00
29:00
30:00
31:00
32:00
Time


File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4469
355.8546 S:5 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17876.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A1.52E5
A8.69E4
A8.93E4
A4.77E5
A4.29E5
A6.80E4
A2.37E5
A1.11E5
A9.38E4
A2.84E4
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4676
357.8516 S:5 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,18704.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A3.31E5
A8.78E4
A5.95E4
A1.95E5
A1.40E5
A9.52E4
A1.07E5
A4.84E4
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4831
367.8949 S:5 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,19324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.15E8
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:2867
369.8919 S:5 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,11468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A1.32E8
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
330.9792 S:5 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
29:19
29:57
30:36
31:13
31:29
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time

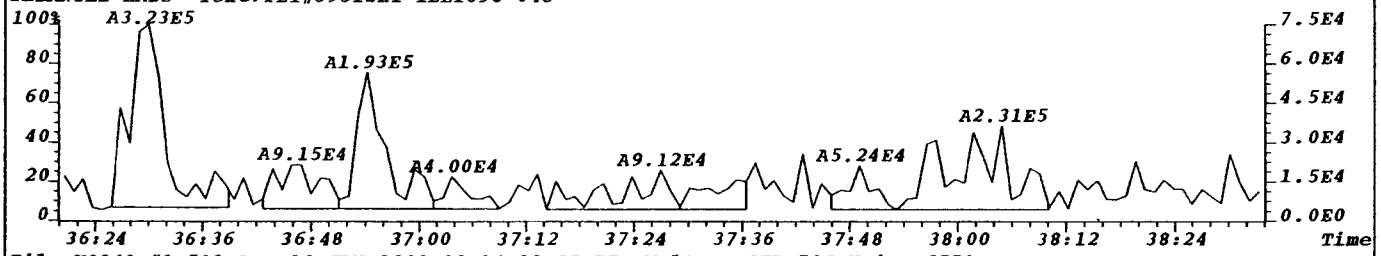

File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4784
373.8208 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19136.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.96E5
A2.60E5
A2.07E5
A1.90E5
A1.62E5
A7.87E4
A5.86E4
A7.45E4
A3.98E4
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4519
375.8178 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18076.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.37E5
A1.76E5
A1.90E5
A7.48E4
A7.88E4
A4.11E4
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:5092
383.8639 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.01E8
A2.01E8
A1.72E8
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:14081
385.8610 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,56324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A3.98E8
A3.83E8
A3.32E8
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
392.9760 S:5 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
32:57
33:25
33:45
33:57
34:08
34:27
35:03
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
445.7555 S:5 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
34:10
34:34
32:34
33:13
33:04
33:31
33:45
34:05
34:23
34:49
35:06
35:16
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 Time


File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:3488
389.8156 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13952.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A4.99E5
A5.18E5
A3.93E5
A4.10E5
A1.65E5
A2.05E5
A6.26E4
A5.98E4
A1.21E5
A3.15E4
A3.95E4
1.5E5
1.2E5
9.2E4
6.1E4
3.1E4
0.0E0
33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4282
391.8127 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17128.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.20E5
A1.36E5
A2.28E5
A1.60E5
A2.65E5
A1.54E5
A4.15E4
8.6E4
6.8E4
5.1E4
3.4E4
1.7E4
0.0E0
33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:8941
401.8558 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,35764.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.60E8
A3.19E8
9.9E7
7.9E7
6.0E7
4.0E7
2.0E7
0.0E0
33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:9081
403.8529 S:5 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,36324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A2.07E8
A2.56E8
7.9E7
6.3E7
4.7E7
3.2E7
1.6E7
0.0E0
33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time
File:U0043 #1-343 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
392.9760 S:5 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
32:57
33:25
33:45
33:57
34:08
34:17
34:27
34:36
34:59
8.0E7
6.4E7
4.8E7
3.2E7
1.6E7
0.0E0
33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time

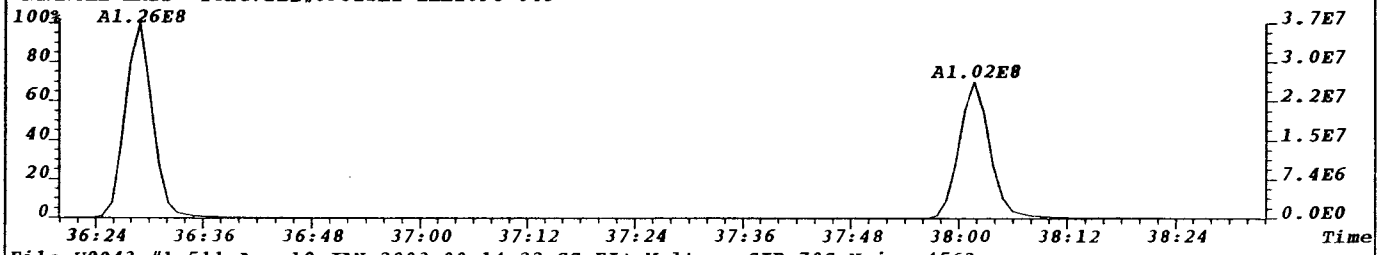
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4237
407.7818 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16948.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



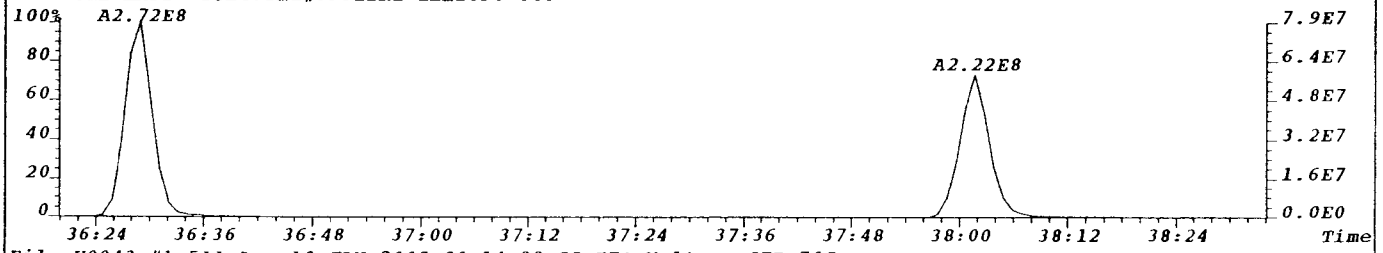

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:3070
409.7789 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



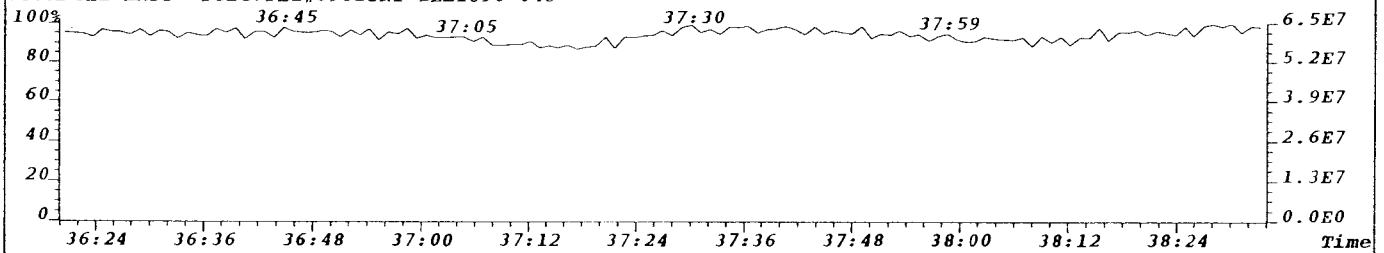

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:6550
417.8253 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,26200.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



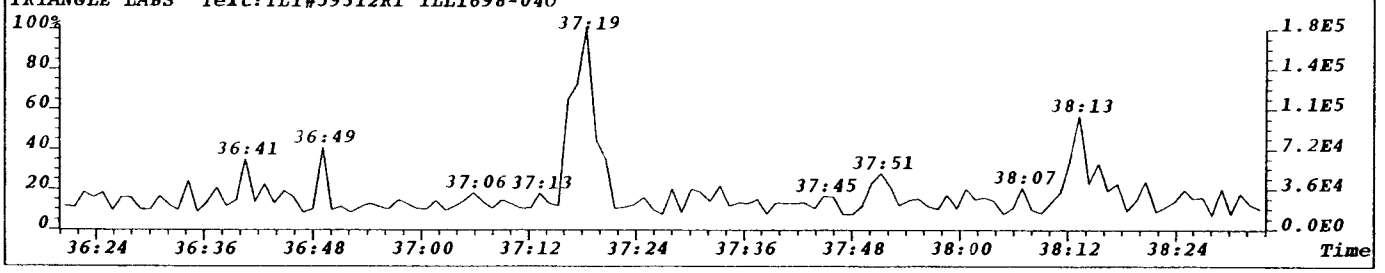

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4562
419.8220 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18248.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



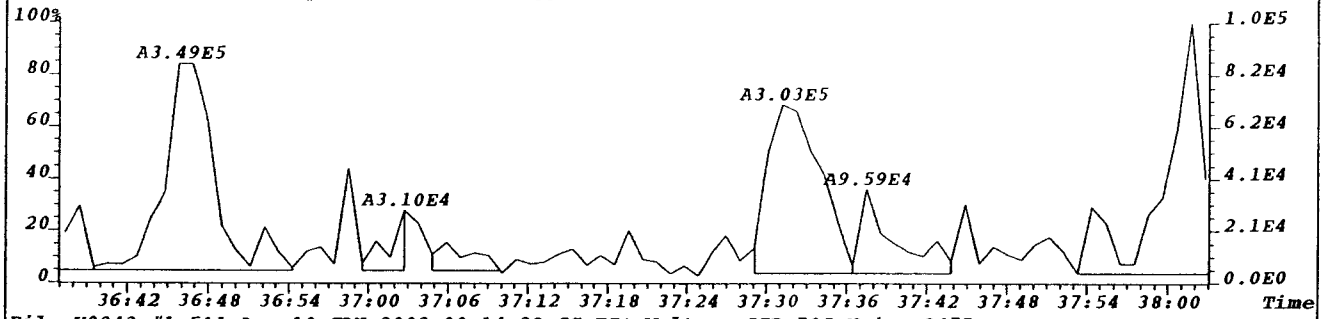

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
430.9729 S:5 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



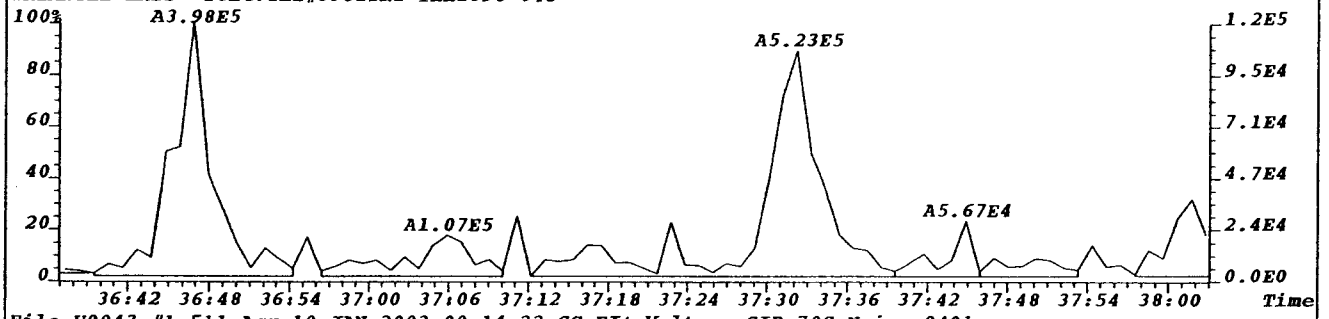

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
479.7165 S:5 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



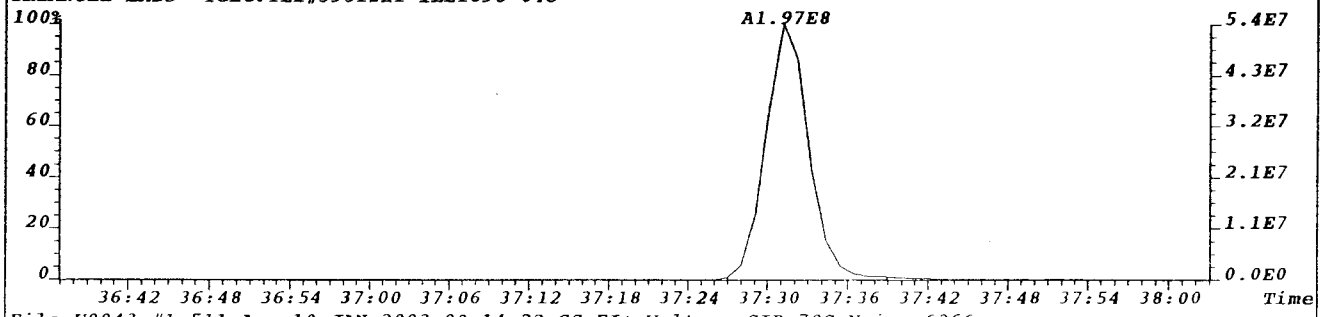
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:3237
423.7766 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12948.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



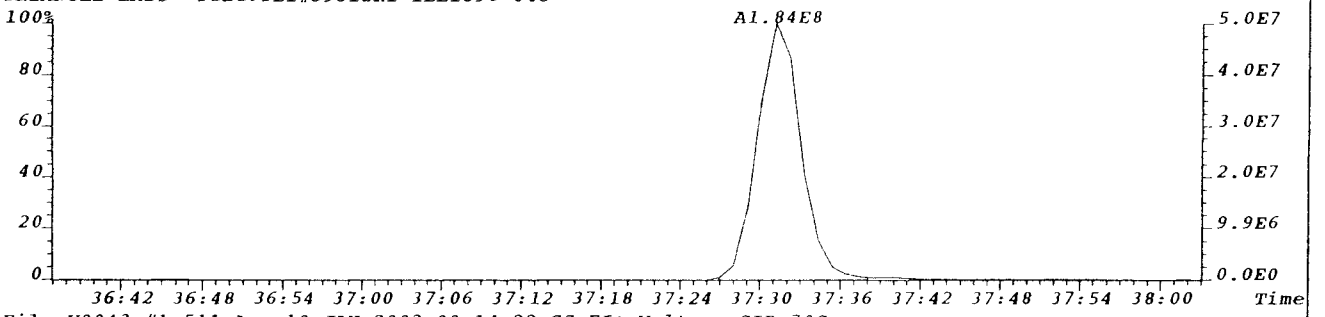

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:2477
425.7737 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,9908.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



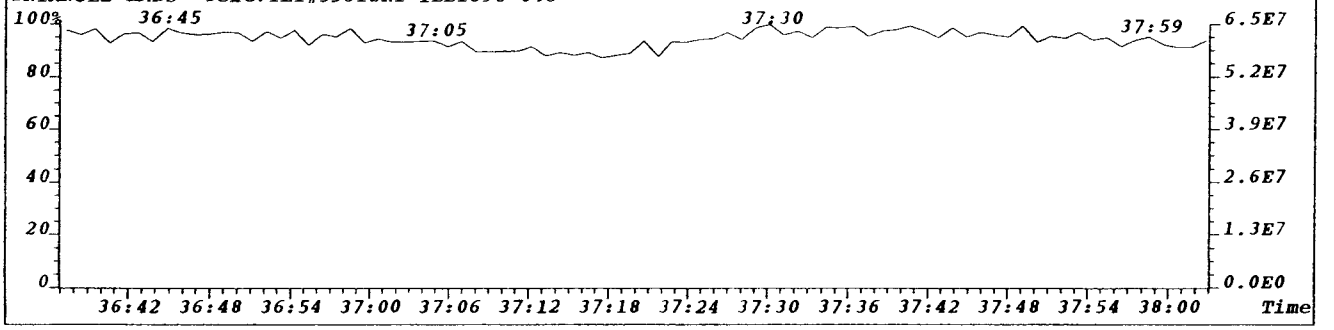

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:8401
435.8169 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,33604.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040

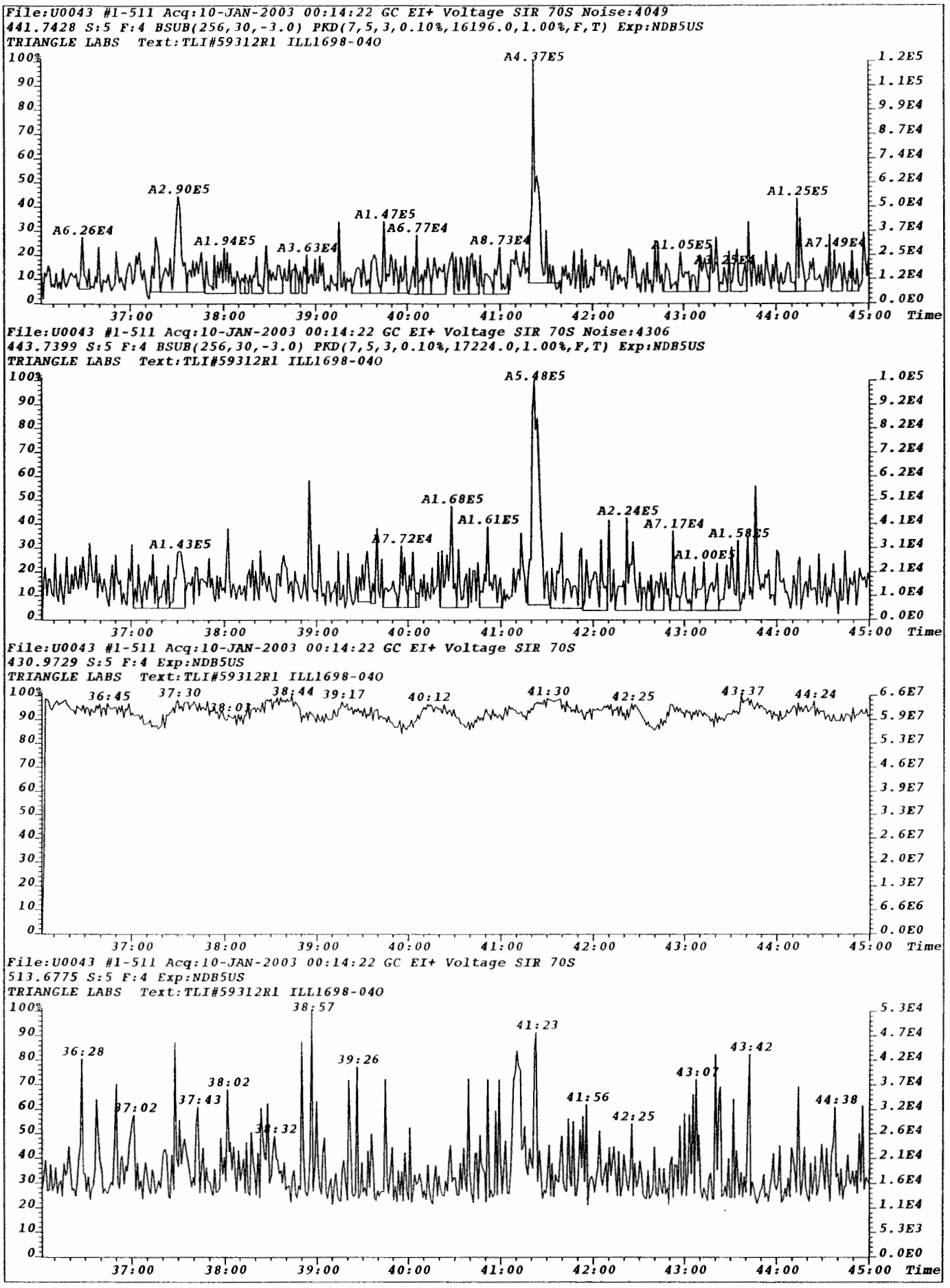



File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:6266
437.8140 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,25064.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040

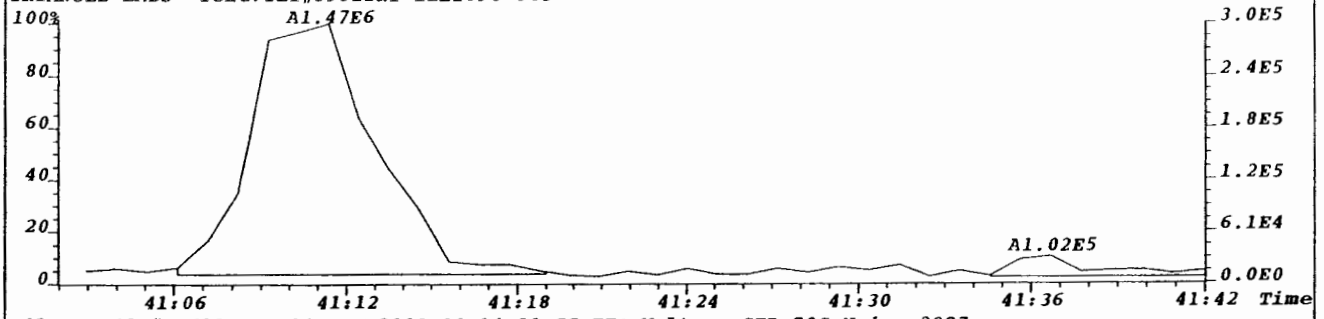



File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
430.9729 S:5 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040

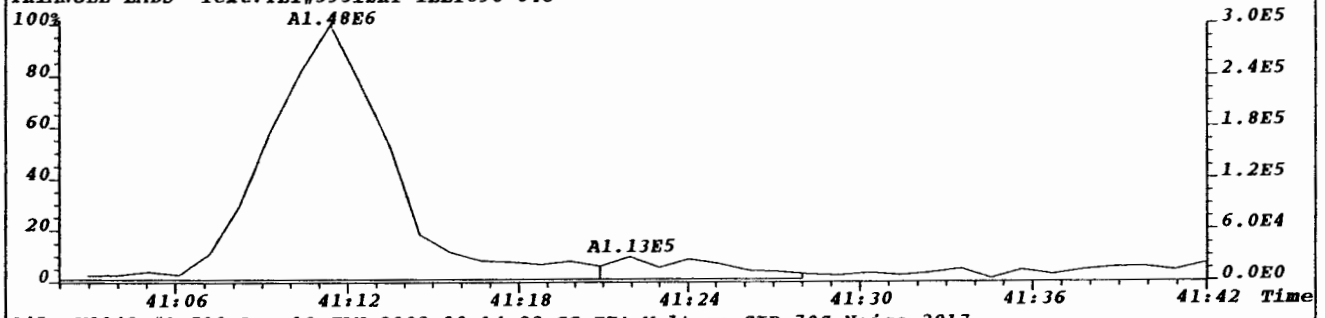



File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4049
441.7428 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16196.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A4.37E5
A2.90E5
A1.25E5
A6.26E4
A1.47E5
A6.77E4
A1.94E5
A3.63E4
A8.73E4
A1.05E5
A7.49E4
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:4306
443.7399 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17224.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
A5.48E5
A1.68E5
A1.61E5
A2.24E5
A7.17E4
A1.58E5
A1.43E5
A7.72E4
A1.00E5
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
430.9729 S:5 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
36:45
37:30
38:44
39:17
40:12
41:30
42:25
43:37
44:24
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
513.6775 S:5 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040
38:57
41:23
36:28
39:26
43:42
43:07
38:02
37:43
41:56
44:38
37:02
42:25
Time

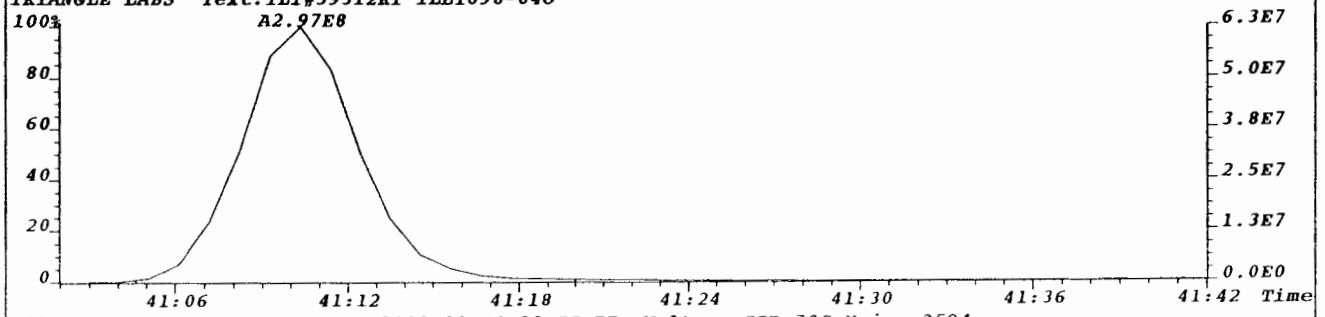
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:2827
457.7377 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11308.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



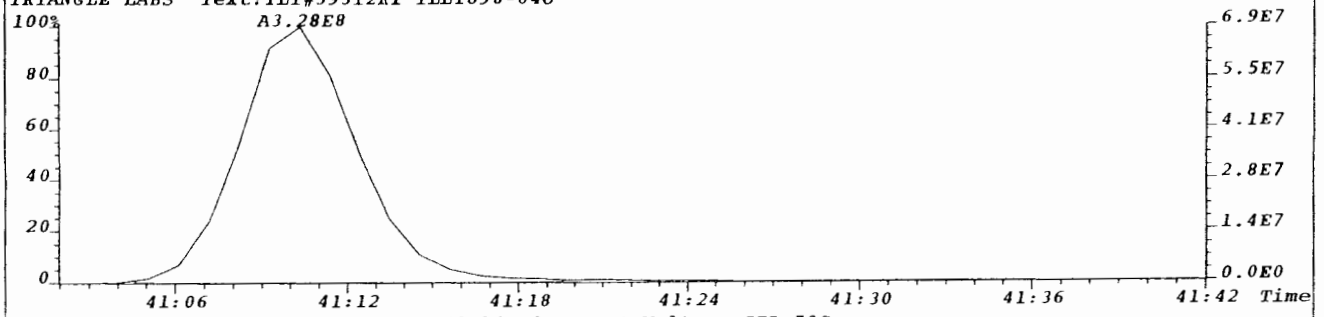

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:2997
459.7348 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11988.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040



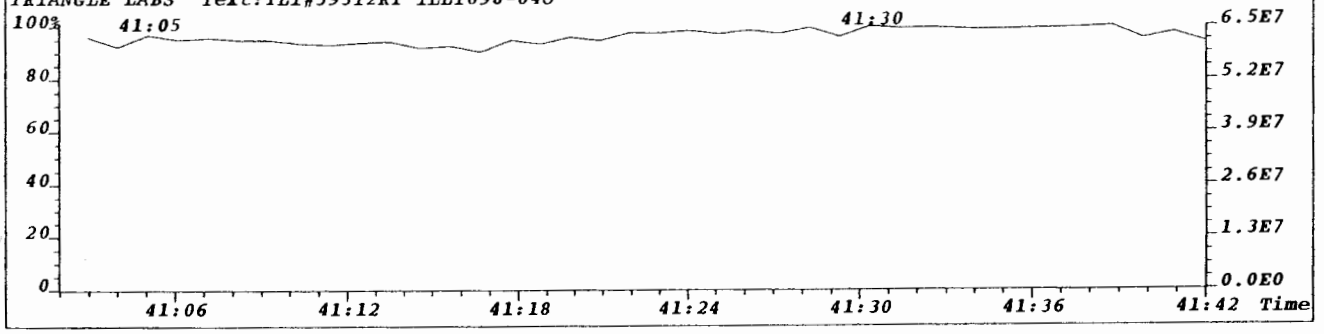

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:2917
469.7779 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11668.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040

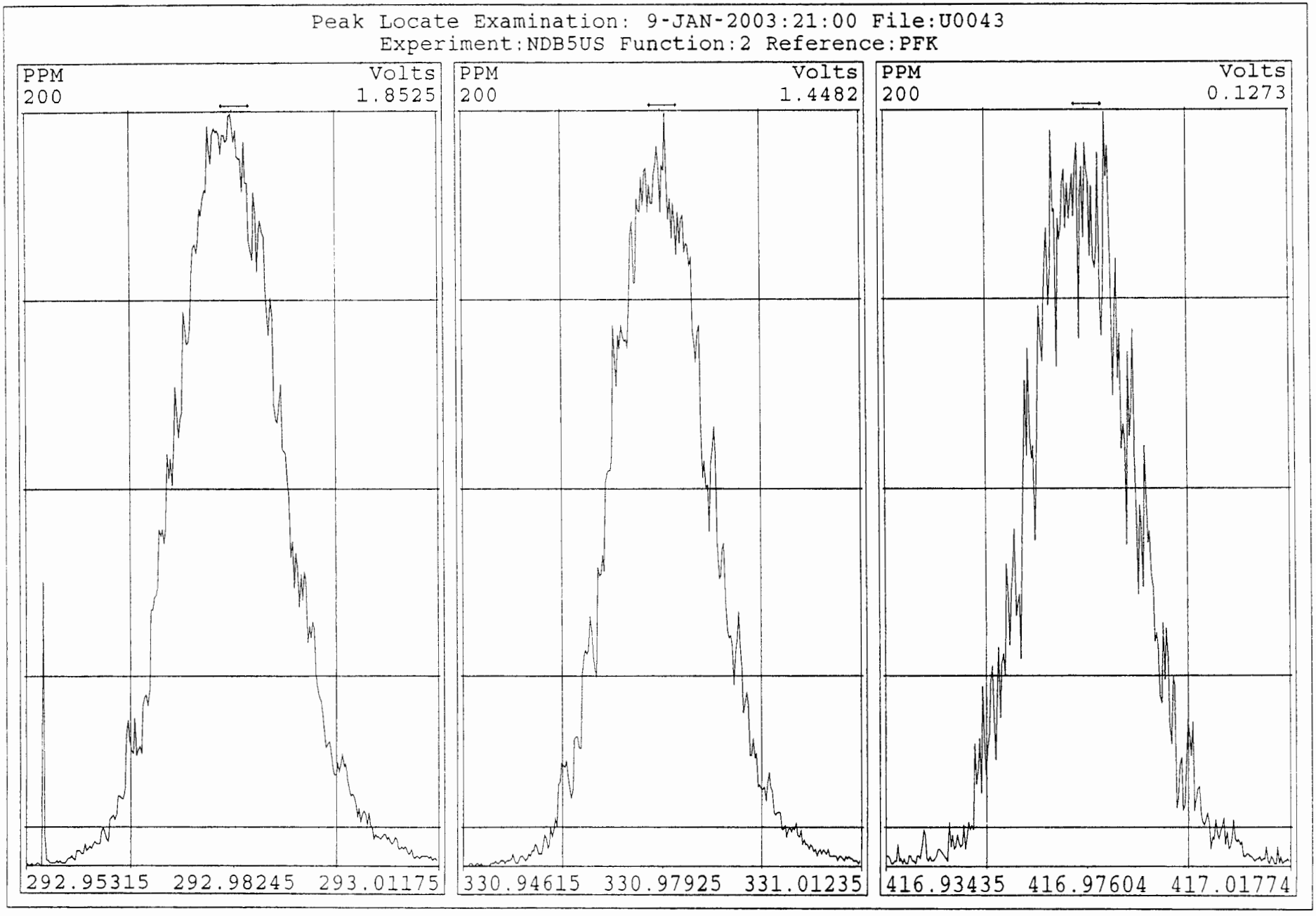


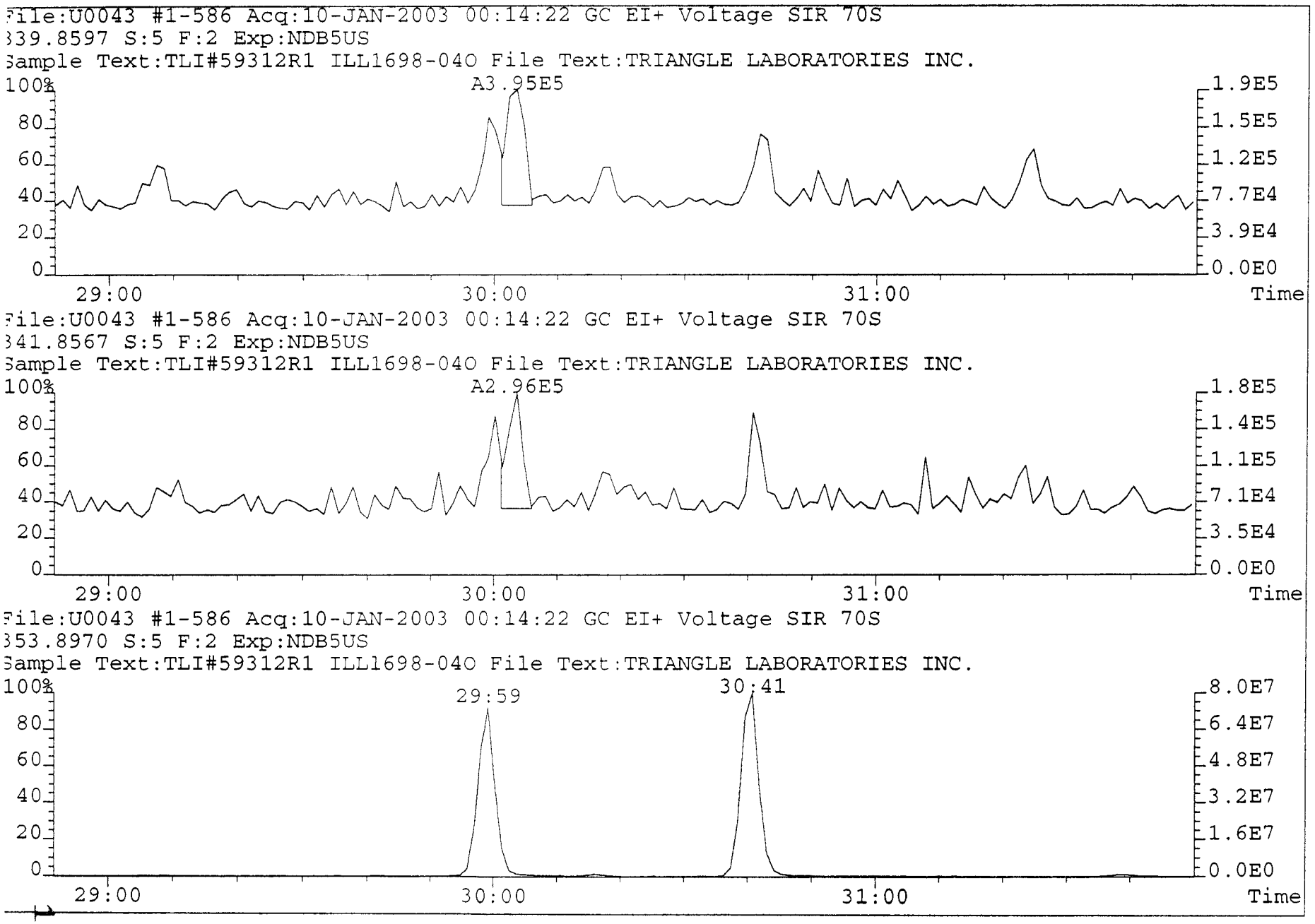

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S Noise:2594
471.7750 S:5 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040

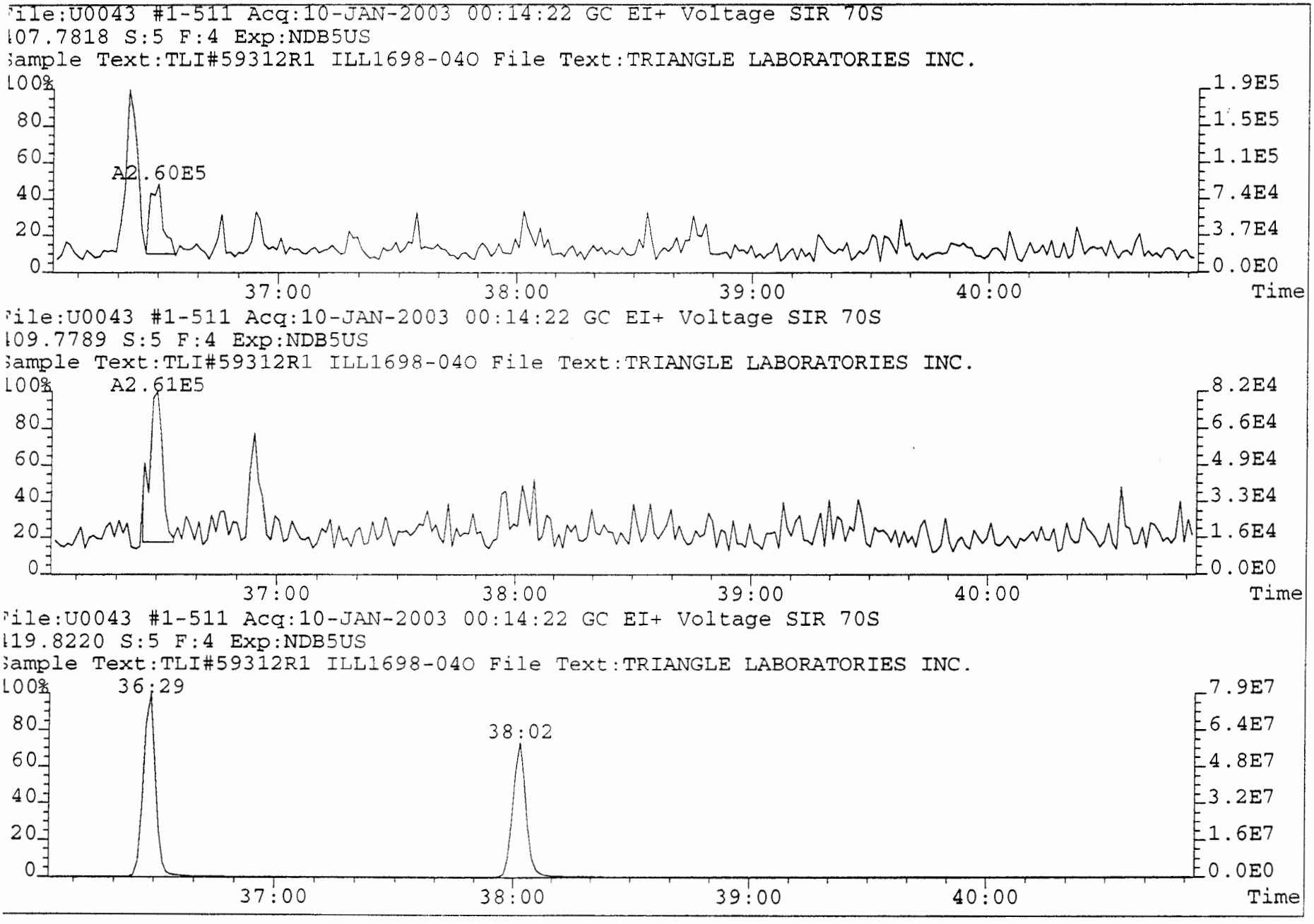


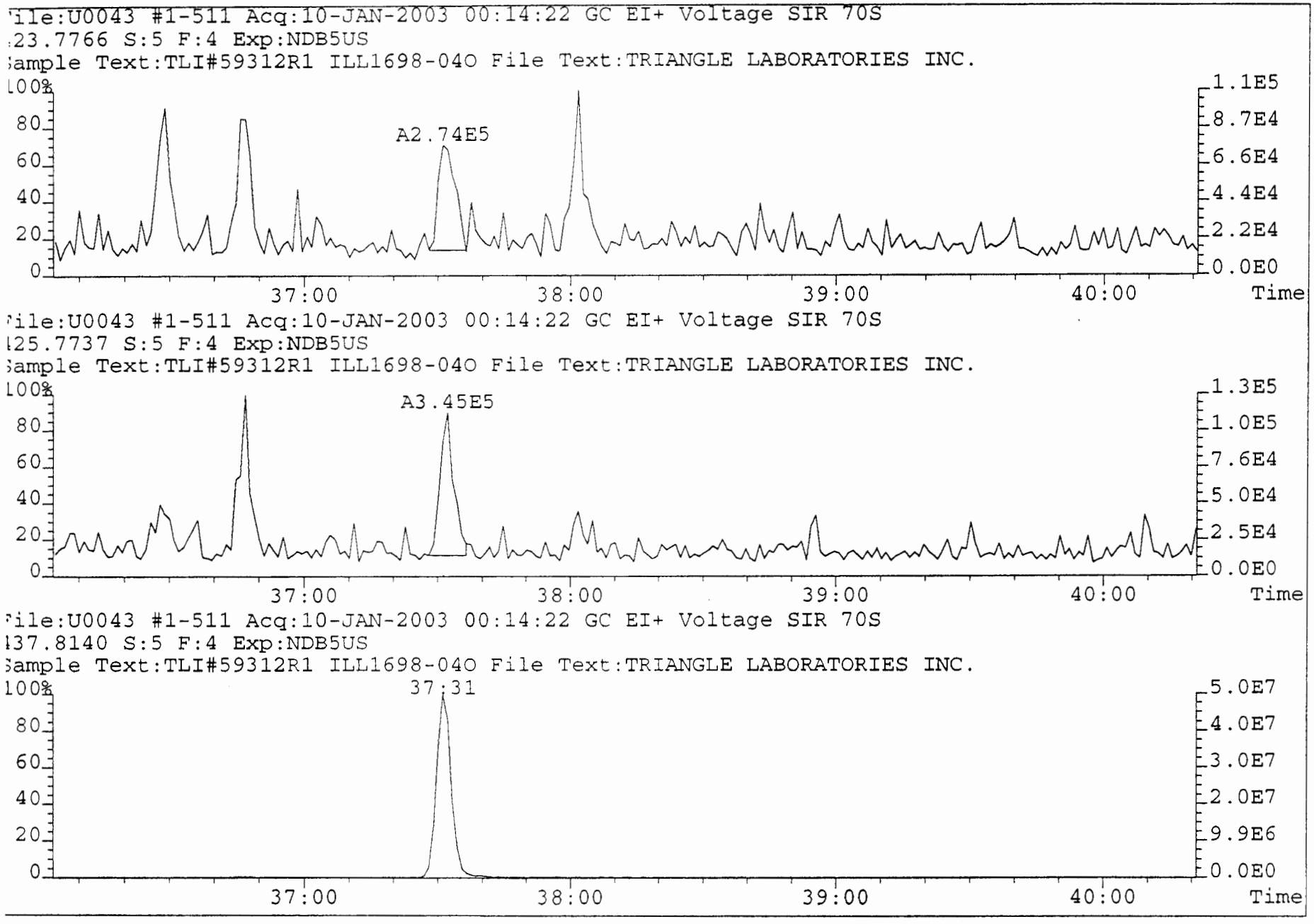

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
430.9729 S:5 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-040




Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774

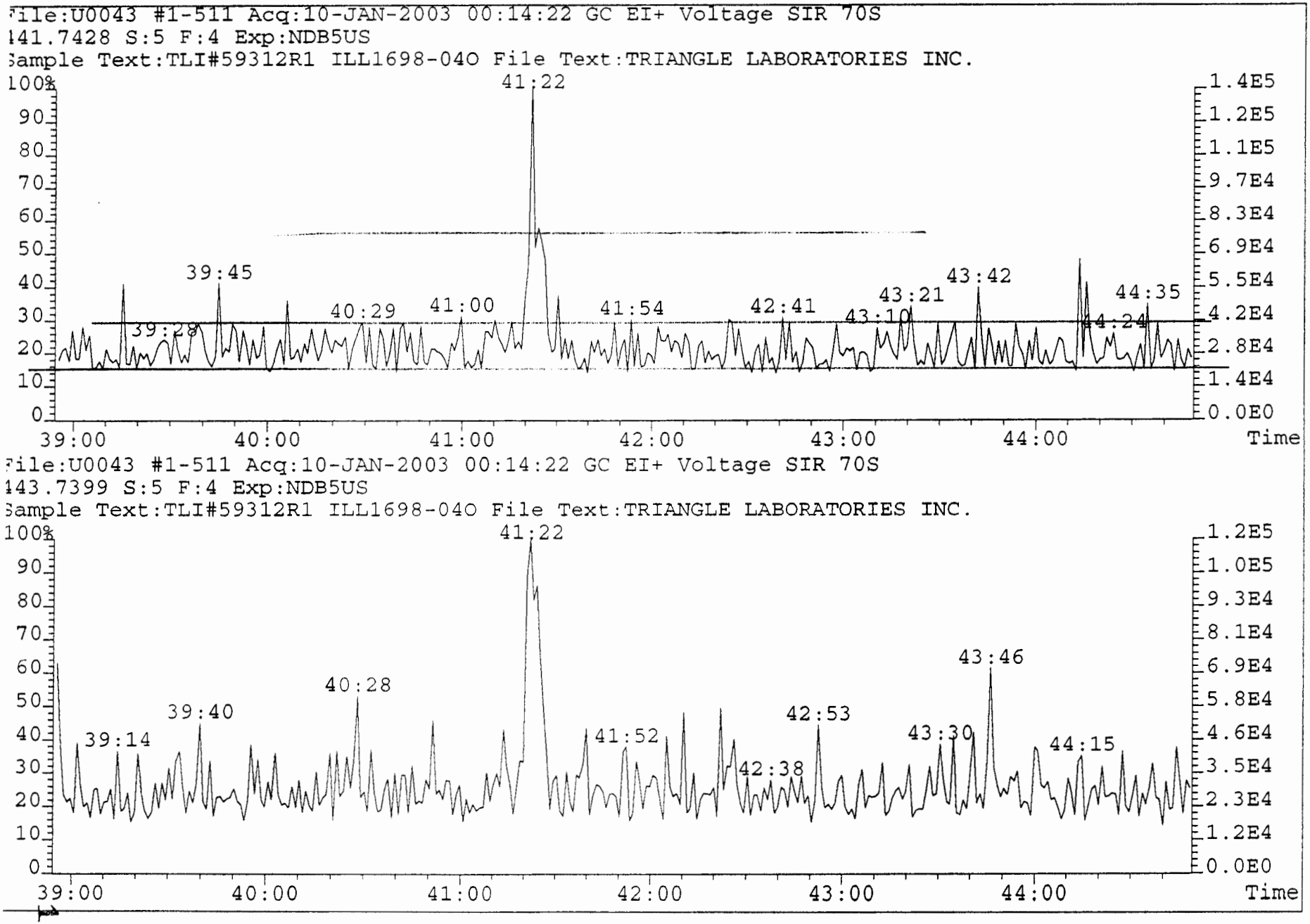

File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
339.8597 S:5 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
A3.95E5
100%
80
60
40
20
0
1.9E5
1.5E5
1.2E5
7.7E4
3.9E4
0.0E0
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
341.8567 S:5 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
A2.96E5
1.8E5
1.4E5
1.1E5
7.1E4
3.5E4
0.0E0
File:U0043 #1-586 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
353.8970 S:5 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
29:59
30:41
8.0E7
6.4E7
4.8E7
3.2E7
1.6E7

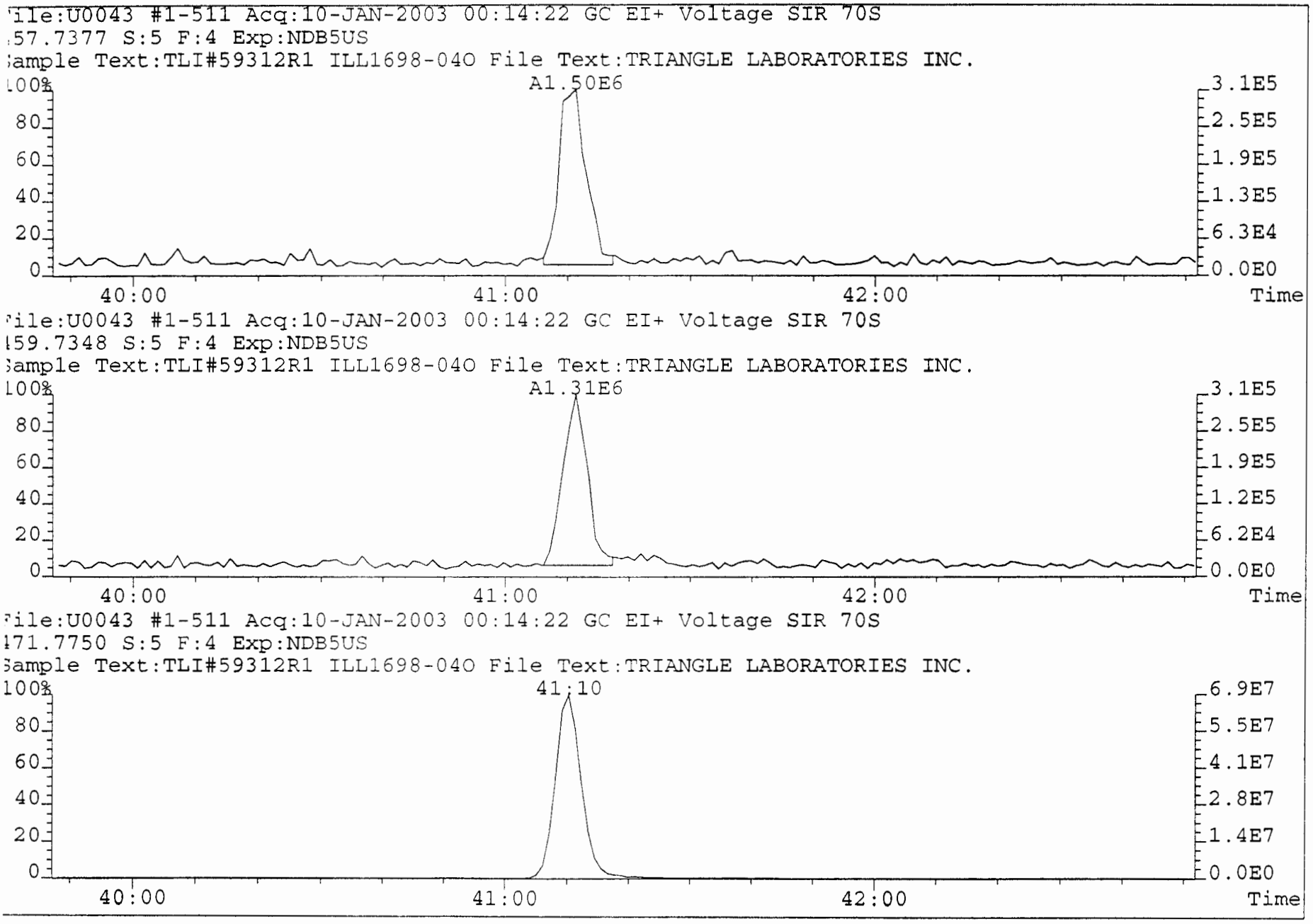

File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
407.7818 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A2.60E5
1.9E5
1.5E5
1.1E5
7.4E4
3.7E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
409.7789 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
A2.61E5
80
60
40
20
0
8.2E4
6.6E4
4.9E4
3.3E4
1.6E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
419.8220 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
36:29
38:02
80
60
40
20
0
7.9E7
6.4E7
4.8E7
3.2E7
1.6E7
0.0E0
37:00
38:00
39:00
40:00
Time


File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
123.7766 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A2.74E5
1.1E5
8.7E4
6.6E4
4.4E4
2.2E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
125.7737 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A3.45E5
1.3E5
1.0E5
7.6E4
5.0E4
2.5E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
137.8140 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
37:31
5.0E7
4.0E7
3.0E7
2.0E7
9.9E6
0.0E0
37:00
38:00
39:00
40:00
Time



11/21/03


File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
141.7428 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
41:22
39:45
39:28
40:29
41:00
41:54
42:41
43:10
43:21
43:42
44:24
44:35
1.4E5
1.2E5
1.1E5
9.7E4
8.3E4
6.9E4
5.5E4
4.2E4
2.8E4
1.4E4
0.0E0
39:00
40:00
41:00
42:00
43:00
44:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
143.7399 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
41:22
39:14
39:40
40:28
41:52
42:38
42:53
43:30
43:46
44:15
1.2E5
1.0E5
9.3E4
8.1E4
6.9E4
5.8E4
4.6E4
3.5E4
2.3E4
1.2E4
0.0E0
39:00
40:00
41:00
42:00
43:00
44:00
Time


File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
157.7377 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
A1.50E6
80
60
40
20
0
3.1E5
2.5E5
1.9E5
1.3E5
6.3E4
0.0E0
40:00
41:00
42:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
159.7348 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
A1.31E6
80
60
40
20
0
3.1E5
2.5E5
1.9E5
1.2E5
6.2E4
0.0E0
40:00
41:00
42:00
Time
File:U0043 #1-511 Acq:10-JAN-2003 00:14:22 GC EI+ Voltage SIR 70S
171.7750 S:5 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-040 File Text:TRIANGLE LABORATORIES INC.
100%
41:10
80
60
40
20
0
6.9E7
5.5E7
4.1E7
2.8E7
1.4E7
0.0E0
40:00
41:00
42:00
Time

150

JK 1/21/03

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-05O** Analysis File: **U004306**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | 01/03/2003 | Spike File: | SPMIT32S |
| TLI ID: | 345-9-5B | Date Extracted: | 01/08/2003 | ICal: | UF57092 |
| | | Date Analyzed: | 01/10/2003 | ConCal: | U030041 |
| Sample Size: | 1.030 L | Dilution Factor: | n/a | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 3.5 | | | 0.84 | 26:47 | JB_ |
| 1,2,3,7,8-PeCDD | EMPC | | 6.8 | | | JB_ |
| 1,2,3,4,7,8-HxCDD | 4.3 | | | 1.13 | 34:10 | JB_ |
| 1,2,3,6,7,8-HxCDD | 4.7 | | | 1.10 | 34:15 | JB_ |
| 1,2,3,7,8,9-HxCDD | 5.6 | | | 1.26 | 34:34 | JB_ |
| 1,2,3,4,6,7,8-HpCDD | 9.1 | | | 1.17 | 37:32 | JB_ |
| 1,2,3,4,6,7,8,9-OCDD | 56.6 | | | 0.95 | 41:11 | JB_ |
| 2,3,7,8-TCDF | 3.8 | | | 0.79 | 26:04 | JB_ |
| 1,2,3,7,8-PeCDF | 8.6 | | | 1.51 | 30:00 | JB_ |
| 2,3,4,7,8-PeCDF | EMPC | | 6.5 | | | JB_ |
| 1,2,3,4,7,8-HxCDF | 6.5 | | | 1.05 | 33:29 | JB_ |
| 1,2,3,6,7,8-HxCDF | EMPC | | 5.6 | | | JB_ |
| 2,3,4,6,7,8-HxCDF | 4.8 | | | 1.08 | 34:03 | JB_ |
| 1,2,3,7,8,9-HxCDF | 6.9 | | | 1.11 | 34:50 | JB_ |
| 1,2,3,4,6,7,8-HpCDF | 5.6 | | | 1.08 | 36:30 | JB_ |
| 1,2,3,4,7,8,9-HpCDF | 6.0 | | | 1.02 | 38:03 | JB_ |
| 1,2,3,4,6,7,8,9-OCDF | 9.4 | | | 0.93 | 41:24 | JB_ |

| Totals | Conc. (pg/L) | Number | DL | EMPC | Flags |
|---|---|---|---|---|---|
| Total TCDD | 3.5 | 1 | | | ___ |
| Total PeCDD | 3.3 | 1 | | 12.3 | ___ |
| Total HxCDD | 14.5 | 3 | | 20.9 | ___ |
| Total HpCDD | 18.1 | 2 | | | ___ |
| Total TCDF | 6.4 | 2 | | 8.4 | ___ |
| Total PeCDF | 8.6 | 1 | | 15.1 | ___ |
| Total HxCDF | 18.2 | 3 | | 23.8 | ___ |
| Total HpCDF | 11.6 | 2 | | | ___ |





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TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **ILL1698-05O** Analysis File: **U004306**

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1030 | 53.3 | 40%-135% | 0.80 | 26:02 | |
| $^{13}C_{12}$-2,3,7,8-TCDD | 960 | 49.4 | 40%-135% | 0.77 | 26:44 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1250 | 64.5 | 40%-135% | 1.62 | 29:59 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1270 | 65.4 | 40%-135% | 1.65 | 31:01 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1310 | 67.7 | 40%-135% | 0.51 | 33:33 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1380 | 71.2 | 40%-135% | 1.25 | 34:15 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1120 | 57.9 | 40%-135% | 0.47 | 36:29 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1420 | 73.1 | 40%-135% | 1.06 | 37:32 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3130 | 80.7 | 40%-135% | 0.91 | 41:10 | |

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1360 | 70.3 | 40%-135% | 1.63 | 30:41 | |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1380 | 71.1 | 40%-135% | 0.51 | 33:28 | |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1450 | 74.5 | 40%-135% | 1.25 | 34:09 | |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1330 | 68.6 | 40%-135% | 0.46 | 38:02 | |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 102 | 52.5 | 40%-135% | 26:46 | |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1430 | 73.7 | 40%-135% | 0.51 | 34:49 | |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1380 | 71.0 | 40%-135% | 0.52 | 34:03 | |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.80 | 26:33 | |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.24 | 34:33 | |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6 25.05

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Printed: 15:04 01/20/2003

# Del Mar Analytical

TLI Project: **59312r1** Toxicity Equivalents Report
Client Sample: **ILL1698-05O** Analysis File: **U004306**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | **ILL1698** | | | | |
| Sample Matrix: | **WATER** | Date Received: | **01/03/03** | Spike File: | **SPMIT32S** |
| TLI ID: | **345-9-5B** | Date Extracted: | **01/08/03** | ICal: | **UF57092** |
| | | Date Analyzed: | **01/10/03** | ConCal: | **U030041** |
| Sample Size: | **1.030 L** | Dilution Factor: | **1** | % Moisture: | **n/a** |
| Dry Weight: | **n/a** | Blank File: | **U004301** | % Lipid: | **n/a** |
| GC Column: | **DB-5** | Analyst: | **IJD** | % Solids: | **n/a** |

| Analytes | Conc. (pg/L) | | TEF | | Equivalent |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 3.5 | x | 1. | = | 3.5 |
| 1,2,3,7,8-PeCDD | [6.8] | x | 0.5 | = | 3.4 |
| 1,2,3,4,7,8-HxCDD | 4.3 | x | 0.1 | = | 0.43 |
| 1,2,3,6,7,8-HxCDD | 4.7 | x | 0.1 | = | 0.47 |
| 1,2,3,7,8,9-HxCDD | 5.6 | x | 0.1 | = | 0.56 |
| 1,2,3,4,6,7,8-HpCDD | 9.1 | x | 0.01 | = | 0.091 |
| 1,2,3,4,6,7,8,9-OCDD | 56.6 | x | 0.001 | = | 0.0566 |
| TOTAL PCDD | | | | | 8.5 |
| 2,3,7,8-TCDF | 3.8 | x | 0.1 | = | 0.38 |
| 1,2,3,7,8-PeCDF | 8.6 | x | 0.05 | = | 0.43 |
| 2,3,4,7,8-PeCDF | [6.5] | x | 0.5 | = | 3.3 |
| 1,2,3,4,7,8-HxCDF | 6.5 | x | 0.1 | = | 0.65 |
| 1,2,3,6,7,8-HxCDF | [5.6] | x | 0.1 | = | 0.56 |
| 2,3,4,6,7,8-HxCDF | 4.8 | x | 0.1 | = | 0.48 |
| 1,2,3,7,8,9-HxCDF | 6.9 | x | 0.1 | = | 0.69 |
| 1,2,3,4,6,7,8-HpCDF | 5.6 | x | 0.01 | = | 0.056 |
| 1,2,3,4,7,8,9-HpCDF | 6.0 | x | 0.01 | = | 0.060 |
| 1,2,3,4,6,7,8,9-OCDF | 9.4 | x | 0.001 | = | 0.0094 |
| TOTAL PCDF | | | | | 6.6 |

**Total EPA TEFs, 1989a: 15.1 pg/L**

**[...] indicates that the value is that of an EMPC.**



GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:07 01/20/03

Initial ....Date...

Data Review By: [signature] 1/20/03

Calculated Noise Height: 4.10

The Total Area for each peak with an ion abundance ratio outside
io limits has been recalculated according to method requirements.

Page No. 1 Listing of U004306B.dbf
01/20/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | | | 0.65-0.89 | | | | 0.873-1.074 | | | |
| 304-306 | DC | NL | | | | Height | 19.28 | 10.02 | 9.26 | | | | |
| | | | | 26:04 | | 0.79 | 188.87 | 83.55 | 105.32 | 1.001 | 2378-TCDF | AN | J |
| | | | | 27:07 | | 0.69 | 128.13 | 52.28 | 75.85 | 1.042 | | | J |
| | | | | 27:27 | RO | 0.59 | 96.02 | 41.77 | 71.20 | 1.054 | | | J |
| | DC | WH | | 28:04 | | 0.73 | 90.87 | | | 1.078 | | | |
| 304-306 | | | 3 | Peaks | | | 413.02 | | | | | | |
| 13C12-TCDF | | | | | | 0.65-0.89 | | | | 0.962-1.038 | | | |
| 316-318 | DC | NL | | | | Height | 15.83 | 7.60 | 8.23 | | | | |
| | | | | 25:18 | RO | 0.59 | 179.53 | 78.10 | 131.36 | 0.972 | | | |
| | | | | 25:37 | | 0.78 | 726.23 | 318.83 | 407.40 | 0.984 | | | |
| | | | | 26:02 | | 0.80 | 84,628.20 | 37,569.20 | 47,059.00 | 1.000 | 13C12-2378-TCDF | ISO | |
| | | | | | | Height | 22,575.68 | 9,952.78 | 12,622.90 | | | | |
| 316-318 | | | 3 | Peaks | | | 85,533.96 | | | | | | |

---------- Above: TCDF / TCDD Follows ----------

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD | | | | | | 0.65-0.89 | | | | 0.900-1.043 | | | |
| 320-322 | DC | NL | | | | Height | 9.37 | 5.01 | 4.36 | | | | |
| | DC | SN | | 24:15 | RO | 1.44 | 25.72 | | | 0.907 | 1368-TCDD | AN | |
| | DC | SN | | 26:13 | RO | 3.10 | 7.42 | | | 0.981 | | | |
| | DC | SN | | 26:25 | RO | 0.59 | 13.42 | | | 0.988 | | | |
| M | | | | 26:47 | | 0.84 | 118.40 | 54.00 | 64.40 | 1.002 | 2378-TCDD | AN | J |
| | DC | WH | | 27:56 | RO | 1.35 | 22.60 | | | 1.045 | | | |
| 320-322 | | | 1 | Peak | | | 118.40 | | | | | | |
| 37Cl-TCDD | | | | | | | | | | 0.925-1.075 | | | |
| 328 | DC | NL | | | | Height | 7.18 | 7.18 | | | | | |
| | DC | WL | | 24:23 | | | 58.71 | | | 0.912 | | | |
| | DC | WL | | 24:36 | | | 15.25 | | | 0.920 | | | |
| | DC | SN | | 24:50 | | | 16.35 | | | 0.929 | | | |
| | DC | SN | | 24:55 | | | 5.56 | | | 0.932 | | | |
| | DC | SN | | 25:09 | | | 23.77 | | | 0.941 | | | |
| | | | | 25:24 | | | 2,608.23 | 2,608.23 | | 0.950 | | | |
| | | | | 25:50 | | | 49.54 | 49.54 | | 0.966 | | | |
| | DC | SN | | 26:02 | | | 34.67 | | | 0.974 | | | |
| | | | | 26:46 | | | 6,248.62 | 6,248.62 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | | 27:08 | | | 122.26 | 122.26 | | 1.015 | | | |
| | DC | SN | | 27:22 | | | 27.40 | | | 1.024 | | | |
| | | | | 27:36 | | | 33.48 | 33.48 | | 1.032 | | | |
| | | | | 28:05 | | | 383.93 | 383.93 | | 1.050 | | | |
| | | | | 28:16 | | | 33.28 | 33.28 | | 1.057 | | | |
| 328 | | | 7 | Peaks | | | 9,479.34 | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C12-TCDD | | | | 0.65-0.89 | | | | | | 0.925-1.075 | | | |
| 332-334 | DC | NL | | Height | | | 37.01 | 24.39 | 12.62 | | | | |
| | | | | 26:33 | | 0.80 | 99,112.50 | 44,125.60 | 54,986.90 | 0.993 | 13C12-1234-TCDD | RS1 | |
| | | | | 26:44 | | 0.77 | 55,309.70 | 24,134.00 | 31,175.70 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | Height | | | 15,970.20 | 6,928.65 | 9,041.55 | | | | |
| 332-334 | | | 2 Peaks | | | | 154,422.20 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | 1.32-1.78 | | | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | Height | | | 11.03 | 5.56 | 5.47 | | | | |
| | DC | SN | 29:20 | RO | 1.14 | | 35.03 | | | 0.978 | | | |
| M | | | 30:00 | | 1.51 | | 399.00 | 240.00 | 159.00 | 1.001 | 12378-PeCDF | AN | J |
| D | D | SN | 30:17 | RO | 1.03 | | 37.86 | | | 1.010 | | | |
| | | | 30:41 | RO | 1.28 | | 294.37 | 178.93 | 139.99 | 1.023 | 23478-PeCDF | AN | J |
| 340-342 | | | 2 Peaks | | | | 693.37 | | | | | | |
| 13C12-PeCDF | | | | 1.32-1.78 | | | | | | 0.867-1.133 | | | |
| 352-354 | DC | NL | | Height | | | 8.15 | 4.16 | 3.99 | | | | |
| | | | 29:08 | | 1.52 | | 283.20 | 170.65 | 112.55 | 0.972 | | | |
| | | | 29:59 | | 1.62 | | 71,389.80 | 44,124.40 | 27,265.40 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | Height | | | 21,675.00 | 13,416.00 | 8,259.00 | | | | |
| | | | 30:16 | | 1.74 | | 982.16 | 624.26 | 357.90 | 1.009 | | | |
| | | | 30:41 | | 1.63 | | 77,971.40 | 48,302.50 | 29,668.90 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | 31:39 | RO | 1.81 | | 814.73 | 578.53 | 319.50 | 1.056 | | | |
| 352-354 | | | 5 Peaks | | | | 151,441.29 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | 1.32-1.78 | | | | | | 0.937-1.021 | | | |
| 356-358 | DC | NL | | Height | | | 8.09 | 4.02 | 4.07 | | | | |
| | | | 29:58 | RO | 0.76 | | 57.99 | 35.25 | 46.30 | 0.966 | | | J |
| | DC | SN | 30:06 | RO | 0.43 | | 16.76 | | | 0.970 | | | |
| | | | 30:41 | | 1.78 | | 81.95 | 52.49 | 29.46 | 0.989 | | | J |
| | | | 31:02 | RO | 1.93 | | 169.42 | 128.54 | 66.44 | 1.001 | 12378-PeCDD | AN | J |
| | DC | SN | 31:14 | RO | 0.03 | | 18.84 | | | 1.007 | | | |
| | DC | SN | 31:34 | RO | 0.51 | | 22.51 | | | 1.018 | | | |
| | DC | WH | 31:53 | | 1.39 | | 20.68 | | | 1.028 | | | |
| 356-358 | | | 3 Peaks | | | | 309.36 | | | | | | |
| 13C12-PeCDD | | | | 1.32-1.78 | | | | | | 0.871-1.129 | | | |
| 368-370 | DC | NL | | Height | | | 6.38 | 3.52 | 2.86 | | | | |
| | | | 29:57 | RO | 1.13 | | 120.49 | 53.53 | 47.25 | 0.966 | | | |
| | | | 30:05 | RO | 1.15 | | 222.77 | 100.87 | 87.36 | 0.970 | | | |
| | | | 30:16 | RO | 1.23 | | 57.63 | 27.80 | 22.60 | 0.976 | | | |
| | | | 31:01 | | 1.65 | | 43,125.80 | 26,842.60 | 16,283.20 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | Height | | | 13,007.59 | 8,093.77 | 4,913.82 | | | | |
| | DC | SN | 31:28 | RO | 2.06 | | 31.44 | | | 1.015 | | | |
| 368-370 | | | 4 Peaks | | | | 43,526.69 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DF | | | | | | 1.05-1.43 | | | | 0.964-1.045 | | | |
| -376 | DC | NL | | | | Height | 7.86 | 4.18 | 3.68 | | | | |
| D | D | SN | | 32:38 | RO | 1.61 | 34.90 | | | 0.973 | | | |
| | DC | SN | | 32:49 | | 1.34 | 22.85 | | | 0.978 | | | |
| | DC | SN | | 32:57 | RO | 0.74 | 14.69 | | | 0.982 | | | |
| | DC | SN | | 33:05 | | 1.40 | 35.08 | | | 0.986 | | | |
| | | | | 33:29 | | 1.05 | 255.52 | 130.86 | 124.66 | 0.998 | 123478-HxCDF | AN | J |
| | | | | 33:35 | RO | 1.00 | 231.98 | 128.42 | 128.02 | 1.001 | 123678-HxCDF | AN | J |
| D | D | SN | | 33:45 | | 1.07 | 37.32 | | | 1.006 | | | |
| | | | | 34:03 | | 1.08 | 170.49 | 88.52 | 81.97 | 1.015 | 234678-HxCDF | AN | J |
| | DC | SN | | 34:15 | RO | 2.96 | 24.24 | | | 1.021 | | | |
| | DC | SN | | 34:22 | RO | 0.82 | 9.70 | | | 1.024 | | | |
| | DC | SN | | 34:34 | | 1.21 | 46.07 | | | 1.030 | | | |
| | | | | 34:50 | | 1.11 | 202.60 | 106.41 | 96.19 | 1.038 | 123789-HxCDF | AN | J |
| 374-376 | | | 4 | Peaks | | | 860.59 | | | | | | |
| 13C12-HxCDF | | | | | | 0.43-0.59 | | | | 0.881-1.119 | | | |
| 384-386 | DC | NL | | | | Height | 17.60 | 10.88 | 6.72 | | | | |
| | | | | 32:29 | | 0.56 | 109.69 | 39.36 | 70.33 | 0.968 | | | |
| | | | | 32:38 | | 0.48 | 83.34 | 27.00 | 56.34 | 0.973 | | | |
| | | | | 33:28 | | 0.51 | 70,051.10 | 23,629.80 | 46,421.30 | 0.998 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:33 | | 0.51 | 66,480.60 | 22,479.90 | 44,000.70 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | | | Height | 22,954.26 | 7,766.16 | 15,188.10 | | | | |
| | | | | 34:03 | | 0.52 | 64,144.30 | 21,806.90 | 42,337.40 | 1.015 | 13C12-HxCDF 234 | ALT2 | |
| | | | | 34:49 | | 0.51 | 52,907.80 | 17,843.40 | 35,064.40 | 1.038 | 13C12-HxCDF 789 | ALT1 | |
| 384-386 | | | 6 | Peaks | | | 253,776.83 | | | | | | |

---------- Above: HxCDF / HxCDD Follows ----------

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HxCDD | | | | | | 1.05-1.43 | | | | 0.958-1.013 | | | |
| -392 | DC | NL | | | | Height | 6.34 | 3.15 | 3.19 | | | | |
| | DC | SN | | 32:59 | RO | 0.35 | 19.15 | | | 0.963 | | | |
| | | | | 33:28 | RO | 2.06 | 56.92 | 52.26 | 25.41 | 0.977 | | | J |
| A | | | | 33:34 | RO | 1.86 | 56.67 | 47.10 | 25.30 | 0.980 | | | J |
| | | | | 34:03 | RO | 1.66 | 60.66 | 44.91 | 27.08 | 0.994 | | | J |
| | | | | 34:10 | | 1.13 | 117.09 | 62.13 | 54.96 | 0.998 | 123478-HxCDD | AN | J |
| M | | | | 34:15 | | 1.10 | 130.60 | 68.40 | 62.20 | 1.000 | 123678-HxCDD | AN | J |
| M | | | | 34:34 | | 1.26 | 152.70 | 85.20 | 67.50 | 1.009 | 123789-HxCDD | AN | J |
| | DC | WH | | 34:49 | | 1.39 | 68.30 | | | 1.017 | | | |
| 390-392 | | | 6 | Peaks | | | 574.64 | | | | | | |
| 13C12-HxCDD | | | | | | 1.05-1.43 | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | | | Height | 17.42 | 9.56 | 7.86 | | | | |
| | | | | 33:38 | | 1.25 | 454.61 | 252.83 | 201.78 | 0.982 | | | |
| | | | | 34:09 | | 1.25 | 46,518.20 | 25,797.70 | 20,720.50 | 0.997 | 13C12-HxCDD 478 | SUR3 | |
| | | | | 34:15 | | 1.25 | 49,200.30 | 27,369.90 | 21,830.40 | 1.000 | 13C12-HxCDD 678 | IS5 | |
| | | | | | | Height | 16,046.97 | 8,946.30 | 7,100.67 | | | | |
| | | | | 34:33 | | 1.24 | 66,470.90 | 36,755.10 | 29,715.80 | 1.009 | 13C12-HxCDD 789 | RS2 | |
| 402-404 | | | 4 | Peaks | | | 162,644.01 | | | | | | |

---------- Above: HxCDD / HpCDF Follows ----------

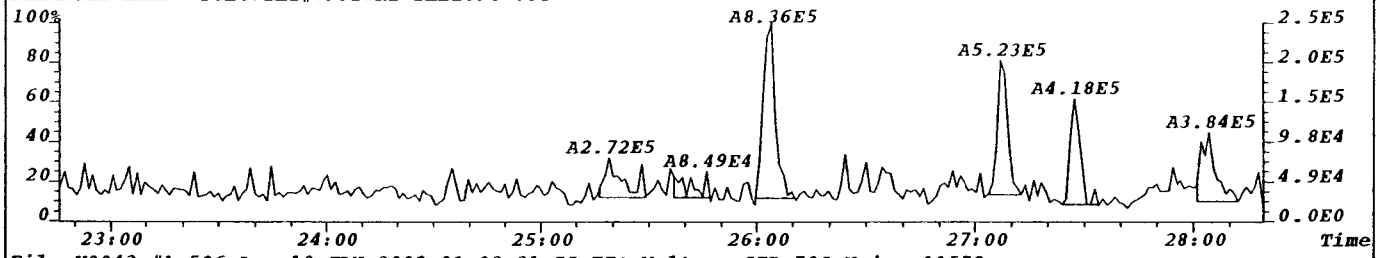
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HpCDF | | | | 0.88-1.20 | | | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | Height | | | 12.80 | 7.32 | 5.48 | | | | |
| AN | | | | 36:30 | | 1.08 | 168.70 | 87.50 | 81.20 | 1.000 | 1234678-HpCDF | AN | J |
| D | D | SN | | 36:55 | | 0.99 | 83.01 | | | 1.012 | | | |
| | DC | SN | | 37:18 | RO | 2.88 | 26.85 | | | 1.022 | | | |
| | | | | 38:03 | | 1.02 | 127.81 | 64.46 | 63.35 | 1.043 | 1234789-HpCDF | AN | J |
| 408-410 | | | 2 | Peaks | | | 296.51 | | | | | | |
| 13C12-HpCDF | | | | 0.37-0.51 | | | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | Height | | | 14.01 | 6.89 | 7.12 | | | | |
| | | | | 36:29 | | 0.47 | 40,393.10 | 12,870.00 | 27,523.10 | 1.000 | 13C12-HpCDF 678 | IS6 | |
| | | | | Height | | | 11,562.07 | 3,742.09 | 7,819.98 | | | | |
| | | | | 38:02 | | 0.46 | 33,647.80 | 10,671.60 | 22,976.20 | 1.042 | 13C12-HpCDF 789 | SUR4 | |
| 418-420 | | | 2 | Peaks | | | 74,040.90 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |
| HpCDD | | | | 0.88-1.20 | | | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | Height | | | 7.17 | 4.24 | 2.93 | | | | |
| M | | | | 36:47 | | 1.12 | 183.50 | 96.80 | 86.70 | 0.980 | | | J |
| | | | | 37:32 | | 1.17 | 186.29 | 100.63 | 85.66 | 1.000 | 1234678-HpCDD | AN | J |
| 424-426 | | | 2 | Peaks | | | 369.79 | | | | | | |
| 13C12-HpCDD | | | | 0.88-1.20 | | | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | Height | | | 11.96 | 6.70 | 5.26 | | | | |
| | | | | 36:46 | | 0.92 | 66.95 | 32.05 | 34.90 | 0.980 | | | |
| | | | | 37:32 | | 1.06 | 39,289.80 | 20,243.00 | 19,046.80 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | Height | | | 10,032.84 | 5,150.28 | 4,882.56 | | | | |
| 436-438 | | | 2 | Peaks | | | 39,356.75 | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | | | | | |
| OCDF | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | Height | | | 7.67 | 3.71 | 3.96 | | | | |
| | DC | SN | | 38:36 | RO | 0.32 | 6.31 | | | 0.938 | | | |
| | DC | SN | | 40:11 | RO | 0.44 | 14.87 | | | 0.976 | | | |
| | DC | SN | | 40:56 | RO | 2.67 | 12.61 | | | 0.994 | | | |
| | DC | SN | | 41:01 | RO | 1.61 | 14.08 | | | 0.996 | | | |
| M | | | | 41:24 | | 0.93 | 212.00 | 102.00 | 110.00 | 1.006 | OCDF | AN | J |
| | DC | SN | | 42:27 | RO | 3.03 | 5.56 | | | 1.031 | | | |
| | DC | SN | | 42:35 | RO | 0.56 | 11.40 | | | 1.034 | | | |
| | DC | SN | | 43:12 | RO | 7.02 | 4.65 | | | 1.049 | | | |
| | DC | SN | | 43:20 | RO | 1.05 | 21.64 | | | 1.053 | | | |
| 442-444 | | | 1 | Peak | | | 212.00 | | | | | | |
| OCDD | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | Height | | | 4.52 | 2.44 | 2.08 | | | | |
| M | | | | 41:11 | | 0.95 | 946.00 | 461.00 | 485.00 | 1.000 | OCDD | AN | J |
| | DC | SN | | 41:40 | RO | 1.16 | 24.17 | | | 1.012 | | | |
| 458-460 | | | 1 | Peak | | | 946.00 | | | | | | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `12-OCDD | | | | | | 0.76-1.02 | | | | 0.996-1.004 | | | |
| -472 | | DC | NL | | | Height | 4.63 | 2.24 | 2.39 | | | | |
| | | | | 41:10 | | 0.91 | 58,660.80 | 27,924.90 | 30,735.90 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 12,572.28 | 5,937.07 | 6,635.21 | | | | |
| 470-472 | | | 1 Peak | | | | 58,660.80 | | | | | | |

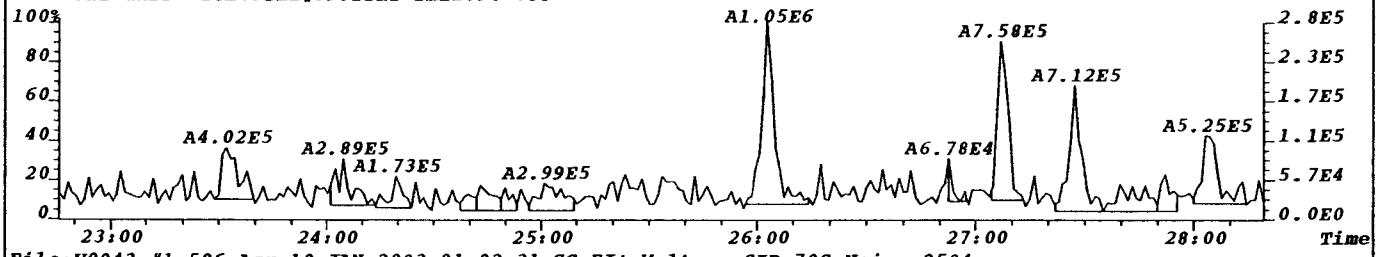
| Column Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

*** End of Report ***

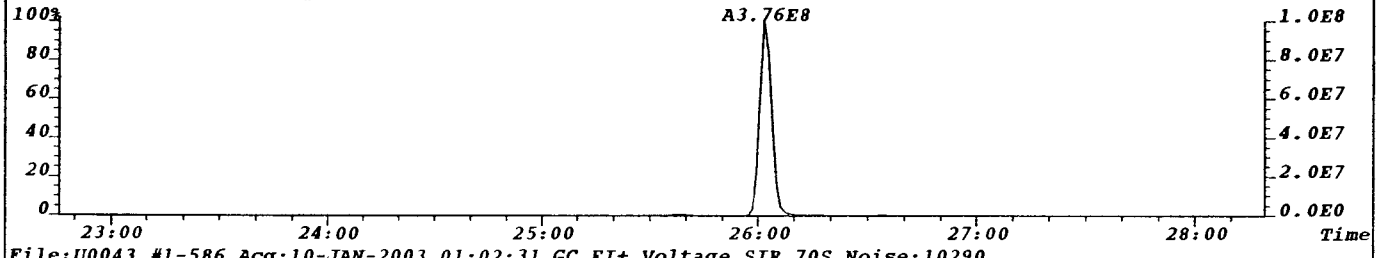
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:12529
303.9016 S:6 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,50116.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O



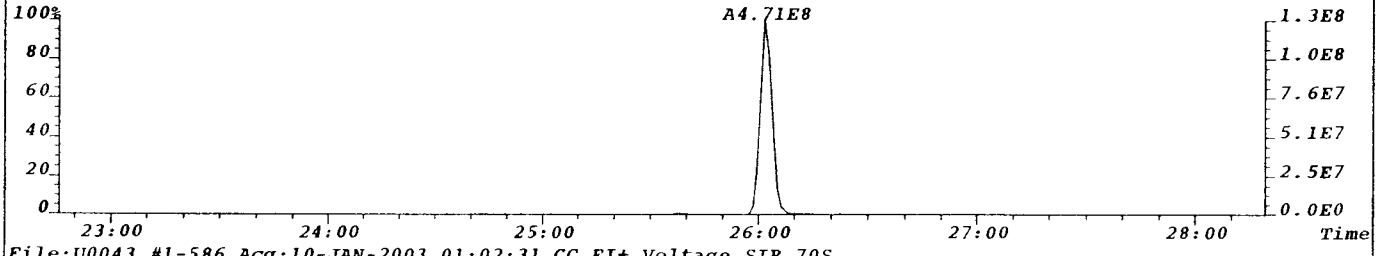

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:11573
305.8987 S:6 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,46292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O



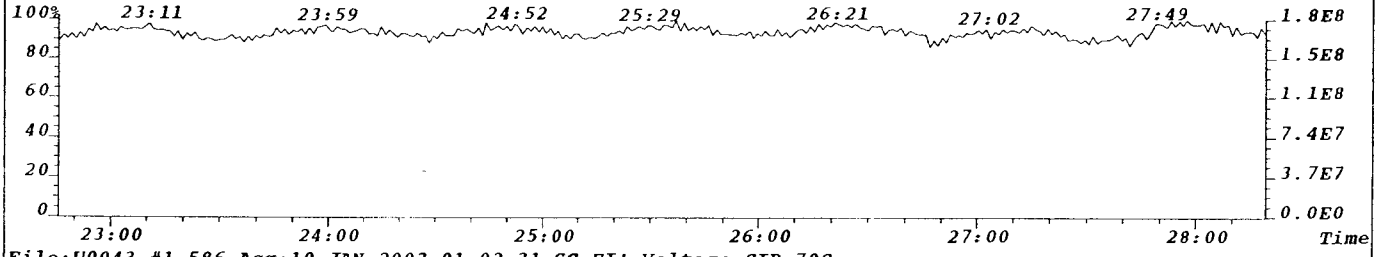

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:9504
315.9419 S:6 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,38016.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O



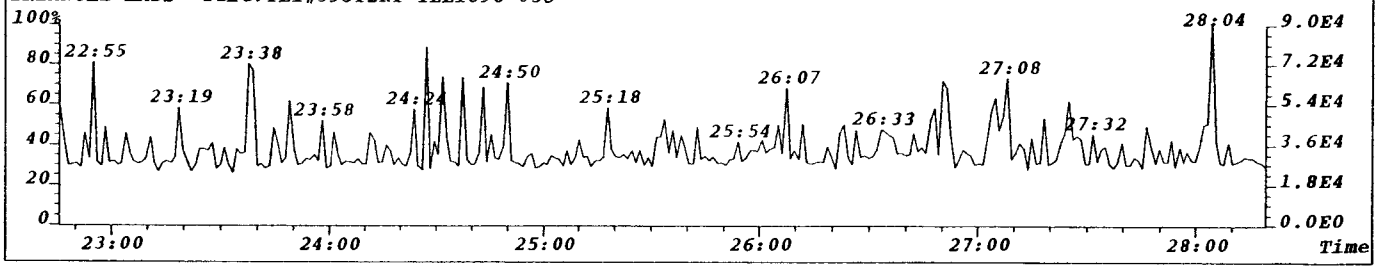

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:10290
317.9389 S:6 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,41160.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O




File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
330.9792 S:6 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O



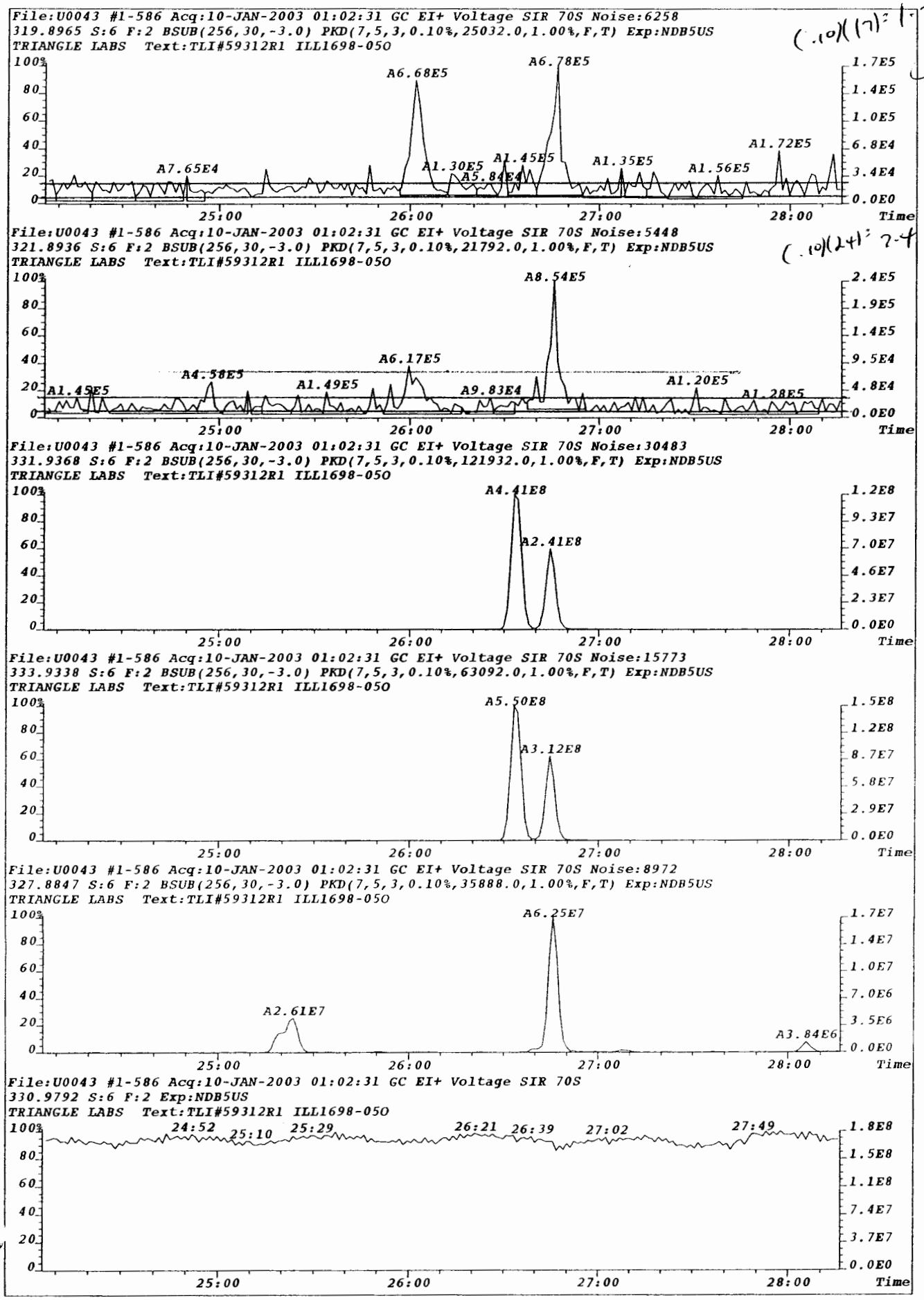

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
375.8364 S:6 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O

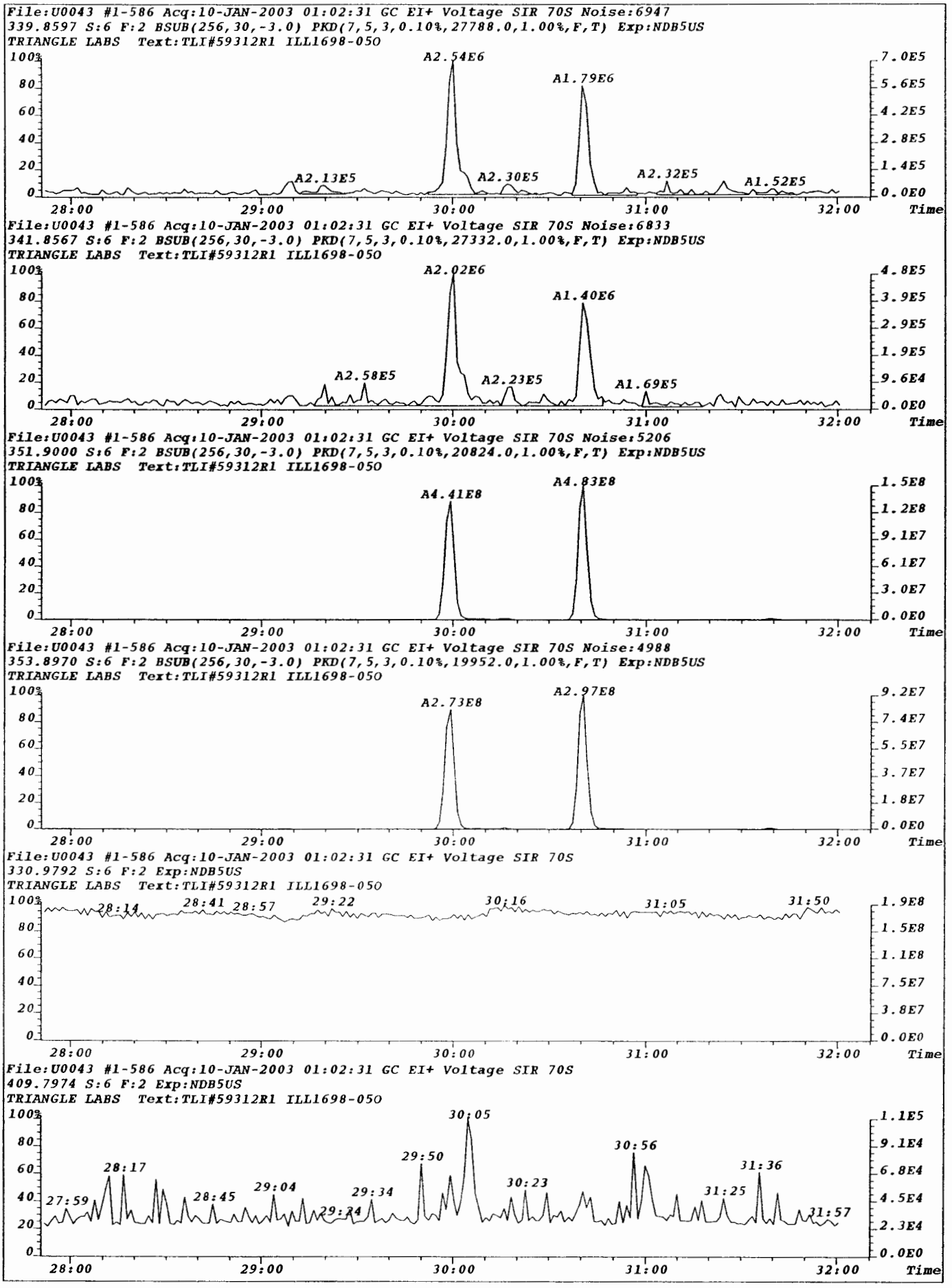


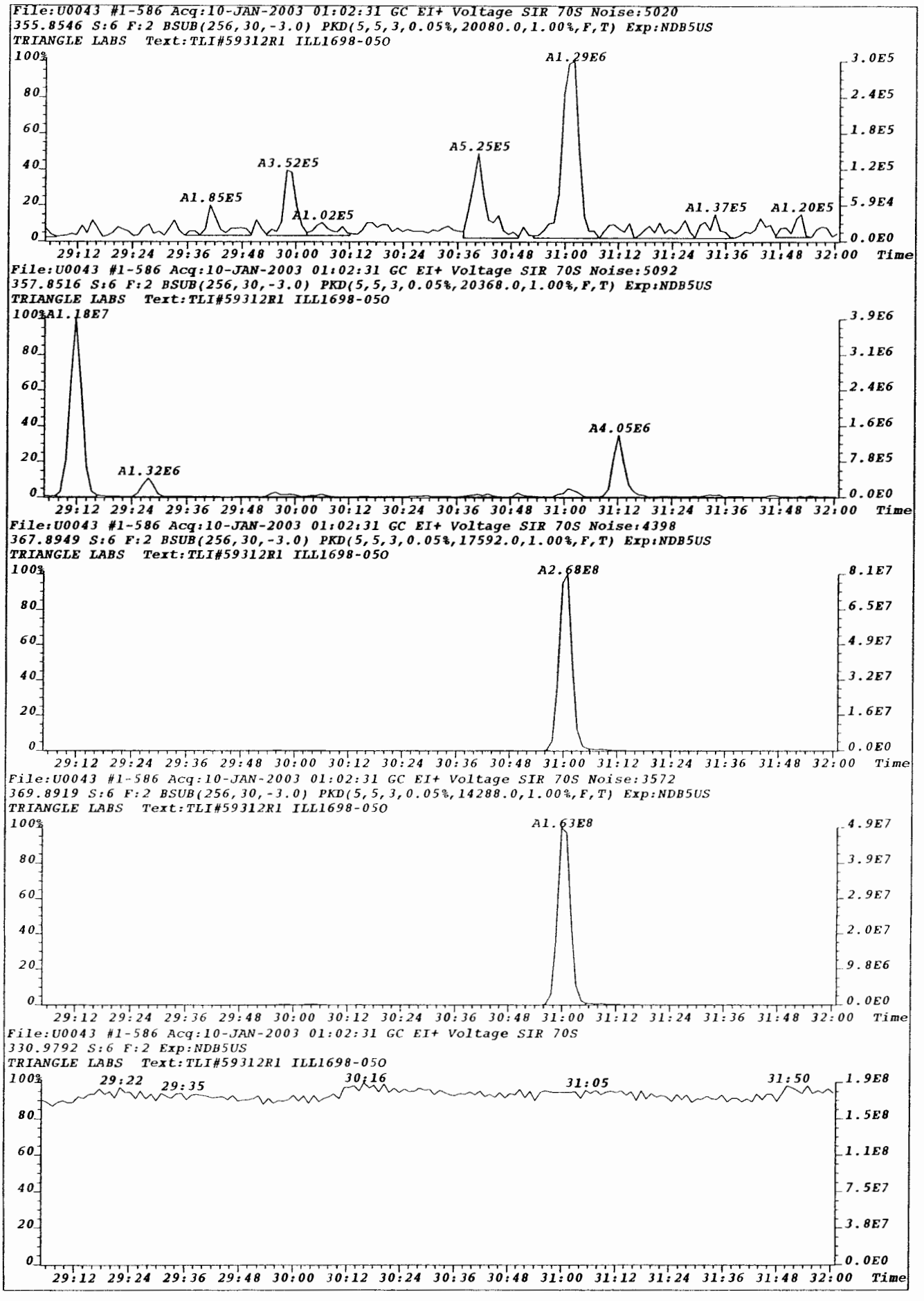
N = 1.7 + 2.4 = 4.1

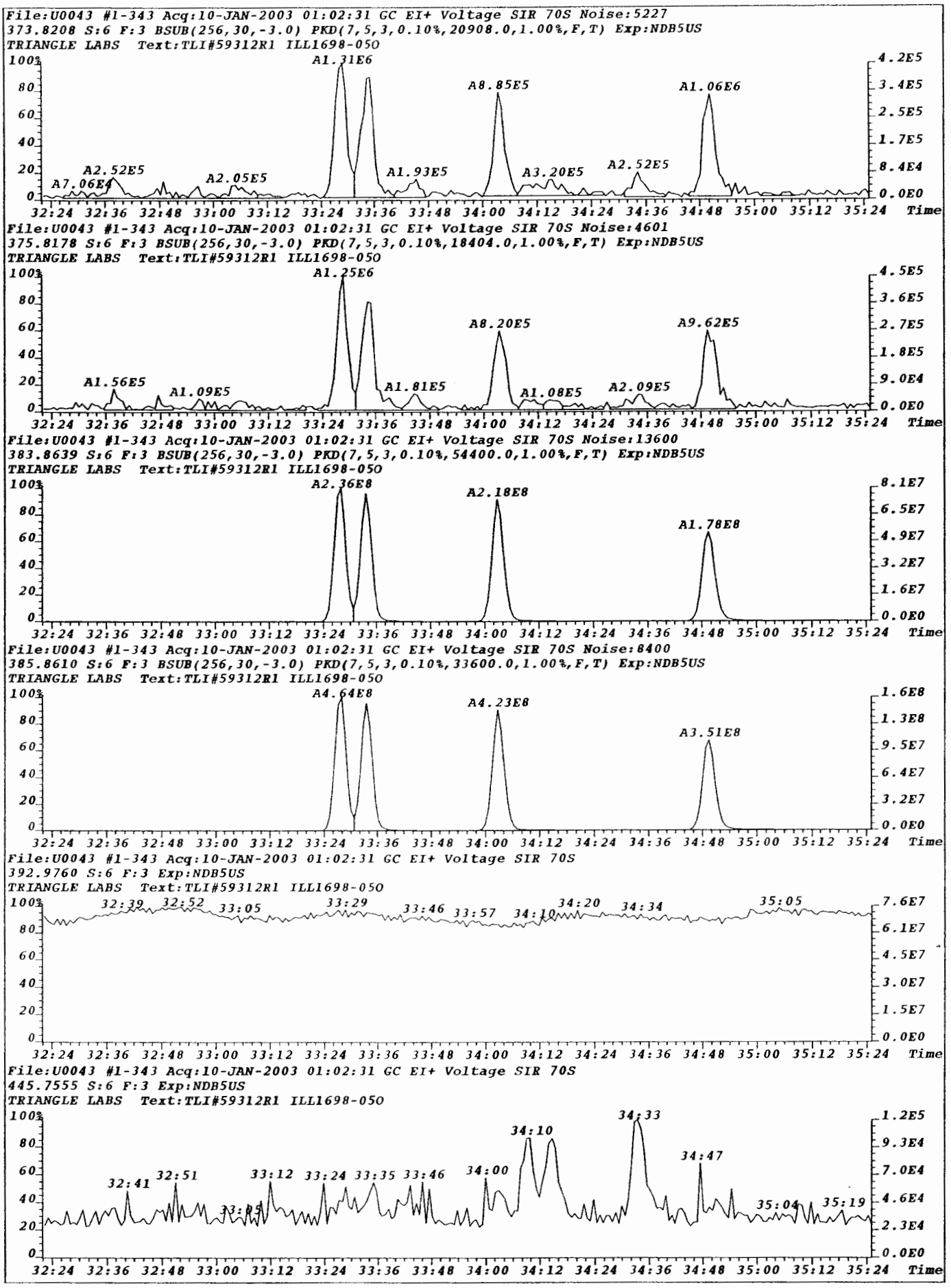
(.10)(17) = 1.7

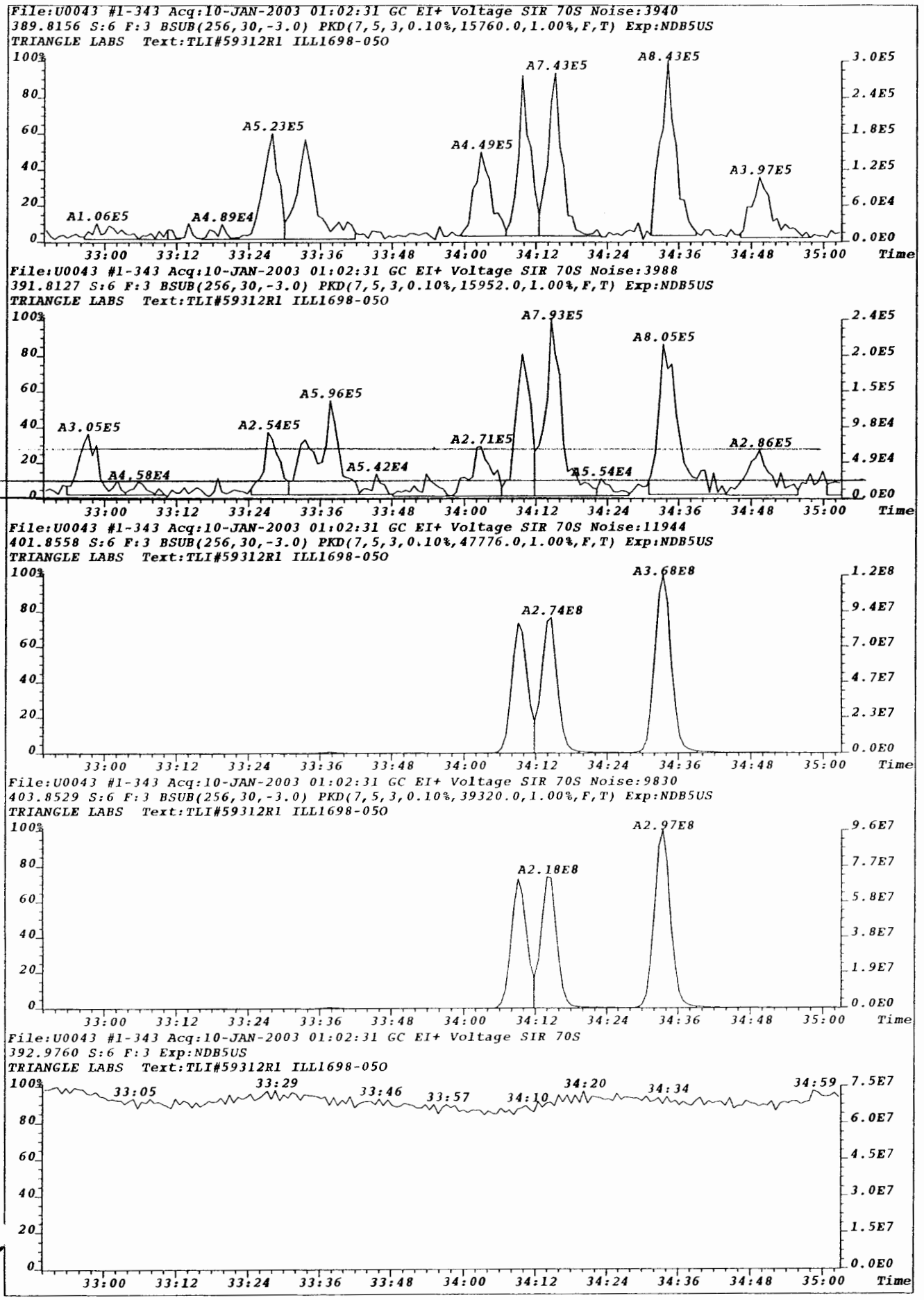
(.10)(24) = 2.4

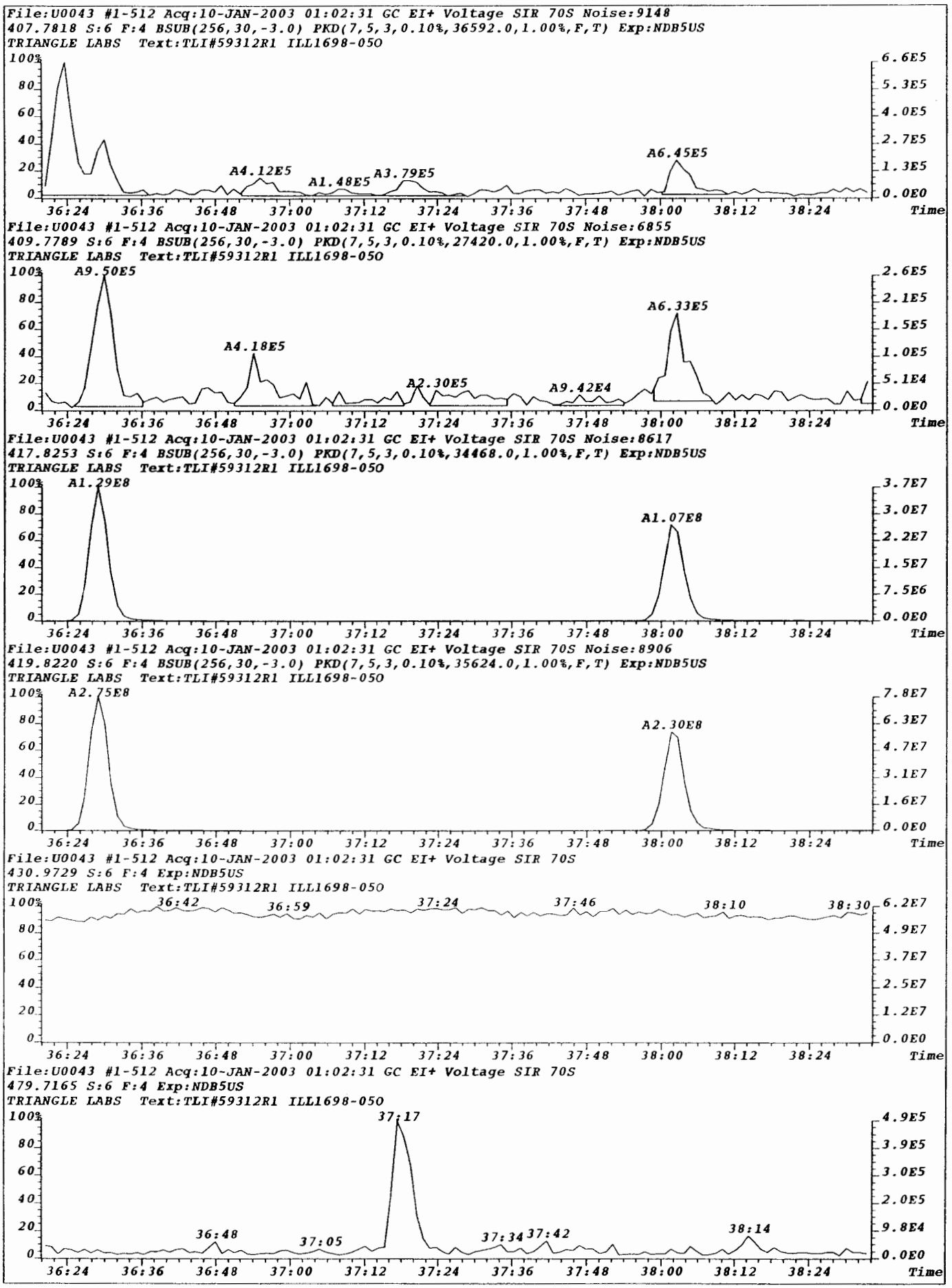



File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:6947
339.8597 S:6 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27788.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A2.54E6
A1.79E6
A2.13E5
A2.30E5
A2.32E5
A1.52E5
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:6833
341.8567 S:6 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A2.02E6
A1.40E6
A2.58E5
A2.23E5
A1.69E5
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:5206
351.9000 S:6 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20824.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A4.41E8
A4.83E8
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:4988
353.8970 S:6 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19952.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A2.73E8
A2.97E8
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
330.9792 S:6 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
28:14
28:41
28:57
29:22
30:16
31:05
31:50
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
409.7974 S:6 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
27:59
28:17
28:45
29:04
29:24
29:34
29:50
30:05
30:23
30:56
31:25
31:36
31:57
Time

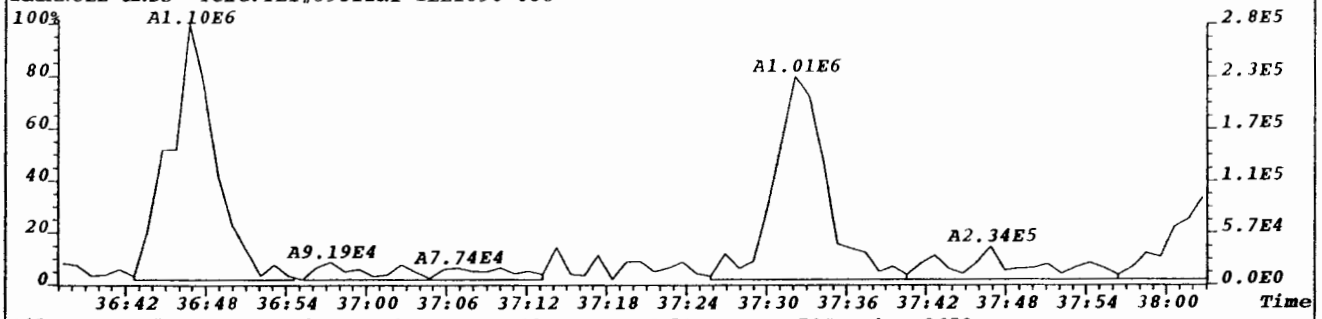

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:5020
355.8546 S:6 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,20080.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A1.85E5
A3.52E5
A1.02E5
A5.25E5
A1.29E6
A1.37E5
A1.20E5
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:5092
357.8516 S:6 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,20368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A1.18E7
A1.32E6
A4.05E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:4398
367.8949 S:6 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17592.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A2.68E8
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:3572
369.8919 S:6 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,14288.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A1.63E8
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
330.9792 S:6 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
29:22
29:35
30:16
31:05
31:50
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time


File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:5227
373.8208 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20908.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A1.31E6
A8.85E5
A1.06E6
A2.52E5
A7.06E4
A2.05E5
A1.93E5
A3.20E5
A2.52E5
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:4601
375.8178 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18404.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A1.25E6
A8.20E5
A9.62E5
A1.56E5
A1.09E5
A1.81E5
A1.08E5
A2.09E5
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:13600
383.8639 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,54400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A2.36E8
A2.18E8
A1.78E8
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:8400
385.8610 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,33600.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A4.64E8
A4.23E8
A3.51E8
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
392.9760 S:6 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
445.7555 S:6 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
Time

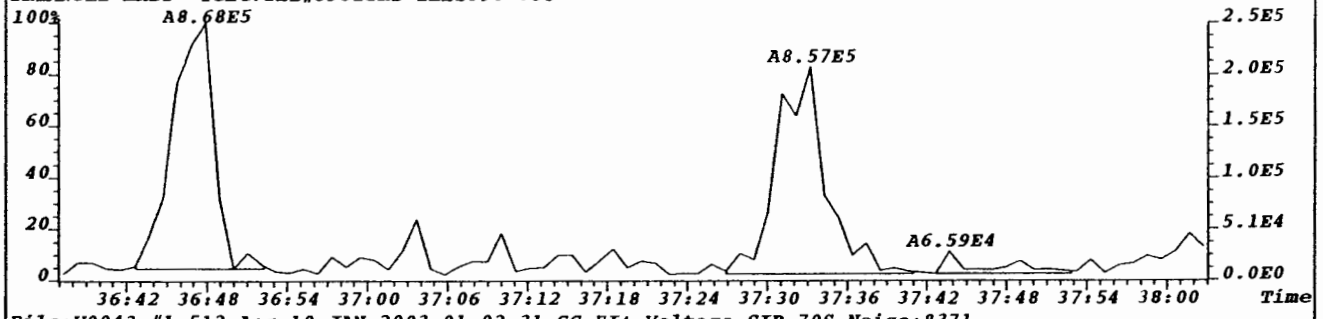

File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:3940
389.8156 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15760.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A1.06E5
A4.89E4
A5.23E5
A4.49E5
A7.43E5
A8.43E5
A3.97E5
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:3988
391.8127 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15952.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A3.05E5
A4.58E4
A2.54E5
A5.96E5
A5.42E4
A2.71E5
A7.93E5
A5.54E4
A8.05E5
A2.86E5
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:11944
401.8558 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,47776.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A2.74E8
A3.68E8
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:9830
403.8529 S:6 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,39320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A2.18E8
A2.97E8
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
392.9760 S:6 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
33:05
33:29
33:46
33:57
34:10
34:20
34:34
34:59
Time


File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:9148
407.7818 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,36592.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A4.12E5
A1.48E5
A3.79E5
A6.45E5
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:6855
409.7789 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27420.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A9.50E5
A4.18E5
A2.30E5
A9.42E4
A6.33E5
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:8617
417.8253 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,34468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A1.29E8
A1.07E8
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:8906
419.8220 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,35624.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
A2.75E8
A2.30E8
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
430.9729 S:6 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
36:42
36:59
37:24
37:46
38:10
38:30
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
479.7165 S:6 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-050
37:17
36:48
37:05
37:34
37:42
38:14
36:24
36:36
36:48
37:00
37:12
37:24
37:36
37:48
38:00
38:12
38:24
Time

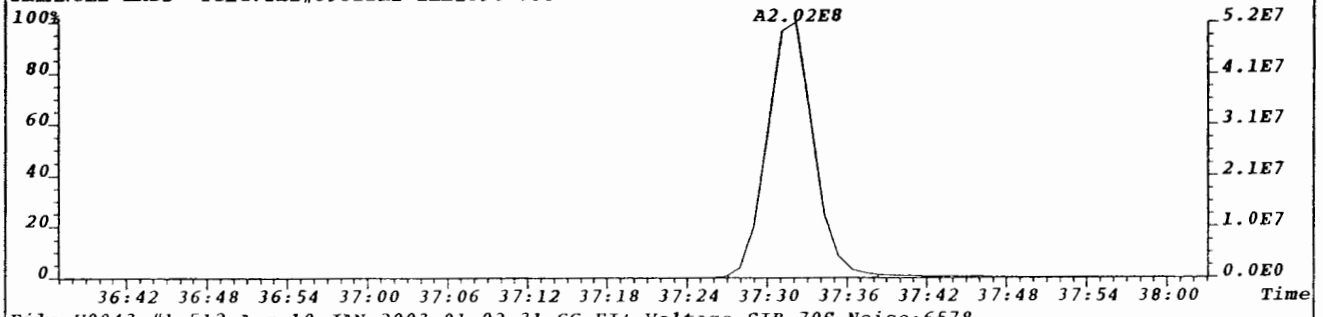
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:5300
423.7766 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21200.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O



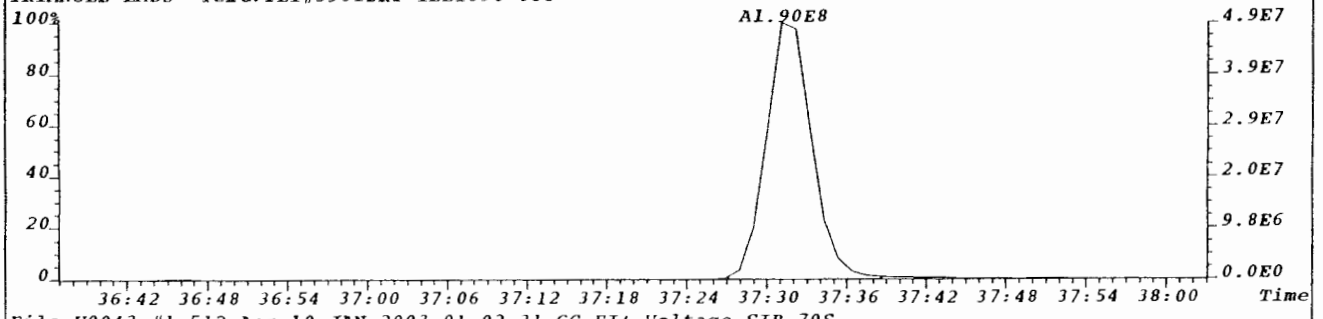

File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:3659
425.7737 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14636.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O



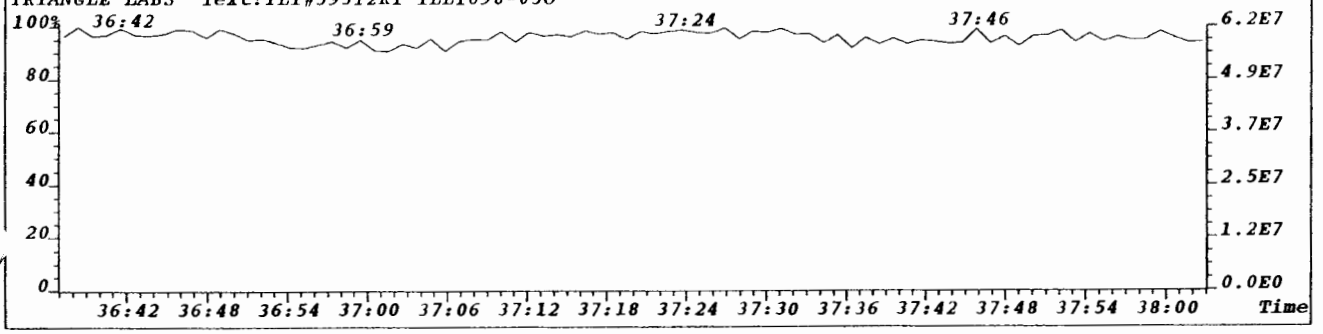

File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:8371
435.8169 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,33484.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O

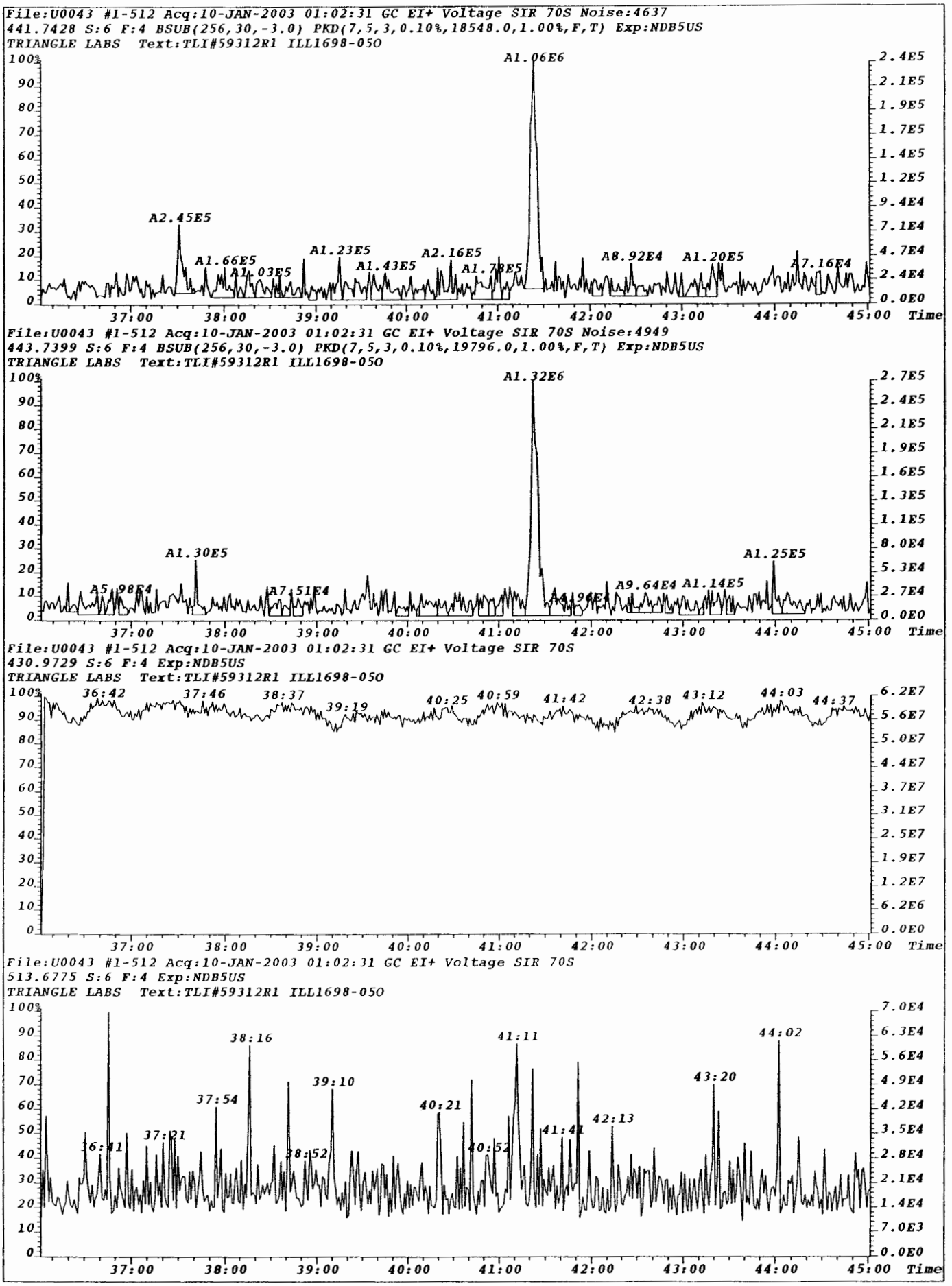


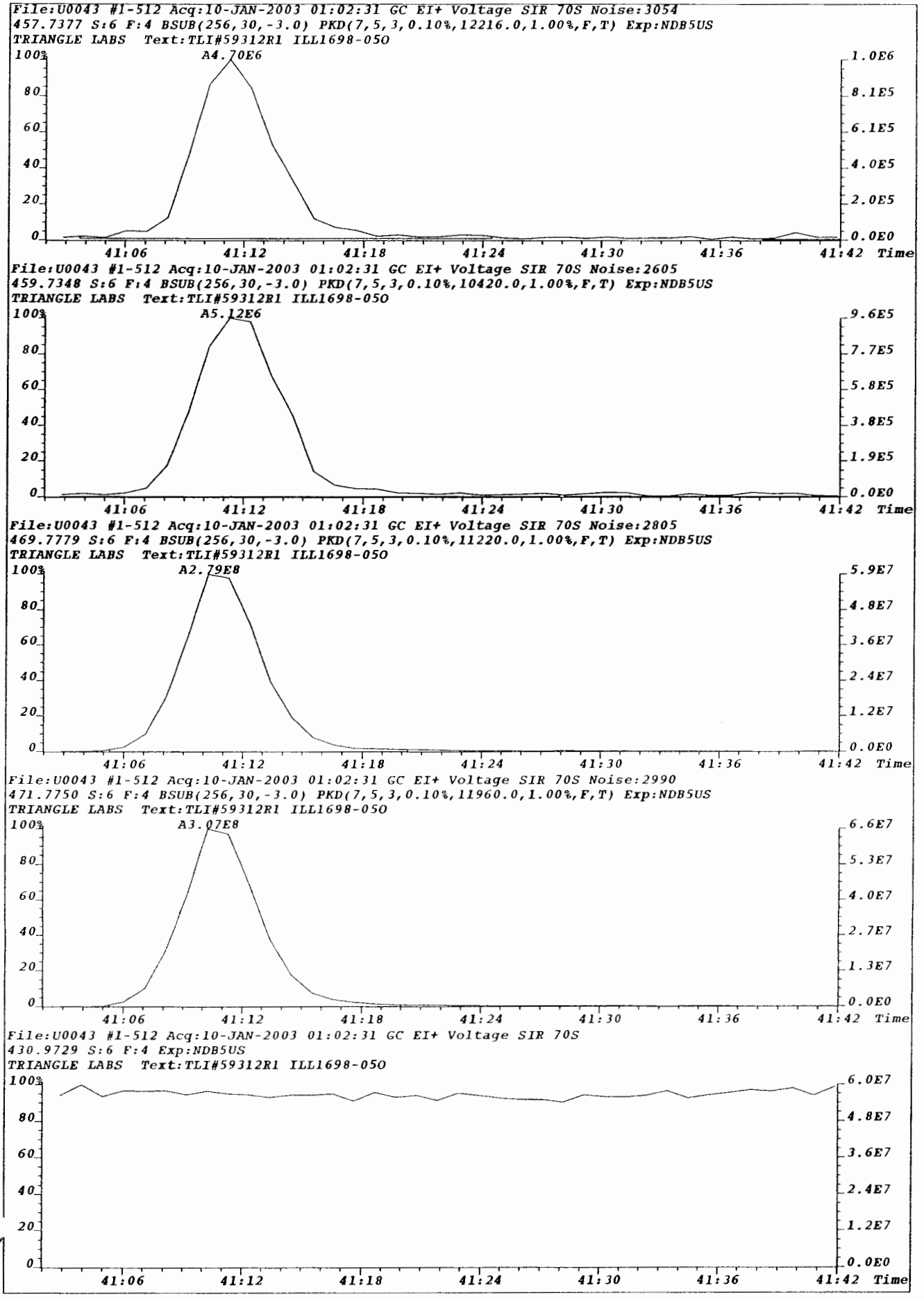

File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:6578
437.8140 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,26312.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O

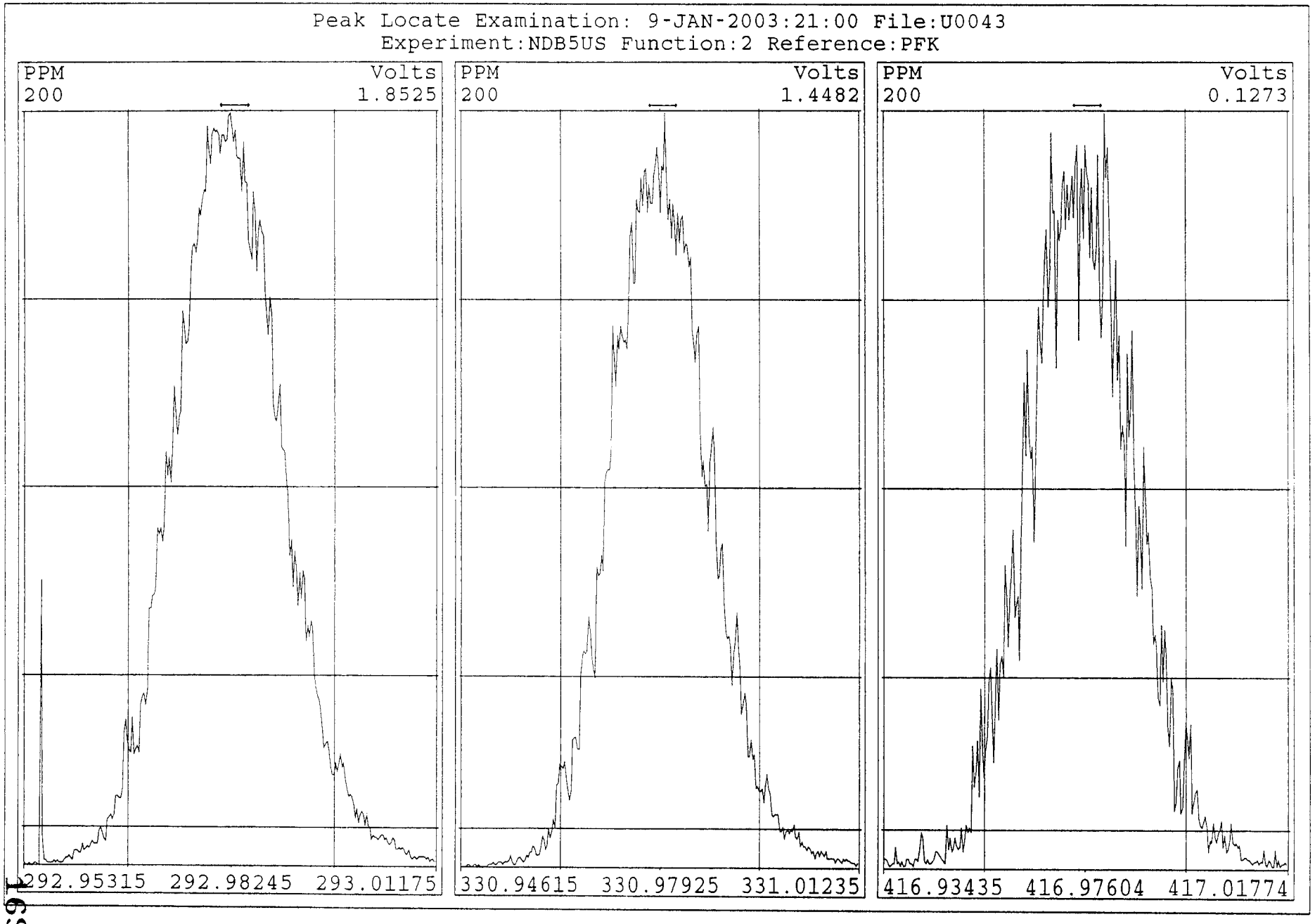


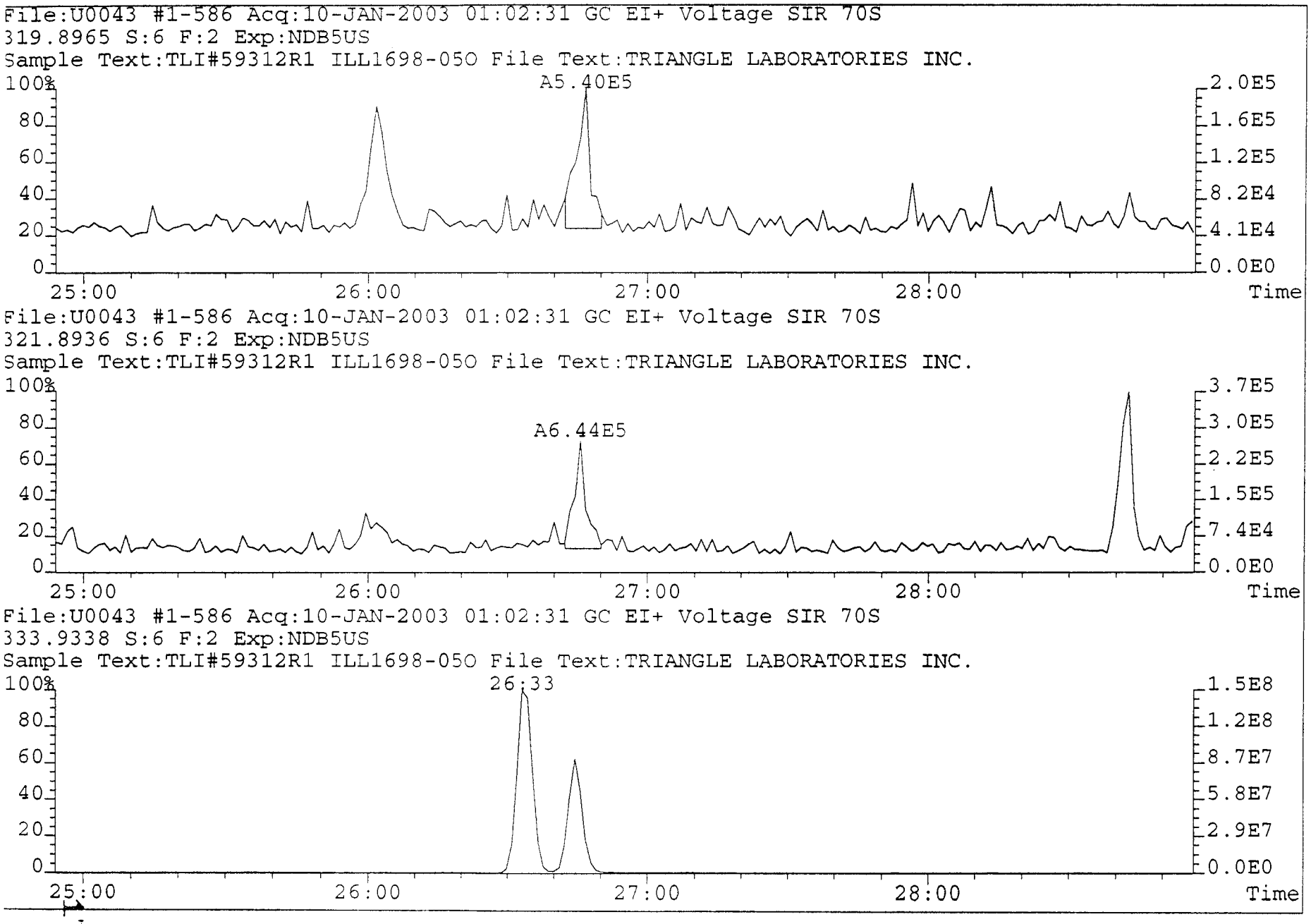

File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
430.9729 S:6 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O




File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:4637
441.7428 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18548.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A1.06E6
A2.45E5
A1.66E5
A1.03E5
A1.23E5
A1.43E5
A2.16E5
A1.78E5
A8.92E4
A1.20E5
A7.16E4
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:4949
443.7399 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19796.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A1.32E6
A1.30E5
A5.98E4
A7.51E4
A4.94E4
A9.64E4
A1.14E5
A1.25E5
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
430.9729 S:6 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
36:42
37:46
38:37
39:19
40:25
40:59
41:42
42:38
43:12
44:03
44:37
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
513.6775 S:6 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
36:41
37:21
37:54
38:16
38:52
39:10
40:21
40:52
41:11
41:41
42:13
43:20
44:02
Time

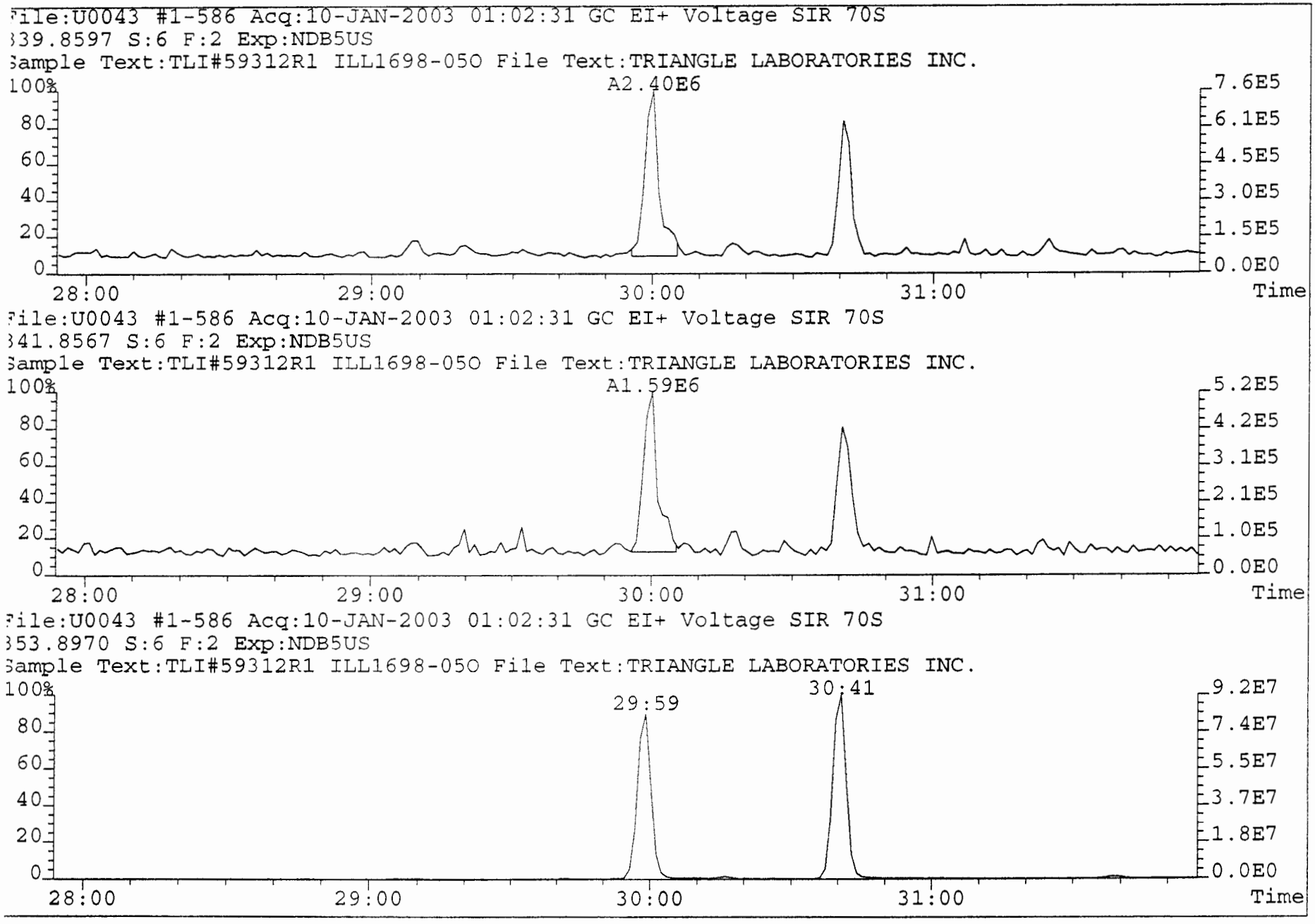

File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:3054
457.7377 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12216.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A4.70E6
1.0E6
8.1E5
6.1E5
4.0E5
2.0E5
0.0E0
41:06
41:12
41:18
41:24
41:30
41:36
41:42 Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:2605
459.7348 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10420.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A5.12E6
9.6E5
7.7E5
5.8E5
3.8E5
1.9E5
0.0E0
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:2805
469.7779 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11220.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A2.79E8
5.9E7
4.8E7
3.6E7
2.4E7
1.2E7
0.0E0
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S Noise:2990
471.7750 S:6 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11960.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
A3.07E8
6.6E7
5.3E7
4.0E7
2.7E7
1.3E7
0.0E0
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
430.9729 S:6 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 ILL1698-05O
6.0E7
4.8E7
3.6E7
2.4E7
1.2E7
0.0E0

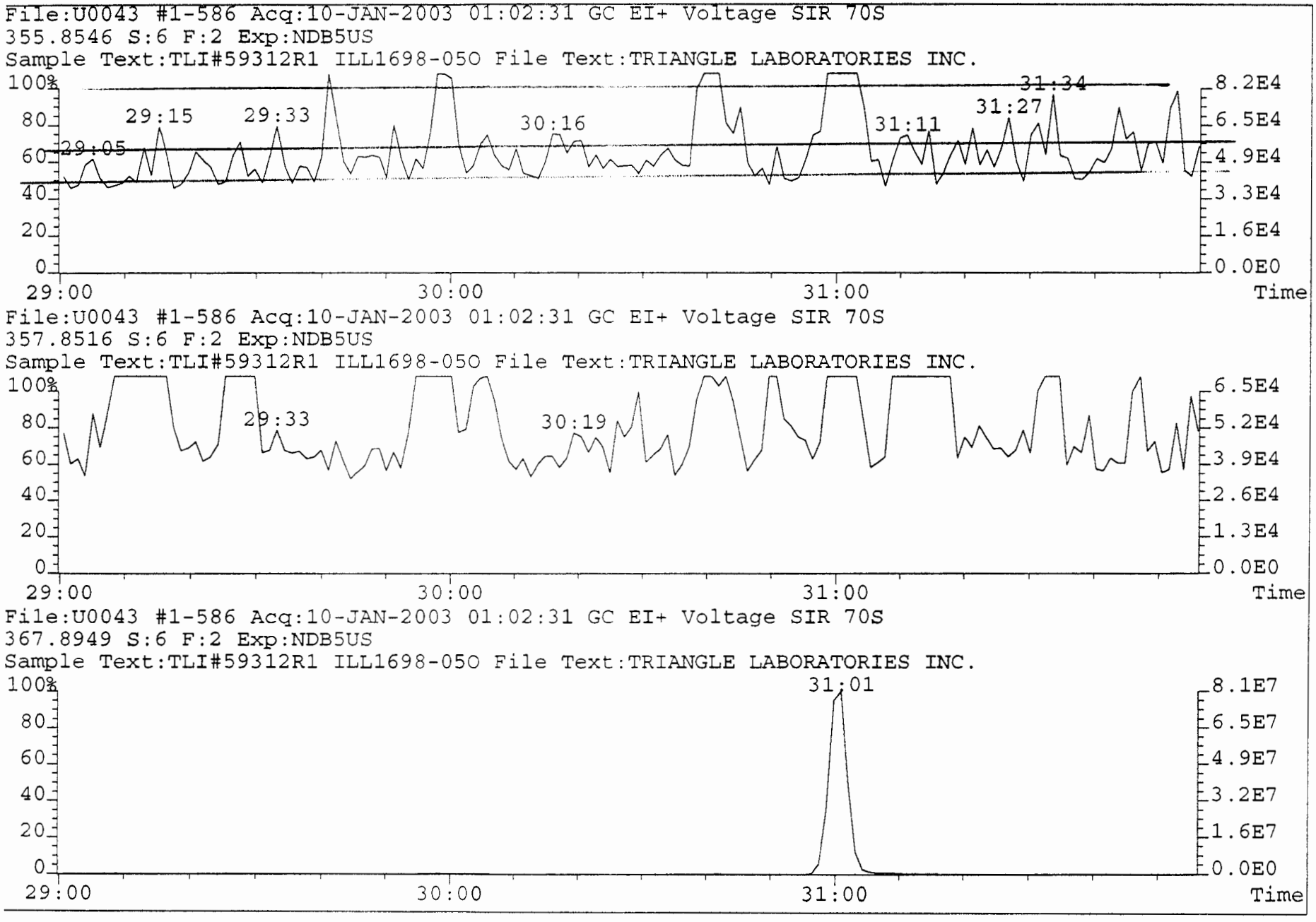

Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774

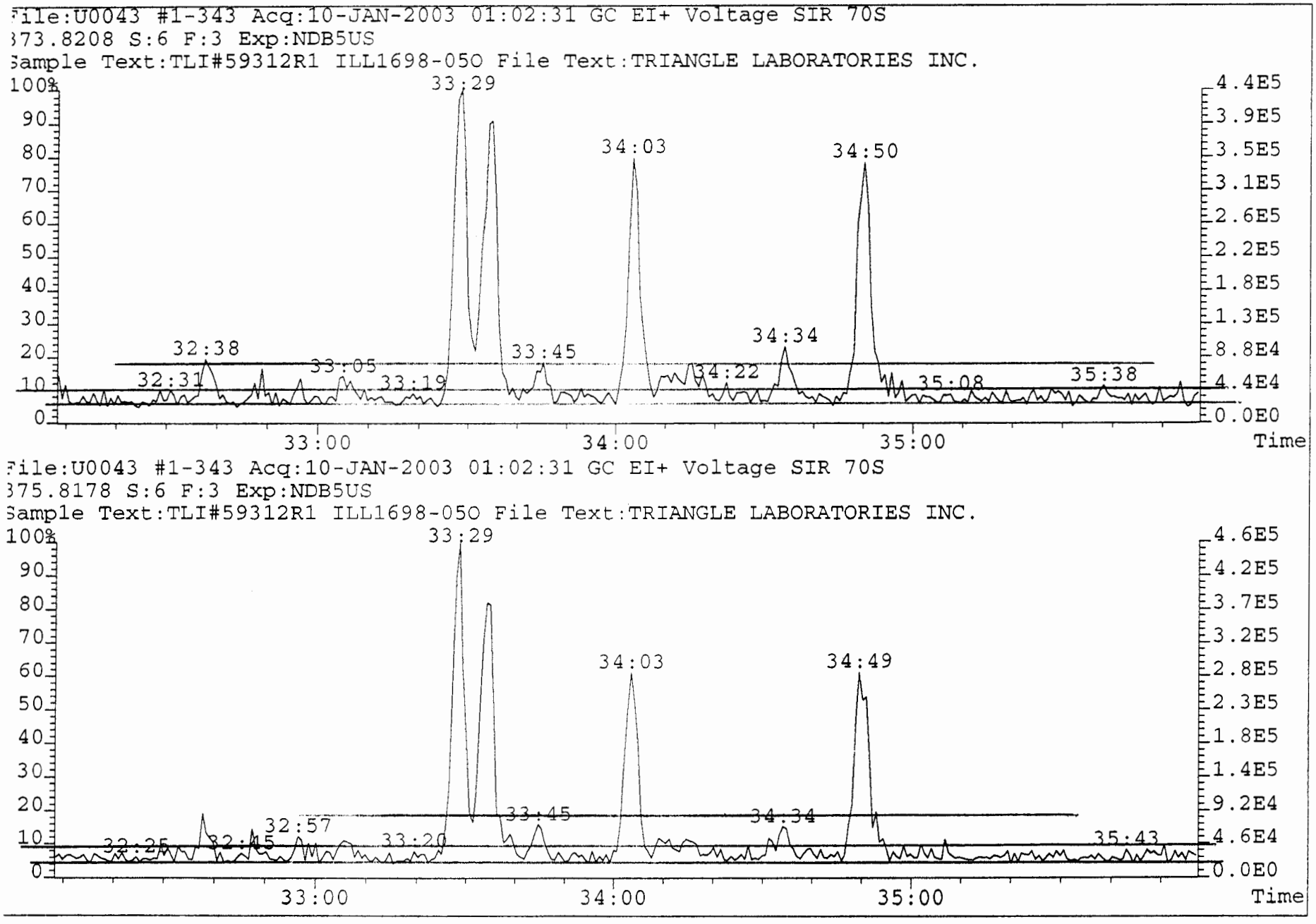

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
319.8965 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
A5.40E5
100%
80
60
40
20
0
2.0E5
1.6E5
1.2E5
8.2E4
4.1E4
0.0E0
25:00
26:00
27:00
28:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
321.8936 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
A6.44E5
100%
80
60
40
20
0
3.7E5
3.0E5
2.2E5
1.5E5
7.4E4
0.0E0
25:00
26:00
27:00
28:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
333.9338 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
26:33
100%
80
60
40
20
0
1.5E8
1.2E8
8.7E7
5.8E7
2.9E7
0.0E0
25:00
26:00
27:00
28:00
Time

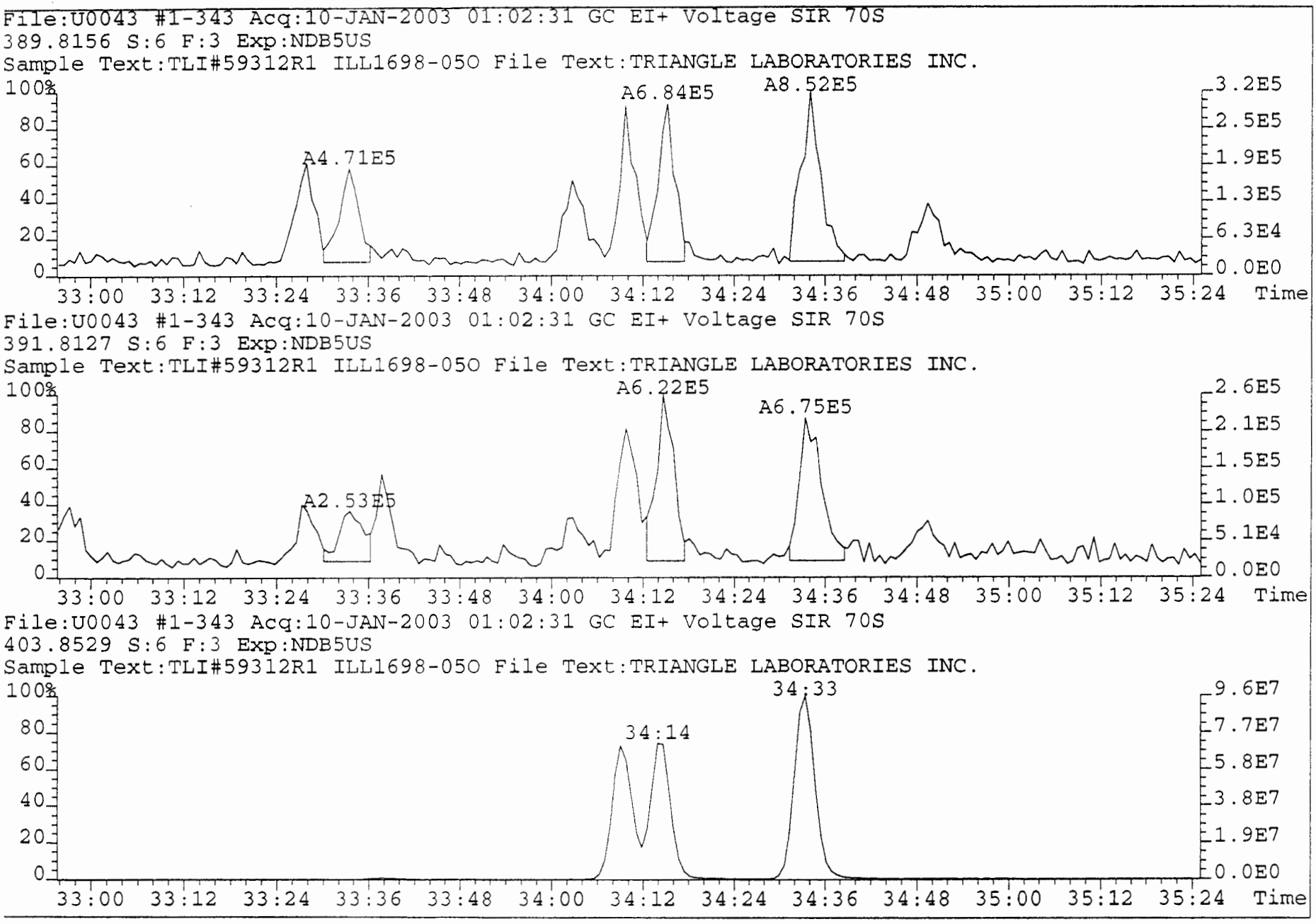
170

11/21/03


File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
339.8597 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
100%
A2.40E6
7.6E5
6.1E5
4.5E5
3.0E5
1.5E5
0.0E0
80
60
40
20
0
28:00
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
341.8567 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
100%
A1.59E6
5.2E5
4.2E5
3.1E5
2.1E5
1.0E5
0.0E0
80
60
40
20
0
28:00
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
353.8970 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
100%
29:59
30:41
9.2E7
7.4E7
5.5E7
3.7E7
1.8E7
0.0E0
80
60
40
20
0
28:00
29:00
30:00
31:00
Time

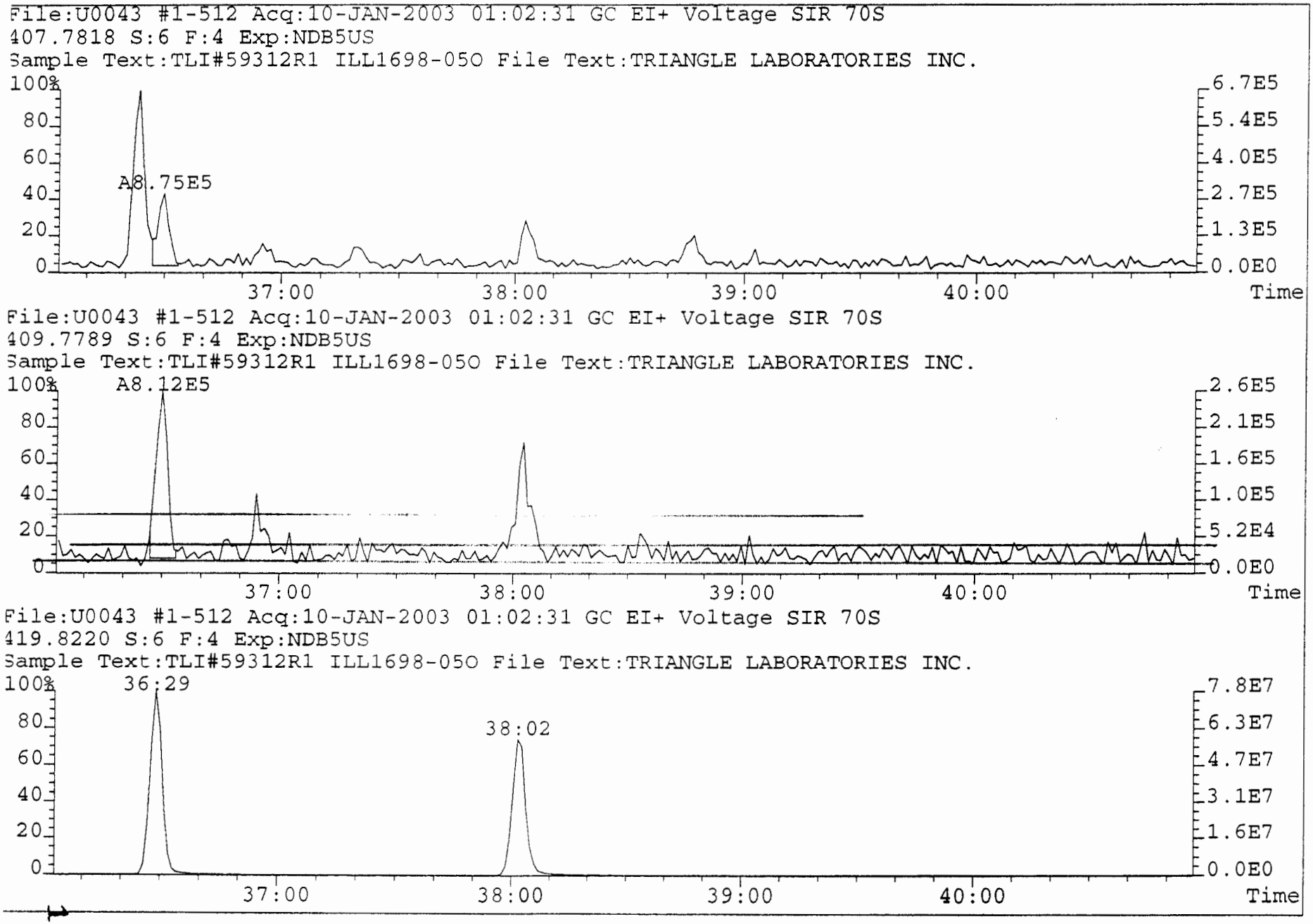

File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
355.8546 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
29:05
29:15
29:33
30:16
31:11
31:27
31:34
8.2E4
6.5E4
4.9E4
3.3E4
1.6E4
0.0E0
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
357.8516 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
29:33
30:19
6.5E4
5.2E4
3.9E4
2.6E4
1.3E4
0.0E0
29:00
30:00
31:00
Time
File:U0043 #1-586 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
367.8949 S:6 F:2 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
31:01
8.1E7
6.5E7
4.9E7
3.2E7
1.6E7
0.0E0
29:00
30:00
31:00
Time


File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
373.8208 S:6 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
33:29
34:03
34:50
32:38
32:31
33:05
33:19
33:45
34:22
34:34
35:08
35:38
33:00
34:00
35:00
Time
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
375.8178 S:6 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
33:29
34:03
34:49
32:57
32:25
32:45
33:20
33:45
34:34
35:43
33:00
34:00
35:00
Time

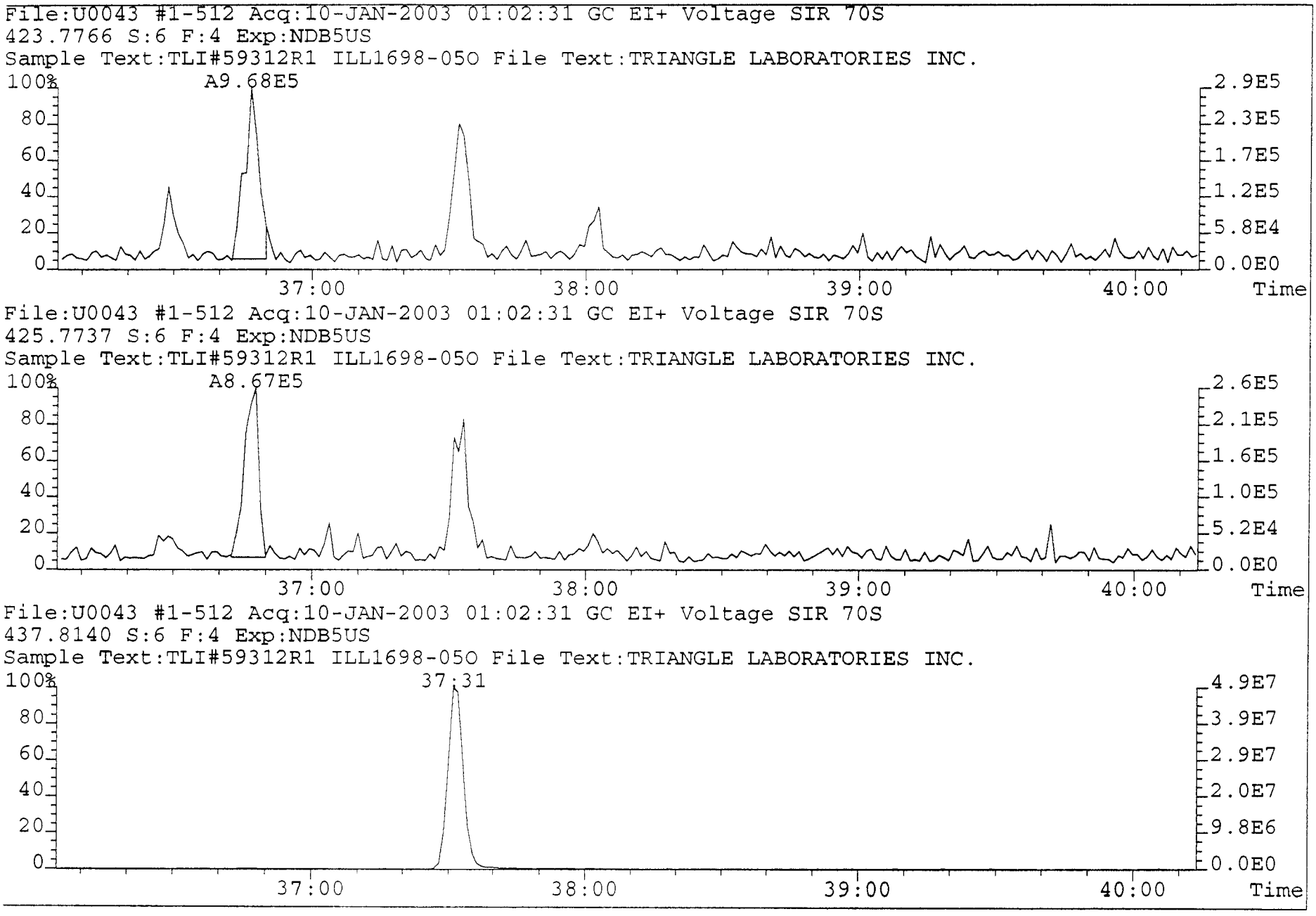

File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
389.8156 S:6 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
A4.71E5
A6.84E5
A8.52E5
Time
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
391.8127 S:6 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
A2.53E5
A6.22E5
A6.75E5
Time
File:U0043 #1-343 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
403.8529 S:6 F:3 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
34:14
34:33
Time

174

4/21/03


File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
407.7818 S:6 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-05O File Text:TRIANGLE LABORATORIES INC.
100%
80
60
40
20
0
A8.75E5
6.7E5
5.4E5
4.0E5
2.7E5
1.3E5
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
409.7789 S:6 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-05O File Text:TRIANGLE LABORATORIES INC.
100%
A8.12E5
80
60
40
20
0
2.6E5
2.1E5
1.6E5
1.0E5
5.2E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
419.8220 S:6 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-05O File Text:TRIANGLE LABORATORIES INC.
100%
36:29
38:02
80
60
40
20
0
7.8E7
6.3E7
4.7E7
3.1E7
1.6E7
0.0E0
37:00
38:00
39:00
40:00
Time

125


File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
423.7766 S:6 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
100%
A9.68E5
80
60
40
20
0
2.9E5
2.3E5
1.7E5
1.2E5
5.8E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
425.7737 S:6 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
100%
A8.67E5
80
60
40
20
0
2.6E5
2.1E5
1.6E5
1.0E5
5.2E4
0.0E0
37:00
38:00
39:00
40:00
Time
File:U0043 #1-512 Acq:10-JAN-2003 01:02:31 GC EI+ Voltage SIR 70S
437.8140 S:6 F:4 Exp:NDB5US
Sample Text:TLI#59312R1 ILL1698-050 File Text:TRIANGLE LABORATORIES INC.
100%
37:31
80
60
40
20
0
4.9E7
3.9E7
2.9E7
2.0E7
9.8E6
0.0E0
37:00
38:00
39:00
40:00
Time



1/28/13

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCS** Analysis File: **U004307**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | ILL1698 | | | | |
| Sample Matrix: | WATER | Date Received: | / / | Spike File: | SPMIT32S |
| TLI ID: | TLI LCS | Date Extracted: | 01/08/2003 | ICal: | UF57092 |
| | | Date Analyzed: | 01/10/2003 | ConCal: | U030041 |
| Sample Size: | 1.000 L | Dilution Factor: | n/a | % Moisture: | n/a |
| Dry Weight: | n/a | Blank File: | U004301 | % Lipid: | n/a |
| GC Column: | DB-5 | Analyst: | IJD | % Solids: | n/a |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 381 | | | 0.81 | 26:45 | |
| 1,2,3,7,8-PeCDD | 1910 | | | 1.59 | 31:01 | |
| 1,2,3,4,7,8-HxCDD | 1620 | | | 1.24 | 34:10 | |
| 1,2,3,6,7,8-HxCDD | 1670 | | | 1.25 | 34:15 | |
| 1,2,3,7,8,9-HxCDD | 1770 | | | 1.23 | 34:34 | |
| 1,2,3,4,6,7,8-HpCDD | 1690 | | | 1.04 | 37:32 | |
| 1,2,3,4,6,7,8,9-OCDD | 3410 | | | 0.88 | 41:11 | |
| 2,3,7,8-TCDF | 329 | | | 0.78 | 26:04 | |
| 1,2,3,7,8-PeCDF | 1670 | | | 1.56 | 30:00 | |
| 2,3,4,7,8-PeCDF | 1760 | | | 1.54 | 30:40 | |
| 1,2,3,4,7,8-HxCDF | 1930 | | | 1.24 | 33:28 | |
| 1,2,3,6,7,8-HxCDF | 1850 | | | 1.24 | 33:34 | |
| 2,3,4,6,7,8-HxCDF | 2050 | | | 1.23 | 34:03 | |
| 1,2,3,7,8,9-HxCDF | 2220 | | | 1.25 | 34:50 | |
| 1,2,3,4,6,7,8-HpCDF | 1820 | | | 1.04 | 36:30 | |
| 1,2,3,4,7,8,9-HpCDF | 2070 | | | 1.03 | 38:03 | |
| 1,2,3,4,6,7,8,9-OCDF | 2960 | | | 0.91 | 41:23 | |

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1230 | 61.6 | 40%-135% | 0.79 | 26:03 | |
| $^{13}C_{12}$-2,3,7,8-TCDD | 1160 | 58.2 | 40%-135% | 0.78 | 26:44 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1600 | 80.2 | 40%-135% | 1.61 | 29:59 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1720 | 85.8 | 40%-135% | 1.63 | 31:01 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1550 | 77.3 | 40%-135% | 0.52 | 33:33 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1750 | 87.6 | 40%-135% | 1.25 | 34:14 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1510 | 75.4 | 40%-135% | 0.46 | 36:29 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1730 | 86.5 | 40%-135% | 1.07 | 37:31 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 3970 | 99.3 | 40%-135% | 0.90 | 41:10 | |



MIT3_PSR v1.00, LARS 6.25.05

**Triangle Laboratories, Inc.®**
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Printed: 11:36 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCS** Analysis File: **U004307**

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1750 | 87.5 | 40%-135% | 1.63 | 30:40 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1640 | 82.1 | 40%-135% | 0.52 | 33:28 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1870 | 93.6 | 40%-135% | 1.24 | 34:10 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1760 | 87.8 | 40%-135% | 0.46 | 38:01 | ___ |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | | RT | Flags |
|---|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 118 | 58.8 | 40%-135% | | 26:45 | ___ |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1900 | 94.9 | 40%-135% | 0.51 | 34:49 | ___ |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1830 | 91.4 | 40%-135% | 0.51 | 34:03 | ___ |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.79 | 26:34 | ___ |
| $_2$-1,2,3,7,8,9-HxCDD | 1.23 | 34:33 | ___ |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6.25.05

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Printed: 11:36 01/20/2003

Initial ....Date...

Data Review By: [signature] 1/10/03

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside
ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U004307B.dbf
01/10/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | | | 0.65-0.89 | | | | 0.873-1.074 | | | |
| 304-306 | DC | NL | | | | Height | 16.91 | 9.57 | 7.34 | | | | |
| | | | | 25:39 | | 0.87 | 478.90 | 222.56 | 256.34 | 0.985 | 1278-TCDF | AN | J |
| | | | | 26:04 | | 0.78 | 19,822.78 | 8,683.38 | 11,139.40 | 1.001 | 2378-TCDF | AN | |
| | | | | 27:08 | | 0.72 | 285.96 | 119.25 | 166.71 | 1.042 | | | J |
| | | | | 27:27 | RO | 0.45 | 107.37 | 46.71 | 104.57 | 1.054 | | | J |
| | DC | WH | | 28:05 | | 0.66 | 182.38 | | | 1.078 | | | |
| 304-306 | | | 4 Peaks | | | | 20,695.01 | | | | | | |
| 13C12-TCDF | | | | | | 0.65-0.89 | | | | 0.962-1.038 | | | |
| 316-318 | DC | NL | | | | Height | 14.14 | 6.41 | 7.73 | | | | |
| | | | | 25:19 | | 0.80 | 209.87 | 93.16 | 116.71 | 0.972 | | | |
| | | | | 25:38 | | 0.85 | 780.33 | 358.74 | 421.59 | 0.984 | | | |
| | | | | 26:03 | | 0.79 | 106,785.90 | 47,048.60 | 59,737.30 | 1.000 | 13C12-2378-TCDF | IS0 | |
| | | | | | | Height | 28,277.00 | 12,422.80 | 15,854.20 | | | | |
| 316-318 | | | 3 Peaks | | | | 107,776.10 | | | | | | |

---------- Above: TCDF / TCDD Follows ----------

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD | | | | | | 0.65-0.89 | | | | 0.900-1.043 | | | |
| 320-322 | DC | NL | | | | Height | 8.62 | 4.22 | 4.40 | | | | |
| | DC | SN | 24:14 | RO | 0.52 | | 30.66 | | | 0.906 | 1368-TCDD | AN | |
| | DC | SN | 25:36 | | 0.72 | | 30.93 | | | 0.958 | | | |
| | | | 26:03 | RO | 3.21 | | 52.85 | 95.92 | 29.86 | 0.974 | | | J |
| | | | 26:45 | | 0.81 | | 15,991.56 | 7,144.34 | 8,847.22 | 1.001 | 2378-TCDD | AN | |
| 320-322 | | | 2 Peaks | | | | 16,044.41 | | | | | | |
| 37Cl-TCDD | | | | | | | | | | 0.925-1.075 | | | |
| 328 | DC | NL | | | | Height | 4.50 | 4.50 | | | | | |
| | | | 25:23 | | | | 208.62 | 208.62 | | 0.950 | | | |
| | | | 26:03 | | | | 32.64 | 32.64 | | 0.974 | | | |
| | DC | SN | 26:27 | | | | 4.96 | | | 0.989 | | | |
| | | | 26:45 | | | | 7,625.84 | 7,625.84 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | 27:09 | | | | 27.57 | 27.57 | | 1.016 | | | |
| | DC | SN | 27:26 | | | | 22.90 | | | 1.026 | | | |
| | DC | SN | 27:35 | | | | 16.62 | | | 1.032 | | | |
| | DC | SN | 27:46 | | | | 10.36 | | | 1.039 | | | |
| | DC | SN | 27:57 | | | | 9.01 | | | 1.046 | | | |
| | DC | SN | 28:04 | | | | 15.77 | | | 1.050 | | | |
| | DC | SN | 28:15 | | | | 29.81 | | | 1.057 | | | |
| 328 | | | 4 Peaks | | | | 7,894.67 | | | | | | |
| 13C12-TCDD | | | | | | 0.65-0.89 | | | | 0.925-1.075 | | | |
| 332-334 | DC | NL | | | | Height | 38.37 | 25.09 | 13.28 | | | | |

| Compound/ ... QC.Log | Omit | Why | RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 26:34 | | 0.79 | 108,060.80 | 47,847.20 | 60,213.60 | 0.994 | 13C12-1234-TCDD | RS1 | |
| | | | 26:44 | | 0.78 | 71,010.90 | 31,191.50 | 39,819.40 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | | Height | 19,258.25 | 8,395.25 | 10,863.00 | | | | |
| 332-334 | | | 2 Peaks | | | 179,071.70 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | |
| PeCDF | | | | | 1.32-1.78 | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | | Height | 10.20 | 4.91 | 5.29 | | | | |
| | | | 29:07 | | 1.63 | 420.44 | 260.82 | 159.62 | 0.971 | | | J |
| | | | 29:38 | RO | 1.19 | 336.19 | 156.40 | 131.84 | 0.988 | | | J |
| | | | 30:00 | | 1.56 | 101,446.00 | 61,762.50 | 39,683.50 | 1.001 | 12378-PeCDF | AN | |
| | | | 30:17 | | 1.36 | 1,491.43 | 860.45 | 630.98 | 1.010 | | | J |
| | | | 30:40 | | 1.54 | 104,908.50 | 63,609.20 | 41,299.30 | 1.023 | 23478-PeCDF | AN | |
| | | | 31:39 | | 1.39 | 327.86 | 190.79 | 137.07 | 1.056 | | | J |
| 340-342 | | | 6 Peaks | | | 208,930.42 | | | | | | |
| 13C12-PeCDF | | | | | 1.32-1.78 | | | | 0.867-1.133 | | | |
| 352-354 | DC | NL | | | Height | 8.11 | 3.92 | 4.19 | | | | |
| | | | 29:08 | | 1.75 | 428.28 | 272.31 | 155.97 | 0.972 | | | |
| | | | 29:59 | | 1.61 | 96,671.00 | 59,637.10 | 37,033.90 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | | Height | 31,710.40 | 19,531.70 | 12,178.70 | | | | |
| | | | 30:16 | | 1.65 | 1,204.84 | 750.36 | 454.48 | 1.009 | | | |
| | | | 30:40 | | 1.63 | 105,813.50 | 65,632.60 | 40,180.90 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | 31:39 | | 1.64 | 1,159.94 | 720.83 | 439.11 | 1.056 | | | |
| 352-354 | | | 5 Peaks | | | 205,277.56 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | |
| PeCDD | | | | | 1.32-1.78 | | | | 0.937-1.021 | | | |
| 356-358 | DC | NL | | | Height | 7.46 | 3.97 | 3.49 | | | | |
| | | | 29:59 | | 1.45 | 156.17 | 92.41 | 63.76 | 0.967 | | | J |
| | | | 30:17 | | 1.62 | 177.55 | 109.78 | 67.77 | 0.976 | | | J |
| | | | 30:40 | | 1.68 | 114.78 | 71.89 | 42.89 | 0.989 | | | J |
| | | | 31:01 | | 1.59 | 66,501.70 | 40,835.50 | 25,666.20 | 1.000 | 12378-PeCDD | AN | |
| 356-358 | | | 4 Peaks | | | 66,950.20 | | | | | | |
| 13C12-PeCDD | | | | | 1.32-1.78 | | | | 0.871-1.129 | | | |
| 368-370 | DC | NL | | | Height | 6.19 | 3.62 | 2.57 | | | | |
| | | | 29:57 | RO | 1.27 | 170.14 | 84.77 | 66.72 | 0.966 | | | |
| | | | 30:05 | | 1.59 | 255.71 | 156.79 | 98.92 | 0.970 | | | |
| | | | 30:16 | RO | 1.11 | 97.31 | 42.21 | 38.16 | 0.976 | | | |
| | | | 31:01 | | 1.63 | 61,653.90 | 38,252.10 | 23,401.80 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | | Height | 19,856.48 | 12,382.00 | 7,474.48 | | | | |
| 368-370 | | | 4 Peaks | | | 62,177.06 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | |
| HxCDF | | | | | 1.05-1.43 | | | | 0.964-1.045 | | | |
| 374-376 | DC | NL | | | Height | 21.77 | 13.06 | 8.71 | | | | |
| | | | 32:39 | | 1.29 | 173.46 | 97.79 | 75.67 | 0.973 | | | J |
| | | | 33:28 | | 1.24 | 95,074.30 | 52,604.60 | 42,469.70 | 0.998 | 123478-HxCDF | AN | |

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 33:34 | | 1.24 | 95,601.90 | 52,980.50 | 42,621.40 | 1.000 | 123678-HxCDF | AN | |
| | | | | 34:03 | | 1.23 | 92,212.60 | 50,813.60 | 41,399.00 | 1.015 | 234678-HxCDF | AN | |
| | | | | 34:50 | | 1.25 | 82,477.30 | 45,760.30 | 36,717.00 | 1.038 | 123789-HxCDF | AN | |
| 374-376 | | | 5 Peaks | | | | 365,539.56 | | | | | | |
| 13C12-HxCDF | | | | 0.43-0.59 | | | | | | 0.881-1.119 | | | |
| 384-386 | DC | NL | | Height | | | 20.44 | 5.60 | 14.84 | | | | |
| | | | | 32:30 | | 0.43 | 147.20 | 44.61 | 102.59 | 0.969 | | | |
| | | | | 33:28 | | 0.52 | 91,799.80 | 31,252.60 | 60,547.20 | 0.998 | 13C12-HxCDF | 478 | SUR2 |
| | | | | 33:33 | | 0.52 | 86,183.80 | 29,430.50 | 56,753.30 | 1.000 | 13C12-HxCDF | 678 | IS4 |
| | | | | Height | | | 29,180.47 | 9,941.87 | 19,238.60 | | | | |
| | | | | 34:03 | | 0.51 | 93,796.10 | 31,738.10 | 62,058.00 | 1.015 | 13C12-HxCDF | 234 | ALT2 |
| | | | | 34:49 | | 0.51 | 77,394.10 | 26,235.10 | 51,159.00 | 1.038 | 13C12-HxCDF | 789 | ALT1 |
| 384-386 | | | 5 Peaks | | | | 349,321.00 | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | | | | | |
| HxCDD | | | | 1.05-1.43 | | | | | | 0.958-1.013 | | | |
| 390-392 | DC | NL | | Height | | | 7.43 | 2.84 | 4.59 | | | | |
| | | | | 34:10 | | 1.24 | 60,132.50 | 33,275.70 | 26,856.80 | 0.998 | 123478-HxCDD | AN | |
| | | | | 34:15 | | 1.25 | 63,634.40 | 35,335.10 | 28,299.30 | 1.000 | 123678-HxCDD | AN | |
| | | | | 34:34 | | 1.23 | 65,221.90 | 36,030.10 | 29,191.80 | 1.010 | 123789-HxCDD | AN | |
| 390-392 | | | 3 Peaks | | | | 188,988.80 | | | | | | |
| 13C12-HxCDD | | | | 1.05-1.43 | | | | | | 0.971-1.029 | | | |
| 402-404 | DC | NL | | Height | | | 13.68 | 7.74 | 5.94 | | | | |
| | | | | 33:37 | | 1.35 | 593.13 | 340.89 | 252.24 | 0.982 | | | |
| | | | | 34:10 | | 1.24 | 66,411.50 | 36,802.90 | 29,60[illegible].60 | 0.998 | 13C12-HxCDD | 478 | SUR3 |
| | | | | 34:14 | | 1.25 | 68,736.90 | 38,211.10 | 30,525.80 | 1.000 | 13C12-HxCDD | 678 | IS5 |
| | | | | Height | | | 22,538.60 | 12,590.70 | 9,947.90 | | | | |
| | | | | 34:33 | | 1.23 | 75,516.90 | 41,714.30 | 33,802.60 | 1.009 | 13C12-HxCDD | 789 | RS2 |
| 402-404 | | | 4 Peaks | | | | 211,258.43 | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | | | | | |
| HpCDF | | | | 0.88-1.20 | | | | | | 0.995-1.047 | | | |
| 408-410 | DC | NL | | Height | | | 16.56 | 8.55 | 8.01 | | | | |
| | | | | 36:30 | | 1.04 | 78,525.40 | 39,957.50 | 38,567.90 | 1.000 | 1234678-HpCDF | AN | |
| | | | | 38:03 | | 1.03 | 63,485.50 | 32,215.10 | 31,270.40 | 1.043 | 1234789-HpCDF | AN | |
| 408-410 | | | 2 Peaks | | | | 142,010.90 | | | | | | |
| 13C12-HpCDF | | | | 0.37-0.51 | | | | | | 0.945-1.110 | | | |
| 418-420 | DC | NL | | Height | | | 12.71 | 5.57 | 7.14 | | | | |
| | | | | 36:29 | | 0.46 | 59,794.10 | 18,945.30 | 40,848.80 | 1.000 | 13C12-HpCDF | 678 | IS6 |
| | | | | Height | | | 17,697.91 | 5,628.41 | 12,069.50 | | | | |
| | | | | 38:01 | | 0.46 | 48,921.20 | 15,345.70 | 33,575.50 | 1.042 | 13C12-HpCDF | 789 | SUR4 |
| 418-420 | | | 2 Peaks | | | | 108,715.30 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |
| HpCDD | | | | 0.88-1.20 | | | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | Height | | | 11.61 | 5.73 | 5.88 | | | | |

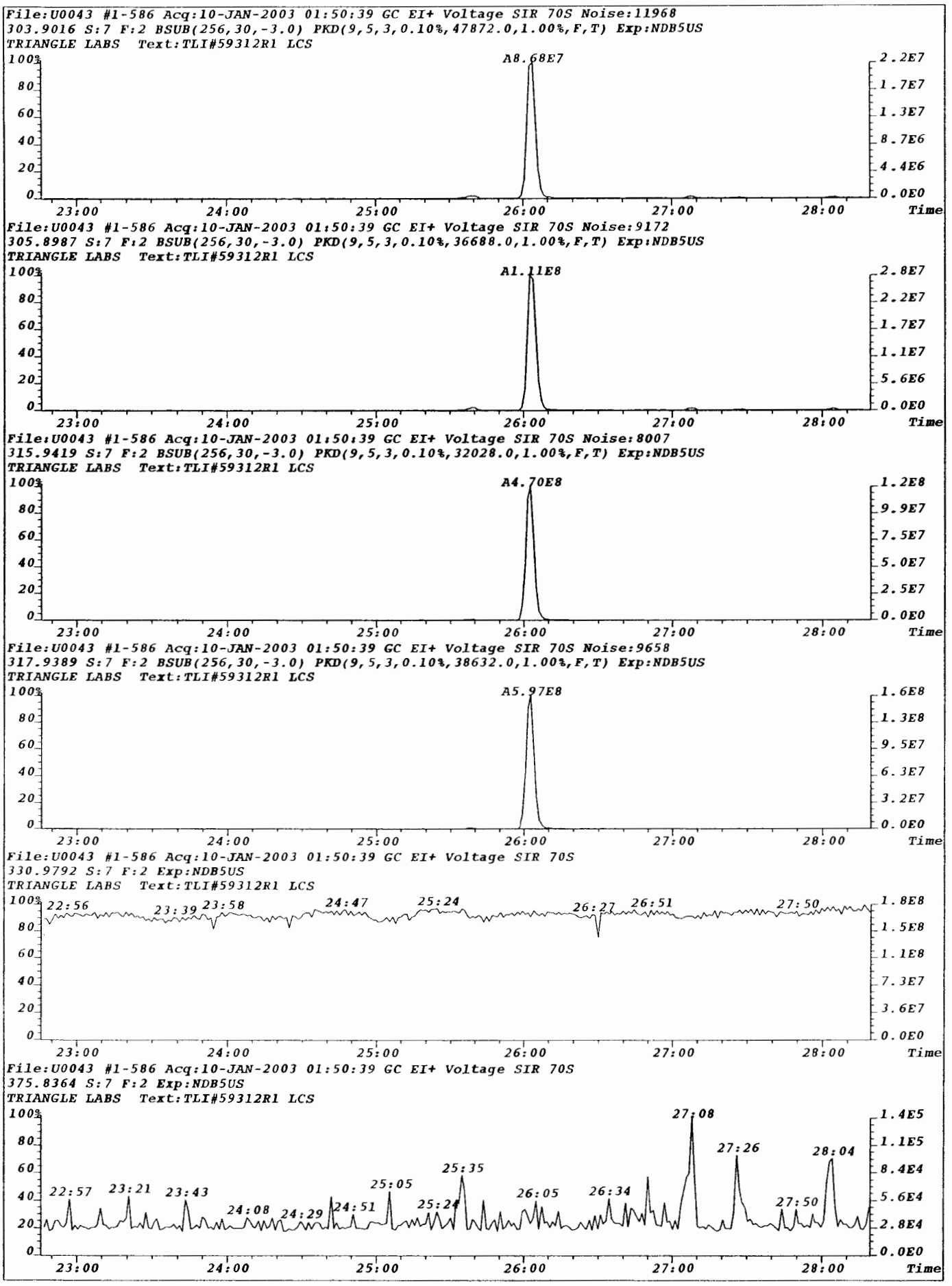
| Compound/ ... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DC | WL | | 36:30 | RO | 1.82 | 82.31 | | | 0.973 | | | |
| | | | | 36:47 | | 0.96 | 78.32 | 38.37 | 39.95 | 0.980 | | | J |
| | | | | 37:32 | | 1.04 | 45,145.60 | 22,987.60 | 22,158.00 | 1.000 | 1234678-HpCDD | AN | |
| 424-426 | | | 2 Peaks | | | | 45,223.92 | | | | | | |
| 13C12-HpCDD | | | | 0.88-1.20 | | | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | | | Height | 13.00 | 6.92 | 6.08 | | | | |
| | | | | 36:47 | | 0.97 | 73.22 | 36.07 | 37.15 | 0.980 | | | |
| | | | | 37:31 | | 1.07 | 52,840.00 | 27,299.50 | 25,540.50 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | | | Height | 13,902.44 | 7,168.02 | 6,734.42 | | | | |
| 436-438 | | | 2 Peaks | | | | 52,913.22 | | | | | | |

---------- Above: HpCDD / Octa-CDD and CDF Follows ----------

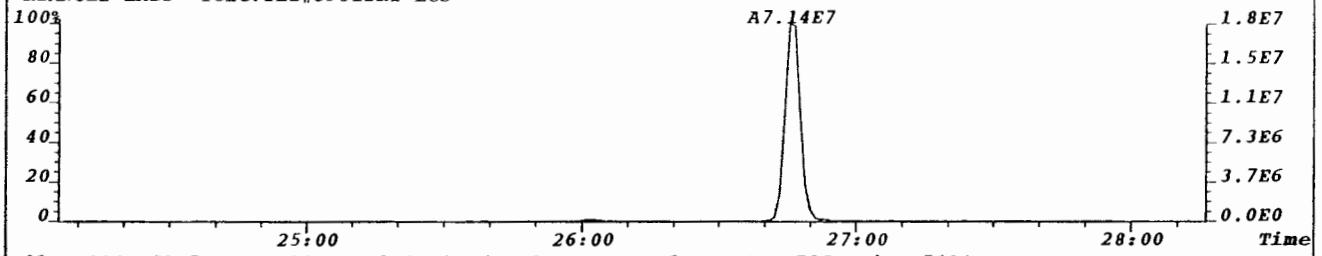
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCDF | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | | | Height | 8.24 | 3.88 | 4.36 | | | | |
| | | | | 41:23 | | 0.91 | 90,534.60 | 43,084.20 | 47,450.40 | 1.005 | OCDF | AN | |
| 442-444 | | | 1 Peak | | | | 90,534.60 | | | | | | |
| OCDD | | | | 0.76-1.02 | | | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 5.91 | 2.91 | 3.00 | | | | |
| | | | | 41:11 | | 0.88 | 77,362.20 | 36,254.80 | 41,107.40 | 1.000 | OCDD | AN | |
| 458-460 | | | 1 Peak | | | | 77,362.20 | | | | | | |
| 13C12-OCDD | | | | 0.76-1.02 | | | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | | | Height | 5.87 | 2.82 | 3.05 | | | | |
| | | | | 41:10 | | 0.90 | 82,072.70 | 38,911.70 | 43,161.00 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 18,043.25 | 8,555.73 | 9,487.52 | | | | |
| 4[illegible]72 | | | 1 Peak | | | | 82,072.70 | | | | | | |

| Column Description..... | "Why" Code Description..... | QC Log Desc..... |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

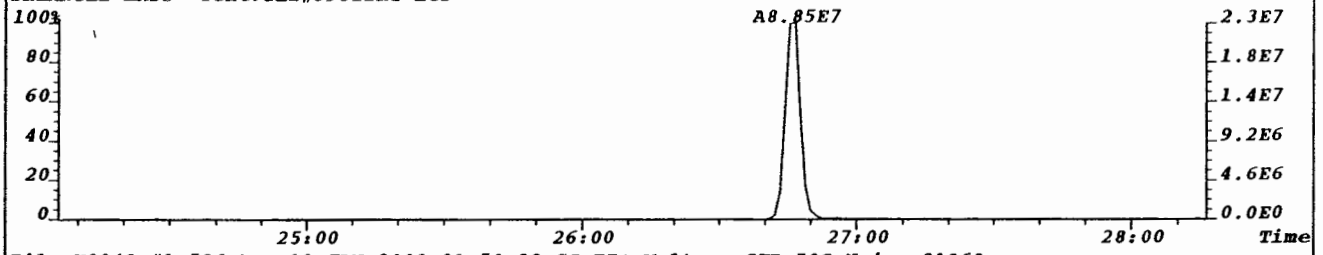
*** End of Report ***


File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:11968
303.9016 S:7 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,47872.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A8.68E7
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:9172
305.8987 S:7 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,36688.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A1.11E8
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:8007
315.9419 S:7 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,32028.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A4.70E8
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:9658
317.9389 S:7 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,38632.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A5.97E8
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
330.9792 S:7 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
22:56
23:39
23:58
24:47
25:24
26:27
26:51
27:50
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
375.8364 S:7 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
22:57
23:21
23:43
24:08
24:29
24:51
25:05
25:24
25:35
26:05
26:34
27:08
27:26
27:50
28:04
Time

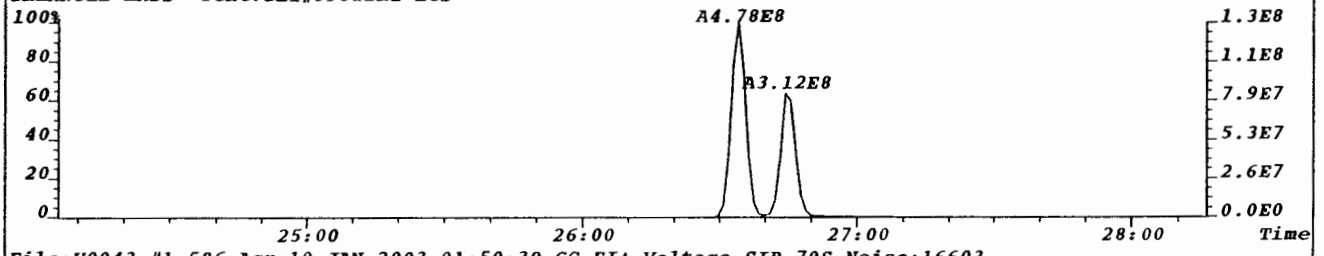
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:5278
319.8965 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21112.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



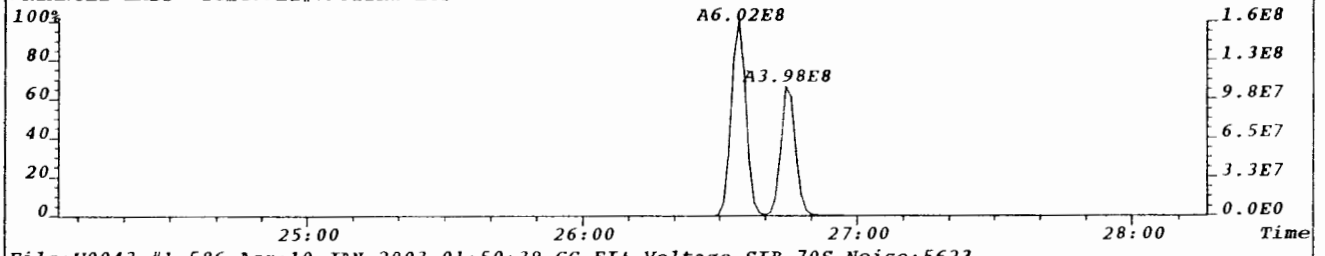

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:5494
321.8936 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21976.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



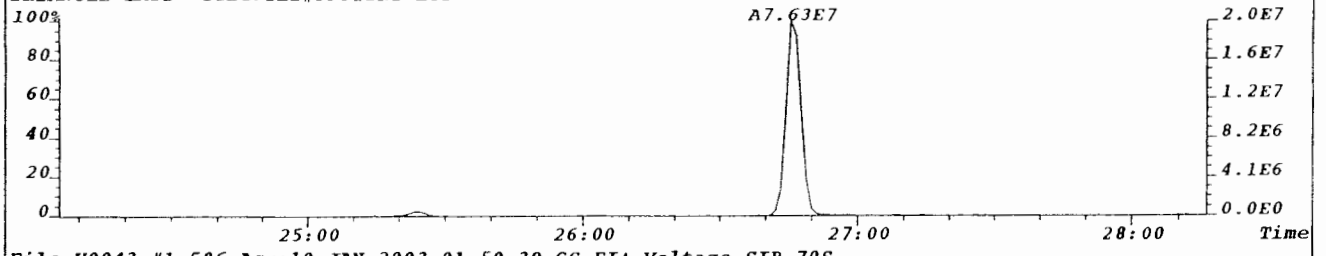

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:31368
331.9368 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,125472.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



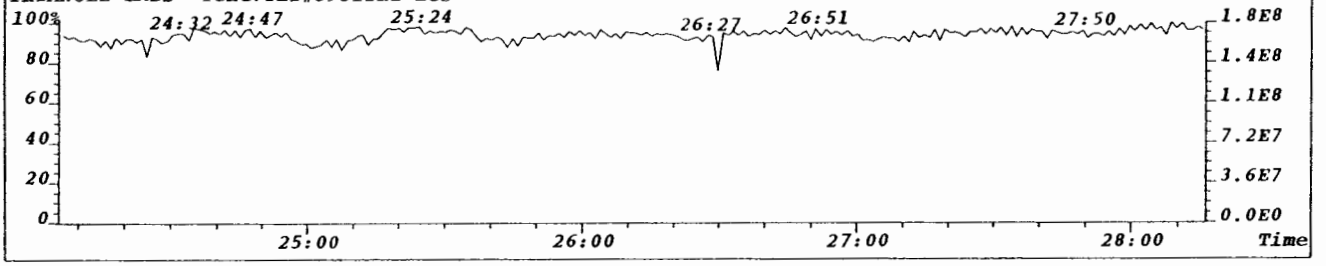

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:16603
333.9338 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,66412.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



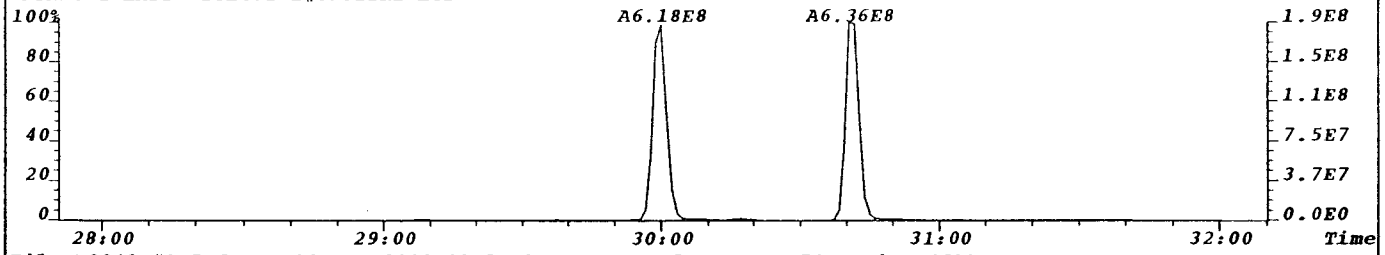

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:5623
327.8847 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,22492.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



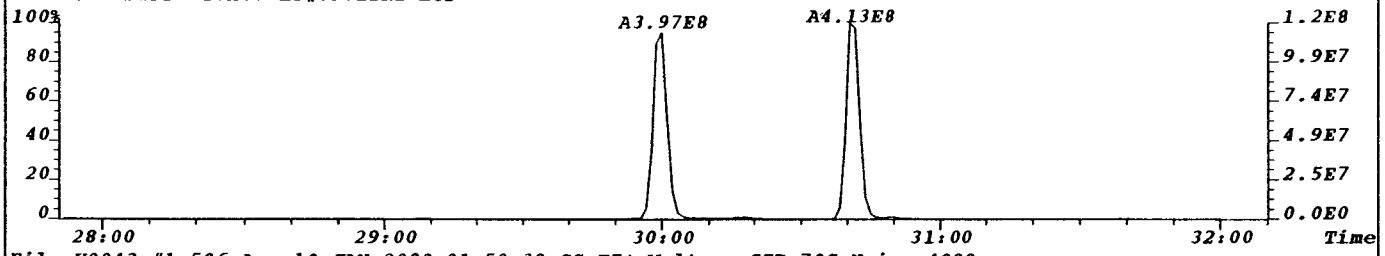

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
330.9792 S:7 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



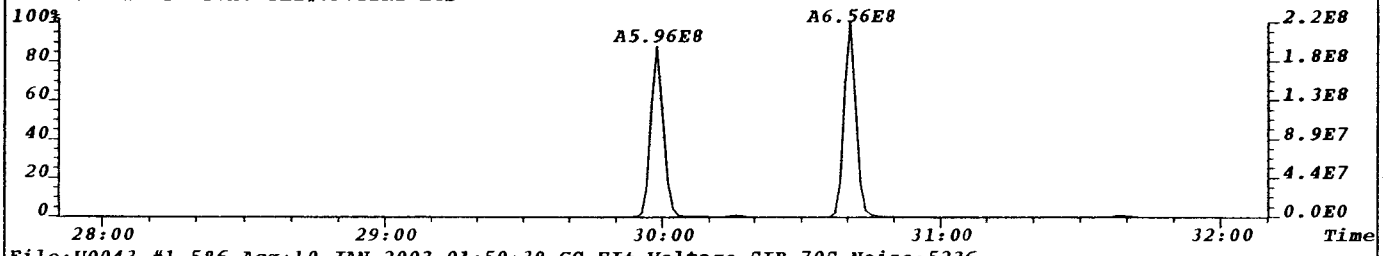
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:6142
339.8597 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,24568.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



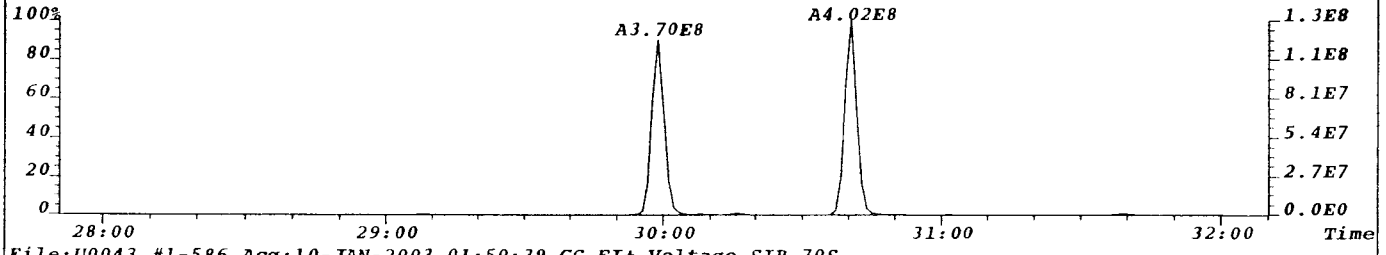

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:6610
341.8567 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,26440.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



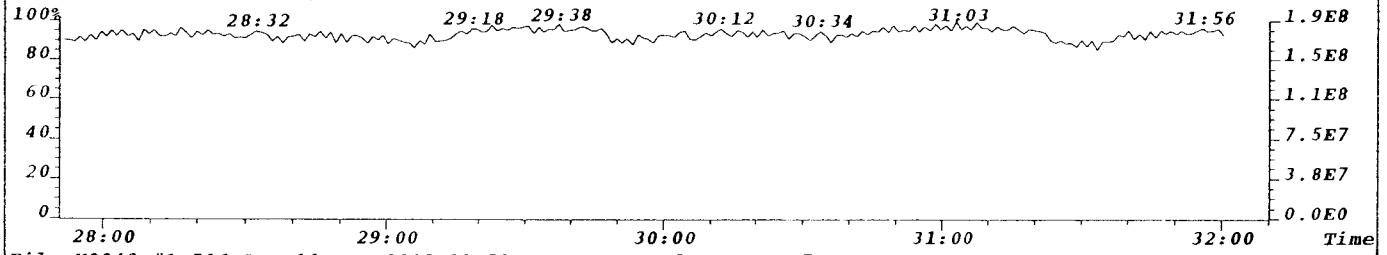

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:4899
351.9000 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19596.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



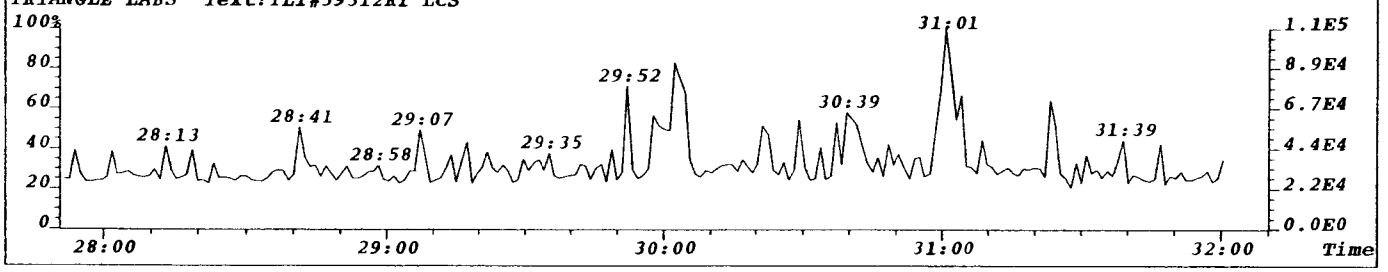

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:5236
353.8970 S:7 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20944.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



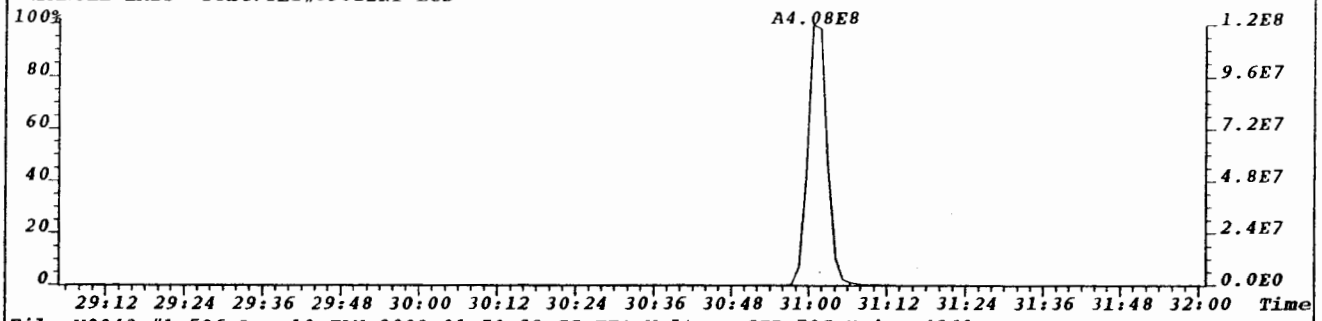

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
330.9792 S:7 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



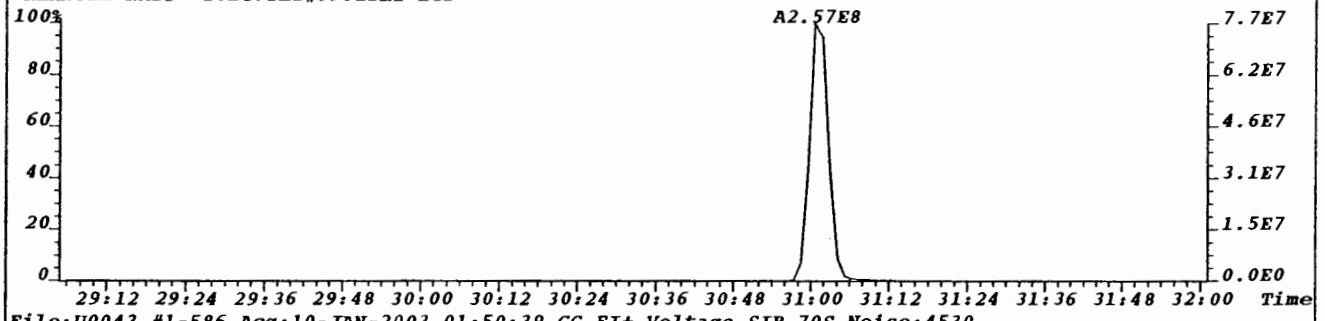

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
409.7974 S:7 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



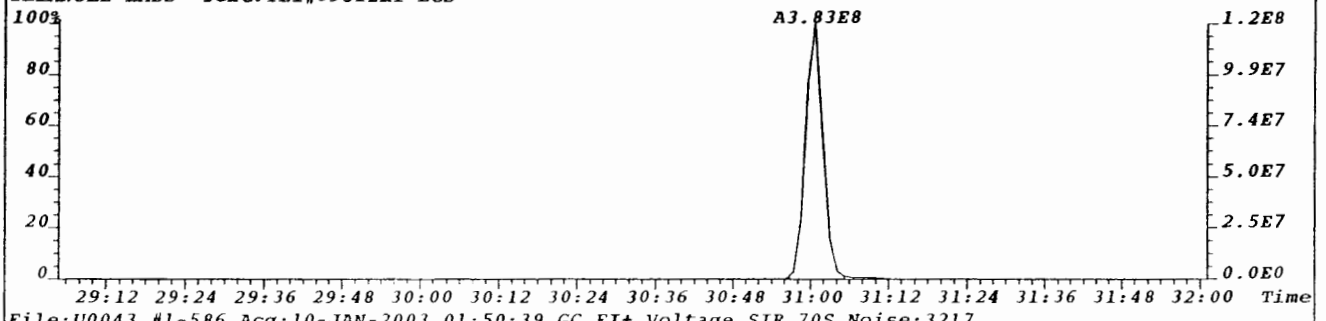
File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:4961
355.8546 S:7 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,19844.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



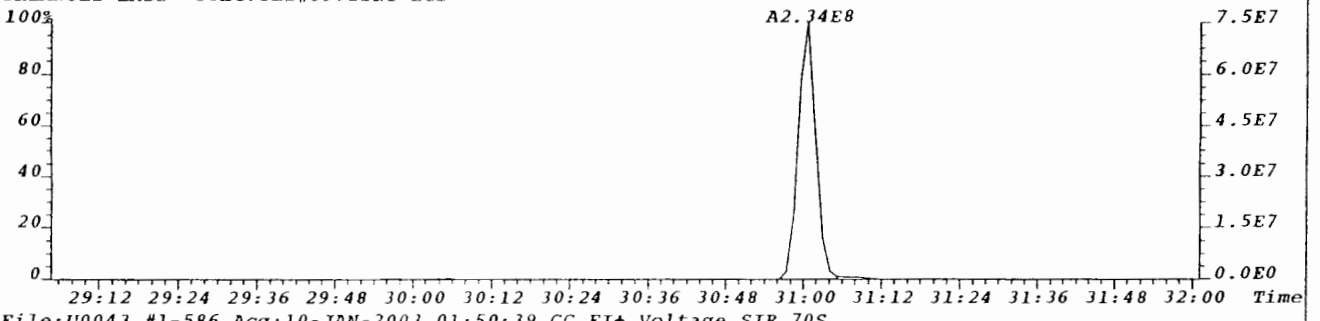

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:4362
357.8516 S:7 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17448.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



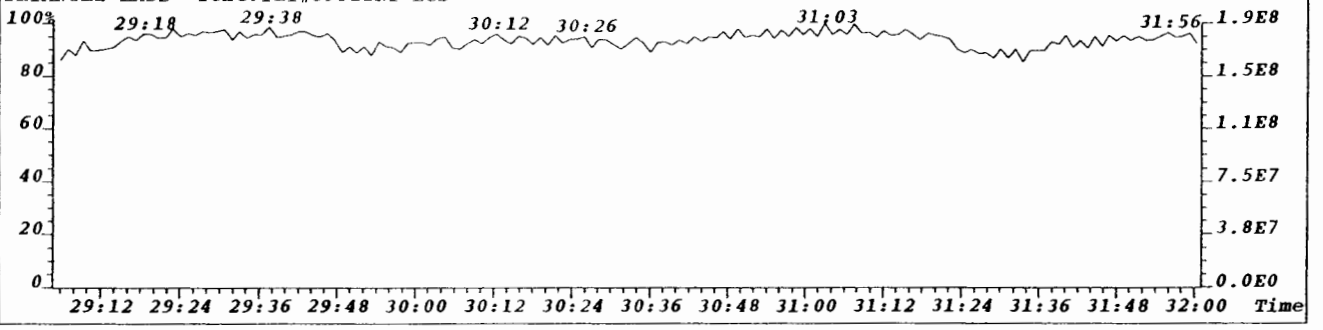

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:4530
367.8949 S:7 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,18120.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



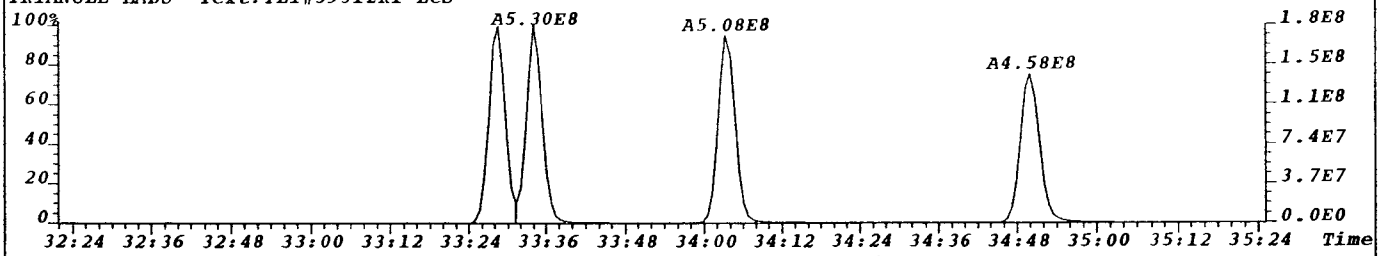

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:3217
369.8919 S:7 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,12868.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



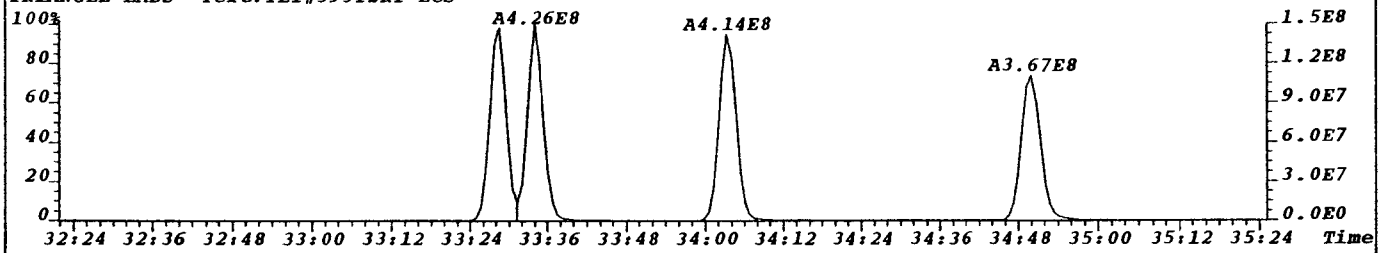

File:U0043 #1-586 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
330.9792 S:7 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



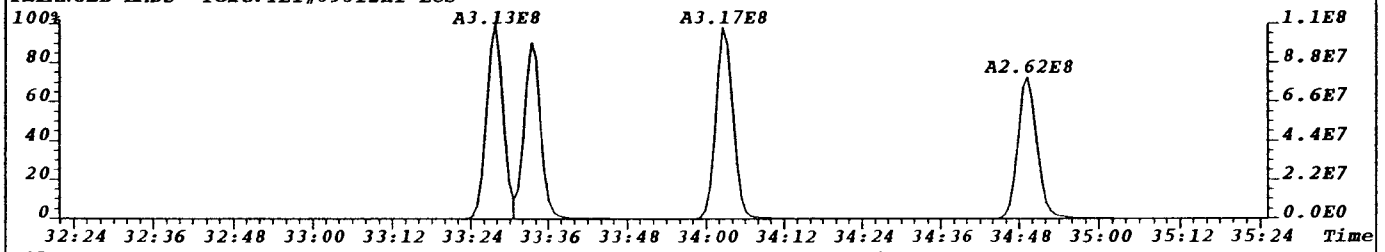
File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:16331
373.8208 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,65324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



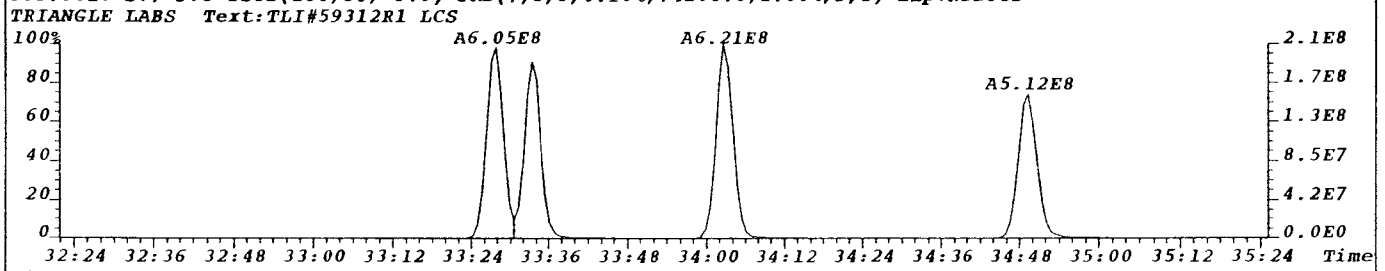

File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:10884
375.8178 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,43536.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



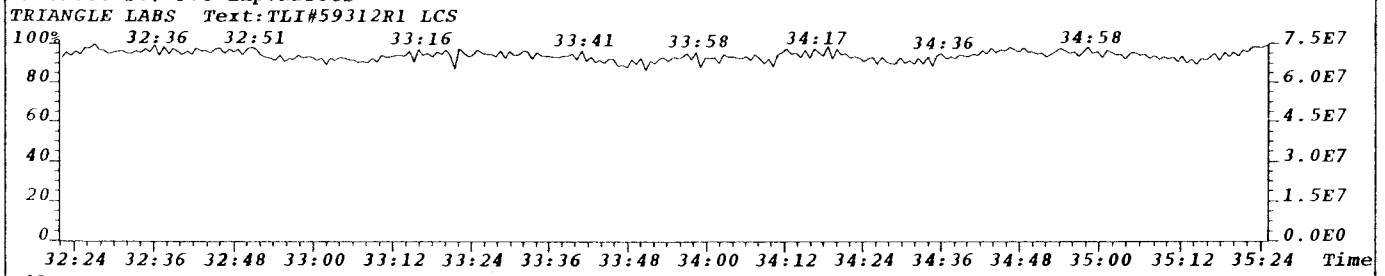

File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:7005
383.8639 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,28020.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



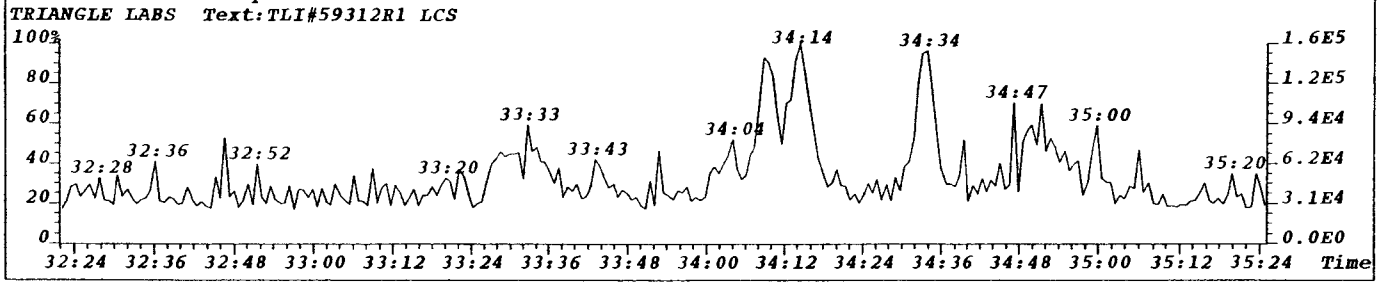

File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:18552
385.8610 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,74208.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS

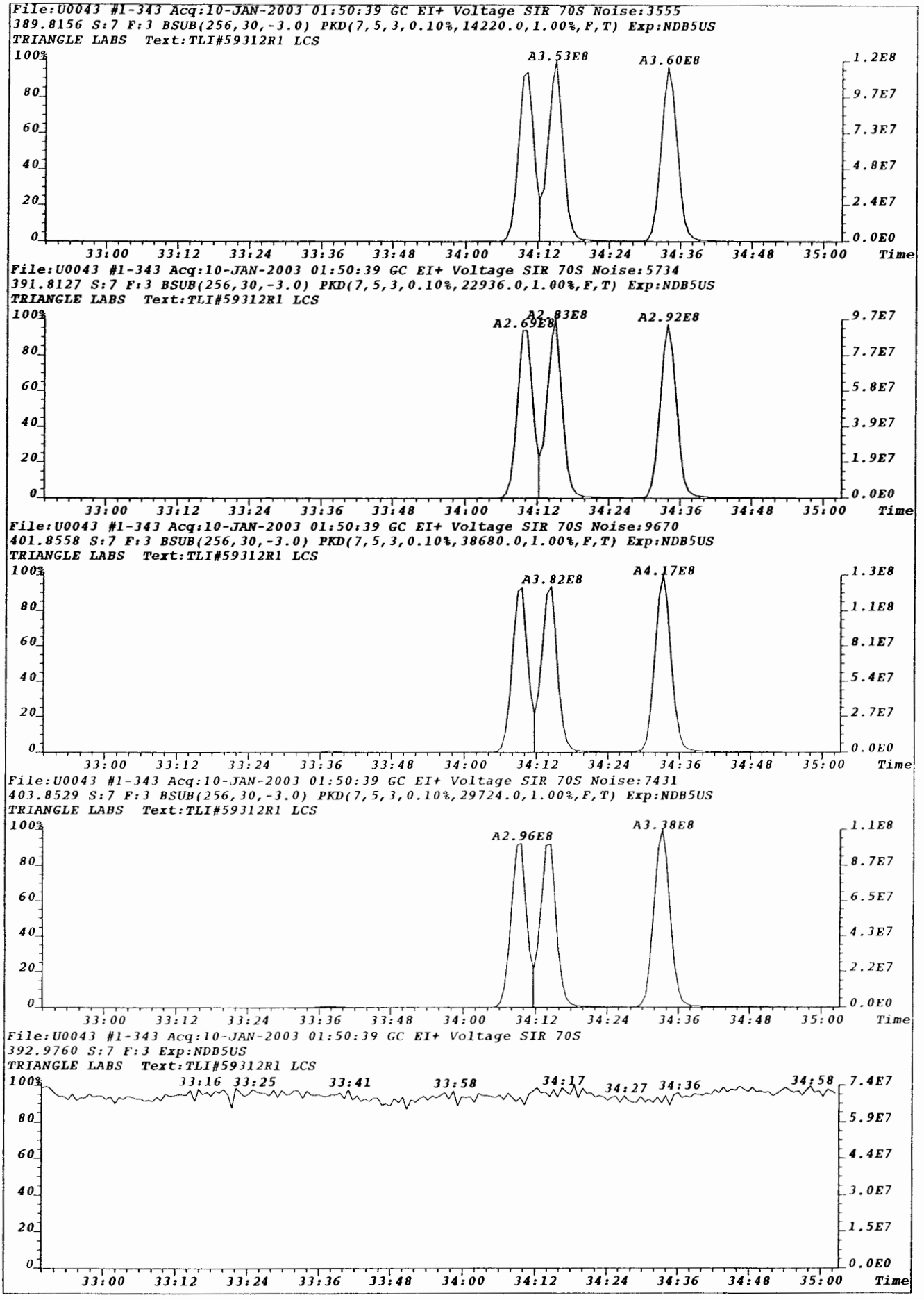



File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
392.9760 S:7 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS

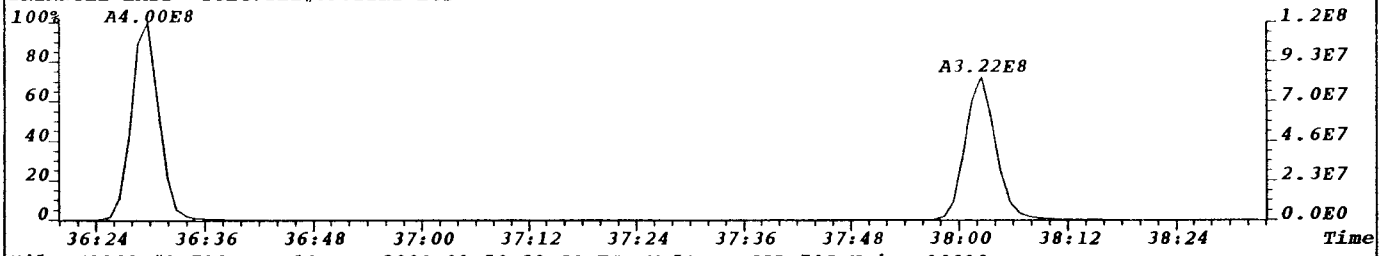



File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
445.7555 S:7 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS

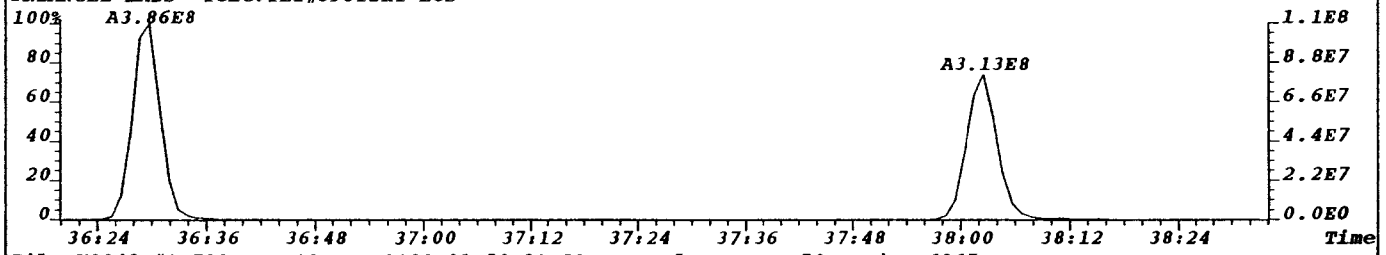



File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:3555
389.8156 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14220.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A3.53E8
A3.60E8
File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:5734
391.8127 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,22936.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A2.69E8
A2.83E8
A2.92E8
File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:9670
401.8558 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,38680.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A3.82E8
A4.17E8
File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:7431
403.8529 S:7 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,29724.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
A2.96E8
A3.38E8
File:U0043 #1-343 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
392.9760 S:7 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS
33:16
33:25
33:41
33:58
34:17
34:27
34:36
34:58
Time

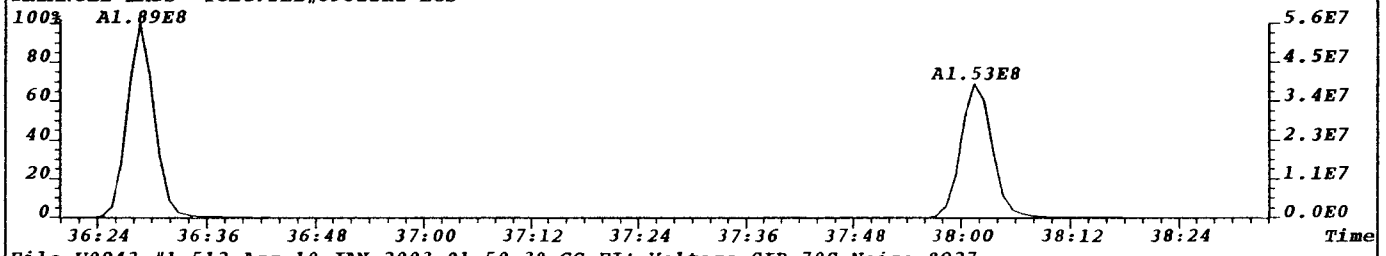
File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:10692
407.7818 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,42768.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



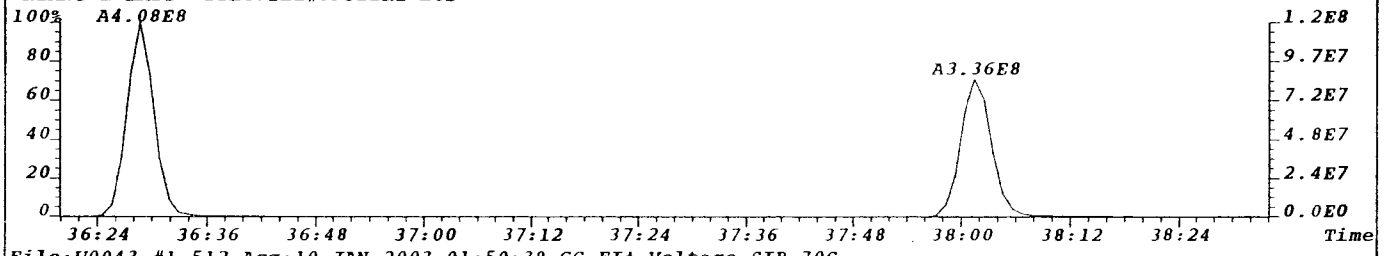

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:10010
409.7789 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,40040.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



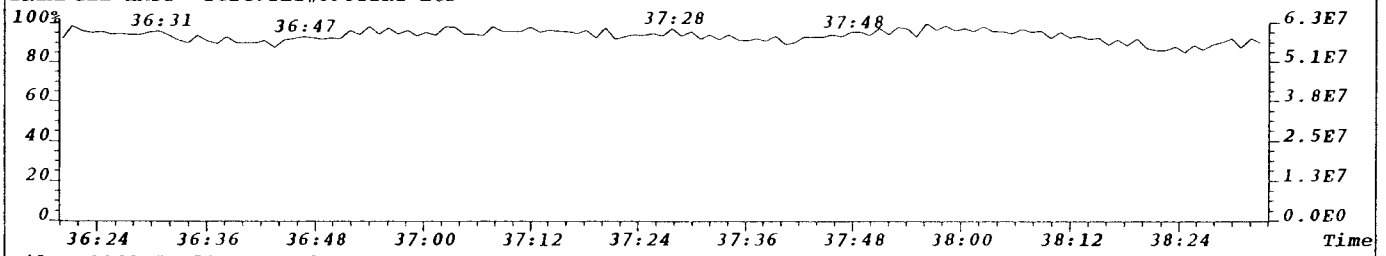

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:6965
417.8253 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27860.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



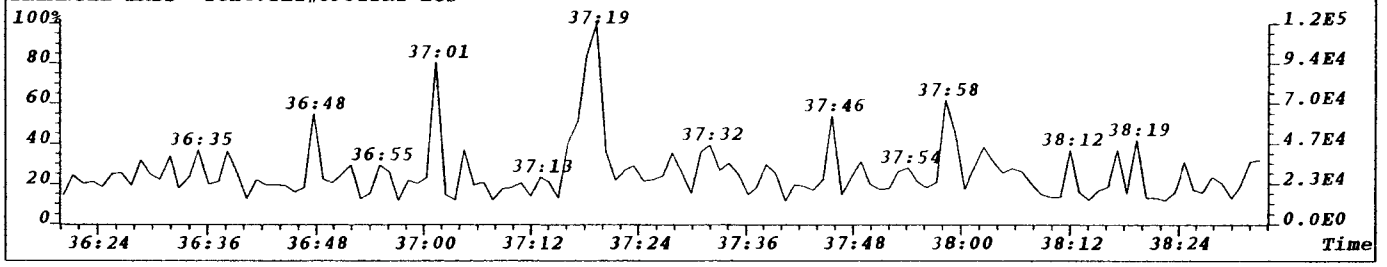

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:8927
419.8220 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,35708.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



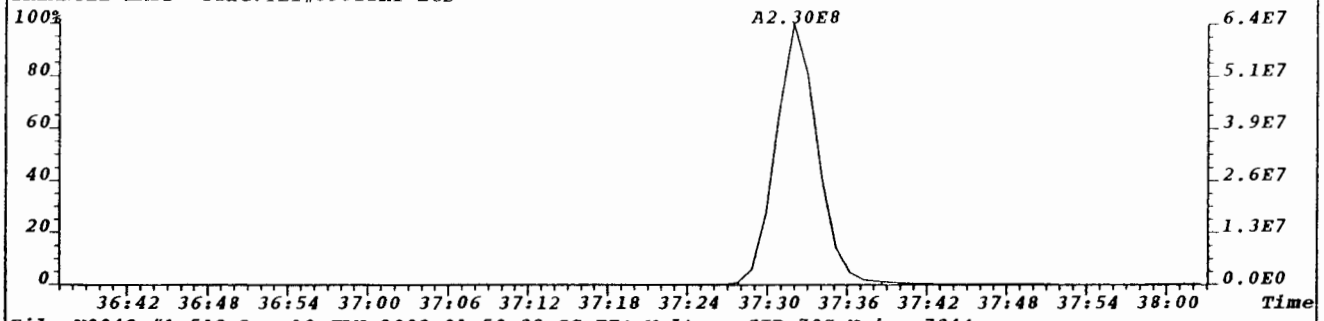

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
430.9729 S:7 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



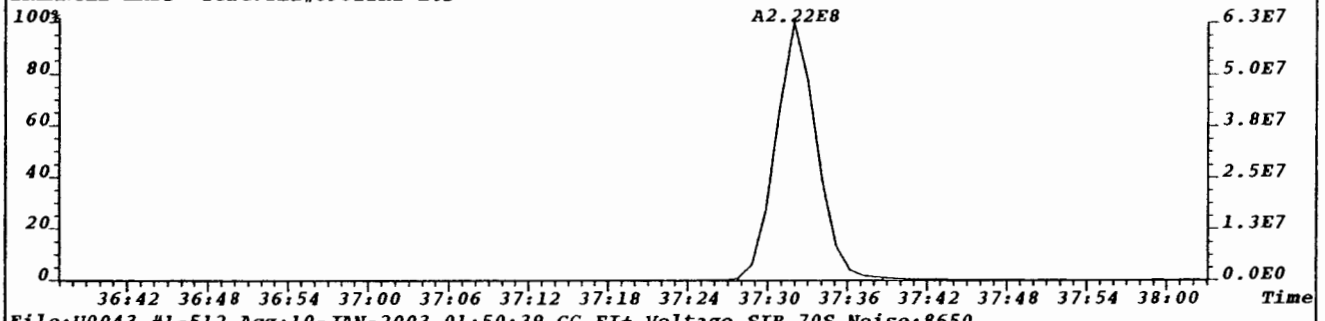

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
479.7165 S:7 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



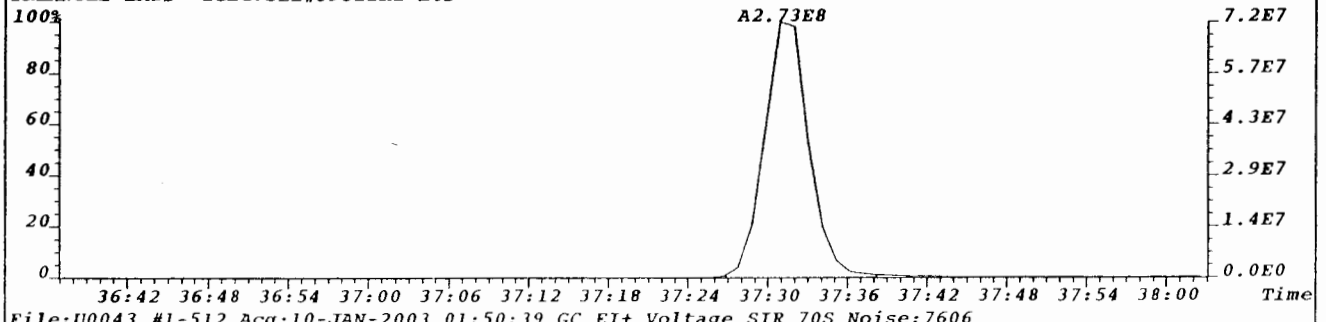
File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:7158
423.7766 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,28632.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



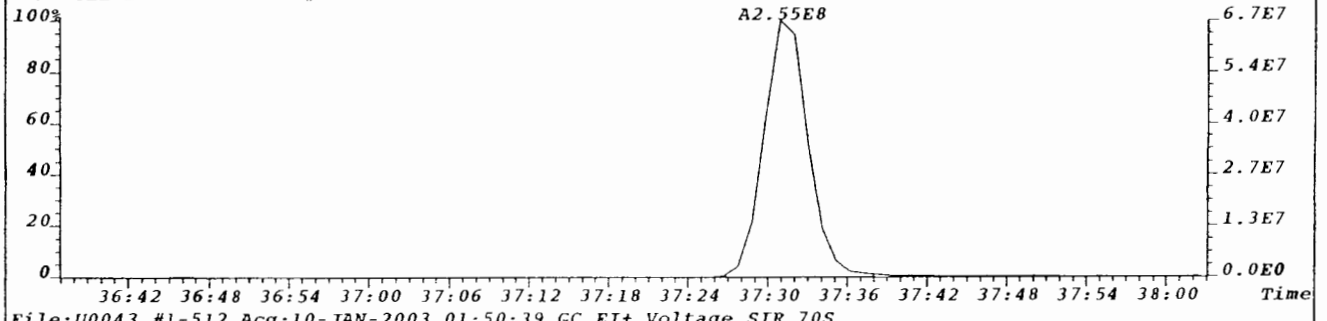

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:7344
425.7737 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,29376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



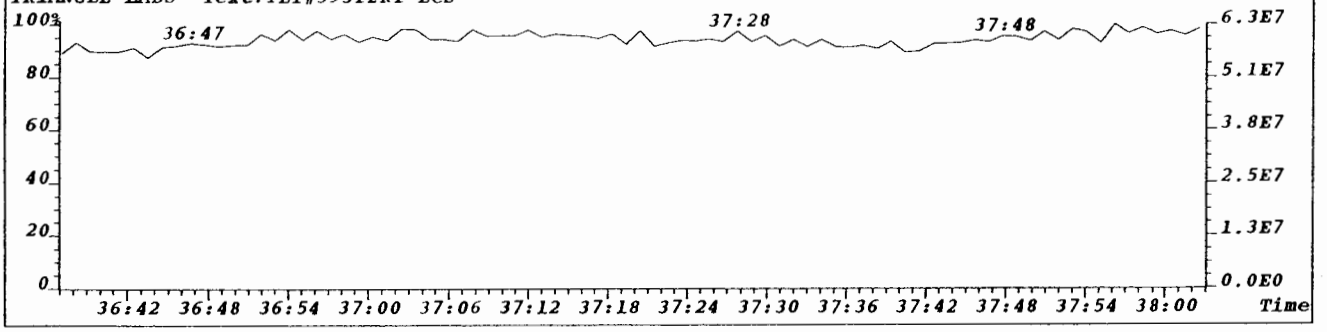

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:8650
435.8169 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,34600.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



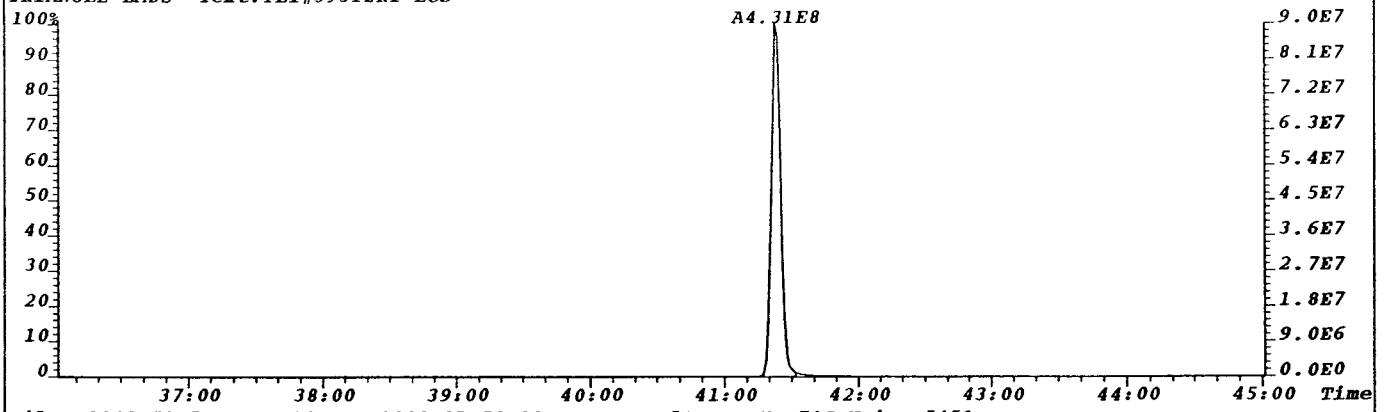

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:7606
437.8140 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,30424.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



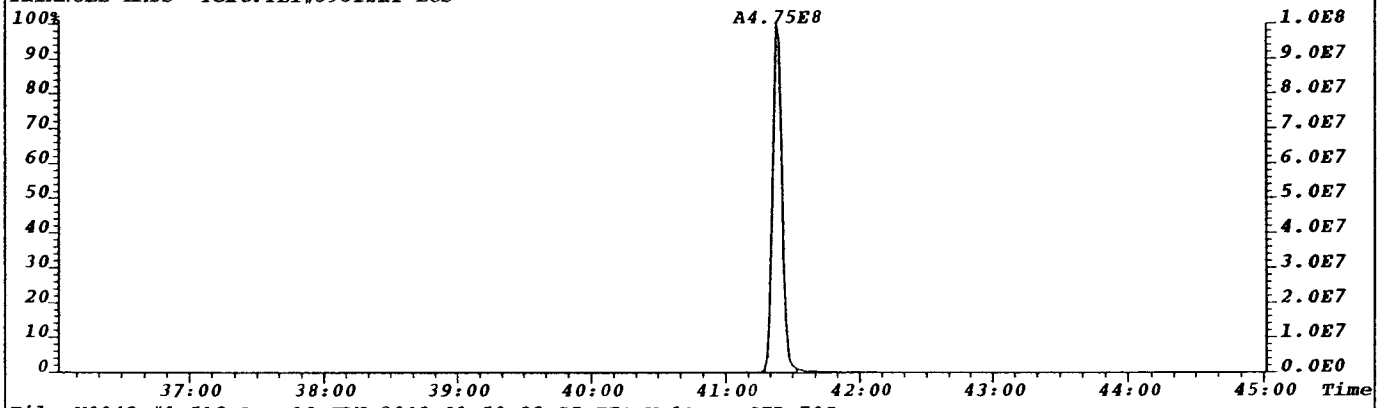

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
430.9729 S:7 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



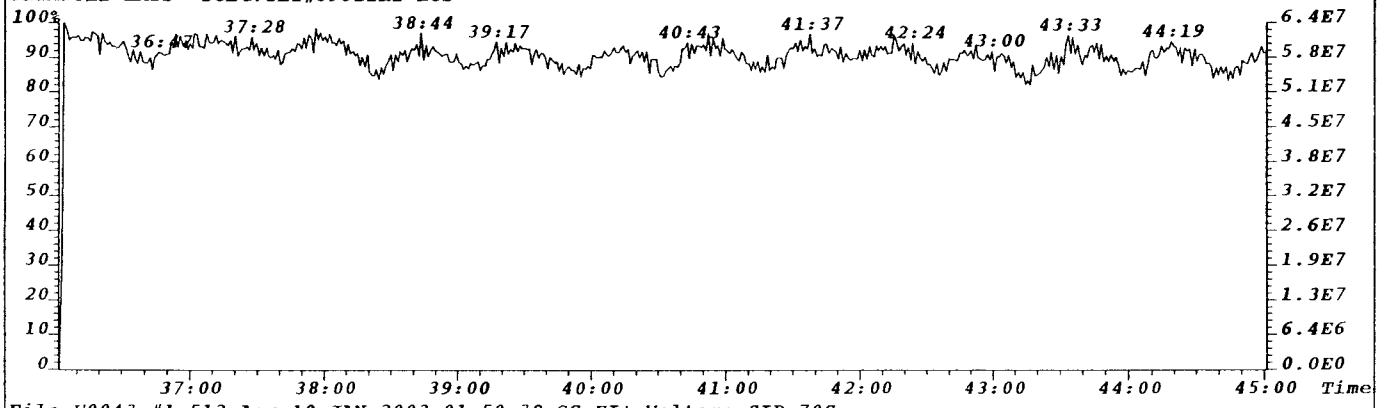
File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:4852
441.7428 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19408.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



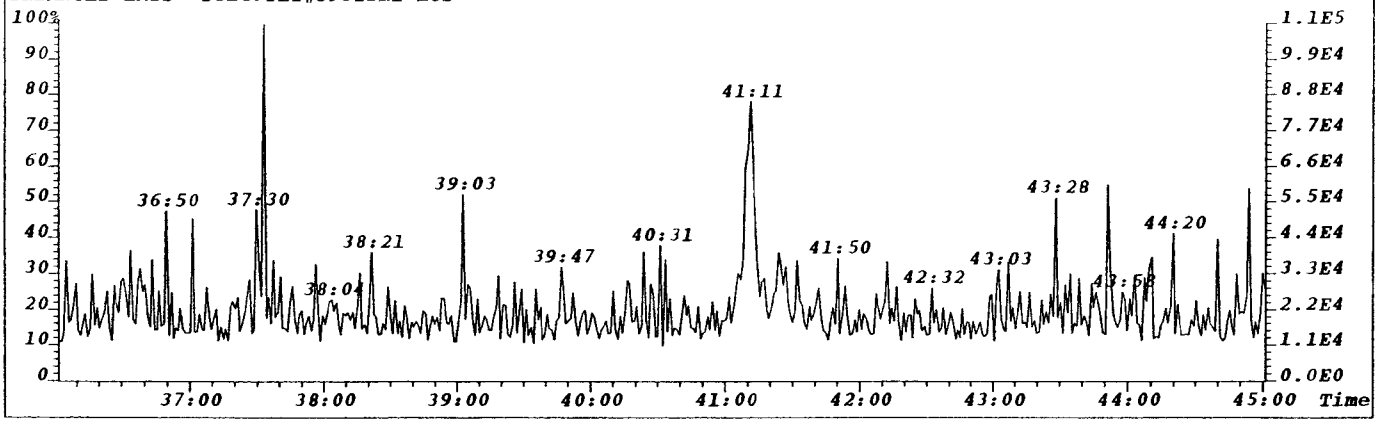

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:5452
443.7399 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21808.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



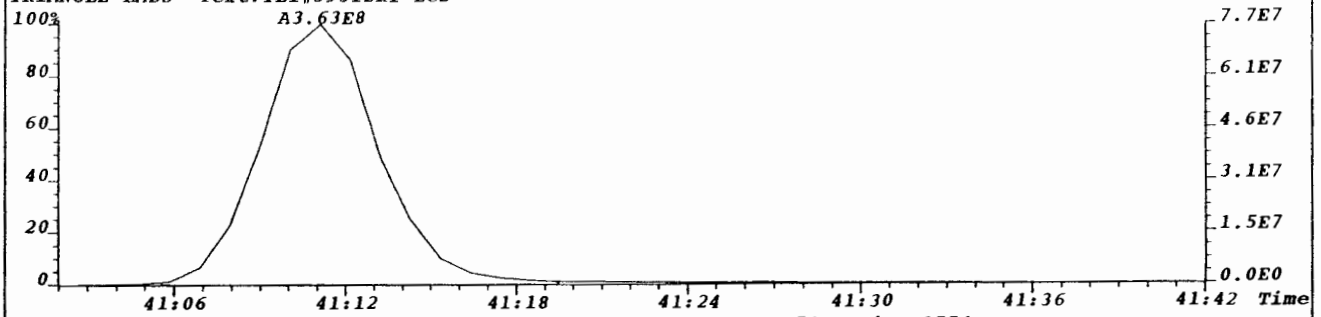

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
430.9729 S:7 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



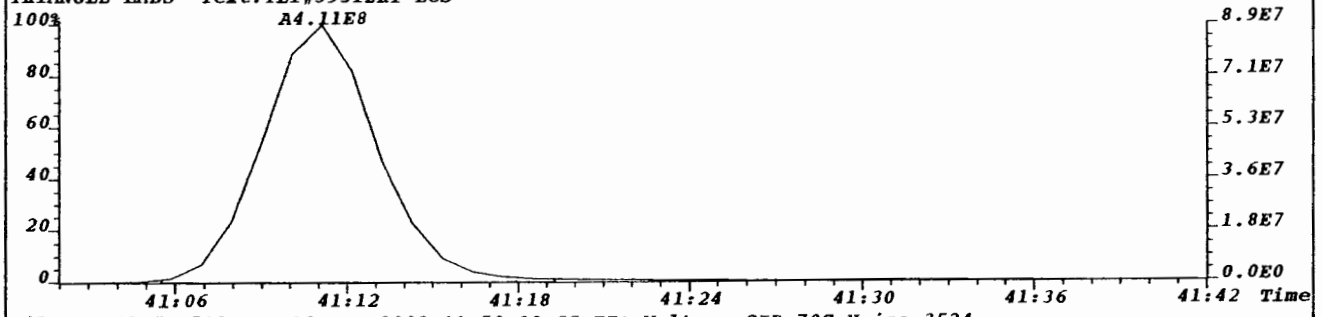

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
513.6775 S:7 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



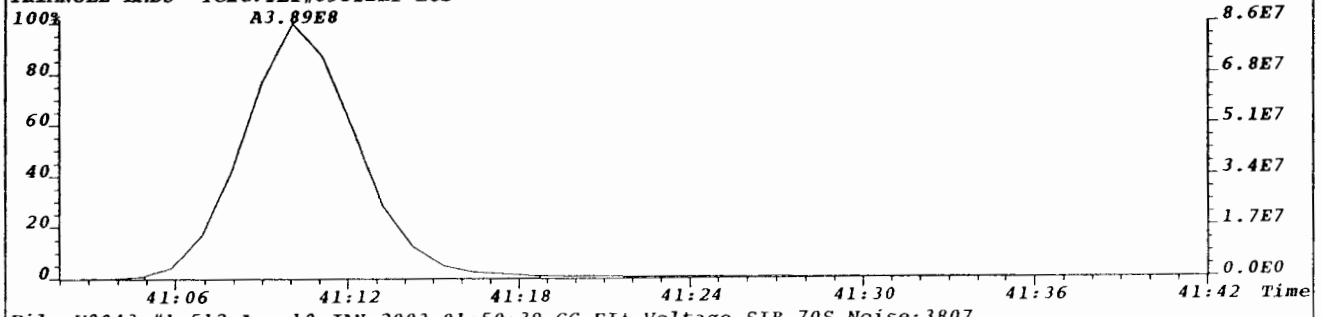
File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:3638
457.7377 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14552.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



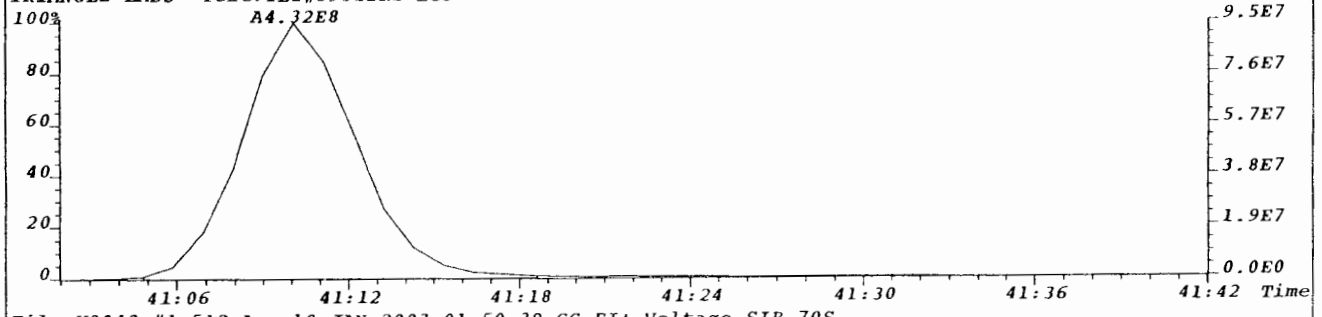

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:3754
459.7348 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15016.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS



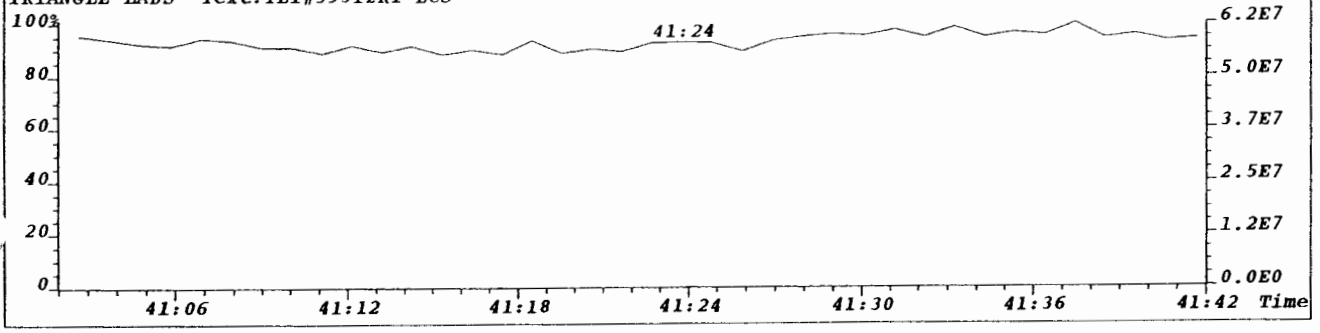

File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:3524
469.7779 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14096.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS

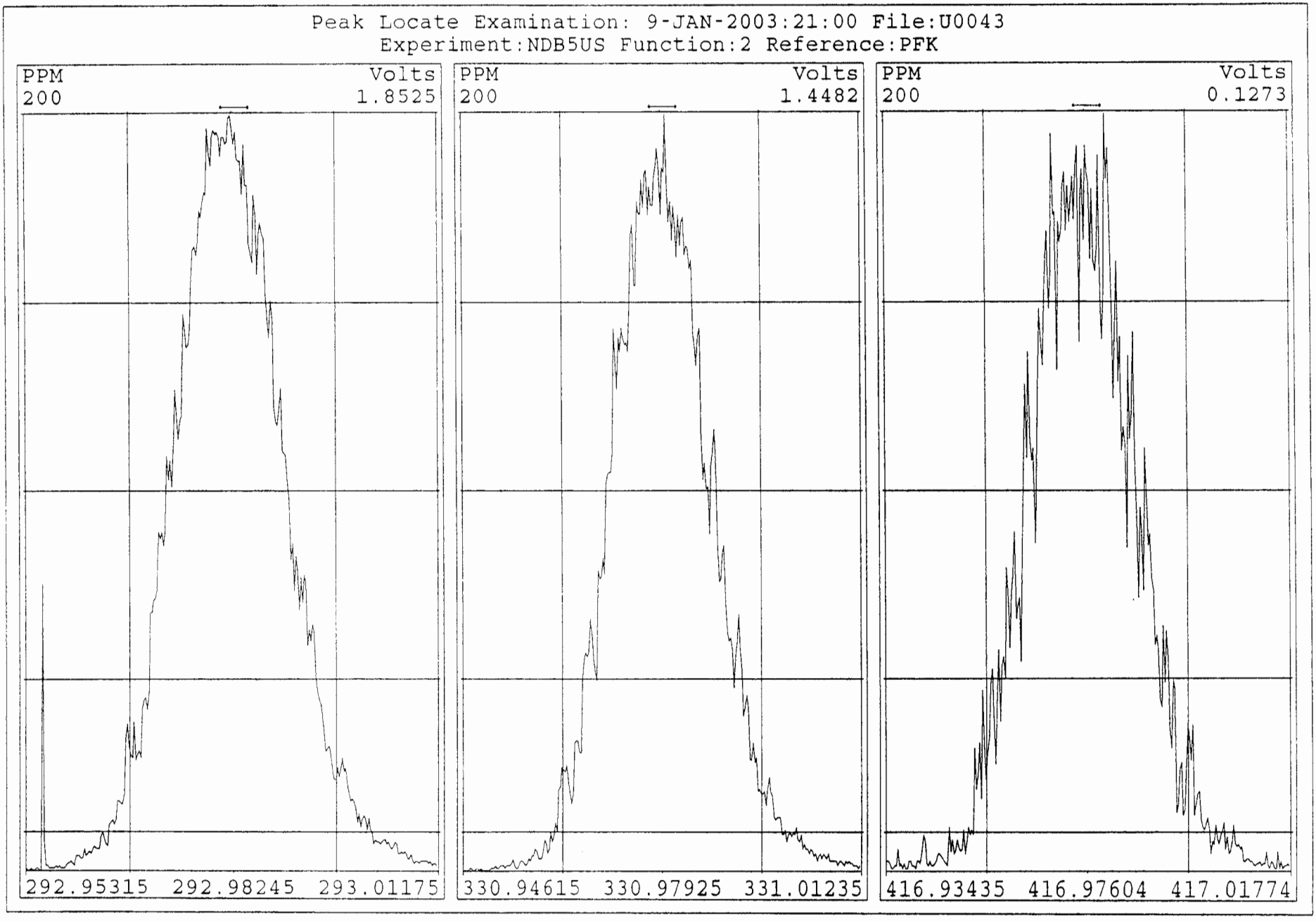



File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S Noise:3807
471.7750 S:7 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15228.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS




File:U0043 #1-512 Acq:10-JAN-2003 01:50:39 GC EI+ Voltage SIR 70S
430.9729 S:7 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCS




Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774

# Del Mar Analytical

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCSD** Analysis File: **U004308**

| | | | | | |
|---|---|---|---|---|---|
| Client Project: | **ILL1698** | | | | |
| Sample Matrix: | **WATER** | Date Received: | / / | Spike File: | **SPMIT32S** |
| TLI ID: | **TLI LCSD** | Date Extracted: | **01/08/2003** | ICal: | **UF57092** |
| | | Date Analyzed: | **01/10/2003** | ConCal: | **U030041** |
| Sample Size: | **1.000 L** | Dilution Factor: | **n/a** | % Moisture: | **n/a** |
| Dry Weight: | **n/a** | Blank File: | **U004301** | % Lipid: | **n/a** |
| GC Column: | **DB-5** | Analyst: | **IJD** | % Solids: | **n/a** |

| Analytes | Conc. (pg/L) | DL | EMPC | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 403 | | | 0.80 | 26:46 | |
| 1,2,3,7,8-PeCDD | 2020 | | | 1.58 | 31:01 | |
| 1,2,3,4,7,8-HxCDD | 1750 | | | 1.24 | 34:10 | |
| 1,2,3,6,7,8-HxCDD | 1800 | | | 1.24 | 34:15 | |
| 1,2,3,7,8,9-HxCDD | 1830 | | | 1.25 | 34:34 | |
| 1,2,3,4,6,7,8-HpCDD | 1780 | | | 1.04 | 37:32 | |
| 1,2,3,4,6,7,8,9-OCDD | 3590 | | | 0.89 | 41:11 | |
| 2,3,7,8-TCDF | 357 | | | 0.77 | 26:03 | |
| 1,2,3,7,8-PeCDF | 1770 | | | 1.55 | 29:59 | |
| 2,3,4,7,8-PeCDF | 1860 | | | 1.57 | 30:41 | |
| 1,2,3,4,7,8-HxCDF | 2140 | | | 1.25 | 33:28 | |
| 1,2,3,6,7,8-HxCDF | 2030 | | | 1.22 | 33:34 | |
| 2,3,4,6,7,8-HxCDF | 2260 | | | 1.23 | 34:03 | |
| 1,2,3,7,8,9-HxCDF | 2330 | | | 1.24 | 34:50 | |
| 1,2,3,4,6,7,8-HpCDF | 1950 | | | 1.03 | 36:29 | |
| 1,2,3,4,7,8,9-HpCDF | 2350 | | | 1.04 | 38:02 | |
| 1,2,3,4,6,7,8,9-OCDF | 3140 | | | 0.91 | 41:22 | |

| Internal Standards | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,7,8-TCDF | 1310 | 65.6 | 40%-135% | 0.80 | 26:02 | |
| $^{13}C_{12}$-2,3,7,8-TCDD | 1240 | 61.9 | 40%-135% | 0.79 | 26:45 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDF | 1740 | 87.0 | 40%-135% | 1.63 | 29:58 | |
| $^{13}C_{12}$-1,2,3,7,8-PeCDD | 1750 | 87.4 | 40%-135% | 1.62 | 31:00 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDF | 1580 | 78.9 | 40%-135% | 0.51 | 33:33 | |
| $^{13}C_{12}$-1,2,3,6,7,8-HxCDD | 1790 | 89.5 | 40%-135% | 1.25 | 34:14 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF | 1470 | 73.7 | 40%-135% | 0.47 | 36:28 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD | 1780 | 89.0 | 40%-135% | 1.08 | 37:32 | |
| $^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD | 4280 | 107 | 40%-135% | 0.90 | 41:10 | |



MIT3_PSR v1.00, LARS 6.25.05

**Triangle Laboratories, Inc.®**
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Phone: (919) 544-5729 • Fax: (919) 544-5491

Printed: 11:36 01/20/2003

TLI Project: **59312r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCSD** Analysis File: **U004308**

| Surrogate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-2,3,4,7,8-PeCDF | 1870 | 93.3 | 40%-135% | 1.60 | 30:40 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDF | 1540 | 77.2 | 40%-135% | 0.51 | 33:27 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8-HxCDD | 1920 | 96.2 | 40%-135% | 1.25 | 34:09 | ___ |
| $^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF | 1810 | 90.3 | 40%-135% | 0.46 | 38:01 | ___ |

| Other Standard | Conc. (pg/L) | % Recovery | QC Limits | RT | Flags |
|---|---|---|---|---|---|
| $^{37}Cl_4$-2,3,7,8-TCDD | 132 | 65.9 | 40%-135% | 26:46 | ___ |

| Alternate Standards (Type B) | Conc. (pg/L) | % Recovery | QC Limits | Ratio | RT | Flags |
|---|---|---|---|---|---|---|
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDF | 1910 | 95.4 | 40%-135% | 0.52 | 34:49 | ___ |
| $^{13}C_{12}$-2,3,4,6,7,8-HxCDF | 1920 | 96.1 | 40%-135% | 0.52 | 34:02 | ___ |

| Recovery Standards | Ratio | RT | Flags |
|---|---|---|---|
| $^{13}C_{12}$-1,2,3,4-TCDD | 0.80 | 26:33 | ___ |
| $^{13}C_{12}$-1,2,3,7,8,9-HxCDD | 1.24 | 34:33 | ___ |

Data Reviewer: _____ 01/20/2003



MIT3_PSR v1.00, LARS 6.25.05

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Printed: 11:36 01/20/2003

Initial ....Date...

Data Review By: [signature] 1/10/03

Channel specific noise levels computed from 'NL' heights.

Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U004308B.dbf
01/10/2003 Matched GC Peaks / Ratio / Ret. Time

| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDF | | | | | | 0.65-0.89 | | | | 0.873-1.074 | | | |
| 304-306 | DC | NL | | | | Height | 16.96 | 9.16 | 7.80 | | | | |
| | | | | 25:38 | | 0.77 | 519.24 | 225.09 | 294.15 | 0.985 | 1278-TCDF | AN | J |
| | | | | 26:03 | | 0.77 | 23,258.20 | 10,105.30 | 13,152.90 | 1.001 | 2378-TCDF | AN | |
| | | | | 27:08 | RO | 0.52 | 96.98 | 42.19 | 80.59 | 1.042 | | | J |
| 304-306 | | | 3 Peaks | | | | 23,874.42 | | | | | | |
| 13C12-TCDF | | | | | | 0.65-0.89 | | | | 0.962-1.038 | | | |
| 316-318 | DC | NL | | | | Height | 13.01 | 6.40 | 6.61 | | | | |
| | | | | 25:18 | | 0.79 | 219.59 | 96.79 | 122.80 | 0.972 | | | |
| | | | | 25:38 | | 0.87 | 914.39 | 426.31 | 488.08 | 0.985 | | | |
| | | | | 26:02 | | 0.80 | 115,558.00 | 51,182.00 | 64,376.00 | 1.000 | 13C12-2378-TCDF | ISO | |
| | | | | | | Height | 32,729.40 | 14,378.40 | 18,351.00 | | | | |
| 316-318 | | | 3 Peaks | | | | 116,691.98 | | | | | | |

---------- Above: TCDF / TCDD Follows ----------

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD | | | | | | 0.65-0.89 | | | | 0.900-1.043 | | | |
| 320-322 | DC | NL | | | | Height | 8.70 | 4.67 | 4.03 | | | | |
| | DC | SN | | 25:36 | RO | 1.45 | 27.63 | | | 0.957 | | | |
| | DC | SN | | 25:48 | RO | 1.28 | 16.48 | | | 0.964 | | | |
| | | | | 26:02 | RO | 2.33 | 83.38 | 109.76 | 47.11 | 0.973 | | | J |
| | | | | 26:46 | | 0.80 | 18,254.62 | 8,125.82 | 10,128.80 | 1.001 | 2378-TCDD | AN | |
| | DC | SN | | 27:04 | RO | 1.30 | 39.06 | | | 1.012 | | | |
| | DC | SN | | 27:23 | | 0.69 | 22.75 | | | 1.024 | | | |
| 320-322 | | | 2 Peaks | | | | 18,338.00 | | | | | | |
| 37Cl-TCDD | | | | | | | | | | 0.925-1.075 | | | |
| 328 | DC | NL | | | | Height | 4.12 | 4.12 | | | | | |
| | DC | WL | | 24:21 | | | 14.27 | | | 0.910 | | | |
| | DC | SN | | 24:50 | | | 3.72 | | | 0.928 | | | |
| | DC | SN | | 25:06 | | | 11.33 | | | 0.938 | | | |
| | | | | 25:24 | | | 117.61 | 117.61 | | 0.950 | | | |
| | DC | SN | | 25:36 | | | 14.34 | | | 0.957 | | | |
| | | | | 26:02 | | | 28.62 | 28.62 | | 0.973 | | | |
| | DC | SN | | 26:14 | | | 15.97 | | | 0.981 | | | |
| | | | | 26:46 | | | 8,679.62 | 8,679.62 | | 1.001 | 37Cl-TCDD | CLS | |
| | | | | 27:05 | | | 25.16 | 25.16 | | 1.012 | | | |
| | DC | SN | | 27:22 | | | 13.53 | | | 1.023 | | | |
| | DC | SN | | 27:35 | | | 17.36 | | | 1.031 | | | |
| 328 | | | 4 Peaks | | | | 8,851.01 | | | | | | |
| 13C12-TCDD | | | | | | 0.65-0.89 | | | | 0.925-1.075 | | | |
| 332-334 | DC | NL | | | | Height | 37.85 | 24.87 | 12.98 | | | | |

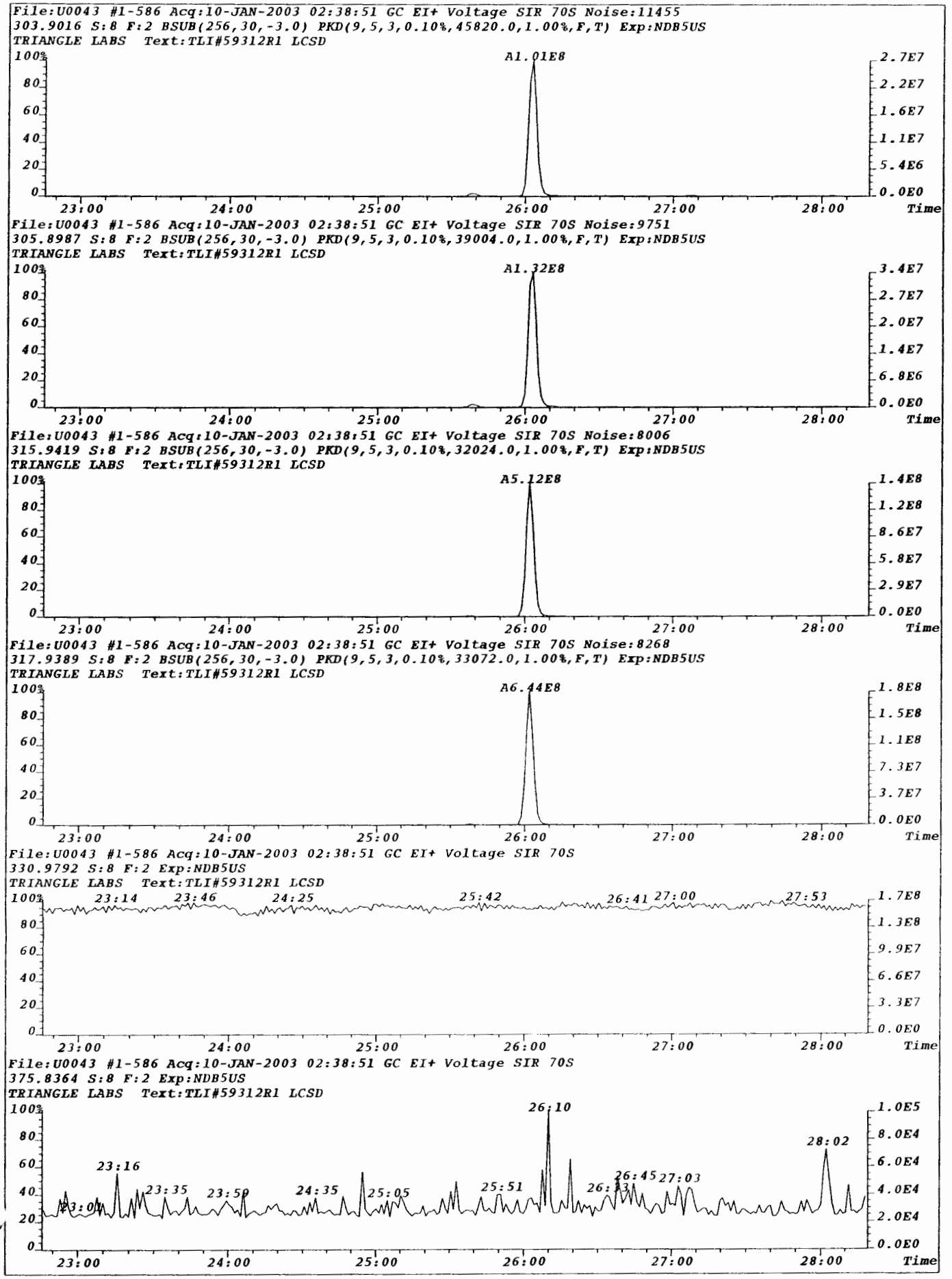
| Compound/ M_Z.... | QC.Log | Omit | Why | RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 26:33 | | 0.80 | 109,819.40 | 48,930.70 | 60,888.70 | 0.993 | 13C12-1234-TCDD | RS1 | |
| | | | | 26:45 | | 0.79 | 76,780.50 | 33,992.80 | 42,787.70 | 1.000 | 13C12-2378-TCDD | IS1 | |
| | | | | | Height | | 21,342.29 | 9,479.69 | 11,862.60 | | | | |
| 332-334 | | | 2 Peaks | | | | 186,599.90 | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | | | | | |
| PeCDF | | | | | 1.32-1.78 | | | | | 0.928-1.061 | | | |
| 340-342 | DC | NL | | | Height | | 9.53 | 4.79 | 4.74 | | | | |
| | | | | 29:08 | | 1.62 | 479.44 | 296.17 | 183.27 | 0.972 | | | J |
| | | | | 29:37 | | 1.39 | 331.80 | 193.11 | 138.69 | 0.988 | | | J |
| | | | | 29:59 | | 1.55 | 118,867.60 | 72,184.90 | 46,682.70 | 1.001 | 12378-PeCDF | AN | |
| | | | | 30:16 | | 1.56 | 1,644.24 | 1,002.77 | 641.47 | 1.010 | | | J |
| | | | | 30:41 | | 1.57 | 122,249.80 | 74,683.50 | 47,566.30 | 1.024 | 23478-PeCDF | AN | |
| | | | | 31:39 | RO | 1.90 | 286.93 | 214.00 | 112.52 | 1.056 | | | J |
| 340-342 | | | 6 Peaks | | | | 243,859.81 | | | | | | |
| 13C12-PeCDF | | | | | 1.32-1.78 | | | | | 0.867-1.133 | | | |
| 352-354 | DC | NL | | | Height | | 7.88 | 3.85 | 4.03 | | | | |
| | | | | 29:08 | RO | 1.94 | 436.25 | 331.68 | 171.08 | 0.972 | | | |
| | | | | 29:58 | | 1.63 | 106,607.60 | 66,067.30 | 40,540.30 | 1.000 | 13C12-PeCDF 123 | IS2 | |
| | | | | | Height | | 31,766.00 | 19,440.20 | 12,325.80 | | | | |
| | | | | 30:16 | | 1.60 | 1,254.77 | 771.24 | 483.53 | 1.010 | | | |
| | | | | 30:40 | | 1.60 | 114,670.80 | 70,534.70 | 44,136.10 | 1.023 | 13C12-PeCDF 234 | SUR1 | |
| | | | | 30:59 | RO | 0.99 | 220.44 | 133.99 | 134.94 | 1.034 | | | |
| | | | | 31:38 | | 1.52 | 1,294.34 | 781.63 | 512.71 | 1.056 | | | |
| 352-354 | | | 6 Peaks | | | | 224,484.20 | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | | | | | |
| PeCDD | | | | | 1.32-1.78 | | | | | 0.937-1.021 | | | |
| 356-358 | DC | NL | | | Height | | 6.58 | 3.53 | 3.05 | | | | |
| | | | | 29:58 | | 1.48 | 138.68 | 82.80 | 55.88 | 0.967 | | | J |
| | | | | 30:16 | | 1.38 | 199.40 | 115.49 | 83.91 | 0.976 | | | J |
| | | | | 30:40 | | 1.41 | 105.21 | 61.62 | 43.59 | 0.989 | | | J |
| | | | | 31:01 | | 1.58 | 72,617.20 | 44,440.60 | 28,176.60 | 1.001 | 12378-PeCDD | AN | |
| 356-358 | | | 4 Peaks | | | | 73,060.49 | | | | | | |
| 13C12-PeCDD | | | | | 1.32-1.78 | | | | | 0.871-1.129 | | | |
| 368-370 | DC | NL | | | Height | | 5.63 | 3.46 | 2.17 | | | | |
| | | | | 29:56 | | 1.39 | 156.77 | 91.19 | 65.58 | 0.966 | | | |
| | | | | 30:04 | | 1.57 | 266.30 | 162.85 | 103.45 | 0.970 | | | |
| | | | | 30:15 | RO | 0.75 | 52.99 | 32.21 | 42.84 | 0.976 | | | |
| | | | | 31:00 | | 1.62 | 63,826.10 | 39,465.60 | 24,360.50 | 1.000 | 13C12-PeCDD 123 | IS3 | |
| | | | | | Height | | 20,877.47 | 12,789.80 | 8,087.67 | | | | |
| 368-370 | | | 4 Peaks | | | | 64,302.16 | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | | | | | |
| HxCDF | | | | | 1.05-1.43 | | | | | 0.964-1.045 | | | |
| 374-376 | DC | NL | | | Height | | 17.37 | 9.85 | 7.52 | | | | |
| | | | | 32:39 | | 1.34 | 196.70 | 112.69 | 84.01 | 0.973 | | | J |

| Compound/ ... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 33:28 | | 1.25 | 113,838.30 | 63,150.80 | 50,687.50 | 0.998 | 123478-HxCDF | AN | |
| | | | | 33:34 | | 1.22 | 113,466.80 | 62,431.80 | 51,035.00 | 1.000 | 123678-HxCDF | AN | |
| | | | | 34:03 | | 1.23 | 109,967.70 | 60,697.20 | 49,270.50 | 1.015 | 234678-HxCDF | AN | |
| | | | | 34:50 | | 1.24 | 93,281.70 | 51,558.90 | 41,722.80 | 1.038 | 123789-HxCDF | AN | |
| 374-376 | | | 5 Peaks | | | | 430,751.20 | | | | | | |
| 13C12-HxCDF | | | | 0.43-0.59 | | | | | 0.881-1.119 | | | | |
| 384-386 | DC | NL | | Height | | | 12.23 | 4.97 | 7.26 | | | | |
| | | | | 33:27 | | 0.51 | 91,329.40 | 30,651.00 | 60,678.40 | 0.997 | 13C12-HxCDF 478 | SUR2 | |
| | | | | 33:33 | | 0.51 | 93,083.70 | 31,316.10 | 61,767.60 | 1.000 | 13C12-HxCDF 678 | IS4 | |
| | | | | Height | | | 31,674.40 | 10,312.70 | 21,361.70 | | | | |
| | | | | 34:02 | | 0.52 | 104,291.50 | 35,640.60 | 68,650.90 | 1.014 | 13C12-HxCDF 234 | ALT2 | |
| | | | | 34:49 | | 0.52 | 82,234.00 | 28,046.90 | 54,187.10 | 1.038 | 13C12-HxCDF 789 | ALT1 | |
| 384-386 | | | 4 Peaks | | | | 370,938.60 | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | | | | | |
| HxCDD | | | | 1.05-1.43 | | | | | 0.958-1.013 | | | | |
| 390-392 | DC | NL | | Height | | | 7.17 | 3.54 | 3.63 | | | | |
| | | | | 33:27 | RO | 2.04 | 90.25 | 82.08 | 40.29 | 0.977 | | | J |
| | | | | 34:10 | | 1.24 | 70,573.90 | 39,016.10 | 31,557.80 | 0.998 | 123478-HxCDD | AN | |
| | | | | 34:15 | | 1.24 | 73,969.20 | 40,893.60 | 33,075.60 | 1.000 | 123678-HxCDD | AN | |
| | | | | 34:34 | | 1.25 | 72,983.30 | 40,614.30 | 32,369.00 | 1.010 | 123789-HxCDD | AN | |
| | DC | WH | | 34:48 | RO | 0.71 | 236.54 | | | 1.017 | | | |
| 390-392 | | | 4 Peaks | | | | 217,616.65 | | | | | | |
| 13C12-HxCDD | | | | 1.05-1.43 | | | | | 0.971-1.029 | | | | |
| 402-404 | DC | NL | | Height | | | 15.13 | 7.62 | 7.5 | | | | |
| | | | | 33:38 | | 1.16 | 568.71 | 304.98 | 263.73 | 0.982 | | | |
| | | | | 34:09 | | 1.25 | 72,175.30 | 40,059.30 | 32,116.00 | 0.998 | 13C12-HxCDD 478 | SUR3 | |
| | | | | 34:14 | | 1.25 | 74,282.20 | 41,296.90 | 32,985.30 | 1.000 | 13C12-HxCDD 678 | IS5 | |
| | | | | Height | | | 24,892.70 | 13,861.30 | 11,031.40 | | | | |
| | | | | 34:33 | | 1.24 | 79,869.30 | 44,251.00 | 35,618.30 | 1.009 | 13C12-HxCDD 789 | RS2 | |
| 402-404 | | | 4 Peaks | | | | 226,895.51 | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | | | | | |
| HpCDF | | | | 0.88-1.20 | | | | | 0.995-1.047 | | | | |
| 408-410 | DC | NL | | Height | | | 14.57 | 6.71 | 7.86 | | | | |
| | | | | 36:29 | | 1.03 | 87,085.70 | 44,226.70 | 42,859.00 | 1.000 | 1234678-HpCDF | AN | |
| | | | | 38:02 | | 1.04 | 74,418.40 | 37,864.40 | 36,554.00 | 1.043 | 1234789-HpCDF | AN | |
| 408-410 | | | 2 Peaks | | | | 161,504.10 | | | | | | |
| 13C12-HpCDF | | | | 0.37-0.51 | | | | | 0.945-1.110 | | | | |
| 418-420 | DC | NL | | Height | | | 9.02 | 4.31 | 4.71 | | | | |
| | | | | 36:28 | | 0.47 | 61,842.20 | 19,742.90 | 42,099.30 | 1.000 | 13C12-HpCDF 678 | IS6 | |
| | | | | Height | | | 18,569.95 | 5,972.25 | 12,597.70 | | | | |
| | | | | 38:01 | | 0.46 | 53,208.60 | 16,775.90 | 36,432.70 | 1.043 | 13C12-HpCDF 789 | SUR4 | |
| 418-420 | | | 2 Peaks | | | | 115,050.80 | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | | | | | |

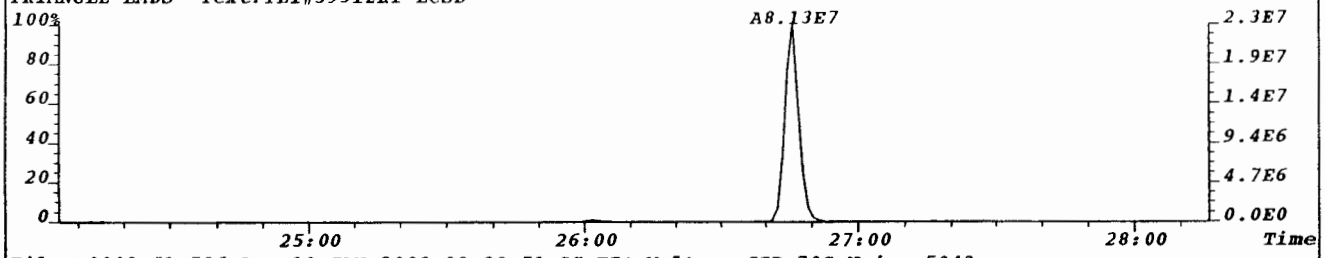
| Compound/ M_Z.... | QC.Log | Omit | Why | ..RT. | OK | Ratio | Total.Area/Ht | Area/Ht.Peak1 | Area/Ht.Peak2 | Rel.RT | Compound.Name.. | ID.. | Flags. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HpCDD | | | | | | 0.88-1.20 | | | | 0.975-1.004 | | | |
| 424-426 | DC | NL | | | | Height | 9.83 | 4.31 | 5.52 | | | | |
| | | | | 36:45 | | 1.05 | 70.33 | 36.05 | 34.28 | 0.979 | | | J |
| | | | | 37:32 | | 1.04 | 51,620.60 | 26,254.70 | 25,365.90 | 1.000 | 1234678-HpCDD | AN | |
| | DC | WH | | 38:01 | RO | 2.29 | 70.99 | | | 1.013 | | | |
| 424-426 | | | 2 Peaks | | | | 51,690.93 | | | | | | |
| 13C12-HpCDD | | | | | | 0.88-1.20 | | | | 0.973-1.027 | | | |
| 436-438 | DC | NL | | | | Height | 14.11 | 7.74 | 6.37 | | | | |
| | | | | 36:46 | RO | 1.34 | 79.01 | 51.82 | 38.73 | 0.980 | | | |
| | | | | 37:32 | | 1.08 | 57,497.30 | 29,843.10 | 27,654.20 | 1.000 | 13C12-HpCDD 678 | IS7 | |
| | | | | | | Height | 14,788.43 | 7,670.42 | 7,118.01 | | | | |
| 436-438 | | | 2 Peaks | | | | 57,576.31 | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---------- | | | | | | | | | | | | | |
| OCDF | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 442-444 | DC | NL | | | | Height | 7.92 | 3.60 | 4.32 | | | | |
| | | | | 41:22 | | 0.91 | 109,505.00 | 52,239.50 | 57,265.50 | 1.005 | OCDF | AN | |
| 442-444 | | | 1 Peak | | | | 109,505.00 | | | | | | |
| OCDD | | | | | | 0.76-1.02 | | | | 0.903-1.097 | | | |
| 458-460 | DC | NL | | | | Height | 5.18 | 2.78 | 2.40 | | | | |
| | | | | 41:11 | | 0.89 | 92,925.50 | 43,813.40 | 49,112.10 | 1.000 | OCDD | AN | |
| 458-460 | | | 1 Peak | | | | 92,925.50 | | | | | | |
| 13C12-OCDD | | | | | | 0.76-1.02 | | | | 0.996-1.004 | | | |
| 470-472 | DC | NL | | | | Height | 4.58 | 2.23 | 2.35 | | | | |
| | | | | 41:10 | | 0.90 | 93,516.00 | 44,418.30 | 49,097.70 | 1.000 | 13C12-OCDD | IS8 | |
| | | | | | | Height | 21,242.39 | 9,991.79 | 11,250.60 | | | | |
| 470-472 | | | 1 Peak | | | | 93,516.00 | | | | | | |

| Column Description | "Why" Code Description | QC Log Desc |
|---|---|---|
| M_Z -Nominal Ion Mass(es) | WL-Below Retention Time Window | A-Peak Added |
| ..RT. -Retention Time (mm:ss) | WH-Above Retention Time Window | K-Peak Kept |
| Rat.1 -Ratio of M/M+2 Ions | SN-Below Signal to Noise Level | D-Peak Deleted |
| OK -RO=Ratio Outside Limits | <M-Below Method Detection Limit | T-Time Changed |
| Rel.RT-Relative Retention Time | NL-Channel Specific Noise Level | M-Peak Area Changed |
| | | N-Name Changed |
| | | X-Ether Interference |

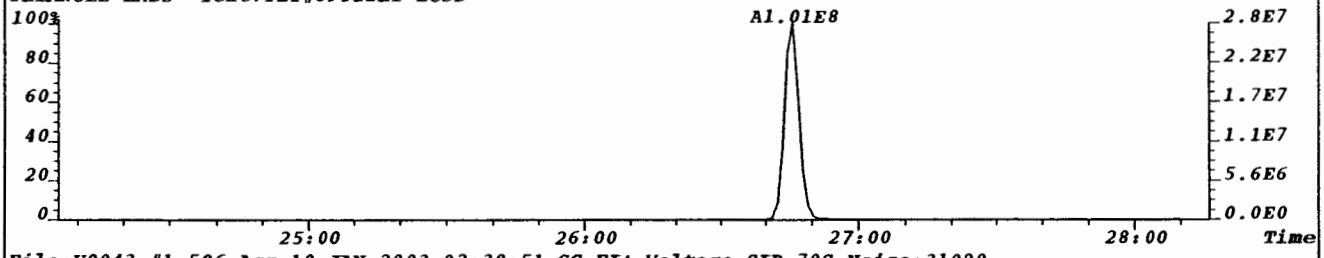
*** End of Report ***


File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:11455
303.9016 S:8 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,45820.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A1.01E8
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9751
305.8987 S:8 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,39004.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A1.32E8
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:8006
315.9419 S:8 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,32024.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A5.12E8
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:8268
317.9389 S:8 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,33072.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A6.44E8
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
330.9792 S:8 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
23:14
23:46
24:25
25:42
26:41
27:00
27:53
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
375.8364 S:8 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
26:10
23:16
23:35
23:50
24:35
25:05
25:51
26:33
26:45
27:03
28:02
Time

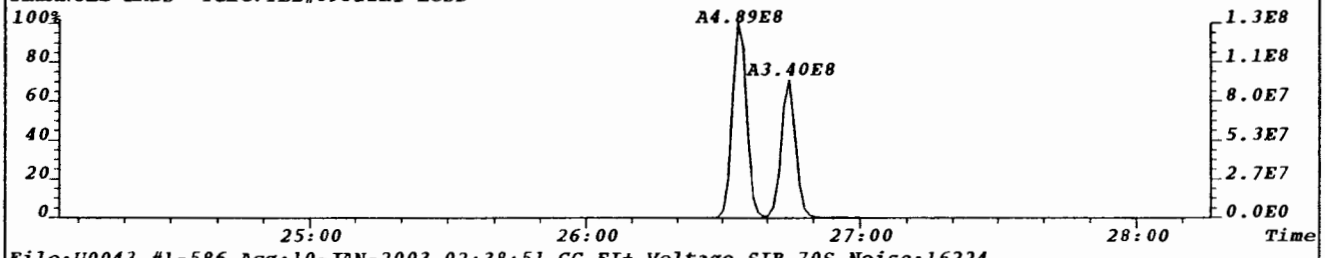
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5843
319.8965 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



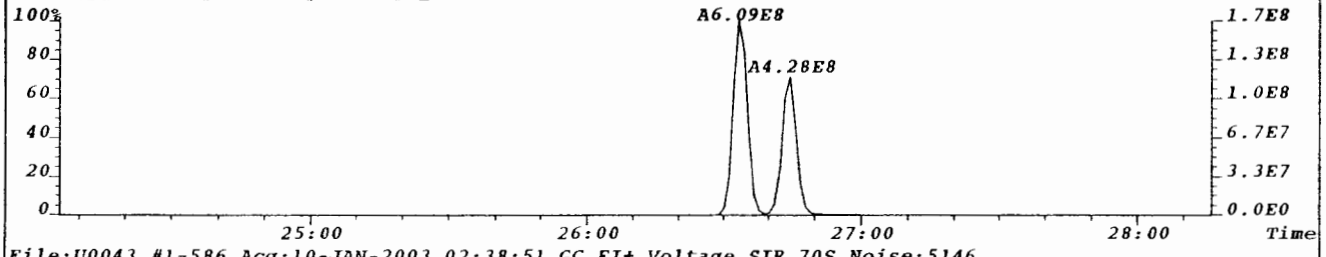

File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5042
321.8936 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20168.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



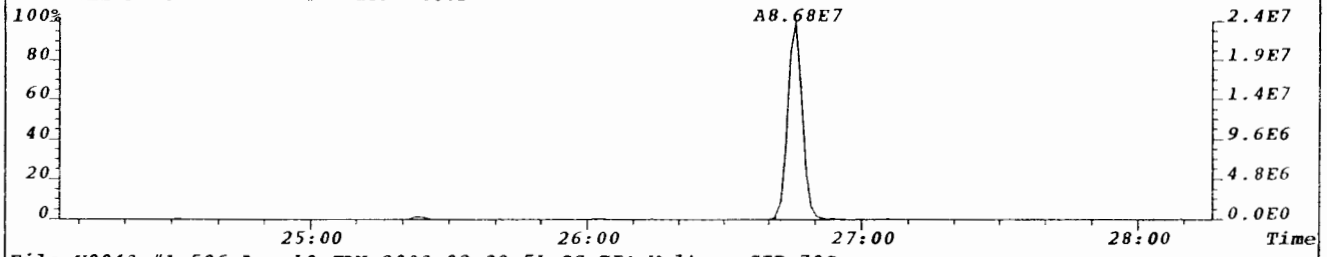

File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:31090
331.9368 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,124360.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



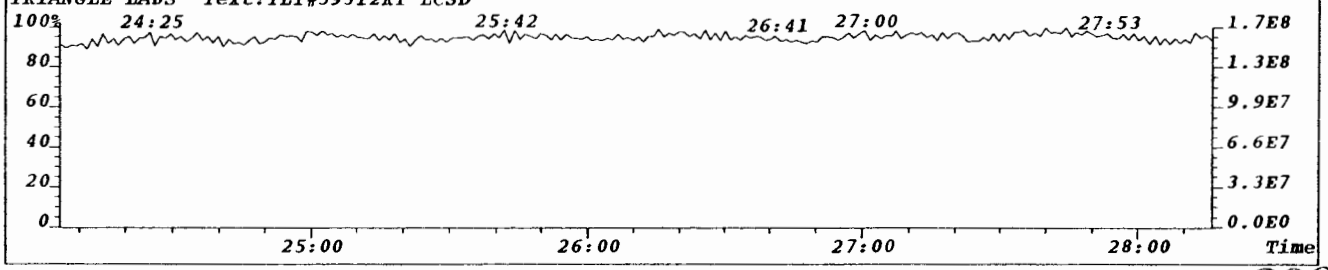

File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:16224
333.9338 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,64896.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



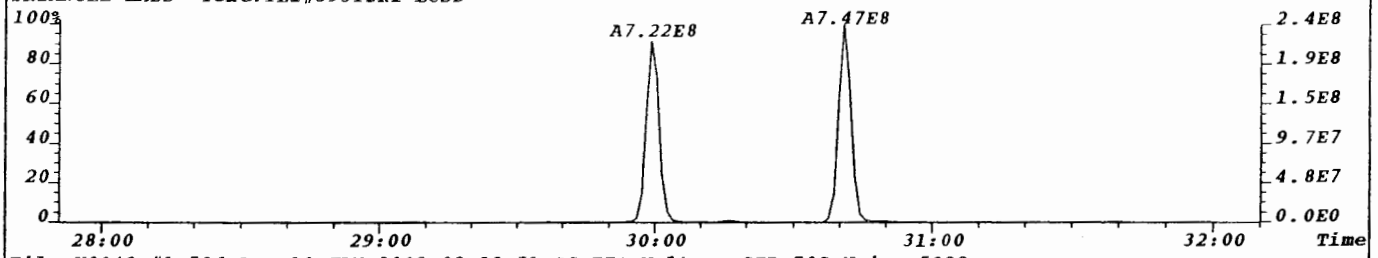

File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5146
327.8847 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20584.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



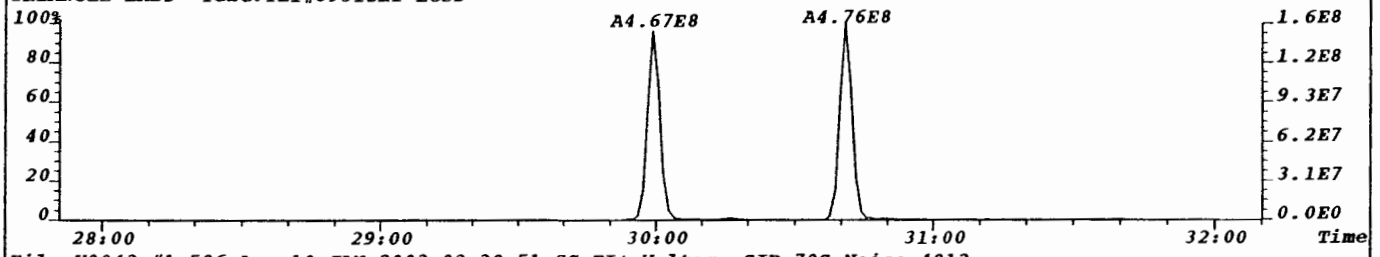

File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
330.9792 S:8 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



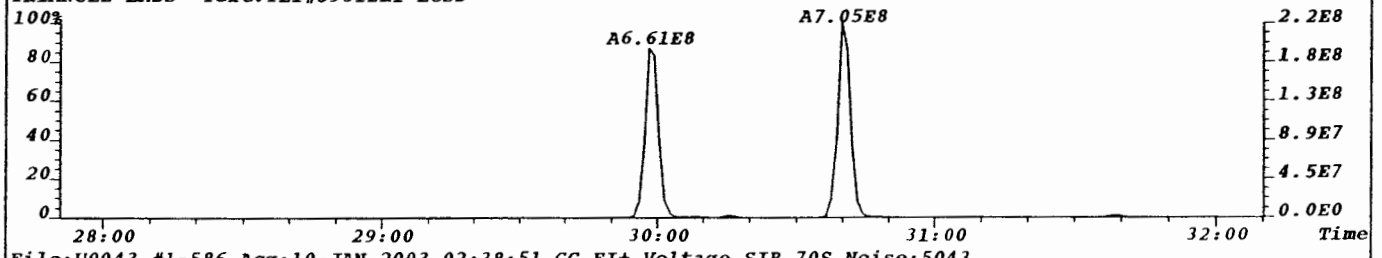
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5987
339.8597 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23948.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD




File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5922
341.8567 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23688.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD




File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:4812
351.9000 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,19248.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

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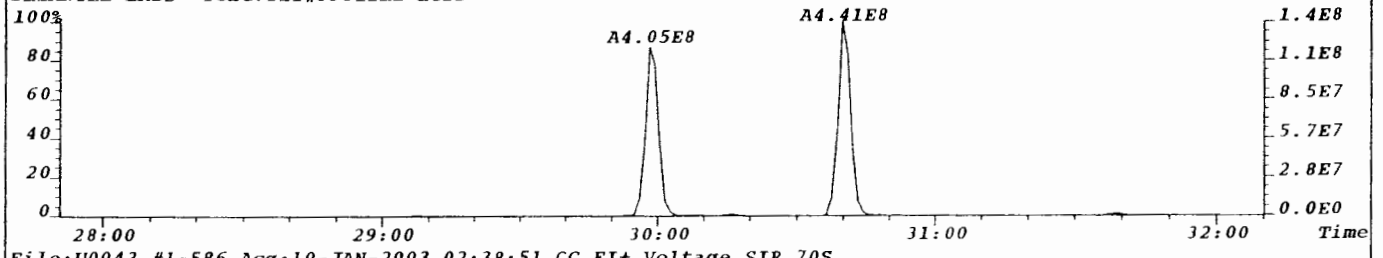
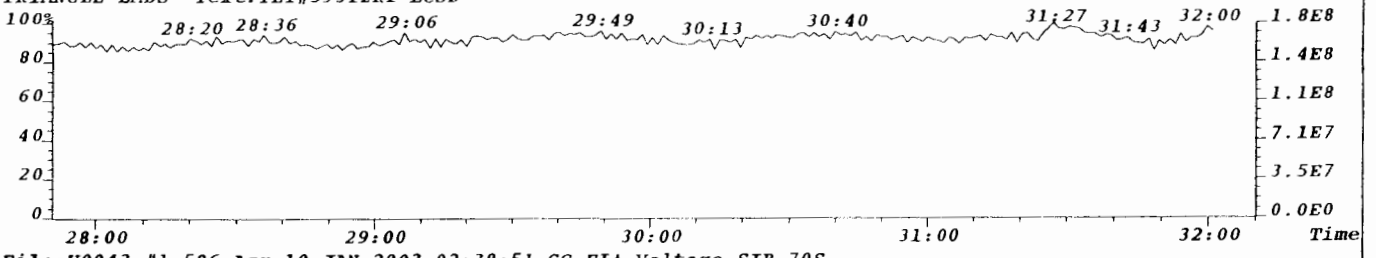
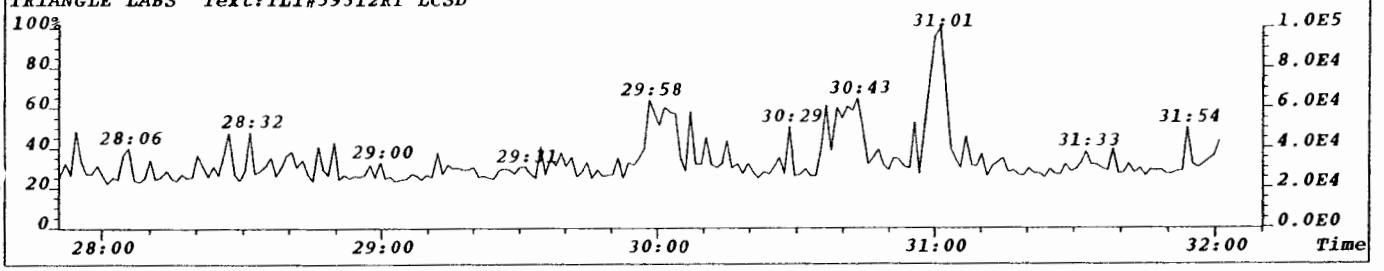
353.8970 S:8 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20172.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

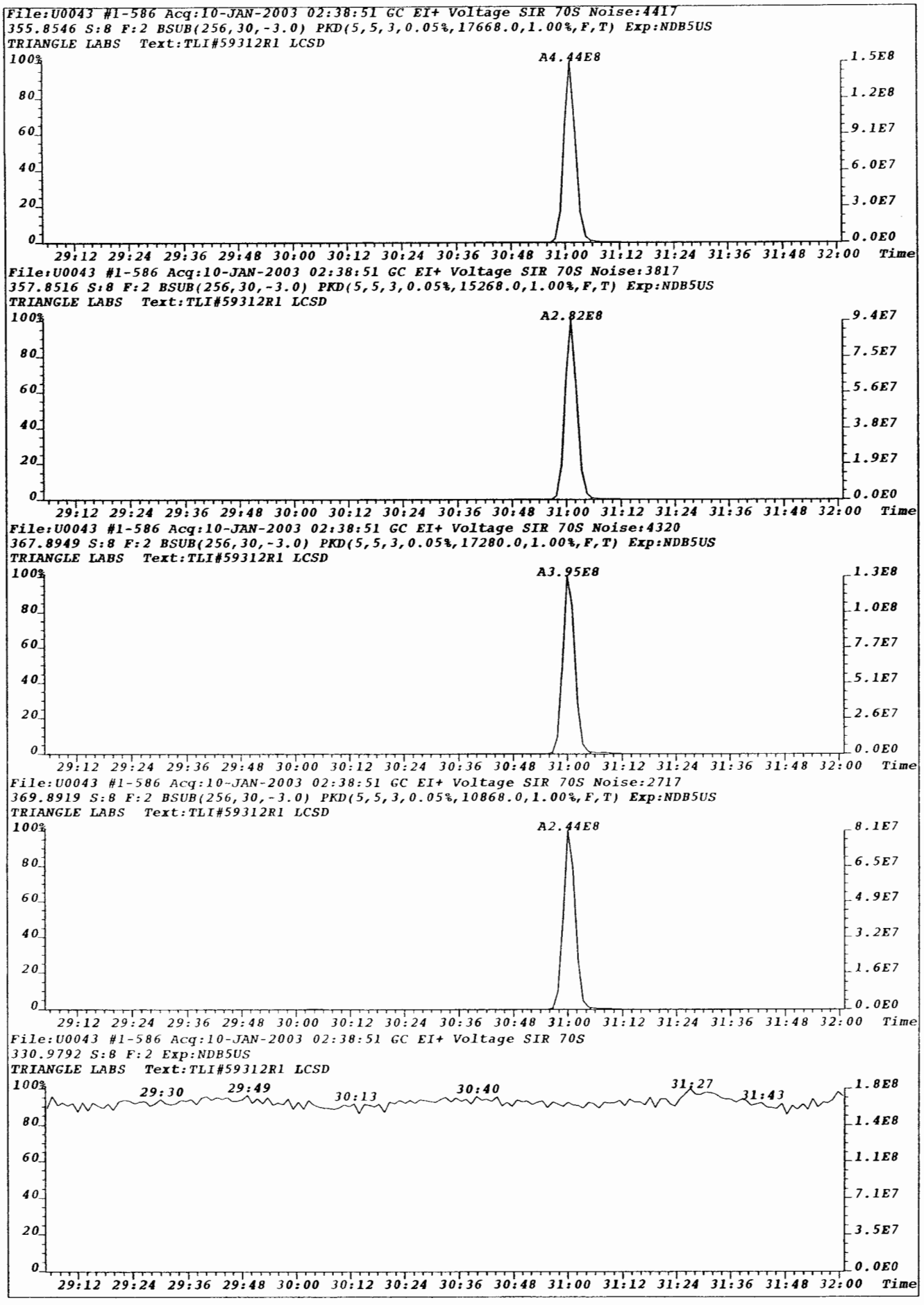



File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
330.9792 S:8 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD




File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
409.7974 S:8 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

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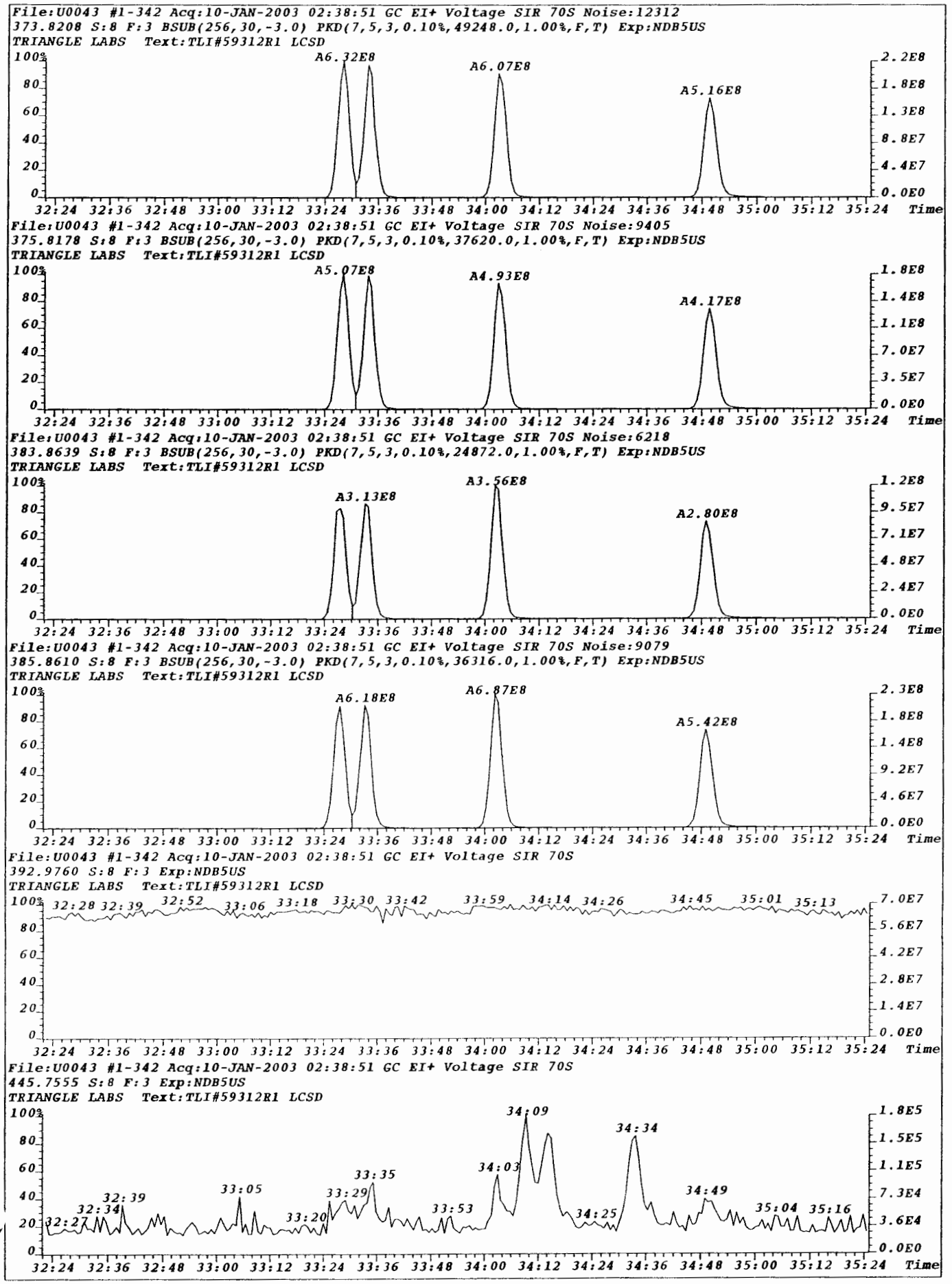
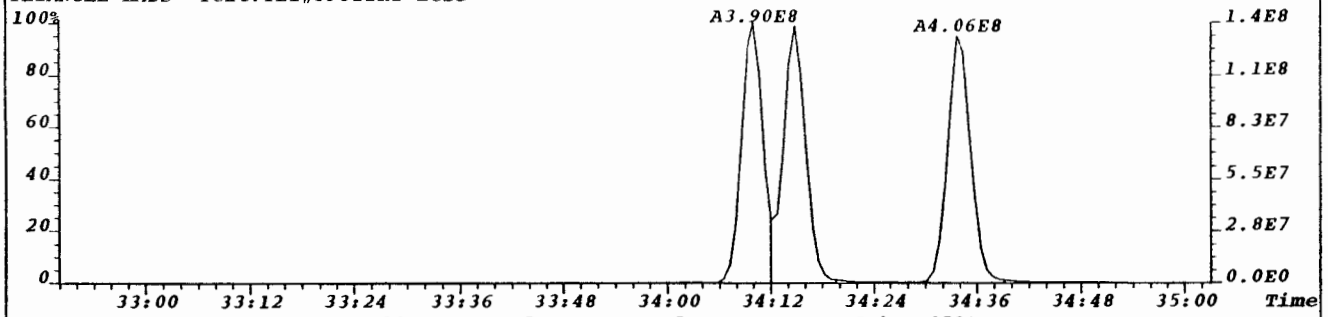
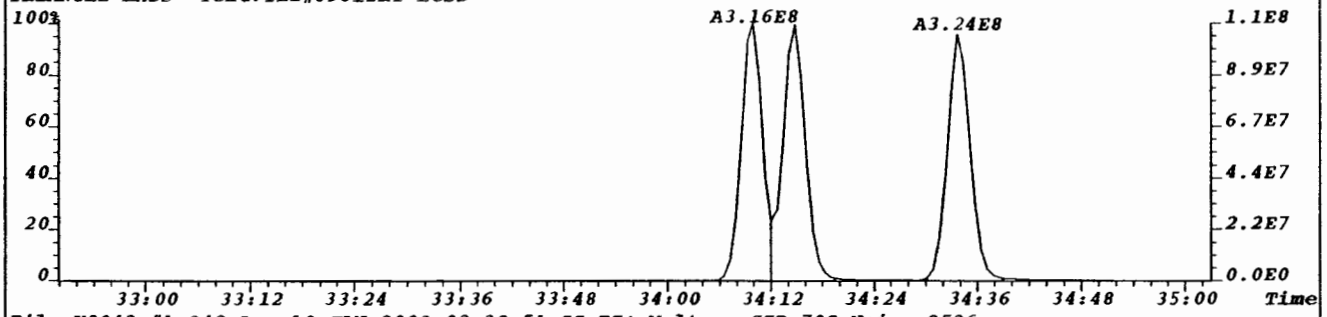
355.8546 S:8 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17668.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A4.44E8
1.5E8
1.2E8
9.1E7
6.0E7
3.0E7
0.0E0
100%
80
60
40
20
0
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:3817
357.8516 S:8 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,15268.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A2.82E8
9.4E7
7.5E7
5.6E7
3.8E7
1.9E7
0.0E0
100%
80
60
40
20
0
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:4320
367.8949 S:8 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,17280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A3.95E8
1.3E8
1.0E8
7.7E7
5.1E7
2.6E7
0.0E0
100%
80
60
40
20
0
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:2717
369.8919 S:8 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,10868.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A2.44E8
8.1E7
6.5E7
4.9E7
3.2E7
1.6E7
0.0E0
100%
80
60
40
20
0
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:U0043 #1-586 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
330.9792 S:8 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
29:30
29:49
30:13
30:40
31:27
31:43
1.8E8
1.4E8
1.1E8
7.1E7
3.5E7
0.0E0
100%
80
60
40
20
0
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time


File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:12312
373.8208 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,49248.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A6.32E8
A6.07E8
A5.16E8
File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9405
375.8178 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,37620.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A5.07E8
A4.93E8
A4.17E8
File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:6218
383.8639 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,24872.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A3.13E8
A3.56E8
A2.80E8
File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9079
385.8610 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,36316.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A6.18E8
A6.87E8
A5.42E8
File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
392.9760 S:8 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
445.7555 S:8 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
Time

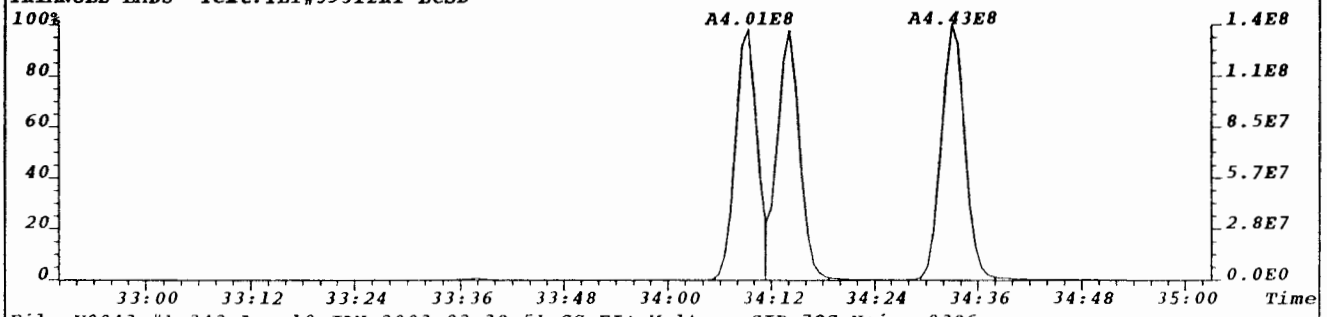
File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:4426
389.8156 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,17704.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



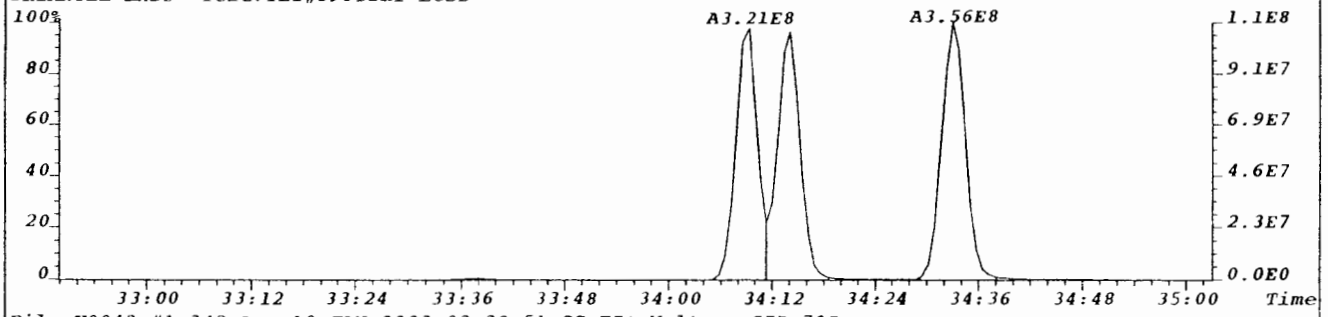

File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:4539
391.8127 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18156.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



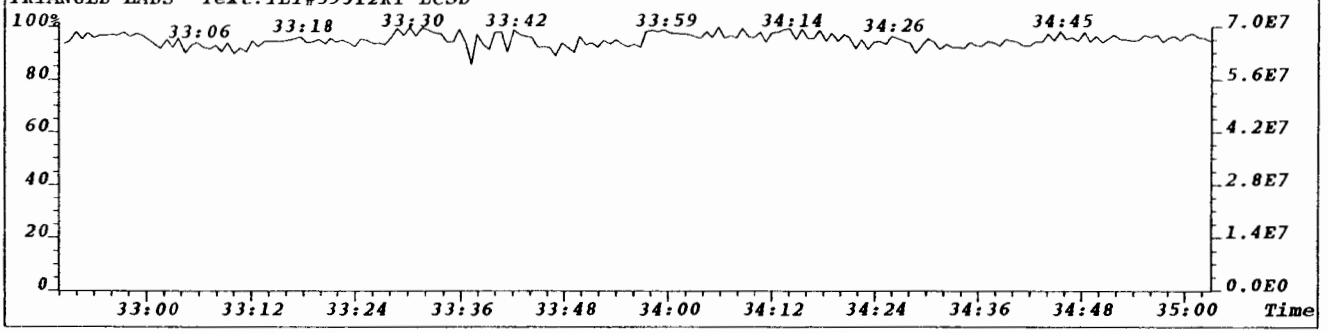

File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9526
401.8558 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,38104.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

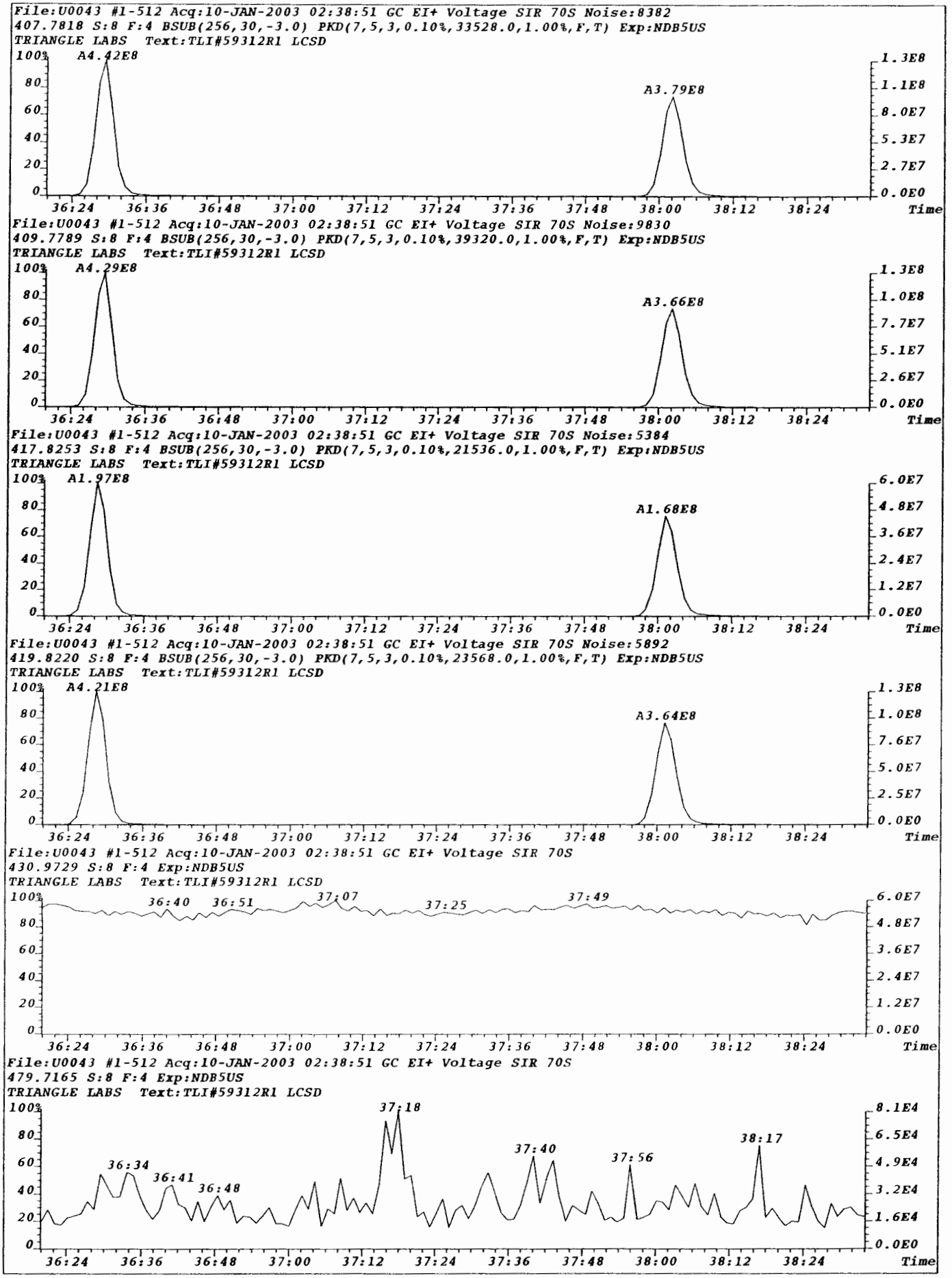



File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9386
403.8529 S:8 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,37544.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

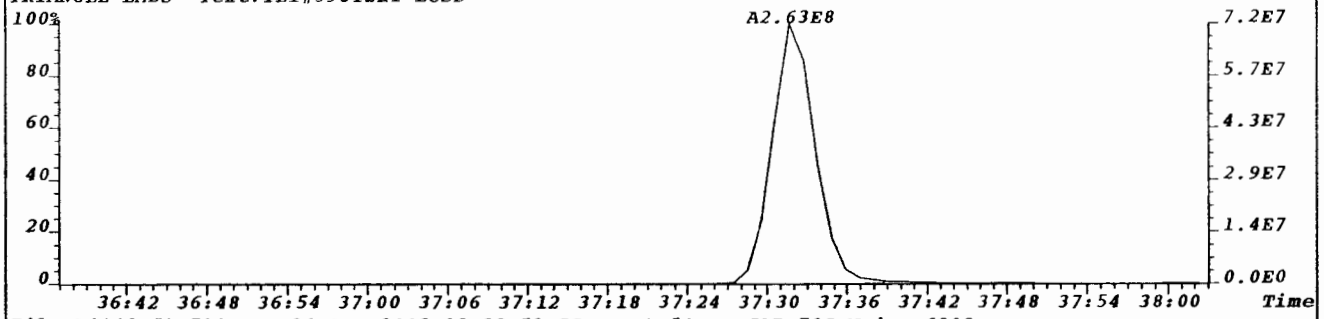



File:U0043 #1-342 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
392.9760 S:8 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

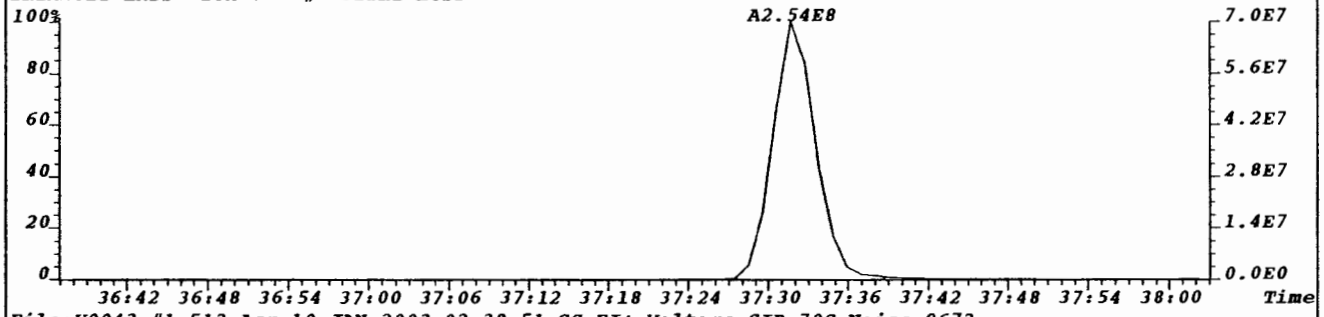



File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:8382
407.7818 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,33528.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A4.42E8
A3.79E8
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9830
409.7789 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,39320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A4.29E8
A3.66E8
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5384
417.8253 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21536.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A1.97E8
A1.68E8
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5892
419.8220 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,23568.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
A4.21E8
A3.64E8
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
430.9729 S:8 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
36:40
36:51
37:07
37:25
37:49
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
479.7165 S:8 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD
36:34
36:41
36:48
37:18
37:40
37:56
38:17
Time

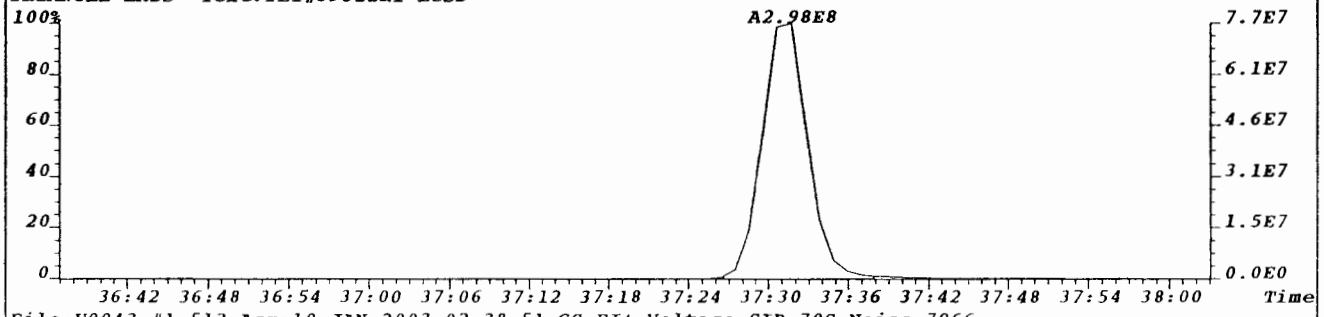
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5385
423.7766 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21540.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



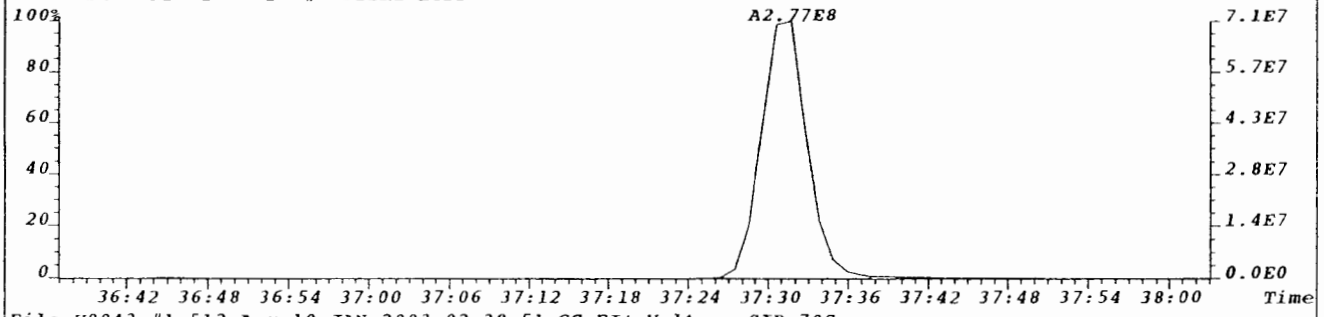

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:6903
425.7737 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,27612.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



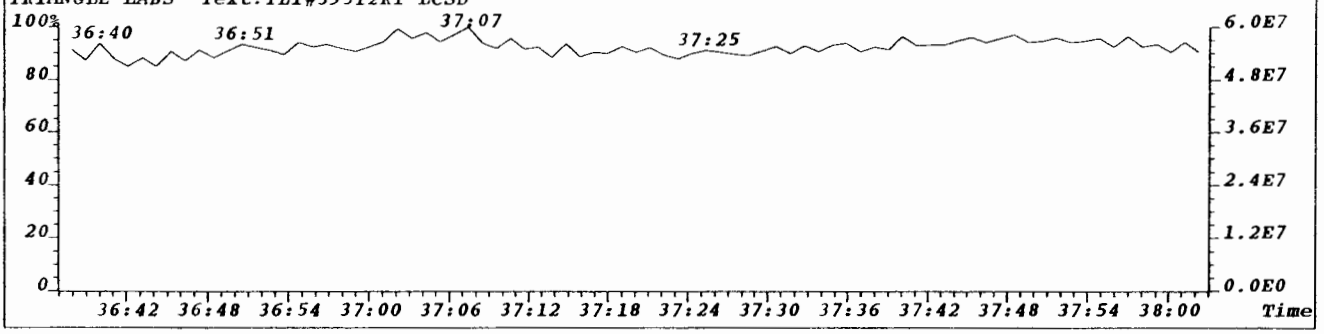

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:9672
435.8169 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,38688.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



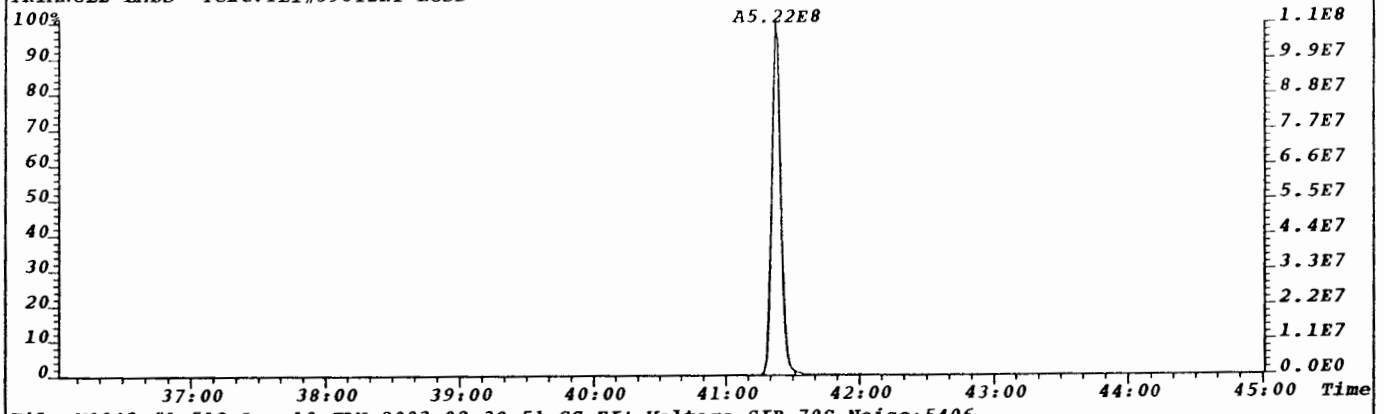

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:7966
437.8140 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,31864.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



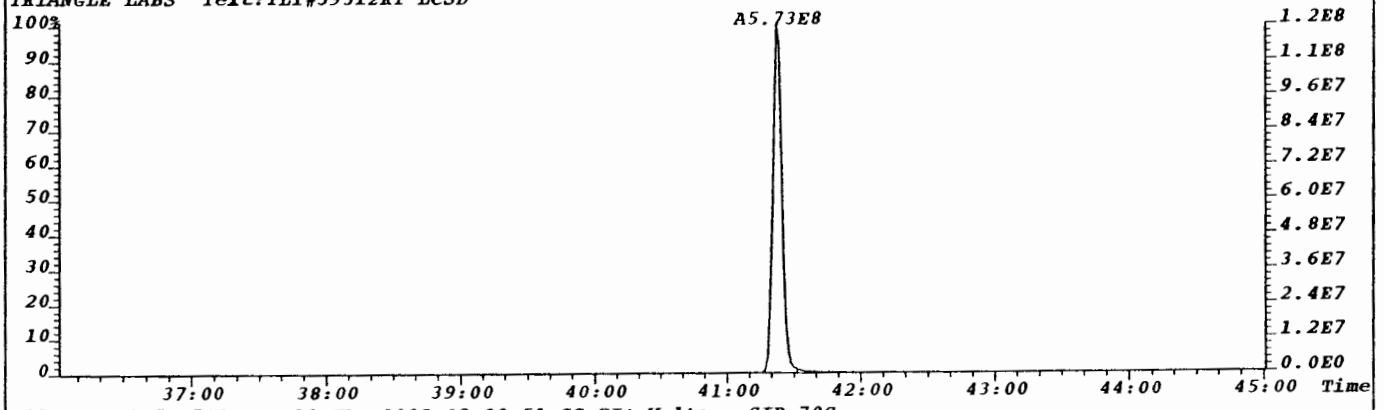

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
430.9729 S:8 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



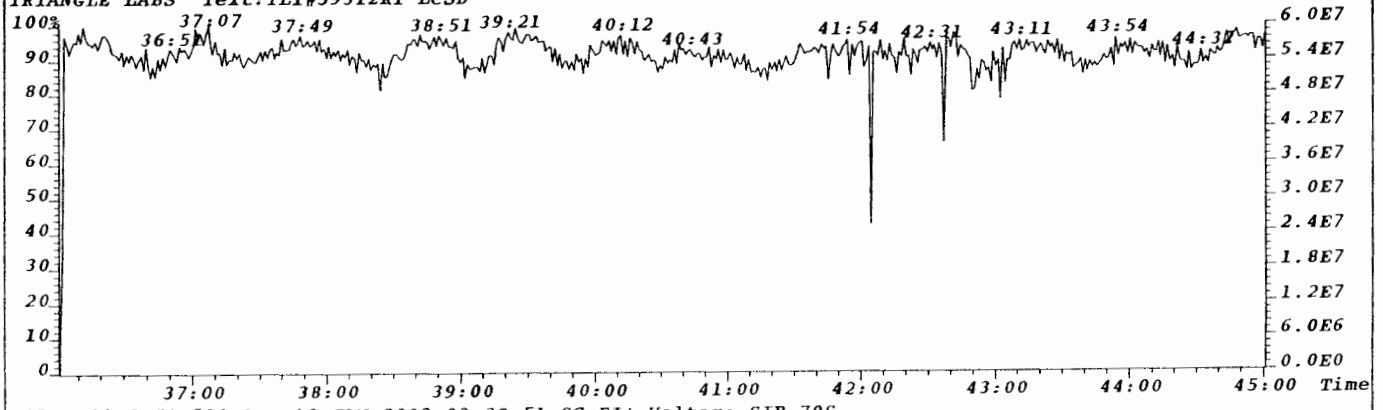
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:4502
441.7428 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,18008.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



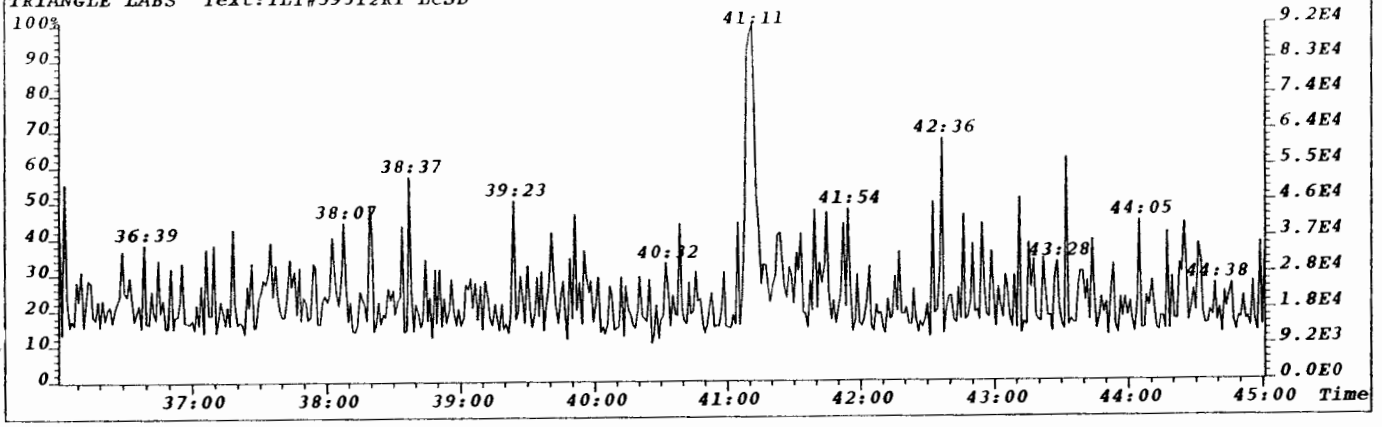

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:5406
443.7399 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,21624.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



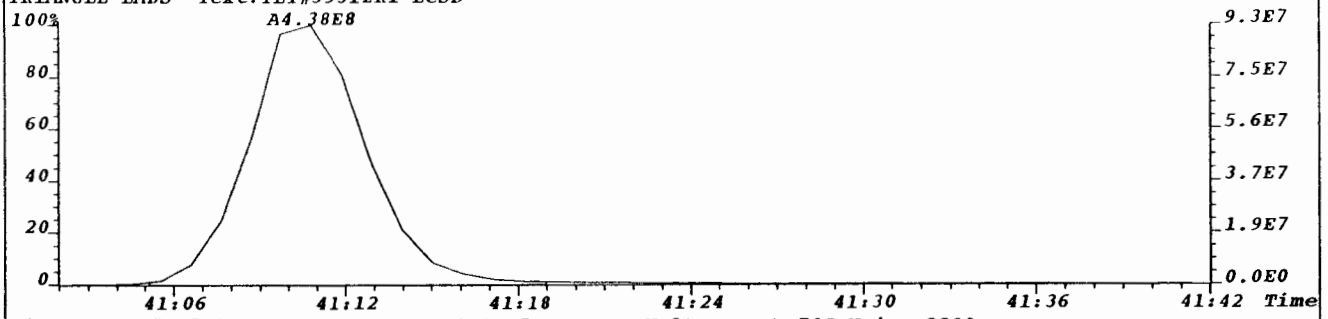

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
430.9729 S:8 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



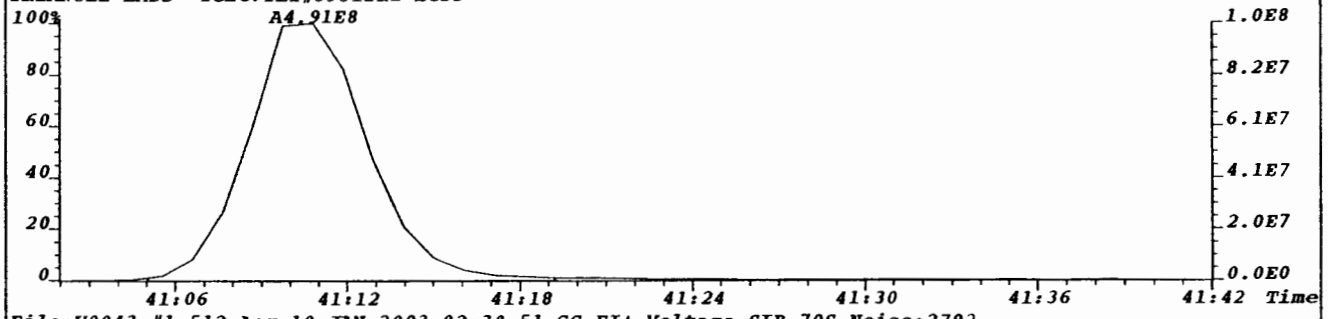

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
513.6775 S:8 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



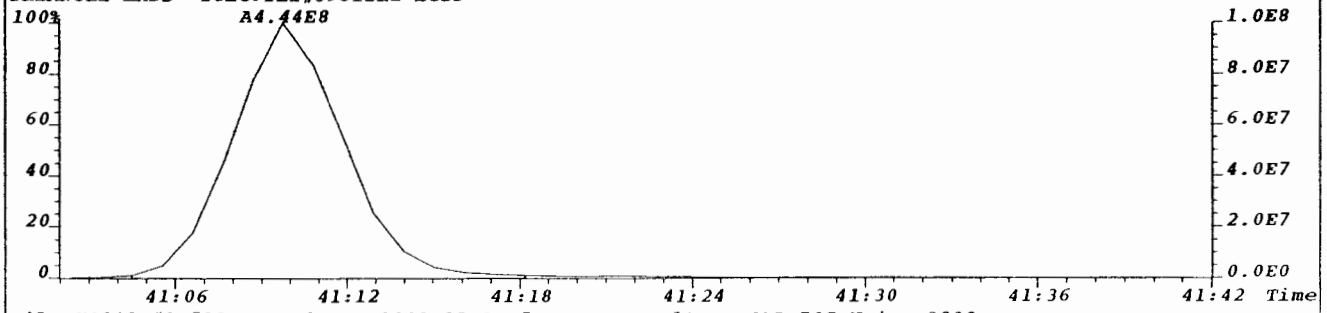
File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:3479
457.7377 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,13916.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



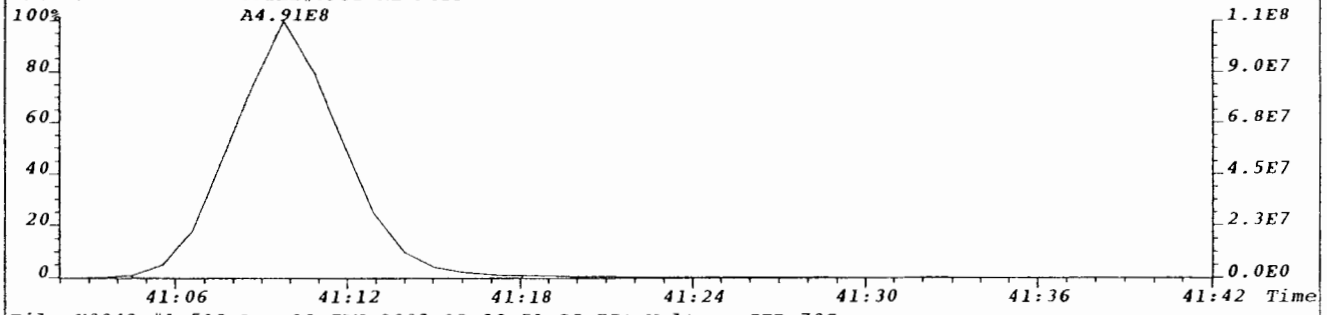

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:2999
459.7348 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11996.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD



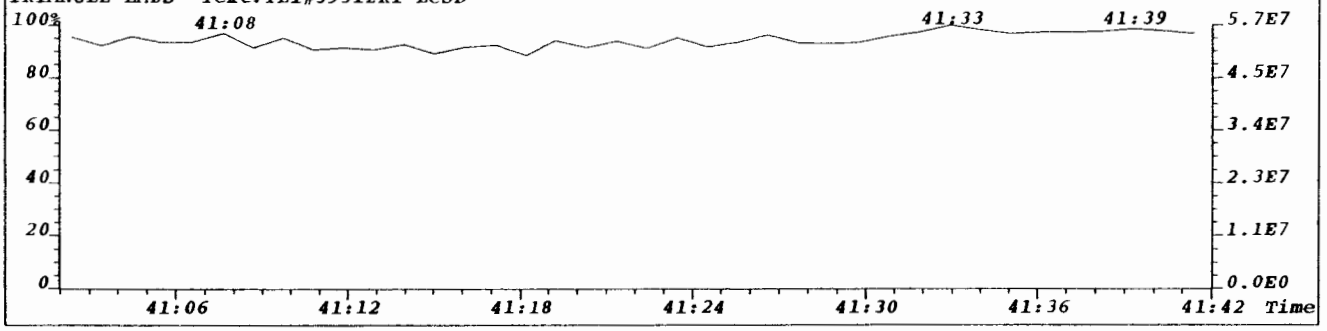

File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:2792
469.7779 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11168.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD

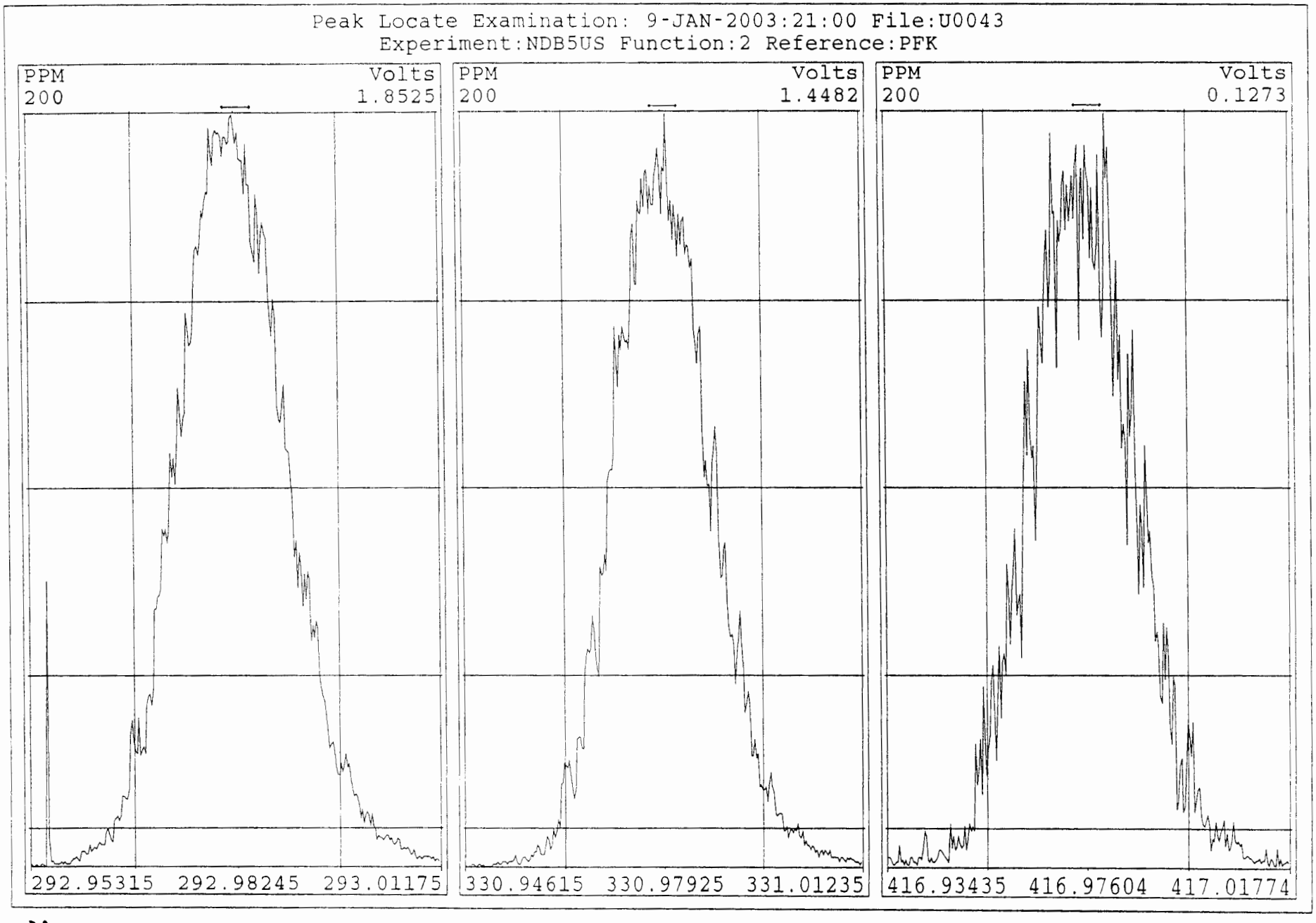



File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S Noise:2938
471.7750 S:8 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11752.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD




File:U0043 #1-512 Acq:10-JAN-2003 02:38:51 GC EI+ Voltage SIR 70S
430.9729 S:8 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#59312R1 LCSD




Peak Locate Examination: 9-JAN-2003:21:00 File:U0043
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8525
292.95315 292.98245 293.01175
PPM
200
Volts
1.4482
330.94615 330.97925 331.01235
PPM
200
Volts
0.1273
416.93435 416.97604 417.01774

# CALIBRATION DATA

2445 S. Alston Ave. • Durham, NC 27713 • (919) 544-5729 • FAX (919) 544-5491
*www.trianglelabs.com*

TRIANGLE LABORATORIES, INC. Date: 07/09/2002
Initial Calibration Summary for UF57092

Analysis Date....: 07/09/2002 Method.....: MIT3
Instrument.....: U

| Analytes | RF | SD | %RSD | RT | RT/LO | RT/HI | Ratio1 | Ratio2 | N |
|---|---|---|---|---|---|---|---|---|---|
| Total MCDF | 0.000 | 0.000 | 100% | | 5:18 | 19:18 | | | 0 |
| Total MCDD | 0.000 | 0.000 | 100% | | 6:03 | 20:03 | | | 0 |
| Total DCDF | 0.000 | 0.000 | 100% | | 12:18 | 20:18 | | | 0 |
| Total DCDD | 0.000 | 0.000 | 100% | | 13:03 | 21:03 | | | 0 |
| Total TriCDF | 0.000 | 0.000 | 100% | | 16:18 | 23:18 | | | 0 |
| Total TriCDD | 0.000 | 0.000 | 100% | | 18:03 | 24:03 | | | 0 |
| 1368-TCDF | 1.150 | 0.168 | 15% | 22:02 | 24:18 | 31:18 | 0.769 | | 6 |
| 1278-TCDF | 1.156 | 0.067 | 6% | 24:54 | | | 0.775 | | 6 |
| 2378-TCDF | 1.128 | 0.084 | 7% | 25:19 | | | 0.787 | | 6 |
| TOTAL TCDF | 1.128 | 0.084 | 7% | | | | 0.777 | | 6 |
| 1368-TCDD | 1.079 | 0.108 | 10% | 23:26 | 25:03 | 32:03 | 0.788 | | 6 |
| 1379-TCDD | 1.037 | 0.205 | 20% | 23:50 | | | 0.805 | | 6 |
| 2378-TCDD | 1.181 | 0.112 | 9% | 26:04 | | | 0.791 | | 6 |
| TOTAL TCDD | 1.181 | 0.112 | 9% | | | | 0.793 | | 6 |
| 12378-PeCDF | 1.257 | 0.098 | 8% | 29:22 | 25:22 | 33:22 | 1.602 | | 6 |
| 23478-PeCDF | 1.233 | 0.121 | 10% | 30:05 | | | 1.544 | | 6 |
| TOTAL PeCDF | 1.245 | 0.109 | 9% | | | | 1.572 | | 6 |
| 12378-PeCDD | 1.128 | 0.106 | 9% | 30:26 | 26:25 | 34:25 | 1.583 | | 6 |
| TOTAL PeCDD | 1.128 | 0.106 | 9% | | | | 1.583 | | 6 |
| 123478-HxCDF | 1.142 | 0.077 | 7% | 32:55 | 29:00 | 37:00 | 1.234 | | 6 |
| 123678-HxCDF | 1.200 | 0.079 | 7% | 33:01 | | | 1.238 | | 6 |
| 234678-HxCDF | 1.046 | 0.114 | 11% | 33:31 | | | 1.234 | | 6 |
| 123789-HxCDF | 0.862 | 0.073 | 8% | 34:16 | | | 1.235 | | 6 |
| TOTAL HxCDF | 1.063 | 0.080 | 8% | | | | 1.235 | | 6 |
| 123478-HxCDD | 1.083 | 0.083 | 8% | 33:37 | 29:41 | 37:41 | 1.229 | | 6 |
| 123678-HxCDD | 1.106 | 0.091 | 8% | 33:42 | | | 1.243 | | 6 |
| 123789-HxCDD | 1.073 | 0.081 | 8% | 34:00 | | | 1.228 | | 6 |
| TOTAL HxCDD | 1.087 | 0.079 | 7% | | | | 1.233 | | 6 |
| 234678-HpCDF | 1.445 | 0.119 | 8% | 35:52 | 31:52 | 39:52 | 1.053 | | 6 |
| 1234789-HpCDF | 1.026 | 0.095 | 9% | 37:22 | | | 1.037 | | 6 |
| TOTAL HpCDF | 1.235 | 0.095 | 8% | | | | 1.047 | | 6 |
| 1234678-HpCDD | 1.010 | 0.120 | 12% | 36:53 | 32:52 | 40:52 | 1.060 | | 6 |
| TOTAL HpCDD | 1.010 | 0.120 | 12% | | | | 1.060 | | 6 |
| OCDF | 1.490 | 0.103 | 7% | 40:34 | 36:22 | 44:22 | 0.911 | | 6 |
| OCDD | 1.107 | 0.095 | 9% | 40:23 | 36:22 | 44:22 | 0.900 | | 6 |

| Other Standards | RF | SD | %RSD | RT | RT/LO | RT/HI | Ratio1 | Ratio2 | N |
|---|---|---|---|---|---|---|---|---|---|
| 37Cl-TCDD | 1.063 | 0.060 | 6% | 26:04 | 24:03 | 28:03 | | | 6 |
| 13C12-PeCDF 234 | 1.003 | 0.027 | 3% | 30:04 | 27:22 | 31:22 | 1.595 | | 6 |
| 13C12-HxCDF 478 | 1.003 | 0.033 | 3% | 32:55 | | | 0.518 | | 6 |
| 13C12-HxCDF 234 | 0.920 | 0.040 | 4% | 33:30 | | | 0.517 | | 6 |
| 13C12-HxCDF 789 | 0.731 | 0.040 | 5% | 34:15 | | | 0.519 | | 6 |
| 13C12-HxCDD 478 | 0.904 | 0.024 | 3% | 33:36 | | | 1.284 | | 6 |
| 13C12-HpCDF 789 | 0.703 | 0.065 | 9% | 37:21 | 33:52 | 39:52 | 0.466 | | 6 |



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TRIANGLE LABORATORIES, INC. Date: 07/09/2002

Initial Calibration Summary for UF57092

| Internal Standards | RF | SD | %RSD | RT | RT/LO | RT/HI | Ratio1 | Ratio2 | N |
|---|---|---|---|---|---|---|---|---|---|
| 13C12-2378-TCDF | 1.603 | 0.066 | 4% | 25:18 | 24:18 | 26:18 | 0.795 | | 6 |
| 13C12-2378-TCDD | 1.129 | 0.021 | 2% | 26:03 | 24:03 | 28:03 | 0.801 | | 6 |
| 13C12-PeCDF 123 | 1.116 | 0.031 | 3% | 29:22 | 25:22 | 33:22 | 1.589 | | 6 |
| 13C12-PeCDD 123 | 0.665 | 0.048 | 7% | 30:25 | 26:25 | 34:25 | 1.602 | | 6 |
| 13C12-HxCDF 678 | 1.477 | 0.043 | 3% | 33:00 | 29:00 | 37:00 | 0.523 | | 6 |
| 13C12-HxCDD 678 | 1.039 | 0.038 | 4% | 33:41 | 32:41 | 34:41 | 1.267 | | 6 |
| 13C12-HpCDF 678 | 1.050 | 0.046 | 4% | 35:52 | 33:52 | 39:52 | 0.469 | | 6 |
| 13C12-HpCDD 678 | 0.809 | 0.020 | 2% | 36:52 | 35:52 | 37:52 | 1.071 | | 6 |
| 13C12-OCDD | 0.547 | 0.048 | 9% | 40:22 | 38:22 | 42:22 | 0.896 | | 6 |

| Recovery Standards | RF | SD | %RSD | RT | RT/LO | RT/HI | Ratio1 | Ratio2 | N |
|---|---|---|---|---|---|---|---|---|---|
| 13C12-1234-TCDD | 1.000 | 0.000 | 0% | 25:51 | | | 0.819 | | 6 |
| 13C12-HxCDD 789 | 1.000 | 0.000 | 0% | 34:00 | | | 1.275 | | 6 |

*** End of Report ***



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Date: 01/09/2003 TRIANGLE LABORATORIES, INC.

Continuing Calibration for U030041

Analysis Date....: 01/09/2003 Method.....: MIT3
Operator.....: IJD Instrument..: U
Init Calibration.: UF57092 Std.Conc....: 10.00
Cal Date.....: 07/09/2002

Analyte Summary

| Name | RF | Ratio 1&2 | RT Lo/High | RT | Rel. RT | ICal RF | Delta RF | %D |
|---|---|---|---|---|---|---|---|---|
| Total MCDF | 0.000 | | 6:04<br>20:04 | | | 0.000 | 0.000 | 100.0% |
| Total MCDD | 0.000 | | 6:47<br>20:47 | | | 0.000 | 0.000 | 100.0% |
| Total DCDF | 0.000 | | 13:04<br>21:04 | | | 0.000 | 0.000 | 100.0% |
| Total DCDD | 0.000 | | 13:47<br>21:47 | | | 0.000 | 0.000 | 100.0% |
| Total TriCDF | 0.000 | | 17:04<br>24:04 | | | 0.000 | 0.000 | 100.0% |
| Total TriCDD | 0.000 | | 18:47<br>24:47 | | | 0.000 | 0.000 | 100.0% |
| 1368-TCDF | 0.980 | 0.79 | 22:46<br>27:59 | 22:58 | 0.8811 | 1.150 | -0.170 | -14.8% |
| 1278-TCDF | 0.923 | 0.79 | | 25:42 | 0.9858 | 1.156 | -0.233 | -20.2% |
| 2378-TCDF | 0.966 | 0.78 | | 26:05 | 1.0004 | 1.128 | -0.162 | -14.3% |
| TOTAL TCDF | 0.966 | 0.79 | | | | 1.128 | -0.162 | -14.3% |
| 1368-TCDD | 0.924 | 0.80 | 24:06<br>27:56 | 24:17 | 0.9066 | 1.079 | -0.155 | -14.4% |
| 1379-TCDD | 0.808 | 0.80 | | 24:40 | 0.9212 | 1.037 | -0.229 | -22.1% |
| 2378-TCDD | 0.996 | 0.78 | | 26:48 | 1.0007 | 1.181 | -0.185 | -15.6% |
| TOTAL TCDD | 0.996 | 0.79 | | | | 1.181 | -0.185 | -15.6% |
| 12378-PeCDF | 1.113 | 1.54 | 27:51<br>31:50 | 30:02 | 1.0010 | 1.257 | -0.144 | -11.5% |
| 23478-PeCDF | 1.045 | 1.47 | | 30:43 | 1.0240 | 1.233 | -0.188 | -15.3% |
| TOTAL PeCDF | 1.079 | 1.51 | | | | 1.245 | -0.166 | -13.3% |
| 12378-PeCDD | 1.208 | 1.64 | 29:05<br>31:41 | 31:02 | 1.0000 | 1.128 | 0.080 | 7.1% |
| TOTAL PeCDD | 1.208 | 1.64 | | | | 1.128 | 0.080 | 7.1% |
| 123478-HxCDF | 1.138 | 1.24 | 32:22<br>35:05 | 33:30 | 0.9979 | 1.142 | -0.004 | -0.4% |
| 123678-HxCDF | 1.140 | 1.25 | | 33:35 | 1.0003 | 1.200 | -0.060 | -5.0% |
| 234678-HxCDF | 1.112 | 1.23 | | 34:04 | 1.0149 | 1.046 | 0.066 | 6.3% |



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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 123789-HxCDF | 0.902 | 1.26 | | 34:51 | 1.0381 | 0.862 | 0.040 | 4.7% |
| TOTAL HxCDF | 1.073 | 1.25 | | | | 1.063 | 0.010 | 0.9% |
| 123478-HxCDD | 0.962 | 1.25 | 32:50<br>34:43 | 34:11 | 0.9974 | 1.083 | -0.121 | -11.2% |
| 123678-HxCDD | 1.004 | 1.26 | | 34:16 | 1.0000 | 1.106 | -0.102 | -9.2% |
| 123789-HxCDD | 0.906 | 1.25 | | 34:35 | 1.0090 | 1.073 | -0.167 | -15.5% |
| TOTAL HxCDD | 0.958 | 1.25 | | | | 1.087 | -0.129 | -11.9% |
| 1234678-HpCDF | 1.384 | 1.03 | 36:20<br>38:14 | 36:31 | 1.0005 | 1.445 | -0.061 | -4.2% |
| 1234789-HpCDF | 1.071 | 1.04 | | 38:03 | 1.0425 | 1.026 | 0.045 | 4.4% |
| TOTAL HpCDF | 1.228 | 1.03 | | | | 1.235 | -0.007 | -0.6% |
| 1234678-HpCDD | 0.873 | 1.03 | 36:37<br>37:43 | 37:34 | 1.0005 | 1.010 | -0.137 | -13.6% |
| TOTAL HpCDD | 0.873 | 1.03 | | | | 1.010 | -0.137 | -13.6% |
| OCDF | 1.208 | 0.92 | 37:12<br>45:12 | 41:25 | 1.0053 | 1.490 | -0.282 | -18.9% |
| OCDD | 0.972 | 0.91 | 37:12<br>45:12 | 41:12 | 1.0000 | 1.107 | -0.135 | -12.2% |

Other Standard Summary

| Name | RF | Ratio 1&2 | RT Lo/High | RT | Rel. RT | ICal RF | Delta RF | %D |
|---|---|---|---|---|---|---|---|---|
| 37Cl-TCDD | 0.998 | | 24:47<br>28:47 | 26:48 | 1.0007 | 1.063 | -0.065 | -6.1% |
| 13C12-PeCDF 234 | 0.939 | 1.57 | 26:00<br>34:00 | 30:42 | 1.0233 | 1.003 | -0.064 | -6.4% |
| 13C12-HxCDF 478 | 1.055 | 0.51 | 29:34<br>37:34 | 33:29 | 0.9973 | 1.003 | 0.052 | 5.2% |
| 13C12-HxCDF 234 | 1.052 | 0.51 | | 34:04 | 1.0149 | 0.920 | 0.132 | 14.3% |
| 13C12-HxCDF 789 | 0.805 | 0.51 | | 34:50 | 1.0375 | 0.731 | 0.074 | 10.2% |
| 13C12-HxCDD 478 | 0.941 | 1.24 | 33:16<br>35:16 | 34:11 | 0.9974 | 0.904 | 0.037 | 4.1% |
| 13C12-HpCDF 789 | 0.781 | 0.46 | 34:30<br>40:30 | 38:02 | 1.0419 | 0.703 | 0.078 | 11.1% |

Internal Standard Summary

| Name | RF | Ratio 1&2 | RT Lo/High | RT | Rel. RT | ICal RF | Delta RF | %D |
|---|---|---|---|---|---|---|---|---|
| 13C12-2378-TCDF | 1.332 | 0.78 | 25:04<br>27:04 | 26:04 | 1.0000 | 1.603 | -0.271 | -16.9% |
| 13C12-2378-TCDD | 1.069 | 0.78 | 24:47<br>28:47 | 26:47 | 1.0000 | 1.129 | -0.060 | -5.3% |



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Date: 01/09/2003 TRIANGLE LABORATORIES, INC.

Continuing Calibration for U030041

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13C12-PeCDF 123 | 1.019 | 1.64 | 26:00<br>34:00 | 30:00 | 1.0000 | 1.116 | -0.097 | -8.7% |
| 13C12-PeCDD 123 | 0.572 | 1.64 | 27:02<br>35:02 | 31:02 | 1.0000 | 0.665 | -0.093 | -14.0% |
| 13C12-HxCDF 678 | 1.343 | 0.52 | 29:34<br>37:34 | 33:34 | 1.0000 | 1.477 | -0.134 | -9.1% |
| 13C12-HxCDD 678 | 1.057 | 1.26 | 33:16<br>35:16 | 34:16 | 1.0000 | 1.039 | 0.018 | 1.7% |
| 13C12-HpCDF 678 | 0.908 | 0.46 | 34:30<br>40:30 | 36:30 | 1.0000 | 1.050 | -0.142 | -13.5% |
| 13C12-HpCDD 678 | 0.777 | 1.06 | 36:33<br>38:33 | 37:33 | 1.0000 | 0.809 | -0.032 | -3.9% |
| 13C12-OCDD | 0.582 | 0.92 | 41:02<br>41:22 | 41:12 | 1.0000 | 0.547 | 0.035 | 6.5% |

Recovery Standard Summary

| Name | RF | Ratio 1&2 | RT Lo/High | RT | Rel. RT | ICal RF | Delta RF | %D |
|---|---|---|---|---|---|---|---|---|
| 13C12-1234-TCDD | 1.000 | 0.80 | 24:47<br>28:47 | 26:36 | 0.9933 | 1.000 | 0.000 | 0.0% |
| 13C12-HxCDD 789 | 1.000 | 1.24 | 33:16<br>35:16 | 34:34 | 1.0088 | 1.000 | 0.000 | 0.0% |

QC Front End Check: 1.5075 TetraRS/HexaRS: 1.318



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| Compound/ M_Z.... | ..RT. | OK | Ratio | Total.Area... | Area.Peak.1.. | Area.Peak.2.. | Rel.RT | Compound.Name.. | ID.. |
|---|---|---|---|---|---|---|---|---|---|
| TCDF | | 0.65-0.89 | | | | | | | |
| 304-306 | 22:58 | | 0.79 | 11,707.01 | 5,162.44 | 6,544.57 | 0.881 | 1368-TCDF | AN |
| | 25:42 | | 0.79 | 11,017.95 | 4,859.74 | 6,158.21 | 0.986 | 1278-TCDF | AN |
| | 26:05 | | 0.78 | 11,541.26 | 5,049.10 | 6,492.16 | 1.000 | 2378-TCDF | AN |
| 304-306 | | 3 Peaks | | | | | | | |
| 13C12-TCDF | | 0.65-0.89 | | | | | | | |
| 316-318 | 26:04 | | 0.78 | 119,417.10 | 52,453.10 | 66,964.00 | 1.000 | 13C12-2378-TCDF | IS0 |
| 316-318 | | 1 Peak | | | | | | | |
| ---------- Above: TCDF / TCDD Follows ---------- | | | | | | | | | |
| TCDD | | 0.65-0.89 | | | | | | | |
| 320-322 | 24:17 | | 0.80 | 8,858.48 | 3,949.75 | 4,908.73 | 0.907 | 1368-TCDD | AN |
| | 24:40 | | 0.80 | 7,750.30 | 3,446.71 | 4,303.59 | 0.921 | 1379-TCDD | AN |
| | 26:48 | | 0.78 | 9,552.09 | 4,170.73 | 5,381.36 | 1.001 | 2378-TCDD | AN |
| 320 | | 3 Peaks | | | | | | | |
| 37C1-TCDD | | | | | | | | | |
| 328 | 26:48 | | | 9,570.58 | 9,570.58 | | 1.001 | 37C1-TCDD | CLS |
| 328-330 | | 1 Peak | | | | | | | |
| 13C12-TCDD | | 0.65-0.89 | | | | | | | |
| 332-334 | 26:36 | | 0.80 | 89,653.50 | 39,825.30 | 49,828.20 | 0.993 | 13C12-1234-TCDD | RS1 |
| | 26:47 | | 0.78 | 95,879.90 | 42,125.80 | 53,754.10 | 1.000 | 13C12-2378-TCDD | IS1 |
| 332-334 | | 2 Peaks | | | | | | | |
| ---------- Above: TCDD / PeCDF Follows ---------- | | | | | | | | | |
| PeCDF | | 1.32-1.78 | | | | | | | |
| 340-342 | 30:02 | | 1.54 | 50,851.90 | 30,865.90 | 19,986.00 | 1.001 | 12378-PeCDF | AN |
| | 30:43 | | 1.47 | 47,734.80 | 28,413.40 | 19,321.40 | 1.024 | 23478-PeCDF | AN |
| 340-342 | | 2 Peaks | | | | | | | |
| 13C12-PeCDF | | 1.32-1.78 | | | | | | | |
| 352-354 | 30:00 | | 1.64 | 91,384.70 | 56,748.00 | 34,636.70 | 1.000 | 13C12-PeCDF 123 | IS2 |
| | 30:42 | | 1.57 | 85,773.50 | 52,403.00 | 33,370.50 | 1.023 | 13C12-PeCDF 234 | SUR1 |
| 352-354 | | 2 Peaks | | | | | | | |
| ---------- Above: PeCDF / PeCDD Follows ---------- | | | | | | | | | |
| PeCDD | | 1.32-1.78 | | | | | | | |
| 356-358 | 31:02 | | 1.64 | 30,965.30 | 19,252.00 | 11,713.30 | 1.000 | 12378-PeCDD | AN |
| 356-358 | | 1 Peak | | | | | | | |
| 13C12-PeCDD | | 1.32-1.78 | | | | | | | |
| 368-370 | 31:02 | | 1.64 | 51,251.10 | 31,803.40 | 19,447.70 | 1.000 | 13C12-PeCDD 123 | IS3 |
| 368-370 | | 1 Peak | | | | | | | |
| ---------- Above: PeCDD / HxCDF Follows ---------- | | | | | | | | | |

| Compound/ Z.... | ..RT. | OK | Ratio | Total.Area... | Area.Peak.1.. | Area.Peak.2.. | Rel.RT | Compound.Name.. | ID.. |
|---|---|---|---|---|---|---|---|---|---|
| HxCDF | 1.05-1.43 | | | | | | | | |
| 374-376 | 33:30 | | 1.24 | 41,709.80 | 23,113.00 | 18,596.80 | 0.998 | 123478-HxCDF | AN |
| | 33:35 | | 1.25 | 41,805.20 | 23,247.30 | 18,557.90 | 1.000 | 123678-HxCDF | AN |
| | 34:04 | | 1.23 | 40,753.00 | 22,485.90 | 18,267.10 | 1.015 | 234678-HxCDF | AN |
| | 34:51 | | 1.26 | 33,069.80 | 18,433.60 | 14,636.20 | 1.038 | 123789-HxCDF | AN |
| 374-376 | 4 Peaks | | | | | | | | |
| 13C12-HxCDF | 0.43-0.59 | | | | | | | | |
| 384-386 | 33:29 | | 0.51 | 77,330.80 | 26,100.70 | 51,230.10 | 0.997 | 13C12-HxCDF 478 | SUR2 |
| | 33:34 | | 0.52 | 73,317.30 | 24,952.90 | 48,364.40 | 1.000 | 13C12-HxCDF 678 | IS4 |
| | 34:04 | | 0.51 | 77,126.40 | 26,102.70 | 51,023.70 | 1.015 | 13C12-HxCDF 234 | ALT2 |
| | 34:50 | | 0.51 | 59,048.10 | 19,990.00 | 39,058.10 | 1.038 | 13C12-HxCDF 789 | ALT1 |
| 384-386 | 4 Peaks | | | | | | | | |
| ---------- Above: HxCDF / HxCDD Follows ---------- | | | | | | | | | |
| HxCDD | 1.05-1.43 | | | | | | | | |
| 390-392 | 34:11 | | 1.25 | 27,756.90 | 15,435.30 | 12,321.60 | 0.997 | 123478-HxCDD | AN |
| | 34:16 | | 1.26 | 28,975.60 | 16,145.00 | 12,830.60 | 1.000 | 123678-HxCDD | AN |
| | 34:35 | | 1.25 | 26,148.30 | 14,545.20 | 11,603.10 | 1.009 | 123789-HxCDD | AN |
| 390-392 | 3 Peaks | | | | | | | | |
| 13C12-HxCDD | 1.05-1.43 | | | | | | | | |
| 402-404 | 34:11 | | 1.24 | 54,287.20 | 30,101.00 | 24,186.20 | 0.997 | 13C12-HxCDD 478 | SUR3 |
| | 34:16 | | 1.26 | 57,702.60 | 32,170.40 | 25,532.20 | 1.000 | 13C12-HxCDD 678 | IS5 |
| | 34:34 | | 1.24 | 54,610.20 | 30,207.90 | 24,402.30 | 1.009 | 13C12-HxCDD 789 | RS2 |
| 402-404 | 3 Peaks | | | | | | | | |
| ---------- Above: HxCDD / HpCDF Follows ---------- | | | | | | | | | |
| HpCDF | 0.88-1.20 | | | | | | | | |
| 408-410 | 36:31 | | 1.03 | 34,318.00 | 17,399.00 | 16,919.00 | 1.001 | 1234678-HpCDF | AN |
| | 38:03 | | 1.04 | 26,575.00 | 13,518.30 | 13,056.70 | 1.043 | 1234789-HpCDF | AN |
| 408-410 | 2 Peaks | | | | | | | | |
| 13C12-HpCDF | 0.37-0.51 | | | | | | | | |
| 418-420 | 36:30 | | 0.46 | 49,606.30 | 15,710.90 | 33,895.40 | 1.000 | 13C12-HpCDF 678 | IS6 |
| | 38:02 | | 0.46 | 38,736.80 | 12,264.70 | 26,472.10 | 1.042 | 13C12-HpCDF 789 | SUR4 |
| 418-420 | 2 Peaks | | | | | | | | |
| ---------- Above: HpCDF / HpCDD Follows ---------- | | | | | | | | | |
| HpCDD | 0.88-1.20 | | | | | | | | |
| 424-426 | 37:34 | | 1.03 | 18,524.76 | 9,398.93 | 9,125.83 | 1.001 | 1234678-HpCDD | AN |
| 424-426 | 1 Peak | | | | | | | | |
| 13C12-HpCDD | 0.88-1.20 | | | | | | | | |
| 436-438 | 37:33 | | 1.06 | 42,455.20 | 21,891.60 | 20,563.60 | 1.000 | 13C12-HpCDD 678 | IS7 |
| 436-438 | 1 Peak | | | | | | | | |
| ---------- Above: HpCDD / Octa-CDD and CDF Follows ---- | | | | | | | | | |

| Compound/ M_Z.... | ..RT. | OK | Ratio | Total.Area... | Area.Peak.1.. | Area.Peak.2.. | Rel.RT | Compound.Name.. | ID.. |
|---|---|---|---|---|---|---|---|---|---|
| OCDF | 0.76-1.02 | | | | | | | | |
| 442-444 | 41:25 | | 0.92 | 38,409.60 | 18,358.40 | 20,051.20 | 1.005 | OCDF | AN |
| 442-444 | 1 Peak | | | | | | | | |
| OCDD | 0.76-1.02 | | | | | | | | |
| 458-460 | 41:12 | | 0.91 | 30,920.50 | 14,689.30 | 16,231.20 | 1.000 | OCDD | AN |
| 458-460 | 1 Peak | | | | | | | | |
| 13C12-OCDD | 0.76-1.02 | | | | | | | | |
| 470-472 | 41:12 | | 0.92 | 63,602.10 | 30,516.80 | 33,085.30 | 1.000 | 13C12-OCDD | IS8 |
| 470 | 1 Peak | | | | | | | | |

Column Description.....

M_Z - Nominal Ion Mass(es)
..RT. - Retention Time (mm:ss)
Rat.1 - Ratio of M/M+2 Ions
OK - RO=Ratio Outside Limits
Rel.RT - Relative Retention Time

*** End of Report ***

# Appendix D

# Appendix D
# Completed COC Forms

[redacted]

# Chain of Custody Record

SEVERN TRENT SERVICES

**Severn Trent Laboratories, Inc.**

| | | | |
|---|---|---|---|
| Client: CDM | Project Manager: SHARON MARLOWN | Date: 10/22/02 | Chain of Custody Number: 141055 |
| Address: | Telephone Number (Area Code) / Fax Number: 949.752.0482 / 949.752.1307 | Lab Number: | Page 1 of 1 |
| City: IRVINE / State: CA / Zip Code: | Site Contact: | Lab Contact: DIANE VERSINIA | |
| Project Name and Location (State): PHIBROTECH, LA, CA | Carrier/Waybill Number: | | |
| Contract/Purchase Order/Quote No.: | | | |

Analysis (Attach list if more space is needed)

| Sample I.D. No. and Description (Contains a forbidden sample, pay per combined sample line) | Date | Time | Matrix | Containers & Preservatives | Cr(6) 7199 | Cr-Cu-Ni | 8260 | PH | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|
| PTI-MW010-055 | 10/22/02 | 1255 | X | X | X | X | X | X | |
| PTI-MW015-055 | 10/22/02 | 1400 | | | | | | | |
| PTI-E301-055 | | 1415 | | | | | | | |
| PTI-MW03-055 | | 1510 | | | | | | | |
| PTI-MW15D-055 | | 1615 | | | | | | | |

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days (STANDARD TAT) ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify): [signature] 10/22/02 1630

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| 1. Relinquished By: [signature] | 10/22/02 | 1630 | 1. Received By: | | |
| 2. Relinquished By: | | | 2. Received By: | | |
| 3. Relinquished By: | | | 3. Received By: | | |

Comments:

Distribution: [illegible]

# Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

| | | | |
|---|---|---|---|
| Client: CDM | Project Manager: Sharon Walker | Date: 10/23/02 | Chain of Custody Number: 141054 |
| Address | Telephone Number (Area Code)/Fax Number: 949 753 6452 / 949.753.1367 | Lab Number | Page 1 of 1 |
| City: IRVINE | State | Zip Code | Site Contact | Lab Contact |
| Project Name and Location (State): PTI-BASE/ECH | Carrier/Waybill Number | |

Matrix: Water

Containers & Preservatives: 2 unpreserved; 1 HNO3; 2 H2SO4; 1 NaOH; 1 ZnAc/NaOH

Analysis (Attach list if more space is needed): 8260 (Full List); TPH; Cr+6; Pb-Cr

Special Instructions/ Conditions of Receipt

| | Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time |
|---|---|---|---|
| 1 | PTI-MW15D-055 | 10/23/02 | 0900 |
| 2 | PTI-MW06D-055 | | 0910 |
| 3 | PTI-MW06B-055 | | 1005 |
| 4 | PTI-MW07-055 | | 1310 |
| 5 | PTI-MW19S-055 | | 1420 |
| 6 | PTI-MW01A-055 | | 1520 |
| 7 | PTI-EB01-055 | | 1335 |
| 8 | PTI-TB02-055 | | 1200 |
| 9 | PTI-DI-055 | | 1200 |
| 10 | PTI-MW04-055 | | 1600 |
| 11 | PTI-MW37-055 | | 1135 |

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____ STANDARD TAT

QC Requirements (Specify):

| | Relinquished By | Date | Time |
|---|---|---|---|
| 1 | [signature] | 10/23/02 | 1635 |
| 2 | | | |
| 3 | | | |

| | Received By | Date | Time |
|---|---|---|---|
| 1 | [signature] | 10/23/02 | 16:5 |
| 2 | | | |
| 3 | | | |

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

[redacted]

# Chain of Custody Record

SEVERN TRENT SERVICES

**Severn Trent Laboratories, Inc.**

| | | | |
|---|---|---|---|
| Client: CDM | Project Manager: SHARON [illegible] | Date: 10/24/02 | Chain of Custody Number: 141044 |
| Address: | Telephone Number (Area Code)/Fax Number: 949 752 5452 / 949 752 1307 | Lab Number: | Page 1 of 1 |
| City: IRVINE | Site Contact: | Lab Contact: | |
| Project Name and Location (State): PH-BROTOCH | Carrier/Waybill Number: | | |
| Contract/Purchase Order/Quote No.: | | | |

Analysis (Attach list if more space is needed)

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Matrix: Aqueous | Matrix: Sed. | Matrix: Soil | Containers & Preservatives: Unpres. | Containers & Preservatives: HCl | Containers & Preservatives: NaOH | Containers & Preservatives: HCl | Containers & Preservatives: NaOH | Containers & Preservatives: NaOH | 8260 | Cl(6)-7194 | Cl-Cu-Cd | pH | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PT1-MW16-055 | 10/24/02 | 0820 | | X | | | X | | X | X | X | | X | X | X | X | |
| PT1-MW39-055 | ↓ | 0725 | | X | | | X | | X | X | X | | X | X | X | X | |
| PT1-MW09-055 | ↓ | 0905 | | X | | | X | | X | X | X | | X | X | X | X | |
| PT1-LB03-055 | ↓ | 0830 | | X | | | X | | X | X | X | | X | X | X | X | |
| PT1-MW11-055 | ↓ | 1005 | | X | | | X | | X | X | X | | X | X | X | X | |
| PT1-TB3-055 | ↓ | 1200 | | X | | | | | | X | | | X | | | | |

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Brown ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 5 Days ☐ 14 Days ☐ 21 Days ☐ Other ____ STANDARD TAT

Requirements (Specify):

| Relinquished By | Date | Time | Received By | Date | Time |
|---|---|---|---|---|---|
| [signature] | 10/24/02 | 1115 | [signature] | 10/24/02 | 11:15 |
| | | | | | |
| | | | | | |

Comments:

Distribution: Client Coordinator, Chain with Report, Lab Copy, Store with the Sample

Del Mar Analytical
2852 ... e, Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley D... A Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite ..., Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

10_924

# CHAIN OF CUSTODY FORM

Quote No.: _____ Page: 1 of 1

| | |
|---|---|
| Client Name: CDM | P.O./Project Number: |
| Address: | Project Name: PHIBROTECH |
| City: IRVINE, CA State: Zip: | Project Manager: SHARON WALLIN / JOHN BERNES |
| Tel: 949 752 5452 Fax: | Sampler(s) (signature): [signature] |

| Sample I.D. | Matrix | Date Sampled | Time | Preservation | Number of Containers | Type of Containers | 8015 (Gas) ☐ 8020 (BTEX) ☐ MTBE (8020) ☐ 8015/8020/MTBE ☐ | 8015 (Diesel) ☐ simulated fuel distillation ☐ fingerprint ☐ | Oil & Grease - EPA 413.2 | ~~TRPH - EPA 418.1~~ SULFIDE | EPA 8010 ☐ EPA 8010/8020 ☐ | EPA 8270 | Title 22 Metals EPA 6010/7000 ☐ +Cr VI ☐ | EPA 8260 ☒ + Oxygenates ☐ + MTBE ☐ MTBE only ☐ | ~~L~~ TITLE 22 METALS | pH | CN | Cr(VI) 7199 | 8081 | 8082 | 8141 | 8151 | 8290 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PTI-MW14S-056 | W | 12/30/02 | 0830 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-MW~~4~~07-056 | ↓ | ↓ | 1020 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-MW04-056 | ↓ | ↓ | 1310 | | ~~16~~ 15 | | | | | X | | X | | X | X | X | X | X | X | ~~X~~ 16 | X | X | X |
| PTI-MW11-056 | ↓ | ↓ | 1445 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-MW35-056 | ↓ | ↓ | 0730 | | 16 | | | | | X | | X | | X | X | X | X | X | X | X | X | X | X |
| PTI-~~MW~~EB01-056 | ↓ | ↓ | ~~1300~~ 1400 | | 5 | | | | | | | | | X | X | | | X | | | | | |

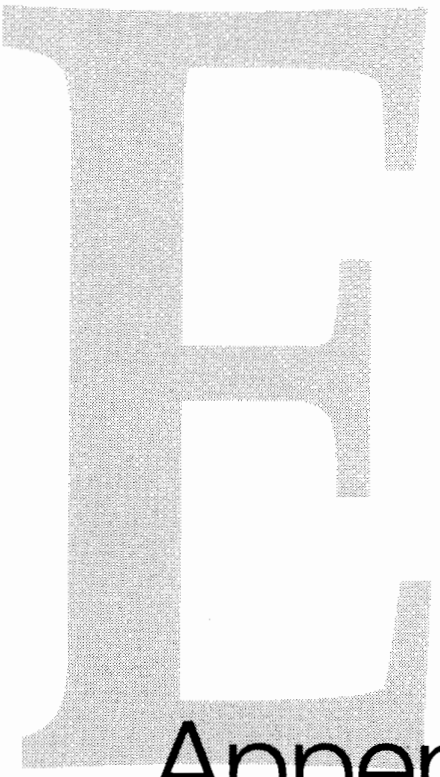
| | | | |
|---|---|---|---|
| Relinquished by: [signature] | Date/Time: 1647 12/30/02 | Received by: | Date/Time: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |
| Relinquished by: | Date/Time: | Received in Lab by: [signature] 12/30/02 | Date/Time: 16:47 |
| Remarks: | | | |

Turnaround Time: (check one):
Same Day ___ 72 hours ___
24 Hours ___ 5 Days ___
48 Hours ___ Standard X

Sample Integrity:
Intact: X On Ice 7°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Pay[illegible] for services is due within 30 days from the date of the invoice. Sample(s) will be [illegible]osed of after 30 days.

COC-GT



# Appendix E

# Appendix E
# Background Groundwater Concentrations

# CITY OF SANTA FE SPRINGS
# 2001 ANNUAL WATER QUALITY REPORT

**Results are from the most recent testing performed in accordance with state and federal drinking water regulations**

## PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

| | GROUNDWATER | | SURFACE WATER | | PRIMARY | MCLG | MAJOR SOURCES IN DRINKING WATER |
|---|---|---|---|---|---|---|---|
| | AVERAGE | RANGE | AVERAGE | RANGE | MCL | or PHG | |
| ORGANIC CHEMICALS (µg/l) | | | | | | | |
| Toluene | ND | ND | ND | ND-4.0 | 150 | 150 | Discharge from petroleum and chemical refineries |
| Trichloroethylene-TCE | 0.7 | ND-1.6 | ND | ND | 5 | 0.8 (c) | Discharge from metal degreasing sites and other factories |
| INORGANICS Sampled from 1999 to 2001(d) | | | | | | | |
| Aluminum (mg/l) | ND | ND | 0.14 | ND-0.24 | 1 | 0.6 (c) | Erosion of natural deposits, surface water treatment process residue |
| Arsenic (µg/l) | 5.5 (h) | ND-11 | ND | ND-2.4 | 50 | - | Erosion of natural deposits, glass and electronics production wastes |
| Fluoride (mg/l) | 0.30 | 0.27-0.33 | 0.22 | 0.18-0.27 | 2 | 1 (c) | Erosion of natural deposits, water additive that promotes strong teeth |
| Nitrate (mg/l as N) | 0.88 | ND-1.75 | ND | ND-0.59 | 10 | 10 (c) | Leaking from septic tanks and sewage; erosion of natural deposits |
| RADIOLOGICAL - pCi/l Analyzed 4 consecutive quarters every 4 years (results are from 1998 to 2001) (d) | | | | | | | |
| Gross Alpha (f) | 2.4 | ND-6.3 | 4.1 | 1.2-6.3 | 15 (g) | - | Erosion of natural deposits |
| Gross Beta | NA | NA | 5.4 | ND-7.8 | 50 (g) | - | Decay of natural and man-made deposits |
| Combined Radium 226/228 | NA | NA | ND | ND-1.5 | 5 | - | Erosion of natural deposits |
| Uranium | 4.8 | 4.0-5.5 | 2.9 | ND-4.0 | 20 (g) | 0.5 (c) | Erosion of natural deposits |

## MONITORED IN THE DISTRIBUTION SYSTEM

| | GROUNDWATER | | SURFACE WATER | | PRIMARY | MCLG | |
|---|---|---|---|---|---|---|---|
| | AVERAGE | RANGE | %<0.5 | MAXIMUM | MCL | or PHG | |
| Turbidity (ntu) | 0.1 | 0.1-0.5 | 100% | 0.2 | TT | - | Soil runoff |

| | GROUNDWATER | | SURFACE WATER | | PRIMARY | MCLG | |
|---|---|---|---|---|---|---|---|
| | AVERAGE | RANGE | AVERAGE | RANGE | MCL | or PHG | |
| Total Coliform Bacteria % Positive | 0% | 0% | 0.06% | 0-0.46% | 5% | 0% | Naturally present in the environment |
| Fecal Coliform Bacteria % Positive | 0% | 0% | 0% | 0% | 0% | 0% | Human and animal fecal waste |
| No. of Acute Violations | 0 | 0 | 0 | 0 | | | |
| Trihalomethanes-TTHMS (µg/l) (a) | 39 | ND-83 | 54 | 36-69 | 100 | 0 | By-product of drinking water chlorination |

| | GROUNDWATER | | SURFACE WATER | | SECONDARY | MCLG | |
|---|---|---|---|---|---|---|---|
| | AVERAGE | RANGE | AVERAGE | RANGE | MCL | or PHG | |
| Color (color units) | <3 | <3 | 1 | 1-2 | 15 | - | Naturally-occurring organic materials |
| Odor (threshold odor number) | 1 | 1-2 | (e) | (e) | 3 | - | Naturally-occurring organic materials |

| | GROUNDWATER | | SURFACE WATER | | PRIMARY | MCLG | |
|---|---|---|---|---|---|---|---|
| | 90% ile | #SITES ABOVE AL | 90% ile | #SITES ABOVE AL | MCL | or PHG | |
| AT THE TAP 30 sites sampled in 2001 | | | | | | | |
| Copper (mg/l) | 0.16 (b) | 0 | ND | 0 | 1.3 AL | 0.17 (c) | Corrosion of household plumbing |
| Lead (µg/l) | ND (b) | 0 | ND | 0 | 15 AL | 2 (c) | Corrosion of household plumbing |

## SECONDARY STANDARDS MONITORED AT THE SOURCE-FOR AESTHETIC PURPOSES

| | GROUNDWATER | | SURFACE WATER | | SECONDARY | MCLG | |
|---|---|---|---|---|---|---|---|
| | AVERAGE | RANGE | AVERAGE | RANGE | MCL | or PHG | |
| Chloride (mg/l) | 50 | 34-66 | 79 | 72-83 | 500 | - | Erosion of natural deposits, seawater influence |
| Conductivity (umhos/cm) | 655 | 470-840 | 832 | 779-884 | 1600 | - | Seawater influence, dissolved minerals |
| Sulfate (mg/l) | 112 | 54-170 | 176 | 155-194 | 500 | - | Erosion of natural deposits |
| Total Dissolved Solids (mg/l) | 399 | 262-535 | 499 | 464-530 | 1000 | - | Erosion of natural deposits |
| Manganese (µg/l) | ND | ND-26 | ND | ND | 50 | - | Erosion of natural deposits |

## ADDITIONAL CHEMICALS OF INTEREST

| | GROUNDWATER | | SURFACE WATER | |
|---|---|---|---|---|
| | AVERAGE | RANGE | AVERAGE | RANGE |
| pH (std unit) | 7.8 | 7.6-8.0 | 8.1 | 8.0-8.1 |
| Total Hardness (mg/l) | 221 | 105-337 | 236 | 216-255 |
| Calcium (mg/l) | 67 | 34-99 | 58 | 51-61 |
| Magnesium (mg/l) | 13 | 4-22 | 24 | 21-25 |
| Sodium (mg/l) | 60 | 53-67 | 79 | 74-83 |
| Potassium (mg/l) | 2.9 | 2.2-3.6 | 3.9 | 3.5-4.2 |
| Perchlorate (µg/l) | ND | ND | 4 | ND-5 |
| Haloacetic Acids (µg/l) | NA | NA | 19 | 9.5-24 |
| Haloacetonitriles (µg/l) | NA | NA | 7.7 | 4.8-13 |
| Chloropicrin (µg/l) | NA | NA | ND | ND |
| Haloketones (µg/l) | NA | NA | 1.6 | 0.7-3.2 |
| Chloral hydrate (µg/l) | NA | NA | 4.0 | 1.5-6.8 |
| Total Organic Halogens (TOX) (µg/l) | NA | NA | 115 | 72-174 |
| Cyanogen chloride (µg/l) | NA | NA | 1.8 | ND-3.1 |
| Radon (pCi/l) | 268 | 189-371 | ND | ND |
| Hexavalent chromium (µg/l) | 2.7 | 2.7 | ND | ND |
| Total chromium screen (µg/l) | 1.6 | ND-3.2 | NA | NA |
| Boron (µg/l) | 77 | ND-120 | 130 | 120-130 |
| Vanadium (µg/l) | 3.5 | ND-5.4 | 4.0 | 3-4 |

## FOOTNOTES

(a) Average and range calculated by running average.
(b) 90th percentile from the most recent sampling at selected customer taps.
(c) California Public Health Goal (PHG). Other advisory levels listed in this column are federal Maximum Contaminant Level Goals (MCLGs).
(d) Indicates dates sampled for groundwater sources only.
(e) Metropolitan Water District (MWD) of Southern California uses a flavor-profile test that more accurately detects odors. For more information, contact MWD at (213) 217-6850.
(f) Gross alpha standard also includes Radium-226 standard.
(g) MCL compliance based on 4 consecutive quarters of sampling. MCL standard is for combined Radium 226 plus 228.
(h) While your drinking water meets the current standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Health Services continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

## ABBREVIATIONS

mg/l = milligrams per liter or parts per million (equivalent to 3 drops in 42 gallons)
µg/l = micrograms per liter or parts per billion (equivalent to 1 drop in 42,000 gallons)
< = less than
umhos/cm = microumhos per centimeter
ND = constituent not detected at the reporting limit
NA = constituent not analyzed
pCi/l = picoCuries per liter

## DEFINITIONS

***Maximum Contaminant Level (MCL):*** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

***Maximum Contaminant Level Goal (MCLG):*** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

***Public Health Goal or PHG:*** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

***Treatment Technique (TT):*** A required process intended to reduce the level of a contaminant in drinking water.

***Regulatory Action Level (AL):*** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

***Primary Drinking Water Standard or PDWS:*** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

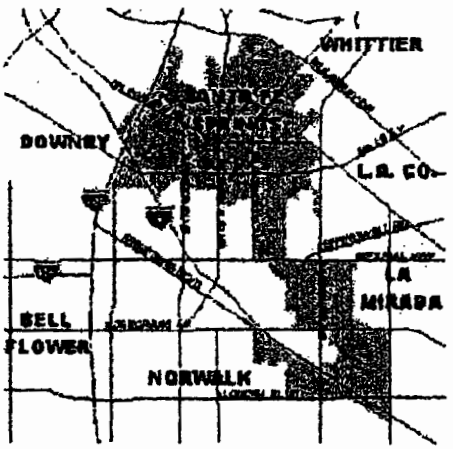
***Special note on Radon:*** *Radon is a radioactive gas that you cannot taste, see or smell, and is a known human carcinogen. It is found throughout the country. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering and other household activities. Radon entering the home through tap water is a small source compared to radon entering the home through soil. If you are concerned about radon in your home, an easy and inexpensive test can show you how much radon is in your home's indoor air. There are simple and inexpensive ways to fix your home if the level of radon in air is 4 picoCuries per liter (pCi/L) of air or higher. For additional information, call your State radon program or call EPA's Radon Hotline (800-SOS-RADON).*

SEP 06 2002 2:35PM ######0# ##########

# CITY OF SANTA FE SPRINGS
# 2001 ANNUAL WATER QUALITY REPORT

Since 1991, California water utilities have been providing information on water served to its consumers. This report is a snapshot of the tap water quality that we provided last year. Included are details about where your water comes from, how it is tested, what is in it, and how it compares with state and federal limits. Although a lot of the information in this report is detailed and technical, we have made every effort to keep it readable. We strive to keep you informed about the quality of your water, and to provide a reliable and economic supply that meets all requirements. **We are happy to report that your tap water meets or surpasses all water quality standards for 2001.**

## Where Does My Tap Water Come From?




Your tap water comes from 2 sources: groundwater and surface water. We pump groundwater from local, deep wells. We also use Metropolitan Water District of Southern California's surface water from both the Colorado River and the State Water Project in northern California. These water sources supply our service area shown on the adjacent map. The quality of our groundwater and Metropolitan Water District's surface water supplies is presented in this report.

## How is My Drinking Water Tested?

Your drinking water is tested regularly for unsafe levels of chemicals, radioactivity and bacteria at the source and in the distribution system. We test weekly, monthly, quarterly, annually or less often depending on the substance. State and federal laws allow us to test some substances less than once per year because their levels do not change frequently. All water quality tests are conducted by specially trained technicians in state-certified laboratories.

## What Are Drinking Water Standards?

The federal Environmental Protection Agency (EPA) limits the amount of certain substances in tap water. In California, the Department of Health Services (DHS) regulates tap water quality by enforcing limits that are at least as stringent as the Federal EPA's. Historically, California limits are more stringent than the Federal counterparts.

There are two types of limits, known as standards. Primary standards protect you from substances that could potentially affect your health. Secondary standards regulate substances that affect the aesthetic qualities of water. Regulations set a Maximum Contaminant Level (MCL) for each of the primary and secondary standards. The MCL is the highest level of a substance that is allowed in drinking water. Water suppliers must not exceed MCLs to ensure water quality.

Public Health Goals (PHGs) are set by the California Environmental Protection Agency. PHGs provide more information on the quality of drinking water to customers, and are similar to their federal counterparts, Maximum Contaminant Level Goals (MCLGs). PHGs and MCLGs are levels that are of an advisory nature only and nonenforceable. Both PHGs and MCLGs are concentrations of a substance at which there are no known or expected health risks.

## How Do I Read the Water Quality Table?

Although we test for over 100 substances, regulations require us to report only those found in your water. The first column of the water quality table lists substances detected in your water. The next columns list the average concentration and range of concentrations found in your drinking water. Following are columns that list the MCL and PHG or MCLG, if appropriate. The last column describes the likely sources of substances in drinking water.

To review the quality of your drinking water, compare the highest concentration and the MCL. Check for substances greater than the MCL. Exceedence of a primary MCL does not usually constitute an immediate health threat. Rather, it requires testing the source water more frequently for a short duration. If test results show that the water continues to exceed the MCL, the water must be treated to remove the substance, or the source must be removed from service.

## Why Do I See So Much Coverage in the News About the Quality Of Tap Water?

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the ground, it can pick up substances resulting from the presence of animals or from human activity. The presence of contaminants does not necessarily indicate that water poses a health risk. Information about contaminants and potential health effects can be obtained by calling the federal EPA's Safe Drinking Water Hotline (800-426-4791). **You can get more information on tap water by logging on to these helpful web sites:**

- www.epa.gov/OGWDW **(Federal EPA's web site)**
- www.dhs.cahwnet.gov/ps/ddwem **(California DHS website)**

## What Does the EPA Say About Drinking Water Quality?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, including viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems;
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

## Should I Take Additional Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection of *Cryptosporidium* and other microbial contaminants are available from the federal **EPA's Safe Drinking Water Hotline (800-426-4791).**

## How Can I Participate in Decisions On Water Issues That Affect Me?

The public is welcome to attend City Council meetings on the second and fourth Thursday of each month at 7 p.m.

## How Do I Contact My Water Agency If I Have Any Questions About Water Quality?

If you have specific questions about your tap water quality, please contact Ron Hughes at (562) 868-0511

## How Can I Conserve Water At Home?

Install a Low-flow Showerhead - save over 5 gallons of water per shower, or about 1,800 gallons per year per person!
Install a low-flow toilet or water displacement device in your toilet - save 3.5 to 4.5 gallons on every flush!
Run only full loads in your dishwasher/washing machine - save 300 - 800 gallons of water every month!
Sweep your sidewalks and driveway - save 150 gallons each time by sweeping instead of hosing!
Water the lawn only when it needs it - save 30-50 gallons per day!

# Appendix F

# Appendix F
# Statistical Analysis

# Appendix F-1
# Statistical Tables

# Table 1

## Background Data

| Constituent | Units | Location | Date | | Result |
|---|---|---|---|---|---|
| Benzene | ug/l | MW-1S | 07/01/1994 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 10/01/1994 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 01/01/1995 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 04/01/1995 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 01/01/1996 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 04/01/1996 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 07/01/1996 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 10/01/1996 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 01/01/1997 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 04/01/1997 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 07/01/1997 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 10/01/1997 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 01/01/1998 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 04/01/1998 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 07/01/1998 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 10/01/1998 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 01/01/1999 | ND | 0.5000 |
| Benzene | ug/l | MW-1S | 04/01/1999 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 07/01/1999 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 10/01/1999 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 01/01/2000 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 04/01/2000 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 10/01/2000 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 04/01/2001 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 07/01/2001 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 10/01/2001 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 01/01/2002 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 04/01/2002 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 07/01/2002 | ND | 1.0000 |
| Benzene | ug/l | MW-1S | 10/22/2002 | ND | 1.0000 |
| Cadmium | mg/L | MW-1S | 07/01/1994 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/01/1994 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 01/01/1995 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/1995 | ND | 0.0010 |
| Cadmium | mg/L | MW-1S | 01/01/1996 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/1996 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 07/01/1996 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/01/1996 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 01/01/1997 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/1997 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 07/01/1997 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/01/1997 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 01/01/1998 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/1998 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 07/01/1998 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/01/1998 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 01/01/1999 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/1999 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 07/01/1999 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/01/1999 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 01/01/2000 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/2000 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/01/2000 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/2001 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 07/01/2001 | ND | 0.0050 |

* - Outlier for that location and constituent.
ND = Not detected, result = detection limit.

# Table 1

## Background Data

| Constituent | Units | Location | Date | | Result |
|---|---|---|---|---|---|
| Cadmium | mg/L | MW-1S | 10/01/2001 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 01/01/2002 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 04/01/2002 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 07/01/2002 | ND | 0.0050 |
| Cadmium | mg/L | MW-1S | 10/22/2002 | ND | 0.0050 |
| Chromium | mg/L | MW-1S | 07/01/1994 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/1994 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/1995 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/1995 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/1996 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/1996 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 07/01/1996 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/1996 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/1997 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/1997 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 07/01/1997 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/1997 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/1998 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/1998 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 07/01/1998 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/1998 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/1999 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/1999 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 07/01/1999 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/1999 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/2000 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/2000 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/2000 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/2001 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 07/01/2001 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/01/2001 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 01/01/2002 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 04/01/2002 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 07/01/2002 | ND | 0.0100 |
| Chromium | mg/L | MW-1S | 10/22/2002 | ND | 0.0100 |
| Chromium (vi) | mg/L | MW-1S | 07/01/1994 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 10/01/1994 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 01/01/1995 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 04/01/1995 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 01/01/1996 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 04/01/1996 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 07/01/1996 | ND | 0.0100 |
| Chromium (vi) | mg/L | MW-1S | 10/01/1996 | ND | 0.0100 |
| Chromium (vi) | mg/L | MW-1S | 01/01/1997 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 04/01/1997 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 07/01/1997 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 10/01/1997 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 01/01/1998 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 04/01/1998 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 07/01/1998 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 10/01/1998 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 01/01/1999 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 04/01/1999 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 07/01/1999 | ND | 0.0200 |
| Chromium (vi) | mg/L | MW-1S | 10/01/1999 | ND | 0.0100 |

* - Outlier for that location and constituent.
ND = Not detected, result = detection limit.

# Table 1

## Background Data

| Constituent | Units | Location | Date | | Result | |
|---|---|---|---|---|---|---|
| Chromium (vi) | mg/L | MW-1S | 01/01/2000 | ND | 0.0200 | |
| Chromium (vi) | mg/L | MW-1S | 04/01/2000 | ND | 0.0100 | |
| Chromium (vi) | mg/L | MW-1S | 10/01/2000 | ND | 0.0200 | |
| Chromium (vi) | mg/L | MW-1S | 04/01/2001 | ND | 0.0020 | |
| Chromium (vi) | mg/L | MW-1S | 07/01/2001 | ND | 0.0020 | |
| Chromium (vi) | mg/L | MW-1S | 10/01/2001 | | 0.0062 | |
| Chromium (vi) | mg/L | MW-1S | 01/01/2002 | ND | 0.0200 | |
| Chromium (vi) | mg/L | MW-1S | 04/01/2002 | ND | 0.0020 | |
| Chromium (vi) | mg/L | MW-1S | 07/01/2002 | | 0.0018 | |
| Chromium (vi) | mg/L | MW-1S | 10/22/2002 | ND | 0.0010 | |
| Copper | mg/L | MW-1S | 07/01/1994 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/01/1994 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/1995 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/1995 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/1996 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/1996 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 07/01/1996 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/01/1996 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/1997 | | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/1997 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 07/01/1997 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/01/1997 | | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/1998 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/1998 | | 0.0200 | |
| Copper | mg/L | MW-1S | 07/01/1998 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/01/1998 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/1999 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/1999 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 07/01/1999 | | 0.0500 | |
| Copper | mg/L | MW-1S | 10/01/1999 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/2000 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/2000 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/01/2000 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/2001 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 07/01/2001 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/01/2001 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 01/01/2002 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 04/01/2002 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 07/01/2002 | ND | 0.0200 | |
| Copper | mg/L | MW-1S | 10/22/2002 | ND | 0.0200 | |
| Ethylbenzene | ug/l | MW-1S | 07/01/1994 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 10/01/1994 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 01/01/1995 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 04/01/1995 | | 1.3000 | |
| Ethylbenzene | ug/l | MW-1S | 01/01/1996 | | 1.7000 | |
| Ethylbenzene | ug/l | MW-1S | 04/01/1996 | | 3.4000 | |
| Ethylbenzene | ug/l | MW-1S | 07/01/1996 | | 2.2000 | |
| Ethylbenzene | ug/l | MW-1S | 10/01/1996 | | 2.1000 | |
| Ethylbenzene | ug/l | MW-1S | 01/01/1997 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 04/01/1997 | | 1.4000 | |
| Ethylbenzene | ug/l | MW-1S | 07/01/1997 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 10/01/1997 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 01/01/1998 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 04/01/1998 | ND | 1.0000 | |
| Ethylbenzene | ug/l | MW-1S | 07/01/1998 | ND | 1.0000 | |

* - Outlier for that location and constituent.
ND = Not detected, result = detection limit.

# Table 1

## Background Data

| Constituent | Units | Location | Date | | Result |
|---|---|---|---|---|---|
| Ethylbenzene | ug/l | MW-1S | 10/01/1998 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 01/01/1999 | | 2.0000 |
| Ethylbenzene | ug/l | MW-1S | 04/01/1999 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 07/01/1999 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 10/01/1999 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 01/01/2000 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 04/01/2000 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 10/01/2000 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 04/01/2001 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 07/01/2001 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 10/01/2001 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 01/01/2002 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 04/01/2002 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 07/01/2002 | ND | 1.0000 |
| Ethylbenzene | ug/l | MW-1S | 10/22/2002 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/1994 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/1995 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/1995 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/1996 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/1996 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/1996 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/01/1996 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/1997 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/1997 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/1997 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/01/1997 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/1998 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/1998 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/1998 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/01/1998 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/1999 | ND | 2.0000 |
| Toluene | ug/l | MW-1S | 04/01/1999 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/1999 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/01/1999 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/2000 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/2000 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/01/2000 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/2001 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/2001 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/01/2001 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 01/01/2002 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 04/01/2002 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 07/01/2002 | ND | 1.0000 |
| Toluene | ug/l | MW-1S | 10/22/2002 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 07/01/1994 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 10/01/1994 | | 5.8000 |
| Total xylenes | ug/l | MW-1S | 01/01/1995 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/1995 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 01/01/1996 | | 5.1000 |
| Total xylenes | ug/l | MW-1S | 04/01/1996 | | 4.9000 |
| Total xylenes | ug/l | MW-1S | 07/01/1996 | | 3.7000 |
| Total xylenes | ug/l | MW-1S | 10/01/1996 | | 2.8000 |
| Total xylenes | ug/l | MW-1S | 01/01/1997 | | 2.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/1997 | | 1.2000 |
| Total xylenes | ug/l | MW-1S | 07/01/1997 | ND | 1.0000 |

* - Outlier for that location and constituent.
ND = Not detected, result = detection limit.

# Table 1

## Background Data

| Constituent | Units | Location | Date | | Result |
|---|---|---|---|---|---|
| Total xylenes | ug/l | MW-1S | 10/01/1997 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 01/01/1998 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/1998 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 07/01/1998 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 10/01/1998 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 01/01/1999 | ND | 2.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/1999 | ND | 2.0000 |
| Total xylenes | ug/l | MW-1S | 07/01/1999 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 10/01/1999 | ND | 2.0000 |
| Total xylenes | ug/l | MW-1S | 01/01/2000 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/2000 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 10/01/2000 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/2001 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 07/01/2001 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 10/01/2001 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 01/01/2002 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 04/01/2002 | ND | 1.0000 |
| Total xylenes | ug/l | MW-1S | 07/01/2002 | ND | 2.0000 |
| Total xylenes | ug/l | MW-1S | 10/22/2002 | ND | 2.0000 |
| Trichloroethene | ug/l | MW-1S | 07/01/1994 | | 7.9000 |
| Trichloroethene | ug/l | MW-1S | 10/01/1994 | | 13.0000 |
| Trichloroethene | ug/l | MW-1S | 01/01/1995 | | 5.2000 |
| Trichloroethene | ug/l | MW-1S | 04/01/1995 | | 4.4000 |
| Trichloroethene | ug/l | MW-1S | 01/01/1996 | | 8.4000 |
| Trichloroethene | ug/l | MW-1S | 04/01/1996 | | 2.9000 |
| Trichloroethene | ug/l | MW-1S | 07/01/1996 | | 9.7000 |
| Trichloroethene | ug/l | MW-1S | 10/01/1996 | | 16.0000 |
| Trichloroethene | ug/l | MW-1S | 01/01/1997 | | 6.0000 |
| Trichloroethene | ug/l | MW-1S | 04/01/1997 | | 15.0000 |
| Trichloroethene | ug/l | MW-1S | 07/01/1997 | | 14.0000 |
| Trichloroethene | ug/l | MW-1S | 10/01/1997 | | 12.0000 |
| Trichloroethene | ug/l | MW-1S | 01/01/1998 | | 12.0000 |
| Trichloroethene | ug/l | MW-1S | 04/01/1998 | | 14.0000 |
| Trichloroethene | ug/l | MW-1S | 07/01/1998 | | 14.0000 |
| Trichloroethene | ug/l | MW-1S | 10/01/1998 | | 7.8000 |
| Trichloroethene | ug/l | MW-1S | 01/01/1999 | | 10.0000 |
| Trichloroethene | ug/l | MW-1S | 04/01/1999 | | 7.2000 |
| Trichloroethene | ug/l | MW-1S | 07/01/1999 | | 9.1000 |
| Trichloroethene | ug/l | MW-1S | 10/01/1999 | | 9.1000 |
| Trichloroethene | ug/l | MW-1S | 01/01/2000 | | 9.9000 |
| Trichloroethene | ug/l | MW-1S | 04/01/2000 | | 16.0000 |
| Trichloroethene | ug/l | MW-1S | 10/01/2000 | | 8.9000 |
| Trichloroethene | ug/l | MW-1S | 04/01/2001 | | 13.0000 |
| Trichloroethene | ug/l | MW-1S | 07/01/2001 | | 2.1000 |
| Trichloroethene | ug/l | MW-1S | 10/01/2001 | | 13.0000 |
| Trichloroethene | ug/l | MW-1S | 01/01/2002 | | 7.0000 |
| Trichloroethene | ug/l | MW-1S | 04/01/2002 | | 5.3000 |
| Trichloroethene | ug/l | MW-1S | 07/01/2002 | | 6.2000 |
| Trichloroethene | ug/l | MW-1S | 10/22/2002 | | 8.3000 |

* - Outlier for that location and constituent.
ND = Not detected, result = detection limit.

## Table 2

## Most Current Onsite/Downgradient Monitoring Data

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Benzene | ug/l | MW-11 | 10/24/2002 | ND | 10.0000 | | 0.5000 |
| Benzene | ug/l | MW-14S | 10/23/2002 | ND | 5.0000 | | 0.5000 |
| Benzene | ug/l | MW-15D | 10/22/2002 | | 1.2000 | * | 0.5000 |
| Benzene | ug/l | MW-15S | 10/23/2002 | ND | 1.0000 | | 0.5000 |
| Benzene | ug/l | MW-16 | 10/24/2002 | ND | 2.0000 | | 0.5000 |
| Benzene | ug/l | MW-1D | 10/22/2002 | ND | 1.0000 | | 0.5000 |
| Benzene | ug/l | MW-3 | 10/22/2002 | ND | 10.0000 | | 0.5000 |
| Benzene | ug/l | MW-4 | 10/23/2002 | ND | 12.0000 | | 0.5000 |
| Benzene | ug/l | MW-4A | 10/23/2002 | ND | 1.0000 | | 0.5000 |
| Benzene | ug/l | MW-6B | 10/23/2002 | ND | 1.0000 | | 0.5000 |
| Benzene | ug/l | MW-6D | 10/23/2002 | ND | 1.0000 | | 0.5000 |
| Benzene | ug/l | MW-7 | 10/23/2002 | ND | 1.0000 | | 0.5000 |
| Benzene | ug/l | MW-9 | 10/24/2002 | ND | 10.0000 | | 0.5000 |
| Cadmium | mg/L | MW-11 | 10/24/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/23/2002 | | 0.0074 | * | 0.0050 |
| Cadmium | mg/L | MW-15D | 10/22/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-15S | 10/23/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-16 | 10/24/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-1D | 10/22/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-3 | 10/22/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/23/2002 | | 0.6150 | * | 0.0050 |
| Cadmium | mg/L | MW-4A | 10/23/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-6B | 10/23/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-6D | 10/23/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-7 | 10/23/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-9 | 10/24/2002 | ND | 0.0050 | | 0.0050 |
| Chromium | mg/L | MW-11 | 10/24/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 10/23/2002 | | 0.4200 | * | 0.0100 |
| Chromium | mg/L | MW-15D | 10/22/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-15S | 10/23/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-16 | 10/24/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-1D | 10/22/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-3 | 10/22/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-4 | 10/23/2002 | | 29.8000 | * | 0.0100 |
| Chromium | mg/L | MW-4A | 10/23/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-6B | 10/23/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-6D | 10/23/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-7 | 10/23/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 10/24/2002 | | 4.6500 | * | 0.0100 |
| Chromium (vi) | mg/L | MW-11 | 10/24/2002 | ND | 0.0010 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/23/2002 | | 0.4200 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-15D | 10/22/2002 | | 0.0016 | | 0.0200 |
| Chromium (vi) | mg/L | MW-15S | 10/23/2002 | | 0.0035 | | 0.0200 |
| Chromium (vi) | mg/L | MW-16 | 10/24/2002 | | 0.0051 | | 0.0200 |
| Chromium (vi) | mg/L | MW-1D | 10/22/2002 | ND | 0.0010 | | 0.0200 |
| Chromium (vi) | mg/L | MW-3 | 10/22/2002 | ND | 0.0010 | | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/23/2002 | | 31.4500 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4A | 10/23/2002 | | 0.0061 | | 0.0200 |
| Chromium (vi) | mg/L | MW-6B | 10/23/2002 | ND | 0.0010 | | 0.0200 |
| Chromium (vi) | mg/L | MW-6D | 10/23/2002 | | 0.0025 | | 0.0200 |
| Chromium (vi) | mg/L | MW-7 | 10/23/2002 | ND | 0.0010 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/24/2002 | | 4.3500 | * | 0.0200 |
| Copper | mg/L | MW-11 | 10/24/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-14S | 10/23/2002 | | 0.0400 | | 0.0500 |

* - Current value failed.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, result = detection limit.

## Table 2

## Most Current Onsite/Downgradient Monitoring Data

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Copper | mg/L | MW-15D | 10/22/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-15S | 10/23/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-16 | 10/24/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-1D | 10/22/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-3 | 10/22/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-4 | 10/23/2002 | ND | 0.1200 | | 0.0500 |
| Copper | mg/L | MW-4A | 10/23/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-6B | 10/23/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-6D | 10/23/2002 | | 0.0400 | | 0.0500 |
| Copper | mg/L | MW-7 | 10/23/2002 | ND | 0.0200 | | 0.0500 |
| Copper | mg/L | MW-9 | 10/24/2002 | ND | 0.0200 | | 0.0500 |
| Ethylbenzene | ug/l | MW-11 | 10/24/2002 | | 390.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/23/2002 | | 14.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-15D | 10/22/2002 | | 3.8000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-15S | 10/23/2002 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-16 | 10/24/2002 | ND | 2.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-1D | 10/22/2002 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/22/2002 | | 63.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/23/2002 | | 850.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4A | 10/23/2002 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-6B | 10/23/2002 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-6D | 10/23/2002 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-7 | 10/23/2002 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-9 | 10/24/2002 | ND | 10.0000 | | 3.4000 |
| Toluene | ug/l | MW-11 | 10/24/2002 | ND | 10.0000 | | 1.0000 |
| Toluene | ug/l | MW-14S | 10/23/2002 | ND | 5.0000 | | 1.0000 |
| Toluene | ug/l | MW-15D | 10/22/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-15S | 10/23/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-16 | 10/24/2002 | ND | 2.0000 | | 1.0000 |
| Toluene | ug/l | MW-1D | 10/22/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-3 | 10/22/2002 | ND | 10.0000 | | 1.0000 |
| Toluene | ug/l | MW-4 | 10/23/2002 | ND | 12.0000 | | 1.0000 |
| Toluene | ug/l | MW-4A | 10/23/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-6B | 10/23/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-6D | 10/23/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-7 | 10/23/2002 | ND | 1.0000 | | 1.0000 |
| Toluene | ug/l | MW-9 | 10/24/2002 | ND | 10.0000 | | 1.0000 |
| Total xylenes | ug/l | MW-11 | 10/24/2002 | ND | 20.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-14S | 10/23/2002 | ND | 10.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-15D | 10/22/2002 | | 4.9000 | | 5.8000 |
| Total xylenes | ug/l | MW-15S | 10/23/2002 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-16 | 10/24/2002 | ND | 4.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-1D | 10/22/2002 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/22/2002 | | 700.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/23/2002 | | 1705.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4A | 10/23/2002 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-6B | 10/23/2002 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-6D | 10/23/2002 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-7 | 10/23/2002 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-9 | 10/24/2002 | ND | 20.0000 | | 5.8000 |
| Trichloroethene | ug/l | MW-11 | 10/24/2002 | | 700.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/23/2002 | | 360.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-15D | 10/22/2002 | | 6.2000 | | 24.1066 |
| Trichloroethene | ug/l | MW-15S | 10/23/2002 | | 13.0000 | | 24.1066 |

* - Current value failed.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, result = detection limit.

## Table 2

## Most Current Onsite/Downgradient Monitoring Data

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Trichloroethene | ug/l | MW-16 | 10/24/2002 | | 25.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-1D | 10/22/2002 | | 1.8000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/22/2002 | | 190.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/23/2002 | | 135.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4A | 10/23/2002 | | 36.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-6B | 10/23/2002 | | 12.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-6D | 10/23/2002 | | 4.5000 | | 24.1066 |
| Trichloroethene | ug/l | MW-7 | 10/23/2002 | | 21.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/24/2002 | | 585.0000 | * | 24.1066 |

* - Current value failed.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, result = detection limit.

## Table 3

## Detection Frequencies in Background and Onsite/Downgradient Locations

| Constituent | Detect | Backgrd N | Proportion | Detect | Onsite N | Proportion |
|---|---|---|---|---|---|---|
| Benzene | 0 | 30 | 0.000 | 24 | 273 | 0.088 |
| Cadmium | 0 | 30 | 0.000 | 39 | 273 | 0.143 |
| Chromium | 0 | 30 | 0.000 | 83 | 273 | 0.304 |
| Chromium (vi) | 2 | 30 | 0.067 | 83 | 273 | 0.304 |
| Copper | 4 | 30 | 0.133 | 48 | 273 | 0.176 |
| Ethylbenzene | 7 | 30 | 0.233 | 185 | 273 | 0.678 |
| Toluene | 0 | 29 | 0.000 | 56 | 264 | 0.212 |
| Total xylenes | 7 | 30 | 0.233 | 139 | 273 | 0.509 |
| Trichloroethene | 30 | 30 | 1.000 | 272 | 273 | 0.996 |

N = Total number of measurements in all locations.
Detect = Total number of detections in all locations.
Proportion = Detect/N.

## Table 4

## Shapiro Wilk Test of Normality for Multiple Groups

| Constituent | N (Detects) | Detect Freq | G raw | G log | Critical Value | Limit Type |
|---|---|---|---|---|---|---|
| Benzene | 0 | 0.000 | | | | nonpar |
| Cadmium | 0 | 0.000 | | | | nonpar |
| Chromium | 0 | 0.000 | | | | nonpar |
| Chromium (vi) | 2 | 0.067 | | | | nonpar |
| Copper | 4 | 0.133 | 1.125 | 1.125 | 2.326 | nonpar |
| Ethylbenzene | 7 | 0.233 | 0.825 | 0.028 | 2.326 | nonpar |
| Toluene | 0 | 0.000 | | | | nonpar |
| Total xylenes | 7 | 0.233 | 0.454 | 0.017 | 2.326 | nonpar |
| Trichloroethene | 30 | 1.000 | 0.155 | 1.612 | 2.326 | normal |

Fit to distribution is confirmed if G < critical value.
If detection frequency is < 50% nonparametric or Poisson limit is used

## Table 5

### Summary Statistics and 95% Confidence Prediction Limits

| Constituent | Units | Model Type | N | Detect | Mean | SD | Pred Limit | Conf* |
|---|---|---|---|---|---|---|---|---|
| Benzene | ug/l | nonpar | 30 | 0 | | | 0.5000 | 0.65 |
| Cadmium | mg/L | nonpar | 30 | 0 | | | 0.0050 | 0.65 |
| Chromium | mg/L | nonpar | 30 | 0 | | | 0.0100 | 0.65 |
| Chromium (vi) | mg/L | nonpar | 30 | 2 | | | 0.0200 | 0.65 |
| Copper | mg/L | nonpar | 30 | 4 | | | 0.0500 | 0.65 |
| Ethylbenzene | ug/l | nonpar | 30 | 7 | | | 3.4000 | 0.65 |
| Toluene | ug/l | nonpar | 29 | 0 | | | 1.0000 | 0.64 |
| Total xylenes | ug/l | nonpar | 30 | 7 | | | 5.8000 | 0.65 |
| Trichloroethene | ug/l | normal | 30 | 30 | 9.5800 | 3.8459 | 24.1066 | |

* - Confidence level for passing a single test at all onsite/downgradient locations for a single constituent (nonparametric test only).
Model Type refers to type of prediction limit.
For lognormal limit, mean and sd in natural log units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Benzene | ug/l | MW-15D | 10/22/2002 | | 1.2000 | * | 0.5000 |
| Cadmium | mg/L | MW-14S | 07/01/1994 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/1994 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/1995 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 01/01/1996 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/1996 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 07/01/1996 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/1996 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 01/01/1997 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/1997 | | 0.0053 | * | 0.0050 |
| Cadmium | mg/L | MW-14S | 07/01/1997 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/1997 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 01/01/1998 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/1998 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 07/01/1998 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/1998 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 01/01/1999 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/1999 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 07/01/1999 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/1999 | | 0.0060 | * | 0.0050 |
| Cadmium | mg/L | MW-14S | 01/01/2000 | | 0.0094 | * | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/2000 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/2000 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/2001 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 07/01/2001 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/01/2001 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 01/01/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 04/01/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 07/01/2002 | ND | 0.0050 | | 0.0050 |
| Cadmium | mg/L | MW-14S | 10/23/2002 | | 0.0074 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/1994 | | 0.2000 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/01/1994 | | 0.4500 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/1995 | | 0.1300 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/1995 | | 0.2100 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/1996 | | 0.1900 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/1996 | | 0.6000 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/1996 | | 0.2800 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/01/1996 | | 0.4600 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/1997 | | 0.5400 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/1997 | | 0.5300 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/1997 | | 0.6200 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/01/1997 | | 0.6400 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/1998 | | 0.5300 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/1998 | | 0.4300 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/1998 | | 0.3200 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/01/1998 | | 0.4400 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/1999 | | 0.5800 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/1999 | | 0.4100 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/1999 | | 0.4200 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/01/1999 | | 0.5900 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/2000 | | 0.3200 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/2000 | | 0.5500 | * | 0.0050 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Cadmium | mg/L | MW-4 | 10/01/2000 | | 0.5200 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/2001 | | 0.3800 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/2001 | | 0.3100 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/01/2001 | | 0.4200 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 01/01/2002 | | 0.3800 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 04/01/2002 | | 0.4350 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 07/01/2002 | | 0.4900 | * | 0.0050 |
| Cadmium | mg/L | MW-4 | 10/23/2002 | | 0.6150 | * | 0.0050 |
| Chromium | mg/L | MW-14S | 07/01/1994 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/1994 | ND | 0.0600 | | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/1995 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 01/01/1996 | | 0.0300 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/1996 | | 0.0200 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 07/01/1996 | | 0.0600 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/1996 | | 0.0800 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 01/01/1997 | | 0.0300 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/1997 | | 0.0300 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 07/01/1997 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/1997 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 01/01/1998 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/1998 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 07/01/1998 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/1998 | | 0.0400 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 01/01/1999 | | 0.0300 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/1999 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 07/01/1999 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/1999 | | 0.1500 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 01/01/2000 | | 0.2600 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/2000 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/2000 | | 0.0900 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/2001 | | 0.0400 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 07/01/2001 | | 0.0200 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 10/01/2001 | | 0.1400 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 01/01/2002 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-14S | 04/01/2002 | | 0.0400 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 07/01/2002 | | 0.0600 | * | 0.0100 |
| Chromium | mg/L | MW-14S | 10/23/2002 | | 0.4200 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/1994 | | 41.4000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/01/1994 | ND | 52.8000 | | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/1995 | | 34.3000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/1995 | | 9.1000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/1996 | | 32.4000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/1996 | | 38.0000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/1996 | | 58.9000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/01/1996 | | 75.7000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/1997 | | 34.5000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/1997 | | 18.8000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/1997 | | 35.2000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/01/1997 | | 85.3000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/1998 | | 44.0000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/1998 | | 14.1000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/1998 | | 18.9000 | * | 0.0100 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Chromium | mg/L | MW-4 | 10/01/1998 | | 36.2000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/1999 | | 85.2000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/1999 | | 42.8000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/1999 | | 49.7000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/01/1999 | | 105.0000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/2000 | | 60.0000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/2000 | | 39.3000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/01/2000 | | 42.1000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/2001 | | 16.8000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/2001 | | 24.5000 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/01/2001 | | 34.3500 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 01/01/2002 | | 21.6500 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 04/01/2002 | | 26.8500 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 07/01/2002 | | 31.2500 | * | 0.0100 |
| Chromium | mg/L | MW-4 | 10/23/2002 | | 29.8000 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/1994 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/1994 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/1995 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/1995 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/1996 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/1996 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/1996 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/1996 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/1997 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/1997 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/1997 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/1997 | | 0.0400 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/1998 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/1998 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/1998 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/1998 | | 1.3000 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/1999 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/1999 | | 0.6400 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/1999 | | 0.6400 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/1999 | | 4.2000 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/2000 | | 13.9000 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/2000 | ND | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/2000 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/2001 | | 0.0100 | | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/2001 | | 0.0800 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 10/01/2001 | | 1.3500 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 01/01/2002 | | 0.1550 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 04/01/2002 | | 0.1550 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 07/01/2002 | | 9.2000 | * | 0.0100 |
| Chromium | mg/L | MW-9 | 10/24/2002 | | 4.6500 | * | 0.0100 |
| Chromium (vi) | mg/L | MW-14S | 07/01/1994 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/1994 | | 0.0300 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/1995 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 01/01/1996 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/1996 | | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 07/01/1996 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/1996 | | 0.0500 | * | 0.0200 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Chromium (vi) | mg/L | MW-14S | 01/01/1997 | | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/1997 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 07/01/1997 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/1997 | ND | 0.1000 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 01/01/1998 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/1998 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 07/01/1998 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/1998 | | 0.0300 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 01/01/1999 | | 0.0500 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/1999 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 07/01/1999 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/1999 | | 0.0300 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 01/01/2000 | | 0.1100 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/2000 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/2000 | | 0.0300 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/2001 | | 0.0500 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 07/01/2001 | | 0.0046 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/01/2001 | ND | 0.0020 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 01/01/2002 | ND | 0.0060 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 04/01/2002 | | 0.0300 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 07/01/2002 | | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-14S | 10/23/2002 | | 0.4200 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/1994 | | 59.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/1994 | | 60.7000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/1995 | | 28.8000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/1995 | | 8.6000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/1996 | | 25.7000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/1996 | | 28.4000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/1996 | | 50.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/1996 | | 63.8000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/1997 | | 45.9000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/1997 | | 27.3000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/1997 | | 36.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/1997 | | 73.8000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/1998 | | 39.2000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/1998 | | 7.2000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/1998 | | 16.3000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/1998 | | 34.1000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/1999 | | 78.6000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/1999 | | 0.5700 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/1999 | | 41.1000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/1999 | | 58.2000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/2000 | | 76.3000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/2000 | | 32.9000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/2000 | | 45.6000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/2001 | | 11.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/2001 | | 14.5000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/01/2001 | | 32.5000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 01/01/2002 | | 18.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 04/01/2002 | | 31.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 07/01/2002 | | 27.8000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-4 | 10/23/2002 | | 31.4500 | * | 0.0200 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Chromium (vi) | mg/L | MW-9 | 07/01/1994 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/1994 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/1995 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/1995 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/1996 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/1996 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 07/01/1996 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/1996 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/1997 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/1997 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 07/01/1997 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/1997 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/1998 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/1998 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 07/01/1998 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/1998 | | 3.3000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/1999 | | 3.3000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/1999 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 07/01/1999 | | 5.8000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/1999 | | 4.0000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/2000 | | 14.1000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/2000 | ND | 0.0100 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/2000 | ND | 0.0200 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/2001 | | 0.0043 | | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 07/01/2001 | | 0.0800 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/01/2001 | | 1.1000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 01/01/2002 | | 0.2550 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 04/01/2002 | | 0.1400 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 07/01/2002 | | 10.1000 | * | 0.0200 |
| Chromium (vi) | mg/L | MW-9 | 10/24/2002 | | 4.3500 | * | 0.0200 |
| Ethylbenzene | ug/l | MW-11 | 07/01/1994 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/01/1994 | | 4.5000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/1995 | | 850.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/1995 | | 1900.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/1996 | | 460.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/1996 | | 1100.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 07/01/1996 | | 460.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/01/1996 | | 20.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/1997 | | 84.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/1997 | | 120.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 07/01/1997 | | 8.3000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/01/1997 | ND | 5.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/1998 | | 1800.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/1998 | | 150.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 07/01/1998 | | 41.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/01/1998 | ND | 10.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/1999 | | 750.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/1999 | | 1600.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 07/01/1999 | | 85.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/01/1999 | | 480.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/2000 | ND | 12.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/2000 | | 55.0000 | * | 3.4000 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | ug/l | MW-11 | 10/01/2000 | ND | 50.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/2001 | | 48.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 07/01/2001 | ND | 5.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/01/2001 | | 90.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 01/01/2002 | | 1900.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 04/01/2002 | | 300.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 07/01/2002 | ND | 50.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-11 | 10/24/2002 | | 390.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/1994 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/1994 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/1995 | | 120.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 01/01/1996 | | 87.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/1996 | | 120.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/1996 | | 20.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/1996 | | 13.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 01/01/1997 | | 470.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/1997 | | 91.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/1997 | | 14.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/1997 | | 20.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 01/01/1998 | | 19.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/1998 | | 1500.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/1998 | | 18.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/1998 | | 120.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 01/01/1999 | | 77.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/1999 | | 820.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/1999 | | 3000.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/1999 | | 120.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 01/01/2000 | ND | 5.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/2000 | | 110.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/2000 | | 230.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/2001 | | 8.6000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/2001 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/01/2001 | | 2.4000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 01/01/2002 | | 2700.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 04/01/2002 | ND | 2.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 07/01/2002 | | 860.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-14S | 10/23/2002 | | 14.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-15D | 10/22/2002 | | 3.8000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 07/01/1994 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/1994 | | 1.5000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/1995 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/1995 | | 1.3000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/1996 | | 1.8000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/1996 | | 2.6000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 07/01/1996 | | 9.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/1996 | | 5.4000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/1997 | | 1.1000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/1997 | | 2.1000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 07/01/1997 | | 2.5000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/1997 | | 1.7000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/1998 | | 1.3000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/1998 | ND | 1.0000 | | 3.4000 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | ug/l | MW-3 | 07/01/1998 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/1998 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/1999 | | 2.3000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/1999 | | 1.1000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 07/01/1999 | | 1.3000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/1999 | | 200.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/2000 | | 54.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/2000 | | 65.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/2000 | ND | 2.5000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/2001 | | 12.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 07/01/2001 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/01/2001 | ND | 5.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 01/01/2002 | ND | 2.5000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 04/01/2002 | ND | 5.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 07/01/2002 | ND | 5.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-3 | 10/22/2002 | | 63.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/1994 | ND | 1.0000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/1994 | | 270.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/1995 | | 350.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/1995 | | 1700.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/1996 | | 2100.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/1996 | | 1300.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/1996 | | 1000.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/1996 | | 1100.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/1997 | | 1100.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/1997 | | 1300.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/1997 | | 810.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/1997 | | 460.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/1998 | | 530.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/1998 | | 320.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/1998 | | 1200.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/1998 | | 740.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/1999 | | 520.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/1999 | | 220.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/1999 | | 670.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/1999 | | 92.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/2000 | ND | 2.5000 | | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/2000 | | 46.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/2000 | | 2500.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/2001 | | 3100.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/2001 | | 2400.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/01/2001 | | 3250.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 01/01/2002 | | 700.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 04/01/2002 | | 2050.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 07/01/2002 | | 210.0000 | * | 3.4000 |
| Ethylbenzene | ug/l | MW-4 | 10/23/2002 | | 850.0000 | * | 3.4000 |
| Total xylenes | ug/l | MW-3 | 07/01/1994 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/1994 | | 12.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/1995 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/1995 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/1996 | | 5.2000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/1996 | | 3.6000 | | 5.8000 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Total xylenes | ug/l | MW-3 | 07/01/1996 | | 12.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/1996 | | 6.2000 | * | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/1997 | | 4.2000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/1997 | | 3.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 07/01/1997 | | 3.7000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/1997 | | 1.2000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/1998 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/1998 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 07/01/1998 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/1998 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/1999 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/1999 | ND | 2.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 07/01/1999 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/1999 | ND | 10.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/2000 | | 70.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/2000 | | 2.5000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/2000 | ND | 2.5000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/2001 | | 3.1000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 07/01/2001 | ND | 1.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/01/2001 | ND | 5.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 01/01/2002 | ND | 2.5000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 04/01/2002 | ND | 5.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 07/01/2002 | ND | 10.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-3 | 10/22/2002 | | 700.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 07/01/1994 | | 4.2000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/1994 | | 39.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/1995 | | 130.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/1995 | | 2900.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/1996 | | 1400.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/1996 | | 1400.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 07/01/1996 | | 270.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/1996 | | 1900.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/1997 | ND | 12.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/1997 | | 620.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 07/01/1997 | | 110.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/1997 | | 31.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/1998 | | 420.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/1998 | ND | 5.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 07/01/1998 | | 300.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/1998 | | 240.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/1999 | | 31.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/1999 | | 9.9000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 07/01/1999 | | 67.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/1999 | | 11.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/2000 | | 6.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/2000 | | 8.6000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/2000 | ND | 50.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/2001 | | 830.0000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 07/01/2001 | ND | 50.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/01/2001 | ND | 50.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 01/01/2002 | ND | 10.0000 | | 5.8000 |
| Total xylenes | ug/l | MW-4 | 04/01/2002 | | 165.0000 | * | 5.8000 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Total xylenes | ug/l | MW-4 | 07/01/2002 | | 322.5000 | * | 5.8000 |
| Total xylenes | ug/l | MW-4 | 10/23/2002 | | 1705.0000 | * | 5.8000 |
| Trichloroethene | ug/l | MW-11 | 07/01/1994 | | 180.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/1994 | | 360.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/1995 | | 660.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/1995 | | 74.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/1996 | | 620.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/1996 | | 240.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 07/01/1996 | | 220.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/1996 | | 250.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/1997 | | 160.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/1997 | | 370.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 07/01/1997 | | 240.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/1997 | | 350.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/1998 | | 390.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/1998 | | 180.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 07/01/1998 | | 150.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/1998 | | 430.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/1999 | | 690.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/1999 | | 480.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 07/01/1999 | | 740.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/1999 | | 650.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/2000 | | 820.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/2000 | | 1100.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/2000 | | 2900.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/2001 | | 1700.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 07/01/2001 | | 400.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/01/2001 | | 1500.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 01/01/2002 | | 630.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 04/01/2002 | | 1300.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 07/01/2002 | | 1500.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-11 | 10/24/2002 | | 700.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/1994 | | 15.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/1994 | | 58.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/1995 | | 20.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 01/01/1996 | | 42.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/1996 | | 51.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/1996 | | 37.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/1996 | | 61.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 01/01/1997 | | 90.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/1997 | | 45.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/1997 | | 35.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/1997 | | 57.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 01/01/1998 | | 50.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/1998 | | 38.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/1998 | | 18.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/1998 | | 62.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 01/01/1999 | | 98.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/1999 | | 84.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/1999 | | 74.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/1999 | | 180.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 01/01/2000 | | 230.0000 | * | 24.1066 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Trichloroethene | ug/l | MW-14S | 04/01/2000 | | 60.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/2000 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/2001 | | 130.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/2001 | | 35.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/01/2001 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 01/01/2002 | | 91.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 04/01/2002 | | 130.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 07/01/2002 | | 150.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-14S | 10/23/2002 | | 360.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/1994 | | 76.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/1994 | | 91.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/1995 | | 17.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/1995 | | 34.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/1996 | | 26.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/1996 | | 36.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/1996 | | 110.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/1996 | | 73.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/1997 | | 32.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/1997 | | 31.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/1997 | | 30.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/1997 | | 53.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/1998 | | 29.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/1998 | | 29.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/1998 | | 28.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/1998 | | 58.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/1999 | | 36.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/1999 | | 39.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/1999 | | 29.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/1999 | | 42.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/2000 | | 18.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/2000 | | 26.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/2000 | | 36.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/2001 | | 36.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/2001 | | 26.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/01/2001 | | 34.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 01/01/2002 | | 31.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 04/01/2002 | | 37.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 07/01/2002 | | 47.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-16 | 10/24/2002 | | 25.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/1994 | | 26.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/1994 | | 76.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/1995 | | 72.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/1995 | | 57.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/1996 | | 26.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/1996 | | 46.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/1996 | | 17.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/1996 | | 21.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/1997 | | 28.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/1997 | | 13.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/1997 | | 13.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/1997 | | 24.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/1998 | | 25.0000 | * | 24.1066 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Trichloroethene | ug/l | MW-3 | 04/01/1998 | | 18.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/1998 | | 25.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/1998 | | 24.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/1999 | | 26.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/1999 | | 21.0000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/1999 | | 43.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/1999 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/2000 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/2000 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/2000 | ND | 2.5000 | | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/2001 | | 150.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/2001 | | 41.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/01/2001 | | 290.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 01/01/2002 | | 220.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 04/01/2002 | | 280.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 07/01/2002 | | 260.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-3 | 10/22/2002 | | 190.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/1994 | | 340.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/1994 | | 390.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/1995 | | 190.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/1995 | | 67.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/1996 | | 160.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/1996 | | 130.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/1996 | | 140.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/1996 | | 310.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/1997 | | 330.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/1997 | | 150.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/1997 | | 150.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/1997 | | 230.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/1998 | | 180.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/1998 | | 92.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/1998 | | 120.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/1998 | | 120.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/1999 | | 260.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/1999 | | 190.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/1999 | | 140.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/1999 | | 210.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/2000 | | 160.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/2000 | | 240.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/2000 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/2001 | | 150.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/2001 | | 75.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/01/2001 | | 195.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 01/01/2002 | | 135.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 04/01/2002 | | 260.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 07/01/2002 | | 210.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4 | 10/23/2002 | | 135.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-4A | 10/23/2002 | | 36.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/1994 | | 200.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/1994 | | 350.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 01/01/1995 | | 310.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/1995 | | 670.0000 | * | 24.1066 |

* - Significantly increased over background.
ND = Not Detected, result = detection limit.

## Table 6

## Historical Onsite/Downgradient Data for Constituent-Location Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

| Constituent | Units | Location | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Trichloroethene | ug/l | MW-9 | 01/01/1996 | | 500.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/1996 | | 580.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/1996 | | 570.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/1996 | | 470.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 01/01/1997 | | 400.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/1997 | | 770.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/1997 | | 850.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/1997 | | 600.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 01/01/1998 | | 270.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/1998 | | 390.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/1998 | | 1300.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/1998 | | 1200.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 01/01/1999 | | 550.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/1999 | | 350.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/1999 | | 810.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/1999 | | 280.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 01/01/2000 | | 170.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/2000 | | 370.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/2000 | | 160.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/2001 | | 200.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/2001 | | 120.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/01/2001 | | 390.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 01/01/2002 | | 200.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 04/01/2002 | | 165.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 07/01/2002 | | 525.0000 | * | 24.1066 |
| Trichloroethene | ug/l | MW-9 | 10/24/2002 | | 585.0000 | * | 24.1066 |

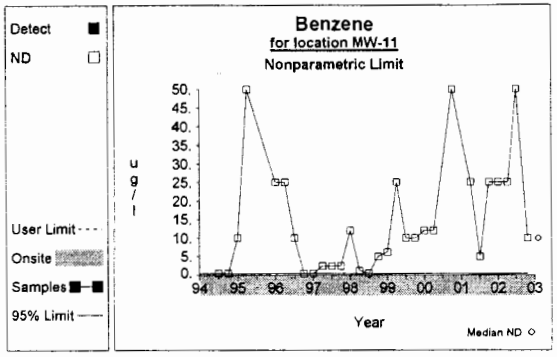
* - Significantly increased over background.
ND = Not Detected, result = detection limit.

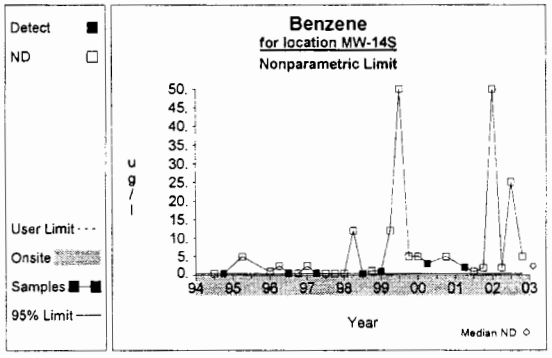
# Appendix F-2
# Prediction Limit Calculation Sheets

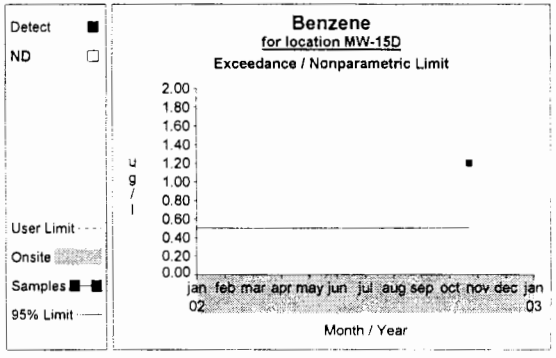
Phibrotech

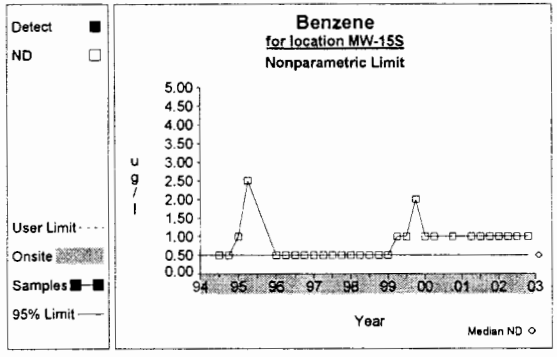
Analysis prepared on: 2/24/2003

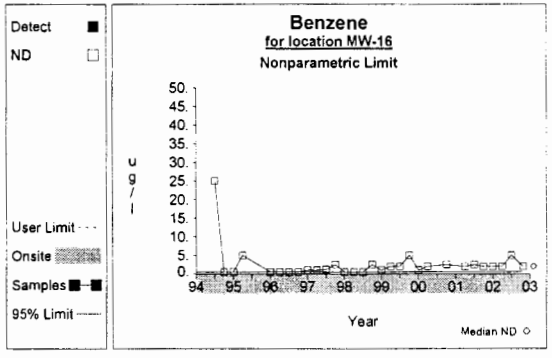
# Comparison to Background

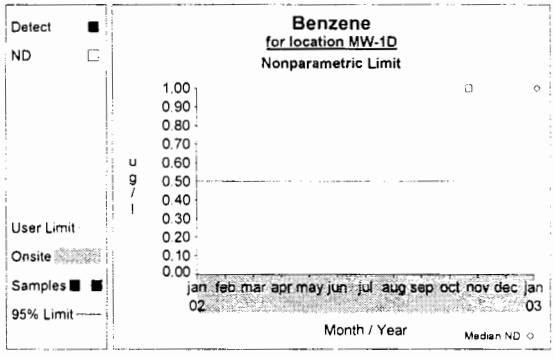


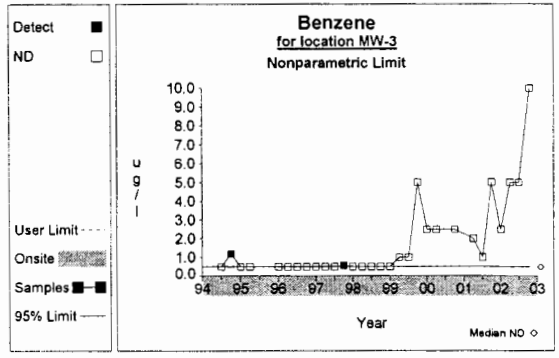



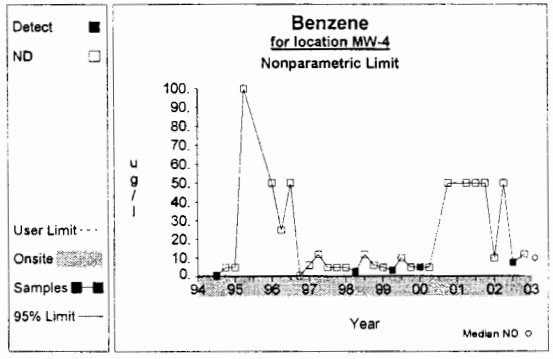



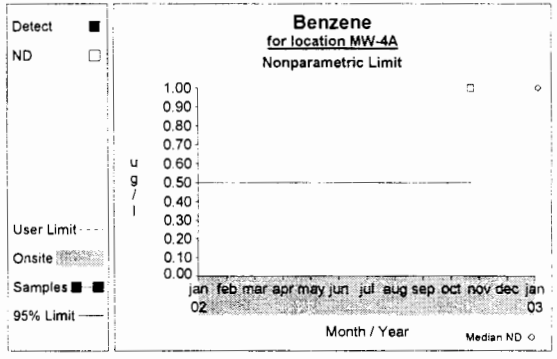



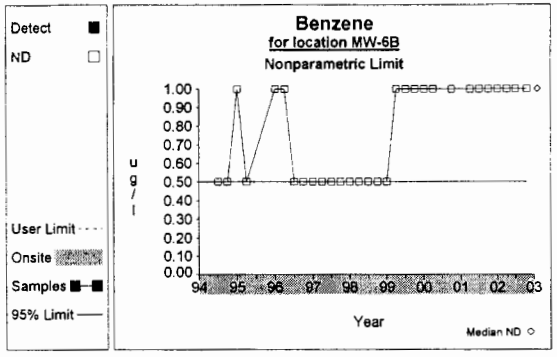



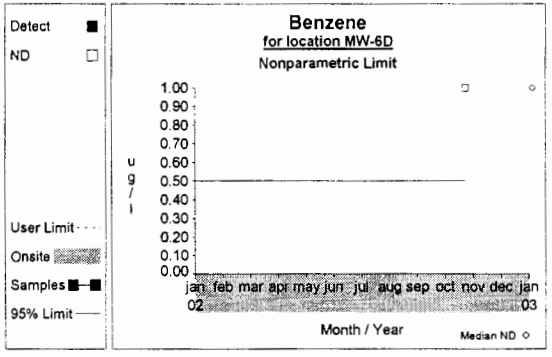



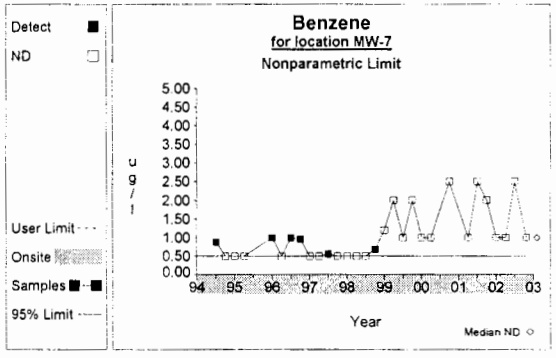



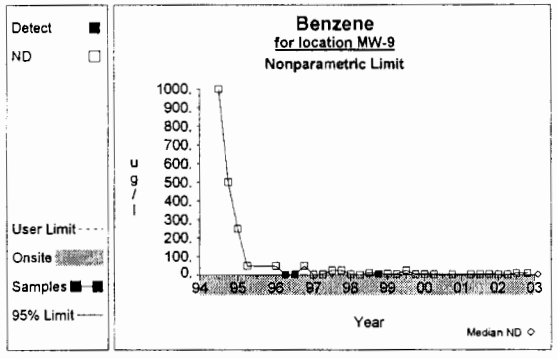

Prepared by: Camp Dresser & McKee Inc.

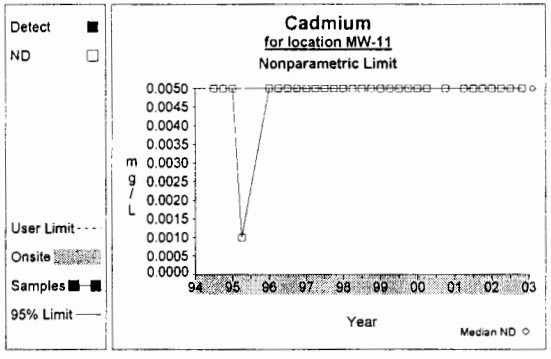
# Comparison to Background

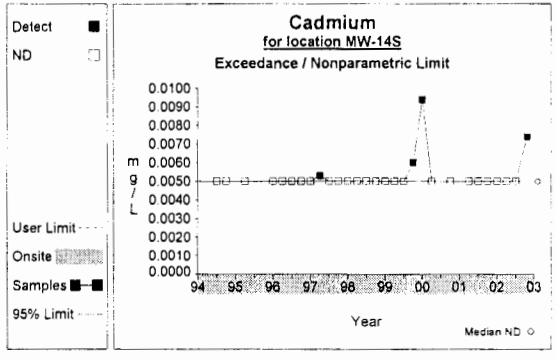


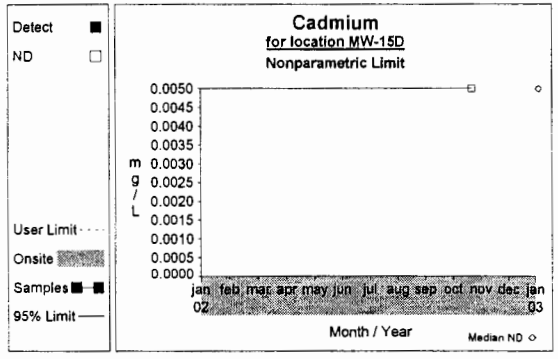



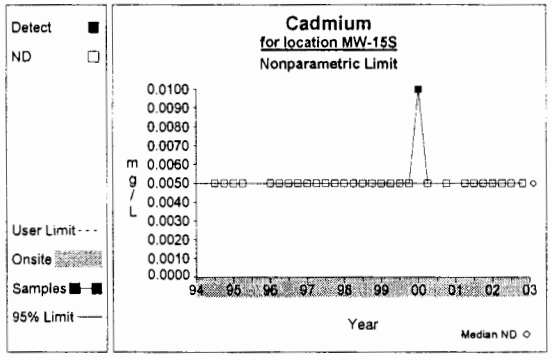



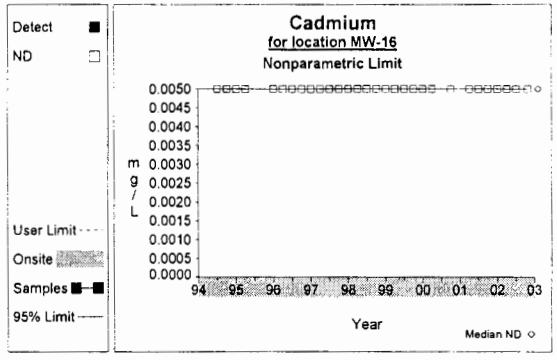



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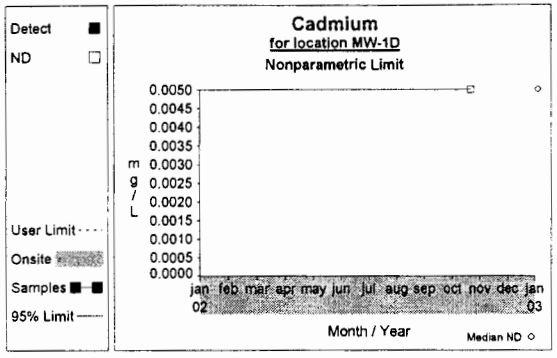


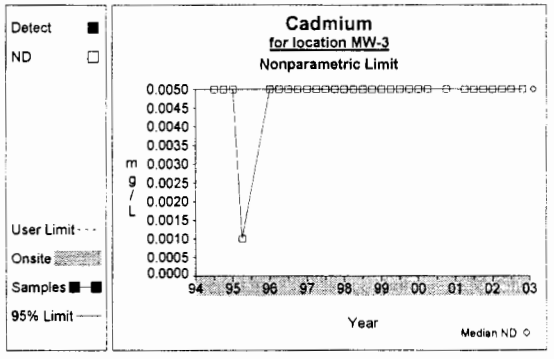


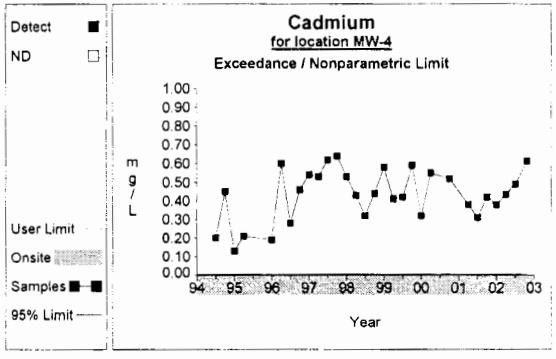


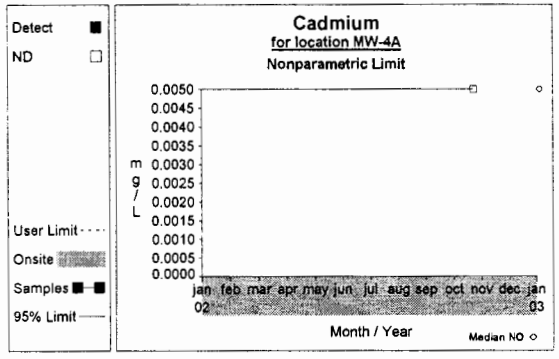


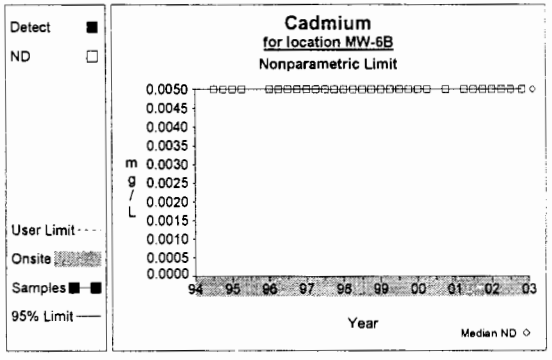


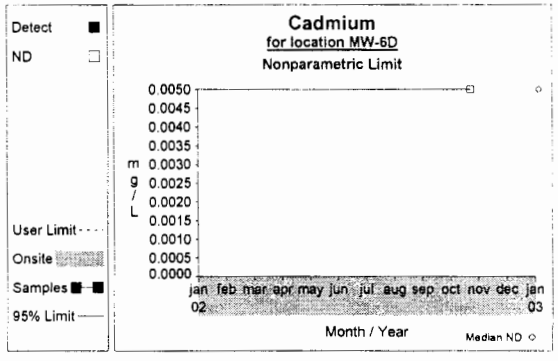


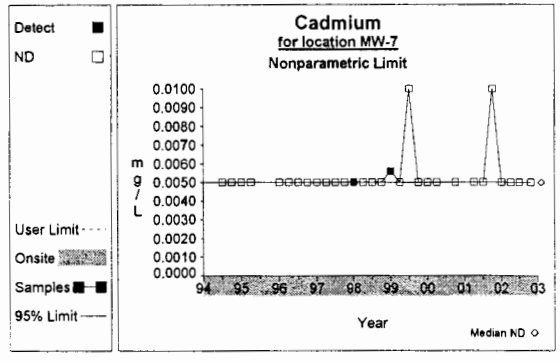


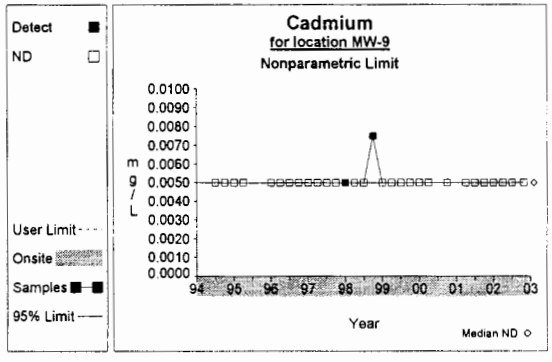


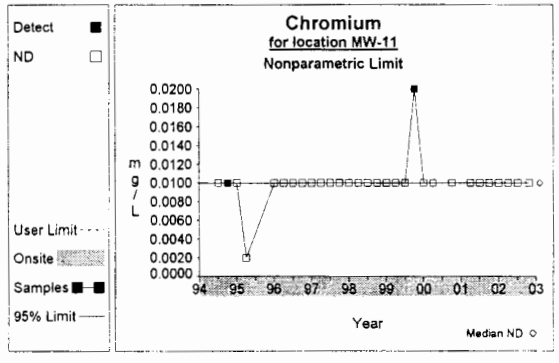

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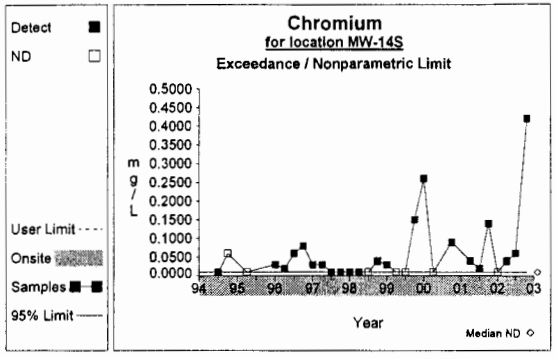


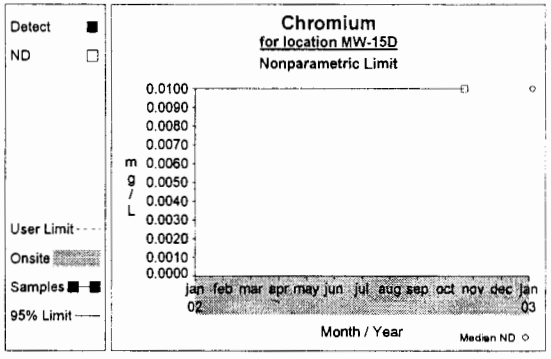


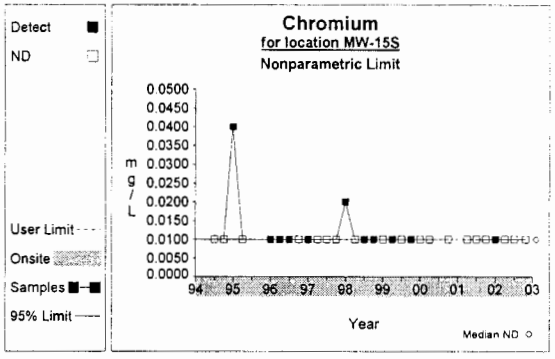


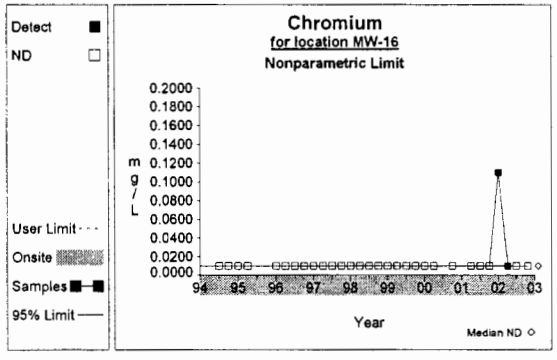


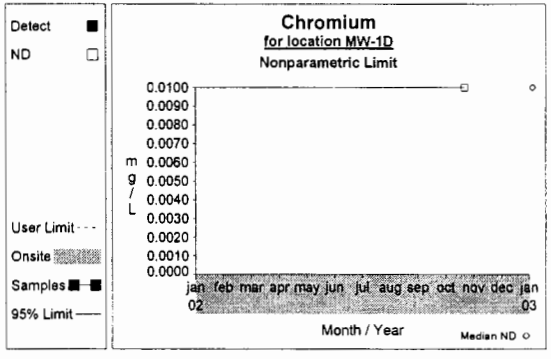


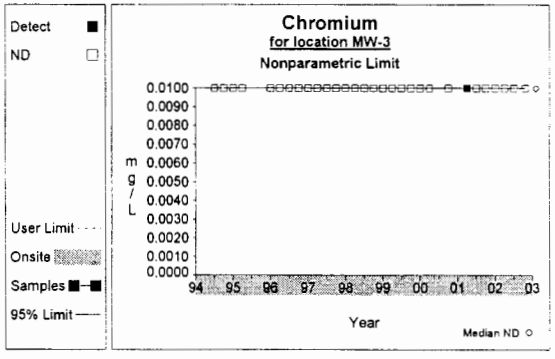


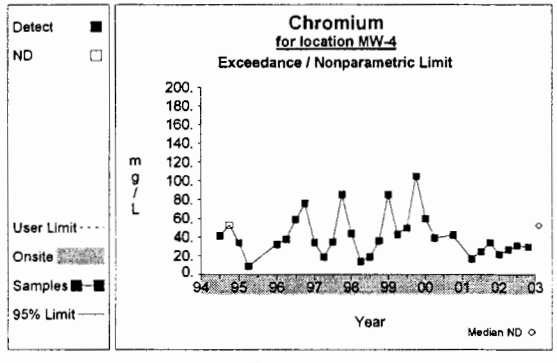


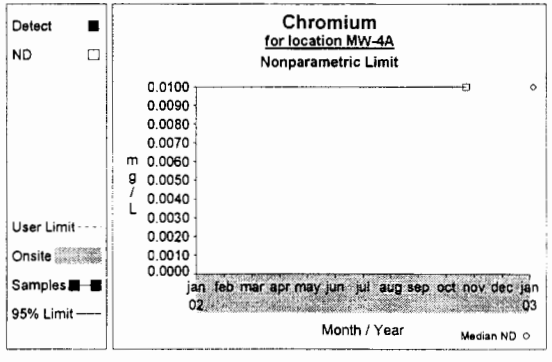


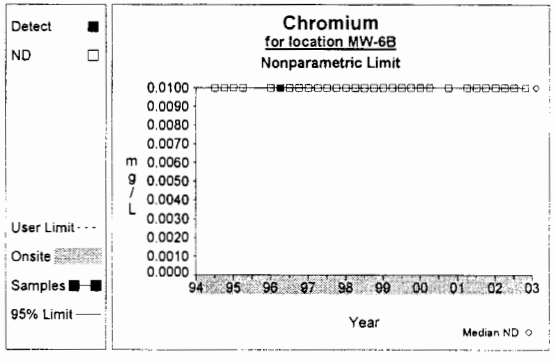

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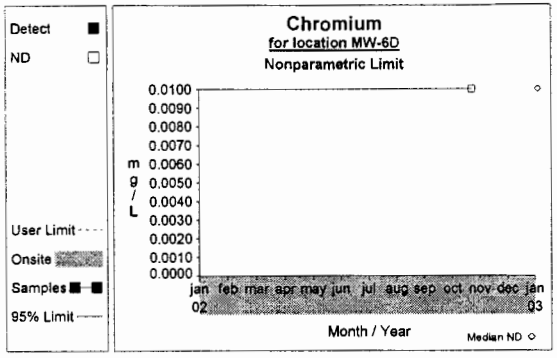
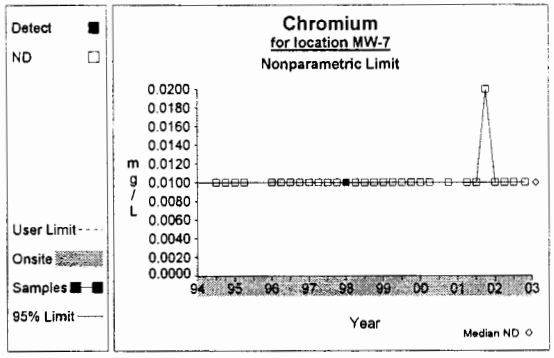
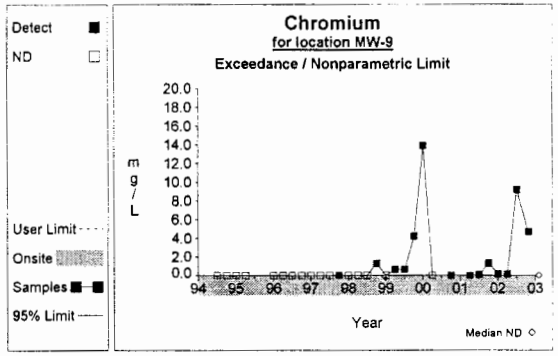
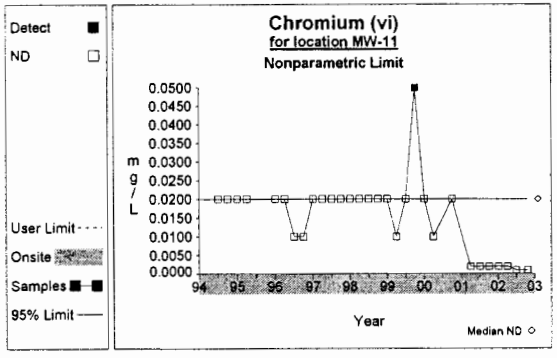
Analysis prepared on: 2/24/2003

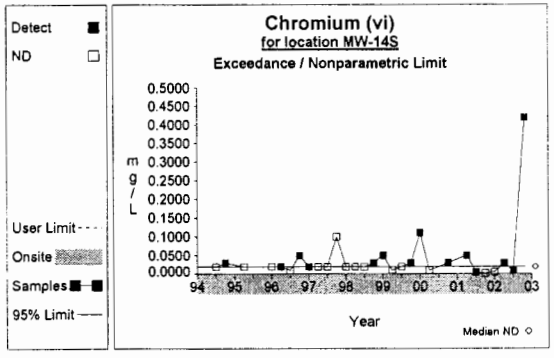
# Comparison to Background

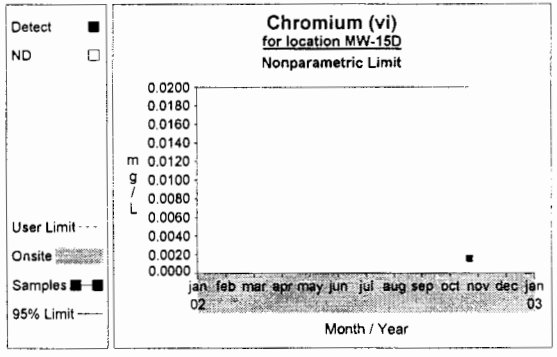


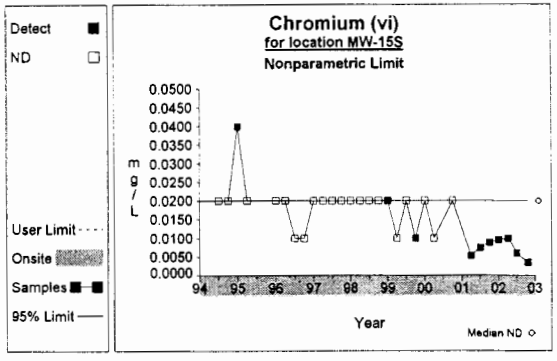



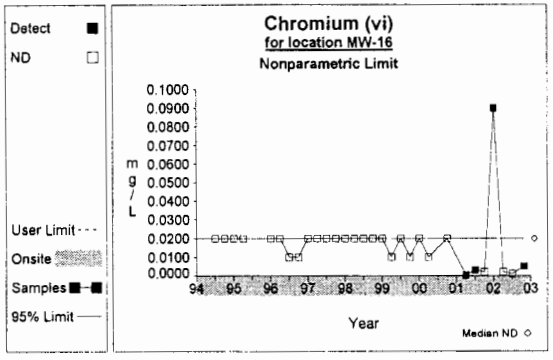



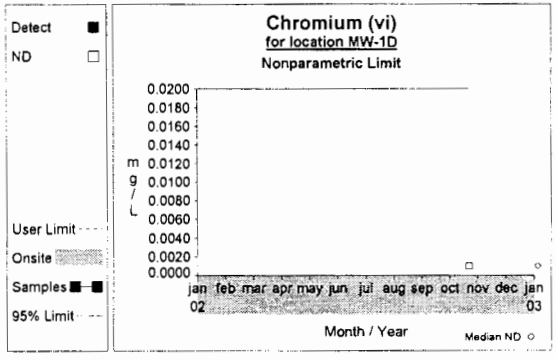



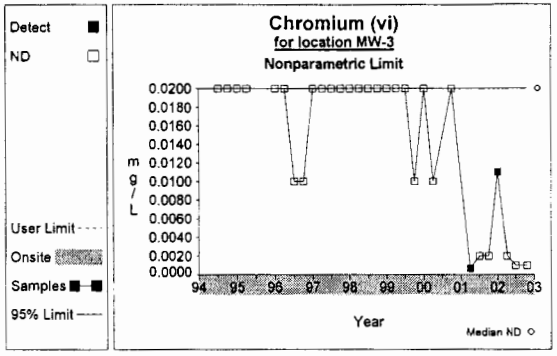



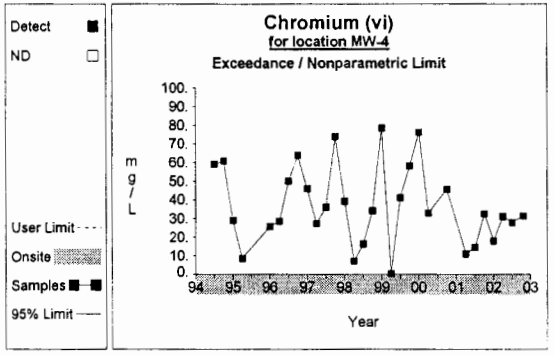



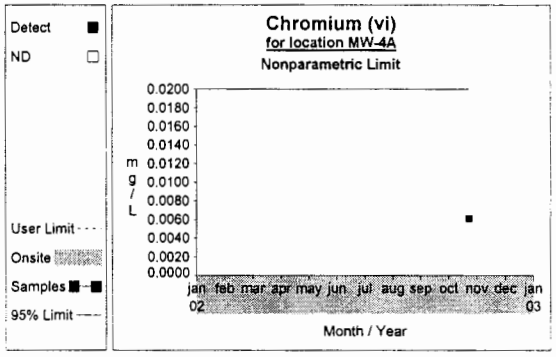



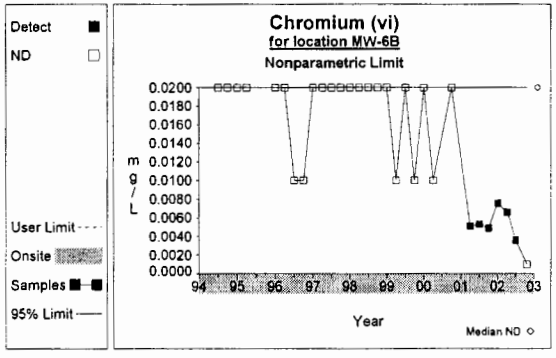

Prepared by: Camp Dresser & McKee Inc.

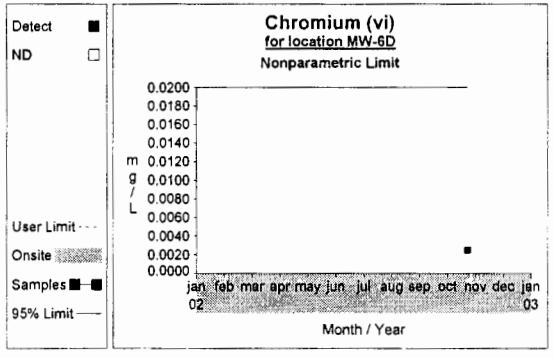
# Comparison to Background

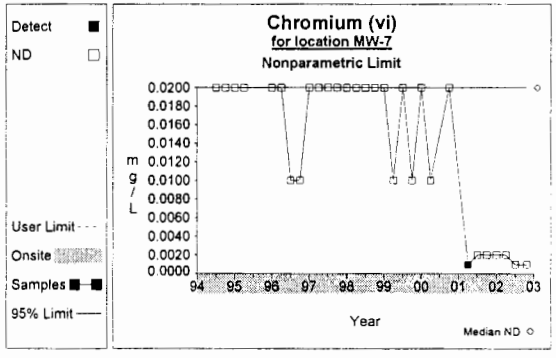


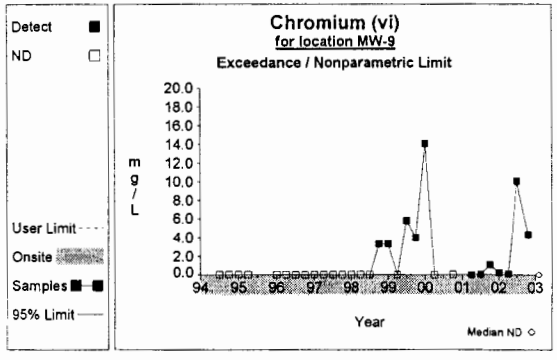



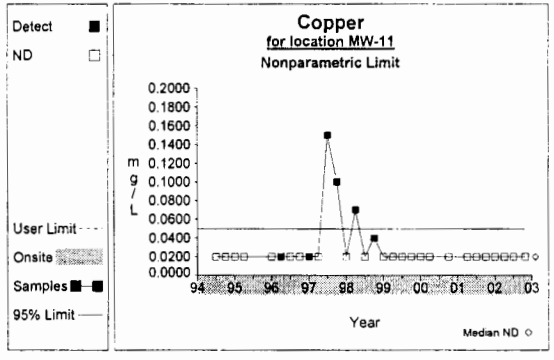



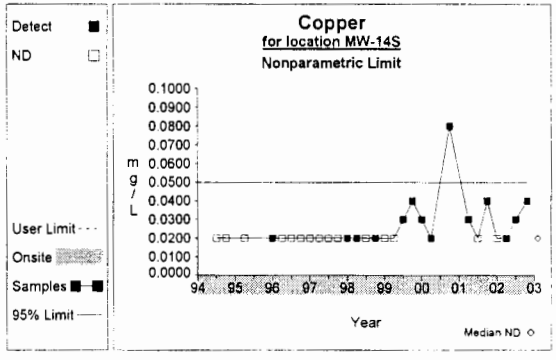



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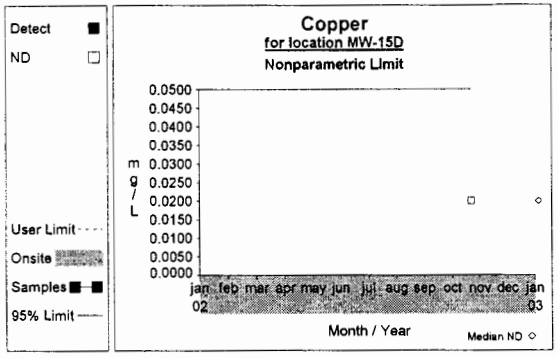
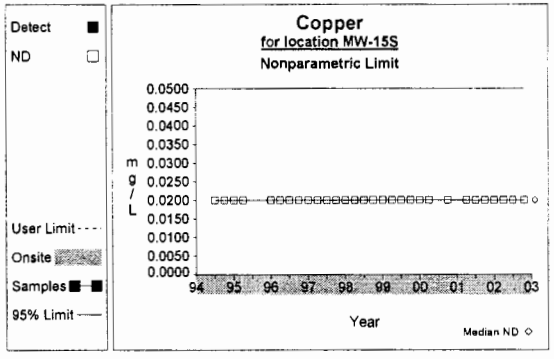
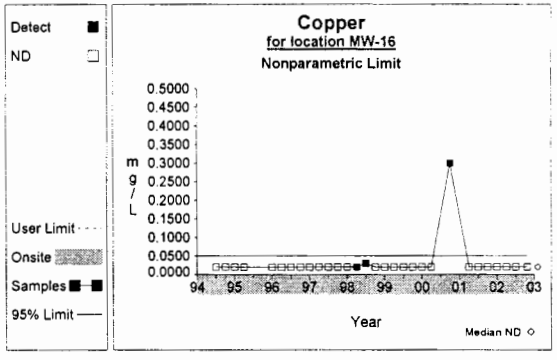
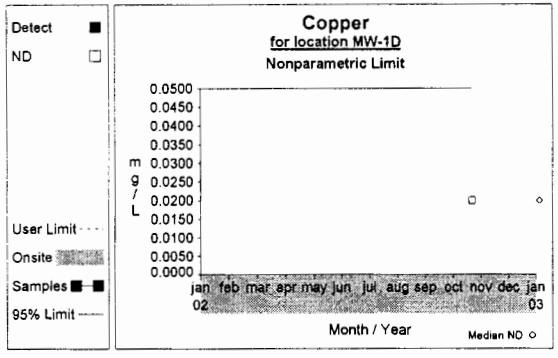
Analysis prepared on: 2/24/2003

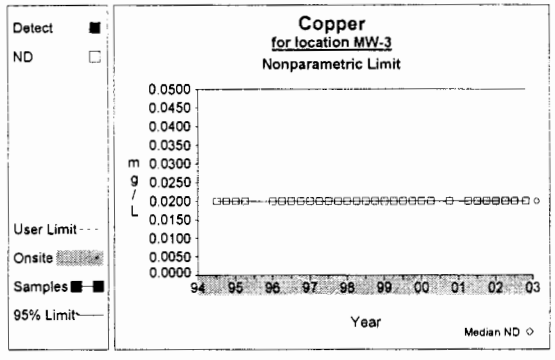
# Comparison to Background

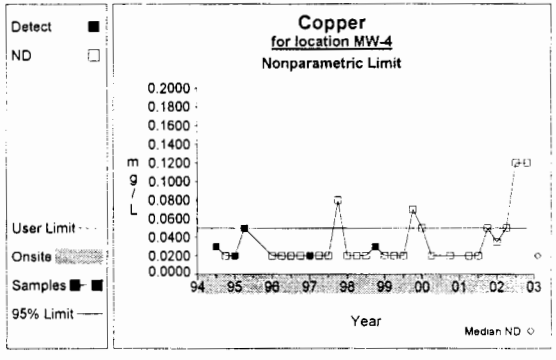


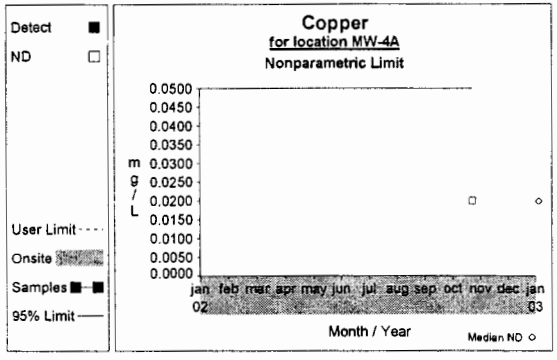



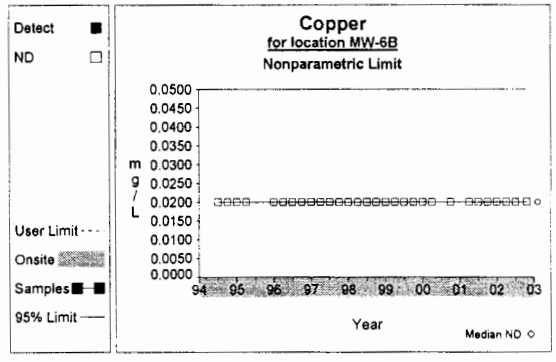



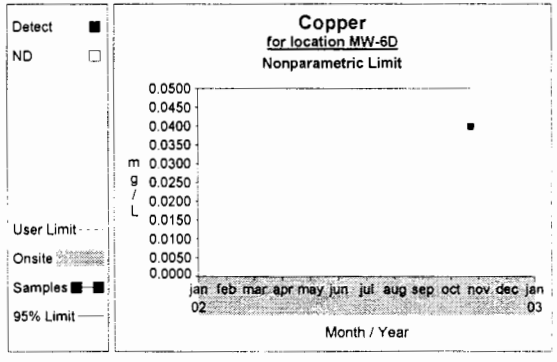



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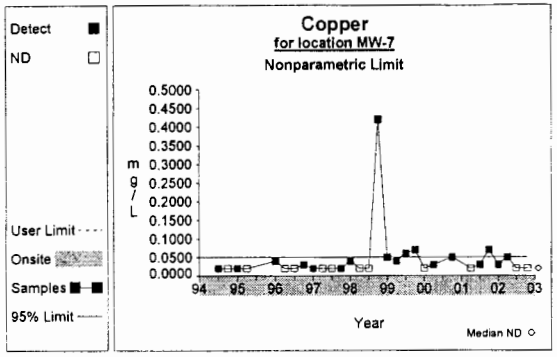


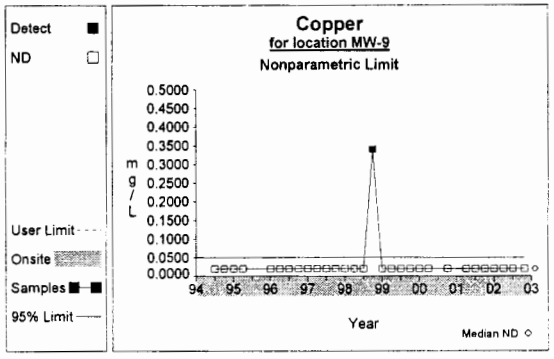


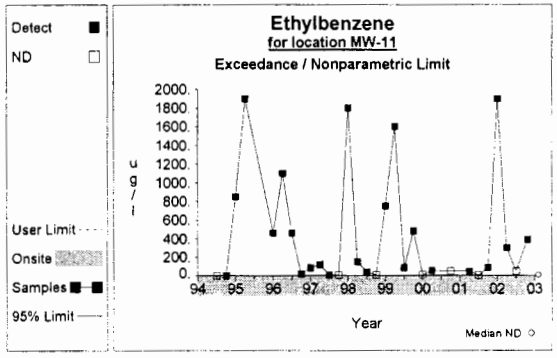


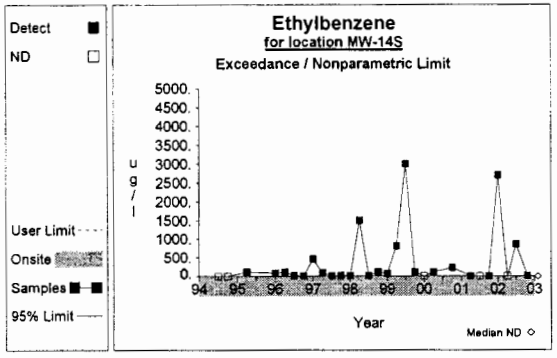


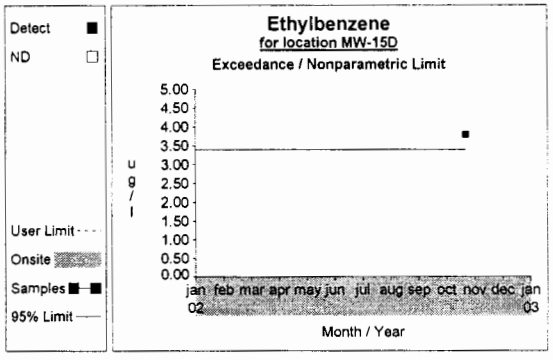


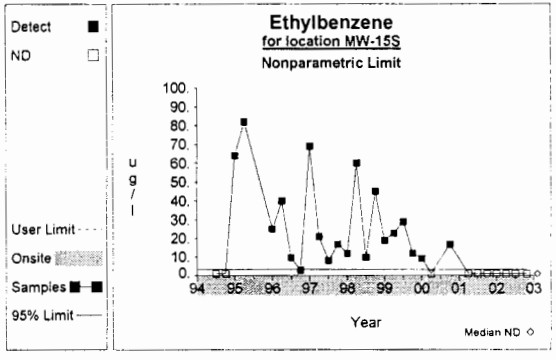


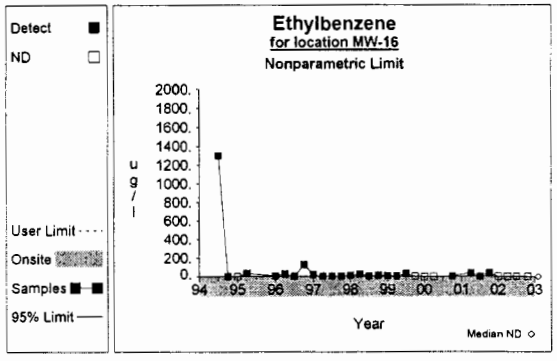


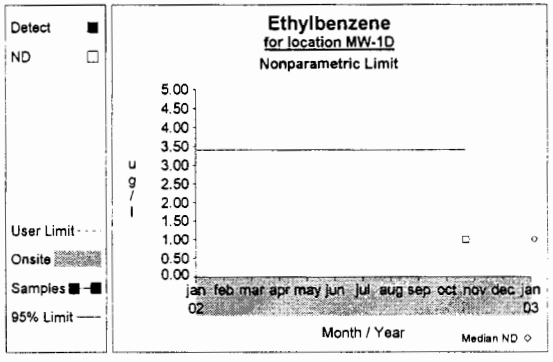


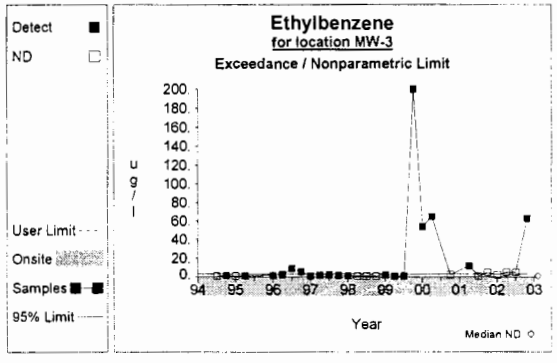

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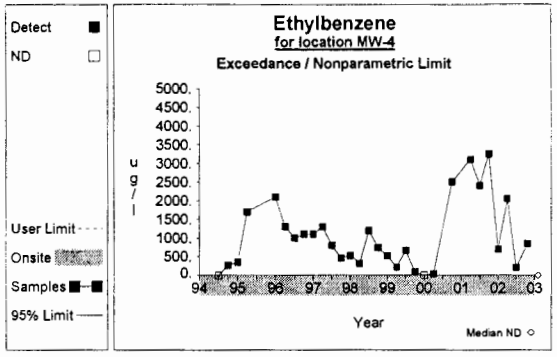


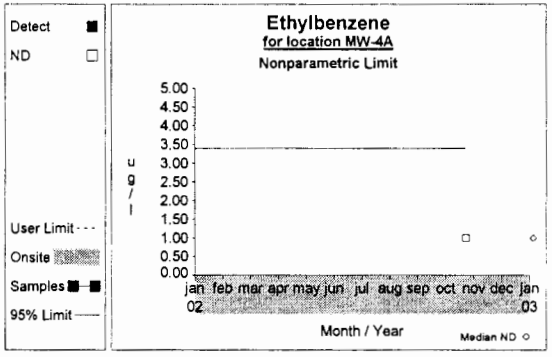


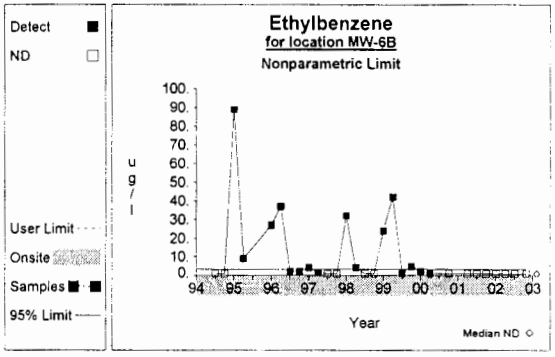


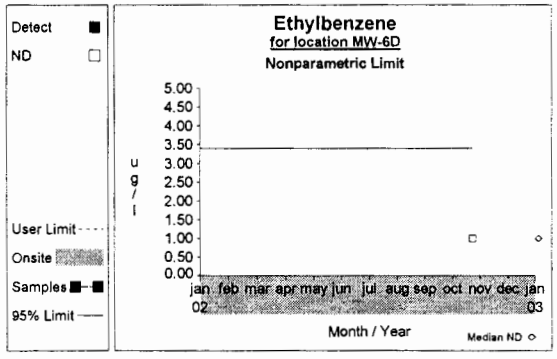


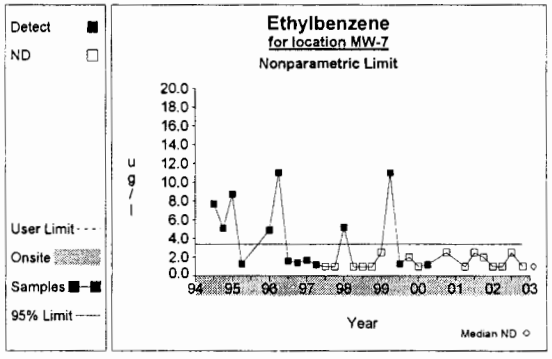


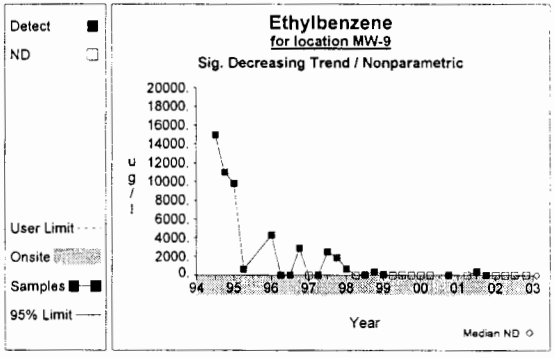


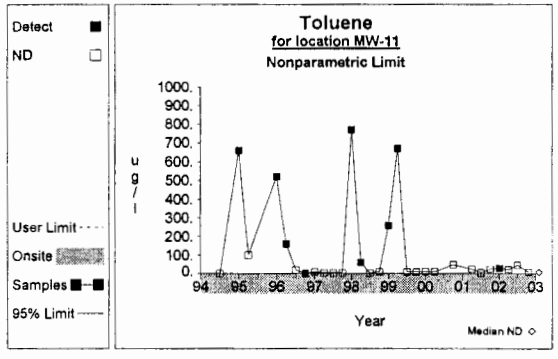


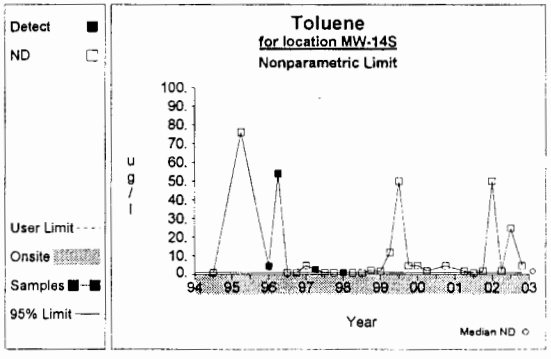


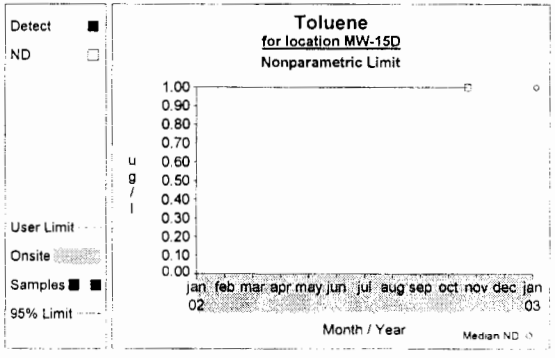

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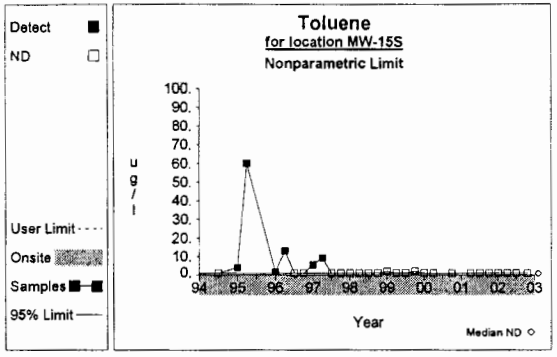


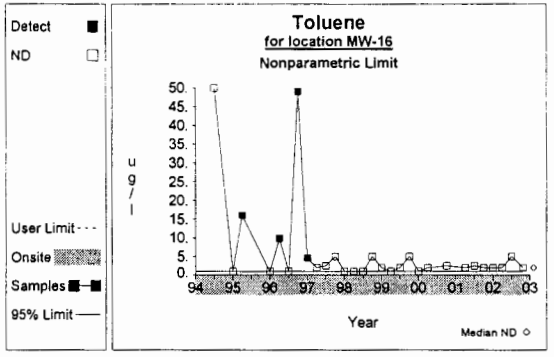


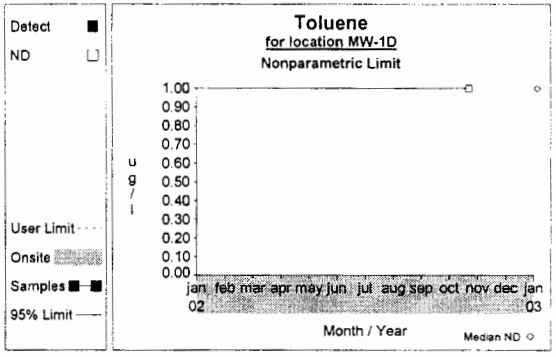


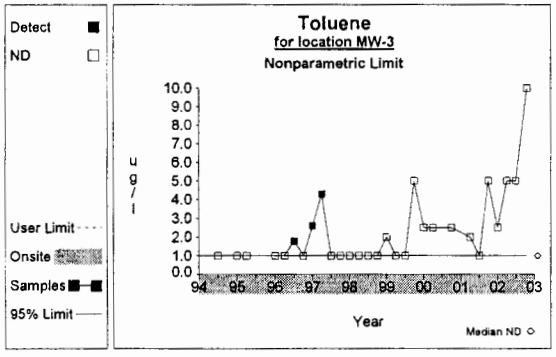


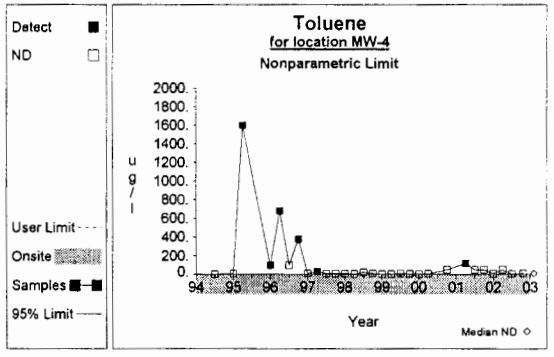


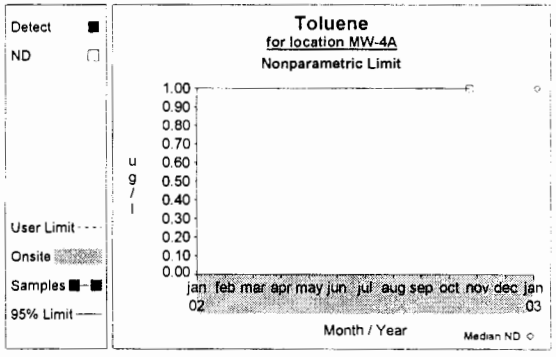


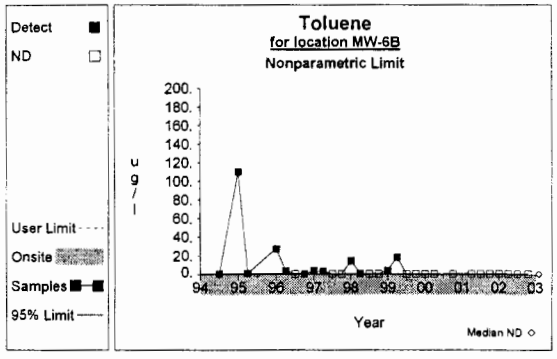


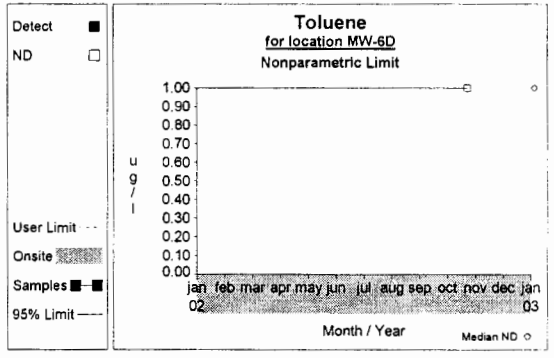


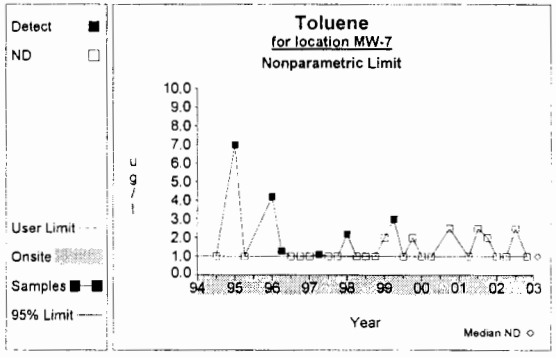

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Analysis prepared on: 2/24/2003

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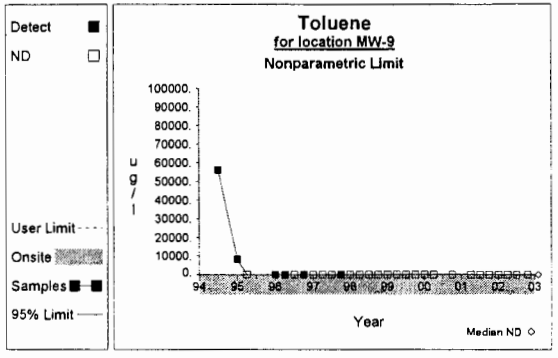


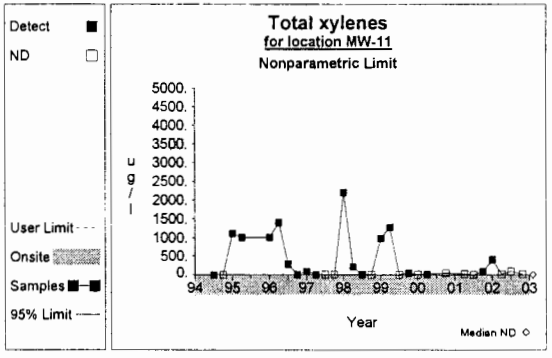


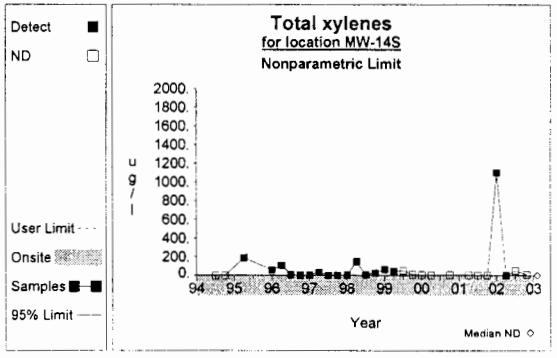


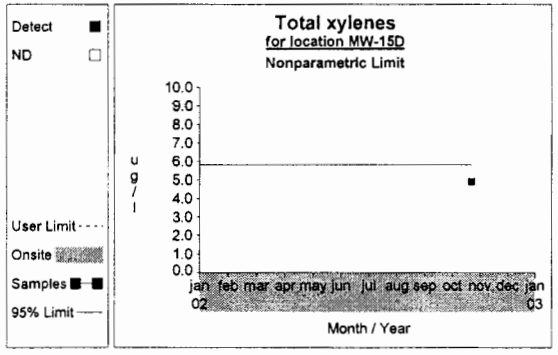


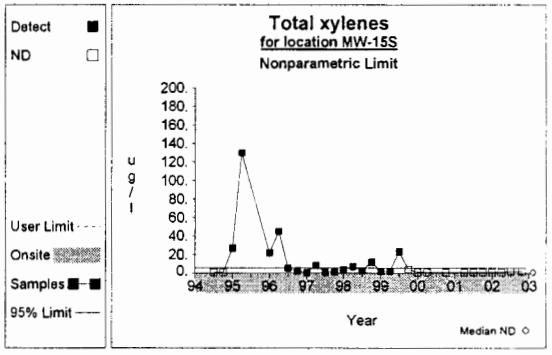


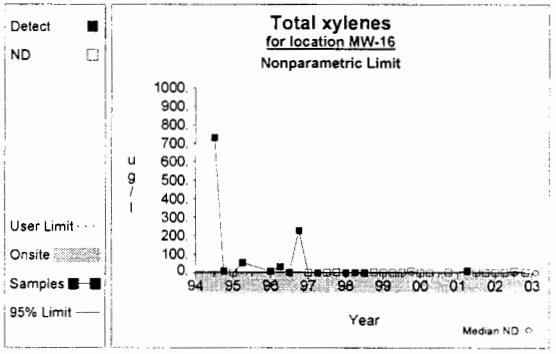


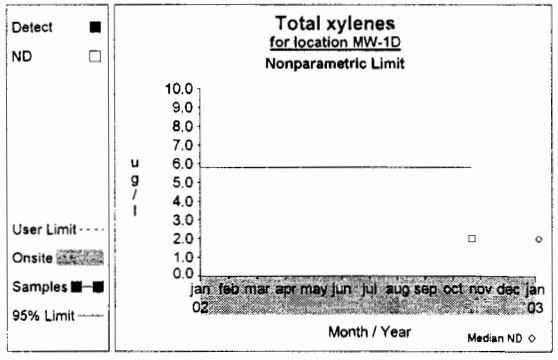


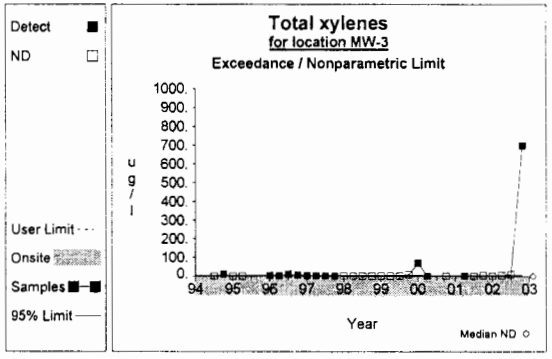


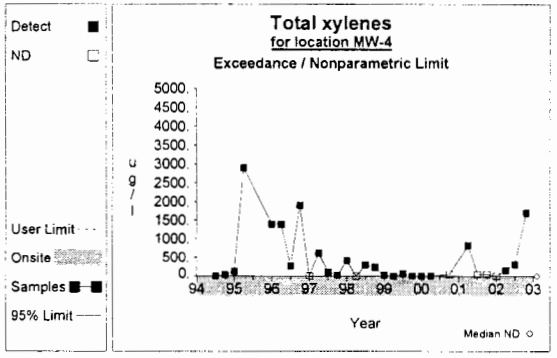

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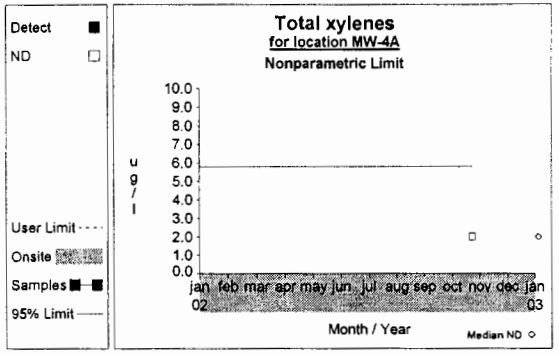


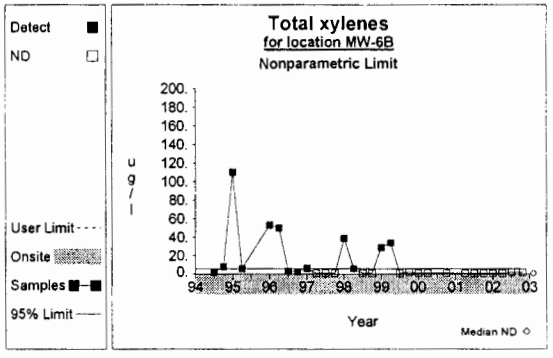


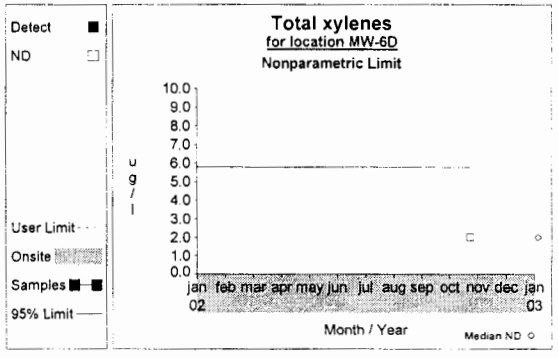


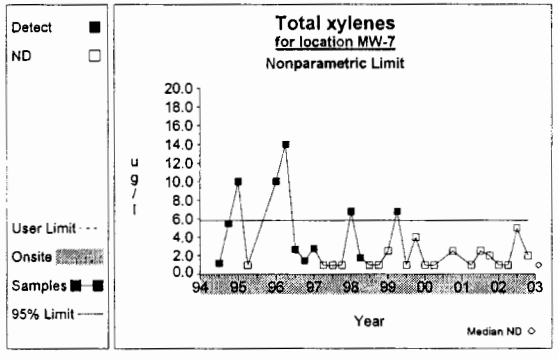


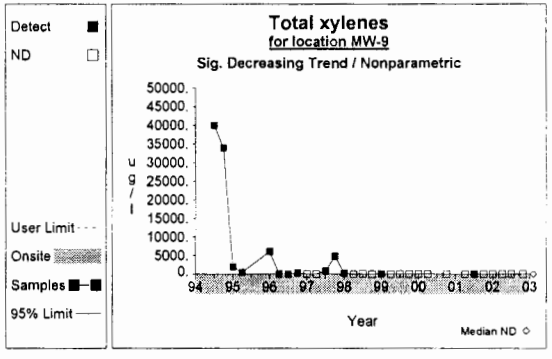


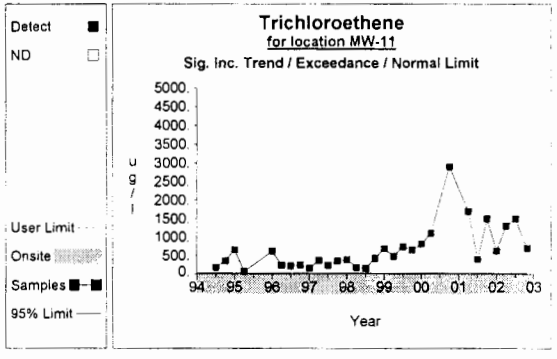


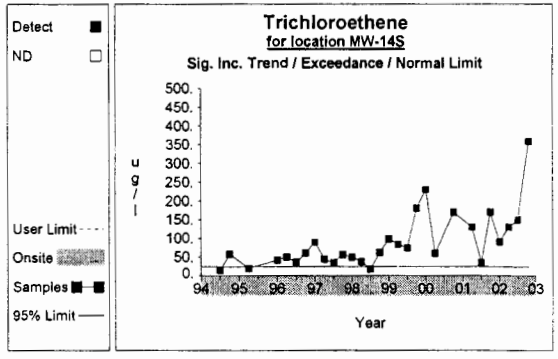


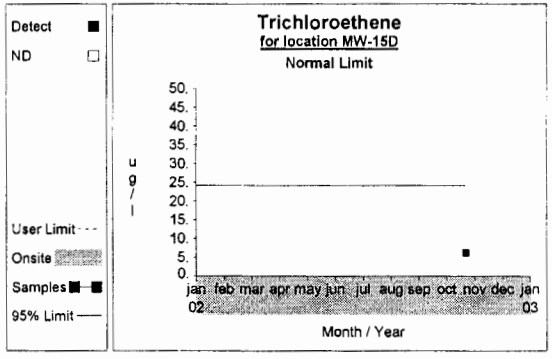


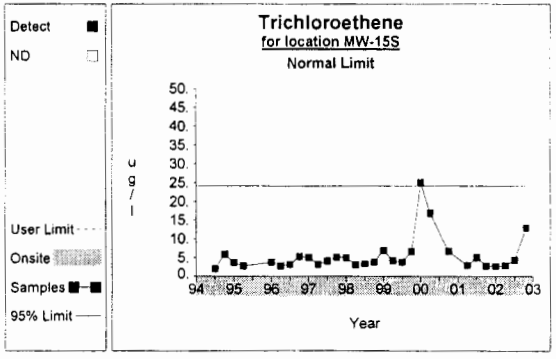

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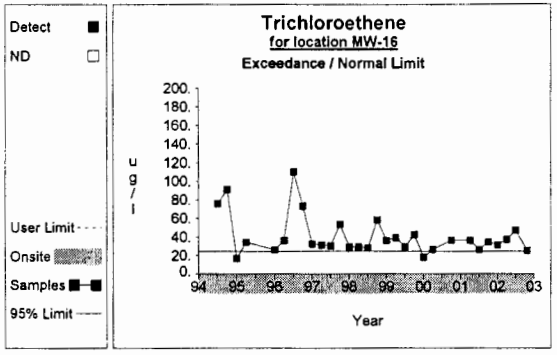
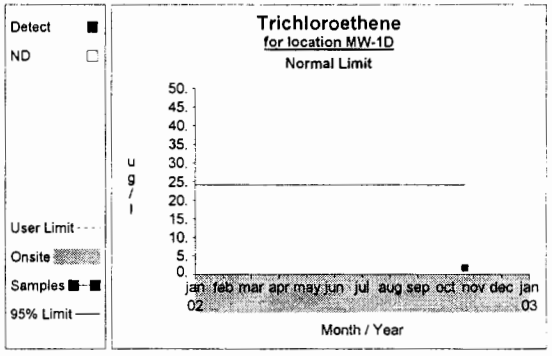
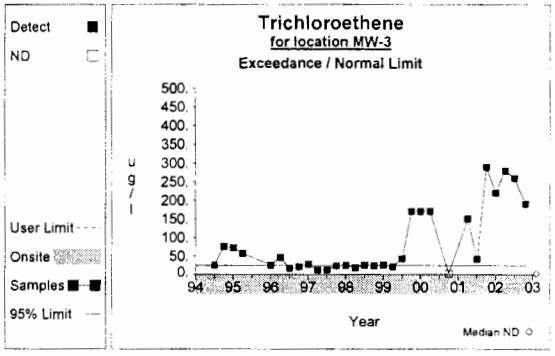
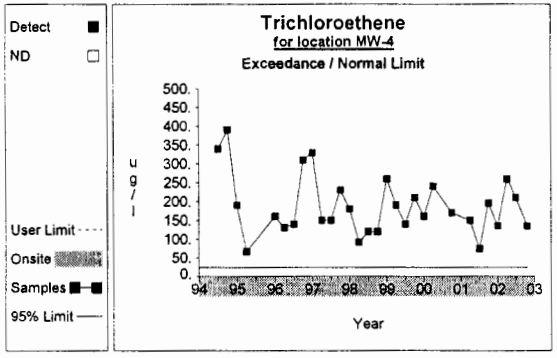
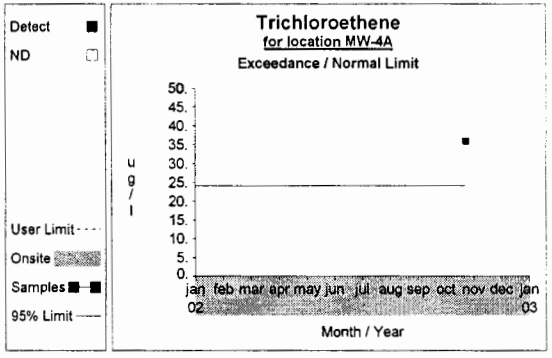
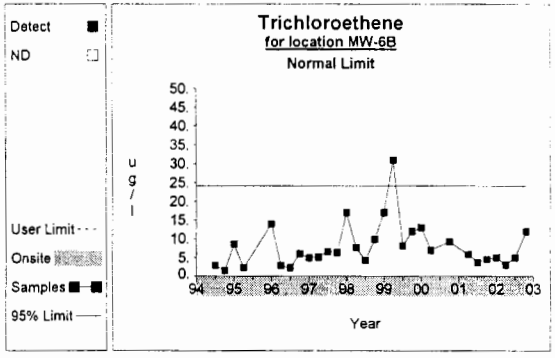


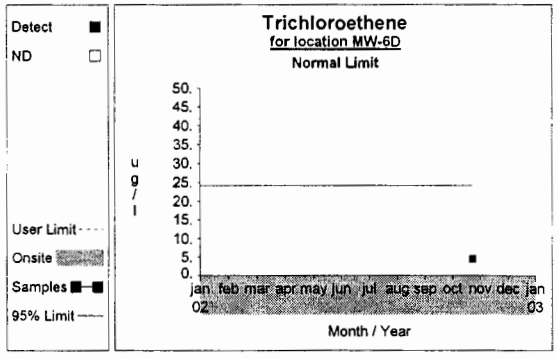



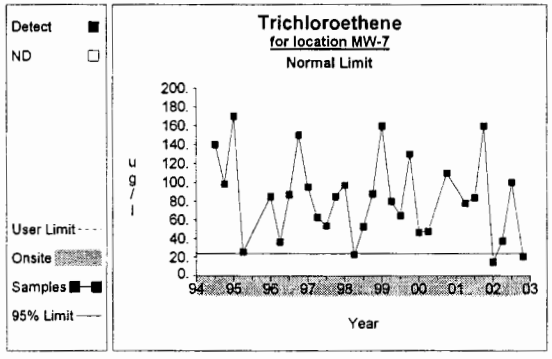



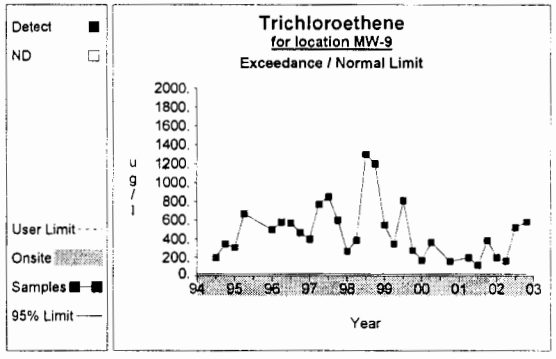



# Appendix F-3
# Control Charts

## Worksheet 1 - Comparison to Background
## Benzene (ug/l)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = median(X)<br>= **0.5** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Cadmium (mg/L)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = median(X)<br>= **0.005** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Chromium (mg/L)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = median(X)<br>= **0.01** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Chromium (vi) (mg/L)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = max(X) = **0.02** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Copper (mg/L)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = max(X)<br>= **0.05** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Ethylbenzene (ug/l)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = max(X)<br>= **3.4** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Toluene (ug/l)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = median(X)<br>= **1.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **29** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.644** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Total xylenes (ug/l)
## Nonparametric Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | PL = max(X)<br>= **5.8** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | K = **13** | Number of comparisons. |
| 3 | N = **30** | Number of background measurements. |
| 4 | No resampling. | |
| 5 | Confidence = **0.653** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

## Worksheet 1 - Comparison to Background
## Trichloroethene (ug/l)
## Normal Prediction Limit

| Step | Equation | Description |
|---|---|---|
| 1 | $\bar{X}$ = **sum[X] / N**<br>= **287.4 / 30**<br>= **9.58** | Compute background mean. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]$^2$/N**) / (**N**-1) )$^{1/2}$<br>= ( (**3182.22** - **82598.76/30**) / (**30**-1) )$^{1/2}$<br>= **3.846** | Compute background sd. |
| 3 | alpha = (1-**conf**)/**K**<br>= (1-**.95**)/**117**<br>= **4.274 x 10$^{-4}$** | Adjusted per comparison false positive rate. Pass initial (no resampling). |
| 4 | PL = $\bar{X}$ + **tS**(1+1/**N**)$^{1/2}$<br>= **9.58** + (**3.716*****3.846**)(1+1/**30**)$^{1/2}$<br>= **24.107** | One-sided normal prediction limit (t is Student's t on N-1 degrees of freedom and 1-alpha confidence level). |

# Appendix G

# Appendix G
# Annual Groundwater Monitoring Report for 2002

# Appendix G
# Annual Groundwater Monitoring Report for 2002

This annual report summarizes the groundwater monitoring which was conducted during 2002 at the Phibro-Tech, Inc. facility, based on sampling that occurred in January, April, July, October, and December of 2002. Also included in this report are graphs with concentrations versus time for key compounds of concern at the facility.

## G.1 Groundwater Elevation, Gradient, and Flow Direction

During each of the three sampling rounds, depth to groundwater was measured at 15 shallow wells and 7 deep wells at the facility. Table 5-1 in each of the groundwater sampling reports from 2002 lists the depths to water and groundwater elevations for each well sampled.

During 2002, groundwater levels were lowest in October (shallow well elevations ranging from 98.88 to 101.55 feet above msl, and deep well elevations ranging from 99.01 to 101.53 feet above msl). The highest groundwater levels were recorded in April (shallow well elevations 106.92 to 109.01 feet above msl, and deep well elevations 106.83 to 109.03 feet above msl).

Groundwater gradients in the shallow wells during 2002 ranged from 0.32 foot per 100 feet (October) to 0.40 feet per 100 feet (January). In the deep wells, groundwater gradients ranged from 0.37 foot per 100 feet (October) to 0.42 foot per 100 feet (January). Direction of groundwater flow in both the shallow and deep wells during 2002 was consistently towards the southwest.

## G.2 Groundwater Quality

Tables contained in Section 6 and Appendix B of the quarterly groundwater monitoring reports summarize current and historical concentrations of key contaminants of concern (total and hexavalent chromium, cadmium, copper, purgeable aromatic compounds, and trichloroethene), and groundwater elevations for each shallow groundwater monitoring well. Specific compounds of concern are discussed below with respect to groundwater monitoring in 2002.

### Field Parameters at Time of Sampling

Field parameters recorded during purging included pH, specific conductance, turbidity, and dissolved oxygen. Values for these parameters at the time of sampling are shown in Table G-1.

## Trichloroethene

As in previous years, trichloroethene (TCE) was the primary purgeable halogenated organic compound detected in 2002. It was detected in all 14 monitoring wells sampled during all 2002 sampling events. The highest concentration of TCE detected in 2002 was 1,500 µg/L in shallow well MW-11 during the July sampling event. The highest concentration detected in the deep wells was 35 µg/L in MW-04A during the October sampling round. Historical TCE concentrations, including 2002 data, for each sampled shallow well are shown on the accompanying graphs.

## Purgeable Aromatic Organic Compounds

Historical evidence indicates that benzene is not a contaminant of concern for the facility. During 2002, it was detected in MW-04 at a concentration of 7.7 µg/L in July, MW-01D at a concentration of 1.6 µg/L in January, and MW-15D at a concentration of 1.1 and 1.2 µg/L in April and October, respectively.

The highest concentration of total BTEX compounds (benzene, toluene, ethylbenzene, and xylenes) detected in 2002 was 4,144 µg/L in MW-04 during the October sampling event. Ethylbenzene is the aromatic compound detected most frequently and at the greatest concentrations. Historical BTEX concentrations for each sampled shallow well are shown on the accompanying graphs.

## Total Chromium

Chromium was detected in five wells during 2002, three of which had detections above the maximum contaminant level (MCL) of 0.05 mg/L. Total chromium concentrations that exceeded the MCL were reported in wells MW-04 (January through October), MW-09 (January through October) and MW-14S (April to October). The concentrations of total chromium in MW-04 ranged from 18.9 to 32.7 mg/L. The total chromium concentration in MW-09 ranged from 0.015 mg/L to 9.3 mg/L . The total chromium concentration in well MW-14S was up to 0.42 mg/L. Historical total chromium concentrations for each of the sampled shallow wells are shown on the accompanying graphs. Total chromium was not detected in any of the deep wells during 2002.

## Hexavalent Chromium

Hexavalent chromium was detected at a concentration above the reporting limit in 12 wells during at least one of the sampling events of 2002. Highest concentrations occurred at well MW-04. During 2002, hexavalent chromium was detected in MW-04 at concentrations ranging from 18 mg/L in January to 32.6 mg/L in October. The second highest concentration of hexavalent chromium was detected in well MW-09 at a concentration ranging from 0.14 mg/L in April to 10.2 mg/L in July. Historical hexavalent chromium concentrations for wells MW-04, MW-07, MW-09, and MW-14S are shown on the accompanying graphs. All other wells at the facility have had non-detections with only sporadic, low concentrations of hexavalent chromium detected historically.

## Cadmium

The only well that consistently has detections of cadmium is MW-04. During 2002, cadmium concentrations in MW-04 ranged from 0.41 mg/L in January to 0.60 mg/L in October. The only other cadmium detection occurred in well MW-14S, with a concentration of 0.0074 mg/L in October. Historical cadmium concentrations for MW-04, MW-09, MW-14S, and MW-15S are shown on the accompanying graphs. Generally, all other wells at the facility have historically had only non-detections of cadmium.

## Copper

Copper was detected in three wells in 2002 with concentrations ranging from 0.029 mg/L in MW-14S (April) to 0.057 mg/L in MW-07 (April). Copper was also detected in well MW-06D. These concentrations are below the secondary MCL of 1.3 mg/L. Historically, copper has not been detected, or has been detected only occasionally in very low concentrations near the detection limit of 0.025 mg/L.

## Appendix IX Parameters

Except for those discussed above, the only Appendix IX analyses with concentrations above reporting limits were 6010B/7470A (arsenic, barium, mercury, selenium, thallium, zinc) and EPA 8270C (acetophenone, Bis (2-Ethylhexyl) Phthalate). These detected parameters are summarized in Table G-2. In addition all of the EPA 8290 (dioxins and furams) parameters were detected in one or more of the samples, the results of which are summarized in Table G-3.

Appendix IX constituents were detected at relatively low concentrations (i.e. barium 0.42 mg/L) and indicate that they are not constituents of concern for the Site.

## Other Detected Parameters

During the 2002 sampling, other halogenated organics were detected at generally low concentrations in one or more of the on-site wells (Table 6-1). Halogenated organics detected other than TCE included 1,1-dichloroethane (1,1-DCA), 1,2-DCA, tetrachloroethene (PCE), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), carbon tetrachloride, trans-1,2-dichloroethene, 1,1,1-trichloroethane (1,1,1-TCA), chloroform, and methylene chloride. Time/concentration plots are included in this appendix for these constituents, as well as for constituents of concern.

| Table G-1: Summary of Field Parameters At Time of Sampling, 2002 | | | | | |
|---|---|---|---|---|---|
| Date | Well Number | pH | Conductivity (umhos/cm) | Turbidity (NTUs) | Temperature |
| January, 2002 | MW-01S | 6.79 | 3111 | 109 | 69.8 F |
| | MW-03 | 6.97 | 2166 | 8.40 | 69.1 |
| | MW-04 | 6.59 | 6399 | 21.70 | 69.9 |
| | MW-04A | 7.35 | 1491 | 0.45 | 68.8 |
| | MW-06B | 7.20 | 1461 | 134 | 70.0 |
| | MW-06D | 7.20 | 1634 | 3.59 | 69.4 |
| | MW-07 | 7.00 | 2058 | 24.60 | 70.4 |
| | MW-09 | 7.00 | 1592 | 0.85 | 69.7 |
| | MW-10 | 7.19 | 1650 | 0.82 | 69.1 |
| | MW-11 | 7.08 | 1855 | 1.33 | 69.5 |
| | MW-14S | 7.15 | 2381 | 5.55 | 69.9 |
| | MW-15D | 7.15 | 1454 | 0.62 | 67.8 |
| | MW-15S | 7.11 | 1254 | 4.47 | 69.1 |
| | MW-16 | 6.84 | 2508 | 9.01 | 69.6 |
| April, 2002 | MW-01D | 6.53 | 1665 | 14 | 69.4 F |
| | MW-01S | 6.59 | 3475 | 76 | 71.4 |
| | MW-03 | 6.54 | 2415 | 16 | 69.8 |
| | MW-04 | 6.88 | 854 | 9 | 70.1 |
| | MW-04A | 6.94 | 1541 | 6 | 68.0 |
| | MW-06B | 7.19 | 1555 | 6 | 68.5 |
| | MW-06D | 7.01 | 1660 | 4 | 68.3 |
| | MW-07 | 7.36 | 2251 | 42 | 71.0 |
| | MW-09 | 7.07 | 1597 | 3 | 69.4 |
| | MW-10 | 7.14 | 2359 | 3 | 72.6 |
| | MW-14S | 7.03 | 2054 | 9 | 70.2 |
| | MW-15D | 7.02 | 1498 | 1 | 68.0 |
| | MW-15S | 6.98 | 1314 | 7 | 69.8 |
| | MW-16 | 7.09 | 2736 | 7 | 70.0 |
| July, 2002 | MW-01D | 7.20 | 1666 | 6 | 22.3 C |
| | MW-01S | 6.77 | 3956 | 56 | 24.4 |
| | MW-03 | 7.00 | 2162 | 14 | 24.4 |
| | MW-04 | 6.60 | 6836 | 27 | 23.9 |
| | MW-04A | 7.29 | 1472 | 1 | 21.3 |
| | MW-06B | 7.16 | 1424 | 129 | 23.9 |
| | MW-06D | 7.10 | 1624 | 4 | 21.8 |
| | MW-07 | 6.87 | 2869 | 35 | 22.9 |
| | MW-09 | 6.93 | 2512 | 3 | 21.0 |
| | MW-11 | 7.09 | 2413 | 2 | 22.9 |
| | MW-14S | 7.08 | 2957 | 14 | 23.0 |
| | MW-15D | 7.26 | 1412 | 6 | 20.3 |
| | MW-15S | 7.02 | 1281 | 16 | 24.2 |
| | MW-16 | 6.86 | 2339 | 10 | 22.4 |
| October, 2002 | MW-01D | 7.29 | 1701 | 6 | 21.2 C |
| | MW-01S | 6.79 | 4139 | 73 | 23.7 |
| | MW-03 | 7.10 | 1564 | 19 | 22.0 |
| | MW-04 | 6.79 | 6189 | 38 | 21.8 |
| | MW-04A | 7.40 | 1557 | 1 | 20.2 |
| | MW-06B | 7.24 | 1593 | 185 | 23.1 |
| | MW-06D | 7.29 | 1693 | 4 | 21.0 |
| | MW-07 | 7.37 | 3166 | 236 | 22.4 |
| | MW-09 | 6.88 | 3868 | 2 | 21.0 |
| | MW-11 | 7.19 | 2127 | 2 | 21.5 |
| | MW-14S | 7.02 | 4341 | 4 | 21.5 |
| | MW-15D | 7.25 | 1504 | 1 | 19.9 |
| | MW-15S | 7.11 | 1646 | 12 | 20.8 |
| | MW-16 | 6.98 | 1839 | 3 | 21.2 |

## Table G-2
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Appendix IX Summary of Detections

| Well Number | Sample Type | Acetophenone | Arsenic | Barium | Bis (2-Ethylhexyl) Phthalate | Mercury | Selenium | Sulfide | Thallium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-04 | | 0.01 U | 0.01 RL-3 | 0.34 | 0.005 J | 0.0012 | 0.016 | 0.1 U | 0.01 RL-3 | 0.04 RL-3 |
| | K | 0.01 U | 0.01 RL-3 | 0.66 | 0.0058 J | 0.0014 | 0.01 RL-3 | 0.1 U | 0.01 RL-3 | 0.16 |
| MW-07 | | 0.01 U | 0.005 U | 0.4 | 0.0096 J | 0.00039 | 0.0085 | 0.1 U | 0.005 U | 0.14 |
| MW-11 | | 0.01 U | 0.005 U | 0.32 | 0.078 | 0.0002 U | 0.0078 | 0.19 | 0.005 U | 0.16 |
| MW-14S | | 0.026 | 0.011 | 0.42 | 0.006 J | 0.0002 U | 0.005 U | 0.1 U | 0.0074 | 0.13 |

***Notes:***
Of all of the Appendix IX parameters, only those with detections are shown.
All EPA 8260B analytical results are shown in Table 6-2.
All samples collected December 30, 2002
All concentrations reported in mg/L

U = Not detected at a concentration greater than the reporting limit shown
RL-3 = Reporting Limit elevated due to interference from other analytes.
Analyte not analyzed or not reported if left blank.

Sample Type:
K = Split sample

# Table G-3
## Phibro-Tech, Inc.
## Groundwater Analytical Results - October 2002
## Dioxins and Furans Analytical Summary

| Well Number | Sample Type | Total TCDD | Total PeCDD | Total HxCDD | Total HpCDD | Total TCDF | Total PeCDF | Total HxCDF | Total HpCDF | OCDD | OCDF | Total PCDD Toxicity Equivs. | Total PCDF Toxicity Equivs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-04 | | 2.4 J | 2.8 | 5.4 J | 10 | 0.9 U | 2 J | 5 | 2 | 42.2 JB | 5.6 JB | 3.2 | 1.4 |
| | K | 3.5 | 3.3 | 14.5 | 18.1 | 6.4 | 8.6 | 18.2 | 11.6 | 56.6 JB | 9.4 JB | 8.5 | 6.6 |
| MW-07 | | 1.2 U | 1.3 U | 1.9 | 30.2 | 3.9 | 17.4 X | 24.1 X | 5.7 | 119 B | 12.5 JB | 2.7 | 2.9 |
| MW-11 | | 2 U | 5.3 | 3.8 J | 3.7 | 3.4 J | 1.7 X | 2.7 | 1.7 | 13.6 JB | 2.1 U | 2.6 | 1.2 |
| MW-14S | | 1.6 U | 2 U | 1.6 U | 14.1 | 3.3 X | 2.4 | 7.4 | 3.3 | 48.5 JB | 7.1 JB | 3.2 | 2.7 |

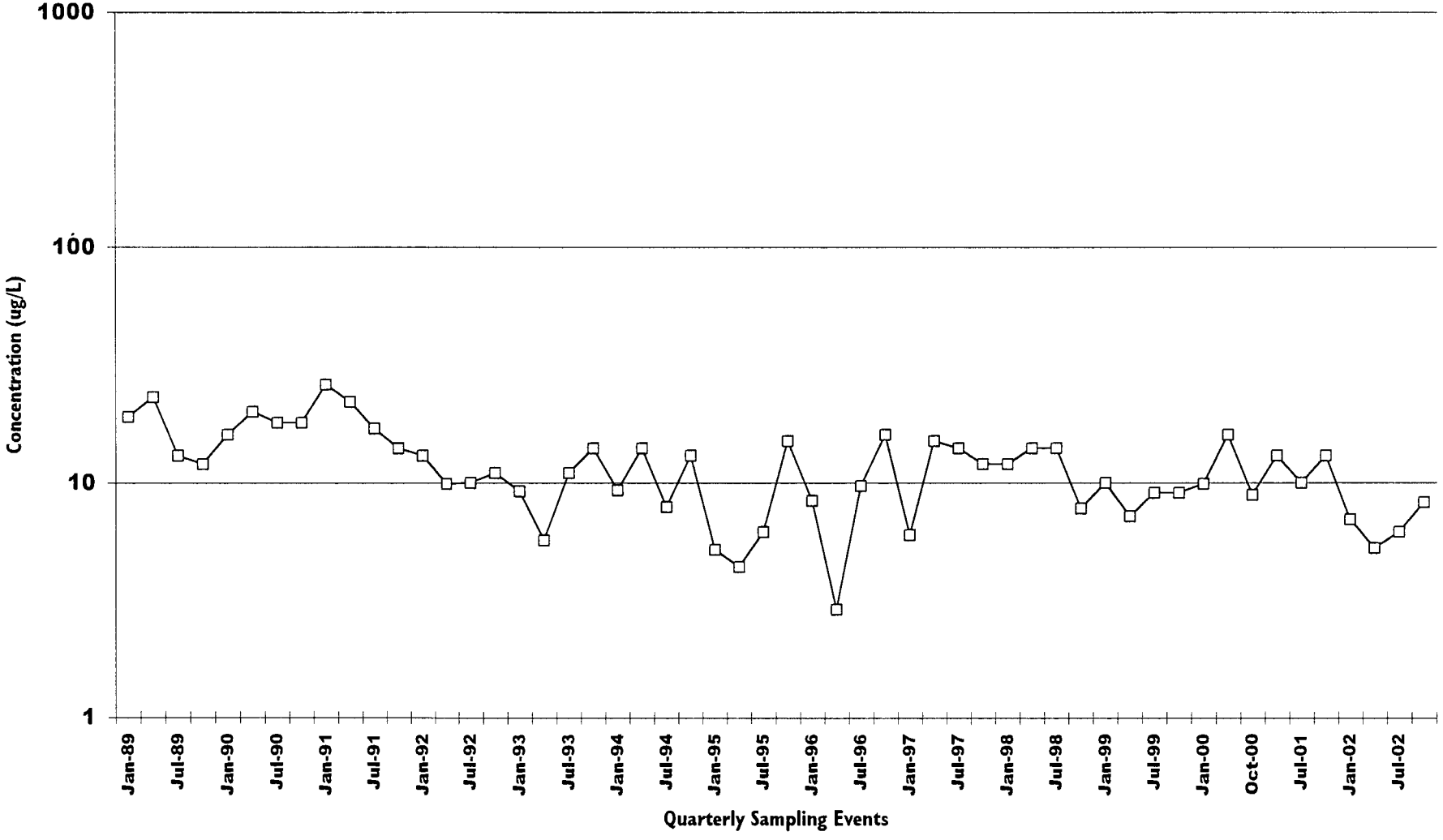
***Notes:***

Samples analyzed by EPA Method 8290.
All concentrations are reported in picograms per liter (parts per quadrillion) with the exception of ToxicityEquivalents, which are unitless.

Data Flags:
B = Analyte detected in method blank and associated sample. Concentration in sample is less than 20 times that contained in method blank.
J = Indicates detected concentration is below analytical calibration curve, and is below the official reporting limit. Concentration reported is an estimate only.
U = Not detected at a concentration greater than the reporting limit shown.
X = Reported concentration contains positive interference caused by diphenyl ether in an amount believed to be greater than 10% of the reported concentration.

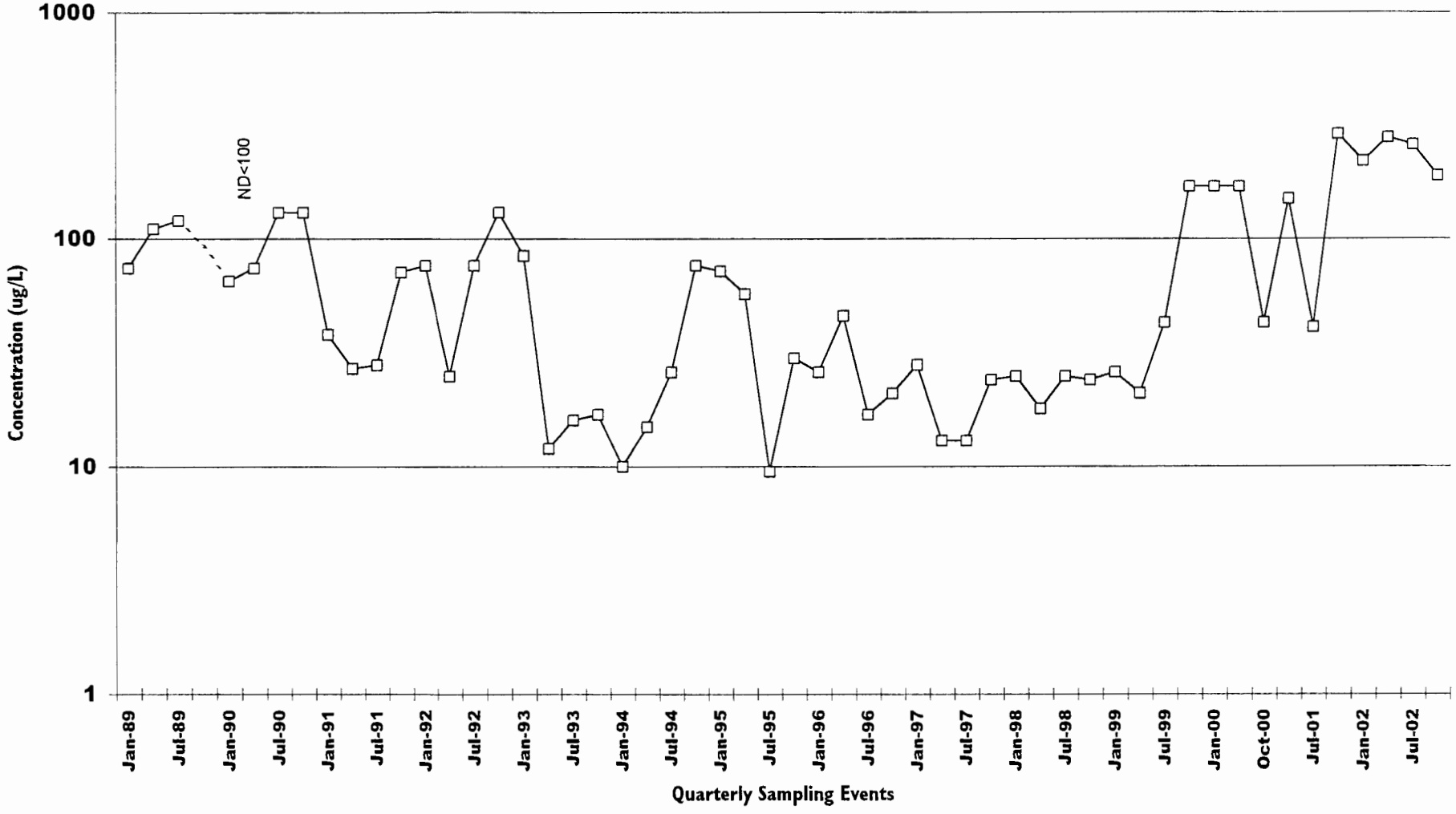
Sample Type:
K = Split sample

# Phibro-Tech, Inc.
## TCE Concentrations
## MW-01S



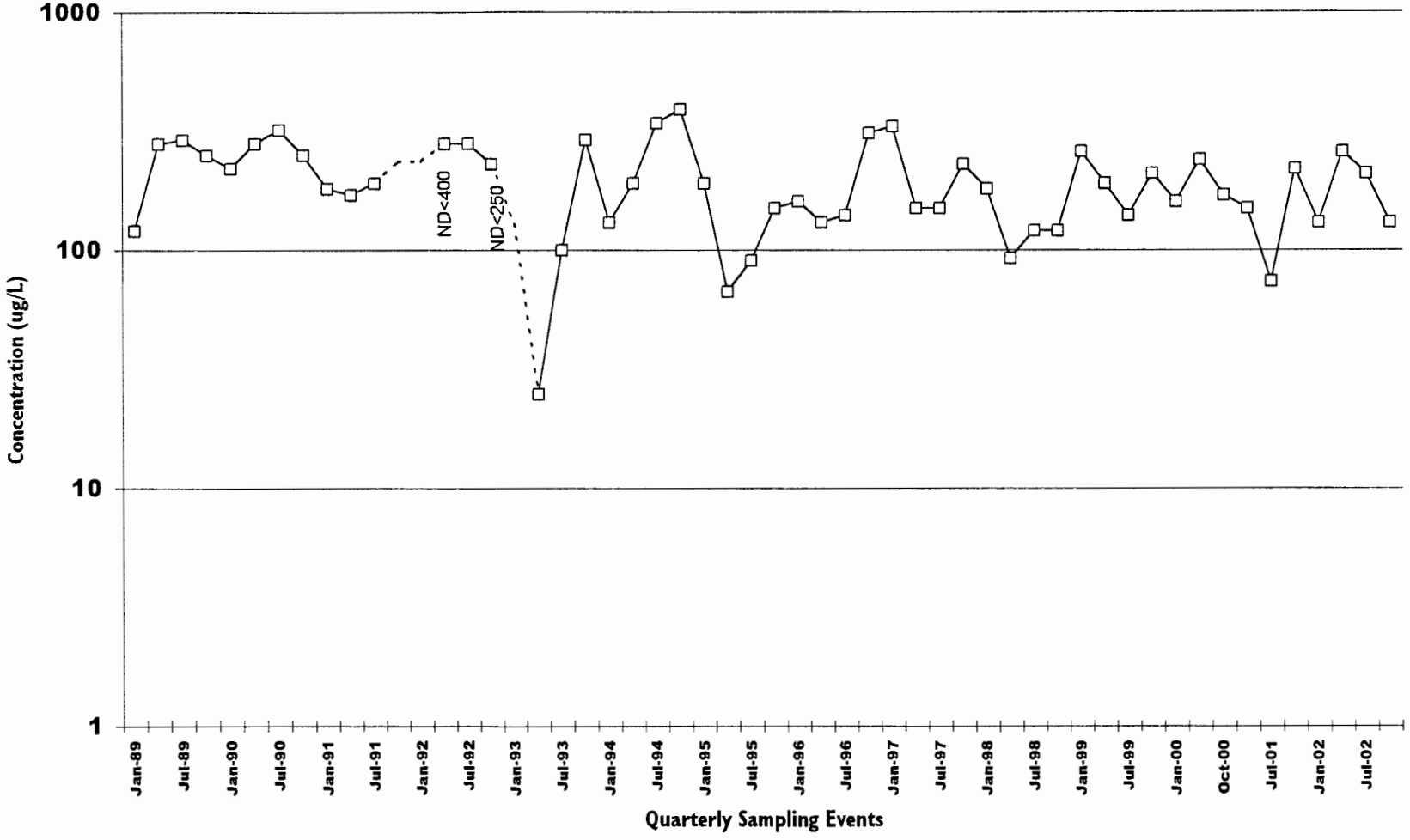

Tce01.xlc

# Phibro-Tech, Inc.
## TCE Concentrations
## MW-03



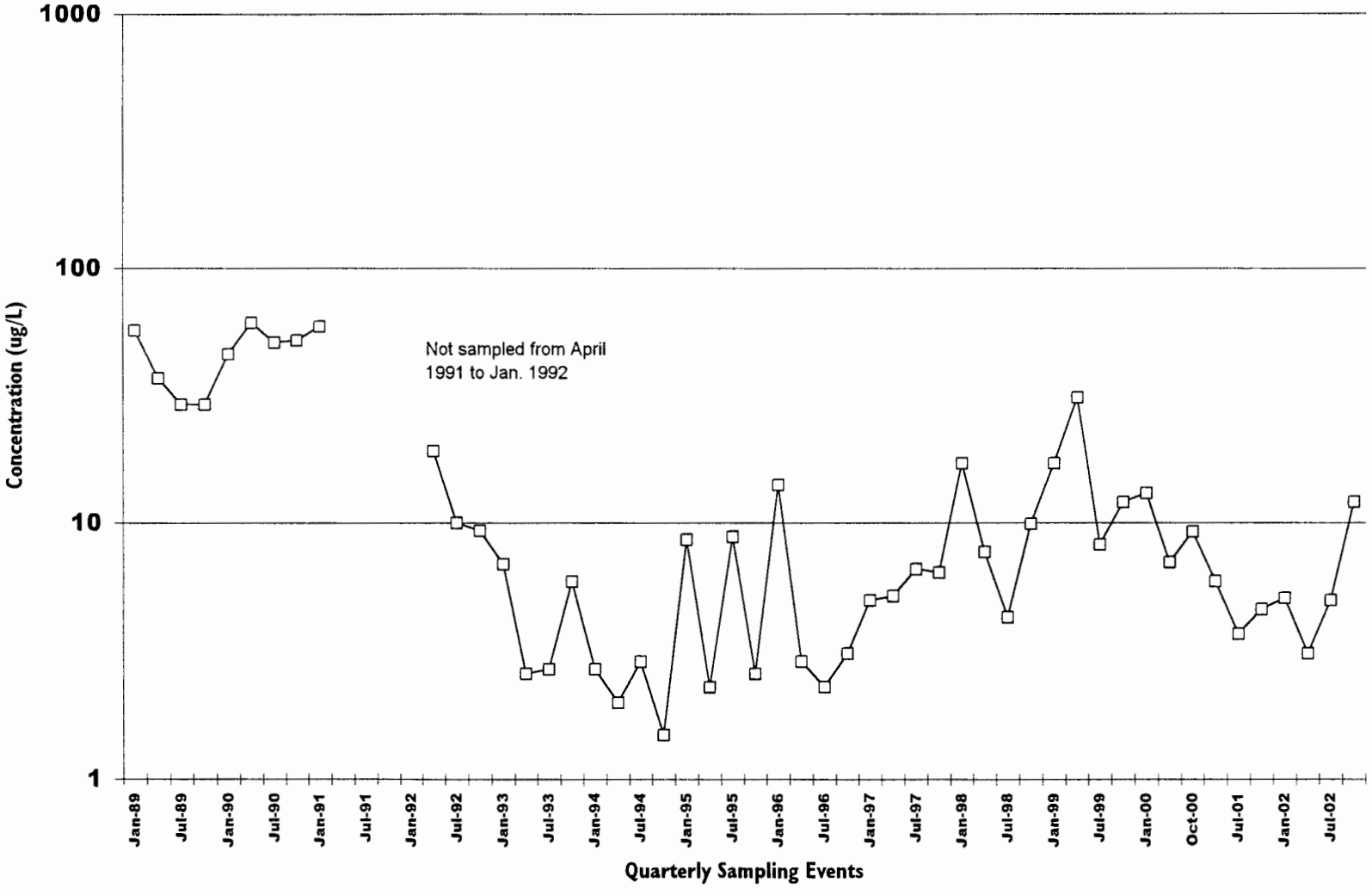

Tce03.xlc

# Phibro-Tech, Inc.
## TCE Concentrations: MW-04



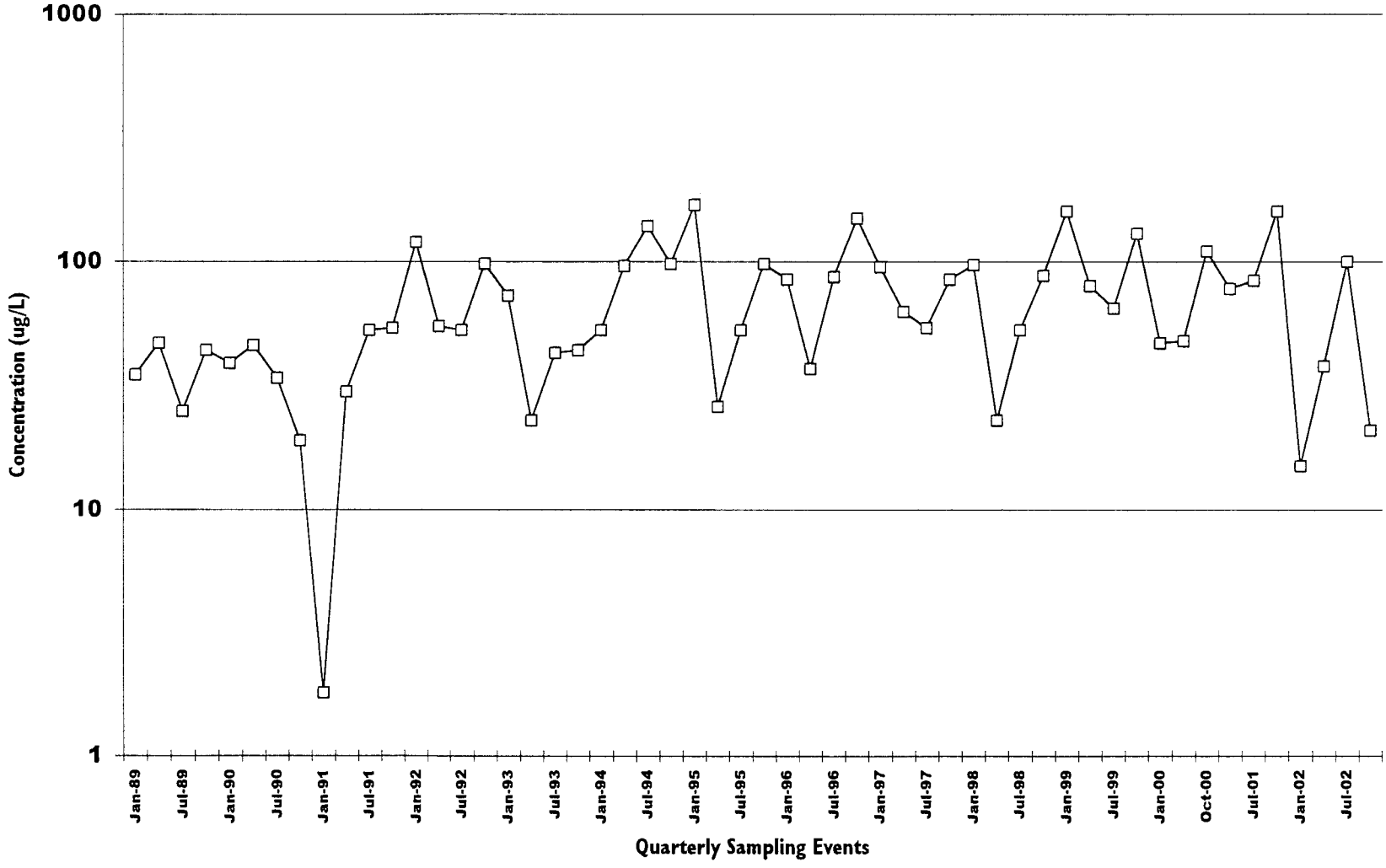

Tce04.xlc

# Phibro-Tech, Inc.
## TCE Concentrations
## MW-06B



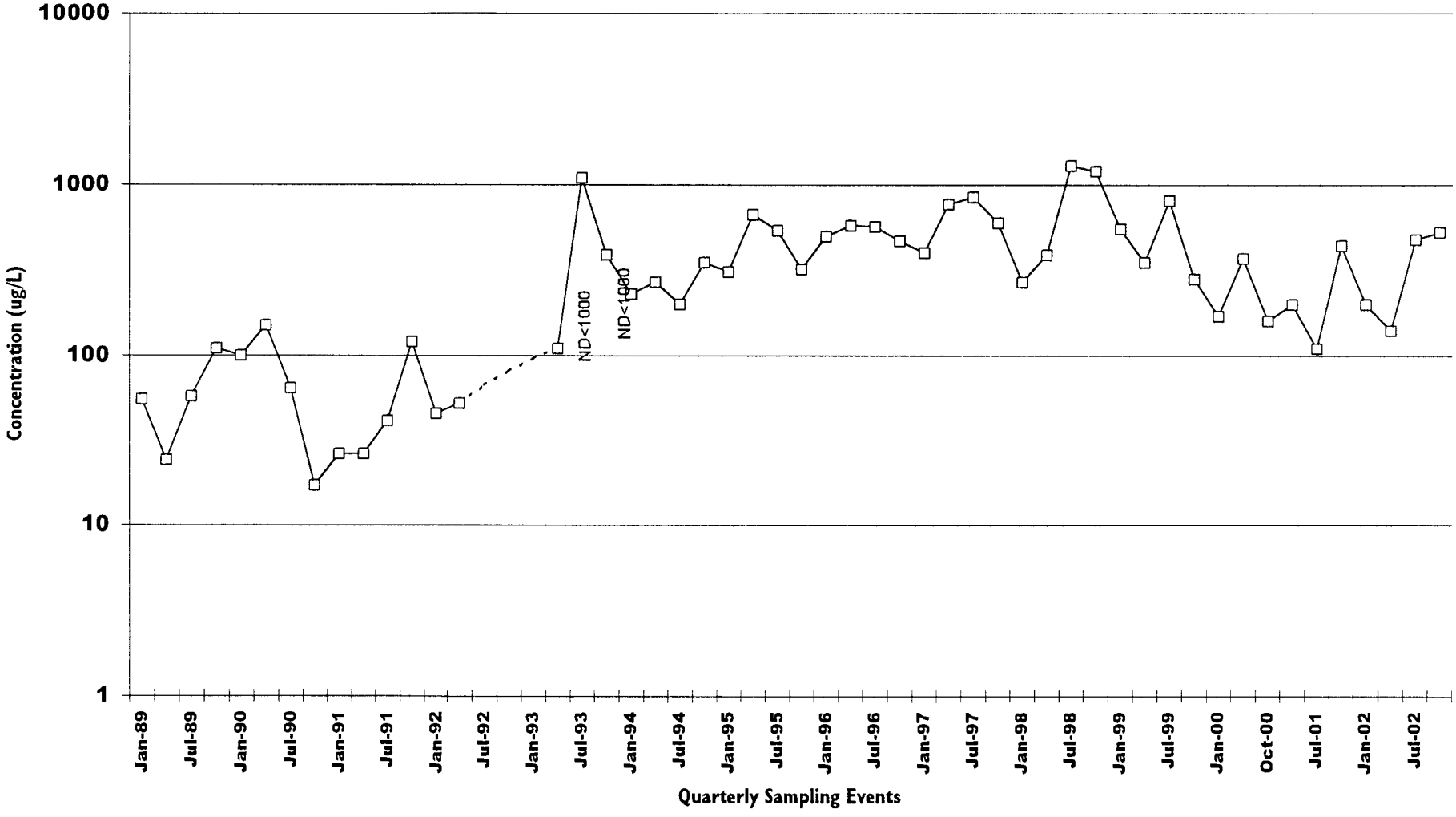

Tce06b.xlc

**Phibro-Tech, Inc.**
**TCE Concentrations**
**MW-07**



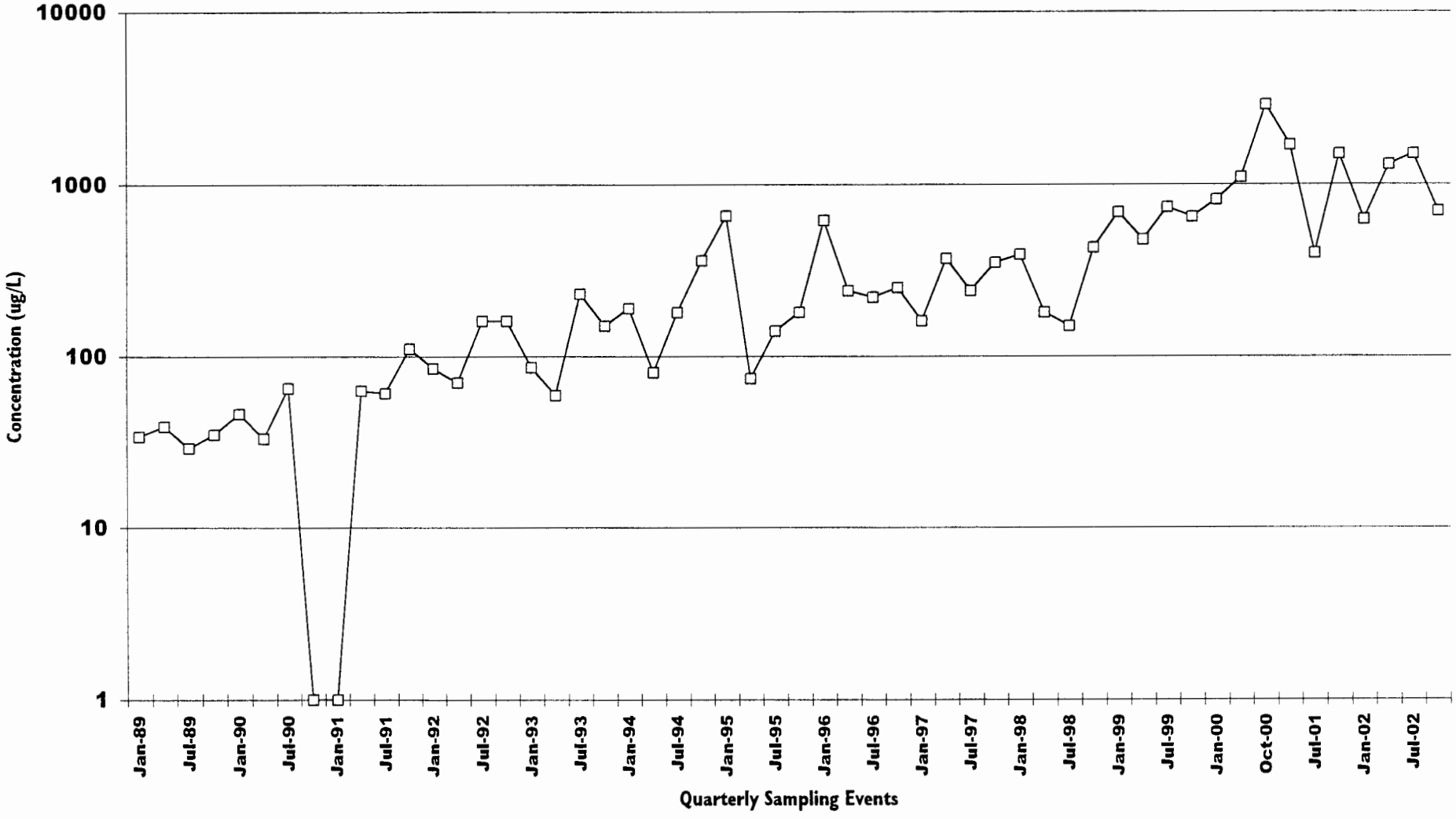

Tce07.xlc

# Phibro-Tech, Inc.
## TCE Concentrations: MW-09



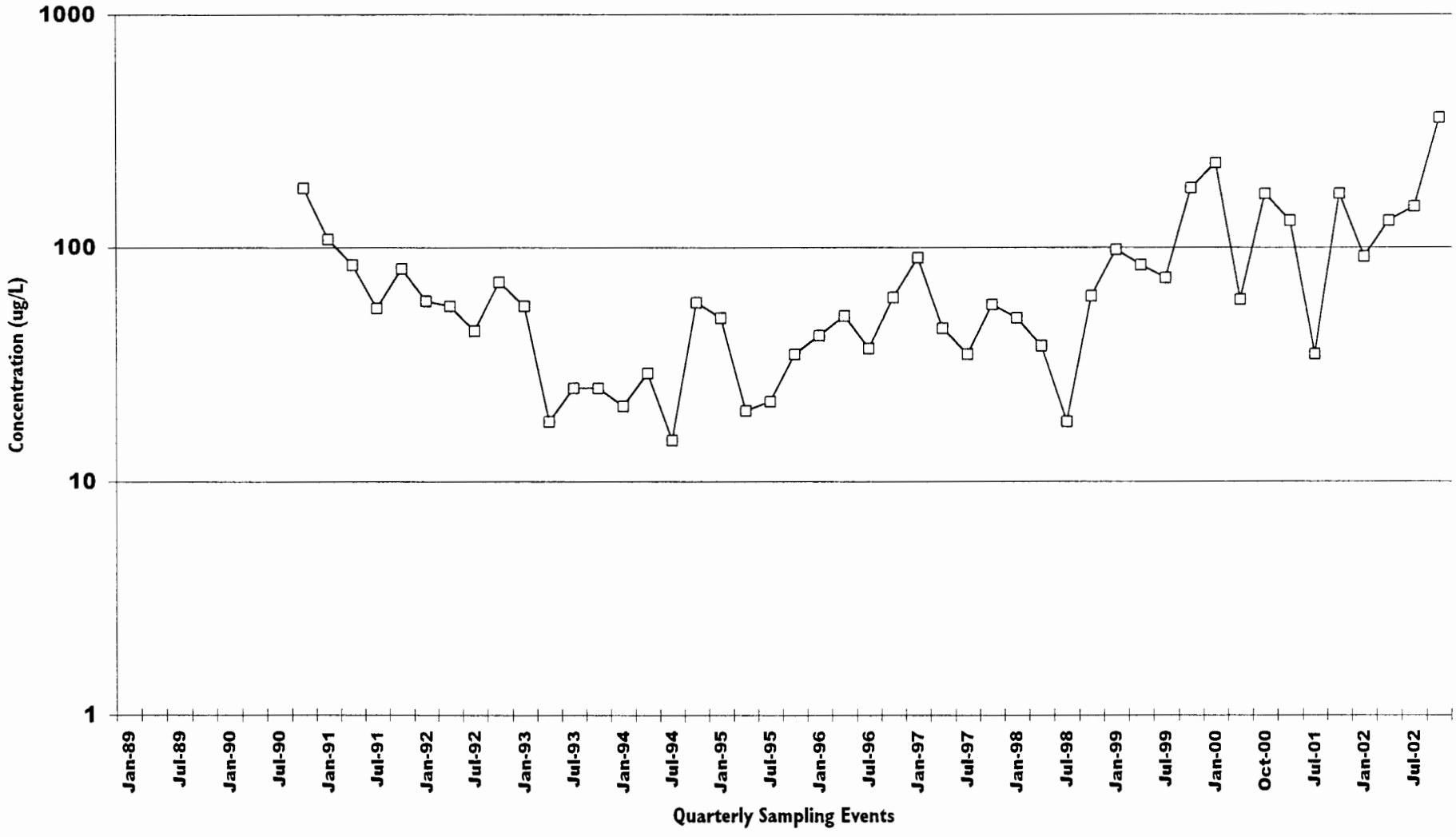

Tce09.xlc

**Phibro-Tech, Inc.**
**TCE Concentrations**
**MW-11**



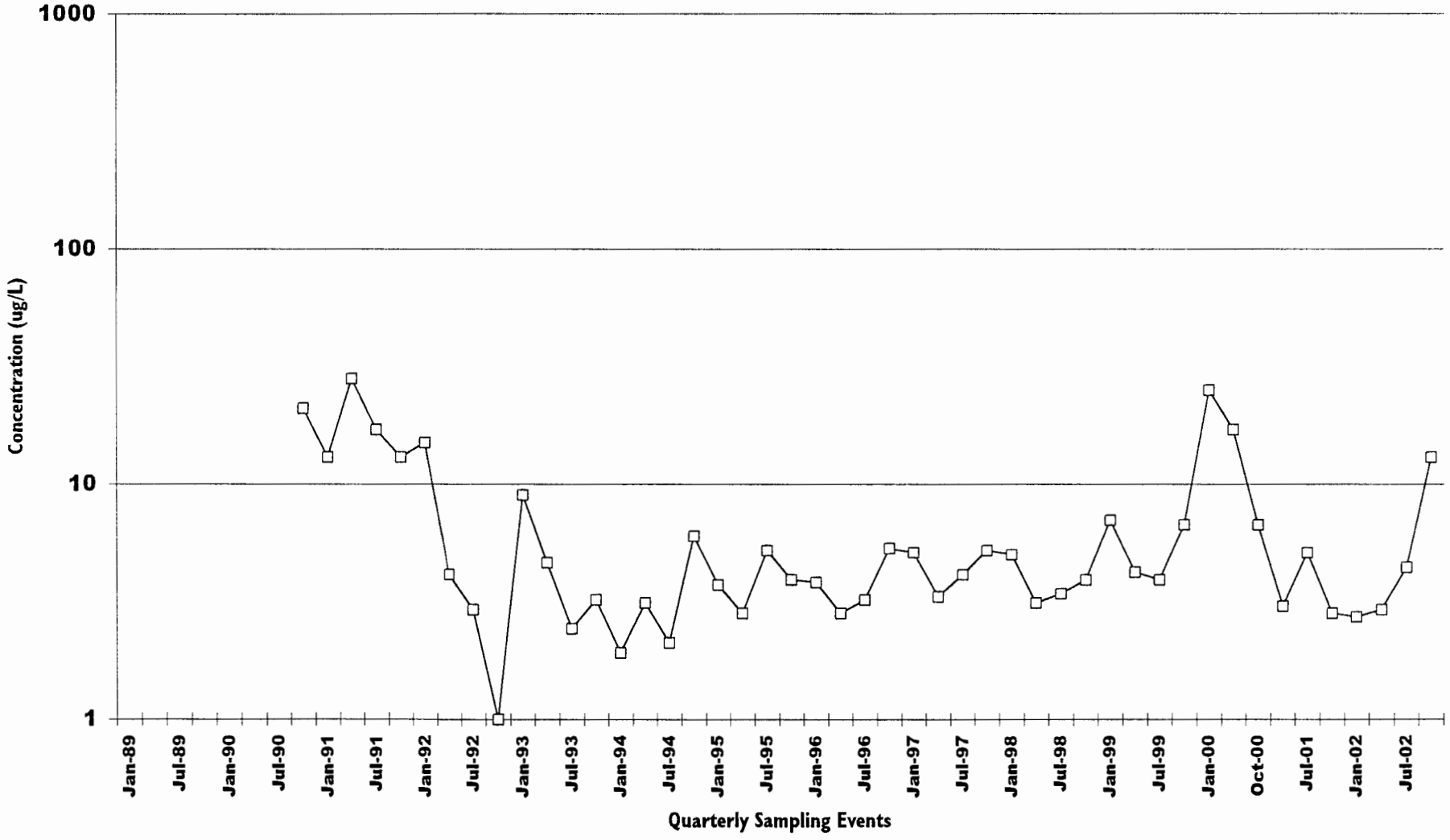

Tce11.xlc

# Phibro-Tech, Inc.
## TCE Concentrations
## MW-14S




Tce14s.xlc

# Phibro-Tech, Inc.
## TCE Concentrations
## MW-15S

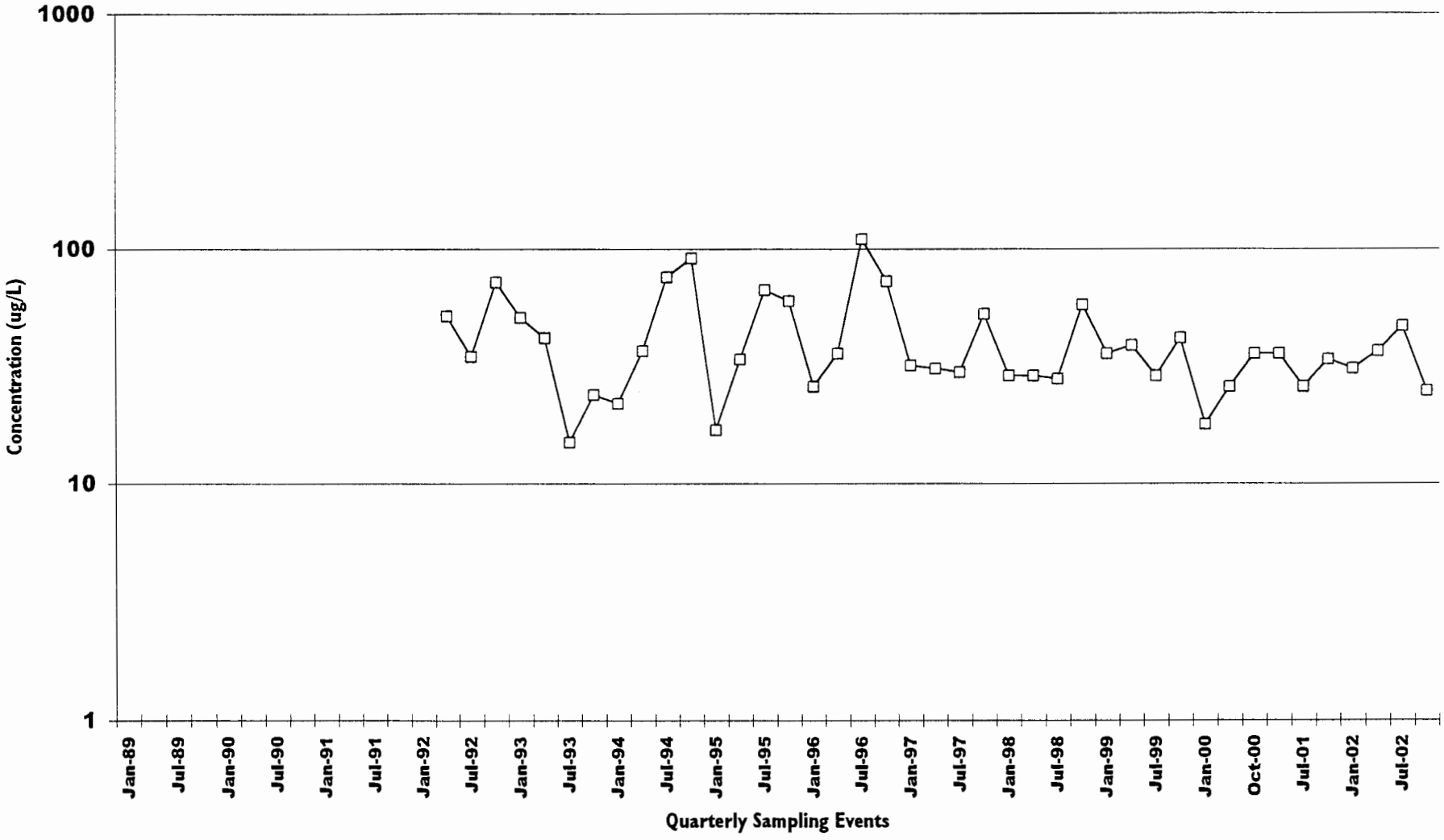



Tce15s.xlc

**Phibro-Tech, Inc.**

**TCE Concentrations**

**MW-16**

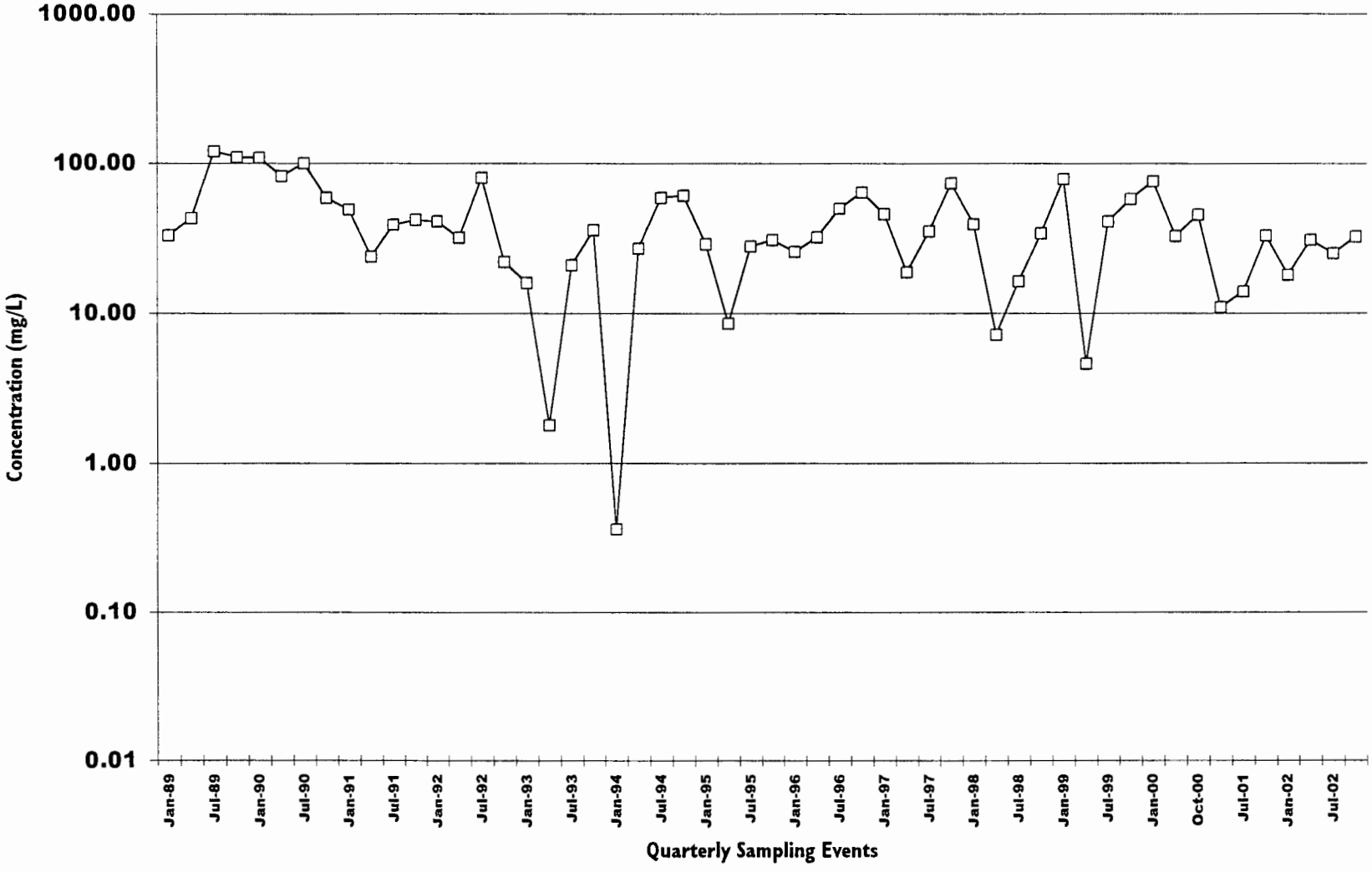



Tce16.xlc

**Phibro-Tech, Inc.**

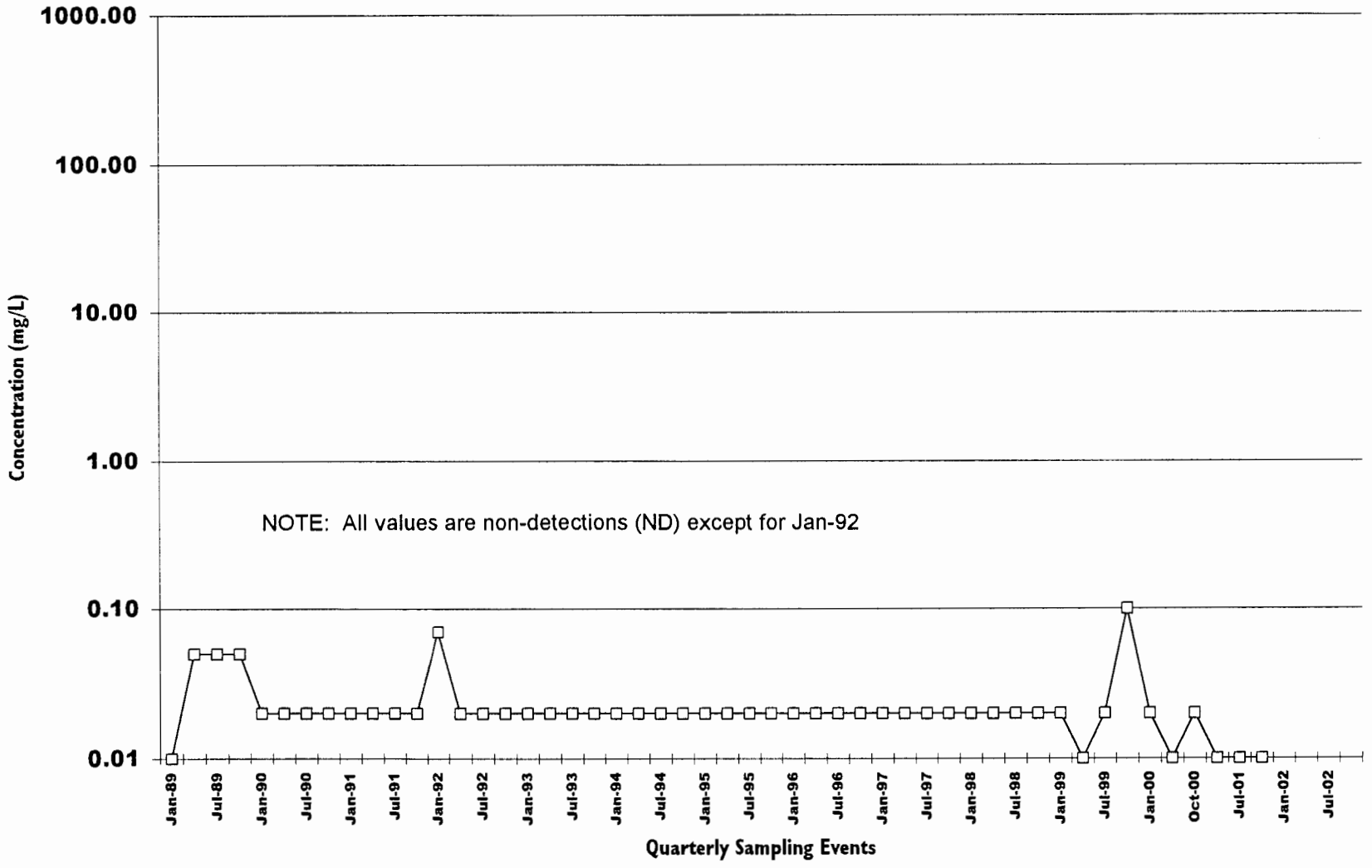
**Hexavalent Chromium Concentrations**

**MW-04**




Hchrom04.xlc

# Phibro-Tech, Inc.
## Hexavalent Chromium Concentrations
## MW-07

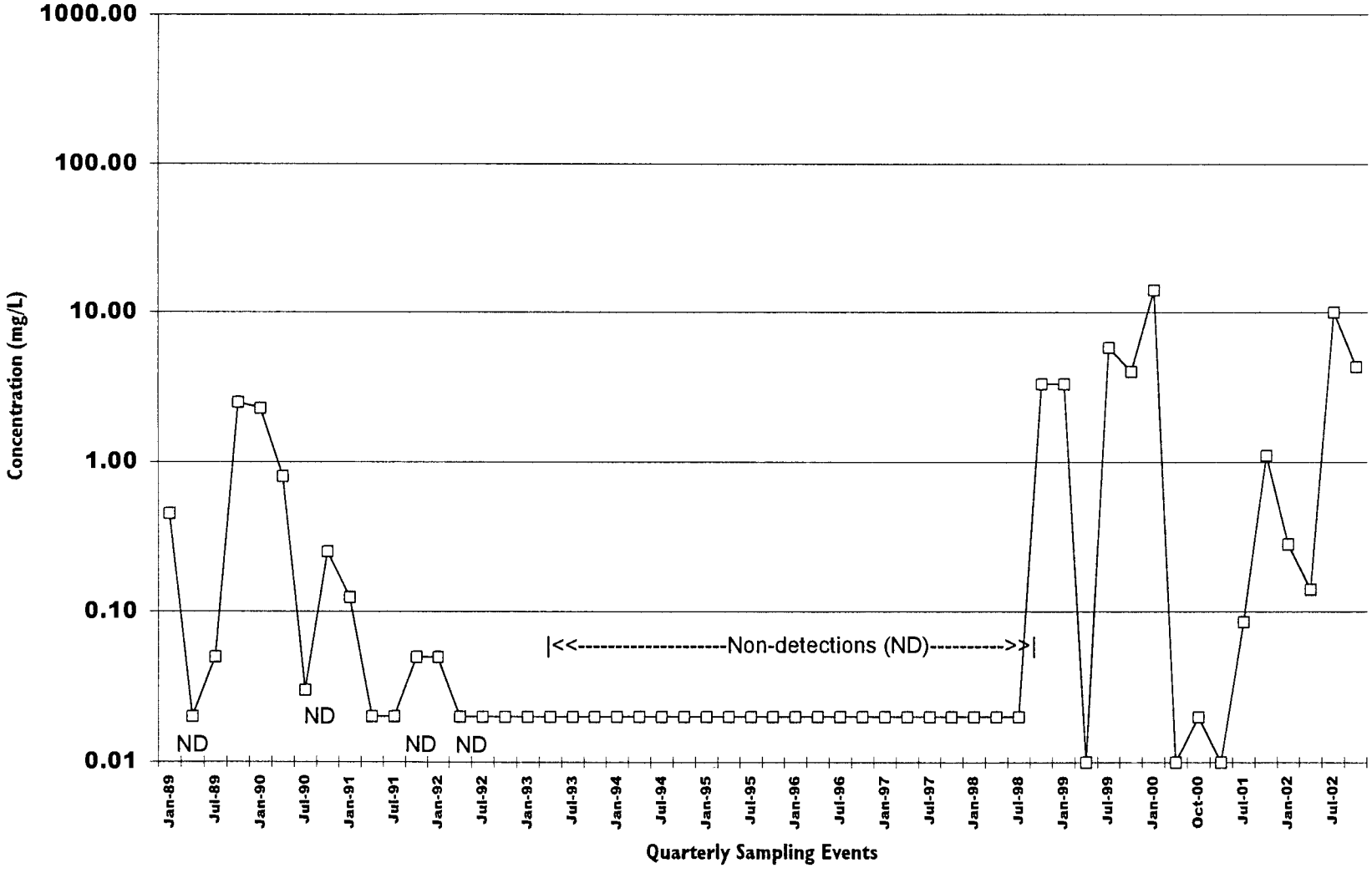



Hchrom07.xlc

**Phibro-Tech, Inc.**

**Hexavalent Chromium Concentrations**

**MW-09**

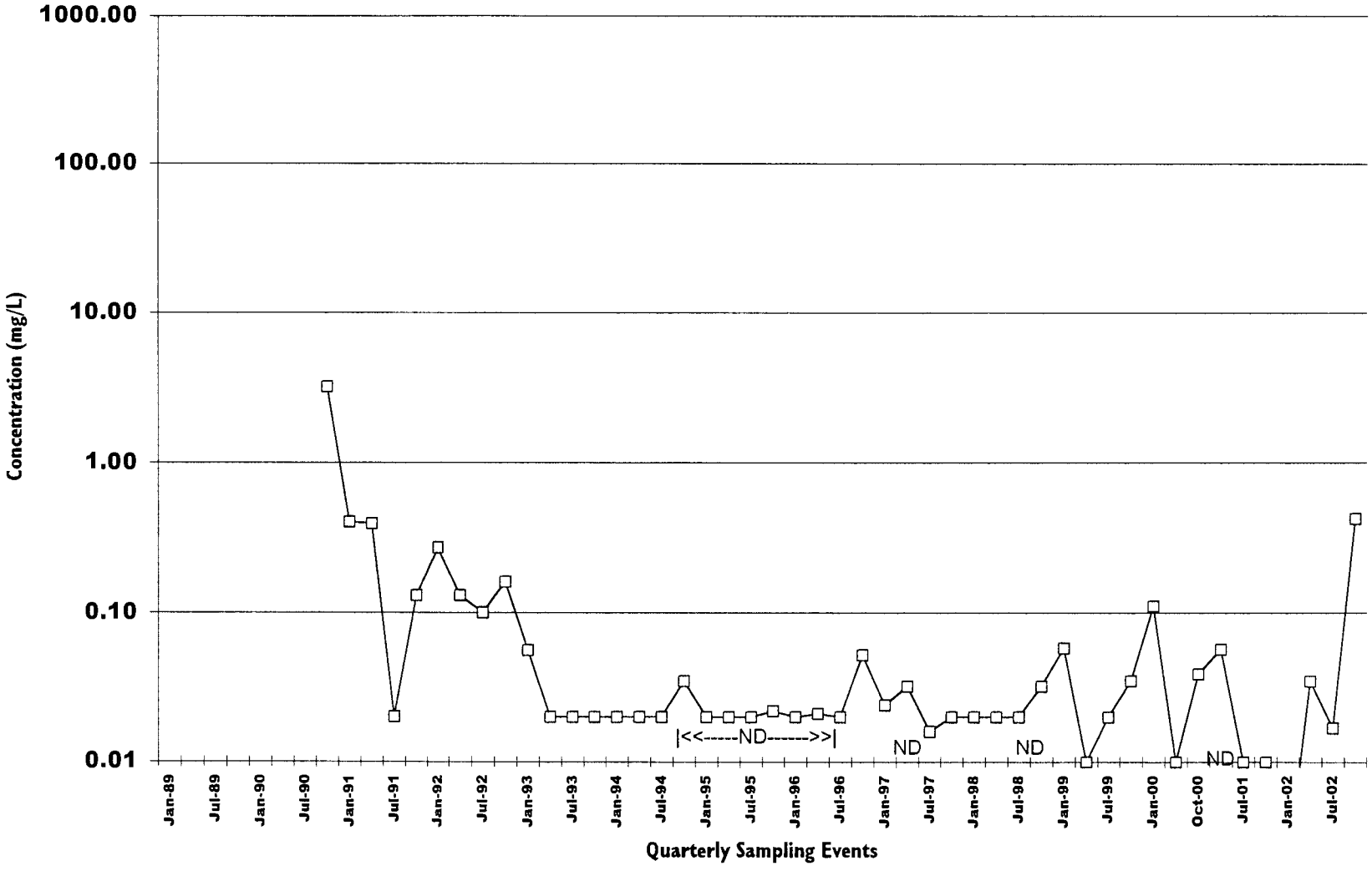



Hchrom09.xlc

**Phibro-Tech, Inc.**

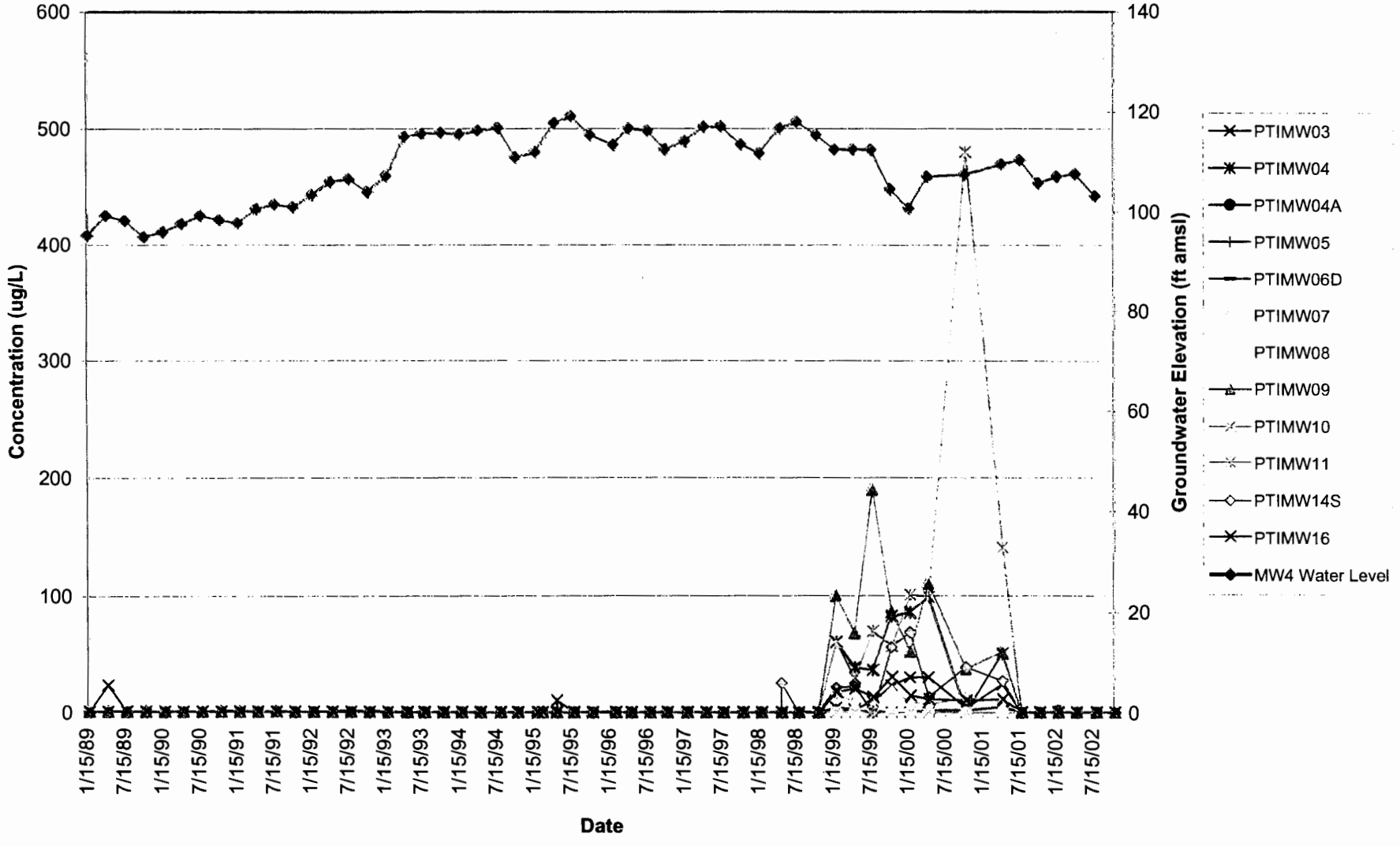
**Hexavalent Chromium Concentrations**

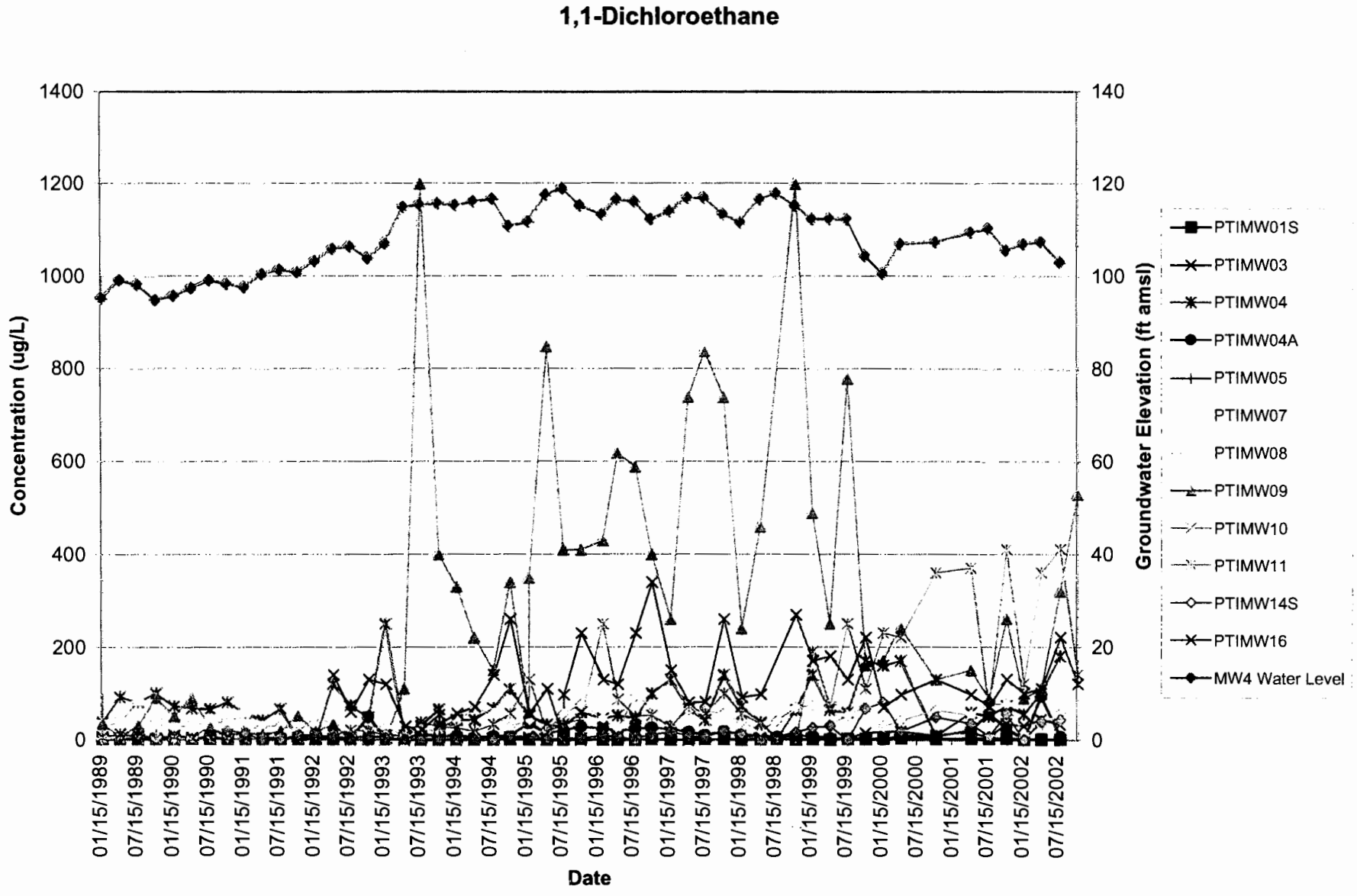
**MW-14S**

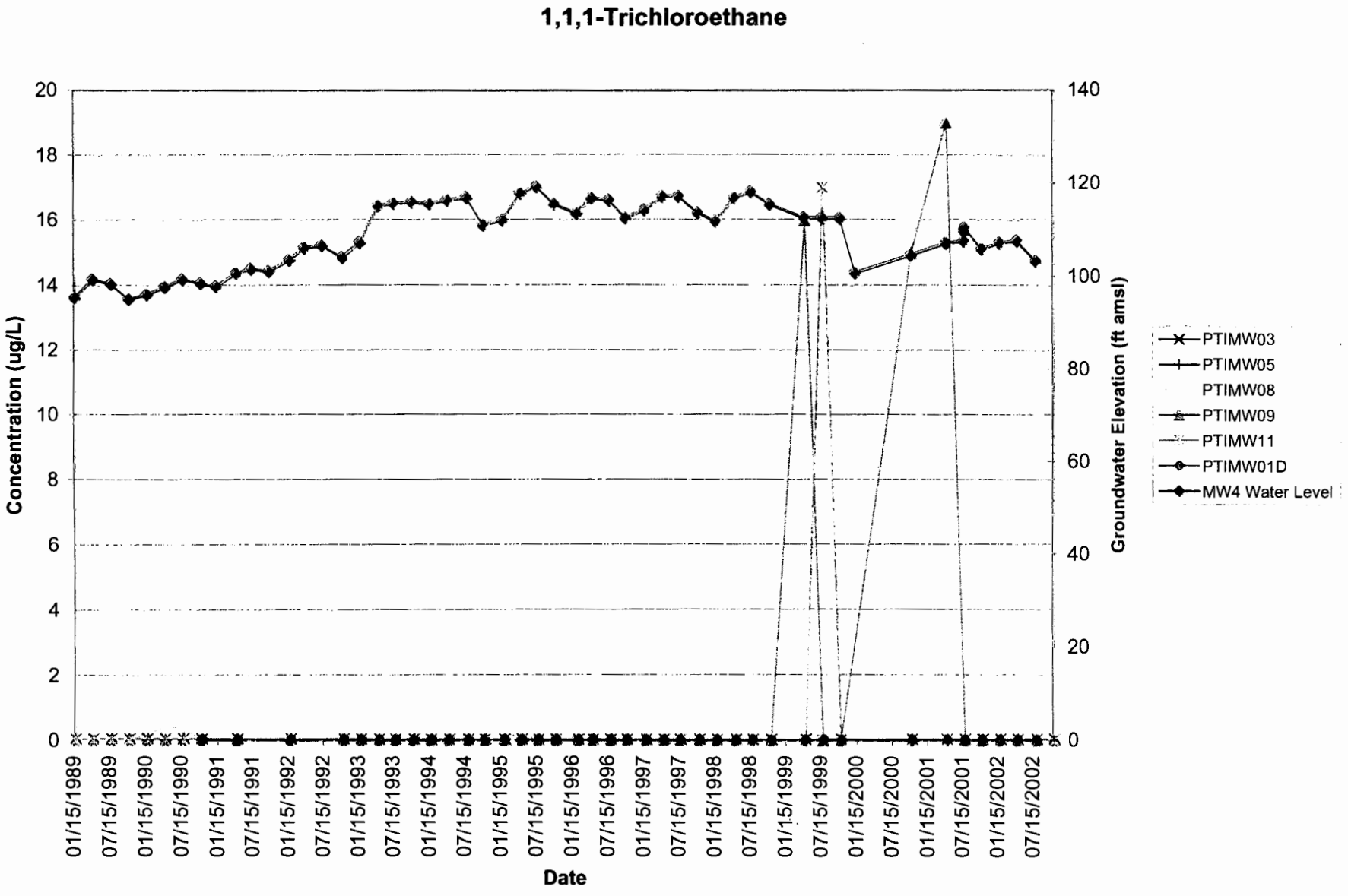



Hchro14s.xlc

# 1,1-Dichloroethene




1,1-Dichloroethane
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
0
200
400
600
800
1000
1200
1400
0
20
40
60
80
100
120
140
01/15/1989
07/15/1989
01/15/1990
07/15/1990
01/15/1991
07/15/1991
01/15/1992
07/15/1992
01/15/1993
07/15/1993
01/15/1994
07/15/1994
01/15/1995
07/15/1995
01/15/1996
07/15/1996
01/15/1997
07/15/1997
01/15/1998
07/15/1998
01/15/1999
07/15/1999
01/15/2000
07/15/2000
01/15/2001
07/15/2001
01/15/2002
07/15/2002
PTIMW01S
PTIMW03
PTIMW04
PTIMW04A
PTIMW05
PTIMW07
PTIMW08
PTIMW09
PTIMW10
PTIMW11
PTIMW14S
PTIMW16
MW4 Water Level


1,1,1-Trichloroethane
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
0
2
4
6
8
10
12
14
16
18
20
0
20
40
60
80
100
120
140
01/15/1989
07/15/1989
01/15/1990
07/15/1990
01/15/1991
07/15/1991
01/15/1992
07/15/1992
01/15/1993
07/15/1993
01/15/1994
07/15/1994
01/15/1995
07/15/1995
01/15/1996
07/15/1996
01/15/1997
07/15/1997
01/15/1998
07/15/1998
01/15/1999
07/15/1999
01/15/2000
07/15/2000
01/15/2001
07/15/2001
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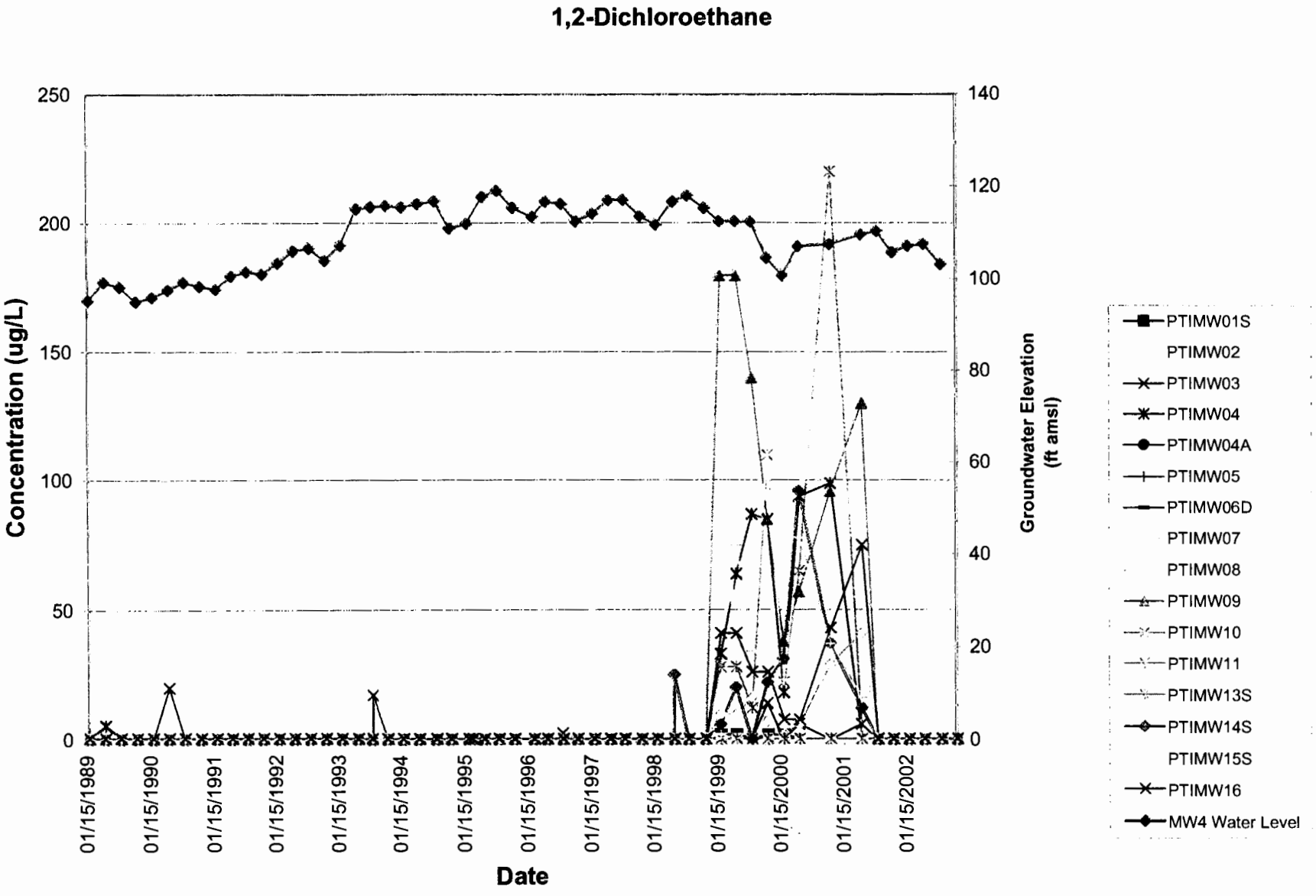
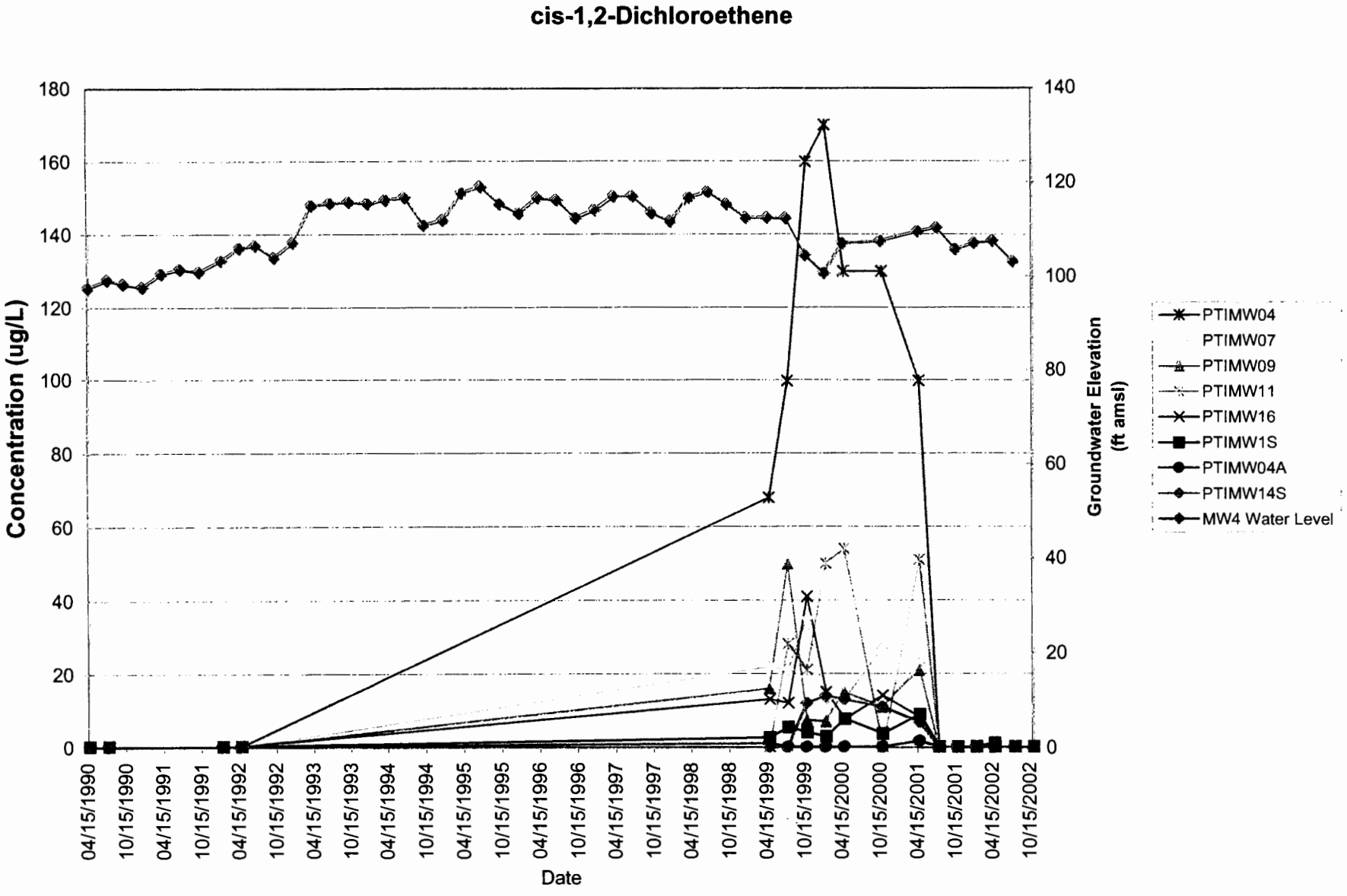
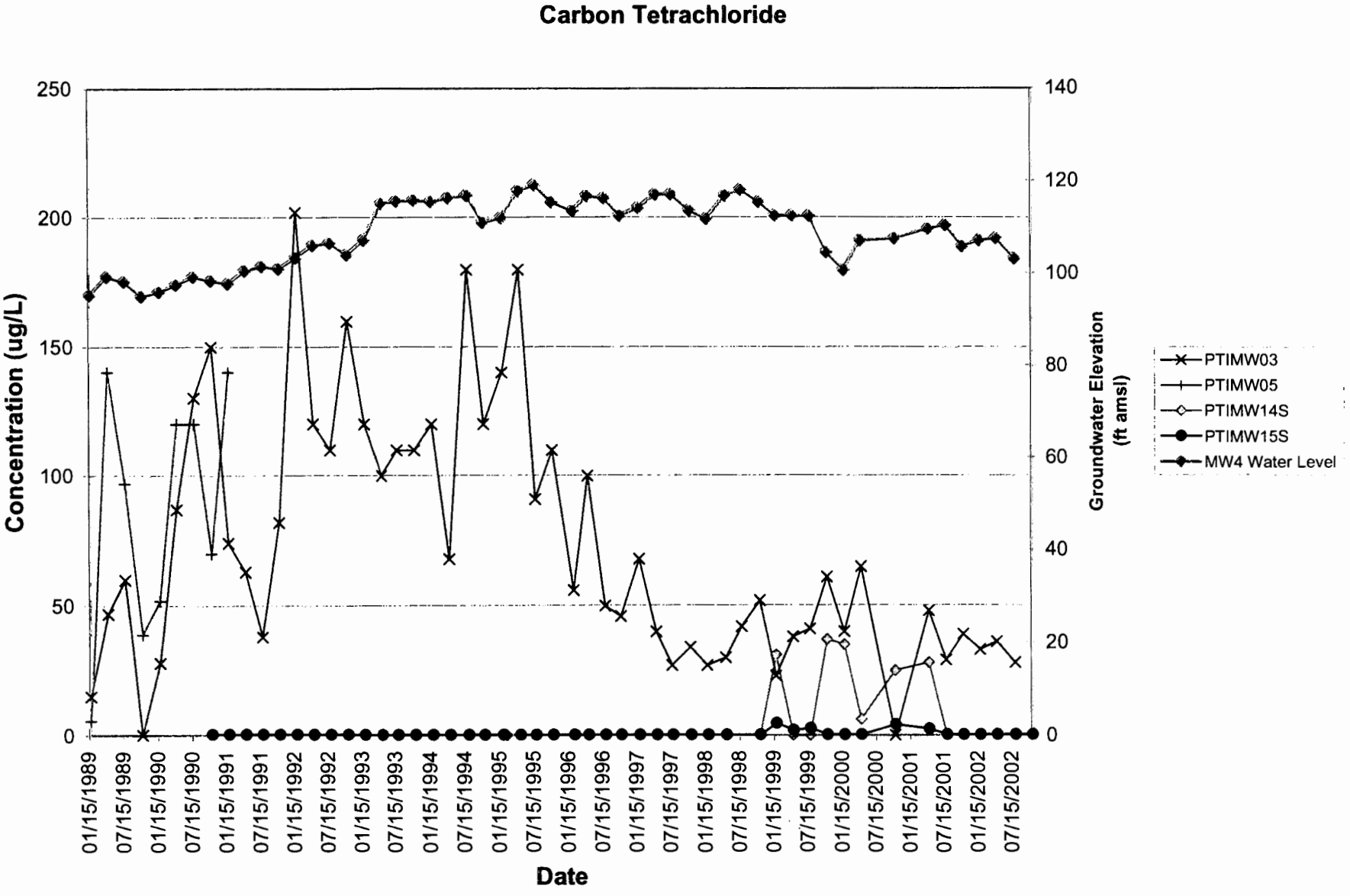
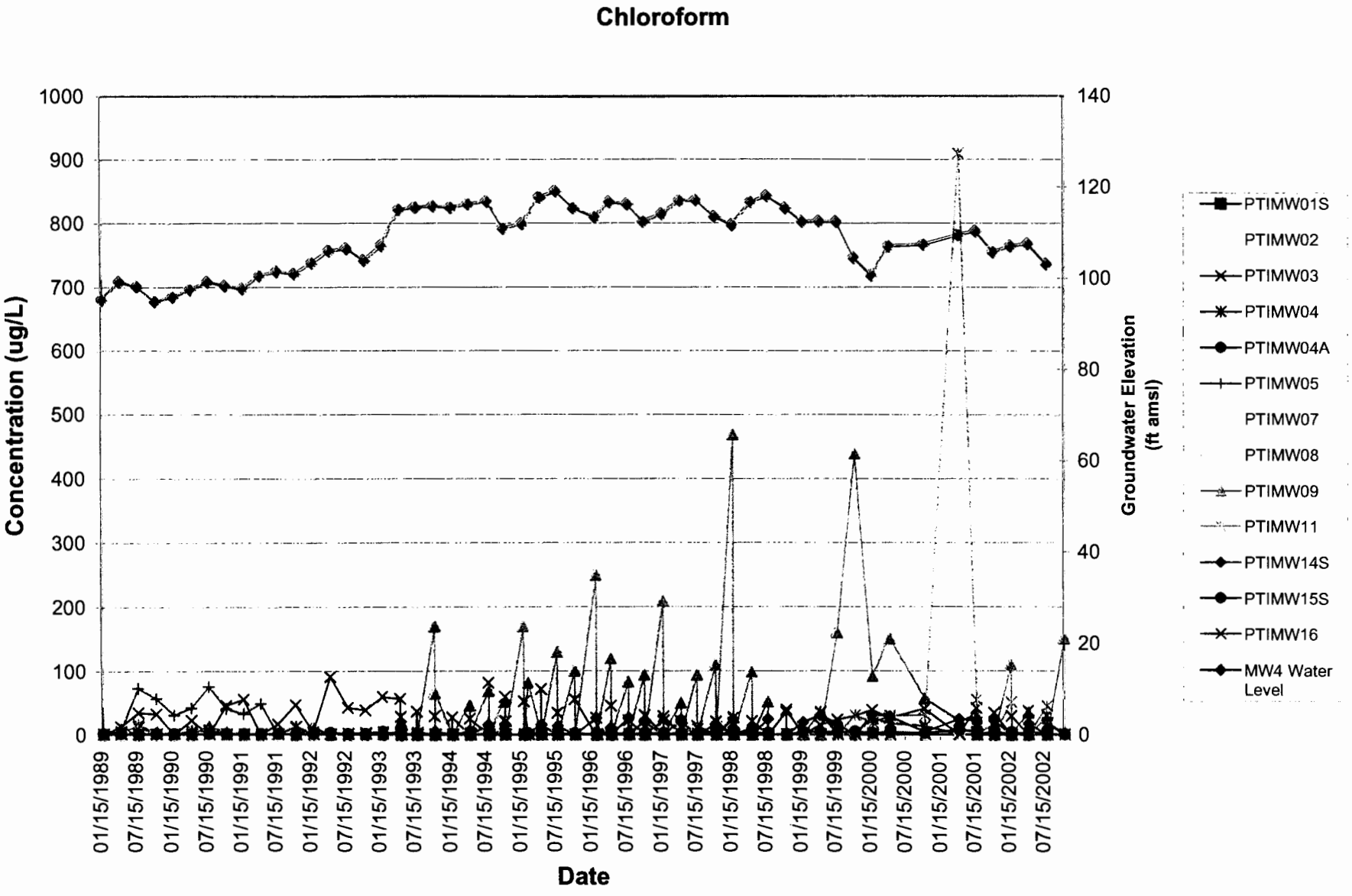
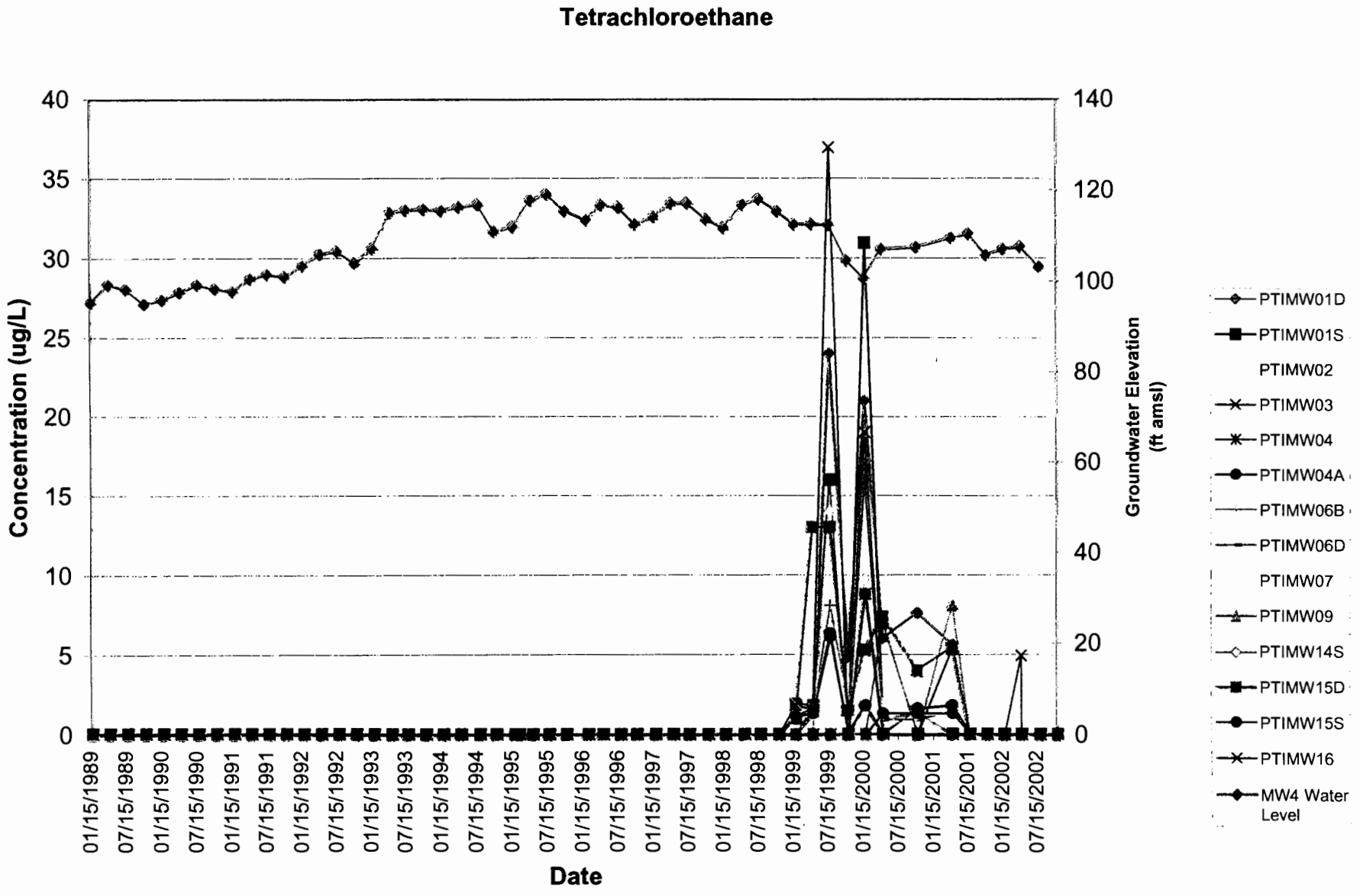
PTIMW05
PTIMW08
PTIMW09
PTIMW11
PTIMW01D
MW4 Water Level


1,2-Dichloroethane
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
250
200
150
100
50
0
140
120
100
80
60
40
20
0
01/15/1989
01/15/1990
01/15/1991
01/15/1992
01/15/1993
01/15/1994
01/15/1995
01/15/1996
01/15/1997
01/15/1998
01/15/1999
01/15/2000
01/15/2001
01/15/2002
PTIMW01S
PTIMW02
PTIMW03
PTIMW04
PTIMW04A
PTIMW05
PTIMW06D
PTIMW07
PTIMW08
PTIMW09
PTIMW10
PTIMW11
PTIMW13S
PTIMW14S
PTIMW15S
PTIMW16
MW4 Water Level


cis-1,2-Dichloroethene
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
0
20
40
60
80
100
120
140
160
180
04/15/1990
10/15/1990
04/15/1991
10/15/1991
04/15/1992
10/15/1992
04/15/1993
10/15/1993
04/15/1994
10/15/1994
04/15/1995
10/15/1995
04/15/1996
10/15/1996
04/15/1997
10/15/1997
04/15/1998
10/15/1998
04/15/1999
10/15/1999
04/15/2000
10/15/2000
04/15/2001
10/15/2001
04/15/2002
10/15/2002
PTIMW04
PTIMW07
PTIMW09
PTIMW11
PTIMW16
PTIMW1S
PTIMW04A
PTIMW14S
MW4 Water Level


Carbon Tetrachloride
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
250
200
150
100
50
0
140
120
100
80
60
40
20
0
01/15/1989
07/15/1989
01/15/1990
07/15/1990
01/15/1991
07/15/1991
01/15/1992
07/15/1992
01/15/1993
07/15/1993
01/15/1994
07/15/1994
01/15/1995
07/15/1995
01/15/1996
07/15/1996
01/15/1997
07/15/1997
01/15/1998
07/15/1998
01/15/1999
07/15/1999
01/15/2000
07/15/2000
01/15/2001
07/15/2001
01/15/2002
07/15/2002
PTIMW03
PTIMW05
PTIMW14S
PTIMW15S
MW4 Water Level


Chloroform
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
1000
900
800
700
600
500
400
300
200
100
0
140
120
100
80
60
40
20
0
01/15/1989
07/15/1989
01/15/1990
07/15/1990
01/15/1991
07/15/1991
01/15/1992
07/15/1992
01/15/1993
07/15/1993
01/15/1994
07/15/1994
01/15/1995
07/15/1995
01/15/1996
07/15/1996
01/15/1997
07/15/1997
01/15/1998
07/15/1998
01/15/1999
07/15/1999
01/15/2000
07/15/2000
01/15/2001
07/15/2001
01/15/2002
07/15/2002
PTIMW01S
PTIMW02
PTIMW03
PTIMW04
PTIMW04A
PTIMW05
PTIMW07
PTIMW08
PTIMW09
PTIMW11
PTIMW14S
PTIMW15S
PTIMW16
MW4 Water Level


Tetrachloroethane
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
0
5
10
15
20
25
30
35
40
0
20
40
60
80
100
120
140
01/15/1989
07/15/1989
01/15/1990
07/15/1990
01/15/1991
07/15/1991
01/15/1992
07/15/1992
01/15/1993
07/15/1993
01/15/1994
07/15/1994
01/15/1995
07/15/1995
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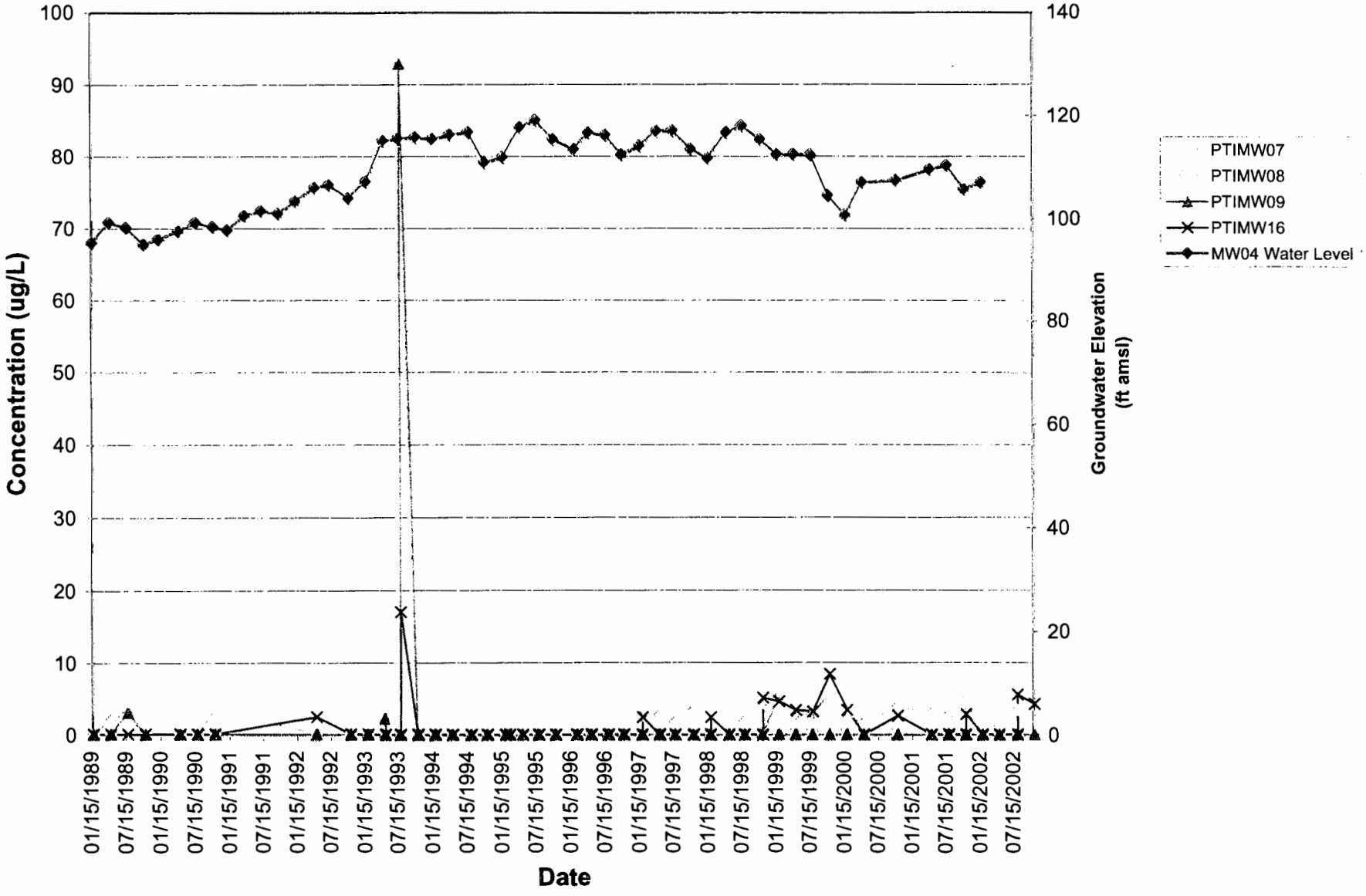
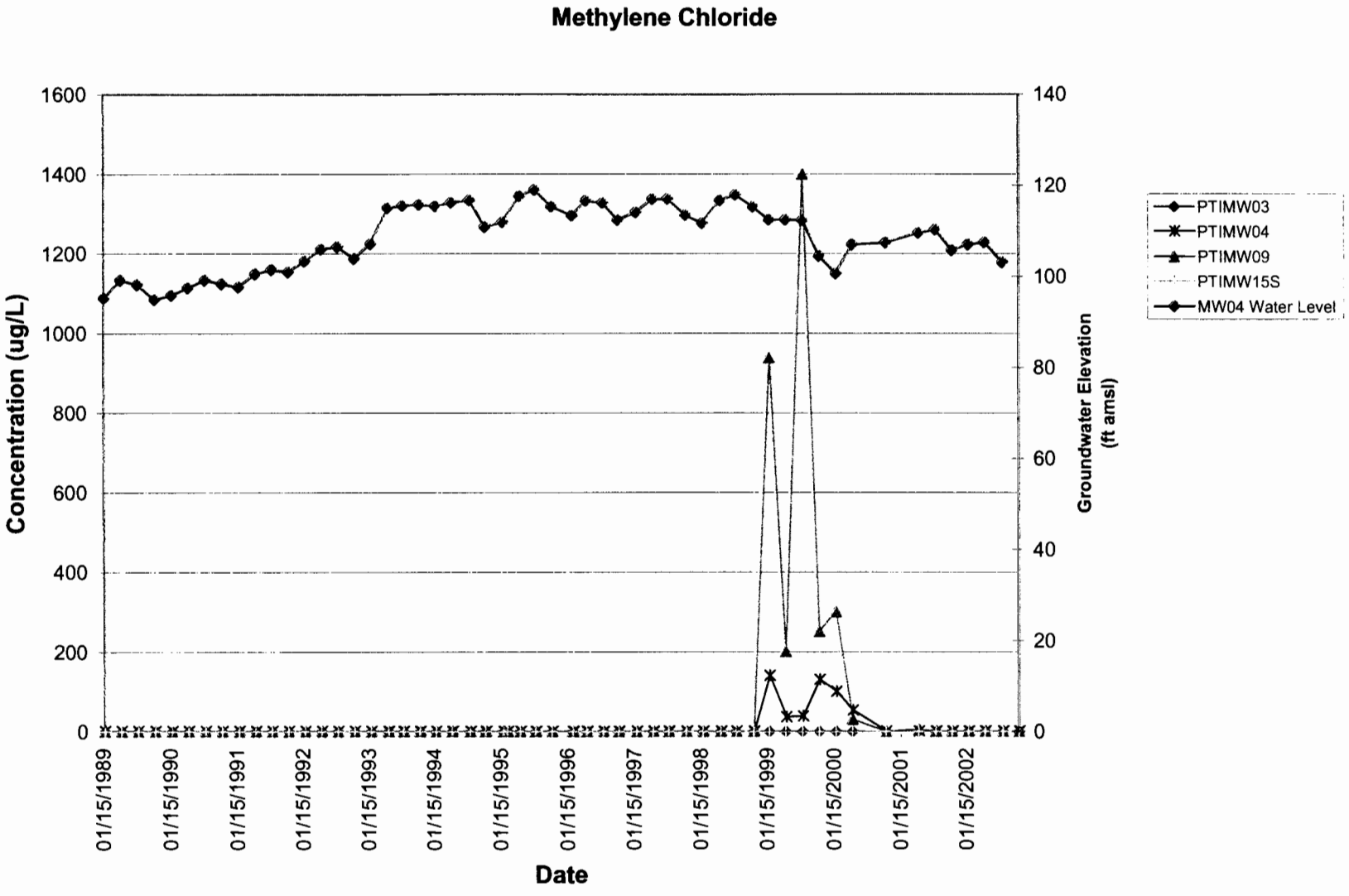
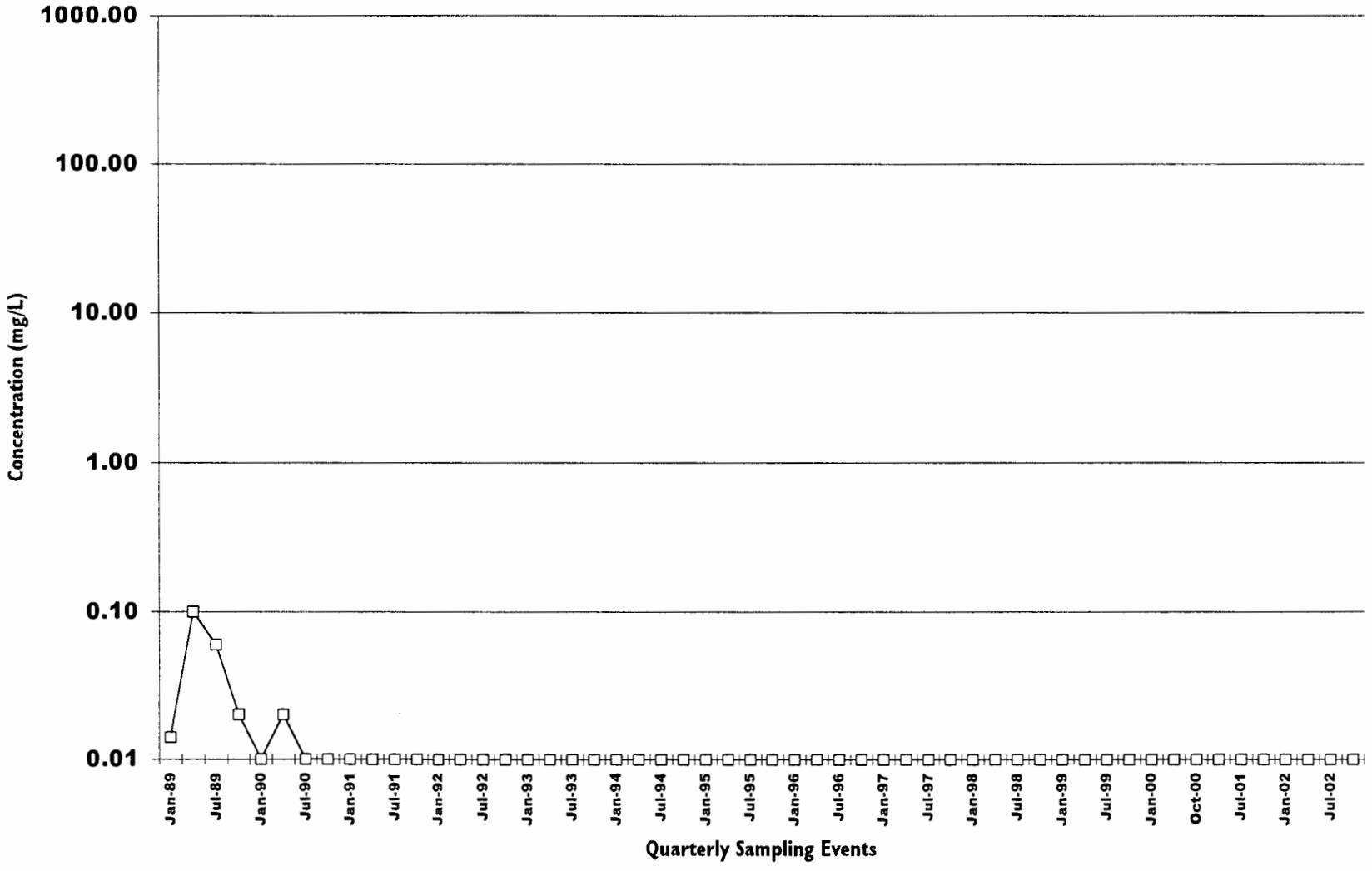
07/15/1998
01/15/1999
07/15/1999
01/15/2000
07/15/2000
01/15/2001
07/15/2001
01/15/2002
07/15/2002
PTIMW01D
PTIMW01S
PTIMW02
PTIMW03
PTIMW04
PTIMW04A
PTIMW06B
PTIMW06D
PTIMW07
PTIMW09
PTIMW14S
PTIMW15D
PTIMW15S
PTIMW16
MW4 Water Level

## trans-1,2-Dichloroethene



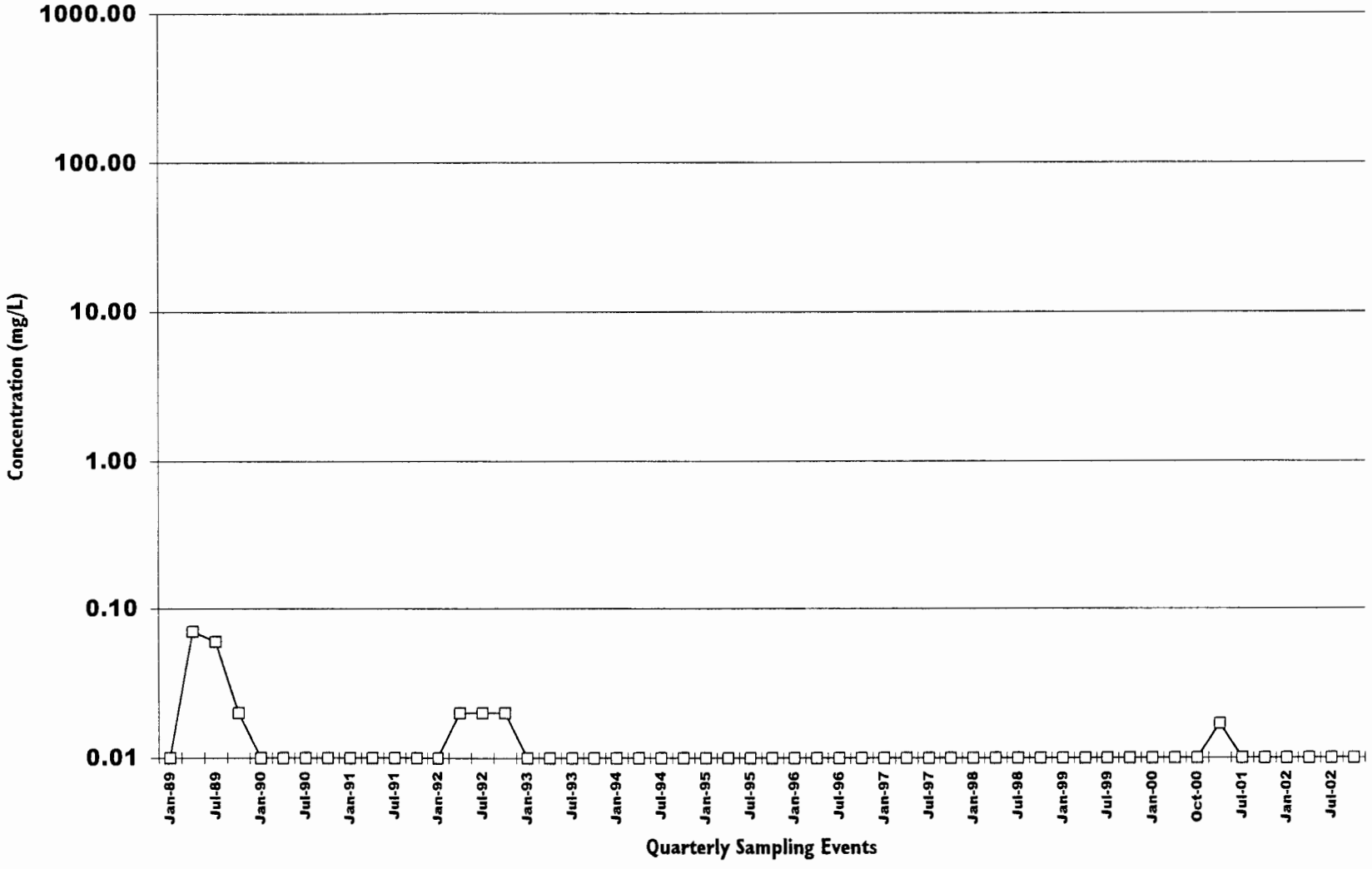

Methylene Chloride
Concentration (ug/L)
Groundwater Elevation (ft amsl)
Date
1600
1400
1200
1000
800
600
400
200
0
140
120
100
80
60
40
20
0
01/15/1989
01/15/1990
01/15/1991
01/15/1992
01/15/1993
01/15/1994
01/15/1995
01/15/1996
01/15/1997
01/15/1998
01/15/1999
01/15/2000
01/15/2001
01/15/2002
PTIMW03
PTIMW04
PTIMW09
PTIMW15S
MW04 Water Level

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-01S



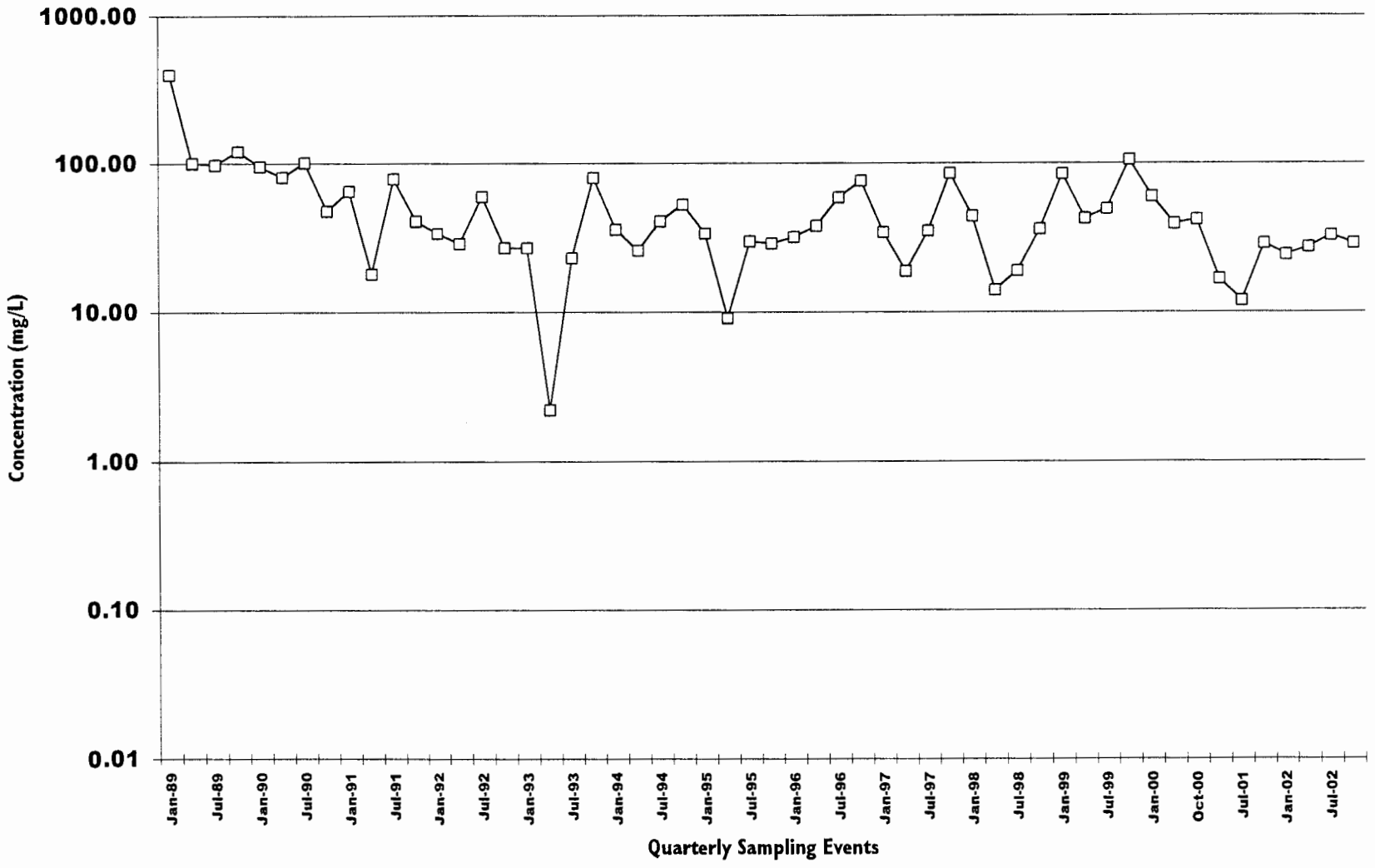

Tchrom01.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-03



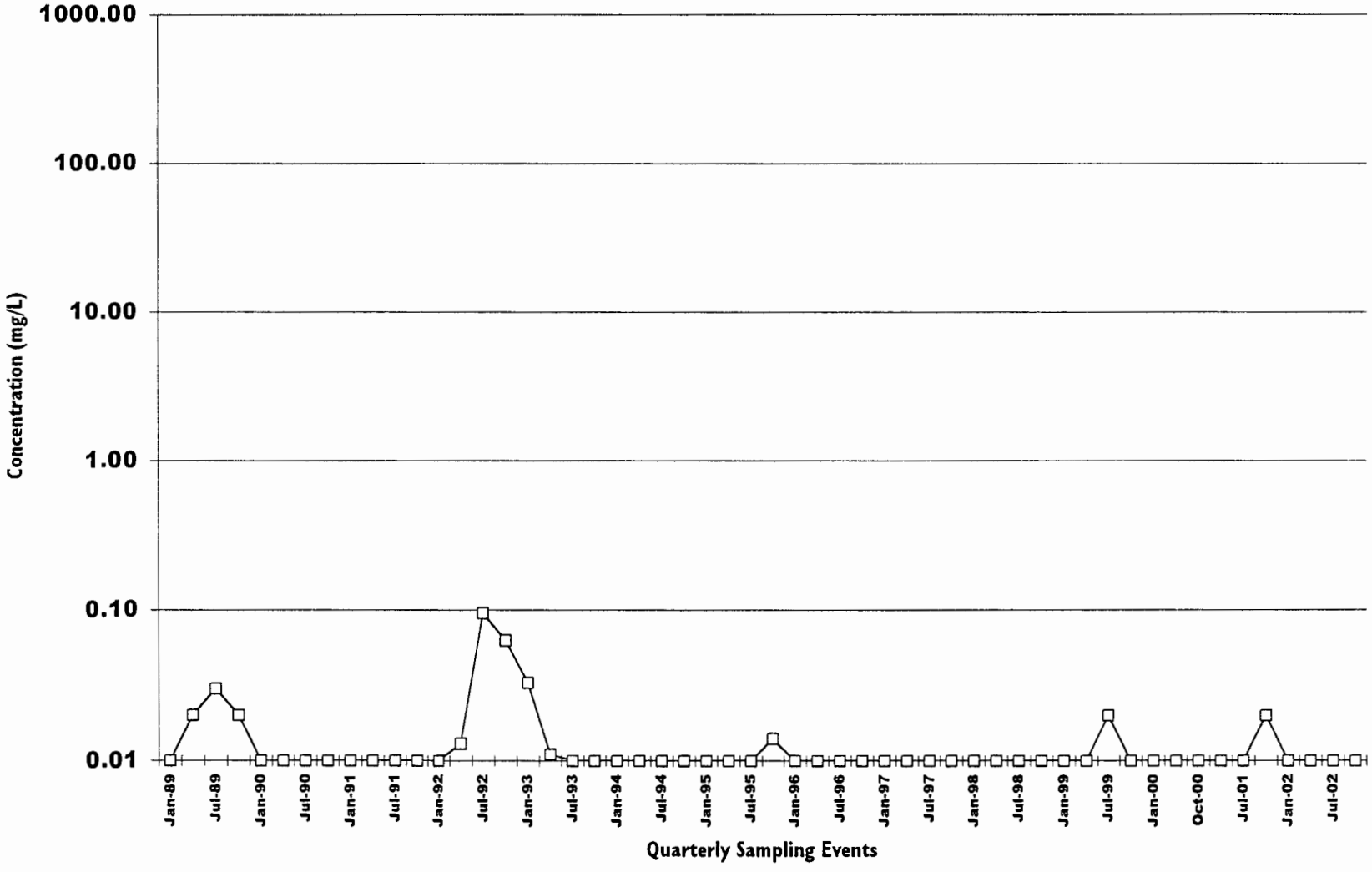

Tchrom03.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-04




Tchrom04.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-07

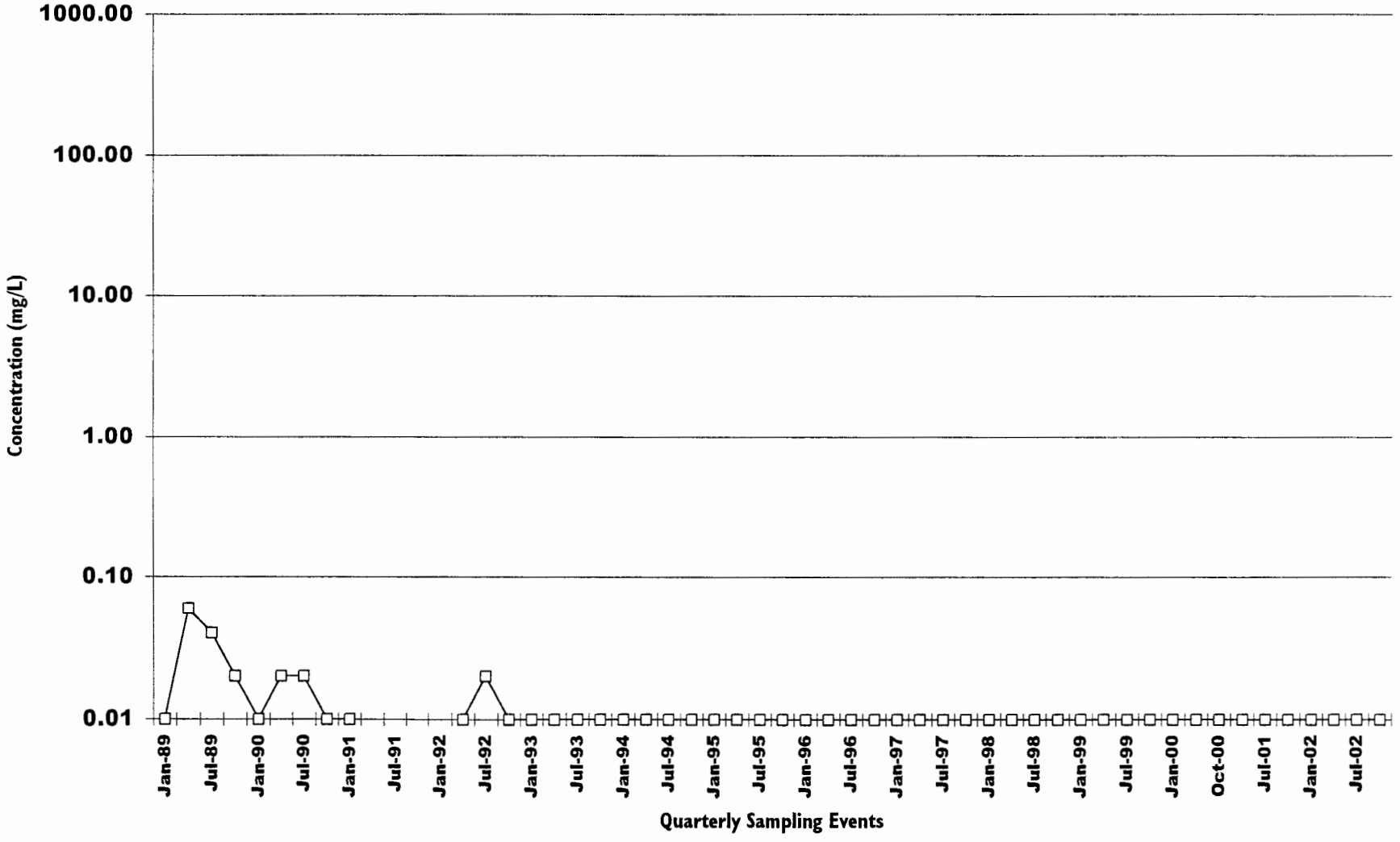



Tchrom07.xlc

**Phibro-Tech, Inc.**

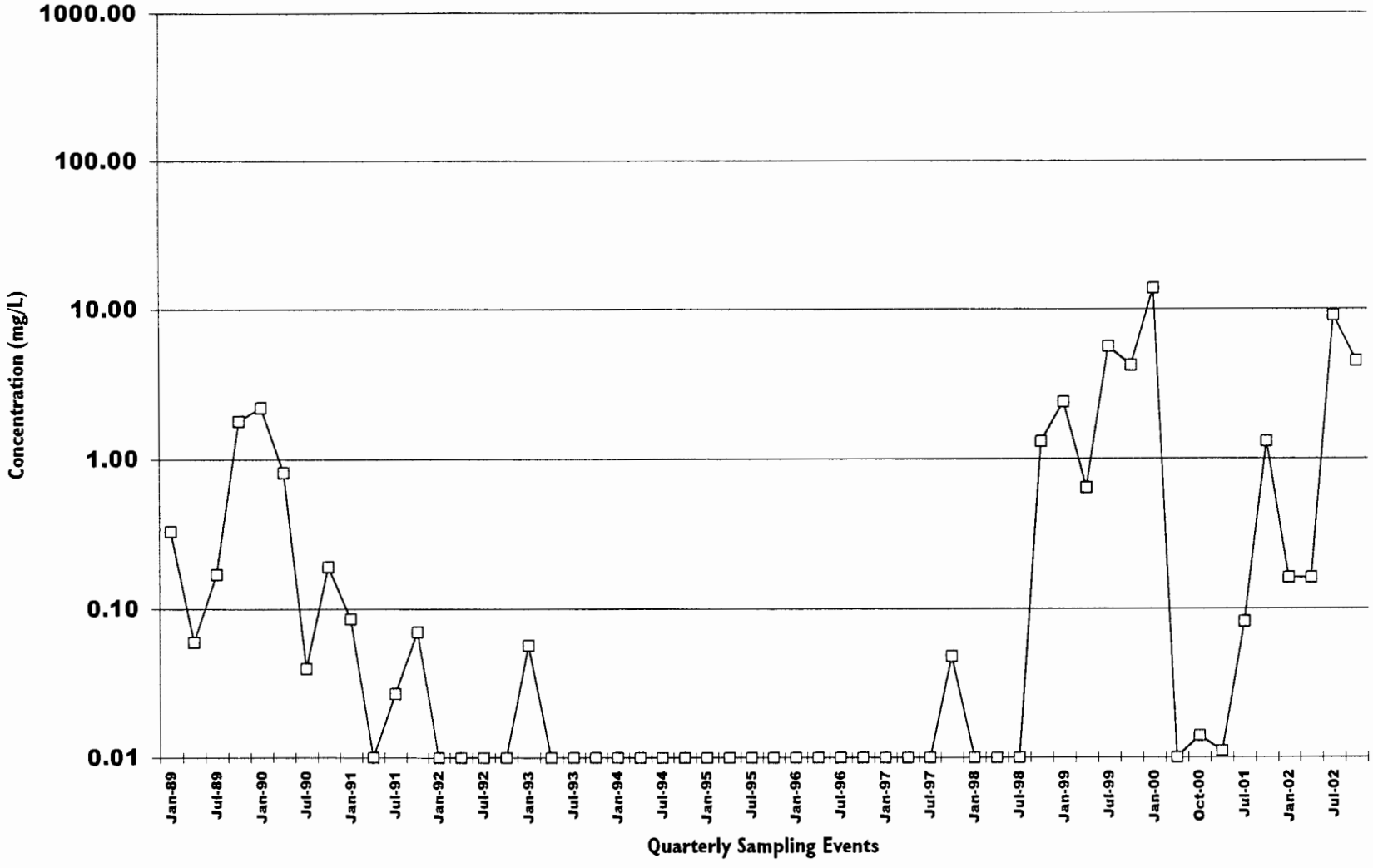
**Total Chromium Concentrations**

**MW-06B**



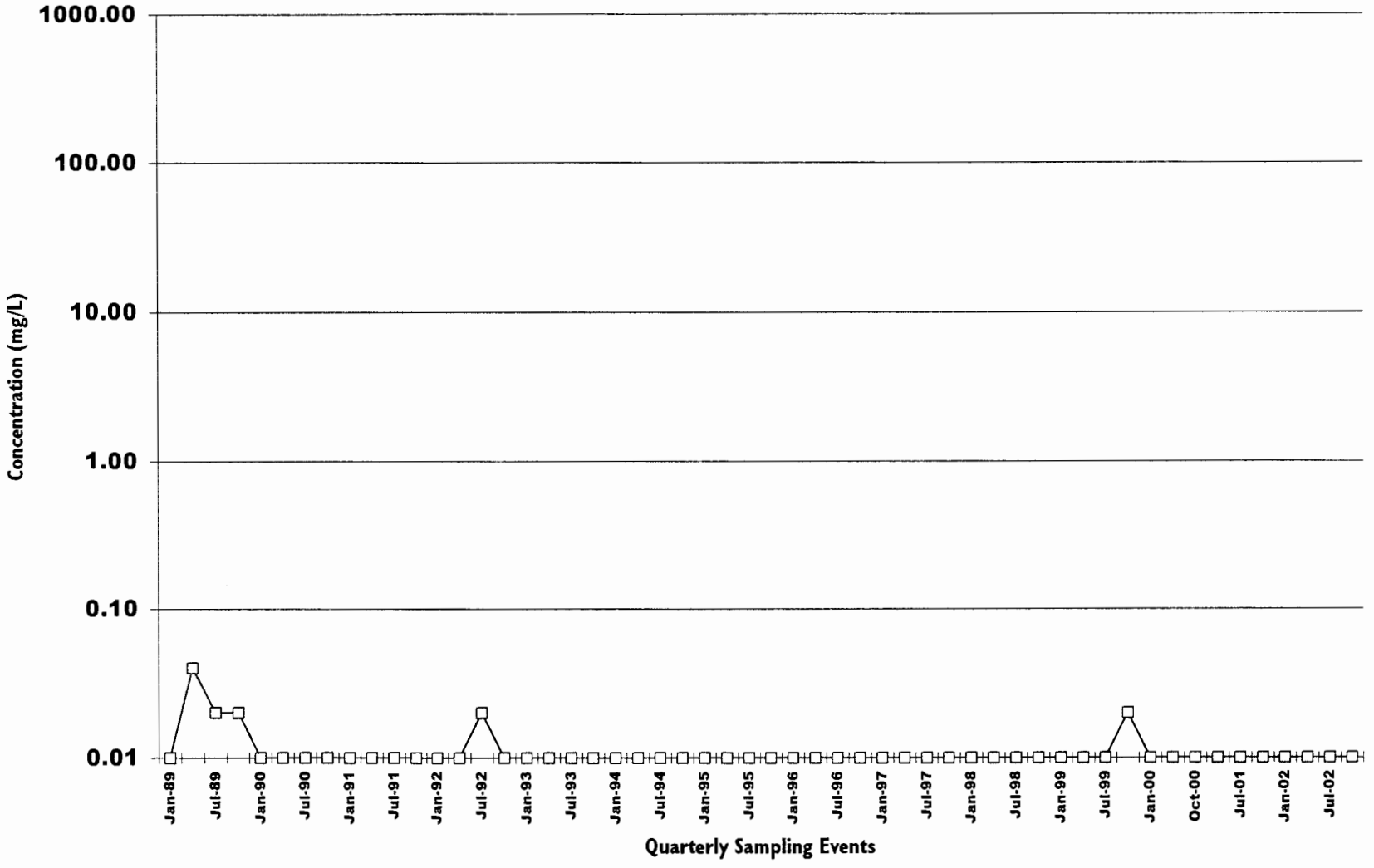

Tchrom6b.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-09



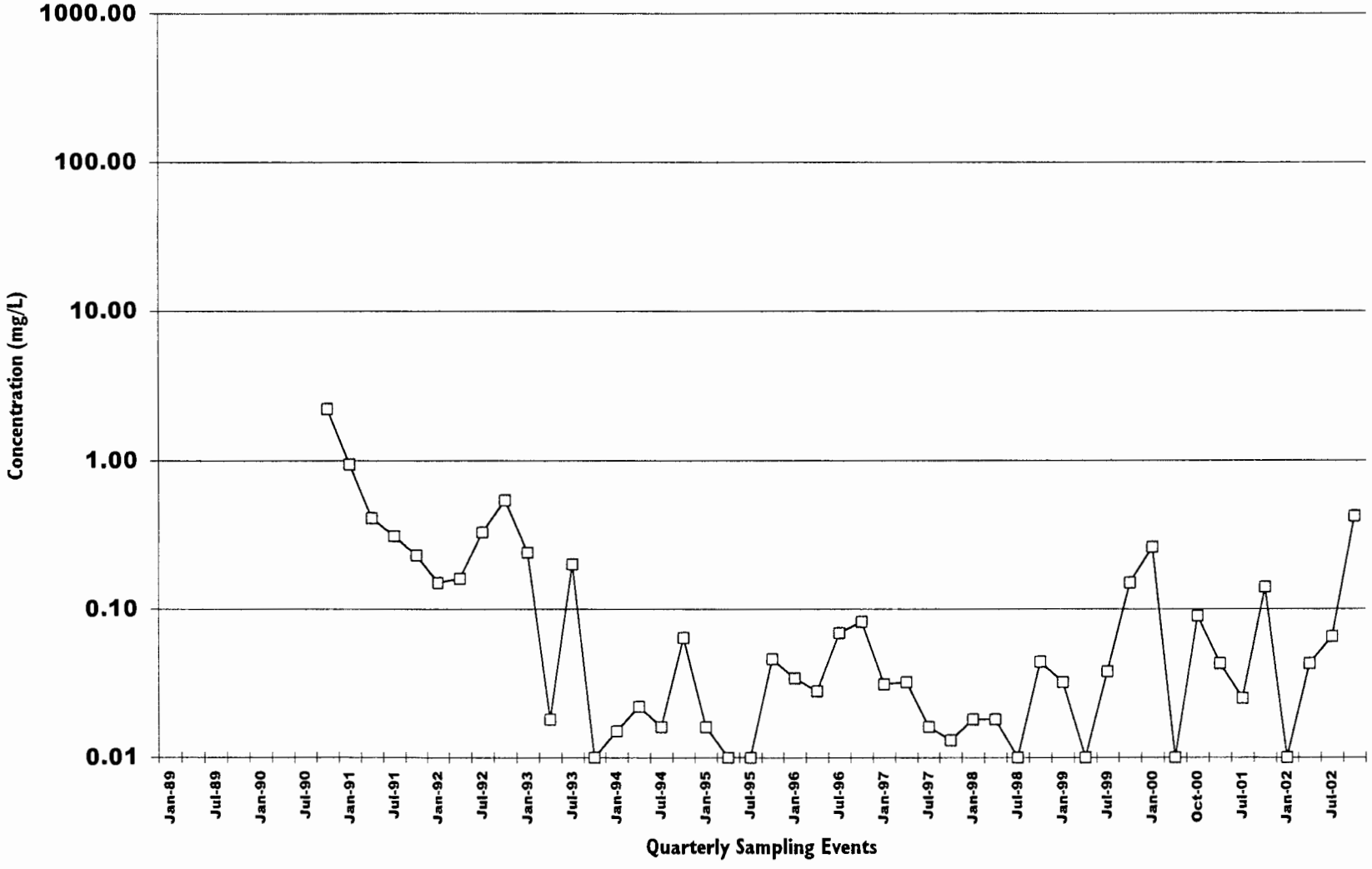

Tchrom09.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-11



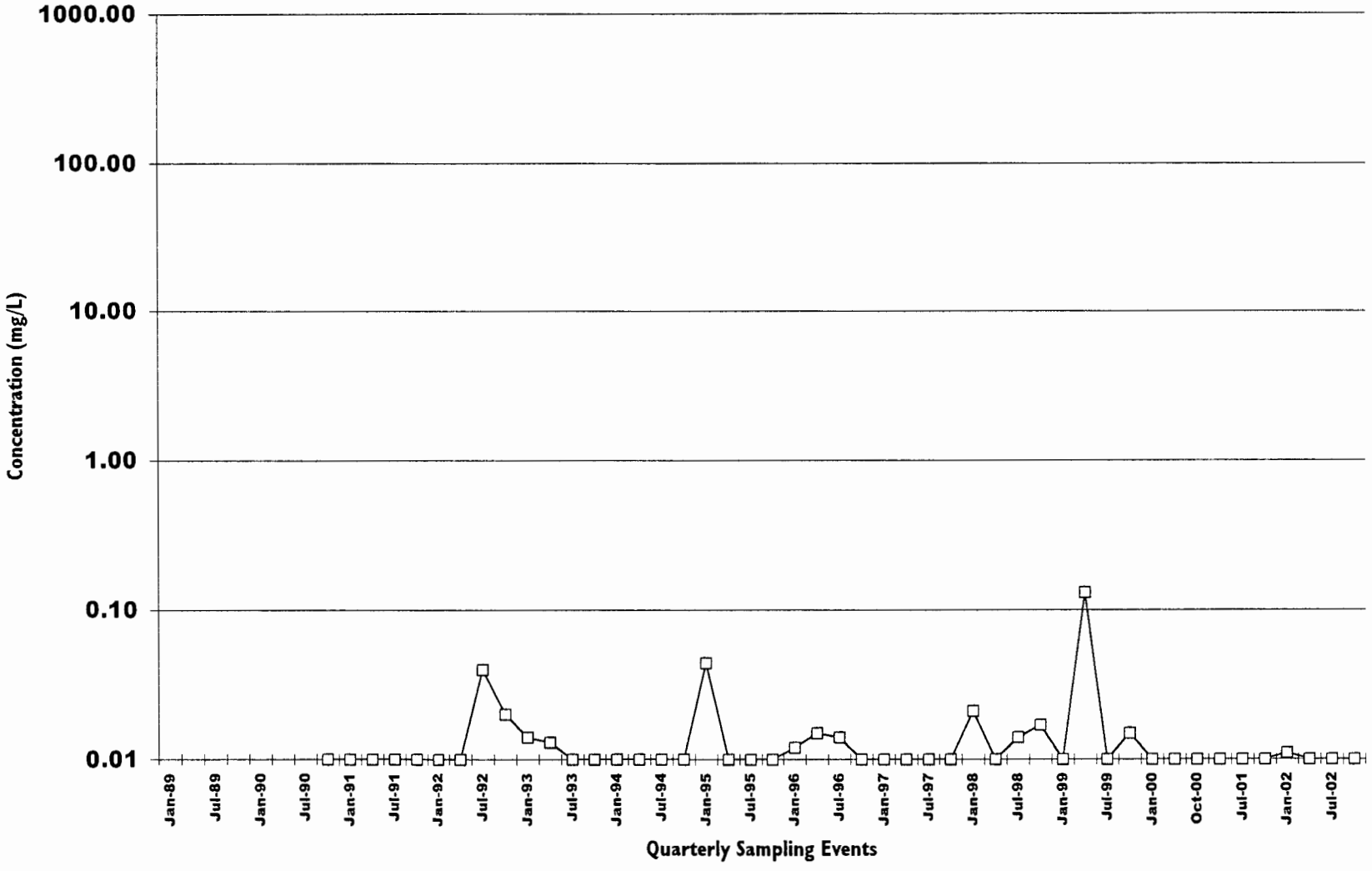

Tchrom11.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-14S



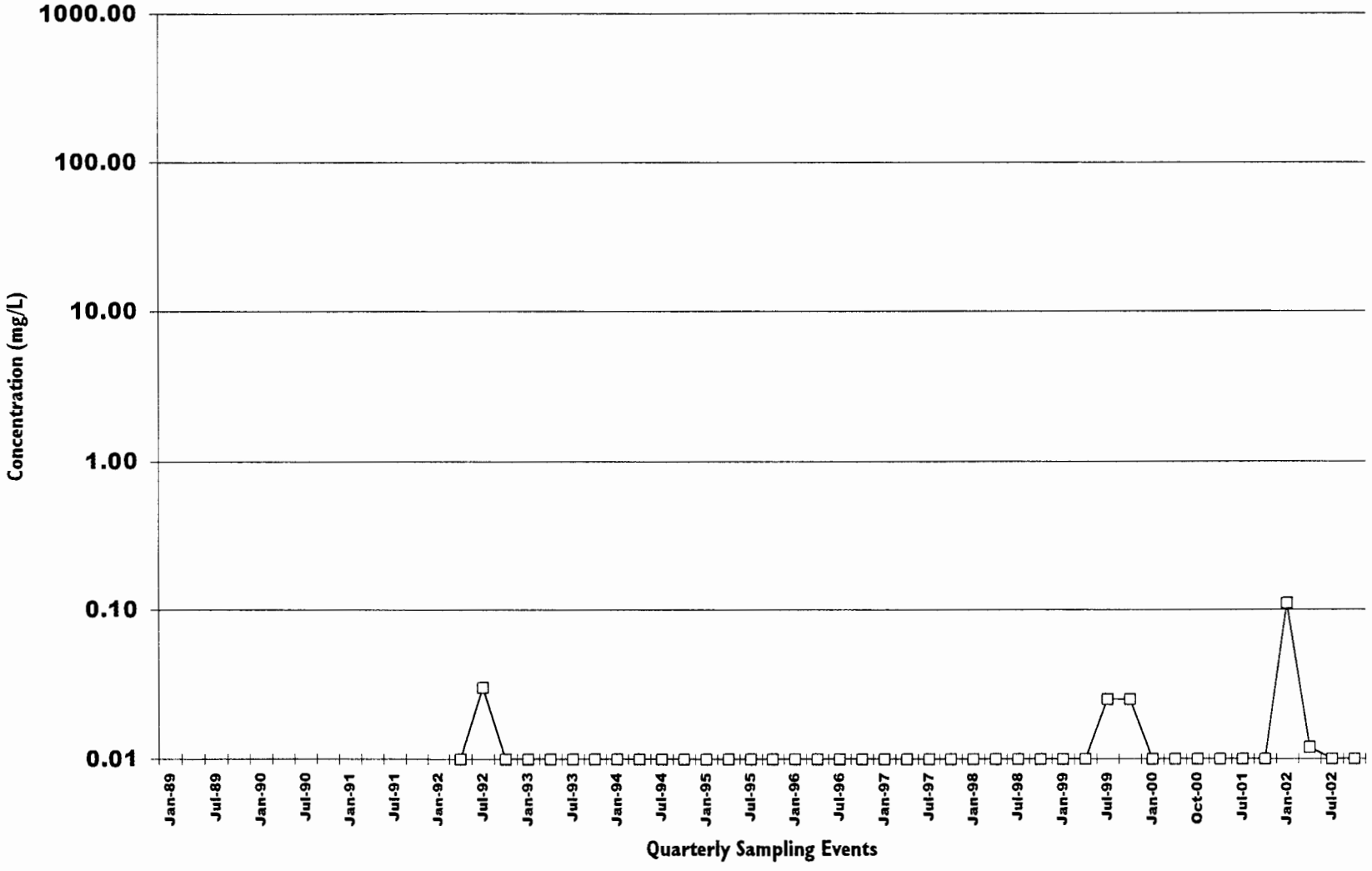

Tchro14s.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-15S



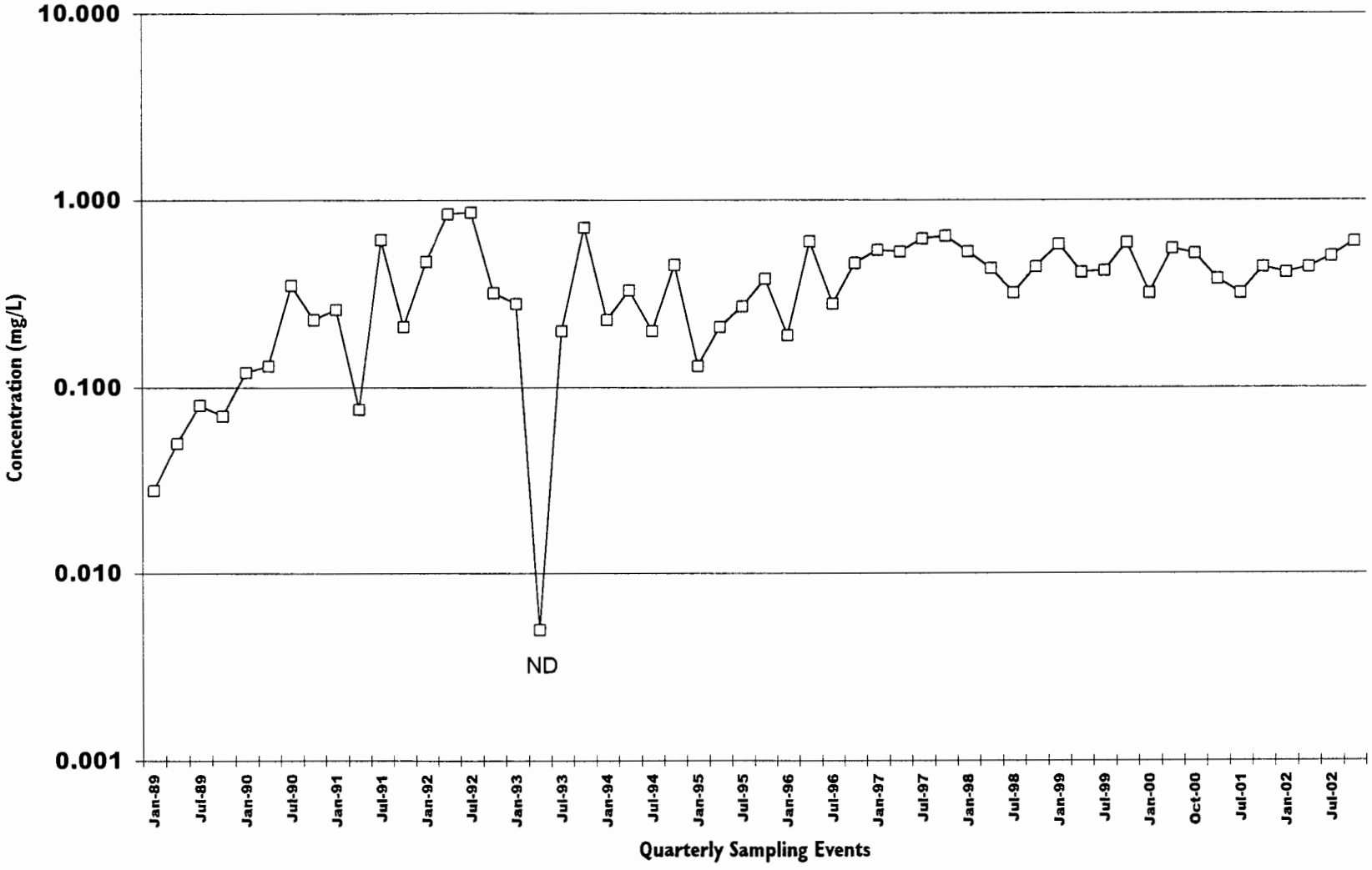

Tchro15s.xlc

# Phibro-Tech, Inc.
## Total Chromium Concentrations
## MW-16



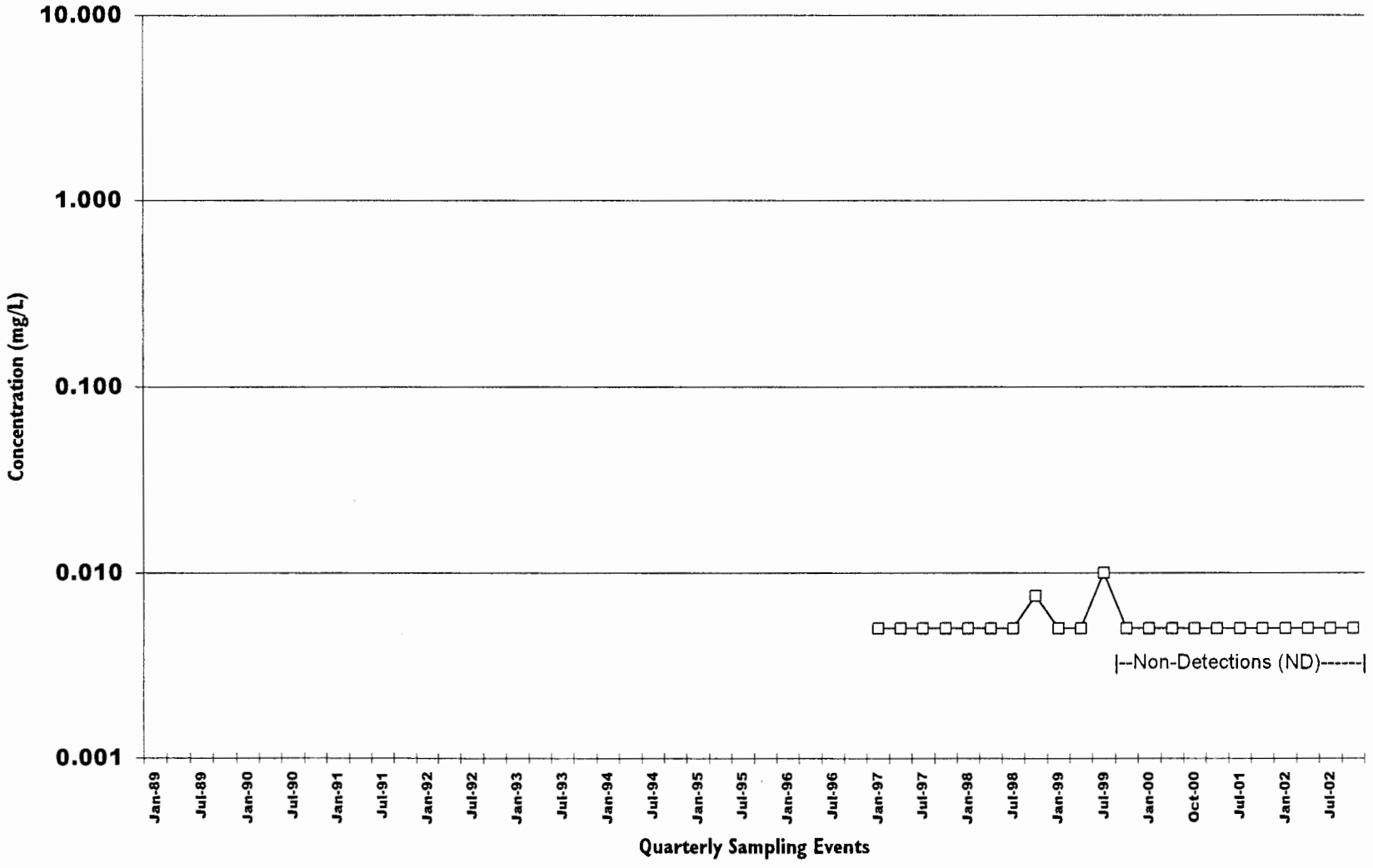

Tchrom16.xlc

# Phibro-Tech, Inc.
## Cadmium Concentrations
## MW-04



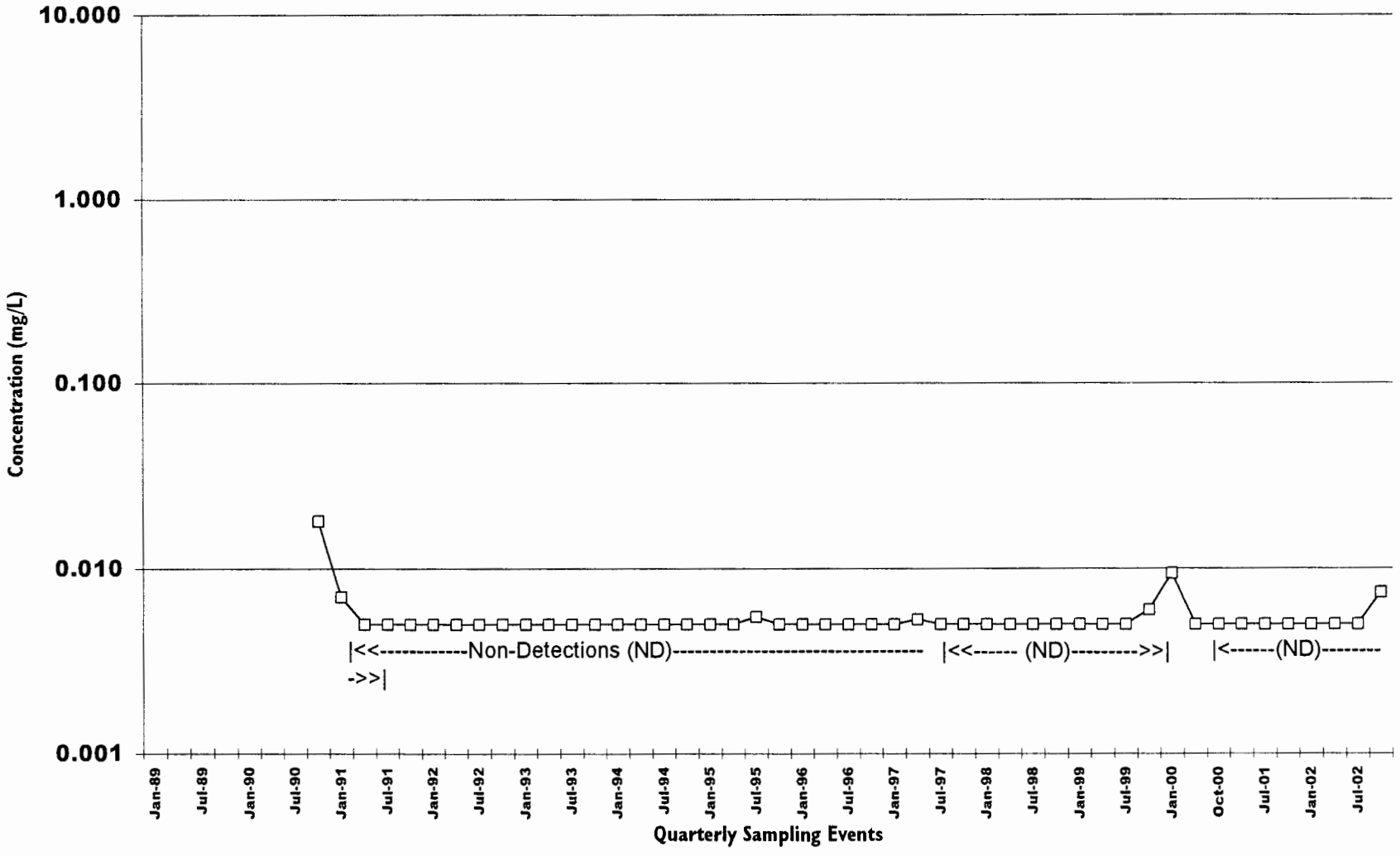

Cadmiu04.xlc

# Phibro-Tech, Inc.
## Cadmium Concentrations
## MW-09

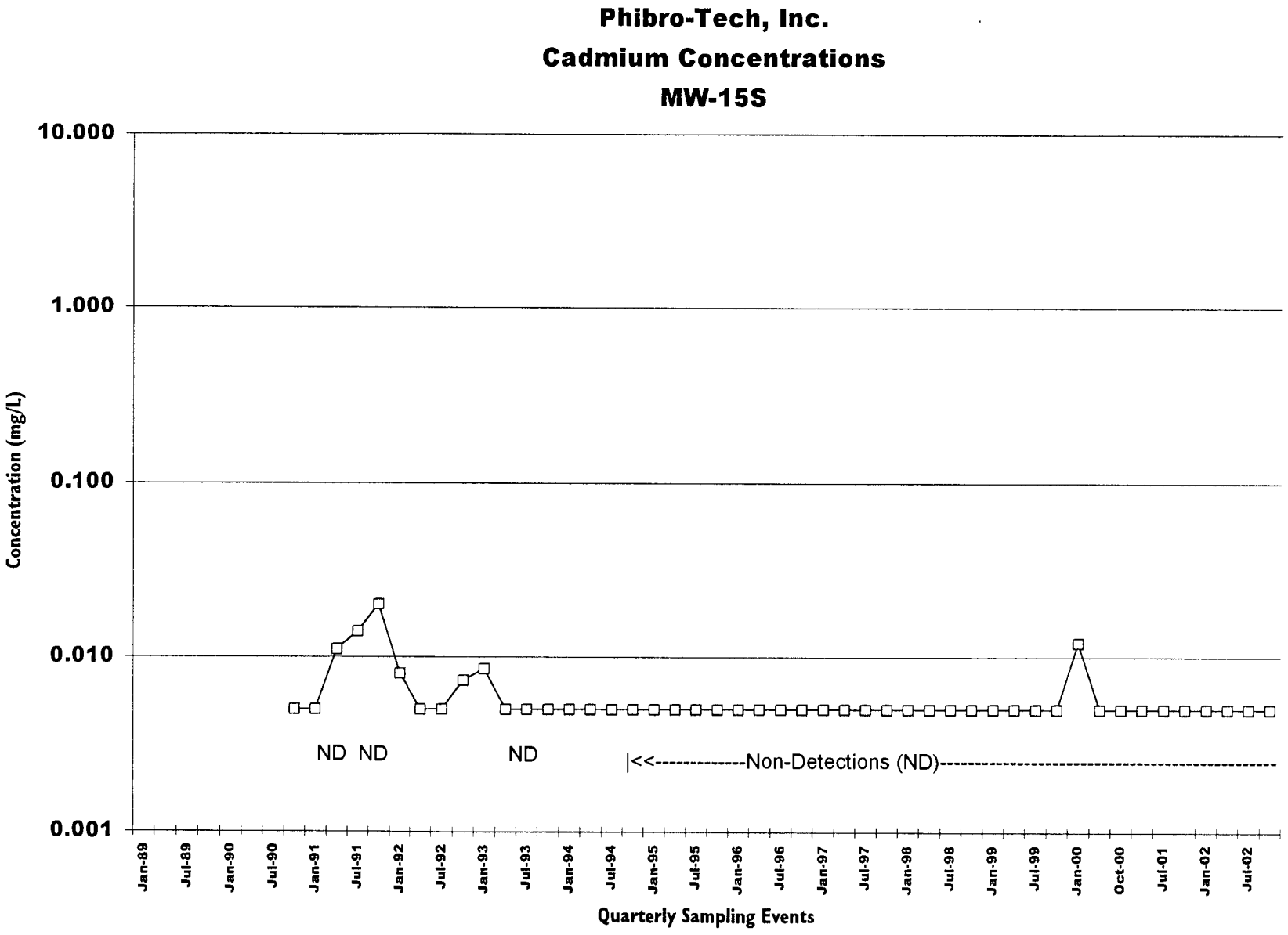



Cadmi09.xlc

# Phibro-Tech, Inc.
## Cadmium Concentrations
## MW-14S

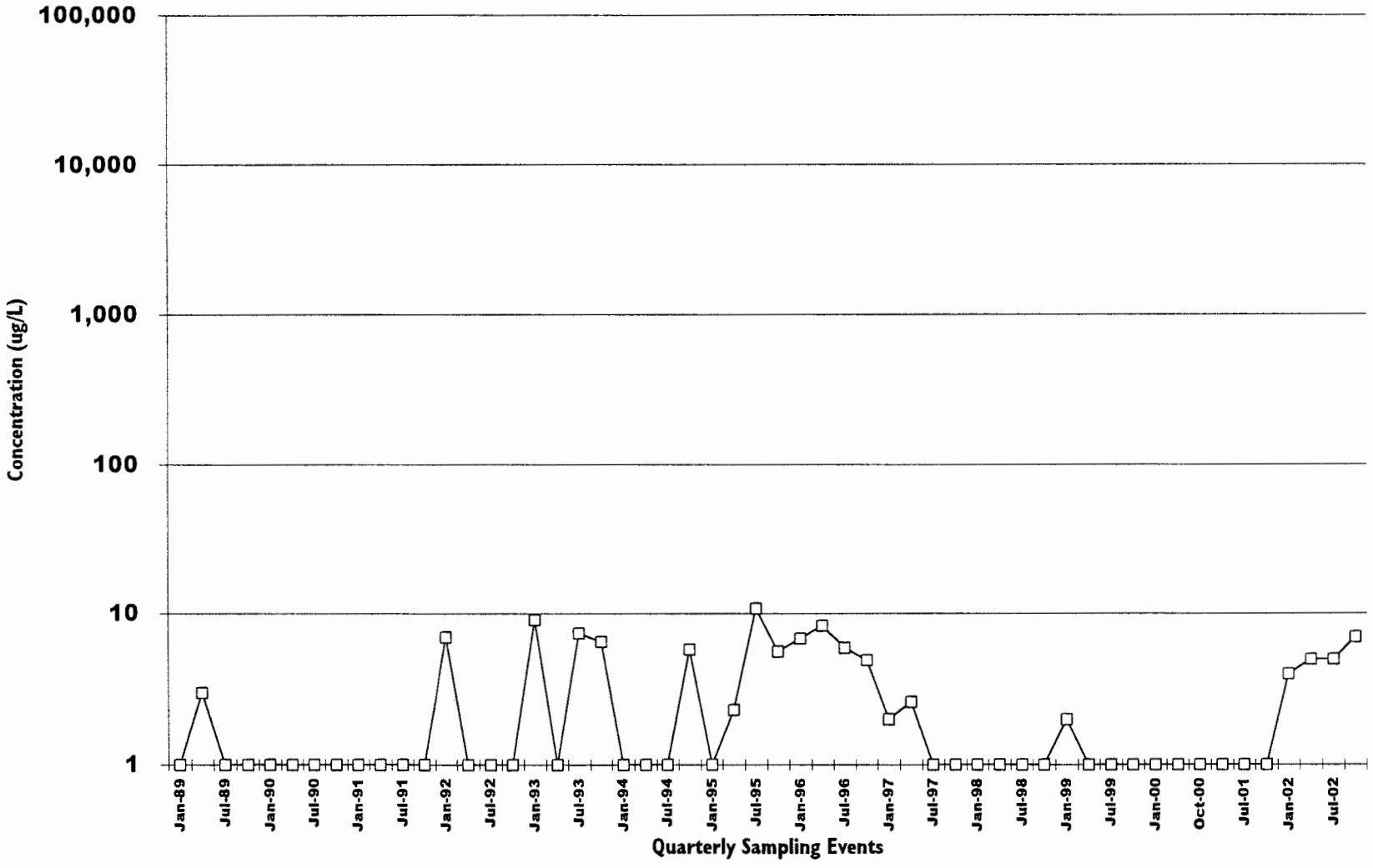



Cadmi14s.xlc



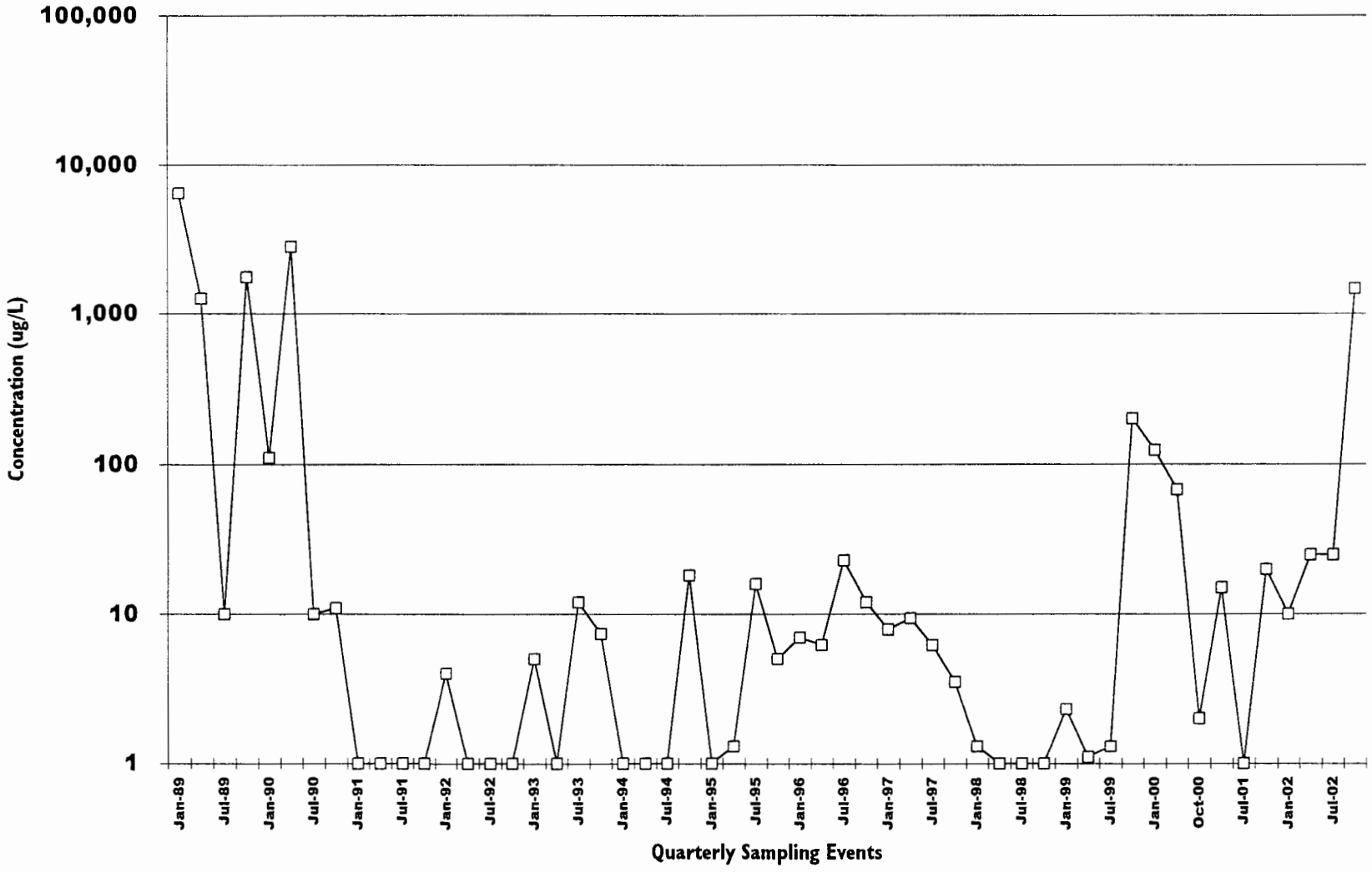

Cadmi15s.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-01S



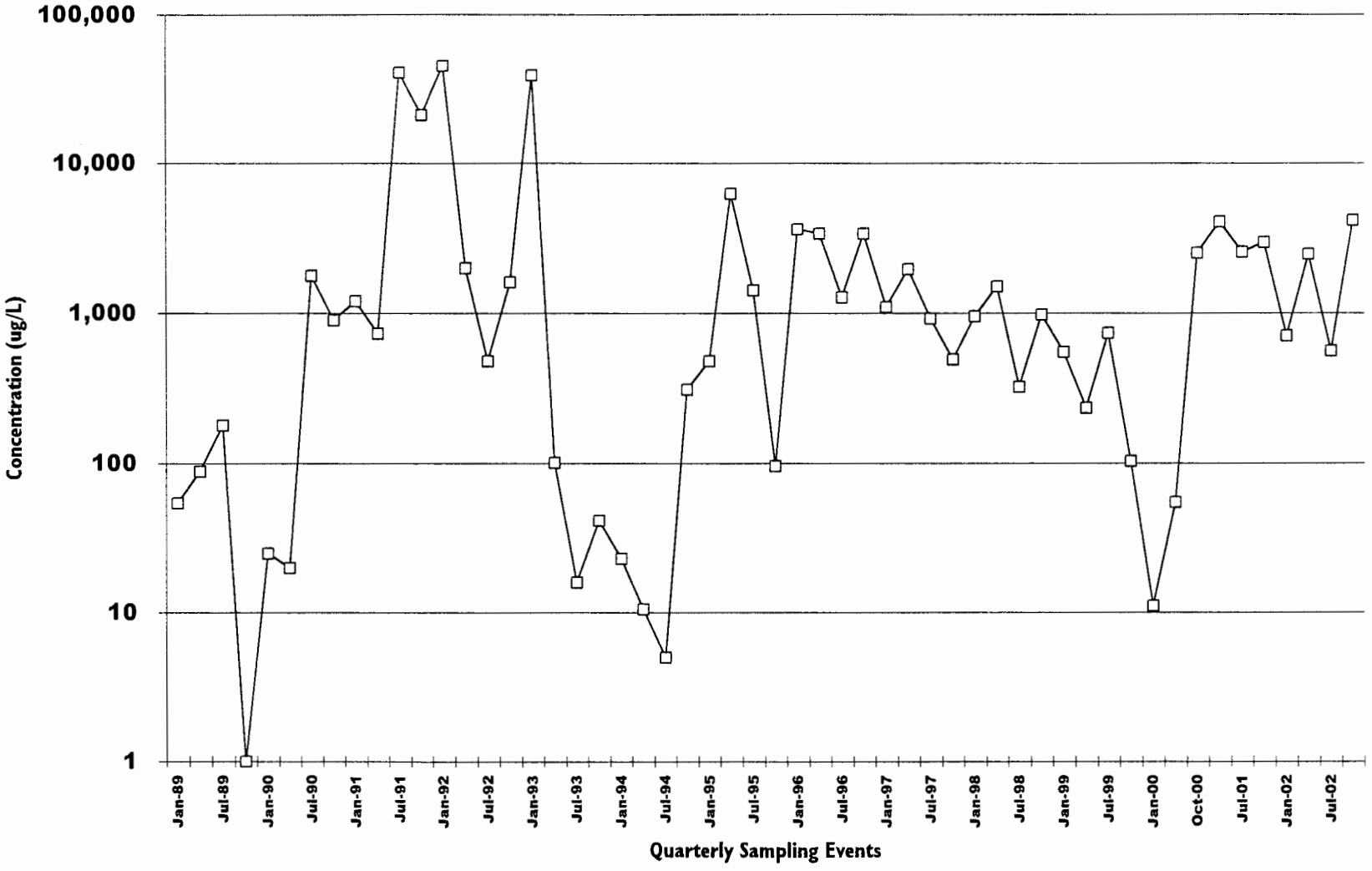

Btex01.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-03



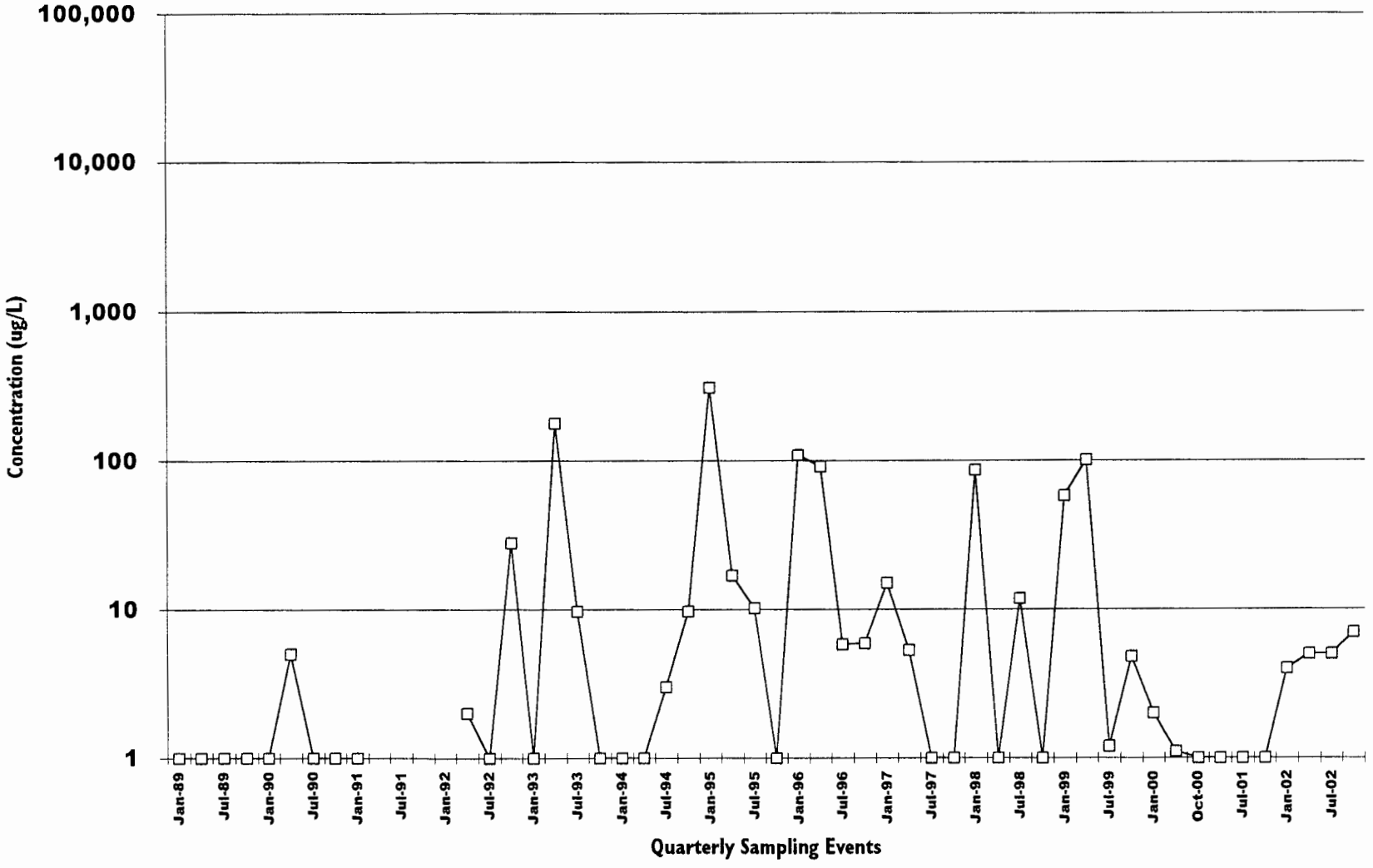

Btex03.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-04




Btex04.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-06B

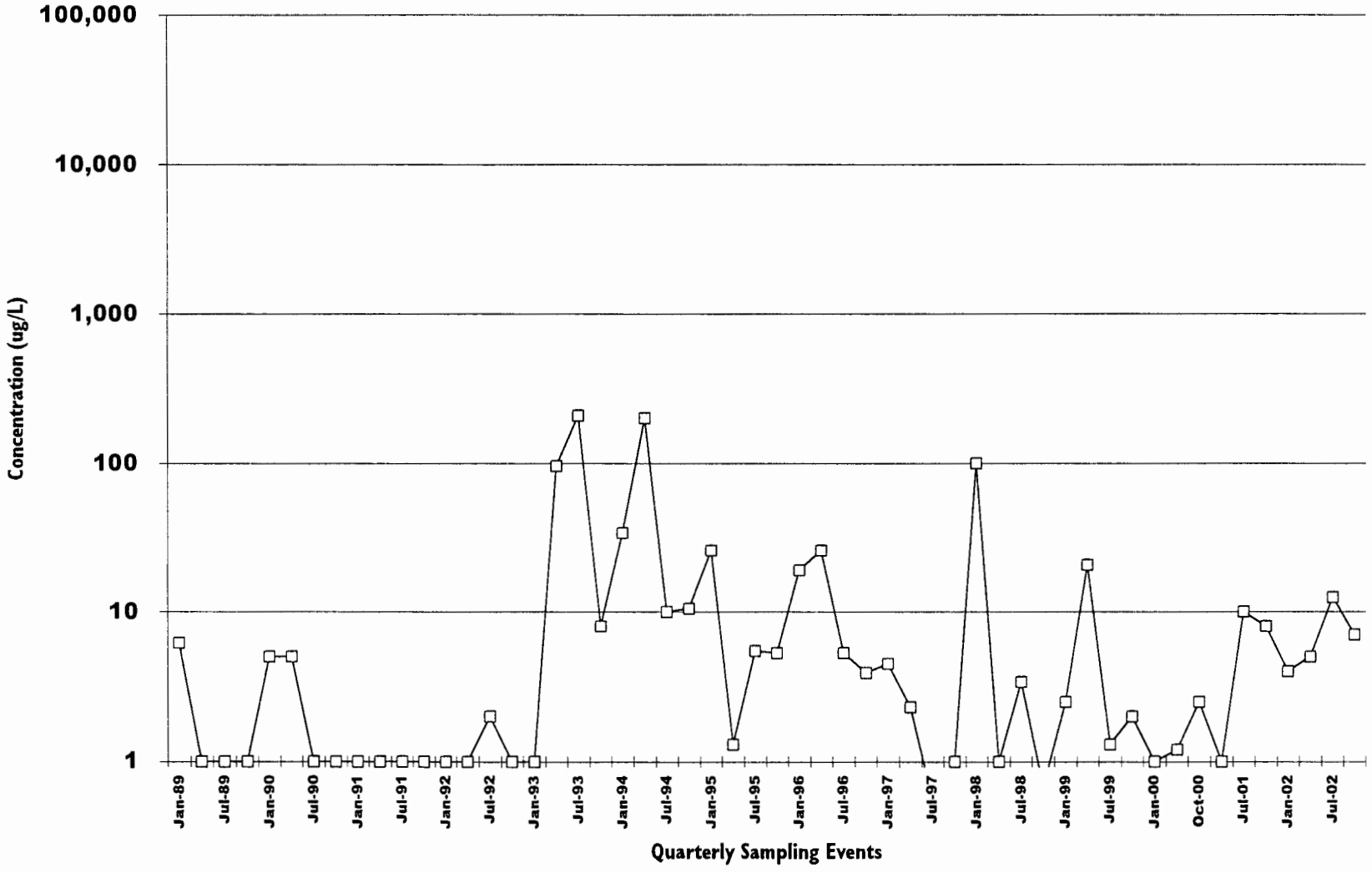



Btex06b.xlc

**Phibro-Tech, Inc.**

**Total BTEX Concentrations**

**MW-07**

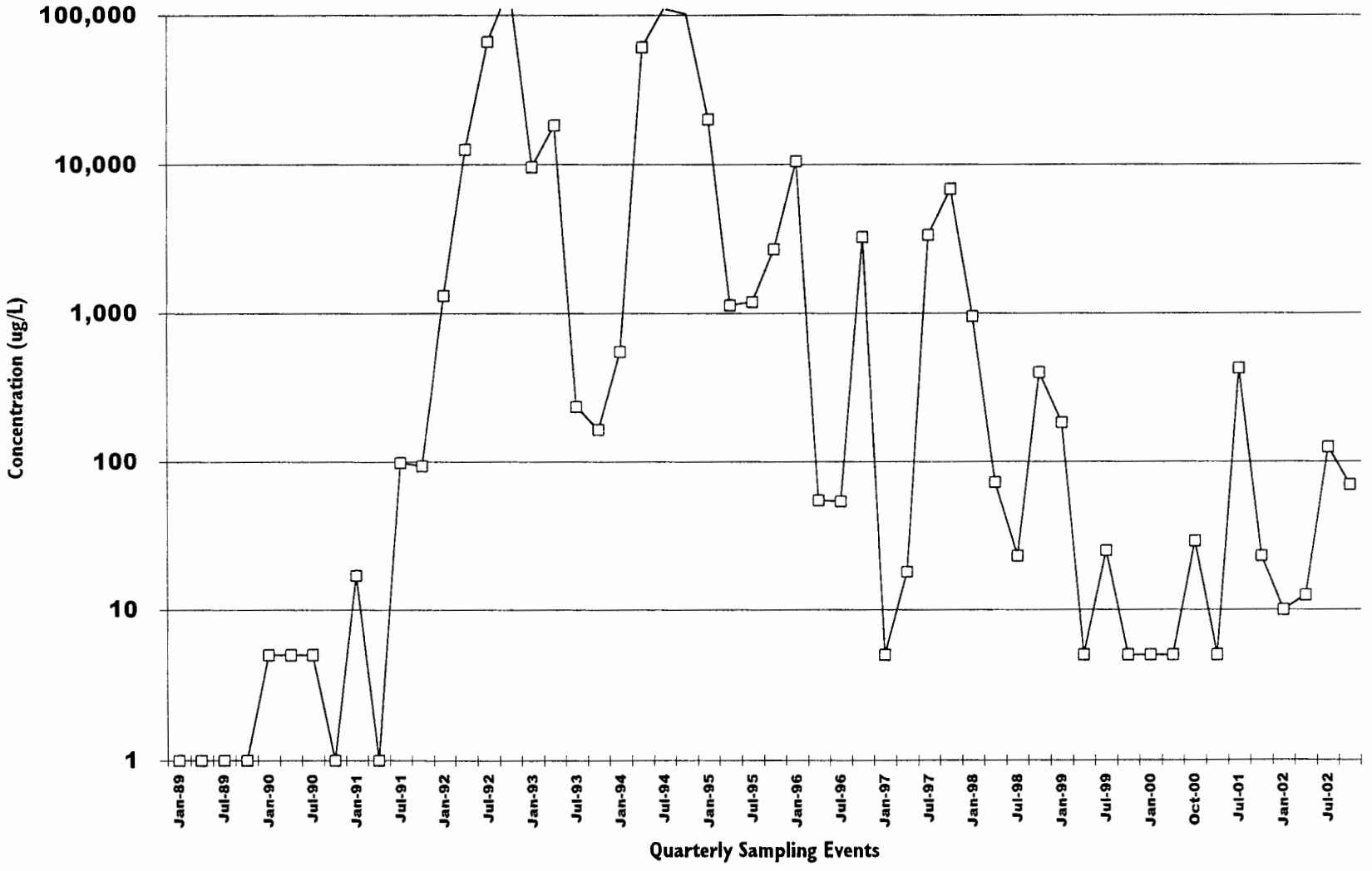



Btex07.xlc

**Phibro-Tech, Inc.**

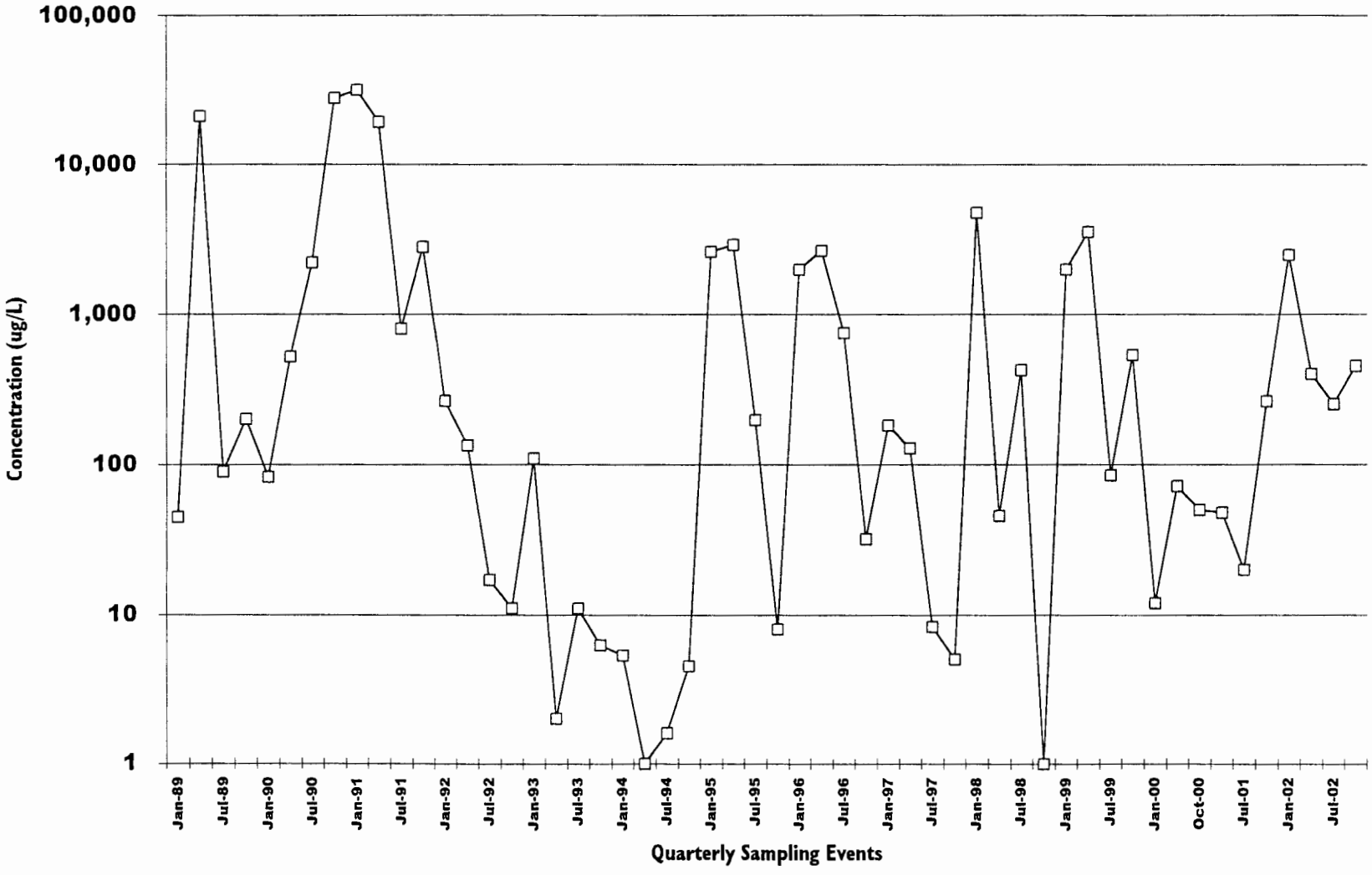
**Total BTEX Concentrations**

**MW-09**




Btex09.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-11

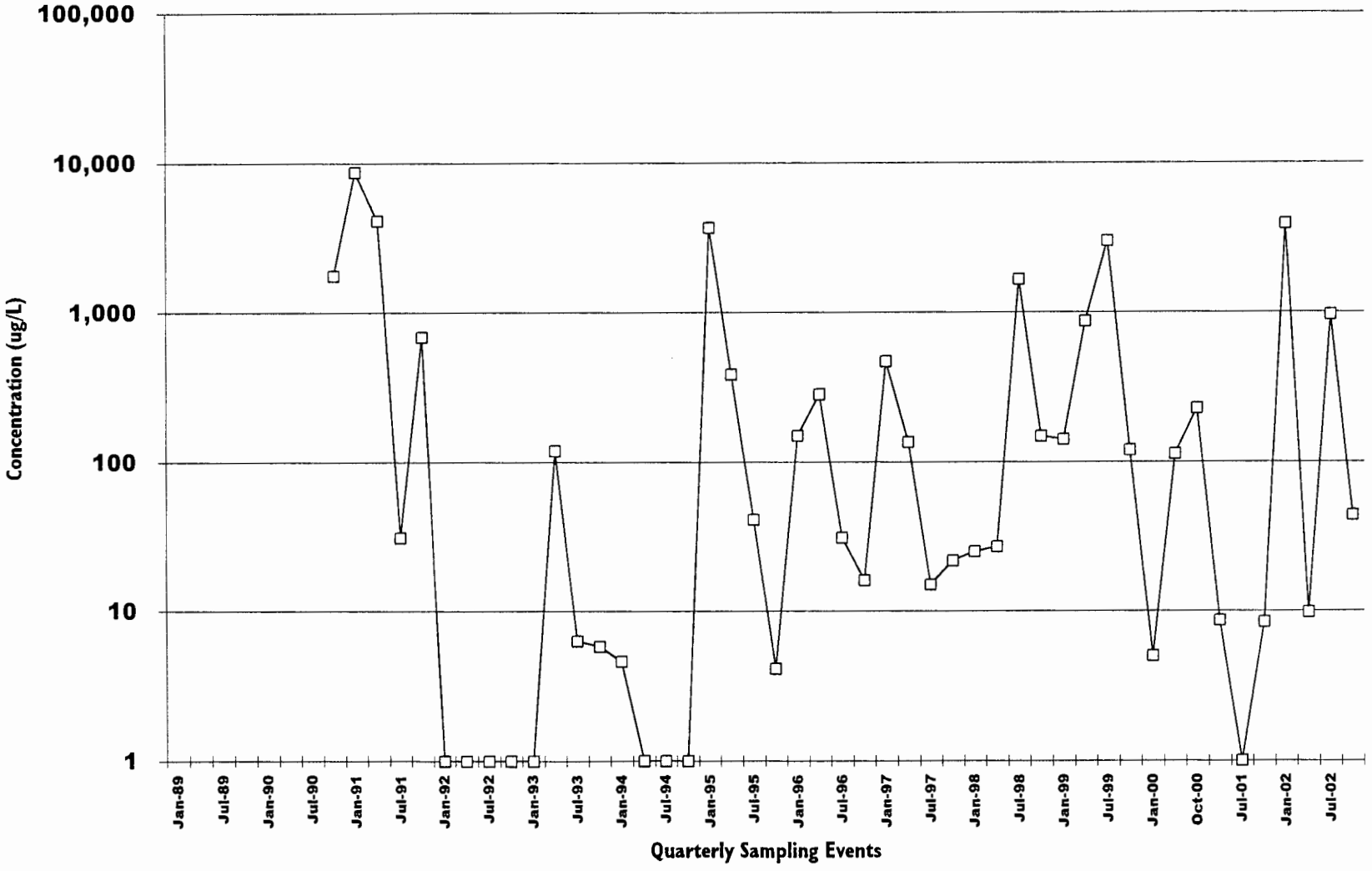



Btex11.xlc

**Phibro-Tech, Inc.**

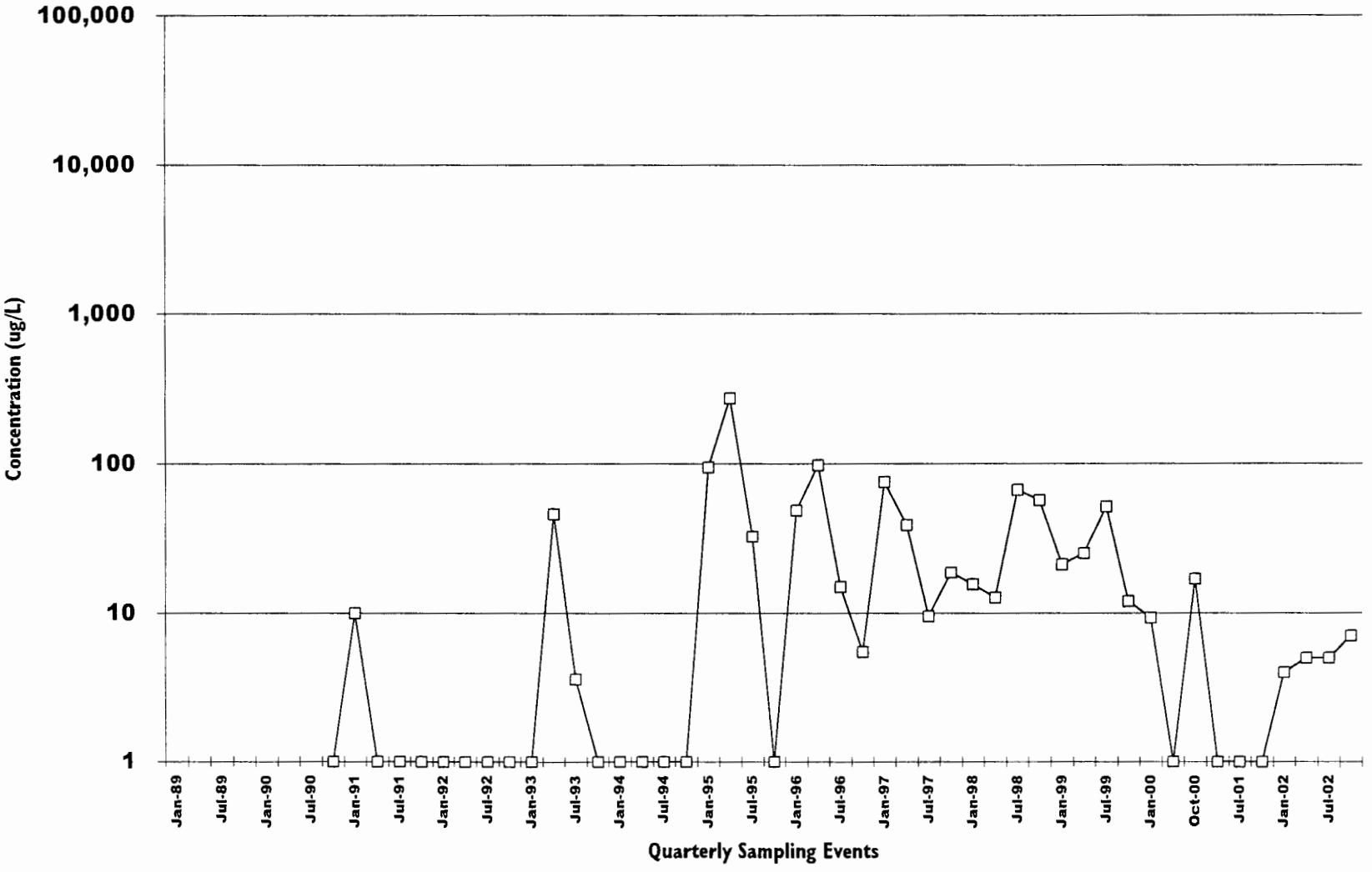
**Total BTEX Concentrations**

**MW-14S**



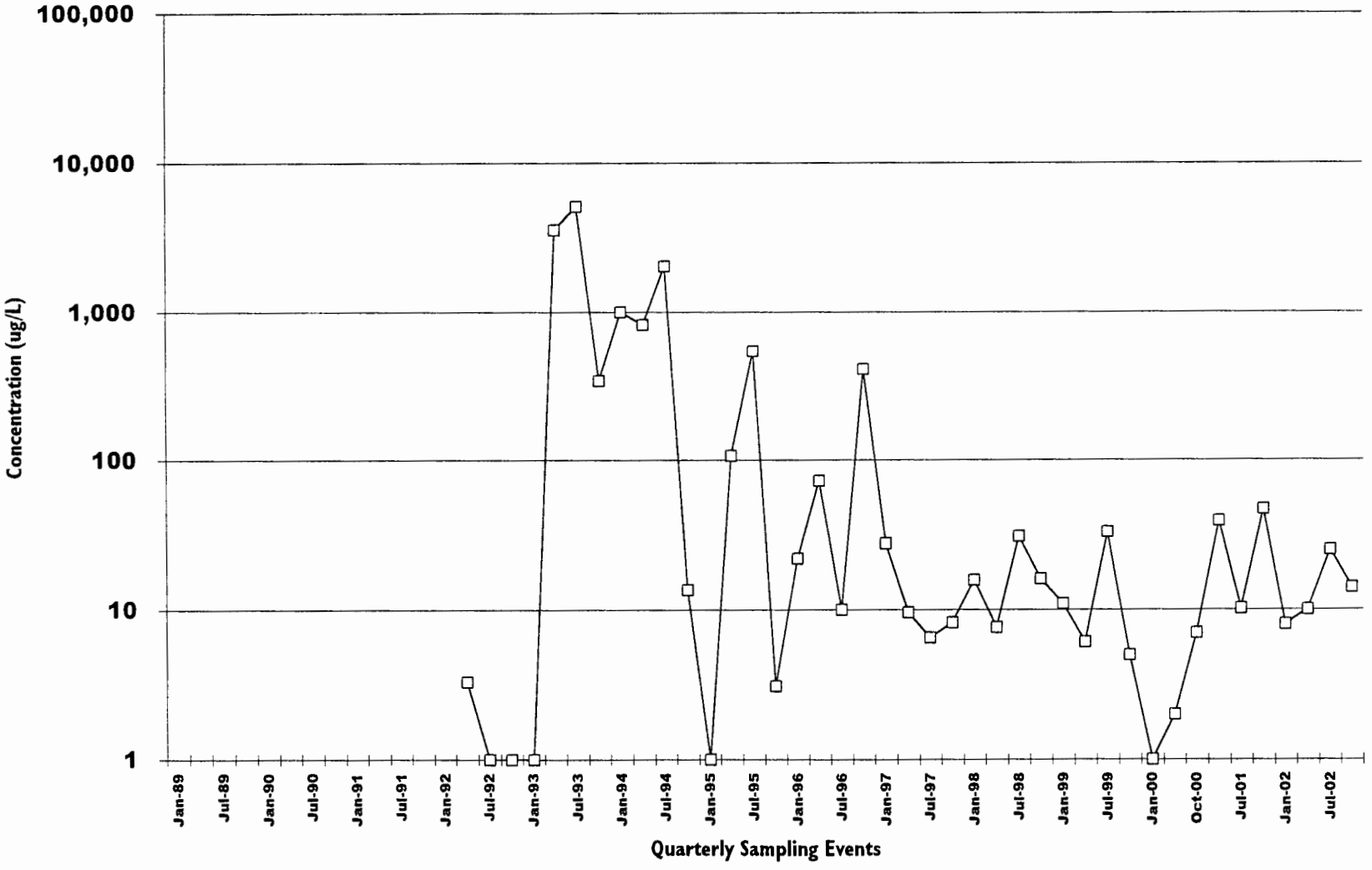

Btex14s.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-15S




Btex15s.xlc

# Phibro-Tech, Inc.
## Total BTEX Concentrations
## MW-16




Btex16.xlc