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# QUARTERLY MONITORING REPORT
# 1ST QUARTER 2000

## L.E.CARPENTER & COMPANY
## WHARTON, NEW JERSEY

**USEPA ID# NJD002168748**

April 2000

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*Final*

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# Section 1
# Introduction

L.E. Carpenter and Company (LEC) is pleased to submit this Quarterly Monitoring Report for the L.E. Carpenter site ("the site" or "the subject site") located at 170 North Main Street, Wharton, New Jersey (Figure 1). Quarterly monitoring events are performed at the site to comply with paragraph 35 of the 1986 Administrative Consent Order issued to L.E. Carpenter by the New Jersey Department of Environmental Protection (NJDEP). This report provides a summary of activities completed during 1st quarter 2000, to include routine quarterly groundwater monitoring and monthly free product recovery activities. In addition, this report includes summaries of additional site activities performed during 1st quarter 2000, and activities scheduled for commencement during 2nd quarter 2000. This report has been certified as in accordance with requirements outlined in N.J.A.C 7:26E-1.5(a). This certification is presented as Appendix A.

During 1st quarter 2000, RMT, on behalf of LEC, conducted the following:

- Continued monthly mobile free product recovery utilizing enhanced fluid recovery (EFR) or vacuum enhanced recovery (VER) techniques in accordance with the NJDEP approval letter dated August 20, 1997 (Ref. Section 2).
- Continued quarterly groundwater monitoring activities as required under the Administrative Consent Order (Ref. Section 3 and 4).
- Prepared and submitted a remedial investigation report (RIR) documenting the continuing groundwater investigation in the MW19/Hot Spot 1 area located on the northwest corner of the subject site (Ref. Section 5).

A discussion of these activities is provided in the referenced sections.

# Section 2
# Monthly EFR Activities

## 2.1 Introduction

In August 1997, the NJDEP approved the Remedial Action Plan (RAP) which described free product removal using enhanced fluid recovery (EFR) for the eastern portion of the subject site (east of the rail spur right-of-way). EFR is conducted by applying a vacuum to product recovery wells to primarily remove free phase product, in addition to limited volumes of contaminated groundwater and contaminant vapors, within vadose zone soils. Additionally, as the result of increased aeration, this procedure enhances any natural biodegredation that may be occurring in the soil and groundwater. The locations of the twenty-eight (28) EFR wells purged during each monthly EFR event and all groundwater monitoring wells are shown in Figure 2.

Monthly EFR events conducted by RMT during 1st quarter 2000 were performed on January 28, 2000, February 18, 2000, and March 24, 2000. Prior to conducting EFR, the free product thickness in each recovery well (where applicable) was measured. Free product measurements were recorded to determine appropriate placement of the drop pipe or "stinger" in order to maximize free product recovery. Free product thickness measurements recorded during 1st quarter 2000 are presented in Table 1. Additionally, Table 1 provides a cumulative breakdown of additional EFR specific information such as minimum and maximum free product thickness levels, associated costs, and extracted product volume (gallons) to date.

During 1st quarter 2000, EFR activities were conducted utilizing a Nortech, Inc. 55B vacuum head apparatus capable of producing a vacuum of 17-inches of mercury (in Hg) at 100 cubic feet per minute (cfm). This unit is connected to a fitted 55-gallon drum, braced to mobile 4-wheel drive vehicle. Use of this system has enabled the EFR subcontractor (CEMCO) to get closer to each individual EFR well head, minimizing potential losses in the system previously experienced due to the use of greater lengths of extraction hose, while maximizing the maneuverability of the drop pipe. Use of this system has resulted in a more efficient EFR event, minimizing the volume of groundwater extracted. During 1st quarter 2000, the average ratio of extracted groundwater to free product was 0.19 gallons/gallon. Historically (November 1997 to December 1999), the ratio of extracted groundwater to free product was 4.7 gallons/gallon.

Once the extraction apparatus is full (approximately 55-gallons), the free product is transferred to an on-site 550-gallon aboveground storage tank (AST) equipped with secondary containment

for satellite storage. The contents of this AST will be removed every 90 days by Cycle Chem/ Clean Venture, and appropriately transported and disposed. The next waste management event is scheduled for April 19, 2000.

## 2.2 Apparent or Freestanding Product Trends

The following sections describe apparent or freestanding product trends in the western, central, and eastern portions of the free product plume. Apparent or freestanding product refers to a volume (gal) of free product occupying the casings of each EFR well. Total apparent free product represents the sum of product volumes from each EFR well within all three segregated regions (eastern, central and western). It should be noted that apparent product thickness is not necessarily representative of the "true" free product thickness or corresponding volume of free product that may exist within the formation.

### 2.2.1 Western Plume Region

In the western portion of the plume (EFR wells 1, 2, 3, 17, 18, 20, 21, and 28), there was an increase in the total volume of apparent free product measured throughout 1st quarter 2000. Apparent free product volume increased from 4.18 gallons in January 2000 to 6.71 gallons in March 2000. However, apparent free product volume in the western portion of the plume appears to be decreasing.

### 2.2.2 Central Plume Region

In the central portion of the plume (EFR wells 4, 5, 6, 7, 19, 22, 23, 24, 25, 26, and 27), there was a decrease in the total volume of apparent free product measured throughout 1st quarter 2000. Apparent free product volume decreased from 6.10 gallons in January 2000 to 4.65 gallons in March 2000. In general, apparent free product volume in the central portion of the plume appears to be decreasing.

### 2.2.3 Eastern Plume Region

In the eastern portion of the plume (EFR wells 8, 9, 10, 11, 12, 13, 14, 15, and 16), there was a decrease in the total volume of apparent free product measured throughout 1st quarter 2000. Apparent free product volume decreased from 5.54 gallons in January 2000 to 4.64 gallons in March 2000. In general, apparent free product volume in the eastern portion of the plume appears to be decreasing.

### 2.2.4 Site Total Apparent Free Product Plume

The total apparent free product volume on the site, accounting for all 28 EFR wells, remained relatively consistent over the course of the 1st quarter from 15.82 gallons in January to 16.00 gallons in March. The total free standing product trend chart, however, indicates a steady decrease in the volume of apparent free product existing on-site throughout the use of the monthly EFR (November 1997 to present). A cumulative breakdown of free product thickness and standing product volumes specific to each region is presented in Table 2. Additionally, charts for each free product plume region (western, central, and eastern), and for the site as a whole, that graphically display apparent free product volume fluctuations over time, and free standing product fluctuations trends are presented as Appendix B. Figure 3 displays the extent of apparent free product on-site for each of the three 1st quarter EFR events.

## 2.3 Recovered Free Product Volume Estimations

After the completion of each EFR event, the total volume of extracted fluid was determined by gauging the 55-gallon vacuum head drum previously mentioned in section 2.1 with an oil/water interface probe. The drum was allowed to stabilize for one hour prior to gauging to allow for separation of emulsified product resulting from aggressive recovery. Gauging was conducted on a level surface and recorded thicknesses were converted to volumes based on a conversion of 1.65 gallons per inch of fluid thickness. Free product volume was determined by subtracting the volume of water from the total fluid volume. Vapor phase product volume was estimated based on vacuum head airflow (in cfm) and vented contaminant concentrations (in ppm) obtained during extraction at each EFR well. The volume (combined liquid and vapor phase) of free product extracted during each month's EFR event is presented in Table 3.

During 1st quarter 2000, a total of 140 gallons of fluid were removed as the result of EFR activities, of which, approximately 119 gallons was measurable free phase product as determined by vacuum head drum gauging. Since initiation in December 1997, site EFR activities have removed approximately 13,558 gallons of total fluids, of which, approximately 2,481 gallons was measurable free phase product (Ref. Table 1).

# Section 3
# Quarterly Groundwater Monitoring

Groundwater monitoring activities were conducted on January 17, 2000, in accordance with the procedures contained in the NJDEP's "Field Sampling Procedures Manual" dated May 1992. Monitoring wells MW-4, MW-11D(R), MW-14I, MW-15S, MW-15I, MW-22(R), MW-21 and MW-25(R) were purged utilizing a peristaltic pump to remove at least three well volumes prior to sampling. During the well purge process, indicator parameters were monitored and recorded so that a representative sample of the formation water was collected for analysis. Monitoring well sample data for 1st quarter 2000 is presented as Appendix C. Once the wells were purged, samples were collected using Teflon coated plastic bailers. Samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and bis (2-ethylhexyl) phthalate (DEHP) per the current groundwater monitoring protocol presented as Table 4. Locations of the nine quarterly monitoring wells are shown on Figure 2.

A sample duplicate, a field blank and a trip blank were collected to satisfy quality control requirements. The trip blank was prepared by the laboratory and remained with the sample containers until the samples were returned to the laboratory. The duplicate was collected from monitoring well MW-21 (duplicate sample No. MW-21d) and analyzed for DEHP. The field blank was collected by pouring distilled water through a Teflon coated bailer to verify that the field equipment was not adversely impacting the samples and decontamination procedures were adequate. Any sampling equipment used at each well was decontaminated prior to each use utilizing a soap and water wash and distilled water rinse.

During the initial sampling event conducted on January 17, 2000, the laboratory failed to sample monitoring well MW-11D(R) for BTEX, and also could not sample monitoring well MW-25(R) as the well was frozen. Subsequently, on March 1, 2000, the laboratory performed a second sampling event to collect samples from monitoring well MW-25(R) for BTEX and DEHP, and obtain a BTEX sample from monitoring well MW-11D(R). Due to a laboratory contamination, the field and trip blank and the MW-25(R) sample exhibited detectable concentrations of DEHP. Subsequently, a third round of sampling was performed at MW-25(R) on March 16, 2000 as the sample result was not believed to be representative of groundwater quality at the monitoring well. The sample result for the March 16, 2000 sample round at MW-25(R) did not reveal a DEHP concentration above method detection limits. However, the field blank and method blank did show DEHP concentrations above method detection levels.

The results of the chemical analyses were compared to New Jersey Class IIa Groundwater Quality Standards (NJGQS) and the Discharge Criteria presented in the Record of Decision (ROD DC) dated April 20, 1994. The presence of BTEX and DEHP was not detected at concentrations above NJGQS in samples collected from MW-4, MW-11D(R), MW-14I, MW-15S, MW-15I, MW-21 and MW-25(R).

Monitoring well MW-22(R) exhibited a concentration of total xylenes (1,400 µg/L), exceeding the NJGQS of 40 µg/L. Evaluation of quarterly data collected after the contaminant concentration peaks revealed during the August and October 1997 sampling events, indicates a steady decline in contaminant concentrations at this sampling location. Additionally, concentrations of BTEX and DEHP at downgradient monitoring location MW-25(R) have not exceeded NJGQS since 1997, and contaminant concentration further downgradient at MW-21 have never exceeded NJGQS since sampling began at this location in 1st quarter 1999. Contaminant concentration trends at all three locations will continue to be closely monitored. Concentration trends for contaminants of concern detected at MW-22(R) and MW-25(R) are presented as Appendix D.

Historical groundwater monitoring data, to include the results from 1st quarter 2000 sampling, are presented in Table 5 with corresponding analytical laboratory reports presented as Appendix E. STL Envirotech, Inc. of Edison, New Jersey performed all site sampling activities and laboratory analyses.

# Section 4
# Water Table Elevations

On January 17, 2000, STL Envirotech measured static groundwater levels from 74 different locations throughout the site (not to include the EFR wells) to evaluate the groundwater flow pattern in the shallow aquifer system (see Table 6). STL Envirotech noted that 12 of the 74 locations monitored contained a measurable thickness of free phase product. Figure 4 displays the water table potentiometric surface, and indicates that groundwater flow direction in the shallow aquifer east of the rail spur is similar to that observed historically (generally toward the east). Groundwater flow direction in the shallow aquifer in the MW19/Hot Spot 1 area (northwest corner of the subject site) is towards the northeast.

# Section 5
# Site Investigation and Remedial Actions

The following sections briefly outline additional scopes of work performed in various on-site areas of concern during 1st quarter 2000, and summarize future activities associated with each area.

## 5.1 MW19/Hot Spot 1 Area

In March 2000, RMT, on behalf of LEC, submitted a Remedial Investigation Report entitled MW19/Hot Spot 1 Area Remedial Investigation Report documenting the installation, development, surveying and sampling of three additional monitoring wells (MW19-6, MW19-7, and MW19-8) to further delineate BTEX and DEHP impact to the shallow groundwater in this Hot Spot. Per the NJDEP letter dated April 13, 2000, a workplan outlining further investigative measures to be taken in this hot spot will be submitted within 30 days from the receipt of the letter (May 17, 2000).

## 5.2 Hot Spots B and C

A comprehensive report documenting the on-site lead delineation in these two areas was completed and submitted to both the NJDEP and the USEPA in August of 1999. Per the NJDEP letter dated April 13, 2000, a workplan outlining further measures to be taken in both Hot Spot B & C will be submitted within 30 days from the receipt of the letter (May 17, 2000).

## 5.3 Hot Spot 4

In accordance with the Workplan to Implement Further Investigative and Remedial Action at MW19/Hot Spot 1; Hot Spot B and C; and Hot Spot 4 (RMT, November 1998), excavation of approximately 32 cubic yards of DEHP impacted soil is scheduled for commencement during the second quarter of 2000. As the proposed excavation will extend laterally to the two historical delineation points (4-DEL-3 and 4-DEL-7) located on the southeast side of the proposed excavation (Second Quarter 1996 Progress Report, WESTON, August 1996) post-excavation sampling will not be performed per item 3 of the NJDEP letter dated January 20, 1998.

## 5.4 Free Product Model

Per the NJDEP letter dated April 13, 2000, the Free Product Model estimating the remaining recoverable volume of free product existing on-site and the associated time frame for recovery will be submitted within 30 days from the receipt of the letter (May 17, 2000).

# Table 1
## L.E. CARPENTER - Wharton, New Jersey
### Free Product Recovery - EFR Well # 1 - 28

| EFR Event Date / Well No. | Development November 21, 1997 Feet of Product | EFR #1 December 9, 1997 Feet of Product | EFR #2 January 7, 1998 Feet of Product | EFR #3 January 22, 1998 Feet of Product | EFR #4 February 17, 1998 Feet of Product | EFR #5 March 18, 1998 Feet of Product | EFR #6 March 27, 1998 Feet of Product | EFR #7 April 24, 1998 Feet of Product | EFR #8 May 29, 1998 Feet of Product | EFR #9 June 30, 1998 Feet of Product | EFR #10 July 31, 1998 Feet of Product | EFR #11[3] August 24, 1998 Feet of Product | EFR #12 September 17, 1998 Feet of Product | EFR #13 October 23, 1998 Feet of Product | EFR #14 November 20, 1998 Feet of Product | EFR #15 December 18, 1998 Feet of Product | EFR #16 January 13, 1999 Feet of Product | EFR #17 February 18, 1999 Feet of Product | EFR #18 March 24, 1999 Feet of Product |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EFR-1 | 1.64 | 1.53 | 1.94 | 0.36 | 2.48 | 0.93 | 0.94 | 1.42 | 1.55 | 2.11 | 1.28 | 1.22 | 1.71 | 1.59 | 1.71 | 1.57 | 0.53 | 1.79 | 3.68 |
| EFR-2 | 1.55 | 1.50 | 1.86 | 0.06 | 2.20 | 2.96 | 2.92 | 2.65 | 2.44 | 1.78 | 1.12 | 1.09 | 1.21 | 1.29 | 1.51 | 1.41 | 0.95 | 1.40 | 2.42 |
| EFR-3 | 0.85 | 1.02 | 1.27 | -- | 1.58 | 1.19 | 0.03 | 0.24 | 0.19 | 0.77 | 0.72 | 0.93 | 1.03 | 1.01 | 1.19 | 1.18 | 1.14 | 1.01 | 1.63 |
| EFR-4 | 1.03 | 2.27 | 0.54 | 0.07 | 0.30 | -- | -- | -- | -- | 0.03 | 0.38 | 1.23 | 2.40 | 2.17 | 1.75 | 1.79 | 0.73 | 0.10 | 0.14 |
| EFR-5 | 4.03 | 3.74 | 4.25 | 0.32 | 3.29 | 3.39 | 1.71 | 2.71 | 2.02 | 1.86 | 2.38 | 2.52 | 2.33 | 2.52 | 2.19 | 2.28 | 2.68 | 3.47 | 6.15 |
| EFR-6 | 0.72 | 1.00 | 1.24 | -- | 2.27 | 1.71 | 1.17 | 2.23 | 1.55 | 1.56 | 1.96 | 1.56 | 1.42 | 1.25 | 1.29 | 1.38 | 0.49 | 0.84 | 0.88 |
| EFR-7 | 0.17 | 0.09 | 0.16 | -- | -- | -- | -- | -- | -- | 0.02 | 0.02 | 0.03 | 0.07 | 0.05 | 0.20 | 0.16 | 0.02 | 0.04 | 0.04 |
| EFR-8 | 0.00 | 0.00 | 0.00 | -- | 0.08 | -- | -- | -- | -- | 0.03 | 0.04 | 0.08 | 0.13 | 0.09 | 0.07 | 0.03 | 0.12 | -- | 0.03 |
| EFR-9 | 0.00 | 1.10 | 1.79 | 1.15 | 0.16 | 3.08 | 0.08 | 0.07 | 0.11 | 0.29 | 0.61 | 0.98 | 1.23 | 1.31 | 1.26 | 1.86 | 0.74 | 0.49 | 0.06 |
| EFR-10 | 5.20 | 5.80 | 6.42 | 2.34 | 7.47 | 7.06 | 6.05 | 6.71 | 5.47 | 5.68 | 4.94 | 4.52 | 4.34 | 4.38 | 3.98 | 3.99 | 3.68 | 5.79 | 5.52 |
| EFR-11 | 3.07 | 4.04 | 4.28 | 5.64 | 4.47 | 4.32 | 4.67 | 5.91 | 5.73 | 6.08 | 4.73 | 4.47 | 3.95 | 4.06 | 3.65 | 3.52 | 2.42 | 4.69 | 2.84 |
| EFR-12 | 0.04 | 0.03 | 0.00 | -- | 0.07 | -- | -- | -- | 0.02 | 0.28 | 0.22 | 0.28 | 0.24 | 0.15 | 0.29 | 0.17 | 0.04 | 0.11 | 0.05 |
| EFR-13 | 0.48 | 0.56 | 1.33 | 0.05 | 1.28 | 1.07 | 1.07 | 0.67 | -- | 0.90 | 0.56 | 0.48 | 0.66 | 0.82 | 1.13 | 1.30 | 0.22 | 1.19 | 0.15 |
| EFR-14 | 0.10 | 0.16 | 0.00 | -- | -- | -- | -- | -- | -- | -- | - | -- | -- | -- | -- | -- | -- | -- | - |
| EFR-15 | 0.09 | 0.12 | 0.27 | -- | 0.06 | -- | -- | -- | -- | 0.03 | 0.02 | 0.03 | 0.03 | 0.12 | 0.12 | 0.32 | 0.11 | 0.07 | 0.01 |
| EFR-16 | 0.00 | 0.00 | 0.00 | -- | -- | -- | -- | -- | -- | -- | - | -- | -- | -- | -- | -- | -- | -- | 0.00 |
| EFR-17 | 0.04 | 0.17 | 1.56 | 0.39 | 0.17 | 0.08 | -- | 0.09 | -- | 0.02 | 0.37 | 0.29 | 0.46 | 0.56 | 0.71 | 0.53 | 0.26 | 0.08 | 0.06 |
| EFR-18 | 0.10 | 0.10 | 0.09 | -- | -- | -- | -- | -- | -- | 0.01 | 0.08 | 0.14 | 0.48 | 0.68 | 0.98 | 1.08 | 0.56 | 0.11 | - |
| EFR-19 | 0.54 | 2.80 | 1.89 | 0.49 | 1.95 | 1.63 | 1.44 | 0.88 | 0.65 | 0.42 | 0.90 | 1.26 | 1.68 | 1.95 | 2.31 | 2.44 | 1.83 | 1.68 | 0.52 |
| EFR-20 | 0.40 | 0.34 | 0.95 | 0.47 | 0.27 | -- | -- | 0.04 | 0.24 | 0.37 | 0.65 | 0.63 | 0.79 | 1.24 | 1.85 | 2.11 | 0.65 | 1.33 | 0.88 |
| EFR-21 | 2.36 | 2.40 | 2.71 | 2.74 | 2.74 | 4.14 | 3.97 | 4.23 | 3.98 | 3.29 | 1.97 | 1.87 | 1.86 | 1.77 | 1.67 | 1.62 | 1.21 | 1.43 | 2.62 |
| EFR-22 | 3.78 | 4.10 | 0.05 | 4.81 | 3.40 | 4.69 | 3.42 | 1.82 | 1.22 | 0.96 | 2.86 | 2.87 | 2.97 | 2.83 | 2.58 | 2.27 | 2.06 | 0.84 | 0.34 |
| EFR-23 | 0.00 | 0.06 | 0.06 | -- | 0.02 | -- | -- | -- | -- | 0.05 | 0.11 | 0.08 | 0.27 | 1.03 | 3.07 | 2.29 | 1.55 | 0.91 | 0.47 |
| EFR-24 | 0.00 | 0.00 | 0.00 | -- | -- | -- | -- | -- | -- | -- | - | -- | -- | 0.03 | 0.12 | 0.14 | 0.38 | 0.06 | 0.00 |
| EFR-25 | 2.95 | 3.00 | 3.55 | 0.26 | 4.15 | 3.11 | 0.72 | 0.82 | 0.79 | 0.78 | 0.60 | 0.41 | 0.29 | 0.41 | 1.33 | 1.58 | 1.05 | 1.75 | 1.19 |
| EFR-26 | 2.20 | 2.05 | 2.66 | 0.29 | 2.30 | 2.12 | 1.43 | 1.32 | 1.95 | 1.21 | 2.06 | 1.58 | 1.17 | 1.24 | 1.08 | 1.09 | 0.73 | 0.55 | 0.45 |
| EFR-27 | 0.15 | 0.02 | 2.71 | 0.02 | 0.74 | -- | -- | 0.03 | -- | 0.02 | 0.33 | 0.45 | 1.49 | 0.54 | 0.47 | 0.51 | 0.09 | 0.12 | 0.00 |
| EFR-28 | 2.20 | 2.30 | 1.78 | 0.48 | 2.60 | 3.20 | 3.48 | 4.40 | 3.16 | 2.61 | 1.47 | 1.73 | 1.69 | 1.83 | 1.79 | 1.74 | 1.03 | 1.29 | 1.71 |
| MIN (ft) | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.08 | 0.03 | 0.03 | 0.02 | 0.01 | 0.02 | 0.03 | 0.03 | 0.03 | 0.07 | 0.03 | 0.02 | 0.04 | 0.00 |
| MAX (ft) | 5.20 | 5.80 | 6.42 | 5.64 | 7.47 | 7.06 | 6.05 | 6.71 | 5.73 | 6.08 | 4.94 | 4.52 | 4.34 | 4.38 | 3.98 | 3.99 | 3.68 | 5.79 | 6.15 |
| Average (ft) | 1.20 | 1.44 | 1.55 | 1.17 | 1.92 | 2.79 | 2.21 | 2.01 | 1.94 | 1.25 | 1.22 | 1.23 | 1.36 | 1.34 | 1.47 | 1.48 | 0.97 | 1.25 | 1.22 |
| Total Free Product (ft) | 33.69 | 40.30 | 43.36 | 19.94 | 44.05 | 44.68 | 33.10 | 36.24 | 31.07 | 31.16 | 30.38 | 30.73 | 33.90 | 34.92 | 38.30 | 38.36 | 25.27 | 31.14 | 31.84 |
| Total Standing Free Product Volume (gal) | 21.60 | 25.83 | 27.79 | 12.78 | 28.24 | 28.64 | 21.22 | 23.23 | 19.92 | 19.97 | 19.47 | 19.70 | 22.04 | 22.70 | 24.90 | 24.93 | 16.43 | 20.24 | 20.70 |
| Estimated Total Free Product Removed from Vacuum Truck Gauging plus Vapor Phase Calcs. (gal)[1] | 315 | 250 | 210 | 80 | 120 | 130 | 100 | 110 | 95 | 105 | 76 | 55 | 60 | 15 | 25 | 51 | 23 | 74 | 40 |
| Total Volume Fluid Removed by EFR(gal) | 2,350 | 1,410 | 376 | 256 | 314 | 300 | 339 | 403 | 390 | 561 | 211 | 220 | 329 | 212 | 120 | 256 | 234 | 498 | 683 |
| Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* | - | - | - | - | - | 338 | 150 | 600 | 70 | 110 | 71 | - | 110 | - | - | 110 | - | 235 | - |
| Total Volume Removed from Site (gal) *(invoiced volume)* | 2,350 | 1,410 | 376 | 256 | 314 | 638 | 489 | 1,003 | 460 | 671 | 282 | 220 | 439 | 212 | 120 | 256 | 234 | 733 | 683 |
| Cumulative Total Free Product Removed (gal) | 315 | 565 | 775 | 855 | 975 | 1,105 | 1,205 | 1,315 | 1,410 | 1,515 | 1,591 | 1,646 | 1,706 | 1,721 | 1,746 | 1,797 | 1,820 | 1,894 | 1,934 |
| Extraction, Trans & Disposal Cost[2] | $ 3,976.37 | $ 2,742.62 | $ 1,130.50 | $ 1,130.50 | $ 1,219.12 | $ 1,431.87 | $ 1,541.31 | $ 2,038.43 | $ 1,240.75 | $ 1,347.68 | $ 1,324.62 | $ 1,838.93 | $ 1,383.18 | $ 915.25 | $ 915.00 | $ 973.00 | $ 1,156.62 | $ 1,641.56 | $ 1,703.44 |
| Total Cost per gal[3] | $ 1.69 | $ 1.95 | $ 3.01 | $ 4.42 | $ 3.88 | $ 2.24 | $ 3.15 | $ 2.03 | $ 2.70 | $ 2.01 | $ 4.70 | $ 8.36 | $ 3.15 | $ 4.32 | $ 7.63 | $ 3.80 | $ 4.94 | $ 2.24 | $ 2.49 |

Notes:

Product thickness was determined prior to the EFR event

gal = gallon

All EFR Wells are 4 inch in diameter

EFR events 13 and 14 product removal was low due to significant quantities of product remaining unaffected as the result of a short vac truck standing time prior to gauging

Vac truck is now allowed to sit for a minimum of 1 hour prior to gauging on flat ground

Product removal estimate does not take into account a % of product remaining unaffected due to high agitation

(1) Estimated free product (gal) based on Vacuum Truck gauging (interface probe) directly after each EFR Event

(2) Total invoiced disposal cost for EFR event (product and groundwater) and monitoring well purge water from 1/4 by well development and monitoring activities *(if applicable)*

(3) Total Cost per gallon includes product transportation & disposal, manifest prep, & regulatory admin. fee for combined EFR and GW purge water drum volumes *(if applicable)*

(4) EFR # 11 free product volume was 55 gal and contained PCBs (approx. weight 450lbs total @ specific gravity of 8.18 lbs/gal) Disposal costs were significantly higher due to PCB content

(5) EFR # 23 cost and unit cost higher than normal due to additional vac truck time and stob time As the vac truck was broken when it reached the site, a 3 hour credit will be applied to next months EFR T&D bill

(6) Free product is being stored in an on-site 550 gallon AST equipped with secondary containment AST contents will be drained with a vacuum truck and transported by CycleChem/CleanVenture every 90 days for appropriate management along with groundwater resulting from well purge activities

04/13/2000 4:42 PM
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# Table 1
## L.E. CARPENTER - Wharton, New Jersey
### Free Product Recovery - EFR Well # 1 - 28

| EFR Event Date / Well No. | EFR #19 April 19, 1999 Feet of Product | EFR #20 May 18, 1999 Feet of Product | EFR #21 June 22, 1999 Feet of Product | EFR #22 July 28, 1999 Feet of Product | EFR #23 [illegible] August 27, 1999 Feet of Product | EFR #24 September 22, 1999 Feet of Product | EFR #25 October 27, 1999 Feet of Product | EFR #26 November 30, 1999 Feet of Product | EFR #27 December 16, 1999 Feet of Product | EFR #28 January 28, 2000 Feet of Product | EFR #29 February 18, 2000 Feet of Product | EFR #30 March 24, 2000 Feet of Product | EFR AVERAGES | EFR TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EFR-1 | 1.13 | 1.09 | 1.15 | 1.49 | 1.27 | 1.94 | 1.63 | 1.47 | 1.20 | 1.22 | 0.85 | 1.86 | | |
| EFR-2 | 1.46 | 1.22 | 0.92 | 1.21 | 1.00 | 0.63 | 1.35 | 1.28 | 1.40 | 0.06 | 1.04 | 2.25 | | |
| EFR-3 | 0.36 | 0.25 | 0.86 | 0.88 | 1.03 | 0.74 | 0.69 | 0.47 | 0.02 | 0.51 | 0.07 | 0.08 | | |
| EFR-4 | 0.08 | 0.05 | 0.03 | 0.44 | 0.99 | 0.51 | 0.11 | 0.03 | 0.58 | 0.51 | 0.48 | 0.11 | | |
| EFR-5 | 2.65 | 2.61 | 2.66 | 2.66 | 1.57 | 1.77 | 3.23 | 2.99 | 1.27 | 2.95 | 2.46 | 2.91 | | |
| EFR-6 | 0.61 | 1.07 | 1.16 | 1.51 | 0.91 | 0.15 | 0.86 | 0.63 | 0.33 | 1.07 | 0.77 | 0.29 | | |
| EFR-7 | 0.07 | 0.02 | 0.08 | 0.28 | 0.05 | 0.01 | 0.07 | 0.04 | 0.47 | 0.15 | 0.02 | 0.35 | | |
| EFR-8 | 0.03 | 0.03 | 0.09 | 0.39 | 0.27 | 0.09 | 0.13 | 0.05 | 0.11 | 0.05 | 0.06 | 0.08 | | |
| EFR-9 | 0.11 | 0.32 | 0.49 | 1.16 | 0.56 | 0.41 | 0.28 | 0.10 | 0.15 | 0.13 | 0.08 | 0.19 | | |
| EFR-10 | 4.97 | 4.23 | 3.71 | 3.63 | 2.47 | 3.02 | 5.18 | 3.95 | 3.07 | 4.50 | 3.55 | 3.50 | | |
| EFR-11 | 2.02 | 2.48 | 3.28 | 2.78 | 1.57 | 1.93 | 3.20 | 3.11 | 1.07 | 3.44 | 4.95 | 2.41 | | |
| EFR-12 | 0.02 | 0.02 | 0.10 | 0.30 | 0.20 | 0.03 | 0.09 | 0.67 | 0.01 | 0.03 | 0.49 | 0.46 | | |
| EFR-13 | 0.49 | 0.50 | 0.44 | 1.33 | 1.01 | 0.74 | 0.78 | 0.57 | 0.26 | 0.36 | 0.34 | 0.48 | | |
| EFR-14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| EFR-15 | 0.01 | 0.00 | 0.00 | 0.00 | 0.13 | 0.04 | 0.02 | 0.08 | 0.02 | 0.02 | 0.02 | 0.02 | | |
| EFR-16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| EFR-17 | 0.06 | 0.08 | 0.12 | 0.39 | 0.36 | 0.10 | 0.06 | 0.24 | 0.25 | 0.11 | 0.32 | 0.04 | | |
| EFR-18 | 0.06 | 0.16 | 0.46 | 0.96 | 1.37 | 0.61 | 0.36 | 0.77 | 0.05 | 0.20 | 0.05 | 0.12 | | |
| EFR-19 | 0.44 | 0.52 | 1.10 | 2.05 | 2.02 | 0.51 | 1.54 | 0.84 | 0.69 | 1.67 | 1.73 | 0.25 | | |
| EFR-20 | 0.43 | 0.89 | 0.87 | 1.59 | 1.86 | 0.47 | 1.92 | 1.36 | 0.75 | 1.08 | 2.58 | 0.64 | | |
| EFR-21 | 2.35 | 1.49 | 1.46 | 1.57 | 1.04 | 1.01 | 2.32 | 1.40 | 1.70 | 1.92 | 1.34 | 3.04 | | |
| EFR-22 | 0.95 | 1.39 | 1.93 | 1.47 | 1.41 | 0.17 | 2.22 | 1.76 | 0.53 | 0.82 | 0.58 | 0.09 | | |
| EFR-23 | 0.22 | 0.25 | 0.45 | 2.13 | 1.03 | 0.12 | 0.53 | 0.64 | 0.24 | 0.23 | 0.31 | 0.46 | | |
| EFR-24 | 0.00 | 0.00 | 0.08 | 0.08 | 0.05 | 0.00 | 0.00 | 0.04 | 0.13 | 0.11 | 0.07 | 0.58 | | |
| EFR-25 | 1.08 | 0.76 | 0.54 | 1.74 | 1.48 | 0.21 | 0.39 | 0.19 | 0.05 | 0.31 | 0.39 | 0.58 | | |
| EFR-26 | 0.75 | 1.29 | 1.28 | 1.23 | 0.72 | 0.29 | 0.52 | 0.94 | 0.59 | 1.54 | 1.10 | 1.33 | | |
| EFR-27 | 0.00 | 0.02 | 0.03 | 0.17 | 0.21 | 0.06 | 0.01 | 0.01 | 0.01 | 0.02 | 0.14 | 0.20 | | |
| EFR-28 | 1.65 | 1.46 | 1.25 | 1.67 | 1.78 | 0.38 | 2.19 | 0.96 | 1.42 | 1.33 | 1.00 | 2.30 | | |
| MIN (ft) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| MAX (ft) | 4.97 | 4.23 | 3.71 | 3.63 | 2.47 | 3.02 | 5.18 | 3.95 | 3.07 | 4.50 | 4.95 | 3.50 | | |
| Average (ft) | 0.79 | 0.79 | 0.88 | 1.18 | 0.94 | 0.57 | 1.06 | 0.88 | 0.58 | 0.87 | 0.89 | 0.88 | | |
| Total Free Product (ft) | 22.00 | 22.20 | 24.54 | 33.11 | 26.36 | 15.94 | 29.68 | 24.59 | 16.37 | 24.34 | 24.79 | 24.62 | | |
| Total Standing Free Product Volume (gal) | 14.30 | 14.43 | 15.95 | 21.52 | 17.13 | 10.36 | 19.29 | 15.98 | 10.64 | 15.82 | 16.11 | 16.00 | | |
| Estimated Total Free Product Removed from Vacuum Truck Gauging plus Vapor Phase Calcs. (gal)[1] | 59 | 47 | 39 | 54 | 36 | 44 | 55 | 45 | 49 | 37 | 44 | 38 | 80 | 2,481 |
| Total Volume Fluid Removed by EFR(gal) | 905 | 360 | 564 | 726 | 298 | 239 | 265 | 249 | 350 | 41 | 46 | 53 | 437 | 13,558 |
| Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* | 139 | - | - | 374 | - | - | 199 | 82 | - | - | - | - | 199 | 2,589 |
| Total Volume Removed from Site (gal) *(Invoiced volume)* | 1,044 | 360 | 564 | 1,100 | 298 | 239 | 464 | 331 | 350 | On-Site Satelite Storage [4] | On-Site Satelite Storage [4] | On-Site Satelite Storage [4] | 568 | 15,896 |
| Cumulative Total Free Product Removed (gal) | 1,993 | 2,040 | 2,079 | 2,133 | 2,169 | 2,213 | 2,268 | 2,313 | 2,362 | 2,399 | 2,443 | 2,481 | N/A | N/A |
| Extraction, Trans & Disposal Cost[2] | $ 2,049.75 | $ 930.31 | $ 1,598.13 | $ 2,165.75 | $ 2,162.12 | $ 995.81 | $ 1,288.50 | $ 1,028.93 | $ 968.87 | NA | NA | NA | $ 1,329.96 | $ 42,838.92 |
| Total Cost per gal[3] | $ 1.96 | $ 2.58 | $ 2.83 | $ 1.97 | $ 7.26 | $ 4.17 | $ 2.78 | $ 3.11 | $ 2.77 | NA | NA | NA | $ 3.50 | N/A |



04/13/2000 4:42 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

# TABLE 2

## L.E. CARPENTER - WHARTON, NEW JERSEY

REGIONAL APPARENT FREE PRODUCT TRENDS

| | EFR Event Date | 11/21/97 | 12/9/97 | 1/7/98 | 2/16/98 | 3/16/98 | 3/27/98 | 4/24/98 | 5/29/98 | 6/30/98 | 7/31/98 | 8/24/98 | 9/17/98 | 10/22/98 | 11/20/98 | 12/18/98 | 1/13/99 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Well No. | | | | | | | | | | | | | | | | |
| | | 11/21/97 | 12/9/97 | 1/7/98 | 2/16/98 | 3/16/98 | 3/27/98 | 4/24/98 | 5/29/98 | 6/30/98 | 7/31/98 | 8/24/98 | 9/17/98 | 10/22/98 | 11/20/98 | 12/18/98 | 1/13/99 |
| | EFR-1 | 1.64 | 1.53 | 1.94 | 2.48 | 0.93 | 0.94 | 1.42 | 1.55 | 2.11 | 1.28 | 1.22 | 1.71 | 1.59 | 1.71 | 1.57 | 0.53 |
| | EFR-2 | 1.55 | 1.50 | 1.86 | 2.20 | 2.96 | 2.92 | 2.65 | 2.44 | 1.78 | 1.12 | 1.09 | 1.21 | 1.29 | 1.51 | 1.41 | 0.95 |
| | EFR-3 | 0.85 | 1.02 | 1.27 | 1.58 | 1.19 | 0.03 | 0.24 | 0.19 | 0.77 | 0.72 | 0.93 | 1.03 | 1.01 | 1.19 | 1.18 | 1.14 |
| | EFR-17 | 0.04 | 0.17 | 1.56 | 0.17 | 0.08 | -- | 0.09 | -- | 0.02 | 0.37 | 0.29 | 0.46 | 0.56 | 0.71 | 0.53 | 0.26 |
| | EFR-18 | 0.10 | 0.10 | 0.09 | -- | -- | -- | -- | -- | 0.01 | 0.08 | 0.14 | 0.48 | 0.68 | 0.98 | 1.08 | 0.56 |
| | EFR-20 | 0.40 | 0.34 | 0.95 | 0.27 | -- | -- | 0.04 | 0.24 | 0.37 | 0.65 | 0.63 | 0.79 | 1.24 | 1.85 | 2.11 | 0.65 |
| | EFR-21 | 2.36 | 2.40 | 2.71 | 2.74 | 4.14 | 3.97 | 4.23 | 3.98 | 3.29 | 1.97 | 1.87 | 1.86 | 1.77 | 1.67 | 1.62 | 1.21 |
| Western Plume | EFR-28 | 2.20 | 2.30 | 1.78 | 2.60 | 3.20 | 3.48 | 4.40 | 3.16 | 2.61 | 1.47 | 1.73 | 1.69 | 1.83 | 1.79 | 1.74 | 1.03 |
| Total Free Product (ft) | | 9.14 | 9.36 | 12.16 | 12.04 | 12.50 | 11.34 | 13.07 | 11.56 | 10.96 | 7.66 | 7.90 | 9.23 | 9.97 | 11.41 | 11.24 | 6.33 |
| Total Free Product (gal) | | 5.86 | 6.00 | 7.79 | 7.72 | 8.01 | 7.27 | 8.38 | 7.41 | 7.03 | 4.91 | 5.06 | 6.00 | 6.48 | 7.42 | 7.31 | 4.11 |
| | | 11/21/97 | 12/9/97 | 1/7/98 | 2/16/98 | 3/16/98 | 3/27/98 | 4/24/98 | 5/29/98 | 6/30/98 | 7/31/98 | 8/24/98 | 9/17/98 | 10/22/98 | 11/20/98 | 12/18/98 | 1/13/99 |
| | EFR-4 | 1.03 | 2.27 | 0.54 | 0.30 | -- | -- | -- | -- | 0.03 | 0.38 | 1.23 | 2.40 | 2.17 | 1.75 | 1.79 | 0.73 |
| | EFR-5 | 4.03 | 3.74 | 4.25 | 3.29 | 3.39 | 1.71 | 2.71 | 2.02 | 1.86 | 2.38 | 2.52 | 2.33 | 2.52 | 2.19 | 2.28 | 2.68 |
| | EFR-6 | 0.72 | 1.00 | 1.24 | 2.27 | 1.71 | 1.17 | 2.23 | 1.55 | 1.56 | 1.96 | 1.56 | 1.42 | 1.25 | 1.29 | 1.38 | 0.49 |
| | EFR-7 | 0.17 | 0.09 | 0.16 | -- | -- | -- | -- | -- | 0.02 | 0.02 | 0.03 | 0.07 | 0.05 | 0.20 | 0.16 | 0.02 |
| | EFR-19 | 0.54 | 2.80 | 1.89 | 1.95 | 1.63 | 1.44 | 0.88 | 0.65 | 0.42 | 0.9 | 1.26 | 1.68 | 1.95 | 2.31 | 2.44 | 1.83 |
| | EFR-22 | 3.78 | 4.10 | 0.05 | 3.40 | 4.69 | 3.42 | 1.82 | 1.22 | 0.96 | 2.86 | 2.87 | 2.97 | 2.83 | 2.58 | 2.27 | 2.06 |
| | EFR-23 | 0.00 | 0.06 | 0.06 | 0.02 | -- | -- | -- | -- | 0.05 | 0.11 | 0.08 | 0.27 | 1.03 | 3.07 | 2.29 | 1.55 |
| | EFR-24 | 0.00 | 0.00 | 0.00 | -- | -- | -- | -- | -- | -- | - | -- | -- | 0.03 | 0.12 | 0.14 | 0.38 |
| | EFR-25 | 2.95 | 3.00 | 3.55 | 4.15 | 3.11 | 0.72 | 0.82 | 0.79 | 0.78 | 0.6 | 0.41 | 0.29 | 0.41 | 1.33 | 1.58 | 1.05 |
| | EFR-26 | 2.20 | 2.05 | 2.66 | 2.30 | 2.12 | 1.43 | 1.32 | 1.95 | 1.21 | 2.06 | 1.58 | 1.17 | 1.24 | 1.08 | 1.09 | 0.73 |
| Central Plume | EFR-27 | 0.15 | 0.02 | 2.71 | 0.74 | -- | -- | 0.03 | -- | 0.02 | 0.33 | 0.45 | 1.49 | 0.54 | 0.47 | 0.51 | 0.09 |
| Total Free Product (ft) | | 15.57 | 19.13 | 17.11 | 18.42 | 16.65 | 9.89 | 9.81 | 8.18 | 6.91 | 11.60 | 11.99 | 14.09 | 14.02 | 16.39 | 15.93 | 11.61 |
| Total Free Product (gal) | | 9.98 | 12.26 | 10.97 | 11.81 | 10.67 | 6.34 | 6.29 | 5.24 | 4.43 | 7.44 | 7.69 | 9.16 | 9.11 | 10.65 | 10.35 | 7.55 |
| | | 11/21/97 | 12/9/97 | 1/7/98 | 2/16/98 | 3/16/98 | 3/27/98 | 4/24/98 | 5/29/98 | 6/30/98 | 7/31/98 | 8/24/98 | 9/17/98 | 10/22/98 | 11/20/98 | 12/18/98 | 1/13/99 |
| | EFR-8 | 0.00 | 0.00 | 0.00 | 0.08 | -- | -- | -- | -- | 0.03 | 0.04 | 0.08 | 0.13 | 0.09 | 0.07 | 0.03 | 0.12 |
| | EFR-9 | 0.00 | 1.10 | 1.79 | 0.16 | 3.08 | 0.08 | 0.07 | 0.11 | 0.29 | 0.61 | 0.98 | 1.23 | 1.31 | 1.26 | 1.86 | 0.74 |
| | EFR-10 | 5.20 | 5.80 | 6.42 | 7.47 | 7.06 | 6.05 | 6.71 | 5.47 | 5.68 | 4.94 | 4.52 | 4.34 | 4.38 | 3.98 | 3.99 | 3.68 |
| | EFR-11 | 3.07 | 4.04 | 4.28 | 4.47 | 4.32 | 4.67 | 5.91 | 5.73 | 6.08 | 4.73 | 4.47 | 3.95 | 4.06 | 3.65 | 3.52 | 2.42 |
| | EFR-12 | 0.04 | 0.03 | 0.00 | 0.07 | -- | -- | -- | 0.02 | 0.28 | 0.22 | 0.28 | 0.24 | 0.15 | 0.29 | 0.17 | 0.04 |
| | EFR-13 | 0.48 | 0.56 | 1.33 | 1.28 | 1.07 | 1.07 | 0.67 | -- | 0.9 | 0.56 | 0.48 | 0.66 | 0.82 | 1.13 | 1.30 | 0.22 |
| | EFR-14 | 0.10 | 0.16 | 0.00 | -- | -- | -- | -- | -- | -- | - | -- | -- | -- | -- | -- | -- |
| | EFR-15 | 0.09 | 0.12 | 0.27 | 0.06 | -- | -- | -- | -- | 0.03 | 0.02 | 0.03 | 0.03 | 0.12 | 0.12 | 0.32 | 0.11 |
| Eastern Plume | EFR-16 | 0.00 | 0.00 | 0.00 | -- | -- | -- | -- | -- | -- | - | -- | -- | -- | -- | -- | -- |
| Total Free Product (ft) | | 8.98 | 11.81 | 14.09 | 13.59 | 15.53 | 11.87 | 13.36 | 11.33 | 13.29 | 11.12 | 10.84 | 10.58 | 10.93 | 10.50 | 11.19 | 7.33 |
| Total Free Product (gal) | | 5.76 | 7.57 | 9.03 | 8.71 | 9.95 | 7.61 | 8.56 | 7.26 | 8.52 | 7.13 | 6.95 | 6.88 | 7.10 | 6.83 | 7.27 | 4.76 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL SITE FREE STANDING VOLUME (GAL) | | 21.60 | 25.83 | 27.79 | 28.24 | 28.64 | 21.22 | 23.23 | 19.92 | 19.97 | 19.47 | 19.70 | 22.04 | 22.70 | 24.90 | 24.93 | 16.43 |

# TABLE 2
## L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

| | EFR Event Date | 2/17/99 | 3/23/99 | 4/19/99 | 5/18/99 | 6/22/99 | 7/28/99 | 8/27/99 | 9/22/99 | 10/27/99 | 11/30/99 | 12/16/99 | 1/28/00 | 2/18/00 | 3/24/00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Well No. | | | | | | | | | | | | | | |
| | | 2/17/99 | 3/23/99 | 4/19/99 | 5/18/99 | 6/22/99 | 7/28/99 | 8/27/99 | 9/22/99 | 10/27/99 | 11/30/99 | 12/16/99 | 1/28/00 | 2/18/00 | 3/24/00 |
| | EFR-1 | 1.79 | 3.68 | 1.13 | 1.09 | 1.15 | 1.49 | 1.27 | 1.94 | 1.63 | 1.47 | 1.20 | 1.22 | 0.85 | 1.86 |
| | EFR-2 | 1.40 | 2.42 | 1.46 | 1.22 | 0.92 | 1.21 | 1.00 | 0.63 | 1.35 | 1.28 | 1.40 | 0.06 | 1.04 | 2.25 |
| | EFR-3 | 1.01 | 1.63 | 0.36 | 0.25 | 0.86 | 0.88 | 1.03 | 0.74 | 0.69 | 0.47 | 0.02 | 0.51 | 0.07 | 0.08 |
| | EFR-17 | 0.08 | 0.06 | 0.06 | 0.08 | 0.12 | 0.39 | 0.36 | 0.10 | 0.06 | 0.24 | 0.25 | 0.11 | 0.32 | 0.04 |
| | EFR-18 | 0.11 | 0.00 | 0.06 | 0.16 | 0.46 | 0.96 | 1.37 | 0.61 | 0.36 | 0.77 | 0.05 | 0.20 | 0.05 | 0.12 |
| | EFR-20 | 1.33 | 0.88 | 0.43 | 0.89 | 0.87 | 1.59 | 1.86 | 0.47 | 1.92 | 1.36 | 0.75 | 1.08 | 2.58 | 0.64 |
| | EFR-21 | 1.43 | 2.62 | 2.35 | 1.49 | 1.46 | 1.57 | 1.04 | 1.01 | 2.32 | 1.40 | 1.70 | 1.92 | 1.34 | 3.04 |
| Western Plume | EFR-28 | 1.29 | 1.71 | 1.65 | 1.46 | 1.25 | 1.67 | 1.78 | 0.38 | 2.19 | 0.96 | 1.42 | 1.33 | 1.00 | 2.30 |
| Total Free Product (ft) | | 8.44 | 13.00 | 7.50 | 6.64 | 7.09 | 9.76 | 9.71 | 5.88 | 10.52 | 7.95 | 6.79 | 6.43 | 7.25 | 10.33 |
| Total Free Product (gal) | | 5.49 | 8.45 | 4.88 | 4.32 | 4.61 | 6.34 | 6.31 | 3.82 | 6.84 | 5.17 | 4.41 | 4.18 | 4.71 | 6.71 |
| | | 2/17/99 | 3/23/99 | 4/19/99 | 5/18/99 | 6/22/99 | 7/28/99 | 8/27/99 | 9/22/99 | 10/27/99 | 11/30/99 | 12/16/99 | 1/28/00 | 2/18/00 | 3/24/00 |
| | EFR-4 | 0.10 | 0.14 | 0.08 | 0.05 | 0.03 | 0.44 | 0.99 | 0.51 | 0.11 | 0.03 | 0.58 | 0.51 | 0.48 | 0.11 |
| | EFR-5 | 3.47 | 6.15 | 2.65 | 2.61 | 2.66 | 2.66 | 1.57 | 1.77 | 3.23 | 2.99 | 1.27 | 2.95 | 2.46 | 2.91 |
| | EFR-6 | 0.84 | 0.88 | 0.61 | 1.07 | 1.16 | 1.51 | 0.91 | 0.15 | 0.86 | 0.63 | 0.33 | 1.07 | 0.77 | 0.29 |
| | EFR-7 | 0.04 | 0.04 | 0.07 | 0.02 | 0.08 | 0.28 | 0.05 | 0.01 | 0.07 | 0.04 | 0.47 | 0.15 | 0.02 | 0.35 |
| | EFR-19 | 1.68 | 0.52 | 0.44 | 0.52 | 1.10 | 2.05 | 2.02 | 0.51 | 1.54 | 0.84 | 0.69 | 1.67 | 1.73 | 0.25 |
| | EFR-22 | 0.84 | 0.34 | 0.95 | 1.39 | 1.93 | 1.47 | 1.41 | 0.17 | 2.22 | 1.76 | 0.53 | 0.82 | 0.58 | 0.09 |
| | EFR-23 | 0.91 | 0.47 | 0.22 | 0.25 | 0.45 | 2.13 | 1.03 | 0.12 | 0.53 | 0.64 | 0.24 | 0.23 | 0.31 | 0.46 |
| | EFR-24 | 0.06 | 0.00 | 0.00 | 0.00 | 0.08 | 0.08 | 0.05 | 0.00 | 0.00 | 0.04 | 0.13 | 0.11 | 0.07 | 0.58 |
| | EFR-25 | 1.75 | 1.19 | 1.08 | 0.76 | 0.54 | 1.74 | 1.48 | 0.21 | 0.39 | 0.19 | 0.05 | 0.31 | 0.39 | 0.58 |
| | EFR-26 | 0.55 | 0.45 | 0.75 | 1.29 | 1.28 | 1.23 | 0.72 | 0.29 | 0.52 | 0.94 | 0.59 | 1.54 | 1.10 | 1.33 |
| Central Plume | EFR-27 | 0.12 | 0.00 | 0.00 | 0.02 | 0.03 | 0.17 | 0.21 | 0.06 | 0.01 | 0.01 | 0.01 | 0.02 | 0.14 | 0.20 |
| Total Free Product (ft) | | 10.36 | 10.18 | 6.85 | 7.98 | 9.34 | 13.76 | 10.44 | 3.80 | 9.48 | 8.11 | 4.89 | 9.38 | 8.05 | 7.15 |
| Total Free Product (gal) | | 6.73 | 6.62 | 4.45 | 5.19 | 6.07 | 8.94 | 6.79 | 2.47 | 6.16 | 5.27 | 3.18 | 6.10 | 5.23 | 4.65 |
| | | 2/17/99 | 3/23/99 | 4/19/99 | 5/18/99 | 6/22/99 | 7/28/99 | 8/27/99 | 9/22/99 | 10/27/99 | 11/30/99 | 12/16/99 | 1/28/00 | 2/18/00 | 3/24/00 |
| | EFR-8 | -- | 0.03 | 0.03 | 0.03 | 0.09 | 0.39 | 0.27 | 0.09 | 0.13 | 0.05 | 0.11 | 0.05 | 0.06 | 0.08 |
| | EFR-9 | 0.49 | 0.06 | 0.11 | 0.32 | 0.49 | 1.16 | 0.56 | 0.41 | 0.28 | 0.10 | 0.15 | 0.13 | 0.08 | 0.19 |
| | EFR-10 | 5.79 | 5.52 | 4.97 | 4.23 | 3.71 | 3.63 | 2.47 | 3.02 | 5.18 | 3.95 | 3.07 | 4.50 | 3.55 | 3.50 |
| | EFR-11 | 4.69 | 2.84 | 2.02 | 2.48 | 3.28 | 2.78 | 1.57 | 1.93 | 3.20 | 3.11 | 1.07 | 3.44 | 4.95 | 2.41 |
| | EFR-12 | 0.11 | 0.05 | 0.02 | 0.02 | 0.10 | 0.30 | 0.20 | 0.03 | 0.09 | 0.67 | 0.01 | 0.03 | 0.49 | 0.46 |
| | EFR-13 | 1.19 | 0.15 | 0.49 | 0.50 | 0.44 | 1.33 | 1.01 | 0.74 | 0.78 | 0.57 | 0.26 | 0.36 | 0.34 | 0.48 |
| | EFR-14 | -- | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | EFR-15 | 0.07 | 0.01 | 0.01 | - | - | - | 0.13 | 0.04 | 0.02 | 0.08 | 0.02 | 0.02 | 0.02 | 0.02 |
| Eastern Plume | EFR-16 | -- | - | 0.00 | - | - | - | - | - | - | - | - | - | - | - |
| Total Free Product (ft) | | 12.34 | 8.66 | 7.65 | 7.58 | 8.11 | 9.59 | 6.21 | 6.26 | 9.68 | 8.53 | 4.69 | 8.53 | 9.49 | 7.14 |
| Total Free Product (gal) | | 8.02 | 5.63 | 4.97 | 4.93 | 5.27 | 6.23 | 4.04 | 4.07 | 6.29 | 5.54 | 3.05 | 5.54 | 6.17 | 4.64 |
| TOTAL SITE FREE STANDING VOLUME (GAL) | | 20.24 | 20.70 | 14.30 | 14.43 | 15.95 | 21.52 | 17.13 | 10.36 | 19.29 | 15.98 | 10.64 | 15.82 | 16.11 | 16.00 |

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR # 28 28-Jan-00

| WELL ID | DEPTH TO PRODUCT (ft) | DEPTH TO WATER (ft) | PRODUCT TICKNESS (ft) |
|---|---|---|---|
| | | | |
| EFR-1 | 11.01 | 12.23 | 1.22 |
| EFR-2 | 12.59 | 12.65 | 0.06 |
| EFR-3 | 11.57 | 12.08 | 0.51 |
| EFR-4 | 13.1 | 13.61 | 0.51 |
| EFR-5 | 11.28 | 14.23 | 2.95 |
| EFR-6 | 10.91 | 11.98 | 1.07 |
| EFR-7 | 7.9 | 8.05 | 0.15 |
| EFR-8 | 6.9 | 6.95 | 0.05 |
| EFR-9 | 7.19 | 7.32 | 0.13 |
| EFR-10 | 7.75 | 12.25 | 4.50 |
| EFR-11 | 7.41 | 10.85 | 3.44 |
| EFR-12 | 6.46 | 6.49 | 0.03 |
| EFR-13 | 6.01 | 6.37 | 0.36 |
| EFR-14 | 5.77 | 5.77 | 0.00 |
| EFR-15 | 5.19 | 5.21 | 0.02 |
| EFR-16 | 5.71 | 5.71 | 0.00 |
| EFR-17 | 10.34 | 10.45 | 0.11 |
| EFR-18 | 10.36 | 10.56 | 0.20 |
| EFR-19 | 13.23 | 14.9 | 1.67 |
| EFR-20 | 11.43 | 12.51 | 1.08 |
| EFR-21 | 9.9 | 11.82 | 1.92 |
| EFR-22 | 13.31 | 14.13 | 0.82 |
| EFR-23 | 9.67 | 9.9 | 0.23 |
| EFR-24 | 12.69 | 12.8 | 0.11 |
| EFR-25 | 12.4 | 12.71 | 0.31 |
| EFR-26 | 14.06 | 15.6 | 1.54 |
| EFR-27 | 12.7 | 12.72 | 0.02 |
| EFR-28 | 10.41 | 11.74 | 1.33 |

Total Volume Of Free Standing Product (gal) 15.82

CEMCO FIELD TECHNICIAN: Gary Pizzuti

04/14/2000 3:38 PM
Prepared By: Nicholas J. Clevett
RMT Project Manager

T:\00\86817-003:DOCEFR #28 Gauging Log Jan 2000

# TABLE 3
## L. E. CARPENTER - WHARTON, NEW JERSEY

### MONTHLY EFR
### VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

**EFR # 28** **28-Jan-00**

| WELL ID | EXTRACTION TIME | | VAPOR PHASE CONCENTRATION | | SYSTEM RECOVERY DATA | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL TIME (min) | TOTAL TIME (hrs) | PPM | LEL (%) | VACUUM In Hg | CFM | lbs/hr | Total lbs |
| EFR-1 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-2 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-3 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-4 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-5 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-6 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-7 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-8 | 2.0 | 0.0333 | 2,493 | 38 | 17 | 100 | 12.17 | 0.4055 |
| EFR-9 | 2.0 | 0.0333 | 4,461 | 68 | 17 | 100 | 21.77 | 0.7257 |
| EFR-10 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| EFR-11 | 15.0 | 0.2500 | 5,642 | 86 | 17 | 100 | 27.53 | 6.8831 |
| EFR-12 | 1.0 | 0.0167 | 3,149 | 48 | 17 | 100 | 15.37 | 0.2561 |
| EFR-13 | 2.0 | 0.0333 | 1,181 | 18 | 17 | 100 | 5.76 | 0.1921 |
| EFR-14 | 0.0 | 0.0000 | 0 | 0 | 17 | 100 | 0.00 | 0.0000 |
| EFR-15 | 1.0 | 0.0167 | 787 | 12 | 17 | 100 | 3.84 | 0.0640 |
| EFR-16 | 0.0 | 0.0000 | 0 | 0 | 17 | 100 | 0.00 | 0.0000 |
| EFR-17 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-18 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-19 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-20 | 4.0 | 0.0667 | 6,560 | 100 | 17 | 100 | 32.01 | 2.1343 |
| EFR-21 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-22 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-23 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-24 | 2.0 | 0.0333 | 0 | 100 | 17 | 100 | 0.00 | 0.0000 |
| EFR-25 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-26 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-27 | 1.0 | 0.0167 | 6,560 | 100 | 17 | 100 | 32.01 | 0.5336 |
| EFR-28 | 4.0 | 0.0667 | 6,560 | 100 | 17 | 100 | 32.01 | 2.1343 |
| Total EFR Time (hrs) | | 1.7500 | AVG ppm | 5993.45 | | | TOTAL (LBS) | 51.2121 |
| | | | | | | | TOTAL VAPOR PHASE VOLUME (GAL) | 6.5583 |

NOTE PPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Analyte LELs: DEHP @ 0.3% ; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

| | | | |
|---|---|---|---|
| $ppm_v$ = | Parts per Million by Volume | | |
| Flow = | Cubic feet per minute (CFM) | 350 | |
| Molar Mass (MM) = | Molecular Weight (lb/lb-mole) = | 292 | (2) |
| IGC = | Ideal Gas Constant (359 $ft^3$/lb-mole) = | 359 | |
| LEL = | Free Product Mixture = | 0.656 | (1) |
| SG = | Specific Gravity = | 0.9363 | (3) |

NOTE (2) Avg. Molar Mass = 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Individual Analyte Molar Mass: DEHP @ 390.34; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (ppm_v \times (60\ \text{min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359\ ft^3/\text{lb-mole}))$$

| Free Product & Groundwater Gauging (55-Gal Drum) | |
|---|---|
| Product Thickness (in) | 22.40 |
| Groundwater Thickness (in) | 2.40 |
| Conversion @ 1.65 gal/inch | 1.65 |
| Total Product Volume (gal) | 36.96 |
| Total Groundwater Volume (gal) | 3.96 |
| Ratio Groundwater to Free Product (gal/gal) | 0.11 |

| | Y (gal) |
|---|---|
| Total Recovered Groundwater Volume (gal) | 3.96 |
| Total Recovered Free Product Volume (gal) | 36.96 |
| Total Recovered Fluids Volume (gal) | 40.92 |
| TOTAL EFR PRODUCT VOLUME | 43.52 GAL |

| | |
|---|---|
| Date | 28-Jan-00 |
| Project # | 3868.18 |
| Subcontractor | CEMCO |
| Vac Head Utilized | NORTECH Corp. 551B |

CEMCO Field Technician Gary Pizzuti

RMT Project Manager Nick Clevett

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR # 29 18-Feb-00

| WELL ID | DEPTH TO PRODUCT (ft) | DEPTH TO WATER (ft) | PRODUCT TICKNESS (ft) |
|---|---|---|---|
| | | | |
| EFR-1 | 10.46 | 11.31 | 0.85 |
| EFR-2 | 11.03 | 12.07 | 1.04 |
| EFR-3 | 11.07 | 11.14 | 0.07 |
| EFR-4 | 12.31 | 12.79 | 0.48 |
| EFR-5 | 10.75 | 13.21 | 2.46 |
| EFR-6 | 10.4 | 11.17 | 0.77 |
| EFR-7 | 6.93 | 6.95 | 0.02 |
| EFR-8 | 6.38 | 6.44 | 0.06 |
| EFR-9 | 6.62 | 6.7 | 0.08 |
| EFR-10 | 7.28 | 10.83 | 3.55 |
| EFR-11 | 6.96 | 11.91 | 4.95 |
| EFR-12 | 5.91 | 6.4 | 0.49 |
| EFR-13 | 5.47 | 5.81 | 0.34 |
| EFR-14 | 5.28 | 5.28 | 0.00 |
| EFR-15 | 4.55 | 4.57 | 0.02 |
| EFR-16 | 4.85 | 4.85 | 0.00 |
| EFR-17 | 9.78 | 10.1 | 0.32 |
| EFR-18 | 9.81 | 9.86 | 0.05 |
| EFR-19 | 12.67 | 14.4 | 1.73 |
| EFR-20 | 10.83 | 13.41 | 2.58 |
| EFR-21 | 9.37 | 10.71 | 1.34 |
| EFR-22 | 12.62 | 13.2 | 0.58 |
| EFR-23 | 8.94 | 9.25 | 0.31 |
| EFR-24 | 12.12 | 12.19 | 0.07 |
| EFR-25 | 11.45 | 11.84 | 0.39 |
| EFR-26 | 13.55 | 14.65 | 1.10 |
| EFR-27 | 12.11 | 12.25 | 0.14 |
| EFR-28 | 9.85 | 10.85 | 1.00 |

Total Volume Of Free Standing Product (gal) 16.11

CEMCO FIELD TECHNICIAN: Gary Pizzuti

04/14/2000 3:38 PM
Prepared By: Nicholas J. Clevett
RMT Project Manager

# TABLE 3
## L. E. CARPENTER - WHARTON, NEW JERSEY

### MONTHLY EFR
### VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

**EFR # 29** **18-Feb-00**

| WELL ID | EXTRACTION TIME | | VAPOR PHASE CONCENTRATION | | 9 | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL TIME (min) | TOTAL TIME (hrs) | PPM | LEL (%) | VACUUM In Hg | CFM | lbs/hr | Total lbs |
| EFR-1 | 4.0 | 0.0667 | 6,560 | 100 | 17 | 100 | 32.01 | 2.1343 |
| EFR-2 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-3 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-4 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-5 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-6 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-7 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-8 | 2.0 | 0.0333 | 787 | 12 | 17 | 100 | 3.84 | 0.1281 |
| EFR-9 | 2.0 | 0.0333 | 2,558 | 39 | 17 | 100 | 12.49 | 0.4162 |
| EFR-10 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| EFR-11 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| EFR-12 | 4.0 | 0.0667 | 6,560 | 100 | 17 | 100 | 32.01 | 2.1343 |
| EFR-13 | 4.0 | 0.0667 | 1,706 | 26 | 17 | 100 | 8.32 | 0.5549 |
| EFR-14 | 0.0 | 0.0000 | 0 | 0 | 17 | 100 | 0.00 | 0.0000 |
| EFR-15 | 1.0 | 0.0167 | 394 | 6 | 17 | 100 | 1.92 | 0.0320 |
| EFR-16 | 0.0 | 0.0000 | 0 | 0 | 17 | 100 | 0.00 | 0.0000 |
| EFR-17 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-18 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-19 | 6.0 | 0.1000 | 6,560 | 100 | 17 | 100 | 32.01 | 3.2014 |
| EFR-20 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-21 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-22 | 4.0 | 0.0667 | 6,560 | 100 | 17 | 100 | 32.01 | 2.1343 |
| EFR-23 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-24 | 1.0 | 0.0167 | 0 | 100 | 17 | 100 | 0.00 | 0.0000 |
| EFR-25 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-26 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-27 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-28 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| Total EFR Time (hrs) | | 2.0667 | AVG ppm | 5895.05 | | | TOTAL (LBS) | 61.9583 |
| | | | | | | | TOTAL VAPOR PHASE VOLUME (GAL) | 7.9345 |

NOTE PPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Analyte LELs: DEHP @ 0.3% ; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

| | | | |
|---|---|---|---|
| $ppm_v$ = | Parts per Million by Volume | | |
| Flow = | Cubic feet per minute (CFM) | 350 | |
| Molar Mass (MM) = | Molecular Weight (lb/lb-mole) = | 292 | (2) |
| IGC = | Ideal Gas Constant (359 $ft^3$/lb-mole) = | 359 | |
| LEL = | Free Product Mixture = | 0.656 | (1) |
| SG = | Specific Gravity = | 0.9363 | (3) |

NOTE (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (ppm_v \times (60\ \text{min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359\ ft^3/\text{lb-mole}))$$

| Free Product & Groundwater Gauging (55-Gal Drum) | |
|---|---|
| Product Thickness (in) | 26.50 |
| Groundwater Thickness (in) | 1.50 |
| Conversion @ 1.65 gal/inch | 1.65 |
| Total Product Volume (gal) | 43.73 |
| Total Groundwater Volume (gal) | 2.48 |
| Ratio Groundwater to Free Product (gal/gal) | 0.06 |

| | Y (gal) |
|---|---|
| Total Recovered Groundwater Volume (gal) | 2.48 |
| Total Recovered Free Product Volume (gal) | 43.73 |
| Total Recovered Fluids Volume (gal) | 46.20 |
| TOTAL EFR PRODUCT VOLUME | 51.66 GAL |

| | |
|---|---|
| Date | 18-Feb-00 |
| Project # | 3868.18 |
| Subcontractor | CEMCO |
| Vac Head Utilized | NORTECH Corp. 551B |

CEMCO Field Technician Gary Pizzuti

RMT Project Manager Nick Clevett

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR # 30 24-Mar-00

| WELL ID | DEPTH TO PRODUCT (ft) | DEPTH TO WATER (ft) | PRODUCT TICKNESS (ft) |
|---|---|---|---|
| | | | |
| EFR-1 | 9.46 | 11.32 | 1.86 |
| EFR-2 | 10.01 | 12.26 | 2.25 |
| EFR-3 | 10.11 | 10.19 | 0.08 |
| EFR-4 | 11.49 | 11.6 | 0.11 |
| EFR-5 | 9.86 | 12.77 | 2.91 |
| EFR-6 | 9.54 | 9.83 | 0.29 |
| EFR-7 | 6.03 | 6.38 | 0.35 |
| EFR-8 | 5.54 | 5.62 | 0.08 |
| EFR-9 | 5.78 | 5.97 | 0.19 |
| EFR-10 | 6.44 | 9.94 | 3.50 |
| EFR-11 | 6.07 | 8.48 | 2.41 |
| EFR-12 | 5.1 | 5.56 | 0.46 |
| EFR-13 | 4.67 | 5.15 | 0.48 |
| EFR-14 | 4.5 | 4.5 | 0.00 |
| EFR-15 | 3.85 | 3.87 | 0.02 |
| EFR-16 | 4.64 | 4.64 | 0.00 |
| EFR-17 | 8.84 | 8.88 | 0.04 |
| EFR-18 | 8.88 | 9 | 0.12 |
| EFR-19 | 11.75 | 12 | 0.25 |
| EFR-20 | 9.94 | 10.58 | 0.64 |
| EFR-21 | 8.31 | 11.35 | 3.04 |
| EFR-22 | 11.8 | 11.89 | 0.09 |
| EFR-23 | 8.15 | 8.61 | 0.46 |
| EFR-24 | 11.23 | 11.81 | 0.58 |
| EFR-25 | 10.88 | 11.46 | 0.58 |
| EFR-26 | 12.62 | 13.95 | 1.33 |
| EFR-27 | 11.24 | 11.44 | 0.20 |
| EFR-28 | 8.82 | 11.12 | 2.30 |

Total Volume Of Free Standing Product (gal) 16.00

CEMCO FIELD TECHNICIAN: Gary Pizzuti

04/14/2000 3:39 PM
Prepared By: Nicholas J. Clevett
RMT Project Manager

# TABLE 3
## L. E. CARPENTER - WHARTON, NEW JERSEY

### MONTHLY EFR
### VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

**EFR # 30** **24-Mar-00**

| WELL ID | EXTRACTION TIME | | VAPOR PHASE CONCENTRATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL TIME (min) | TOTAL TIME (hrs) | PPM | LEL (%) | VACUUM in Hg | CFM | lbs/hr | Total lbs |
| EFR-1 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-2 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-3 | 1.0 | 0.0167 | 6,560 | 100 | 17 | 100 | 32.01 | 0.5336 |
| EFR-4 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-5 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-6 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-7 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-8 | 2.0 | 0.0333 | 1,115 | 17 | 17 | 100 | 5.44 | 0.1814 |
| EFR-9 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-10 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| EFR-11 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| EFR-12 | 3.0 | 0.0500 | 6,166 | 94 | 17 | 100 | 30.09 | 1.5047 |
| EFR-13 | 5.0 | 0.0833 | 2,362 | 36 | 17 | 100 | 11.53 | 0.9604 |
| EFR-14 | 0.0 | 0.0000 | 0 | 0 | 17 | 100 | 0.00 | 0.0000 |
| EFR-15 | 2.0 | 0.0333 | 525 | 8 | 17 | 100 | 2.56 | 0.0854 |
| EFR-16 | 0.0 | 0.0000 | 0 | 0 | 17 | 100 | 0.00 | 0.0000 |
| EFR-17 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-18 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-19 | 4.0 | 0.0667 | 6,560 | 100 | 17 | 100 | 32.01 | 2.1343 |
| EFR-20 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-21 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| EFR-22 | 3.0 | 0.0500 | 6,560 | 100 | 17 | 100 | 32.01 | 1.6007 |
| EFR-23 | 2.0 | 0.0333 | 6,560 | 100 | 17 | 100 | 32.01 | 1.0671 |
| EFR-24 | 2.0 | 0.0333 | 0 | 100 | 17 | 100 | 0.00 | 0.0000 |
| EFR-25 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-26 | 10.0 | 0.1667 | 6,560 | 100 | 17 | 100 | 32.01 | 5.3357 |
| EFR-27 | 5.0 | 0.0833 | 6,560 | 100 | 17 | 100 | 32.01 | 2.6679 |
| EFR-28 | 15.0 | 0.2500 | 6,560 | 100 | 17 | 100 | 32.01 | 8.0036 |
| Total EFR Time (hrs) | | 2.6333 | AVG ppm | 6121.67 | | | TOTAL (LBS) | 79.5661 |
| | | | | | | | TOTAL VAPOR PHASE VOLUME (GAL) | 10.1894 |

NOTE PPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Analyte LELs: DEHP @ 0.3% ; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

| | | | |
|---|---|---|---|
| ppm$_v$ = | Parts per Million by Volume | | |
| Flow = | Cubic feet per minute (CFM) | 350 | |
| Molar Mass (MM) = | Molecular Weight (lb/lb-mole) = | 292 | (2) |
| IGC = | Ideal Gas Constant (359 $ft^3$/lb-mole) = | 359 | |
| LEL = | Free Product Mixture = | 0.656 | (1) |
| SG = | Specific Gravity = | 0.9363 | (3) |

NOTE (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WP-B5 & WP-B4)
Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (\text{ppm}_v \times (60 \text{ min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359 \text{ ft}^3/\text{lb-mole}))$$

| Free Product & Groundwater Gauging (55-Gal Drum) | |
|---|---|
| Product Thickness (in) | 23.00 |
| Groundwater Thickness (in) | 9.00 |
| Conversion @ 1.65 gal/inch | 1.65 |
| Total Product Volume (gal) | 37.95 |
| Total Groundwater Volume (gal) | 14.85 |
| Ratio Groundwater to Free Product (gal/gal) | 0.39 |

| | Y (gal) |
|---|---|
| Total Recovered Groundwater Volume (gal) | 14.85 |
| Total Recovered Free Product Volume (gal) | 37.95 |
| Total Recovered Fluids Volume (gal) | 52.80 |
| TOTAL EFR PRODUCT VOLUME | 48.14 GAL |

| | |
|---|---|
| Date | 24-Mar-00 |
| Project # | 3868.18 |
| Subcontractor | CEMCO |
| Vac Head Utilized | NORTECH Corp. 551B |

CEMCO Field Technician Garv Pizzuti

RMT Project Manager Nick Clevett

# TABLE 4

## L.E. CARPENTER - WHARTON, NEW JERSEY

*REVISED QUARTERLY MONITORING PROTOCOL*

*Per NJDEP Letter Dated Aug 17, 1999*

| Monitoring Well | Bottom of Well (ft) | Analytical Parameters | Rational | Comments |
|---|---|---|---|---|
| MW-14I | 40.96', 2" | BTEX[1] DEHP[2] | Analytical results will identify the migration of the dissolved groundwater plume in the Intermediate Aquifer Zone downgradient of the site (Wharton Enterprise property) | Original Monitoring Well |
| MW-15S | 17.47', 4" | BTEX[1] DEHP[2] | Analytical results will identify if the dissolved groundwater plume is migrating through this portion of the shallow aquifer zone (on the rail spur right-of-way) | Original Monitoring Well |
| MW-15I | 38.34', 2" | BTEX[1] DEHP[2] | Analytical results will identify the migration of the dissolved groundwater plume through the Intermediate Aquifer Zone in the is area (on rail spur right-of-way) | Original Monitoring Well |
| MW-22R | 11', 2" | BTEX[1] DEHP[2] | Analytical results will identify the movement of the dissolved groundwater plume in the shallow aquifer zone downgradient of the site (Wharton Enterprise property). | Original Monitoring Well |
| MW-25R | 11', 2" | BTEX[1] DEHP[1] | Analytical results will identify the movement of the dissolved groundwater plume in the shallow aquifer zone downgradient of the site. East of MW-22R (Wharton Enterprise property). | DEHP sampling required quarterly as opposed to semi annually per Nov 23, 1998 NJDEP Letter. |
| MW-17S[3] | 13.4', 4" | BTEX DEHP | Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone. | Original Monitoring Well |
| MW-4 | 27', 2" | BTEX[1] DEHP[2] | Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone (south portion of subject site, bordering on the Rockaway River) | Original Monitoring Well |
| MW-11D(R) | 161' | BTEX[1] DEHP[2] | Analytical results from this well identify potential contamination of deep aquifer. This well lies in the center of the free product plume. | New well added to monitoring protocol as of May 21, 1999 NJDEP Letter (review of 1st quarter monitoring report). Well exhibited DEHP contamination potentially as the result of draw down during well installation. Well will be sampled for both monitoring program parameters (BTEX & DEHP) per NJDEP letter dated Aug 17, 1999 |
| MW-21 | 15.0' | BTEX[1] DEHP[1] | Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone. Additionally, data from this well is used to track the potential migratory trend from MW-25 (Eastern most portion of the subject site) | New well added to monitoring protocol as of Nov 23, 1998 NJDEP Letter. |

NOTES
(1) Sample Collected Every Quarter
(2) Sample Collected Bi-annually, 2nd and 4th quarter.
(3) Well sampled bi-annually, 2nd and 4th quarter.

QA/QC PROTOCOL
One (1) field blank will be collected for each parameter per each event (an additional 8 samples - 4 BTEX and 4 DEHP)
One (1) trip blank will be collected, alternating parameters per each event (an additional 4 samples - 2 BTEX and 2 DEHP)
One (1) duplicate sample will be collected from alternating wells and analyzed for alternating parameters (2 BTEX and 2 DEHP)

# TABLE 5
## L.E. CARPENTER - Wharton, New Jersey
## Quarterly Groundwater Monitoring Data

| MONITORING WELLS | SAMPLING DATE | | CHEMICAL ANALYSIS RESULTS | | | | | ABOVE NJGWQS ? | | | | | ABOVE ROD DISCHARGE CRITERIA ? | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | YEAR | QUARTER | Benzene ug/l | Ethylbenzene ug/l | Toluene ug/l | Total Xylenes ug/l | bis-2-Ethylhexylphthalate (DEHP) ug/l | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) |
| NJDEP GWQS | | | 1 | 700 | 1,000 | 40 | 30 | | | | | | | | | | |
| ROD DISCHARGE CRITERIA | | | 1 | 350 | 500 | 20 | 30 | | | | | | | | | | |
| MW-4 | 1995 | 1 | ND | 26 | ND | 32 | 25,000 | NO | NO | NO | NO | YES | NO | NO | NO | YES | YES |
| | | 2 | ND | 16 | ND | 13 | 46,000 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 3 | ND | 9.7 | ND | 8.7 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | 8.8 | ND | 11 | 17,000 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | 1996 | 1 | ND | 24 | ND | 47 | NS | NO | NO | NO | YES | -- | NO | NO | NO | YES | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | 6.8 | ND | 4.3 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | 2.3 | ND | ND | 11,000 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | 1997 | 1 | ND | 3.5 | ND | 1.8 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | 1.2 | ND | 4.2 | 120 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 3 | ND | 2.2 | ND | 12.6 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | 1.0 | ND | 1.4 | 710 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 3 | ND | 1.9 | ND | 1.2 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | 9.3 | ND | 3.3 | 650 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | 1999 | 1 | ND | 1.1 | ND | 2.5 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | 0.66 | ND | ND | 3,000 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 2 duplicate | ND | 0.43 | ND | ND | 4,400 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 3 | ND | 3.10 | ND | 2.9 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | 0.51 | ND | ND | 4,000 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | 2000 | 1 | ND | 0.54 | ND | 1.6 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| MW-11(DR) (2)(3) | 1999 | 1 | ND | ND | ND | ND | 64 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 1 duplicate | ND | ND | ND | ND | 20 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3(3) | NS | NS | NS | NS | 59 | -- | -- | -- | -- | YES | -- | -- | -- | -- | YES |
| | | 3 duplicate | NS | NS | NS | NS | 13 | -- | -- | -- | -- | NO | -- | -- | -- | -- | NO |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| MW-14I | 1995 | 1 | ND | 0.4 | ND | 1.2 | 140 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 2 | ND | ND | ND | ND | 1.6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 2.6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1996 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 2.7 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |

# TABLE 5
## L.E. CARPENTER - Wharton, New Jersey
## Quarterly Groundwater Monitoring Data

| MONITORING WELLS | SAMPLING DATE | | CHEMICAL ANALYSIS RESULTS | | | | | ABOVE NJGWQS ? | | | | | ABOVE ROD DISCHARGE CRITERIA ? | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | YEAR | QUARTER | Benzene ug/l | Ethylbenzene ug/l | Toluene ug/l | Total Xylenes ug/l | bis-2-Ethylhexylphthalate (DEHP) ug/l | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) |
| NJDEP GWQS | | | 1 | 700 | 1,000 | 40 | 30 | | | | | | | | | | |
| ROD DISCHARGE CRITERIA | | | 1 | 350 | 500 | 20 | 30 | | | | | | | | | | |
| | 1997 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | 1.6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | 1.2 | 22.1 | ND | 176 | NS | YES | NO | NO | YES | -- | YES | NO | NO | YES | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | 0.34 | ND | 2 | 24 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1999 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| MW-15S | 1995 | 1 | ND | ND | ND | ND | 2.4 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1996 | 1 | ND | 33 | ND | 83 | NS | NO | NO | NO | YES | -- | NO | NO | NO | YES | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | 0.21 | ND | 1.7 | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1997 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | 1.2 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | ND | 1.4 | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | 1.3 | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1999 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| MW-15I | 1995 | 1 | ND | ND | ND | ND | 250 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | | 2 | ND | ND | ND | ND | 7.2 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 2.8 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |

# TABLE 5
## L.E. CARPENTER - Wharton, New Jersey
## Quarterly Groundwater Monitoring Data

| MONITORING WELLS | SAMPLING DATE | | CHEMICAL ANALYSIS RESULTS | | | | | ABOVE NJGWQS ? | | | | | ABOVE ROD DISCHARGE CRITERIA ? | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | YEAR | QUARTER | Benzene ug/l | Ethylbenzene ug/l | Toluene ug/l | Total Xylenes ug/l | bis-2-Ethylhexylphthalate (DEHP) ug/l | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) |
| NJDEP GWQS | | | 1 | 700 | 1,000 | 40 | 30 | | | | | | | | | | |
| ROD DISCHARGE CRITERIA | | | 1 | 350 | 500 | 20 | 30 | | | | | | | | | | |
| | 1996 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 1.7 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 4 duplicate | ND | ND | ND | ND | 1.9 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1997 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | 2.2 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | 1.9 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 duplicate | ND | ND | ND | ND | 3.8 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | 0.53 | 11 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 4 duplicate | ND | 0.2 | ND | 0.8 | 9.8 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1999 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | 4.8 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| MW-17S (4) | 1995 | 1 | ND | 0.6 | 0.3 | 1.9 | 11 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | 0.2 | ND | 0.18 | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 4 | ND | ND | ND | 0.63 | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1996 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 4 | ND | ND | ND | ND | 1.5 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1997 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 3 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | ND | ND | ND | 1.2 | 6.1 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 4 | ND | ND | ND | ND | 6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1999 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

# TABLE 5
## L.E. CARPENTER - Wharton, New Jersey
## Quarterly Groundwater Monitoring Data

| MONITORING WELLS | SAMPLING DATE | | CHEMICAL ANALYSIS RESULTS | | | | | ABOVE NJGWQS ? | | | | | ABOVE ROD DISCHARGE CRITERIA ? | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | YEAR | QUARTER | Benzene ug/l | Ethylbenzene ug/l | Toluene ug/l | Total Xylenes ug/l | bis-2-Ethylhexylphthalate (DEHP) ug/l | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) |
| NJDEP GWQS | | | 1 | 700 | 1,000 | 40 | 30 | | | | | | | | | | |
| ROD DISCHARGE CRITERIA | | | 1 | 350 | 500 | 20 | 30 | | | | | | | | | | |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 4 | ND | ND | ND | ND | 40 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |
| | 2000 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-21 (1) | 1999 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | 6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 1 duplicate | NS | NS | NS | NS | ND | -- | -- | -- | -- | NO | -- | -- | -- | -- | NO |
| MW-22(R) | 1995 | 1 | ND | 57 | ND | 260 | 6,500 | NO | NO | NO | YES | YES | NO | NO | NO | YES | YES |
| | | 2 | ND | 311 | ND | 955 | 380 | NO | NO | NO | YES | YES | NO | NO | NO | YES | YES |
| | | 3 | ND | 171 | ND | 693 | NS | NO | NO | NO | YES | -- | NO | NO | NO | YES | -- |
| | | 4 | ND | 123 | ND | 494 | 320 | NO | NO | NO | YES | YES | NO | NO | NO | YES | YES |
| | 1996 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | 359 | ND | 1,320 | NS | NO | NO | NO | YES | -- | NO | YES | NO | YES | -- |
| | | 4 | ND | 320 | ND | 1,330 | ND | NO | NO | NO | YES | NO | NO | NO | NO | YES | NO |
| | 1997 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | ND | 5,730 | ND | 32,900 | 7,500 | NO | YES | NO | YES | YES | NO | YES | NO | YES | YES |
| | | 3 | ND | 11,400 | 348 | 66,000 | NS | NO | YES | NO | YES | -- | NO | YES | NO | YES | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | 4,070 | 348 | 20,600 | NS | NO | YES | NO | YES | -- | NO | YES | NO | YES | -- |
| | | 2 | ND | 2,260 | ND | 11,300 | 5,800 | NO | YES | NO | YES | YES | NO | YES | NO | YES | YES |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 3 duplicate | ND | 2,510 | ND | 11,000 | NS | NO | YES | NO | YES | -- | NO | YES | NO | YES | -- |
| | | 4 | ND | 1,650 | ND | 7,230 | 1,100 | NO | YES | NO | YES | YES | NO | YES | NO | YES | YES |
| | 1999 | 1 | ND | 18 | ND | 84 | NS | NO | NO | NO | YES | -- | NO | NO | NO | YES | -- |
| | | 2 | ND | 1,600 | ND | 7,600 | 670 | NO | YES | NO | YES | YES | NO | YES | NO | YES | YES |
| | | 3 | ND | 1,200 | 42 | 5,200 | NS | NO | YES | NO | YES | -- | NO | YES | NO | YES | -- |
| | | 4 | ND | 810 | ND | 3,300 | 1200 | NO | YES | NO | YES | YES | NO | YES | NO | YES | YES |
| | | 4 duplicate | ND | 840 | ND | 3,400 | 1600 | NO | YES | NO | YES | YES | NO | YES | NO | YES | YES |
| | 2000 | 1 | ND | 360 | ND | 1,400 | NS | NO | NO | NO | YES | -- | NO | YES | NO | YES | -- |
| MW-25(R) | 1995 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | ND | ND | ND | ND | 1.6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 68 | NO | NO | NO | NO | YES | NO | NO | NO | NO | YES |

# TABLE 5
## L.E. CARPENTER - Wharton, New Jersey
## Quarterly Groundwater Monitoring Data

| MONITORING WELLS | SAMPLING DATE | | CHEMICAL ANALYSIS RESULTS | | | | | ABOVE NJGWQS ? | | | | | ABOVE ROD DISCHARGE CRITERIA ? | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | YEAR | QUARTER | Benzene ug/l | Ethylbenzene ug/l | Toluene ug/l | Total Xylenes ug/l | bis-2-Ethylhexylphthalate (DEHP) ug/l | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) |
| NJDEP GWQS | | | 1 | 700 | 1,000 | 40 | 30 | | | | | | | | | | |
| ROD DISCHARGE CRITERIA | | | 1 | 350 | 500 | 20 | 30 | | | | | | | | | | |
| | 1996 | 1 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | 0.34 | ND | 2.2 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1997 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | 13.5 | ND | 89 | 63 | NO | NO | NO | YES | YES | NO | NO | NO | YES | YES |
| | | 3 | ND | 4.1 | ND | 30.7 | NS | NO | NO | NO | NO | -- | NO | NO | NO | YES | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | 0.33 | ND | 1.5 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 1 duplicate | ND | 0.39 | ND | 0.94 | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | 5.3 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 1.9 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1999 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | ND | ND | ND | 14 | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | 0.39 | ND | 1.4 | 9.6 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **Trip Blank** | 1995 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | 1996 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | 1997 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | NS | 1.3 | NO | NO | NO | -- | NO | NO | NO | NO | -- | NO |
| | 1999 | 1 | ND | ND | ND | NS | ND | NO | NO | NO | -- | NO | NO | NO | NO | -- | NO |
| | | 2 | ND | ND | ND | NS | ND | NO | NO | NO | -- | NO | NO | NO | NO | -- | NO |
| | | 3 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 4 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |

# TABLE 5
## L.E. CARPENTER - Wharton, New Jersey
## Quarterly Groundwater Monitoring Data

| MONITORING WELLS | SAMPLING DATE | | CHEMICAL ANALYSIS RESULTS | | | | | ABOVE NJGWQS ? | | | | | ABOVE ROD DISCHARGE CRITERIA ? | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | YEAR | QUARTER | Benzene ug/l | Ethylbenzene ug/l | Toluene ug/l | Total Xylenes ug/l | bis-2-Ethylhexylphthalate (DEHP) ug/l | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) | Benzene | Ethylbenzene | Toluene | Total Xylenes | bis-2-Ethylhexylphthalate (DEHP) |
| NJDEP GWQS | | | 1 | 700 | 1,000 | 40 | 30 | | | | | | | | | | |
| ROD DISCHARGE CRITERIA | | | 1 | 350 | 500 | 20 | 30 | | | | | | | | | | |
| | 2000 | 1 | NS | NS | NS | NS | ND | -- | -- | -- | -- | NO | -- | -- | -- | -- | NO |
| | | 1 | NS | NS | NS | NS | ND | -- | -- | -- | -- | NO | -- | -- | -- | -- | NO |
| **Field Blank** | 1995 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | ND | 0.73 | ND | ND | 1.3 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1996 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1997 | 1 | ND | ND | 0.2 | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | NS | NS | NS | NS | NS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 1998 | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 2 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 3 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 4 | ND | ND | ND | ND | 1.3 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 1999 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 2 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 3 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 4 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | 2000 | 1 | ND | ND | ND | ND | ND | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| | | 1 | ND | ND | ND | ND | NS | NO | NO | NO | NO | -- | NO | NO | NO | NO | -- |
| | | 1 | NS | NS | NS | NS | 3.2 | -- | -- | -- | -- | NO | -- | -- | -- | -- | NO |

LEGEND
mg/L = micrograms per liter
NJGWQS = New Jersey Ground water Quality Standards
ROD: Record of Decision
NA = Not Applicable
NS = Not Sampled
ND: No Detection
dupliate = Duplicate sample

Values in BOLD BLUE FONT are above BOTH the NJDEP GWQS and the ROD Discharge Criteria
-- Used when comparison against known standards does not apply as the well was not sampled (NS) for a specific analyte

Sampling Notes:
(1) MW-21 Quarterly sampling required for both DEHP and BTEX as of NJDEP letter dated Nov 23, 1998
(2) MW-11(B) & MW-11(DR) sampled for both DEHP and BTEX per NJDEP letter dated Nov 23, 1998 (one time sample round - baseline concentration)
(3) MW-11D required to be sampled quarterly per NJDEP letter dated August 17, 1999. Third quarter 1999 sampling was performed prior to receiving the NJDEP letter. Subsequently, the well was only sampled for DEHP. Starting 4th quarter 1999, MW-11D will be sampled for both DEHP and BTEX.
(4) Well sampled Biannually - 2nd and 4th Quarter Only as of the beginning of 1998

# Table 6
# Water Level Elevations - 1st QUARTER 2000
# L.E. Carpenter, Wharton, New Jersey

| WELL LOCATION | WELL INSTALLATION INFORMATION | | | | | | | | | | GEODETIC LOCATION | | ELEVATIONS (FT. MSL) | | | QUARTERLY MEASUREMENT INFORMATION | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANAGING CONSULTANT | INSTALLATION DATE | TOTAL WELL DEPTH (FT) | WELL DIAMETER (IN) | SCREEN MATERIAL | SLOT SIZE (IN) | TOP OF SCREEN (FT) | BOTTOM OF SCREEN (FT) | SCREENED INTERVAL (FT) | AQUIFER SYSTEM | LATITUDE | LONGITUDE | GROUND | OUTER CASING | INNER WELL | MEAS. DATE | PRODUCT DEPTH | WATER DEPTH | PRODUCT ELEVATION | WATER ELEVATION | PRODUCT THICKNESS (ft) | CORRECTED WATER LEVEL ELEVATIONS [2] |
| CW-1 | ROY F. WESTON | | | | | | | | | | 40° 54' 14.2" | 74° 34' 34.7" | 630.83 | 634.35 | | 17-Jan-00 | 7.74 | 7.86 | - | 622.97 | 0.12 | 623.08 |
| CW-3 | ROY F. WESTON | | | | | | | | | | 40° 54' 13.8" | 74° 34' 32.5" | 628.63 | 633.30 | | 17-Jan-00 | - | 7.88 | - | 620.75 | - | - |
| GEI-1I | ROY F. WESTON | | | | | | 29.28 | 39.28 | 10.00 | I | 40° 54' 19.3" | 74° 34' 35.3" | 628.44 | 630.93 | 630.78 | 17-Jan-00 | - | 5.19 | - | 625.59 | - | - |
| GEI-2 I | ROY F. WESTON | | | | | | 29.22 | 39.22 | 10.00 | I | 40° 54' 17.4" | 74° 34' 43.1" | 635.92 | 638.35 | 638.20 | 17-Jan-00 | - | 11.55 | - | 626.65 | - | - |
| GEI-2 S | ROY F. WESTON | | | | | | | | | S | 40° 54' 17.3" | 74° 34' 43.0" | 635.46 | 637.87 | 637.67 | 17-Jan-00 | - | 11.36 | - | 626.31 | - | - |
| GEI-3 I | ROY F. WESTON | | | | | | 27.71 | 37.71 | 10.00 | I | 40° 54' 14.8" | 74° 34' 43.7" | 637.56 | 639.99 | 639.85 | 17-Jan-00 | - | 13.78 | - | 626.07 | - | - |
| MW-1R | ROY F. WESTON | February 3, 1995 | 22.50 | 4.00 | STEEL | 0.01 | 7.00 | 22.50 | 15.50 | S | 40° 54' 13.8" | 74° 34' 38.8" | 635.79 | 635.78 | 635.47 | 17-Jan-00 | 10.02 | 11.11 | 625.45 | 624.36 | 1.09 | 625.38 |
| MW-2R | ROY F. WESTON | January 30, 1995 | 13.00 | | | | | | | S | 40° 54' 14.4" | 74° 34' 33.1" | 629.06 | 632.28 | 632.14 | 17-Jan-00 | - | 7.08 | - | 625.06 | - | - |
| MW-3 | WEHRAN ENG. | May 15, 1980 | 27.00 | 2.00 | STEEL | 0.01 | 1.50 | 27.00 | 25.50 | S | 40° 54' 14.0" | 74° 34' 32.6" | 628.64 | 632.27 | 632.56 | 17-Jan-00 | 7.34 | 7.41 | 625.22 | 625.15 | 0.07 | 625.22 |
| MW-4 [3] | WEHRAN ENG. | May 20, 1980 | 27.00 | 2.00 | STEEL | 0.01 | 1.50 | 27.00 | 25.50 | S | 40° 54' 12.4" | 74° 34' 34.4" | 628.86 | 632.31 | 632.50 | 17-Jan-00 | - | 7.01 | - | 625.49 | - | - |
| MW-6R | ROY F. WESTON | January 25, 1995 | 10.98 | 2.00 | PVC | 0.02 | 0.98 | 10.98 | 10.00 | S | 40° 54' 13.8" | 74° 34' 34.1" | 629.82 | 632.64 | 632.42 | 17-Jan-00 | - | 6.46 | - | 625.96 | - | - |
| MW-8 | ROY F. WESTON | | | | | | | | | | 40° 54' 12.7" | 74° 34' 33.3" | 627.99 | 630.56 | 628.79 | 17-Jan-00 | - | 2.92 | - | 625.87 | - | - |
| MW-9 | ROY F. WESTON | | | | | | | | | | 40° 54' 12.5" | 74° 34' 35.1" | 629.21 | 631.69 | 630.18 | 17-Jan-00 | - | 4.52 | - | 625.66 | - | - |
| MW-11D (R) [3] | RMT, INC. | February 20, 1998 | 157.00 | 2.00 | STEEL | 0.01 | 147.00 | 157.00 | 10.00 | D | 40° 54' 14.2" | 74° 34' 34.9" | 630.66 | 633.35 | 633.09 | 17-Jan-00 | - | 5.01 | - | 628.08 | - | - |
| MW-11I (R) | RMT, INC. | February 20, 1998 | 52.00 | 2.00 | STEEL | 0.01 | 42.00 | 52.00 | 10.00 | I | 40° 54' 14.1" | 74° 34' 34.9" | 630.89 | 633.67 | 633.33 | 17-Jan-00 | - | 8.11 | - | 625.22 | - | - |
| MW-11 S | ROY F. WESTON | | | | | | | | | S | 40° 54' 14.0" | 74° 34' 34.9" | 631.23 | 633.26 | 632.96 | 17-Jan-00 | 7.91 | 12.95 | 625.05 | 620.01 | 5.04 | 624.73 |
| MW-12R | ROY F. WESTON | May 7, 1996 | 14.45 | 4.00 | PVC | 0.02 | 2.45 | 14.45 | 12.00 | S | 40° 54' 12.3" | 74° 34' 35.9" | 632.17 | 634.86 | 634.33 | 17-Jan-00 | - | 8.13 | - | 626.20 | - | - |
| MW-13 I | ROY F. WESTON | July 31, 1989 | 44.00 | 2.00 | STEEL | 0.02 | | | | I | 40° 54' 15.1" | 74° 34' 31.9" | 628.36 | 630.88 | 630.66 | 17-Jan-00 | - | 5.62 | - | 625.04 | - | - |
| MW-13R | ROY F. WESTON | January 27, 1995 | 17.00 | | | | | | | S | 40° 54' 15.0" | 74° 34' 31.8" | 628.26 | 630.96 | 630.59 | 17-Jan-00 | - | 5.63 | - | 624.96 | - | - |
| MW-13 S | ROY F. WESTON | | | | | | | | | S | 40° 54' 15.3" | 74° 34' 31.7" | 628.34 | 631.40 | 631.23 | 17-Jan-00 | - | 5.76 | - | 625.47 | - | - |
| MW-14 I [3] | ROY F. WESTON | | 43.32 | 2.00 | STEEL | 0.02 | | | | I | 40° 54' 14.2" | 74° 34' 31.2" | 625.93 | 628.32 | 628.23 | 17-Jan-00 | - | 3.31 | - | 624.92 | - | - |
| MW-14 S | ROY F. WESTON | | | | | | | | | S | 40° 54' 14.3" | 74° 34' 31.0" | 625.78 | 628.63 | 628.41 | 17-Jan-00 | - | 3.82 | - | 624.59 | - | - |
| MW-15 I [3] | ROY F. WESTON | July 17, 1989 | 39.55 | 2.00 | STEEL | 0.02 | | | | I | 40° 54' 15.0" | 74° 34' 37.9" | 634.74 | 636.88 | 636.66 | 17-Jan-00 | - | 11.21 | - | 625.45 | - | - |
| MW-15 S [3] | ROY F. WESTON | | 19.22 | 4.00 | STEEL | | | | | S | 40° 54' 15.0" | 74° 34' 38.0" | 634.83 | 637.03 | 636.77 | 17-Jan-00 | - | 11.32 | - | 625.45 | - | - |
| MW-16 I | ROY F. WESTON | | | 2.00 | STEEL | 0.02 | | | | I | 40° 54' 16.0" | 74° 34' 40.3" | 632.43 | 635.08 | 634.96 | 17-Jan-00 | - | 9.06 | - | 625.90 | - | - |
| MW-16 S | ROY F. WESTON | | | | | | | | | S | 40° 54' 15.9" | 74° 34' 40.4" | 632.57 | 634.69 | 634.47 | 17-Jan-00 | - | 8.54 | - | 625.93 | - | - |
| MW-17 S [3] | ROY F. WESTON | | 14.99 | 4.00 | | | | | | S | 40° 54' 12.8" | 74° 34' 39.7" | 632.95 | 634.92 | 634.79 | 17-Jan-00 | - | 9.16 | - | 625.63 | - | - |
| MW-18 I | ROY F. WESTON | | | 2.00 | STEEL | 0.02 | | | | I | 40° 54' 18.4" | 74° 34' 35.2" | 628.35 | 631.19 | 631.04 | 17-Jan-00 | - | 5.50 | - | 625.54 | - | - |
| MW-18 S | ROY F. WESTON | | | | | | | | | S | 40° 54' 18.4" | 74° 34' 35.0" | 628.22 | 631.48 | 631.26 | 17-Jan-00 | - | 5.81 | - | 625.45 | - | - |
| MW-19 | ROY F. WESTON | May 20, 1991 | 17.00 | 4.00 | STEEL | 0.02 | 7.00 | 17.00 | 10.00 | S | 40° 54' 17.1" | 74° 34' 43.7" | 636.72 | 639.24 | 638.88 | 17-Jan-00 | - | 12.51 | - | 626.37 | - | - |
| MW-19-1 | RMT, INC. | February 17, 1998 | 17.00 | 4.00 | STEEL | 0.01 | 6.00 | 15.50 | 9.50 | S | 40° 54' 17.0" | 74° 34' 44.0" | 636.50 | 639.26 | 638.86 | 17-Jan-00 | - | 12.38 | - | 626.48 | - | - |
| MW-19-2 | RMT, INC. | February 17, 1998 | 16.00 | 4.00 | STEEL | 0.01 | 6.00 | 16.00 | 10.00 | S | 40° 54' 17.2" | 74° 34' 44.0" | 637.05 | 639.36 | 638.76 | 17-Jan-00 | - | 12.44 | - | 626.32 | - | - |
| MW-19-3 | RMT, INC. | February 18, 1998 | 16.00 | 4.00 | STEEL | 0.01 | 6.00 | 15.50 | 9.50 | S | 40° 54' 17.1" | 74° 34' 44.5" | 637.54 | 640.04 | 639.65 | 17-Jan-00 | - | 13.17 | - | 626.48 | - | - |
| MW-19-4 | RMT, INC. | February 18, 1998 | 16.00 | 4.00 | STEEL | 0.01 | 6.00 | 15.50 | 9.50 | S | 40° 54' 16.7" | 74° 34' 44.0" | 636.27 | 638.44 | 637.74 | 17-Jan-00 | - | 11.09 | - | 626.65 | - | - |
| MW-19-5 | RMT, INC. | February 18, 1998 | 16.00 | 2.00 | PVC | 0.01 | 6.00 | 15.50 | 9.50 | S | 40° 54' 17.3" | 74° 34' 43.5" | 636.39 | 639.07 | 638.74 | 17-Jan-00 | - | 12.44 | - | 626.30 | - | - |
| MW-19-6 [3] | RMT, INC. | October 28, 1999 | 20.00 | 2.00 | STEEL | 0.02 | 10.00 | 20.00 | 10.00 | S | 40° 54' 17.5" | 74° 34' 43.8" | 636.78 | 636.78 | 636.44 | 17-Jan-00 | - | 10.12 | - | 626.32 | - | - |
| MW-19-7 [3] | RMT, INC. | October 29, 1999 | 20.00 | 2.00 | STEEL | 0.02 | 10.00 | 20.00 | 10.00 | S | 40° 54' 17.6" | 74° 34' 43.1" | 636.00 | 636.00 | 635.60 | 17-Jan-00 | - | 9.38 | - | 626.22 | - | - |
| MW-19-8 [3] | RMT, INC. | October 28, 1999 | 20.00 | 2.00 | STEEL | 0.02 | 11.00 | 20.00 | 9.00 | S | 40° 54' 17.8" | 74° 34' 43.2" | 636.44 | 636.44 | 635.96 | 17-Jan-00 | - | 9.74 | - | 626.22 | - | - |
| MW-20 | ROY F. WESTON | May 21, 1991 | 14.00 | 4.00 | STEEL | 0.02 | 4.00 | 14.00 | 10.00 | S | 40° 54' 17.2" | 74° 34' 41.2" | 634.82 | 637.03 | 636.77 | 17-Jan-00 | - | 10.08 | - | 626.69 | - | - |
| MW-21 [3] | ROY F. WESTON | May 22, 1991 | 15.00 | 4.00 | STEEL | 0.02 | 5.00 | 15.00 | 10.00 | S | 40° 54' 14.1" | 74° 34' 28.2" | 625.17 | 629.09 | 628.80 | 17-Jan-00 | - | 4.21 | - | 624.59 | - | - |
| MW-22 (R) [3] | ROY F. WESTON | July 22, 1997 | 7.50 | 2.00 | STEEL | | | | | | 40° 54' 13.7" | 74° 34' 31.2" | 625.94 | 628.31 | 628.13 | 17-Jan-00 | - | 3.27 | - | 624.86 | - | - |
| MW-23 | ROY F. WESTON | January 6, 1992 | | 2.00 | STEEL | 0.02 | 1.00 | 6.00 | 5.00 | S | 40° 54' 15.8" | 74° 34' 30.5" | 628.70 | 630.95 | 630.64 | 17-Jan-00 | - | NAS | - | NAS | - | - |
| MW-25 (R) [3] | ROY F. WESTON | July 22, 1997 | 10.00 | 2.00 | STEEL | | | | | | 40° 54' 13.7" | 74° 34' 29.8" | 625.25 | 627.37 | 627.22 | 17-Jan-00 | - | 2.10 | - | 625.12 | - | - |
| MW-26 | ROY F. WESTON | May 8, 1996 | 11.80 | 4.00 | PVC | 0.02 | 1.80 | 11.80 | 10.00 | S | 40° 54' 15.7" | 74° 34' 34.3" | 630.84 | 634.39 | 633.26 | 17-Jan-00 | - | 8.06 | - | 625.20 | - | - |
| RW-1 | ROY F. WESTON | June 17, 1991 | 30.00 | 8.00 | STEEL | 0.02 | 5.00 | 30.00 | 25.00 | S | 40° 54' 13.6" | 74° 34' 39.1" | 635.19 | 637.81 | 637.38 | 17-Jan-00 | 11.94 | 12.31 | 625.44 | 625.07 | 0.37 | 625.42 |
| RW-2 | ROY F. WESTON | June 22, 1991 | 30.00 | 8.00 | STEEL | 0.02 | 3.00 | 30.00 | 27.00 | S | 40° 54' 14.2" | 74° 34' 32.8" | 629.80 | 631.78 | 631.68 | 17-Jan-00 | - | 6.66 | - | 625.02 | - | - |
| RW-3 | ROY F. WESTON | June 21, 1991 | 28.00 | 8.00 | STEEL | 0.02 | 3.00 | 28.00 | 25.00 | S | 40° 54' 14.9" | 74° 34' 33.9" | 629.89 | 632.15 | 631.99 | 17-Jan-00 | - | 6.76 | - | 625.23 | - | - |
| SG-D1 [1] | RMT, INC. | November-98 | NA | | | | | | | | | | 626.41 | | | 17-Jan-00 | - | 1.32 | - | 624.40 | - | - |
| SG-D2 [1] | RMT, INC. | November-98 | NA | | | | | | | | | | 626.86 | | | 17-Jan-00 | - | 0.92 | - | 624.45 | - | - |
| SG-D3 [1] | RMT, INC. | November-98 | NA | | | | | | | | | | 626.43 | | | 17-Jan-00 | - | 1.42 | - | 624.52 | - | - |
| SG-R1 [1] | RMT, INC. | November-98 | NA | | | | | | | | | | 641.52 | | | 17-Jan-00 | - | 1.68 | - | 639.87 | - | - |
| SG-R2 [1] | RMT, INC. | November-98 | NA | | | | | | | | | | 628.84 | | | 17-Jan-00 | - | 1.38 | - | 626.89 | - | - |
| SG-R3 [1] | RMT, INC. | November-98 | NA | | | | | | | | | | 627.38 | | | 17-Jan-00 | - | REM | - | - | - | - |



Prepared By: Nicholas J. Clevett
RMT, Inc. Project Manager

# Table 6
## Water Level Elevations - 1st QUARTER 2000
## L.E. Carpenter, Wharton, New Jersey

| WELL LOCATION | WELL INSTALLATION INFORMATION | | | | | | | | | | GEODETIC LOCATION | | ELEVATIONS (FT. MSL) | | | QUARTERLY MEASUREMENT INFORMATION | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MANAGING CONSULTANT | INSTALLATION DATE | TOTAL WELL DEPTH (FT) | WELL DIAMETER (IN) | SCREEN MATERIAL | SLOT SIZE (IN) | TOP OF SCREEN (FT) | BOTTOM OF SCREEN (FT) | SCREENED INTERVAL (FT) | AQUIFER SYSTEM | LATITUDE | LONGITUDE | GROUND | OUTER CASING | INNER WELL | MEAS. DATE | PRODUCT DEPTH | WATER DEPTH | PRODUCT ELEVATION | WATER ELEVATION | PRODUCT THICKNESS (ft) | CORRECTED WATER LEVEL ELEVATIONS (2) |
| WP-A1 | ROY F. WESTON | | | | | | | | 0.00 | | 40° 54' 13.9" | 74° 34' 38.8" | 636.29 | 636.32 | 635.81 | 17-Jan-00 | 10.15 | 11.26 | 625.66 | 624.55 | 1.11 | 625.59 |
| WP-A2 | ROY F. WESTON | | | | | | | | 0.00 | | 40° 54' 14.2" | 74° 34' 39.0" | 637.31 | 639.62 | 639.19 | 17-Jan-00 | BENT WELL CASING - NOT EVALUATED | | | | | |
| WP-A3 | ROY F. WESTON | | | | | | | | 0.00 | | 40° 54' 13.7" | 74° 34' 40.3" | 635.97 | 635.97 | 635.56 | 17-Jan-00 | - | 10.00 | - | 625.56 | - | - |
| WP-A4 | ROY F. WESTON | | | | | | | | 0.00 | | 40° 54' 14.0" | 74° 34' 38.5" | 635.63 | 635.66 | 635.10 | 17-Jan-00 | 11.25 | 13.22 | 623.85 | 621.88 | 1.97 | 623.72 |
| WP-A5 | ROY F. WESTON | | | | | | | | 0.00 | | 40° 54' 14.4" | 74° 34' 38.1" | 635.70 | | 637.85 | 17-Jan-00 | - | 12.39 | - | 625.46 | - | - |
| WP-A6 | ROY F. WESTON | February 4, 1993 | 13.00 | 2.00 | PVC | | 3.00 | 13.00 | 10.00 | S | 40° 54' 13.6" | 74° 34' 38.0" | 634.95 | | 637.28 | 17-Jan-00 | 11.81 | 14.95 | 625.47 | 622.33 | 3.14 | 625.27 |
| WP-A7 | ROY F. WESTON | February 4, 1993 | 11.00 | 2.00 | PVC | | 1.00 | 11.00 | 10.00 | S | 40° 54' 13.7" | 74° 34' 36.6" | 632.94 | | 634.88 | 17-Jan-00 | 9.69 | 10.35 | 625.19 | 624.53 | 0.66 | 625.15 |
| WP-A8 | ROY F. WESTON | | | | | | | | | | 40° 54' 14.3" | 74° 34' 36.6" | 634.70 | | 637.56 | 17-Jan-00 | 12.20 | 14.33 | 625.36 | 623.23 | 2.13 | 625.22 |
| WP-A9 | ROY F. WESTON | February 4, 1999 | 16.00 | 2.00 | PVC | | 6.00 | 16.00 | 10.00 | S | 40° 54' 13.6" | 74° 34' 37.4" | 637.22 | | 639.32 | 17-Jan-00 | 13.75 | 15.68 | 625.57 | 623.64 | 1.93 | 625.45 |
| WP-B1 | ROY F. WESTON | January 6, 1999 | 11.00 | 2.00 | PVC | | 1.00 | 11.00 | 10.00 | S | 40° 54' 13.9" | 74° 34' 35.7" | 631.85 | | 633.65 | 17-Jan-00 | - | 6.77 | - | 626.88 | - | - |
| WP-B2 | ROY F. WESTON | January 7, 1993 | 11.00 | 2.00 | PVC | | 1.00 | 11.00 | 10.00 | S | 40° 54' 14.5" | 74° 34' 35.1" | 630.48 | 632.58 | 632.25 | 17-Jan-00 | - | 7.04 | - | 625.21 | - | - |
| WP-B3 | ROY F. WESTON | January 7, 1993 | 11.00 | 2.00 | PVC | | 1.00 | 11.00 | 10.00 | S | 40° 54' 14.2" | 74° 34' 35.4" | 631.71 | | 633.33 | 17-Jan-00 | - | 7.31 | - | 626.02 | - | - |
| WP-B4 | ROY F. WESTON | | | | | | | | | | 40° 54' 14.5" | 74° 34' 34.5" | 629.93 | | 632.56 | 17-Jan-00 | 7.14 | 8.91 | 625.42 | 623.65 | 1.77 | 625.31 |
| WP-B5 | ROY F. WESTON | January 8, 1993 | 11.00 | 2.00 | PVC | | 1.00 | 11.00 | 10.00 | S | 40° 54' 14.7" | 74° 34' 34.2" | 630.03 | | 632.11 | 17-Jan-00 | - | 5.98 | - | 626.13 | - | - |
| WP-B6 | ROY F. WESTON | | | | | | | | | | 40° 54' 13.4" | 74° 34' 33.7" | 629.72 | | 631.86 | 17-Jan-00 | - | 6.46 | - | 625.40 | - | - |
| WP-B7 | ROY F. WESTON | | | | | | | | | | 40° 54' 13.5" | 74° 34' 32.3" | 627.62 | | 629.49 | 17-Jan-00 | - | 4.59 | - | 624.90 | - | - |
| WP-B10 | ROY F. WESTON | | | | | | | | | | 40° 54' 14.9" | 74° 34' 34.7" | 630.42 | 633.12 | 632.74 | 17-Jan-00 | - | 7.54 | - | 625.20 | - | - |
| WP-C1 | ROY F. WESTON | | | | | | | | | | 40° 54' 12.6" | 74° 34' 36.1" | 632.81 | | 633.51 | 17-Jan-00 | - | 7.77 | - | 625.74 | - | - |
| WP-C2 | ROY F. WESTON | | | | | | | | | | 40° 54' 12.5" | 74° 34' 35.6" | 633.02 | | 634.46 | 17-Jan-00 | - | 8.06 | - | 626.40 | - | - |
| WP-C3 | ROY F. WESTON | | | | | | | | | | 40° 54' 12.4" | 74° 34' 36.4" | 631.00 | | 632.64 | 17-Jan-00 | - | 6.21 | - | 626.43 | - | - |
| WP-C4 | ROY F. WESTON | | | | | | | | | | 40° 54' 12.8" | 74° 34' 35.9" | 632.44 | | 633.27 | 17-Jan-00 | - | 7.79 | - | 625.48 | - | - |

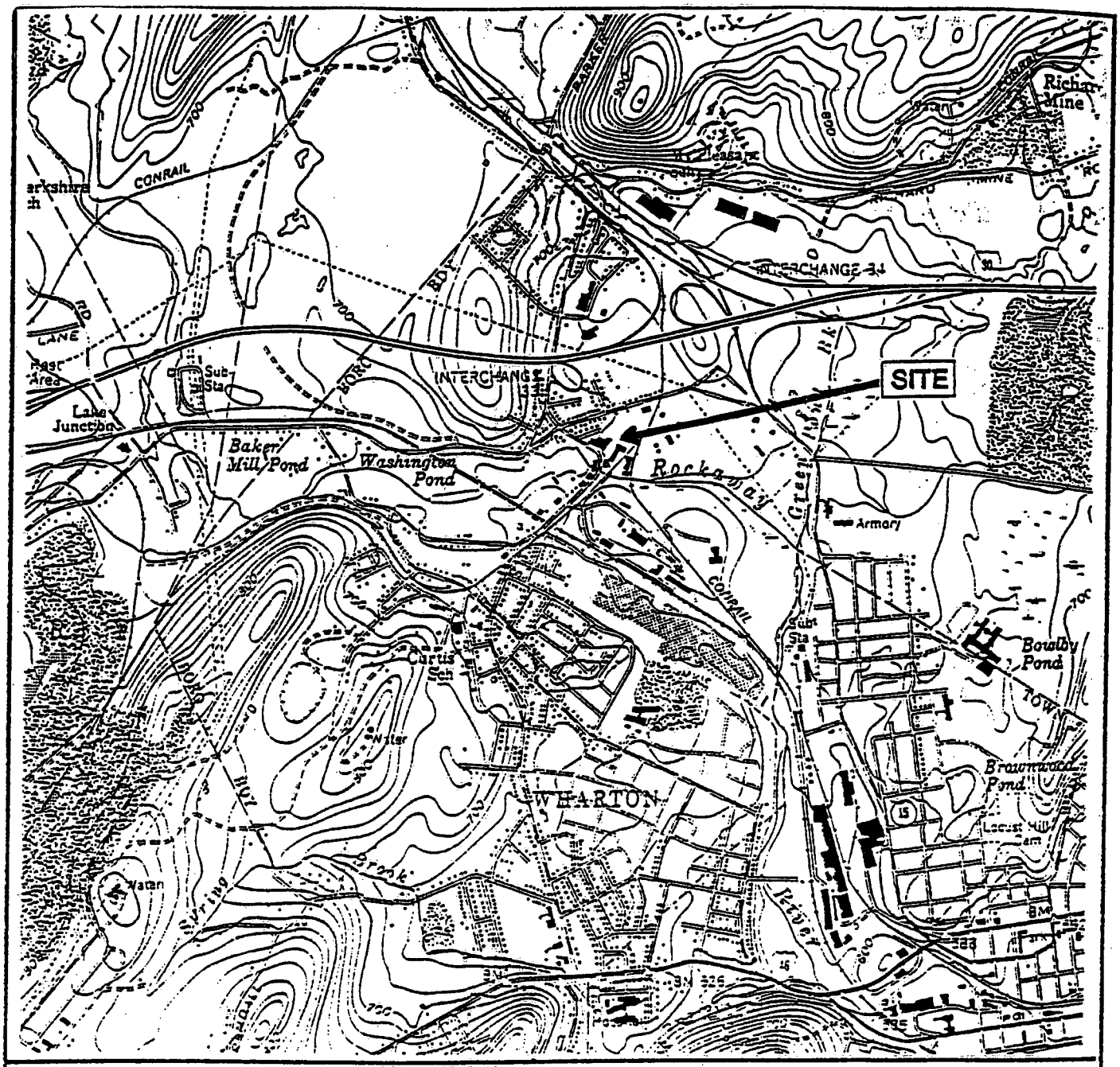
(1) Elevation measured at the top of a 3.33 ft. Staff gauge. Water depth based on a visual observation of the water level on the Staff gauge.
(2) Corrected water level elevations utilize an average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WP-A8)
(3) Wells included in the quarterly sampling program and new wells installed due to RI efforts. Water depth recorded before purging

All WP series wells finished elevation is 2 feet above nominal grade. Total depth of well only accounts for subsurface structure
Blank Cells for Roy F. Weston wells indicates that no information was available for review by RMT, Inc.

-: Value of 0.00. Free Product no encountered at well
S: Shallow Aquifer System
I: Intermediate Aquifer System
D: Deep Aquifer System
NAS: Not Assessable
REM: Removed



Prepared By: Nicholas J. Clevett
RMT, Inc. Project Manager



**QUADRANGLE LOCATION**

0 2000 4000

SCALE: 1"=2000'

N

## SITE LOCATOR MAP

LE CARPENTER
WHARTON, NEW JERSEY

SOURCE: BASE MAP FROM DOVER, NEW JERSEY, 7.5 MINUTE USGS QUADRANGLE, DATED 1981.

RMT INC.

| | |
|---|---|
| DWN. BY: | DFL |
| APPROVED BY: | |
| DATE: | APRIL 1998 |
| PROJ.# | 3868.02 |
| FILE # | 38680208 |

FIGURE 1

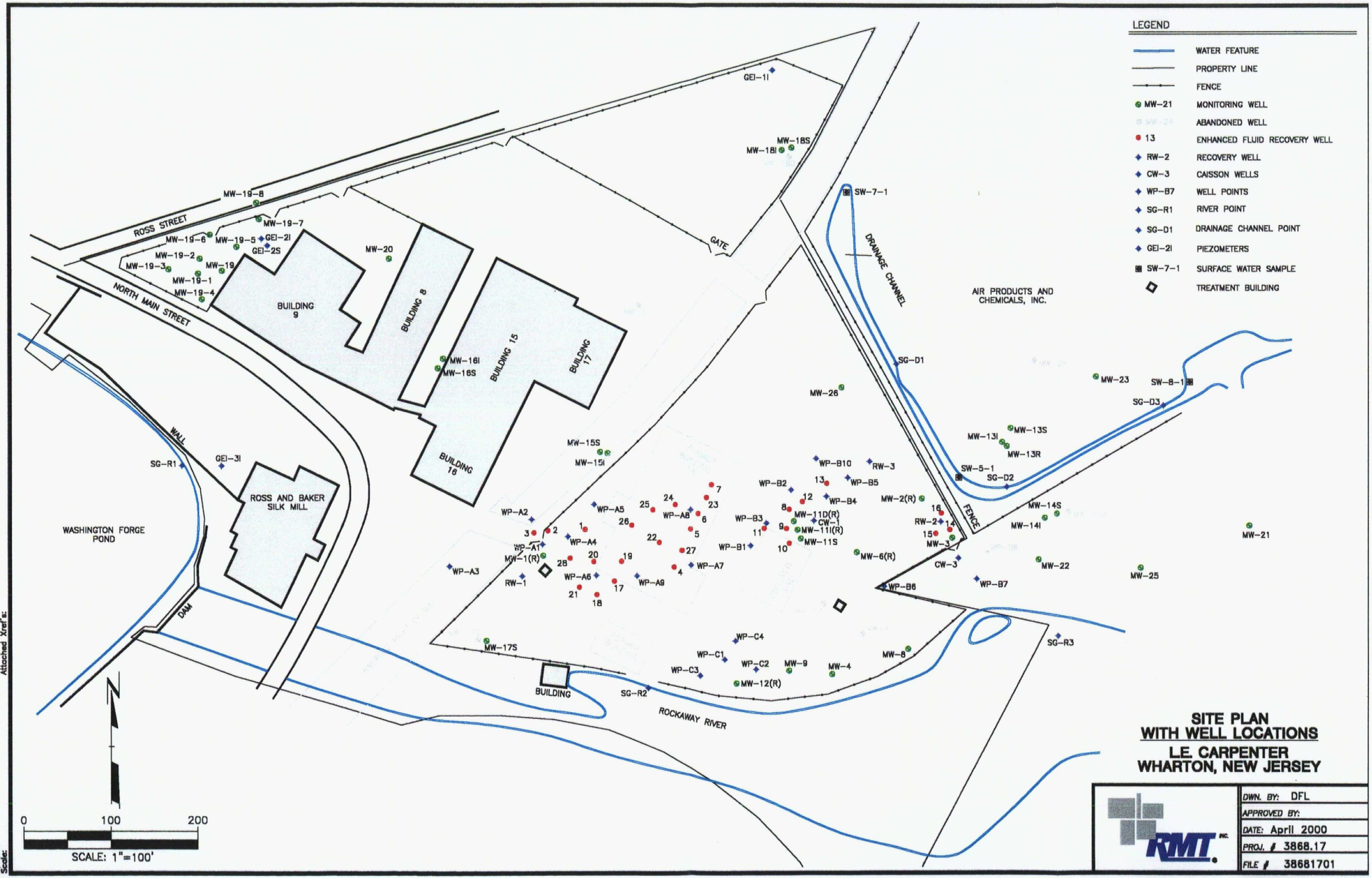
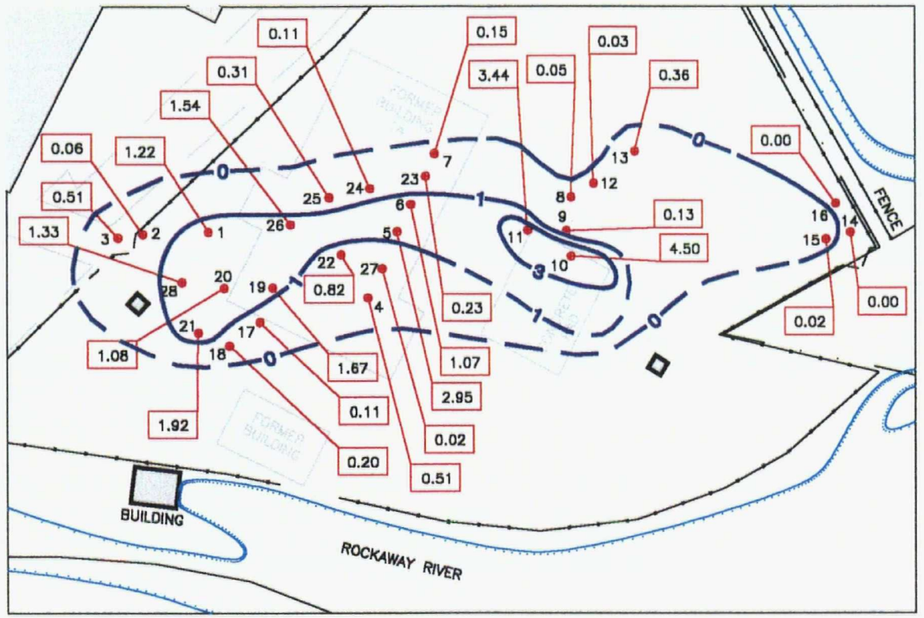

LEGEND
WATER FEATURE
PROPERTY LINE
FENCE
MW-21 MONITORING WELL
MW-24 ABANDONED WELL
13 ENHANCED FLUID RECOVERY WELL
RW-2 RECOVERY WELL
CW-3 CAISSON WELLS
WP-B7 WELL POINTS
SG-R1 RIVER POINT
SG-D1 DRAINAGE CHANNEL POINT
GEI-2I PIEZOMETERS
SW-7-1 SURFACE WATER SAMPLE
TREATMENT BUILDING
ROSS STREET
NORTH MAIN STREET
WALL
DAM
WASHINGTON FORGE POND
ROSS AND BAKER SILK MILL
BUILDING 9
BUILDING 8
BUILDING 15
BUILDING 17
BUILDING 16
BUILDING
GATE
DRAINAGE CHANNEL
AIR PRODUCTS AND CHEMICALS, INC.
FENCE
ROCKAWAY RIVER
MW-19-8
MW-19-7
MW-19-6
MW-19-5
GEI-2I
GEI-2S
MW-19-2
MW-19-3
MW-19
MW-19-1
MW-19-4
MW-20
GEI-1I
MW-18S
MW-18I
SW-7-1
SG-D1
MW-16I
MW-16S
MW-26
MW-23
SW-8-1
SG-D3
MW-13I
MW-13S
MW-13R
SW-5-1
SG-D2
MW-15S
MW-15I
SG-R1
GEI-3I
WP-B10
RW-3
WP-B2
WP-B5
WP-B4
MW-2(R)
MW-14S
MW-14I
WP-A2
WP-A5
WP-A8
MW-11D(R)
CW-1
MW-11I(R)
MW-11S
WP-B3
WP-B1
WP-A1
WP-A4
MW-1(R)
WP-A3
RW-1
WP-A6
WP-A9
WP-A7
MW-6(R)
RW-2
MW-3
CW-3
WP-B6
WP-B7
MW-22
MW-25
MW-21
MW-17S
WP-C4
WP-C1
WP-C2
WP-C3
MW-12(R)
MW-9
MW-4
MW-8
SG-R3
SG-R2
0
100
200
SCALE: 1"=100'
SITE PLAN
WITH WELL LOCATIONS
L.E. CARPENTER
WHARTON, NEW JERSEY
RMT INC.
DWN. BY: DFL
APPROVED BY:
DATE: April 2000
PROJ. # 3868.17
FILE # 38681701
PLOT DATA
Drawing Name:
Operator Name:
Scale:
Dwg Size:
Plot Date:
Plot Time:
Attached Xref's:

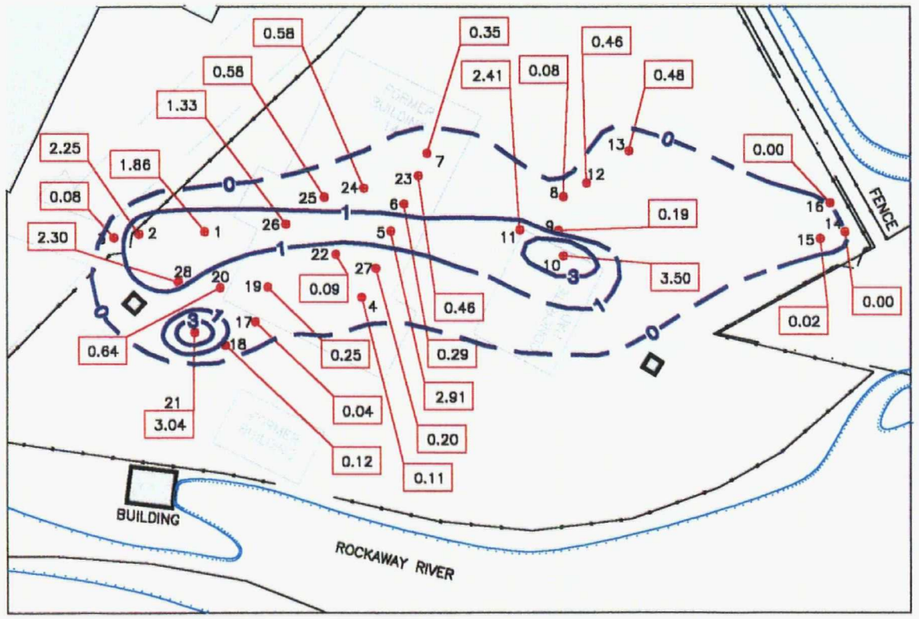
FIGURE 2

## LEGEND

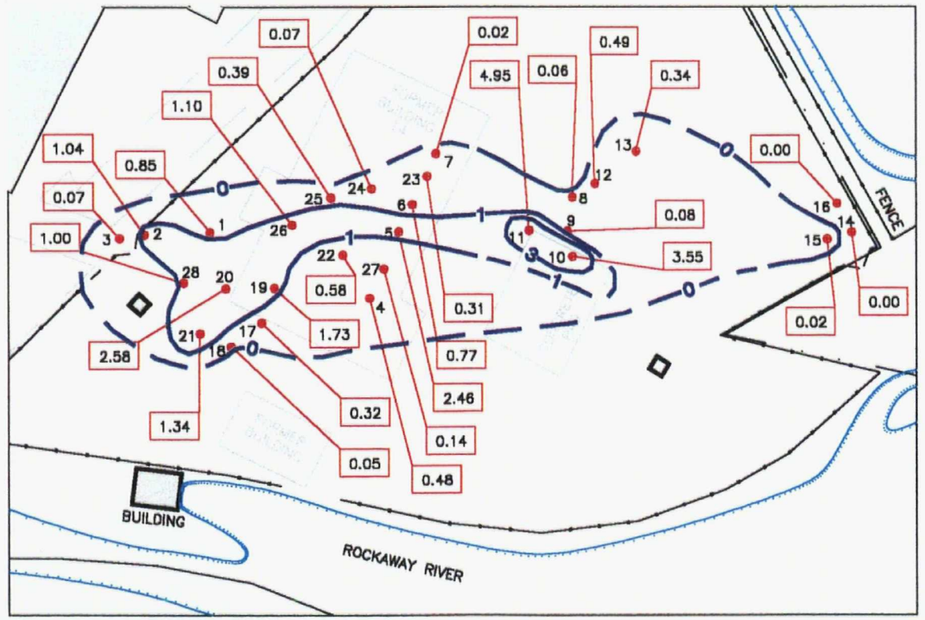
- WATER FEATURE
- PROPERTY LINE
- FENCE
- 13 ENHANCED FLUID RECOVERY WELL (EFR)
- 1.22 PRODUCT THICKNESS MEASURED IN WELL (FT)
- TREATMENT BUILDING
- 1 PRODUCT THICKNESS CONTOURS (FT)




PRODUCT THICKNESS (FT), JANUARY 28, 2000




PRODUCT THICKNESS (FT), MARCH 24, 2000




PRODUCT THICKNESS (FT), FEBRUARY 18, 2000

N

0 100 200

SCALE: 1"=100'

**MONTHLY EFR WELL GAUGING**
**1st QUARTER 2000**
**LE CARPENTER**
**WHARTON, NEW JERSEY**

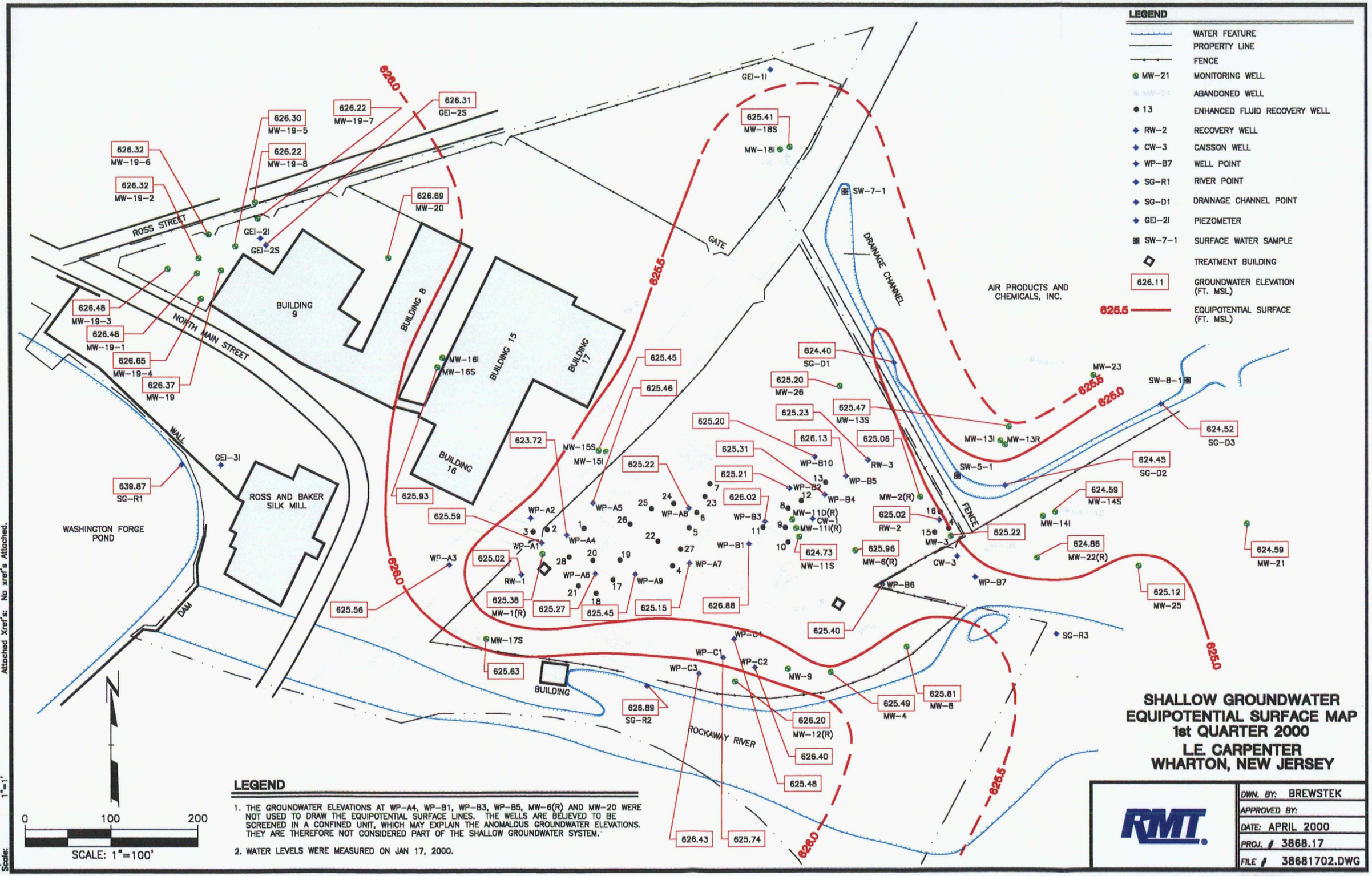
RMT

| | |
|---|---|
| DWN. BY: | BREWSTEK |
| APPROVED BY: | |
| DATE: | APRIL 2000 |
| PROJ. # | 3868.17 |
| FILE # | 38681703.DWG |

**FIGURE 3**

Attached Xref's:

$$PLOTTER$$ 223228 Bytes
$$SCALE$$ Thursday, April 13, 2000
$$ROT$$ 2:59:06 PM
$$SYTIME$$ No xref's Attached.
$$DWG$$ J:\03868\17\38681702.dwg
$$USER$$ BREWSTEK
$$PRF$$ 1"=1'
$$PTABLE$$




## LEGEND

1. THE GROUNDWATER ELEVATIONS AT WP-A4, WP-B1, WP-B3, WP-B5, MW-6(R) AND MW-20 WERE NOT USED TO DRAW THE EQUIPOTENTIAL SURFACE LINES. THE WELLS ARE BELIEVED TO BE SCREENED IN A CONFINED UNIT, WHICH MAY EXPLAIN THE ANOMALOUS GROUNDWATER ELEVATIONS. THEY ARE THEREFORE NOT CONSIDERED PART OF THE SHALLOW GROUNDWATER SYSTEM.
2. WATER LEVELS WERE MEASURED ON JAN 17, 2000.

# SHALLOW GROUNDWATER EQUIPOTENTIAL SURFACE MAP
## 1st QUARTER 2000
## L.E. CARPENTER
## WHARTON, NEW JERSEY

RMT

| | |
|---|---|
| DWN. BY: | BREWSTEK |
| APPROVED BY: | |
| DATE: | APRIL 2000 |
| PROJ. # | 3868.17 |
| FILE # | 38681702.DWG |

FIGURE 4

PLOT DATA
Drawing Name: J:\03868\17\38681701.dwg
Operator Name: BREWSTEK
Scale: 1"=1'
Dwg Size: 238419 Bytes
Plot Date: Thursday, April 13, 2000
Plot Time: 2:49.5454 PM
Attached Xref's: No xref's Attached.

# Appendix A
# Report Certification

# CERTIFICATION

**In accordance with N.J.A.C. 7:26C-1.2(b):**

"I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement, which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personably liable for the penalties."

**In accordance with N.J.A.C. 7:26C-1.2(c):**

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement, which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Mr. Cristopher R. Anderson

**PRINTED NAME**

Director, Environmental Affairs

**TITLE**

L.E. Carpenter Company

**COMPANY**

Cristopher Anderson

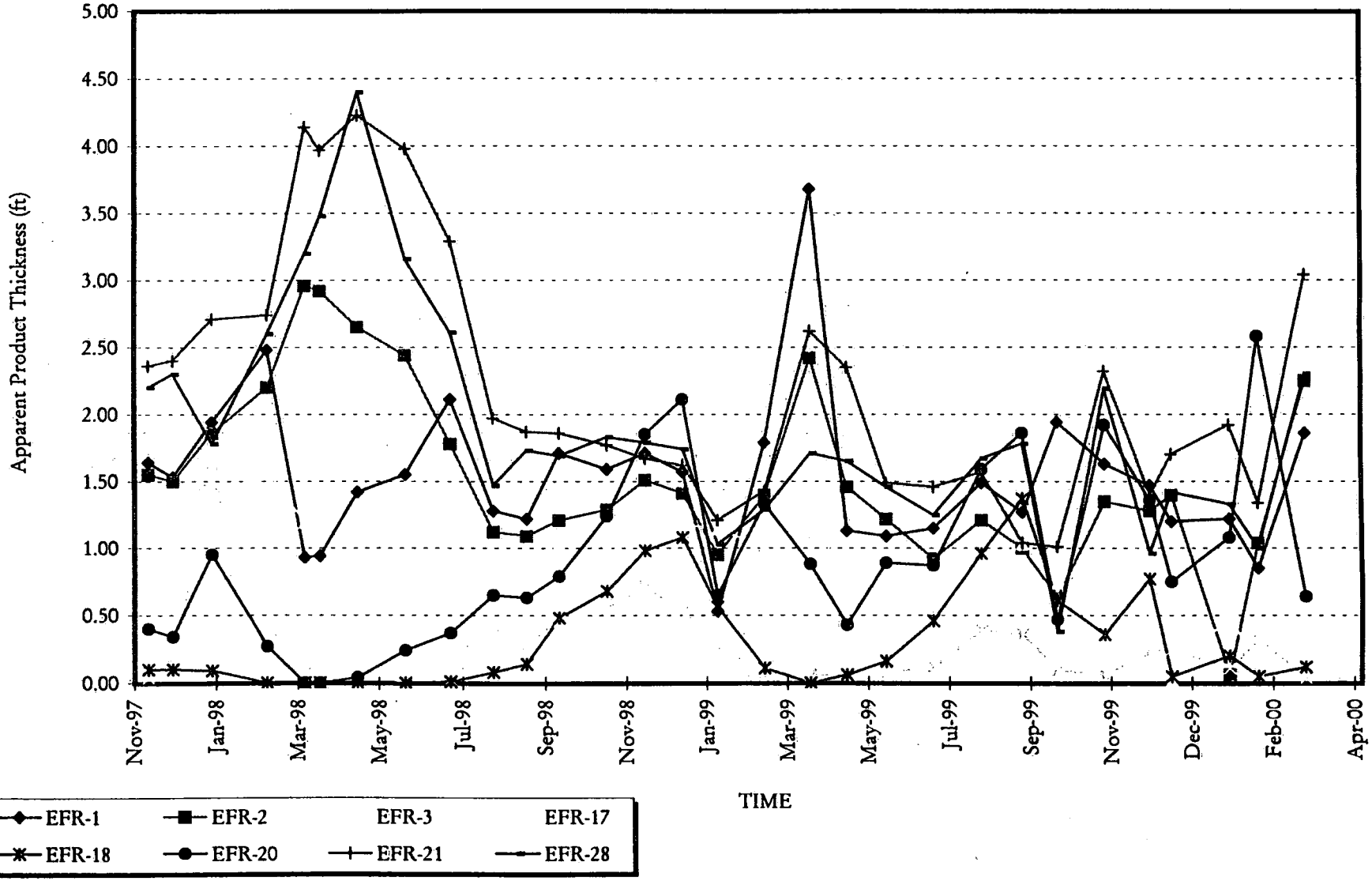
**SIGNATURE**

4/19/00

**DATE**

# Appendix B
# Apparent Free Product Volume Trend Charts

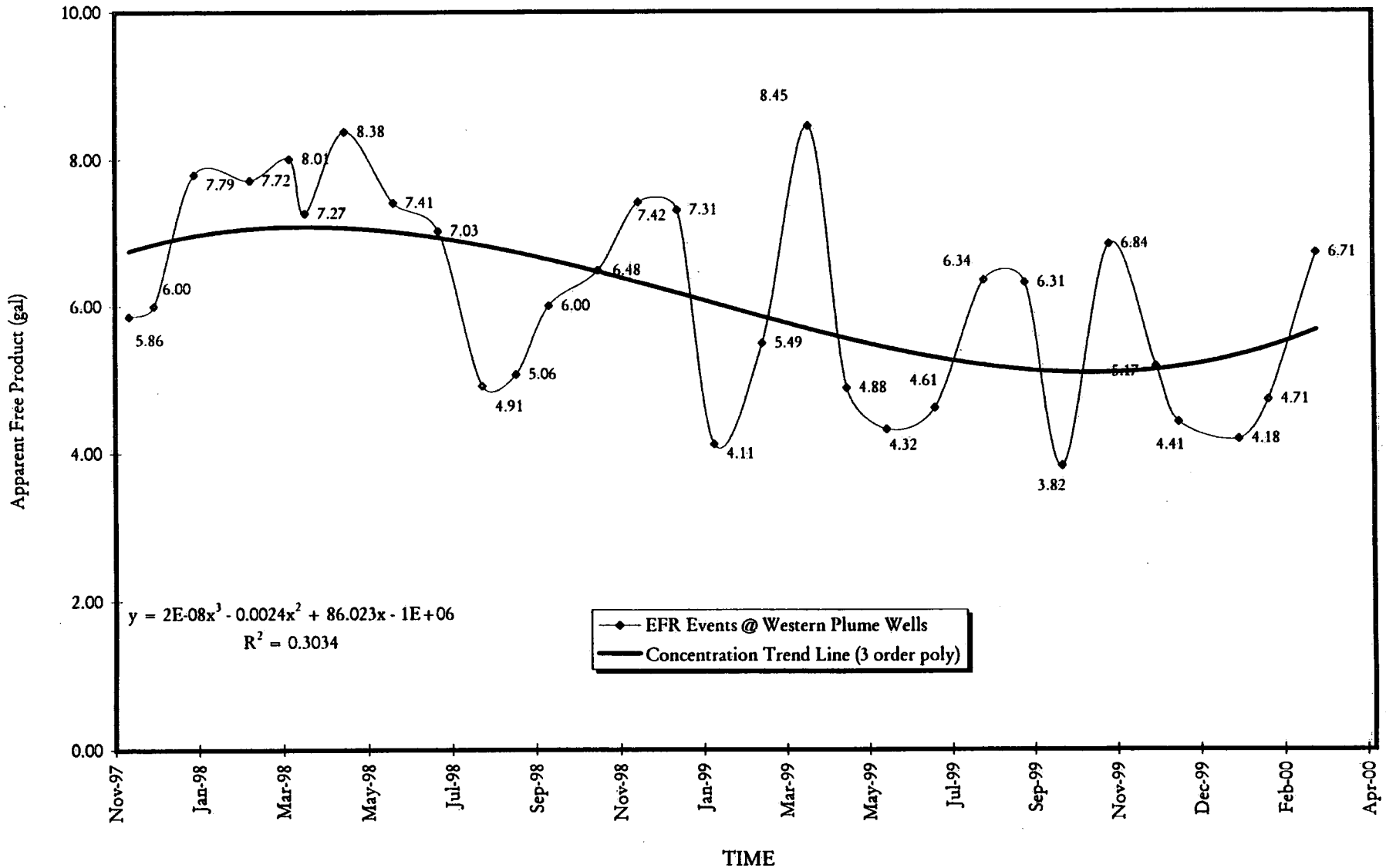
Apparent Free Product Thickness vs. Time
Western Portion of Plume
L.E. Carpenter, Wharton, New Jersey
Through 1st Quarter 2000




T000386817-001.DOC/Chart (Western)

04/13/20004:58 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

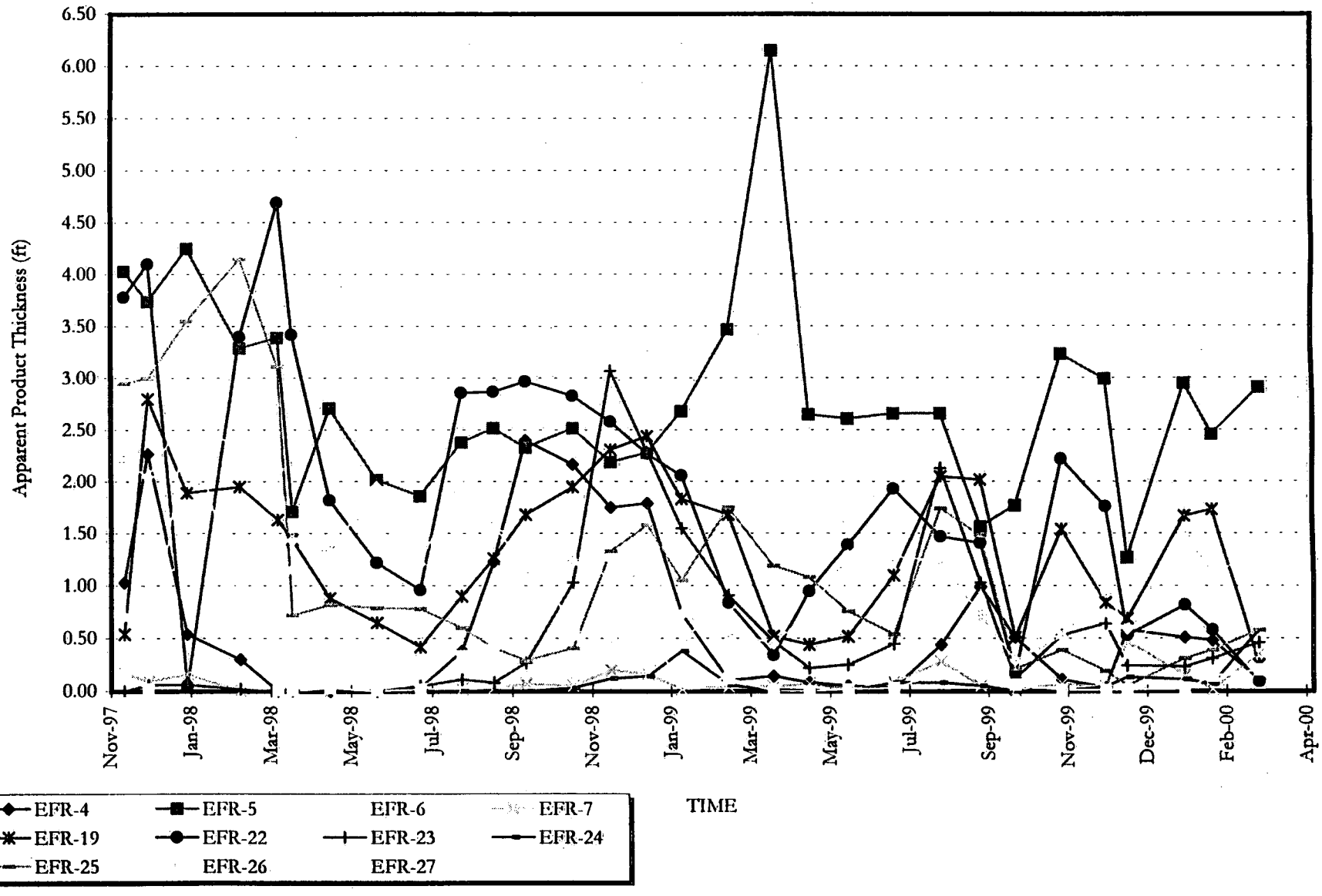
Apparent Free Product Volume vs. Time
Western Portion of Plume
L.E. Carpenter, Wharton, New Jersey
Through 1st Quarter 2000




04/13/20004:53 PM
Prepared By:Nicholas J. Clevett
RMT, Inc. - Project Manager

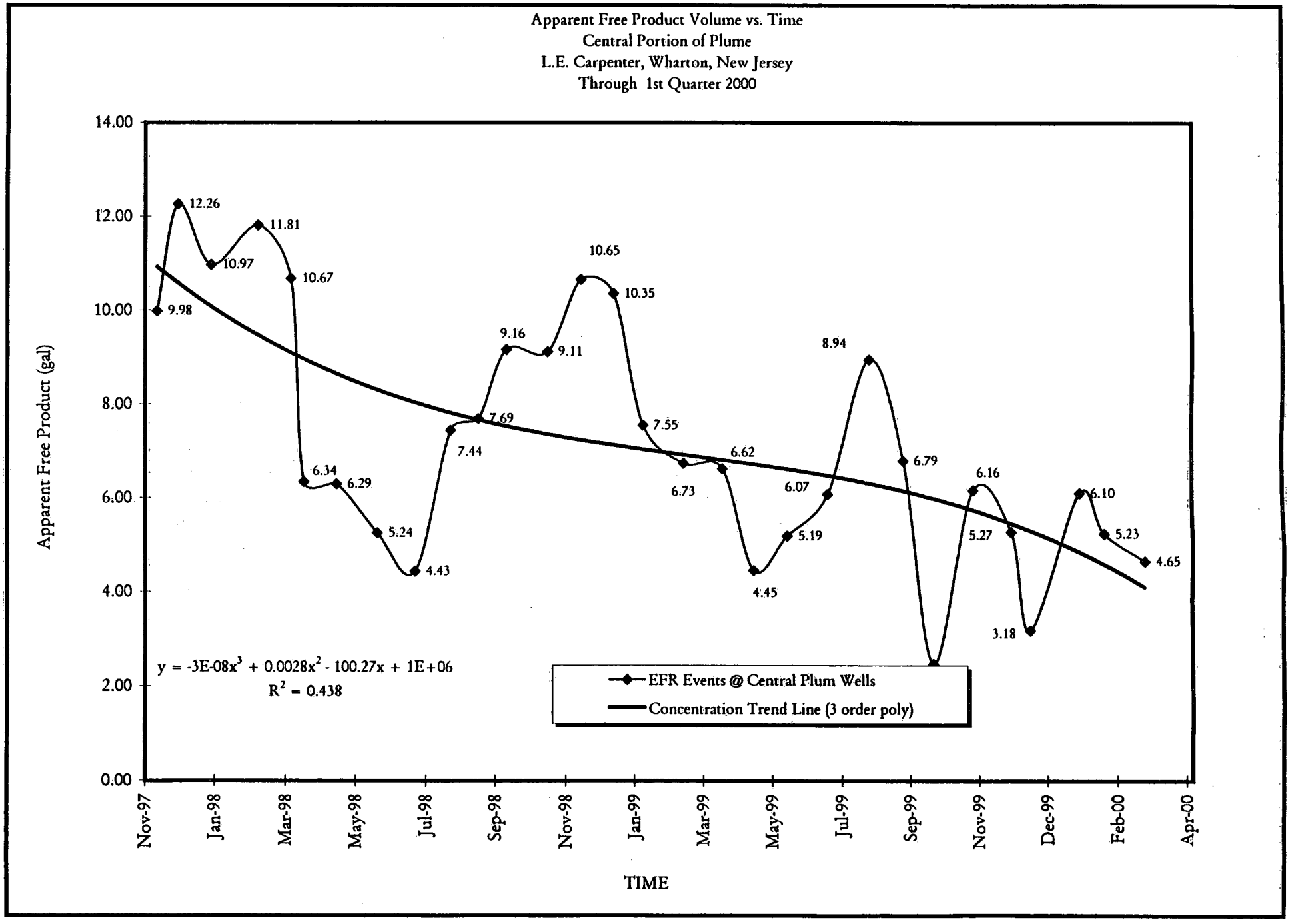
T000386817-001.DOC/stand_prod_western trend

Apparent Free Product Thickness vs. Time
Central Portion of Plume
L.E. Carpenter, Wharton, New Jersey
Through 1st Quarter 2000




T000386817-001.DOCChart (Central)

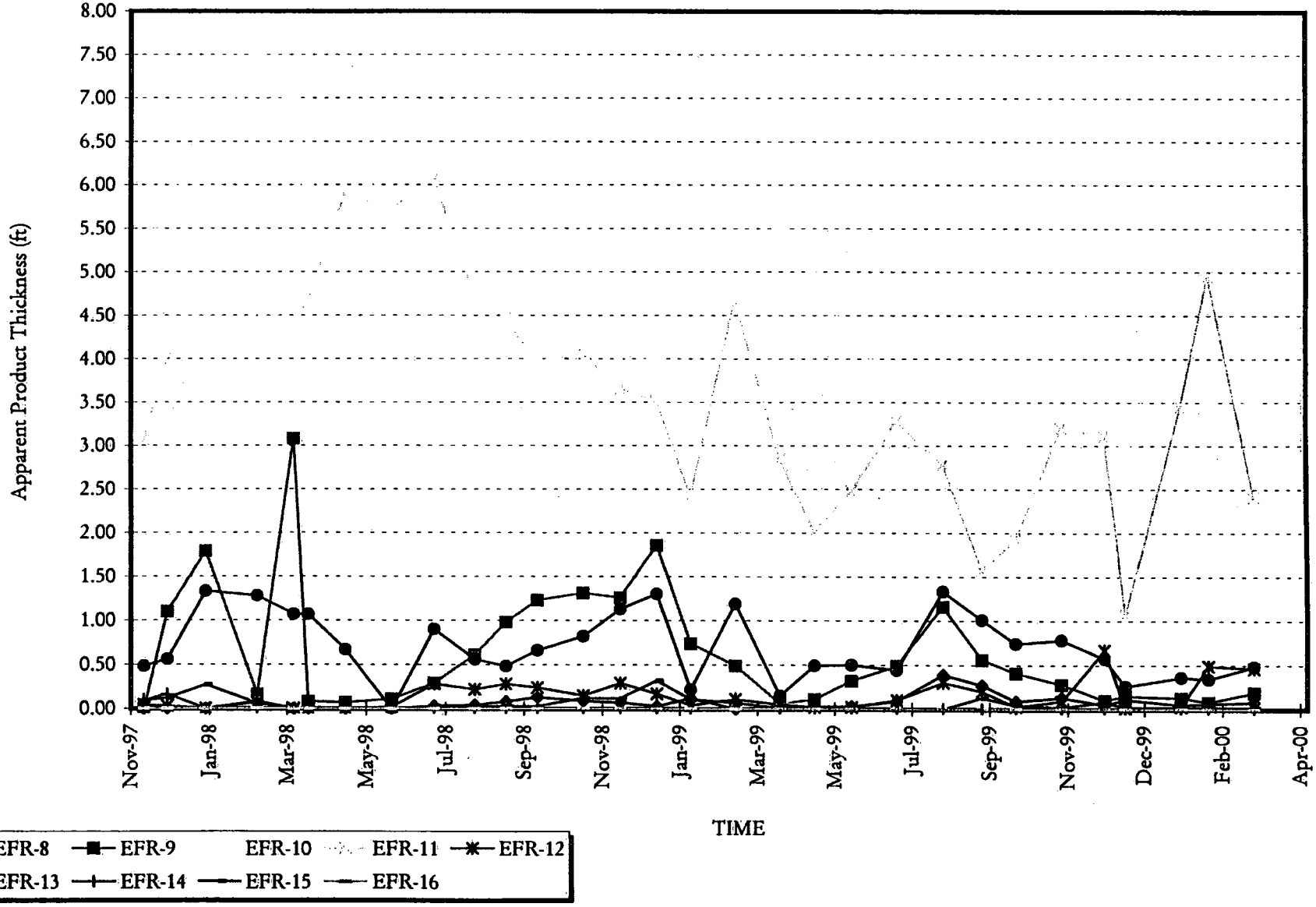
04/17/20001:01 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager




T000386817-001.DOC/stand_prod_central trend

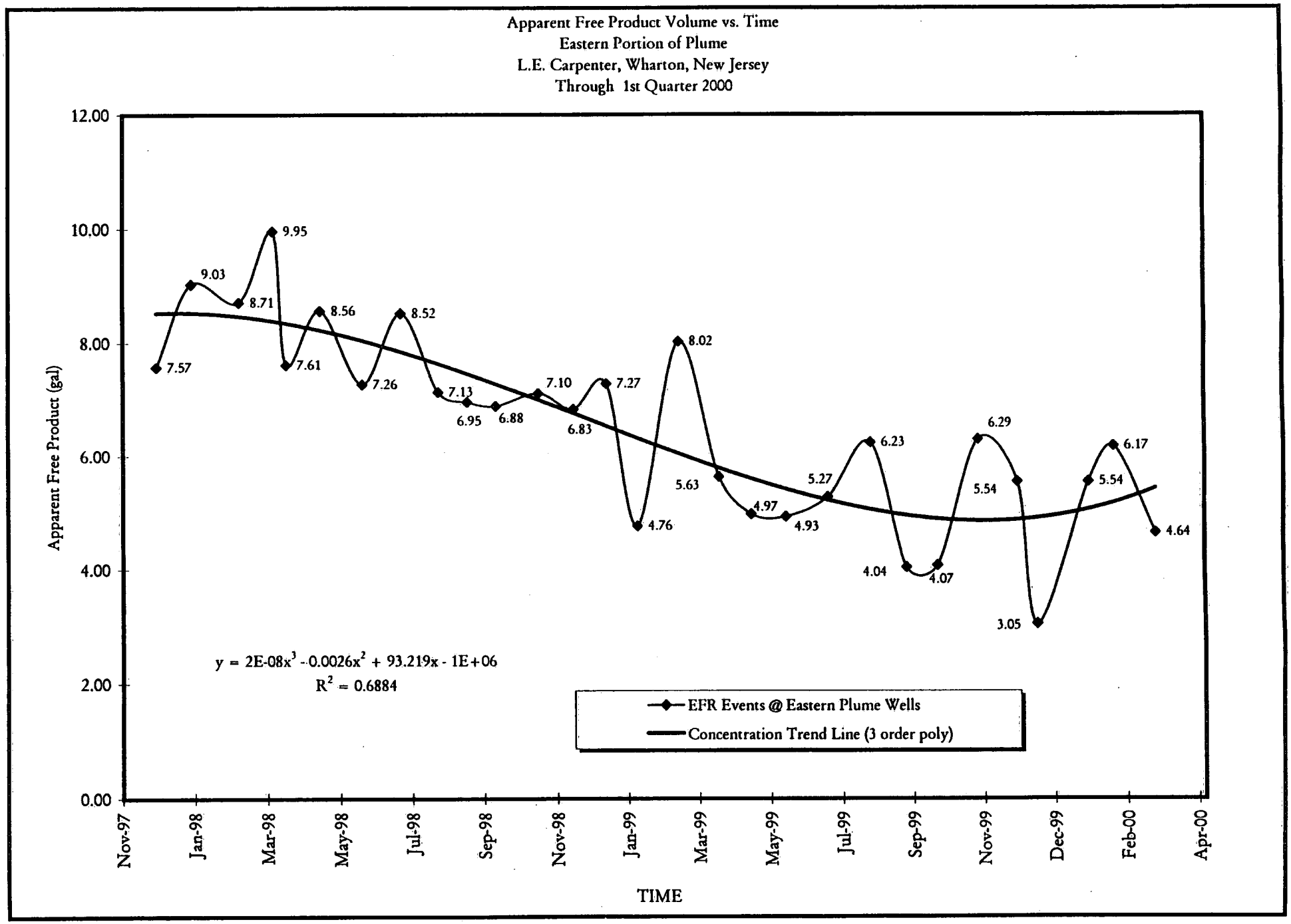
04/13/20004:53 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

Apparent Free Product Thickness vs. Time
Eastern Portion of Plume
L.E. Carpenter, Wharton, New Jersey
Through 1st Quarter 2000



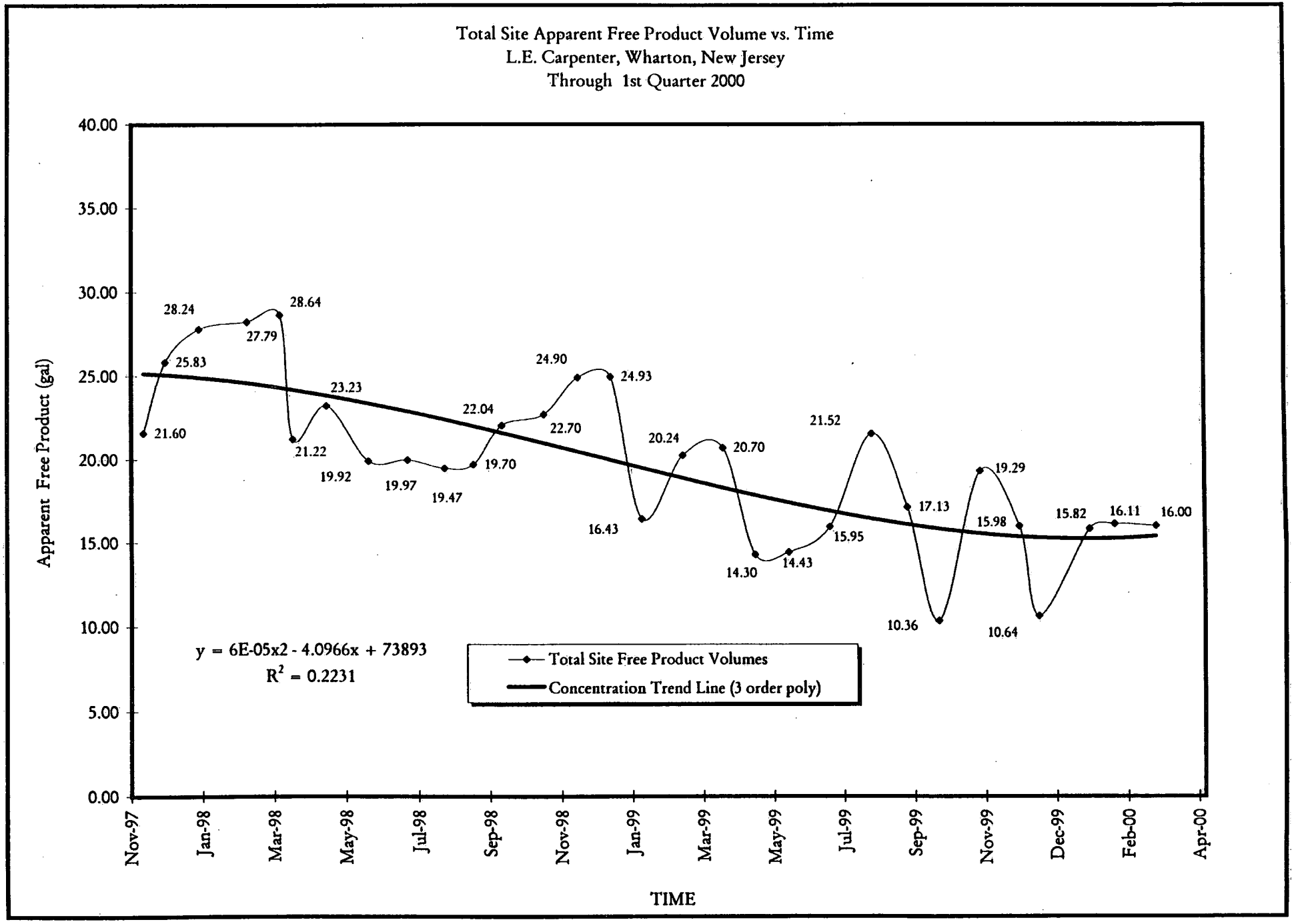

T000386817-001.DOC/Chart (Eastern)

04/13/20004:52 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager




04/13/20004:54 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

T000386817-001.DOC/stand_prod_eastern trend




04/13/20004:54 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

T000386817-001.DOC/Total Site Product Trend

# Appendix C
# Monitoring Well Sampling Data

Monitoring Well Data

Client: Residual Management Tech. Project: LE Carpenter

Job No: W844 Date Sampled: 1/17/00 Analyst: R. Toogood

| Well ID | MW15S | MW15I | MW11D | MW14I | MW22R | MW21 | MW4 |
|---|---|---|---|---|---|---|---|
| Depth to Water From TOC feet (before purging) | 11.32 | 11.21 | 5.84 | 3.31 | 3.27 | 4.21 | 7.01 |
| Depth to Water From TOC feet (after purging) | 11.38 | 11.23 | 6.06 | 3.84 | 5.15 | 4.11 | 7.87 |
| Depth to Water From TOC feet (before sampling) | 11.32 | 11.25 | 5.88 | 3.35 | 3.33 | 4.10 | 7.29 |
| Depth to Bottom From TOC feet | 19.48 | 40.14 | 161.25 | 43.32 | 8.81 | 14.68 | 18.31 |
| PID Reading from Well Casing (ppm) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| pH before Purge | 5.56 | 6.57 | 8.29 | 7.91 | 6.60 | 7.49 | 7.22 |
| Temp. before Purge (°C) | 1.8 | 1.7 | 2.8 | 3.6 | 2.5 | 0.5 | 1.2 |
| Diss. Oxygen before Purge (ppm) | 6.58 | 8.84 | 6.41 | 4.13 | 1.57 | 2.49 | 1.86 |
| Cond. before Purge (umhos/cm) | 241 | 414 | 259 | 332 | 327 | 602 | 378 |
| Water Volume in Well (gal.) | 5.32 | 4.72 | 25.36 | 6.53 | 0.9 | 6.83 | 1.84 |
| Purge Method | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump |
| Purge Start Time | 9:19 | 9:21 | 10:10 | 11:41 | 11:45 | 12:24 | 13:02 |
| Purge End Time | 9:35 | 9:41 | 11:28 | 12:05 | 11:50 | 12:43 | 13:12 |
| Purge Rate (gpm) | 1.0 | 0.8 | 1.0 | 0.8 | 0.6 | 1.1 | 0.6 |
| Volume Purged (gal.) | 16 | 15 | 77 | 20 | 3 | 21 | 6 |
| pH after Purge | 6.45 | 6.9 | 7.52 | 7.58 | 6.43 | 6.80 | 6.84 |
| Temp. after Purge (°C) | 7.6 | 6.5 | 4.4 | 5.1 | 1.4 | 0.4 | 0.3 |
| Diss. Oxygen after Purge (ppm) | 2.81 | 1.48 | 4.24 | 3.28 | 1.28 | 1.81 | 2.04 |
| Cond. after Purge (umhos/cm) | 443 | 559 | 265 | 321 | 348 | 759 | 319 |
| pH after Sample | 6.91 | 6.98 | 7.55 | 7.69 | 6.61 | 6.93 | 6.85 |
| Temp. after Sample (°C) | 5.6 | 6.9 | 3.3 | 3.9 | 1.7 | 0.6 | 0.2 |
| Diss. Oxygen after Sampling (ppm) | 4.71 | 1.71 | 4.46 | 3.19 | 1.31 | 2.42 | 2.14 |
| Cond. after Sample (umhos/cm) | 377 | 566 | 273 | 321 | 341 | 773 | 325 |
| Sampling Method | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer |
| Time of Sampling | 9:45 | 9:50 | 11:31 | 12:15 | 12:08 | 12:45 | 13:15 |

Note: The water in MW25 (R) was frozen, therefore the well could not be sampled.

Monitoring Well Data

Client: RMT Project: LE Carpenter

Job No: X 796 Date Sampled: 3/1/00 Analyst: M. Morse

| Well ID | MW 11D | MW 25R |
|---|---|---|
| Depth to Water From TOC feet (before purging) | 5.01 | 2.11 |
| Depth to Water From TOC feet (after purging) | 5.15 | 4.28 |
| Depth to Water From TOC feet (before sampling) | 5.02 | 2.71 |
| Depth to Bottom From TOC feet | 161.25 | 9.11 |
| PID Reading from Well Casing (ppm) | 0.0 | 0.0 |
| pH before Purge | 8.18 | 6.96 |
| Temp. before Purge (°C) | 6.6 | 4.2 |
| Diss. Oxygen before Purge (ppm) | 5.72 | 2.01 |
| Cond. before Purge (umhos/cm) | 292 | 521 |
| Water Volume in Well (gal.) | 28.1 | 1.3 |
| Purge Method | peristaltic pump | peristaltic pump |
| Purge Start Time | 9:15 | 9:28 |
| Purge End Time | 10:40 | 9:35 |
| Purge Rate (gpm) | 1.0 | 0.5 |
| Volume Purged (gal.) | 85 | 4 |
| pH after Purge | 7.89 | 6.78 |
| Temp. after Purge (°C) | 9.4 | 3.6 |
| Diss. Oxygen after Purge (ppm) | 3.78 | 5.81 |
| Cond. after Purge (umhos/cm) | 315 | 486 |
| pH after Sample | 7.96 | 6.81 |
| Temp. after Sample (°C) | 9.2 | 2.9 |
| Diss. Oxygen after Sampling (ppm) | 3.82 | 6.51 |
| Cond. after Sample (umhos/cm) | 310 | 437 |
| Sampling Method | teflon bailer | teflon bailer |
| Time of Sampling | 10:45 | 9:45 |

Monitoring Well Data

Client: Residual Management Tech. Project: LE Carpenter

Job No: Y301 Date Sampled: 3/16/00 Analyst: R. Toogood

| Well ID | MW25R | | | | | | |
|---|---|---|---|---|---|---|---|
| Depth to Water From TOC feet (before purging) | 2.10 | | | | | | |
| Depth to Water From TOC feet (after purging) | 4.55 | | | | | | |
| Depth to Water From TOC feet (before sampling) | 4.29 | | | | | | |
| Depth to Bottom From TOC feet | 9.11 | | | | | | |
| PID Reading from Well Casing (ppm) | 0.0 | | | | | | |
| pH before Purge | 6.98 | | | | | | |
| Temp. before Purge (°C) | 10.6 | | | | | | |
| Diss. Oxygen before Purge (ppm) | 2.10 | | | | | | |
| Cond. before Purge (umhos/cm) | 560 | | | | | | |
| Water Volume in Well (gal.) | 1.14 | | | | | | |
| Purge Method | Peristaltic Pump | | | | | | |
| Purge Start Time | 10:00 | | | | | | |
| Purge End Time | 10:08 | | | | | | |
| Purge Rate (gpm) | 0.5 | | | | | | |
| Volume Purged (gal.) | 4 | | | | | | |
| pH after Purge | 6.37 | | | | | | |
| Temp. after Purge (°C) | 13.4 | | | | | | |
| Diss. Oxygen after Purge (ppm) | 1.91 | | | | | | |
| Cond. after Purge (umhos/cm) | 520 | | | | | | |
| pH after Sample | 6.74 | | | | | | |
| Temp. after Sample (°C) | 7.9 | | | | | | |
| Diss. Oxygen after Sampling (ppm) | 5.29 | | | | | | |
| Cond. after Sample (umhos/cm) | 538 | | | | | | |
| Sampling Method | Teflon Bailer | | | | | | |
| Time of Sampling | 10:15 | | | | | | |

# Appendix C
# Monitoring Well Sampling Data

Monitoring Well Data

Client: Residual Management Tech. Project: LE Carpenter

Job No: W844 Date Sampled: 1/17/00 Analyst: R. Toogood

| Well ID | MW15S | MW15I | MW11D | MW14I | MW22R | MW21 | MW4 |
|---|---|---|---|---|---|---|---|
| Depth to Water From TOC feet (before purging) | 11.32 | 11.21 | 5.84 | 3.31 | 3.27 | 4.21 | 7.01 |
| Depth to Water From TOC feet (after purging) | 11.38 | 11.23 | 6.06 | 3.84 | 5.15 | 4.11 | 7.87 |
| Depth to Water From TOC feet (before sampling) | 11.32 | 11.25 | 5.88 | 3.35 | 3.33 | 4.10 | 7.29 |
| Depth to Bottom From TOC feet | 19.48 | 40.14 | 161.25 | 43.32 | 8.81 | 14.68 | 18.31 |
| PID Reading from Well Casing (ppm) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| pH before Purge | 5.56 | 6.57 | 8.29 | 7.91 | 6.50 | 7.49 | 7.22 |
| Temp. before Purge (°C) | 1.8 | 1.7 | 2.8 | 3.6 | 2.5 | 0.5 | 1.2 |
| Diss. Oxygen before Purge (ppm) | 6.58 | 8.84 | 6.41 | 4.13 | 1.57 | 2.49 | 1.86 |
| Cond. before Purge (umhos/cm) | 241 | 414 | 259 | 332 | 327 | 602 | 378 |
| Water Volume in Well (gal.) | 5.32 | 4.72 | 25.36 | 6.53 | 0.9 | 6.83 | 1.84 |
| Purge Method | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump | Peristaltic Pump |
| Purge Start Time | 9:19 | 9:21 | 10:10 | 11:41 | 11:45 | 12:24 | 13:02 |
| Purge End Time | 9:35 | 9:41 | 11:28 | 12:05 | 11:50 | 12:43 | 13:12 |
| Purge Rate (gpm) | 1.0 | 0.8 | 1.0 | 0.8 | 0.6 | 1.1 | 0.6 |
| Volume Purged (gal.) | 16 | 15 | 77 | 20 | 3 | 21 | 6 |
| pH after Purge | 6.45 | 6.9 | 7.52 | 7.58 | 6.43 | 6.80 | 6.84 |
| Temp. after Purge (°C) | 7.6 | 6.5 | 4.4 | 5.1 | 1.4 | 0.4 | 0.3 |
| Diss. Oxygen after Purge (ppm) | 2.81 | 1.48 | 4.24 | 3.28 | 1.28 | 1.81 | 2.04 |
| Cond. after Purge (umhos/cm) | 443 | 559 | 265 | 321 | 348 | 759 | 319 |
| pH after Sample | 6.91 | 6.98 | 7.55 | 7.69 | 6.61 | 6.93 | 6.85 |
| Temp. after Sample (°C) | 5.6 | 6.9 | 3.3 | 3.9 | 1.7 | 0.6 | 0.2 |
| Diss. Oxygen after Sampling (ppm) | 4.71 | 1.71 | 4.46 | 3.19 | 1.31 | 2.42 | 2.14 |
| Cond. after Sample (umhos/cm) | 377 | 566 | 273 | 321 | 341 | 773 | 325 |
| Sampling Method | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer | Teflon Bailer |
| Time of Sampling | 9:45 | 9:50 | 11:31 | 12:15 | 12:08 | 12:45 | 13:15 |

Note: The water in MW25 (R) was frozen, therefore the well could not be sampled.

Monitoring Well Data

Client: RMT Project: LE Carpenter

Job No: X 796 Date Sampled: 3/1/00 Analyst: M. Morse

| Well ID | MW 11D | MW 25R |
|---|---|---|
| Depth to Water From TOC feet (before purging) | 5.01 | 2.11 |
| Depth to Water From TOC feet (after purging) | 5.15 | 4.28 |
| Depth to Water From TOC feet (before sampling) | 5.02 | 2.71 |
| Depth to Bottom From TOC feet | 161.25 | 9.11 |
| PID Reading from Well Casing (ppm) | 0.0 | 0.0 |
| pH before Purge | 8.18 | 6.96 |
| Temp. before Purge (°C) | 6.6 | 4.2 |
| Diss. Oxygen before Purge (ppm) | 5.72 | 2.01 |
| Cond. before Purge (umhos/cm) | 292 | 521 |
| Water Volume in Well (gal.) | 28.1 | 1.3 |
| Purge Method | peristaltic pump | peristaltic pump |
| Purge Start Time | 9:15 | 9:28 |
| Purge End Time | 10:40 | 9:35 |
| Purge Rate (gpm) | 1.0 | 0.5 |
| Volume Purged (gal.) | 85 | 4 |
| pH after Purge | 7.89 | 6.78 |
| Temp. after Purge (°C) | 9.4 | 3.6 |
| Diss. Oxygen after Purge (ppm) | 3.78 | 5.81 |
| Cond. after Purge (umhos/cm) | 315 | 486 |
| pH after Sample | 7.96 | 6.81 |
| Temp. after Sample (°C) | 9.2 | 2.9 |
| Diss. Oxygen after Sampling (ppm) | 3.82 | 6.51 |
| Cond. after Sample (umhos/cm) | 310 | 437 |
| Sampling Method | teflon bailer | teflon bailer |
| Time of Sampling | 10:45 | 9:45 |

Monitoring Well Data

Client: Residual Management Tech. Project: LE Carpenter

Job No: Y301 Date Sampled: 3/16/00 Analyst: R. Toogood

| Well ID | MW25R | | | | | | |
|---|---|---|---|---|---|---|---|
| Depth to Water From TOC feet (before purging) | 2.10 | | | | | | |
| Depth to Water From TOC feet (after purging) | 4.55 | | | | | | |
| Depth to Water From TOC feet (before sampling) | 4.29 | | | | | | |
| Depth to Bottom From TOC feet | 9.11 | | | | | | |
| PID Reading from Well Casing (ppm) | 0.0 | | | | | | |
| pH before Purge | 6.98 | | | | | | |
| Temp. before Purge (°C) | 10.6 | | | | | | |
| Diss. Oxygen before Purge (ppm) | 2.10 | | | | | | |
| Cond. before Purge (umhos/cm) | 560 | | | | | | |
| Water Volume in Well (gal.) | 1.14 | | | | | | |
| Purge Method | Peristaltic Pump | | | | | | |
| Purge Start Time | 10:00 | | | | | | |
| Purge End Time | 10:08 | | | | | | |
| Purge Rate (gpm) | 0.5 | | | | | | |
| Volume Purged (gal.) | 4 | | | | | | |
| pH after Purge | 6.37 | | | | | | |
| Temp. after Purge (°C) | 13.4 | | | | | | |
| Diss. Oxygen after Purge (ppm) | 1.91 | | | | | | |
| Cond. after Purge (umhos/cm) | 520 | | | | | | |
| pH after Sample | 6.74 | | | | | | |
| Temp. after Sample (°C) | 7.9 | | | | | | |
| Diss. Oxygen after Sampling (ppm) | 5.29 | | | | | | |
| Cond. after Sample (umhos/cm) | 538 | | | | | | |
| Sampling Method | Teflon Bailer | | | | | | |
| Time of Sampling | 10:15 | | | | | | |

# Appendix D
# MW-22R & MW-25R Groundwater Concentration Trend Analysis

# MW-22R
## BTEX and DEHP Concentration(s) Trend Analysis

| | ANALYTE | | | | |
|---|---|---|---|---|---|
| Sampling Date(s) | Benzene (ug/L) | Ethylbenzene (ug/L) | Toluene (ug/L) | Total Xylenes (ug/L) | DEHP (ug/L) |
| 21-Feb-95 | ND | 57 | ND | **260** | **6500** |
| 13-Jun-95 | ND | 311 | ND | **955** | **380** |
| 13-Sep-95 | ND | 171 | ND | **693** | NS |
| 07-Dec-95 | ND | 123 | ND | **494** | **320** |
| 17-Sep-96 | ND | 359 | ND | **1320** | NS |
| 12-Dec-96 | ND | 320 | ND | **1330** | ND |
| 14-Aug-97 | ND | **5,730** | ND | **32,900** | **7,500** |
| 03-Oct-97 | ND | **11,400** | 348 | **66,000** | NS |
| 12-Mar-98 | ND | **4,070** | 348 | **20,600** | NS |
| 26-Aug-98 | ND | **2,260** | ND | **11,300** | **5,800** |
| 28-Aug-98 | ND | **1,880** | ND | **10,300** | NS |
| 18-Dec-98 | ND | **1,650** | ND | **7,230** | **1,100** |
| 21-Jan-99 | ND | 18 | ND | **84** | NS |
| 15-Apr-99 | ND | **1,600** | ND | **7,600** | **670** |
| 22-Jul-99 | ND | **1,200** | ND | **5,200** | NS |
| 25-Oct-99 | ND | **810** | ND | **3,300** | **1,200** |
| 17-Jan-00 | ND | 360 | ND | **1,400** | NS |
| **NJGWQS (ug/l)** | **1** | **700** | **1000** | **40** | **30** |
| **ROD Discharge Criteria (ug/l)** | **1** | **350** | **500** | **20** | **30** |

**NOTES**

Concentrations in bold exceed both the ROD discharge criteria and NJDEP GWQS

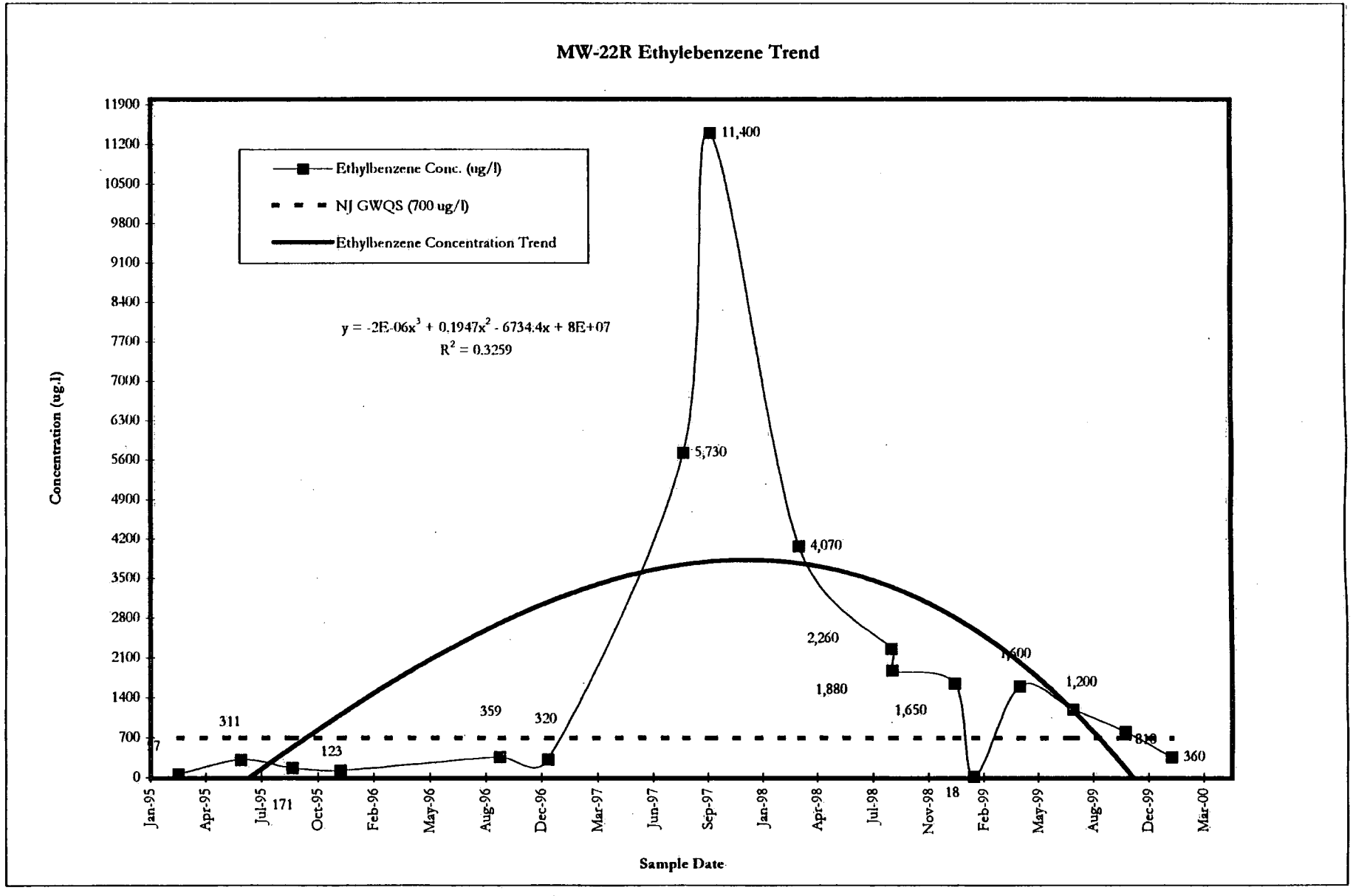
ND = Not detected above method detection limits

NS = Not Sampled

04/17/2000 9:51 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. Project Manager

T000386817-005DOCMW-22 Tracking

# MW-22R
## CONTAMINANT OF CONCERN
*Concentration vs. Time*



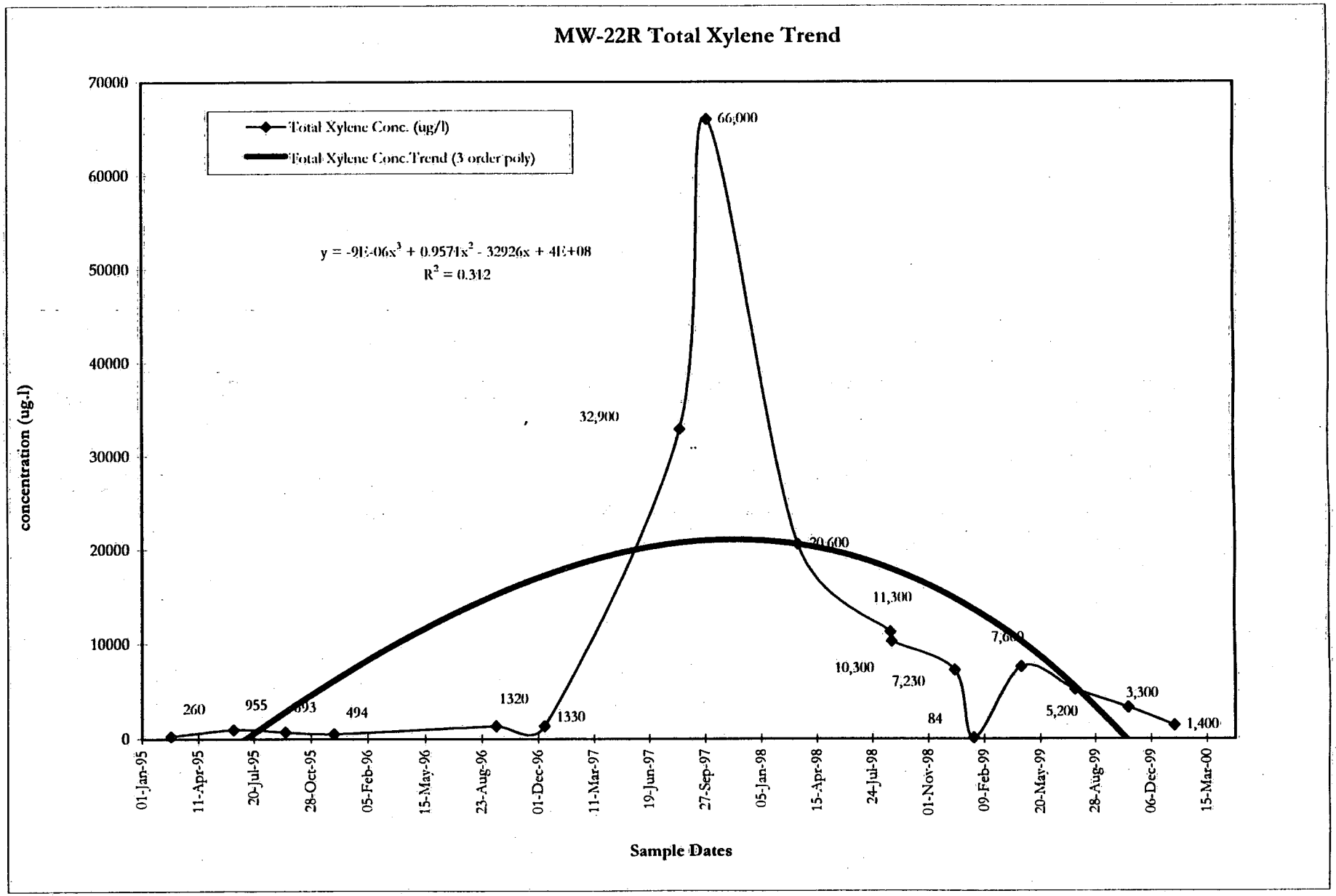

T000386817-005.DOCMW-22R Ethylbenzene Conc. Chart Chart 3

04/14/20003:35 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

MW-22R

CONTAMINANTS OF CONCERN

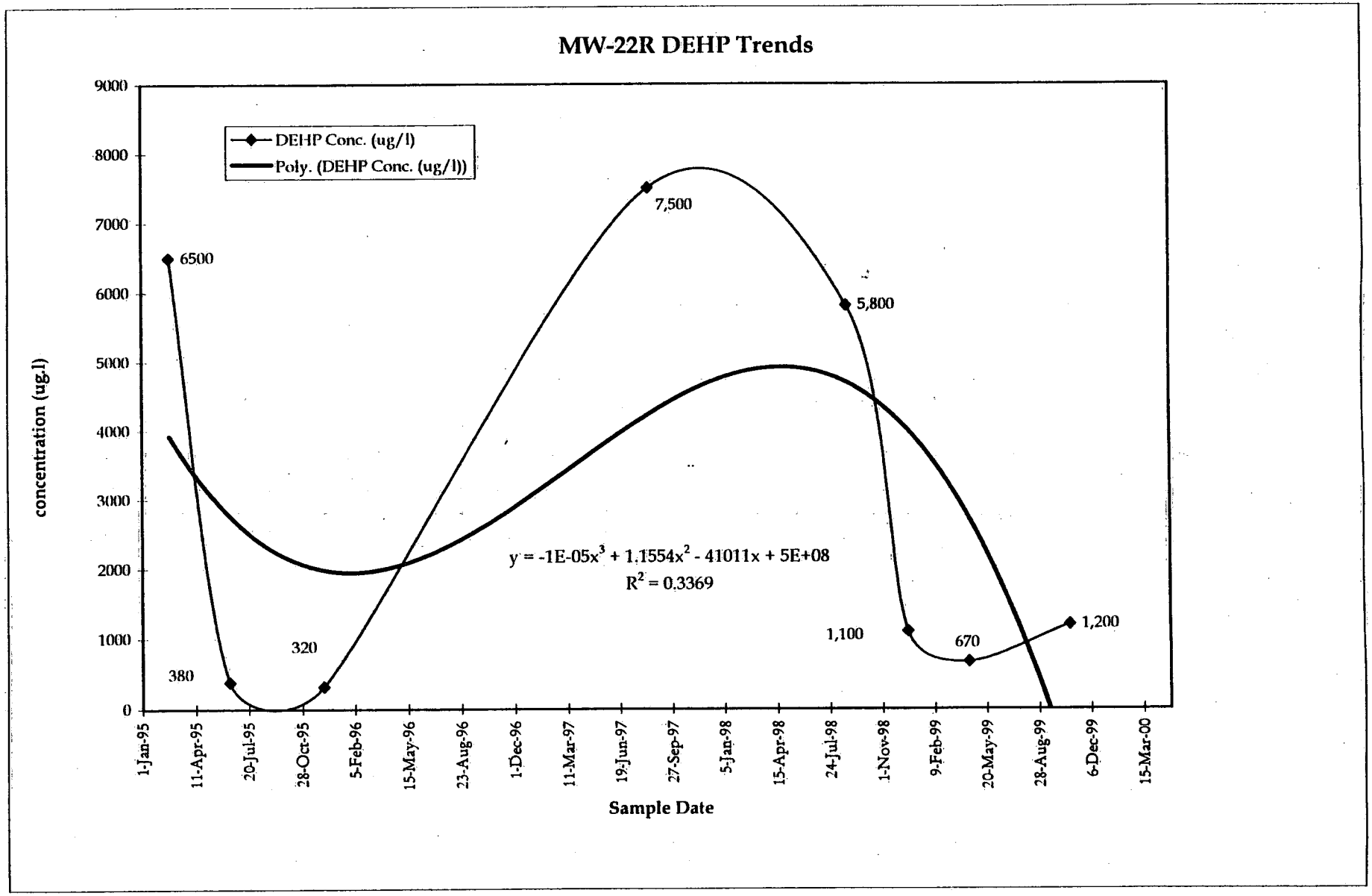
*Concentration vs. Time*




04/14/2000 3:36 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

T000386817-005:DOCMW-22R Total Xylene Conc. Chart Chart 1025

# MW-22R
## Contaminants of Concern
*Concentration vs. Time*



# MW-25R
## BTEX and DEHP Concentration(s) Trend Analysis

| | ANALYTE | | | | |
|---|---|---|---|---|---|
| Sampling Date(s) | Benzene (ug/L) | Ethylbenzene (ug/L) | Toluene (ug/L) | Total Xylenes (ug/L) | DEHP (ug/L) |
| 01-Apr-95 | ND | ND | ND | ND | 1.6 |
| 01-Jul-95 | ND | ND | ND | ND | NS |
| 07-Dec-95 | ND | ND | ND | ND | **68** |
| 17-Sep-96 | ND | 0.34 | ND | 2.2 | NS |
| 12-Dec-96 | ND | ND | ND | ND | ND |
| 01-Jan-97 | ND | ND | ND | ND | NS |
| 01-Apr-97 | ND | 13.5 | ND | **89** | **63** |
| 01-Jul-97 | ND | 4.1 | ND | **30.7** | NS |
| 12-Mar-98 | ND | 0.33 | ND | 1.5 | NS |
| 01-Apr-98 | ND | ND | ND | ND | 5.3 |
| 28-Aug-98 | ND | ND | ND | ND | NS |
| 18-Dec-98 | ND | ND | ND | ND | 1.9 |
| 21-Jan-99 | ND | ND | ND | ND | ND |
| 15-Apr-99 | ND | ND | ND | 14 | ND |
| 22-Jul-99 | ND | 0.39 | ND | 1.4 | 9.6 |
| 25-Oct-99 | ND | ND | ND | ND | ND |
| 01-Mar-00 | ND | ND | ND | ND | ND |
| **NJGWQS (ug/l)** | **NA** | **700** | **1000** | **40** | **30** |
| **ROD Discharge Criteria (ug/l)** | **NA** | **350** | **500** | **20** | **30** |

**NOTES**

Concentrations in bold exceed both the ROD discharge criteria and NJDEP GWQS

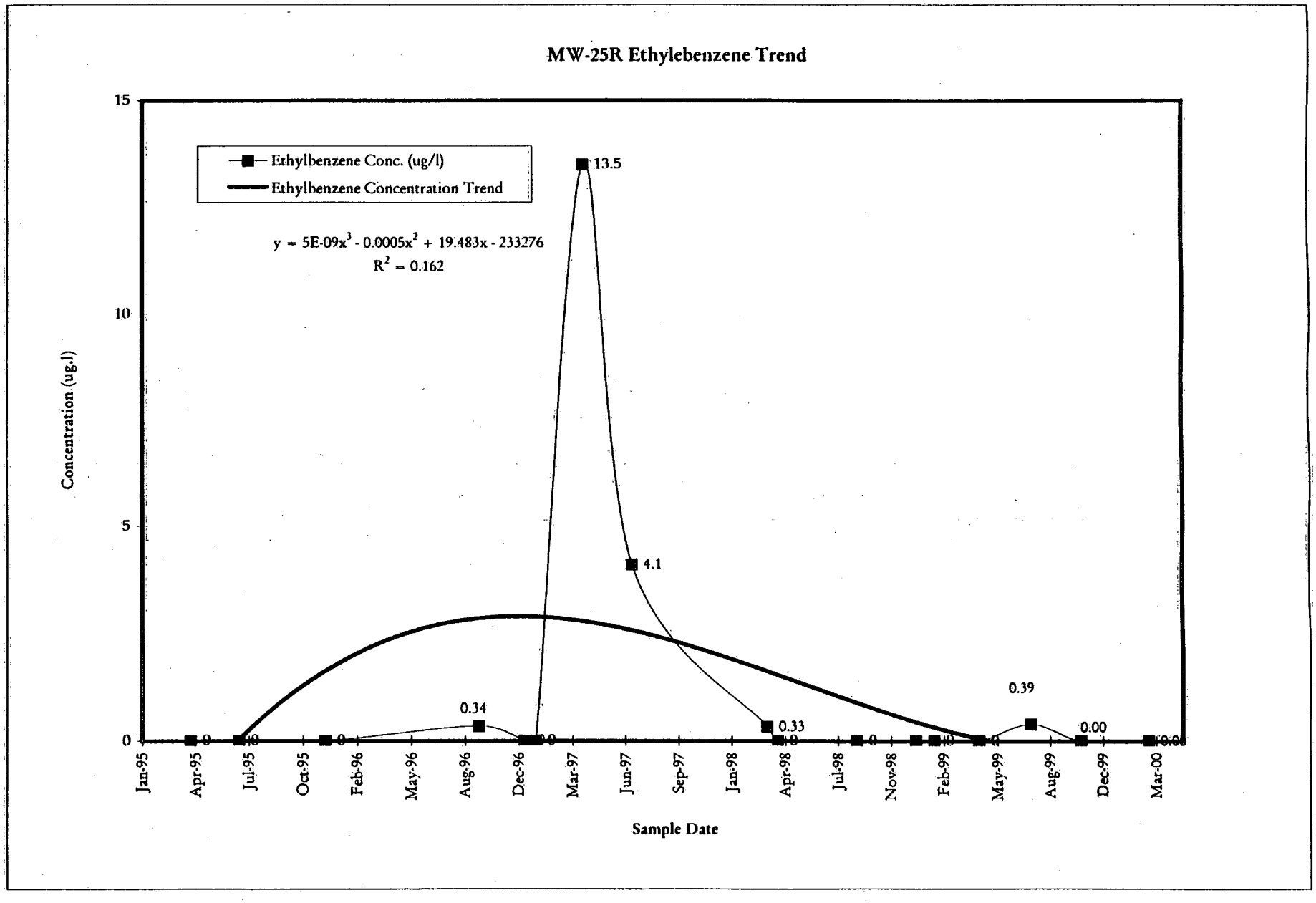
ND = Not detected above method detection limits

NS = Not Sampled



04/17/2000 9:51 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

MW-25R
CONTAMINANT OF CONCERN
*Concentration vs. Time*



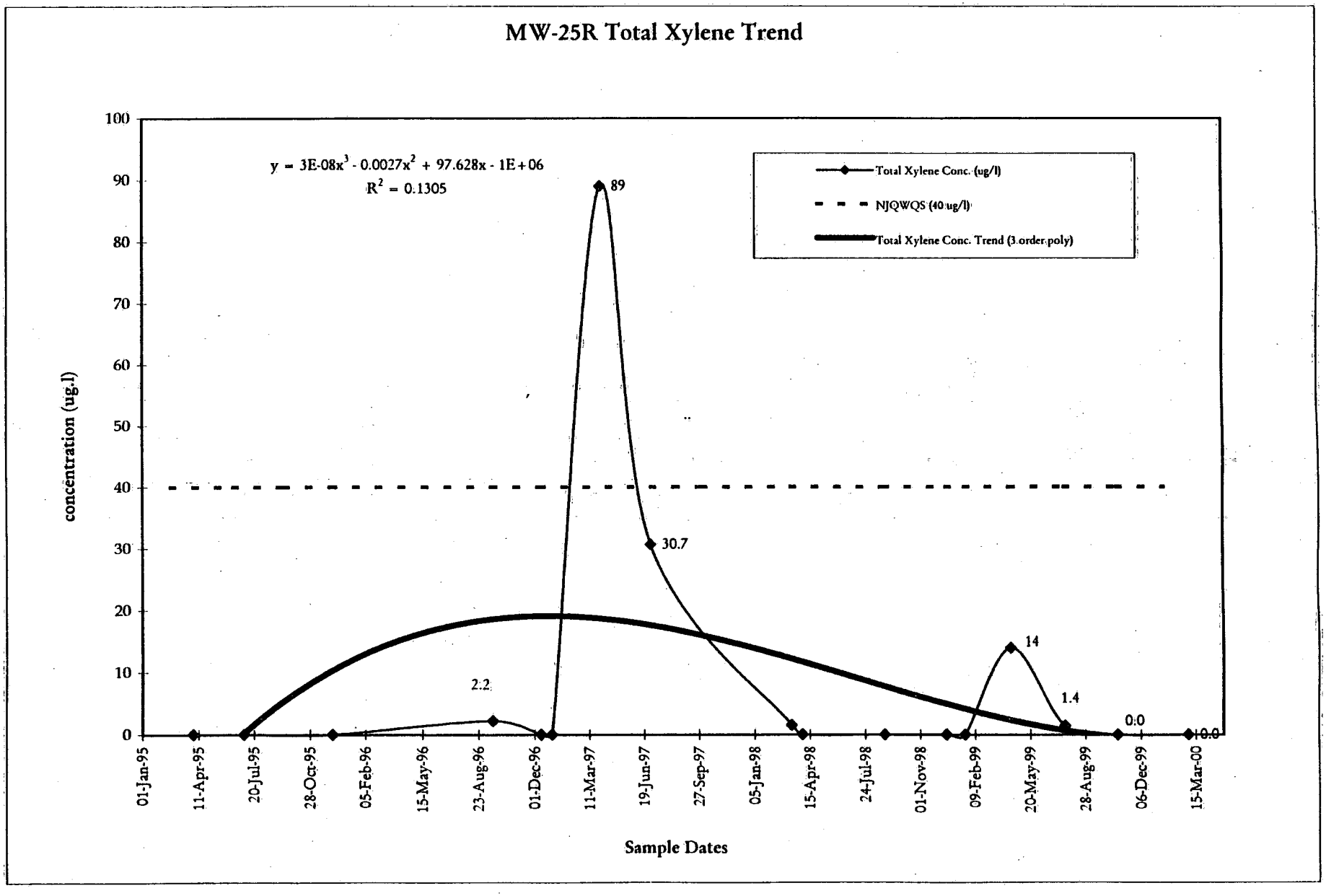

T000386817-005.DOC MW-25R ETHYLBENZENE CONC. CHART

04/14/2000 12:31 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

MW-25R

CONTAMINANTS OF CONCERN

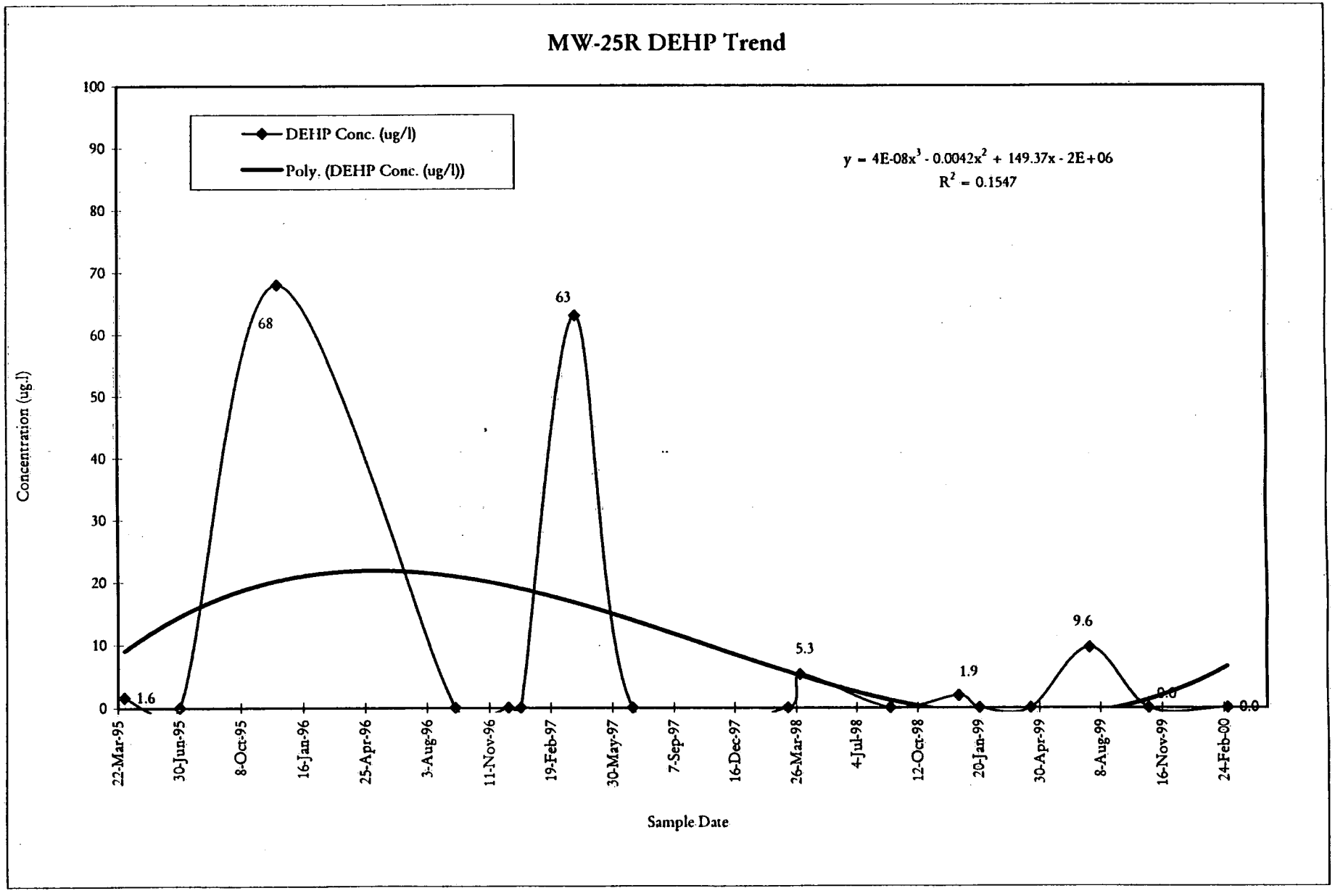
*Concentration vs. Time*




T000386817.005-DOC MW-25R TOTAL XYLENE CONC. CHART

04/14/2000 12:32 PM
Prepared By; Nicholas J. Clevett
RMT, Inc. - Project Manager

MW-25R
CONTAMINANT OF CONCERN
*Concentration vs. Time*




04/14/2000 12:34 PM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

T000386817-005.DOC MW-25R DEHP CONC. CHART

# Appendix E
# Analytical Results
# STL Envirotech Laboratory Report

STL Envirotech
a division of Severn Trent Laboratories, Inc.

STL Envirotech
777 New Durham Road
Edison, NJ 08817
Tel: (732) 549-3900
Fax: (732) 549-3679
www.stl-inc.com

February 01, 2000

Residuals Management Technologies, Inc.
222 South Riverside Plaza
Suite 280
Chicago, IL 60606

Attention: Mr. Nick Clevett

Re: Job No. W844 - L.E. Carpenter

Dear Mr. Clevett:

Enclosed are the results you requested for the following sample(s) received at our laboratory on January 17, 2000:

| Lab No. | Client ID | Analysis Required |
|---|---|---|
| 179524 | Trip_Blank | bis(2)Ethylhexylphthalate |
| 179525 | MW-15S | BTEX (GC) ✓ |
| 179526 | MW-15I | BTEX (GC) ✓ |
| 179527 | MW-11d | bis(2)Ethylhexylphthalate |
| 179528 | MW-14I | BTEX (GC) ✓ |
| 179529 | MW-22 | BTEX (GC) ✓ |
| 179530 | MW-21d | bis(2)Ethylhexylphthalate |
| 179531 | MW-21 | BTEX (GC), bis(2)Ethylhexylphthalate ✓ |
| 179532 | MW-4 | BTEX (GC) ✓ |
| 179533 | Field_Blank | BTEX (GC), bis(2)Ethylhexylphthalate |

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Simms, at (732) 549-3900.

1st Quarter 2000

Very truly yours,

Michael J. Urban
Laboratory Manager

Envirotech

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Envirotech

Client ID: Trip_Blank
Site: L.E. Carpenter

Lab Sample No: 179524
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/25/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9128.d

Matrix: WATER
Level: LOW
Sample Volume: 990 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.1 |

Envirotech

Client ID: **MW-15S**
Site: L.E. Carpenter

Lab Sample No: **179525**
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2967.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Client ID: MW-15I
Site: L.E. Carpenter

Lab Sample No: 179526
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2968.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



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Severn Trent Services Inc.

Envirotech

Client ID: MW-11d
Site: L.E. Carpenter

Lab Sample No: 179527
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9145.d

Matrix: WATER
Level: LOW
Sample Volume: 970 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.2 |



a part of
Severn Trent Services Inc.

Client ID: **MW-14I**
Site: L.E. Carpenter

Lab Sample No: **179528**
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2969.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



a part of
Severn Trent Services Inc.

Envirotech

Client ID: MW-22
Site: L.E. Carpenter

Lab Sample No: 179529
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/19/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2976.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 7.8 |
| Toluene | ND | 8.5 |
| Ethylbenzene | 360 | 9.5 |
| Xylene (Total) | 1400 | 10 |



a part of
Severn Trent Services Inc.

Client ID: MW-21d
Site: L.E. Carpenter

Lab Sample No: 179530
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9146.d

Matrix: WATER
Level: LOW
Sample Volume: 960 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

## SEMI-VOLATILE ORGANICS - GC/MS
## METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.2 |



a part of
Severn Trent Services Inc.

Client ID: MW-21
Site: L.E. Carpenter

Lab Sample No: 179531
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9147.d

Matrix: WATER
Level: LOW
Sample Volume: 950 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | 6.0 | 4.3 |



a part of
Severn Trent Services Inc.

Client ID: MW-21
Site: L.E. Carpenter

Lab Sample No: 179531
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2970.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



a part of
Severn Trent Services Inc.

Client ID: MW-4
Site: L.E. Carpenter

Lab Sample No: 179532
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2971.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | 0.54 | 0.38 |
| Xylene (Total) | 1.6 | 0.40 |



a part of
Severn Trent Services Inc.

Envirotech

Client ID: Field_Blank
Site: L.E. Carpenter

Lab Sample No: 179533
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9148.d

Matrix: WATER
Level: LOW
Sample Volume: 970 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

## SEMI-VOLATILE ORGANICS - GC/MS
## METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.2 |



a part of
Severn Trent Services Inc.

Envirotech

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **179533**
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2972.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



a part of
Severn Trent Services Inc.

STL Envirotech
777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

# CHAIN OF CUSTODY / ANALYSIS REQUEST



Name ( for report and invoice ): Mr. Nicholas J. Clevelt
Company: RMT, Inc.
Address: 222 South Riverside Plaza Suite 120
City: Chicago State: IL 60606
Phone: (312) 575 0200 Fax: (312) 575 0300

Samplers Name ( Printed ): R. Toogood M. Morse
P.O. #

Site/Project Identification: LE Carpenter
State (Location of site): NJ: ☒ NY: ☐ Other:
Regulatory Program:

Analysis Turnaround Time
Standard ☒
Rush Charges Authorized For:
2 Week ☐
1 Week ☐
Other ☐

ANALYSIS REQUESTED ( ENTER "X" BELOW TO INDICATE REQUEST )

LAB USE ONLY
Project No:
Job No: W844

| Sample Identification | Date | Time | Matrix | No. of Cont. | BTEX | DEHP | | | | | | | | | | Sample Numbers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trip Blank | 1/17/00 | 600 | Aq | 1 | | X | | | | | | | | | | 179524 |
| MW15s | | 945 | | 3 | X | | | | | | | | | | | 179525 |
| MW15I | | 950 | | 3 | X | | | | | | | | | | | 179526 |
| MW11d | | 1131 | | 1 | | X | | | | | | | | | | 179527 |
| MW14I | | 1215 | | 3 | X | | | | | | | | | | | 179528 |
| MW22 | | 1208 | | 3 | X | | | | | | | | | | | 179529 |
| MW22d | | — | | 1 | | X | | | | | | | | | | 179530 |
| MW21 | | 1245 | | 4 | X | X | | | | | | | | | | 179531 |
| MW4 | | 1315 | | 3 | X | | | | | | | | | | | 179532 |
| Field Blank | | 1235 | | 3 | X | X | | | | | | | | | | 179533 |

Preservation Used: 1 = ICE, 2 = HCl, 3 = $H_2SO_4$, 4 = $HNO_3$, 5 = NaOH
6 = Other _____, 7 = Other _____

| | BTEX | DEHP |
|---|---|---|
| Soil: | | |
| Water: | 1, 2 | 1 |

Special Instructions

Water Metals Filtered (Yes/No)? _____

| Relinquished by | Company | Date / Time | Received by | Company |
|---|---|---|---|---|
| 1) R. Toogood | STL Envirotech | 1/17/00 1440 | 1) [illegible] | STL-ENVIROTECH HOWARD SCHULZE |
| 2) | | | 2) | |
| 3) | | | 3) | |
| 4) | | | 4) | |

Laboratory Certifications: New Jersey (12543), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

## Water Levels L.E. Carpenter Site Date: 1/17/00

| Well ID | Product | Depth to Water |
|---|---|---|
| MW-1 (R) | 10.02 | 11.11 |
| MW-2 (R) | N | 7.08 |
| MW-3 | 7.34 | 7.41 |
| MW-4 | N | 7.01 |
| MW-6 (R) | N | 6.46 |
| MW-8 | N | 2.92 |
| MW-9 | N | 4.52 |
| MW-11S | 7.91 | 12.95 |
| MW-11IR | N | 8.11 |
| MW-11DR | N | 5.84 |
| MW-12R | N | 8.13 |
| MW-13S | N | 5.76 |
| MW-13(R) | N | 5.63 |
| MW-131 | N | 5.62 |
| MW-14S | N | 3.82 |
| MW-14I | N | 3.31 |
| MW-15S | N | 11.32 |
| MW-15I | N | 11.21 |
| MW-16S | N | 8.54 |
| MW-16I | N | 9.06 |
| MW-17S | N | 9.16 |
| MW-18S | N | 5 61 |
| MW-18I | N | 5.50 |
| MW-19 | N | 12.51 |
| MW-20 | N | 10.08 |
| MW-21 | N | 4.21 |
| MW-22 (R) | N | 3.27 |
| MW-23 | N | Not accessible |
| MW-25 (R) | N | ** |
| MW-26 | N | 8.06 |
| RW-1 | 11.94 | 12.31 |
| RW-2 | N | 6.66 |
| RW-3 | N | 6.76 |
| CW-1 | 7.74 | 7.86 |
| CW-3 | N | 7.88 |
| GEI-1I | N | 5.19 |
| GEI-2S | N | 11.36 |
| GEI-2I | N | 11.55 |
| GEI-3I | N | 13.78 |
| WP-A1 | 10.15 | 11.26 |
| WP-A2 | NA | Not accessible |
| WP-A3 | N | 10.00 |
| WP-A4 | 11.25 | 13.22 |
| WP-A5 | N | 12.39 |
| WP-A6 | 11.81 | 14.95 |
| WP-A7 | 9.69 | 10.35 |

| Well ID | Product | Depth to Water |
|---|---|---|
| WP-A8 | 12.20 | 14.33 |
| WP-A9 | 13.75 | 15.68 |
| WP-B1 | N | 6.77 |
| WP-B2 | N | 7.04 |
| WP-B3 | N | 7.31 |
| WP-B4 | 7.14 | 8.91 bottom |
| WP-B5 | N | 5.98 |
| WP-B6 | N | 6.46 |
| WP-B7 | n | 4.59 |
| WP-B10 | N | 7.54 |
| WP-C1 | N | 7.77 |
| WP-C2 | N | 8.06 |
| WP-C3 | N | 6.21 |
| WP-C4 | N | 7.79 |
| SG-D1 | N | 1.32 |
| SG-D2 | N | 0.92 |
| SG-D3 | N | 1.42 |
| SG-R1 | N | 1.68 |
| SG-R2 | N | 1.38 |
| SG-R3 | N | Removed |
| RP-O2 | * | * |
| RP-O3 | * | * |
| RP-O4 | * | * |
| EFR-1 | * | * |
| EFR-2 | * | * |
| EFR-3 | * | * |
| EFR-4 | * | * |
| EFR-5 | * | * |
| EFR-6 | * | * |
| EFR-7 | * | * |
| EFR-8 | * | * |
| EFR-9 | * | * |
| EFR-10 | * | * |
| EFR-11 | * | * |
| EFR-12 | * | * |
| EFR-13 | * | * |
| EFR-14 | * | * |
| EFR-15 | * | * |
| EFR-16 | * | * |
| EFR-17 | * | * |
| EFR-18 | * | * |
| EFR-19 | * | * |
| EFR-20 | * | * |
| EFR-21 | * | * |
| EFR-22 | * | * |
| EFR-23 | * | * |

| Well ID | Product | Depth to Water |
|---|---|---|
| EFR-24 | * | * |
| EFR-25 | * | * |
| EFR-26 | * | * |
| EFR-27 | * | * |
| EFR-28 | * | * |
| MW-19-1 | N | 12.38 |
| MW-19-2 | N | 12.44 |
| MW-19-3 | N | 13.17 |
| MW-19-4 | N | 11.09 |
| MW-19-5 | N | 12.44 |
| MW19-6 | N | 10.12 |
| MW19-7 | N | 9.38 |
| MW19-8 | N | 9.74 |

* Measurements Collected by RMT on later date

** Water colum in MW25 (R) was frozen, therefore the water was not measured.

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
## STL Envirotech

777 New Durham Road, Edison, New Jersey
08817

Job No: W844

Site: L.E. Carpenter

Client: Residuals Management Technologies, Inc.

BNAMS

WATER - 625

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| 179524 | 1/17/2000 | 1/17/2000 | 1-19-00 | DF | 1-25-00 | RM | 5173 |
| 179527 | 1/17/2000 | 1/17/2000 | | | 1-26-00 | LL | |
| 179530 | 1/17/2000 | 1/17/2000 | | | | | |
| 179531 | 1/17/2000 | 1/17/2000 | | | | | |
| 179533 | 1/17/2000 | 1/17/2000 | | | | | |

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# STL Envirotech

**777 New Durham Road, Edison, New Jersey**
**08817**

**Job No:** W844 **Site:** L.E. Carpenter

**Client:** Residuals Management Technologies, Inc.

**VOAGC**

602

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| **WATER** | | | | | | | |
| 179525 | 1/17/2000 | 1/17/2000 | | | 1-18-00 | SP | 6942 |
| 179526 | 1/17/2000 | 1/17/2000 | | | | | |
| 179528 | 1/17/2000 | 1/17/2000 | | | | | |
| 179529 | 1/17/2000 | 1/17/2000 | | | 1-19-00 | | |
| 179531 | 1/17/2000 | 1/17/2000 | | | 1-18-00 | | |
| 179532 | 1/17/2000 | 1/17/2000 | | | | | |
| 179533 | 1/17/2000 | 1/17/2000 | | | | | |

Monitoring Well Data

**Client:** Residual Management Tech.

**Project:** LE Carpenter

**Date Sampled:** 1/17/00

**Job No.:** W844

**Name of Analyst:** Richard Toogood

**Names & Signatures of Samplers:** Richard Toogood

Matt Morse

## Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

| | Water Test Method | | Solid Test Method | |
|---|---|---|---|---|
| Element | Flame | Furnace | Flame | Furnace |
| Aluminum | 202.1 | 202.2 | 7020 | -- |
| Antimony | 204.1 | 204.2 | 7040 | 7041 |
| Arsenic | -- | 206.2 | -- | 7060 |
| Barium | 208.1 | -- | 7080 | -- |
| Beryllium | 210.1 | 210.2 | 7090 | 7091 |
| Cadmium | 213.1 | 213.2 | 7130 | 7131 |
| Calcium | 215.1 | -- | 7140 | -- |
| Chromium, Total | 218.1 | 218.2 | 7190 | 7191 |
| Chromium, (+6) | 218.4 | 218.5 | 7197 | 7195 |
| Cobalt | 219.1 | 219.2 | 7200 | 7201 |
| Copper | 220.1 | 220.2 | 7210 | -- |
| Iron | 236.1 | 236.2 | 7380 | -- |
| Lead | 239.1 | 239.2 | 7420 | 7421 |
| Magnesium | 242.1 | -- | 7450 | -- |
| Manganese | 243.1 | 243.2 | 7460 | -- |
| Nickel | 249.1 | 249.2 | 7520 | -- |
| Potassium | 258.1 | -- | 7610 | -- |
| Selenium | -- | 270.2 | -- | 7740 |
| Silver | 272.1 | 272.2 | 7760 | -- |
| Sodium | 273.1 | -- | 7770 | -- |
| Tin | 283.1 | 283.2 | 7870 | -- |
| Thallium | 279.1 | 279.2 | 7840 | 7841 |
| Vanadium | 286.1 | 286.2 | 7910 | 7911 |
| Zinc | 289.1 | 289.2 | 7950 | -- |

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

| | |
|---|---|
| Ignitability | - Method 1020A |
| Corrosivity | - Water pH Method 9040B<br>Soil pH Method 9045C |
| Reactivity | - Chapter 7, Section 7.3.3 and 7.3.4 respectively for hydrogen cyanide and hydrogen sulfide release |
| Toxicity | - TCLP Method 1311 |

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

## DATA REPORTING QUALIFIERS

ND - The compound was not detected at the indicated concentration.

J - Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified detection limit but greater than zero. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NON-CONFORMANCE SUMMARY

STL Envirotech Job Number: W1844

Volatile Organics Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements _____; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:
Sample 179530: S-6 surrogate recovery = 72% (73-132% QC limits). Insufficient sample volume to reextract. Single extract reanalyzed confirming low recovery.

See continuation page if checked ( )

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Non-conformance Summary, Page 2 of 2
STL Envirotech Job Number: W844

Metals Analysis:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Total Petroleum Hydrocarbons:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

General Chemistry/Disposal Parameters:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Signature of
Laboratory Manager: _____ Date: 2/7/00

Client ID: Trip_Blank
Site: L.E. Carpenter

Lab Sample No: 179524
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/25/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9128.d

Matrix: WATER
Level: LOW
Sample Volume: 990 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.1 |

Data File: /chem/BNAMS3.i/625/01-17-00/24jan00A.b/t9128.d
Report Date: 26-Jan-2000 07:31

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/01-17-00/24jan00A.b/t9128.d
Client Smp ID: Trip_Blank
Lab Smp Id: 179524
Inj Date : 25-JAN-2000 09:59
Inst ID: BNAMS3.i
Operator : BNAMS 1
Smp Info : 179524;990;2;1;;
Misc Info : W844;BISPHL;5173;143
Comment :
Method : /chem/BNAMS3.i/625/01-17-00/24jan00A.b/BNA625b.m
Quant Type: ISTD
Meth Date : 26-Jan-2000 07:31 rui
Cal File: t8971.d
Cal Date : 17-JAN-2000 13:08
Als bottle: 18
Dil Factor: 1.00000
Compound Sublist: 2PHTH.sub
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpd1

Concentration Formula: Amt * DF * 1000*Vt/Vo

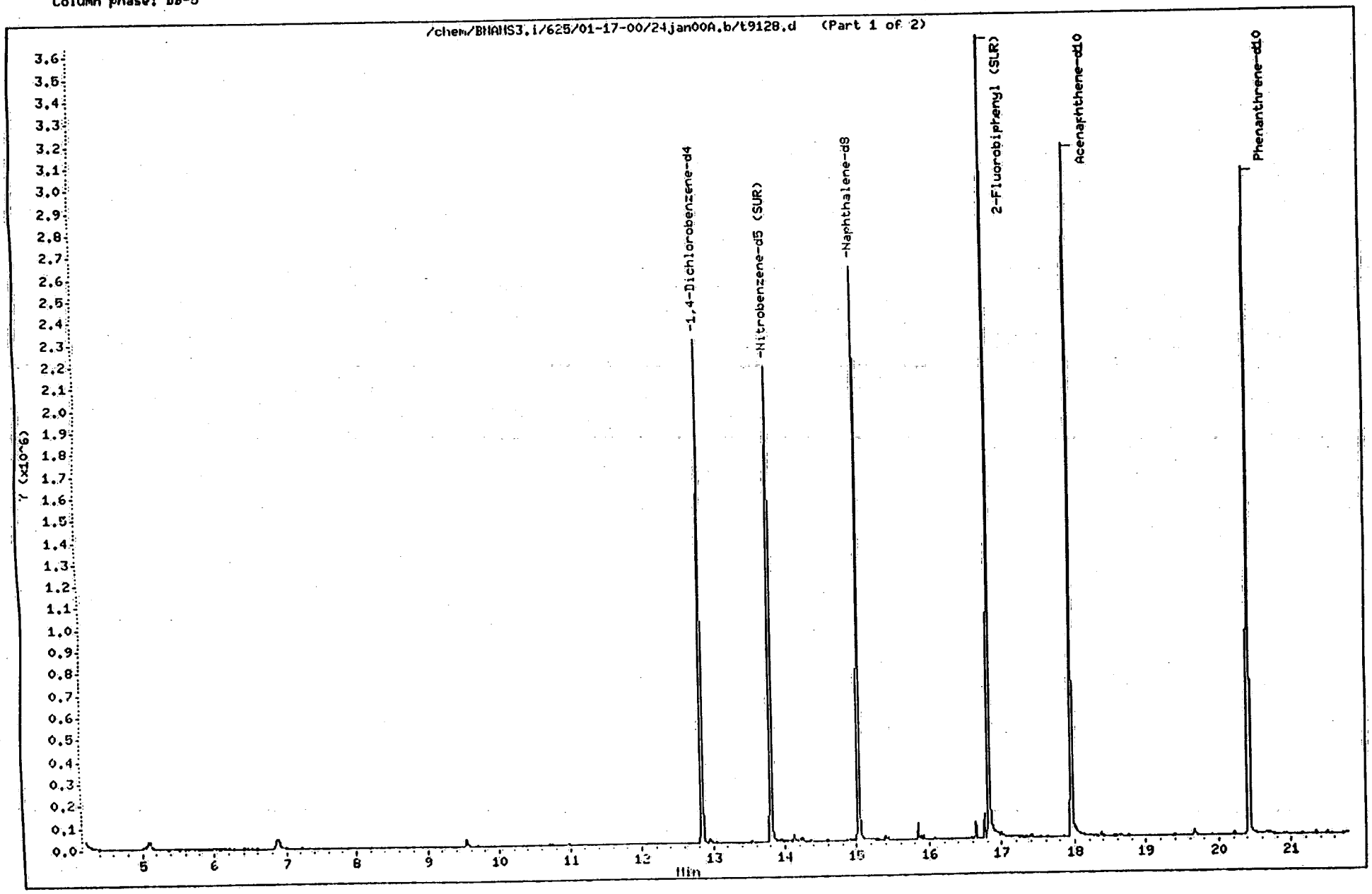
| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Vt | 2.000 | Volume of final extract (mL) |
| Vo | 990.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| • 79 1,4-Dichlorobenzene-d4 | 152 | 12.844 | 12.815 | (1.000) | 534187 | 40.0000 | |
| S 76 Nitrobenzene-d5 (SUR) | 82 | 13.810 | 13.795 | (0.919) | 1080853 | 46.0097 | 93 |
| • 80 Naphthalene-d8 | 136 | 15.033 | 15.012 | (1.000) | 1696079 | 40.0000 | |
| S 77 2-Fluorobiphenyl (SUR) | 172 | 16.827 | 16.811 | (0.937) | 1729690 | 47.6018 | 96 |
| • 82 Acenaphthene-d10 | 164 | 17.959 | 17.944 | (1.000) | 1162625 | 40.0000 | |
| • 83 Phenanthrene-d10 | 188 | 20.423 | 20.405 | (1.000) | 1973866 | 40.0000 | |
| S 78 Terphenyl-d14 (SUR) | 244 | 23.047 | 23.020 | (0.929) | 1828162 | 44.5732 | 90 |
| • 81 Chrysene-d12 | 240 | 24.816 | 24.803 | (1.000) | 1565303 | 40.0000 | |
| • 84 Perylene-d12 | 264 | 28.174 | 28.142 | (1.000) | 1828866 | 40.0000 | |

Data File: /chem/BNAHS3.i/625/01-17-00/24jan00A.b/t9128.d
Date : 25-JAN-2000 09:59
Client ID: Trip_Blank
Sample Info: 179524;990;2;1;;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAHS3.i

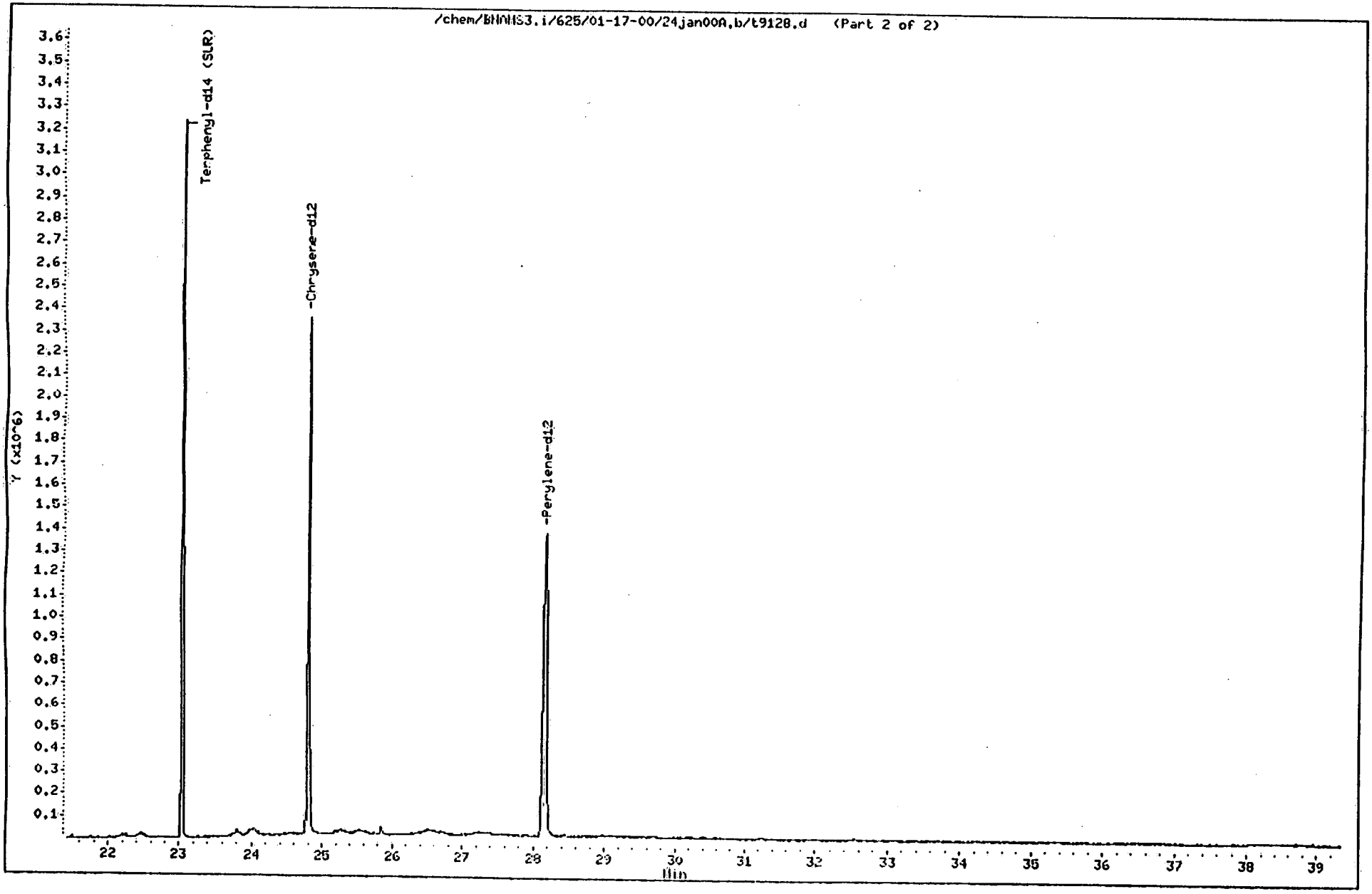
Operator: BNAHS 1
Column diameter: 0.53



Data File: /chem/BNAHS3.i/625/01-17-00/24jan00A.b/t9128.d
Date : 25-JAN-2000 09:59
Client ID: Trip_Blank
Sample Info: 179524;990;2;1;;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53



Client ID: MW-11d
Site: L.E. Carpenter

Lab Sample No: 179527
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9145.d

Matrix: WATER
Level: LOW
Sample Volume: 970 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.2 |

Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9145.d
Report Date: 27-Jan-2000 09:44

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9145.d
Lab Smp Id: 179527 Client Smp ID: MW-11d
Inj Date : 26-JAN-2000 20:26 Inst ID: BNAMS3.i
Operator : BNAMS 1
Smp Info : 179527;970;2;1;;
Misc Info : W844;BISPHL;5173;143
Comment :
Method : /chem/BNAMS3.i/625/01-17-00/26jan00.b/BNA625b.m
Meth Date : 27-Jan-2000 08:23 lisa Quant Type: ISTD
Cal Date : 17-JAN-2000 13:08 Cal File: t8971.d
Als bottle: 15
Dil Factor: 1.00000 Compound Sublist: BIS2PHTH.sub
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpd1

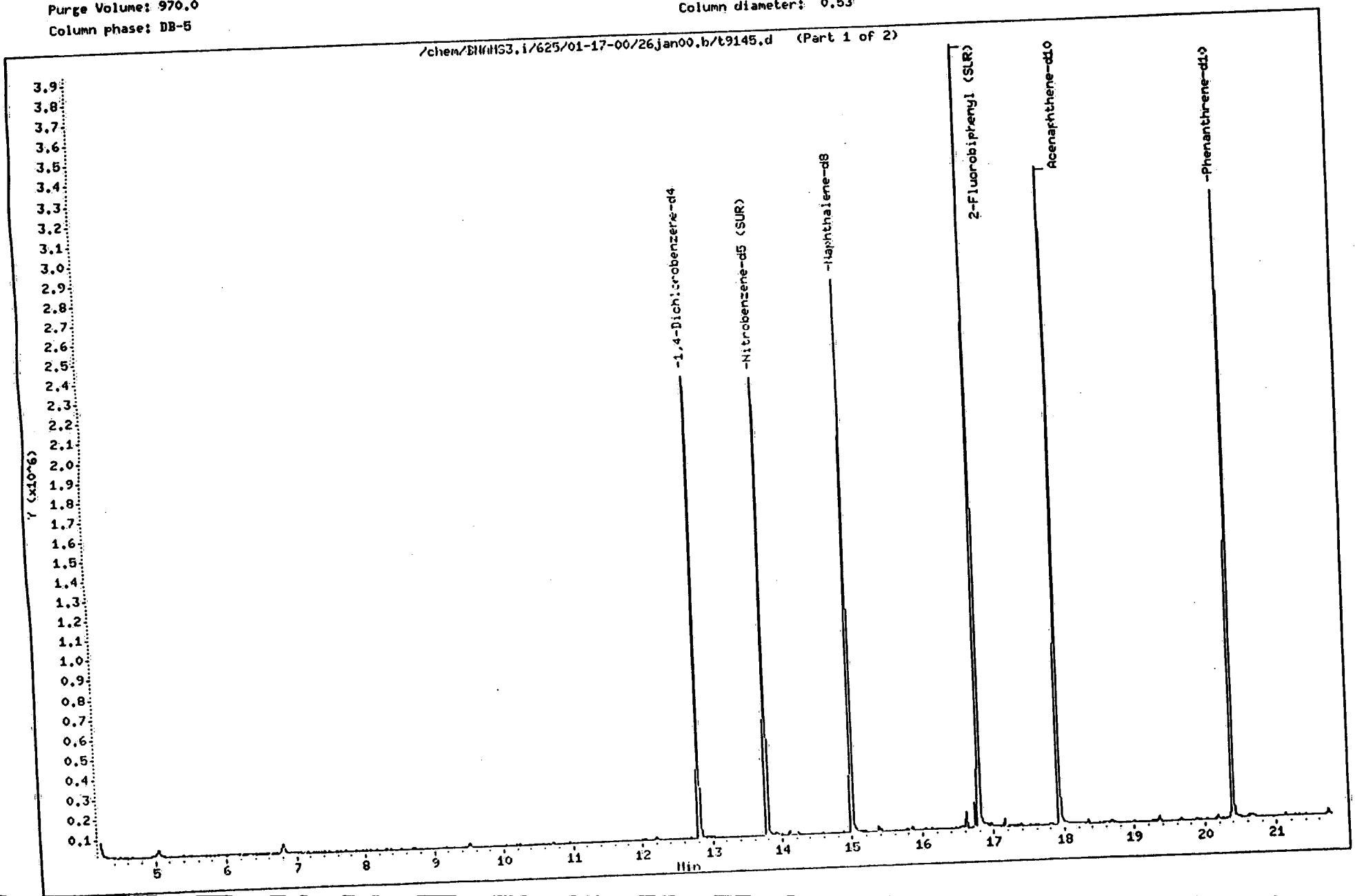
Concentration Formula: Amt * DF * 1000*Vt/Vo

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Vt | 2.000 | Volume of final extract (mL) |
| Vo | 970.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| • 79 1,4-Dichlorobenzene-d4 | 152 | 12.817 | 12.817 | (1.000) | 558998 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.784 | 13.795 | (0.918) | 1130090 | 45.4646 | 94 |
| • 80 Naphthalene-d8 | 136 | 15.007 | 15.013 | (1.000) | 1794606 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.803 | 16.807 | (0.937) | 1871059 | 48.6560 | 100 |
| • 82 Acenaphthene-d10 | 164 | 17.934 | 17.942 | (1.000) | 1230399 | 40.0000 | |
| • 83 Phenanthrene-d10 | 188 | 20.401 | 20.413 | (1.000) | 2022841 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 23.023 | 23.026 | (0.929) | 1694410 | 41.8712 | 86 |
| • 81 Chrysene-d12 | 240 | 24.786 | 24.813 | (1.000) | 1544403 | 40.0000 | |
| • 84 Perylene-d12 | 264 | 28.125 | 28.151 | (1.000) | 1850161 | 40.0000 | |

Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9145.d
Date : 26-JAN-2000 20:26
Client ID: HW-11d
Sample Info: 179527;970;2;1;;
Purge Volume: 970.0
Column phase: DB-5

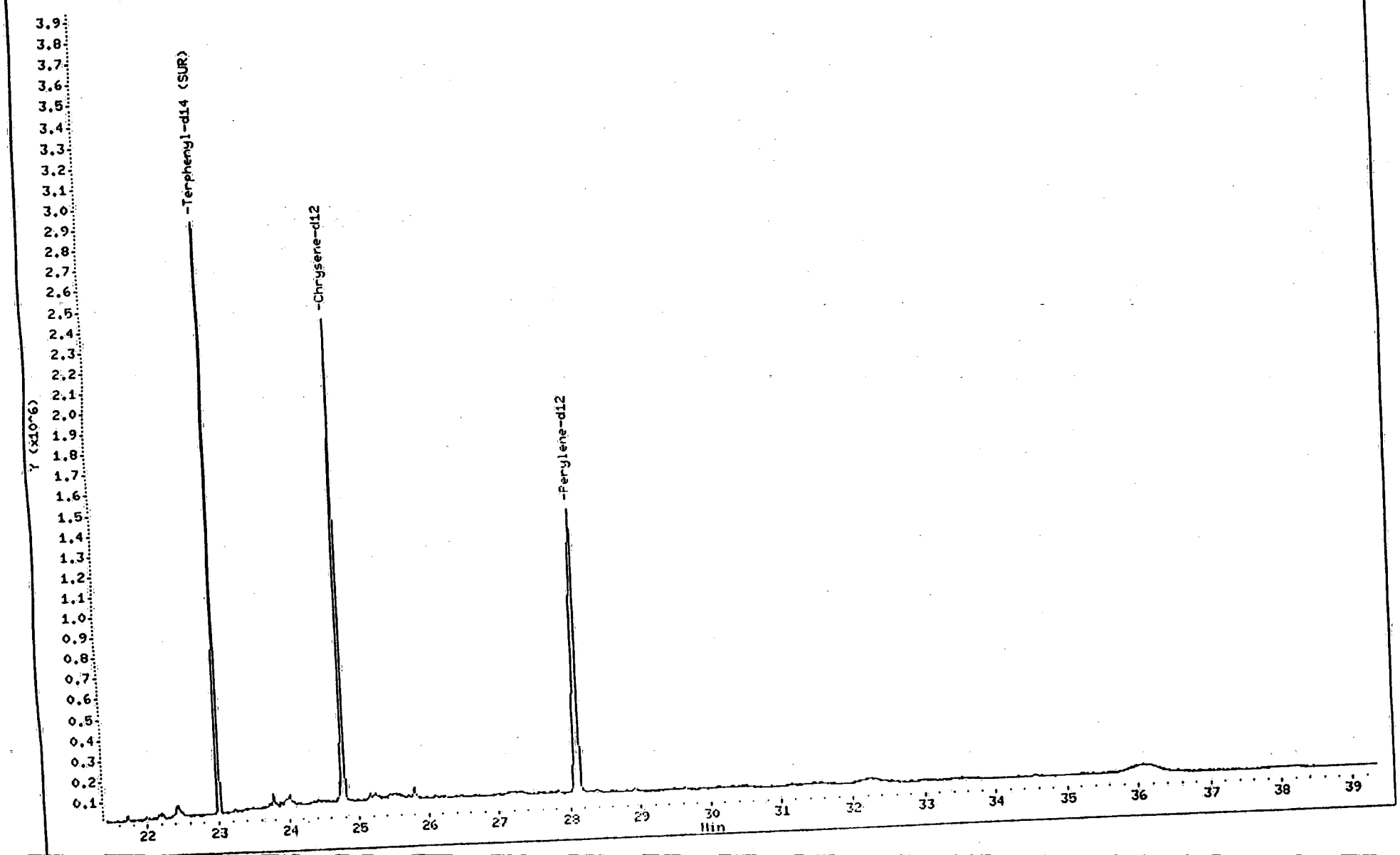
Instrument: BNAHS3.i
Operator: BNAHS 1
Column diameter: 0.53



Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9145.d
Date : 26-JAN-2000 20:26
Client ID: HW-11d
Sample Info: 179527;970;2;1;;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS3.i
Operator: BNAHS 1
Column diameter: 0.53

/chem/BNAHS3.i/625/01-17-00/26jan00.b/t9145.d (Part 2 of 2)



Client ID: MW-21d
Site: L.E. Carpenter

Lab Sample No: 179530
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9146.d

Matrix: WATER
Level: LOW
Sample Volume: 960 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.2 |

Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9146.d
Report Date: 27-Jan-2000 09:44

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9146.d
Lab Smp Id: 179530 Client Smp ID: MW-21d
Inj Date : 26-JAN-2000 21:17 Inst ID: BNAMS3.i
Operator : BNAMS 1
Smp Info : 179530;960;2;1;;
Misc Info : W844;BISPHL;5173;143
Comment :
Method : /chem/BNAMS3.i/625/01-17-00/26jan00.b/BNA625b.m
Meth Date : 27-Jan-2000 08:23 lisa Quant Type: ISTD
Cal Date : 17-JAN-2000 13:08 Cal File: t8971.d
Als bottle: 16
Dil Factor: 1.00000 Compound Sublist: BIS2PHTH.sub
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpd1

Concentration Formula: Amt * DF * 1000*Vt/Vo

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Vt | 2.000 | Volume of final extract (mL) |
| Vo | 960.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| • 79 1,4-Dichlorobenzene-d4 | 152 | 12.816 | 12.817 | (1.000) | 580105 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.789 | 13.795 | (0.919) | 1171382 | 44.8606 | 93 |
| • 80 Naphthalene-d8 | 136 | 15.005 | 15.013 | (1.000) | 1885222 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.800 | 16.807 | (0.937) | 1944200 | 48.2999 | 100 |
| • 82 Acenaphthene-d10 | 164 | 17.932 | 17.942 | (1.000) | 1287921 | 40.0000 | |
| • 83 Phenanthrene-d10 | 188 | 20.397 | 20.413 | (1.000) | 2133580 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 23.017 | 23.026 | (0.929) | 1594178 | 36.2251 | 75(R) |
| • 81 Chrysene-d12 | 240 | 24.786 | 24.813 | (1.000) | 1679520 | 40.0000 | |
| • 84 Perylene-d12 | 264 | 28.126 | 28.151 | (1.000) | 2003528 | 40.0000 | |

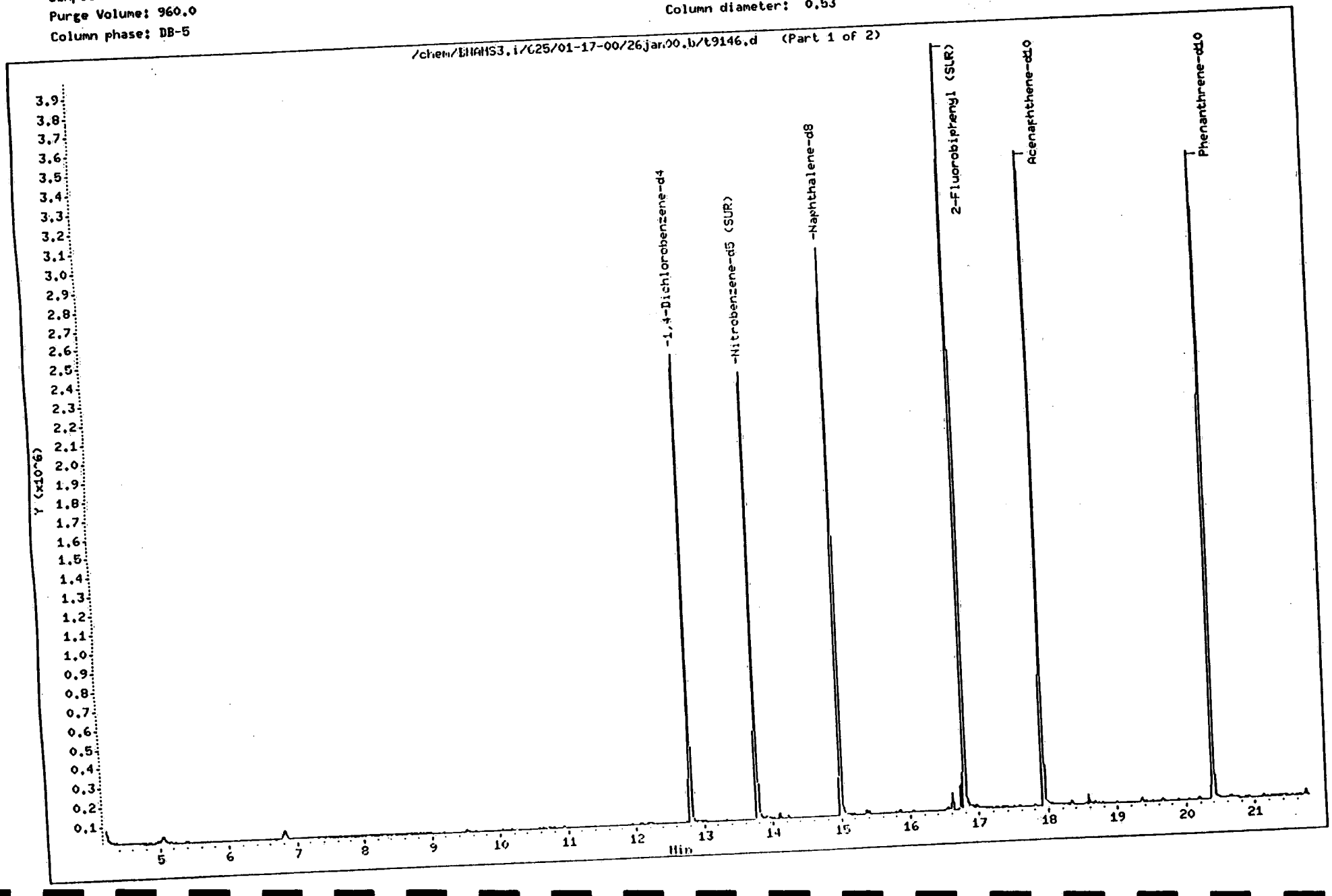
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9146.d
Date : 26-JAN-2000 21:17
Client ID: MW-21d
Sample Info: 179530;960;2;1;;
Purge Volume: 960.0
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53

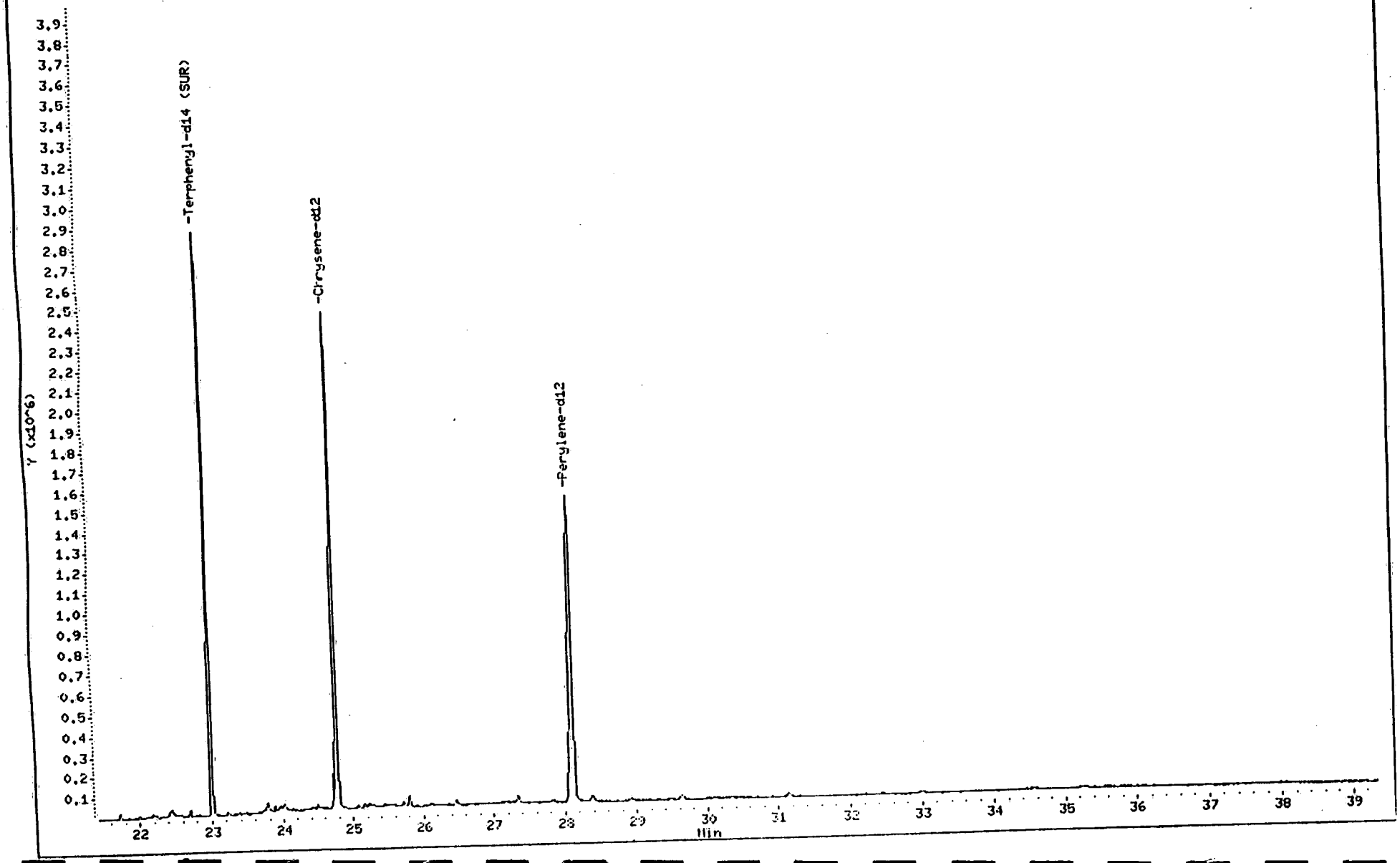


Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9146.d
Date : 26-JAN-2000 21:17
Client ID: MW-21d
Sample Info: 179530;960;2;1;;
Purge Volume: 960.0
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53

/chem/BNAHS3.i/625/01-17-00/26jan00.b/t9146.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9147.d
Report Date: 27-Jan-2000 09:44

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9147.d
Client Smp ID: MW-21
Lab Smp Id: 179531
Inj Date : 26-JAN-2000 22:06
Inst ID: BNAMS3.i
Operator : BNAMS 1
Smp Info : 179531;950;2;1;;
Misc Info : W844;BISPHL;5173;143
Comment :
Method : /chem/BNAMS3.i/625/01-17-00/26jan00.b/BNA625b.m
Quant Type: ISTD
Meth Date : 27-Jan-2000 08:23 lisa
Cal File: t8971.d
Cal Date : 17-JAN-2000 13:08
Als bottle: 17
Dil Factor: 1.00000
Compound Sublist: BIS2PHTH.sub
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpd1

Concentration Formula: Amt * DF * 1000*Vt/Vo

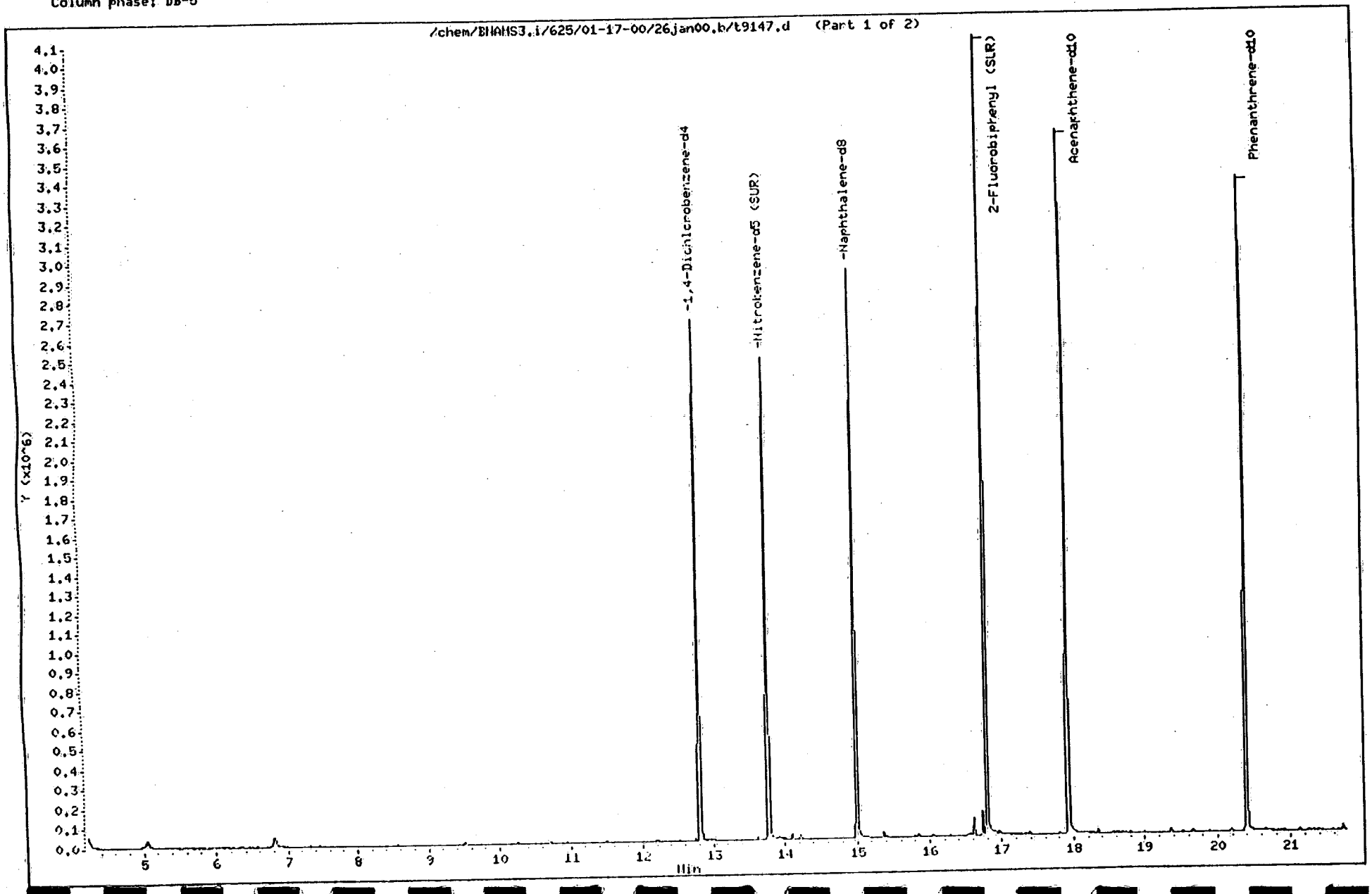
| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Vt | 2.000 | Volume of final extract (mL) |
| Vo | 950.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| • 79 1,4-Dichlorobenzene-d4 | 152 | 12.812 | 12.817 | (1.000) | 597765 | 40.0000 | |
| S 76 Nitrobenzene-d5 (SUR) | 82 | 13.785 | 13.795 | (0.919) | 1249390 | 46.7212 | 98 |
| • 80 Naphthalene-d8 | 136 | 15.008 | 15.013 | (1.000) | 1930695 | 40.0000 | |
| S 77 2-Fluorobiphenyl (SUR) | 172 | 16.803 | 16.807 | (0.937) | 1959781 | 47.6893 | 100 |
| • 82 Acenaphthene-d10 | 164 | 17.934 | 17.942 | (1.000) | 1314865 | 40.0000 | |
| • 83 Phenanthrene-d10 | 188 | 20.399 | 20.413 | (1.000) | 2185731 | 40.0000 | |
| S 78 Terphenyl-d14 (SUR) | 244 | 23.017 | 23.026 | (0.929) | 1749858 | 38.9384 | 82 |
| 63 bis(2-Ethylhexyl)phthalate | 149 | 24.731 | 24.752 | (0.998) | 130986 | 2.87543 | 6.0 |
| • 81 Chrysene-d12 | 240 | 24.785 | 24.813 | (1.000) | 1715075 | 40.0000 | |
| • 84 Perylene-d12 | 264 | 28.126 | 28.151 | (1.000) | 2032510 | 40.0000 | |

Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9147.d
Date : 26-JAN-2000 22:06
Client ID: HW-21
Sample Info: 179531;950;2;1;;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAHS3.i

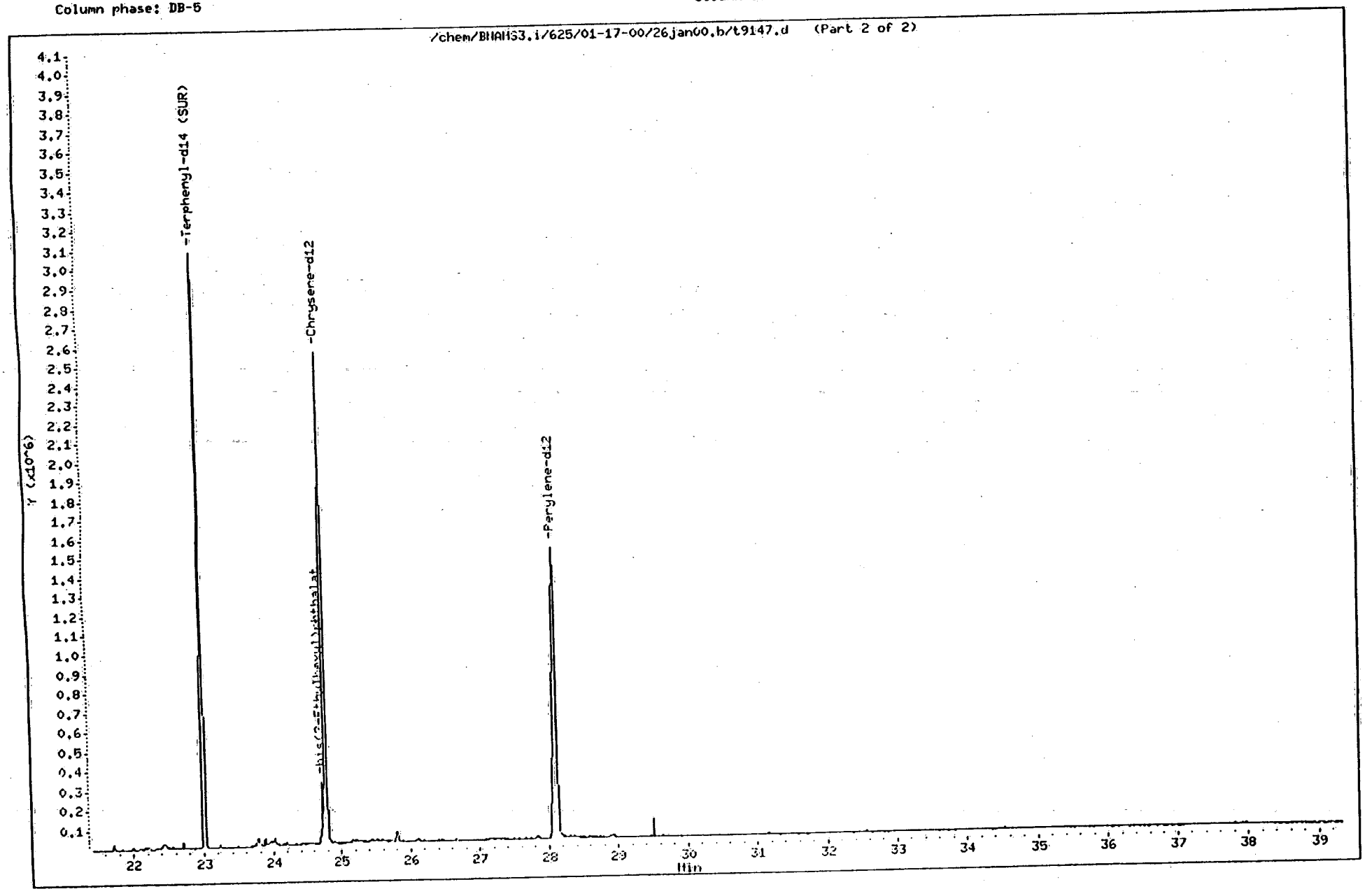
Operator: BNAHS 1
Column diameter: 0.53



Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9147.d
Date : 26-JAN-2000 22:06
Client ID: HW-21
Sample Info: 179531;950;2;1;;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53



Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9147.d

Date : 26-JAN-2000 22:06

Client ID: MW-21

Instrument: BNAMS3.i

Sample Info: 179531;950;2;1;;

Purge Volume: 950.0

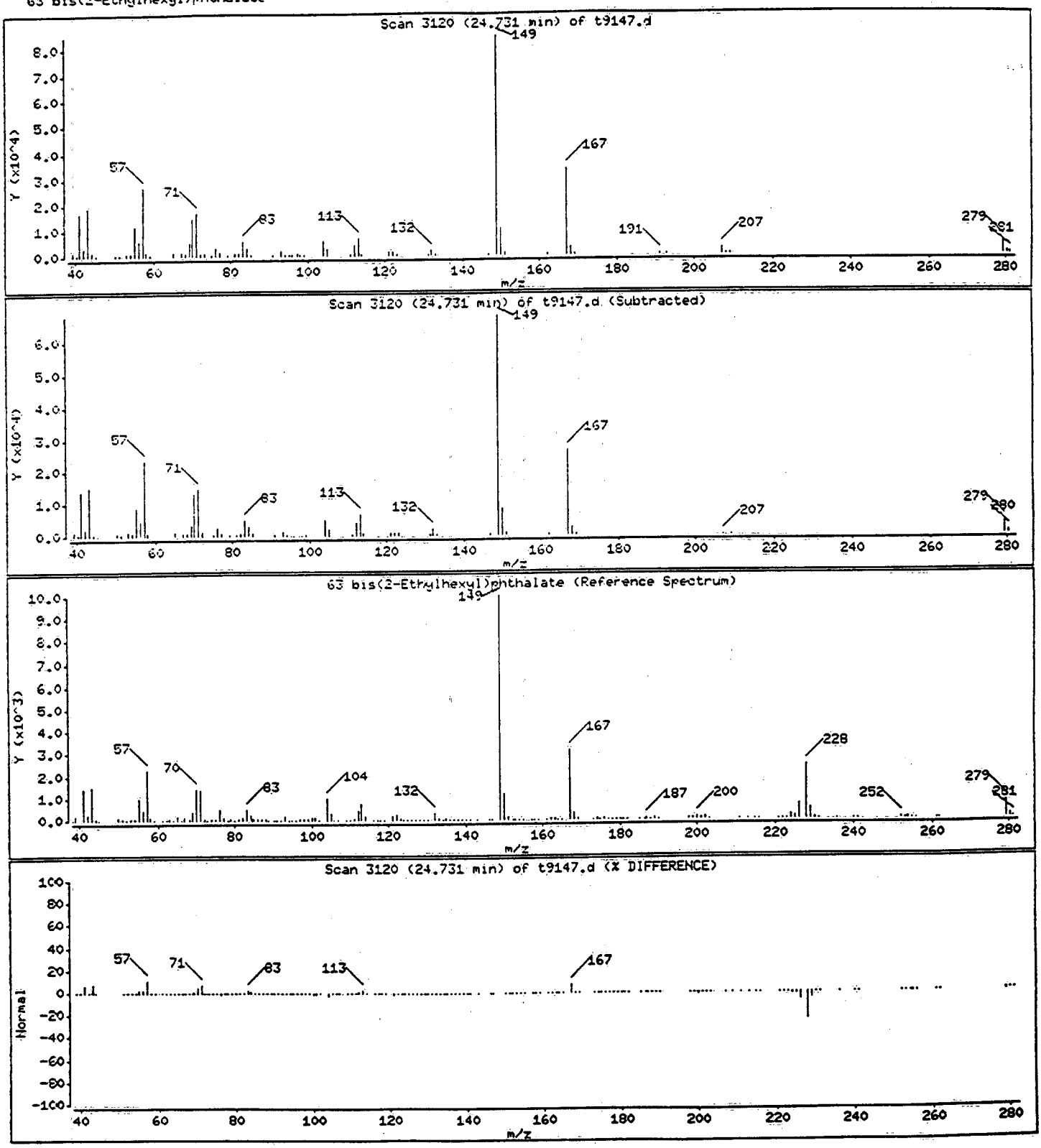
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 6.0 ug/L



Client ID: Field_Blank
Site: L.E. Carpenter

Lab Sample No: 179533
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Extracted: 01/19/00
Date Analyzed: 01/26/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9148.d

Matrix: WATER
Level: LOW
Sample Volume: 970 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 4.2 |

Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9148.d
Report Date: 27-Jan-2000 09:44

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9148.d
Lab Smp Id: 179533 Client Smp ID: Field_Blank
Inj Date : 26-JAN-2000 22:56
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 179533;970;2;1;;
Misc Info : W844;BISPHL;5173;143
Comment :
Method : /chem/BNAMS3.i/625/01-17-00/26jan00.b/BNA625b.m
Meth Date : 27-Jan-2000 08:23 lisa Quant Type: ISTD
Cal Date : 17-JAN-2000 13:08 Cal File: t8971.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BIS2PHTH.sub
Target Version: 3.40
Processing Host: hpd1

Concentration Formula: Amt * DF * 1000*Vt/Vo

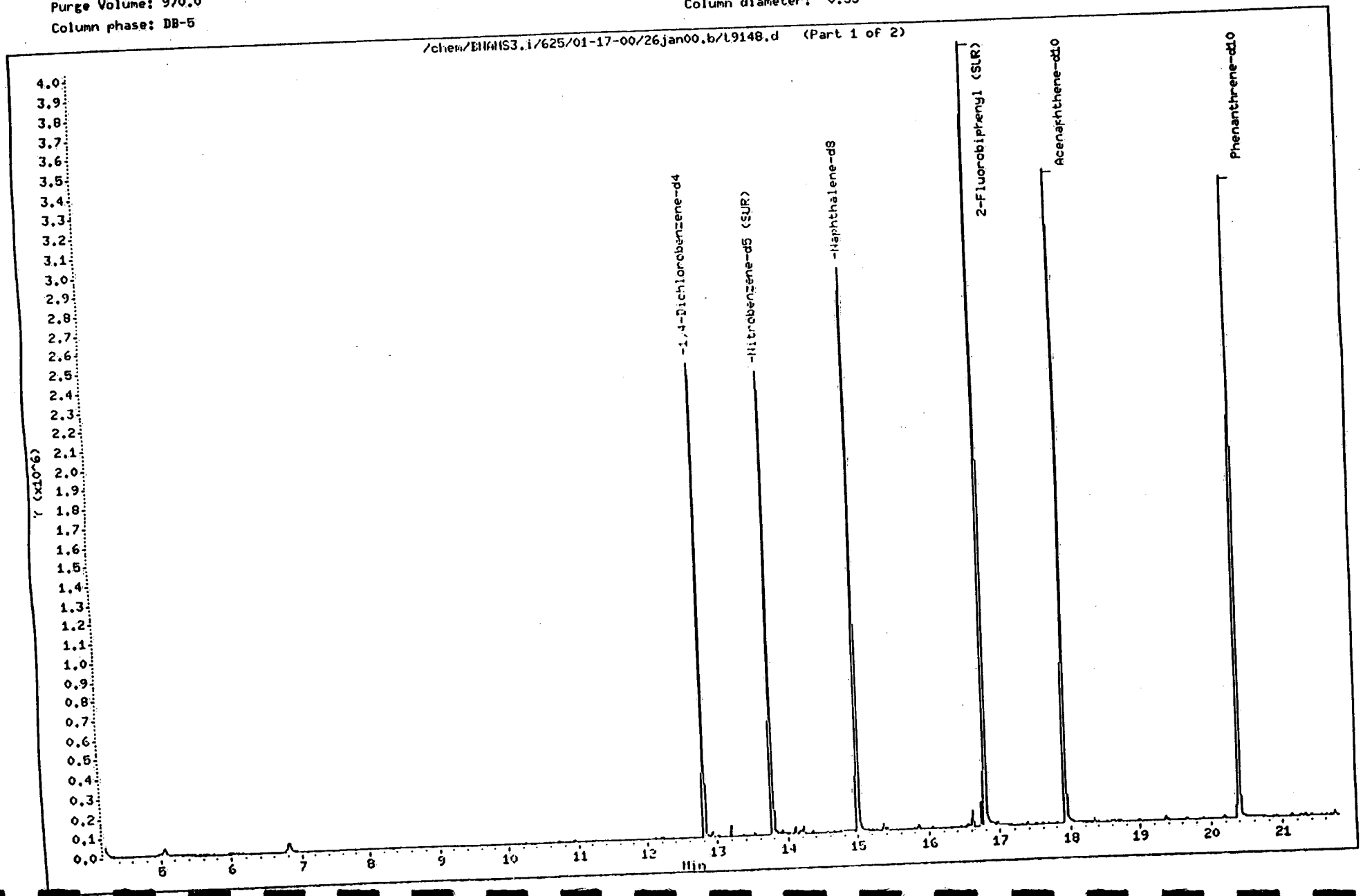
| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Vt | 2.000 | Volume of final extract (mL) |
| Vo | 970.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| • 79 1,4-Dichlorobenzene-d4 | 152 | 12.810 | 12.817 | (1.000) | 571935 | 40.0000 | |
| S 76 Nitrobenzene-d5 (SUR) | 82 | 13.783 | 13.795 | (0.918) | 1173509 | 45.6495 | 94 |
| • 80 Naphthalene-d8 | 136 | 15.006 | 15.013 | (1.000) | 1856007 | 40.0000 | |
| S 77 2-Fluorobiphenyl (SUR) | 172 | 16.801 | 16.807 | (0.937) | 1908379 | 48.9304 | 100 |
| • 82 Acenaphthene-d10 | 164 | 17.933 | 17.942 | (1.000) | 1247903 | 40.0000 | |
| • 83 Phenanthrene-d10 | 188 | 20.397 | 20.413 | (1.000) | 2097653 | 40.0000 | |
| S 78 Terphenyl-d14 (SUR) | 244 | 23.021 | 23.026 | (0.929) | 1953230 | 45.1619 | 93 |
| • 81 Chrysene-d12 | 240 | 24.787 | 24.813 | (1.000) | 1650591 | 40.0000 | |
| • 84 Perylene-d12 | 264 | 28.118 | 28.151 | (1.000) | 1928052 | 40.0000 | |

Data File: /chem/BNAHS3.i/620/01-17-00/26jan00.b/t9148.d
Date : 26-JAN-2000 22:56
Client ID: Field_Blank
Sample Info: 179533;970;2;1;;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS3.i

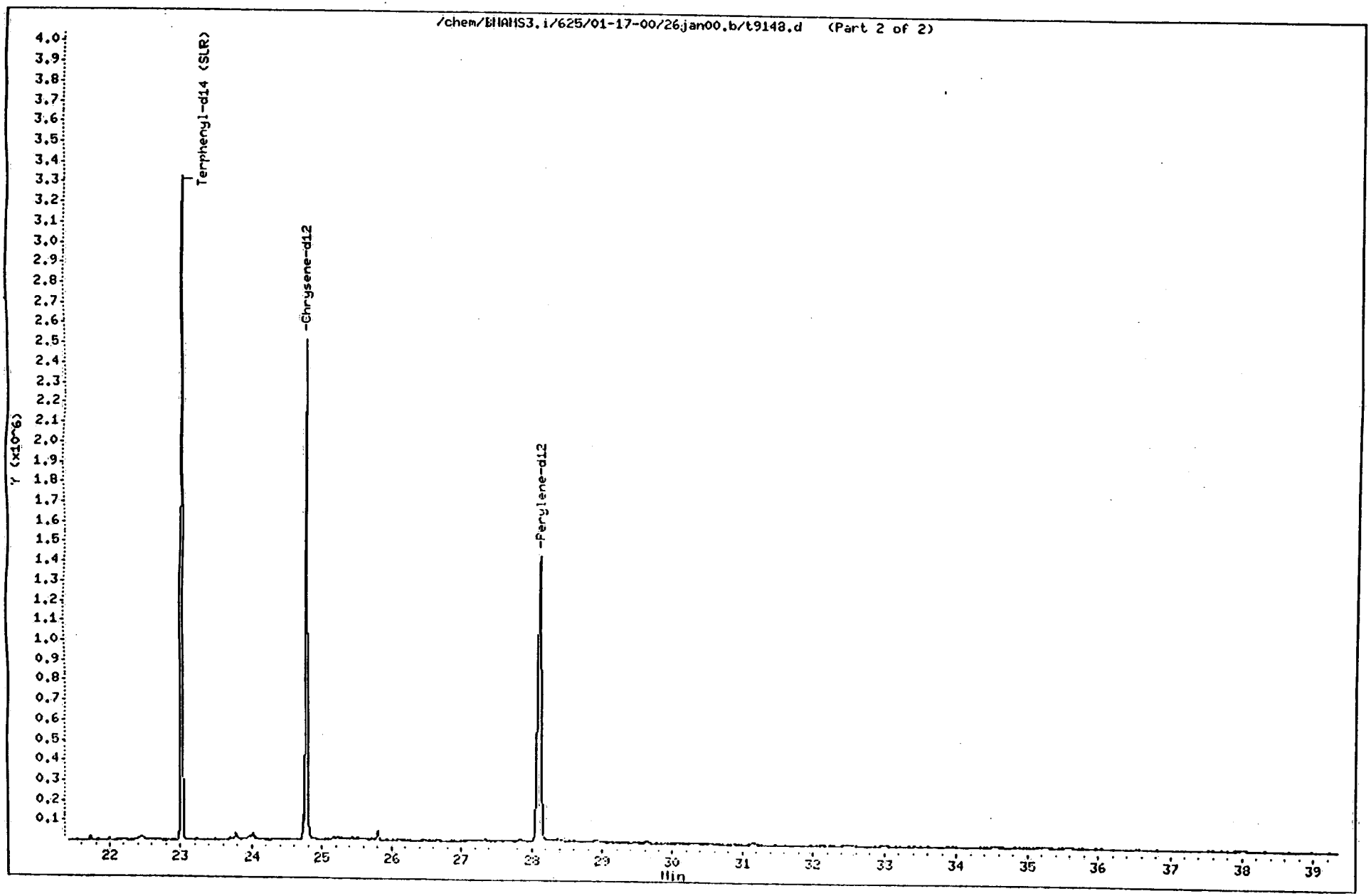
Operator: BNAHS 1
Column diameter: 0.53



Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9148.d
Date : 26-JAN-2000 22:56
Client ID: Field_Blank
Sample Info: 179533;970;2;1;;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T8965

DFTPP Injection Date: 01/17/00

Instrument ID: BNAMS3

DFTPP Injection Time: 0851

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 41.4 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 62.4 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 43.5 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.7 |
| 275 | 10.0 - 30.0% of mass 198 | 19.2 |
| 365 | Greater than 1.0% of mass 198 | 1.74 |
| 441 | 0.0 - 100.0% of mass 443 | 5.1 ( 48.8)2 |
| 442 | 40.0 - 110.0% of mass 198 | 54.2 |
| 443 | 17.0 - 23.0% of mass 442 | 10.5 ( 19.4)3 |

1-Value is % mass 69
2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | TSTD050 | TSTD050 | T8967 | 01/17/00 | 1004 |
| 02 | TSTD120 | TSTD120 | T8968 | 01/17/00 | 1050 |
| 03 | TSTD80 | TSTD80 | T8969 | 01/17/00 | 1134 |
| 04 | TSTD10 | TSTD10 | T8970 | 01/17/00 | 1217 |
| 05 | TSTD20 | TSTD20 | T8971 | 01/17/00 | 1308 |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

Data File: /chem/ENAMS3.i/625/01-17-00/17jan00.b/t8965.d

Date : 17-JAN-2000 08:51

Client ID:

Sample Info: TDFT017

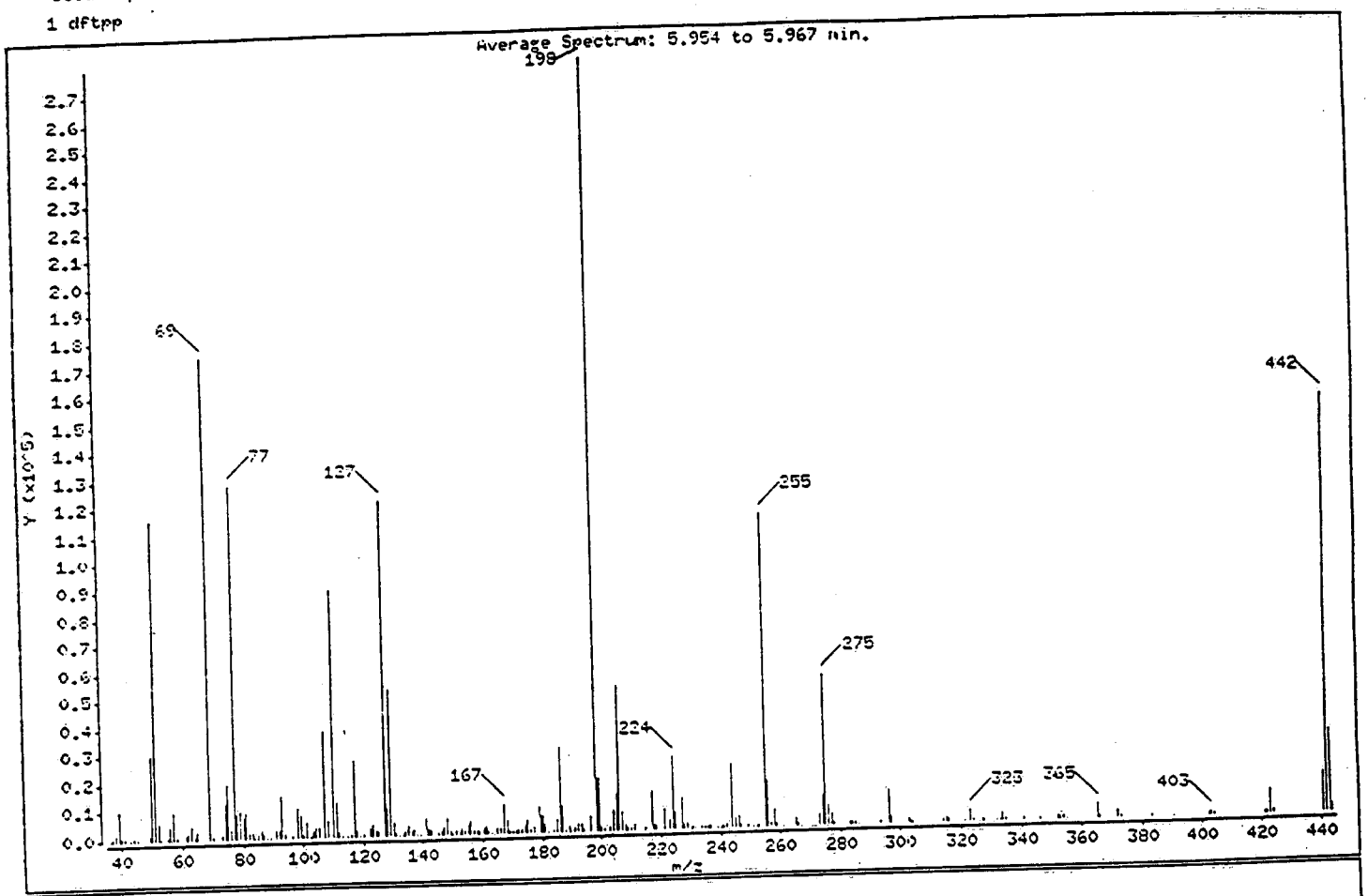
Instrument: ENAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 30.00 - 60.00% of mass 198 | 41.36 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 62.36 |
| 70 | Less than 2.00% of mass 69 | 0.24 ( 0.39) |
| 127 | 40.00 - 60.00% of mass 198 | 43.50 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.74 |
| 275 | 10.00 - 30.00% of mass 198 | 19.23 |
| 365 | Greater than 1.00% of mass 198 | 1.74 |
| 441 | 0.01 - 100.00% of mass 443 | 5.12 ( 48.75) |
| 442 | 40.00 - 110.00% of mass 198 | 54.16 |
| 443 | 17.00 - 23.00% of mass 442 | 10.51 ( 19.40) |

Data File: /chem/BNAMS3.i/625/01-17-00/17jan00.b/t8965.d

Date : 17-JAN-2000 08:51

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT017

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t8965.d

Spectrum: Average Spectrum: 5.954 to 5.967 min.

Location of Maximum: 198.00

Number of points: 234

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 122 | 111.00 | 12084 | 175.00 | 4459 | 253.00 | 420 |
| 37.00 | 750 | 112.00 | 1337 | 176.00 | 1317 | 255.00 | 112872 |
| 38.00 | 1647 | 113.00 | 241 | 177.00 | 1981 | 256.00 | 15948 |
| 39.00 | 10011 | 115.00 | 128 | 179.00 | 9035 | 257.00 | 1329 |
| 40.00 | 616 | 116.00 | 757 | 180.00 | 5792 | 258.00 | 5913 |
| 41.00 | 437 | 117.00 | 27104 | 181.00 | 2831 | 259.00 | 844 |
| 43.00 | 101 | 118.00 | 1932 | 182.00 | 320 | 265.00 | 2323 |
| 44.00 | 758 | 119.00 | 272 | 184.00 | 712 | 266.00 | 400 |
| 45.00 | 238 | 120.00 | 431 | 185.00 | 4318 | 273.00 | 3631 |
| 49.00 | 1257 | 122.00 | 2740 | 186.00 | 30008 | 274.00 | 10361 |
| 50.00 | 30368 | 123.00 | 3839 | 187.00 | 8924 | 275.00 | 53776 |
| 51.00 | 115688 | 124.00 | 1845 | 188.00 | 795 | 276.00 | 7208 |
| 52.00 | 5037 | 125.00 | 1499 | 189.00 | 1870 | 277.00 | 4087 |
| 53.00 | 228 | 127.00 | 121664 | 190.00 | 166 | 278.00 | 529 |
| 55.00 | 850 | 128.00 | 9974 | 191.00 | 1064 | 283.00 | 461 |
| 56.00 | 4201 | 129.00 | 52592 | 192.00 | 2473 | 284.00 | 395 |
| 57.00 | 9514 | 130.00 | 4431 | 193.00 | 2711 | 285.00 | 709 |
| 58.00 | 388 | 131.00 | 868 | 194.00 | 538 | 293.00 | 864 |
| 61.00 | 1450 | 132.00 | 307 | 196.00 | 5306 | 296.00 | 11742 |
| 62.00 | 1649 | 133.00 | 116 | 198.00 | 279680 | 297.00 | 1667 |
| 63.00 | 4726 | 134.00 | 1345 | 199.00 | 18856 | 303.00 | 1341 |
| 64.00 | 613 | 135.00 | 3388 | 200.00 | 1215 | 304.00 | 260 |
| 65.00 | 2278 | 136.00 | 1355 | 201.00 | 785 | 314.00 | 436 |
| 69.00 | 174400 | 137.00 | 1615 | 203.00 | 1544 | 315.00 | 1188 |
| 70.00 | 673 | 138.00 | 275 | 204.00 | 7154 | 316.00 | 639 |
| 73.00 | 1282 | 139.00 | 269 | 205.00 | 12544 | 321.00 | 277 |
| 74.00 | 12070 | 141.00 | 5889 | 206.00 | 52064 | 323.00 | 4117 |
| 75.00 | 18992 | 142.00 | 1879 | 207.00 | 6684 | 324.00 | 540 |
| 76.00 | 3052 | 143.00 | 1186 | 208.00 | 1644 | 327.00 | 609 |
| 77.00 | 128056 | 144.00 | 280 | 209.00 | 595 | 328.00 | 150 |
| 78.00 | 8454 | 145.00 | 380 | 210.00 | 838 | 332.00 | 278 |
| 79.00 | 9380 | 146.00 | 966 | 211.00 | 1919 | 333.00 | 129 |
| 80.00 | 6920 | 147.00 | 2730 | 215.00 | 499 | 334.00 | 2327 |
| 81.00 | 8855 | 148.00 | 6070 | 217.00 | 13257 | 335.00 | 609 |
| 82.00 | 1943 | 149.00 | 1115 | 218.00 | 1501 | 341.00 | 445 |

Data File: /chem/ENAMS3.i/625/01-17-00/17jan00.b/t8965.d

Date : 17-JAN-2000 08:51

Client ID:

Instrument: ENAMS3.i

Sample Info: TDFT017

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t8965.d

Spectrum: Average Spectrum: 5.954 to 5.967 min.

Location of Maximum: 199.00

Number of points: 234

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 83.00 | 2080 | 150.00 | 171 | 221.00 | 7312 | 346.00 | 771 |
| 84.00 | 141 | 151.00 | 1085 | 223.00 | 2938 | 352.00 | 1147 |
| 85.00 | 1382 | 152.00 | 146 | 224.00 | 25904 | 353.00 | 692 |
| 86.00 | 2867 | 153.00 | 1807 | 225.00 | 5977 | 354.00 | 1185 |
| 87.00 | 1202 | 154.00 | 1347 | 227.00 | 10816 | 355.00 | 103 |
| 88.00 | 310 | 155.00 | 3078 | 228.00 | 1537 | 365.00 | 4869 |
| 89.00 | 231 | 156.00 | 4520 | 229.00 | 2195 | 366.00 | 597 |
| 91.00 | 2410 | 157.00 | 1024 | 230.00 | 198 | 372.00 | 2481 |
| 92.00 | 2412 | 158.00 | 1089 | 231.00 | 878 | 373.00 | 533 |
| 93.00 | 14528 | 159.00 | 800 | 234.00 | 630 | 383.00 | 636 |
| 94.00 | 1128 | 160.00 | 1792 | 235.00 | 768 | 390.00 | 248 |
| 95.00 | 116 | 161.00 | 2804 | 236.00 | 451 | 402.00 | 030 |
| 96.00 | 692 | 162.00 | 757 | 237.00 | 790 | 403.00 | 1301 |
| 98.00 | 10534 | 163.00 | 122 | 239.00 | 297 | 404.00 | 324 |
| 99.00 | 3009 | 165.00 | 2199 | 240.00 | 100 | 421.00 | 894 |
| 100.00 | 683 | 166.00 | 1700 | 241.00 | 581 | 422.00 | 564 |
| 101.00 | 4937 | 167.00 | 10032 | 242.00 | 1260 | 423.00 | 8487 |
| 102.00 | 286 | 168.00 | 4586 | 244.00 | 22536 | 424.00 | 1566 |
| 103.00 | 1732 | 169.00 | 879 | 245.00 | 2901 | 441.00 | 14330 |
| 104.00 | 3379 | 170.00 | 345 | 246.00 | 3831 | 442.00 | 151424 |
| 105.00 | 2987 | 171.00 | 561 | 247.00 | 765 | 443.00 | 29392 |
| 107.00 | 38176 | 172.00 | 1049 | 249.00 | 768 | 444.00 | 2629 |
| 108.00 | 5889 | 173.00 | 1331 | 251.00 | 115 | | |
| 110.00 | 89096 | 174.00 | 2436 | 252.00 | 208 | | |

Data File: /chem/BNAMS3.i/625/01-17-00/17jan00.b/t8965.d

Date : 17-JAN-2000 08:51

Client ID:

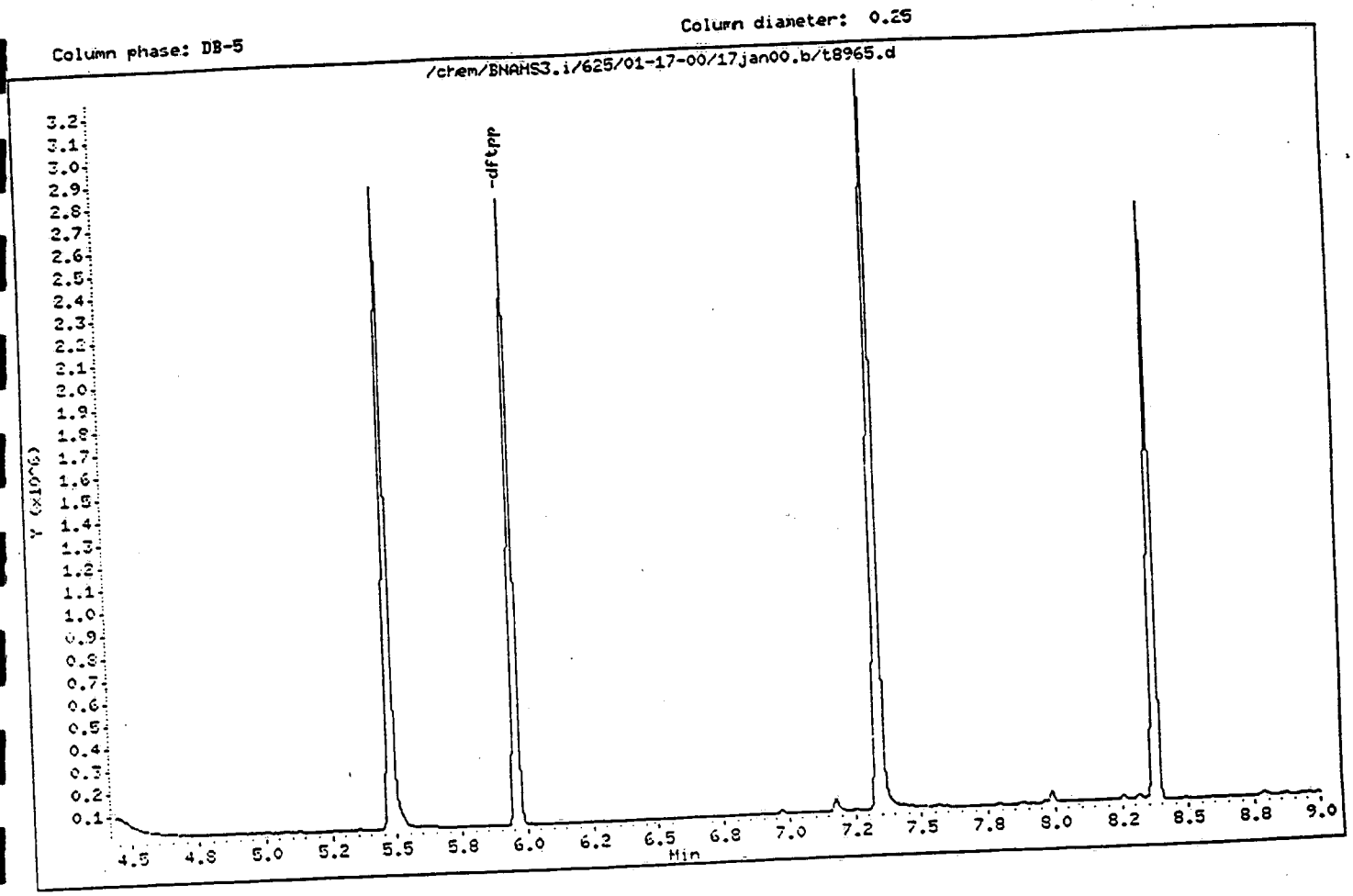
Sample Info: TDFT017

Instrument: BNAMS3.i

Operator: BNA2

Column diameter: 0.25

Column phase: DB-5



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T9078

DFTPP Injection Date: 01/21/00

Instrument ID: BNAMS3

DFTPP Injection Time: 1103

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 45.8 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 66.7 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 44.9 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 7.0 |
| 275 | 10.0 - 30.0% of mass 198 | 20.4 |
| 365 | Greater than 1.0% of mass 198 | 1.77 |
| 441 | 0.0 - 100.0% of mass 443 | 8.8 ( 84.5)2 |
| 442 | 40.0 - 110.0% of mass 198 | 53.7 |
| 443 | 17.0 - 23.0% of mass 442 | 10.5 ( 19.5)3 |

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | TSTD021 | TSTD021 | T9079 | 01/21/00 | 1128 |
| 02 | WB019 | WB019 | T9081 | 01/21/00 | 1322 |
| 03 | | | | | |
| 04 | | | | | |
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Data File: /chem/BNAMS3.i/625/01-17-00/21jan00.b/t9078.d

Date : 21-JAN-2000 11:03

Client ID:

Instrument: BNAMS3.i

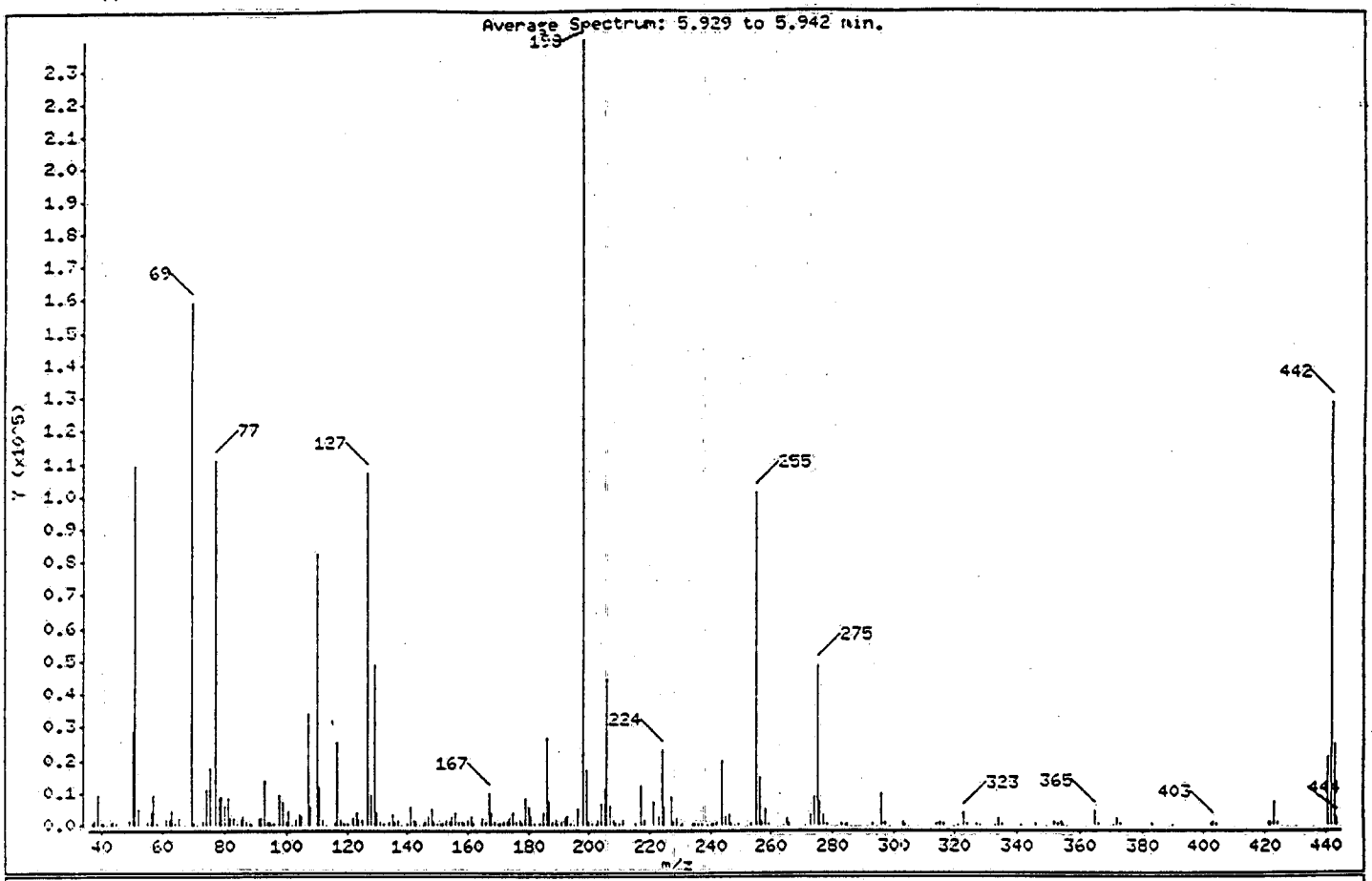
Sample Info: TDFT021

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 30.00 - 60.00% of mass 198 | 45.81 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 66.69 |
| 70 | Less than 2.00% of mass 69 | 0.24 ( 0.36) |
| 127 | 40.00 - 60.00% of mass 198 | 44.90 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 7.02 |
| 275 | 10.00 - 30.00% of mass 198 | 20.42 |
| 365 | Greater than 1.00% of mass 198 | 1.77 |
| 441 | 0.01 - 100.00% of mass 443 | 8.84 ( 84.49) |
| 442 | 40.00 - 110.00% of mass 198 | 53.73 |
| 443 | 17.00 - 23.00% of mass 442 | 10.46 ( 19.46) |

Data File: /chem/BNAMS3.i/625/01-17-00/21jan00.b/t9078.d

Date : 21-JAN-2000 11:03

Client ID:

Sample Info: TDFT021

Instrument: INAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t9078.d

Spectrum: Average Spectrum: 5.929 to 5.942 min.

Location of Maximum: 198.00

Number of points: 237

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 37.00 | 561 | 111.00 | 11464 | 179.00 | 8209 | 256.00 | 14678 |
| 38.00 | 1674 | 112.00 | 1421 | 180.00 | 5570 | 257.00 | 1263 |
| 39.00 | 9459 | 113.00 | 274 | 181.00 | 2674 | 258.00 | 5209 |
| 40.00 | 607 | 116.00 | 779 | 182.00 | 477 | 259.00 | 747 |
| 41.00 | 762 | 117.00 | 25024 | 184.00 | 371 | 264.00 | 217 |
| 42.00 | 106 | 118.00 | 1828 | 185.00 | 3574 | 265.00 | 2018 |
| 43.00 | 534 | 119.00 | 364 | 186.00 | 26928 | 266.00 | 456 |
| 44.00 | 990 | 120.00 | 475 | 187.00 | 7344 | 271.00 | 116 |
| 45.00 | 418 | 122.00 | 2378 | 188.00 | 857 | 273.00 | 3277 |
| 49.00 | 1395 | 123.00 | 3716 | 189.00 | 1764 | 274.00 | 8776 |
| 50.00 | 28536 | 124.00 | 1684 | 190.00 | 164 | 275.00 | 48744 |
| 51.00 | 109336 | 125.00 | 1396 | 191.00 | 890 | 276.00 | 6858 |
| 52.00 | 5210 | 127.00 | 107160 | 192.00 | 2209 | 277.00 | 3374 |
| 53.00 | 104 | 128.00 | 9065 | 193.00 | 2495 | 278.00 | 432 |
| 55.00 | 1038 | 129.00 | 49088 | 194.00 | 500 | 283.00 | 395 |
| 56.00 | 3858 | 130.00 | 4088 | 195.00 | 105 | 284.00 | 270 |
| 57.00 | 9245 | 131.00 | 834 | 196.00 | 4677 | 285.00 | 620 |
| 58.00 | 421 | 132.00 | 307 | 198.00 | 238656 | 293.00 | 791 |
| 61.00 | 1390 | 134.00 | 1205 | 199.00 | 16744 | 296.00 | 10018 |
| 62.00 | 1642 | 135.00 | 3218 | 200.00 | 1090 | 297.00 | 1327 |
| 63.00 | 4336 | 136.00 | 1245 | 201.00 | 678 | 303.00 | 1192 |
| 64.00 | 573 | 137.00 | 1590 | 202.00 | 133 | 304.00 | 264 |
| 65.00 | 2136 | 138.00 | 205 | 203.00 | 1475 | 314.00 | 359 |
| 67.00 | 250 | 140.00 | 287 | 204.00 | 6653 | 315.00 | 932 |
| 69.00 | 159104 | 141.00 | 5358 | 205.00 | 11162 | 316.00 | 472 |
| 70.00 | 574 | 142.00 | 1683 | 206.00 | 44504 | 321.00 | 269 |
| 71.00 | 231 | 143.00 | 1240 | 207.00 | 6300 | 323.00 | 3778 |
| 73.00 | 1334 | 144.00 | 142 | 208.00 | 1576 | 324.00 | 641 |
| 74.00 | 10800 | 145.00 | 151 | 209.00 | 459 | 327.00 | 511 |
| 75.00 | 17664 | 146.00 | 1019 | 210.00 | 533 | 328.00 | 165 |
| 77.00 | 110584 | 147.00 | 2577 | 211.00 | 1674 | 333.00 | 270 |
| 78.00 | 8045 | 148.00 | 5114 | 215.00 | 457 | 334.00 | 2077 |
| 79.00 | 8603 | 149.00 | 1046 | 217.00 | 11821 | 335.00 | 386 |
| 80.00 | 6087 | 150.00 | 316 | 218.00 | 1543 | 341.00 | 148 |
| 81.00 | 8328 | 151.00 | 680 | 221.00 | 6980 | 346.00 | 495 |

Data File: /chem/BNAMS3.i/625/01-17-00/21jan00.b/t9078.d

Date : 21-JAN-2000 11:03

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT021

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t9078.d

Spectrum: Average Spectrum: 5.929 to 5.942 min.

Location of Maximum: 198.00

Number of points: 237

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 82.00 | 2053 | 152.00 | 577 | 223.00 | 2676 | 352.00 | 1023 |
| 83.00 | 2095 | 153.00 | 1669 | 224.00 | 23024 | 353.00 | 754 |
| 84.00 | 666 | 154.00 | 1232 | 225.00 | 5412 | 354.00 | 1058 |
| 85.00 | 1467 | 155.00 | 2849 | 226.00 | 196 | 355.00 | 113 |
| 86.00 | 2784 | 156.00 | 3747 | 227.00 | 8889 | 365.00 | 4222 |
| 87.00 | 1192 | 157.00 | 998 | 228.00 | 1243 | 366.00 | 427 |
| 88.00 | 286 | 158.00 | 870 | 229.00 | 1993 | 371.00 | 246 |
| 89.00 | 101 | 159.00 | 694 | 230.00 | 101 | 372.00 | 1935 |
| 91.00 | 2195 | 160.00 | 1565 | 231.00 | 737 | 373.00 | 353 |
| 92.00 | 2158 | 161.00 | 2575 | 234.00 | 548 | 383.00 | 427 |
| 93.00 | 13753 | 162.00 | 659 | 235.00 | 625 | 390.00 | 231 |
| 94.00 | 972 | 165.00 | 2030 | 236.00 | 328 | 402.00 | 804 |
| 95.00 | 294 | 166.00 | 861 | 237.00 | 625 | 403.00 | 1041 |
| 96.00 | 656 | 167.00 | 9830 | 239.00 | 160 | 404.00 | 348 |
| 98.00 | 9380 | 168.00 | 3935 | 240.00 | 118 | 421.00 | 1048 |
| 99.00 | 7339 | 169.00 | 882 | 241.00 | 577 | 422.00 | 959 |
| 100.00 | 855 | 170.00 | 356 | 242.00 | 1153 | 423.00 | 7011 |
| 101.00 | 4547 | 171.00 | 576 | 244.00 | 19928 | 424.00 | 1363 |
| 102.00 | 123 | 172.00 | 971 | 245.00 | 2885 | 441.00 | 21088 |
| 103.00 | 1785 | 173.00 | 1172 | 246.00 | 3260 | 442.00 | 128248 |
| 104.00 | 3195 | 174.00 | 2153 | 247.00 | 601 | 443.00 | 24960 |
| 105.00 | 2697 | 175.00 | 3978 | 248.00 | 104 | 444.00 | 2264 |
| 107.00 | 33992 | 176.00 | 1186 | 249.00 | 692 | | |
| 108.00 | 5441 | 177.00 | 1870 | 253.00 | 316 | | |
| 110.00 | 82272 | 178.00 | 497 | 255.00 | 100904 | | |

Data File: /chem/BNAMS3.i/625/01-17-00/21jan00.b/t9078.d

Date : 21-JAN-2000 11:03

Client ID:

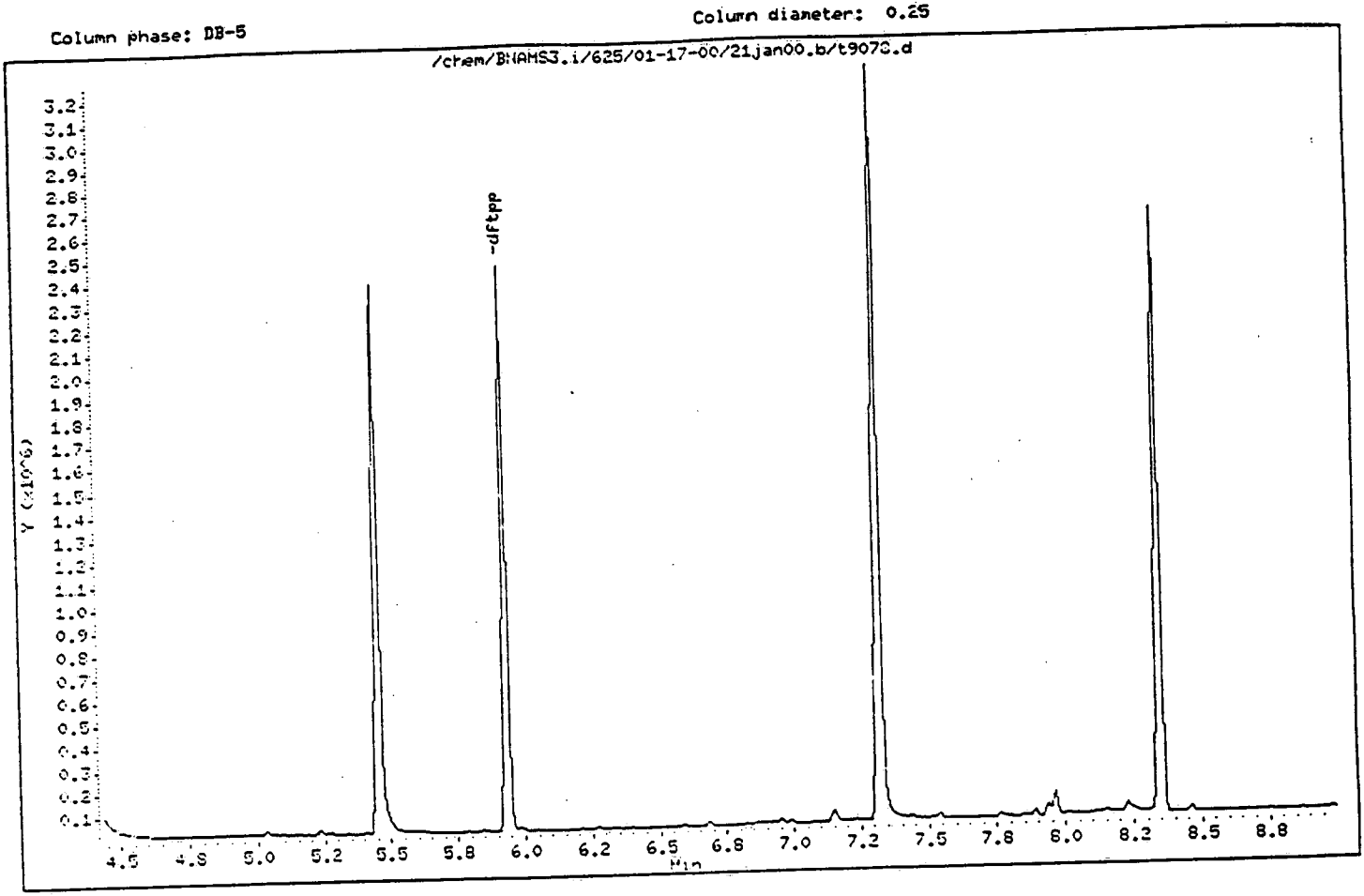
Sample Info: TDFT021

Instrument: BNAMS3.i

Operator: BNA2

Column diameter: 0.25

Column phase: DB-5



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T9110

Instrument ID: BNAMS3

DFTPP Injection Date: 01/24/00

DFTPP Injection Time: 1252

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 43.5 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 62.4 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 43.1 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.7 |
| 275 | 10.0 - 30.0% of mass 198 | 20.1 |
| 365 | Greater than 1.0% of mass 198 | 1.88 |
| 441 | 0.0 - 100.0% of mass 443 | 9.8 ( 85.6)2 |
| 442 | 40.0 - 110.0% of mass 198 | 57.8 |
| 443 | 17.0 - 23.0% of mass 442 | 11.4 ( 19.7)3 |

1-Value is % mass 69
2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | TSTD024A | TSTD024A | T9111 | 01/24/00 | 1310 |
| 02 | TRIP_BLANK | 179524 | T9128 | 01/25/00 | 0959 |
| 03 | | | | | |
| 04 | | | | | |
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| 18 | | | | | |

Data File: /chem/BNAMS3.i/625/01-17-00/24jan00A.b/t9110.d

Date : 24-JAN-2000 12:52

Client ID:

Sample Info: TDFT024A

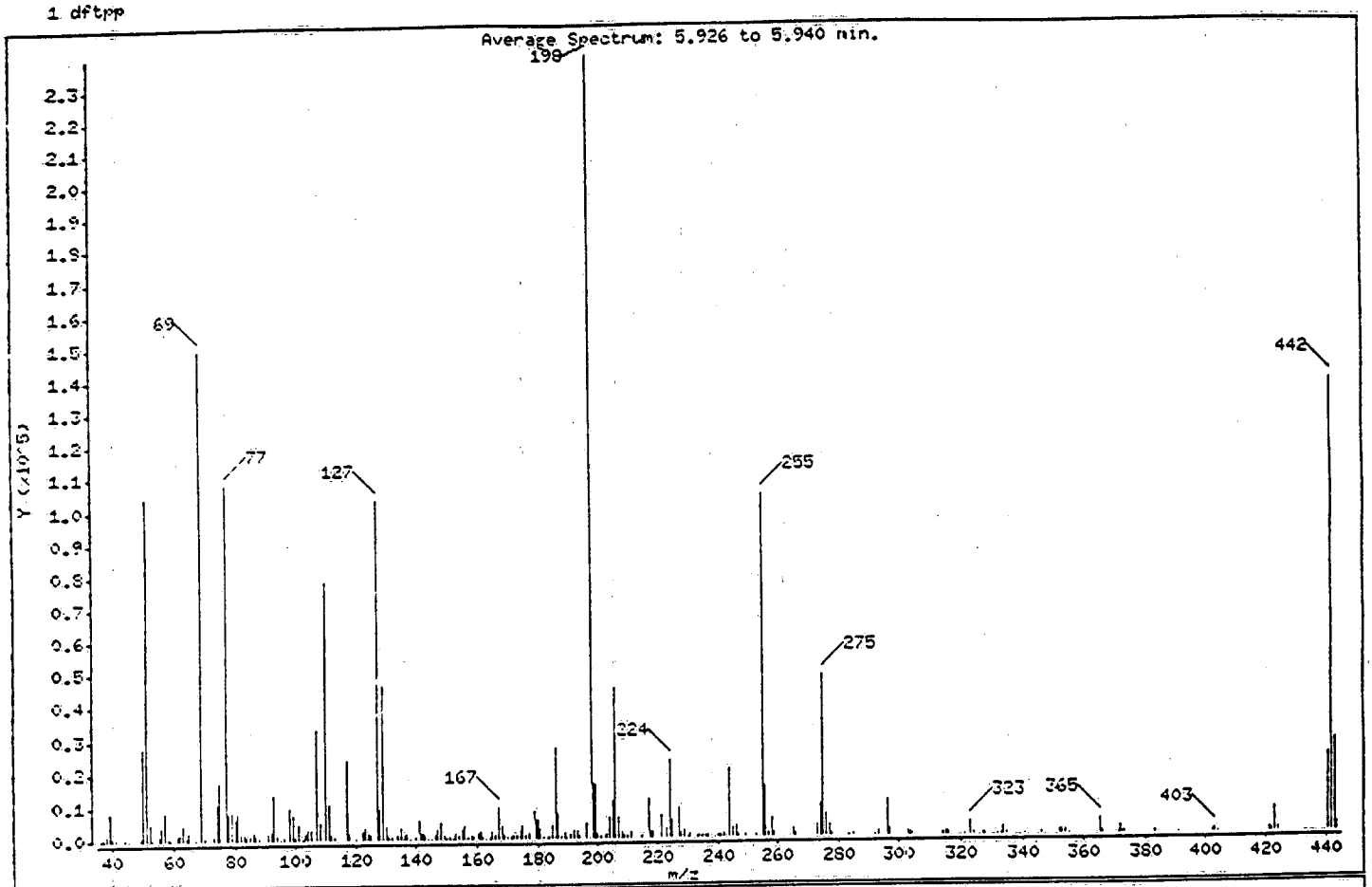
Instrument: BNAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 30.00 - 60.00% of mass 198 | 43.47 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 62.37 |
| 70 | Less than 2.00% of mass 69 | 0.27 ( 0.44) |
| 127 | 40.00 - 60.00% of mass 198 | 43.08 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.66 |
| 275 | 10.00 - 30.00% of mass 198 | 20.13 |
| 365 | Greater than 1.00% of mass 198 | 1.88 |
| 441 | 0.01 - 100.00% of mass 443 | 9.76 ( 85.56) |
| 442 | 40.00 - 110.00% of mass 198 | 57.79 |
| 443 | 17.00 - 23.00% of mass 442 | 11.41 ( 19.74) |

Data File: /chem/BNAMS3.i/625/01-17-00/24jan00A.b/t9110.d

Date : 24-JAN-2000 12:52

Client ID:

Sample Info: TDFT024A

Instrument: BNAMS3.i

Operator: BNA2

Column diameter: 0.25

Column phase: DB-5

Data File: t9110.d

Spectrum: Average Spectrum: 5.926 to 5.940 min.

Location of Maximum: 198.00

Number of points: 235

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 108 | 111.00 | 10539 | 177.00 | 1838 | 256.00 | 14998 |
| 37.00 | 585 | 112.00 | 1231 | 179.00 | 8127 | 257.00 | 1244 |
| 38.00 | 1470 | 113.00 | 372 | 180.00 | 5531 | 258.00 | 5262 |
| 39.00 | 8299 | 117.00 | 23896 | 181.00 | 2695 | 259.00 | 841 |
| 40.00 | 575 | 118.00 | 1617 | 182.00 | 350 | 264.00 | 244 |
| 41.00 | 309 | 119.00 | 248 | 183.00 | 108 | 265.00 | 2205 |
| 43.00 | 122 | 120.00 | 259 | 184.00 | 465 | 266.00 | 339 |
| 44.00 | 421 | 122.00 | 2280 | 185.00 | 4056 | 273.00 | 3181 |
| 45.00 | 220 | 123.00 | 3402 | 186.00 | 27056 | 274.00 | 9311 |
| 49.00 | 399 | 124.00 | 1639 | 187.00 | 7424 | 275.00 | 48264 |
| 50.00 | 27608 | 125.00 | 1342 | 188.00 | 731 | 276.00 | 6596 |
| 51.00 | 104224 | 127.00 | 103296 | 189.00 | 1622 | 277.00 | 3307 |
| 52.00 | 4930 | 128.00 | 8321 | 190.00 | 173 | 278.00 | 377 |
| 53.00 | 157 | 129.00 | 46464 | 191.00 | 660 | 283.00 | 190 |
| 55.00 | 827 | 130.00 | 3713 | 192.00 | 2341 | 284.00 | 116 |
| 56.00 | 3587 | 131.00 | 717 | 193.00 | 2293 | 285.00 | 662 |
| 57.00 | 8216 | 132.00 | 309 | 194.00 | 510 | 292.00 | 101 |
| 58.00 | 433 | 134.00 | 1288 | 196.00 | 4387 | 293.00 | 836 |
| 59.00 | 105 | 135.00 | 3093 | 198.00 | 239744 | 296.00 | 10609 |
| 61.00 | 1370 | 136.00 | 1216 | 199.00 | 15965 | 297.00 | 1461 |
| 62.00 | 1701 | 137.00 | 1444 | 200.00 | 1160 | 303.00 | 1219 |
| 63.00 | 4240 | 138.00 | 152 | 201.00 | 739 | 304.00 | 337 |
| 64.00 | 486 | 140.00 | 624 | 203.00 | 1330 | 314.00 | 473 |
| 65.00 | 2130 | 141.00 | 5379 | 204.00 | 6237 | 315.00 | 1056 |
| 67.00 | 106 | 142.00 | 1679 | 205.00 | 11281 | 316.00 | 548 |
| 69.00 | 149504 | 143.00 | 1180 | 206.00 | 45280 | 321.00 | 253 |
| 70.00 | 652 | 144.00 | 273 | 207.00 | 6130 | 323.00 | 3909 |
| 73.00 | 1053 | 145.00 | 222 | 208.00 | 1457 | 324.00 | 595 |
| 74.00 | 10610 | 146.00 | 951 | 209.00 | 543 | 327.00 | 612 |
| 75.00 | 17112 | 147.00 | 2618 | 210.00 | 287 | 328.00 | 254 |
| 77.00 | 108280 | 148.00 | 4945 | 211.00 | 1591 | 332.00 | 124 |
| 78.00 | 7653 | 149.00 | 1033 | 215.00 | 567 | 333.00 | 160 |
| 79.00 | 8412 | 150.00 | 266 | 217.00 | 11371 | 334.00 | 2269 |
| 80.00 | 5305 | 151.00 | 775 | 218.00 | 1414 | 335.00 | 519 |
| 81.00 | 7850 | 152.00 | 135 | 221.00 | 6339 | 341.00 | 154 |

Data File: /chem/ENAMS3.i/625/01-17-00/24jan00A.b/t9110.d

Date : 24-JAN-2000 12:52

Client ID:

Sample Info: TDFT024A

Instrument: ENAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t9110.d

Spectrum: Average Spectrum: 5.926 to 5.940 min.

Location of Maximum: 198.00

Number of points: 235

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 82.00 | 1881 | 153.00 | 1630 | 223.00 | 2775 | 346.00 | 643 |
| 83.00 | 1850 | 154.00 | 1264 | 224.00 | 23264 | 352.00 | 1065 |
| 84.00 | 548 | 155.00 | 2619 | 225.00 | 4962 | 353.00 | 846 |
| 85.00 | 1358 | 156.00 | 4061 | 227.00 | 8957 | 354.00 | 1229 |
| 86.00 | 2377 | 157.00 | 749 | 228.00 | 1349 | 355.00 | 133 |
| 87.00 | 933 | 158.00 | 916 | 229.00 | 1999 | 365.00 | 4505 |
| 88.00 | 360 | 159.00 | 639 | 230.00 | 233 | 366.00 | 521 |
| 91.00 | 1904 | 160.00 | 1646 | 231.00 | 861 | 371.00 | 257 |
| 92.00 | 2143 | 161.00 | 2245 | 233.00 | 101 | 372.00 | 2033 |
| 93.00 | 13189 | 162.00 | 772 | 234.00 | 515 | 373.00 | 557 |
| 94.00 | 850 | 163.00 | 117 | 235.00 | 774 | 383.00 | 499 |
| 95.00 | 126 | 164.00 | 151 | 236.00 | 724 | 391.00 | 107 |
| 96.00 | 648 | 165.00 | 1976 | 237.00 | 648 | 402.00 | 755 |
| 98.00 | 9268 | 166.00 | 976 | 239.00 | 129 | 403.00 | 1291 |
| 99.00 | 7032 | 167.00 | 9487 | 240.00 | 308 | 404.00 | 254 |
| 100.00 | 689 | 168.00 | 3986 | 241.00 | 514 | 421.00 | 993 |
| 101.00 | 4409 | 169.00 | 893 | 242.00 | 1232 | 422.00 | 487 |
| 102.00 | 262 | 170.00 | 295 | 244.00 | 20600 | 423.00 | 7438 |
| 103.00 | 1553 | 171.00 | 487 | 245.00 | 2808 | 424.00 | 1332 |
| 104.00 | 2810 | 172.00 | 1006 | 246.00 | 3318 | 441.00 | 23392 |
| 105.00 | 2517 | 173.00 | 1195 | 247.00 | 669 | 442.00 | 138560 |
| 107.00 | 33160 | 174.00 | 2034 | 249.00 | 655 | 443.00 | 27344 |
| 108.00 | 5221 | 175.00 | 3922 | 253.00 | 370 | 444.00 | 2361 |
| 110.00 | 78504 | 176.00 | 1120 | 255.00 | 103992 | | |

Data File: /chem/BNAMS3.i/625/01-17-00/24jan00A.b/t9110.d

Date : 24-JAN-2000 12:52

Client ID:

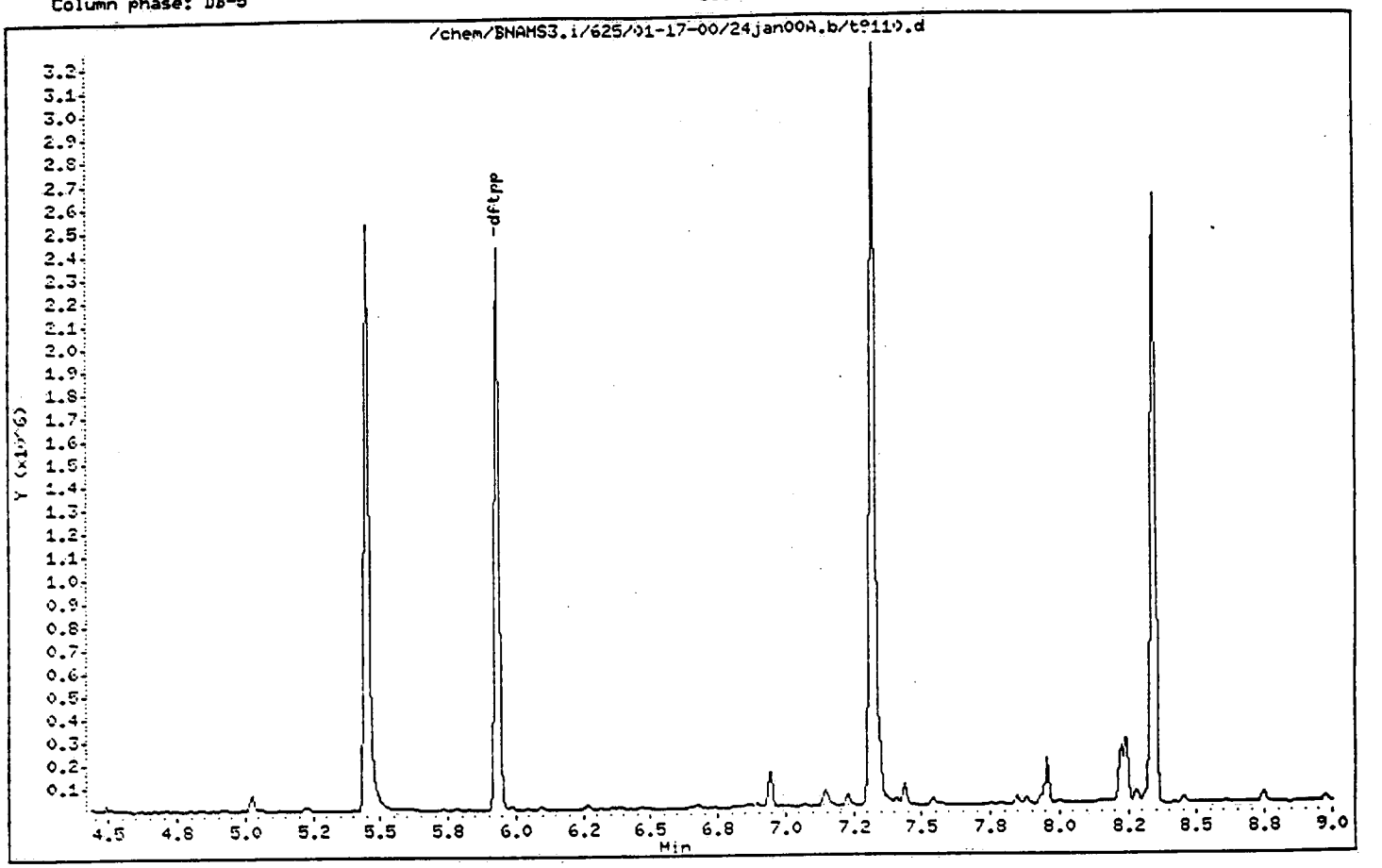
Instrument: BNAMS3.i

Sample Info: TDFT024A

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T9130

DFTPP Injection Date: 01/26/00

Instrument ID: BNAMS3

DFTPP Injection Time: 0830

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 47.2 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 67.7 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.5)1 |
| 127 | 40.0 - 60.0% of mass 198 | 45.0 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.8 |
| 275 | 10.0 - 30.0% of mass 198 | 19.7 |
| 365 | Greater than 1.0% of mass 198 | 1.64 |
| 441 | 0.0 - 100.0% of mass 443 | 8.2 ( 82.3)2 |
| 442 | 40.0 - 110.0% of mass 198 | 50.8 |
| 443 | 17.0 - 23.0% of mass 442 | 10.0 ( 19.6)3 |

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | TSTD026 | TSTD026 | T9131 | 01/26/00 | 0852 |
| 02 | MW-11D | 179527 | T9145 | 01/26/00 | 2026 |
| 03 | MW-21D | 179530 | T9146 | 01/26/00 | 2117 |
| 04 | MW-21 | 179531 | T9147 | 01/26/00 | 2206 |
| 05 | FIELD_BLANK | 179533 | T9148 | 01/26/00 | 2256 |
| 06 | | | | | |
| 07 | | | | | |
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| 18 | | | | | |

Data File: /chem/BNAHS3.i/625/01-17-00/26jan00.b/t9130.d

Date : 26-JAN-2000 08:30

Client ID:

Sample Info: TDFT026

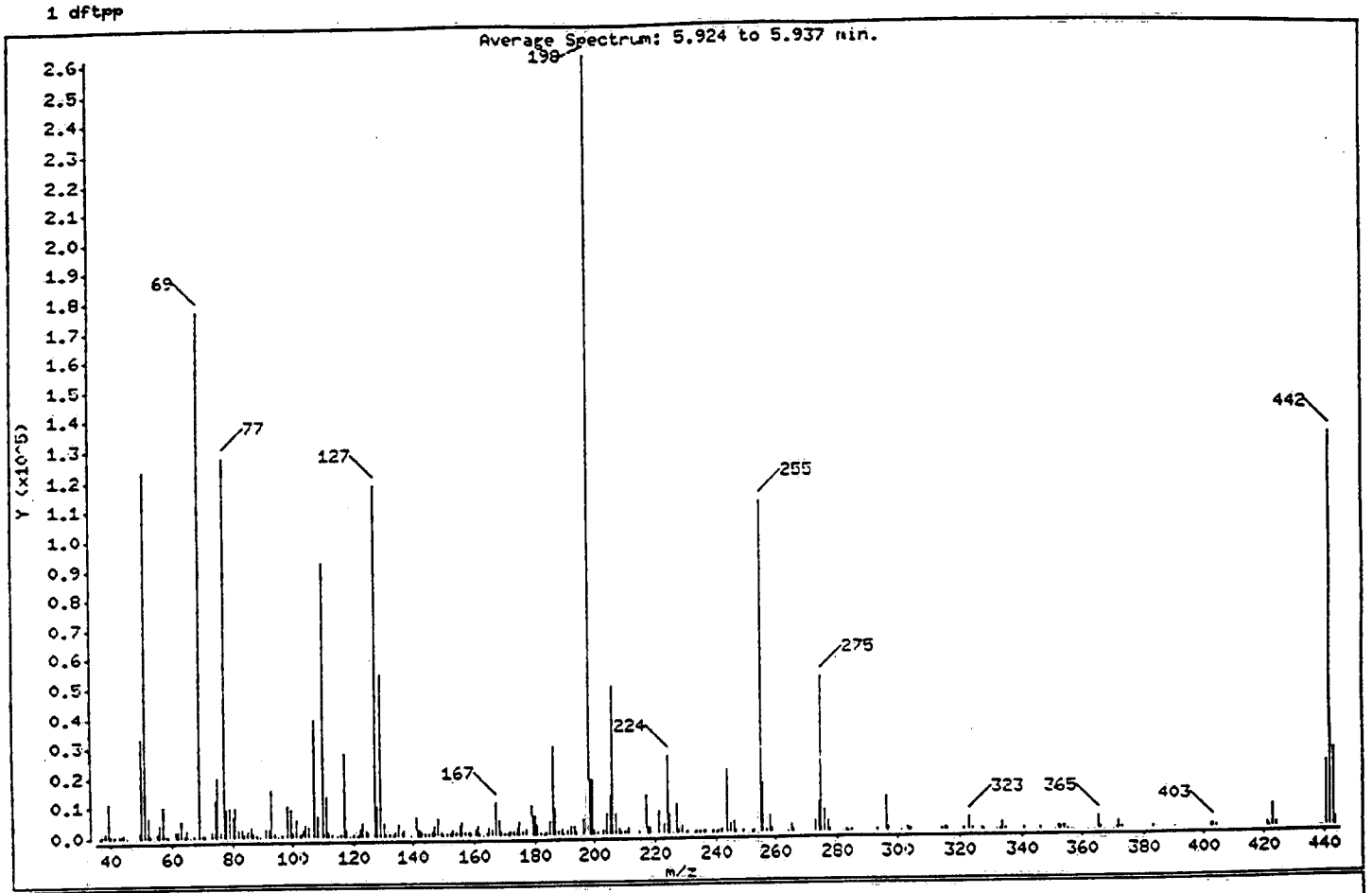
Instrument: BNAHS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 30.00 - 60.00% of mass 198 | 47.23 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 67.68 |
| 70 | Less than 2.00% of mass 69 | 0.31 ( 0.46) |
| 127 | 40.00 - 60.00% of mass 198 | 45.03 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.82 |
| 275 | 10.00 - 30.00% of mass 198 | 19.69 |
| 365 | Greater than 1.00% of mass 198 | 1.64 |
| 441 | 0.01 - 100.00% of mass 443 | 8.22 ( 82.30) |
| 442 | 40.00 - 110.00% of mass 198 | 50.84 |
| 443 | 17.00 - 23.00% of mass 442 | 9.99 ( 19.65) |

Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9130.d

Date : 26-JAN-2000 08:30

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT026

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t9130.d

Spectrum: Average Spectrum: 5.924 to 5.937 min.

Location of Maximum: 198.00

Number of points: 244

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 118 | 110.00 | 91928 | 176.00 | 1303 | 256.00 | 16311 |
| 37.00 | 640 | 111.00 | 13223 | 177.00 | 2070 | 257.00 | 1364 |
| 38.00 | 1926 | 112.00 | 1439 | 179.00 | 9528 | 258.00 | 5591 |
| 39.00 | 11378 | 113.00 | 428 | 180.00 | 5938 | 259.00 | 976 |
| 40.00 | 714 | 115.00 | 138 | 181.00 | 2902 | 264.00 | 244 |
| 41.00 | 681 | 116.00 | 816 | 182.00 | 451 | 265.00 | 2233 |
| 43.00 | 543 | 117.00 | 27912 | 183.00 | 114 | 266.00 | 559 |
| 44.00 | 1068 | 118.00 | 1920 | 184.00 | 509 | 273.00 | 3408 |
| 45.00 | 271 | 119.00 | 191 | 185.00 | 4151 | 274.00 | 9433 |
| 49.00 | 1574 | 120.00 | 519 | 186.00 | 29544 | 275.00 | 51560 |
| 50.00 | 32832 | 121.00 | 131 | 187.00 | 6527 | 276.00 | 6995 |
| 51.00 | 123688 | 122.00 | 2347 | 188.00 | 952 | 277.00 | 3446 |
| 52.00 | 6502 | 123.00 | 3934 | 189.00 | 1085 | 278.00 | 541 |
| 53.00 | 383 | 124.00 | 1843 | 190.00 | 295 | 283.00 | 501 |
| 55.00 | 1249 | 125.00 | 1391 | 191.00 | 934 | 284.00 | 273 |
| 56.00 | 4478 | 127.00 | 117920 | 192.00 | 2448 | 285.00 | 534 |
| 57.00 | 10465 | 128.00 | 9564 | 193.00 | 2536 | 293.00 | 752 |
| 58.00 | 467 | 129.00 | 54104 | 194.00 | 404 | 296.00 | 11454 |
| 59.00 | 101 | 130.00 | 4440 | 196.00 | 4964 | 297.00 | 1417 |
| 61.00 | 1675 | 131.00 | 856 | 198.00 | 261888 | 301.00 | 101 |
| 62.00 | 1912 | 132.00 | 348 | 199.00 | 17864 | 303.00 | 1363 |
| 63.00 | 5285 | 133.00 | 255 | 200.00 | 1269 | 304.00 | 353 |
| 64.00 | 743 | 134.00 | 1282 | 201.00 | 750 | 314.00 | 472 |
| 65.00 | 2478 | 135.00 | 3559 | 203.00 | 1400 | 315.00 | 1198 |
| 66.00 | 138 | 136.00 | 1465 | 204.00 | 6898 | 316.00 | 540 |
| 67.00 | 420 | 137.00 | 1773 | 205.00 | 12445 | 321.00 | 331 |
| 69.00 | 177216 | 139.00 | 213 | 206.00 | 49192 | 323.00 | 4251 |
| 70.00 | 807 | 141.00 | 5812 | 207.00 | 6849 | 324.00 | 702 |
| 71.00 | 404 | 142.00 | 1703 | 208.00 | 1685 | 327.00 | 476 |
| 73.00 | 1516 | 143.00 | 1343 | 209.00 | 551 | 328.00 | 263 |
| 74.00 | 12285 | 144.00 | 325 | 210.00 | 855 | 332.00 | 101 |
| 75.00 | 20024 | 145.00 | 322 | 211.00 | 1765 | 333.00 | 292 |
| 76.00 | 1732 | 146.00 | 1049 | 215.00 | 599 | 334.00 | 2229 |
| 77.00 | 127520 | 147.00 | 2887 | 217.00 | 12755 | 335.00 | 615 |
| 78.00 | 9010 | 148.00 | 5695 | 218.00 | 1588 | 341.00 | 303 |

Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9130.d

Date : 26-JAN-2000 08:30

Client ID:

Sample Info: TDFT026

Instrument: INAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t9130.d

Spectrum: Average Spectrum: 5.924 to 5.937 min.

Location of Maximum: 198.00

Number of points: 244

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 79.00 | 9487 | 149.00 | 1079 | 221.00 | 7022 | 346.00 | 533 |
| 80.00 | 6878 | 150.00 | 248 | 223.00 | 2888 | 352.00 | 1138 |
| 81.00 | 9427 | 151.00 | 779 | 224.00 | 25092 | 353.00 | 842 |
| 82.00 | 2351 | 152.00 | 460 | 225.00 | 5739 | 354.00 | 1153 |
| 83.00 | 2428 | 153.00 | 1991 | 226.00 | 160 | 355.00 | 129 |
| 84.00 | 474 | 154.00 | 1495 | 227.00 | 9527 | 365.00 | 4288 |
| 85.00 | 1901 | 155.00 | 3046 | 228.00 | 1409 | 366.00 | 509 |
| 86.00 | 2730 | 156.00 | 4242 | 229.00 | 2244 | 371.00 | 133 |
| 87.00 | 1223 | 157.00 | 1070 | 230.00 | 254 | 372.00 | 2142 |
| 88.00 | 471 | 158.00 | 1079 | 231.00 | 635 | 373.00 | 459 |
| 89.00 | 111 | 159.00 | 808 | 233.00 | 112 | 383.00 | 447 |
| 91.00 | 2246 | 160.00 | 1927 | 234.00 | 641 | 390.00 | 130 |
| 92.00 | 2319 | 161.00 | 2861 | 235.00 | 623 | 402.00 | 835 |
| 93.00 | 15399 | 162.00 | 879 | 236.00 | 404 | 403.00 | 1152 |
| 94.00 | 1062 | 163.00 | 115 | 237.00 | 812 | 404.00 | 351 |
| 95.00 | 294 | 164.00 | 309 | 239.00 | 305 | 421.00 | 935 |
| 96.00 | 768 | 165.00 | 2480 | 240.00 | 253 | 422.00 | 107 |
| 98.00 | 10432 | 166.00 | 1780 | 241.00 | 439 | 423.00 | 7196 |
| 99.00 | 8745 | 167.00 | 10731 | 242.00 | 1234 | 424.00 | 1365 |
| 100.00 | 912 | 168.00 | 4777 | 244.00 | 21312 | 441.00 | 21520 |
| 101.00 | 5314 | 169.00 | 958 | 245.00 | 2840 | 442.00 | 133120 |
| 102.00 | 362 | 170.00 | 417 | 246.00 | 3520 | 443.00 | 26152 |
| 103.00 | 1856 | 171.00 | 533 | 247.00 | 539 | 444.00 | 2234 |
| 104.00 | 3762 | 172.00 | 1231 | 249.00 | 830 | | |
| 105.00 | 3130 | 173.00 | 1387 | 252.00 | 241 | | |
| 107.00 | 38952 | 174.00 | 2329 | 253.00 | 422 | | |
| 108.00 | 6430 | 175.00 | 4413 | 255.00 | 111384 | | |

Data File: /chem/BNAMS3.i/625/01-17-00/26jan00.b/t9130.d

Date : 26-JAN-2000 08:30

Client ID:

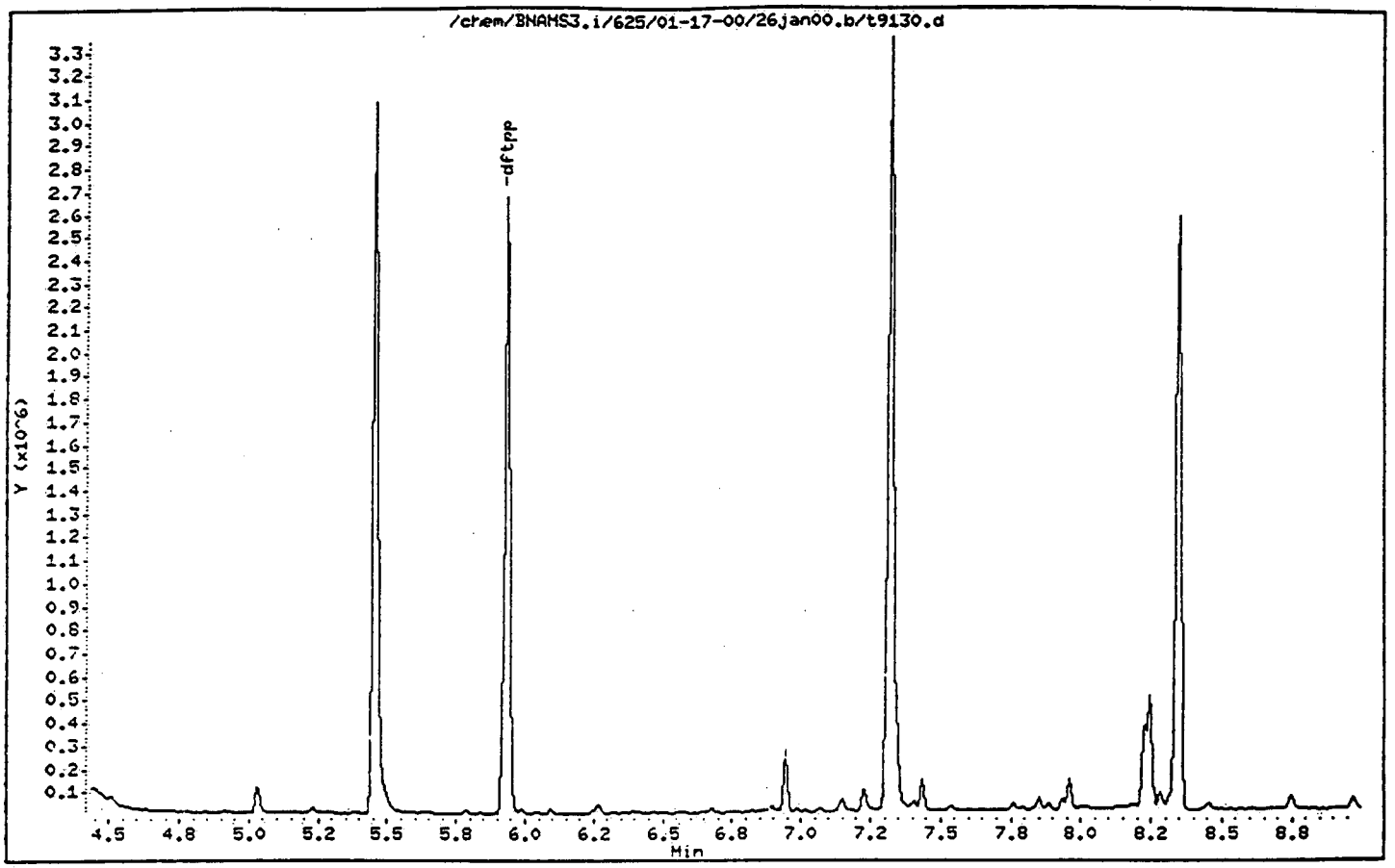
Instrument: BNAMS3.i

Sample Info: TDFT026

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



LAB SAMPLE NO.

WB019

# SEMIVOLATILE METHOD BLANK SUMMARY

Matrix: WATER

Level: LOW

Instrument ID: BNAMS3

Date Analyzed: 01/21/00

Time Analyzed: 1322

Lab File ID: T9081

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | TRIP_BLANK | 179524 | T9128 | 01/25/00 |
| 02 | MW-11D | 179527 | T9145 | 01/26/00 |
| 03 | MW-21D | 179530 | T9146 | 01/26/00 |
| 04 | MW-21 | 179531 | T9147 | 01/26/00 |
| 05 | FIELD_BLANK | 179533 | T9148 | 01/26/00 |
| 06 | MW-21DR1 | 179530R1 | T9163 | 01/27/00 |
| 07 | | | | |
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COMMENTS:

Client ID: WB019
Site:

Lab Sample No: WB019
Lab Job No: W844

Date Sampled: _____
Date Received: _____
Date Extracted: 01/19/00
Date Analyzed: 01/21/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9081.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

## SEMI-VOLATILE ORGANICS - GC/MS
## METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Phenol | ND | 2.0 |
| 2-Chlorophenol | ND | 3.5 |
| 2-Methylphenol | ND | 3.9 |
| 4-Methylphenol | ND | 3.8 |
| 2-Nitrophenol | ND | 3.9 |
| 2,4-Dimethylphenol | ND | 3.3 |
| 2,4-Dichlorophenol | ND | 3.2 |
| 4-Chloro-3-methylphenol | ND | 3.8 |
| 2,4,6-Trichlorophenol | ND | 3.6 |
| 2,4,5-Trichlorophenol | ND | 3.8 |
| 2,4-Dinitrophenol | ND | 3.7 |
| 4-Nitrophenol | ND | 2.8 |
| 4,6-Dinitro-2-methylphenol | ND | 5.0 |
| Pentachlorophenol | ND | 2.0 |
| Benzoic Acid | ND | 18 |
| N-Nitrosodimethylamine | ND | 0.8 |
| bis(2-Chloroethyl)ether | ND | 0.7 |
| 1,3-Dichlorobenzene | ND | 1.4 |
| 1,4-Dichlorobenzene | ND | 1.5 |
| 1,2-Dichlorobenzene | ND | 1.2 |
| bis(2-chloroisopropyl)ether | ND | 0.8 |
| N-Nitroso-di-n-propylamine | ND | 1.2 |
| Hexachloroethane | ND | 2.2 |
| Nitrobenzene | ND | 0.5 |
| Isophorone | ND | 0.5 |
| bis(2-Chloroethoxy)methane | ND | 0.8 |
| 1,2,4-Trichlorobenzene | ND | 1.1 |
| Naphthalene | ND | 0.8 |
| 4-Chloroaniline | ND | 0.8 |
| Hexachlorobutadiene | ND | 1.8 |
| 2-Methylnaphthalene | ND | 0.8 |
| Hexachlorocyclopentadiene | ND | 1.2 |
| 2-Chloronaphthalene | ND | 0.6 |
| 2-Nitroaniline | ND | 0.6 |

Client ID: WB019
Site:

Lab Sample No: WB019
Lab Job No: W844

Date Sampled: _____
Date Received: _____
Date Extracted: 01/19/00
Date Analyzed: 01/21/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9081.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Dimethylphthalate | ND | 0.5 |
| Acenaphthylene | ND | 0.9 |
| 2,6-Dinitrotoluene | ND | 0.7 |
| 3-Nitroaniline | ND | 1.8 |
| Acenaphthene | ND | 0.8 |
| Dibenzofuran | ND | 0.7 |
| 2,4-Dinitrotoluene | ND | 0.8 |
| Diethylphthalate | ND | 0.5 |
| 4-Chlorophenyl-phenylether | ND | 0.8 |
| Fluorene | ND | 0.5 |
| 4-Nitroaniline | ND | 0.8 |
| N-Nitrosodiphenylamine | ND | 0.4 |
| 4-Bromophenyl-phenylether | ND | 0.7 |
| Hexachlorobenzene | ND | 0.6 |
| Phenanthrene | ND | 0.5 |
| Anthracene | ND | 0.6 |
| Carbazole | ND | 0.8 |
| Di-n-butylphthalate | ND | 0.6 |
| Fluoranthene | ND | 0.6 |
| Pyrene | ND | 0.7 |
| Benzidine | ND | 5.8 |
| Butylbenzylphthalate | ND | 0.5 |
| 3,3'-Dichlorobenzidine | ND | 3.5 |
| Benzo(a)anthracene | ND | 0.6 |
| Chrysene | ND | 0.7 |
| bis(2-Ethylhexyl)phthalate | ND | 4.1 |
| Di-n-octylphthalate | ND | 0.4 |
| Benzo(b)fluoranthene | ND | 0.6 |
| Benzo(k)fluoranthene | ND | 0.7 |
| Benzo(a)pyrene | ND | 0.6 |
| Indeno(1,2,3-cd)pyrene | ND | 0.8 |
| Dibenz(a,h)anthracene | ND | 0.7 |
| Benzo(g,h,i)perylene | ND | 0.8 |
| Pyridine | ND | 10 |

Client ID: WB019
Site:

Lab Sample No: WB019
Lab Job No: W844

Date Sampled: _____
Date Received: _____
Date Extracted: 01/19/00
Date Analyzed: 01/21/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9081.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Aniline | ND | 0.5 |
| Benzyl Alcohol | ND | 0.8 |
| 1,2-Diphenylhydrazine | ND | 0.8 |
| Diphenyl | ND | 10 |
| Diphenyl Ether | ND | 10 |
| Acetophenone | ND | 10 |
| N,N-Dimethylaniline | ND | 10 |
| 1,4-Dioxane | ND | 0.8 |
| 2,3,7,8-TCDD (screen) | ND | 1.0 |
| Benzaldehyde | ND | 10 |
| Caprolactum | ND | 10 |
| Atrazine | ND | 10 |

Client ID: WB019
Site:

Lab Sample No: WB019
Lab Job No: W844

Date Sampled: _____
Date Received: _____
Date Extracted: 01/19/00
Date Analyzed: 01/21/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t9081.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**TENTATIVELY IDENTIFIED COMPOUNDS**
**METHOD 625**

| COMPOUND NAME | RT | EST. CONC. ug/l | Q |
|---|---|---|---|
| 1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
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TOTAL ESTIMATED CONCENTRATION 0.0

Data File: /chem/BNAMS3.i/625/01-17-00/21jan00.b/t9081.d
Report Date: 21-Jan-2000 15:58

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/01-17-00/21jan00.b/t9081.d
Lab Smp Id: WB019 — Client Smp ID: BNA
Inj Date : 21-JAN-2000 13:22 — Inst ID: BNAMS3.i
Operator : BNAMS 1
Smp Info : WB019;1000;2;1;;
Misc Info : WB019;BNA;;
Comment :
Method : /chem/BNAMS3.i/625/01-17-00/21jan00.b/BNA625b.m
Meth Date : 21-Jan-2000 12:11 B — Quant Type: ISTD
Cal Date : 17-JAN-2000 13:08 — Cal File: t8971.d
Als bottle: 3 — QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE — Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpd1

Concentration Formula: Amt * DF * 1000*Vt/Vo

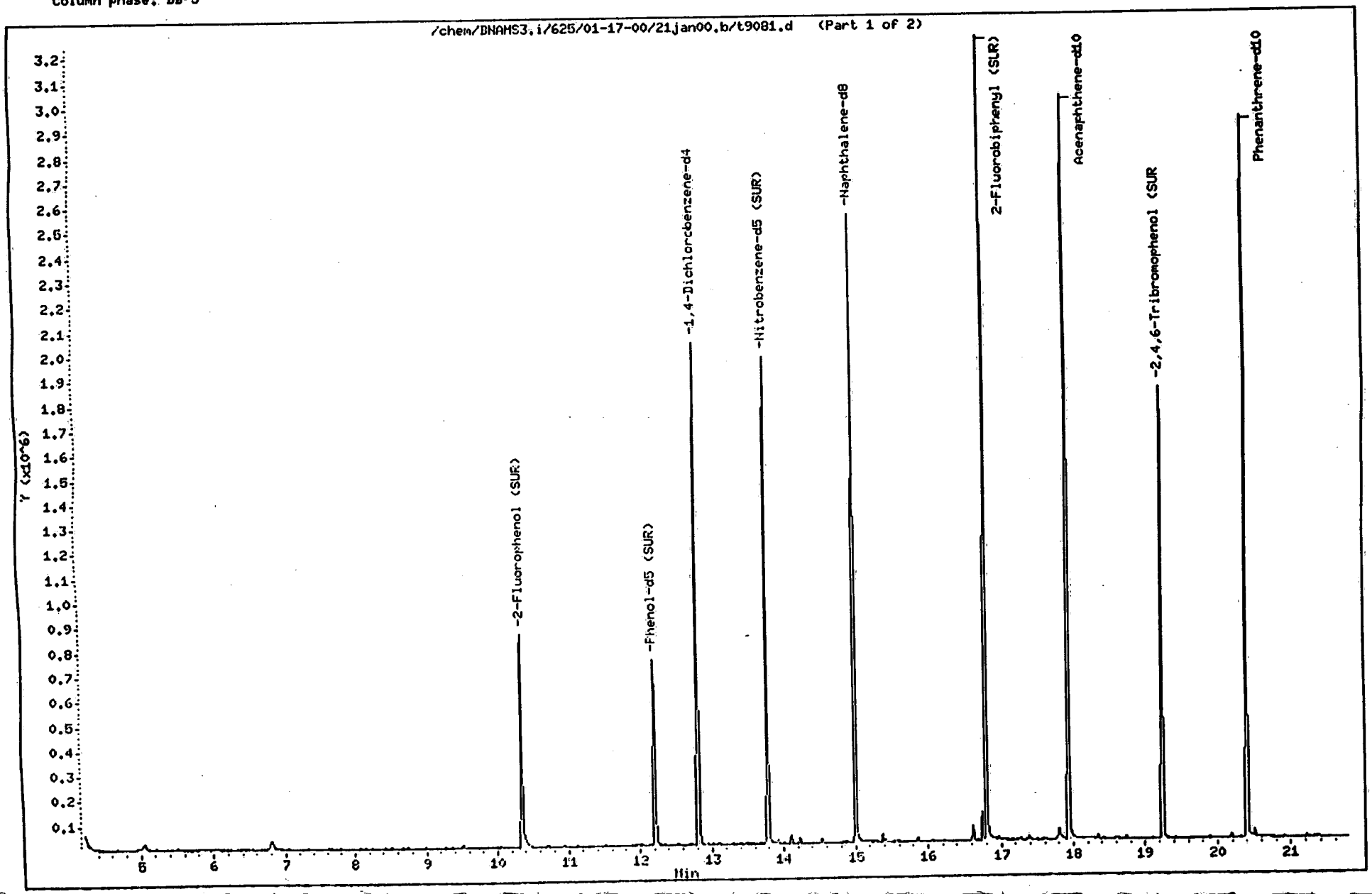
| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Vt | 2.000 | Volume of final extract (mL) |
| Vo | 1000.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 16 2-Fluorophenol (SUR) | 112 | 10.348 | 10.353 | (0.808) | 479897 | 20.8757 | 42 |
| $ 17 Phenol-d5 (SUR) | 99 | 12.208 | 12.229 | (0.953) | 401998 | 13.8366 | 28 |
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.813 | 12.817 | (1.000) | 478547 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.786 | 13.801 | (0.919) | 949724 | 43.3589 | 87 |
| * 80 Naphthalene-d8 | 136 | 15.008 | 15.019 | (1.000) | 1581425 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.810 | 16.819 | (0.937) | 1576057 | 46.6109 | 93 |
| * 82 Acenaphthene-d10 | 164 | 17.941 | 17.954 | (1.000) | 1081879 | 40.0000 | |
| $ 18 2,4,6-Tribromophenol (SUR) | 330 | 19.249 | 19.262 | (1.073) | 271385 | 52.8211 | 100 |
| * 83 Phenanthrene-d10 | 188 | 20.406 | 20.419 | (1.000) | 1848888 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 23.029 | 23.038 | (0.929) | 1752800 | 43.4134 | 87 |
| * 81 Chrysene-d12 | 240 | 24.794 | 24.824 | (1.000) | 1540871 | 40.0000 | |
| * 84 Perylene-d12 | 264 | 28.131 | 28.170 | (1.000) | 1797385 | 40.0000 | |

Data File: /chem/BNAHS3.i/625/01-17-00/21jan00.b/t9081.d
Date : 21-JAN-2000 13:22
Client ID: BNA
Sample Info: WB019;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAHS3.i

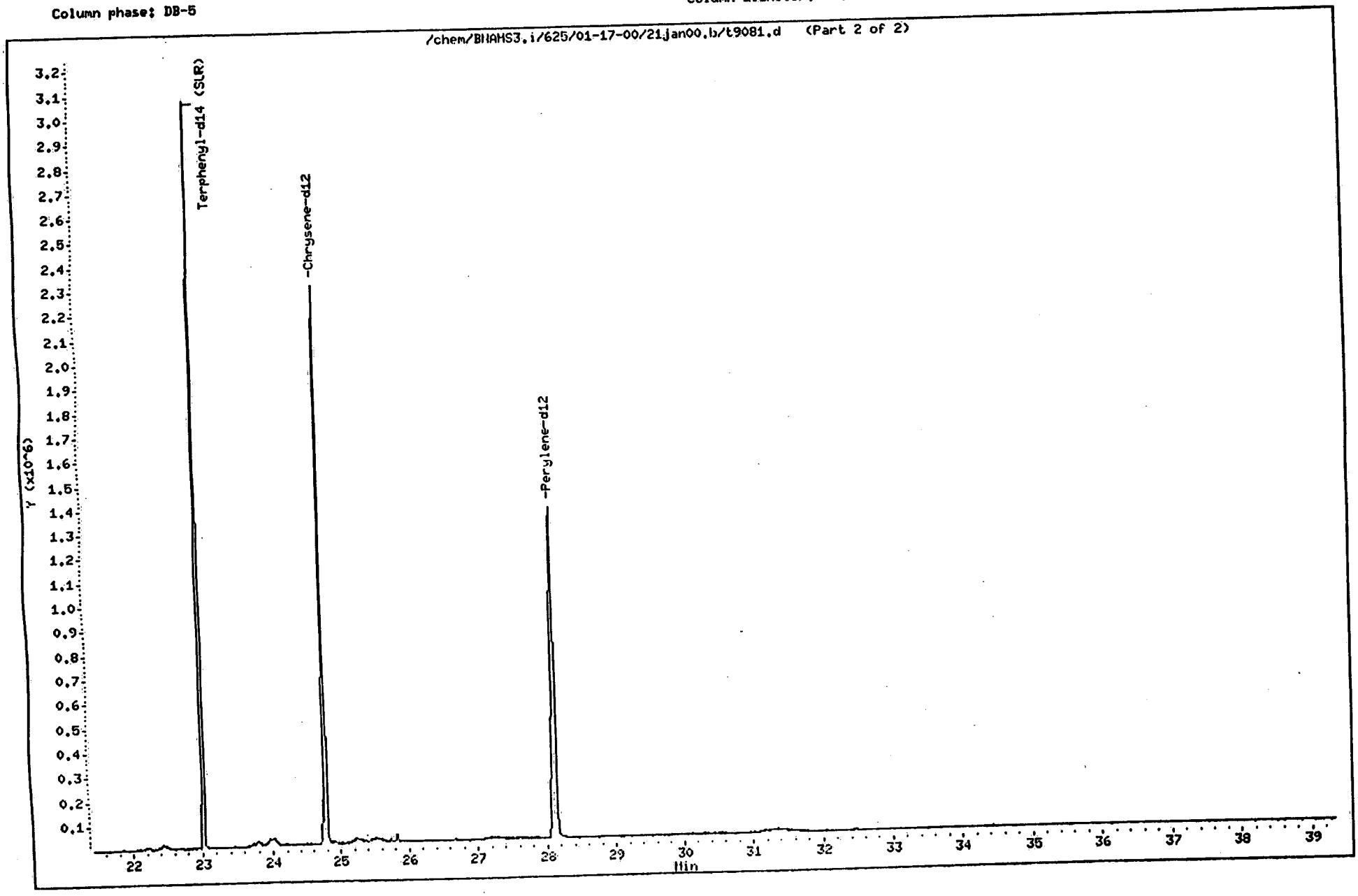
Operator: BNAHS 1
Column diameter: 0.53



Data File: /chem/BNAHS3.i/625/01-17-00/21jan00.b/t9081.d
Date : 21-JAN-2000 13:22
Client ID: BNA
Sample Info: WB019;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 01/17/00 01/17/00

Calibration Time(s): 1004 1308

LAB FILE ID: RRF10: T8970 RRF20: T8971 RRF50: T8967
RRF80: T8969 RRF120: T8968

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Phenol | 2.631 | 2.594 | 2.233 | 1.978 | 1.882 |
| 2-Chlorophenol | 1.526 | 1.486 | 1.371 | 1.224 | 1.184 |
| 2-Methylphenol | 1.874 | 1.850 | 1.700 | 1.495 | 1.394 |
| 4-Methylphenol | 1.839 | 1.704 | 1.437 | 1.247 | 1.110 |
| 2-Nitrophenol | 0.274 | 0.280 | 0.249 | 0.232 | 0.211 |
| 2,4-Dimethylphenol | 0.465 | 0.445 | 0.383 | 0.355 | 0.335 |
| 2,4-Dichlorophenol | 0.442 | 0.436 | 0.387 | 0.354 | 0.317 |
| 4-Chloro-3-methylphenol | 0.576 | 0.585 | 0.528 | 0.465 | 0.436 |
| 2,4,6-Trichlorophenol | 0.428 | 0.423 | 0.360 | 0.342 | 0.324 |
| 2,4,5-Trichlorophenol | 0.445 | 0.439 | 0.374 | 0.353 | 0.332 |
| 2,4-Dinitrophenol | 0.191 | 0.227 | 0.220 | 0.222 | 0.213 |
| 4-Nitrophenol | 0.352 | 0.351 | 0.356 | 0.346 | 0.339 |
| 4,6-Dinitro-2-methylphenol | 0.162 | 0.159 | 0.148 | 0.138 | 0.129 |
| Pentachlorophenol | 0.180 | 0.168 | 0.158 | 0.151 | 0.144 |
| Benzoic Acid | 0.244 | 0.287 | 0.279 | 0.285 | 0.255 |
| N-Nitrosodimethylamine | 1.362 | 1.479 | 1.526 | 1.361 | 1.305 |
| bis(2-Chloroethyl)ether | 1.978 | 1.946 | 1 814 | 1.612 | 1.524 |
| 1,3-Dichlorobenzene | 1.636 | 1.602 | 1.439 | 1.309 | 1.249 |
| 1,4-Dichlorobenzene | 1.507 | 1.479 | 1.344 | 1.219 | 1.161 |
| 1,2-Dichlorobenzene | 1.510 | 1.462 | 1.271 | 1.098 | 1.026 |
| bis(2-chloroisopropyl)ether | 3.198 | 3.048 | 2.695 | 2.297 | 2.051 |
| N-Nitroso-di-n-propylamine | 1.390 | 1.271 | 1.080 | 0.937 | 0.907 |
| Hexachloroethane | 0.790 | 0.796 | 0.723 | 0.646 | 0.592 |
| Nitrobenzene | 0.728 | 0.686 | 0.606 | 0.558 | 0.529 |
| Isophorone | 1.136 | 1.139 | 1.052 | 1.040 | 1.017 |
| bis(2-Chloroethoxy)methane | 0.718 | 0.702 | 0.617 | 0.570 | 0.534 |
| 1,2,4-Trichlorobenzene | 0.478 | 0.458 | 0.388 | 0.356 | 0.332 |
| Naphthalene | 1.176 | 1.137 | 0.969 | 0.914 | 0.858 |
| 4-Chloroaniline | 0.513 | 0.503 | 0.441 | 0.411 | 0.386 |
| Hexachlorobutadiene | 0.216 | 0.203 | 0.182 | 0.166 | 0.159 |
| 2-Methylnaphthalene | 0.863 | 0.820 | 0.701 | 0.670 | 0.621 |
| Hexachlorocyclopentadiene | 0.225 | 0.252 | 0.252 | 0.244 | 0.240 |
| 2-Chloronaphthalene | 1.288 | 1.212 | 1.007 | 0.924 | 0.858 |
| 2-Nitroaniline | 0.524 | 0.512 | 0.472 | 0.443 | 0.411 |
| Dimethylphthalate | 1.699 | 1.653 | 1.462 | 1.366 | 1.278 |
| Acenaphthylene | 1.947 | 1.792 | 1.563 | 1.445 | 1.330 |
| 2,6-Dinitrotoluene | 0.424 | 0.422 | 0.386 | 0.363 | 0.339 |
| 3-Nitroaniline | 0.396 | 0.391 | 0.353 | 0.341 | 0.317 |
| Acenaphthene | 1.127 | 1.070 | 0.914 | 0.879 | 0.819 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 01/17/00 01/17/00

Calibration Time(s): 1004 1308

LAB FILE ID: RRF10: T8970 RRF20: T8971 RRF50: T8967
RRF80: T8969 RRF120: T8968

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Dibenzofuran | 1.922 | 1.738 | 1.400 | 1.296 | 1.148 |
| 2,4-Dinitrotoluene | 0.567 | 0.560 | 0.492 | 0.461 | 0.408 |
| Diethylphthalate | 1.632 | 1.555 | 1.322 | 1.256 | 1.163 |
| 4-Chlorophenyl-phenylether | 0.606 | 0.569 | 0.476 | 0.448 | 0.404 |
| Fluorene | 1.502 | 1.384 | 1.099 | 1.020 | 0.912 |
| 4-Nitroaniline | 0.393 | 0.376 | 0.302 | 0.276 | 0.246 |
| N-Nitrosodiphenylamine | 0.672 | 0.604 | 0.512 | 0.460 | 0.424 |
| 4-Bromophenyl-phenylether | 0.242 | 0.222 | 0.192 | 0.174 | 0.159 |
| Hexachlorobenzene | 0.282 | 0.252 | 0.211 | 0.189 | 0.171 |
| Phenanthrene | 1.216 | 1.092 | 0.954 | 0.871 | 0.801 |
| Anthracene | 1.310 | 1.167 | 0.950 | 0.857 | 0.784 |
| Carbazole | 1.288 | 1.136 | 0.901 | 0.804 | 0.727 |
| Di-n-butylphthalate | 1.703 | 1.539 | 1.287 | 1.169 | 1.078 |
| Fluoranthene | 1.321 | 1.187 | 0.990 | 0.928 | 0.857 |
| Pyrene | 1.612 | 1.496 | 1.328 | 1.306 | 1.260 |
| Benzidine | 0.425 | 0.464 | 0.253 | 0.227 | 0.114 |
| Butylbenzylphthalate | 1.009 | 0.961 | 0.916 | 0.857 | 0.822 |
| 3,3'-Dichlorobenzidine | 0.569 | 0.515 | 0.454 | 0.374 | 0.280 |
| Benzo(a)anthracene | 1.208 | 1.119 | 1.038 | 1.012 | 0.982 |
| Chrysene | 1.135 | 1.085 | 1.013 | 0.924 | 0.888 |
| bis(2-Ethylhexyl)phthalate | 1.303 | 1.167 | 1.022 | 0.931 | 0.888 |
| Di-n-octylphthalate | 2.006 | 1.921 | 1.679 | 1.556 | 1.476 |
| Benzo(b)fluoranthene | 1.335 | 1.280 | 1.179 | 1.190 | 1.171 |
| Benzo(k)fluoranthene | 1.307 | 1.226 | 1.034 | 0.911 | 0.840 |
| Benzo(a)pyrene | 1.269 | 1.229 | 1.119 | 1.062 | 1.011 |
| Indeno(1,2,3-cd)pyrene | 1.327 | 1.337 | 1.328 | 1.298 | 1.300 |
| Dibenz(a,h)anthracene | 1.348 | 1.284 | 1.097 | 1.052 | 1.026 |
| Benzo(g,h,i)perylene | 1.392 | 1.354 | 1.267 | 1.227 | 1.215 |
| Pyridine | 1.926 | 2.195 | 2.264 | 2.028 | 1.998 |
| Aniline | 2.744 | 2.597 | 2.192 | 1.967 | 1.897 |
| Benzyl Alcohol | 1.370 | 1.380 | 1.322 | 1.158 | 1.035 |
| 1,2-Diphenylhydrazine | 1.017 | 0.934 | 0.810 | 0.718 | 0.644 |
| Diphenyl | 1.594 | 1.478 | 1.241 | 1.166 | 1.055 |
| Diphenyl Ether | 0.972 | 0.930 | 0.758 | 0.702 | 0.633 |
| Acetophenone | 2.677 | 2.475 | 2.247 | 2.004 | 1.873 |
| N,N-Dimethylaniline | 2.200 | 1.976 | 1.660 | 1.465 | 1.368 |
| 1,4-Dioxane | 0.864 | 0.944 | 0.929 | 0.877 | 0.864 |
| 2,3,7,8-TCDD (screen) | | | 0.436 | | |
| Benzaldehyde | 1.125 | 1.031 | 0.778 | 0.526 | 0.157 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 01/17/00 01/17/00

Calibration Time(s): 1004 1308

LAB FILE ID: RRF10: T8970 RRF20: T8971 RRF50: T8967
RRF80: T8969 RRF120: T8968

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Caprolactum | 0.252 | 0.263 | 0.265 | 0.245 | 0.229 |
| Atrazine | 0.222 | 0.208 | 0.163 | 0.149 | 0.139 |
| 2-Fluorophenol (SUR) | 1.923 | 2.042 | 2.016 | 1.849 | 1.777 |
| Phenol-d5 (SUR) | 2.652 | 2.708 | 2.550 | 2.193 | 2.039 |
| 2,4,6-Tribromophenol (SUR) | 0.216 | 0.214 | 0.186 | 0.174 | 0.159 |
| Nitrobenzene-d5 (SUR) | 0.589 | 0.584 | 0.559 | 0.535 | 0.503 |
| 2-Fluorobiphenyl (SUR) | 1.557 | 1.446 | 1.175 | 1.083 | 0.989 |
| Terphenyl-d14 (SUR) | 1.224 | 1.153 | 1.034 | 0.956 | 0.874 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 01/17/00 01/17/00

Calibration Time(s): 1004 1308

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Phenol | AVRG | 2.26355658 | 15.2* |
| 2-Chlorophenol | AVRG | 1.35837864 | 11.2* |
| 2-Methylphenol | AVRG | 1.66282565 | 12.8* |
| 4-Methylphenol | AVRG | 1.46753969 | 20.8* |
| 2-Nitrophenol | AVRG | 0.24913200 | 11.5* |
| 2,4-Dimethylphenol | AVRG | 0.39655050 | 14.2* |
| 2,4-Dichlorophenol | AVRG | 0.38717094 | 13.8* |
| 4-Chloro-3-methylphenol | AVRG | 0.51789504 | 12.8* |
| 2,4,6-Trichlorophenol | AVRG | 0.37556964 | 12.7* |
| 2,4,5-Trichlorophenol | AVRG | 0.38856737 | 13.1* |
| 2,4-Dinitrophenol | AVRG | 0.21455666 | 6.6** |
| 4-Nitrophenol | AVRG | 0.34883129 | 1.8** |
| 4,6-Dinitro-2-methylphenol | AVRG | 0.14744293 | 9.4* |
| Pentachlorophenol | AVRG | 0.16039410 | 8.7* |
| Benzoic Acid | AVRG | 0.27021657 | 7.1* |
| N-Nitrosodimethylamine | AVRG | 1.40654823 | 6.5* |
| bis(2-Chloroethyl)ether | AVRG | 1.77477513 | 11.3* |
| 1,3-Dichlorobenzene | AVRG | 1.44720885 | 11.8* |
| 1,4-Dichlorobenzene | AVRG | 1.34205847 | 11.4* |
| 1,2-Dichlorobenzene | AVRG | 1.27358919 | 16.8* |
| bis(2-chloroisopropyl)ether | AVRG | 2.65789783 | 18.3* |
| N-Nitroso-di-n-propylamine | AVRG | 1.11689876 | 18.8** |
| Hexachloroethane | AVRG | 0.70948780 | 12.6* |
| Nitrobenzene | AVRG | 0.62122940 | 13.5* |
| Isophorone | AVRG | 1.07671623 | 5.3* |
| bis(2-Chloroethoxy)methane | AVRG | 0.62812744 | 12.8* |
| 1,2,4-Trichlorobenzene | AVRG | 0.40241454 | 15.7* |
| Naphthalene | AVRG | 1.01085599 | 13.8* |
| 4-Chloroaniline | AVRG | 0.45075207 | 12.4* |
| Hexachlorobutadiene | AVRG | 0.18500048 | 13.0* |
| 2-Methylnaphthalene | AVRG | 0.73522573 | 13.9* |
| Hexachlorocyclopentadiene | AVRG | 0.24259799 | 4.5** |
| 2-Chloronaphthalene | AVRG | 1.05778454 | 17.5* |
| 2-Nitroaniline | AVRG | 0.47251137 | 10.0* |
| Dimethylphthalate | AVRG | 1.49154815 | 12.1* |
| Acenaphthylene | AVRG | 1.61548092 | 15.6* |
| 2,6-Dinitrotoluene | AVRG | 0.38678951 | 9.6* |
| 3-Nitroaniline | AVRG | 0.35975526 | 9.4* |
| Acenaphthene | AVRG | 0.96190027 | 13.6* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 01/17/00 01/17/00

Calibration Time(s): 1004 1308

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Dibenzofuran | AVRG | 1.50103798 | 21.3* |
| 2,4-Dinitrotoluene | AVRG | 0.49778208 | 13.5* |
| Diethylphthalate | AVRG | 1.38573769 | 14.4* |
| 4-Chlorophenyl-phenylether | AVRG | 0.50073135 | 16.9* |
| Fluorene | AVRG | 1.18354375 | 21.1* |
| 4-Nitroaniline | AVRG | 0.31853641 | 20.0* |
| N-Nitrosodiphenylamine | AVRG | 0.53471916 | 19.2* |
| 4-Bromophenyl-phenylether | AVRG | 0.19809331 | 17.2* |
| Hexachlorobenzene | AVRG | 0.22113293 | 20.6* |
| Phenanthrene | AVRG | 0.98682226 | 17.0* |
| Anthracene | AVRG | 1.01367745 | 21.7* |
| Carbazole | AVRG | 0.97108109 | 24.2* |
| Di-n-butylphthalate | AVRG | 1.35535490 | 19.2* |
| Fluoranthene | AVRG | 1.05650030 | 18.2* |
| Pyrene | AVRG | 1.40051655 | 10.6* |
| Benzidine | AVRG | 0.29670758 | 49.0* |
| Butylbenzylphthalate | AVRG | 0.91293968 | 8.3* |
| 3,3'-Dichlorobenzidine | AVRG | 0.43838211 | 26.1* |
| Benzo(a)anthracene | AVRG | 1.07192631 | 8.5* |
| Chrysene | AVRG | 1.00896616 | 10.4* |
| bis(2-Ethylhexyl)phthalate | AVRG | 1.06242689 | 16.1* |
| Di-n-octylphthalate | AVRG | 1.72769961 | 13.3* |
| Benzo(b)fluoranthene | AVRG | 1.23095454 | 5.9* |
| Benzo(k)fluoranthene | AVRG | 1.06380179 | 18.8* |
| Benzo(a)pyrene | AVRG | 1.13828837 | 9.6* |
| Indeno(1,2,3-cd)pyrene | AVRG | 1.31816494 | 1.3* |
| Dibenz(a,h)anthracene | AVRG | 1.16153814 | 12.5* |
| Benzo(g,h,i)perylene | AVRG | 1.29090170 | 6.1* |
| Pyridine | AVRG | 2.08221759 | 6.8* |
| Aniline | AVRG | 2.27955323 | 16.5* |
| Benzyl Alcohol | AVRG | 1.25322404 | 12.0* |
| 1,2-Diphenylhydrazine | AVRG | 0.82483142 | 18.5* |
| Diphenyl | AVRG | 1.30677210 | 17.1** |
| Diphenyl Ether | AVRG | 0.79874687 | 18.3** |
| Acetophenone | AVRG | 2.25498817 | 14.6** |
| N,N-Dimethylaniline | AVRG | 1.73383050 | 20.1** |
| 1,4-Dioxane | AVRG | 0.89586776 | 4.2** |
| 2,3,7,8-TCDD (screen) | AVRG | 0.43624035 | 0.0* |
| Benzaldehyde | AVRG | 0.72349398 | 54.3* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 01/17/00 01/17/00

Calibration Time(s): 1004 1308

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Caprolactum | AVRG | 0.25078759 | 6.0* |
| Atrazine | AVRG | 0.17601940 | 20.9* |
| 2-Fluorophenol (SUR) | AVRG | 1.92150720 | 5.8* |
| Phenol-d5 (SUR) | AVRG | 2.42845861 | 12.2* |
| 2,4,6-Tribromophenol (SUR) | AVRG | 0.18995885 | 13.1* |
| Nitrobenzene-d5 (SUR) | AVRG | 0.55402674 | 6.4* |
| 2-Fluorobiphenyl (SUR) | AVRG | 1.25015944 | 19.4* |
| Terphenyl-d14 (SUR) | AVRG | 1.04809822 | 13.6* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/21/00 Time: 1128

Lab File ID: T9079 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Phenol | 2.264 | 2.292 | | -1.2 | 20.0 |
| 2-Chlorophenol | 1.358 | 1.377 | | -1.2 | 20.0 |
| 2-Methylphenol | 1.663 | 1.641 | | 1.3 | |
| 4-Methylphenol | 1.467 | 1.491 | | -1.6 | |
| 2-Nitrophenol | 0.249 | 0.260 | | -4.4 | 20.0 |
| 2,4-Dimethylphenol | 0.397 | 0.399 | | -0.0 | 20.0 |
| 2,4-Dichlorophenol | 0.387 | 0.391 | | -1.0 | 20.0 |
| 4-Chloro-3-methylphenol | 0.518 | 0.533 | | -2.7 | 20.0 |
| 2,4,6-Trichlorophenol | 0.375 | 0.376 | | -0.0 | 20.0 |
| 2,4,5-Trichlorophenol | 0.389 | 0.380 | | 2.3 | |
| 2,4-Dinitrophenol | 0.215 | 0.226 | 0.05 | -5.1 | 20.0 |
| 4-Nitrophenol | 0.349 | 0.356 | 0.05 | -2.0 | 20.0 |
| 4,6-Dinitro-2-methylphenol | 0.147 | 0.143 | | 2.7 | 20.0 |
| Pentachlorophenol | 0.160 | 0.159 | | 0.6 | 20.0 |
| Benzoic Acid | 0.270 | 0.314 | | -16.1 | |
| N-Nitrosodimethylamine | 1.407 | 1.404 | | 0.2 | 20.0 |
| bis(2-Chloroethyl)ether | 1.775 | 1.818 | | -2.4 | 20.0 |
| 1,3-Dichlorobenzene | 1.447 | 1.403 | | 3.0 | 20.0 |
| 1,4-Dichlorobenzene | 1.342 | 1.280 | | 4.6 | 20.0 |
| 1,2-Dichlorobenzene | 1.273 | 1.193 | | 6.3 | 20.0 |
| bis(2-chloroisopropyl)ether | 2.658 | 2.645 | | 0.5 | 20.0 |
| N-Nitroso-di-n-propylamine | 1.117 | 1.074 | 0.5 | 3.8 | 20.0 |
| Hexachloroethane | 0.709 | 0.704 | | 0.7 | 20.0 |
| Nitrobenzene | 0.621 | 0.587 | | 5.5 | 20.0 |
| Isophorone | 1.077 | 1.113 | | -3.3 | 20.0 |
| bis(2-Chloroethoxy)methane | 0.628 | 0.648 | | -3.0 | 20.0 |
| 1,2,4-Trichlorobenzene | 0.402 | 0.381 | | 5.2 | 20.0 |
| Naphthalene | 1.011 | 0.952 | | 5.8 | 20.0 |
| 4-Chloroaniline | 0.451 | 0.441 | | 2.2 | |
| Hexachlorobutadiene | 0.185 | 0.173 | | 6.5 | 20.0 |
| 2-Methylnaphthalene | 0.735 | 0.705 | | 4.1 | |
| Hexachlorocyclopentadiene | 0.243 | 0.219 | 0.05 | 9.9 | 20.0 |
| 2-Chloronaphthalene | 1.058 | 1.009 | | 4.6 | 20.0 |
| 2-Nitroaniline | 0.472 | 0.473 | | -0.0 | |
| Dimethylphthalate | 1.492 | 1.479 | | 0.9 | 20.0 |
| Acenaphthylene | 1.615 | 1.552 | | 3.9 | 20.0 |
| 2,6-Dinitrotoluene | 0.387 | 0.398 | | -2.8 | 20.0 |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/21/00 Time: 1128

Lab File ID: T9079 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| 3-Nitroaniline | 0.360 | 0.382 | | -6.1 | |
| Acenaphthene | 0.962 | 0.955 | | 0.7 | 20.0 |
| Dibenzofuran | 1.501 | 1.438 | | 4.2 | |
| 2,4-Dinitrotoluene | 0.498 | 0.512 | | -2.8 | 20.0 |
| Diethylphthalate | 1.386 | 1.370 | | 1.2 | 20.0 |
| 4-Chlorophenyl-phenylether | 0.501 | 0.472 | | 5.8 | 20.0 |
| Fluorene | 1.183 | 1.110 | | 6.2 | 20.0 |
| 4-Nitroaniline | 0.319 | 0.326 | | -2.0 | |
| N-Nitrosodiphenylamine | 0.534 | 0.515 | | 3.6 | 20.0 |
| 4-Bromophenyl-phenylether | 0.198 | 0.192 | | 3.0 | 20.0 |
| Hexachlorobenzene | 0.221 | 0.207 | | 6.3 | 20.0 |
| Phenanthrene | 0.987 | 0.923 | | 6.5 | 20.0 |
| Anthracene | 1.014 | 0.941 | | 7.2 | 20.0 |
| Carbazole | 0.971 | 0.940 | | 3.2 | |
| Di-n-butylphthalate | 1.355 | 1.285 | | 5.2 | 20.0 |
| Fluoranthene | 1.057 | 0.985 | | 6.8 | 20.0 |
| Pyrene | 1.400 | 1.278 | | 8.7 | 20.0 |
| Benzidine | 0.297 | 0.205 | | 31.0 | |
| Butylbenzylphthalate | 0.913 | 0.874 | | 4.3 | 20.0 |
| 3,3'-Dichlorobenzidine | 0.438 | 0.412 | | 5.9 | 20.0 |
| Benzo(a)anthracene | 1.072 | 1.023 | | 4.6 | 20.0 |
| Chrysene | 1.009 | 0.983 | | 2.6 | 20.0 |
| bis(2-Ethylhexyl)phthalate | 1.062 | 0.902 | | 15.1 | 20.0 |
| Di-n-octylphthalate | 1.728 | 1.678 | | 2.9 | 20.0 |
| Benzo(b)fluoranthene | 1.231 | 1.242 | | 0.1 | 20.0 |
| Benzo(k)fluoranthene | 1.064 | 1.031 | | 3.1 | 20.0 |
| Benzo(a)pyrene | 1.138 | 1.133 | | 0.4 | 20.0 |
| Indeno(1,2,3-cd)pyrene | 1.318 | 1.389 | | -5.2 | 20.0 |
| Dibenz(a,h)anthracene | 1.161 | 1.186 | | -2.0 | 20.0 |
| Benzo(g,h,i)perylene | 1.291 | 1.379 | | -6.8 | 20.0 |
| Pyridine | 2.082 | 2.098 | | 0.1 | |
| Aniline | 2.279 | 2.139 | | 6.1 | |
| Benzyl Alcohol | 1.253 | 1.311 | | -4.6 | |
| 1,2-Diphenylhydrazine | 0.825 | 0.801 | | 2.9 | |
| Diphenyl | 1.307 | 1.289 | 0.001 | 1.4 | 20.0 |
| Diphenyl Ether | 0.799 | 0.778 | 0.001 | 2.6 | 20.0 |
| Acetophenone | 2.255 | 2.394 | 0.001 | -6.0 | 20.0 |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/21/00 Time: 1128

Lab File ID: T9079 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| N,N-Dimethylaniline | 1.734 | 1.593 | 0.001 | 8.1 | 20.0 |
| 1,4-Dioxane | 0.896 | 0.847 | 0.001 | 5.5 | 20.0 |
| 2,3,7,8-TCDD (screen) | 0.436 | 0.467 | | -7.1 | 20.0 |
| Benzaldehyde | 0.723 | 0.938 | | -29.7 | 20.0 |
| Caprolactum | 0.251 | 0.266 | | -5.8 | 20.0 |
| Atrazine | 0.176 | 0.149 | | 15.3 | 20.0 |
| 2-Fluorophenol (SUR) | 1.921 | 1.962 | | -2.1 | |
| Phenol-d5 (SUR) | 2.428 | 2.330 | | 4.0 | |
| 2,4,6-Tribromophenol (SUR) | 0.190 | 0.192 | | -1.0 | 20.0 |
| Nitrobenzene-d5 (SUR) | 0.554 | 0.561 | | -1.1 | |
| 2-Fluorobiphenyl (SUR) | 1.250 | 1.192 | | 4.6 | |
| Terphenyl-d14 (SUR) | 1.048 | 0.974 | | 7.1 | |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/24/00 Time: 1310

Lab File ID: T9111 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Phenol | 2.264 | 2.227 | | 1.6 | 20.0 |
| 2-Chlorophenol | 1.358 | 1.386 | | -1.9 | 20.0 |
| 2-Methylphenol | 1.663 | 1.636 | | 1.6 | |
| 4-Methylphenol | 1.467 | 1.473 | | -0.0 | |
| 2-Nitrophenol | 0.249 | 0.242 | | 2.8 | 20.0 |
| 2,4-Dimethylphenol | 0.397 | 0.373 | | 6.0 | 20.0 |
| 2,4-Dichlorophenol | 0.387 | 0.369 | | 4.6 | 20.0 |
| 4-Chloro-3-methylphenol | 0.518 | 0.523 | | 0.1 | 20.0 |
| 2,4,6-Trichlorophenol | 0.375 | 0.360 | | 4.0 | 20.0 |
| 2,4,5-Trichlorophenol | 0.389 | 0.370 | | 4.9 | |
| 2,4-Dinitrophenol | 0.215 | 0.220 | 0.05 | -2.3 | 20.0 |
| 4-Nitrophenol | 0.349 | 0.351 | 0.05 | -0.0 | 20.0 |
| 4,6-Dinitro-2-methylphenol | 0.147 | 0.145 | | 1.4 | 20.0 |
| Pentachlorophenol | 0.160 | 0.157 | | 1.9 | 20.0 |
| Benzoic Acid | 0.270 | 0.299 | | -10.7 | |
| N-Nitrosodimethylamine | 1.407 | 1.513 | | -7.5 | 20.0 |
| bis(2-Chloroethyl)ether | 1.775 | 1.809 | | -1.9 | 20.0 |
| 1,3-Dichlorobenzene | 1.447 | 1.462 | | -1.0 | 20.0 |
| 1,4-Dichlorobenzene | 1.342 | 1.345 | | -0.0 | 20.0 |
| 1,2-Dichlorobenzene | 1.273 | 1.258 | | 1.2 | 20.0 |
| bis(2-chloroisopropyl)ether | 2.658 | 2.690 | | -1.2 | 20.0 |
| N-Nitroso-di-n-propylamine | 1.117 | 1.047 | 0.5 | 6.3 | 20.0 |
| Hexachloroethane | 0.709 | 0.720 | | -1.4 | 20.0 |
| Nitrobenzene | 0.621 | 0.594 | | 4.3 | 20.0 |
| Isophorone | 1.077 | 1.028 | | 4.5 | 20.0 |
| bis(2-Chloroethoxy)methane | 0.628 | 0.607 | | 3.3 | 20.0 |
| 1,2,4-Trichlorobenzene | 0.402 | 0.382 | | 5.0 | 20.0 |
| Naphthalene | 1.011 | 0.924 | | 8.6 | 20.0 |
| 4-Chloroaniline | 0.451 | 0.432 | | 4.2 | |
| Hexachlorobutadiene | 0.185 | 0.171 | | 7.6 | 20.0 |
| 2-Methylnaphthalene | 0.735 | 0.678 | | 7.8 | |
| Hexachlorocyclopentadiene | 0.243 | 0.216 | 0.05 | 11.1 | 20.0 |
| 2-Chloronaphthalene | 1.058 | 1.065 | | 0.1 | 20.0 |
| 2-Nitroaniline | 0.472 | 0.466 | | 1.3 | |
| Dimethylphthalate | 1.492 | 1.458 | | 2.3 | 20.0 |
| Acenaphthylene | 1.615 | 1.547 | | 4.2 | 20.0 |
| 2,6-Dinitrotoluene | 0.387 | 0.394 | | -1.8 | 20.0 |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/24/00 Time: 1310

Lab File ID: T9111 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| 3-Nitroaniline | 0.360 | 0.356 | | 1.1 | |
| Acenaphthene | 0.962 | 0.927 | | 3.6 | 20.0 |
| Dibenzofuran | 1.501 | 1.407 | | 6.3 | |
| 2,4-Dinitrotoluene | 0.498 | 0.506 | | -1.6 | 20.0 |
| Diethylphthalate | 1.386 | 1.326 | | 4.3 | 20.0 |
| 4-Chlorophenyl-phenylether | 0.501 | 0.464 | | 7.4 | 20.0 |
| Fluorene | 1.183 | 1.082 | | 8.5 | 20.0 |
| 4-Nitroaniline | 0.319 | 0.305 | | 4.4 | |
| N-Nitrosodiphenylamine | 0.534 | 0.524 | | 1.9 | 20.0 |
| 4-Bromophenyl-phenylether | 0.198 | 0.191 | | 3.5 | 20.0 |
| Hexachlorobenzene | 0.221 | 0.206 | | 6.8 | 20.0 |
| Phenanthrene | 0.987 | 0.959 | | 2.8 | 20.0 |
| Anthracene | 1.014 | 0.972 | | 4.1 | 20.0 |
| Carbazole | 0.971 | 0.927 | | 4.5 | |
| Di-n-butylphthalate | 1.355 | 1.291 | | 4.7 | 20.0 |
| Fluoranthene | 1.057 | 0.960 | | 9.2 | 20.0 |
| Pyrene | 1.400 | 1.316 | | 6.0 | 20.0 |
| Benzidine | 0.297 | 0.217 | | 26.9 | |
| Butylbenzylphthalate | 0.913 | 0.918 | | -0.0 | 20.0 |
| 3,3'-Dichlorobenzidine | 0.438 | 0.447 | | -2.0 | 20.0 |
| Benzo(a)anthracene | 1.072 | 1.030 | | 3.9 | 20.0 |
| Chrysene | 1.009 | 0.998 | | 1.1 | 20.0 |
| bis(2-Ethylhexyl)phthalate | 1.062 | 0.993 | | 6.5 | 20.0 |
| Di-n-octylphthalate | 1.728 | 1.665 | | 3.6 | 20.0 |
| Benzo(b)fluoranthene | 1.231 | 1.188 | | 3.5 | 20.0 |
| Benzo(k)fluoranthene | 1.064 | 1.053 | | 1.0 | 20.0 |
| Benzo(a)pyrene | 1.138 | 1.130 | | 0.7 | 20.0 |
| Indeno(1,2,3-cd)pyrene | 1.318 | 1.274 | | 3.3 | 20.0 |
| Dibenz(a,h)anthracene | 1.161 | 1.148 | | 1.1 | 20.0 |
| Benzo(g,h,i)perylene | 1.291 | 1.329 | | -2.9 | 20.0 |
| Pyridine | 2.082 | 2.153 | | -3.4 | |
| Aniline | 2.279 | 2.140 | | 6.1 | |
| Benzyl Alcohol | 1.253 | 1.291 | | -3.0 | |
| 1,2-Diphenylhydrazine | 0.825 | 0.833 | | 0.1 | |
| Diphenyl | 1.307 | 1.258 | 0.001 | 3.7 | 20.0 |
| Diphenyl Ether | 0.799 | 0.754 | 0.001 | 5.6 | 20.0 |
| Acetophenone | 2.255 | 2.309 | 0.001 | -2.2 | 20.0 |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3

Lab File ID: T9111

Calibration Date: 01/24/00 Time: 1310

Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| N,N-Dimethylaniline | 1.734 | 1.589 | 0.001 | 8.4 | 20.0 |
| 1,4-Dioxane | 0.896 | 0.911 | 0.001 | -1.5 | 20.0 |
| 2,3,7,8-TCDD (screen) | 0.436 | 0.440 | | 0.1 | 20.0 |
| Benzaldehyde | 0.723 | 1.002 | | -38.4 | 20.0 |
| Caprolactum | 0.251 | 0.245 | | 2.4 | 20.0 |
| Atrazine | 0.176 | 0.147 | | 16.5 | 20.0 |
| 2-Fluorophenol (SUR) | 1.921 | 2.020 | | -5.0 | |
| Phenol-d5 (SUR) | 2.428 | 2.366 | | 2.6 | |
| 2,4,6-Tribromophenol (SUR) | 0.190 | 0.183 | | 3.7 | 20.0 |
| Nitrobenzene-d5 (SUR) | 0.554 | 0.544 | | 1.8 | |
| 2-Fluorobiphenyl (SUR) | 1.250 | 1.173 | | 6.2 | |
| Terphenyl-d14 (SUR) | 1.048 | 1.022 | | 2.5 | |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/26/00 Time: 0852

Lab File ID: T9131 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Phenol | 2.264 | 2.229 | | 1.5 | 20.0 |
| 2-Chlorophenol | 1.358 | 1.345 | | 1.0 | 20.0 |
| 2-Methylphenol | 1.663 | 1.605 | | 3.4 | |
| 4-Methylphenol | 1.467 | 1.499 | | -2.0 | |
| 2-Nitrophenol | 0.249 | 0.260 | | -4.4 | 20.0 |
| 2,4-Dimethylphenol | 0.397 | 0.393 | | 1.0 | 20.0 |
| 2,4-Dichlorophenol | 0.387 | 0.397 | | -2.4 | 20.0 |
| 4-Chloro-3-methylphenol | 0.518 | 0.538 | | -3.7 | 20.0 |
| 2,4,6-Trichlorophenol | 0.375 | 0.366 | | 2.4 | 20.0 |
| 2,4,5-Trichlorophenol | 0.389 | 0.377 | | 3.1 | |
| 2,4-Dinitrophenol | 0.215 | 0.216 | 0.05 | -0.0 | 20.0 |
| 4-Nitrophenol | 0.349 | 0.358 | 0.05 | -2.4 | 20.0 |
| 4,6-Dinitro-2-methylphenol | 0.147 | 0.140 | | 4.8 | 20.0 |
| Pentachlorophenol | 0.160 | 0.158 | | 1.2 | 20.0 |
| Benzoic Acid | 0.270 | 0.297 | | -10.0 | |
| N-Nitrosodimethylamine | 1.407 | 1.460 | | -3.6 | 20.0 |
| bis(2-Chloroethyl)ether | 1.775 | 1.771 | | 0.2 | 20.0 |
| 1,3-Dichlorobenzene | 1.447 | 1.409 | | 2.6 | 20.0 |
| 1,4-Dichlorobenzene | 1.342 | 1.283 | | 4.4 | 20.0 |
| 1,2-Dichlorobenzene | 1.273 | 1.178 | | 7.5 | 20.0 |
| bis(2-chloroisopropyl)ether | 2.658 | 2.625 | | 1.2 | 20.0 |
| N-Nitroso-di-n-propylamine | 1.117 | 1.057 | 0.5 | 5.4 | 20.0 |
| Hexachloroethane | 0.709 | 0.696 | | 1.8 | 20.0 |
| Nitrobenzene | 0.621 | 0.599 | | 3.5 | 20.0 |
| Isophorone | 1.077 | 1.119 | | -3.7 | 20.0 |
| bis(2-Chloroethoxy)methane | 0.628 | 0.642 | | -2.2 | 20.0 |
| 1,2,4-Trichlorobenzene | 0.402 | 0.394 | | 2.0 | 20.0 |
| Naphthalene | 1.011 | 0.968 | | 4.2 | 20.0 |
| 4-Chloroaniline | 0.451 | 0.446 | | 1.1 | |
| Hexachlorobutadiene | 0.185 | 0.180 | | 2.7 | 20.0 |
| 2-Methylnaphthalene | 0.735 | 0.716 | | 2.6 | |
| Hexachlorocyclopentadiene | 0.243 | 0.236 | 0.05 | 2.9 | 20.0 |
| 2-Chloronaphthalene | 1.058 | 1.045 | | 1.2 | 20.0 |
| 2-Nitroaniline | 0.472 | 0.483 | | -2.3 | |
| Dimethylphthalate | 1.492 | 1.502 | | 0.1 | 20.0 |
| Acenaphthylene | 1.615 | 1.604 | | 0.7 | 20.0 |
| 2,6-Dinitrotoluene | 0.387 | 0.402 | | -3.7 | 20.0 |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 01/26/00 Time: 0852

Lab File ID: T9131 Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| 3-Nitroaniline | 0.360 | 0.374 | | -3.7 | |
| Acenaphthene | 0.962 | 0.932 | | 3.1 | 20.0 |
| Dibenzofuran | 1.501 | 1.425 | | 5.1 | |
| 2,4-Dinitrotoluene | 0.498 | 0.509 | | -2.2 | 20.0 |
| Diethylphthalate | 1.386 | 1.358 | | 2.0 | 20.0 |
| 4-Chlorophenyl-phenylether | 0.501 | 0.472 | | 5.8 | 20.0 |
| Fluorene | 1.183 | 1.112 | | 6.0 | 20.0 |
| 4-Nitroaniline | 0.319 | 0.318 | | 0.3 | |
| N-Nitrosodiphenylamine | 0.534 | 0.515 | | 3.6 | 20.0 |
| 4-Bromophenyl-phenylether | 0.198 | 0.192 | | 3.0 | 20.0 |
| Hexachlorobenzene | 0.221 | 0.205 | | 7.2 | 20.0 |
| Phenanthrene | 0.987 | 0.925 | | 6.3 | 20.0 |
| Anthracene | 1.014 | 0.930 | | 8.3 | 20.0 |
| Carbazole | 0.971 | 0.936 | | 3.6 | |
| Di-n-butylphthalate | 1.355 | 1.247 | | 8.0 | 20.0 |
| Fluoranthene | 1.057 | 0.935 | | 11.5 | 20.0 |
| Pyrene | 1.400 | 1.297 | | 7.4 | 20.0 |
| Benzidine | 0.297 | 0.215 | | 27.6 | |
| Butylbenzylphthalate | 0.913 | 0.892 | | 2.3 | 20.0 |
| 3,3'-Dichlorobenzidine | 0.438 | 0.423 | | 3.4 | 20.0 |
| Benzo(a)anthracene | 1.072 | 1.031 | | 3.8 | 20.0 |
| Chrysene | 1.009 | 1.002 | | 0.7 | 20.0 |
| bis(2-Ethylhexyl)phthalate | 1.062 | 0.969 | | 8.8 | 20.0 |
| Di-n-octylphthalate | 1.728 | 1.671 | | 3.3 | 20.0 |
| Benzo(b)fluoranthene | 1.231 | 1.176 | | 4.5 | 20.0 |
| Benzo(k)fluoranthene | 1.064 | 1.055 | | 0.8 | 20.0 |
| Benzo(a)pyrene | 1.138 | 1.135 | | 0.3 | 20.0 |
| Indeno(1,2,3-cd)pyrene | 1.318 | 1.322 | | -0.0 | 20.0 |
| Dibenz(a,h)anthracene | 1.161 | 1.142 | | 1.6 | 20.0 |
| Benzo(g,h,i)perylene | 1.291 | 1.301 | | 0.1 | 20.0 |
| Pyridine | 2.082 | 2.051 | | 1.5 | |
| Aniline | 2.279 | 2.165 | | 5.0 | |
| Benzyl Alcohol | 1.253 | 1.267 | | -1.1 | |
| 1,2-Diphenylhydrazine | 0.825 | 0.807 | | 2.2 | |
| Diphenyl | 1.307 | 1.261 | 0.001 | 3.5 | 20.0 |
| Diphenyl Ether | 0.799 | 0.776 | 0.001 | 2.9 | 20.0 |
| Acetophenone | 2.255 | 2.361 | 0.001 | -4.7 | 20.0 |

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3

Lab File ID: T9131

Calibration Date: 01/26/00 Time: 0852

Init. Calib. Date(s): 01/17/00 01/17/00

Init. Calib. Times: 1004 1308

| COMPOUND | $\overline{RRF}$ | RRF50 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| N,N-Dimethylaniline | 1.734 | 1.581 | 0.001 | 8.8 | 20.0 |
| 1,4-Dioxane | 0.896 | 0.898 | 0.001 | -0.0 | 20.0 |
| 2,3,7,8-TCDD (screen) | 0.436 | 0.457 | | -4.8 | 20.0 |
| Benzaldehyde | 0.723 | 0.877 | | -21.3 | 20.0 |
| Caprolactum | 0.251 | 0.260 | | -3.4 | 20.0 |
| Atrazine | 0.176 | 0.152 | | 13.6 | 20.0 |
| 2-Fluorophenol (SUR) | 1.921 | 1.966 | | -2.3 | |
| Phenol-d5 (SUR) | 2.428 | 2.287 | | 5.8 | |
| 2,4,6-Tribromophenol (SUR) | 0.190 | 0.188 | | 1.0 | 20.0 |
| Nitrobenzene-d5 (SUR) | 0.554 | 0.574 | | -3.6 | |
| 2-Fluorobiphenyl (SUR) | 1.250 | 1.220 | | 2.4 | |
| Terphenyl-d14 (SUR) | 1.048 | 1.010 | | 3.6 | |

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 625

Matrix: WATER Level: LOW Lab Job No: W844

| | LAB SAMPLE NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|---|
| 01 | WB019 | 42 | 28 | 106 | 87 | 93 | 87 | 0 |
| 02 | 179524 | | | | 92 | 95 | 89 | 0 |
| 03 | 179527 | | | | 91 | 97 | 84 | 0 |
| 04 | 179530 | | | | 90 | 96 | 72* | 1 |
| 05 | 179531 | | | | 93 | 95 | 78 | 0 |
| 06 | 179533 | | | | 91 | 98 | 90 | 0 |
| 07 | 179530R1 | | | | 92 | 96 | 71* | 1 |
| 08 | | | | | | | | |
| 09 | | | | | | | | |
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| | | QC LIMITS |
|---|---|---|
| S1 | = 2-Fluorophenol | (20- 71) |
| S2 | = Phenol-d5 | (11- 50) |
| S3 | = 2,4,6-Tribromophenol | (61-133) |
| S4 | = Nitrobenzene-d5 | (55-115) |
| S5 | = 2-Fluorobiphenyl | (59-109) |
| S6 | = Terphenyl-d14 | (73-132) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 178499

MS Sample from Lab Job No: W693

QA Batch: 5173

| Compound | MS % REC. | BS % REC. | LIMITS |
|---|---|---|---|
| Phenol | 32 | 31 | 5-112 |
| 2-Chlorophenol | 78 | 74 | 23-134 |
| 2-Nitrophenol | 95 | 96 | 29-182 |
| 2,4-Dimethylphenol | 86 | 88 | 32-119 |
| 2,4-Dichlorophenol | 96 | 95 | 39-135 |
| 4-Chloro-3-methylphenol | 100 | 100 | 22-147 |
| 2,4,6-Trichlorophenol | 97 | 96 | 37-144 |
| 2,4-Dinitrophenol | 100 | 100 | 0-191 |
| 4-Nitrophenol | 35 | 34 | 0-132 |
| 4,6-Dinitro-2-methylphenol | 100 | 100 | 0-181 |
| Pentachlorophenol | 92 | 92 | 14-176 |
| bis(2-Chloroethyl)ether | 92 | 88 | 12-158 |
| 1,3-Dichlorobenzene | 76 | 68 | 0-172 |
| 1,4-Dichlorobenzene | 77 | 70 | 20-124 |
| 1,2-Dichlorobenzene | 82 | 74 | 32-129 |
| bis(2-chloroisopropyl)ether | 88 | 82 | 36-166 |
| N-Nitroso-di-n-propylamine | 99 | 93 | 0-230 |
| Hexachloroethane | 72 | 65 | 40-113 |
| Nitrobenzene | 98 | 94 | 35-180 |
| Isophorone | 86 | 86 | 21-196 |
| bis(2-Chloroethoxy)methane | 97 | 100 | 33-184 |
| 1,2,4-Trichlorobenzene | 89 | 85 | 44-142 |
| Naphthalene | 91 | 91 | 21-133 |
| Hexachlorobutadiene | 71 | 68 | 24-116 |
| 2-Chloronaphthalene | 93 | 88 | 60-118 |
| Dimethylphthalate | 100 | 97 | 0-112 |
| Acenaphthylene | 92 | 93 | 33-145 |
| 2,6-Dinitrotoluene | 100 | 100 | 50-158 |
| Acenaphthene | 95 | 92 | 47-145 |
| 2,4-Dinitrotoluene | 110 | 100 | 39-139 |

* Values outside of QC limits

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 178499

MS Sample from Lab Job No: W693

QA Batch: 5173

| Compound | MS % REC. | BS % REC. | LIMITS |
|---|---|---|---|
| Diethylphthalate | 100 | 100 | 0-114 |
| 4-Chlorophenyl-phenylether | 91 | 90 | 25-158 |
| Fluorene | 96 | 97 | 59-121 |
| 4-Bromophenyl-phenylether | 92 | 91 | 53-127 |
| Hexachlorobenzene | 98 | 97 | 0-152 |
| Phenanthrene | 98 | 96 | 54-120 |
| Anthracene | 96 | 94 | 27-133 |
| Di-n-butylphthalate | 98 | 96 | 1-118 |
| Fluoranthene | 96 | 95 | 26-137 |
| Pyrene | 100 | 100 | 52-115 |
| Butylbenzylphthalate | 100 | 100 | 0-152 |
| 3,3'-Dichlorobenzidine | 120 | 110 | 0-262 |
| Benzo(a)anthracene | 98 | 94 | 33-143 |
| Chrysene | 100 | 96 | 17-168 |
| bis(2-Ethylhexyl)phthalate | 100 | 100 | 8-158 |
| Di-n-octylphthalate | 95 | 95 | 4-146 |
| Benzo(b)fluoranthene | 92 | 92 | 24-159 |
| Benzo(k)fluoranthene | 99 | 97 | 11-162 |
| Benzo(a)pyrene | 95 | 94 | 17-163 |
| Indeno(1,2,3-cd)pyrene | 100 | 100 | 0-171 |
| Dibenz(a,h)anthracene | 97 | 97 | 0-227 |
| Benzo(g,h,i)perylene | 100 | 100 | 0-219 |

* Values outside of QC limits

Spike Recovery: 0 out of 104 outside limits

COMMENTS:

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9079

Date Analyzed: 01/21/00

Instrument ID: BNAMS3

Time Analyzed: 1128

| | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(CRY) AREA # | RT # |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 517930 | 12.82 | 1735309 | 15.02 | 1526757 | 24.82 |
| UPPER LIMIT | 1035860 | 13.32 | 3470618 | 15.52 | 3053514 | 25.32 |
| LOWER LIMIT | 258965 | 12.32 | 867654 | 14.52 | 763378 | 24.32 |
| LABORATORY SAMPLE NO. | | | | | | |
| 01 WB019 | 478547 | 12.81 | 1581425 | 15.01 | 1540871 | 24.79 |
| 02 | | | | | | |
| 03 | | | | | | |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9079

Date Analyzed: 01/21/00

Instrument ID: BNAMS3

Time Analyzed: 1128

| | | IS4(ANT) AREA # | RT # | IS5(PHN) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 1197188 | 17.95 | 2095164 | 20.42 | 1987636 | 28.17 |
| | UPPER LIMIT | 2394376 | 18.45 | 4190328 | 20.92 | 3975272 | 28.67 |
| | LOWER LIMIT | 598594 | 17.45 | 1047582 | 19.92 | 993818 | 27.67 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | WB019 | 1081879 | 17.94 | 1848888 | 20.41 | 1797385 | 28.13 |
| 02 | | | | | | | |
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9111

Date Analyzed: 01/24/00

Instrument ID: BNAMS3

Time Analyzed: 1310

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(CRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 461512 | 12.82 | 1539560 | 15.01 | 1222214 | 24.80 |
| | UPPER LIMIT | 923024 | 13.32 | 3079120 | 15.51 | 2444428 | 25.30 |
| | LOWER LIMIT | 230756 | 12.32 | 769780 | 14.51 | 611107 | 24.30 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 179524 | 534187 | 12.84 | 1696079 | 15.03 | 1565303 | 24.82 |
| 02 | | | | | | | |
| 03 | | | | | | | |
| 04 | | | | | | | |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9111

Date Analyzed: 01/24/00

Instrument ID: BNAMS3

Time Analyzed: 1310

| | | IS4(ANT) AREA # | RT # | IS5(PHN) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 1030572 | 17.94 | 1747622 | 20.41 | 1656316 | 28.14 |
| | UPPER LIMIT | 2061144 | 18.44 | 3495244 | 20.91 | 3312632 | 28.64 |
| | LOWER LIMIT | 515286 | 17.44 | 873811 | 19.91 | 828158 | 27.64 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 179524 | 1162625 | 17.96 | 1973866 | 20.42 | 1828866 | 28.17 |
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9131 Date Analyzed: 01/26/00

Instrument ID: BNAMS3 Time Analyzed: 0852

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(CRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 529155 | 12.82 | 1692444 | 15.01 | 1365015 | 24.81 |
| | UPPER LIMIT | 1058310 | 13.32 | 3384888 | 15.51 | 2730030 | 25.31 |
| | LOWER LIMIT | 264578 | 12.32 | 846222 | 14.51 | 682508 | 24.31 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 179527 | 558998 | 12.82 | 1794606 | 15.01 | 1544403 | 24.79 |
| 02 | 179530 | 580105 | 12.82 | 1885222 | 15.01 | 1679520 | 24.79 |
| 03 | 179531 | 597765 | 12.81 | 1930695 | 15.01 | 1715075 | 24.78 |
| 04 | 179533 | 571935 | 12.81 | 1856007 | 15.01 | 1650591 | 24.79 |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9131 Date Analyzed: 01/26/00

Instrument ID: BNAMS3 Time Analyzed: 0852

| | | IS4(ANT) AREA # | RT # | IS5(PHN) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 1162696 | 17.94 | 2023176 | 20.41 | 1840436 | 28.15 |
| | UPPER LIMIT | 2325392 | 18.44 | 4046352 | 20.91 | 3680872 | 28.65 |
| | LOWER LIMIT | 581348 | 17.44 | 1011588 | 19.91 | 920218 | 27.65 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 179527 | 1230399 | 17.93 | 2022841 | 20.40 | 1850161 | 28.12 |
| 02 | 179530 | 1287921 | 17.93 | 2133580 | 20.40 | 2003528 | 28.13 |
| 03 | 179531 | 1314865 | 17.93 | 2185731 | 20.40 | 2032510 | 28.13 |
| 04 | 179533 | 1247903 | 17.93 | 2097653 | 20.40 | 1928052 | 28.12 |
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9162

Date Analyzed: 01/27/00

Instrument ID: BNAMS3

Time Analyzed: 1131

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(CRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 507944 | 12.78 | 1662280 | 14.98 | 1376950 | 24.77 |
| | UPPER LIMIT | 1015888 | 13.28 | 3324560 | 15.48 | 2753900 | 25.27 |
| | LOWER LIMIT | 253972 | 12.28 | 831140 | 14.48 | 688475 | 24.27 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 179530R1 | 497713 | 12.79 | 1667059 | 14.98 | 1602431 | 24.76 |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T9162 Date Analyzed: 01/27/00

Instrument ID: BNAMS3 Time Analyzed: 1131

| | | IS4(ANT) AREA # | RT # | IS5(PHN) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 1179109 | 17.91 | 2038108 | 20.38 | 1857257 | 28.08 |
| | UPPER LIMIT | 2358218 | 18.41 | 4076216 | 20.88 | 3714514 | 28.58 |
| | LOWER LIMIT | 589554 | 17.41 | 1019054 | 19.88 | 928628 | 27.58 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 179530R1 | 1141281 | 17.91 | 1951220 | 20.37 | 1884022 | 28.07 |
| 02 | | | | | | | |
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Client ID: **MW-15S**
Site: L.E. Carpenter

Lab Sample No: **179525**
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2967.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

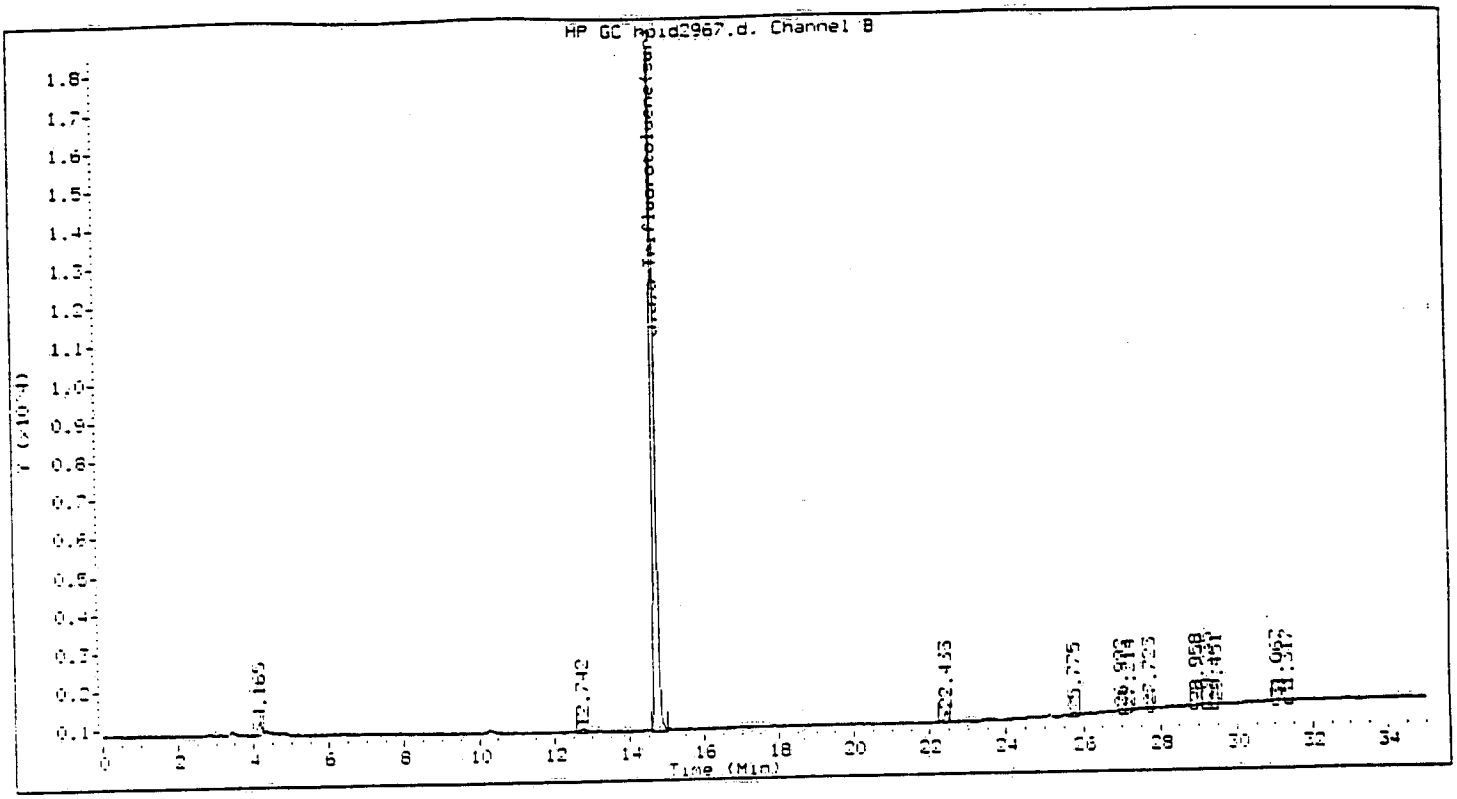
**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2967.d



Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179525
Lab ID : 179525
Inj Date : 18-JAN-2000 16:09
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.734 | 14.719 | 0.015 | 528123 | 31.314 | 31.314 |

Client ID: MW-15I
Site: L.E. Carpenter

Lab Sample No: 179526
Lab Job No: W844

Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2968.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

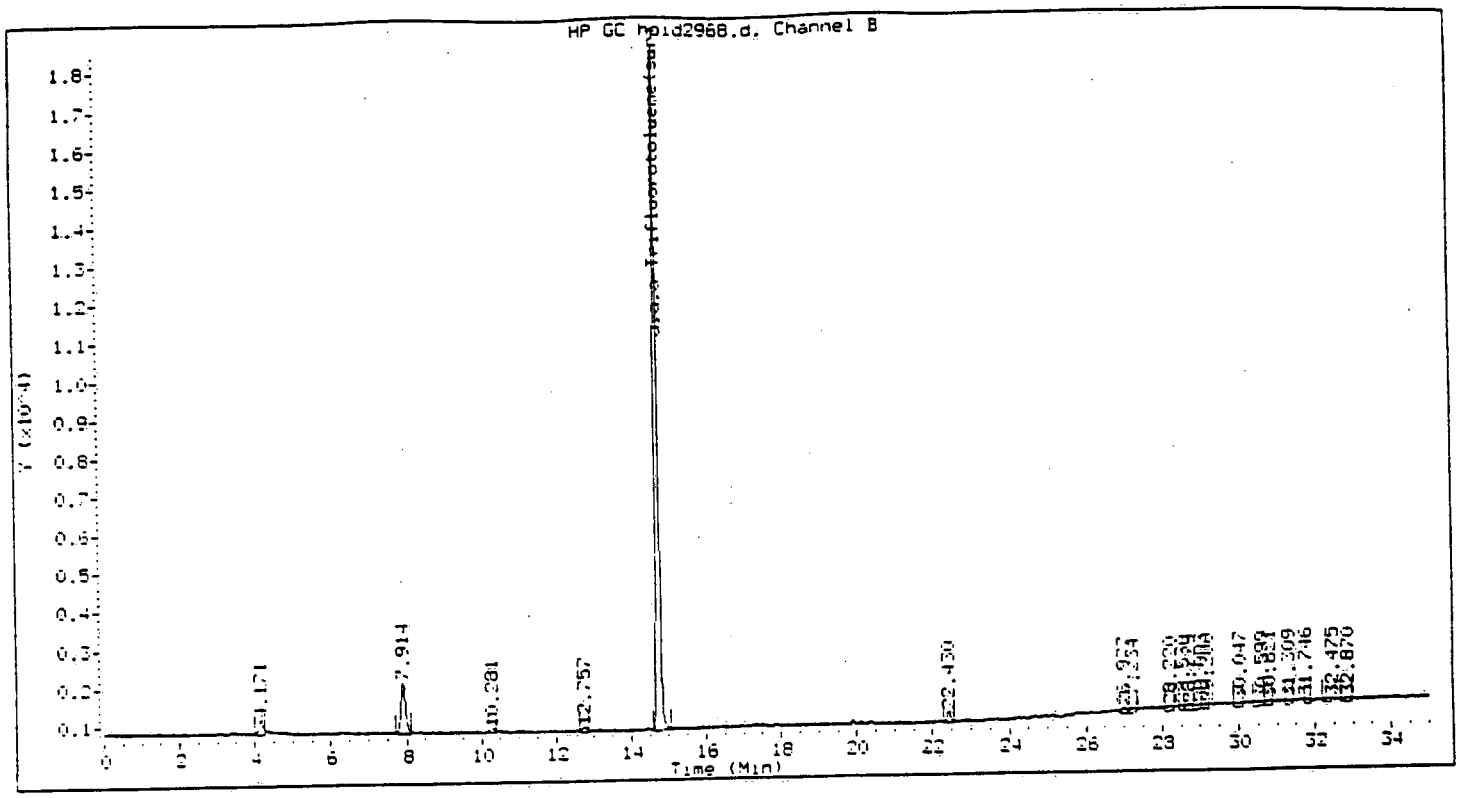
**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2968.d



Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179526
Lab ID : 179526
Inj Date : 18-JAN-2000 16:51
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.734 | 14.719 | 0.015 | 525452 | 31.155 | 31.155 |

Client ID: **MW-14I**
Site: L.E. Carpenter

Lab Sample No: **179528**
Lab Job No: W844

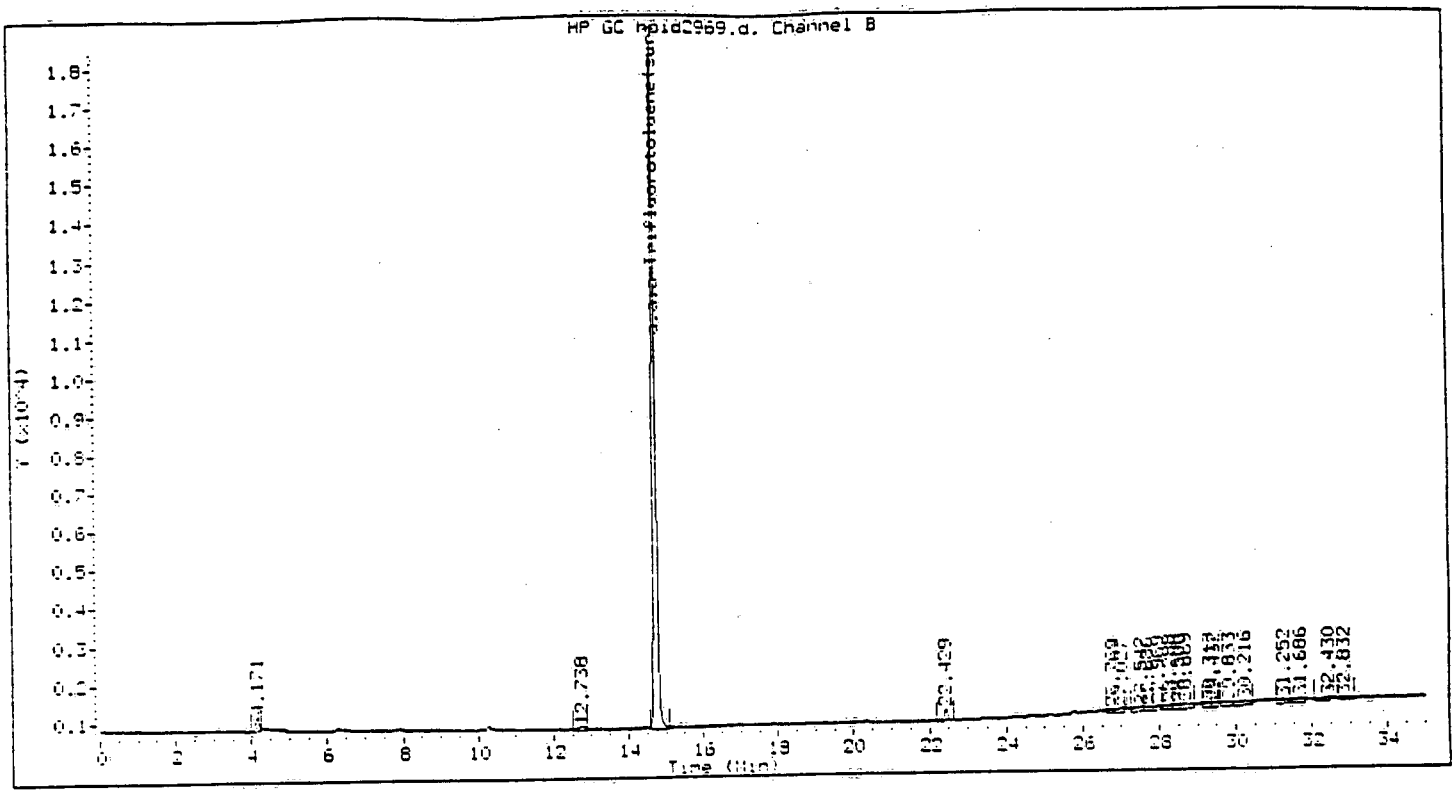
Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2969.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2969.d Page 1
Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179528
Lab ID : 179528
Inj Date : 18-JAN-2000 17:32
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.734 | 14.719 | 0.015 | 528322 | 31.325 | 31.325 |

Client ID: **MW-22**
Site: L.E. Carpenter

Lab Sample No: **179529**
Lab Job No: W844

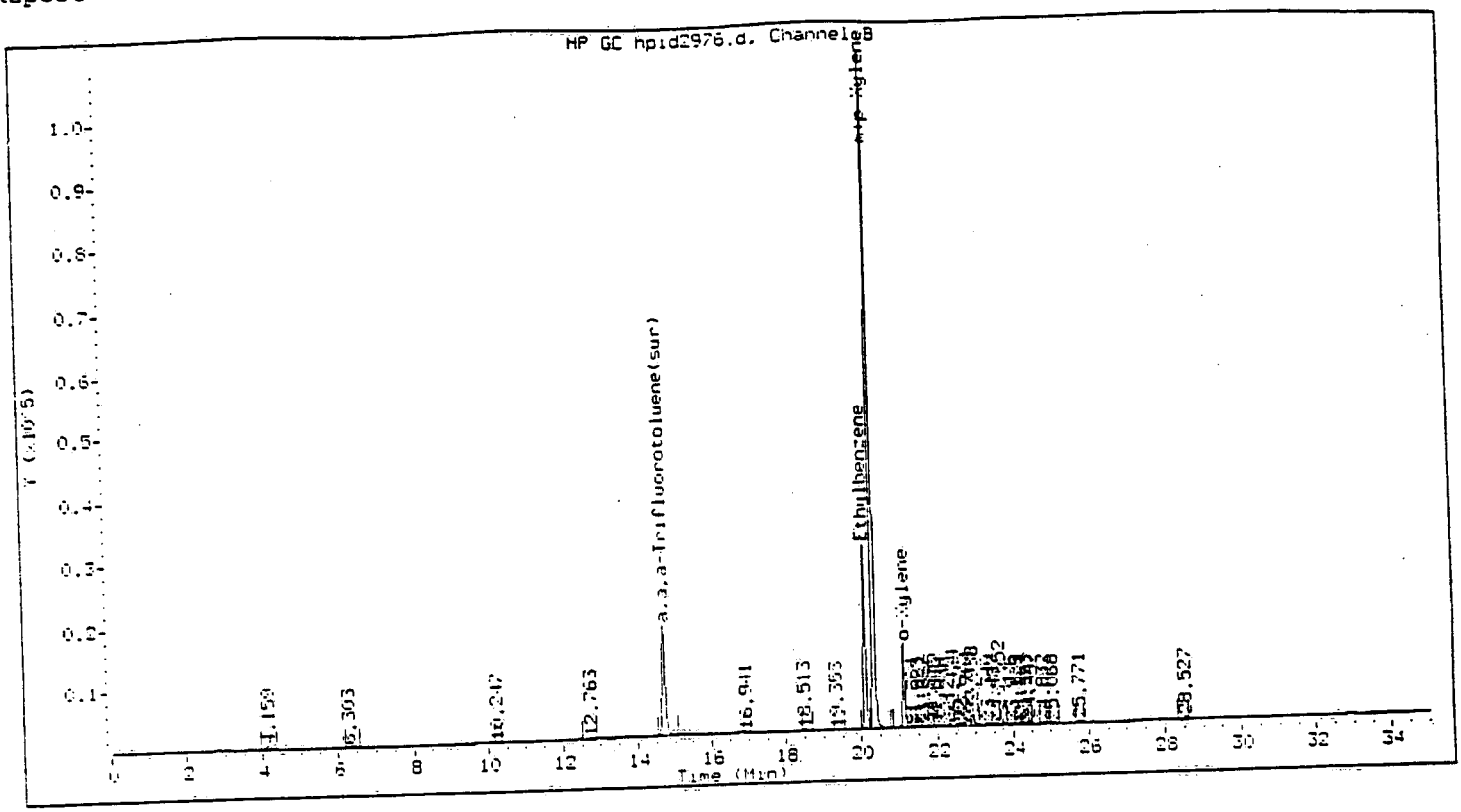
Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/19/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2976.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 25.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 7.8 |
| Toluene | ND | 8.5 |
| Ethylbenzene | 360 | 9.5 |
| Xylene (Total) | 1400 | 10 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2976.d
Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179529;;25
Lab ID : 179529
Inj Date : 19-JAN-2000 07:49
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 25
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| m+p-Xylene | 20.334 | 20.339 | 0.005 | 2217414 | 48.362 | 1209.055 |
| o-Xylene | 21.124 | 21.126 | 0.002 | 287146 | 6.764 | 169.109 |
| Ethylbenzene | 20.104 | 20.106 | 0.002 | 595969 | 14.546 | 363.641 |
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 2504560 | 56.010 | 1400.238 |
| a,a,a-Trifluorotoluene(sur) | 14.713 | 14.719 | 0.006 | 523353 | 31.031 | 31.031 |

Client ID: MW-21
Site: L.E. Carpenter

Lab Sample No: 179531
Lab Job No: W844

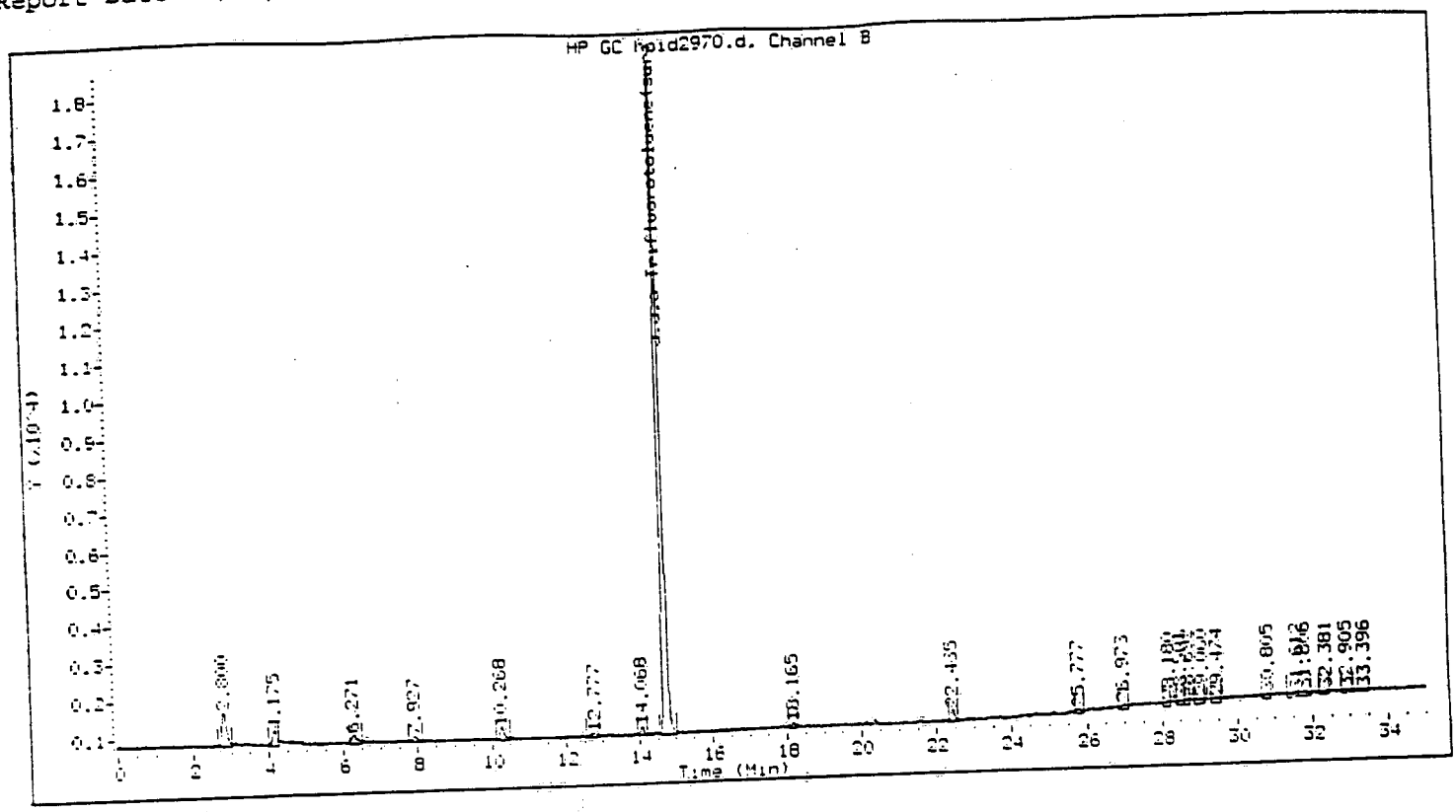
Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2970.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2970.d
Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179531
Lab ID : 179531
Inj Date : 18-JAN-2000 18:13
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.735 | 14.719 | 0.016 | 530156 | 31.434 | 31.434 |

Client ID: MW-4
Site: L.E. Carpenter

Lab Sample No: 179532
Lab Job No: W844

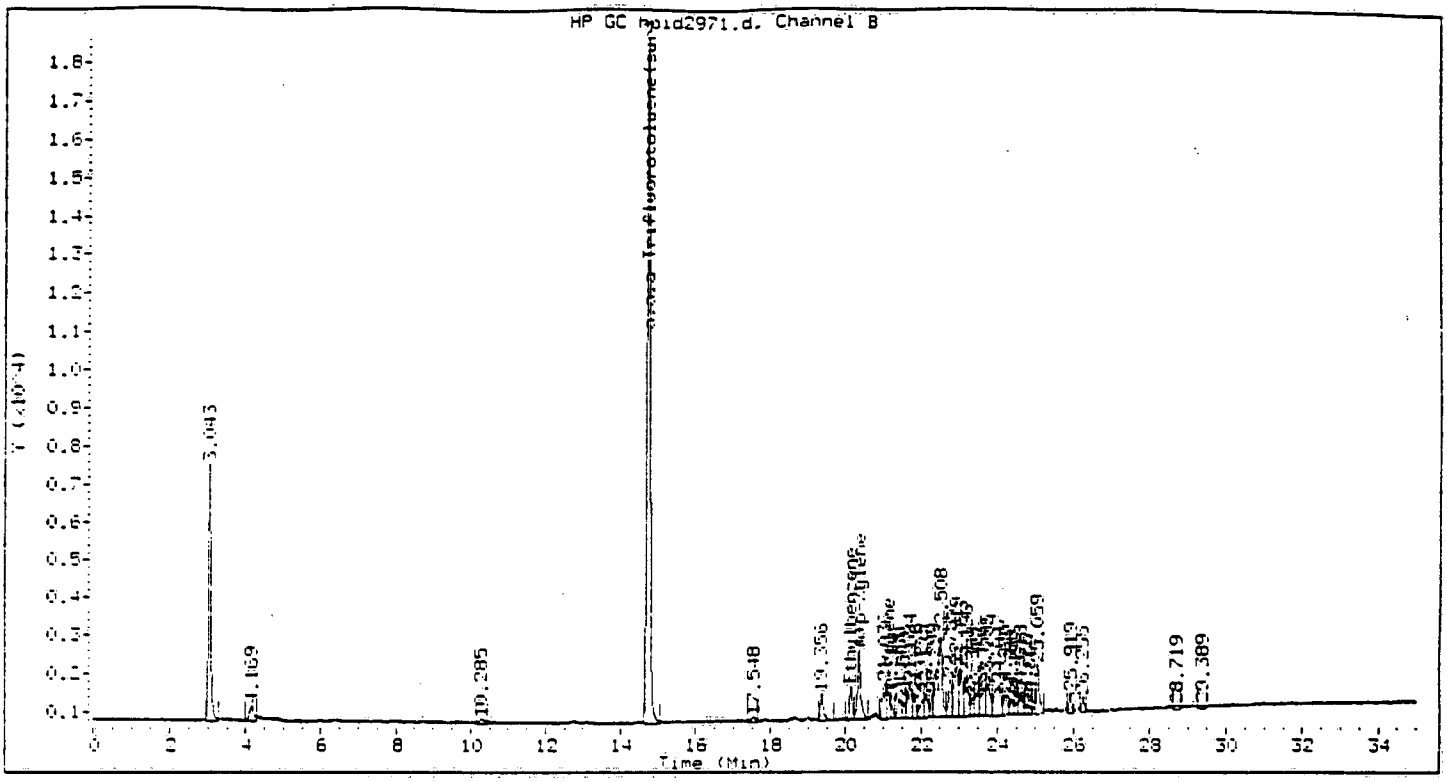
Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2971.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | 0.54 | 0.38 |
| Xylene (Total) | 1.6 | 0.40 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2971.d Page 1
Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179532
Lab ID : 179532
Inj Date : 18-JAN-2000 18:55
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|---|
| m+p-Xylene | | 20.346 | 20.339 | 0.007 | 54267 | 1.184 | 1.184 |
| o-Xylene | (M) | 21.137 | 21.126 | 0.010 | 17133 | 0.404 | 0.404 |
| Ethylbenzene | | 20.128 | 20.106 | 0.022 | 22295 | 0.544 | 0.544 |
| Xylene (Total) | | 25.019 | 25.019 | 0.000 | 71400 | 1.597 | 1.597 |
| a,a,a-Trifluorotoluene(sur) | | 14.732 | 14.719 | 0.013 | 529244 | 31.380 | 31.380 |

COMMENTS:

M - Compound response manually integrated.

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **179533**
Lab Job No: W844

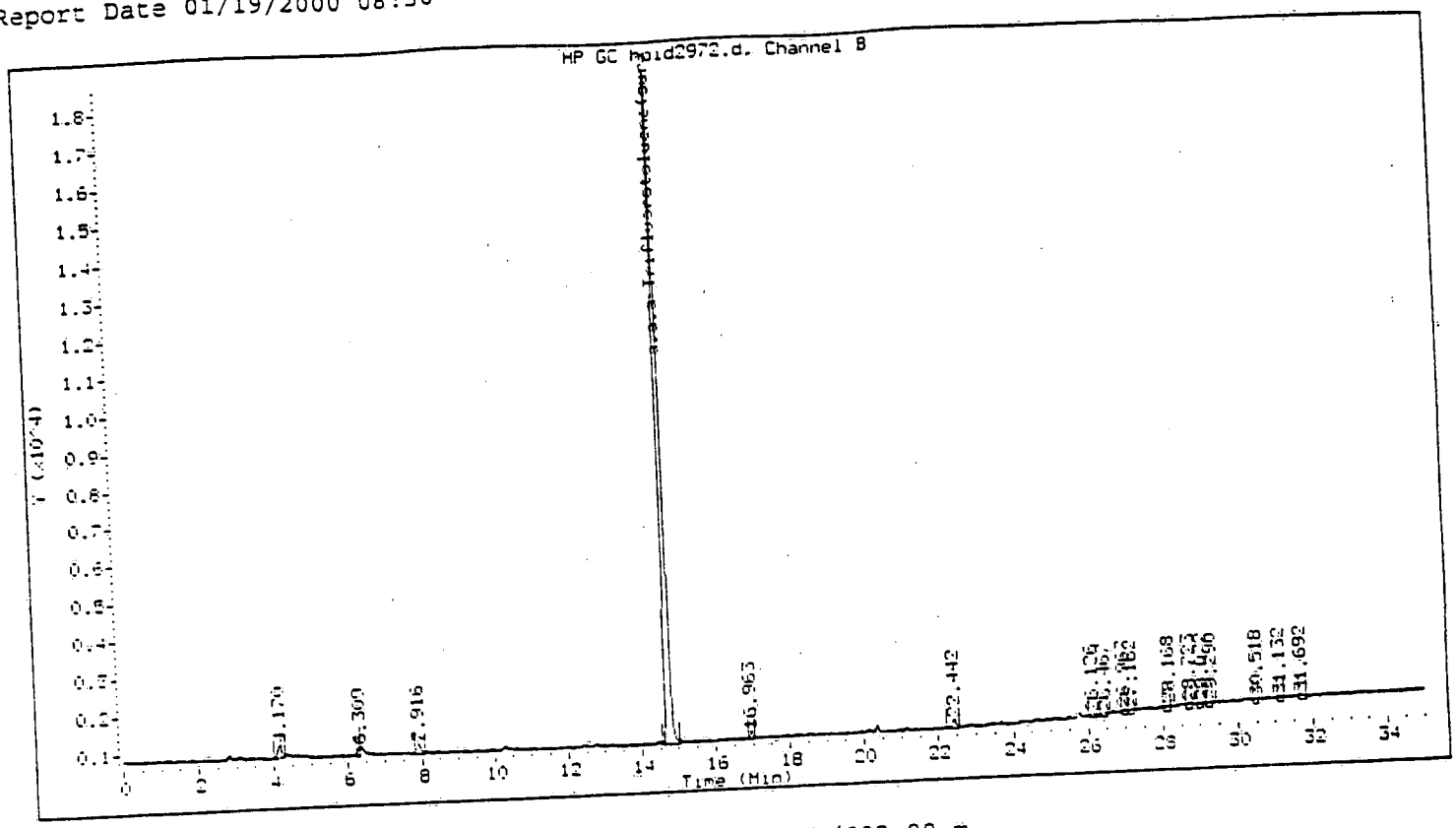
Date Sampled: 01/17/00
Date Received: 01/17/00
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2972.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2972.d
Report Date 01/19/2000 08:50




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : 179533
Lab ID : 179533
Inj Date : 18-JAN-2000 19:36
Operator : sp
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.732 | 14.719 | 0.013 | 530052 | 31.428 | 31.428 |

LAB SAMPLE NO.

HG018

# VOLATILE METHOD BLANK SUMMARY

Instrument ID: VOAGC2

Date Analyzed: 01/18/00

Lab File ID: HPID2963

Time Analyzed: 1253

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | MW-15S | 179525 | HPID2967 | 1609 |
| 02 | MW-15I | 179526 | HPID2968 | 1651 |
| 03 | MW-14I | 179528 | HPID2969 | 1732 |
| 04 | MW-21 | 179531 | HPID2970 | 1813 |
| 05 | MW-4 | 179532 | HPID2971 | 1855 |
| 06 | FIELD_BLANK | 179533 | HPID2972 | 1936 |
| 07 | MW-22 | 179529 | HPID2976 | 0749 |
| 08 | MW-22MS | 179529MS | HPID2977 | 0830 |
| 09 | MW-22MSD | 179529MSD | HPID2978 | 0911 |
| 10 | | | | |
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COMMENTS:

Client ID: **HG018**
Site:

Lab Sample No: **HG018**
Lab Job No: W844

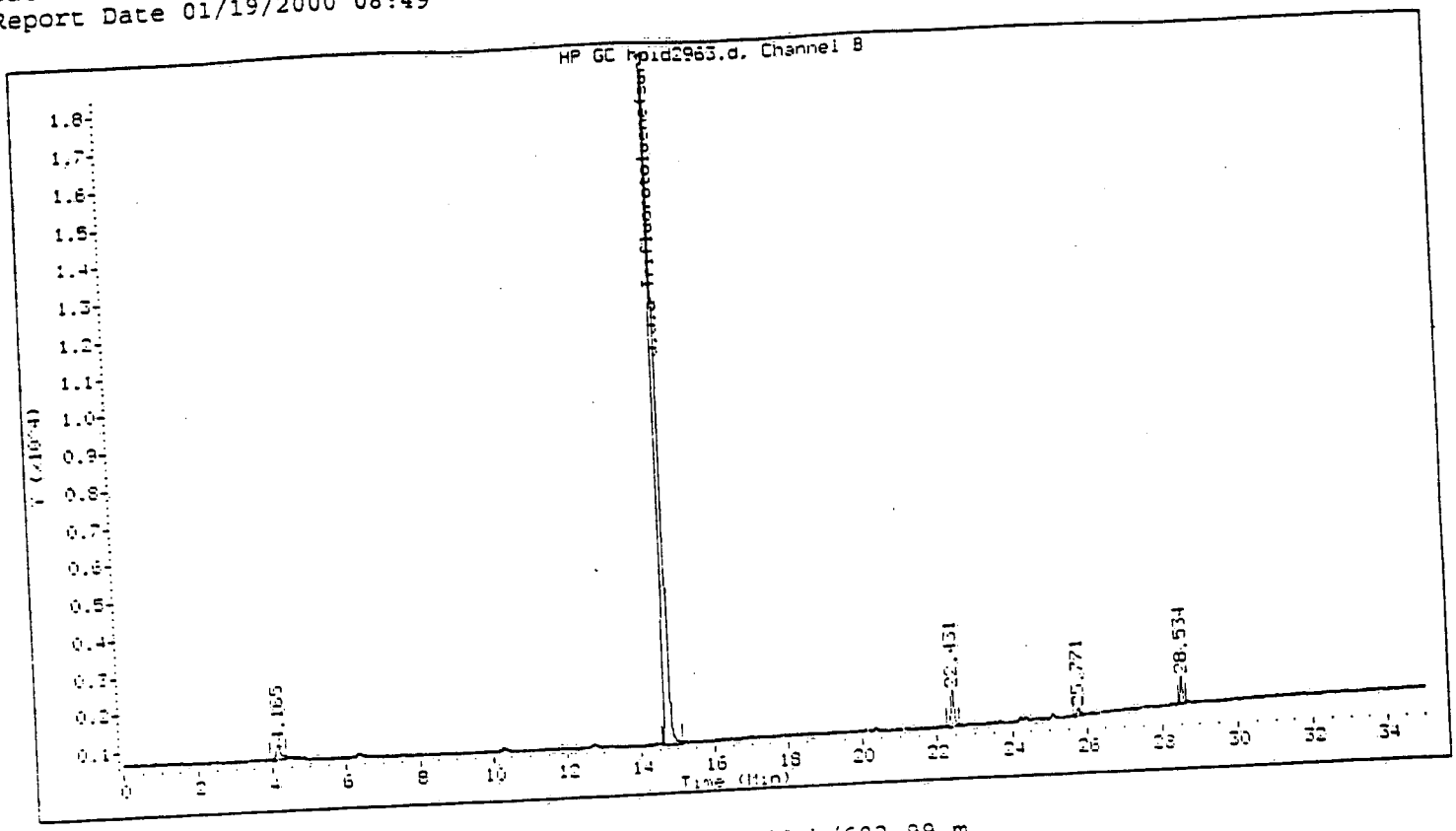
Date Sampled: _____
Date Received: _____
Date Analyzed: 01/18/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid2963.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| TBA | ND | 17 |
| MTBE | ND | 0.27 |
| DIPE | ND | 0.23 |
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Chlorobenzene | ND | 0.36 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |
| 1,3-Dichlorobenzene | ND | 0.48 |
| 1,4-Dichlorobenzene | ND | 0.45 |
| 1,2-Dichlorobenzene | ND | 0.43 |
| Naphthalene | ND | 0.55 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2963.d
Report Date 01/19/2000 08:49




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : HG018
Lab ID : HG018
Inj Date : 18-JAN-2000 12:53
Operator : sp
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.730 | 14.719 | 0.011 | 536452 | 31.808 | 31.808 |

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

Calibration Date(s): 01/03/00 01/03/00

Calibration Time(s): 0951 1235

LAB FILE ID: RRF2: HPID2798 RRF5: HPID2799 RRF10: HPID2800
RRF20: HPID2801 RRF40: HPID2802

| COMPOUND | RRF2 | RRF5 | RRF10 | RRF20 | RRF40 |
|---|---|---|---|---|---|
| TBA ** | 160 | 164 | 146 | 131 | |
| MTBE | 23822 | 24739 | 23627 | 23045 | 21474 |
| DIPE | 24917 | 25065 | 24256 | 22797 | 23409 |
| Benzene | 46736 | 48515 | 48110 | 43765 | 47269 |
| Toluene | 45700 | 45471 | 46186 | 41787 | 45332 |
| Chlorobenzene | 49494 | 52072 | 51525 | 47512 | 50488 |
| Ethylbenzene | 40456 | 42121 | 42235 | 38220 | 41829 |
| Xylene (Total) | 44477 | 46772 | 46715 | 42533 | 43087 |
| 1,3-Dichlorobenzene | 42215 | 43192 | 42470 | 40088 | 43048 |
| 1,4-Dichlorobenzene | 42402 | 43535 | 42749 | 40843 | 43148 |
| 1,2-Dichlorobenzene | 34746 | 36064 | 35339 | 34060 | 36008 |
| Naphthalene | 30558 | 32262 | 30362 | 30400 | 30806 |
| a,a,a-Trifluorotoluene(sur) | 15971 | 17153 | 17109 | 17051 | 17043 |

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

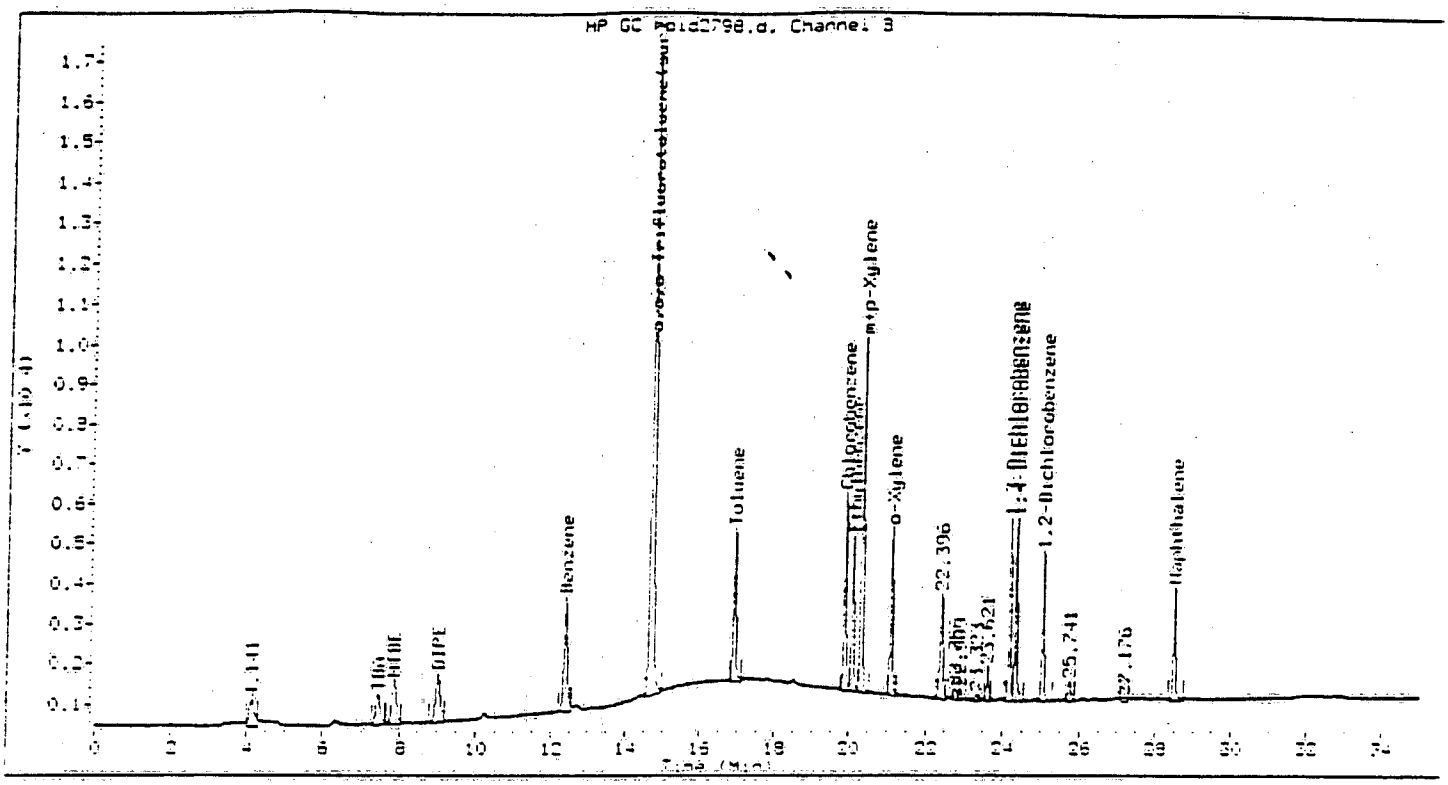
Calibration Date(s): 01/03/00 01/03/00

Calibration Time(s): 0951 1235

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| TBA ** | AVRG | 150 | 10.0* |
| MTBE | AVRG | 23341 | 5.2* |
| DIPE | AVRG | 24089 | 4.0* |
| Benzene | AVRG | 46879 | 4.0* |
| Toluene | AVRG | 44895 | 3.9* |
| Chlorobenzene | AVRG | 50218 | 3.6* |
| Ethylbenzene | AVRG | 40972 | 4.1* |
| Xylene (Total) | AVRG | 44717 | 4.4* |
| 1,3-Dichlorobenzene | AVRG | 42202 | 3.0* |
| 1,4-Dichlorobenzene | AVRG | 42536 | 2.4* |
| 1,2-Dichlorobenzene | AVRG | 35243 | 2.4* |
| Naphthalene | AVRG | 30677 | 2.6* |
| a,a,a-Trifluorotoluene(sur) | AVRG | 16866 | 3.0* |

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000
* Compounds with required maximum %RSD values.

Data File: /chem/VOAGC2.i/602/01-03-00/03JAN00.b/hpid2798.d Page 1
Report Date 01/04/2000 12:21



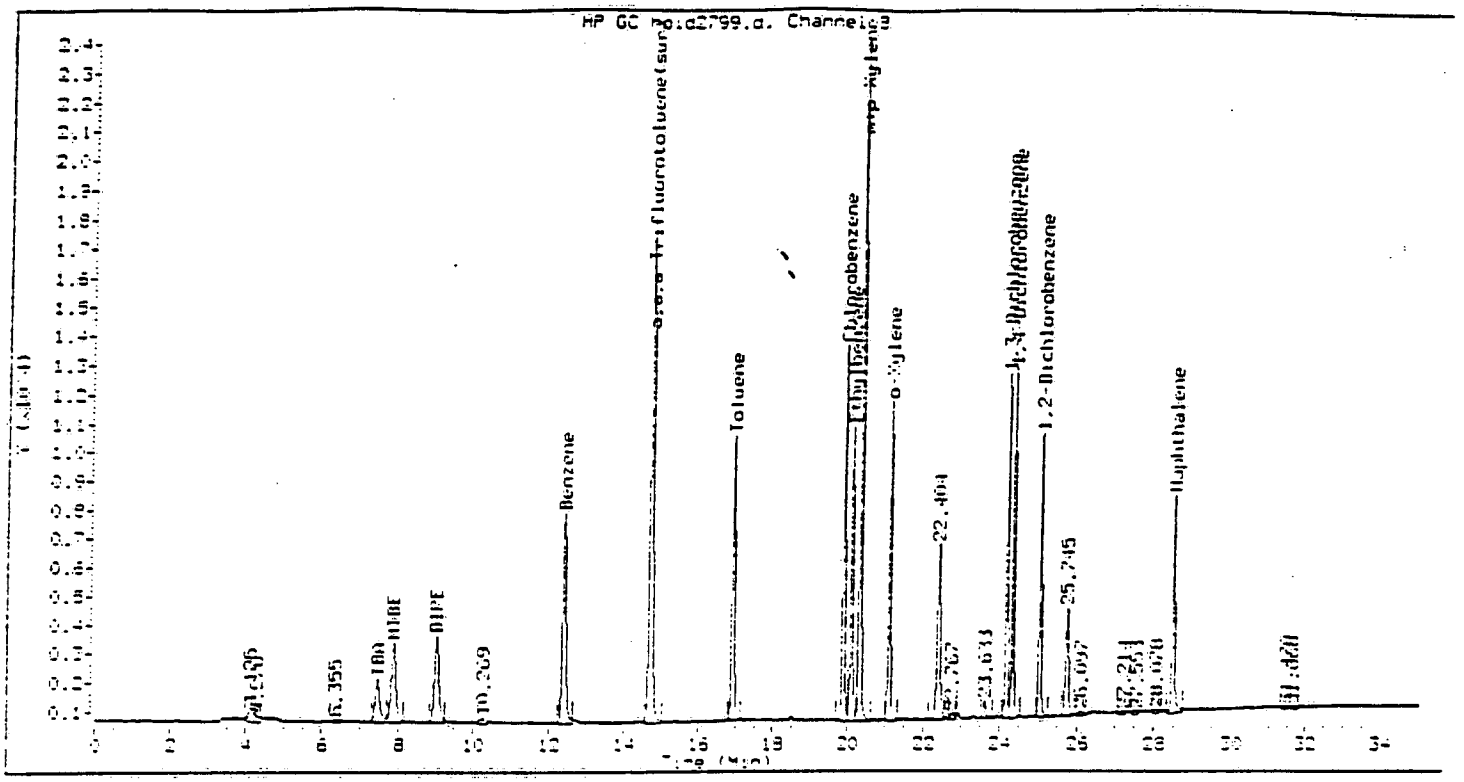

Method : /chem/VOAGC2.i/602/01-03-00/03JAN00.b/602_99.m
Sample Info : HSTD002
Lab ID : HSTD002 Inst ID : VOAGC2.i
Inj Date : 03-JAN-2000 09:51 Dil Factor : 1
Operator : CK Sample Matrix : WATER
Cpnd Sublist: all Sample Type: CALIB_1

| Compounds | RT | EXP RT | DIT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.095 | 21.107 | 0.011 | 83681 | 1.971 | 1.971 |
| m-p-Xylene | 20.309 | 20.320 | 0.010 | 183180 | 4.138 | 4.138 |
| TBA | 7.436 | 7.453 | 0.017 | 31900 | 212.347 | 212.347 |
| MTBE | 7.859 | 7.889 | 0.030 | 47644 | 2.041 | 2.041 |
| DIPE | 9.017 | 9.043 | 0.026 | 49834 | 2.069 | 2.069 |
| Benzene | 12.381 | 12.409 | 0.028 | 93472 | 1.994 | 1.994 |
| Toluene | 16.917 | 16.933 | 0.015 | 91399 | 2.036 | 2.036 |
| Chlorobenzene | 19.859 | 19.871 | 0.012 | 98989 | 1.971 | 1.971 |
| Ethylbenzene | 20.077 | 20.088 | 0.011 | 80913 | 1.975 | 1.975 |

Data File: /chem/VOAGC2.i/602/01-03-00/03JAN00.b/hpid2798.d
Report Date 01/04/2000 12:21

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 266861 | 6.112 | 6.112 |
| 1,3-Dichlorobenzene | 24.179 | 24.189 | 0.010 | 84430 | 2.000 | 2.000 |
| 1,4-Dichlorobenzene | 24.339 | 24.348 | 0.009 | 84804 | 1.994 | 1.994 |
| 1,2-Dichlorobenzene | 25.037 | 25.045 | 0.008 | 69491 | 1.971 | 1.971 |
| Naphthalene | 28.488 | 28.495 | 0.008 | 61115 | 1.967 | 1.967 |
| a,a,a-Trifluorotoluene(sur) | 14.684 | 14.706 | 0.021 | 479128 | 28.409 | 28.409 |

Data File: /chem/VOAGC2.i/602/01-03-00/03JAN00.b/hpid2799.d Page 1
Report Date 01/04/2000 12:21

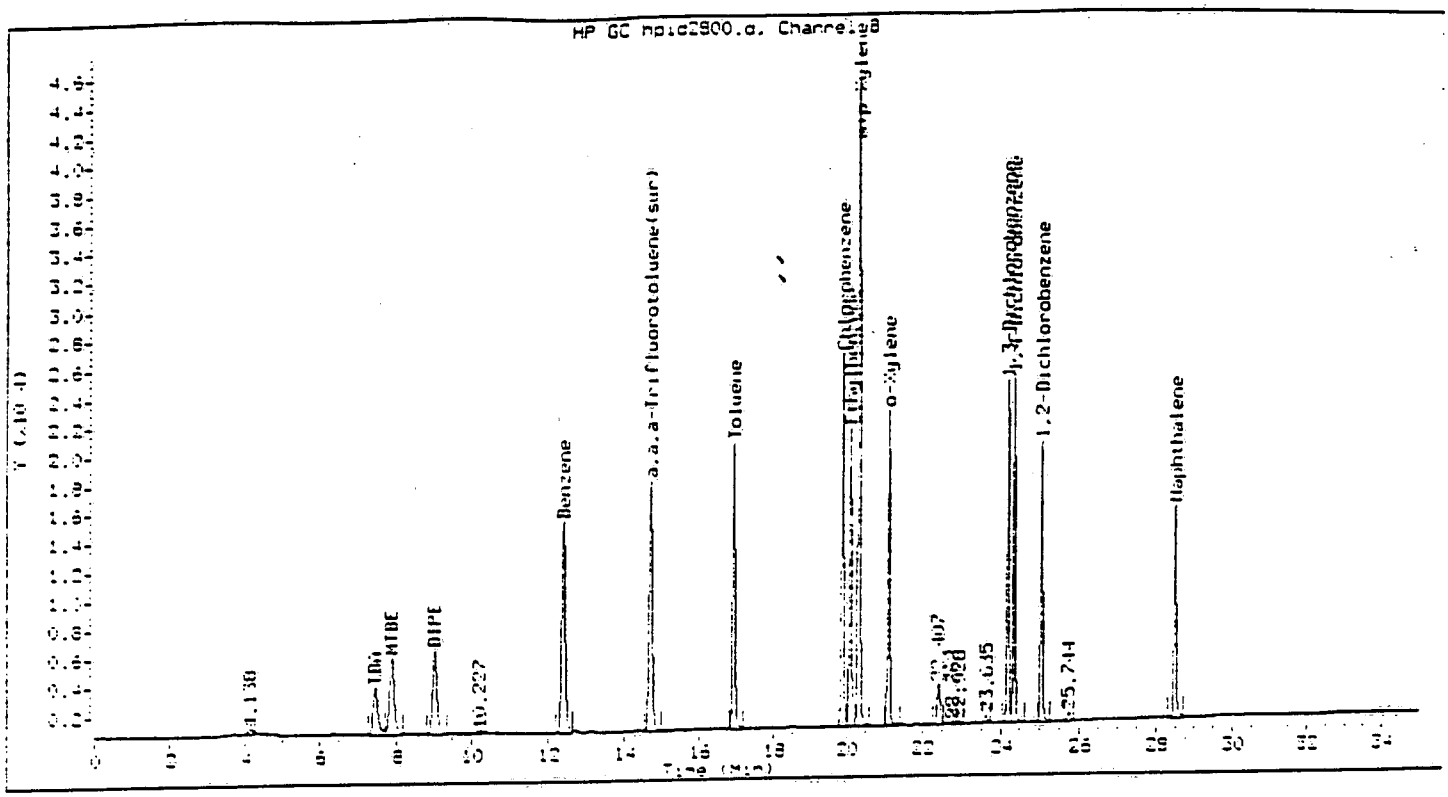



Method : /chem/VOAGC2.i/602/01-03-00/03JAN00.b/602_99.m
Sample Info : HSTD005
Lab ID : HSTD005 Inst ID : VOAGC2.i
Inj Date : 03-JAN-2000 10:32 Dil Factor : 1
Operator : CK Sample Matrix : WATER
Cpnd Sublist: all Sample Type: CALIB_2

| Compounds | RT | EXP RT | DIF RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.107 | 21.107 | 0.000 | 219765 | 5.177 | 5.177 |
| m-p-Xylene | 20.320 | 20.320 | 0.000 | 481816 | 10.884 | 10.884 |
| TBA | 7.456 | 7.453 | 0.003 | 65817 | 438.120 | 438.120 |
| MTBE | 7.890 | 7.889 | 0.001 | 123696 | 5.299 | 5.299 |
| DIPE | 9.043 | 9.043 | 0.000 | 125323 | 5.203 | 5.203 |
| Benzene | 12.408 | 12.409 | 0.001 | 242576 | 5.175 | 5.175 |
| Toluene | 16.931 | 16.933 | 0.002 | 227353 | 5.064 | 5.064 |
| Chlorobenzene | 19.870 | 19.871 | 0.001 | 260359 | 5.185 | 5.185 |
| Ethylbenzene | 20.087 | 20.088 | 0.001 | 210606 | 5.140 | 5.140 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 701581 | 16.068 | 16.068 |
| 1,3-Dichlorobenzene | 24.189 | 24.189 | 0.001 | 215961 | 5.117 | 5.117 |
| 1,4-Dichlorobenzene | 24.348 | 24.348 | 0.000 | 217673 | 5.117 | 5.117 |
| 1,2-Dichlorobenzene | 25.045 | 25.045 | 0.000 | 180321 | 5.116 | 5.116 |
| Naphthalene | 28.494 | 28.495 | 0.001 | 161309 | 5.191 | 5.191 |
| a,a,a-Trifluorotoluene(sur) | 14.704 | 14.706 | 0.002 | 514598 | 30.512 | 30.512 |

Data File: /chem/VOAGC2.i/602/01-03-00/03JAN00.b/hpid2800.d Page 1
Report Date 01/04/2000 12:21



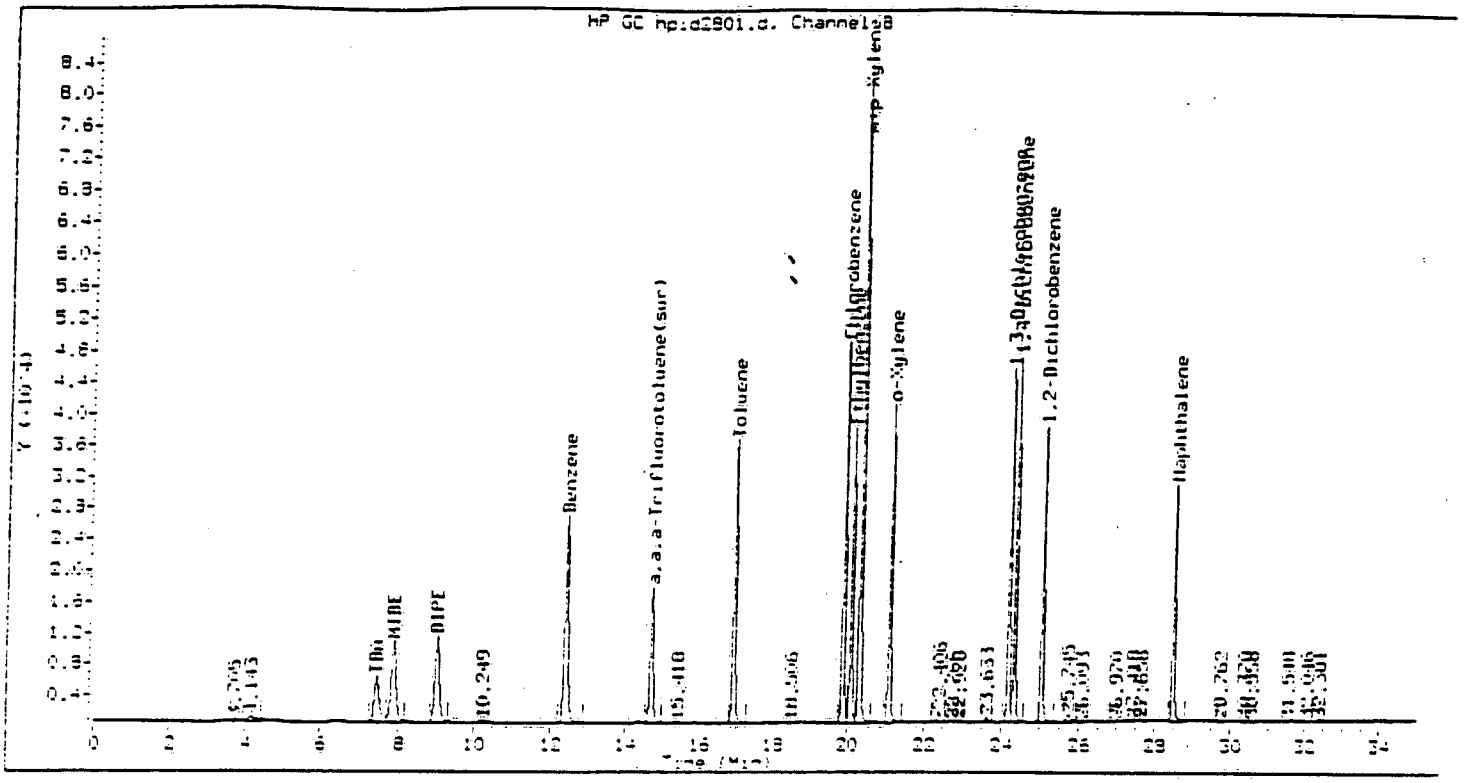

Method : /chem/VOAGC2.i/602/01-03-00/03JAN00.b/602_99.m
Sample Info : HSTD010
Lab ID : HSTD010
Inj Date : 03-JAN-2000 11:13
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.108 | 21.107 | 0.001 | 436703 | 10.288 | 10.288 |
| m-p-Xylene | 20.321 | 20.320 | 0.001 | 964736 | 21.793 | 21.793 |
| TBA | 7.453 | 7.453 | 0.000 | 145716 | 969.979 | 969.979 |
| MTBE | 7.886 | 7.889 | 0.003 | 236268 | 10.122 | 10.122 |
| DIPE | 9.038 | 9.043 | 0.005 | 242564 | 10.070 | 10.070 |
| Benzene | 12.407 | 12.409 | 0.002 | 481100 | 10.263 | 10.263 |
| Toluene | 16.933 | 16.933 | 0.000 | 461864 | 10.288 | 10.288 |
| Chlorobenzene | 19.872 | 19.871 | 0.001 | 515253 | 10.260 | 10.260 |
| Ethylbenzene | 20.089 | 20.088 | 0.001 | 422348 | 10.308 | 10.308 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 1401444 | 32.097 | 32.097 |
| 1,3-Dichlorobenzene | 24.192 | 24.189 | 0.003 | 424697 | 10.063 | 10.063 |
| 1,4-Dichlorobenzene | 24.352 | 24.348 | 0.004 | 427491 | 10.049 | 10.049 |
| 1,2-Dichlorobenzene | 25.049 | 25.045 | 0.004 | 353387 | 10.025 | 10.025 |
| Naphthalene | 28.499 | 28.495 | 0.004 | 303621 | 9.770 | 9.770 |
| a,a,a-Trifluorotoluene(sur) | 14.703 | 14.706 | 0.002 | 513284 | 30.434 | 30.434 |

Data File: /chem/VOAGC2.i/602/01-03-00/03JAN00.b/hpid2801.d Page 1
Report Date 01/04/2000 12:21

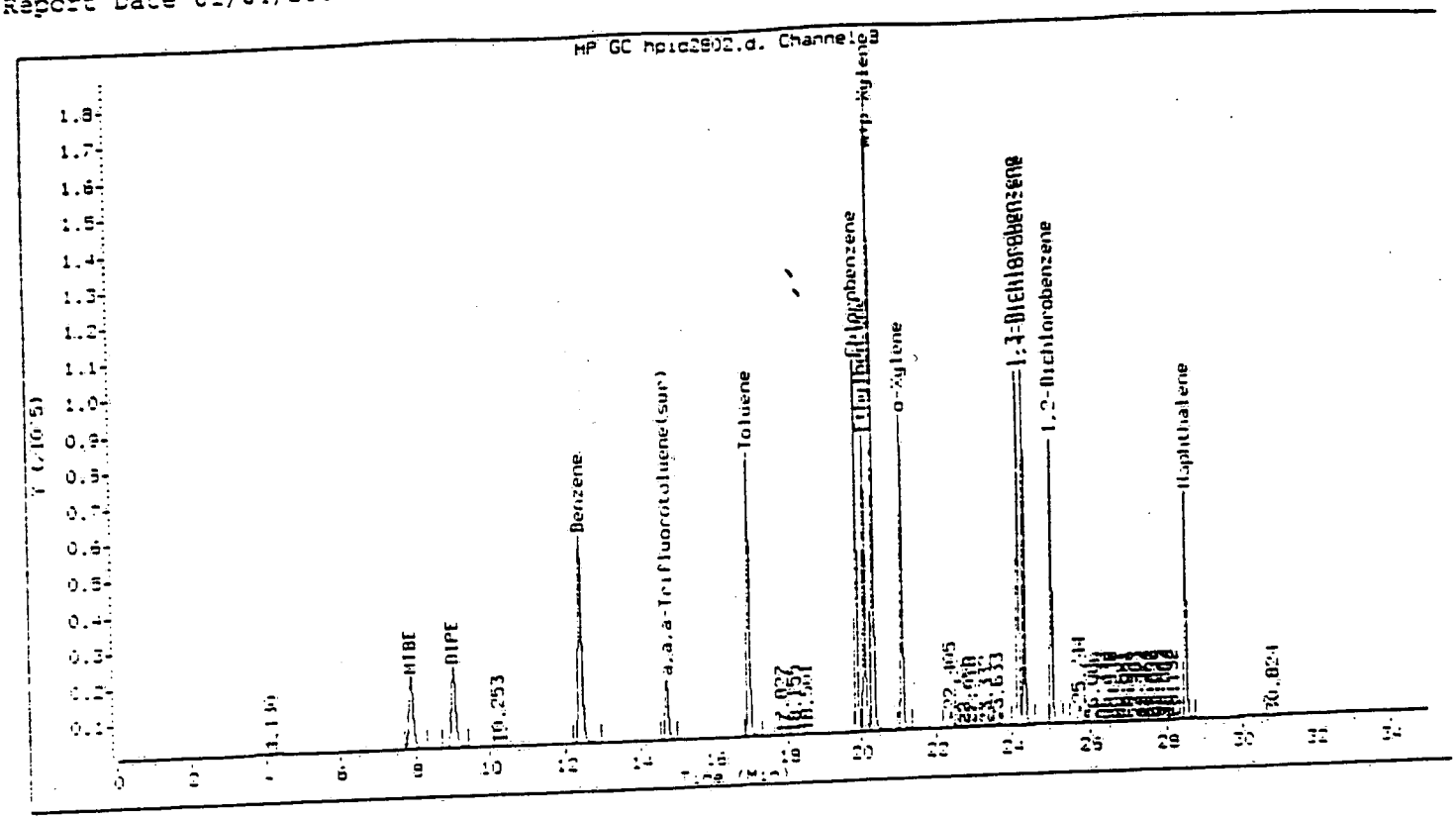



Method : /chem/VOAGC2.i/602/01-03-00/03JAN00.b/602_99.m
Sample Info : HSTD020
Lab ID : HSTD020 Inst ID : VOAGC2.i
Inj Date : 03-JAN-2000 11:54 Dil Factor : 1
Operator : CK Sample Matrix : WATER
Cpnd Sublist: all Sample Type: CALIB_4

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.107 | 21.107 | 0.000 | 800337 | 18.854 | 18.854 |
| m-p-Xylene | 20.320 | 20.320 | 0.000 | 1751639 | 39.569 | 39.569 |
| TBA | 7.453 | 7.453 | 0.000 | 261291 | 1745.976 | 1745.976 |
| MTBE | 7.889 | 7.889 | 0.000 | 460904 | 19.746 | 19.746 |
| DIPE | 9.043 | 9.043 | 0.000 | 455939 | 18.927 | 18.927 |
| Benzene | 12.409 | 12.409 | 0.000 | 875302 | 18.672 | 18.672 |
| Toluene | 16.933 | 16.933 | 0.000 | 835734 | 18.615 | 18.615 |
| Chlorobenzene | 19.871 | 19.871 | 0.000 | 950243 | 18.922 | 18.922 |
| Ethylbenzene | 20.088 | 20.088 | 0.000 | 764399 | 18.656 | 18.656 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 2551976 | 58.448 | 58.448 |
| 1,3-Dichlorobenzene | 24.189 | 24.189 | 0.000 | 801750 | 18.997 | 18.997 |
| 1,4-Dichlorobenzene | 24.348 | 24.348 | 0.000 | 816868 | 19.203 | 19.203 |
| 1,2-Dichlorobenzene | 25.045 | 25.045 | 0.000 | 681206 | 19.325 | 19.325 |
| Naphthalene | 28.495 | 28.495 | 0.000 | 607997 | 19.564 | 19.564 |
| a,a,a-Trifluorotoluene(sur) | 14.706 | 14.706 | 0.000 | 511544 | 30.331 | 30.331 |

Data File: /chem/VOAGC2.i/602/01-03-00/03JAN00.b/hpid2802.d
Report Date 01/04/2000 12:21




Method : /chem/VOAGC2.i/602/01-03-00/03JAN00.b/602_99.m
Sample Info : HSTD040
Lab ID : HSTD040
Inj Date : 03-JAN-2000 12:35
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.107 | 21.107 | 0.000 | 1710712 | 40.300 | 40.300 |
| m-p-Xylene | 20.321 | 20.320 | 0.001 | 3459707 | 75.457 | 75.457 |
| MTBE | 7.890 | 7.889 | 0.001 | 858960 | 36.800 | 36.800 |
| DIPE | 9.044 | 9.043 | 0.001 | 936345 | 38.871 | 38.871 |
| Benzene | 12.409 | 12.409 | 0.000 | 1890752 | 40.333 | 40.333 |
| Toluene | 16.932 | 16.933 | 0.000 | 1813286 | 40.389 | 40.389 |
| Chlorobenzene | 19.871 | 19.871 | 0.001 | 2019541 | 40.215 | 40.215 |
| Ethylbenzene | 20.088 | 20.088 | 0.000 | 1673161 | 40.836 | 40.836 |
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 5170419 | 115.626 | 115.626 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 24.189 | 24.189 | 0.000 | 1721933 | 40.302 | 40.802 |
| 1,4-Dichlorobenzene | 24.349 | 24.348 | 0.000 | 1725936 | 40.576 | 40.576 |
| 1,2-Dichlorobenzene | 25.046 | 25.045 | 0.001 | 1440342 | 40.868 | 40.868 |
| Naphthalene | 28.496 | 28.495 | 0.000 | 1232244 | 39.908 | 39.908 |
| a,a,a-Trifluorotoluene(sur) | 14.705 | 14.706 | 0.000 | 511230 | 30.315 | 30.315 |

# VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC2 Calibration Date: 01/18/00 Time: 1108

Lab File ID: HPID2961 Init. Calib. Date(s): 01/03/00 01/03/00

Heated Purge: (Y/N) N Init. Calib. Times: 0951 1235

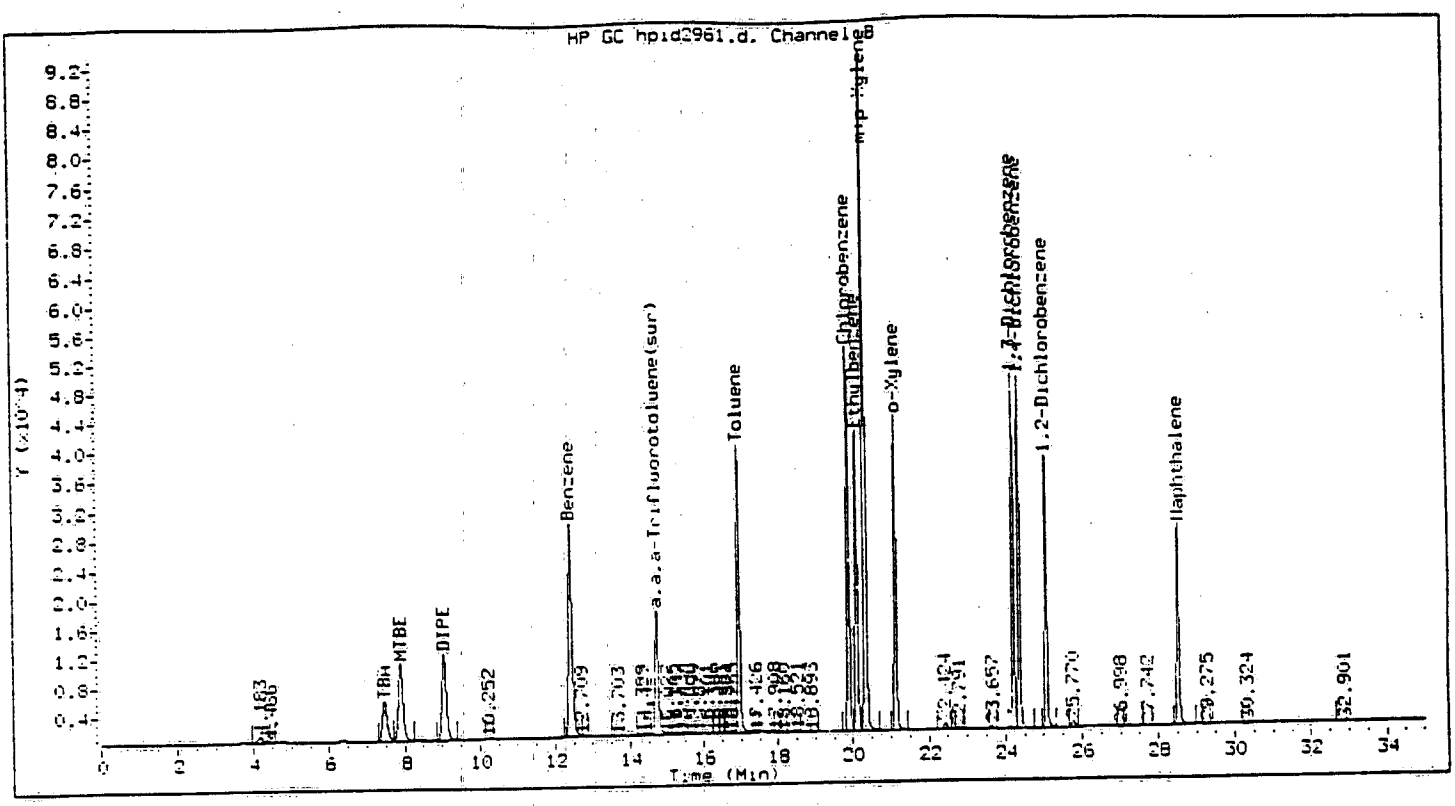
| COMPOUND | $\overline{RRF}$ | RRF20 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| TBA ** | 150.22 | 121.29 | | 19.2 | 50.0 |
| MTBE | 23341.44 | 22477.15 | | 3.7 | 50.0 |
| DIPE | 24088.71 | 24489.90 | | -1.5 | 50.0 |
| Benzene | 46879.02 | 47486.05 | | -1.1 | 23.0 |
| Toluene | 44895.07 | 46530.75 | | -3.6 | 22.5 |
| Chlorobenzene | 50218.45 | 51740.30 | | -3.0 | 19.5 |
| Ethylbenzene | 40972.29 | 41622.40 | | -1.4 | 37.0 |
| Xylene (Total) | 44716.69 | 45749.97 | | -2.3 | 50.0 |
| 1,3-Dichlorobenzene | 42202.54 | 42938.30 | | -1.7 | 27.5 |
| 1,4-Dichlorobenzene | 42535.50 | 42569.10 | | -0.0 | 30.5 |
| 1,2-Dichlorobenzene | 35243.45 | 33758.15 | | 4.2 | 32.0 |
| Naphthalene | 30877.43 | 27811.05 | | 9.9 | 50.0 |
| a,a,a-Trifluorotoluene(sur) | 16865.56 | 17788.50 | | -5.3 | 22.0 |

** TBA Continuing Calibration Level is RF2000.

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2961.d



Report Date 01/19/2000 08:49




Method : /chem/VOAGC2.i/602/01-03-00/18jan00.b/602_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 18-JAN-2000 11:08
Operator : sp
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.126 | 21.126 | 0.000 | 849060 | 20.002 | 20.002 |
| m+p-Xylene | 20.339 | 20.339 | 0.000 | 1895938 | 41.351 | 41.351 |
| TBA | 7.468 | 7.468 | 0.000 | 242579 | 1614.760 | 1614.760 |
| MTBE | 7.896 | 7.896 | 0.000 | 449543 | 19.259 | 19.259 |
| DIPE | 9.055 | 9.055 | 0.000 | 489798 | 20.333 | 20.333 |
| Benzene | 12.422 | 12.422 | 0.000 | 949721 | 20.259 | 20.259 |
| Toluene | 16.948 | 16.948 | 0.000 | 930615 | 20.729 | 20.729 |
| Chlorobenzene | 19.889 | 19.889 | 0.000 | 1034806 | 20.606 | 20.606 |
| Ethylbenzene | 20.106 | 20.106 | 0.000 | 832448 | 20.317 | 20.317 |

Data File: /chem/VOAGC2.i/602/01-03-00/18jan00.b/hpid2961.d
Report Date 01/19/2000 08:49

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 2744998 | 61.386 | 61.386 |
| 1,3-Dichlorobenzene | 24.214 | 24.214 | 0.000 | 858766 | 20.349 | 20.349 |
| 1,4-Dichlorobenzene | 24.373 | 24.373 | 0.000 | 851382 | 20.016 | 20.016 |
| 1,2-Dichlorobenzene | 25.071 | 25.071 | 0.000 | 675163 | 19.157 | 19.157 |
| Naphthalene | 28.526 | 28.526 | 0.000 | 556221 | 18.014 | 18.014 |
| a,a,a-Trifluorotoluene(sur) | 14.719 | 14.719 | 0.000 | 533655 | 31.642 | 31.642 |

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: W844

| | LAB SAMPLE NO. | SMC1 # | SMC2 # | OTHER | TOT OUT |
|---|---|---|---|---|---|
| 01 | HG018 | 107 | | | 0 |
| 02 | 179525 | 104 | | | 0 |
| 03 | 179526 | 104 | | | 0 |
| 04 | 179528 | 104 | | | 0 |
| 05 | 179531 | 105 | | | 0 |
| 06 | 179532 | 105 | | | 0 |
| 07 | 179533 | 105 | | | 0 |
| 08 | 179529 | 103 | | | 0 |
| 09 | 179529MS | 107 | | | 0 |
| 10 | 179529MSD | 107 | | | 0 |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| 28 | | | | | |
| 29 | | | | | |
| 30 | | | | | |

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (72-127)

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 179529

MS Sample from Lab Job No: W844

QA Batch: 6942

| Compound | MS % REC. | BS % REC. | LIMITS |
|---|---|---|---|
| Benzene | 112 | 105 | 39-150 |
| Toluene | 112 | 105 | 46-148 |
| Chlorobenzene | 112 | 105 | 55-135 |
| Ethylbenzene | 116 | 105 | 32-160 |
| 1,3-Dichlorobenzene | 108 | 105 | 50-141 |
| 1,4-Dichlorobenzene | 106 | 100 | 42-143 |
| 1,2-Dichlorobenzene | 100 | 95 | 37-154 |

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

STL Envirotech
a division of Severn Trent Laboratories, Inc.

**STL Envirotech**
777 New Durham Road
Edison, NJ 08817
Tel: (732) 549-3900
Fax: (732) 549-3679
www.stl-inc.com

March 20, 2000

Residuals Management Technologies, Inc.
222 South Riverside Plaza
Suite 280
Chicago, IL 60606

Attention: Mr. Nick Clevett

Re: Job No. X796 - L.E. Carpenter

Dear Mr. Clevett:

Enclosed are the results you requested for the following sample(s) received at our laboratory on March 01, 2000:

| Lab No. | Client ID | Analysis Required |
|---|---|---|
| 186293 | MW-11D | BTEX (GC) |
| 186294 | MW-25R | BTEX (GC), bis-2-EHP |
| 186295 | Field_Blank | BTEX (GC), bis-2-EHP |
| 186296 | Trip_Blank | bis-2-EHP |

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Simms, at (732) 549-3900.

/ st/4 2000 (Supplement)

Very truly yours,

Michael J. Urban
Laboratory Manager

Envirotech
a Division of Severn Trent Laboratories, Inc

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Envirotech
a division of Severn Trent Laboratories, Inc

Client ID: MW-11D
Site: L.E. Carpenter

Lab Sample No: 186293
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3232.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



a part of
Severn Trent Services Inc.

Envirotech
a division of Severn Trent Laboratories, Inc

Client ID: MW-25R
Site: L.E. Carpenter

Lab Sample No: 186294
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3233.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



a part of
Severn Trent Services Inc.

Envirotech

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **186295**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3234.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |



a part of
Severn Trent Services Inc.

Client ID: **Trip_Blank**
Site: L.E. Carpenter

Lab Sample No: **186296**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Extracted: 03/04/00
Date Analyzed: 03/08/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0011.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | 3.8B | 2.0 |

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **186295**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Extracted: 03/04/00
Date Analyzed: 03/08/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0010.d

Matrix: WATER
Level: LOW
Sample Volume: 960 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | 4.2B | 2.0 |

Client ID: **MW-25R**
Site: L.E. Carpenter

Lab Sample No: **186294**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Extracted: 03/04/00
Date Analyzed: 03/08/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0009.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | 3.5B | 2.0 |

**STL - Envirotech**
777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

# CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE ___ OF ___

| | | |
|---|---|---|
| Name ( for report and invoice ): Nicholas Clevett | Samplers Name ( Printed ): M. Morse / R. Toogood | Site/Project Identification: LE Carpenter |
| Company: RMT | P.O. # | State (Location of site): NJ: ☒ NY: ☐ Other: |
| | | Regulatory Program: |
| Address: 222 S. Riverside Plaza, Suite 820 | Analysis Turnaround Time: Standard ☒ | |
| City: Chicago State: IL Zip: 60606 | Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐ | |
| Phone: (312) 575-0200 Fax: | | |

ANALYSIS REQUESTED ( ENTER "X" BELOW TO INDICATE REQUEST )

LAB USE ONLY
Project No: 861080
Job No: X796

| Sample Identification | Date | Time | Matrix | No. of. Cont. | BTEX | DEHP * | Sample Numbers |
|---|---|---|---|---|---|---|---|
| MW 11D | 3/1/00 | 1045 | water | 3 | X | | 186293 |
| MW 25R | ↓ | 945 | ↓ | 4 | X | X | 186294 |
| Field Blank | ↓ | 940 | ↓ | 3 | X | X | 186295 |
| Trip Blank | ↓ | 900 | ↓ | 1 | | X | 186296 |

**Preservation Used:** 1 = ICE, 2 = HCl, 3 = $H_2SO_4$, 4 = $HNO_3$, 5 = NaOH
6 = Other _____, 7 = Other _____

| | BTEX | DEHP * |
|---|---|---|
| Soil: | | |
| Water: | 2 | 1 |

**Special Instructions** * canceled and resampled as per client request

Water Metals Filtered (Yes/No)? ____

| Relinquished by | Company | Date / Time | Received by | Company |
|---|---|---|---|---|
| 1) Matt Morse | STL | 3/1/00 1200 | 1) [illegible] | STC |
| 2) | | | 2) | |
| 3) | | | 3) | |
| 4) | | | 4) | |

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# STL Envirotech

777 New Durham Road, Edison, New Jersey
08817

**Job No:** X796 **Site:** L.E. Carpenter

**Client:** Residuals Management Technologies, Inc.

**VOAGC**

602

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| **WATER** | | | | | | | |
| 186293 | 3/1/2000 | 3/01/2000 | | | 3/9/00 | CK | 6968 |
| 186294 | 3/1/2000 | 3/01/2000 | | | | | |
| 186295 | 3/1/2000 | 3/01/2000 | | | | | |

Monitoring Well Data

**Client:** RMT

**Project:** LE Carpenter

**Date Sampled:** 3/1/00

**Job No.:** X 796

**Name of Analyst:** Matt Morse

**Names & Signatures of Samplers:** Matt Morse

Matt Morse

Rick Toogood

R. Toogood

## Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

| | Water Test Method | | Solid Test Method | |
|---|---|---|---|---|
| Element | Flame | Furnace | Flame | Furnace |
| Aluminum | 202.1 | 202.2 | 7020 | -- |
| Antimony | 204.1 | 204.2 | 7040 | 7041 |
| Arsenic | -- | 206.2 | -- | 7060 |
| Barium | 208.1 | -- | 7080 | -- |
| Beryllium | 210.1 | 210.2 | 7090 | 7091 |
| Cadmium | 213.1 | 213.2 | 7130 | 7131 |
| Calcium | 215.1 | -- | 7140 | -- |
| Chromium, Total | 218.1 | 218.2 | 7190 | 7191 |
| Chromium, (+6) | 218.4 | 218.5 | 7197 | 7195 |
| Cobalt | 219.1 | 219.2 | 7200 | 7201 |
| Copper | 220.1 | 220.2 | 7210 | -- |
| Iron | 236.1 | 236.2 | 7380 | -- |
| Lead | 239.1 | 239.2 | 7420 | 7421 |
| Magnesium | 242.1 | -- | 7450 | -- |
| Manganese | 243.1 | 243.2 | 7460 | -- |
| Nickel | 249.1 | 249.2 | 7520 | -- |
| Potassium | 258.1 | -- | 7610 | -- |
| Selenium | -- | 270.2 | -- | 7740 |
| Silver | 272.1 | 272.2 | 7760 | -- |
| Sodium | 273.1 | -- | 7770 | -- |
| Tin | 283.1 | 283.2 | 7870 | -- |
| Thallium | 279.1 | 279.2 | 7840 | 7841 |
| Vanadium | 286.1 | 286.2 | 7910 | 7911 |
| Zinc | 289.1 | 289.2 | 7950 | -- |

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

| | |
|---|---|
| Ignitability | - Method 1020A |
| Corrosivity | - Water pH Method 9040B<br>Soil pH Method 9045C |
| Reactivity | - Chapter 7, Section 7.3.3 and 7.3.4 respectively for hydrogen cyanide and hydrogen sulfide release |
| Toxicity | - TCLP Method 1311 |

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

## DATA REPORTING QUALIFIERS

ND - The compound was not detected at the indicated concentration.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NON-CONFORMANCE SUMMARY

STL Envirotech Job Number: X796

Volatile Organics Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

_____

_____

_____

_____

See continuation page if checked ( )

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ✓; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

_____

_____

_____

_____

See continuation page if checked ( )

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

_____

_____

_____

_____

See continuation page if checked ( )

Non-conformance Summary, Page 2 of 2
STL Envirotech Job Number: 7796

Metals Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested ____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Total Petroleum Hydrocarbons:

All data conforms with method requirements ____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

General Chemistry/Disposal Parameters:

All data conforms with method requirements ____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Signature of
Laboratory Manager: _____ Date: 3/21/00

Client ID: **MW-11D**
Site: L.E. Carpenter

Lab Sample No: **186293**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3232.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

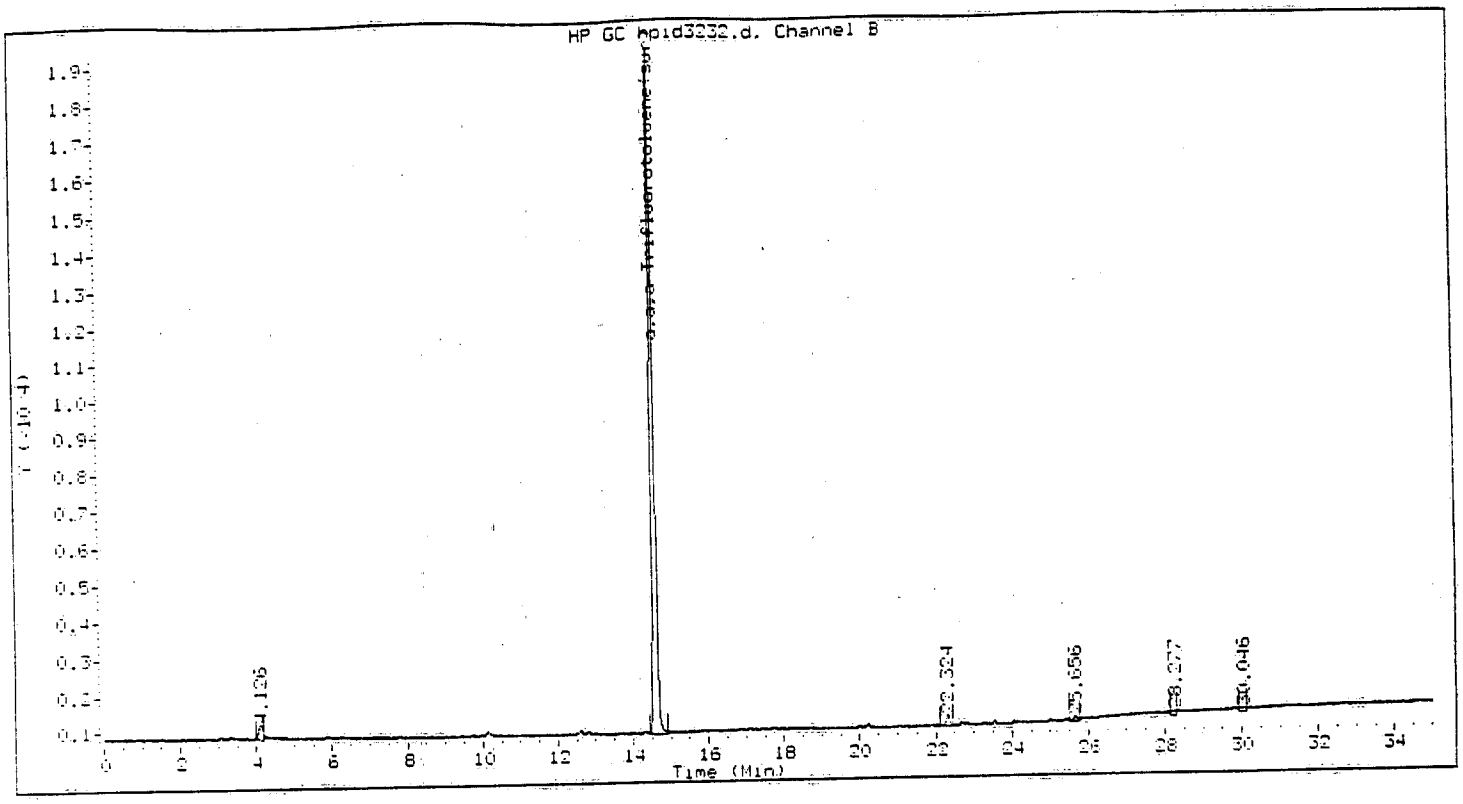
**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/03-03-00/09MAR00.b/hpid3232.d



Report Date 03/10/2000 09:32




Method : /chem/VOAGC2.i/602/03-03-00/09MAR00.b/602_99.m
Sample Info : 186293
Lab ID : 186293
Inj Date : 09-MAR-2000 17:31
Operator : CK
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.600 | 14.614 | 0.014 | 543640 | 29.058 | 29.058 |

Client ID: **MW-25R**
Site: L.E. Carpenter

Lab Sample No: **186294**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3233.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

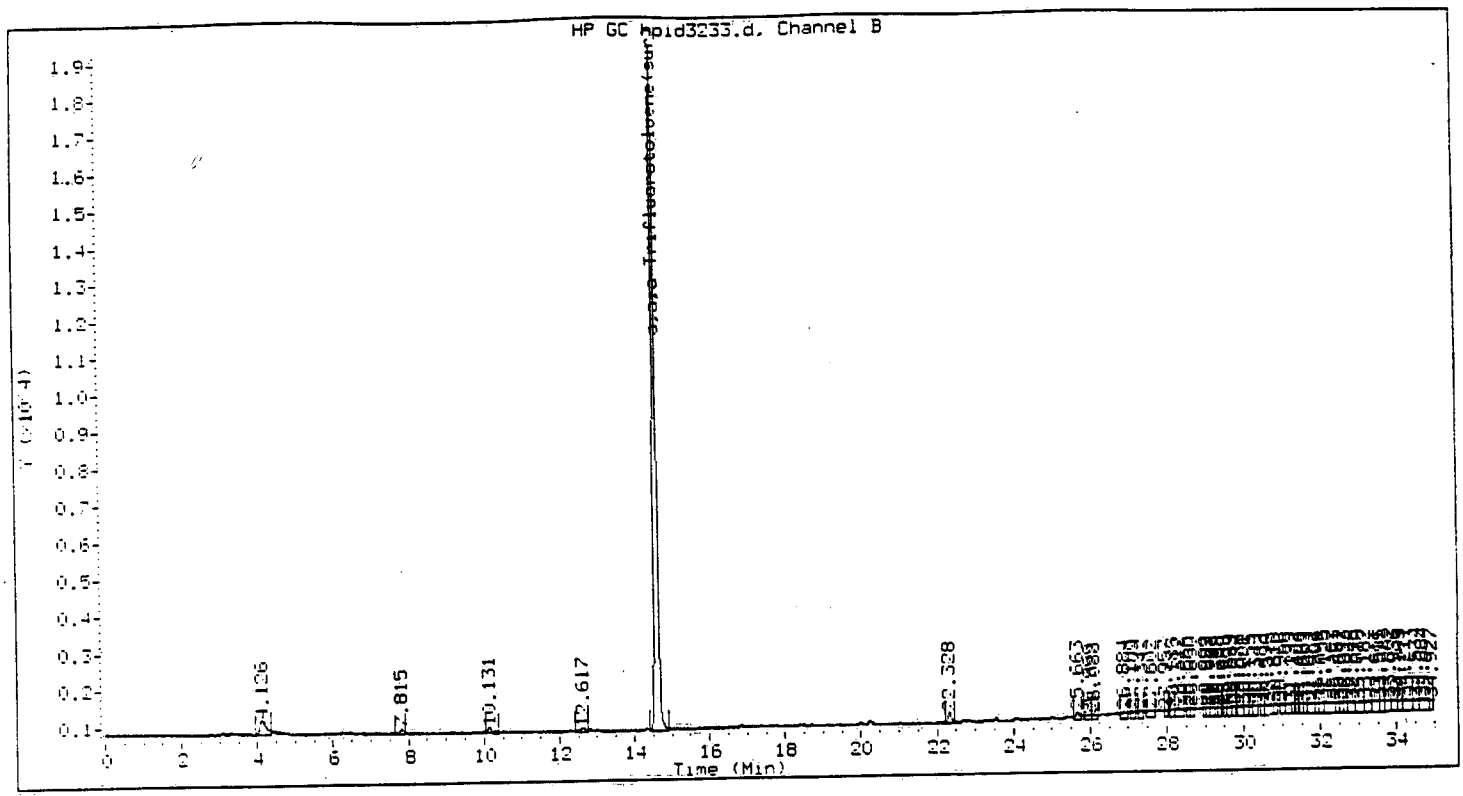
**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/03-03-00/09MAR00.b/hpid3233.d



Report Date 03/10/2000 09:33




Method : /chem/VOAGC2.i/602/03-03-00/09MAR00.b/602_99.m
Sample Info : 186294
Lab ID : 186294
Inj Date : 09-MAR-2000 18:13
Operator : CK
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.604 | 14.614 | 0.009 | 543010 | 29.024 | 29.024 |

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **186295**
Lab Job No: X796

Date Sampled: 03/01/00
Date Received: 03/01/00
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3234.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

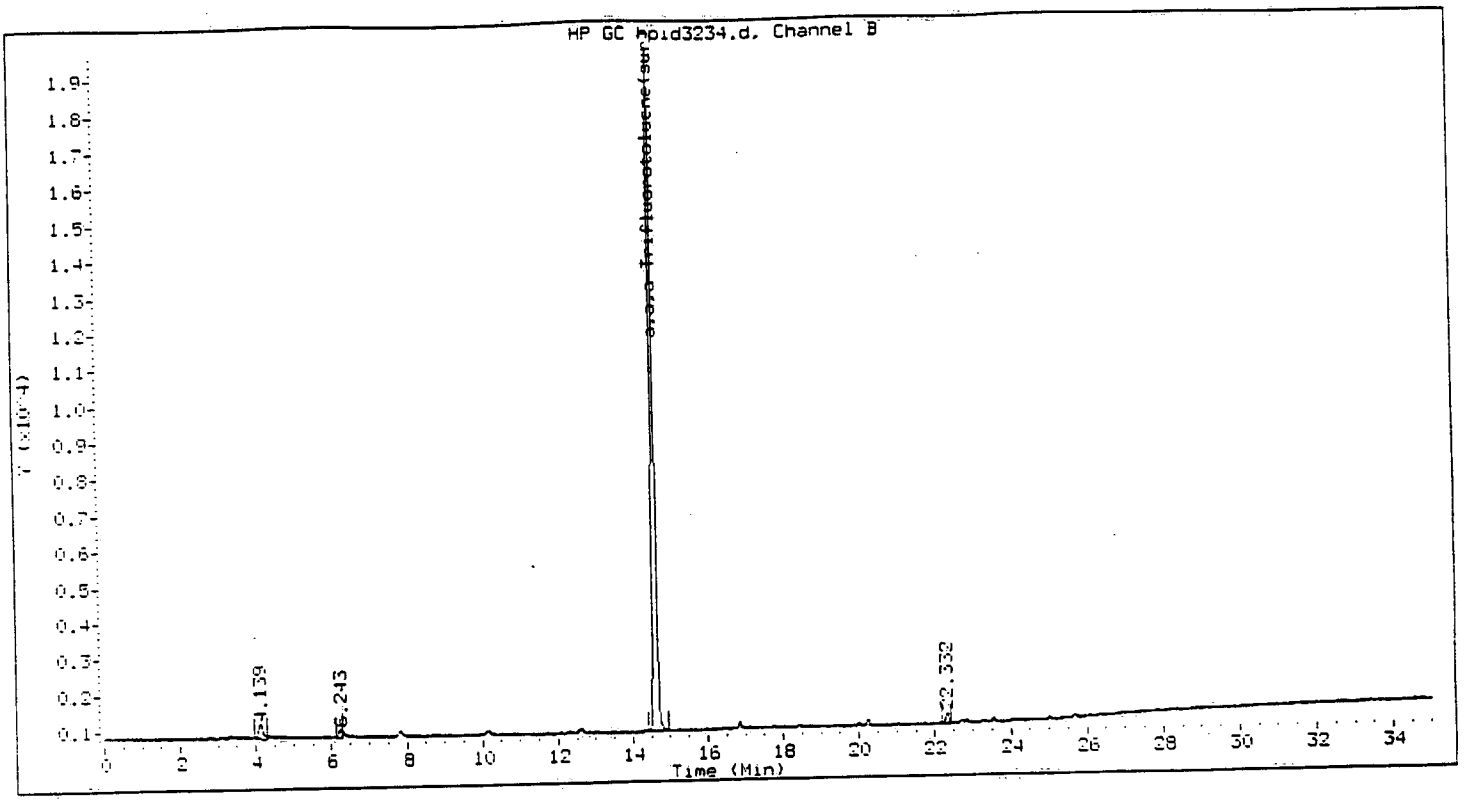
**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |

Data File: /chem/VOAGC2.i/602/03-03-00/09MAR00.b/hpid3234.d



Report Date 03/10/2000 09:33




Method : /chem/VOAGC2.i/602/03-03-00/09MAR00.b/602_99.m
Sample Info : 186295
Lab ID : 186295
Inj Date : 09-MAR-2000 18:55
Operator : CK
Cpnd Sublist: btex

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.612 | 14.614 | 0.002 | 545884 | 29.178 | 29.178 |

LAB SAMPLE NO.

HG069

# VOLATILE METHOD BLANK SUMMARY

Date Analyzed: 03/09/00

Instrument ID: VOAGC2

Time Analyzed: 1049

Lab File ID: HPID3223

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | MW-11D | 186293 | HPID3232 | 1731 |
| 02 | MW-25R | 186294 | HPID3233 | 1813 |
| 03 | FIELD_BLANK | 186295 | HPID3234 | 1855 |
| 04 | | | | |
| 05 | | | | |
| 06 | | | | |
| 07 | | | | |
| 08 | | | | |
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| 30 | | | | |

COMMENTS:

Client ID: **HG069**
Site:

Lab Sample No: **HG069**
Lab Job No: X796

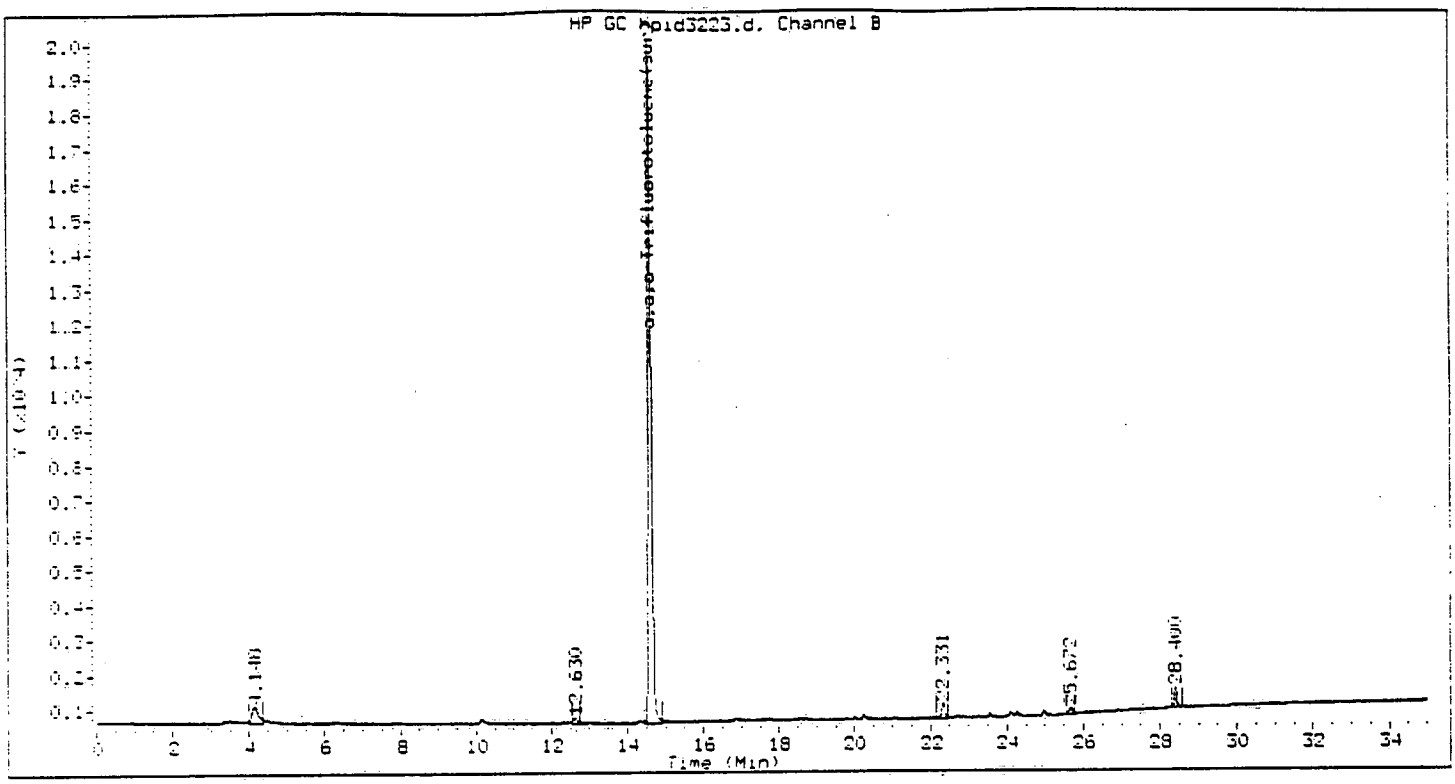
Date Sampled: _____
Date Received: _____
Date Analyzed: 03/09/00
GC Column: DB624
Instrument ID: VOAGC2.i
Lab File ID: hpid3223.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

**VOLATILE ORGANICS - GC/PID**
**METHOD 602**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| TBA | ND | 17 |
| MTBE | ND | 0.27 |
| DIPE | ND | 0.23 |
| Benzene | ND | 0.31 |
| Toluene | ND | 0.34 |
| Chlorobenzene | ND | 0.36 |
| Ethylbenzene | ND | 0.38 |
| Xylene (Total) | ND | 0.40 |
| 1,3-Dichlorobenzene | ND | 0.48 |
| 1,4-Dichlorobenzene | ND | 0.45 |
| 1,2-Dichlorobenzene | ND | 0.43 |
| Naphthalene | ND | 0.55 |

Data File: /chem/VOAGC2.i/602/03-03-00/09MAR00.b/hpid3223.d Page 1
Report Date 03/10/2000 09:30




Method : /chem/VOAGC2.i/602/03-03-00/09MAR00.b/602_99.m
Sample Info : HG069
Lab ID : HG069
Inj Date : 09-MAR-2000 10:49
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: BLANK

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| a,a,a-Trifluorotoluene(sur) | 14.616 | 14.614 | 0.002 | 565289 | 30.215 | 30.215 |

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

Calibration Date(s): 03/03/00 03/03/00

Calibration Time(s): 1126 1412

LAB FILE ID: RRF2: HPID3174 RRF5: HPID3175 RRF10: HPID3176
RRF20: HPID3177 RRF40: HPID3178

| COMPOUND | RRF2 | RRF5 | RRF10 | RRF20 | RRF40 |
|---|---|---|---|---|---|
| TBA ** | 220 | 183 | 147 | 128 | |
| MTBE | 19107 | 21291 | 21206 | 21027 | 20434 |
| DIPE | 26166 | 27260 | 26901 | 26413 | 25930 |
| Benzene | 52472 | 58684 | 56050 | 55918 | 56085 |
| Toluene | 57268 | 59220 | 55105 | 54714 | 54355 |
| Chlorobenzene | 53586 | 62102 | 56685 | 56858 | 57019 |
| Ethylbenzene | 47540 | 54463 | 50339 | 50231 | 50130 |
| Xylene (Total) | 51959 | 59556 | 54621 | 54749 | 54702 |
| 1,3-Dichlorobenzene | 43070 | 50603 | 44459 | 45674 | 45901 |
| 1,4-Dichlorobenzene | 42623 | 50505 | 43920 | 45202 | 45431 |
| 1,2-Dichlorobenzene | 34585 | 40374 | 34725 | 35845 | 36025 |
| Naphthalene | 26602 | 23350 | 19994 | 21383 | 21594 |
| a,a,a-Trifluorotoluene(sur) | 18027 | 18710 | 18798 | 18960 | 19049 |

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC2

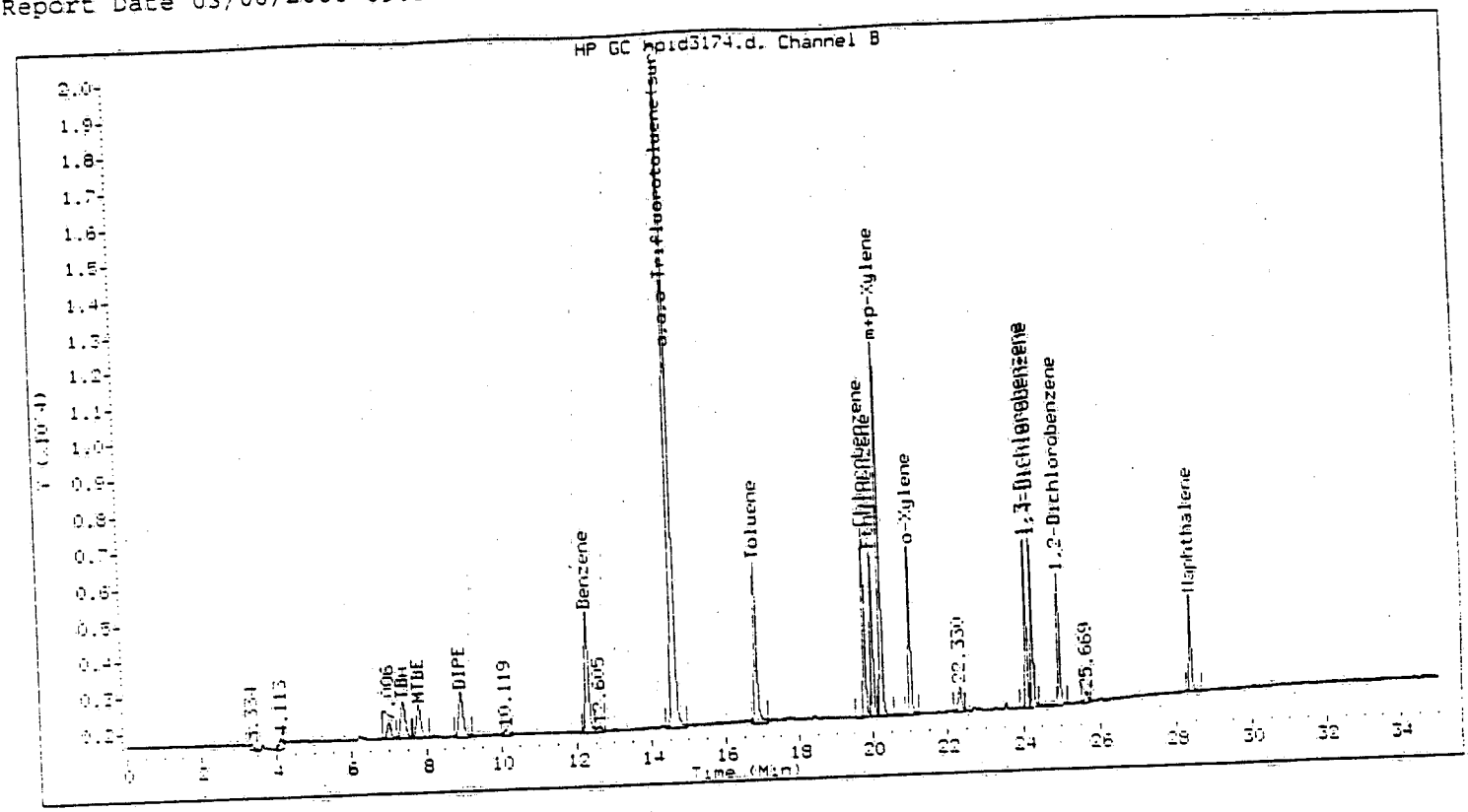
Calibration Date(s): 03/03/00 03/03/00

Calibration Time(s): 1126 1412

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| TBA ** | AVRG | 170 | 24* |
| MTBE | AVRG | 20613 | 4.4* |
| DIPE | AVRG | 26534 | 2.0* |
| Benzene | AVRG | 55842 | 4.0* |
| Toluene | AVRG | 56133 | 3.7* |
| Chlorobenzene | AVRG | 57250 | 5.3* |
| Ethylbenzene | AVRG | 50541 | 4.9* |
| Xylene (Total) | AVRG | 55117 | 5.0* |
| 1,3-Dichlorobenzene | AVRG | 45941 | 6.2* |
| 1,4-Dichlorobenzene | AVRG | 45536 | 6.6* |
| 1,2-Dichlorobenzene | AVRG | 36311 | 6.5* |
| Naphthalene | AVRG | 22584 | 11* |
| a,a,a-Trifluorotoluene(sur) | AVRG | 18709 | 2.2* |

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000
* Compounds with required maximum %RSD values.

Data File: /chem/VOAGC2.i/602/03-03-00/03MAR00.b/hpid3174.d
Report Date 03/06/2000 09:30




Method : /chem/VOAGC2.i/602/03-03-00/03MAR00.b/602_99.m
Sample Info : HSTD002
Lab ID : HSTD002
Inj Date : 03-MAR-2000 11:26
Operator : CK
Cpnd Sublist: all

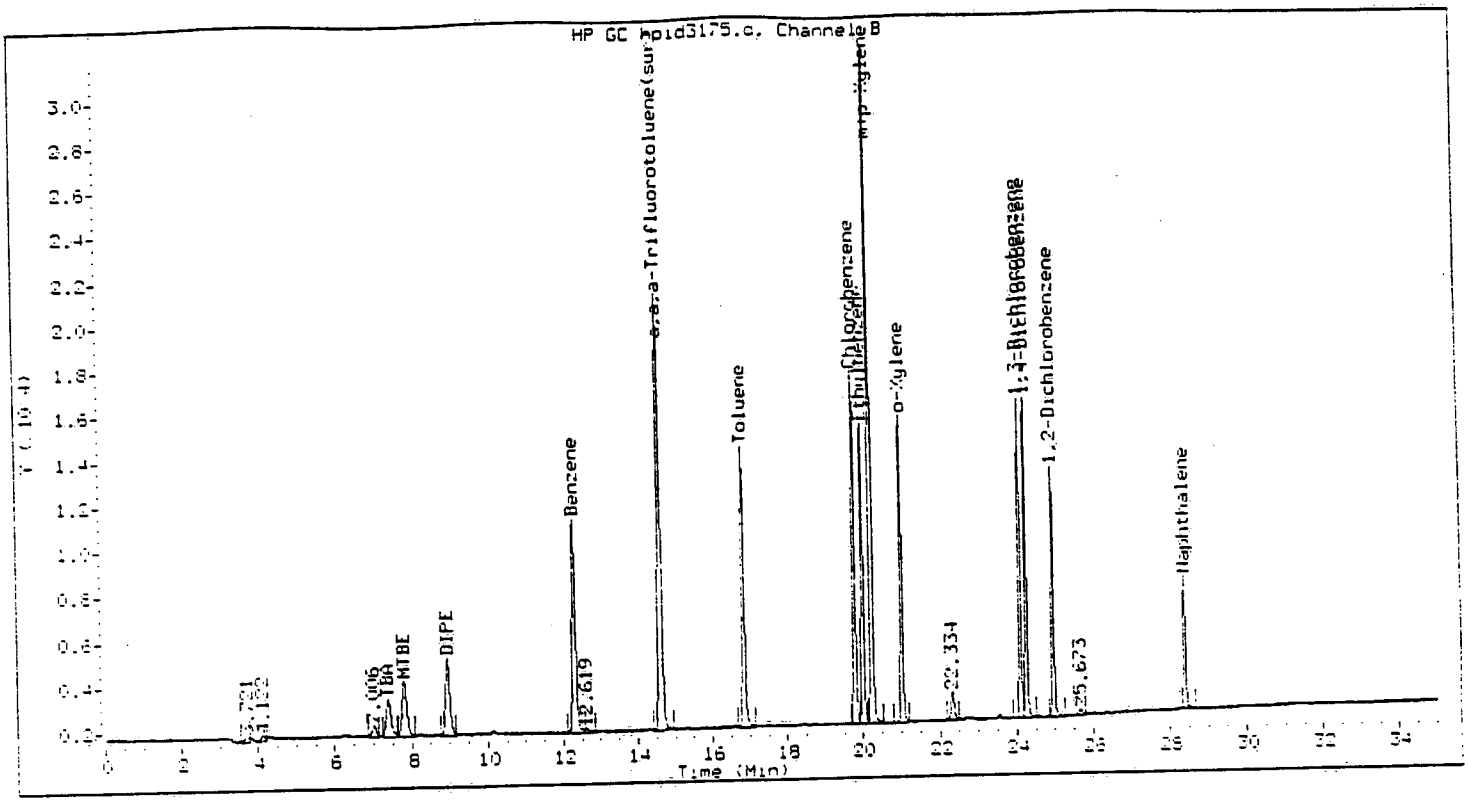
Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_1

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.022 | 21.025 | 0.003 | 94391 | 2.000 | 2.000 |
| m+p-Xylene | 20.235 | 20.239 | 0.004 | 217861 | 4.000 | 4.000 |
| TBA | 7.385 | 7.391 | 0.006 | 44065 | 200.000 | 200.000 |
| MTBE | 7.802 | 7.814 | 0.012 | 38214 | 2.000 | 2.000 |
| DIPE | 8.947 | 8.958 | 0.011 | 52333 | 2.000 | 2.000 |
| Benzene | 12.292 | 12.304 | 0.011 | 104944 | 2.000 | 2.000 |
| Toluene | 16.841 | 16.846 | 0.005 | 114536 | 2.000 | 2.000 |
| Chlorobenzene | 19.783 | 19.787 | 0.004 | 107172 | 2.000 | 2.000 |
| Ethylbenzene | 20.003 | 20.006 | 0.003 | 95081 | 2.000 | 2.000 |

Data File: /chem/VOAGC2.i/602/03-03-00/03MAR00.b/hpid3174.d
Report Date 03/06/2000 09:30

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 311752 | 6.000 | 6.000 |
| 1,3-Dichlorobenzene | 24.107 | 24.108 | 0.001 | 86139 | 2.000 | 2.000 |
| 1,4-Dichlorobenzene | 24.266 | 24.267 | 0.001 | 85246 | 2.000 | 2.000 |
| 1,2-Dichlorobenzene | 24.962 | 24.964 | 0.002 | 69170 | 2.000 | 2.000 |
| Naphthalene | 28.400 | 28.401 | 0.000 | 53203 | 2.000 | 2.000 |
| a,a,a-Trifluorotoluene(sur) | 14.604 | 14.612 | 0.008 | 540799 | 30.000 | 30.000 |

Data File: /chem/VOAGC2.i/602/03-03-00/03MAR00.b/hpid3175.d Page 1
Report Date 03/06/2000 09:30




Method : /chem/VOAGC2.i/602/03-03-00/03MAR00.b/602_99.m
Sample Info : HSTD005
Lab ID : HSTD005
Inj Date : 03-MAR-2000 12:08
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_2

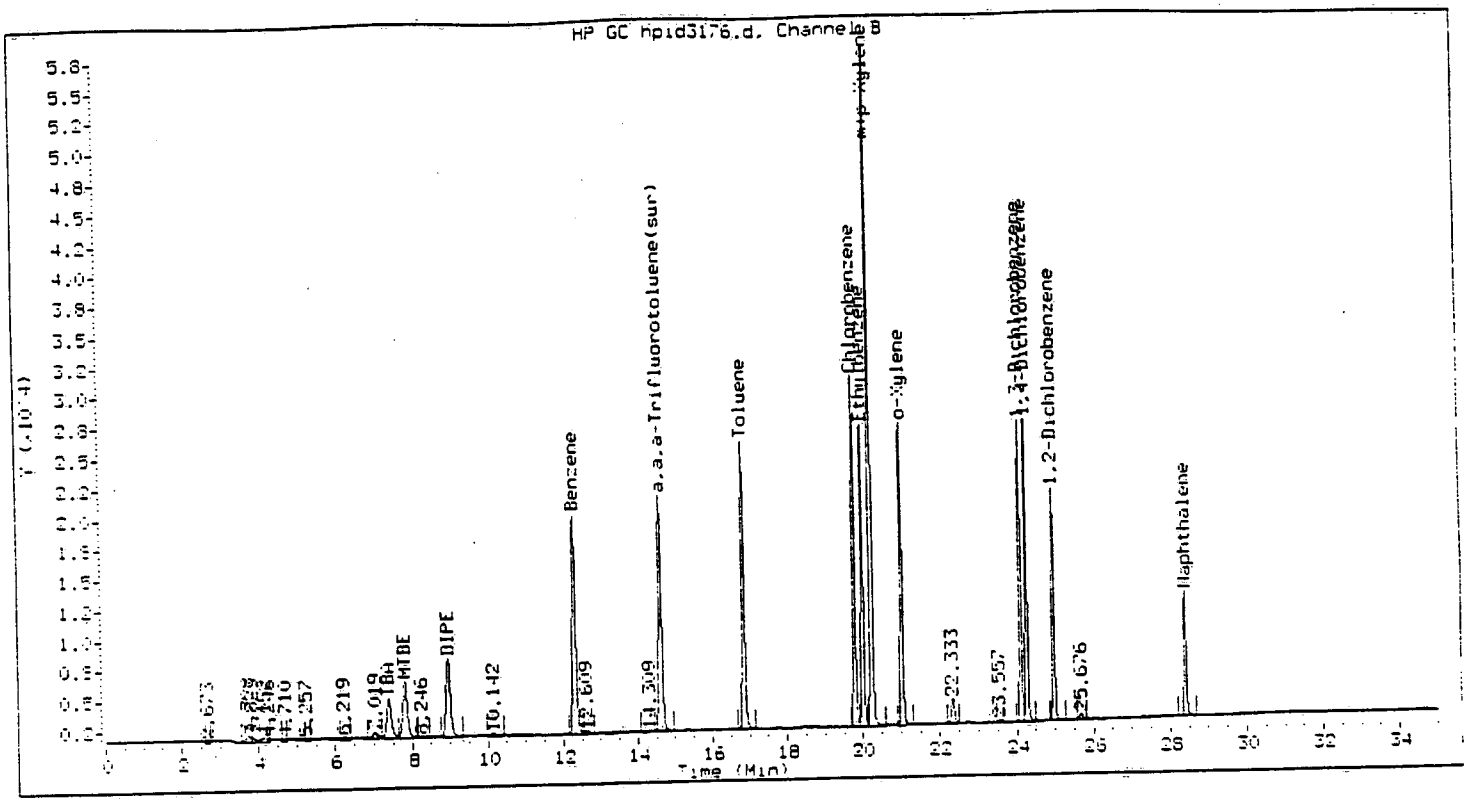
| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.026 | 21.025 | 0.001 | 271976 | 5.354 | 5.354 |
| m+p-Xylene | 20.239 | 20.239 | 0.000 | 621371 | 10.669 | 10.669 |
| TBA | 7.387 | 7.391 | 0.004 | 73106 | 362.728 | 362.728 |
| MTBE | 7.812 | 7.814 | 0.002 | 106454 | 5.270 | 5.270 |
| DIPE | 8.956 | 8.958 | 0.002 | 136301 | 5.102 | 5.102 |
| Benzene | 12.302 | 12.304 | 0.002 | 293422 | 5.279 | 5.279 |
| Toluene | 16.846 | 16.846 | 0.001 | 296099 | 5.084 | 5.084 |
| Chlorobenzene | 19.788 | 19.787 | 0.000 | 310512 | 5.368 | 5.368 |
| Ethylbenzene | 20.006 | 20.006 | 0.000 | 272314 | 5.339 | 5.339 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 893347 | 16.022 | 16.022 |
| 1,3-Dichlorobenzene | 24.109 | 24.108 | 0.001 | 253016 | 5.402 | 5.402 |
| 1,4-Dichlorobenzene | 24.268 | 24.267 | 0.001 | 252525 | 5.423 | 5.423 |
| 1,2-Dichlorobenzene | 24.965 | 24.964 | 0.001 | 201872 | 5.386 | 5.386 |
| Naphthalene | 28.401 | 28.401 | 0.000 | 116748 | 4.674 | 4.674 |
| a,a,a-Trifluorotoluene(sur) | 14.611 | 14.612 | 0.001 | 561302 | 30.558 | 30.558 |

Data File: /chem/VOAGC2.i/602/03-03-00/03MAR00.b/hpid3176.d



Report Date 03/06/2000 09:30



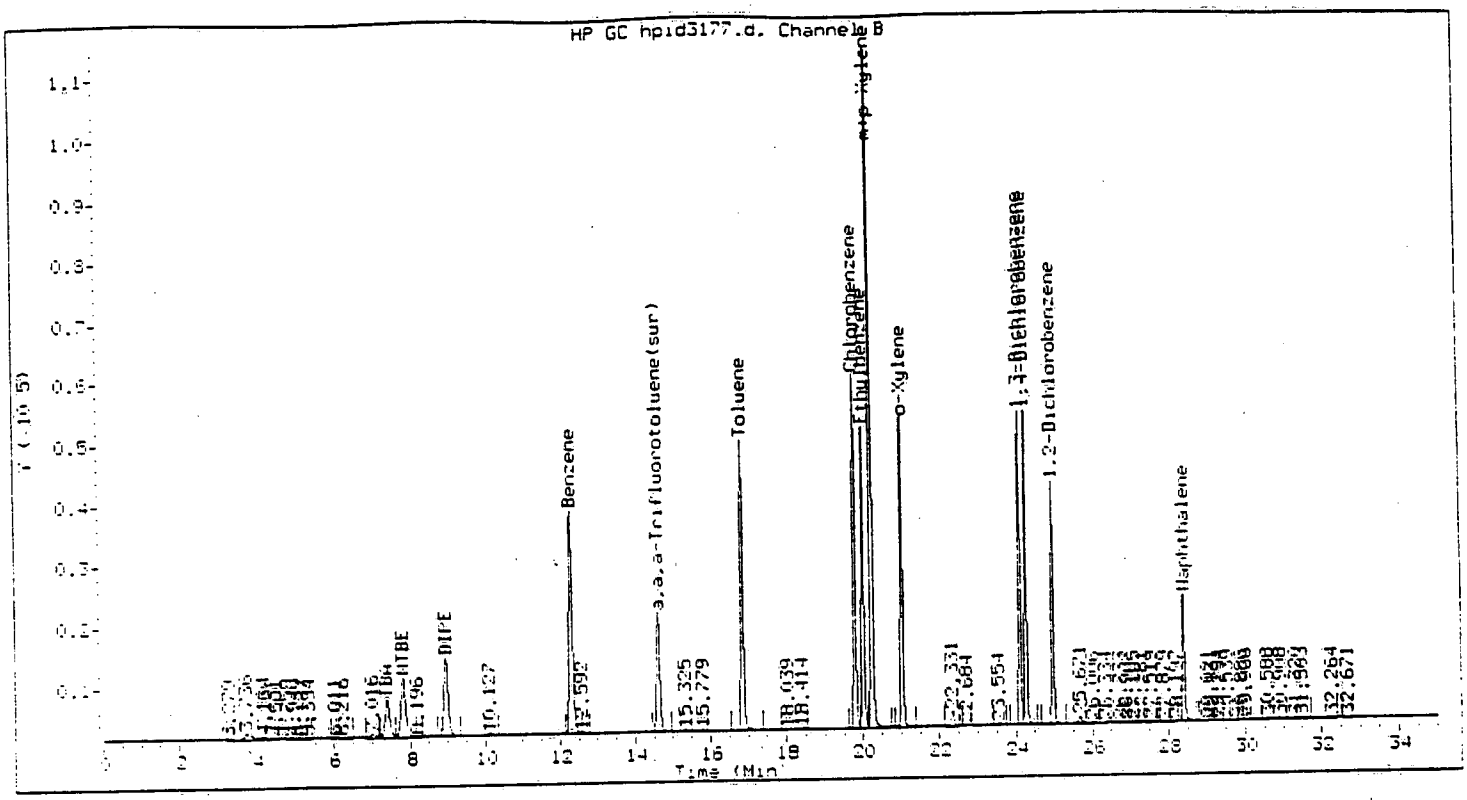

Method : /chem/VOAGC2.i/602/03-03-00/03MAR00.b/602_99.m
Sample Info : HSTD010
Lab ID : HSTD010
Inj Date : 03-MAR-2000 12:49
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.028 | 21.025 | 0.003 | 493781 | 9.812 | 9.812 |
| m-p-Xylene | 20.241 | 20.239 | 0.002 | 1144860 | 19.771 | 19.771 |
| TBA | 7.391 | 7.391 | 0.000 | 147398 | 803.276 | 803.276 |
| MTBE | 7.814 | 7.814 | 0.000 | 212055 | 10.327 | 10.327 |
| DIPE | 8.959 | 8.958 | 0.001 | 269011 | 10.047 | 10.047 |
| Benzene | 12.306 | 12.304 | 0.002 | 560504 | 10.056 | 10.056 |
| Toluene | 16.848 | 16.846 | 0.001 | 551054 | 9.634 | 9.634 |
| Chlorobenzene | 19.790 | 19.787 | 0.002 | 566846 | 9.865 | 9.865 |
| Ethylbenzene | 20.008 | 20.006 | 0.002 | 503393 | 9.913 | 9.913 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 1638642 | 29.590 | 29.590 |
| 1,3-Dichlorobenzene | 24.111 | 24.108 | 0.003 | 444586 | 9.656 | 9.656 |
| 1,4-Dichlorobenzene | 24.270 | 24.267 | 0.003 | 439199 | 9.614 | 9.614 |
| 1,2-Dichlorobenzene | 24.967 | 24.964 | 0.003 | 347254 | 9.498 | 9.498 |
| Naphthalene | 28.403 | 28.401 | 0.003 | 199945 | 8.576 | 8.576 |
| a,a,a-Trifluorotoluene(sur) | 14.613 | 14.612 | 0.001 | 563939 | 30.464 | 30.464 |

Data File: /chem/VOAGC2.i/602/03-03-00/03MAR00.b/hpid3177.d Page 1
Report Date 03/06/2000 09:30



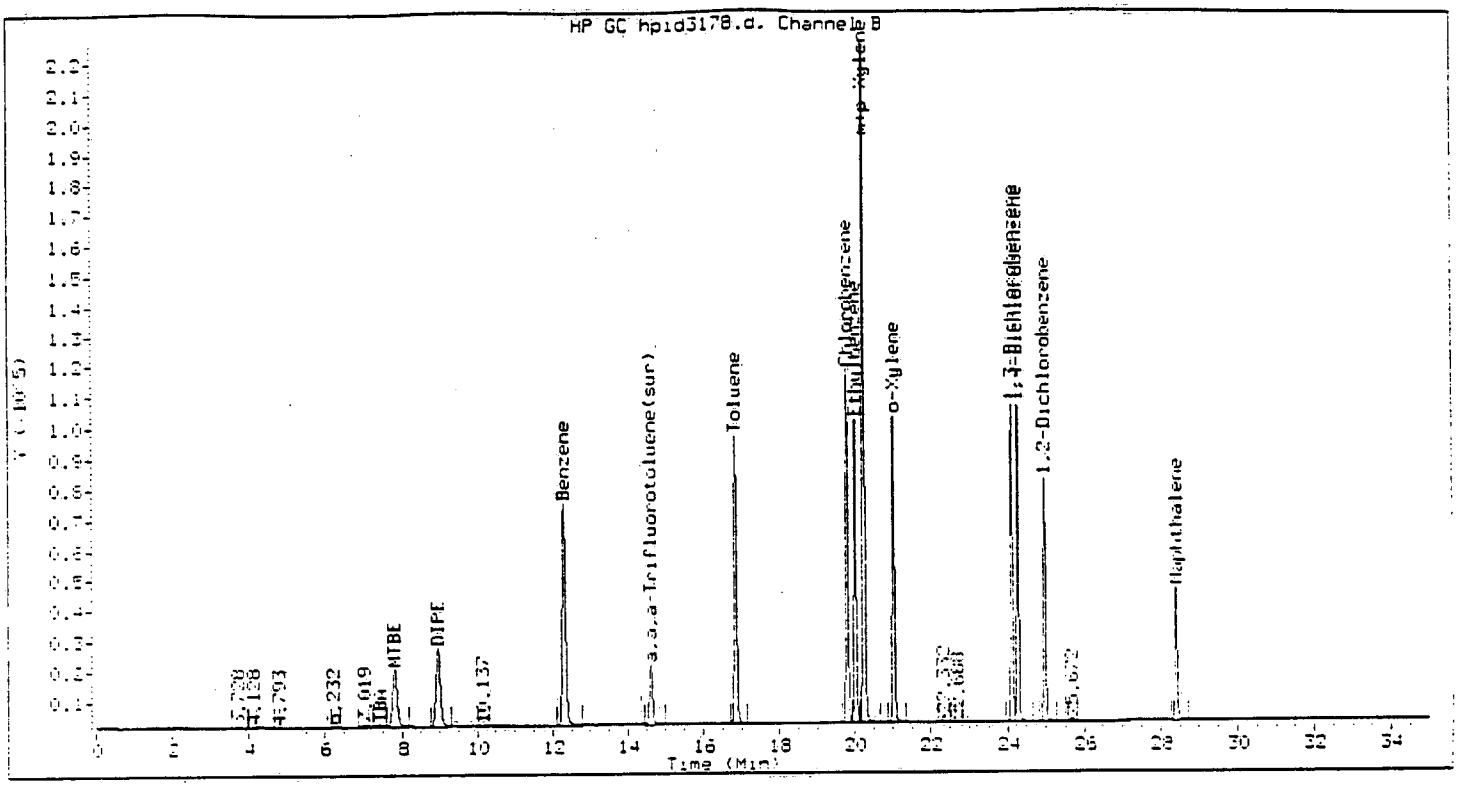

Method : /chem/VOAGC2.i/602/03-03-00/03MAR00.b/602_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 03-MAR-2000 13:31
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_4

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.025 | 21.025 | 0.000 | 999344 | 19.394 | 19.394 |
| m-p-Xylene | 20.239 | 20.239 | 0.000 | 2285574 | 39.601 | 39.601 |
| TBA | 7.391 | 7.391 | 0.000 | 256434 | 1511.313 | 1511.313 |
| MTBE | 7.814 | 7.814 | 0.000 | 420536 | 20.358 | 20.358 |
| DIPE | 8.958 | 8.958 | 0.000 | 528262 | 19.796 | 19.796 |
| Benzene | 12.304 | 12.304 | 0.000 | 1118361 | 20.049 | 20.049 |
| Toluene | 16.846 | 16.846 | 0.000 | 1094287 | 19.342 | 19.342 |
| Chlorobenzene | 19.787 | 19.787 | 0.000 | 1137154 | 19.843 | 19.843 |
| Ethylbenzene | 20.006 | 20.006 | 0.000 | 1004620 | 19.837 | 19.837 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 3284918 | 59.486 | 59.486 |
| 1,3-Dichlorobenzene | 24.108 | 24.108 | 0.000 | 913479 | 19.879 | 19.879 |
| 1,4-Dichlorobenzene | 24.267 | 24.267 | 0.000 | 904038 | 19.842 | 19.842 |
| 1,2-Dichlorobenzene | 24.964 | 24.964 | 0.000 | 716892 | 19.704 | 19.704 |
| Naphthalene | 28.401 | 28.401 | 0.000 | 427661 | 18.731 | 18.731 |
| a,a,a-Trifluorotoluene(sur) | 14.612 | 14.612 | 0.000 | 568793 | 30.542 | 30.542 |

Data File: /chem/VOAGC2.i/602/03-03-00/03MAR00.b/hpid3178.d Page 1
Report Date 03/06/2000 09:30




Method : /chem/VOAGC2.i/602/03-03-00/03MAR00.b/602_99.m
Sample Info : HSTD040
Lab ID : HSTD040
Inj Date : 03-MAR-2000 14:12
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.025 | 21.025 | 0.000 | 1989747 | 39.687 | 39.687 |
| m-p-Xylene | 20.239 | 20.239 | 0.000 | 4574435 | 79.406 | 79.406 |
| TBA | 7.426 | 7.391 | 0.035 | 28879 | 170.201 | 170.201 |
| MTBE | 7.816 | 7.814 | 0.002 | 817257 | 39.653 | 39.653 |
| DIPE | 8.958 | 8.958 | 0.000 | 1037222 | 39.090 | 39.090 |
| Benzene | 12.306 | 12.304 | 0.001 | 2043295 | 40.174 | 40.174 |
| Toluene | 16.846 | 16.846 | 0.000 | 2174219 | 38.734 | 38.734 |
| Chlorobenzene | 19.787 | 19.787 | 0.000 | 2280778 | 39.839 | 39.839 |
| Ethylbenzene | 20.006 | 20.006 | 0.000 | 2005205 | 39.675 | 39.675 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 6564182 | 119.095 | 119.095 |
| 1,3-Dichlorobenzene | 24.108 | 24.108 | 0.000 | 1836053 | 39.965 | 39.965 |
| 1,4-Dichlorobenzene | 24.267 | 24.267 | 0.000 | 1817229 | 39.907 | 39.907 |
| 1,2-Dichlorobenzene | 24.964 | 24.964 | 0.000 | 1441009 | 39.685 | 39.685 |
| Naphthalene | 28.400 | 28.401 | 0.001 | 863772 | 38.246 | 38.246 |
| a,a,a-Trifluorotoluene(sur) | 14.612 | 14.612 | 0.000 | 571482 | 30.546 | 30.546 |

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC2 Calibration Date: 03/09/00 Time: 0905

Lab File ID: HPID3221 Init. Calib. Date(s): 03/03/00 03/03/00

Heated Purge: (Y/N) N Init. Calib. Times: 1126 1412

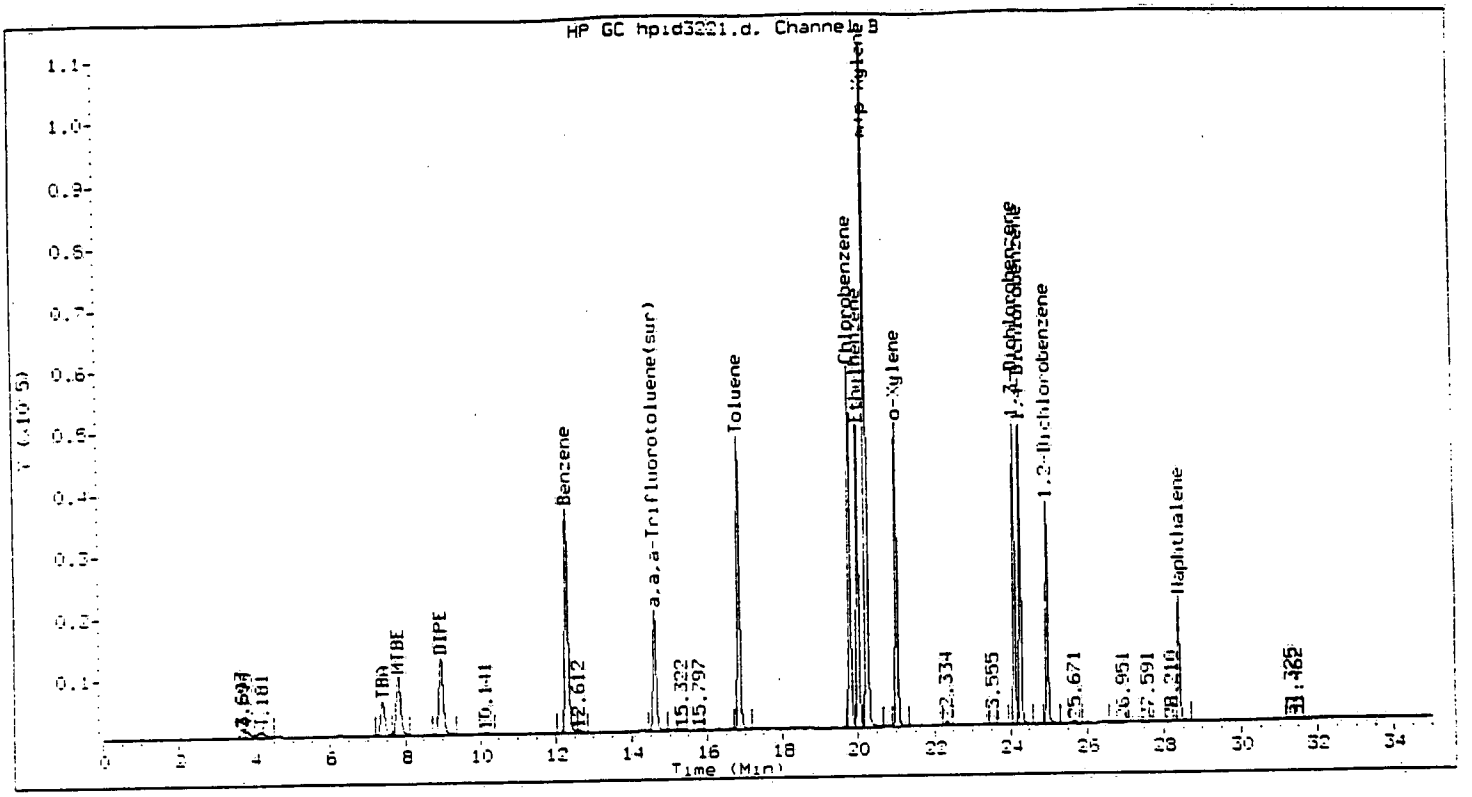
| COMPOUND | $\overline{RRF}$ | RRF20 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| TBA ** | 169.68 | 115.43 | | 32.0 | 50.0 |
| MTBE | 20612.80 | 20286.70 | | 1.6 | 50.0 |
| DIPE | 26534.30 | 25597.50 | | 3.5 | 50.0 |
| Benzene | 55841.89 | 55683.30 | | 0.3 | 23.0 |
| Toluene | 56132.61 | 54528.90 | | 2.8 | 22.5 |
| Chlorobenzene | 57250.03 | 57395.85 | | -0.0 | 19.5 |
| Ethylbenzene | 50540.74 | 49899.10 | | 1.3 | 37.0 |
| Xylene (Total) | 55117.34 | 53705.03 | | 2.6 | 50.0 |
| 1,3-Dichlorobenzene | 45941.31 | 43856.35 | | 4.5 | 27.5 |
| 1,4-Dichlorobenzene | 45536.10 | 42787.65 | | 6.0 | 30.5 |
| 1,2-Dichlorobenzene | 36310.92 | 32592.60 | | 10.2 | 32.0 |
| Naphthalene | 22584.59 | 20570.35 | | 8.9 | 50.0 |
| a,a,a-Trifluorotoluene(sur) | 18708.77 | 19050.53 | | -1.8 | 22.0 |

** TBA Continuing Calibration Level is RF2000.

Data File: /chem/VOAGC2.i/602/03-03-00/09MAR00.b/hpid3221.d



Report Date 03/10/2000 09:30




Method : /chem/VOAGC2.i/602/03-03-00/09MAR00.b/602_99.m
Sample Info : HSTD020
Lab ID : HSTD020
Inj Date : 09-MAR-2000 09:05
Operator : CK
Cpnd Sublist: all

Inst ID : VOAGC2.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CCALIB_4

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | CONCENTRATIONS FINAL (ug/L) |
|---|---|---|---|---|---|---|
| o-Xylene | 21.027 | 21.027 | 0.000 | 968992 | 19.327 | 19.327 |
| m-p-Xylene | 20.240 | 20.240 | 0.000 | 2253210 | 39.115 | 39.115 |
| TBA | 7.402 | 7.402 | 0.000 | 230857 | 1360.573 | 1360.573 |
| MTBE | 7.819 | 7.819 | 0.000 | 405734 | 19.684 | 19.684 |
| DIPE | 8.963 | 8.963 | 0.000 | 511950 | 19.294 | 19.294 |
| Benzene | 12.307 | 12.307 | 0.000 | 1113666 | 19.943 | 19.943 |
| Toluene | 16.847 | 16.847 | 0.000 | 1090578 | 19.429 | 19.429 |
| Chlorobenzene | 19.789 | 19.789 | 0.000 | 1147917 | 20.051 | 20.051 |
| Ethylbenzene | 20.007 | 20.007 | 0.000 | 997982 | 19.746 | 19.746 |

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/L) | FINAL (ug/L) |
|---|---|---|---|---|---|---|
| Xylene (Total) | 25.019 | 25.019 | 0.000 | 3222302 | 58.463 | 58.463 |
| 1,3-Dichlorobenzene | 24.108 | 24.108 | 0.000 | 877127 | 19.092 | 19.092 |
| 1,4-Dichlorobenzene | 24.268 | 24.268 | 0.000 | 855753 | 18.793 | 18.793 |
| 1,2-Dichlorobenzene | 24.964 | 24.964 | 0.000 | 651852 | 17.952 | 17.952 |
| Naphthalene | 28.400 | 28.400 | 0.000 | 411407 | 18.216 | 18.216 |
| a,a,a-Trifluorotoluene(sur) | 14.614 | 14.614 | 0.000 | 571516 | 30.548 | 30.548 |

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: X796

| | LAB SAMPLE NO. | SMC1 # | SMC2 # | OTHER | TOT OUT |
|---|---|---|---|---|---|
| 01 | HG069 | 100 | | | 0 |
| 02 | 186293 | 97 | | | 0 |
| 03 | 186294 | 97 | | | 0 |
| 04 | 186295 | 97 | | | 0 |
| 05 | | | | | |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
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| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| 28 | | | | | |
| 29 | | | | | |
| 30 | | | | | |

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (72-127)

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 186752

MS Sample from Lab Job No: X873

QA Batch: 6968

| Compound | MS % REC. | BS % REC. | LIMITS |
|---|---|---|---|
| Benzene | 100 | 100 | 39-150 |
| Toluene | 100 | 100 | 46-148 |
| Chlorobenzene | 105 | 100 | 55-135 |
| Ethylbenzene | 105 | 100 | 32-160 |
| 1,3-Dichlorobenzene | 100 | 100 | 50-141 |
| 1,4-Dichlorobenzene | 100 | 95 | 42-143 |
| 1,2-Dichlorobenzene | 95 | 90 | 37-154 |

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS: _____

STL Envirotech
a division of Severn Trent Laboratories, Inc.

**STL Envirotech**
777 New Durham Road
Edison, NJ 08817
Tel: (732) 549-3900
Fax: (732) 549-3679
www.stl-inc.com

April 3, 2000

Residuals Management Technologies, Inc.
222 South Riverside Plaza
Suite 280
Chicago, IL 60606

Attention: Mr. Nick Clevett

Re: Job No. Y301 - L.E. Carpenter

Dear Mr. Clevett:

Enclosed are the results you requested for the following sample(s) received at our laboratory on March 16, 2000:

| Lab No. | Client ID | Analysis Required |
|---|---|---|
| 189888 | Trip_Blank | bis-2-Ethylhexylphthalate |
| 189889 | Field_Blank | bis-2-Ethylhexylphthalate |
| 189890 | MW-25 | bis-2-Ethylhexylphthalate |

If you have any questions please contact your Project Manager, Paul Simms, at (732) 549-3900.

Very truly yours,

Michael J. Urban
Laboratory Manager

STL Envirotech
a division of Severn Trent Laboratories, Inc

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Envirotech
a division of Severn Trent Laboratories, Inc.

Client ID: **Trip_Blank**
Site: L.E. Carpenter

Lab Sample No: **189888**
Lab Job No: Y301

Date Sampled: 03/16/00
Date Received: 03/16/00
Date Extracted: 03/20/00
Date Analyzed: 03/23/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0363.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 2.0 |

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **189889**
Lab Job No: Y301

Date Sampled: 03/16/00
Date Received: 03/16/00
Date Extracted: 03/20/00
Date Analyzed: 03/23/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0364.d

Matrix: WATER
Level: LOW
Sample Volume: 950 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | 3.2B | 2.1 |

Envirotech
a division of Severn Trent Laboratories, Inc

Client ID: MW-25
Site: L.E. Carpenter

Lab Sample No: 189890
Lab Job No: Y301

Date Sampled: 03/16/00
Date Received: 03/16/00
Date Extracted: 03/20/00
Date Analyzed: 03/24/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0365.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 2.0 |



a part of
Severn Trent Services Inc.

**STL - Envirotech**
777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

# CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 1 OF 1

| | | |
|---|---|---|
| Name ( for report and Invoice ): Nick Clevit | Samplers Name ( Printed ): R. Jessard M. Mead | Site/Project Identification: L.L. Carpenter |
| Company: RMI Inc. | P.O. # | State (Location of site): NJ: ☒ NY: ☐ Other: |
| Address: 222 S. Riverside D. | Analysis Turnaround Time: Standard ☐ | Regulatory Program: |
| City: Chicago State: IL | Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐ | |
| Phone: (312) 575 0200 Fax: (312) 575 0200 | | |

ANALYSIS REQUESTED ( ENTER "X" BELOW TO INDICATE REQUEST )

LAB USE ONLY
Project No: 80080
Job No: Y301

| Sample Identification | Date | Time | Matrix | No. of Cont. | DEHP | Sample Numbers |
|---|---|---|---|---|---|---|
| Trip Blank | 3/16/00 | 630 | Aq | 1 | X | 189888 |
| Field Blank | ↓ | 1012 | ↓ | 1 | X | 189889 |
| MW 25 | ↓ | 1015 | ↓ | 1 | X | 189890 |

Preservation Used: 1 = ICE, 2 = HCl, 3 = $H_2SO_4$, 4 = $HNO_3$, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:
Water: 1

Special Instructions

Water Metals Filtered (Yes/No)? _____

| Relinquished by | Company | Date / Time | Received by | Company |
|---|---|---|---|---|
| 1) R. Mead | STL Envirotech | 3/16/00 1145 | 1) Howard Schwarz | STL-ENVIROTECH HOWARD SCHWARZ |
| 2) | | | 2) | |
| 3) | | | 3) | |
| 4) | | | 4) | |

Laboratory Certifications: New Jersey (12543), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
North Carolina (No. 578)

Monitoring Well Data

**Client:** Residual Management Tech.

**Project:** LE Carpenter

**Date Sampled:** 3/16/00

**Job No.:** Y301

**Name of Analyst:** Richard Toogood

**Names & Signatures of Samplers:** Richard Toogood

R. Toogood

Matt Morse

Matt Morse

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# STL Envirotech

**777 New Durham Road, Edison, New Jersey**
**08817**

**Job No:** Y301 **Site:** L.E. Carpenter

**Client:** Residuals Management Technologies, Inc.

**BNAMS**

**WATER - 625**

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| 189888 | 3/16/2000 | 3/16/2000 | 3-20-00 | CA | 3/23 | LL | 5311 |
| 189889 | 3/16/2000 | 3/16/2000 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 189890 | 3/16/2000 | 3/16/2000 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

| | Water Test Method | | Solid Test Method | |
|---|---|---|---|---|
| Element | Flame | Furnace | Flame | Furnace |
| Aluminum | 202.1 | 202.2 | 7020 | -- |
| Antimony | 204.1 | 204.2 | 7040 | 7041 |
| Arsenic | -- | 206.2 | -- | 7060 |
| Barium | 208.1 | -- | 7080 | -- |
| Beryllium | 210.1 | 210.2 | 7090 | 7091 |
| Cadmium | 213.1 | 213.2 | 7130 | 7131 |
| Calcium | 215.1 | -- | 7140 | -- |
| Chromium, Total | 218.1 | 218.2 | 7190 | 7191 |
| Chromium, (+6) | 218.4 | 218.5 | 7197 | 7195 |
| Cobalt | 219.1 | 219.2 | 7200 | 7201 |
| Copper | 220.1 | 220.2 | 7210 | -- |
| Iron | 236.1 | 236.2 | 7380 | -- |
| Lead | 239.1 | 239.2 | 7420 | 7421 |
| Magnesium | 242.1 | -- | 7450 | -- |
| Manganese | 243.1 | 243.2 | 7460 | -- |
| Nickel | 249.1 | 249.2 | 7520 | -- |
| Potassium | 258.1 | -- | 7610 | -- |
| Selenium | -- | 270.2 | -- | 7740 |
| Silver | 272.1 | 272.2 | 7760 | -- |
| Sodium | 273.1 | -- | 7770 | -- |
| Tin | 283.1 | 283.2 | 7870 | -- |
| Thallium | 279.1 | 279.2 | 7840 | 7841 |
| Vanadium | 286.1 | 286.2 | 7910 | 7911 |
| Zinc | 289.1 | 289.2 | 7950 | -- |

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

| | |
|---|---|
| Ignitability | - Method 1020A |
| Corrosivity | - Water pH Method 9040B<br>Soil pH Method 9045C |
| Reactivity | - Chapter 7, Section 7.3.3 and 7.3.4 respectively for hydrogen cyanide and hydrogen sulfide release |
| Toxicity | - TCLP Method 1311 |

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

# DATA REPORTING QUALIFIERS

ND - The compound was not detected at the indicated concentration.

J - Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified detection limit but greater than zero. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NON-CONFORMANCE SUMMARY

STL Envirotech Job Number: Y301

Volatile Organics Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested ____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ✓; or
Analysis was not requested ____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Non-conformance Summary, Page 2 of 2
STL Envirotech Job Number: 1301

Metals Analysis:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Total Petroleum Hydrocarbons:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

General Chemistry/Disposal Parameters:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Signature of
Laboratory Manager: _____ Date: 4/4/00

Client ID: **Trip_Blank**
Site: L.E. Carpenter

Lab Sample No: **189888**
Lab Job No: Y301

Date Sampled: 03/16/00
Date Received: 03/16/00
Date Extracted: 03/20/00
Date Analyzed: 03/23/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0363.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 2.0 |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0363.d
Report Date: 24-Mar-2000 09:12

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0363.d
Lab Smp Id: 189888 Client Smp ID: Trip_Blank
Inj Date : 23-MAR-2000 22:28
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 189888;1000;2;1;;
Misc Info : Y301;BIS2PHTH;5311;143
Comment :
Method : /chem/BNAMS3.i/625/03-23-00/23mar00.b/BNA625b.m
Meth Date : 24-Mar-2000 08:47 lisa Quant Type: ISTD
Cal Date : 23-MAR-2000 14:39 Cal File: t0354.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BIS2PHTH.sub
Target Version: 3.50

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 2.00000 | Volume of final extract (mL) |
| Vo | 1000.00000 | Volume of sample extracted (mL) |

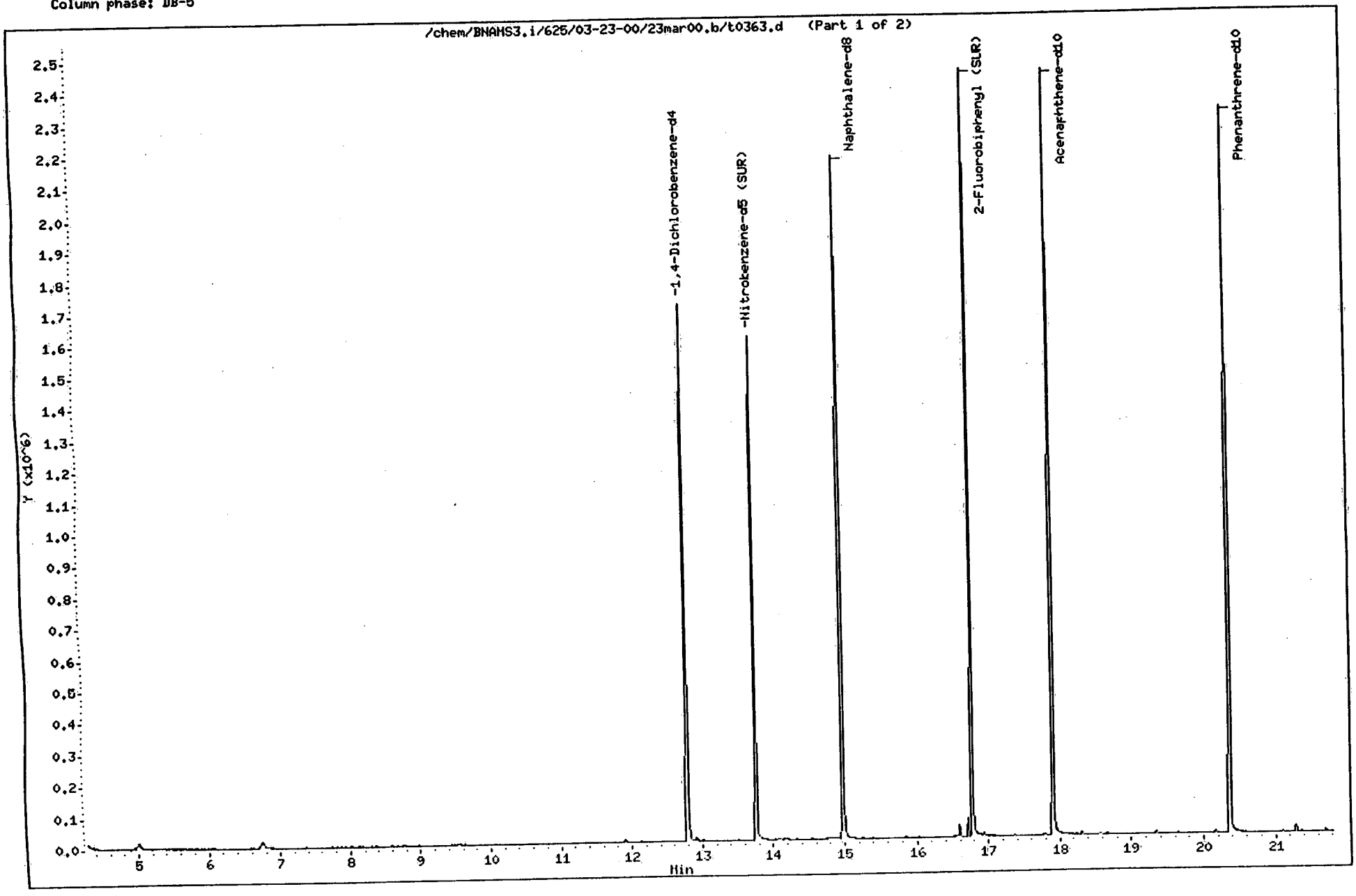
Cpnd Variable Local Compound Variable

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.790 | 12.804 | (1.000) | 416258 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.762 | 13.780 | (0.918) | 770388 | 41.6657 | 83 |
| * 80 Naphthalene-d8 | 136 | 14.984 | 14.999 | (1.000) | 1396970 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.778 | 16.793 | (0.937) | 1041033 | 39.8820 | 80 |
| * 82 Acenaphthene-d10 | 164 | 17.908 | 17.928 | (1.000) | 908862 | 40.0000 | |
| * 83 Phenanthrene-d10 | 188 | 20.371 | 20.391 | (1.000) | 1416881 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.992 | 22.998 | (0.929) | 1485539 | 40.8455 | 82 |
| * 81 Chrysene-d12 | 240 | 24.747 | 24.770 | (1.000) | 1399462 | 40.0000 | |
| * 84 Perylene-d12 | 264 | 28.040 | 28.068 | (1.000) | 1464183 | 40.0000 | |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0363.d
Date : 23-MAR-2000 22:28
Client ID: Trip_Blank
Sample Info: 189888;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i

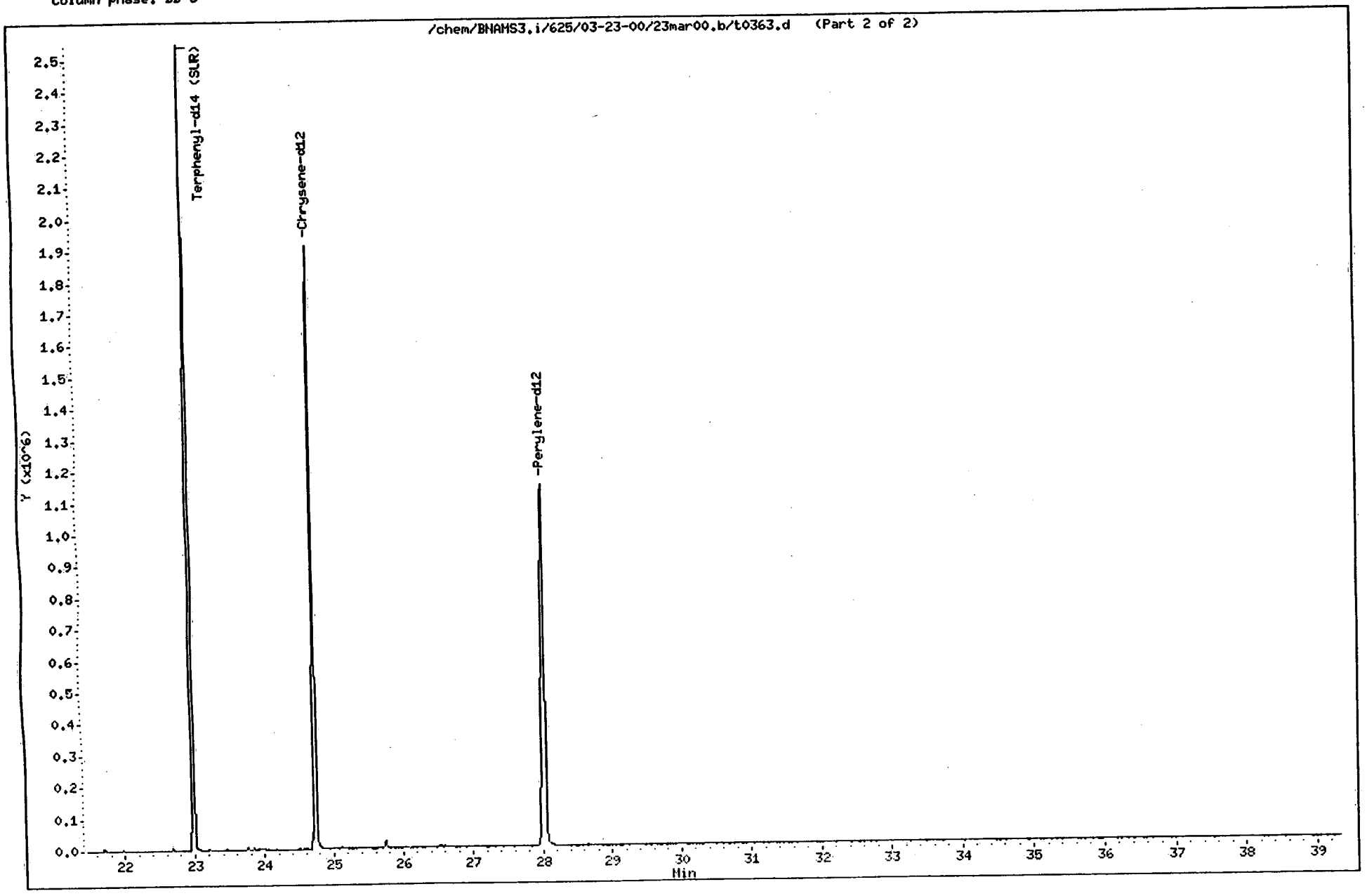
Operator: BNAMS 1
Column diameter: 0.53



Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0363.d
Date : 23-MAR-2000 22:28
Client ID: Trip_Blank
Sample Info: 189888;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1
Column diameter: 0.53



Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **189889**
Lab Job No: Y301

Date Sampled: 03/16/00
Date Received: 03/16/00
Date Extracted: 03/20/00
Date Analyzed: 03/23/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0364.d

Matrix: WATER
Level: LOW
Sample Volume: 950 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | 3.2 | 2.1 |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0364.d
Report Date: 24-Mar-2000 09:12

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0364.d
Lab Smp Id: 189889 Client Smp ID: Field_Blank
Inj Date : 23-MAR-2000 23:22
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 189889;950;2;1;;
Misc Info : Y301;BIS2PHTH;5311;143
Comment :
Method : /chem/BNAMS3.i/625/03-23-00/23mar00.b/BNA625b.m
Meth Date : 24-Mar-2000 08:47 lisa Quant Type: ISTD
Cal Date : 23-MAR-2000 14:39 Cal File: t0354.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BIS2PHTH.sub
Target Version: 3.50

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 2.00000 | Volume of final extract (mL) |
| Vo | 950.00000 | Volume of sample extracted (mL) |

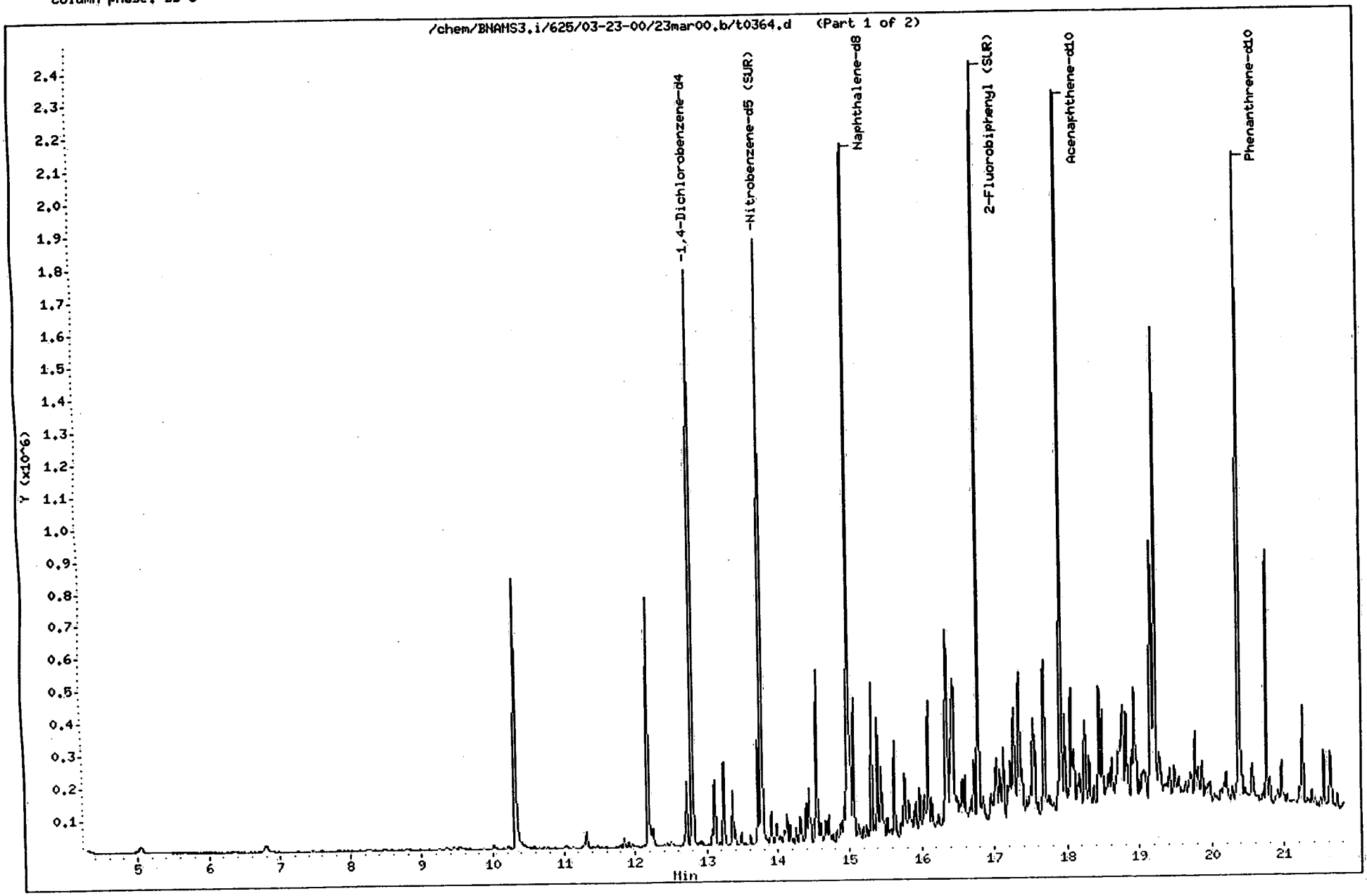
Cpnd Variable Local Compound Variable

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.803 | 12.804 | (1.000) | 433233 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.772 | 13.780 | (0.918) | 868703 | 46.6924 | 98 |
| * 80 Naphthalene-d8 | 136 | 14.994 | 14.999 | (1.000) | 1405666 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.787 | 16.793 | (0.937) | 1034547 | 44.5141 | 94 |
| * 82 Acenaphthene-d10 | 164 | 17.923 | 17.928 | (1.000) | 809214 | 40.0000 | |
| * 83 Phenanthrene-d10 | 188 | 20.384 | 20.391 | (1.000) | 1225727 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.999 | 22.998 | (0.929) | 1365497 | 41.0736 | 86 |
| 63 bis(2-Ethylhexyl)phthalate | 149 | 24.700 | 24.709 | (0.998) | 53545 | 1.51525 | 3.2 |
| * 81 Chrysene-d12 | 240 | 24.753 | 24.770 | (1.000) | 1279232 | 40.0000 | |
| * 84 Perylene-d12 | 264 | 28.049 | 28.068 | (1.000) | 1390712 | 40.0000 | |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0364.d
Date : 23-MAR-2000 23:22
Client ID: Field_Blank
Sample Info: 189889;950;2;1;;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAMS3.i

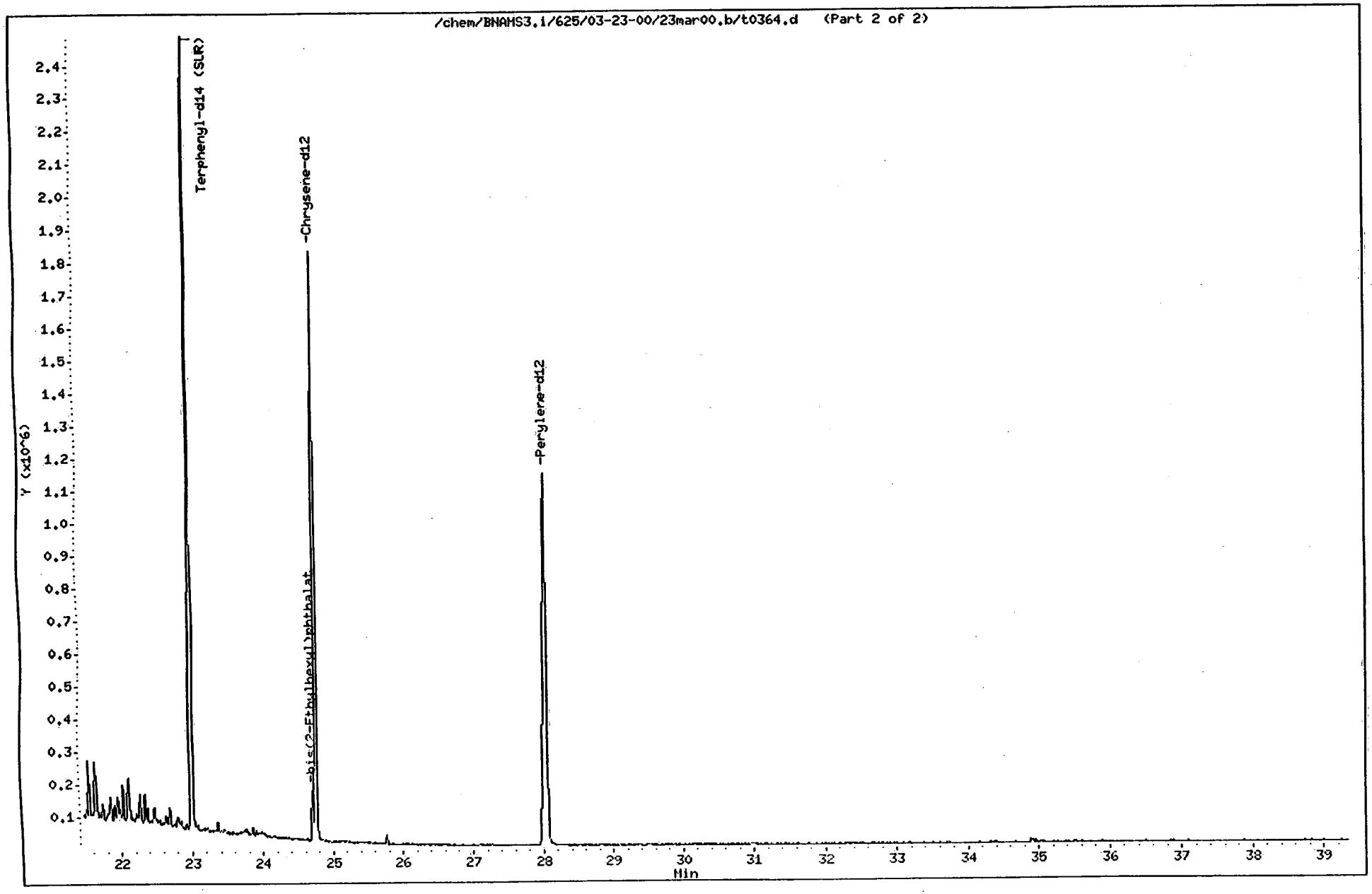
Operator: BNAMS 1
Column diameter: 0.53



Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0364.d
Date : 23-MAR-2000 23:22
Client ID: Field_Blank
Sample Info: 189889;950;2;1;;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1
Column diameter: 0.53



Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0364.d

Date : 23-MAR-2000 23:22

Client ID: Field_Blank

Sample Info: 189889;950;2;1;;

Purge Volume: 950.0

Column phase: DB-5

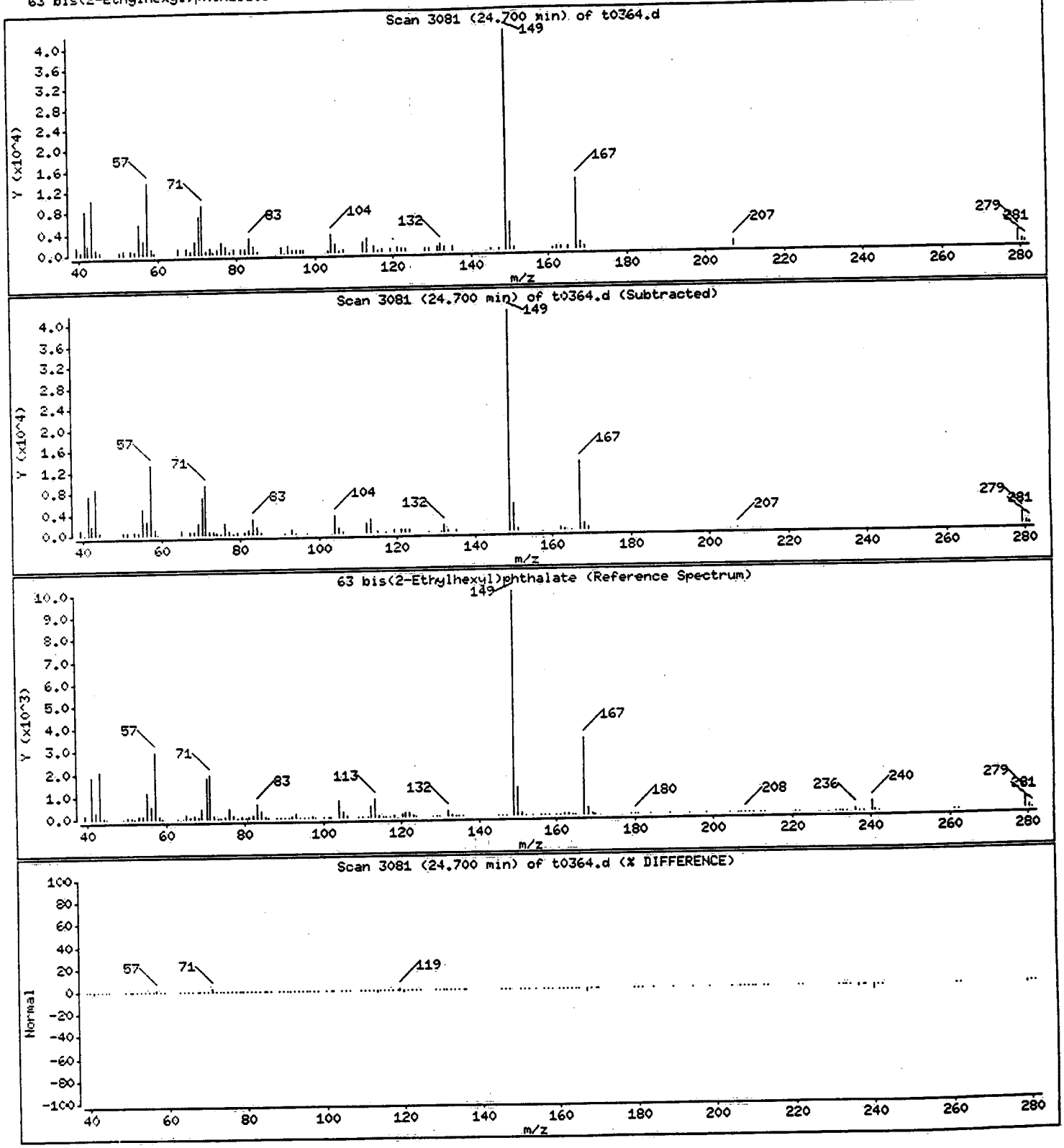
Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

Concentration: 3.2 ug/L

63 bis(2-Ethylhexyl)phthalate



Client ID: **MW-25**
Site: L.E. Carpenter

Lab Sample No: **189890**
Lab Job No: Y301

Date Sampled: 03/16/00
Date Received: 03/16/00
Date Extracted: 03/20/00
Date Analyzed: 03/24/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0365.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| bis(2-Ethylhexyl)phthalate | ND | 2.0 |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0365.d
Report Date: 24-Mar-2000 09:12

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0365.d
Lab Smp Id: 189890 Client Smp ID: MW-25
Inj Date : 24-MAR-2000 00:15
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 189890;1000;2;1;;
Misc Info : Y301;BIS2PHTH;5311;143
Comment :
Method : /chem/BNAMS3.i/625/03-23-00/23mar00.b/BNA625b.m
Meth Date : 24-Mar-2000 08:47 lisa Quant Type: ISTD
Cal Date : 23-MAR-2000 14:39 Cal File: t0354.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BIS2PHTH.sub
Target Version: 3.50

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 2.00000 | Volume of final extract (mL) |
| Vo | 1000.00000 | Volume of sample extracted (mL) |

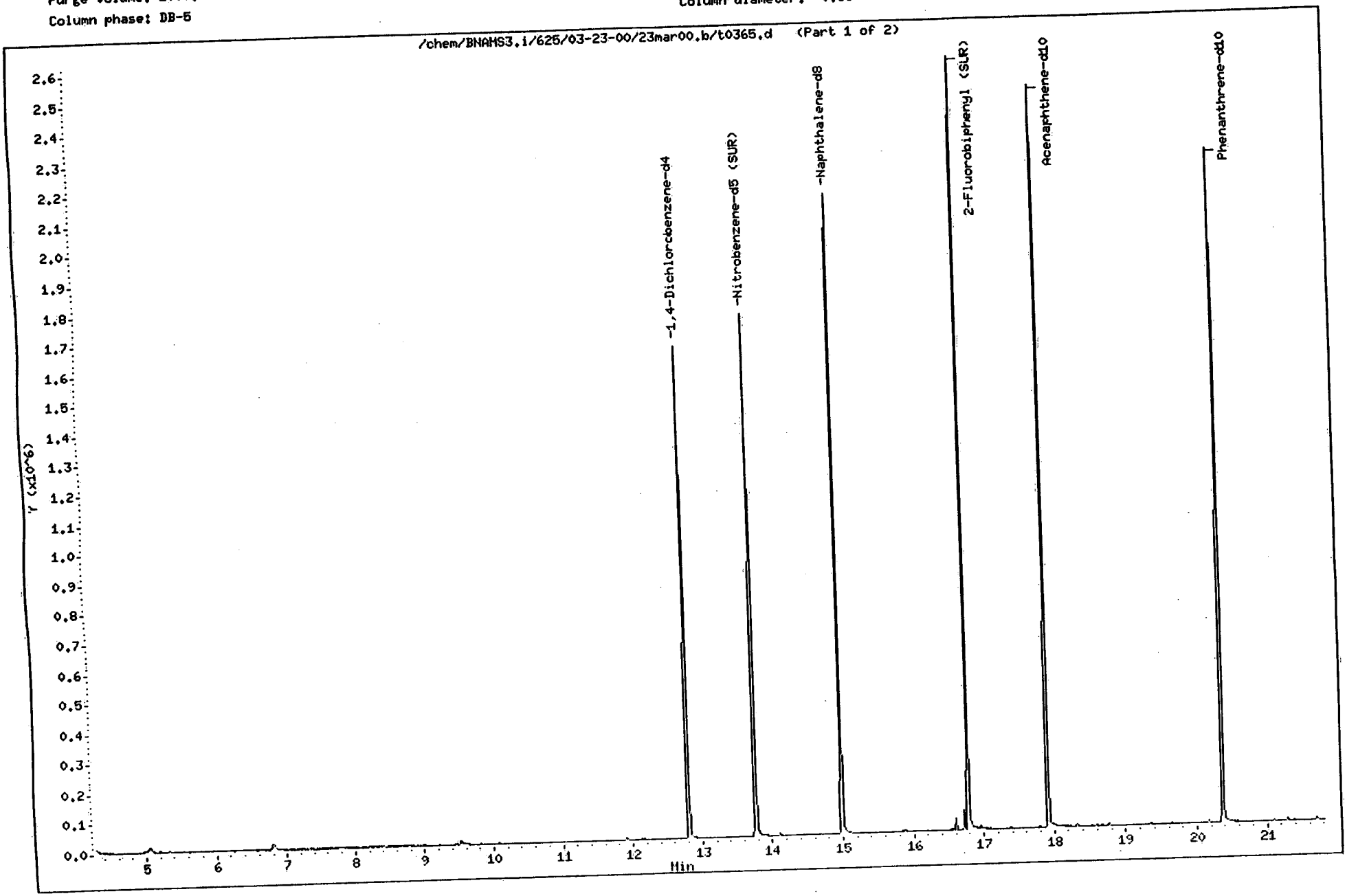
Cpnd Variable Local Compound Variable

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.799 | 12.804 | (1.000) | 405879 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.771 | 13.780 | (0.918) | 869247 | 47.0264 | 94 |
| * 80 Naphthalene-d8 | 136 | 14.993 | 14.999 | (1.000) | 1396556 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.787 | 16.793 | (0.937) | 1114214 | 43.8500 | 88 |
| * 82 Acenaphthene-d10 | 164 | 17.917 | 17.928 | (1.000) | 884728 | 40.0000 | |
| * 83 Phenanthrene-d10 | 188 | 20.381 | 20.391 | (1.000) | 1380624 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.996 | 22.998 | (0.929) | 1426088 | 41.1745 | 82 |
| * 81 Chrysene-d12 | 240 | 24.751 | 24.770 | (1.000) | 1332722 | 40.0000 | |
| * 84 Perylene-d12 | 264 | 28.045 | 28.068 | (1.000) | 1395036 | 40.0000 | |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0365.d
Date : 24-MAR-2000 00:15
Client ID: MW-25
Sample Info: 189890;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1
Column diameter: 0.53

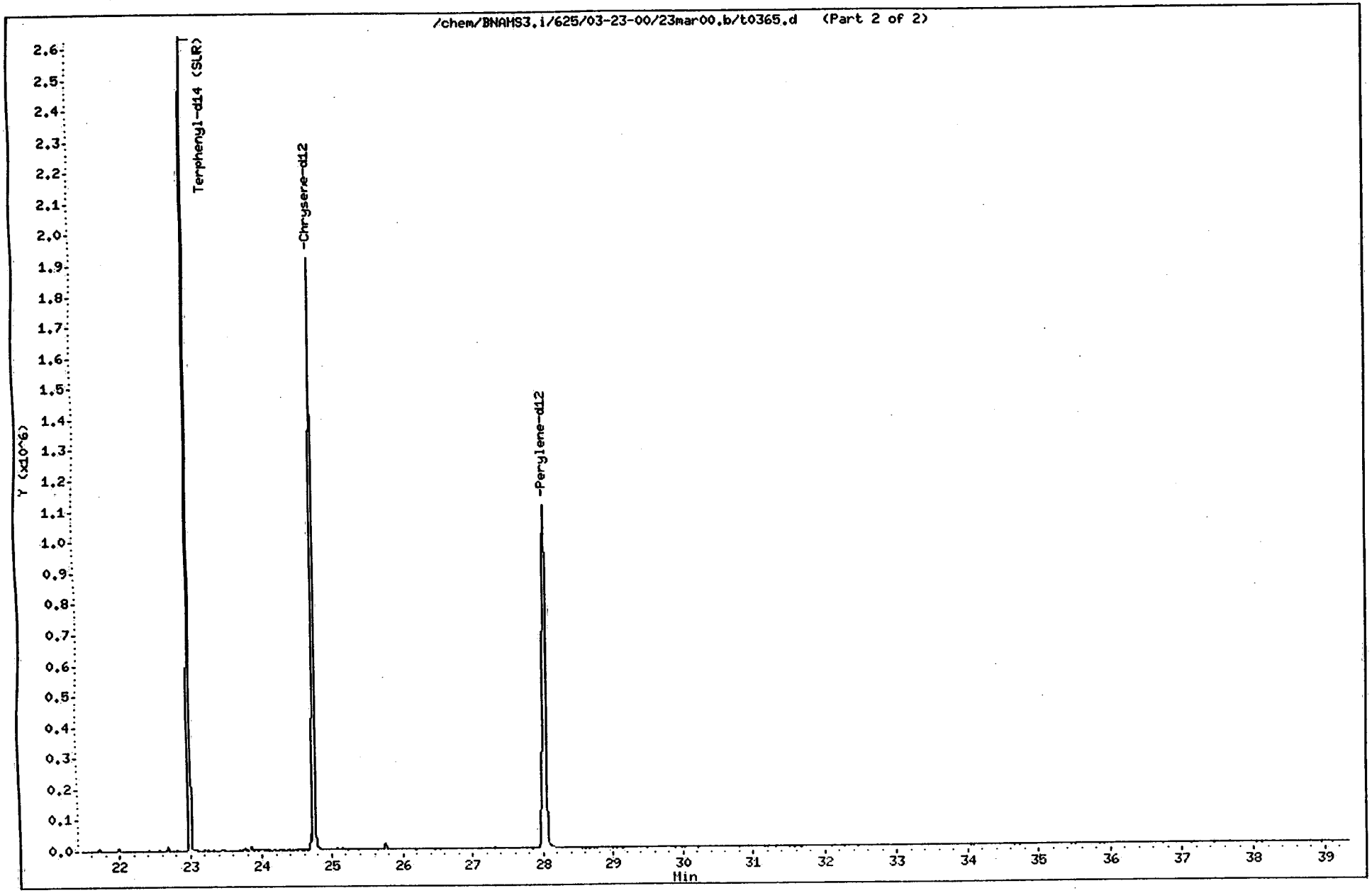


Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0365.d
Date : 24-MAR-2000 00:15
Client ID: MW-25
Sample Info: 189890;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1
Column diameter: 0.53





SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T0322

DFTPP Injection Date: 03/22/00

Instrument ID: BNAMS3

DFTPP Injection Time: 1345

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 52.0 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 75.6 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.3)1 |
| 127 | 40.0 - 60.0% of mass 198 | 52.0 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.9 |
| 275 | 10.0 - 30.0% of mass 198 | 22.0 |
| 365 | Greater than 1.0% of mass 198 | 2.19 |
| 441 | 0.0 - 100.0% of mass 443 | 8.9 ( 80.2)2 |
| 442 | 40.0 - 110.0% of mass 198 | 55.6 |
| 443 | 17.0 - 23.0% of mass 442 | 11.1 ( 19.9)3 |

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | TSTD050 | TSTD050 | T0323 | 03/22/00 | 1402 |
| 02 | TSTD120 | TSTD120 | T0324 | 03/22/00 | 1444 |
| 03 | TSTD080 | TSTD080 | T0325 | 03/22/00 | 1529 |
| 04 | TSTD010 | TSTD010 | T0326 | 03/22/00 | 1618 |
| 05 | TSTD020 | TSTD020 | T0327 | 03/22/00 | 1707 |
| 06 | WB080 | WB080 | T0330 | 03/22/00 | 1936 |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

page 1 of 1

Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0322.d

Date : 22-MAR-2000 13:45

Client ID:

Instrument: BNAMS3.i

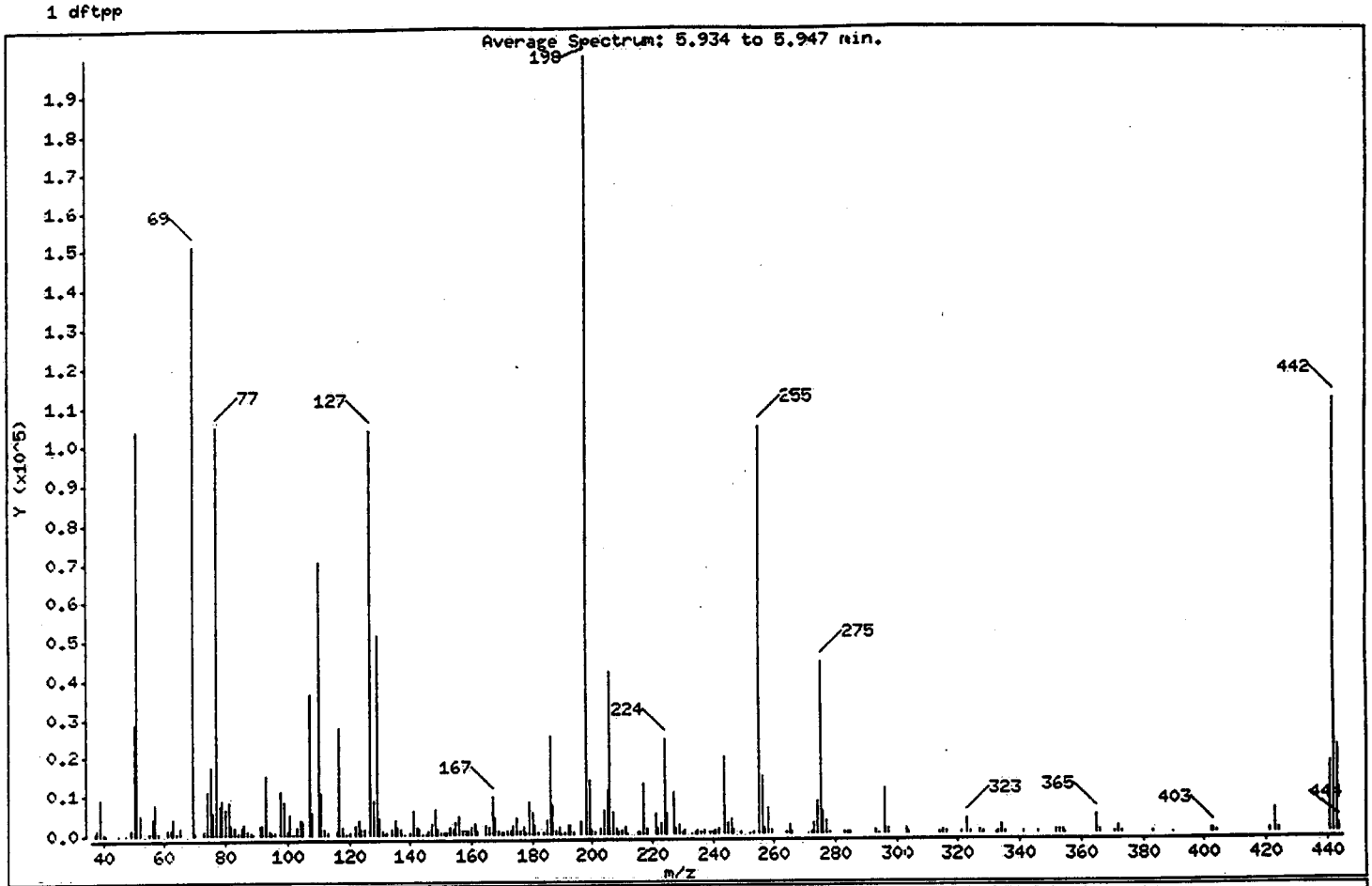
Sample Info: TDFT082

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 30.00 - 60.00% of mass 198 | 52.01 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 75.57 |
| 70 | Less than 2.00% of mass 69 | 0.25 ( 0.33) |
| 127 | 40.00 - 60.00% of mass 198 | 51.98 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.85 |
| 275 | 10.00 - 30.00% of mass 198 | 21.95 |
| 365 | Greater than 1.00% of mass 198 | 2.19 |
| 441 | 0.01 - 100.00% of mass 443 | 8.88 ( 80.24) |
| 442 | 40.00 - 110.00% of mass 198 | 55.65 |
| 443 | 17.00 - 23.00% of mass 442 | 11.07 ( 19.89) |

Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0322.d

Date : 22-MAR-2000 13:45

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT082

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t0322.d

Spectrum: Average Spectrum: 5.934 to 5.947 min.

Location of Maximum: 198.00

Number of points: 236

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 37.00 | 559 | 117.00 | 27392 | 184.00 | 570 | 259.00 | 914 |
| 38.00 | 1474 | 118.00 | 1939 | 185.00 | 3757 | 264.00 | 262 |
| 39.00 | 8979 | 119.00 | 188 | 186.00 | 25224 | 265.00 | 2489 |
| 40.00 | 315 | 120.00 | 296 | 187.00 | 7557 | 266.00 | 403 |
| 41.00 | 216 | 122.00 | 2430 | 188.00 | 738 | 271.00 | 106 |
| 45.00 | 107 | 123.00 | 3638 | 189.00 | 1812 | 272.00 | 272 |
| 47.00 | 102 | 124.00 | 1488 | 190.00 | 130 | 273.00 | 2912 |
| 49.00 | 1253 | 125.00 | 1308 | 191.00 | 674 | 274.00 | 8297 |
| 50.00 | 28640 | 127.00 | 103880 | 192.00 | 2175 | 275.00 | 43872 |
| 51.00 | 103944 | 128.00 | 8863 | 193.00 | 2329 | 276.00 | 5543 |
| 52.00 | 5146 | 129.00 | 51664 | 194.00 | 374 | 277.00 | 3381 |
| 55.00 | 609 | 130.00 | 4108 | 196.00 | 3416 | 278.00 | 446 |
| 56.00 | 3974 | 131.00 | 815 | 198.00 | 199808 | 283.00 | 306 |
| 57.00 | 7862 | 132.00 | 416 | 199.00 | 13694 | 284.00 | 259 |
| 58.00 | 370 | 134.00 | 1357 | 200.00 | 830 | 285.00 | 558 |
| 61.00 | 1440 | 135.00 | 3455 | 201.00 | 540 | 293.00 | 768 |
| 62.00 | 1506 | 136.00 | 1643 | 203.00 | 1393 | 294.00 | 110 |
| 63.00 | 4233 | 137.00 | 1588 | 204.00 | 6083 | 296.00 | 11531 |
| 64.00 | 607 | 138.00 | 126 | 205.00 | 10962 | 297.00 | 1581 |
| 65.00 | 1921 | 140.00 | 306 | 206.00 | 41640 | 303.00 | 1150 |
| 69.00 | 150976 | 141.00 | 6118 | 207.00 | 5711 | 304.00 | 263 |
| 70.00 | 505 | 142.00 | 1672 | 208.00 | 1438 | 314.00 | 501 |
| 73.00 | 1011 | 143.00 | 1396 | 209.00 | 516 | 315.00 | 1122 |
| 74.00 | 11042 | 144.00 | 138 | 210.00 | 738 | 316.00 | 498 |
| 75.00 | 17456 | 145.00 | 143 | 211.00 | 1626 | 321.00 | 272 |
| 76.00 | 5413 | 146.00 | 937 | 212.00 | 112 | 323.00 | 3550 |
| 77.00 | 104528 | 147.00 | 2905 | 215.00 | 492 | 324.00 | 650 |
| 78.00 | 7473 | 148.00 | 6422 | 216.00 | 466 | 327.00 | 714 |
| 79.00 | 8864 | 149.00 | 1369 | 217.00 | 12779 | 328.00 | 368 |
| 80.00 | 6546 | 150.00 | 257 | 218.00 | 1338 | 332.00 | 113 |
| 81.00 | 8335 | 151.00 | 624 | 221.00 | 4849 | 333.00 | 363 |
| 82.00 | 2094 | 152.00 | 354 | 222.00 | 1222 | 334.00 | 2290 |
| 83.00 | 1981 | 153.00 | 1744 | 223.00 | 2583 | 335.00 | 504 |
| 84.00 | 308 | 154.00 | 1438 | 224.00 | 24480 | 341.00 | 340 |
| 85.00 | 1682 | 155.00 | 3371 | 225.00 | 5261 | 346.00 | 620 |

Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0322.d

Date : 22-MAR-2000 13:45

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT082

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t0322.d

Spectrum: Average Spectrum: 5.934 to 5.947 min.

Location of Maximum: 198.00

Number of points: 236

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 86.00 | 2721 | 156.00 | 4655 | 227.00 | 10347 | 352.00 | 993 |
| 87.00 | 1029 | 157.00 | 907 | 228.00 | 1545 | 353.00 | 794 |
| 88.00 | 475 | 158.00 | 1071 | 229.00 | 2071 | 354.00 | 1005 |
| 89.00 | 104 | 159.00 | 847 | 230.00 | 286 | 355.00 | 113 |
| 91.00 | 2302 | 160.00 | 1951 | 231.00 | 928 | 365.00 | 4373 |
| 92.00 | 2434 | 161.00 | 2953 | 233.00 | 101 | 366.00 | 741 |
| 93.00 | 15015 | 162.00 | 719 | 234.00 | 678 | 371.00 | 308 |
| 94.00 | 1114 | 165.00 | 2130 | 235.00 | 907 | 372.00 | 1966 |
| 95.00 | 245 | 166.00 | 1717 | 236.00 | 512 | 373.00 | 404 |
| 96.00 | 433 | 167.00 | 9783 | 237.00 | 747 | 383.00 | 396 |
| 98.00 | 10958 | 168.00 | 4147 | 239.00 | 250 | 390.00 | 119 |
| 99.00 | 8487 | 169.00 | 856 | 240.00 | 267 | 402.00 | 812 |
| 100.00 | 895 | 170.00 | 302 | 241.00 | 702 | 403.00 | 1137 |
| 101.00 | 5120 | 171.00 | 464 | 242.00 | 1214 | 404.00 | 312 |
| 102.00 | 218 | 172.00 | 1098 | 244.00 | 19840 | 421.00 | 716 |
| 103.00 | 1722 | 173.00 | 1089 | 245.00 | 2819 | 423.00 | 6061 |
| 104.00 | 3545 | 174.00 | 2245 | 246.00 | 3848 | 424.00 | 1119 |
| 105.00 | 3138 | 175.00 | 3906 | 247.00 | 752 | 441.00 | 17744 |
| 107.00 | 36472 | 176.00 | 1019 | 249.00 | 630 | 442.00 | 111216 |
| 108.00 | 5354 | 177.00 | 1683 | 252.00 | 100 | 443.00 | 22112 |
| 110.00 | 70352 | 178.00 | 635 | 253.00 | 360 | 444.00 | 1809 |
| 111.00 | 10750 | 179.00 | 8343 | 255.00 | 104240 | | |
| 112.00 | 1234 | 180.00 | 5399 | 256.00 | 14616 | | |
| 113.00 | 370 | 181.00 | 2301 | 257.00 | 1383 | | |
| 116.00 | 1088 | 182.00 | 358 | 258.00 | 6225 | | |

Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0322.d

Date : 22-MAR-2000 13:45

Client ID:

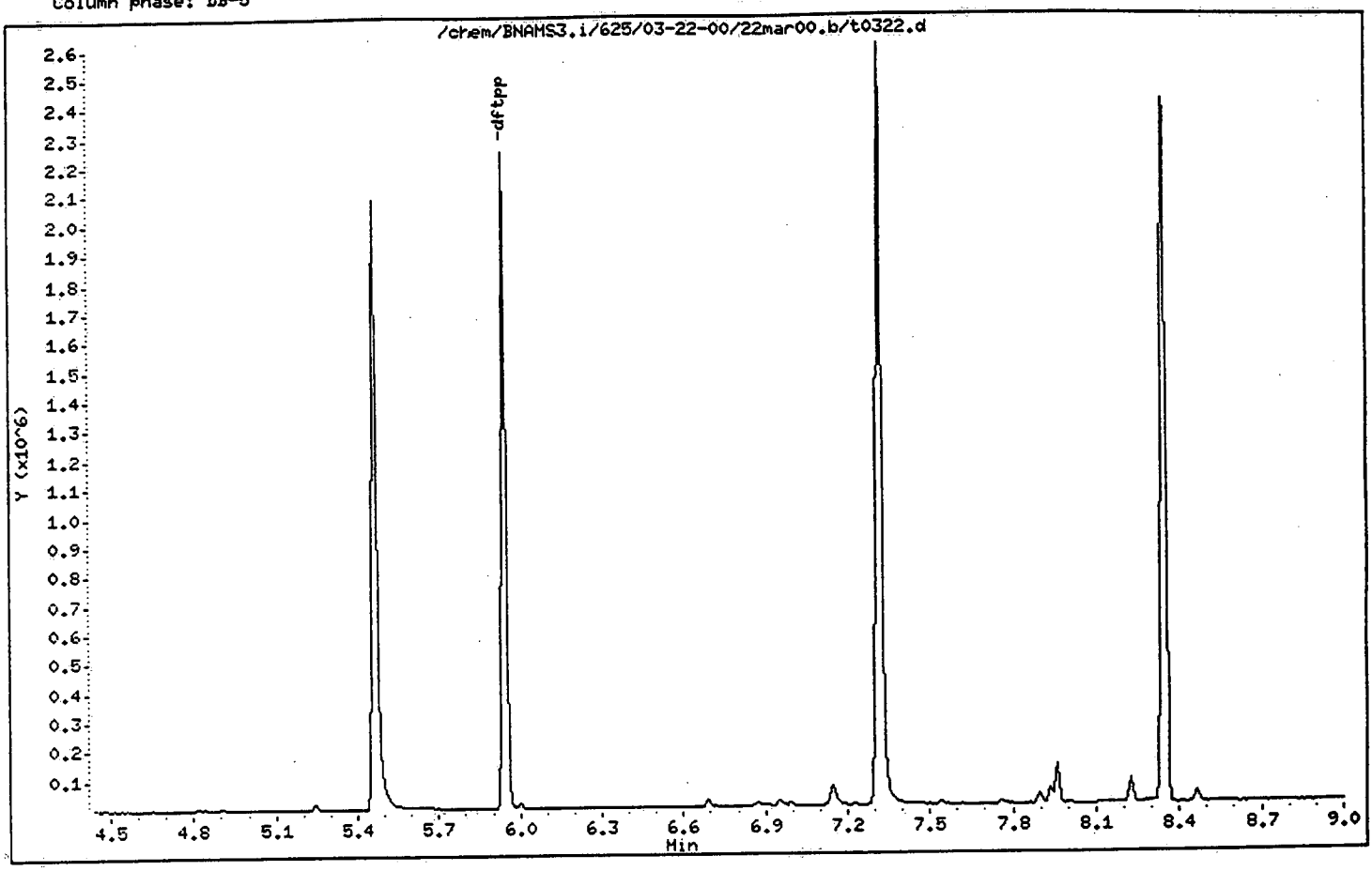
Sample Info: TDFT082

Instrument: BNAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T0349

DFTPP Injection Date: 03/23/00

Instrument ID: BNAMS3

DFTPP Injection Time: 1107

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 45.9 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 64.2 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.3)1 |
| 127 | 40.0 - 60.0% of mass 198 | 48.1 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.9 |
| 275 | 10.0 - 30.0% of mass 198 | 22.9 |
| 365 | Greater than 1.0% of mass 198 | 2.43 |
| 441 | 0.0 - 100.0% of mass 443 | 9.9 ( 81.8)2 |
| 442 | 40.0 - 110.0% of mass 198 | 61.7 |
| 443 | 17.0 - 23.0% of mass 442 | 12.1 ( 19.7)3 |

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | TSTD050 | TSTD050 | T0350 | 03/23/00 | 1133 |
| 02 | TSTD010 | TSTD010 | T0351 | 03/23/00 | 1224 |
| 03 | TSTD120 | TSTD120 | T0352 | 03/23/00 | 1308 |
| 04 | TSTD080 | TSTD080 | T0353 | 03/23/00 | 1355 |
| 05 | TSTD020 | TSTD020 | T0354 | 03/23/00 | 1439 |
| 06 | TRIP_BLANK | 189888 | T0363 | 03/23/00 | 2228 |
| 07 | FIELD_BLANK | 189889 | T0364 | 03/23/00 | 2322 |
| 08 | MW-25 | 189890 | T0365 | 03/24/00 | 0015 |
| 09 | | | | | |
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| 18 | | | | | |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0349.d

Date : 23-MAR-2000 11:07

Client ID:

Sample Info: TDFT083

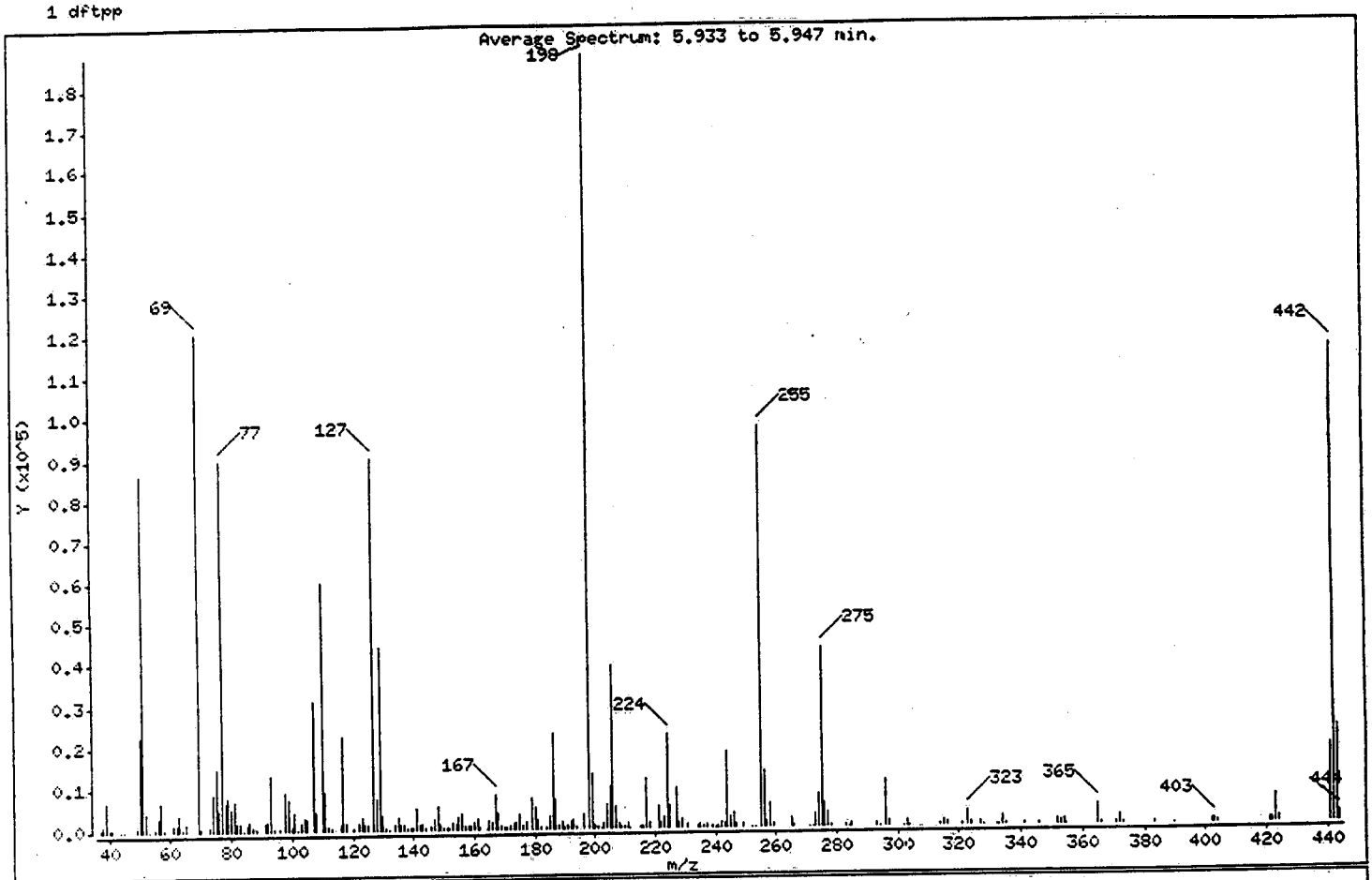
Instrument: BNAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 30.00 - 60.00% of mass 198 | 45.86 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 64.24 |
| 70 | Less than 2.00% of mass 69 | 0.18 ( 0.28) |
| 127 | 40.00 - 60.00% of mass 198 | 48.05 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.93 |
| 275 | 10.00 - 30.00% of mass 198 | 22.90 |
| 365 | Greater than 1.00% of mass 198 | 2.43 |
| 441 | 0.01 - 100.00% of mass 443 | 9.93 ( 81.79) |
| 442 | 40.00 - 110.00% of mass 198 | 61.70 |
| 443 | 17.00 - 23.00% of mass 442 | 12.14 ( 19.68) |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0349.d

Date : 23-MAR-2000 11:07

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT083

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t0349.d

Spectrum: Average Spectrum: 5.933 to 5.947 min.

Location of Maximum: 198.00

Number of points: 235

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 37.00 | 404 | 117.00 | 22592 | 184.00 | 382 | 258.00 | 5579 |
| 38.00 | 1102 | 118.00 | 1543 | 185.00 | 3177 | 259.00 | 920 |
| 39.00 | 6902 | 120.00 | 258 | 186.00 | 22952 | 265.00 | 2268 |
| 40.00 | 319 | 122.00 | 1873 | 187.00 | 6814 | 266.00 | 416 |
| 41.00 | 219 | 123.00 | 3025 | 188.00 | 671 | 271.00 | 109 |
| 44.00 | 124 | 124.00 | 1412 | 189.00 | 1573 | 272.00 | 144 |
| 45.00 | 107 | 125.00 | 1191 | 190.00 | 237 | 273.00 | 2849 |
| 49.00 | 675 | 127.00 | 90232 | 191.00 | 776 | 274.00 | 7941 |
| 50.00 | 22528 | 128.00 | 7317 | 192.00 | 1899 | 275.00 | 43008 |
| 51.00 | 86128 | 129.00 | 44072 | 193.00 | 2253 | 276.00 | 5822 |
| 52.00 | 4114 | 130.00 | 3397 | 194.00 | 337 | 277.00 | 3419 |
| 53.00 | 114 | 131.00 | 587 | 196.00 | 3561 | 278.00 | 550 |
| 55.00 | 547 | 132.00 | 135 | 198.00 | 187776 | 283.00 | 397 |
| 56.00 | 2855 | 134.00 | 1168 | 199.00 | 13006 | 284.00 | 158 |
| 57.00 | 6728 | 135.00 | 3110 | 200.00 | 906 | 285.00 | 661 |
| 58.00 | 282 | 136.00 | 1187 | 201.00 | 328 | 293.00 | 684 |
| 61.00 | 1313 | 137.00 | 1481 | 202.00 | 122 | 294.00 | 131 |
| 62.00 | 1417 | 138.00 | 288 | 203.00 | 1234 | 296.00 | 10924 |
| 63.00 | 3691 | 139.00 | 219 | 204.00 | 5795 | 297.00 | 1465 |
| 64.00 | 557 | 140.00 | 532 | 205.00 | 9792 | 302.00 | 109 |
| 65.00 | 1690 | 141.00 | 5168 | 206.00 | 39208 | 303.00 | 1353 |
| 69.00 | 120640 | 142.00 | 1438 | 207.00 | 5187 | 304.00 | 137 |
| 70.00 | 335 | 143.00 | 1109 | 208.00 | 1434 | 314.00 | 504 |
| 73.00 | 896 | 144.00 | 234 | 209.00 | 355 | 315.00 | 1149 |
| 74.00 | 8641 | 146.00 | 906 | 210.00 | 428 | 316.00 | 682 |
| 75.00 | 14710 | 147.00 | 2663 | 211.00 | 1470 | 321.00 | 224 |
| 76.00 | 4605 | 148.00 | 5544 | 212.00 | 114 | 323.00 | 3571 |
| 77.00 | 89728 | 149.00 | 1118 | 215.00 | 383 | 324.00 | 662 |
| 78.00 | 6436 | 150.00 | 259 | 216.00 | 339 | 327.00 | 649 |
| 79.00 | 7650 | 151.00 | 614 | 217.00 | 11681 | 328.00 | 112 |
| 80.00 | 5200 | 152.00 | 304 | 218.00 | 1371 | 332.00 | 163 |
| 81.00 | 7019 | 153.00 | 1633 | 221.00 | 5069 | 333.00 | 121 |
| 82.00 | 1704 | 154.00 | 1190 | 222.00 | 1427 | 334.00 | 2280 |
| 83.00 | 1525 | 155.00 | 3106 | 223.00 | 2492 | 335.00 | 565 |
| 84.00 | 133 | 156.00 | 3882 | 224.00 | 22512 | 341.00 | 375 |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0349.d

Date : 23-MAR-2000 11:07

Client ID:

Sample Info: TDFT083

Instrument: BNAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t0349.d

Spectrum: Average Spectrum: 5.933 to 5.947 min.

Location of Maximum: 198.00

Number of points: 235

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 85.00 | 1306 | 157.00 | 800 | 225.00 | 5210 | 346.00 | 632 |
| 86.00 | 2333 | 158.00 | 943 | 227.00 | 9462 | 352.00 | 1185 |
| 87.00 | 882 | 159.00 | 756 | 228.00 | 1362 | 353.00 | 872 |
| 88.00 | 293 | 160.00 | 1711 | 229.00 | 1962 | 354.00 | 1120 |
| 91.00 | 1874 | 161.00 | 2435 | 231.00 | 744 | 355.00 | 109 |
| 92.00 | 1976 | 162.00 | 586 | 234.00 | 624 | 365.00 | 4560 |
| 93.00 | 13073 | 164.00 | 154 | 235.00 | 714 | 366.00 | 561 |
| 94.00 | 587 | 165.00 | 2259 | 236.00 | 473 | 371.00 | 423 |
| 96.00 | 524 | 166.00 | 1565 | 237.00 | 750 | 372.00 | 1995 |
| 98.00 | 9006 | 167.00 | 8348 | 239.00 | 326 | 373.00 | 448 |
| 99.00 | 7217 | 168.00 | 3777 | 240.00 | 163 | 383.00 | 532 |
| 100.00 | 702 | 169.00 | 760 | 241.00 | 622 | 390.00 | 123 |
| 101.00 | 4148 | 170.00 | 278 | 242.00 | 1207 | 402.00 | 737 |
| 102.00 | 132 | 171.00 | 322 | 243.00 | 799 | 403.00 | 1057 |
| 103.00 | 1598 | 172.00 | 930 | 244.00 | 18248 | 404.00 | 234 |
| 104.00 | 3146 | 173.00 | 1106 | 245.00 | 2584 | 421.00 | 815 |
| 105.00 | 2381 | 174.00 | 1690 | 246.00 | 3459 | 422.00 | 991 |
| 107.00 | 31200 | 175.00 | 3546 | 247.00 | 704 | 423.00 | 6352 |
| 108.00 | 4498 | 176.00 | 958 | 249.00 | 675 | 424.00 | 1124 |
| 110.00 | 59920 | 177.00 | 1518 | 252.00 | 128 | 441.00 | 18640 |
| 111.00 | 9149 | 179.00 | 7315 | 253.00 | 187 | 442.00 | 115864 |
| 112.00 | 955 | 180.00 | 4996 | 255.00 | 97256 | 443.00 | 22792 |
| 113.00 | 280 | 181.00 | 2250 | 256.00 | 13476 | 444.00 | 1946 |
| 116.00 | 1216 | 182.00 | 296 | 257.00 | 1124 | | |

Data File: /chem/BNAMS3.i/625/03-23-00/23mar00.b/t0349.d

Date : 23-MAR-2000 11:07

Client ID:

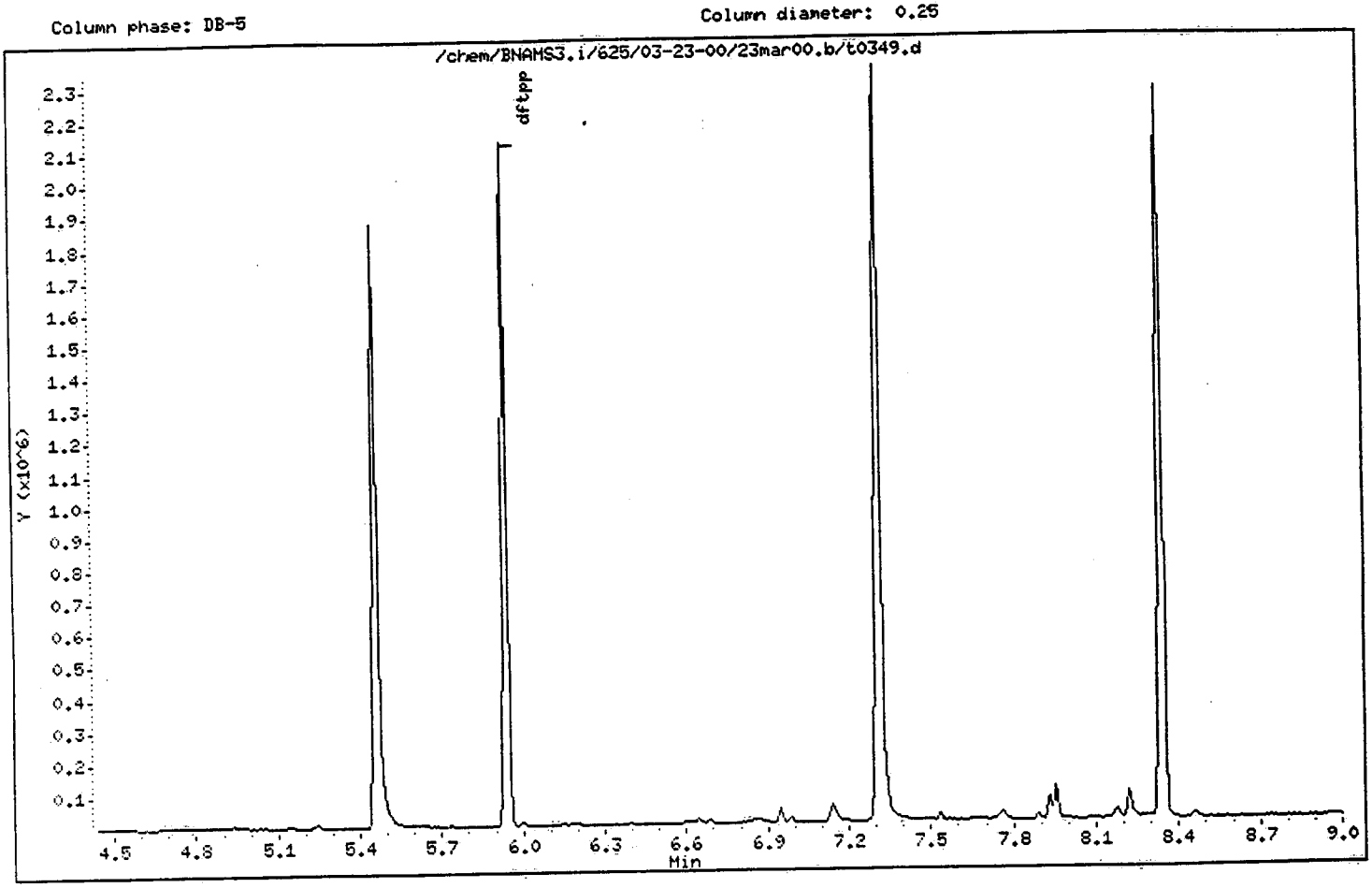
Sample Info: TDFT083

Instrument: BNAMS3.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



LAB SAMPLE NO.

WB080

# SEMIVOLATILE METHOD BLANK SUMMARY

Matrix: WATER

Level: LOW

Instrument ID: BNAMS3

Date Analyzed: 03/22/00

Time Analyzed: 1936

Lab File ID: T0330

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | TRIP_BLANK | 189888 | T0363 | 03/23/00 |
| 02 | FIELD_BLANK | 189889 | T0364 | 03/23/00 |
| 03 | MW-25 | 189890 | T0365 | 03/24/00 |
| 04 | | | | |
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| 30 | | | | |

COMMENTS:

Client ID: **WB080**
Site:

Lab Sample No: **WB080**
Lab Job No: Y301

Date Sampled: _____
Date Received: _____
Date Extracted: 03/20/00
Date Analyzed: 03/22/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0330.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| N-Nitrosodimethylamine | ND | 0.5 |
| bis(2-Chloroethyl)ether | ND | 1.1 |
| 1,3-Dichlorobenzene | ND | 0.6 |
| 1,4-Dichlorobenzene | ND | 0.6 |
| 1,2-Dichlorobenzene | ND | 0.6 |
| bis(2-chloroisopropyl)ether | ND | 1.1 |
| N-Nitroso-di-n-propylamine | ND | 0.8 |
| Hexachloroethane | ND | 0.7 |
| Nitrobenzene | ND | 0.8 |
| Isophorone | ND | 0.9 |
| bis(2-Chloroethoxy)methane | ND | 0.9 |
| 1,2,4-Trichlorobenzene | ND | 0.6 |
| Naphthalene | ND | 0.8 |
| 4-Chloroaniline | ND | 0.8 |
| Hexachlorobutadiene | ND | 0.6 |
| 2-Methylnaphthalene | ND | 0.6 |
| Hexachlorocyclopentadiene | ND | 0.9 |
| 2-Chloronaphthalene | ND | 0.8 |
| 2-Nitroaniline | ND | 0.7 |
| Dimethylphthalate | ND | 0.5 |
| Acenaphthylene | ND | 0.5 |
| 2,6-Dinitrotoluene | ND | 0.7 |
| 3-Nitroaniline | ND | 0.4 |
| Acenaphthene | ND | 0.6 |
| Dibenzofuran | ND | 0.4 |
| 2,4-Dinitrotoluene | ND | 0.6 |
| Diethylphthalate | ND | 0.4 |
| 4-Chlorophenyl-phenylether | ND | 0.5 |
| Fluorene | ND | 0.7 |
| 4-Nitroaniline | ND | 0.6 |
| N-Nitrosodiphenylamine | ND | 0.6 |
| 4-Bromophenyl-phenylether | ND | 1.2 |
| Hexachlorobenzene | ND | 0.6 |
| Phenanthrene | ND | 0.5 |

Client ID: **WB080**
Site:

Lab Sample No: **WB080**
Lab Job No: Y301

Date Sampled: _____
Date Received: _____
Date Extracted: 03/20/00
Date Analyzed: 03/22/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0330.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 625**

| Parameter | Analytical Result Units: ug/l | Method Detection Limit Units: ug/l |
|---|---|---|
| Anthracene | ND | 0.3 |
| Carbazole | ND | 0.6 |
| Di-n-butylphthalate | ND | 0.5 |
| Fluoranthene | ND | 0.5 |
| Pyrene | ND | 0.6 |
| Benzidine | ND | 13 |
| Butylbenzylphthalate | ND | 0.7 |
| 3,3'-Dichlorobenzidine | ND | 4.7 |
| Benzo(a)anthracene | ND | 0.4 |
| Chrysene | ND | 0.6 |
| bis(2-Ethylhexyl)phthalate | 2.6 | 2.0 |
| Di-n-octylphthalate | ND | 0.3 |
| Benzo(b)fluoranthene | ND | 0.4 |
| Benzo(k)fluoranthene | ND | 0.6 |
| Benzo(a)pyrene | ND | 0.2 |
| Indeno(1,2,3-cd)pyrene | ND | 0.5 |
| Dibenz(a,h)anthracene | ND | 0.3 |
| Benzo(g,h,i)perylene | ND | 0.4 |
| Pyridine | ND | 0.6 |
| Aniline | ND | 1.0 |
| Benzyl Alcohol | ND | 0.8 |
| 1,2-Diphenylhydrazine | ND | 0.5 |
| Diphenyl | ND | 0.7 |
| Acetophenone | ND | 1.0 |
| 1,4-Dioxane | ND | 0.6 |
| Benzaldehyde | ND | 1.8 |
| Caprolactum | ND | 0.2 |
| Atrazine | ND | 1.0 |

Client ID: **WB080**
Site:

Lab Sample No: **WB080**
Lab Job No: Y301

Date Sampled: _____
Date Received: _____
Date Extracted: 03/20/00
Date Analyzed: 03/22/00
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t0330.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**TENTATIVELY IDENTIFIED COMPOUNDS**
**METHOD 625**

| COMPOUND NAME | RT | EST. CONC. ug/l | Q |
|---|---|---|---|
| 1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
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| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0330.d
Report Date: 23-Mar-2000 10:18

STL Envirotech

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0330.d
Lab Smp Id: WB080 Client Smp ID: ALLBN
Inj Date : 22-MAR-2000 19:36
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : WB080;1000;2;1;;
Misc Info : WB080R1;ALLBN;;
Comment :
Method : /chem/BNAMS3.i/625/03-22-00/22mar00.b/BNA625b.m
Meth Date : 23-Mar-2000 08:32 lisa Quant Type: ISTD
Cal Date : 22-MAR-2000 17:07 Cal File: t0327.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allBNb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 2.00000 | Volume of final extract (mL) |
| Vo | 1000.00000 | Volume of sample extracted (mL) |

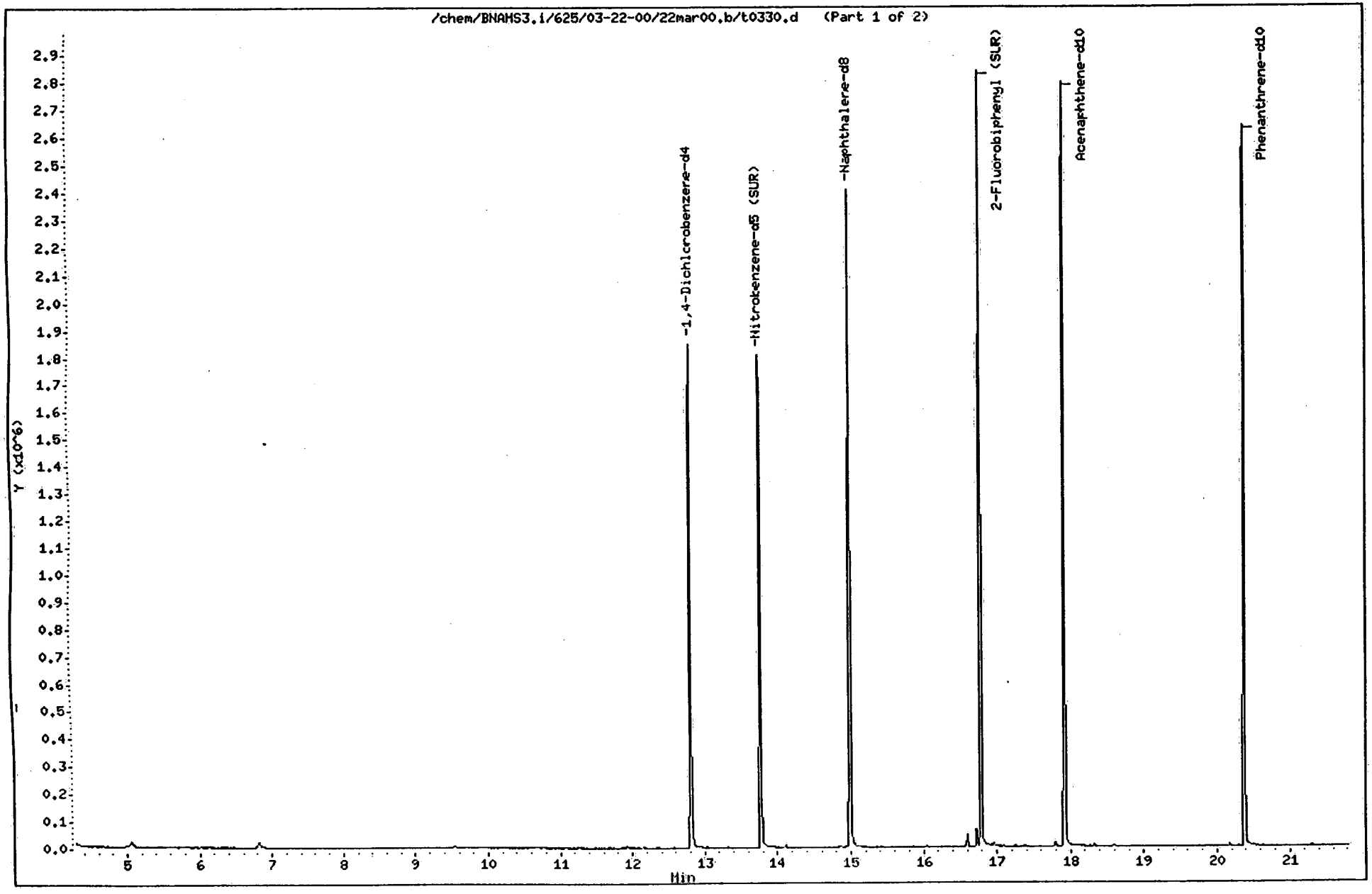
Cpnd Variable Local Compound Variable

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.810 | 12.812 | (1.000) | 436222 | 40.0000 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.776 | 13.775 | (0.918) | 879201 | 45.4314 | 91 |
| * 80 Naphthalene-d8 | 136 | 14.998 | 15.002 | (1.000) | 1513498 | 40.0000 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.792 | 16.790 | (0.937) | 1263941 | 44.3301 | 89 |
| * 82 Acenaphthene-d10 | 164 | 17.923 | 17.926 | (1.000) | 1006459 | 40.0000 | |
| * 83 Phenanthrene-d10 | 188 | 20.387 | 20.392 | (1.000) | 1618248 | 40.0000 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 23.001 | 22.994 | (0.929) | 1742186 | 44.9824 | 90 |
| 63 bis(2-Ethylhexyl)phthalate | 149 | 24.703 | 24.713 | (0.998) | 53816 | 1.32269 | 2.6 |
| * 81 Chrysene-d12 | 240 | 24.763 | 24.773 | (1.000) | 1512860 | 40.0000 | |
| * 84 Perylene-d12 | 264 | 28.063 | 28.074 | (1.000) | 1673172 | 40.0000 | |

Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0330.d
Date : 22-MAR-2000 19:36
Client ID: ALLBN
Sample Info: WB080;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i

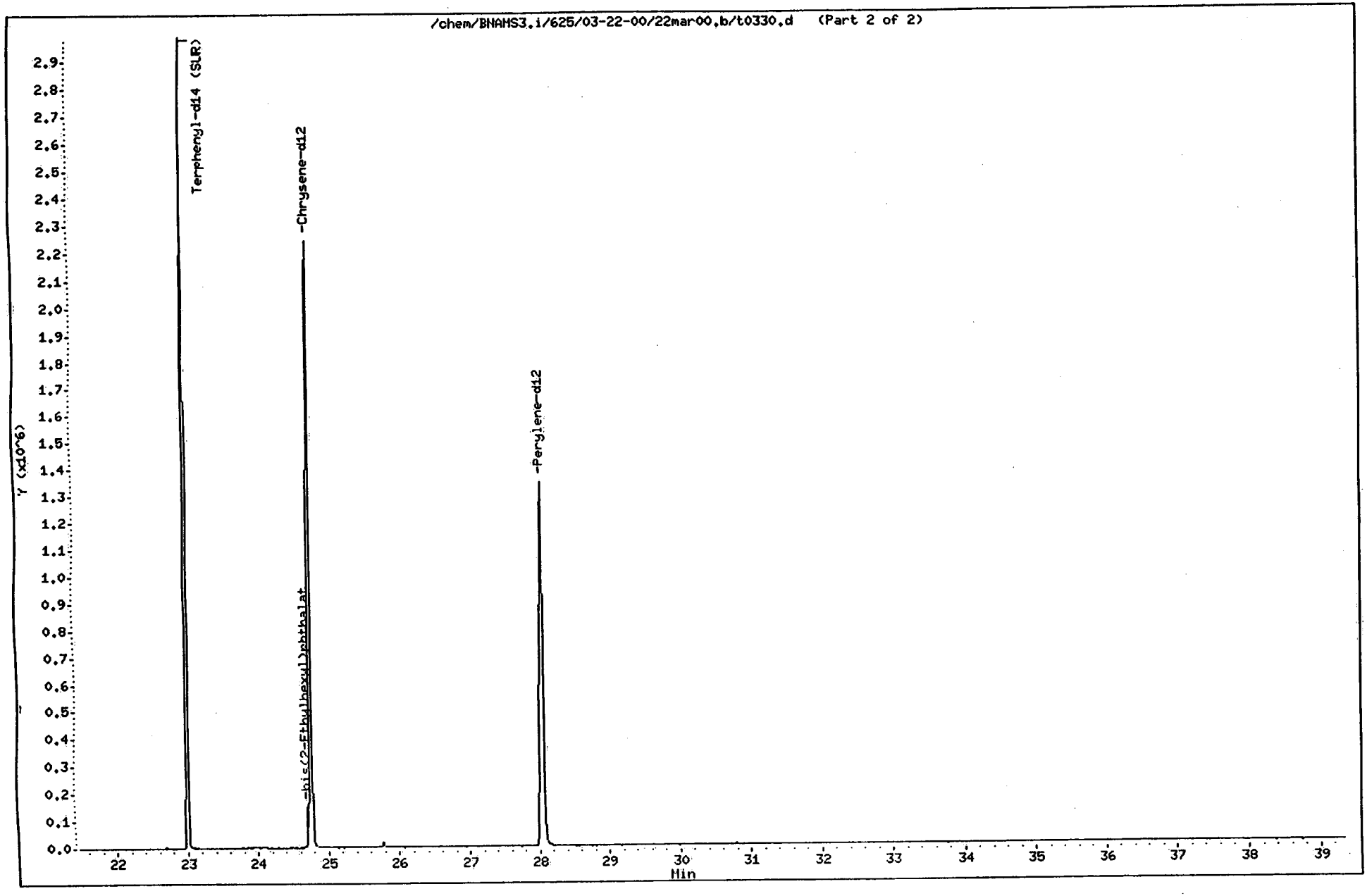
Operator: BNAMS 1
Column diameter: 0.53



Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0330.d
Date : 22-MAR-2000 19:36
Client ID: ALLBN
Sample Info: WB080;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1
Column diameter: 0.53



Data File: /chem/BNAMS3.i/625/03-22-00/22mar00.b/t0330.d

Date : 22-MAR-2000 19:36

Client ID: ALLBN

Instrument: BNAMS3.i

Sample Info: WB080;1000;2;1;;

Purge Volume: 1000.0

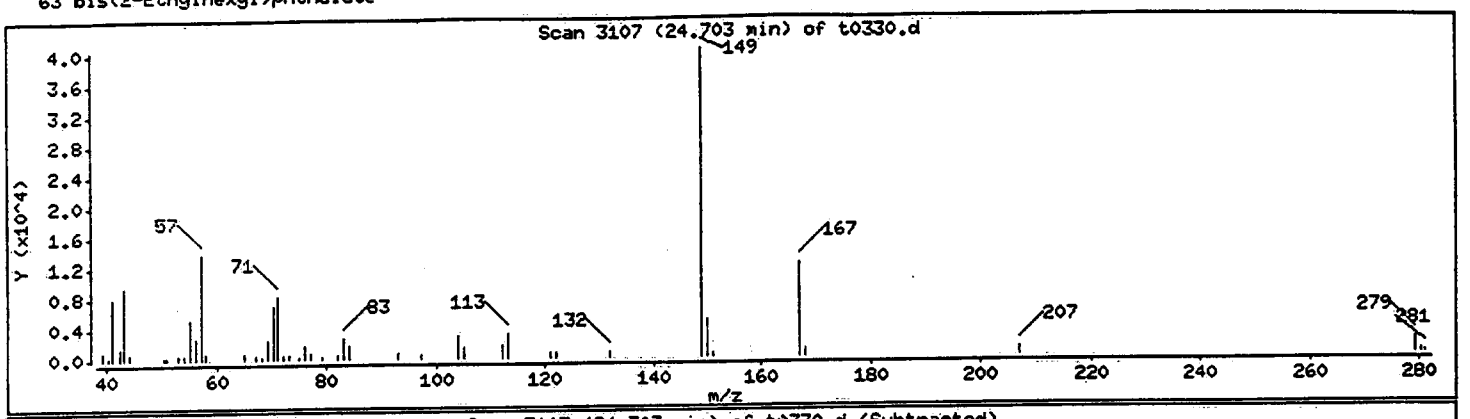
Operator: BNAMS 1

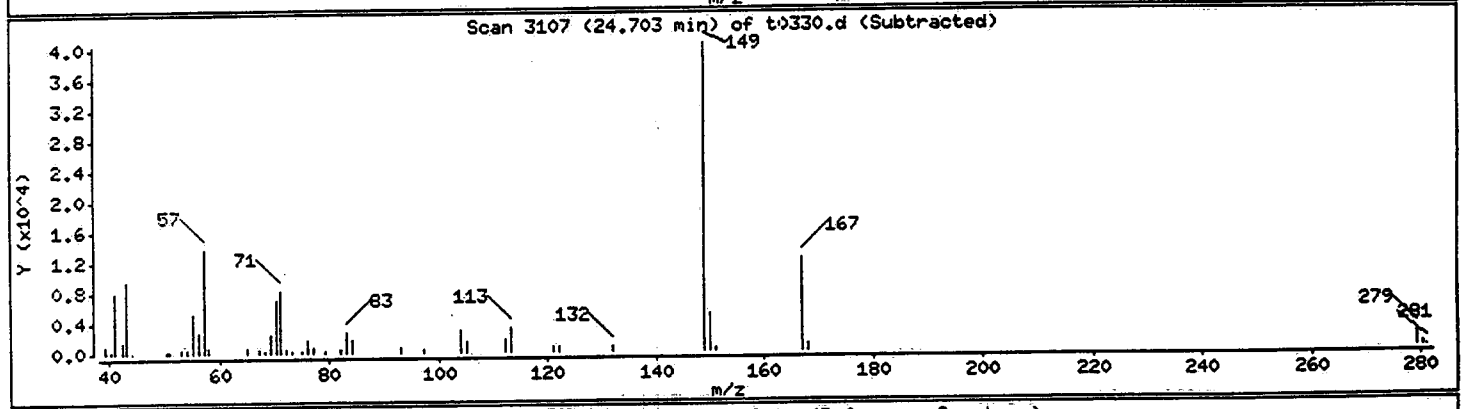
Column phase: DB-5

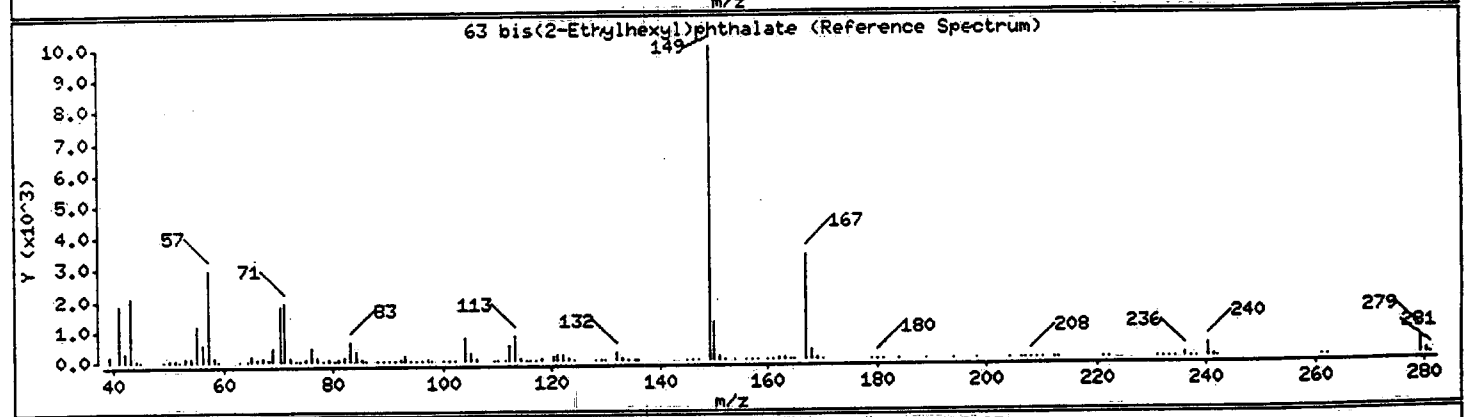
Column diameter: 0.53

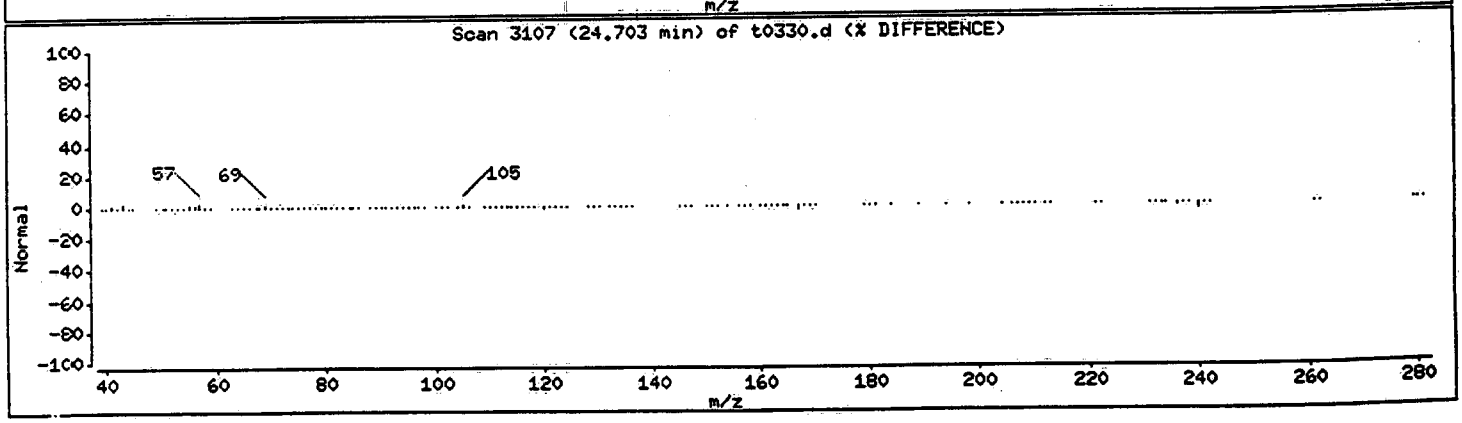
63 bis(2-Ethylhexyl)phthalate

Concentration: 2.6 ug/L



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/22/00 03/22/00

Calibration Time(s): 1402 1707

LAB FILE ID: RRF10: T0326 RRF20: T0327 RRF50: T0323
RRF80: T0325 RRF120: T0324

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Phenol | 2.548 | 2.493 | 1.939 | 1.701 | 1.503 |
| 2-Chlorophenol | 1.384 | 1.391 | 1.313 | 1.211 | 1.102 |
| 2-Methylphenol | 1.523 | 1.527 | 1.310 | 1.157 | 0.982 |
| 4-Methylphenol | 1.528 | 1.432 | 0.960 | 0.812 | 0.751 |
| 2-Nitrophenol | 0.253 | 0.264 | 0.251 | 0.225 | 0.191 |
| 2,4-Dimethylphenol | 0.368 | 0.377 | 0.337 | 0.298 | 0.262 |
| 2,4-Dichlorophenol | 0.378 | 0.385 | 0.354 | 0.303 | 0.251 |
| 4-Chloro-3-methylphenol | 0.459 | 0.453 | 0.438 | 0.359 | 0.344 |
| 2,4,6-Trichlorophenol | 0.376 | 0.401 | 0.351 | 0.308 | 0.278 |
| 2,4,5-Trichlorophenol | 0.401 | 0.415 | 0.378 | 0.332 | 0.293 |
| 2,4-Dinitrophenol | 0.146 | 0.206 | 0.217 | 0.207 | 0.205 |
| 4-Nitrophenol | 0.306 | 0.331 | 0.334 | 0.312 | 0.298 |
| 4,6-Dinitro-2-methylphenol | 0.148 | 0.170 | 0.153 | 0.140 | 0.124 |
| Pentachlorophenol | 0.146 | 0.161 | 0.146 | 0.140 | 0.133 |
| Benzoic Acid | 0.188 | 0.231 | 0.241 | 0.230 | 0.201 |
| N-Nitrosodimethylamine | 0.960 | 1.047 | 1.119 | 1.094 | 1.028 |
| bis(2-Chloroethyl)ether | 1.981 | 1.960 | 1.790 | 1.670 | 1.486 |
| 1,3-Dichlorobenzene | 1.566 | 1.582 | 1.425 | 1.260 | 1.086 |
| 1,4-Dichlorobenzene | 1.498 | 1.487 | 1.350 | 1.172 | 1.010 |
| 1,2-Dichlorobenzene | 1.463 | 1.454 | 1.305 | 1.057 | 0.840 |
| bis(2-chloroisopropyl)ether | 3.176 | 3.094 | 2.449 | 2.037 | 1.604 |
| N-Nitroso-di-n-propylamine | 1.301 | 1.168 | 0.864 | 0.786 | 0.771 |
| Hexachloroethane | 0.637 | 0.650 | 0.623 | 0.552 | 0.485 |
| Nitrobenzene | 0.691 | 0.640 | 0.542 | 0.475 | 0.434 |
| Isophorone | 1.116 | 1.123 | 1.058 | 1.001 | 0.993 |
| bis(2-Chloroethoxy)methane | 0.689 | 0.699 | 0.607 | 0.515 | 0.464 |
| 1,2,4-Trichlorobenzene | 0.371 | 0.371 | 0.327 | 0.278 | 0.242 |
| Naphthalene | 1.146 | 1.128 | 0.923 | 0.770 | 0.663 |
| 4-Chloroaniline | 0.450 | 0.476 | 0.450 | 0.386 | 0.339 |
| Hexachlorobutadiene | 0.176 | 0.180 | 0.169 | 0.145 | 0.133 |
| 2-Methylnaphthalene | 0.812 | 0.792 | 0.633 | 0.526 | 0.487 |
| Hexachlorocyclopentadiene | 0.136 | 0.176 | 0.274 | 0.233 | 0.228 |
| 2-Chloronaphthalene | 1.256 | 1.248 | 1.044 | 0.863 | 0.767 |
| 2-Nitroaniline | 0.489 | 0.498 | 0.441 | 0.411 | 0.391 |
| Dimethylphthalate | 1.638 | 1.711 | 1.492 | 1.308 | 1.170 |
| Acenaphthylene | 2.105 | 2.104 | 1.679 | 1.423 | 1.262 |
| 2,6-Dinitrotoluene | 0.399 | 0.417 | 0.386 | 0.342 | 0.307 |
| 3-Nitroaniline | 0.375 | 0.434 | 0.424 | 0.384 | 0.350 |
| Acenaphthene | 1.210 | 1.233 | 0.992 | 0.836 | 0.764 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/22/00 03/22/00

Calibration Time(s): 1402 1707

LAB FILE ID: RRF10: T0326 RRF20: T0327 RRF50: T0323
RRF80: T0325 RRF120: T0324

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Dibenzofuran | 1.822 | 1.793 | 1.427 | 1.091 | 0.960 |
| 2,4-Dinitrotoluene | 0.519 | 0.554 | 0.510 | 0.423 | 0.364 |
| Diethylphthalate | 1.780 | 1.784 | 1.514 | 1.258 | 1.151 |
| 4-Chlorophenyl-phenylether | 0.591 | 0.556 | 0.406 | 0.357 | 0.341 |
| Fluorene | 1.532 | 1.460 | 1.046 | 0.891 | 0.850 |
| 4-Nitroaniline | 0.423 | 0.405 | 0.383 | 0.326 | 0.308 |
| N-Nitrosodiphenylamine | 0.649 | 0.643 | 0.516 | 0.440 | 0.383 |
| 4-Bromophenyl-phenylether | 0.246 | 0.249 | 0.200 | 0.171 | 0.154 |
| Hexachlorobenzene | 0.277 | 0.278 | 0.223 | 0.193 | 0.175 |
| Phenanthrene | 1.206 | 1.169 | 0.951 | 0.806 | 0.747 |
| Anthracene | 1.245 | 1.200 | 0.952 | 0.814 | 0.732 |
| Carbazole | 1.314 | 1.173 | 0.948 | 0.788 | 0.684 |
| Di-n-butylphthalate | 1.939 | 1.900 | 1.465 | 1.201 | 1.079 |
| Fluoranthene | 1.294 | 1.288 | 1.003 | 0.851 | 0.774 |
| Pyrene | 1.491 | 1.453 | 1.245 | 1.141 | 1.088 |
| Benzidine | 0.219 | 0.346 | 0.335 | 0.181 | 0.100 |
| Butylbenzylphthalate | 1.023 | 1.055 | 0.923 | 0.826 | 0.762 |
| 3,3'-Dichlorobenzidine | 0.496 | 0.474 | 0.387 | 0.336 | 0.251 |
| Benzo(a)anthracene | 1.202 | 1.197 | 1.050 | 0.958 | 0.917 |
| Chrysene | 1.131 | 1.157 | 1.036 | 0.977 | 0.923 |
| bis(2-Ethylhexyl)phthalate | 1.348 | 1.288 | 0.972 | 0.903 | 0.867 |
| Di-n-octylphthalate | 2.214 | 2.192 | 1.851 | 1.629 | 1.499 |
| Benzo(b)fluoranthene | 1.275 | 1.298 | 1.194 | 1.233 | 1.331 |
| Benzo(k)fluoranthene | 1.289 | 1.237 | 1.138 | 1.004 | 0.824 |
| Benzo(a)pyrene | 1.202 | 1.231 | 1.139 | 1.099 | 1.052 |
| Indeno(1,2,3-cd)pyrene | 1.084 | 1.141 | 1.170 | 1.195 | 1.198 |
| Dibenz(a,h)anthracene | 1.026 | 1.085 | 1.091 | 1.014 | 1.006 |
| Benzo(g,h,i)perylene | 1.009 | 1.128 | 1.184 | 1.123 | 1.124 |
| Pyridine | 1.469 | 1.619 | 1.711 | 1.682 | 1.620 |
| Aniline | 2.667 | 2.601 | 2.106 | 1.727 | 1.530 |
| Benzyl Alcohol | 1.084 | 1.149 | 1.078 | 0.961 | 0.772 |
| 1,2-Diphenylhydrazine | 1.171 | 1.129 | 0.907 | 0.746 | 0.624 |
| Diphenyl | 1.646 | 1.643 | 1.291 | 1.052 | 0.976 |
| Diphenyl Ether | 0.882 | 0.888 | 0.734 | 0.594 | 0.540 |
| Acetophenone | 2.451 | 2.312 | 1.860 | 1.699 | 1.626 |
| N,N-Dimethylaniline | 2.063 | 1.880 | 1.440 | 1.207 | 1.025 |
| 1,4-Dioxane | 0.612 | 0.622 | 0.692 | 0.667 | 0.656 |
| 2,3,7,8-TCDD (screen) | | | 0.445 | | |
| Benzaldehyde | 1.358 | 1.271 | 0.731 | 0.708 | 0.490 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/22/00 03/22/00

Calibration Time(s): 1402 1707

LAB FILE ID: RRF10: T0326 RRF20: T0327 RRF50: T0323
RRF80: T0325 RRF120: T0324

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Caprolactum | 0.158 | 0.210 | 0.204 | 0.182 | 0.162 |
| Atrazine | 0.224 | 0.196 | 0.186 | 0.151 | 0.138 |
| 2-Fluorophenol (SUR) | 1.380 | 1.475 | 1.570 | 1.479 | 1.402 |
| Phenol-d5 (SUR) | 2.308 | 2.380 | 2.097 | 1.790 | 1.505 |
| 2,4,6-Tribromophenol (SUR) | 0.204 | 0.216 | 0.197 | 0.172 | 0.156 |
| Nitrobenzene-d5 (SUR) | 0.536 | 0.552 | 0.538 | 0.486 | 0.446 |
| 2-Fluorobiphenyl (SUR) | 1.418 | 1.389 | 1.116 | 0.921 | 0.820 |
| Terphenyl-d14 (SUR) | 1.202 | 1.146 | 0.993 | 0.924 | 0.856 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/22/00 03/22/00

Calibration Time(s): 1402 1707

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Phenol | AVRG | 2.03677373 | 23.0* |
| 2-Chlorophenol | AVRG | 1.28045849 | 9.6* |
| 2-Methylphenol | AVRG | 1.29969876 | 18.1* |
| 4-Methylphenol | AVRG | 1.09652478 | 32.8* |
| 2-Nitrophenol | AVRG | 0.23664030 | 12.4* |
| 2,4-Dimethylphenol | AVRG | 0.32847965 | 14.7* |
| 2,4-Dichlorophenol | AVRG | 0.33417977 | 16.9* |
| 4-Chloro-3-methylphenol | AVRG | 0.41062667 | 13.4* |
| 2,4,6-Trichlorophenol | AVRG | 0.34296698 | 14.6* |
| 2,4,5-Trichlorophenol | AVRG | 0.36390041 | 13.9* |
| 2,4-Dinitrophenol | AVRG | 0.19619135 | 14.6** |
| 4-Nitrophenol | AVRG | 0.31625749 | 5.0** |
| 4,6-Dinitro-2-methylphenol | AVRG | 0.14685447 | 11.3* |
| Pentachlorophenol | AVRG | 0.14509749 | 7.0* |
| Benzoic Acid | AVRG | 0.21832213 | 10.3* |
| N-Nitrosodimethylamine | AVRG | 1.04975616 | 5.9** |
| bis(2-Chloroethyl)ether | AVRG | 1.77762600 | 11.6* |
| 1,3-Dichlorobenzene | AVRG | 1.38373615 | 15.2* |
| 1,4-Dichlorobenzene | AVRG | 1.30353064 | 16.1* |
| 1,2-Dichlorobenzene | AVRG | 1.22387374 | 22.1* |
| bis(2-chloroisopropyl)ether | AVRG | 2.47194689 | 27.3* |
| N-Nitroso-di-n-propylamine | AVRG | 0.97813831 | 24.7** |
| Hexachloroethane | AVRG | 0.58920849 | 11.8* |
| Nitrobenzene | AVRG | 0.55649580 | 19.5* |
| Isophorone | AVRG | 1.05849344 | 5.8* |
| bis(2-Chloroethoxy)methane | AVRG | 0.59483431 | 17.5* |
| 1,2,4-Trichlorobenzene | AVRG | 0.31799320 | 18.0* |
| Naphthalene | AVRG | 0.92622266 | 23.1* |
| 4-Chloroaniline | AVRG | 0.42005814 | 13.4* |
| Hexachlorobutadiene | AVRG | 0.16063692 | 12.7* |
| 2-Methylnaphthalene | AVRG | 0.64984668 | 22.9* |
| Hexachlorocyclopentadiene | AVRG | 0.20962349 | 25.5** |
| 2-Chloronaphthalene | AVRG | 1.03571523 | 21.3* |
| 2-Nitroaniline | AVRG | 0.44618744 | 10.5* |
| Dimethylphthalate | AVRG | 1.46373920 | 15.4* |
| Acenaphthylene | AVRG | 1.71470393 | 22.5* |
| 2,6-Dinitrotoluene | AVRG | 0.37038604 | 12.2* |
| 3-Nitroaniline | AVRG | 0.39368145 | 8.9* |
| Acenaphthene | AVRG | 1.00725533 | 21.1* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/22/00 03/22/00

Calibration Time(s): 1402 1707

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Dibenzofuran | AVRG | 1.41873527 | 27.8* |
| 2,4-Dinitrotoluene | AVRG | 0.47394430 | 16.5* |
| Diethylphthalate | AVRG | 1.49762240 | 19.5* |
| 4-Chlorophenyl-phenylether | AVRG | 0.45006968 | 25.7* |
| Fluorene | AVRG | 1.15589552 | 27.7* |
| 4-Nitroaniline | AVRG | 0.36898665 | 13.6* |
| N-Nitrosodiphenylamine | AVRG | 0.52623580 | 22.6* |
| 4-Bromophenyl-phenylether | AVRG | 0.20403596 | 21.0* |
| Hexachlorobenzene | AVRG | 0.22916695 | 20.7* |
| Phenanthrene | AVRG | 0.97579705 | 21.2* |
| Anthracene | AVRG | 0.98846568 | 23.1* |
| Carbazole | AVRG | 0.98151366 | 26.7* |
| Di-n-butylphthalate | AVRG | 1.51705919 | 25.9* |
| Fluoranthene | AVRG | 1.04213645 | 23.2* |
| Pyrene | AVRG | 1.28359809 | 14.2* |
| Benzidine | AVRG | 0.23633554 | 44.1* |
| Butylbenzylphthalate | AVRG | 0.91761943 | 13.6* |
| 3,3'-Dichlorobenzidine | AVRG | 0.38871547 | 25.8* |
| Benzo(a)anthracene | AVRG | 1.06472726 | 12.4* |
| Chrysene | AVRG | 1.04483555 | 9.5* |
| bis(2-Ethylhexyl)phthalate | AVRG | 1.07576154 | 21.0* |
| Di-n-octylphthalate | AVRG | 1.87698784 | 17.2* |
| Benzo(b)fluoranthene | AVRG | 1.26637630 | 4.3* |
| Benzo(k)fluoranthene | AVRG | 1.09830244 | 17.1* |
| Benzo(a)pyrene | AVRG | 1.14466122 | 6.4* |
| Indeno(1,2,3-cd)pyrene | AVRG | 1.15780941 | 4.0* |
| Dibenz(a,h)anthracene | AVRG | 1.04437660 | 3.9* |
| Benzo(g,h,i)perylene | AVRG | 1.11380855 | 5.8* |
| Pyridine | AVRG | 1.62015205 | 5.8* |
| Aniline | AVRG | 2.12627092 | 23.9* |
| Benzyl Alcohol | AVRG | 1.00866715 | 14.7* |
| 1,2-Diphenylhydrazine | AVRG | 0.91520685 | 25.9* |
| Diphenyl | AVRG | 1.32140888 | 24.0** |
| Diphenyl Ether | AVRG | 0.72759514 | 22.0** |
| Acetophenone | AVRG | 1.98957780 | 18.6** |
| N,N-Dimethylaniline | AVRG | 1.52317570 | 28.9** |
| 1,4-Dioxane | AVRG | 0.64980605 | 5.1** |
| 2,3,7,8-TCDD (screen) | AVRG | 0.44546974 | 0.0* |
| Benzaldehyde | AVRG | 0.91188329 | 41.8* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/22/00 03/22/00

Calibration Time(s): 1402 1707

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Caprolactum | AVRG | 0.18319844 | 13.0* |
| Atrazine | AVRG | 0.17893056 | 19.2* |
| 2-Fluorophenol (SUR) | AVRG | 1.46099792 | 5.1* |
| Phenol-d5 (SUR) | AVRG | 2.01631756 | 18.2* |
| 2,4,6-Tribromophenol (SUR) | AVRG | 0.18916274 | 13.0* |
| Nitrobenzene-d5 (SUR) | AVRG | 0.51145802 | 8.7* |
| 2-Fluorobiphenyl (SUR) | AVRG | 1.13316094 | 23.8* |
| Terphenyl-d14 (SUR) | AVRG | 1.02403027 | 14.3* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/23/00 03/23/00

Calibration Time(s): 1133 1439

LAB FILE ID: RRF10: T0351 RRF20: T0354 RRF50: T0350
RRF80: T0353 RRF120: T0352

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Phenol | 2.548 | 2.436 | 1.936 | 1.576 | 1.448 |
| 2-Chlorophenol | 1.417 | 1.428 | 1.294 | 1.153 | 1.055 |
| 2-Methylphenol | 1.517 | 1.120 | 1.260 | 0.842 | 0.937 |
| 4-Methylphenol | 1.451 | 1.361 | 0.909 | 0.768 | 0.751 |
| 2-Nitrophenol | 0.274 | 0.275 | 0.250 | 0.223 | 0.192 |
| 2,4-Dimethylphenol | 0.398 | 0.389 | 0.330 | 0.289 | 0.258 |
| 2,4-Dichlorophenol | 0.395 | 0.394 | 0.350 | 0.287 | 0.250 |
| 4-Chloro-3-methylphenol | 0.479 | 0.464 | 0.414 | 0.368 | 0.331 |
| 2,4,6-Trichlorophenol | 0.396 | 0.396 | 0.352 | 0.308 | 0.276 |
| 2,4,5-Trichlorophenol | 0.417 | 0.410 | 0.372 | 0.328 | 0.292 |
| 2,4-Dinitrophenol | 0.165 | 0.206 | 0.211 | 0.220 | 0.205 |
| 4-Nitrophenol | 0.300 | 0.322 | 0.318 | 0.310 | 0.301 |
| 4,6-Dinitro-2-methylphenol | 0.170 | 0.166 | 0.152 | 0.137 | 0.122 |
| Pentachlorophenol | 0.163 | 0.160 | 0.149 | 0.143 | 0.133 |
| Benzoic Acid | 0.162 | 0.215 | 0.222 | 0.244 | 0.197 |
| N-Nitrosodimethylamine | 1.055 | 1.143 | 1.197 | 1.115 | 1.092 |
| bis(2-Chloroethyl)ether | 1.973 | 1.965 | 1.799 | 1.594 | 1.445 |
| 1,3-Dichlorobenzene | 1.629 | 1.632 | 1.418 | 1.201 | 1.091 |
| 1,4-Dichlorobenzene | 1.548 | 1.538 | 1.328 | 1.104 | 0.998 |
| 1,2-Dichlorobenzene | 1.527 | 1.508 | 1.283 | 0.945 | 0.838 |
| bis(2-chloroisopropyl)ether | 3.081 | 2.940 | 2.416 | 1.796 | 1.553 |
| N-Nitroso-di-n-propylamine | 1.244 | 1.120 | 0.857 | 0.772 | 0.775 |
| Hexachloroethane | 0.652 | 0.656 | 0.617 | 0.518 | 0.473 |
| Nitrobenzene | 0.736 | 0.681 | 0.555 | 0.488 | 0.458 |
| Isophorone | 1.174 | 1.130 | 1.046 | 1.041 | 0.994 |
| bis(2-Chloroethoxy)methane | 0.735 | 0.700 | 0.589 | 0.503 | 0.455 |
| 1,2,4-Trichlorobenzene | 0.394 | 0.379 | 0.332 | 0.276 | 0.248 |
| Naphthalene | 1.198 | 1.132 | 0.920 | 0.763 | 0.687 |
| 4-Chloroaniline | 0.493 | 0.494 | 0.452 | 0.389 | 0.344 |
| Hexachlorobutadiene | 0.191 | 0.191 | 0.170 | 0.152 | 0.137 |
| 2-Methylnaphthalene | 0.840 | 0.814 | 0.639 | 0.541 | 0.499 |
| Hexachlorocyclopentadiene | 0.248 | 0.265 | 0.313 | 0.283 | 0.264 |
| 2-Chloronaphthalene | 1.343 | 1.260 | 1.028 | 0.900 | 0.769 |
| 2-Nitroaniline | 0.500 | 0.501 | 0.462 | 0.412 | 0.384 |
| Dimethylphthalate | 1.779 | 1.718 | 1.499 | 1.346 | 1.183 |
| Acenaphthylene | 2.268 | 2.093 | 1.709 | 1.465 | 1.298 |
| 2,6-Dinitrotoluene | 0.417 | 0.422 | 0.382 | 0.347 | 0.302 |
| 3-Nitroaniline | 0.422 | 0.445 | 0.422 | 0.393 | 0.351 |
| Acenaphthene | 1.306 | 1.208 | 0.984 | 0.866 | 0.785 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/23/00 03/23/00

Calibration Time(s): 1133 1439

LAB FILE ID: RRF10: T0351 RRF20: T0354 RRF50: T0350
RRF80: T0353 RRF120: T0352

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Dibenzofuran | 1.879 | 1.777 | 1.422 | 1.101 | 0.982 |
| 2,4-Dinitrotoluene | 0.553 | 0.549 | 0.493 | 0.412 | 0.365 |
| Diethylphthalate | 1.866 | 1.762 | 1.493 | 1.311 | 1.158 |
| 4-Chlorophenyl-phenylether | 0.610 | 0.553 | 0.416 | 0.387 | 0.345 |
| Fluorene | 1.588 | 1.408 | 1.039 | 0.932 | 0.854 |
| 4-Nitroaniline | 0.429 | 0.436 | 0.361 | 0.334 | 0.288 |
| N-Nitrosodiphenylamine | 0.696 | 0.622 | 0.525 | 0.436 | 0.384 |
| 4-Bromophenyl-phenylether | 0.268 | 0.252 | 0.204 | 0.180 | 0.158 |
| Hexachlorobenzene | 0.300 | 0.281 | 0.221 | 0.198 | 0.177 |
| Phenanthrene | 1.270 | 1.171 | 0.939 | 0.824 | 0.744 |
| Anthracene | 1.328 | 1.201 | 0.961 | 0.822 | 0.738 |
| Carbazole | 1.398 | 1.263 | 0.940 | 0.802 | 0.694 |
| Di-n-butylphthalate | 2.082 | 1.903 | 1.457 | 1.256 | 1.118 |
| Fluoranthene | 1.422 | 1.294 | 0.995 | 0.869 | 0.792 |
| Pyrene | 1.519 | 1.480 | 1.282 | 1.156 | 1.092 |
| Benzidine | 0.436 | 0.499 | 0.320 | 0.285 | 0.179 |
| Butylbenzylphthalate | 1.068 | 1.087 | 0.934 | 0.847 | 0.783 |
| 3,3'-Dichlorobenzidine | 0.546 | 0.491 | 0.398 | 0.330 | 0.271 |
| Benzo(a)anthracene | 1.261 | 1.214 | 1.053 | 0.982 | 0.931 |
| Chrysene | 1.183 | 1.182 | 1.032 | 0.944 | 0.935 |
| bis(2-Ethylhexyl)phthalate | 1.420 | 1.332 | 1.005 | 0.910 | 0.857 |
| Di-n-octylphthalate | 2.235 | 2.239 | 1.848 | 1.620 | 1.506 |
| Benzo(b)fluoranthene | 1.252 | 1.285 | 1.222 | 1.227 | 1.264 |
| Benzo(k)fluoranthene | 1.258 | 1.241 | 1.112 | 0.944 | 0.825 |
| Benzo(a)pyrene | 1.195 | 1.239 | 1.124 | 1.098 | 1.026 |
| Indeno(1,2,3-cd)pyrene | 1.140 | 1.178 | 1.175 | 1.245 | 1.196 |
| Dibenz(a,h)anthracene | 1.113 | 1.138 | 1.063 | 1.001 | 0.963 |
| Benzo(g,h,i)perylene | 1.072 | 1.091 | 1.179 | 1.120 | 1.140 |
| Pyridine | 1.708 | 1.731 | 1.679 | 1.722 | 1.666 |
| Aniline | 2.765 | 2.678 | 2.146 | 1.686 | 1.574 |
| Benzyl Alcohol | 1.093 | 1.120 | 1.033 | 0.842 | 0.745 |
| 1,2-Diphenylhydrazine | 1.256 | 1.146 | 0.921 | 0.755 | 0.649 |
| Diphenyl | 1.776 | 1.617 | 1.324 | 1.104 | 1.002 |
| Diphenyl Ether | 0.935 | 0.877 | 0.735 | 0.602 | 0.544 |
| Acetophenone | 2.348 | 2.175 | 1.788 | 1.627 | 1.596 |
| N,N-Dimethylaniline | 2.067 | 1.888 | 1.411 | 1.142 | 1.025 |
| 1,4-Dioxane | 0.696 | 0.713 | 0.764 | 0.740 | 0.703 |
| 2,3,7,8-TCDD (screen) | | | 0.460 | | |
| Benzaldehyde | 1.112 | 1.004 | 0.269 | 0.607 | 0.474 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/23/00 03/23/00

Calibration Time(s): 1133 1439

LAB FILE ID: RRF10: T0351 RRF20: T0354 RRF50: T0350
RRF80: T0353 RRF120: T0352

| COMPOUND | RRF10 | RRF20 | RRF50 | RRF80 | RRF120 |
|---|---|---|---|---|---|
| Caprolactum | 0.205 | 0.211 | 0.193 | 0.181 | 0.162 |
| Atrazine | 0.248 | 0.228 | 0.194 | 0.171 | 0.149 |
| 2-Fluorophenol (SUR) | 1.443 | 1.536 | 1.548 | 1.438 | 1.343 |
| Phenol-d5 (SUR) | 2.400 | 2.448 | 2.134 | 1.668 | 1.484 |
| 2,4,6-Tribromophenol (SUR) | 0.218 | 0.214 | 0.191 | 0.179 | 0.157 |
| Nitrobenzene-d5 (SUR) | 0.586 | 0.577 | 0.541 | 0.497 | 0.447 |
| 2-Fluorobiphenyl (SUR) | 1.505 | 1.389 | 1.102 | 0.921 | 0.826 |
| Terphenyl-d14 (SUR) | 1.232 | 1.172 | 1.006 | 0.933 | 0.854 |

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/23/00 03/23/00

Calibration Time(s): 1133 1439

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Phenol | AVRG | 1.98881488 | 24.8* |
| 2-Chlorophenol | AVRG | 1.26943279 | 12.9* |
| 2-Methylphenol | AVRG | 1.13524337 | 23.6* |
| 4-Methylphenol | AVRG | 1.04794183 | 31.9* |
| 2-Nitrophenol | AVRG | 0.24263963 | 14.5* |
| 2,4-Dimethylphenol | AVRG | 0.33281336 | 18.2* |
| 2,4-Dichlorophenol | AVRG | 0.33505508 | 19.4* |
| 4-Chloro-3-methylphenol | AVRG | 0.41139959 | 15.2* |
| 2,4,6-Trichlorophenol | AVRG | 0.34554520 | 15.4* |
| 2,4,5-Trichlorophenol | AVRG | 0.36378541 | 14.7* |
| 2,4-Dinitrophenol | AVRG | 0.20135091 | 10.5** |
| 4-Nitrophenol | AVRG | 0.31032178 | 3.1** |
| 4,6-Dinitro-2-methylphenol | AVRG | 0.14937394 | 13.3* |
| Pentachlorophenol | AVRG | 0.14962130 | 8.1* |
| Benzoic Acid | AVRG | 0.20785469 | 14.8* |
| N-Nitrosodimethylamine | AVRG | 1.12053793 | 4.8** |
| bis(2-Chloroethyl)ether | AVRG | 1.75505067 | 13.2* |
| 1,3-Dichlorobenzene | AVRG | 1.39438740 | 17.6* |
| 1,4-Dichlorobenzene | AVRG | 1.30350147 | 19.1* |
| 1,2-Dichlorobenzene | AVRG | 1.22037631 | 26.0* |
| bis(2-chloroisopropyl)ether | AVRG | 2.35711951 | 28.7* |
| N-Nitroso-di-n-propylamine | AVRG | 0.95349281 | 22.7** |
| Hexachloroethane | AVRG | 0.58330032 | 14.2* |
| Nitrobenzene | AVRG | 0.58348239 | 20.7* |
| Isophorone | AVRG | 1.07690075 | 6.8* |
| bis(2-Chloroethoxy)methane | AVRG | 0.59652197 | 20.3* |
| 1,2,4-Trichlorobenzene | AVRG | 0.32584729 | 19.4* |
| Naphthalene | AVRG | 0.93997130 | 23.7* |
| 4-Chloroaniline | AVRG | 0.43465520 | 15.2* |
| Hexachlorobutadiene | AVRG | 0.16836100 | 14.1* |
| 2-Methylnaphthalene | AVRG | 0.66651226 | 23.3* |
| Hexachlorocyclopentadiene | AVRG | 0.27467004 | 8.9** |
| 2-Chloronaphthalene | AVRG | 1.06002765 | 22.7* |
| 2-Nitroaniline | AVRG | 0.45197263 | 11.6* |
| Dimethylphthalate | AVRG | 1.50514601 | 16.6* |
| Acenaphthylene | AVRG | 1.76673936 | 23.2* |
| 2,6-Dinitrotoluene | AVRG | 0.37387789 | 13.5* |
| 3-Nitroaniline | AVRG | 0.40653876 | 8.9* |
| Acenaphthene | AVRG | 1.02976470 | 21.5* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/23/00 03/23/00

Calibration Time(s): 1133 1439

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Dibenzofuran | AVRG | 1.43220738 | 27.7* |
| 2,4-Dinitrotoluene | AVRG | 0.47452034 | 17.7* |
| Diethylphthalate | AVRG | 1.51797798 | 19.6* |
| 4-Chlorophenyl-phenylether | AVRG | 0.46226991 | 24.6* |
| Fluorene | AVRG | 1.16426971 | 27.3* |
| 4-Nitroaniline | AVRG | 0.36969967 | 17.0* |
| N-Nitrosodiphenylamine | AVRG | 0.53287880 | 24.1* |
| 4-Bromophenyl-phenylether | AVRG | 0.21240594 | 21.9* |
| Hexachlorobenzene | AVRG | 0.23538303 | 22.5* |
| Phenanthrene | AVRG | 0.98965467 | 22.7* |
| Anthracene | AVRG | 1.01000913 | 24.7* |
| Carbazole | AVRG | 1.01934040 | 29.5* |
| Di-n-butylphthalate | AVRG | 1.56331590 | 26.5* |
| Fluoranthene | AVRG | 1.07451337 | 25.4* |
| Pyrene | AVRG | 1.30589778 | 14.6* |
| Benzidine | AVRG | 0.34380717 | 36.7* |
| Butylbenzylphthalate | AVRG | 0.94371331 | 14.1* |
| 3,3'-Dichlorobenzidine | AVRG | 0.40720931 | 27.7* |
| Benzo(a)anthracene | AVRG | 1.08826661 | 13.2* |
| Chrysene | AVRG | 1.05514229 | 11.6* |
| bis(2-Ethylhexyl)phthalate | AVRG | 1.10495725 | 23.1* |
| Di-n-octylphthalate | AVRG | 1.88974309 | 18.0* |
| Benzo(b)fluoranthene | AVRG | 1.25007513 | 2.1* |
| Benzo(k)fluoranthene | AVRG | 1.07609294 | 17.5* |
| Benzo(a)pyrene | AVRG | 1.13651331 | 7.4* |
| Indeno(1,2,3-cd)pyrene | AVRG | 1.18685724 | 3.2* |
| Dibenz(a,h)anthracene | AVRG | 1.05573241 | 7.0* |
| Benzo(g,h,i)perylene | AVRG | 1.12041406 | 3.7* |
| Pyridine | AVRG | 1.70126184 | 1.6* |
| Aniline | AVRG | 2.16992138 | 25.2* |
| Benzyl Alcohol | AVRG | 0.96667367 | 17.0* |
| 1,2-Diphenylhydrazine | AVRG | 0.94553634 | 27.0* |
| Diphenyl | AVRG | 1.36469353 | 24.1** |
| Diphenyl Ether | AVRG | 0.73863328 | 22.9** |
| Acetophenone | AVRG | 1.90692385 | 17.7** |
| N,N-Dimethylaniline | AVRG | 1.50661581 | 30.3** |
| 1,4-Dioxane | AVRG | 0.72331321 | 3.9** |
| 2,3,7,8-TCDD (screen) | AVRG | 0.45998791 | 0.0* |
| Benzaldehyde | AVRG | 0.69321717 | 51.4* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 03/23/00 03/23/00

Calibration Time(s): 1133 1439

| COMPOUND | CURVE | COEFFICENT A1 | %RSD OR R^2 |
|---|---|---|---|
| Caprolactum | AVRG | 0.19066728 | 10.3* |
| Atrazine | AVRG | 0.19791065 | 20.3* |
| 2-Fluorophenol (SUR) | AVRG | 1.46145314 | 5.7* |
| Phenol-d5 (SUR) | AVRG | 2.02700698 | 21.4* |
| 2,4,6-Tribromophenol (SUR) | AVRG | 0.19187448 | 13.2* |
| Nitrobenzene-d5 (SUR) | AVRG | 0.52942360 | 11.0* |
| 2-Fluorobiphenyl (SUR) | AVRG | 1.14881255 | 25.5* |
| Terphenyl-d14 (SUR) | AVRG | 1.03953414 | 15.3* |

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 625

Matrix: WATER  Level: LOW  Lab Job No: Y301

| | LAB SAMPLE NO. | S1 # | S2 # | S3 # | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | WB080 | 91 | 89 | 90 | | 0 |
| 02 | 189888 | 83 | 80 | 82 | | 0 |
| 03 | 189889 | 93 | 89 | 82 | | 0 |
| 04 | 189890 | 94 | 88 | 82 | | 0 |
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| | | QC LIMITS |
|---|---|---|
| S1 | = Nitrobenzene-d5 | (59-117) |
| S2 | = 2-Fluorobiphenyl | (44-120) |
| S3 | = Terphenyl-d14 | (56-122) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 190844

MS Sample from Lab Job No: Y413

QA Batch: 5311

| Compound | MS % REC. | BS % REC. | LIMITS |
|---|---|---|---|
| bis(2-Chloroethyl)ether | 88 | 83 | 12-158 |
| 1,3-Dichlorobenzene | 70 | 63 | 0-172 |
| 1,4-Dichlorobenzene | 70 | 65 | 20-124 |
| 1,2-Dichlorobenzene | 75 | 70 | 32-129 |
| bis(2-chloroisopropyl)ether | 100 | 94 | 36-166 |
| N-Nitroso-di-n-propylamine | 100 | 91 | 0-230 |
| Hexachloroethane | 59 | 50 | 40-113 |
| Nitrobenzene | 78 | 76 | 35-180 |
| Isophorone | 61 | 56 | 21-196 |
| bis(2-Chloroethoxy)methane | 93 | 86 | 33-184 |
| 1,2,4-Trichlorobenzene | 78 | 69 | 44-142 |
| Naphthalene | 85 | 79 | 21-133 |
| Hexachlorobutadiene | 60 | 50 | 24-116 |
| 2-Chloronaphthalene | 90 | 84 | 60-118 |
| Dimethylphthalate | 70 | 61 | 0-112 |
| Acenaphthylene | 86 | 83 | 33-145 |
| 2,6-Dinitrotoluene | 98 | 100 | 50-158 |
| Acenaphthene | 89 | 86 | 47-145 |
| 2,4-Dinitrotoluene | 100 | 100 | 39-139 |
| Diethylphthalate | 82 | 77 | 0-114 |
| 4-Chlorophenyl-phenylether | 85 | 83 | 25-158 |
| Fluorene | 86 | 83 | 59-121 |
| 4-Bromophenyl-phenylether | 93 | 88 | 53-127 |
| Hexachlorobenzene | 88 | 81 | 0-152 |
| Phenanthrene | 92 | 88 | 54-120 |
| Anthracene | 91 | 86 | 27-133 |
| Di-n-butylphthalate | 89 | 86 | 1-118 |
| Fluoranthene | 90 | 86 | 26-137 |
| Pyrene | 94 | 90 | 52-115 |
| Butylbenzylphthalate | 88 | 85 | 0-152 |

* Values outside of QC limits

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 190844

MS Sample from Lab Job No: Y413

QA Batch: 5311

| Compound | MS % REC. | BS % REC. | LIMITS |
|---|---|---|---|
| 3,3'-Dichlorobenzidine | 120 | 120 | 0-262 |
| Benzo(a)anthracene | 90 | 85 | 33-143 |
| Chrysene | 91 | 86 | 17-168 |
| bis(2-Ethylhexyl)phthalate | 86 | 85 | 8-158 |
| Di-n-octylphthalate | 93 | 87 | 4-146 |
| Benzo(b)fluoranthene | 91 | 86 | 24-159 |
| Benzo(k)fluoranthene | 99 | 89 | 11-162 |
| Benzo(a)pyrene | 94 | 86 | 17-163 |
| Indeno(1,2,3-cd)pyrene | 90 | 88 | 0-171 |
| Dibenz(a,h)anthracene | 92 | 85 | 0-227 |
| Benzo(g,h,i)perylene | 94 | 87 | 0-219 |

* Values outside of QC limits

Spike Recovery: 0 out of 82 outside limits

COMMENTS: _____

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T0323 Date Analyzed: 03/22/00

Instrument ID: BNAMS3 Time Analyzed: 1402

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(CRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 429550 | 12.82 | 1469845 | 15.01 | 1176466 | 24.78 |
| | UPPER LIMIT | 859100 | 13.32 | 2939690 | 15.51 | 2352932 | 25.28 |
| | LOWER LIMIT | 214775 | 12.32 | 734922 | 14.51 | 588233 | 24.28 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | WB080 | 436222 | 12.81 | 1513498 | 15.00 | 1512860 | 24.76 |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T0323 Date Analyzed: 03/22/00

Instrument ID: BNAMS3 Time Analyzed: 1402

| | | IS4(ANT) AREA # | RT # | IS5(PHN) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 905237 | 17.93 | 1501926 | 20.40 | 1464182 | 28.08 |
| | UPPER LIMIT | 1810474 | 18.43 | 3003852 | 20.90 | 2928364 | 28.58 |
| | LOWER LIMIT | 452618 | 17.43 | 750963 | 19.90 | 732091 | 27.58 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | WB080 | 1006459 | 17.92 | 1618248 | 20.39 | 1673172 | 28.06 |
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T0350 Date Analyzed: 03/23/00

Instrument ID: BNAMS3 Time Analyzed: 1133

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(CRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 407886 | 12.81 | 1361318 | 15.01 | 1009070 | 24.78 |
| | UPPER LIMIT | 815772 | 13.31 | 2722636 | 15.51 | 2018140 | 25.28 |
| | LOWER LIMIT | 203943 | 12.31 | 680659 | 14.51 | 504535 | 24.28 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 189888 | 416258 | 12.79 | 1396970 | 14.98 | 1399462 | 24.75 |
| 02 | 189889 | 433233 | 12.80 | 1405666 | 14.99 | 1279232 | 24.75 |
| 03 | 189890 | 405879 | 12.80 | 1396556 | 14.99 | 1332722 | 24.75 |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

# SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T0350 Date Analyzed: 03/23/00

Instrument ID: BNAMS3 Time Analyzed: 1133

| | | IS4(ANT) AREA # | RT # | IS5(PHN) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 812092 | 17.93 | 1305721 | 20.39 | 1261530 | 28.08 |
| | UPPER LIMIT | 1624184 | 18.43 | 2611442 | 20.89 | 2523060 | 28.58 |
| | LOWER LIMIT | 406046 | 17.43 | 652860 | 19.89 | 630765 | 27.58 |
| | LABORATORY SAMPLE NO. | | | | | | |
| 01 | 189888 | 908862 | 17.91 | 1416881 | 20.37 | 1464183 | 28.04 |
| 02 | 189889 | 809214 | 17.92 | 1225727 | 20.38 | 1390712 | 28.05 |
| 03 | 189890 | 884728 | 17.92 | 1380624 | 20.38 | 1395036 | 28.04 |
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.