United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 206
Main Post Area

NJDEP UST Registration No. 081533-4
NJDEP Closure Approval No. C-93-2616

Volume 1 of 2
Text, Tables, Figures, Appendices A through F, and Appendix G, Part 1

February 1996

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ENVIRONMENTAL TECHNOLOGIES CORPORATION

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 206

MAIN POST AREA
NJDEP UST REGISTRATION NO. 081533-4
CLOSURE APPROVAL NO. C-93-2616

FEBRUARY 1996

PROJECT NO.: 09-5004-01
CONTRACT NO.: DACA51-94-D-0014

PREPARED FOR:

UNITED STATES ARMY, FORT MONMOUTH, NEW JERSEY
DIRECTORATE OF PUBLIC WORKS
BUILDING 167
FORT MONMOUTH, NJ 07703

PREPARED BY:

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EXECUTIVE SUMMARY

UST Closure

On October 21, 1993, a fiberglass underground storage tank (UST) was closed by removal in accordance with Closure Approval No. C-93-2616 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-4, was located immediately adjacent to Building 206 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-4 was a fiberglass 4,000-gallon No. 2 diesel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE).

Site Assessment - Soil

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) (*Technical Requirements*) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring instruments for evidence of contamination. Following removal, the UST was inspected for cracks or holes. A pinhole was observed in the side of the UST and potentially contaminated soils were identified in the northwest corner of the UST excavation. Due to OVA readings of over 100 ppm, and visible free product in the excavation, a discharge was reported to the NJDEP by the DPW on October 21, 1993. Spill Case No. 93-10-21-1910-16 was assigned.

On October 21, 1993, following removal of the UST and approximately 20 cubic yards of potentially contaminated soils, post-excavation soil samples were collected. Post-excavation samples D, E, F, G, H, and DUP E were collected from a total of five (5) locations along the sidewalls of the excavation immediately above groundwater. Groundwater was present in the excavation at approximately 6 feet below ground surface (BGS). Although no fuel lines were found, post-excavation soil samples A, B, and C were collected from the base of the assumed location of the former fuel lines in the excavation, which was approximately 54 feet. All samples were analyzed for total petroleum hydrocarbons (TPHC).

Findings - Soil

All samples collected from the UST excavation and from below the assumed location of piping associated with the UST contained concentrations of TPHC below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). TPHC levels ranged in concentration from 15.7 mg/kg to 384.0 mg/kg.

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Site Restoration

Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill. The excavation site was then restored to its original condition.

Site Assessment - Groundwater

In response to the observation of possible contamination on the water table in the excavation, one shallow overburden monitoring well (MW-1) was installed at the Building 206 area on September 22, 1994. It was installed approximately 29 feet east of the UST excavation in the assumed downgradient direction. It was screened in the 2.5-to 12.5-foot depth interval, across the water table, which is approximately 4.0 feet below grade surface.

On May 18, 1995 and June 13, 1995, MW-1 was sampled for volatile organic compounds (VOCs) plus 10 tentatively identified compounds with xylene, and semivolatile organic compounds (BNCs) plus 15 tentatively identified compounds. Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual*, and the *Technical Requirements*.

Findings - Groundwater

All groundwater and analytical results were either below the detection limit or in compliance with the New Jersey Groundwater Quality Criteria (GWQC). No product or sheen was observed in MW-1 on either of the sampling dates.

The sample collected from MW-1 on May 18, 1995, contained a methylene chloride concentration of 1.4 micrograms per liter (ug/l). All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. It should be noted that the trip blank and the field blank collected on May 18, 1995 also contained a methylene chloride concentration, both of which were 5.1 ug/l. Di-n-butylphthalate was detected at a concentration of 55 ug/l in the field blank. No other compounds were detected in the trip and field blanks.

The sample collected from MW-1 on June 13, 1995, contained a methylene chloride concentration of 2.0 ug/l. All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. The trip blank and the field blank collected on June 13, 1995 also contained a methylene chloride concentration of 2.3 ug/l, and 2.1 ug/l, respectively. No other compounds were detected in the trip and field blanks.

The depth to the water table on May 18, 1995 was approximately 4.15 feet below grade. The depth to the water table on June 13, 1995 was approximately 4.50 feet below grade.

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Site Assessment Quality Assurance

The sampling and laboratory analyses conducted during the site assessments were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements*.

Conclusions and Recommendations

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg do not remain in the former location of the UST, assumed piping location, or fill port area.

Based on the analytical results of the groundwater samples collected on May 18, 1995, and on June 13, 1995, groundwater quality at the Building 206 UST closure site complies with the New Jersey Groundwater Quality Criteria for VOCs and BNCs. The trace concentrations of methylene chloride detected during both rounds is attributed to sampling and/or analytical interference, based on the detection of methylene chloride, a common source of laboratory interference, in the sampling blank.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-4 at Building 206.

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1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One fiberglass underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-4, was closed at Building 206 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey, on October 21, 1993. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on June 6, 1993. The plan was approved on July 12, 1993 and assigned TMS No. C-93-2616. The UST was registered as a steel 4,000-gallon No. 2 fuel oil UST. It is likely that UST No. 081533-4 was originally a 4,000-gallon steel tank that was later replaced by a 4,000-gallon fiberglass, No. 2 fuel oil UST, however no documentation of this replacement is available.

Decommissioning activities for UST No. 081533-4 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-4 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and the signed certifications for UST No. 081533-4 are included in Appendices A and B, respectively.

Based on an inspection of the UST, and field screening of subsurface soils, the DPW has concluded that a historical discharge was associated with the UST. Based on this observation a spill was reported to the NJDEP "Hotline" for UST No. 081533-4 and assigned Spill Case No. 93-10-21-1910-16.

This UST Closure and Site Investigation Report has been prepared by Smith Environmental Technologies Corporation to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the *"Interim Closure Requirements for Underground Storage Tank Systems"* (N.J.A.C. 7:14B-1 et seq. September 1990 and revisions dated November 1, 1991).

This report was prepared using information required at the time of closure. Section 1 of this UST Closure and Site Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and

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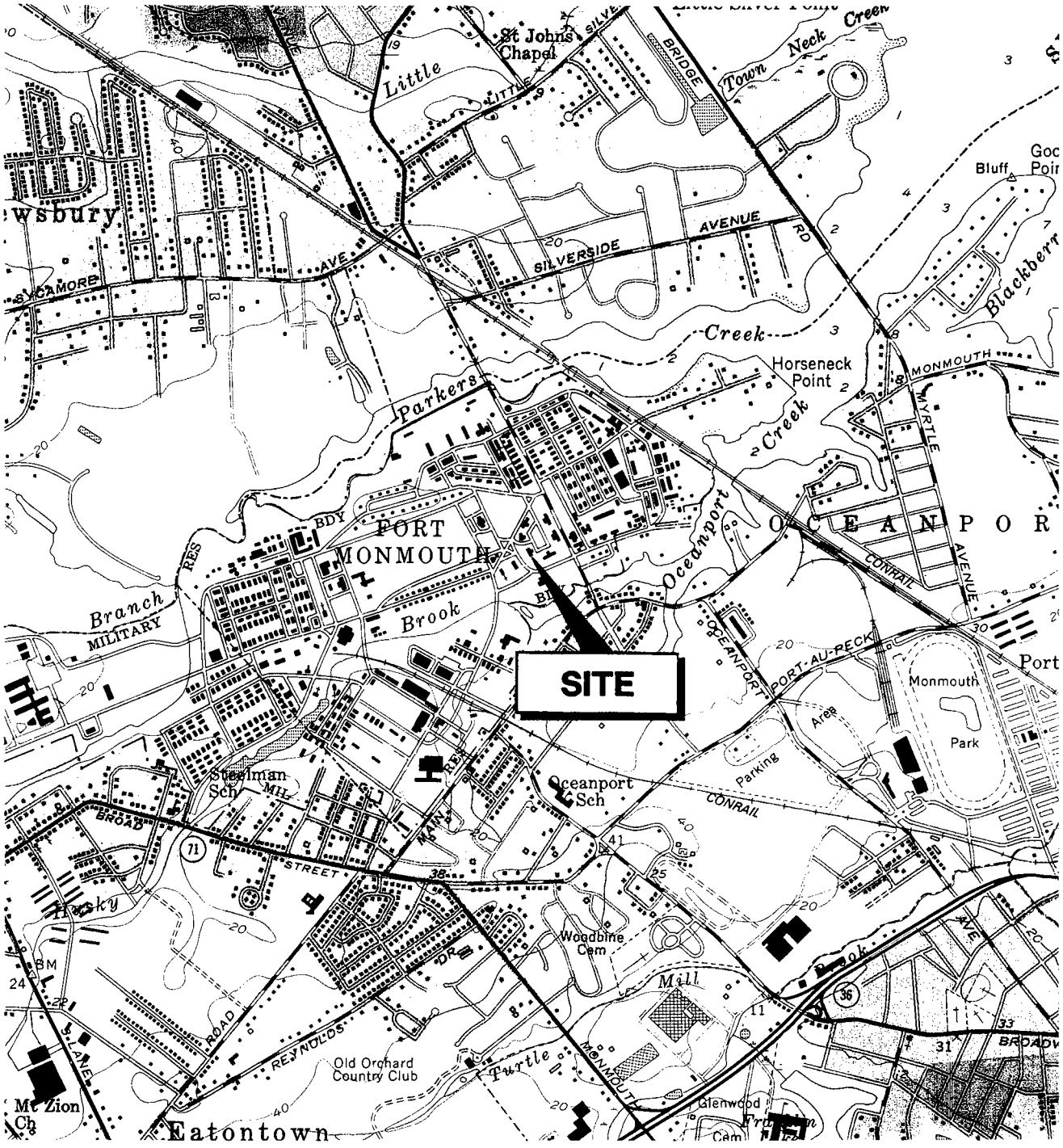

Source: U.S.G.S. Quadrangle Long Branch, N.J.

Project No. 00-5004-01

Figure 1
Site Location Map

recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

1.2 SITE DESCRIPTION

Building 206 is located in the eastern portion of the Main Post area of Fort Monmouth as shown on Figure 1. UST No. 081533-4 was located southeast of Building 206. The USTs piping was not found, and was assumed to have been previously removed. The USTs former piping was assumed to have run approximately 54 feet southeast from Building 206 to the fill port area. A site map is provided on Figure 2. The fill port area was located directly above the UST and adjacent to an asphalt parking lot for easy access.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 206. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain physiographic province. The Main Post, Charles Wood, and the Evans areas are located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands.

In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapecza, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual thicknesses for these units vary greatly (i.e., from several feet to several hundred feet). The Coastal Plain deposits thicken to the southeast from the Fall Line to greater than 6,500 feet in Cape May County (Brown and Zapecza, 1990).

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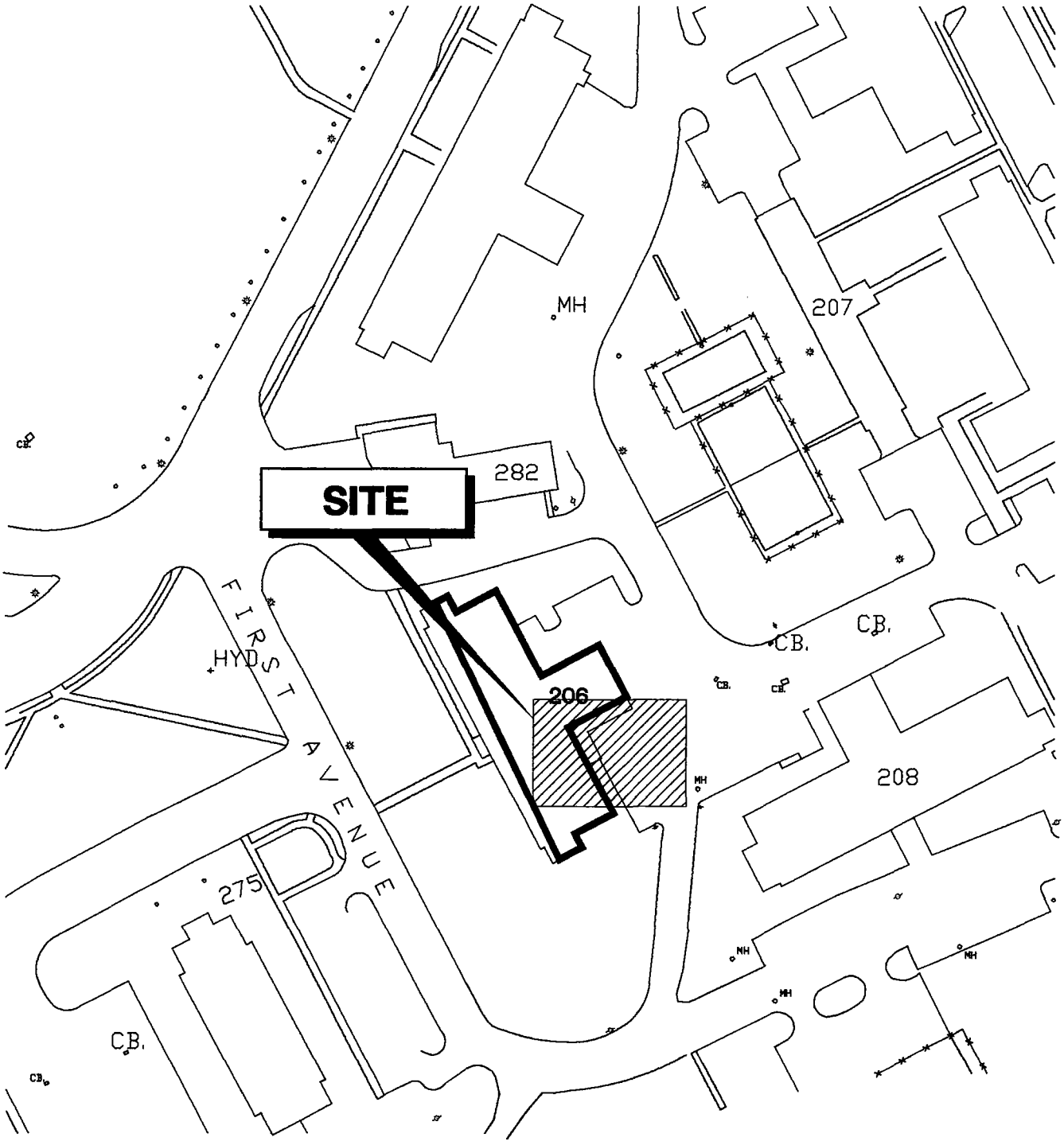

Source: BCM/Smith Environmental Technologies Corporation (005)

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Figure 2
Building 206
Site Map

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Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium- to coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

The Tinton sand conformably overlies the Red Bank Sand and ranges from a clayey medium to very coarse grained feldspathic quartz and glauconite sand to a glauconitic coarse sand. The color varies from dark yellowish orange or light brown to moderate brown and from light olive to grayish olive. Glauconite may constitute 60 to 80 percent of the sand fraction in the upper part of the unit (Minard, 1969). The upper part of the Tinton is often highly oxidized and ironoxide encrusted (Minard).

Hydrogeology

The water table aquifer at the Main Post area is identified as part of the "composite confining units," or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

Based on records of wells drilled at the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (BGS). The depth to the water table measured on September 22, 1994 in the Building 206 monitoring well (MW-1), was approximately 4.0 feet below grade. According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Due to the proximity of the Atlantic Ocean to Fort Monmouth, shallow groundwater may be tidally influenced and may flow toward creeks and brooks as the tide goes out, and away from creeks and brooks as the tide comes in. However, an abundance of clay lenses and sand deposits were noted in borings installed throughout Fort Monmouth. Therefore the direction of shallow groundwater should be determined on a case by case basis.

Shallow groundwater is locally influenced within the Main Post area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers and tributaries)
- topography
- nature of the fill material within the Main Post area

- presence of clay and silt lenses in the natural overburden deposits
- local groundwater recharge areas (i.e., streams, lakes)

Building 206 is located approximately 900 feet north of Oceanport Creek, the nearest water body.

1.3 HEALTH AND SAFETY

Before, during, and after all decommissioning activities, hazards at the work site which may have posed a threat to the Health and Safety of all personnel who were involve with, or were affected by, the decommissioning of the UST system were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing an organic vapor analyzer (OVA). The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- All underground obstructions (utilities, etc.) were marked out by the contractor performing the closure prior to excavation activities.
- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.
- Surface materials (i.e., asphalt, concrete, etc.) were excavated and staged separately from all soil and recycled in accordance with all applicable regulations and laws.
- A Sub-Surface Evaluator from the DPW was present during all closure activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was

completely emptied of all liquids prior to removal from the ground. Approximately 640 gallons of liquid were transported by Freehold Cartage Inc., to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal facility located in Old Bridge, New Jersey. Refer to Appendix C for waste manifest (manifest No. NJA-1706540).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for corrosion holes. A pin hole was observed in the side of the UST during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. A thin layer of free product was observed in the northwest corner of the excavation and OVA readings were >100 ppm.

Approximately 20 cubic yards of potentially contaminated soils were excavated and transported to the T-80 storage area within Main Post, and were covered with tarps.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc. to Monmouth County Reclamation Center, for recycling in compliance with all applicable regulations and laws. Refer to Appendix D for UST disposal certificate.

The Subsurface Evaluator labeled the UST prior to transport with the following information:

- site of origin
- contact person
- NJDEP UST Facility ID number
- name of transporter/contact person
- destination site/contact person

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and visual observations, approximately 20 cubic yards of potentially contaminated soils were excavated from the area surrounding the former location of the UST. Potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to the T-80 storage area within Main Post prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

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2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (1992). Sampling frequency and parameters analyzed complied with the NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (September 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up The Environment Inc. (CUTE)
  Contact Person: Nancy Williams
  Phone Number: (201)427-2881
  NJDEP Company Certification No.: 02200128

- Subsurface Evaluator: Charles M. Appleby
  Employer: U.S. Army, Fort Monmouth
  Phone Number: (908) 532-6224
  NJDEP Certification No.: 002056

- Analytical Laboratory: U.S. Army, Fort Monmouth Environmental Laboratory
  Contact Person: Brian K. McKee
  Phone Number: (908)532-4359
  NJDEP Company Certification No.: 13461

- Hazardous Waste Hauler: Freehold Cartage, Inc.
  Contact Person: Barry Olsen
  Phone Number: (908)462-1001
  NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP certified sub-surface evaluator using an OVA and visual observations to identify potentially contaminated material. Additional soils were removed

from the excavation surrounding UST No. 081533-4 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On October 21, 1993, post-excavation soil samples D, E, F, G, H, and DUP E were collected from a total of five (5) locations along the sidewalls of the UST excavation immediately above groundwater. Groundwater was present in the excavation at approximately 6 feet BGS. On October 21, 1993, post-excavation soil samples A, B, and C were also collected from immediately below the assumed former location of piping associated with the UST. Refer to soil sampling location map on Figure 3. All samples were analyzed for total petroleum hydrocarbons (TPHC). Because none of the soil samples exhibited a concentration of contaminants exceeding 1,000 milligrams per kilogram (mg/kg), none were analyzed for volatile organic compounds with a forward library search for 10 tentatively identified contaminants (VO+10).

The site assessment was performed by U.S. Army personnel in accordance with the *Technical Requirements* and the *Field Sampling Procedures Manual.* A summary of sampling activities including parameters analyzed is provided on Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 768 mg/kg still below the applicable NJDEP cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army, Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey for analysis.

2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

In response to the observation of possible contamination on the water table in the excavation, one shallow overburden monitoring well (MW-1) was installed at the Building 206 area on September 22, 1994. It was installed approximately 29 feet east of the UST excavation in the assumed downgradient direction. A monitoring well location map is provided on Figure 4. The well was screened in the 2.5- to 12.5-foot depth interval, across the water table, which is approximately 4.0 feet below grade surface.

The well was constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual.* The NJDEP well permit and a well construction log are presented in Appendix E.

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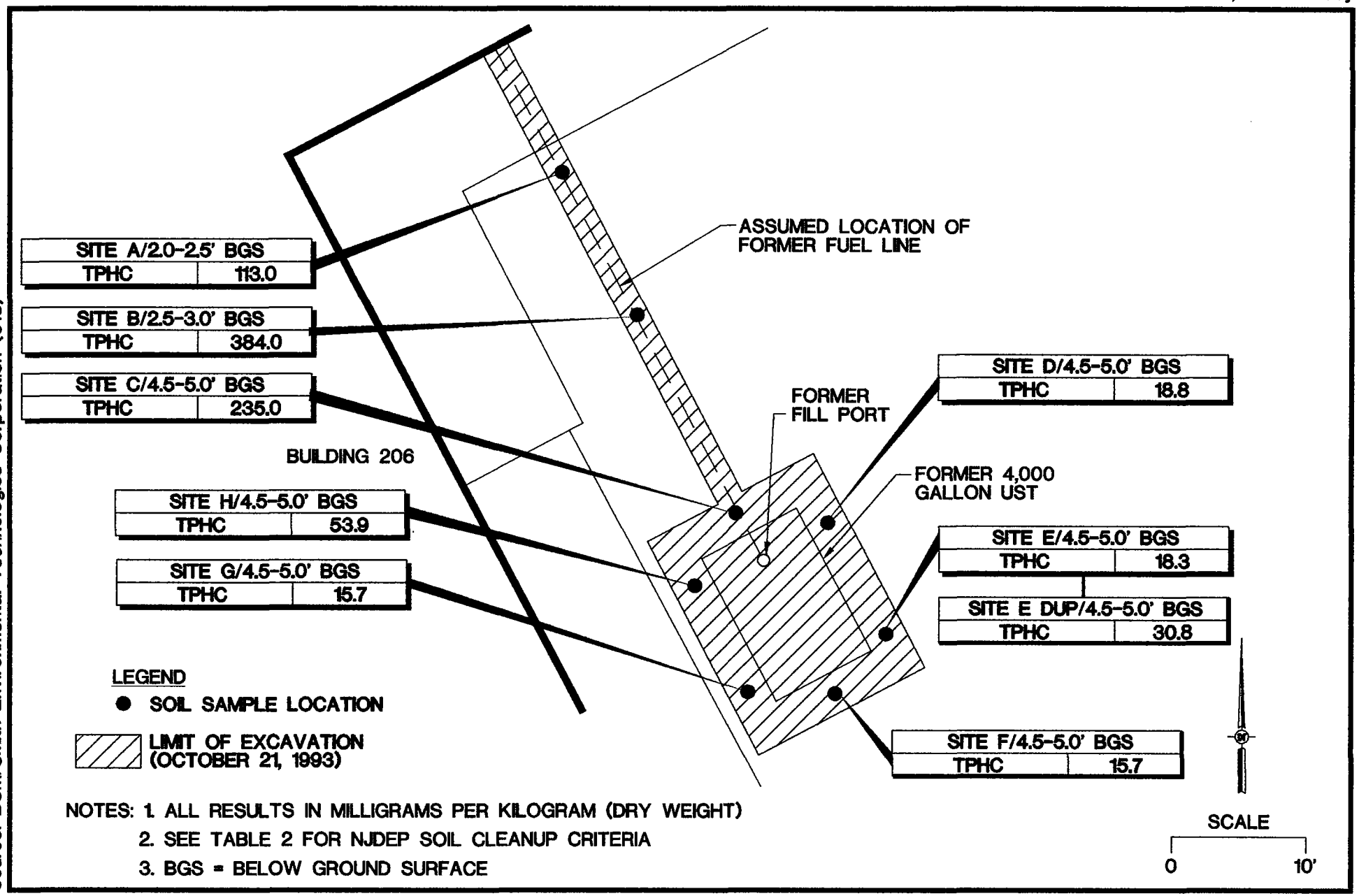

Source: BCM/Smith Environmental Technologies Corporation (013)

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Figure 3
Building 206
Soil Sampling Results

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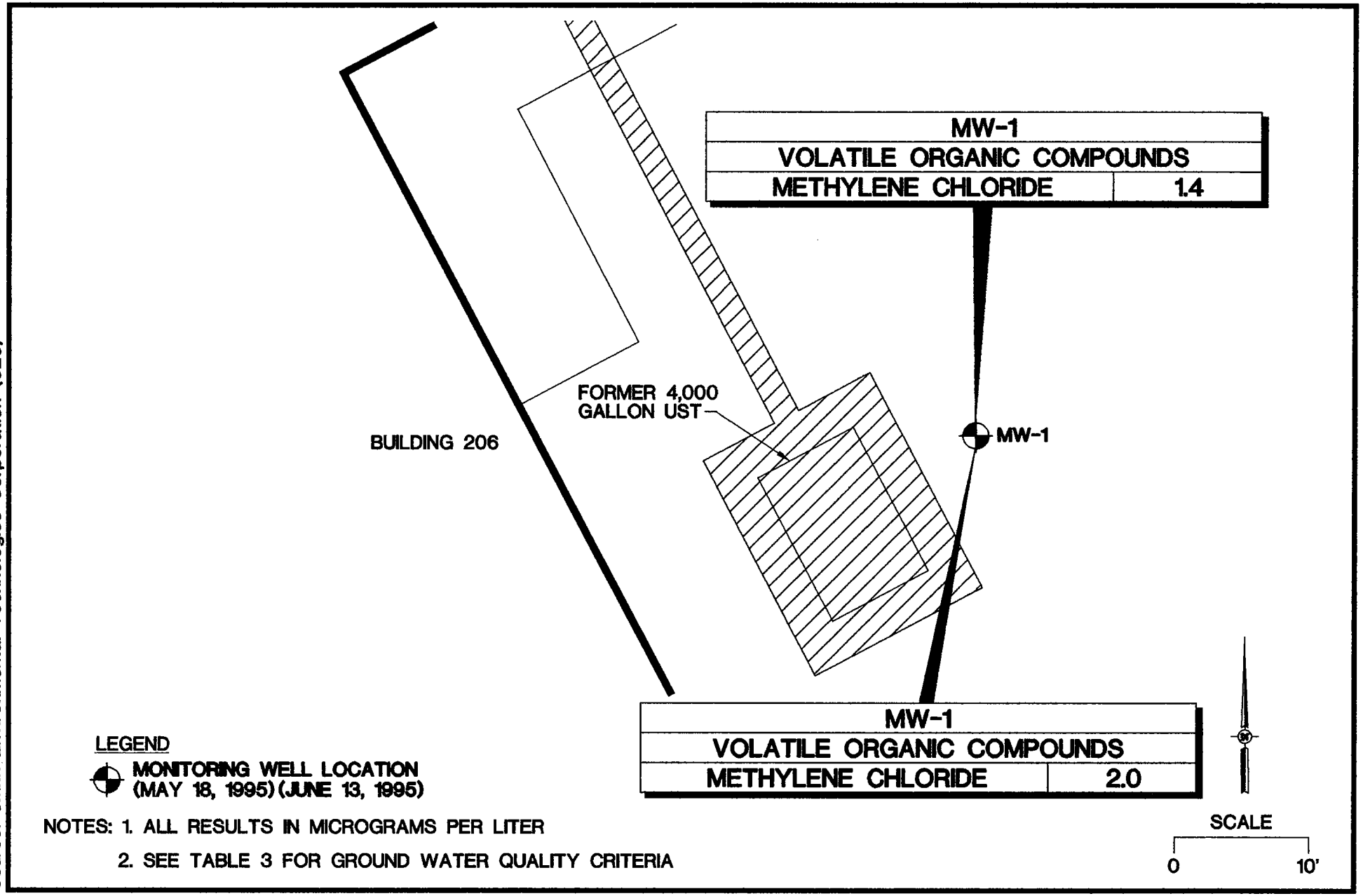

Source: Smith Environmental Technologies Corporation (025)

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Figure 4
Building 206
Groundwater Sampling Results

TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 206, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
G	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
H	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
DUP E	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
MW-1	5/18/95	Aqueous	Groundwater	VOC, BNC	Teflon Bottom Bailer
MW-1	6/13/95	Aqueous	Groundwater	VOC, BNC	Teflon Bottom Bailer

*Note:

TPHC - Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)
VOC - Volatile Organic Compounds plus 10 tentatively identified compounds (Method 524.2 / aqueous)
BNC - Semivolatile Organic Compounds plus 15 tentatively identified compounds (Method 625 / aqueous)

The well was constructed with 4-inch (ID) PVC riser and 0.020 slotted PVC well screen. A silica sand pack was installed in the annulus between the borehole wall and the screen. The sand pack was extended approximately 2 feet above the top of the screen. The sand pack above the well screen was graded down to a fine sand to minimize grout intrusion.

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to 6 inches BGS. The well was secured with a water-tight, flush-mounted locking road box. The road box was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

The monitoring well was developed using a submersible pump. The well was pumped for 1 hour or until silt free. All residual soils and liquids generated during monitoring well installation and development program were collected in New Jersey Department of Transportation-approved 55-gallon drums. The drums were placed in a designated secure location for waste characterization and offsite disposal.

2.4.2 Monitoring Well Sampling

On May 18, 1995 and June 13, 1995, MW-1 was sampled for volatile organic compounds plus 10 tentatively identified compounds with xylene, and semivolatile organic compounds plus 15 tentatively identified compounds. Sampling and analysis were completed in accordance with the *Field Sampling Procedures Manual* and the *Technical Requirements*.

Prior to sampling, the water level was measured to the nearest 0.01 feet, and the distance to the bottom of the well was measured to the nearest 0.1 feet. The well was checked for floating product (light non-aqueous phase liquids). The well was then purged of three to five well volumes of standing water. Sample volume was then collected using a dedicated decontaminated Teflon bottom-fill bailer attached to PTFE (Teflon)-coated stainless steel.

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3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from a total of eight (8) locations on October 21, 1993. All samples were analyzed for TPHC. The post-excavation soil sample results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided on Table 2 and the soil sampling results are shown on Figure 3. The soil analytical data package summary is provided in Appendix F. The full data package, including associated quality control data, is on file at the U.S. Army Fort Monmouth, DPW.

All post-excavation soil samples collected on October 21, 1993, from the UST excavation and from below the assumed location of the former piping associated with the UST, contained TPHC concentrations below the NJDEP soil cleanup criteria. All samples contained TPHC concentrations ranging from 15.7 mg/kg to 384 mg/kg.

Based on visible oil in the excavation, and a pinhole in the side of the UST, a discharge was reported to the NJDEP by the DPW on October 21, 1993. Spill Case No. 93-10-21-1910-16 was assigned.

3.2 GROUNDWATER SAMPLING RESULTS

The groundwater sampling results are listed in Table 3 and shown on Figure 4. The laboratory documentation is in Appendix G. All VOC and BNC results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC). No product or sheen was observed in MW-1.

The sample collected from MW-1 on May 18, 1995, contained a methylene chloride concentration of 1.4 micrograms per liter (ug/l). All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. It should be noted that the trip blank and the field blank collected on May 18, 1995 also contained a methylene chloride concentration, both of which were 5.1 ug/l. Di-n-butylphthalate was detected at a concentration of 55 ug/l in the field blank. No other compounds were detected in the trip and field blanks.

The sample collected from MW-1 on June 13, 1995, contained a methylene chloride concentration of 2.0 ug/l. All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. The trip blank and the field blank collected on June 13, 1995 also contained a methylene chloride concentration of 2.3 ug/l, and 2.1 ug/l, respectively. No other compounds were detected in the trip and field blanks. The depth to the

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 206, MAIN POST
FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/2.0-2.5'	1294.1	10-21-93	10-22-93	Total Solid	--	--	80%	--	--
				TPHC	3.3	yes	113.0	10,000	--
B/2.5-5.0'	1294.2	10-21-93	10-22-93	Total Solid	--	--	80%	--	--
				TPHC	20.0	yes	384.0	10,000	--
C/4.5-5.0'	1294.3	10-21-93	10-22-93	Total Solid	--	--	84%	--	--
				TPHC	3.3	yes	235.0	10,000	--
D/4.5-5.0'	1294.4	10-21-93	10-22-93	Total Solid	--	--	84%	--	--
				TPHC	3.3	yes	18.8	10,000	--
E/4.5-5.0'	1294.5	10-21-93	10-22-93	Total Solid	--	--	86%	--	--
				TPHC	3.3	yes	18.3	10,000	--
F/4.5-5.0'	1294.6	10-21-93	10-22-93	Total Solid	--	--	80%	--	--
				TPHC	3.3	yes	15.7	10,000	--
G/4.5-5.0'	1294.7	10-21-93	10-22-93	Total Solid	--	--	80%	--	--
				TPHC	3.3	yes	15.7	10,000	--
H/4.5-5.0'	1294.8	10-21-93	10-22-93	Total Solid	--	--	83%	--	--
				TPHC	3.3	yes	53.9	10,000	--
DUP E/4.5-5.0'	1294.9	10-21-93	10-22-93	Total Solid	--	--	86%	--	--
				TPHC	3.3	yes	30.8	10,000	--

Note:
* Cleanup criteria for total organics
-- Not applicable / does not exceed criteria
TPHC Total Petroleum Hydrocarbons

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			Methylene Chloride	0.50	--	1.4 B	2	--
			1,2-Dichloroethene (trans)	0.50	--	ND	100*	--
			1,1-Dichloroethene	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1-Dichloropropene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			1,1,1-Trichloroethane	0.50	--	ND	30	--
			Dibromomethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			Bromodichloromethane	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			cis-1,3-Dichloropropene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	--	--
			Trichloroethene	0.50	--	ND	1	--
			Dibromochloromethane	0.50	--	ND	10	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	1,1,2-Trichloroethane	0.50	--	ND	3	--
			Benzene	0.50	yes	ND	1	--
			trans-1,3-Dichloropropene	0.50	--	ND	NA	--
			Bromoform	0.50	--	ND	4	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	10	--
			Tetrachloroethene	0.50	--	ND	1*	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	2	--
			Toluene	0.50	yes	ND	1,000	--
			1,2-Dibromoethane	0.50	--	ND	--	--
			Chlorobenzene	0.50	--	ND	4	--
			Ethylbenzene	0.50	yes	ND	700	--
			Xylenes (Total)	0.50	yes	ND	40	--
			Styrene	0.50	--	ND	100	--
			Isopropylbenzene	0.50	--	ND	--	--
			Bromobenzene	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--
			n-Propylbenzene	0.50	--	ND	--	--
			2-Chlorotoluene	0.50	--	ND	--	--
			4-Chlorotoluene	0.50	--	ND	--	--
			1,3,5-Trimethylbenzene	0.50	--	ND	--	--
			tert-Butylbenzene	0.50	--	ND	--	--
			1,2,4-Trimethylbenzene	0.50	--	ND	--	--
			sec-Butylbenzene	0.50	--	ND	--	--
			1,3-Dichlorobenzene	0.50	--	ND	600	--
			1,4-Dichlorobenzene	0.50	--	ND	75	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	4-Isopropyltoluene	0.50	--	ND	--	--
			1,2-Dichlorobenzene	0.50	--	ND	600	--
			n-Butylbenzene	0.50	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.50	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.50	--	ND	9	--
			Hexachlorobutadiene	0.50	--	ND	1	--
			Naphthalene	0.50	--	ND	--	--
			1,2,3-Trichlorobenzene	0.50	--	ND	--	--

Notes:

* The tetrachloroethene, 1,2-Dichloroethene(trans), 1,1-Dichloroethene, and cis-1,2-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachlororethylene, 1,2-Dichloroethylene(trans), 1,1-Dichloroethylene, and cis-1,2-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	N-Nitrosodiethylamine	2	--	ND	20	--
			bis(2 chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			bis(2-chloroisopropyl)Ether	5	--	ND	300	--
			N-Nitroso-Di-n-propylamine	2	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	2	--	ND	10	--
			Isophorone	1	--	ND	100	--
			bis(2-Chloroethoxy)Methane	3	--	ND	--	--
			1,2,4-Trichlorobenzene	2	--	ND	9	--
			Naphthalene	2	--	ND	--	--
			Hexachlorobutadiene	2	--	ND	1	--
			Hexachlorocyclopentadiene	12	--	ND	50	--
			2-Chloronaphthalene	1	--	ND	--	--
			Dimethyl Phthalate	1	--	ND	--	--
			Acenaphthylene	5	--	ND	NA	--
			2,6-Dinitrotoluene	2	--	ND	NA	
			Acenaphthene	3	--	ND	400	--
			2,4-Dinitrotoluene	3	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			Fluorene	3	--	ND	300	--
			4-Chlorophenyl-phenlyether	3	--	ND	--	--
			N-Nitrosodiphenylamine	6	--	ND	20	--
			1,2-Diphenylhydrazine	6	--	ND	0.04	--
			4-Bromophenyl-phenylether	2	--	ND	--	--
			Hexachlorobenzene	2	--	ND	10	--
			Phenanthrene	2	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	Anthracene	2	--	ND	2,000	--
			Di-n-butylphthalate	5	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--
			Butylbenzylphthalate	9	--	ND	100	--
			Benzo(a)Anthracene	2	--	ND	NA	--
			3,3-Dichlorobenzidine	15	--	ND	60	--
			Chrysene	2	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	4	--	ND	30	--
			Di-n-Octyl Phthalate	2	--	ND	100	--
			Benzo(b)Fluoranthene	1	--	ND	NA	--
			Benzo(k)Fluoranthene	2	--	ND	NA	--
			Benzo(a)Pyrene	2	--	ND	NA	--
			Indeno(1,2,3-cd)pyrene	2	--	ND	NA	--
			Dibenzo(a,h)anthracene	3	--	ND	NA	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--

Notes:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/20/95	Bis(2-methoxyethyl)phthalate	--	--	50.0 J	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	Dichlorodifluoromethane	0.50	--	ND
			Chloromethane	0.50	--	ND
			Bromomethane	0.50	--	ND
			Vinyl Chloride	0.50	--	ND
			Chloroethane	0.50	--	ND
			Trichlorofluoromethane	0.50	--	ND
			Methylene Chloride	0.50	--	5.1 B
			1,2-Dichloroethene (trans)	0.50	--	ND
			1,1-Dichloroethene	0.50	--	ND
			1,1 Dichloroethane	0.50	--	ND
			2,2-Dichloropropane	0.50	--	ND
			Bromochloromethane	0.50	--	ND
			cis-1,2-Dichloroethene	0.50	--	ND
			Chloroform	0.50	--	ND
			1,1-Dichloropropene	0.50	--	ND
			1,2-Dichloroethane	0.50	--	ND
			1,1,1-Trichloroethane	0.50	--	ND
			Dibromomethane	0.50	--	ND
			Carbon Tetrachloride	0.50	--	ND
			Bromodichloromethane	0.50	--	ND
			1,2-Dichloropropane	0.50	--	ND
			cis-1,3-Dichloropropene	0.50	--	ND
			1,3-Dichloropropane	0.50	--	ND
			Trichloroethene	0.50	--	ND
			Dibromochloromethane	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	1,1,2-Trichloroethane	0.50	--	ND
			Benzene	0.50	yes	ND
			trans-1,3-Dichloropropene	0.50	--	ND
			Bromoform	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Tetrachloroethene	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50	--	ND
			Chlorobenzene	0.50	--	ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50	--	ND
			Isopropylbenzene	0.50	--	ND
			Bromobenzene	0.50	--	ND
			1,2,3-Trichloropropane	0.50	--	ND
			n-Propylbenzene	0.50	--	ND
			2-Chlorotoluene	0.50	--	ND
			4-Chlorotoluene	0.50	--	ND
			1,3,5-Trimethylbenzene	0.50	--	ND
			tert-Butylbenzene	0.50	--	ND
			1,2,4-Trimethylbenzene	0.50	--	ND
			sec-Butylbenzene	0.50	--	ND
			1,3-Dichlorobenzene	0.50	--	ND
			1,4-Dichlorobenzene	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	4-Isopropyltoluene	0.50	--	ND
			1,2-Dichlorobenzene	0.50	--	ND
			n-Butylbenzene	0.50	--	ND
			1,2-Dibromo-3-chloropropane	0.50	--	ND
			1,2,4-Trichlorobenzene	0.50	--	ND
			Hexachlorobutadiene	0.50	--	ND
			Naphthalene	0.50	--	ND
			1,2,3-Trichlorobenzene	0.50	--	ND

Notes:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/01/95	Dichlorodifluoromethane	0.50	--	ND
			Chloromethane	0.50	--	ND
			Bromomethane	0.50	--	ND
			Vinyl Chloride	0.50	--	ND
			Chloroethane	0.50	--	ND
			Trichlorofluoromethane	0.50	--	ND
			Methylene Chloride	0.50	--	5.1 B
			1,2-Dichloroethene (trans)	0.50	--	ND
			1,1-Dichloroethene	0.50	--	ND
			1,1 Dichloroethane	0.50	--	ND
			2,2-Dichloropropane	0.50	--	ND
			Bromochloromethane	0.50	--	ND
			cis-1,2-Dichloroethene	0.50	--	ND
			Chloroform	0.50	--	ND
			1,1-Dichloropropene	0.50	--	ND
			1,2-Dichloroethane	0.50	--	ND
			1,1,1-Trichloroethane	0.50	--	ND
			Dibromomethane	0.50	--	ND
			Carbon Tetrachloride	0.50	--	ND
			Bromodichloromethane	0.50	--	ND
			1,2-Dichloropropane	0.50	--	ND
			cis-1,3-Dichloropropene	0.50	--	ND
			1,3-Dichloropropane	0.50	--	ND
			Trichloroethene	0.50	--	ND
			Dibromochloromethane	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/01/95	1,1,2-Trichloroethane	0.50	--	ND
			Benzene	0.50	yes	ND
			trans-1,3-Dichloropropene	0.50	--	ND
			Bromoform	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Tetrachloroethene	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50	--	ND
			Chlorobenzene	0.50	--	ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50	--	ND
			Isopropylbenzene	0.50	--	ND
			Bromobenzene	0.50	--	ND
			1,2,3-Trichloropropane	0.50	--	ND
			n-Propylbenzene	0.50	--	ND
			2-Chlorotoluene	0.50	--	ND
			4-Chlorotoluene	0.50	--	ND
			1,3,5-Trimethylbenzene	0.50	--	ND
			tert-Butylbenzene	0.50	--	ND
			1,2,4-Trimethylbenzene	0.50	--	ND
			sec-Butylbenzene	0.50	--	ND
			1,3-Dichlorobenzene	0.50	--	ND
			1,4-Dichlorobenzene	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/01/95	4-Isopropyltoluene	0.50	--	ND
			1,2-Dichlorobenzene	0.50	--	ND
			n-Butylbenzene	0.50	--	ND
			1,2-Dibromo-3-chloropropane	0.50	--	ND
			1,2,4-Trichlorobenzene	0.50	--	ND
			Hexachlorobutadiene	0.50	--	ND
			Naphthalene	0.50	--	ND
			1,2,3-Trichlorobenzene	0.50	--	ND

Notes:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/02/95	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/02/95	N-Nitrosodiethylamine	2	--	ND
			bis(2 chloroethyl)Ether	1	--	ND
			1,3-Dichlorobenzene	2	--	ND
			1,4-Dichlorobenzene	1	--	ND
			1,2-Dichlorobenzene	2	--	ND
			bis(2-chloroisopropyl)Ether	5	--	ND
			N-Nitroso-Di-n-propylamine	2	--	ND
			Hexachloroethane	1	--	ND
			Nitrobenzene	2	--	ND
			Isophorone	1	--	ND
			bis(2-Chloroethoxy)Methane	3	--	ND
			1,2,4-Trichlorobenzene	2	--	ND
			Naphthalene	2	--	ND
			Hexachlorobutadiene	2	--	ND
			Hexachlorocyclopentadiene	12	--	ND
			2-Chloronaphthalene	1	--	ND
			Dimethyl Phthalate	1	--	ND
			Acenaphthylene	5	--	ND
			2,6-Dinitrotoluene	2	--	ND
			Acenaphthene	3	--	ND
			2,4-Dinitrotoluene	3	--	ND
			Diethylphthalate	1	--	ND
			Fluorene	3	--	ND
			4-Chlorophenyl-phenlyether	3	--	ND
			N-Nitrosodiphenylamine	6	--	ND
			1,2-Diphenylhydrazine	6	--	ND
			4-Bromophenyl-phenylether	2	--	ND
			Hexachlorobenzene	2	--	ND
			Phenanthrene	2	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/02/95	Anthracene	2	--	ND
			Di-n-butylphthalate	5	--	55
			Fluoranthene	1	--	ND
			Benzidine	1	--	ND
			Pyrene	2	--	ND
			Butylbenzylphthalate	9	--	ND
			Benzo(a)Anthracene	2	--	ND
			3,3-Dichlorobenzidine	15	--	ND
			Chrysene	2	--	ND
			bis(2-Ethylhexyl)Phthalate	4	--	ND
			Di-n-Octyl Phthalate	2	--	ND
			Benzo(b)Fluoranthene	1	--	ND
			Benzo(k)Fluoranthene	2	--	ND
			Benzo(a)Pyrene	2	--	ND
			Indeno(1,2,3-cd)pyrene	2	--	ND
			Dibenzo(a,h)anthracene	3	--	ND
			Benzo(g,h,i)perylene	2	--	ND

Notes:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BALNK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/02/95	Unknown	--	--	14.0 J

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/21/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			Methylene Chloride	0.50	--	2.0 B	2	--
			1,2-Dichloroethene (trans)	0.50	--	ND	100*	--
			1,1-Dichloroethene	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1-Dichloropropene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			1,1,1-Trichloroethane	0.50	--	ND	30	--
			Dibromomethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			Bromodichloromethane	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			cis-1,3-Dichloropropene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	--	--
			Trichloroethene	0.50	--	ND	1	--
			Dibromochloromethane	0.50	--	ND	10	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/21/95	1,1,2-Trichloroethane	0.50	--	ND	3	--
			Benzene	0.50	yes	ND	1	--
			trans-1,3-Dichloropropene	0.50	--	ND	NA	--
			Bromoform	0.50	--	ND	4	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	10	--
			Tetrachloroethene	0.50	--	ND	1*	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	2	--
			Toluene	0.50	yes	ND	1,000	--
			1,2-Dibromoethane	0.50	--	ND	--	--
			Chlorobenzene	0.50	--	ND	4	--
			Ethylbenzene	0.50	yes	ND	700	--
			Xylenes (Total)	0.50	yes	ND	40	--
			Styrene	0.50	--	ND	100	--
			Isopropylbenzene	0.50	--	ND	--	--
			Bromobenzene	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--
			n-Propylbenzene	0.50	--	ND	--	--
			2-Chlorotoluene	0.50	--	ND	--	--
			4-Chlorotoluene	0.50	--	ND	--	--
			1,3,5-Trimethylbenzene	0.50	--	ND	--	--
			tert-Butylbenzene	0.50	--	ND	--	--
			1,2,4-Trimethylbenzene	0.50	--	ND	--	--
			sec-Butylbenzene	0.50	--	ND	--	--
			1,3-Dichlorobenzene	0.50	--	ND	600	--
			1,4-Dichlorobenzene	0.50	--	ND	75	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/21/95	4-Isopropyltoluene	0.50	--	ND	--	--
			1,2-Dichlorobenzene	0.50	--	ND	600	--
			n-Butylbenzene	0.50	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.50	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.50	--	ND	9	--
			Hexachlorobutadiene	0.50	--	ND	1	--
			Naphthalene	0.50	--	ND	--	--
			1,2,3-Trichlorobenzene	0.50	--	ND	--	--

Notes:

* The tetrachloroethene, 1,2-Dichloroethene(trans), 1,1-Dichloroethene, and cis-1,2-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachlororethylene, 1,2-Dichloroethylene(trans), 1,1-Dichloroethylene, and cis-1,2-Dichloroethylene).

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/98	6/21/95	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/26/95	N-Nitrosodiethylamine	2	--	ND	20	--
			bis(2 chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			bis(2-chloroisopropyl)Ether	5	--	ND	300	--
			N-Nitroso-Di-n-propylamine	2	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	2	--	ND	10	--
			Isophorone	1	--	ND	100	--
			bis(2-Chloroethoxy)Methane	3	--	ND	--	--
			1,2,4-Trichlorobenzene	2	--	ND	9	--
			Naphthalene	2	--	ND	--	--
			Hexachlorobutadiene	2	--	ND	1	--
			Hexachlorocyclopentadiene	12	--	ND	50	--
			2-Chloronaphthalene	1	--	ND	--	--
			Dimethyl Phthalate	1	--	ND	--	--
			Acenaphthylene	5	--	ND	NA	--
			2,6-Dinitrotoluene	2	--	ND	NA	
			Acenaphthene	3	--	ND	400	--
			2,4-Dinitrotoluene	3	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			Fluorene	3	--	ND	300	--
			4-Chlorophenyl-phenlyether	3	--	ND	--	--
			N-Nitrosodiphenylamine	6	--	ND	20	--
			1,2-Diphenylhydrazine	6	--	ND	0.04	--
			4-Bromophenyl-phenylether	2	--	ND	--	--
			Hexachlorobenzene	2	--	ND	10	--
			Phenanthrene	2	--	ND	NA	--

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/26/95	Anthracene	2	--	ND	2,000	--
			Di-n-butylphthalate	5	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--
			Butylbenzylphthalate	9	--	ND	100	--
			Benzo(a)Anthracene	2	--	ND	NA	--
			3,3-Dichlorobenzidine	15	--	ND	60	--
			Chrysene	2	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	4	--	ND	30	--
			Di-n-Octyl Phthalate	2	--	ND	100	--
			Benzo(b)Fluoranthene	1	--	ND	NA	--
			Benzo(k)Fluoranthene	2	--	ND	NA	--
			Benzo(a)Pyrene	2	--	ND	NA	--
			Indeno(1,2,3-cd)pyrene	2	--	ND	NA	--
			Dibenzo(a,h)anthracene	3	--	ND	NA	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--

Notes:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
(NA) Not available for this constituent
GWQC Ground Water Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/98	6/26/95	NO TICS FOUND	--	--	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/95	6/21/95	Dichlorodifluoromethane	0.50	--	ND
			Chloromethane	0.50	--	ND
			Bromomethane	0.50	--	ND
			Vinyl Chloride	0.50	--	ND
			Chloroethane	0.50	--	ND
			Trichlorofluoromethane	0.50	--	ND
			Methylene Chloride	0.50	--	2.3 B
			1,2-Dichloroethene (trans)	0.50	--	ND
			1,1-Dichloroethene	0.50	--	ND
			1,1 Dichloroethane	0.50	--	ND
			2,2-Dichloropropane	0.50	--	ND
			Bromochloromethane	0.50	--	ND
			cis-1,2-Dichloroethene	0.50	--	ND
			Chloroform	0.50	--	ND
			1,1-Dichloropropene	0.50	--	ND
			1,2-Dichloroethane	0.50	--	ND
			1,1,1-Trichloroethane	0.50	--	ND
			Dibromomethane	0.50	--	ND
			Carbon Tetrachloride	0.50	--	ND
			Bromodichloromethane	0.50	--	ND
			1,2-Dichloropropane	0.50	--	ND
			cis-1,3-Dichloropropene	0.50	--	ND
			1,3-Dichloropropane	0.50	--	ND
			Trichloroethene	0.50	--	ND
			Dibromochloromethane	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/95	6/21/95	1,1,2-Trichloroethane	0.50	--	ND
			Benzene	0.50	yes	ND
			trans-1,3-Dichloropropene	0.50	--	ND
			Bromoform	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Tetrachloroethene	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50	--	ND
			Chlorobenzene	0.50	--	ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50	--	ND
			Isopropylbenzene	0.50	--	ND
			Bromobenzene	0.50	--	ND
			1,2,3-Trichloropropane	0.50	--	ND
			n-Propylbenzene	0.50	--	ND
			2-Chlorotoluene	0.50	--	ND
			4-Chlorotoluene	0.50	--	ND
			1,3,5-Trimethylbenzene	0.50	--	ND
			tert-Butylbenzene	0.50	--	ND
			1,2,4-Trimethylbenzene	0.50	--	ND
			sec-Butylbenzene	0.50	--	ND
			1,3-Dichlorobenzene	0.50	--	ND
			1,4-Dichlorobenzene	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/95	6/21/95	4-Isopropyltoluene	0.50	--	ND
			1,2-Dichlorobenzene	0.50	--	ND
			n-Butylbenzene	0.50	--	ND
			1,2-Dibromo-3-chloropropane	0.50	--	ND
			1,2,4-Trichlorobenzene	0.50	--	ND
			Hexachlorobutadiene	0.50	--	ND
			Naphthalene	0.50	--	ND
			1,2,3-Trichlorobenzene	0.50	--	ND

Notes:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/98	6/21/95	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/21/95	Dichlorodifluoromethane	0.50	--	ND
			Chloromethane	0.50	--	ND
			Bromomethane	0.50	--	ND
			Vinyl Chloride	0.50	--	ND
			Chloroethane	0.50	--	ND
			Trichlorofluoromethane	0.50	--	ND
			Methylene Chloride	0.50	--	2.1 B
			1,2-Dichloroethene (trans)	0.50	--	ND
			1,1-Dichloroethene	0.50	--	ND
			1,1 Dichloroethane	0.50	--	ND
			2,2-Dichloropropane	0.50	--	ND
			Bromochloromethane	0.50	--	ND
			cis-1,2-Dichloroethene	0.50	--	ND
			Chloroform	0.50	--	ND
			1,1-Dichloropropene	0.50	--	ND
			1,2-Dichloroethane	0.50	--	ND
			1,1,1-Trichloroethane	0.50	--	ND
			Dibromomethane	0.50	--	ND
			Carbon Tetrachloride	0.50	--	ND
			Bromodichloromethane	0.50	--	ND
			1,2-Dichloropropane	0.50	--	ND
			cis-1,3-Dichloropropene	0.50	--	ND
			1,3-Dichloropropane	0.50	--	ND
			Trichloroethene	0.50	--	ND
			Dibromochloromethane	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/21/95	1,1,2-Trichloroethane	0.50	--	ND
			Benzene	0.50	yes	ND
			trans-1,3-Dichloropropene	0.50	--	ND
			Bromoform	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Tetrachloroethene	0.50	--	ND
			1,1,2,2-Tetrachloroethane	0.50	--	ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50	--	ND
			Chlorobenzene	0.50	--	ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50	--	ND
			Isopropylbenzene	0.50	--	ND
			Bromobenzene	0.50	--	ND
			1,2,3-Trichloropropane	0.50	--	ND
			n-Propylbenzene	0.50	--	ND
			2-Chlorotoluene	0.50	--	ND
			4-Chlorotoluene	0.50	--	ND
			1,3,5-Trimethylbenzene	0.50	--	ND
			tert-Butylbenzene	0.50	--	ND
			1,2,4-Trimethylbenzene	0.50	--	ND
			sec-Butylbenzene	0.50	--	ND
			1,3-Dichlorobenzene	0.50	--	ND
			1,4-Dichlorobenzene	0.50	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE ORGANICS (Continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/21/95	4-Isopropyltoluene	0.50	--	ND
			1,2-Dichlorobenzene	0.50	--	ND
			n-Butylbenzene	0.50	--	ND
			1,2-Dibromo-3-chloropropane	0.50	--	ND
			1,2,4-Trichlorobenzene	0.50	--	ND
			Hexachlorobutadiene	0.50	--	ND
			Naphthalene	0.50	--	ND
			1,2,3-Trichlorobenzene	0.50	--	ND

Notes:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/98	6/21/95	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/26/95	N-Nitrosodiethylamine	2	--	ND
			bis(2 chloroethyl)Ether	1	--	ND
			1,3-Dichlorobenzene	2	--	ND
			1,4-Dichlorobenzene	1	--	ND
			1,2-Dichlorobenzene	2	--	ND
			bis(2-chloroisopropyl)Ether	5	--	ND
			N-Nitroso-Di-n-propylamine	2	--	ND
			Hexachloroethane	1	--	ND
			Nitrobenzene	2	--	ND
			Isophorone	1	--	ND
			bis(2-Chloroethoxy)Methane	3	--	ND
			1,2,4-Trichlorobenzene	2	--	ND
			Naphthalene	2	--	ND
			Hexachlorobutadiene	2	--	ND
			Hexachlorocyclopentadiene	12	--	ND
			2-Chloronaphthalene	1	--	ND
			Dimethyl Phthalate	1	--	ND
			Acenaphthylene	5	--	ND
			2,6-Dinitrotoluene	2	--	ND
			Acenaphthene	3	--	ND
			2,4-Dinitrotoluene	3	--	ND
			Diethylphthalate	1	--	ND
			Fluorene	3	--	ND
			4-Chlorophenyl-phenlyether	3	--	ND
			N-Nitrosodiphenylamine	6	--	ND
			1,2-Diphenylhydrazine	6	--	ND
			4-Bromophenyl-phenylether	2	--	ND
			Hexachlorobenzene	2	--	ND
			Phenanthrene	2	--	ND

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (Continued)

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/26/95	Anthracene	2	--	ND
			Di-n-butylphthalate	5	--	ND
			Fluoranthene	1	--	ND
			Benzidine	1	--	ND
			Pyrene	2	--	ND
			Butylbenzylphthalate	9	--	ND
			Benzo(a)Anthracene	2	--	ND
			3,3-Dichlorobenzidine	15	--	ND
			Chrysene	2	--	ND
			bis(2-Ethylhexyl)Phthalate	4	--	ND
			Di-n-Octyl Phthalate	2	--	ND
			Benzo(b)Fluoranthene	1	--	ND
			Benzo(k)Fluoranthene	2	--	ND
			Benzo(a)Pyrene	2	--	ND
			Indeno(1,2,3-cd)pyrene	2	--	ND
			Dibenzo(a,h)anthracene	3	--	ND
			Benzo(g,h,i)perylene	2	--	ND

Notes:
-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected

TABLE 3

GROUNDWATER SAMPLING RESULTS
BUILDING 206, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/98	6/26/95	NO TICS FOUND	--	--	--

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

water table was 4.15 feet below grade on May 18, 1995, and 4.50 feet below grade on June 13, 1995.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 206 were below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria of 10,000 mg/kg do not remain in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on May 18, 1995, and June 13, 1995, groundwater quality at the Building 206 UST closure site complies with the New Jersey Groundwater Quality Criteria for VOCs and BNCs. The trace concentrations of methylene chloride detected during both rounds is attributed to sampling and/or analytical interference, based on the detection of methylene chloride, a common source of laboratory interference, in the sampling blank.

Monitoring well MW-1 which was installed on September 22, 1994 will not be abandoned immediately. This well is intended to be used for future activities within Main Post.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-4 at Building 206.

SMITH

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM
CLOSURE APPROVAL

CA

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF UNDERGROUND STORAGE TANKS
CN-029, TRENTON, NJ 08625-0029

TMS #	UST #
C-93-2616	0081533

US Army Ft. Monmouth
DEH Bldg. 206
Ft. Monmouth, NJ

Monmouth

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:14B-1 et seq.:

Removal of: one 4,000 gallon #2 diesel UST(s) and appurtenant piping.
SITE ASSESSMENT: Soil samples will be taken every five (5) feet along the center line of each tank and one (1) soil sample for every 15 feet along all associated piping. Two (2) additional samples will be taken from around the tank and biased to the areas of highest field screened readings. Samples will be analyzed for TPHC. If sample results are greater than 1,000ppm than samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby **TELEPHONE:** 908-532-1475

OWNER: **TELEPHONE:**

EFFECTIVE DATE: JUL 12 1993

THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.

KEVIN F. KRATINA, BUREAU CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

SMITH

APPENDIX B

CERTIFICATIONS

UST-014
2/91

FOR STATE USE ONLY

UST # _____
Date Rec'd _____
TMS # _____
Staff _____

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 029
Trenton, NJ 08625-0029
Tel. # 609-984-3156
Fax. # 609-292-5604

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

UNDERGROUND STORAGE TANK SITE ASSESSMENT SUMMARY

Under the provisions of the Underground Storage of Hazardous Substances Act in accordance with N.J.A.C. 7:14B

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- *Please print legibly or type.*
- *Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, Interim Closure Requirements for USTs, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.*
- *Return one original of the form and all required attachments to the above address.*
- *Attach a scaled site diagram of the subject facility which shows the information specified in Item IV B of this form.*
- *Explain any "No" or "N/A" response on a separate sheet.*

Date of Submission _____

Bldg. 206

0081533-4
FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U.S. Army, Fort Monmouth, New Jersey
Directorate of Engineering and Housing, Building 167
Fort Monmouth, New Jersey County Monmouth
Telephone No. (908) 532-6224

OWNER'S NAME AND ADDRESS, if different from above

_____
_____
_____

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

A. Was contamination found? X Yes ___ No If Yes, Case No. 93-10-21-1910-16
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)

B. The substance(s) discharged was(were) No. 2 fuel oil

C. Have any vapor hazards been mitigated? ___Yes ___No X N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. C-93-2616

The site assessment requirements associated with tank decommissioning are explained in the Technical Guidance Document, Interim Closure Requirements for UST's, Section V. A-D. Attach complete documentation of the methods used and the results obtained for each of the steps of tank decommissioning used. Please include a site map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotated to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly and legibly annotated.

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardous Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technical guidance documents for closure and corrective action. Describe amount of soil removed, its classification, and disposal location.

B. Scaled Site Diagrams

1. Scaled site diagrams must be attached which include the following information:

   a. North arrow and scale
   b. The locations of the ground water monitoring wells
   c. Location and depth of each soil sample and boring
   d. All major surface and sub-surface structures and utilities
   e. Approximate property boundaries
   f. All existing or closed underground storage tank systems, including appurtenant piping
   g. A cross-sectional view indicating depth of tank, stratigraphy and location of water table
   h. Locations of surface water bodies

C. Soil samples and borings (check appropriate answer)

1. Were soil samples taken from the excavation as prescribed? X Yes ___ No ___N/A

2. Were soil borings taken at the tank system closure site as prescribed? ___ Yes ___ No X N A

3. Attach the analytical results in tabular form and include the following information about each sample:
   a. Customer sample number (keyed to the site map)
   b. The depth of the soil sample
   c. Soil boring logs
   d. Method detection limit of the method used
   e. QA/QC Information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed 1

2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:

   a. Site diagram number for each well installed
   b. Depth of ground water surface
   c. Depth of screened interval
   d. Method detection limit of the method used
   e. Well logs
   f. Well permit numbers
   g. QA/QC information as required

V. SOIL CONTAMINATION

A. Was soil contamination found? ___ Yes X No
If "Yes", please answer Question B-E
If "No", please answer Question B

B. The highest soil contamination still remaining in the ground has been determined to be:
1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
2. N/A ppb total B/N, N/A ppb total non-targeted B/N
3. 384.0 ppm TPHC
4. N/A ppb _____ (for non-petroleum substance)

C. Remediation of free product contaminated soils

1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface ___ Yes X No
2. Free product contaminated soils are suspected to exist below the water table ___ Yes X No
3. Free product contaminated soils are suspected to exist off the property boundaries. ___ Yes X No

D. Was the vertical and horizontal extent of contamination determined? ___ Yes ___ No X N/A

E. Does soil contamination intersect ground water? ___ Yes ___ No X N/A

VI. GROUND WATER CONTAMINATION

A. Was ground water contamination found? ___ Yes X No
If "Yes", please answer Questions B-G.
If "No", please answer only Question B.

B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be:

1. ND ppb total BTEX, ND ppb total non-targeted VOC
2. ND ppb total B/N, ND ppb total non-targeted B/N
3. N/A ppb total MTBE, N/A ppb total TBA
4. N/A ppb _____ (for non-petroleum substance)
5. greatest thickness of separate phase product found _____
6. separate phase product has been delineated ___ Yes ___ No X N/A

C. Result(s) of well search N/A

1. A well search (including a review of manual well records) indicates that private, municipal or commercial wells do exist within the distances specified in the Scope of Work. ___ Yes ___ No ___ N/A

2. The number of these wells identified is _____.

D. Proximity of wells and contaminant plume

1. The shallowest depth of any well noted in the well search which may be in the horizontal or vertical potential path(s) of the contaminant plume(s) is _____ feet below grade (consideration has been given for the effects of pumping, subsurface structures, etc. on the direction(s) of contaminant migration). This well is _____ feet from the source and its screening begins at a depth of _____ feet.

2. The shallowest depth to the top of the well screen for any well in the potential path of the plume(s) (as described in D1 above) is _____ feet below grade. This well is located _____ feet from the source.

3. The closest horizontal distance of a private, commercial or municipal well in the potential path of the plume (as determined in D1) is _____ feet from the source. This well is _____ feet deep and screening begins at a depth of _____ feet.

E. A plan for separate phase product recovery has been included. ___Yes ___No ___N/A

F. A ground water contour map has been submitted which includes the ground water elevations for each well. ___Yes ___No ___N/A

G. Delineation of contamination

1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ___Yes ___No

2. The plume is suspected to continue off the property at concentrations greater than MCLs. ___Yes ___No

3. Off property access (circle one): is being sought has been approved has been denied

VII. SITE ASSESSMENT CERTIFICATION [preparer of site assessment plan - N.J.A.C. 7:14B-8.3(b) &9.5(a)3]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C.7:14B-1.6) responsible for the design and implementation of the site assessment plan as specified in N.J.A.C. 7:14B-8.3(a) & 9.2(b)2, must supply the name of the certifying organization and certification number.

"I certify under penalty of law that the information provided in this document is true, accurate, and complete and was obtained by procedures in compliance with N.J.A.C. 7:14B-8 and 9. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) Charles M. Appleby SIGNATURE _____

COMPANY NAME U.S. Army, Fort Monmouth DATE 2/14/96
(Preparer of Site Assessment Plan)

CERTIFYING ORGANIZATION NJDEP CERTIFICATION NUMBER 002056

VIII. TANK DECOMMISSIONING CERTIFICATION [person performing tank decommissioning portion of closure plan - N.J.A.C. 7:14B-9.5(a)4]

"I certify under penalty of law that tank decommissioning activities were performed in compliance with N.J.A.C. 7:14B-9.2(b)3. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____
(Performer of Tank Decommissioning)

IX. CERTIFICATIONS BY THE RESPONSIBLE PARTY(IES) OF THE FACILITY

A. The following certification shall be signed by the highest ranking individual with overall responsibility for that facility [N.J.A.C. 7:14B-2.3(e)1i].

"I certify under penalty of law that the information provided in this document is true, accurate, and complete . I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) James Ott SIGNATURE James Ott

COMPANY NAME U.S. Army, Fort Monmouth DATE 2/14/96

B. The following certification shall be signed as follows [according to the requirements of N.J.A.C. 7:14B-2.3(C)2i]:

1. For a corporation, by a principal executive officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, Federal or other public agency by either the principal executive officer or ranking elected official.
4. In cases where the highest ranking corporate partnership, governmental officer or official at the facility as required in A above is the same person as the official required to certify in B, only the certification in A need to be made. In all other cases, the certifications of A and B shall be made.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____

GENERATOR CERTIFICATION

I hereby certify that the waste described on Hazardous Waste Manifest No. NJA 1706538 dated _____, is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (P.C.B.'s) and does not display any characteristic or contain any hazardous constituents other than for which waste oils are listed in New Jersey.

X721: Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.

X722: Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.

X723: Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned or replaced.

X724: Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oil ballast water from product transport units of boats, barges, ships or other vessels.

X725: Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.

X726: The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.

X728: Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.

I am duly authorized to sign said certification.

Generator U.S. Army Communications Electronics Command, Fort Monmouth NJ

Generator's EPA ID No. NJ3210020597 - ~~000~~

Address C/o James Shirghio, Bldg 2504 ATTN: SELFM-DL-EM-ENS Fort Monmouth NJ 07720

Print Name Charles Appleby Signature _____

Title Environmental Protection Specialist

Date 11/1/93

Form 003 5/91

SMITH

APPENDIX C

WASTE MANIFEST

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: N J 3 2 1 0 0 2 0 5 9 7 | Manifest Document No.: 0 0 0 0 1

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: US Army Communications Electronics Command
c/o James Shirghio, Bldg 2504
ATTN: SELFM-DL-EM-MS
Fort Monmouth NJ 07703

A. State Manifest Document Number: NJA 1706540

B. State Generator's ID: Bldg. 206 — 81533-4
C-93-2614
Main Post

4. Generator's Phone (908) 532-6224

5. Transporter 1 Company Name: Freehold Cartage Inc.

6. US EPA ID Number: N J D 0 5 4 1 2 6 1 6 4

C. State Trans. ID: NJDEP-522665

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone (908) 462-1001

E. State Trans. ID

9. Designated Facility Name and Site Address: ~~Exxx~~ Lionetti Oil Recovery Co, Inc.
Runyon & Cheesequake Rds.
Old Bridge, NJ 08857

10. US EPA ID Number: N J D 0 8 4 0 4 4 0 6 4

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone (908) 721-0900

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X Petroleum Oil N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	0 0 1	T T	00640	G	X 7 2 2
b.						
c.						
d.						

GENERATOR

J. Additional Descriptions for Materials Listed Above
T,L Petroleum Oil 90 %
Water 10 %

K. Handling Codes for Wastes Listed Above
a. TO$-Filtration

15. Special Handling Instructions and Additional Information
NOT EPA REGULATED, REGULATED AS HAZARDOUS WASTE IN NJ
24 HOUR EMERGENCY # 201-427-2881
NJ DECAL# 48594 ERG# 27

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Charles M. Appleby SELFM-PW-EV | Signature | Month Day Year: 1 1 0 1 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ALFONSO TROCCHIO | Signature | Month Day Year: 1 1 0 1 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Confirmation of receipt of the hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month Day Year

EPA Form 8700-22 (Rev. 3-93) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

NJA 1706540

SMITH

APPENDIX D

UST DISPOSAL CERTIFICATE

MONMOUTH COUNTY
RECLAMATION CENTER
TINTON FALLS, NJ
MAILING ADDRESS: 2000 ASBURY AVE. NEPTUNE, NJ 07753

G32709

FACILITY ID NO. 1336F13P01

RECEIPT DOCUMENT NUMBER
01337919

FREE
PREE508152
FREEHOLD CARTAGE INC
P O BOX 5010
FREEHOLD NJ 07728

VEHICLE
TARE WEIGHT 18.6800 (37360
GROSS WEIGHT 22.5900 (45180

DATE	USER	TIME IN	DEP. NO.	PLATE NO.	TIME OUT
11/10/93	MED	14:06	15939AX	XP51XA	14:35

QUANTITY	CLASS	DESCRIPTION/ORIGIN	UNITS	UNIT PRICE	AMOUNT
3.9100	13	Bulky Waste MONMOUTH COUNTY EATONTOWN BORODUGH	Tons		

*** Prepayment Balance Remaining: 25328.37 ***

TRANSPORTER'S SIGNATURE

DOCUMENT TOTAL

CUSTOMER COPY

3.91 TONS Bulky Waste
Fiberglass tank disposal Bldg 208A, 282, 205, 207A, 287, 206

SMITH

APPENDIX E

NJDEP WELL PERMITS AND WELL CONSTRUCTION LOGS

SERIAL # 41112

R-133M (10/93)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TRENTON, NJ

Mail to
DEPE
Bureau Water Allocation
CN426
Trenton, NJ 08625

MONITORING WELL PERMIT

VALID ONLY AFTER APPROVAL BY THE D.E.P.E.

Permit No 2931784

COORD #: 29.13.54

Owner US Army - Fort Monmouth
Address SELFM-PW-EV
Fort Monmouth NJ 07703
Name of Facility Bldg 206
Address Main Post
Fort Monmouth NJ

Driller Tyree Organization, Ltd
Address 1350 US Hwy 130
Burlington NJ 08016

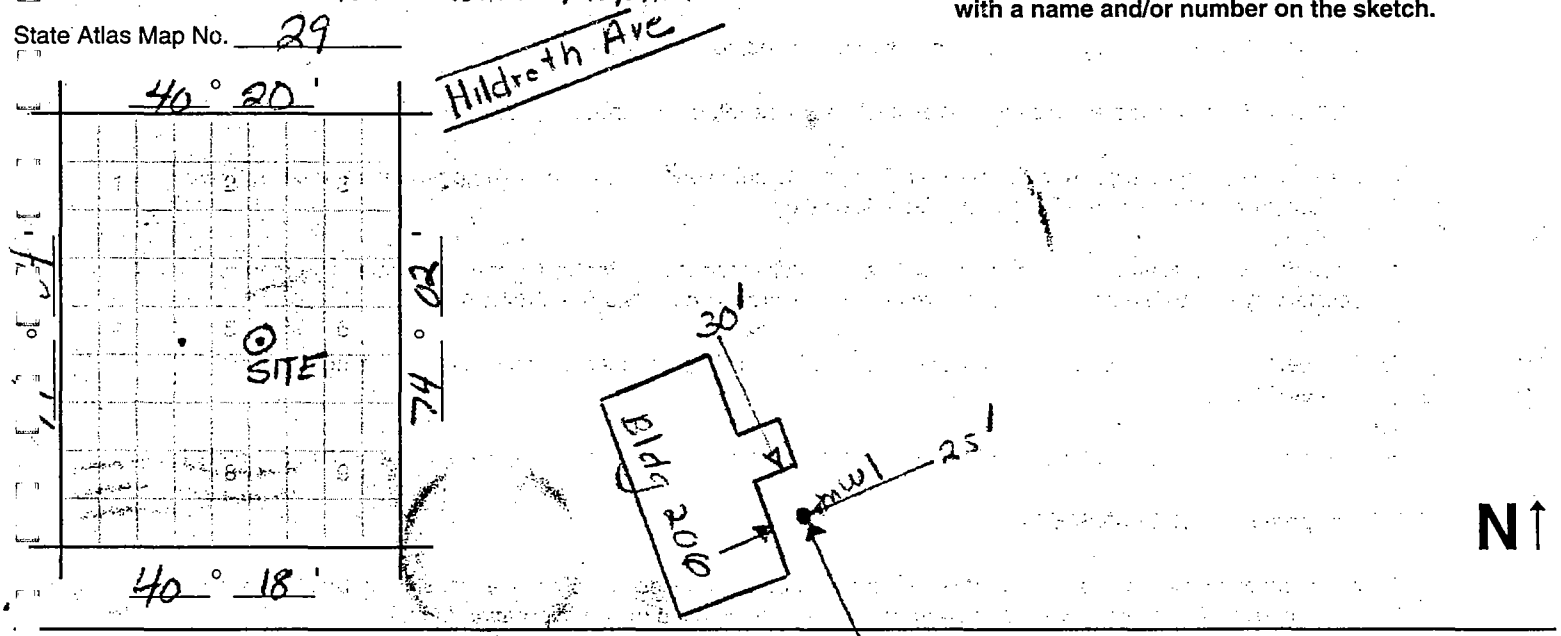
Diameter of Well(s) 4 Inches	Proposed Depth of Well(s) 15 Feet
# of Wells Applied for (max. 10) 1	Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) Monitoring	If Yes, give pump capacity N/A GPM

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		Fort Monmouth	Monmouth

State Atlas Map No. 29

Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.



FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Spill Site
- ☐ ISRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain) _____

CASE I.D. Number
92-10-21-1910.16
(Site Bldg. 206)

This Space for Approval Stamp

WELL PERMIT APPROVED
N.J.D.E.P.
AUG 3 1994
BUREAU OF WATER ALLOCATION

FOR D.E.P.E. USE
- ☐ Issuance of this permit is subject to the conditions attached. (see next page)
- ☒ For monitoring purposes only
- ☐ The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

SEE REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date 7-25-94
Signature of Driller _____ License # 1421
Signature of Owner _____ SELFM-PW-EV

COPIES: Water Allocation — White and Pink Health Dept. — Yellow Owner — Blue Driller — White

MONITORING P L CERTIFICATION-FORM B-1OC ON CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
~~NJPDES~~ Discharge Number: 93-10-21-1910-1

LAND SURVEYOR'S CERTIFICATION

Well Permit Number:
This number must be permanently affixed to the well casing. 29-31784-

Longitude (to nearest second): West 74°02' 05.14"

Latitude (to nearest second): North 40° 18'56.22"

Elevation of Top of Inner Casing (cap off) (one-hundredth of a foot): 9.27

Elevation of ground level (1/100th ft.) 9.96

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.) Source: FM-6

☒ 1927 ☐ 1983

Elev.:

Owners Well Number (As shown on application or plans): BLDG. 206 MW-1

Elevations are to be determined by double run, three wire leveling methods using balanced sights, commencing from a well marked and described point. This beginning point shall either be derived from Federal or State benchmarks if not more than 1000 feet from the site or from an alternate datum approved by the Department. Tolerances should meet third order standards, which are 0.05 ft x $(\text{miles})^{1/2}$. For sections less than 0.1 mile, let miles = 0.1.

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Wayne W. Burgett
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

WAYNE W BURGETT
PROFESSIONAL LAND SURVEYOR'S NAME
(Please print or type)

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

DWR-138 M
12/91

New Jersey Department of Environmental Protection & Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29 31784
Atlas Sheet Coordinates 29 18 [illegible]

OWNER IDENTIFICATION - Owner _____
Address US ARMY MAT DIRECTO
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 206 MW-1
County _____ Municipality _____ Lot No. _____ Block No. _____
Address MONMOUTH CORMORT DRIVE

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 9/22/94
Regulatory Program Requiring Well MONITORING Case I.D. # 93-10-21-1010-1
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled _____ ft.
Well finished to 10'
Borehole diameter:
Top _____ in.
Bottom 8 in.
Well was finished: ☐ above grade ☐ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	6"	3½'	4	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	3½'	13½'	4	Sch 40 PVC
Tail Piece	3½'	13½'		
Gravel Pack	3'	3½'		#2 Morie Sand
Annular Seal/Grout	2'	3'		Bent. w/ Portland
Method of Grouting	Tremie			

Static water level after drilling _____ ft.
Water level was measured using 4
Well was developed for _____ hours at _____ gpm
Method of development 1 10
Was permanent pumping equipment installed? ☐ Yes ☐ No
Pump capacity _____ gpm
Pump type: _____
Drilling Method _____
Drilling Fluid Auger Type of Rig B-80
Name of Driller _____
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. _____
Name of Drilling Company 1431

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-1' Asphalt/Subbase
1'-3' Dark grey silty fine sands
3'-5' Gravel w/ dark grey silty fine sands
5'-9' Gravel w/ [illegible] brown clay-sand mix.
9'-13½' Grey soft clay-fine sand

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable state rules and regulations.

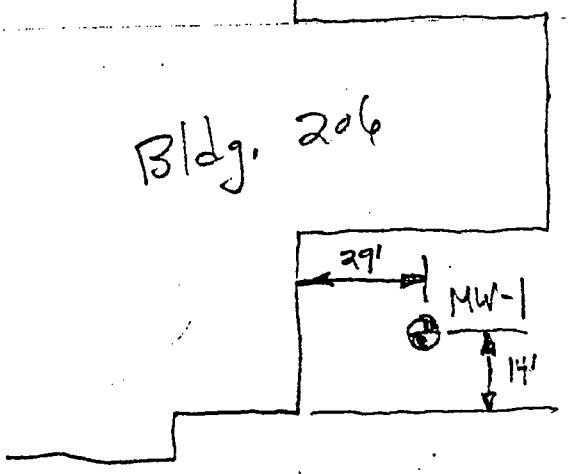
Driller's Signature _____ Date 10-15-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: US Army Ft Monmouth	BORING NO: MW-1
	TOTAL DEPTH: 12½'
JOB NO:	LOGGED BY: E. Pike
PROJ. MGR.: Capriti	EDITED BY:
DRILLING CONTRACTOR: Tyree	
DRILL RIG TYPE: B80	
DRILLERS NAME: M. Beck	
SAMPLING METHODS: SS	
HAMMER WT.: 120 lbs.	DROP:
STARTED, TIME: 1:30 PM	DATE:
COMPLETED, TIME: 2:30 PM	DATE:
BORING DEPTH (ft): 12½'	
CASING DEPTH (ft): 2½'	
WATER DEPTH (ft): 4'5"	
TIME:	
DATE: 9/30/94	
BACKFILLED, TIME: 2:35 PM	DATE: 9/30/94 BY: Tyree
SURFACE ELEV:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6 IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min./ft.)	PID READING (ppm)	ODOR (Y / N ?)	GRAPHIC WELL CONST.	DEPTH IN FEET	GRAPHIC LOG	
												Asphalt / Subbase
									Casing / Bentonite	1	SM	Dark gray silty fine sands with pebbles
										2	GP	Gravel with dark gray silty fine sands
										3		
										4		
										5	GP	Gravel with light brown clay-sand mixtures
									Screen / Filter Sand	6		
										7		
										8	ML	Gray soft clay and fine sand
										9		
										10		

FIELD LOG OF BORING (CONTINUED)

SHEET 2 OF 2

PROJECT:	NO:	BORING NO:

DEPTH	TYPE	BLOWS	DRIVEN	REC'VD	COND.	D. RATE	PID	ODOR	GR.WELL	GRAPHIC LOG
11									Screen Sand	ML
12										
13										
14										
5										
6										
7										
8										
9										
0										
1										
2										
3										
4										
5										
6										
7										
8										

No split spoon samples were taken or pictures due to the presence of gravel from 2'-8'.

TYREE ENVIRONMENTAL TECHNOLOGIES

SMITH

APPENDIX F

SOIL ANALYTICAL DATA PACKAGE

Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEPE Certification # 13461

Client: U.S. Army
DEH, SELFM-EH-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1294.1-.9
Sample Rec'd: 10/21/93
Analysis Start: 10/22/93
Analysis Comp: 10/22/93

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Method: SONC.

NJDEPE UST Reg.#: 0081533-4
TMS #: C-93-2616
NJDEPE Case #:
Location #: Bldg. # 206

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1294.1	Site A, 2 -2.5' hNu=ND	80	113.	3.3
1294.2	Site B, 2.5- 5' hNu= 400.	80	384.	20.
1294.3	Site C, 4.5 - 5' hNu= 5.0	84	235.	3.3
1294.4	Site D, 4.5 - 5' hNu=ND	84	18.8	3.3
1294.5	Site E, 4.5- 5' hNu=ND	86	18.3	3.3
1294.6	Site F, 4.5 - 5' hNu=ND	80	15.7	3.3
1294.7	Site G, 4.5 - 5' hNu= 1.0	80	15.7	3.3
1294.8	Site H, 4.5 - 5' hNu=ND	83	53.9	3.3
1294.9	Duplicate of E hNu=ND*	86	30.8	3.3
M. BL.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added

1294.9 Spike=109% 1294.9 Spike Dup.=112% RPD: 97%

Brian K. McKee
Laboratory Director

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #:

Chain of Custody

Project #: C-93-2616
Customer: DEH - Env.
C. Appleby - 2056 Cent.
Phone: 532-[illegible]

Sampler: CUTE (Contractor)
Site Name: Bldg. 206 - UST closure
UST# 81583-4
Tms# C-93-2616

Date / Time: 10/21/93 | 1530

Analysis Parameters

Start:
Finish:

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solids	Soil moisture	OVA - Reading	Remarks
129401	10/21/93 1558	Site A - 2.0 → 2.5	Soil	1	X	X	X	ND	
.2	1555	B - 2.5 → 3.0		1	X	X	X	400.0	
.3	1552	C - 4.5' → 5.0'		1	X	X	X	5.0	
.4	1525	D - 4.5' → 5.0'		1	X	X	X	ND	
.5	1528	E 4.5' → 5.0'		1	X	X	X	ND	
.6	1530	F 4.5' → 5.0'		1	X	X	X	ND	Sample Rept 4°C All
.7	1534	G 4.5' → 5.0'		1	X	X	X	1.0	
.8	1536	H 4.5' → 5.0'		1	X	X	X	N.D	
.9	1528	E-Duplicate		1	X	X	X	ND	OVA-SN-50114
									Calibrated @ 95 ppm methane
									@ 1430 hrs CA

Preservation Method

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
[signature]	10/21/93		

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	10/22/93 0800	Sarah G. Hubbard	

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

FT. MONMOUTH OFFICE
E-SYSTEMS, INC. • P. O. BOX 369, BUILDING 1209 • FT. MONMOUTH, NEW JERSEY 07703-5000 • (201) 544-0995

October 22, 1993 1050 Sarah J. Tabbard

Blank 10 MV

33.75 101 MV

67.5 202 MV R.997

135 420 MV

1294.1 81 MV

1294.2 44 MV

1294.3 180 MV

1294.4 11 MV

1294.5 11 MV

1294.6 8 MV

1294.7 8 MV

1294.8 38 MV

~~1294.9~~

(1294.5) Dup 21 MV

1294.9
(1294.5) Spk 96 MV

1294.9
(1294.5) Dup Spk 99 MV

PHC Conformance/Non-conformance Summary Report

	No	Yes
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	✓	
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)		✓
3. IR Spectra submitted for standards, blanks, & samples		✓
4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.	N/A	
5. Extraction holding time met. (If not met, list number of days exceeded for each sample)		✓
6. Analysis holding time met. (If not met, list number of days exceeded for each sample)		✓

Comments: _____

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information contained in this report, and to the best of my knowledge, I believe that the submitted information is true, accurate, complete, and meets the above referenced standards where applicable. I am aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Brian K. McKee
Laboratory Manager

Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEPE Certification # 13461

Client: U.S. Army
DEH, SELFM-EH-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1294.1-.9
Sample Rec'd: 10/21/93
Analysis Start: 10/22/93
Analysis Comp: 10/22/93

Analysis: Munsel

Lab ID#	Soil Color
1294.1	2.5Y 3/2 very dark grayish brown
1294.2	5Y 4/3 olive
1294.3	2.5Y 3/2 very dark grayish brown
1294.4	2.5Y 4/3 olive brown
1294.5	5Y 4/2 olive gray
1294.6	2.5Y 4/2 dark grayish brown
1294.7	2.5Y 4/2 dark grayish brown
1294.8	2.5Y 4/3 olive brown
1294.9	5Y 4/2olive gray

Brian K. McKee
Laboratory Director

11/8/93 2:09 PM

SMITH

APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials

01

New Jersey

Corporate Office &
Main Laboratory
Haddon Avenue
Westmont, NJ 08108
(609) 858-4800

Cooper Street
Westmont, NJ 08108
(609) 858-4800

6 Stelton Road
Piscataway, NJ 08854
(908) 981-0550

New York

Fifth Avenue
Empire State Bldg.
Suite 1524
New York, NY 10118
(212) 290-0051

208 Stonehenge Lane
Carle Place, NY 11514
(516) 997-7251

California

1920 S. Amphlett Blvd.
Suite 130
San Mateo, CA 94402
(415) 570-5401

Florida

1878 Adams Avenue
Melbourne, FL 32935
(407) 253-4224

Georgia

1600 Rosewell Street, SE
Suite One
Smyrna, GA 30080
(404) 333-6066

Michigan

2 S. Wagner Road
Ann Arbor, MI 48103
(313) 668-6810

North Carolina

620-G Guilford College Rd.
Greensboro, NC 27409
(910) 297-1487

Texas

2501 Central Parkway
Suite C-13
Houston, TX 77092
(713) 686-3635

ANALYTICAL DATA REPORT

FOR

GW Data
206
Originals

U.S. Army Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth, NJ 07703

PROJECT : #931021191016

EMSL Project: # 9508273

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection		Date Received
1834.1 Bldg. 206 MW1-2931784	**95-23163**	**Aqueous**	**5/18/95**	**13:16**	**5/19/95**
1830.4 Trip Blank	**95-23164**	**Aqueous**	**5/18/95**	**06:15**	**5/19/95**
1830.5 Field Blank	**95-23165**	**Aqueous**	**5/18/95**	**14:30**	**5/19/95**

Laboratory Name: EMSL ANALYTICAL, INC.

Certification No.:
NJDEP No. 04653
PADER No. 68-367
NY-ELAP No. 10896

Supervisor/Manager Signature: Paul Laraia

Printed Name: Paul V. Laraia

Date: 06-27-95

TABLE OF CONTENTS

EMSL

SAMPLE DATA SUMMARY PACKAGE

01

EMSL

Date of Report: 06/23/95
Project Number: 09508273
Lab ID: 95-0023163
Date Collected: 05/18/95 13:16
Collected By: Client
Date Received: 05/19/95 07:00

ttention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Client Project: 931021191016

lient Designation: Bldg.206,MW1-2931784

	Conc.	Unit
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l

US Army Ft. Monmouth NJ FMETL# 1834.1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523163B

Bldg. 206 MW1-2931784

05

Lab Name: EMSL ANALYTICAL Contract: ______

Project No.: ______ Site: ______ Location: ______ Group: ______

Matrix: (soil/water) WATER Lab Sample ID: 9523163B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7777.D

Level: (low/med) ______ Date Received: 5/19/95

% Moisture: ______ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ______

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound	ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

US ARMY Ft. Monmouth N.J. FMETC #1834.1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523163B

06

Bldg. 206 MW1-231784

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523163B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7777.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

US ARMY Ft. Monmouth N.J. FMETH#1834.1

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9523163B

Bldg. 206 Mill-2931284

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523163B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7777.D

Level: (low/med) Date Received: 5/19/95

% Moisture: decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 117-82-8	Bis(2-methoxyethyl) phthalat	25.20	50	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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14.				
15.				
16.				
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18.				
19.				
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21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

VS ARMY Ft. Monmouth

09

1A

FMEtL # 1834.1

VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Bldg. 206, MW1-293178

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523163
Lab File ID: C8335.D
Date Received: 05/19/95
Date Analyzed: 06/02/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.4	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US ARMY Ft. Monmouth NJ

09

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA 524.2

FMETL # 1834,1

Bldg. 206, MW1-2931784

Lab Name: _EMSL ANALYTICAL_____ Lab Sample ID: _9523163_____
Matrix (soil/water): _WATER_____ Lab File ID: ___C8335.D_____
Sample wt/vol: _25_mL_____ Date Received: _05/19/95_____
Level (low/med): _LOW_____ Date Analyzed: _06/02/95_____
% Moisture: not dec.: _NA_____ Dilution Factor: __1_____
GC Column: _DB-624 x 75m_ ID: _0.53mm_ Soil Aliquot Volume: ____NA____
Soil Extract Volume: ___NA____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/L__	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

BLDG.#: 606 MW#: 1 NJDEPE WELL ID # 2931784

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 5-18-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #:

SAMPLERS NAMES: Tom Baxter Sue Palilonis

WEATHER CONDITIONS: overcast, breezy

ELEVATION OF CASING SURVEY MARK: ____.____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 11.74 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____FT

LENGTH OF SCREENED SECTION: _____FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 4.15 FT

ELEVATION OF GW PRIOR TO PURGING: _____.___FT

THICKNESS OF LNAPL PRIOR TO PURGING : ____.___FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS REMOVED: 1.8 PPM 1254 D.O. 1.8 ppm

pH: 5.90 TEMP: 19.9 C, SPECIFIC CONDUCTIVITY: 38 us/cm

DEPTH OF WELL: ____.___FT

HEIGHT OF WATER: ____.____FT

EVACUATED GAL. H2O: 15 GAL (7.59 X .65 X 3 = 14.2255)

PURGING START TIME: 1300 END TIME: 1307

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 15 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE SAMPLING: 4.63 FT

DISSOLVED OXYGEN: 1.7 ppm pH: 6.07 TEMP: 18.6 °C

SPECIFIC CONDUCTIVITY: 1623 us/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 1309 END TIME: 1316

DISSOLVED OXYGEN: 1.3 ppm pH: 6.21 TEMP: 18.9 °C

SPECIFIC CONDUCTIVITY: 372 us/cm

COMMENTS: [illegible]

[illegible]

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1830.4
Bldg 206
TRIP BLANK

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523164
Lab File ID: C8316.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US ARMY Ft, Monmouth NJ

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL# 1830,4
Bldg 206
TRIP BLANK

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523164
Lab File ID: C8316.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

US ARMY Ft, Monmouth N.J. FMETL# 1830.5

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Bldg. 206
9523165B
Field Blank

15

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	55	
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

US ARMY Ft. Monmouth FMETL # 18315

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
Bldg. 206
9523165B
Field Blank

16

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

US ARMY Ft. Monmouth N.J. FMETL #1830,5

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
Bldg 206
9523165B
Field Blank

17

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.92	14	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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28.				
29.				
30.				

US Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1830.5
Bldg 206

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523165 Field Blank
Lab File ID: C8317.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US Army Ft. Monmouth NJ

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETC #18305
Bldg 206

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523165 Field Blank
Lab File ID: C8317.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

EMSL

LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.	X
2.	Table of Contents	X
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	X
4.	Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	X
5.	Document bound, paginated and legible.	X
6.	Chain of Custody	X
7.	Methodology Summary	X
8.	Laboratory Chronicle and Holding Time Check.	X
9.	Results submitted on a dry weight basis (if applicable).	X
10	Method Detection Limits.	X
11	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP.	X
12	Non-Conformance Summary	X

Paul Tavaris

Laboratory Manager or Environmental Consultant's Signature

01-27-95

Date

CHAIN OF CUSTODY AND PRESERVATION CHECKLIST

U.S. ARMY FORT MONMOUTH

9508273

P.O. #: IJO # 95-0091 / SAI

Chain of Custody

oject #: 93102119 1016	Sampler: EMSL (Baxter)	Date / Time 5/18/95 1316	Analysis Parameters	Start:
stomer: Charles Appleby SELFM-PW-EV	Site Name: Bldg. 206 mw sampling		xylenes; VOA 524.2 + lead; BN + 15 (mith 625)	Finish:
one: 908 532 6224				Preservation Method

Sample Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	xylenes	VOA 524.2 + lead	BN + 15 (mith 625)						Remarks
34. 1	5/3/95	1316	Bldg 206 mw-2931784	Aq	5	X	X			23163				Samples Kept < 4°C
830. 4	5/3/95	6:15	TB	Aq	5	✓				23164				
830. 5	5/3/95	1430	FB	Aq	5	✓	✓			23165				

Relinquished By (signature)	Date / Time		Received By (signature)	Shipped By:
[signature]	5-18-95	1640	[signature]	EMSL
Relinquished By (signature)	Date / Time		Received for Lab by (signature):	Date / Time
[signature]	5.18.95	18:45	[signature] EMSL	5/19 07:00

ote: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. Back - Original.

RI-ENV COC Form 01 Page 1 of 1 Pages Rev. A Date: 02 Apr 93

Enviornmental Laboratory

23

To be completed upon sample receipt

structions:

ace an X in box if okay.
ecord actual pH if outside
ceptable range
ecord temperature of cool blank.
rcle YES if samples are cooled.
ecord corrective action in remarks.

					pH≤2							>9	≥12	deg.C	SAMPLES	
	NH3	TKN	TOX	VOA*	PHENOL	TOC	PHC	O&G	METALS	HARD	TPO4	NO2&3	SO2	TCN	TEMP	EMSL #	REMARKS
	H2SO4	H2SO4	H2SO4	HCL	H2SO4	H2SO4	H2SO4	H2SO4	HNO3	HNO3	H2SO4	H2SO4	NaOH ZNAC	NaOH			
				X											X	35163	
				X												64	
				X												65	

EMSL ANALYTICAL, INC.

INTERNAL CHAIN OF CUSTODY

EMSL LAB ID NO. 95-23163, 95-23165 PROJECT NO. 9508273

SAMPLE/CONTAINERS

PARAMETERS
UOA, BN

DATE	TIME	ANALYSIS	NAME (PRINT)	SIGNATURE
5/25/95		BN Extraction Prep.	Charles Bartolone	Charles Bartolone

METHODOLOGY SUMMARY

EPA Method 524.2 - Aqueous

This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer.

An HP5890/5970 GC/MS was used with a capiullary column (DB-624 0.53 mn ID).

Method detection limits are as stated.

Semivolatiles by GC/MS - Aqueous

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. Federal Register, Vol. 40, No. 136, July, 1988.

An HP5890/5970B GC/MS was used with a DB-5 fused silica capillary column.

Method detection limits are as stated.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORM

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)		X
2.	GC/MS Tune Specifications		
	a. BFB Meet Criteria		X
	b. DFTPP Meet Criteria		X
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.		X
4,	GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of. sample analysis for 600 series and 12 hours for 8000 series.		X
5.	GC/MS Calibration - Initial Requirements		
	a. Calibration Check Compounds		X
	b. System Performance Check Compounds		X
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		X
	a. VOA Fraction **Methylene Chloride 3.2 - 4.7ppb**		
	b. B/N Fraction		
	c. Acid Fraction		
7.	Surrogate Recoveries Meet Criteria		X
	If not met, list those compounds and their recoveries which fall outside the acceptable range:		
	a. VOA Fraction		
	b. B/N Fraction		
	c. Acid Fraction		
	If not met, were the calculations checked and the results qualified as "estimated"?		
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	X	
	a. VOA Fraction *		
	b. B/N Fraction		
	c. Acid Fraction		
9.	Internal Standard Area/Retention Time Shift Meet Criteria		X

*Methylene Chloride MS/MSD 69%/70%, Xylene (meta+para) MS 65% RPD 32; Xylene (ortho) MS 70% RPD 30; Styrene MS/MSD 21%/39% RPD 62; 1,1,2,2 - Tetrachloroethane MS/MSD 122%/124%.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT, cont.

		No	Yes
10.	Extraction Holding Time Met		X
	If not met, list number of days exceeded for each sample:		
11.	Analysis Holding Time Met		X
	If not met, list number of days exceeded for each sample:		

12. Definitions:
U=Not Detected. J=Detected, but below report detection limit.
B=Compound found in blank. E=Estimated concentration. NA=Not Applicable

Additional Comments:

Laboratory Manager Paul Lorain Date: 06-27-95

EMSL

LABORATORY CHRONICLE

Lab ID: 95-23163 to 95-23165 Client: US Army Fort Monmouth

	I DATE	II	Hold Time
Date Sampled	**5-18-95**		
Receipt/Refrigeration	**5-19-95**		
Extractions			
1. Semi Volatile Organics	**5-25-95**		**7 Days**
Analyses			
1. Volatile Organics	**6-1-95**	**6-2-95**	**14 Days**
2. Semi Volatile Organics	**6-2-95**		**40 Days**

QC Supervisor
Review & Approval

(Signature) Peter B. Panton
(Printed Name) Peter B. Panton
(Date) 06/25/95

NOTE: If fractions are re-extracted and re-analyzed because the initial endeavors failed to meet the required Quality Control Criteria, the dates of re-extraction and/or re-analysis will be entered in Column II Additionally.

GC/MS VOLATILE ORGANIC DATA PACKAGE

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMSL ANALYTICAL Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: C8236.D BFB Injection Date: 05/26/95

Instrument ID: 5972-INSTRUMENT-1 BFB Injection Time: 0953

GC Column DB-62 ID: 0.53 (mm) Heated Purge: (Y / N) _____

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.8
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	57.2
175	5.0 - 9.0% of mass 174	4.2 (7.4)1
176	95.0 - 101.0% of mass 174	55.4 (96.9)1
177	5.0 - 9.0% of mass 176	3.2 (5.8)2

1-Value is % mass 174 2-Value is % mass 176

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

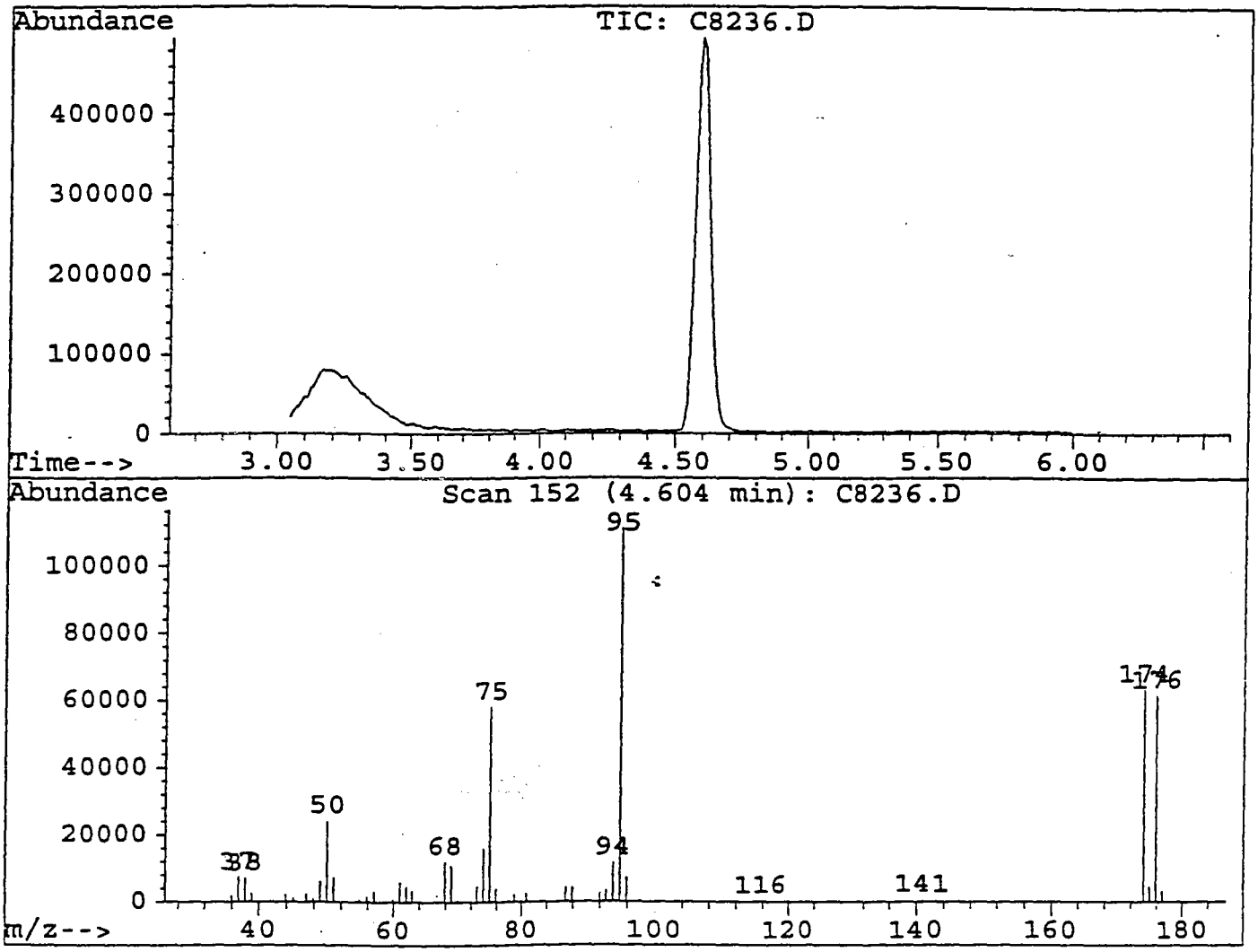
	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		4 PPB STANDARD	C8237.D	05/26/95	1035
02		10 PPB STANDARD	C8238.D	05/26/95	1117
03		20 PPB STANDARD	C8239.D	05/26/95	1151
04		30 PPB STANDARD	C8240.D	05/26/95	1226
05		40 PPB STANDARD	C8241.D	05/26/95	1300
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C8236.D
Acq On : 26 May 95 9:53 am
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.8	24232	PASS
75	95	30	60	52.3	58152	PASS
95	95	100	100	100.0	111200	PASS
96	95	5	9	6.8	7580	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	57.2	63568	PASS
175	174	5	9	7.4	4678	PASS
176	174	95	101	96.9	61624	PASS
177	176	5	9	5.8	3577	PASS

can 152 (4.604 min): C8236.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1948	50.95	7307	72.95	4912	92.05	2865
37.00	7455	54.75	959	73.95	15989	92.95	3574
38.00	7055	55.95	1728	74.95	58152	93.95	11832
39.00	2560	57.00	3162	75.95	4270	94.95	111200
40.00	629	59.90	1118	76.95	625	95.95	7580
43.90	2201	61.00	6169	78.00	812	115.75	506
45.00	1268	62.00	4780	78.90	2214	140.90	844
46.95	2491	62.90	3458	79.90	782	142.80	807
47.95	1002	67.95	12140	80.80	2619	173.95	63568
48.95	6125	68.95	11009	86.90	4356	174.85	4678
49.95	24232	69.95	836	87.95	4439	175.85	61624

c n 152 (4.604 min): C8236.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.85	3577						

Response Factor Report 5972 - In

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Initial Calibration

Calibration Files
4 =C8237.D 10 =C8238.D 20 =C8239.D
30 =C8240.D 40 =C8241.D

		Compound	4	10	20	30	40	Avg	%RSD
1)		Fluorobenzene	----------ISTD----------						
2)	M	Dichlorodifluorometha	0.410	0.422	0.387	0.385	0.379	0.396	4.69
3)	M	Chloromethane	0.227	0.249	0.227	0.232	0.232	0.233	3.89
4)	M	Vinyl chloride	0.262	0.275	0.259	0.260	0.259	0.263	2.58
5)	M	Bromomethane	0.193	0.197	0.170	0.166	0.164	0.178	8.95
6)	M	Chloroethane	0.164	0.171	0.161	0.152	0.122	0.154	12.48
7)	M	Trichlorofluoromethan	0.583	0.600	0.585	0.589	0.581	0.588	1.25
8)	M	1,1-Dichloroethene	0.255	0.266	0.258	0.257	0.254	0.258	1.92
9)	M	Methylene chloride		0.352	0.271	0.240	0.232	0.274	19.95
10)	M	trans-1,2-Dichloroeth	0.274	0.279	0.270	0.271	0.270	0.273	1.39
11)		Hexane						0.000#	-1.00
12)	M	1,1-Dichloroethane	0.547	0.545	0.539	0.543	0.552	0.545	0.89
13)	M	2,2-Dichloropropane	0.561	0.546	0.527	0.525	0.514	0.534	3.50
14)	M	cis-1,2-Dichloroethen	0.263	0.262	0.253	0.251	0.256	0.257	2.11
15)		2-Butanone						0.000#	-1.00
16)	M	Bromochloromethane	0.089	0.088	0.089	0.089	0.094	0.090	2.82
17)	M	Chloroform	0.511	0.509	0.507	0.507	0.524	0.512	1.38
18)	M	1,1,1-Trichloroethane	0.573	0.566	0.561	0.564	0.567	0.566	0.77
19)	M	Carbon tetrachloride	0.537	0.520	0.520	0.526	0.526	0.526	1.35
20)	M	1,1-Dichloropropene	0.498	0.506	0.486	0.494	0.488	0.495	1.59
21)	M	Benzene	0.874	0.885	0.858	0.866	0.870	0.871	1.14
22)	M	1,2-Dichloroethane	0.206	0.210	0.214	0.214	0.225	0.214	3.36
23)	M	Trichloroethene	0.387	0.388	0.383	0.386	0.386	0.386	0.51
24)	M	1,2-Dichloropropane	0.282	0.281	0.283	0.286	0.293	0.285	1.76
25)	M	Dibromomethane	0.112	0.113	0.112	0.117	0.124	0.115	4.28
26)	M	Bromodichloromethane	0.388	0.385	0.398	0.397	0.412	0.396	2.72
27)	M	cis-1,3-Dichloroprope	0.338	0.335	0.343	0.340	0.356	0.342	2.38
28)	M	Toluene	0.646	0.605	0.610	0.613	0.619	0.619	2.61
29)	M	trans-1,3-Dichloropro	0.226	0.229	0.236	0.239	0.252	0.236	4.31
30)	M	1,1,2-Trichloroethane	0.107	0.107	0.109	0.110	0.118	0.110	4.12
31)	M	Tetrachloroethene	0.395	0.386	0.380	0.388	0.389	0.388	1.40
32)	M	1,3-Dichloropropane	0.217	0.213	0.221	0.218	0.226	0.219	2.24
33)	M	Dibromochloromethane	0.208	0.205	0.215	0.216	0.231	0.215	4.72
34)	M	1,2-Dibromomethane	0.145	0.145	0.153	0.153	0.166	0.152	5.54
35)	M	Chlorobenzene	0.650	0.638	0.636	0.640	0.657	0.644	1.38
36)	M	1,1,1,2-Tetrachloroet	0.256	0.247	0.253	0.257	0.265	0.256	2.62
37)	M	Ethylbenzene	1.316	1.279	1.288	1.308	1.320	1.302	1.38
38)	M	Xylene (para & meta)	0.479	0.463	0.465	0.465	0.466	0.468	1.38
39)	M	Xylene (Ortho)	0.417	0.409	0.412	0.413	0.418	0.414	0.93
40)	M	Styrene	0.634	0.626	0.639	0.643	0.663	0.641	2.12
41)	M	Bromoform	0.098	0.099	0.107	0.106	0.117	0.105	7.26
42)	M	Isopropylbenzene	1.330	1.302	1.317	1.350	1.352	1.330	1.60
43)	S	4-Bromofluorobenzene	0.498	0.480	0.493	0.500	0.522	0.499	3.05

(#) = Out of Range

Response Factor Report 5972 - In

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Initial Calibration

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Calibration Files
4 =C8237.D 10 =C8238.D 20 =C8239.D
30 =C8240.D 40 =C8241.D

		Compound	4	10	20	30	40	Avg	%RSD
44)	M	Bromobenzene	0.236	0.232	0.239	0.242	0.251	0.240	3.08
45)	M	1,1,2,2-Tetrachloroet	0.110	0.112	0.121	0.120	0.127	0.118	6.04
46)	M	1,2,3-Trichloropropan	0.143	0.138	0.144	0.141	0.150	0.143	2.93
47)	M	n-Propylbenzene	1.736	1.684	1.719	1.754	1.761	1.731	1.79
48)	M	2-Chlorotoluene	0.967	0.923	0.956	0.968	0.988	0.960	2.50
49)	M	4-Chlorotoluene	1.153	1.113	1.108	1.151	1.176	1.140	2.54
50)	M	1,3,5-Trimethylbenzen	1.107	1.066	1.095	1.117	1.122	1.101	2.04
51)	M	tert-Butylbenzene	1.149	1.111	1.135	1.158	1.157	1.142	1.71
52)	M	1,2,4-Trimethylbenzen	1.012	0.993	1.014	1.002	1.025	1.009	1.21
53)	M	sec-Butylbenzene	1.707	1.634	1.688	1.722	1.715	1.693	2.10
54)	M	1,3-Dichlorobenzene	0.481	0.468	0.490	0.495	0.511	0.489	3.28
55)	M	4-Isopropyltoluene	1.257	1.228	1.267	1.280	1.290	1.264	1.88
56)	M	1,4-Dichlorobenzene	0.483	0.464	0.482	0.487	0.510	0.485	3.39
57)	S	1,2-Dichlorobenzene-d	0.223	0.219	0.228	0.230	0.238	0.228	3.15
58)	M	1,2-Dichlorobenzene	0.371	0.351	0.359	0.366	0.374	0.364	2.53
59)	M	n-Butylbenzene	1.362	1.297	1.353	1.381	1.382	1.355	2.55
60)	M	1,2-Dibromo-3-chlorop	0.027	0.027	0.030	0.031	0.034	0.030	10.29
61)	M	1,2,4-Trichlorobenzen	0.254	0.256	0.266	0.271	0.293	0.268	5.88
62)	M	Hexachlorobutadiene	0.317	0.304	0.330	0.331	0.334	0.323	3.81
63)	M	Naphthalene	0.219	0.220	0.225	0.233	0.262	0.232	7.66
64)	M	1,2,3-Trichlorobenzen	0.183	0.175	0.184	0.186	0.207	0.187	6.31
65)		Methyl-tert butyl eth	0.289	0.286	0.292	0.288	0.306	0.292	2.82
66)		tert-Butyl Alcohol		0.004	0.005	0.005	0.005	0.004	8.73

(#) = Out of Range

Quantitation Report

Data File : d:\hpchem\1\data\c8237.d
Acq On : 26 May 95 10:35 am
Sample : 4 PPB STANDARD
Misc :
Quant Time: May 26 15:22 1995

Vial: 2 38
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	695393	5.00	ug/L	-0.09
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	138448	2.12	ug/L	42.31%
57) 1,2-Dichlorobenzene-d4	21.88	152	62134	1.72	ug/L	34.47%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.28	85	227954	3.55	ug/L	92
3) Chloromethane	3.65	50	126260	3.35	ug/L	100
4) Vinyl chloride	3.86	62	145560	3.46	ug/L	97
5) Bromomethane	4.54	94	107256	3.74	ug/L	100
6) Chloroethane	4.76	64	91319	3.57	ug/L	90
7) Trichlorofluoromethane	5.35	101	324396	3.90	ug/L	91
8) 1,1-Dichloroethene	6.42	96	141941	3.68	ug/L	98
9) Methylene chloride	7.41	84	319236	9.50	ug/L	100
10) trans-1,2-Dichloroethene	7.97	96	152530	3.73	ug/L	94
12) 1,1-Dichloroethane	8.76	63	304419	3.74	ug/L	95
13) 2,2-Dichloropropane	9.82	77	311983	4.42	ug/L	99
14) cis-1,2-Dichloroethene	9.82	96	146539	3.80	ug/L	99
16) Bromochloromethane	10.24	128	49545	3.27	ug/L	88
17) Chloroform	10.40	83	284036	3.95	ug/L	99
18) 1,1,1-Trichloroethane	10.73	97	318569	4.20	ug/L	98
19) Carbon tetrachloride	11.03	117	299000	4.01	ug/L	97
20) 1,1-Dichloropropene	11.01	75	277299	3.91	ug/L	96
21) Benzene	11.35	78	486262	3.81	ug/L	99
22) 1,2-Dichloroethane	11.36	62	114527	4.02	ug/L	98
23) Trichloroethene	12.48	95	215417	3.81	ug/L	92
24) 1,2-Dichloropropane	12.83	63	156823	3.58	ug/L	99
25) Dibromomethane	13.02	93	62165	3.54	ug/L	95
26) Bromodichloromethane	13.30	83	215761	3.85	ug/L	95
27) cis-1,3-Dichloropropene	14.06	75	187920	3.78	ug/L	99
28) Toluene	14.64	92	359379	4.19	ug/L	98
29) trans-1,3-Dichloropropene	14.99	75	125469	3.72	ug/L	96
30) 1,1,2-Trichloroethane	15.30	83	59496	3.61	ug/L	98
31) Tetrachloroethene	15.60	166	219930	3.61	ug/L	90
32) 1,3-Dichloropropane	15.58	76	120535	3.72	ug/L	100
33) Dibromochloromethane	15.99	129	115733	3.36	ug/L	99
34) 1,2-Dibromomethane	16.19	107	80701	3.46	ug/L	99
35) Chlorobenzene	17.07	112	361810	3.72	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.20	131	142326	3.50	ug/L	95
37) Ethylbenzene	17.26	91	732369	4.06	ug/L	98
38) Xylene (para & meta)	17.47	106	533017	7.95	ug/L	92
39) Xylene (Ortho)	18.17	106	231743	3.89	ug/L	90
40) Styrene	18.18	104	352838	3.78	ug/L	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8237.d
Acq On : 26 May 95 10:35 am
Sample : 4 PPB STANDARD
Misc :
Quant Time: May 26 15:22 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Bromoform	18.51	173	54547	3.31 ug/L	97
42) Isopropylbenzene	18.83	105	739665	3.93 ug/L	89
44) Bromobenzene	19.38	156	131056	3.44 ug/L #	86
45) 1,1,2,2-Tetrachloroethane	19.32	83	61247	3.65 ug/L	98
46) 1,2,3-Trichloropropane	19.40	75	79406	3.74 ug/L	97
47) n-Propylbenzene	19.56	91	965762	4.01 ug/L	99
48) 2-Chlorotoluene	19.73	91	538039	4.23 ug/L	92
49) 4-Chlorotoluene	19.91	91	641340	4.20 ug/L m	96
50) 1,3,5-Trimethylbenzene	19.88	105	616118	4.04 ug/L	96
51) tert-Butylbenzene	20.48	119	639160	3.80 ug/L	88
52) 1,2,4-Trimethylbenzene	20.57	105	562733	3.89 ug/L	91
53) sec-Butylbenzene	20.88	105	949602	3.96 ug/L	97
54) 1,3-Dichlorobenzene	21.08	146	267522	3.41 ug/L	98
55) 4-Isopropyltoluene	21.14	119	699174	3.73 ug/L	95
56) 1,4-Dichlorobenzene	21.23	146	268966	3.43 ug/L m	96
58) 1,2-Dichlorobenzene	21.91	146	206476	3.45 ug/L	95
59) n-Butylbenzene	21.89	91	757856	3.95 ug/L	95
60) 1,2-Dibromo-3-chloropropan	23.32	75	15013	3.81 ug/L	81
61) 1,2,4-Trichlorobenzene	24.89	180	141353	3.40 ug/L	93
62) Hexachlorobutadiene	25.23	225	176270	4.13 ug/L	97
63) Naphthalene	25.35	128	122077	3.12 ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	101707	3.60 ug/L	99
65) Methyl-tert butyl ether	8.01	73	160639	4.38 ug/L #	100
66) tert-Butyl Alcohol	7.72	59	2491	0.68 ug/L m	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8238.d
Acq On : 26 May 95 11:17 am
Sample : 10 PPB STANDARD
Misc :
Quant Time: May 26 15:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.84	96	770985	5.00	ug/L		-0.09
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.09	95	370331	5.10	ug/L		102.07%
57) 1,2-Dichlorobenzene-d4	21.88	152	169129	4.23	ug/L		84.62%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.28	85	650612	9.13	ug/L		100
3) Chloromethane	3.64	50	383966	9.18	ug/L		96
4) Vinyl chloride	3.87	62	423851	9.09	ug/L		98
5) Bromomethane	4.52	94	303978	9.57	ug/L		93
6) Chloroethane	4.76	64	264421	9.32	ug/L		94
7) Trichlorofluoromethane	5.34	101	924458	10.04	ug/L		100
8) 1,1-Dichloroethene	6.42	96	410654	9.60	ug/L		96
9) Methylene chloride	7.41	84	542259	14.55	ug/L	m	99
10) trans-1,2-Dichloroethene	7.97	96	429522	9.48	ug/L		100
12) 1,1-Dichloroethane	8.76	63	840489	9.32	ug/L		97
13) 2,2-Dichloropropane	9.83	77	841576	10.74	ug/L		96
14) cis-1,2-Dichloroethene	9.83	96	403406	9.42	ug/L		98
16) Bromochloromethane	10.24	128	135650	8.08	ug/L	#	88
17) Chloroform	10.40	83	785334	9.85	ug/L		99
18) 1,1,1-Trichloroethane	10.73	97	873470	10.39	ug/L		99
19) Carbon tetrachloride	11.03	117	801421	9.70	ug/L		100
20) 1,1-Dichloropropene	11.01	75	780145	9.93	ug/L		96
21) Benzene	11.35	78	1364187	9.64	ug/L		99
22) 1,2-Dichloroethane	11.36	62	323971	10.26	ug/L		99
23) Trichloroethene	12.48	95	597831	9.52	ug/L		92
24) 1,2-Dichloropropane	12.83	63	432807	8.91	ug/L		99
25) Dibromomethane	13.03	93	174304	8.95	ug/L		99
26) Bromodichloromethane	13.29	83	593524	9.55	ug/L		96
27) cis-1,3-Dichloropropene	14.06	75	516054	9.37	ug/L		96
28) Toluene	14.64	92	932739	9.81	ug/L		100
29) trans-1,3-Dichloropropene	14.98	75	353858	9.46	ug/L		95
30) 1,1,2-Trichloroethane	15.30	83	165554	9.05	ug/L		98
31) Tetrachloroethene	15.61	166	594723	8.81	ug/L		97
32) 1,3-Dichloropropane	15.58	76	328378	9.15	ug/L		99
33) Dibromochloromethane	15.99	129	315396	8.25	ug/L		98
34) 1,2-Dibromomethane	16.19	107	223316	8.62	ug/L		93
35) Chlorobenzene	17.07	112	983363	9.11	ug/L		94
36) 1,1,1,2-Tetrachloroethane	17.20	131	380569	8.45	ug/L	m	0
37) Ethylbenzene	17.26	91	1971808	9.86	ug/L		99
38) Xylene (para & meta)	17.47	106	1428718	19.21	ug/L		96
39) Xylene (Ortho)	18.17	106	630244	9.53	ug/L		96
40) Styrene	18.19	104	965656	9.34	ug/L		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8238.d
Acq On : 26 May 95 11:17 am
Sample : 10 PPB STANDARD
Misc :
Quant Time: May 26 15:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

41

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41) Bromoform	18.51	173	153005	8.38	ug/L	m	0
42) Isopropylbenzene	18.83	105	2008385	9.63	ug/L	m	45
44) Bromobenzene	19.38	156	357587	8.46	ug/L		94
45) 1,1,2,2-Tetrachloroethane	19.32	83	171968	9.24	ug/L		97
46) 1,2,3-Trichloropropane	19.40	75	213285	9.05	ug/L		98
47) n-Propylbenzene	19.57	91	2596029	9.72	ug/L		97
48) 2-Chlorotoluene	19.73	91	1422833	10.08	ug/L		95
49) 4-Chlorotoluene	19.91	91	1716410	10.14	ug/L	m	98
50) 1,3,5-Trimethylbenzene	19.89	105	1643038	9.71	ug/L		98
51) tert-Butylbenzene	20.48	119	1713787	9.19	ug/L		90
52) 1,2,4-Trimethylbenzene	20.56	105	1530473	9.54	ug/L		94
53) sec-Butylbenzene	20.88	105	2518935	9.48	ug/L		98
54) 1,3-Dichlorobenzene	21.08	146	722076	8.30	ug/L		96
55) 4-Isopropyltoluene	21.14	119	1893823	9.12	ug/L		95
56) 1,4-Dichlorobenzene	21.24	146	715067	8.22	ug/L	m	94
58) 1,2-Dichlorobenzene	21.91	146	541575	8.16	ug/L		95
59) n-Butylbenzene	21.89	91	2000405	9.41	ug/L		96
60) 1,2-Dibromo-3-chloropropan	23.31	75	41781	9.56	ug/L		95
61) 1,2,4-Trichlorobenzene	24.89	180	394479	8.55	ug/L		99
62) Hexachlorobutadiene	25.23	225	469504	9.93	ug/L		98
63) Naphthalene	25.34	128	339645	7.82	ug/L		100
64) 1,2,3-Trichlorobenzene	25.81	180	269640	8.61	ug/L		95
65) Methyl-tert butyl ether	7.99	73	440628	10.83	ug/L	#	100
66) tert-Butyl Alcohol	7.72	59	12035	2.96	ug/L		100

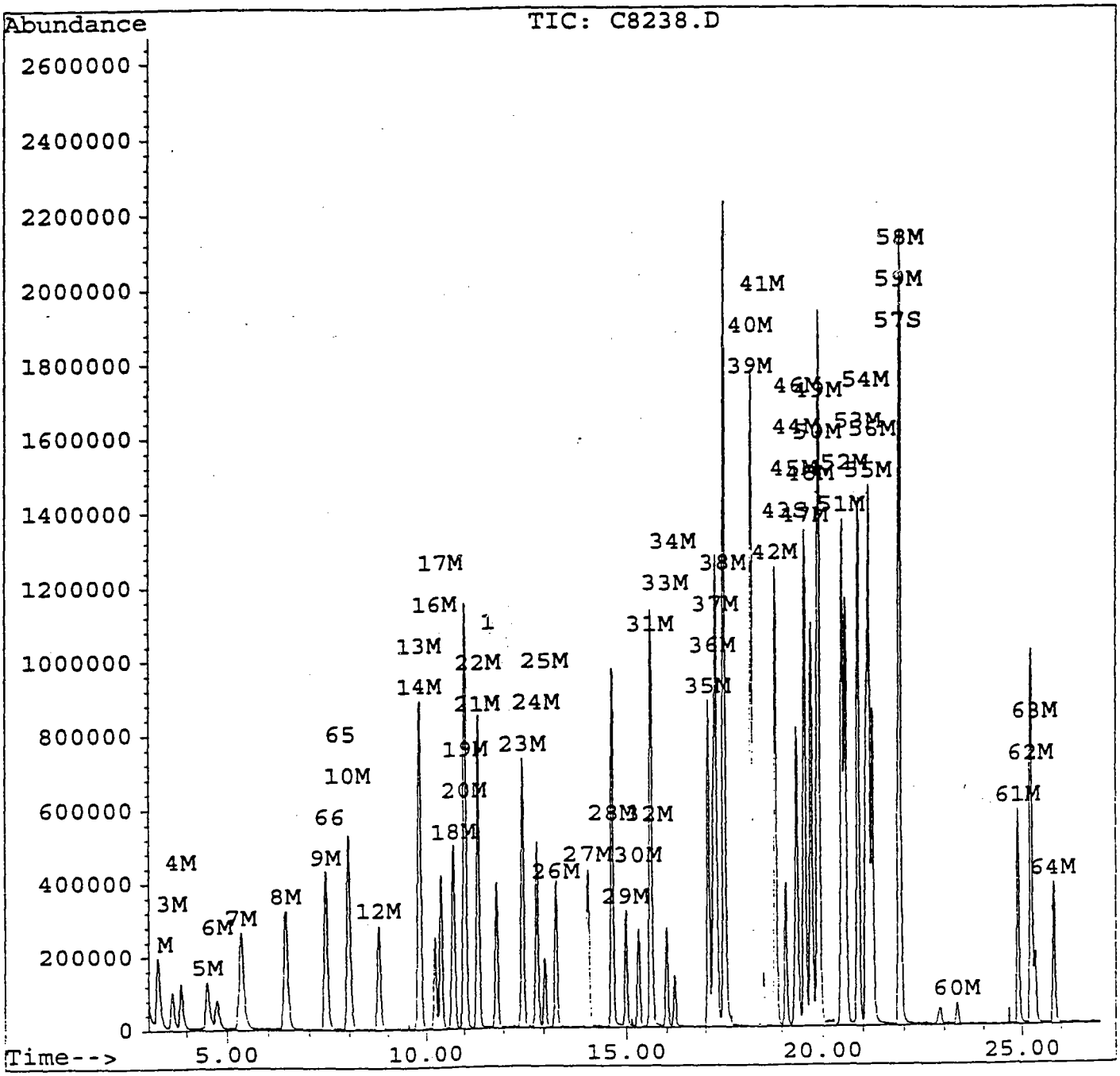
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8238.d
Acq On : 26 May 95 11:17 am
Sample : 10 PPB STANDARD
Misc :
Quant Time: May 26 15:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration



Quantitation Report

4

Data File : d:\hpchem\1\data\c8239.d
Acq On : 26 May 95 11:51 am
Sample : 20 PPB STANDARD
Misc :
Quant Time: May 26 15:53 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.84	96	715239	5.00	ug/L		-0.09
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.10	95	705539	10.48	ug/L		209.62%
57) 1,2-Dichlorobenzene-d4	21.88	152	325789	8.79	ug/L		175.71%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.29	85	1105977	16.74	ug/L		99
3) Chloromethane	3.66	50	650013	16.75	ug/L		99
4) Vinyl chloride	3.89	62	740002	17.11	ug/L		100
5) Bromomethane	4.52	94	485674	16.48	ug/L		93
6) Chloroethane	4.74	64	459311	17.45	ug/L		92
7) Trichlorofluoromethane	5.35	101	1674654	19.60	ug/L		95
8) 1,1-Dichloroethene	6.43	96	738739	18.61	ug/L		98
9) Methylene chloride	7.40	84	775969	22.45	ug/L		96
10) trans-1,2-Dichloroethene	7.98	96	771488	18.36	ug/L		100
12) 1,1-Dichloroethane	8.76	63	1541660	18.42	ug/L		99
13) 2,2-Dichloropropane	9.84	77	1507599	20.74	ug/L		95
14) cis-1,2-Dichloroethene	9.83	96	723609	18.22	ug/L		95
16) Bromochloromethane	10.24	128	255840	16.43	ug/L	#	87
17) Chloroform	10.40	83	1450799	19.62	ug/L	m	0
18) 1,1,1-Trichloroethane	10.72	97	1604334	20.57	ug/L	m	0
19) Carbon tetrachloride	11.03	117	1488607	19.42	ug/L		99
20) 1,1-Dichloropropene	11.01	75	1391827	19.09	ug/L		99
21) Benzene	11.36	78	2454890	18.69	ug/L		98
22) 1,2-Dichloroethane	11.36	62	611769	20.89	ug/L		98
23) Trichloroethene	12.48	95	1094910	18.80	ug/L		90
24) 1,2-Dichloropropane	12.84	63	809803	17.96	ug/L		99
25) Dibromomethane	13.03	93	321601	17.80	ug/L		98
26) Bromodichloromethane	13.30	83	1137821	19.73	ug/L		96
27) cis-1,3-Dichloropropene	14.05	75	981011	19.20	ug/L		95
28) Toluene	14.64	92	1745202	19.79	ug/L		98
29) trans-1,3-Dichloropropene	14.98	75	675693	19.48	ug/L	m	53
30) 1,1,2-Trichloroethane	15.30	83	312764	18.44	ug/L		95
31) Tetrachloroethene	15.61	166	1088014	17.38	ug/L		97
32) 1,3-Dichloropropane	15.59	76	630863	18.95	ug/L		96
33) Dibromochloromethane	16.00	129	614117	17.31	ug/L		97
34) 1,2-Dibromomethane	16.20	107	438464	18.25	ug/L		97
35) Chlorobenzene	17.06	112	1819994	18.18	ug/L		94
36) 1,1,1,2-Tetrachloroethane	17.20	131	725017	17.35	ug/L	m	0
37) Ethylbenzene	17.26	91	3685485	19.86	ug/L		98
38) Xylene (para & meta)	17.47	106	2660124	38.56	ug/L		90
39) Xylene (Ortho)	18.17	106	1177400	19.20	ug/L		88
40) Styrene	18.19	104	1828264	19.06	ug/L		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8239.d
Acq On : 26 May 95 11:51 am
Sample : 20 PPB STANDARD
Misc :
Quant Time: May 26 15:53 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

44

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.50	173	304765	18.00	ug/L	m	0
42)	Isopropylbenzene	18.83	105	3768696	19.48	ug/L	m	45
44)	Bromobenzene	19.37	156	682381	17.40	ug/L	#	89
45)	1,1,2,2-Tetrachloroethane	19.32	83	345604	20.02	ug/L		97
46)	1,2,3-Trichloropropane	19.39	75	411958	18.84	ug/L		97
47)	n-Propylbenzene	19.57	91	4919179	19.86	ug/L		98
48)	2-Chlorotoluene	19.72	91	2734593	20.88	ug/L		93
49)	4-Chlorotoluene	19.91	91	3170150	20.18	ug/L		92
50)	1,3,5-Trimethylbenzene	19.89	105	3133027	19.95	ug/L		97
51)	tert-Butylbenzene	20.48	119	3247650	18.76	ug/L		89
52)	1,2,4-Trimethylbenzene	20.56	105	2901790	19.49	ug/L		97
53)	sec-Butylbenzene	20.88	105	4827977	19.58	ug/L		99
54)	1,3-Dichlorobenzene	21.08	146	1403188	17.40	ug/L		97
55)	4-Isopropyltoluene	21.15	119	3624786	18.82	ug/L		95
56)	1,4-Dichlorobenzene	21.24	146	1378003	17.08	ug/L	m	96
58)	1,2-Dichlorobenzene	21.91	146	1028245	16.71	ug/L		97
59)	n-Butylbenzene	21.89	91	3870404	19.62	ug/L		97
60)	1,2-Dibromo-3-chloropropan	23.31	75	87006	21.47	ug/L		87
61)	1,2,4-Trichlorobenzene	24.89	180	759956	17.76	ug/L		99
62)	Hexachlorobutadiene	25.23	225	943039	21.49	ug/L		97
63)	Naphthalene	25.33	128	643210	15.97	ug/L		100
64)	1,2,3-Trichlorobenzene	25.81	180	527272	18.16	ug/L		99
65)	Methyl-tert butyl ether	8.01	73	836258	22.17	ug/L	#	100
66)	tert-Butyl Alcohol	7.73	59	26154	6.93	ug/L		100

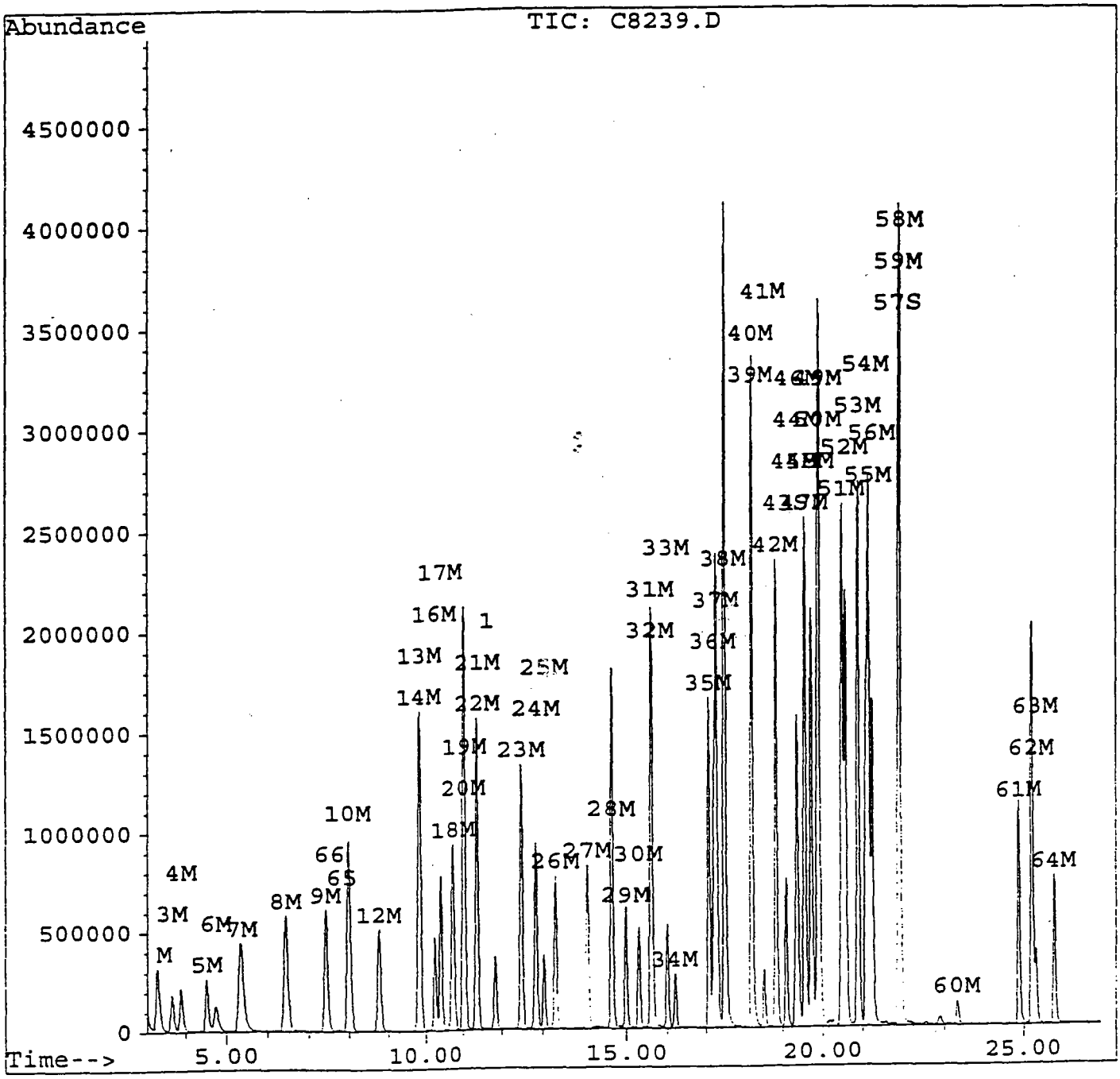
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8239.d
Acq On : 26 May 95 11:51 am
Sample : 20 PPB STANDARD
Misc :
Quant Time: May 26 15:53 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8240.d
Acq On : 26 May 95 12:26 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: May 26 15:31 1995

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.83	96	707858	5.00	ug/L		-0.10
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.09	95	1062620	15.95	ug/L		319.00%
57) 1,2-Dichlorobenzene-d4	21.88	152	489408	13.34	ug/L		266.70%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.29	85	1634270	24.99	ug/L		98
3) Chloromethane	3.66	50	984170	25.63	ug/L		100
4) Vinyl chloride	3.88	62	1106079	25.84	ug/L		100
5) Bromomethane	4.50	94	702972	24.10	ug/L		92
6) Chloroethane	4.72	64	647108	24.84	ug/L		99
7) Trichlorofluoromethane	5.32	101	2502534	29.59	ug/L		99
8) 1,1-Dichloroethene	6.42	96	1092314	27.81	ug/L		94
9) Methylene chloride	7.40	84	1020488	29.83	ug/L		97
10) trans-1,2-Dichloroethene	7.96	96	1150685	27.67	ug/L		95
12) 1,1-Dichloroethane	8.76	63	2307375	27.86	ug/L		98
13) 2,2-Dichloropropane	9.83	77	2228288	30.98	ug/L		97
14) cis-1,2-Dichloroethene	9.83	96	1065313	27.11	ug/L		93
16) Bromochloromethane	10.24	128	379255	24.61	ug/L	#	82
17) Chloroform	10.40	83	2154764	29.45	ug/L		99
18) 1,1,1-Trichloroethane	10.72	97	2396695	31.05	ug/L		99
19) Carbon tetrachloride	11.03	117	2233730	29.45	ug/L		100
20) 1,1-Dichloropropene	11.02	75	2098843	29.09	ug/L		98
21) Benzene	11.36	78	3677001	28.29	ug/L		99
22) 1,2-Dichloroethane	11.37	62	906868	31.29	ug/L		98
23) Trichloroethene	12.48	95	1640085	28.46	ug/L		91
24) 1,2-Dichloropropane	12.83	63	1214345	27.22	ug/L		100
25) Dibromomethane	13.03	93	494826	27.67	ug/L		97
26) Bromodichloromethane	13.30	83	1685621	29.53	ug/L	m	66
27) cis-1,3-Dichloropropene	14.06	75	1443936	28.55	ug/L	m	0
28) Toluene	14.64	92	2604382	29.84	ug/L		97
29) trans-1,3-Dichloropropene	14.98	75	1013926	29.53	ug/L		98
30) 1,1,2-Trichloroethane	15.30	83	468063	27.88	ug/L		99
31) Tetrachloroethene	15.60	166	1648174	26.60	ug/L		97
32) 1,3-Dichloropropane	15.58	76	925183	28.08	ug/L		100
33) Dibromochloromethane	16.00	129	918828	26.18	ug/L		99
34) 1,2-Dibromomethane	16.19	107	650390	27.36	ug/L		94
35) Chlorobenzene	17.07	112	2720037	27.45	ug/L	m	0
36) 1,1,1,2-Tetrachloroethane	17.20	131	1093624	26.44	ug/L	m	0
37) Ethylbenzene	17.26	91	5555166	30.24	ug/L		97
38) Xylene (para & meta)	17.47	106	3951154	57.87	ug/L		91
39) Xylene (Ortho)	18.17	106	1755270	28.92	ug/L		92
40) Styrene	18.18	104	2731131	28.76	ug/L		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8240.d
Acq On : 26 May 95 12:26 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: May 26 15:31 1995

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.50	173	450885	26.90	ug/L	m	0
42)	Isopropylbenzene	18.83	105	5734485	29.95	ug/L	m	45
44)	Bromobenzene	19.37	156	1026534	26.45	ug/L	#	88
45)	1,1,2,2-Tetrachloroethane	19.33	83	508409	29.75	ug/L	m	0
46)	1,2,3-Trichloropropane	19.39	75	599222	27.69	ug/L	#	57
47)	n-Propylbenzene	19.57	91	7449042	30.39	ug/L		99
48)	2-Chlorotoluene	19.73	91	4112354	31.73	ug/L		93
49)	4-Chlorotoluene	19.91	91	4889333	31.45	ug/L	m	98
50)	1,3,5-Trimethylbenzene	19.88	105	4744702	30.53	ug/L		95
51)	tert-Butylbenzene	20.48	119	4918253	28.71	ug/L		86
52)	1,2,4-Trimethylbenzene	20.56	105	4256753	28.89	ug/L		95
53)	sec-Butylbenzene	20.88	105	7312067	29.96	ug/L		99
54)	1,3-Dichlorobenzene	21.08	146	2102035	26.33	ug/L		97
55)	4-Isopropyltoluene	21.14	119	5435557	28.52	ug/L		94
56)	1,4-Dichlorobenzene	21.23	146	2067871	25.90	ug/L	m	96
58)	1,2-Dichlorobenzene	21.91	146	1555987	25.55	ug/L	m	44
59)	n-Butylbenzene	21.89	91	5865257	30.04	ug/L		97
60)	1,2-Dibromo-3-chloropropan	23.32	75	130755	32.60	ug/L		85
61)	1,2,4-Trichlorobenzene	24.89	180	1151444	27.19	ug/L		97
62)	Hexachlorobutadiene	25.22	225	1405948	32.37	ug/L		97
63)	Naphthalene	25.34	128	988735	24.80	ug/L		100
64)	1,2,3-Trichlorobenzene	25.81	180	788297	27.43	ug/L		97
65)	Methyl-tert butyl ether	8.01	73	1221403	32.71	ug/L	#	100
66)	tert-Butyl Alcohol	7.76	59	39667	10.62	ug/L		100

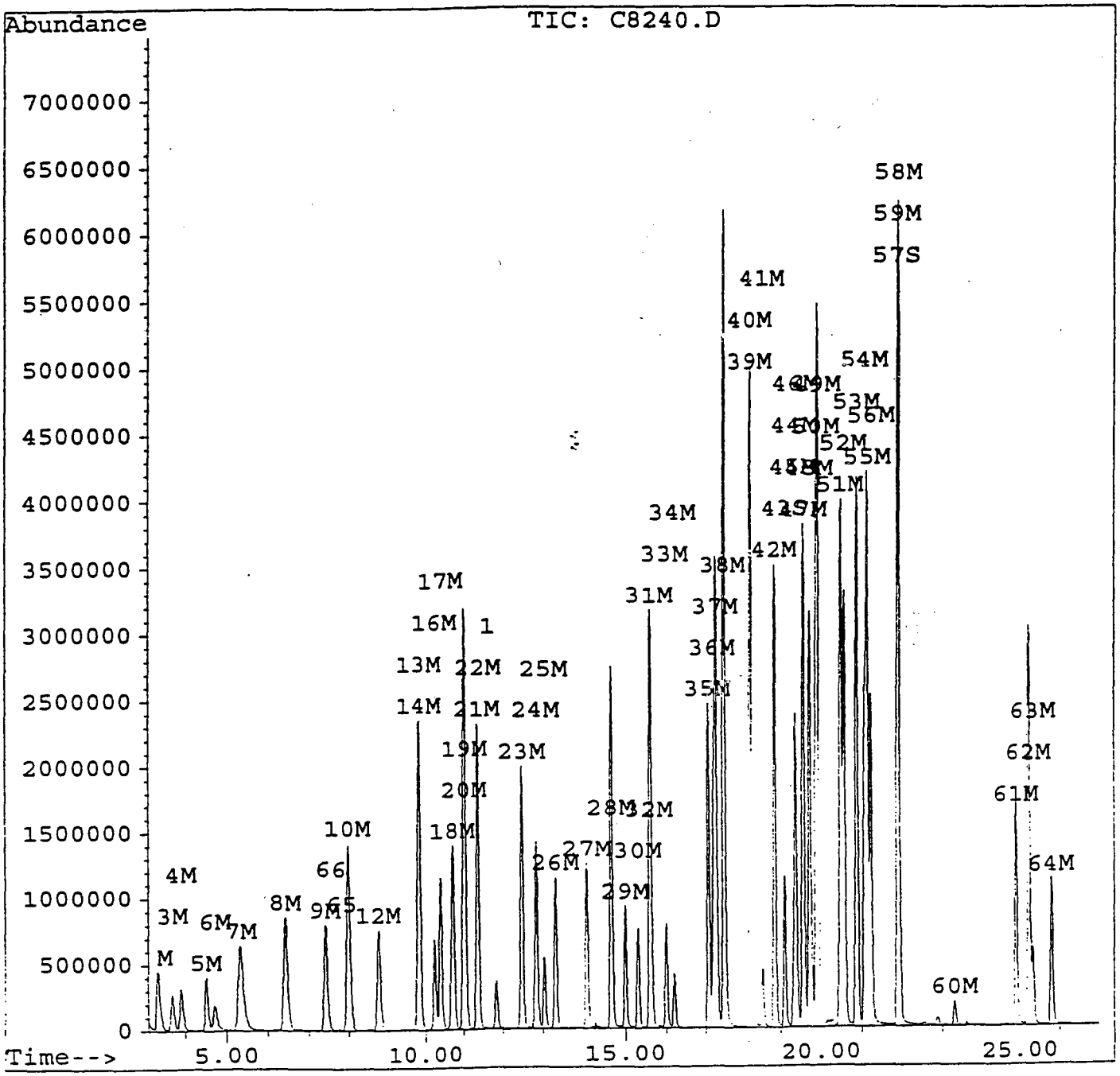
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8240.d
Acq On : 26 May 95 12:26 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: May 26 15:31 1995

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8241.d
Acq On : 26 May 95 1:00 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: May 26 15:35 1995

Vial: 6
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.83	96	677208	5.00	ug/L		-0.10
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.10	95	1414597	22.19	ug/L		443.88%
57) 1,2-Dichlorobenzene-d4	21.88	152	645268	18.38	ug/L		367.55%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.29	85	2050828	32.77	ug/L		99
3) Chloromethane	3.66	50	1255453	34.18	ug/L		98
4) Vinyl chloride	3.88	62	1403518	34.27	ug/L		99
5) Bromomethane	4.50	94	887089	31.79	ug/L		95
6) Chloroethane	4.68	64	660776	26.52	ug/L		99
7) Trichlorofluoromethane	5.29	101	3146458	38.89	ug/L		98
8) 1,1-Dichloroethene	6.40	96	1373656	36.56	ug/L		94
9) Methylene chloride	7.39	84	1256580	38.40	ug/L		93
10) trans-1,2-Dichloroethene	7.96	96	1461616	36.74	ug/L	m	0
12) 1,1-Dichloroethane	8.74	63	2990291	37.74	ug/L	m	0
13) 2,2-Dichloropropane	9.82	77	2784319	40.46	ug/L		96
14) cis-1,2-Dichloroethene	9.83	96	1387660	36.91	ug/L		95
16) Bromochloromethane	10.23	128	511825	34.71	ug/L	#	88
17) Chloroform	10.39	83	2839115	40.56	ug/L		100
18) 1,1,1-Trichloroethane	10.71	97	3074057	41.62	ug/L		100
19) Carbon tetrachloride	11.02	117	2848789	39.26	ug/L		100
20) 1,1-Dichloropropene	11.00	75	2646146	38.33	ug/L		97
21) Benzene	11.35	78	4715775	37.92	ug/L		98
22) 1,2-Dichloroethane	11.36	62	1219926	43.99	ug/L		100
23) Trichloroethene	12.48	95	2092020	37.94	ug/L		92
24) 1,2-Dichloropropane	12.83	63	1588792	37.22	ug/L		100
25) Dibromomethane	13.02	93	670030	39.16	ug/L		97
26) Bromodichloromethane	13.30	83	2234626	40.92	ug/L	m	85
27) cis-1,3-Dichloropropene	14.05	75	1927356	39.84	ug/L		97
28) Toluene	14.64	92	3353871	40.17	ug/L		99
29) trans-1,3-Dichloropropene	14.98	75	1365218	41.56	ug/L		97
30) 1,1,2-Trichloroethane	15.30	83	640167	39.86	ug/L		96
31) Tetrachloroethene	15.60	166	2106507	35.54	ug/L		98
32) 1,3-Dichloropropane	15.58	76	1225150	38.86	ug/L		98
33) Dibromochloromethane	15.99	129	1250833	37.25	ug/L		99
34) 1,2-Dibromomethane	16.19	107	896884	39.43	ug/L		97
35) Chlorobenzene	17.07	112	3558221	37.53	ug/L	m	0
36) 1,1,1,2-Tetrachloroethane	17.20	131	1437465	36.33	ug/L	m	0
37) Ethylbenzene	17.26	91	7148780	40.68	ug/L		98
38) Xylene (para & meta)	17.47	106	5046126	77.25	ug/L		90
39) Xylene (Ortho)	18.17	106	2266726	39.03	ug/L		90
40) Styrene	18.19	104	3590160	39.52	ug/L		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8241.d
Acq On : 26 May 95 1:00 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: May 26 15:35 1995

Vial: 6
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

50

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Bromoform	18.51	173	635283	39.62 ug/L m	0
42) Isopropylbenzene	18.83	105	7325849	39.99 ug/L m	45
44) Bromobenzene	19.37	156	1361555	36.68 ug/L #	90
45) 1,1,2,2-Tetrachloroethane	19.32	83	689989	42.21 ug/L m	0
46) 1,2,3-Trichloropropane	19.40	75	810580	39.16 ug/L	97
47) n-Propylbenzene	19.57	91	9540387	40.68 ug/L	98
48) 2-Chlorotoluene	19.73	91	5352127	43.16 ug/L	92
49) 4-Chlorotoluene	19.92	91	6372870	42.85 ug/L m	98
50) 1,3,5-Trimethylbenzene	19.89	105	6077505	40.88 ug/L	95
51) tert-Butylbenzene	20.48	119	6270177	38.26 ug/L	87
52) 1,2,4-Trimethylbenzene	20.56	105	5551247	39.38 ug/L	93
53) sec-Butylbenzene	20.88	105	9291157	39.79 ug/L	97
54) 1,3-Dichlorobenzene	21.08	146	2769985	36.27 ug/L	96
55) 4-Isopropyltoluene	21.15	119	6986951	38.31 ug/L	95
56) 1,4-Dichlorobenzene	21.08	146	2761726	36.15 ug/L	96
58) 1,2-Dichlorobenzene	21.91	146	2026169	34.77 ug/L	97
59) n-Butylbenzene	21.89	91	7484823	40.07 ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.31	75	186592	48.63 ug/L	86
61) 1,2,4-Trichlorobenzene	24.88	180	1588732	39.22 ug/L	98
62) Hexachlorobutadiene	25.23	225	1808777	43.53 ug/L	98
63) Naphthalene	25.32	128	1420685	37.25 ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	1119071	40.70 ug/L	100
65) Methyl-tert butyl ether	8.00	73	1658962	46.44 ug/L #	100
66) tert-Butyl Alcohol	7.77	59	51615	14.45 ug/L	100

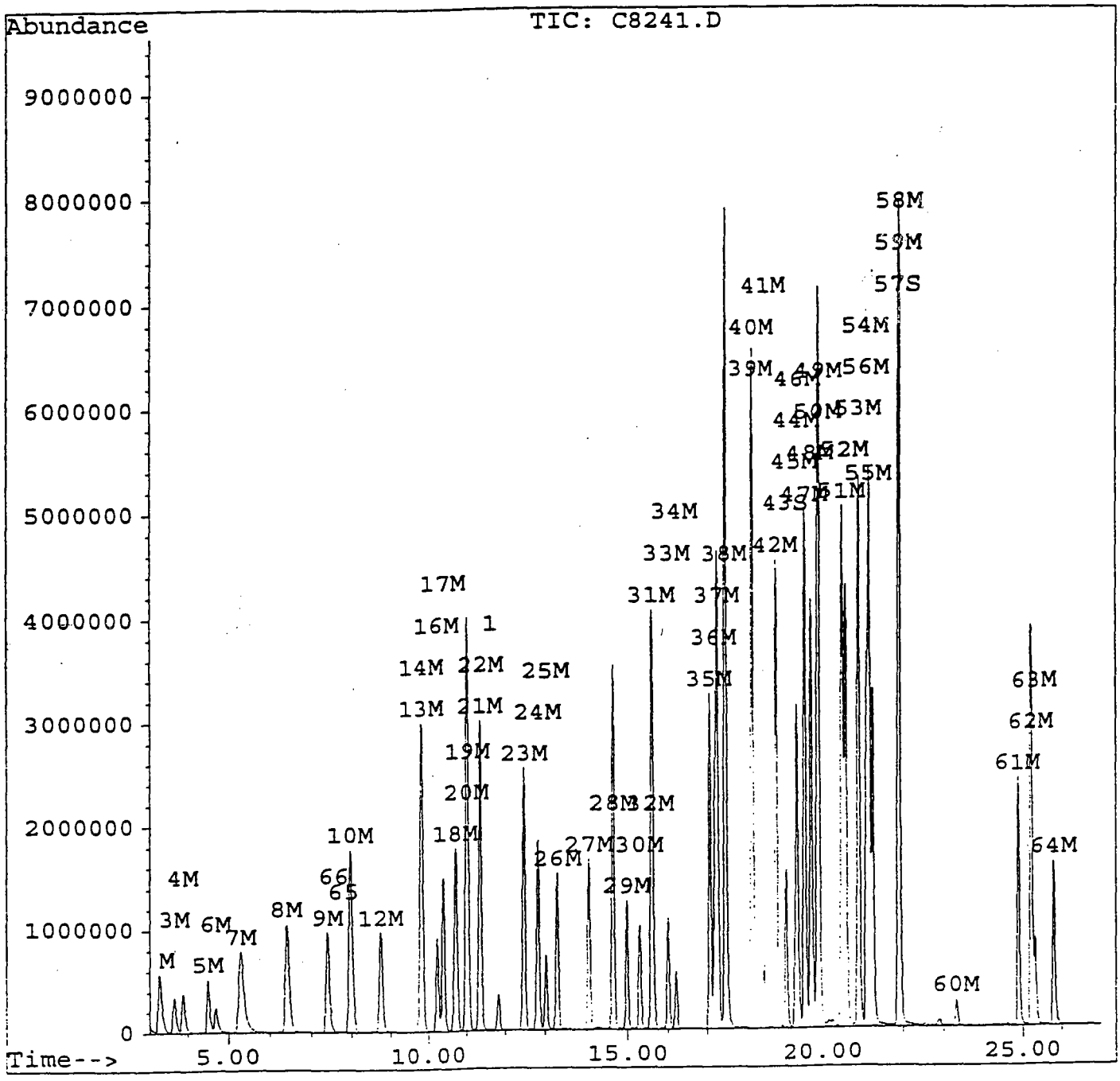
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8241.d
Acq On : 26 May 95 1:00 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: May 26 15:35 1995

Vial: 6 51
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration



can 150 (4.583 min): C8310.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1629	50.05	20288	69.95	904	92.05	2358
37.10	7064	51.05	6353	73.05	4212	93.05	3310
38.10	4247	55.05	503	74.05	13058	94.05	8116
39.10	1884	56.10	1202	75.05	43208	95.05	86136
40.00	729	57.10	2580	76.05	3072	96.05	5460
41.00	600	60.00	1229	76.95	571	142.80	675
44.00	2558	61.00	4493	78.90	1943	173.95	44280
45.00	1036	62.00	3344	79.80	683	174.95	3681
47.05	905	63.00	3601	80.90	1957	175.95	43040
47.95	587	68.05	8982	86.90	3209	176.95	3770
49.05	5553	69.05	9747	88.05	3285		

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/1/95 Time: 1613

Lab File ID: C8311.D Init. Calib. Date(s): 5/26/95 _____

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

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.396	0.363		8.3	30.0
Chloromethane	0.233	0.212		9.0	30.0
Vinyl chloride	0.263	0.236		10.3	30.0
Bromomethane	0.178	0.165		7.3	30.0
Chloroethane	0.154	0.150		2.6	30.0
Trichlorofluoromethane	0.588	0.532		9.5	30.0
1,1-Dichloroethene	0.258	0.240		7.0	30.0
Methylene chloride	0.274	0.300		-9.5	30.0
trans-1,2-Dichloroethene	0.273	0.259		5.1	30.0
1,1-Dichloroethane	0.545	0.521		4.4	30.0
2,2-Dichloropropane	0.534	0.499		6.6	30.0
cis-1,2-Dichloroethene	0.257	0.249		3.1	30.0
Bromochloromethane	0.090	0.090		0.0	30.0
Chloroform	0.512	0.491		4.1	30.0
1,1,1-Trichloroethane	0.566	0.541		4.4	30.0
Carbon tetrachloride	0.526	0.489		7.0	30.0
1,1-Dichloropropene	0.495	0.464		6.3	30.0
Benzene	0.871	0.825		5.3	30.0
1,2-Dichloroethane	0.214	0.217		-1.4	30.0
Trichloroethene	0.386	0.368		4.7	30.0
1,2-Dichloropropane	0.285	0.281		1.4	30.0
Dibromomethane	0.115	0.116		-0.9	30.0
Bromodichloromethane	0.396	0.394		0.5	30.0
cis-1,3-Dichloropropene	0.342	0.350		-2.3	30.0
Toluene	0.619	0.596		3.7	30.0
trans-1,3-Dichloropropene	0.236	0.243		-3.0	30.0
1,1,2-Trichloroethane	0.110	0.113		-2.7	30.0
Tetrachloroethene	0.388	0.357		8.0	30.0
1,3-Dichloropropane	0.219	0.224		-2.3	30.0
Dibromochloromethane	0.215	0.217		-0.9	30.0
1,2-Dibromomethane	0.152	0.159		-4.6	30.0
Chlorobenzene	0.644	0.625		3.0	30.0
1,1,1,2-Tetrachloroethane	0.256	0.257		-0.4	30.0
Ethylbenzene	1.302	1.270		2.5	30.0
Xylene (para & meta)	0.468	0.449		4.1	30.0
Xylene (Ortho)	0.414	0.403		2.7	30.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/1/95 Time: 1613

Lab File ID: C8311.D Init. Calib. Date(s): 5/26/95 _____

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

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0.641	0.634		1.1	30.0
Bromoform	0.105	0.113		-7.6	30.0
Isopropylbenzene	1.330	1.276		4.1	30.0
Bromobenzene	0.240	0.246		-2.5	30.0
1,1,2,2-Tetrachloroethane	0.118	0.137		-16.1	30.0
1,2,3-Trichloropropane	0.143	0.149		-4.2	30.0
n-Propylbenzene	1.731	1.686		2.6	30.0
2-Chlorotoluene	0.960	0.938		2.3	30.0
4-Chlorotoluene	1.140	1.137		0.3	30.0
1,3,5-Trimethylbenzene	1.101	1.069		2.9	30.0
tert-Butylbenzene	1.142	1.138		0.4	30.0
1,2,4-Trimethylbenzene	1.009	1.015		-0.6	30.0
sec-Butylbenzene	1.693	1.635		3.4	30.0
1,3-Dichlorobenzene	0.489	0.468		4.3	30.0
4-Isopropyltoluene	1.264	1.253		0.9	30.0
1,4-Dichlorobenzene	0.485	0.489		-0.8	30.0
1,2-Dichlorobenzene	0.364	0.374		-2.7	30.0
n-Butylbenzene	1.355	1.365		-0.7	30.0
1,2-Dibromo-3-chloropropane	0.030	0.033		-10.0	30.0
1,2,4-Trichlorobenzene	0.268	0.277		-3.4	30.0
Hexachlorobutadiene	0.323	0.311		3.7	30.0
Naphthalene	0.232	0.249		-7.3	30.0
1,2,3-Trichlorobenzene	0.187	0.203		-8.6	30.0
4-Bromofluorobenzene	0.499	0.466		6.6	30.0
1,2-Dichlorobenzene-d4	0.228	0.223		2.2	30.0

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8311.D
Acq On : 1 Jun 95 4:13 pm
Sample : 10 PPB CHK STANDARD
Misc : 50 NG INJECTION

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

57

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	94	-0.01
2	M	Dichlorodifluoromethane	0.396	0.363	8.5	80	0.00
3	M	Chloromethane	0.233	0.212	9.1	80	0.00
4	M	Vinyl chloride	0.263	0.236	10.3	80	0.00
5	M	Bromomethane	0.178	0.165	7.3	78	0.00
6	M	Chloroethane	0.154	0.150	2.7	82	0.00
7	M	Trichlorofluoromethane	0.588	0.532	9.5	83	0.00
8	M	1,1-Dichloroethene	0.258	0.240	7.1	84	0.02
9	M	Methylene chloride	0.274	0.300	-9.7	80	-0.01
10	M	trans-1,2-Dichloroethene	0.273	0.259	4.9	87	-0.01
11		Hexane	0.000	0.000#	0.0	0#	-9.46#
12	M	1,1-Dichloroethane	0.545	0.521	4.5	89	0.00
13	M	2,2-Dichloropropane	0.534	0.499	6.7	86	0.00
14	M	cis-1,2-Dichloroethene	0.257	0.249	3.2	89	0.00
15		2-Butanone	0.000	0.000#	0.0	0#	0.08
16	M	Bromochloromethane	0.090	0.090	0.6	95	0.00
17	M	Chloroform	0.512	0.491	4.0	90	0.00
18	M	1,1,1-Trichloroethane	0.566	0.541	4.4	89	-0.01
19	M	Carbon tetrachloride	0.526	0.489	7.1	88	-0.01
20	M	1,1-Dichloropropene	0.495	0.464	6.3	86	0.00
21	M	Benzene	0.871	0.825	5.3	87	0.00
22	M	1,2-Dichloroethane	0.214	0.217	-1.5	97	0.00
23	M	Trichloroethene	0.386	0.368	4.7	89	0.00
24	M	1,2-Dichloropropane	0.285	0.281	1.4	94	0.00
25	M	Dibromomethane	0.115	0.116	-0.6	96	-0.01
26	M	Bromodichloromethane	0.396	0.394	0.6	96	0.00
27	M	cis-1,3-Dichloropropene	0.342	0.350	-2.3	98	0.00
28	M	Toluene	0.619	0.596	3.6	92	0.00
29	M	trans-1,3-Dichloropropene	0.236	0.243	-3.0	99	0.00
30	M	1,1,2-Trichloroethane	0.110	0.113	-2.0	98	-0.01
31	M	Tetrachloroethene	0.388	0.357	7.8	87	-0.01
32	M	1,3-Dichloropropane	0.219	0.224	-2.5	99	0.00
33	M	Dibromochloromethane	0.215	0.217	-1.0	99	0.00
34	M	1,2-Dibromomethane	0.152	0.159	-4.6	103	0.00
35	M	Chlorobenzene	0.644	0.625	2.9	92	0.00
36	M	1,1,1,2-Tetrachloroethane	0.256	0.257	-0.5	97	0.00
37	M	Ethylbenzene	1.302	1.270	2.5	93	-0.01
38	M	Xylene (para & meta)	0.468	0.449	4.0	91	-0.01
	M	Xylene (Ortho)	0.414	0.403	2.5	92	-0.01
40	M	Styrene	0.641	0.634	1.1	95	-0.01
41	M	Bromoform	0.105	0.113	-6.8	106	-0.01
42	M	Isopropylbenzene	1.330	1.276	4.1	92	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8311.D
Acq On : 1 Jun 95 4:13 pm
Sample : 10 PPB CHK STANDARD
Misc : 50 NG INJECTION

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43	S	4-Bromofluorobenzene	0.499	0.466	6.5	91	0.00
4	M	Bromobenzene	0.240	0.246	-2.5	99	-0.01
4	M	1,1,2,2-Tetrachloroethane	0.118	0.137	-16.3	115	-0.01
46	M	1,2,3-Trichloropropane	0.143	0.149	-4.2	101	-0.01
4	M	n-Propylbenzene	1.731	1.686	2.6	94	-0.01
4	M	2-Chlorotoluene	0.960	0.938	2.3	95	-0.01
49	M	4-Chlorotoluene	1.140	1.137	0.3	96	0.00
5	M	1,3,5-Trimethylbenzene	1.101	1.069	3.0	94	-0.01
5	M	tert-Butylbenzene	1.142	1.138	0.4	96	-0.01
52	M	1,2,4-Trimethylbenzene	1.009	1.015	-0.6	96	0.00
53	M	sec-Butylbenzene	1.693	1.635	3.4	94	-0.01
5	M	1,3-Dichlorobenzene	0.489	0.468	4.3	94	0.00
55	M	4-Isopropyltoluene	1.264	1.253	0.9	96	0.00
56	M	1,4-Dichlorobenzene	0.485	0.489	-0.7	99	-0.01
5	S	1,2-Dichlorobenzene-d4	0.228	0.223	2.0	95	0.00
5	M	1,2-Dichlorobenzene	0.364	0.374	-2.7	100	0.00
59	M	n-Butylbenzene	1.355	1.365	-0.7	99	0.00
60	M	1,2-Dibromo-3-chloropropane	0.030	0.033	-9.4	113	0.00
6	M	1,2,4-Trichlorobenzene	0.268	0.277	-3.3	101	-0.01
62	M	Hexachlorobutadiene	0.323	0.311	3.8	96	-0.01
63	M	Naphthalene	0.232	0.249	-7.4	106	-0.01
6	M	1,2,3-Trichlorobenzene	0.187	0.203	-8.4	108	-0.01
65		Methyl-tert butyl ether	0.292	0.306	-4.7	100	0.00
66		tert-Butyl Alcohol	0.004	0.005	-8.2	116	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : d:\hpchem\1\data\c8311.d
Acq On : 1 Jun 95 4:13 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 11:01 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.83	96	721859	5.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.09	95	336538	4.67	ug/L	93.47%
57) 1,2-Dichlorobenzene-d4	21.88	152	161139	4.90	ug/L	97.98%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.29	85	523595	9.15	ug/L	96
3) Chloromethane	3.65	50	306136	9.09	ug/L	97
4) Vinyl chloride	3.88	62	340593	8.97	ug/L	100
5) Bromomethane	4.53	94	237844	9.27	ug/L	99
6) Chloroethane	4.77	64	216559	9.73	ug/L	91
7) Trichlorofluoromethane	5.34	101	768075	9.05	ug/L	96
8) 1,1-Dichloroethene	6.44	96	346294	9.29	ug/L	96
9) Methylene chloride	7.39	84	433756	10.97	ug/L	97
10) trans-1,2-Dichloroethene	7.96	96	374238	9.51	ug/L	97
12) 1,1-Dichloroethane	8.76	63	751698	9.55	ug/L	95
13) 2,2-Dichloropropane	9.83	77	719896	9.33	ug/L	98
14) cis-1,2-Dichloroethene	9.83	96	359278	9.68	ug/L	98
16) Bromochloromethane	10.24	128	129213	9.94	ug/L	99
17) Chloroform	10.39	83	709528	9.60	ug/L	99
18) 1,1,1-Trichloroethane	10.71	97	781727	9.56	ug/L	98
19) Carbon tetrachloride	11.02	117	705646	9.29	ug/L	95
20) 1,1-Dichloropropene	11.01	75	669311	9.37	ug/L	96
21) Benzene	11.35	78	1190610	9.47	ug/L	99
22) 1,2-Dichloroethane	11.36	62	313219	10.15	ug/L	95
23) Trichloroethene	12.48	95	531218	9.53	ug/L	96
24) 1,2-Dichloropropane	12.83	63	405581	9.86	ug/L	98
25) Dibromomethane	13.02	93	167745	10.06	ug/L	98
26) Bromodichloromethane	13.30	83	568287	9.94	ug/L	98
27) cis-1,3-Dichloropropene	14.05	75	505575	10.23	ug/L	97
28) Toluene	14.64	92	861172	9.64	ug/L	97
29) trans-1,3-Dichloropropene	14.98	75	351413	10.30	ug/L	98
30) 1,1,2-Trichloroethane	15.29	83	162586	10.20	ug/L	96
31) Tetrachloroethene	15.60	166	515935	9.22	ug/L	95
32) 1,3-Dichloropropane	15.58	76	323660	10.25	ug/L	99
33) Dibromochloromethane	15.99	129	313483	10.10	ug/L	95
34) 1,2-Dibromomethane	16.19	107	229987	10.46	ug/L	97
35) Chlorobenzene	17.07	112	902835	9.71	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.20	131	370969	10.05	ug/L	96
37) Ethylbenzene	17.25	91	1833658	9.75	ug/L	96
38) Xylene (para & meta)	17.46	106	1296065	19.20	ug/L	93
39) Xylene (Ortho)	18.16	106	582521	9.75	ug/L	89
40) Styrene	18.18	104	915718	9.89	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8311.d
Acq On : 1 Jun 95 4:13 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 11:01 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

60

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.50	173	162551	10.68	ug/L		90
42)	Isopropylbenzene	18.82	105	1842297	9.59	ug/L	m	0
44)	Bromobenzene	19.36	156	354812	10.25	ug/L		92
45)	1,1,2,2-Tetrachloroethane	19.31	83	197966	11.63	ug/L		96
46)	1,2,3-Trichloropropane	19.39	75	215426	10.42	ug/L	#	82
47)	n-Propylbenzene	19.56	91	2434740	9.74	ug/L		100
48)	2-Chlorotoluene	19.72	91	1354861	9.77	ug/L		98
49)	4-Chlorotoluene	19.91	91	1640839	9.97	ug/L		85
50)	1,3,5-Trimethylbenzene	19.88	105	1542816	9.70	ug/L		100
51)	tert-Butylbenzene	20.47	119	1642733	9.96	ug/L		97
52)	1,2,4-Trimethylbenzene	20.56	105	1464846	10.06	ug/L		96
53)	sec-Butylbenzene	20.87	105	2360469	9.66	ug/L		99
54)	1,3-Dichlorobenzene	21.08	146	675720	9.57	ug/L		98
55)	4-Isopropyltoluene	21.14	119	1808971	9.91	ug/L		98
56)	1,4-Dichlorobenzene	21.23	146	705565	10.07	ug/L		92
58)	1,2-Dichlorobenzene	21.91	146	540576	10.27	ug/L		97
59)	n-Butylbenzene	21.89	91	1970707	10.07	ug/L		100
60)	1,2-Dibromo-3-chloropropan	23.31	75	47304	10.94	ug/L		95
61)	1,2,4-Trichlorobenzene	24.88	180	399678	10.33	ug/L		96
62)	Hexachlorobutadiene	25.22	225	448616	9.62	ug/L		98
63)	Naphthalene	25.32	128	359670	10.74	ug/L		100
64)	1,2,3-Trichlorobenzene	25.80	180	292448	10.84	ug/L		99
65)	Methyl-tert butyl ether	8.00	73	441591	10.47	ug/L		99
66)	tert-Butyl Alcohol	7.71	59	13991	21.65	ug/L		100

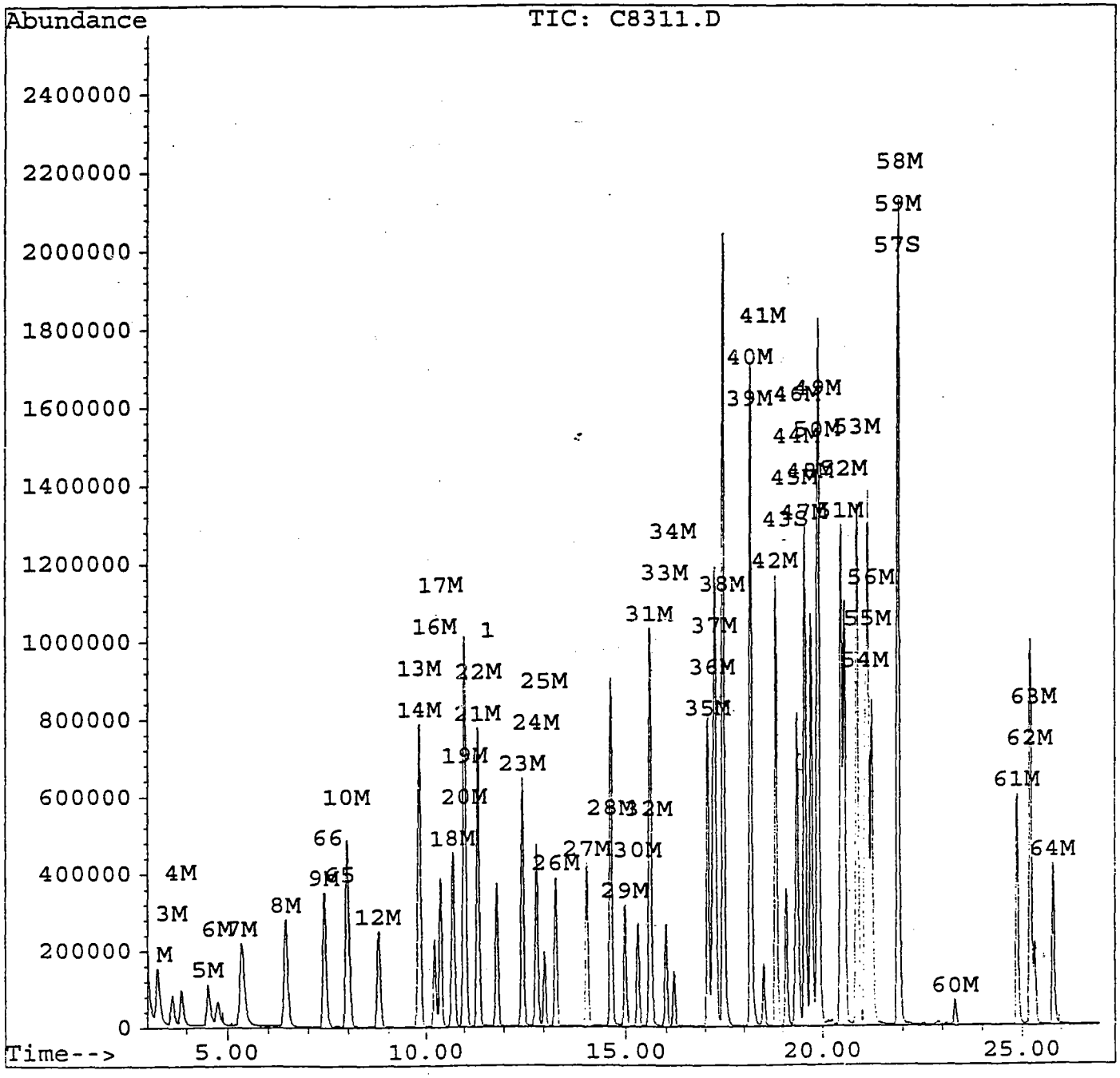
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8311.d
Acq On : 1 Jun 95 4:13 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 11:01 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8312.d
Acq On : 1 Jun 95 4:49 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 1 17:17 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.84	96	657344	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.09	95	340682	5.20	ug/L		103.91%
57) 1,2-Dichlorobenzene-d4	21.88	152	157557	5.26	ug/L		105.20%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.29	85	50577	0.97	ug/L		99
3) Chloromethane	3.65	50	30035	0.98	ug/L		91
4) Vinyl chloride	3.90	62	32799	0.95	ug/L		92
5) Bromomethane	4.56	94	28020	1.20	ug/L		80
6) Chloroethane	4.78	64	21852	1.08	ug/L		95
7) Trichlorofluoromethane	5.37	101	76332	0.99	ug/L		83
8) 1,1-Dichloroethene	6.43	96	33908	1.00	ug/L	#	86
9) Methylene chloride	7.40	84	197470	5.49	ug/L		98
10) trans-1,2-Dichloroethene	7.97	96	36172	1.01	ug/L		100
12) 1,1-Dichloroethane	8.77	63	74904	1.04	ug/L		97
13) 2,2-Dichloropropane	9.82	77	73555	1.05	ug/L		92
14) cis-1,2-Dichloroethene	9.83	96	36602	1.08	ug/L		97
16) Bromochloromethane	10.23	128	11383	0.96	ug/L		97
17) Chloroform	10.38	83	70667	1.05	ug/L		87
18) 1,1,1-Trichloroethane	10.71	97	76949	1.03	ug/L		91
19) Carbon tetrachloride	11.02	117	70448	1.02	ug/L		94
20) 1,1-Dichloropropene	11.01	75	69926	1.08	ug/L		97
21) Benzene	11.35	78	121724	1.06	ug/L		99
22) 1,2-Dichloroethane	11.36	62	29684	1.06	ug/L		99
23) Trichloroethene	12.48	95	52820	1.04	ug/L		94
24) 1,2-Dichloropropane	12.83	63	39311	1.05	ug/L		89
25) Dibromomethane	13.03	93	16056	1.06	ug/L		82
26) Bromodichloromethane	13.30	83	54072	1.04	ug/L		98
27) cis-1,3-Dichloropropene	14.06	75	44783	1.00	ug/L		95
28) Toluene	14.65	92	92295	1.13	ug/L		92
29) trans-1,3-Dichloropropene	14.98	75	32602	1.05	ug/L		92
30) 1,1,2-Trichloroethane	15.28	83	14043	0.97	ug/L	#	81
31) Tetrachloroethene	15.59	166	52226	1.02	ug/L		91
32) 1,3-Dichloropropane	15.59	76	30566	1.06	ug/L		93
33) Dibromochloromethane	15.99	129	27690	0.98	ug/L		100
34) 1,2-Dibromomethane	16.19	107	19074	0.95	ug/L		99
35) Chlorobenzene	17.06	112	92962	1.10	ug/L		96
36) 1,1,1,2-Tetrachloroethane	17.20	131	34188	1.02	ug/L		97
37) Ethylbenzene	17.25	91	182978	1.07	ug/L		94
38) Xylene (para & meta)	17.46	106	132583	2.16	ug/L		98
39) Xylene (Ortho)	18.17	106	58229	1.07	ug/L		99
40) Styrene	18.18	104	83729	0.99	ug/L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8312.d
Acq On : 1 Jun 95 4:49 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 1 17:17 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41) Bromoform	18.50	173	12803	0.92	ug/L		84
42) Isopropylbenzene	18.82	105	182676	1.04	ug/L		89
44) Bromobenzene	19.38	156	32529	1.03	ug/L		98
45) 1,1,2,2-Tetrachloroethane	19.30	83	16916	1.09	ug/L		89
46) 1,2,3-Trichloropropane	19.40	75	21825	1.16	ug/L	#	64
47) n-Propylbenzene	19.56	91	240450	1.06	ug/L		97
48) 2-Chlorotoluene	19.72	91	148985	1.18	ug/L		100
49) 4-Chlorotoluene	19.90	91	165768	1.11	ug/L		82
50) 1,3,5-Trimethylbenzene	19.87	105	151354	1.05	ug/L		99
51) tert-Butylbenzene	20.48	119	161659	1.08	ug/L		99
52) 1,2,4-Trimethylbenzene	20.56	105	143316	1.08	ug/L		96
53) sec-Butylbenzene	20.87	105	228957	1.03	ug/L		98
54) 1,3-Dichlorobenzene	21.08	146	68469	1.06	ug/L		93
55) 4-Isopropyltoluene	21.14	119	172322	1.04	ug/L		99
56) 1,4-Dichlorobenzene	21.23	146	70312	1.10	ug/L		92
58) 1,2-Dichlorobenzene	21.91	146	51605	1.08	ug/L		92
59) n-Butylbenzene	21.88	91	182786	1.03	ug/L		93
60) 1,2-Dibromo-3-chloropropan	23.31	75	3277	0.83	ug/L	#	76
61) 1,2,4-Trichlorobenzene	24.89	180	38818	1.10	ug/L		95
62) Hexachlorobutadiene	25.23	225	38859	0.91	ug/L		91
63) Naphthalene	25.32	128	39970	1.31	ug/L		100
64) 1,2,3-Trichlorobenzene	25.80	180	28944	1.18	ug/L		94
65) Methyl-tert butyl ether	7.98	73	45370	1.18	ug/L		96

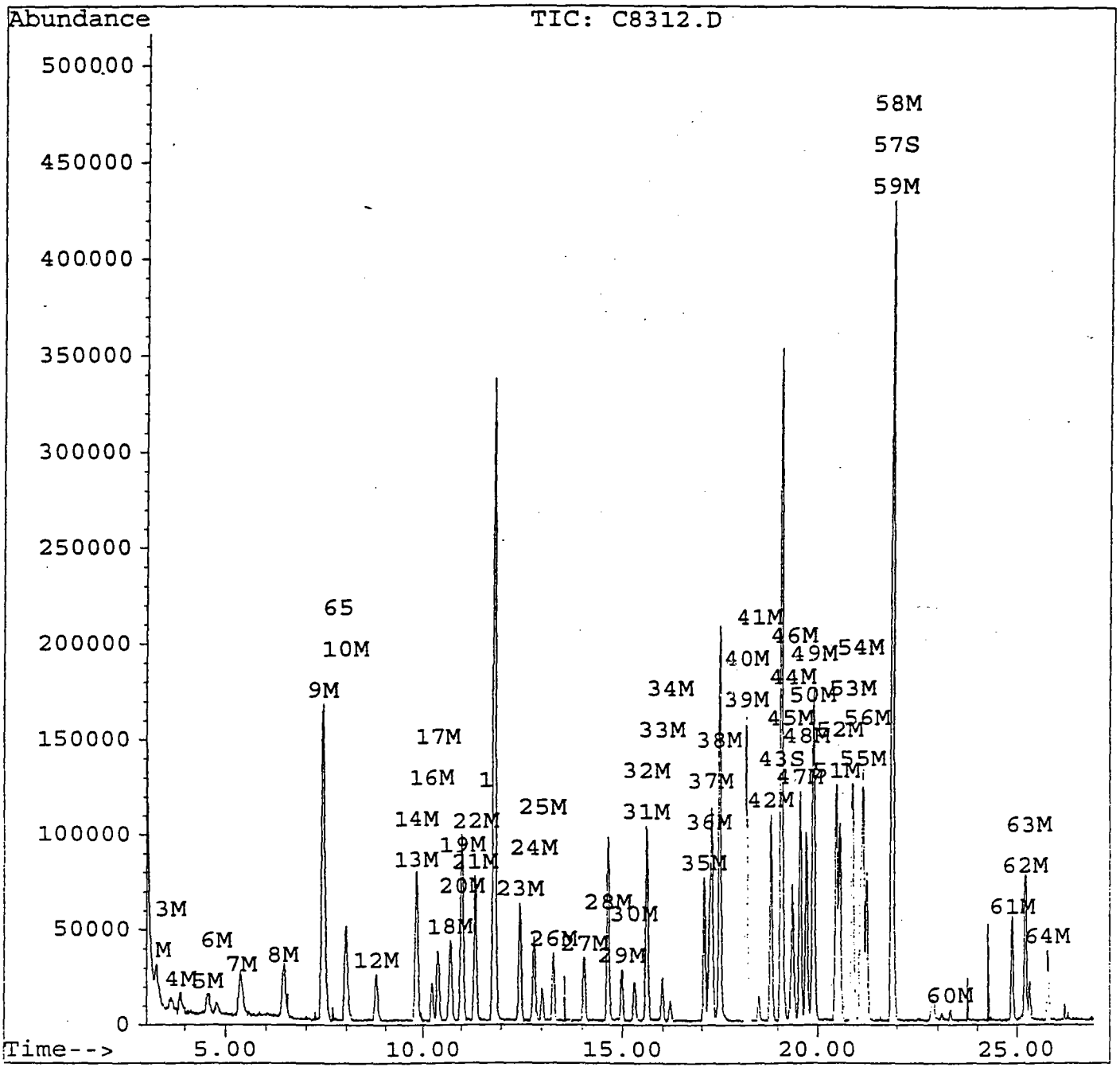
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8312.d
Acq On : 1 Jun 95 4:49 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 1 17:17 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8324.d
Acq On : 1 Jun 95 11:48 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 2 0:15 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	758593	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	339323	4.48	ug/L	89.68%
57) 1,2-Dichlorobenzene-d4	21.88	152	164606	4.76	ug/L	95.24%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.30	85	424303	7.06	ug/L	97
3) Chloromethane	3.67	50	259472	7.33	ug/L	94
4) Vinyl chloride	3.89	62	340914	8.55	ug/L	95
5) Bromomethane	4.53	94	238409	8.84	ug/L	99
6) Chloroethane	4.78	64	212450	9.09	ug/L	95
7) Trichlorofluoromethane	5.36	101	785459	8.81	ug/L	98
8) 1,1-Dichloroethene	6.45	96	361184	9.22	ug/L	98
9) Methylene chloride	7.42	84	477115	11.49	ug/L	97
10) trans-1,2-Dichloroethene	7.97	96	388522	9.39	ug/L	90
12) 1,1-Dichloroethane	8.77	63	819517	9.91	ug/L	93
13) 2,2-Dichloropropane	9.83	77	620426	7.65	ug/L	98
14) cis-1,2-Dichloroethene	9.84	96	368878	9.46	ug/L	97
16) Bromochloromethane	10.25	128	139687	10.22	ug/L	98
17) Chloroform	10.41	83	748487	9.64	ug/L	99
18) 1,1,1-Trichloroethane	10.73	97	790982	9.21	ug/L	98
19) Carbon tetrachloride	11.05	117	717592	8.99	ug/L	99
20) 1,1-Dichloropropene	11.03	75	720172	9.60	ug/L	98
21) Benzene	11.37	78	1258173	9.53	ug/L	97
22) 1,2-Dichloroethane	11.37	62	332335	10.25	ug/L	98
23) Trichloroethene	12.48	95	532760	9.10	ug/L	93
24) 1,2-Dichloropropane	12.84	63	445587	10.31	ug/L	100
25) Dibromomethane	13.05	93	187486	10.70	ug/L	98
26) Bromodichloromethane	13.31	83	611551	10.18	ug/L	99
27) cis-1,3-Dichloropropene	14.07	75	507261	9.77	ug/L	100
28) Toluene	14.65	92	883738	9.42	ug/L	95
29) trans-1,3-Dichloropropene	15.00	75	359421	10.02	ug/L	100
30) 1,1,2-Trichloroethane	15.31	83	184040	10.99	ug/L	95
31) Tetrachloroethene	15.61	166	535217	9.10	ug/L	98
32) 1,3-Dichloropropane	15.59	76	362903	10.93	ug/L	99
33) Dibromochloromethane	16.01	129	336023	10.31	ug/L	96
34) 1,2-Dibromomethane	16.20	107	244046	10.56	ug/L	94
35) Chlorobenzene	17.07	112	957333	9.79	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.20	131	374459	9.65	ug/L	98
37) Ethylbenzene	17.26	91	1842452	9.33	ug/L	98
38) Xylene (para & meta)	17.47	106	1339134	18.88	ug/L	93
39) Xylene (Ortho)	18.17	106	611935	9.75	ug/L	95
40) Styrene	18.19	104	930905	9.57	ug/L	98

(#) = qualifier out of range (m) = manual integration

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

66

Lab Name : EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: C8326.D BFB Injection Date: 6/2/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1424

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) _____

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.6
75	30.0 - 66.0% of mass 95	51.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	54.0
175	4.0 - 9.0% of mass 174	3.3 (6.2)1
176	93.0 - 101.0% of mass 174	52.2 (96.7)1
177	5.0 - 9.0% of mass 176	3.6 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

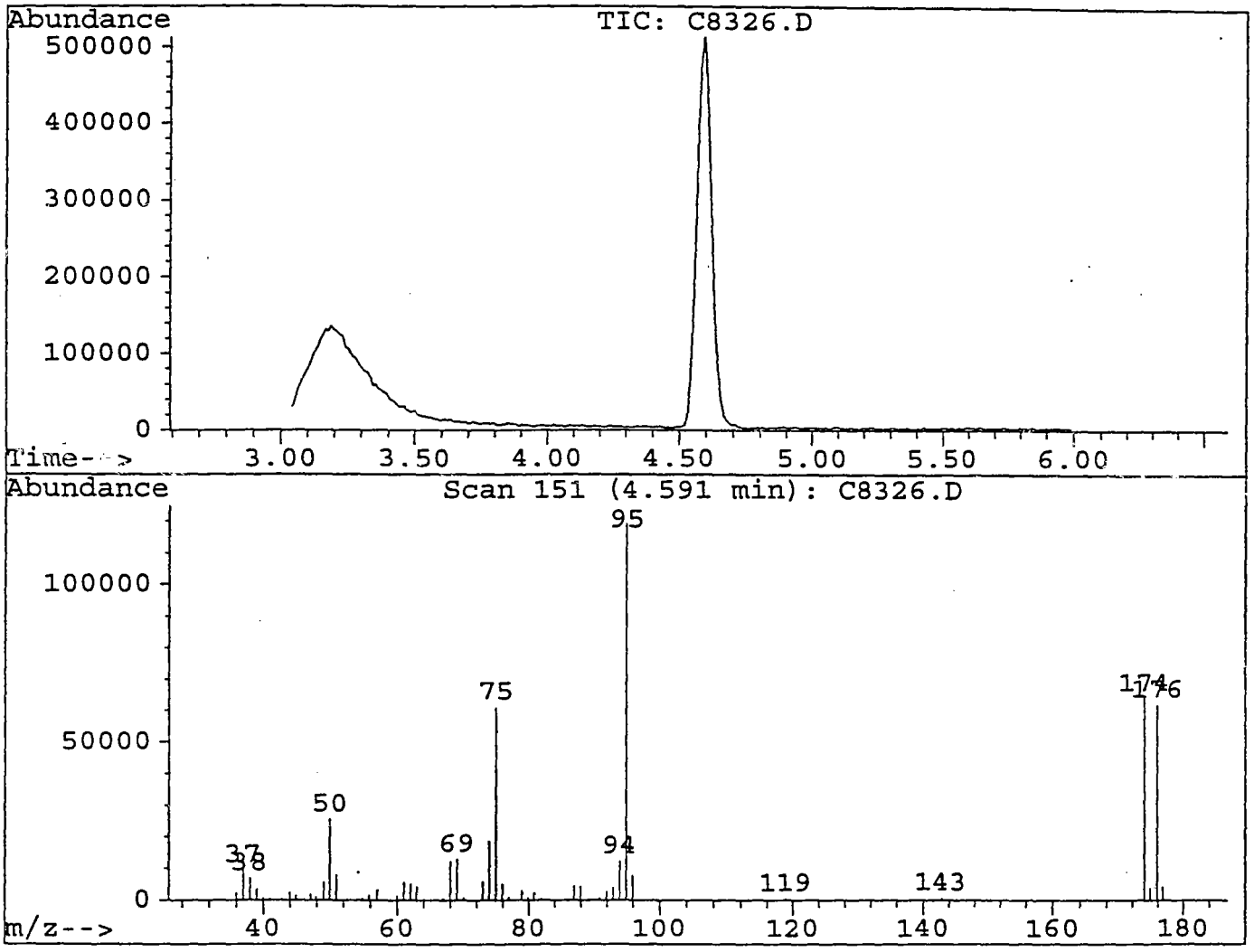
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C8327.D	6/2/95	1438
02	1PPB STD	1PPB STD	C8328.D	6/2/95	1514
03	VBLK01	M. BLANK	C8329.D	6/2/95	1550
04	9523339V	9523339V	C8330.D	6/2/95	1626
05	9523340V	9523340V	C8331.D	6/2/95	1703
06	9523341V	9523341V	C8332.D	6/2/95	1739
07	9523342V	9523342V	C8333.D	6/2/95	1817
08	9523343V	9523343V	C8334.D	6/2/95	1853
09	9523163V	9523163V	C8335.D	6/2/95	1929
10	9523167V	9523167V	C8336.D	6/2/95	2004
11	9523166V	9523166V	C8337.D	6/2/95	2040
12	9523343MS	23343MS	C8338.D	6/2/95	2115
13	9523343MSD	23343MSD	C8339.D	6/2/95	2150
14	10PPBQCS	10PPBQCS	C8340.D	6/2/95	2224
15					
16					
17					
18					
19					
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C8326.D
Acq On : 2 Jun 95 2:24 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics



Peak Apex is scan: 151

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	25664	PASS
75	95	30	60	51.5	61280	PASS
95	95	100	100	100.0	119064	PASS
96	95	5	9	6.7	8035	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	54.0	64304	PASS
175	174	5	9	6.2	3986	PASS
176	174	95	101	96.7	62160	PASS
177	176	5	9	6.8	4228	PASS

C8326.D VOA524.M Fri Jun 02 14:32:21 1995 VOA

can 151 (4.591 min): C8326.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2197	49.05	5823	66.95	698	80.80	2447
37.00	9510	49.95	25664	68.05	12370	81.90	588
38.00	7050	50.95	8205	69.05	12960	86.90	4512
39.00	3463	54.85	746	70.05	1017	87.95	4569
40.00	810	55.85	1680	72.95	6031	90.85	578
41.00	531	57.00	3447	73.95	18848	91.95	2776
42.90	532	60.00	1515	74.95	61280	92.95	4108
44.00	2522	61.00	5803	75.95	5237	93.95	12292
44.90	1537	62.00	5273	76.95	1207	94.95	119064
47.05	1979	62.90	4419	78.90	3035	95.95	8035
47.95	1137	64.00	533	79.90	971	118.85	671

can 151 (4.591 min): C8326.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.90	632						
142.80	775						
173.95	64304						
174.85	3986						
175.95	62160						
176.85	4228						

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/2/95 Time: 1438

Lab File ID: C8327.D Init. Calib. Date(s): 5/26/95 _____

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

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.396	0.380		4.0	30.0
Chloromethane	0.233	0.232		0.4	30.0
Vinyl chloride	0.263	0.264		-0.4	30.0
Bromomethane	0.178	0.192		-7.9	30.0
Chloroethane	0.154	0.167		-8.4	30.0
Trichlorofluoromethane	0.588	0.573		2.6	30.0
1,1-Dichloroethene	0.258	0.256		0.8	30.0
Methylene chloride	0.274	0.320		-16.8	30.0
trans-1,2-Dichloroethene	0.273	0.275		-0.7	30.0
1,1-Dichloroethane	0.545	0.556		-2.0	30.0
2,2-Dichloropropane	0.534	0.534		0.0	30.0
cis-1,2-Dichloroethene	0.257	0.253		1.6	30.0
Bromochloromethane	0.090	0.082		8.9	30.0
Chloroform	0.512	0.502		2.0	30.0
1,1,1-Trichloroethane	0.566	0.553		2.3	30.0
Carbon tetrachloride	0.526	0.494		6.1	30.0
1,1-Dichloropropene	0.495	0.499		-0.8	30.0
Benzene	0.871	0.866		0.6	30.0
1,2-Dichloroethane	0.214	0.200		6.5	30.0
Trichloroethene	0.386	0.376		2.6	30.0
1,2-Dichloropropane	0.285	0.286		-0.4	30.0
Dibromomethane	0.115	0.109		5.2	30.0
Bromodichloromethane	0.396	0.380		4.0	30.0
cis-1,3-Dichloropropene	0.342	0.328		4.1	30.0
Toluene	0.619	0.623		-0.6	30.0
trans-1,3-Dichloropropene	0.236	0.227		3.8	30.0
1,1,2-Trichloroethane	0.110	0.105		4.5	30.0
Tetrachloroethene	0.388	0.364		6.2	30.0
1,3-Dichloropropane	0.219	0.212		3.2	30.0
Dibromochloromethane	0.215	0.197		8.4	30.0
1,2-Dibromomethane	0.152	0.144		5.3	30.0
Chlorobenzene	0.644	0.620		3.7	30.0
1,1,1,2-Tetrachloroethane	0.256	0.240		6.3	30.0
Ethylbenzene	1.302	1.285		1.3	30.0
Xylene (para & meta)	0.468	0.461		1.5	30.0
Xylene (Ortho)	0.414	0.402		2.9	30.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/2/95 Time: 1438

Lab File ID: C8327.D Init. Calib. Date(s): 5/26/95 _____

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

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0.641	0.610		4.8	30.0
Bromoform	0.105	0.094		10.5	30.0
Isopropylbenzene	1.330	1.288		3.2	30.0
Bromobenzene	0.240	0.224		6.7	30.0
1,1,2,2-Tetrachloroethane	0.118	0.120		-1.7	30.0
1,2,3-Trichloropropane	0.143	0.134		6.3	30.0
n-Propylbenzene	1.731	1.721		0.6	30.0
2-Chlorotoluene	0.960	0.928		3.3	30.0
4-Chlorotoluene	1.140	1.086		4.7	30.0
1,3,5-Trimethylbenzene	1.101	1.070		2.8	30.0
tert-Butylbenzene	1.142	1.106		3.2	30.0
1,2,4-Trimethylbenzene	1.009	0.994		1.5	30.0
sec-Butylbenzene	1.693	1.641		3.1	30.0
1,3-Dichlorobenzene	0.489	0.456		6.7	30.0
4-Isopropyltoluene	1.264	1.234		2.4	30.0
1,4-Dichlorobenzene	0.485	0.442		8.9	30.0
1,2-Dichlorobenzene	0.364	0.339		6.9	30.0
n-Butylbenzene	1.355	1.360		-0.4	30.0
1,2-Dibromo-3-chloropropane	0.030	0.028		6.7	30.0
1,2,4-Trichlorobenzene	0.268	0.237		11.6	30.0
Hexachlorobutadiene	0.323	0.287		11.1	30.0
Naphthalene	0.232	0.203		12.5	30.0
1,2,3-Trichlorobenzene	0.187	0.170		9.1	30.0
4-Bromofluorobenzene	0.499	0.488		2.2	30.0
1,2-Dichlorobenzene-d4	0.228	0.224		1.8	30.0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8327.D
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	99	0.00
2	M	Dichlorodifluoromethane	0.396	0.380	4.0	90	0.02
	M	Chloromethane	0.233	0.232	0.4	93	0.03
	M	Vinyl chloride	0.263	0.264	-0.6	96	0.02
5	M	Bromomethane	0.178	0.192	-7.7	97	0.04
	M	Chloroethane	0.154	0.167	-8.3	97	0.02
	M	Trichlorofluoromethane	0.588	0.573	2.5	95	0.02
8	M	1,1-Dichloroethene	0.258	0.256	0.8	96	0.03
9	M	Methylene chloride	0.274	0.320	-16.7	90	0.00
10	M	trans-1,2-Dichloroethene	0.273	0.275	-0.9	98	0.00
11		Hexane	0.000	0.000#	0.0	0#	-9.46#
12	M	1,1-Dichloroethane	0.545	0.556	-2.1	102	0.00
13	M	2,2-Dichloropropane	0.534	0.534	0.1	97	0.00
14	M	cis-1,2-Dichloroethene	0.257	0.253	1.5	96	0.00
15		2-Butanone	0.000	0.000#	0.0	0#	0.04
16	M	Bromochloromethane	0.090	0.082	9.1	93	0.01
17	M	Chloroform	0.512	0.502	1.9	98	0.02
18	M	1,1,1-Trichloroethane	0.566	0.553	2.4	97	0.00
19	M	Carbon tetrachloride	0.526	0.494	6.0	95	0.00
20	M	1,1-Dichloropropene	0.495	0.499	-0.9	98	0.00
21	M	Benzene	0.871	0.866	0.5	97	0.01
22	M	1,2-Dichloroethane	0.214	0.200	6.5	95	0.00
23	M	Trichloroethene	0.386	0.376	2.7	96	0.01
24	M	1,2-Dichloropropane	0.285	0.286	-0.4	101	0.01
25	M	Dibromomethane	0.115	0.109	5.9	96	0.00
26	M	Bromodichloromethane	0.396	0.380	4.0	98	0.00
27	M	cis-1,3-Dichloropropene	0.342	0.328	4.1	98	0.01
28	M	Toluene	0.619	0.623	-0.8	103	0.01
29	M	trans-1,3-Dichloropropene	0.236	0.227	4.0	98	0.00
30	M	1,1,2-Trichloroethane	0.110	0.105	4.7	98	0.00
31	M	Tetrachloroethene	0.388	0.364	6.1	94	0.00
32	M	1,3-Dichloropropane	0.219	0.212	3.3	99	0.01
33	M	Dibromochloromethane	0.215	0.197	8.4	96	0.01
34	M	1,2-Dibromomethane	0.152	0.144	5.6	99	0.00
35	M	Chlorobenzene	0.644	0.620	3.7	97	0.00
36	M	1,1,1,2-Tetrachloroethane	0.256	0.240	6.4	97	0.01
37	M	Ethylbenzene	1.302	1.285	1.3	100	0.00
38	M	Xylene (para & meta)	0.468	0.461	1.5	99	0.00
39	M	Xylene (Ortho)	0.414	0.402	2.8	98	0.00
	M	Styrene	0.641	0.610	4.8	97	0.00
41	M	Bromoform	0.105	0.094	10.4	95	-0.01
42	M	Isopropylbenzene	1.330	1.288	3.2	98	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

72

Data File : D:\HPCHEM\1\DATA\C8327.D
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43	S	4-Bromofluorobenzene	0.499	0.488	2.2	101	0.01
44	M	Bromobenzene	0.240	0.224	6.8	96	0.00
4!	M	1,1,2,2-Tetrachloroethane	0.118	0.120	-2.1	107	-0.01
46	M	1,2,3-Trichloropropane	0.143	0.134	6.5	96	-0.01
47	M	n-Propylbenzene	1.731	1.721	0.6	102	0.00
4	M	2-Chlorotoluene	0.960	0.928	3.4	100	0.00
4	M	4-Chlorotoluene	1.140	1.086	4.7	97	0.00
50	M	1,3,5-Trimethylbenzene	1.101	1.070	2.9	100	-0.01
5	M	tert-Butylbenzene	1.142	1.106	3.2	99	0.00
5	M	1,2,4-Trimethylbenzene	1.009	0.994	1.5	100	0.00
53	M	sec-Butylbenzene	1.693	1.641	3.1	100	0.00
54	M	1,3-Dichlorobenzene	0.489	0.456	6.8	97	0.00
5	M	4-Isopropyltoluene	1.264	1.234	2.4	100	0.01
56	M	1,4-Dichlorobenzene	0.485	0.442	8.8	95	-0.01
57	S	1,2-Dichlorobenzene-d4	0.228	0.224	1.7	102	-0.01
5	M	1,2-Dichlorobenzene	0.364	0.339	7.1	96	0.00
5	M	n-Butylbenzene	1.355	1.360	-0.3	104	0.00
60	M	1,2-Dibromo-3-chloropropane	0.030	0.028	4.9	105	0.01
6	M	1,2,4-Trichlorobenzene	0.268	0.237	11.4	92	0.00
6	M	Hexachlorobutadiene	0.323	0.287	11.1	94	0.00
63	M	Naphthalene	0.232	0.203	12.6	92	0.00
64	M	1,2,3-Trichlorobenzene	0.187	0.170	9.1	97	0.00
6		Methyl-tert butyl ether	0.292	0.285	2.3	99	0.02
66		tert-Butyl Alcohol	0.004	0.004	13.3	99	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8327.D
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2 73
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	99	0.00
	M	Dichlorodifluoromethane	0.396	0.380	4.0	90	0.02
	M	Chloromethane	0.233	0.232	0.4	93	0.03
4	M	Vinyl chloride	0.263	0.264	-0.6	96	0.02
5	M	Bromomethane	0.178	0.192	-7.7	97	0.04
	M	Chloroethane	0.154	0.167	-8.3	97	0.02
7	M	Trichlorofluoromethane	0.588	0.573	2.5	95	0.02
8	M	1,1-Dichloroethene	0.258	0.256	0.8	96	0.03
	M	Methylene chloride	0.274	0.320	-16.7	90	0.00
1	M	trans-1,2-Dichloroethene	0.273	0.275	-0.9	98	0.00
11		Hexane	0.000	0.000#	0.0	0#	-9.46#
1	M	1,1-Dichloroethane	0.545	0.556	-2.1	102	0.00
1	M	2,2-Dichloropropane	0.534	0.534	0.1	97	0.00
14	M	cis-1,2-Dichloroethene	0.257	0.253	1.5	96	0.00
15		2-Butanone	0.000	0.000#	0.0	0#	0.04
1	M	Bromochloromethane	0.090	0.082	9.1	93	0.01
17	M	Chloroform	0.512	0.502	1.9	98	0.02
18	M	1,1,1-Trichloroethane	0.566	0.553	2.4	97	0.00
1	M	Carbon tetrachloride	0.526	0.494	6.0	95	0.00
2	M	1,1-Dichloropropene	0.495	0.499	-0.9	98	0.00
21	M	Benzene	0.871	0.866	0.5	97	0.01
2	M	1,2-Dichloroethane	0.214	0.200	6.5	95	0.00
2	M	Trichloroethene	0.386	0.376	2.7	96	0.01
24	M	1,2-Dichloropropane	0.285	0.286	-0.4	101	0.01
25	M	Dibromomethane	0.115	0.109	5.9	96	0.00
2	M	Bromodichloromethane	0.396	0.380	4.0	98	0.00
27	M	cis-1,3-Dichloropropene	0.342	0.328	4.1	98	0.01
28	M	Toluene	0.619	0.623	-0.8	103	0.01
2	M	trans-1,3-Dichloropropene	0.236	0.227	4.0	98	0.00
	M	1,1,2-Trichloroethane	0.110	0.105	4.7	98	0.00
31	M	Tetrachloroethene	0.388	0.364	6.1	94	0.00
32	M	1,3-Dichloropropane	0.219	0.212	3.3	99	0.01
3	M	Dibromochloromethane	0.215	0.197	8.4	96	0.01
34	M	1,2-Dibromomethane	0.152	0.144	5.6	99	0.00
35	M	Chlorobenzene	0.644	0.620	3.7	97	0.00
3	M	1,1,1,2-Tetrachloroethane	0.256	0.240	6.4	97	0.01
37	M	Ethylbenzene	1.302	1.285	1.3	100	0.00
38	M	Xylene (para & meta)	0.468	0.461	1.5	99	0.00
	M	Xylene (Ortho)	0.414	0.402	2.8	98	0.00
	M	Styrene	0.641	0.610	4.8	97	0.00
41	M	Bromoform	0.105	0.094	10.4	95	-0.01
42	M	Isopropylbenzene	1.330	1.288	3.2	98	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8327.D
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43	S	4-Bromofluorobenzene	0.499	0.488	2.2	101	0.01
44	M	Bromobenzene	0.240	0.224	6.8	96	0.00
45	M	1,1,2,2-Tetrachloroethane	0.118	0.120	-2.1	107	-0.01
46	M	1,2,3-Trichloropropane	0.143	0.134	6.5	96	-0.01
47	M	n-Propylbenzene	1.731	1.721	0.6	102	0.00
48	M	2-Chlorotoluene	0.960	0.928	3.4	100	0.00
49	M	4-Chlorotoluene	1.140	1.086	4.7	97	0.00
50	M	1,3,5-Trimethylbenzene	1.101	1.070	2.9	100	-0.01
51	M	tert-Butylbenzene	1.142	1.106	3.2	99	0.00
52	M	1,2,4-Trimethylbenzene	1.009	0.994	1.5	100	0.00
53	M	sec-Butylbenzene	1.693	1.641	3.1	100	0.00
54	M	1,3-Dichlorobenzene	0.489	0.456	6.8	97	0.00
55	M	4-Isopropyltoluene	1.264	1.234	2.4	100	0.01
56	M	1,4-Dichlorobenzene	0.485	0.442	8.8	95	-0.01
57	S	1,2-Dichlorobenzene-d4	0.228	0.224	1.7	102	-0.01
58	M	1,2-Dichlorobenzene	0.364	0.339	7.1	96	0.00
59	M	n-Butylbenzene	1.355	1.360	-0.3	104	0.00
60	M	1,2-Dibromo-3-chloropropane	0.030	0.028	4.9	105	0.01
61	M	1,2,4-Trichlorobenzene	0.268	0.237	11.4	92	0.00
62	M	Hexachlorobutadiene	0.323	0.287	11.1	94	0.00
63	M	Naphthalene	0.232	0.203	12.6	92	0.00
64	M	1,2,3-Trichlorobenzene	0.187	0.170	9.1	97	0.00
65		Methyl-tert butyl ether	0.292	0.285	2.3	99	0.02
66		tert-Butyl Alcohol	0.004	0.004	13.3	99	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : d:\hpchem\1\data\c8327.d
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 18 10:56 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

75

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.84	96	767042	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.10	95	374057	4.89	ug/L		97.77%
57) 1,2-Dichlorobenzene-d4	21.87	152	171801	4.92	ug/L		98.31%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.30	85	583501	9.60	ug/L		98
3) Chloromethane	3.67	50	356438	9.96	ug/L		94
4) Vinyl chloride	3.89	62	405685	10.06	ug/L		99
5) Bromomethane	4.56	94	293817	10.77	ug/L		95
6) Chloroethane	4.78	64	255912	10.83	ug/L		100
7) Trichlorofluoromethane	5.36	101	878729	9.75	ug/L		99
8) 1,1-Dichloroethene	6.45	96	392865	9.92	ug/L		93
9) Methylene chloride	7.42	84	490286	11.67	ug/L	m	98
10) trans-1,2-Dichloroethene	7.97	96	422170	10.09	ug/L		96
12) 1,1-Dichloroethane	8.77	63	853713	10.21	ug/L		94
13) 2,2-Dichloropropane	9.83	77	818786	9.99	ug/L		99
14) cis-1,2-Dichloroethene	9.83	96	388232	9.85	ug/L		95
16) Bromochloromethane	10.25	128	125536	9.09	ug/L		95
17) Chloroform	10.41	83	769901	9.81	ug/L		100
18) 1,1,1-Trichloroethane	10.72	97	847947	9.76	ug/L		98
19) Carbon tetrachloride	11.03	117	758452	9.40	ug/L		99
20) 1,1-Dichloropropene	11.01	75	765585	10.09	ug/L		100
21) Benzene	11.36	78	1329023	9.95	ug/L		99
22) 1,2-Dichloroethane	11.36	62	306504	9.35	ug/L		98
23) Trichloroethene	12.49	95	576242	9.73	ug/L		99
24) 1,2-Dichloropropane	12.84	63	439106	10.04	ug/L		99
25) Dibromomethane	13.03	93	166758	9.41	ug/L		96
26) Bromodichloromethane	13.30	83	583419	9.60	ug/L		99
27) cis-1,3-Dichloropropene	14.07	75	503699	9.59	ug/L		98
28) Toluene	14.65	92	956341	10.08	ug/L		97
29) trans-1,3-Dichloropropene	14.99	75	348125	9.60	ug/L		99
30) 1,1,2-Trichloroethane	15.30	83	161436	9.53	ug/L		94
31) Tetrachloroethene	15.61	166	558578	9.39	ug/L		97
32) 1,3-Dichloropropane	15.59	76	324642	9.67	ug/L		98
33) Dibromochloromethane	16.00	129	301927	9.16	ug/L		94
34) 1,2-Dibromomethane	16.19	107	220690	9.44	ug/L		99
35) Chlorobenzene	17.07	112	951369	9.63	ug/L		98
36) 1,1,1,2-Tetrachloroethane	17.21	131	367447	9.36	ug/L		96
37) Ethylbenzene	17.26	91	1971802	9.87	ug/L		97
38) Xylene (para & meta)	17.47	106	1413580	19.71	ug/L		100
39) Xylene (Ortho)	18.17	106	617126	9.72	ug/L		89
40) Styrene	18.19	104	936258	9.52	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8327.d
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 18 10:56 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41) Bromoform	18.50	173	144872	8.96	ug/L		88
42) Isopropylbenzene	18.83	105	1975228	9.68	ug/L	m	0
44) Bromobenzene	19.38	156	342999	9.32	ug/L		92
45) 1,1,2,2-Tetrachloroethane	19.31	83	184638	10.21	ug/L		98
46) 1,2,3-Trichloropropane	19.39	75	205309	9.35	ug/L	#	46
47) n-Propylbenzene	19.57	91	2639604	9.94	ug/L		100
48) 2-Chlorotoluene	19.73	91	1423366	9.66	ug/L		97
49) 4-Chlorotoluene	19.91	91	1666752	9.53	ug/L		84
50) 1,3,5-Trimethylbenzene	19.88	105	1640914	9.71	ug/L		96
51) tert-Butylbenzene	20.48	119	1696559	9.68	ug/L		96
52) 1,2,4-Trimethylbenzene	20.56	105	1524127	9.85	ug/L		98
53) sec-Butylbenzene	20.88	105	2517372	9.69	ug/L		99
54) 1,3-Dichlorobenzene	21.08	146	699189	9.32	ug/L		98
55) 4-Isopropyltoluene	21.15	119	1892941	9.76	ug/L		97
56) 1,4-Dichlorobenzene	21.23	146	678761	9.12	ug/L		91
58) 1,2-Dichlorobenzene	21.91	146	519547	9.29	ug/L		97
59) n-Butylbenzene	21.89	91	2085804	10.03	ug/L		99
60) 1,2-Dibromo-3-chloropropan	23.32	75	43673	9.51	ug/L		87
61) 1,2,4-Trichlorobenzene	24.89	180	364226	8.86	ug/L		99
62) Hexachlorobutadiene	25.23	225	440816	8.89	ug/L		100
63) Naphthalene	25.33	128	311057	8.74	ug/L		100
64) 1,2,3-Trichlorobenzene	25.81	180	260555	9.09	ug/L		94
65) Methyl-tert butyl ether	8.01	73	437846	9.77	ug/L		93
66) tert-Butyl Alcohol	7.71	59	11905	17.33	ug/L		100

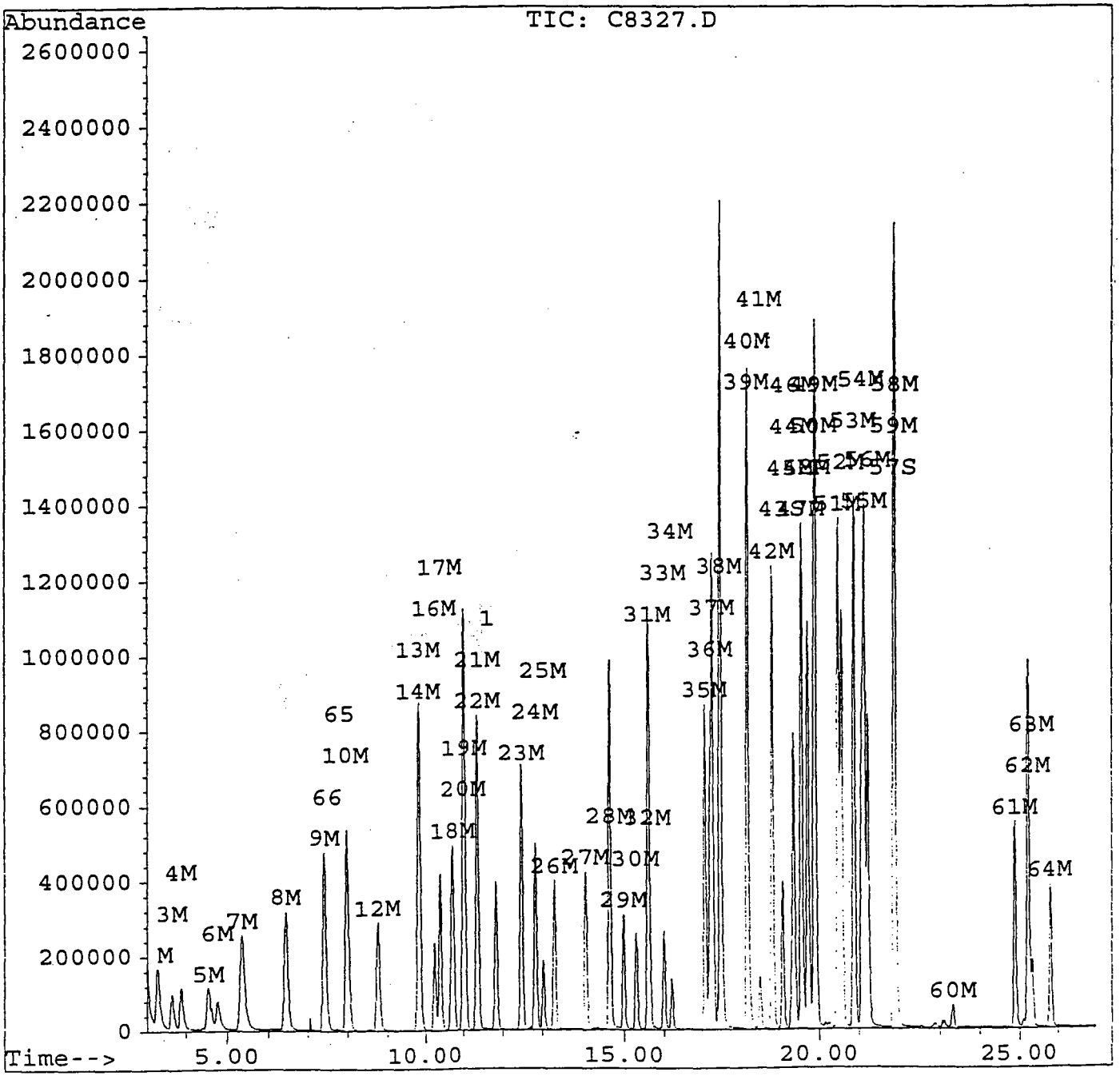
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8327.d
Acq On : 2 Jun 95 2:38 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 18 10:56 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8328.d
Acq On : 2 Jun 95 3:14 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 2 15:42 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.84	96	701997	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.10	95	392100	5.60	ug/L		111.98%
57) 1,2-Dichlorobenzene-d4	21.88	152	188735	5.90	ug/L		118.00%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.31	85	57067	1.03	ug/L		95
3) Chloromethane	3.68	50	33627	1.03	ug/L		81
4) Vinyl chloride	3.89	62	37514	1.02	ug/L		82
5) Bromomethane	4.55	94	31476	1.26	ug/L		99
6) Chloroethane	4.78	64	22965	1.06	ug/L		95
7) Trichlorofluoromethane	5.37	101	81182	0.98	ug/L		89
8) 1,1-Dichloroethene	6.46	96	35879	0.99	ug/L	#	82
9) Methylene chloride	7.42	84	288375	7.50	ug/L		98
10) trans-1,2-Dichloroethene	7.98	96	38379	1.00	ug/L		94
12) 1,1-Dichloroethane	8.78	63	83513	1.09	ug/L		96
13) 2,2-Dichloropropane	9.83	77	77701	1.04	ug/L		97
14) cis-1,2-Dichloroethene	9.84	96	37729	1.05	ug/L		92
16) Bromochloromethane	10.25	128	14427	1.14	ug/L		90
17) Chloroform	10.41	83	80218	1.12	ug/L		94
18) 1,1,1-Trichloroethane	10.73	97	79180	1.00	ug/L		97
19) Carbon tetrachloride	11.03	117	70373	0.95	ug/L		97
20) 1,1-Dichloropropene	11.02	75	70922	1.02	ug/L		96
21) Benzene	11.36	78	133400	1.09	ug/L		99
22) 1,2-Dichloroethane	11.36	62	34735	1.16	ug/L		99
23) Trichloroethene	12.49	95	57891	1.07	ug/L		93
24) 1,2-Dichloropropane	12.83	63	48388	1.21	ug/L		89
25) Dibromomethane	13.03	93	19457	1.20	ug/L	#	82
26) Bromodichloromethane	13.30	83	62965	1.13	ug/L		95
27) cis-1,3-Dichloropropene	14.06	75	53234	1.11	ug/L		98
28) Toluene	14.64	92	100393	1.16	ug/L		99
29) trans-1,3-Dichloropropene	14.99	75	36216	1.09	ug/L		96
30) 1,1,2-Trichloroethane	15.29	83	17810	1.15	ug/L		86
31) Tetrachloroethene	15.61	166	54046	0.99	ug/L		91
32) 1,3-Dichloropropane	15.59	76	38148	1.24	ug/L		97
33) Dibromochloromethane	16.00	129	32067	1.06	ug/L		99
34) 1,2-Dibromomethane	16.19	107	24684	1.15	ug/L		94
35) Chlorobenzene	17.07	112	98460	1.09	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.20	131	39264	1.09	ug/L		87
37) Ethylbenzene	17.26	91	192542	1.05	ug/L		100
38) Xylene (para & meta)	17.46	106	139158	2.12	ug/L		88
39) Xylene (Ortho)	18.17	106	62542	1.08	ug/L		93
40) Styrene	18.18	104	96581	1.07	ug/L		94

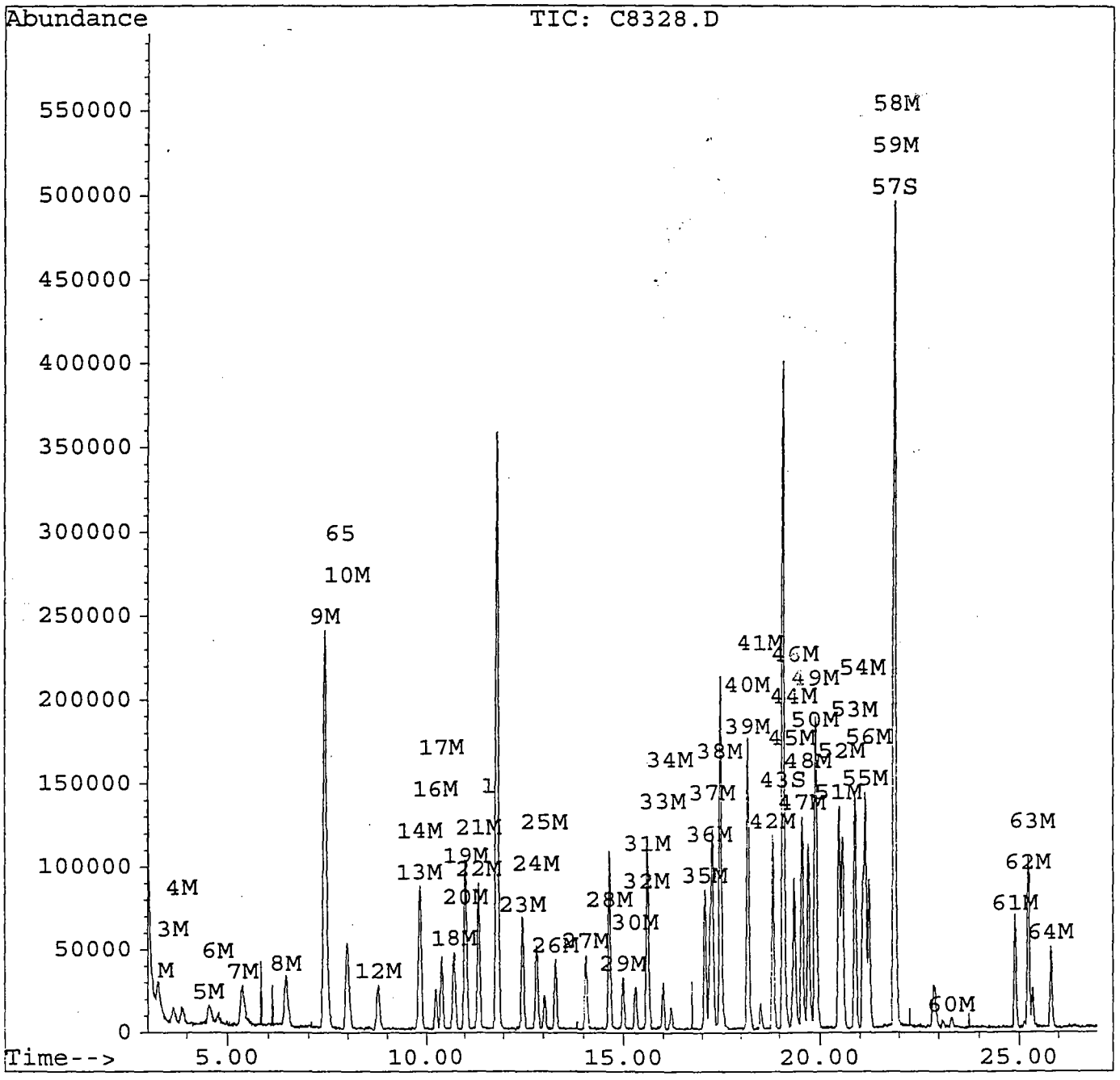
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data2\c8328.d
Acq On : 2 Jun 95 3:14 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 2 15:42 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8340.d
Acq On : 2 Jun 95 10:24 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 18 11:14 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.86	96	672699	5.00	ug/L	0.02
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	343138	5.11	ug/L	102.27%
57) 1,2-Dichlorobenzene-d4	21.90	152	159135	5.19	ug/L	103.83%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.31	85	373874	7.01	ug/L	96
3) Chloromethane	3.68	50	242950	7.74	ug/L	97
4) Vinyl chloride	3.89	62	304858	8.62	ug/L	92
5) Bromomethane	4.55	94	223328	9.34	ug/L	96
6) Chloroethane	4.79	64	195151	9.41	ug/L	97
7) Trichlorofluoromethane	5.36	101	738479	9.34	ug/L	97
8) 1,1-Dichloroethene	6.46	96	329465	9.49	ug/L	95
9) Methylene chloride	7.43	84	474810	12.89	ug/L	96
10) trans-1,2-Dichloroethene	7.99	96	359156	9.79	ug/L	98
12) 1,1-Dichloroethane	8.78	63	749063	10.21	ug/L	97
13) 2,2-Dichloropropane	9.85	77	562813	7.83	ug/L	98
14) cis-1,2-Dichloroethene	9.85	96	337128	9.75	ug/L	98
16) Bromochloromethane	10.26	128	124511	10.28	ug/L	98
17) Chloroform	10.42	83	698552	10.15	ug/L	97
18) 1,1,1-Trichloroethane	10.74	97	754191	9.90	ug/L	98
19) Carbon tetrachloride	11.05	117	686973	9.71	ug/L	97
20) 1,1-Dichloropropene	11.03	75	655965	9.86	ug/L	97
21) Benzene	11.39	78	1139374	9.73	ug/L	99
22) 1,2-Dichloroethane	11.39	62	298197	10.37	ug/L	96
23) Trichloroethene	12.50	95	501167	9.65	ug/L	98
24) 1,2-Dichloropropane	12.85	63	397241	10.36	ug/L	100
25) Dibromomethane	13.05	93	161828	10.42	ug/L	98
26) Bromodichloromethane	13.32	83	559683	10.51	ug/L	98
27) cis-1,3-Dichloropropene	14.08	75	438904	9.53	ug/L	99
28) Toluene	14.66	92	819426	9.85	ug/L	98
29) trans-1,3-Dichloropropene	15.00	75	311680	9.80	ug/L	98
30) 1,1,2-Trichloroethane	15.32	83	152649	10.28	ug/L	99
31) Tetrachloroethene	15.62	166	490520	9.41	ug/L	96
32) 1,3-Dichloropropane	15.60	76	305203	10.37	ug/L	100
33) Dibromochloromethane	16.01	129	296590	10.26	ug/L	96
34) 1,2-Dibromomethane	16.21	107	207953	10.14	ug/L	94
35) Chlorobenzene	17.09	112	877680	10.13	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.22	131	338926	9.85	ug/L	92
37) Ethylbenzene	17.28	91	1722310	9.83	ug/L	100
38) Xylene (para & meta)	17.49	106	1228905	19.53	ug/L	93
39) Xylene (Ortho)	18.19	106	559418	10.05	ug/L	98
40) Styrene	18.20	104	840320	9.74	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8340.d
Acq On : 2 Jun 95 10:24 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 18 11:14 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.52	173	149526	10.54	ug/L		86
42)	Isopropylbenzene	18.85	105	1770301	9.89	ug/L		91
44)	Bromobenzene	19.39	156	325111	10.08	ug/L		94
45)	1,1,2,2-Tetrachloroethane	19.33	83	173819	10.96	ug/L		92
46)	1,2,3-Trichloropropane	19.41	75	195899	10.17	ug/L	#	59
47)	n-Propylbenzene	19.58	91	2250521	9.66	ug/L		99
48)	2-Chlorotoluene	19.74	91	1385729	10.72	ug/L		98
49)	4-Chlorotoluene	19.93	91	1503669	9.80	ug/L		84
50)	1,3,5-Trimethylbenzene	19.90	105	1384988	9.35	ug/L		100
51)	tert-Butylbenzene	20.50	119	1501089	9.77	ug/L		100
52)	1,2,4-Trimethylbenzene	20.58	105	1369962	10.09	ug/L		99
53)	sec-Butylbenzene	20.90	105	2149114	9.44	ug/L		100
54)	1,3-Dichlorobenzene	21.10	146	648339	9.85	ug/L		97
55)	4-Isopropyltoluene	21.16	119	1594504	9.37	ug/L		98
56)	1,4-Dichlorobenzene	21.25	146	660068	10.11	ug/L		91
58)	1,2-Dichlorobenzene	21.93	146	511792	10.44	ug/L		97
59)	n-Butylbenzene	21.91	91	1685715	9.25	ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.35	75	43634	10.83	ug/L		94
61)	1,2,4-Trichlorobenzene	24.91	180	365459	10.14	ug/L		93
62)	Hexachlorobutadiene	25.25	225	401437	9.23	ug/L		99
63)	Naphthalene	25.36	128	346845	11.12	ug/L		100
64)	1,2,3-Trichlorobenzene	25.83	180	262367	10.44	ug/L		91

(#) = qualifier out of range (m) = manual integration

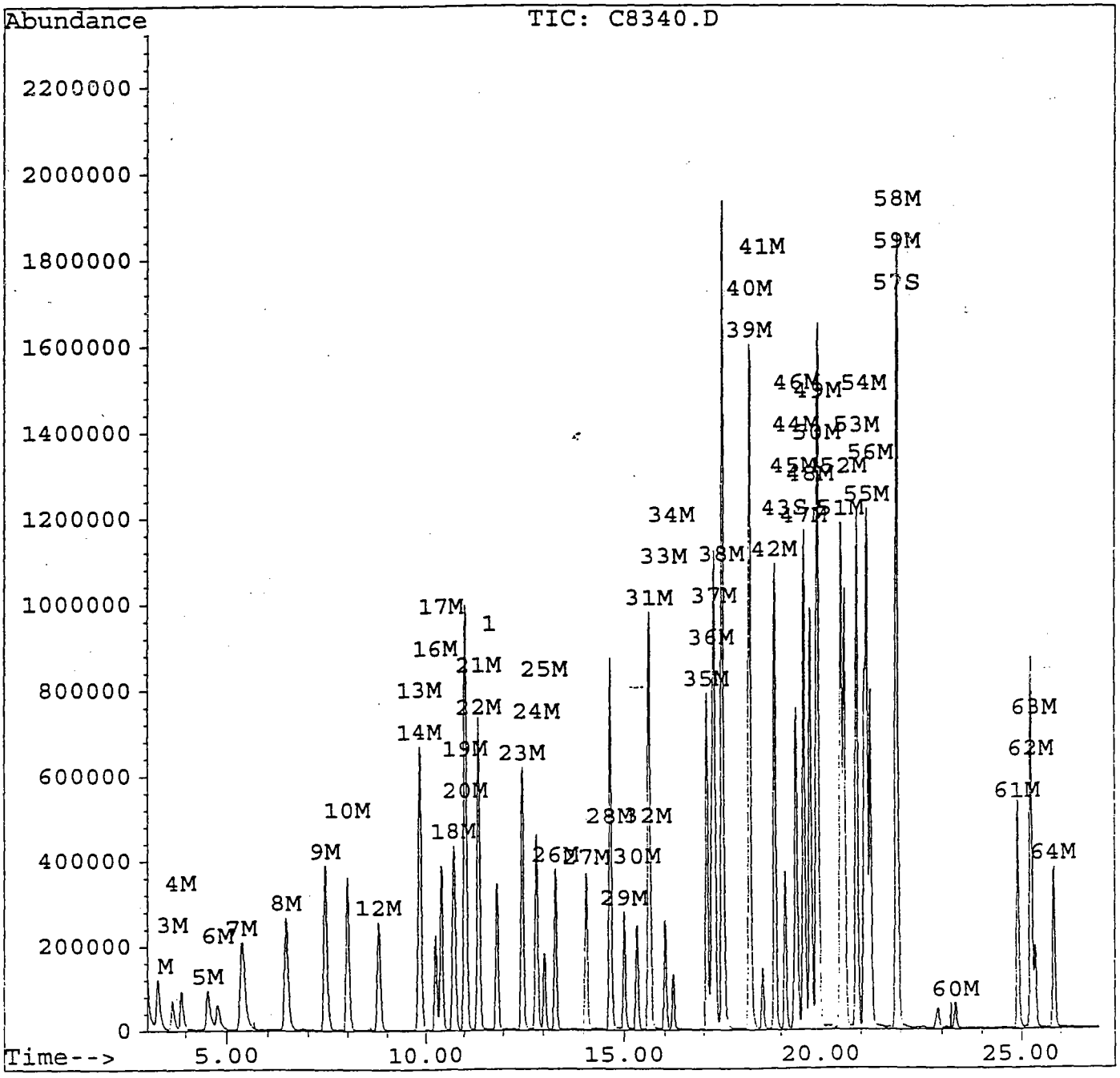
Quantitation Report

Data File : d:\hpchem\1\data\c8340.d
Acq On : 2 Jun 95 10:24 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 18 11:14 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

83

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): C8311.D Date Analyzed: 6/1/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1613

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge (Y/N) N

		IS1 (FBZ) AREA #	RT #	AREA #	RT #	AREA #	RT #
	8 HOUR STD	721859	11.83				
	UPPER LIMIT	1443718	12.33				
	LOWER LIMIT	360930	11.33				
	SAMPLE NO.						
01	1PPB STD	657344	11.84				
02	VBLK01	660480	11.83				
03	9523330V	672969	11.84				
04	9523163V	591865	11.84				
05	9523164V	675875	11.84				
06	9523165V	664278	11.84				
07	9523166V	692308	11.84				
08	9523167V	715357	11.85				
09	9523168V	718359	11.85				
10	9523169V	711777	11.84				
11	9523170V	734003	11.84				
12	9523171V	715772	11.85				
13	10PPBQCS	758593	11.84				
14	9522659R	731455	11.85				
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area
AREA LOWER LIMIT = -30% 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 values outside QC limits with an asterisk
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

85

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): C8327.D Date Analyzed: 6/2/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1438

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge (Y/N) N

		IS1 (FBZ) AREA #	RT #	AREA #	RT #	AREA #	RT #
	8 HOUR STD	767042	11.84				
	UPPER LIMIT	1534084	12.34				
	LOWER LIMIT	383521	11.34				
	SAMPLE NO.						
01	1PPB STD	701997	11.84				
02	VBLK01	689722	11.84				
03	9523339V	691197	11.84				
04	9523340V	590801	11.84				
05	9523341V	685338	11.84				
06	9523342V	725874	11.84				
07	9523343V	693564	11.84				
08	9523163V	708098	11.84				
09	9523167V	674824	11.85				
10	9523166V	688621	11.84				
11	9523343MS	668860	11.85				
12	9523343MSD	671183	11.85				
13	10PPBQCS	672699	11.86				
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area
AREA LOWER LIMIT = -30% 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 values outside QC limits with an asterisk
* Values outside of QC limits.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523163 MW1-293784
Lab File ID: C8335.D
Date Received: 05/19/95
Date Analyzed: 06/02/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.4	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

Quantitation Report

Data File : d:\hpchem\1\data\c8335.d
Acq On : 2 Jun 95 7:29 pm
Sample : 9523163
Misc : 25 ML
Quant Time: Jun 3 14:20 1995

Vial: 10
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	708098	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	366193	5.18	ug/L	103.68%
57) 1,2-Dichlorobenzene-d4	21.88	152	179964	5.58	ug/L	111.55%
Target Compounds						Qvalue
9) Methylene chloride	7.41	84	54284	1.40	ug/L	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8315.d
Acq On : 1 Jun 95 6:36 pm
Sample : 9523163
Misc : 5 ML 1:5
Quant Time: Jun 8 11:07 1995

Vial: 6 92
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	591865	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	308874	5.23	ug/L	104.63%
57) 1,2-Dichlorobenzene-d4	21.88	152	146354	5.43	ug/L	108.53%
Target Compounds						Qvalue
9) Methylene chloride	7.42	84	145176	4.48	ug/L	98

(#) = qualifier out of range (m) = manual integration

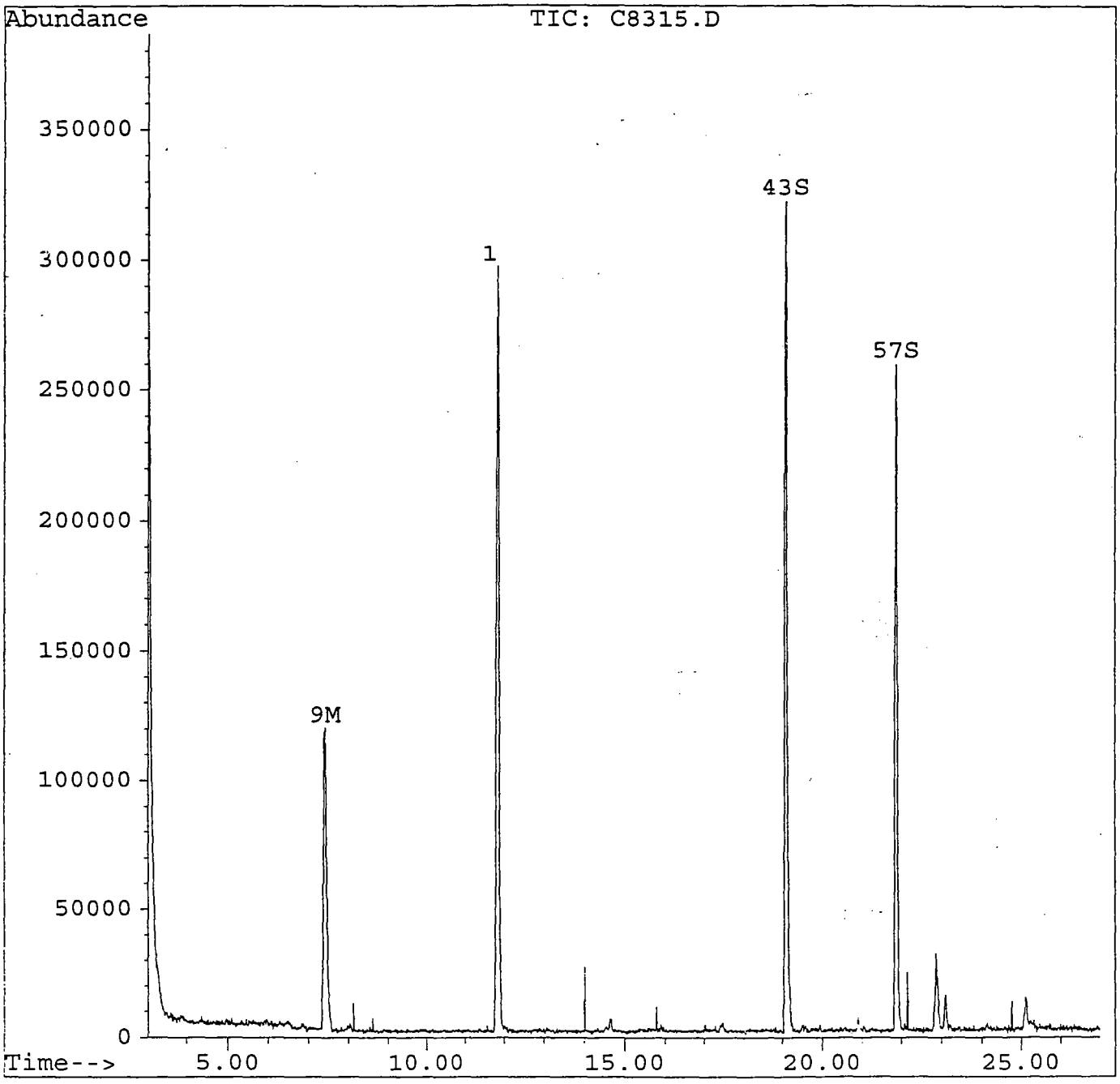
Quantitation Report

Data File : d:\hpchem\1\data\c8315.d
Acq On : 1 Jun 95 6:36 pm
Sample : 9523163
Misc : 5 ML 1:5
Quant Time: Jun 8 11:07 1995

Vial: 6
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

93

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523164 TB
Lab File ID: C8316.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523164V TB

97

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523164V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8316.D

Level: (low/med) LOW Date Received: 5/19/95

% Moisture: not dec. NA Date Analyzed: 6/1/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8316.d
Acq On : 1 Jun 95 7:11 pm
Sample : 9523164
Misc : 25 ML
Quant Time: Jun 8 11:08 1995

Vial: 7 38
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	675875	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	350806	5.20	ug/L	104.06%
57) 1,2-Dichlorobenzene-d4	21.88	152	163833	5.32	ug/L	106.39%
Target Compounds						Qvalue
9) Methylene chloride	7.42	84	188487	5.09	ug/L	97

(#) = qualifier out of range (m) = manual integration

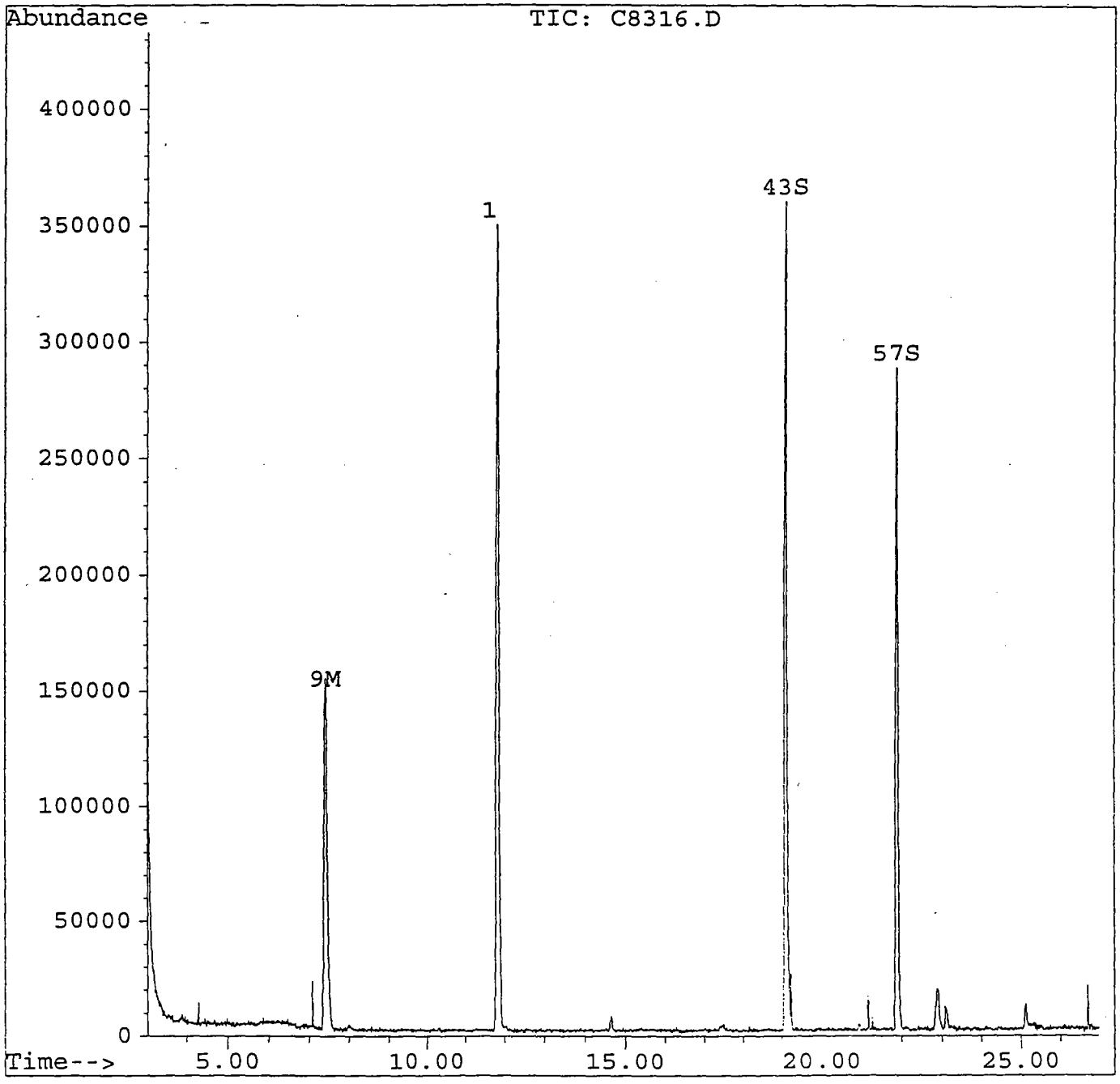
Quantitation Report

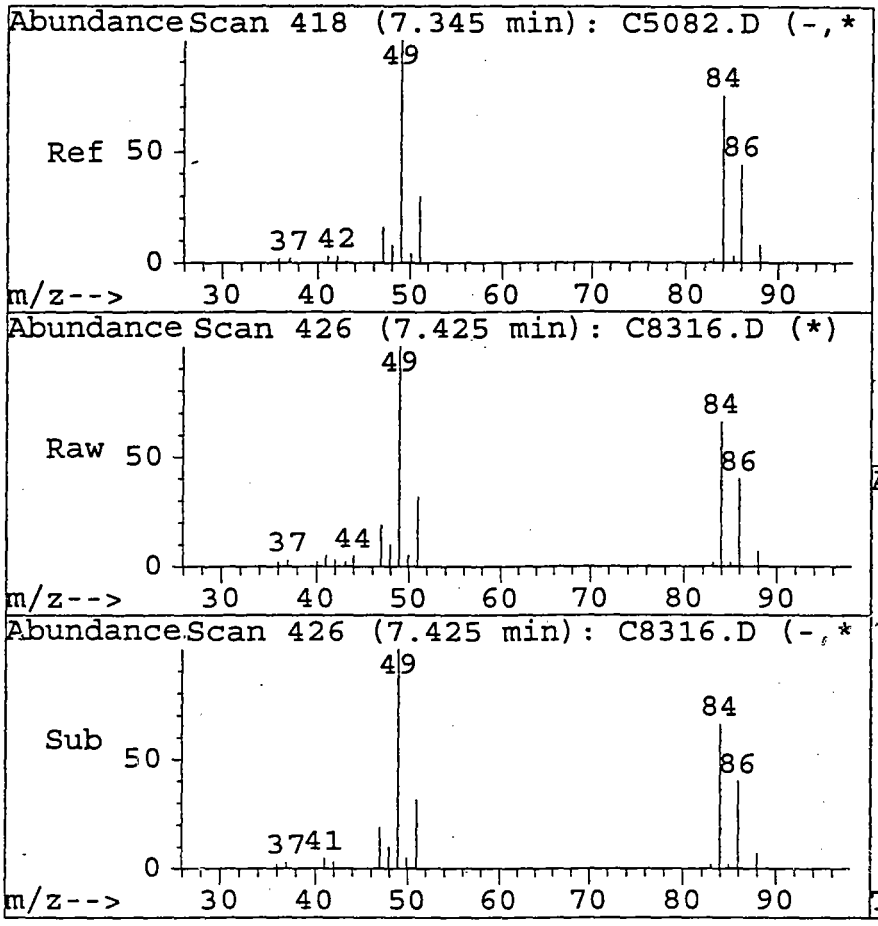
Data File : d:\hpchem\1\data\c8316.d
Acq On : 1 Jun 95 7:11 pm
Sample : 9523164
Misc : 25 ML
Quant Time: Jun 8 11:08 1995

Vial: 7
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

39

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



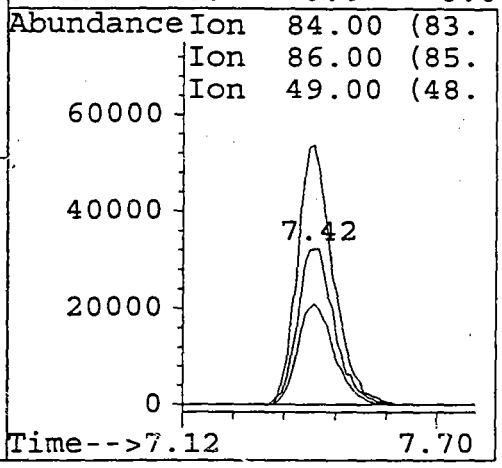


#9
Methylene chloride
Concen: 5.09 ug/L
RT: 7.42 min Scan# 426
Delta R.T. 0.02 min
Lab File: c8316.d
Acq: 1 Jun 95 7:11 pm

100

Tgt Ion:84 Resp: 188487

Ion	Ratio	Lower	Upper
84	100		
86	61.6	43.1	83.1
49	152.3	136.3	176.3
0	0.0	0.0	0.0



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523165 FB
Lab File ID: C8317.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523165 FB
Lab File ID: C8317.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523165V FB

103

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523165V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8317.D

Level: (low/med) LOW Date Received: 5/19/95

% Moisture: not dec. NA Date Analyzed: 6/1/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8317.d
Acq On : 1 Jun 95 7:46 pm
Sample : 9523165
Misc : 25 ML
Quant Time: Jun 8 11:09 1995

Vial: 8
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	664278	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	344747	5.20	ug/L	104.05%
57) 1,2-Dichlorobenzene-d4	21.88	152	168929	5.58	ug/L	111.62%
Target Compounds						Qvalue
9) Methylene chloride	7.43	84	185968	5.11	ug/L	96

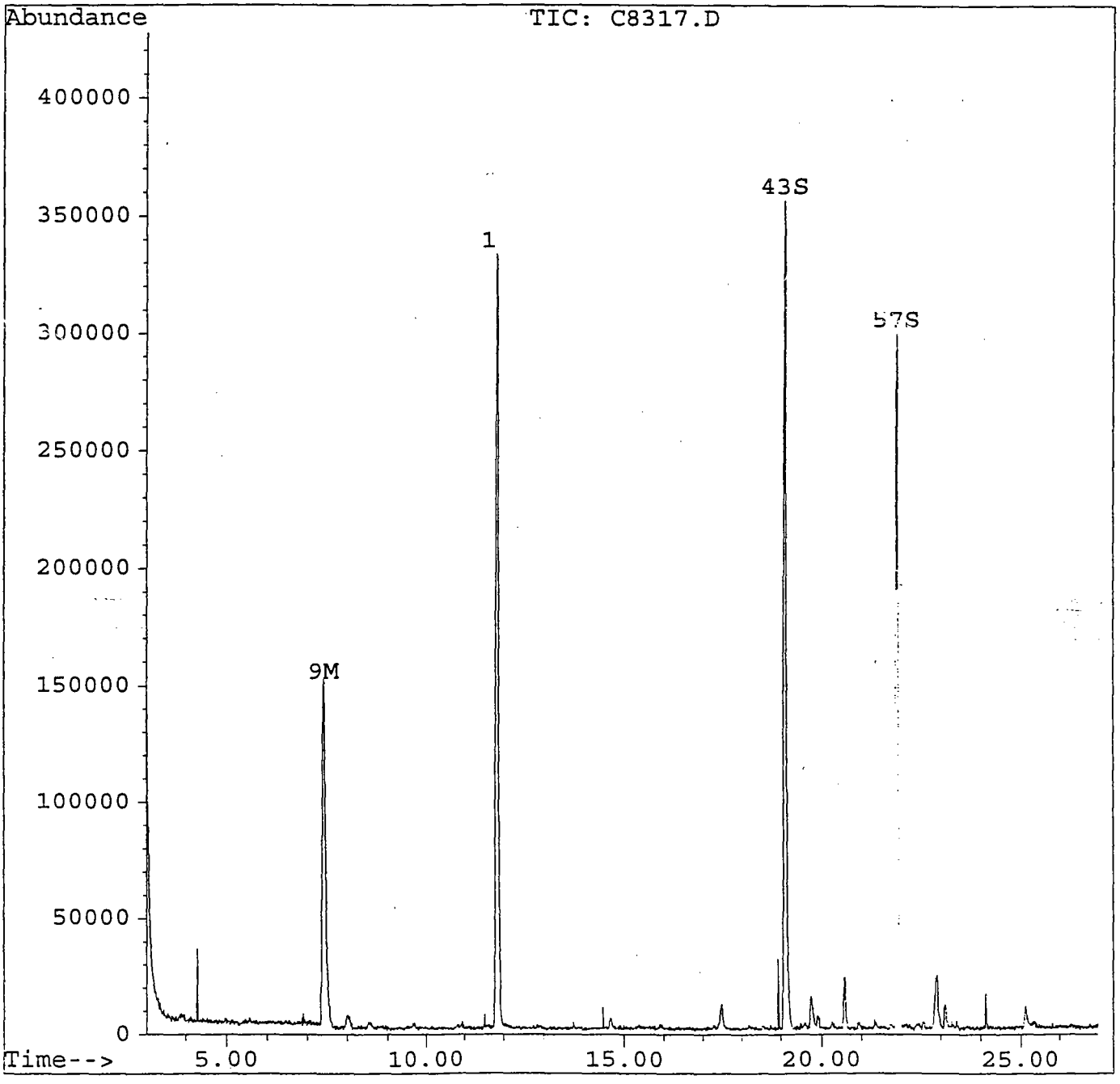
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8317.d
Acq On : 1 Jun 95 7:46 pm
Sample : 9523165
Misc : 25 ML
Quant Time: Jun 8 11:09 1995

Vial: 8
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	104	105			
02	VBLK01	105	111			
03	9523330V	104	111			
04	9523163V	105	109			
05	9523164V	104	106			
06	9523165V	104	112			
07	9523166V	100	104			
08	9523167V	100	101			
09	9523168V	98	101			
10	9523169V	98	103			
11	9523170V	95	99			
12	9523171V	98	103			
13	10PPBQCS	90	95			
14	9522659R	97	99			
15						
16						
17						
18						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 (BFB) = 4-Bromofluorobenzene	(80-120)
SMC2 (DCB) = 1,2-Dichlorobenzene-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
Lab File ID: C8313.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	3.2	
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: _EMSL ANALYTICAL_____ Lab Sample ID: _METHOD BLANK___
Matrix (soil/water): _WATER_____ Lab File ID: ___C8313.D_____
Sample wt/vol: _25_mL_____ Date Received: _NA_____
Level (low/med): _LOW_____ Date Analyzed: _06/01/95_____
% Moisture: not dec.: _NA_____ Dilution Factor: __1_____
GC Column: _DB-624 x 75m_ ID: _0.53mm_ Soil Aliquot Volume: ____NA____
Soil Extract Volume: ___NA____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _ug/L__	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01 112

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8313.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 6/1/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
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Quantitation Report

113

Data File : d:\hpchem\1\data\c8313.d
Acq On : 1 Jun 95 5:25 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 8 11:03 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.83	96	660480	5.00 ug/L	-0.01
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.10	95	345136	5.24 ug/L	104.77%
57) 1,2-Dichlorobenzene-d4	21.88	152	167037	5.55 ug/L	111.00%
Target Compounds					Qvalue
9) Methylene chloride	7.40	84	115495	3.19 ug/L	94

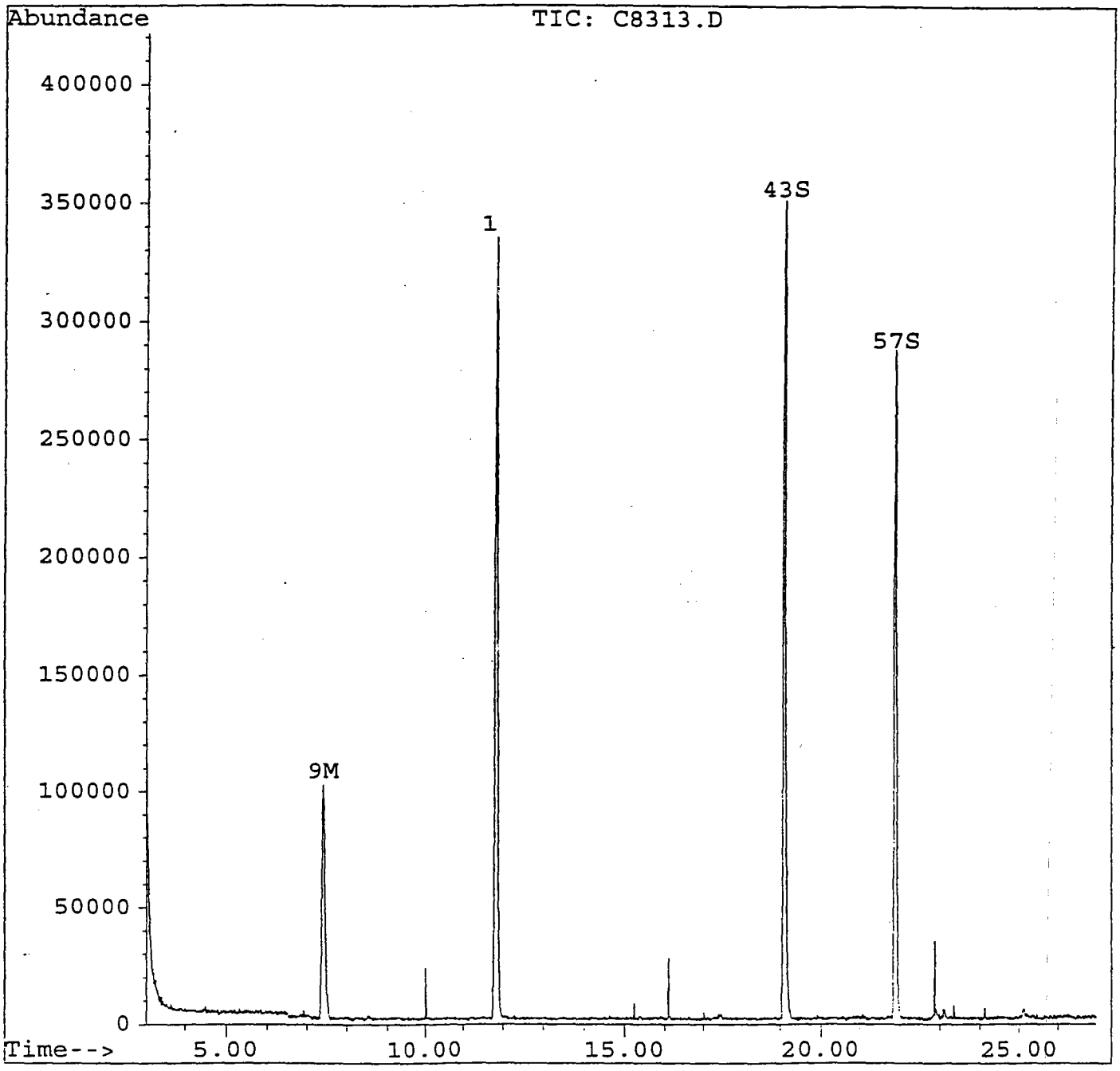
(#) = qualifier out of range (m) = manual integration

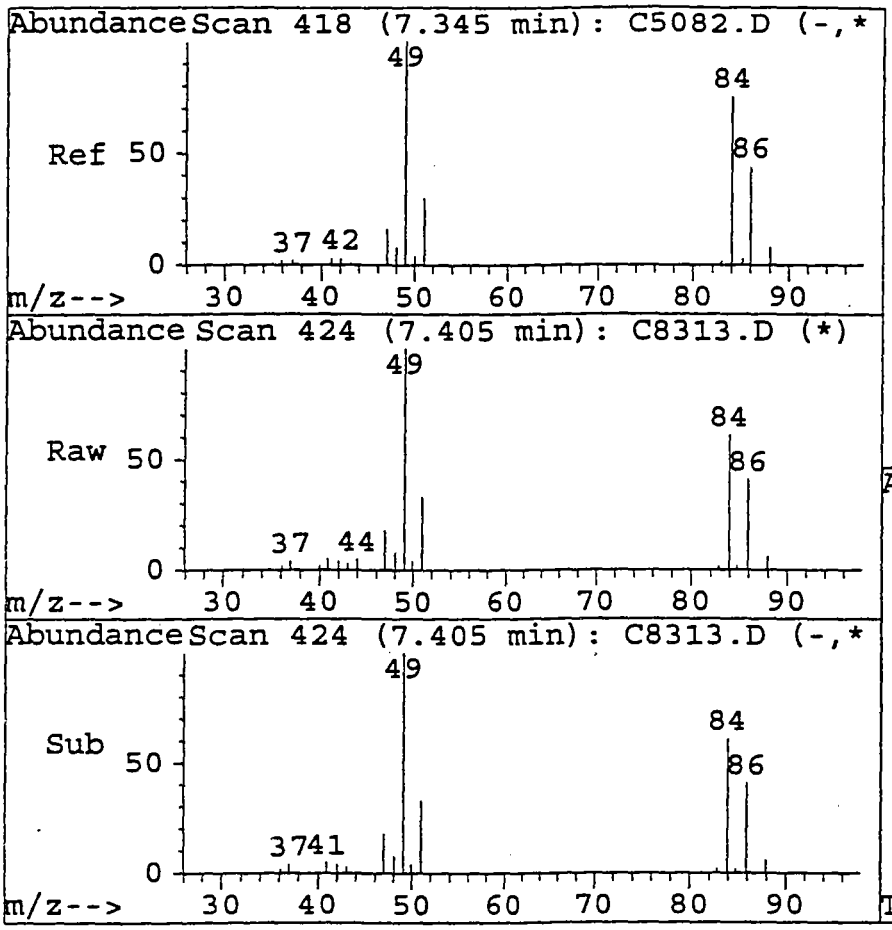
Quantitation Report

Data File : d:\hpchem\1\data\c8313.d
Acq On : 1 Jun 95 5:25 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 8 11:03 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

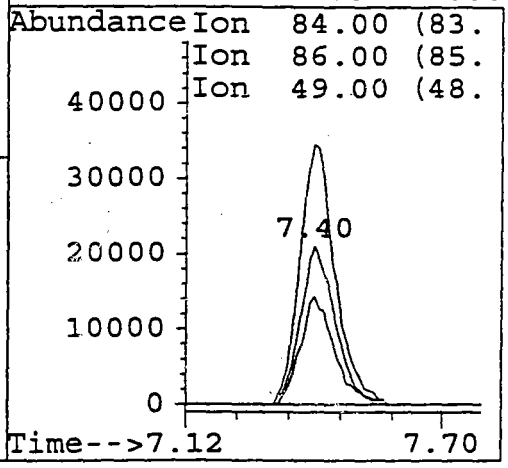




#9
Methylene chloride
Concen: 3.19 ug/L
RT: 7.40 min Scan# 424
Delta R.T. -0.00 min
Lab File: c8313.d
Acq: 1 Jun 95 5:25 pm

Tgt Ion:84 Resp: 115495

Ion	Ratio	Lower	Upper
84	100		
86	67.9	43.1	83.1
49	163.6	136.3	176.3
0	0.0	0.0	0.0



4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

116

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: C8329.D Lab Sample ID: M. BLANK

Date Analyzed: 6/2/95 Time Analyzed: 1550

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8328.D	1514
02	9523339V	9523339V	C8330.D	1626
03	9523340V	9523340V	C8331.D	1703
04	9523341V	9523341V	C8332.D	1739
05	9523342V	9523342V	C8333.D	1817
06	9523343V	9523343V	C8334.D	1853
07	9523163V	9523163V	C8335.D	1929
08	9523167V	9523167V	C8336.D	2004
09	9523166V	9523166V	C8337.D	2040
10	9523343MS	23343MS	C8338.D	2115
11	9523343MSD	23343MSD	C8339.D	2150
12	10PPBQCS	10PPBQCS	C8340.D	2224
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
Lab File ID: C8329.D
Date Received: NA
Date Analyzed: 06/02/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	4.7	
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
Lab File ID: C8329.D
Date Received: NA
Date Analyzed: 06/02/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
VBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8329.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 6/2/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8329.d
Acq On : 2 Jun 95 3:50 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 3 14:08 1995

Vial: 4120
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	689722	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	364668	5.30	ug/L	106.00%
57) 1,2-Dichlorobenzene-d4	21.88	152	176494	5.62	ug/L	112.32%
Target Compounds						Qvalue
9) Methylene chloride	7.42	84	178459	4.73	ug/L	96

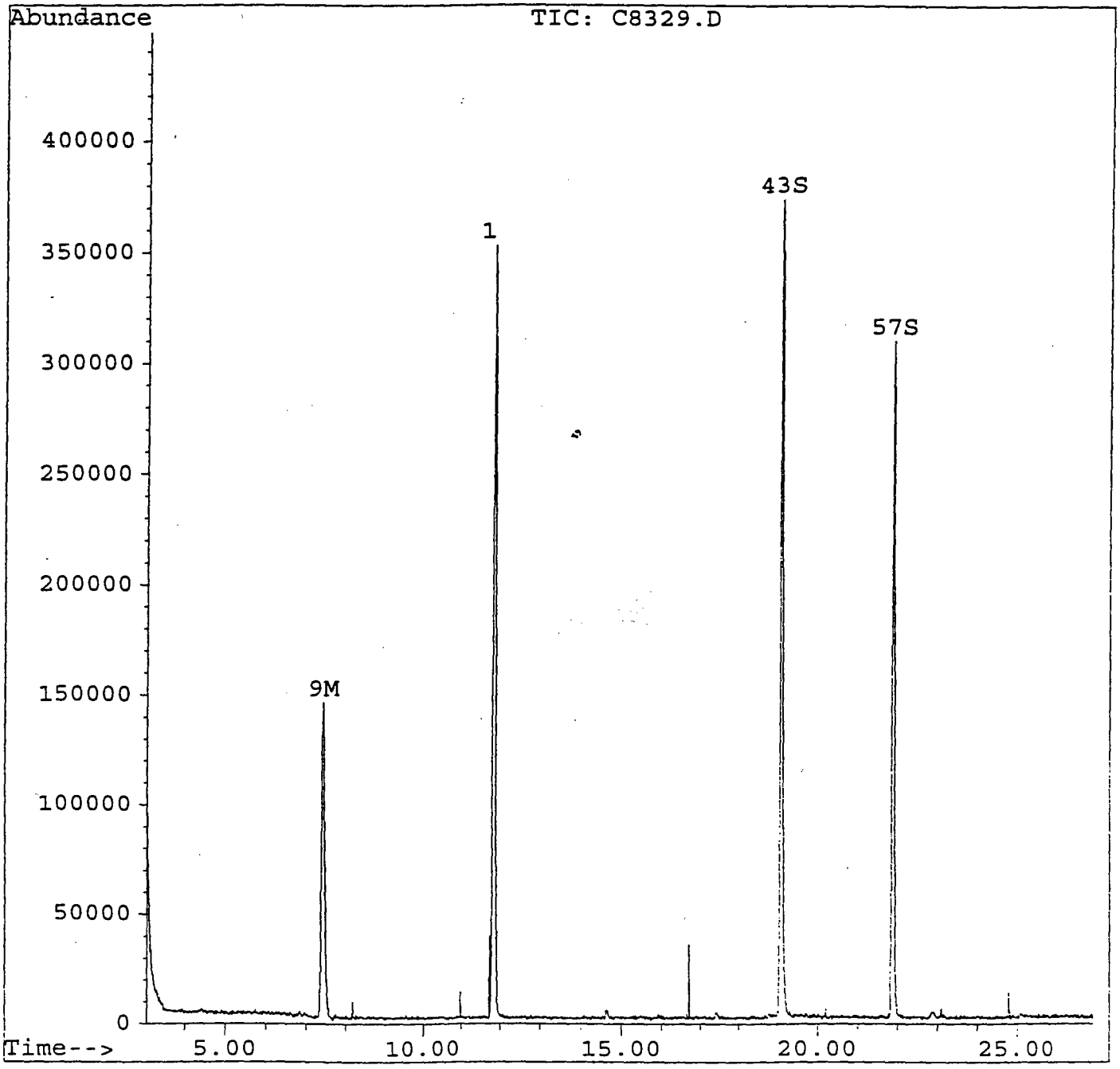
(#) = qualifier out of range (m) = manual integration

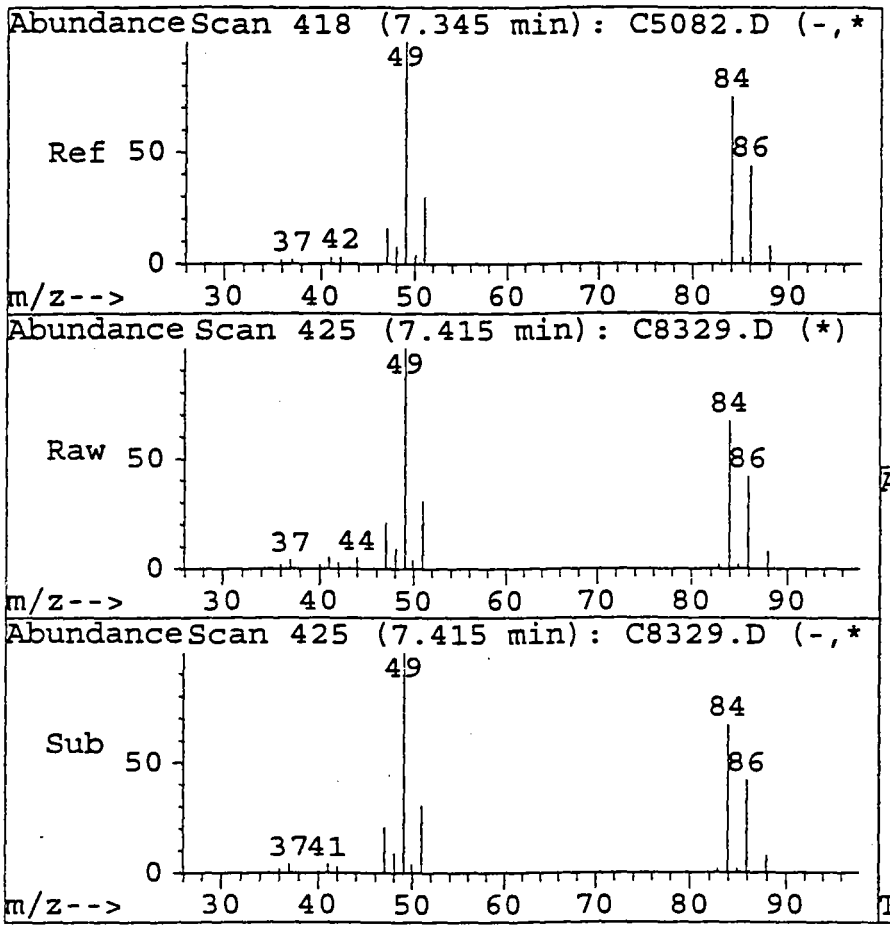
Quantitation Report

Data File : d:\hpchem\1\data\c8329.d
Acq On : 2 Jun 95 3:50 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 3 14:08 1995

Vial: 4 121
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration





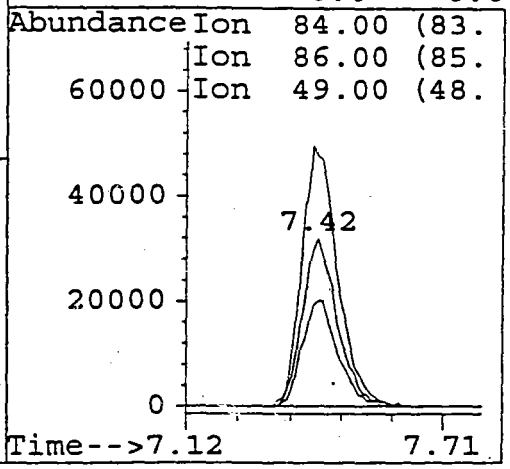
#9
Methylene chloride

122

Concen: 4.73 ug/L
RT: 7.42 min Scan# 425
Delta R.T. 0.01 min
Lab File: c8329.d
Acq: 2 Jun 95 3:50 pm

Tgt Ion:84 Resp: 178459

Ion	Ratio	Lower	Upper
84	100		
86	63.3	43.1	83.1
49	149.6	136.3	176.3
0	0.0	0.0	0.0



Spike Recovery and RPD Summary Report - WATER

ethod : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Initial Calibration

Non-Spiked Sample: C8334.D

	Spike Sample	Spike Duplicate Sample
File ID :	C8338.D	C8339.D
Sample :	9523343 MS	9523343 MSD
Acq Time:	2 Jun 95 9:15 pm	2 Jun 95 9:50 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodifluorometh	0.0	10	10	10	96	97	1	25	80-120
Chloromethane	0.0	10	10	10	101	98	3	25	80-120
Vinyl chloride	0.0	10	9	10	93	98	6	25	80-120
Bromomethane	0.0	10	10	10	101	103	2	25	80-120
Chloroethane	0.0	10	11	11	107	105	2	25	80-120
Trichlorofluorometha	0.0	10	10	10	98	101	2	25	80-120
1,1-Dichloroethene	0.0	10	9	9	87	94	8	25	80-120
Methylene chloride	1.4	10	8	8	69#	70#	1	25	80-120
trans-1,2-Dichloroet	0.0	10	10	10	95	99	4	25	80-120
1,1-Dichloroethane	0.0	10	10	10	102	103	1	25	80-120
2,2-Dichloropropane	0.0	10	8	8	81	82	2	25	80-120
cis-1,2-Dichloroethe	0.0	10	10	10	100	102	3	25	80-120
Bromochloromethane	0.0	10	10	11	101	107	5	25	80-120
Chloroform	0.0	10	10	10	101	103	2	25	80-120
1,1,1-Trichloroethan	0.0	10	10	10	102	101	1	25	80-120
Carbon tetrachloride	0.0	10	10	10	97	101	4	25	80-120
1,1-Dichloropropene	0.0	10	9	10	86	97	12	25	80-120
Benzene	0.0	10	10	10	99	101	2	25	80-120
1,2-Dichloroethane	0.0	10	10	11	104	107	2	25	80-120
Trichloroethene	0.0	10	10	10	98	99	1	25	80-120
1,2-Dichloropropane	0.0	10	10	10	105	105	0	25	80-120
Dibromomethane	0.0	10	10	11	102	108	5	25	80-120
Bromodichloromethane	0.0	10	10	11	99	105	6	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	10	97	102	5	25	80-120
Toluene	0.0	10	10	10	95	99	4	25	80-120
trans-1,3-Dichloropr	0.0	10	10	10	96	104	8	25	80-120
1,1,2-Trichloroethan	0.0	10	11	11	106	108	3	25	80-120
Tetrachloroethene	0.0	10	10	10	98	100	2	25	80-120
1,3-Dichloropropane	0.0	10	11	11	105	108	3	25	80-120
Dibromochloromethane	0.0	10	10	11	104	105	2	25	80-120
1,2-Dibromomethane	0.0	10	10	11	105	109	4	25	80-120
Chlorobenzene	0.0	10	10	10	102	104	2	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	11	11	113	105	7	25	80-120
Ethylbenzene	0.0	10	9	10	87	98	12	25	80-120
Xylene (para & meta)	0.0	20	13	18	65#	90	32#	25	80-120
Xylene (Ortho)	0.0	10	7	9	70#	94	30#	25	80-120
Styrene	0.0	10	2	4	21#	39#	62#	25	80-120
Bromoform	0.0	10	10	11	99	105	6	25	80-120
Isopropylbenzene	0.0	10	9	10	93	98	6	25	80-120
Bromobenzene	0.0	10	10	11	103	107	3	25	80-120
1,1,2,2-Tetrachloroe	0.0	10	12	12	122#	124#	1	25	80-120
1,2,3-Trichloropropa	0.0	10	11	12	107	118	10	25	80-120

Quantitation Report

Data File : d:\hpchem\1\data\c8338.d
Acq On : 2 Jun 95 9:15 pm
Sample : 9523343 MS
Misc : 25 ML
Quant Time: Jun 18 11:08 1995

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.85	96	668860	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.11	95	350931	5.26	ug/L		105.19%
57) 1,2-Dichlorobenzene-d4	21.89	152	166698	5.47	ug/L		109.39%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.30	85	506687	9.56	ug/L		99
3) Chloromethane	3.67	50	315932	10.12	ug/L		93
4) Vinyl chloride	3.89	62	326875	9.29	ug/L		96
5) Bromomethane	4.55	94	240023	10.09	ug/L		99
6) Chloroethane	4.79	64	221059	10.72	ug/L		90
7) Trichlorofluoromethane	5.36	101	772924	9.83	ug/L		99
8) 1,1-Dichloroethene	6.45	96	301226	8.73	ug/L	#	85
9) Methylene chloride	7.43	84	303995	8.30	ug/L		99
10) trans-1,2-Dichloroethene	7.97	96	346768	9.51	ug/L		96
12) 1,1-Dichloroethane	8.78	63	742577	10.18	ug/L		95
13) 2,2-Dichloropropane	9.84	77	577515	8.08	ug/L		99
14) cis-1,2-Dichloroethene	9.84	96	342923	9.98	ug/L		95
16) Bromochloromethane	10.26	128	121916	10.12	ug/L		95
17) Chloroform	10.41	83	695548	10.16	ug/L		99
18) 1,1,1-Trichloroethane	10.74	97	773283	10.21	ug/L		99
19) Carbon tetrachloride	11.05	117	680258	9.67	ug/L		99
20) 1,1-Dichloropropene	11.02	75	569965	8.61	ug/L		95
21) Benzene	11.37	78	1151235	9.88	ug/L		95
22) 1,2-Dichloroethane	11.37	62	300143	10.50	ug/L		96
23) Trichloroethene	12.49	95	504205	9.76	ug/L		99
24) 1,2-Dichloropropane	12.84	63	399285	10.47	ug/L		100
25) Dibromomethane	13.05	93	158049	10.23	ug/L		98
26) Bromodichloromethane	13.32	83	526552	9.94	ug/L		99
27) cis-1,3-Dichloropropene	14.08	75	441899	9.65	ug/L		97
28) Toluene	14.65	92	793802	9.59	ug/L		97
29) trans-1,3-Dichloropropene	15.00	75	304361	9.63	ug/L		94
30) 1,1,2-Trichloroethane	15.30	83	156077	10.57	ug/L		96
31) Tetrachloroethene	15.62	166	509635	9.83	ug/L		98
32) 1,3-Dichloropropane	15.60	76	308567	10.54	ug/L		98
33) Dibromochloromethane	16.00	129	298279	10.38	ug/L		99
34) 1,2-Dibromomethane	16.20	107	213188	10.46	ug/L		97
35) Chlorobenzene	17.08	112	879010	10.20	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.21	131	387142	11.31	ug/L		96
37) Ethylbenzene	17.27	91	1525869	8.76	ug/L		95
38) Xylene (para & meta)	17.48	106	809779	12.95	ug/L		95
39) Xylene (Ortho)	18.18	106	384862	6.95	ug/L		95
40) Styrene	18.19	104	177099	2.07	ug/L	#	67

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8338.d
Acq On : 2 Jun 95 9:15 pm
Sample : 9523343 MS
Misc : 25 ML
Quant Time: Jun 18 11:08 1995

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.51	173	140076	9.93	ug/L		88
42)	Isopropylbenzene	18.84	105	1649700	9.27	ug/L	m	45
44)	Bromobenzene	19.38	156	331886	10.35	ug/L	#	91
45)	1,1,2,2-Tetrachloroethane	19.33	83	193031	12.24	ug/L		96
46)	1,2,3-Trichloropropane	19.40	75	204110	10.66	ug/L	#	53
47)	n-Propylbenzene	19.58	91	2079546	8.98	ug/L		99
48)	2-Chlorotoluene	19.74	91	1387983	10.80	ug/L		100
49)	4-Chlorotoluene	19.92	91	1404670	9.21	ug/L		85
50)	1,3,5-Trimethylbenzene	19.90	105	573100	3.89	ug/L		96
51)	tert-Butylbenzene	20.49	119	1507256	9.86	ug/L		96
52)	1,2,4-Trimethylbenzene	20.57	105	534017	3.96	ug/L		98
53)	sec-Butylbenzene	20.89	105	2145893	9.48	ug/L		99
54)	1,3-Dichlorobenzene	21.09	146	690338	10.55	ug/L		100
55)	4-Isopropyltoluene	21.15	119	1220351	7.22	ug/L		98
56)	1,4-Dichlorobenzene	21.24	146	685885	10.57	ug/L		92
58)	1,2-Dichlorobenzene	21.92	146	524499	10.76	ug/L		98
59)	n-Butylbenzene	21.90	91	1648408	9.09	ug/L		100
60)	1,2-Dibromo-3-chloropropan	23.32	75	41948	10.47	ug/L		90
61)	1,2,4-Trichlorobenzene	24.89	180	395288	11.03	ug/L		96
62)	Hexachlorobutadiene	25.23	225	446035	10.32	ug/L		97
63)	Naphthalene	25.35	128	359109	11.58	ug/L		100
64)	1,2,3-Trichlorobenzene	25.82	180	284412	11.38	ug/L		95
65)	Methyl-tert butyl ether	8.01	73	398581	10.20	ug/L		93
66)	tert-Butyl Alcohol	7.76	59	12669	21.16	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8339.d
Acq On : 2 Jun 95 9:50 pm
Sample : 9523343 MSD
Misc : 25 ML
Quant Time: Jun 2 22:17 1995

Vial: 14
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.85	96	671183	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.10	95	363013	5.42	ug/L		108.44%
57) 1,2-Dichlorobenzene-d4	21.89	152	174022	5.69	ug/L		113.80%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.30	85	514610	9.67	ug/L		95
3) Chloromethane	3.68	50	307626	9.82	ug/L		98
4) Vinyl chloride	3.90	62	347134	9.84	ug/L		98
5) Bromomethane	4.55	94	244863	10.26	ug/L		98
6) Chloroethane	4.78	64	217226	10.50	ug/L		99
7) Trichlorofluoromethane	5.37	101	794300	10.07	ug/L		100
8) 1,1-Dichloroethene	6.45	96	326026	9.41	ug/L		93
9) Methylene chloride	7.42	84	307771	8.37	ug/L		96
10) trans-1,2-Dichloroethene	8.00	96	363849	9.94	ug/L		96
12) 1,1-Dichloroethane	8.77	63	753547	10.29	ug/L		95
13) 2,2-Dichloropropane	9.84	77	591780	8.25	ug/L		95
14) cis-1,2-Dichloroethene	9.85	96	353277	10.24	ug/L		100
16) Bromochloromethane	10.26	128	128809	10.66	ug/L	#	86
17) Chloroform	10.42	83	709486	10.33	ug/L		98
18) 1,1,1-Trichloroethane	10.74	97	767323	10.09	ug/L		98
19) Carbon tetrachloride	11.05	117	712622	10.10	ug/L		97
20) 1,1-Dichloropropene	11.03	75	645965	9.73	ug/L		98
21) Benzene	11.38	78	1177103	10.07	ug/L		98
22) 1,2-Dichloroethane	11.38	62	308090	10.74	ug/L		94
23) Trichloroethene	12.49	95	512750	9.90	ug/L		98
24) 1,2-Dichloropropane	12.85	63	401590	10.50	ug/L		99
25) Dibromomethane	13.05	93	166737	10.76	ug/L		97
26) Bromodichloromethane	13.32	83	559898	10.53	ug/L		97
27) cis-1,3-Dichloropropene	14.07	75	468363	10.20	ug/L		100
28) Toluene	14.66	92	826190	9.95	ug/L		96
29) trans-1,3-Dichloropropene	15.00	75	329303	10.38	ug/L		98
30) 1,1,2-Trichloroethane	15.32	83	160754	10.85	ug/L		94
31) Tetrachloroethene	15.63	166	521708	10.03	ug/L		99
32) 1,3-Dichloropropane	15.60	76	317842	10.82	ug/L		98
33) Dibromochloromethane	16.01	129	303964	10.54	ug/L		99
34) 1,2-Dibromomethane	16.20	107	222064	10.86	ug/L		97
35) Chlorobenzene	17.08	112	898884	10.39	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17.22	131	361598	10.53	ug/L		98
37) Ethylbenzene	17.27	91	1723486	9.86	ug/L		99
38) Xylene (para & meta)	17.48	106	1124706	17.92	ug/L		90
39) Xylene (Ortho)	18.18	106	524326	9.44	ug/L		96
40) Styrene	18.20	104	338953	3.94	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8339.d
Acq On : 2 Jun 95 9:50 pm
Sample : 9523343 MSD
Misc : 25 ML
Quant Time: Jun 2 22:17 1995

Vial: 14
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.52	173	148876	10.52	ug/L		90
42)	Isopropylbenzene	18.84	105	1755979	9.83	ug/L		90
44)	Bromobenzene	19.38	156	343805	10.68	ug/L	#	89
45)	1,1,2,2-Tetrachloroethane	19.34	83	195543	12.36	ug/L		98
46)	1,2,3-Trichloropropane	19.41	75	226162	11.77	ug/L		90
47)	n-Propylbenzene	19.57	91	2297109	9.89	ug/L		99
48)	2-Chlorotoluene	19.74	91	1404422	10.89	ug/L		100
49)	4-Chlorotoluene	19.92	91	1519434	9.93	ug/L		83
50)	1,3,5-Trimethylbenzene	19.89	105	1127211	7.62	ug/L		97
51)	tert-Butylbenzene	20.49	119	1533078	10.00	ug/L		96
52)	1,2,4-Trimethylbenzene	20.57	105	874755	6.46	ug/L		98
53)	sec-Butylbenzene	20.89	105	2237152	9.84	ug/L		99
54)	1,3-Dichlorobenzene	21.09	146	692686	10.55	ug/L		97
55)	4-Isopropyltoluene	21.15	119	1588304	9.36	ug/L		100
56)	1,4-Dichlorobenzene	21.24	146	693155	10.64	ug/L		91
58)	1,2-Dichlorobenzene	21.92	146	536739	10.97	ug/L		98
59)	n-Butylbenzene	21.90	91	1829900	10.06	ug/L		98
60)	1,2-Dibromo-3-chloropropan	23.33	75	44811	11.15	ug/L		87
61)	1,2,4-Trichlorobenzene	24.90	180	403043	11.20	ug/L		99
62)	Hexachlorobutadiene	25.24	225	430915	9.93	ug/L		98
63)	Naphthalene	25.35	128	369223	11.86	ug/L		100
64)	1,2,3-Trichlorobenzene	25.82	180	297987	11.88	ug/L		99
65)	Methyl-tert butyl ether	8.02	73	424237	10.82	ug/L		97
66)	tert-Butyl Alcohol	7.72	59	12194	20.29	ug/L		100

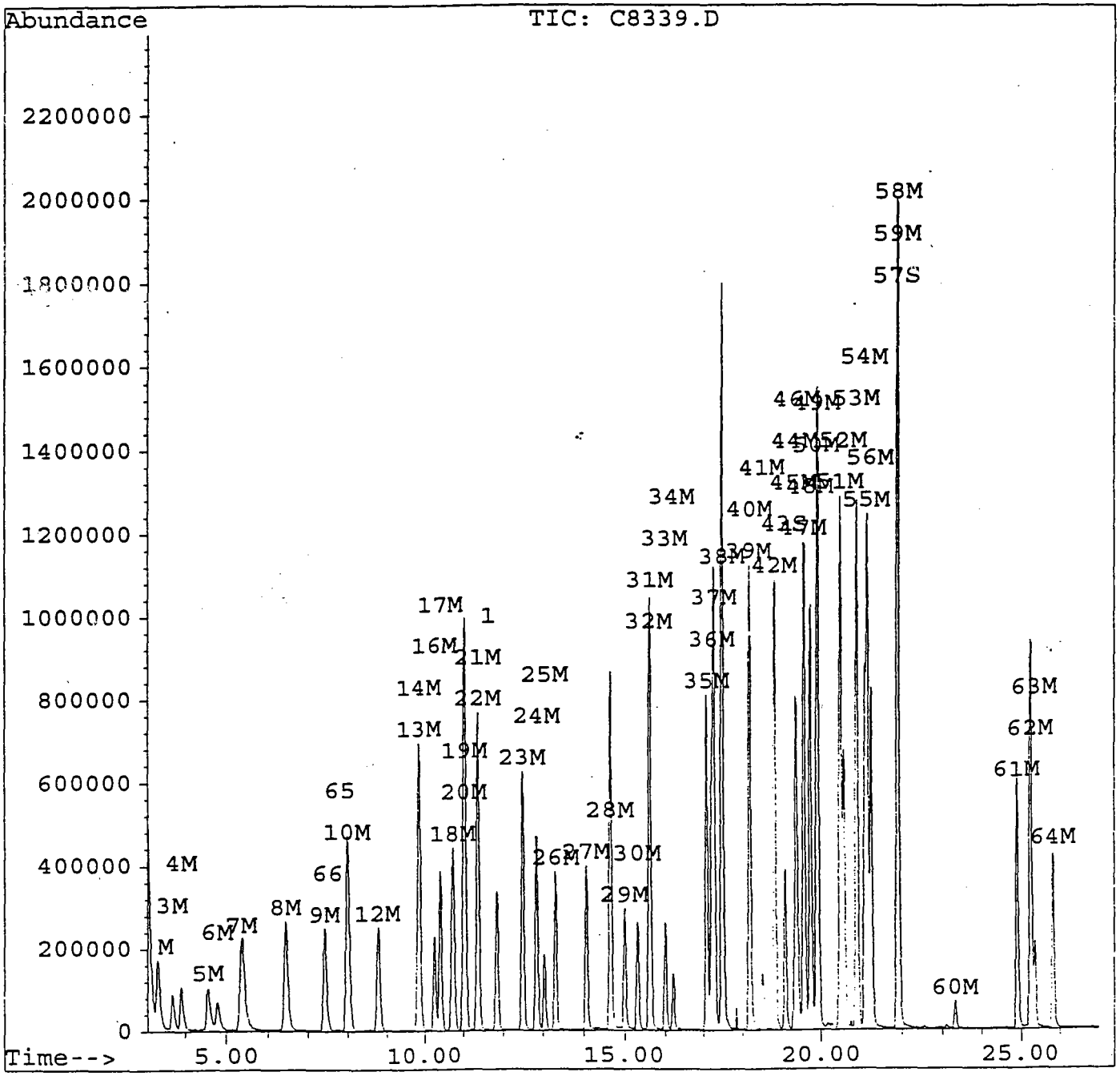
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8339.d
Acq On : 2 Jun 95 9:50 pm
Sample : 9523343 MSD
Misc : 25 ML
Quant Time: Jun 2 22:17 1995

Vial: 14
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



EMSL

GC/MS SEMIVOLATILE DATA PACKAGE

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Nam EMSL Analytical Contract: _____

Lab Code: Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: B7750.D DFTPP Injection Date: 05/30/95

Instrument ID: ABNA DFTPP Injection Time: 0914

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	30.0 - 80.0% of mass 198	51.3		
68	Less than 2.0% of mass 69	0.0	0.0	)1
69	Mass 69 relative abundance	61.1		
70	Less than 2.0% of mass 69	0.3	0.6	)1
127	25.0 - 75.0% of mass 198	44.4		
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	7.5		
275	10.0 - 30.0% of mass 198	23.1		
365	Greater than 0.75% of mass 198	2.8		
441	Present, but less than mass 443	9.3		
442	40.0 - 110.0% of mass 198	64.3		
443	15.0 - 24.0% of mass 442	13.1	20.3	)2

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

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

	EPA SAMPLE N	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
#		20 STANDARD	B7751.D	05/30/95	0944
#		50 STANDARD	B7752.D	05/30/95	1035
#		80 STANDARD	B7753.D	05/30/95	1127
#		120 STANDARD	B7754.D	05/30/95	1220
#		160 STANDARD	B7755.D	05/30/95	1312
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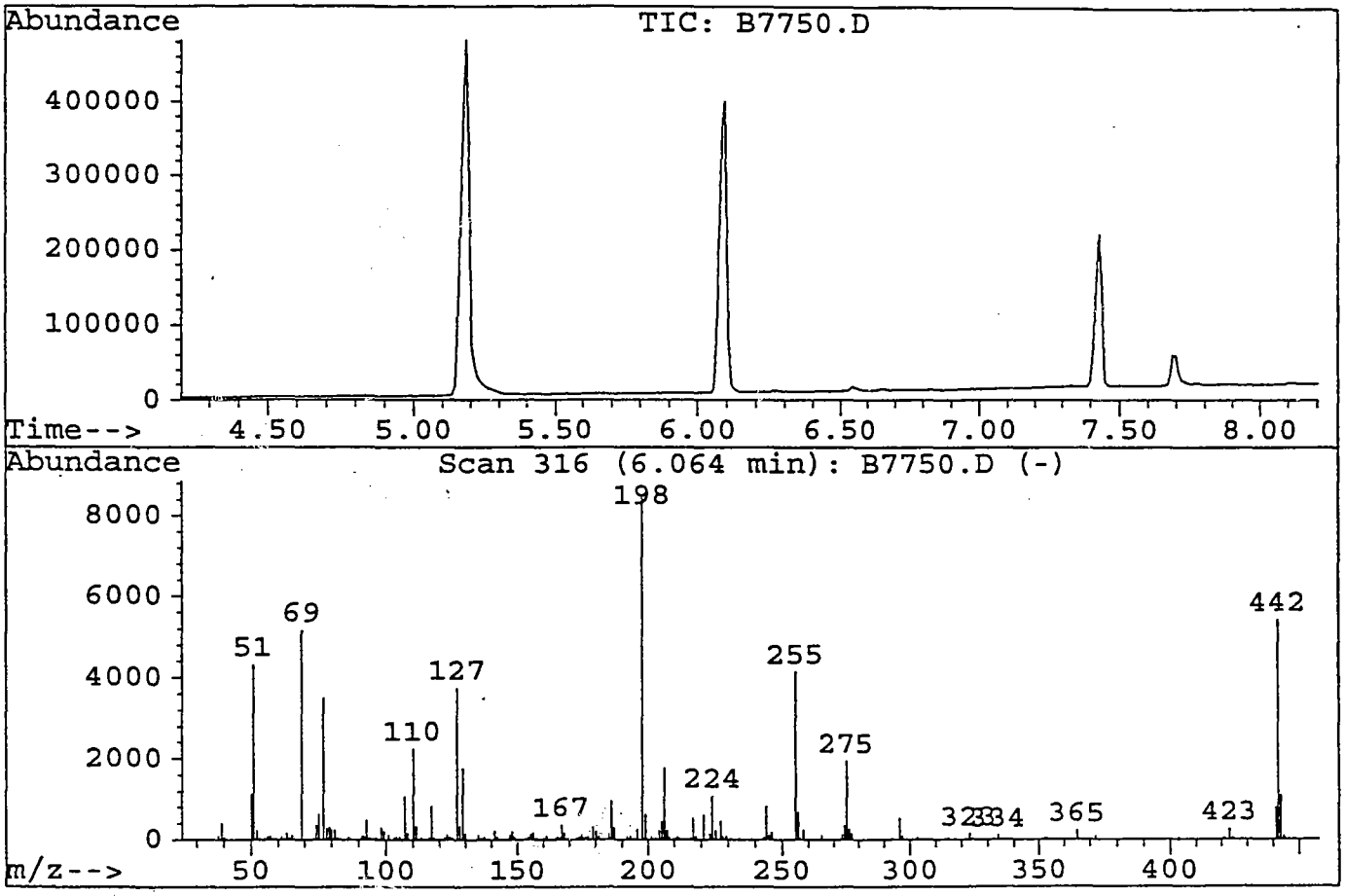
Data File : C:\HPCHEM\1\DATA2\B7750.D
Acq On : 30 May 95 9:14 am
Sample : DFTPP..... Converted from RTE d
Misc :

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 330

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.3	4339	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	61.1	5169	PASS
70	69	0	2	0.6	29	PASS
127	198	40	60	44.4	3758	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	8456	PASS
199	198	5	9	7.5	631	PASS
275	198	10	30	23.1	1951	PASS
365	198	1	100	2.8	238	PASS
441	443	0	100	71.3	788	PASS
442	198	40	100	64.3	5436	PASS
443	442	17	23	20.3	1105	PASS

Scan 316 (6.064 min): B7750.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	111	58.05	13	78.05	284	96.05	58
39.05	417	61.15	74	79.05	332	97.05	35
40.10	59	63.05	154	79.95	245	98.05	313
50.05	1128	64.05	37	81.05	252	99.05	224
51.00	4339	65.05	105	82.05	44	100.95	120
52.05	241	68.95	5169	83.10	16	103.15	68
53.00	10	70.05	29	86.15	75	103.95	87
54.05	4	73.05	43	91.05	88	105.05	85
55.05	32	74.05	376	91.95	98	107.05	1091
56.05	93	75.05	636	92.95	482	107.95	178
57.05	94	77.00	3509	94.05	48	110.05	2258

Scan 316 (6.064 min): B7750.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.05	347	128.00	343	154.10	63	168.00	172
112.15	17	129.00	1776	155.00	140	169.10	54
113.05	65	130.00	152	156.00	177	173.00	40
116.15	81	135.00	123	157.10	46	173.90	77
117.05	837	136.00	50	157.80	35	175.00	147
118.05	55	137.10	72	158.00	32	176.10	56
121.90	87	141.00	242	160.00	52	177.10	85
123.00	132	142.00	80	161.10	108	179.00	311
124.00	82	147.00	121	165.00	75	180.10	207
124.90	49	148.00	213	166.20	66	181.10	81
127.00	3758	148.90	57	167.00	382	182.10	5

Scan 316 (6.064 min): B7750.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.10	155	205.05	451	222.95	151	249.05	34
186.10	970	206.05	1785	224.05	1088	255.05	4157
187.10	295	207.05	238	225.05	239	256.05	688
192.00	75	207.95	66	227.05	470	256.95	53
193.10	96	210.25	50	227.95	86	257.95	257
196.00	270	211.05	79	229.05	93	265.05	108
198.00	8456	211.65	38	230.95	42	273.05	139
199.00	631	215.95	52	243.05	75	274.05	352
201.35	77	216.95	525	244.05	828	275.05	1951
202.85	45	217.95	89	245.05	118	276.05	266
204.05	257	220.95	629	246.05	185	277.05	157

Scan 316 (6.064 min): B7750.D

Modified:subtracted

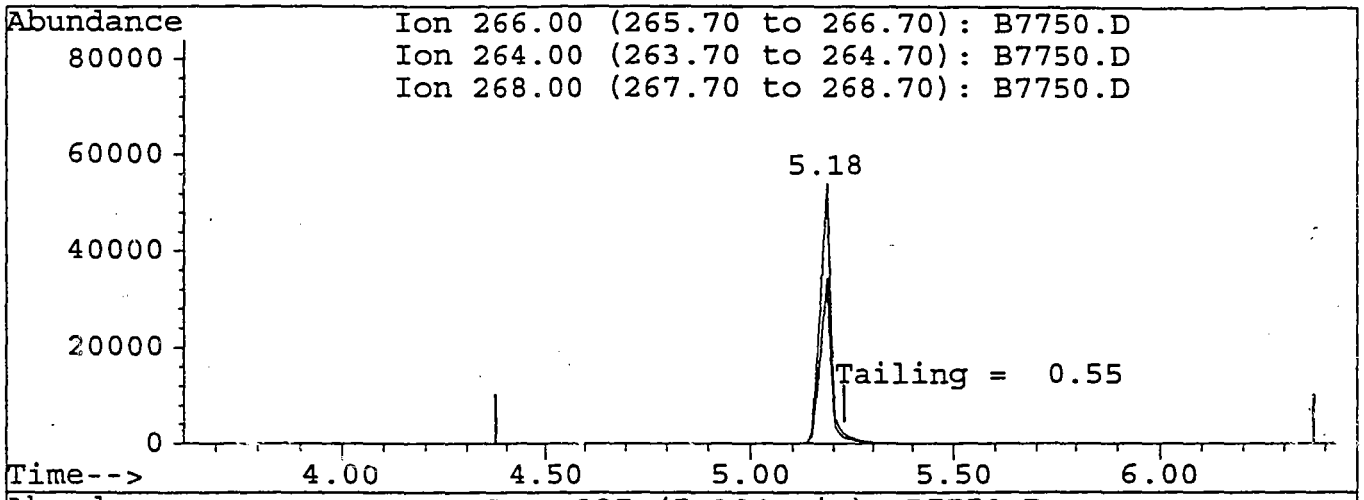
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.00	31	364.95	238				
296.00	527	372.05	89				
297.00	89	403.05	44				
303.00	67	420.95	40				
314.00	27	423.05	267				
314.90	61	424.05	52				
323.10	148	441.10	788				
324.10	39	442.00	5436				
334.00	124	443.00	1105				
352.10	49	444.10	101				
353.10	51						

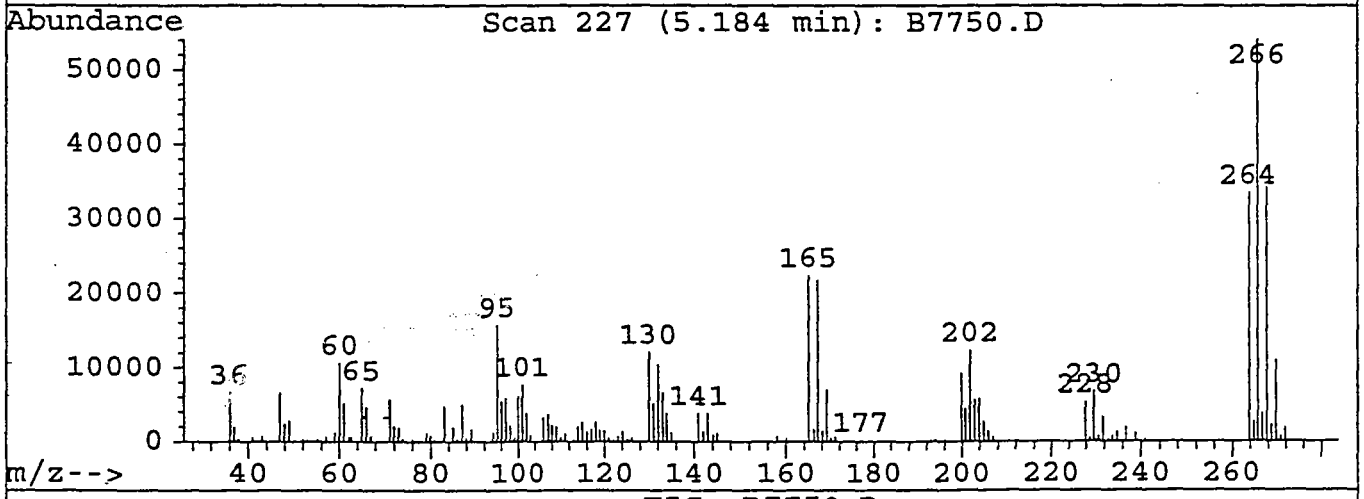
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7750.D
Acq On : 30 May 95 9:14 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: May 30 8:29 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration





TIC: B7750.D

(1) Pentachlorophenol (CM)

5.18min 321.74ug/mL

response 106272

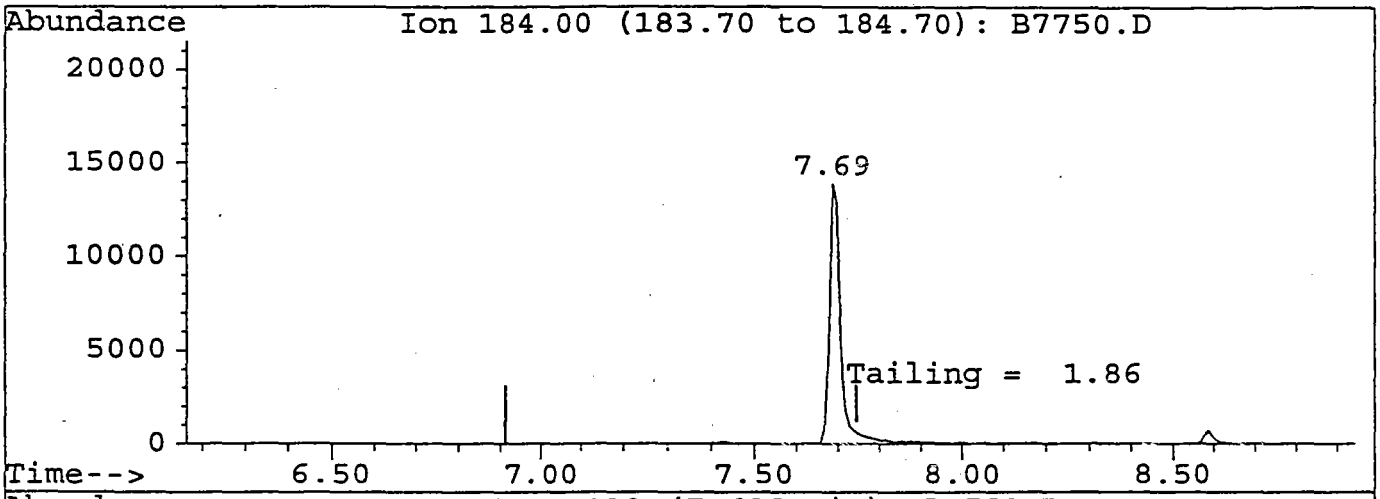
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	62.02
268.00	64.70	63.47
0.00	0.00	0.00

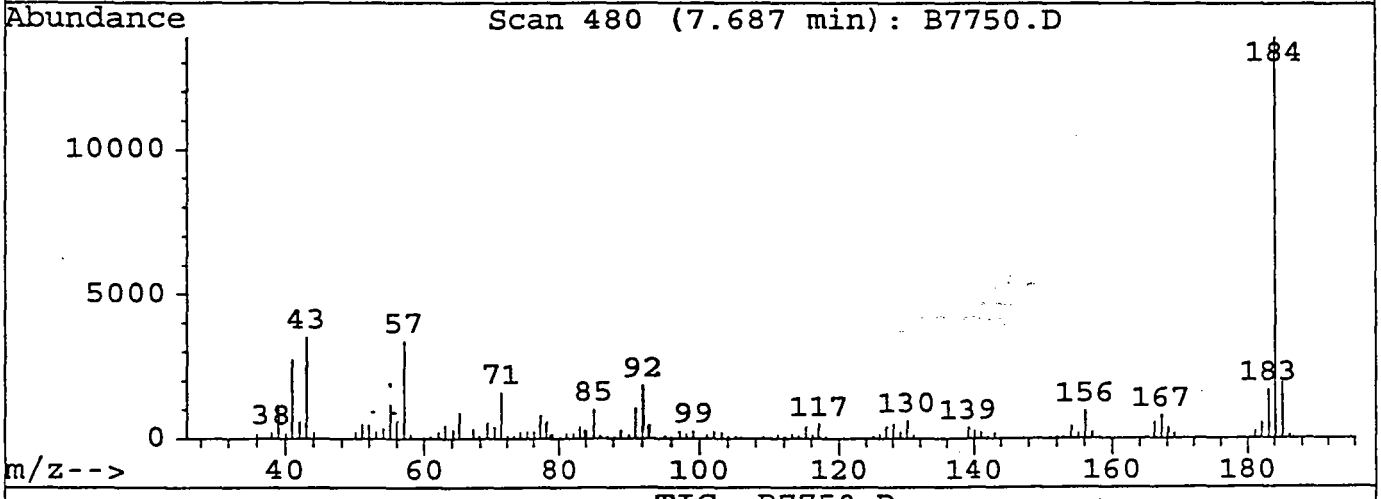
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7750.D
Acq On : 30 May 95 9:14 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: May 30 8:29 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration





TIC: B7750.D

(2) Benzidine
7.69min 86.22ug/ml
response 26489

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Response Factor Report ABNA

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 09:37:17 1995
Response via : Initial Calibration

Calibration Files
160 =B7755.D 120 =B7754.D 80 =B7753.D
50 =B7752.D 20 =B7751.D

		Compound	160	120	80	50	20	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD						
2)	S	2-Fluorophenol	1.046	1.205	1.170	1.071	1.165	1.131	6.09
3)	S	Phenol-d5	1.808	2.019	1.924	1.724	1.888	1.873	6.00
4)	M	N-nitrosodimethylamin	0.599	0.546	0.436	0.731		0.578	21.22
5)		Pyridine	0.424	0.364	0.429	0.496		0.428	12.65
6)	CM	Phenol	1.442	1.792	1.686	1.698	1.721	1.668	7.94
7)	MT	bis(2-Chloroethyl)eth	1.893	2.082	2.104	2.042	2.008	2.026	4.10
8)	M	2-Chlorophenol	1.138	1.284	1.307	1.245	1.372	1.269	6.83
9)	MT	1,3-Dichlorobenzene	1.295	1.404	1.490	1.416	1.320	1.385	5.65
10)	CM	1,4-Dichlorobenzene	1.318	1.468	1.512	1.469	1.379	1.429	5.51
11)	M	1,2-Dichlorobenzene	1.255	1.391	1.452	1.374	1.315	1.357	5.54
12)	T	2-Methylphenol	1.109	1.268	1.262	1.164	1.220	1.204	5.61
13)	M	bis(2-chloroisopropyl	1.886	1.860	1.988	1.730	1.878	1.868	4.92
14)	T	4-Methylphenol	1.216	1.432	1.330	1.310	1.320	1.322	5.82
15)	PM	N-Nitroso-Di-n-propyl	1.289	1.444	1.471	1.267	1.257	1.346	7.68
16)	M	Hexachloroethane	0.691	0.756	0.792	0.747	0.701	0.737	5.65
17)	I	Naphthalene-d8	ISTD						
18)	S	Nitrobenzene-d5	0.437	0.466	0.478	0.437	0.460	0.456	4.02
19)	M	Nitrobenzene	0.398	0.409	0.461	0.436	0.416	0.424	5.86
20)	M	Isophorone	0.776	0.850	0.875	0.817	1.149	0.893	16.52
21)	MC	2-Nitrophenol	0.189	0.225	0.225	0.200	0.213	0.210	7.50
22)	M	2,4-Dimethylphenol	0.362	0.429	0.388	0.382	0.407	0.394	6.49
23)	M	bis(2-Chloroethoxy)me	0.441	0.448	0.467	0.455	0.469	0.456	2.57
24)	MC	2,4-Dichlorophenol	0.271	0.299	0.307	0.292	0.322	0.298	6.39
25)	M	1,2,4-Trichlorobenzen	0.293	0.318	0.326	0.322	0.326	0.317	4.42
26)	M	Naphthalene	0.922	0.948	1.039	0.963	1.023	0.979	5.12
27)	T	4-Chloroaniline	0.455	0.465	0.471	0.468	0.457	0.463	1.47
28)	MC	Hexachlorobutadiene	0.175	0.186	0.189	0.186	0.190	0.185	3.26
29)	MC	4-Chloro-3-methylphen	0.355	0.396	0.398	0.385	0.385	0.384	4.45
30)	M	2-Chloronaphthalene	0.672	0.680	0.719	0.700	0.709	0.696	2.81
31)	T	2-Methylnaphthalene	0.890	0.985	0.640	0.702	0.711	0.786	18.46
32)	I	Acenaphthene-d10	ISTD						
33)	P	Hexachlorocyclopentad	0.294	0.303	0.302	0.258	0.233	0.278	11.19
34)	MC	2,4,6-Trichlorophenol	0.470	0.452	0.413	0.381	0.361	0.415	11.10
35)	T	2,4,5-Trichlorophenol	0.221	0.317	0.348	0.370	0.365	0.324	18.94
36)	S	2-Fluorobiphenyl	1.163	1.254	1.230	1.178	1.174	1.200	3.30
37)	T	2-Nitroaniline	0.527	0.566	0.592	0.578	0.483	0.549	8.04
38)	M	Dimethylphthalate	1.233	1.348	1.373	1.295	1.248	1.299	4.68
39)	M	Acenaphthylene	1.606	1.717	1.805	1.711	1.683	1.704	4.20
40)	M	2,6-Dinitrotoluene	0.295	0.312	0.346	0.327	0.271	0.310	9.34
41)	T	3-Nitroaniline	0.279	0.370	0.403	0.363	0.315	0.346	14.10

(#) = Out of Range

Response Factor Report ABNA

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 09:37:17 1995
Response via : Initial Calibration

Calibration Files
160 =B7755.D 120 =B7754.D 80 =B7753.D
50 =B7752.D 20 =B7751.D

		Compound	160	120	80	50	20	Avg	%RSD
42)	CM	Acenaphthene	0.982	1.056	1.036	1.024	1.028	1.025	2.65
43)	MP	2,4-Dinitrophenol	0.189	0.213	0.198	0.155	0.107	0.172	24.56
44)	PM	4-Nitrophenol	0.151	0.178	0.188	0.168	0.142	0.166	11.52
45)	T	Dibenzofuran	1.475	1.700	1.686	1.669	1.512	1.609	6.62
46)	M	2,4-Dinitrotoluene	1.132	1.243	1.193	1.143	1.125	1.167	4.29
47)	M	Diethylphthalate	1.274	1.533	1.576	1.452	1.379	1.443	8.38
48)	M	Fluorene	1.222	1.333	1.295	1.228	1.216	1.259	4.17
49)	M	4-Chlorophenyl-phenyl	0.554	0.608	0.613	0.591	0.615	0.596	4.25
50)		Phenanthrene-d10	----------ISTD----------						
51)	T	4-Nitroaniline	0.131	0.151	0.160	0.214	0.175	0.166	18.75
52)	MC	4,6-Dinitro-2-methylp	0.141	0.142	0.151	0.129	0.096	0.132	16.20
53)	T	n-Nitrosodiphenylamin	0.458	0.524	0.531	0.530	0.499	0.508	6.15
54)	S	2,4,6-Tribromophenol	0.098	0.113	0.112	0.106	0.111	0.108	5.77
55)		1,2-Diphenylhydrazine	1.065	1.251	1.281	1.312	1.147	1.211	8.48
56)	M	4-Bromophenyl-phenyle	0.186	0.198	0.212	0.220	0.213	0.206	6.61
57)	M	Hexachlorobenzene	0.138	0.231	0.244	0.228	0.233	0.215	20.20
58)	CM	Pentachlorophenol	0.131	0.150	0.154	0.133	0.119	0.137	10.26
59)	M	Phenanthrene	0.983	1.142	1.181	1.095	1.071	1.094	6.87
60)	M	Anthracene	0.809	1.021	1.128	1.028	1.059	1.009	11.85
61)		Carbazole	0.656	1.051	1.106	0.964	0.941	0.944	18.43
62)	M	Di-n-butylphthalate	1.441	1.645	1.749	1.638	1.559	1.606	7.11
63)	MC	Fluoranthene	0.922	0.947	1.162	1.124	1.019	1.035	10.22
64)	I	Chrysene-d12	----------ISTD----------						
65)		Benzidine	0.569	0.427	0.364	0.399	0.428	0.437	17.86
66)	M	Pyrene	1.857	1.452	1.658	1.267	1.273	1.502	16.98
67)	S	Terphenyl-d14	1.355	1.039	1.124	0.880	0.911	1.062	17.99
68)	M	Butylbenzylphthalate	1.130	0.958	1.080	0.843	0.796	0.962	15.08
69)	M	Benzo[a]anthracene	1.813	1.529	1.731	1.342	1.163	1.516	17.74
70)	M	3,3'-Dichlorobenzidin	0.345	0.347	0.471	0.353	0.416	0.386	14.47
71)	M	Chrysene	0.661	0.691	1.035	0.768	1.060	0.843	22.65
72)	M	bis(2-Ethylhexyl)phth	1.536	1.331	1.560	1.243	1.151	1.364	13.17
73)	I	Perylene-d12	----------ISTD----------						
74)	MC	Di-n-octylphthalate	4.287	5.460	5.911	4.718		5.094	14.31
75)	M	Benzo[b]fluoranthene	2.445	2.215	2.794	2.522	2.357	2.467	8.75
76)	m	Benzo[k]fluoranthene	1.248	0.961	1.258	1.108	1.376	1.190	13.40
77)	mc	Benzo[a]pyrene	1.114	0.945	1.269	1.355	1.450	1.227	16.33
78)	m	Indeno[1,2,3-cd]pyren	0.493	0.521	0.450	0.417	0.381	0.452	12.46
79)	m	Dibenz[a,h]anthracene	0.471	0.517	0.454	0.365	0.371	0.436	15.14
80)	M	Benzo[g,h,i]perylene	0.385	0.372	0.381	0.326	0.314	0.356	9.28
81)		1-Methyl naphthalene						0.000#	-1.00
82)		7,12-Dimethylbenz(a)a						0.000#	-1.00

(#) = Out of Range

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2138
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	25556	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.74	136	103257	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.06	164	74029	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.53	188	123712	40.00	ug/ml	-0.36
64) Chrysene-d12	30.59	240	101227	40.00	ug/mL	-0.44
73) Perylene-d12	34.60	264	55866	40.00	ug/mL	-0.44
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	37223	52.40	ug/mL	52.40%
3) Phenol-d5	8.39	99	60299	61.22	ug/mL	61.22%
18) Nitrobenzene-d5	10.70	82	59323	55.23	ug/mL	55.23%
36) 2-Fluorobiphenyl	16.21	172	108666	45.06	ug/mL	45.06%
54) 2,4,6-Tribromophenol	20.47	330	17160	50.11	ug/mL	50.11%
67) Terphenyl-d14	27.65	244	115295	44.07	ug/mL	44.07%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	11819	64.09	ug/mlm	0
6) Phenol	8.41	94	21988	23.29	ug/mL	100
7) bis(2-Chloroethyl)ether	12.42	93	25656	25.13	ug/mL	94
8) 2-Chlorophenol	8.45	128	17535	22.70	ug/mL	91
9) 1,3-Dichlorobenzene	8.84	146	16873	19.30	ug/mL	95
10) 1,4-Dichlorobenzene	9.09	146	17619	19.90	ug/mL	99
11) 1,2-Dichlorobenzene	9.47	146	16808	18.80	ug/mL	99
12) 2-Methylphenol	10.13	108	15585	20.61	ug/mLm	62
13) bis(2-chloroisopropyl)ethe	10.13	45	23996	14.64	ug/mL#	8
14) 4-Methylphenol	10.63	108	16867	20.62	ug/mL	96
15) N-Nitroso-Di-n-propylamine	10.47	70	16063	19.56	ug/mL	95
16) Hexachloroethane	10.43	117	8960	16.89	ug/mL	93
19) Nitrobenzene	10.74	77	21469	22.12	ug/mL#	73
20) Isophorone	10.70	82	59319	34.39	ug/mL#	68
21) 2-Nitrophenol	11.70	139	11002	19.97	ug/mL	97
22) 2,4-Dimethylphenol	10.63	107	20989	21.66	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.16	93	24189	20.63	ug/mL#	42
24) 2,4-Dichlorophenol	12.47	162	16624	20.82	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.65	180	16825	18.32	ug/mL	99
26) Naphthalene	12.80	128	52795	20.11	ug/mL#	89
27) 4-Chloroaniline	13.15	127	23600	19.35	ug/mL	98
28) Hexachlorobutadiene	13.32	225	9812	16.62	ug/mL	99
29) 4-Chloro-3-methylphenol	14.86	107	19868	19.58	ug/mL	90
30) 2-Chloronaphthalene	16.38	162	36612	17.42	ug/ml	97
31) 2-Methylnaphthalene	14.94	142	36729	19.16	ug/mL	98
33) Hexachlorocyclopentadiene	15.48	237	8635	12.84	ug/mL	99
34) 2,4,6-Trichlorophenol	15.92	196	13356	18.21	ug/mL	96
35) 2,4,5-Trichlorophenol	16.02	196	13494	17.54	ug/mL	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2 139
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.85	65	17876	21.08	ug/mL#	100
38)	Dimethylphthalate	17.62	163	46196	21.25	ug/mL	100
39)	Acenaphthylene	17.58	152	62290	16.75	ug/mL	98
40)	2,6-Dinitrotoluene	17.69	165	10022	19.61	ug/mL	99
41)	3-Nitroaniline	18.12	138	11669	15.38	ug/mL	98
42)	Acenaphthene	18.14	153	38044	16.56	ug/mL	99
43)	2,4-Dinitrophenol	18.44	184	3955	15.55	ug/mLm	95
44)	4-Nitrophenol	18.93	109	5206	21.05	ug/mL	91
45)	Dibenzofuran	18.69	168	55975	17.19	ug/mL	98
46)	2,4-Dinitrotoluene	19.73	165	41635	17.45	ug/mL#	34
47)	Diethylphthalate	19.83	149	51035	19.15	ug/mL	99
48)	Fluorene	19.73	166	45015	17.98	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.93	204	22774	18.71	ug/mL	94
51)	4-Nitroaniline	19.95	138	10837	22.35	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.06	198	5946	17.19	ug/mL	100
53)	n-Nitrosodiphenylamine	20.33	169	30841	25.02	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.39	77	70933	22.38	ug/ml	100
56)	4-Bromophenyl-phenylether	21.37	248	13195	20.03	ug/mL#	89
57)	Hexachlorobenzene	21.35	284	14382	18.78	ug/mL#	51
58)	Pentachlorophenol	22.07	266	7390	16.37	ug/mL	99
59)	Phenanthrene	22.61	178	66272	19.37	ug/mL	98
60)	Anthracene	22.74	178	65476	19.46	ug/mLm	97
61)	Carbazole	23.40	167	58205	18.79	ug/ml	100
62)	Di-n-butylphthalate	24.92	149	96445	16.33	ug/mL	99
63)	Fluoranthene	26.19	202	63031	16.63	ug/mLm	93
65)	Benzidine	26.88	184	21650	24.83	ug/mlm	100
66)	Pyrene	26.83	202	64445	15.73	ug/mL#	87
68)	Butylbenzylphthalate	29.43	149	40290	16.46	ug/mL	90
69)	Benzo[a]anthracene	30.57	228	58860	18.72	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	21074	24.51	ug/mL	98
71)	Chrysene	30.57	228	53653	19.46	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.40	149	58259	15.97	ug/mL	100
74)	Di-n-octylphthalate	33.31	149	92370	9.30	ug/mL	98
75)	Benzo[b]fluoranthene	33.62	252	65848	26.94	ug/mLm	98
76)	Benzo[k]fluoranthene	33.70	252	38434	16.42	ug/mLm	91
77)	Benzo[a]pyrene	34.45	252	40502	24.28	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.16	276	10646	15.19	ug/mL#	85
79)	Dibenz[a,h]anthracene	37.27	278	10355	16.78	ug/mL#	91
80)	Benzo[g,h,i]perylene	37.74	276	8780	14.39	ug/mLm	97

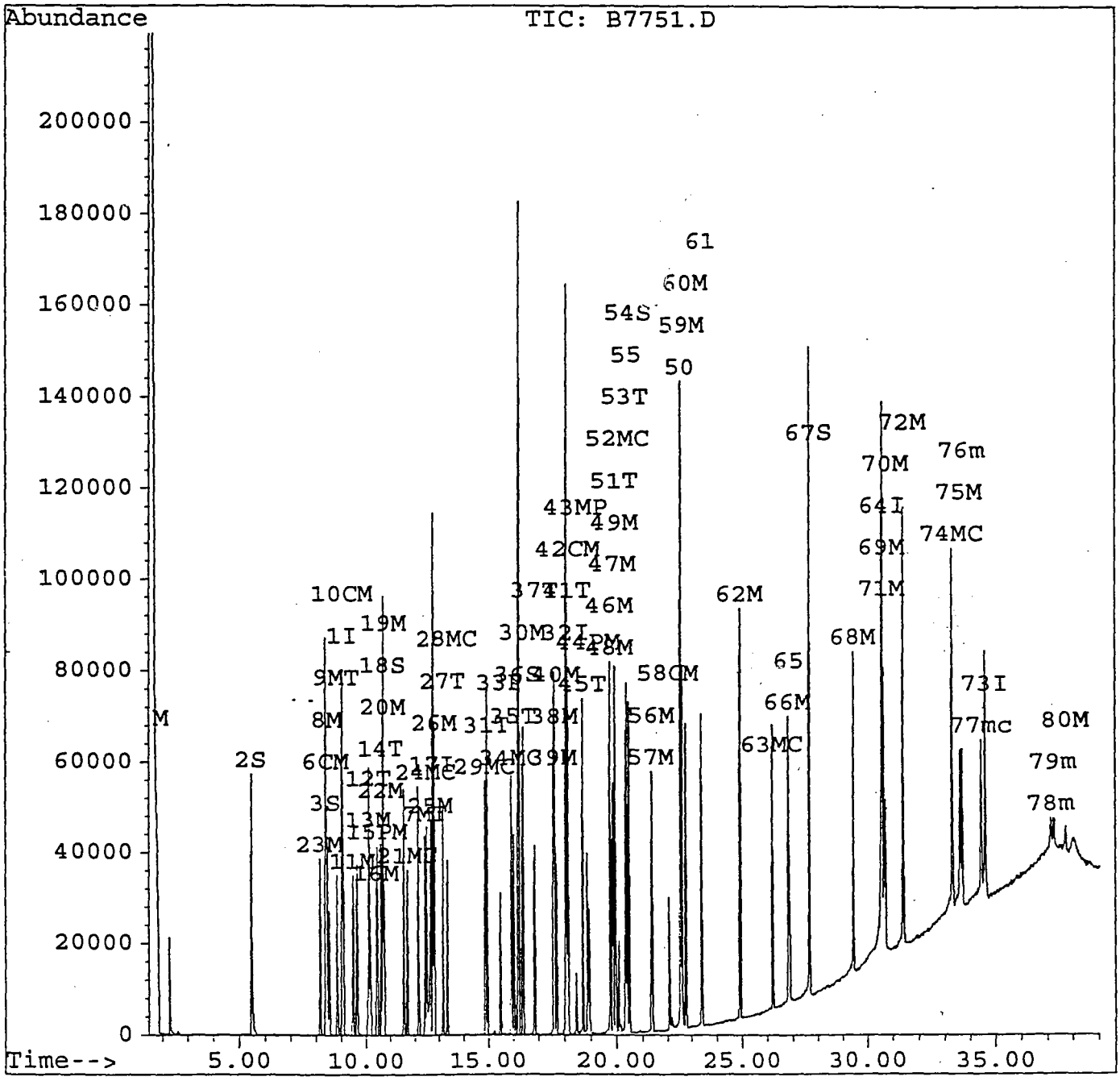
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d
Acq On : 30 May 95 9:44 am
Sample : 20 STD..... Converted from RTE d
Misc :
Quant Time: May 31 10:03 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.03	152	29664	40.00	ug/mL	-0.27
17) Naphthalene-d8	12.75	136	124059	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.05	164	81773	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.52	188	131721	40.00	ug/ml	-0.37
64) Chrysene-d12	30.58	240	118287	40.00	ug/mL	-0.45
73) Perylene-d12	34.60	264	45273	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	39705	48.15	ug/mL	48.15%
3) Phenol-d5	8.39	99	63940	55.92	ug/mL	55.92%
18) Nitrobenzene-d5	10.71	82	67799	52.53	ug/mL	52.53%
36) 2-Fluorobiphenyl	16.20	172	120432	45.21	ug/mL	45.21%
54) 2,4,6-Tribromophenol	20.46	330	17504	48.01	ug/mL	48.01%
67) Terphenyl-d14	27.65	244	130090	42.56	ug/mL	42.56%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	27115	126.68	ug/mlm	0
6) Phenol	8.43	94	62958	57.46	ug/mL	100
7) bis(2-Chloroethyl)ether	12.42	93	75709	63.88	ug/mL	99
8) 2-Chlorophenol	8.45	128	46179	51.50	ug/mL#	84
9) 1,3-Dichlorobenzene	8.84	146	52488	51.73	ug/mL	98
10) 1,4-Dichlorobenzene	9.09	146	54452	52.99	ug/mL	99
11) 1,2-Dichlorobenzene	9.47	146	50964	49.12	ug/mL	99
12) 2-Methylphenol	10.13	108	43177	49.20	ug/mLm	65
13) bis(2-chloroisopropyl)ethe	10.09	45	64159	33.73	ug/mL#	67
14) 4-Methylphenol	10.63	108	48583	51.18	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.49	70	46969	49.27	ug/mL	99
16) Hexachloroethane	10.42	117	27701	44.99	ug/mL#	69
19) Nitrobenzene	10.76	77	67644	58.02	ug/mL	89
20) Isophorone	11.57	82	126657	61.12	ug/mL	97
21) 2-Nitrophenol	11.69	139	31019	46.87	ug/mL	88
22) 2,4-Dimethylphenol	10.63	107	59303	50.95	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.16	93	70617	50.13	ug/mL#	42
24) 2,4-Dichlorophenol	12.48	162	45218	47.12	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.65	180	49933	45.25	ug/mL	98
26) Naphthalene	12.81	128	149358	47.34	ug/mL#	91
27) 4-Chloroaniline	13.15	127	72575	49.52	ug/mL	100
28) Hexachlorobutadiene	13.33	225	28798	40.59	ug/mL	98
29) 4-Chloro-3-methylphenol	14.87	107	59715	48.98	ug/mL	99
30) 2-Chloronaphthalene	16.37	162	108511	42.96	ug/ml	97
31) 2-Methylnaphthalene	14.94	142	108935	47.31	ug/mL	98
33) Hexachlorocyclopentadiene	15.46	237	26413	35.57	ug/mL	98
34) 2,4,6-Trichlorophenol	15.91	196	38933	48.06	ug/mL	99
35) 2,4,5-Trichlorophenol	16.00	196	37853	44.55	ug/mL	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3 1-12
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	16.85	65	59044	63.04 ug/mL#	100
38)	Dimethylphthalate	17.62	163	132350	55.11 ug/mL	99
39)	Acenaphthylene	17.58	152	174919	42.58 ug/mL	99
40)	2,6-Dinitrotoluene	17.70	165	33402	59.16 ug/mL	98
41)	3-Nitroaniline	18.12	138	37075	44.25 ug/mL	98
42)	Acenaphthene	18.14	153	104702	41.25 ug/mL	100
43)	2,4-Dinitrophenol	18.45	184	15812	56.30 ug/mL#	91
44)	4-Nitrophenol	18.93	109	17219	63.03 ug/mL#	83
45)	Dibenzofuran	18.70	168	170626	47.45 ug/mL	97
46)	2,4-Dinitrotoluene	19.72	165	116800	44.33 ug/mL#	32
47)	Diethylphthalate	19.86	149	148456	50.42 ug/mL	98
48)	Fluorene	19.72	166	125476	45.36 ug/mL	98
49)	4-Chlorophenyl-phenylether	19.92	204	60420	44.93 ug/mL	95
51)	4-Nitroaniline	19.99	138	35220	68.23 ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.09	198	21308	57.84 ug/mL	100
53)	n-Nitrosodiphenylamine	20.32	169	87310	66.53 ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.38	77	216080	64.04 ug/ml	100
56)	4-Bromophenyl-phenylether	21.36	248	36244	51.67 ug/mL#	89
57)	Hexachlorobenzene	21.34	284	37570	46.07 ug/mL#	76
58)	Pentachlorophenol	22.06	266	21962	45.70 ug/mL	98
59)	Phenanthrene	22.60	178	180287	49.49 ug/mL	100
60)	Anthracene	22.75	178	169255	47.24 ug/mLm	99
61)	Carbazole	23.39	167	158797	48.15 ug/ml	99
62)	Di-n-butylphthalate	24.91	149	269738	42.89 ug/mL	100
63)	Fluoranthene	26.20	202	185037	45.86 ug/mLm	81
65)	Benzidine	26.87	184	58973	57.88 ug/mlm	100
66)	Pyrene	26.84	202	187374	39.15 ug/mL	97
68)	Butylbenzylphthalate	29.42	149	124656	43.57 ug/mL	91
69)	Benzo[a]anthracene	30.56	228	198412	54.00 ug/mL	100
70)	3,3'-Dichlorobenzidine	30.71	252	52146	51.91 ug/mL	98
71)	Chrysene	30.66	228	113518	35.24 ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.39	149	183732	43.10 ug/mL	99
74)	Di-n-octylphthalate	33.30	149	267010	33.18 ug/mL	98
75)	Benzo[b]fluoranthene	33.63	252	142718	72.04 ug/mL	98
76)	Benzo[k]fluoranthene	33.71	252	62677	33.05 ug/mLm	95
77)	Benzo[a]pyrene	34.44	252	76698	56.74 ug/mLm	99
78)	Indeno[1,2,3-cd]pyrene	37.16	276	23591	41.53 ug/mLm	96
79)	Dibenz[a,h]anthracene	37.28	278	20678	41.35 ug/mL	96
80)	Benzo[g,h,i]perylene	37.74	276	18451	37.32 ug/mL	95

(#) = qualifier out of range (m) = manual integration

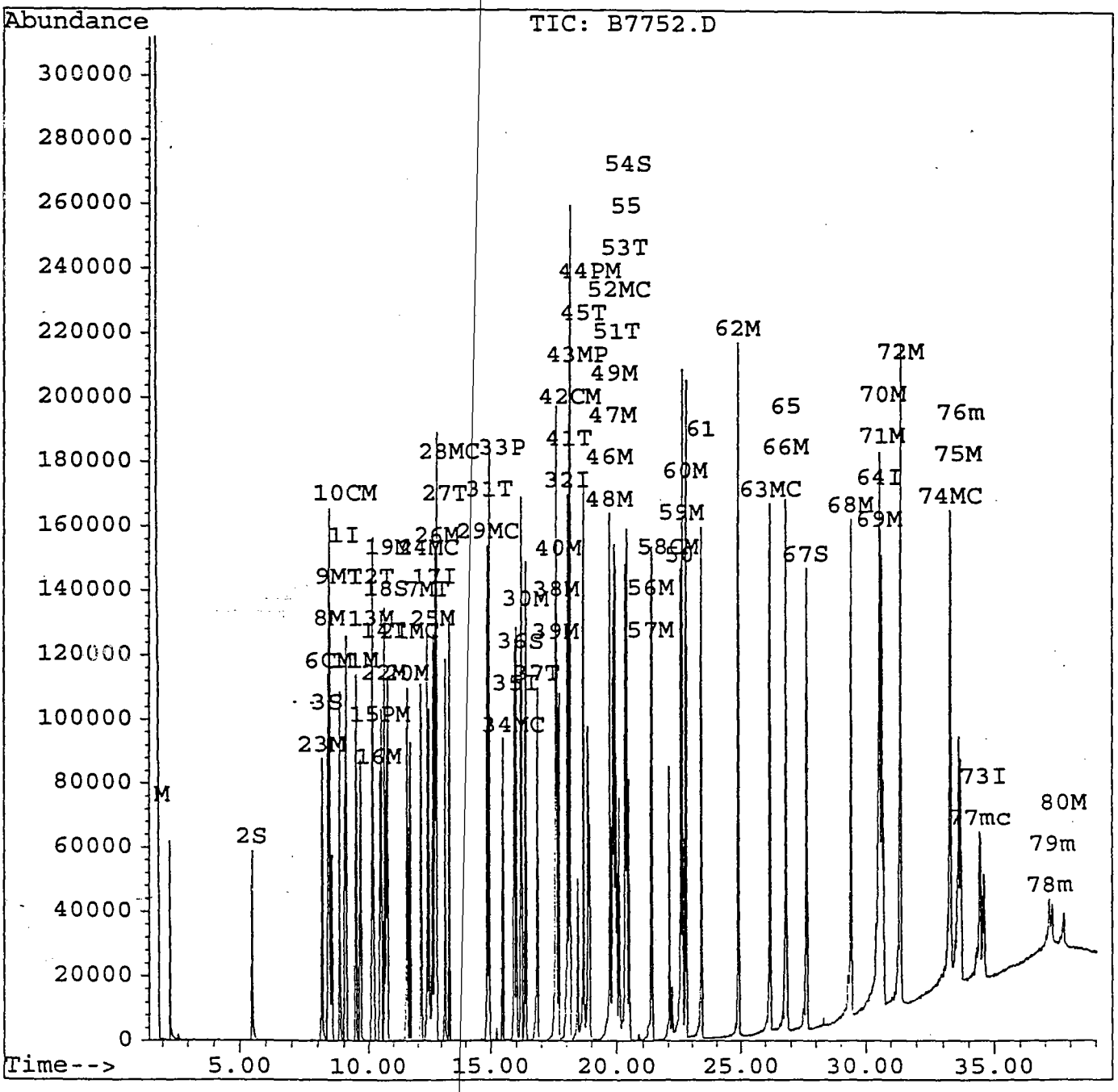
Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d
Acq On : 30 May 95 10:35 am
Sample : 50 STD.....
Misc :
Quant Time: May 31 10:04 1995

Converted from RTE d

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	29814	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.75	136	126317	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.05	164	87574	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.54	188	151522	40.00	ug/ml	-0.35
64) Chrysene-d12	30.60	240	106944	40.00	ug/mL	-0.42
73) Perylene-d12	34.60	264	39840	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	43593	52.60	ug/mL	52.60%
3) Phenol-d5	8.41	99	71703	62.40	ug/mL	62.40%
18) Nitrobenzene-d5	10.72	82	75552	57.49	ug/mL	57.49%
36) 2-Fluorobiphenyl	16.22	172	134602	47.18	ug/mL	47.18%
54) 2,4,6-Tribromophenol	20.48	330	21167	50.47	ug/mL	50.47%
67) Terphenyl-d14	27.65	244	150199	54.35	ug/mL	54.35%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.62	74	25992	120.82	ug/ml	100
6) Phenol	8.45	94	100529	91.29	ug/mL	100
7) bis(2-Chloroethyl)ether	12.44	93	125480	105.34	ug/mL	99
8) 2-Chlorophenol	8.45	128	77924	86.47	ug/mL#	89
9) 1,3-Dichlorobenzene	8.86	146	88850	87.12	ug/mL	98
10) 1,4-Dichlorobenzene	9.09	146	90142	87.29	ug/mL	98
11) 1,2-Dichlorobenzene	9.49	146	86576	83.03	ug/mL	99
12) 2-Methylphenol	10.15	108	75232	85.29	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.11	45	118548	62.01	ug/mL#	81
14) 4-Methylphenol	10.65	108	79296	83.11	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.53	70	87737	91.57	ug/mL	94
16) Hexachloroethane	10.44	117	47246	76.35	ug/mL	93
19) Nitrobenzene	10.78	77	116413	98.06	ug/mL#	86
20) Isophorone	11.61	82	221062	104.76	ug/mL	99
21) 2-Nitrophenol	11.71	139	56797	84.29	ug/mL	91
22) 2,4-Dimethylphenol	10.65	107	97981	82.67	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.18	93	117962	82.25	ug/mL#	42
24) 2,4-Dichlorophenol	12.50	162	77661	79.49	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.65	180	82424	73.37	ug/mL	100
26) Naphthalene	12.83	128	262498	81.72	ug/mL#	92
27) 4-Chloroaniline	13.17	127	118867	79.65	ug/mL	99
28) Hexachlorobutadiene	13.33	225	47670	66.00	ug/mL	96
29) 4-Chloro-3-methylphenol	14.87	107	100652	81.09	ug/mL	90
30) 2-Chloronaphthalene	16.39	162	181668	70.65	ug/ml	100
31) 2-Methylnaphthalene	14.94	142	161698	68.97	ug/mL	98
33) Hexachlorocyclopentadiene	15.46	237	52969	66.60	ug/mL	100
34) 2,4,6-Trichlorophenol	15.93	196	72387	83.44	ug/mL	98
35) 2,4,5-Trichlorophenol	16.00	196	60973	67.01	ug/mL	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.87	65	103690	103.37	ug/mL#	100
38)	Dimethylphthalate	17.66	163	240471	93.49	ug/mL#	99
39)	Acenaphthylene	17.60	152	316138	71.86	ug/mL	99
40)	2,6-Dinitrotoluene	17.74	165	60631	100.28	ug/mL	92
41)	3-Nitroaniline	18.16	138	70580	78.65	ug/mL	92
42)	Acenaphthene	18.16	153	181405	66.74	ug/mL	99
43)	2,4-Dinitrophenol	18.47	184	34630	115.13	ug/mL	93
44)	4-Nitrophenol	18.95	109	33002	112.80	ug/mL	86
45)	Dibenzofuran	18.70	168	295374	76.70	ug/mL	95
46)	2,4-Dinitrotoluene	19.74	165	209002	74.07	ug/mL#	32
47)	Diethylphthalate	19.86	149	275990	87.53	ug/mL	98
48)	Fluorene	19.74	166	226899	76.60	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.94	204	107387	74.57	ug/mL	95
51)	4-Nitroaniline	20.03	138	48638	81.91	ug/mL	96
52)	4,6-Dinitro-2-methylphenol	20.11	198	45736	107.93	ug/mL	100
53)	n-Nitrosodiphenylamine	20.34	169	161028	106.67	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.40	77	388272	100.03	ug/ml	100
56)	4-Bromophenyl-phenylether	21.38	248	64383	79.79	ug/mL	94
57)	Hexachlorobenzene	21.37	284	73929	78.80	ug/mL#	70
58)	Pentachlorophenol	22.06	266	46630	84.35	ug/mL	97
59)	Phenanthrene	22.62	178	357765	85.38	ug/mL	99
60)	Anthracene	22.77	178	341982	82.98	ug/mLm	98
61)	Carbazole	23.41	167	335154	88.34	ug/ml	99
62)	Di-n-butylphthalate	24.91	149	529878	73.24	ug/mL	99
63)	Fluoranthene	26.20	202	352244	75.89	ug/mLm	91
65)	Benzidine	26.88	184	77859	84.53	ug/ml	100
66)	Pyrene	26.84	202	354638	81.96	ug/mL#	89
68)	Butylbenzylphthalate	29.42	149	231051	89.32	ug/mL	95
69)	Benzo[a]anthracene	30.58	228	370214	111.44	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	100778	110.96	ug/mL	98
71)	Chrysene	30.68	228	221302	75.99	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.39	149	333704	86.58	ug/mL	97
74)	Di-n-octylphthalate	33.30	149	471006	66.51	ug/mL	99
75)	Benzo[b]fluoranthene	33.63	252	222662	127.72	ug/mL	97
76)	Benzo[k]fluoranthene	33.71	252	100220	60.05	ug/mLm	94
77)	Benzo[a]pyrene	34.44	252	101126	85.01	ug/mLm	99
78)	Indeno[1,2,3-cd]pyrene	37.17	276	35858	71.73	ug/mL	88
79)	Dibenz[a,h]anthracene	37.28	278	36175	82.20	ug/mL	94
80)	Benzo[g,h,i]perylene	37.75	276	30352	69.77	ug/mLm	99

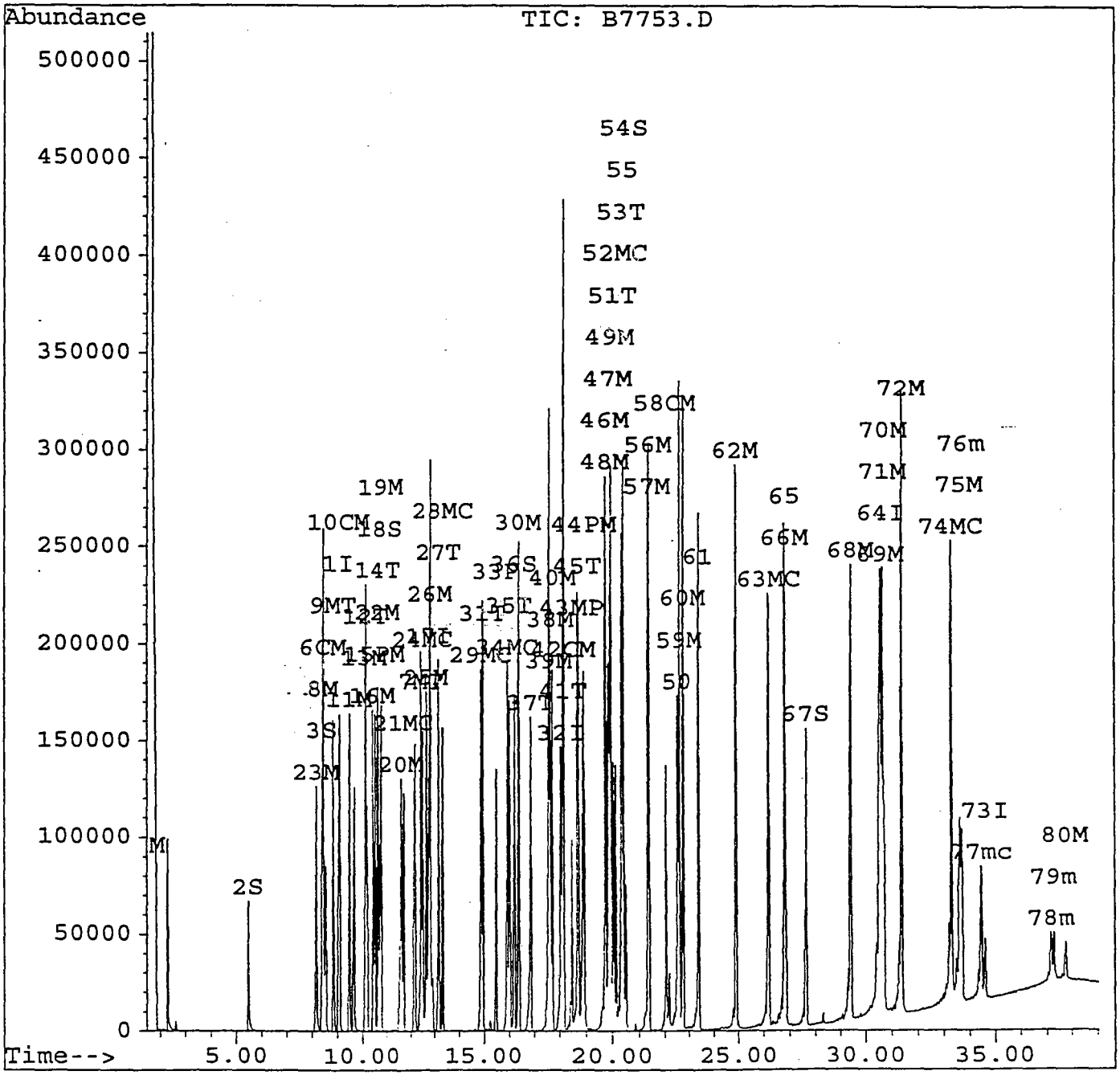
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d
Acq On : 30 May 95 11:27 am
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: May 31 9:32 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	27011	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.77	136	112346	40.00	ug/mL	-0.26
32) Acenaphthene-d10	18.05	164	74142	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.53	188	133454	40.00	ug/ml	-0.36
64) Chrysene-d12	30.59	240	102268	40.00	ug/mL	-0.43
73) Perylene-d12	34.61	264	30843	40.00	ug/mL	-0.44
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	40691	54.19	ug/mL	54.19%
3) Phenol-d5	8.41	99	68173	65.48	ug/mL	65.48%
18) Nitrobenzene-d5	10.73	82	65499	56.04	ug/mL	56.04%
36) 2-Fluorobiphenyl	16.22	172	116201	48.11	ug/mL	48.11%
54) 2,4,6-Tribromophenol	20.48	330	18886	51.13	ug/mL	51.13%
67) Terphenyl-d14	27.64	244	132840	50.26	ug/mL	50.26%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.64	74	44263	227.10	ug/ml	100
6) Phenol	8.47	94	145178	145.51	ug/mL	100
7) bis(2-Chloroethyl)ether	12.44	93	168732	156.34	ug/mL	98
8) 2-Chlorophenol	8.47	128	104043	127.43	ug/mL#	87
9) 1,3-Dichlorobenzene	8.86	146	113739	123.10	ug/mL	98
10) 1,4-Dichlorobenzene	9.11	146	118937	127.12	ug/mL	99
11) 1,2-Dichlorobenzene	9.49	146	112702	119.30	ug/mL	98
12) 2-Methylphenol	10.17	108	102718	128.54	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.11	45	150752	87.04	ug/mL#	79
14) 4-Methylphenol	10.67	108	116050	134.26	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.53	70	117037	134.82	ug/mL	99
16) Hexachloroethane	10.44	117	61265	109.28	ug/mL#	81
19) Nitrobenzene	10.78	77	137726	130.44	ug/mL#	79
20) Isophorone	11.63	82	286449	152.63	ug/mL	100
21) 2-Nitrophenol	11.73	139	75814	126.50	ug/mL	95
22) 2,4-Dimethylphenol	10.67	107	144674	137.24	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.18	93	151120	118.47	ug/mL#	42
24) 2,4-Dichlorophenol	12.52	162	100762	115.96	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.67	180	107106	107.19	ug/mL	98
26) Naphthalene	12.83	128	319371	111.79	ug/mL#	91
27) 4-Chloroaniline	13.17	127	156643	118.02	ug/mL	98
28) Hexachlorobutadiene	13.35	225	62689	97.58	ug/mL	98
29) 4-Chloro-3-methylphenol	14.89	107	133371	120.81	ug/mL#	86
30) 2-Chloronaphthalene	16.39	162	229152	100.19	ug/ml	100
31) 2-Methylnaphthalene	14.96	142	331843	159.13	ug/mL	97
33) Hexachlorocyclopentadiene	15.46	237	67420	100.13	ug/mL	97
34) 2,4,6-Trichlorophenol	15.93	196	100492	136.82	ug/mL	99
35) 2,4,5-Trichlorophenol	16.00	196	70403	91.40	ug/mL	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.87	65	125966	148.33	ug/mL#	100
38)	Dimethylphthalate	17.66	163	299887	137.71	ug/mL	99
39)	Acenaphthylene	17.61	152	381978	102.55	ug/mL	99
40)	2,6-Dinitrotoluene	17.74	165	69446	135.67	ug/mLm	93
41)	3-Nitroaniline	18.16	138	82189	108.18	ug/mL	95
42)	Acenaphthene	18.16	153	234884	102.07	ug/mL	99
43)	2,4-Dinitrophenol	18.49	184	47322	185.83	ug/mL	87
44)	4-Nitrophenol	18.96	109	39654	160.09	ug/mL	90
45)	Dibenzofuran	18.72	168	378169	115.99	ug/mL	98
46)	2,4-Dinitrotoluene	19.75	165	276442	115.72	ug/mL#	32
47)	Diethylphthalate	19.86	149	341020	127.75	ug/mL	99
48)	Fluorene	19.75	166	296520	118.24	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.94	204	135159	110.86	ug/mL	94
51)	4-Nitroaniline	20.06	138	60415	115.52	ug/mL	95
52)	4,6-Dinitro-2-methylphenol	20.13	198	56816	152.23	ug/mLm	100
53)	n-Nitrosodiphenylamine	20.35	169	209653	157.68	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.40	77	500723	146.47	ug/ml	100
56)	4-Bromophenyl-phenylether	21.39	248	79413	111.75	ug/mL	95
57)	Hexachlorobenzene	21.37	284	92449	111.89	ug/mL#	68
58)	Pentachlorophenol	22.06	266	59890	123.01	ug/mL	99
59)	Phenanthrene	22.62	178	457295	123.90	ug/mL	99
60)	Anthracene	22.78	178	408657	112.58	ug/mLm	99
61)	Carbazole	23.41	167	420878	125.96	ug/ml	99
62)	Di-n-butylphthalate	24.92	149	658579	103.35	ug/mL	100
63)	Fluoranthene	26.21	202	379190	92.76	ug/mLm	91
65)	Benzidine	26.87	184	131098	148.83	ug/mlm	100
66)	Pyrene	26.85	202	445627	107.70	ug/mL#	89
68)	Butylbenzylphthalate	29.43	149	293901	118.82	ug/mL	93
69)	Benzo[a]anthracene	30.57	228	469239	147.71	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.73	252	106370	122.47	ug/mL#	97
71)	Chrysene	30.67	228	211972	76.11	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.40	149	408257	110.77	ug/mL	98
74)	Di-n-octylphthalate	33.31	149	505170	92.14	ug/mL	100
75)	Benzo[b]fluoranthene	33.64	252	204971	151.87	ug/mLm	97
76)	Benzo[k]fluoranthene	33.72	252	88924	68.83	ug/mLm	96
77)	Benzo[a]pyrene	34.45	252	87415	94.92	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.18	276	48224	124.60	ug/mL#	81
79)	Dibenz[a,h]anthracene	37.31	278	47851	140.44	ug/mL	98
80)	Benzo[g,h,i]perylene	37.76	276	34423	102.21	ug/mLm	95

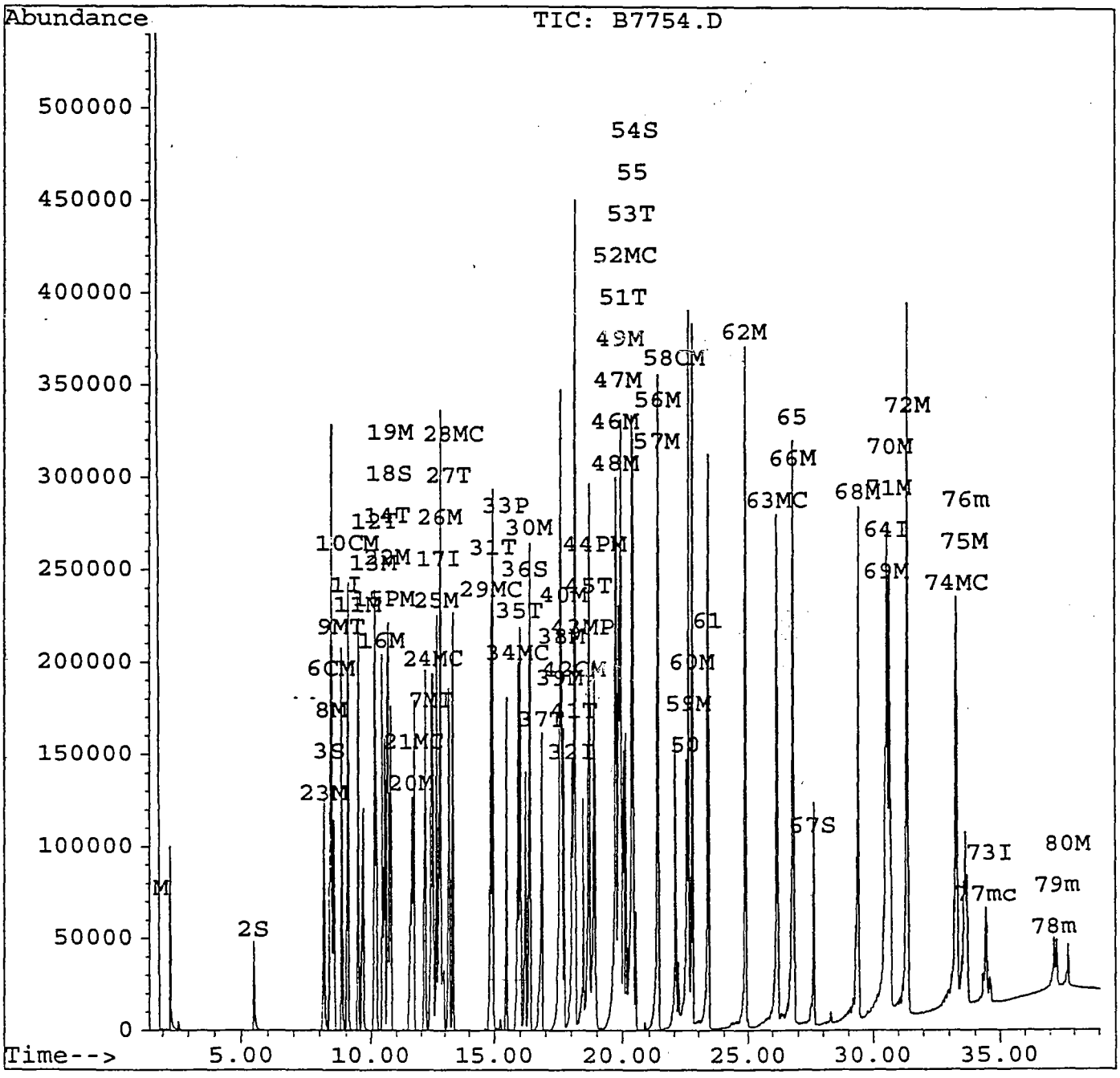
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d
Acq On : 30 May 95 12:20 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: May 31 9:49 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	29361	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.77	136	123075	40.00	ug/mL	-0.26
32) Acenaphthene-d10	18.07	164	86872	40.00	ug/mL	-0.31
50) Phenanthrene-d10	22.53	188	155037	40.00	ug/ml	-0.36
64) Chrysene-d12	30.60	240	82528	40.00	ug/mL	-0.43
73) Perylene-d12	34.62	264	32039	40.00	ug/mL	-0.43
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	38395	47.04	ug/mL	47.04%
3) Phenol-d5	8.43	99	66343	58.62	ug/mL	58.62%
18) Nitrobenzene-d5	10.73	82	67218	52.50	ug/mL	52.50%
36) 2-Fluorobiphenyl	16.22	172	126324	44.63	ug/mL	44.63%
54) 2,4,6-Tribromophenol	20.49	330	18970	44.21	ug/mL	44.21%
67) Terphenyl-d14	27.64	244	139748	65.52	ug/mL	65.52%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.64	74	70397	332.28	ug/ml	100
6) Phenol	8.47	94	169408	156.21	ug/mL	100
7) bis(2-Chloroethyl)ether	12.46	93	222301	189.49	ug/mL	91
8) 2-Chlorophenol	8.47	128	133653	150.59	ug/mL#	88
9) 1,3-Dichlorobenzene	8.86	146	152142	151.49	ug/mL	97
10) 1,4-Dichlorobenzene	9.11	146	154778	152.19	ug/mL	98
11) 1,2-Dichlorobenzene	9.49	146	147372	143.51	ug/mL	99
12) 2-Methylphenol	10.17	108	130214	149.90	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.13	45	221469	117.64	ug/mL	93
14) 4-Methylphenol	10.67	108	142777	151.95	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.55	70	151444	160.49	ug/mL	97
16) Hexachloroethane	10.44	117	81125	133.13	ug/mL#	82
19) Nitrobenzene	10.80	77	196043	169.49	ug/mL#	87
20) Isophorone	11.65	82	382084	185.84	ug/mL	99
21) 2-Nitrophenol	11.73	139	92995	141.64	ug/mL	89
22) 2,4-Dimethylphenol	10.67	107	178112	154.23	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.20	93	217251	155.46	ug/mL#	42
24) 2,4-Dichlorophenol	12.52	162	133269	140.00	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.67	180	144061	131.61	ug/mL	99
26) Naphthalene	12.83	128	453739	144.98	ug/mL#	91
27) 4-Chloroaniline	13.19	127	223903	153.98	ug/mL	98
28) Hexachlorobutadiene	13.35	225	86033	122.24	ug/mL	97
29) 4-Chloro-3-methylphenol	14.89	107	174950	144.66	ug/mL#	75
30) 2-Chloronaphthalene	16.39	162	331044	132.12	ug/ml	99
31) 2-Methylnaphthalene	14.97	142	438189	191.81	ug/mL	98
33) Hexachlorocyclopentadiene	15.49	237	102334	129.71	ug/mL	99
34) 2,4,6-Trichlorophenol	15.95	196	163412	189.89	ug/mL	97
35) 2,4,5-Trichlorophenol	16.03	196	76742	85.03	ug/mL	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.89	65	183241	184.15	ug/mL#	100
38)	Dimethylphthalate	17.67	163	428564	167.96	ug/mL	99
39)	Acenaphthylene	17.61	152	558058	127.87	ug/mL	99
40)	2,6-Dinitrotoluene	17.76	165	102561	171.00	ug/mLm	92
41)	3-Nitroaniline	18.17	138	96949	108.91	ug/mL	100
42)	Acenaphthene	18.17	153	341152	126.53	ug/mL	99
43)	2,4-Dinitrophenol	18.50	184	65640	219.99	ug/mL	88
44)	4-Nitrophenol	18.96	109	52458	180.75	ug/mL	93
45)	Dibenzofuran	18.73	168	512481	134.15	ug/mL	98
46)	2,4-Dinitrotoluene	19.77	165	393324	140.52	ug/mL#	35
47)	Diethylphthalate	19.89	149	442732	141.55	ug/mL	97
48)	Fluorene	19.77	166	424603	144.50	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.94	204	192605	134.83	ug/mL	98
51)	4-Nitroaniline	20.08	138	81046	133.39	ug/mL	90
52)	4,6-Dinitro-2-methylphenol	20.16	198	87159	201.02	ug/mLm	100
53)	n-Nitrosodiphenylamine	20.37	169	283832	183.75	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.41	77	660607	166.34	ug/ml	100
56)	4-Bromophenyl-phenylether	21.39	248	115508	139.91	ug/mLm	91
57)	Hexachlorobenzene	21.37	284	85494	89.06	ug/mLm	53
58)	Pentachlorophenol	22.09	266	81327	143.79	ug/mL	100
59)	Phenanthrene	22.63	178	609750	142.21	ug/mL	99
60)	Anthracene	22.78	178	501796	118.99	ug/mLm	99
61)	Carbazole	23.40	167	406913	104.82	ug/ml	98
62)	Di-n-butylphthalate	24.92	149	893793	120.74	ug/mL	99
63)	Fluoranthene	26.22	202	572007	120.45	ug/mLm	92
65)	Benzidine	26.87	184	187882	264.32	ug/ml	100
66)	Pyrene	26.85	202	612856	183.54	ug/mL#	89
68)	Butylbenzylphthalate	29.44	149	373168	186.95	ug/mL	91
69)	Benzo[a]anthracene	30.58	228	598348	233.40	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	113910	162.52	ug/mL	99
71)	Chrysene	30.68	228	218157	97.07	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.41	149	506955	170.44	ug/mL	96
74)	Di-n-octylphthalate	33.32	149	549407	96.47	ug/mL	99
75)	Benzo[b]fluoranthene	33.65	252	313299	223.47	ug/mLm	96
76)	Benzo[k]fluoranthene	33.65	252	159963	119.19	ug/mLm	96
77)	Benzo[a]pyrene	34.46	252	142747	149.22	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.20	276	63169	157.13	ug/mL	98
79)	Dibenz[a,h]anthracene	37.32	278	60387	170.62	ug/mL	99
80)	Benzo[g,h,i]perylene	37.76	276	49358	141.09	ug/mLm	94

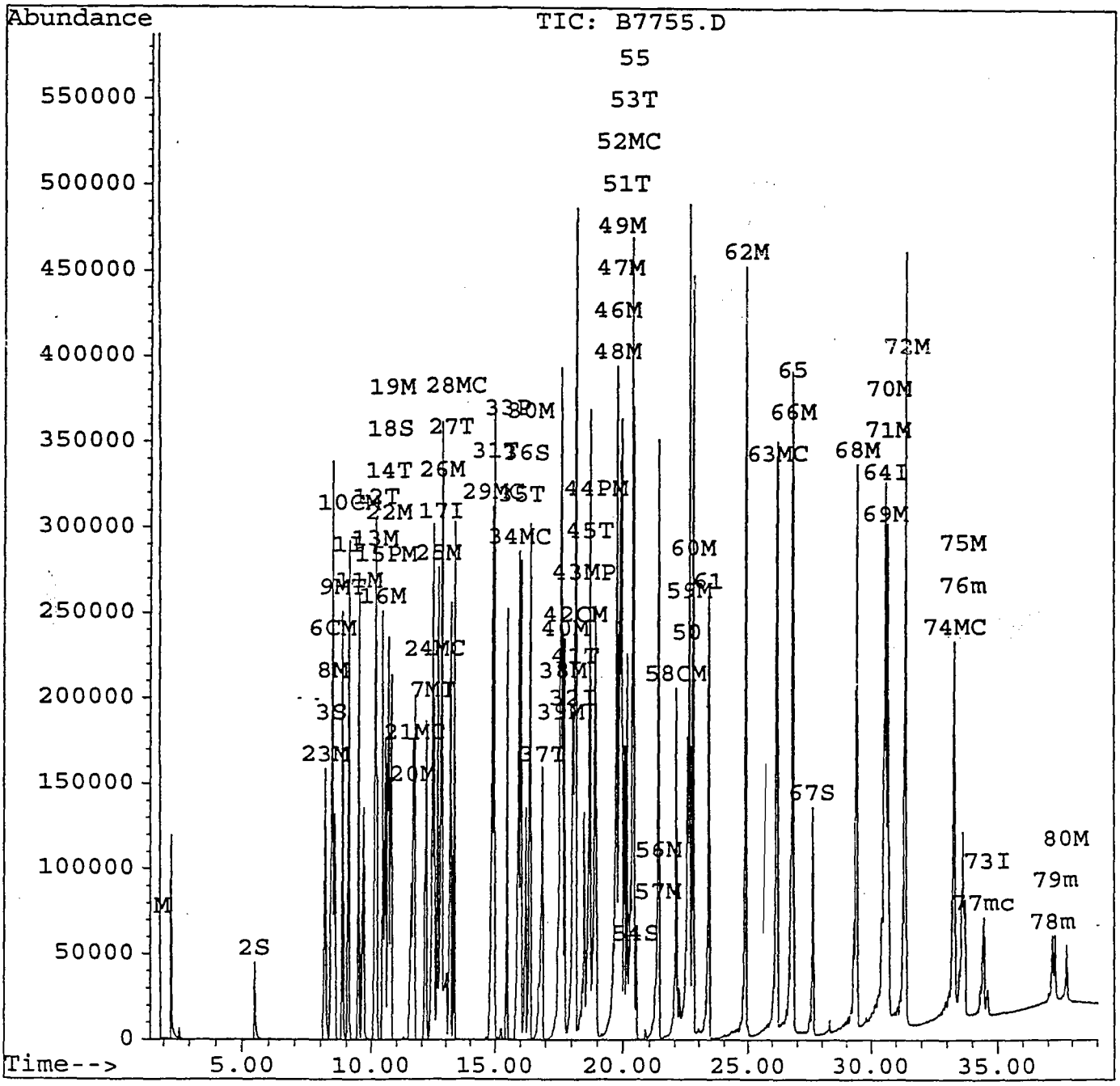
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d
Acq On : 30 May 95 1:12 pm
Sample : 160 STD..... Converted from RTE d
Misc :
Quant Time: May 31 9:52 1995

Vial: 6
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: B7774.D DFTPP Injection Date: 6/2/95

Instrument ID: ABNA DFTPP Injection Time: 0813

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	56.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.7
70	Less than 2.0% of mass 69	1.1 (1.7)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.8
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	8.0
275	10.0 - 30.0% of mass 198	24.9
365	Greater than 0.75% of mass 198	3.2
441	Present, but less than mass 443	11.6
442	40.0 - 110.0% of mass 198	80.5
443	15.0 - 24.0% of mass 442	16.1 (20.0)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

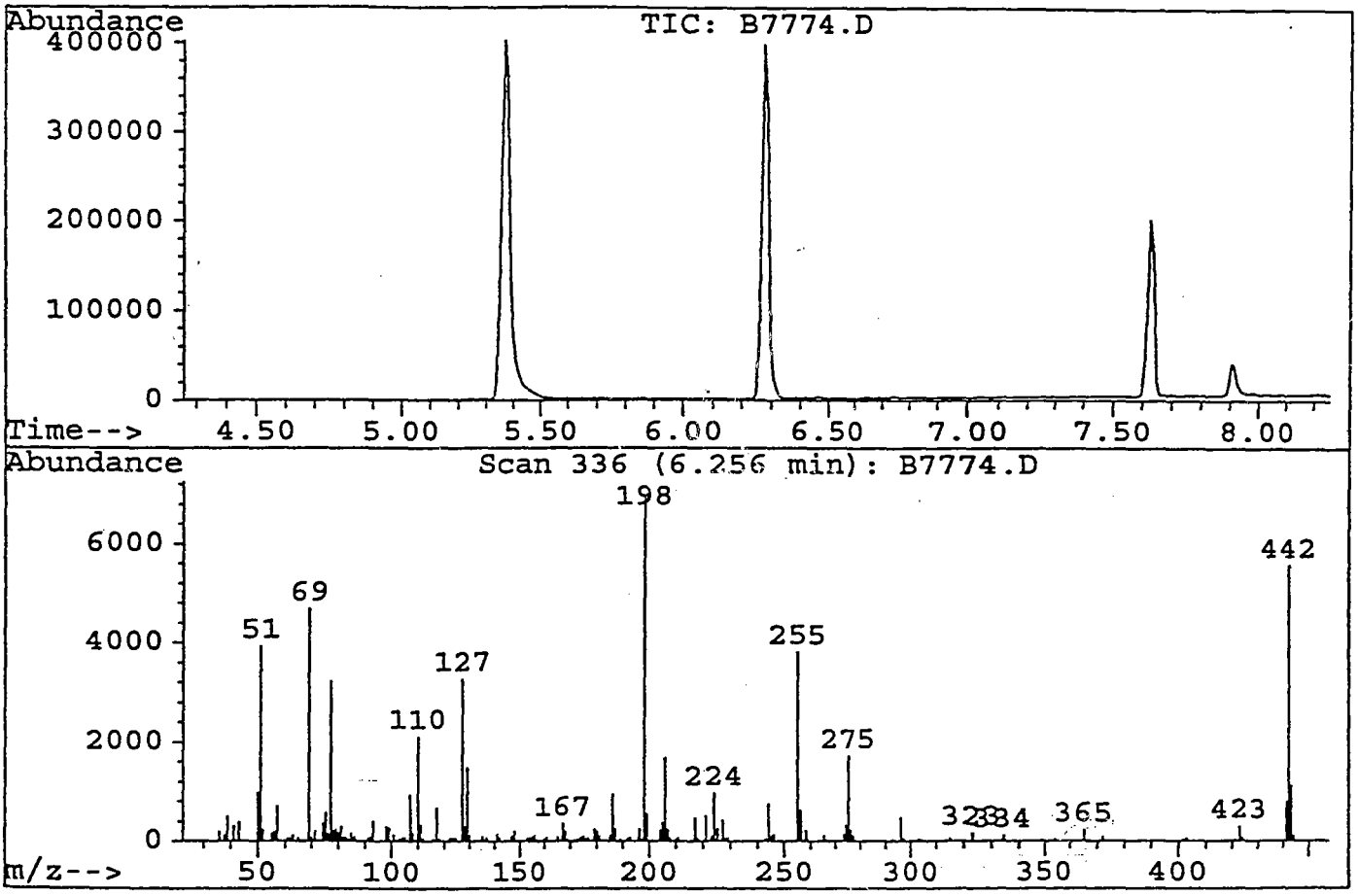
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B7775.D	6/2/95	0832
02	SBLK01	BLANK	B7776.D	6/2/95	0926
03	9523163B	9523163B	B7777.D	6/2/95	1018
04	9523165B	9523165B	B7778.D	6/2/95	1109
05	9523166B	9523166B	B7779.D	6/2/95	1302
06	9523167B	9523167B	B7780.D	6/2/95	1354
07	9523168B	9523168B	B7781.D	6/2/95	1445
08	9523169B	9523169B	B7782.D	6/2/95	1537
09	9523170B	9523170B	B7783.D	6/2/95	1628
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B7774.D
Acq On : 2 Jun 95 8:13 am
Sample : DFTPP..... Converted from RTE d
Misc :

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 336

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.8	3932	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	67.7	4683	PASS
70	69	0	2	1.7	79	PASS
127	198	40	60	47.3	3273	PASS
197	198	0	1	0.8	55	PASS
198	198	100	100	100.0	6918	PASS
199	198	5	9	8.0	551	PASS
275	198	10	30	24.9	1726	PASS
365	198	1	100	3.2	218	PASS
441	443	0	100	72.1	804	PASS
442	198	40	100	80.5	5572	PASS
443	442	17	23	20.0	1115	PASS

Scan 336 (6.256 min): B7774.D
D TPP..... Converted from RTE data file >B7774::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	207	60.95	66	78.05	217	92.95	407
37.90	133	61.95	60	78.95	240	95.95	29
39.10	495	62.95	127	80.05	182	97.95	286
41.05	309	65.05	76	80.95	297	99.05	263
43.05	379	68.95	4683	82.05	84	101.05	127
50.05	977	69.95	79	83.05	76	103.05	53
51.05	3932	71.05	218	84.05	36	104.05	65
52.05	225	74.05	350	85.05	162	104.95	91
55.05	151	75.05	574	86.05	85	107.05	939
56.05	195	75.95	154	91.15	67	108.05	162
57.05	708	77.05	3233	91.95	84	109.05	45

S an 336 (6.256 min): B7774.D
DrTPP..... Converted from RTE data file >B7774::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
110.05	2112	127.00	3273	153.00	50	171.90	43
111.05	328	128.00	288	153.90	70	173.00	47
112.05	68	129.00	1484	155.00	92	174.00	72
116.05	56	130.00	132	156.10	129	175.10	120
117.05	675	131.90	26	157.10	38	176.00	48
117.95	48	135.00	107	159.90	55	176.90	80
122.00	66	136.90	76	161.00	88	179.00	246
122.80	82	141.00	150	165.10	88	180.00	187
123.00	82	142.00	83	167.00	353	181.00	101
124.00	76	147.00	97	168.00	197	185.00	125
124.90	58	147.90	198	169.00	38	186.10	957

Scan 336 (6.256 min): B7774.D
D TPP..... Converted from RTE data file >B7774::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
187.10	237	204.95	386	225.05	255	258.85	35
189.00	56	206.05	1695	226.95	417	264.95	115
191.90	62	207.05	236	227.95	52	265.95	33
193.00	75	208.05	74	228.95	74	273.05	139
196.00	254	210.05	45	243.05	50	274.05	312
196.80	55	210.85	77	244.05	750	275.05	1726
198.00	6918	216.95	468	245.05	113	276.05	227
199.00	551	217.95	62	246.05	137	277.05	118
199.90	36	221.05	525	255.05	3822	292.90	37
201.25	38	223.05	97	256.05	617	296.00	471
203.95	230	224.05	973	258.05	219	297.00	60

S :an 336 (6.256 min): B7774.D
DrTPP..... Converted from RTE data file >B7774::D5

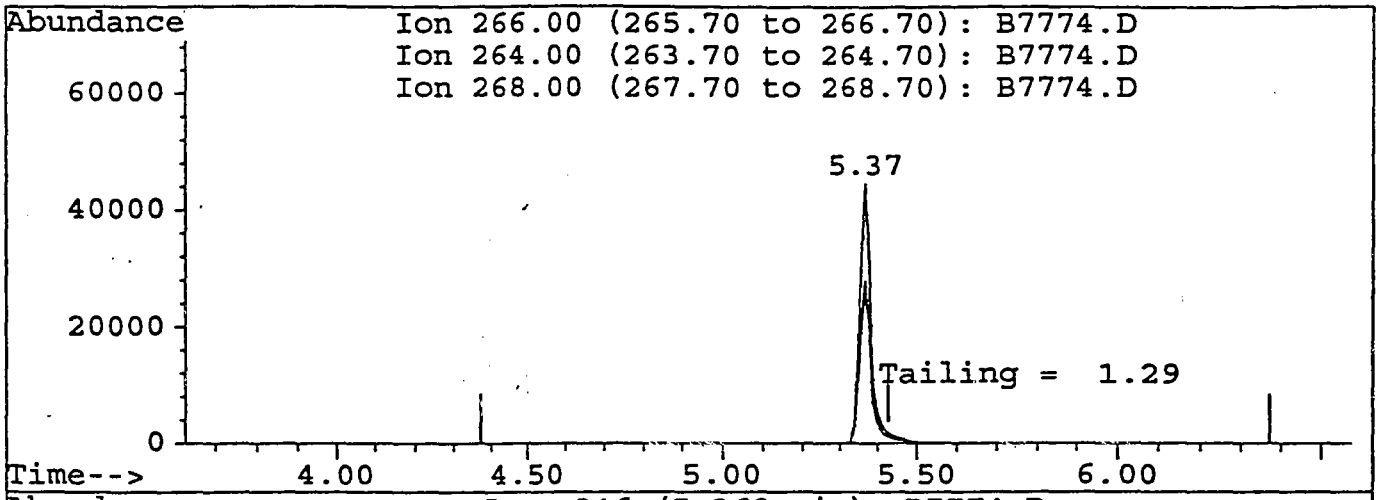
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.00	57	423.95	60				
315.00	58	441.00	804				
323.00	163	442.00	5572				
334.10	111	443.00	1115				
354.00	51	444.00	110				
364.95	218						
372.05	91						
401.85	37						
402.95	65						
420.95	41						
423.05	295						

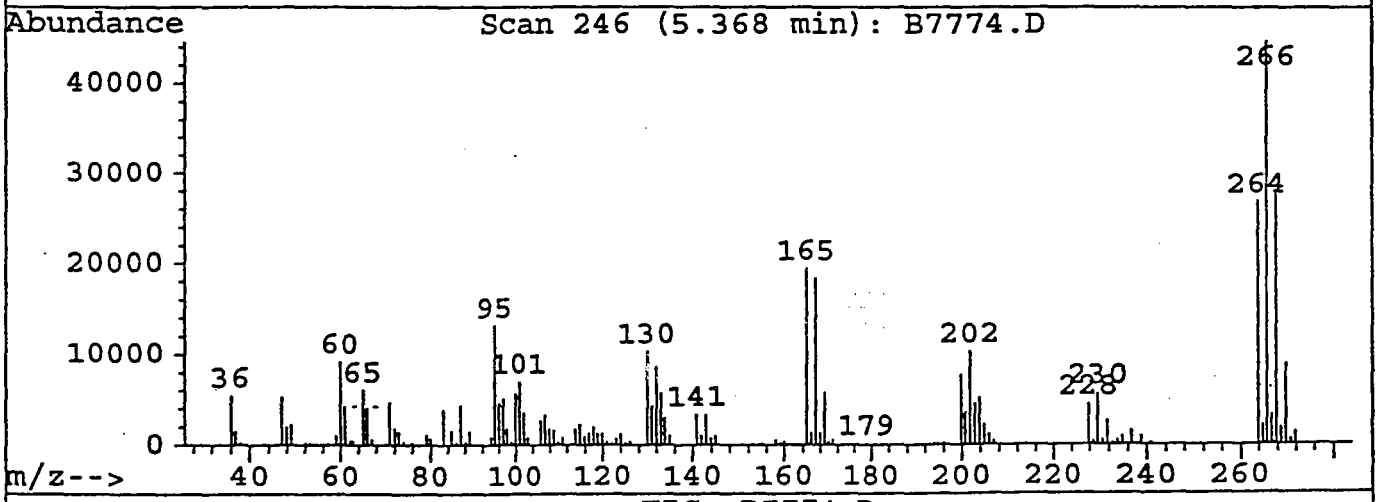
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7774.D
Acq On : 2 Jun 95 8:13 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Jun 2 7:27 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7774.D

(1) Pentachlorophenol (CM)

5.37min 291.05ug/mL
response 96136

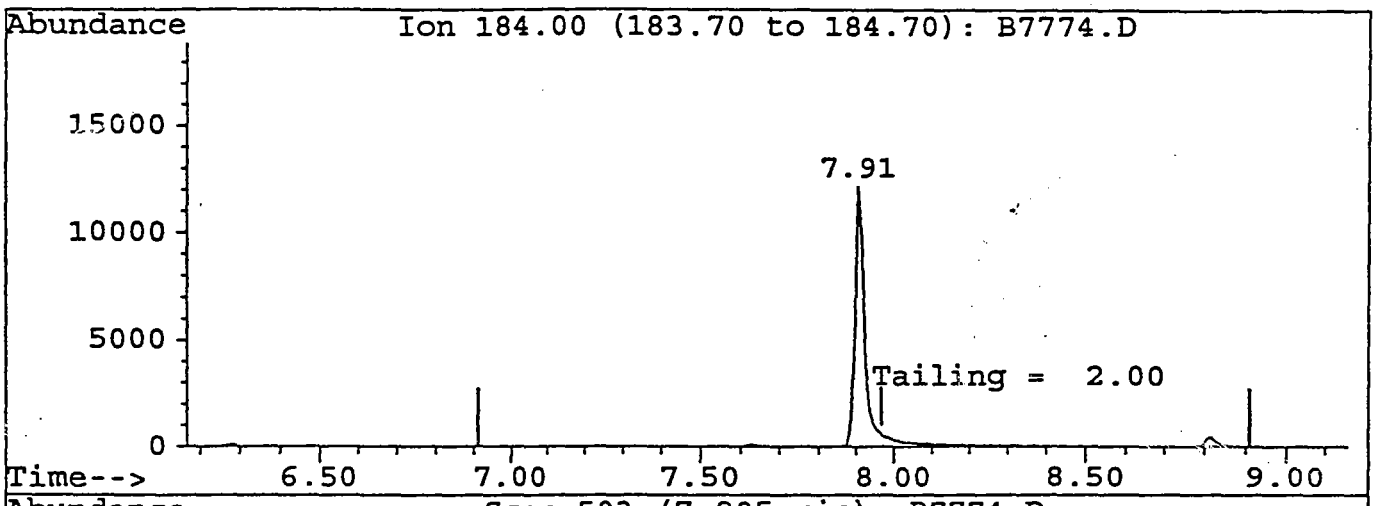
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	60.12
268.00	64.70	62.58
0.00	0.00	0.00

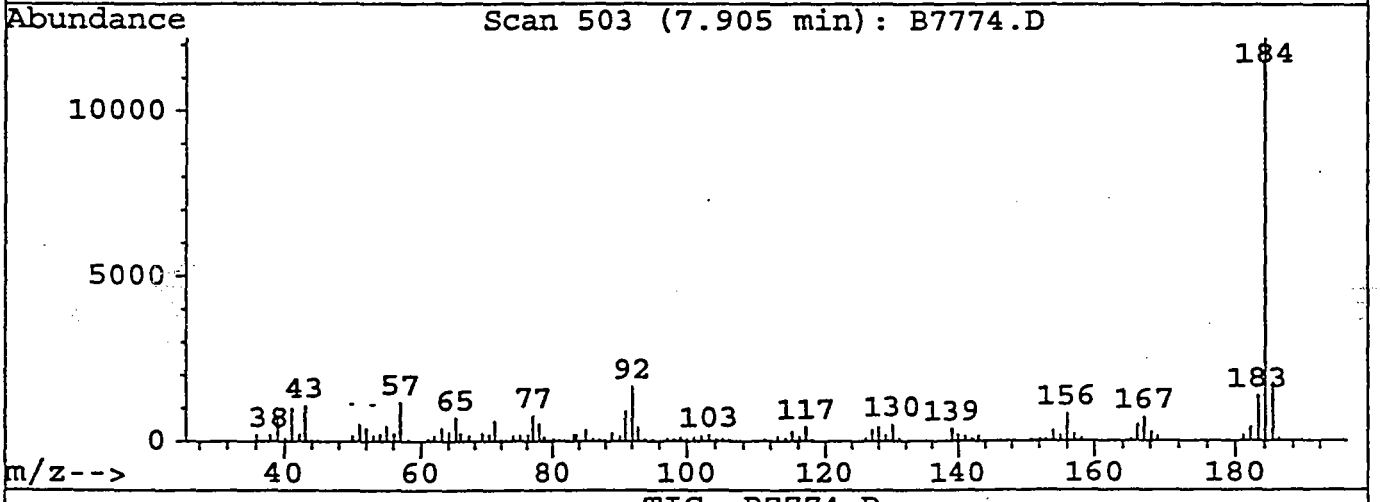
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7774.D
Acq On : 2 Jun 95 8:13 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Jun 2 7:27 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7774.D

(2) Benzidine
7.91min 77.00ug/ml
response 23656

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

158

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Instrument ID: ABNA Calibration Date: 6/2/95 Time: 0832

Lab File ID: B7775.D Init. Calib. Date(s): 6/2/95 1/0/00

Init. Calib. Times: 0832 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.578	0.656		-13.5	
bis(2-Chloroethyl)ether	2.026	2.049		-1.1	
1,3-Dichlorobenzene	1.385	1.463		-5.6	
1,4-Dichlorobenzene	1.429	1.487		-4.1	30.0
1,2-Dichlorobenzene	1.357	1.422		-4.8	
bis(2-chloroisopropyl)ether	1.868	1.809		3.2	
N-Nitroso-Di-n-propylamine	1.346	1.364	0.050	-1.3	
Hexachloroethane	0.737	0.736		0.1	
Nitrobenzene	0.424	0.441		-4.0	
Isophorone	0.893	0.841		5.8	
bis(2-Chloroethoxy)methane	0.456	0.472		-3.5	
1,2,4-Trichlorobenzene	0.317	0.322		-1.6	
Naphthalene	0.979	1.008		-3.0	
Hexachlorobutadiene	0.185	0.185		0.0	30.0
Hexachlorocyclopentadiene	0.278	0.258	0.050	7.2	
2-Chloronaphthalene	0.696	0.705		-1.3	
Dimethylphthalate	1.299	1.255		3.4	
Acenaphthylene	1.704	1.705		-0.1	
2,6-Dinitrotoluene	0.310	0.328		-5.8	
Acenaphthene	1.025	1.026		-0.1	30.0
2,4-Dinitrotoluene	1.167	1.129		3.3	
Diethylphthalate	1.443	1.464		-1.5	
Fluorene	1.259	1.223		2.9	
4-Chlorophenyl-phenylether	0.596	0.592		0.7	
n-Nitrosodiphenylamine	0.508	0.501		1.4	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.206	0.203		1.5	
Hexachlorobenzene	0.215	0.212		1.4	
Phenanthrene	1.094	1.081		1.2	
Anthracene	1.009	1.090		-8.0	
Di-n-butylphthalate	1.606	1.676		-4.4	
Fluoranthene	1.035	1.220		-17.9	30.0
Benzidine	0.437	0.420		3.9	
Pyrene	1.502	1.565		-4.2	
Butylbenzylphthalate	0.962	0.975		-1.4	
Benzo[a]anthracene	1.516	1.264		16.6	
3,3'-Dichlorobenzidine	0.386	0.350		9.3	

All other compounds must meet a minimum RRF of 0.010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: 6/2/95 Time: 0832

Lab File ID: B7775.D Init. Calib. Date(s): 6/2/95 1/0/00

Init. Calib. Times: 0832 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chrysene	0.843	0.908		-7.7	
bis(2-Ethylhexyl)phthalate	1.364	1.347		1.2	
Di-n-octylphthalate	5.094	4.313		15.3	30.0
Benzo[b]fluoranthene	2.467	2.398		2.8	
Benzo[k]fluoranthene	1.190	1.357		-14.0	
Benzo[a]pyrene	1.227	1.376		-12.1	30.0
Indeno[1,2,3-cd]pyrene	0.452	0.390		13.7	
Dibenz[a,h]anthracene	0.436	0.417		4.4	
Benzo[g,h,i]perylene	0.356	0.390		-9.6	
Nitrobenzene-d5	0.456	0.448		1.8	
2-Fluorobiphenyl	1.200	1.166		2.8	
Terphenyl-d14	1.062	1.097		-3.3	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7775.D Vial: 2
Acq On : 2 Jun 95 8:32 am Operator: SCOTTV SUI
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.21
	S	2-Fluorophenol	1.131	1.087	3.9	121	0.21
	S	Phenol-d5	1.873	1.765	5.7	122	0.17
4	M	N-nitrosodimethylamine	0.578	0.656	-13.5	107	-0.08
5		Pyridine	0.428	0.000#	100.0#	0#	-1.62#
	CM	Phenol	1.668	1.669	-0.1	117	0.17
7	MT	bis(2-Chloroethyl)ether	2.026	2.049	-1.2	119	0.21
8	M	2-Chlorophenol	1.269	1.296	-2.1	124	0.19
	MT	1,3-Dichlorobenzene	1.385	1.463	-5.6	123	0.21
	CM	1,4-Dichlorobenzene	1.429	1.487	-4.1	120	0.21
11	M	1,2-Dichlorobenzene	1.357	1.422	-4.8	123	0.21
	T	2-Methylphenol	1.204	1.268	-5.3	129	0.69#
	M	bis(2-chloroisopropyl)ether	1.868	1.809	3.2	124	0.23
14	T	4-Methylphenol	1.322	1.268	4.0	115	0.19
15	PM	N-Nitroso-Di-n-propylamine	1.346	1.364	-1.4	128	0.21
	M	Hexachloroethane	0.737	0.736	0.2	117	0.23
17	I	Naphthalene-d8	1.000	1.000	0.0	115	0.23
	S	Nitrobenzene-d5	0.456	0.448	1.8	118	0.21
	M	Nitrobenzene	0.424	0.441	-4.0	116	0.21
20	M	Isophorone	0.893	0.841	5.9	119	0.21
	MC	2-Nitrophenol	0.210	0.198	5.8	114	0.23
2	M	2,4-Dimethylphenol	0.394	0.380	3.5	115	0.19
23	M	bis(2-Chloroethoxy)methane	0.456	0.472	-3.4	119	0.21
24	MC	2,4-Dichlorophenol	0.298	0.294	1.2	116	0.23
5	M	1,2,4-Trichlorobenzene	0.317	0.322	-1.6	115	0.21
26	M	Naphthalene	0.979	1.008	-3.0	121	0.23
27	T	4-Chloroaniline	0.463	0.461	0.4	114	0.23
8	MC	Hexachlorobutadiene	0.185	0.185	0.1	115	0.23
9	MC	4-Chloro-3-methylphenol	0.384	0.363	5.4	109	0.21
30	M	2-Chloronaphthalene	0.696	0.705	-1.3	116	0.25
1	T	2-Methylnaphthalene	0.786	0.720	8.3	118	0.23
32	I	Acenaphthene-d10	1.000	1.000	0.0	118	0.27
33	P	Hexachlorocyclopentadiene	0.278	0.258	7.1	118	0.23
4	MC	2,4,6-Trichlorophenol	0.415	0.348	16.3	108	0.25
5	T	2,4,5-Trichlorophenol	0.324	0.367	-13.3	117	0.23
36	S	2-Fluorobiphenyl	1.200	1.166	2.9	117	0.25
	T	2-Nitroaniline	0.549	0.542	1.4	111	0.25
6	M	Dimethylphthalate	1.299	1.255	3.4	115	0.25
39	M	Acenaphthylene	1.704	1.705	-0.0	118	0.27
0	M	2,6-Dinitrotoluene	0.310	0.328	-5.8	119	0.27

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7775.D Vial: 2
Acq On : 2 Jun 95 8:32 am Operator: SCOTTV SU
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	T	3-Nitroaniline	0.346	0.378	-9.3	123	0.27
42	CM	Acenaphthene	1.025	1.026	-0.1	119	0.27
43	MP	2,4-Dinitrophenol	0.172	0.136	21.0	104	0.27
44	PM	4-Nitrophenol	0.166	0.169	-2.0	119	0.25
45	T	Dibenzofuran	1.609	1.639	-1.9	116	0.27
46	M	2,4-Dinitrotoluene	1.167	1.129	3.2	117	0.29
47	M	Diethylphthalate	1.443	1.464	-1.5	119	0.25
48	M	Fluorene	1.259	1.223	2.8	118	0.29
49	M	4-Chlorophenyl-phenylether	0.596	0.592	0.8	119	0.27
50		Phenanthrene-d10	1.000	1.000	0.0	125	0.31
51	T	4-Nitroaniline	0.166	0.204	-22.7	120	0.27
52	MC	4,6-Dinitro-2-methylphenol	0.132	0.110	16.8	106	0.27
53	T	n-Nitrosodiphenylamine	0.508	0.501	1.5	118	0.29
54	S	2,4,6-Tribromophenol	0.108	0.100	7.7	118	0.29
55		1,2-Diphenylhydrazine (as a	1.211	1.192	1.6	114	0.29
56	M	4-Bromophenyl-phenylether	0.206	0.203	1.7	115	0.29
57	M	Hexachlorobenzene	0.215	0.212	1.2	117	0.29
58	CM	Pentachlorophenol	0.137	0.150	-9.1	141	0.29
59	M	Phenanthrene	1.094	1.081	1.2	124	0.46
60	M	Anthracene	1.009	1.090	-8.1	133	0.31
61		Carbazole	0.944	1.040	-10.2	135	0.31
62	M	Di-n-butylphthalate	1.606	1.676	-4.3	128	0.29
63	MC	Fluoranthene	1.035	1.220	-17.9	136	0.98#
64	I	Chrysene-d12	1.000	1.000	0.0	109	0.38
65		Benzidine	0.437	0.420	3.9	115	-4.05#
66	M	Pyrene	1.502	1.565	-4.2	134	0.34
67	S	Terphenyl-d14	1.062	1.097	-3.3	136	0.32
68	M	Butylbenzylphthalate	0.962	0.975	-1.4	126	0.32
69	M	Benzo[a]anthracene	1.516	1.264	16.6	103	0.36
70	M	3,3'-Dichlorobenzidine	0.386	0.350	9.4	108	0.34
71	M	Chrysene	0.843	0.908	-7.7	129	0.36
72	M	bis(2-Ethylhexyl)phthalate	1.364	1.347	1.3	118	0.32
73	I	Perylene-d12	1.000	1.000	0.0	122	0.36
74	MC	Di-n-octylphthalate	5.094	4.313	15.3	112	0.32
75	M	Benzo[b]fluoranthene	2.467	2.398	2.8	116	0.43
76	m	Benzo[k]fluoranthene	1.190	1.357	-14.0	150	0.36
77	mc	Benzo[a]pyrene	1.227	1.376	-12.2	124	-0.45
78	m	Indeno[1,2,3-cd]pyrene	0.452	0.390	13.9	114	0.32
79	m	Dibenz[a,h]anthracene	0.436	0.417	4.2	140	0.32

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7775.D Vial: 2
Acq On : 2 Jun 95 8:32 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0.356	0.390	-9.5	146	-0.26
81		1-Methyl naphthalene	0.000	0.000#	0.0	37#	0.21
82		7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	120	0.36
83		Quinoline	0.000	0.000#	0.0	114	0.23
84		Thiophenol	0.000	0.000#	0.0	158#	0.21
85		4-Methyl chrysene	0.000	0.000#	0.0	130	0.38
86		Dibenz(a,j)acridine	0.000	0.000#	0.0	145	0.32
87		Indene	0.000	0.000#	0.0	118	0.21

Quantitation Report

Data File : c:\hpchem\1\data2\b7775.d
Acq On : 2 Jun 95 8:32 am
Sample : 50 STD.....
Converted from RTE d
Misc :
Quant Time: Jun 2 15:04 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.24	152	35241	40.00	ug/mL	0.21
17) Naphthalene-d8	12.98	136	142989	40.00	ug/mL	0.23
32) Acenaphthene-d10	18.32	164	96841	40.00	ug/mL	0.27
50) Phenanthrene-d10	22.82	188	165181	40.00	ug/ml	0.31
64) Chrysene-d12	30.96	240	128800	40.00	ug/mL	0.38
73) Perylene-d12	34.95	264	55340	40.00	ug/mL	0.36
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.68	112	47891	48.04	ug/mL	48.04%
3) Phenol-d5	8.57	99	77749	47.13	ug/mL	47.13%
18) Nitrobenzene-d5	10.92	82	80012	49.11	ug/mL	49.11%
36) 2-Fluorobiphenyl	16.45	172	141091	48.57	ug/mL	48.57%
54) 2,4,6-Tribromophenol	20.74	330	20590	46.16	ug/mL	46.16%
67) Terphenyl-d14	27.97	244	176631	51.67	ug/mL	51.67%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.87	74	28905	56.74	ug/mlm	100
6) Phenol	8.61	94	73518	50.04	ug/mL	100
7) bis(2-Chloroethyl)ether	12.63	93	90267	50.58	ug/mL	99
8) 2-Chlorophenol	8.65	128	57111	51.07	ug/mL	95
9) 1,3-Dichlorobenzene	9.05	146	64432	52.80	ug/mL	96
10) 1,4-Dichlorobenzene	9.30	146	65515	52.04	ug/mL	98
11) 1,2-Dichlorobenzene	9.69	146	62658	52.39	ug/mL	98
12) 2-Methylphenol	10.82	108	55866	52.65	ug/mL	64
13) bis(2-chloroisopropyl)ethe	10.32	45	79677	48.40	ug/mL#	8
14) 4-Methylphenol	10.82	108	55866	47.98	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.71	70	60100	50.69	ug/mL	93
16) Hexachloroethane	10.65	117	32435	49.92	ug/mL	98
19) Nitrobenzene	10.98	77	78769	51.98	ug/mL#	84
20) Isophorone	11.79	82	150228	47.04	ug/mL	99
21) 2-Nitrophenol	11.92	139	35429	47.11	ug/mL	94
22) 2,4-Dimethylphenol	10.82	107	67913	48.27	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.38	93	84287	51.70	ug/mL#	42
24) 2,4-Dichlorophenol	12.71	162	52636	49.39	ug/mL	96
25) 1,2,4-Trichlorobenzene	12.86	180	57573	50.82	ug/mL	100
26) Naphthalene	13.04	128	180186	51.50	ug/mL#	92
27) 4-Chloroaniline	13.38	127	82419	49.79	ug/mL	99
28) Hexachlorobutadiene	13.56	225	33033	49.94	ug/mL	98
29) 4-Chloro-3-methylphenol	15.08	107	64916	47.31	ug/mL	95
30) 2-Chloronaphthalene	16.62	162	126088	50.67	ug/ml	96
31) 2-Methylnaphthalene	15.18	142	128748	45.84	ug/mL	100
33) Hexachlorocyclopentadiene	15.70	237	31286	46.43	ug/mLm	96
34) 2,4,6-Trichlorophenol	16.16	196	42113	41.87	ug/mL	97
35) 2,4,5-Trichlorophenol	16.23	196	44463	56.67	ug/mL	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7775.d Vial: 2 164
Acq On : 2 Jun 95 8:32 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 2 15:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.10	65	65575	49.31	ug/mL#	100
38)	Dimethylphthalate	17.87	163	151919	48.29	ug/mL	100
39)	Acenaphthylene	17.85	152	206429	50.02	ug/mL	99
40)	2,6-Dinitrotoluene	17.97	165	39739	52.91	ug/mL	86
41)	3-Nitroaniline	18.39	138	45780	54.67	ug/mL	90
42)	Acenaphthene	18.41	153	124196	50.04	ug/mL	99
43)	2,4-Dinitrophenol	18.72	184	16464	39.50	ug/mLm	79
44)	4-Nitrophenol	19.18	109	20450	50.99	ug/mL	81
45)	Dibenzofuran	18.97	168	198447	50.96	ug/mL	100
46)	2,4-Dinitrotoluene	20.01	165	136716	48.38	ug/mL#	33
47)	Diethylphthalate	20.11	149	177198	50.73	ug/mL	100
48)	Fluorene	20.01	166	148055	48.58	ug/mL	100
49)	4-Chlorophenyl-phenylether	20.18	204	71622	49.61	ug/mL	99
51)	4-Nitroaniline	20.26	138	42113	61.35	ug/mLm	98
52)	4,6-Dinitro-2-methylphenol	20.36	198	22651	41.62	ug/mL	100
53)	n-Nitrosodiphenylamine	20.61	169	103353	49.24	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.67	77	246048	49.19	ug/ml	100
56)	4-Bromophenyl-phenylether	21.65	248	41819	49.14	ug/mL	91
57)	Hexachlorobenzene	21.63	284	43790	49.39	ug/mL#	85
58)	Pentachlorophenol	22.34	266	30978	54.56	ug/mL	98
59)	Phenanthrene	23.06	178	223159	49.38	ug/mL	99
60)	Anthracene	23.06	178	225140	54.03	ug/mL	99
61)	Carbazole	23.69	167	214785	55.11	ug/ml	99
62)	Di-n-butylphthalate	25.19	149	346103	52.17	ug/mL	99
63)	Fluoranthene	27.18	202	251906	58.94	ug/mL#	83
65)	Benzidine	22.82	184	67661	48.04	ug/mlm	100
66)	Pyrene	27.18	202	251922	52.11	ug/mL	96
68)	Butylbenzylphthalate	29.74	149	156925	50.68	ug/mL	97
69)	Benzo[a]anthracene	30.92	228	203559	41.71	ug/mLm	99
70)	3,3'-Dichlorobenzidine	31.05	252	56357	45.30	ug/mL	99
71)	Chrysene	31.01	228	146118	53.84	ug/mLm	97
72)	bis(2-Ethylhexyl)phthalate	31.71	149	216823	49.37	ug/mL	98
74)	Di-n-octylphthalate	33.62	149	298345	42.33	ug/mL	99
75)	Benzo[b]fluoranthene	34.06	252	165868	48.60	ug/mLm	98
76)	Benzo[k]fluoranthene	34.06	252	93872	57.01	ug/mLm	95
77)	Benzo[a]pyrene	33.99	252	95199	56.10	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.48	276	26945	43.05	ug/mL#	80
79)	Dibenz[a,h]anthracene	37.60	278	28864	47.89	ug/mL#	92
80)	Benzo[g,h,i]perylene	37.48	276	26945	54.76	ug/mL	94

(#) = qualifier out of range (m) = manual integration

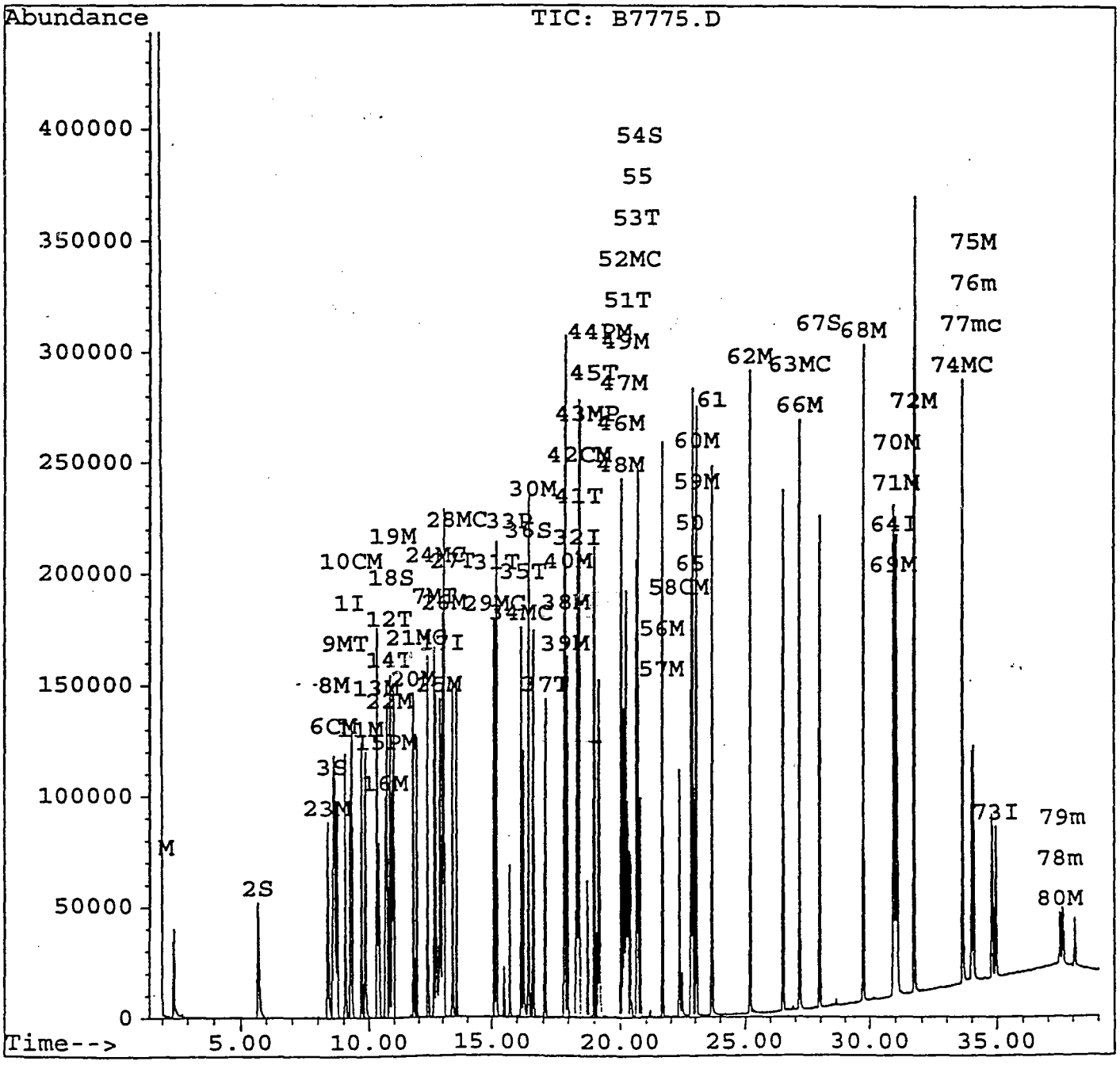
Quantitation Report

Data File : c:\hpchem\1\data2\b7775.d
Acq On : 2 Jun 95 8:32 am
Sample : 50 STD.....
Misc :
Quant Time: Jun 2 15:04 1995

Converted from RTE d

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

166

Lab Name : EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: B7802.D DFTPP Injection Date: 6/3/95

Instrument ID: ABNA DFTPP Injection Time: 0953

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.9
365	Greater than 0.75% of mass 198	2.8
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.0 (19.8)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B7803.D	6/3/95	1013
02	SBLK01	BLANK1	B7804.D	6/3/95	1104
03	9521072B	9521072B	B7805.D	6/3/95	1154
04	9521073B	9521073B	B7806.D	6/3/95	1244
05	SBLK02	BLANK2	B7807.D	6/3/95	1334
06	9522265B	9522265B	B7808.D	6/3/95	1424
07	9522845B	9522845B	B7809.D	6/3/95	1515
08	SBLK03	BLANK3	B7810.D	6/3/95	1606
09	9523339B	9523339B	B7811.D	6/3/95	1656
10	9523341B	9523341B	B7812.D	6/3/95	1747
11	9523342B	9523342B	B7813.D	6/3/95	1838
12	9523343B	9523343B	B7814.D	6/3/95	1928
13	9523530B	9523530B	B7815.D	6/3/95	2018
14	9523531B	9523531B	B7816.D	6/3/95	2108
15	9523533B	9523533B	B7817.D	6/3/95	2158
16	9523534B	9523534B	B7818.D	6/3/95	2248
17	9523535B	9523535B	B7819.D	6/3/95	2337
18	9523536B	9523536B	B7820.D	6/4/95	0027
19	SBLK04	BLANK4	B7821.D	6/4/95	0117
20	9523789B	9523789B	B7822.D	6/4/95	0206
21	9523792B	9523792B	B7823.D	6/4/95	0256
22	9523787B	9523787B	B7824.D	6/4/95	0346

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: B7802.D DFTPP Injection Date: 6/3/95

Instrument ID: ABNA DFTPP Injection Time: 0953

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.9
365	Greater than 0.75% of mass 198	2.8
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.0 (19.8)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

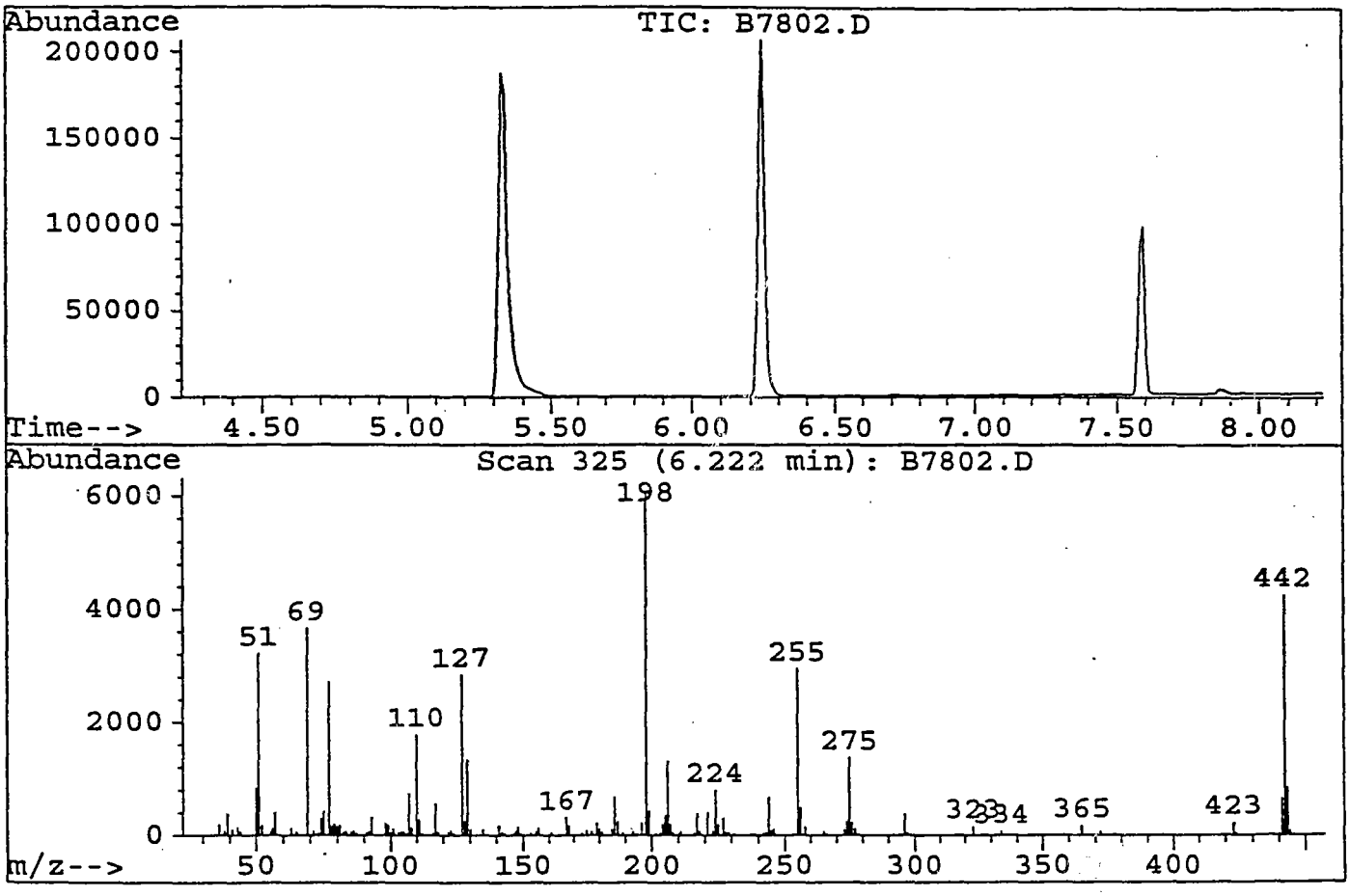
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SBLK05	BLANK5	B7825.D	6/4/95	0435
02	22654MS	22654MS	B7826.D	6/4/95	0525
03	22654MSD	22654MSD	B7827.D	6/4/95	0615
04	22659MS	22659MS	B7828.D	6/4/95	0704
05	22659MSD	22659MSD	B7829.D	6/4/95	0754
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B7802.D
Acq On : 3 Jun 95 9:53 am
Sample : DFTPP..... Converted from RTE d
Misc :

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan:. 325

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.6	3226	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	60.9	3667	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	47.3	2846	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	6021	PASS
199	198	5	9	7.2	434	PASS
275	198	10	30	22.9	1379	PASS
365	198	1	100	2.8	170	PASS
441	443	0	100	79.3	669	PASS
442	198	40	100	70.8	4261	PASS
443	442	17	23	19.8	844	PASS

an 325 (6.222 min): B7802.D
TPP..... Converted from RTE data file >B7802::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	195	57.05	413	79.95	160	99.05	186
37.90	74	63.05	134	81.05	193	100.05	51
39.10	386	65.05	66	81.95	54	100.95	118
41.05	94	68.95	3667	82.95	76	102.95	50
43.05	140	71.15	74	85.05	67	103.95	70
43.95	71	73.05	38	85.95	78	105.05	69
50.05	844	74.05	294	87.05	29	106.15	34
51.05	3226	74.95	427	90.95	51	107.05	746
52.05	179	77.05	2720	92.05	75	107.95	136
55.15	74	78.05	169	92.95	316	109.95	1785
55.95	133	79.05	215	98.05	224	111.05	275

:a 325 (6.222 min): B7802.D
'T P..... Converted from RTE data file >B7802::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
11.85	36	134.90	114	160.00	39	186.00	683
116.05	42	140.90	173	161.00	63	187.00	242
117.05	564	142.10	53	167.00	318	188.90	51
18.05	51	142.90	34	168.00	162	193.00	70
21.90	66	145.90	30	173.00	42	196.10	225
123.00	89	147.00	83	175.00	88	198.00	6021
23.90	35	147.90	160	177.00	64	199.00	434
27.00	2846	149.00	36	179.00	216	201.65	29
128.10	250	152.90	50	180.00	127	202.95	41
28.90	1336	155.00	69	180.90	71	203.95	197
30.10	102	156.00	130	185.00	110	205.05	353

can 325 (6.222 min): B7802.D
FTPP..... Converted from RTE data file >B7802::D5

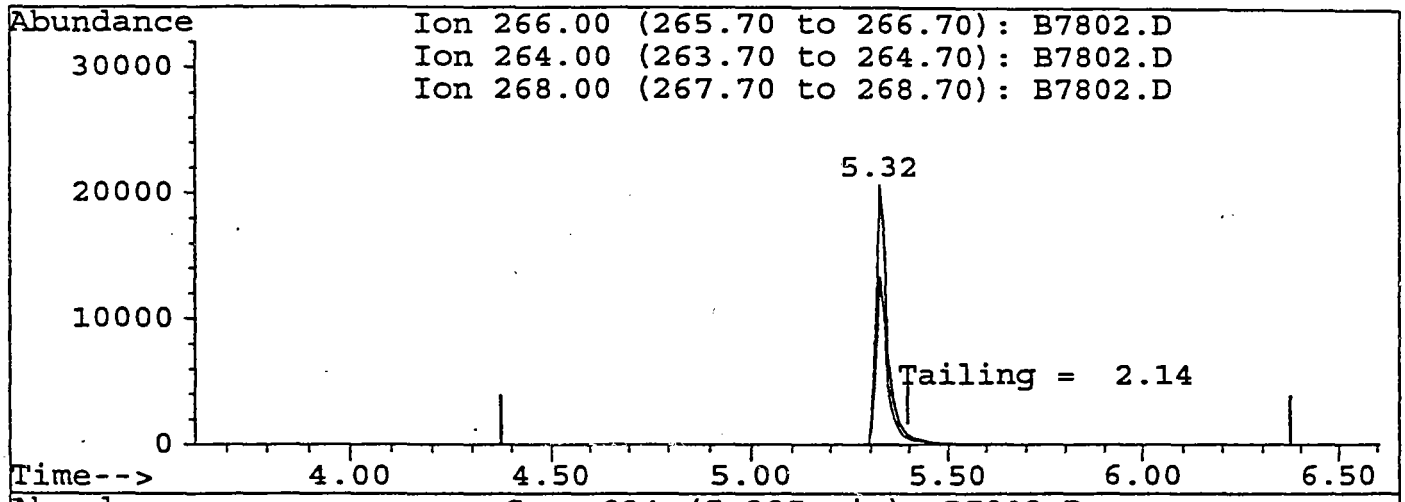
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.05	1320	224.95	192	255.95	487	334.00	73
207.05	189	226.95	305	258.05	143	364.95	170
207.95	55	227.95	55	264.95	68	372.05	67
210.15	33	228.85	61	272.95	102	423.05	224
211.05	66	231.05	37	274.05	239	423.95	49
216.15	46	242.05	44	275.05	1379	441.00	669
216.95	373	243.05	52	276.05	219	442.00	4261
217.95	69	244.05	676	277.05	109	443.00	844
220.95	411	245.05	91	296.00	378	444.00	72
222.95	81	245.95	117	297.00	45		
224.05	802	255.05	2950	323.10	156		

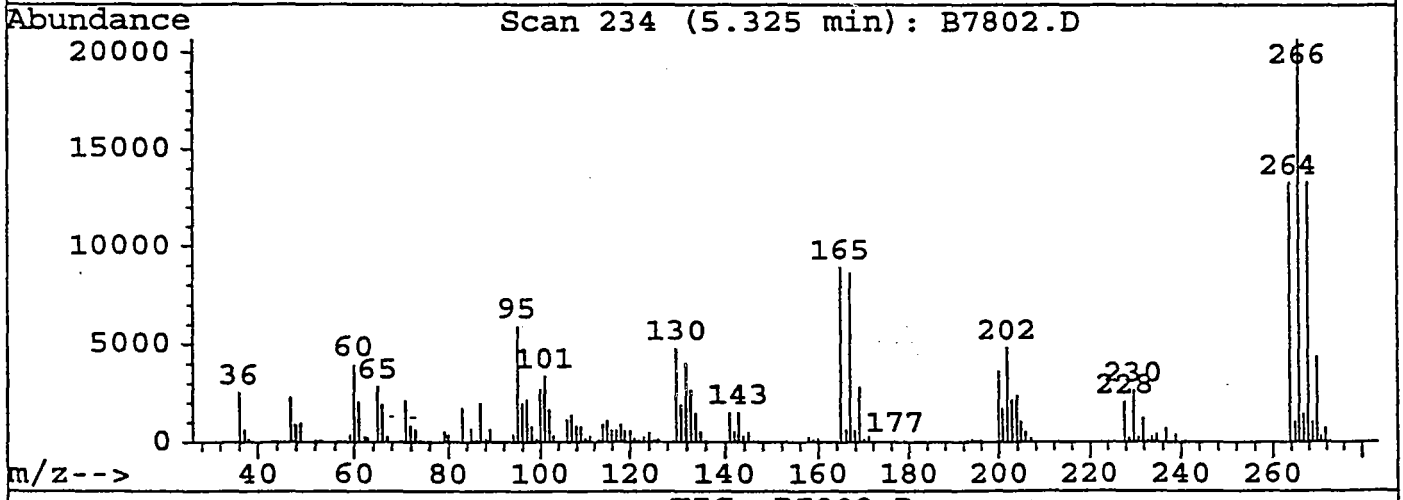
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D
Acq On : 3 Jun 95 9:53 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Jun 3 9:06 1995

Vial: 170
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7802.D

(1) Pentachlorophenol (CM)

5.32min 133.02ug/mL
response 43936

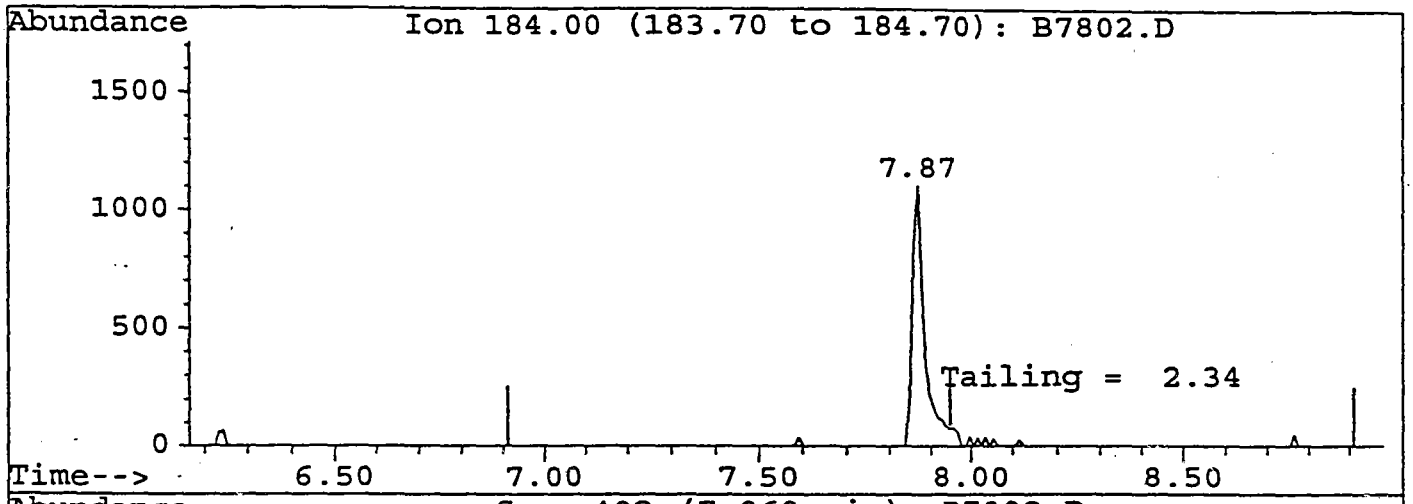
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	64.30
268.00	64.70	64.53
0.00	0.00	0.00

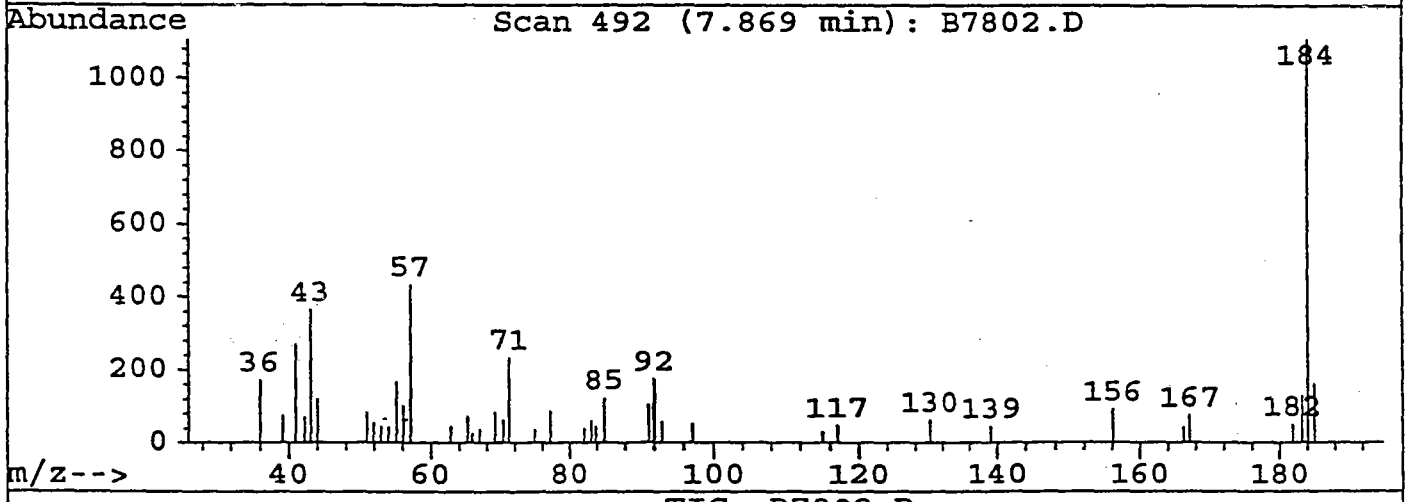
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D
Acq On : 3 Jun 95 9:53 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Jun 3 9:06 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7802.D

(2) Benzidine
7.87min 7.97ug/ml
response 2449

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
bis(2-Chloroethyl)ether	2.026	2.027		0.0	
1,3-Dichlorobenzene	1.385	1.449		-4.6	
1,4-Dichlorobenzene	1.429	1.500		-5.0	30.0
1,2-Dichlorobenzene	1.357	1.424		-4.9	
bis(2-chloroisopropyl)ether	1.868	1.769		5.3	
N-Nitroso-Di-n-propylamine	1.346	1.315	0.050	2.3	
Hexachloroethane	0.737	0.736		0.1	
Nitrobenzene	0.424	0.446		-5.2	
Isophorone	0.893	0.814		8.8	
bis(2-Chloroethoxy)methane	0.456	0.453		0.7	
1,2,4-Trichlorobenzene	0.317	0.332		-4.7	
Naphthalene	0.979	1.023		-4.5	
4-Chloroaniline	0.463	0.464		-0.2	
Hexachlorobutadiene	0.185	0.191		-3.2	30.0
2-Methylnaphthalene	0.786	0.742		5.6	
Hexachlorocyclopentadiene	0.278	0.250	0.050	10.1	
2-Chloronaphthalene	0.696	0.716		-2.9	
2-Nitroaniline	0.549	0.487		11.3	
Dimethylphthalate	1.299	1.277		1.7	
Acenaphthylene	1.704	1.652		3.1	
2,6-Dinitrotoluene	0.310	0.301		2.9	
3-Nitroaniline	0.346	0.344		0.6	
Acenaphthene	1.025	1.040		-1.5	30.0
Dibenzofuran	1.609	1.625		-1.0	
2,4-Dinitrotoluene	1.167	1.125		3.6	
Diethylphthalate	1.443	1.376		4.6	
Fluorene	1.259	1.219		3.2	
4-Chlorophenyl-phenylether	0.596	0.628		-5.4	
4-Nitroaniline	0.166	0.194		-16.9	
n-Nitrosodiphenylamine	0.508	0.502		1.2	
4-Bromophenyl-phenylether	0.206	0.219		-6.3	
Hexachlorobenzene	0.215	0.232		-7.9	
Phenanthrene	1.094	1.129		-3.2	
Anthracene	1.009	1.064		-5.5	
Carbazole	0.944	1.015		-7.5	
Di-n-butylphthalate	1.606	1.633		-1.7	
Fluoranthene	1.035	1.139		-10.0	30.0

All other compounds must meet a minimum RRF of 0.010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group: 173

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Pyrene	1.502	1.240		17.4	
Butylbenzylphthalate	0.962	0.769		20.1	
Benzo[a]anthracene	1.516	1.300		14.2	
3,3'-Dichlorobenzidine	0.386	0.357		7.5	
Chrysene	0.843	0.806		4.4	
bis(2-Ethylhexyl)phthalate	1.364	1.148		15.8	
Di-n-octylphthalate	5.094	4.570		10.3	30.0
Benzo[b]fluoranthene	2.467	2.153		12.7	
Benzo[k]fluoranthene	1.190	1.273		-7.0	
Benzo[a]pyrene	1.227	1.266		-3.2	30.0
Indeno[1,2,3-cd]pyrene	0.452	0.458		-1.3	
Dibenz[a,h]anthracene	0.436	0.384		11.9	
Benzo[g,h,i]perylene	0.356	0.291		18.3	
Nitrobenzene-d5	0.456	0.443		2.9	
2-Fluorobiphenyl	1.200	1.187		1.1	
Terphenyl-d14	1.062	0.881		17.0	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.18
2	S	2-Fluorophenol	1.131	1.044	7.7	96	0.16
3	S	Phenol-d5	1.873	1.712	8.6	98	0.14
4	M	N-nitrosodimethylamine	0.578	0.585	-1.1	79	-0.10
5		Pyridine	0.428	0.000#	100.0#	0#	-1.62#
6	CM	Phenol	1.668	1.607	3.7	93	0.14
7	MT	bis(2-Chloroethyl)ether	2.026	2.027	-0.1	98	0.18
8	M	2-Chlorophenol	1.269	1.290	-1.6	102	0.16
9	MT	1,3-Dichlorobenzene	1.385	1.449	-4.6	101	0.18
10	CM	1,4-Dichlorobenzene	1.429	1.500	-5.0	101	0.18
11	M	1,2-Dichlorobenzene	1.357	1.424	-4.9	102	0.18
12	T	2-Methylphenol	1.204	1.299	-7.9	110	0.66#
13	M	bis(2-chloroisopropyl)ether	1.868	1.769	5.3	101	0.20
14	T	4-Methylphenol	1.322	1.299	1.7	98	0.16
15	PM	N-Nitroso-Di-n-propylamine	1.346	1.315	2.3	102	0.18
16	M	Hexachloroethane	0.737	0.736	0.1	97	0.19
17	I	Naphthalene-d8	1.000	1.000	0.0	94	0.18
18	S	Nitrobenzene-d5	0.456	0.443	2.8	96	0.18
19	M	Nitrobenzene	0.424	0.446	-5.2	96	0.18
20	M	Isophorone	0.893	0.814	8.8	94	0.16
21	MC	2-Nitrophenol	0.210	0.202	4.2	95	0.20
22	M	2,4-Dimethylphenol	0.394	0.392	0.4	97	0.16
23	M	bis(2-Chloroethoxy)methane	0.456	0.453	0.7	94	0.16
24	MC	2,4-Dichlorophenol	0.298	0.301	-0.8	97	0.18
25	M	1,2,4-Trichlorobenzene	0.317	0.332	-4.7	97	0.18
26	M	Naphthalene	0.979	1.023	-4.5	100	0.20
27	T	4-Chloroaniline	0.463	0.464	-0.1	93	0.20
28	MC	Hexachlorobutadiene	0.185	0.191	-3.3	97	0.18
29	MC	4-Chloro-3-methylphenol	0.384	0.376	2.0	92	0.18
30	M	2-Chloronaphthalene	0.696	0.716	-2.8	96	0.21
31	T	2-Methylnaphthalene	0.786	0.742	5.5	100	0.19
32	I	Acenaphthene-d10	1.000	1.000	0.0	99	0.21
33	P	Hexachlorocyclopentadiene	0.278	0.250	10.3	95	0.19
34	MC	2,4,6-Trichlorophenol	0.415	0.353	15.0	91	0.20
35	T	2,4,5-Trichlorophenol	0.324	0.384	-18.4	102	0.19
36	S	2-Fluorobiphenyl	1.200	1.187	1.1	99	0.19
37	T	2-Nitroaniline	0.549	0.487	11.3	83	0.19
38	M	Dimethylphthalate	1.299	1.277	1.8	97	0.19
39	M	Acenaphthylene	1.704	1.652	3.1	95	0.21
40	M	2,6-Dinitrotoluene	0.310	0.301	2.8	91	0.21

#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D
Acq On : 3 Jun 95 10:13 am
Sample : 50 STD.....
Misc :

Vial: 2 175
Operator: SCOTTV SUP
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
4	T	3-Nitroaniline	0.346	0.344	0.6	94	0.21
42	CM	Acenaphthene	1.025	1.040	-1.5	100	0.21
43	MP	2,4-Dinitrophenol	0.172	0.164	4.8	104	0.21
4	PM	4-Nitrophenol	0.166	0.160	3.5	94	0.19
45	T	Dibenzofuran	1.609	1.625	-1.0	96	0.21
46	M	2,4-Dinitrotoluene	1.167	1.125	3.6	97	0.23
4	M	Diethylphthalate	1.443	1.376	4.6	93	0.21
4	M	Fluorene	1.259	1.219	3.2	98	0.23
49	M	4-Chlorophenyl-phenylether	0.596	0.628	-5.4	105	0.23
5		Phenanthrene-d10	1.000	1.000	0.0	102	0.25
51	T	4-Nitroaniline	0.166	0.194	-16.9	93	0.21
52	MC	4,6-Dinitro-2-methylphenol	0.132	0.139	-5.1	109	0.21
5	T	n-Nitrosodiphenylamine	0.508	0.502	1.2	96	0.23
54	S	2,4,6-Tribromophenol	0.108	0.110	-2.0	106	0.23
55		1,2-Diphenylhydrazine (as a	1.211	1.189	1.8	92	0.23
5	M	4-Bromophenyl-phenylether	0.206	0.219	-6.2	101	0.23
5	M	Hexachlorobenzene	0.215	0.232	-8.2	104	0.23
58	CM	Pentachlorophenol	0.137	0.160	-16.2	122	0.23
5	M	Phenanthrene	1.094	1.129	-3.2	105	0.25
6	M	Anthracene	1.009	1.064	-5.5	105	0.25
61		Carbazole	0.944	1.015	-7.5	107	0.25
62	M	Di-n-butylphthalate	1.606	1.633	-1.6	102	0.23
6	MC	Fluoranthene	1.035	1.139	-10.1	103	0.27
64	I	Chrysene-d12	1.000	1.000	0.0	110	0.31
6		Benzidine	0.437	0.361	17.5	99	0.27
66	M	Pyrene	1.502	1.240	17.4	107	0.27
67	S	Terphenyl-d14	1.062	0.881	17.1	110	0.27
6	M	Butylbenzylphthalate	0.962	0.769	20.0	100	0.27
6	M	Benzo[a]anthracene	1.516	1.300	14.2	106	0.31
70	M	3,3'-Dichlorobenzidine	0.386	0.357	7.5	111	0.29
71	M	Chrysene	0.843	0.806	4.4	115	0.31
7	M	bis(2-Ethylhexyl)phthalate	1.364	1.148	15.8	101	0.27
73	I	Perylene-d12	1.000	1.000	0.0	206#	0.30
7	MC	Di-n-octylphthalate	5.094	4.570	10.3	200#	0.27
75	M	Benzo[b]fluoranthene	2.467	2.153	12.7	176#	0.30
7	m	Benzo[k]fluoranthene	1.190	1.273	-7.0	237#	0.31
	mc	Benzo[a]pyrene	1.227	1.266	-3.2	193#	-0.51#
78	m	Indeno[1,2,3-cd]pyrene	0.452	0.458	-1.1	227#	0.26
79	m	Dibenz[a,h]anthracene	0.436	0.384	11.8	217#	0.26

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0.356	0.291	18.1	185#	0.26
81		1-Methyl naphthalene	0.000	0.000#	0.0	0#	-13.33#
82		7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	191#	0.30
83		Quinoline	0.000	0.000#	0.0	95	0.20
84		Thiophenol	0.000	0.000#	0.0	72	0.17
85		4-Methyl chrysene	0.000	0.000#	0.0	118	0.31
86		Dibenz(a,j)acridine	0.000	0.000#	0.0	131	0.27
87		Indene	0.000	0.000#	0.0	94	0.18

Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d
Acq On : 3 Jun 95 10:13 am
Sample : 50 STD.....
Misc :
Quant Time: Jun 7 9:32 1995

Converted from RTE d

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.21	152	29236	40.00	ug/mL	0.18
17) Naphthalene-d8	12.92	136	116999	40.00	ug/mL	0.18
32) Acenaphthene-d10	18.26	164	80656	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	134208	40.00	ug/ml	0.25
64) Chrysene-d12	30.89	240	129676	40.00	ug/mL	0.31
73) Perylene-d12	34.90	264	93467	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.63	112	38146	46.13	ug/mL	46.13%
3) Phenol-d5	8.53	99	62550	45.70	ug/mL	45.70%
18) Nitrobenzene-d5	10.88	82	64784	48.60	ug/mL	48.60%
36) 2-Fluorobiphenyl	16.39	172	119643	49.45	ug/mL	49.45%
54) 2,4,6-Tribromophenol	20.69	330	18489	51.01	ug/mL	51.01%
67) Terphenyl-d14	27.91	244	142742	41.47	ug/mL	41.47%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.85	74	21365	50.56	ug/mlm	100
6) Phenol	8.57	94	58717	48.17	ug/mL	100
7) bis(2-Chloroethyl)ether	12.60	93	74087	50.04	ug/mL	96
8) 2-Chlorophenol	8.61	128	47149	50.82	ug/mL	95
9) 1,3-Dichlorobenzene	9.01	146	52942	52.30	ug/mL	98
10) 1,4-Dichlorobenzene	9.26	146	54825	52.49	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	52051	52.46	ug/mL	98
12) 2-Methylphenol	10.79	108	47472	53.93	ug/mL	65
13) bis(2-chloroisopropyl)ethe	10.28	45	64632	47.33	ug/mL#	1
14) 4-Methylphenol	10.79	108	47472	49.15	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.67	70	48058	48.86	ug/mL	91
16) Hexachloroethane	10.61	117	26915	49.93	ug/mL	99
19) Nitrobenzene	10.94	77	65242	52.61	ug/mL#	89
20) Isophorone	11.73	82	119099	45.58	ug/mL	96
21) 2-Nitrophenol	11.88	139	29485	47.92	ug/mL	98
22) 2,4-Dimethylphenol	10.79	107	57307	49.78	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.32	93	66255	49.66	ug/mL#	42
24) 2,4-Dichlorophenol	12.65	162	43957	50.41	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.83	180	48531	52.36	ug/mL	98
26) Naphthalene	13.00	128	149571	52.24	ug/mL#	91
27) 4-Chloroaniline	13.35	127	67787	50.05	ug/mL	98
28) Hexachlorobutadiene	13.50	225	27957	51.65	ug/mL	96
29) 4-Chloro-3-methylphenol	15.04	107	55034	49.01	ug/mL	100
30) 2-Chloronaphthalene	16.58	162	104679	51.41	ug/ml	99
31) 2-Methylnaphthalene	15.14	142	108545	47.23	ug/mL	100
33) Hexachlorocyclopentadiene	15.66	237	25173	44.85	ug/mL	96
34) 2,4,6-Trichlorophenol	16.10	196	35610	42.51	ug/mL	99
35) 2,4,5-Trichlorophenol	16.20	196	38697	59.22	ug/mL	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.05	65	49104	44.34	ug/mL#	100
38)	Dimethylphthalate	17.82	163	128716	49.12	ug/mL	99
39)	Acenaphthylene	17.80	152	166597	48.47	ug/mL	99
40)	2,6-Dinitrotoluene	17.91	165	30393	48.59	ug/mL	97
41)	3-Nitroaniline	18.34	138	34672	49.71	ug/mL	95
42)	Acenaphthene	18.36	153	104858	50.73	ug/mL	100
43)	2,4-Dinitrophenol	18.66	184	16518	47.58	ug/mL	99
44)	4-Nitrophenol	19.13	109	16116	48.25	ug/mL	89
45)	Dibenzofuran	18.92	168	163832	50.51	ug/mL	95
46)	2,4-Dinitrotoluene	19.96	165	113430	48.20	ug/mL#	32
47)	Diethylphthalate	20.07	149	138770	47.70	ug/mL	100
48)	Fluorene	19.96	166	122870	48.41	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	63340	52.68	ug/mL	93
51)	4-Nitroaniline	20.21	138	32609	58.46	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.30	198	23243	52.57	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	84236	49.39	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.61	77	199476	49.08	ug/ml	100
56)	4-Bromophenyl-phenylether	21.59	248	36733	53.12	ug/mL#	89
57)	Hexachlorobenzene	21.58	284	38977	54.11	ug/mL	91
58)	Pentachlorophenol	22.29	266	26808	58.11	ug/mL	98
59)	Phenanthrene	22.85	178	189424	51.58	ug/mL	100
60)	Anthracene	23.00	178	178492	52.73	ug/mLm	99
61)	Carbazole	23.64	167	170215	53.76	ug/ml	100
62)	Di-n-butylphthalate	25.14	149	273873	50.81	ug/mL	99
63)	Fluoranthene	26.47	202	191126	55.04	ug/mLm	95
65)	Benzidine	27.14	184	58486	41.24	ug/mlm	100
66)	Pyrene	27.10	202	200950	41.28	ug/mLm	87
68)	Butylbenzylphthalate	29.69	149	124639	39.98	ug/mL	95
69)	Benzo[a]anthracene	30.87	228	210709	42.89	ug/mLm	99
70)	3,3'-Dichlorobenzidine	31.00	252	57942	46.26	ug/mL	99
71)	Chrysene	30.96	228	130675	47.82	ug/mLm	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	186121	42.09	ug/mL	99
74)	Di-n-octylphthalate	33.57	149	533971	44.86	ug/mLm	99
75)	Benzo[b]fluoranthene	33.93	252	251584	43.65	ug/mLm	99
76)	Benzo[k]fluoranthene	34.01	252	148737	53.49	ug/mLm	94
77)	Benzo[a]pyrene	33.93	252	147880	51.60	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.43	276	53465	50.57	ug/mLm	89
79)	Dibenz[a,h]anthracene	37.54	278	44917	44.12	ug/mL	98
80)	Benzo[g,h,i]perylene	38.01	276	34048	40.97	ug/mLm	98

(#) = qualifier out of range (m) = manual integration

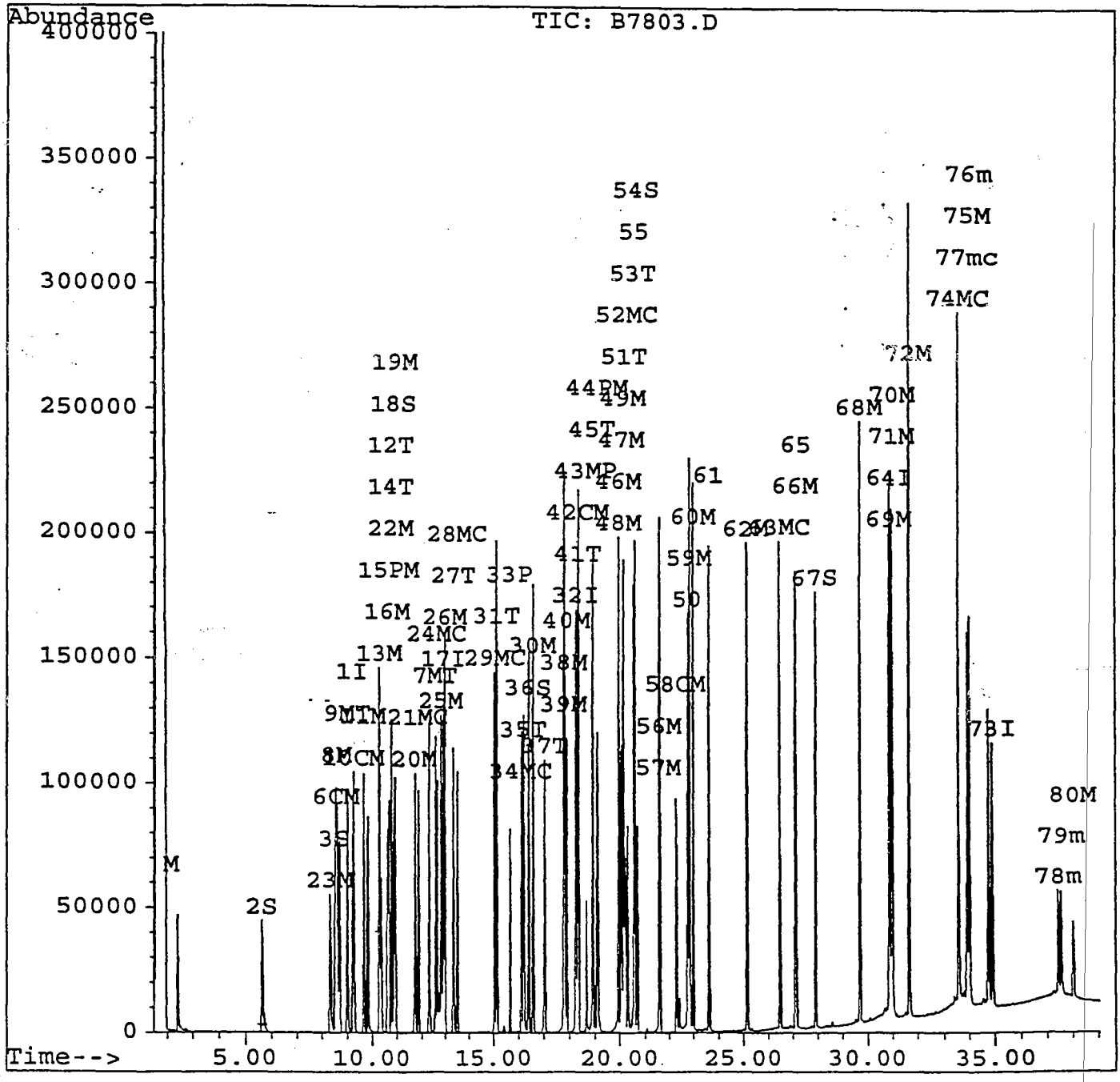
Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d
Acq On : 3 Jun 95 10:13 am
Sample : 50 STD.....
Misc :
Quant Time: Jun 7 9:32 1995

Converted from RTE d

Vial: 2 179
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

130

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B7775.D Date Analyzed: 6/2/95

Instrument ID: ABNA Time Analyzed: 0832

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	35241	9.24	142989	12.98	96841	18.32
	UPPER LIMIT	70482	9.74	285978	13.48	193682	18.82
	LOWER LIMIT	17621	8.74	71495	12.48	48421	17.82
	SAMPLE NO.						
01	SBLK01	36425	9.25	149052	12.96	100127	18.29
02	9523163B	40161	9.24	165853	12.96	111709	18.31
03	9523165B	39813	9.24	160514	12.96	109533	18.31
04	9523166B	32906	9.24	139047	12.96	93932	18.32
05	9523167B	36826	9.25	149846	12.96	100073	18.31
06	9523168B	33742	9.25	136563	12.96	90016	18.30
07	9523169B	35164	9.25	147423	12.96	95028	18.31
08	9523170B	32290	9.25	132286	12.96	85795	18.31
09							
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18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: 131

Project No.: Site: Location: Group:

Lab File ID (Standard): B7775.D Date Analyzed: 6/2/95

Instrument ID: ABNA Time Analyzed: 0832

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	165181	22.82	128800	30.96	55340	34.95
	UPPER LIMIT	330362	23.32	257600	31.46	110680	35.45
	LOWER LIMIT	82591	22.32	64400	30.46	27670	34.45
	SAMPLE NO.						
01	SBLK01	160833	22.82	135292	30.93	60744	34.96
02	9523163B	181936	22.81	147277	30.93	62807	34.96
03	9523165B	176126	22.81	145076	30.92	68217	34.95
04	9523166B	153529	22.83	123860	30.94	58089	34.95
05	9523167B	165934	22.82	134267	30.93	62985	34.96
06	9523168B	144657	22.82	120198	30.93	55150	34.96
07	9523169B	153844	22.82	128186	30.95	56520	34.95
08	9523170B	136739	22.82	106078	30.93	48085	34.96
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21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	29236	9.21	116999	12.92	80656	18.26
	UPPER LIMIT	58472	9.71	233998	13.42	161312	18.76
	LOWER LIMIT	14618	8.71	58500	12.42	40328	17.76
	SAMPLE NO.						
01	SBLK01	29342	9.21	113640	12.92	77393	18.25
02	9521072B	43362	9.20	172473	12.92	120771	18.25
03	9521073B	49674	9.20	207002	12.94	136613	18.27
04	SBLK02	45568	9.20	183778	12.92	124916	18.27
05	9522265B	38448	9.21	156239	12.92	104790	18.25
06	9522845B	34293	9.20	139874	12.92	94484	18.25
07	SBLK03	31802	9.20	131302	12.92	86836	18.27
08	9523339B	31877	9.20	132687	12.92	87914	18.25
09	9523341B	37996	9.20	159444	12.94	104434	18.27
10	9523342B	34168	9.20	146228	12.94	97312	18.27
11	9523343B	33809	9.20	139851	12.92	93023	18.27
12	9523530B	34840	9.20	145007	12.92	98737	18.25
13	9523531B	35055	9.20	145276	12.92	99265	18.27
14	9523533B	36725	9.20	152052	12.92	102907	18.27
15	9523534B	37321	9.29	127658	13.06	64338	18.50
16	9523535B	36905	9.21	144207	12.92	97310	18.26
17	9523536B	36125	9.20	148482	12.92	99681	18.27
18	SBLK04	38489	9.20	152333	12.92	104920	18.25
19	9523789B	39839	9.20	162610	12.92	110929	18.27
20	9523792B	36962	9.20	155161	12.92	105988	18.27
21	9523787B	38496	9.20	159554	12.92	108441	18.27
22	SBLK05	43303	9.20	177127	12.92	122916	18.27

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	134208	22.77	129676	30.89	93467	34.90
	UPPER LIMIT	268416	23.27	259352	31.39	186934	35.40
	LOWER LIMIT	67104	22.27	64838	30.39	46734	34.40
	SAMPLE NO.						
01	SBLK01	127774	22.76	144639	30.86	143369	34.89
02	9521072B	201946	22.77	208937	30.89	160791	34.90
03	9521073B	222787	22.77	231737	30.89	165808	34.90
04	SBLK02	200423	22.77	227269	30.88	184816	34.91
05	9522265B	172502	22.78	184570	30.88	122938	34.91
06	9522845B	149864	22.78	156654	30.88	124082	34.91
07	SBLK03	142609	22.77	151919	30.88	122270	34.91
08	9523339B	145640	22.78	157437	30.89	128975	34.92
09	9523341B	172617	22.77	198222	30.90	166777	34.93
10	9523342B	156213	22.77	174808	30.88	147217	34.91
11	9523343B	149747	22.77	162481	30.88	137109	34.91
12	9523530B	159922	22.78	179407	30.88	152667	34.91
13	9523531B	164218	22.77	179435	30.88	151215	34.91
14	9523533B	167089	22.77	185071	30.88	155624	34.91
15	9523534B	126172	22.95	162548	30.91	85072	34.88
16	9523535B	153052	22.76	160811	30.89	134801	34.89
17	9523536B	149413	22.77	158425	30.88	129419	34.91
18	SBLK04	168411	22.78	175380	30.88	148566	34.91
19	9523789B	183194	22.77	209328	30.88	181543	34.91
20	9523792B	175832	22.77	198461	30.88	168915	34.91
21	9523787B	177208	22.77	191680	30.88	155077	34.91
22	SBLK05	199698	22.77	216974	30.88	174620	34.91

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	134208	22.77	129676	30.89	93467	34.90
	UPPER LIMIT	268416	23.27	259352	31.39	186934	35.40
	LOWER LIMIT	67104	22.27	64838	30.39	46734	34.40
	SAMPLE NO.						
01	22654MS	155903	22.77	148922	30.91	65345	34.91
02	22654MSD	164759	22.77	152801	30.91	66464	34.91
03	22659MS	135678	22.77	133913	30.90	64806	34.89
04	22659MSD	145091	22.77	140877	30.90	65773	34.90
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20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
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.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523163B

MW-1-293.784

136

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523163B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7777.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523163B

MW1-293184

187

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523163B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7777.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523163B
MW1-293184

138

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523163B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7777.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 117-82-8	Bis(2-methoxyethyl) phthalat	25.20	50	J
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30.				

Quantitation Report

Data File : c:\hpchem\1\data2\b7777.d Vial: 4
Acq On : 2 Jun 95 10:18 am Operator: SCOTTV
Sample : 23163..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 2 15:10 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.24	152	40161	40.00	ug/mL	0.21
17) Naphthalene-d8	12.96	136	165853	40.00	ug/mL	0.21
32) Acenaphthene-d10	18.31	164	111709	40.00	ug/mL	0.26
50) Phenanthrene-d10	22.81	188	181936	40.00	ug/ml	0.30
64) Chrysene-d12	30.93	240	147277	40.00	ug/mL	0.35
73) Perylene-d12	34.96	264	62807	40.00	ug/mL	0.36
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.24	99	479	0.25	ug/mL	0.25%
18) Nitrobenzene-d5	10.90	82	70992	37.57	ug/mL	37.57%
36) 2-Fluorobiphenyl	16.44	172	129155	38.54	ug/mL	38.54%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	28.00	244	335437	85.81	ug/mL	85.81%
Target Compounds						**Qvalue**

(#) = qualifier out of range (m) = manual integration

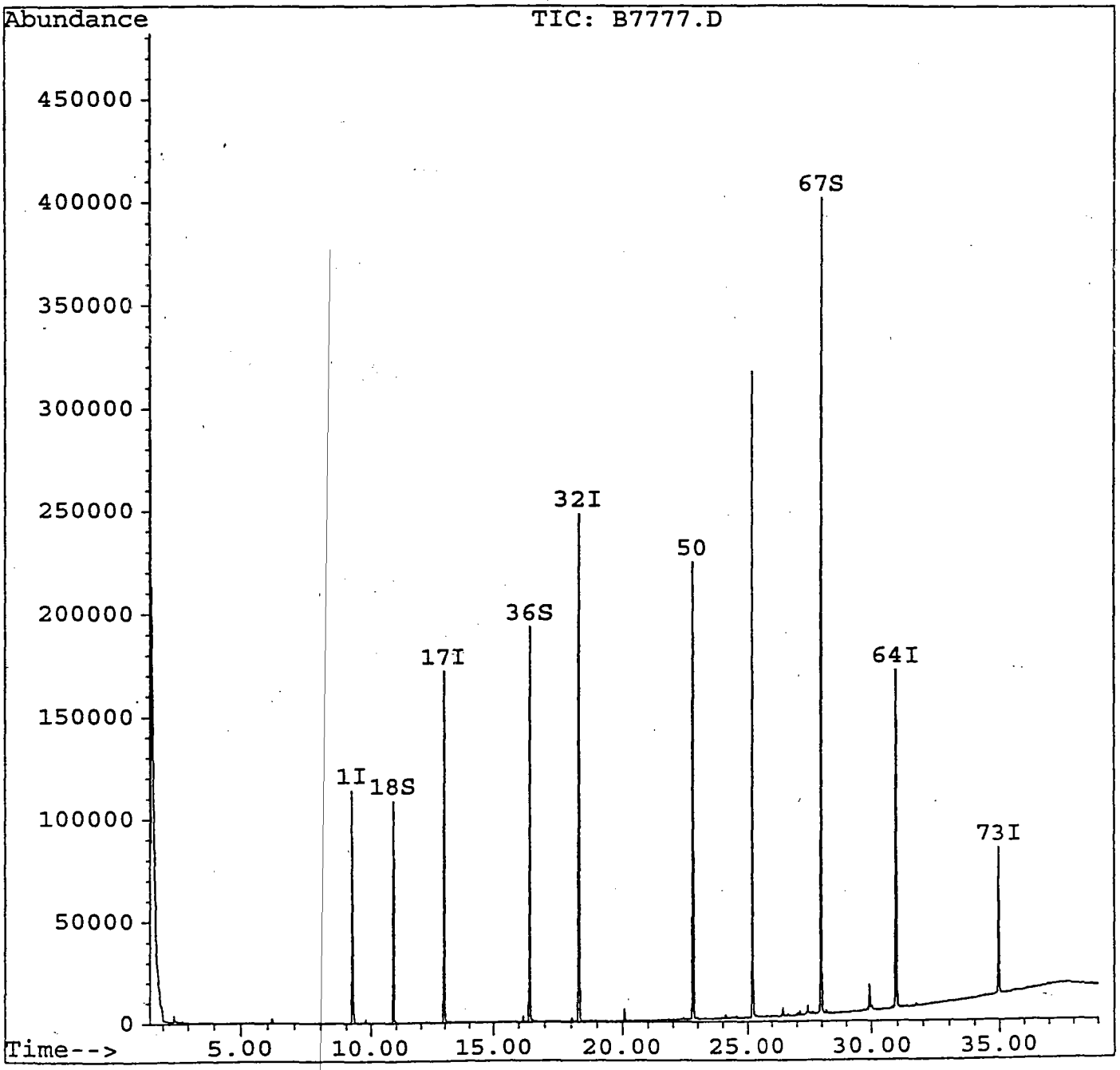
Quantitation Report

Data File : c:\hpchem\1\data2\b7777.d
Acq On : 2 Jun 95 10:18 am
Sample : 23163.....
Misc :
Quant Time: Jun 2 15:10 1995

Converted from RTE d

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



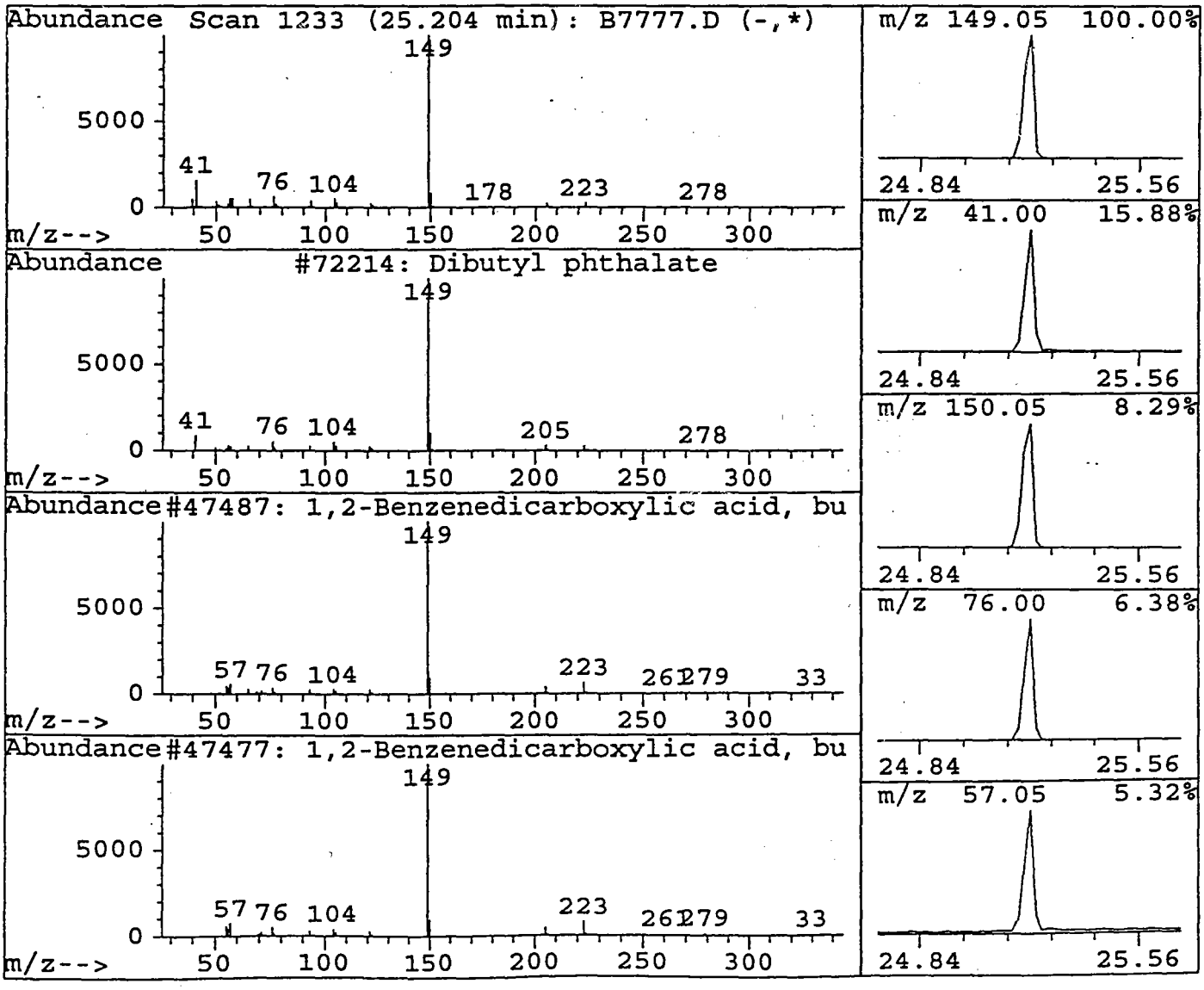
Library Search Compound Report

Data File : c:\hpchem\1\data2\b7777.d Vial: 4
Acq On : 2 Jun 95 10:18 am Operator: SCOTTV
Sample : 23163..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.20	49.80 ug/ml	700436	Phenanthrene-d10	22.81

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dibutyl phthalate	72214	000084-74-2	91
2	1,2-Benzenedicarboxylic acid, butyl	47487	000085-69-8	83
3	1,2-Benzenedicarboxylic acid, butyl	47477	000084-78-6	83
4	Bis(2-methoxyethyl) phthalate	39720	000117-82-8	83
5	1,2-Benzenedicarboxylic acid, bis(2	39134	000084-69-5	83



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 9523165B Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 134

9523165B
Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.92	14	J
2.				
3.				
4.				
5.				
6.				
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26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : c:\hpchem\1\data2\b7778.d Vial: 5
Acq On : 2 Jun 95 11:09 am Operator: SCOTTV
Sample : 23165..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 2 15:11 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.24	152	39813	40.00	ug/mL	0.21
17) Naphthalene-d8	12.96	136	160514	40.00	ug/mL	0.21
32) Acenaphthene-d10	18.31	164	109533	40.00	ug/mL	0.26
50) Phenanthrene-d10	22.81	188	176126	40.00	ug/ml	0.29
64) Chrysene-d12	30.92	240	145076	40.00	ug/mL	0.34
73) Perylene-d12	34.95	264	68217	40.00	ug/mL	0.36
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.24	99	485	0.26	ug/mL	0.26%
18) Nitrobenzene-d5	10.90	82	58198	31.82	ug/mL	31.82%
36) 2-Fluorobiphenyl	16.42	172	106012	32.27	ug/mL	32.27%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	27.99	244	325298	84.48	ug/mL	84.48%
Target Compounds						Qvalue
62) Di-n-butylphthalate	25.20	149	387696	54.81	ug/mL	99

(#) = qualifier out of range (m) = manual integration

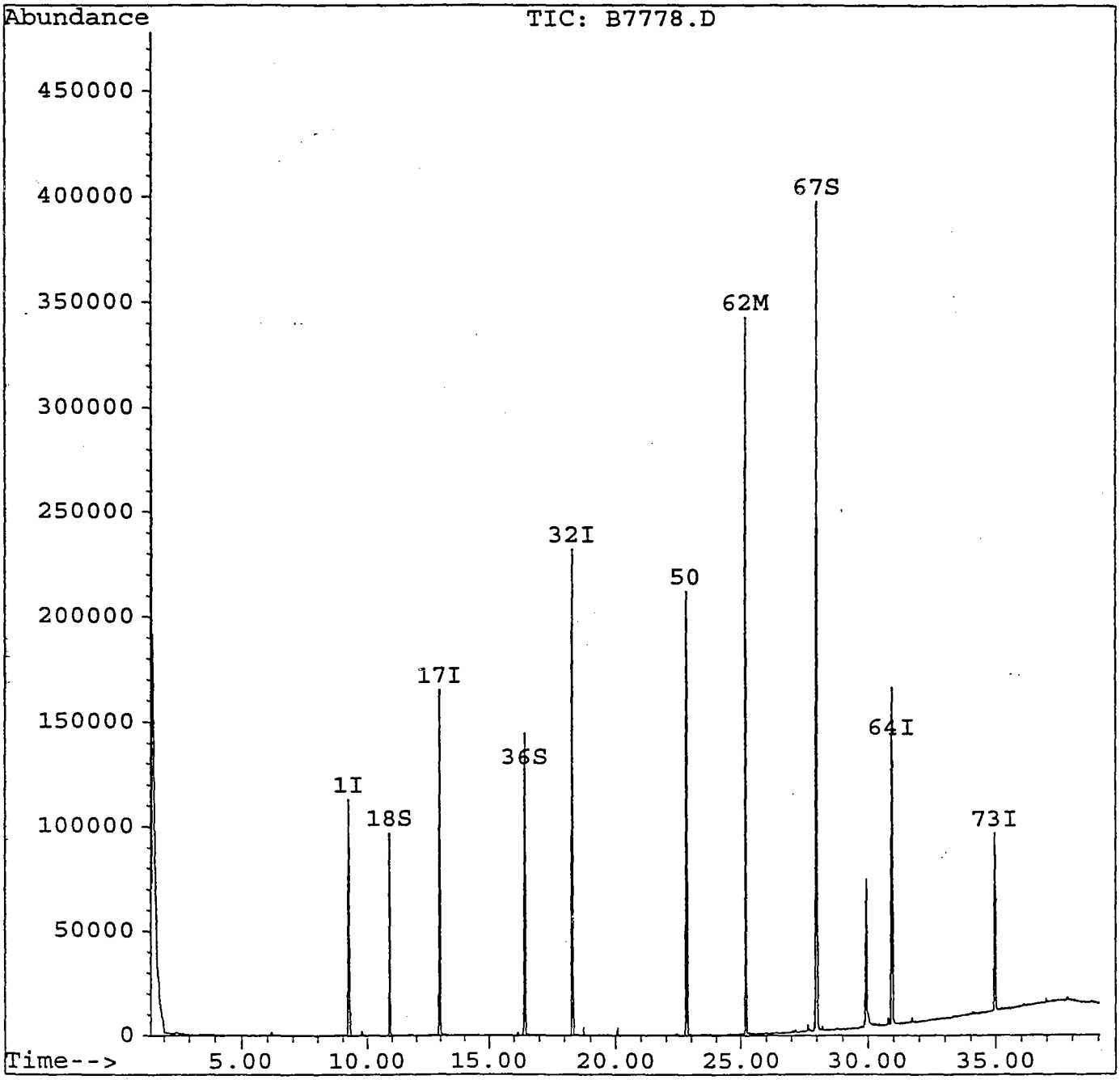
Quantitation Report

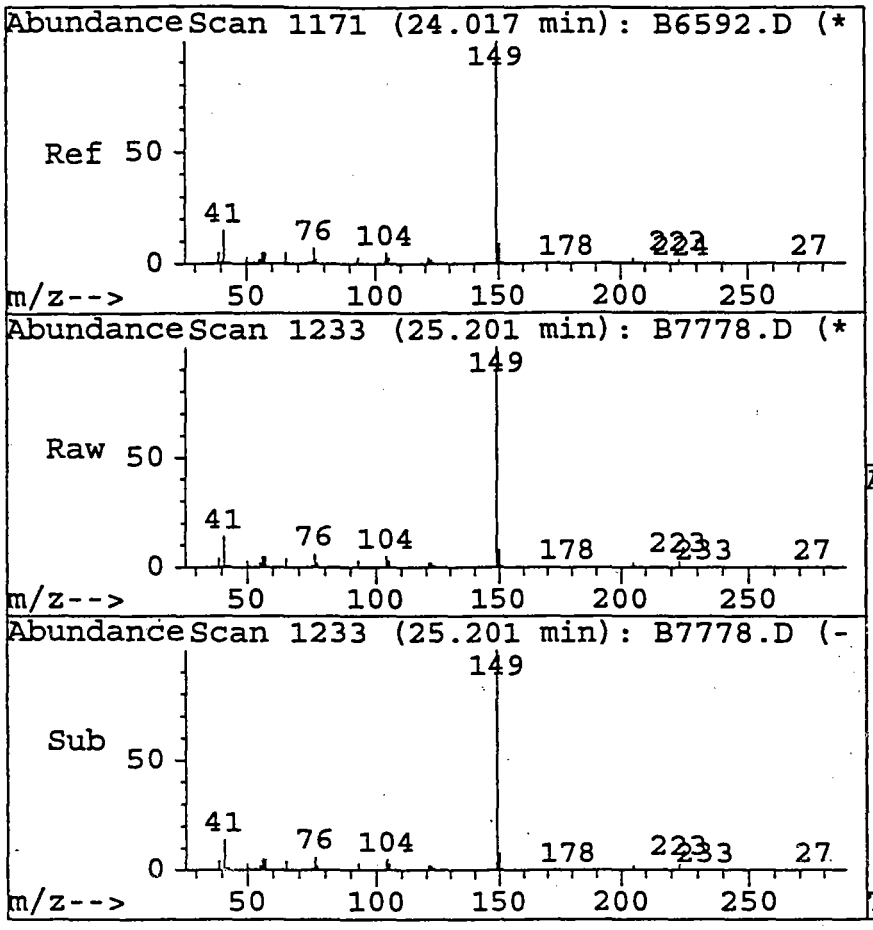
Data File : c:\hpchem\1\data2\b7778.d
Acq On : 2 Jun 95 11:09 am
Sample : 23165.....
Misc :
Quant Time: Jun 2 15:11 1995

Converted from RTE d

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

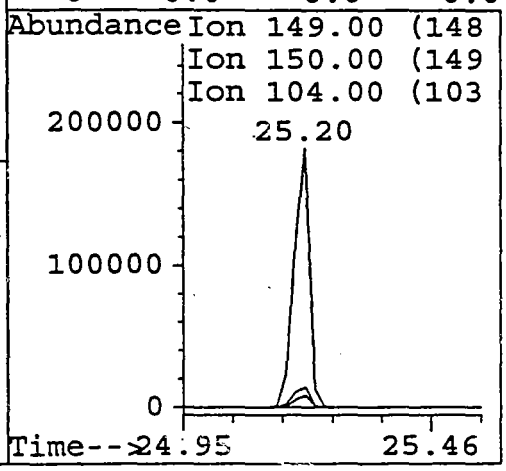




#62
Di-n-butylphthalate
Concen: 54.81 ug/mL
RT: 25.20 min Scan# 1233
Delta R.T. 0.29 min
Lab File: b7778.d
Acq: 2 Jun 95 11:09 am

Tgt Ion:149 Resp: 387696

Ion	Ratio	Lower	Upper
149	100		
150	8.1	6.9	10.3
104	4.8	3.9	5.8
0	0.0	0.0	0.0



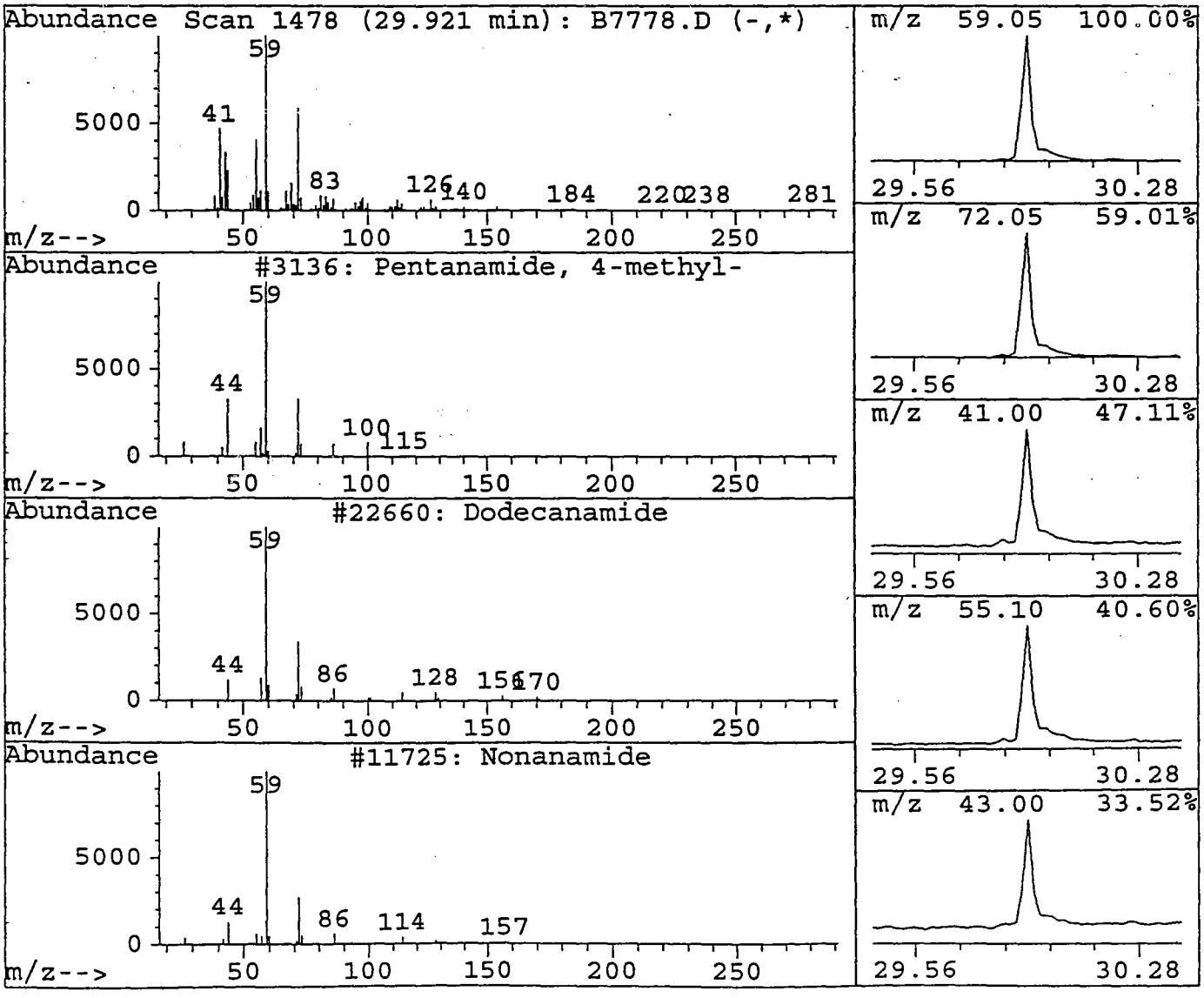
Library Search Compound Report

Data File : c:\hpchem\1\data2\b7778.d Vial: 5
Acq On : 2 Jun 95 11:09 am Operator: SCOTTV
Sample : 23165..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.92	14.26 ug/ml	154267	Chrysene-d12	30.92

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanamide, 4-methyl-	3136	001119-29-5	47
2	Dodecanamide	22660	001120-16-7	42
3	Nonanamide	11725	001120-07-6	40
4	Methyl 17-methoxy-10-methoxycarbony	52728	000000-00-0	37
5	7-Octen-2-ol, 2,6-dimethyl-	11588	018479-58-8	35



2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	61	66	98						
02	9523163B	38	39	86						
03	9523165B	32	32	84						
04	9523166B	61	64	89						
05	9523167B	24	30	65						
06	9523168B	37	42	80						
07	9523169B	47	48	86						
08	9523170B	73	69	87						
09										
10										
11										
12										
13										
14										
15										
16										
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26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: B7776.D Lab Sample ID: BLANK

Instrument ID: ABNA Date Extracted: 5/25/95

Matrix: (soil/water) WATER Date Analyzed: 6/2/95

Level: (low/med) _____ Time Analyzed: 0926

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9523163B	9523163B	B7777.D	06/02/95
02	9523165B	9523165B	B7778.D	06/02/95
03	9523166B	9523166B	B7779.D	06/02/95
04	9523167B	9523167B	B7780.D	06/02/95
05	9523168B	9523168B	B7781.D	06/02/95
06	9523169B	9523169B	B7782.D	06/02/95
07	9523170B	9523170B	B7783.D	06/02/95
08				
09				
10				
11				
12				
13				
14				
15				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7776.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 203

SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7776.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 204

SBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7776.D

Level: (low/med) Date Received: 5/19/95

% Moisture: decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : c:\hpchem\1\data2\b7776.d
Acq On : 2 Jun 95 9:26 am
Sample : BLANK..... Converted from RTE d
Misc :
Quant Time: Jun 2 15:09 1995

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.25	152	36425	40.00	ug/mL	0.22
17) Naphthalene-d8	12.96	136	149052	40.00	ug/mL	0.21
32) Acenaphthene-d10	18.29	164	100127	40.00	ug/mL	0.25
50) Phenanthrene-d10	22.82	188	160833	40.00	ug/ml	0.30
64) Chrysene-d12	30.93	240	135292	40.00	ug/mL	0.35
73) Perylene-d12	34.96	264	60744	40.00	ug/mL	0.36
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.25	99	397	0.23	ug/mL	0.23%
18) Nitrobenzene-d5	10.90	82	102968	60.63	ug/mL	60.63%
36) 2-Fluorobiphenyl	16.45	172	199587	66.45	ug/mL	66.45%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	28.00	244	350868	97.71	ug/mL	97.71%
Target Compounds						Qvalue

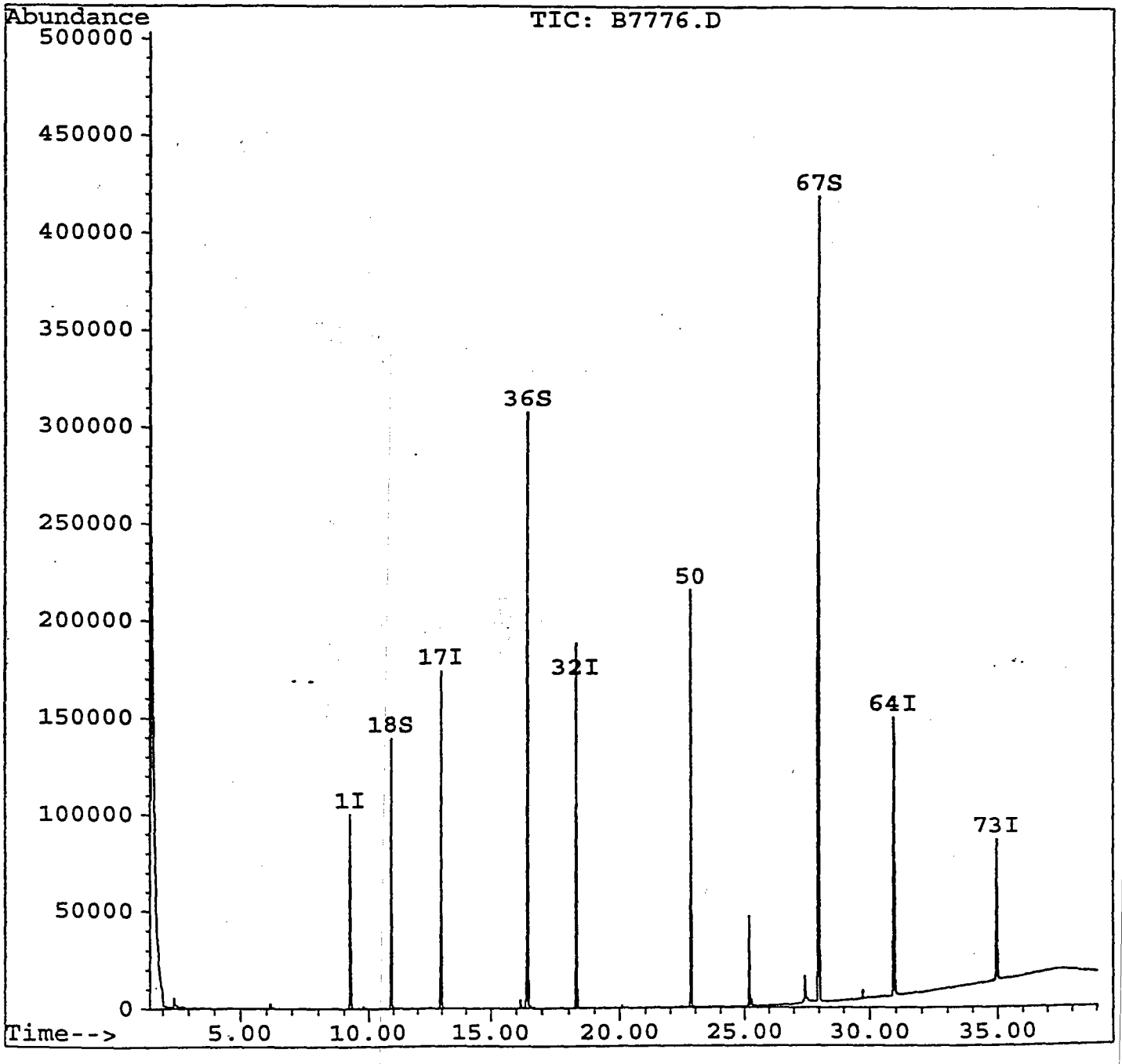
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7776.d
Acq On : 2 Jun 95 9:26 am
Sample : BLANK..... Converted from RTE d
Misc :
Quant Time: Jun 2 15:09 1995

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
534-52-1	4,6-Dinitro-2-methylphenol	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
87-86-5	Pentachlorophenol	5	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Initial Calibration

212

Non-Spiked Sample: B7742.D

	Spike Sample	Spike Duplicate Sample
File ID :	B7826.D	B7827.D
Sample :	22654MS.....	Converted from RTE data file >B7826::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.0	100	108	91	108	91	17	100	1-300
Phenol	0.0	100	69	64	69	64	7	23	5-112
Bis(2-Chloroethyl)et	0.0	100	77	68	77	68	13	55	12-158
2-Chlorophenol	0.0	100	76	67	76	67	13	29	23-134
1,3-Dichlorobenzene	0.0	100	57	50	57	50	14	42	1-172
1,4-Dichlorobenzene	0.0	100	58	51	58	51	13	32	20-124
1,2-Dichlorobenzene	0.0	100	62	53	62	53	15	31	32-129
Bis(2-chloroisopropy	0.0	100	134	118	134	118	13	46	36-166
N-Nitroso-Di-n-propy	0.0	100	78	66	78	66	16	55	1-230
Hexachloroethane	0.0	100	50	42	50	42	18	25	40-113
Nitrobenzene	0.2	100	84	71	83	71	17	39	35-180
Isophorone	0.0	100	70	59	70	59	17	63	21-196
2-Nitrophenol	0.0	100	79	65	79	65	19	35	29-182
2,4-Dimethylphenol	0.0	100	43	40	43	40	7	26	32-119
Bis(2-Chloroethoxy)m	0.0	100	58	49	58	49	18	35	33-184
2,4-Dichlorophenol	0.0	100	79	67	79	67	16	26	39-135
1,2,4-Trichlorobenze	0.0	100	67	59	67	59	13	28	44-142
Naphthalene	0.0	100	71	61	71	61	15	30	21-133
Hexachlorobutadiene	0.0	100	55	49	55	49	11	26	24-116
4-Chloro-3-methylphe	0.0	100	73	63	73	63	15	37	22-147
2-Chloronaphthalene	0.0	100	77	68	77	68	12	13	60-118
2,4,6-Trichloropheno	0.0	100	57	52	57	52	8	32	37-144
Dimethylphthalate	0.0	100	44	35	44	35	22	23	1-112
Acenaphthylene	0.0	100	56	50	56	50	12	40	33-145
2,6-Dinitrotoluene	0.0	100	73	71	73	71	3	30	50-158
Acenaphthene	0.0	100	77	71	77	71	8	28	47-145
2,4-Dinitrophenol	0.0	100	68	65	68	65	4	50	1-191
4-Nitrophenol	0.5	100	76	70	76	70	8	47	1-132
2,4-Dinitrotoluene	0.0	100	75	68	75	68	9	22	39-139
Diethylphthalate	0.1	100	47	41	47	41	15	27	1-114
Fluorene	0.9	100	75	69	74	68	9	21	59-121
4-Chlorophenyl-pheny	0.0	100	77	69	77	69	11	33	25-158
4,6-Dinitro-2-methyl	0.0	100	76	70	76	70	8	93	1-181
4-Bromophenyl-phenyl	0.0	100	78	72	78	72	8	23	53-127
Hexachlorobenzene	0.0	100	90	82	90	82	10	25	1-152
Pentachlorophenol	0.0	100	100	93	100	93	7	49	14-176
Phenanthrene	0.0	100	81	75	81	75	9	21	54-120
Anthracene	0.0	100	96	83	96	83	14	32	52-115
Di-n-butylphthalate	0.2	100	77	71	77	71	8	17	1-118
Fluoranthene	0.0	100	95	88	95	88	8	33	26-137
Pyrene	0.0	100	68	65	68	65	5	25	52-115
Butylbenzylphthalate	0.3	100	65	58	64	57	12	23	1-152
Benzo[a]anthracene	0.1	100	65	58	65	58	11	28	33-143
3,3'-Dichlorobenzidi	0.0	100	81	74	81	74	9	71	1-262

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d
Acq On : 4 Jun 95 5:25 am
Sample : 22654MS..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:06 1995

Vial: 25 214
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	33780	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	129967	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	93254	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	155903	40.00	ug/ml	0.25
64) Chrysene-d12	30.91	240	148922	40.00	ug/mL	0.33
73) Perylene-d12	34.91	264	65345	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.66	112	86730	90.77	ug/mL	90.77%
3) Phenol-d5	8.57	99	147096	93.02	ug/mL	93.02%
18) Nitrobenzene-d5	10.90	82	134034	90.52	ug/mL	90.52%
36) 2-Fluorobiphenyl	16.41	172	175522	62.75	ug/mL	62.75%
54) 2,4,6-Tribromophenol	20.71	330	46665	110.83	ug/mL	110.83%
67) Terphenyl-d14	27.94	244	322279	81.53	ug/mL	81.53%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.43	74	52801	108.13	ug/mlm	0
5) Pyridine	1.58	79	3052	8.44	ug/ml	100
6) Phenol	8.61	94	97169	68.99	ug/mL	100
7) bis(2-Chloroethyl)ether	12.61	93	132335	77.35	ug/mL	96
8) 2-Chlorophenol	8.63	128	81945	76.45	ug/mL	90
9) 1,3-Dichlorobenzene	9.01	146	66629	56.96	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	69858	57.89	ug/mL	100
11) 1,2-Dichlorobenzene	9.65	146	70561	61.55	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.30	45	211229	133.86	ug/mL#	65
15) N-Nitroso-Di-n-propylamine	10.69	70	88152	77.56	ug/mL	95
16) Hexachloroethane	10.61	117	31123	49.97	ug/mL	89
19) Nitrobenzene	10.96	77	115194	83.63	ug/mL#	85
20) Isophorone	11.75	82	203312	70.04	ug/mL	98
21) 2-Nitrophenol	11.88	139	53977	78.97	ug/mL#	85
22) 2,4-Dimethylphenol	12.33	107	55100	43.09	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.72	93	86556	58.41	ug/mL	98
24) 2,4-Dichlorophenol	12.67	162	76577	79.05	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.83	180	68935	66.95	ug/mL	98
26) Naphthalene	13.00	128	225507	70.91	ug/mL#	90
27) 4-Chloroaniline	13.00	127	28186	18.73	ug/mL#	1
28) Hexachlorobutadiene	13.52	225	33083	55.03	ug/mL	98
29) 4-Chloro-3-methylphenol	15.04	107	91543	73.39	ug/mL	95
30) 2-Chloronaphthalene	16.60	162	173185	76.58	ug/mlm	95
31) 2-Methylnaphthalene	15.04	142	68690	26.91	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	54836	56.62	ug/mL	98
35) 2,4,5-Trichlorophenol	16.12	196	54836	72.58	ug/mL	98
37) 2-Nitroaniline	17.93	65	3806	2.97	ug/mL#	100
38) Dimethylphthalate	17.83	163	132688	43.80	ug/mL	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d Vial: 25
Acq On : 4 Jun 95 5:25 am Operator: SCOTTV
Sample : 22654MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Acenaphthylene	17.80	152	221369	55.71 ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	52674	72.83 ug/mL	98
42)	Acenaphthene	18.37	153	184037	77.01 ug/mL	98
43)	2,4-Dinitrophenol	18.68	184	27438	68.35 ug/mL#	82
44)	4-Nitrophenol	19.15	109	29448	76.25 ug/mL	93
46)	2,4-Dinitrotoluene	19.97	165	203714	74.87 ug/mL#	33
47)	Diethylphthalate	20.07	149	159610	47.45 ug/mL	100
48)	Fluorene	19.97	166	219880	74.92 ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	106703	76.76 ug/mL	99
51)	4-Nitroaniline	19.97	138	2333	3.60 ug/mL#	26
52)	4,6-Dinitro-2-methylphenol	20.32	198	38799	75.54 ug/mL	100
53)	n-Nitrosodiphenylamine	20.57	169	120798	60.97 ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	341255	72.29 ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	63010	78.44 ug/mL	93
57)	Hexachlorobenzene	21.59	284	75708	90.48 ug/mL#	81
58)	Pentachlorophenol	22.31	266	53483	99.80 ug/mL	98
59)	Phenanthrene	22.87	178	347261	81.41 ug/mL	99
60)	Anthracene	22.87	178	375780	95.56 ug/mL	98
62)	Di-n-butylphthalate	25.16	149	485216	77.50 ug/mL	100
63)	Fluoranthene	27.13	202	383198	95.00 ug/mL	95
65)	Benzidine	27.15	184	31355	19.25 ug/ml	100
66)	Pyrene	27.13	202	382718	68.46 ug/mL#	87
68)	Butylbenzylphthalate	29.69	149	231108	64.56 ug/mL	98
69)	Benzo[a]anthracene	30.89	228	364541	64.61 ug/mL	99
70)	3,3'-Dichlorobenzidine	31.03	252	116175	80.76 ug/mL	99
71)	Chrysene	30.89	228	369164	117.64 ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	362642	71.41 ug/mL	98
74)	Di-n-octylphthalate	33.57	149	561704	67.50 ug/mL	99
75)	Benzo[b]fluoranthene	33.94	252	214943	53.34 ug/mL	99
76)	Benzo[k]fluoranthene	33.94	252	210450	108.25 ug/mL	91
77)	Benzo[a]pyrene	34.04	252	202935	101.27 ug/mL	97
78)	Indeno[1,2,3-cd]pyrene	37.41	276	31241	42.27 ug/mL#	76
79)	Dibenz[a,h]anthracene	37.53	278	33601	47.21 ug/mL#	91
80)	Benzo[g,h,i]perylene	37.41	276	31328	53.91 ug/mL#	91

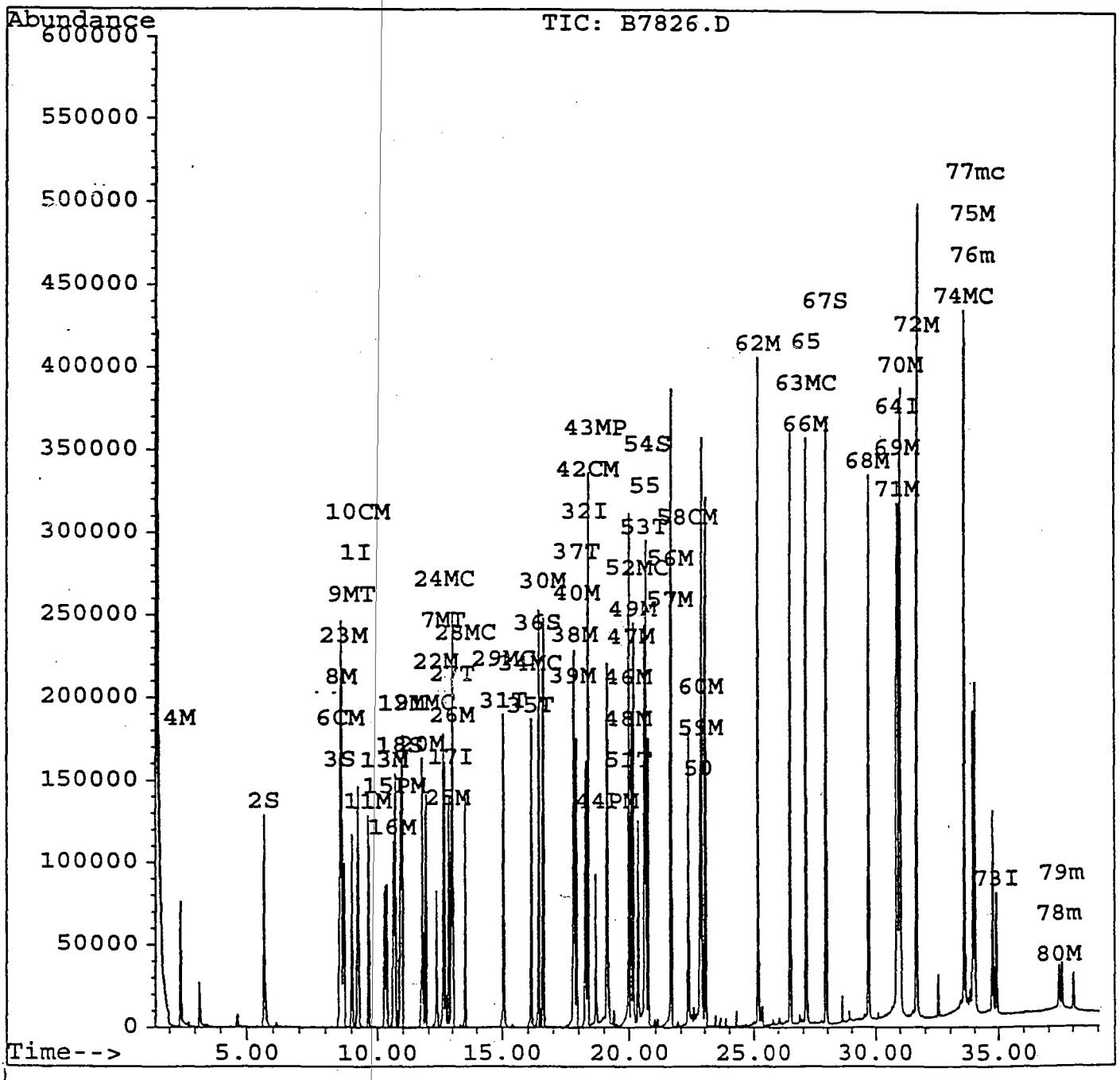
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d
Acq On : 4 Jun 95 5:25 am
Sample : 22654MS..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:06 1995

Vial: 25
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d
Acq On : 4 Jun 95 6:15 am
Sample : 22654MSD..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:07 1995

Vial: 26
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	35303	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	144937	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	99611	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	164759	40.00	ug/ml	0.25
64) Chrysene-d12	30.91	240	152801	40.00	ug/mL	0.33
73) Perylene-d12	34.91	264	66464	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.66	112	82094	82.21	ug/mL	82.21%
3) Phenol-d5	8.57	99	140345	84.92	ug/mL	84.92%
18) Nitrobenzene-d5	10.90	82	122579	74.23	ug/mL	74.23%
36) 2-Fluorobiphenyl	16.41	172	181198	60.64	ug/mL	60.64%
54) 2,4,6-Tribromophenol	20.71	330	47406	106.54	ug/mL	106.54%
67) Terphenyl-d14	27.94	244	291235	71.81	ug/mL	71.81%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.43	74	46421	90.97	ug/mlm	100
5) Pyridine	1.58	79	3239	8.57	ug/ml	100
6) Phenol	8.61	94	94440	64.16	ug/mL	100
7) bis(2-Chloroethyl)ether	12.59	93	122019	68.25	ug/mL	93
8) 2-Chlorophenol	8.63	128	74868	66.83	ug/mL#	87
9) 1,3-Dichlorobenzene	9.01	146	60664	49.63	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	63929	50.69	ug/mL	97
11) 1,2-Dichlorobenzene	9.65	146	63514	53.01	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.26	45	194225	117.78	ug/mL#	64
15) N-Nitroso-Di-n-propylamine	10.67	70	78184	65.82	ug/mL	99
16) Hexachloroethane	10.61	117	27204	41.80	ug/mL	93
19) Nitrobenzene	10.96	77	108893	70.89	ug/mL	92
20) Isophorone	11.75	82	190833	58.95	ug/mL	99
21) 2-Nitrophenol	11.88	139	49518	64.97	ug/mL#	85
22) 2,4-Dimethylphenol	12.33	107	57269	40.16	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.72	93	80511	48.72	ug/mL	99
24) 2,4-Dichlorophenol	12.67	162	72662	67.26	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.83	180	67428	58.72	ug/mL	99
26) Naphthalene	13.00	128	216145	60.94	ug/mL#	91
27) 4-Chloroaniline	13.00	127	27276	16.26	ug/mL#	4
28) Hexachlorobutadiene	13.52	225	33024	49.25	ug/mL	99
29) 4-Chloro-3-methylphenol	15.04	107	87494	62.90	ug/mL	94
30) 2-Chloronaphthalene	16.58	162	170492	67.60	ug/ml	97
31) 2-Methylnaphthalene	15.04	142	66426	23.33	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	53903	52.11	ug/mL	99
35) 2,4,5-Trichlorophenol	16.12	196	53903	66.79	ug/mL	99
37) 2-Nitroaniline	17.93	65	3941	2.88	ug/mL#	100
38) Dimethylphthalate	17.83	163	113606	35.11	ug/mL	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d
Acq On : 4 Jun 95 6:15 am
Sample : 22654MSD..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:07 1995

Vial: 26 218
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	210414	49.57	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	54747	70.87	ug/mL	92
42)	Acenaphthene	18.37	153	181623	71.15	ug/mL	99
43)	2,4-Dinitrophenol	18.68	184	28083	65.49	ug/mL#	78
44)	4-Nitrophenol	19.15	109	28931	70.14	ug/mL	91
46)	2,4-Dinitrotoluene	19.97	165	198956	68.45	ug/mL#	33
47)	Diethylphthalate	20.07	149	146204	40.69	ug/mL	99
48)	Fluorene	19.97	166	215505	68.74	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	102158	68.80	ug/mL	99
51)	4-Nitroaniline	19.97	138	2275	3.32	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	38003	70.01	ug/mL	100
53)	n-Nitrosodiphenylamine	20.57	169	120181	57.40	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	326407	65.42	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	61314	72.23	ug/mL	92
57)	Hexachlorobenzene	21.59	284	72489	81.98	ug/mL#	80
58)	Pentachlorophenol	22.31	266	52714	93.08	ug/mL	99
59)	Phenanthrene	22.87	178	336724	74.69	ug/mL	98
60)	Anthracene	22.87	178	345412	83.11	ug/mL	97
62)	Di-n-butylphthalate	25.16	149	472693	71.44	ug/mL	100
63)	Fluoranthene	27.13	202	375315	88.04	ug/mL	93
65)	Benzidine	27.15	184	42901	25.67	ug/ml	100
66)	Pyrene	27.13	202	374572	65.30	ug/mL#	88
68)	Butylbenzylphthalate	29.69	149	211242	57.51	ug/mL	99
69)	Benzo[a]anthracene	30.87	228	336521	58.13	ug/mL	100
70)	3,3'-Dichlorobenzidine	31.03	252	109427	74.14	ug/mL#	96
71)	Chrysene	30.87	228	341333	106.01	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	327633	62.88	ug/mL	99
74)	Di-n-octylphthalate	33.57	149	500739	59.16	ug/mL	99
75)	Benzo[b]fluoranthene	33.94	252	196612	47.97	ug/mL	99
76)	Benzo[k]fluoranthene	33.94	252	196612	99.43	ug/mL	93
77)	Benzo[a]pyrene	33.94	252	182768	89.67	ug/mL	100
78)	Indeno[1,2,3-cd]pyrene	37.41	276	28662	38.13	ug/mL#	78
79)	Dibenz[a,h]anthracene	37.53	278	36034	49.77	ug/mL#	92
80)	Benzo[g,h,i]perylene	37.41	276	28604	48.40	ug/mL	93

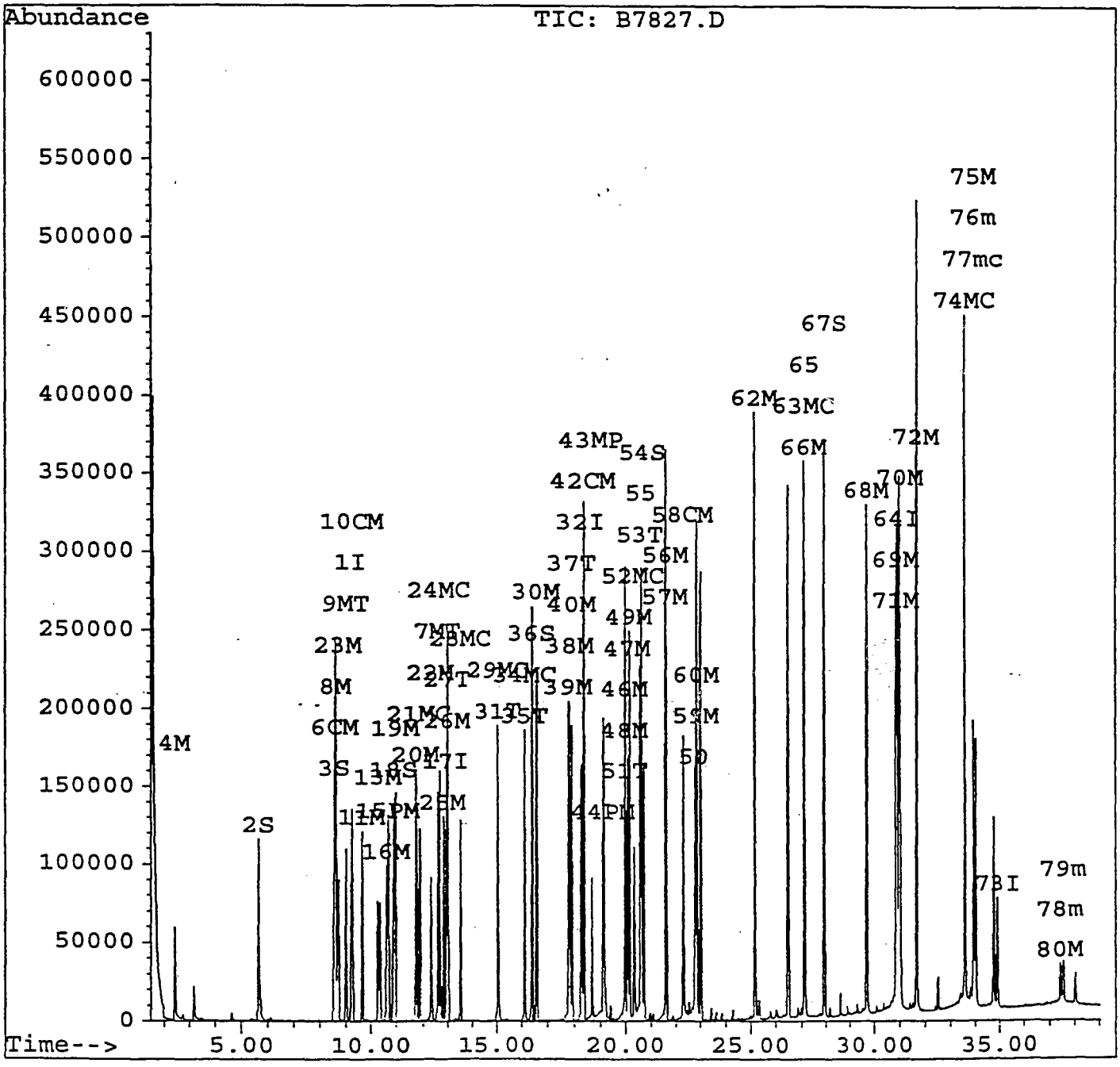
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d
Acq On : 4 Jun 95 6:15 am
Sample : 22654MSD..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:07 1995

Vial: 26
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Initial Calibration

220

Non-Spiked Sample: B7741.D

	Spike Sample	Spike Duplicate Sample
File ID :	B7828.D	B7829.D
Sample :	22659MS.....	Converted from RTE data file >B7828::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.0	100	83	85	83	85	1	100	1-300
henol	0.0	100	65	65	65	65	0	23	5-112
is(2-Chloroethyl)et	0.0	100	66	64	66	64	2	55	12-158
2-Chlorophenol	0.0	100	65	65	65	65	1	29	23-134
,3-Dichlorobenzene	0.0	100	48	48	48	48	1	42	1-172
,4-Dichlorobenzene	0.0	100	49	50	49	50	2	32	20-124
1,2-Dichlorobenzene	0.0	100	52	53	52	53	1	31	32-129
his(2-chloroisopropy	0.0	100	118	119	118	119	1	46	36-166
-Nitroso-Di-n-propy	0.0	100	67	65	67	65	3	55	1-230
Hexachloroethane	0.0	100	51	42	51	42	19	25	40-113
Nitrobenzene	0.1	100	62	66	62	66	6	39	35-180
sophorone	0.0	100	60	63	60	63	5	63	21-196
-Nitrophenol	0.0	100	63	65	63	65	4	35	29-182
2,4-Dimethylphenol	0.0	100	34	32	34	32	7	26	32-119
is(2-Chloroethoxy)m	0.0	100	47	50	47	50	6	35	33-184
,4-Dichlorophenol	0.0	100	68	68	68	68	1	26	39-135
1,2,4-Trichlorobenze	0.0	100	57	60	57	60	6	28	44-142
Naphthalene	0.0	100	63	66	63	66	4	30	21-133
exachlorobutadiene	0.0	100	50	52	50	52	4	26	24-116
-Chloro-3-methylphe	0.0	100	63	63	63	63	1	37	22-147
2-Chloronaphthalene	0.0	100	67	70	67	70	4	13	60-118
,4,6-Trichloropheno	0.0	100	55	54	55	54	3	32	37-144
imethylphthalate	0.0	100	38	34	38	34	11	23	1-112
Acenaphthylene	0.0	100	52	52	52	52	0	40	33-145
,6-Dinitrotoluene	0.0	100	76	74	76	74	3	30	50-158
cenaphthene	0.0	100	75	76	75	76	1	28	47-145
2,4-Dinitrophenol	0.0	100	67	66	67	66	2	50	1-191
4-Nitrophenol	0.6	100	79	80	79	79	0	47	1-132
,4-Dinitrotoluene	0.0	100	71	74	71	74	3	22	39-139
iethylphthalate	0.0	100	49	48	49	48	2	27	1-114
Fluorene	0.7	100	71	74	70	73	3	21	59-121
-Chlorophenyl-pheny	0.0	100	70	74	70	74	5	33	25-158
,6-Dinitro-2-methyl	0.0	100	75	72	75	72	4	93	1-181
4-Bromophenyl-phenyl	0.0	100	73	76	73	76	3	23	53-127
Hexachlorobenzene	0.0	100	84	84	84	84	1	25	1-152
entachlorophenol	0.0	100	90	92	90	92	2	49	14-176
Phenanthrene	0.0	100	79	76	79	76	3	21	54-120
nthracene	0.0	100	88	84	88	84	5	32	52-115
-n-butylphthalate	0.1	100	80	79	80	79	1	17	1-118
luoranthene	0.0	100	96	96	96	96	0	33	26-137
Pyrene	0.0	100	67	68	67	68	2	25	52-115
utylbenzylphthalate	0.2	100	67	68	67	67	0	23	1-152
enzo[a]anthracene	0.1	100	65	64	65	64	1	28	33-143
3,3'-Dichlorobenzidi	0.0	100	20	31	20	31	46	71	1-262

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d Vial: 27
Acq On : 4 Jun 95 7:04 am Operator: SCOTTV
Sample : 22659MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:36 1995

222

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	28616	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	119812	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	81829	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	135678	40.00	ug/ml	0.25
64) Chrysene-d12	30.90	240	133913	40.00	ug/mL	0.32
73) Perylene-d12	34.89	264	64806	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.64	112	38324	47.35	ug/mL	47.35%
3) Phenol-d5	8.55	99	92701	69.20	ug/mL	69.20%
18) Nitrobenzene-d5	10.88	82	102452	75.05	ug/mL	75.05%
36) 2-Fluorobiphenyl	16.41	172	163275	66.52	ug/mL	66.52%
54) 2,4,6-Tribromophenol	20.71	330	33951	92.66	ug/mL	92.66%
67) Terphenyl-d14	27.93	244	283818	79.85	ug/mL	79.85%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.41	74	34539	83.50	ug/mlm	0
5) Pyridine	1.54	79	2567	8.38	ug/ml	100
6) Phenol	8.59	94	77522	64.98	ug/mL	100
7) bis(2-Chloroethyl)ether	12.59	93	95053	65.59	ug/mL	96
8) 2-Chlorophenol	8.61	128	59112	65.10	ug/mL	95
9) 1,3-Dichlorobenzene	9.01	146	47356	47.79	ug/mL	98
10) 1,4-Dichlorobenzene	9.26	146	50047	48.96	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	50447	51.95	ug/mL	97
13) bis(2-chloroisopropyl)ethe	10.28	45	157284	117.66	ug/mL#	66
15) N-Nitroso-Di-n-propylamine	10.67	70	64689	67.19	ug/mL	99
16) Hexachloroethane	10.61	117	26874	50.94	ug/mLm	92
19) Nitrobenzene	10.94	77	78667	61.95	ug/mL#	76
20) Isophorone	11.75	82	159932	59.77	ug/mL	99
21) 2-Nitrophenol	11.88	139	39464	62.63	ug/mL	87
22) 2,4-Dimethylphenol	12.33	107	40415	34.28	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.70	93	64392	47.13	ug/mL	98
24) 2,4-Dichlorophenol	12.67	162	60633	67.90	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.83	180	53810	56.69	ug/mL	99
26) Naphthalene	13.00	128	185978	63.43	ug/mL#	91
27) 4-Chloroaniline	13.00	127	23324	16.82	ug/mL#	8
28) Hexachlorobutadiene	13.52	225	27583	49.77	ug/mL	98
29) 4-Chloro-3-methylphenol	15.04	107	71878	62.51	ug/mL	92
30) 2-Chloronaphthalene	16.58	162	140364	67.32	ug/ml	95
31) 2-Methylnaphthalene	15.04	142	56186	23.87	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	47014	55.32	ug/mL	97
35) 2,4,5-Trichlorophenol	16.12	196	47014	70.91	ug/mL	98
37) 2-Nitroaniline	17.93	65	3809	3.39	ug/mL#	100
38) Dimethylphthalate	17.83	163	100094	37.65	ug/mL	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d
Acq On : 4 Jun 95 7:04 am
Sample : 22659MS..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:36 1995

Vial: 27
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	181282	51.99	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	48485	76.40	ug/mL	81
42)	Acenaphthene	18.37	153	158243	75.46	ug/mL	99
43)	2,4-Dinitrophenol	18.66	184	23597	66.99	ug/mL	99
44)	4-Nitrophenol	19.14	109	26892	79.36	ug/mL	88
46)	2,4-Dinitrotoluene	19.97	165	169896	71.16	ug/mL#	34
47)	Diethylphthalate	20.07	149	145441	49.27	ug/mL	98
48)	Fluorene	19.97	166	183372	71.21	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	85539	70.12	ug/mL	98
51)	4-Nitroaniline	19.97	138	1902	3.37	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	33506	74.96	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	89532	51.93	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	282944	68.87	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	51088	73.08	ug/mL	94
57)	Hexachlorobenzene	21.59	284	60888	83.62	ug/mL#	75
58)	Pentachlorophenol	22.31	266	42101	90.27	ug/mL	99
59)	Phenanthrene	22.85	178	292342	78.75	ug/mL	99
60)	Anthracene	22.85	178	302620	88.42	ug/mL	99
62)	Di-n-butylphthalate	25.16	149	437772	80.34	ug/mL	99
63)	Fluoranthene	27.12	202	337156	96.04	ug/mL	94
65)	Benzidine	27.93	184	3699	2.53	ug/ml	100
66)	Pyrene	27.12	202	336460	66.93	ug/mL#	87
68)	Butylbenzylphthalate	29.70	149	217209	67.48	ug/mL	87
69)	Benzo[a]anthracene	30.88	228	328642	64.77	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.00	252	25385	19.62	ug/mLm	97
71)	Chrysene	30.88	228	330668	117.19	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.67	149	345135	75.58	ug/mL	100
74)	Di-n-octylphthalate	33.58	149	533567	64.65	ug/mL	100
75)	Benzo[b]fluoranthene	34.03	252	207506	51.92	ug/mL	99
76)	Benzo[k]fluoranthene	34.03	252	207506	107.62	ug/mL	92
77)	Benzo[a]pyrene	34.03	252	207506	104.42	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.42	276	30768	41.98	ug/mL#	84
79)	Dibenz[a,h]anthracene	37.54	278	36991	52.40	ug/mL	94
80)	Benzo[g,h,i]perylene	37.42	276	30768	53.39	ug/mL	97

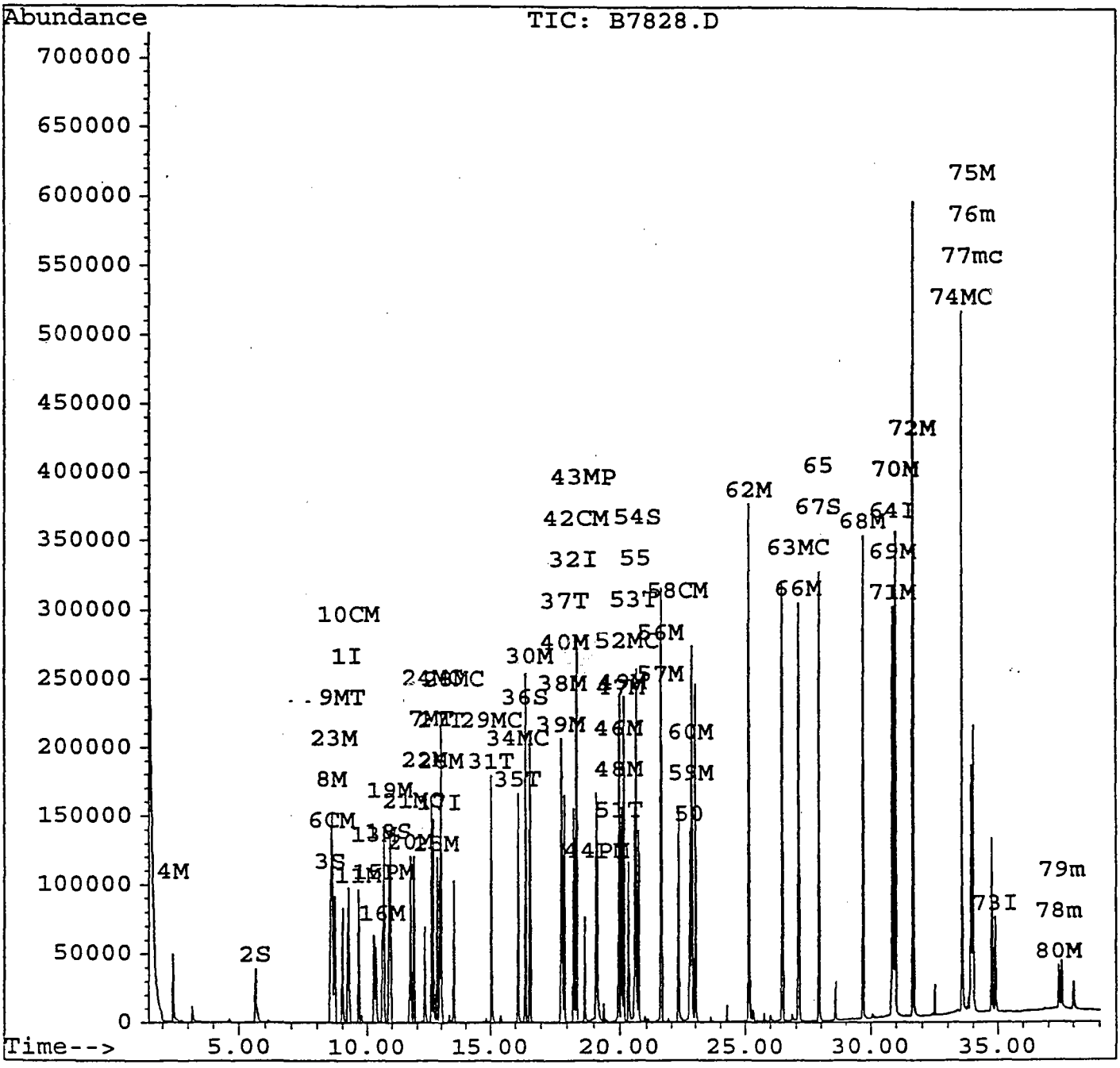
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d
Acq On : 4 Jun 95 7:04 am
Sample : 22659MS..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:36 1995

Vial: 27
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.21	152	30456	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	121585	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	84364	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	145091	40.00	ug/ml	0.25
64) Chrysene-d12	30.90	240	140877	40.00	ug/mL	0.32
73) Perylene-d12	34.90	264	65773	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.62	112	46772	54.29	ug/mL	54.29%
3) Phenol-d5	8.55	99	107330	75.28	ug/mL	75.28%
18) Nitrobenzene-d5	10.88	82	108636	78.42	ug/mL	78.42%
36) 2-Fluorobiphenyl	16.41	172	165709	65.48	ug/mL	65.48%
54) 2,4,6-Tribromophenol	20.71	330	39093	99.77	ug/mL	99.77%
67) Terphenyl-d14	27.93	244	291732	78.02	ug/mL	78.02%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.41	74	37285	84.69	ug/mlm	0
5) Pyridine	1.56	79	2539	7.79	ug/ml	100
6) Phenol	8.59	94	82228	64.76	ug/mL	100
7) bis(2-Chloroethyl)ether	12.60	93	99103	64.25	ug/mL	98
8) 2-Chlorophenol	8.61	128	63241	65.44	ug/mL	94
9) 1,3-Dichlorobenzene	9.01	146	51022	48.38	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	54214	49.83	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	54332	52.57	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.28	45	169096	118.86	ug/mL#	65
15) N-Nitroso-Di-n-propylamine	10.67	70	66550	64.95	ug/mL	99
16) Hexachloroethane	10.61	117	23688	42.19	ug/mL	96
19) Nitrobenzene	10.94	77	84987	65.95	ug/mL#	77
20) Isophorone	11.75	82	169858	62.55	ug/mL	99
21) 2-Nitrophenol	11.88	139	41660	65.15	ug/mL	88
22) 2,4-Dimethylphenol	12.33	107	38383	32.08	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.70	93	69472	50.11	ug/mL	100
24) 2,4-Dichlorophenol	12.67	162	61214	67.55	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.83	180	58047	60.26	ug/mL	99
26) Naphthalene	13.00	128	195977	65.87	ug/mL#	91
27) 4-Chloroaniline	13.00	127	24740	17.58	ug/mL#	10
28) Hexachlorobutadiene	13.50	225	28998	51.56	ug/mL	97
29) 4-Chloro-3-methylphenol	15.04	107	73983	63.40	ug/mL	98
30) 2-Chloronaphthalene	16.58	162	148187	70.04	ug/ml	98
31) 2-Methylnaphthalene	15.04	142	56674	23.73	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	47065	53.72	ug/mL	98
35) 2,4,5-Trichlorophenol	16.12	196	47065	68.86	ug/mL	99
37) 2-Nitroaniline	17.93	65	3818	3.30	ug/mL#	100
38) Dimethylphthalate	17.83	163	92844	33.88	ug/mL	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	187395	52.13	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	48705	74.44	ug/mL	81
42)	Acenaphthene	18.37	153	164599	76.13	ug/mL	99
43)	2,4-Dinitrophenol	18.66	184	23948	65.95	ug/mL	99
44)	4-Nitrophenol	19.15	109	27839	79.68	ug/mL	90
46)	2,4-Dinitrotoluene	19.95	165	181124	73.58	ug/mL#	31
47)	Diethylphthalate	20.07	149	147246	48.39	ug/mL	98
48)	Fluorene	19.95	166	195315	73.56	ug/mL	100
49)	4-Chlorophenyl-phenylether	20.15	204	92973	73.93	ug/mL	99
51)	4-Nitroaniline	19.97	138	2140	3.55	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	34580	72.34	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	103444	56.10	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	304015	69.20	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	56539	75.63	ug/mL	94
57)	Hexachlorobenzene	21.59	284	65629	84.28	ug/mL#	76
58)	Pentachlorophenol	22.31	266	45874	91.98	ug/mL	96
59)	Phenanthrene	22.85	178	302063	76.09	ug/mL	100
60)	Anthracene	22.85	178	307177	83.93	ug/mL	99
62)	Di-n-butylphthalate	25.16	149	462525	79.38	ug/mL	100
63)	Fluoranthene	27.12	202	360324	95.98	ug/mL	93
65)	Benzidine	27.93	184	3521	2.29	ug/ml	100
66)	Pyrene	27.12	202	359722	68.02	ug/mL#	89
68)	Butylbenzylphthalate	29.69	149	229144	67.66	ug/mL	98
69)	Benzo[a]anthracene	30.88	228	343280	64.31	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.00	252	42496	31.23	ug/mLm	95
71)	Chrysene	30.88	228	346867	116.85	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.68	149	354135	73.72	ug/mL	97
74)	Di-n-octylphthalate	33.58	149	572669	68.37	ug/mL	99
75)	Benzo[b]fluoranthene	34.03	252	206742	50.97	ug/mL	98
76)	Benzo[k]fluoranthene	34.03	252	206742	105.65	ug/mL	95
77)	Benzo[a]pyrene	34.03	252	206742	102.50	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.42	276	28894	38.84	ug/mL	89
79)	Dibenz[a,h]anthracene	37.52	278	34681	48.41	ug/mL#	86
80)	Benzo[g,h,i]perylene	37.42	276	28610	48.92	ug/mL	100

(#) = qualifier out of range (m) = manual integration

New Jersey Department of Environmental Protection
Division of Water Resources
Bureau of Underground Storage Tanks
CN-029, Trenton, New Jersey 08625

LABORATORY AUTHENTICATION STATEMENT

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Paul Faraci

Laboratory Manager (as defined in N.J.A.C. 7:18)