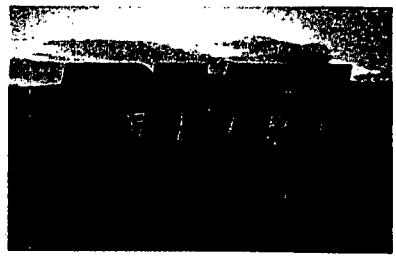

QUARTERLY MONITORING REPORT
2ND QUARTER 2002

L.E.CARPENTER & COMPANY
WHARTON, NEW JERSEY

USEPA ID# NJD002168748

August 2002

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Section 1
Introduction

RMT, Inc. (RMT), on behalf of our client, has prepared this Quarterly Monitoring Report for the L.E. Carpenter and Company (LEC) ("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 (ACO) issued to LEC by the New Jersey Department of Environmental Protection (NJDEP). We provide a summary of activities completed during the second quarter of 2002, including routine quarterly groundwater monitoring and monthly free product recovery activities. In addition, this report includes summaries of additional site activities performed during second quarter of 2002, and activities scheduled for commencement during third quarter of 2002. We have certified this report in accordance with requirements outlined in N.J.A.C 7:26E-1.5 (Appendix A).

RMT conducted the following tasks during the second quarter of 2002:

- Monthly mobile free product recovery using enhanced fluid recovery (EFR) techniques in accordance with the NJDEP approval letter dated August 20, 1997 (Ref. Section 2).
- Quarterly groundwater monitoring as required under the ACO (Ref. Sections 3 and 4).
- Groundwater monitoring at MW-19/Hot Spot 1 area as requested in the NJDEP letter dated May 31, 2002 (Ref. Section 5).
- Surface water sampling at the drainage ditch feature that separates the LEC site from the Air Products property as requested in the NJDEP letter dated May 31, 2002 (Ref. Section 6).
- Various follow-up activities associated with both the lead and free product investigations and proposed conceptual remediation plan. (Ref. Section 7).

We provide a discussion of these activities 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 railroad 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 and capillary fringe soils. 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.

RMT arranged performance of three monthly EFR events during the second quarter of 2002 on April 10, May 6, and June 13, 2002. RMT coordinated measurement of the free product thickness in each recovery well (where applicable), followed by EFR. RMT's subcontractor, CEMCO, used the recorded free product measurements to determine the placement of the drop pipe that maximized free product recovery volumes. Table 1 lists apparent free product thickness measurements recorded during second quarter 2002. RMT observed a measurable thickness of free product in 12 of the 71 locations monitored on May 20, 2001. Table 1 also provides a cumulative breakdown of EFR specific information such as minimum and maximum free product thickness levels (in feet), associated waste management costs, and extracted product (liquid and vapor phase) and groundwater volumes (in gallons) to date.

During second quarter 2002, 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, and braced to a mobile 4-wheel drive vehicle. When compared to the previously utilized vacuum trucks, use of this system has enabled 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 also resulted in a more efficient EFR event, minimizing the volume of groundwater extracted. The average ratio of extracted groundwater to free product during the second quarter of 2002 was approximately 0.12 gallons/gallon. Before use of this method (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 and limited volume of groundwater are transferred to the on-site 550-gallon aboveground storage tank (AST)

equipped with secondary containment for satellite storage. The fluids generated during EFR events, including purged groundwater generated during groundwater monitoring activities, are transported off-site by Clean Venture, Inc. (US EPA ID No. NJ0000027193) and managed by Cycle Chem, Inc. (USEPA ID No. NJD002200046) at their facility located in Elizabeth, New Jersey. During second quarter 2002, no waste fluids were transported off-site. The next off-site waste management event will be performed after completion of the July 2002 EFR event.

2.2 Apparent Free Product Trends

The following sections describe apparent product trends in the western, west-central, east-central, and eastern portions of the free product area. Apparent product refers to a volume (in gallons) of free product occupying the casings of each EFR well. As described in the following sections, "total volume of apparent free product" represents the sum of product volumes from each EFR well within each of the four segregated regions.

The apparent product thickness is not representative of the actual free product thickness or volume that exists within the formation outside of the well casing. RMT previously evaluated actual free product thickness and volume in our report entitled Free Product Volume Analysis (May 2000). That report estimated a total volume of recoverable free product actually present in the subsurface to be between at 8,000 and 13,000 gallons. To facilitate description of the current distribution of free product, the zone of free product occurrence has been divided into four sub areas. These four areas discussed from west to east are:

2.2.1 Western Region of Free Product

In the western portion of the free product area (EFR wells 1, 2, 3, 17, 18, 20, 21, and 28), there was an increase in the total volume of apparent free product measured during the second quarter of 2002. Apparent total free product volume increased from 5.30 gallons in April 2002 to 7.24 gallons in June 2002. Free product thickness decreased at EFR wells 17, 18, and 28 and increased at EFR wells 1, 2, 3, 20 and 21. In general, apparent free product volume in the western region appears to be decreasing since LEC initiated EFR in November 1997 (see Appendix B).

2.2.2 West-Central Region of Free Product

In the western-central portion of the free product area (EFR wells 4, 5, 6, 7, 19, 22, 23, 24, 25, 26, and 27), the total volume of apparent free product decreased from 8.28 gallons in April 2002 to 5.80 gallons in June 2002. Free product thickness decreased at EFR wells 5, 6, 19, 22, 23, 24, and 25, and increased at EFR wells 4, 26, and 27 during second quarter 2002. No measurable free product was detected at EFR well 7 during second quarter 2002. The apparent free product

volume in the west-central region appears to be decreasing since LEC initiated EFR in November 1997 (see Appendix B).

2.2.3 East-Central Region of Free Product

The total volume of apparent free product increased slightly in the east-central portion of the free product area (EFR wells 8, 9, 10, 11, 12, and 13) during second quarter 2002. However, this was a decrease from first quarter 2002. Apparent free product volume increased from 3.26 gallons in April 2002 to 3.74 gallons in June 2002. Free product thickness decreased at EFR wells 8, 9, and 12, increased at EFR wells 10 and 13, and remained relatively consistent at EFR well 11 over the second quarter 2002. However, the apparent free product volume in the eastern-central region appears to be decreasing since LEC initiated EFR in November 1997 (see Appendix B).

2.2.4 Eastern Region of Free Product

During second quarter 2002, no free product was detected in the eastern portion of the free product area at EFR Wells 14, 15, or 16. However, a free product thickness of 0.63 ft was noted in the nearby monitoring well MW-3.

2.2.5 Site Total Apparent Free Product Area

The total volume of apparent free product on the site, accounting for all 28 EFR wells, decreased slightly over the course of the second quarter from 16.84 gallons in April 2002 to 16.78 gallons in June 2002. However, this represents a larger decrease from the first quarter (average apparent free product of 20.2 gallons) to the second quarter (average apparent free product of 16.86gallons). . In general, the total apparent free product trend chart indicates a steady decrease in the volume of apparent free product existing on-site. A cumulative breakdown of free product thickness and apparent free product volumes specific to each region is presented in Table 2. Additionally, trend charts for each of the four free product regions, and for the site as a whole, that graphically display apparent free product volume fluctuations over time are presented in Appendix B. Figure 3 shows iso-thickness contours and the lateral extent of apparent free product on-site during second quarter 2002. This figure incorporates the apparent free product thickness measurements from the groundwater monitoring event conducted by RMT on May 20, 2002, and the pre-EFR event measurements obtained by CEMCO on June 13, 2002.

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 in the 55-gallon drum. Recovered liquid free product volume was determined by subtracting the volume of water from the total fluid volume collected in the 55-gallon drum. 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.

The total extraction volume (measurable free product, product vapor, and groundwater) during second quarter was 99.71 gallons. Approximately 88.97 gallons were measurable free phase product as determined by vacuum head drum gauging and vapor phase volume calculations, and 10.74 gallons were groundwater. Since initiation in December 1997, site EFR activities have removed approximately 14,596 gallons of total fluids, of which, approximately 3,462 gallons were measurable free phase product. Based on historical modeling data (Ref. Section 2.2), approximately 4,538 to 9,538 gallons of recoverable free product remains in the ground. Reference Table 1 for a complete breakdown of EFR related information.

Section 3
Quarterly Groundwater Monitoring

RMT conducted groundwater monitoring activities in the second quarter of 2002 on May 20, 21, and 22. In the past, we performed groundwater monitoring in accordance with the procedures contained in the NJDEP's *Field Sampling Procedures Manual* dated May 1992. However, for the second quarter of 2002, we performed groundwater monitoring using the low-flow methodology outlined in our May 2001 "Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater" (MNA workplan). The MNA workplan was approved by NJDEP on January 24, 2002. Although the sampling was performed using low-flow methods, the remaining parts of the MNA workplan have not yet been initiated. A QED bladder pump system with disposable bladders (as described in the approved MNA workplan Quality Assurance Project Plan (QAPP)) was used as dedicated monitoring equipment to collect groundwater samples at LEC. Locations of the quarterly monitoring wells are shown on Figure 2.

Monitoring wells MW-4, MW-11D(R), MW-14S, MW-14I, MW-15S, MW-15I, MW-21, MW-22(R), and MW-25(R) were sampled utilizing the low-flow methodology outlined in the QAPP, presented in Appendix A of the approved MNA workplan. Specifically, RMT used a QED bladder pump to remove groundwater at a low rate (average of 0.3 L/minute). Before sampling the wells we measured field parameters until they stabilized to obtain a representative sample of the formation water for laboratory testing. Monitoring well sample data for the second quarter of 2002 is presented in Appendix C. Once the field parameters in each well stabilized (or following adequate purging if stabilization could not be achieved), samples were collected from the Teflon tubing of the bladder pump. We submitted the samples to the STL Edison laboratory to test for benzene, toluene, ethylbenzene, xylenes (BTEX) and bis (2-ethylhexyl) phthalate (DEHP) per the current groundwater monitoring protocol presented in Table 4.

A sample duplicate, a field blank, a trip blank and a rinsate 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-4 (duplicate sample No. DUP01) and analyzed for BTEX and DEHP. The rinsate blank was collected by circulating distilled water through the cleaned bladder pump assembly to verify that the 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. The field (atmosphere) blank was collected during the sampling event by opening the bottle of preserved DI water provided by the laboratory, leaving the bottle open

during the sampling of one well, and pouring that water directly into empty clean sample bottles also provided by the laboratory.

A comparison of the results of the chemical analyses to New Jersey Class IIa Groundwater Quality Standards (NJGWQS) is in Table 5. The presence of BTEX and DEHP was not detected at concentrations above NJGWQS in samples collected from MW-11D(R), MW-14S, MW-14I, MW-15S, MW-15I, MW-21, and MW-25(R). At MW-22(R), ethylbenzene, total xylenes and DEHP were detected at concentrations of 320 µg/L, 1,400 µg/L, and 21 µg/L respectively. Only the total xylene concentration detected at MW-22(R) exceeds the corresponding NJGWQS. At MW-4, BTEX compounds were not detected above NJGWQS, however, DEHP was detected above NJGWQS at a concentration of 950 µg/L, which is lower than the last sampling event.

Even though contaminant concentrations at MW-22(R) have consistently exceeded NJGWQS, contaminant concentrations at downgradient monitoring location MW-14S have been non-detect. In addition, contaminant concentrations at monitoring location MW-25(R) (located downgradient from MW-22R) have not exceeded NJGWQS since second quarter 1997, and contaminant concentration further downgradient at MW-21 have never exceeded NJGWQS since sampling began at this location in first quarter 1999. We will continue to closely monitor the contaminant concentration-trend at all four locations. Concentration trends for contaminants of concern detected at MW-22(R) and MW-25(R) are presented as Appendix D.

Agency comments outlined in the NJDEP letter dated April 5, 2001 regarding their review of the 4th Quarter 2000 Monitoring Report (RMT, February 2001) requested that MW-11D(R) remain incorporated in the quarterly monitoring protocol. Groundwater collected from this location will continue to be analyzed for DEHP only; however, during the May 2002 monitoring event, we also tested for BTEX. Both BTEX and DEHP were not detected in MW-11D(R).

RMT has summarized the historical groundwater monitoring data, including the results from the second quarter 2002 sampling on Table 5. We have included the corresponding analytical laboratory reports in Appendix E. Severn Trent Services of Edison, New Jersey (STL-Edison) performed all laboratory analyses.

Section 4
Water Table Elevations

On May 20, 2002, RMT measured static groundwater levels from 72 different locations throughout the site (Table 6). RMT used these data to calculate groundwater elevations and evaluate the groundwater flow pattern in the shallow aquifer system.

Figure 4 displays the site-wide shallow groundwater 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). Also exhibited in Figure 4 are the effects caused by the presence of the drainage ditch and the Rockaway River. The drainage ditch acts as a local groundwater "sink", and shallow groundwater from a large portion of the site seeps into the drainage ditch. Shallow groundwater at the southern edge of the LEC site is recharged directly by the Rockaway River and flows towards the site before turning eastward toward the Air Products property.

The potentiometric surface contours were generated using the measured fluid level elevations in site shallow wells. Some shallow well fluid elevations were not used to generate these contours because the observed values appeared to be in error, specifically, some of the wells denoted as "well points". We also used head values for the Rockaway River, the drainage ditch and the Washington Forge Reservoir to control and interpret the groundwater elevation contours.

Section 5
MW19/Hot Spot 1 Groundwater Monitoring

This section summarizes the results of groundwater monitoring event conducted in the MW-19/Hot Spot 1 area on June 5 and 6, 2002. This sampling was conducted at the request of NJDEP as outlined in their letter dated May 31, 2002. The May 31, 2002 letter requested that the two piezometers (GEI-2S and GEI-2S) located in the vicinity of the MW19/Hit Spot 1 area be evaluated to determine the presence of contaminants of concern. In addition, during follow-up conversations with the NJDEP and confirmatory emails, RMT was required to incorporate the two piezometers into a comprehensive monitoring event that included all monitoring wells currently installed in the MW19/Hot Spot 1 area.

5.1 Monitoring Well Locations

Figure 2 shows the location of all the MW-19/Hot Spot 1 area monitoring wells. Following the recent installation of MW19-9D, a NJ licensed surveyor surveyed the well and site. In addition, the site was subjected to aerial photography on February 14, 2002 and a site-wide topographic map was constructed from that aerial. Figure 2 incorporates the newly surveyed features and resulting base-map that accurately represents the location of each well, and nearby buildings, utilities, fences, and streets. The surveyor also measured the top of casing elevation for the new and selected existing wells.

5.2 Groundwater Flow

Figure 5 depicts the MW-19/Hot Spot 1 area groundwater-elevation contours, which again verify that the regional sewer line intercepts and locally controls the direction of shallow groundwater flow. RMT has evaluated groundwater flow in this area using data from measuring events we conducted in January, April, July, and October 2000, and January, April, July, 2001 and June (this report) 2002. The flow direction in this area is consistent for each of these previous sampling events. The data show that groundwater flow direction in the shallow aquifer underlying this area is generally towards the east-northeast and is predominantly driven by recharge from Washington Forge Pond. Elevations measured in wells MW19-8, MW19-7, MW19-6, and MW19-2 control the bending of the contours across the regional interceptor sewer that is located under Ross Street. This supports data that shows the regional sewer line intercepts

and locally controls shallow groundwater flow. The pattern of groundwater flow in this area is similar to that throughout 2000 and 2001. Groundwater flow at the northwest end of Building 9 is northeastward to east under a hydraulic gradient of approximately 0.0017 ft/ft.

5.3 Delineation of Groundwater Contamination

Table 7 summarizes concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) and di-ethylhexyl phthalate (DEHP) for all of the MW-19/Hot Spot 1 area groundwater monitoring wells and piezometers GEI-2I and GEI-2S. RMT sampled groundwater from the MW-19 area wells and GEI-2I and GEI-2S on June 5 and 6, 2002. The June 2002 data also show that concentrations of BTEX and DEHP have decreased since 1998, 1999, and 2001 in all the monitoring wells except MW19-5. When compared to the March 2002 results, concentrations of toluene, ethylbenzene, and xylenes increased at this monitoring point, while DEHP and benzene were not detected. However, the values observed in MW19-5 remain significantly lower than values observed during the March 1998 event. BTEX was not detected and low levels of DEHP were detected in GEI-2I. Low levels of BTEX and DEHP were detected in GEI-2S. Corresponding analytical laboratory reports are presented in Appendix F. Severn Trent Services of Edison, New Jersey (STL-Edison) performed all laboratory analyses.

The DEHP concentrations are all substantially lower than concentrations measured in 1998 and 1999, except for MW19 which shows a slight increase. In fact, the New Jersey groundwater quality standard (NJDWQS) for DEHP is not exceeded in any well. Only benzene slightly exceeds the NJDWQS at GEI-2S. None of the remaining groundwater monitoring wells downgradient from MW19-1 exceeds the NJGWQS for any of the contaminants of concern. MW19-1 is located close to the former 10,000-gallon underground storage tanks (UST's E-3 and E-4) that likely were responsible for releasing some of the waste DEHP and BTEX constituents. However, these former UST's are no longer a source for DEHP and BTEX contamination in this area because LEC removed them in 1991. In addition, the LEC printing processes and material storage practices that occurred in Bldg 9 that may have resulted in releases of both DEHP and BTEX were stopped in 1987. Finally, there is no free product in this area. Therefore, there is no longer any active primary source for DEHP or BTEX remaining in the MW-19/Hot-Spot 1 area. The decrease in concentrations also supports a lack of ongoing sources of contamination and strongly suggests that dissolved contaminants are naturally attenuating.

DEHP was detected above the NJDWQS in the field blank at a concentration of 48 μg/L. RMT believes this is a result of contamination of the laboratory-supplied field blank water as evidenced by the result of the chemical analysis of the field blank from the Second Quarter 2002 groundwater sampling event. The field blank from this sampling event contained DEHP at 130 μg/L, more than 4 times the NJDWQS. RMT is currently making arrangements to procure

special distilled water specifically purified from DEHP for use during future sampling events. RMT constructed Figure 6 to show isoconcentration contours for total BTEX levels in ppm (mg/L) with respect to the groundwater elevation contours. The distribution of total BTEX defined by the isoconcentration contours is consistent with the groundwater flow direction defined by the groundwater elevation contours. Figure 7 shows the isoconcentration contours for total BTEX in August 2001 that we submitted in our October 19, 2001 MW-19/Hot Spot 1 area letter report. A comparison between Figures 6 and 7 shows that the concentrations of total BTEX greater than 1 ppm occur over a smaller area in June 2002 than shown for August 2001.

No BTEX and low levels of DEHP were detected in MW19-9D (Table 7). This shows that there is no migration of these constituents downward and to the north under Ross Street and the regional interceptor sewer. In addition, the lack of downward migration of contaminants is evidenced by the hydraulic data we discuss below.

Table 8 lists the monitoring well specifications, and includes water level measurements and groundwater elevations. Although DEP/EPA retracted their earlier requirement to pair a shallow well with MW19-9D, we installed it only about 12 feet north of MW19-6 because of access issues. The driller had to conform to OSHA requirements and maintain a safe distance from the overhead power lines that overhang the north side of Ross Street. As previously stated the on-site DEP representative approved the well location in the field before drilling commenced.

The closeness of MW19-6 and MW19-9D allows a general comparison between groundwater elevations versus screened interval and to evaluate the vertical gradient. The hydraulic head at MW19-9D is 0.4 feet higher than at MW19-6, indicating a significant upward vertical gradient. The vertical distance between the middle of the MW19-6 and the MW19-9D well screens is 15 feet (Table 8). Given the difference in hydraulic head between the two wells, the upward vertical hydraulic gradient is about 0.4 ft/15 ft., or 0.027 ft/ft. This is an order of magnitude greater than the horizontal hydraulic gradient of 0.0017 measured for this area.

An upward vertical gradient is consistent with all other deep/shallow well clusters across the site. These findings are consistent with an earlier RMT prediction of an upward vertical gradient for this location based on nearby piezometers GEI-2I and GEI-2S, and other upward vertical gradients observed across the site. The upward gradient in the MW-19/Hot Spot 1 area is likely related to its location in the Rockaway River Valley. The Washington Forge Pond (at an elevation of approximately 640 ft), the Rockaway River, and the gravel base that holds the regional sewer line adjacent to the MW-19/Hot Spot 1 area (Figure 5), all act as constant head boundaries comprising a regional aquifer discharge area.

The groundwater flow directions and contaminant distributions both show that the current group of wells are adequate to monitor groundwater quality within and downgradient from the MW-

19/Hot Spot 1 area at LEC. RMT believes there is no need to perform additional delineation work in the MW-19/Hot Spot 1 area. We recommend conducting future groundwater monitoring in this area as part of the site-wide groundwater-monitoring program. Details of our recommendations for future continued monitoring in this area are included in our May 2001 workplan for evaluating Monitored Natural Attenuation (MNA) for dissolved phase constituents.

Section 6
Drainage Channel Surface Water Sampling

As part of the 2nd Quarter event, RMT sampled the eastern drainage channel that separates the adjacent Air Products facility from the LEC site and the adjacent Wharton Enterprises property. This sampling was conducted at the request of NJDEP as outlined in their letter dated May 31, 2002. The sampling was performed in three locations along this channel (SW-5. SW-7 and SW-8) which correspond to sample locations established in previous investigations. These sample locations are shown on Figure 2.

Samples were collected at these locations using a peristaltic pump to withdraw a sample from beneath the subsurface of the standing water in the channel. The specific method used to collect surface water samples is described in RMT's surface water sampling protocol, included in Appendix G of this report. Samples were analyzed for the presence of DEHP and BTEX compounds. With the exception of two results, these analyses show that concentration of BTEX compounds in the channel do not exceed the method detection limits. The two detectable BTEX values in the drainage channel were from locations SW-5 and SW-8 which each had reported concentration of 1.0 ug/L of toluene. DEHP was detected at location SW-8 at a concentration of 0.6 ug/L. Historical and current surface water sampling results are summarized in Table 9. Laboratory analytical results are presented with the MW19/Hot Spot 1 data in Appendix F.

These reported concentrations are very low and are below all applicable action limits. Based on these results RMT does not believe that the surface water in the drainage ditch is impacted by migration of groundwater from the site. Furthermore, the data support the idea that BTEX and DEHP constituents dissolved in groundwater are being naturally attenuated, and that migration beyond the drainage channel and MW-25(R) is not taking place (stable plume). Future site monitoring activities will include surface water sample collection at the same three locations.

Section 7
Site Investigation and Remedial Actions

The following section briefly outlines additional activities and scopes of work performed at various on-site areas of environmental concern during second quarter 2002.

7.1 Free Product

In December 2001, RMT conducted a subsurface investigation to further investigate viable free product remedial technologies as outlined in the NJDEP approved workplan and amendment entitled Workplan to Evaluate Free Product Remedial Strategies (RMT, November 2001), and Amendment to Workplan to Evaluate Free Product Remedial Strategies (RMT, November 2001). Results of this investigation were submitted to USEPA and NJDEP in the document entitled Findings & Recommendations Regarding a Conceptual Free-Product Remediation Strategy in March 2002. No written response from either NJDEP or USEPA has been received to date.

7.2 Lead in Soils

In November 2001, RMT conducted a subsurface investigation as outlined in the Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil (RMT, May 2001) to delineate the extent of on-site lead contamination in soils. Results of this investigation were submitted to USEPA and NJDEP in the document entitled Nature and Extent of Lead in Soils and Groundwater in March 2002. No written response from either NJDEP or USEPA has been received to date.

7.3 Monitored Natural Attenuation (MNA)

RMT provided a letter response dated October 23, 2001 to agency comments dated August 23, 2001 regarding the Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001). Both the NJDEP and USEPA approved this workplan as outlined in the NJDEP letter dated January 24, 2002. Implementation of the approved MNA evaluation is currently on hold pending receipt of agency comments regarding the lead investigation and free product remedial options analysis.

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 13, 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[10] August 24, 1998 Feet of Product	EFR #12 September 17, 1998 Feet of Product	EFR #13 October 22, 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-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
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
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-4	1.05	2.27	0.54	0.07	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	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
EFR-6	0.72	1.00	1.24	--	2.27	1.71	1.17	2.23	1.35	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-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	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
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
EFR-11	3.07	4.06	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
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	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
EFR-14	0.10	0.16	0.00	--	--	--	--	--	--	--	-	--	0.00	0.00	0.00	0.00	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
EFR-16	0.00	0.00	0.00	--	--	--	--	--	--	--	-	--	0.00	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
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-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
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
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
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
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	--	--	--	--	--	--	--	-	--	0.00	0.03	0.12	0.14	0.38
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
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
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
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
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
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
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
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
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
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	315.00	250.00	210.00	80.00	120.00	130.00	100.00	110.00	95.00	105.00	76.00	55.00	60.00	15.00	25.00	51.00	23.00
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*																	
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*																	
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*																	
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*																	
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor)*	2350.00	1410.00	376.00	256.00	314.00	300.00	339.00	403.00	390.00	561.00	211.00	220.00	329.00	212.00	120.00	256.00	234.00
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [8]	-	-	-	-	-	338	150	600	70	110	71	-	110	-	-	110	-
Total Volume Removed from Site (gal) (*Manifested volume*) [9]	2,350	1,410	376	256	314	638	489	1,003	460	671	282	220	439	212	120	256	234
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
Extraction, Transportation & 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	$ 1,838.95	$ 1,383.18	$ 915.25	$ 915.00	$ 973.00	$ 1,156.62
Unit 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

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 emulsified

as the result of a short vac truck standing time prior to gauging

Product removal estimate does not take into account a % of product remaining emulsified do to high agitation
[redacted] Indicates that this data will be known once the next EFR waste T&D event is performed

(1) Estimated free product (gal) based on Vacuum Truck gauging (interface probe) directly after each EFR Event and vapor monitoring during extraction (See Table 3)
(2) Total invoiced disposal cost for EFR event (product and groundwater) and monitoring well purge water from 1/4ly 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 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 trans and mob 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 stored in an on-site 550-gallon AST equipped with secondary containment. AST contents, along with groundwater resulting from well purge activities are drained and transported by CycleChem/CleanVenture every 90 days.
(7) Volume of ground water collected during each EFR event. Volume estimated using an oil/water interface probe on the 55-gal extraction drum. On-Site measurement began 1st quarter of 2000.
(8) Those volumes that are totaled over a specific period (beginning 1st quarter 2000) is that volume specific to each of the EFR event it represents.
(9) Estimated by subtracting the free product aqueous volume and extracted groundwater volume for each of the representative EFR event from the total removal volume manifested for a specific disposal event
(10) EFR events did not take place in January or February 2001 due to access issues caused by inclement weather.

Prepared By: Nicholas J. Clevett
RMT, Inc.
7/22/2002
File: FreeProduct.xls EFR EVENT DATA

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

EFR Event Date / Well No.	EFR #17 February 18, 1999 Feet of Product	EFR #18 March 24, 1999 Feet of Product	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 [8] 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 #31 April 19, 2000 Feet of Product	EFR #32 May 18, 2000 Feet of Product	EFR #33 June 16, 2000 Feet of Product	EFR #34 July 18, 2000 Feet of Product	EFR #35 August 17, 2000 Feet of Product
EFR-1	1.79	3.68	1.13	1.09	1.15	1.49	1.27	1.94	1.63	1.67	1.20	1.22	0.85	1.86	1.59	1.54	2.10	1.51	1.26
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	2.00	1.64	1.89	1.40	0.36
EFR-3	1.01	1.63	0.36	0.25	0.86	0.88	1.09	0.74	0.69	0.47	0.02	0.51	0.07	0.08	0.09	0.62	1.02	0.25	0.02
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	0.68	0.11	0.11	0.41	0.22	0.05	0.02
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	2.54	1.84	2.34	1.99	1.69
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	0.31	0.49	0.27	0.54	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	0.01	0.02	0.00	0.00	0.01
EFR-8	0.00	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	0.03	0.05	0.03	0.02	0.01
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	0.02	0.06	0.06	0.12	0.16
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	4.50	1.36	2.50	3.09	0.75
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	2.95	2.93	2.49	4.12	0.79
EFR-12	0.11	0.05	0.02	0.02	0.10	0.30	0.20	0.05	0.09	0.67	0.01	0.03	0.49	0.46	0.10	0.19	0.01	0.01	0.00
EFR-13	1.19	0.15	0.49	0.30	0.44	1.33	1.01	0.74	0.78	0.57	0.26	0.36	0.34	0.48	0.47	0.69	0.53	0.73	0.49
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	0.00	0.00	0.00	0.00	0.00	0.00
EFR-15	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04	0.02	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.16	0.65	0.04	0.01	0.02
EFR-18	0.11	-	0.06	0.16	0.46	0.96	1.57	0.61	0.36	0.77	0.05	0.20	0.05	0.12	0.04	0.32	0.01	0.06	0.16
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	0.60	0.98	0.17	0.63	0.34
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	0.42	0.54	0.33	0.30	0.39
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	2.86	2.47	3.02	2.09	1.62
EFR-22	0.84	0.34	0.95	1.39	1.93	1.67	1.41	0.17	2.22	1.76	0.53	0.82	0.58	0.09	0.16	0.05	0.05	0.01	0.18
EFR-23	0.91	0.47	0.22	0.25	0.43	2.13	1.03	0.12	0.53	0.64	0.24	0.25	0.31	0.46	0.06	0.06	0.01	0.13	0.03
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	0.02	0.05	0.00	0.00	0.00
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	0.21	0.10	0.03	0.10	0.03
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	1.68	2.02	1.44	2.25	1.38
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	0.01	0.03	0.04	0.01	0.01
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	2.42	1.81	2.68	1.72	2.48
MIN (ft)	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX (ft)	5.79	6.15	4.97	4.23	3.71	3.63	2.47	3.02	5.18	3.95	3.07	4.50	4.95	3.50	4.50	2.93	3.02	4.12	2.48
Average (ft)	1.25	1.22	0.79	0.79	0.88	1.18	0.94	0.57	1.06	0.88	0.58	0.87	0.89	0.88	0.84	0.75	0.76	0.76	0.45
Total Free Product (ft)	31.14	31.84	22.00	22.20	24.54	33.11	26.36	15.94	29.68	24.59	16.37	24.34	24.79	24.62	23.38	20.91	21.30	21.14	12.49
Total Standing Free Product 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	15.20	13.59	13.85	13.74	8.12
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	74.00	40.00	59.24	47.20	38.51	54.48	36.00	44.00	54.73	44.79	49.34	43.52	51.66	48.14	45.46	45.50	43.66	46.38	22.05
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*												40.93	46.21	52.80	41.26	40.18	39.44	40.43	20.13
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*												6.55	7.93	10.19	5.85	6.31	5.05	7.60	5.22
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*												36.97	43.73	37.95	39.61	39.19	38.61	38.78	16.83
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*												3.96	2.48	14.85	1.65	0.99	0.83	1.65	3.30
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor*)	498.00	683.00	904.76	360.00	564.26	725.54	298.00	239.00	265.00	249.07	350.00	47.48	54.14	62.99	47.11	46.49	44.49	48.03	25.35
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [9]	235	-	139	-	-	374	-	-	199	82	-	357				110			
Total Volume Removed from Site (gal) (*Manifested volume*) [9]	733	683	1,044	360	564	1,100	298	239	464	331	350	538				250			
Cumulative Total Free Product Removed (gal)	1,894	1,934	1,993	2,040	2,079	2,133	2,169	2,213	2,268	2,313	2,362	2,406	2,457	2,506	2,551	2,597	2,640	2,687	2,709
Extraction, Transportation & Disposal Cost[2]	$ 1,641.56	$ 1,703.44	$ 2,049.75	$ 930.31	$ 1,598.13	$ 2,165.75	$ 2,162.12	$ 995.81	$ 1,288.50	$ 1,028.93	$ 968.87	$ 1,045.62				$ 795.13			
Unit Cost per gal[3]	$ 2.24	$ 2.49	$ 1.96	$ 2.58	$ 2.83	$ 1.97	$ 7.26	$ 4.17	$ 2.78	$ 3.11	$ 2.77	$ 1.94				$ 3.18			

Prepared By: Nicholas J. Clevett
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7/22/2002
File: FreeProduct.xls EFR EVENT DATA

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

EFR Event Date / Well No.	EFR #36 September 18, 2000 Feet of Product	EFR #37 October 25, 2000 Feet of Product	EFR #38 November 17, 2000 Feet of Product	EFR #39 December 15, 2000 Feet of Product	EFR #40[(6)] March 13, 2001 Feet of Product	EFR #41 April 23, 2001 Feet of Product	EFR #42 May 25, 2001 Feet of Product	EFR #43 June 13, 2001 Feet of Product	EFR #44 July 27, 2001 Feet of Product	EFR #45 August 24, 2001 Feet of Product	EFR #46 September 25, 2001 Feet of Product	EFR #47 October 25, 2001 Feet of Product	EFR #48 November 20, 2001 Feet of Product	EFR #49 December 31, 2001 Feet of Product	EFR #50 January 29, 2002 Feet of Product	EFR #51 February 28, 2002 Feet of Product	EFR #52 March 26, 2002 Feet of Product
EFR-1	1.53	1.00	1.07	1.16	2.91	1.25	1.02	1.14	0.57	0.80	1.29	1.60	1.51	1.57	2.07	1.93	0.90
EFR-2	1.08	0.97	1.09	0.76	2.92	2.66	1.75	2.26	1.22	1.17	1.22	1.14	1.15	1.19	1.37	1.35	1.40
EFR-3	0.08	0.44	0.43	0.46	0.33	0.29	0.49	0.70	0.60	0.66	0.51	0.81	0.76	0.80	0.70	0.78	1.05
EFR-4	0.02	0.02	0.05	0.21	0.59	1.65	0.01	0.44	0.02	1.86	0.11	0.57	0.68	0.54	0.26	1.13	0.37
EFR-5	1.57	2.74	2.47	2.76	5.95	1.73	1.90	0.62	2.24	2.05	2.25	2.55	2.10	2.67	2.66	2.68	3.50
EFR-6	0.55	0.85	0.79	0.96	2.05	0.52	0.43	0.16	0.46	0.49	0.37	1.13	1.56	1.23	0.71	2.21	2.30
EFR-7	0.00	0.01	0.01	0.01	0.28	0.02	0.02	0.00	0.00	0.16	0.00	0.05	0.08	0.24	0.00	0.00	0.00
EFR-8	0.01	4.26	0.02	0.06	0.03	0.05	0.04	0.03	0.01	0.18	0.00	0.18	0.16	0.22	0.01	0.04	0.07
EFR-9	0.08	0.02	0.50	0.77	0.57	0.07	0.56	0.07	0.14	0.27	0.39	0.56	0.85	0.32	0.29	0.45	0.32
EFR-10	2.76	3.88	3.27	4.05	5.64	3.17	3.52	3.32	3.73	2.30	2.62	2.70	2.61	2.91	2.02	3.32	3.48
EFR-11	4.73	0.16	4.00	3.73	2.82	2.41	3.56	2.60	3.91	2.37	3.86	3.22	2.44	2.90	2.89	2.58	2.12
EFR-12	0.03	0.11	0.04	0.02	0.07	0.02	0.25	0.01	0.01	0.23	0.00	0.00	0.34	0.21	0.26	0.11	0.10
EFR-13	0.22	0.25	0.09	0.15	1.14	0.27	0.78	0.26	0.39	0.47	0.38	0.46	0.88	0.44	0.84	0.44	0.87
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	0.00	0.00	0.00	0.00	0.00
EFR-15	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.05
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	0.00	0.00	0.00	0.00	0.00
EFR-17	0.09	0.06	0.36	0.01	0.41	0.31	0.51	0.28	0.02	0.49	0.34	0.85	0.97	1.57	1.43	2.23	1.90
EFR-18	0.08	0.31	0.31	0.20	3.27	1.35	0.43	0.31	0.01	0.13	0.41	0.69	0.75	1.22	1.90	1.00	1.07
EFR-19	0.22	0.87	0.59	1.42	2.32	0.65	1.98	1.01	0.44	1.19	0.54	2.15	2.36	2.38	2.26	3.22	2.90
EFR-20	0.45	0.54	0.11	0.37	0.24	0.97	0.52	0.31	0.08	0.32	0.24	0.73	1.10	1.29	1.78	0.46	1.24
EFR-21	2.75	1.79	1.65	1.37	4.09	3.51	2.96	2.61	1.98	1.61	1.87	1.58	1.38	1.54	1.51	1.50	2.25
EFR-22	0.06	0.53	2.14	1.50	0.81	0.06	0.43	0.00	0.00	0.47	0.57	1.22	1.53	1.93	0.98	0.63	0.80
EFR-23	0.07	0.07	0.08	0.39	0.07	0.03	0.68	0.28	0.05	0.34	0.07	0.85	2.67	0.75	0.98	1.15	0.01
EFR-24	0.01	0.01	0.01	0.04	2.27	0.05	0.34	0.01	0.01	0.27	0.14	0.35	0.38	0.34	0.47	2.65	0.60
EFR-25	0.10	0.19	0.12	0.10	0.04	0.39	0.28	0.14	0.03	0.47	0.09	0.43	0.63	0.64	0.82	0.99	0.75
EFR-26	2.01	2.05	1.78	1.10	2.64	2.56	2.68	1.48	2.24	1.07	1.20	1.45	1.22	1.13	1.14	0.87	1.55
EFR-27	0.15	0.01	0.01	0.01	0.48	0.05	0.04	0.00	0.01	0.04	0.00	0.52	0.49	0.13	0.53	0.32	0.00
EFR-28	2.02	1.39	1.36	0.64	2.81	2.75	1.86	2.34	1.36	1.67	1.05	1.50	1.38	1.51	1.67	1.86	0.21
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	0.00	0.00	0.00	0.00	0.00
MAX (ft)	4.73	4.26	4.00	4.05	5.95	3.51	3.56	3.32	3.91	2.97	3.86	3.22	2.67	2.91	2.89	3.32	3.50
Average (ft)	0.74	0.80	0.80	0.79	1.60	0.95	0.97	0.73	0.69	0.75	0.70	0.97	19.51	19.29	19.21	22.01	19.38
Total Free Product (ft)	20.67	22.51	22.35	22.23	44.76	26.62	27.24	20.38	19.33	21.08	19.52	27.29	30.01	29.67	29.55	33.86	29.81
Total Standing Free Product Volume (gal)	13.44	14.63	14.53	14.45	29.09	17.30	17.71	13.25	12.56	13.70	12.69	17.74	19.51	19.29	19.21	22.01	19.38
Estimated Total Free Product Removed (gal) [(1)] *(Liquid and Vapor Phase Free Product Volume)*	25.07	44.12	35.36	49.32	79.06	46.44	56.75	37.50	40.36	37.70	27.86	28.54	31.09	29.36	32.48	33.28	29.73
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*	21.05	38.78	51.36	43.73	74.01	40.01	51.15	31.23	36.30	33.00	25.58	25.16	26.40	23.93	24.75	26.40	25.16
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*	5.26	6.58	5.65	6.42	11.06	8.49	8.90	7.50	6.53	6.35	4.76	6.26	7.99	7.91	9.38	8.53	6.63
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*	19.81	37.54	29.71	42.90	68.00	37.95	47.85	30.00	33.83	31.35	23.10	22.28	23.10	21.45	23.10	24.75	23.10
Groundwater Extraction Volume (gal) per each EFR Event [(7)] *as of Jan 2000*	1.24	1.24	1.65	0.83	6.01	2.06	3.50	1.24	2.48	1.65	2.48	2.89	3.30	2.48	1.65	1.65	2.06
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor)*	26.31	45.36	37.01	50.15	85.07	48.50	60.05	38.73	42.84	39.35	30.34	31.42	34.39	31.84	34.13	34.93	31.79
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [(9)]	134			148			296			90				0			
Total Volume Removed from Site (gal) *(Manifested volume)* [(9)]	225			306			415			200				100			
Cumulative Total Free Product Removed (gal)	2,734	2,778	2,813	2,863	2,942	2,988	3,045	3,082	3,123	3,160	3,188	3,217	3,248	3,277	3,310	3,343	3,373
Extraction, Transportation & Disposal Cost[(2)]	$ 762.31			$ 996.13			$ 1,175.19			$ 1,069.50				$ 768.25			
Unit Cost per gal[(2)]	$ 3.39			$ 3.26			$ 2.83			$ 5.35				$ 7.68			

Prepared By: Nicholas J. Clevett
RMT, Inc.
7/22/2002
File: FreeProduct.xls EFR EVENT DATA

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

EFR Event Date / Well No.	EFR #53 April 18, 2002 Feet of Product	EFR #54 May 6, 2002 Feet of Product	EFR #55 June 13, 2002 Feet of Product	EFR AVERAGES	EFR TOTALS
EFR-1	0.77	1.60	1.92		
EFR-2	1.20	2.39	2.15		
EFR-3	1.09	1.28	1.53		
EFR-4	0.89	0.98	1.07		
EFR-5	3.07	3.25	2.17		
EFR-6	0.77	0.43	0.27		
EFR-7	0.00	0.00	0.00		
EFR-8	0.10	0.05	0.07		
EFR-9	0.32	0.28	0.11		
EFR-10	2.77	2.64	3.39		
EFR-11	0.99	0.87	1.01		
EFR-12	0.15	0.00	0.06		
EFR-13	0.68	1.71	1.11		
EFR-14	0.00	0.00	0.00		
EFR-15	0.00	0.00	0.00		
EFR-16	0.00	0.00	0.00		
EFR-17	0.77	0.75	0.60		
EFR-18	0.81	0.80	0.05		
EFR-19	2.69	1.34	0.95		
EFR-20	1.24	1.74	2.05		
EFR-21	1.65	2.11	2.51		
EFR-22	0.39	0.16	0.19		
EFR-23	0.70	0.57	0.52		
EFR-24	1.35	0.33	0.24		
EFR-25	1.21	0.33	0.29		
EFR-26	1.67	1.83	1.92		
EFR-27	0.00	0.38	1.31		
EFR-28	0.65	0.29	0.35		
MIN (ft)	0.00	0.00	0.00		
MAX (ft)	3.07	3.25	3.39		
Average (ft)	16.84	16.97	16.78		
Total Free Product (ft)	25.91	26.11	25.82		
Total Standing Free Product Volume (gal)	16.84	16.97	16.78		
Estimated Total Free Product Removed (gal) [1] *(Liquid and Vapor Phase Free Product Volume)*	31.72	28.10	29.15	62	3,462
Estimated Total Fluids Removed (gal) *(Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000*	28.05	26.40	28.05	35	982
Vapor Phase Free Product Extraction Volume (gal) *as of Jan 2000*	6.15	5.00	6.05	7	196
Liquid Phase Free Product Extraction Volume (gal) *as of Jan 2000*	25.58	23.10	23.10	32	903
Groundwater Extraction Volume (gal) per each EFR Event [7] *as of Jan 2000*	2.48	3.30	4.95	3	79
Total EFR Extraction Volume (gal) (Total Volume: *free product + groundwater + product vapor*)	34.21	31.40	34.10	261	14,596
Estimated Volume Removed Resulting from Drum Purging (GW purge water) *if applicable* [9]				186	3,723
Total Volume Removed from Site (gal) *(Manifested volume)* [9]				512	17,930
Cumulative Total Free Product Removed (gal)	3,404	3,433	3,462	N/A	3,462
Extraction, Transportation & Disposal Cost[2]				$ 1,373.64	$ 49,451.05
Unit Cost per gal[3]				$ 3.49	N/A

Prepared By: Nicholas J. Clevett
RMT, Inc.
7/22/2002
File: FreeProduct.xls EFR EVENT DATA

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

	EFR Event Date	21-Nov-97	9-Dec-97	7-Jan-98	16-Feb-98	16-Mar-98	27-Mar-98	24-Apr-98	29-May-98	30-Jun-98	31-Jul-98	24-Aug-98	17-Sep-98
Western Region of Free Product	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
	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
	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
	EFR-17	0.04	0.17	1.56	0.17	0.08	0.00	0.09	0.00	0.02	0.37	0.29	0.46
	EFR-18	0.10	0.10	0.09	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.14	0.48
	EFR-20	0.40	0.34	0.95	0.27	0.00	0.00	0.04	0.24	0.37	0.65	0.63	0.79
	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
	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
	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
	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
West-Central Region of Free Product	EFR-4	1.03	2.27	0.54	0.30	0.00	0.00	0.00	0.00	0.03	0.38	1.23	2.40
	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
	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
	EFR-7	0.17	0.09	0.16	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.07
	EFR-19	0.54	2.80	1.89	1.95	1.63	1.44	0.88	0.65	0.42	0.90	1.26	1.68
	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
	EFR-23	0.00	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.05	0.11	0.08	0.27
	EFR-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00
	EFR-25	2.95	3.00	3.55	4.15	3.11	0.72	0.82	0.79	0.78	0.60	0.41	0.29
	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
	EFR-27	0.15	0.02	2.71	0.74	0.00	0.00	0.03	0.00	0.02	0.33	0.45	1.49
	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
	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
East-Central Region of Free Product	EFR-8	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.03	0.04	0.08	0.13
	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
	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
	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
	EFR-12	0.04	0.03	0.00	0.07	0.00	0.00	0.00	0.02	0.28	0.22	0.28	0.24
	EFR-13	0.48	0.56	1.33	1.28	1.07	1.07	0.67	0.00	0.90	0.56	0.48	0.66
	Total Free Product (ft)	8.79	11.53	13.82	13.53	15.53	11.87	13.36	11.33	13.26	11.10	10.81	10.55
	Total Free Product (gal)	5.63	7.39	8.86	8.67	9.95	7.61	8.56	7.26	8.50	7.12	6.93	6.86
Eastern Region of Free Product	EFR-14	0.10	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.09	0.12	0.27	0.06	0.00	0.00	0.00	0.00	0.03	0.02	0.03	0.03
	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
	Total Free Product (ft)	0.19	0.28	0.27	0.06	0.00	0.00	0.00	0.00	0.03	0.02	0.03	0.03
	Total Free Product (gal)	0.12	0.18	0.17	0.04	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.02
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		21.60	25.83	27.79	28.24	28.64	21.22	23.23	19.92	19.97	19.47	19.70	22.03

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

	EFR Event Date	22-Oct-98	20-Nov-98	18-Dec-98	13-Jan-99	17-Feb-99	23-Mar-99	19-Apr-99	18-May-99	22-Jun-99	28-Jul-99	27-Aug-99	22-Sep-99
Western Region of Free Product	EFR-1	1.59	1.71	1.57	0.53	1.79	3.68	1.13	1.09	1.15	1.49	1.27	1.94
	EFR-2	1.29	1.51	1.41	0.95	1.40	2.42	1.46	1.22	0.92	1.21	1.00	0.63
	EFR-3	1.01	1.19	1.18	1.14	1.01	1.63	0.36	0.25	0.86	0.88	1.03	0.74
	EFR-17	0.56	0.71	0.53	0.26	0.08	0.06	0.06	0.08	0.12	0.39	0.36	0.10
	EFR-18	0.68	0.98	1.08	0.56	0.11	0.00	0.06	0.16	0.46	0.96	1.37	0.61
	EFR-20	1.24	1.85	2.11	0.65	1.33	0.88	0.43	0.89	0.87	1.59	1.86	0.47
	EFR-21	1.77	1.67	1.62	1.21	1.43	2.62	2.35	1.49	1.46	1.57	1.04	1.01
	EFR-28	1.83	1.79	1.74	1.03	1.29	1.71	1.65	1.46	1.25	1.67	1.78	0.38
	Total Free Product (ft)	9.97	11.41	11.24	6.33	8.44	13.00	7.50	6.64	7.09	9.76	9.71	5.88
	Total Free Product (gal)	6.48	7.42	7.31	4.11	5.49	8.45	4.88	4.32	4.61	6.34	6.31	3.82
West-Central Region of Free Product	EFR-4	2.17	1.75	1.79	0.73	0.10	0.14	0.08	0.05	0.03	0.44	0.99	0.51
	EFR-5	2.52	2.19	2.28	2.68	3.47	6.15	2.65	2.61	2.66	2.66	1.57	1.77
	EFR-6	1.25	1.29	1.38	0.49	0.84	0.88	0.61	1.07	1.16	1.51	0.91	0.15
	EFR-7	0.05	0.20	0.16	0.02	0.04	0.04	0.07	0.02	0.08	0.28	0.05	0.01
	EFR-19	1.95	2.31	2.44	1.83	1.68	0.52	0.44	0.52	1.10	2.05	2.02	0.51
	EFR-22	2.83	2.58	2.27	2.06	0.84	0.34	0.95	1.39	1.93	1.47	1.41	0.17
	EFR-23	1.03	3.07	2.29	1.55	0.91	0.47	0.22	0.25	0.45	2.13	1.03	0.12
	EFR-24	0.03	0.12	0.14	0.38	0.06	0.00	0.00	0.00	0.08	0.08	0.05	0.00
	EFR-25	0.41	1.33	1.58	1.05	1.75	1.19	1.08	0.76	0.54	1.74	1.48	0.21
	EFR-26	1.24	1.08	1.09	0.73	0.55	0.45	0.75	1.29	1.28	1.23	0.72	0.29
	EFR-27	0.54	0.47	0.51	0.09	0.12	0.00	0.00	0.02	0.03	0.17	0.21	0.06
	Total Free Product (ft)	14.02	16.39	15.93	11.61	10.36	10.18	6.85	7.98	9.34	13.76	10.44	3.80
	Total Free Product (gal)	9.11	10.65	10.35	7.55	6.73	6.62	4.45	5.19	6.07	8.94	6.79	2.47
East-Central Region of Free Product	EFR-8	0.09	0.07	0.03	0.12	0.00	0.03	0.03	0.03	0.09	0.39	0.27	0.09
	EFR-9	1.31	1.26	1.86	0.74	0.49	0.06	0.11	0.32	0.49	1.16	0.56	0.41
	EFR-10	4.38	3.98	3.99	3.68	5.79	5.52	4.97	4.23	3.71	3.63	2.47	3.02
	EFR-11	4.06	3.65	3.52	2.42	4.69	2.84	2.02	2.48	3.28	2.78	1.57	1.93
	EFR-12	0.15	0.29	0.17	0.04	0.11	0.05	0.02	0.02	0.10	0.30	0.20	0.03
	EFR-13	0.82	1.13	1.30	0.22	1.19	0.15	0.49	0.50	0.44	1.33	1.01	0.74
	Total Free Product (ft)	10.81	10.38	10.87	7.22	12.27	8.65	7.64	7.58	8.11	9.59	6.08	6.22
	Total Free Product (gal)	7.03	6.75	7.07	4.69	7.98	5.62	4.97	4.93	5.27	6.23	3.95	4.04
Eastern Region of Free Product	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	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04
	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
	Total Free Product (ft)	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04
	Total Free Product (gal)	0.08	0.08	0.21	0.07	0.04	0.01	0.01	0.00	0.00	0.00	0.08	0.03
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		22.70	24.89	24.93	16.42	20.24	20.70	14.30	14.43	15.95	21.52	17.13	10.36

TABLE 2

L.E. CARPENTER - WHARTON, NEW JERSEY

REGIONAL APPARENT FREE PRODUCT TRENDS

	EFR Event Date	27-Oct-99	30-Nov-99	16-Dec-99	28-Jan-00	18-Feb-00	24-Mar-00	19-Apr-00	18-May-00	16-Jun-00	18-Jul-00	17-Aug-00	18-Sep-00
Western Region of Free Product	EFR-1	1.63	1.47	1.20	1.22	0.85	1.86	1.59	1.54	2.10	1.51	1.26	1.53
	EFR-2	1.35	1.28	1.40	0.06	1.04	2.25	2.00	1.64	1.89	1.40	0.36	1.08
	EFR-3	0.69	0.47	0.02	0.51	0.07	0.08	0.09	0.62	1.02	0.25	0.02	0.08
	EFR-17	0.06	0.24	0.25	0.11	0.32	0.04	0.16	0.65	0.04	0.01	0.02	0.09
	EFR-18	0.36	0.77	0.05	0.20	0.05	0.12	0.04	0.32	0.01	0.06	0.16	0.08
	EFR-20	1.92	1.36	0.75	1.08	2.58	0.64	0.42	0.54	0.33	0.30	0.39	0.45
	EFR-21	2.32	1.40	1.70	1.92	1.34	3.04	2.86	2.47	3.02	2.09	1.62	2.75
	EFR-28	2.19	0.96	1.42	1.33	1.00	2.30	2.42	1.81	2.68	1.72	2.48	2.02
	Total Free Product (ft)	10.52	7.95	6.79	6.43	7.25	10.33	9.58	9.59	11.09	7.34	6.31	8.08
	Total Free Product (gal)	6.84	5.17	4.41	4.18	4.71	6.71	6.23	6.23	7.21	4.77	4.10	5.25
West-Central Region of Free Product	EFR-4	0.11	0.03	0.58	0.51	0.48	0.11	0.11	0.41	0.22	0.05	0.02	0.02
	EFR-5	3.23	2.99	1.27	2.95	2.46	2.91	2.54	1.84	2.34	1.99	1.69	1.57
	EFR-6	0.86	0.63	0.33	1.07	0.77	0.29	0.31	0.49	0.27	0.54	0.29	0.55
	EFR-7	0.07	0.04	0.47	0.15	0.02	0.35	0.01	0.02	-	-	0.01	-
	EFR-19	1.54	0.84	0.69	1.67	1.73	0.25	0.60	0.98	0.17	0.63	0.34	0.22
	EFR-22	2.22	1.76	0.53	0.82	0.58	0.09	0.16	0.05	0.05	0.01	0.18	0.06
	EFR-23	0.53	0.64	0.24	0.23	0.31	0.46	0.06	0.06	0.01	0.13	0.03	0.07
	EFR-24	0.00	0.04	0.13	0.11	0.07	0.58	0.02	0.03	-	-	-	0.01
	EFR-25	0.39	0.19	0.05	0.31	0.39	0.58	0.21	0.10	0.03	0.10	0.03	0.10
	EFR-26	0.52	0.94	0.59	1.54	1.10	1.33	1.68	2.02	1.44	2.25	1.38	2.01
	EFR-27	0.01	0.01	0.01	0.02	0.14	0.20	0.01	0.03	0.04	0.01	0.01	0.15
	Total Free Product (ft)	9.48	8.11	4.89	9.38	8.05	7.15	5.71	6.03	4.57	5.71	3.98	4.76
	Total Free Product (gal)	6.16	5.27	3.18	6.10	5.23	4.65	3.71	3.92	2.97	3.71	2.59	3.09
East-Central Region of Free Product	EFR-8	0.13	0.05	0.11	0.05	0.06	0.08	0.03	0.05	0.03	0.02	0.01	0.01
	EFR-9	0.28	0.10	0.15	0.13	0.08	0.19	0.02	0.06	0.06	0.12	0.16	0.08
	EFR-10	5.18	3.95	3.07	4.50	3.55	3.50	4.50	1.36	2.50	3.09	0.75	2.76
	EFR-11	3.20	3.11	1.07	3.44	4.95	2.41	2.95	2.93	2.49	4.12	0.79	4.73
	EFR-12	0.09	0.67	0.01	0.03	0.49	0.46	0.10	0.19	0.01	0.01	0.00	0.03
	EFR-13	0.78	0.57	0.26	0.36	0.34	0.48	0.47	0.69	0.55	0.73	0.49	0.22
	Total Free Product (ft)	9.66	8.45	4.67	8.51	9.47	7.12	8.07	5.28	5.64	8.09	2.20	7.83
	Total Free Product (gal)	6.28	5.49	3.04	5.53	6.16	4.63	5.25	3.43	3.67	5.26	1.43	5.09
Eastern Region of Free Product	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	0.02	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00
	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
	Total Free Product (ft)	0.02	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00
	Total Free Product (gal)	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		19.29	15.98	10.64	15.82	16.11	16.00	15.20	13.59	13.85	13.74	8.12	13.44

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

	EFR Event Date	25-Oct-00	17-Nov-00	15-Dec-00	15-Mar-01	23-Apr-01	25-May-01	13-Jun-01	27-Jul-01	24-Aug-01	25-Sep-01	25-Oct-01	20-Nov-01	31-Dec-01
Western Region of Free Product	EFR-1	1.00	1.07	1.14	2.91	1.25	1.02	1.14	0.57	0.80	1.29	1.60	1.51	1.57
	EFR-2	0.97	1.09	0.76	2.92	2.66	1.75	2.26	1.22	1.17	1.22	1.14	1.15	1.19
	EFR-3	0.44	0.43	0.46	0.33	0.29	0.49	0.70	0.40	0.66	0.51	0.81	0.76	0.80
	EFR-17	0.06	0.36	0.01	0.41	0.31	0.51	0.28	0.02	0.49	0.34	0.85	0.97	1.57
	EFR-18	0.31	0.31	0.20	3.27	1.35	0.43	0.31	0.01	0.13	0.41	0.69	0.75	1.22
	EFR-20	0.54	0.11	0.37	0.24	0.97	0.52	0.31	0.08	0.32	0.24	0.73	1.10	1.29
	EFR-21	1.79	1.65	1.37	4.09	3.51	2.96	2.61	1.98	1.61	1.87	1.58	1.38	1.54
	EFR-28	1.39	1.36	0.64	2.81	2.75	1.86	2.34	1.36	1.67	1.05	1.50	1.38	1.51
	Total Free Product (ft)	6.50	6.38	4.95	16.98	13.09	9.54	9.95	5.64	6.85	6.93	8.90	9.00	10.69
	Total Free Product (gal)	4.23	4.15	3.22	11.04	8.51	6.20	6.47	3.67	4.45	4.50	5.79	5.85	6.95
West-Central Region of Free Product	EFR-4	0.02	0.05	0.21	0.59	1.65	0.01	0.44	0.02	1.86	0.11	0.57	0.68	0.54
	EFR-5	2.74	2.47	2.76	5.95	1.75	1.90	0.62	2.24	2.05	2.25	2.55	2.10	2.67
	EFR-6	0.83	0.79	0.96	2.05	0.32	0.43	0.16	0.46	0.49	0.37	1.13	1.56	1.23
	EFR-7	0.01	0.01	0.01	0.28	0.02	0.02	0.00	0.00	0.16	0.00	0.05	0.08	0.24
	EFR-19	0.87	0.59	1.42	2.32	0.65	1.98	1.01	0.44	1.19	0.54	2.15	2.36	2.38
	EFR-22	0.53	2.14	1.50	0.81	0.06	0.43	0.00	0.00	0.47	0.57	1.22	1.53	1.93
	EFR-23	0.07	0.08	0.39	0.07	0.03	0.88	0.28	0.05	0.34	0.07	0.85	2.67	0.75
	EFR-24	0.01	0.01	0.04	2.27	0.05	0.34	0.01	0.01	0.27	0.14	0.35	0.38	0.34
	EFR-25	0.19	0.12	0.10	0.04	0.39	0.28	0.14	0.03	0.47	0.09	0.43	0.63	0.64
	EFR-26	2.05	1.78	1.10	2.64	2.56	2.68	1.48	2.24	1.07	1.20	1.45	1.22	1.13
	EFR-27	0.01	0.01	0.01	0.48	0.05	0.04	0.00	0.01	0.04	0.00	0.52	0.49	0.13
	Total Free Product (ft)	7.33	8.05	8.50	17.50	7.53	8.99	4.14	5.50	8.41	5.34	11.27	13.70	11.98
	Total Free Product (gal)	4.76	5.23	5.53	11.38	4.89	5.84	2.69	3.58	5.47	3.47	7.33	8.91	7.79
East-Central Region of Free Product	EFR-8	0.16	0.02	0.06	0.03	0.05	0.04	0.03	0.01	0.18	0.00	0.18	0.16	0.22
	EFR-9	0.02	0.50	0.77	0.57	0.07	0.56	0.07	0.14	0.27	0.39	0.56	0.85	0.32
	EFR-10	3.88	3.27	4.05	5.64	3.17	3.52	3.32	3.73	2.30	2.62	2.70	2.61	2.91
	EFR-11	4.26	4.00	3.73	2.82	2.41	3.56	2.60	3.91	2.37	3.86	3.22	2.44	2.90
	EFR-12	0.11	0.04	0.02	0.07	0.02	0.25	0.01	0.01	0.23	0.00	0.00	0.34	0.21
	EFR-13	0.25	0.09	0.15	1.14	0.27	0.78	0.26	0.39	0.47	0.38	0.46	0.88	0.44
	Total Free Product (ft)	8.68	7.92	8.78	10.27	5.99	8.71	6.29	8.19	5.82	7.25	7.12	7.28	7.00
	Total Free Product (gal)	5.64	5.15	5.71	6.68	3.89	5.66	4.09	5.32	3.78	4.71	4.63	4.73	4.55
Eastern Region of Free Product	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	0.00
	EFR-15	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
	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	0.00
	Total Free Product (ft)	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
	Total Free Product (gal)	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		14.63	14.53	14.45	29.09	17.30	17.71	13.25	12.56	13.70	12.69	17.74	19.51	19.29

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

	EFR Event Date	29-Jan-02	20-Feb-02	26-Mar-02	10-Apr-02	6-May-02	13-Jun-02
Western Region of Free Product	EFR-1	2.07	1.93	0.90	0.77	1.60	1.92
	EFR-2	1.37	1.33	1.40	1.20	2.39	2.15
	EFR-3	0.70	0.78	1.05	1.09	1.28	1.53
	EFR-17	1.43	2.23	1.90	0.77	0.75	0.60
	EFR-18	1.90	1.00	1.07	0.81	0.80	0.05
	EFR-20	1.78	0.46	1.24	1.24	1.74	2.03
	EFR-21	1.51	1.50	2.25	1.65	2.11	2.51
	EFR-28	1.67	1.86	0.21	0.63	0.29	0.35
	Total Free Product (ft)	12.43	11.09	10.02	8.16	10.96	11.14
	Total Free Product (gal)	8.08	7.21	6.51	5.30	7.12	7.24
West-Central Region of Free Product	EFR-4	0.26	1.13	0.37	0.89	0.98	1.07
	EFR-5	2.66	2.68	3.50	3.07	3.25	2.17
	EFR-6	0.71	2.21	2.30	0.77	0.43	0.27
	EFR-7	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-19	2.26	3.22	2.90	2.69	1.34	0.95
	EFR-22	0.98	0.63	0.80	0.39	0.16	0.19
	EFR-23	0.98	1.13	0.01	0.70	0.57	0.52
	EFR-24	0.47	2.65	0.60	1.35	0.33	0.24
	EFR-25	0.82	0.99	0.75	1.21	0.33	0.29
	EFR-26	1.14	0.87	1.55	1.67	1.83	1.92
	EFR-27	0.53	0.32	0.00	0.00	0.38	1.31
	Total Free Product (ft)	10.81	15.83	12.78	12.74	9.60	8.93
	Total Free Product (gal)	7.03	10.29	8.31	8.28	6.24	5.80
East-Central Region of Free Product	EFR-8	0.01	0.04	0.07	0.10	0.05	0.07
	EFR-9	0.29	0.45	0.32	0.32	0.28	0.11
	EFR-10	2.02	3.32	3.48	2.77	2.64	3.39
	EFR-11	2.89	2.58	2.12	0.99	0.87	1.01
	EFR-12	0.26	0.11	0.10	0.15	0.00	0.06
	EFR-13	0.84	0.44	0.87	0.68	1.71	1.11
	Total Free Product (ft)	6.31	6.94	6.96	5.01	5.55	5.75
	Total Free Product (gal)	4.10	4.51	4.52	3.26	3.61	3.74
Eastern Region of Free Product	EFR-14	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.00	0.00	0.05	0.00	0.00	0.00
	EFR-16	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.00	0.00	0.05	0.00	0.00	0.00
	Total Free Product (gal)	0.00	0.00	0.03	0.00	0.00	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		19.21	22.01	19.38	16.84	16.97	16.78

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

MONTHLY EFR WELL GAUGING LOG

EFR #53 DATE 10-Apr-02

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
EFR-1	11.48	12.25	0.77
EFR-2	12	13.2	1.20
EFR-3	11.81	12.9	1.09
EFR-4	13.38	14.27	0.89
EFR-5	11.68	14.75	3.07
EFR-6	11.35	12.12	0.77
EFR-7	6.72	6.72	0.00
EFR-8	7.3	7.4	0.10
EFR-9	7.6	7.92	0.32
EFR-10	8.24	11.01	2.77
EFR-11	7.91	8.9	0.99
EFR-12	6.83	6.98	0.15
EFR-13	5.97	6.65	0.68
EFR-14	6.17	6.17	0.00
EFR-15	5.6	5.6	0.00
EFR-16	6.05	6.05	0.00
EFR-17	10.8	11.57	0.77
EFR-18	10.76	11.57	0.81
EFR-19	13.58	16.27	2.69
EFR-20	10.86	12.1	1.24
EFR-21	10.31	11.96	1.65
EFR-22	13.51	13.9	0.39
EFR-23	9.95	10.65	0.70
EFR-24	13.1	14.45	1.35
EFR-25	12.74	13.95	1.21
EFR-26	14.45	16.12	1.67
EFR-27	13.04	13.04	0.00
EFR-28	11.87	12.5	0.63

Total Volume Of Free Standing Product (gal) 16.84

CEMCO FIELD TECHNICIAN: Gary Pizzuti

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

MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #53 **10-Apr-02**

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	7.0	0.1167	6,560	100	17	100	32.01	3.7350
EFR-2	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-3	4.0	0.0667	6,560	100	17	100	32.01	2.1343
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	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-7	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-8	0.5	0.0083	262	4	17	100	1.28	0.0107
EFR-9	1.0	0.0167	722	11	17	100	3.52	0.0587
EFR-10	15.0	0.2500	1,706	26	17	100	8.32	2.0809
EFR-11	5.0	0.0833	4,395	67	17	100	21.45	1.7875
EFR-12	1.0	0.0167	590	9	17	100	2.88	0.0480
EFR-13	3.0	0.0500	262	4	17	100	1.28	0.0640
EFR-14	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-15	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-16	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-17	2.0	0.0333	6,298	96	17	100	30.73	1.0245
EFR-18	2.0	0.0333	6,429	98	17	100	31.37	1.0458
EFR-19	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-20	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-21	8.0	0.1333	6,560	100	17	100	32.01	4.2686
EFR-22	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-23	5.0	0.0833	6,560	100	17	100	32.01	2.6679
EFR-24	3.0	0.0500	0	100	17	100	0.00	0.0000
EFR-25	1.5	0.0250	6,560	100	17	100	32.01	0.8004
EFR-26	6.0	0.1000	6,560	100	17	100	32.01	3.2014
EFR-27	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-28	2.5	0.0417	6,560	100	17	100	32.01	1.3339
Total EFR Time (hrs)		1.8500	AVG ppm	5086.98			TOTAL (LBS)	48.0054
							TOTAL VAPOR PHASE VOLUME (GAL)	6.1476

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 & W
Analyte LELs: DEHP @ 0.3% ; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

ppm_v =	Parts per Million by Volume		
Flow =	Cubic feet per minute (CFM)	100	
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)	15.50
Groundwater Thickness (in)	1.50
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	25.58
Total Groundwater Volume (gal)	2.48
Ratio Groundwater to Free Product (gal/gal)	0.10

		Y (gal)
Total Recovered Groundwater Volume (gal)		2.48
Total Recovered Free Product Volume (gal)		25.58
Total Recovered Fluids Volume (gal)		28.05
TOTAL EFR PRODUCT VOLUME		31.72 GAL

Date	10-Apr-02
Project #	3868.30
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 #54 DATE 6-May-02

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	10.11	11.71	1.60
EFR-2	10.6	12.99	2.39
EFR-3	10.52	11.8	1.28
EFR-4	11.42	12.4	0.98
EFR-5	10.39	13.64	3.25
EFR-6	9.8	10.23	0.43
EFR-7	5.49	5.49	0.00
EFR-8	6.08	6.13	0.05
EFR-9	6.37	6.65	0.28
EFR-10	7	9.64	2.64
EFR-11	6.68	7.55	0.87
EFR-12	5.62	5.62	0.00
EFR-13	5.09	6.8	1.71
EFR-14	4.98	4.98	0.00
EFR-15	4.3	4.3	0.00
EFR-16	4.85	4.85	0.00
EFR-17	8.8	9.55	0.75
EFR-18	9.48	10.28	0.80
EFR-19	12.21	13.55	1.34
EFR-20	10.04	11.78	1.74
EFR-21	9.01	11.12	2.11
EFR-22	12.07	12.23	0.16
EFR-23	8.4	8.97	0.57
EFR-24	11.8	12.13	0.33
EFR-25	11.22	11.55	0.33
EFR-26	13.12	14.95	1.83
EFR-27	10.92	11.3	0.38
EFR-28	10.54	10.83	0.29

Total Volume Of Free Standing Product (gal) 16.97

CEMCO FIELD TECHNICIAN: Gary Pizzuti

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

MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #54 **6-May-02**

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	6.0	0.1000	6,560	100	17	100	32.01	3.2014
EFR-2	12.0	0.2000	6,560	100	17	100	32.01	6.4029
EFR-3	3.0	0.0500	6,560	100	17	100	32.01	1.6007
EFR-4	4.0	0.0667	6,560	100	17	100	32.01	2.1343
EFR-5	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-6	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-7	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-8	0.5	0.0083	1,246	19	17	100	6.08	0.0507
EFR-9	0.5	0.0083	1,509	23	17	100	7.36	0.0614
EFR-10	8.0	0.1333	5,642	86	17	100	27.53	3.6710
EFR-11	7.0	0.1167	6,560	100	17	100	32.01	3.7350
EFR-12	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-13	1.5	0.0250	394	6	17	100	1.92	0.0480
EFR-14	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-15	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-16	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-17	1.5	0.0250	6,560	100	17	100	32.01	0.8004
EFR-18	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-19	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-20	5.0	0.0833	6,560	100	17	100	32.01	2.6679
EFR-21	9.0	0.1500	6,560	100	17	100	32.01	4.8021
EFR-22	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-23	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-24	1.0	0.0167	0	100	17	100	0.00	0.0000
EFR-25	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-26	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-27	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-28	0.5	0.0083	6,560	100	17	100	32.01	0.2668
GRAND TOTAL		1.2917	AVG PPM	5468.65			TOTAL LBS	39.0467
							TOTAL VAPOR PHASE VOLUME (GAL)	5.0004

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 & W
Analyte LELs: DEHP @ 0.3% ; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

ppm_v =	Parts per Million by Volume		
Flow =	Cubic feet per minute (CFM)	100	
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)	14.00
Groundwater Thickness (in)	2.00
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	23.10
Total Groundwater Volume (gal)	3.30
Ratio Groundwater to Free Product (gal/gal)	0.14

	Y (gal)
Total Recovered Groundwater Volume (gal)	3.30
Total Recovered Free Product Volume (gal)	23.10
Total Recovered Fluids Volume (gal)	26.40
TOTAL EFR PRODUCT VOLUME	28.10 GAL

Date	6-May-02
Project #	3868.30
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 #55 DATE 13-Jun-02

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	9.98	11.9	1.92
EFR-2	10.42	12.57	2.15
EFR-3	10.28	11.81	1.53
EFR-4	11.62	12.69	1.07
EFR-5	10.28	12.45	2.17
EFR-6	9.65	9.92	0.27
EFR-7	5.88	5.88	0.00
EFR-8	5.91	5.98	0.07
EFR-9	6.19	6.3	0.11
EFR-10	6.8	10.19	3.39
EFR-11	6.5	7.51	1.01
EFR-12	5.44	5.5	0.06
EFR-13	4.98	6.09	1.11
EFR-14	4.82	4.82	0.00
EFR-15	4.22	4.22	0.00
EFR-16	4.97	4.97	0.00
EFR-17	8.65	9.25	0.60
EFR-18	9.27	9.32	0.05
EFR-19	12.15	13.1	0.95
EFR-20	9.83	11.86	2.03
EFR-21	8.78	11.29	2.51
EFR-22	12.12	12.31	0.19
EFR-23	8.47	8.99	0.52
EFR-24	11.67	11.91	0.24
EFR-25	11.28	11.57	0.29
EFR-26	12.97	14.89	1.92
EFR-27	11.19	12.5	1.31
EFR-28	10.35	10.7	0.35

Total Volume Of Free Standing Product (gal) 16.78

CEMCO FIELD TECHNICIAN: Gary Pizzuti

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

MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #55 **13-Jun-02**

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	6.0	0.1000	6,560	100	17	100	32.01	3.2014
EFR-2	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-3	3.0	0.0500	6,560	100	17	100	32.01	1.6007
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	0.5	0.0083	3,739	57	17	100	18.25	0.1521
EFR-7	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-8	0.5	0.0083	1,181	18	17	100	5.76	0.0480
EFR-9	0.5	0.0083	2,034	31	17	100	9.92	0.0827
EFR-10	12.0	0.2000	6,560	100	17	100	32.01	6.4029
EFR-11	7.0	0.1167	6,560	100	17	100	32.01	3.7350
EFR-12	0.5	0.0083	787	12	17	100	3.84	0.0320
EFR-13	4.5	0.0750	6,560	100	17	100	32.01	2.4011
EFR-14	0.0	0.0000	0	0	17	100	0.00	0.0000
EFR-15	0.0	0.0000	0	0	17	100	0.00	0.0000
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	0.5	0.0083	984	15	17	100	4.80	0.0400
EFR-19	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-20	6.0	0.1000	6,560	100	17	100	32.01	3.2014
EFR-21	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-22	0.5	0.0083	3,149	48	17	100	15.37	0.1281
EFR-23	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-24	0.5	0.0083	0	54	17	100	0.00	0.0000
EFR-25	0.5	0.0083	2,362	36	17	100	11.53	0.0960
EFR-26	8.0	0.1333	6,560	100	17	100	32.01	4.2686
EFR-27	3.0	0.0500	6,560	100	17	100	32.01	1.6007
EFR-28	0.5	0.0083	6,560	100	17	100	32.01	0.2668
GRAND TOTAL		1.5250	AVG. ppm	5084.00			TOTAL (LBS)	47.2664
							TOTAL VAPOR PHASE VOLUME (GAL)	6.0530

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 & W
Analyte LELs: DEHP @ 0.3% ; Ethylbenzene @ 1%; Xylenes @ 1.1%

Where:

ppm_v =	Parts per Million by Volume		
Flow =	Cubic feet per minute (CFM)	100	
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)	14.00
Groundwater Thickness (in)	3.00
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	23.10
Total Groundwater Volume (gal)	4.95
Ratio Groundwater to Free Product (gal/gal)	0.21

	Y (gal)
Total Recovered Groundwater Volume (gal)	4.95
Total Recovered Free Product Volume (gal)	23.10
Total Recovered Fluids Volume (gal)	28.05
TOTAL EFR PRODUCT VOLUME	29.15 GAL

Date	13-Jun-02
Project #	3868.30
Subcontractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

CEMCO Field Technician: Gary Pizzuti

RMT Project Manager: Nick Clevett

TABLE 4
L.E. CARPENTER - WHARTON, NEW JERSEY
QUARTERLY MONITORING PROTOCOL

Monitoring Well	Analytical Parameters	Rational	Comments
MW-14S	BTEX(1) DEHP(1)	Analytical results will identify the migration of the dissolved groundwater plume in the Shallow Aquifer Zone downgradient of the site (Wharton Enterprise property)	Monitoring Well added to quarterly sampling protocol beginning 1st Quarter 2002 the further assess groundwater quality and flow within the Wharton Enterprise property.
MW-14I	BTEX(1) DEHP(1)	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	BTEX(1) DEHP(1)	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	BTEX(1) DEHP(1)	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	BTEX(1) DEHP(1)	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. Beginning in 2nd quarter 2001, well will be analyzed for DEHP quarterly vs. semiannually
MW-25R	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	BTEX(1) DEHP(1)	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone.	Original Monitoring Well
MW-4	BTEX(1) DEHP(1)	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)	DEHP(1)	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 1999 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. As of 4th Quarter 2000 (1 year of BTEX and DEHP sampling), approval was requested from NJDEP and USEPA to remove this well from the quarterly sampling program. NJDEP response letter dated April 5, 2001 following review of the 4th Quarter 2000 monitoring report requested that MW-11D(R) be sampled quarterly for DEHP ONLY.
MW-21	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) Parameter analyzed every quarter
(2) Low flow sampling initiated 1st Quarter 2002 [Ref. Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001]
(3) Beginning 1st Quarter 2002, both BTEX and DEHP will be analyzed every quarter

S: Shallow Hydrogeologic Unit
I: Intermediate Hydrogeologic
D: Deep Hydrogeologic Unit
R: Replacement well

QA/QC PROTOCOL
QA/QC procedures outlined in the Quality Assurance Project Plan (QAPP) included as Appendix A in the report entitled Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001), and amended in the October 23, 2001 responses to agency comments regarding the "Workplan", will be followed during each sampling event.

Field Blank : BTEX & DEHP - USE TRIPLE DISTILLED WATER
Trip Blank: BTEX & DEHP - USE TRIPLE DISTILLED WATER
Rinsate Blank: BTEX & DEHP

FIELD ANALYSIS
All quarterly monitoring wells will be field tested for pH, temperature, specific conductivity, & turbidity

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-4	1995	1	ND	26	ND	32	25,000	NO	NO	NO	NO	YES
		2	ND	16	ND	13	46,000	NO	NO	NO	NO	YES
		3	ND	9.7	ND	8.7	NS	NO	NO	NO	NO	--
		4	ND	8.8	ND	11	17,000	NO	NO	NO	NO	YES
	1996	1	ND	24	ND	47	NS	NO	NO	NO	YES	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	6.8	ND	4.3	NS	NO	NO	NO	NO	--
		4	ND	2.3	ND	ND	11,000	NO	NO	NO	NO	YES
	1997	1	ND	3.5	ND	1.8	NS	NO	NO	NO	NO	--
		2	ND	1.2	ND	4.2	120	NO	NO	NO	NO	YES
		3	ND	2.2	ND	12.6	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	1.0	ND	1.4	710	NO	NO	NO	NO	YES
		3	ND	1.9	ND	1.2	NS	NO	NO	NO	NO	--
		4	ND	9.3	ND	3.3	650	NO	NO	NO	NO	YES
	1999	1	ND	1.1	ND	2.5	NS	NO	NO	NO	NO	--
		2	ND	0.66	ND	ND	3,000	NO	NO	NO	NO	YES
		2 duplicate	ND	0.43	ND	ND	4,400	NO	NO	NO	NO	YES
		3	ND	3.10	ND	2.9	NS	NO	NO	NO	NO	--
		4	ND	0.51	ND	ND	4,000	NO	NO	NO	NO	YES
	2000	1	ND	0.54	ND	1.6	NS	NO	NO	NO	NO	--
		2	ND	0.3	ND	ND	480	NO	NO	NO	NO	YES
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	0.41	210	NO	NO	NO	NO	YES
		4 duplicate	ND	ND	ND	0.33	NS	NO	NO	NO	NO	--
	2001	1	ND	1	ND	3.7	NS	NO	NO	NO	NO	--
DEHP found in lab blank		2	ND	0.31	ND	0.41	300	NO	NO	NO	NO	YES
		3	ND	0.52	ND	2.5	NS	NO	NO	NO	NO	--
		4	ND	0.33	ND	0.77	3300	NO	NO	NO	NO	YES
	2002	1	ND	ND	ND	ND	150	NO	NO	NO	NO	YES
		2	ND	ND	ND	ND	1300	NO	NO	NO	NO	YES
		2 duplicate	ND	ND	ND	ND	950	NO	NO	NO	NO	YES

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

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS [5]					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-11(DR) [2][3]	1999	1	ND	ND	ND	ND	64	NO	NO	NO	NO	YES
		1 duplicate	ND	ND	ND	ND	20	NO	NO	NO	NO	NO
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3[3]	NS	NS	NS	NS	59	--	--	--	--	YES
		3 duplicate	NS	NS	NS	NS	13	--	--	--	--	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
Field ID: MW-11DD		2 duplicate	ND	ND	ND	ND	NR	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	3.4	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	0.8	NO	NO	NO	NO	NO
DEHP found in lab blank	d ID: MW-11DD	1 duplicate	NS	NS	NS	NS	0.9	--	--	--	--	NO
DEHP found in lab blank		2	NS	NS	NS	NS	1.5	--	--	--	--	NO
		3	NS	NS	NS	NS	ND	--	--	--	--	NO
		4	NS	NS	NS	NS	0.6	--	--	--	--	NO
	2002	1	ND	ND	ND	ND	2.8	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	26	NO	NO	NO	NO	NO

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

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS [5]					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-14S	2002	1	ND	ND	ND	ND	1.2	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	0.7	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-14I	1995	1	ND	0.4	ND	1.2	**140**	NO	NO	NO	NO	**YES**
		2	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.6	NO	NO	NO	NO	NO
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.7	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
		3	**1.2**	22.1	ND	**176**	NS	**YES**	NO	NO	**YES**	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	0.34	ND	2	24	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2001	1	ND	ND	ND	ND	2.4	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	3.5	NO	NO	NO	NO	NO
Field ID: MW-14Id		2 duplicate	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.2	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	3.4	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	1.0	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-15S	1995	1	ND	ND	ND	ND	2.4	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1996	1	ND	33	ND	83	NS	NO	NO	NO	YES	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	0.21	ND	1.7	ND	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	1.4	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	1.3	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2001	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
DEHP found in lab blank		2	ND	ND	ND	ND	0.8	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	1.0	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	0.7	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-15I	1995	1	ND	ND	ND	ND	250	NO	NO	NO	NO	YES
		2	ND	ND	ND	ND	7.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.8	NO	NO	NO	NO	NO
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	1.7	NO	NO	NO	NO	NO
		4 duplicate	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	2.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
		2 duplicate	ND	ND	ND	ND	3.8	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	0.53	11	NO	NO	NO	NO	NO
		4 duplicate	ND	0.2	ND	0.8	9.8	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	4.8	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2001	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
DEHP found in lab blank		2	ND	ND	ND	ND	1.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	1.0	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS [5]					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-17S [4]	1995	1	ND	0.6	0.3	1.9	11	NO	NO	NO	NO	NO
		2	0.2	ND	0.18	ND	ND	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	0.63	ND	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
	1997	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	NS	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
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	6	NO	NO	NO	NO	NO
	1999	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	40	NO	NO	NO	NO	YES
	2000	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	2	ND	ND	ND	ND	1.8	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	9.6	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	1.0	NO	NO	NO	NO	NO
Sample designation DUP01		1 duplicate	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	0.6	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS 7				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-21 (1)	1999	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	6	NO	NO	NO	NO	NO
		1 duplicate	NS	NS	NS	NS	ND	--	--	--	--	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	2.7	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	0.9	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	0.9	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	0.6	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	1.3	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	1	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-22(R)	1995	1	ND	57	ND	260	6,500	NO	NO	NO	YES	YES
		2	ND	311	ND	955	380	NO	NO	NO	YES	YES
		3	ND	171	ND	693	NS	NO	NO	NO	YES	--
		4	ND	123	ND	494	320	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	--
		4	ND	320	ND	1,330	ND	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
		3	ND	11,400	348	66,000	NS	NO	YES	NO	YES	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	4,070	348	20,600	NS	NO	YES	NO	YES	--
		2	ND	2,260	ND	11,300	5,800	NO	YES	NO	YES	YES
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3 duplicate	ND	2,510	ND	11,000	NS	NO	YES	NO	YES	--
		4	ND	1,650	ND	7,230	1,100	NO	YES	NO	YES	YES
	1999	1	ND	18	ND	84	NS	NO	NO	NO	YES	--
		2	ND	1,600	ND	7,600	670	NO	YES	NO	YES	YES
		3	ND	1,200	42	5,200	NS	NO	YES	NO	YES	--
		4	ND	810	ND	3,300	1200	NO	YES	NO	YES	YES
		4 duplicate	ND	840	ND	3,400	1600	NO	YES	NO	YES	YES
	2000	1	ND	360	ND	1,400	NS	NO	NO	NO	YES	--
Dilution Factor 50		2	ND	820	ND	3,600	92	NO	YES	NO	YES	YES
Dilution Factor 200		3	ND	1,000	ND	4,800	NS	NO	YES	NO	YES	--
Dilution Factor 50 and 250 for DEHP and BTEX respectively		4	ND	1,200	ND	6,200	5,100	NO	YES	NO	YES	YES
Dilution Factor 200	2001	1	ND	1,900	ND	9,000	NS	NO	YES	NO	YES	--
Dilution Factor 20 and 100 for DEHP and BTEX respectively. DEHP found in lab blank		2	ND	910	ND	4,100	2,400	NO	YES	NO	YES	YES
Dilution factor 100 for BTEX, 50 for DEHP. DEHP detected in field blank		3	ND	1,100	ND	5,300	8,200	NO	YES	NO	YES	YES
		4	ND	980	ND	4,700	15,000	NO	YES	NO	YES	YES
		4 duplicate	ND	1,000	ND	4,900	NS	NO	YES	NO	YES	--
Dilution factors - 10 for BTEX, 2 for DEHP.	2002	1	ND	140	ND	420	18	NO	NO	NO	YES	NO
Dilution factors - 50 for BTEX, 1 for DEHP		2	ND	320	ND	1,400	21	NO	NO	NO	YES	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-25(R)	1995	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	68	NO	NO	NO	NO	YES
	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	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	13.5	ND	89	63	NO	NO	NO	YES	YES
		3	ND	4.1	ND	30.7	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	0.33	ND	1.5	NS	NO	NO	NO	NO	--
		1 duplicate	ND	0.39	ND	0.94	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	5.3	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	14	ND	NO	NO	NO	NO	NO
		3	ND	0.39	ND	1.4	9.6	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
Field ID: MW-25RD		3 duplicate	NS	NS	NS	NS	ND	--	--	--	--	NO
		4	ND	0.33	ND	1.1	3.4	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	1.4	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	0.5	NO	NO	NO	NO	NO
Field ID: MW-25D		3 duplicate	NS	NS	NS	NS	1.2	--	--	--	--	NO
		4	ND	ND	ND	ND	0.7	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	0.5	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	1.1	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
Trip Blank	1995	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	NS	1.3	NO	NO	NO	--	NO
	1999	1	ND	ND	ND	NS	ND	NO	NO	NO	--	NO
		2	ND	ND	ND	NS	ND	NO	NO	NO	--	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	2000	1	NS	NS	NS	NS	ND	--	--	--	--	NO
		1	NS	NS	NS	NS	ND	--	--	--	--	NO
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	NS	NS	NS	NS	ND	--	--	--	--	NO
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
DEHP found in lab blank	2001	1	NS	NS	NS	NS	0.6	--	--	--	--	NO
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
Performed for Lab No. N067 (MW22R DEHP sample). STL forgot to sample DEHP at this well on first round		3	NS	NS	NS	NS	ND	--	--	--	--	NO
		3	NS	NS	NS	NS	ND	--	--	--	--	NO
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	2002	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--

Prepared By: RMT, Inc - Chicago
Nicholas J. Clevett
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TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
Rinsate Sample	2002	1	ND	ND	0.7	ND	2.5	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	3.4	NO	NO	NO	NO	NO

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

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (5)					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
Field Blank	1995	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	0.73	ND	ND	1.3	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1997	1	ND	ND	0.2	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	1.3	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		1	NS	NS	NS	NS	3.2	--	--	--	--	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	1.3	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	2	NO	NO	NO	NO	NO
Performed for Lab No. N067 (MW22R DEHP sample). STL forgot to sample DEHP at this well on first round		3	NS	NS	NS	NS	1.2	--	--	--	--	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2002	1	ND	ND	ND	ND	16	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	**130**	NO	NO	NO	NO	**YES**

LEGEND
ug/L = micrograms per liter
NJGWQS = New Jersey Groundwater Quality Standards
ROD Record of Decision
NA = Not Applicable
NS = Not Sampled
ND No Detection
duplicate = Duplicate sample
NR = Not Run

15,000 Values in BOLD FONT are above BOTH the NJDEP NJGWQS 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(IR) & 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 Based on NJDEP letter dated April 5, 2001, this well will be sampled for DEHP only (starting 2nd qtr 2001)
(4) Well initially sampled Biannually - 2nd and 4th Quarter as of the beginning of 1998 1st quarter 2002, well sampled quarterly for both DEHP and BTEX
(5) Low flow sampling initiated 1st quarter 2002

Prepared By: RMT, Inc - Chicago
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TABLE 6
L.E. Carpenter and Company, Wharton, New Jersey
Quarterly Groundwater Elevations

WELL LOCATION	WELL TYPE	WELL INSTALLATION AND CONSTRUCTION INFORMATION [1]										PROFESSIONAL SURVEY INFORMATION				ELEVATIONS (FT. MSL)			QUARTERLY MEASUREMENT INFORMATION [4]						
		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	BASELINE LOCATION (feet) [2] (Y) North	(X) East	GEODETIC LOCATION 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	Caisson Well	ROY F. WESTON	-	-	-	-	-	-	-	-	-	754247.22	471142.06	40° 54' 14.2"	74° 34' 34.7"	630.83	634.35		20-May-02	-	6.31	-	624.52	-	-
CW-3	Caisson Well	ROY F. WESTON		-	-	-	-	-	-	-	-	754203.93	471309.9	40° 54' 13.8"	74° 34' 32.5"	628.63	633.30		20-May-02	-	6.73	-	621.90	-	-
GEI-1I	Piezometer	ROY F. WESTON	April to October 1989	44.34	2.00	PVC	0.02	31.62	41.62	10.00	I	754767.14	471095.56	40° 54' 19.3"	74° 34' 35.3"	628.44	630.93	630.78	20-May-02	-	4.15	-	626.63	-	-
GEI-2I	Piezometer	ROY F. WESTON	April to October 1989	46.28	2.00	PVC	0.02	31.50	41.50	10.00	I	754573.99	470499.76	40° 54' 17.4"	74° 34' 43.1"	635.92	638.35	638.20	20-May-02	-	10.27	-	627.93	-	-
GEI-2S	Piezometer	ROY F. WESTON	April to October 1989	22.21	2.00	PVC	0.02	10.00	20.00	10.00	S	754566	470506.18	40° 54' 17.3"	74° 34' 43.0"	635.46	637.87	637.67	20-May-02	-	10.10	-	627.57	-	-
GEI-3I	Piezometer	ROY F. WESTON	April to October 1989	53.29	2.00	PVC	0.02	30.00	40.00	10.00	I	754311.79	470453.7	40° 54' 14.8"	74° 34' 43.7"	637.56	639.99	639.85	20-May-02	-	12.35	-	627.50	-	-
MW-1(R)	Monitoring Well	ROY F. WESTON	February 3, 1995	22.50	4.00	STEEL	0.01	7.00	22.50	15.50	S	754207.21	470825.97	40° 54' 13.8"	74° 34' 38.8"	635.79	635.78	635.47	20-May-02	8.72	9.41	626.75	626.06	0.69	626.71
MW-2(R)	Monitoring Well	ROY F. WESTON	January 30, 1995	13.00	2.00	PVC	0.01	2.00	12.00	10.00	S	754277.74	471267.56	40° 54' 14.4"	74° 34' 33.1"	629.06	632.28	632.14	20-May-02	-	5.90	-	626.24	-	-
MW-3	Monitoring Well	WEHRAN ENG.	May 15, 1980	27.00	2.00	STEEL	0.01	1.50	27.00	25.50	S	754227.41	471302.62	40° 54' 14.0"	74° 34' 32.6"	628.64	632.27	632.56	20-May-02	6.28	6.91	626.28	625.65	0.63	626.24
MW-4 [3]	Monitoring Well	WEHRAN ENG.	May 20, 1980	27.00	2.00	STEEL	0.01	1.50	27.00	25.50	S	754070.52	471162.53	40° 54' 12.4"	74° 34' 34.4"	628.86	632.31	632.50	20-May-02	-	5.81	-	626.69	-	-
MW-6(R)	Monitoring Well	ROY F. WESTON	January 25, 1995	10.98	2.00	PVC	0.02	0.98	10.98	10.00	S	754210.83	471191.61	40° 54' 13.8"	74° 34' 34.1"	629.82	632.64	632.42	20-May-02	-	5.32	-	627.10	-	-
MW-8 [3]	Monitoring Well	GROUNDWATER TECHNOLOGIES	1983	19.00	2.00	STEEL	0.02	0.00	19.00	19.00	S	754099.29	471251.06	40° 54' 12.7"	74° 34' 33.3"	627.99	630.56	628.79	20-May-02	-	4.19	-	624.60	-	-
MW-9 [3]	Monitoring Well	GROUNDWATER TECHNOLOGIES	1983	20.50	2.00	STEEL	0.02	0.50	20.00	19.50	S	754075.94	471111.03	40° 54' 12.5"	74° 34' 35.1"	629.21	631.69	630.18	20-May-02	-	4.12	-	626.06	-	-
MW-11S	Monitoring Well	ROY F. WESTON	April to October 1989	14.73	4.00	STEEL	0.02	4.37	14.41	10.00	S	754226.73	471126.83	40° 54' 14.0"	74° 34' 34.9"	631.23	633.26	632.96	20-May-02	6.69	11.66	626.27	621.30	4.97	625.95
MW-11I(R)	Monitoring Well	RMT, INC.	February 20, 1998	52.00	2.00	STEEL	0.01	42.00	52.00	10.00	I	754237.94	471128.05	40° 54' 14.1"	74° 34' 34.9"	630.89	633.67	633.33	20-May-02	-	6.91	-	626.42	-	-
MW-11D(R) [3]	Monitoring Well	RMT, INC.	February 20, 1998	157.00	2.00	STEEL	0.01	147.00	157.00	10.00	D	754244.62	471124.66	40° 54' 14.2"	74° 34' 34.9"	630.66	633.35	633.09	20-May-02	-	4.61	-	628.48	-	-
MW-12S(R)	Monitoring Well	ROY F. WESTON	May 7, 1996	14.45	4.00	PVC	0.02	2.45	14.45	12.00	S	754055.97	471042.34	40° 54' 12.3"	74° 34' 35.9"	632.17	634.86	634.33	20-May-02	-	6.51	-	627.82	-	-
MW-13S	Monitoring Well	ROY F. WESTON	April to October 1989	16.39	4.00	STEEL	0.02	5.37	15.14	10.00	S	754353.97	471370.04	40° 54' 15.3"	74° 34' 31.7"	628.34	631.40	631.23	20-May-02	-	4.36	-	626.87	-	-
MW-13S(R)	Monitoring Well	ROY F. WESTON	January 27, 1995	17.00	2.00	PVC	-0.01	2.00	12.00	10.00	S	754333.07	471365.71	40° 54' 15.0"	74° 34' 31.8"	628.26	630.96	630.59	20-May-02	-	4.42	-	626.17	-	-
MW-13I	Monitoring Well	ROY F. WESTON	July 31, 1989	46.30	2.00	STEEL	0.02	35.22	45.26	10.00	I	754337.8	471360.31	40° 54' 15.1"	74° 34' 31.9"	628.36	630.88	630.66	20-May-02	-	4.38	-	626.28	-	-
MW-14S	Monitoring Well	ROY F. WESTON	April to October 1989	15.46	4.00	STEEL	0.02	3.42	13.46	10.00	S	754255.02	471423.66	40° 54' 14.3"	74° 34' 31.0"	625.78	628.63	628.41	20-May-02	-	2.87	-	625.54	-	-
MW-14I [3]	Monitoring Well	ROY F. WESTON	April to October 1989	44.30	2.00	STEEL	0.02	33.22	43.26	10.00	I	754250.22	471409.52	40° 54' 14.2"	74° 34' 31.2"	625.93	628.32	628.23	20-May-02	-	2.19	-	626.04	-	-
MW-15S [3]	Monitoring Well	ROY F. WESTON	April to October 1989	25.94	4.00	STEEL	0.02	9.37	19.41	10.00	S	754326.58	470891.83	40° 54' 15.0"	74° 34' 38.0"	634.83	637.03	636.77	20-May-02	-	9.99	-	626.78	-	-
MW-15I [3]	Monitoring Well	ROY F. WESTON	July 17, 1989	43.92	2.00	STEEL	0.02	30.55	40.26	10.00	I	754325.8	470901.47	40° 54' 15.0"	74° 34' 37.9"	634.74	636.88	636.66	20-May-02	-	9.85	-	626.81	-	-
MW-16S	Monitoring Well	ROY F. WESTON	April to October 1989	23.90	4.00	STEEL	0.02	7.37	17.41	10.00	S	754424.11	470704.1	40° 54' 15.9"	74° 34' 40.4"	632.57	634.69	634.47	20-May-02	-	5.56	-	628.91	-	-
MW-16I	Monitoring Well	ROY F. WESTON	April to October 1989	46.53	2.00	STEEL	0.02	32.22	42.26	10.00	I	754435.1	470710.17	40° 54' 16.0"	74° 34' 40.3"	632.43	635.08	634.96	20-May-02	-	7.03	-	627.93	-	-
MW-17S [3]	Monitoring Well	ROY F. WESTON	April to October 1989	15.04	4.00	STEEL	0.02	5.20	15.24	10.00	S	754109.68	470759.85	40° 54' 12.8"	74° 34' 39.7"	632.95	634.92	634.79	20-May-02	-	7.48	-	627.31	-	-
MW-18S	Monitoring Well	ROY F. WESTON	April to October 1989	15.04	2.00	STEEL	0.02	4.37	14.41	10.00	S	754677.95	471117.26	40° 54' 18.4"	74° 34' 35.0"	628.22	631.48	631.26	20-May-02	-	5.12	-	626.14	-	-
MW-18I	Monitoring Well	ROY F. WESTON	April to October 1989	44.69	2.00	STEEL	0.02	34.22	44.26	10.00	I	754675.11	471106.07	40° 54' 18.4"	74° 34' 35.2"	628.35	631.19	631.04	20-May-02	-	4.43	-	626.61	-	-
MW-19 [5]	Monitoring Well	ROY F. WESTON	May 20, 1991	17.00	4.00	STEEL	0.02	7.00	17.00	10.00	S	754537.15	470454.45	40° 54' 17.1"	74° 34' 43.7"	636.82	636.83	636.50	20-May-02	-	8.69	-	627.81	-	-
MW-19-1 [5]	Monitoring Well	RMT, INC.	February 17, 1998	17.00	4.00	STEEL	0.01	6.00	15.50	9.50	S	754534.52	470427.63	40° 54' 17.0"	74° 34' 44.0"	636.53	636.56	636.24	20-May-02	-	8.36	-	627.88	-	-
MW-19-2 [5]	Monitoring Well	RMT, INC.	February 17, 1998	16.00	4.00	STEEL	0.01	6.00	16.00	10.00	S	754551.81	470429.56	40° 54' 17.2"	74° 34' 44.0"	637.06	637.10	636.90	20-May-02	-	9.18	-	627.72	-	-
MW-19-3 [5]	Monitoring Well	RMT, INC.	February 18, 1998	16.00	4.00	STEEL	0.01	6.00	15.50	9.50	S	754539.4	470394.2	40° 54' 17.1"	74° 34' 44.5"	637.57	637.66	637.30	20-May-02	-	9.37	-	627.93	-	-
MW-19-4 [5]	Monitoring Well	RMT, INC.	February 18, 1998	16.00	4.00	STEEL	0.01	6.00	15.50	9.50	S	754505.39	470432.08	40° 54' 16.7"	74° 34' 44.0"	636.29	636.36	636.03	20-May-02	-	7.73	-	628.30	-	-
MW-19-5 [5]	Monitoring Well	RMT, INC.	February 18, 1998	16.00	2.00	PVC	0.01	6.00	15.50	9.50	S	754565.53	470470.75	40° 54' 17.3"	74° 34' 43.5"	636.53	636.53	636.16	20-May-02	-	8.56	-	627.60	-	-
MW-19-6 [4,5,6]	Monitoring Well	RMT, INC.	October 28, 1999	20.00	2.00	STEEL	0.02	10.00	20.00	10.00	S	754578.87	470443.1	40° 54' 17.5"	74° 34' 43.8"	636.77	636.76	636.42	20-May-02	-	8.73	-	627.69	-	-
MW-19-7 [4,5,6]	Monitoring Well	RMT, INC.	October 29, 1999	20.00	2.00	STEEL	0.02	10.00	20.00	10.00	S	754595.66	470501.7	40° 54' 17.6"	74° 34' 43.1"	635.91	635.96	635.60	20-May-02	-	8.09	-	627.51	-	-
MW-19-8 [4,5,6]	Monitoring Well	RMT, INC.	October 28, 1999	20.00	2.00	STEEL	0.02	11.00	20.00	9.00	S	754617.42	470493.65	40° 54' 17.8"	74° 34' 43.2"	636.42	636.42	635.96	20-May-02	-	8.52	-	627.44	-	-
MW-19-9D [4,5,6]	Monitoring Well	RMT, INC.	July 10, 2001	35.00	2.00	STEEL	0.02	25.00	35.00	10.00	S	754590	470442	40° 54' 17.9"	74° 34' 42.4"	636.99	637.01	636.70	20-May-02	-	8.47	-	628.23	-	-
MW-20	Monitoring Well	ROY F. WESTON	May 21, 1991	14.00	4.00	STEEL	0.02	4.00	14.00	10.00	S	754550.52	470647.25	40° 54' 17.2"	74° 34' 41.2"	634.82	637.03	636.77	20-May-02	-	8.82	-	627.95	-	-
MW-21 [3]	Monitoring Well	ROY F. WESTON	May 22, 1991	15.00	4.00	STEEL	0.02	5.00	15.00	10.00	S	754240.97	471645.78	40° 54' 14.1"	74° 34' 28.2"	625.17	629.09	628.80	20-May-02	-	2.85	-	625.95	-	-
MW-22(R) [3]	Monitoring Well	ROY F. WESTON	July 22, 1997	7.50	2.00	STEEL	-	-	-	-	S	754200.52	471409.13	40° 54' 13.7"	74° 34' 31.2"	625.94	628.31	628.13	20-May-02	-	2.29	-	625.84	-	-
MW-23	Monitoring Well	ROY F. WESTON	January 6, 1992	6.00	2.00	STEEL	0.02	1.00	6.00	5.00	S	754413.43	471469.4	40° 54' 15.8"	74° 34' 30.5"	628.70	630.95	630.64	20-May-02	-	3.18	-	627.46	-	-
MW-25(R) [3]	Monitoring Well	ROY F. WESTON	July 22, 1997	10.00	2.00	STEEL	-	-	-	-	S	754201.83	471518.21	40° 54' 13.7"	74° 34' 29.8"	625.25	627.37	627.22	20-May-02	-	1.97	-	625.25	-	-
MW-26	Monitoring Well	ROY F. WESTON	May 8, 1996	11.80	4.00	PVC	0.02	1.80	11.80	10.00	S	754401.17	471174.36	40° 54' 15.7"	74° 34' 34.3"	630.84	634.39	633.26	20-May-02	-	8.19	-	625.07	-	-
RW-1	Recovery Well	ROY F. WESTON	June 17, 1991	30.00	8.00	STEEL	0.02	5.00	30.00	25.00	S	754183.96	470802.1	40° 54' 13.6"	74° 34' 39.1"	635.19	637.81	637.38	20-May-02	10.47	11.06	626.91	626.32	0.59	626.87
RW-2	Recovery Well	ROY F. WESTON	June 22, 1991	30.00	8.00	STEEL	0.02	3.00	30.00	27.00	S	754245.98	471289.8	40° 54' 14.2"	74° 34' 32.8"	629.80	631.78	631.68	20-May-02	-	5.61	-	626.07	-	-
RW-3	Recovery Well	ROY F. WESTON	June 21, 1991	28.00	8.00	STEEL	0.02	3.00	28.00	25.00	S	754315.59	471206.84	40° 54' 14.9"	74° 34' 33.9"	629.89	632.15	631.99	20-May-02	-	5.90	-	626.09	-	-
SG-D1 [1]	Drainage Channel Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754428.57	471240.37	-	-	626.41	-	-	20-May-02	-	1.00	-	624.08	-	-
SG-D2 [1]	Drainage Channel Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754285.43	471361.24	-	-	626.86	-	-	20-May-02	-	0.80	-	624.33	-	-
SG-D3 [1]	Drainage Channel Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754381.47	471548.31	-	-	626.43	-	-	20-May-02	-	1.28	-	624.38	-	-
SG-R1 [1]	Rockaway River Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754313.99	470408.70	-	-	641.52	-	-	20-May-02	-	2.06	-	640.25	-	-
SG-R2 [1]	Rockaway River Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754056.10	470949.16	-	-	628.84	-	-	20-May-02	-	2.42		627.93	-	-
SG-R3 [1]	Rockaway River Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754113.47	471426.67	-	-	627.38	-	-	20-May-02	-	1.20		625.25	-	-

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

TABLE 6
L.E. Carpenter and Company, Wharton, New Jersey
Quarterly Groundwater Elevations

WELL LOCATION	WELL TYPE	WELL INSTALLATION AND CONSTRUCTION INFORMATION (7)										PROFESSIONAL SURVEY INFORMATION				ELEVATIONS (FT. MSL)			QUARTERLY MEASUREMENT INFORMATION (8)						
		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	BASELINE LOCATION (feet) (9) (Y) North	(X) East	GEODETIC LOCATION 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	Area A Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754220.52	470825.71	40° 54' 13.9"	74° 34' 38.8"	636.29	636.32	635.81	20-May-02	8.75	10.24	627.06	625.57	1.49	626.97
WP-A2	Area A Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754249.34	470813.05	40° 54' 14.2"	74° 34' 39.0"	637.31	639.62	639.19	20-May-02	12.38	12.55	626.81	626.64	0.17	626.80
WP-A3	Area A Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754195.42	470717.12	40° 54' 13.7"	74° 34' 40.3"	635.97	635.97	635.56	20-May-02		8.39	-	627.17	-	-
WP-A4	Area A Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754229.46	470855.24	40° 54' 14.0"	74° 34' 38.5"	635.63	635.66	635.10	20-May-02	COVERED WITH DIRT PILE					
WP-A5	Area A Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754266.54	470886.02	40° 54' 14.4"	74° 34' 38.1"	635.70		637.83	20-May-02		10.22		627.63	-	-
WP-A6	Area A Well Point	ROY F. WESTON	1993	13.00	2.00	PVC	-	3.00	13.00	10.00	S	754184.69	470888.45	40° 54' 13.6"	74° 34' 38.0"	634.95		637.28	20-May-02	10.45	13.36	626.83	623.92	2.91	626.64
WP-A7	Area A Well Point	ROY F. WESTON	1993	11.00	2.00	PVC	-	1.00	11.00	10.00	S	754196.44	470999.43	40° 54' 13.7"	74° 34' 36.6"	632.94		634.88	20-May-02	7.99	9.31	626.89	625.57	1.32	626.81
WP-A8	Area A Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754260.25	470998.97	40° 54' 14.3"	74° 34' 36.6"	634.70		637.56	20-May-02	10.94	13.31	626.62	624.25	2.37	626.47
WP-A9	Area A Well Point	ROY F. WESTON	1993	16.00	2.00	PVC	-	6.00	16.00	10.00	S	754184.12	470935.26	40° 54' 13.6"	74° 34' 37.4"	637.22		639.32	20-May-02	11.80	12.51	627.52	626.81	0.71	627.47
WP-B1	Area B Well Point	ROY F. WESTON	1993	11.00	2.00	PVC	-	1.00	11.00	10.00	S	754218.63	471068.54	40° 54' 13.9"	74° 34' 35.7"	631.85		633.65	20-May-02	5.88	5.94	627.77	627.71	0.06	627.77
WP-B2	Area B Well Point	ROY F. WESTON	1993	11.00	2.00	PVC	-	1.00	11.00	10.00	S	754282.8	471115.71	40° 54' 14.5"	74° 34' 35.1"	630.48	632.58	632.25	20-May-02		5.67		626.58	-	-
WP-B3	Area B Well Point	ROY F. WESTON	1993	11.00	2.00	PVC	-	1.00	11.00	10.00	S	754243.43	471088.51	40° 54' 14.2"	74° 34' 35.4"	631.71		633.33	20-May-02		6.32		627.01	-	-
WP-B4	Area B Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754275.31	471156.49	40° 54' 14.5"	74° 34' 34.5"	629.93		632.56	20-May-02	6.02	8.97	626.54	623.59	2.95	-
WP-B5	Area B Well Point	ROY F. WESTON	1993	11.00	2.00	PVC	-	1.00	11.00	10.00	S	754296.93	471181.49	40° 54' 14.7"	74° 34' 34.2"	630.03		632.11	20-May-02	-	4.82	-	627.29	-	-
WP-B6	Area B Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754171.56	471223.53	40° 54' 13.4"	74° 34' 33.7"	629.72		631.86	20-May-02	-	5.45	-	626.41	-	-
WP-B7	Area B Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754179.91	471330.82	40° 54' 13.5"	74° 34' 32.3"	627.62		629.49	20-May-02	-	4.04	-	625.45	-	-
WP-B10	Area B Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754319.10	471144.76	40° 54' 14.9"	74° 34' 34.7"	630.42	633.12	632.74	20-May-02	-	6.40	-	626.34	-	-
WP-C1	Area C Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754087.66	471038.32	40° 54' 12.6"	74° 34' 36.1"	632.81		633.51	20-May-02	-	5.75	-	627.76	-	-
WP-C2	Area C Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754075.97	471074.74	40° 54' 12.5"	74° 34' 35.6"	633.02		634.46	20-May-02	-	6.87	-	627.59	-	-
WP-C3	Area C Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754066.60	471009.58	40° 54' 12.4"	74° 34' 36.4"	631.00		632.64	20-May-02	-	4.72	-	627.92	-	-
WP-C4	Area C Well Point	ROY F. WESTON	1993	-	-	-	-	-	-	-	-	754108.93	471050.74	40° 54' 12.8"	74° 34' 35.9"	632.44		633.27	20-May-02	-	6.29	-	626.98	-	-

FOOTNOTES
(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-1(R); EFR-11 & WP-A8)
(3) Wells included in the quarterly sampling program. Depth to water recorded before purging
(4) Wells installed during new RI efforts per NJDEP and EPA request to further delineate MW19/Hot Spot 1 Area
(5) No boring log or well construction diagram available. Well specific information determined from Weston Geologic Cross Section
(6) "-" in the Quarterly Measurement Information section of this database indicates that the presence of free product was NOT detected at any measurable thickness and therefore did not generate a product elevation, product thickness nor require water level elevation to be corrected
(7) "-" in the Well Installation and Construction Information section indicates that well construction logs were not available for review
(8) Horizontal Datum: New Jersey State Plane Coordinate System NAD 83. Vertical Datum: NGVD 29
(9) All "19 series" wells were resurveyed August 8, 2001 at owners request. Wells MW19 through MW19-5 were converted to flush mount wells to allow for through traffic. Professional survey performed by James M. Stewart, Inc., Philadelphia, PA

GENERAL NOTES
All WP series wells finished elevation is 2 feet above nominal grade. Total depth of well only accounts for subsurface structure
Wells MW-1A, MW5, MW-7, MW-10, MW-11I, MW-11D, MW-14D, MW-17D, MW-18D, MW-22, MW-24, MW-25, WP-B8, Wp-D1, PZ-6A, PZ-2A(R), PZ-2AS, RW-1 have been abandoned
Wells MW-11I(R), MW11-D(R), MW-1(R), MW-2(R), MW-6(R), MW-22(R), and MW-25(R) are replacement wells

LEGEND
S: Shallow Aquifer System
I: Intermediate Aquifer System
D: Deep Aquifer System
R: Replacement Well
NAS: Not Assessable
REM: Removed
-' : Value of 0.00. Free Product not encountered at well

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

TABLE 7

L.E. CARPENTER - Wharton, New Jersey

MW19/Hot Spot 1 Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (1)					ABOVE NJGWQS ?				
	DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW19												
Dilution factor for BTEX 2000	24-Feb-95	1	ND	1,700	110,000	10,000	NS	NO	YES	YES	YES	--
Dilution factor for BTEX 100	14-Jun-95	2	ND	3,400	140,000	17,000	NS	NO	YES	YES	YES	--
Dilution factor 5000 for BTEX & 2 for DEHP; MDL for Benzene 1000 ug/l	23-Apr-98	2	ND	2,850	76,700	14,900	6.6	NO	YES	YES	YES	NO
Dilution factor for BTEX 500	2-Aug-01	3	ND	3,000	62,000	17,000	2.9	NO	YES	YES	YES	NO
Dilution factor for BTEX 1000	6-Jun-02	2	ND	1,000	30,000	6,000	5.6	NO	YES	YES	YES	NO
MW19-1												
Dilution factor for BTEX 200	12-Mar-98	1	ND	219	4270	1160	190	NO	NO	YES	YES	YES
	2-Aug-01	3	ND	1.2	ND	ND	85	NO	NO	NO	NO	YES
Dilution factor for BTEX 1	5-Jun-02	2	ND	ND	ND	ND	0.6	NO	NO	NO	NO	NO
MW19-2												
Dilution factor for BTEX 250	12-Mar-98	1	ND	1130	9830	6010	8.8	NO	YES	YES	YES	NO
Dilution factor for BTEX 2	1-Aug-01	3	ND	21	160	82	16	NO	NO	NO	YES	NO
Dilution factor for BTEX 1	5-Jun-02	2	ND	19	36	39	ND	NO	NO	NO	NO	NO
MW19-3												
	12-Mar-98	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2-Aug-01	3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	5-Jun-02	2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
MW19-4												
	12-Mar-98	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2-Aug-01	3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
Dilution factor for BTEX 1	6-Jun-02	2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
MW19-5												
Dilution factor for BTEX 5000	12-Mar-98	1	ND	1,920	123,000	10,100	42	NO	YES	YES	YES	YES
Dilution factor for BTEX 1000	2-Aug-01	3	ND	870	79,000	5,200	3.2	NO	YES	YES	YES	NO
Dilution factor for BTEX 500	7-Mar-02	1	ND	300	10,000	1,700	1.3	NO	NO	YES	YES	NO
Dilution factor for BTEX 5000, for DEHP 20	5-Jun-02	2	ND	1,100	92,000	6,300	ND	NO	YES	YES	YES	NO
Dilution factor for BTEX 5000, for DEHP 20	5-Jun-02	2 duplicate	ND	1,300	92,000	6,900	ND	NO	YES	YES	YES	NO

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

TABLE 7
L.E. CARPENTER - Wharton, New Jersey
MW19/Hot Spot 1 Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS (1)					ABOVE NJGWQS ?				
	DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW19-6												
Dilution factor for BTEX 200	15-Nov-99	4	ND	94	**3,400**	**500**	32	NO	NO	YES	YES	YES
Dilution factor for BTEX 2	1-Aug-01	3	ND	14	390	**47**	28	NO	NO	NO	YES	NO
Dilution factor for BTEX 1	5-Jun-02	2	ND	2	13	4	2	NO	NO	NO	NO	NO
MW19-7												
Dilution factor for BTEX 50	15-Nov-99	4	ND	100	51	**1,400**	ND	NO	NO	NO	YES	NO
Dilution factor for BTEX 2	1-Aug-01	3	**6.7**	7	13	**680**	ND	YES	NO	NO	YES	NO
Dilution factor for BTEX 5	7-Mar-02	1	**3.0**	ND	ND	**250**	1.6	YES	NO	NO	YES	NO
Dilution factor for BTEX 1	5-Jun-02	2	0.5	1.6	27	27	ND	NO	NO	NO	NO	NO
MW19-8												
Dilution factor for BTEX 50	15-Nov-99	4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
Dilution factor for BTEX 2	1-Aug-01	3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
Dilution factor for BTEX 1	5-Jun-02	2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
MW19-9D												
Dilution factor for BTEX 2	1-Aug-01	3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
Dilution factor for BTEX 1	5-Jun-02	2	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
GEI-2I	6-Jun-02	2	ND	ND	ND	ND	1.4	NO	NO	NO	NO	NO
GEI-2S	6-Jun-02	2	1.2	2.6	16	5.1	2.4	Yes	NO	NO	NO	NO

LEGEND
ug/L = micrograms per liter
NJGWQS = New Jersey Groundwater Quality Standards
ROD: Record of Decision
NA = Not Applicable
NS = Not Sampled
ND: No Detection
duplicate = Duplicate sample
NR = Not Run

680 : Concentration exceedes NJGWQS

NOTES
(1) Low flow sampling initiated 1st quarter 2002
(2) GEI series wells are piezometers installed by Weston

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

TABLE 8

L.E. Carpenter, Wharton, New Jersey

MW19/Hot Spot 1 Groundwater Elevations

WELL LOCATION	WELL TYPE	WELL INSTALLATION AND CONSTRUCTION INFORMATION										PROFESSIONAL SURVEY INFORMATION				ELEVATIONS (FT. MSL)			GROUNDWATER MEASUREMENT INFORMATION[2]						
		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	BASELINE LOCATION (feet)[1] (Y) North	(X) East	GEODETIC LOCATION LATITUDE	LONGITUDE	GROUND	OUTER CASING	INNER WELL	MEAS. DATE	PRODUCT DEPTH	WATER DEPTH	PRODUCT ELEVATION	WATER ELEVATION	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL ELEVATIONS
GEI-2I	Piezometer	ROY F. WESTON	April to October 1989	46.28	2.00	PVC	0.02	31.50	41.50	10.00	I	754573.99	470499.76	40° 54' 17.4"	74°34' 43.1"	635.92	638.35	638.20	5-Jun-02	-	11.04	-	627.16	-	-
GEI-2S	Piezometer	ROY F. WESTON	April to October 1989	22.21	2.00	PVC	0.02	10.00	20.00	10.00	S	754566	470506.18	40° 54' 17.3"	74°34' 43.0"	635.46	637.87	637.67	5-Jun-02	-	10.98	-	626.69	-	-
MW-16S	Monitoring Well	ROY F. WESTON	April to October 1989	23.90	4.00	STEEL	0.02	7.37	17.41	10.00	S	754424.11	470704.1	40° 54' 15.9"	74°34' 40.4"	632.57	634.69	634.47	5-Jun-02	-	8.05	-	626.42	-	-
MW-16I	Monitoring Well	ROY F. WESTON	April to October 1989	46.53	2.00	STEEL	0.02	32.22	42.26	10.00	I	754435.1	470710.17	40° 54' 16.0"	74°34' 40.3"	632.43	635.08	634.96	5-Jun-02	-	8.46	-	626.50	-	-
MW-19[4]	Monitoring Well	ROY F. WESTON	May 20, 1991	17.00	4.00	STEEL	0.02	7.00	17.00	10.00	S	754537.15	470454.45	40° 54' 17.1"	74°34' 43.7"	636.82	636.83	636.50	5-Jun-02	-	9.70	-	626.80	-	-
MW-19-1[4]	Monitoring Well	RMT, INC.	February 17, 1998	17.00	4.00	STEEL	0.01	6.00	15.50	9.50	S	754534.52	470427.63	40° 54' 17.0"	74°34' 44.0"	636.53	636.56	636.24	5-Jun-02	-	9.43	-	626.81	-	-
MW-19-2[4]	Monitoring Well	RMT, INC.	February 17, 1998	16.00	4.00	STEEL	0.01	6.00	16.00	10.00	S	754551.81	470429.56	40° 54' 17.2"	74°34' 44.0"	637.06	637.10	636.90	5-Jun-02	-	10.05	-	626.85	-	-
MW-19-3[4]	Monitoring Well	RMT, INC.	February 18, 1998	16.00	4.00	STEEL	0.01	6.00	15.50	9.50	S	754539.4	470394.2	40° 54' 17.1"	74°34' 44.5"	637.57	637.66	637.30	5-Jun-02	-	10.44	-	626.86	-	-
MW-19-4[4]	Monitoring Well	RMT, INC.	February 18, 1998	16.00	4.00	STEEL	0.01	6.00	15.50	9.50	S	754505.39	470432.08	40° 54' 16.7"	74°34' 44.0"	636.29	636.36	636.03	5-Jun-02	-	9.11	-	626.92	-	-
MW-19-5[4]	Monitoring Well	RMT, INC.	February 18, 1998	16.00	2.00	PVC	0.01	6.00	15.50	9.50	S	754565.53	470470.75	40° 54' 17.3"	74°34' 43.5"	636.53	636.53	636.16	5-Jun-02	-	9.44	-	626.72	-	-
MW-19-6[4]	Monitoring Well	RMT, INC.	October 28, 1999	20.00	2.00	STEEL	0.02	10.00	20.00	10.00	S	754578.87	470443.1	40° 54' 17.5"	74°34' 43.8"	636.77	636.76	636.42	5-Jun-02	-	9.69	-	626.73	-	-
MW-19-7[4]	Monitoring Well	RMT, INC.	October 29, 1999	20.00	2.00	STEEL	0.02	10.00	20.00	10.00	S	754595.66	470501.7	40° 54' 17.6"	74°34' 43.1"	635.91	635.96	635.60	5-Jun-02	-	8.90	-	626.70	-	-
MW-19-8[4]	Monitoring Well	RMT, INC.	October 28, 1999	20.00	2.00	STEEL	0.02	11.00	20.00	9.00	S	754617.42	470493.65	40° 54' 17.8"	74°34' 43.2"	636.42	636.42	635.96	5-Jun-02	-	9.24	-	626.72	-	-
MW19-9D[3][4]	Monitoring Well	RMT, INC.	July 10, 2001	35.00	2.00	STEEL	0.02	25.00	35.00	10.00	S	754590	470442	40° 54' 17.9"	74°34' 42.4"	636.99	637.01	636.70	5-Jun-02	-	9.30	-	627.40	-	-
MW-20	Monitoring Well	ROY F. WESTON	May 21, 1991	14.00	4.00	STEEL	0.02	4.00	14.00	10.00	S	754550.52	470647.25	40° 54' 17.2"	74°34' 41.2"	634.82	637.03	636.77	5-Jun-02	-	10.14	-	626.63	-	-
SG-R1	Rockaway River Staff Gauge	RMT, INC.	November-98	NA	NA	NA	NA	NA	NA	NA	NA	754313.99	470408.70	-	-	641.52	-	-	5-Jun-02	-	1.56	-	639.75	-	-

FOOTNOTES
(1) Horizontal Datum: New Jersey State Plane Coordinate System NAD 83. Vertical Datum: NGVD 29
(2) All elevation measurements were taken on June 5, 2002 per the NJDEP letter dated May 31, 2002
(3) MW19-9D not included in Potentiometric surface evaluation as the well was screened in a deeper interval within the shallow system
(4) All "19 series" wells were resurveyed August 8, 2001 at owners request. Wells MW19 through MW19-5 were converted to flush mount wells to allow for through traffic. Professional survey performed by James M. Stewart, Inc., Philadelphia, PA

LEGEND
I: Intermediate Water Bearing Unit
S: Shallow Water Bearing Unit
GEI-2S and GEI-2I: Piezometers
SG-R1: River Staff Gauge
NM: Not Measured

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

TABLE 9
L.E. CARPENTER - Wharton, New Jersey
Surface Water Monitoring Data

SURFACE WATER SAMPLING	SAMPLE LOCATION															
	ROCKAWAY RIVER			INFILTRATION GALLERY	DRAINAGE DITCH										ROCKAWAY RIVER	
	SW-1	SW-2	SW-3	SW-4	SW-5			SW-6	SW-7			SW-8			SW-9	SW-10
SAMPLING DATE	03/14/89 (1)	03/14/89 (1)	03/14/89 (1)	03/14/89 (1)(6)	08/02/89 (1)	5/29/98 (5)	06/06/02	03/14/89 (1)	08/27/90	5/29/98 (5)	06/06/02	08/27/90	5/29/98 (5)	06/06/02	08/28/90	08/28/90
VOLATILE ORGANIC COMPOUNDS (ug/l) (4)																
Methylene Chloride	J **1**	ND	ND	ND	JP **3.8**	ND	NA	J **3.8**	(2) ND	ND	NA	(2) ND	ND	NA	(2) ND	(2) ND
1,1,1-Trichloroethane	ND	ND	ND	ND	J **3.7**	**0.4**	NA	ND	ND	**0.5**	NA	ND	ND	NA	ND	ND
Ethylbenzene	ND	ND	ND	ND	J **3.5**	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	NA	J **1.2**	ND	ND	NA	ND	ND	NA	ND	ND
Acetone	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	ND	ND
Total Xylenes	ND	ND	ND	ND	**44**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	**1**	ND	ND	ND	ND	ND	ND	**1**	ND	ND
1,1,2-Trichloro-2,2,1-Triflouroethane	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	ND	ND
Benzene							ND				ND			ND		
BASE NEUTRAL COMPOUNDS (ug/l) (4)																
Di-n-butyl phthalate (3)	JP **3.2**	JP **3.7**	JP **3.6**	JP **3.5**	ND	ND	NA	JP **4**	NA	ND	NA	NA	ND	NA	NA	NA
bis(2-Ethylhexyl) phthalate	ND	ND	ND	J **7.2**	ND	ND	ND	ND	J(2) **7**	ND	ND	NA	ND	**0.6**	J(2) **6**	NA
METALS (ug/l) (4)																
Antimony	ND	ND	ND	J **22.8**	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
Arsenic	ND	ND	J **2.4**	ND	**10**	NA	NA	**15.9**	NA	NA	NA	NA	NA	NA	NA	J **3.9**
Cadmium	ND	ND	ND	ND	ND	NA	NA	J **22.2**	NA	NA	NA	NA	NA	NA	NA	ND
Chromium	ND	ND	J **8**	ND	ND	NA	NA	**231**	NA	NA	NA	NA	NA	NA	NA	ND
Copper	J **16.7**	J **5.3**	J **22.1**	J **6.7**	ND	NA	NA	**405**	NA	NA	NA	NA	NA	NA	NA	ND
Lead	**20.7**	ND	**87.2**	J **2.7**	**6**	NA	NA	**1340**	NA	NA	NA	NA	NA	NA	NA	J **4.6**
Mercury	ND	ND	ND	ND	ND	NA	NA	**2.8**	NA	NA	NA	NA	NA	NA	NA	ND
Nickel	ND	ND	ND	ND	ND	NA	NA	J **60.8**	NA	NA	NA	NA	NA	NA	NA	ND
Selenium	ND	ND	ND	ND	ND	NA	NA	**7.1**	NA	NA	NA	NA	NA	NA	NA	ND
Zinc	**96.4**	J **4.2**	**152**	**23**	**60**	NA	NA	**2,370**	NA	NA	NA	NA	NA	NA	NA	J **5.4**
POLYCHLORINATED BIPHENYLS (PCBs) (ug/l) (6)																
Arochlor-1016	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1221	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1232	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1242	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1248	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1254	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arochlor-1260	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LEGEND
ug/L = micrograms per liter
SW = Surface water sample (Roy F. Weston nomenclature)
ND: No Detection
NA: Not Analyzed
Concentration data in BOLD above detection level

NOTES
(1) NJDEP Tier 1 sample holding time was exceeded
(2) Compound detected in method blank. Sample concentration < 3x concentration in method blank
Per Tier 1 guidelines the result is negated
(3) All concentrations later negated by NJDEP
(4) Only those parameters listed showed concentrations above ND. All other parameters were either ND or NA
(5) Sampling performed by RMT per NJDEP request letter dated Jan 28, 1998
VOCs and Base Neutrals ONLY (EPA 624 and 625 respectively)
(6) The PCB sample (SW-4) was collected May 9, 1989

1989 and 1990 LABORATORY QUALIFIERS
J: Detected below reporting limit or is an estimated concentration
P: Compound detected in laboratory method blank

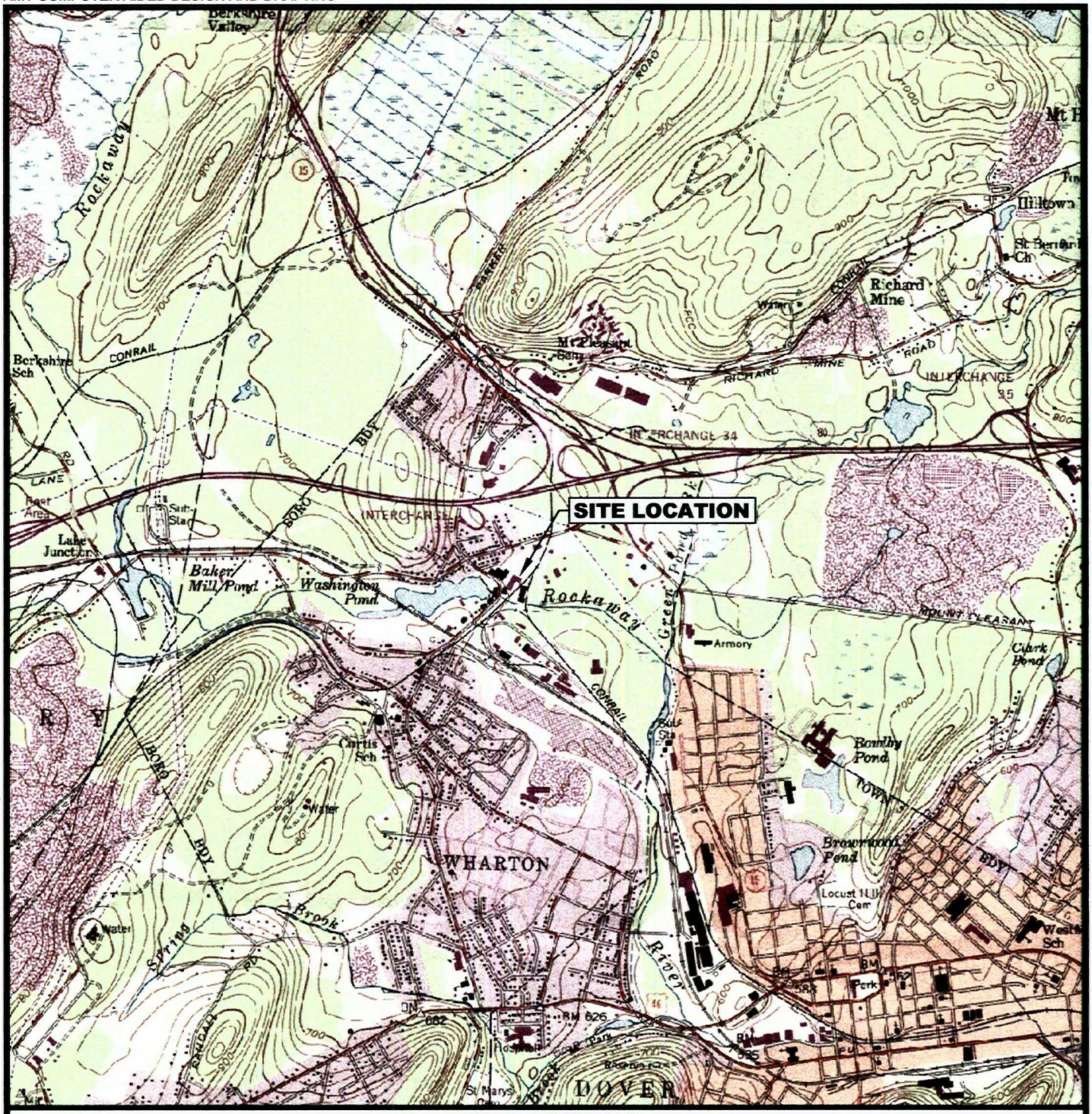
Sediment Sampling Information

1989 GeoEngineering/Roy F. Weston sampling November 1989: VO+15 (EPA 624), BN+15 (EPA 625); PP Metals (EPA 200 series), PCBs (SW-4 only) (EPA 608)
PP Metals (EPA 200 series), PCBs (SW/SS-4 only) (for SW sample EPA 608, for SS EPA 8080)
SW-1: Background sample location in Washington Forge Pond
SW-2: Assess impact on Rockaway River. Located immediately adjacent to Bldg. 12
SW-3: Assess impact on Rockaway River. Located downstream of former impoundment area
SW-4: Located in former infiltration gallery between former impoundment area and tank farm
SW-5: Located in the drainage ditch between LEC and Air Products
SW-6: Located in a drainage feature in Northeast corner, up by former Starch drying beds. Potential floor drain and non-contact cooling water impacts

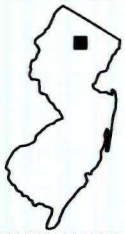
1990 Roy F. Weston Supplemental RI (November 1990)
SW-7: Former outfall from northeast corner starch drying beds. (VOC+10, BN+10, PCB)
SW-8: Bend in drainage ditch. Assess downgradient quality of drainage ditch (VOC+10)
SW-9: Junction of ditch and Rockaway River. Assess impact of ditch on river quality. (VOC+10, BN+10, PCB)
SW-10: Rockaway River south of MW-4. Assess impact of site on contaminants of Rockaway River. (VOC+10, TAL Metals)

2002 Sampling performed by RMT pre the NJDEP letter dated May 31, 2002 INJDEP/EPA review of Quarterly Monitoring Report - 1st Quarter 2002

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



NEW JERSEY



QUADRANGLE LOCATION

N

0 2000' 4000'

APPROXIMATE SCALE IN FEET

SOURCE

1. BASE MAP DEVELOPED FROM THE DOVER, NEW JERSEY 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, DATED 1954, PHOTOREVISED 1981.

RMT INC.

LE CARPENTER
WHARTON, NEW JERSEY

SITE LOCATION MAP
FOR 2nd QUARTER 2002

DRAWN BY:	SJL
APPROVED BY:	JDD
PROJECT NUMBER:	3868.24
FILE NUMBER:	38682401.DWG
DATE:	JULY 2002

FIGURE 1

PLOT DATA
Drawing Name: J:\03868\24\38682401.dwg
Operator Name: lucidos
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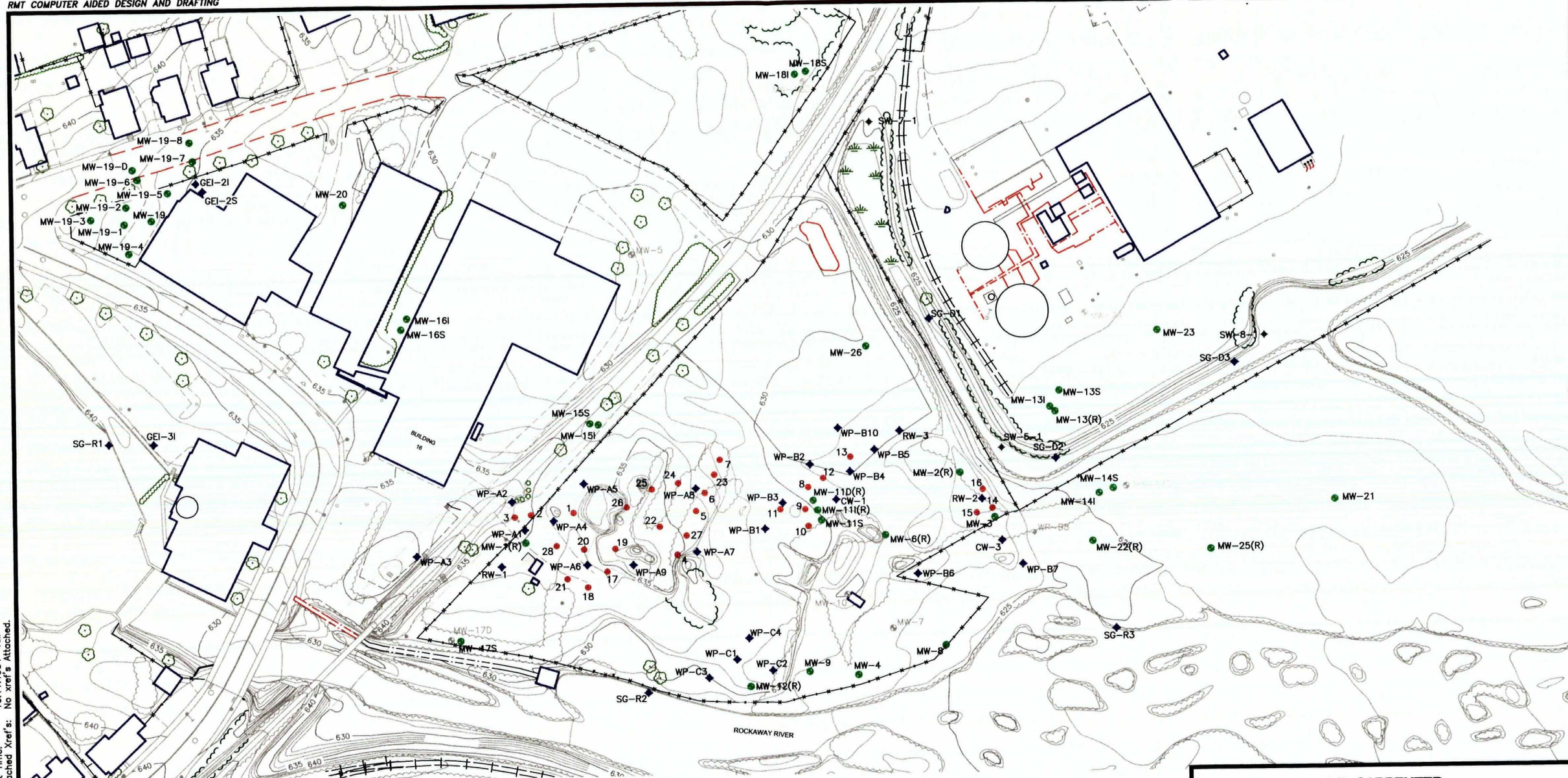
Plot Date: Thursday, October 4, 2001
Plot Time: 08:48.1141 AM
Attached Xref's: No xref's Attached.

RMT COMPUTER AIDED DESIGN AND DRAFTING



LEGEND

	PROPERTY LINE	WP-B7	WELL POINTS
	FENCE	SG-R1	RIVER POINT
MW-21	MONITORING WELL	SG-D1	DRAINAGE CHANNEL POINT
MW-24	ABANDONED WELL	GEI-2I	PIEZOMETERS
13	ENHANCED FLUID RECOVERY WELL	SW-7-1	SURFACE WATER SAMPLE
RW-2	RECOVERY WELL		TREATMENT BUILDING
CW-3	CAISSON WELLS		

N

0 100' 200'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

SITE PLAN WITH WELL LOCATIONS FOR 2nd QUARTER 2002

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	NC	FILE NUMBER:	38682532.DWG
APPROVED BY:		DATE:	JULY 2002

RMT INC.

1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237

PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 2

PLOT DATA
Drawing Name: J:\3868\25\38682532.dwg
Operator Name: lucidos
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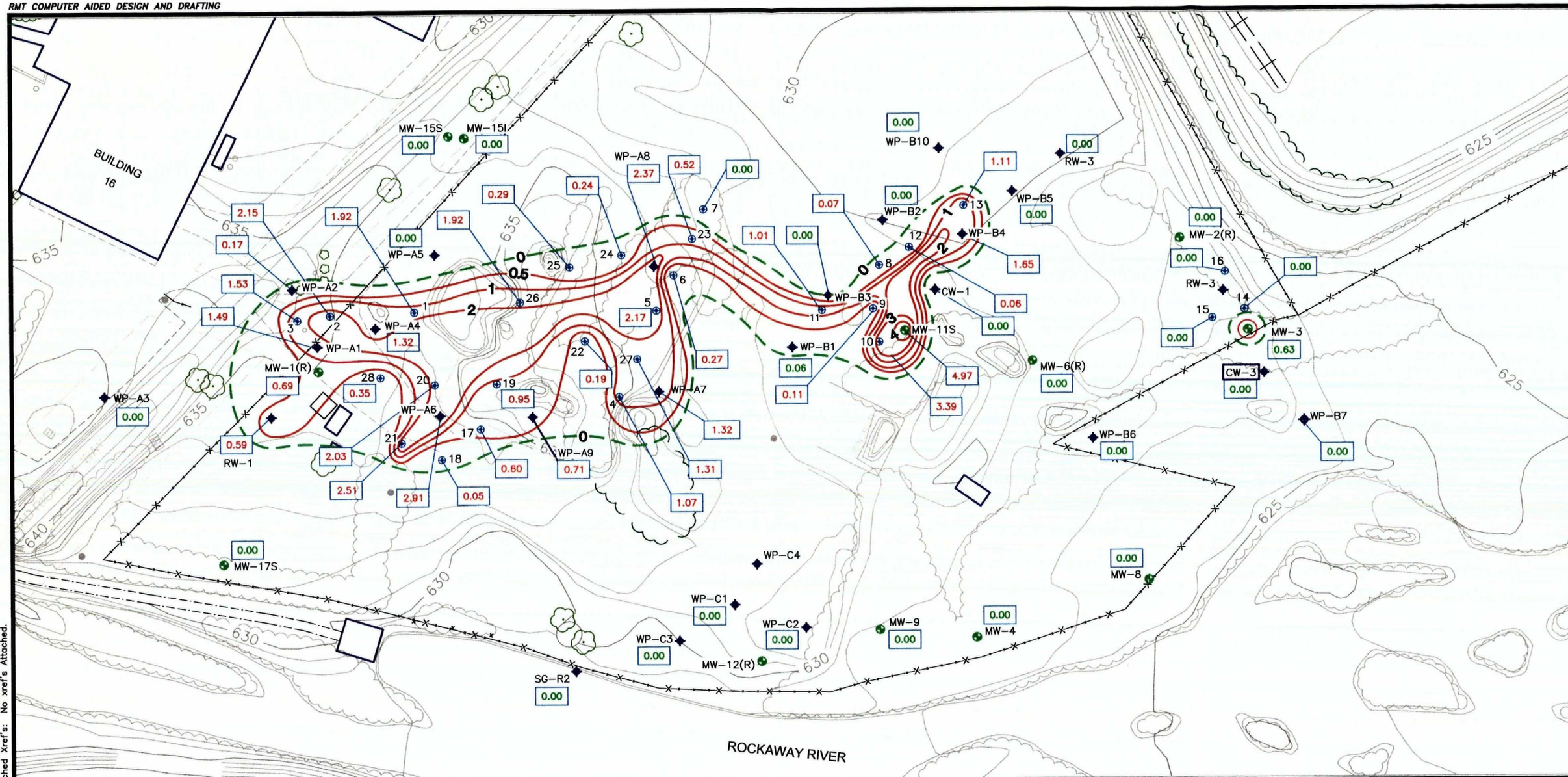

LEGEND

PROPERTY LINE

FENCE

1 — APPARENT PRODUCT THICKNESS CONTOURS (FT)

0 — APPROXIMATE OUTER LIMIT OF FREE PRODUCT

0.00 — NO MEASURABLE PRODUCT

1.22 — PRODUCT THICKNESS MEASURED IN WELL (FT)
(Measurements collected at monitoring wells and well points on May 21, 2002 by RMT)
(Measurements collected at EFR wells on June 13, 2002 by CEMCO)

MW-13S — MONITORING WELL

ABANDONED WELL

RW-2 — RECOVERY WELL

CW-3 — CAISSON WELLS

WP-B7 — WELL POINTS WITH ELEVATION

TREATMENT BUILDING

13 — ENHANCED FLUID RECOVERY WELL (EFR)

N

0 50' 100'

SCALE IN FEET

LE. CARPENTER
WHARTON, NEW JERSEY

APPARENT FREE PRODUCT THICKNESS CONTOURS FOR 2nd QUARTER 2002

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	EES	FILE NUMBER:	38682508.DWG
APPROVED BY:	JDD	DATE:	JULY 2002

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 3

PLOT DATA
Drawing Name: J:\03868\25\38682508.dwg
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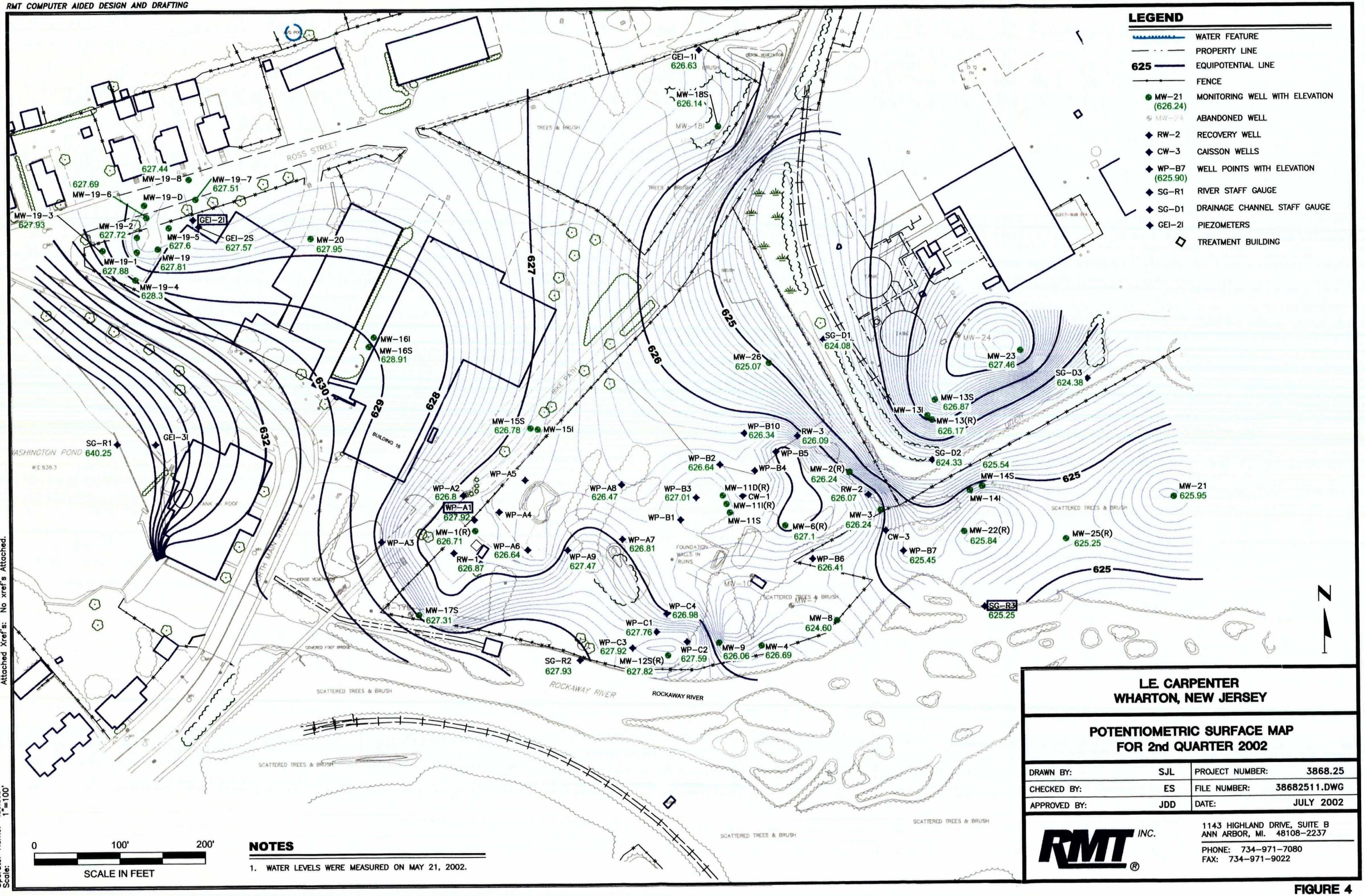

NOTES

1. WATER LEVELS WERE MEASURED ON MAY 21, 2002.

LE. CARPENTER
WHARTON, NEW JERSEY

POTENTIOMETRIC SURFACE MAP FOR 2nd QUARTER 2002

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	ES	FILE NUMBER:	38682511.DWG
APPROVED BY:	JDD	DATE:	JULY 2002

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 4

PLOT DATA
Drawing Name: J:\3868\25\38682511.dwg
Operator Name: lucidas
Scale: 1"=100'
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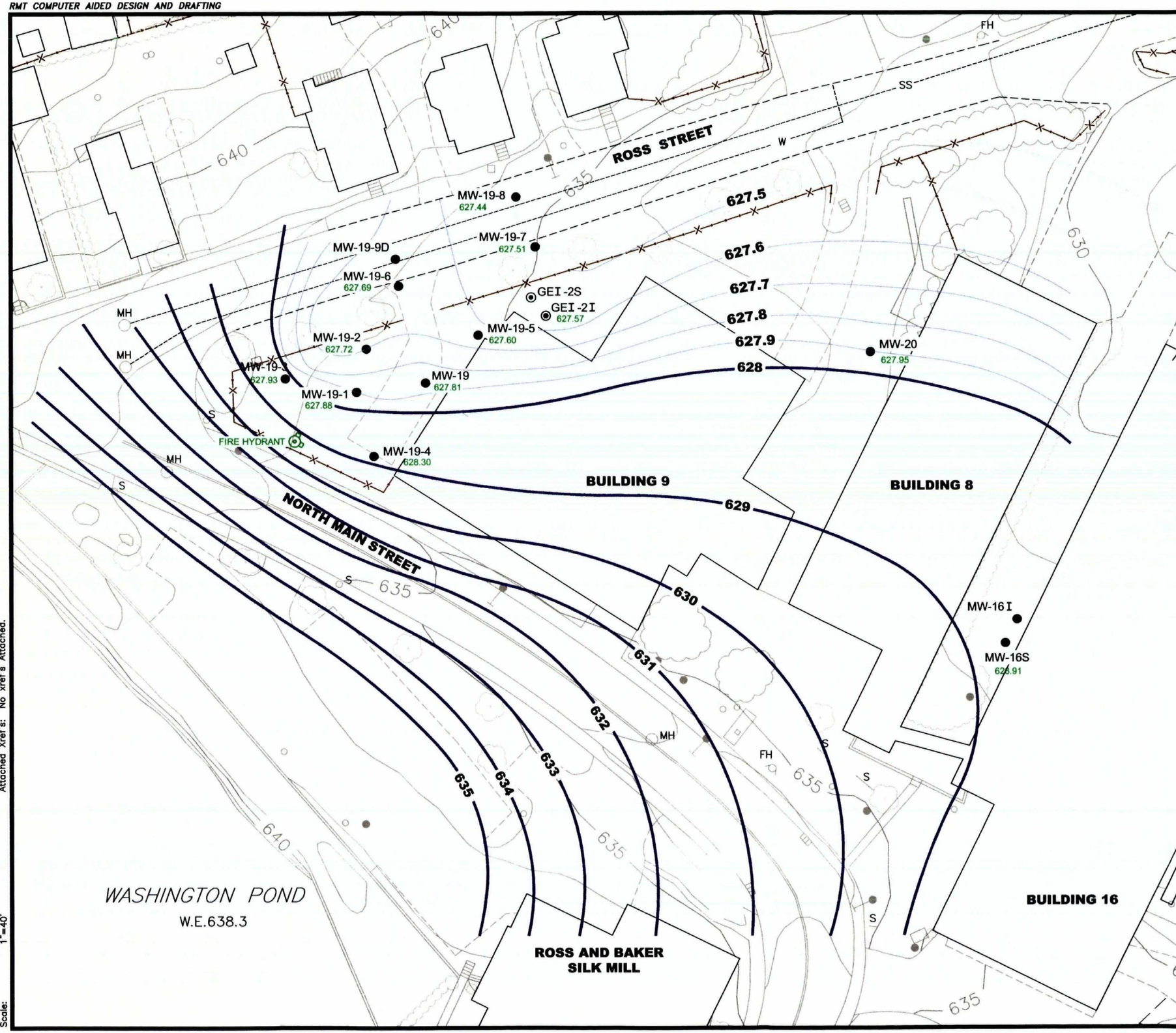

LEGEND

——×——	FENCE LINE
——SS——	APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
626	GROUNDWATER ELEVATION CONTOUR
MW-19-7 (626.33) ●	MONITORING WELL LOCATION AND NUMBER WITH GROUNDWATER ELEVATION
GEI-2S (626.36) ◉	GEOPROBE INSTALLED PIEZOMETER LOCATION AND NUMBER WITH GROUNDWATER ELEVATION
---SS---	SANITARY SEWER
---G&W---	GAS AND WATER
----E----	ELECTRIC
----W---	WATER

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON MAY 21, 2002.

N

0 40' 80'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1
GROUNDWATER ELEVATION CONTOURS
FOR 2nd QUARTER 2002

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	JDD	FILE NUMBER:	38682525.DWG
APPROVED BY:	JDD	DATE:	JULY 2002

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 5

PLOT DATA
Drawing Name: J:\03868\25\38682525.dwg
Operator Name: lucidos
Scale: 1"=40'
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Plot Time: 08:25:06.72 AM
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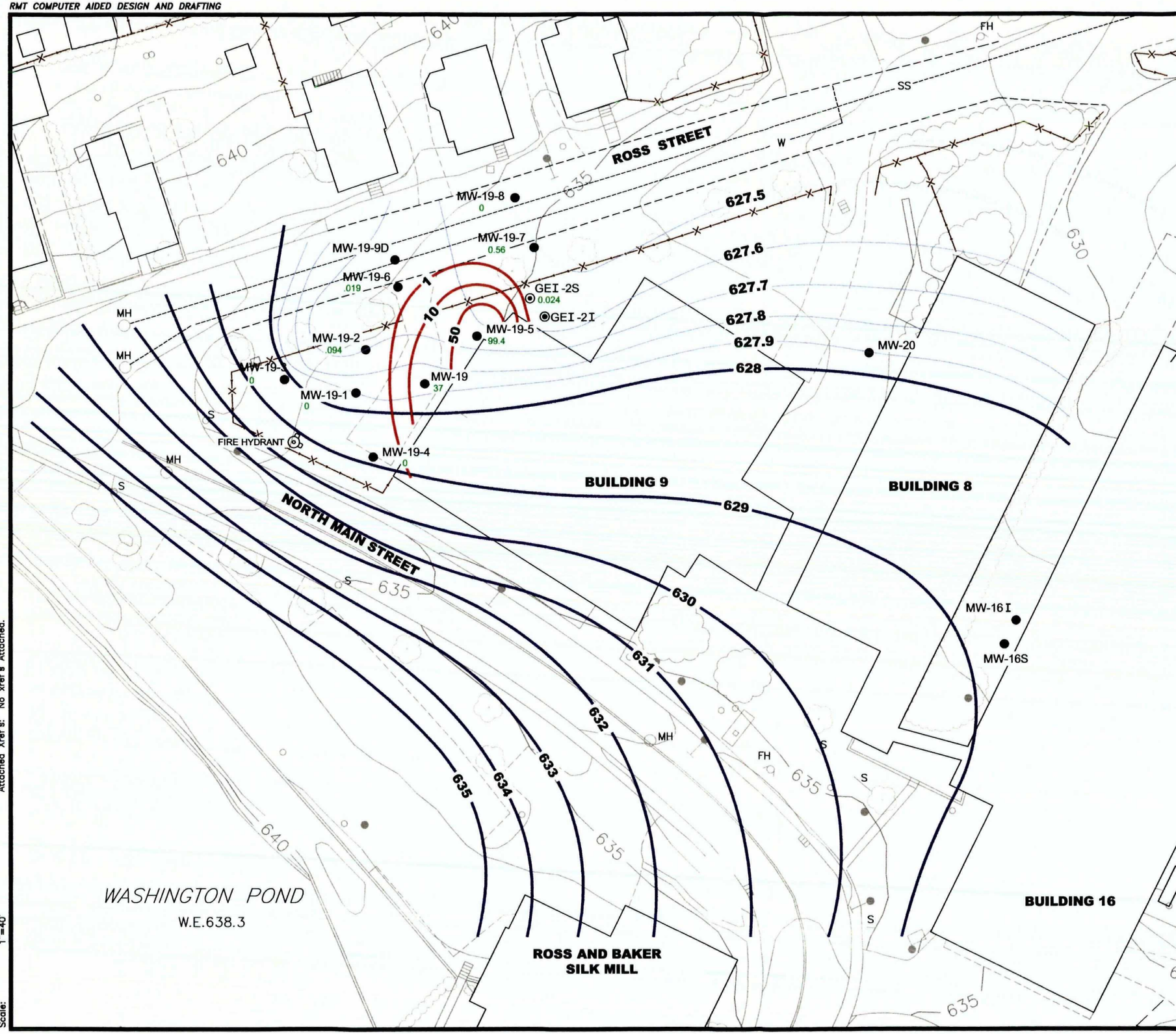

LEGEND

- FENCE LINE
- SS — APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
- 626 — GROUNDWATER ELEVATION CONTOUR
- MW-19-7 — MONITORING WELL LOCATION AND NUMBER
- GEI-2S — GEOPROBE INSTALLED PIEZOMETER LOCATION
- SS — SANITARY SEWER
- G&W — GAS AND WATER
- E — ELECTRIC
- W — WATER
- 50 — ISOCONCENTRATION CONTOUR FOR TOTAL BTEX (ug/L)

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON MAY 21, 2002.

N

0 40' 80'

SCALE IN FEET

LE CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1
ISOCONCENTRATION MAP
FOR 2nd QUARTER 2002

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	JDD	FILE NUMBER:	38682525.DWG
APPROVED BY:	JDD	DATE:	JULY 2002

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 6

PLOT DATA
Drawing Name: J:\03868\25\38682525.dwg
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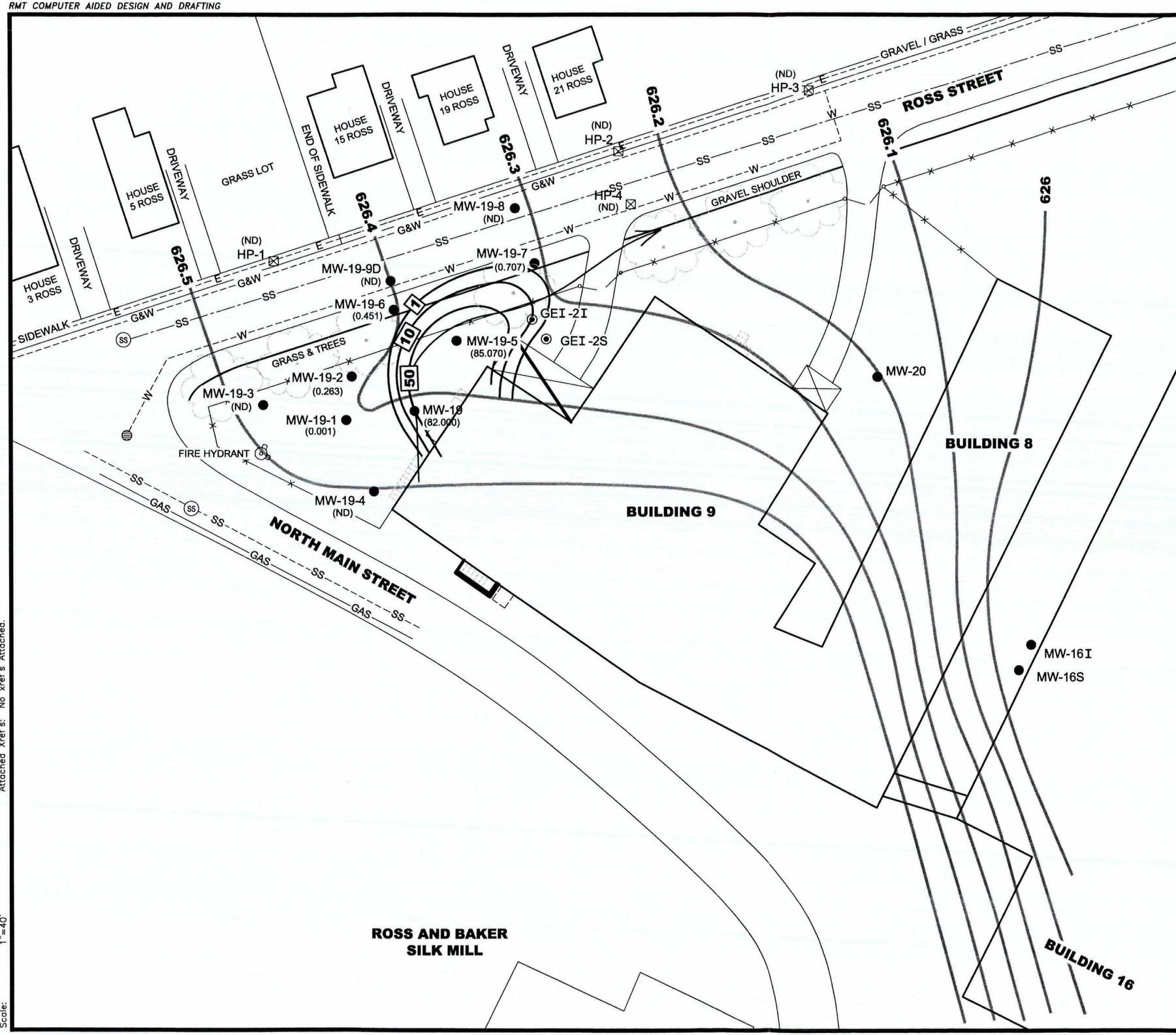


LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE LINE
- SS — APPROXIMATE LOCATION OF ROCKAWAY RIVER REGIONAL INTERCEPTOR SEWER
- 626 — GROUNDWATER ELEVATION CONTOUR
- MW-19-7 (135) — MONITORING WELL LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEX (mg/L)
- GEI-2S — GEOPROBE INSTALLED PIEZOMETER LOCATION AND NUMBER WITH GROUNDWATER ELEVATION
- HP-3 — APPROXIMATE LOCATION AND NUMBER OF HYDROPUNCH SAMPLES
- (NA) NOT ACCESSABLE (SNOW COVERED)
- (ND) NOT DETECTED
- SS — SANITARY SEWER
- G&W — GAS AND WATER
- E — ELECTRIC
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- 50 — ISOCONCENTRATION CONTOUR FOR TOTAL BTEX (ppm)

NOTES

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON JULY 24, 2001
2. SAMPLES COLLECTED ON AUGUST 1 AND 2, 2001.

N

0 40' 80'

SCALE IN FEET

L.E. CARPENTER
WHARTON, NEW JERSEY

ISOCONCENTRATION CONTOURS FOR TOTAL BTEX (ppm) IN SHALLOW GROUNDWATER; MW-19 HOT SPOT AREA; AUGUST 2001

DRAWN BY:	SJL	PROJECT NUMBER:	3868.25
CHECKED BY:	JDD	FILE NUMBER:	38682536.DWG
APPROVED BY:	JDD	DATE:	OCTOBER 2001

RMT INC.
1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 7

PLOT DATA
Drawing Name: J:\03868\25\38682536.dwg
Operator Name: lucidos
Scale: 1"=40'
Dwg Size: 206831 Bytes
Plot Date: Thursday, July 18, 2002
Plot Time: 3:56:14:52 PM
Attached Xref's: No xref's Attached.

Appendix A
Report Certification

REPORT CERTIFICATION
PURSUANT TO N.J.A.C. 7:26E–1.5

"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 Services

TITLE

L.E. Carpenter & Company

COMPANY

Cristopher Anderson

SIGNATURE

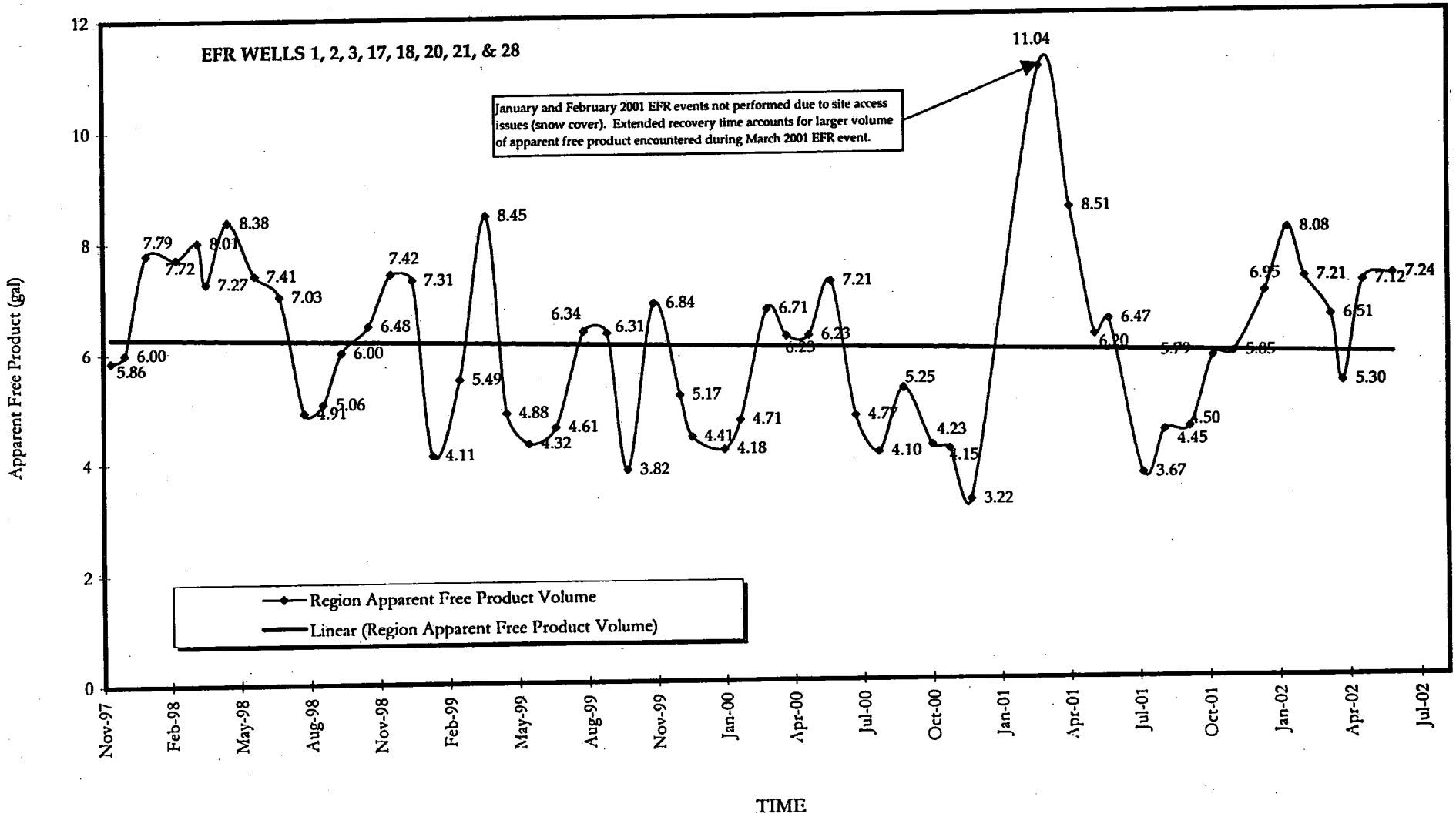
8/5/02

DATE

Appendix B
Apparent Free Product Volume Trend Charts

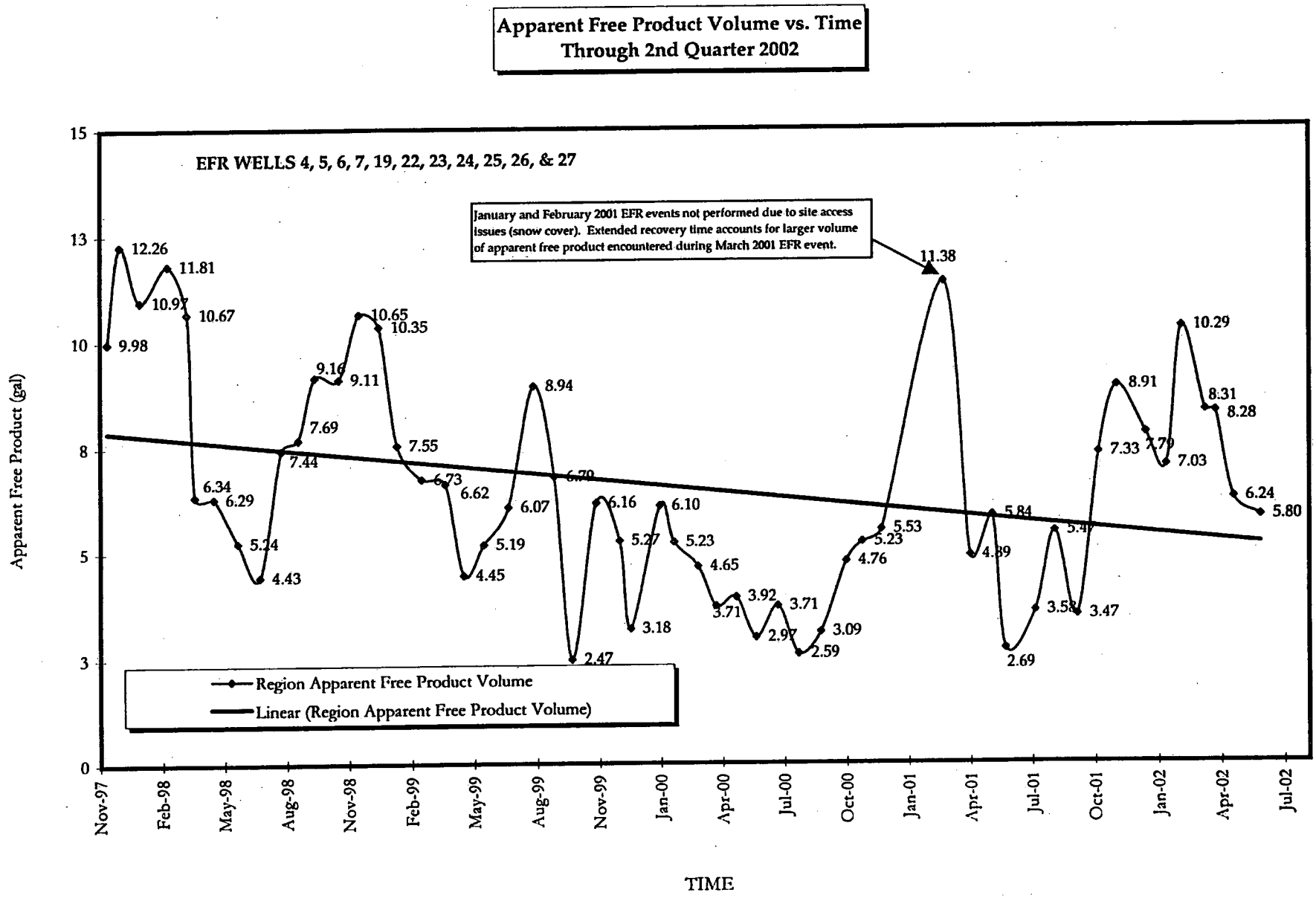
L.E. Carpenter and Company
Western Region of Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2002



7/3/20028:48 AM
Prepared By: Nicholas J. Clevett
RMT, Inc - Project Manager

L.E. Carpenter and Company
West-Central Region of Free Product

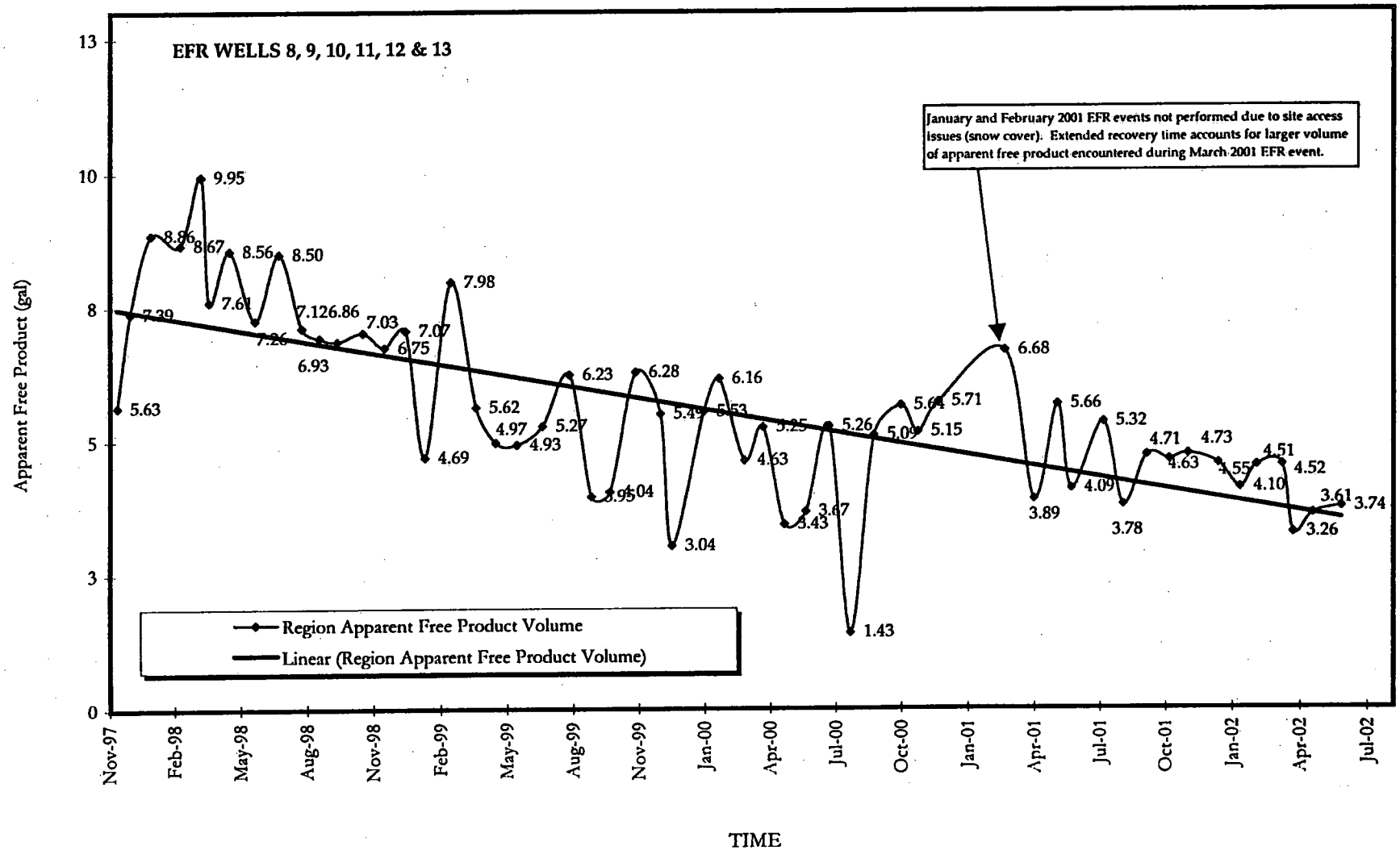


7/3/20028:48 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

H:/data/projects/lecarpen/quarters/FreeProduct.xls/West-Central Region Trend

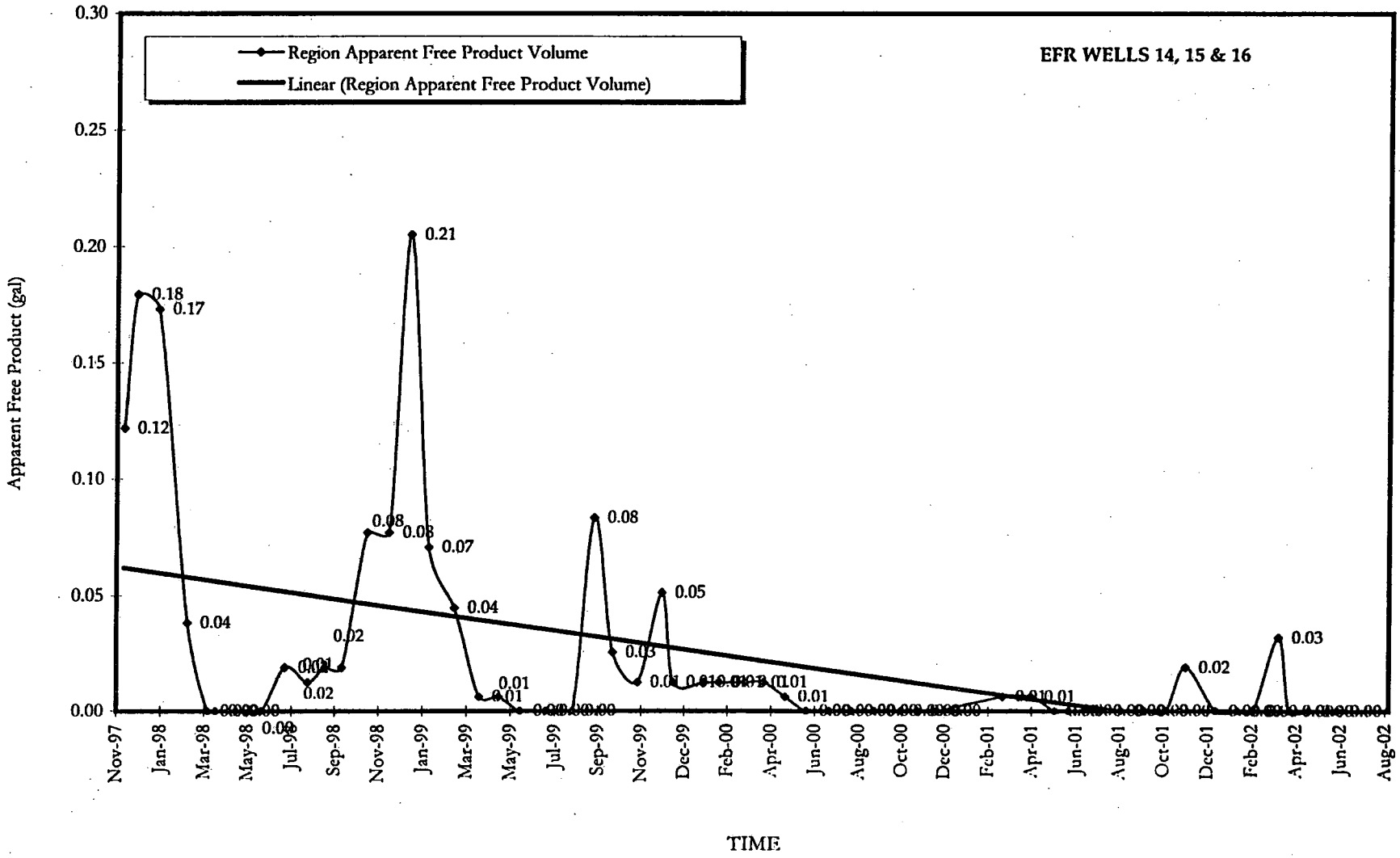
L.E. Carpenter and Company
East-Central Region of Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2002

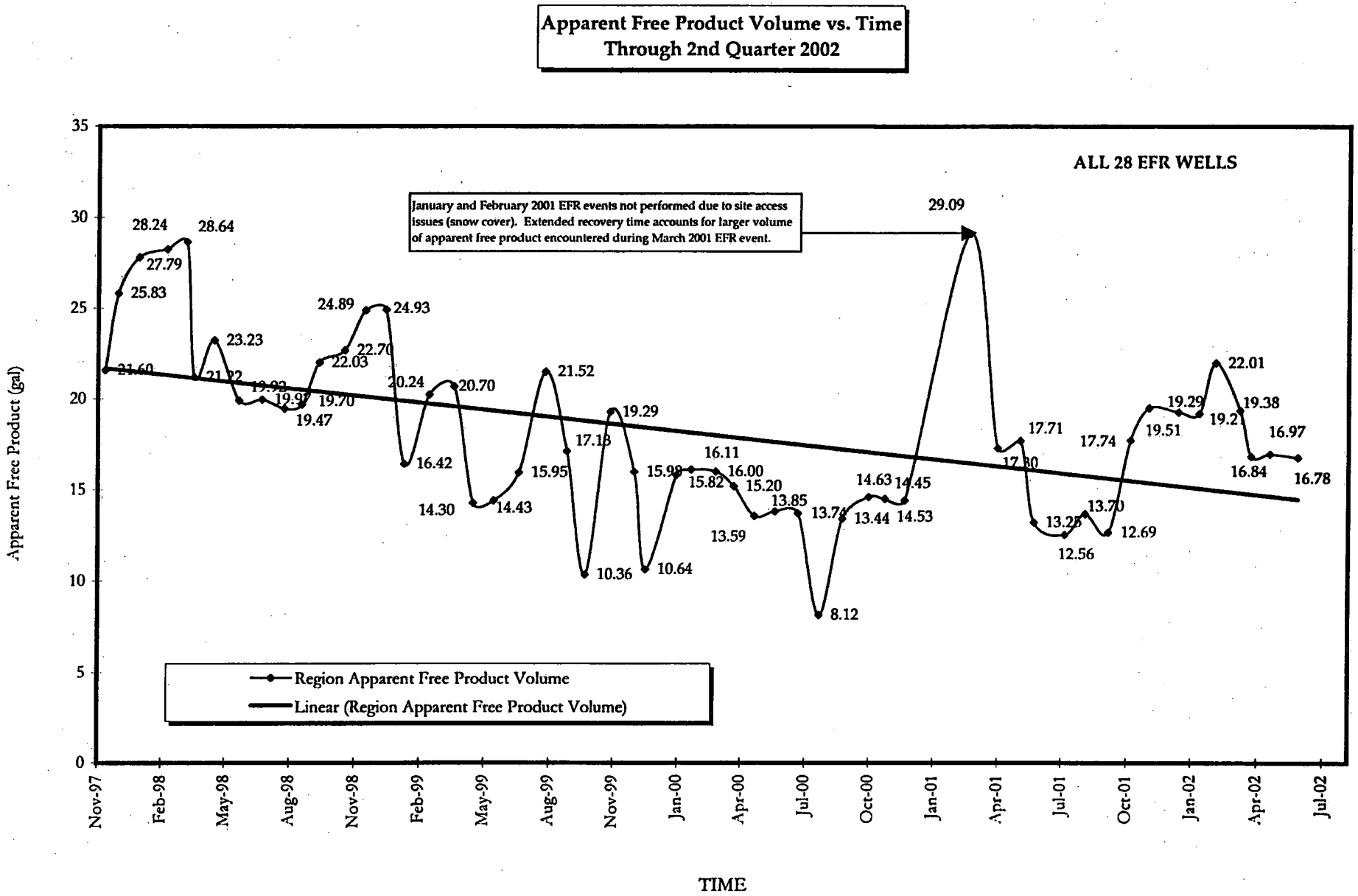


L.E. Carpenter and Company
Eastern Region of Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2002



L.E. Carpenter and Company
Total Site Free Product



7/3/20028:48 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

H:/data/projects/lecarpen/quarters/FreeProduct.xls/Total Site Trend

Appendix C
2nd Quarter 2002 Monitoring Well Sampling Data

4 Location [illegible] Date [illegible]

Project / Client Poly One

50°, windy

7:45	onsite, proceeding to MW 7S setting up equipment
9:20	began recording/measuring water levels
13:26 ~~2:57~~	begin pumping MW17S while putting pump together flowcell doesn't measure turbidity. Teflon bladder pump more complicated to assemble (clamps, tubes, etc.) controller not working, power on/off
14:11	sampled MW 17S proceeded to MW 15S + MW 15I
17:18	began pumping MW 15S, sporadic flow, not steady flow, trouble assembling pump
17:48	sampled MW 15S cleaned up equipment, loaded truck

Location [illegible] Date [illegible] 5

Project / Client [illegible]

18:10	continued to finished up measuring water levels, some bubble level gages - will get tomorrow
19:41	offsite

Location [illegible] Date [illegible]

Project / Client [illegible]

sunny, ~50°, windy

	onsite, to MW15I
8:10	began pumping MW15I, using teflon bladder, still flow not steady, finishing up water levels unable to get yesterday
9:15	sampled MW15I to MW11D(R)
11:47	began pumping MW11D(R) changed to PE bladder, flow seems to be better, more steady. controller turning cycles on + off
12:22	changed controller batteries
12:42	sampled MW11D(R)
13:05	lunch
13:40	to MW4, preparing equip, etc.

Location [illegible] Date [illegible]

Project / Client [illegible]

14:53	pumping MW4, PE bladder, steady flow
15:33	sampled MW4, DUP01, + MS/MSD to MW14I
17:07	pumping MW14I, PE bladder, flow is steady
17:36	sampled MW14I
18:38	pumping MW14S, PE bladder, flow is steady
19:05	sampled MW14S cleaning up equipment, etc.
	offsite

Location LEC, [illegible] Date [illegible]

Project / Client Pregina

Sunny, ~60°

7:00	onsite, waiting for key to open gate
7:40	gate open, proceeding to MW22
8:00	arrive at MW22, began setting up equipment
9:30	Rinsate sample
9:51	began pumping MW22, PE bladder, steady flow
10:16	sampled MW22 to MW25
11:08	began pumping MW25, PE bladder steady flow
11:38	sampled MW25 to MW21
13:08	began pumping MW21 PE bladder, steady flow

Location LEC, [illegible], NJ Date 5/[illegible]

Project / Client [illegible]

13:48	sampled MW21
14:31	field blank FB01
[illegible]	loading up samples
[illegible]	off site

RMT

WATER LEVEL DATA

PROJECT NAME: LEC

DATE: 5/20/02

PROJECT NUMBER: 03868.29

SAMPLER: JPM

Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)**	Depth to Bottom (feet)	Water Elev (MSL)
WPA6	9:20			10.45	13.36		
WPA9	11:42			11.80	12.51		
WPA7	11:55			7.99	9.31		
WPA8	1202			10.94	13.31		
WPB1	1349			5.88	5.94		
WPB3	1351			—	6.32		
RW1	1357			10.47	11.06		
MW1R	1410			8.72	9.41		
WPA1	1416			8.75	10.24		
WPA2	1423	PVC bent inside steel		12.38	12.55	16.82	marked WPA2 inside casing
WPA3	1429			—	8.39		
WPB2	1435			—	5.67		
WPB4	1437			6.02	8.97		
WPB5	1441			—	4.82		tape covering label
MW11S	1445			6.69	11.66		
MW13S	1530				4.36		
MW13I	1532				4.38		
MW13R	1533				4.42		
MW23	1536				3.18		
SGD3	1538				1.28		
SGD1	1540				0.80		
MW1	1734			9.67	11.20		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE:

Sarah Lapka — Signed

6/14/02 — Date

QC'd By

Date

RMT

WATER LEVEL DATA

PROJECT NAME: LEC

DATE: 5/20/02

PROJECT NUMBER: 03868.29

SAMPLER: JPM

Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)**	Depth to Bottom (feet)	Water Elev (MSL)
WPC3	1736				4.72		
SGR2	1738				2.42		
MW12S	1741				6.51		blue stick up
WPC1	1743				5.75		
WPC4	1744				6.29		
WPC2	1747				6.87		not marked
MW9	1749				4.12		
MW4	1752	JPM	JPM		5.81		
~~MW10~~	1755	~~MW6R~~	~~MW2R~~	MW6R	5.32		
~~MW7~~	1757	~~RW2~~	MW2R		5.90		
~~MW8~~	1810	MW3		6.28	6.91		near 14
WPB7	1818				4.04		
SGR3	1822				1.20		
~~MW2R~~	1829	RW3	~~possibly~~	~~RW3~~	5.90		large diameter
MW26	1842				8.19		
WPB10	1844				6.40		
RW2	1847				5.61		
~~MW11IR~~	1851	MW 11R			6.91		
MW11DR	1852				4.61		
CW1	1855				6.31		
MW8	1859				4.19		
WPA5	1905				10.22		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: _____

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6/14/02 — Date

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REV 09/98

RMT

WATER LEVEL DATA

PROJECT NAME: LEC

DATE: 5/20/02 & 5/21/0

PROJECT NUMBER: 03868.29

SAMPLER: JPM

	Well ID	Time	Time ~~Top of Casing Elevation~~	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)**	Depth to Bottom (feet)	Water Elev (MSL)
20	GEI3	19:16				12.35		
	MW16I	1934				7.03		
	MW16S	1936				5.56		
	MW19D		need bolt cutter - lock rusted					
	MW19I	1941	car parked over it					
	gates locked for MW-19 wells and MW-18S, MW18I, GEI-11							
21	SGD2	~~SGD2~~	8:33			0.80		
	SGD1		8:34			~~0.80~~	1.00	
	MW19-7		8:50			8.09		
	MW19-8		8:55			8.52		
	MW19-9D		9:02			8.47		
	MW19-5		9:07			8.56		
	MW19-2		9:12			9.18		
	MW19-3		9:15			9.37		
	MW19-1		9:19			8.36		
	MW19-4		9:23			7.73		
	MW19		9:25			8.69		
	GEI2I		9:27			10.27		
	GEI2S		9:28			10.10		
	MW18S		9:34			5.12		no lock
	MW18I		9:37		JP	~~4.71~~	4.43	no lock
JP	~~MW~~ GEI-11		940			4.15		no lock

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: _____

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6/14/02 — Date

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Date

RMT

WATER LEVEL DATA

PROJECT NAME: LEC

DATE: 5/20/02

PROJECT NUMBER: 03868.29

SAMPLER: SL

	Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)**	Depth to Bottom (feet)	Water Elev (MSL)
0	WP B6	19:00				5.45		
	CW3	18:57				6.73		
	MW22	18:30				2.29		
	MW14I	18:20				2.19		
	MW14S	18:17				2.87		
	MW25	18:36				1.97		
	MW21	18:48				2.85		
	MW15I	19.06				9.85		
	SGR1	19:14				2.06		
	MW19-6	19:20				8.73		
	MW19-8	19:24				8.44		
	MW15S	17:18				9.99		
	MW17S	13:26				7.48		
2	~~MW11R~~*							
22	MW20	7:57				8.82		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: _____

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6/14/02 — Date

QC'd By — Date

KMI

D 5

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW21
PROJECT NUMBER: 03868.29
WELL DIAMETER: 4"
DATE: 5/22/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3L/min
Water level before purging (nearest 0.01 ft. below reference point) 3.20+ T/
Depth to bottom of well (obtained from well logs) 15 + T/
Calculated volume of water in casing 7.71 gal
Weather conditions Sunny, 60's

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
13.08	300 ml/min	7.77	1.032	1.1	3.46	-220	12.83	3.20	
13:13		7.68	1.100	0	2.53	-222	13.44		
13:18		7.67	1.105	1.2	1.78	-225	14.57		
13:23		7.68	1.106	1.1	1.38	-227	14.87		
13:28		7.64	1.107	0.9	1.00	-230	11.13		
13:33		7.68	1.088	1.1	1.20	-226	12.36		
13:38		7.68	1.102	0.6	1.03	-229	13.0		
13:43		7.67	1.101	0.8	1.08	-230	14.18		
13:48		7.69	1.101	0.70	1.03	-227	16.63	3.19	2

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI

D 5

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC WELL NUMBER: MW25

PROJECT NUMBER: 03868.29 WELL DIAMETER: 2"

DATE: 5/22/02 SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.4 L/min

Water level before purging (nearest 0.01 ft. below reference point) 2.0 + T/

Depth to bottom of well (obtained from well logs) 9.9 + T/

Calculated volume of water in casing 1.29 gal

Weather conditions Sunny, 60's

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:08	400 ml/min	7.39	0.787	400	3.35	-158	12.05	2.0	
11:13		7.35	0.790	450	1.67	-169	11.82		
11:18		7.27	0.790	200	1.07	-173	11.84		
11:23		7.30	0.790	90	0.75	-178	11.80		
11:28		7.31	0.788	80	0.65	-181	11.60		
11:33		7.32	0.785	40	0.67	-181	11.58		
11:38		7.31	0.780	38	0.65	-184	11.48	2.65	2.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

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6/14/02 — Date

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Date

RMI

~~R30~~ SL 05

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC WELL NUMBER: MW22

PROJECT NUMBER: 03868.29 WELL DIAMETER: 2"

DATE: 5/22/02 SAMPLER: SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.48 L/min

Water level before purging (nearest 0.01 ft. below reference point) 2.43+ T/

Depth to bottom of well (obtained from well logs) 9.4 + T/

Calculated volume of water in casing 1.14 gal

Weather conditions Sunny, 60's

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
9:51		7.72	0.788	65	5.17	-148	16.26	2.43	
9:56	480 mL/min	7.28	0.800	35	0.81	-159	11.57	2.55	
10:01		7.19	0.800	26	0.32	-165	12.10		
10:06		7.15	0.797	21	0.21	-172	11.45		
10:11		7.13	0.795	11	0.21	-176	11.84		
10:16		7.12	0.793	9.1	0.21	-180	11.16	2.59	1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka 6/14/02

Signed Date QC'd By Date

RMI

10 refill
5 discharge

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW 145
PROJECT NUMBER: 03868.29
WELL DIAMETER: 4"
DATE: 5-21-02
SAMPLER: JPM
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3L/min
Water level before purging (nearest 0.01 ft. below reference point) 2.93+ T/
Depth to bottom of well (obtained from well logs) 15.46+ T/
Calculated volume of water in casing 8.18 gal
Weather conditions Sunny, windy, 50s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
1838	300 ml/min	7.34	0.930	80	2.17	-51	11.36	2.93	
1843		7.35	0.933	28	0.67	-67	11.29		
1848		7.33	0.935	1.9	0.33	-78	11.24		
1853		7.34	0.934	1.4	0.27	-84	11.20	2.93	~1 gal
1858		7.34	0.936		0.25	-88	11.21		
1903		7.33	0.936		0.27	-92	11.20		~1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
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Date

RMI

Refill 30
Discharge 15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW 14 I
PROJECT NUMBER: 03868.29
WELL DIAMETER: 2"
DATE: 5/21/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.4 L/min
Water level before purging (nearest 0.01 ft. below reference point) 2.23+ T/
Depth to bottom of well (obtained from well logs) 44.3+ T/
Calculated volume of water in casing 6.86 gal.
Weather conditions Sunny, Windy, 50's

Time	Purge Rate PSI=45 (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
1707	400 ml/min	8.16	0.317	25	4.51	54	11.85	2.23	
1711		8.24	0.319	75	3.09	54	11.78		
1716		8.25	0.312	220	2.65	52	11.63		
1721		8.25	0.319	90	2.34	50	11.50	2.22	
1726		8.25	0.318	45	2.18	47	11.50		
1731		8.25	0.318	19	2.08	47	11.55		~1 gal
1736		8.25	0.317	12	2.00	44	11.54		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI MS/MSD D15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW4
PROJECT NUMBER: 03868.29
WELL DIAMETER: 2"
DATE: 5/21/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.4 L/min
Water level before purging (nearest 0.01 ft. below reference point) 5.92 T/
Depth to bottom of well (obtained from well logs) 27 + T/
Calculated volume of water in casing 3.44 gal
Weather conditions Sunny, windy, 50's

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
14:53	400 mL/min	7.30	0.381	110	5.77	59	18.15	5.92	
14:58		7.14	0.390	100	3.05	3	15.33		
15:03		7.11	0.388	80	2.69	2	14.44		
15:08		7.05	0.381	29	1.85	4	13.99		
15:13		7.03	0.378	16	1.55	3	13.82		
15:18		7.06	0.377	11	1.27	2	13.79		
15:23		7.07	0.377	9.9	1.19	1	13.41		
15:28		7.06	0.377	6.3	1.06	-1	13.53		
15:33		7.07	0.376	5.1	0.93	-3	13.66	6.02	1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%.

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Date

RMI

D 15

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC

WELL NUMBER: MW-11D(R)

PROJECT NUMBER: 03868.29

WELL DIAMETER: 2"

DATE: 5/21/02

SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.3 L/min

Water level before purging (nearest 0.01 ft. below reference point) 4.61 + T/

Depth to bottom of well (obtained from well logs) 157 + T/

Calculated volume of water in casing 24.84 gal

Weather conditions Sunny, windy, 50s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:47	300 mL/min	8.67	0.214	1.5	5.73	38	17.85	4.61	
11:52		8.61	0.207	0.95	5.07	49	15.73		
11:57		8.58	0.208	4.7	4.73	61	13.61		
12:02		8.57	0.208	150	4.38	68	12.95		
12:12		8.60	0.207	120	3.10	78	12.67		
~~12:17~~ SL						~~85~~ SL			
12:22		8.59	0.207	90	4.47	85	12.64		
12:27		8.64	0.206	65	4.89	90	12.69		
12:32		8.61	0.209	55	4.67	90	14.78		
12:37		8.64	0.207	50	4.89	90	16.26		
12:42		8.67	0.207	36	5.22	93	15.03	4.46	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

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6/14/02 — Date

QC'd By

Date

RMI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW15I
PROJECT NUMBER: 03868.29
WELL DIAMETER: 2"
DATE: 5/21/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3 L/min
Water level before purging (nearest 0.01 ft. below reference point) 9.87+ T/
Depth to bottom of well (obtained from well logs) 43.92 T/
Calculated volume of water in casing 5.55 gal
Weather conditions Sunny, windy, 50s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
8:10	350 ml/min	7.52	0.753		8.04	20	11.97	9.87	
8:15		7.47	0.758		6.33	7	11.94		
8:20		7.52	0.158	37	4.87	-13	11.94	9.96	
8:25		7.52	0.778	18	3.58	-22	12.18		
8:30		7.56	0.773	11	3.28	-30	12.09		
8:35		7.55	0.779	10	2.83	-37	12.19		
8:40		7.60	0.762	10	2.42	-43	12.30		
8:45		7.83	0.765	8.4	1.48	-47	12.34		
8:50		7.86	0.758	6.8	1.53	-49	12.53		
8:55		7.87	0.755	7.1	1.28	-55	12.56		
9:00		7.89	0.751	5.7	1.30	-57	12.46		
9:05		7.90	0.757	3.7	1.18	-60	12.64		
9:10		7.90	0.765	3.8	0.97	-67	12.72		
9:15		7.88	0.763	2.9	1.04	-68	12.73		3.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

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Date

RMI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW 15S
PROJECT NUMBER: 03868.29
WELL DIAMETER: 4"
DATE: 5/20/02
SAMPLER: SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3 L/min
Water level before purging (nearest 0.01 ft. below reference point) 9.99+ T/
Depth to bottom of well (obtained from well logs) 25.94+ T/
Calculated volume of water in casing 10.42 gal
Weather conditions Windy, 50s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
17:18	300 mL/min	7.40	0.001		8.85	259	11.99	9.99	
17:23		7.30	0.103		8.36	264	11.82		
17:28		7.40	0.004		8.79	258	11.70		
17:33		7.45	0.008		8.94	259	11.59		
17:38		7.48	0.000		8.89	259	12.12		
17:43		7.46	0.000		8.87	259	12.13		
17:48		7.46	0.019		8.72	259	11.79		1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC WELL NUMBER: MW 17S

PROJECT NUMBER: 03868.29 WELL DIAMETER: 4"

DATE: 5/20/02 SAMPLER: SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.4 L/min

Water level before purging (nearest 0.01 ft. below reference point) 7.48 + T/

Depth to bottom of well (obtained from well logs) 15.04+ T/

Calculated volume of water in casing 4.94 gal

Weather conditions 50s, windy

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
	±0	±3%	±10%	±10%	±10				
13:26	4.0 mL/m	7.21	0.205		7.01	245	12.62	7.48	
13:31		6.98	0.199		7.33	246	12.01		
13:36		7.22	0.199		6.96	246	11.72		
13:41		6.90	0.199		7.65	246	11.11		
13:46		6.91	0.198		6.21	247	11.81		
13:51		6.90	0.198		6.83	247	11.85		
13:56		6.93	0.198		5.88	247	12.10		
14:01		6.91	0.198		6.90	248	12.20		
14:06		6.93	0.198		6.88	248	11.86		
14:11		6.87	0.200		6.92	249	11.80	7.40	2

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka 6/14/02

Signed Date QC'd By Date

Location LEC, Wharton, NJ Date 6-5-00

Project / Client Poly One

Overcast, 70s

0750	Arrive on site. Get equipment and proceed to MW19 test spot. Start measuring water levels
0910	Calibrate flow through won't read 10 for pH 10 std (keeps reading 7).
0925	Calibration successfully start pumping at MW19-6.
9:26	began pumping MW19-6
10:01	Sampled MW19-6, to MW19-9D
11:05	began pumping MW19-9D
11:25	sampled MW19-9D, to MW19-8
11:58	began pumping MW19-8
12:23	sampled MW19-8
12:45	lunch

Location LEC, Wharton, NJ Date 6/5/00

Project / Client Poly One

13:20	back from lunch, to MW19-7
13:41	began pumping MW19-7
14:06	Sampled MW19-7, to MW19-5
14:44	began pumping MW19-5
15:19	sampled MW19-5, took 1st duplicate sample, DUP01 to MW19-2
16:21	FB01
16:25	began ~~sampling~~ pumping MW19-2
16:40	Sampled MW19-2, to MW19-3
17:15	began purging MW19-3
17:40	sampled MW19-3, to MW19-1
18:04	began purging MW19-1

Location [illegible] Date [illegible]

Project / Client [illegible]

18.19	Sampled MW19-1
18:50	off-site

Location [illegible] Date [illegible]

Project / Client [illegible]

6:50	[illegible]
7:27	at MW19-4
7:32	calibrated Horiba, previous flowcell did not measure turbidity. Pure Environmental did not have a flow through turbidity meter to send a Horiba flow cell.
7:55	began pumping MW19-4
8:35	Sampled MW19-4
9:35	began pumping MW19
9:38	Sampled MW19 + took MS/MSD
10:27	began pumping at GEI-2I
10:47	Sampled GEI-2I,

14 Location [illegible] Date [illegible]

Project / Client [illegible]

11:26	began ~~sampling~~ pumping GEI-2S
11.46	sampled GEI-2S
12.30	lunch
13:11	back from lunch, to ditches
13:27	calibrated Horiba
13:40	began pumping SW-5-1
13:55	Sampled SW-5-1
14:22	began pumping SW-8-1
14:32	sampled SW-8-1
14.43	sampled SW-7-1 across from nitrogen tanks. Couldn't get across tracks to use car batteries to power pump. So took grab sample from ditch.

Location _____ Date _____

Project / Client _____

15:05	lab picked up samples
15:10	[illegible]

RMT

WATER LEVEL DATA

PROJECT NAME: LEC

DATE: 6/5/02

PROJECT NUMBER: 03868.31

SAMPLER: JPM/SL

Well ID	Time	Top of Casing Elevation	Historical Depth to Water	Depth to Product (feet)*	Depth to Water (feet)**	Depth to Bottom (feet)	Water Elev (MSL)
MW19-6	8:06				9.69		
MW19-5	8:15				9.44		
MW19	8:17				9.70		
MW19-4	8:21				9.11		
MW19-3	8:24				10.44		
MW19-1	8:27				9.43		
MW19-2	8:30				10.05		
GEI-12I	8:35				11.04		
GEI-12S	8:37				10.98		
MW20	8:48				10.14		
MW16I	8:50				8.46		
MW16S	8:52				8.05		
MW19-7	8:59				8.90		
MW19-9D	9:01				9.30		
MW19-8	9:05				9.24		
SG-R1	9:43				1.56		
16 SG-D3	14:21				1.33		

* Note the Presence of Sheen as an "S"

* All Water Levels Must Include Reference Point and Tape Correction factor, i.e., 1.1 + 0.00 T/PVC.

TYPE OF MEASURING DEVICE: _____

Sarah Lapka — Signed

6/14/02 — Date

_____ — QC'd By

REV 09/98

KMI

D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW 19-6
PROJECT NUMBER: 03868.31
WELL DIAMETER: 2
DATE: 6/5/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3L/min
Water level before purging (nearest 0.01 ft. below reference point) 9.69 + T/
Depth to bottom of well (obtained from well logs) 20 + T/
Calculated volume of water in casing 1.68 gal
Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
		±0.1	±3%	±10%	±10%	±10			
9:26		6.26	1.97		4.61	-114	15.78	9.69	
9:31		6.53	2.10		2.10	-197	15.00		
9:36	300 mL/min	6.60	2.05		2.00	-210	15.03		
9:41		6.62	2.04		2.27	-213	14.82		
9:46		6.62	2.04		2.49	-214	14.78		
9:51		6.66	2.03		2.63	-216	15.08		
9:56		6.67	2.03		2.88	-218	15.14		
10:01		6.70	2.02		2.98	-219	15.22	9.70	1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI

D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW19-9D
PROJECT NUMBER: 03868.31
WELL DIAMETER: 2"
DATE: 6/5/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3 L/min
Water level before purging (nearest 0.01 ft. below reference point) 9.34+ T/
Depth to bottom of well (obtained from well logs) 35 + T/
Calculated volume of water in casing 4.18 gal
Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:05		6.91	0.566		1.06	-248	15.31	9.34	
11:10	300 mL/min	6.90	0.567		0.69	-230	16.09		
11:15		6.87	0.563		0.78	-223	16.46		
11:20		6.90	0.561		0.66	-220	16.52		
11:25		6.87	0.560		0.72	-215	16.64	9.36	1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI

D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC

WELL NUMBER: MW19-8

PROJECT NUMBER: 03868.31

WELL DIAMETER: 2

DATE: 6/5/02

SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.45 L/min

Water level before purging (nearest 0.01 ft. below reference point) 9.34+ T/

Depth to bottom of well (obtained from well logs) 20 + T/

Calculated volume of water in casing 1.74 gal

Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:58		7.12	1.023		3.81	-199	20.17	9.34	
12:03	450 ml/min	6.83	1.424		2.10	-244	16.21		
12:08		6.84	1.456		1.80	-246	16.18		
12:13		6.88	1.471		2.33	-248	16.25		
12:18		6.87	1.473		2.22	-249	16.20		
12:23		6.90	1.484		2.38	-250	16.09	9.31	1

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed

6/14/02 — Date

QC'd By

Date

RMI

D 10 12.5 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC

WELL NUMBER: MW19-7

PROJECT NUMBER: 03868.31

WELL DIAMETER: 2

DATE: 6/5/02

SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.3 L/min

Water level before purging (nearest 0.01 ft. below reference point) 8.9 + T/

Depth to bottom of well (obtained from well logs) 20 + T/

Calculated volume of water in casing 1.81 gal

Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
13:41		7.06	1.67	-	4.90	-247	19.74	8.90	
13:46	300 mL/min	6.74	3.40		3.39	-249	17.58		
13:51		6.70	3.94		3.18	-267	16.51		
13:56		6.69	4.21		2.99	-270	16.44		
14:01		6.69	4.27		2.76	-273	16.66		
14:06		6.70	4.30		2.66	-276	16.59	8.92	1.0

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed

6/14/02 — Date

QC'd By

Date

RMI DUPOI 0 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW19-5
PROJECT NUMBER: 03868.31
WELL DIAMETER: 2
DATE: 6/5/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.45 L/min
Water level before purging (nearest 0.01 ft. below reference point) 9.46+ T/
Depth to bottom of well (obtained from well logs) 16 + T/
Calculated volume of water in casing 1.07 gal
Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
14:44		6.65	0.524		2.32	-301	15.91	9.46	
14:49	450 ml/min	6.65	0.574		2.41	-273	15.71		
14:54		6.64	0.598		2.02	-271	15.30		
14:59		6.66	0.605		1.90	-259	17.22		
15:04		6.65	0.617		2.96	-250	15.62		
15:09		6.69	0.616		2.50	-232	15.60		
15:14		6.72	0.636		2.65	-225	15.16		
15:19		6.71	0.647		2.38	-243	15.50	9.34	2

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW19-2
PROJECT NUMBER: 03868.31
WELL DIAMETER: 4
DATE: 6/5/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.3 L/min
Water level before purging (nearest 0.01 ft. below reference point) 10.14+ T/
Depth to bottom of well (obtained from well logs) 16 + T/
Calculated volume of water in casing 3.83 gal
Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
16:25	300cc/min	6.84	1.76		0.88	-311	16.30	10.14	
16:30		6.85	1.73		0.31	-322	14.93		
16:35		6.84	1.73		0.33	-321	14.98		
16:40		6.87	1.72		0.30	-319	14.82	10.15	1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI

D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC

WELL NUMBER: MW19-3

PROJECT NUMBER: 03868.31

WELL DIAMETER: 4

DATE: 6/5/02

SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.45 L/min

Water level before purging (nearest 0.01 ft. below reference point) 10.37 T/

Depth to bottom of well (obtained from well logs) 16 + T/

Calculated volume of water in casing 3.68 gal

Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
17:15	450 mL/min	7.04	2.96		2.67	-269	20.11	10.37	
17:20		6.87	3.07		1.79	-295	15.89		
17:25		6.87	3.17		1.85	-291	15.42		
17:30		6.89	3.22		2.63	-284	15.13		
17:35		6.92	3.24		2.54	-278	18.35		
17:40		6.94	3.24		2.81	-277	14.11	10.49	1

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lupka — Signed

6/14/02 — Date

QC'd By

Date

RMI

D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: MW19-1
PROJECT NUMBER: 03868.31
WELL DIAMETER: 4
DATE: 6/5/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.45 L/min
Water level before purging (nearest 0.01 ft. below reference point) 9.39+ T/
Depth to bottom of well (obtained from well logs) 17 + T/
Calculated volume of water in casing 4.97 gal
Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
18:04		7.22	1.074		2.50	-305	20.82	9.39	
18:09	450 mL/min	6.91	1.036		1.48	-303	16.03		
18:14		6.89	1.034		1.68	-282	15.95		
18:19		6.92	1.037		1.70	-275	16.00	9.54	0.7

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

KMI

0 16 20 psi

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC WELL NUMBER: MW 19-4

PROJECT NUMBER: 03868.31 WELL DIAMETER: 4

DATE: 6/6/02 SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.45 mL/min

Water level before purging (nearest 0.01 ft. below reference point) 8.97+ T/

Depth to bottom of well (obtained from well logs) 16 + T/

Calculated volume of water in casing 4.59 gal

Weather conditions Overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
7:55	6.26 →		1.58	453	0.18	52	14.92	8.97	
8:00	450 mL/min	6.49	1.58	358	0.0	39	13.85		
8:05		6.45	1.58	288	0.0	43	13.55		
8:10		6.41	1.57	219	0.0	47	13.43		
8:15		6.38	1.56	199	0.0	51	13.47		
8:20		6.37	1.56	185	0.0	54	13.53		
8:25		6.32	1.56	179	0.0	57	13.54	9.15	2

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka 6/14/02

Signed Date QC'd By Date

RMI MS/MSD D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC WELL NUMBER: MW 19

PROJECT NUMBER: 03868.31 WELL DIAMETER: 4

DATE: 6/6/02 SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.45 L/min

Water level before purging (nearest 0.01 ft. below reference point) 9.59+ T/

Depth to bottom of well (obtained from well logs) 17 + T/

Calculated volume of water in casing 4.84 gal

Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
9.03	450 mL/min	9.75	1.05	182	0.52	-184	14.14	9.59	
9:08		9.15	1.03	346	0.14	-150	13.60		
9:13		9.0	1.03	348	0.10	-140	13.27		
9:18		8.82	1.04	265	0.13	-128	13.23		
9:23		8.71	1.04	237	0.16	-119	13.24		
9:28		8.70	1.05	203	0.17	-116	13.28		
9:33		8.60	1.06	195	0.17	-110	13.26		
9.38		8.63	1.06	204	0.19	-112	13.42	9.66	1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka 6/14/02

Signed Date QC'd By Date

R 10
D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC
WELL NUMBER: GEI-2I
PROJECT NUMBER: 03868.31
WELL DIAMETER: 2
DATE: 6/6/02
SAMPLER: JPM/SL
Type of pump used: bladder
Pumping rate (gallon/minute): 0.45 L/min
Water level before purging (nearest 0.01 ft. below reference point) 10.92 T/
Depth to bottom of well (obtained from well logs) 46.28 T/
Calculated volume of water in casing 5.76 gal
Weather conditions overcast, 70s
40 PSI

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
10:22	450 ml/min	8.86	0.657	-10.0	3.0	-100	15.01	10.92	
10:27		8.78	0.645	-10.0	0.74	-101	14.03		
10:32		8.97	0.654	-10.0	0.42	-117	13.59		
10:37		8.95	0.643	-10.0	0.39	-117	13.44		
10:42		8.95	0.643	-10.0	0.40	-119	13.38	10.94	0.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed
6/14/02 — Date
QC'd By
Date

RMI

D 10

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC

WELL NUMBER: GEI-2S

PROJECT NUMBER: 03868.31

WELL DIAMETER: 2

DATE: 6/6/02

SAMPLER: JPM/SL

Type of pump used: bladder

Pumping rate (gallon/minute): 0.3 L/min

Water level before purging (nearest 0.01 ft. below reference point) 10.89 T/

Depth to bottom of well (obtained from well logs) 22.21+ T/

Calculated volume of water in casing 1.85 gal

Weather conditions Overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
11:26	300 ml/min	6.88	1.37	-1.7	0.0	24	15.44	10.89	
11:31		6.79	1.42	-5.2	0.0	41	13.25		
11:36		6.88	1.40	143	0.00	39	12.50		
11:41		6.85	1.39	144	0.00	43	12.6		
11:46		6.81	1.36	152	0.00	44	12.52	10.87	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lupka — Signed

6/14/02 — Date

QC'd By

Date

RMI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC WELL NUMBER: SW-5-1

PROJECT NUMBER: 03868.31 WELL DIAMETER:

DATE: 6/6/02 SAMPLER: SL/JPM

Type of pump used: peristaltic

Pumping rate (gallon/minute):

Water level before purging (nearest 0.01 ft. below reference point) + T/

Depth to bottom of well (obtained from well logs) + T/

Calculated volume of water in casing

Weather conditions overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
13:40		7.21	0.414	640	2.32	-7	22.16		
13:45		6.88	0.333	865	0.29	18	21.79		
13:50		6.88	0.330	912	0.09	19	21.79		
13:55		6.92	0.327	933	0.00	15	21.79		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka 6/14/02

Signed Date QC'd By Date

RMI

LOW-FLOW GROUNDWATER SAMPLING STABILIZATION LOG

PROJECT NAME: LEC

WELL NUMBER: SW-8-1

PROJECT NUMBER: 03868.31

WELL DIAMETER:

DATE: 6/6/02

SAMPLER: JPM/SL

Type of pump used: peristaltic

Pumping rate (gallon/minute):

Water level before purging (nearest 0.01 ft. below reference point) + T/

Depth to bottom of well (obtained from well logs) + T/

Calculated volume of water in casing

Weather conditions Overcast, 70s

Time	Purge Rate (gal/min)	pH (SU)	Conductivity (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L) or %	ORP mV	Temp. (°C)	Water Level (0.01 ft.)	Cumulative Purge Volume (gal)
14:22		6.39	0.274	6.9	0.0	43	22.65		
14:27		6.68	0.290	22.9	0.0	24	22.47		
14:32		6.81	0.295	21.7	0.0	15	22.38		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS: pH - ±0.1 pH; COND. - ±5%, TEMP (CORRECTED); TEMP. - ±0.5°c; TURBIDITY ±10%

Sarah Lapka — Signed

6/14/02 — Date

QC'd By

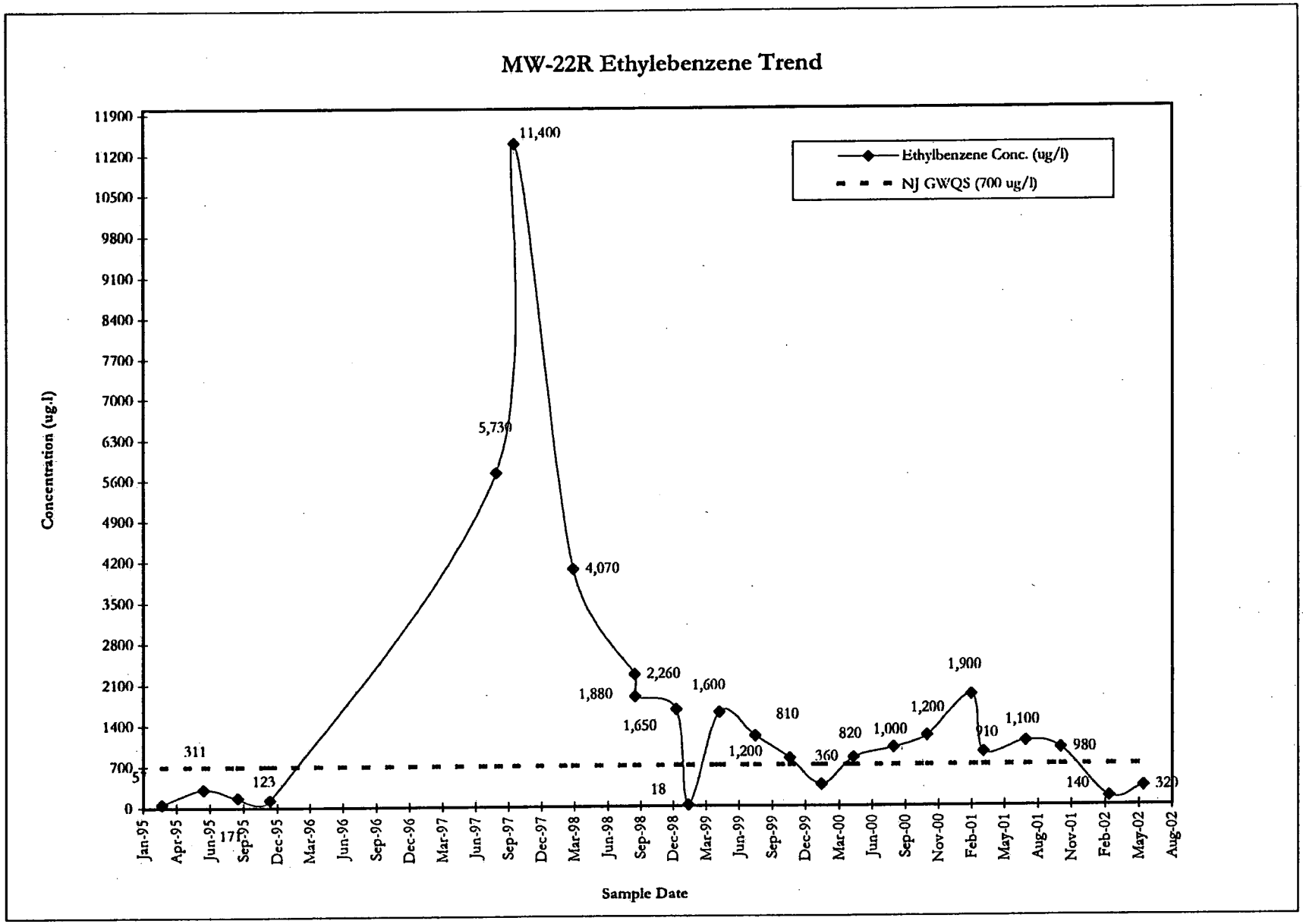
Date

Appendix D
MW-22R and MW-25R Groundwater Concentration Trend Analysis

MW-22R

CONTAMINANT OF CONCERN

Concentration vs. Time



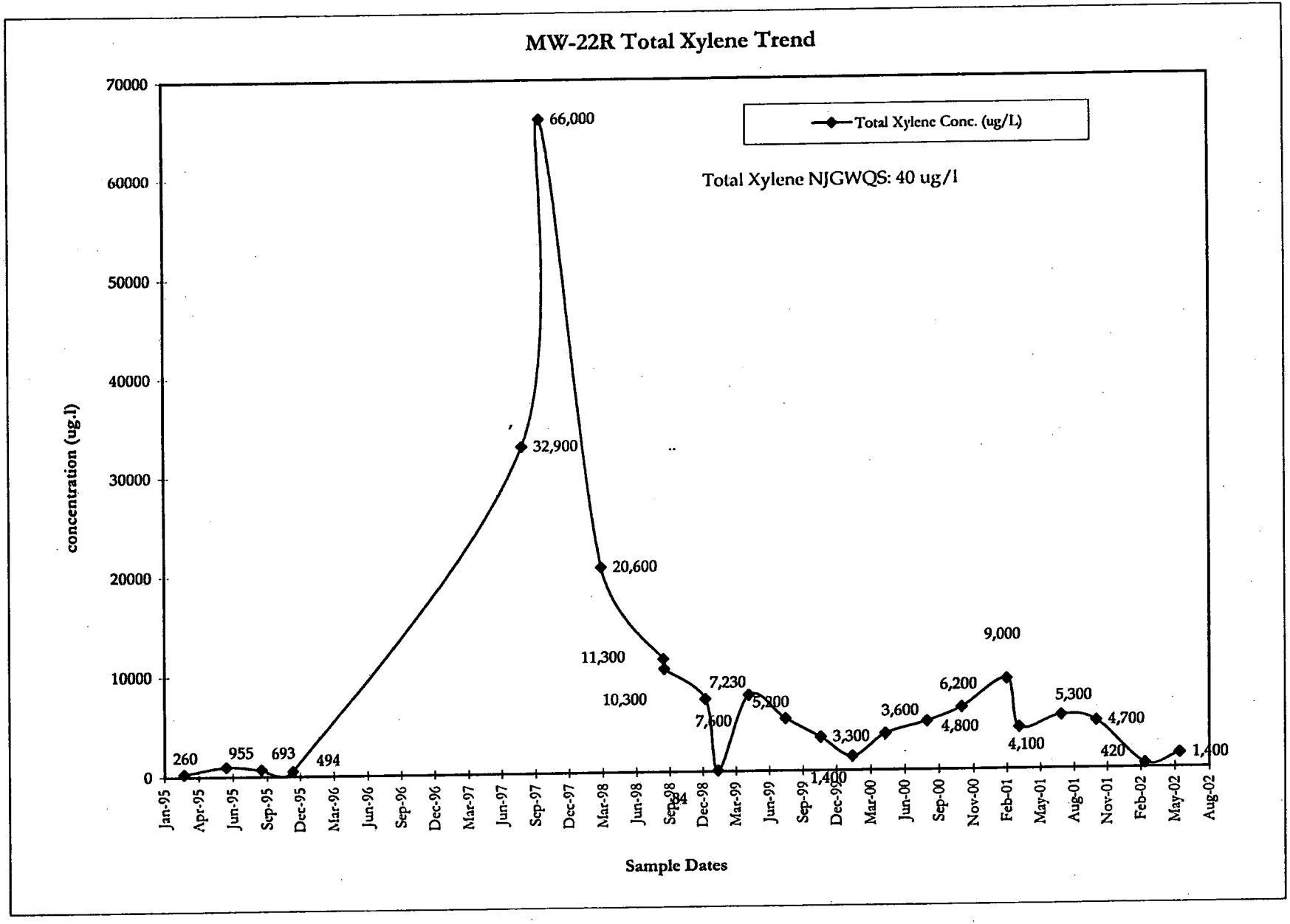
7/22/200211:47 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

T000386817-005.DOCMW-22(R) Trend Charts Chart 3

MW-22R

CONTAMINANTS OF CONCERN

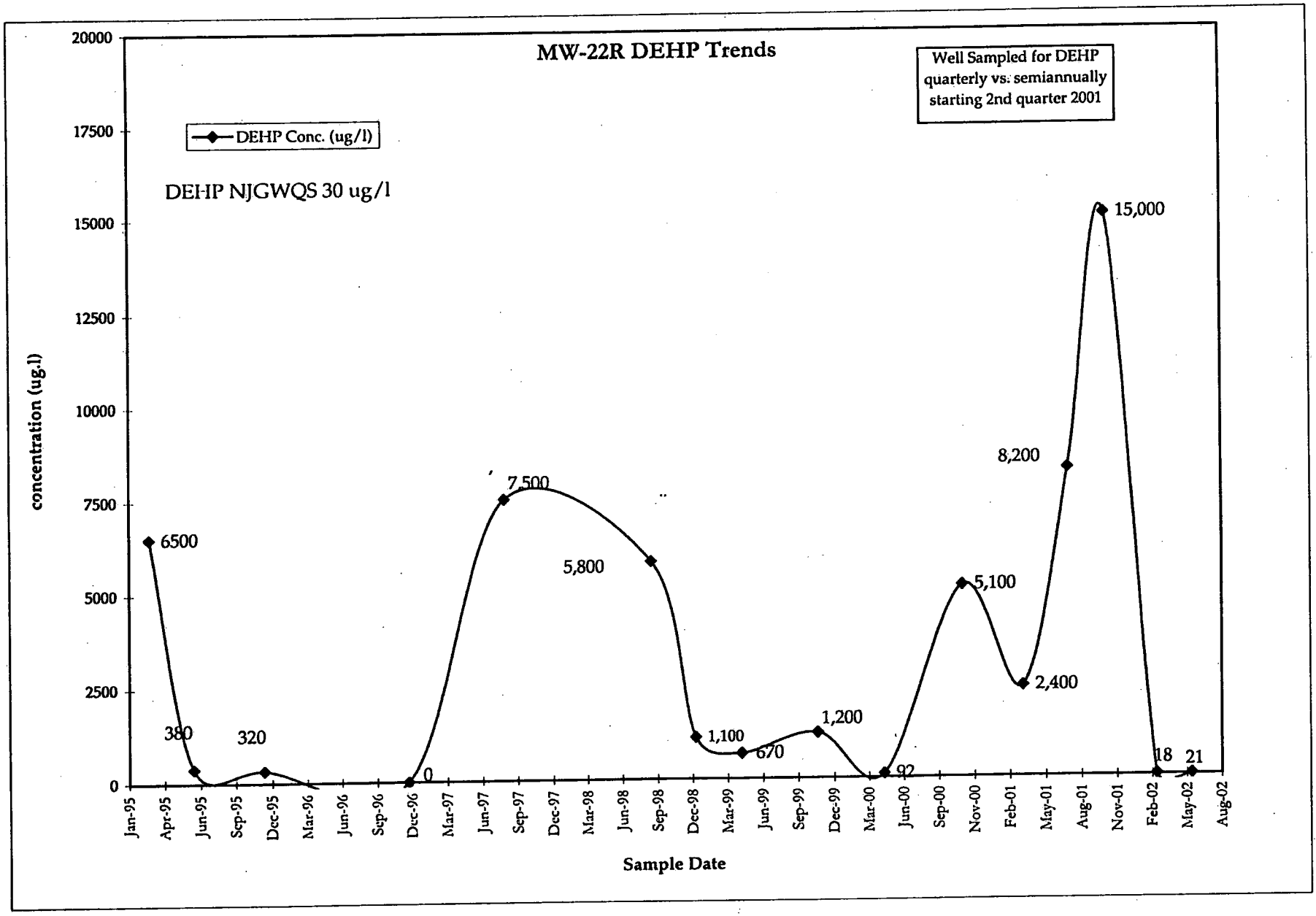
Concentration vs. Time



7/22/2002 11:47 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

T000386817-005.DOCMW-22(R) Trend Charts Chart 5

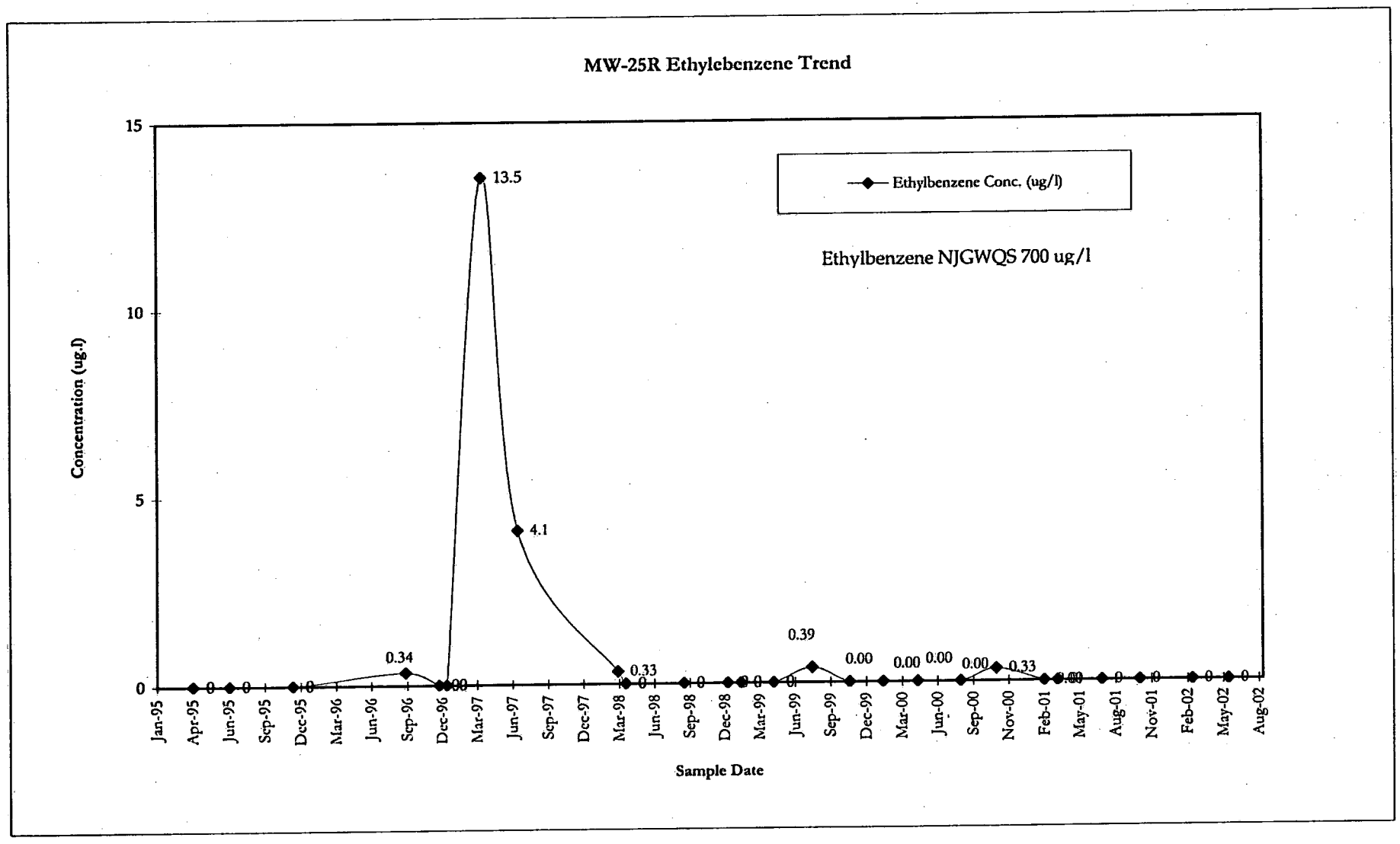
MW-22R
Contaminants of Concern
Concentration vs. Time



7/22/2002 11:48 AM

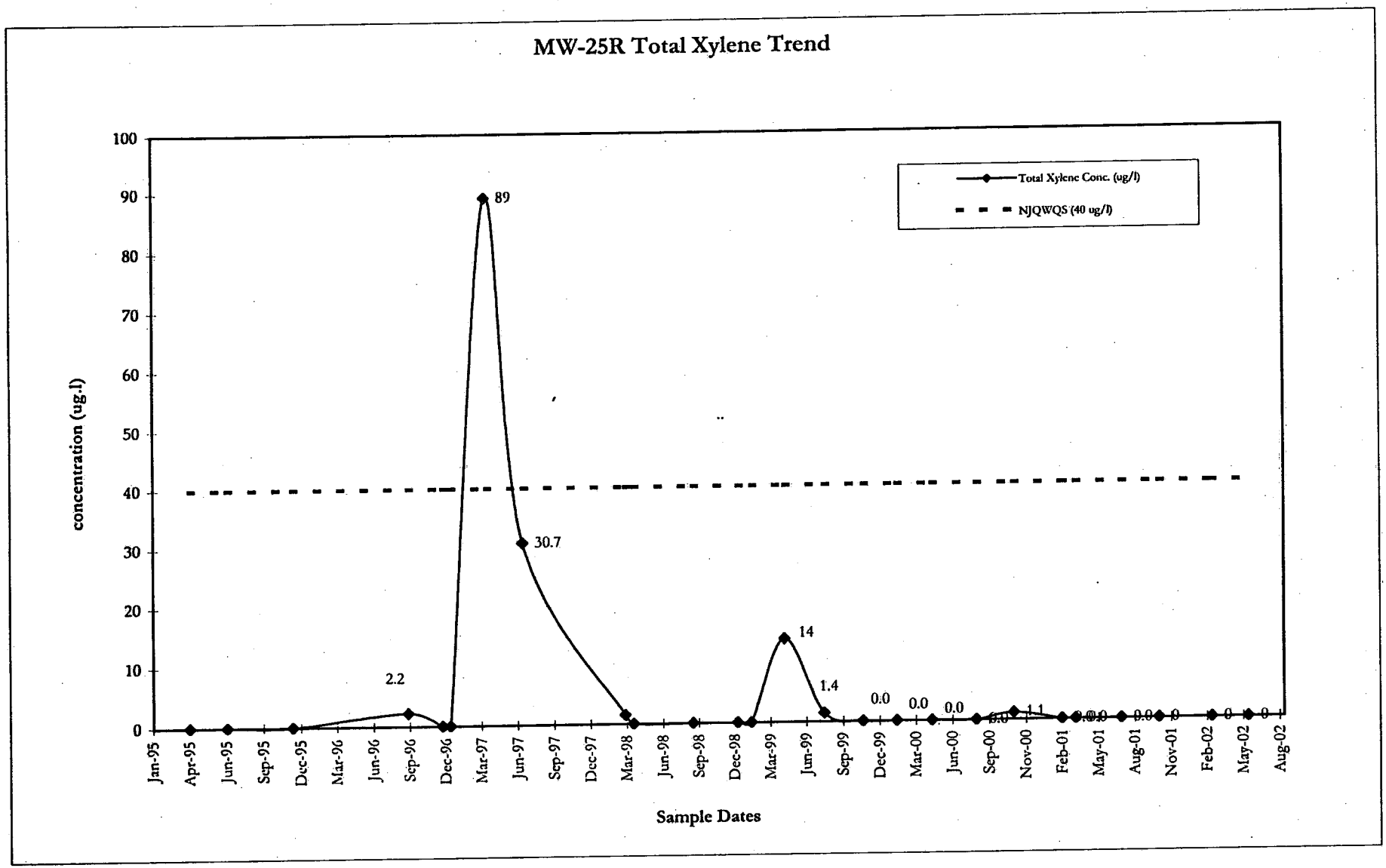
h:\data\projects\lecarpen\quarters\gwresult\qtrqwsam\MW-22(R) Trend Charts Chart 6\MW-22(R) Trend Charts Chart 6

MW-25R
CONTAMINANT OF CONCERN
Concentration vs. Time



7/22/200211:48 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

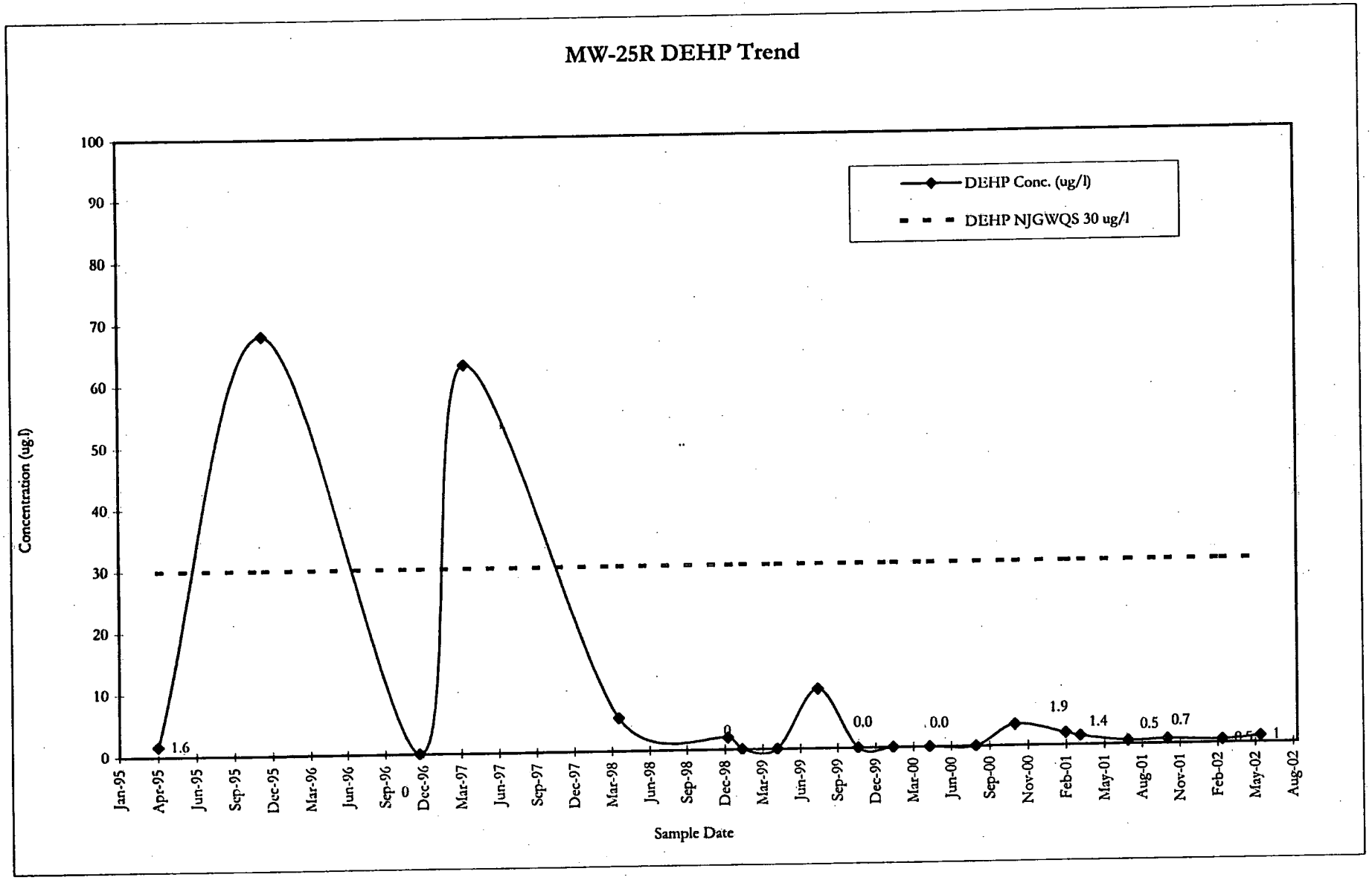
MW-25R
CONTAMINANTS OF CONCERN
Concentration vs. Time



7/22/2002 11:49 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

h:\data\projects\lccarpen\quarters\gwresult\qtrqwsam\MW-25R Trend Charts Chart 6\MW-25R Trend Charts Chart 6

MW-25R
CONTAMINANT OF CONCERN
Concentration vs. Time



7/22/2002 11:49 AM
Prepared By: Nicholas J. Clevett
RMT, Inc. - Project Manager

h:\data\projects\lecarpen\quarters\gwresult\qtrqwsam\MW-25R Trend Charts Chart 7\MW-25R Trend Charts Chart 7

Appendix E
2nd Quarter 2002 Groundwater Monitoring Event Laboratory Analytical Report

06/17/2002

SEVERN TRENT SERVICES

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

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

Attention: Mr Nick Clevett

Laboratory Results
Job No. W671 - L.E. Carpenter

Dear Mr Clevett:

Enclosed are the results you requested for the following sample(s) received at our laboratory on May 22, 2002.

Lab No.	Client ID	Analysis Required
351685	MW17S	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351686	MW15S	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351687	MW15I	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351688	MW11D_R	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351689	MW4	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351691	MW14I	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351692	MW14S	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351693	RINSATE01	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351694	DUP01	BTEX (GC) Bis-2-Ethylhexyl Phthalate

SEVERN TRENT SERVICES

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. W671 - L.E. Carpenter (cont'd)

Lab No.	Client ID	Analysis Required
351695	MW22	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351696	MW25	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351697	MW21	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351698	FB01	BTEX (GC) Bis-2-Ethylhexyl Phthalate
351699	Trip_Blank	BTEX (GC)

If you have any questions please contact your Project Manager, Joy Kelly, at (732) 549-3900.

Very Truly Yours,

Michael J. Urban
Laboratory Manager

SEVERN TRENT SERVICES

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SEVERN TRENT SERVICES

Analytical Results Summary

SEVERN TRENT SERVICES

Client ID: MW17S
Site: L.E. Carpenter

Lab Sample No: 351685
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3443.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW15S**
Site: L.E. Carpenter

Lab Sample No: **351686**
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3444.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW15I**
Site: L.E. Carpenter

Lab Sample No: **351687**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3445.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW11D_R**
Site: L.E. Carpenter

Lab Sample No: **351688**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3446.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW4
Site: L.E. Carpenter

Lab Sample No: 351689
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3447.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW14I**
Site: L.E. Carpenter

Lab Sample No: **351691**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3450.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW14S**
Site: L.E. Carpenter

Lab Sample No: **351692**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3451.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **RINSATE01**
Site: L.E. Carpenter

Lab Sample No: **351693**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3452.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: DUP01
Site: L.E. Carpenter

Lab Sample No: 351694
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3453.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW22**
Site: L.E. Carpenter

Lab Sample No: **351695**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3454.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 50.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	11
Toluene	ND	12
Ethylbenzene	320	9.0
Xylene (Total)	1400	10

SEVERN TRENT SERVICES

Client ID: MW25
Site: L.E. Carpenter

Lab Sample No: 351696
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3455.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW21
Site: L.E. Carpenter

Lab Sample No: 351697
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3456.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: FB01
Site: L.E. Carpenter

Lab Sample No: 351698
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3457.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

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

Lab Sample No: **351699**
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Analyzed: 05/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3458.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW17S
Site: L.E. Carpenter

Lab Sample No: 351685
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/04/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7529.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	0.6 B	0.5

SEVERN TRENT SERVICES

Client ID: MW15S
Site: L.E. Carpenter

Lab Sample No: 351686
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7530.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	0.7 B	0.5

SEVERN TRENT SERVICES

Client ID: MW15I
Site: L.E. Carpenter

Lab Sample No: 351687
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7531.d

Matrix: WATER
Level: LOW
Sample Volume: 940 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	0.5

SEVERN TRENT SERVICES

Client ID: MW11D_R
Site: L.E. Carpenter

Lab Sample No: 351688
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7532.d

Matrix: WATER
Level: LOW
Sample Volume: 980 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	26	0.4

SEVERN TRENT SERVICES

Client ID: MW4
Site: L.E. Carpenter

Lab Sample No: 351689
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7551.d

Matrix: WATER
Level: LOW
Sample Volume: 600 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 10.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	1300	7.3

SEVERN TRENT SERVICES

Client ID: MW14I
Site: L.E. Carpenter

Lab Sample No: 351691
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7536.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	1.0 B	0.5

SEVERN TRENT SERVICES

Client ID: **MW14S**
Site: L.E. Carpenter

Lab Sample No: **351692**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7537.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	0.7 B	0.5

SEVERN TRENT SERVICES

Client ID: **RINSATE01**
Site: L.E. Carpenter

Lab Sample No: **351693**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7538.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	3.4 B	0.4

SEVERN TRENT SERVICES

Client ID: **DUP01**
Site: L.E. Carpenter

Lab Sample No: **351694**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7554.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 10.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	950	4.4

SEVERN TRENT SERVICES

Client ID: MW22
Site: L.E. Carpenter

Lab Sample No: 351695
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7540.d

Matrix: WATER
Level: LOW
Sample Volume: 930 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	21	0.5

SEVERN TRENT SERVICES

Client ID: MW25
Site: L.E. Carpenter

Lab Sample No: 351696
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7555.d

Matrix: WATER
Level: LOW
Sample Volume: 940 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	1.1 B	0.5

SEVERN TRENT SERVICES

Client ID: MW21
Site: L.E. Carpenter

Lab Sample No: 351697
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7556.d

Matrix: WATER
Level: LOW
Sample Volume: 980 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	1.0 B	0.4

SEVERN TRENT SERVICES

Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **351698**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7557.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	130	0.5

Laboratory Chronicles

W671

STL EDISON
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): John Mihalich	Samplers Name (Printed): John Mihalich	Site/Project Identification: L.E. Carpenter (LEC)
Company: RMT	P.O. #:	State (Location of site): NJ: ✓ NY: ☐ Other:
		Regulatory Program:
Address: 527 Plymouth Rd Suite 406	Analysis Turnaround Time: Standard ☐	
City: Plymouth Meeting State: PA 19462	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 610-834-0490 Fax: 610-834-1469		

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

LAB USE ONLY
Project No:
Job No: W671

Sample Identification	Date	Time	Matrix	No. of Cont.	BTEX	DEHP									Sample Numbers
MW17S	5/20/02	14:11	GW	4	✓	✓									351685
MW15S	5/20/02	17:48	GW	4	✓	✓									351686
MW15I	5/21/02	9:15	GW	4	✓	✓									351687
MW11D(R)	5/21/02	12:42	GW	4	✓	✓									351688
MW4	5/21/02	15:33	GW	4	✓	✓									351689
MW4 MS/MSD	5/21/02	15:33	GW	4	✓	✓					351689				~~351690~~ SC 5/22/02
MW14I	5/21/02	17:36	GW	4	✓	✓									351691
MW14S	5/21/02	19:03	GW	4	✓	✓									351692
Rinsate01	5/22/02	9:30	GW	4	✓	✓									351693
DUP01			GW	4	✓	✓									351694
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH				Soil:											
6 = Other _____, 7 = Other _____				Water:											

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	RMT	5-22-02 1540	1) [signature]	STL
2) [signature]	STL Edison	5/22/02 1555	2) Gerardo Carrio	STL EDISON
3)			3)	
4)			4)	

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

W671

STL EDISON
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): John Mihalich	Samplers Name (Printed): John Mihalich	Site/Project Identification: L.E. Carpenter (LEC)
Company: RMT	P.O. #:	State (Location of site): NJ: ✓ NY: ☐ Other:
		Regulatory Program:
Address: 527 Plymouth Rd Suite 406	Analysis Turnaround Time: Standard ☐	
City: Plymouth Meeting State: PA 19462	Rush Charges Authorized For: 2 Week ☐	
Phone: 610-834-0490 Fax: 610-834-1469	1 Week ☐ Other ☐	

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

LAB USE ONLY
Project No:
Job No: W671

Sample Identification	Date	Time	Matrix	No. of Cont.	BTEX	DEHP										Sample Numbers
MW 22	5/22/02	10.16	GW	4	✓	✓										351 695
MW 25	5/22/02	11:38	GW	4	✓	✓										351 696
MW21	5/22/02	13:48	GW	4	✓	✓										351 697
FB01	5/22/02	14:31	GW	4	✓	✓										351 698
TB	5/20/02		Water	2	✓											351 699

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

Soil:
Water:

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	RMT	5/22/02 1506	1) [signature]	STL
2) Ed Reynolds	STL Edison	5/22/02 1506	2) [signature]	STL EDISON
3)	Ed Reynolds		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 Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: W671 **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
351685	5/20/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/4/2002	Manlangit, Ferdie	7297
351686	5/20/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351687	5/21/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351688	5/21/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351689	5/21/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351691	5/21/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351692	5/21/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351693	5/22/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351694	5/22/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351695	5/22/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351696	5/22/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351697	5/22/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297
351698	5/22/2002	5/22/2002	5/23/2002	Feliciano, Orlando	6/5/2002	Manlangit, Ferdie	7297

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: W671 **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							
351685	5/20/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351686	5/20/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351687	5/21/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351688	5/21/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351689	5/21/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351691	5/21/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351692	5/21/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351693	5/22/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351694	5/22/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351695	5/22/2002	5/22/2002			5/24/2002	Khuu, Vivian	7370
351696	5/22/2002	5/22/2002			5/24/2002	Khuu, Vivian	7367
351697	5/22/2002	5/22/2002			5/24/2002	Khuu, Vivian	7367
351698	5/22/2002	5/22/2002			5/24/2002	Khuu, Vivian	7367
351699	5/20/2002	5/22/2002			5/25/2002	Khuu, Vivian	7367

Methodology Review

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 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

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

NON-CONFORMANCE SUMMARY

STL Edison Job Number: W671

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:
(357698) recovery of Surrogate #1 outside of QC limits (low). N/O volume to re-extract.

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 ( )

Page 1 of 2

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: W671

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: [signature] Date: 6·14·02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: **MW17S**
Site: L.E. Carpenter

Lab Sample No: **351685**
Lab Job No: W671

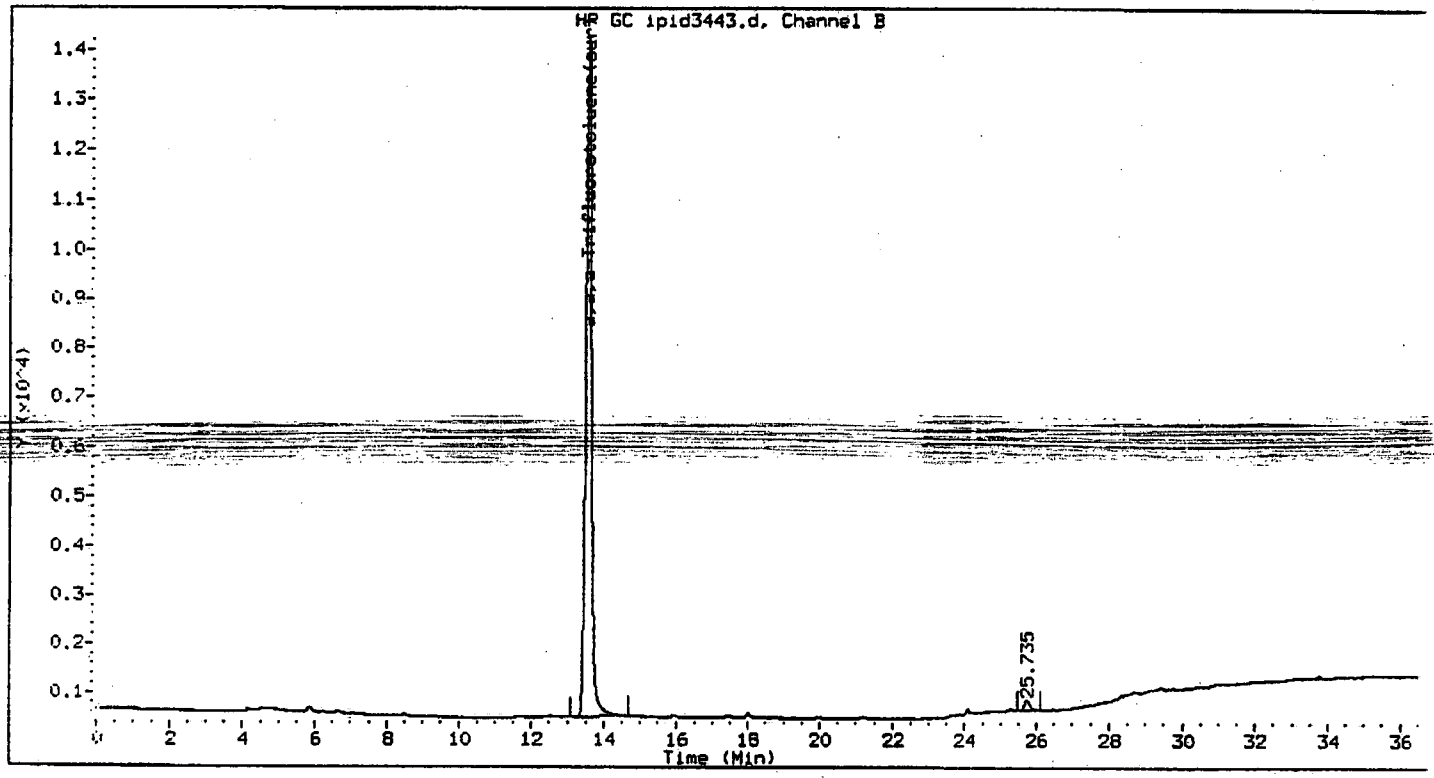
Date Sampled: 05/20/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3443.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3443.d Page 1
Report Date 05/25/2002 08:02



v.✓

Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351685
Lab ID : 351685
Inj Date : 24-MAY-2002 14:15
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.554	13.568	0.014	749379	27.830	27.830

Client ID: MW15S
Site: L.E. Carpenter

Lab Sample No: 351686
Lab Job No: W671

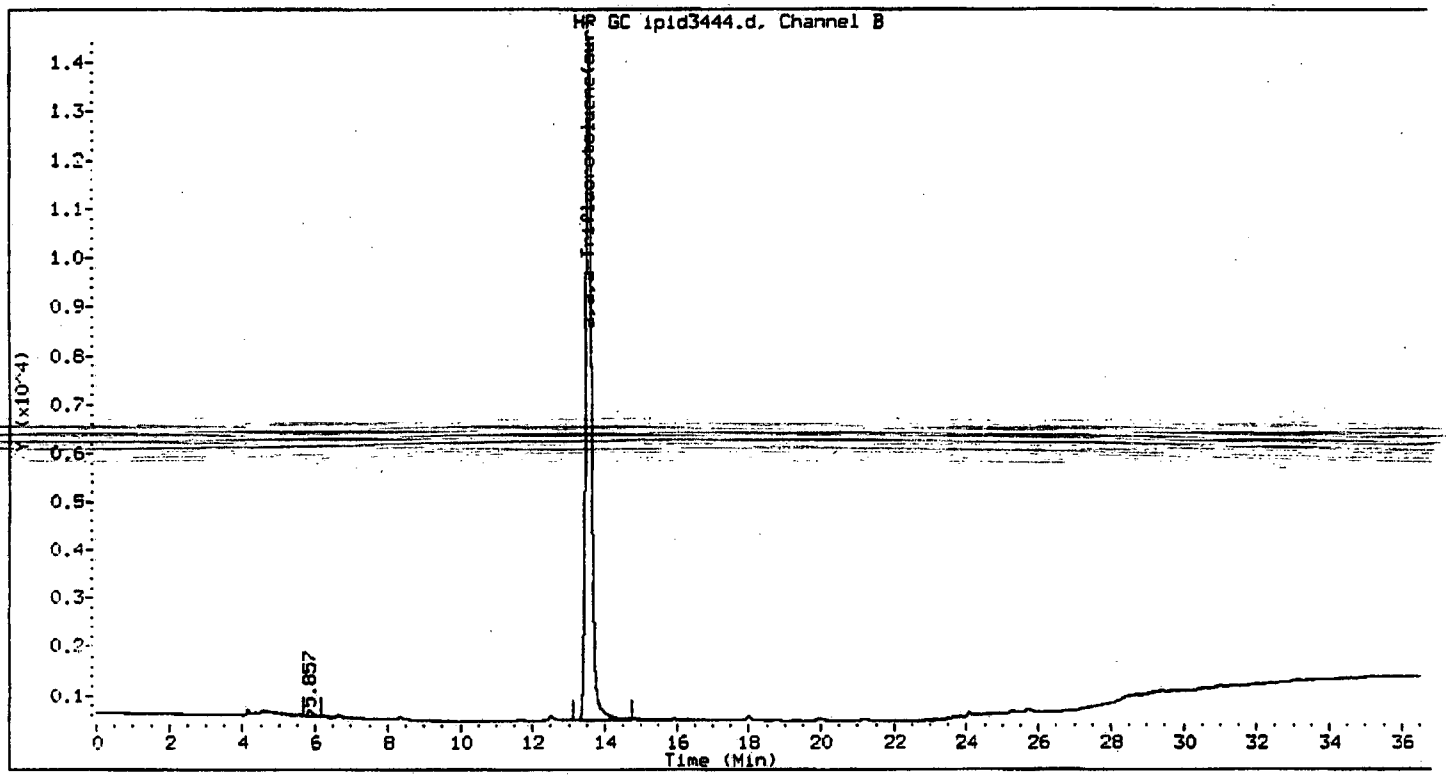
Date Sampled: 05/20/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3444.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3444.d Page 1
Report Date 05/25/2002 08:02



V.✓

Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351686
Lab ID : 351686 Inst ID : VOAGC3.i
Inj Date : 24-MAY-2002 14:55 Dil Factor : 1
Operator : Sample Matrix : WATER
Cpnd Sublist: BTEX Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.552	13.568	0.016	758900	28.184	28.184

Client ID: MW15I
Site: L.E. Carpenter

Lab Sample No: 351687
Lab Job No: W671

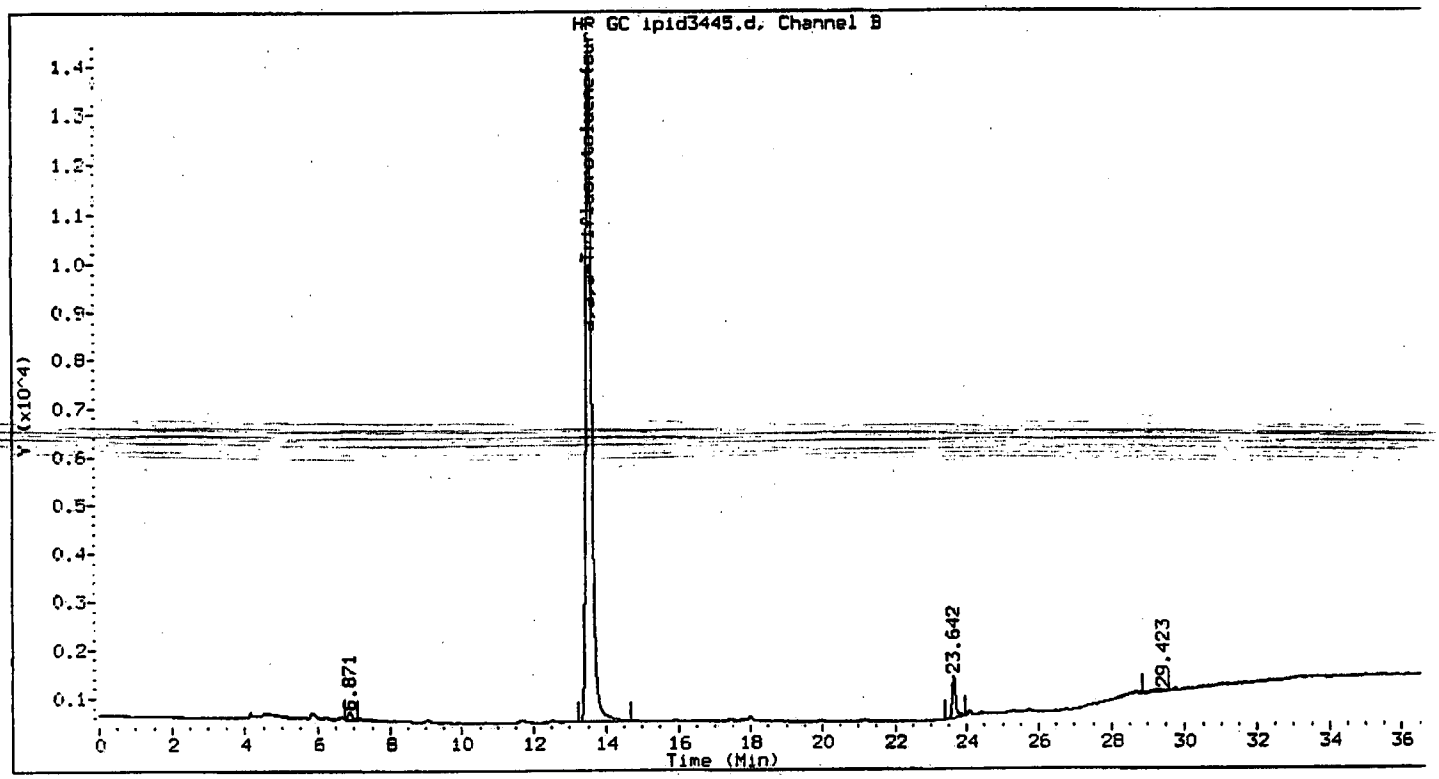
Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3445.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3445.d Page 1
Report Date 05/25/2002 08:02



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351687
Lab ID : 351687
Inj Date : 24-MAY-2002 15:35
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.547	13.568	0.021	762040	28.301	28.301

Client ID: **MW11D_R**
Site: L.E. Carpenter

Lab Sample No: **351688**
Lab Job No: W671

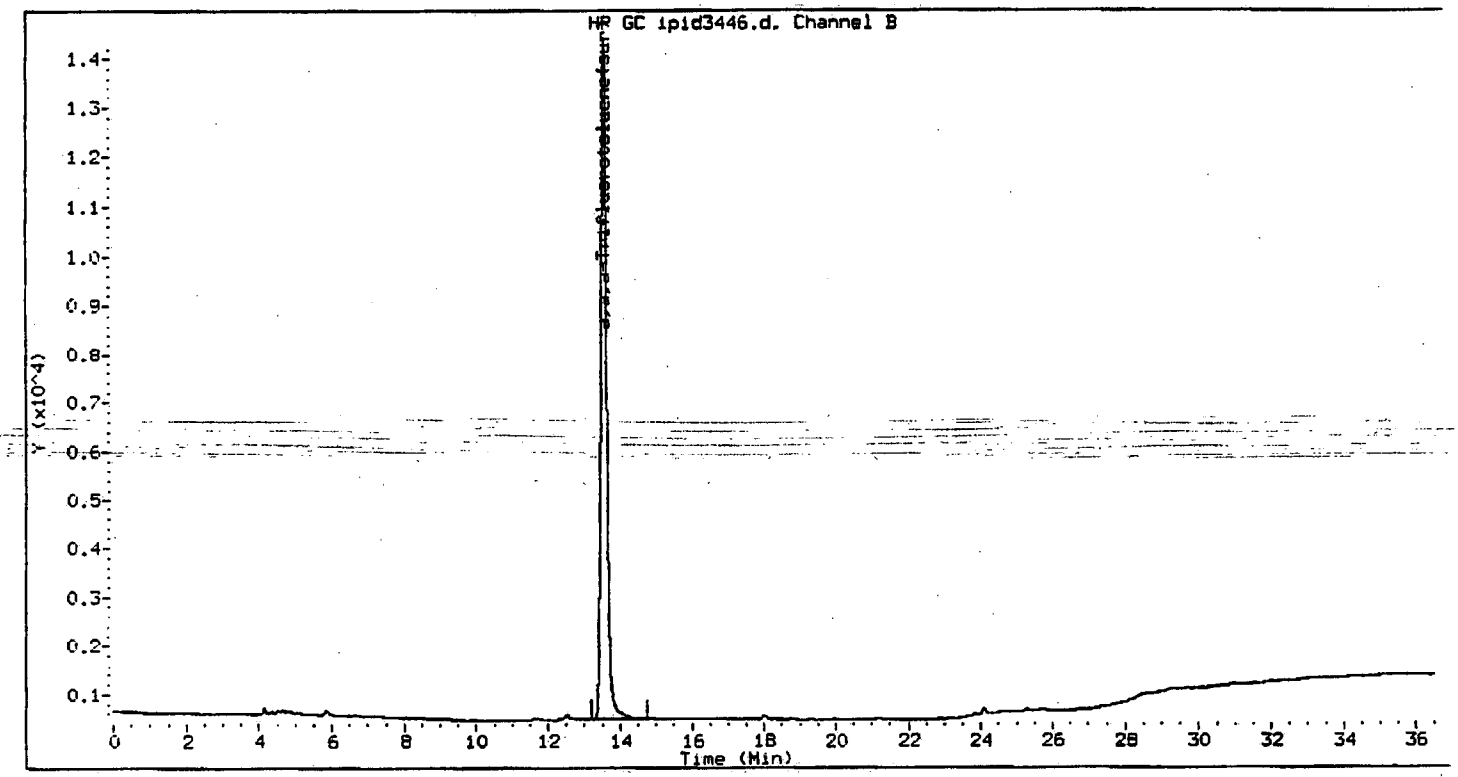
Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3446.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3446.d Page 1
Report Date 05/25/2002 08:02



V.✓

Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351688
Lab ID : 351688
Inj Date : 24-MAY-2002 16:16
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.547	13.568	0.021	756815	28.107	28.107

Client ID: MW4
Site: L.E. Carpenter

Lab Sample No: 351689
Lab Job No: W671

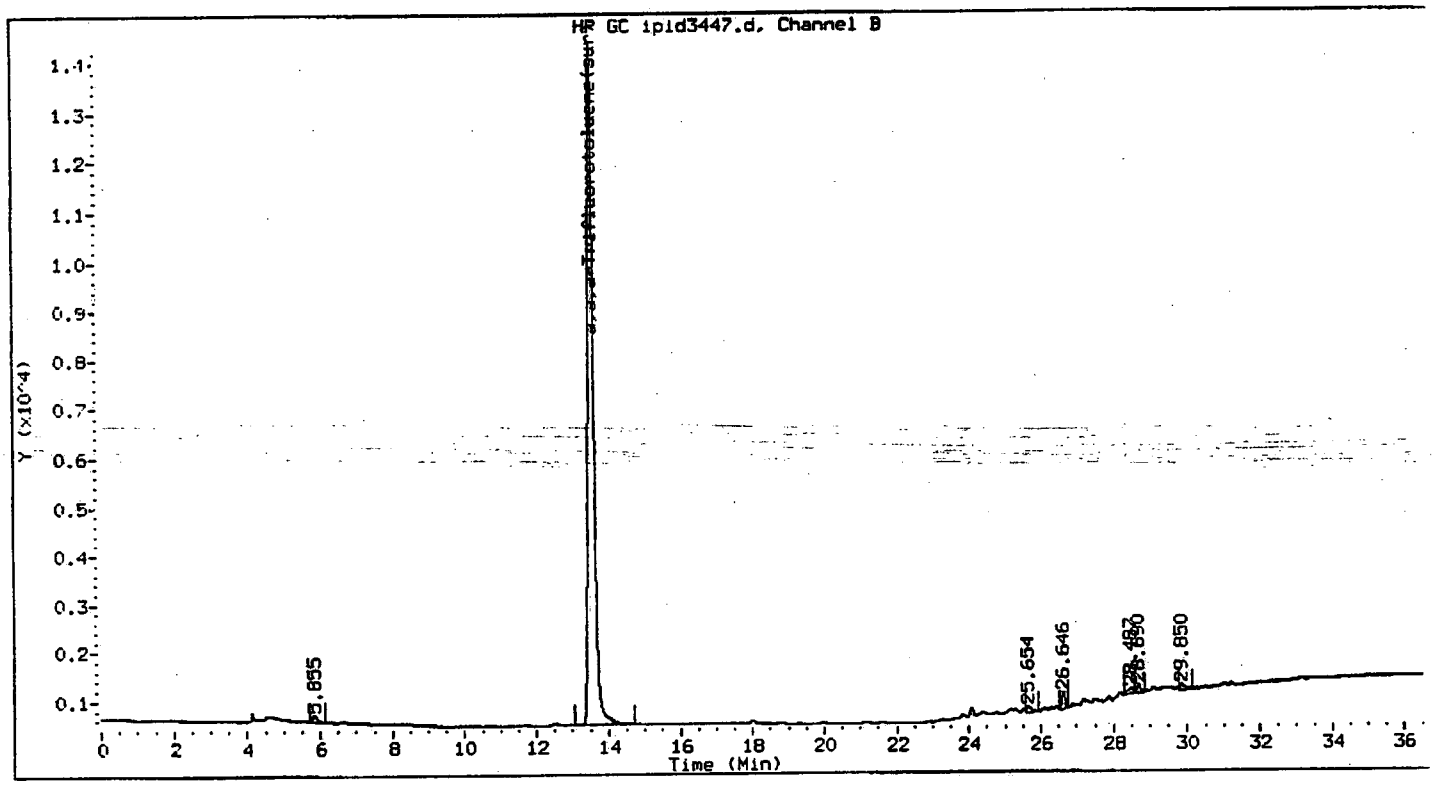
Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3447.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3447.d Page 1
Report Date 05/25/2002 08:02



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351689
Lab ID : 351689
Inj Date : 24-MAY-2002 16:56
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.542	13.568	0.026	748883	27.812	27.812

Client ID: **MW14I**
Site: L.E. Carpenter

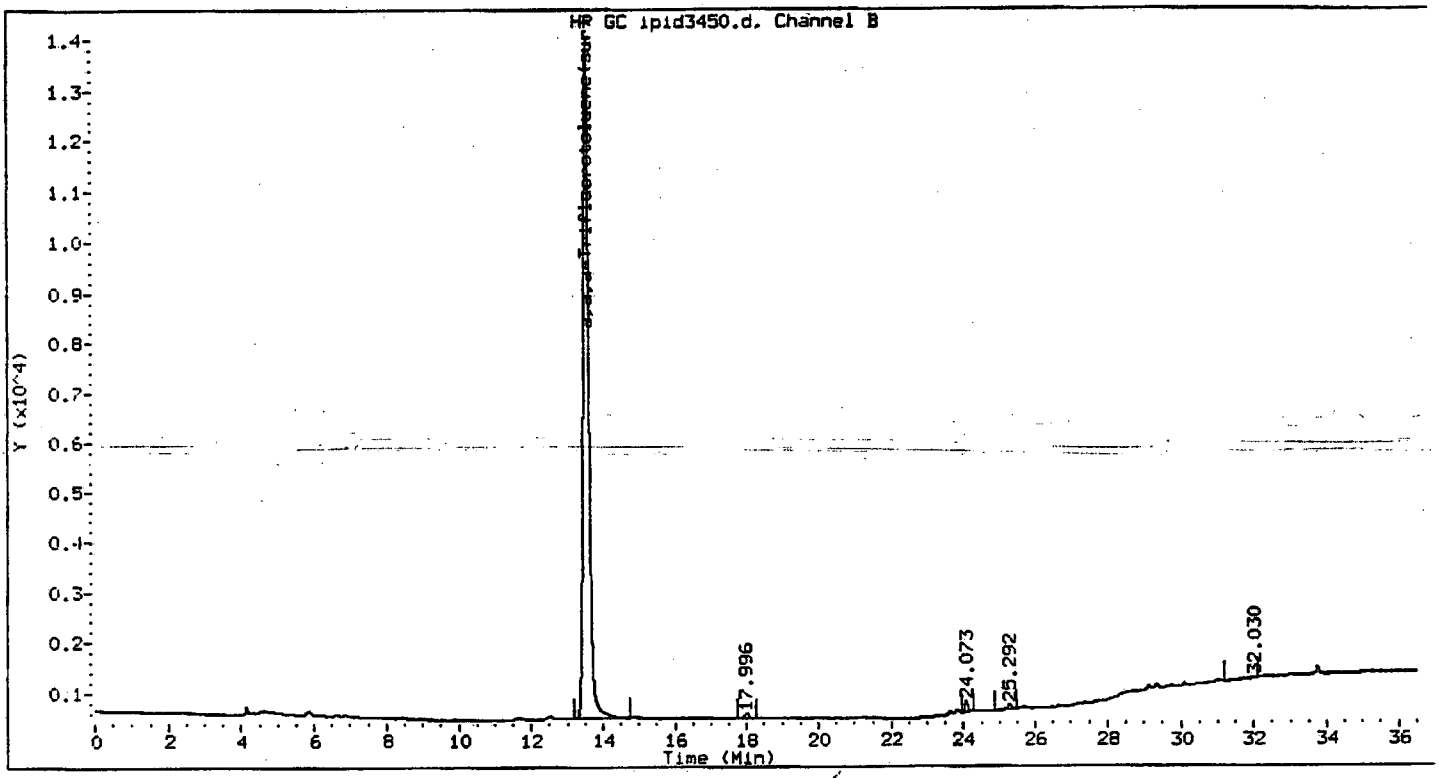
Lab Sample No: **351691**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3450.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351691
Lab ID : 351691
Inj Date : 24-MAY-2002 18:57
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.539	13.568	0.029	733913	27.256	27.256

Client ID: **MW14S**
Site: L.E. Carpenter

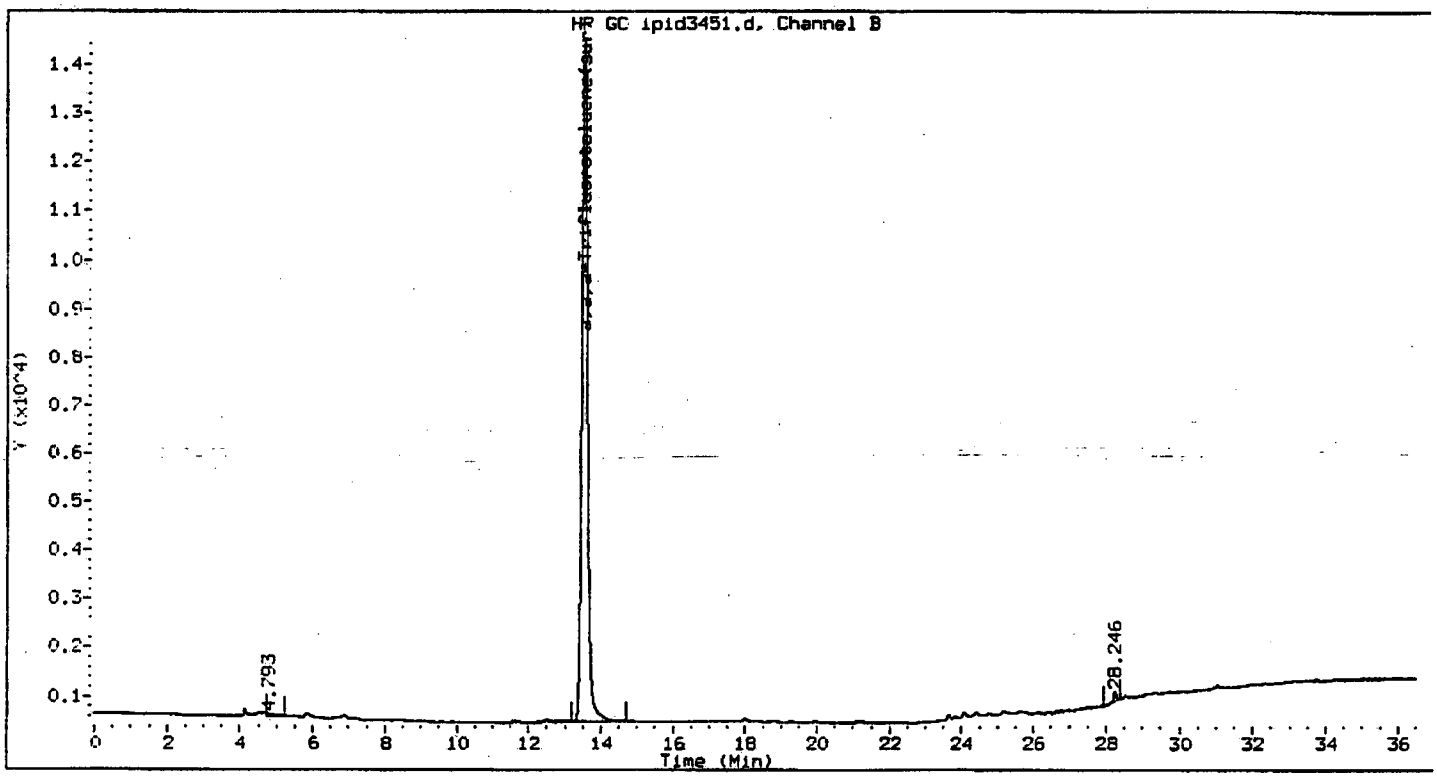
Lab Sample No: **351692**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3451.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351692
Lab ID : 351692
Inj Date : 24-MAY-2002 19:37
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.541	13.568	0.027	761047	28.264	28.264

Client ID: **RINSATE01**
Site: L.E. Carpenter

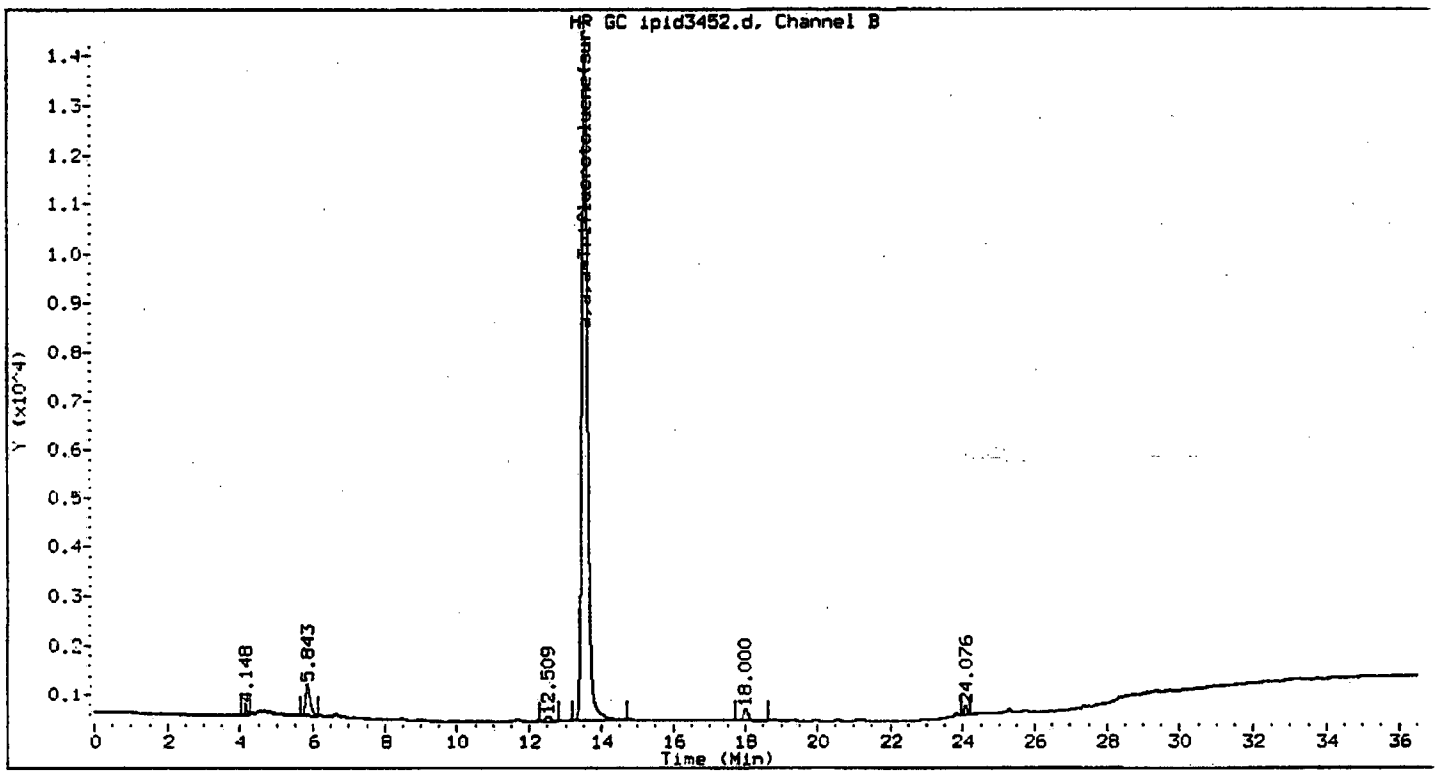
Lab Sample No: **351693**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3452.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351693
Lab ID : 351693
Inj Date : 24-MAY-2002 20:17
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.542	13.568	0.026	756116	28.081	28.081

Client ID: **DUP01**
Site: L.E. Carpenter

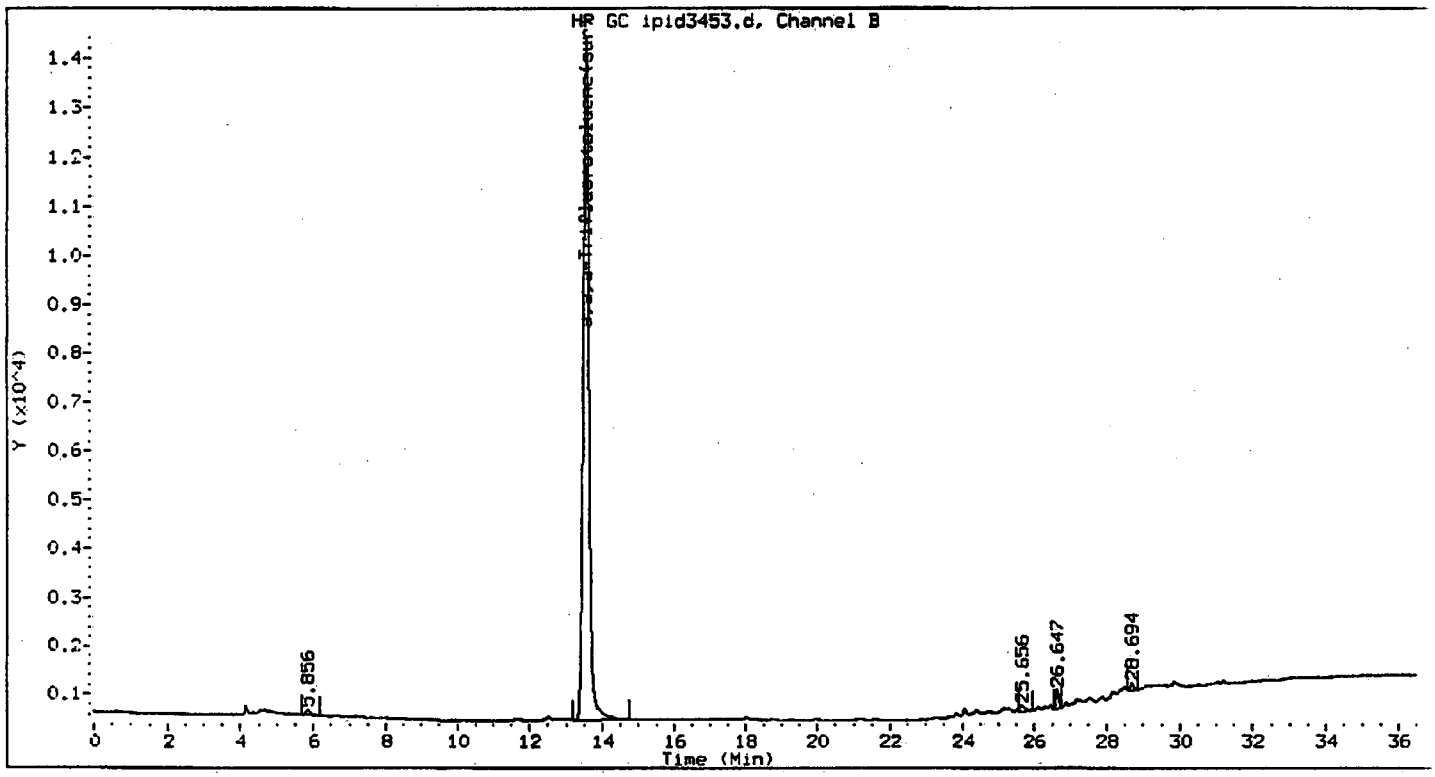
Lab Sample No: **351694**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3453.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351694
Lab ID : 351694
Inj Date : 24-MAY-2002 20:58
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.544	13.568	0.024	761200	28.269	28.269

Client ID: **MW22**
Site: L.E. Carpenter

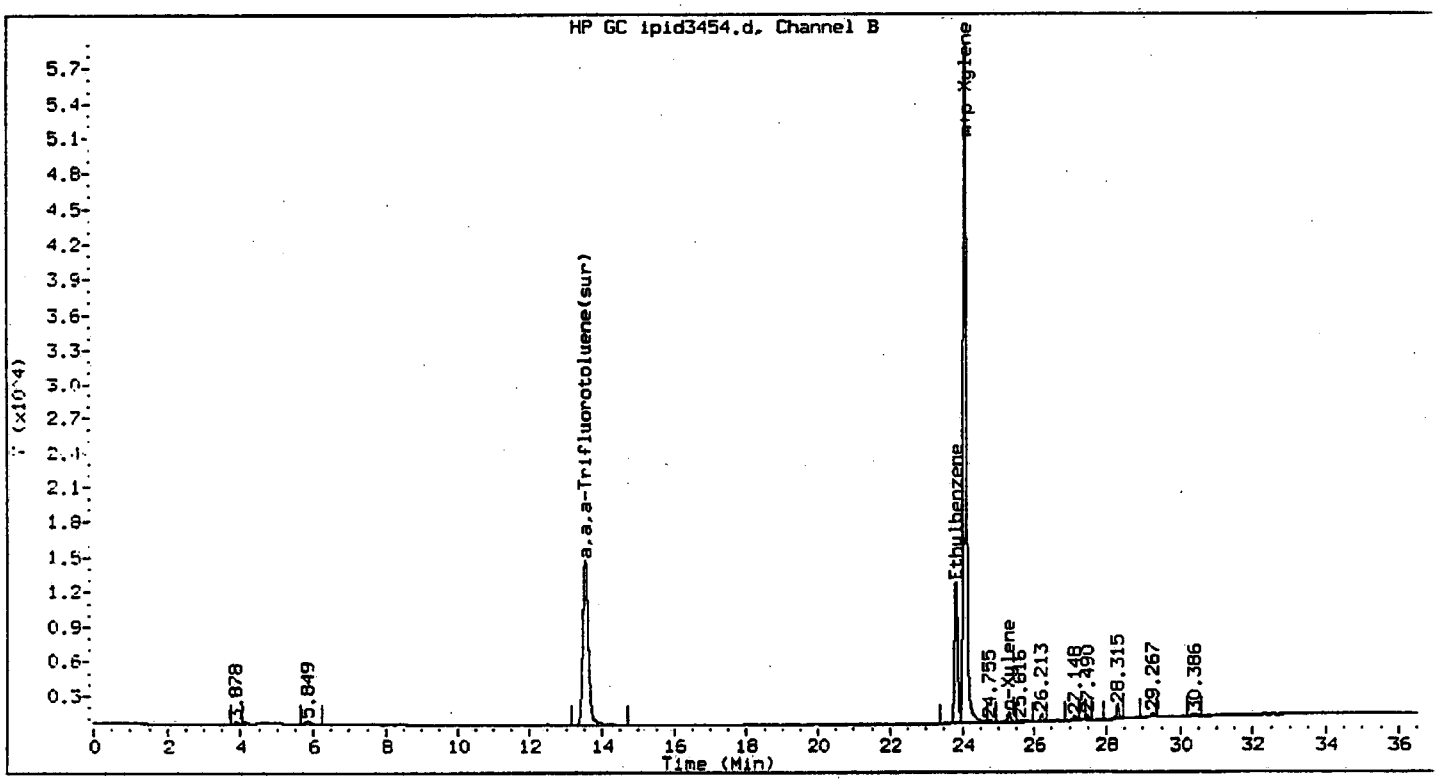
Lab Sample No: **351695**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3454.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 50.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	11
Toluene	ND	12
Ethylbenzene	320	9.0
Xylene (Total)	1400	10



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351695;;50
Lab ID : 351695
Inj Date : 24-MAY-2002 21:38
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 50
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	24.074	24.089	0.015	1767499	25.371	1268.547
o-Xylene	25.296	25.310	0.014	31736	0.541	27.075
Ethylbenzene	23.829	23.848	0.019	368538	6.377	318.868
Xylene (Total)	25.019	25.019	0.000	1799235	27.269	1363.465
a,a,a-Trifluorotoluene(sur)	13.544	13.568	0.024	772421	28.686	28.686

Client ID: **MW25**
Site: L.E. Carpenter

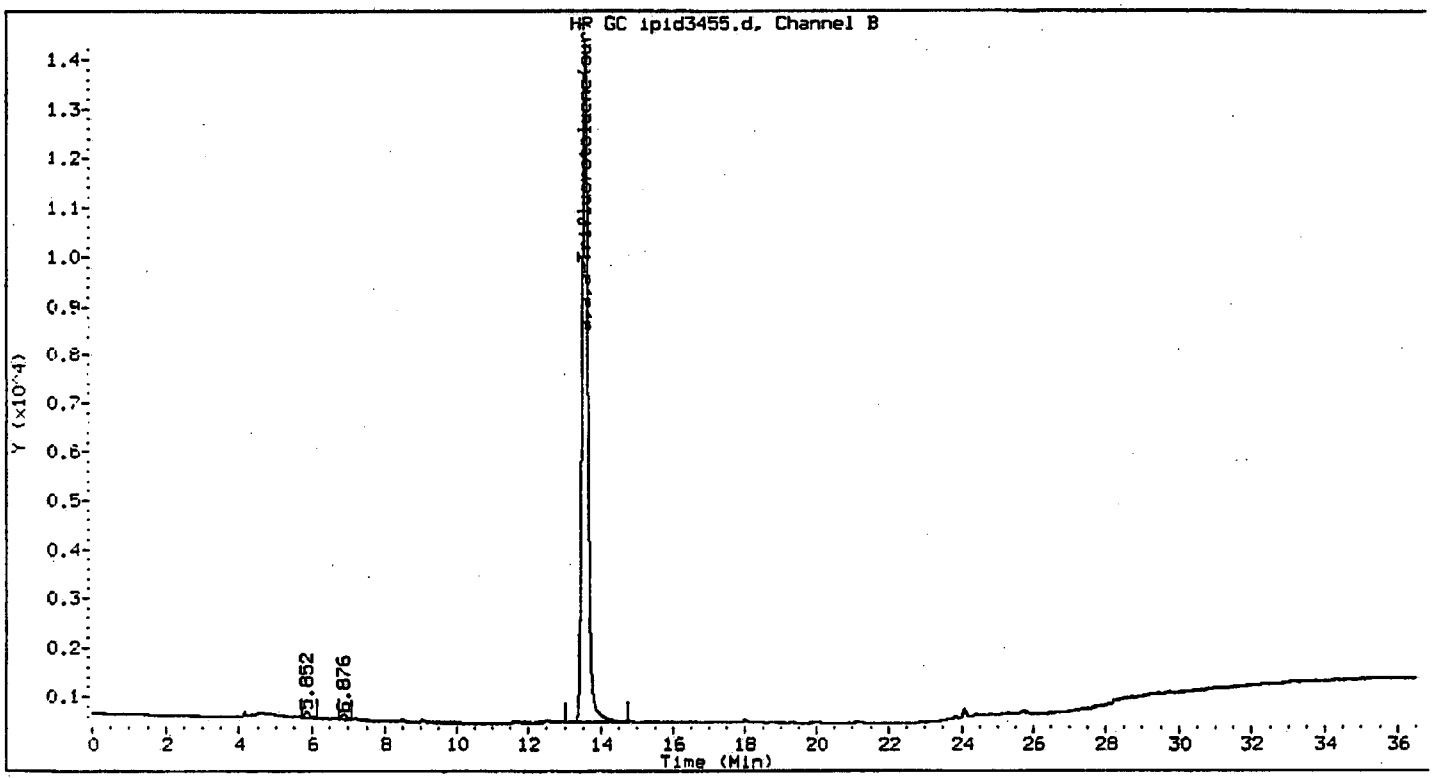
Lab Sample No: **351696**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3455.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351696
Lab ID : 351696
Inj Date : 24-MAY-2002 22:18
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.547	13.568	0.021	758587	28.172	28.172

Client ID: **MW21**
Site: L.E. Carpenter

Lab Sample No: **351697**
Lab Job No: W671

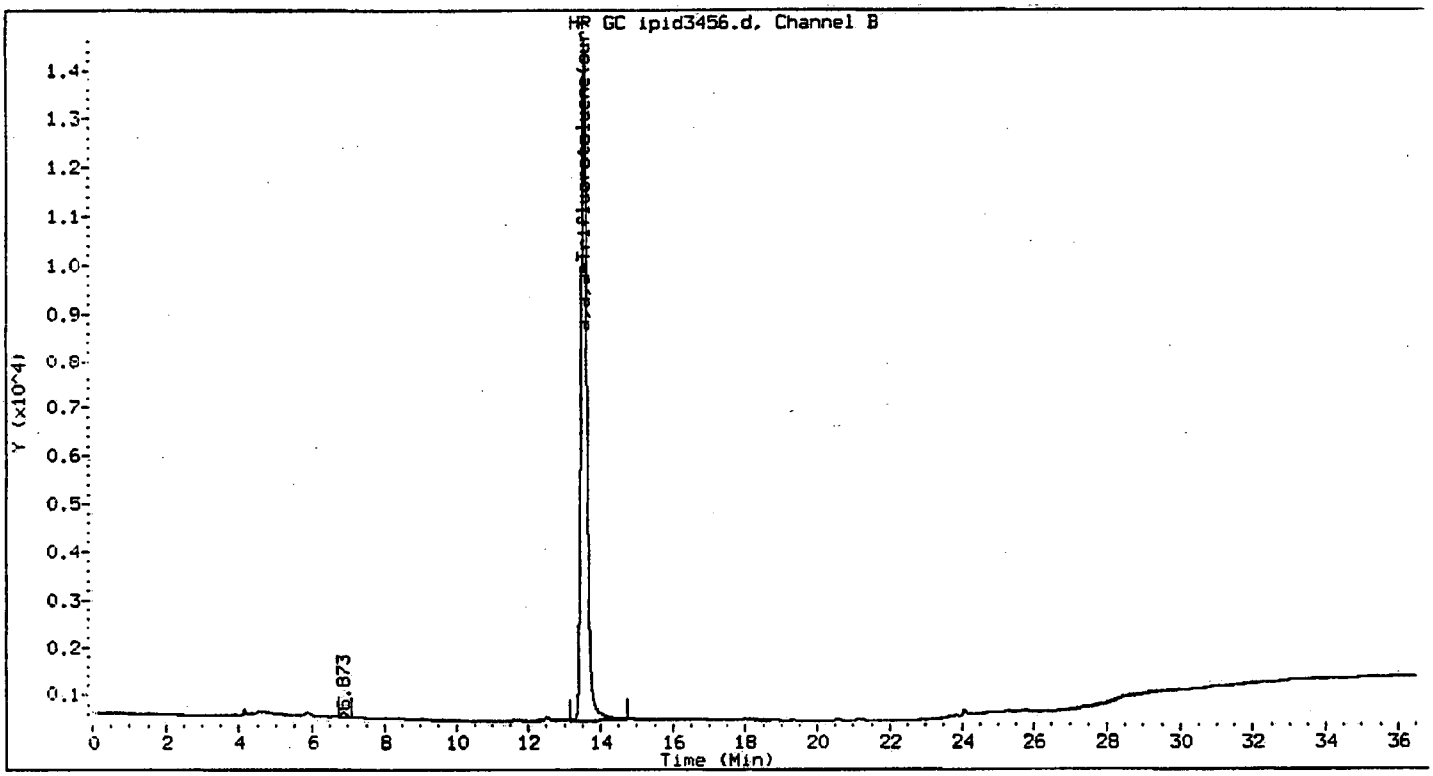
Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3456.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3456.d Page 1
Report Date 05/25/2002 08:03



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351697
Lab ID : 351697 Inst ID : VOAGC3.i
Inj Date : 24-MAY-2002 22:58 Dil Factor : 1
Operator : Sample Matrix : WATER
Cpnd Sublist: BTEX Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.547	13.568	0.021	773862	28.740	28.740

Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **351698**
Lab Job No: W671

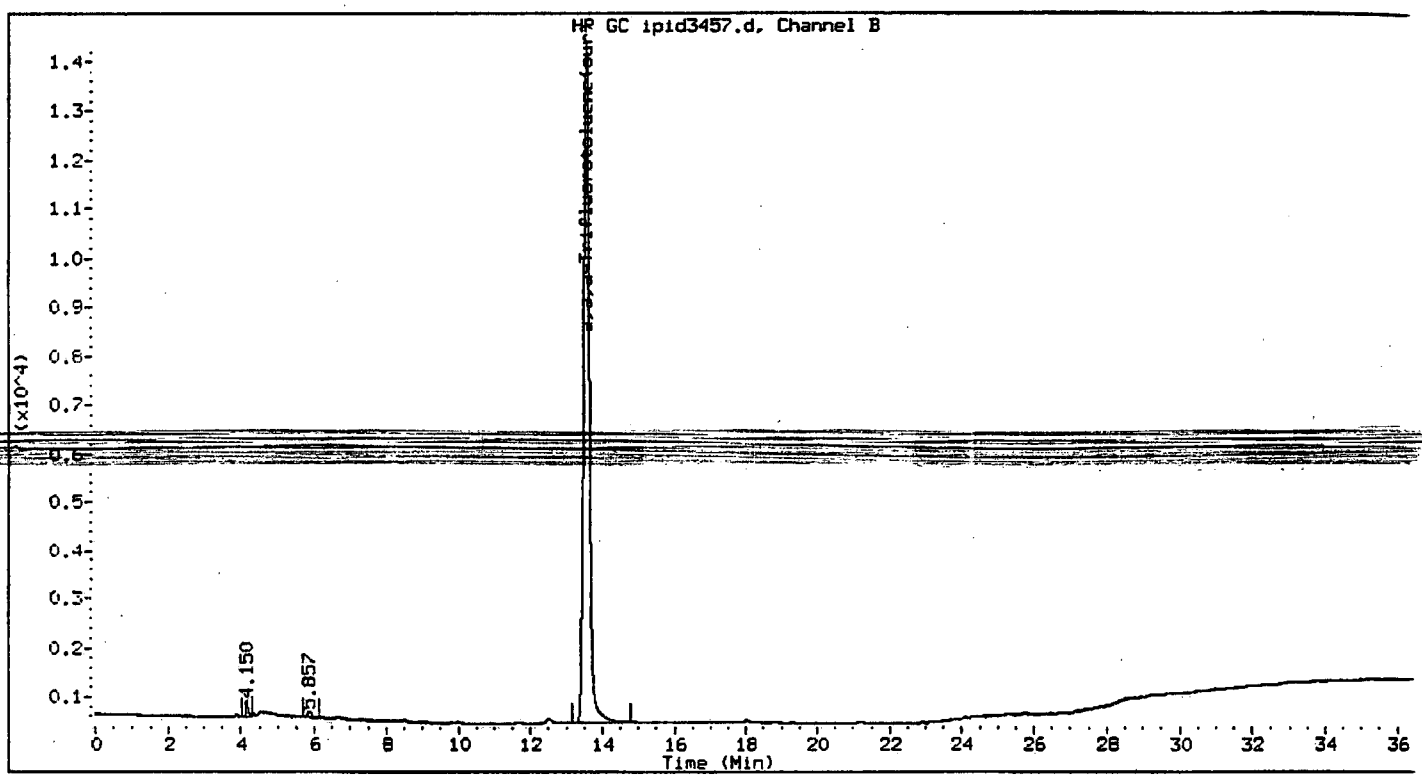
Date Sampled: 05/22/02
Date Received: 05/22/02
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3457.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3457.d Page 1
Report Date 05/25/2002 08:03



V.V

Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351698
Lab ID : 351698
Inj Date : 24-MAY-2002 23:38
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.550	13.568	0.018	760689	28.251	28.251

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

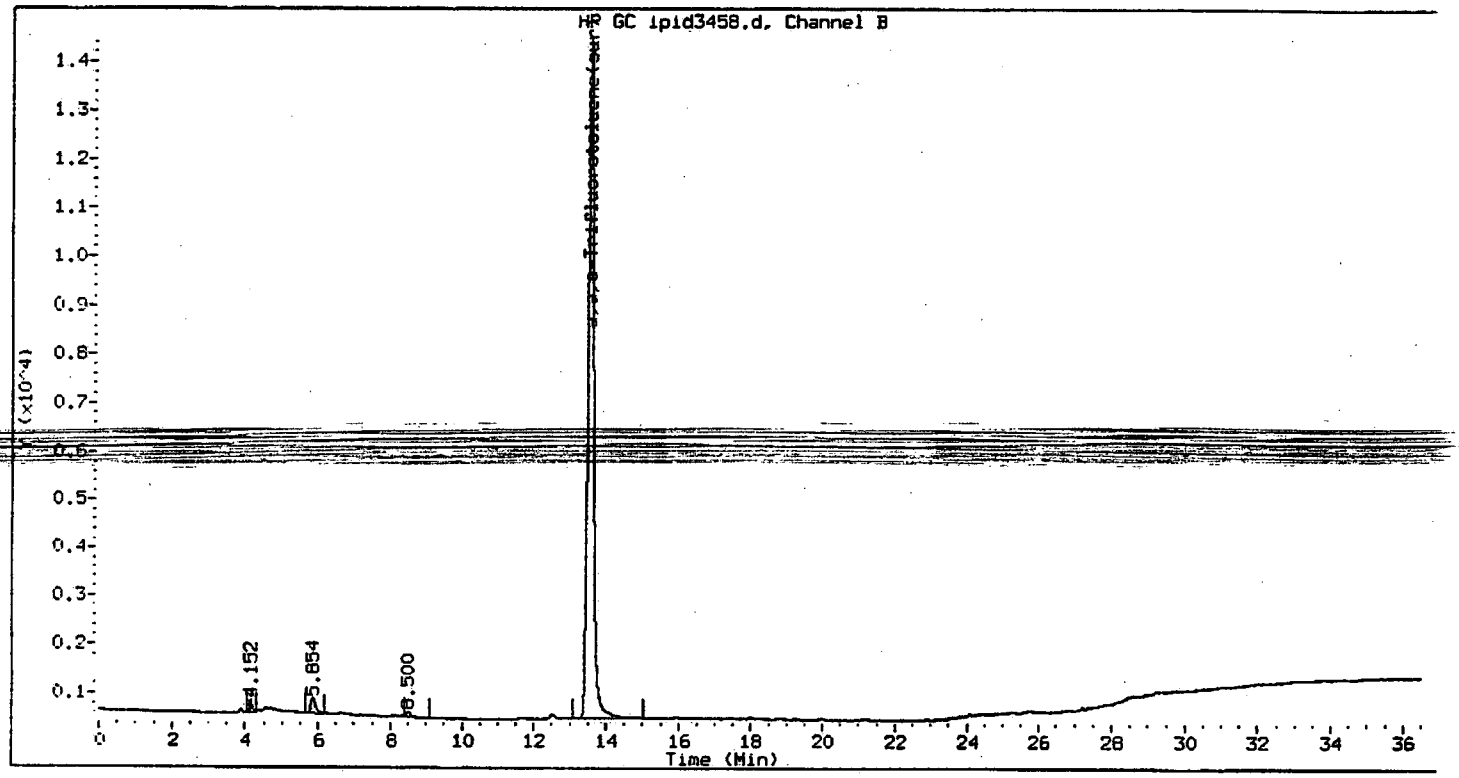
Lab Sample No: **351699**
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Analyzed: 05/25/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3458.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : 351699
Lab ID : 351699
Inj Date : 25-MAY-2002 00:18
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.551	13.568	0.017	767659	28.509	28.509

Method Blank Results Summary

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG144

Date Analyzed: 05/24/02

Instrument ID: VOAGC3

Time Analyzed: 1335

Lab File ID: IPID3442

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW17S	351685	IPID3443	1415
02	MW15S	351686	IPID3444	1455
03	~~MW15I~~	~~351687~~	~~IPID3445~~	~~1535~~
04	MW11D_R	351688	IPID3446	1616
05	MW4	351689	IPID3447	1656
06	MW4MS	351689MS	IPID3448	1736
07	MW4MSD	351689MSD	IPID3449	1817
08	MW14I	351691	IPID3450	1857
09	MW14S	351692	IPID3451	1937
10	RINSATE01	351693	IPID3452	2017
11	DUP01	351694	IPID3453	2058
12	MW22	351695	IPID3454	2138
13	MW25	351696	IPID3455	2218
14	MW21	351697	IPID3456	2258
15	FB01	351698	IPID3457	2338
16	TRIP_BLANK	351699	IPID3458	0018
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

Client ID: **IG144**
Site:

Lab Sample No: **IG144**
Lab Job No: W671

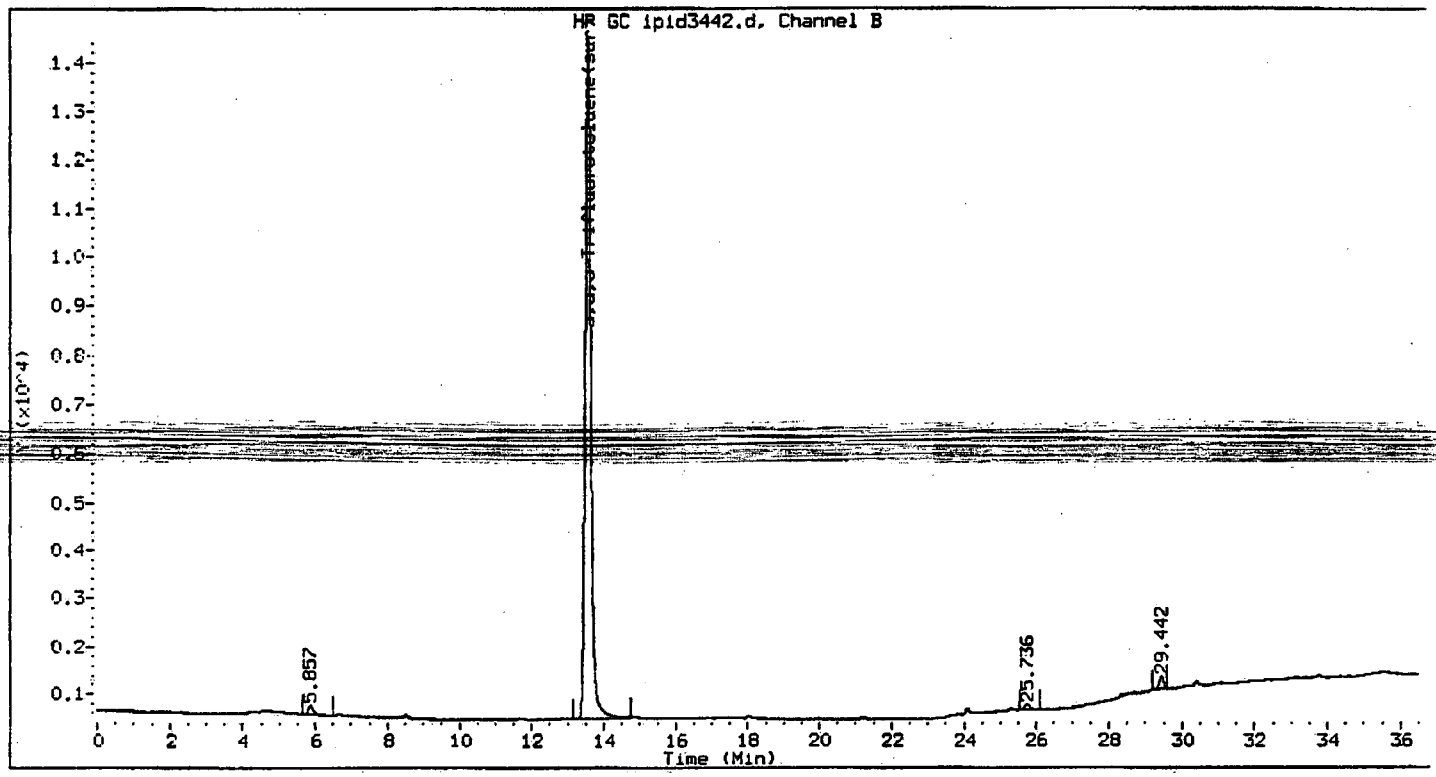
Date Sampled: _____
Date Received: _____
Date Analyzed: 05/24/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3442.d

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	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22

Data File: /chem/VOAGC3.i/602/05-20-02/24may02.b/ipid3442.d Page 1
Report Date 05/25/2002 08:02



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : IG144
Lab ID : IG144 Inst ID : VOAGC3.i
Inj Date : 24-MAY-2002 13:35 Dil Factor : 1
Operator : Sample Matrix : WATER
Cpnd Sublist: all Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.559	13.568	0.009	766777	28.477	28.477

Calibration Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 05/20/02 05/20/02

Calibration Time(s): 0913 1217

LAB FILE ID: RRF2: IPID3406 RRF5: IPID3405 RRF10: IPID3404
RRF20: IPID3402 RRF40: IPID3403

COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	324	283	260	240	
MTBE	32652	30279	29019	27743	27614
DIPE	36356	34840	33676	34027	33683
Benzene	80736	79492	78386	76330	78378
Toluene	71722	71175	70164	70651	70597
Chlorobenzene	64370	66774	67795	69280	70007
Ethylbenzene	57006	57930	57760	57761	58485
Xylene (Total)	64853	64283	63862	63778	73125
1,3-Dichlorobenzene	42801	41977	43060	43810	44990
1,4-Dichlorobenzene	50478	46862	46231	46030	47710
1,2-Dichlorobenzene	39372	35697	38064	35298	36025
Naphthalene	33695	23219	24284	21783	25518
a,a,a-Trifluorotoluene(sur)	26762	26665	27038	27027	27141

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

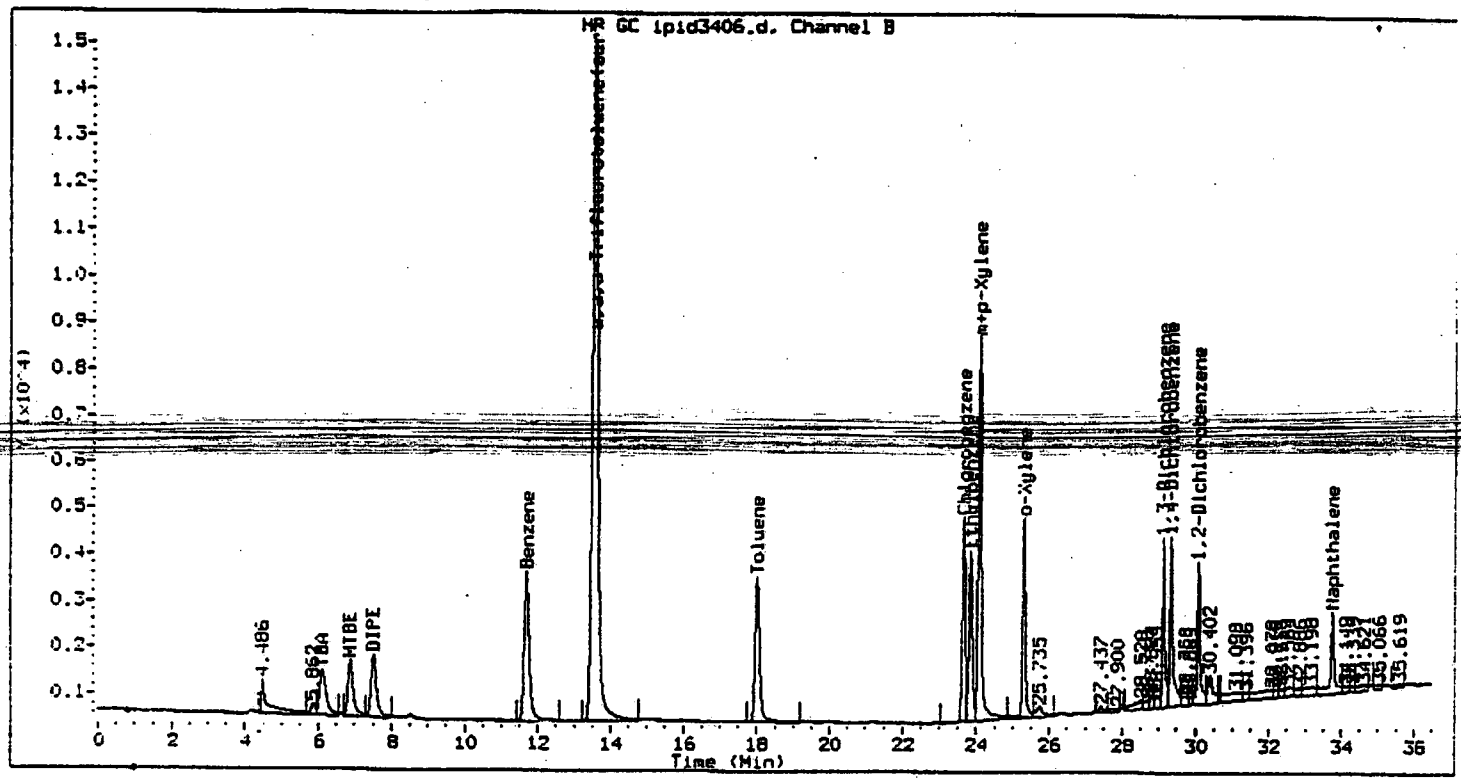
Calibration Date(s): 05/20/02 05/20/02

Calibration Time(s): 0913 1217

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
TBA **	AVRG	276	13*
MTBE	AVRG	29461	7.1*
DIPE	AVRG	34516	3.3*
Benzene	AVRG	78664	2.1*
Toluene	AVRG	70862	0.8*
Chlorobenzene	AVRG	67645	1.3*
Ethylbenzene	AVRG	57788	0.9*
Xylene (Total)	AVRG	65980	6.1*
1,3-Dichlorobenzene	AVRG	43328	2.6*
1,4-Dichlorobenzene	AVRG	47462	3.8*
1,2-Dichlorobenzene	AVRG	36891	4.7*
Naphthalene	AVRG	25700	18*
a,a,a-Trifluorotoluene(sur)	AVRG	26926	0.8*

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

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3406.d Page 1
Report Date 05/21/2002 12:52



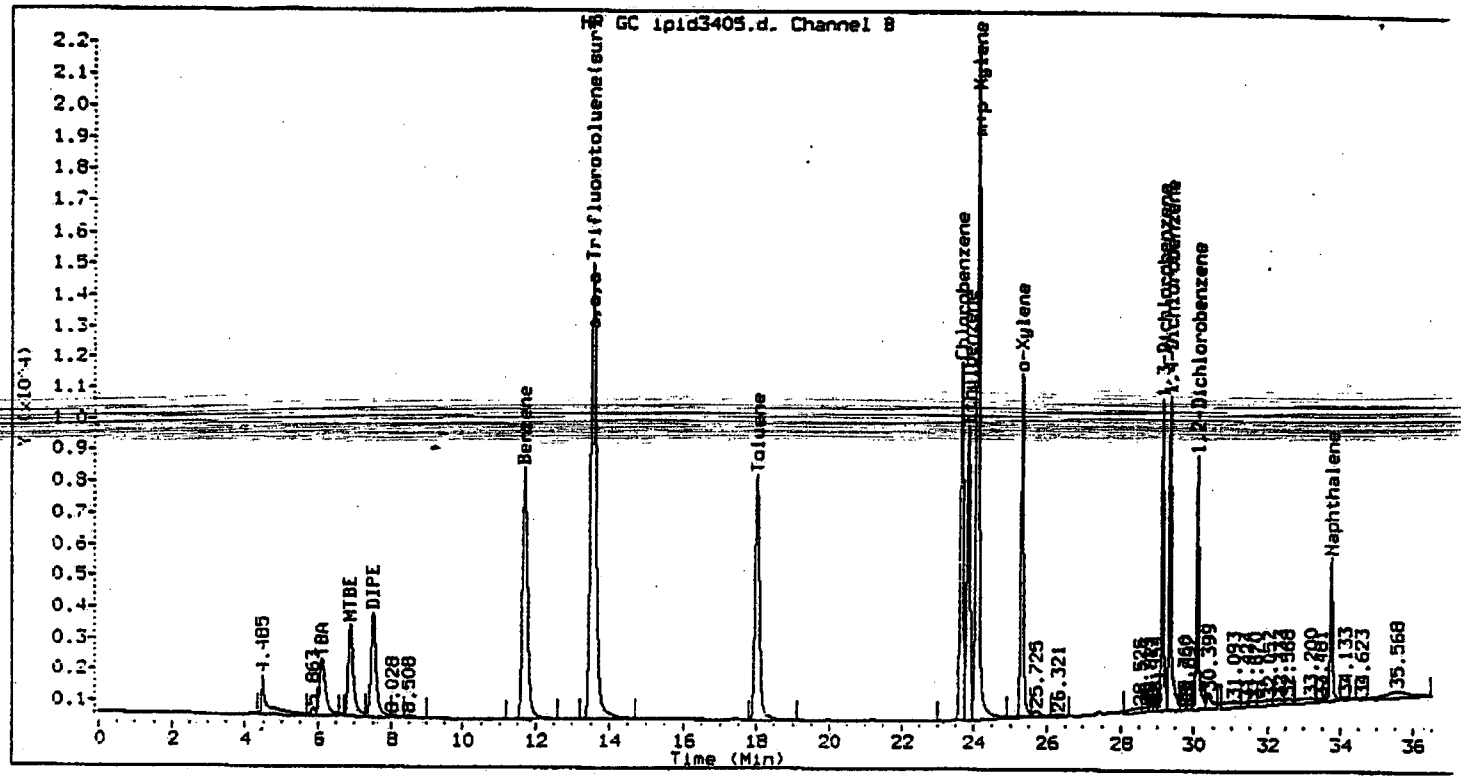
Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 20-MAY-2002 12:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.310	25.310	0.000	120406	2.054	2.054
m+p-Xylene	24.088	24.089	0.001	268713	3.857	3.857
TBA	6.105	6.082	0.023	64838	234.447	234.447
MTBE	6.886	6.879	0.007	65305	2.217	2.217
DIPE	7.516	7.510	0.007	72713	2.107	2.107
Benzene	11.694	11.693	0.002	161472	2.053	2.053
Toluene	18.022	18.023	0.001	143444	2.024	2.024
Chlorobenzene	23.656	23.657	0.000	128740	1.903	1.903
Ethylbenzene	23.846	23.847	0.001	114013	1.973	1.973

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	389119	5.898	5.898
1,3-Dichlorobenzene	29.141	29.136	0.005	85602	1.976	1.976
1,4-Dichlorobenzene	29.352	29.346	0.006	100957	2.127	2.127
1,2-Dichlorobenzene	30.092	30.086	0.006	78743	2.134	2.134
Naphthalene	32.759	32.745	0.014	97590	2.622	2.622
a,a,a-Trifluorotoluene(sur)	13.565	13.565	0.001	802852	29.816	29.816

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3405.d Page 1
Report Date 05/21/2002 12:52



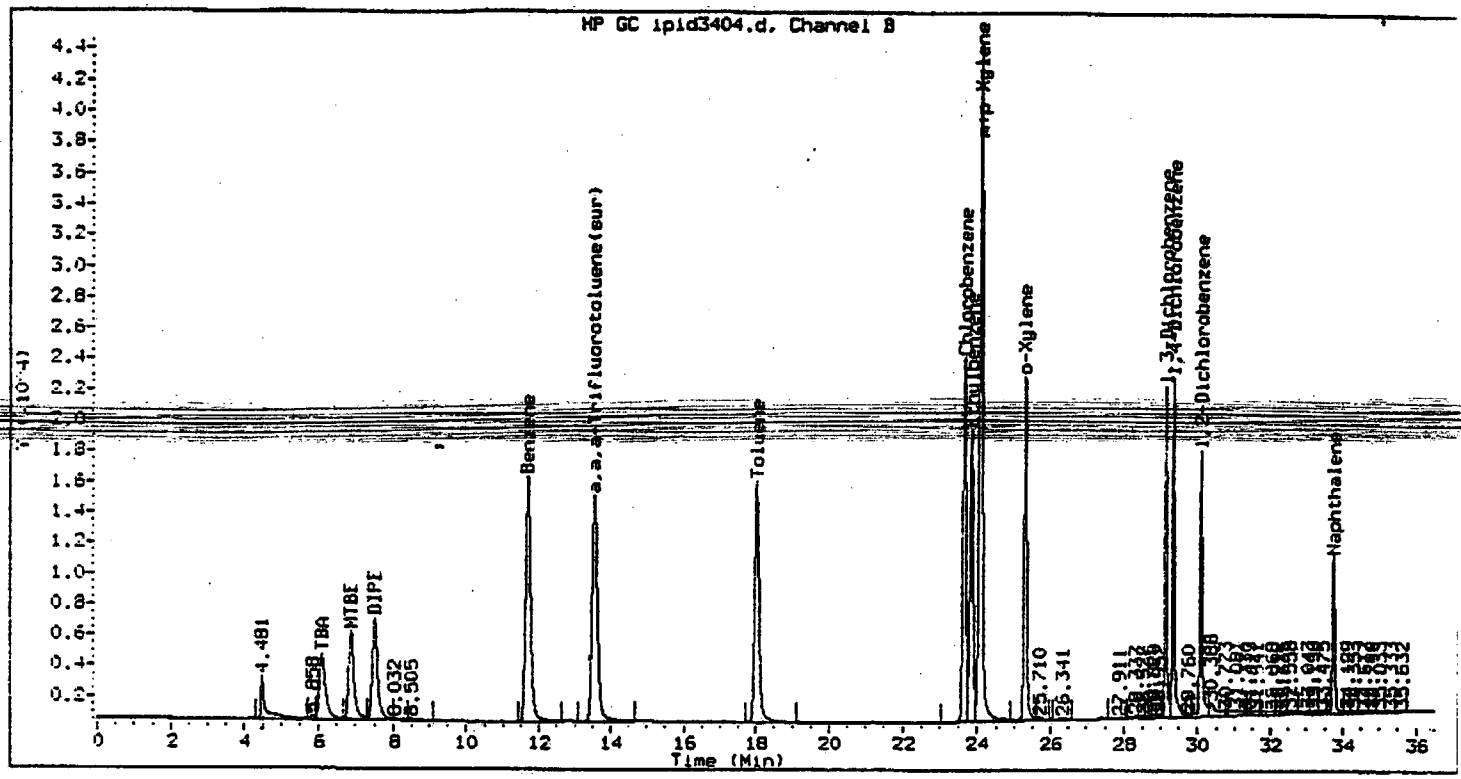
Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 20-MAY-2002 11:37
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.308	25.310	0.002	292794	4.996	4.996
m+p-Xylene	24.086	24.089	0.003	671450	9.638	9.638
TBA	6.102	6.082	0.020	113163	409.186	409.186
MTBE	6.884	6.879	0.005	151394	5.139	5.139
DIPE	7.515	7.510	0.005	174201	5.047	5.047
Benzene	11.693	11.693	0.000	397459	5.053	5.053
Toluene	18.021	18.023	0.002	355875	5.022	5.022
Chlorobenzene	23.654	23.657	0.003	333869	4.936	4.936
Ethylbenzene	23.844	23.847	0.003	289648	5.012	5.012

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	964244	14.614	14.614
1,3-Dichlorobenzene	29.137	29.136	0.002	209885	4.844	4.844
1,4-Dichlorobenzene	29.348	29.346	0.002	234312	4.937	4.937
1,2-Dichlorobenzene	30.088	30.086	0.002	178484	4.838	4.838
Naphthalene	33.753	33.745	0.008	116094	4.517	4.517
a,a,a-Trifluorotoluene(sur)	13.564	13.565	0.001	799942	29.708	29.708

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3404.d Page 1
Report Date 05/21/2002 12:52



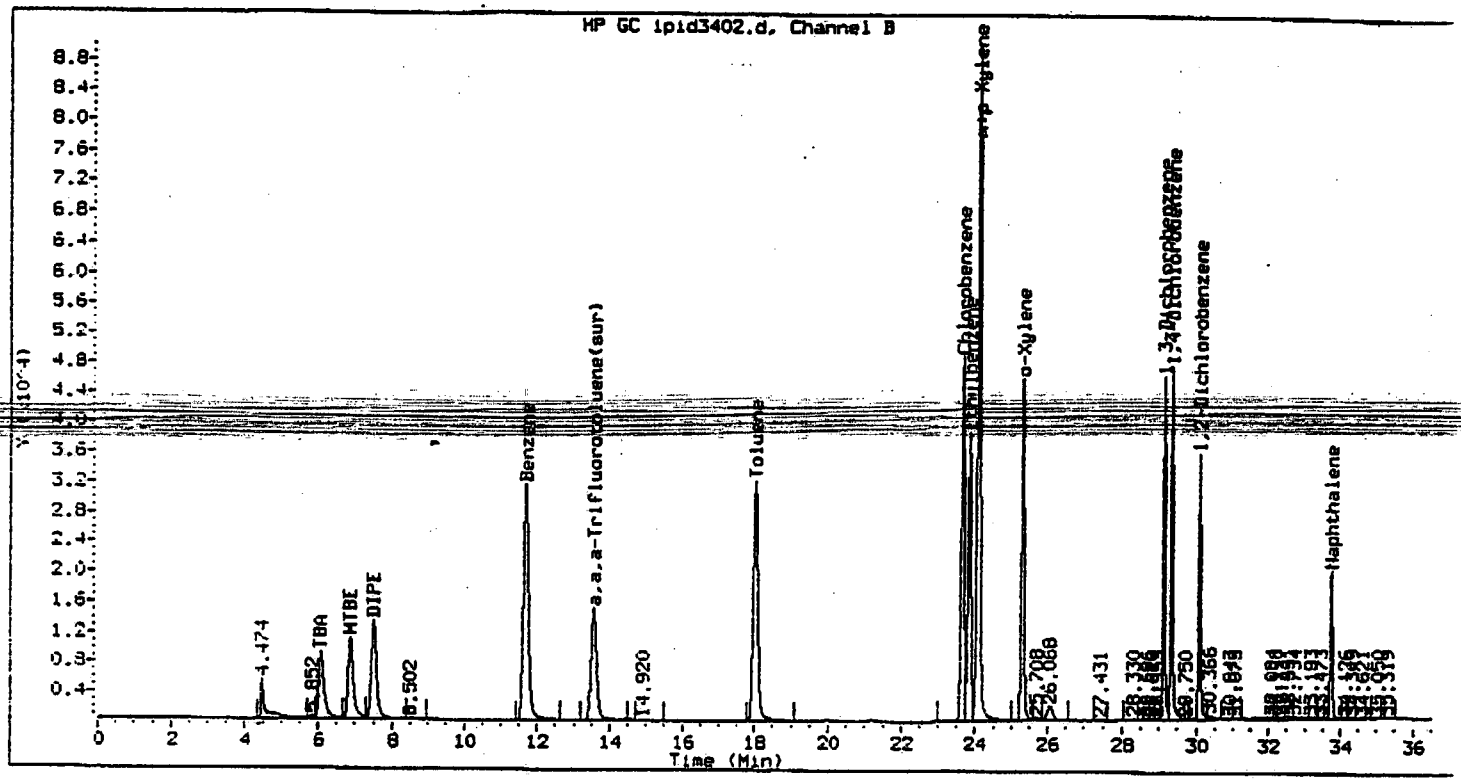
Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 20-MAY-2002 10:57
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.308	25.310	0.002	582542	9.940	9.940
m+p-Xylene	24.086	24.089	0.003	1333317	19.139	19.139
TBA	6.091	6.082	0.009	259596	938.672	938.672
MTBE	6.881	6.879	0.002	290190	9.850	9.850
DIPE	7.512	7.510	0.002	336760	9.756	9.756
Benzene	11.692	11.693	0.001	783860	9.965	9.965
Toluene	18.020	18.023	0.003	701639	9.902	9.902
Chlorobenzene	23.654	23.657	0.003	677948	10.022	10.022
Ethylbenzene	23.844	23.847	0.003	577604	9.995	9.995

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	1915859	29.037	29.037
1,3-Dichlorobenzene	29.136	29.136	0.000	430600	9.938	9.938
1,4-Dichlorobenzene	29.346	29.346	0.000	462309	9.741	9.741
1,2-Dichlorobenzene	30.086	30.086	0.000	380642	10.318	10.318
Naphthalene	33.749	33.755	0.004	242838	9.449	9.449
a,a,a-Trifluorotoluene(sur)	13.564	13.565	0.001	811145	30.124	30.124

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3402.d Page 1
Report Date 05/21/2002 12:52



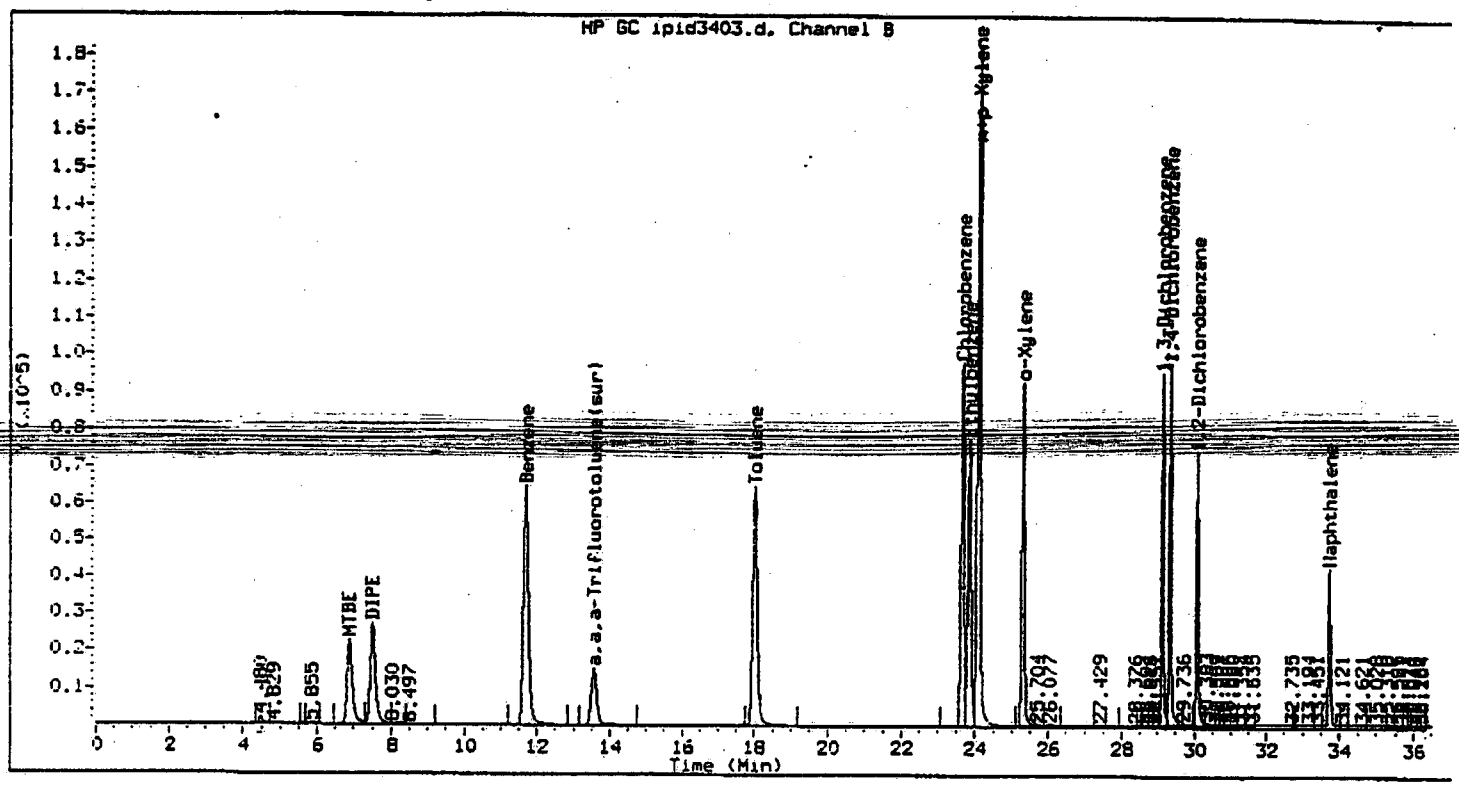
Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 20-MAY-2002 09:13
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.310	25.310	0.000	1160670	19.804	19.804
m+p-Xylene	24.089	24.089	0.000	2666022	38.268	38.268
TBA	6.082	6.082	0.000	479066	1732.253	1732.253
MTBE	6.879	6.879	0.000	554856	18.833	18.833
DIPE	7.510	7.510	0.000	680538	19.716	19.716
Benzene	11.693	11.693	0.000	1526611	19.407	19.407
Toluene	18.023	18.023	0.000	1413022	19.941	19.941
Chlorobenzene	23.657	23.657	0.000	1385594	20.483	20.483
Ethylbenzene	23.847	23.847	0.000	1155218	19.990	19.990

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	3826692	57.998	57.998
1,3-Dichlorobenzene	29.136	29.136	0.000	876204	20.223	20.223
1,4-Dichlorobenzene	29.346	29.346	0.000	920610	19.397	19.397
1,2-Dichlorobenzene	30.086	30.086	0.000	705953	19.136	19.136
Naphthalene	31.745	31.745	0.000	435657	16.952	16.952
a,a,a-Trifluorotoluene(sur)	13.565	13.565	0.000	810803	30.112	30.112

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3403.d Page 1
Report Date 05/21/2002 12:52



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 20-MAY-2002 10:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.309	25.310	0.001	2319648	39.579	39.579
m+p-Xylene	24.088	24.089	0.001	6455347	92.661	92.661
MTBE	6.881	6.879	0.002	1104550	37.491	37.491
DIPE	7.511	7.510	0.002	1347331	39.034	39.034
Benzene	11.693	11.693	0.000	3135123	39.854	39.854
Toluene	18.023	18.023	0.000	2823868	39.850	39.850
Chlorobenzene	23.656	23.657	0.001	2800275	41.397	41.397
Ethylbenzene	23.846	23.847	0.001	2339417	40.482	40.482
Xylene (Total)	25.019	25.019	0.000	8774995	132.994	132.994

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1,3-Dichlorobenzene	29.134	29.136	0.002	1799606	41.535	41.535
1,4-Dichlorobenzene	29.344	29.346	0.002	1908381	40.208	40.208
1,2-Dichlorobenzene	30.083	30.086	0.002	1441000	39.061	39.061
Naphthalene	33.742	33.745	0.003	1020718	39.717	39.717
2,4,6-Trifluorotoluene(surr)	13.566	13.565	-0.001	814242	30.239	30.239

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

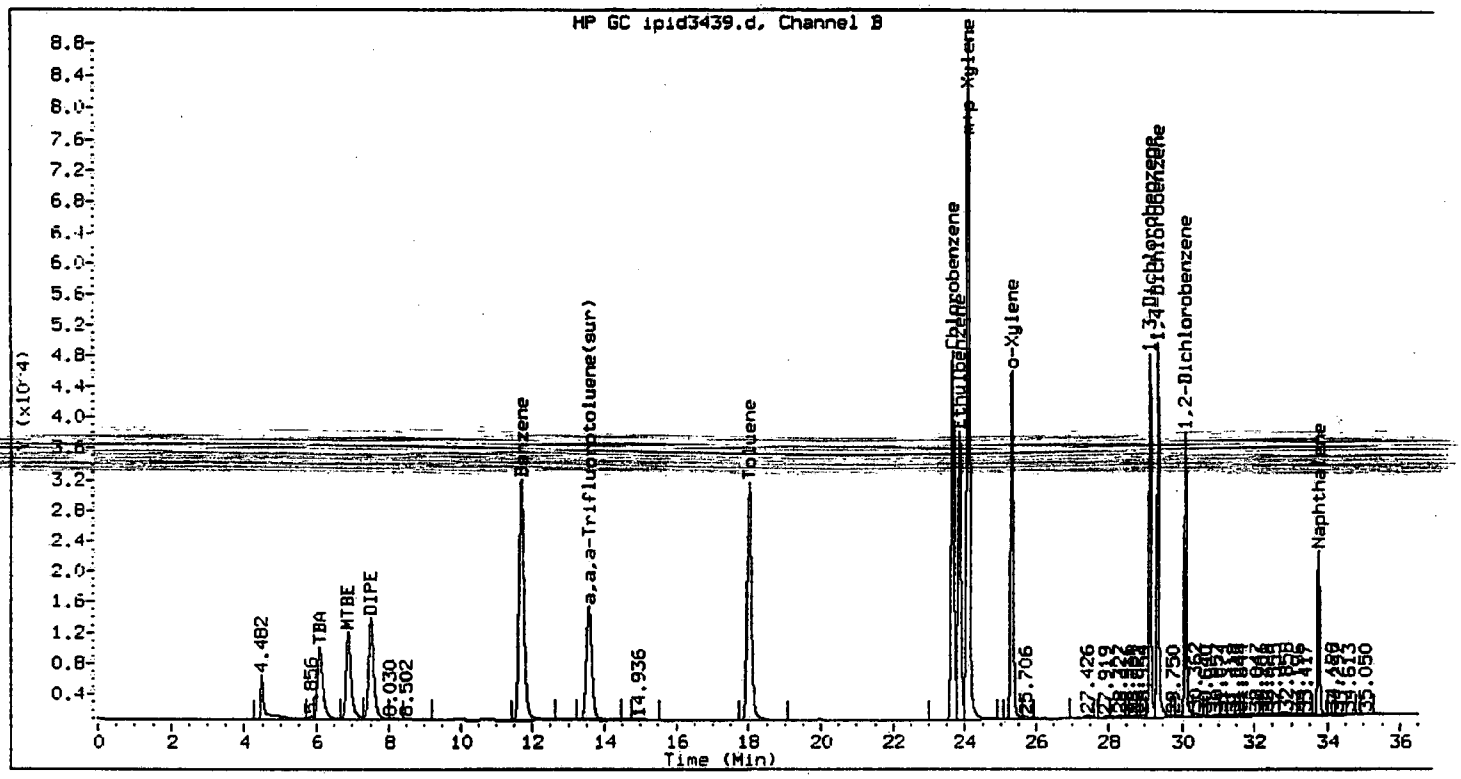
Instrument ID: VOAGC3 Calibration Date: 05/24/02 Time: 1120

Lab File ID: IPID3439 Init. Calib. Date(s): 05/20/02 05/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 0913 1217

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
TBA **	276.56	258.60		6.5	40.0
MTBE	29461.37	28634.15		2.8	40.0
DIPE	34516.58	33249.70		3.7	40.0
Benzene	78664.49	75778.10		3.7	23.0
Toluene	70861.74	68248.80		3.7	22.5
Chlorobenzene	67645.04	68394.45		-1.1	19.5
Ethylbenzene	57788.56	56249.20		2.7	37.0
Xylene (Total)	65980.25	62156.80		5.8	40.0
1,3-Dichlorobenzene	43327.67	45207.60		-4.3	27.5
1,4-Dichlorobenzene	47462.36	47289.30		0.4	30.5
1,2-Dichlorobenzene	36891.03	37068.20		-0.5	32.0
Naphthalene	25699.68	23485.00		8.6	40.0
a,a,a-Trifluorotoluene(sur)	26926.56	26404.03		1.9	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/05-20-02/24may02.b/602_02.m
Sample Info : ISTD144
Lab ID : ISTD144
Inj Date : 24-MAY-2002 11:20
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.310	25.310	0.000	1143601	19.513	19.513
m+p-Xylene	24.089	24.089	0.000	2585807	37.117	37.117
TBA	6.089	6.089	0.000	517210	1870.178	1870.178
MTBE	6.885	6.885	0.000	572683	19.438	19.438
DIPE	7.516	7.516	0.000	664994	19.266	19.266
Benzene	11.698	11.698	0.000	1515562	19.266	19.266
Toluene	18.026	18.026	0.000	1364976	19.263	19.263
Chlorobenzene	23.657	23.657	0.000	1367889	20.222	20.222
Ethylbenzene	23.848	23.848	0.000	1124984	19.467	19.467

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	3729408	56.523	56.523
1,3-Dichlorobenzene	29.138	29.138	0.000	904152	20.868	20.868
1,4-Dichlorobenzene	29.349	29.349	0.000	945786	19.927	19.927
1,2-Dichlorobenzene	30.089	30.089	0.000	741364	20.096	20.096
Naphthalene	33.749	33.749	0.000	469700	18.276	18.276
a,a,a-Trifluorotoluene(sur)	13.568	13.568	0.000	792121	29.418	29.418

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: W671

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
01	IG144	95			0
02	351685	93			0
03	351686	94			0
04	351687	94			0
05	351688	94			0
06	351689	93			0
07	351689MS	96			0
08	351689MSD	96			0
09	351691	91			0
10	351692	94			0
11	351693	94			0
12	351694	94			0
13	351695	96			0
14	351696	94			0
15	351697	96			0
16	351698	94			0
17	351699	95			0
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

		QC LIMITS
SMC1	= a,a,a-Trifluorotoluene	(63-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

page 1 of 1

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 351689

MS Sample from Lab Job No: W671

QA Batch: 7370

Compound	MS % REC.	BS % REC.	LIMITS
Benzene	80	105	39-150
Toluene	75	105	46-148
Chlorobenzene	80	110	55-135
Ethylbenzene	70	105	32-160
1,3-Dichlorobenzene	70	110	50-141
1,4-Dichlorobenzene	65	105	42-143
1,2-Dichlorobenzene	70	105	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 350985

MS Sample from Lab Job No: W542

QA Batch: 7367

Compound	MS % REC.	BS % REC.	LIMITS
Benzene	96	100	39-150
Toluene	100	100	46-148
Chlorobenzene	105	100	55-135
Ethylbenzene	100	100	32-160
1,3-Dichlorobenzene	110	100	50-141
1,4-Dichlorobenzene	100	95	42-143
1,2-Dichlorobenzene	100	95	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

GC/MS Forms and Data (Semivolatiles)

Results Summary and Chromatograms

Client ID: **MW17S**
Site: L.E. Carpenter

Lab Sample No: **351685**
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/04/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7529.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	0.6 B	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7529.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7529.d
Lab Smp Id: 351685 Client Smp ID: MW17S
Inj Date : 04-JUN-2002 23:14
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351685;970;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
Meth Date : 05-Jun-2002 11:20 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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

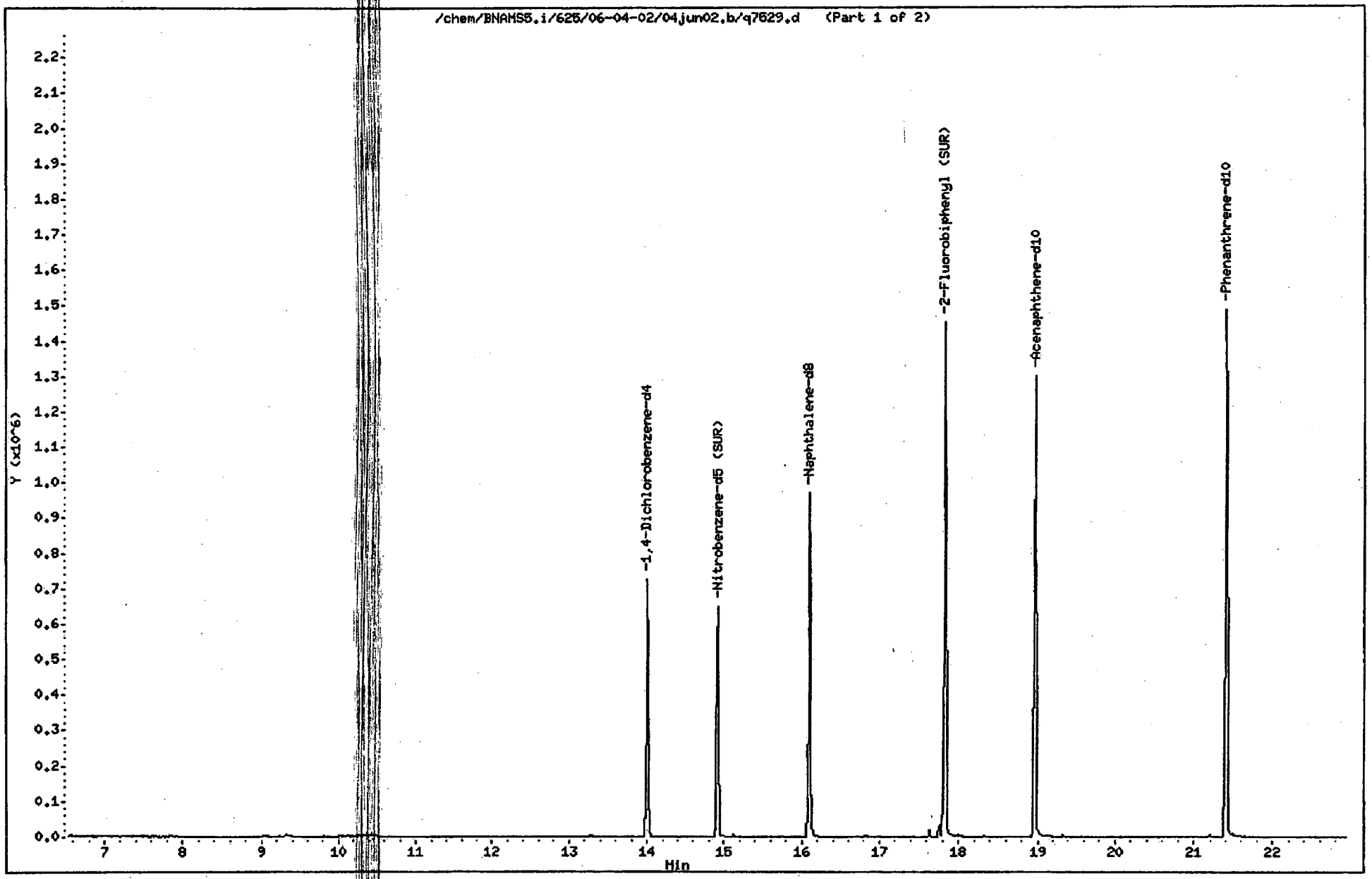
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	970.00000	Volume of sample extracted (mL)

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	14.002	14.002	(1.000)	186541	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.915	14.904	(0.927)	298634	47.1664	97
* 80 Naphthalene-d8	136	16.097	16.108	(1.000)	734320	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.827	17.827	(0.940)	673669	43.1348	89
* 82 Acenaphthene-d10	164	18.966	18.976	(1.000)	488868	40.0000	
* 83 Phenanthrene-d10	188	21.405	21.415	(1.000)	979345	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.972	23.961	(0.924)	1026225	47.4375	98
63 bis(2-Ethylhexyl)phthalate	149	25.799	25.798	(0.994)	6714	0.27913	0.58
* 81 Chrysene-d12	240	25.949	25.960	(1.000)	1063919	40.0000	
* 84 Perylene-d12	264	30.311	30.322	(1.000)	951797	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7529.d
Date : 04-JUN-2002 23:14
Client ID: HW17S
Sample Info: 351685;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS 5
Column diameter: 0.53



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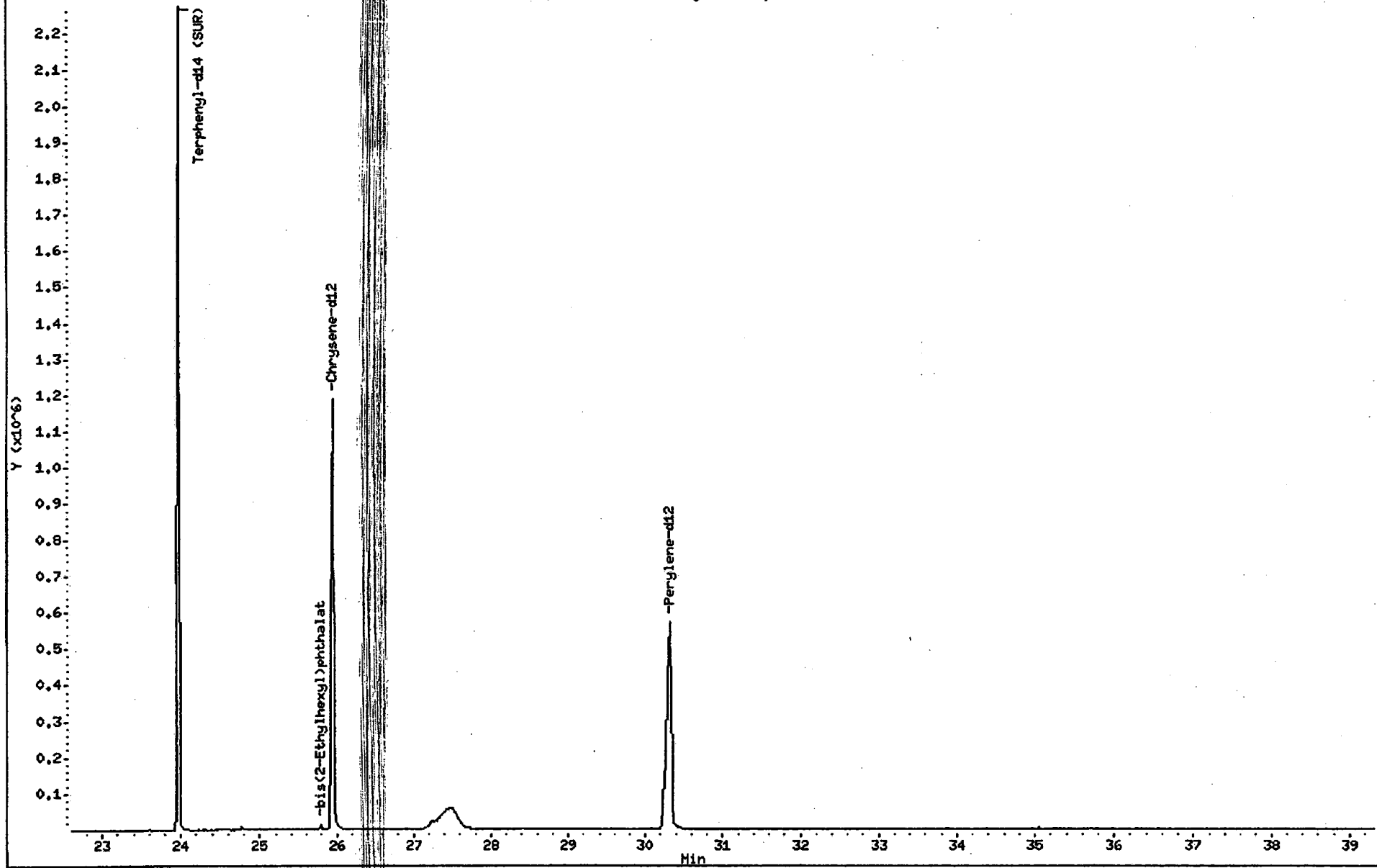
W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7529.d
Date : 04-JUN-2002 23:14
Client ID: MW17S
Sample Info: 351685;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/04jun02.b/q7529.d (Part 2 of 2)



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7529.d

Date : 04-JUN-2002 23:14

Client ID: MW17S

Instrument: BNAMS5.i

Sample Info: 351685;970;2;1;

Purge Volume: 970.0

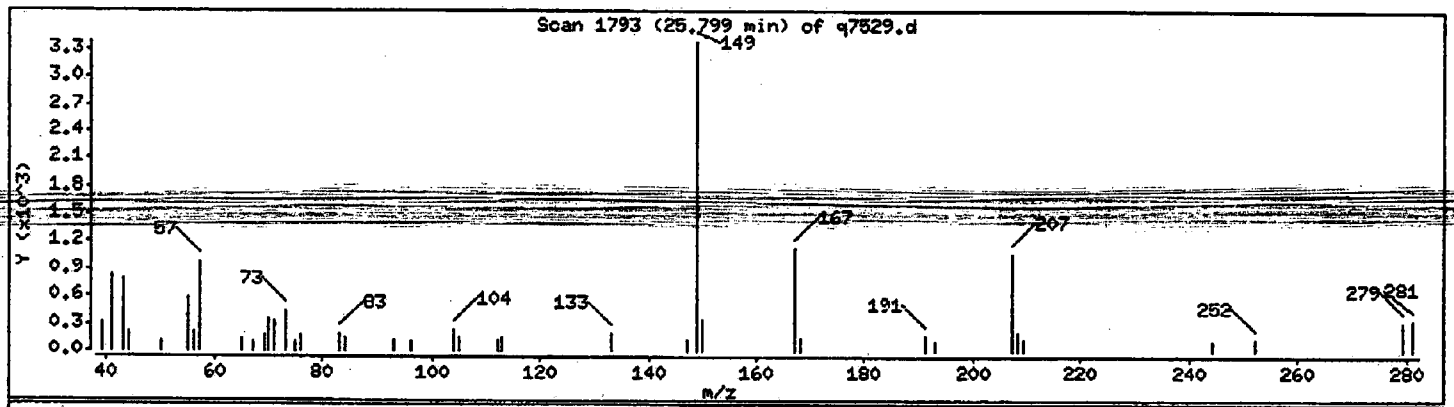
Operator: BNAMS 5

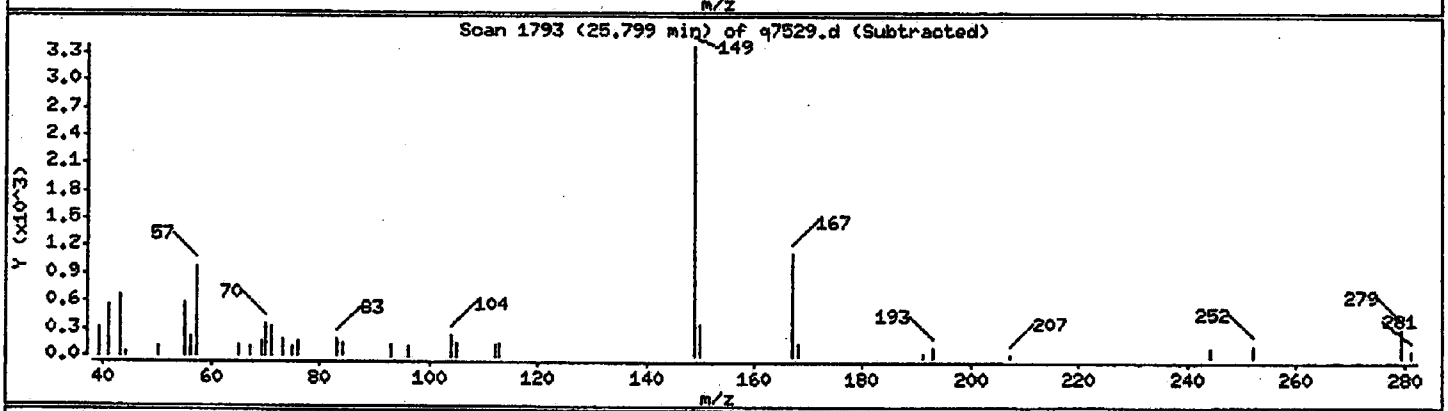
Column phase: DB-5

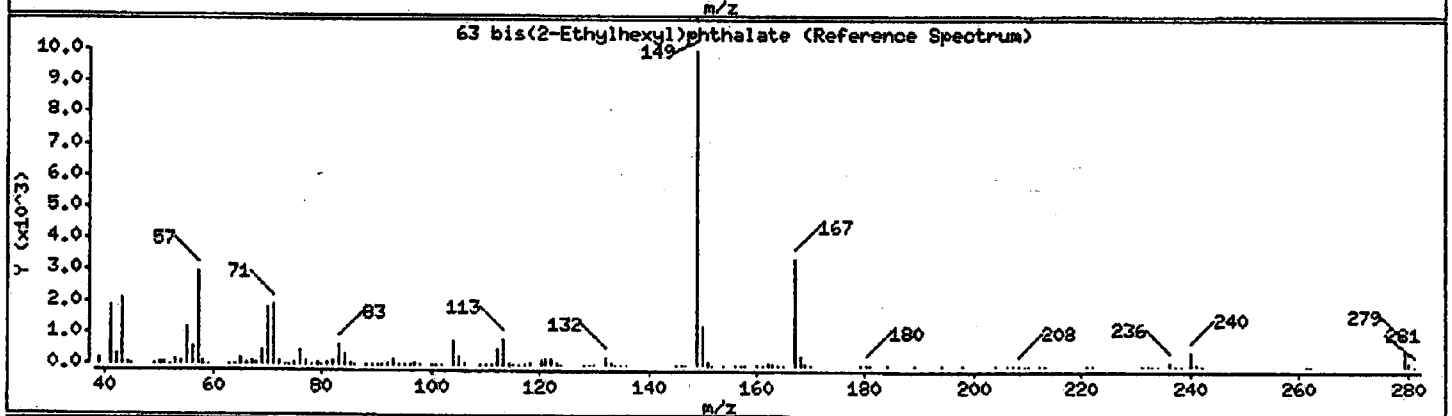
Column diameter: 0.53

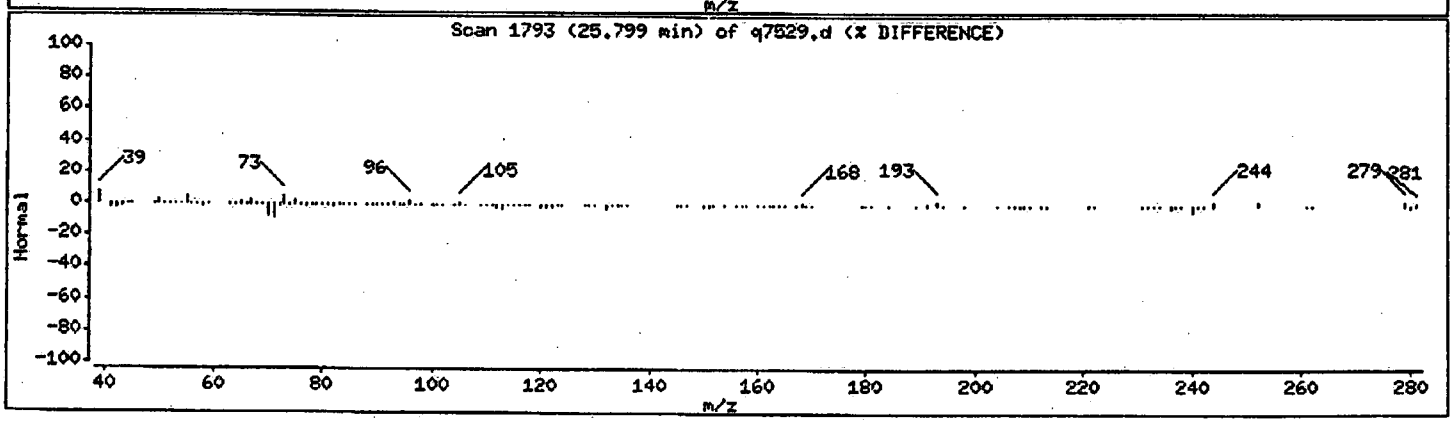
63 bis(2-Ethylhexyl)phthalate

Concentration: 0.58 ug/L









Client ID: **MW15S**
Site: L.E. Carpenter

Lab Sample No: **351686**
Lab Job No: W671

Date Sampled: 05/20/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7530.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	0.7 B	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7530.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7530.d
Lab Smp Id: 351686 Client Smp ID: MW15S
Inj Date : 05-JUN-2002 00:02
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351686;970;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
~~Meth Date : 05-Jun-2002 11:20 tendie~~ ~~Quant Type: ISTD~~
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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	970.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

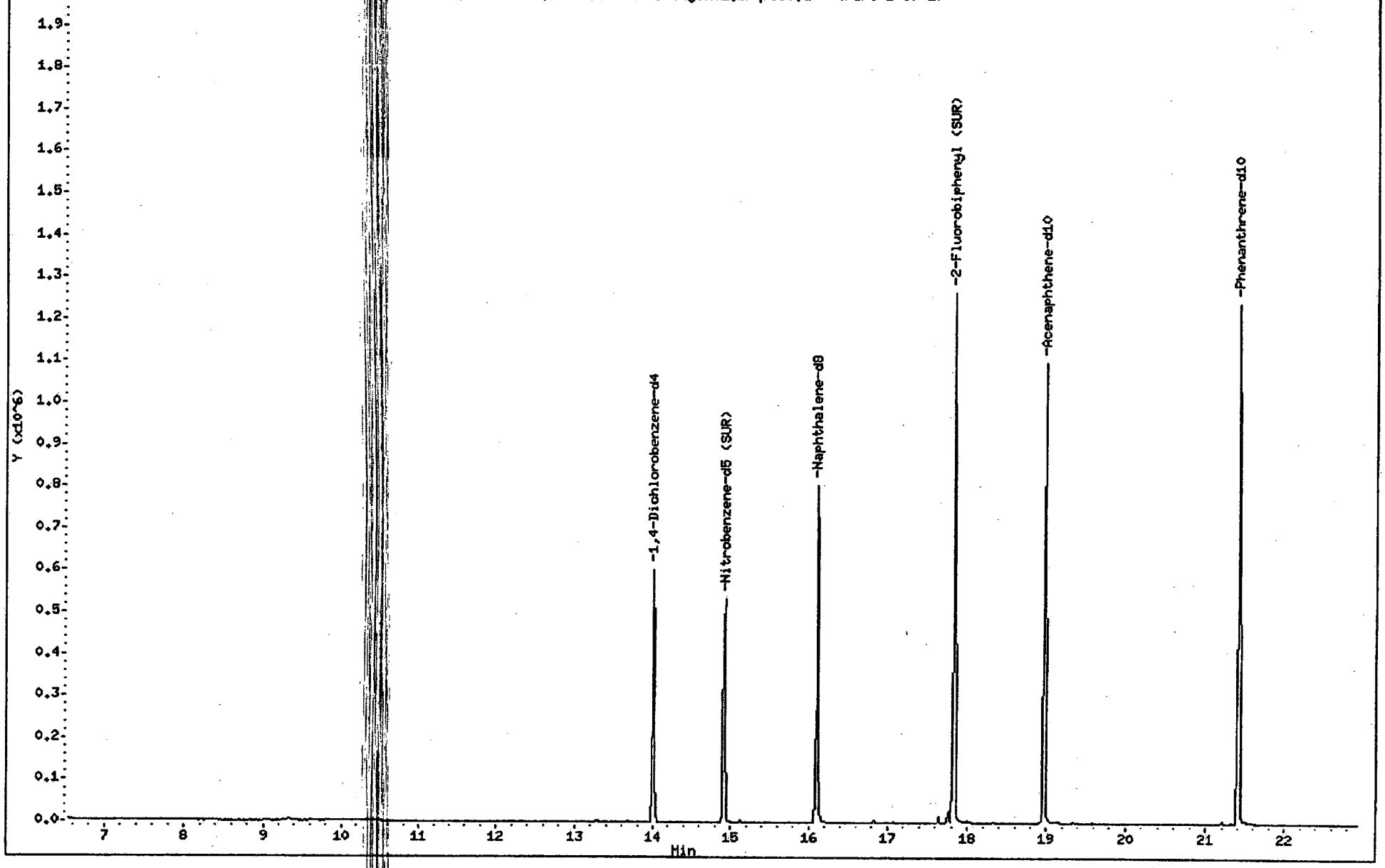
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.003	14.002	(1.000)	157453	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.916	14.904	(0.927)	252225	47.9084	99
* 80 Naphthalene-d8	136	16.098	16.108	(1.000)	610597	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.828	17.827	(0.940)	572273	44.5401	92
* 82 Acenaphthene-d10	164	18.967	18.976	(1.000)	402184	40.0000	
* 83 Phenanthrene-d10	188	21.406	21.415	(1.000)	803358	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.973	23.961	(0.924)	872976	48.7442	100
63 bis(2-Ethylhexyl)phthalate	149	25.800	25.798	(0.994)	6946	0.34882	0.72
* 81 Chrysene-d12	240	25.950	25.960	(1.000)	880779	40.0000	
* 84 Perylene-d12	264	30.312	30.322	(1.000)	795771	40.0000	

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7530.d
Date : 05-JUN-2002 00:02
Client ID: HW15S
Sample Info: 351686;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53

/chem/BNAHS5.i/625/06-04-02/04jun02.b/q7530.d (Part 1 of 2)



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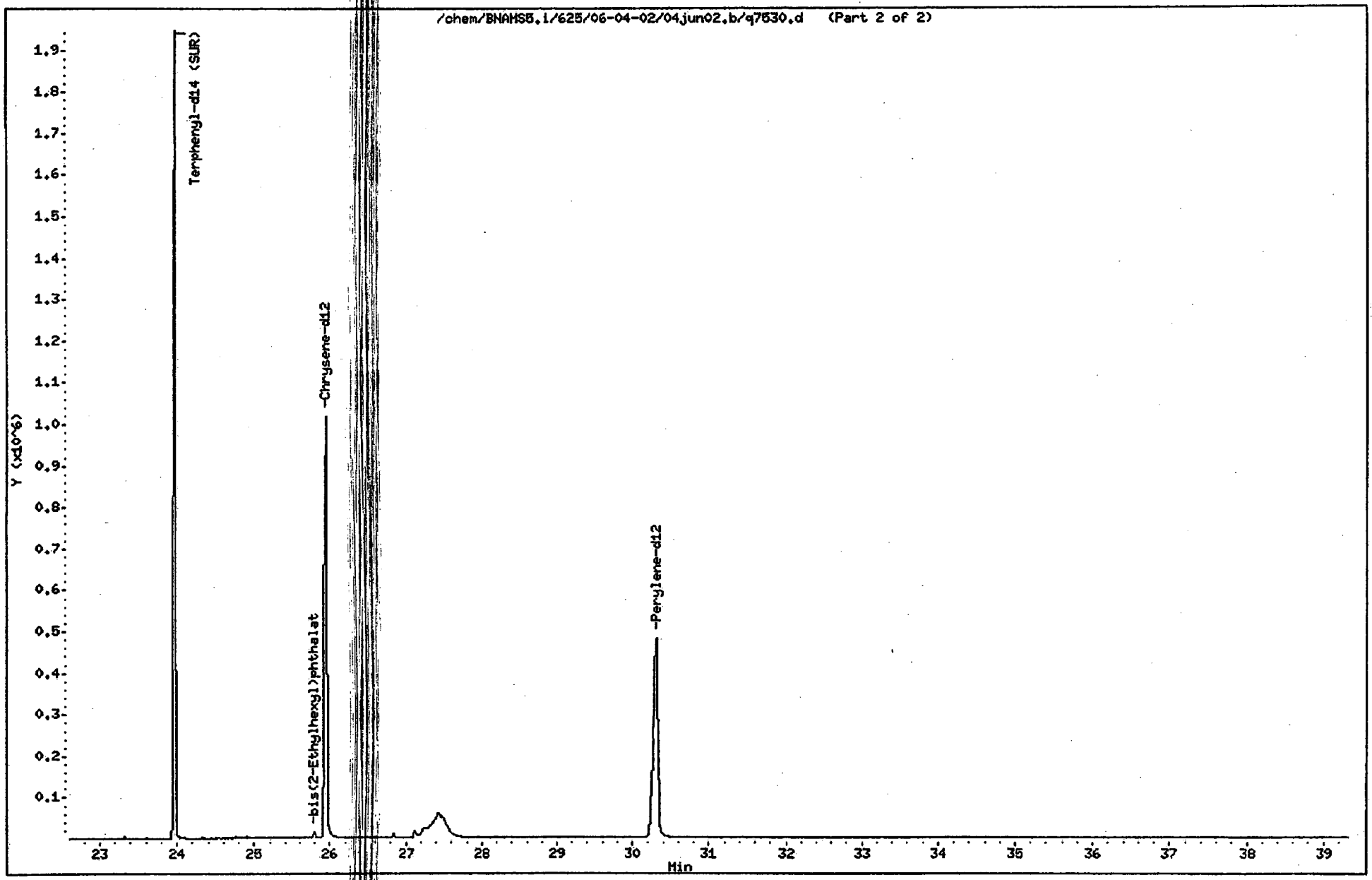
W671

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7530.d
Date : 05-JUN-2002 00:02
Client ID: HW15S
Sample Info: 351686;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7530.d

Date : 05-JUN-2002 00:02

Client ID: MW1BS

Instrument: BNAMS5.i

Sample Info: 351686;970;2;1;

Purge Volume: 970.0

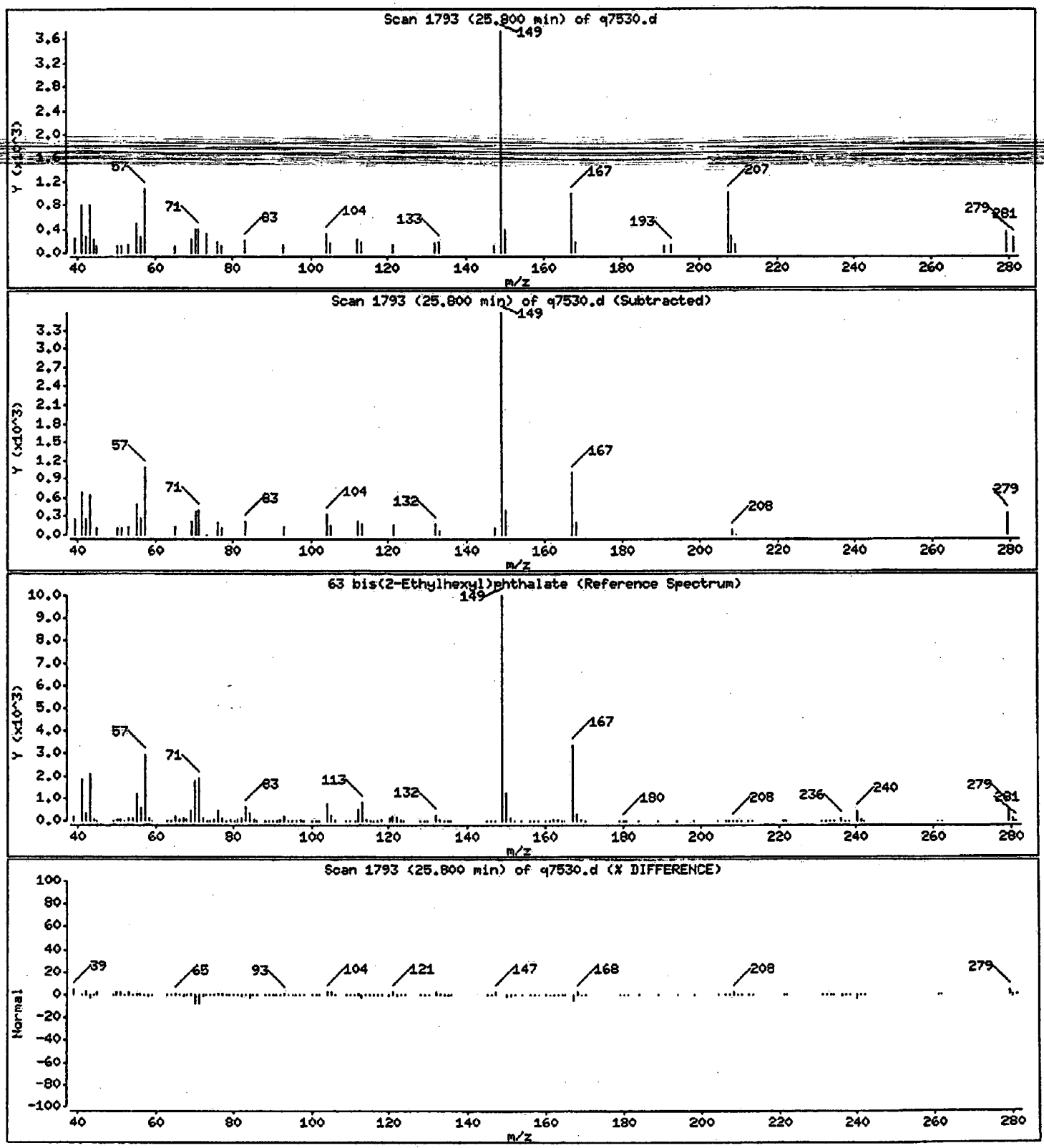
Operator: BNAMS 5

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 0.72 ug/L



Client ID: **MW15I**
Site: L.E. Carpenter

Lab Sample No: **351687**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7531.d

Matrix: WATER
Level: LOW
Sample Volume: 940 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	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7531.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7531.d
Lab Smp Id: 351687 Client Smp ID: MW15I
Inj Date : 05-JUN-2002 00:50
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351687;940;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
Meth Date : 05-Jun-2002 11:20 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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	940.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

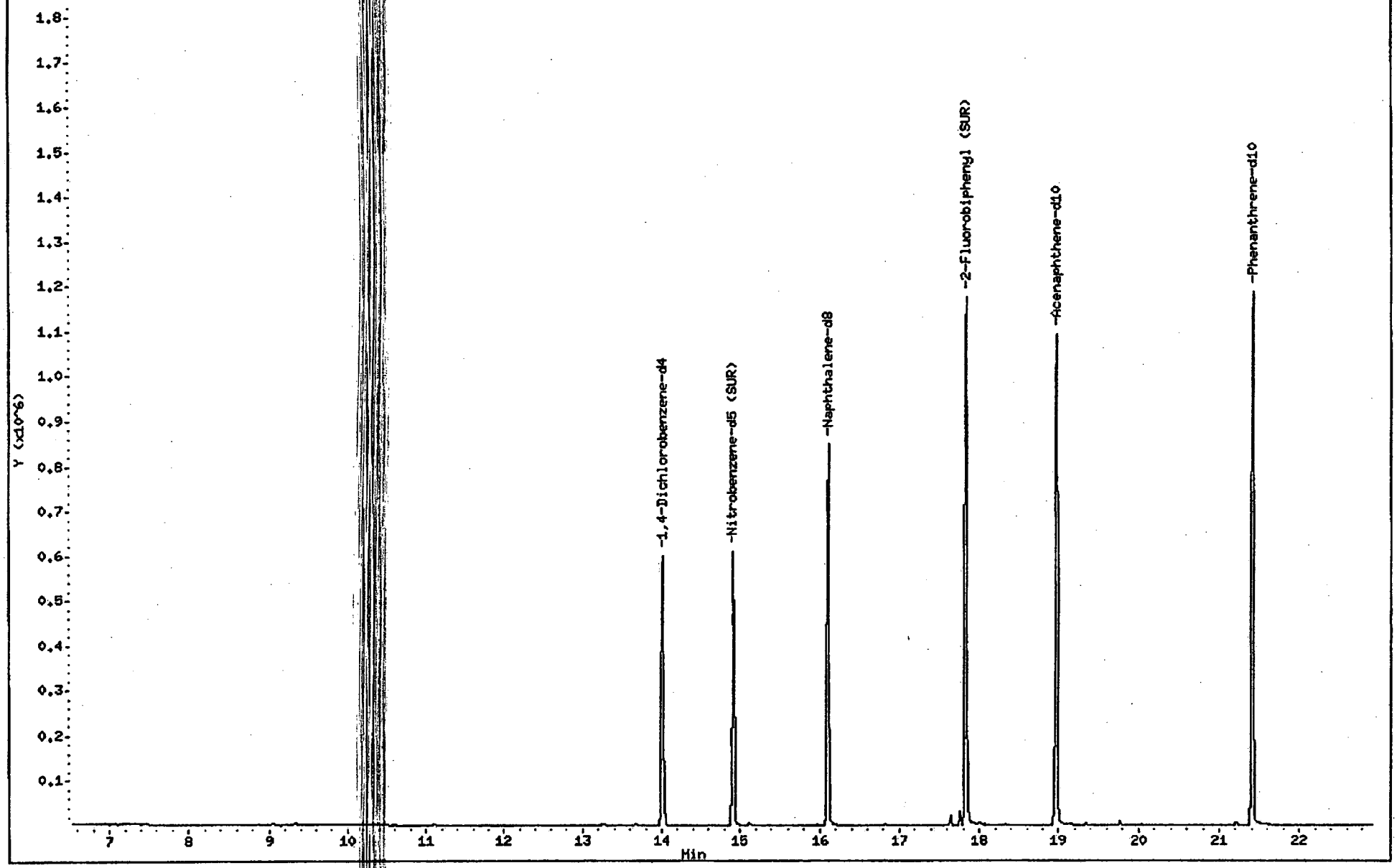
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.011	14.002	(1.000)	168221	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.913	14.904	(0.926)	266264	46.7461	99
* 80 Naphthalene-d8	136	16.106	16.108	(1.000)	660610	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.835	17.827	(0.940)	602853	45.0744	96
* 82 Acenaphthene-d10	164	18.974	18.976	(1.000)	418653	40.0000	
* 83 Phenanthrene-d10	188	21.413	21.415	(1.000)	839601	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.970	23.961	(0.924)	836663	44.5584	95
* 81 Chrysene-d12	240	25.947	25.960	(1.000)	923439	40.0000	
* 84 Perylene-d12	264	30.309	30.322	(1.000)	843655	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7531.d
Date : 05-JUN-2002 00:50
Client ID: MW15I
Sample Info: 351687;940;2;1;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/04jun02.b/q7531.d (Part 1 of 2)



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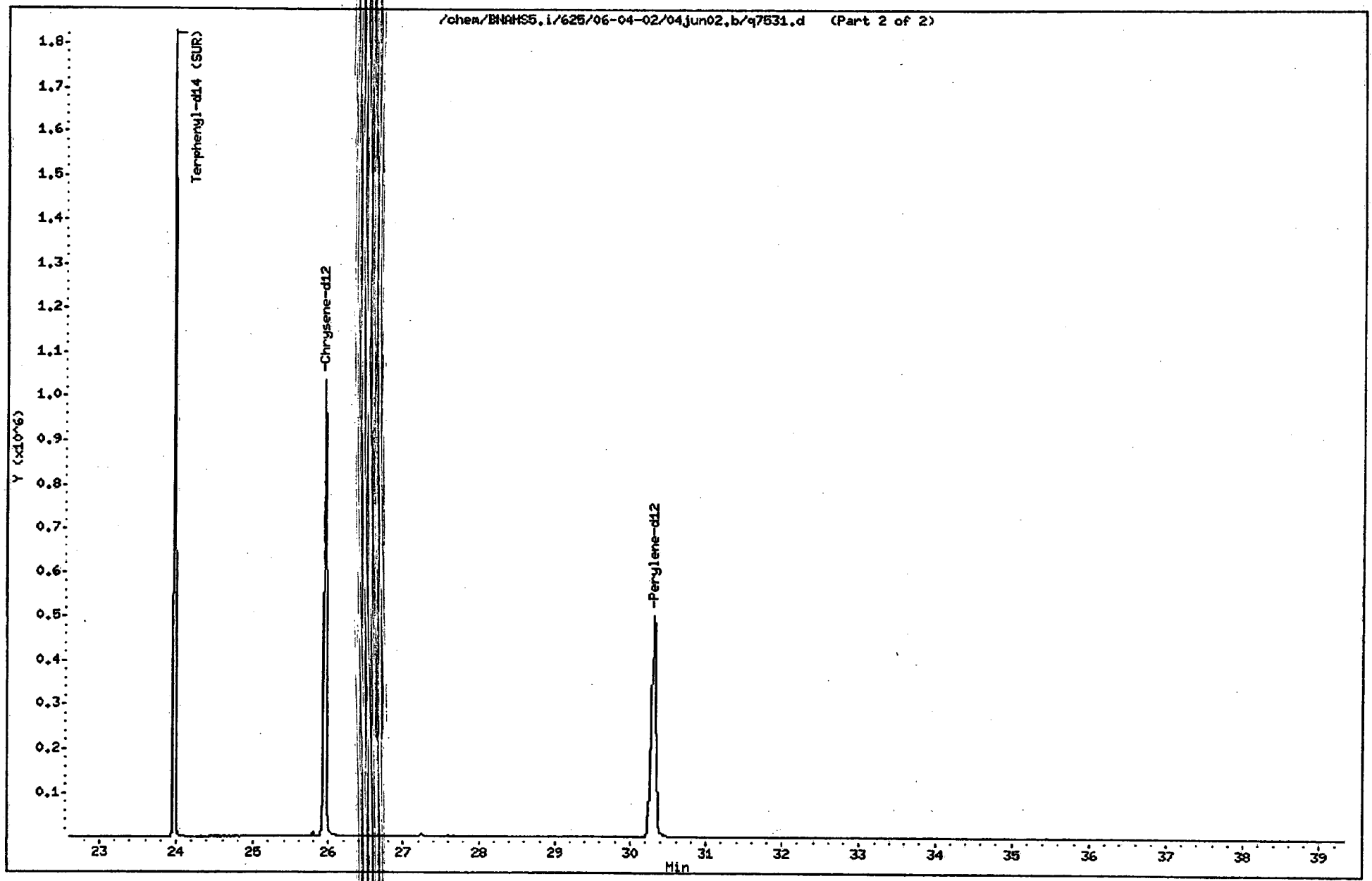
W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7531.d
Date : 05-JUN-2002 00:50
Client ID: MW15I
Sample Info: 351687;940;2;1;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



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W671

Client ID: **MW11D_R**
Site: L.E. Carpenter

Lab Sample No: **351688**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7532.d

Matrix: WATER
Level: LOW
Sample Volume: 980 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	26	0.4

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7532.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7532.d
Lab Smp Id: 351688 Client Smp ID: MW11D_R
Inj Date : 05-JUN-2002 01:38
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351688;980;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
~~Meth Date : 05-Jun-2002 11:20 ferdie Quant Type: ISTD~~
~~Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d~~
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

FMJR

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

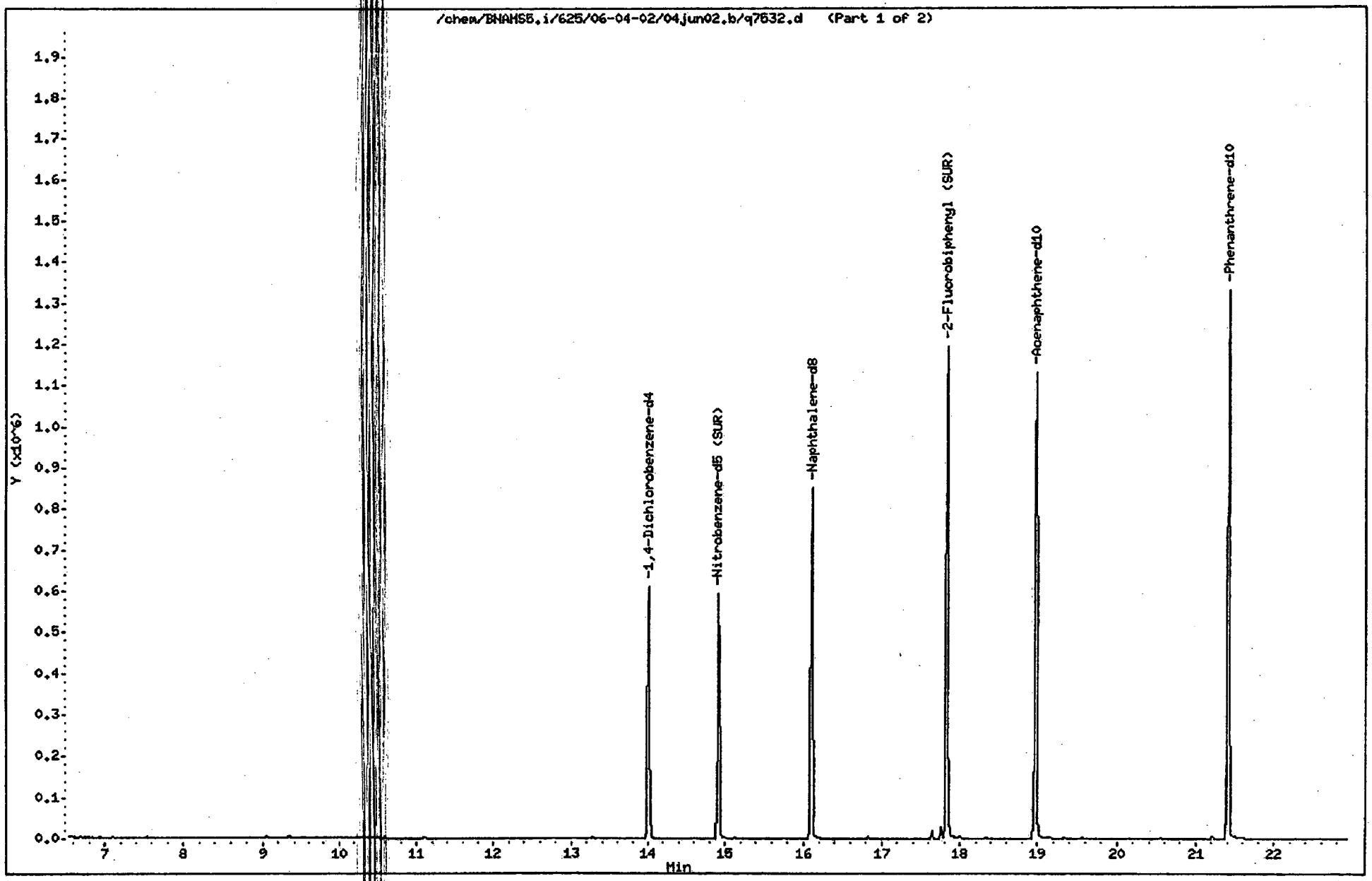
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	980.00000	Volume of sample extracted (mL)

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	14.011	14.002	(1.000)	166535	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.913	14.904	(0.926)	261700	47.0837	96
* 80 Naphthalene-d8	136	16.106	16.108	(1.000)	644632	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.836	17.827	(0.940)	590448	44.1838	90
* 82 Acenaphthene-d10	164	18.975	18.976	(1.000)	418303	40.0000	
* 83 Phenanthrene-d10	188	21.413	21.415	(1.000)	875643	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.970	23.961	(0.923)	923494	47.1049	96
63 bis(2-Ethylhexyl)phthalate	149	25.797	25.798	(0.994)	276856	12.7009	26
* 81 Chrysene-d12	240	25.958	25.960	(1.000)	964175	40.0000	
* 84 Perylene d12	264	30.320	30.322	(1.000)	898758	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7532.d
Date : 05-JUN-2002 01:38
Client ID: MW11D_R
Sample Info: 351688;980;2;1;
Purge Volume: 980.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS 5
Column diameter: 0.53



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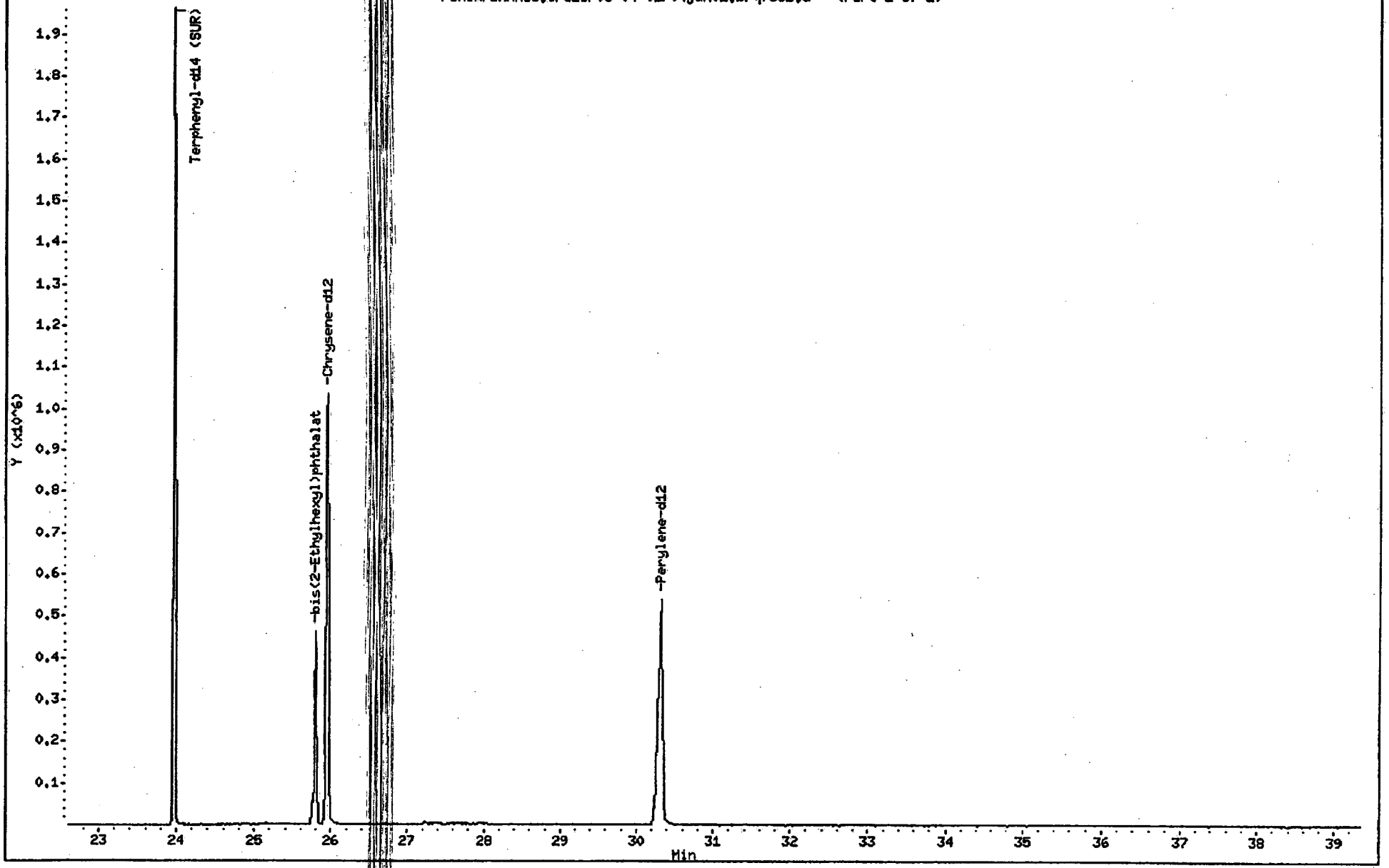
W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7532.d
Date : 05-JUN-2002 01:38
Client ID: HW11D_R
Sample Info: 351688;980;2;1;
Purge Volume: 980.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/04jun02.b/q7532.d (Part 2 of 2)



116

W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7532.d

Date : 05-JUN-2002 01:38

Client ID: MW11D_R

Instrument: BNAMS5.i

Sample Info: 351688;980;2;1;

Purge Volume: 980.0

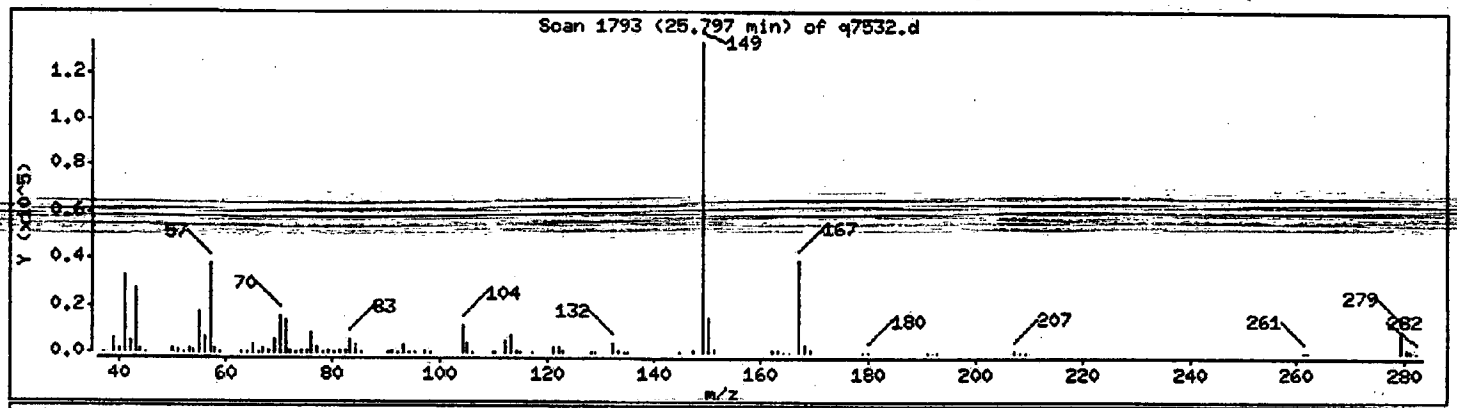
Operator: BNAMS 5

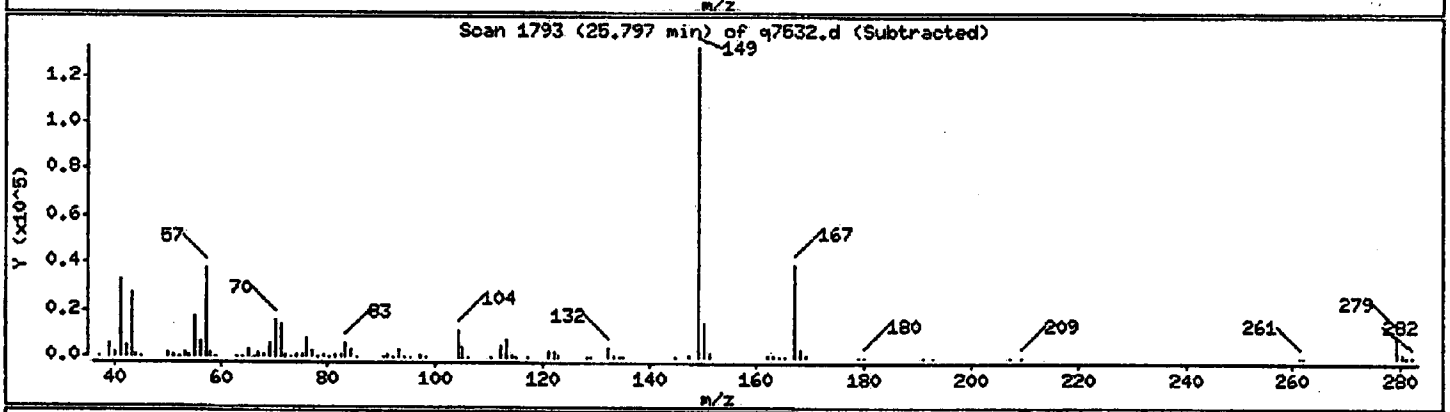
Column phase: DB-5

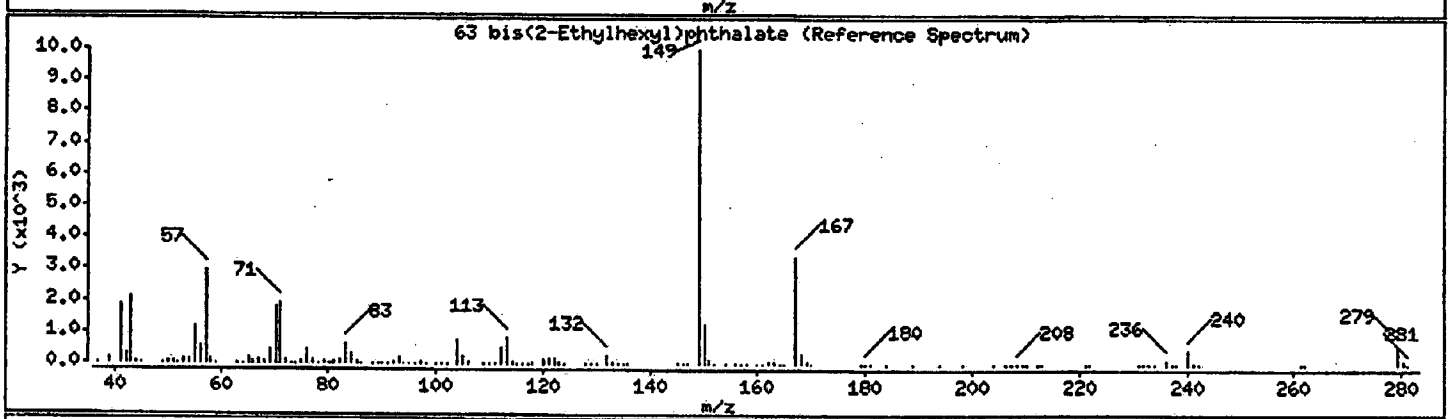
Column diameter: 0.53

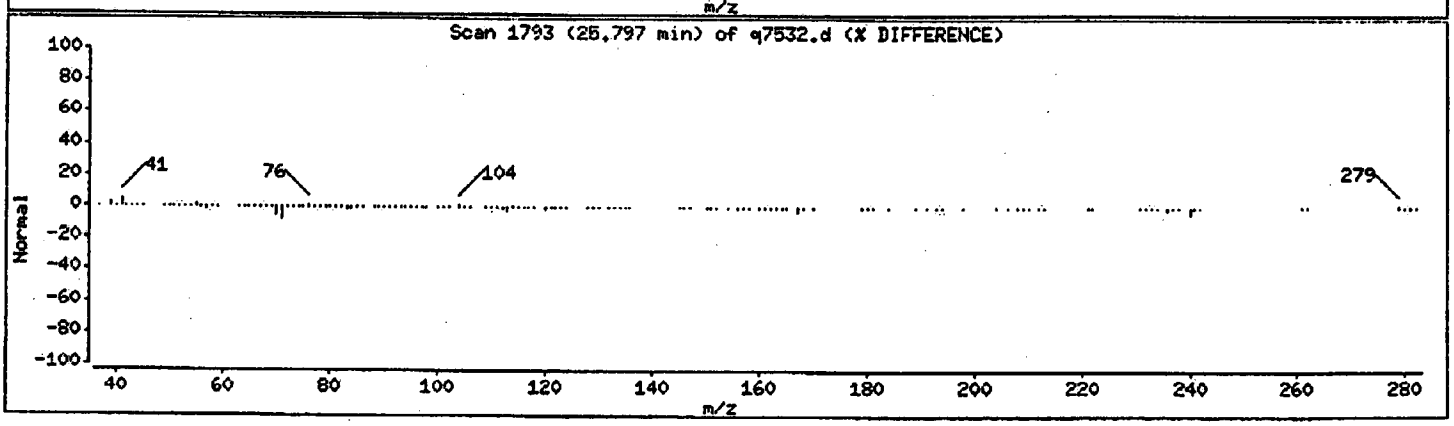
63 bis(2-Ethylhexyl)phthalate

Concentration: 26 ug/L









Client ID: MW4
Site: L.E. Carpenter

Lab Sample No: 351689
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7551.d

Matrix: WATER
Level: LOW
Sample Volume: 600 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 10.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	1300	7.3

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7551.d
Report Date: 06-Jun-2002 10:41

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7551.d
Lab Smp Id: 351689 Client Smp ID: MW4
Inj Date : 05-JUN-2002 16:49
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351689;600;2;10;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/05jun02.b/bna625b.m
~~Meth Date : 06-Jun-2002 09:37 ferdie Quant Type: ISTD~~
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 10
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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

Name	Value	Description
DF	10.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	600.00000	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	14.049	14.041	(1.000)	145857	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.951	14.955	(0.926)	22577	4.91763	160(a)
* 80 Naphthalene-d8	136	16.144	16.136	(1.000)	532462	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.873	17.866	(0.940)	51553	4.59680	150(a)
* 82 Acenaphthene-d10	164	19.012	19.005	(1.000)	351052	40.0000	
* 83 Phenanthrene-d10	188	21.451	21.454	(1.000)	702320	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	24.008	24.011	(0.923)	76946	4.61064	150(a)
63 bis(2-Ethylhexyl)phthalate	149	25.856	25.859	(0.994)	721306	38.8725	1300
* 81 Chrysene-d12	240	26.006	26.020	(1.000)	820753	40.0000	
* 84 Perylene-d12	264	30.422	30.425	(1.000)	817743	40.0000	

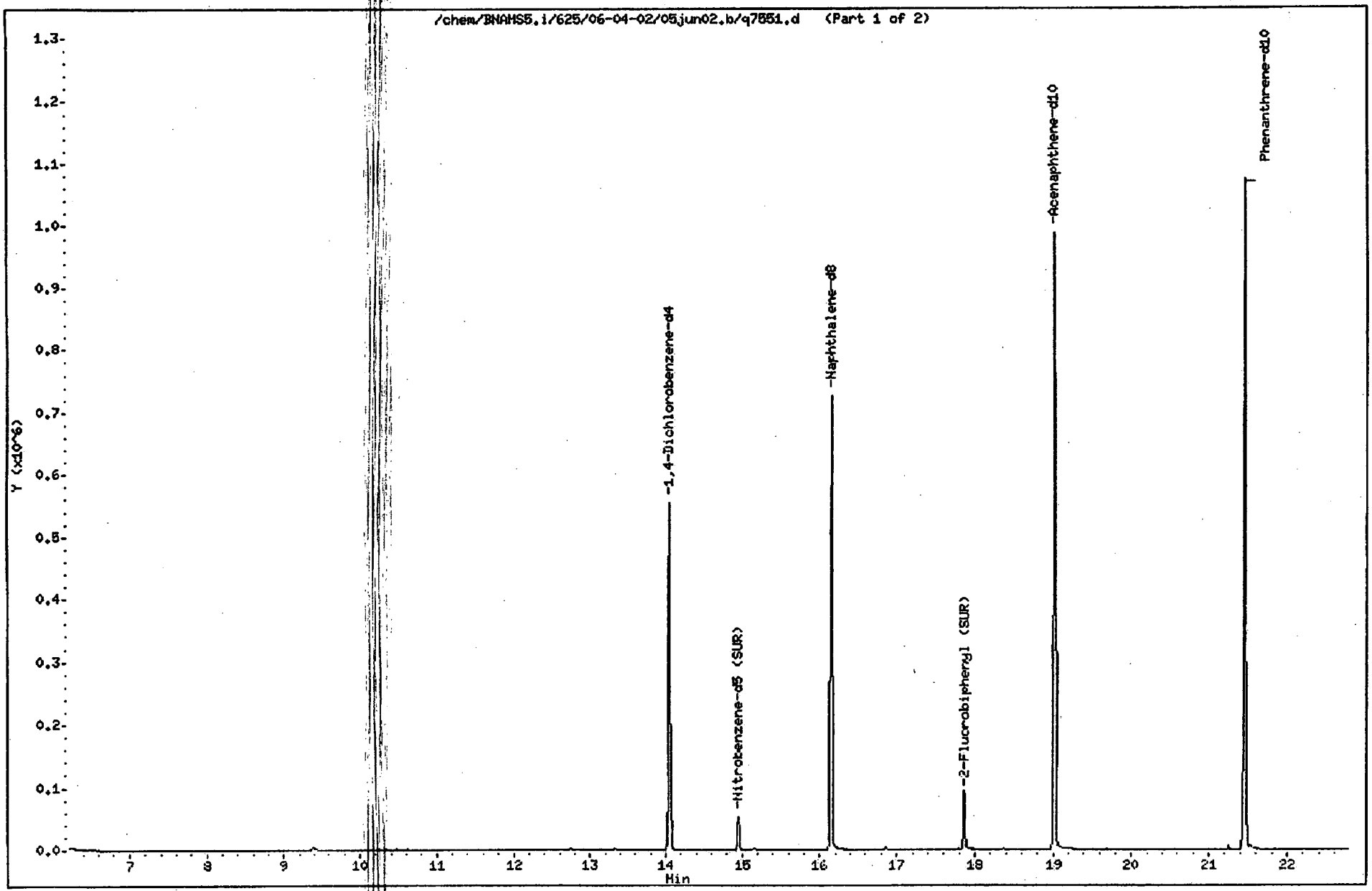
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7551.d
Date : 05-JUN-2002 16:49
Client ID: MW4
Sample Info: 351689;600;2;10;
Purge Volume: 600.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53



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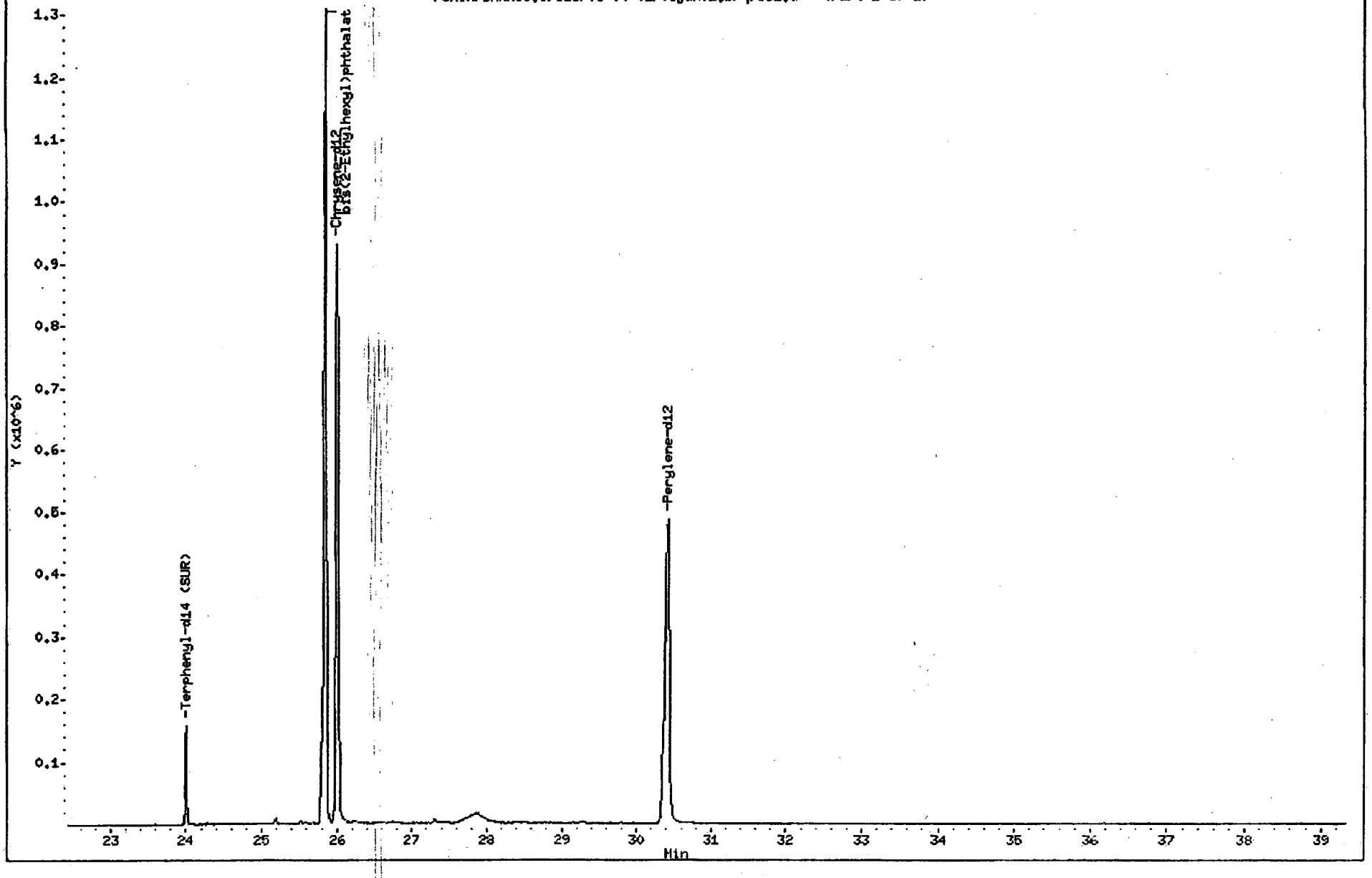
W671

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7551.d
Date : 05-JUN-2002 16:49
Client ID: MW4
Sample Info: 351689;600;2;10;
Purge Volume: 600.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/05jun02.b/q7551.d (Part 2 of 2)



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7551.d

Date : 05-JUN-2002 16:49

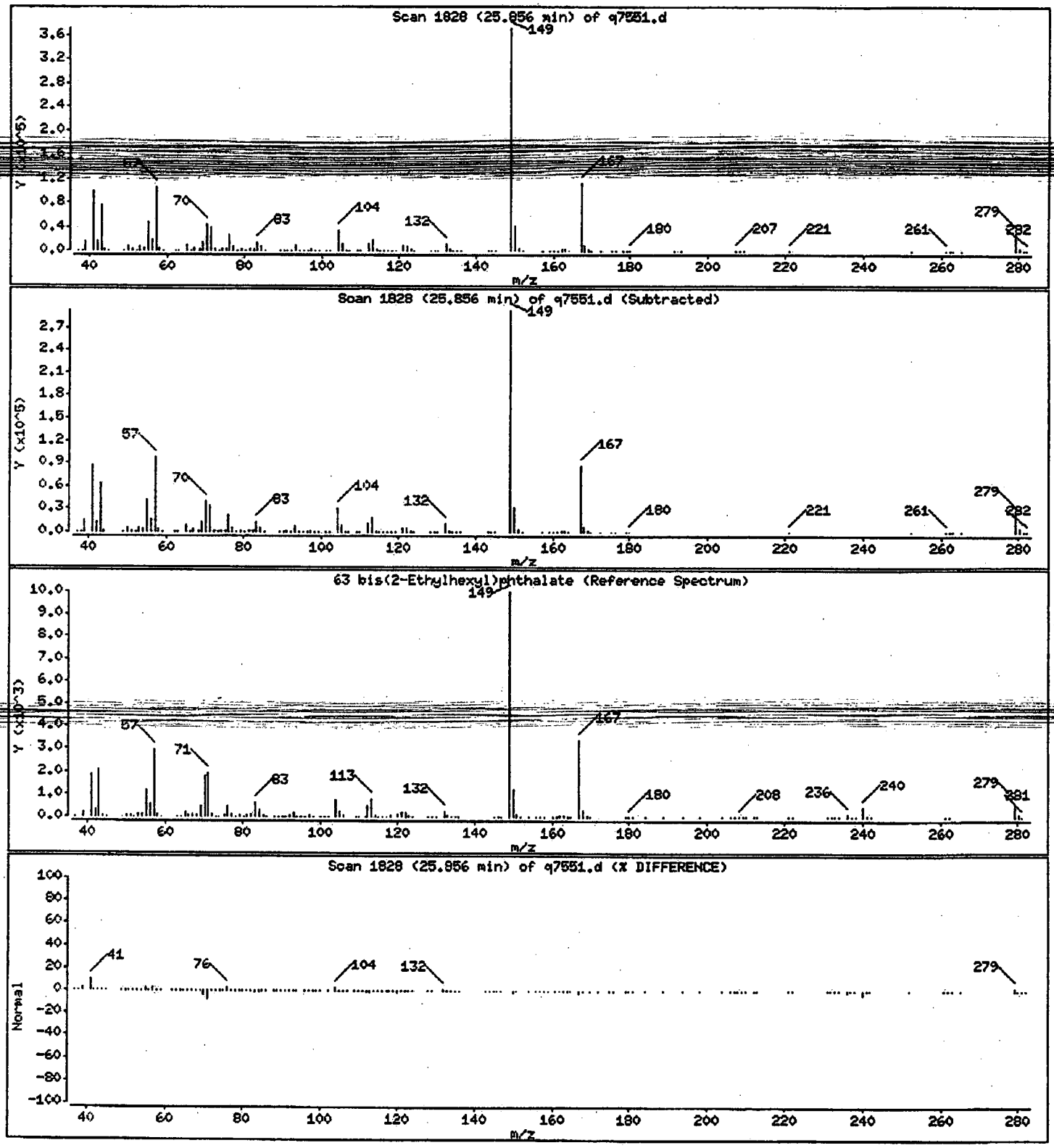
Client ID: MW4 | Instrument: BNAMS5.i

Sample Info: 351689;600;2;10;

Purge Volume: 600.0 | Operator: BNAMS 5

Column phase: DB-5 | Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate | Concentration: 1300 ug/L



Client ID: **MW14I**
Site: L.E. Carpenter

Lab Sample No: **351691**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7536.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	1.0 B	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7536.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7536.d
Lab Smp Id: 351691 Client Smp ID: MW14I
Inj Date : 05-JUN-2002 04:50
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351691;950;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
Meth Date : 05-Jun-2002 11:26 Gerdie J. Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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)

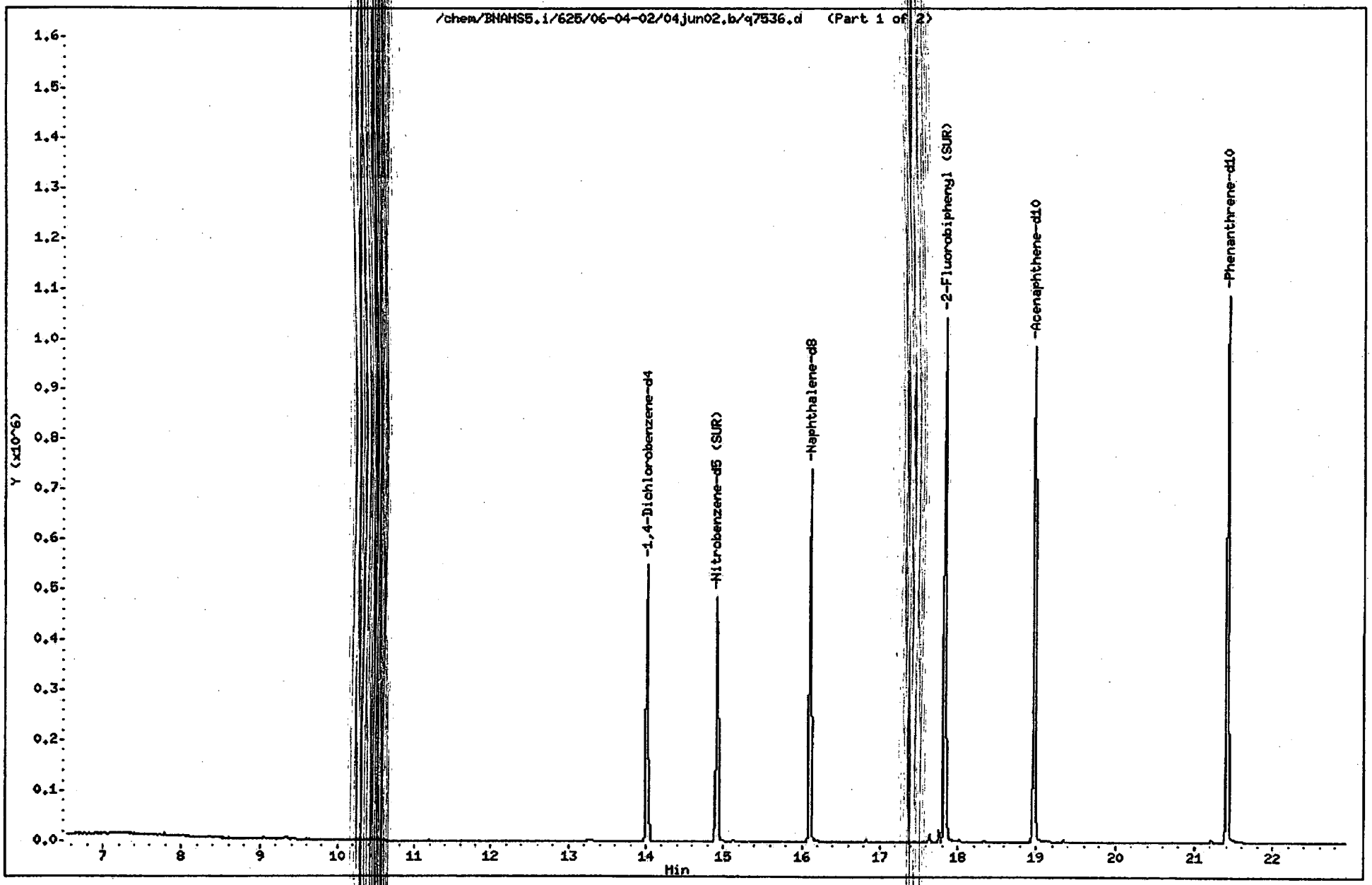
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.012	14.002	(1.000)	137111	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.914	14.904	(0.926)	213177	46.3211	98
* 80 Naphthalene-d8	136	16.107	16.108	(1.000)	533752	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.836	17.827	(0.940)	499551	43.2914	91
* 82 Acenaphthene-d10	164	18.975	18.976	(1.000)	361203	40.0000	
* 83 Phenanthrene-d10	188	21.414	21.415	(1.000)	728381	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.971	23.961	(0.923)	795150	46.6644	98
63 bis(2-Ethylhexyl)phthalate	149	25.797	25.798	(0.994)	9136	0.48222	1.0
* 81 Chrysene-d12	240	25.958	25.960	(1.000)	838013	40.0000	
* 84 Perylene d12	264	30.320	30.322	(1.000)	751934	40.0000	

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7536.d
Date : 05-JUN-2002 04:50
Client ID: MW141
Sample Info: 351691;950;2;1;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53

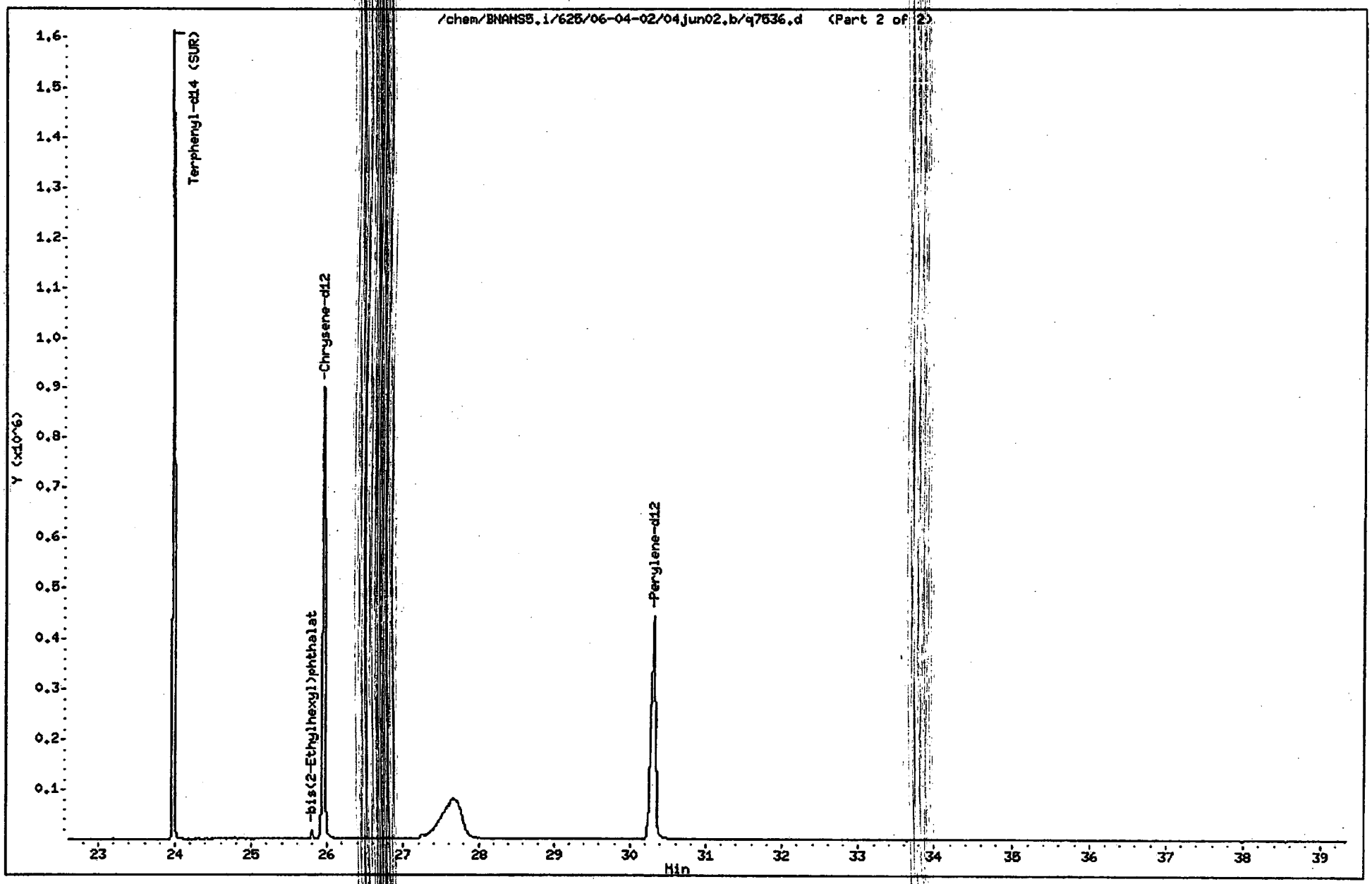


125

W671

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7536.d
Date : 05-JUN-2002 04:50
Client ID: MW14I
Sample Info: 351691;950;2;1;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAHS5.i
Operator: BNAHS 5
Column diameter: 0.53



126

W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7536.d

Date : 05-JUN-2002 04:50

Client ID: MW14I

Instrument: BNAMS5.i

Sample Info: 351691;950;2;1;

Purge Volume: 950.0

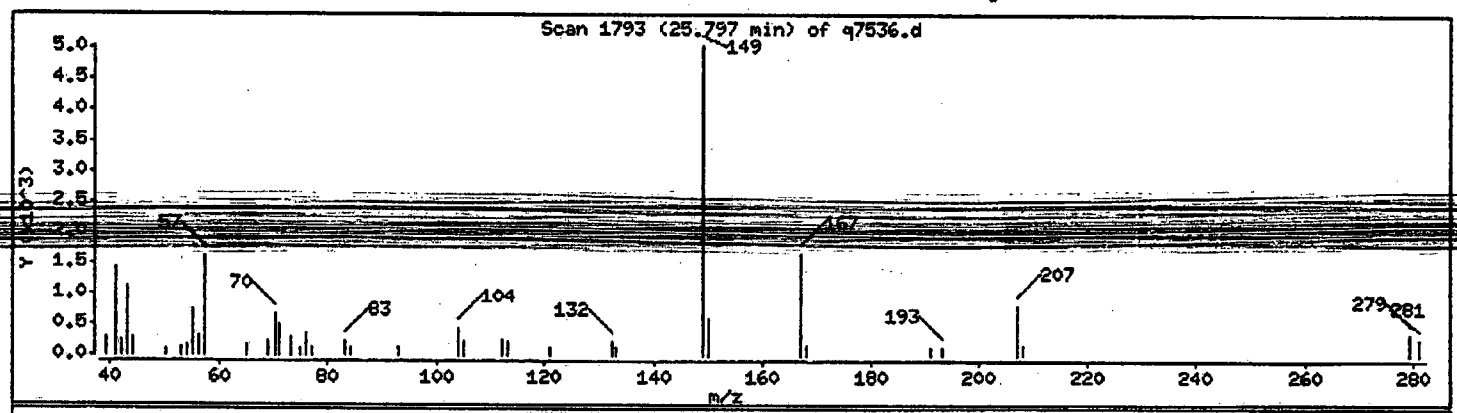
Operator: BNAMS 5

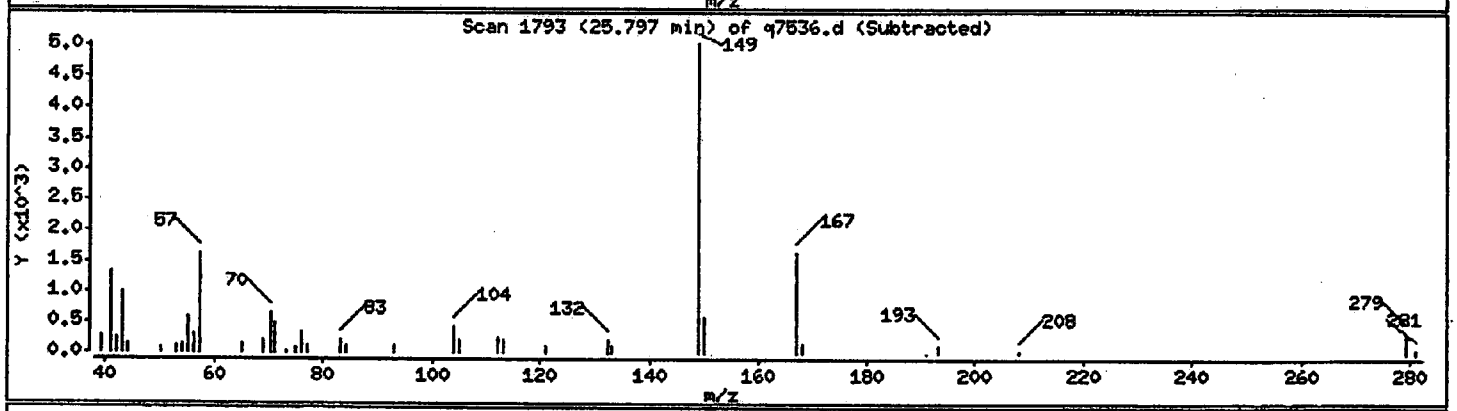
Column phase: DB-5

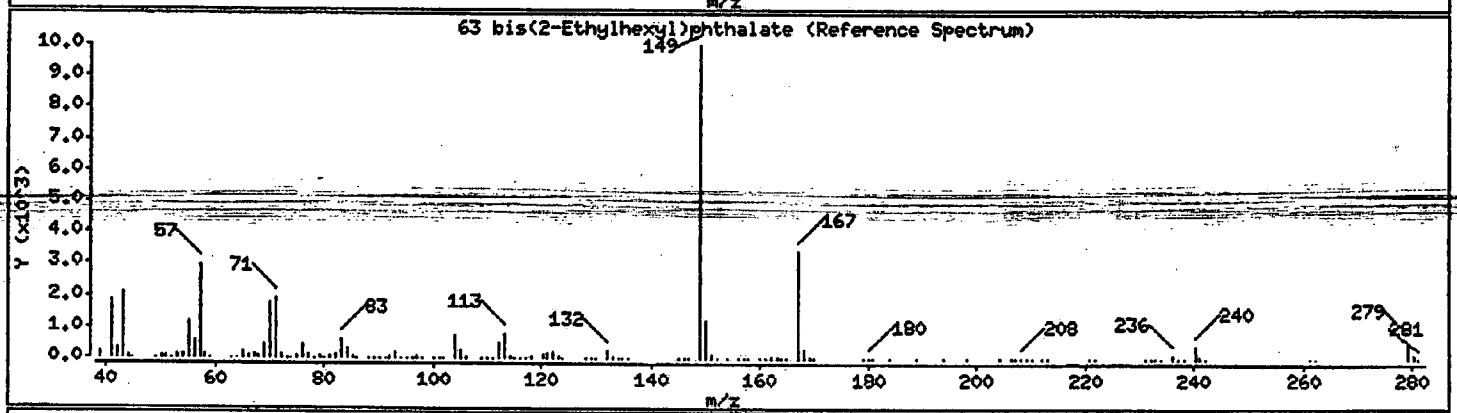
Column diameter: 0.53

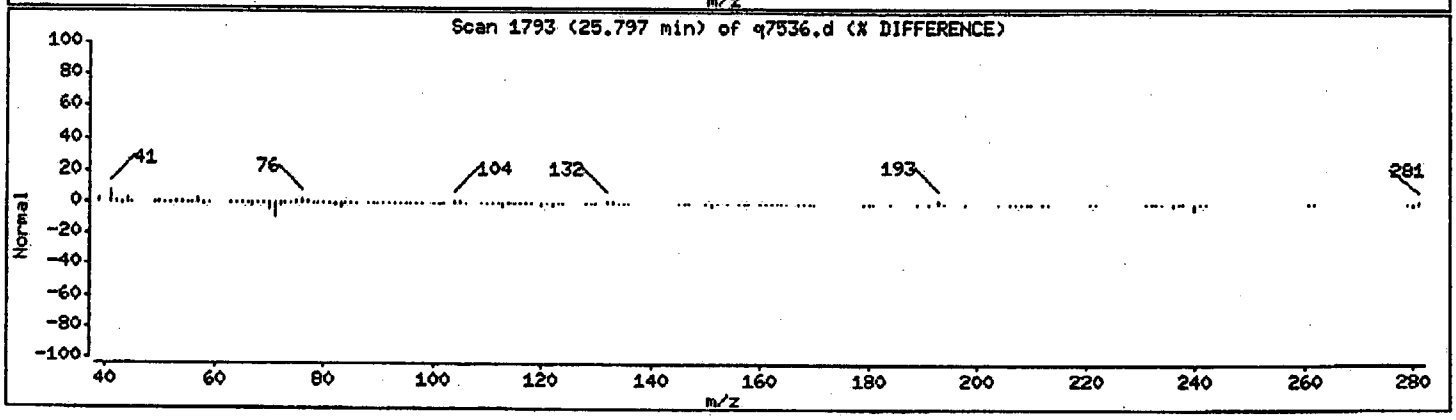
63 bis(2-Ethylhexyl)phthalate

Concentration: 1.0 ug/L









Client ID: **MW14S**
Site: L.E. Carpenter

Lab Sample No: **351692**
Lab Job No: W671

Date Sampled: 05/21/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7537.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	0.7 B	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7537.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7537.d
Lab Smp Id: 351692 Client Smp ID: MW14S
Inj Date : 05-JUN-2002 05:38
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351692;970;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
Meth Date : 05-Jun-2002 11:20 ferdie, Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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	970.00000	Volume of sample extracted (mL)

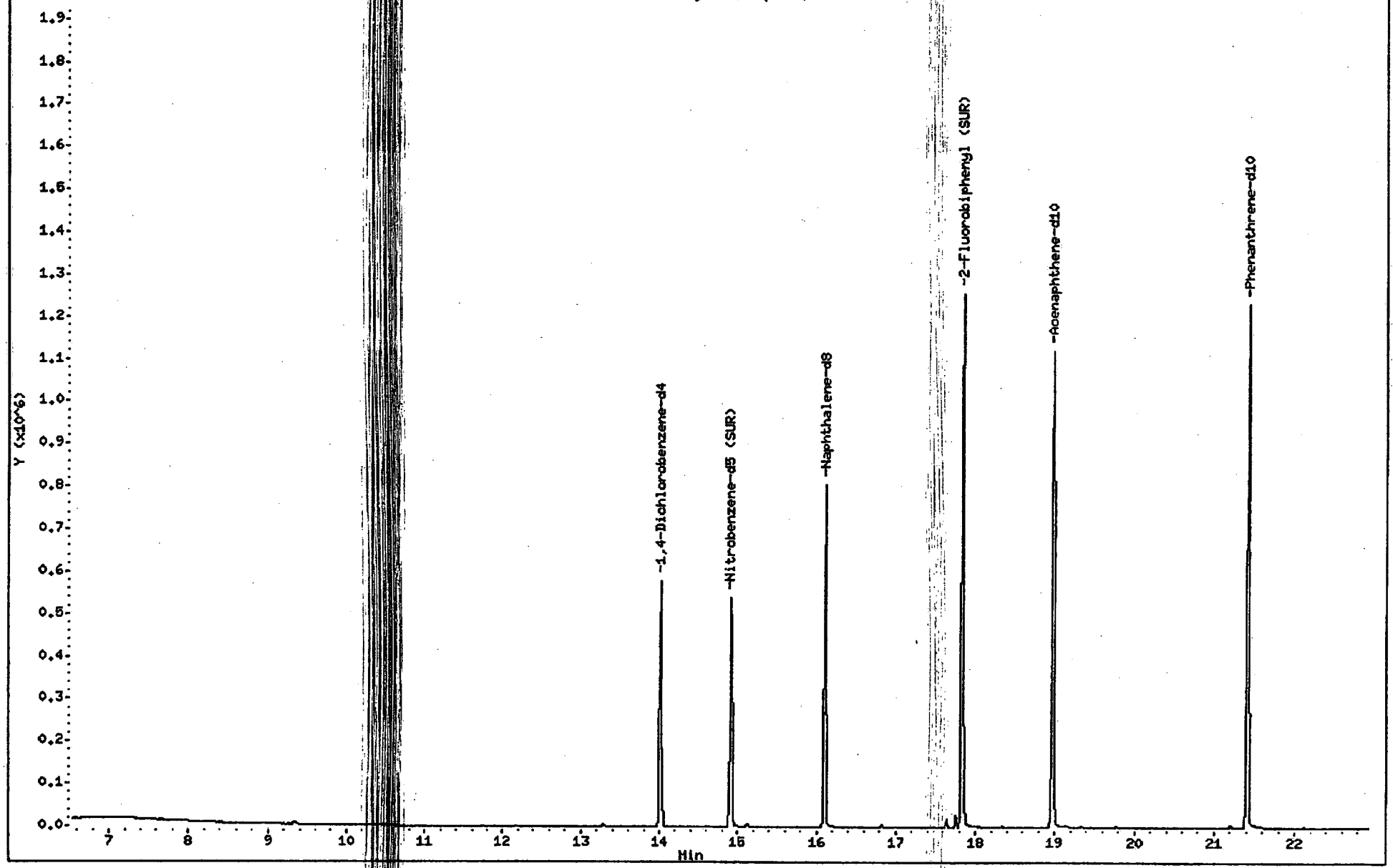
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.012	14.002	(1.000)	147830	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.914	14.904	(0.926)	238820	48.6801	100
* 80 Naphthalene-d8	136	16.107	16.108	(1.000)	568981	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.836	17.827	(0.940)	560189	44.6634	92
* 82 Acenaphthene-d10	164	18.975	18.976	(1.000)	392605	40.0000	
* 83 Phenanthrene-d10	188	21.414	21.415	(1.000)	820084	40.0000	
$ 78 Terphenyl d14 (SUR)	244	23.971	23.961	(0.923)	947042	48.4318	100
63 bis(2 Ethylhexyl)phthalate	149	25.797	25.798	(0.994)	6997	0.32183	0.66
* 81 Chrysene-d12	240	25.958	25.960	(1.000)	961670	40.0000	
* 84 Perylene-d12	264	30.320	30.322	(1.000)	878354	40.0000	

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7537.d
Date : 05-JUN-2002 05:38
Client ID: MW14S
Sample Info: 351692;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS5.i
Operator: BNAHS 5
Column diameter: 0.53

/chem/BNAHS5.i/625/06-04-02/04jun02.b/q7537.d (Part 1 of 2)



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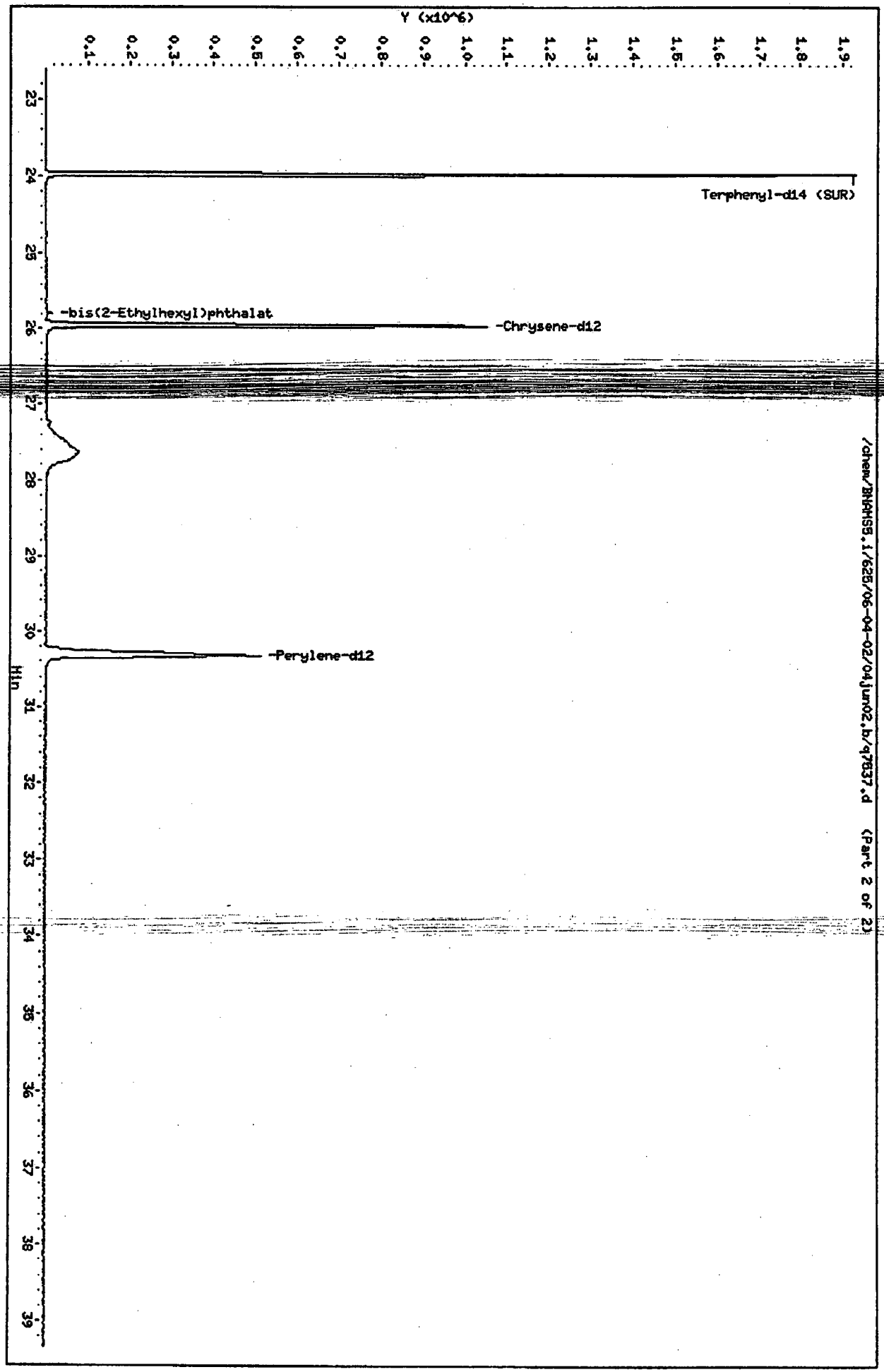
W671

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7537.d
Date : 05-JUN-2002 05:38
Client ID: HW14S
Sample Info: 3516921970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS5.i
Operator: BNAHS 5
Column diameter: 0.53



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Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7537.d

Date : 05-JUN-2002 05:38

Client ID: MW14S

Instrument: BNAMS5.i

Sample Info: 351692:970:2:1:

Purge Volume: 970.0

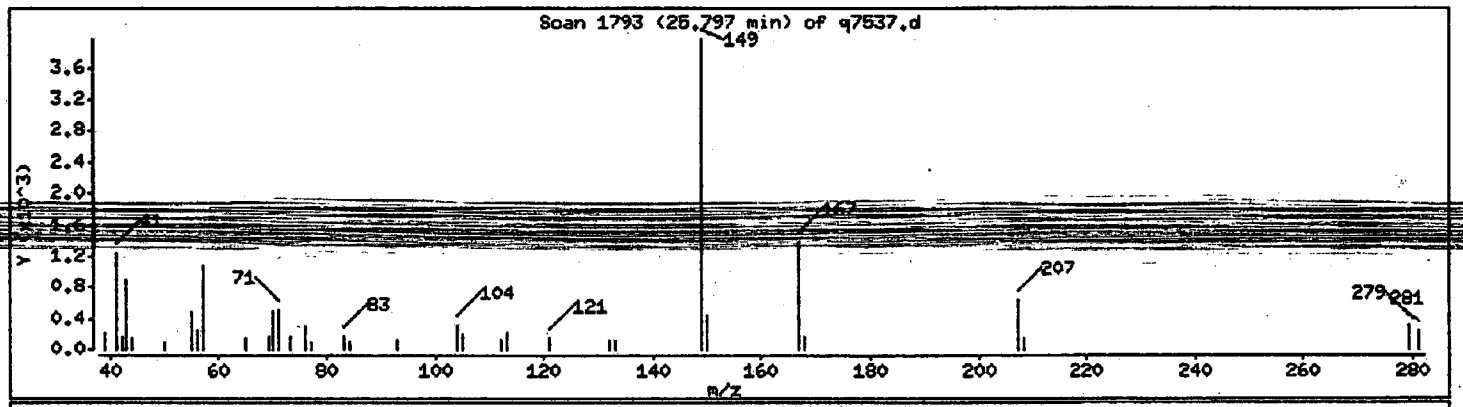
Operator: BNAMS 5

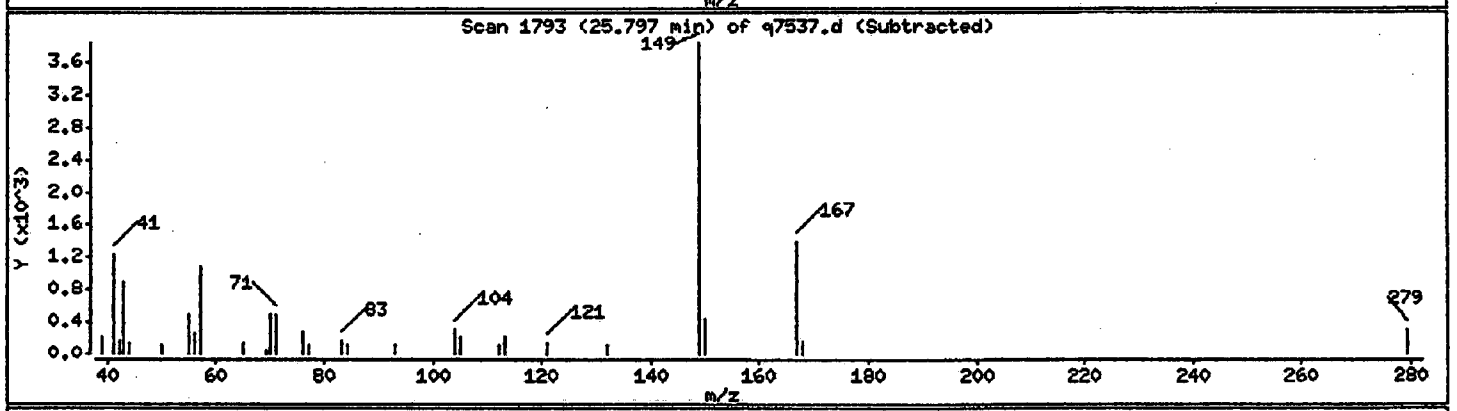
Column phase: DB-5

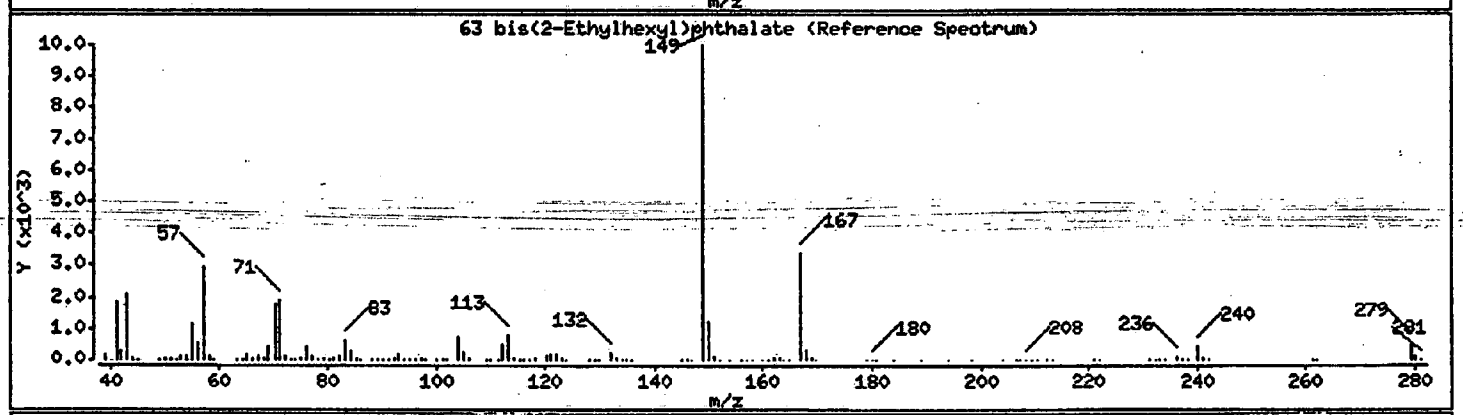
Column diameter: 0.53

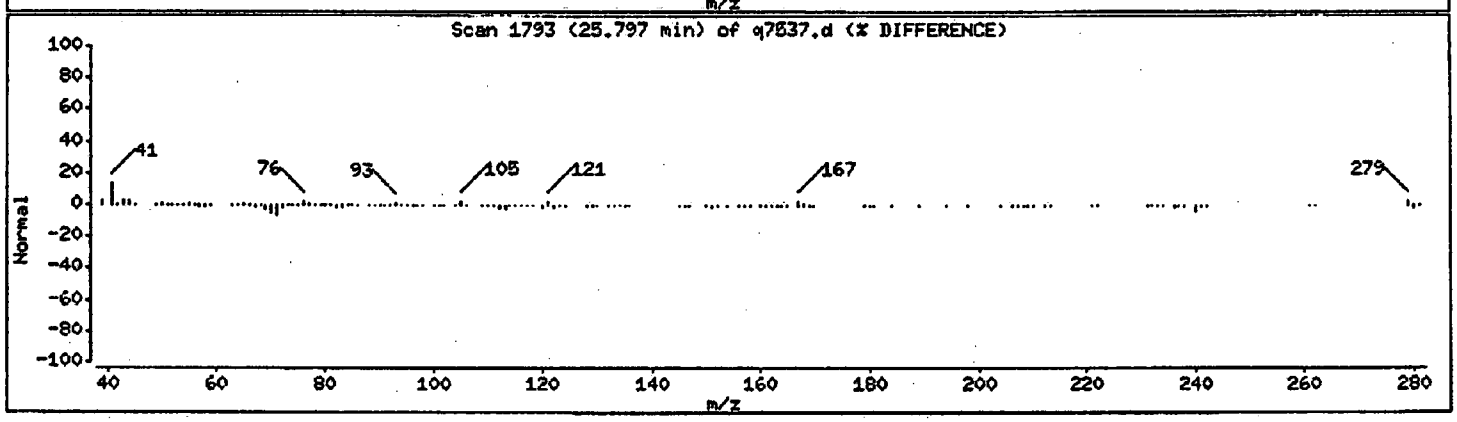
63 bis(2-Ethylhexyl)phthalate

Concentration: 0.66 ug/L









Client ID: **RINSATE01**
Site: L.E. Carpenter

Lab Sample No: **351693**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7538.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	3.4 B	0.4

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7538.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7538.d
Lab Smp Id: 351693 Client Smp ID: RINSATE01
Inj Date : 05-JUN-2002 06:26
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351693;1000;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
~~Meth Date : 05-Jun-2002 11:20 Jerdile Quant Type: ISTD~~
~~Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d~~
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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)

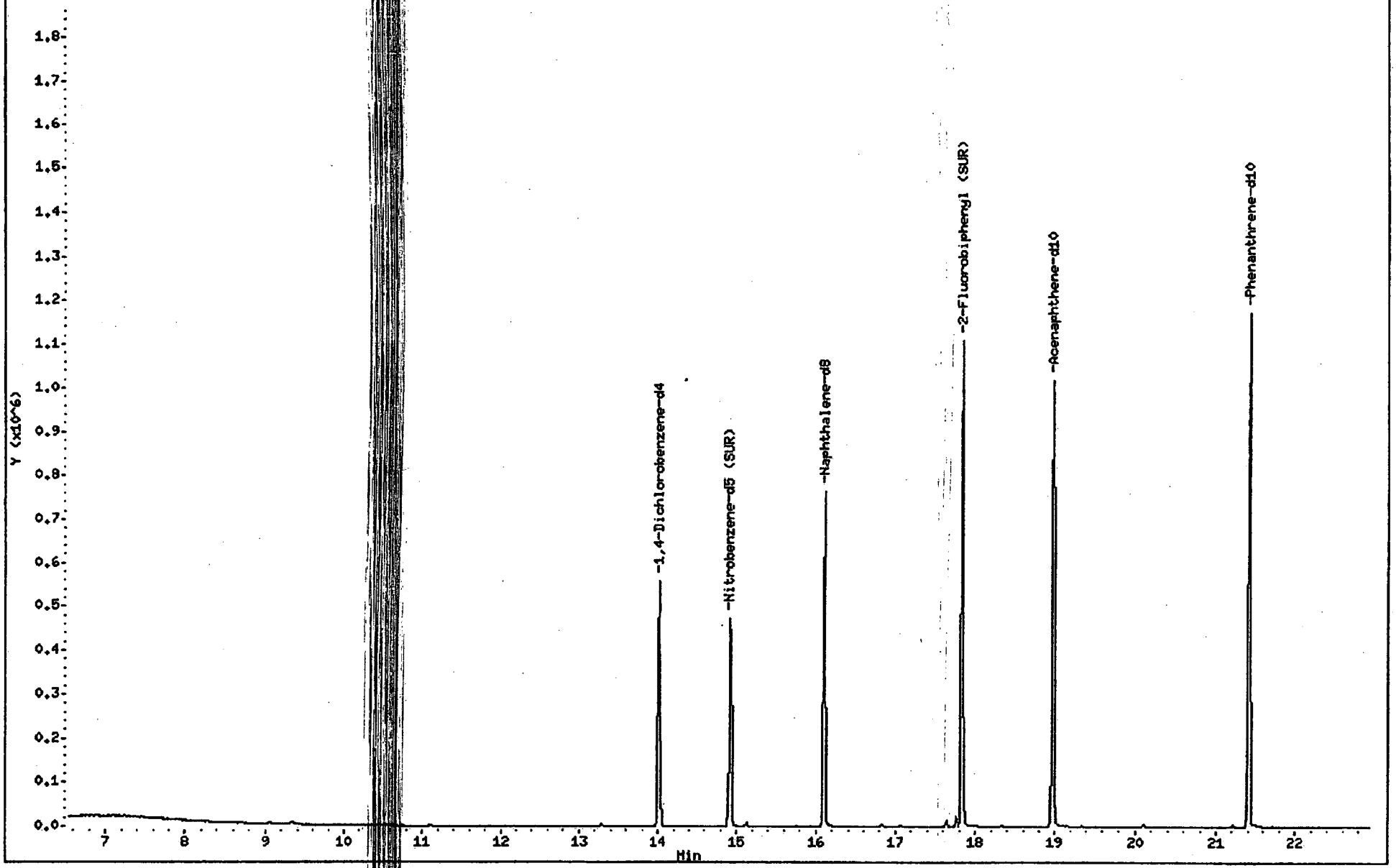
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.010	14.002	(1.000)	142744	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.912	14.904	(0.926)	209626	44.8903	90
* 80 Naphthalene-d8	136	16.105	16.108	(1.000)	541591	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.835	17.827	(0.940)	499355	43.0864	86
* 82 Acenaphthene-d10	164	18.974	18.976	(1.000)	362779	40.0000	
* 83 Phenanthrene-d10	188	21.412	21.415	(1.000)	750515	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.980	23.961	(0.924)	938562	52.3858	100
63 bis(2-Ethylhexyl)phthalate	149	25.796	25.798	(0.994)	34282	1.72094	3.4
* 81 Chrysene-d12	240	25.957	25.960	(1.000)	881124	40.0000	
* 84 Perylene-d12	264	30.319	30.322	(1.000)	821851	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7538.d
Date : 05-JUN-2002 06:26
Client ID: RINSATE01
Sample Info: 351693;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/04jun02.b/q7538.d (Part 1 of 2)



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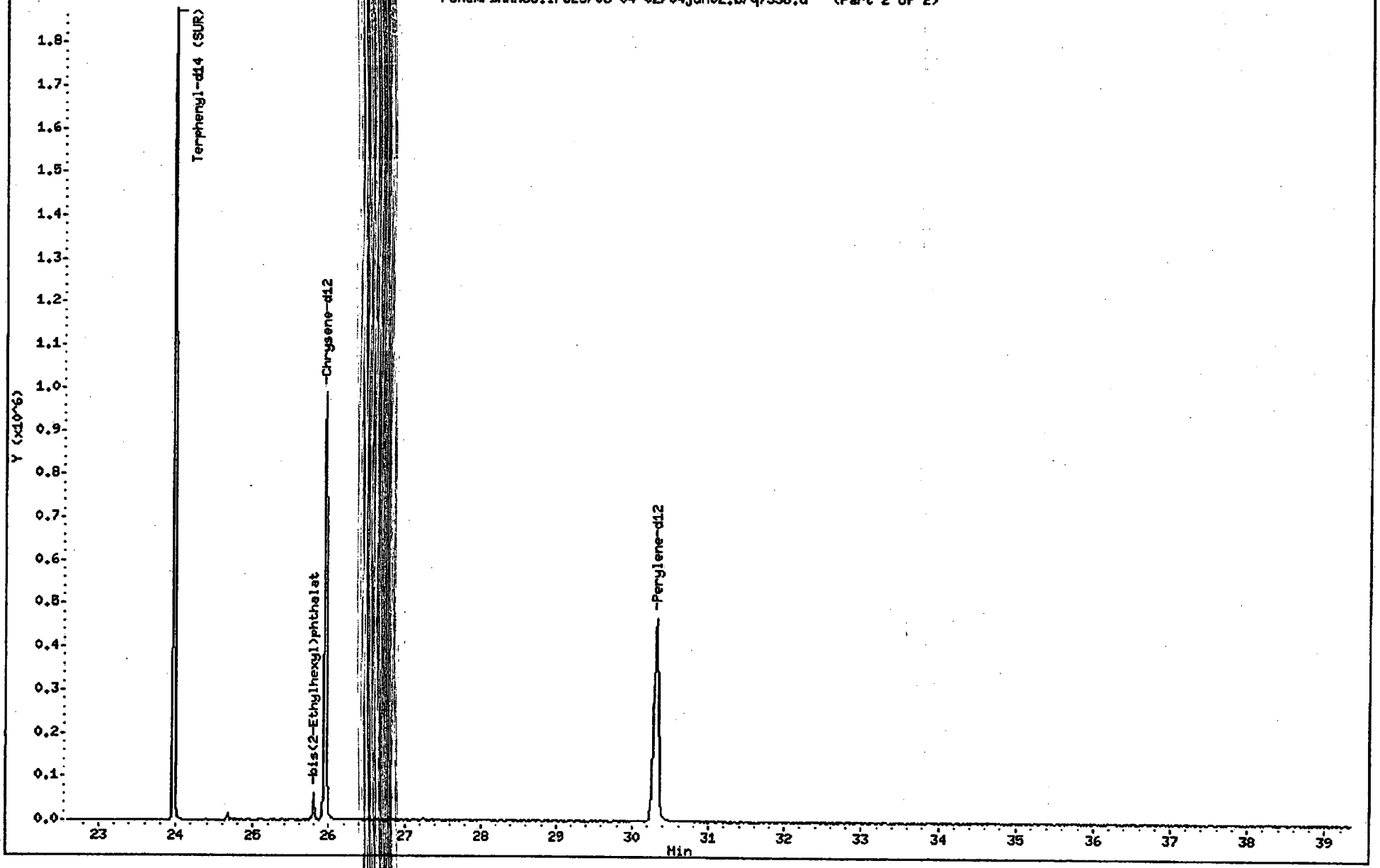
Date : 05-JUN-2002 06:26
Client ID: RINSATE01
Sample Info: 351693;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/04jun02.b/q7538.d (Part 2 of 2)



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7538.d

Date : 05-JUN-2002 06:26

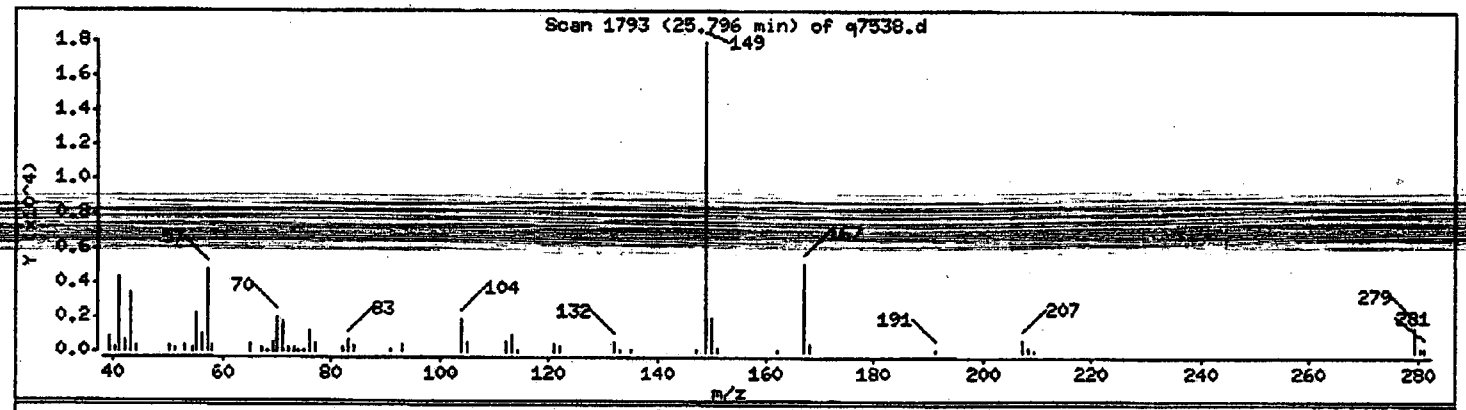
Client ID: RINSATE01 | Instrument: BNAMS5.i

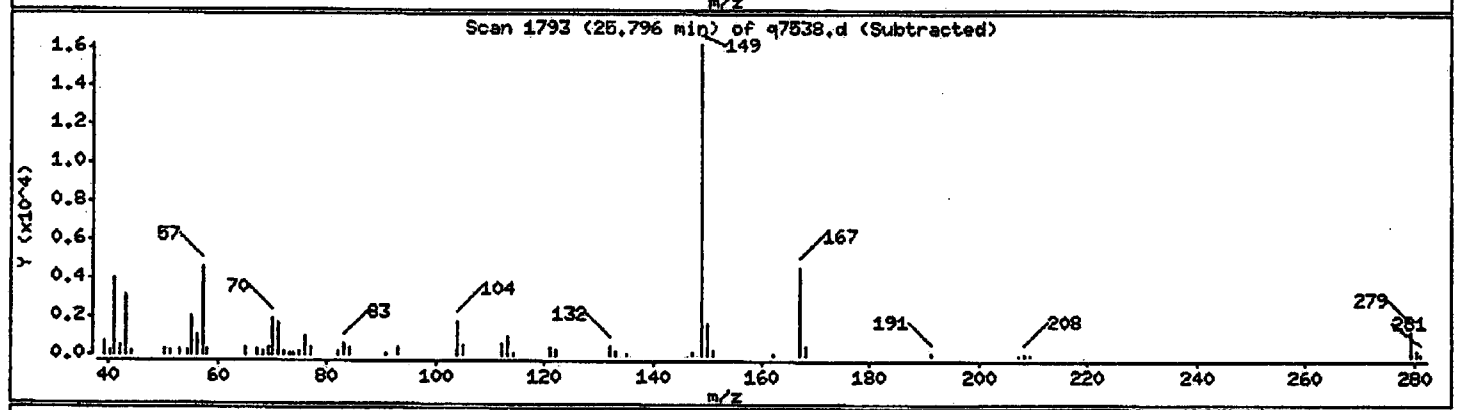
Sample Info: 351693;1000;2;1;

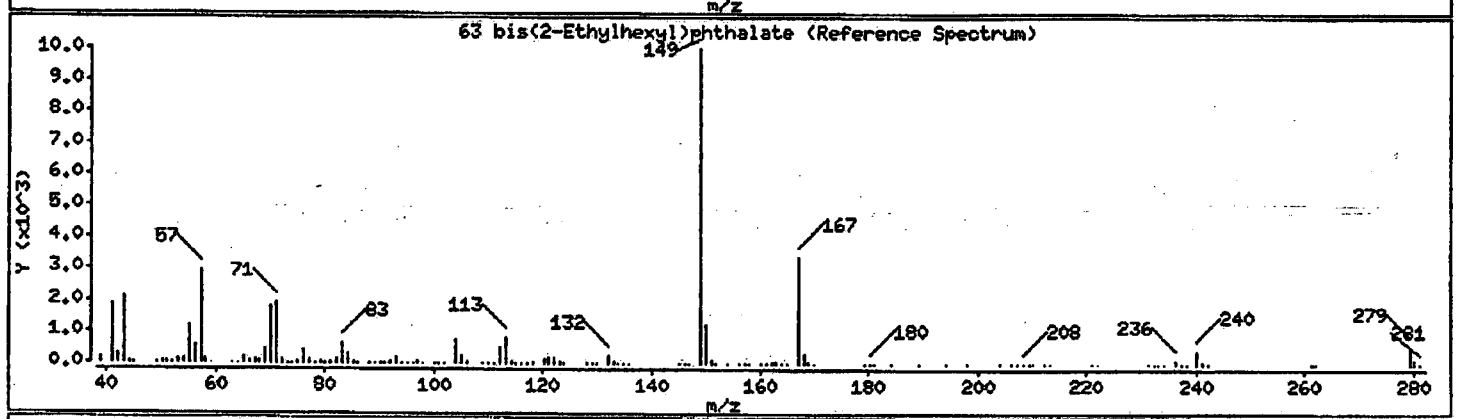
Purge Volume: 1000.0 | Operator: BNAMS 5

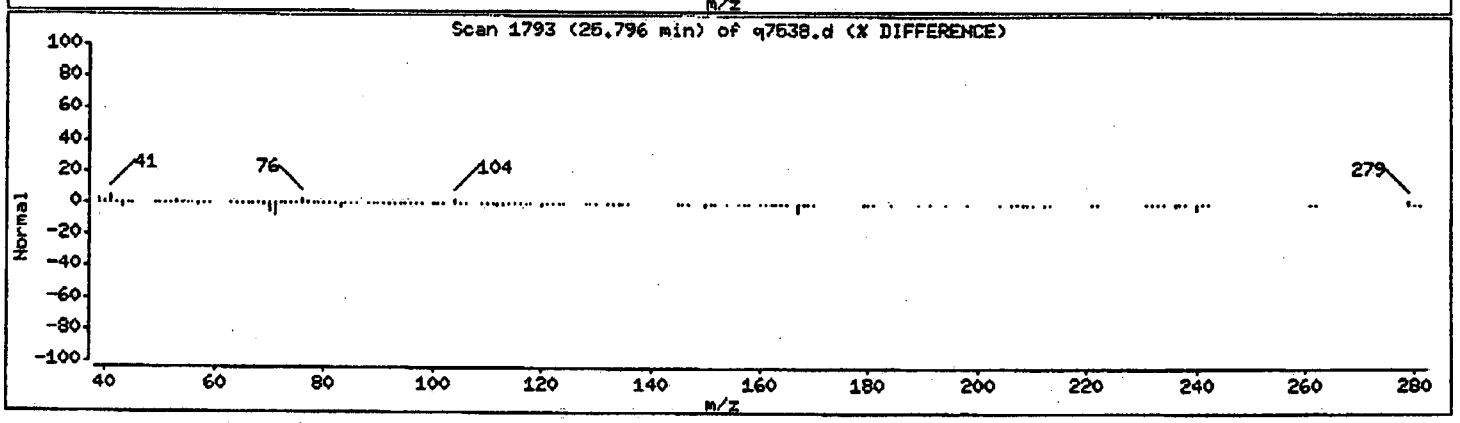
Column phase: DB-5 | Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate | Concentration: 3.4 ug/L









Client ID: **DUP01**
Site: L.E. Carpenter

Lab Sample No: **351694**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7554.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 10.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	950	4.4

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7554.d
Report Date: 06-Jun-2002 10:41

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7554.d
Lab Smp Id: 351694 Client Smp ID: DUP01
Inj Date : 05-JUN-2002 19:15
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351694;1000;2;10;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/05jun02.b/bna625b.m
Meth Date : 06-Jun-2002 09:37 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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

Name	Value	Description
DF	10.00000	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	14.052	14.041	(1.000)	109960	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.954	14.955	(0.926)	15475	4.31090	86(a)
* 80 Naphthalene-d8	136	16.147	16.136	(1.000)	416333	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.866	17.866	(0.940)	41402	4.60263	92(a)
* 82 Acenaphthene-d10	164	19.015	19.005	(1.000)	281571	40.0000	
* 83 Phenanthrene-d10	188	21.443	21.454	(1.000)	578099	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	24.000	24.011	(0.923)	62375	4.52486	90(a)
63 bis(2-Ethylhexyl)phthalate	149	25.859	25.859	(0.994)	727439	47.4612	950
* 81 Chrysene-d12	240	26.009	26.020	(1.000)	677943	40.0000	
* 84 Perylene-d12	264	30.414	30.425	(1.000)	701155	40.0000	

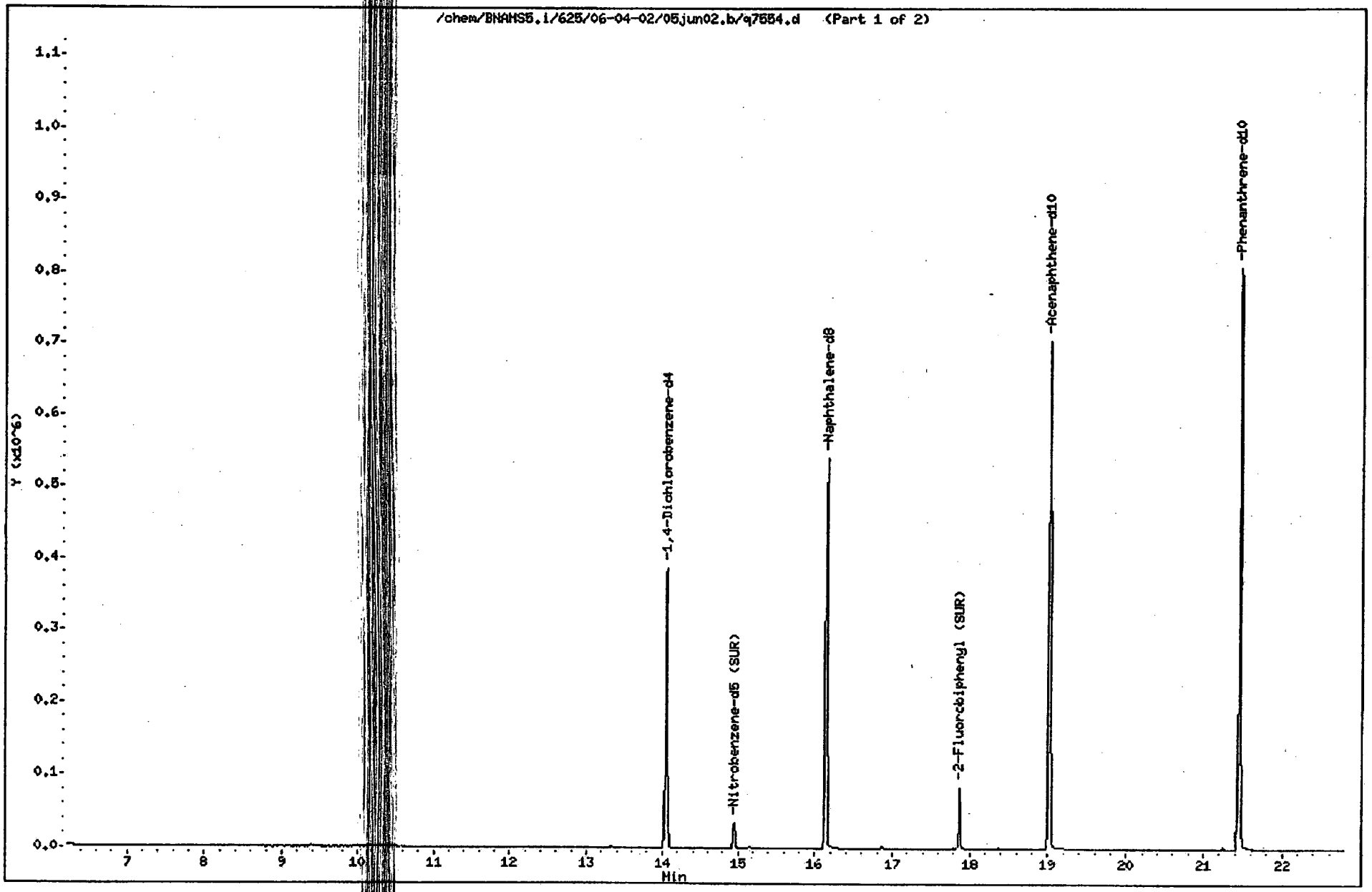
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7554.d
Date : 05-JUN-2002 19:15
Client ID: DUP01
Sample Info: 351694;1000;2;10;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



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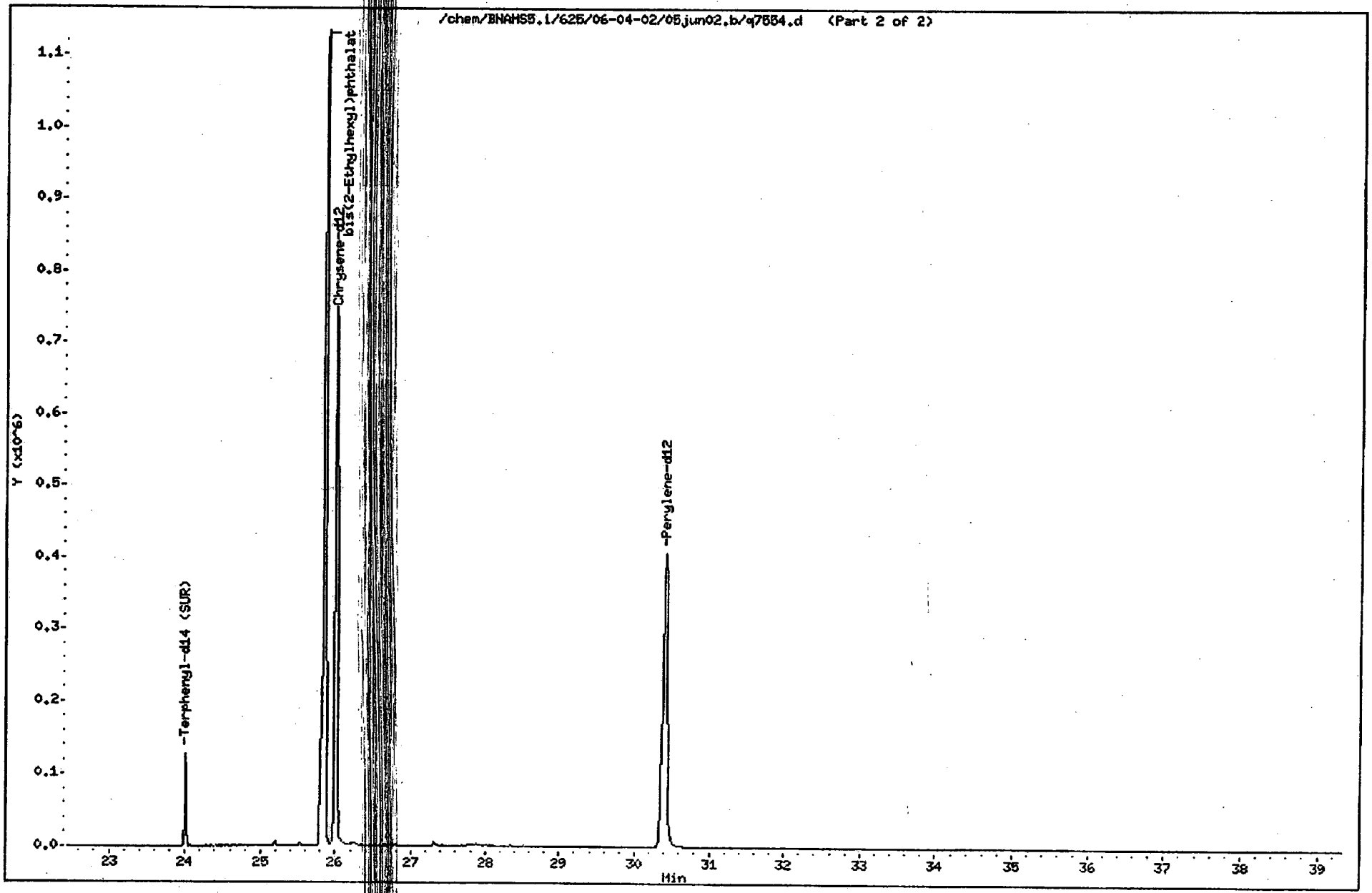
W671

Data File: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7554.d
Date : 05-JUN-2002 19:15
Client ID: DUP01
Sample Info: 351694;1000;2;10;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7554.d

Date : 05-JUN-2002 19:15

Client ID: DUP01

Instrument: BNAMS5.i

Sample Info: 351694:1000:2:10:

Purge Volume: 1000.0

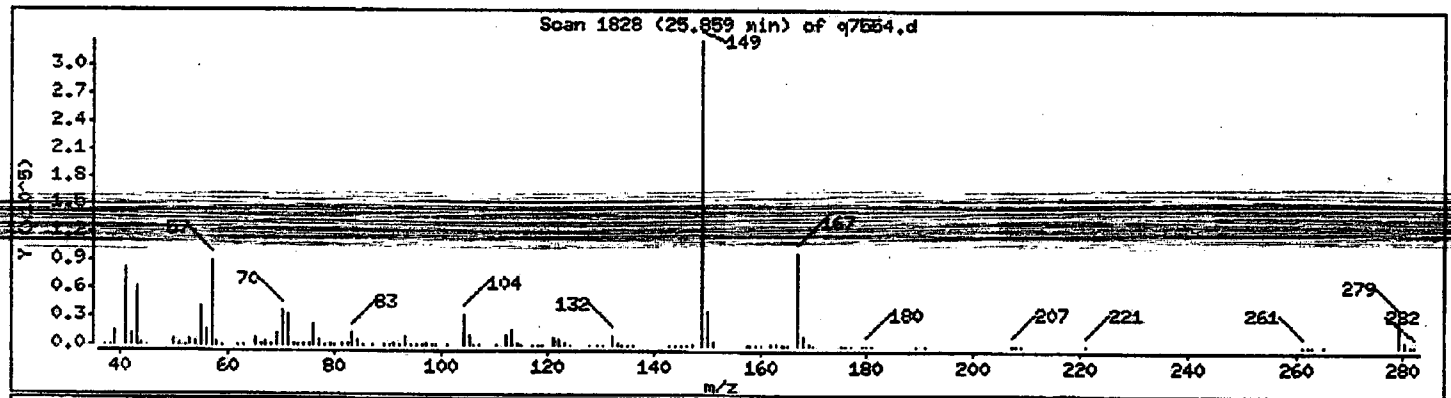
Operator: BNAMS 5

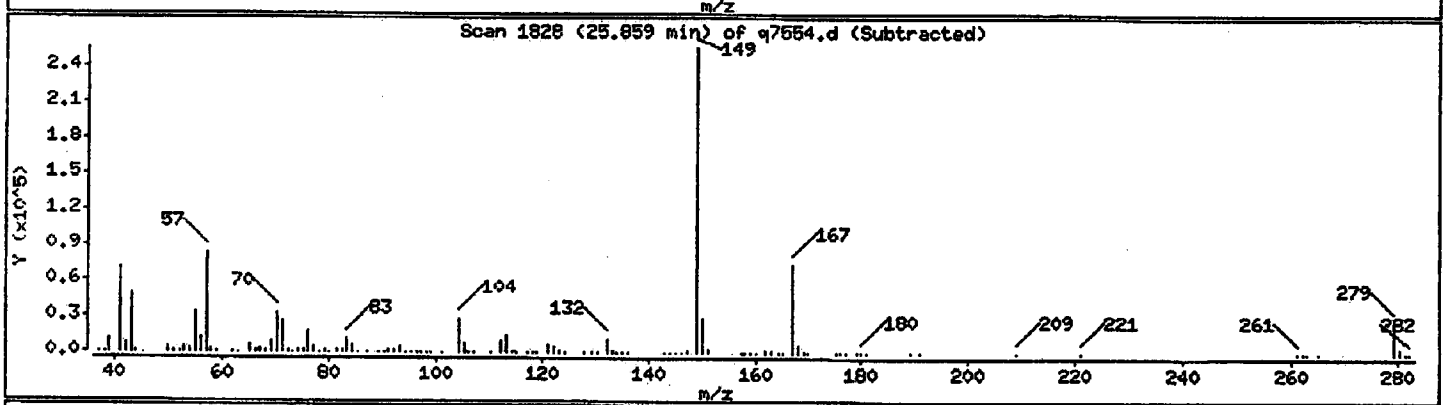
Column phase: DB-5

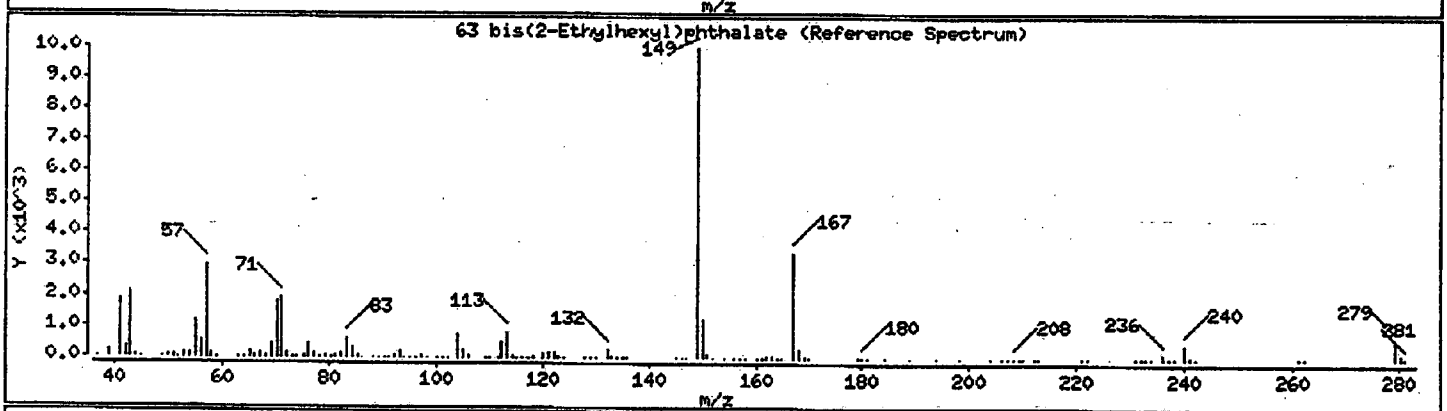
Column diameter: 0.53

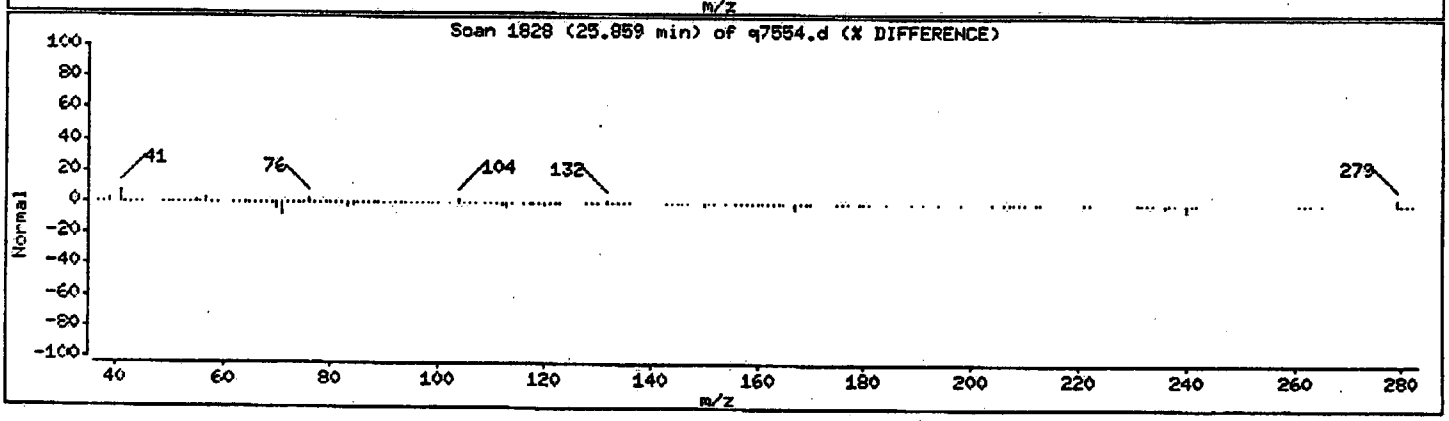
63 bis(2-Ethylhexyl)phthalate

Concentration: 950 ug/L









Client ID: **MW22**
Site: L.E. Carpenter

Lab Sample No: **351695**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7540.d

Matrix: WATER
Level: LOW
Sample Volume: 930 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	21	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7540.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7540.d
Lab Smp Id: 351695 Client Smp ID: MW22
Inj Date : 05-JUN-2002 08:03
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351695;930;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
Meth Date : 05-Jun-2002 11:20 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE JR Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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	930.00000	Volume of sample extracted (mL)

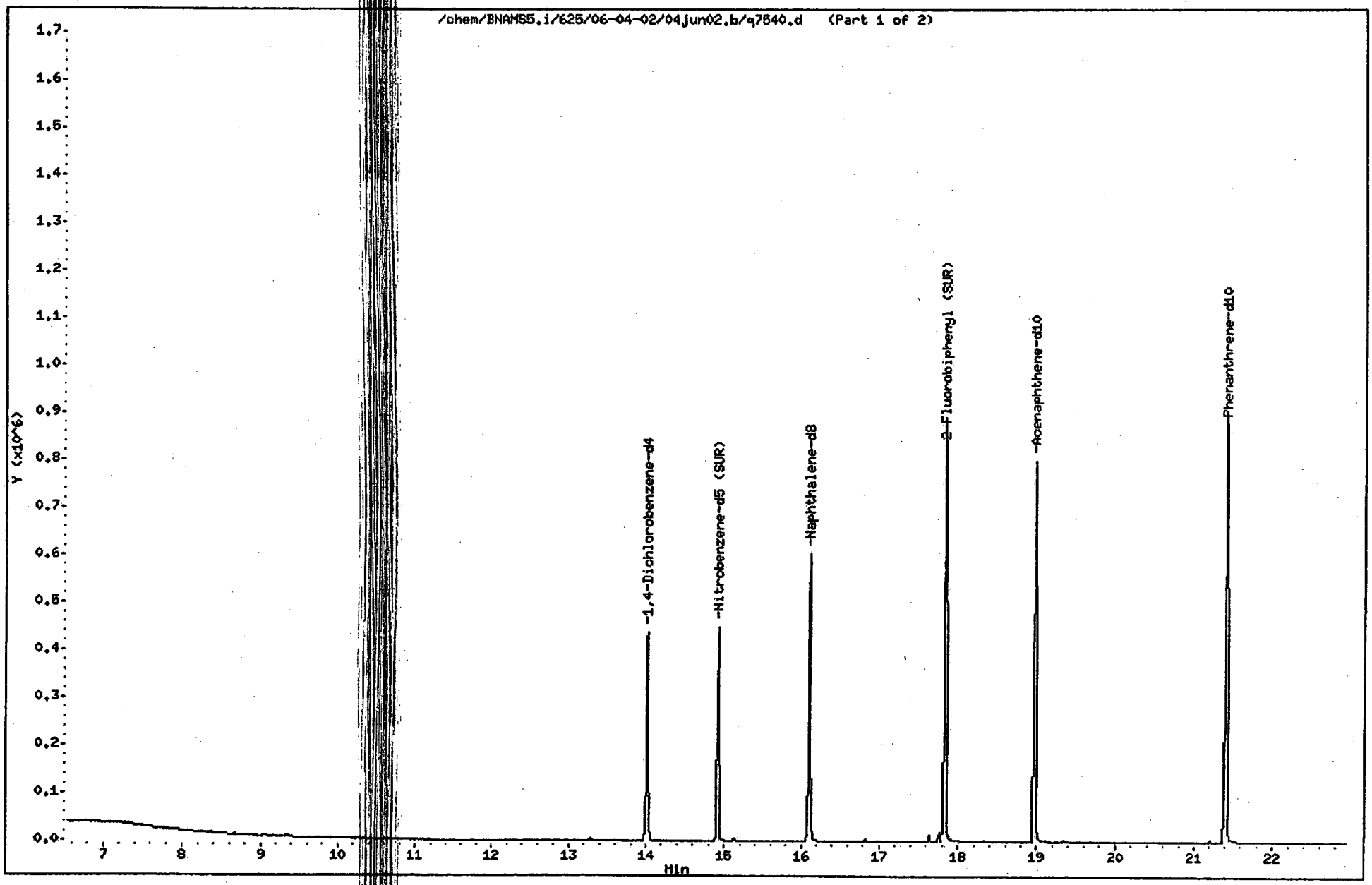
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.014	14.002	(1.000)	119179	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.917	14.904	(0.926)	174206	44.1824	95
* 80 Naphthalene-d8	136	16.109	16.108	(1.000)	457291	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.839	17.827	(0.940)	429036	44.2285	95
* 82 Acenaphthene-d10	164	18.978	18.976	(1.000)	303644	40.0000	
* 83 Phenanthrene-d10	188	21.417	21.415	(1.000)	631929	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.974	23.961	(0.924)	788166	51.3946	110
63 bis(2-Ethylhexyl)phthalate	149	25.800	25.798	(0.994)	169813	9.95907	21
* 81 Chrysene-d12	240	25.951	25.960	(1.000)	754202	40.0000	
* 84 Perylene-d12	264	30.323	30.322	(1.000)	716584	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7540.d
Date : 05-JUN-2002 08:03
Client ID: MW22
Sample Info: 351695;930;2;1;
Purge Volume: 930.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



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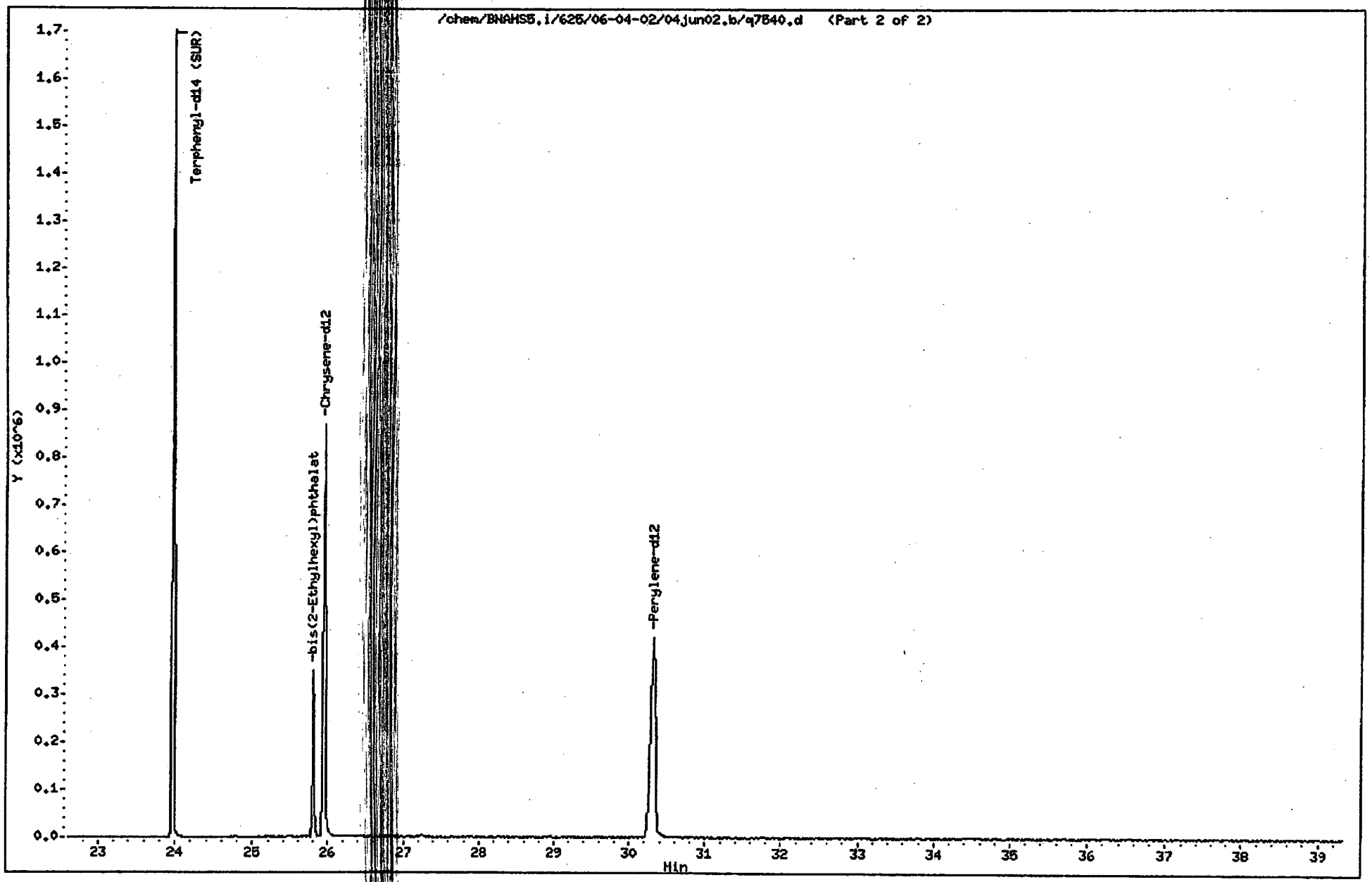
W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7540.d
Date : 05-JUN-2002 08:03
Client ID: MW22
Sample Info: 351695;930;2;1;
Purge Volume: 930.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7540.d

Date : 05-JUN-2002 08:03

Client ID: MW22

Instrument: BNAMS5.i

Sample Info: 351695;930;2;1;

Purge Volume: 930.0

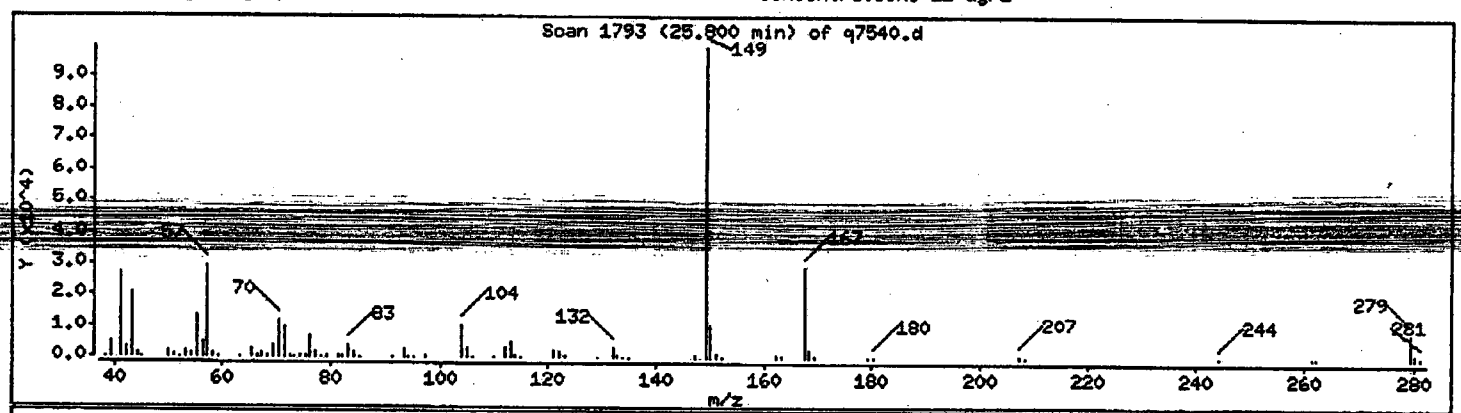
Operator: BNAMS 5

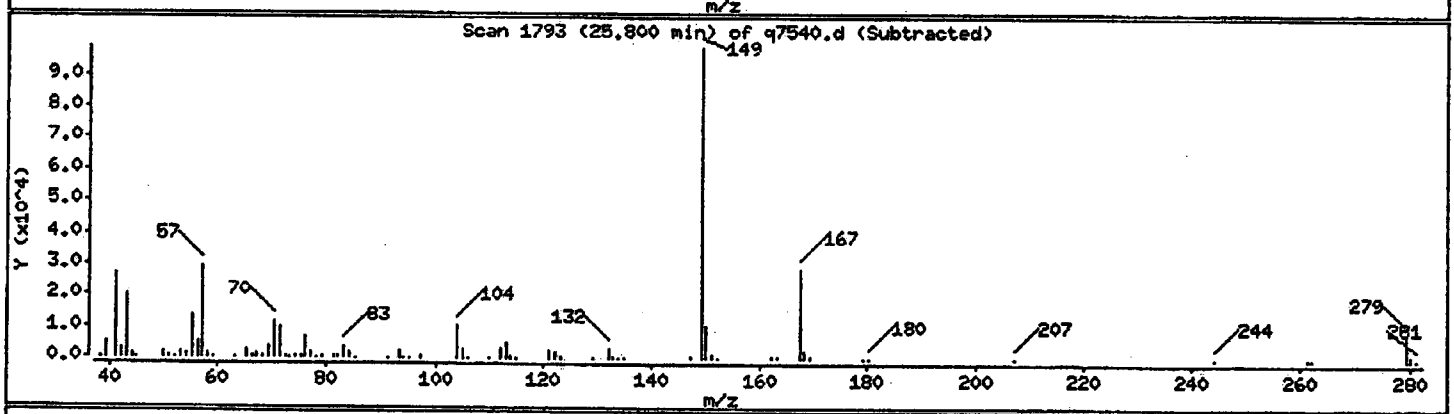
Column phase: DB-5

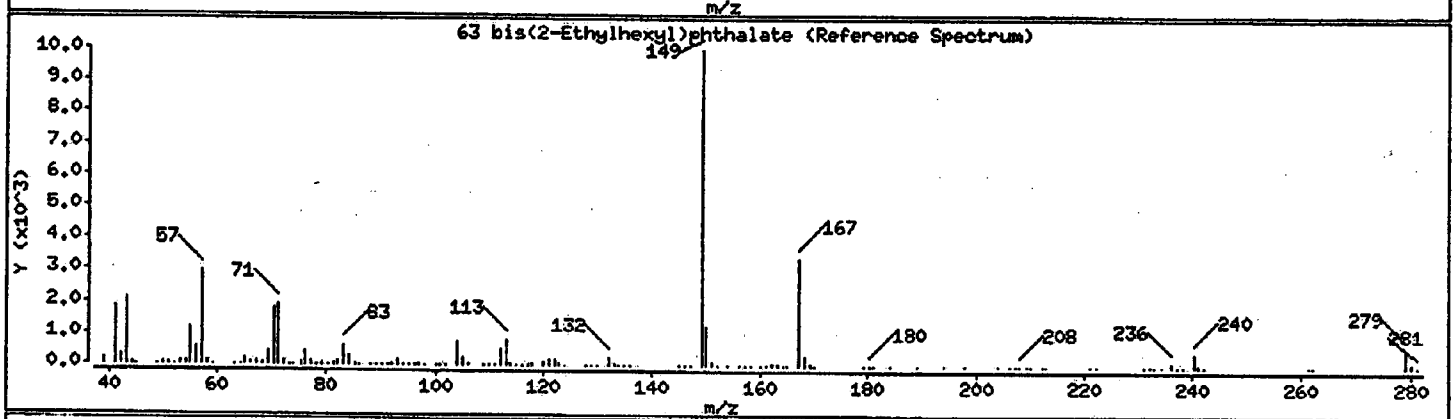
Column diameter: 0.53

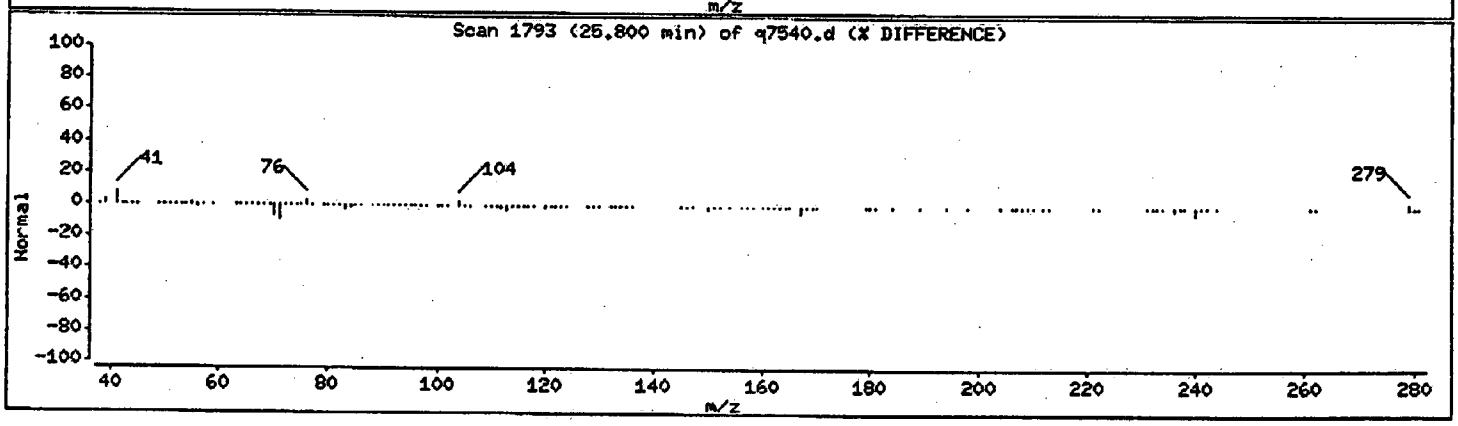
63 bis(2-Ethylhexyl)phthalate

Concentration: 21 ug/L









Client ID: **MW25**
Site: L.E. Carpenter

Lab Sample No: **351696**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7555.d

Matrix: WATER
Level: LOW
Sample Volume: 940 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	1.1 B	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7555.d
Report Date: 06-Jun-2002 10:41

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7555.d
Lab Smp Id: 351696 Client Smp ID: MW25
Inj Date : 05-JUN-2002 20:03
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351696;940;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/05jun02.b/bna625b.m
Meth Date : 06-Jun-2002 09:37 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50 Compound Sublist: W671.sub
Processing Host: hpd1

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	940.00000	Volume of sample extracted (mL)

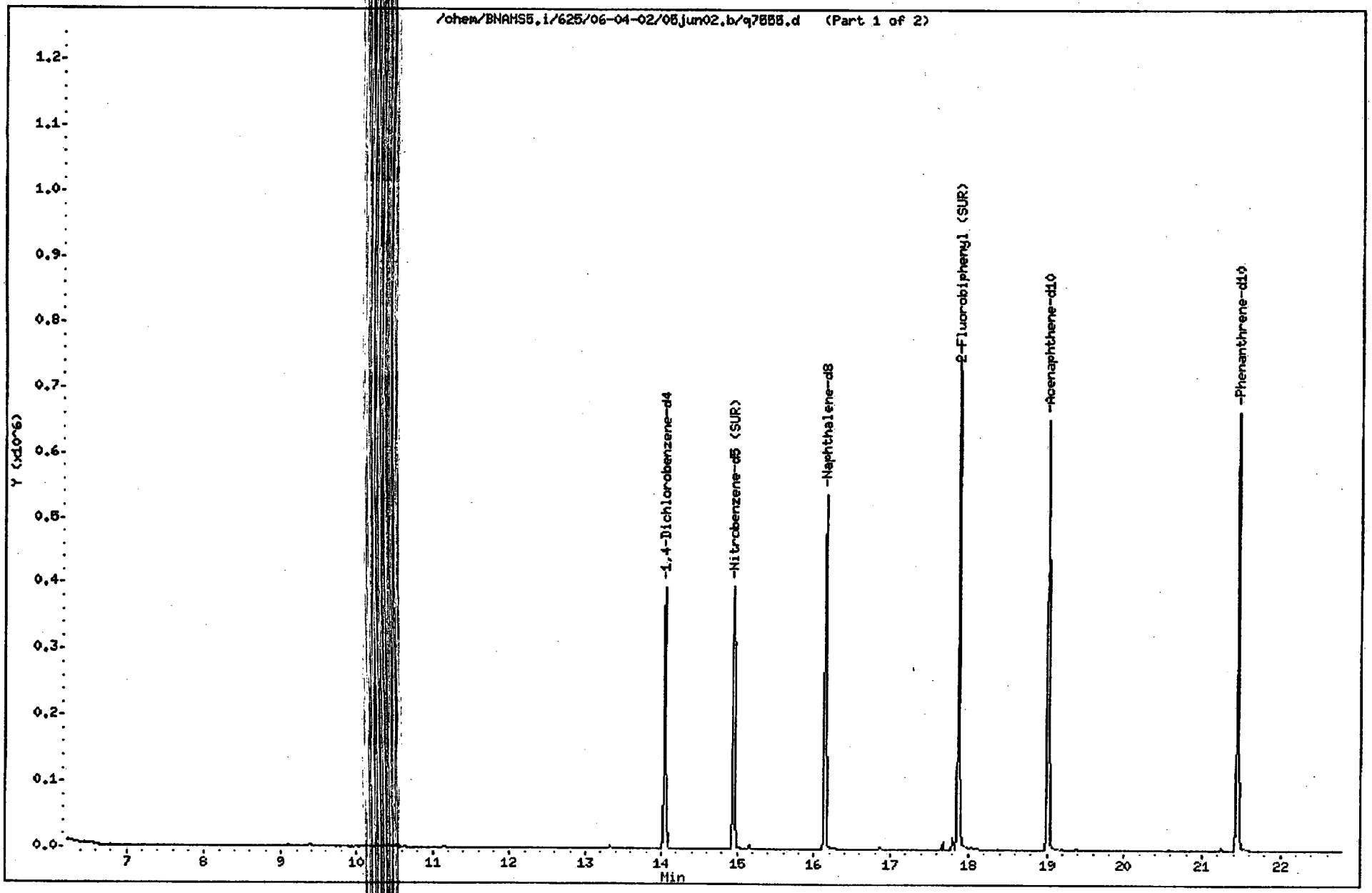
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.051	14.041	(1.000)	107245	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.953	14.955	(0.926)	169855	49.0528	100
* 80 Naphthalene-d8	136	16.146	16.136	(1.000)	401599	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.875	17.866	(0.940)	384817	48.1243	100
* 82 Acenaphthene-d10	164	19.014	19.005	(1.000)	250301	40.0000	
* 83 Phenanthrene-d10	188	21.453	21.454	(1.000)	475127	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	24.010	24.011	(0.924)	557291	44.2953	94
63 bis(2 Ethylhexyl)phthalate	149	25.847	25.859	(0.994)	7559	0.54037	1.1
* 81 Chrysene-d12	240	25.998	26.020	(1.000)	618746	40.0000	
* 84 Perylene-d12	264	30.413	30.425	(1.000)	655078	40.0000	

Data File: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7555.d
Date : 05-JUN-2002 20:03
Client ID: MW25
Sample Info: 351696;940;2;1;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53



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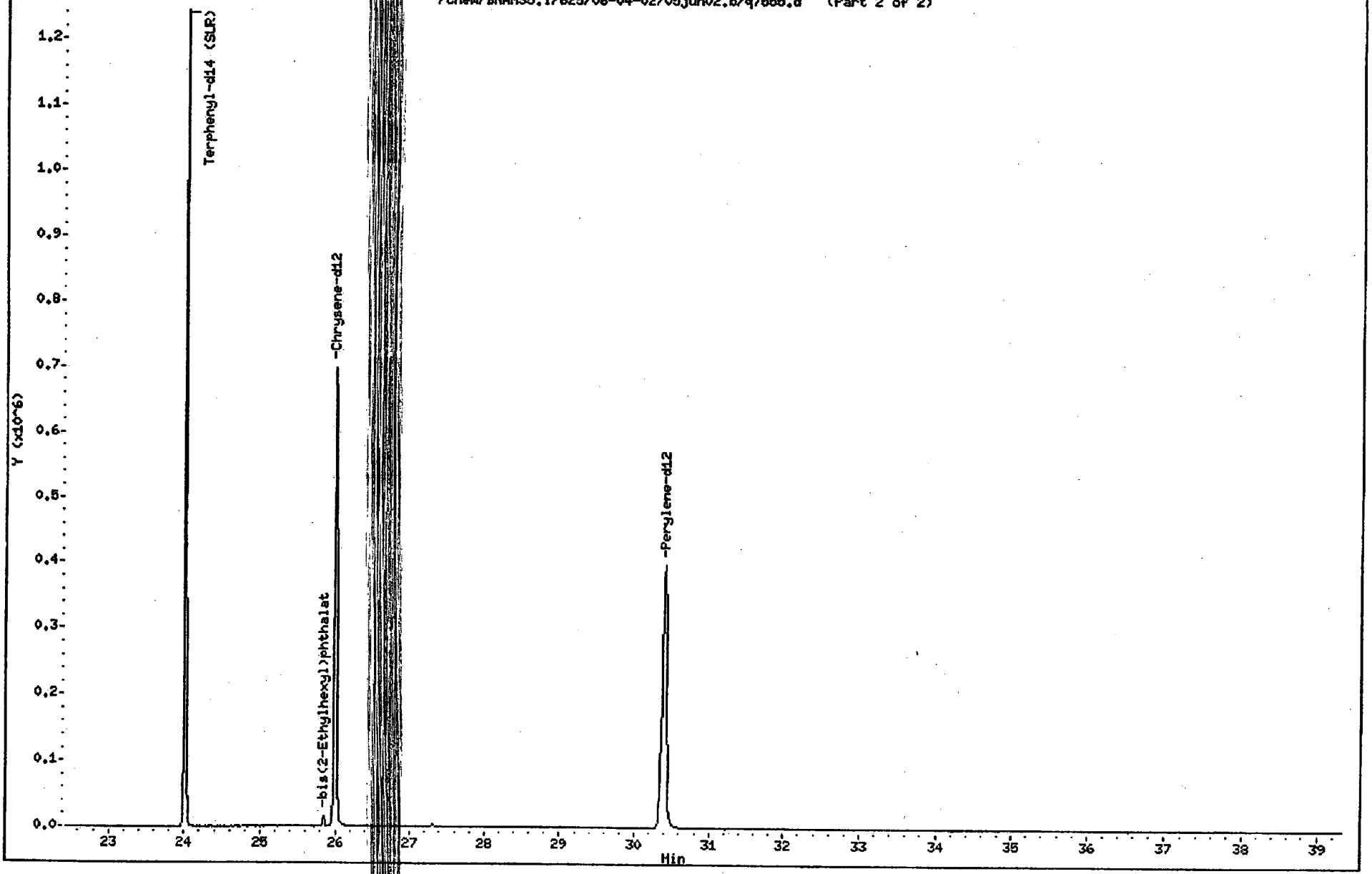
W671

Data File: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7555.d
Date : 05-JUN-2002 20:03
Client ID: MW25
Sample Info: 351696;940;2;1;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53

/chem/BNAHS5.i/625/06-04-02/05jun02.b/q7555.d (Part 2 of 2)



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W671

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7555.d

Date : 05-JUN-2002 20:03

Client ID: MW25

Instrument: BNAMS5.i

Sample Info: 351696;940;2;1;

Purge Volume: 940.0

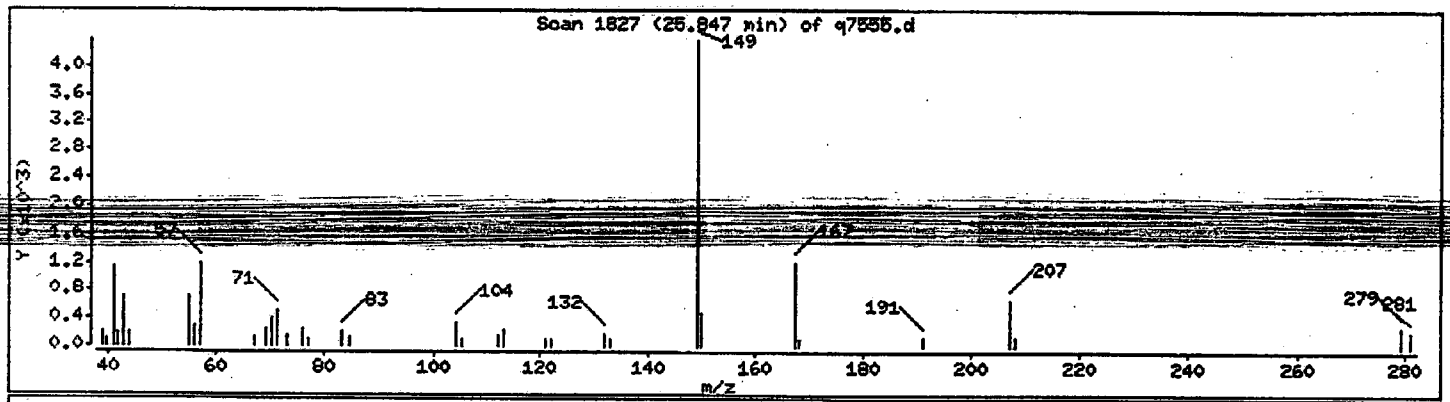
Operator: BNAMS 5

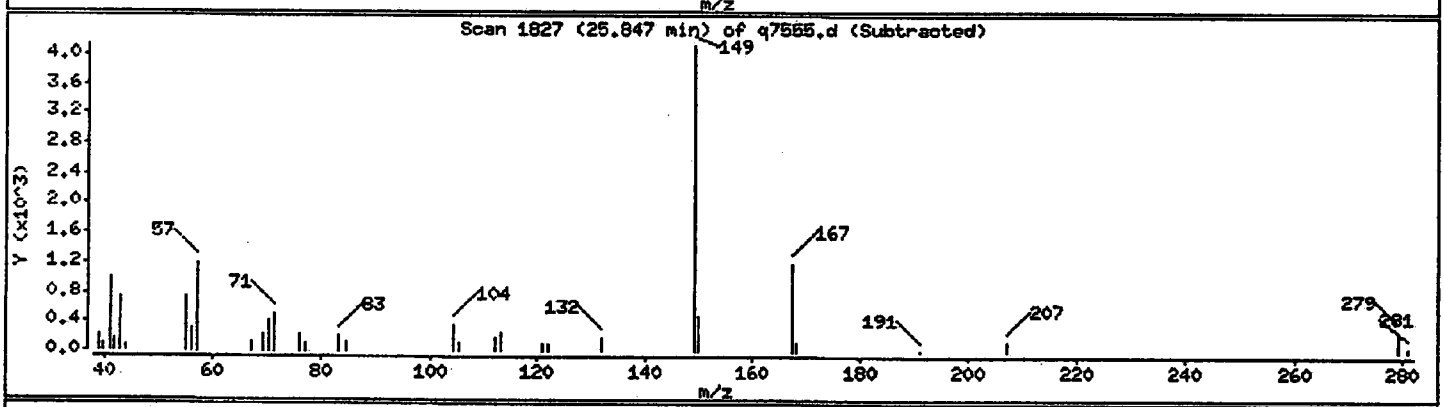
Column phase: DB-5

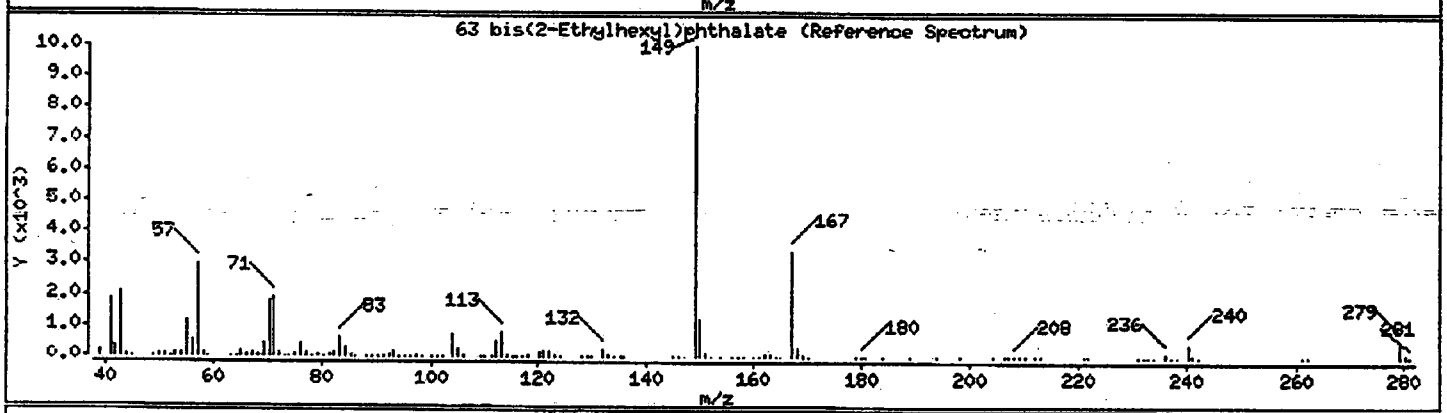
Column diameter: 0.53

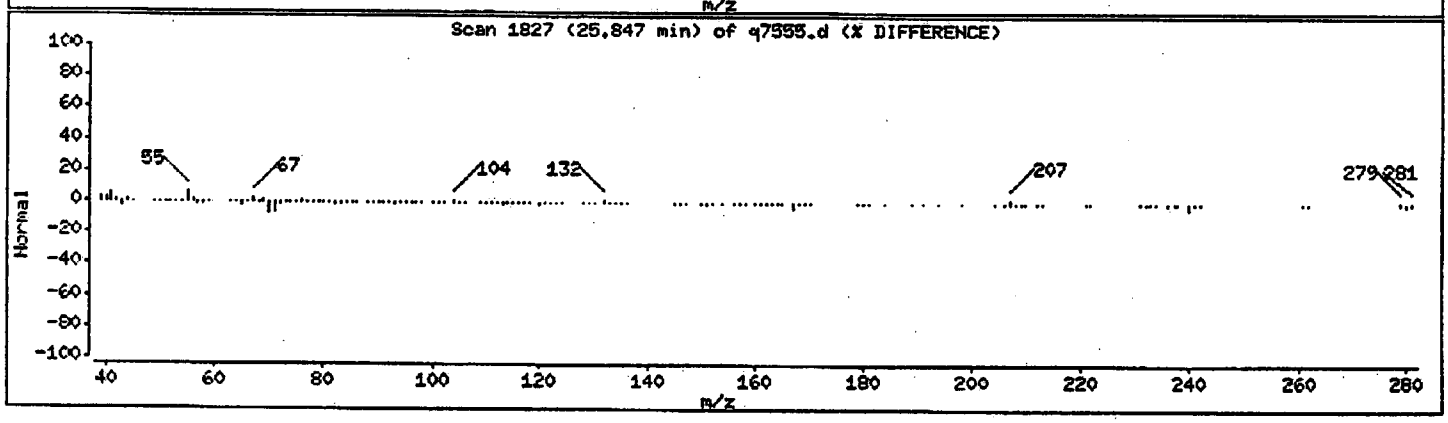
63 bis(2-Ethylhexyl)phthalate

Concentration: 1.1 ug/L









Client ID: **MW21**
Site: L.E. Carpenter

Lab Sample No: **351697**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7556.d

Matrix: WATER
Level: LOW
Sample Volume: 980 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	1.0 B	0.4

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7556.d
Report Date: 06-Jun-2002 10:41

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7556.d
Lab Smp Id: 351697 Client Smp ID: MW21
Inj Date : 05-JUN-2002 20:51
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351697;980;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/05jun02.b/bna625b.m
Meth Date : 06-Jun-2002 09:37 fordis Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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	980.00000	Volume of sample extracted (mL)

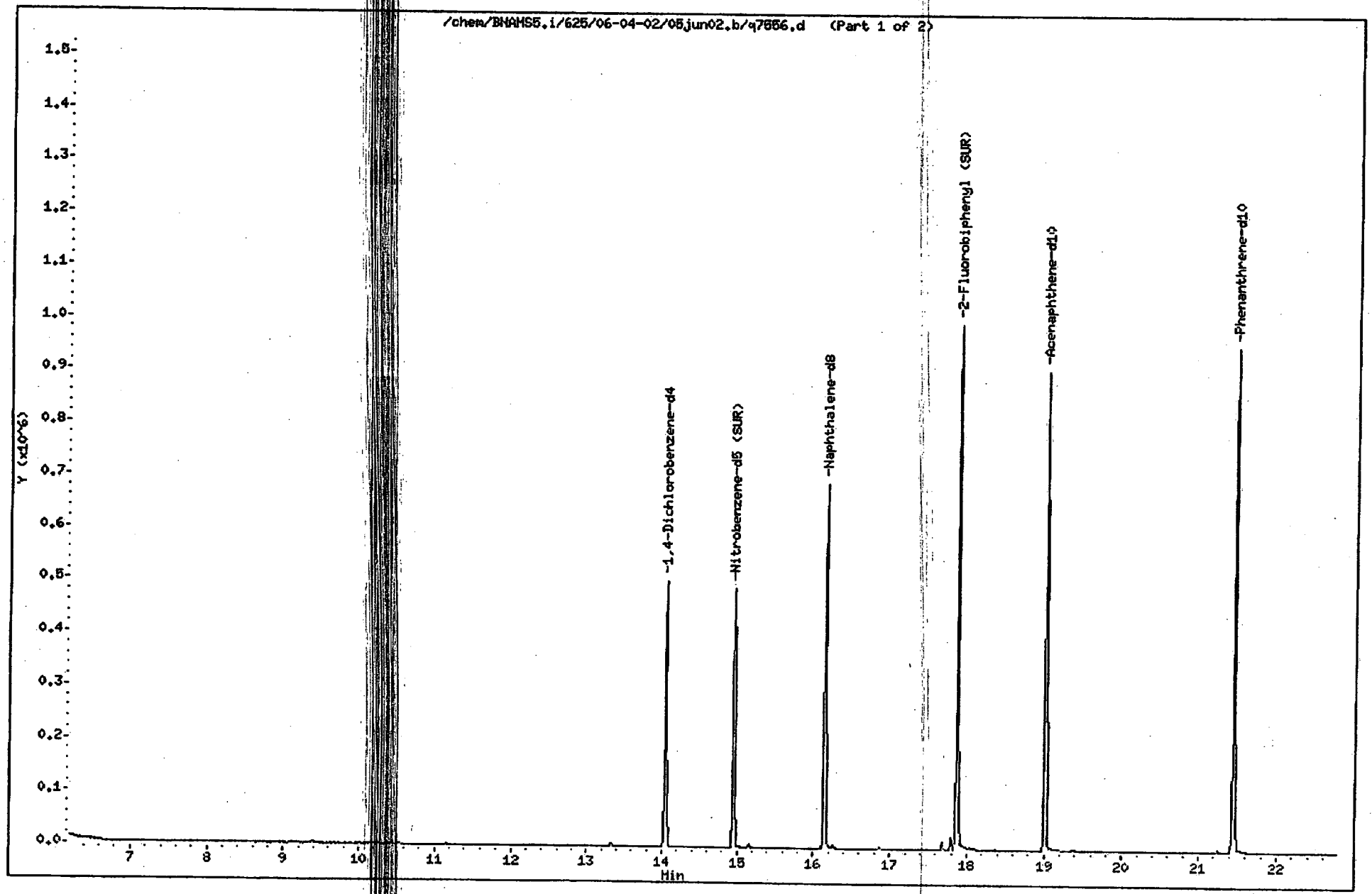
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4 Dichlorobenzene-d4	152	14.049	14.041	(1.000)	131475	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.951	14.955	(0.926)	210881	48.7979	100
* 80 Naphthalene-d8	136	16.144	16.136	(1.000)	501204	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.874	17.866	(0.940)	484470	46.2862	94
* 82 Acenaphthene-d10	164	19.012	19.005	(1.000)	327633	40.0000	
* 83 Phenanthrene-d10	188	21.451	21.454	(1.000)	634334	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	24.008	24.011	(0.923)	703535	43.7737	89
63 bis(2-Ethylhexyl)phthalate	149	25.845	25.859	(0.994)	8886	0.49726	1.0
* 81 Chrysene-d12	240	26.007	26.020	(1.000)	790423	40.0000	
* 84 Perylene-d12	264	30.411	30.425	(1.000)	814791	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7656.d
Date : 05-JUN-2002 20:51
Client ID: HW21
Sample Info: 351697;980;2;1;
Purge Volume: 980.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



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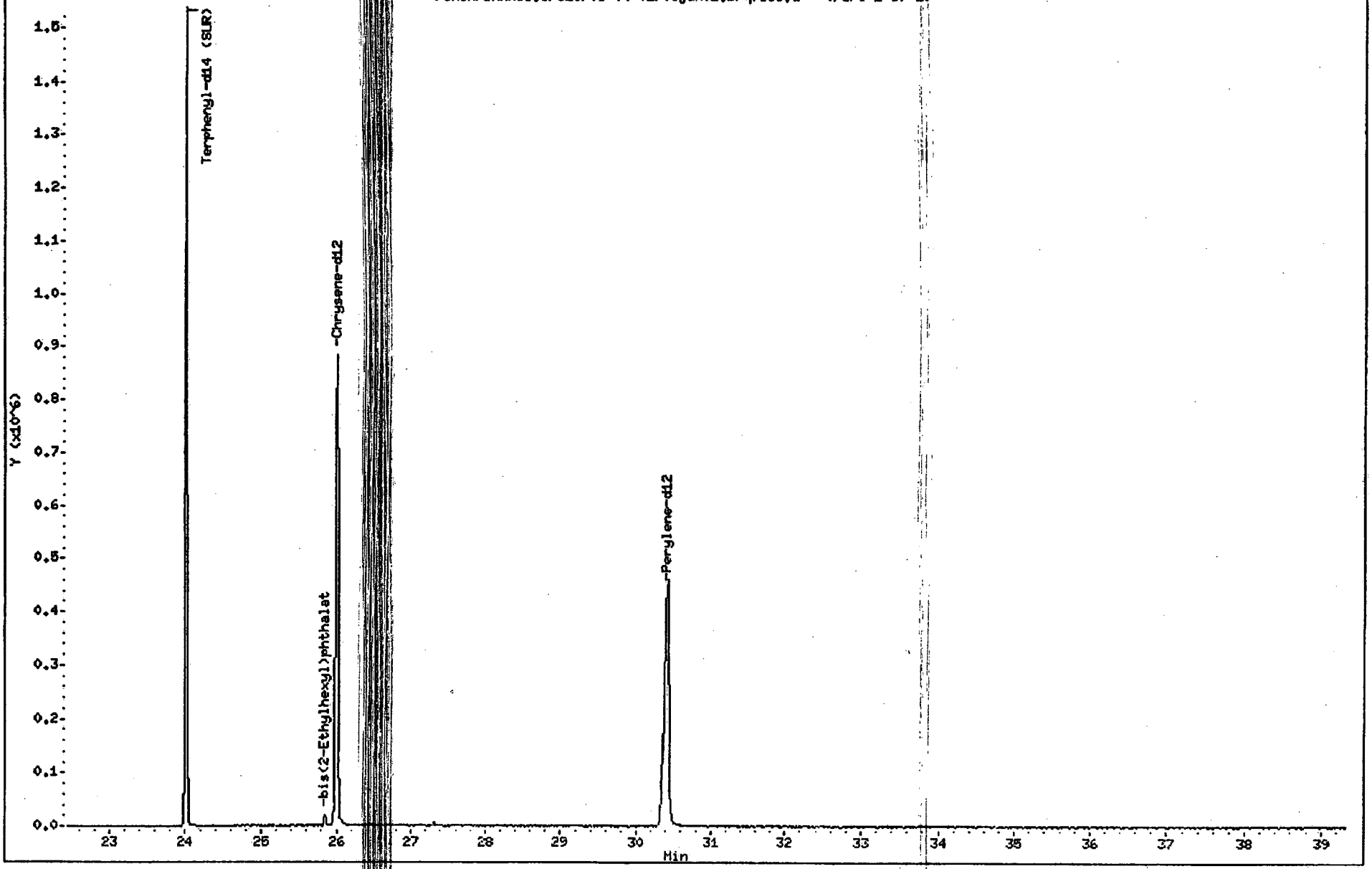
W671

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7556.d
Date : 05-JUN-2002 20:51
Client ID: MW21
Sample Info: 351697;980;2;1;
Purge Volume: 980.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53

/chem/BNAMS5.i/625/06-04-02/05jun02.b/q7556.d (Part 2 of 2)



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W671

le: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7556.d

05-JUN-2002 20:51

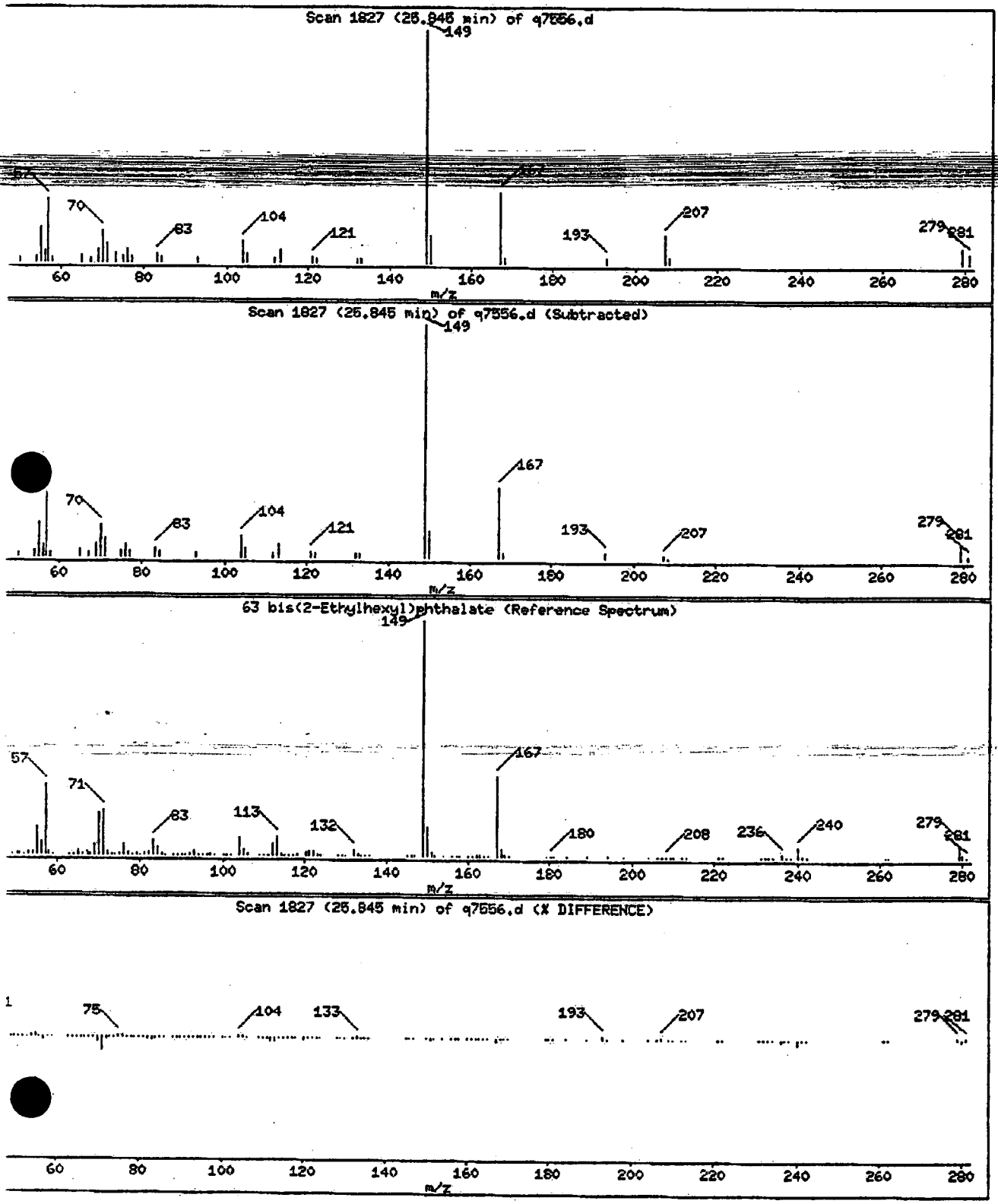
I[illegible]21 Instrument: BNAHS5.i

Info: 351697;980;2;1;

olume: 980.0 Operator: BNAHS 5

phase: DB-5 Column diameter: 0.53

-Ethylhexyl)phthalate Concentration: 1.0 ug/L



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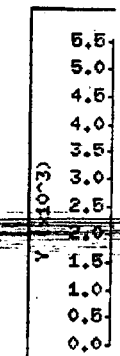
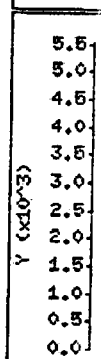
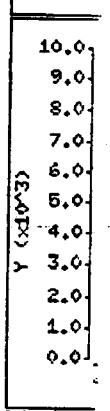
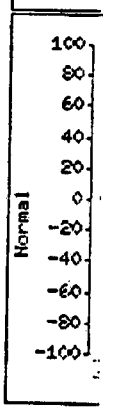








W671

Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **351698**
Lab Job No: W671

Date Sampled: 05/22/02
Date Received: 05/22/02
Date Extracted: 05/23/02
Date Analyzed: 06/05/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7557.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	130	0.5

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7557.d
Report Date: 06-Jun-2002 10:41

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7557.d
Lab Smp Id: 351698 Client Smp ID: FB01
Inj Date : 05-JUN-2002 21:39
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : 351698;970;2;1;
Misc Info : W671;W671;7297;143
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/05jun02.b/bna625b.m
Meth Date : 06-Jun-2002 09:37 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: W671.sub
Target Version: 3.50
Processing Host: hpd1

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	970.00000	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	14.049	14.041	(1.000)	108899	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.952	14.955	(0.926)	70831	19.7282	41(R)
* 80 Naphthalene-d8	136	16.144	16.136	(1.000)	416404	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.874	17.866	(0.940)	396361	45.2475	93
* 82 Acenaphthene-d10	164	19.013	19.005	(1.000)	274201	40.0000	
* 83 Phenanthrene-d10	188	21.451	21.454	(1.000)	563353	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	24.008	24.011	(0.923)	587383	42.9754	89
63 bis(2-Ethylhexyl)phthalate	149	25.856	25.859	(0.994)	949665	62.4909	130
* 81 Chrysene-d12	240	26.007	26.020	(1.000)	672186	40.0000	
* 84 Perylene-d12	264	30.401	30.425	(1.000)	692541	40.0000	

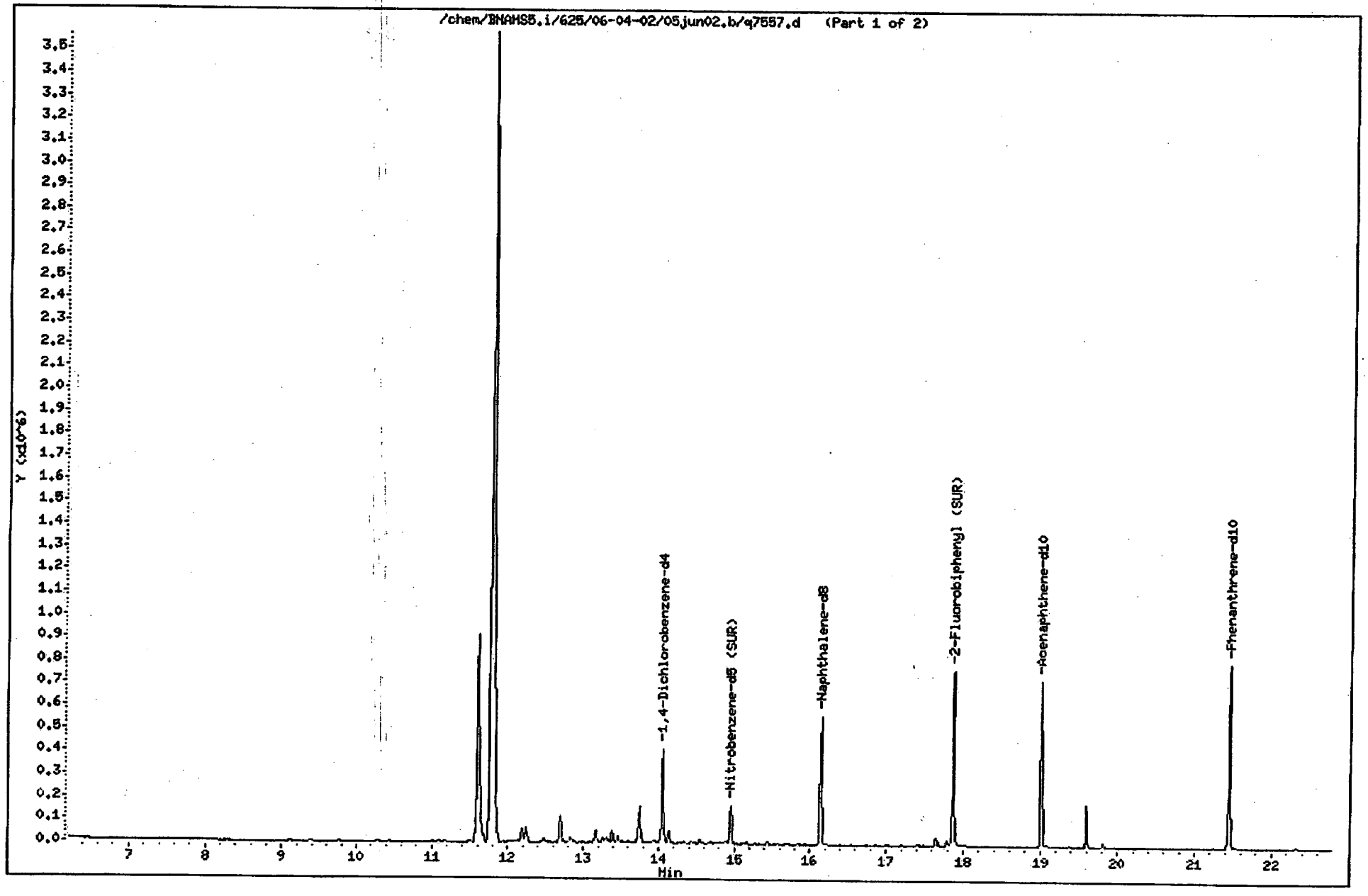
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7557.d
Date : 05-JUN-2002 21:39
Client ID: FB01
Sample Info: 351698;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53



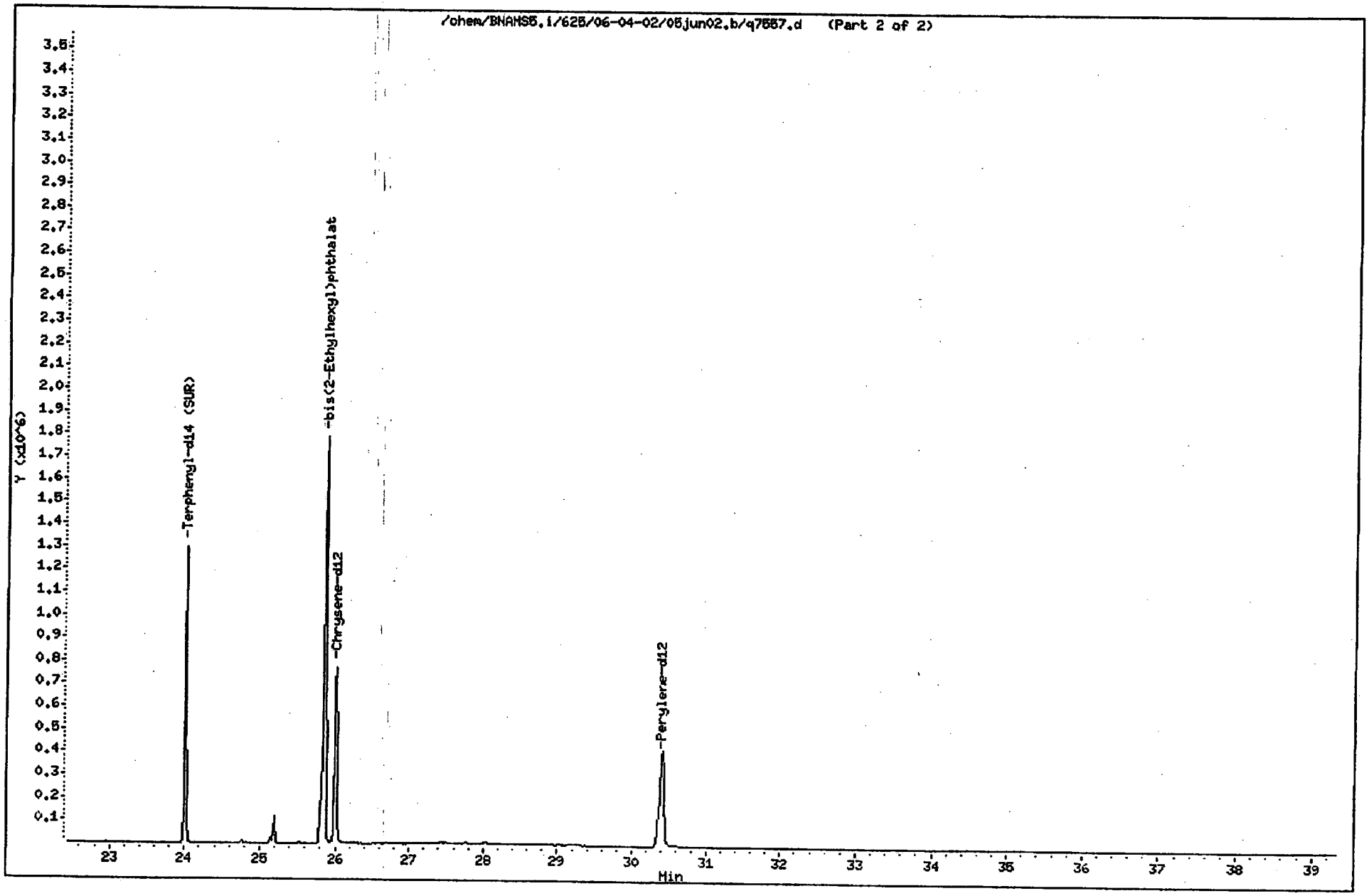
160

W671

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7557.d
Date : 05-JUN-2002 21:39
Client ID: FB01
Sample Info: 351698;970;2;1;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7557.d

Date : 05-JUN-2002 21:39

Client ID: FB01

Instrument: BNAMS5.i

Sample Info: 351698;970;2;1;

Purge Volume: 970.0

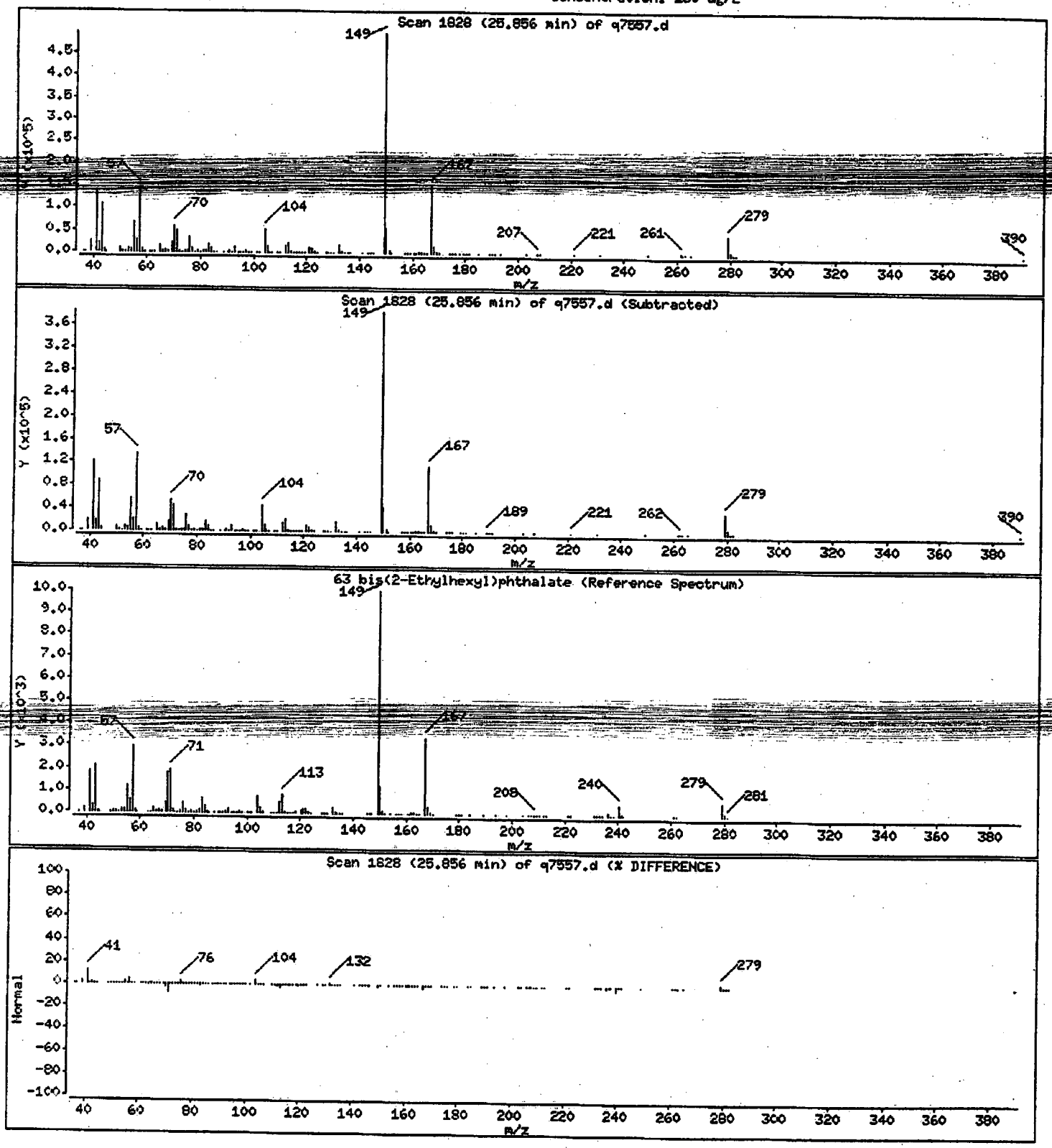
Operator: BNAMS 5

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 130 ug/L



Tuning Results Summary

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7514 DFTPP Injection Date: 06/04/02

Instrument ID: BNAMS5 DFTPP Injection Time: 1140

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.8
68	Less than 2.0% of mass 69	0.1 (0.1)1
69	Mass 69 relative abundance	56.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.8
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	23.5
365	Greater than 1.0% of mass 198	2.12
441	0.0 - 100.0% of mass 443	6.7 (67.9)2
442	40.0 - 110.0% of mass 198	50.4
443	17.0 - 23.0% of mass 442	9.8 (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	QSTD050	QSTD050	Q7515	06/04/02	1200
02	QSTD120	QSTD120	Q7516	06/04/02	1249
03	QSTD080	QSTD080	Q7518	06/04/02	1425
04	QSTD020	QSTD020	Q7519	06/04/02	1513
05	QSTD010	QSTD010	Q7520	06/04/02	1602
06	WB143A	WB143A	Q7523	06/04/02	1826
07	MW17S	351685	Q7529	06/04/02	2314
08	MW15S	351686	Q7530	06/05/02	0002
09	MW15I	351687	Q7531	06/05/02	0050
10	MW11D_R	351688	Q7532	06/05/02	0138
11	MW14I	351691	Q7536	06/05/02	0450
12	MW14S	351692	Q7537	06/05/02	0538
13	RINSATE01	351693	Q7538	06/05/02	0626
14	MW22	351695	Q7540	06/05/02	0803
15					
16					
17					
18					

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

Instrument: BNAMS5.i

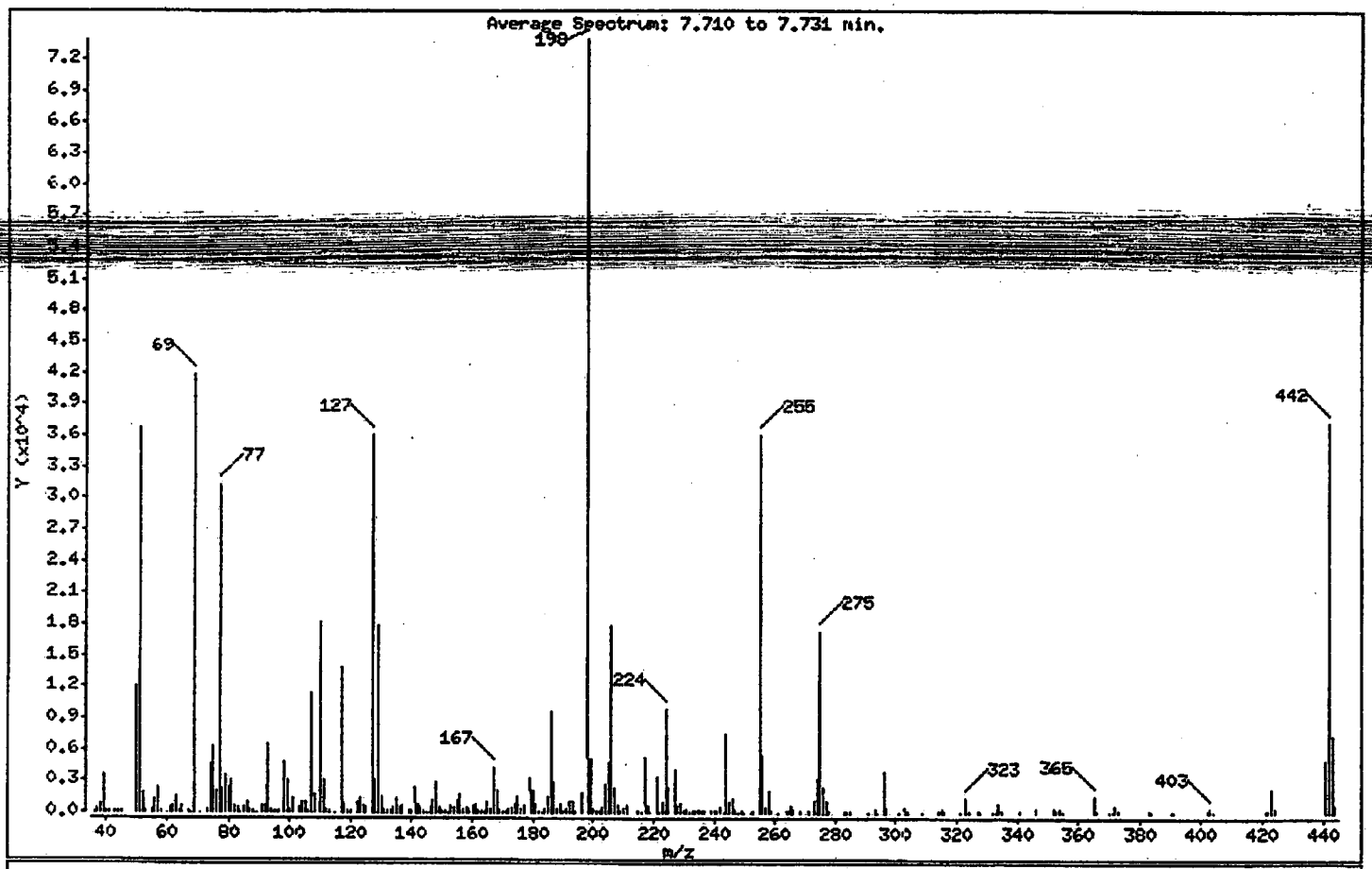
Sample Info: QDFT155

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	49.76
68	Less than 2.00% of mass 69	0.07 (0.13)
69	Mass 69 relative abundance	56.53
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.75
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 30.00% of mass 198	23.45
365	Greater than 1.00% of mass 198	2.12
441	0.01 - 100.00% of mass 443	6.67 (67.91)
442	40.00 - 110.00% of mass 198	50.38
443	17.00 - 23.00% of mass 442	9.82 (19.50)

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT155

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7514.d

Spectrum: Average Spectrum: 7.710 to 7.731 min.

Location of Maximum: 198.00

Number of points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	54	117.00	13735	186.00	3605	264.00	191
37.00	395	118.00	932	187.00	2887	265.00	742
38.00	803	119.00	118	188.00	316	266.00	271
39.00	3491	120.00	184	189.00	813	268.00	87
40.00	183	122.00	1012	190.00	139	271.00	132
41.00	177	123.00	1337	191.00	390	273.00	1121
43.00	95	124.00	708	192.00	965	274.00	3158
44.00	215	125.00	482	193.00	1102	275.00	17320
45.00	85	127.00	36016	194.00	230	276.00	2321
50.00	12035	128.00	3039	196.00	1855	277.00	1203
51.00	36760	129.00	17888	198.00	73880	278.00	186
52.00	1879	130.00	1506	199.00	5085	283.00	136
53.00	89	131.00	264	200.00	414	284.00	112
55.00	343	132.00	159	201.00	140	285.00	190
56.00	1258	133.00	110	202.00	211	291.00	42
57.00	2344	134.00	561	203.00	572	293.00	275
58.00	125	135.00	1410	204.00	2713	294.00	41
60.00	34	136.00	537	205.00	4789	296.00	3873
61.00	537	137.00	692	206.00	17848	297.00	529
62.00	601	139.00	96	207.00	2416	301.00	46
63.00	1558	140.00	133	208.00	654	303.00	449
64.00	165	141.00	2440	209.00	226	304.00	128
65.00	641	142.00	779	210.00	369	309.00	38
67.00	90	143.00	499	211.00	703	314.00	193
68.00	55	144.00	153	215.00	178	315.00	375
69.00	41760	145.00	57	216.00	33	316.00	236
71.00	34	146.00	436	217.00	5318	321.00	63
73.00	317	147.00	1199	218.00	665	323.00	1336
74.00	4545	148.00	2957	219.00	79	324.00	248
75.00	6230	149.00	587	221.00	3444	327.00	195
76.00	2089	150.00	123	222.00	68	328.00	57
77.00	31200	151.00	238	223.00	1070	332.00	60
78.00	2133	152.00	81	224.00	9767	333.00	46
79.00	3522	153.00	722	225.00	2459	334.00	787
80.00	2360	154.00	526	227.00	4146	335.00	147

Data File: /ohem/BNAMS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT155

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7514.d

Spectrum: Average Spectrum: 7.710 to 7.731 min.

Location of Maximum: 198.00

Number of points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	3004	155.00	1231	228.00	665	341.00	103
82.00	928	156.00	1673	229.00	621	346.00	281
83.00	524	157.00	293	230.00	127	352.00	363
84.00	34	158.00	437	231.00	400	353.00	225
85.00	431	159.00	327	232.00	34	354.00	366
86.00	1010	160.00	676	233.00	95	355.00	40
87.00	351	161.00	883	234.00	244	365.00	1570
88.00	178	162.00	251	235.00	286	366.00	176
89.00	74	163.00	143	236.00	159	370.00	34
91.00	654	164.00	108	237.00	250	371.00	64
92.00	742	165.00	978	239.00	165	372.00	669
93.00	6418	166.00	316	240.00	119	373.00	130
94.00	348	167.00	4245	241.00	217	383.00	139
95.00	151	168.00	1993	242.00	434	384.00	33
96.00	241	169.00	358	243.00	56	390.00	56
98.00	4811	170.00	148	244.00	7529	391.00	33
99.00	3050	171.00	161	245.00	970	402.00	193
100.00	289	172.00	362	246.00	1379	403.00	349
101.00	1326	173.00	455	247.00	266	404.00	76
103.00	541	174.00	864	248.00	47	421.00	214
104.00	1051	175.00	1512	249.00	244	422.00	223
105.00	1051	176.00	382	250.00	34	423.00	2151
106.00	157	177.00	691	252.00	83	424.00	409
107.00	11435	179.00	3258	253.00	251	441.00	4929
108.00	1763	180.00	1962	255.00	36072	442.00	37224
110.00	18160	181.00	900	256.00	5386	443.00	7258
111.00	3024	182.00	167	257.00	428	444.00	625
112.00	408	183.00	48	258.00	2070		
113.00	114	184.00	286	259.00	250		
115.00	54	185.00	1506	261.00	44		

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

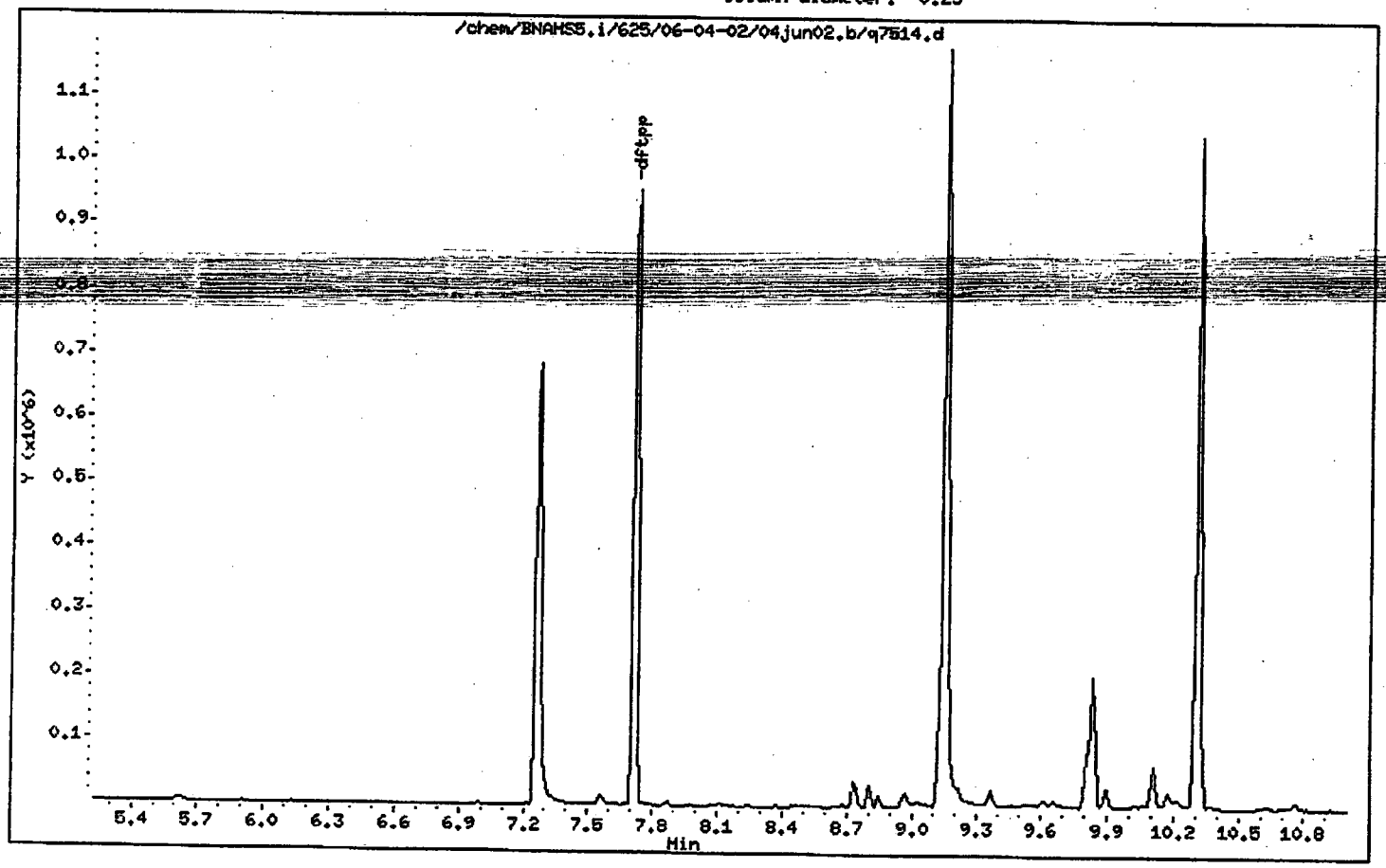
Sample Info: QDFT155

Instrument: BNAMS5.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7541

DFTPP Injection Date: 06/05/02

Instrument ID: BNAMS5

DFTPP Injection Time: 0908

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 60.0% of mass 198	54.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.2
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.1
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	7.0
275	10.0 - 30.0% of mass 198	24.8
365	Greater than 1.0% of mass 198	2.31
441	0.0 - 100.0% of mass 443	9.8 (84.6)2
442	40.0 - 110.0% of mass 198	61.6
443	17.0 - 23.0% of mass 442	11.6 (18.8)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	QSTD156	QSTD156	Q7543	06/05/02	1016
02	MW4	351689	Q7551	06/05/02	1649
03	MW4MS	351689MS	Q7552	06/05/02	1737
04	MW4MSD	351689MSD	Q7553	06/05/02	1826
05	DUP01	351694	Q7554	06/05/02	1915
06	MW25	351696	Q7555	06/05/02	2003
07	MW21	351697	Q7556	06/05/02	2051
08	FB01	351698	Q7557	06/05/02	2139
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7541.d

Date : 05-JUN-2002 09:08

Client ID:

Instrument: BNAMS5.i

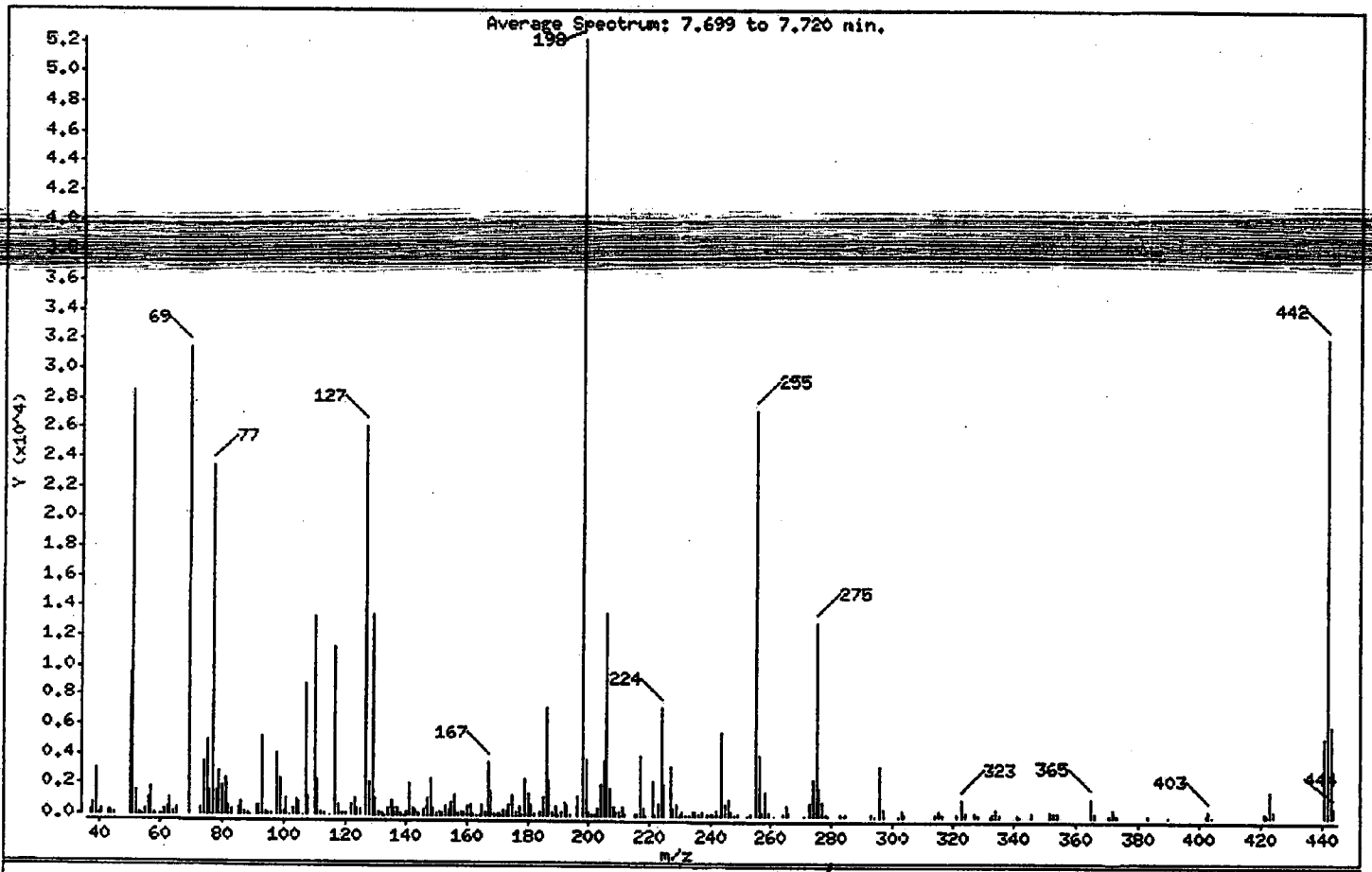
Sample Info: QDFT156

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	54.66
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.18
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.11
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	24.80
365	Greater than 1.00% of mass 198	2.31
441	0.01 - 100.00% of mass 443	9.81 (84.61)
442	40.00 - 110.00% of mass 198	61.63
443	17.00 - 23.00% of mass 442	11.59 (18.81)

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7541.d

Date : 05-JUN-2002 09:08

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT156

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7541.d

Spectrum: Average Spectrum: 7.699 to 7.720 min.

Location of Maximum: 198.00

Number of points: 249

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	211	118.00	738	185.00	1157	258.00	1586
38.00	687	119.00	96	186.00	2197	259.00	272
39.00	3037	120.00	117	187.00	2263	261.00	49
40.00	169	122.00	775	188.00	236	264.00	108
41.00	300	123.00	1091	189.00	630	265.00	712
43.00	216	124.00	474	190.00	109	266.00	196
44.00	285	125.00	395	191.00	230	271.00	50
45.00	150	127.00	26152	192.00	806	273.00	893
50.00	9420	128.00	2157	193.00	779	274.00	2428
51.00	28520	129.00	13423	194.00	143	275.00	12941
52.00	1515	130.00	1126	196.00	1365	276.00	1844
53.00	123	131.00	242	198.00	52184	277.00	1018
54.00	33	132.00	98	199.00	3666	278.00	162
55.00	313	133.00	35	200.00	292	279.00	34
56.00	1035	134.00	446	201.00	74	283.00	70
57.00	1854	135.00	1001	202.00	106	284.00	37
58.00	116	136.00	493	203.00	471	285.00	158
60.00	36	137.00	492	204.00	2013	293.00	168
61.00	374	138.00	120	205.00	3604	294.00	37
62.00	474	139.00	35	206.00	13604	296.00	3195
63.00	1134	140.00	186	207.00	1799	297.00	502
64.00	186	141.00	1995	208.00	554	302.00	59
65.00	452	142.00	503	209.00	191	303.00	371
69.00	31408	143.00	373	210.00	267	304.00	62
73.00	481	144.00	99	211.00	590	314.00	141
74.00	3478	146.00	368	212.00	100	315.00	342
75.00	4895	147.00	1042	215.00	176	316.00	164
76.00	1588	148.00	2395	216.00	143	321.00	60
77.00	23440	149.00	446	217.00	3944	323.00	1084
78.00	1539	150.00	113	218.00	463	324.00	192
79.00	2831	151.00	199	219.00	38	327.00	180
80.00	1940	152.00	153	221.00	2255	328.00	72
81.00	2374	153.00	592	222.00	55	332.00	43
82.00	588	154.00	367	223.00	874	333.00	72
83.00	415	155.00	889	224.00	7255	334.00	524

Data File: /chem/BNAHS5.i/625/06-04-02/05jun02.b/q7541.d

Date : 05-JUN-2002 09:08

Client ID:

Instrument: BNAHS5.i

Sample Info: QDFT156

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7541.d

Spectrum: Average Spectrum: 7.699 to 7.720 min.

Location of Maximum: 198.00

Number of points: 249

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	432	156.00	1291	225.00	1994	335.00	121
86.00	827	157.00	169	227.00	3212	341.00	60
87.00	293	158.00	274	228.00	517	342.00	35
88.00	125	159.00	221	229.00	663	346.00	199
89.00	37	160.00	611	230.00	123	352.00	315
91.00	633	161.00	770	231.00	180	353.00	237
92.00	617	162.00	166	232.00	41	354.00	262
93.00	5143	163.00	35	233.00	52	365.00	1205
94.00	293	164.00	40	234.00	187	366.00	182
95.00	104	165.00	758	235.00	182	371.00	71
96.00	178	166.00	225	236.00	135	372.00	495
98.00	4068	167.00	3496	237.00	191	373.00	71
99.00	2410	168.00	1616	239.00	114	383.00	65
100.00	232	169.00	174	240.00	106	390.00	37
101.00	1073	170.00	129	241.00	152	402.00	140
102.00	47	171.00	144	242.00	371	403.00	308
103.00	469	172.00	367	243.00	57	404.00	50
104.00	912	173.00	343	244.00	5494	421.00	240
105.00	858	174.00	733	245.00	751	422.00	120
106.00	43	175.00	1266	246.00	1067	423.00	1715
107.00	8733	176.00	267	247.00	204	424.00	387
108.00	1204	177.00	616	248.00	40	441.00	5119
110.00	13322	178.00	132	249.00	179	442.00	32160
111.00	2272	179.00	2459	252.00	51	443.00	6050
112.00	277	180.00	1454	253.00	153	444.00	638
113.00	140	181.00	671	255.00	27272		
115.00	49	182.00	123	256.00	3965		
117.00	11254	184.00	237	257.00	238		

Data File: /chem/BNAMS5.i/625/06-04-02/05jun02.b/q7541.d

Date : 05-JUN-2002 09:08

Client ID:

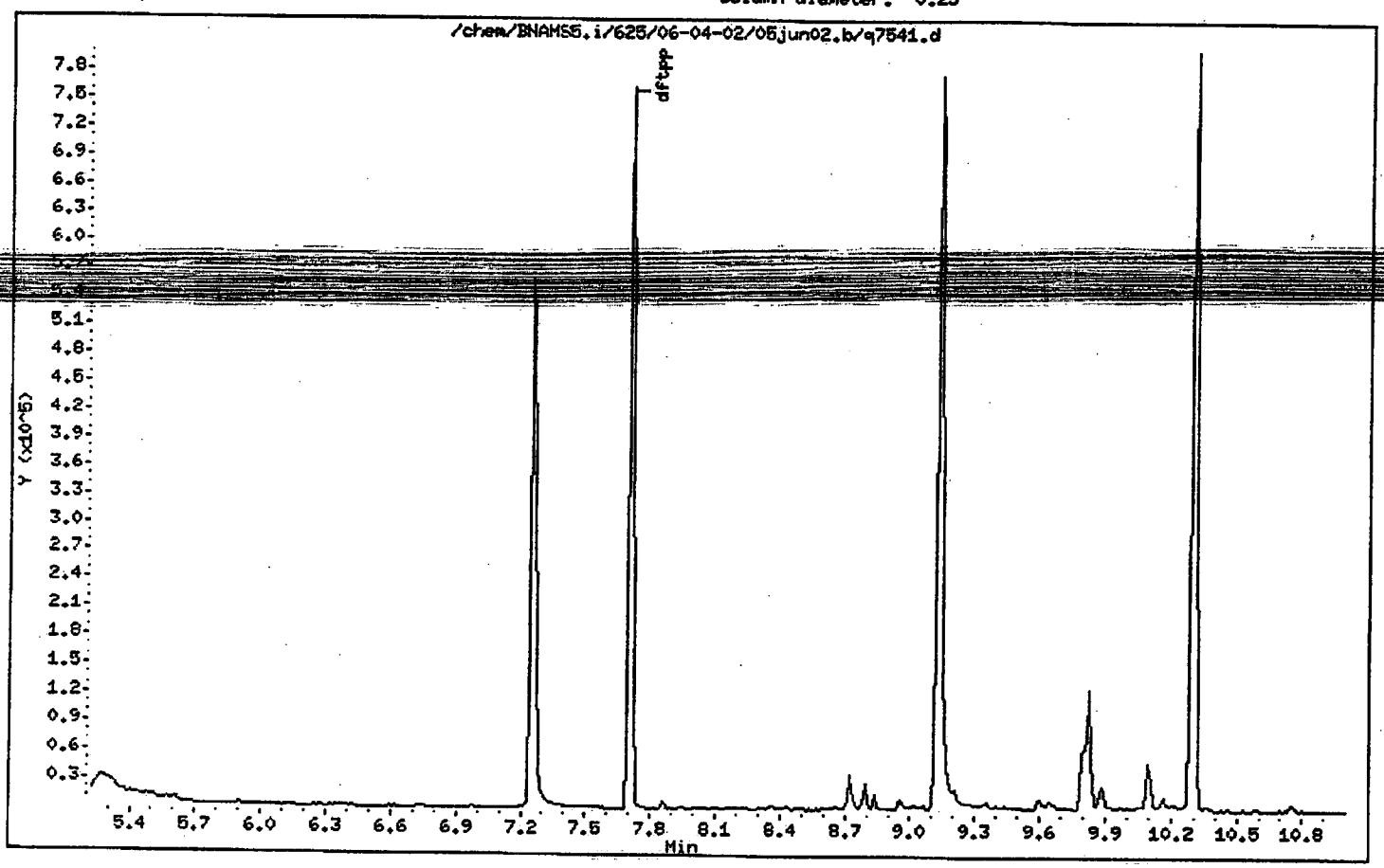
Instrument: BNAMS5.i

Sample Info: QDFT156

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



Method Blank Results Summary

SEMIVOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

WB143A

Matrix: WATER

Date Analyzed: 06/04/02

Level: LOW

Time Analyzed: 1826

Instrument ID: BNAMS5

Lab File ID: Q7523

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	DATE ANALYZED
01	MW17S	351685	Q7529	06/04/02
02	MW15S	351686	Q7530	06/05/02
03	MW15I	351687	Q7531	06/05/02
04	MW11D_R	351688	Q7532	06/05/02
05	MW14I	351691	Q7536	06/05/02
06	MW14S	351692	Q7537	06/05/02
07	RINSATE01	351693	Q7538	06/05/02
08	MW22	351695	Q7540	06/05/02
09	MW4	351689	Q7551	06/05/02
10	MW4MS	351689MS	Q7552	06/05/02
11	MW4MSD	351689MSD	Q7553	06/05/02
12	DUP01	351694	Q7554	06/05/02
13	MW25	351696	Q7555	06/05/02
14	MW21	351697	Q7556	06/05/02
15	FB01	351698	Q7557	06/05/02
16	FB01R1	351698R1	Q7578	06/06/02
17				
18				
19				
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28				
29				
30				

COMMENTS:

page 1 of 1

Client ID: **WB143A**
Site:

Lab Sample No: **WB143A**
Lab Job No: W671

Date Sampled: _____
Date Received: _____
Date Extracted: 05/23/02
Date Analyzed: 06/04/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7523.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	0.6
bis(2-Chloroethyl)ether	ND	0.6
1,3-Dichlorobenzene	ND	0.8
1,4-Dichlorobenzene	ND	0.8
1,2-Dichlorobenzene	ND	0.8
bis(2-chloroisopropyl)ether	ND	0.5
N-Nitroso-di-n-propylamine	ND	1.2
Hexachloroethane	ND	0.9
Nitrobenzene	ND	0.8
Isophorone	ND	0.2
bis(2-Chloroethoxy)methane	ND	0.6
1,2,4-Trichlorobenzene	ND	0.8
Naphthalene	ND	0.6
4-Chloroaniline	ND	1.3
Hexachlorobutadiene	ND	1.1
2-Methylnaphthalene	ND	0.8
Hexachlorocyclopentadiene	ND	1.7
2-Chloronaphthalene	ND	0.8
2-Nitroaniline	ND	0.5
Dimethylphthalate	ND	0.5
Acenaphthylene	ND	0.6
2,6-Dinitrotoluene	ND	0.4
3-Nitroaniline	ND	0.3
Acenaphthene	ND	0.6
Dibenzofuran	ND	0.7
2,4-Dinitrotoluene	ND	0.2
Diethylphthalate	ND	0.4
4-Chlorophenyl-phenylether	ND	0.8
Fluorene	ND	0.6
4-Nitroaniline	ND	0.6
N-Nitrosodiphenylamine	ND	0.5
4-Bromophenyl-phenylether	ND	1.9
Hexachlorobenzene	ND	1.1
Phenanthrene	ND	0.5

Client ID: **WB143A**
Site:

Lab Sample No: **WB143A**
Lab Job No: W671

Date Sampled: _____
Date Received: _____
Date Extracted: 05/23/02
Date Analyzed: 06/04/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7523.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	0.4
Carbazole	ND	1.1
Di-n-butylphthalate	ND	0.4
Fluoranthene	ND	0.4
Pyrene	ND	0.4
Benzidine	ND	25
Butylbenzylphthalate	ND	0.4
3,3'-Dichlorobenzidine	ND	1.3
Benzo(a)anthracene	ND	0.4
Chrysene	ND	0.5
bis(2-Ethylhexyl)phthalate	0.7	0.4
Di-n-octylphthalate	ND	0.1
Benzo(b)fluoranthene	ND	0.3
Benzo(k)fluoranthene	ND	0.8
Benzo(a)pyrene	ND	0.2
Indeno(1,2,3-cd)pyrene	ND	0.1
Dibenz(a,h)anthracene	ND	0.6
Benzo(g,h,i)perylene	ND	0.4
Pyridine	ND	0.6
Aniline	ND	0.6
Benzyl Alcohol	ND	0.5
1,2-Diphenylhydrazine	ND	0.4
Diphenyl	ND	1.0
Acetophenone	ND	0.8
1,4-Dioxane	ND	0.6
Benzaldehyde	ND	0.9
Caprolactum	ND	0.5
Atrazine	ND	0.7

Client ID: **WB143A**
Site:

Lab Sample No: **WB143A**
Lab Job No: W671

Date Sampled: _____
Date Received: _____
Date Extracted: 05/23/02
Date Analyzed: 06/04/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7523.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. Unknown	19.44	51	
2. Unknown	30.20	21	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
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22.			
23.			
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27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 72

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7523.d
Report Date: 05-Jun-2002 11:21

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7523.d
Lab Smp Id: WB143A Client Smp ID: BN
Inj Date : 04-JUN-2002 18:26
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : WB143A;1000;2;1;
Misc Info : WB143A;BN;;
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/04jun02.b/bna625b.m
Meth Date : 05-Jun-2002 11:20 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allBNb.sub
Target Version: 3.50
Processing Host: hpd1

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)

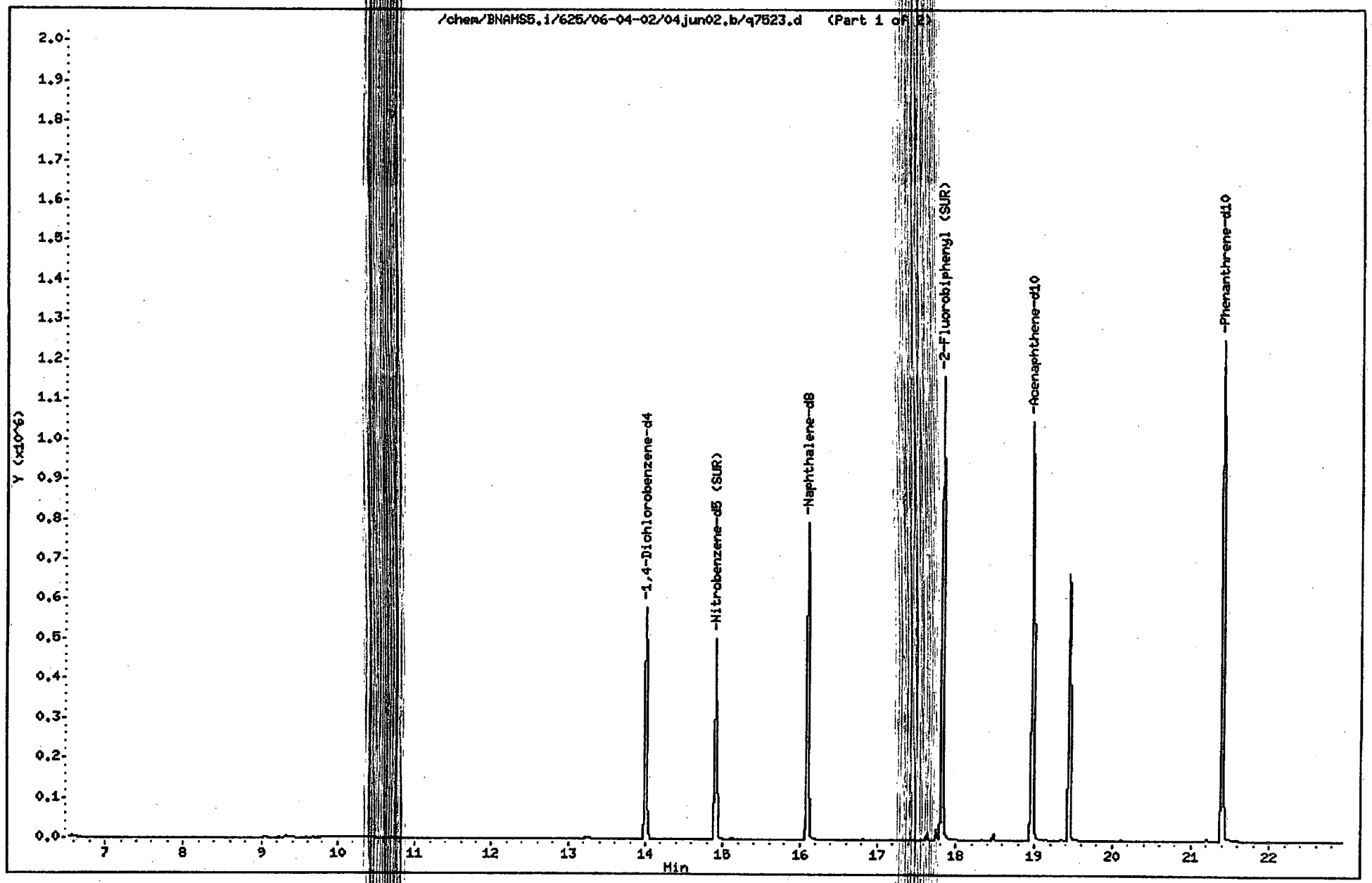
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	14.001	14.002	(1.000)	152407	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.914	14.904	(0.927)	235725	45.1725	90
* 80 Naphthalene-d8	136	16.096	16.108	(1.000)	605344	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.826	17.827	(0.940)	549588	42.3738	85
* 82 Acenaphthene-d10	164	18.964	18.976	(1.000)	405987	40.0000	
* 83 Phenanthrene-d10	188	21.403	21.415	(1.000)	816701	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.971	23.961	(0.924)	915776	49.6553	99
63 bis(2-Ethylhexyl)phthalate	149	25.797	25.798	(0.994)	7049	0.34376	0.69
* 81 Chrysene-d12	240	25.948	25.960	(1.000)	907009	40.0000	
* 84 Perylene-d12	264	30.299	30.322	(1.000)	803197	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7523.d
Date : 04-JUN-2002 18:26
Client ID: BH
Sample Info: WB143A;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 5
Column diameter: 0.53



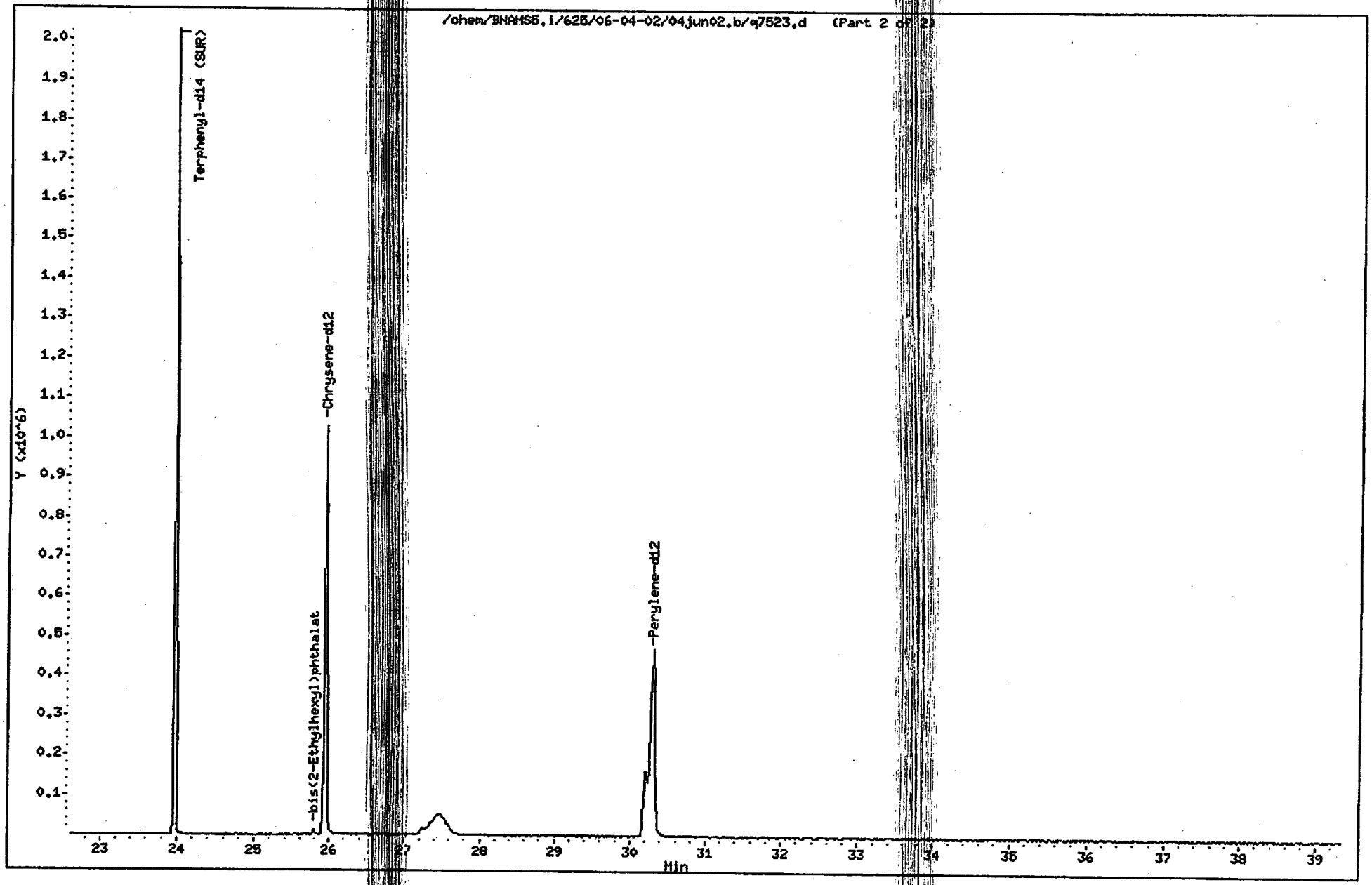
180

W671

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7523.d
Date : 04-JUN-2002 18:26
Client ID: BN
Sample Info: WB143A;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAHS5.i

Operator: BNAHS 5
Column diameter: 0.53



181

W671

Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7523.d

Date : 04-JUN-2002 18:26

Client ID: BN

Instrument: BNAMS5.i

Sample Info: WB143A;1000;2;1;

Purge Volume: 1000.0

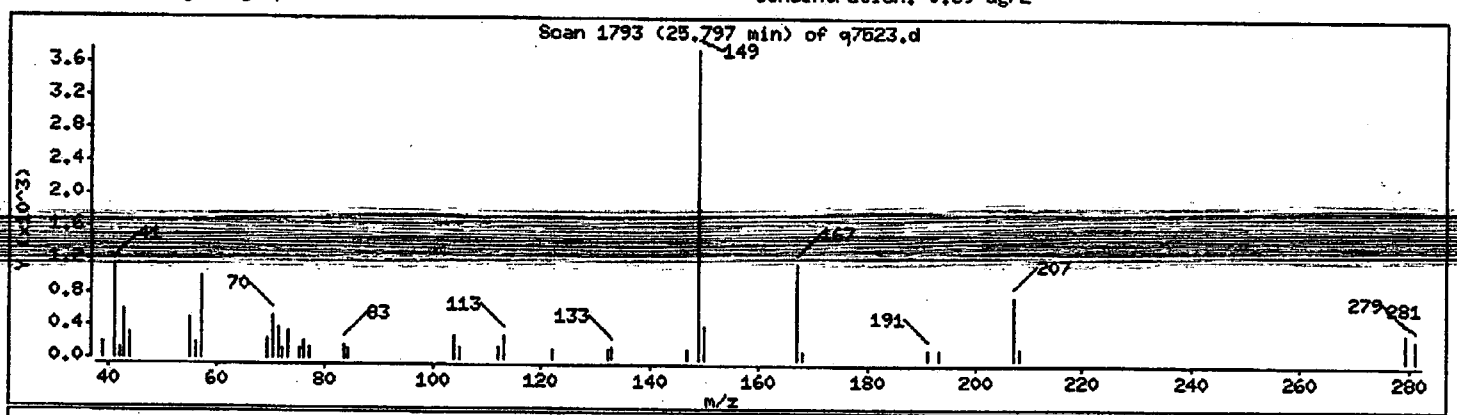
Operator: BNAMS 5

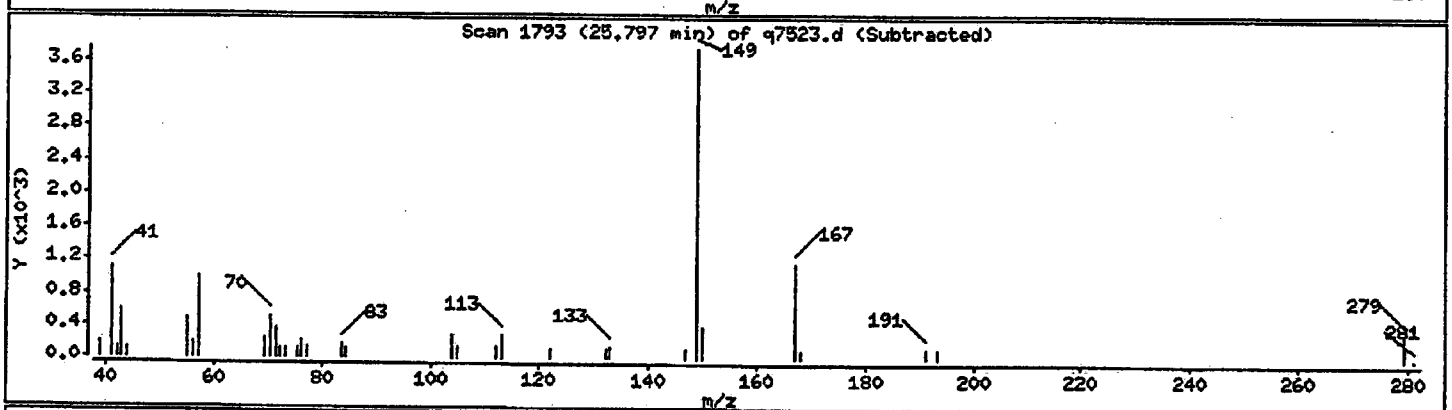
Column phase: DB-5

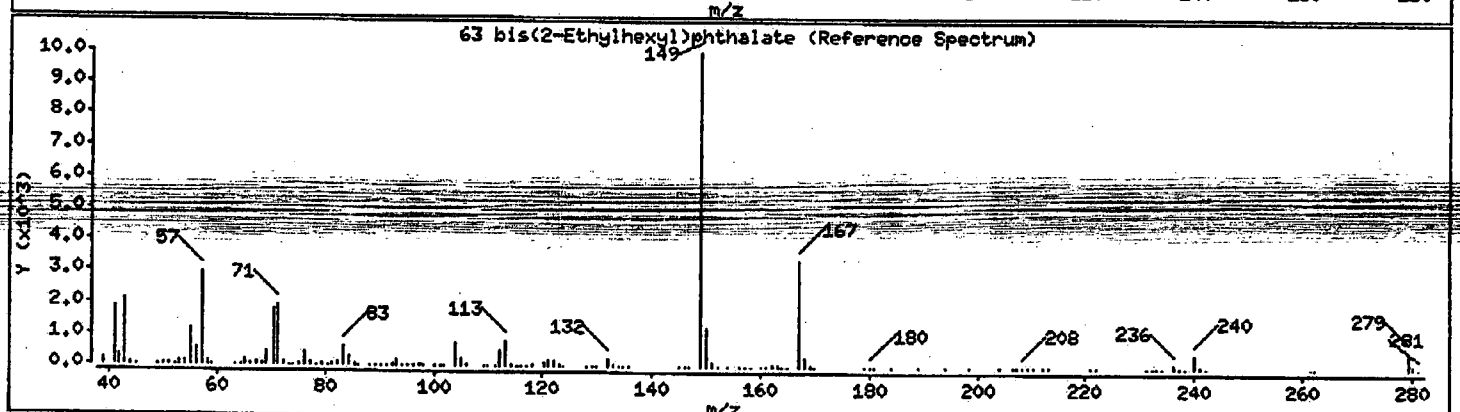
Column diameter: 0.53

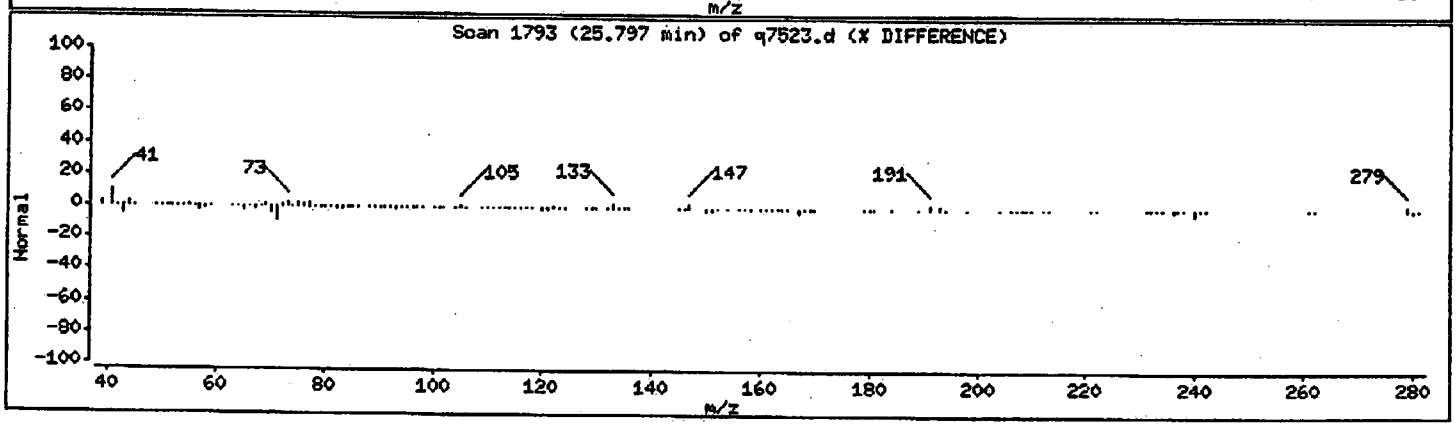
63 bis(2-Ethylhexyl)phthalate

Concentration: 0.69 ug/L









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Date : 04-JUN-2002 18:26

Client ID: BN

Instrument: BNAMS5.i

Sample Info: WB143A;1000;2;1;

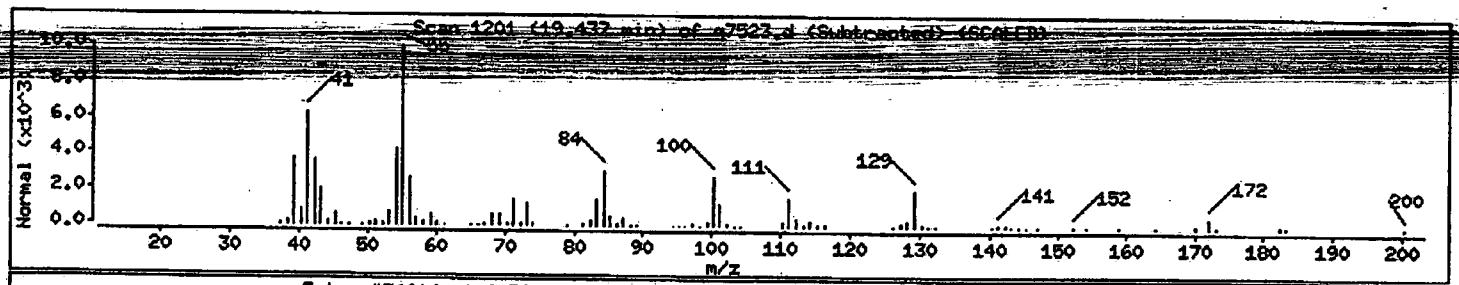
Purge Volume: 1000.0

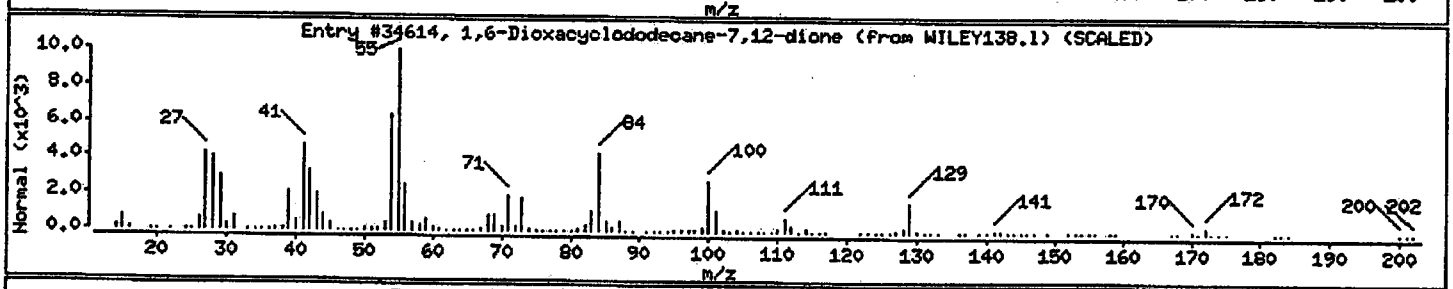
Operator: BNAMS 5

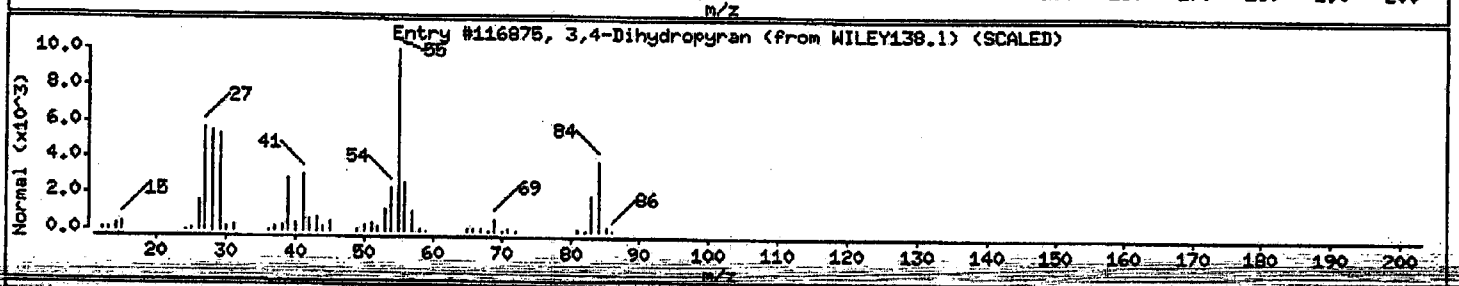
Column phase: DB-5

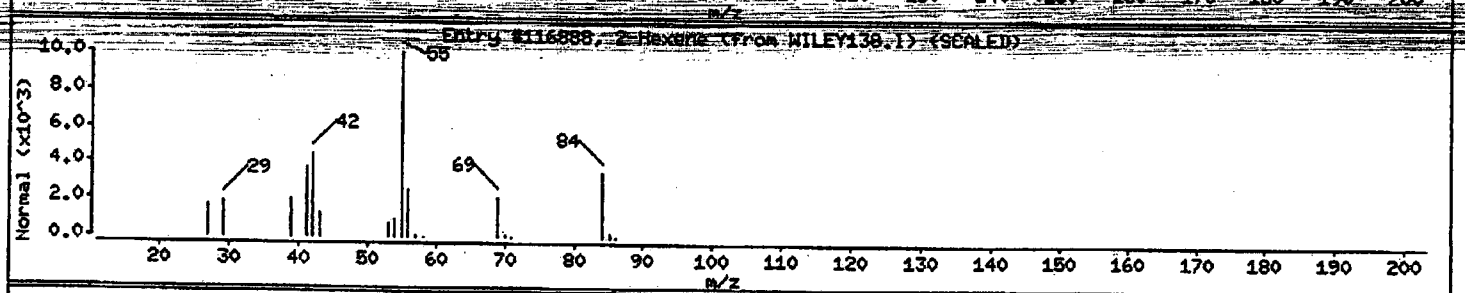
Column diameter: 0.53

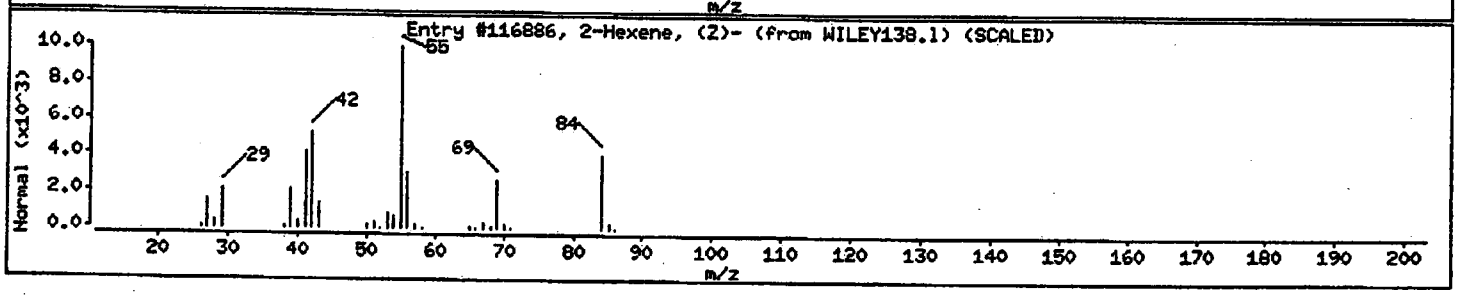
Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,6-Dioxacyclododecane-7,12-dione	777-95-7	WILEY138.1	34614	50	C10H1604	200
3,4-Dihydropyran	110-87-2	WILEY138.1	116875	35	C5H80	84
2-Hexene	592-43-8	WILEY138.1	116888	22	C6H12	84
2-Hexene, (Z)-	7688-21-3	WILEY138.1	116886	22	C6H12	84











Data File: /chem/BNAMS5.i/625/06-04-02/04jun02.b/q7623.d

Date : 04-JUN-2002 18:26

Client ID: BN

Instrument: BNAMS5.i

Sample Info: WB143A;1000;2;1;

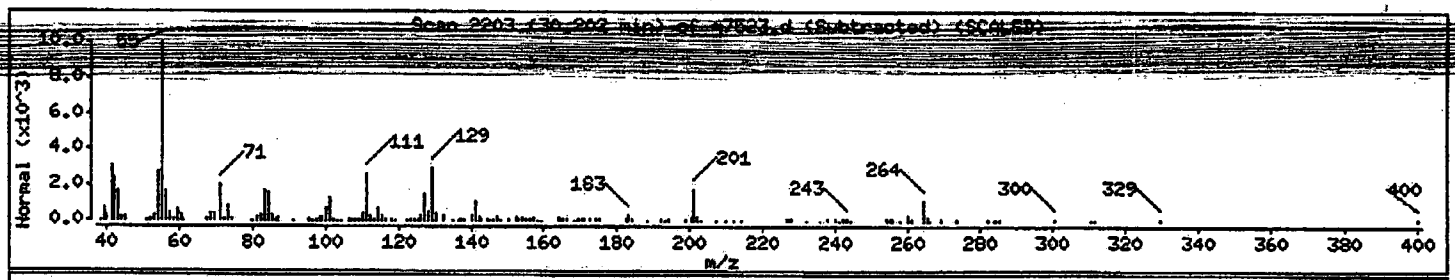
Purge Volume: 1000.0

Operator: BNAMS 5

Column phase: DB-5

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Calibration Summary

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

LAB FILE ID: RRF10: Q7520 RRF20: Q7519 RRF50: Q7515
RRF80: Q7518 RRF120: Q7516

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Phenol	1.254	1.339	1.298	1.298	1.291
2-Chlorophenol	1.235	1.334	1.288	1.285	1.301
2-Methylphenol	1.046	1.076	1.012	0.978	0.979
4-Methylphenol	1.082	1.102	1.033	0.999	1.067
2-Nitrophenol	0.197	0.212	0.201	0.201	0.192
2,4-Dimethylphenol	0.297	0.322	0.300	0.290	0.288
2,4-Dichlorophenol	0.325	0.351	0.333	0.336	0.340
4-Chloro-3-methylphenol	0.312	0.340	0.321	0.318	0.318
2,4,6-Trichlorophenol	0.374	0.421	0.409	0.418	0.422
2,4,5-Trichlorophenol	0.404	0.439	0.458	0.468	0.475
2,4-Dinitrophenol	0.106	0.178	0.192	0.220	0.217
4-Nitrophenol	0.259	0.282	0.296	0.303	0.296
4,6-Dinitro-2-methylphenol	0.124	0.140	0.144	0.158	0.152
Pentachlorophenol	0.110	0.129	0.153	0.142	0.147
Benzoic Acid	0.105	0.146	0.163	0.156	0.177
N-Nitrosodimethylamine	0.486	0.509	0.529	0.574	0.584
bis(2-Chloroethyl)ether	1.140	1.103	1.052	1.026	1.006
1,3-Dichlorobenzene	1.518	1.467	1.420	1.389	1.387
1,4-Dichlorobenzene	1.532	1.488	1.460	1.422	1.400
1,2-Dichlorobenzene	1.490	1.431	1.407	1.386	1.360
bis(2-chloroisopropyl)ether	1.611	1.529	1.414	1.422	1.430
N-Nitroso-di-n-propylamine	0.896	0.900	0.889	0.902	0.962
Hexachloroethane	0.553	0.551	0.536	0.529	0.524
Nitrobenzene	0.498	0.492	0.464	0.495	0.492
Isophorone	0.696	0.699	0.654	0.664	0.654
bis(2-Chloroethoxy)methane	0.372	0.355	0.324	0.320	0.312
1,2,4-Trichlorobenzene	0.369	0.357	0.350	0.356	0.358
Naphthalene	1.039	0.994	0.941	0.926	0.918
4-Chloroaniline	0.436	0.435	0.414	0.381	0.375
Hexachlorobutadiene	0.228	0.222	0.212	0.220	0.214
2-Methylnaphthalene	0.724	0.717	0.680	0.658	0.675
Hexachlorocyclopentadiene	0.154	0.191	0.216	0.246	0.241
2-Chloronaphthalene	1.173	1.149	1.117	1.123	1.127
2-Nitroaniline	0.365	0.378	0.390	0.385	0.372
Dimethylphthalate	1.645	1.622	1.587	1.567	1.572
Acenaphthylene	1.931	1.867	1.832	1.805	1.862
2,6-Dinitrotoluene	0.351	0.368	0.363	0.359	0.354
3-Nitroaniline	0.340	0.352	0.349	0.341	0.337
Acenaphthene	1.200	1.331	1.233	1.245	1.259

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

LAB FILE ID: RRF10: Q7520 RRF20: Q7519 RRF50: Q7515
RRF80: Q7518 RRF120: Q7516

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.741	1.710	1.684	1.676	1.726
2,4-Dinitrotoluene	0.492	0.506	0.512	0.505	0.503
Diethylphthalate	1.709	1.682	1.674	1.643	1.655
4-Chlorophenyl-phenylether	0.767	0.744	0.748	0.748	0.765
Fluorene	1.393	1.361	1.380	1.394	1.448
4-Nitroaniline	0.342	0.350	0.350	0.329	0.324
N-Nitrosodiphenylamine	0.521	0.510	0.515	0.515	0.525
4-Bromophenyl-phenylether	0.223	0.217	0.221	0.213	0.213
Hexachlorobenzene	0.269	0.255	0.250	0.238	0.232
Phenanthrene	1.029	0.999	0.997	1.024	1.074
Anthracene	1.052	1.028	1.024	1.044	1.109
Carbazole	0.962	0.918	0.902	0.885	0.906
Di-n-butylphthalate	1.466	1.394	1.388	1.391	1.459
Fluoranthene	1.194	1.158	1.191	1.188	1.209
Pyrene	1.066	1.074	1.068	1.125	1.133
Benzidine	0.445	0.427	0.310	0.306	0.159
Butylbenzylphthalate	0.618	0.629	0.612	0.629	0.646
3,3'-Dichlorobenzidine	0.405	0.420	0.406	0.386	0.339
Benzo(a)anthracene	1.076	1.074	1.070	1.087	1.104
Chrysene	1.042	1.020	1.016	0.961	0.986
bis(2-Ethylhexyl)phthalate	0.875	0.873	0.887	0.926	0.961
Di-n-octylphthalate	1.701	1.649	1.702	1.739	1.823
Benzo(b)fluoranthene	1.155	1.152	1.245	1.233	1.357
Benzo(k)fluoranthene	1.270	1.260	1.273	1.228	1.209
Benzo(a)pyrene	1.090	1.100	1.164	1.140	1.146
Indeno(1,2,3-cd)pyrene	0.950	0.985	1.101	1.070	1.191
Dibenz(a,h)anthracene	0.879	1.009	1.041	1.043	1.061
Benzo(g,h,i)perylene	1.002	0.997	1.061	1.028	1.045
Pyridine	0.768	0.930	0.967	0.899	0.840
Aniline	1.510	1.523	1.450	1.477	1.456
Benzyl Alcohol	0.785	0.799	0.785	0.767	0.769
1,2-Diphenylhydrazine	0.668	0.644	0.612	0.623	0.626
Diphenyl	1.468	1.445	1.380	1.394	1.432
Diphenyl Ether	0.830	0.804	0.775	0.788	0.802
Acetophenone	1.782	1.796	1.736	1.663	1.748
N,N-Dimethylaniline	1.930	1.814	1.711	1.615	1.666
1,4-Dioxane	0.259	0.299	0.262	0.349	0.341
2,3,7,8-TCDD (screen)			0.145		
Benzaldehyde	0.888	0.792	0.652	0.596	0.348

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

LAB FILE ID: RRF10: Q7520 RRF20: Q7519 RRF50: Q7515
RRF80: Q7518 RRF120: Q7516

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Caprolactum	0.121	0.128	0.130	0.134	0.132
Atrazine	0.216	0.232	0.197	0.204	0.187
2-Fluorophenol (SUR)	0.973	0.985	1.047	1.103	1.090
Phenol-d5 (SUR)	1.278	1.290	1.286	1.292	1.271
2,4,6-Tribromophenol (SUR)	0.242	0.252	0.259	0.255	0.241
Nitrobenzene-d5 (SUR)	0.340	0.356	0.333	0.351	0.345
2-Fluorobiphenyl (SUR)	1.294	1.275	1.242	1.270	1.308
Terphenyl-d14 (SUR)	0.810	0.838	0.815	0.813	0.789

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	1.29611651	2.3*
2-Chlorophenol	AVRG	1.28850855	2.8*
2-Methylphenol	AVRG	1.01816621	4.2*
4-Methylphenol	AVRG	1.05654335	3.9*
2-Nitrophenol	AVRG	0.20077841	3.6*
2,4-Dimethylphenol	AVRG	0.29970554	4.5*
2,4-Dichlorophenol	AVRG	0.33716121	2.8*
4-Chloro-3-methylphenol	AVRG	0.32169378	3.4*
2,4,6-Trichlorophenol	AVRG	0.40889438	4.9*
2,4,5-Trichlorophenol	AVRG	0.44880493	6.4*
2,4-Dinitrophenol	AVRG	0.18286266	25.3**
4-Nitrophenol	AVRG	0.28721295	6.1**
4,6-Dinitro-2-methylphenol	AVRG	0.14375366	8.8*
Pentachlorophenol	AVRG	0.13637207	12.5*
Benzoic Acid	AVRG	0.14939177	18.1*
N-Nitrosodimethylamine	AVRG	0.53640421	7.8**
bis(2-Chloroethyl)ether	AVRG	1.06547672	5.2*
1,3-Dichlorobenzene	AVRG	1.43632417	3.9*
1,4-Dichlorobenzene	AVRG	1.46061762	3.6*
1,2-Dichlorobenzene	AVRG	1.41494608	3.5*
bis(2-chloroisopropyl)ether	AVRG	1.48131924	5.8*
N-Nitroso-di-n-propylamine	AVRG	0.90996642	3.3**
Hexachloroethane	AVRG	0.53861720	2.4*
Nitrobenzene	AVRG	0.48854478	2.8*
Isophorone	AVRG	0.67329560	3.3*
bis(2-Chloroethoxy)methane	AVRG	0.33648700	7.6*
1,2,4-Trichlorobenzene	AVRG	0.35794362	1.9*
Naphthalene	AVRG	0.96372671	5.4*
4-Chloroaniline	AVRG	0.40841871	7.2*
Hexachlorobutadiene	AVRG	0.21933098	2.9*
2-Methylnaphthalene	AVRG	0.69096250	4.1*
Hexachlorocyclopentadiene	AVRG	0.20966928	18.1**
2-Chloronaphthalene	AVRG	1.13792607	2.0*
2-Nitroaniline	AVRG	0.37794886	2.6*
Dimethylphthalate	AVRG	1.59871297	2.1*
Acenaphthylene	AVRG	1.85924179	2.5*
2,6-Dinitrotoluene	AVRG	0.35886336	2.0*
3-Nitroaniline	AVRG	0.34392775	1.8*
Acenaphthene	AVRG	1.25362245	3.9*

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

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.70748363	1.6*
2,4-Dinitrotoluene	AVRG	0.50407920	1.3*
Diethylphthalate	AVRG	1.67282024	1.5*
4-Chlorophenyl-phenylether	AVRG	0.75450311	1.4*
Fluorene	AVRG	1.39540499	2.1*
4-Nitroaniline	AVRG	0.39924288	3.6*
N-Nitrosodiphenylamine	AVRG	0.51725978	1.1*
4-Bromophenyl-phenylether	AVRG	0.21734835	2.1*
Hexachlorobenzene	AVRG	0.24881289	5.8*
Phenanthrene	AVRG	1.02486476	3.0*
Anthracene	AVRG	1.05145641	3.3*
Carbazole	AVRG	0.91497880	3.2*
Di-n-butylphthalate	AVRG	1.41948155	2.8*
Fluoranthene	AVRG	1.18792146	1.6*
Pyrene	AVRG	1.09318376	3.0*
Benzidine	AVRG	0.32975505	34.8*
Butylbenzylphthalate	AVRG	0.62692893	2.1*
3,3'-Dichlorobenzidine	AVRG	0.39140064	8.1*
Benzo(a)anthracene	AVRG	1.08225105	1.2*
Chrysene	AVRG	1.00502735	3.1*
bis(2-Ethylhexyl)phthalate	AVRG	0.90432482	4.2*
Di-n-octylphthalate	AVRG	1.72288071	3.7*
Benzo(b)fluoranthene	AVRG	1.22833017	6.8*
Benzo(k)fluoranthene	AVRG	1.24797565	2.2*
Benzo(a)pyrene	AVRG	1.12783212	2.8*
Indeno(1,2,3-cd)pyrene	AVRG	1.05941008	9.0*
Dibenz(a,h)anthracene	AVRG	1.00670060	7.3*
Benzo(g,h,i)perylene	AVRG	1.02686117	2.6*
Pyridine	AVRG	0.88107220	8.9*
Aniline	AVRG	1.48329369	2.2*
Benzyl Alcohol	AVRG	0.78104984	1.7*
1,2-Diphenylhydrazine	AVRG	0.63473919	3.5*
Diphenyl	AVRG	1.42374938	2.6**
Diphenyl Ether	AVRG	0.79995658	2.6**
Acetophenone	AVRG	1.74510216	3.0**
N,N-Dimethylaniline	AVRG	1.74743611	7.2**
1,4-Dioxane	AVRG	0.30216724	14.0**
2,3,7,8-TCDD (screen)	AVRG	0.14505863	0.0*
Benzaldehyde	AVRG	0.65522941	31.5*

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

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Caprolactum	AVRG	0.12884933	3.7*
Atrazine	AVRG	0.21118702	10.2*
2-Fluorophenol (SUR)	AVRG	1.03981222	5.7*
Phenol-d5 (SUR)	AVRG	1.28342545	6.7*
2,4,6-Tribromophenol (SUR)	AVRG	0.24988836	3.3*
Nitrobenzene-d5 (SUR)	AVRG	0.34489074	2.6*
2-Fluorobiphenyl (SUR)	AVRG	1.27787175	2.0*
Terphenyl-d14 (SUR)	AVRG	0.81334057	2.2*

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

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS5 Calibration Date: 06/05/02 Time: 1016

Lab File ID: Q7543 Init. Calib. Date(s): 06/04/02 06/04/02

Init. Calib. Times: 1200 1602

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.296	1.166		10.0	20.0
2-Chlorophenol	1.289	1.237		4.0	20.0
2-Methylphenol	1.018	0.947		7.0	
4-Methylphenol	1.057	0.934		11.6	
2-Nitrophenol	0.201	0.196		2.5	20.0
2,4-Dimethylphenol	0.299	0.290		3.0	20.0
2,4-Dichlorophenol	0.337	0.324		3.8	20.0
4-Chloro-3-methylphenol	0.322	0.300		6.8	20.0
2,4,6-Trichlorophenol	0.409	0.409		0.0	20.0
2,4,5-Trichlorophenol	0.449	0.448		0.2	
2,4-Dinitrophenol	0.183	0.202	0.05	-10.4	20.0
4-Nitrophenol	0.287	0.302	0.05	-5.2	20.0
4,6-Dinitro-2-methylphenol	0.144	0.158		-9.7	20.0
Pentachlorophenol	0.136	0.151		-11.0	20.0
Benzoic Acid	0.149	0.151		-1.3	
N-Nitrosodimethylamine	0.536	0.491	0.01	8.4	20.0
bis(2-Chloroethyl)ether	1.065	0.989		7.1	20.0
1,3-Dichlorobenzene	1.436	1.443		-0.5	20.0
1,4-Dichlorobenzene	1.460	1.444		1.1	20.0
1,2-Dichlorobenzene	1.415	1.415		0.0	20.0
bis(2-chloroisopropyl)ether	1.481	1.268		14.4	20.0
N-Nitroso-di-n-propylamine	0.910	0.817	0.05	10.2	20.0
Hexachloroethane	0.539	0.547		-1.5	20.0
Nitrobenzene	0.488	0.478		2.0	20.0
Isophorone	0.673	0.624		7.3	20.0
bis(2-Chloroethoxy)methane	0.337	0.304		9.8	20.0
1,2,4-Trichlorobenzene	0.358	0.354		1.1	20.0
Naphthalene	0.964	0.945		2.0	20.0
4-Chloroaniline	0.408	0.387		5.1	
Hexachlorobutadiene	0.219	0.227		-3.6	20.0
2-Methylnaphthalene	0.691	0.653		5.5	
Hexachlorocyclopentadiene	0.210	0.250	0.05	-19.0	20.0
2-Chloronaphthalene	1.138	1.133		0.4	20.0
2-Nitroaniline	0.378	0.378		0.0	
Dimethylphthalate	1.599	1.566		2.1	20.0
Acenaphthylene	1.859	1.846		0.7	20.0
2,6-Dinitrotoluene	0.359	0.361		-0.6	20.0

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

Instrument ID: BNAMS5 Calibration Date: 06/05/02 Time: 1016

Lab File ID: Q7543 Init. Calib. Date(s): 06/04/02 06/04/02

Init. Calib. Times: 1200 1602

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.344	0.336		2.3	
Acenaphthene	1.254	1.249		0.4	20.0
Dibenzofuran	1.707	1.656		3.0	
2,4-Dinitrotoluene	0.504	0.505		-0.2	20.0
Diethylphthalate	1.673	1.636		2.2	20.0
4-Chlorophenyl-phenylether	0.754	0.728		3.4	20.0
Fluorene	1.395	1.332		4.5	20.0
4-Nitroaniline	0.339	0.333		1.8	
N-Nitrosodiphenylamine	0.517	0.507		1.9	20.0
4-Bromophenyl-phenylether	0.217	0.219		-0.9	20.0
Hexachlorobenzene	0.249	0.268		-7.6	20.0
Phenanthrene	1.025	1.004		2.0	20.0
Anthracene	1.051	1.031		1.9	20.0
Carbazole	0.915	0.910		0.5	
Di-n-butylphthalate	1.420	1.397		1.6	20.0
Fluoranthene	1.188	1.242		-4.5	20.0
Pyrene	1.093	0.982		10.2	20.0
Benzidine	0.329	0.345		-4.9	
Butylbenzylphthalate	0.627	0.582		7.2	20.0
3,3'-Dichlorobenzidine	0.391	0.420		-7.4	20.0
Benzo(a)anthracene	1.082	1.056		2.4	20.0
Chrysene	1.005	1.010		-0.5	20.0
bis(2-Ethylhexyl)phthalate	0.904	0.826		8.6	20.0
Di-n-octylphthalate	1.723	1.549		10.1	20.0
Benzo(b)fluoranthene	1.228	1.173		4.5	20.0
Benzo(k)fluoranthene	1.248	1.270		-1.8	20.0
Benzo(a)pyrene	1.128	1.125		0.3	20.0
Indeno(1,2,3-cd)pyrene	1.059	1.125		-6.2	20.0
Dibenz(a,h)anthracene	1.007	1.127		-11.9	20.0
Benzo(g,h,i)perylene	1.027	1.154		-12.4	20.0
Pyridine	0.881	0.802		9.0	
Aniline	1.483	1.340		9.6	
Benzyl Alcohol	0.781	0.710		9.1	
1,2-Diphenylhydrazine	0.635	0.634		0.2	
Diphenyl	1.424	1.403	0.001	1.5	20.0
Diphenyl Ether	0.800	0.791	0.001	1.1	20.0
Acetophenone	1.745	1.602	0.001	8.2	20.0

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

Instrument ID: BNAMS5 Calibration Date: 06/05/02 Time: 1016

Lab File ID: Q7543 Init. Calib. Date(s): 06/04/02 06/04/02

Init. Calib. Times: 1200 1602

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N,N-Dimethylaniline	1.747	1.650	0.001	5.6	20.0
1,4-Dioxane	0.302	0.291	0.01	3.6	20.0
2,3,7,8-TCDD (screen)	0.145	0.152		-4.8	20.0
Benzaldehyde	0.655	0.480		26.7	20.0
~~Caprolactum~~	~~0.129~~	~~0.118~~		~~8.5~~	~~20.0~~
~~Atrazine~~	~~0.211~~	~~0.321~~		~~-4.7~~	~~20.0~~
2-Fluorophenol (SUR)	1.040	1.012		2.7	
Phenol-d5 (SUR)	1.283	1.183		7.8	
2,4,6-Tribromophenol (SUR)	0.250	0.271		-8.4	20.0
Nitrobenzene-d5 (SUR)	0.345	0.340		1.4	
2-Fluorobiphenyl (SUR)	1.278	1.273		0.4	
Terphenyl-d14 (SUR)	0.813	0.774		4.8	

Surrogate Compound Recovery Summary

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 625

Matrix: WATER Level: LOW Lab Job No: W671

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	WB143A	90	85	99		0
02	351685	94	86	95		0
03	351686	96	89	97		0
04	351687	93	90	89		0
05	351688	94	88	94		0
06	351691	93	86	93		0
07	351692	97	89	97		0
08	351693	90	86	105		0
09	351695	88	88	103		0
10	351689	98	92	92		0
11	351689MS	86	91	88		0
12	351689MSD	84	94	88		0
13	351694	86	92	90		0
14	351696	98	96	88		0
15	351697	98	92	88		0
16	351698	39*	90	86		1
17	351698R1	41*	90	86		1
18						
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25						
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27						
28						
29						
30						

		QC LIMITS
S1	= Nitrobenzene-d5	(43-126)
S2	= 2-Fluorobiphenyl	(46-126)
S3	= Terphenyl-d14	(55-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

page 1 of 1

Spike Recovery Summary

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 351689

MS Sample from Lab Job No: W671

QA Batch: 7297

Compound	MS % REC.	BS % REC.	LIMITS
bis(2-Chloroethyl)ether	94	100	12-158
1,3-Dichlorobenzene	76	82	0-172
1,4-Dichlorobenzene	76	82	20-124
1,2-Dichlorobenzene	76	83	32-129
bis(2-chloroisopropyl)ether	82	98	36-166
N-Nitroso-di-n-propylamine	82	100	0-230
Hexachloroethane	71	79	40-113
Nitrobenzene	88	100	35-180
Isophorone	88	100	21-196
bis(2-Chloroethoxy)methane	94	100	33-184
1,2,4-Trichlorobenzene	82	89	44-142
Naphthalene	88	92	21-133
Hexachlorobutadiene	82	83	24-116
2-Chloronaphthalene	94	98	60-118
Dimethylphthalate	0	74	0-112
Acenaphthylene	94	100	33-145
2,6-Dinitrotoluene	88	110	50-158
Acenaphthene	82	86	47-145
2,4-Dinitrotoluene	82	110	39-139
Diethylphthalate	88	97	0-114
4-Chlorophenyl-phenylether	94	110	25-158
Fluorene	94	110	59-121
4-Bromophenyl-phenylether	100	100	53-127
Hexachlorobenzene	106	110	0-152
Phenanthrene	100	110	54-120
Anthracene	94	110	27-133
Di-n-butylphthalate	94	110	1-118
Fluoranthene	100	110	26-137
Pyrene	94	110	52-115
Butylbenzylphthalate	94	110	0-152

* Values outside of QC limits

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 351689

MS Sample from Lab Job No: W671

QA Batch: 7297

Compound	MS % REC.	BS % REC.	LIMITS
3,3'-Dichlorobenzidine	94	86	0-262
Benzo(a)anthracene	94	110	33-143
Chrysene	100	110	17-168
bis(2-Ethylhexyl)phthalate	59	110	8-158
Di-n-octylphthalate	82	110	4-146
Benzo(b)fluoranthene	88	110	24-159
Benzo(k)fluoranthene	94	110	11-162
Benzo(a)pyrene	88	110	17-163
Indeno(1,2,3-cd)pyrene	88	120	0-171
Dibenz(a,h)anthracene	88	110	0-227
Benzo(g,h,i)perylene	100	120	0-219

* Values outside of QC limits

Spike Recovery: 0 out of 82 outside limits

COMMENTS:

Internal Standard Area and RT Summary

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Q7515 Date Analyzed: 06/04/02

Instrument ID: BNAMS5 Time Analyzed: 1200

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	207810	14.01	849824	16.11	1218266	25.98
	UPPER LIMIT	415620	14.51	1699648	16.61	2436532	26.48
	LOWER LIMIT	103905	13.51	424912	15.61	609133	25.48
	LABORATORY SAMPLE NO.						
01	WB143A	152407	14.00	605344	16.10	907009	25.95
02	351685	186541	14.00	734320	16.10	1063919	25.95
03	351686	157453	14.00	610597	16.10	880779	25.95
04	351687	168221	14.01	660610	16.11	923439	25.95
05	351688	166535	14.01	644632	16.11	964175	25.96
06	351691	137111	14.01	533752	16.11	838013	25.96
07	351692	147830	14.01	568981	16.11	961670	25.96
08	351693	142744	14.01	541591	16.11	881124	25.96
09	351695	119179	14.01	457291	16.11	754202	25.95
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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): Q7515 Date Analyzed: 06/04/02

Instrument ID: BNAMS5 Time Analyzed: 1200

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	567543	18.98	1158069	21.41	1082788	30.34
	UPPER LIMIT	1135086	19.48	2316138	21.91	2165576	30.84
	LOWER LIMIT	283772	18.48	579034	20.91	541394	29.84
	LABORATORY SAMPLE NO.						
01	WB143A	405987	18.96	816701	21.40	803197	30.30
02	351685	488868	18.97	979345	21.40	951797	30.31
03	351686	402184	18.97	803358	21.41	795771	30.31
04	351687	418653	18.97	839601	21.41	843655	30.31
05	351688	418303	18.97	875643	21.41	898758	30.32
06	351691	361203	18.98	728381	21.41	751934	30.32
07	351692	392605	18.98	820084	21.41	878354	30.32
08	351693	362779	18.97	750515	21.41	821851	30.32
09	351695	303644	18.98	631929	21.42	716584	30.32
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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): Q7543 Date Analyzed: 06/05/02

Instrument ID: BNAMS5 Time Analyzed: 1016

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	149106	14.04	568630	16.14	847784	26.02
	UPPER LIMIT	298212	14.54	1137260	16.64	1695568	26.52
	LOWER LIMIT	74553	13.54	284315	15.64	423892	25.52
	LABORATORY SAMPLE NO.						
01	351689	145857	14.05	532462	16.14	820753	26.01
02	351689MS	152101	14.05	590980	16.15	916483	26.01
03	351689MSD	102700	14.05	395566	16.14	612742	26.01
04	351694	109960	14.05	416333	16.15	677943	26.01
05	351696	107245	14.05	401599	16.15	618746	26.00
06	351697	131475	14.05	501204	16.14	790423	26.01
07	351698	108899	14.05	416404	16.14	672186	26.01
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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): Q7543 Date Analyzed: 06/05/02

Instrument ID: BNAMS5 Time Analyzed: 1016

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	350358	19.00	693866	21.45	813017	30.43
	UPPER LIMIT	700716	19.50	1387732	21.95	1626034	30.93
	LOWER LIMIT	175179	18.50	346933	20.95	406508	29.93
	LABORATORY SAMPLE NO.						
01	351689	351052	19.01	702320	21.45	817743	30.42
02	351689MS	386941	19.02	776212	21.45	905721	30.43
03	351689MSD	258690	19.01	503192	21.45	642225	30.41
04	351694	281571	19.02	578099	21.44	701155	30.41
05	351696	250301	19.01	475127	21.45	655078	30.41
06	351697	327633	19.01	634334	21.45	814791	30.41
07	351698	274201	19.01	563353	21.45	692541	30.40
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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): Q7567 Date Analyzed: 06/06/02

Instrument ID: BNAMS5 Time Analyzed: 0619

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	122512	14.05	508612	16.14	854474	26.01
	UPPER LIMIT	245024	14.55	1017224	16.64	1708948	26.51
	LOWER LIMIT	61256	13.55	254306	15.64	427237	25.51
	LABORATORY SAMPLE NO.						
01	351698R1	103861	14.04	399488	16.14	749998	25.99
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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): Q7567 Date Analyzed: 06/06/02

Instrument ID: BNAMS5 Time Analyzed: 0619

		IS4 (ANT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	351327	19.01	734021	21.44	743274	30.40
	UPPER LIMIT	702654	19.51	1468042	21.94	1486548	30.90
	LOWER LIMIT	175664	18.51	367010	20.94	371637	29.90
	LABORATORY SAMPLE NO.						
01	351698R1	277367	19.00	589017	21.44	725210	30.38
02							
03							
04							
05							
06							
07							
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14							
15							
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17							
18							
19							
20							
21							
22							

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.

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Appendix F
MW19/Hot Spot 1 & Surface Water Laboratory Analytical Report

06/27/2002

SEVERN TRENT SERVICES

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

RMT
527 Plymouth Road
Suite 406
Plymouth Meeting, PA 19462

Attention: Mr. John Mihalich

Laboratory Results
Job No. X147 - L.E. Carpenter

Dear Mr. Mihalich:

Enclosed are the results you requested for the following sample(s) received at our laboratory on June 6, 2002.

Lab No.	Client ID	Analysis Required
354696	MW-19-6	BTEX (GC) Bis-2-EHP
354697	MW-19-9D	BTEX (GC) Bis-2-EHP
354698	MW-19-8	BTEX (GC) Bis-2-EHP
354699	MW-19-7	BTEX (GC) Bis-2-EHP
354700	MW-19-5	BTEX (GC) Bis-2-EHP
354701	MW-19-2	BTEX (GC) Bis-2-EHP
354702	MW-19-1	BTEX (GC) Bis-2-EHP
354703	MW-19-3	BTEX (GC) Bis-2-EHP
354704	FB01	BTEX (GC) Bis-2-EHP

SEVERN TRENT SERVICES

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. X147 - L.F. Carpenter (cont'd)

Lab No.	Client ID	Analysis Required
354705	Dup01	BTEX (GC) Bis-2-EHP
354706	MW-19-4	BTEX (GC) Bis-2-EHP
354707	MW-19	BTEX (GC) Bis-2-EHP
354708	GEI-2I	BTEX (GC) Bis-2-EHP
354709	GEI-2S	BTEX (GC) Bis-2-EHP
354710	Trip_Blank	BTEX (GC)
354711	SW-5-1	BTEX (GC) Bis-2-EHP
354712	SW-8-1	BTEX (GC) Bis-2-EHP
354713	SW-7-1	BTEX (GC)

SEVERN TRENT SERVICES

STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Laboratory Results
Job No. X147 - J.E. Carpenter (cont'd)

Lab No.	Client ID	Analysis Required
		Bis-2-EHP

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

Very Truly Yours,

Michael J. Urban
Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac

STL Edison is a part of Severn Trent Laboratories, Inc.

SEVERN TRENT SERVICES

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SEVERN TRENT SERVICES

Analytical Results Summary

SEVERN TRENT SERVICES

Client ID: **MW-19-6**
Site: L.E. Carpenter

Lab Sample No: **354696**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3575.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	0.22
Toluene	13	0.24
Ethylbenzene	1.7	0.18
Xylene (Total)	4.1	0.20

SEVERN TRENT SERVICES

Client ID: MW-19-9D
Site: L.E. Carpenter

Lab Sample No: 354697
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3576.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **MW-19-8**
Site: L.E. Carpenter

Lab Sample No: **354698**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3577.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW-19-7
Site: L.E. Carpenter

Lab Sample No: 354699
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3578.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	0.48	0.22
Toluene	27	0.24
Ethylbenzene	1.6	0.18
Xylene (Total)	27	0.20

SEVERN TRENT SERVICES

Client ID: MW-19-5
Site: L.E. Carpenter

Lab Sample No: 354700
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3579.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5000.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	1100
Toluene	92000	1200
Ethylbenzene	1100	900
Xylene (Total)	6300	1000

SEVERN TRENT SERVICES

Client ID: **MW-19-2**
Site: L.E. Carpenter

Lab Sample No: **354701**
Lab Job No: **X147**

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3588.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	0.22
Toluene	36	0.24
Ethylbenzene	19	0.18
Xylene (Total)	39	0.20

SEVERN TRENT SERVICES

Client ID: **MW-19-1**
Site: L.E. Carpenter

Lab Sample No: **354702**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3589.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW-19-3
Site: L.E. Carpenter

Lab Sample No: 354703
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3590.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **354704**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3591.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: Dup01
Site: L.E. Carpenter

Lab Sample No: 354705
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3592.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5000.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	1100
Toluene	92000	1200
Ethylbenzene	1300	900
Xylene (Total)	6900	1000

SEVERN TRENT SERVICES

Client ID: **MW-19-4**
Site: L.E. Carpenter

Lab Sample No: **354706**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3593.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW-19
Site: L.E. Carpenter

Lab Sample No: 354707
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3547.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1000.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	220
Toluene	30000	240
Ethylbenzene	1000	180
Xylene (Total)	6000	200

SEVERN TRENT SERVICES

Client ID: GEI-2I
Site: L.E. Carpenter

Lab Sample No: 354708
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3594.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **GEI-2S**
Site: L.E. Carpenter

Lab Sample No: **354709**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3595.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	1.2	0.22
Toluene	16	0.24
Ethylbenzene	2.6	0.18
Xylene (Total)	5.1	0.20

SEVERN TRENT SERVICES

Client ID: Trip_Blank
Site: L.E. Carpenter

Lab Sample No: 354710
Lab Job No: X147

Date Sampled: 05/20/02
Date Received: 06/06/02
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3548.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: **SW-5-1**
Site: L.E. Carpenter

Lab Sample No: **354711**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3549.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	0.22
Toluene	1.0	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: SW-8-1
Site: L.E. Carpenter

Lab Sample No: 354712
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3550.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	0.22
Toluene	1.0	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: SW-7-1
Site: L.E. Carpenter

Lab Sample No: 354713
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3551.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

SEVERN TRENT SERVICES

Client ID: MW-19-6
Site: L.E. Carpenter

Lab Sample No: 354696
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11537.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	2.3	0.4

SEVERN TRENT SERVICES

Client ID: MW-19-9D
Site: L.E. Carpenter

Lab Sample No: 354697
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11538.d

Matrix: WATER
Level: LOW
Sample Volume: 940 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	1.9	0.5

SEVERN TRENT SERVICES

Client ID: MW-19-8
Site: L.E. Carpenter

Lab Sample No: 354698
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1540.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	0.4

SEVERN TRENT SERVICES

Client ID: MW-19-7
Site: L.E. Carpenter

Lab Sample No: 354699
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11541.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	0.4

SEVERN TRENT SERVICES

Client ID: MW-19-5
Site: L.E. Carpenter

Lab Sample No: 354700
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1571.d

Matrix: WATER
Level: LOW
Sample Volume: 900 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	ND	9.8

SEVERN TRENT SERVICES

Client ID: MW-19-2
Site: L.E. Carpenter

Lab Sample No: 354701
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1542.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	0.4

SEVERN TRENT SERVICES

Client ID: MW-19-1
Site: L.E. Carpenter

Lab Sample No: 354702
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1543.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	0.6	0.4

SEVERN TRENT SERVICES

Client ID: MW-19-3
Site: L.E. Carpenter

Lab Sample No: 354703
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1544.d

Matrix: WATER
Level: LOW
Sample Volume: 900 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	0.5

SEVERN TRENT SERVICES

Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **354704**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11545.d

Matrix: WATER
Level: LOW
Sample Volume: 920 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	48	0.5

SEVERN TRENT SERVICES

Client ID: Dup-1
Site: L.E. Carpenter

Lab Sample No: 354705
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11572.d

Matrix: WATER
Level: LOW
Sample Volume: 940 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	ND	9.4

SEVERN TRENT SERVICES

Client ID: MW-19-4
Site: L.E. Carpenter

Lab Sample No: 354706
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1546.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	ND	0.5

SEVERN TRENT SERVICES

Client ID: MW-19
Site: L.E. Carpenter

Lab Sample No: 354707
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1573.d

Matrix: WATER
Level: LOW
Sample Volume: 600 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	5.6	0.7

SEVERN TRENT SERVICES

Client ID: GEI-2I
Site: L.E. Carpenter

Lab Sample No: 354708
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1547.d

Matrix: WATER
Level: LOW
Sample Volume: 900 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	1.4	0.5

SEVERN TRENT SERVICES

Client ID: GEI-2S
Site: L.E. Carpenter

Lab Sample No: 354709
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1548.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	2.4	0.4

SEVERN TRENT SERVICES

Client ID: SW-5-1
Site: L.E. Carpenter

Lab Sample No: 354711
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1577.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	0.4

SEVERN TRENT SERVICES

Client ID: SW-8-1
Site: L.E. Carpenter

Lab Sample No: 354712
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1595.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	0.6	0.4

SEVERN TRENT SERVICES

Client ID: SW-7-1
Site: L.E. Carpenter

Lab Sample No: 354713
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1579.d

Matrix: WATER
Level: LOW
Sample Volume: 900 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	0.5

General Information

Chain of Custody

X147

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

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 1 OF 3

Name (for report and invoice) John Mihalich	Samplers Name (Printed) JPM/SL	Site/Project Identification L.E. Carpenter
Company RMT, Inc	P.O. #	State (Location of site) NJ: ☑ NY: ☐ Other:
		Regulatory Program
Address 527 Plymouth Rd Suite 406	Analysis Turnaround Time: Standard ☐	LAB USE ONLY
City Plymouth Meeting State PA 19462	Rush Charges Authorized For: 2 Week ☐ 1 Week ☑ Other ☐	Project No:
Phone 610-834-0490 Fax 610-834-1469		Job No: X147

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

Sample Identification	Date	Time	Matrix	No. of. Cont.	BTEX Method 602	DEHP									Sample Numbers
MW19-6	6/5/02	10:01	GW	4	✓	✓									354696
MW19-9D	6/5/02	11:25	GW	4	✓	✓									354697
MW19-8	6/5/02	12:23	GW	4	✓	✓									354698
MW19-7	6/5/02	14:06	GW	4	✓	✓									354699
MW19-5	6/5/02	15:19	GW	4	✓	✓									354700
MW19-2	6/5/02	16:40	GW	4	✓	✓									354701
MW19-1	6/5/02	18:19	GW	4	✓	✓									354702
MW19-3	6/5/02	17:40	GW	4	✓	✓									354703
FB01	6/5/02	16:21	GW	3	✓	✓									354704
DUP01			GW	4	✓	✓									354705
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH				Soil:											
6 = Other _____, 7 = Other _____				Water:	2	2									

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) Sarah Lapka	RMT	6/6/02 14:51	1) [signature]	STL Edison Jason Paluch
2) [signature]	STL Edison Jason Paluch	06.06.02 15:55	2) Gerardo Carpio	STL EDISON
3)			3)	
4)			4)	

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

X147

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

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 2 OF 3

Name (for report and invoice) John Mihalich	Samplers Name (Printed) JPM/SL	Site/Project Identification L.E. Carpenter
Company RMT, Inc	P.O. #	State (Location of site): NJ: ☑ NY: ☐ Other:
		Regulatory Program:
Address 527 Plymouth Rd Suite 406	Analysis Turnaround Time: Standard ☐	
City Plymouth Meeting State PA 19462	Rush Charges Authorized For: 2 Week ☐ 1 Week ☑ Other ☐	
Phone 610-834-0490 Fax 610-834-1469		

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

LAB USE ONLY
Project No:
Job No: X147

Sample Identification	Date	Time	Matrix	No. of. Cont.	BTEX Method 602	DEHP									Sample Numbers
MW19-4	6/6/02	8:25	GW	4	✓	✓									354706
MW19	6/6/02	9:38	GW	4	✓	✓									354707
MW19 MS/MSD	6/6/02	9:38	GW	4	✓	✓									↓ ↓
GEI-2I	6/6/02	10:42	GW	4	✓	✓									354708
GEI-2S	6/6/02	11:46	GW	4	✓	✓									354709
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~GW~~	~~4~~	~~✓~~	~~✓~~									—
Trip blank	5/20/02			2	✓										354710
Temp blank (1 per cooler)				2											~~354711~~ SC

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

Soil:		
Water:	2	2

Special Instructions _____ Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) Sarah Lapka	RMT	6/6/02 14:51	1) [signature]	STL Edison Jason Paluch
2) [signature]	STL Edison Jason Paluch	06.06.02 15:56	2) [signature]	STL EDISON
3)			3)	
4)			4)	

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

X147

STL EDISON
777 New Durham Road
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CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 3 OF 3

Name (for report and invoice) John Mihalich	Samplers Name (Printed) JPM/SL	Site/Project Identification L.E. Carpenter
Company RMT, Inc	P.O. #	State (Location of site): NJ: ☑ NY: ☐ Other:
		Regulatory Program:
Address 527 Plymouth Rd Suite 406	Analysis Turnaround Time: Standard ☐	LAB USE ONLY Project No:
City Plymouth Meeting State PA 19462	Rush Charges Authorized For: 2 Week ☐ 1 Week ☑ Other ☐	Job No: X147
Phone 610-834-0490 Fax 610-834-1469		

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

Sample Identification	Date	Time	Matrix	No. of Cont.	BTEX Method 602	DEHP									Sample Numbers
SW-5-1	6/6/02	13:55	GW	4	✓	✓						354711			~~354712~~ SC
SW-8-1	6/6/02	14:32	GW	4	✓	✓						354712			~~354713~~ SC
SW-7-1	6/6/02	14:43	GW	4	✓	✓						354713			~~354714~~ SC

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

Soil:
Water:

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) Sarah Lapka	RMT	6/6/02 14:51	1) [signature]	STL Edison Jason Paluch
2) [signature]	STL Edison Jason Paluch	06.06.02 15:52	2) Gerardo Corrio	STL EDISON
3)			3)	
4)			4)	

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

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: X147 **Site:** L.E. Carpenter

Client: RMT

BNAMS

WATER - 625

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
354696	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/10/2002	Szczech, Anna	7343
354697	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/10/2002	Szczech, Anna	7343
354698	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/10/2002	Szczech, Anna	7343
354699	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/10/2002	Szczech, Anna	7343
354700	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/12/2002	Szczech, Anna	7343
354701	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/10/2002	Szczech, Anna	7343
354702	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/10/2002	Szczech, Anna	7343
354703	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/11/2002	Szczech, Anna	7343
354704	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/11/2002	Szczech, Anna	7343
354705	6/5/2002	6/6/2002	6/7/2002	Patel, Vikram	6/12/2002	Szczech, Anna	7343
354706	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/11/2002	Szczech, Anna	7343
354707	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/12/2002	Szczech, Anna	7343
354708	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/11/2002	Szczech, Anna	7343
354709	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/11/2002	Szczech, Anna	7343
354711	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/12/2002	Szczech, Anna	7343
354712	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/12/2002	Bayoumi, Wahied	7343
354713	6/6/2002	6/6/2002	6/7/2002	Patel, Vikram	6/12/2002	Szczech, Anna	7343

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: X147 **Site:** L.E. Carpenter

Client: RMT

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
354696	6/5/2002	6/06/2002			6/10/2002	Zhang, John	7377
354697	6/5/2002	6/06/2002			6/10/2002	Zhang, John	7377
354698	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7377
354699	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7377
354700	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7377
354701	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7380
354702	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7380
354703	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7380
354704	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7380
354705	6/5/2002	6/06/2002			6/11/2002	Zhang, John	7380
354706	6/6/2002	6/06/2002			6/11/2002	Zhang, John	7380
354707	6/6/2002	6/06/2002			6/9/2002	Zhang, John	7377
354708	6/6/2002	6/06/2002			6/11/2002	Zhang, John	7380
354709	6/6/2002	6/06/2002			6/11/2002	Zhang, John	7380
354710	5/20/2002	6/06/2002			6/9/2002	Zhang, John	7377
354711	6/6/2002	6/06/2002			6/9/2002	Zhang, John	7377
354712	6/6/2002	6/06/2002			6/10/2002	Zhang, John	7377
354713	6/6/2002	6/06/2002			6/10/2002	Zhang, John	7377

Methodology Review

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 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

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

NON-CONFORMANCE SUMMARY

STL Edison Job Number: X147

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 Edison Job Number: X147

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: [signature] Date: 6-27-02

GC/PID Forms and Data

Results Summary and Chromatograms

Client ID: **MW-19-6**
Site: L.E. Carpenter

Lab Sample No: **354696**
Lab Job No: X147

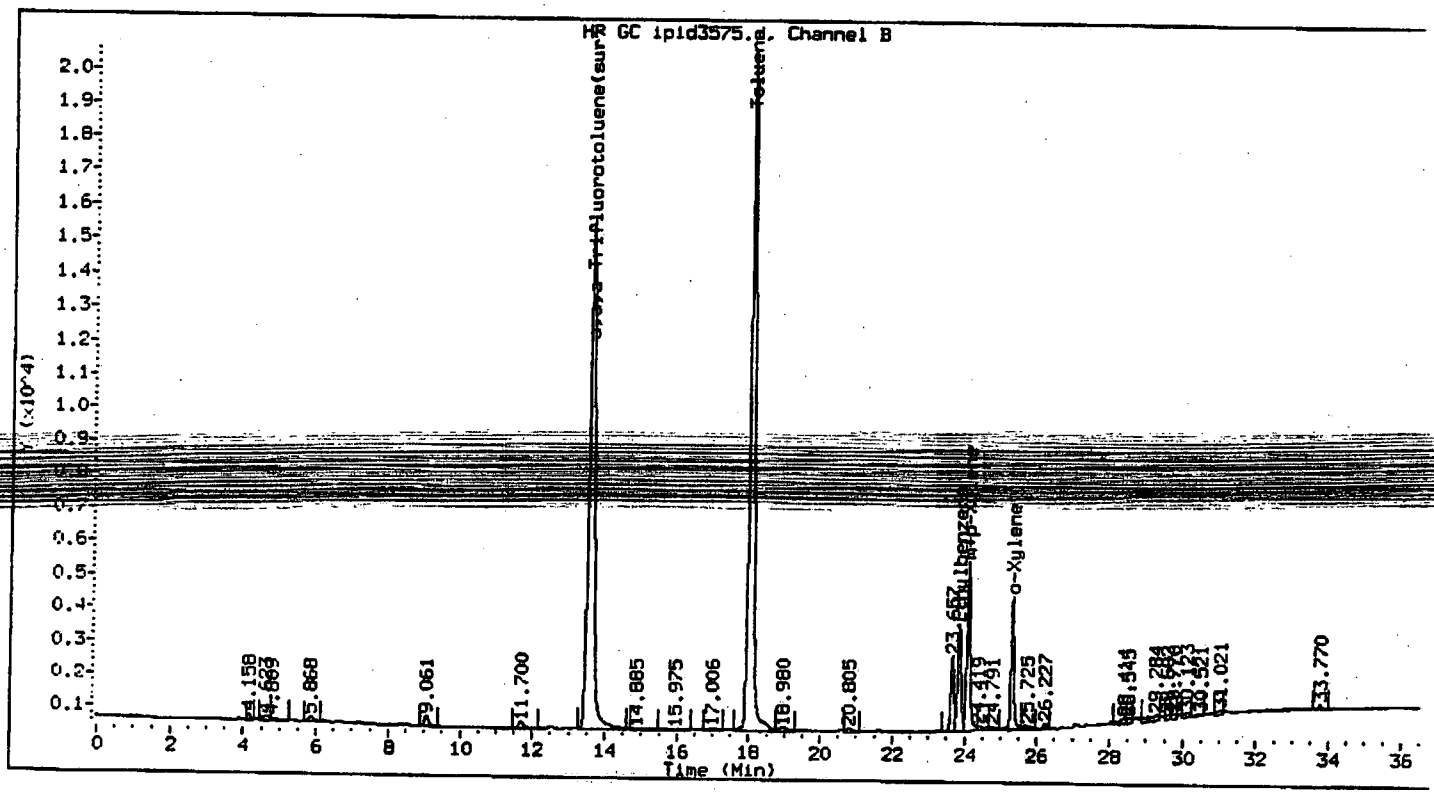
Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3575.d

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	0.22
Toluene	13	0.24
Ethylbenzene	1.7	0.18
Xylene (Total)	4.1	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/10jun02.b/ipid3575.d
Report Date 06/11/2002 12:00



Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : 354696
Lab ID : 354696
Inj Date : 10-JUN-2002 23:01
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

J x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
m+p-Xylene	24.089	24.093	0.005	158895	2.281	2.281
o-Xylene	25.110	25.114	0.004	142935	1.839	1.839
Toluene	18.023	18.029	0.007	910175	12.844	12.844
Ethylbenzene	23.846	23.852	0.006	100486	1.739	1.739
Xylene (Total)	25.019	25.019	0.000	271830	4.120	4.120
a,a,a-Trifluorotoluene(sur)	13.566	13.570	0.004	827551	30.734	30.734

Client ID: **MW-19-9D**
Site: L.E. Carpenter

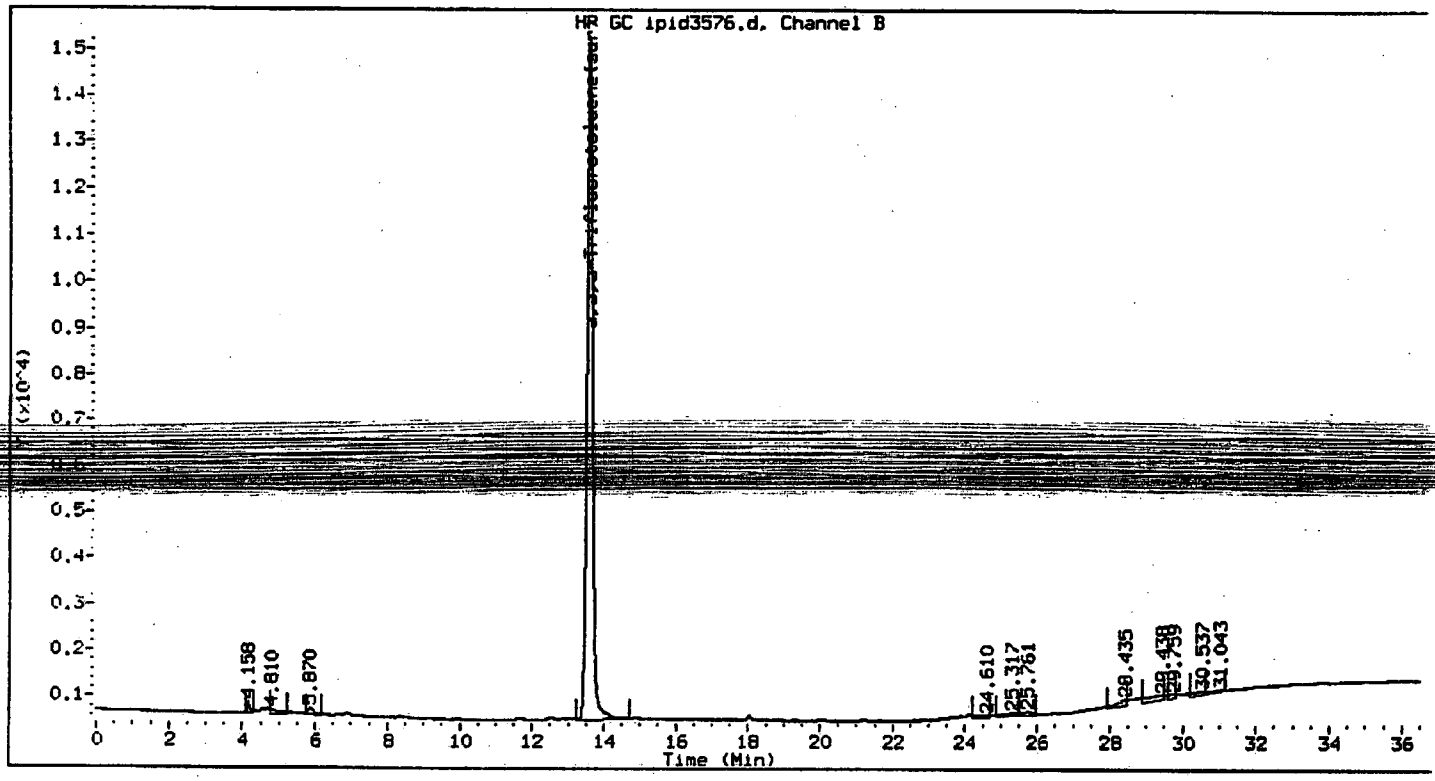
Lab Sample No: **354697**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3576.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : 354697
Lab ID : 354697
Inj Date : 10-JUN-2002 23:41
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

J x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.568	13.570	0.002	797775	29.628	29.628

Client ID: **MW-19-8**
Site: L.E. Carpenter

Lab Sample No: **354698**
Lab Job No: X147

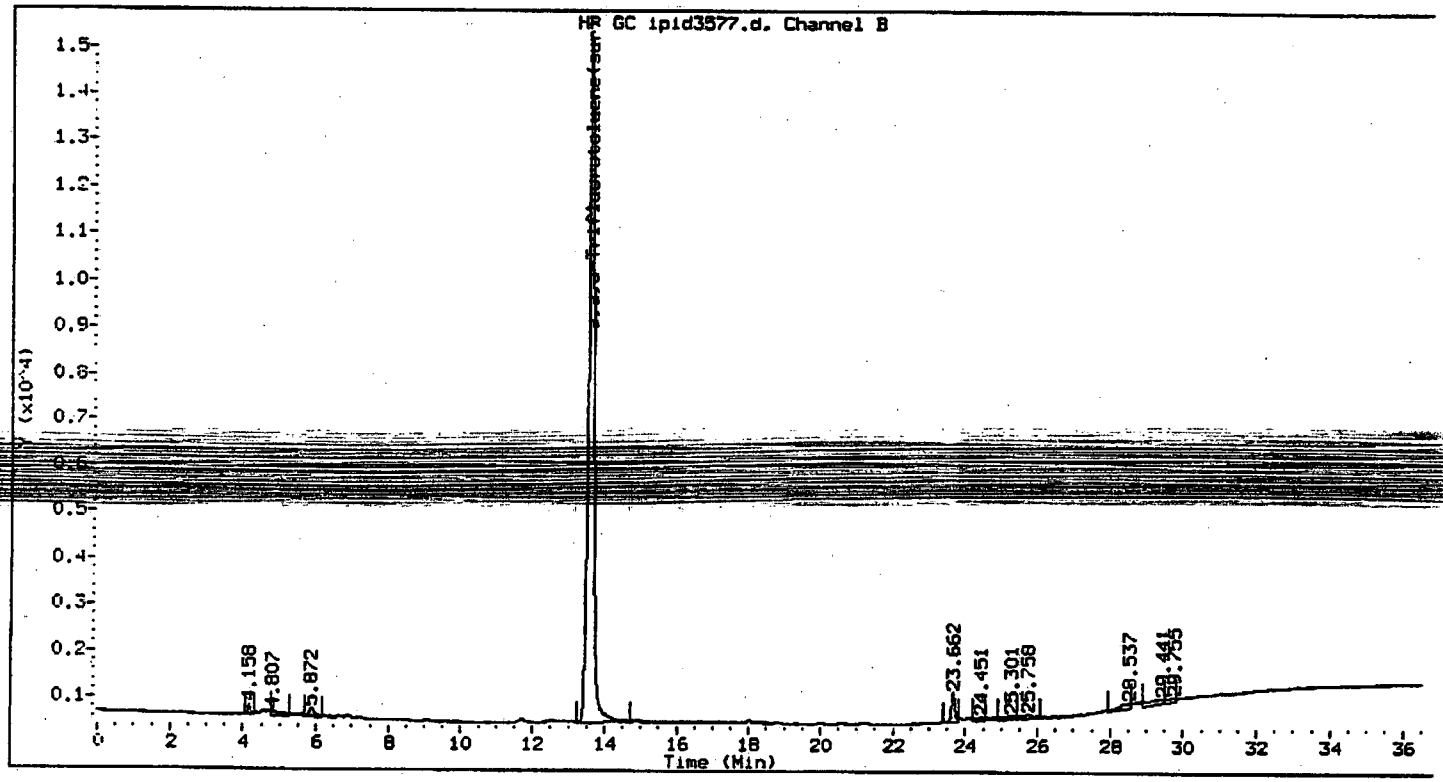
Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3577.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/10jun02.b/ipid3577.d Page 1
Report Date 06/11/2002 12:00



Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : 354698
Lab ID : 354698
Inj Date : 11-JUN-2002 00:22
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

J X 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.570	13.570	0.000	799016	29.674	29.674

Client ID: **MW-19-7**
Site: L.E. Carpenter

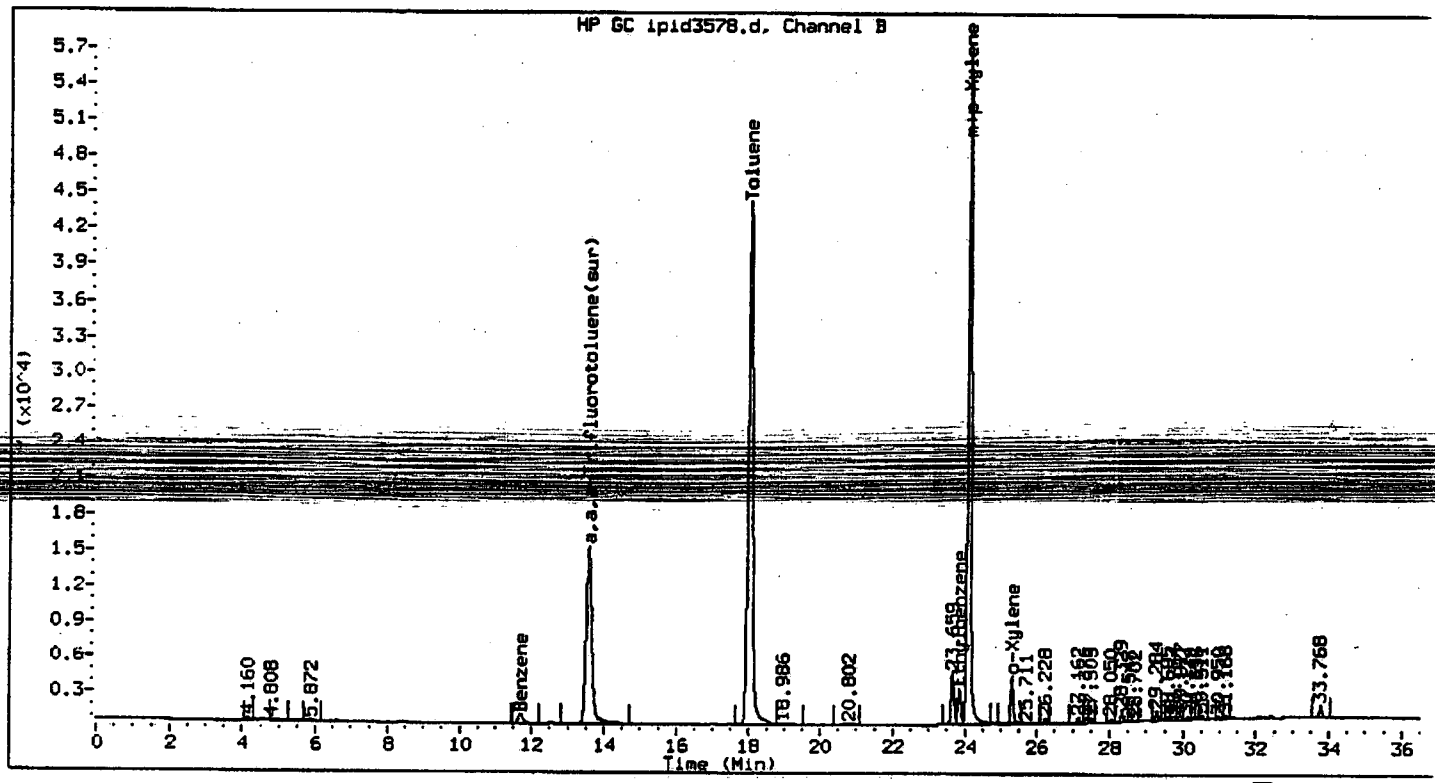
Lab Sample No: **354699**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3578.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	0.48	0.22
Toluene	27	0.24
Ethylbenzene	1.6	0.18
Xylene (Total)	27	0.20



JXZ

Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : 354699
Lab ID : 354699
Inj Date : 11-JUN-2002 01:02
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)
m+p-Xylene	24.095	24.093	0.002	1700258	24.406	24.406
o-Xylene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Benzene	11.700	11.698	0.003	38083	0.484	0.484
Toluene	18.026	18.029	0.004	1934697	27.302	27.302
Ethylbenzene	23.849	23.852	0.003	91106	1.577	1.577
Xylene (Total)	25.019	25.019	0.000	1809981	27.432	27.432
a,a,a-Trifluorotoluene(sur)	13.570	13.570	0.000	810251	30.091	30.091

Client ID: MW-19-5
Site: L.E. Carpenter

Lab Sample No: 354700
Lab Job No: X147

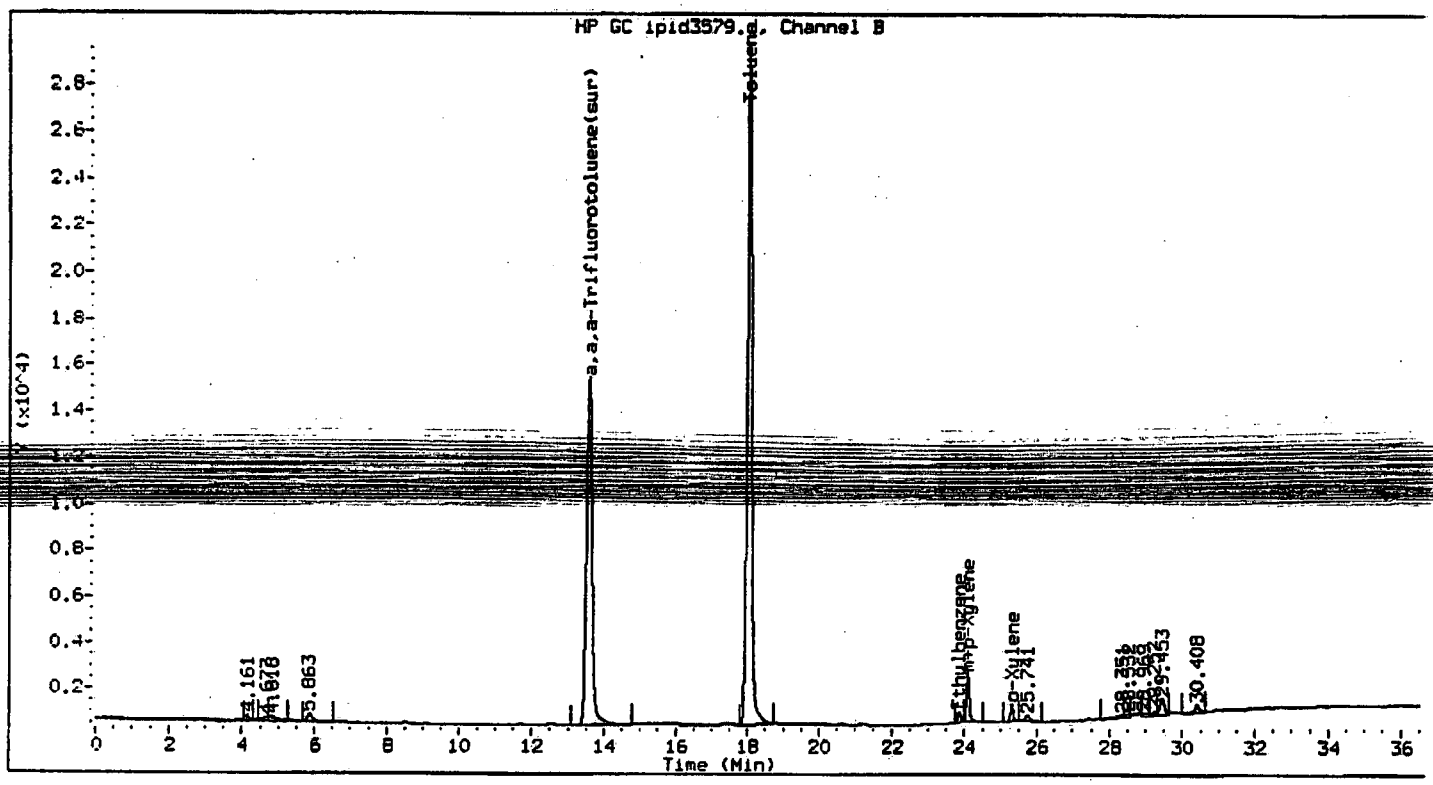
Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3579.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5000.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	1100
Toluene	92000	1200
Ethylbenzene	1100	900
Xylene (Total)	6300	1000

Data File: /chem/VOAGC3.i/602/05-20-02/10jun02.b/ipid3579.d Page 1
Report Date 06/11/2002 12:00



J x Z

Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : 354700;;5000
Lab ID : 354700
Inj Date : 11-JUN-2002 01:42
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 5000
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	24.098	24.093	0.005	64404	0.924	4622.321
o-Xylene	25.317	25.314	0.003	39170	0.227	1635.438
Toluene	18.030	18.029	0.000	1301527	18.367	91835.665
Ethylbenzene	23.855	23.852	0.003	12956	0.224	1120.983
Xylene (Total)	25.019	25.019	0.000	83574	1.267	6333.259
a,a,a-Trifluorotoluene(sur)	13.574	13.570	0.004	815644	30.291	30.291

Client ID: **MW-19-2**
Site: L.E. Carpenter

Lab Sample No: **354701**
Lab Job No: X147

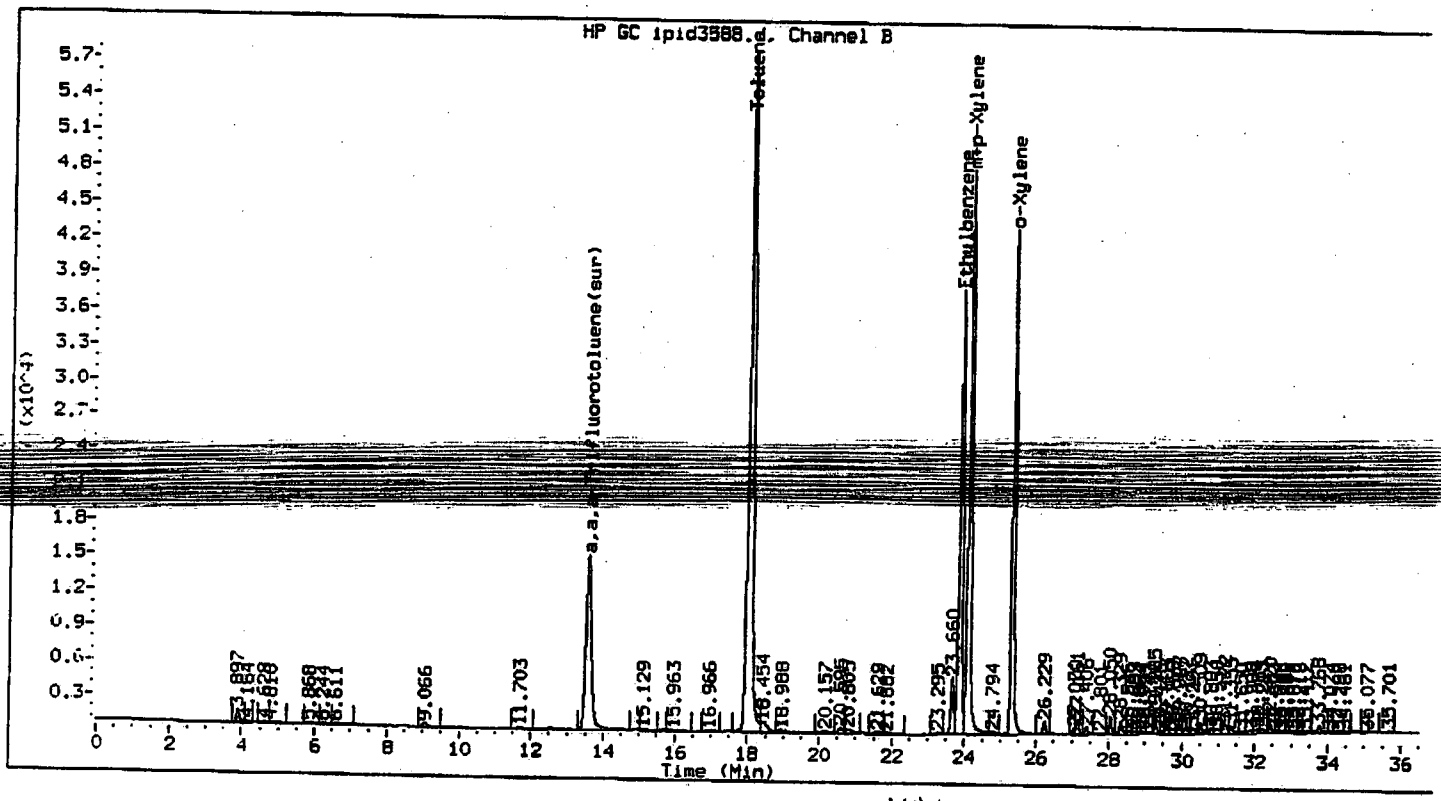
Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3588.d

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	0.22
Toluene	36	0.24
Ethylbenzene	19	0.18
Xylene (Total)	39	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/11jun02.b/ipid3588.d
Report Date 06/12/2002 09:37



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354701
Lab ID : 354701
Inj Date : 11-JUN-2002 12:56
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)
m+p-Xylene	24.089	24.111	0.022	1432724	20.566	20.566
o-Xylene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Toluene	18.028	18.052	0.024	2518068	35.535	35.535
Ethylbenzene	23.851	23.870	0.019	1119529	19.373	19.373
Xylene (Total)	25.019	25.019	0.000	2550495	38.655	38.655
a,a,a-Trifluorotoluene(sur)	13.572	13.592	0.020	822624	30.551	30.551

Client ID: **MW-19-1**
Site: L.E. Carpenter

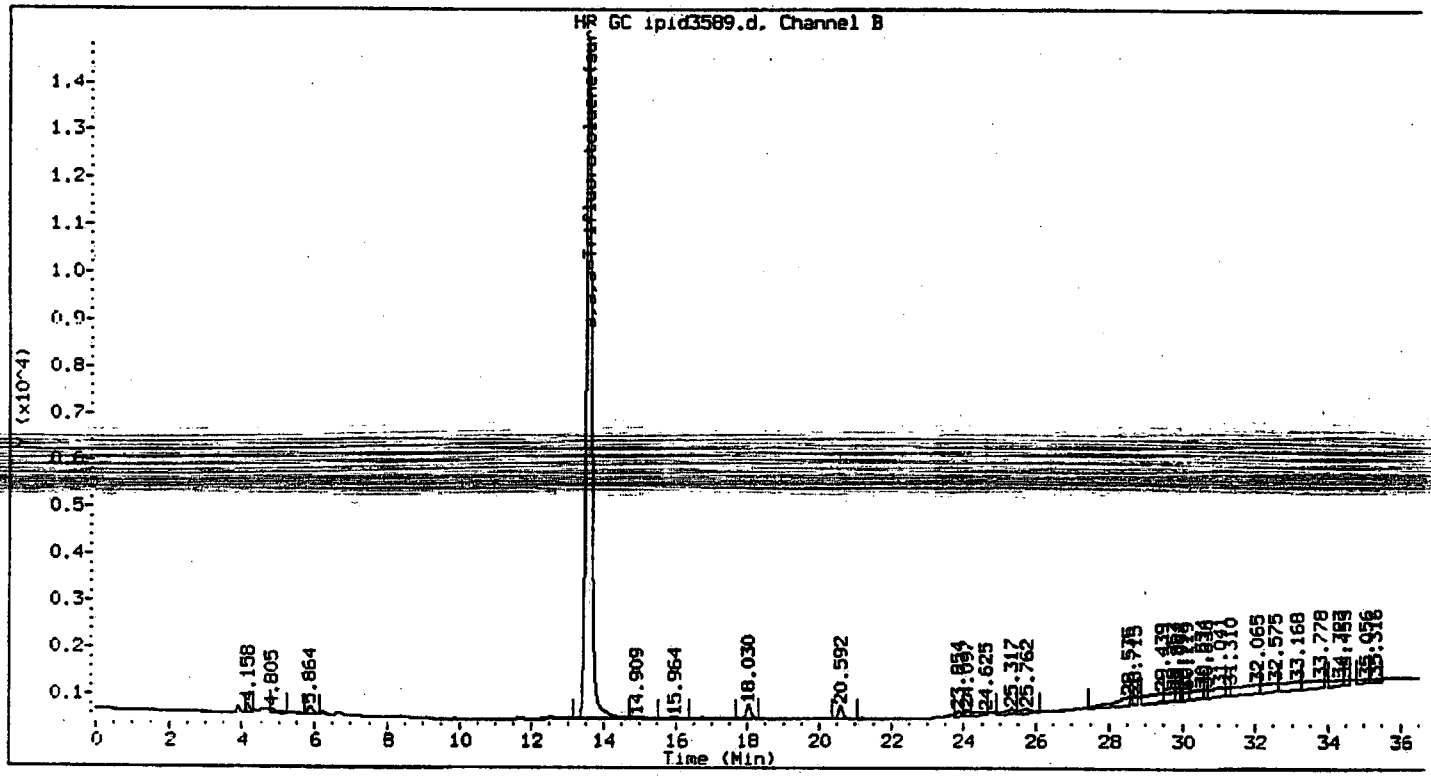
Lab Sample No: **354702**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3589.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354702
Lab ID : 354702
Inj Date : 11-JUN-2002 13:36
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.571	13.592	0.021	785530	29.173	29.173

Client ID: MW-19-3
Site: L.E. Carpenter

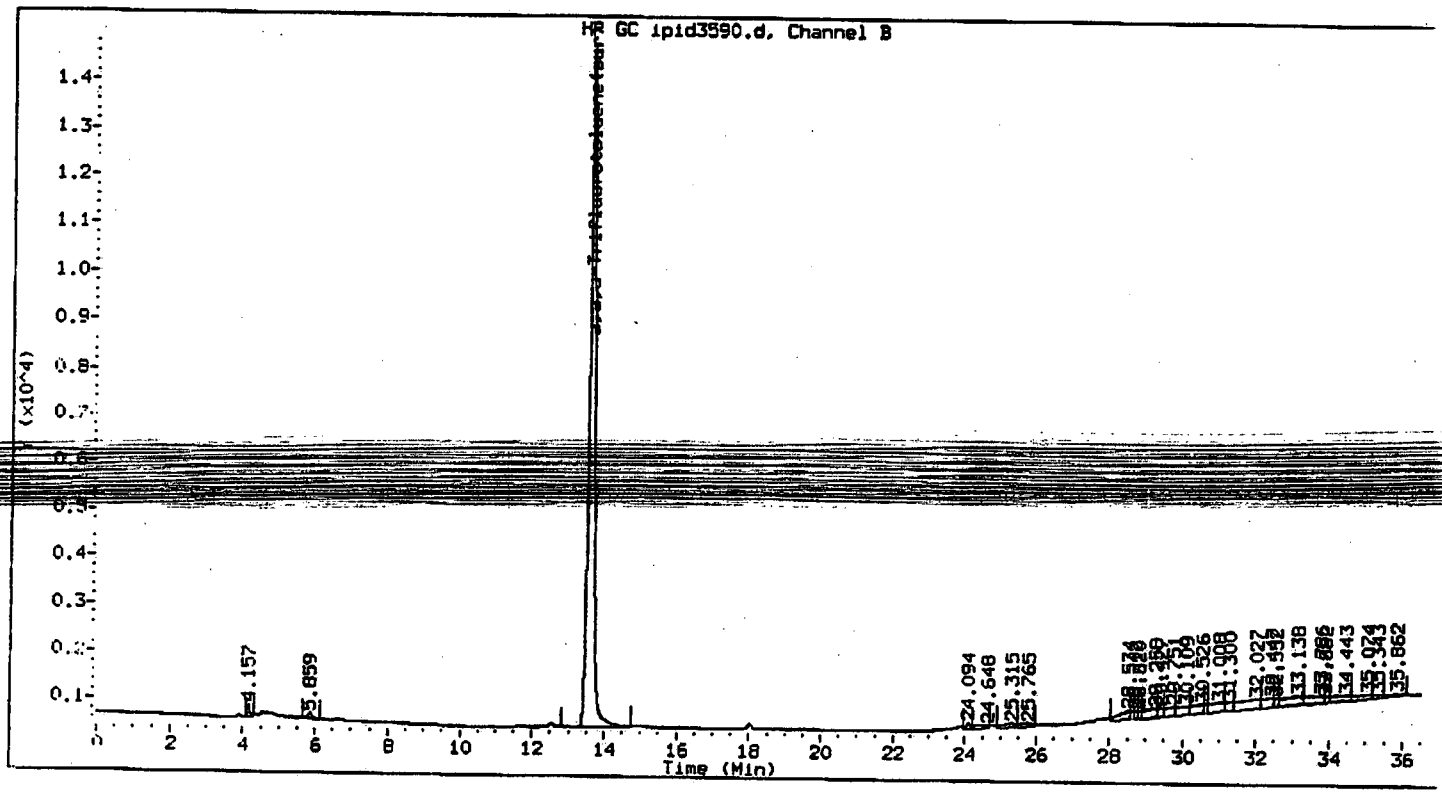
Lab Sample No: 354703
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3590.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354703
Lab ID : 354703
Inj Date : 11-JUN-2002 14:17
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.567	13.592	0.025	773186	28.715	28.715

Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **354704**
Lab Job No: X147

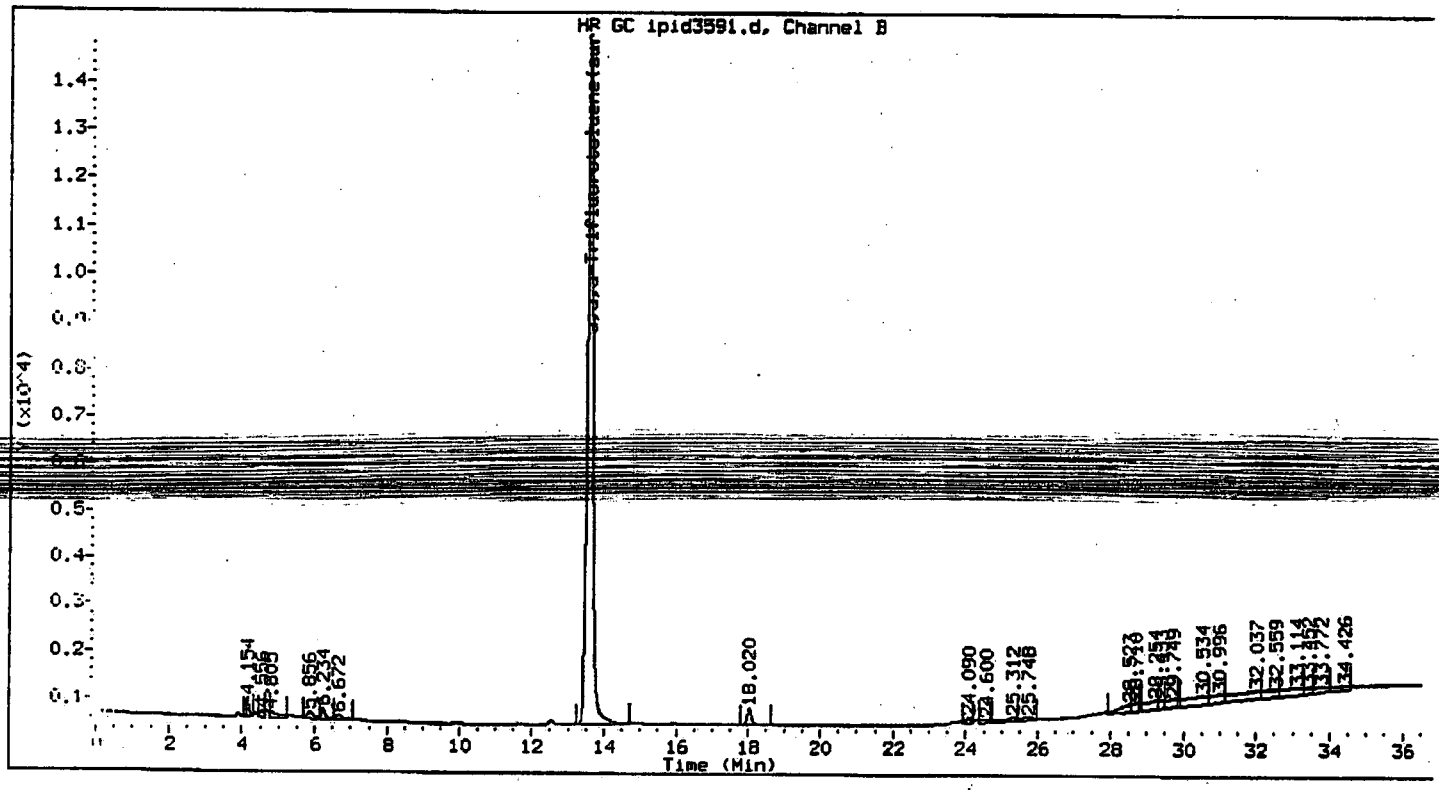
Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3591.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/11jun02.b/ipid3591.d Page 1
Report Date 06/12/2002 09:38



V.✓

Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354704
Lab ID : 354704
Inj Date : 11-JUN-2002 14:57
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.562	13.592	0.030	775035	28.783	28.783

Client ID: **Dup01**
Site: L.E. Carpenter

Lab Sample No: **354705**
Lab Job No: X147

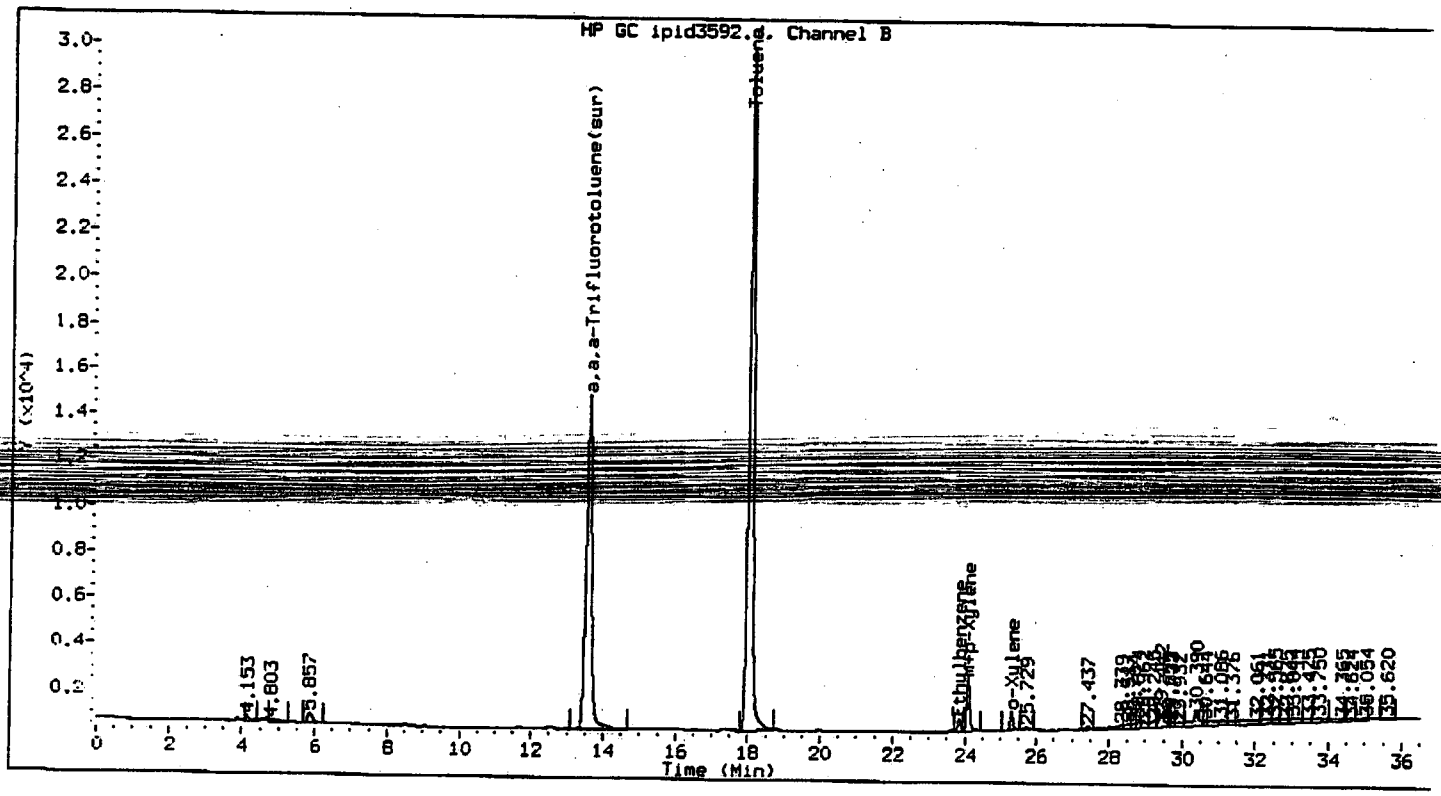
Date Sampled: 06/05/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3592.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 5000.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	1100
Toluene	92000	1200
Ethylbenzene	1300	900
Xylene (Total)	6900	1000

Data File: /chem/VOAGC3.i/602/05-20-02/11jun02.b/ipid3592.d
Report Date 06/17/2002 16:50



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354705;;5000
Lab ID : 354705
Inj Date : 11-JUN-2002 15:37
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 5000
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	24.087	24.111	0.024	70737	1.015	5076.845
o-Xylene	25.207	25.230	0.023	20929	0.357	1784.502
Toluene	18.017	18.052	0.036	1300925	18.359	91793.188
Ethylbenzene	23.843	23.870	0.027	14991	0.259	1297.056
Xylene (Total)	25.019	25.019	0.000	91666	1.389	6946.473
a,a,a-Trifluorotoluene(sur)	13.561	13.592	0.031	783288	29.090	29.090

Client ID: **MW-19-4**
Site: L.E. Carpenter

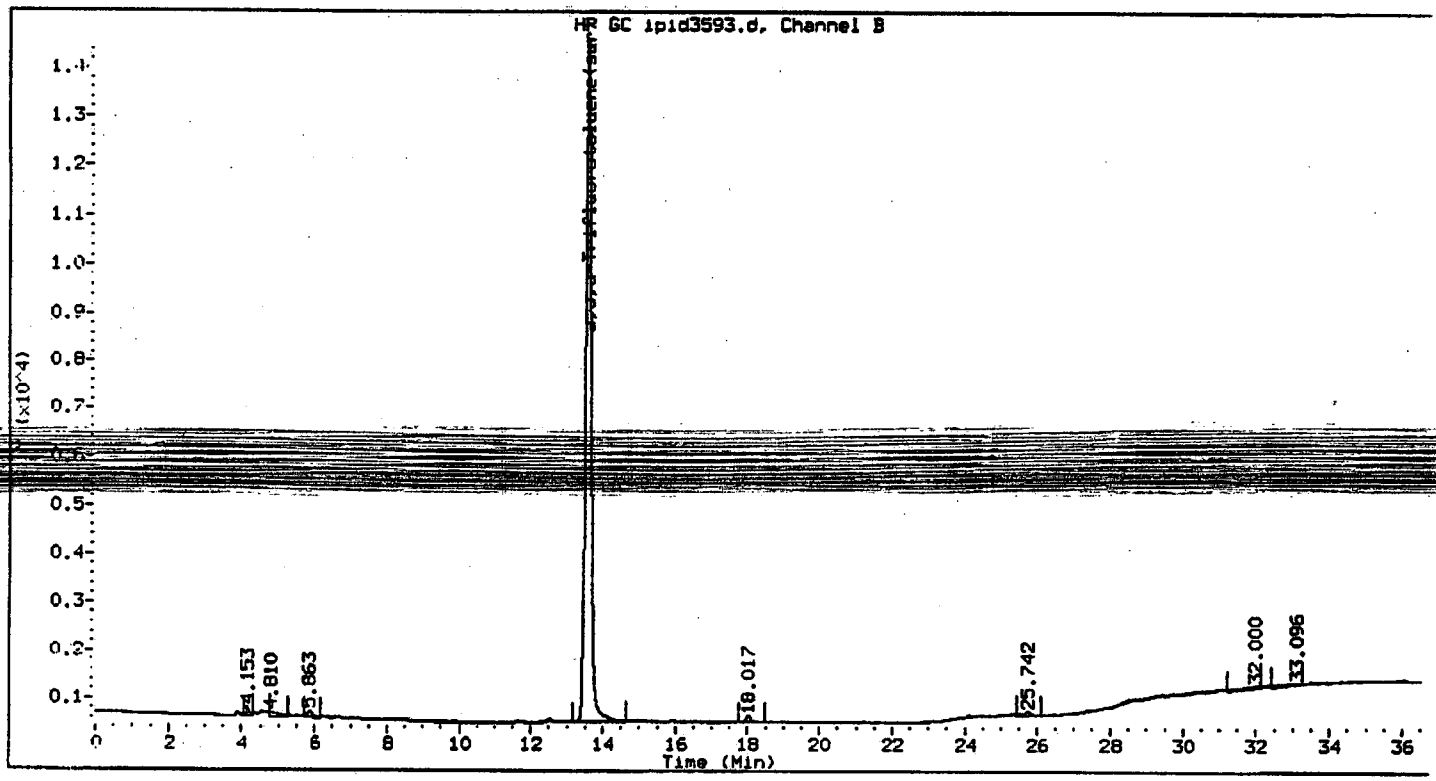
Lab Sample No: **354706**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3593.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354706
Lab ID : 354706
Inj Date : 11-JUN-2002 16:17
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.559	13.592	0.033	756727	28.103	28.103

Client ID: **MW-19**
Site: L.E. Carpenter

Lab Sample No: **354707**
Lab Job No: X147

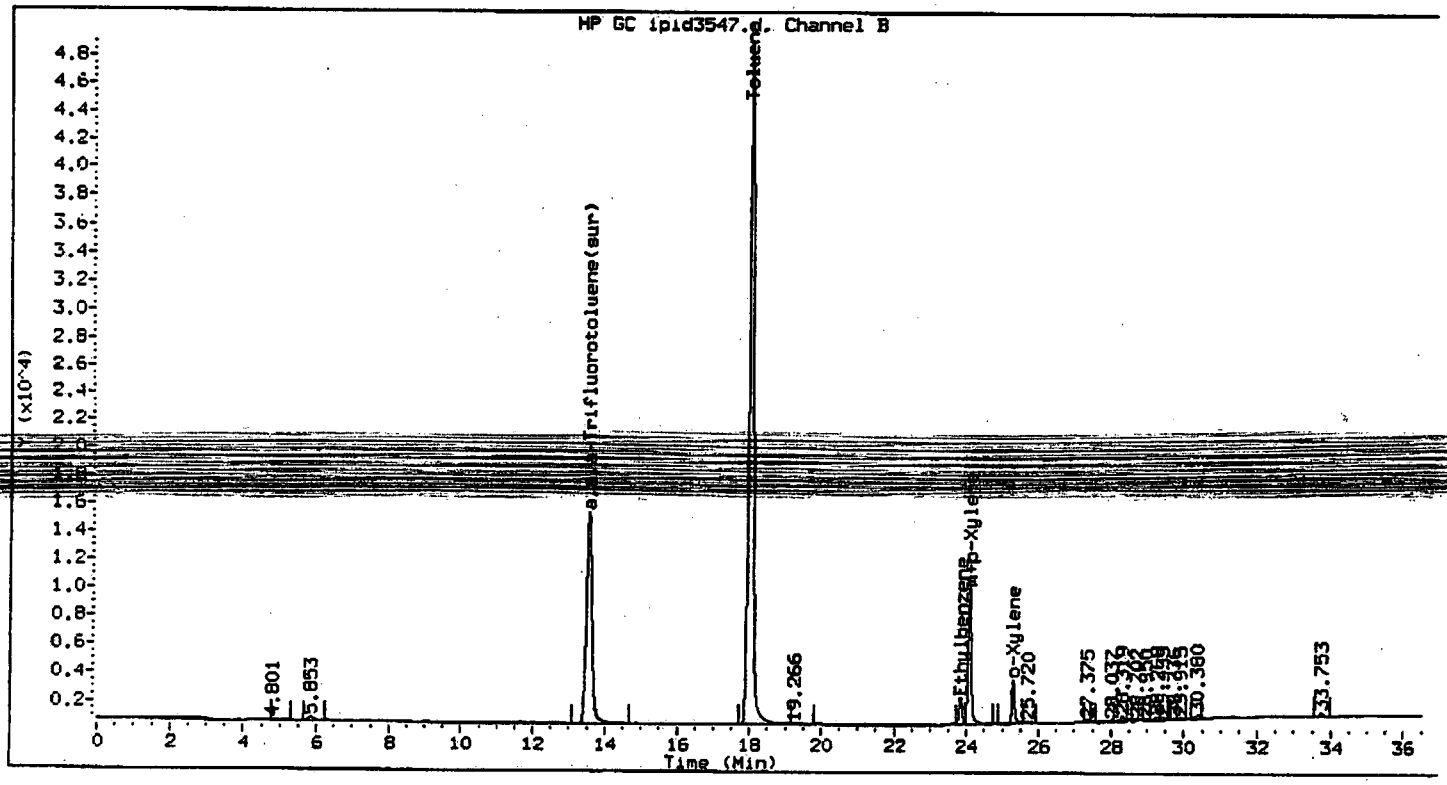
Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3547.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1000.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	220
Toluene	30000	240
Ethylbenzene	1000	180
Xylene (Total)	6000	200

Data File: /chem/VOAGC3.i/602/05-20-02/09jun02.b/ipid3547.d Page 1
Report Date 06/10/2002 08:37



Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : 354707;;1000
Lab ID : 354707
Inj Date : 09-JUN-2002 22:28
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 1000
Sample Matrix : WATER
Sample Type: SAMPLE

JXZ

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
m+p-Xylene	24.078	24.091	0.013	304288	4.368	4367.793
o-Xylene	25.300	25.312	0.013	91364	1.559	1558.096
Toluene	18.006	18.028	0.022	2155354	30.416	30416.329
Ethylbenzene	23.835	23.850	0.015	59765	1.034	1034.201
Xylene (Total)	25.019	25.019	0.000	395652	5.997	5996.522
a,a,a-Trifluorotoluene(sur)	13.552	13.571	0.019	813536	30.213	30.213

Client ID: GEI-2I
Site: L.E. Carpenter

Lab Sample No: 354708
Lab Job No: X147

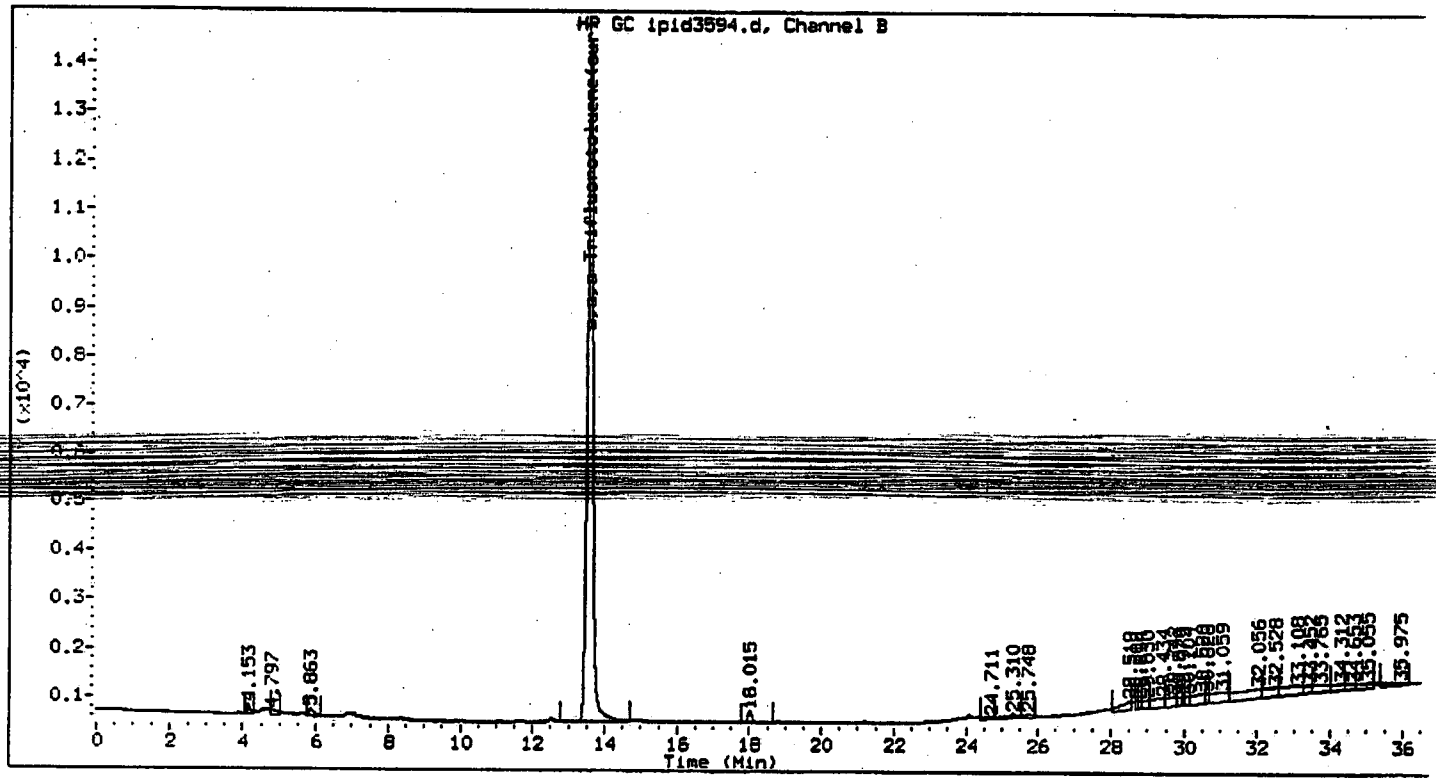
Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3594.d

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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/11jun02.b/ipid3594.d Page 1
Report Date 06/12/2002 09:38



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354708
Lab ID : 354708
Inj Date : 11-JUN-2002 16:57
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)	13.558	13.592	0.034	751341	27.903	27.903

Client ID: GEI-2S
Site: L.E. Carpenter

Lab Sample No: 354709
Lab Job No: X147

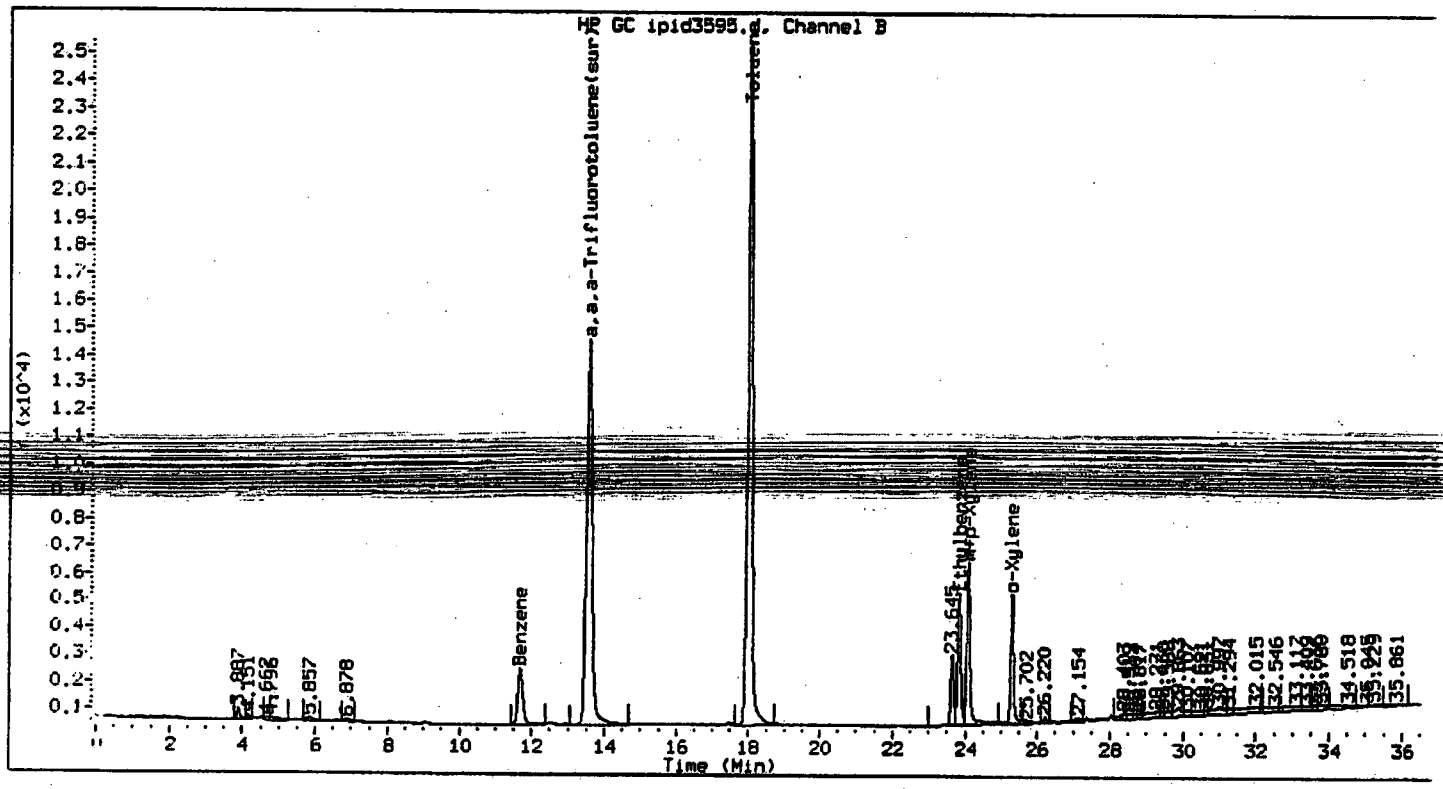
Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3595.d

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	1.2	0.22
Toluene	16	0.24
Ethylbenzene	2.6	0.18
Xylene (Total)	5.1	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/11jun02.b/ipid3595.d Page 1
Report Date 06/12/2002 09:38



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : 354709
Lab ID : 354709
Inj Date : 11-JUN-2002 17:37
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)
m+p-Xylene	24.080	24.111	0.031	202305	2.904	2.904
o-Xylene	25.301	25.330	0.029	132982	2.269	2.269
Benzene	11.684	11.718	0.033	99039	1.259	1.259
Toluene	18.008	18.052	0.044	1098711	15.505	15.505
Ethylbenzene	23.835	23.870	0.035	148899	2.577	2.577
Xylene (Total)	25.019	25.019	0.000	335287	5.082	5.082
a,a,a-Trifluorotoluene(sur)	13.553	13.592	0.039	764287	28.384	28.384

Client ID: Trip_Blank
Site: L.E. Carpenter

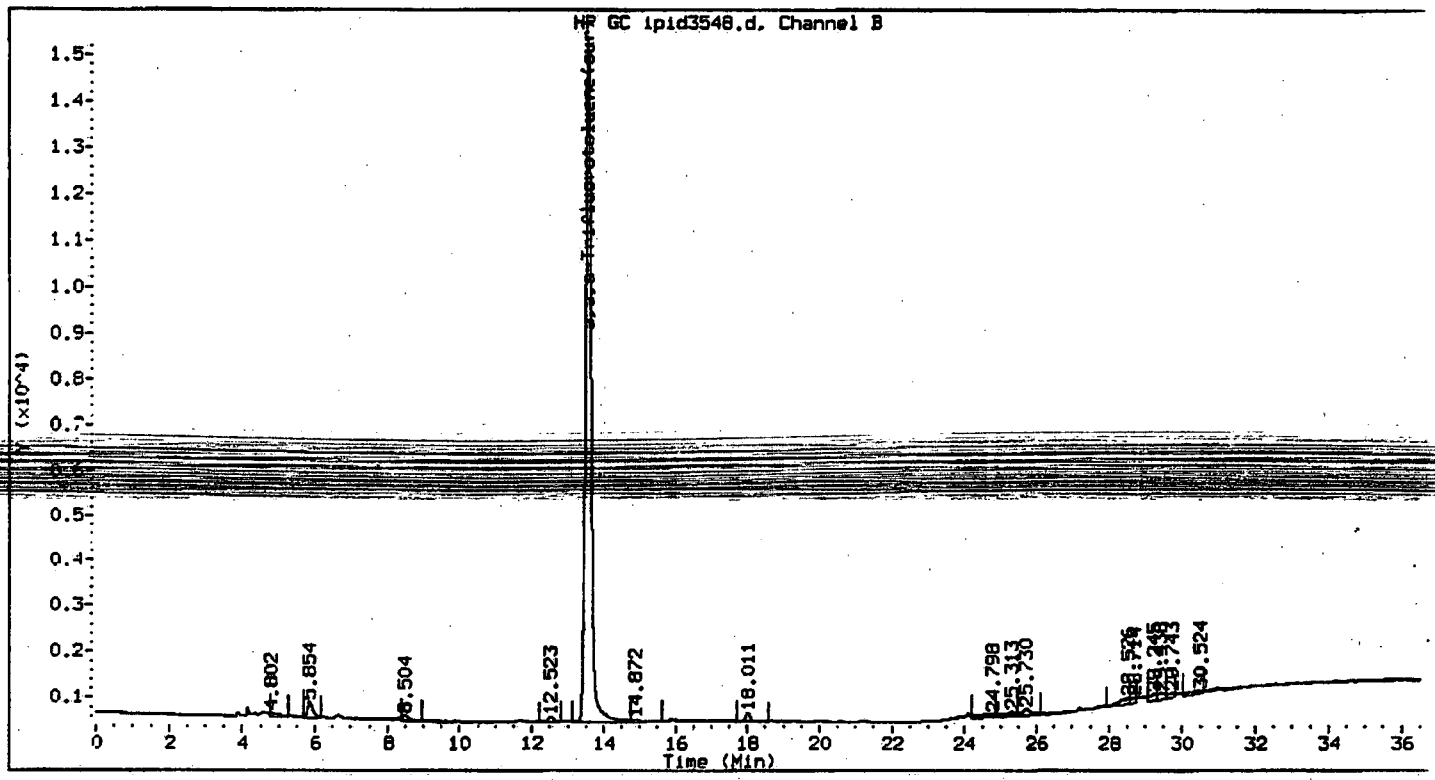
Lab Sample No: 354710
Lab Job No: X147

Date Sampled: 05/20/02
Date Received: 06/06/02
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3548.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



JXZ

Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : 354710
Lab ID : 354710
Inst ID : VOAGC3.i
Inj Date : 09-JUN-2002 23:08
Dil Factor : 1
Operator :
Sample Matrix : WATER
Cpnd Sublist: BTEX
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.554	13.571	0.017	812390	30.171	30.171

Client ID: SW-5-1
Site: L.E. Carpenter

Lab Sample No: 354711
Lab Job No: X147

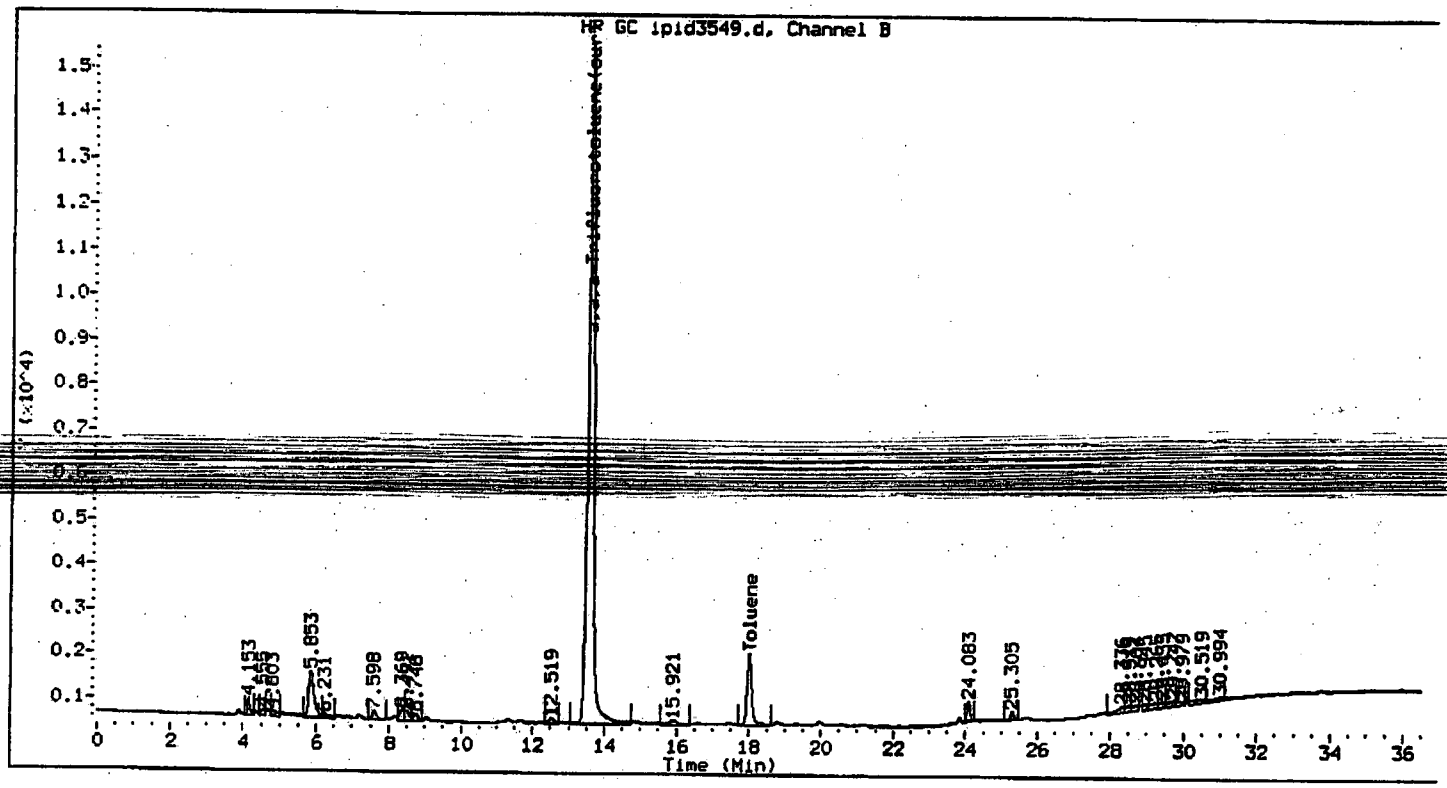
Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3549.d

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	0.22
Toluene	1.0	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/09jun02.b/ipid3549.d Page 1
Report Date 06/10/2002 08:37



Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : 354711
Lab ID : 354711
Inj Date : 09-JUN-2002 23:48
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

J x 2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
Toluene	18.009	18.028	0.019	73330	1.035	1.035
m,m,m-Trifluorotoluene(sur)	13.554	13.571	0.017	823809	30.598	30.598

Client ID: SW-8-1
Site: L.E. Carpenter

Lab Sample No: 354712
Lab Job No: X147

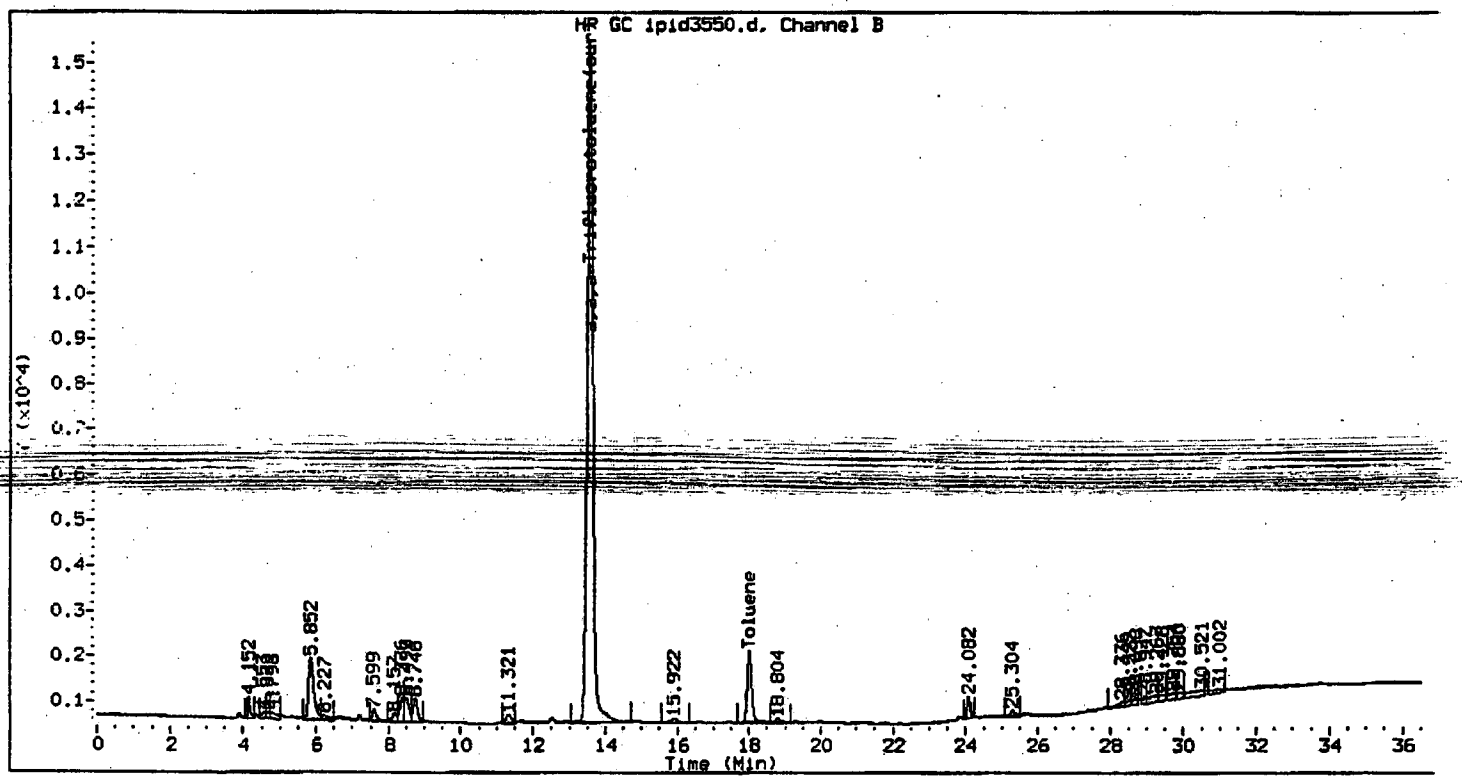
Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3550.d

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	0.22
Toluene	1.0	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20

Data File: /chem/VOAGC3.i/602/05-20-02/09jun02.b/ipid3550.d Page 1
Report Date 06/10/2002 08:37



JXZ

Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : 354712
Lab ID : 354712
Inj Date : 10-JUN-2002 00:29
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.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)
Toluene	18.008	18.028	0.020	74257	1.048	1.048
a,a,a-Trifluorotoluene(our)	13.552	13.571	0.018	817265	30.352	30.352

Client ID: **SW-7-1**
Site: L.E. Carpenter

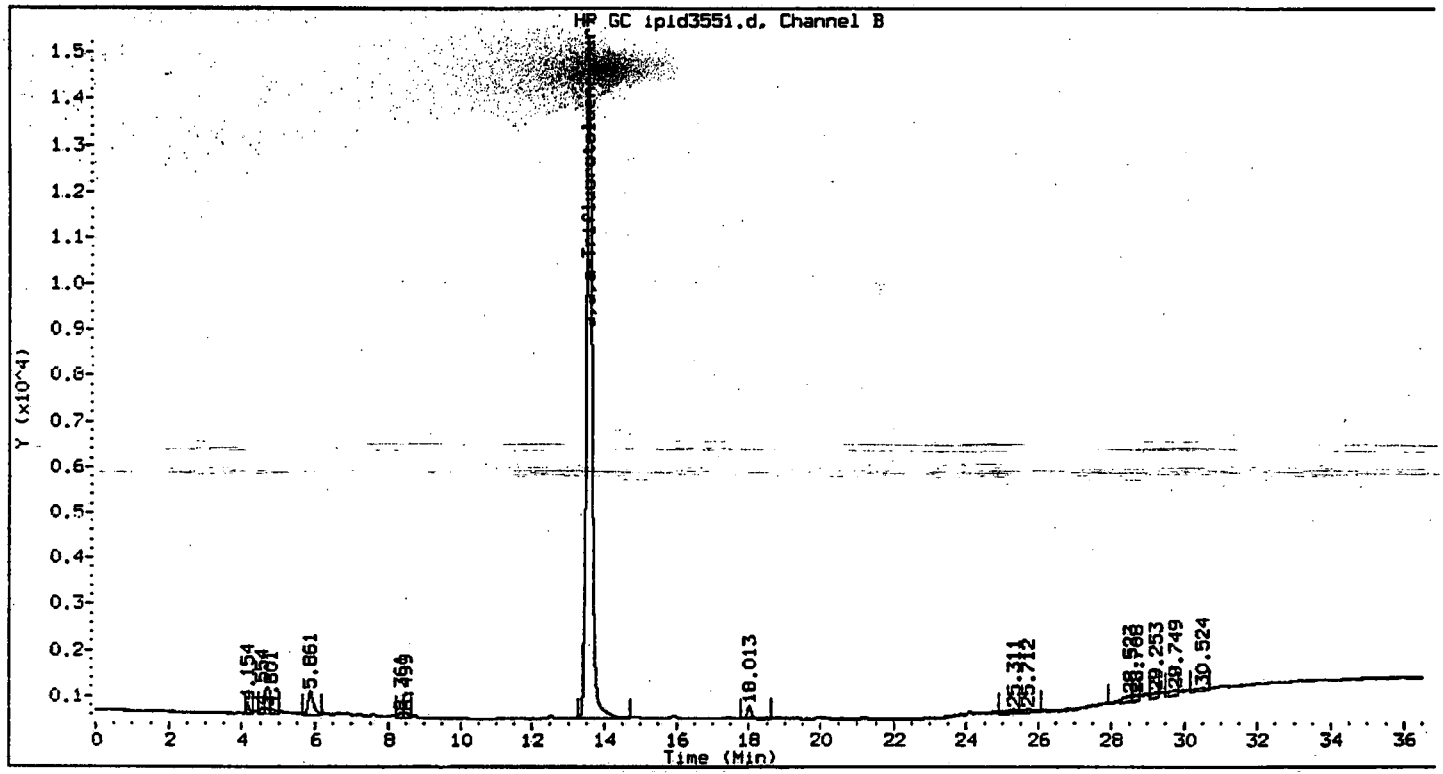
Lab Sample No: **354713**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3551.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	0.22
Toluene	ND	0.24
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20



Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : 354713
Lab ID : 354713
Inj Date : 10-JUN-2002 01:09
Operator :
Cpnd Sublist: BTEX

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: SAMPLE

JXZ

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.556	13.571	0.015	804973	29.895	29.895

Method Blank Results Summary

LAB SAMPLE NO.

IG160

VOLATILE METHOD BLANK SUMMARY

Date Analyzed: 06/09/02

Instrument ID: VOAGC3

Time Analyzed: 1144

Lab File ID: IPID3531

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-19	354707	IPID3547	2228
02	TRIP BLANK	354710	IPID3548	2308
03	SW-5-1	354711	IPID3549	2348
04	SW-8-1	354712	IPID3550	0029
05	SW-7-1	354713	IPID3551	0109
06	MW-19MS	354707MS	IPID3558	0550
07	MW-19MSD	354707MSD	IPID3559	0630
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09				
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COMMENTS:

page 1 of 1

Client ID: **IG160**
Site:

Lab Sample No: **IG160**
Lab Job No: X147

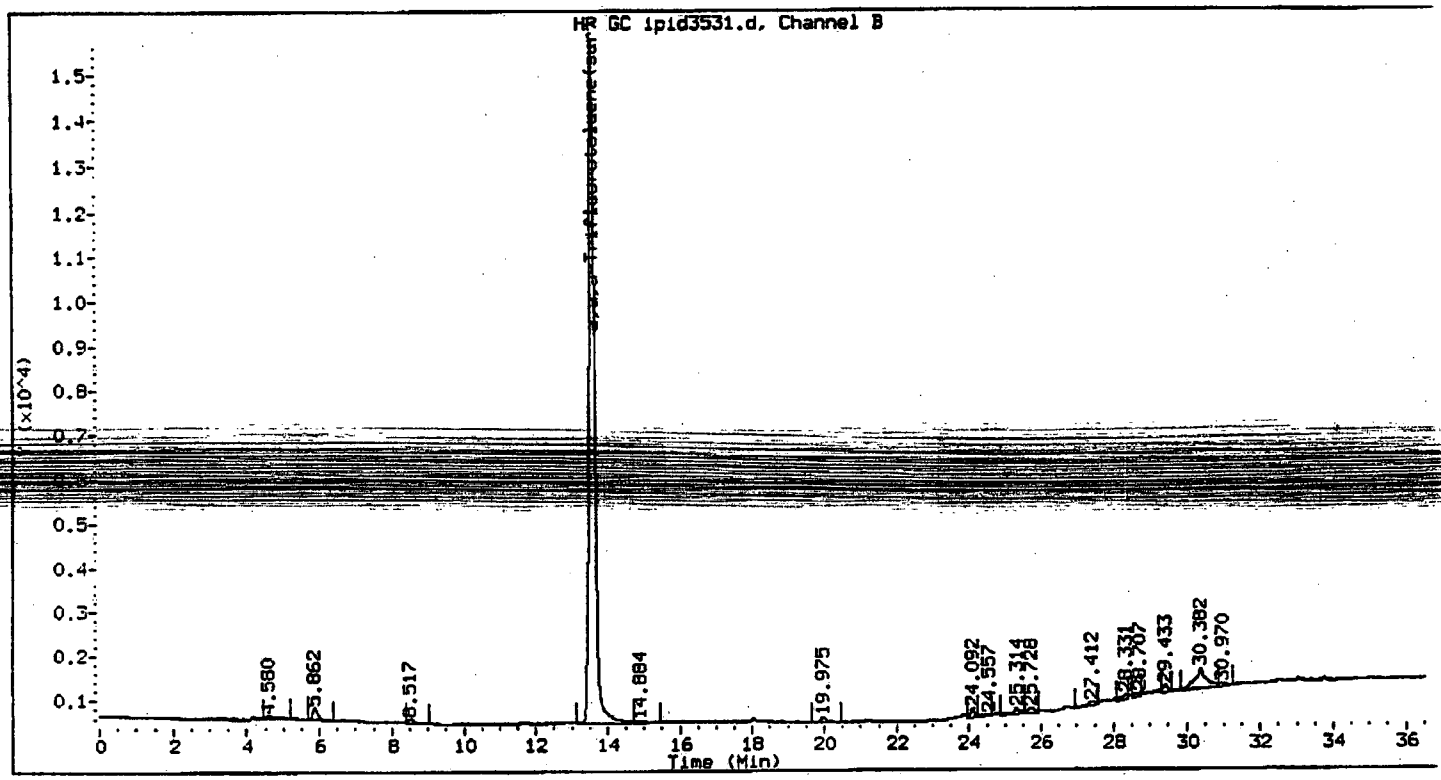
Date Sampled: _____
Date Received: _____
Date Analyzed: 06/09/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3531.d

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	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22

Data File: /chem/VOAGC3.i/602/05-20-02/09jun02.b/ipid3531.d Page 1
Report Date 06/10/2002 08:39



Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : IG160
Lab ID : IG160
Inj Date : 09-JUN-2002 11:44
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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)	13.567	13.571	0.004	841530	31.253	31.253

LAB SAMPLE NO.

IG161

VOLATILE METHOD BLANK SUMMARY

Date Analyzed: 06/10/02

Instrument ID: VOAGC3

Time Analyzed: 1500

Lab File ID: IPID3563

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-19-6	354696	IPID3575	2301
02	MW-19-9D	354697	IPID3576	2341
03	MW-19-8	354698	IPID3577	0022
04	MW-19-7	354699	IPID3578	0102
05	MW-19-5	354700	IPID3579	0142
06				
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COMMENTS:

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Client ID: **IG161**
Site:

Lab Sample No: **IG161**
Lab Job No: X147

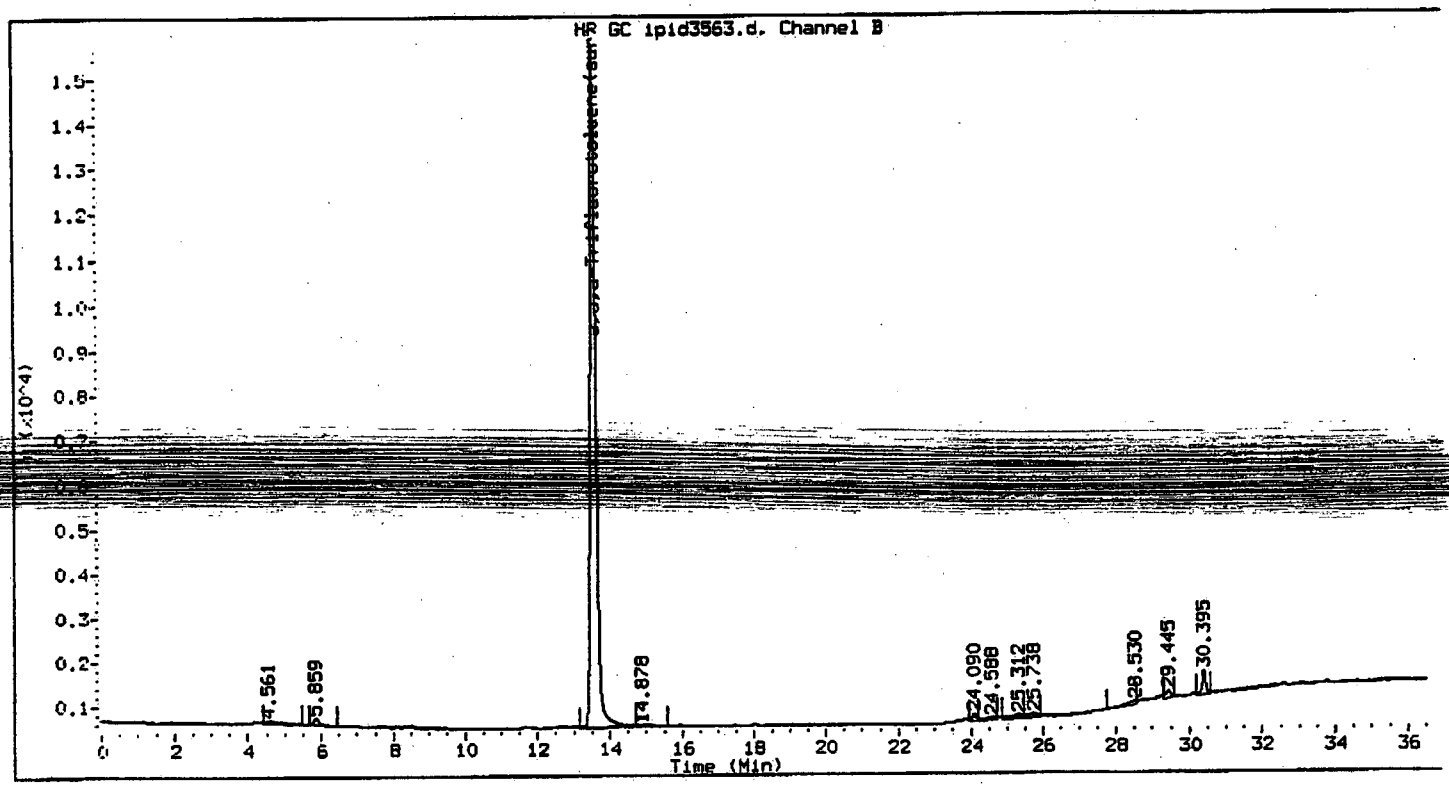
Date Sampled: _____
Date Received: _____
Date Analyzed: 06/10/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3563.d

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	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22

Data File: /chem/VOAGC3.i/602/05-20-02/10jun02.b/ipid3563.d Page 1
Report Date 06/11/2002 12:00



Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : IG161
Lab ID : IG161
Inj Date : 10-JUN-2002 15:00
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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)	13.563	13.570	0.007	821439	30.507	30.507

LAB SAMPLE NO.

IG162

VOLATILE METHOD BLANK SUMMARY

Date Analyzed: 06/11/02

Instrument ID: VOAGC3

Time Analyzed: 1036

Lab File ID: IPID3585

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	MW-19-2	354701	IPID3588	1256
02	MW-19-1	354702	IPID3589	1336
03	MW-19-3	354703	IPID3590	1417
04	FB01	354704	IPID3591	1457
05	DUP01	354705	IPID3592	1537
06	MW-19-4	354706	IPID3593	1617
07	GEI-2I	354708	IPID3594	1657
08	GEI-2S	354709	IPID3595	1737
09	DUP01MS	354705MS	IPID3601	2139
10	DUP01MSD	354705MSD	IPID3602	2219
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COMMENTS:

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Client ID: **IG162**
Site:

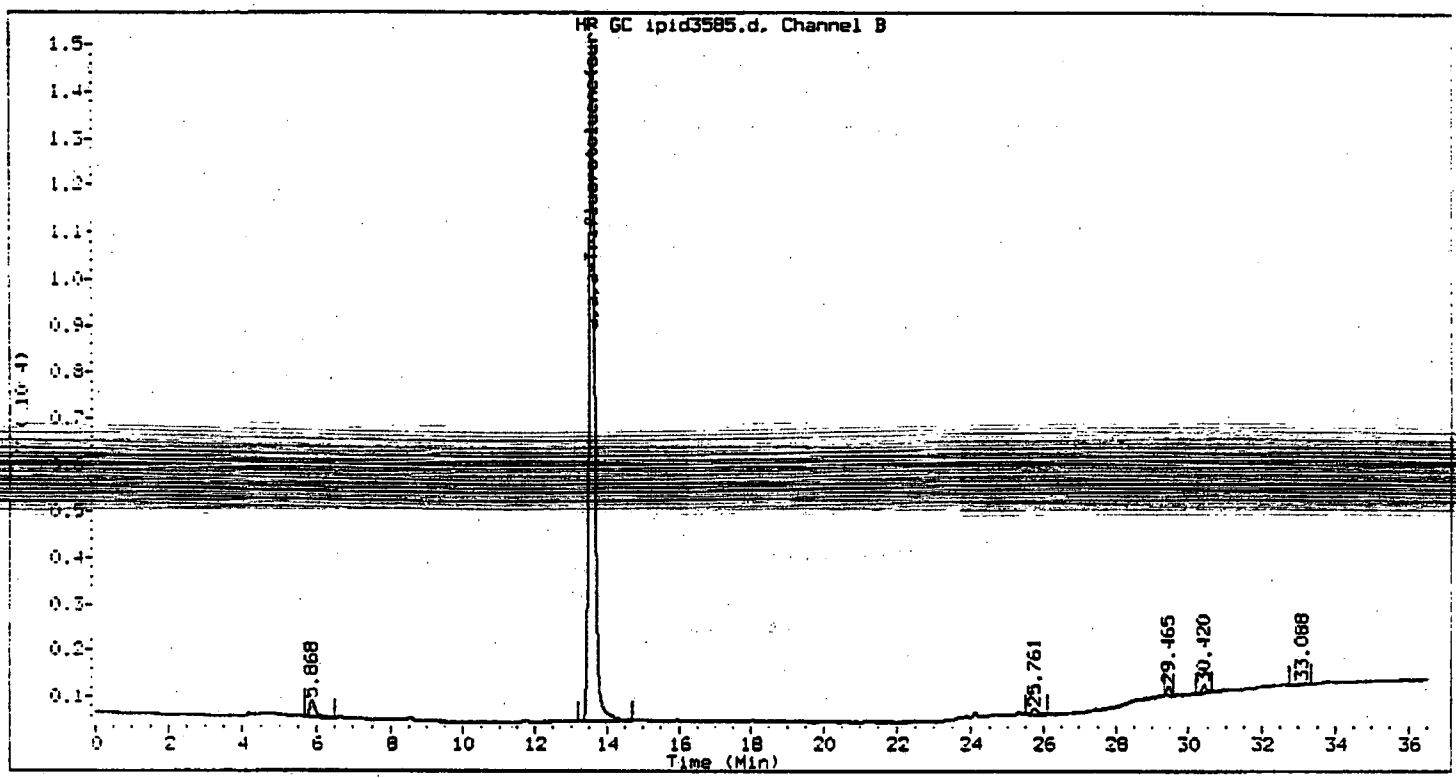
Lab Sample No: **IG162**
Lab Job No: X147

Date Sampled: _____
Date Received: _____
Date Analyzed: 06/11/02
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid3585.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	19
MTBE	ND	0.10
DIPE	ND	0.13
Benzene	ND	0.22
Toluene	ND	0.24
Chlorobenzene	ND	0.17
Ethylbenzene	ND	0.18
Xylene (Total)	ND	0.20
1,3-Dichlorobenzene	ND	0.18
1,4-Dichlorobenzene	ND	0.21
1,2-Dichlorobenzene	ND	0.20
Naphthalene	ND	0.22



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : IG162
Lab ID : IG162
Inj Date : 11-JUN-2002 10:36
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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)	13.583	13.592	0.009	799208	29.681	29.681

Standards Summary

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s): 05/20/02 05/20/02

Calibration Time(s): 0913 1217

LAB FILE ID: RRF2: IPID3406 RRF5: IPID3405 RRF10: IPID3404
RRF20: IPID3402 RRF40: IPID3403

COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	324	283	260	240	*
MTBE	32652	30279	29019	27743	27614
DIPE	36356	34840	33676	34027	34682
Benzene	80736	79492	78366	76930	78378
Toluene	71722	71175	70164	70651	70597
Chlorobenzene	64370	66774	67795	69280	70007
Ethylbenzene	57006	57930	57760	57761	58485
Xylene (Total)	64853	64283	63862	63778	73125
1,3-Dichlorobenzene	42801	41977	43060	43810	44990
1,4-Dichlorobenzene	50478	46862	46231	46030	47710
1,2-Dichlorobenzene	39372	35697	38064	35298	36025
Naphthalene	33695	23219	24284	21783	25518
a,a,a-Trifluorotoluene(sur)	26762	26665	27038	27027	27141

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

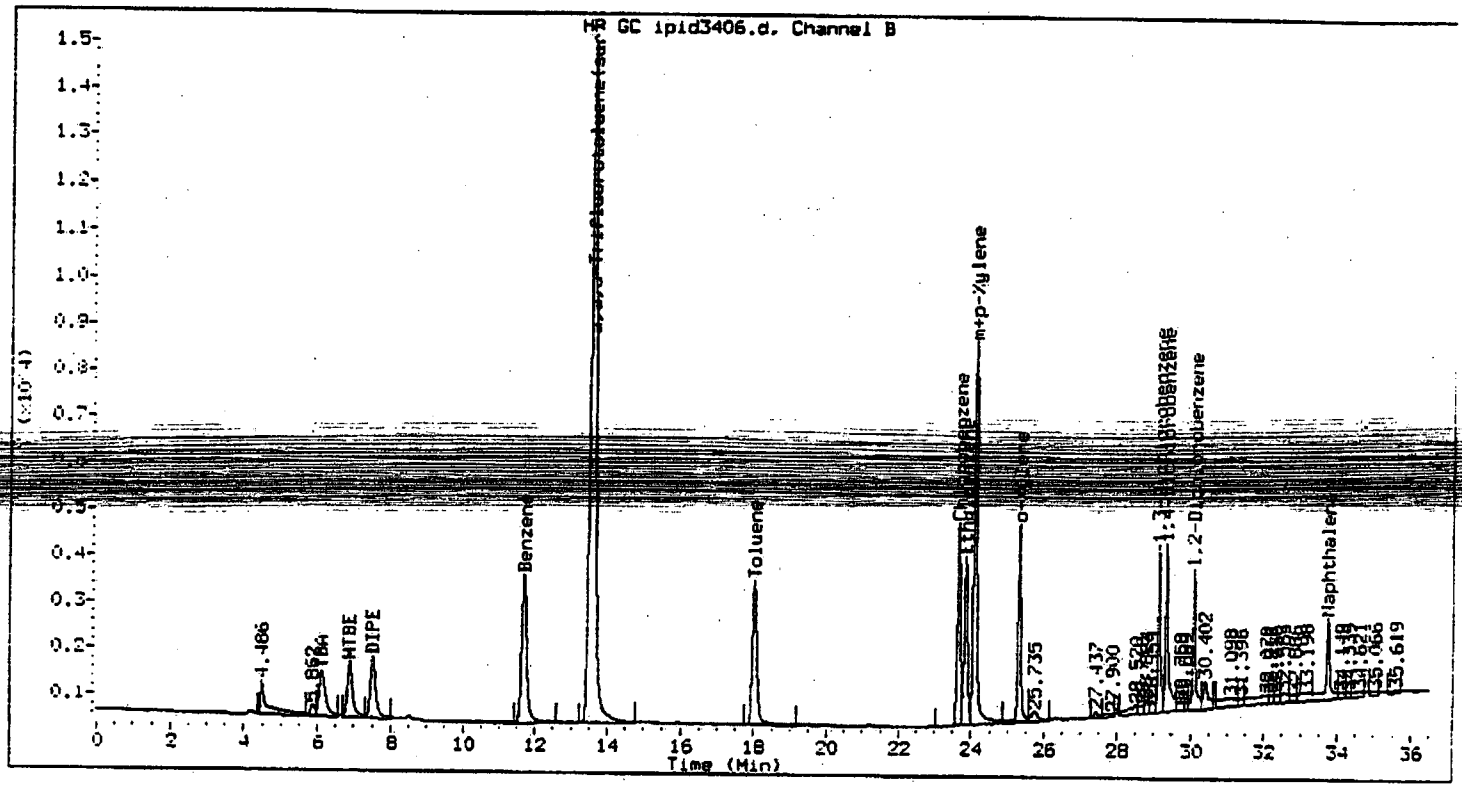
Calibration Date(s): 05/20/02 05/20/02

Calibration Time(s): 0913 1217

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
TBA **	AVRG	276	13*
MTBE	AVRG	29461	7.1*
DIPE	AVRG	34516	3.3*
Benzene	AVRG	78664	2.1*
Toluene	AVRG	70862	0.8*
Chlorobenzene	AVRG	67645	3.1*
Ethylbenzene	AVRG	57788	0.9*
Xylene (Total)	AVRG	65980	6.1*
1,3-Dichlorobenzene	AVRG	43328	2.6*
1,4-Dichlorobenzene	AVRG	47462	3.8*
1,2-Dichlorobenzene	AVRG	36891	4.7*
Naphthalene	AVRG	25700	18*
a,a,a-Trifluorotoluene(sur)	AVRG	26926	0.8*

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

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3406.d Page 1
Report Date 05/21/2002 12:52

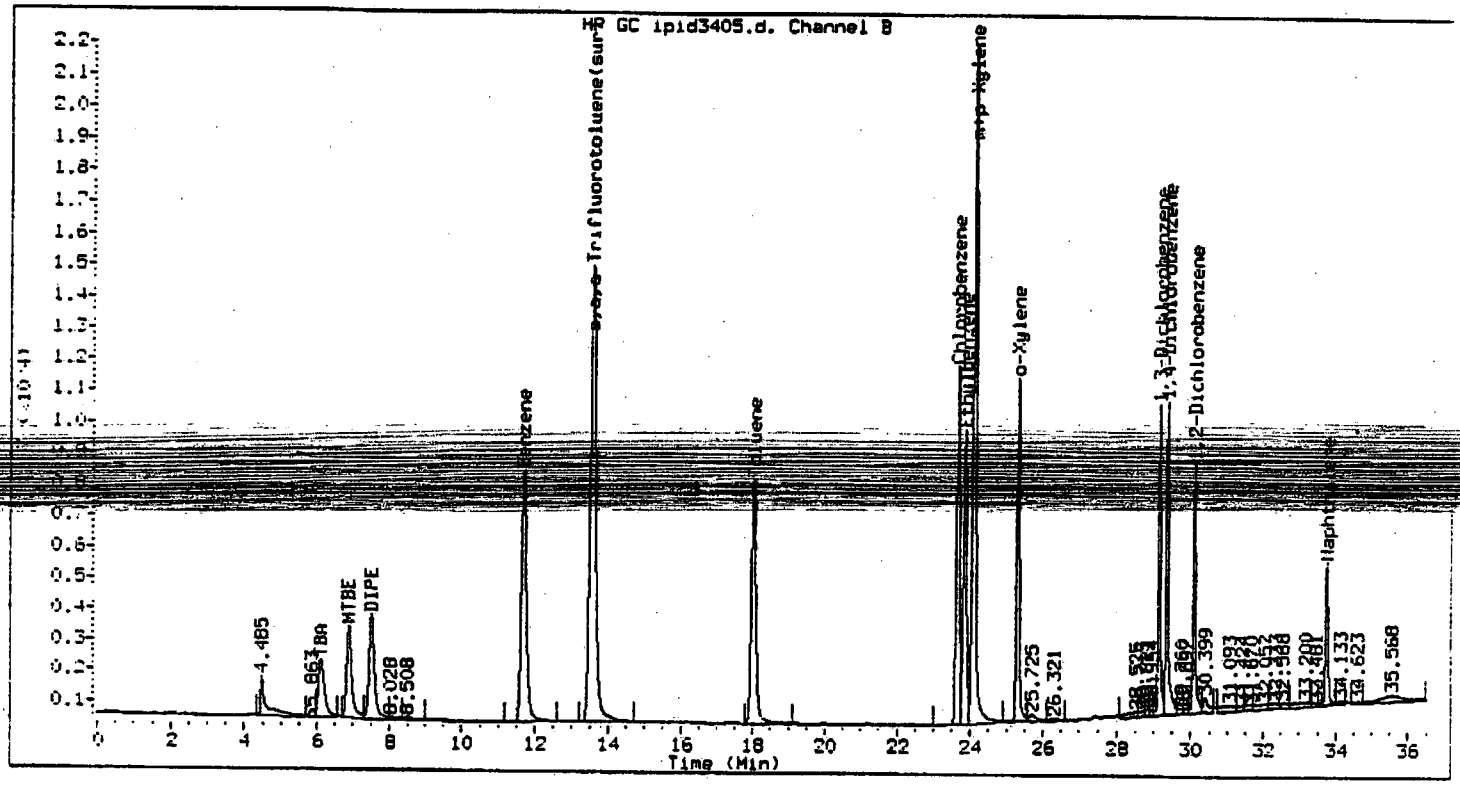


Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD002
Lab ID : ISTD002
Inj Date : 20-MAY-2002 12:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.310	25.310	0.000	120406	2.054	2.054
m+p-Xylene	24.088	24.089	0.001	268713	3.857	3.857
TBA	6.105	6.082	0.023	64838	234.447	234.447
MTBE	6.886	6.879	0.007	65305	2.217	2.217
DIPE	7.516	7.510	0.007	72713	2.107	2.107
Benzene	11.694	11.693	0.002	161472	2.053	2.053
Toluene	18.022	18.023	0.001	143444	2.024	2.024
Chlorobenzene	23.656	23.657	0.000	128740	1.903	1.903
Ethylbenzene	23.846	23.847	0.001	114013	1.973	1.973

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	389119	5.898	5.898
1,3-Dichlorobenzene	29.141	29.136	0.005	85602	1.976	1.976
1,4-Dichlorobenzene	29.352	29.346	0.006	100957	2.127	2.127
1,2-Dichlorobenzene	30.092	30.086	0.006	78743	2.134	2.134
Naphthalene	33.759	33.745	0.014	67380	2.622	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

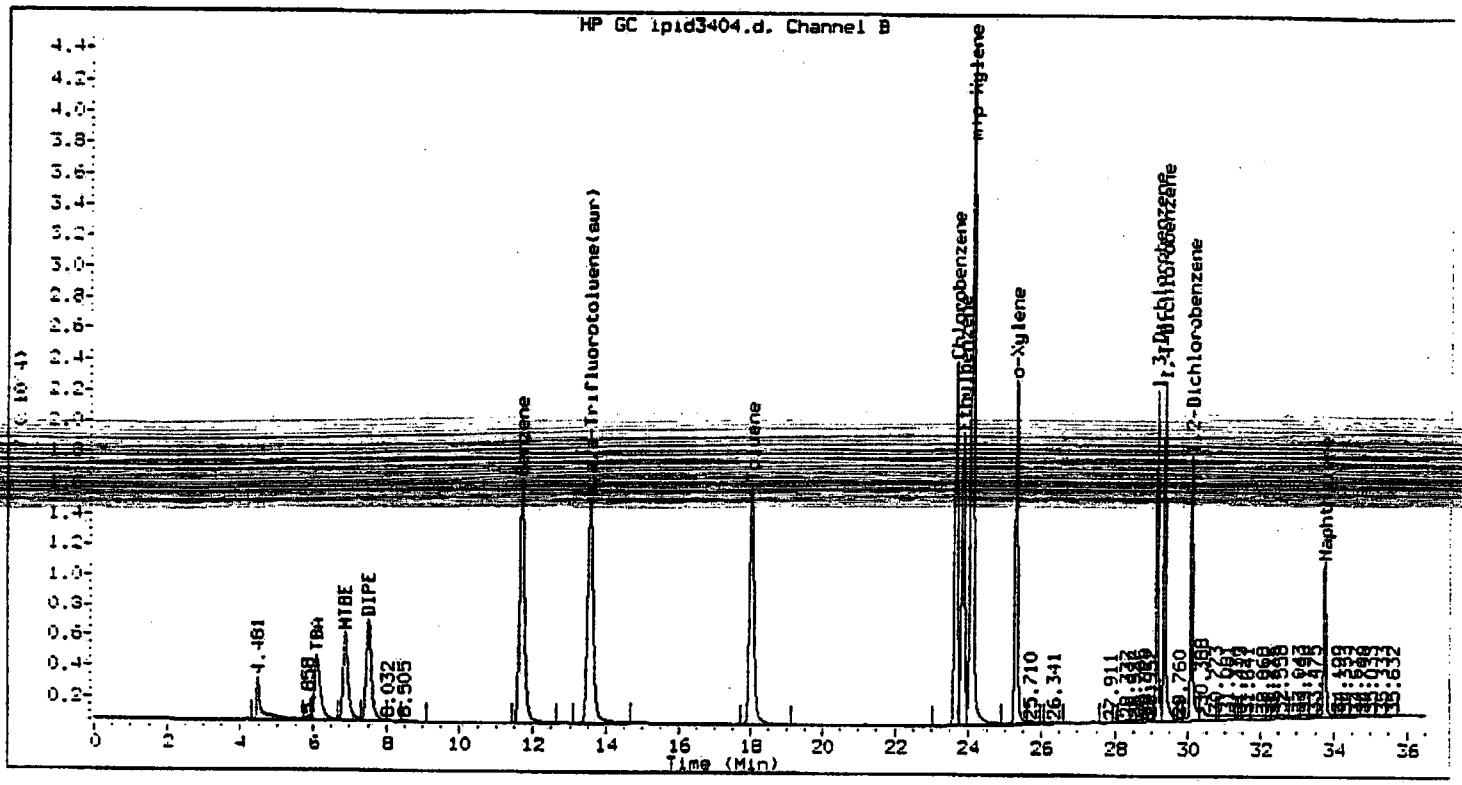


Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD005
Lab ID : ISTD005
Inj Date : 20-MAY-2002 11:37
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.308	25.310	0.002	292794	4.996	4.996
m+p-Xylene	[illegible]	[illegible]	0.003	671850	[illegible]	[illegible]
TBA	6.102	6.082	0.020	113163	409.186	409.186
MTBE	6.884	6.879	0.005	151394	5.139	5.139
DIPE	7.515	7.510	0.005	174201	5.047	5.047
Benzene	11.693	11.693	0.000	397459	5.053	5.053
Toluene	18.021	18.023	0.002	355875	5.022	5.022
Chlorobenzene	23.654	23.657	0.003	333869	4.936	4.936
Ethylbenzene	23.844	23.847	0.003	289648	5.012	5.012

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	964244	14.614	14.614
1,3-Dichlorobenzene	29.137	29.136	0.002	209885	4.844	4.844
1,4-Dichlorobenzene	29.348	29.346	0.002	234312	4.937	4.937
1,2-Dichlorobenzene	30.088	30.086	0.002	178484	4.838	4.838
Naphthalene	33.753	33.745	0.008	116034	4.517	4.517
[illegible]	[illegible]	[illegible]	0.001	799942	29.708	29.708



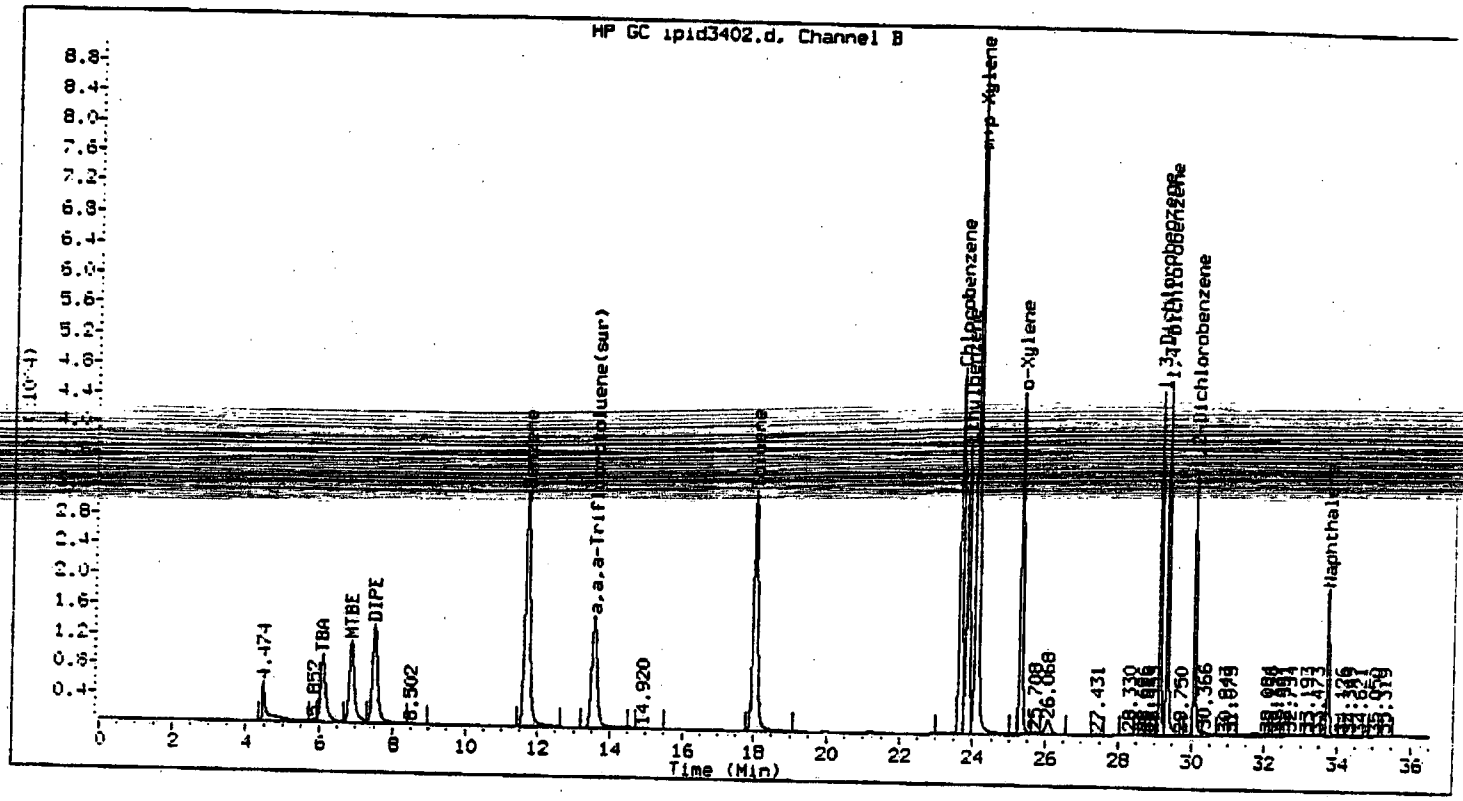
Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 20-MAY-2002 10:57
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.308	25.310	0.002	582542	9.940	9.940
m,p-Xylene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TBA	6.091	6.082	0.009	259596	938.672	938.672
MTBE	6.881	6.879	0.002	290190	9.850	9.850
DIPE	7.512	7.510	0.002	336760	9.756	9.756
Benzene	11.692	11.693	0.001	783860	9.965	9.965
Toluene	18.020	18.023	0.003	701639	9.902	9.902
Chlorobenzene	23.654	23.657	0.003	677948	10.022	10.022
Ethylbenzene	23.844	23.847	0.003	577604	9.995	9.995

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	1915859	29.037	29.037
1,3-Dichlorobenzene	29.136	29.136	0.000	430600	9.938	9.938
1,4-Dichlorobenzene	29.346	29.346	0.000	462309	9.741	9.741
1,2-Dichlorobenzene	30.086	30.086	0.000	380642	10.318	10.318
Naphthalene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1,2,4-Trichlorobenzene(Dup)	33.564	33.565	0.001	811145	30.124	30.124

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3402.d
Report Date 05/21/2002 12:52



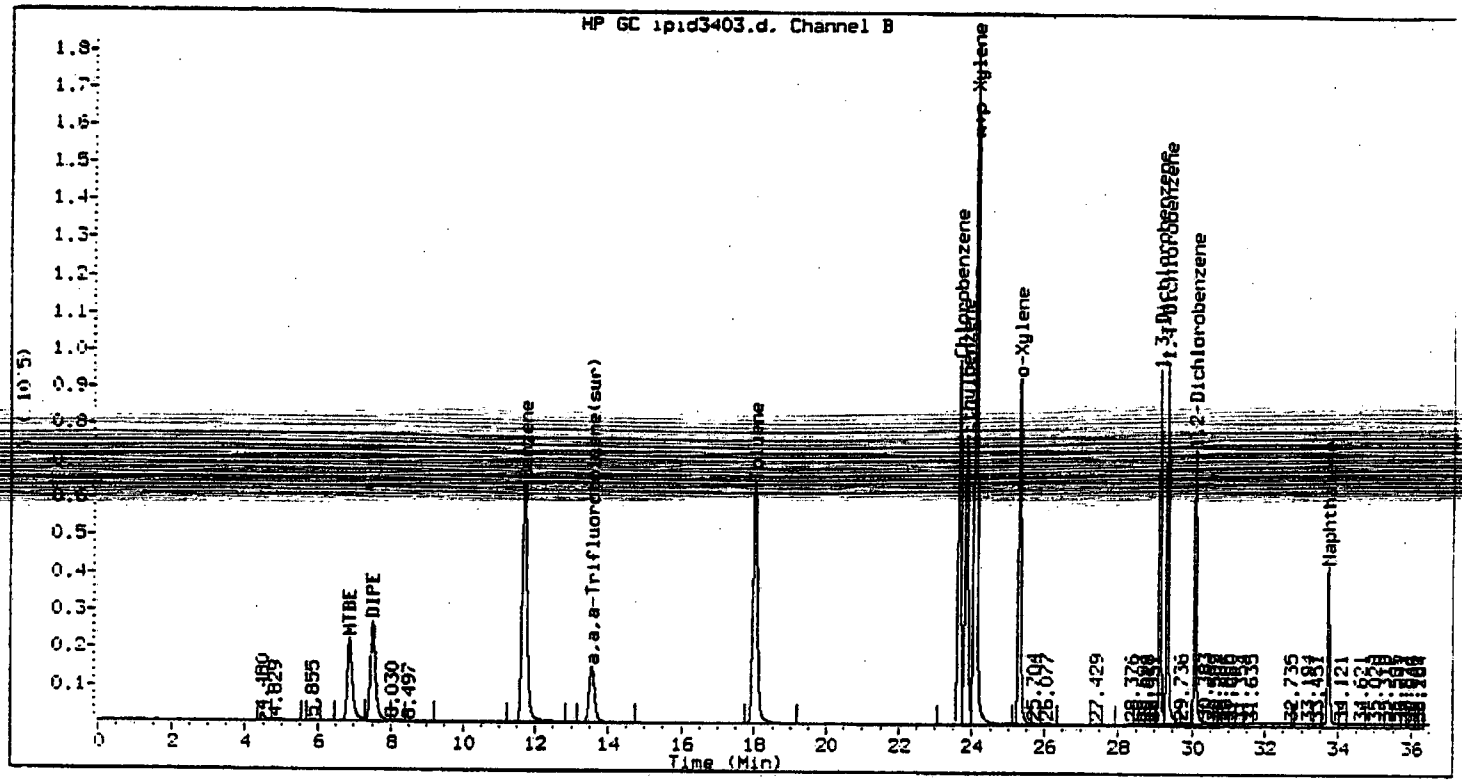
Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD020
Lab ID : ISTD020
Inj Date : 20-MAY-2002 09:13
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.310	25.310	0.000	1160670	19.804	19.804
m+p-Xylene	24.083	24.083	0.000	2666012	38.268	38.268
TBA	6.082	6.082	0.000	479066	1732.253	1732.253
MTBE	6.879	6.879	0.000	554856	18.833	18.833
DIPE	7.510	7.510	0.000	680538	19.716	19.716
Benzene	11.693	11.693	0.000	1526611	19.407	19.407
Toluene	18.023	18.023	0.000	1413022	19.941	19.941
Chlorobenzene	23.657	23.657	0.000	1385594	20.483	20.483
Ethylbenzene	23.847	23.847	0.000	1155218	19.990	19.990

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	3826692	57.998	57.998
1,3-Dichlorobenzene	29.136	29.136	0.000	876204	20.223	20.223
1,4-Dichlorobenzene	29.346	29.346	0.000	920610	19.397	19.397
1,2-Dichlorobenzene	30.086	30.086	0.000	705953	19.136	19.136
Naphthalene	33.745	33.745	0.000	435687	[illegible]	[illegible]
[illegible]	33.565	33.565	0.000	810803	30.112	30.112

Data File: /chem/VOAGC3.i/602/05-20-02/20may02.b/ipid3403.d Page 1
Report Date 05/21/2002 12:52



Method : /chem/VOAGC3.i/602/05-20-02/20may02.b/602_02.m
Sample Info : ISTD040
Lab ID : ISTD040
Inj Date : 20-MAY-2002 10:17
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.309	25.310	0.001	2319648	39.579	39.579
m-p-Xylene	24.088	24.089	0.001	6455347	92.661	92.661
MTBE	6.881	6.879	0.002	1104550	37.491	37.491
DIPE	7.511	7.510	0.002	1347331	39.034	39.034
Benzene	11.693	11.693	0.000	3135123	39.854	39.854
Toluene	18.023	18.023	0.000	2823868	39.850	39.850
Chlorobenzene	23.656	23.657	0.001	2800275	41.397	41.397
Ethylbenzene	23.846	23.847	0.001	2339417	40.482	40.482
Xylene (Total)	25.019	25.019	0.000	8774995	132.994	132.994

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1,3-Dichlorobenzene	29.134	29.136	0.002	1799606	41.535	41.535
1,4-Dichlorobenzene	29.344	29.346	0.002	1908381	40.208	40.208
1,2-Dichlorobenzene	30.083	30.086	0.002	1441000	39.061	39.061
Naphthalene	33.742	33.745	0.003	1020718	39.717	39.717
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 06/09/02 Time: 0916

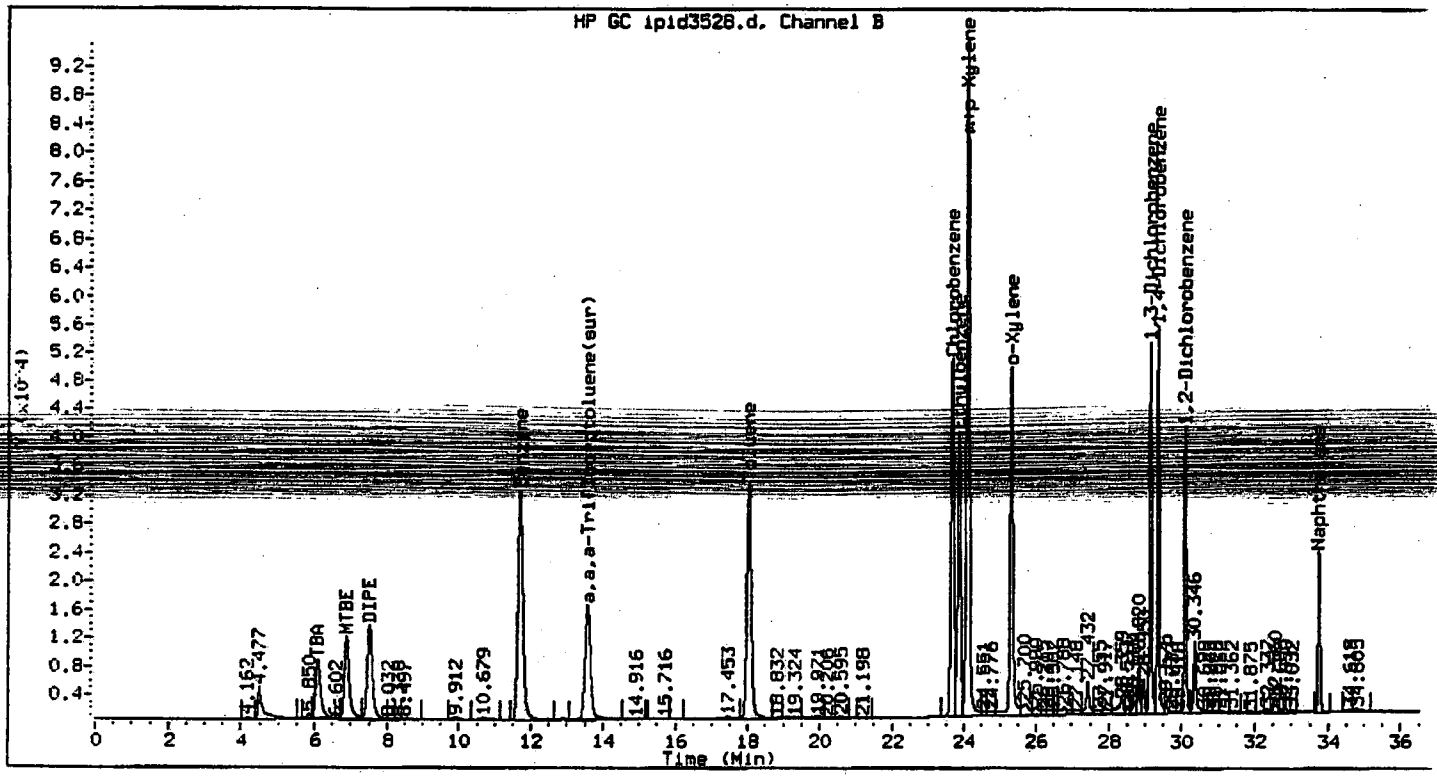
Lab File ID: IPID3528 Init. Calib. Date(s): 05/20/02 05/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 0913 1217

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
TBA **	276.56	223.00		19.4	40.0
MTBE	29461.37	29153.20		1.0	40.0
DIPE	34516.58	33540.65		2.8	40.0
Benzene	78664.49	78432.80		0.3	23.0
Toluene	70861.74	72727.55		-2.6	22.5
Chlorobenzene	67647.04	71582.35		-5.8	19.5
Ethylbenzene	57708.56	59881.90		-3.6	37.0
Xylene (Total)	65980.25	69049.88		-4.6	40.0
1,3-Dichlorobenzene	43327.67	50327.25		-16.2	27.5
1,4-Dichlorobenzene	47462.36	51690.80		-8.9	30.5
1,2-Dichlorobenzene	36891.03	38506.45		-4.4	32.0
Naphthalene	25699.68	23083.35		10.2	40.0
a,a,a-Trifluorotoluene(sur)	26926.56	29304.37		-8.8	20.0

** TBA Continuing Calibration Level is RF2000.

Data File: /chem/VOAGC3.i/602/05-20-02/09jun02.b/ipid3528.d Page 1
Report Date 06/10/2002 08:39



Method : /chem/VOAGC3.i/602/05-20-02/09jun02.b/602_02.m
Sample Info : ISTD160
Lab ID : ISTD160
Inj Date : 09-JUN-2002 09:16
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.312	25.312	0.000	1369824	23.373	23.373
mip-Xylene	24.091	24.091	0.000	2773169	39.806	39.806
TBA	6.082	6.082	0.000	446006	1612.711	1612.711
MTBE	6.882	6.882	0.000	583064	19.791	19.791
DIPE	7.514	7.514	0.000	670813	19.435	19.435
Benzene	11.697	11.697	0.000	1568656	19.941	19.941
Toluene	18.028	18.028	0.000	1454551	20.527	20.527
Chlorobenzene	23.659	23.659	0.000	1431647	21.164	21.164
Ethylbenzene	23.850	23.850	0.000	1197638	20.724	20.724

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	4142993	62.791	62.791
1,3-Dichlorobenzene	29.136	29.136	0.000	1006545	23.231	23.231
1,4-Dichlorobenzene	29.346	29.346	0.000	1033816	21.782	21.782
1,2-Dichlorobenzene	30.086	30.086	0.000	770129	20.876	20.876
Naphthalene	[illegible]	[illegible]	0.000	[illegible]	[illegible]	[illegible]
a,a,a-Trifluorotoluene(sur)	13.571	13.571	0.000	879131	32.649	32.649

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

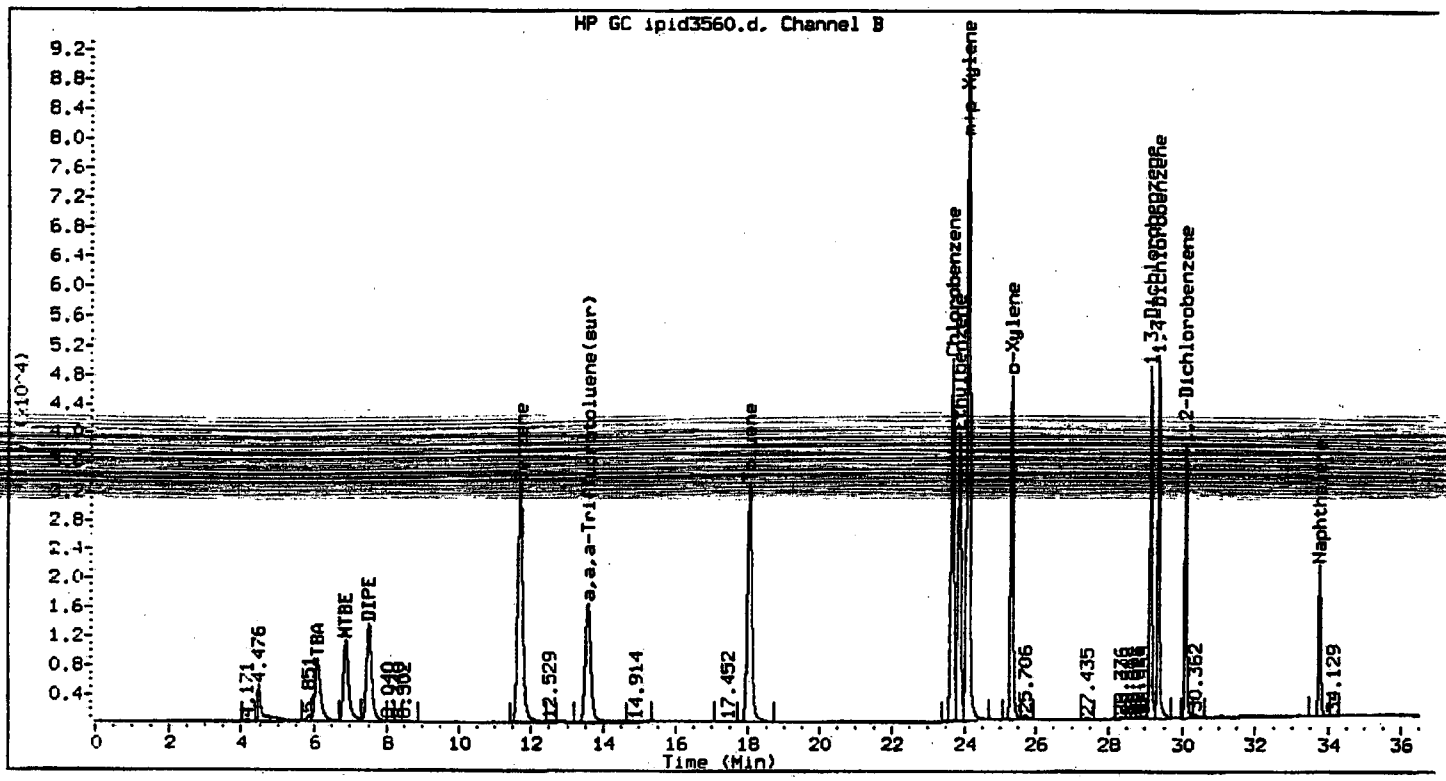
Instrument ID: VOAGC3 Calibration Date: 06/10/02 Time: 1244

Lab File ID: IPID3560 Init. Calib. Date(s): 05/20/02 05/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 0913 1217

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
TBA **	276.56	239.72		13.3	40.0
MTBE	29461.37	28192.40		4.3	40.0
DIPE	34516.58	33667.80		2.4	40.0
Benzene	78664.49	79751.90		-1.4	23.0
Toluene	70861.74	72037.40		-1.6	22.5
Chlorobenzene	67645.04	70825.85		-4.7	19.5
Ethylbenzene	57788.56	59362.50		-2.7	37.0
Xylene (Total)	65980.25	64957.32		1.6	40.0
1,3-Dichlorobenzene	43327.67	45931.10		-6.0	27.5
1,4-Dichlorobenzene	47462.36	47994.40		-1.1	30.5
1,2-Dichlorobenzene	36891.03	36380.30		1.4	32.0
Naphthalene	25699.68	22001.60		14.4	40.0
a,a,a-Trifluorotoluene(sur)	26926.56	29518.73		-9.6	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/05-20-02/10jun02.b/602_02.m
Sample Info : ISTD161
Lab ID : ISTD161
Inj Date : 10-JUN-2002 12:44
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.314	25.314	0.000	1189266	20.292	20.292
m+p-Xylene	24.091	24.091	0.000	2706173	38.874	38.874
TBA	6.087	6.087	0.000	479433	1733.580	1733.580
MTBE	6.882	6.882	0.000	563848	19.139	19.139
DIPE	7.514	7.514	0.000	673356	19.508	19.508
Benzene	11.698	11.698	0.000	1595038	20.276	20.276
Toluene	18.029	18.029	0.000	1440748	20.332	20.332
Chlorobenzene	23.661	23.661	0.000	1416513	20.940	20.940
Ethylbenzene	23.852	23.852	0.000	1187250	20.545	20.545

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	3897439	59.070	59.070
1,3-Dichlorobenzene	29.141	29.141	0.000	918622	21.202	21.202
1,4-Dichlorobenzene	29.351	29.351	0.000	959888	20.224	20.224
1,2-Dichlorobenzene	30.091	30.091	0.000	727606	19.723	19.723
Naphthalene	33.758	33.758	0.000	446034	17.133	17.133
a,a,a-Trifluorotoluene(sur)	13.570	13.570	0.000	885562	32.888	32.888

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

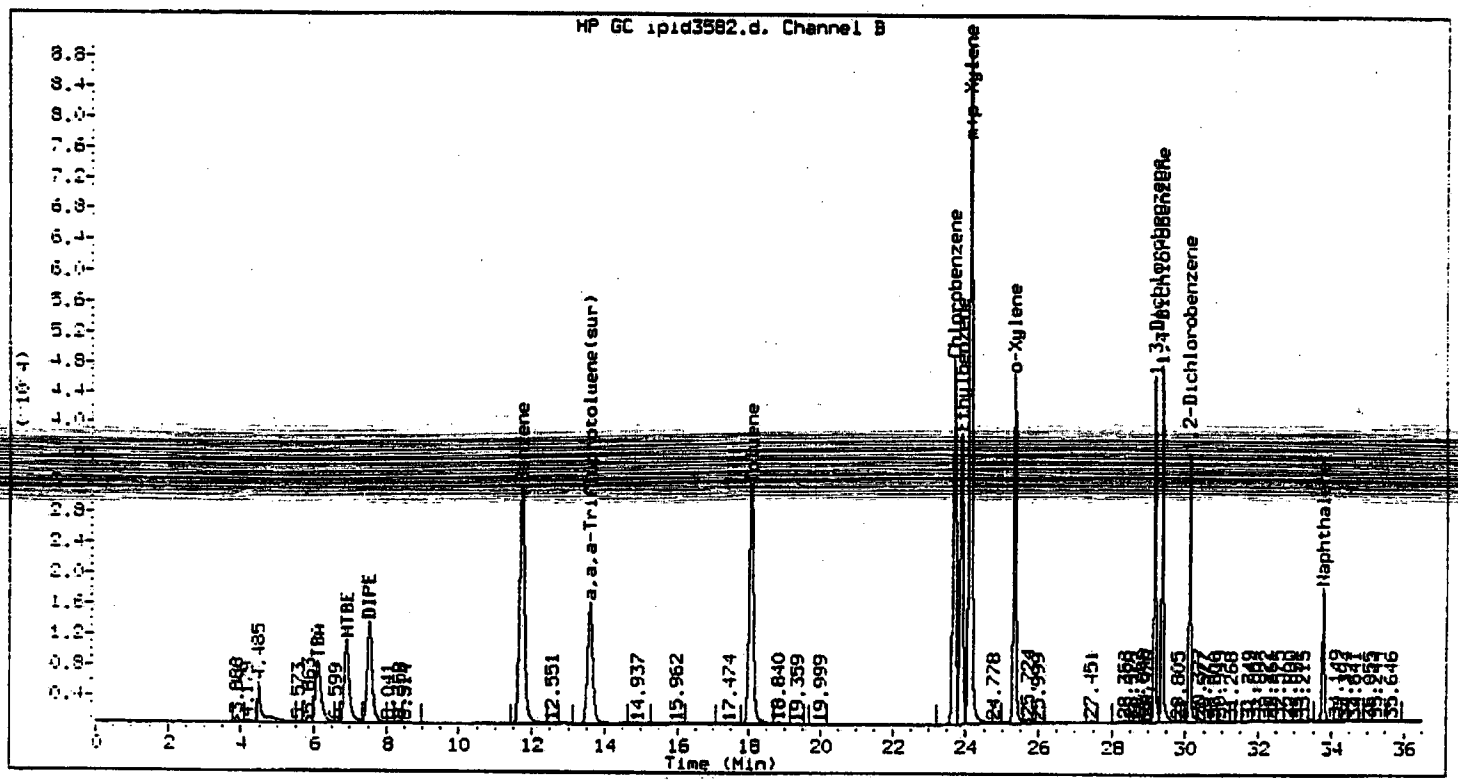
Instrument ID: VOAGC3 Calibration Date: 06/11/02 Time: 0818

Lab File ID: IPID3582 Init. Calib. Date(s): 05/20/02 05/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 0913 1217

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
TBA **	276.56	230.49		16.6	40.0
MTBE	29461.37	28009.35		4.9	40.0
DIPE	34516.58	33578.15		2.7	40.0
Benzene	78664.49	77116.60		2.0	23.0
Toluene	70861.74	69755.80		1.6	22.5
Chlorobenzene	69145.04	68760.55		1.6	19.5
Ethylbenzene	57788.56	57275.10		0.9	37.0
Xylene (Total)	65980.25	63330.97		4.0	40.0
1,3-Dichlorobenzene	43327.67	43709.55		-0.9	27.5
1,4-Dichlorobenzene	47462.36	45851.60		3.4	30.5
1,2-Dichlorobenzene	36891.03	34675.85		6.0	32.0
Naphthalene	25699.68	19589.00		23.8	40.0
a,a,a-Trifluorotoluene(sur)	26926.56	29233.03		-8.6	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/05-20-02/11jun02.b/602_02.m
Sample Info : ISTD162
Lab ID : ISTD162
Inj Date : 11-JUN-2002 08:18
Operator :
Cpnd Sublist: all

Inst ID : VOAGC3.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	25.330	25.330	0.000	1174100	20.033	20.033
m+p-Xylene	[illegible]	[illegible]	[illegible]	2625750	[illegible]	[illegible]
TBA	6.099	6.099	0.000	460985	1666.874	1666.874
MTBE	6.895	6.895	0.000	560187	19.014	19.014
DIPE	7.528	7.528	0.000	671563	19.456	19.456
Benzene	11.718	11.718	0.000	1542332	19.606	19.606
Toluene	18.052	18.052	0.000	1395116	19.688	19.688
Chlorobenzene	23.680	23.680	0.000	1375211	20.330	20.330
Ethylbenzene	23.870	23.870	0.000	1145502	19.822	19.822

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	3799858	57.591	57.591
1,3-Dichlorobenzene	29.155	29.155	0.000	874191	20.176	20.176
1,4-Dichlorobenzene	29.366	29.366	0.000	917032	19.321	19.321
1,2-Dichlorobenzene	30.106	30.106	0.000	693517	18.799	18.799
Naphthalene	31.769	31.769	0.000	791780	15.245	15.245
4,4,4-Trifluorotoluene(Sur)	13.592	13.592	0.000	876991	32.570	32.570

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER Level: LOW Lab Job No: X147

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
01	IG160	104			0
02	354707	101			0
03	354710	100			0
04	354711	102			0
05	354712	101			0
06	354713	100			0
07	354707MS	106			0
08	354707MSD	103			0
09	IG161	102			0
10	354696	102			0
11	354697	99			0
12	354698	99			0
13	354699	100			0
14	354700	101			0
15	IG162	99			0
16	354701	102			0
17	354702	97			0
18	354703	96			0
19	354704	96			0
20	354705	97			0
21	354706	94			0
22	354708	93			0
23	354709	95			0
24	354705MS	98			0
25	354705MSD	97			0
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (63-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

page 1 of 1

Spike Recovery Summary

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 354707

MS Sample from Lab Job No: X147

QA Batch: 7377

Compound	MS % REC.	BS % REC.	LIMITS
Benzene	105	90	39-150
Toluene	115	90	46-148
Chlorobenzene	105	95	55-135
Ethylbenzene	105	90	32-160
1,3-Dichlorobenzene	100	90	50-141
1,4-Dichlorobenzene	100	90	42-143
1,2-Dichlorobenzene	100	90	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 354705

MS Sample from Lab Job No: X147

QA Batch: 7380

Compound	MS % REC.	BS % REC.	LIMITS
Benzene	87	95	39-150
Toluene	88	95	46-148
Chlorobenzene	87	95	55-135
Ethylbenzene	84	95	32-160
1,3-Dichlorobenzene	82	95	50-141
1,4-Dichlorobenzene	79	90	42-143
1,2-Dichlorobenzene	82	90	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

GC/MS Forms and Data (Semivolatiles)

Results Summary and Chromatograms

Client ID: MW-19-6
Site: L.E. Carpenter

Lab Sample No: 354696
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11537.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	2.3	0.4

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11537.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/11537.d
Lab Smp Id: 354696 Client Smp ID: MW-19-6
Inj Date : 10-JUN-2002 18:35
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354696;1000;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rusin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: 11478.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

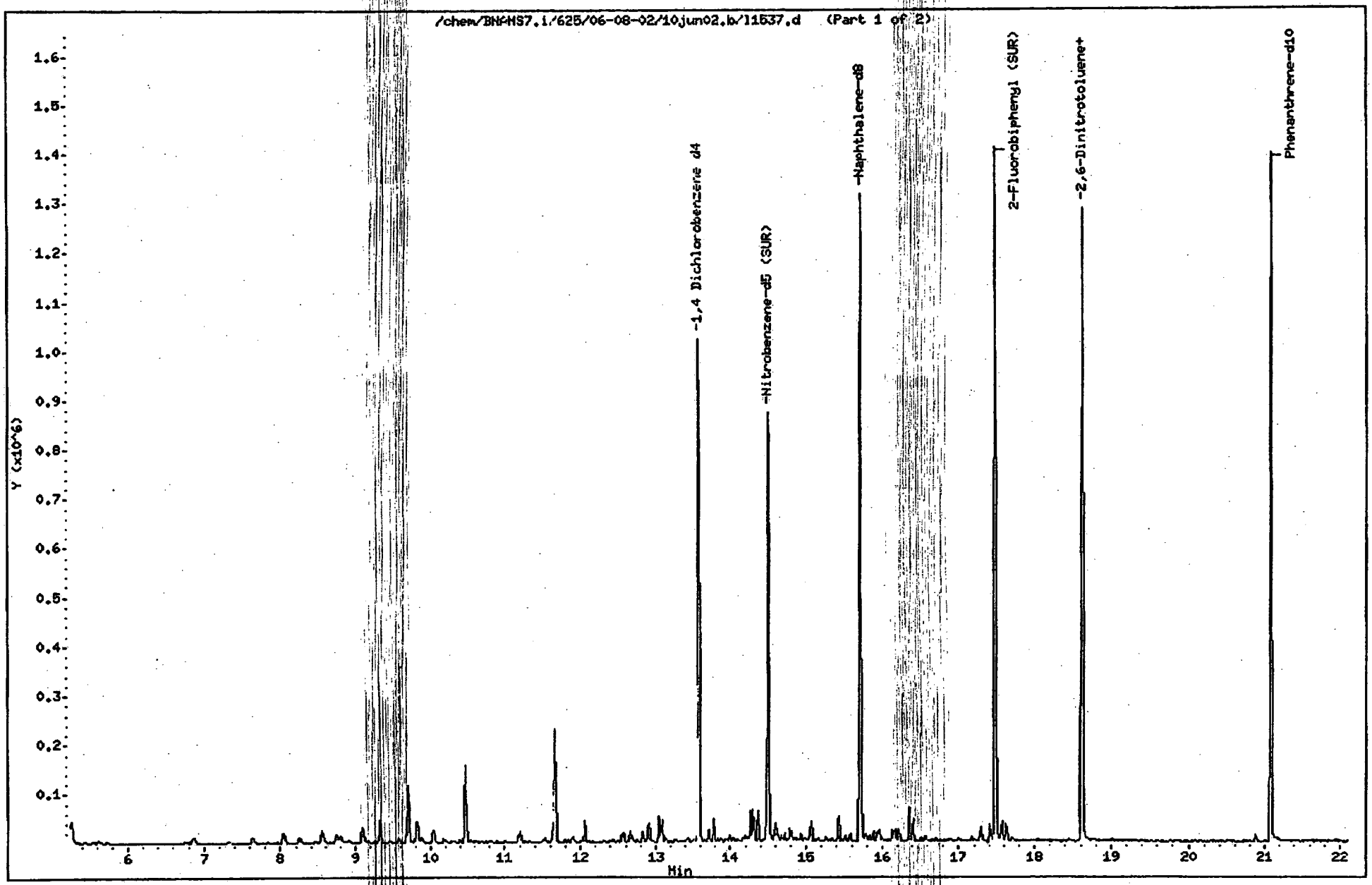
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

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	13.567	13.571	(1.000)	225068	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.498	14.512	(0.923)	408771	46.8205	94
* 80 Naphthalene-d8	136	15.715	15.718	(1.000)	783877	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.483	17.477	(0.939)	645798	45.6579	91
* 82 Acenaphthene-d10	164	18.618	18.622	(1.000)	433613	40.0000	
* 83 Phenanthrene-d10	188	21.083	21.086	(1.000)	775885	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.680	23.684	(0.926)	727929	46.6616	93
63 bis(2-Ethylhexyl)phthalate	149	25.469	25.483	(0.996)	18075	1.14248	2.3
* 81 Chrysene-d12	240	25.571	25.585	(1.000)	720840	40.0000	
* 84 Perylene-d12	264	29.600	29.604	(1.000)	638513	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11537.d
Date : 10-JUN-2002 18:35
Client ID: MW-19-6
Sample Info: 354696;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.53



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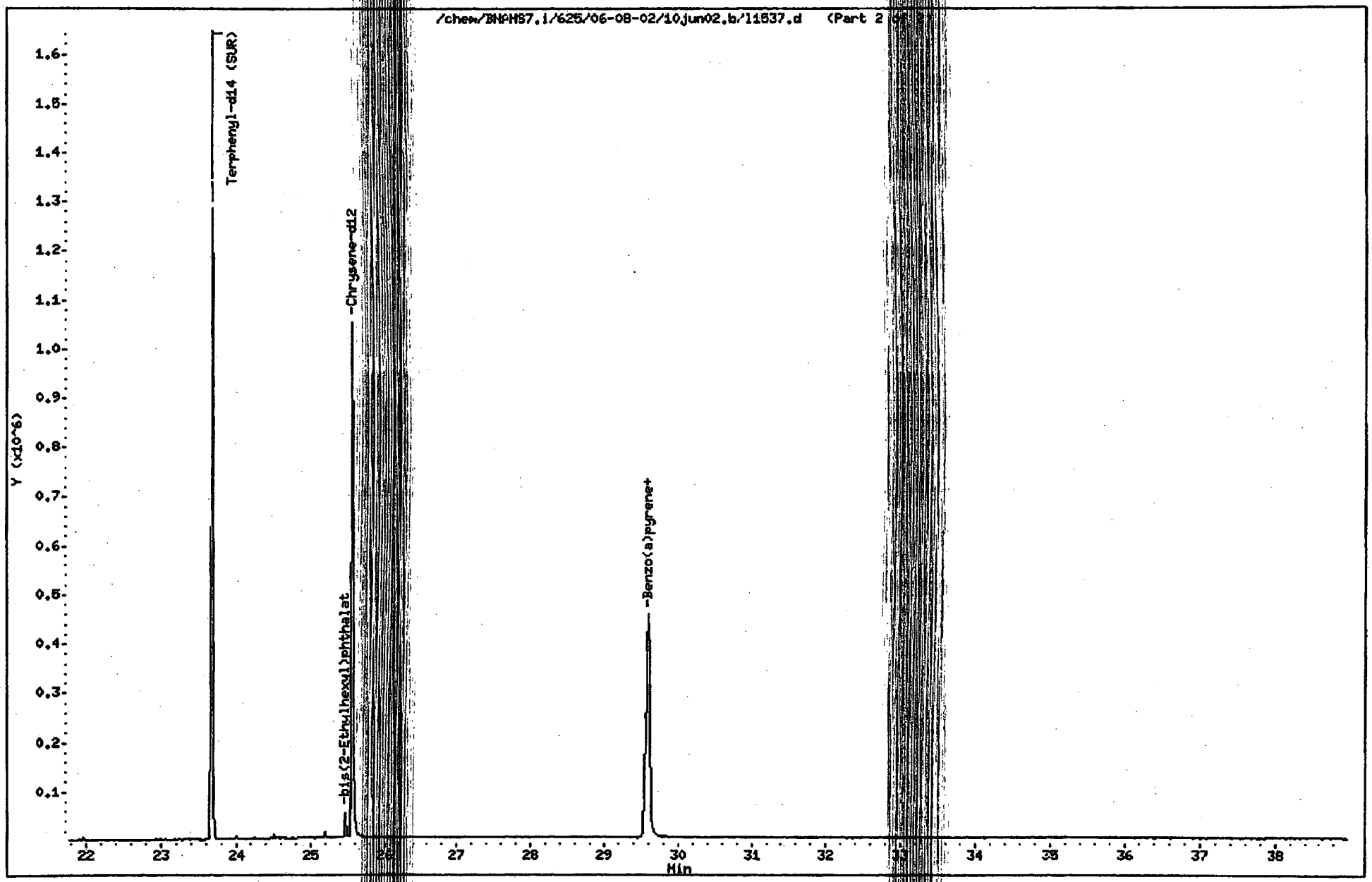
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11537.d
Date : 10-JUN-2002 18:35
Client ID: MW-19-6
Sample Info: 354696;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11537.d

Date : 10-JUN-2002 18:35

Client ID: MW-19-6

Instrument: BNAMS7.i

Sample Info: 354696;1000;2;1;

Purge Volume: 1000.0

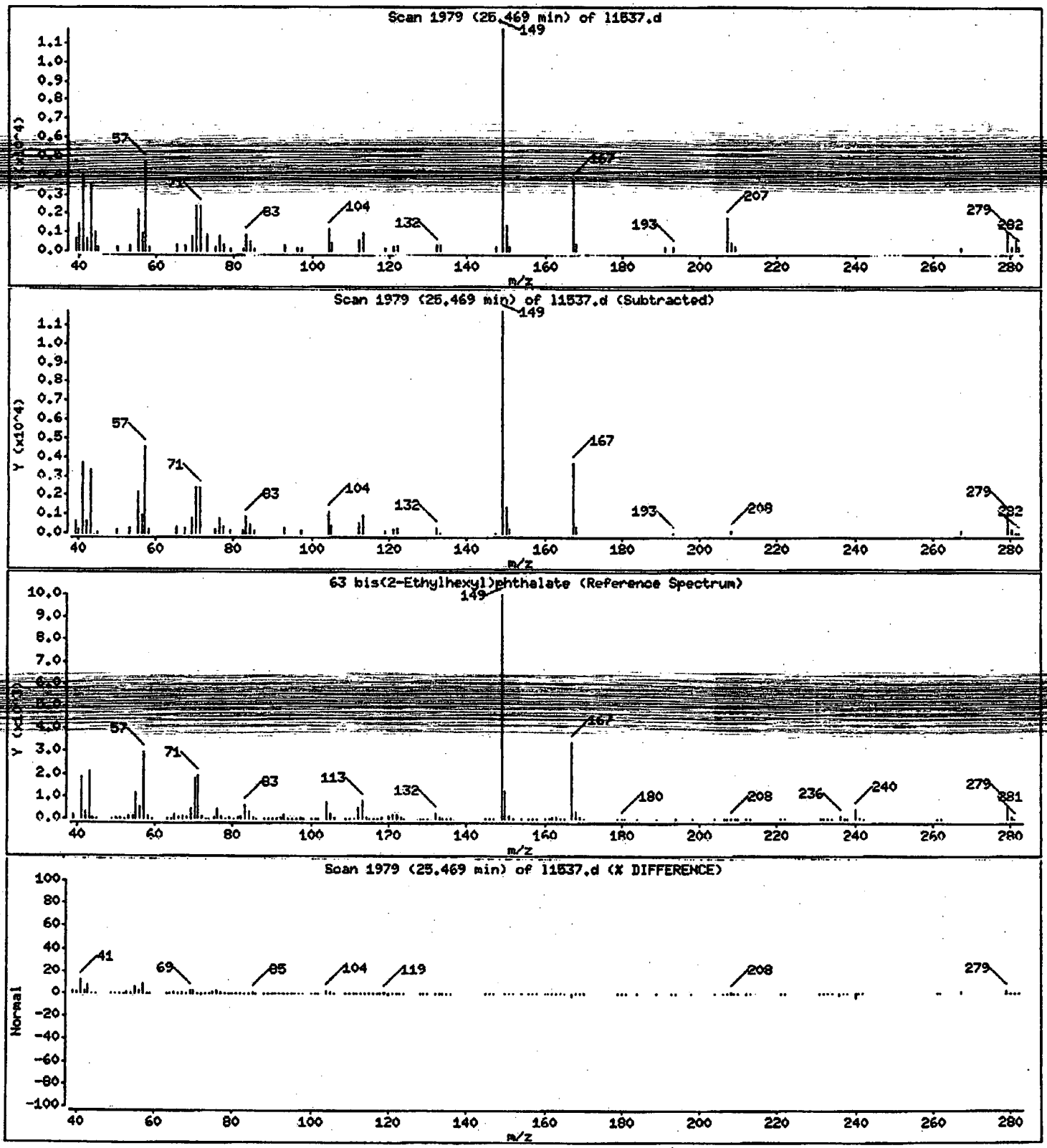
Operator: BNAMS 7

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 2.3 ug/L



Client ID: MW-19-9D
Site: L.E. Carpenter

Lab Sample No: 354697
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1538.d

Matrix: WATER
Level: LOW
Sample Volume: 940 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	1.9	0.5

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1538.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1538.d
Lab Smp Id: 354697 Client Smp ID: MW-19-9D
Inj Date : 10-JUN-2002 19:26
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354697;940;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rusin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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	940.00000	Volume of sample extracted (mL)

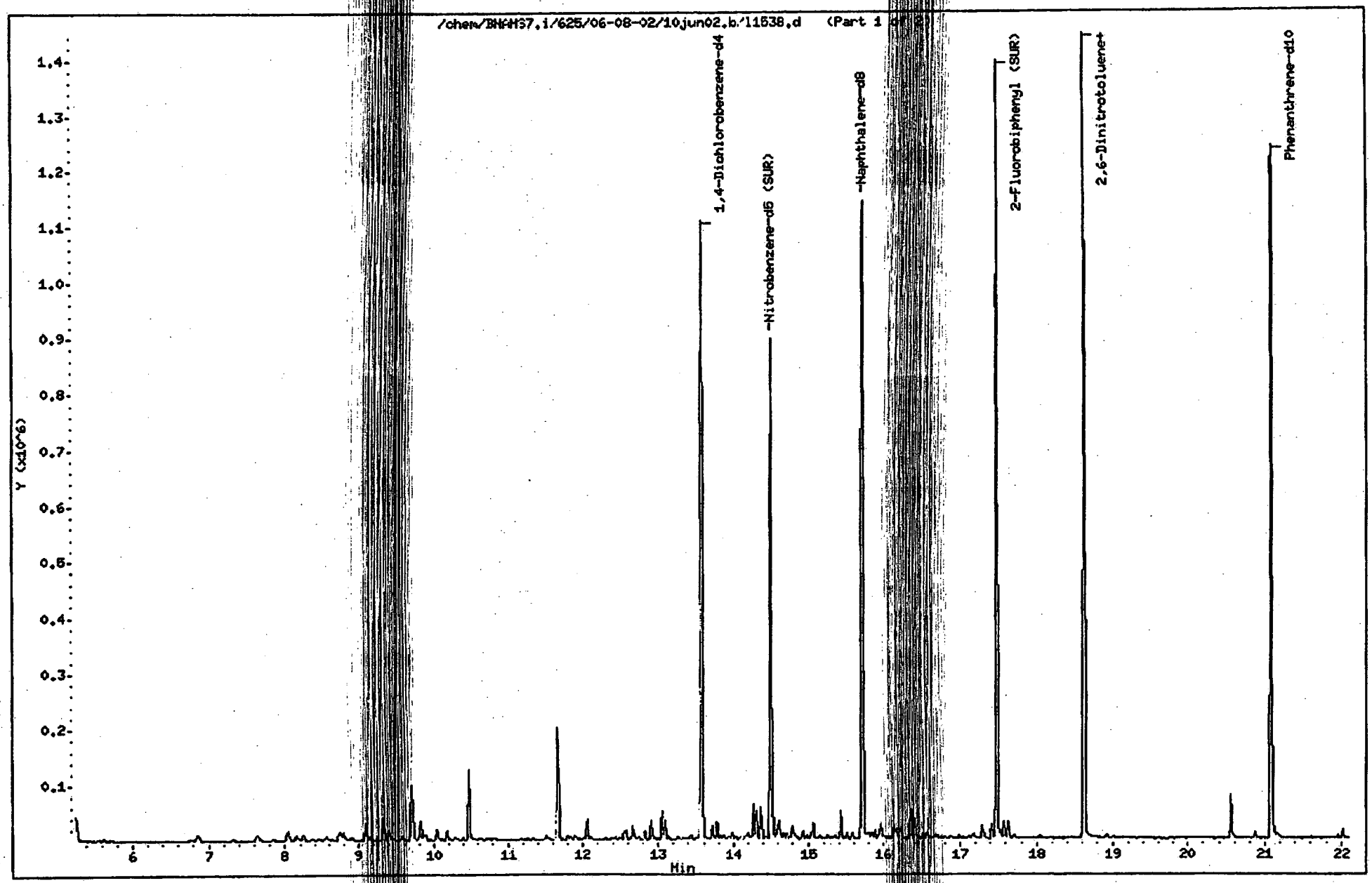
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.572	13.571	(1.000)	223574	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.509	14.512	(0.921)	177904	43.5000	87
* 80 Naphthalene-d8	136	15.740	15.740	(1.000)	766504	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.478	17.477	(0.938)	584928	42.5026	90
* 82 Acenaphthene-d10	164	18.623	18.622	(1.000)	421899	40.0000	
* 83 Phenanthrene-d10	188	21.087	21.086	(1.000)	749560	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.674	23.684	(0.926)	654631	43.3608	92
63 bis(2-Ethylhexyl)phthalate	149	25.474	25.483	(0.996)	13660	0.89218	1.9
* 81 Chrysene-d12	240	25.576	25.585	(1.000)	697604	40.0000	
* 84 Perylene-d12	264	29.553	29.564	(1.000)	620068	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11538.d
Date : 10-JUN-2002 19:26
Client ID: MW-19-9D
Sample Info: 354697;940;2;1;
Purge Volume: 940.0
Column phase: DB-5

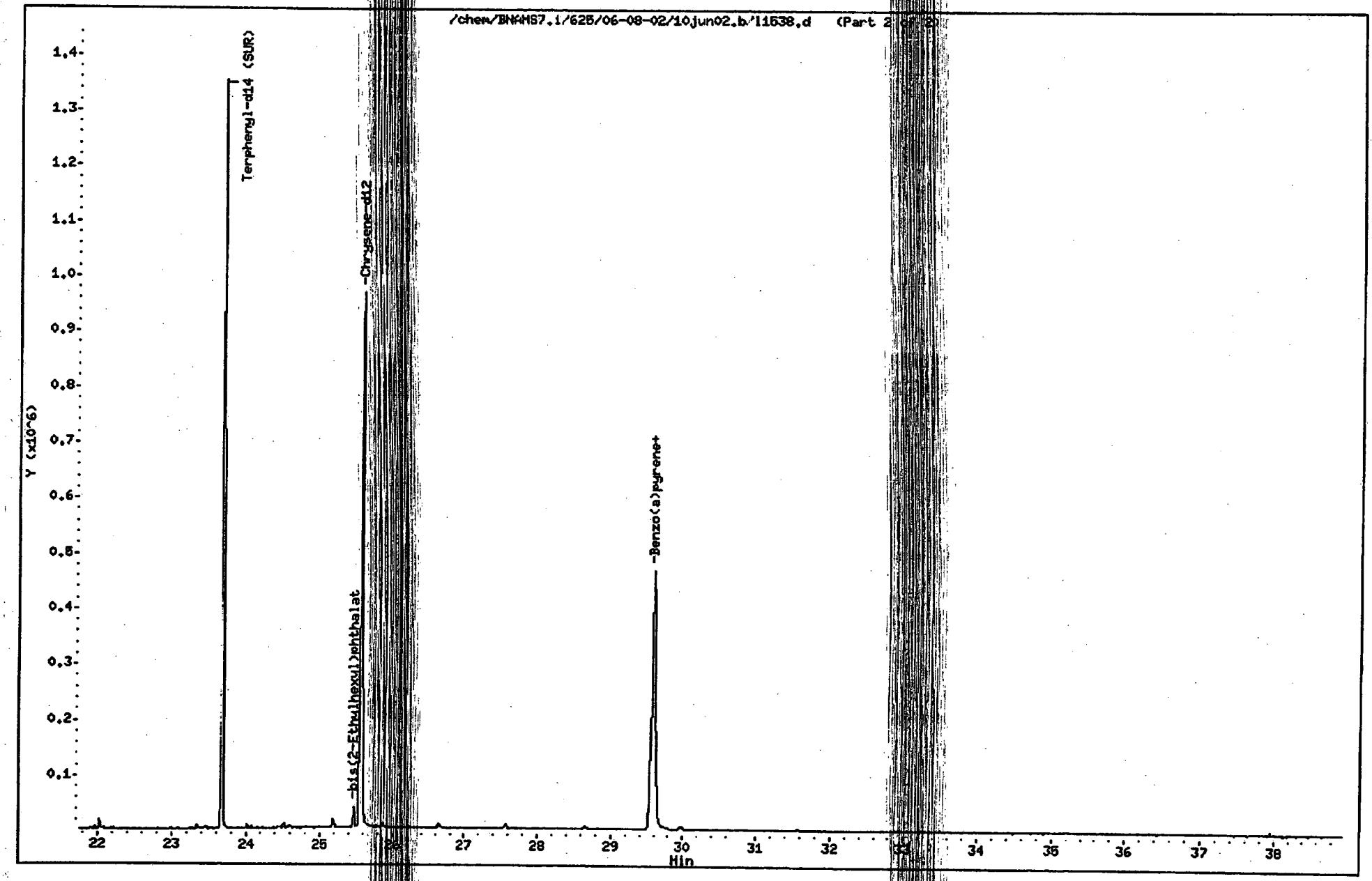
Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11538.d
Date : 10-JUN-2002 19:26
Client ID: MW-19-9D
Sample Info: 354697;940;2;1;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.53



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X147

Data File: /ohem/BNAMS7.i/625/06-08-02/10jun02.b/11538.d

Date : 10-JUN-2002 19:26

Client ID: MW-19-9D

Instrument: BNAMS7.i

Sample Info: 354697;940;2;1;

Purge Volume: 940.0

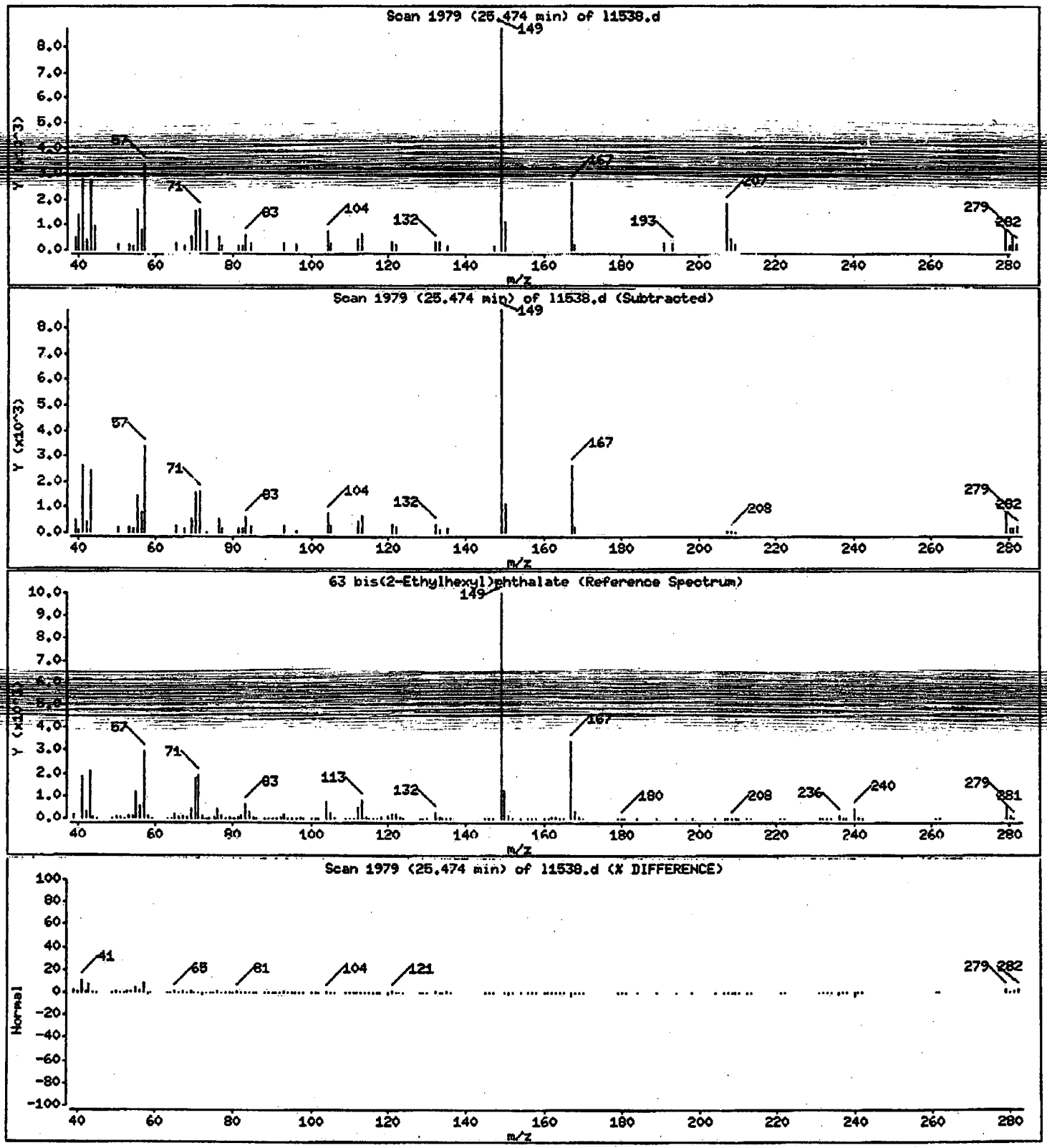
Operator: BNAMS 7

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 1.9 ug/L



Client ID: MW-19-8
Site: L.E. Carpenter

Lab Sample No: 354698
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11540.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	0.4

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1540.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1540.d
Lab Smp Id: 354698 Client Smp ID: MW-19-8
Inj Date : 10-JUN-2002 21:06
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354698;1000;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rusin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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)

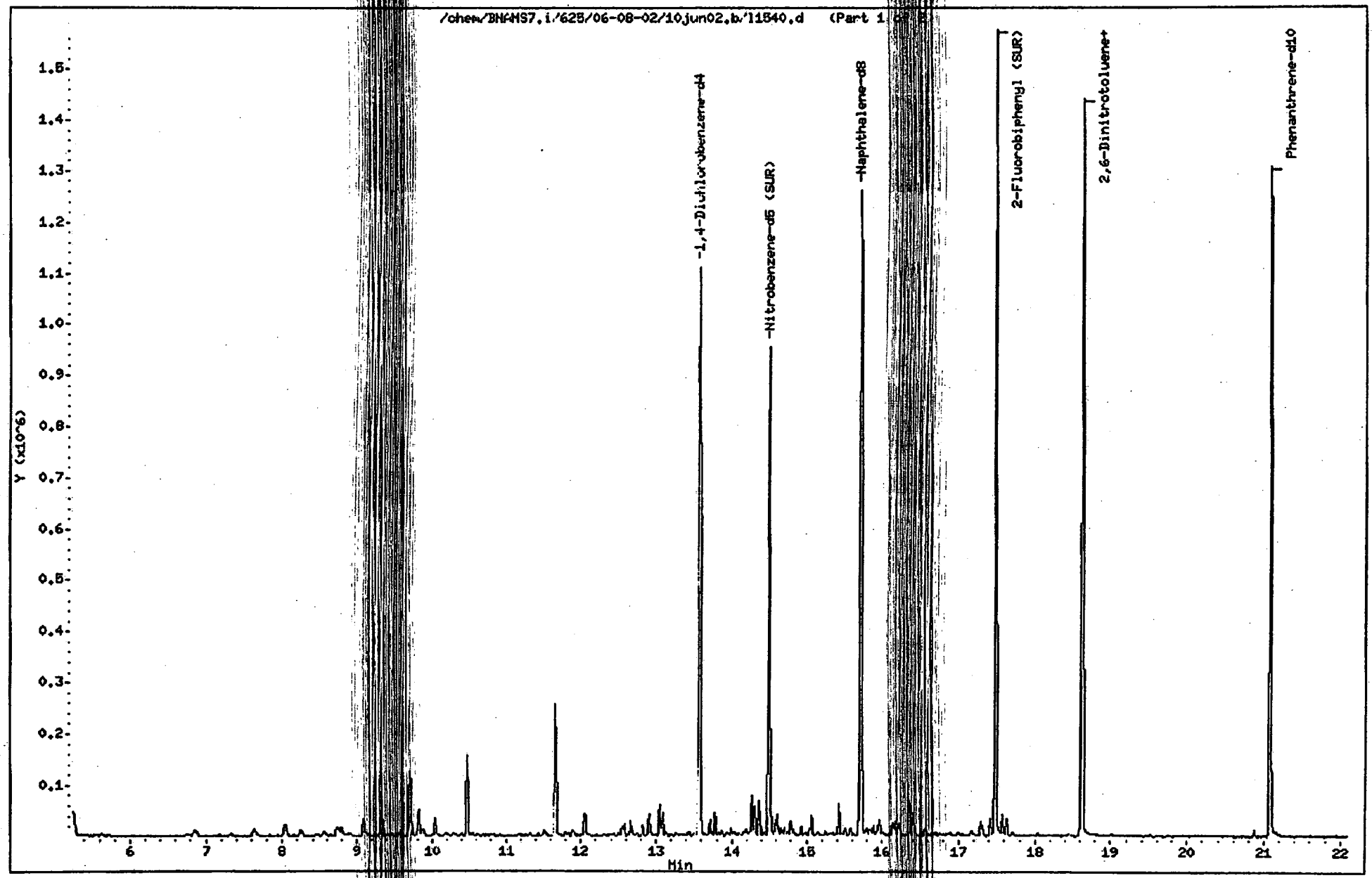
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.572	13.571	(1.000)	233084	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.503	14.512	(0.929)	417125	46.2540	92
* 80 Naphthalene d8	136	15.708	15.718	(1.000)	809694	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.478	17.477	(0.938)	647798	45.1321	90
* 82 Acenaphthene d10	164	18.623	18.622	(1.000)	440023	40.0000	
* 83 Phenanthrene d10	188	21.077	21.086	(1.000)	781564	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.675	23.684	(0.926)	711355	45.8291	92
* 81 Chrysene-d12	240	25.576	25.585	(1.000)	717223	40.0000	
* 84 Perylene-d12	264	29.595	29.604	(1.000)	628630	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11540.d
Date : 10-JUN-2002 21:06
Client ID: MW-19-8
Sample Info: 354698;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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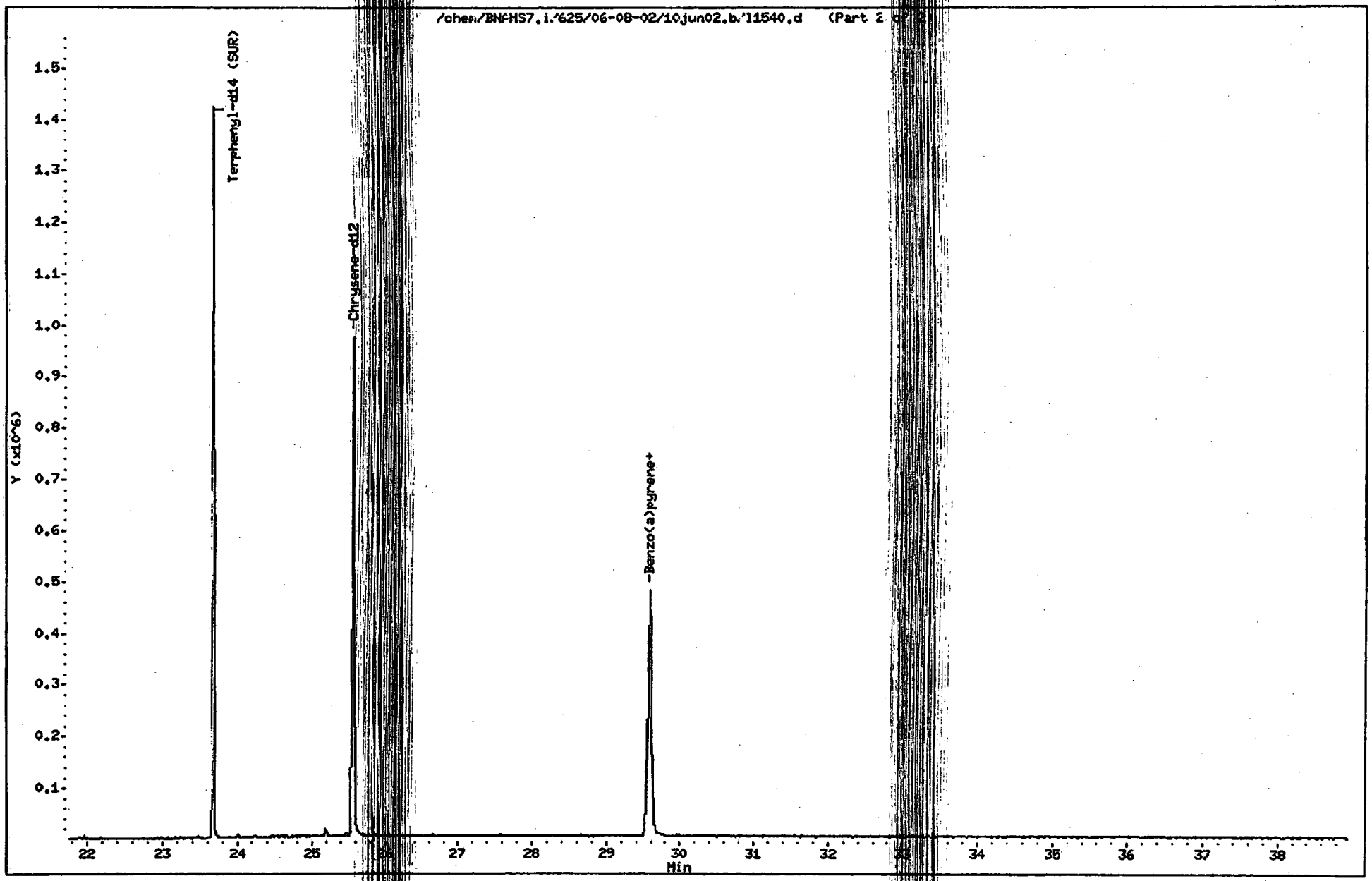
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11540.d
Date : 10-JUN-2002 21:06
Client ID: MW-19-8
Sample Info: 354698;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11540.d (Part 2 of 2)



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X147

Client ID: MW-19-7
Site: L.E. Carpenter

Lab Sample No: 354699
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11541.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	0.4

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1541.d
Report Date: 12-Jun-2002 12:44

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1541.d
Lab Smp Id: 354699 Client Smp ID: MW-19-7
Inj Date : 10-JUN-2002 21:56
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354699;990;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rsmith Quant Type: ISTD
Col Date : 08-JUN-2002 16:47 Col File: l3670.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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	990.00000	Volume of sample extracted (mL)

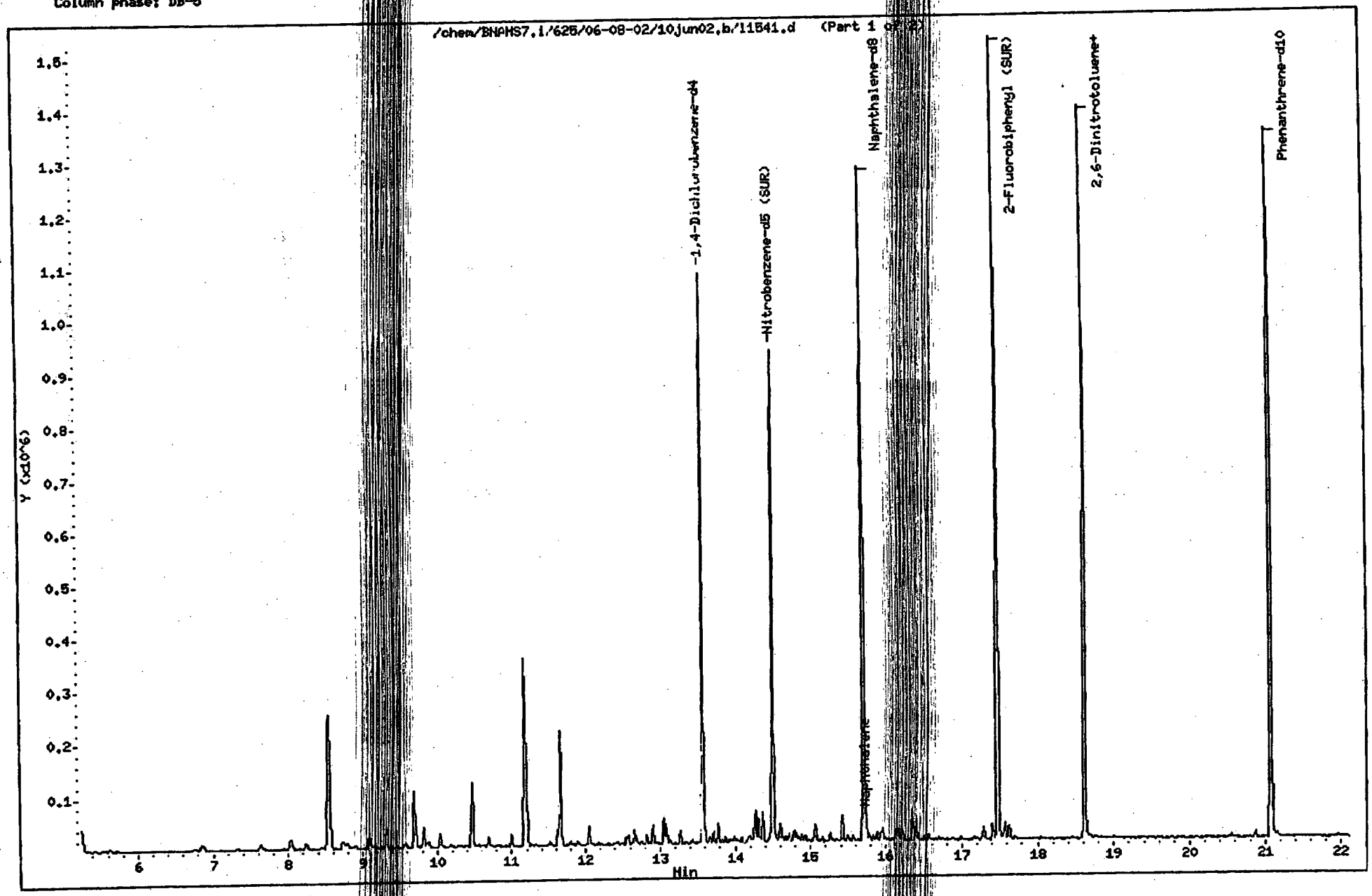
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.572	13.571	(1.000)	229165	40.0000	
* 76 Nitrobenzene-d5 (Int)	82	14.203	14.214	(0.923)	488138	40.1703	
* 80 Naphthalene-d8	136	15.710	15.710	(1.000)	791505	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.478	17.477	(0.938)	630142	45.3941	92
* 82 Acenaphthene d10	164	18.624	18.622	(1.000)	425559	40.0000	
* 83 Phenanthrene-d10	188	21.078	21.086	(1.000)	764784	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.675	23.684	(0.926)	668006	43.9752	89
* 81 Chrysene-d12	240	25.566	25.585	(1.000)	701911	40.0000	
* 84 Perylene-d12	264	29.595	29.604	(1.000)	627590	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11541.d
Date : 10-JUN-2002 21:56
Client ID: MW-19-7
Sample Info: 354699;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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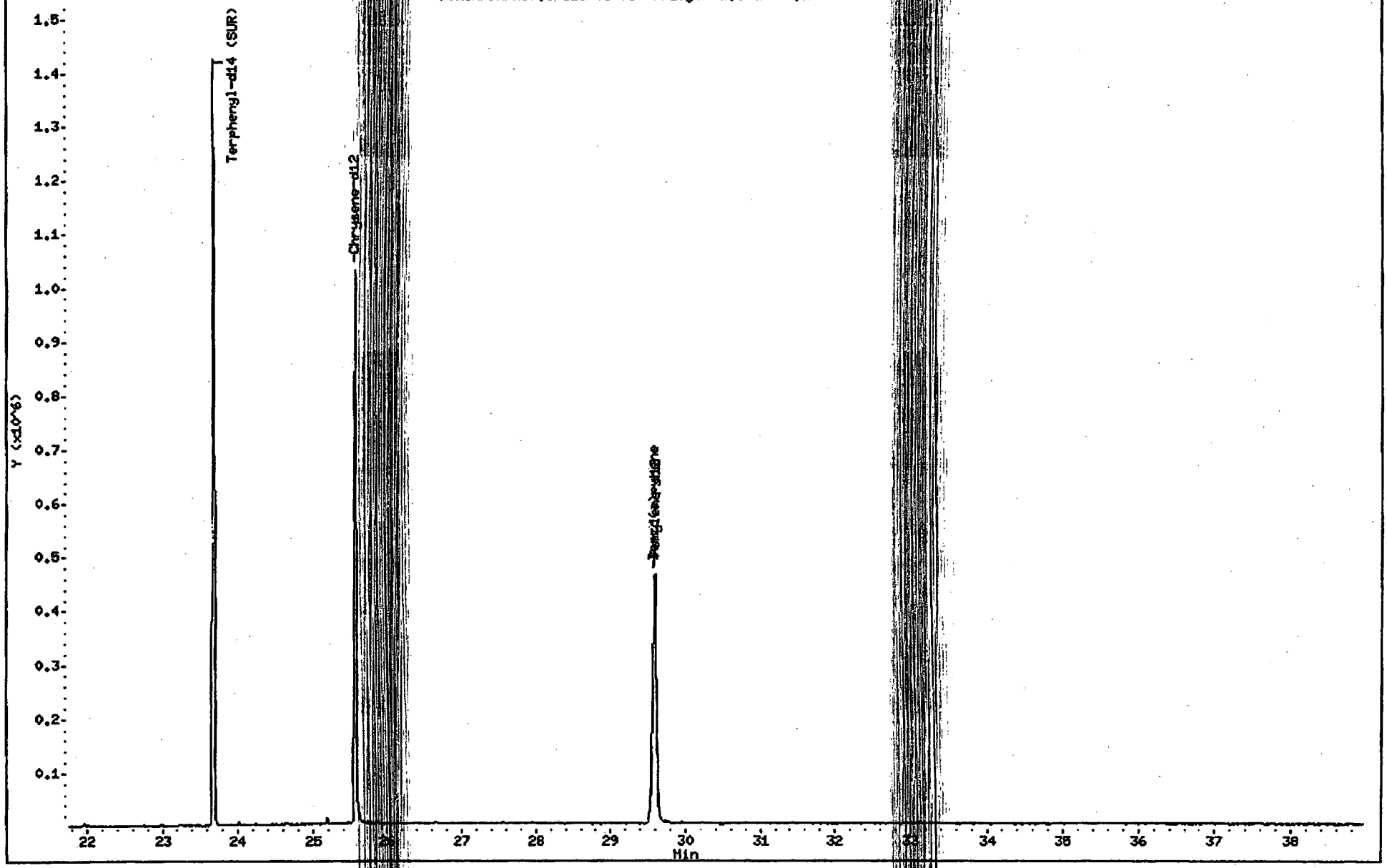
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11541.d
Date : 10-JUN-2002 21:56
Client ID: MW-19-7
Sample Info: 354699;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11541.d (Part 2 of 2)



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X147

Client ID: MW-19-5
Site: L.E. Carpenter

Lab Sample No: 354700
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1571.d

Matrix: WATER
Level: LOW
Sample Volume: 900 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	ND	9.8

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11571.d
Report Date: 12-Jun-2002 15:27

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-11-02/11jun02.b/11571.d
Lab Smp Id: 354700 Client Smp ID: MW-19-5
Inj Date : 12-JUN-2002 00:24
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354700;900;2;20;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-11-02/11jun02.b/bna625b.m
Meth Date : 12-Jun-2002 09:20 rusin Quant Type: ISTD
Cal Date : 11-JUN-2002 21:50 Cal File: 11568.d
Als bottle: 8
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

Name	Value	Description
DF	20.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	900.00000	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)	CONCENTRATIONS FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.578	13.578	(1.000)	209246	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.498	14.498	(0.923)	13717	1.88171	84(a)
* 80 Naphthalene-d8	136	15.715	15.715	(1.000)	621044	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.474	17.474	(0.938)	22030	1.63400	73(a)
* 82 Acenaphthene d10	164	18.619	18.629	(1.000)	394476	40.0000	
* 83 Phenanthrene-d10	188	21.083	21.083	(1.000)	687706	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.670	23.670	(0.926)	27201	1.84365	82(a)
* 81 Chrysene-d12	240	25.572	25.582	(1.000)	698869	40.0000	
* 84 Perylene-d12	264	29.590	29.601	(1.000)	709212	40.0000	

QC Flag Legend

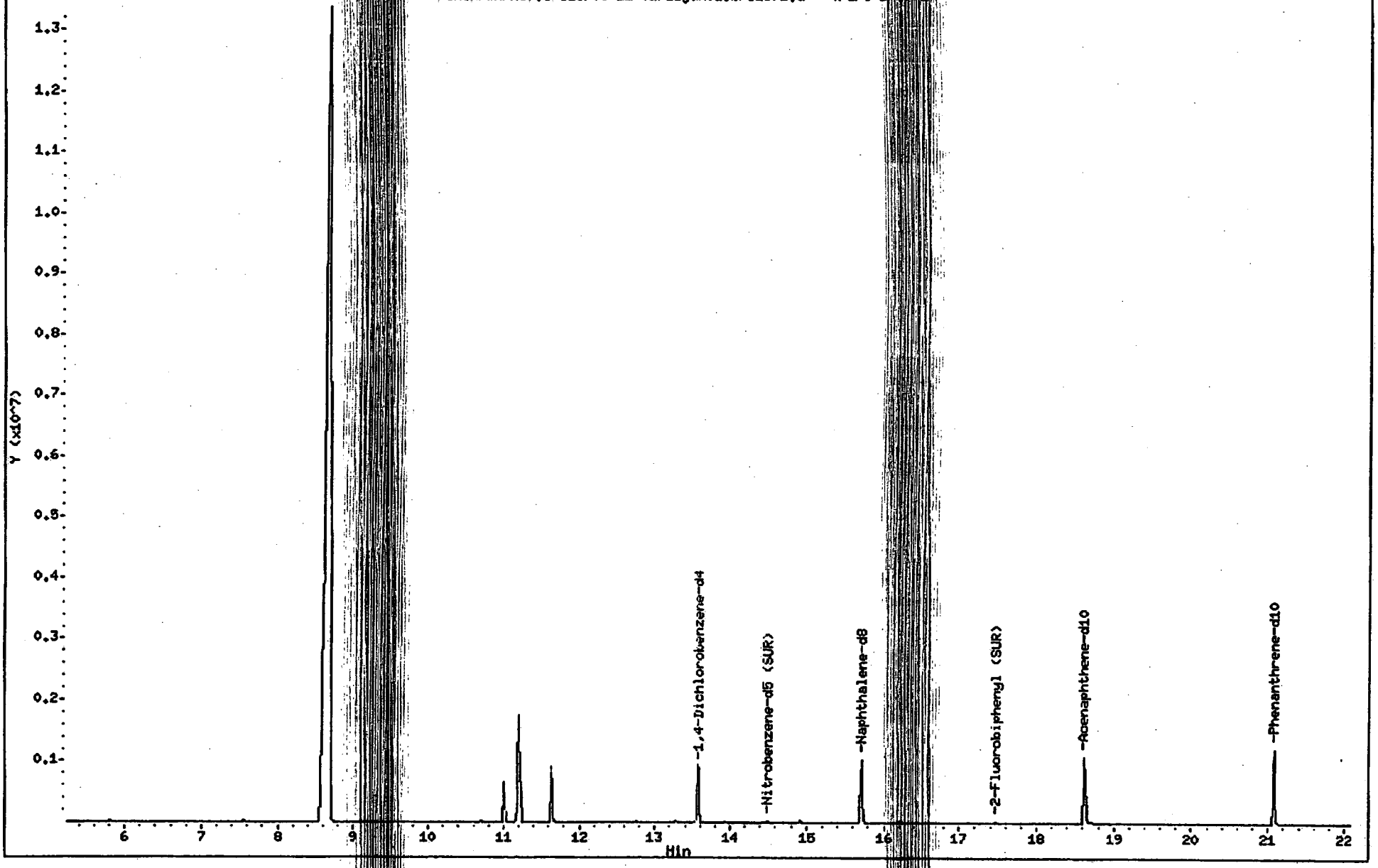
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11571.d
Date : 12-JUN-2002 00:24
Client ID: MW-19-5
Sample Info: 354700;900;2;20;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-11-02/11jun02.b/11571.d (Part 1 of 2)



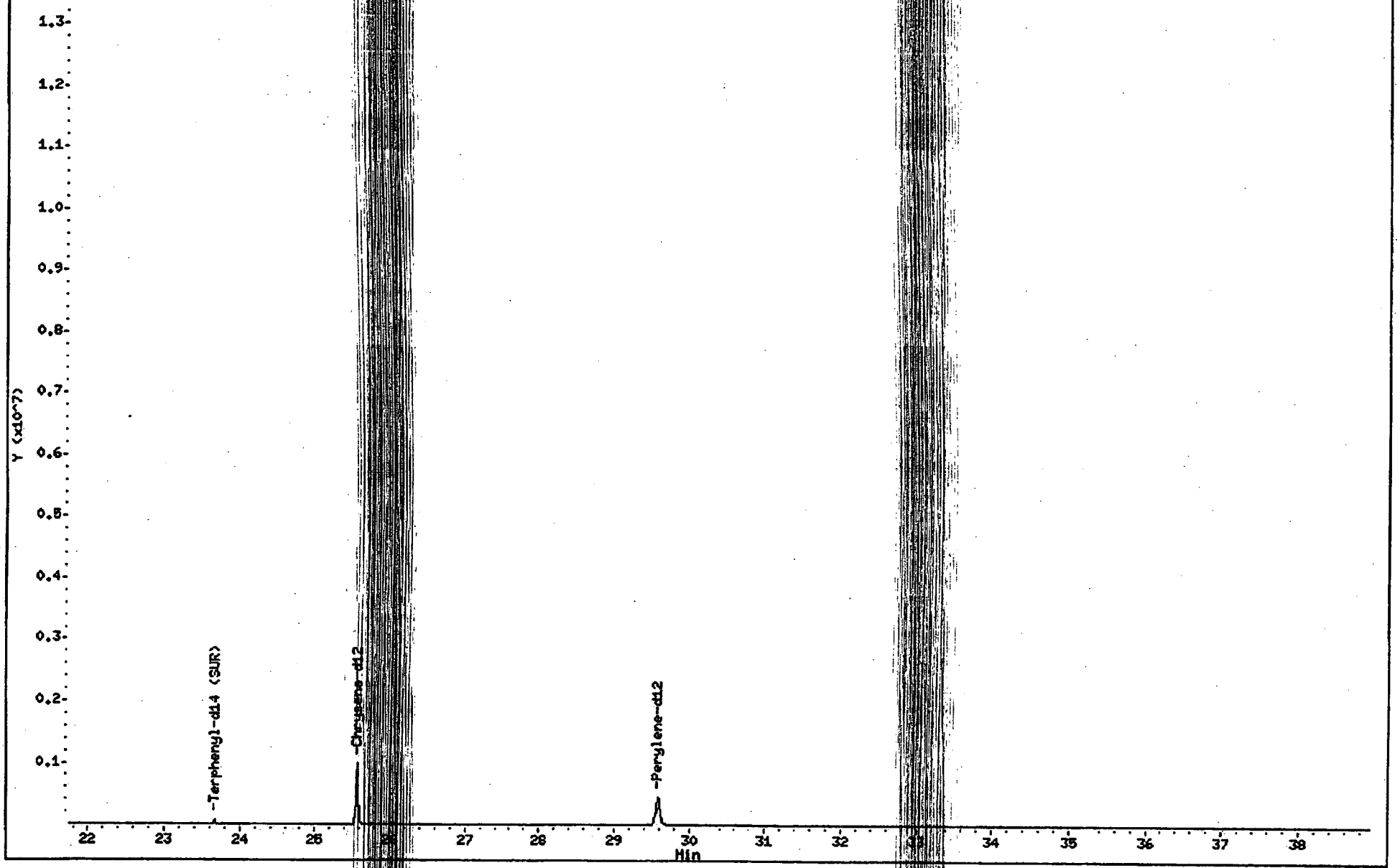
148

X147

Data File: /chem/BNAHS7.i/625/06-11-02/11jun02.b/11571.d
Date : 12-JUN-2002 00:24
Client ID: MW-19-5
Sample Info: 354700;900;2;20;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAHS7.i
Operator: BNAHS 7
Column diameter: 0.53

/chem/BNAHS7.i/625/06-11-02/11jun02.b/11571.d (Part 2 of 2)



149

X147

Client ID: MW-19-2
Site: L.E. Carpenter

Lab Sample No: 354701
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1542.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	0.4

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1542.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1542.d
Lab Smp Id: 354701 Client Smp ID: MW-19-2
Inj Date : 10-JUN-2002 22:46
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354701;990;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 quick1p Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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	990.00000	Volume of sample extracted (mL)

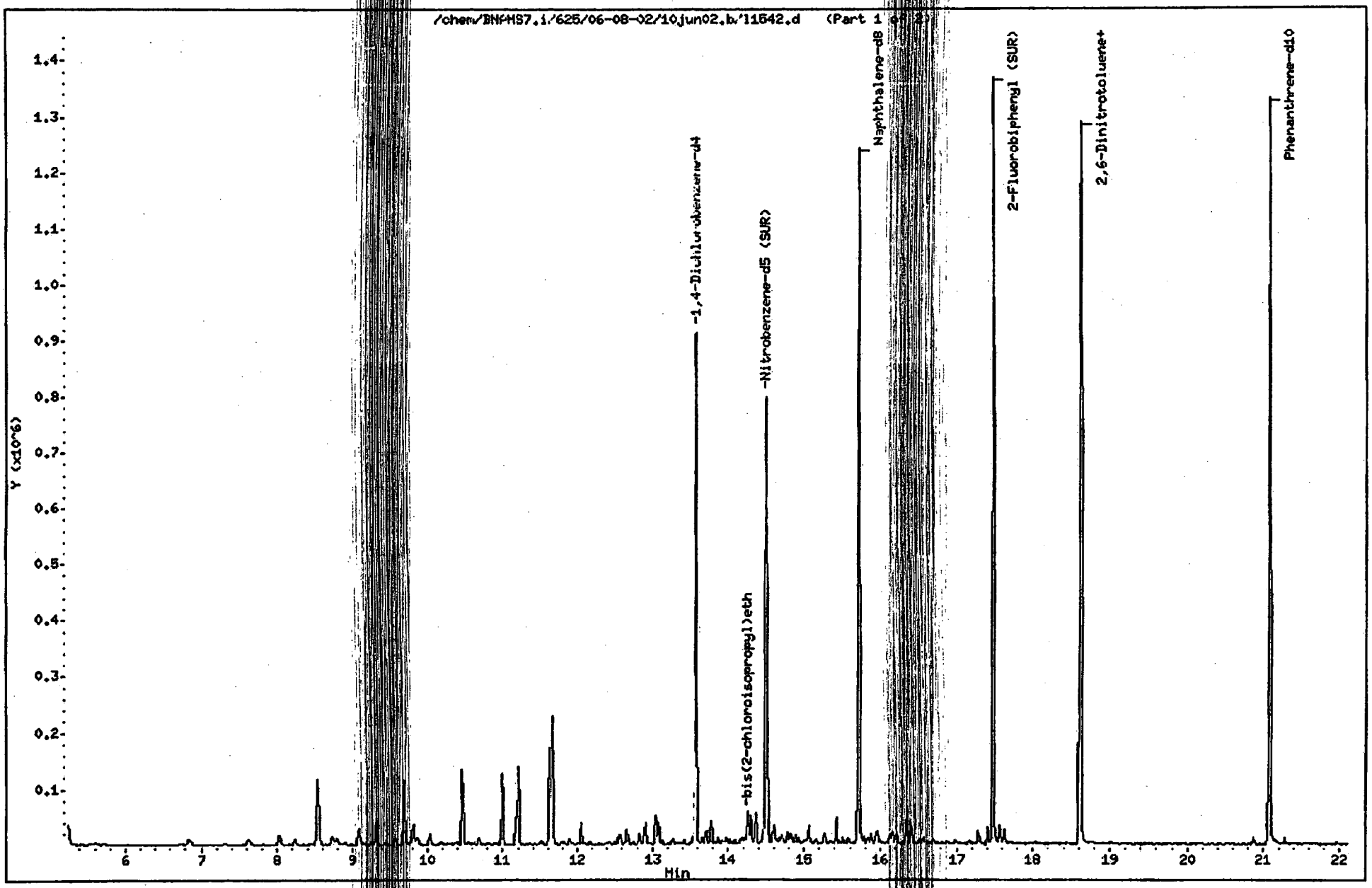
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4 Dichlorobenzene-d4	152	13.572	13.571	(1.000)	216770	40.0000	
* 24 Nitrobenzene-d5 (BNO)	82	14.863	14.533	(0.923)	379369	45.0071	96
* 80 Naphthalene-d8	136	15.709	15.718	(1.000)	743981	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.478	17.477	(0.938)	583677	44.1027	89
* 82 Acenaphthene-d10	164	18.624	18.622	(1.000)	405722	40.0000	
* 83 Phenanthrene-d10	188	21.078	21.086	(1.000)	717071	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.675	23.684	(0.926)	639424	44.6647	90
* 81 Chrysene-d12	240	25.566	25.585	(1.000)	661506	40.0000	
* 84 Perylene-d12	264	29.585	29.604	(1.000)	591894	40.0000	

Data File: /chem/BNAHS7.i/625/06-08-02/10jun02.b/11542.d
Date : 10-JUN-2002 22:46
Client ID: MW-19-2
Sample Info: 354701;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAHS7.i

Operator: BNAHS 7
Column diameter: 0.53



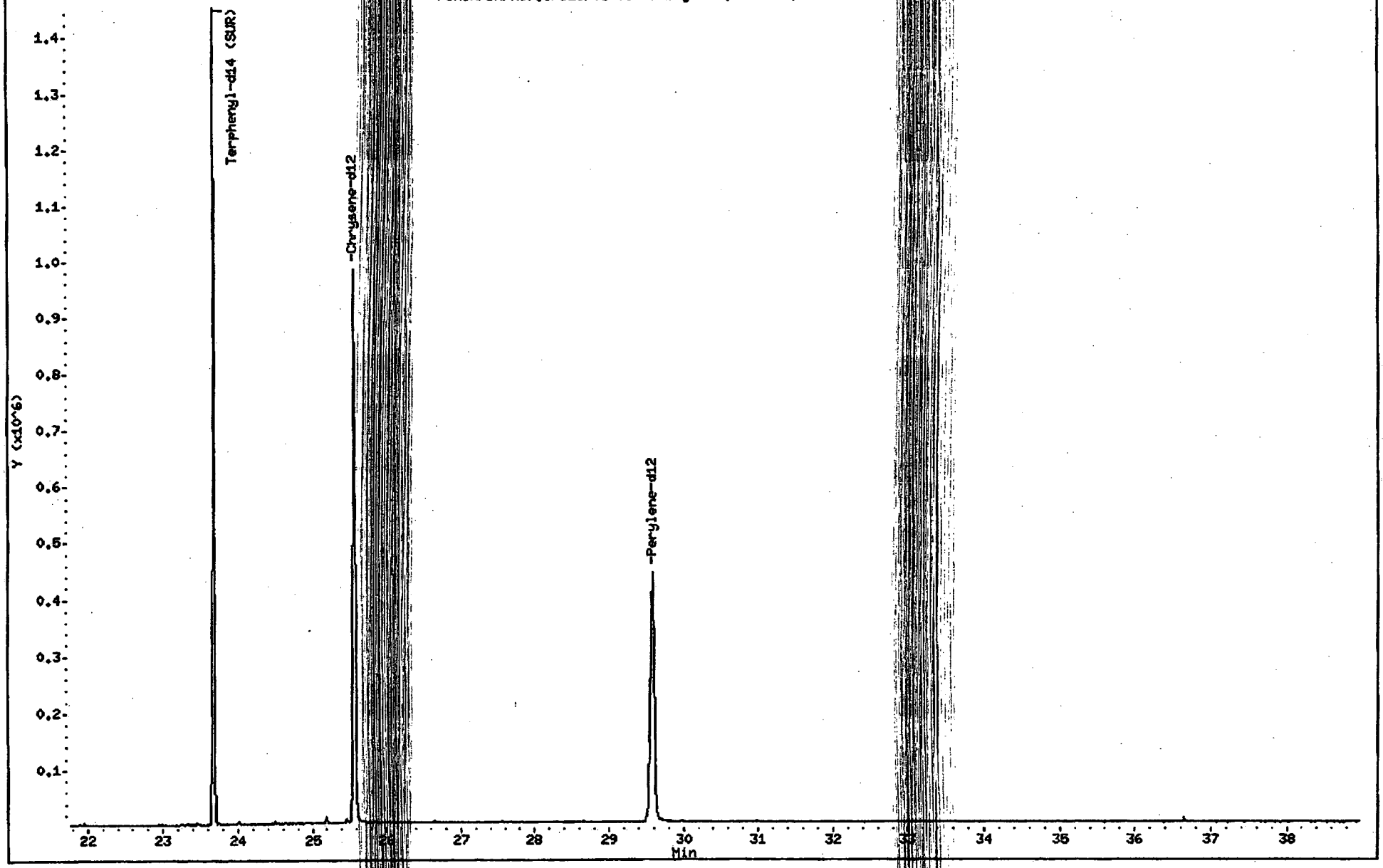
152

X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11542.d
Date : 10-JUN-2002 22:46
Client ID: MW-19-2
Sample Info: 354701;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11542.d (Part 2 of 2)



153

X147

Client ID: MW-19-1
Site: L.E. Carpenter

Lab Sample No: 354702
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/10/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1543.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	0.6	0.4

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1543.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1543.d
Lab Smp Id: 354702 Client Smp ID: MW-19-1
Inj Date : 10-JUN-2002 23:36
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354702;1000;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1543.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

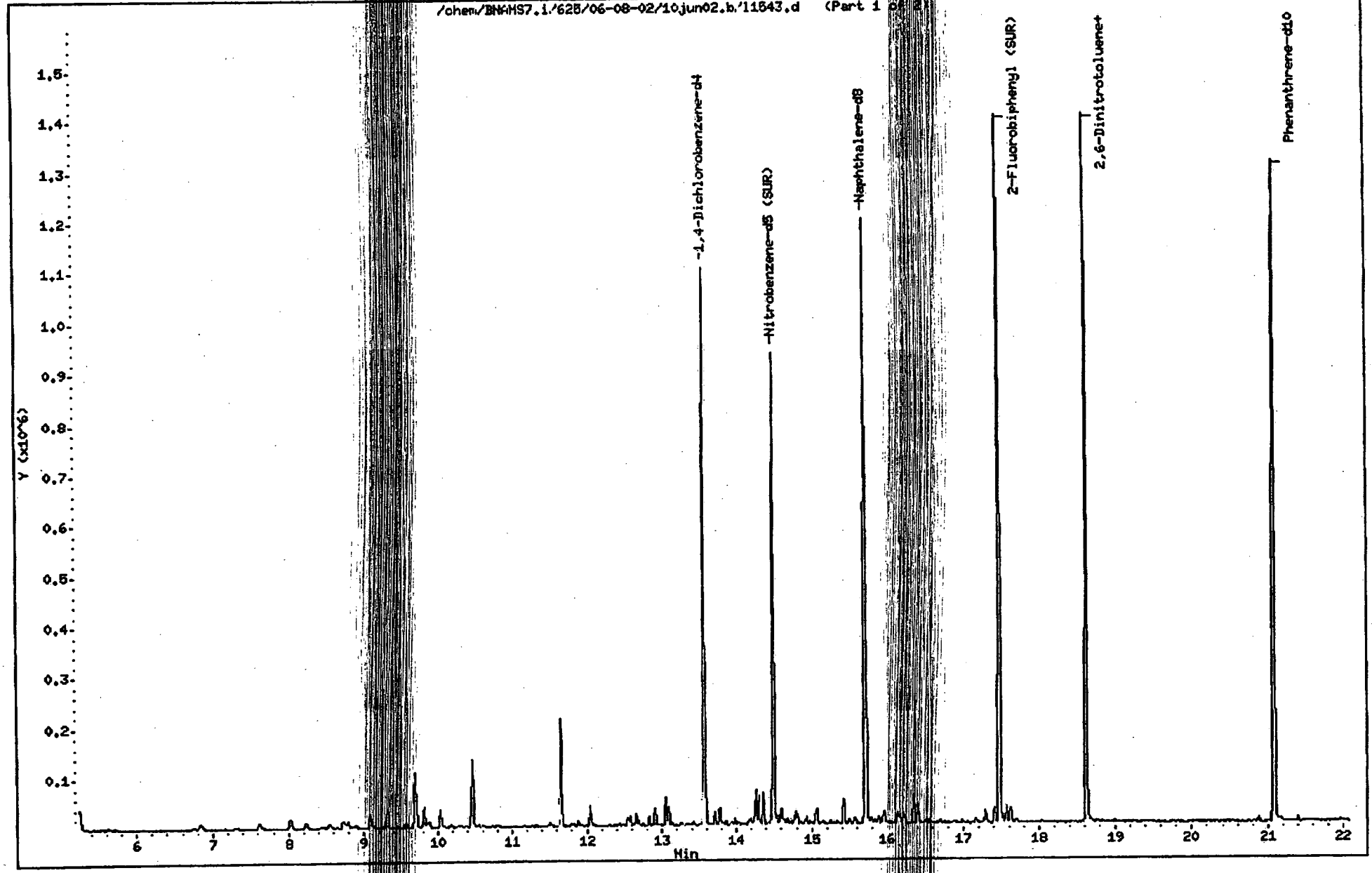
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.566	13.571	(1.000)	221851	40.0000	
$ 78 Nitrobenzene-d5 (SUR)	82	14.136	14.142	(0.923)	199046	37.6645	75
* 80 Naphthalene-d8	136	15.714	15.718	(1.000)	751678	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.472	17.477	(0.938)	619114	46.3464	93
* 82 Acenaphthene-d10	164	18.617	18.622	(1.000)	409521	40.0000	
* 83 Phenanthrene-d10	188	21.081	21.086	(1.000)	730586	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.678	23.684	(0.926)	711182	48.8301	98
63 bis(2-Ethylhexyl)phthalate	149	25.468	25.483	(0.996)	4044	0.27379	0.55
* 81 Chrysene-d12	240	25.570	25.585	(1.000)	672980	40.0000	
* 84 Perylene-d12	264	29.589	29.604	(1.000)	333544	40.0000	

Data File: /chem/BNAMS7.i/628/06-08-02/10jun02.b/11543.d
Date : 10-JUN-2002 23:36
Client ID: MW-19-1
Sample Info: 354702;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/628/06-08-02/10jun02.b/11543.d (Part 1 of 2)



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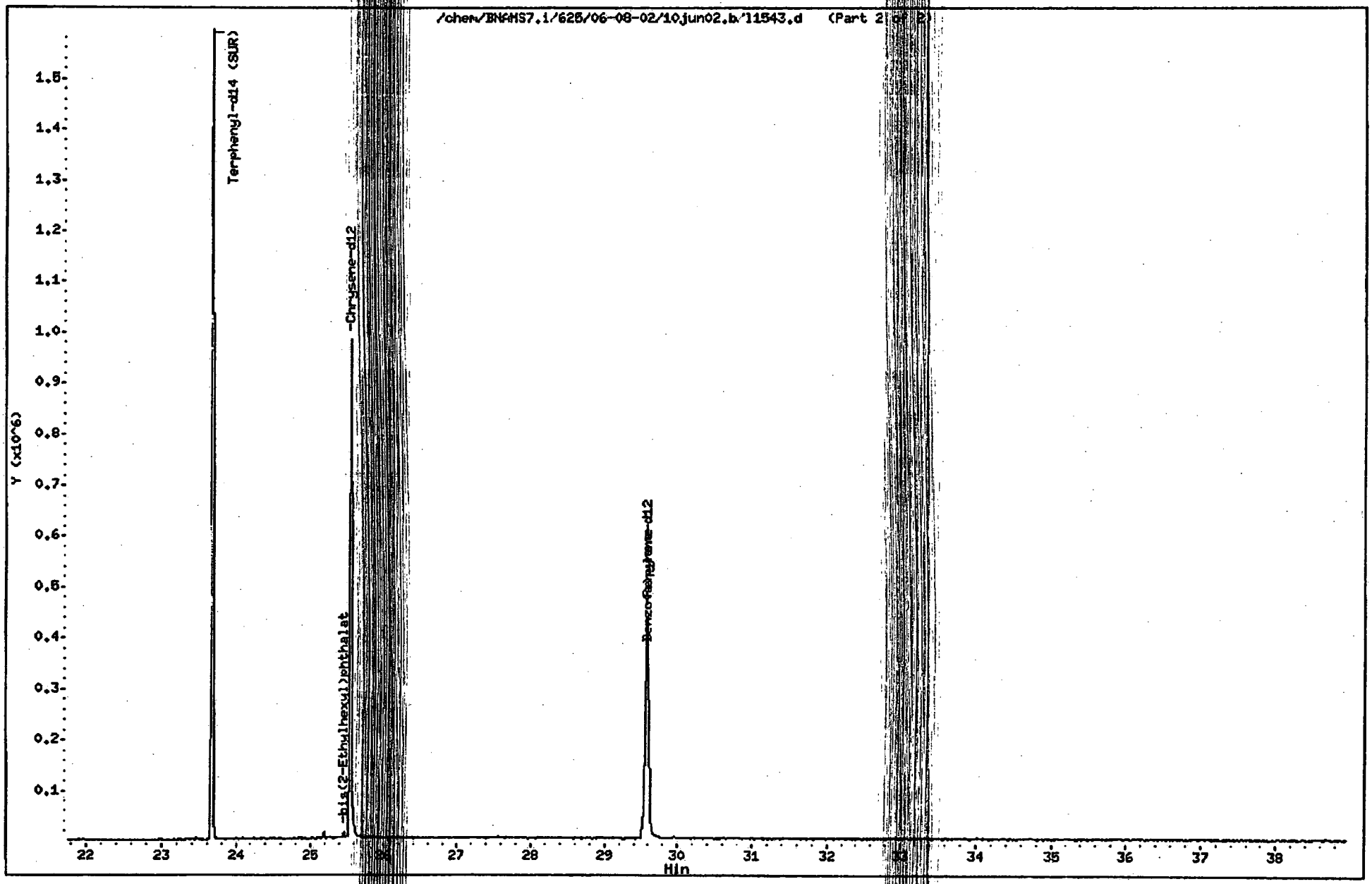
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11543.d
Date : 10-JUN-2002 23:36
Client ID: MW-19-1
Sample Info: 354702;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



157

X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11543.d

Date : 10-JUN-2002 23:36

Client ID: MW-19-1

Instrument: BNAMS7.i

Sample Info: 384702;1000;2;1;

Purge Volume: 1000.0

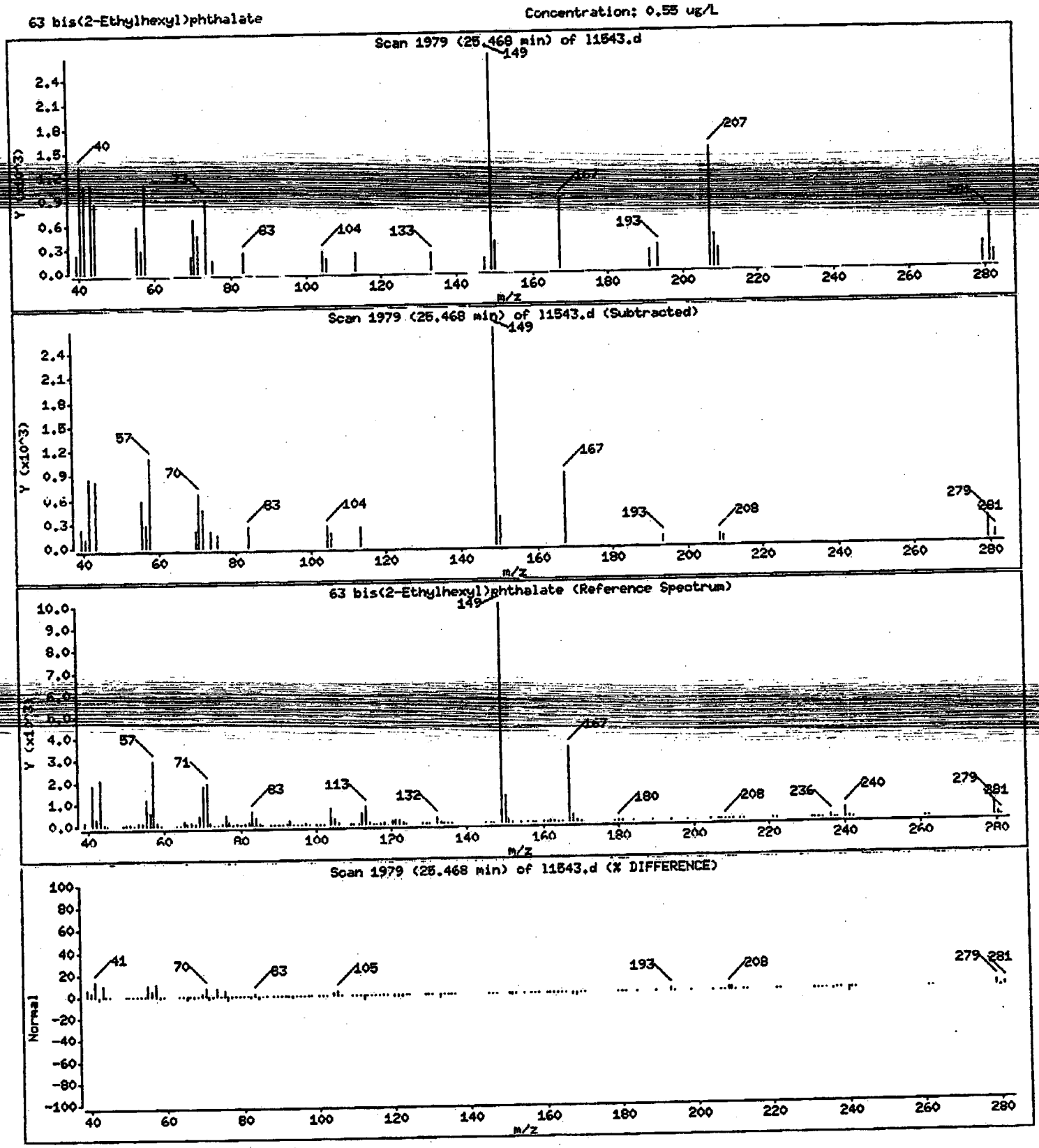
Operator: BNAMS 7

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 0.55 ug/L



Client ID: MW-19-3
Site: L.E. Carpenter

Lab Sample No: 354703
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1544.d

Matrix: WATER
Level: LOW
Sample Volume: 900 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	0.5

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1544.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1544.d
Lab Smp Id: 354703 Client Smp ID: MW-19-3
Inj Date : 11-JUN-2002 00:25
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354703;900;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 musin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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	900.00000	Volume of sample extracted (mL)

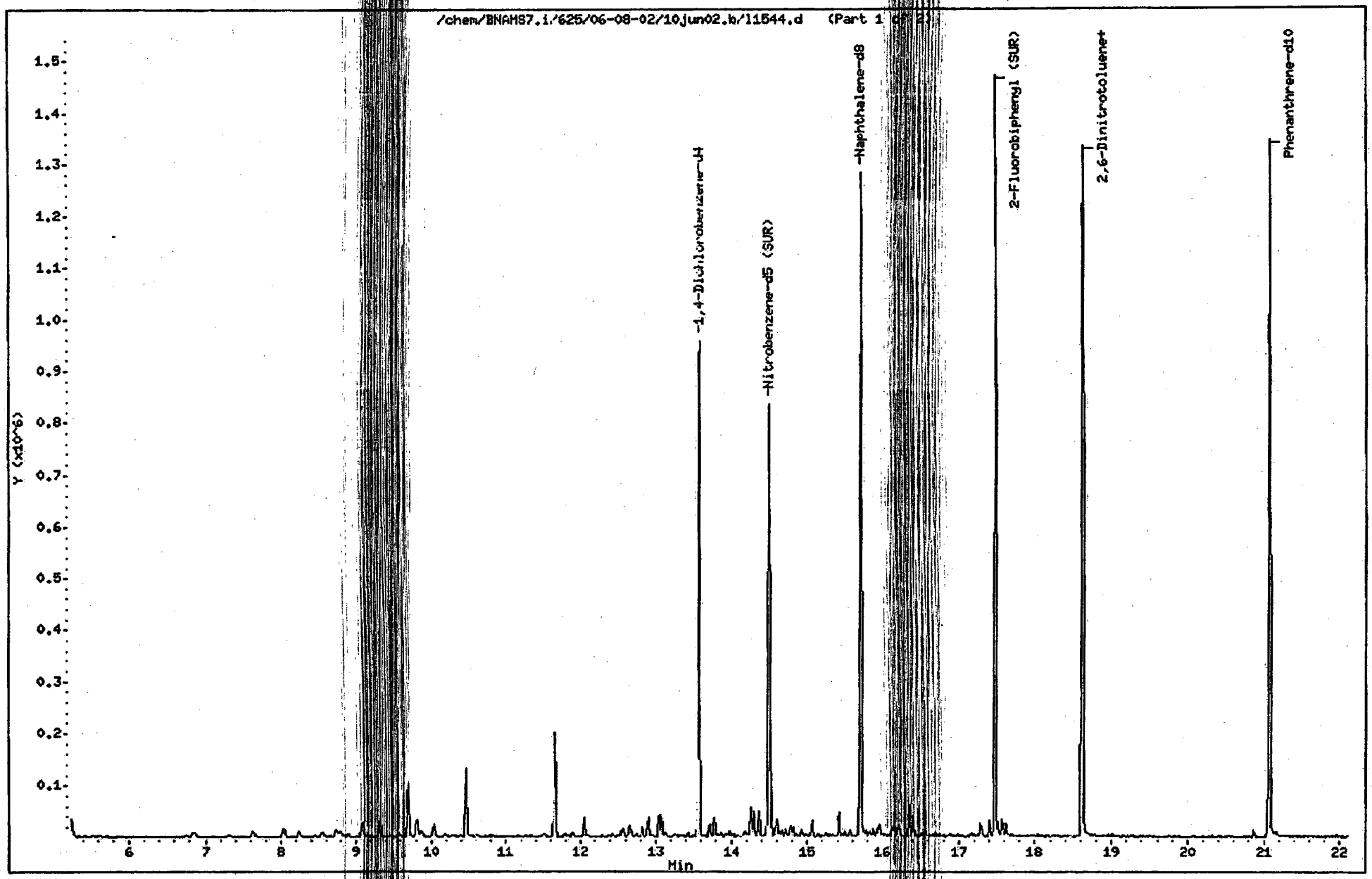
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.570	13.571	(1.000)	219648	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.501	14.512	(0.923)	387082	45.9959	100
* 80 Naphthalene-d8	136	15.707	15.708	(1.000)	755592	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.476	17.477	(0.938)	606876	44.4940	99
* 82 Acenaphthene-d10	164	18.622	18.622	(1.000)	418138	40.0000	
* 83 Phenanthrene-d10	188	21.076	21.086	(1.000)	744098	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.673	23.684	(0.926)	707835	48.1911	110
* 81 Chrysene-d12	240	25.564	25.585	(1.000)	678695	40.0000	
* 84 Perylene-d12	264	29.583	29.604	(1.000)	602501	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11544.d
Date : 11-JUN-2002 00:25
Client ID: MW-19-3
Sample Info: 354703;900;2;1;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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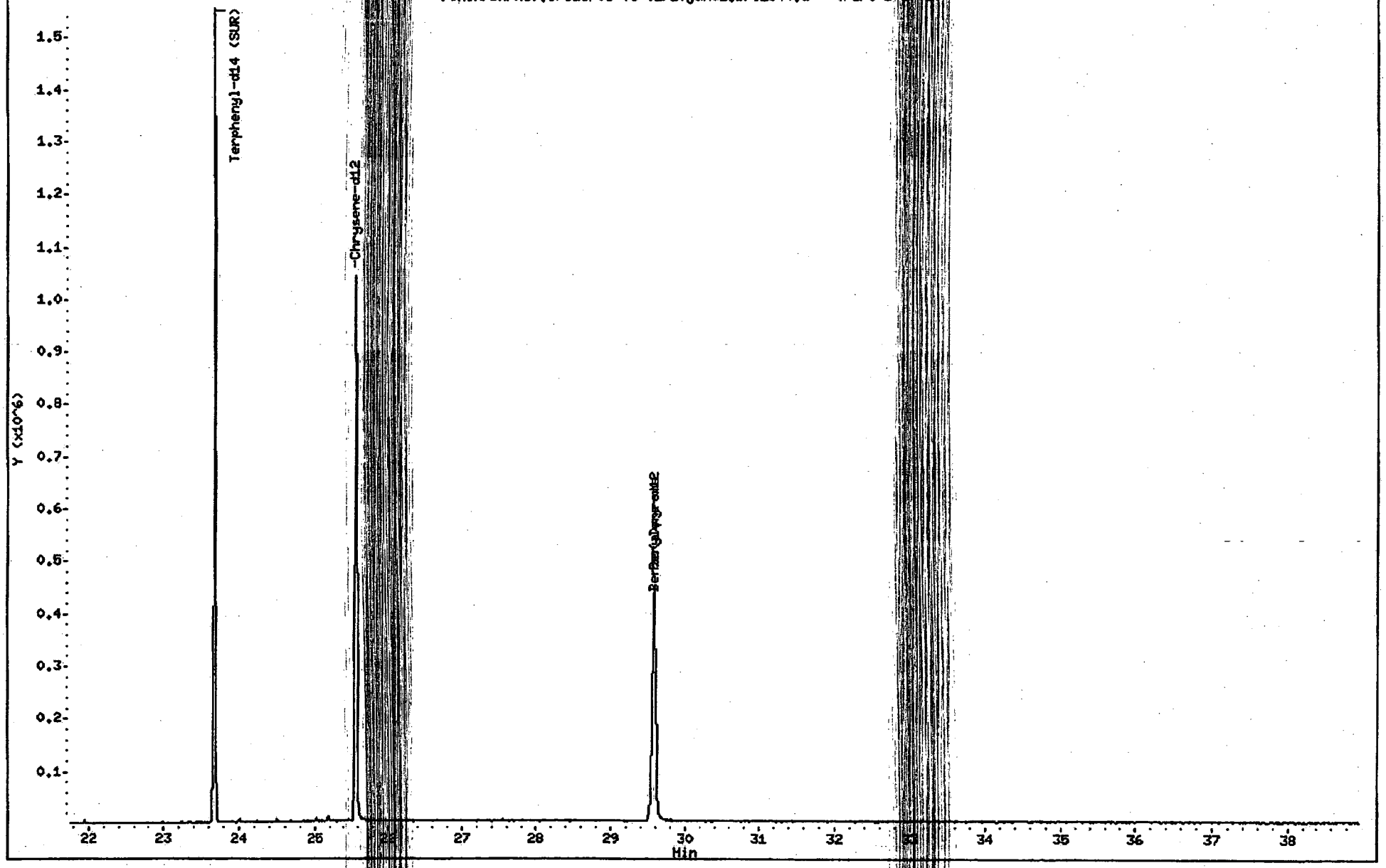
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11544.d
Date : 11-JUN-2002 00:25
Client ID: MW-19-3
Sample Info: 354703;900;2;1;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11544.d (Part 2 of 2)



Client ID: **FB01**
Site: L.E. Carpenter

Lab Sample No: **354704**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1545.d

Matrix: WATER
Level: LOW
Sample Volume: 920 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	48	0.5

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1545.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1545.d
Lab Smp Id: 354704 Client Smp ID: FB01
Inj Date : 11-JUN-2002 01:15
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354704;920;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rusin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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	920.00000	Volume of sample extracted (mL)

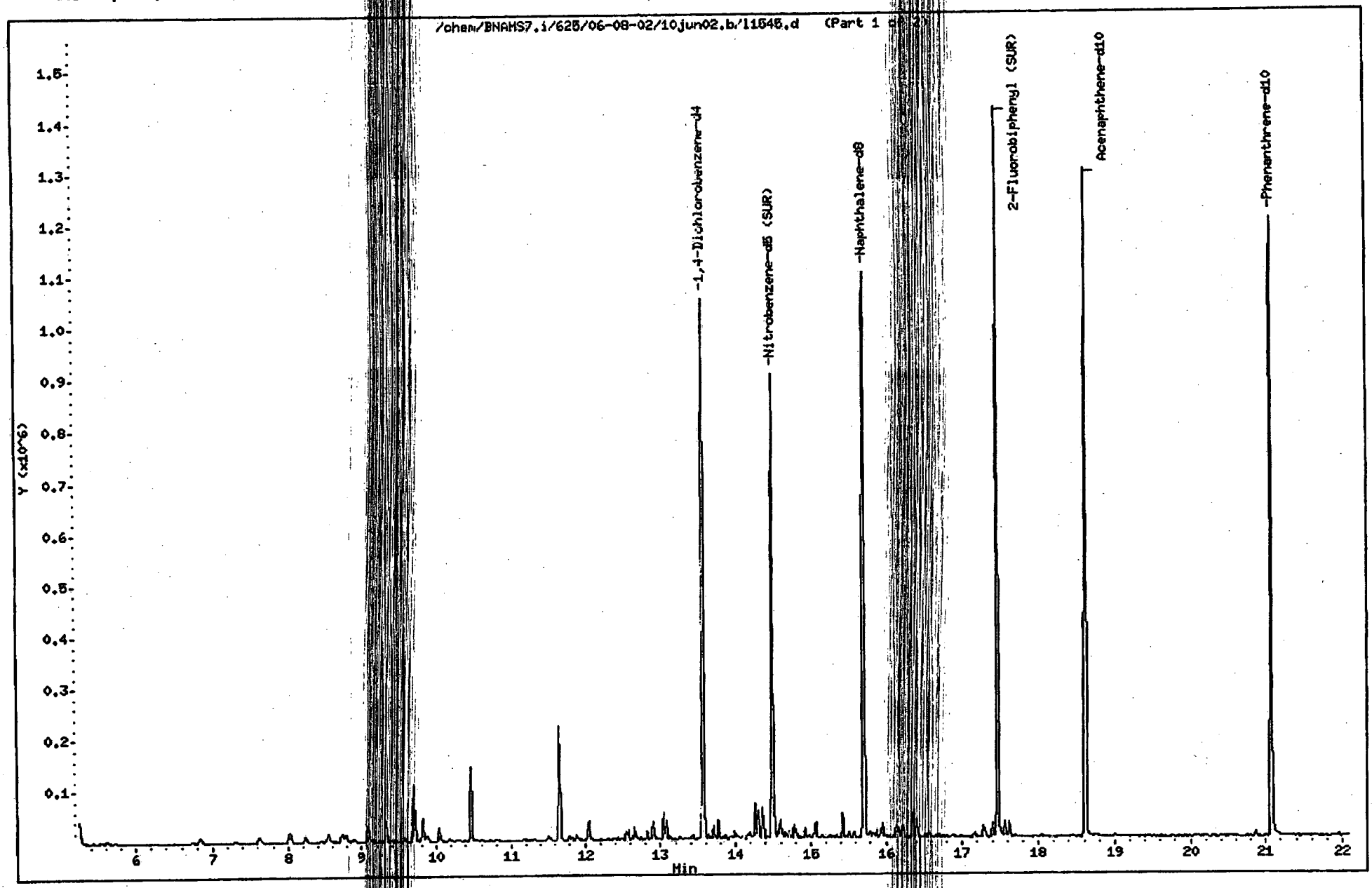
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4 Dichlorobenzene d4	152	13.566	13.571	(1.000)	206374	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.497	14.512	(0.923)	379688	47.7206	100
* 80 Naphthalene-d8	136	15.714	15.718	(1.000)	714373	40.0000	
$ 77 2 Fluorobiphenyl (SUR)	172	17.472	17.477	(0.938)	590898	45.7798	100
* 82 Acenaphthene-d10	164	18.618	18.622	(1.000)	395694	40.0000	
* 83 Phenanthrene-d10	188	21.082	21.086	(1.000)	701348	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.679	23.684	(0.926)	708046	51.8967	110
63 bis(2-Ethylhexyl)phthalate	149	25.468	25.483	(0.996)	309235	22.3494	48
* 81 Chrysene-d12	240	25.571	25.585	(1.000)	630421	40.0000	
* 84 Perylene-d12	264	29.589	29.604	(1.000)	571790	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11545.d
Date : 11-JUN-2002 01:15
Client ID: FB01
Sample Info: 354704;920;2;1;
Purge Volume: 920.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

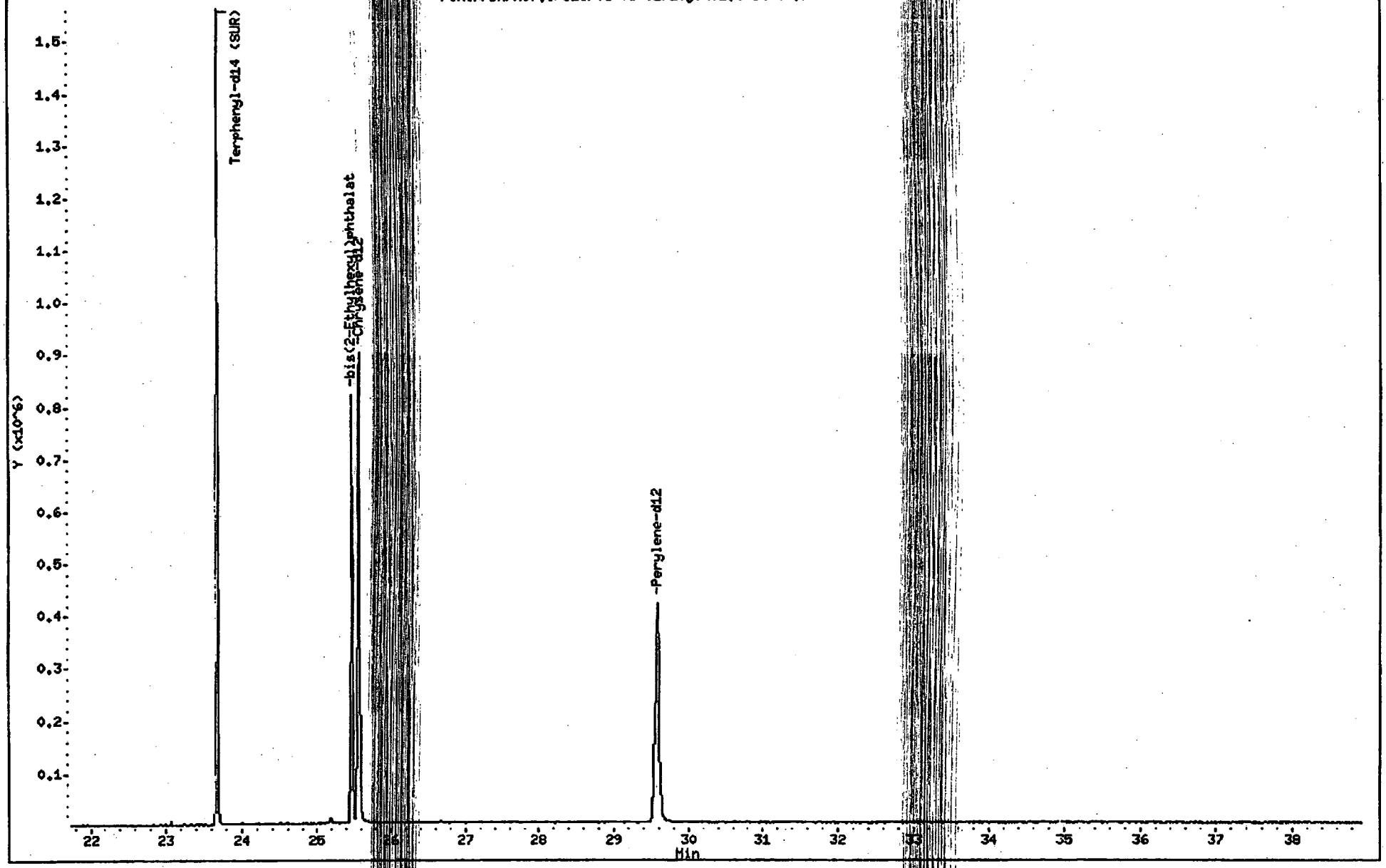


Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11545.d
Date : 11-JUN-2002 01:15
Client ID: FB01
Sample Info: 354704;920;2;1;
Purge Volume: 920.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11545.d (Part 2 of 2)



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X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11545.d

Date : 11-JUN-2002 01:15

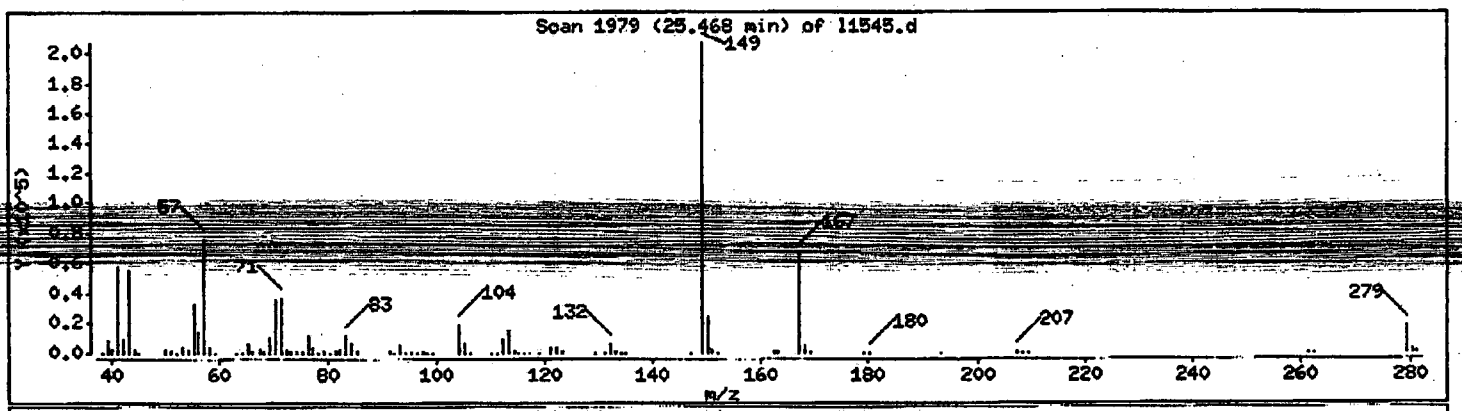
Client ID: FB01 | Instrument: BNAMS7.i

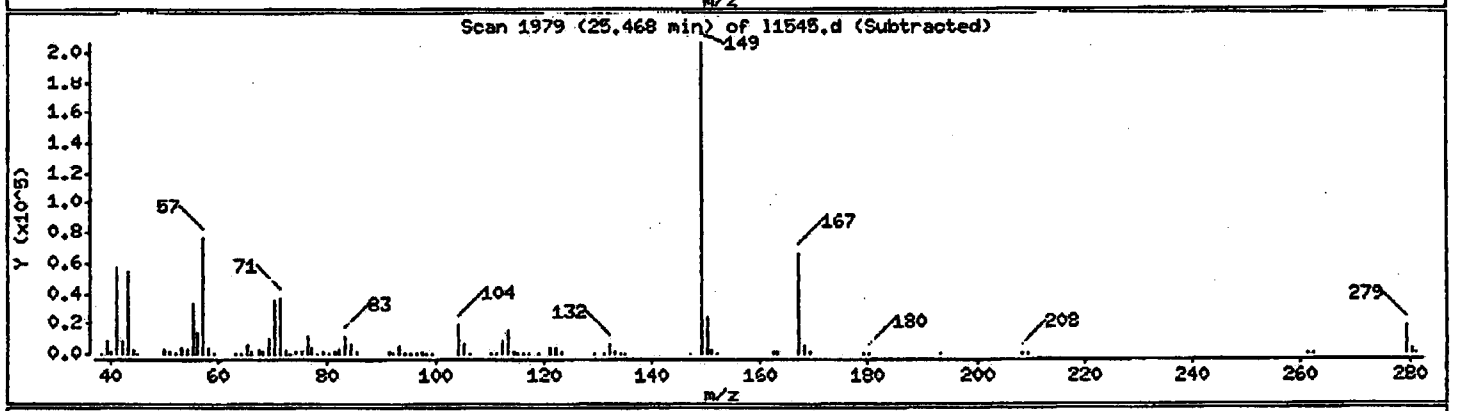
Sample Info: 354704;920;2;1;

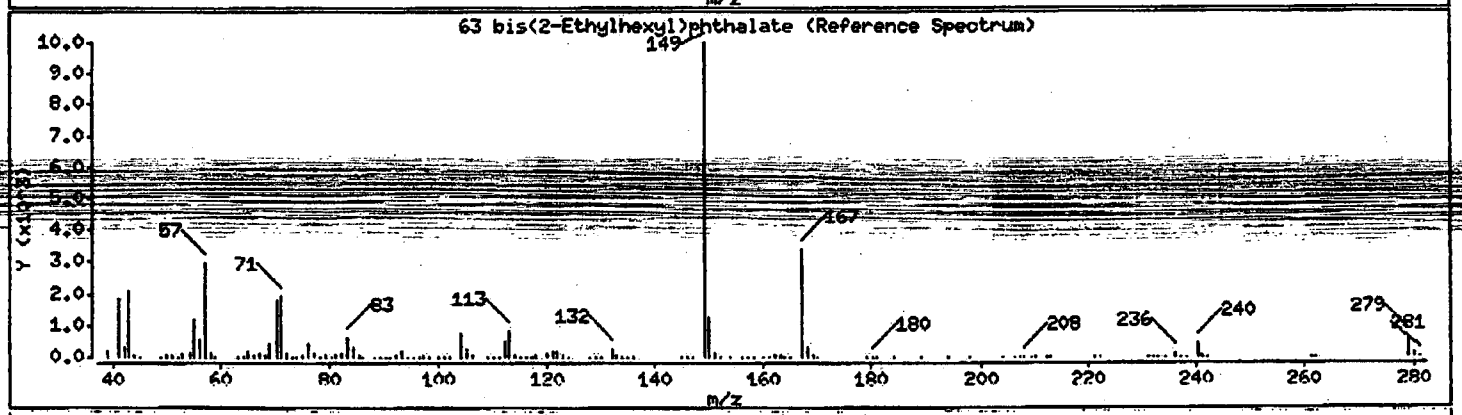
Purge Volume: 920.0 | Operator: BNAMS 7

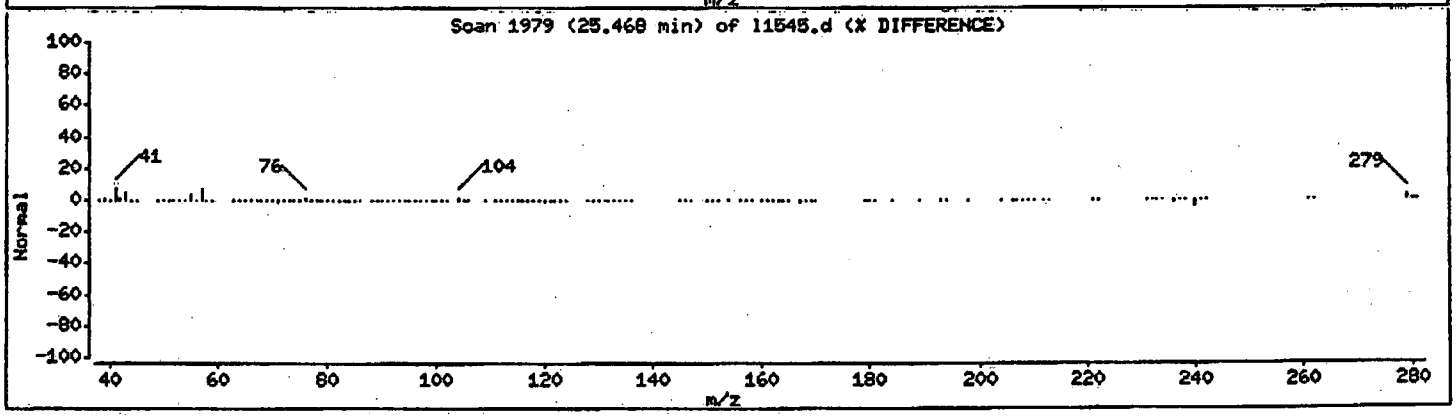
Column phase: DB-5 | Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate | Concentration: 48 ug/L









Client ID: **Dup-1**
Site: L.E. Carpenter

Lab Sample No: **354705**
Lab Job No: X147

Date Sampled: 06/05/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11572.d

Matrix: WATER
Level: LOW
Sample Volume: 940 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
bis(2-Ethylhexyl)phthalate	ND	9.4

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/l1572.d
Report Date: 12-Jun-2002 15:27

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-11-02/11jun02.b/l1572.d
Lab Smp Id: 354705 Client Smp ID: Dup-1
Inj Date : 12-JUN-2002 01:16
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354705;940;2;20;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-11-02/11jun02.b/bna625b.m
Meth Date : 12-Jun-2002 09:20 trusin Quant Type: ISTD
Cal Date : 11-JUN-2002 21:50 Cal File: l1568.d
Als bottle: 9
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

Name	Value	Description
DF	20.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	940.00000	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	13.578	13.578	(1.000)	206914	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.409	14.498	(0.933)	12339	1.81595	77(a)
* 80 Naphthalene-d8	136	15.715	15.715	(1.000)	625800	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.473	17.474	(0.938)	22140	1.67636	71(a)
* 82 Acenaphthene d10	164	18.619	18.629	(1.000)	386429	40.0000	
* 83 Phenanthrene-d10	188	21.083	21.083	(1.000)	648889	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.670	23.670	(0.926)	28356	1.99432	85(a)
* 81 Chrysene-d12	240	25.572	25.582	(1.000)	673504	40.0000	
* 84 Perylene-d12	264	25.600	25.601	(1.000)	674478	40.0000	

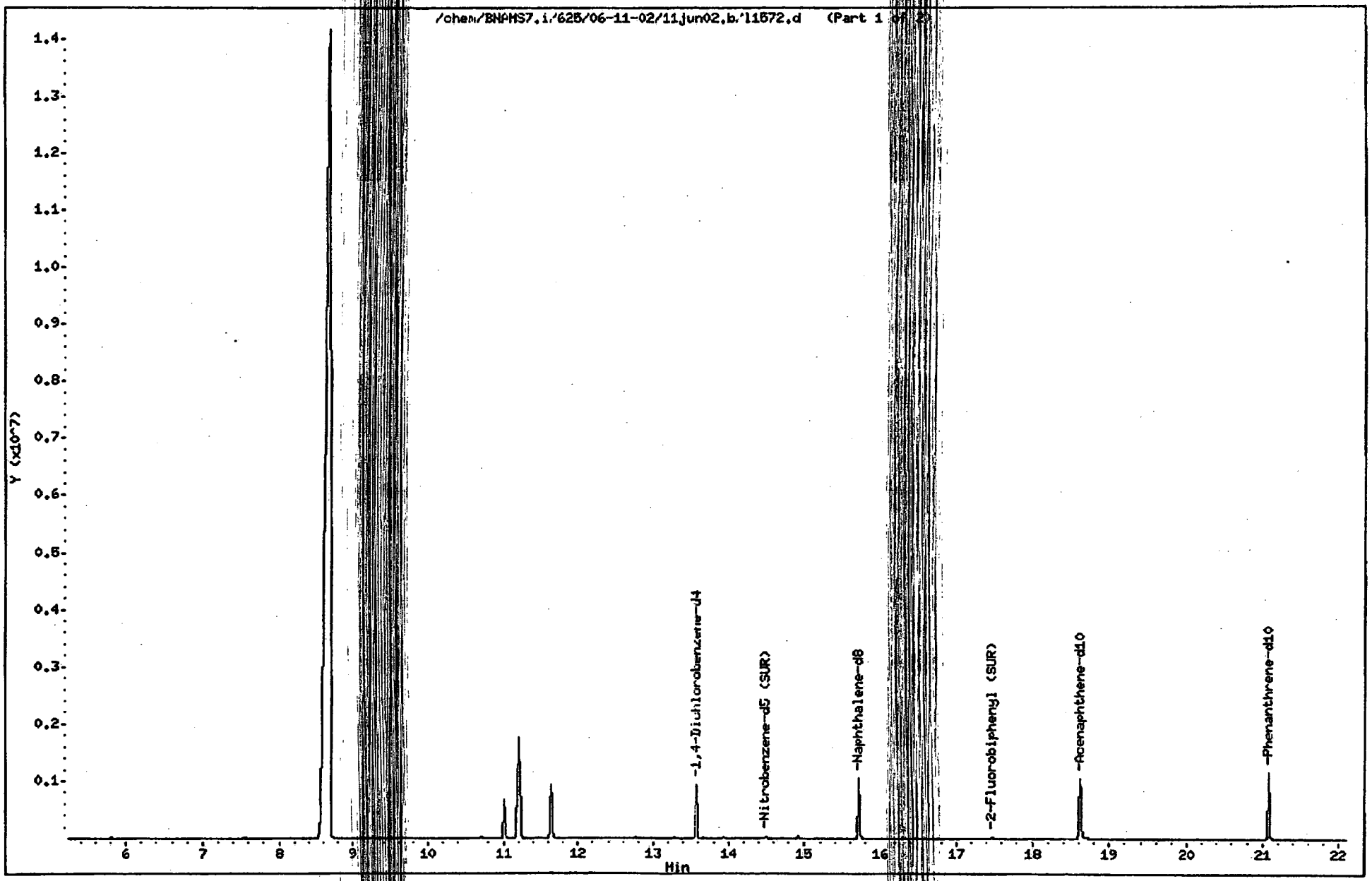
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11572.d
Date : 12-JUN-2002 01:16
Client ID: Dup-1
Sample Info: 354705;940;2;20;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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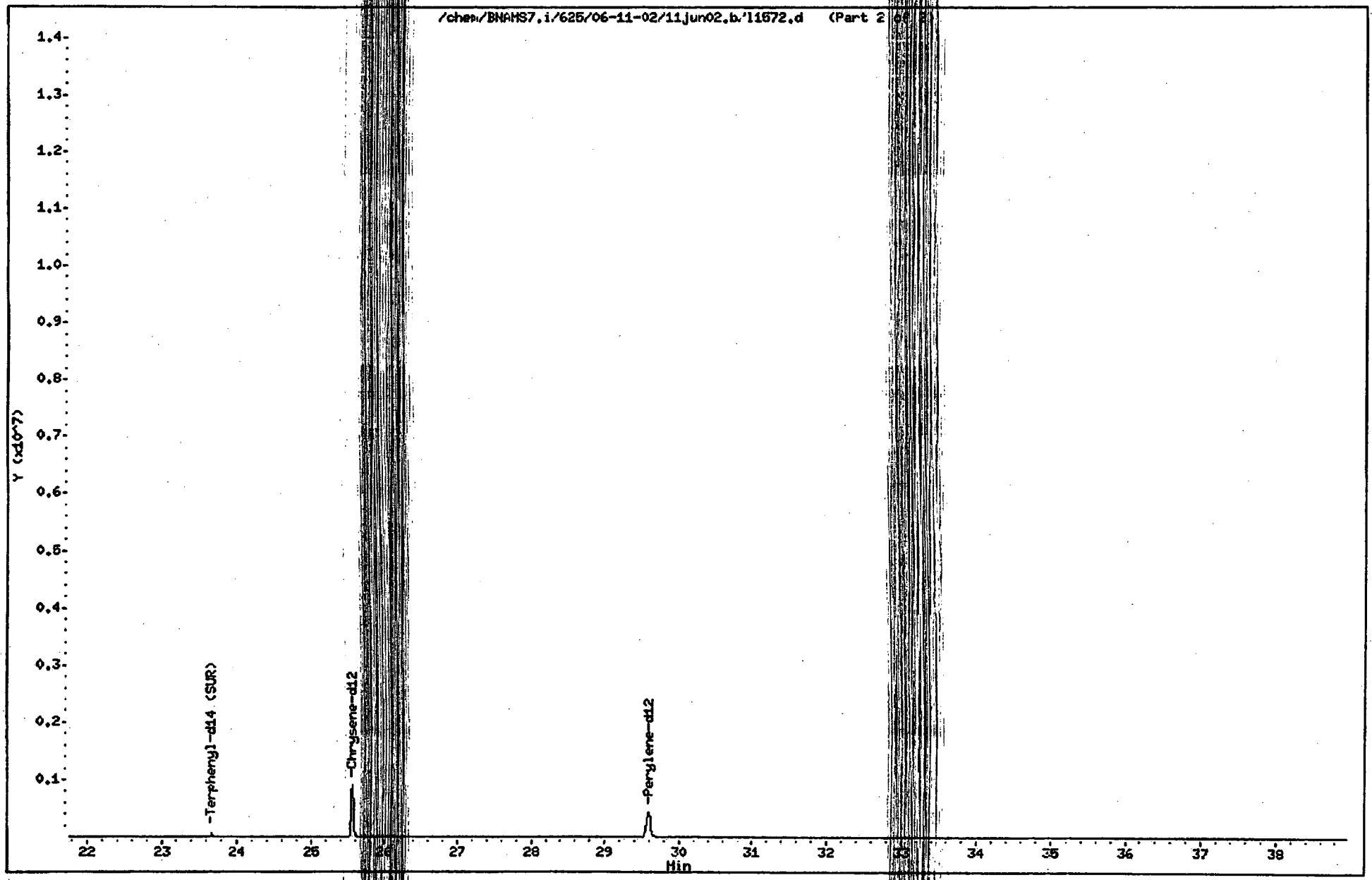
X147

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11572.d
Date : 12-JUN-2002 01:16
Client ID: Dup-1
Sample Info: 354705;940;2;20;
Purge Volume: 940.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.53



Client ID: MW-19-4
Site: L.E. Carpenter

Lab Sample No: 354706
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1546.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	ND	0.5

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1546.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1546.d
Lab Smp Id: 354706 Client Smp ID: MW-19-4
Inj Date : 11-JUN-2002 02:04
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354706;950;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-JUN-2002 15:44 russh Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1470.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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)

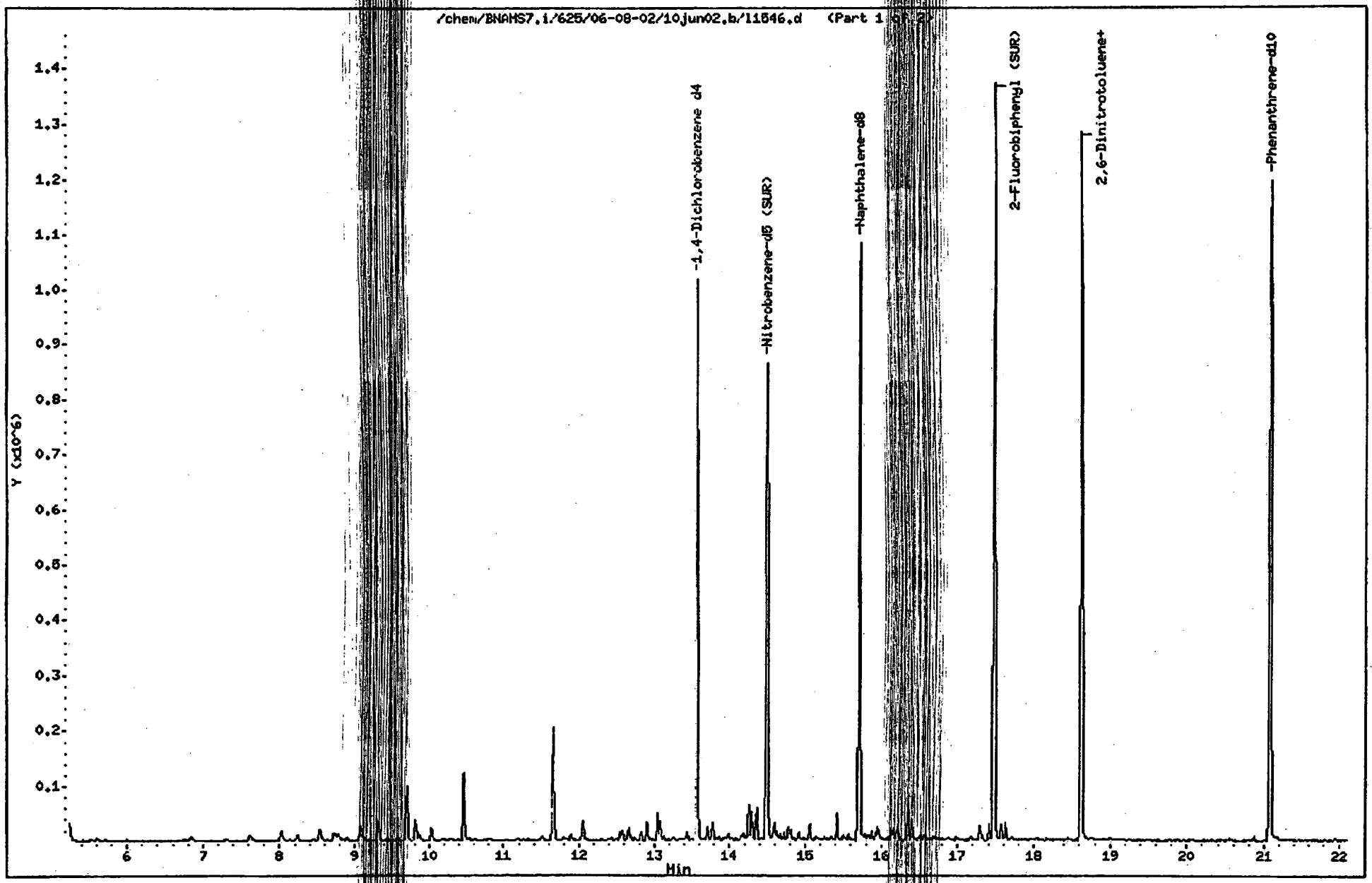
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.566	13.571	(1.000)	204103	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.497	14.517	(0.923)	366432	46.3061	97
* 80 Naphthalene-d8	136	15.718	15.718	(1.000)	710492	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.472	17.477	(0.938)	579729	45.7704	96
* 82 Acenaphthene d10	164	18.618	18.622	(1.000)	388295	40.0000	
* 83 Phenanthrene-d10	188	21.082	21.086	(1.000)	695915	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.679	23.684	(0.926)	672167	48.4397	100
* 81 Chrysene-d12	240	25.571	25.585	(1.000)	641187	40.0000	
* 84 Perylene-d12	264	29.579	29.604	(1.000)	566816	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11546.d
Date : 11-JUN-2002 02:04
Client ID: MW-19-4
Sample Info: 354706;950;2;1;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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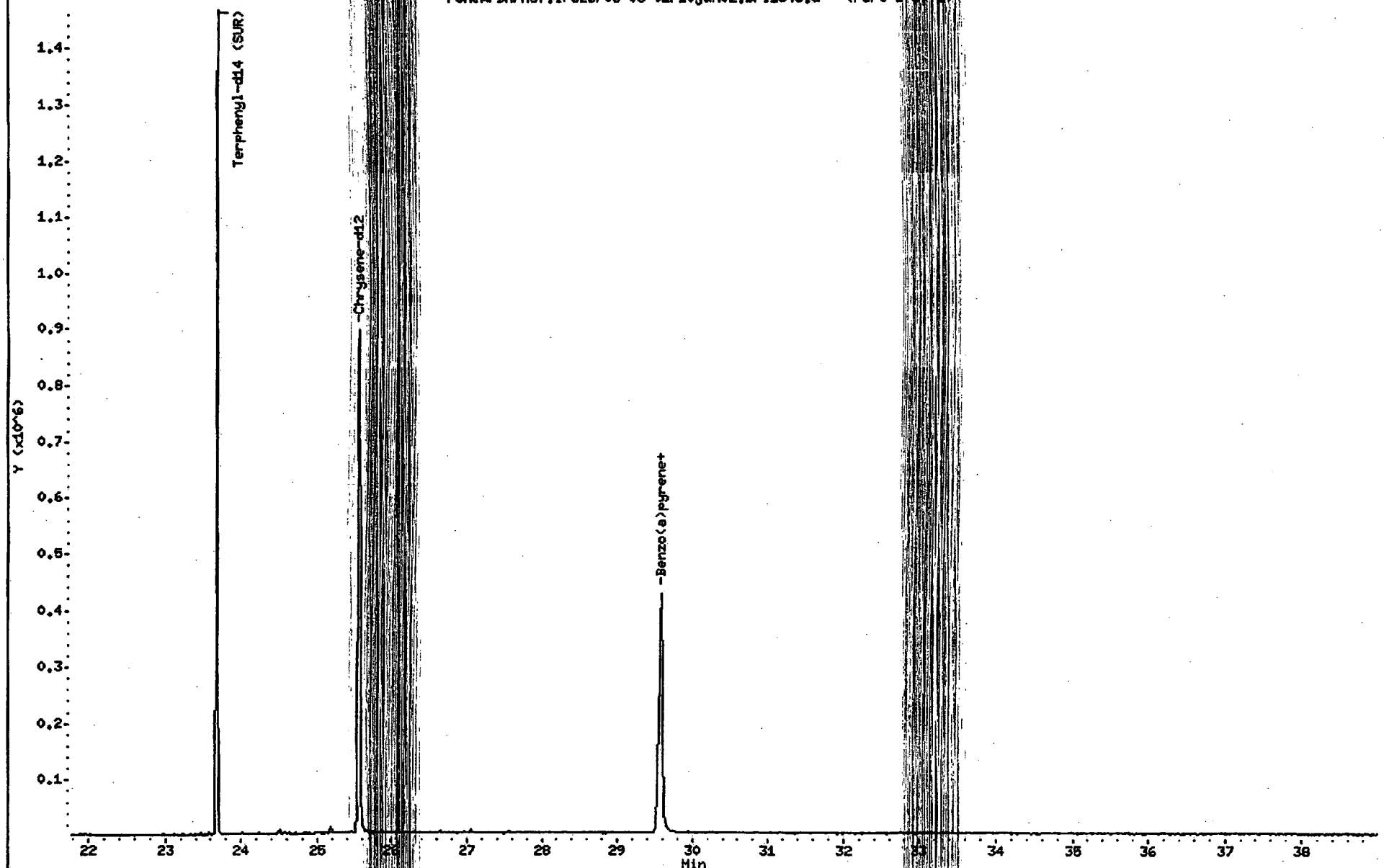
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11546.d
Date : 11-JUN-2002 02:04
Client ID: MW-19-4
Sample Info: 354706;950;2;1;
Purge Volume: 950.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11546.d (Part 2 of 2)



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X147

Client ID: **MW-19**
Site: L.E. Carpenter

Lab Sample No: **354707**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1573.d

Matrix: WATER
Level: LOW
Sample Volume: 600 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	5.6	0.7

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/l1573.d
Report Date: 12-Jun-2002 15:27

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-11-02/11jun02.b/l1573.d
Lab Smp Id: 354707 Client Smp ID: MW-19
Inj Date : 12-JUN-2002 02:07
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354707;600;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-11-02/11jun02.b/bna625b.m
Meth Date : 12-Jun-2002 09:20 rubin Quant Type: ISTD
Cal Date : 11-JUN-2002 21:50 Cal File: l1568.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

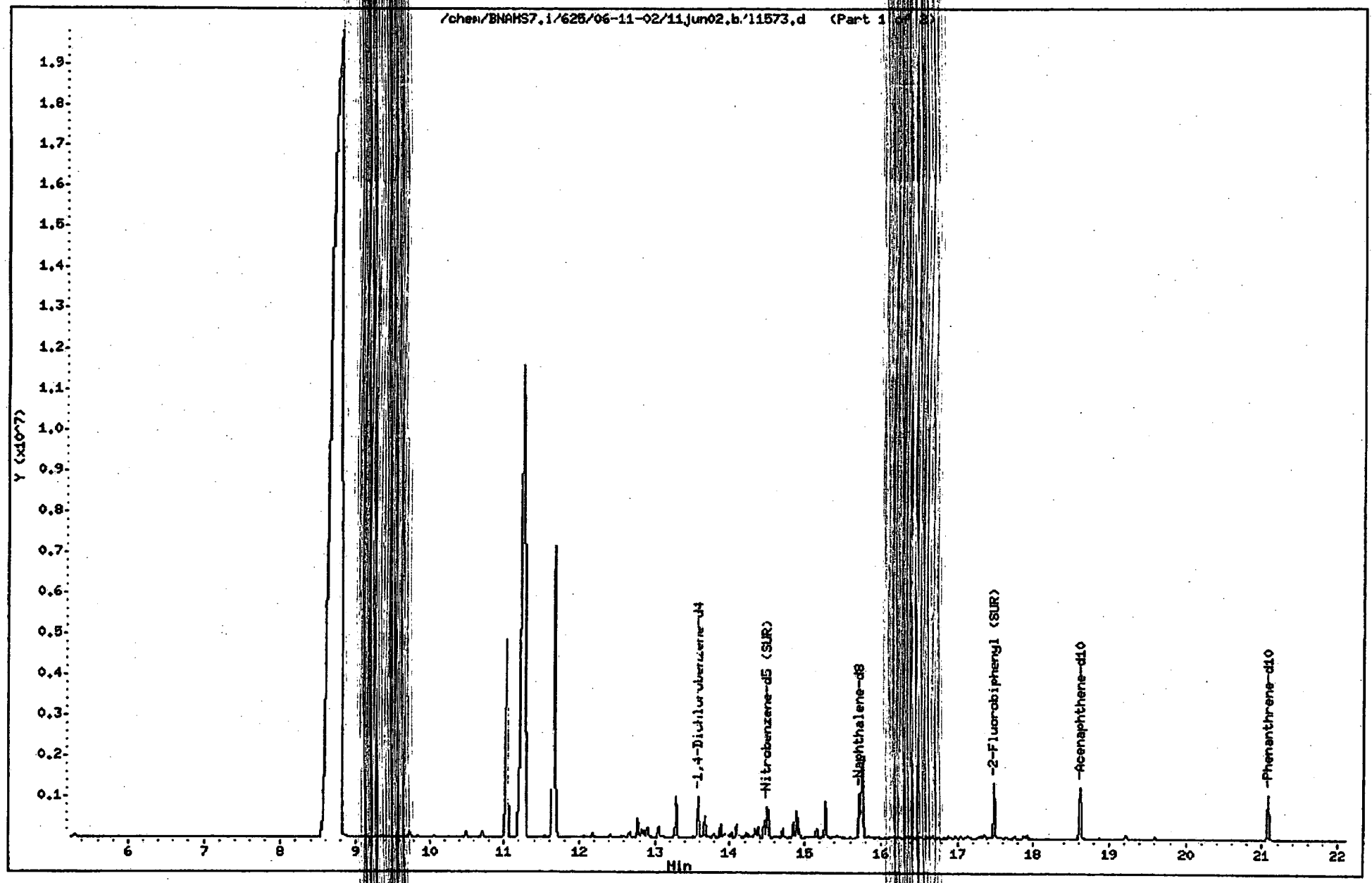
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	600.00000	Volume of sample extracted (mL)

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	13.573	13.578	(1.000)	199058	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.502	14.498	(0.923)	334982	42.3010	140
* 80 Naphthalene-d8	136	15.720	15.715	(1.000)	673376	40.0000	
$ 77 2 Fluorobiphenyl (SUR)	172	17.479	17.474	(0.938)	579096	42.1155	140
* 82 Acenaphthene-d10	164	18.624	18.629	(1.000)	402317	40.0000	
* 83 Phenanthrene-d10	188	21.078	21.083	(1.000)	675890	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.675	23.670	(0.926)	673140	47.0741	160
63 bis(2-Ethylhexyl)phthalate	149	25.464	25.470	(0.996)	23410	1.67491	5.6
* 81 Chrysene-d12	240	25.567	25.582	(1.000)	677350	40.0000	
* 84 Perylene-d12	264	29.593	29.601	(1.000)	680125	40.0000	

Data File: /chem/BNAHS7.i/625/06-11-02/11jun02.b/11573.d
Date : 12-JUN-2002 02:07
Client ID: MW-19
Sample Info: 354707;600;2;1;
Purge Volume: 600.0
Column phase: DB-5

Instrument: BNAHS7.i
Operator: BNAHS 7
Column diameter: 0.53



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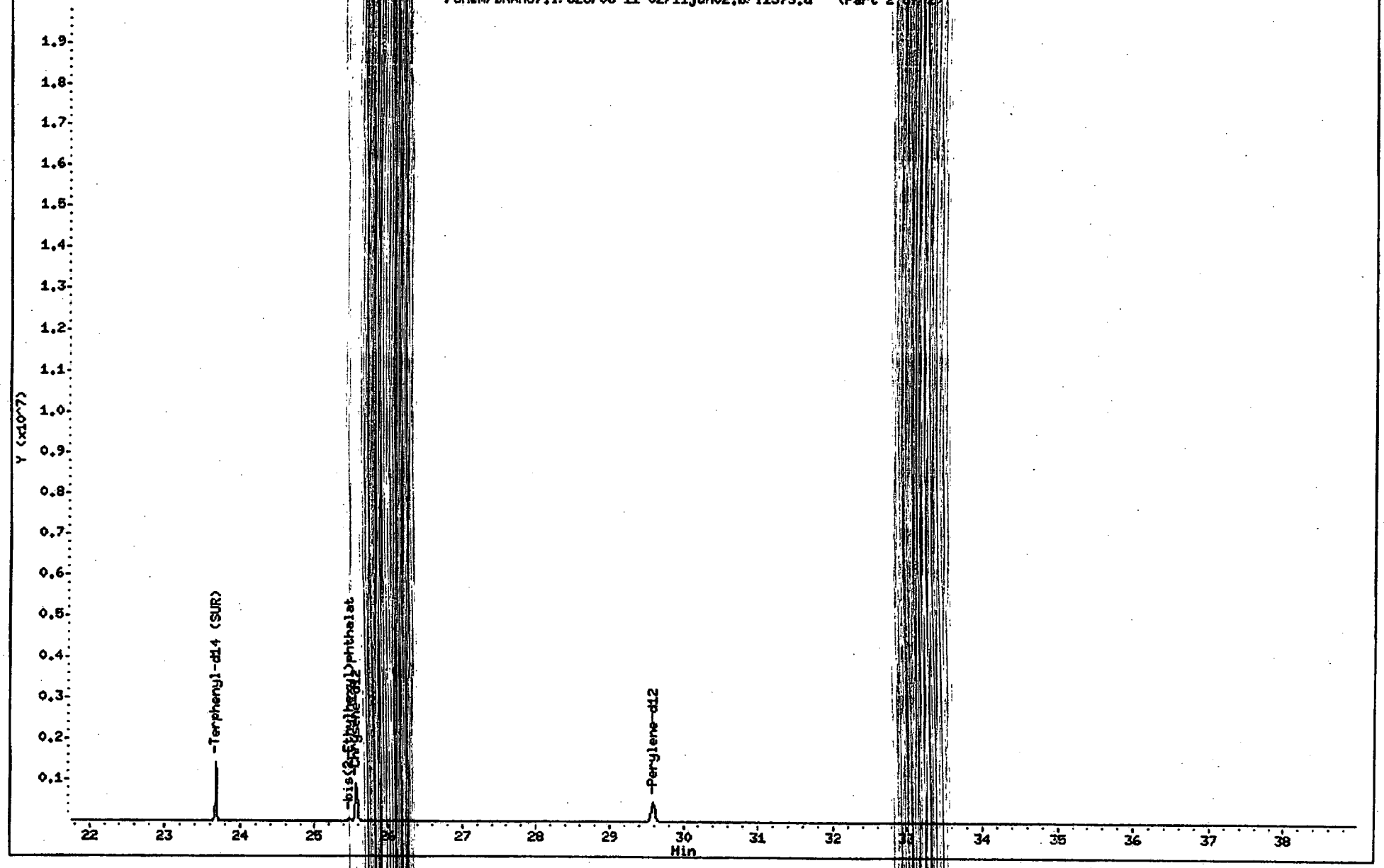
X147

Data File: /chem/BNAHS7.i/625/06-11-02/11jun02.b/11573.d
Date : 12-JUN-2002 02:07
Client ID: MW-19
Sample Info: 354707;600;2;1;
Purge Volume: 600.0
Column phase: DB-5

Instrument: BNAHS7.i

Operator: BNAHS 7
Column diameter: 0.53

/chem/BNAHS7.i/625/06-11-02/11jun02.b/11573.d (Part 2 of 2)



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X147

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11573.d

Date : 12-JUN-2002 02:07

Client ID: MW-19

Instrument: BNAMS7.i

Sample Info: 354707;600;2;1;

Purge Volume: 600.0

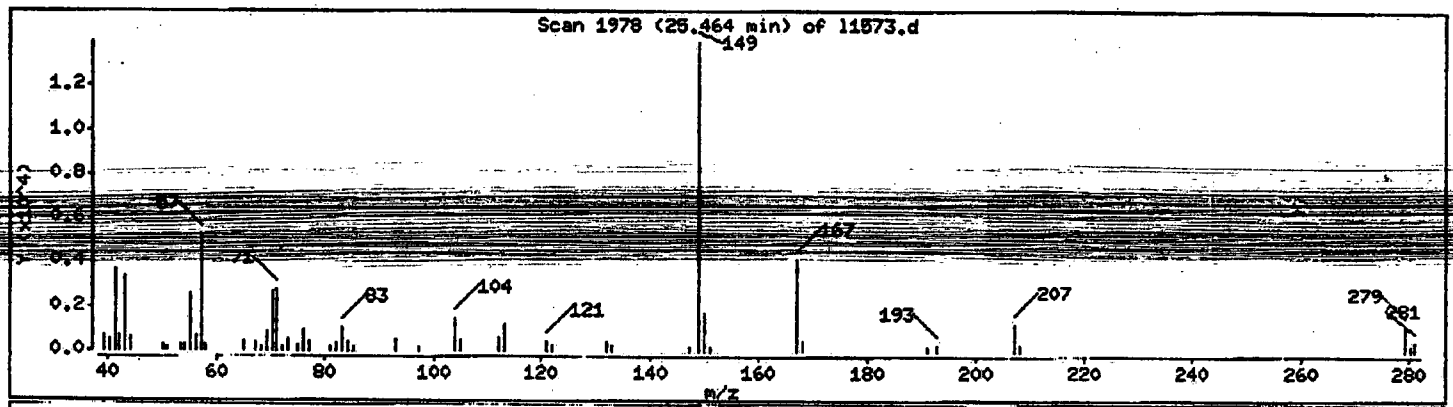
Operator: BNAMS 7

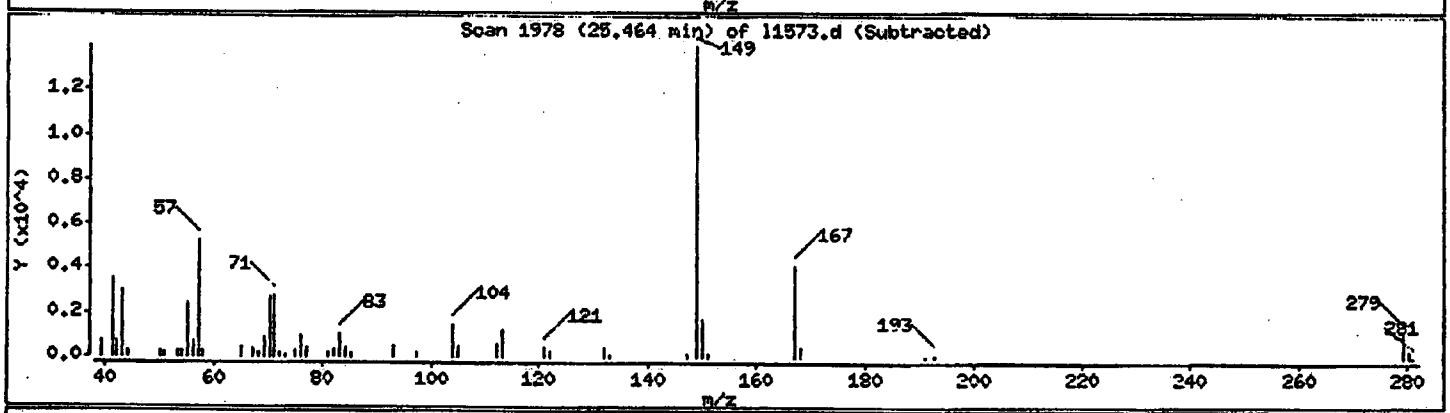
Column phase: DB-5

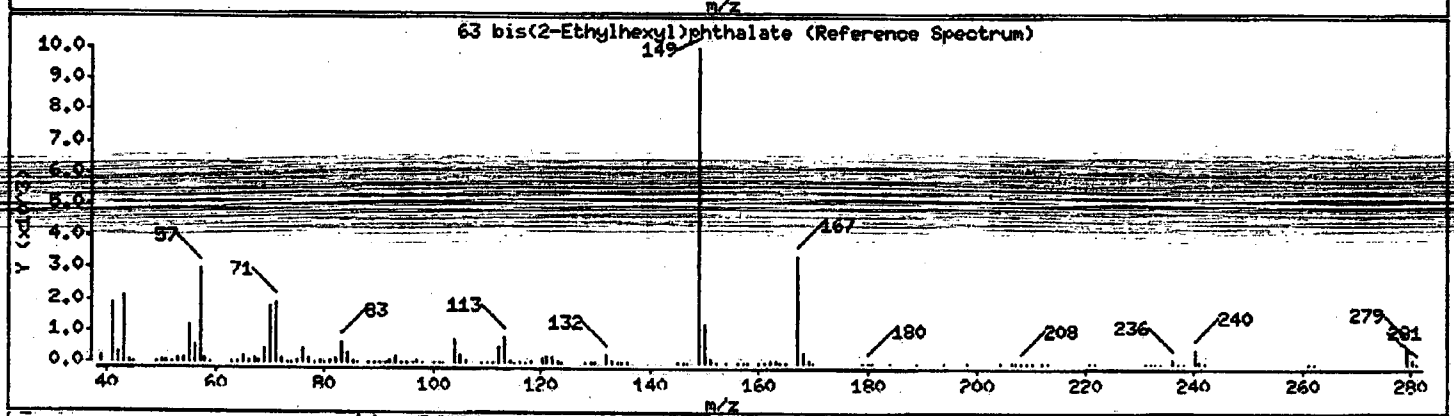
Column diameter: 0.53

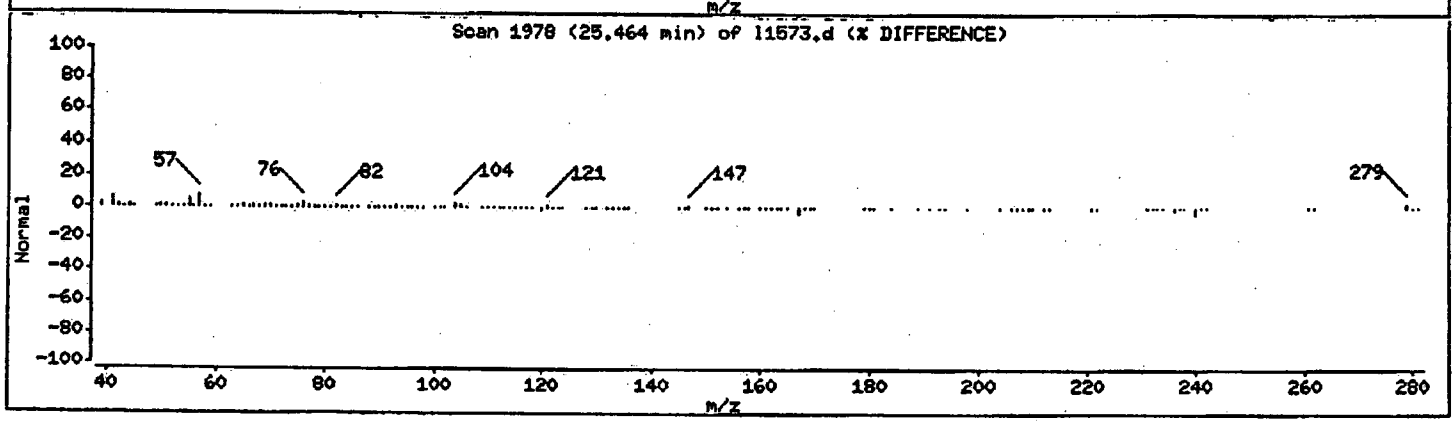
63 bis(2-Ethylhexyl)phthalate

Concentration: 5.6 ug/L









X147

Client ID: GEI-2I
Site: L.E. Carpenter

Lab Sample No: 354708
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1547.d

Matrix: WATER
Level: LOW
Sample Volume: 900 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	1.4	0.5

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1547.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1547.d
Lab Smp Id: 354708 Client Smp ID: GEI-2I
Inj Date : 11-JUN-2002 02:54
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354708;900;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rusin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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	900.00000	Volume of sample extracted (mL)

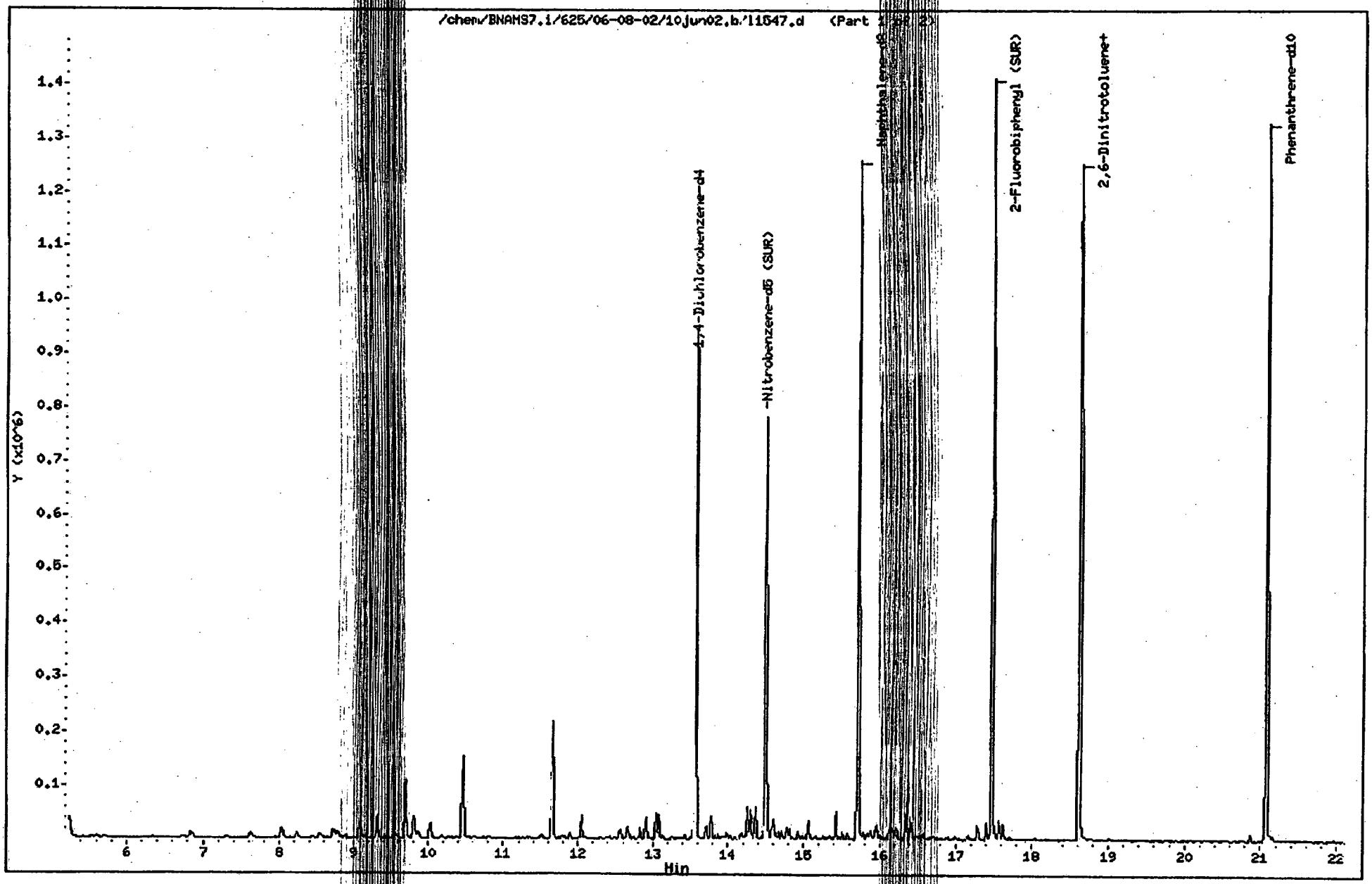
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.572	13.571	(1.000)	214081	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.492	14.512	(0.923)	378655	46.4897	100
* 80 Naphthalene-d8	136	15.709	15.718	(1.000)	731292	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.478	17.477	(0.938)	587566	45.2694	100
* 82 Acenaphthene-d10	164	18.623	18.622	(1.000)	397899	40.0000	
* 83 Phenanthrene-d10	188	21.077	21.086	(1.000)	712532	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.675	23.684	(0.926)	650892	45.8844	100
63 bis(2-Ethylhexyl)phthalate	149	25.464	25.483	(0.996)	9444	0.65646	1.4
* 81 Chrysene-d12	240	25.566	25.585	(1.000)	655471	40.0000	
* 84 Perylene-d12	264	29.585	29.604	(1.000)	565420	40.0000	

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11547.d
Date : 11-JUN-2002 02:54
Client ID: GEI-2I
Sample Info: 354708;900;2;1;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53



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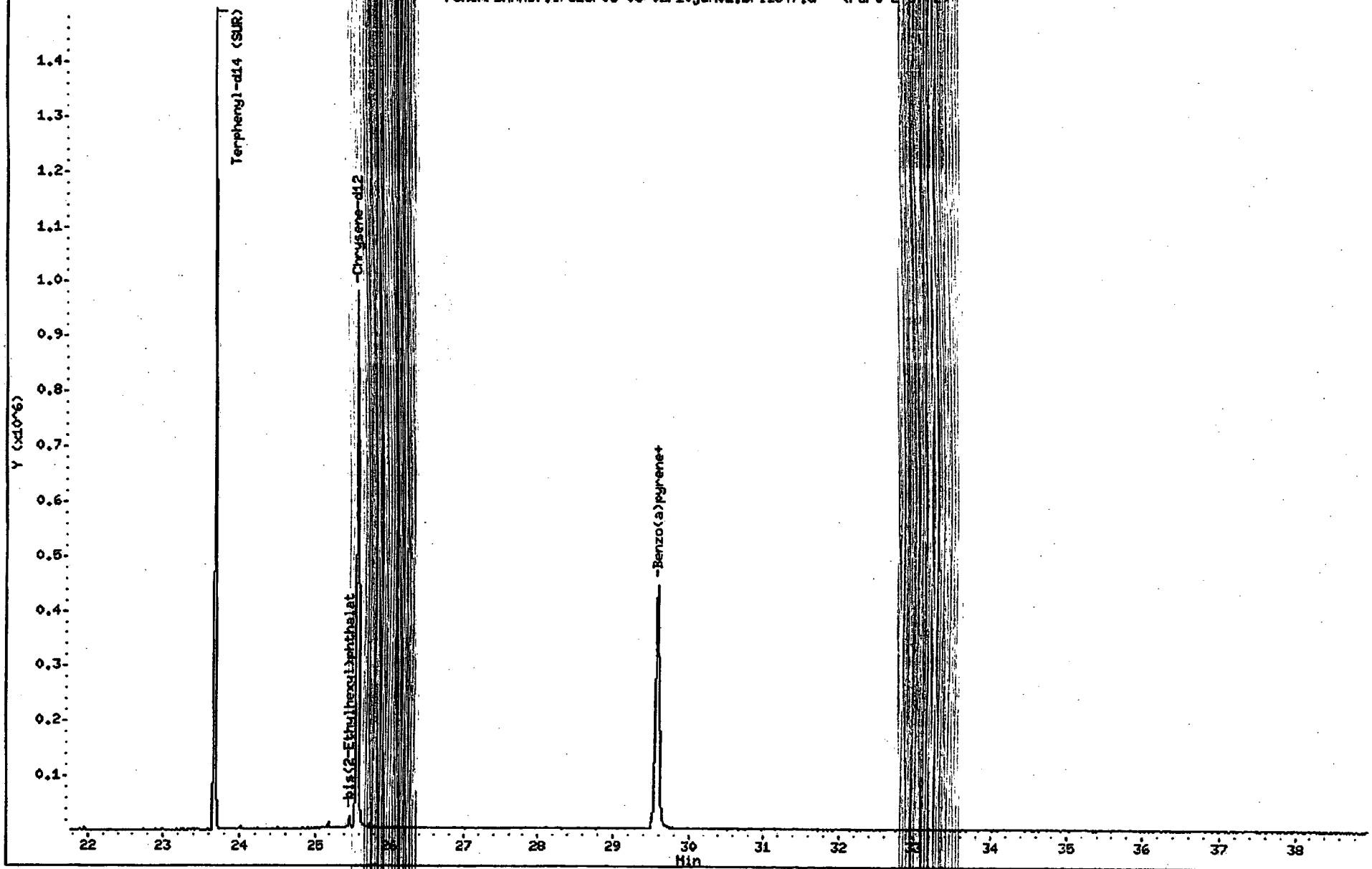
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11547.d
Date : 11-JUN-2002 02:54
Client ID: GEI-2I
Sample Info: 354708;900;2;1;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11547.d (Part 2 of 2)



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X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11547.d

Date : 11-JUN-2002 02:54

Client ID: GEI-2I

Instrument: BNAMS7.i

Sample Info: 354708;900;2;1;

Purge Volume: 900.0

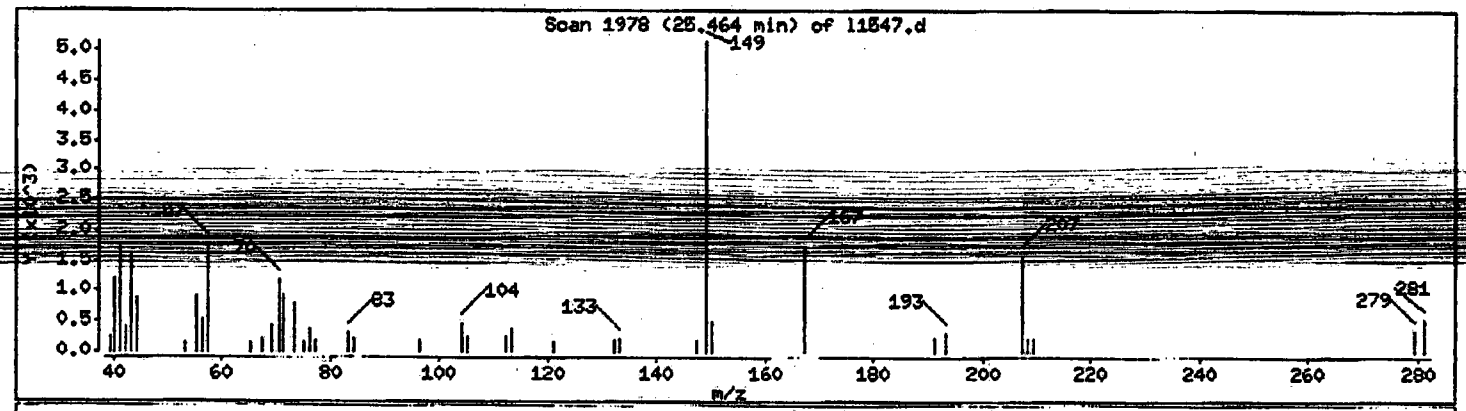
Operator: BNAMS 7

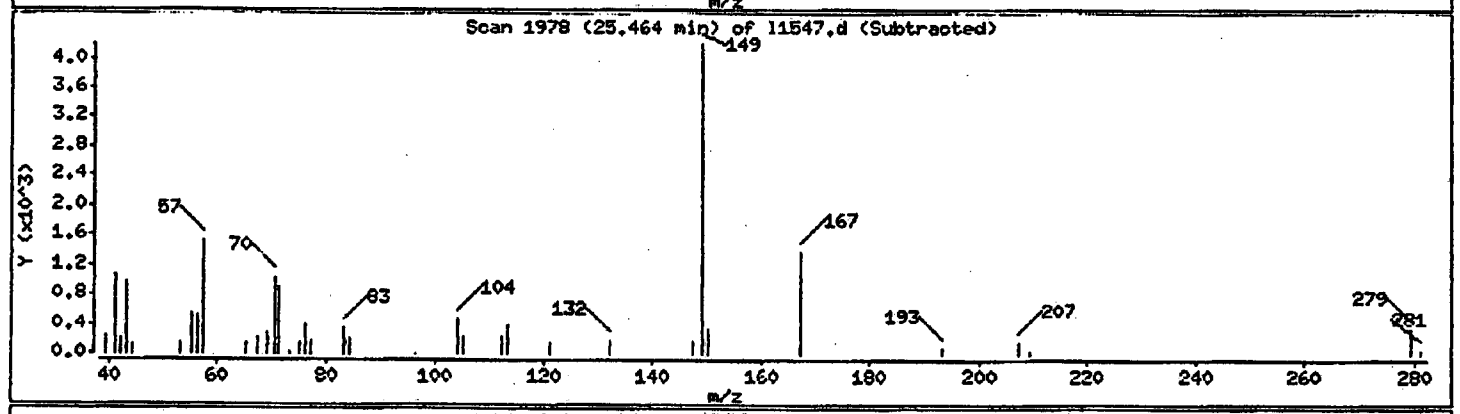
Column phase: DB-5

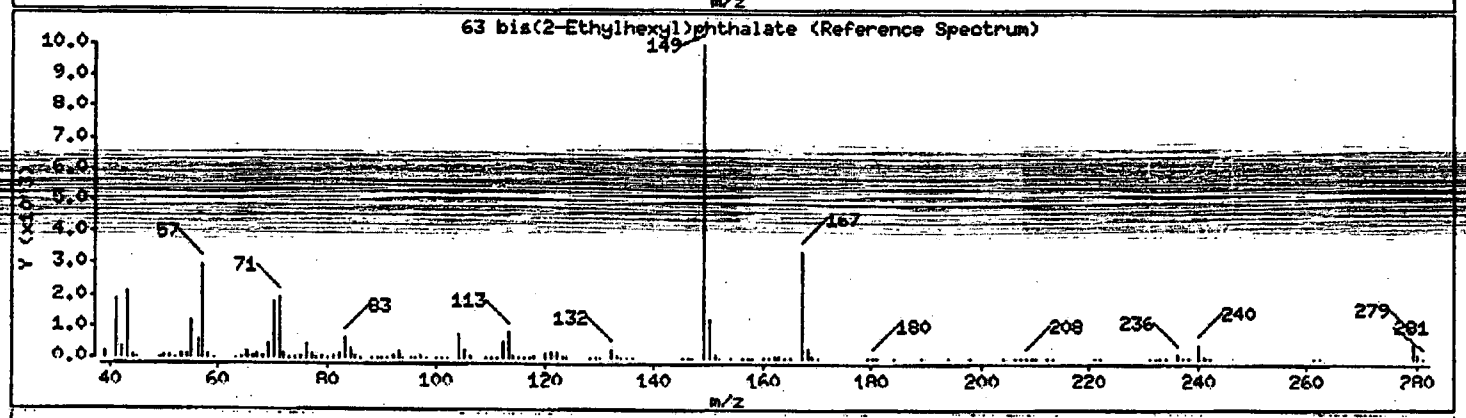
Column diameter: 0.53

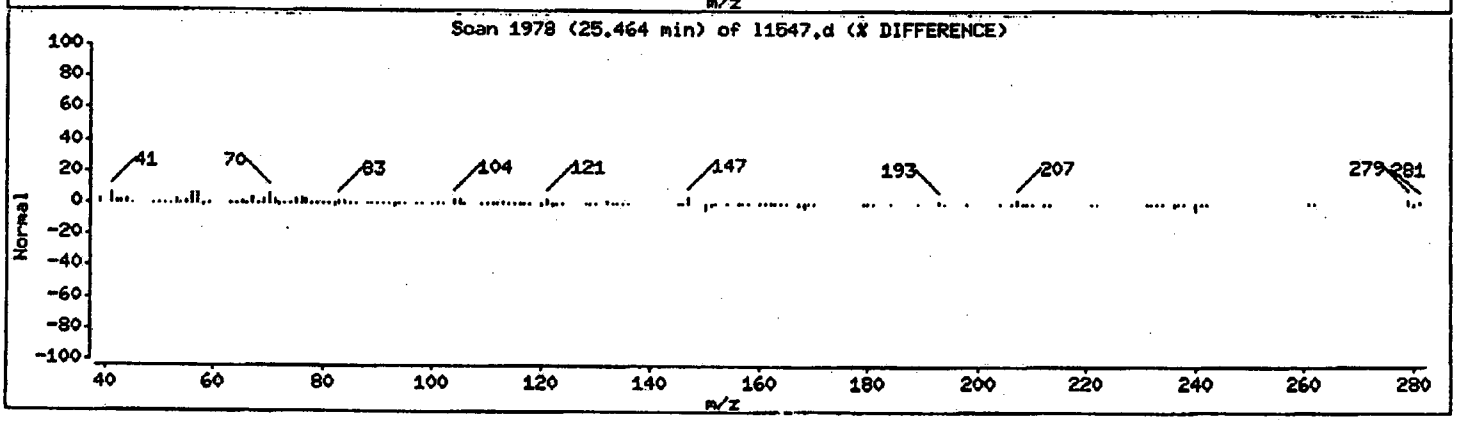
63 bis(2-Ethylhexyl)phthalate

Concentration: 1.4 ug/L









X147

Client ID: **GEI-2S**
Site: L.E. Carpenter

Lab Sample No: **354709**
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/11/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11548.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	2.4	0.4

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1548.d
Report Date: 11-Jun-2002 17:02

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1548.d
Lab Smp Id: 354709 Client Smp ID: GEI-2S
Inj Date : 11-JUN-2002 03:43
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354709;990;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-08-02/10jun02.b/bna625b.m
Meth Date : 11-Jun-2002 15:44 rusin Quant Type: ISTD
Cal Date : 08-JUN-2002 16:47 Cal File: l1478.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

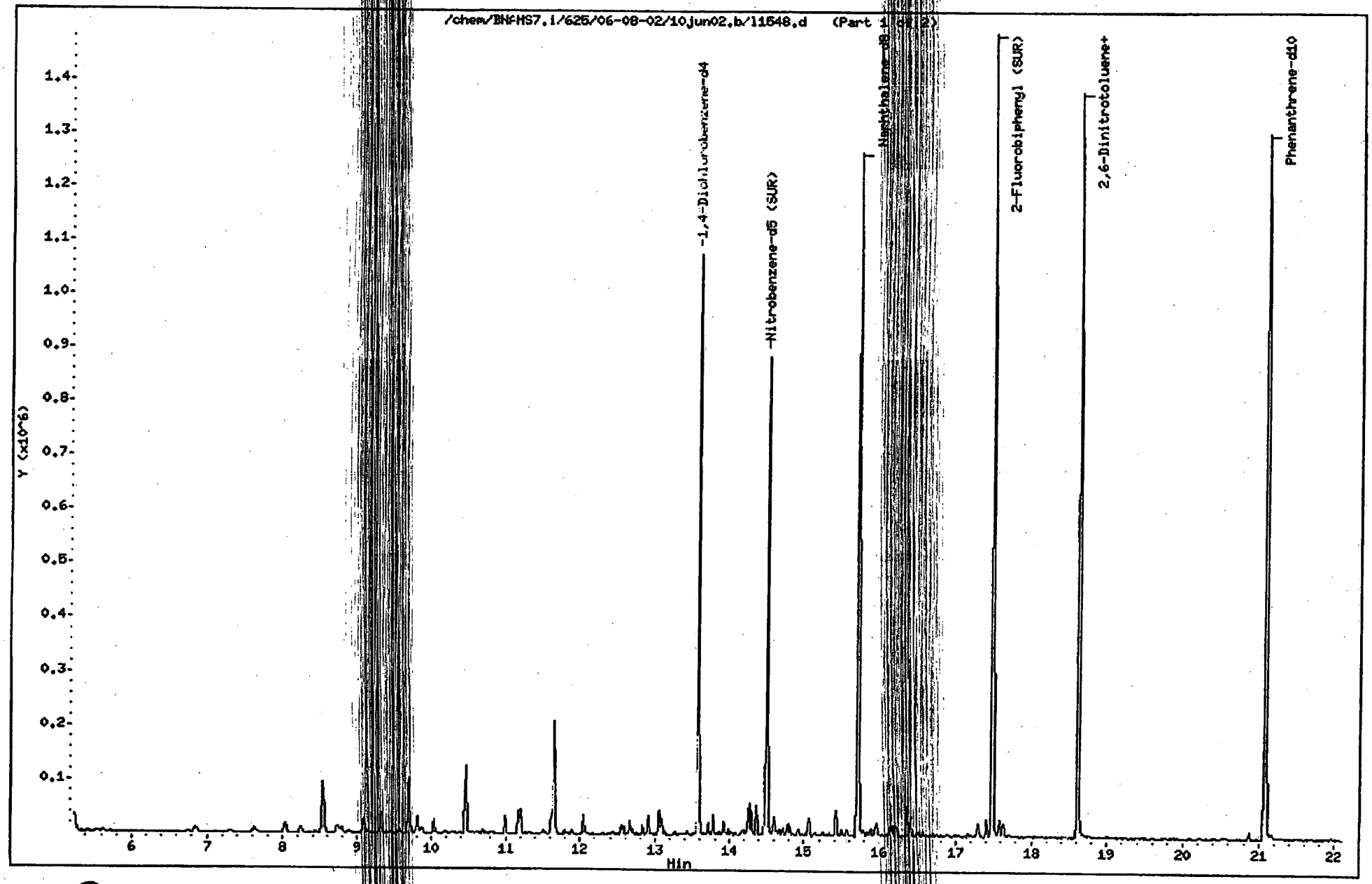
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	990.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.571	13.571	(1.000)	225825	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.502	14.512	(0.923)	391877	45.6514	92
* 80 Naphthalene d8	136	15.708	15.718	(1.000)	770717	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.477	17.477	(0.938)	613321	44.7193	90
* 82 Acenaphthene d10	164	18.622	18.622	(1.000)	420450	40.0000	
* 83 Phenanthrene d10	188	21.076	21.086	(1.000)	751319	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.674	23.684	(0.926)	695221	46.5558	94
63 bis(2-Ethylhexyl)phthalate	149	25.463	25.483	(0.996)	17682	1.16757	2 4
* 81 Chrysene-d12	240	25.565	25.585	(1.000)	690015	40.0000	
* 84 Perylene d12	264	29.594	29.604	(1.000)	624092	40.0000	

Data File: /chem/BNAHS7.i/625/06-08-02/10jun02.b/11548.d
Date : 11-JUN-2002 03:43
Client ID: GEI-2S
Sample Info: 354709;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAHS7.i
Operator: BNAHS 7
Column diameter: 0.53



188

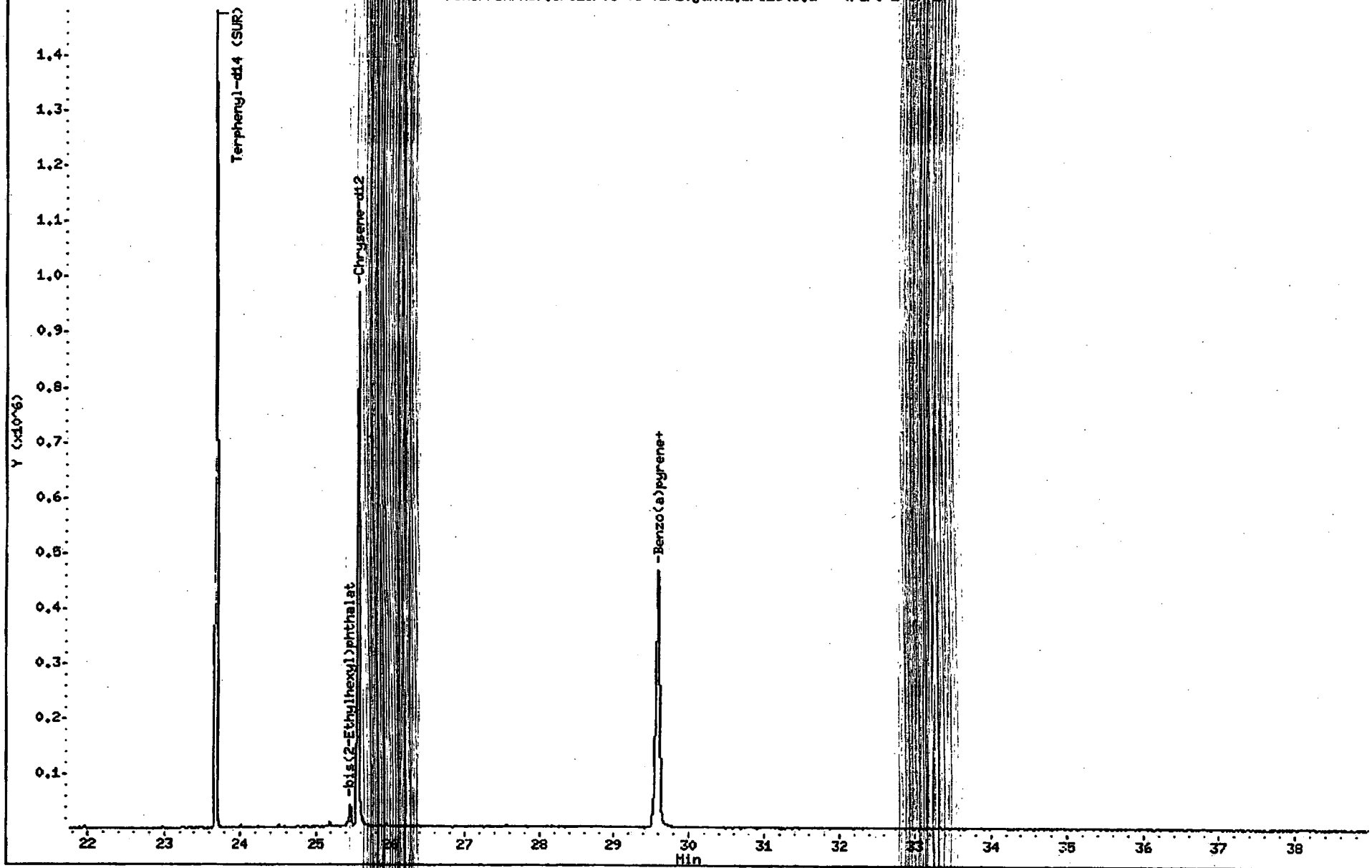
X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11548.d
Date : 11-JUN-2002 03:43
Client ID: GEI-2S
Sample Info: 354709;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-08-02/10jun02.b/11548.d (Part 2 of 2)



X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11548.d

Date : 11-JUN-2002 03:43

Client ID: GEI-2S

Instrument: BNAMS7.i

Sample Info: 354709;990;2;1;

Purge Volume: 990.0

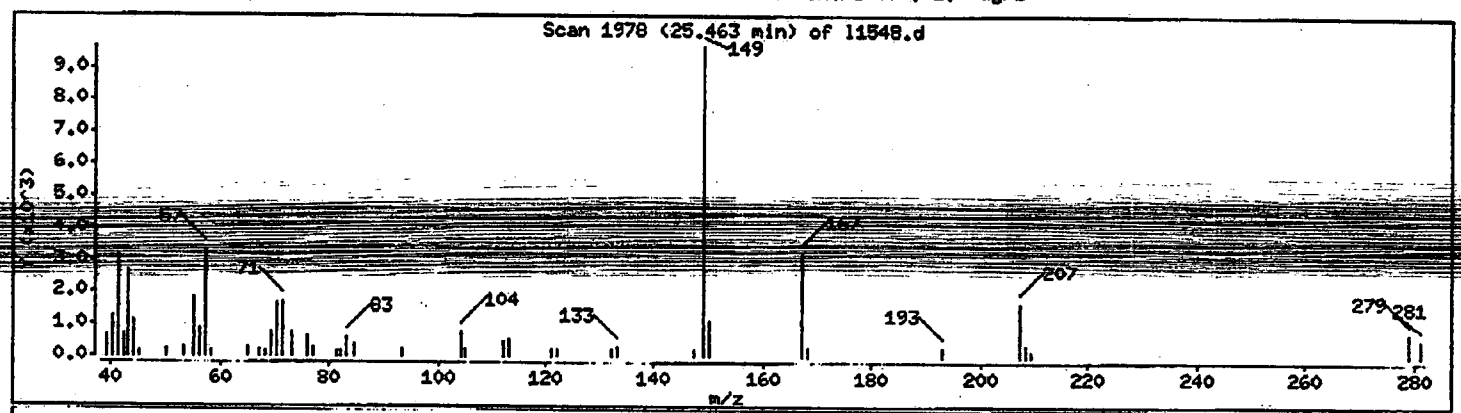
Operator: BNAMS 7

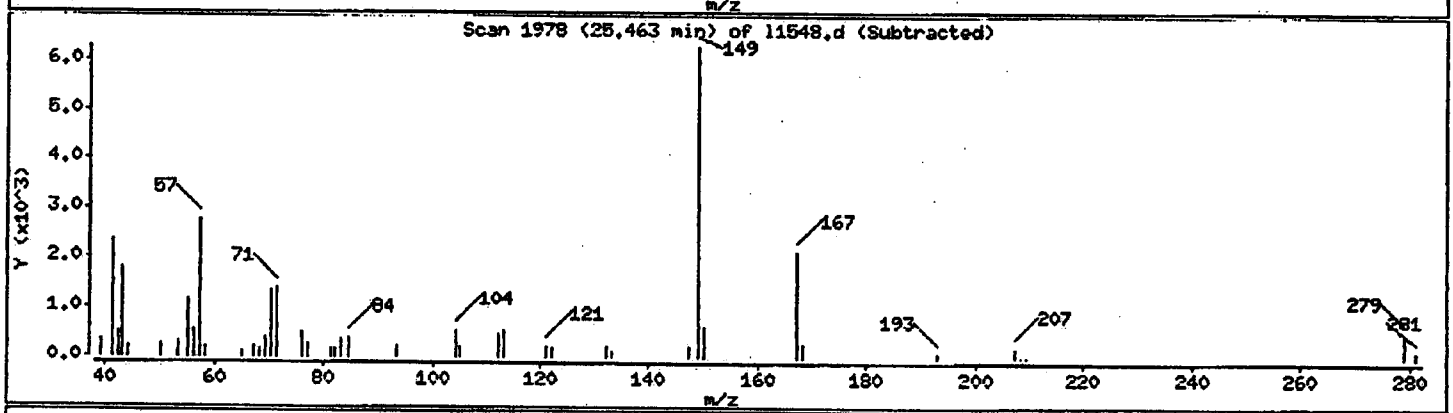
Column phase: DB-5

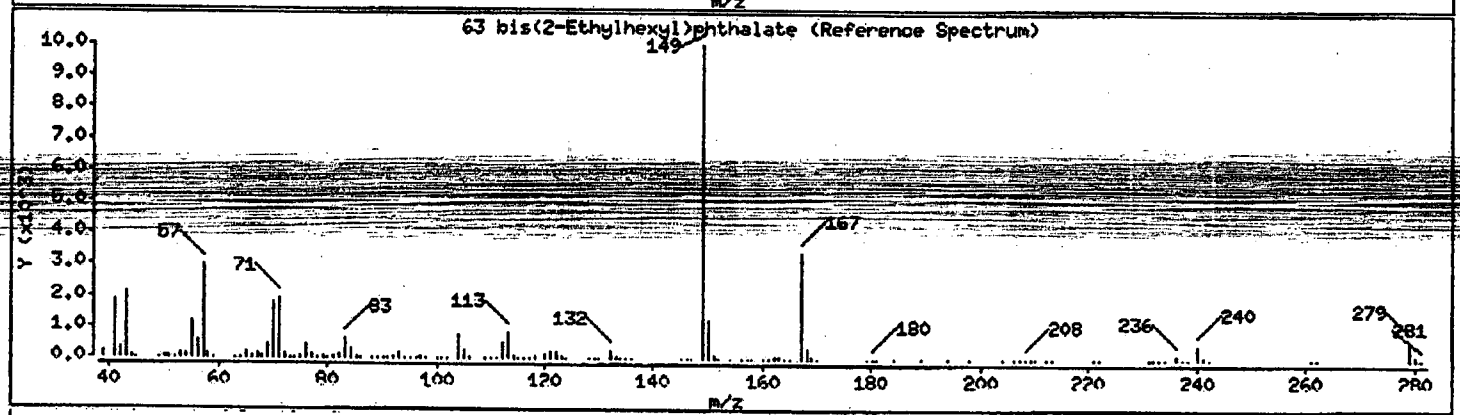
Column diameter: 0.53

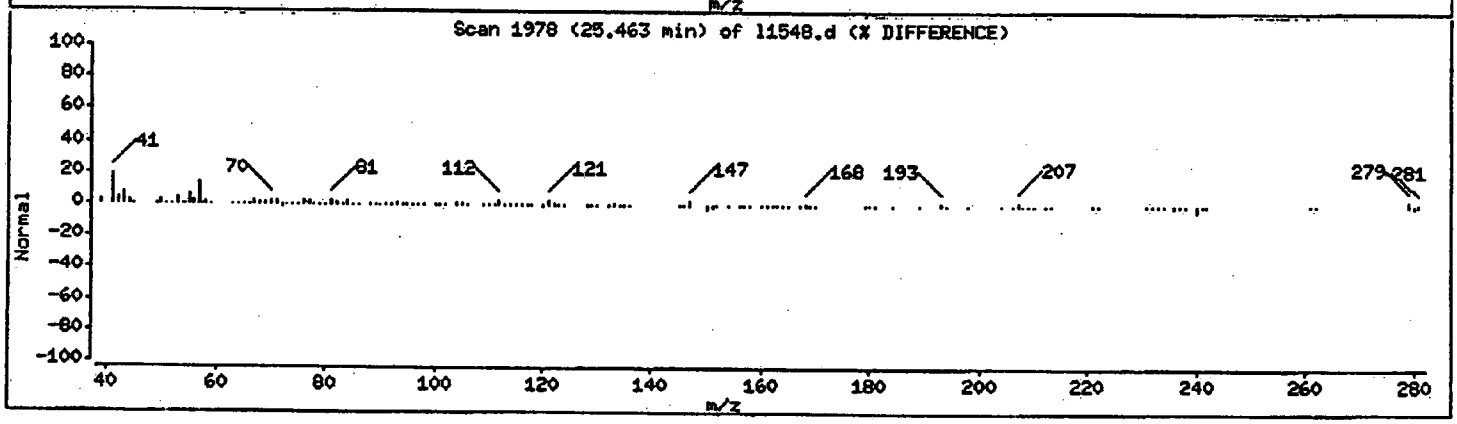
63 bis(2-Ethylhexyl)phthalate

Concentration: 2.4 ug/L









X147

Client ID: SW-5-1
Site: L.E. Carpenter

Lab Sample No: 354711
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: 11577.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	0.4

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/l1577.d
Report Date: 12-Jun-2002 15:27

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-11-02/11jun02.b/l1577.d
Lab Smp Id: 354711 Client Smp ID: SW-5-1
Inj Date : 12-JUN-2002 05:31
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354711;1000;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-11-02/11jun02.b/bna625b.m
Meth Date : 12-Jun-2002 09:20 rusin Quant Type: ISTD
Cal Date : 11-JUN-2002 21:50 Cal File: l1568.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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)

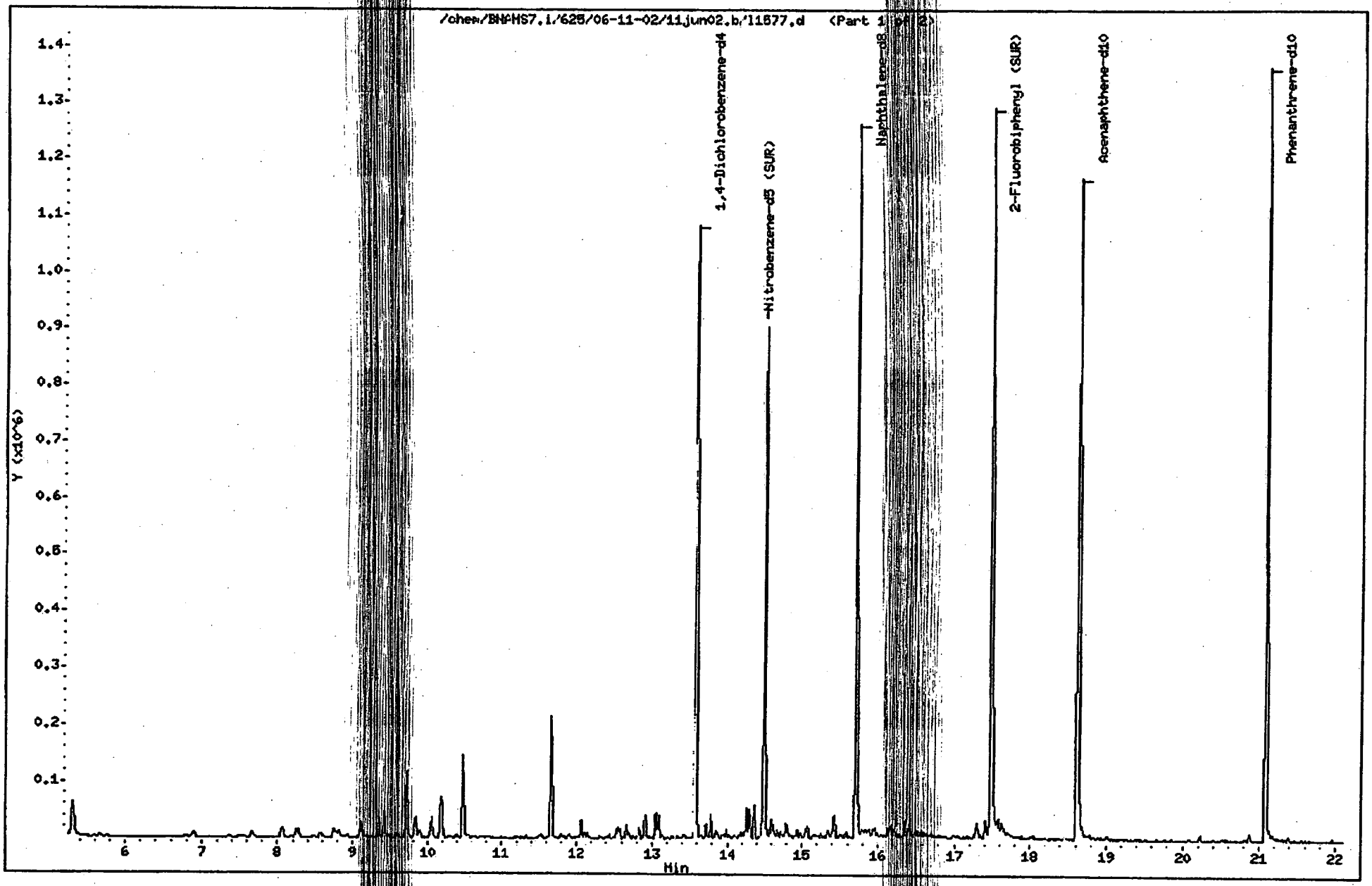
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
* 79 1,4-Dichlorobenzene d4	152	13.577	13.578	(1.000)	233680	40.0000	
$ 76 Nitrobenzene d5 (SUR)	82	14.507	14.498	(0.923)	407626	47.2406	94
* 80 Naphthalene-d8	136	15.714	15.715	(1.000)	735126	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.483	17.474	(0.939)	656619	43.2688	86
* 82 Acenaphthene d10	164	18.618	18.629	(1.000)	444015	40.0000	
* 83 Phenanthrene-d10	188	21.082	21.083	(1.000)	742737	40.0000	
$ 78 Terphenyl d14 (SUR)	244	23.679	23.670	(0.926)	637592	41.5513	83
* 81 Chrysene d12	240	25.571	25.582	(1.000)	726855	40.0000	
* 84 Perylene-d12	264	29.599	29.601	(1.000)	733026	40.0000	

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11577.d
Date : 12-JUN-2002 05:31
Client ID: SW-5-1
Sample Info: 354711;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS7.i

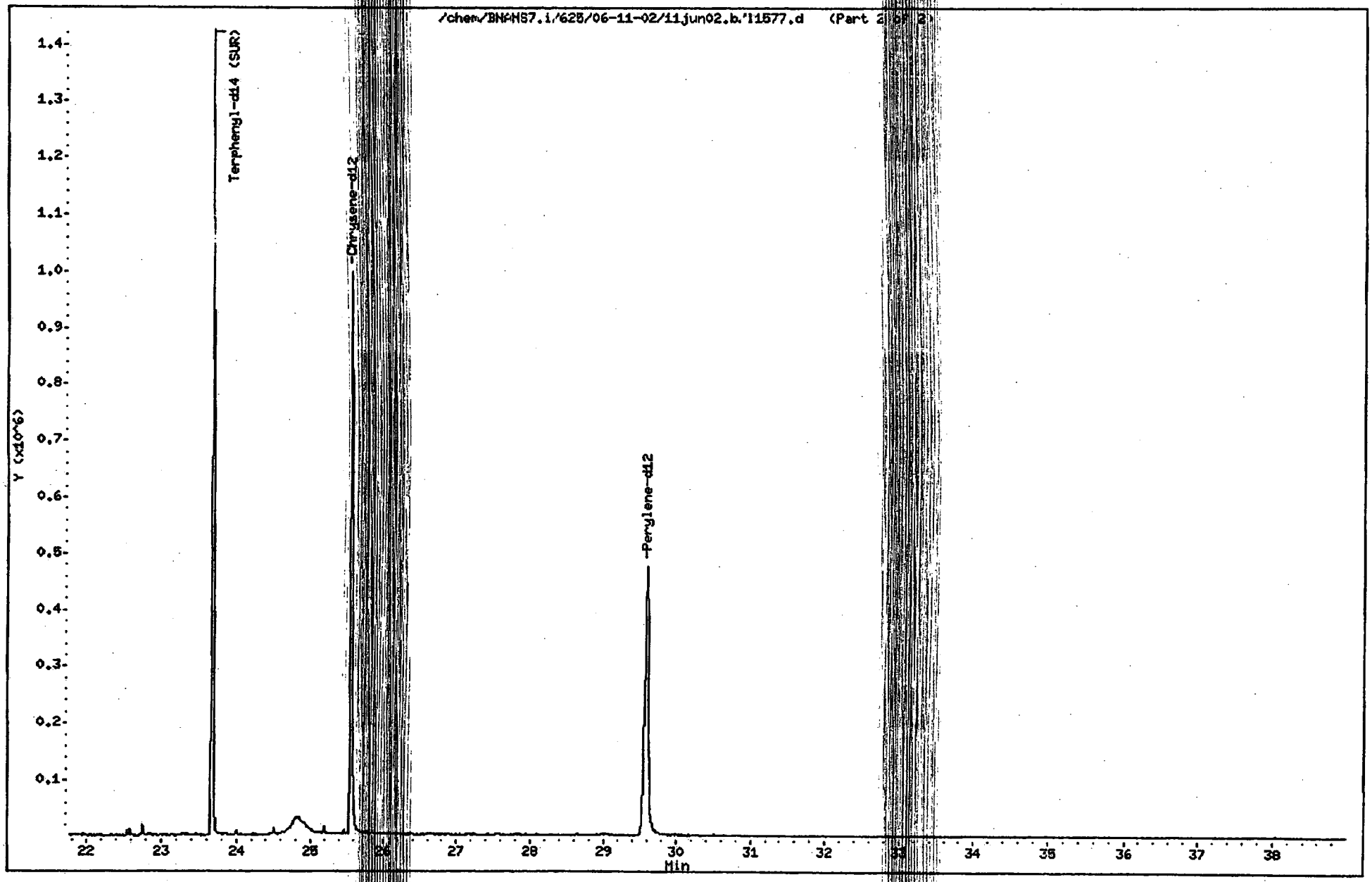
Operator: BNAMS 7
Column diameter: 0.53



Data File: /chem/BNAHS7.i/625/06-11-02/11jun02.b/11577.d
Date : 12-JUN-2002 05:31
Client ID: SW-5-1
Sample Info: 354711;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAHS7.i

Operator: BNAHS 7
Column diameter: 0.53



194

X147

Client ID: SW-8-1
Site: L.E. Carpenter

Lab Sample No: 354712
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1595.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	0.6	0.4

Data File: /chem/BNAMS7.i/625/06-11-02/12jun02.b/11595.d
Report Date: 13-Jun-2002 12:10

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-11-02/12jun02.b/11595.d
Lab Smp Id: 354712 Client Smp ID: SW-8-1
Inj Date : 12-JUN-2002 20:18
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354712;990;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-11-02/12jun02.b/bna625b.m
Meth Date : 13-Jun-2002 11:41 rusin Quant Type: ISTD
Cal Date : 11-JUN-2002 21:50 Cal File: 11560.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

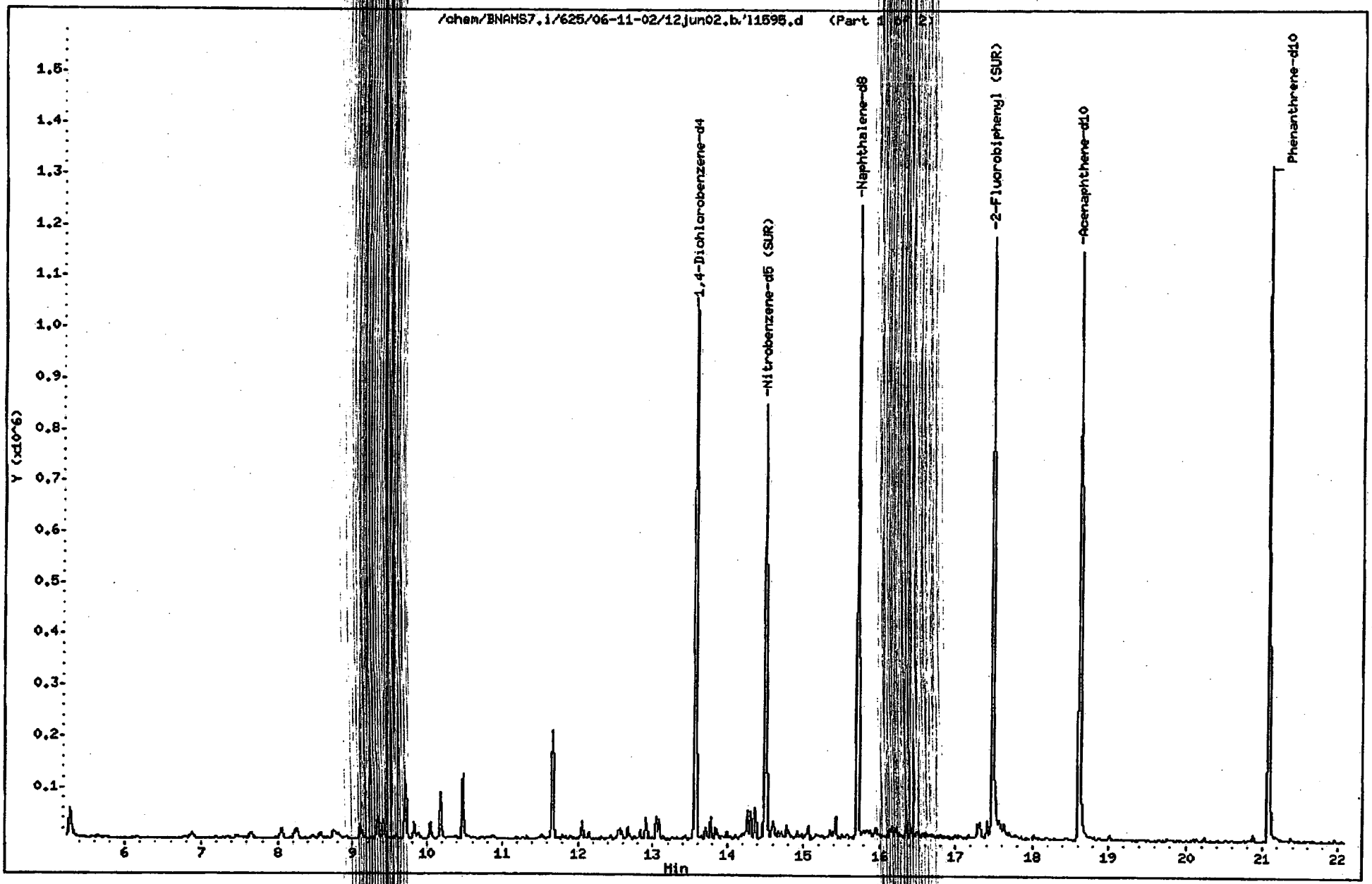
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	990.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	11.571	11.562	(1.000)	737711	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	16.807	16.513	(0.923)	415232	48.2817	98
* 80 Naphthalene-d8	136	15.714	15.719	(1.000)	732695	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.483	17.488	(0.939)	667101	44.1128	89
* 82 Acenaphthene-d10	164	18.618	18.634	(1.000)	442473	40.0000	
* 83 Phenanthrene-d10	188	21.082	21.088	(1.000)	730367	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.679	23.685	(0.926)	664078	43.4355	88
63 bis(2-Ethylhexyl)phthalate	149	25.469	25.484	(0.996)	4068	0.27222	0.55
* 81 Chrysene-d12	240	25.571	25.597	(1.000)	724210	40.0000	
* 84 Perylene-d12	264	29.599	29.615	(1.000)	746123	40.0000	

Data File: /chem/BNAMS7.i/625/06-11-02/12jun02.b/11595.d
Date : 12-JUN-2002 20:18
Client ID: SW-8-1
Sample Info: 354712;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.53



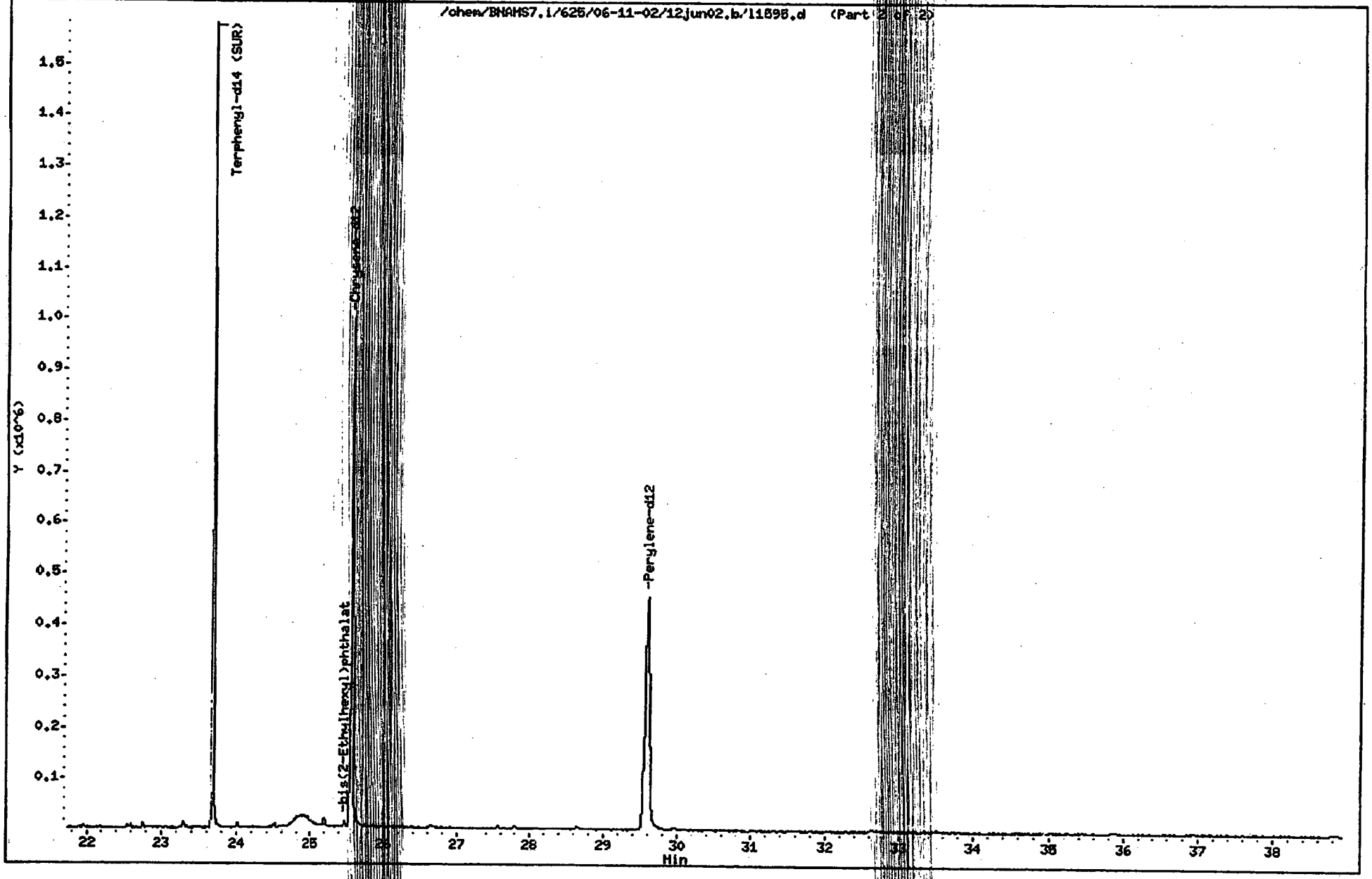
197

X147

Data File: /chem/BNAMS7.i/625/06-11-02/12jun02.b/11595.d
Date : 12-JUN-2002 20:18
Client ID: SW-8-1
Sample Info: 354712;990;2;1;
Purge Volume: 990.0
Column phase: DB-5

Instrument: BNAMS7.i
Operator: BNAMS 7
Column diameter: 0.5

/chem/BNAMS7.i/625/06-11-02/12jun02.b/11595.d (Part 2 of 2)



198

X147

Data File: /chem/BNAHS7.i/625/06-11-02/12jun02.b/11595.d

Date : 12-JUN-2002 20:18

Client ID: SW-8-1

Instrument: BNAHS7.i

Sample Info: 354712;990;2;1;

Purge Volume: 990.0

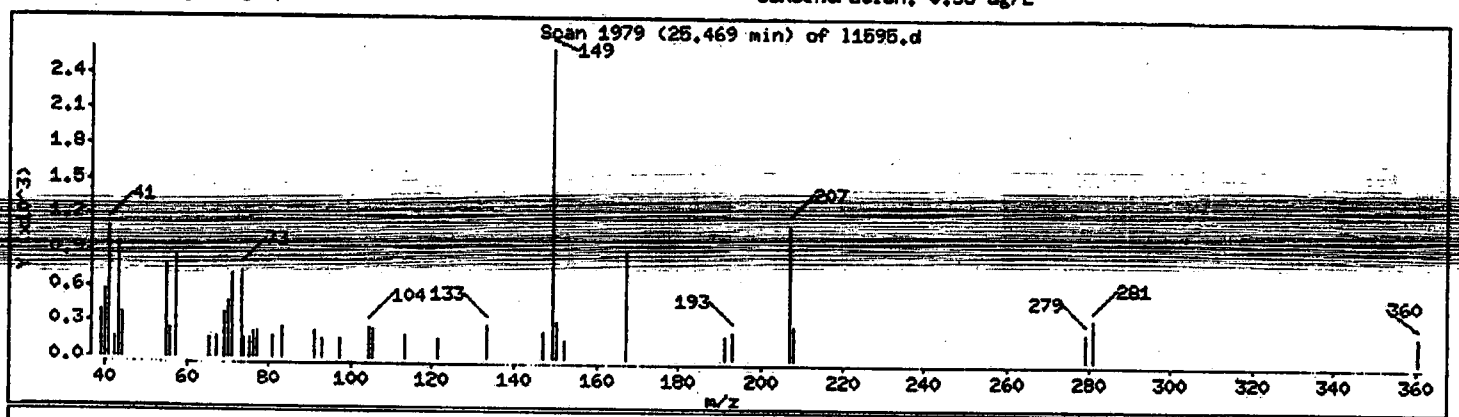
Operator: BNAHS 7

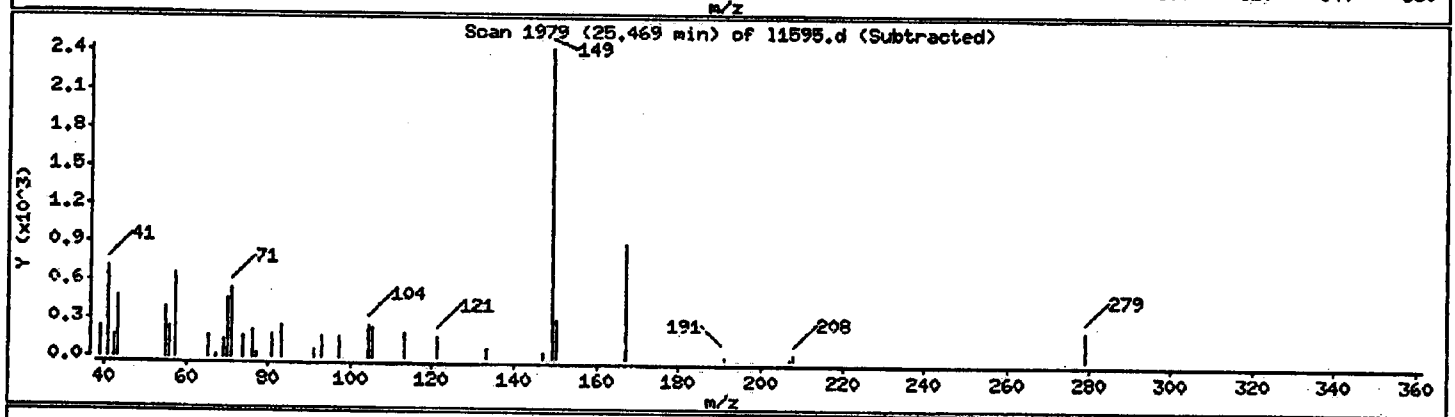
Column phase: DB-5

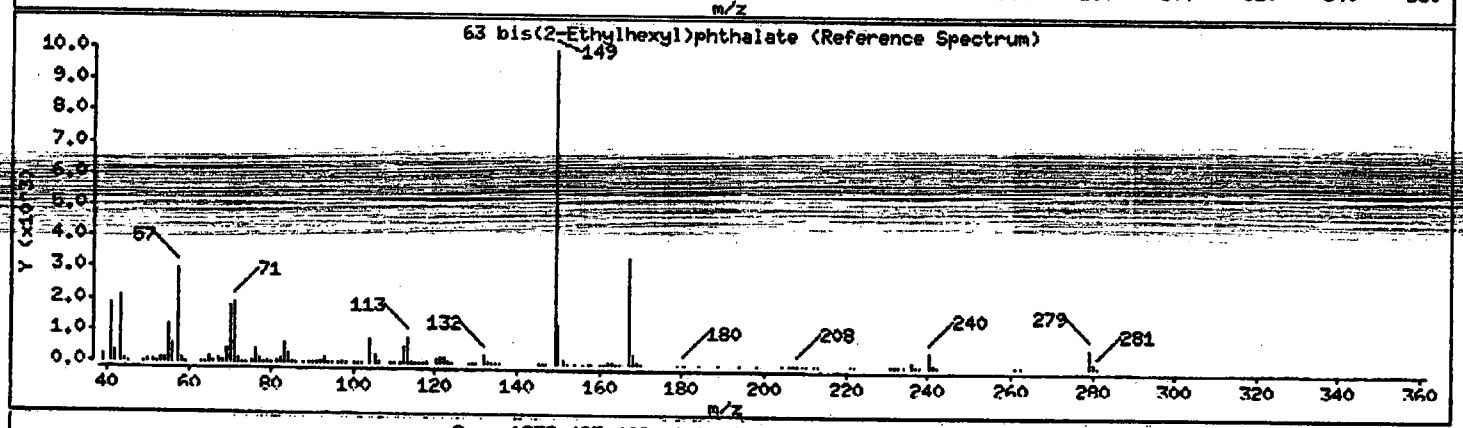
Column diameter: 0.53

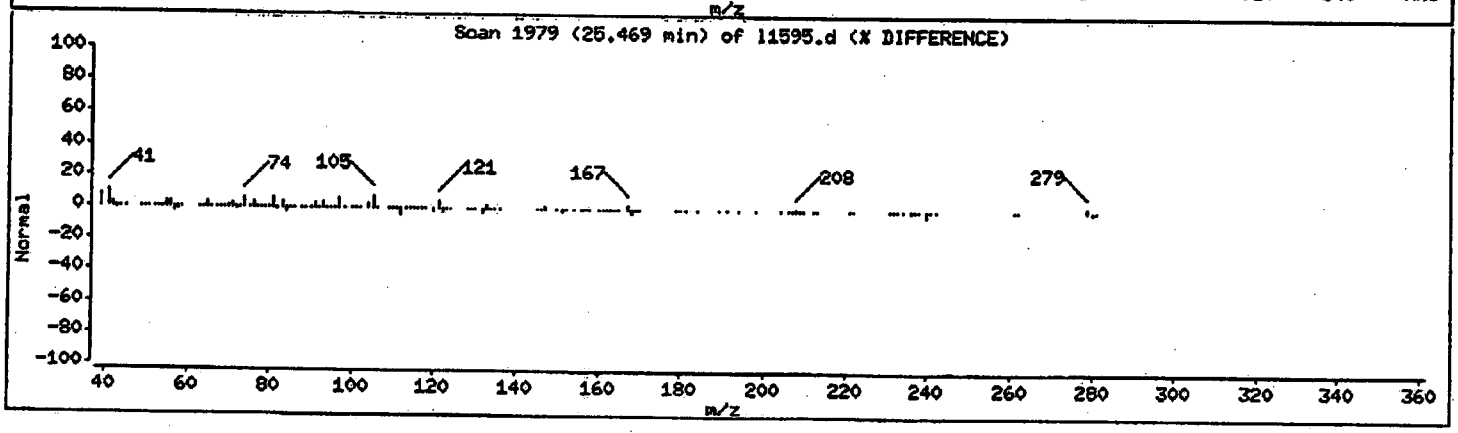
63 bis(2-Ethylhexyl)phthalate

Concentration: 0.55 ug/L









X147

Client ID: SW-7-1
Site: L.E. Carpenter

Lab Sample No: 354713
Lab Job No: X147

Date Sampled: 06/06/02
Date Received: 06/06/02
Date Extracted: 06/07/02
Date Analyzed: 06/12/02
GC Column: DB-5
Instrument ID: BNAMS7.i
Lab File ID: l1579.d

Matrix: WATER
Level: LOW
Sample Volume: 900 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	0.5

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11579.d
Report Date: 12-Jun-2002 15:27

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS7.i/625/06-11-02/11jun02.b/11579.d
Lab Smp Id: 354713 Client Smp ID: SW-7-1
Inj Date : 12-JUN-2002 07:11
Operator : BNAMS 7 Inst ID: BNAMS7.i
Smp Info : 354713;900;2;1;
Misc Info : X147;PPBN;7343;143
Comment :
Method : /chem/BNAMS7.i/625/06-11-02/11jun02.b/bna625b.m
Meth Date : 12-Jun-2002 09:30 rtskin Quant Type: ISTD
Cal Date : 11-JUN-2002 21:58 Cal File: 11568.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: X147.sub
Target Version: 3.50
Processing Host: hpd1

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

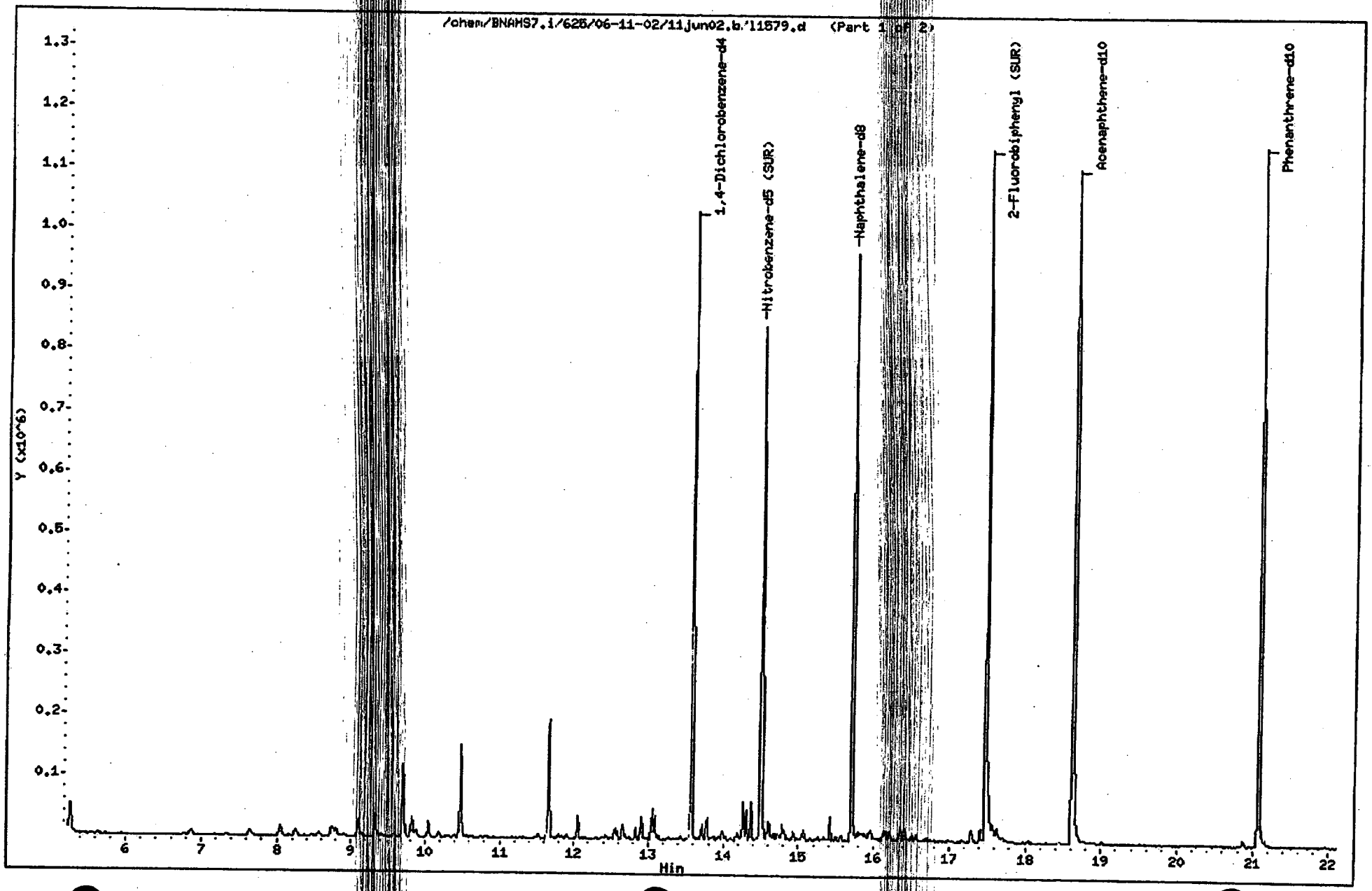
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	900.00000	Volume of sample extracted (mL)

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	13.568	13.570	(1.000)	189388	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	14.698	13.498	(0.923)	949649	36.5439	100
* 80 Naphthalene-d8	136	15.715	15.715	(1.000)	634542	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.474	17.474	(0.938)	556510	41.2076	92
* 82 Acenaphthene-d10	164	18.619	18.629	(1.000)	395144	40.0000	
* 83 Phenanthrene-d10	188	21.083	21.083	(1.000)	673913	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.680	23.670	(0.926)	640483	45.5084	100
* 81 Chrysene-d12	240	25.572	25.582	(1.000)	666663	40.0000	
* 84 Perylene-d12	264	29.590	29.601	(1.000)	676626	40.0000	

Data File: /chem/BNAHS7.i/625/06-11-02/11jun02.b/11579.d
Date : 12-JUN-2002 07:11
Client ID: SW-7-1
Sample Info: 354713;900;2;1;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAHS7.i
Operator: BNAHS 7
Column diameter: 0.53



202

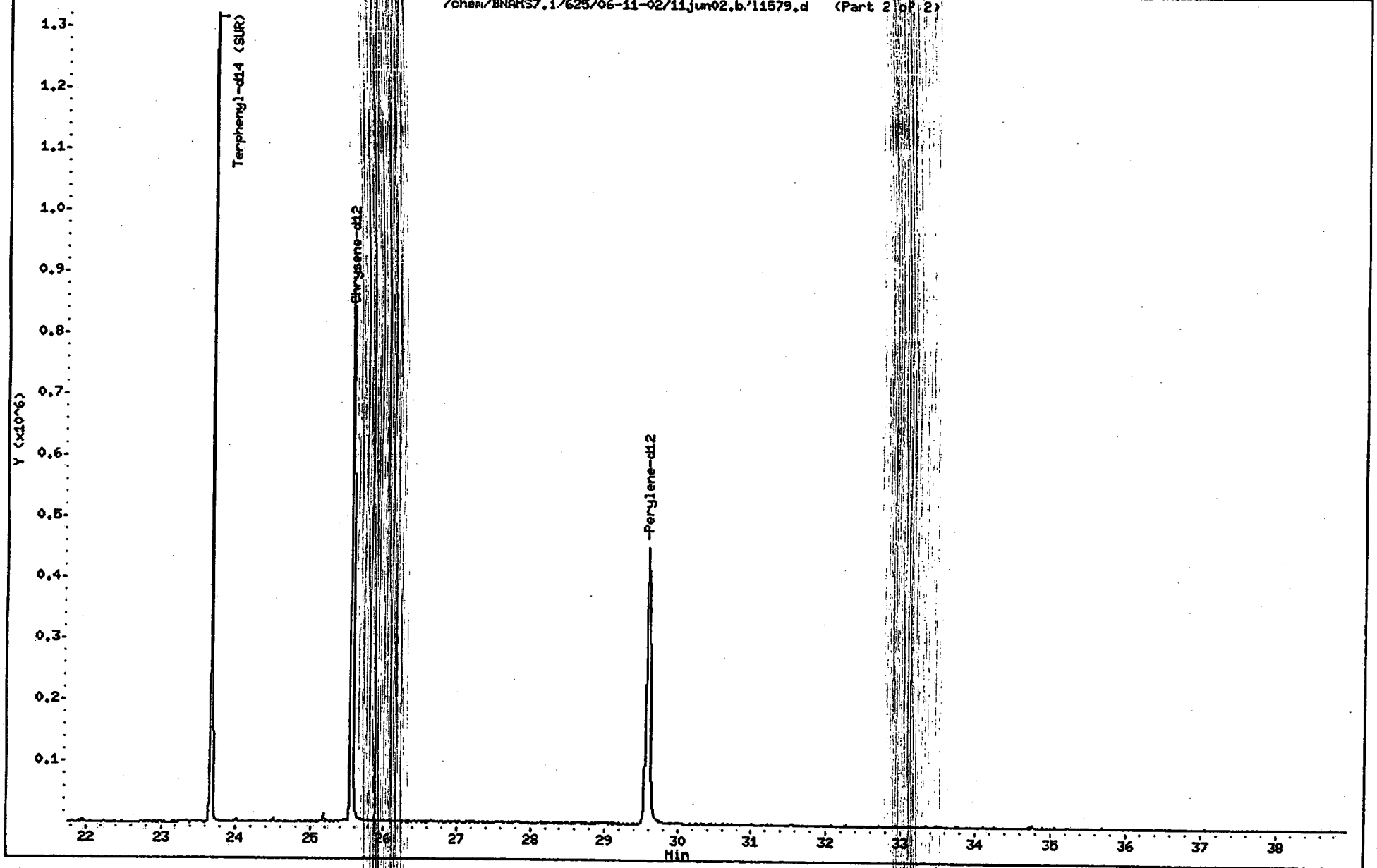
X147

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11579.d
Date : 12-JUN-2002 07:11
Client ID: SW-7-1
Sample Info: 354713;900;2;1;
Purge Volume: 900.0
Column phase: DB-5

Instrument: BNAMS7.i

Operator: BNAMS 7
Column diameter: 0.53

/chem/BNAMS7.i/625/06-11-02/11jun02.b/11579.d (Part 2 of 2)



203

X147

Tuning Results Summary

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7514

DFTPP Injection Date: 06/04/02

Instrument ID: BNAMS5

DFTPP Injection Time: 1140

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 60.0% of mass 198	49.8
68	Less than 2.0% of mass 69	0.1 (0.1)1
69	Mass 69 relative abundance	56.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.8
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	23.5
365	Greater than 1.0% of mass 198	2.12
441	0.0 - 100.0% of mass 443	6.7 (67.9)2
442	40.0 - 110.0% of mass 198	50.4
443	17.0 - 23.0% of mass 442	9.8 (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	QSTD050	QSTD050	Q7515	06/04/02	1200
02	QSTD120	QSTD120	Q7516	06/04/02	1249
03	QSTD080	QSTD080	Q7518	06/04/02	1425
04	QSTD020	QSTD020	Q7519	06/04/02	1513
05	QSTD010	QSTD010	Q7520	06/04/02	1602
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

Sample Info: QDFT155

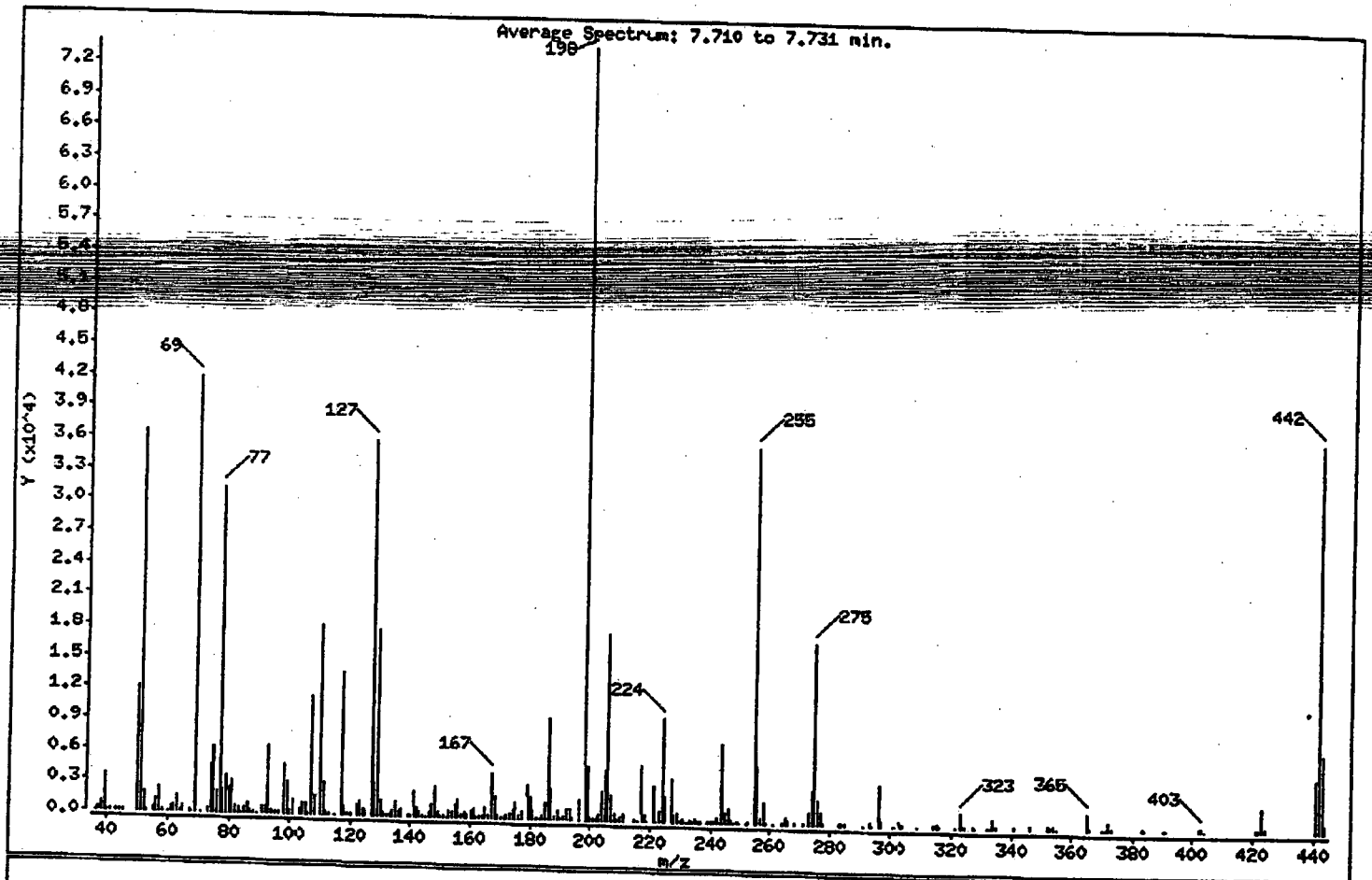
Instrument: BNAHS5.i

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	49.76
68	Less than 2.00% of mass 69	0.07 (0.13)
69	Mass 69 relative abundance	56.53
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.75
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 30.00% of mass 198	23.45
365	Greater than 1.00% of mass 198	2.12
441	0.01 - 100.00% of mass 443	6.67 (67.91)
442	40.00 - 110.00% of mass 198	50.38
443	17.00 - 23.00% of mass 442	9.82 (19.50)

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

Instrument: BNAHS5.i

Sample Info: QDFT155

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7514.d

Spectrum: Average Spectrum: 7.710 to 7.731 min.

Location of Maximum: 198.00

Number of points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	54	117.00	13733	186.00	9605	264.00	193
37.00	305	118.00	922	187.00	2887	265.00	742
38.00	803	119.00	118	188.00	316	266.00	271
39.00	3491	120.00	184	189.00	813	268.00	87
40.00	183	122.00	1012	190.00	139	271.00	132
41.00	177	123.00	1337	191.00	390	273.00	1121
43.00	95	124.00	708	192.00	965	274.00	3158
44.00	215	125.00	482	193.00	1102	275.00	17320
45.00	85	127.00	36016	194.00	230	276.00	2321
50.00	12035	128.00	3039	196.00	1855	277.00	1203
51.00	36760	129.00	17888	198.00	73880	278.00	186
52.00	1879	130.00	1506	199.00	5085	283.00	136
53.00	89	131.00	264	200.00	414	284.00	112
55.00	343	132.00	159	201.00	140	285.00	190
56.00	1258	133.00	110	202.00	211	291.00	42
57.00	2344	134.00	561	203.00	572	293.00	275
58.00	125	135.00	1410	204.00	2713	294.00	41
60.00	34	136.00	537	205.00	4789	296.00	3873
61.00	537	137.00	692	206.00	17848	297.00	529
62.00	601	139.00	96	207.00	2416	301.00	46
63.00	1558	140.00	133	208.00	654	303.00	449
64.00	165	141.00	2440	209.00	226	304.00	125
65.00	641	142.00	179	210.00	369	309.00	38
67.00	90	143.00	499	211.00	703	314.00	193
68.00	55	144.00	153	215.00	178	315.00	375
69.00	41760	145.00	57	216.00	33	316.00	236
71.00	34	146.00	436	217.00	5318	321.00	63
73.00	317	147.00	1199	218.00	665	323.00	1336
74.00	4545	148.00	2957	219.00	79	324.00	248
75.00	6230	149.00	587	221.00	3444	327.00	195
76.00	2089	150.00	123	222.00	68	328.00	57
77.00	31200	151.00	238	223.00	1070	332.00	60
78.00	2133	152.00	81	224.00	9767	333.00	46
79.00	3522	153.00	722	225.00	2459	334.00	787
80.00	2360	154.00	526	227.00	4146	335.00	147

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

Sample Info: QDFT155

Instrument: BNAHS5.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7514.d

Spectrum: Average Spectrum: 7.710 to 7.731 min.

Location of Maximum: 198.00

Number of points: 257

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	3004	155.00	1231	228.00	665	341.00	103
82.00	728	156.00	1673	229.00	821	346.00	281
83.00	524	157.00	298	230.00	127	352.00	363
84.00	34	158.00	437	231.00	400	353.00	225
85.00	431	159.00	327	232.00	34	354.00	366
86.00	1010	160.00	676	233.00	95	355.00	40
87.00	351	161.00	883	234.00	244	365.00	1570
88.00	178	162.00	251	235.00	286	366.00	176
89.00	74	163.00	143	236.00	159	370.00	34
91.00	654	164.00	108	237.00	250	371.00	64
92.00	742	165.00	978	239.00	165	372.00	669
93.00	6418	166.00	316	240.00	119	373.00	130
94.00	348	167.00	4245	241.00	217	383.00	139
95.00	151	168.00	1993	242.00	434	384.00	33
96.00	241	169.00	358	243.00	56	390.00	56
98.00	4811	170.00	148	244.00	7529	391.00	33
99.00	3050	171.00	161	245.00	970	402.00	193
100.00	289	172.00	362	246.00	1379	403.00	349
101.00	1326	173.00	455	247.00	266	404.00	76
103.00	541	174.00	864	248.00	47	421.00	214
104.00	1051	175.00	1512	249.00	244	422.00	223
105.00	1051	176.00	382	250.00	34	423.00	2101
106.00	187	177.00	691	252.00	83	424.00	409
107.00	11435	179.00	3258	253.00	251	441.00	4929
108.00	1763	180.00	1962	255.00	36072	442.00	37224
110.00	18160	181.00	900	256.00	5386	443.00	7258
111.00	3024	182.00	167	257.00	428	444.00	625
112.00	408	183.00	48	258.00	2070		
113.00	114	184.00	286	259.00	250		
115.00	54	185.00	1506	261.00	44		

Data File: /chem/BNAHS5.i/625/06-04-02/04jun02.b/q7514.d

Date : 04-JUN-2002 11:40

Client ID:

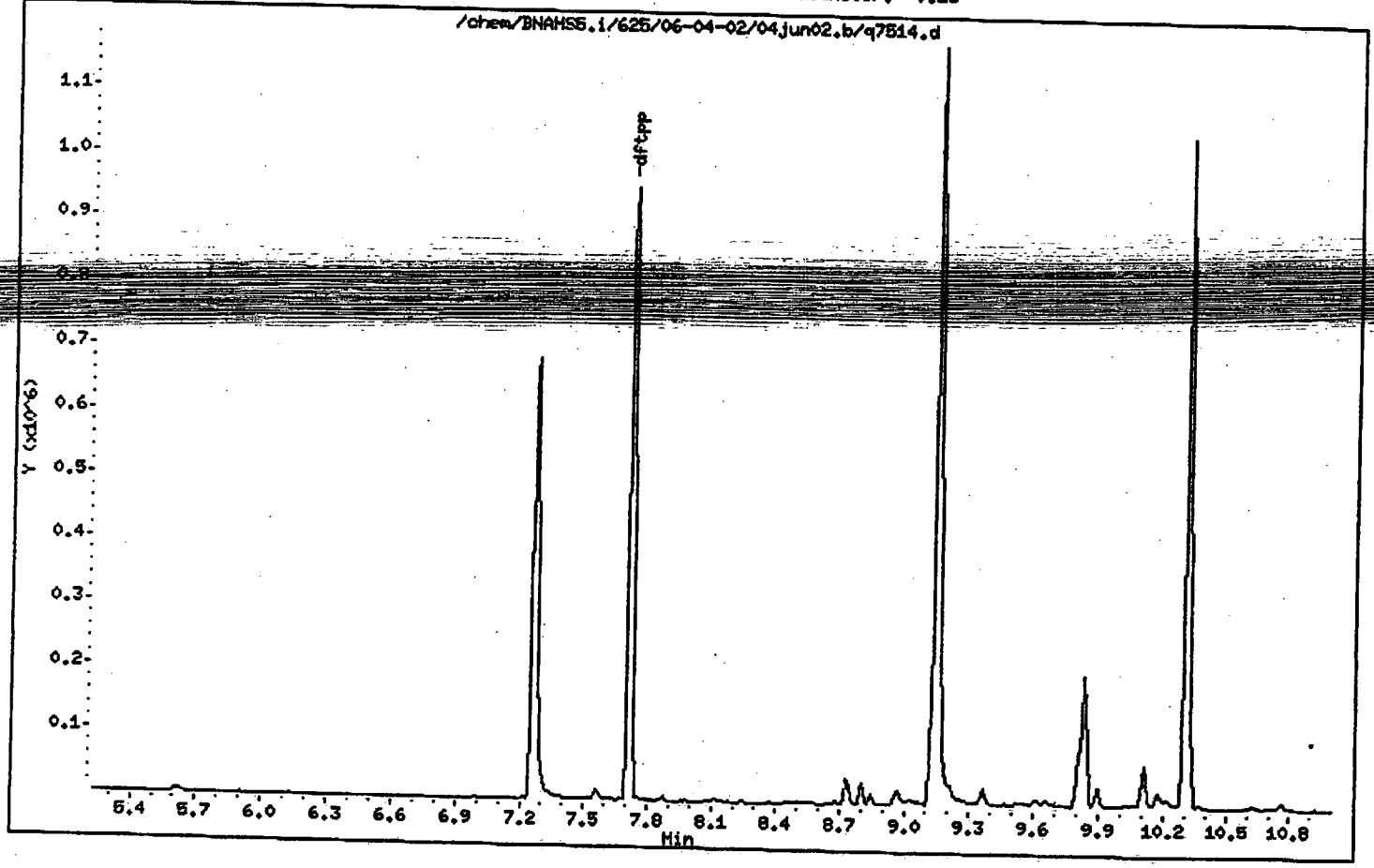
Sample Info: QDFT155

Instrument: BNAHS5.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7593 DFTPP Injection Date: 06/07/02

Instrument ID: BNAMS5 DFTPP Injection Time: 0531

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0% of mass 198	56.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	64.9	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	40.0 - 60.0% of mass 198	53.6	
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	7.2	
275	10.0 - 30.0% of mass 198	23.3	
365	Greater than 1.0% of mass 198	2.19	
441	0.0 - 100.0% of mass 443	8.3	(81.4)2
442	40.0 - 110.0% of mass 198	53.0	
443	17.0 - 23.0% of mass 442	10.2	(19.2)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	QSTD158	QSTD158	Q7596	06/07/02	0738
02	WB158	WB158	Q7606	06/07/02	1543
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7593.d

Date : 07-JUN-2002 05:31

Client ID:

Sample Info: QDFT158

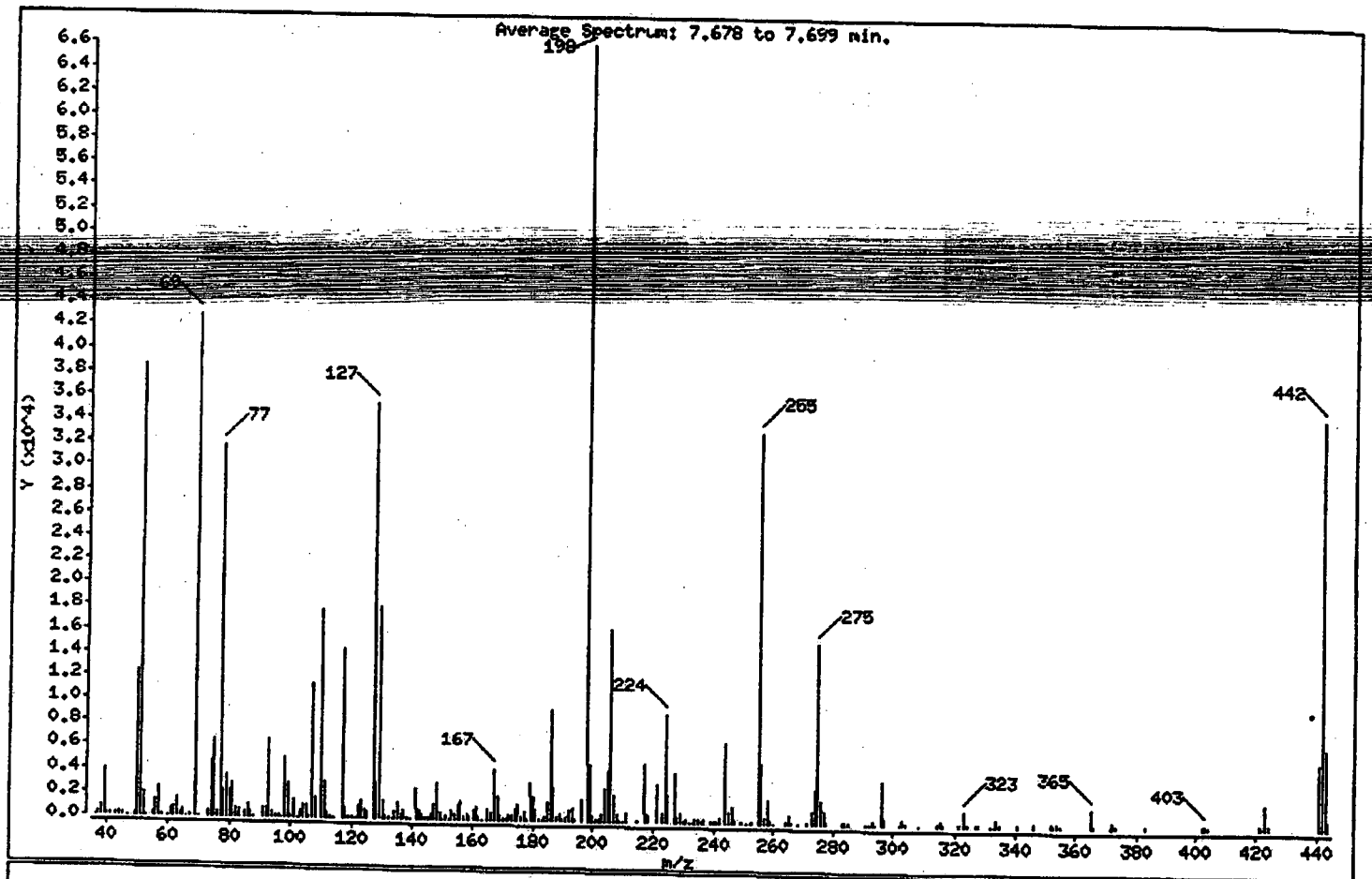
Instrument: BNAMS5.i

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	58.37
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	64.89
70	Less than 2.00% of mass 69	0.11 (0.17)
127	40.00 - 60.00% of mass 198	53.59
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.18
275	10.00 - 30.00% of mass 198	23.26
365	Greater than 1.00% of mass 198	2.19
441	0.01 - 100.00% of mass 443	8.28 (81.40)
442	40.00 - 110.00% of mass 198	52.96
443	17.00 - 23.00% of mass 442	10.17 (19.21)

Data File: /chem/BNAMS5.i/625/96-04-02/07jun02.b/q7593.d

Date : 07-JUN-2002 05:31

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT158

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7593.d

Spectrum: Average Spectrum: 7.678 to 7.699 min.

Location of Maximum: 198.00

Number of points: 252

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	35	112.00	436	181.00	866	260.00	37
37.00	[illegible]	113.00	[illegible]	182.00	[illegible]	264.00	89
38.00	830	114.00	34	183.00	63	265.00	746
39.00	3893	117.00	14484	184.00	263	266.00	225
40.00	191	118.00	977	185.00	1445	268.00	33
41.00	160	119.00	110	186.00	9361	271.00	165
43.00	84	120.00	128	187.00	2696	273.00	995
44.00	301	121.00	39	188.00	320	274.00	2833
45.00	102	122.00	1033	189.00	664	275.00	15363
47.00	34	123.00	1478	190.00	84	276.00	2011
49.00	123	124.00	743	191.00	288	277.00	1101
50.00	12480	125.00	565	192.00	892	278.00	174
51.00	38560	127.00	35400	193.00	1016	283.00	163
52.00	1904	128.00	2981	194.00	221	284.00	113
53.00	49	129.00	18024	196.00	1764	285.00	184
55.00	347	130.00	1485	198.00	66056	291.00	39
56.00	1328	131.00	328	199.00	4740	292.00	34
57.00	2450	132.00	180	200.00	400	293.00	286
58.00	82	133.00	48	201.00	226	294.00	45
60.00	44	134.00	626	202.00	104	296.00	3702
61.00	539	135.00	1342	203.00	620	297.00	554
62.00	727	136.00	500	204.00	2708	302.00	53
63.00	[illegible]	137.00	707	205.00	4322	303.00	116
64.00	238	138.00	91	206.00	16408	304.00	144
65.00	635	139.00	52	207.00	2249	308.00	35
66.00	35	141.00	2638	208.00	629	314.00	135
67.00	171	142.00	783	209.00	186	315.00	386
69.00	42864	143.00	507	210.00	41	316.00	190
70.00	71	144.00	174	211.00	784	321.00	108
73.00	445	145.00	146	215.00	196	323.00	1147
74.00	4682	146.00	467	217.00	4932	324.00	220
75.00	6548	147.00	1289	218.00	667	327.00	182
76.00	429	148.00	2963	221.00	3128	328.00	105
77.00	31672	149.00	553	223.00	824	332.00	73
78.00	2223	150.00	70	224.00	9143	333.00	73

Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7593.d

Date : 07-JUN-2002 05:31

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT158

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7593.d

Spectrum: Average Spectrum: 7.678 to 7.699 min.

Location of Maximum: 198.00

Number of points: 252

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	3472	151.00	343	225.00	2286	334.00	663
[illegible]	[illegible]	[illegible]	[illegible]	227.00	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
82.00	744	154.00	507	229.00	765	346.00	230
83.00	658	155.00	1210	230.00	95	352.00	296
85.00	442	156.00	1547	231.00	342	353.00	218
86.00	1014	157.00	284	232.00	42	354.00	297
87.00	476	158.00	398	233.00	36	355.00	83
88.00	74	159.00	362	234.00	262	365.00	1444
91.00	822	160.00	702	235.00	323	366.00	220
92.00	807	161.00	1072	236.00	158	371.00	48
93.00	6510	162.00	293	237.00	278	372.00	504
94.00	412	163.00	54	239.00	125	373.00	135
95.00	122	165.00	868	240.00	89	383.00	141
96.00	187	166.00	680	241.00	204	402.00	200
97.00	38	167.00	4183	242.00	473	403.00	238
98.00	5062	168.00	1999	244.00	6695	404.00	83
99.00	2929	169.00	386	245.00	887	421.00	278
100.00	201	170.00	136	246.00	1337	422.00	112
101.00	1471	171.00	139	247.00	270	423.00	1983
102.00	62	172.00	434	249.00	221	424.00	373
103.00	549	173.00	474	251.00	34	441.00	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52	442.00	[illegible]
105.00	1127	175.00	1410	253.00	143	443.00	6720
106.00	107	176.00	347	255.00	33264	444.00	579
107.00	11401	177.00	772	256.00	4952		
108.00	1639	178.00	96	257.00	419		
110.00	17752	179.00	3222	258.00	1972		
111.00	3008	180.00	1969	259.00	289		

Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7593.d

Date : 07-JUN-2002 05:31

Client ID:

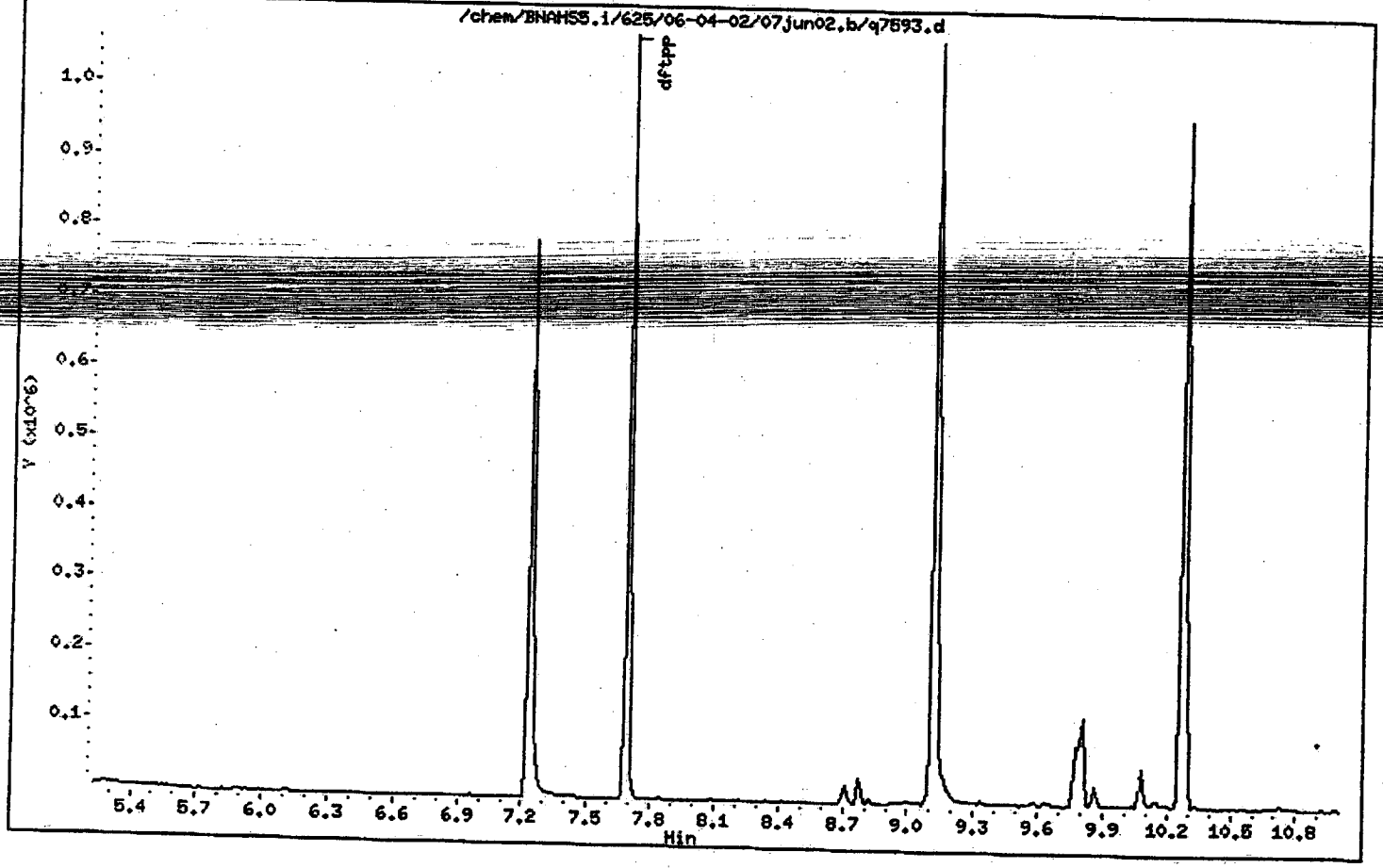
Sample Info: QDFT158

Instrument: BNAMS5.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: L1473

DFTPP Injection Date: 06/08/02

Instrument ID: BNAMS7

DFTPP Injection Time: 1308

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	71.4
70	Less than 2.0% of mass 69	0.4 (0.6)1
127	40.0 - 60.0% of mass 198	49.5
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	6.8
275	10.0 - 30.0% of mass 198	23.0
365	Greater than 1.0% of mass 198	2.25
441	0.0 - 100.0% of mass 443	10.5 (74.7)2
442	40.0 - 110.0% of mass 198	73.1
443	17.0 - 23.0% of mass 442	14.1 (19.3)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	LSTD050	LSTD050	L1474	06/08/02	1329
02	LSTD120	LSTD120	L1475	06/08/02	1418
03	LSTD010	LSTD010	L1476	06/08/02	1508
04	LSTD080	LSTD080	L1477	06/08/02	1557
05	LSTD020	LSTD020	L1478	06/08/02	1647
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

Data File: /chem/BNAHS7.i/625/06-08-02/08jun02.b/11473.d

Date : 08-JUN-2002 13:08

Client ID:

Sample Info: LDFT159

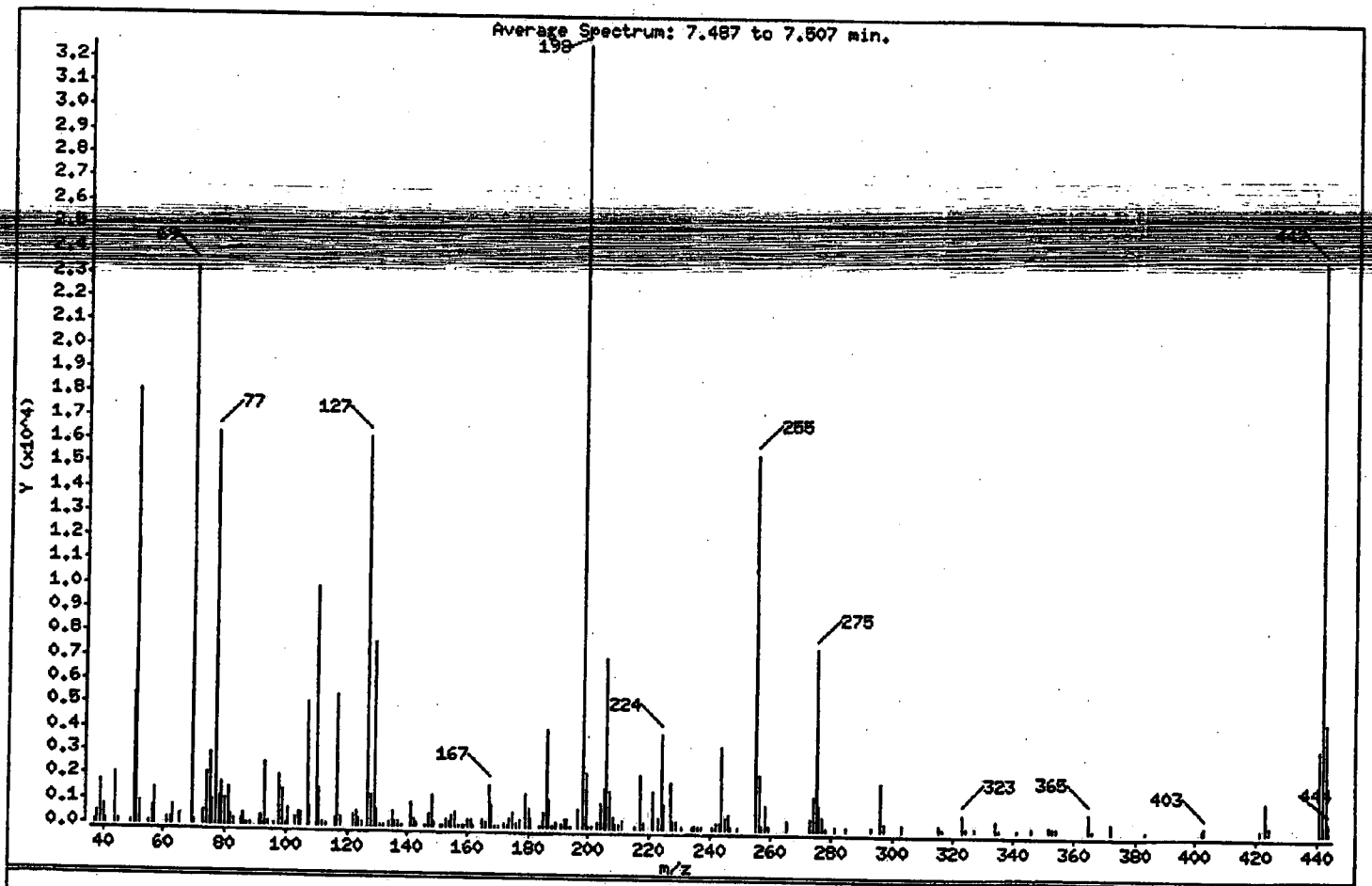
Instrument: BNAHS7.i

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.46
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	71.43
70	Less than 2.00% of mass 69	0.43 (0.60)
127	40.00 - 60.00% of mass 198	49.45
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	23.04
365	Greater than 1.00% of mass 198	2.25
441	0.01 - 100.00% of mass 443	10.52 (74.72)
442	40.00 - 110.00% of mass 198	73.11
443	17.00 - 23.00% of mass 442	14.08 (19.26)

X147

Data File: /chem/BNAMS7.i/625/06-08-02/08jun02.b/l1473.d

Date : 08-JUN-2002 13:08

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT159

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: l1473.d

Spectrum: Average Spectrum: 7.487 to 7.507 min.

Location of Maximum: 198.00

Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	78	110.00	9880	174.00	341	244.00	3344
38.00	430	111.00	1498	175.00	599	245.00	474
39.00	1738	112.00	113	176.00	120	246.00	573
40.00	756	113.00	54	177.00	270	247.00	50
41.00	118	116.00	325	179.00	1335	249.00	71
44.00	2047	117.00	5373	180.00	754	255.00	15530
45.00	166	118.00	380	181.00	389	256.00	2265
49.00	103	122.00	433	184.00	65	257.00	182
50.00	5440	123.00	607	185.00	597	258.00	953
51.00	18064	124.00	275	186.00	4071	259.00	149
52.00	870	125.00	125	187.00	1147	265.00	366
55.00	104	127.00	16114	188.00	76	273.00	452
56.00	694	128.00	1278	189.00	245	274.00	1364
57.00	1401	129.00	7685	191.00	169	275.00	7507
61.00	234	130.00	641	192.00	343	276.00	980
62.00	228	131.00	102	193.00	382	277.00	560
63.00	769	132.00	55	194.00	50	278.00	53
65.00	346	134.00	175	196.00	769	281.00	115
69.00	23272	135.00	623	198.00	32584	285.00	126
70.00	139	136.00	198	199.00	2222	293.00	126
73.00	544	137.00	252	200.00	92	296.00	1942
74.00	2068	138.00	81	201.00	88	297.00	298
75.00	2910	141.00	997	203.00	202	303.00	231
76.00	960	142.00	297	204.00	994	315.00	219
77.00	16304	143.00	160	205.00	1603	316.00	61
78.00	1145	146.00	106	206.00	7073	323.00	643
79.00	1706	147.00	529	207.00	1494	324.00	159
80.00	1034	148.00	1250	208.00	426	327.00	120
81.00	1496	149.00	192	209.00	136	334.00	413
82.00	357	151.00	61	210.00	141	335.00	56
83.00	244	152.00	50	211.00	264	341.00	54
85.00	246	153.00	284	215.00	73	346.00	119
86.00	475	154.00	196	217.00	2146	352.00	207
87.00	98	155.00	466	218.00	220	353.00	152
88.00	67	156.00	603	221.00	1481	354.00	186

Data File: /chem/BNAMS7.i/625/06-08-02/08jun02.b/11473.d

Date : 08-JUN-2002 13:08

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT159

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: 11473.d

Spectrum: Average Spectrum: 7.487 to 7.507 min.

Location of Maximum: 198.00

Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	367	157.00	83	223.00	427	365.00	733
92.00	377	158.00	112	224.00	3912	366.00	56
93.00	2543	159.00	93	225.00	972	372.00	347
94.00	168	160.00	280	227.00	1910	383.00	58
96.00	61	161.00	334	228.00	291	402.00	153
98.00	1990	162.00	69	229.00	333	403.00	204
99.00	1419	165.00	334	231.00	92	421.00	172
100.00	60	166.00	237	234.00	70	423.00	1269
101.00	664	167.00	1740	235.00	133	424.00	301
103.00	321	168.00	897	236.00	52	441.00	3429
104.00	531	169.00	88	237.00	61	442.00	23816
105.00	514	170.00	50	241.00	53	443.00	4589
107.00	5120	172.00	156	242.00	222	444.00	434
108.00	786	173.00	104	243.00	220		

Data File: /chem/BNAMS7.i/625/06-08-02/08jun02.b/11473.d

Date : 08-JUN-2002 13:08

Client ID:

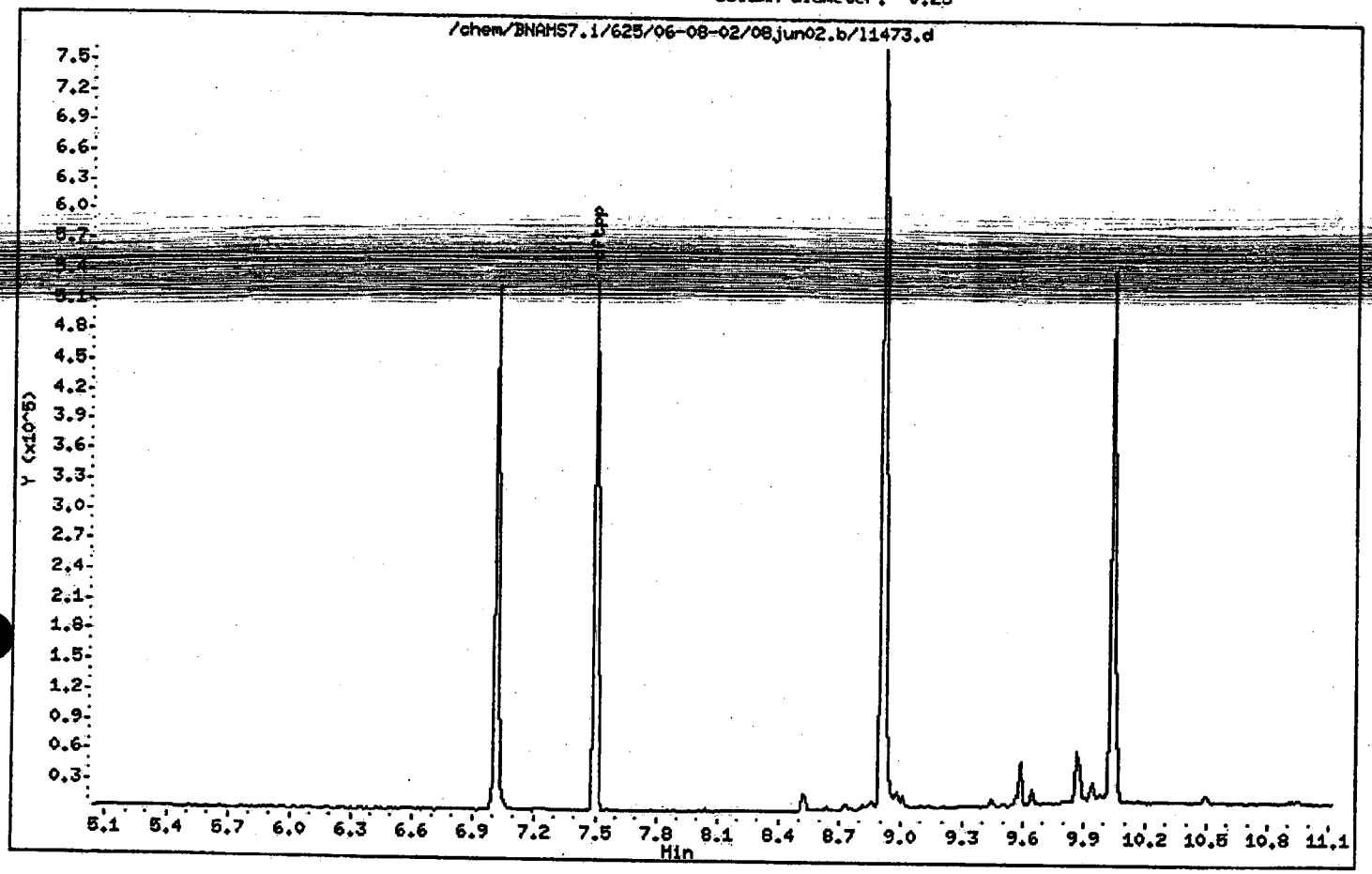
Instrument: BNAMS7.i

Sample Info: LDFT159

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



X147

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: L1527

DFTPP Injection Date: 06/10/02

Instrument ID: BNAMS7

DFTPP Injection Time: 1019

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.4
68	Less than 2.0% of mass 69	0.5 (0.7)1
69	Mass 69 relative abundance	72.7
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	50.3
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	24.1
365	Greater than 1.0% of mass 198	2.43
441	0.0 - 100.0% of mass 443	9.3 (77.0)2
442	40.0 - 110.0% of mass 198	62.6
443	17.0 - 23.0% of mass 442	12.1 (19.3)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	LSTD161	LSTD161	L1528	06/10/02	1047
02	MW-19-6	354696	L1537	06/10/02	1835
03	MW-19-9D	354697	L1538	06/10/02	1926
04	MW-19-8	354698	L1540	06/10/02	2106
05	MW-19-7	354699	L1541	06/10/02	2156
06	MW-19-2	354701	L1542	06/10/02	2246
07	MW-19-1	354702	L1543	06/10/02	2336
08	MW-19-3	354703	L1544	06/11/02	0025
09	FB01	354704	L1545	06/11/02	0115
10	MW-19-4	354706	L1546	06/11/02	0204
11	GEI-2I	354708	L1547	06/11/02	0254
12	GEI-2S	354709	L1548	06/11/02	0343
13					
14					
15					
16					
17					
18					

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11527.d

Date : 10-JUN-2002 10:19

Client ID:

Instrument: BNAMS7.i

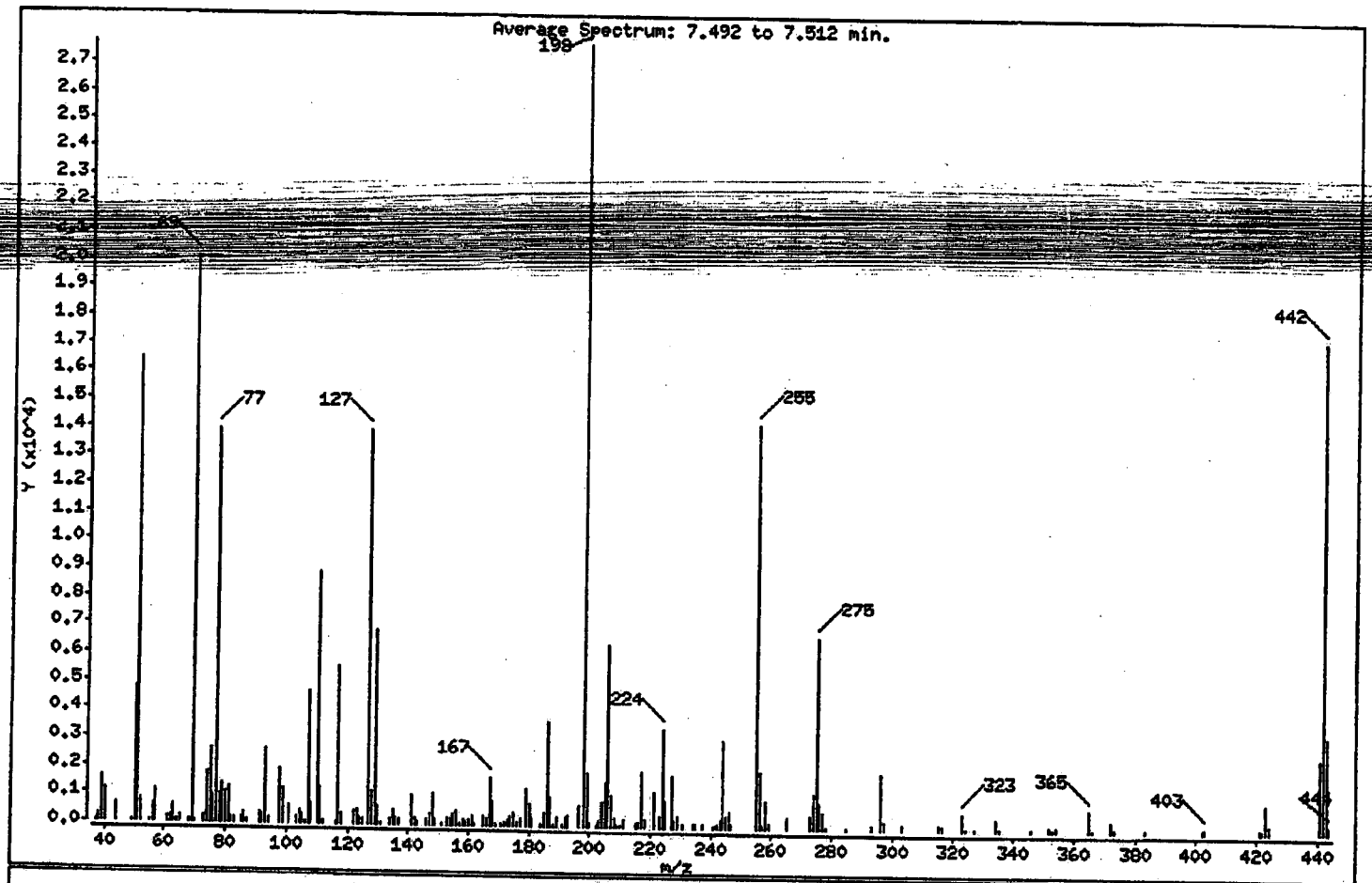
Sample Info: LDFT161

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/z	BFB ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.42
68	Less than 2.00% of mass 69	0.49 (0.68)
69	Mass 69 relative abundance	72.66
70	Less than 2.00% of mass 69	0.23 (0.32)
127	40.00 - 60.00% of mass 198	50.33
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 30.00% of mass 198	24.11
365	Greater than 1.00% of mass 198	2.43
441	0.01 - 100.00% of mass 443	9.30 (77.00)
442	40.00 - 110.00% of mass 198	62.59
443	17.00 - 23.00% of mass 442	12.07 (19.28)

X147

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1527.d

Date : 10-JUN-2002 10:19

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT161

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: l1527.d

Spectrum: Average Spectrum: 7.492 to 7.512 min.

Location of Maximum: 198.00

Number of points: 187

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	83	110.00	8863	176.00	139	245.00	391
38.00	277	111.00	1274	177.00	267	246.00	683
39.00	1566	112.00	157	179.00	1267	247.00	139
40.00	1122	116.00	79	180.00	783	255.00	14234
44.00	668	117.00	5555	181.00	274	256.00	1983
49.00	89	118.00	380	184.00	56	257.00	157
50.00	4796	122.00	453	185.00	440	258.00	967
51.00	16456	123.00	522	186.00	3666	259.00	162
52.00	816	124.00	246	187.00	1007	265.00	355
55.00	94	125.00	165	188.00	62	273.00	417
56.00	638	127.00	13942	189.00	290	274.00	1184
57.00	1148	128.00	1162	191.00	90	275.00	6679
61.00	195	129.00	6844	192.00	334	276.00	869
62.00	254	130.00	628	193.00	399	277.00	555
63.00	654	131.00	61	196.00	681	278.00	61
64.00	97	134.00	179	198.00	27696	285.00	50
65.00	253	135.00	538	199.00	1864	293.00	115
68.00	136	136.00	226	200.00	134	296.00	1917
69.00	20120	137.00	218	202.00	59	297.00	225
70.00	64	141.00	1008	203.00	201	303.00	177
73.00	284	142.00	276	204.00	856	315.00	181
74.00	1775	143.00	104	205.00	1512	316.00	114
75.00	2615	146.00	196	206.00	6378	323.00	568
76.00	939	147.00	393	207.00	1061	324.00	66
77.00	13907	148.00	1111	208.00	294	327.00	73
78.00	1040	149.00	189	209.00	69	334.00	353
79.00	1413	151.00	78	210.00	69	335.00	64
80.00	1080	153.00	262	211.00	277	346.00	67
81.00	1269	154.00	181	215.00	110	352.00	155
82.00	216	155.00	409	216.00	162	353.00	58
83.00	211	156.00	527	217.00	1941	354.00	97
85.00	219	157.00	84	218.00	264	365.00	672
86.00	406	158.00	169	221.00	1209	366.00	80
87.00	100	159.00	127	223.00	392	372.00	307
91.00	374	160.00	188	224.00	3430	373.00	51

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/l1527.d

Date : 10-JUN-2002 10:19

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT161

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: l1527.d

Spectrum: Average Spectrum: 7.492 to 7.512 min.

Location of Maximum: 198.00

Number of points: 187

m/z	Y	m/z	Y	m/z	Y	m/z	Y
92.00	294	161.00	315	225.00	886	383.00	64
93.00	2592	162.00	65	227.00	1806	402.00	71
94.00	171	165.00	311	228.00	251	403.00	108
98.00	1897	166.00	227	229.00	371	421.00	97
99.00	1244	167.00	1644	231.00	123	422.00	73
101.00	609	168.00	811	234.00	124	423.00	935
103.00	230	169.00	68	235.00	147	424.00	227
104.00	437	171.00	57	237.00	124	441.00	2575
105.00	332	172.00	146	241.00	50	442.00	17336
106.00	91	173.00	160	242.00	152	443.00	3344
107.00	4634	174.00	300	243.00	232	444.00	271
108.00	707	175.00	463	244.00	3061		

Data File: /chem/BNAMS7.i/625/06-08-02/10jun02.b/11527.d

Date : 10-JUN-2002 10:19

Client ID:

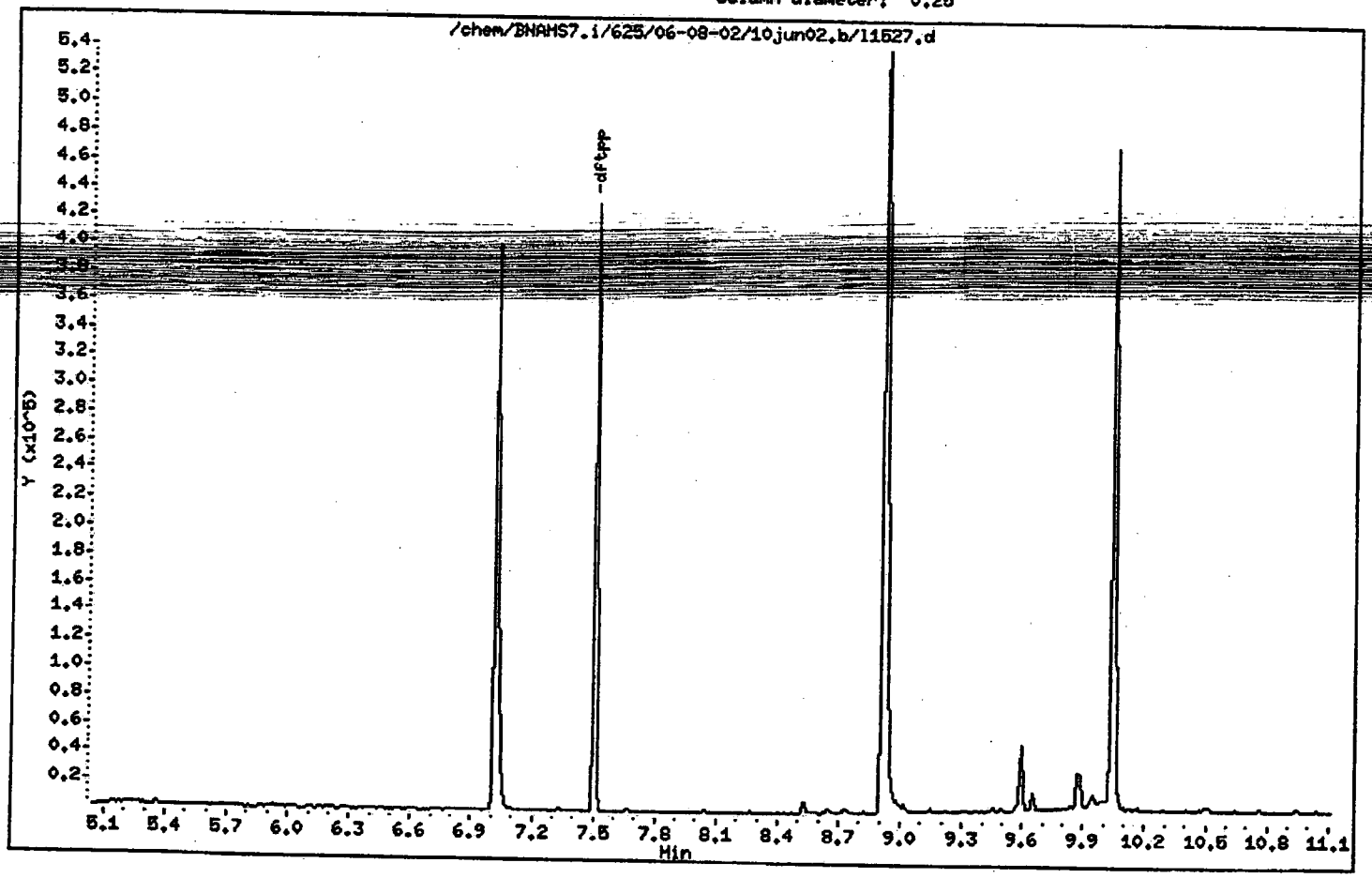
Instrument: BNAMS7.i

Sample Info: LDFT161

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: L1563

DFTPP Injection Date: 06/11/02

Instrument ID: BNAMS7

DFTPP Injection Time: 1803

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	71.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	47.4
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	7.6
275	10.0 - 30.0% of mass 198	27.6
365	Greater than 1.0% of mass 198	3.17
441	0.0 - 100.0% of mass 443	8.0 (63.9)2
442	40.0 - 110.0% of mass 198	64.3
443	17.0 - 23.0% of mass 442	12.5 (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	LSTD050	LSTD050	L1564	06/11/02	1825
02	LSTD120	LSTD120	L1565	06/11/02	1916
03	LSTD010	LSTD010	L1566	06/11/02	2007
04	LSTD080	LSTD080	L1567	06/11/02	2058
05	LSTD020	LSTD020	L1568	06/11/02	2150
06	MW-19-5	354700	L1571	06/12/02	0024
07	DUP-1	354705	L1572	06/12/02	0116
08	MW-19	354707	L1573	06/12/02	0207
09	MW-19MS	354707MS	L1574	06/12/02	0258
10	MW-19MSD	354707MSD	L1575	06/12/02	0349
11	SW-5-1	354711	L1577	06/12/02	0531
12	SW-7-1	354713	L1579	06/12/02	0711
13					
14					
15					
16					
17					
18					

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11563.d

Date : 11-JUN-2002 18:03

Client ID:

Instrument: BNAMS7.i

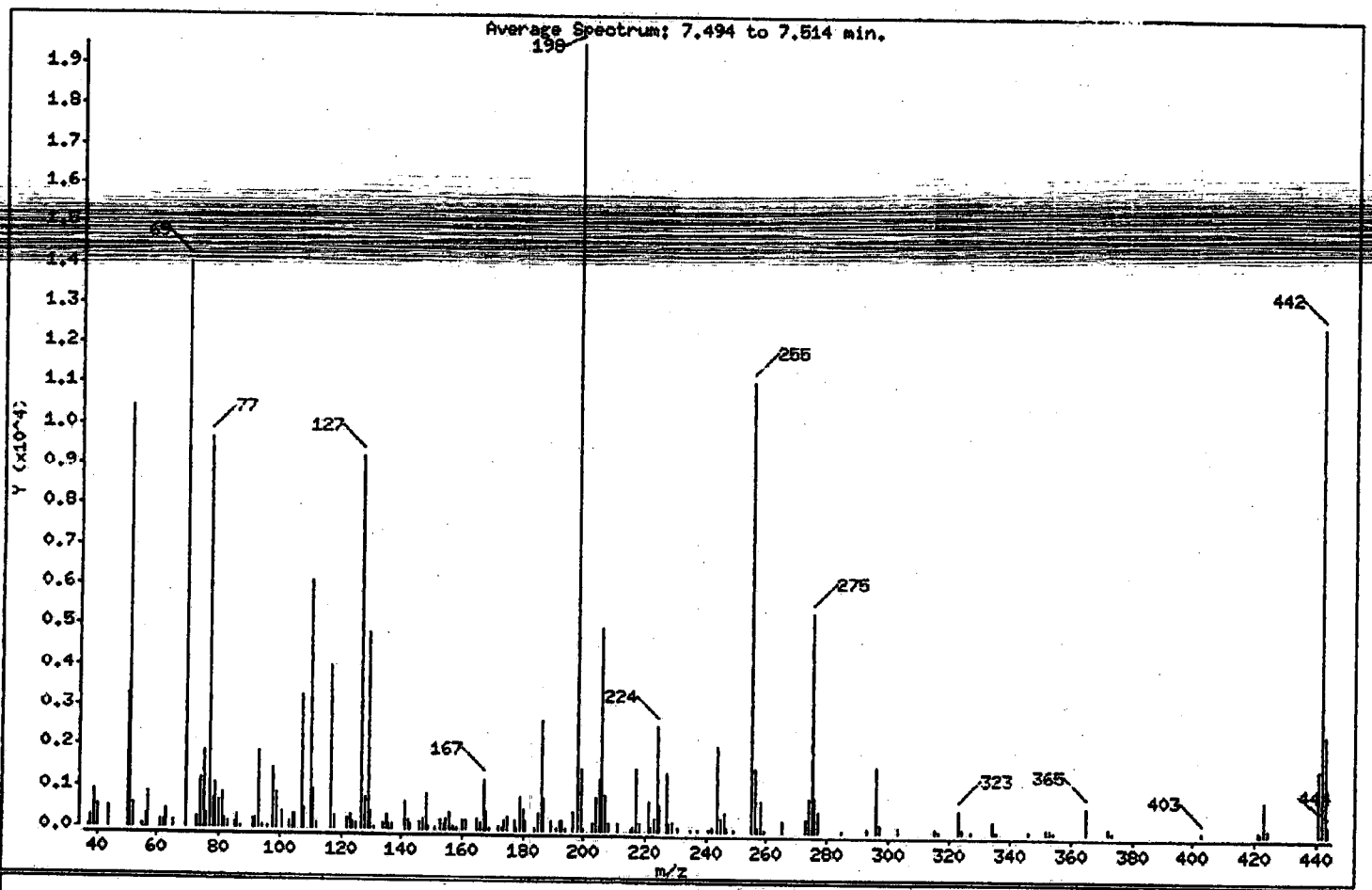
Sample Info: LDFT162

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.61
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	71.85
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	47.45
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.56
275	10.00 - 30.00% of mass 198	27.55
365	Greater than 1.00% of mass 198	3.17
441	0.01 - 100.00% of mass 443	7.96 (63.89)
442	40.00 - 110.00% of mass 198	64.35
443	17.00 - 23.00% of mass 442	12.46 (19.37)

X147

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11563.d

Date : 11-JUN-2002 18:03

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT162

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: 11563.d

Spectrum: Average Spectrum: 7.494 to 7.514 min.

Location of Maximum: 198.00

Number of points: 172

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	57	111.00	958	179.00	823	249.00	56
38.00	251	112.00	150	180.00	478	255.00	11112
39.00	910	117.00	3994	181.00	222	256.00	1530
40.00	548	118.00	311	184.00	52	257.00	86
44.00	490	122.00	262	185.00	386	258.00	782
50.00	3282	123.00	344	186.00	2678	259.00	59
51.00	10447	124.00	166	187.00	761	265.00	252
52.00	584	125.00	128	189.00	224	273.00	309
55.00	95	127.00	9247	191.00	63	274.00	786
56.00	336	128.00	764	192.00	242	275.00	5369
57.00	830	129.00	4846	193.00	229	276.00	859
61.00	164	130.00	427	194.00	53	277.00	473
62.00	194	131.00	58	196.00	459	285.00	65
63.00	433	134.00	155	198.00	19488	293.00	80
65.00	190	135.00	356	199.00	1474	296.00	1581
69.00	14002	136.00	146	200.00	56	297.00	197
73.00	267	137.00	154	203.00	172	303.00	127
74.00	1211	141.00	650	204.00	822	315.00	103
75.00	1880	142.00	230	205.00	1241	316.00	63
76.00	350	143.00	149	206.00	4955	323.00	516
77.00	9670	146.00	163	207.00	839	324.00	70
78.00	739	147.00	275	208.00	197	327.00	63
79.00	1072	148.00	832	211.00	167	334.00	274
80.00	681	149.00	102	215.00	67	335.00	53
81.00	862	151.00	50	216.00	83	346.00	60
82.00	211	153.00	239	217.00	1470	352.00	87
83.00	183	154.00	130	218.00	169	353.00	83
85.00	148	155.00	257	221.00	726	354.00	62
86.00	335	156.00	412	222.00	76	365.00	618
87.00	56	157.00	111	223.00	294	372.00	155
91.00	242	158.00	61	224.00	2558	373.00	53
92.00	239	160.00	212	225.00	628	403.00	65
93.00	1899	161.00	243	227.00	1410	421.00	78
94.00	83	165.00	281	228.00	159	422.00	63
96.00	51	166.00	177	229.00	216	423.00	808

Data File: /ohem/BNAMS7.i/625/06-11-02/11jun02.b/11563.d

Date : 11-JUN-2002 18:03

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT162

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: 11563.d

Spectrum: Average Spectrum: 7.494 to 7.514 min.

Location of Maximum: 198.00

Number of points: 172

m/z	Y	m/z	Y	m/z	Y	m/z	Y
98.00	1429	167.00	1229	231.00	79	424.00	128
99.00	848	168.00	455	235.00	54	441.00	1552
101.00	410	169.00	53	237.00	51	442.00	12540
103.00	173	172.00	71	241.00	53	443.00	2429
104.00	367	173.00	54	242.00	75	444.00	228
105.00	350	174.00	219	244.00	2063		
107.00	3265	175.00	335	245.00	324		
108.00	490	177.00	238	246.00	427		
110.00	6087	178.00	55	247.00	79		

Data File: /chem/BNAMS7.i/625/06-11-02/11jun02.b/11563.d

Date : 11-JUN-2002 18:03

Client ID:

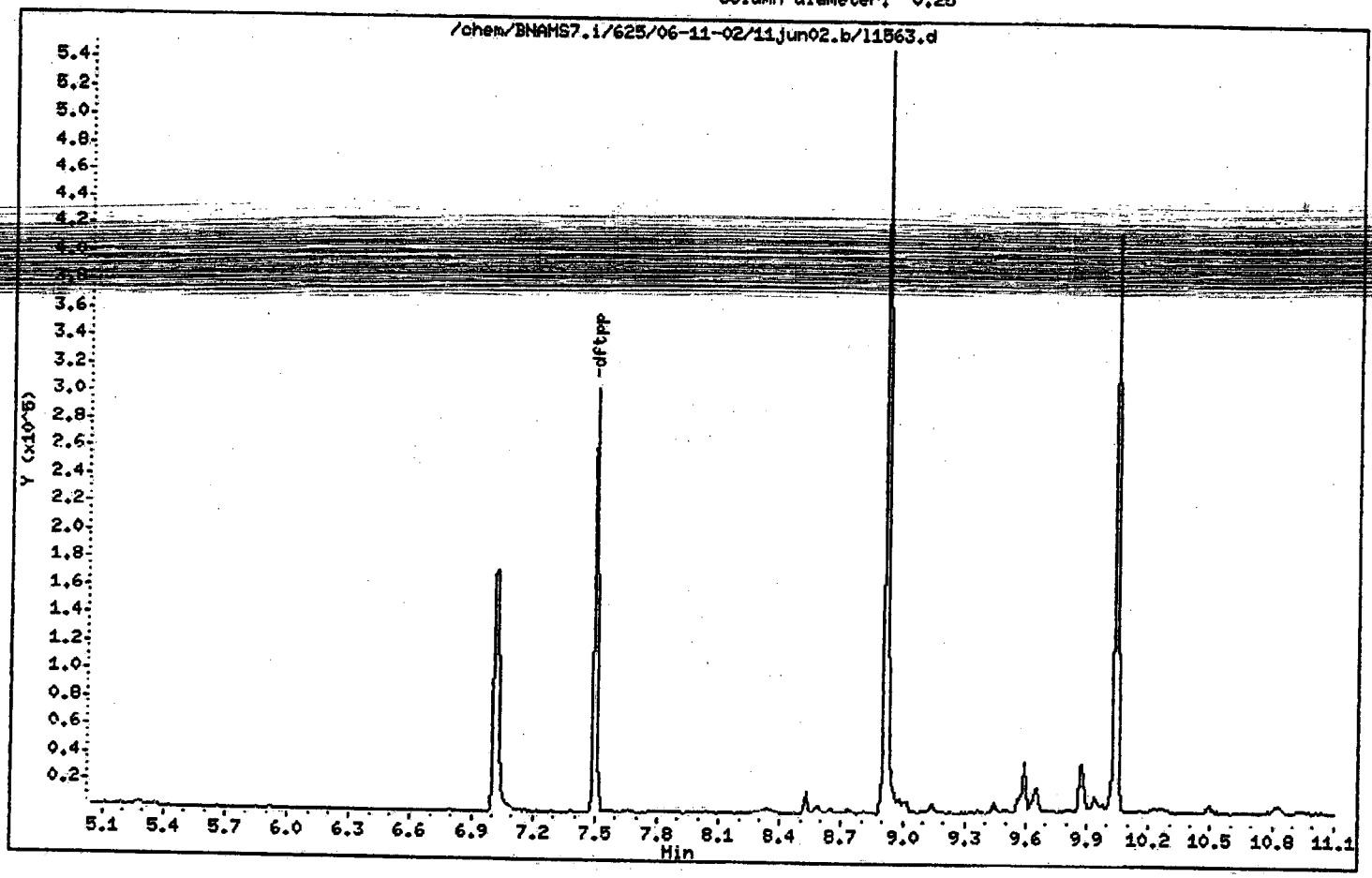
Instrument: BNAMS7.i

Sample Info: LDFT162

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



X147

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: L1592

DFTPP Injection Date: 06/12/02

Instrument ID: BNAMS7

DFTPP Injection Time: 1802

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 60.0% of mass 198	55.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	73.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	49.2
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	24.4
365	Greater than 1.0% of mass 198	2.64
441	0.0 - 100.0% of mass 443	2.1 (20.4)2
442	40.0 - 110.0% of mass 198	52.2
443	17.0 - 23.0% of mass 442	10.5 (20.1)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	LSTD163	LSTD163	L1593	06/12/02	1824
02	SW-8-1	354712	L1595	06/12/02	2018
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

Data File: /ohem/BNAMS7.i/625/06-11-02/12jun02.b/11592.d

Date : 12-JUN-2002 18:02

Client ID:

Instrument: BNAMS7.i

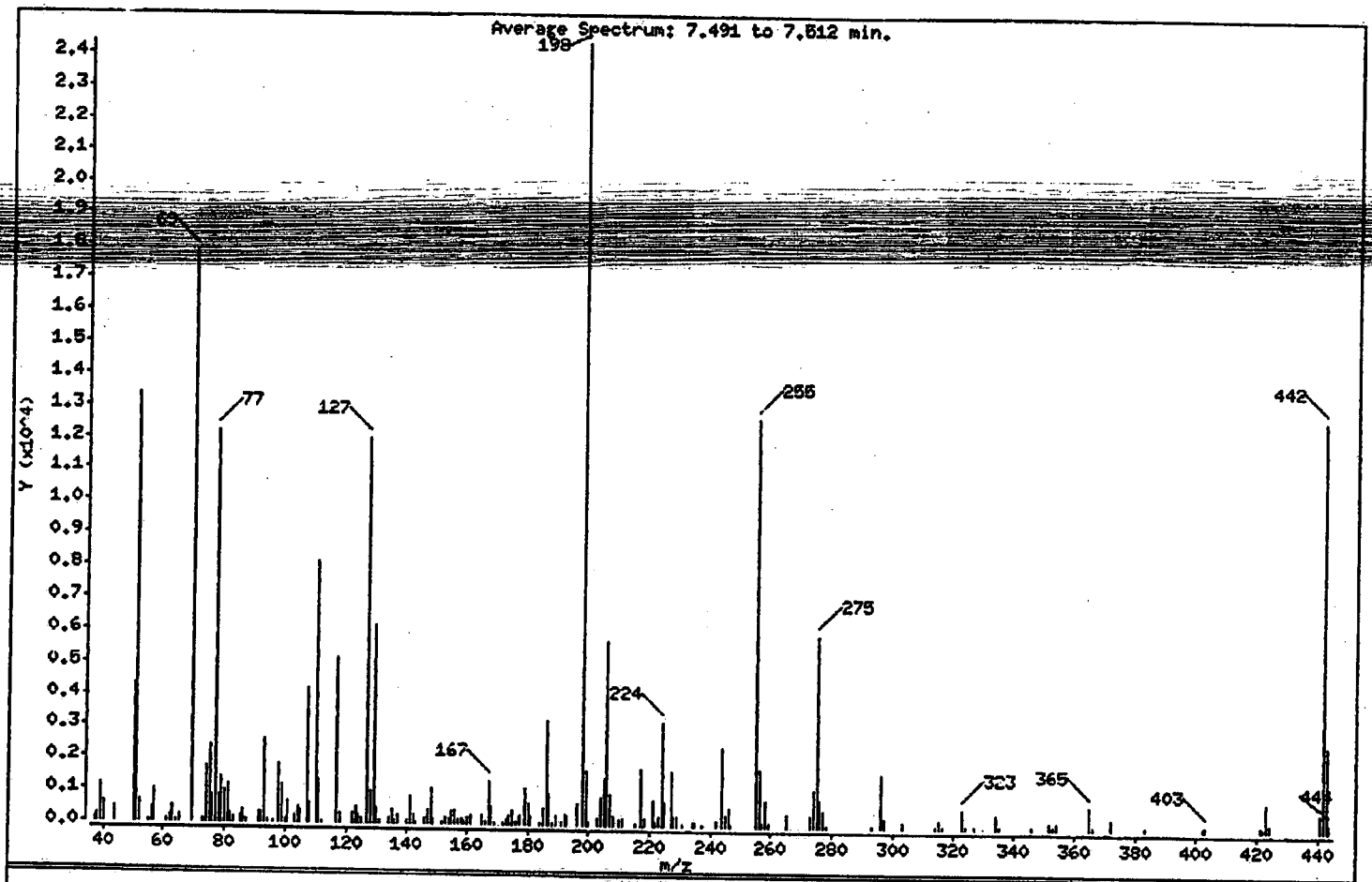
Sample Info: LDFT163

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.02
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	73.04
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	49.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	24.42
365	Greater than 1.00% of mass 198	2.64
441	0.01 - 100.00% of mass 443	2.15 (20.44)
442	40.00 - 110.00% of mass 198	52.24
443	17.00 - 23.00% of mass 442	10.51 (20.12)

X147

Data File: /chem/BNAMS7.i/625/06-11-02/12jun02.b/l1592.d

Date : 12-JUN-2002 18:02

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT163

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: l1592.d

Spectrum: Average Spectrum: 7.491 to 7.512 min.

Location of Maximum: 198.00

Number of points: 178

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	131	110.00	5140	176.00	115	247.00	54
38.00	199	111.00	1325	177.00	289	255.00	12633
39.00	1173	112.00	56	179.00	1122	256.00	1756
40.00	613	117.00	5155	180.00	675	257.00	98
44.00	469	118.00	361	181.00	259	258.00	760
50.00	4331	122.00	334	184.00	58	259.00	134
51.00	13399	123.00	514	185.00	516	265.00	394
52.00	655	124.00	265	186.00	3253	273.00	345
55.00	78	125.00	190	187.00	954	274.00	1125
56.00	445	127.00	11991	188.00	56	275.00	5947
57.00	1009	128.00	1005	189.00	265	276.00	864
61.00	135	129.00	6162	191.00	113	277.00	524
62.00	238	130.00	478	192.00	338	278.00	50
63.00	484	131.00	113	193.00	264	293.00	58
64.00	65	134.00	169	196.00	645	296.00	1648
65.00	213	135.00	445	198.00	24344	297.00	253
69.00	17784	136.00	138	199.00	1685	303.00	182
73.00	136	137.00	269	200.00	128	314.00	70
74.00	1761	140.00	110	203.00	205	315.00	199
75.00	2425	141.00	833	204.00	846	316.00	53
76.00	841	142.00	273	205.00	1456	323.00	547
77.00	12181	143.00	77	206.00	5696	324.00	57
78.00	866	146.00	148	207.00	955	327.00	70
79.00	1407	147.00	425	208.00	281	334.00	393
80.00	1028	148.00	1092	210.00	176	335.00	57
81.00	1182	149.00	182	211.00	236	346.00	78
82.00	270	152.00	53	215.00	55	352.00	164
83.00	145	153.00	246	217.00	1724	353.00	76
85.00	219	154.00	165	218.00	223	354.00	153
86.00	408	155.00	396	221.00	802	365.00	644
87.00	133	156.00	462	222.00	121	366.00	60
91.00	313	157.00	146	223.00	306	372.00	271
92.00	346	158.00	144	224.00	3168	383.00	56
93.00	2580	159.00	130	225.00	749	402.00	72
94.00	136	160.00	221	227.00	1678	403.00	114

Data File: /chem/BNAMS7.i/625/06-11-02/12jun02.b/11592.d

Date : 12-JUN-2002 18:02

Client ID:

Instrument: BNAMS7.i

Sample Info: LDFT163

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: 11592.d

Spectrum: Average Spectrum: 7.491 to 7.512 min.

Location of Maximum: 198.00

Number of points: 178

m/z	Y	m/z	Y	m/z	Y	m/z	Y
96.00	53	161.00	287	228.00	257	421.00	89
98.00	1772	165.00	274	229.00	272	422.00	79
99.00	1154	166.00	97	231.00	59	423.00	837
100.00	133	167.00	1333	234.00	138	424.00	181
101.00	652	168.00	585	235.00	112	441.00	523
103.00	211	169.00	65	237.00	66	442.00	12720
104.00	483	172.00	71	242.00	164	443.00	2559
105.00	368	173.00	155	244.00	2416	444.00	239
107.00	4196	174.00	300	245.00	326		
108.00	617	175.00	457	246.00	565		

Data File: /chem/BNAMS7.i/625/06-11-02/12jun02.b/11592.d

Date : 12-JUN-2002 18:02

Client ID:

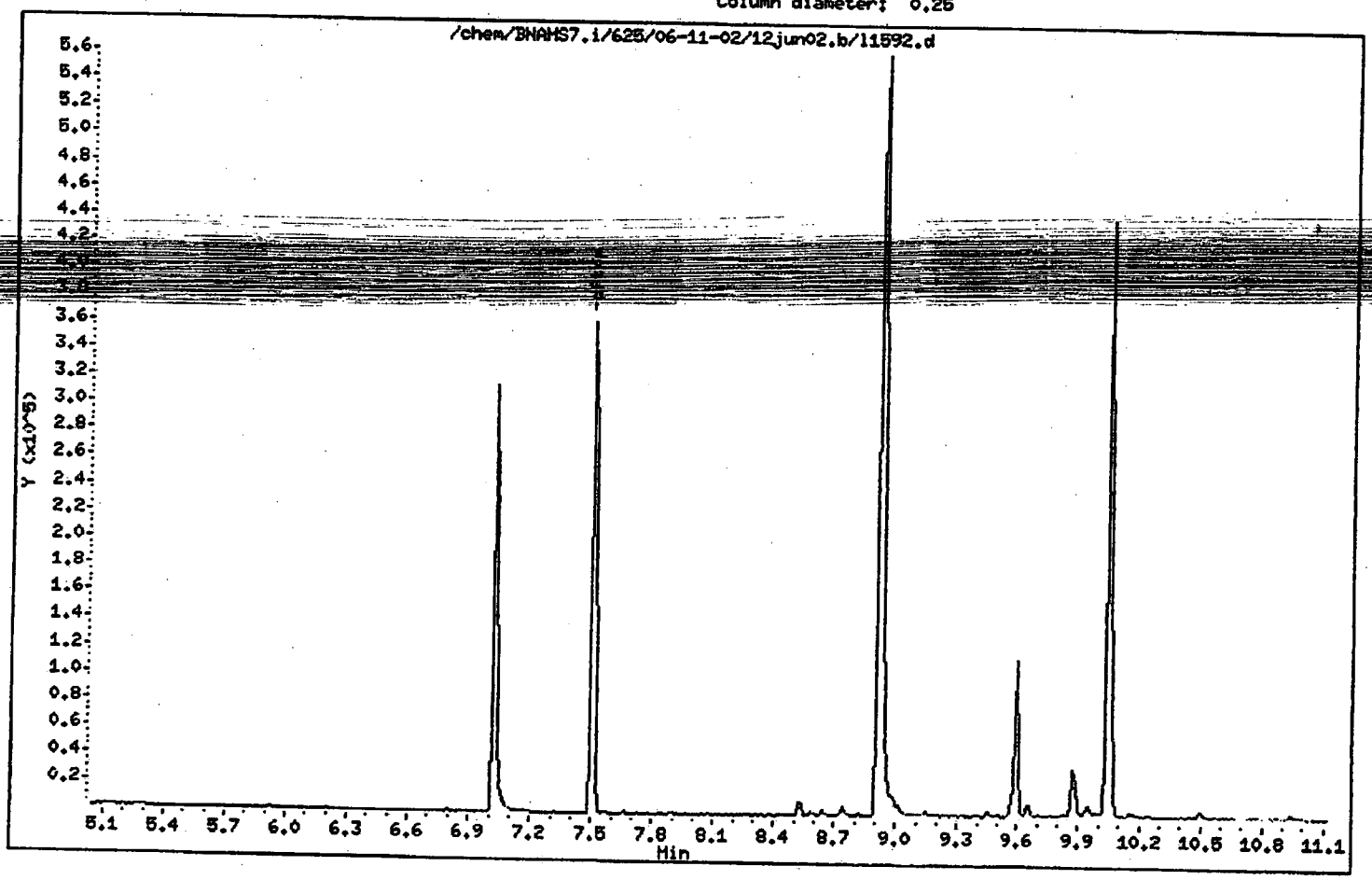
Instrument: BNAMS7.i

Sample Info: LDFT163

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



X147

Method Blank Results Summary

SEMIVOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

WB158

Matrix: WATER

Level: LOW

Instrument ID: BNAMS5

Date Analyzed: 06/07/02

Time Analyzed: 1543

Lab File ID: Q7606

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	DATE ANALYZED
01	~~MW-19-6~~	~~354696~~	~~L1537~~	~~06/10/02~~
02	~~MW-19-9D~~	~~354697~~	~~L1538~~	~~06/10/02~~
03	MW-19-8	354698	L1540	06/10/02
04	MW-19-7	354699	L1541	06/10/02
05	MW-19-2	354701	L1542	06/10/02
06	MW-19-1	354702	L1543	06/10/02
07	MW-19-3	354703	L1544	06/11/02
08	FB01	354704	L1545	06/11/02
09	MW-19-4	354706	L1546	06/11/02
10	GEI-2I	354708	L1547	06/11/02
11	GEI-2S	354709	L1548	06/11/02
12	MW-19-5	354700	L1571	06/12/02
13	DUP-1	354705	L1572	06/12/02
14	MW-19	354707	L1573	06/12/02
15	MW-19MS	354707MS	L1574	06/12/02
16	MW-19MSD	354707MSD	L1575	06/12/02
17	SW-5-1	354711	L1577	06/12/02
18	SW-7-1	354713	L1579	06/12/02
19	SW-8-1	354712	L1595	06/12/02
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 1 of 1

Client ID: WB158
Site:

Lab Sample No: WB158
Lab Job No: X147

Date Sampled: _____
Date Received: _____
Date Extracted: 06/07/02
Date Analyzed: 06/07/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7606.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	0.6
bis(2-Chloroethyl)ether	ND	0.6
1,3-Dichlorobenzene	ND	0.8
1,4-Dichlorobenzene	ND	0.8
1,2-Dichlorobenzene	ND	0.8
bis(2-chloroisopropyl)ether	ND	0.5
N-Nitroso-di-n-propylamine	ND	1.2
Hexachloroethane	ND	0.9
Nitrobenzene	ND	0.8
Isophorone	ND	0.2
bis(2-Chloroethoxy)methane	ND	0.6
1,2,4-Trichlorobenzene	ND	0.8
Naphthalene	ND	0.6
4-Chloroaniline	ND	1.3
Hexachlorobutadiene	ND	1.1
2-Methylnaphthalene	ND	0.8
Hexachlorocyclopentadiene	ND	1.7
2-Chloronaphthalene	ND	0.8
2-Nitroaniline	ND	0.5
Dimethylphthalate	ND	0.5
Acenaphthylene	ND	0.6
2,6-Dinitrotoluene	ND	0.4
3-Nitroaniline	ND	0.3
Acenaphthene	ND	0.6
Dibenzofuran	ND	0.7
2,4-Dinitrotoluene	ND	0.2
Diethylphthalate	ND	0.4
4-Chlorophenyl-phenylether	ND	0.8
Fluorene	ND	0.6
4-Nitroaniline	ND	0.6
N-Nitrosodiphenylamine	ND	0.5
4-Bromophenyl-phenylether	ND	1.9
Hexachlorobenzene	ND	1.1
Phenanthrene	ND	0.5

Client ID: **WB158**
Site:

Lab Sample No: **WB158**
Lab Job No: X147

Date Sampled: _____
Date Received: _____
Date Extracted: 06/07/02
Date Analyzed: 06/07/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7606.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	0.4
Carbazole	ND	1.1
Di-n-butylphthalate	ND	0.4
Fluoranthene	ND	0.4
Pyrene	ND	0.4
Benzidine	ND	25
Butylbenzylphthalate	ND	0.4
3,3'-Dichlorobenzidine	ND	1.3
Benzo(a)anthracene	ND	0.4
Chrysene	ND	0.5
bis(2-Ethylhexyl)phthalate	ND	0.4
Di-n-octylphthalate	ND	0.1
Benzo(b)fluoranthene	ND	0.3
Benzo(k)fluoranthene	ND	0.8
Benzo(a)pyrene	ND	0.2
Indeno(1,2,3-cd)pyrene	ND	0.1
Dibenz(a,h)anthracene	ND	0.6
Benzo(g,h,i)perylene	ND	0.4
Pyridine	ND	0.6
Aniline	ND	0.6
Benzyl Alcohol	ND	0.3
1,2-Diphenylhydrazine	ND	0.4
Diphenyl	ND	1.0
Acetophenone	ND	0.8
1,4-Dioxane	ND	0.6
Benzaldehyde	ND	0.9
Caprolactum	ND	0.5
Atrazine	ND	0.7

Client ID: WB158
Site:

Lab Sample No: WB158
Lab Job No: X147

Date Sampled: _____
Date Received: _____
Date Extracted: 06/07/02
Date Analyzed: 06/07/02
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7606.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. Unknown	11.06	11	
2. Unknown	12.19	15	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
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28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 26

Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7606.d
Report Date: 09-Jun-2002 06:33

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7606.d
Lab Smp Id: WB158 Client Smp ID: BNA
Inj Date : 07-JUN-2002 15:43
Operator : BNAMS 5 Inst ID: BNAMS5.i
Smp Info : WB158;1000;2;1;
Misc Info : WB158;BNA;;;
Comment :
Method : /chem/BNAMS5.i/625/06-04-02/07jun02.b/bnm625b.m
Meth Date : 07-Jun-2002 10:22 ferdie Quant Type: ISTD
Cal Date : 04-JUN-2002 16:02 Cal File: q7520.d
Als bottle: 13 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allBNb.sub
Target Version: 3.50
Processing Host: hpd1

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

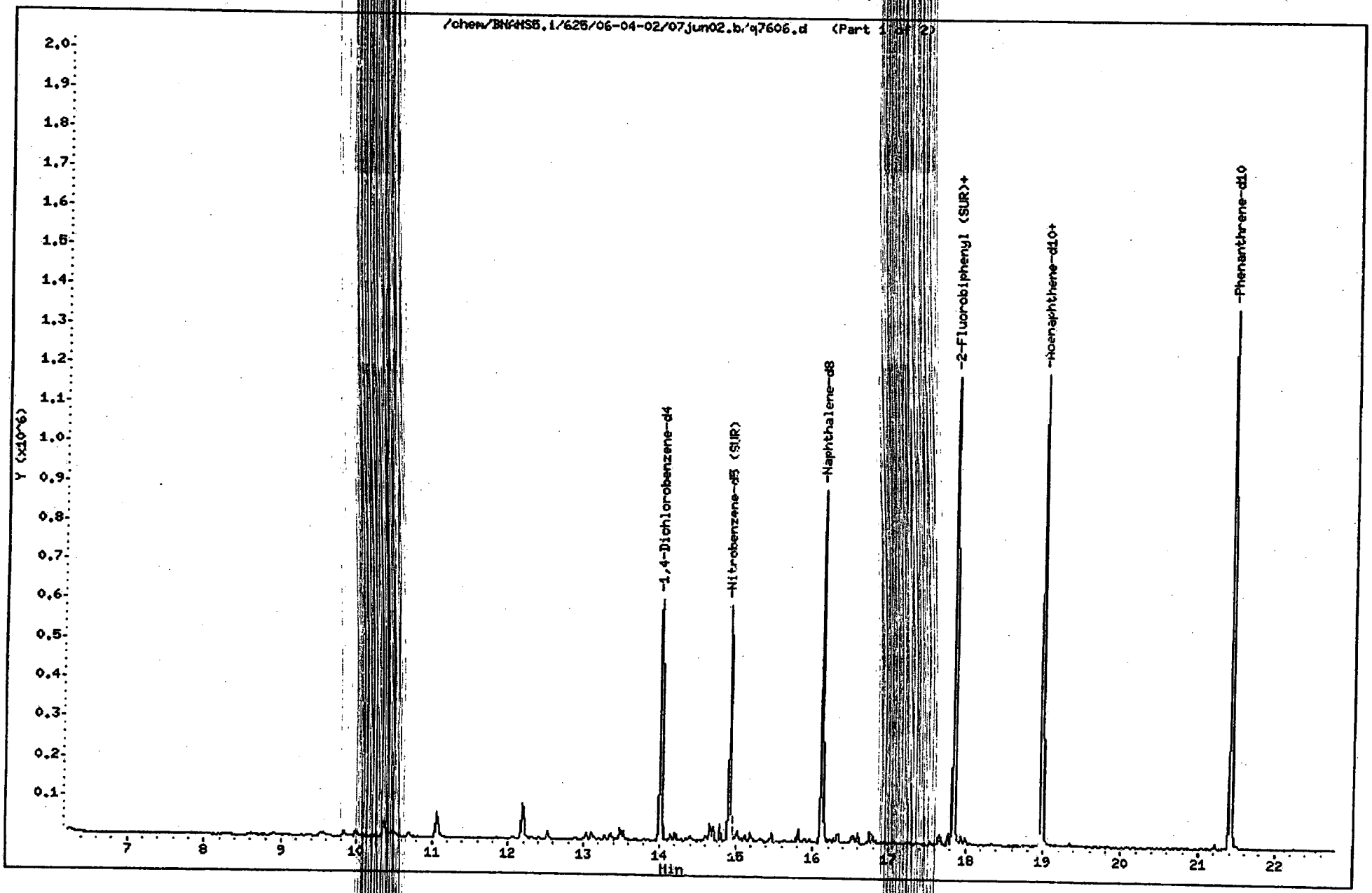
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

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	14.019	14.027	(1.000)	163810	40.0000	
$ 78 Nitrobenzene-d5 (SUR)	84	14.973	14.941	(0.926)	269125	42.2114	84
* 80 Naphthalene-d8	136	16.111	16.122	(1.000)	661126	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	17.844	17.852	(0.940)	600510	42.2967	84
* 82 Acenaphthene d10	164	18.983	18.991	(1.000)	444413	40.0000	
* 83 Phenanthrene-d10	188	21.422	21.430	(1.000)	876590	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	23.979	23.987	(0.923)	951590	51.2843	100
* 81 Chrysene d12	240	25.966	25.996	(1.000)	912543	40.0000	
* 84 Perylene d12	264	30.339	30.368	(1.000)	867387	40.0000	

Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7606.d
Date : 07-JUN-2002 15:43
Client ID: BNA
Sample Info: WB158;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS 5
Column diameter: 0.5



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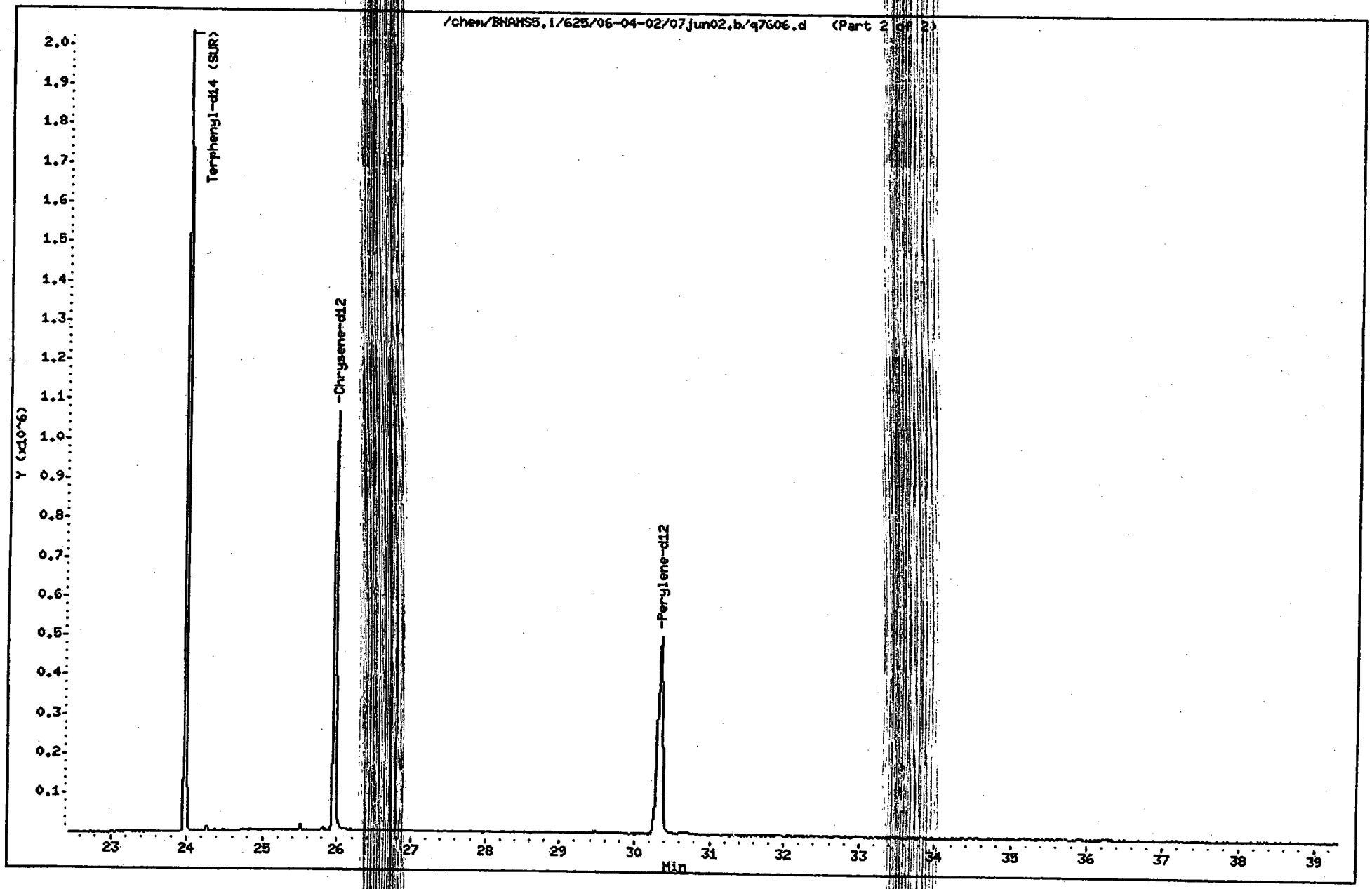
X147

Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7606.d
Date : 07-JUN-2002 15:43
Client ID: BNA
Sample Info: WB158;1000;2;1;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS 5
Column diameter: 0.53



Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7606.d

Date : 07-JUN-2002 15:43

Client ID: BNA

Instrument: BNAMS5.i

Sample Info: WB158;1000;2;1;

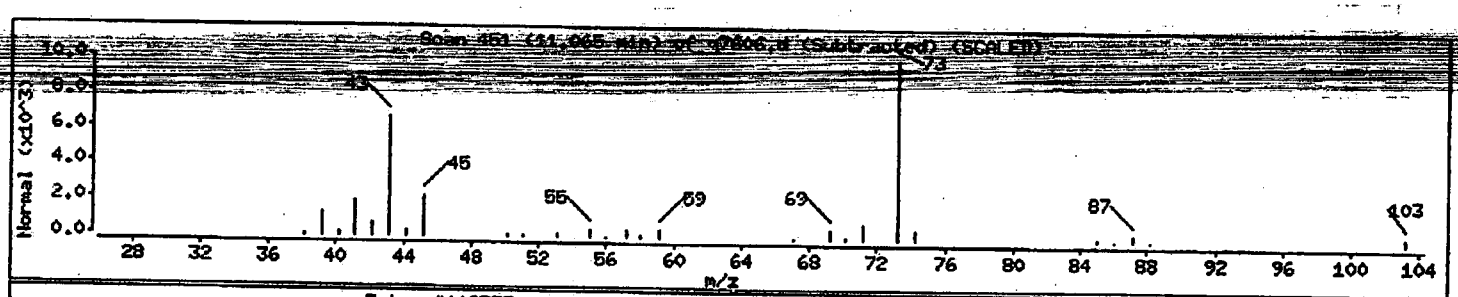
Purge Volume: 1000.0

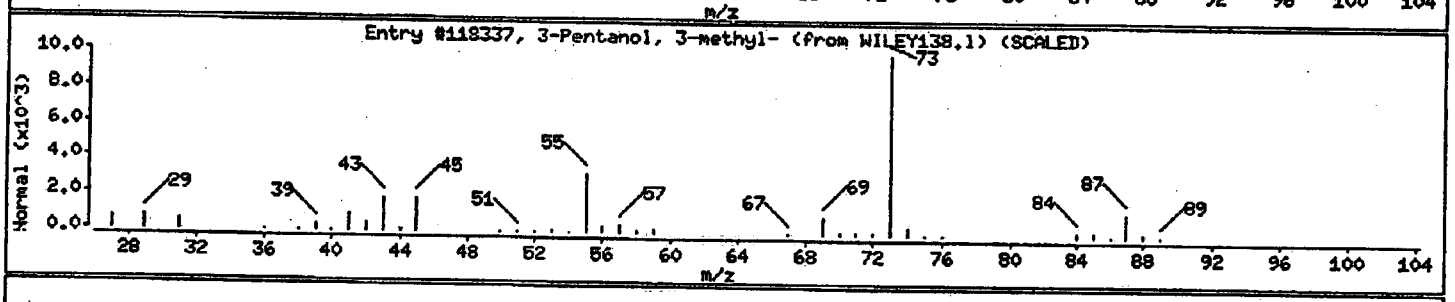
Operator: BNAMS 5

Column phase: DB-5

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Pentanol, 3-methyl-	77-74-7	WILEY138.1	118337	36	C6H14O	102





Data File: /chem/BNAMS5.i/625/06-04-02/07jun02.b/q7606.d

Date : 07-JUN-2002 15:43

Client ID: BNA

Instrument: BNAMS5.i

Sample Info: WB158;1000;2;1;

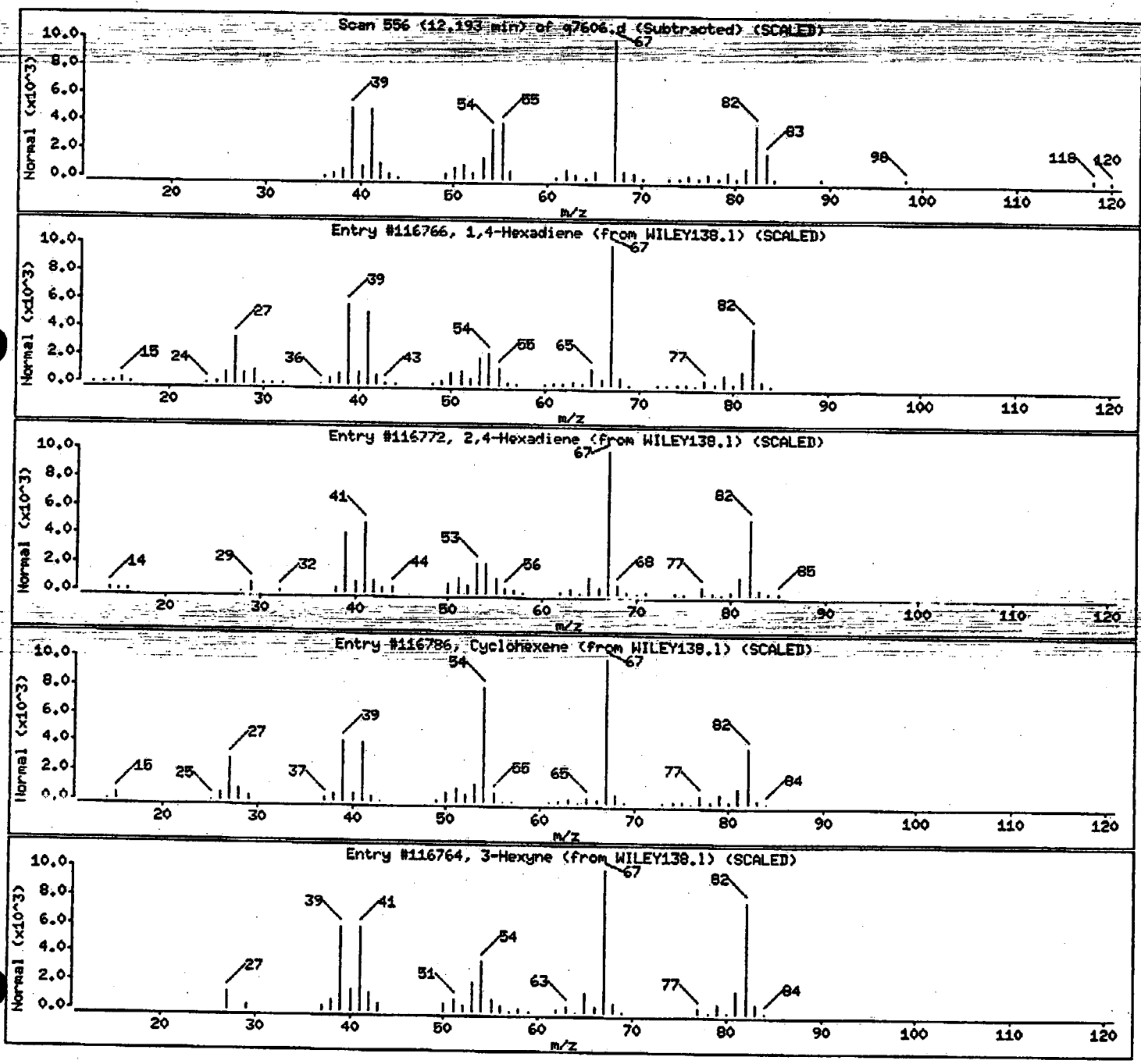
Purge Volume: 1000.0

Operator: BNAMS 5

Column phase: DB-5

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Hexadiene	592-45-0	WILEY138.1	116766	87	C6H10	82
2,4-Hexadiene	592-46-1	WILEY138.1	116772	80	C6H10	82
Cyclohexene	110-83-8	WILEY138.1	116786	74	C6H10	82
3-Hexyne	928-49-4	WILEY138.1	116764	74	C6H10	82



Calibration Summary

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

LAB FILE ID: RRF10: Q7520 RRF20: Q7519 RRF50: Q7515
RRF80: Q7518 RRF120: Q7516

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Phenol	1.254	1.339	1.298	1.298	1.291
2-Chlorophenol	1.285	1.344	1.288	1.285	1.302
2-Methylphenol	1.035	1.076	1.012	0.948	0.949
4-Methylphenol	1.082	1.102	1.033	0.999	1.067
2-Nitrophenol	0.197	0.212	0.201	0.201	0.192
2,4-Dimethylphenol	0.297	0.322	0.300	0.290	0.288
2,4-Dichlorophenol	0.325	0.351	0.333	0.336	0.340
4-Chloro-3-methylphenol	0.312	0.340	0.321	0.318	0.318
2,4,6-Trichlorophenol	0.374	0.421	0.409	0.418	0.422
2,4,5-Trichlorophenol	0.404	0.439	0.458	0.468	0.475
2,4-Dinitrophenol	0.106	0.178	0.192	0.220	0.217
4-Nitrophenol	0.259	0.282	0.296	0.303	0.296
4,6-Dinitro-2-methylphenol	0.124	0.140	0.144	0.158	0.152
Pentachlorophenol	0.110	0.129	0.153	0.142	0.147
Benzoic Acid	0.105	0.146	0.163	0.156	0.177
N-Nitrosodimethylamine	0.486	0.509	0.529	0.574	0.584
bis(2-Chloroethyl)ether	1.140	1.103	1.052	1.026	1.006
1,3-Dichlorobenzene	1.518	1.467	1.420	1.389	1.387
1,4-Dichlorobenzene	1.532	1.488	1.460	1.422	1.400
1,2-Dichlorobenzene	1.490	1.431	1.407	1.386	1.360
bis(2-chloroisopropyl)ether	1.611	1.529	1.414	1.422	1.430
N-Nitroso-di-n-propylamine	0.896	0.900	0.889	0.902	0.962
Hexachloroethane	0.553	0.551	0.536	0.529	0.524
Nitrobenzene	0.498	0.492	0.464	0.495	0.492
Isophorone	0.696	0.699	0.654	0.664	0.654
bis(2-Chloroethoxy)methane	0.372	0.355	0.324	0.320	0.312
1,2,4-Trichlorobenzene	0.369	0.357	0.350	0.356	0.358
Naphthalene	1.012	0.994	0.941	0.926	0.918
4-Chloroaniline	0.446	0.435	0.434	0.381	0.375
Hexachlorobutadiene	0.228	0.222	0.212	0.220	0.214
2-Methylnaphthalene	0.724	0.717	0.680	0.658	0.675
Hexachlorocyclopentadiene	0.154	0.191	0.216	0.246	0.241
2-Chloronaphthalene	1.173	1.149	1.117	1.123	1.127
2-Nitroaniline	0.365	0.378	0.390	0.385	0.372
Dimethylphthalate	1.645	1.622	1.587	1.567	1.572
Acenaphthylene	1.931	1.867	1.832	1.805	1.862
2,6-Dinitrotoluene	0.351	0.368	0.363	0.359	0.354
3-Nitroaniline	0.340	0.352	0.349	0.341	0.337
Acenaphthene	1.200	1.331	1.233	1.245	1.259

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

LAB FILE ID: RRF10: Q7520 RRF20: Q7519 RRF50: Q7515
RRF80: Q7518 RRF120: Q7516

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.741	1.710	1.684	1.676	1.706
2,4-Dinitrotoluene	0.494	0.506	0.512	0.505	0.504
Diethylphthalate	1.709	1.682	1.674	1.643	1.635
4-Chlorophenyl-phenylether	0.767	0.744	0.748	0.748	0.765
Fluorene	1.393	1.361	1.380	1.394	1.448
4-Nitroaniline	0.342	0.350	0.350	0.329	0.324
N-Nitrosodiphenylamine	0.521	0.510	0.515	0.515	0.525
4-Bromophenyl-phenylether	0.223	0.217	0.221	0.213	0.213
Hexachlorobenzene	0.269	0.255	0.250	0.238	0.232
Phenanthrene	1.029	0.999	0.997	1.024	1.074
Anthracene	1.052	1.028	1.024	1.044	1.109
Carbazole	0.962	0.918	0.902	0.885	0.906
Di-n-butylphthalate	1.466	1.394	1.388	1.391	1.459
Fluoranthene	1.194	1.158	1.191	1.188	1.209
Pyrene	1.066	1.074	1.068	1.125	1.133
Benzidine	0.445	0.427	0.310	0.306	0.159
Butylbenzylphthalate	0.618	0.629	0.612	0.629	0.646
3,3'-Dichlorobenzidine	0.405	0.420	0.406	0.386	0.339
Benzo(a)anthracene	1.076	1.074	1.070	1.087	1.104
Chrysene	1.042	1.020	1.016	0.961	0.986
bis(2-Ethylhexyl)phthalate	0.875	0.873	0.887	0.926	0.961
Di-n-octylphthalate	1.701	1.649	1.702	1.739	1.823
Benzo(b)fluoranthene	1.155	1.152	1.245	1.233	1.357
Benzo(k)fluoranthene	1.270	1.260	1.273	1.228	1.209
Benzo(a)pyrene	1.090	1.100	1.164	1.140	1.146
Indeno(1,2,3-cd)pyrene	0.950	0.985	1.101	1.070	1.191
Dibenz(a,h)anthracene	0.879	1.009	1.041	1.043	1.061
Benzo(g,h,i)perylene	1.002	0.997	1.061	1.028	1.045
Pyridine	0.768	0.930	0.967	0.899	0.890
Aniline	1.510	1.523	1.450	1.477	1.456
Benzyl Alcohol	0.785	0.799	0.785	0.767	0.769
1,2-Diphenylhydrazine	0.668	0.644	0.612	0.623	0.626
Diphenyl	1.468	1.445	1.380	1.394	1.432
Diphenyl Ether	0.830	0.804	0.775	0.788	0.802
Acetophenone	1.782	1.796	1.736	1.663	1.748
N,N-Dimethylaniline	1.930	1.814	1.711	1.615	1.666
1,4-Dioxane	0.259	0.299	0.262	0.349	0.341
2,3,7,8-TCDD (screen)			0.145		
Benzaldehyde	0.888	0.792	0.652	0.596	0.348

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

LAB FILE ID: RRF10: Q7520 RRF20: Q7519 RRF50: Q7515
RRF80: Q7518 RRF120: Q7516

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Caprolactum	0.121	0.128	0.130	0.134	0.132
Hexachlorobutadiene	0.236	0.232	0.197	0.204	0.167
2-Fluorophenol (SUR)	0.973	0.985	1.047	1.103	1.090
Phenol-d5 (SUR)	1.278	1.290	1.286	1.292	1.271
2,4,6-Tribromophenol (SUR)	0.242	0.252	0.259	0.255	0.241
Nitrobenzene-d5 (SUR)	0.340	0.356	0.333	0.351	0.345
2-Fluorobiphenyl (SUR)	1.294	1.275	1.242	1.270	1.308
Terphenyl-d14 (SUR)	0.810	0.838	0.815	0.813	0.789

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	1.29611651	2.3*
2-Chlorophenol	AVRG	1.28850855	2.8*
2-Methylphenol	AVRG	1.01816621	4.2*
4-Methylphenol	AVRG	1.05654235	3.9*
2-Nitrophenol	AVRG	0.28077841	3.6*
2,4-Dimethylphenol	AVRG	0.29970554	4.5*
2,4-Dichlorophenol	AVRG	0.33716121	2.8*
4-Chloro-3-methylphenol	AVRG	0.32169378	3.4*
2,4,6-Trichlorophenol	AVRG	0.40889438	4.9*
2,4,5-Trichlorophenol	AVRG	0.44880493	6.4*
2,4-Dinitrophenol	AVRG	0.18286266	25.3**
4-Nitrophenol	AVRG	0.28721295	6.1**
4,6-Dinitro-2-methylphenol	AVRG	0.14375366	8.8*
Pentachlorophenol	AVRG	0.13637207	12.5*
Benzoic Acid	AVRG	0.14939177	18.1*
N-Nitrosodimethylamine	AVRG	0.53640421	7.8**
bis(2-Chloroethyl)ether	AVRG	1.06547672	5.2*
1,3-Dichlorobenzene	AVRG	1.43632417	3.9*
1,4-Dichlorobenzene	AVRG	1.46061762	3.6*
1,2-Dichlorobenzene	AVRG	1.41494608	3.5*
bis(2-chloroisopropyl)ether	AVRG	1.48131924	5.8*
N-Nitroso-di-n-propylamine	AVRG	0.90996642	3.3**
Hexachloroethane	AVRG	0.53861720	2.4*
Nitrobenzene	AVRG	0.48854478	2.8*
Isophorone	AVRG	0.67329560	3.3*
bis(2-Chloroethoxy)methane	AVRG	0.33648700	7.6*
1,2,4-Trichlorobenzene	AVRG	0.35794362	1.9*
Naphthalene	AVRG	0.96372671	5.4*
4-Chloroaniline	AVRG	0.40841871	7.2*
Hexachlorobutadiene	AVRG	0.21933098	2.9*
2-Methylnaphthalene	AVRG	0.85096250	4.1*
Hexachlorocyclopentadiene	AVRG	0.20966928	18.1**
2-Chloronaphthalene	AVRG	1.13792607	2.0*
2-Nitroaniline	AVRG	0.37794886	2.6*
Dimethylphthalate	AVRG	1.59871297	2.1*
Acenaphthylene	AVRG	1.85924179	2.5*
2,6-Dinitrotoluene	AVRG	0.35886336	2.0*
3-Nitroaniline	AVRG	0.34392775	1.8*
Acenaphthene	AVRG	1.25362245	3.9*

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

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.70748363	1.6*
2,4-Dinitrotoluene	AVRG	0.50407920	1.3*
Diethylphthalate	AVRG	1.67282024	1.5*
4-Chlorophenyl-phenylether	AVRG	0.75450311	1.4*
Fluorene	AVRG	1.39820459	2.3*
4-Nitroaniline	AVRG	0.33924280	3.6*
N-Nitrosodiphenylamine	AVRG	0.51725978	1.1*
4-Bromophenyl-phenylether	AVRG	0.21734835	2.1*
Hexachlorobenzene	AVRG	0.24881289	5.8*
Phenanthrene	AVRG	1.02486476	3.0*
Anthracene	AVRG	1.05145641	3.3*
Carbazole	AVRG	0.91497880	3.2*
Di-n-butylphthalate	AVRG	1.41948155	2.8*
Fluoranthene	AVRG	1.18792146	1.6*
Pyrene	AVRG	1.09318376	3.0*
Benzidine	AVRG	0.32975505	34.8*
Butylbenzylphthalate	AVRG	0.62692893	2.1*
3,3'-Dichlorobenzidine	AVRG	0.39140064	8.1*
Benzo(a)anthracene	AVRG	1.08225105	1.2*
Chrysene	AVRG	1.00502735	3.1*
bis(2-Ethylhexyl)phthalate	AVRG	0.90432482	4.2*
Di-n-octylphthalate	AVRG	1.72288071	3.7*
Benzo(b)fluoranthene	AVRG	1.22833017	6.8*
Benzo(k)fluoranthene	AVRG	1.24797565	2.2*
Benzo(a)pyrene	AVRG	1.12783212	2.8*
Indeno(1,2,3-cd)pyrene	AVRG	1.05941008	9.0*
Dibenz(a,h)anthracene	AVRG	1.00670060	7.3*
Benzo(g,h,i)perylene	AVRG	1.02686117	2.6*
Pyridine	AVRG	0.88107220	8.9*
Aniline	AVRG	1.48329369	2.2*
Benzyl Alcohol	AVRG	0.78104984	1.7*
1,2-Diphenylhydrazine	AVRG	0.63473919	3.3*
Diphenyl	AVRG	1.42374938	2.6**
Diphenyl Ether	AVRG	0.79995658	2.6**
Acetophenone	AVRG	1.74510216	3.0**
N,N-Dimethylaniline	AVRG	1.74743611	7.2**
1,4-Dioxane	AVRG	0.30216724	14.0**
2,3,7,8-TCDD (screen)	AVRG	0.14505863	0.0*
Benzaldehyde	AVRG	0.65522941	31.5*

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

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 06/04/02 06/04/02

Calibration Time(s): 1200 1602

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Caprolactum	AVRG	0.12884933	3.7*
Atrazine	AVRG	0.21118702	10.2*
2-Fluorophenol (SUR)	AVRG	1.03981222	5.7*
Phenol-d5 (SUR)	AVRG	1.28342545	8.7*
2,4,6-Tribromophenol (SUR)	AVRG	0.24988836	3.3*
Nitrobenzene-d5 (SUR)	AVRG	0.34489074	2.6*
2-Fluorobiphenyl (SUR)	AVRG	1.27787175	2.0*
Terphenyl-d14 (SUR)	AVRG	0.81334057	2.2*

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

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS5 Calibration Date: 06/07/02 Time: 0738

Lab File ID: Q7596 Init. Calib. Date(s): 06/04/02 06/04/02

Init. Calib. Times: 1200 1602

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.296	1.138		12.2	20.0
2-Chlorophenol	1.289	1.284		0.4	20.0
2-Methylphenol	1.018	0.959		5.8	
4-Methylphenol	1.057	0.977		7.6	
2-Nitrophenol	0.201	0.201		0.0	20.0
2,4-Dimethylphenol	0.299	0.291		2.7	20.0
2,4-Dichlorophenol	0.337	0.332		1.5	20.0
4-Chloro-3-methylphenol	0.322	0.322		0.0	20.0
2,4,6-Trichlorophenol	0.409	0.405		1.0	20.0
2,4,5-Trichlorophenol	0.449	0.432		3.8	
2,4-Dinitrophenol	0.183	0.214	0.05	-16.9	20.0
4-Nitrophenol	0.287	0.305	0.05	-6.3	20.0
4,6-Dinitro-2-methylphenol	0.144	0.158		-9.7	20.0
Pentachlorophenol	0.136	0.163		-19.8	20.0
Benzoic Acid	0.149	0.133		10.7	
N-Nitrosodimethylamine	0.536	0.556	0.01	-3.7	20.0
bis(2-Chloroethyl)ether	1.065	0.947		11.1	20.0
1,3-Dichlorobenzene	1.436	1.438		-0.1	20.0
1,4-Dichlorobenzene	1.460	1.453		0.5	20.0
1,2-Dichlorobenzene	1.415	1.440		-1.8	20.0
bis(2-chloroisopropyl)ether	1.481	1.208		18.4	20.0
N-Nitroso-di-n-propylamine	0.910	0.885	0.05	2.7	20.0
Hexachloroethane	0.539	0.578		-7.2	20.0
Nitrobenzene	0.488	0.490		-0.4	20.0
Isophorone	0.673	0.632		6.1	20.0
bis(2-Chloroethoxy)methane	0.337	0.300		11.0	20.0
1,2,4-Trichlorobenzene	0.358	0.356		0.6	20.0
Naphthalene	0.964	0.951		1.3	20.0
4-Chloroaniline	0.408	0.409		-0.2	
Hexachlorobutadiene	0.219	0.234		-6.8	20.0
2-Methylnaphthalene	0.691	0.690		0.1	
Hexachlorocyclopentadiene	0.210	0.237	0.05	-12.8	20.0
2-Chloronaphthalene	1.138	1.112		2.3	20.0
2-Nitroaniline	0.378	0.393		-4.0	
Dimethylphthalate	1.599	1.608		-0.6	20.0
Acenaphthylene	1.859	1.843		0.9	20.0
2,6-Dinitrotoluene	0.359	0.373		-3.9	20.0

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

Instrument ID: BNAMS5 Calibration Date: 06/07/02 Time: 0738

Lab File ID: Q7596 Init. Calib. Date(s): 06/04/02 06/04/02

Init. Calib. Times: 1200 1602

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.344	0.337		2.0	
Acenaphthene	1.254	1.293		-3.1	20.0
Dibenzofuran	1.707	1.680		1.6	
2,4-Dinitrotoluene	0.504	0.516		2.4	20.0
Diethylphthalate	1.673	1.712		2.3	20.0
4-Chlorophenyl-phenylether	0.754	0.757		0.4	20.0
Fluorene	1.395	1.361		2.4	20.0
4-Nitroaniline	0.339	0.339		0.0	
N-Nitrosodiphenylamine	0.517	0.515		0.4	20.0
4-Bromophenyl-phenylether	0.217	0.230		-6.0	20.0
Hexachlorobenzene	0.249	0.273		-9.6	20.0
Phenanthrene	1.025	1.028		-0.3	20.0
Anthracene	1.051	1.046		0.5	20.0
Carbazole	0.915	0.905		1.1	
Di-n-butylphthalate	1.420	1.482		-4.4	20.0
Fluoranthene	1.188	1.227		-3.3	20.0
Pyrene	1.093	1.033		5.5	20.0
Benzidine	0.329	0.351		-6.7	
Butylbenzylphthalate	0.627	0.602		4.0	20.0
3,3'-Dichlorobenzidine	0.391	0.416		-6.4	20.0
Benzo(a)anthracene	1.082	1.065		1.6	20.0
Chrysene	1.005	1.008		-0.3	20.0
bis(2-Ethylhexyl)phthalate	0.904	0.890		1.5	20.0
Di-n-octylphthalate	1.723	1.655		3.9	20.0
Benzo(b)fluoranthene	1.228	1.194		2.8	20.0
Benzo(k)fluoranthene	1.248	1.266		-1.4	20.0
Benzo(a)pyrene	1.128	1.132		-0.4	20.0
Indeno(1,2,3-cd)pyrene	1.059	1.104		-4.2	20.0
Dibenz(a,h)anthracene	1.007	1.120		-11.2	20.0
Benzo(g,h,i)perylene	1.027	1.143		-11.3	20.0
Pyridine	0.881	1.020		-16.7	
Aniline	1.483	1.289		13.1	
Benzyl Alcohol	0.781	0.736		5.8	
1,2-Diphenylhydrazine	0.635	0.657		-3.5	
Diphenyl	1.424	1.396	0.001	2.0	20.0
Diphenyl Ether	0.800	0.780	0.001	2.5	20.0
Acetophenone	1.745	1.752	0.001	-0.4	20.0

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

Instrument ID: BNAMS5 Calibration Date: 06/07/02 Time: 0738

Lab File ID: Q7596 Init. Calib. Date(s): 06/04/02 06/04/02

Init. Calib. Times: 1200 1602

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N,N-Dimethylaniline	1.747	1.708	0.001	2.2	20.0
1,4-Dioxane	0.302	0.270	0.01	10.6	20.0
2,3,7,8-TCDD (screen)	0.145	0.165		-13.8	20.0
Benzaldehyde	0.655	0.694		-6.0	20.0
Caprolactam	0.125	0.116		10.1	20.0
Atrazine	0.211	0.216		-2.4	20.0
2-Fluorophenol (SUR)	1.040	1.083		-4.1	
Phenol-d5 (SUR)	1.283	1.162		9.4	
2,4,6-Tribromophenol (SUR)	0.250	0.274		-9.6	20.0
Nitrobenzene-d5 (SUR)	0.345	0.349		-1.2	
2-Fluorobiphenyl (SUR)	1.278	1.248		2.3	
Terphenyl-d14 (SUR)	0.813	0.830		-2.1	

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 625

Instrument ID: BNAMS7 Calibration Date(s): 06/08/02 06/08/02

Calibration Time(s): 1329 1647

LAB FILE ID: RRF10: L1476 RRF20: L1478 RRF50: L1474
RRF80: L1477 RRF120: L1475

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Phenol	1.688	1.756	1.670	1.551	1.491
2-Chlorophenol	1.225	1.303	1.246	1.261	1.221
2-Methylphenol	1.170	1.242	1.199	1.141	1.108
4-Methylphenol	1.221	1.310	1.229	1.056	0.960
2-Nitrophenol	0.217	0.238	0.217	0.218	0.208
2,4-Dimethylphenol	0.348	0.335	0.336	0.338	0.317
2,4-Dichlorophenol	0.307	0.329	0.304	0.298	0.283
4-Chloro-3-methylphenol	0.331	0.352	0.342	0.341	0.328
2,4,6-Trichlorophenol	0.430	0.460	0.420	0.406	0.387
2,4,5-Trichlorophenol	0.454	0.499	0.445	0.433	0.416
2,4-Dinitrophenol	0.155	0.200	0.185	0.212	0.205
4-Nitrophenol	0.352	0.349	0.351	0.350	0.342
4,6-Dinitro-2-methylphenol	0.143	0.159	0.152	0.167	0.161
Pentachlorophenol	0.194	0.193	0.192	0.190	0.185
Benzoic Acid	0.187	0.243	0.239	0.168	0.188
N-Nitrosodimethylamine	0.905	0.972	1.016	1.012	1.039
bis(2-Chloroethyl)ether	1.461	1.441	1.384	1.298	1.249
1,3-Dichlorobenzene	1.641	1.604	1.509	1.384	1.316
1,4-Dichlorobenzene	1.641	1.596	1.524	1.395	1.320
1,2-Dichlorobenzene	1.602	1.529	1.460	1.340	1.288
bis(2-chloroisopropyl)ether	2.648	2.650	2.398	2.248	2.026
N-Nitroso-di-n-propylamine	1.106	1.064	0.984	0.893	0.874
Hexachloroethane	0.706	0.692	0.659	0.619	0.592
Nitrobenzene	0.614	0.596	0.539	0.525	0.493
Isophorone	0.896	0.877	0.843	0.852	0.830
bis(2-Chloroethoxy)methane	0.511	0.489	0.449	0.424	0.394
1,2,4-Trichlorobenzene	0.370	0.362	0.338	0.317	0.297
Naphthalene	1.117	1.089	1.016	0.926	0.863
4-Chloroaniline	0.464	0.453	0.443	0.413	0.376
Hexachlorobutadiene	0.211	0.203	0.192	0.178	0.170
2-Methylnaphthalene	0.672	0.649	0.617	0.568	0.530
Hexachlorocyclopentadiene	0.335	0.331	0.306	0.331	0.326
2-Chloronaphthalene	1.343	1.261	1.171	1.108	1.049
2-Nitroaniline	0.623	0.622	0.602	0.491	0.453
Dimethylphthalate	1.568	1.511	1.427	1.360	1.306
Acenaphthylene	2.188	2.090	1.968	1.823	1.730
2,6-Dinitrotoluene	0.379	0.392	0.373	0.359	0.350
3-Nitroaniline	0.440	0.442	0.429	0.421	0.410
Acenaphthene	1.356	1.352	1.201	1.114	1.058

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

Instrument ID: BNAMS7

Calibration Date(s): 06/08/02 06/08/02

Calibration Time(s): 1329 1647

LAB FILE ID: RRF10: L1476 RRF20: L1478 RRF50: L1474
RRF80: L1477 RRF120: L1475

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.821	1.739	1.602	1.509	1.424
2,4-Dinitrotoluene	0.588	0.512	0.486	0.478	0.462
Diethylphthalate	1.591	1.446	1.486	1.387	1.327
4-Chlorophenyl-phenylether	0.720	0.688	0.623	0.566	0.534
Fluorene	1.511	1.419	1.302	1.203	1.143
4-Nitroaniline	0.451	0.442	0.422	0.406	0.386
N-Nitrosodiphenylamine	0.573	0.556	0.526	0.510	0.481
4-Bromophenyl-phenylether	0.259	0.248	0.230	0.221	0.212
Hexachlorobenzene	0.322	0.320	0.283	0.274	0.261
Phenanthrene	1.139	1.080	0.986	0.936	0.893
Anthracene	1.163	1.115	1.029	0.954	0.911
Carbazole	1.125	1.086	1.004	0.937	0.874
Di-n-butylphthalate	1.550	1.509	1.416	1.288	1.234
Fluoranthene	1.232	1.192	1.096	0.990	0.948
Pyrene	1.254	1.193	1.116	1.111	1.096
Benzidine	0.458	0.638	0.397	0.272	0.165
Butylbenzylphthalate	0.683	0.677	0.662	0.652	0.648
3,3'-Dichlorobenzidine	0.446	0.446	0.439	0.382	0.333
Benzo(a)anthracene	1.160	1.121	1.116	1.084	1.059
Chrysene	1.138	1.109	1.057	1.004	0.918
bis(2-Ethylhexyl)phthalate	0.928	0.898	0.877	0.840	0.846
Di-n-octylphthalate	1.691	1.689	1.702	1.703	1.668
Benzo(b)fluoranthene	1.174	1.186	1.197	1.200	1.216
Benzo(k)fluoranthene	1.319	1.309	1.272	1.211	1.174
Benzo(a)pyrene	1.112	1.127	1.132	1.118	1.121
Indeno(1,2,3-cd)pyrene	0.864	0.923	1.008	1.012	1.083
Dibenz(a,h)anthracene	0.880	0.958	0.972	1.022	1.033
Benzo(g,h,i)perylene	0.984	1.016	1.099	1.074	1.102
Pyridine	1.665	1.700	1.770	1.710	1.717
Aniline	2.044	1.966	1.922	1.840	1.784
Benzyl Alcohol	0.908	0.893	0.916	0.874	0.865
1,2-Diphenylhydrazine	1.016	0.973	0.899	0.845	0.783
Diphenyl	1.692	1.646	1.493	1.360	1.286
Diphenyl Ether	0.884	0.841	0.790	0.734	0.692
Acetophenone	1.837	1.888	1.777	1.565	1.466
N,N-Dimethylaniline	1.914	1.829	1.669	1.469	1.378
1,4-Dioxane	0.657	0.652	0.667	0.629	0.643
2,3,7,8-TCDD (screen)			0.204		
Benzaldehyde	1.155	1.039	0.937	0.615	0.374

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

Instrument ID: BNAMS7

Calibration Date(s): 06/08/02 06/08/02

Calibration Time(s): 1329 1647

LAB FILE ID: RRF10: L1476 RRF20: L1478 RRF50: L1474
RRF80: L1477 RRF120: L1475

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Caprolactum	0.141	0.149	0.148	0.145	0.149
Atrazine	0.234	0.234	0.200	0.186	0.175
2-Fluorophenol (SUR)	1.261	1.264	1.278	1.217	1.193
Phenol-d5 (SUR)	1.710	1.725	1.734	1.638	1.563
2,4,6-Tribromophenol (SUR)	0.298	0.305	0.297	0.294	0.282
Nitrobenzene-d5 (SUR)	0.461	0.468	0.436	0.444	0.419
2-Fluorobiphenyl (SUR)	1.450	1.398	1.318	1.204	1.154
Terphenyl-d14 (SUR)	0.923	0.922	0.848	0.825	0.810

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

Instrument ID: BNAMS7

Calibration Date(s): 06/08/02 06/08/02

Calibration Time(s): 1329 1647

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	1.63109792	6.6*
2-Chlorophenol	AVRG	1.30331377	4.8*
2-Methylphenol	AVRG	1.17209983	4.3*
4-Methylphenol	AVRG	1.15522565	12.4*
2-Nitrophenol	AVRG	0.21261956	4.9*
2,4-Dimethylphenol	AVRG	0.31503693	3.4*
2,4-Dichlorophenol	AVRG	0.30421655	5.5*
4-Chloro-3-methylphenol	AVRG	0.33881597	2.8*
2,4,6-Trichlorophenol	AVRG	0.42051779	6.5*
2,4,5-Trichlorophenol	AVRG	0.44958788	6.9*
2,4-Dinitrophenol	AVRG	0.19153543	11.9**
4-Nitrophenol	AVRG	0.34869536	1.2**
4,6-Dinitro-2-methylphenol	AVRG	0.15657185	5.9*
Pentachlorophenol	AVRG	0.19076528	1.9*
Benzoic Acid	AVRG	0.20484514	16.6*
N-Nitrosodimethylamine	AVRG	0.98874601	5.3**
bis(2-Chloroethyl)ether	AVRG	1.36665915	6.7*
1,3-Dichlorobenzene	AVRG	1.49089113	9.3*
1,4-Dichlorobenzene	AVRG	1.49522022	9.0*
1,2-Dichlorobenzene	AVRG	1.44388864	9.0*
bis(2-chloroisopropyl)ether	AVRG	2.39406928	11.2*
N-Nitroso-di-n-propylamine	AVRG	0.98433164	10.4**
Hexachloroethane	AVRG	0.65378449	7.4*
Nitrobenzene	AVRG	0.55366594	9.1*
Isophorone	AVRG	0.85963367	3.1*
bis(2-Chloroethoxy)methane	AVRG	0.45340032	10.4*
1,2,4-Trichlorobenzene	AVRG	0.33712298	9.0*
Naphthalene	AVRG	1.00601541	11.2*
4-Chloroaniline	AVRG	0.42992493	8.3*
Hexachlorobutadiene	AVRG	0.19076510	8.9*
2-Methylnaphthalene	AVRG	0.60721281	9.6*
Hexachlorocyclopentadiene	AVRG	0.32598998	3.6**
2-Chloronaphthalene	AVRG	1.18642369	9.9*
2-Nitroaniline	AVRG	0.55841616	14.4*
Dimethylphthalate	AVRG	1.43419159	7.5*
Acenaphthylene	AVRG	1.95992317	9.6*
2,6-Dinitrotoluene	AVRG	0.37085645	4.5*
3-Nitroaniline	AVRG	0.42859282	3.1*
Acenaphthene	AVRG	1.21610924	11.2*

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

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

Instrument ID: BNAMS7

Calibration Date(s): 06/08/02 06/08/02

Calibration Time(s): 1329 1647

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.61919854	10.0*
2,4-Dinitrotoluene	AVRG	0.48866490	4.1*
Diethylphthalate	AVRG	1.46741740	7.5*
4-Chlorophenyl-phenylether	AVRG	0.62649170	12.5*
Fluorene	AVRG	1.31557659	11.5*
4-Nitroaniline	AVRG	0.42113593	6.3*
N-Nitrosodiphenylamine	AVRG	0.52921913	6.9*
4-Bromophenyl-phenylether	AVRG	0.23406584	8.3*
Hexachlorobenzene	AVRG	0.29204761	9.5*
Phenanthrene	AVRG	1.00671946	10.1*
Anthracene	AVRG	1.03447639	10.2*
Carbazole	AVRG	1.00524184	10.3*
Di-n-butylphthalate	AVRG	1.39950087	9.8*
Fluoranthene	AVRG	1.09163207	11.3*
Pyrene	AVRG	1.15401608	5.8*
Benzidine	AVRG	0.38603560	46.8*
Butylbenzylphthalate	AVRG	0.66426759	2.3*
3,3'-Dichlorobenzidine	AVRG	0.40928021	12.3*
Benzo(a)anthracene	AVRG	1.10801534	3.5*
Chrysene	AVRG	1.04518540	8.4*
bis(2-Ethylhexyl)phthalate	AVRG	0.87791247	4.2*
Di-n-octylphthalate	AVRG	1.69080046	0.8*
Benzo(b)fluoranthene	AVRG	1.19445136	1.3*
Benzo(k)fluoranthene	AVRG	1.25695476	5.0*
Benzo(a)pyrene	AVRG	1.12233187	0.7*
Indeno(1,2,3-cd)pyrene	AVRG	0.97811520	8.7*
Dibenz(a,h)anthracene	AVRG	0.97272138	6.3*
Benzo(g,h,i)perylene	AVRG	1.05409305	4.9*
Pyridine	AVRG	1.71245099	2.2*
Aniline	AVRG	1.91122632	5.4*
Benzyl Alcohol	AVRG	0.89140822	2.4*
1,2-Diphenylhydrazine	AVRG	0.90305221	10.4*
Diphenyl	AVRG	1.49551779	11.7**
Diphenyl Ether	AVRG	0.78826480	9.9**
Acetophenone	AVRG	1.70677370	10.7**
N,N-Dimethylaniline	AVRG	1.65209322	13.8**
1,4-Dioxane	AVRG	0.64951159	2.2**
2,3,7,8-TCDD (screen)	AVRG	0.20402958	0.0*
Benzaldehyde	AVRG	0.82406654	39.1*

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

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

Instrument ID: BNAMS7

Calibration Date(s): 06/08/02 06/08/02

Calibration Time(s): 1329 1647

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Caprolactum	AVRG	0.14629345	2.5*
Atrazine	AVRG	0.20570153	13.4*
2-Fluorophenol (SUR)	AVRG	1.24265929	2.9*
Phenol-d5 (SUR)	AVRG	1.87999475	4.3*
2,4,6-Tribromophenol (SUR)	AVRG	0.29518307	2.9*
Nitrobenzene-d5 (SUR)	AVRG	0.44550852	4.4*
2-Fluorobiphenyl (SUR)	AVRG	1.30478479	9.6*
Terphenyl-d14 (SUR)	AVRG	0.86566657	6.2*

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

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS7 Calibration Date: 06/10/02 Time: 1047

Lab File ID: L1528 Init. Calib. Date(s): 06/08/02 06/08/02

Init. Calib. Times: 1329 1647

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.631	1.609		1.3	20.0
2-Chlorophenol	1.303	1.278		1.9	20.0
2-Methylphenol	1.172	1.156		1.4	
4-Methylphenol	1.155	1.187		-2.8	
2-Nitrophenol	0.230	0.215		6.5	20.0
2,4-Dimethylphenol	0.335	0.335		0.0	20.0
2,4-Dichlorophenol	0.304	0.306		-0.6	20.0
4-Chloro-3-methylphenol	0.339	0.342		-0.9	20.0
2,4,6-Trichlorophenol	0.421	0.428		-1.7	20.0
2,4,5-Trichlorophenol	0.449	0.453		-0.9	
2,4-Dinitrophenol	0.191	0.209	0.05	-9.4	20.0
4-Nitrophenol	0.349	0.348	0.05	0.3	20.0
4,6-Dinitro-2-methylphenol	0.156	0.162		-3.8	20.0
Pentachlorophenol	0.191	0.194		-1.6	20.0
Benzoic Acid	0.239	0.214		10.5	
N-Nitrosodimethylamine	0.989	0.935	0.01	5.5	20.0
bis(2-Chloroethyl)ether	1.367	1.339		2.0	20.0
1,3-Dichlorobenzene	1.491	1.503		-0.8	20.0
1,4-Dichlorobenzene	1.495	1.522		-1.8	20.0
1,2-Dichlorobenzene	1.444	1.446		-0.1	20.0
bis(2-chloroisopropyl)ether	2.394	2.528		-5.6	20.0
N-Nitroso-di-n-propylamine	0.984	1.031	0.05	-4.8	20.0
Hexachloroethane	0.654	0.666		-1.8	20.0
Nitrobenzene	0.553	0.574		-3.8	20.0
Isophorone	0.860	0.834		3.0	20.0
bis(2-Chloroethoxy)methane	0.453	0.440		2.9	20.0
1,2,4-Trichlorobenzene	0.337	0.349		-3.6	20.0
Naphthalene	1.006	1.031		-2.5	20.0
4-Chloroaniline	0.430	0.417		3.0	
Hexachlorobutadiene	0.191	0.206		-7.8	20.0
2-Methylnaphthalene	0.607	0.619		-2.0	
Hexachlorocyclopentadiene	0.326	0.289	0.05	11.3	20.0
2-Chloronaphthalene	1.186	1.185		0.1	20.0
2-Nitroaniline	0.484	0.530		-9.5	
Dimethylphthalate	1.434	1.396		2.6	20.0
Acenaphthylene	1.960	1.942		0.9	20.0
2,6-Dinitrotoluene	0.371	0.366		1.3	20.0

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

Instrument ID: BNAMS7 Calibration Date: 06/10/02 Time: 1047

Lab File ID: L1528 Init. Calib. Date(s): 06/08/02 06/08/02

Init. Calib. Times: 1329 1647

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.428	0.408		4.7	
Acenaphthene	1.216	1.224		-0.6	20.0
Dibenzofuran	1.619	1.601		1.1	
2,4-Dinitrotoluene	0.489	0.484		1.0	20.0
Diethylphthalate	1.667	1.665		0.1	20.0
4-Chlorophenyl-phenylether	0.626	0.641		-2.4	20.0
Fluorene	1.316	1.346		-2.3	20.0
4-Nitroaniline	0.421	0.430		-2.1	
N-Nitrosodiphenylamine	0.529	0.518		2.1	20.0
4-Bromophenyl-phenylether	0.234	0.236		-0.8	20.0
Hexachlorobenzene	0.292	0.289		1.0	20.0
Phenanthrene	1.007	0.983		2.4	20.0
Anthracene	1.034	1.009		2.4	20.0
Carbazole	1.005	0.963		4.2	
Di-n-butylphthalate	1.399	1.353		3.3	20.0
Fluoranthene	1.092	1.072		1.8	20.0
Pyrene	1.154	1.136		1.6	20.0
Benzidine	0.386	0.283		26.7	
Butylbenzylphthalate	0.664	0.646		2.7	20.0
3,3'-Dichlorobenzidine	0.409	0.414		-1.2	20.0
Benzo(a)anthracene	1.108	1.106		0.2	20.0
Chrysene	1.045	1.051		-0.6	20.0
bis(2-Ethylhexyl)phthalate	0.878	0.858		2.3	20.0
Di-n-octylphthalate	1.691	1.719		-1.6	20.0
Benzo(b)fluoranthene	1.195	1.201		-0.5	20.0
Benzo(k)fluoranthene	1.230	1.201		2.4	20.0
Benzo(a)pyrene	1.122	1.130		-0.7	20.0
Indeno(1,2,3-cd)pyrene	0.978	0.969		0.9	20.0
Dibenz(a,h)anthracene	0.973	1.002		-3.0	20.0
Benzo(g,h,i)perylene	1.054	1.042		1.1	20.0
Pyridine	1.712	1.577		7.9	
Aniline	1.911	1.803		5.6	
Benzyl Alcohol	0.891	0.874		1.9	
1,2-Diphenylhydrazine	0.903	0.891		1.3	
Diphenyl	1.495	1.468	0.001	1.8	20.0
Diphenyl Ether	0.788	0.779	0.001	1.1	20.0
Acetophenone	1.707	1.807	0.001	-5.8	20.0

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

Instrument ID: BNAMS7 Calibration Date: 06/10/02 Time: 1047

Lab File ID: L1528 Init. Calib. Date(s): 06/08/02 06/08/02

Init. Calib. Times: 1329 1647

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N,N-Dimethylaniline	1.652	1.705	0.001	-3.2	20.0
1,4-Dioxane	0.650	0.573	0.01	11.8	20.0
2,3,7,8-TCDD (screen)	0.204	0.181		11.3	20.0
Benzaldehyde	0.824	0.837		-1.6	20.0
Caprolactum	0.137	0.137		0.0	20.0
Atrazine	0.206	0.182		11.6	20.0
2-Fluorophenol (SUR)	1.243	1.197		3.7	
Phenol-d5 (SUR)	1.674	1.660		0.8	
2,4,6-Tribromophenol (SUR)	0.295	0.309		-4.7	20.0
Nitrobenzene-d5 (SUR)	0.446	0.456		-2.2	
2-Fluorobiphenyl (SUR)	1.305	1.295		0.8	
Terphenyl-d14 (SUR)	0.866	0.858		0.9	

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 625

Instrument ID: BNAMS7

Calibration Date(s): 06/11/02 06/11/02

Calibration Time(s): 1825 2150

LAB FILE ID: RRF10: L1566 RRF20: L1568 RRF50: L1564
RRF80: L1567 RRF120: L1565

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Phenol	1.302	1.507	1.594	1.640	1.722
2-Chlorophenol	1.136	1.223	1.249	1.222	1.256
2-Methylphenol	0.951	1.072	1.131	1.144	1.180
4-Methylphenol	0.904	1.089	1.196	1.178	1.216
2-Nitrophenol	0.202	0.218	0.214	0.214	0.217
2,4-Dimethylphenol	0.230	0.265	0.301	0.341	0.340
2,4-Dichlorophenol	0.218	0.290	0.309	0.319	0.326
4-Chloro-3-methylphenol	0.340	0.378	0.373	0.383	0.383
2,4,6-Trichlorophenol	0.355	0.410	0.419	0.426	0.440
2,4,5-Trichlorophenol	0.405	0.456	0.436	0.447	0.486
2,4-Dinitrophenol	0.085	0.145	0.183	0.210	0.213
4-Nitrophenol	0.255	0.297	0.337	0.312	0.303
4,6-Dinitro-2-methylphenol	0.105	0.132	0.145	0.161	0.156
Pentachlorophenol	0.129	0.162	0.175	0.189	0.188
Benzoic Acid	0.118	0.097	0.105	0.134	0.129
N-Nitrosodimethylamine	0.688	0.751	0.782	0.774	0.788
bis(2-Chloroethyl)ether	1.340	1.263	1.295	1.282	1.361
1,3-Dichlorobenzene	1.538	1.524	1.505	1.541	1.570
1,4-Dichlorobenzene	1.540	1.560	1.548	1.587	1.633
1,2-Dichlorobenzene	1.466	1.443	1.455	1.475	1.514
bis(2-chloroisopropyl)ether	1.934	1.802	1.892	1.841	1.950
N-Nitroso-di-n-propylamine	0.994	1.001	1.090	1.114	1.134
Hexachloroethane	0.736	0.727	0.705	0.730	0.729
Nitrobenzene	0.641	0.644	0.680	0.684	0.690
Isophorone	0.780	0.775	0.840	0.825	0.822
bis(2-Chloroethoxy)methane	0.453	0.456	0.460	0.466	0.467
1,2,4-Trichlorobenzene	0.375	0.374	0.378	0.370	0.374
Naphthalene	1.021	1.019	1.057	1.072	1.086
4-Chloroaniline	0.359	0.421	0.404	0.418	0.407
Hexachlorobutadiene	0.236	0.236	0.238	0.235	0.232
2-Methylnaphthalene	0.606	0.609	0.640	0.649	0.649
Hexachlorocyclopentadiene	0.275	0.311	0.305	0.335	0.352
2-Chloronaphthalene	1.180	1.179	1.195	1.222	1.269
2-Nitroaniline	0.601	0.605	0.505	0.507	0.487
Dimethylphthalate	1.417	1.425	1.434	1.468	1.474
Acenaphthylene	1.849	1.858	1.906	1.953	2.007
2,6-Dinitrotoluene	0.346	0.345	0.352	0.360	0.365
3-Nitroaniline	0.351	0.356	0.359	0.370	0.371
Acenaphthene	1.132	1.269	1.281	1.304	1.278

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

Instrument ID: BNAMS7

Calibration Date(s): 06/11/02 06/11/02

Calibration Time(s): 1825 2150

LAB FILE ID: RRF10: L1566 RRF20: L1568 RRF50: L1564
RRF80: L1567 RRF120: L1565

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.629	1.619	1.640	1.678	1.711
2,4-Dinitrotoluene	0.454	0.468	0.473	0.477	0.491
Diethylphthalate	1.497	1.464	1.485	1.508	1.518
4-Chlorophenyl-phenylether	0.659	0.649	0.678	0.693	0.703
Fluorene	1.326	1.336	1.414	1.457	1.499
4-Nitroaniline	0.341	0.378	0.388	0.393	0.385
N-Nitrosodiphenylamine	0.510	0.514	0.545	0.563	0.549
4-Bromophenyl-phenylether	0.259	0.255	0.260	0.263	0.261
Hexachlorobenzene	0.341	0.333	0.329	0.323	0.318
Phenanthrene	1.015	0.990	1.038	1.069	1.070
Anthracene	1.050	1.029	1.057	1.087	1.092
Carbazole	0.970	0.977	0.956	0.990	0.966
Di-n-butylphthalate	1.413	1.387	1.391	1.459	1.452
Fluoranthene	1.098	1.062	1.114	1.154	1.152
Pyrene	1.042	1.006	0.994	1.023	1.046
Benzidine	0.345	0.418	0.193	0.270	0.177
Butylbenzylphthalate	0.586	0.583	0.585	0.590	0.598
3,3'-Dichlorobenzidine	0.407	0.435	0.434	0.430	0.385
Benzo(a)anthracene	1.024	0.989	1.009	1.014	1.029
Chrysene	0.936	0.932	0.948	0.920	0.934
bis(2-Ethylhexyl)phthalate	0.786	0.797	0.826	0.862	0.856
Di-n-octylphthalate	1.372	1.419	1.462	1.473	1.532
Benzo(b)fluoranthene	1.068	1.112	1.141	1.146	1.232
Benzo(k)fluoranthene	1.199	1.219	1.225	1.244	1.243
Benzo(a)pyrene	1.040	1.071	1.095	1.119	1.148
Indeno(1,2,3-cd)pyrene	0.946	1.016	1.138	1.163	1.250
Dibenz(a,h)anthracene	0.958	1.028	1.170	1.161	1.211
Benzo(g,h,i)perylene	1.051	1.070	1.169	1.192	1.204
Pyridine	1.202	1.348	1.272	1.326	1.352
Aniline	1.787	1.718	1.743	1.790	1.855
Benzyl Alcohol	0.755	0.778	0.843	0.845	0.862
1,2-Diphenylhydrazine	0.936	0.918	0.942	0.950	0.934
Diphenyl	1.441	1.467	1.514	1.542	1.567
Diphenyl Ether	0.788	0.803	0.827	0.840	0.856
Acetophenone	1.800	1.891	2.013	2.038	2.080
N,N-Dimethylaniline	1.878	1.846	1.952	2.014	2.091
1,4-Dioxane	0.539	0.580	0.561	0.559	0.562
2,3,7,8-TCDD (screen)			0.183		
Benzaldehyde	1.102	0.985	0.711	0.750	0.520

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

Instrument ID: BNAMS7

Calibration Date(s): 06/11/02 06/11/02

Calibration Time(s): 1825 2150

LAB FILE ID: RRF10: L1566 RRF20: L1568 RRF50: L1564
RRF80: L1567 RRF120: L1565

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Caprolactum	0.116	0.119	0.120	0.123	0.118
Atrazine	0.226	0.219	0.177	0.202	0.190
2-Fluorophenol (SUR)	1.147	1.158	1.162	1.169	1.194
Phenol-d5 (SUR)	1.352	1.440	1.534	1.548	1.582
2,4,6-Tribromophenol (SUR)	0.301	0.314	0.332	0.323	0.324
Nitrobenzene-d5 (SUR)	0.457	0.461	0.475	0.476	0.479
2-Fluorobiphenyl (SUR)	1.311	1.331	1.375	1.395	1.423
Terphenyl-d14 (SUR)	0.851	0.849	0.840	0.846	0.836

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

Instrument ID: BNAMS7

Calibration Date(s): 06/11/02 06/11/02

Calibration Time(s): 1825 2150

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	1.55296827	10.3*
2-Chlorophenol	AVRG	1.21161533	3.9*
2-Methylphenol	AVRG	1.09599564	8.2*
4-Methylphenol	AVRG	1.11648582	11.5*
2-Nitrophenol	AVRG	0.21285314	3.1*
2,4-Dimethylphenol	AVRG	0.25539023	16.2*
2,4-Dichlorophenol	AVRG	0.29247336	14.9*
4-Chloro-3-methylphenol	AVRG	0.37162039	4.8*
2,4,6-Trichlorophenol	AVRG	0.40972446	7.9*
2,4,5-Trichlorophenol	AVRG	0.44594665	6.7*
2,4-Dinitrophenol	AVRG	0.16735283	31.9**
4-Nitrophenol	AVRG	0.30074609	9.8**
4,6-Dinitro-2-methylphenol	AVRG	0.13982149	16.0*
Pentachlorophenol	AVRG	0.16874831	14.6*
Benzoic Acid	AVRG	0.11678621	13.5*
N-Nitrosodimethylamine	AVRG	0.75672726	5.4**
bis(2-Chloroethyl)ether	AVRG	1.30848335	3.1*
1,3-Dichlorobenzene	AVRG	1.53571878	1.6*
1,4-Dichlorobenzene	AVRG	1.57356204	2.4*
1,2-Dichlorobenzene	AVRG	1.47065853	1.8*
bis(2-chloroisopropyl)ether	AVRG	1.88401443	3.3*
N-Nitroso-di-n-propylamine	AVRG	1.06675144	6.1**
Hexachloroethane	AVRG	0.72537525	1.6*
Nitrobenzene	AVRG	0.66789698	3.5*
Isophorone	AVRG	0.80857485	3.6*
bis(2-Chloroethoxy)methane	AVRG	0.46036556	1.3*
1,2,4-Trichlorobenzene	AVRG	0.37406736	0.8*
Naphthalene	AVRG	1.05141671	2.8*
4-Chloroaniline	AVRG	0.40190570	6.2*
Hexachlorobutadiene	AVRG	0.23575225	0.9*
2-Methylnaphthalene	AVRG	0.63057884	3.3*
Hexachlorocyclopentadiene	AVRG	0.31542838	9.3**
2-Chloronaphthalene	AVRG	1.20888092	3.1*
2-Nitroaniline	AVRG	0.54109228	10.6*
Dimethylphthalate	AVRG	1.44372560	1.8*
Acenaphthylene	AVRG	1.91469248	3.5*
2,6-Dinitrotoluene	AVRG	0.35359081	2.4*
3-Nitroaniline	AVRG	0.36153746	2.4*
Acenaphthene	AVRG	1.25317059	5.5*

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

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

Instrument ID: BNAMS7

Calibration Date(s): 06/11/02 06/11/02

Calibration Time(s): 1825 2150

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.65961147	2.8*
2,4-Dinitrotoluene	AVRG	0.47277095	2.8*
Diethylphthalate	AVRG	1.49436851	1.4*
4-Chlorophenyl-phenylether	AVRG	0.67653344	3.4*
Fluorene	AVRG	1.40636251	5.3*
4-Nitroaniline	AVRG	0.37701434	5.6*
N-Nitrosodiphenylamine	AVRG	0.53636051	4.3*
4-Bromophenyl-phenylether	AVRG	0.25954761	1.0*
Hexachlorobenzene	AVRG	0.32895114	2.6*
Phenanthrene	AVRG	1.03658917	3.3*
Anthracene	AVRG	1.06306325	2.5*
Carbazole	AVRG	0.97197181	1.3*
Di-n-butylphthalate	AVRG	1.42026087	2.4*
Fluoranthene	AVRG	1.11614488	3.4*
Pyrene	AVRG	1.02222911	2.2*
Benzidine	AVRG	0.28060146	36.3*
Butylbenzylphthalate	AVRG	0.58815405	1.0*
3,3'-Dichlorobenzidine	AVRG	0.41837270	5.3*
Benzo(a)anthracene	AVRG	1.01300211	1.5*
Chrysene	AVRG	0.93424346	1.1*
bis(2-Ethylhexyl)phthalate	AVRG	0.82538563	4.2*
Di-n-octylphthalate	AVRG	1.45169094	4.1*
Benzo(b)fluoranthene	AVRG	1.13983848	5.3*
Benzo(k)fluoranthene	AVRG	1.22603611	1.5*
Benzo(a)pyrene	AVRG	1.09471490	3.8*
Indeno(1,2,3-cd)pyrene	AVRG	1.10246634	11.0*
Dibenz(a,h)anthracene	AVRG	1.10579289	9.7*
Benzo(g,h,i)perylene	AVRG	1.12511238	5.7*
Pyridine	AVRG	1.30024733	4.9*
Aniline	AVRG	1.77871743	2.9*
Benzyl Alcohol	AVRG	0.81653830	5.8*
1,2-Diphenylhydrazine	AVRG	0.93593600	1.2*
Diphenyl	AVRG	1.50639485	3.4**
Diphenyl Ether	AVRG	0.82289361	3.3**
Acetophenone	AVRG	1.96436412	5.9**
N,N-Dimethylaniline	AVRG	1.95632525	5.1**
1,4-Dioxane	AVRG	0.56001363	2.6**
2,3,7,8-TCDD (screen)	AVRG	0.18275983	0.0*
Benzaldehyde	AVRG	0.81360276	28.4*

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

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

Instrument ID: BNAMS7

Calibration Date(s): 06/11/02 06/11/02

Calibration Time(s): 1825 2150

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Caprolactum	AVRG	0.11934466	2.1*
Atrazine	AVRG	0.20279832	9.9*
2-Fluorophenol (SUR)	AVRG	1.16581686	1.5*
Phenol-d5 (SUR)	AVRG	1.49137567	6.3*
2,4,6-Tribromophenol (SUR)	AVRG	0.31868461	3.9*
Nitrobenzene-d5 (SUR)	AVRG	0.46950998	2.1*
2-Fluorobiphenyl (SUR)	AVRG	1.36710121	3.4*
Terphenyl-d14 (SUR)	AVRG	0.84444225	0.7*

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

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS7 Calibration Date: 06/12/02 Time: 1824

Lab File ID: L1593 Init. Calib. Date(s): 06/11/02 06/11/02

Init. Calib. Times: 1825 2150

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.553	1.637		-5.4	20.0
2-Chlorophenol	1.211	1.231		-1.6	20.0
2-Methylphenol	1.096	1.138		-3.8	
4-Methylphenol	1.117	1.192		-6.7	
2-Nitrophenol	0.213	0.209		1.9	20.0
2,4-Dimethylphenol	0.295	0.322		-9.2	20.0
2,4-Dichlorophenol	0.292	0.295		-1.0	20.0
4-Chloro-3-methylphenol	0.371	0.370		0.3	20.0
2,4,6-Trichlorophenol	0.410	0.409		0.2	20.0
2,4,5-Trichlorophenol	0.446	0.462		-3.6	
2,4-Dinitrophenol	0.167	0.191	0.05	-14.4	20.0
4-Nitrophenol	0.301	0.340	0.05	-13.0	20.0
4,6-Dinitro-2-methylphenol	0.140	0.153		-9.3	20.0
Pentachlorophenol	0.169	0.195		-15.4	20.0
Benzoic Acid	0.117	0.143		-22.2	
N-Nitrosodimethylamine	0.757	0.778	0.01	-2.8	20.0
bis(2-Chloroethyl)ether	1.308	1.318		-0.8	20.0
1,3-Dichlorobenzene	1.536	1.522		0.9	20.0
1,4-Dichlorobenzene	1.574	1.565		0.6	20.0
1,2-Dichlorobenzene	1.471	1.463		0.5	20.0
bis(2-chloroisopropyl)ether	1.884	1.881		0.2	20.0
N-Nitroso-di-n-propylamine	1.067	1.095	0.05	-2.6	20.0
Hexachloroethane	0.725	0.709		2.2	20.0
Nitrobenzene	0.668	0.675		-1.0	20.0
Isophorone	0.808	0.818		-1.2	20.0
bis(2-Chloroethoxy)methane	0.460	0.458		0.4	20.0
1,2,4-Trichlorobenzene	0.374	0.360		3.7	20.0
Naphthalene	1.051	1.050		0.1	20.0
4-Chloroaniline	0.402	0.427		-6.2	
Hexachlorobutadiene	0.235	0.229		2.6	20.0
2-Methylnaphthalene	0.631	0.625		1.0	
Hexachlorocyclopentadiene	0.316	0.290	0.05	8.2	20.0
2-Chloronaphthalene	1.209	1.221		-1.0	20.0
2-Nitroaniline	0.541	0.635		-17.4	
Dimethylphthalate	1.444	1.442		0.1	20.0
Acenaphthylene	1.915	1.940		-1.3	20.0
2,6-Dinitrotoluene	0.354	0.362		-2.2	20.0

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

Instrument ID: BNAMS7 Calibration Date: 06/12/02 Time: 1824

Lab File ID: L1593 Init. Calib. Date(s): 06/11/02 06/11/02

Init. Calib. Times: 1825 2150

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.361	0.369		-2.2	
Acenaphthene	1.253	1.311		-4.6	20.0
Dibenzofuran	1.659	1.666		-0.4	
2,4-Dinitrotoluene	0.473	0.479		-1.3	20.0
Diethylphthalate	1.494	1.456		0.1	20.0
4-Chlorophenyl-phenylether	0.676	0.670		0.9	20.0
Fluorene	1.406	1.424		-1.3	20.0
4-Nitroaniline	0.377	0.386		-2.4	
N-Nitrosodiphenylamine	0.536	0.549		-2.4	20.0
4-Bromophenyl-phenylether	0.260	0.258		0.8	20.0
Hexachlorobenzene	0.329	0.319		3.0	20.0
Phenanthrene	1.036	1.040		-0.4	20.0
Anthracene	1.063	1.065		-0.2	20.0
Carbazole	0.972	0.940		3.3	
Di-n-butylphthalate	1.420	1.426		-0.4	20.0
Fluoranthene	1.116	1.123		-0.6	20.0
Pyrene	1.022	1.010		1.2	20.0
Benzidine	0.281	0.250		11.0	
Butylbenzylphthalate	0.588	0.579		1.5	20.0
3,3'-Dichlorobenzidine	0.418	0.411		1.7	20.0
Benzo(a)anthracene	1.013	1.004		0.9	20.0
Chrysene	0.934	0.944		-1.1	20.0
bis(2-Ethylhexyl)phthalate	0.825	0.854		-3.5	20.0
Di-n-octylphthalate	1.452	1.471		-1.3	20.0
Benzo(b)fluoranthene	1.140	1.134		0.5	20.0
Benzo(k)fluoranthene	1.226	1.249		-1.9	20.0
Benzo(a)pyrene	1.095	1.118		-2.1	20.0
Indeno(1,2,3-cd)pyrene	1.103	1.138		-3.2	20.0
Dibenz(a,h)anthracene	1.106	1.159		-4.8	20.0
Benzo(g,h,i)perylene	1.125	1.173		-4.3	20.0
Pyridine	1.300	1.290		0.8	
Aniline	1.778	1.789		-0.6	
Benzyl Alcohol	0.817	0.854		-4.5	
1,2-Diphenylhydrazine	0.936	0.943		-0.7	
Diphenyl	1.506	1.547	0.001	-2.7	20.0
Diphenyl Ether	0.823	0.837	0.001	-1.7	20.0
Acetophenone	1.964	2.044	0.001	-4.1	20.0

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

Instrument ID: BNAMS7 Calibration Date: 06/12/02 Time: 1824

Lab File ID: L1593 Init. Calib. Date(s): 06/11/02 06/11/02

Init. Calib. Times: 1825 2150

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N,N-Dimethylaniline	1.956	1.982	0.001	-1.3	20.0
1,4-Dioxane	0.560	0.551	0.01	1.6	20.0
2,3,7,8-TCDD (screen)	0.183	0.184		-0.5	20.0
Benzaldehyde	0.814	0.623		23.5	20.0
Caprolactam	0.119	0.119		0.0	20.0
Atrazine	0.203	0.194		4.4	20.0
2-Fluorophenol (SUR)	1.166	1.183		-1.4	
Phenol-d5 (SUR)	1.491	1.556		-4.4	
2,4,6-Tribromophenol (SUR)	0.319	0.320		-0.3	20.0
Nitrobenzene-d5 (SUR)	0.470	0.471		-0.2	
2-Fluorobiphenyl (SUR)	1.367	1.389		-1.6	
Terphenyl-d14 (SUR)	0.844	0.844		0.0	

Surrogate Compound Recovery Summary

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 625

Matrix: WATER Level: LOW Lab Job No: X147

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	WB158	94	84	102		0
02	354696	94	91	93		0
03	354697	88	85	87		0
04	354698	92	90	92		0
05	354699	93	91	88		0
06	354701	92	88	89		0
07	354702	95	93	98		0
08	354703	92	89	96		0
09	354704	95	92	104		0
10	354706	93	82	97		0
11	354708	93	90	92		0
12	354709	91	89	93		0
13	354700	75	65	74		0
14	354705	73	67	80		0
15	354707	85	84	94		0
16	354707MS	88	87	92		0
17	354707MSD	87	86	93		0
18	354711	94	86	83		0
19	354713	94	82	91		0
20	354712	96	88	87		0
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= Nitrobenzene-d5	(43-126)
S2	= 2-Fluorobiphenyl	(46-126)
S3	= Terphenyl-d14	(55-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 354707

MS Sample from Lab Job No: X147

QA Batch: 7343

Compound	MS % REC.	BS % REC.	LIMITS
bis(2-Chloroethyl)ether	88	85	12-158
1,3-Dichlorobenzene	71	68	0-172
1,4-Dichlorobenzene	71	71	20-124
1,2-Dichlorobenzene	71	72	32-129
bis(2-chloroisopropyl)ether	82	82	36-166
N-Nitroso-di-n-propylamine	94	89	0-230
Hexachloroethane	76	63	40-113
Nitrobenzene	88	85	35-180
Isophorone	86	84	21-196
bis(2-Chloroethoxy)methane	88	87	33-184
1,2,4-Trichlorobenzene	76	74	44-142
Naphthalene	100	83	21-133
Hexachlorobutadiene	65	62	24-116
2-Chloronaphthalene	82	87	60-118
Dimethylphthalate	8	4	0-112
Acenaphthylene	88	87	33-145
2,6-Dinitrotoluene	88	90	50-158
Acenaphthene	76	79	47-145
2,4-Dinitrotoluene	88	89	39-139
Diethylphthalate	39	30	0-114
4-Chlorophenyl-phenylether	82	90	25-158
Fluorene	88	94	59-121
4-Bromophenyl-phenylether	88	95	53-127
Hexachlorobenzene	88	93	0-152
Phenanthrene	94	96	54-120
Anthracene	94	94	27-133
Di-n-butylphthalate	76	77	1-118
Fluoranthene	88	90	26-137
Pyrene	94	100	52-115
Butylbenzylphthalate	76	62	0-152

* Values outside of QC limits

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 354707

MS Sample from Lab Job No: X147

QA Batch: 7343

Compound	MS % REC.	BS % REC.	LIMITS
1,2,5-Dichlorobenzidine	76	72	0-262
Benzo(a)anthracene	94	98	33-143
Chrysene	100	100	17-168
bis(2-Ethylhexyl)phthalate	97	99	8-158
Di-n-octylphthalate	88	96	4-146
Benzo(b)fluoranthene	88	93	24-159
Benzo(k)fluoranthene	88	96	11-162
Benzo(a)pyrene	88	93	17-163
Indeno(1,2,3-cd)pyrene	88	91	0-171
Dibenz(a,h)anthracene	94	97	0-227
Benzo(g,h,i)perylene	88	95	0-219

* Values outside of QC limits

Spike Recovery: 0 out of 82 outside limits

COMMENTS:

Internal Standard Area and RT Summary

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Q7596 Date Analyzed: 06/07/02

Instrument ID: BNAMS5 Time Analyzed: 0738

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	168266	14.03	691313	16.12	1049817	26.00
	UPPER LIMIT	336532	14.53	1382626	16.62	2099634	26.50
	LOWER LIMIT	84133	13.53	345656	15.62	524908	25.50
	LABORATORY SAMPLE NO.						
01	WB158	163810	14.02	661126	16.11	912543	25.97
02							
03							
04							
05							
06							
07							
08							
09							
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18							
19							
20							
21							
22							

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): Q7596 Date Analyzed: 06/07/02

Instrument ID: BNAMS5 Time Analyzed: 0738

		IS4 (ANT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	462394	18.99	920664	21.43	961760	30.37
	UPPER LIMIT	924788	19.49	1841328	21.93	1923520	30.87
	LOWER LIMIT	231197	18.49	460332	20.93	480880	29.87
	LABORATORY SAMPLE NO.						
01	WB158	444413	18.98	876590	21.42	867387	30.34
02							
03							
04							
05							
06							
07							
08							
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20							
21							
22							

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): L1528 Date Analyzed: 06/10/02

Instrument ID: BNAMS7 Time Analyzed: 1047

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	287010	13.57	1018342	15.72	900228	25.59
	UPPER LIMIT	574020	14.07	2036684	16.22	1800456	26.09
	LOWER LIMIT	143505	13.07	509171	15.22	450114	25.09
	LABORATORY SAMPLE NO.						
01	354696	225068	13.57	783877	15.71	720840	25.57
02	354697	223574	13.57	766504	15.72	697604	25.58
03	354698	233084	13.57	809694	15.71	717223	25.58
04	354699	229165	13.57	791505	15.71	701911	25.57
05	354701	216770	13.57	743981	15.71	661506	25.57
06	354702	221851	13.57	751678	15.71	672980	25.57
07	354703	219648	13.57	755592	15.71	678695	25.56
08	354704	206374	13.57	714373	15.71	630421	25.57
09	354706	204103	13.57	710492	15.71	641187	25.57
10	354708	214081	13.57	731292	15.71	655471	25.57
11	354709	225825	13.57	770717	15.71	690015	25.57
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,3-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): L1528 Date Analyzed: 06/10/02

Instrument ID: BNAMS7 Time Analyzed: 1047

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	556274	18.62	997064	21.09	769276	29.60
	UPPER LIMIT	1112548	19.12	1994128	21.59	1538552	30.10
	LOWER LIMIT	278137	18.12	498532	20.59	384638	29.10
	LABORATORY SAMPLE NO						
01	354696	433613	18.62	775885	21.08	638513	29.60
02	354697	421899	18.62	749560	21.09	620688	29.59
03	354698	440023	18.62	781564	21.08	628630	29.59
04	354699	425559	18.62	764784	21.08	627590	29.60
05	354701	405722	18.62	717071	21.08	591894	29.58
06	354702	409521	18.62	730586	21.08	595924	29.59
07	354703	418138	18.62	744098	21.08	602501	29.58
08	354704	395694	18.62	701348	21.08	571790	29.59
09	354706	388295	18.62	695915	21.08	566816	29.58
10	354708	397899	18.62	712532	21.08	585420	29.58
11	354709	420450	18.62	751319	21.08	624092	29.59
12							
13							
14							
15							
16							
17							
18							
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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): L1564

Date Analyzed: 06/11/02

Instrument ID: BNAMS7

Time Analyzed: 1825

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	219281	13.58	732882	15.71	744146	25.58
	UPPER LIMIT	438562	14.08	1465764	16.21	1488292	26.08
	LOWER LIMIT	109640	13.08	366441	15.21	372073	25.08
	LABORATORY SAMPLE NO						
01	354700	209246	13.58	621044	15.72	698869	25.57
02	354705	206914	13.58	625800	15.71	673505	25.57
03	354707	199058	13.57	673376	15.72	677350	25.57
04	354707MS	210986	13.58	729039	15.72	694598	25.59
05	354707MSD	233245	13.58	798139	15.72	746560	25.59
06	354711	233680	13.58	735126	15.71	726855	25.57
07	354713	199389	13.57	634542	15.71	666663	25.57
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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): L1564 Date Analyzed: 06/11/02

Instrument ID: BNAMS7 Time Analyzed: 1825

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	409842	18.63	706217	21.08	697721	29.61
	UPPER LIMIT	819684	19.13	1412434	21.58	1395442	30.11
	LOWER LIMIT	204921	18.13	353108	20.58	348860	29.11
	LABORATORY SAMPLE NO.						
01	354700	394476	18.62	687706	21.08	709212	29.59
02	354705	386429	18.62	648889	21.08	674478	29.60
03	354707	402317	18.62	675890	21.08	680125	29.60
04	354707MS	412611	18.62	697071	21.09	701578	29.62
05	354707MSD	434721	18.63	736697	21.08	748709	29.61
06	354711	444015	18.62	742737	21.08	733026	29.60
07	354713	395144	18.62	673913	21.08	676626	29.59
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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): L1593 Date Analyzed: 06/12/02

Instrument ID: BNAMS7 Time Analyzed: 1824

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
12 HOUR STD	251226	13.58	854822	15.72	839172	25.60
UPPER LIMIT	502452	14.08	1709644	16.22	1678344	26.10
LOWER LIMIT	125613	13.08	427411	15.22	419586	25.10
LABORATORY SAMPLE NO.						
01 354712	237711	13.58	732695	15.71	724210	25.57
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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): L1593 Date Analyzed: 06/12/02

Instrument ID: BNAMS7 Time Analyzed: 1824

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	467461	18.63	801379	21.09	785673	29.62
	UPPER LIMIT	934922	19.13	1602758	21.59	1571346	30.12
	LOWER LIMIT	233730	18.13	400690	20.59	392836	29.12
	LABORATORY SAMPLE NO.						
01	354712	442473	18.62	730367	21.08	746123	29.60
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IS4 (ANT) = Acenaphthene-d10
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AREA UPPER LIMIT = +100% of internal standard area
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Appendix G
L.E. Carpenter Surface Water Sampling Protocol

RMT STANDARD OPERATING PROCEDURE FOR SURFACE WATER SAMPLING AT L.E. CARPENTER, WHARTON, NEW JERSEY

1. PURPOSE

To define guidelines followed by field personnel in sampling surface water bodies and documenting all aspects of surface water sample collection.

2. DISCUSSION

The sampling of streams, rivers, ponds, and lakes requires care to avoid contamination and collect representative samples. The preferred method for collecting surface water samples uses a peristaltic pump (Korte and Kearl 1984). The pump system allows the union of the filtration assembly with the pump and the sample container. In this method, surface samples can be filtered and collected directly with minimal elapsed time. With a peristaltic pump, only inert materials contact the sample. The inert pump tubing is relatively inexpensive and easily replaced.

3. PROCEDURES

A. Locate sampling sites along the surface water body and the appropriate decontamination area. In general, base the exact sampling location and number of samples obtained on the known tendency of waste to mix slowly in surface water (Korte and Kearl 1984). The site manager or field personnel should designate the number of samples to be gathered and the sampling locations. Examine all shorelines of the ditches and take digital pictures of the ditches. Locate and photograph any visual seeps into the surface water and record the approximate locations on a sketch map. Initiate sampling at the most upstream location, then the most downstream location, and lastly sample the locations closest to known sources of groundwater contamination.

B. Locate an area where the sample collection can be staged without disturbing the water or sediment in the ditch. Since the contaminants of concern at this location may be concentrated in the ditch sediments, do not disturb the ditch bottom or shore area so as to introduce sediment into the sample.

C. Decontaminate all sampling equipment before taking the first sample and between sampling.

D. Whenever a sample is collected, record all field measurements and chemistry determinations on an appropriate form.

E. To collect a sample, use the procedure outlined below:

- Attach flexible Tygon tubing to peristaltic pump and attach a 10' segment of stiffer Teflon lined polyethylene tubing to the flexible tubing
- Lower tubing intake into surface water and begin water removal. Lower tubing to a depth halfway between the bottom of the ditch and the water surface. Collect or dispose of water in an acceptable container. Allow containerized water to drain back into surface water after sample has been collected.

- Record amounts of water removed and discharge rates. A calibrated bucket and stopwatch are commonly used for this step.
- Remove enough surface water to ensure that field chemistry parameters (pH, ORP, Temp., DO, and turbidity are stabilized).
- Perform and record final field measurements.
- Fill sample bottles after parameters have stabilized by disconnecting the flow cell and sampling directly from the peristaltic pump discharge line. VOC and DEHP samples will be collected without filtration, samples for lead and/or other metals will require field filtration using a 0.45 *um* filter. 7. Fill the sample bottle, allowing the sample stream to flow gently down the side of the bottle with minimal entry turbulence. Do not allow dirt or dust to blow into the bottle or bottle cap. Shield bottles or bottle cap, as necessary, to eliminate entry of windblown material.
- As quickly as possible, rinse the inside of the bottle cap with sample water, and screw the cap onto bottle tightly. Gently shake the bottle if a preservative (for example, HNO_3, H_2SO_4 or HCl) has been added.
- Immediately put the samples requiring refrigeration into an insulated cooler with water ice. Put all other samples into a box and keep away from direct sunlight.

NOTE: Whenever a sample is collected, a custody record must be initiated on the Custody Transfer Record/Lab Work Request form and a Water Sample Identification Label affixed to the sample container.

4. REFERENCES

Berg, E. L. 1982. "Handbook for Sampling and Sample Preservation of Water and Wastewaters." U.S. Environmental Protection Agency report EPA6004-82029, September 1982. Washington, D.C.: U.S. Government Printing Office.

EPA. 1979. "Methods of Chemical Analysis of Water and Wastes." U.S. Environmental Protection Agency report EPA-6004 - 79-020. Washington, D.C.: U.S. Government Printing Office.

Korte, N., and P. Kearl. 1984. "Procedures for the Collection and Preservation of Ground-water and Surface Water Samples and for the Installation of Monitoring Wells." Bendix Field Engineering Corporation report, Grand Junction, Colorado.