

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 430B
Main Post***

NJDEP UST Registration No. 0090010-45

NJDEP Closure Approval No. C-93-3897

Spill Case No. 94-7-27-1344

February 1997





**UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT**

BUILDING 430B

MAIN POST

NJDEP UST REGISTRATION NO. 0090010-45

NJDEP CLOSURE APPROVAL NO. C-93-3897

SPILL CASE NO. 94-7-27-1344

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PREPARED FOR:

UNITED STATES ARMY, FORT MONMOUTH, NEW JERSEY

DIRECTORATE OF PUBLIC WORKS

BUILDING 167

FORT MONMOUTH, NJ 07703

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EXECUTIVE SUMMARY

UST Closure

On July 26, 1994, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3897 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 0090010-45, was located immediately adjacent to Building 430B in the Main Post area of U.S. Army, Fort Monmouth. UST No. 0090010-45 was a 550-gallon No. 2 fuel 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) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. Several holes were noted in the UST and evidence of potentially contaminated soils was observed surrounding the tank.

On July 27, 1994, following removal of the UST, approximately 18 cubic yards of potentially contaminated soil was removed from the excavation. Post-excavation soil samples A, B, C, D, E, F, and DUP F were collected from a total of six (6) locations along the sidewalls of the excavation. The samples were collected at a depth of 5.0 feet below ground surface (bgs). Following removal of the UST fuel lines, sample H was collected along the former piping length of the excavation, which was approximately 7 feet in length. The piping sample was collected at a depth of 1.0 foot bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC).

Based on an inspection of the UST, and field screening of subsurface soils the Directorate of Public Works (DPW) concluded that an historical discharge was associated with the UST. On July 27, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 0090010-45 and was assigned Spill Case No. 94-7-27-1344.

Findings - Soil

All post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 430B contained TPHC concentrations 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). Samples A, B, C, D, E, F, DUP F, and H, contained levels of TPHC ranging in concentration from 43.7 mg/kg to 957.0 mg/kg.



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 Quality Assurance

The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements for Site Remediation*.

Site Assessment - Groundwater

In response to the observation of potentially contaminated soil near the shallow water table, one shallow overburden monitoring well (MW-1) was installed at the Building 430B area on August 16, 1995. It was installed approximately 5 feet north 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 November 27, 1995, and December 18, 1995, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

Findings - Groundwater

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

The depth to the water table was 2.78 feet below grade on November 27, 1995, and 2.49 feet below grade on December 18, 1995.

Discrepancies

The removal contractor collected soil samples using polystyrene scoops instead of NJDEP approved stainless steel scoops. The results of the soil samples were therefore evaluated at 50% of the actual value to compensate for any potential loss due to absorbency of the polystyrene scoop.



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 exist in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on November 27, 1995 and December 18, 1995, groundwater quality at the Building 430B UST closure site complies with the New Jersey Groundwater Quality Standard for volatile organic compounds and semivolatile organic compounds.

No further action is proposed in regard to the closure and site assessment of UST No. 0090010-45 at Building 430B.



1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

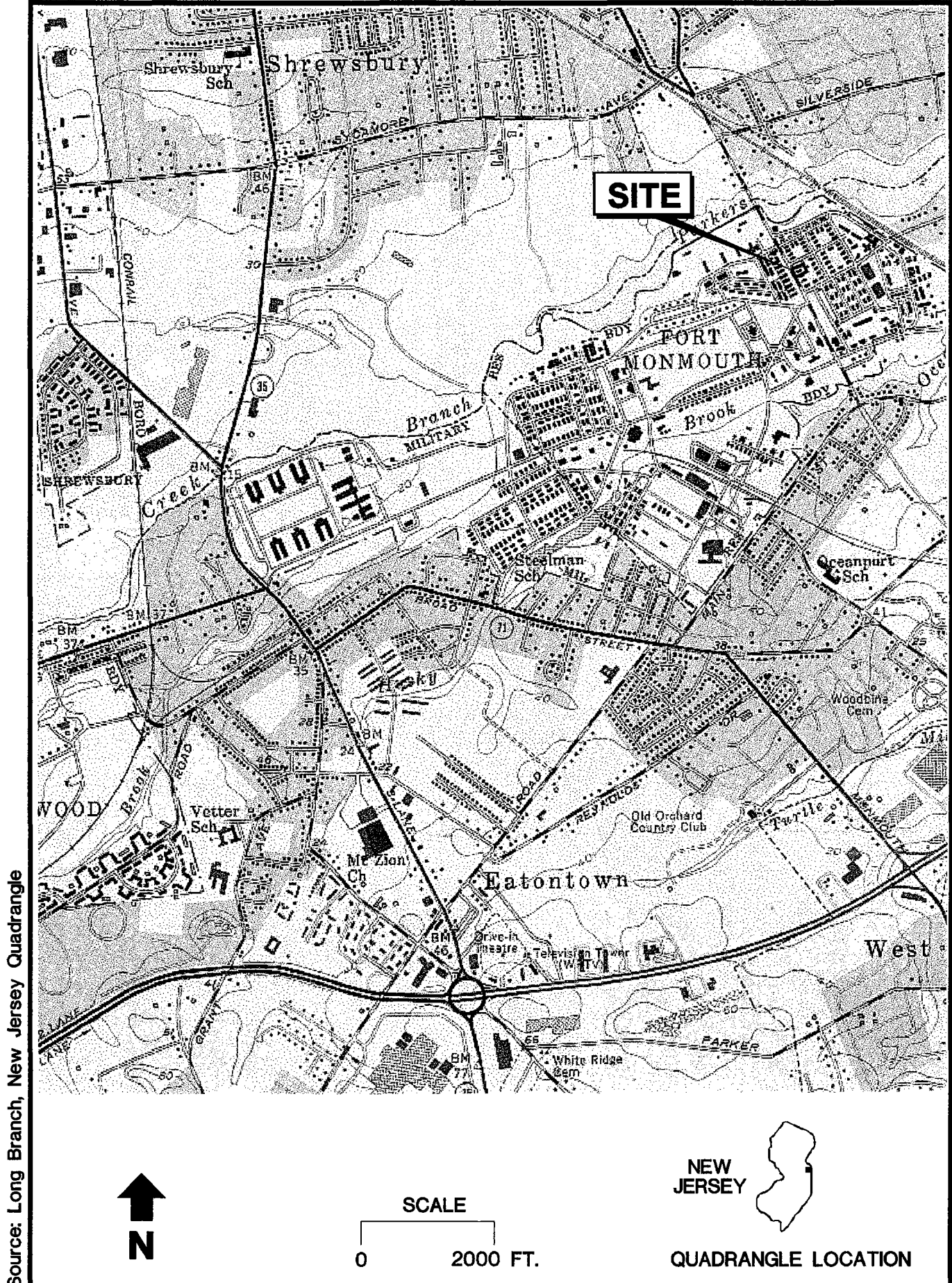
One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 0090010-45, was closed at Building 430B at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on July 26, 1994. Refer to site location map on Figure 1. This report presents the results of the Directorate of Public Works (DPW's) implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on August 2, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3897. The UST was a steel 550-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 0090010-45 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. 0090010-45 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 0090010-45 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 an historical discharge was associated with the UST. On July 27, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 0090010-45 and was assigned Spill Case No. 94-7-27-1344.

This UST Closure and Site Investigation Report has been prepared by Smith Technology 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 recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.



Source: Long Branch, New Jersey Quadrangle

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Figure 1
Site Location Map
Building 430B

1.2 SITE DESCRIPTION

Building 430B is located in the northeastern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 0090010-45 was located north of Building 430B and appurtenant piping ran approximately 7 feet southwest from the excavation to Building 430B. The fill port area was located directly above the tank. A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 430B. 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.

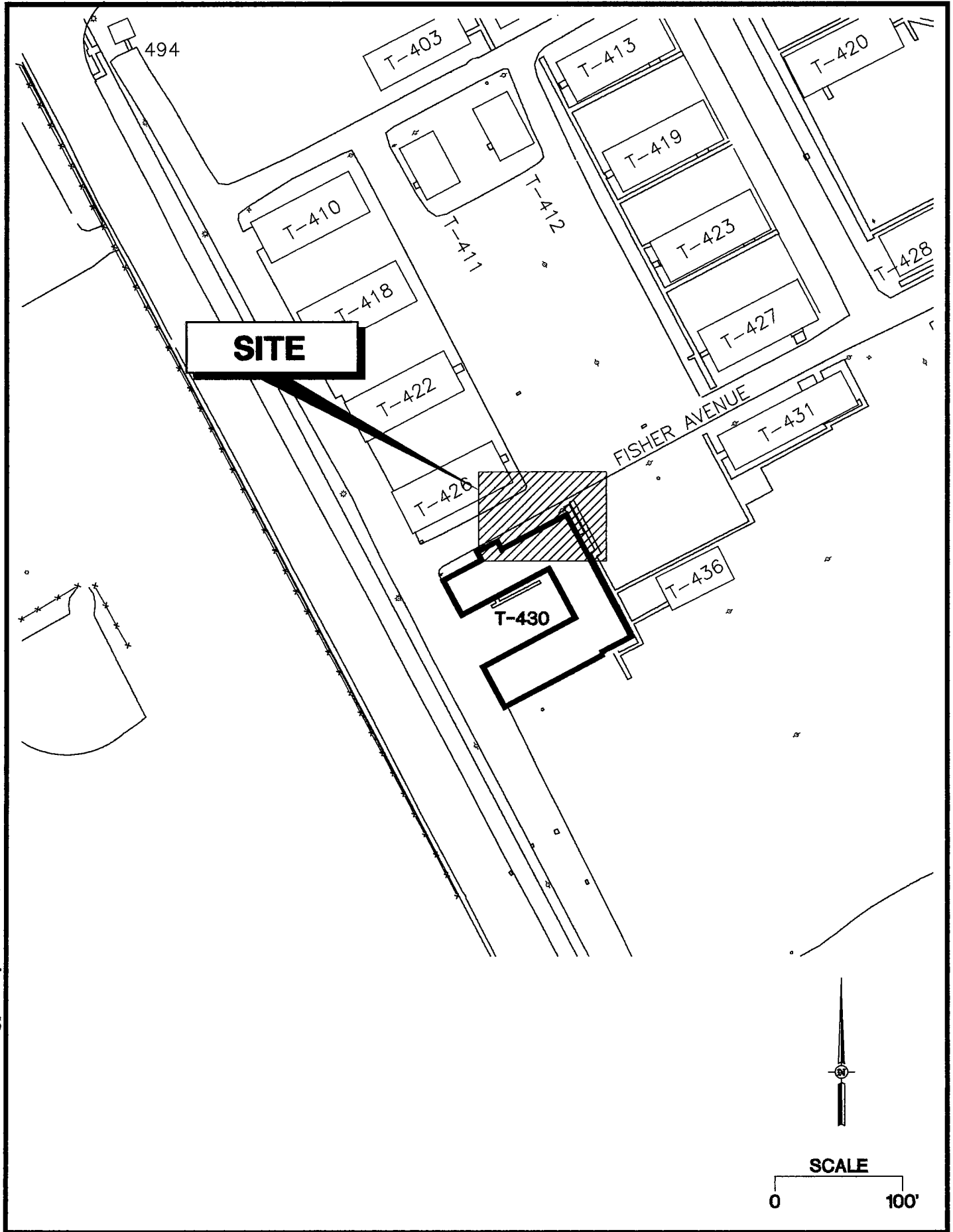
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 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 Zapeczka, 1990).

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-

Source: Smith Technology Corporation (114)



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Figure 2
Building 430B
Site Map

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 iron oxide encrusted (Minard).

Hydrogeology

The water table aquifer in 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 in the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (bgs). 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.

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 Site Assessment activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed 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 550 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Refer to Appendix C for the waste manifest (NJA-1603180).

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 holes. Several holes were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. Evidence of contamination was observed.

Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length.



1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc. to Mazza and Sons Inc. for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificate.

The removal contractor 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 visual observations, approximately 18 cubic yards of potentially contaminated soils were excavated from the UST excavation. 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 T-80 on Main Post for storage 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.



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)
Closure Supervisor: George Bernotsky
Phone Number: (201)427-2881
NJDEP Certification No.: 3249
- Subsurface Evaluator: Dinkerrai M. Desai
Employer: U.S. Army, Fort Monmouth
Phone Number: (908)532-1475
NJDEP Certification No.: E0002266
- 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)721-0900
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. 090010-45 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On July 27, 1994, post-excavation soil samples A, B, C, D, E, F, and DUP F were collected from a total of six (6) locations along the sidewalls of the excavation, at a depth of 5.0 feet below ground surface (bgs). Following removal of the UST fuel lines, sample H was collected along the former piping length of the excavation, which was approximately 7 feet in length. The piping sample was collected at a depth of 1.0 foot bgs. All samples were analyzed for TPHC.

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided in 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 1,914.0 mg/kg, still below the applicable NJDEP soil 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 potentially contaminated soil near the shallow water table, one shallow monitoring well (MW-1) was installed at the Building 430B area on August 16, 1995. It was installed approximately 5 feet north of the UST excavation in the assumed downgradient direction. It was screened in the 2.5- to 12.5 foot 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 drilling permit and a well construction log is presented in Appendix E.

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 0.5 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.

TABLE 1
PAGE 1 OF 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 430B, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Dup F	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
H	7/27/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
MW-1	11/27/95	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Bailer
MW-1	12/18/95	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Bailer

* Note:

TPHC Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)
VOCs Volatile Organic Compounds calibrated for xylene plus 15 tentatively identified compounds (Method 524.2 / aqueous)
SVOCs Semivolatile Organic Compounds plus 15 tentatively identified compounds (Method 625 / aqueous)

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soil430B.doc



The monitoring well was developed using a peristaltic surface 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 November 27, 1995 and December 18, 1995, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

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

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 seven (7) locations on July 27, 1994. All samples were analyzed for TPHC. The post-excavation sampling 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 in Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected on July 27, 1994, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria. Post-excavation soil samples A, B, C, D, E, F, DUP F, and H collected on July 27, 1994 contained levels of TPHC ranging in concentration from 43.7 mg/kg to 957.0 mg/kg.

3.2 GROUNDWATER SAMPLING RESULTS

All VOC results were either below the detection limit or in compliance with the New Jersey Groundwater Quality Standard (GWQS).

The sample collected from MW-1 on November 27, 1995, contained non-detectable concentrations of contaminants.

The sample collected from MW-1 on December 18, 1995, contained methylene chloride at 0.90 ug/l. No other compounds were detected.

No product or sheen was observed in MW-1 on either of the sampling dates. The depth to the water table was 2.78 feet below grade surface on November 27, 1995 and 2.49 feet below grade surface on December 18, 1995.

All groundwater analytical results are presented in Table 3 and shown on Figure 4. The groundwater analytical data package is provided in Appendix F. The full data package, including quality control, is on file at U.S. Army Fort Monmouth, DPW.

TABLE 2
PAGE 1 OF 1

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 430B
FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/5.0-5.5'	1592.1	7/27/94	8/08/94	Total Solid	--	--	81 %	--	--
				TPHC	6.6	yes	90.1	10,000	--
B/5.0-5.5'	1592.2	7/27/94	8/08/94	Total Solid	--	--	86 %	--	--
				TPHC	6.6	yes	48.4	10,000	--
C/5.0-5.5'	1592.3	7/27/94	8/08/94	Total Solid	--	--	89 %	--	--
				TPHC	6.6	yes	82.0	10,000	--
D/5.0-5.5'	1592.4	7/27/94	8/08/94	Total Solid	--	--	84 %	--	--
				TPHC	6.6	yes	54.9	10,000	--
E/5.0-5.5'	1592.5	7/27/94	8/08/94	Total Solid	--	--	82 %	--	--
				TPHC	6.6	yes	957.0	10,000	--
F/5.0-5.5'	1592.6	7/27/94	8/08/94	Total Solid	--	--	85 %	--	--
				TPHC	6.6	yes	91.1	10,000	--
Dup F/5.0-5.5'	1592.7	7/27/94	8/08/94	Total Solid	--	--	85 %	--	--
				TPHC	6.6	yes	80.6	10,000	--
H/1.0-1.5'	1592.8	7/27/94	8/08/94	Total Solid	--	--	85 %	--	--
				TPHC	6.6	yes	43.7	10,000	--

Notes:

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

Actual soil TPHC values may be higher than reported due to absorbency by polystyrene scoops. If absorbency resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would be 1,914.0 mg/kg.

Smith Technology Corporation (Project No. 09-5004-08)

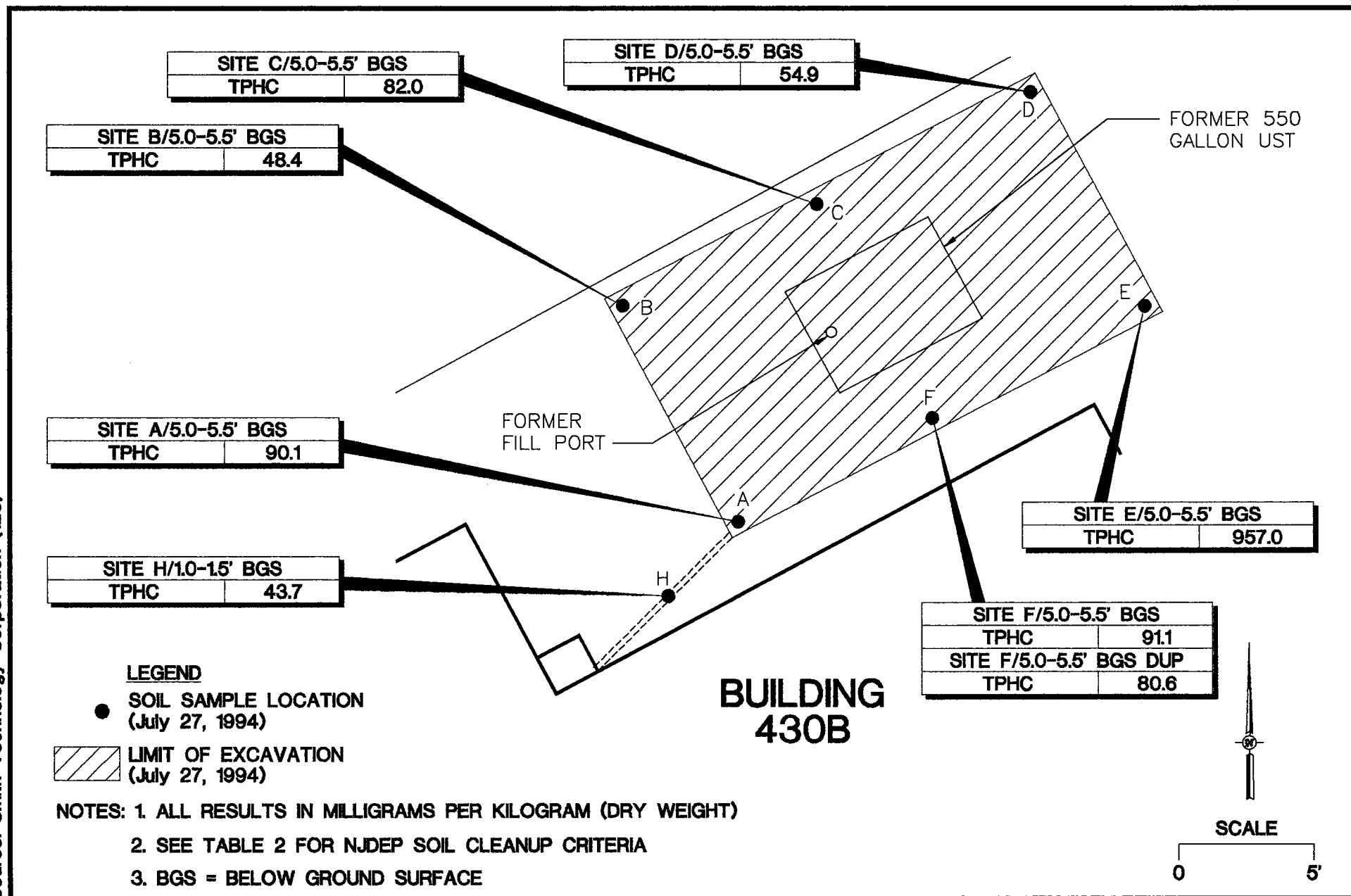


TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, MAIN POST, MW-1
FT. MONMOUTH, NEW JERSEY
VOLATILE ORGANICS

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	11/27/95	12/5/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			1,1-Dichloroethene	0.50	--	ND	2	--
			Methylene Chloride	0.50	--	ND	100*	--
			1,2-Dichloroethene (trans)	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1,1-Trichloroethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			1,1-Dichloropropene	0.50	--	ND	30	--
			Benzene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			Trichloroethene	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			Dibromomethane	0.50	--	ND	NA	--
			Bromodichloromethane	0.50	--	ND	--	--
			cis-1,3-Dichloropropene	0.50	--	ND	1	--
			Toluene	0.50	--	ND	10	--
			trans-1,3-Dichloropropene	0.50	--	ND	3	--
			1,1,2-Trichloroethane	0.50	--	ND	1	--
			Tetrachloroethene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	4	--
			Dibromochloromethane	0.50	--	ND	10	--
			1,2-Dibromomethane	0.50	--	ND	1*	--
			Chlorobenzene	0.50	--	ND	2	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	1,000	--
			Ethylbenzene	0.50	--	ND	--	--
			Xylenes (Total)	0.50	--	ND	4	--
			Styrene	0.50	--	ND	700	--
			Bromoform	0.50	--	ND	40	--
			Isopropylbenzene	0.50	--	ND	100	--
			Bromobenzene	0.50	--	ND	--	--
			1,1,2,2-Tetrachloroethane	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	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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	11/27/95	12/5/95	tert-Butylbenzene	0.50	--	ND	--	--
			1,2,4-Trimethylbenzene	0.50	--	ND	--	--
			sec-Butylbenzene	0.50	--	ND	--	--
			1,3-Dichlorobenzene	0.50	--	ND	600	--
			4-Isopropyltoluene	0.50	--	ND	75	--
			1,4-Dichlorobenzene	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	--	--
			Methy-tertiary butyl ether	0.50	--	ND	--	--
			tertiary-Butyl alcohol	2.0	--	ND	--	--
TENTATIVELY IDENTIFIED COMPOUNDS:			Benzene, 1-methyl-2-propyl-	--	--	1 J	--	--
		Unknown	--	--	--	1 J	--	--
		Unknown	--	--	--	1 J	--	--

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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	11/27/95	12/8/95	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-phenylether	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	--
			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	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (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	11/27/95	12/8/95	Indeno(1,2,3-cd)pyrene	2	--	ND	NA	--
			Dibenzo(a,h)anthracene	3	--	ND	NA	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--
TENTATIVELY IDENTIFIED COMPOUNDS:			NONE FOUND	--	--	--	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Trip Blank	11/27/95	12/5/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			1,1-Dichloroethene	0.50	--	ND	2	--
			Methylene Chloride	0.70	--	0.70 B	100*	--
			1,2-Dichloroethene (trans)	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1,1-Trichloroethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			1,1-Dichloropropene	0.50	--	ND	30	--
			Benzene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			Trichloroethene	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			Dibromomethane	0.50	--	ND	NA	--
			Bromodichloromethane	0.50	--	ND	--	--
			cis-1,3-Dichloropropene	0.50	--	ND	1	--
			Toluene	0.50	--	ND	10	--
			trans-1,3-Dichloropropene	0.50	--	ND	3	--
			1,1,2-Trichloroethane	0.50	--	ND	1	--
			Tetrachloroethene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	4	--
			Dibromochloromethane	0.50	--	ND	10	--
			1,2-Dibromomethane	0.50	--	ND	1*	--
			Chlorobenzene	0.50	--	ND	2	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	1,000	--
			Ethylbenzene	0.50	--	ND	--	--
			Xylenes (Total)	0.50	--	ND	4	--
			Styrene	0.50	--	ND	700	--
			Bromoform	0.50	--	ND	40	--
			Isopropylbenzene	0.50	--	ND	100	--
			Bromobenzene	0.50	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Trip Blank	11/27/95	12/5/95	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	--
			4-Isopropyltoluene	0.50	--	ND	75	--
			1,4-Dichlorobenzene	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	--	--
			Methy-tertiary butyl ether	0.50	--	ND	--	--
			tertiary-Butyl alcohol	2.0	--	ND	--	--
TENTATIVELY IDENTIFIED COMPOUNDS:			Furan, tetrahydro-	--	--	3 J	--	--
			Column Bleed	--	--	1 J	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Field Blank	11/27/95	12/5/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			1,1-Dichloroethene	0.50	--	ND	2	--
			Methylene Chloride	0.60 B	--	0.60 B	100*	--
			1,2-Dichloroethene (trans)	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1,1-Trichloroethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			1,1-Dichloropropene	0.50	--	ND	30	--
			Benzene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			Trichloroethene	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			Dibromomethane	0.50	--	ND	NA	--
			Bromodichloromethane	0.50	--	ND	--	--
			cis-1,3-Dichloropropene	0.50	--	ND	1	--
			Toluene	0.50	--	ND	10	--
			trans-1,3-Dichloropropene	0.50	--	ND	3	--
			1,1,2-Trichloroethane	0.50	--	ND	1	--
			Tetrachloroethene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	4	--
			Dibromochloromethane	0.50	--	ND	10	--
			1,2-Dibromomethane	0.50	--	ND	1*	--
			Chlorobenzene	0.50	--	ND	2	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	1,000	--
			Ethylbenzene	0.50	--	ND	--	--
			Xylenes (Total)	0.50	--	ND	4	--
			Styrene	0.50	--	ND	700	--
			Bromoform	0.50	--	ND	40	--
			Isopropylbenzene	0.50	--	ND	100	--
			Bromobenzene	0.50	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--
			n-Propylbenzene	0.50	--	ND	--	--
			2-Chlorotoluene	0.50	--	ND	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Field Blank	11/27/95	12/5/95	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	--
			4-Isopropyltoluene	0.50	--	ND	75	--
			1,4-Dichlorobenzene	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	--	--
			Methy-tertiary butyl ether	0.50	--	ND	--	--
			tertiary-Butyl alcohol	2.0	--	ND	--	--
TENTATIVELY IDENTIFIED COMPOUNDS:			Column Bleed	--	--	1 J	--	--
			Furan, tetrahydro-	--	--	3 J	--	--
			Column Bleed	--	--	1 J	--	--
			Unknown Hydrocarbon	--	--	2 J	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Field Blank	11/27/95	12/8/95	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-phenylether	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	--
			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	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (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
Field Blank	11/27/95	12/8/95	Indeno(1,2,3-cd)pyrene	2	--	ND	NA	--
			Dibenzo(a,h)anthracene	3	--	ND	NA	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--
TENTATIVLEY IDENTIFIED COMPOUNDS:			Unkown Hydrocarbon	--	--	5 J		
			Hexadecanoic acid	--	--	2 J		

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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	12/18/95	12/29/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			1,1-Dichloroethene	0.50	--	ND	2	--
			Methylene Chloride	0.90	--	0.90 B	100*	--
			1,2-Dichloroethene (trans)	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1,1-Trichloroethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			1,1-Dichloropropene	0.50	--	ND	30	--
			Benzene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			Trichloroethene	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			Dibromomethane	0.50	--	ND	NA	--
			Bromodichloromethane	0.50	--	ND	--	--
			cis-1,3-Dichloropropene	0.50	--	ND	1	--
			Toluene	0.50	--	ND	10	--
			trans-1,3-Dichloropropene	0.50	--	ND	3	--
			1,1,2-Trichloroethane	0.50	--	ND	1	--
			Tetrachloroethene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	4	--
			Dibromochloromethane	0.50	--	ND	10	--
			1,2-Dibromomethane	0.50	--	ND	1*	--
			Chlorobenzene	0.50	--	ND	2	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	1,000	--
			Ethylbenzene	0.50	--	ND	--	--
			Xylenes (Total)	0.50	--	ND	4	--
			Styrene	0.50	--	ND	700	--
			Bromoform	0.50	--	ND	40	--
			Isopropylbenzene	0.50	--	ND	100	--
			Bromobenzene	0.50	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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	12/18/95	12/29/95	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	--
			4-Isopropyltoluene	0.50	--	ND	75	--
			1,4-Dichlorobenzene	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	--	--
			Methy-tertiary butyl ether	0.50	--	ND	--	--
			tertiary-Butyl alcohol	2.0	--	ND	--	--
			TEMPTATIVELY IDENTIFIED COMPOUNDS:			Column Bleed	--	--
		Benzene, (1-methylpropyl)-	--	--	1 J			
		Benzene, 1,4-diethyl-	--	--	1 J			
		Benzene, 1,3-diethyl-	--	--	1 J			
		Benzene, 1-methyl-3-(methy	--	--	2 J			
		Unknown	--	--	1 J			
		Unknown	--	--	1 J			
		Unknown	--	--	3 J			
		Benzene, 1,2,3,5-tetramethyl	--	--	1 J			
		Unknown Hydrocarbon	--	--	1 J			
		Unknown	--	--	1 J			
		Unknown	--	--	2 J			
		Unknown	--	--	2 J			
		Unknown	--	--	1 J			
		Unknown	--	--	1 J			

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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	12/18/95	12/26/95	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-phenylether	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	--
			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	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (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	12/18/95	12/26/95	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	--
			TENTATIVELY IDENTIFIED COMPOUNDS:		Naphthalene, 2,7-dimethyl-	--	--	1 J

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Trip Blank	12/18/95	12/29/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			1,1-Dichloroethene	0.50	--	ND	2	--
			Methylene Chloride	1.4	--	1.4 B	100*	--
			1,2-Dichloroethene (trans)	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1,1-Trichloroethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			1,1-Dichloropropene	0.50	--	ND	30	--
			Benzene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			Trichloroethene	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			Dibromomethane	0.50	--	ND	NA	--
			Bromodichloromethane	0.50	--	ND	--	--
			cis-1,3-Dichloropropene	0.50	--	ND	1	--
			Toluene	0.50	--	ND	10	--
			trans-1,3-Dichloropropene	0.50	--	ND	3	--
			1,1,2-Trichloroethane	0.50	--	ND	1	--
			Tetrachloroethene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	4	--
			Dibromochloromethane	0.50	--	ND	10	--
			1,2-Dibromomethane	0.50	--	ND	1*	--
			Chlorobenzene	0.50	--	ND	2	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	1,000	--
			Ethylbenzene	0.50	--	ND	--	--
			Xylenes (Total)	0.50	--	ND	4	--
			Styrene	0.50	--	ND	700	--
			Bromoform	0.50	--	ND	40	--
			Isopropylbenzene	0.50	--	ND	100	--
			Bromobenzene	0.50	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Trip Blank	12/18/95	12/29/95	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	--
			4-Isopropyltoluene	0.50	--	ND	75	--
			1,4-Dichlorobenzene	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	--	--
			Methy-tertiary butyl ether	0.50	--	ND	--	--
			tertiary-Butyl alcohol	2.0	--	ND	--	--
TENTATAIVELY IDENTIFIED COMPOUNDS:			Furan, tetraydro-	--	--	2 J	--	--
			Column Bleed	--	--	2 J	--	--
			Column Bleed	--	--	1 J	--	--

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Field Blank	12/18/95	12/29/95	Dichlorodifluoromethane	0.50	--	ND	--	--
			Chloromethane	0.50	--	ND	--	--
			Vinyl Chloride	0.50	--	ND	--	--
			Bromomethane	0.50	--	ND	5	--
			Chloroethane	0.50	--	ND	--	--
			Trichlorofluoromethane	0.50	--	ND	--	--
			1,1-Dichloroethene	0.50	--	ND	2	--
			Methylene Chloride	1.4	--	1.4 B	100*	--
			1,2-Dichloroethene (trans)	0.50	--	ND	2*	--
			1,1 Dichloroethane	0.50	--	ND	70	--
			2,2-Dichloropropane	0.50	--	ND	--	--
			cis-1,2-Dichloroethene	0.50	--	ND	--	--
			Bromochloromethane	0.50	--	ND	10*	--
			Chloroform	0.50	--	ND	6	--
			1,1,1-Trichloroethane	0.50	--	ND	--	--
			Carbon Tetrachloride	0.50	--	ND	2	--
			1,1-Dichloropropene	0.50	--	ND	30	--
			Benzene	0.50	--	ND	--	--
			1,2-Dichloroethane	0.50	--	ND	2	--
			Trichloroethene	0.50	--	ND	1	--
			1,2-Dichloropropane	0.50	--	ND	1	--
			Dibromomethane	0.50	--	ND	NA	--
			Bromodichloromethane	0.50	--	ND	--	--
			cis-1,3-Dichloropropene	0.50	--	ND	1	--
			Toluene	0.50	--	ND	10	--
			trans-1,3-Dichloropropene	0.50	--	ND	3	--
			1,1,2-Trichloroethane	0.50	--	ND	1	--
			Tetrachloroethene	0.50	--	ND	NA	--
			1,3-Dichloropropane	0.50	--	ND	4	--
			Dibromochloromethane	0.50	--	ND	10	--
			1,2-Dibromomethane	0.50	--	ND	1*	--
			Chlorobenzene	0.50	--	ND	2	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	1,000	--
			Ethylbenzene	0.50	--	ND	--	--
			Xylenes (Total)	0.50	--	ND	4	--
			Styrene	0.50	--	ND	700	--
			Bromoform	0.50	--	ND	40	--
			Isopropylbenzene	0.50	--	ND	100	--
			Bromobenzene	0.50	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.50	--	ND	--	--
			1,2,3-Trichloropropane	0.50	--	ND	--	--

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Field Blank	12/18/95	12/29/95	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	--
			4-Isopropyltoluene	0.50	--	ND	75	--
			1,4-Dichlorobenzene	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	--	--
			Methy-tertiary butyl ether	0.50	--	ND	--	--
			tertiary-Butyl alcohol	2.0	--	ND	--	--
TENTATIVELY IDENTIFIED COMPOUNDS:			Column Bleed	--	--	2 J		
			Furan, tetrahydro-	--	--	1 J		

TABLE 3
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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, 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)	GWQC (ug/l)	Exceeds Criteria
Field Blank	12/18/95	12/26/95	Phenol	10	--	ND	4000	--
			bis(2 chloroethyl)Ether	10	--	ND	20	--
			2-Chlorophenol	10	--	ND	40	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			2-Methylphenol	10	--	ND	--	--
			bis(2-chloroisopropyl)Ether	10	--	ND	300	--
			4-Methylphenol	10	--	ND	--	--
			N-Nitroso-Di-n-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			2-Nitrophenol	10	--	ND	--	--
			2,4-Dimethylphenol	10	--	ND	100	--
			bis(2-Chloroethoxy)Methane	10	--	ND	--	--
			2,4-Dichlorophenol	10	--	ND	20	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	--	--
			4-Chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			4-Chloro-3-methylphenol	10	--	ND	--	--
			2-methylnaphthanene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2,4,6-Trichlorophenol	10	--	ND	20	--
			2,4,5-Trichlorophenol	25	--	ND	700	--
			2-Chloronaphthalene	10	--	ND	--	--
			2-Nitroaniline	25	--	ND	--	--
			Dimethyl Phthalate	10	--	ND	--	--
			Acenaphthylene	10	--	ND	NA	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			3-Nitroaniline	25	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			2,4-Dinitrophenol	25	--	ND	40	--
			4-Nitrophenol	25	--	ND	--	--
			Dibenzofuran	10	--	ND	--	--
			2,4-Dinitrotoluene	10	--	ND	10	--
			Diethylphthalate	10	--	ND	5,000	--
			Fluorene	10	--	ND	300	--
			4-Chlorophenyl-phenylether	10	--	ND	--	--

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GROUNDWATER SAMPLING RESULTS
BUILDING 430B, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (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
Field Blank	12/18/95	12/26/95	4-Nitroaniline	25	--	ND	--	--
			4,6-Dinitro-2-methylphenol	25	--	ND	--	--
			N-Nitrosodiphenylamine	10	--	ND	20	--
			4-Bromophehyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Pentachlorophenol	25	--	ND	1	--
			Phenanthrene	10	--	ND	NA	--
			Anthracene	10	--	ND	2,000	--
			Carbazole	10	--	ND	--	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	ND	100	--
			Benzo(a)Anthracene	10	--	ND	NA	--
			3,3-Dichlorobenzidine	20	--	ND	60	--
			Chrysene	10	--	ND	NA	--
			bis(2-Ethylhexyl)Phthalate	10	--	ND	30	--
			Di-n-Octyl Phthalate	10	--	ND	100	--
			Benzo(b)Fluoranthene	10	--	ND	NA	--
			Benzo(k)Fluoranthene	10	--	ND	NA	--
			Benzo(a)Pyrene	10	--	ND	NA	--
			Indeno(1,2,3-cd)pyrene	10	--	ND	NA	--
			Dibenzo(a,h)anthracene	10	--	ND	NA	--
			Benzo(g,h,i)perylene	10	--	ND	NA	--
TENTATIVELY IDENTIFIED COMPOUNDS:			Unkown Hydrocarbon	--	--	6 J	--	--

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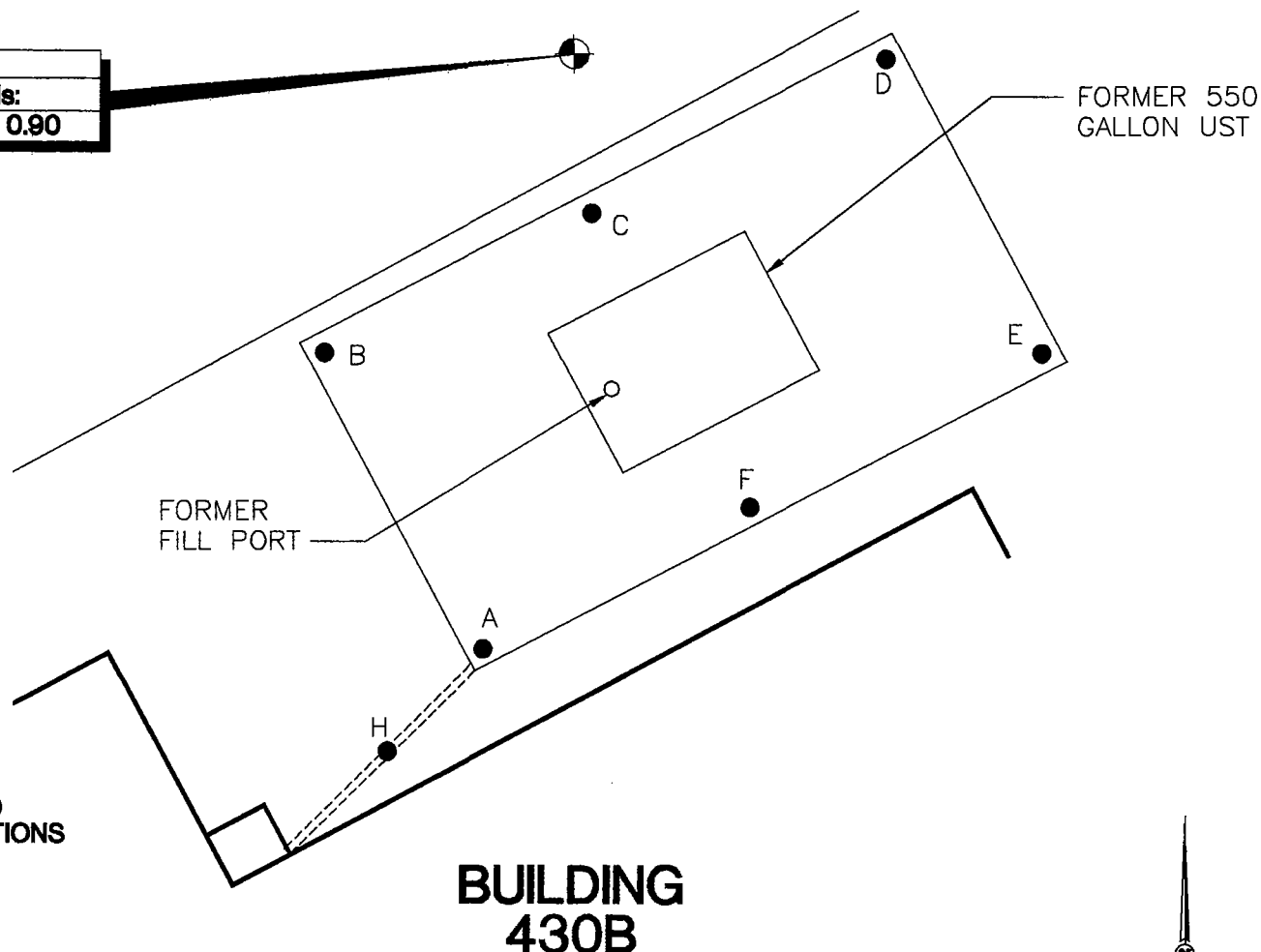
GROUNDWATER SAMPLING RESULTS
BUILDING 430B, MAIN POST
FORT MONMOUTH, NEW JERSEY
DATA QUALIFIERS

--	Not applicable / does not exceed criteria
ND	Indicated compound not detected
NA	Not available for this constituent
J	Indicates detected below sample quantitation limit
B	Indicates also present in blank
GWQC	Groundwater Quality Criteria

Smith Technology Corporation (Project No. 09-5004-08)

soil430B.doc

MW-1	
Volatile Organic Compounds:	
Methylene Chloride	0.90





3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 430B were below the NJDEP soil cleanup criteria for total organic contaminants.

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

Based on the analytical results of the groundwater samples collected on November 27, 1995 and December 18, 1995, groundwater quality at the Building 430B UST closure site complies with the New Jersey Groundwater Quality Standard for VOCs and SVOCs.

The existing discrepancy as listed in the Executive Summary is believed to be acceptable as explained and does not warrant further investigation or explanation. Procedures have been corrected to eliminate recurrences in the future.

No further action is proposed in regard to the closure and site assessment of UST No. 0090010-45 at Building 430B.



APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

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-93-3897

0090010

US Army
BLDG. 430
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 550 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 25% of the
samples will be analyzed for VO+10..

ON-SITE MANAGER: C. Appleby

TELEPHONE: 908-532-1475

OWNER:

TELEPHONE:

EFFECTIVE DATE: **SEP 07 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

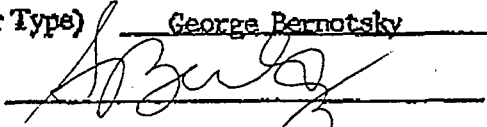
SMITH

APPENDIX B
CERTIFICATIONS

UNDERGROUND STORAGE TANK (UST)
CLOSURE CERTIFICATION

BUILDING NO. 430NJDEP UST REGISTRATION NO. 90010-45DATE TANK REMOVED 7/26/94UO / CONTRACT NUMBER 91-0148

I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NJAC 7:14B-9.2(5)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) George BernotskySIGNATURE NJDEP UST CLOSURE CERTIFICATE NO. 0003249COMPANY PERFORMING TANK DECOMMISSIONING CUTE IncNJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128DATE OF SUBMITTAL 8/16/94

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 028
Trenton, NJ 08625-0028
Tel. # 609-984-3156
Fax. # 609-292-5604

Scott A. Weiner
Commissioner

Karl J. Delane
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 UST's, 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 sealed 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 _____

0090010-45
FACILITY REGISTRATION #

Bldg. 430B

I. FACILITY NAME AND ADDRESS

US Army Fort Monmouth, New Jersey
Directorate of Public Works, Building 167
Fort Monmouth, NJ 07703 County Monmouth
Telephone No. 908-532-1475

OWNER'S NAME AND ADDRESS, if different from above

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

A. Was contamination found? ☒ Yes ☐ No If Yes, Case No. 94-7-27-1344
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)

B. The substance(s) discharged was(were) #2 fuel oil

C. Have any vapor hazards been mitigated? ☐ Yes ☐ No ☒ N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. C-93-3897

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:

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

C. Soil samples and borings (check appropriate answer)

1. Were soil samples taken from the excavation as prescribed? ☒ Yes ☐ No ☐ N/A
2. Were soil borings taken at the tank system closure site as prescribed? ☐ Yes ☐ No ☒ X
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

the horizontal or vertical consideration has been given of contaminant migration).
feet:
path of the plume(s) (as feet from the source.
the potential path of the feet deep and

X N/A
elevations for each well.
r values at the property
han MCLs.
has been denied

7:14B-8.3(b) & 9.5(a)(3)
ned in N.J.A.C. 7:14B-1.6)
in N.J.A.C. 7:14B-8.3(a) &
ment is true, accurate,
A.C. 7:14B-8 and 9.1
urate, or incomplete

02266

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

SOIL CONTAMINATION

- A. Was soil contamination found? X Yes 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. 957.0 ppm TPHC
 4. N/A ppb (for non-petroleum substance)

(Refer to Table 2 for other parameters)
- 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 X Yes No As pertains to this site
 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? X Yes No N/A
- E. Does soil contamination intersect ground water? Yes X No N/A
It did at one time but not after removal.

I. 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:

(Refer to Table 3 for other parameters)

 1. ND ppb total BTEX, 0.90 ppb total non-targeted VOC
 2. ND ppb total B/N, ND ppb total non-targeted B/N
 3. ND ppb total MTBE, ND ppb total TBA
 4. ppb (for non-petroleum substance)
 5. greatest thickness of separate phase product found N/A
 6. separate phase product has been delineated Yes No X N/A
- C. Result(s) of well search
 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 X No N/A
Well search is currently on file at Env. Office.
 2. The number of these wells identified is 0

D. Proximity of wells and contaminant plume N/A

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) 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 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 N/A

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]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C. 7:14B-8.3(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 I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) Dinkerrai M. Desai SIGNATURE _____

COMPANY NAME US Army Fort Monmouth DATE _____
(Preparer of Site Assessment Plan)

CERTIFYING ORGANIZATION NJDEP CERTIFICATION NUMBER E0002266

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) See Appendix B 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(c)1].

"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 _____

COMPANY NAME US Army Fort Monmouth DATE _____

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

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 _____

SMTH

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 8 1/2 x 11 inch typewriter.)

Form Approved, OMB No. 2050-0009, Expires 9-30-95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJ0321062051105180		Manifest Document No. NJ0321062051105180		2. Page of 1		Information in the shaded areas is not required by Federal law.	
2. Generator's Name and Mailing Address Main Post c/o USA Army Communications Electronics Center ATTN: SELFM-DL-EMMS Fort Monmouth NJ		3. State Manifest Document Number NJ0321062051105180		4. State Generator's ID Main Post		5. State Trans. ID NJ0321062051105180		6. State Facility's ID Main Post	
4. Generator's Phone (708) 1532-6223		5. Transporter 1 Company Name Frederick & Co. Inc.		6. US EPA ID Number NJ0321062051105180		7. State Trans. ID NJ0321062051105180		8. State Facility's ID Main Post	
7. Transporter 2 Company Name		8. US EPA ID Number		9. State Trans. ID		10. State Facility's ID		11. State Trans. ID	
9. Designated Facility Name and Site Address Lacetti Oil Recovery Co. Inc. Rumson + Chesapeake R.D. all Bayside NJ 08857		10. US EPA ID Number NJ0321062051105180		11. State Trans. ID NJ0321062051105180		12. State Facility's ID Main Post		13. State Trans. ID	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
a. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III		6011 RT 130550 6		X 171212					
b. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III		6011 RT 130550 6		X 171212					
c. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III		6011 RT 130550 6		X 171212					
d. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III		6011 RT 130550 6		X 171212					
e. Additional Descriptions for Materials Listed Above oil 60% water 40% LT		oil 60% water 40% LT		K. Handling Codes for Wastes Listed Above Filtration T04 T04 Filtration					
15. Special Handling Instructions and Additional Information Not EPA Regulated - AS Hazardous 24 Hr Emerg ID 429-2881 DECA 55404		a) NJDEPE 0090010-45 b) NJDEPE 0090010-54 c) NJDEPE 0090010-71							
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 Joseph M. Fallon		Signature Joseph M. Fallon		Month Day Year 07/13/94			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name PAULO R. MEDEIROS		Signature [Signature]		Month Day Year 07/13/94					
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year					
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name		Signature		Month Day Year					

NJ0321062051105180



APPENDIX D

UST DISPOSAL CERTIFICATE

MAZZA & SONS, INC.

Metal Recyclers
Auto and Truck
3230 Shafto Rd.
Tinton Falls, NJ
(908) 922-9292

NO. _____

DATE 1 Aug 94~~Body~~

411 - VST-009001008

491 - .. 009001071

430 - 009001045

1426 - No VST 0090010138

Fairmonmouth

Easton town, NJ

Customer's Name

Cute inc

Address _____

Make of
Autos

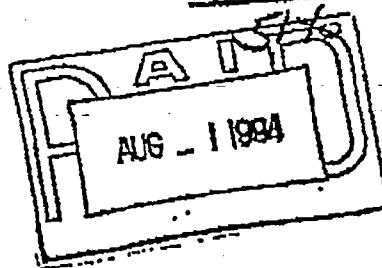
Tires

Tank

Price

43520 LB 5

38380 LB 5



Weight Price

Cast Iron

Steel

L. Iron

Copper #1

Copper #2

L. Copper

Brass

Alum Clean

Lead

Stainless

Radiators

Battery

TOTAL AMOUNT:

Weigher

Customer

Don Ellis



APPENDIX E

MONITORING WELL PERMIT AND CONSTRUCTION LOG



U.S. ARMY
FORT MONMOUTH
SELF-M-PW-EV

LOG OF BORING 430-MW1

(Page 1 of 1)

Produced for Charles Appleby

Project Name : BLDG 430
NJDEP Case # : 94-07-27-1344
Logged By : Shore Drilling
Start Date : 8/16/95

Completion Date : 8/16/95
Northing : N 541935.340
Easting : E 2176220.538
Driller : R. Barnes

Depth in Feet	29-33756 ELEV: 10.50	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	TPHC	Well Construction Information
0		Gray-black gravel; Dry road base		14				Well Construction Date Completed : 8/16/95 Hole Diameter : 8 in Drill Method : HSA Company Rep : R. Barnes Well Casing Material : PVC Diameter : 4 in Joints : Threaded Well Screen Material : PVC Diameter : 4 in Joints : Threaded Opening : 20 Slot Sand Pack : # 2 Morie Sand Annulus Seal : Bentonite/Portland Tremmie Well Screen Material : PVC Diameter : 4 in Cap : NOTES Well # 1 is 430 MW-1 Flushmount Water level 4'
1.5					1	7		
2		Brown and green layers of green clay and brown sand, 1/4 to 1" layers moist		SC				
2.5					2	6		
4		Brown coarse fine sand, small coarse fine gravel, wet at 5' 5"		SP	3	16		
6		Green medium fine sand, silty clay, wet		SM	4	6		
8		Brown coarse-fine sand, gravel, wet		SM	5	5		
10		Green medium-fine sand, silty clay, wet		SM	6	8		
12		Brown coarse-fine sand, small coarse		SW	7	8		
12.5								
14								



APPENDIX F
SOIL ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 1592.1-.8
Sample Rec'd: 07/27/94
Analysis Start: 08/08/94
Analysis Comp: 08/08/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg. #:
Closure #:
DICAR #: 94-7-27-1344-00
Location #: Bldg. 430

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1592.1	Site A, SE OVA= 9.	81	90.1	6.6
1592.2	Site B, NW OVA= 2.	86	48.4	6.6
1592.3	Site C, North OVA= ND	89	82.0	6.6
1592.4	Site D, NE OVA= ND	84	54.9	6.6
1592.5	Site E, SE OVA= ND	82	957.	6.6
1592.6	Site F, South OVA= 3.	85	91.1	6.6
1592.7	Site G, F dup OVA= ND	85	80.6	6.6
1592.8	Site H, PIPE OVA= ND	85	43.7	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit

* = Silica Gel Added, NA = Not Applicable

Batch dup= 101% Batch sp= 100% Batch spd= 104% RPD= 3.7%



Brian K. McKee
Laboratory Director

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

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

Lab. ID #: 1592.1-8
Sample Rec'd: 07/27/94
Analysis Start: 08/08/94
Analysis Comp: 08/08/94

Analysis: Munsel

[illegible]

Brian K. McK

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #:

Chain of Custody

Project #:		Sampler:		Date / Time		Analysis Parameters		Start:			
Customer: DCM		Site Name:		7/27		12-10		Finish:			
94-7-27-1344-00		BCLN 430									
Phone:								Preservation Method			
Lab Sample Number		Date/Time		Customer Sample Location/ID Number		Sample Matrix		# of Bottles		Remarks	
1592.1		7/27 11:30		Site A SE		Soil		1		9	
.2		" 11:35		Site B NW		"		1		2	
.3		" 11:41		Site C NW		"		1		ND	
.4		" 11:45		Site D NG		"		1		ND	
.5		" 12:49		Site E SE		"		1		ND	
.6		" 11:53		Site F SW		"		1		3 OSA Calibration	
.7		" 11:55		Site G (DOP)		"		1		ND 7-27-94 By	
✓ .8		" 12:01		Site H (Pipe)		"		1		ND D. Desai	
										95 ppm CH ₄ + 0.00	
										Re	
Relinquished By (signature)				Date / Time		Received By (signature)				Shipped By:	
[Signature]				7/27/14		[Signature]					
Relinquished By (signature)				Date / Time		Received for Lab by (signature):				Date / Time	
[Signature]				7/27/14		[Signature]				7-27-94 1400	
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.											

Aug. 8, 1994

Jarrah J. Holland

Page 1 of 2

Blank 0 MV

40.75 56 MV

81.5 120 MV

163 242 MV

1591.1 (8 MV) Building 423

1591.2 8 MV

1591.3 5 MV

1591.4 4 MV

1591.5 5 MV

1591.6 4 MV

1591.7 5 MV

1591.8 10 MV

Building 430

1592.1 14 MV

1592.2 7 MV

1592.3 14 MV

1592.4 8 MV

1592.5 173 MV

1592.6 15 MV

1592.7 13 MV

1592.8 6 MV

Building 421

1593.1 8 MV

Building # 296

1594.1 66 MV (517)

PRINTED IN U.S.A.

195-6970-00

Project

195-6970-00

PRINTED IN U.S.A.

1591.8	10 MV	80
Building 430		
1592.1	14 MV	
1592.2	7 MV	
1592.3	14 MV	
1592.4	8 MV	
1592.5	173 MV	100
1592.6	15 MV	
1592.7	13 MV	
1592.8	6 MV	
Building 421		
1593.1	8 MV	
Building # 296		
1594.1	66 MV (217)	100
Building 287		
1596.1	36 (217)	
Building 491		
1595.1	115 MV	
1595.1 Dup	116 MV	100
1595.1 (Spk)	221	
1595.1 Spk Dup	225	
1595.2	65 MV	
1595.3	9 MV	
1595.4	13 MV	
1595.5	21 MV	100
1595.6	23 MV	

No Yes

- ✓

- ✓

- ✓

-

- ✓ —

- ✓

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



APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE

Bldg. 430 MW Anal. 001
11/27/95

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials



New Jersey

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

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

1056 Stelton Road
Piscataway, NJ 08854
(908) 981-0550

New York

350 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

1720 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

212 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

E-SYSTEMS

P.O. Box 360

Fort Monmouth, NJ 07703

PROJECT : Bldg. 430, MW Sampling

EMSL Project: # 95118847

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1983.1, MW1-2933756	95-54558	Aqueous	11/27/95 @ 1214	11/27/95
1980.2, Trip Blank	95-54553	Aqueous	11/27/95 @ 0645	11/27/95
1980.3, Field Blank	95-54554	Aqueous	11/27/95 @ 1415	11/27/95

Laboratory Name

Certification No.

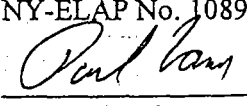
Supervisor/Manager Signature

Printed Name

Date

EMSL ANALYTICAL, INC.

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


Paul V. Laraia

1-18-96

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EMSL

SAMPLE DATA SUMMARY PACKAGE

004

EMSL

Attention: Barbara O'Toole
E-Systems
P.O. Box 360
Fort Monmouth NJ 07703

Date of Report: 12/21/95
Project Number: 95118844
Lab ID: 95-0054553
Date Collected: 11/27/95 06:45
Collected By: Client
Date Received: 11/27/95 17:30

Client Project: MW Sampling, Bldg. 482

Client Designation: Trip Blank

Conc. Unit

ORGANIC

Volatiles

Methyl tertiary-butyl ether

see attached ug/L

tert-Butyl alcohol

see attached ug/L

Volatiles by 524.2 w/ Library Search

see attached ug/l

Xylenes

see attached ug/l

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1980.2
Trip Blank

005

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0475.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	.70	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1986.2
Trip Blank

006

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0475.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1980.2
Trip Blank

007

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg: 482

NJDEP MW#: TB

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0475.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

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: 2

Concentration Units:

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.74	3	J
2.	Column Bleed	23.11	1	J
3.				
4.				
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The logo for Environmental Monitoring Systems Laboratory (EMSL) is a black diamond shape with the letters "EMSL" in white, bold, sans-serif font.

Attention: Barbara O'Toole
E-Systems
P.O. Box 360
Fort Monmouth NJ 07703

Date of Report: 12/21/95
Project Number: 95118844
Lab ID: 95-0054554
Date Collected: 11/27/95 14:15
Collected By: Client
Date Received: 11/27/95 17:30

Client Project: MW Sampling,Bldg.482

Client Designation: Field Blank

	Conc.	Unit
	-----	-----
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/L
tert-Butyl alcohol	see attached	ug/L
Volatiles by 524.2 w/ Library Search	see attached	ug/l
Xylenes	see attached	ug/l

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1980-3
9554554B

003

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: Bldg 482

Location: _____

FB

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9312.D

Level: (low/med) _____

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(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

SAMPLE NO.

1960.3
9554554B

010

Lab Name: EMSL ANALYTICAL

Contract:

Project No.:

Site: Bb 482

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9312.D

Level: (low/med)

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

[illegible]

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

1980.3
9554554B
Field Blank

011

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: Bldg 482 Location: FB Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9312.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 2 Concentration Units: _____
(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown Hydrocarbon	8.14	5	J
2. 57-10-3	Hexadecanoic acid	23.52	2	J
3.				
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IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1980.3

012

Field Blank

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9554554V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0476.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	(.60)	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1980.3
Field Blank

013

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9554554V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0476.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

IE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1980.3
Field Blank

014

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY
Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: FB Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9554554V
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0476.D
Level: (low/med) LOW Date Received: 11/27/95
% Moisture: not dec. NA Date Analyzed: 12/5/95
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: 4 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	10.19	1	J
2. 109-99-9	Furan, tetrahydro-	10.75	3	J
3.	Column Bleed	19.71	1	J
4.	Unknown Hydrocarbon	23.10	2	J
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EMSL

Attention: Barbara O'Toole
E-Systems
P.O. Box 360
Fort Monmouth NJ 07703

Date of Report: 12/14/95
Project Number: 95118847
Lab ID: 95-0054558
Date Collected: 11/27/95 12:14
Collected By: Client
Date Received: 11/27/95 17:30

Client Project: MW Sampling Bldg.430

Client Designation: MW1-2933756

	Conc.	Unit
	-----	-----
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/L
tert-Butyl alcohol	see attached	ug/L
Volatiles by 524.2 w/ Library Search	see attached	ug/l
Xylenes	see attached	ug/l

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1983.1
9554558B

016

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: Bldg 430

Location: MW #1

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554558B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9316.D

Level: (low/med) _____

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(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

SAMPLE NO.

1983.
9554558B

017

Contract:

Project No.:

Site: Bldg 430

Location: MW #1

Group:

Lab Sample ID: 9554558B

Lab File ID: B9316.D

Level: (low/med)

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

[illegible]

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

1983-1
9554558B
MD-2933756

018

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: Bldg 430 Location: MW 1 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554558B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9316.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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.				
10.				
11.				
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29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1983.1

019

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW-2933756

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9554558V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0484.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	.50	U
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1983.1

021

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW1-2933756

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9554558V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0484.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1983.1
MW1-2933756

021

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg: 430

NJDEP MW#: 1

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554558V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0484.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

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: 3

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 1074-17-5	Benzene, 1-methyl-2-propyl-	21.19	1	J
2.	Unknown	23.10	1	J
3.	Unknown	23.12	1	J
4.				
5.				
6.				
7.				
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30.				

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

Paul Man

Laboratory Manager or Environmental
Consultant's Signature

1-18-96

Date

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

Page

- | | |
|--------------|---|
| <u>1</u> | 1. Name and address of the facility. |
| <u>1</u> | 2. Name of the laboratory performing the sample analysis. |
| <u>1</u> | 3. NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18. |
| <u>1</u> | 4. Laboratory sample identification number. |
| <u>1</u> | 5. Customer sample identification number corresponding to the laboratory sample identification. |
| <u>1</u> | 6. Sample Location (also on the site diagram). |
| <u>1</u> | 7. Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges).
All sediment results must be reported on a dry weight basis. |
| <u>29-30</u> | 8. The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136). |
| <u>1</u> | 9. The signature of the person completing the report form. |
| <u>1</u> | 10. The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed. |
| <u>31</u> | 11. A list of all parameters (constituents and conditions) for which the analyses were performed. |
| <u>3-21</u> | 12. Sample results and corresponding units for each parameter. |

024

EMSL

CHAIN OF CUSTODY

EMSL Project # 95118847
PO # IJO#95-0091/SAI

1. Report to: US ARMY FT. MONMOUTH Charles Appleby SELFM-PW-EV Env. Lab. Cert#13461		2. Bill to:		Project: Bldg 430 MW SAMPLING Tel #: 908-532-6224 FAX #:		Indicate Analysis Requested													
3. Sampled by (Signature) Baxter/Palilonis		4. # of Samples in Shipment ONE		5. Date of Sample Shipment 11-27-95		6. Date Results Needed													
Item No.	Sample Number	Station Location / Sample ID	COMP	GRAB	Matrix						Method Preserved						Sampling		Laboratory Number
					WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO ₃	H ₂ SO ₄	ICE	NONE	OTHER	Date	Time		
1	1983.1	mw1-2933756		X	X					X		X	X	11/27	1214	7	X	X	54558
2	1980.2	TRIP Blank		X	X					X		X		11/27	0645	3	X		1553
3	1980.3	Field Blank		X	X					X		X	X	11/27	1415	6	X	X	54554
4																			
5																			
6																			
7																			
8																			
9																			
Released by (Signature) S. T. H. H. H. H. H.		Date/Time Released 11/27/95 1515		Delivery Method Courier		Received by (Signature) S. T. H. H. H. H. H.		Company/Agency Affiliation EMSL		Date/Time Received 11/27/95 1730		Condition Noted 1515							
Please indicate turnaround time: standard 10D 5D 72HR 48HR 24HR (Must call for quick turn)																			
Comments: Page 1 of 1 * A drawing depicting sample location on reverse side.																			
Please indicate reporting requirements: 1) Results only 2) Results & QC 3) Reduced Deliverables																			

Fisher Ave.

1-1/2

Bldg
430

→ main
gate

Hazer

INTERNAL CHAIN OF CUSTODY(ORGANICS)

SAMPLE No(S).	ANALYSIS	DATE ANALYZED	NAME (PRINT)	NAME (SIGNATURE)
55592	TCLP BNA	12/10/95	S. Van Etta	SV
9555533-5	BNA SOIL	12/8/95	S. Van Etta	SV
9554749	VOA + LS	12/01/95	M. Ciampi	MC
9554731	VOA + QC	12/01/95	M. Ciampi	MC
9554732	TCLV OA + LS + QC + SP	12/02/95	M. Ciampi	MC
9555592	GASOLINES	12/11/95	M. Ciampi	MC
9554733	BN +	12/11/95	S. Van Etta	SV
9551-8	BN +	12/8/95	S. Van Etta	SV
51779	BNA	12/8/95	S. Van Etta	SV
54985	BN +	12/8/95	S. Van Etta	SV
54781245	TCL BNA +	12/11/95	S. Van Etta	SV
9554989192	VOA + LS	12/05/95	M. Ciampi	MC
9556167	VOA	12/13/95	M. Ciampi	MC
51912	BN +	12/12/95	S. Van Etta	SV
9556244	S24.2	12/11/95	S. Kessler	SK
9554974-79	G24	12/7/95	S. Kessler	SK
9555614	G24	12/7/95	S. Kessler	SK
9554985	G24	12/7/95	S. Kessler	SK
9554779	G24	12/6/95	S. Kessler	SK
9555117-23	G24	12/7/95	S. Kessler	SK
9554891-98	G24	12/6-12/7/95	S. Kessler	SK
9555089-90	GASOLINES	12/12/95	M. Ciampi	MC

INTERNAL CHAIN OF CUSTODY

028



PROJECT NO. 95118847

PARAMETERS
VCA. B/W

[illegible]

**U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET**

IJO#95-0091

BLDG.#: 430 MW#: 1 NJDEPE WELL ID # 2933756

LABORATORY: EMSL Analytical Services, NJDEP CERT # 04653

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

SAMPLERS NAMES: Tom Baxter, Susan Palilonis

1146

DATE: 11-27-95

WEATHER CONDITIONS: Cool, Sunny

ELEVATION OF CASING SURVEY MARK: _____ FT
TOTAL DEPTH FROM TOP OF SURVEYORS MARK: 12.13 FT
DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT
LENGTH OF SCREENED SECTION: _____ FT
DEPTH TO H2O PRIOR TO PURGING AND SAMPLING: 2.78 FT
ELEVATION OF GW PRIOR TO PURGING: _____ FT
THICKNESS OF LNAPL PRIOR TO PURGING: 0.0 FT

PID/Hnu READING IMMEDIATELY AFTER CAP REMOVAL: 2.5 PPM

DEPTH OF WELL: _____ FT HEIGHT OF WATER: _____ FT

GAL OF H2O TO BE EVACUATED (EST) 18 GAL
 $(9.35 \times 0.65 \times 3 = 18.23)$

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

PURGE RATE (0.5 GPM): 2 GPM

PURGE START TIME: 1155

pH: 5.13 s.u.

TEMP: 14.3 Deg.C

Dissolved Oxygen: 2.0 PPM

Specific Conductivity: 115 us/cm

PURGE END TIME: 1210

pH: 5.13 s.u.

TEMP: 14.0 Deg.C

Dissolved Oxygen: 2.1 PPM

Specific Conductivity: 120 us/cm

DEPTH TO H2O AFTER PURGING AND BEFORE SAMPLING: 3.71 FT

1214

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

TOTAL VOLUME PURGED: 18 GAL

pH: 5.10 s.u.

TEMP: 13.9 Deg.C

Dissolved Oxygen: 2.2 PPM

Specific Conductivity: 121 us/cm

COMMENTS: _____

METHODOLOGY SUMMARY

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 capillary column (DB-624 0.53 mm 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. Reference is Federal Register, Vol. 40, No. 136, July, 1988.

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

If tentatively identified compounds are requested, a computer program analyzes the non-priority pollutant/HSL/TCL compounds with standard mass spectra found in the latest version of the NIH/NBS/EPA mass spectral library.

Method detection limits are as stated.

LABORATORY CHRONICLE

Lab ID: 95-54558, 95-54553, 95-54554

Client: E-Systems

	I	DATE	II	Hold Time
Date Sampled		11/27/95		
Receipt/Refrigeration		11/27/95		
Extractions				
1. Semivolatile Organics		12/4/95		7 days
Analyses				
1. Volatile Organics		12/5/95		14 days
2. Semivolatile Organics		12/8/95		40 days

QC Supervisor
Review & Approval(Signature) Peter B. Pantan
(Printed Name) Peter B. Pantan(Date) 01/18/96

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 ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	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 <u>Methylene Chloride 0.5 - 1.2 ppb.</u>		
b. B/N Fraction <u>46360 MS/MSD: Di-n-butylphthalate 5 ppb</u>		
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

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

- | | | <u>No</u> | <u>Yes</u> |
|-----|---|-----------|------------|
| 10. | Extraction Holding Time Met | _____ | <u>X</u> |
| | If not met, list number of days exceeded for each sample: | | |
| | _____ | | |
| | _____ | | |
| 11. | Analysis Holding Time Met | _____ | <u>X</u> |
| | 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 J. Jara

Date:

1-18-96

034

EMSL

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: C0274.D BFB Injection Date: 11/21/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 0930

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	18.1
75	30.0 - 60.0% of mass 95	42.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	Greater than 50.0% of mass 95	70.3
175	5.0 - 9.0% of mass 174	4.9 (6.9) 1
176	95.0 - 101.0% of mass 174	69.0 (98.1) 1
177	5.0 - 9.0% of mass 176	4.8 (7.0) 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		0.5 PPB STANDARD	C0275.D	11/21/95	0943
02		10 PPB STANDARD	C0279.D	11/21/95	1202
03		20 PPB STANDARD	C0278.D	11/21/95	1128
04		30 PPB STANDARD	C0277.D	11/21/95	1052
05		40 PPB STANDARD	C0276.D	11/21/95	1018
06					
07					
08					
09					
10					
11					
12					
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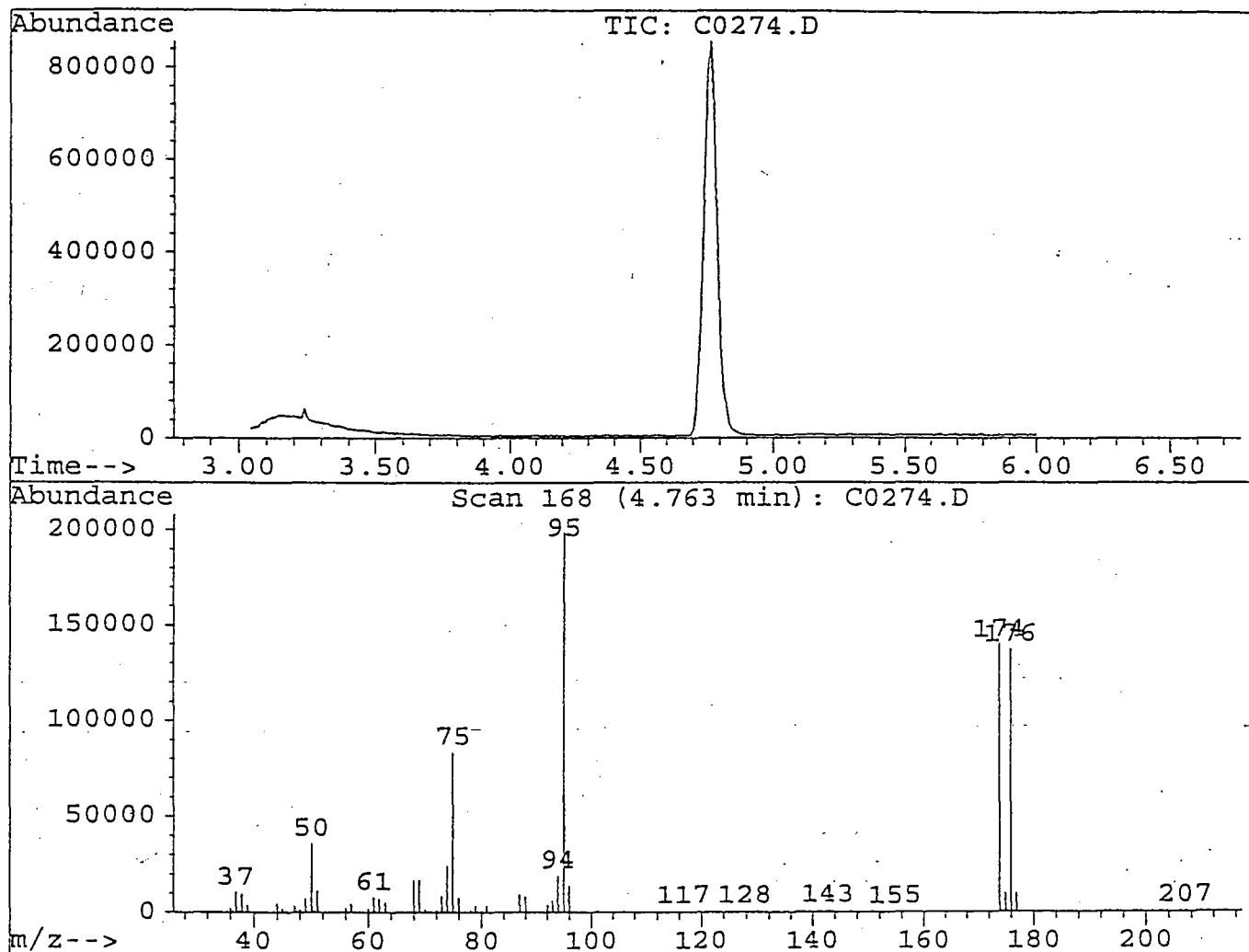
CLPBFB

036

Data File : D:\HPCHEM\1\DATA\C0274.D
Acq On : 21 Nov 95 9:30 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: 168

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	35864	PASS
75	95	30	80	42.0	83456	PASS
95	95	100	100	100.0	198528	PASS
96	95	5	9	6.9	13614	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	70.3	139520	PASS
175	174	5	9	6.9	9663	PASS
176	174	95	101	98.1	136832	PASS
177	176	5	9	7.0	9524	PASS

Scan 168 (4.763 min): C0274.D

BFB TUNE

037

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2277	50.05	35864	68.95	16840	80.90	3318
37.00	10480	51.05	11301	69.95	1438	81.90	791
38.00	9596	54.95	647	71.95	1154	86.90	8982
39.00	3619	56.00	2228	72.95	8548	87.95	8221
40.00	1027	57.00	4456	73.95	24384	90.95	535
42.90	511	60.00	1764	74.95	83456	91.95	3828
44.00	4623	61.00	7920	75.95	7334	92.95	5832
44.90	1739	62.00	7223	77.00	1369	93.95	18976
47.05	3487	63.00	5277	78.00	1252	94.95	198528
47.95	1465	67.05	583	78.90	3315	95.95	13614
48.95	7258	67.95	16648	79.90	878	96.95	630

Scan 168 (4.763 min): C0274.D

BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.90	570	175.95	136832				
116.85	739	176.95	9524				
118.90	643	207.00	701				
127.90	866						
129.95	560						
134.85	621						
141.00	967						
142.90	1142						
154.85	600						
173.95	139520						
174.95	9663						

Response Factor Report 5972 - In

038

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Nov 21 13:46:36 1995
 Response via : Initial Calibration

Calibration Files

0.5 =C0275.D 10 =C0279.D 20 =C0278.D
 30 =C0277.D 40 =C0276.D

Compound		0.5	10	20	30	40	Avg	%RSD
-----ISTD-----								
1)	Fluorobenzene							
2) M	Dichlorodifluorometha	0.287	0.266	0.261	0.265	0.273	0.271	3.80
3) M	Chloromethane	0.232	0.207	0.195	0.196	0.198	0.206	7.64
4) M	Vinyl chloride	0.231	0.229	0.223	0.226	0.235	0.229	1.94
5) M	Bromomethane	0.205	0.165	0.144	0.144	0.136	0.159	17.51
6) M	Chloroethane	0.143	0.138	0.128	0.117	0.109	0.127	11.04
7) M	Trichlorofluoromethan	0.426	0.390	0.383	0.392	0.384	0.395	4.52
8) M	1,1-Dichloroethene	0.255	0.233	0.231	0.230	0.234	0.237	4.48
9) M	Methylene chloride		0.279	0.233	0.219	0.215	0.237	12.46
10) M	trans-1,2-Dichloroeth	0.282	0.270	0.266	0.264	0.270	0.270	2.62
11)	Hexane						0.000#	-1.00
12) M	1,1-Dichloroethane	0.532	0.513	0.498	0.494	0.503	0.508	2.94
13) M	2,2-Dichloropropane	0.466	0.408	0.407	0.415	0.426	0.424	5.77
14) M	cis-1,2-Dichloroethen	0.273	0.275	0.262	0.258	0.260	0.266	2.85
15)	2-Butanone						0.000#	-1.00
16) M	Bromochloromethane	0.115	0.124	0.113	0.111	0.113	0.115	4.52
17) M	Chloroform	0.487	0.479	0.459	0.457	0.464	0.469	2.85
18) M	1,1,1-Trichloroethane	0.469	0.457	0.449	0.444	0.453	0.454	2.09
19) M	Carbon tetrachloride	0.428	0.432	0.426	0.426	0.435	0.429	0.90
20) M	1,1-Dichloropropene	0.445	0.423	0.418	0.413	0.419	0.424	2.93
21) M	Benzene	0.992	0.878	0.833	0.817	0.829	0.870	8.27
22) M	1,2-Dichloroethane	0.199	0.209	0.190	0.185	0.191	0.195	4.85
23) M	Trichloroethene	0.377	0.365	0.354	0.350	0.358	0.361	2.90
24) M	1,2-Dichloropropane	0.306	0.319	0.296	0.290	0.298	0.302	3.69
25) M	Dibromomethane	0.128	0.145	0.131	0.127	0.131	0.132	5.52
26) M	Bromodichloromethane	0.386	0.413	0.387	0.379	0.389	0.391	3.37
27) M	cis-1,3-Dichloroprope	0.351	0.372	0.347	0.340	0.352	0.352	3.45
28) M	Toluene		0.639	0.609	0.597	0.610	0.614	2.89
29) M	trans-1,3-Dichloropro	0.237	0.263	0.239	0.234	0.243	0.243	4.73
30) M	1,1,2-Trichloroethane	0.127	0.144	0.128	0.124	0.129	0.131	5.87
31) M	Tetrachloroethene	0.458	0.436	0.429	0.425	0.429	0.435	3.03
32) M	1,3-Dichloropropane	0.248	0.273	0.243	0.233	0.240	0.247	6.16
33) M	Dibromochloromethane	0.241	0.284	0.260	0.253	0.262	0.260	6.03
34) M	1,2-Dibromoethane	0.180	0.212	0.189	0.182	0.189	0.190	6.83
35) M	Chlorobenzene	0.746	0.734	0.693	0.676	0.688	0.707	4.33
36) M	1,1,1,2-Tetrachloroet	0.287	0.316	0.290	0.285	0.290	0.294	4.34
37) M	Ethylbenzene	1.356	1.287	1.236	1.205	1.219	1.261	4.87
38) M	Xylene (para & meta)	0.530	0.488	0.464	0.451	0.453	0.477	6.89
39) M	Xylene (Ortho)	0.469	0.454	0.427	0.416	0.422	0.438	5.22
40) M	Styrene	0.676	0.715	0.668	0.646	0.655	0.672	3.95
41) M	Bromoform	0.121	0.161	0.145	0.141	0.144	0.142	10.19
42) M	Isopropylbenzene	1.274	1.248	1.201	1.179	1.192	1.219	3.31
43) S	4-Bromofluorobenzene	0.533	0.559	0.538	0.528	0.541	0.540	2.22

Response Factor Report 5972 - In

039

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Nov 21 13:46:36 1995
 Response via : Initial Calibration

Calibration Files

0.5 =C0275.D 10 =C0279.D 20 =C0278.D
 30 =C0277.D 40 =C0276.D

	Compound	0.5	10	20	30	40	Avg	%RSD
44) M	Bromobenzene	0.310	0.343	0.314	0.304	0.307	0.316	4.90
45) M	1,1,2,2-Tetrachloroet	0.145	0.183	0.161	0.153	0.158	0.160	8.85
46) M	1,2,3-Trichloropropan	0.165	0.182	0.161	0.154	0.159	0.164	6.55
47) M	n-Propylbenzene	1.751	1.699	1.650	1.605	1.613	1.664	3.68
48) M	2-Chlorotoluene	1.051	0.971	0.921	0.960	0.960	0.973	4.91
49) M	4-Chlorotoluene	1.145	1.127	1.065	1.036	1.045	1.084	4.57
50) M	1,3,5-Trimethylbenzen	1.107	1.095	1.045	1.018	1.021	1.057	3.93
51) M	tert-Butylbenzene	1.227	1.237	1.176	1.146	1.151	1.187	3.56
52) M	1,2,4-Trimethylbenzen	1.151	1.093	1.030	1.001	1.006	1.056	6.08
53) M	sec-Butylbenzene	1.690	1.667	1.602	1.555	1.547	1.612	3.99
54) M	1,3-Dichlorobenzene	0.660	0.666	0.617	0.592	0.589	0.625	5.84
55) M	4-Isopropyltoluene	1.355	1.354	1.290	1.245	1.236	1.296	4.41
56) M	1,4-Dichlorobenzene	0.648	0.660	0.600	0.574	0.581	0.612	6.40
57) S	1,2-Dichlorobenzene-d	0.336	0.368	0.338	0.325	0.324	0.338	5.29
58) M	1,2-Dichlorobenzene	0.519	0.543	0.485	0.462	0.462	0.494	7.28
59) M	n-Butylbenzene	1.377	1.370	1.307	1.265	1.257	1.315	4.31
60) M	1,2-Dibromo-3-chlorop	0.035	0.037	0.033	0.031	0.032	0.034	7.58
61) M	1,2,4-Trichlorobenzen	0.384	0.446	0.404	0.384	0.383	0.400	6.73
62) M	Hexachlorobutadiene	0.355	0.365	0.350	0.339	0.329	0.348	4.00
63) M	Naphthalene	0.407	0.444	0.383	0.353	0.347	0.387	10.34
64) M	1,2,3-Trichlorobenzen	0.279	0.337	0.297	0.274	0.271	0.292	9.42
65)	Methyl-tert butyl eth		0.339	0.297	0.289	0.299	0.306	7.29
66)	tert-Butyl Alcohol		0.005	0.004	0.004	0.004	0.005	9.33

Quantitation Report

040

Data File : D:\HPCHEM\1\DATA\C0275.D

Acq On : 21 Nov 95 9:43 am

Sample : 0.5 PPB STANDARD

Misc : 25 ML

Quant Time: Nov 21 13:45 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 Nov 21 13:46:36 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1820408	5.00	ug/L	0.42

System Monitoring Compounds

%Recovery

43) 4-Bromofluorobenzene	19.44	95	969768	4.67	ug/L	93.41%
57) 1,2-Dichlorobenzene-d4	22.24	152	612531	4.91	ug/L	98.22%

Target Compounds

Qvalue

2) Dichlorodifluoromethane	3.53	85	52316	0.39	ug/L	97
3) Chloromethane	3.98	50	42319	0.61	ug/L	98
4) Vinyl chloride	4.16	62	42117	0.51	ug/L	92
5) Bromomethane	4.90	94	37297	0.62	ug/L	97
6) Chloroethane	5.12	64	25997	0.54	ug/L	90
7) Trichlorofluoromethane	5.71	101	77594	0.41	ug/L	100
8) 1,1-Dichloroethene	6.81	96	46511	0.54	ug/L	# 71
9) Methylene chloride	7.81	84	319424	3.67	ug/L	97
10) trans-1,2-Dichloroethene	8.35	96	51408	0.53	ug/L	95
12) 1,1-Dichloroethane	9.14	63	96756	0.50	ug/L	100
13) 2,2-Dichloropropane	10.19	77	84847	0.44	ug/L	94
14) cis-1,2-Dichloroethene	10.21	96	49660	0.52	ug/L	97
16) Bromochloromethane	10.63	128	20891	0.50	ug/L	99
17) Chloroform	10.77	83	88666	0.45	ug/L	96
18) 1,1,1-Trichloroethane	11.09	97	85372	0.42	ug/L	93
19) Carbon tetrachloride	11.37	117	77995	0.41	ug/L	90
20) 1,1-Dichloropropene	11.37	75	81023	0.48	ug/L	94
21) Benzene	11.73	78	180526	0.59	ug/L	92
22) 1,2-Dichloroethane	11.76	62	36177	0.38	ug/L	83
23) Trichloroethene	12.83	95	68547	0.50	ug/L	97
24) 1,2-Dichloropropane	13.20	63	55699	0.54	ug/L	98
25) Dibromomethane	13.41	93	23381	0.45	ug/L	95
26) Bromodichloromethane	13.67	83	70253	0.42	ug/L	98
27) cis-1,3-Dichloropropene	14.41	75	63879	0.48	ug/L	92
28) Toluene	14.99	92	153622	0.69	ug/L	m 98
29) trans-1,3-Dichloropropene	15.35	75	43191	0.44	ug/L	89
30) 1,1,2-Trichloroethane	15.67	83	23162	0.49	ug/L	95
31) Tetrachloroethene	15.94	166	83338	0.52	ug/L	97
32) 1,3-Dichloropropane	15.96	76	45174	0.49	ug/L	95
33) Dibromochloromethane	16.36	129	43861	0.43	ug/L	99
34) 1,2-Dibromoethane	16.57	107	32720	0.46	ug/L	m 95
35) Chlorobenzene	17.41	112	135723	0.53	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.56	131	52286	0.47	ug/L	98
37) Ethylbenzene	17.60	91	246785	0.52	ug/L	m 67
38) Xylene (para & meta)	17.80	106	192842	1.13	ug/L	90
39) Xylene (Ortho)	18.51	106	85435	0.54	ug/L	m 93
40) Styrene	18.53	104	123015	0.51	ug/L	90

(4) Qualifier out of range (m) = manual integration

Quantitation Report

041

Data File : D:\HPCHEM\1\DATA\C0275.D

Acq On : 21 Nov 95 9:43 am

Sample : 0.5 PPB STANDARD

Misc : 25 ML

Quant Time: Nov 21 13:45 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 Nov 21 13:46:36 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.88	173	21972	0.40	ug/L	93
42) Isopropylbenzene	19.16	105	231861	0.50	ug/L	96
44) Bromobenzene	19.72	156	56512	0.49	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.69	83	26461	0.46	ug/L	96
46) 1,2,3-Trichloropropane	19.75	75	29999	0.47	ug/L m	1
47) n-Propylbenzene	19.90	91	318712	0.50	ug/L m	58
48) 2-Chlorotoluene	20.07	91	191301	0.52	ug/L m	98
49) 4-Chlorotoluene	20.26	91	208453	0.49	ug/L	96
50) 1,3,5-Trimethylbenzene	20.21	105	201508	0.49	ug/L	97
51) tert-Butylbenzene	20.81	119	223381	0.50	ug/L	96
52) 1,2,4-Trimethylbenzene	20.90	105	209498	0.50	ug/L	97
53) sec-Butylbenzene	21.21	105	307562	0.49	ug/L m	57
54) 1,3-Dichlorobenzene	21.43	146	120084	0.52	ug/L m	95
55) 4-Isopropyltoluene	21.47	119	246629	0.50	ug/L	98
56) 1,4-Dichlorobenzene	21.59	146	117975	0.52	ug/L m	96
58) 1,2-Dichlorobenzene	22.28	146	94399	0.52	ug/L m	0
59) n-Butylbenzene	22.22	91	250733	0.49	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.70	75	6427	0.45	ug/L m	0
61) 1,2,4-Trichlorobenzene	25.25	180	69932	0.47	ug/L	93
62) Hexachlorobutadiene	25.57	225	64588	0.48	ug/L	99
63) Naphthalene	25.71	128	74092	0.53	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.22	180	50786	0.47	ug/L m	0
65) Methyl-tert butyl ether	8.40	73	84870	0.70	ug/L m	0

Quantitation Report

042

Data File : D:\HPCHEM\1\DATA\C0275.D

Acq On : 21 Nov 95 9:43 am

Sample : 0.5 PPB STANDARD

Misc : 25 ML

Quant Time: Nov 21 13:45 1995

Vial: 2

Operator: SRK

Inst : 5972 - In

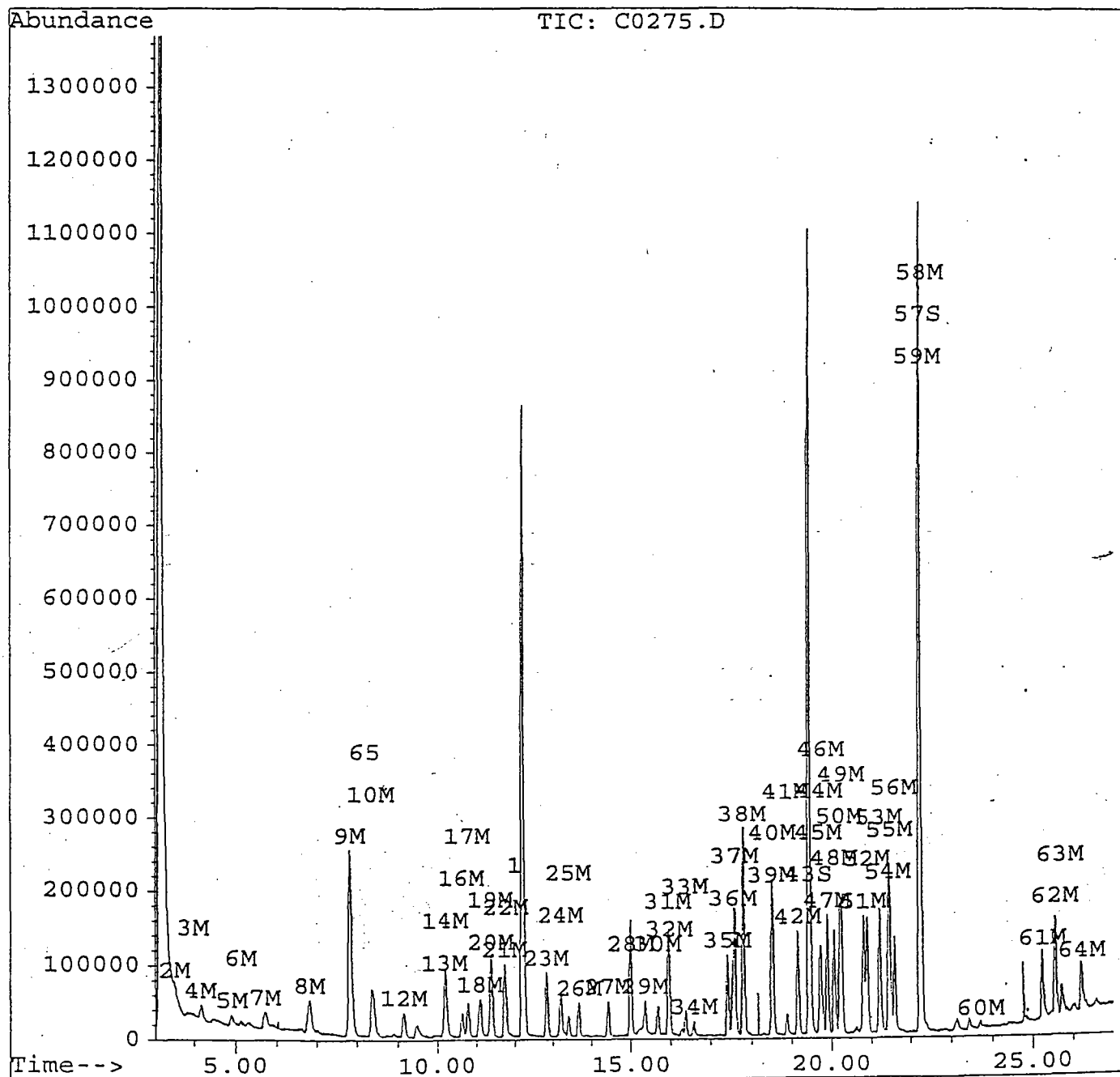
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue Nov 21 13:46:36 1995

Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpcchem\1\data\c0279.d
Acq On : 21 Nov 95 12:02 pm
Sample : 10 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:10 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 : Tue Nov 21 13:46:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.21	96	1609009	5.00	ug/L	0.00
System Monitoring Compounds				%Recovery		
43) 4-Bromofluorobenzene	19.46	95	899980	4.90	ug/L	98.08%
57) 1,2-Dichlorobenzene-d4	22.25	152	592880	5.38	ug/L	107.56%
Target Compounds				Qvalue		
2) Dichlorodifluoromethane	3.54	85	856472	7.28	ug/L	99
3) Chloromethane	3.99	50	666017	10.89	ug/L	99
4) Vinyl chloride	4.18	62	735860	10.01	ug/L	98
5) Bromomethane	4.88	94	531114	9.97	ug/L	94
6) Chloroethane	5.12	64	444951	10.52	ug/L	99
7) Trichlorofluoromethane	5.71	101	1256624	7.50	ug/L	96
8) 1,1-Dichloroethene	6.83	96	750318	9.77	ug/L	# 78
9) Methylene chloride	7.83	84	899322	11.70	ug/L	99
10) trans-1,2-Dichloroethene	8.36	96	867754	10.09	ug/L	92
12) 1,1-Dichloroethane	9.16	63	1649567	9.64	ug/L	98
13) 2,2-Dichloropropane	10.21	77	1314116	7.70	ug/L	87
14) cis-1,2-Dichloroethene	10.22	96	884860	10.51	ug/L	# 89
16) Bromochloromethane	10.64	128	399435	10.81	ug/L	97
17) Chloroform	10.79	83	1542720	8.81	ug/L	99
18) 1,1,1-Trichloroethane	11.10	97	1469392	8.16	ug/L	97
19) Carbon tetrachloride	11.38	117	1389681	8.31	ug/L	99
20) 1,1-Dichloropropene	11.38	75	1360544	9.04	ug/L	97
21) Benzene	11.73	78	2826008	10.49	ug/L	98
22) 1,2-Dichloroethane	11.77	62	673923	8.03	ug/L	90
23) Trichloroethene	12.84	95	1175434	9.62	ug/L	99
24) 1,2-Dichloropropane	13.21	63	1027243	11.25	ug/L	100
25) Dibromomethane	13.42	93	467301	10.25	ug/L	96
26) Bromodichloromethane	13.67	83	1330545	9.02	ug/L	100
27) cis-1,3-Dichloropropene	14.43	75	1198677	10.14	ug/L	96
28) Toluene	15.00	92	2055048	10.48	ug/L	97
29) trans-1,3-Dichloropropene	15.36	75	846524	9.69	ug/L	92
30) 1,1,2-Trichloroethane	15.67	83	463270	11.00	ug/L	97
31) Tetrachloroethene	15.95	166	1403167	9.97	ug/L	99
32) 1,3-Dichloropropane	15.97	76	877213	10.66	ug/L	99
33) Dibromochloromethane	16.37	129	913271	10.23	ug/L	98
34) 1,2-Dibromoethane	16.58	107	683447	10.96	ug/L	98
35) Chlorobenzene	17.43	112	2362576	10.50	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.57	131	1018157	10.30	ug/L	97
37) Ethylbenzene	17.61	91	4142973	9.94	ug/L	96
38) Xylene (para & meta)	17.82	106	3139022	20.79	ug/L	93
39) Xylene (Ortho)	18.52	106	1462030	10.52	ug/L	93
40) Styrene	18.54	104	2300383	10.69	ug/L	89

Quantitation Report

044

Data File : d:\hpchem\1\data\c0279.d
Acq On : 21 Nov 95 12:02 pm
Sample : 10 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:10 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 : Tue Nov 21 13:46:36 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.89	173	519312	10.60	ug/L	98
42) Isopropylbenzene	19.17	105	4015738	9.78	ug/L m	0
44) Bromobenzene	19.74	156	1102438	10.77	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.69	83	588802	11.59	ug/L	98
46) 1,2,3-Trichloropropane	19.78	75	586144	10.31	ug/L #	28
47) n-Propylbenzene	19.91	91	5467496	9.79	ug/L	98
48) 2-Chlorotoluene	20.08	91	3124523	9.65	ug/L	97
49) 4-Chlorotoluene	20.27	91	3628061	9.64	ug/L	96
50) 1,3,5-Trimethylbenzene	20.22	105	3523555	9.67	ug/L	95
51) tert-Butylbenzene	20.82	119	3979719	10.01	ug/L	96
52) 1,2,4-Trimethylbenzene	20.91	105	3517466	9.42	ug/L	95
53) sec-Butylbenzene	21.22	105	5364130	9.72	ug/L	99
54) 1,3-Dichlorobenzene	21.44	146	2143707	10.49	ug/L	98
55) 4-Isopropyltoluene	21.48	119	4355898	9.92	ug/L	97
56) 1,4-Dichlorobenzene	21.60	146	2122376	10.55	ug/L	99
58) 1,2-Dichlorobenzene	22.28	146	1748295	10.98	ug/L m	0
59) n-Butylbenzene	22.23	91	4410108	9.74	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.71	75	120610	9.58	ug/L #	80
61) 1,2,4-Trichlorobenzene	25.25	180	1434366	10.89	ug/L	97
62) Hexachlorobutadiene	25.58	225	1174339	9.84	ug/L	95
63) Naphthalene	25.73	128	1427329	11.66	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.23	180	1085916	11.35	ug/L	99
65) Methyl-tert butyl ether	8.40	73	1090548	10.21	ug/L	97
66) tert-Butyl Alcohol	8.19	59	33044	21.67	ug/L	100

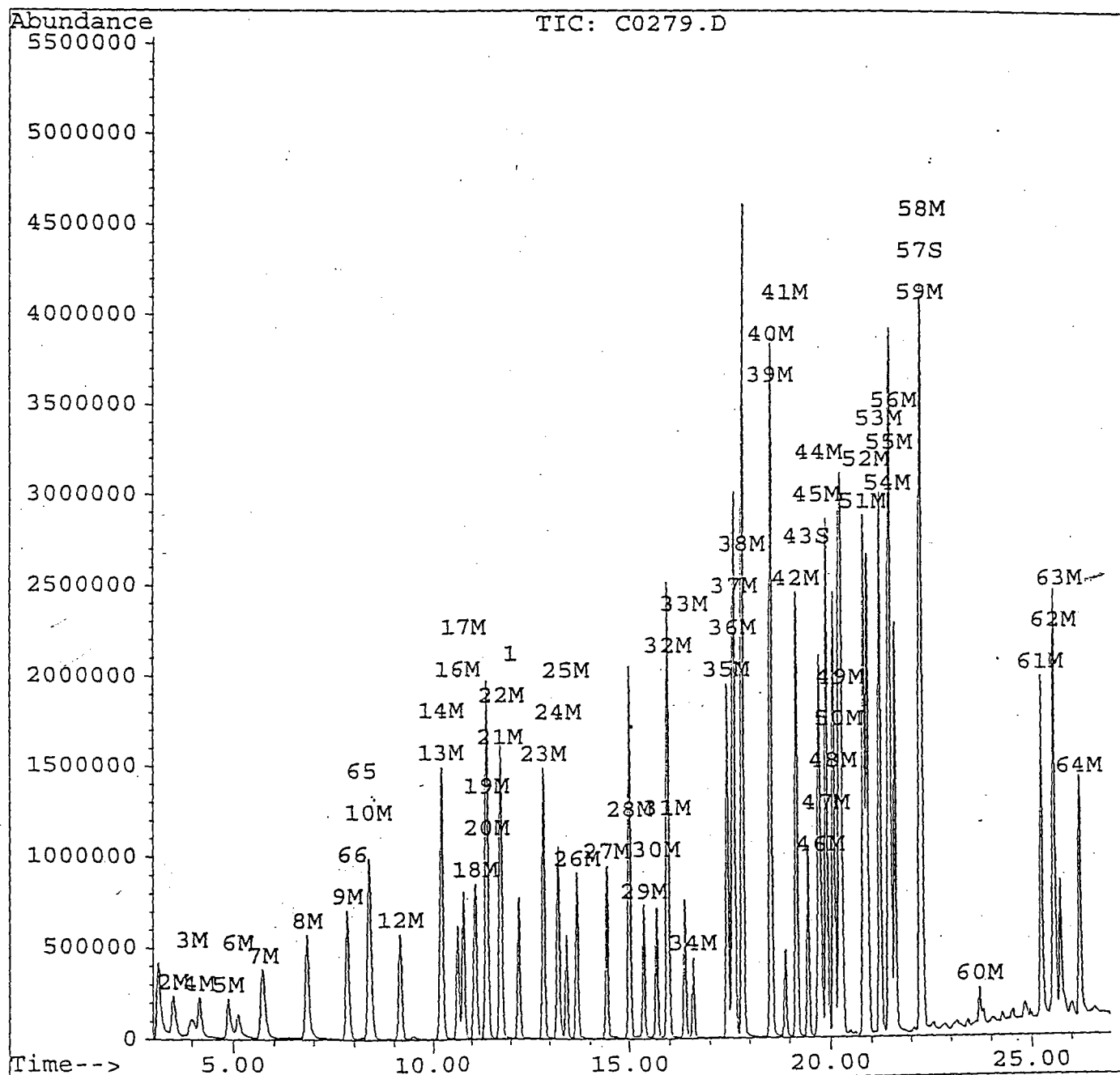
Quantitation Report

Data File : d:\hpchem\1\data\c0279.d
 Acq On : 21 Nov 95 12:02 pm
 Sample : 10 PPB STANDARD
 Misc : 25 ML
 Quant Time: Nov 21 13:10 1995

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

045

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Nov 21 13:46:36 1995
 Response via : Multiple Level Calibration



Quantitation Report

046

Data File : d:\hpchem\1\data\c0278.d

Acq On : 21 Nov 95 11:28 am

Sample : 20 PPB STANDARD

Misc : 25 ML

Quant Time: Nov 21 13:07 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 : Tue Nov 21 13:42:15 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1722488	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.46	95	927311	4.72	ug/L	94.40%
57) 1,2-Dichlorobenzene-d4	22.25	152	582262	4.93	ug/L	98.68%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	1801450	14.31	ug/L	97
3) Chloromethane	3.97	50	1343518	20.52	ug/L	100
4) Vinyl chloride	4.17	62	1539511	19.56	ug/L	99
5) Bromomethane	4.86	94	994458	17.44	ug/L	94
6) Chloroethane	5.08	64	881354	19.47	ug/L	100
7) Trichlorofluoromethane	5.68	101	2638002	14.71	ug/L	98
8) 1,1-Dichloroethene	6.81	96	1593355	19.38	ug/L #	79
9) Methylene chloride	7.82	84	1603537	19.49	ug/L	98
10) trans-1,2-Dichloroethene	8.36	96	1831930	19.90	ug/L m	0
12) 1,1-Dichloroethane	9.16	63	3432597	18.74	ug/L	99
13) 2,2-Dichloropropane	10.20	77	2802037	15.33	ug/L	89
14) cis-1,2-Dichloroethene	10.22	96	1806300	20.03	ug/L m	0
16) Bromochloromethane	10.64	128	780203	19.72	ug/L	98
17) Chloroform	10.79	83	3159991	16.85	ug/L	98
18) 1,1,1-Trichloroethane	11.10	97	3092727	16.05	ug/L	97
19) Carbon tetrachloride	11.39	117	2932708	16.38	ug/L	100
20) 1,1-Dichloropropene	11.38	75	2880851	17.89	ug/L	96
21) Benzene	11.73	78	5738442	19.90	ug/L	98
22) 1,2-Dichloroethane	11.77	62	1311439	14.60	ug/L	86
23) Trichloroethene	12.84	95	2437464	18.64	ug/L	98
24) 1,2-Dichloropropane	13.21	63	2041662	20.88	ug/L	100
25) Dibromomethane	13.42	93	900094	18.45	ug/L	96
26) Bromodichloromethane	13.67	83	2668736	16.90	ug/L	99
27) cis-1,3-Dichloropropene	14.43	75	2391296	18.90	ug/L	98
28) Toluene	15.00	92	4196821	19.99	ug/L	97
29) trans-1,3-Dichloropropene	15.36	75	1647489	17.62	ug/L	92
30) 1,1,2-Trichloroethane	15.68	83	884119	19.60	ug/L	98
31) Tetrachloroethene	15.95	166	2952465	19.59	ug/L	99
32) 1,3-Dichloropropane	15.97	76	1676229	19.03	ug/L	99
33) Dibromochloromethane	16.37	129	1793224	18.76	ug/L	99
34) 1,2-Dibromoethane	16.58	107	1299437	19.47	ug/L	98
35) Chlorobenzene	17.43	112	4775180	19.82	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.57	131	1998640	18.89	ug/L	97
37) Ethylbenzene	17.61	91	8519170	19.10	ug/L	97
38) Xylene (para & meta)	17.82	106	6392350	39.55	ug/L	92
39) Xylene (Ortho)	18.52	106	2944771	19.80	ug/L	90
40) Styrene	18.54	104	4602890	19.99	ug/L	89

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

Quantitation Report

Data File : d:\hpchem\1\data\c0278.d
Acq On : 21 Nov 95 11:28 am
Sample : 20 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:07 1995

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

047

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Nov 21 13:42:15 1995
Response via : Multiple Level Calibration

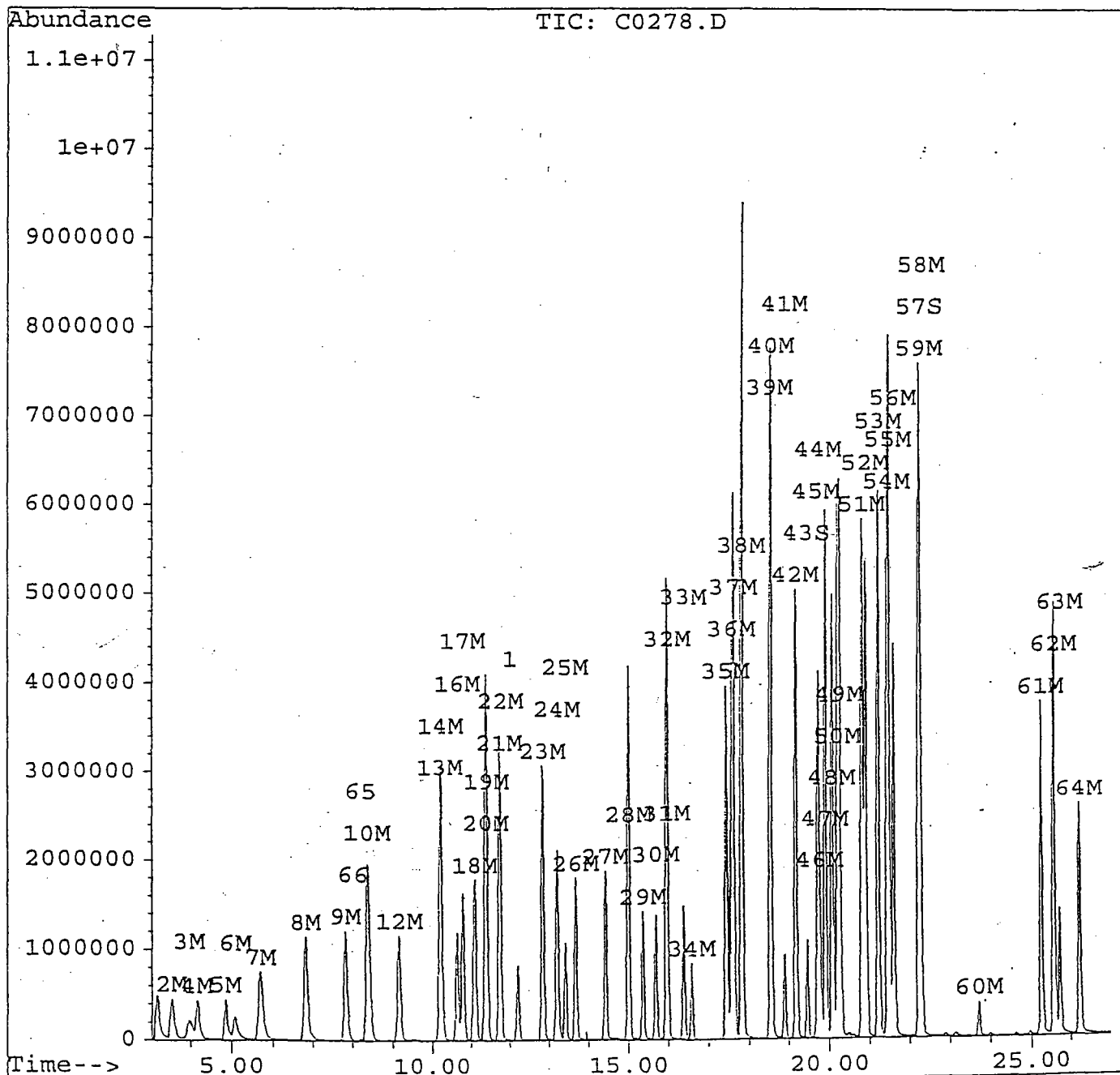
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.89	173	1001404	19.09	ug/L	97
42) Isopropylbenzene	19.17	105	8277271	18.83	ug/L m	0
44) Bromobenzene	19.74	156	2166384	19.76	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.69	83	1106145	20.34	ug/L	98
46) 1,2,3-Trichloropropane	19.78	75	1110952	18.25	ug/L #	28
47) n-Propylbenzene	19.91	91	11371671	19.02	ug/L	98
48) 2-Chlorotoluene	20.08	91	6343572	18.29	ug/L	96
49) 4-Chlorotoluene	20.27	91	7335851	18.21	ug/L	96
50) 1,3,5-Trimethylbenzene	20.22	105	7200036	18.46	ug/L	94
51) tert-Butylbenzene	20.82	119	8099224	19.04	ug/L	95
52) 1,2,4-Trimethylbenzene	20.91	105	7100072	17.77	ug/L	95
53) sec-Butylbenzene	21.22	105	11034278	18.68	ug/L	98
54) 1,3-Dichlorobenzene	21.44	146	4253419	19.44	ug/L	98
55) 4-Isopropyltoluene	21.48	119	8886497	18.90	ug/L	97
56) 1,4-Dichlorobenzene	21.60	146	4135214	19.21	ug/L	99
58) 1,2-Dichlorobenzene	22.28	146	3344031	19.61	ug/L	99
59) n-Butylbenzene	22.23	91	9001935	18.57	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.71	75	224773	16.68	ug/L #	76
61) 1,2,4-Trichlorobenzene	25.25	180	2785545	19.75	ug/L	98
62) Hexachlorobutadiene	25.58	225	2413438	18.89	ug/L	96
63) Naphthalene	25.73	128	2640403	20.14	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.22	180	2045433	19.96	ug/L	99
65) Methyl-tert butyl ether	8.40	73	2048272	17.91	ug/L	97
66) tert-Butyl Alcohol	8.22	59	60041	36.77	ug/L	100

Quantitation Report

Data File : d:\hpchem\1\data\c0278.d
 Acq On : 21 Nov 95 11:28 am
 Sample : 20 PPB STANDARD
 Misc : 25 ML
 Quant Time: Nov 21 13:07 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 : Tue Nov 21 13:42:15 1995
 Response via : Multiple Level Calibration



Quantitation Report

049

Data File : d:\hpcchem\1\data\c0277.d
 Acq On : 21 Nov 95 10:52 am
 Sample : 30 PPB STANDARD
 Misc : 25 ML
 Quant Time: Nov 21 13:04 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 Nov 21 13:42:15 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.22	96	1784794	5.00	ug/L	0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.46	95	942277	4.63	ug/L	92.57%
57) 1,2-Dichlorobenzene-d4	22.25	152	579998	4.74	ug/L	94.86%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	2836497	21.75	ug/L	98
3) Chloromethane	3.99	50	2098923	30.94	ug/L	99
4) Vinyl chloride	4.18	62	2415650	29.63	ug/L	98
5) Bromomethane	4.86	94	1539157	26.06	ug/L m	0
6) Chloroethane	5.06	64	1257519	26.81	ug/L	98
7) Trichlorofluoromethane	5.68	101	4199498	22.60	ug/L	97
8) 1,1-Dichloroethene	6.82	96	2462267	28.90	ug/L #	79
9) Methylene chloride	7.83	84	2344560	27.50	ug/L	98
10) trans-1,2-Dichloroethene	8.36	96	2831636	29.69	ug/L	91
12) 1,1-Dichloroethane	9.16	63	5287314	27.85	ug/L	99
13) 2,2-Dichloropropane	10.21	77	4444886	23.47	ug/L	89
14) cis-1,2-Dichloroethene	10.22	96	2767927	29.62	ug/L #	89
16) Bromochloromethane	10.64	128	1185004	28.91	ug/L	99
17) Chloroform	10.79	83	4893833	25.18	ug/L	97
18) 1,1,1-Trichloroethane	11.10	97	4753944	23.81	ug/L	97
19) Carbon tetrachloride	11.39	117	4564218	24.60	ug/L	100
20) 1,1-Dichloropropene	11.38	75	4427341	26.53	ug/L	97
21) Benzene	11.75	78	8752088	29.30	ug/L	98
22) 1,2-Dichloroethane	11.77	62	1984347	21.32	ug/L	88
23) Trichloroethene	12.84	95	3749920	27.68	ug/L	98
24) 1,2-Dichloropropane	13.21	63	3110146	30.70	ug/L	99
25) Dibromomethane	13.42	93	1360516	26.91	ug/L	97
26) Bromodichloromethane	13.67	83	4057411	24.80	ug/L	99
27) cis-1,3-Dichloropropene	14.43	75	3639910	27.76	ug/L	97
28) Toluene	15.00	92	6391124	29.38	ug/L	98
29) trans-1,3-Dichloropropene	15.36	75	2506952	25.87	ug/L	92
30) 1,1,2-Trichloroethane	15.68	83	1332952	28.52	ug/L	97
31) Tetrachloroethene	15.95	166	4549744	29.13	ug/L	99
32) 1,3-Dichloropropane	15.97	76	2491473	27.30	ug/L	100
33) Dibromochloromethane	16.37	129	2708999	27.35	ug/L	99
34) 1,2-Dibromoethane	16.58	107	1946729	28.14	ug/L	100
35) Chlorobenzene	17.43	112	7236418	28.98	ug/L m	0
36) 1,1,1,2-Tetrachloroethane	17.57	131	3057070	27.88	ug/L	97
37) Ethylbenzene	17.61	91	12907921	27.92	ug/L	97
38) Xylene (para & meta)	17.82	106	9651078	57.62	ug/L	91
39) Xylene (Ortho)	18.52	106	4457409	28.92	ug/L	92
40) Styrene	18.54	104	6923206	29.02	ug/L	89

Quantitation Report

050

Data File : d:\hpcchem\1\data\c0277.d
Acq On : 21 Nov 95 10:52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:04 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 Nov 21 13:42:15 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.89	173	1511160	27.81	ug/L	96
42) Isopropylbenzene	19.17	105	12622410	27.71	ug/L m	0
44) Bromobenzene	19.74	156	3255768	28.66	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.69	83	1633104	28.98	ug/L	98
46) 1,2,3-Trichloropropane	19.78	75	1648511	26.13	ug/L #	25
47) n-Propylbenzene	19.91	91	17183034	27.74	ug/L	97
48) 2-Chlorotoluene	20.08	91	10285555	28.63	ug/L	96
49) 4-Chlorotoluene	20.27	91	11091027	26.58	ug/L	96
50) 1,3,5-Trimethylbenzene	20.22	105	10903523	26.98	ug/L	95
51) tert-Butylbenzene	20.82	119	12273662	27.84	ug/L	95
52) 1,2,4-Trimethylbenzene	20.91	105	10722862	25.90	ug/L	95
53) sec-Butylbenzene	21.22	105	16654167	27.21	ug/L	98
54) 1,3-Dichlorobenzene	21.44	146	6339763	27.97	ug/L	99
55) 4-Isopropyltoluene	21.48	119	13330894	27.36	ug/L	98
56) 1,4-Dichlorobenzene	21.60	146	6141628	27.53	ug/L	99
58) 1,2-Dichlorobenzene	22.28	146	4942796	27.97	ug/L	98
59) n-Butylbenzene	22.23	91	13546684	26.97	ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.71	75	334490	23.96	ug/L	79
61) 1,2,4-Trichlorobenzene	25.25	180	4113150	28.14	ug/L	98
62) Hexachlorobutadiene	25.58	225	3635507	27.46	ug/L m	82
63) Naphthalene	25.73	128	3782351	27.85	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.22	180	2931888	27.61	ug/L m	0
65) Methyl-tert butyl ether	8.41	73	3097117	26.13	ug/L m	0
66) tert-Butyl Alcohol	8.22	59	91328	53.98	ug/L m	100

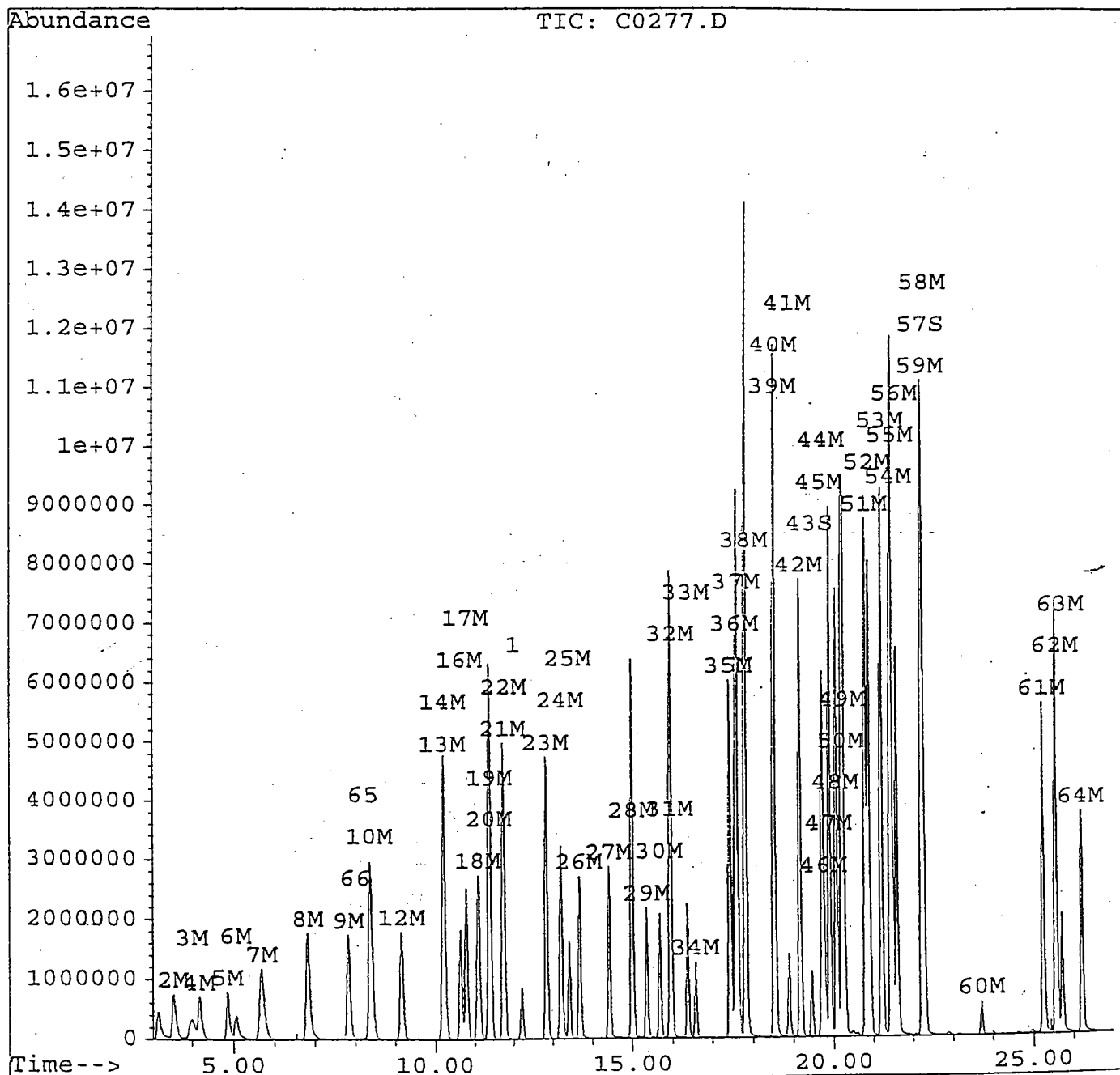
Quantitation Report

051

Data File : d:\hpcchem\1\data\c0277.d
 Acq On : 21 Nov 95 10:52 am
 Sample : 30 PPB STANDARD
 Misc : 25 ML
 Quant Time: Nov 21 13:04 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 Nov 21 13:42:15 1995
 Response via : Multiple Level Calibration



Quantitation Report

052

Data File : d:\hpcchem\1\data\c0276.d
 Acq On : 21 Nov 95 10:18 am
 Sample : 40 PPB STANDARD
 Misc : 25 ML
 Quant Time: Nov 21 11:18 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 Nov 21 13:42:15 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.20	96	1759102	5.00	ug/L	0.00
System Monitoring Compounds				%Recovery		
43) 4-Bromofluorobenzene	19.45	95	951185	4.74	ug/L	94.81%
57) 1,2-Dichlorobenzene-d4	22.25	152	570741	4.74	ug/L	94.71%
Target Compounds				Qvalue		
2) Dichlorodifluoromethane	3.54	85	3842951	29.89	ug/L	98
3) Chloromethane	3.99	50	2785093	41.66	ug/L m	0
4) Vinyl chloride	4.18	62	3300688	41.07	ug/L	98
5) Bromomethane	4.84	94	1920657	32.99	ug/L	95
6) Chloroethane	5.04	64	1536210	33.23	ug/L	99
7) Trichlorofluoromethane	5.65	101	5402420	29.50	ug/L	97
8) 1,1-Dichloroethene	6.80	96	3288045	39.15	ug/L #	79
9) Methylene chloride	7.81	84	3032483	36.08	ug/L	100
10) trans-1,2-Dichloroethene	8.34	96	3794962	40.37	ug/L	91
12) 1,1-Dichloroethane	9.15	63	7085234	37.87	ug/L	98
13) 2,2-Dichloropropane	10.20	77	5990137	32.10	ug/L m	0
14) cis-1,2-Dichloroethene	10.21	96	3663460	39.78	ug/L m	0
16) Bromochloromethane	10.62	128	1592491	39.42	ug/L	97
17) Chloroform	10.78	83	6527086	34.08	ug/L	98
18) 1,1,1-Trichloroethane	11.09	97	6371834	32.38	ug/L	97
19) Carbon tetrachloride	11.37	117	6118402	33.46	ug/L	99
20) 1,1-Dichloropropene	11.37	75	5894994	35.84	ug/L	97
21) Benzene	11.73	78	11670569	39.63	ug/L	98
22) 1,2-Dichloroethane	11.76	62	2682220	29.24	ug/L	88
23) Trichloroethene	12.83	95	5035850	37.71	ug/L	99
24) 1,2-Dichloropropane	13.20	63	4191796	41.98	ug/L	99
25) Dibromomethane	13.41	93	1841134	36.94	ug/L	97
26) Bromodichloromethane	13.66	83	5475563	33.96	ug/L	99
27) cis-1,3-Dichloropropene	14.42	75	4948085	38.29	ug/L	97
28) Toluene	14.99	92	8579596	40.01	ug/L	97
29) trans-1,3-Dichloropropene	15.35	75	3412681	35.73	ug/L	93
30) 1,1,2-Trichloroethane	15.67	83	1814691	39.39	ug/L	98
31) Tetrachloroethene	15.94	166	6041995	39.25	ug/L	99
32) 1,3-Dichloropropane	15.96	76	3372769	37.49	ug/L	100
33) Dibromochloromethane	16.36	129	3681997	37.72	ug/L	100
34) 1,2-Dibromoethane	16.57	107	2661298	39.04	ug/L	100
35) Chlorobenzene	17.43	112	9681263	39.34	ug/L m	0
36) 1,1,1,2-Tetrachloroethane	17.56	131	4081175	37.76	ug/L	97
37) Ethylbenzene	17.60	91	17160562	37.67	ug/L	97
38) Xylene (para & meta)	17.81	106	12756573	77.27	ug/L m	99
39) Xylene (Ortho)	18.52	106	5937952	39.09	ug/L	91
40) Styrene	18.54	104	9213631	39.18	ug/L	88

Quantitation Report

053

Data File : d:\hpcchem\1\data\c0276.d
Acq On : 21 Nov 95 10:18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 11:18 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 Nov 21 13:42:15 1995
Response via : Multiple Level Calibration

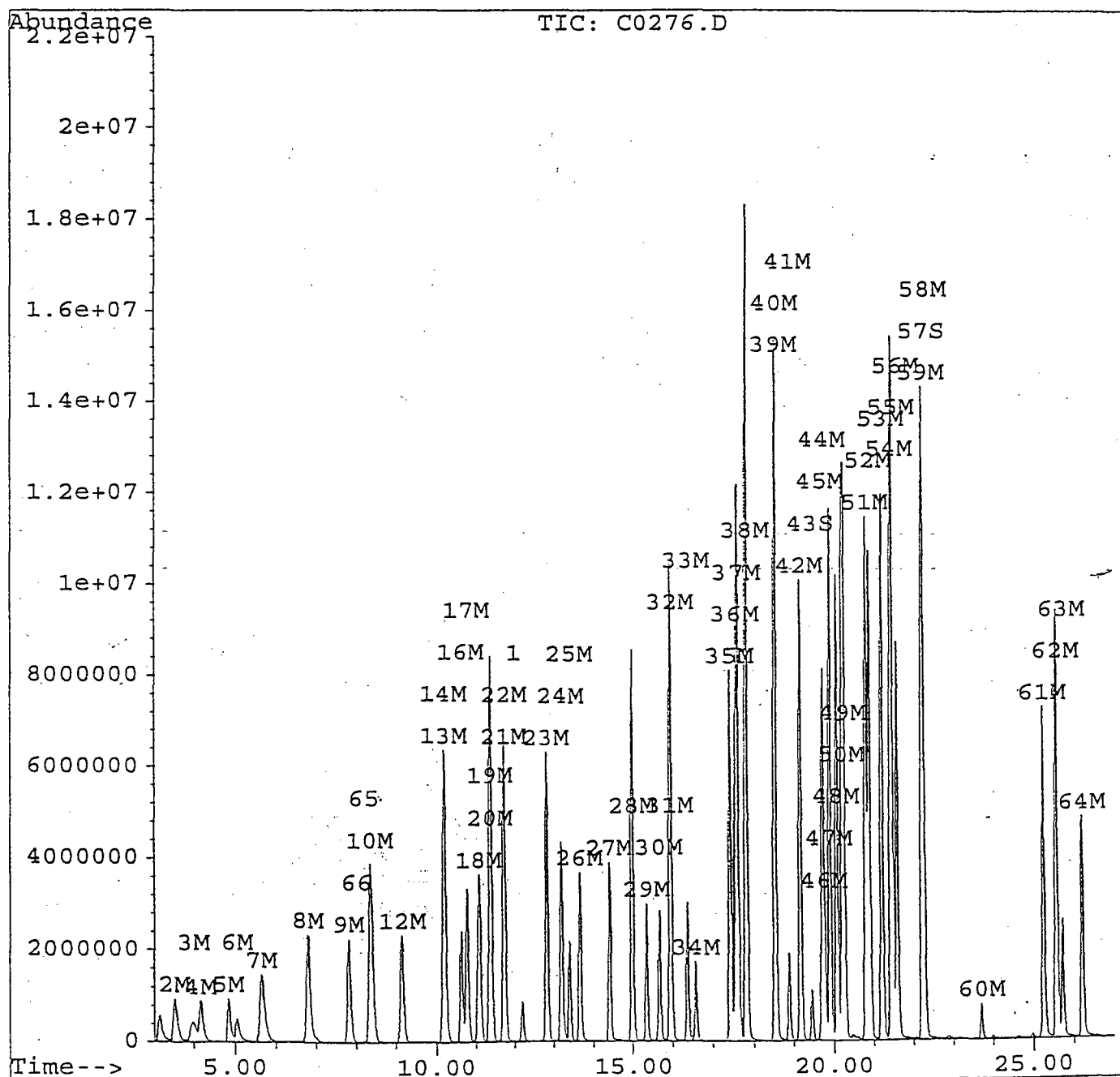
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.88	173	2023918	37.79	ug/L	96
42) Isopropylbenzene	19.17	105	16768168	37.34	ug/L m	0
44) Bromobenzene	19.74	156	4325694	38.64	ug/L m	0
45) 1,1,2,2-Tetrachloroethane	19.70	83	2225957	40.08	ug/L	98
46) 1,2,3-Trichloropropane	19.78	75	2238025	35.99	ug/L #	12
47) n-Propylbenzene	19.91	91	22705937	37.19	ug/L	97
48) 2-Chlorotoluene	20.08	91	13504805	38.14	ug/L	95
49) 4-Chlorotoluene	20.27	91	14709970	35.76	ug/L	95
50) 1,3,5-Trimethylbenzene	20.22	105	14363384	36.06	ug/L	94
51) tert-Butylbenzene	20.82	119	16201797	37.29	ug/L	95
52) 1,2,4-Trimethylbenzene	20.90	105	14158340	34.70	ug/L	95
53) sec-Butylbenzene	21.22	105	21775294	36.10	ug/L	98
54) 1,3-Dichlorobenzene	21.44	146	8291350	37.11	ug/L	99
55) 4-Isopropyltoluene	21.48	119	17391875	36.21	ug/L	97
56) 1,4-Dichlorobenzene	21.60	146	8176260	37.19	ug/L	99
58) 1,2-Dichlorobenzene	22.28	146	6501610	37.33	ug/L	99
59) n-Butylbenzene	22.23	91	17695059	35.75	ug/L	95
60) 1,2-Dibromo-3-chloropropan	23.71	75	453725	32.98	ug/L #	78
61) 1,2,4-Trichlorobenzene	25.25	180	5391357	37.43	ug/L	98
62) Hexachlorobutadiene	25.57	225	4629499	35.48	ug/L m	82
63) Naphthalene	25.73	128	4877034	36.43	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.22	180	3818605	36.49	ug/L	98
65) Methyl-tert butyl ether	8.41	73	4202915	35.98	ug/L m	0
66) tert-Butyl Alcohol	8.22	59	120228	72.11	ug/L m	100

Quantitation Report

Data File : d:\hpchem\1\data\c0276.d
 Acq.On : 21 Nov 95 10:18 am
 Sample : 40 PPB STANDARD
 Misc : 25 ML
 Quant Time: Nov 21 11:18 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 Nov 21 13:42:15 1995
 Response via : Multiple Level Calibration



5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

055

Lab Name : EMSL ANALYTICAL Contract: _____
Project No.: _____ Site: _____ Location: _____ Group: _____
Lab File ID: C0425.D BFB Injection Date: 12/2/95
Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1457
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	18.5
75	30.0 - 66.0% of mass 95	43.1
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	66.3
175	4.0 - 9.0% of mass 174	4.4 (6.7)1
176	93.0 - 101.0% of mass 174	65.0 (97.9)1
177	5.0 - 9.0% of mass 176	4.4 (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	C0426.D	12/2/95	1510
02	10 QCS	10 QCS	C0427.D	12/2/95	1544
03	1 STND	1 STND	C0428.D	12/2/95	1618
04	VBLK01	M. BLANK	C0429.D	12/2/95	1652
05	9554060V	9554060V	C0430.D	12/2/95	1726
06	9554061V	9554061V	C0431.D	12/2/95	1800
07	9554062V	9554062V	C0432.D	12/2/95	1835
08	9554101V	9554101V	C0433.D	12/2/95	1909
09	9554102V	9554102V	C0434.D	12/2/95	1944
10	9554063V	9554063V	C0435.D	12/2/95	2017
11	9554060MS	54060MS	C0438.D	12/2/95	2159
12	9554060MSD	54060MSD	C0439.D	12/2/95	2233
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C0425.D

Acq On : 2 Dec 95 2:57 pm

Sample : BFB TUNE

Misc : 25 NG INJECTION

Vial: 1

Operator: MDC

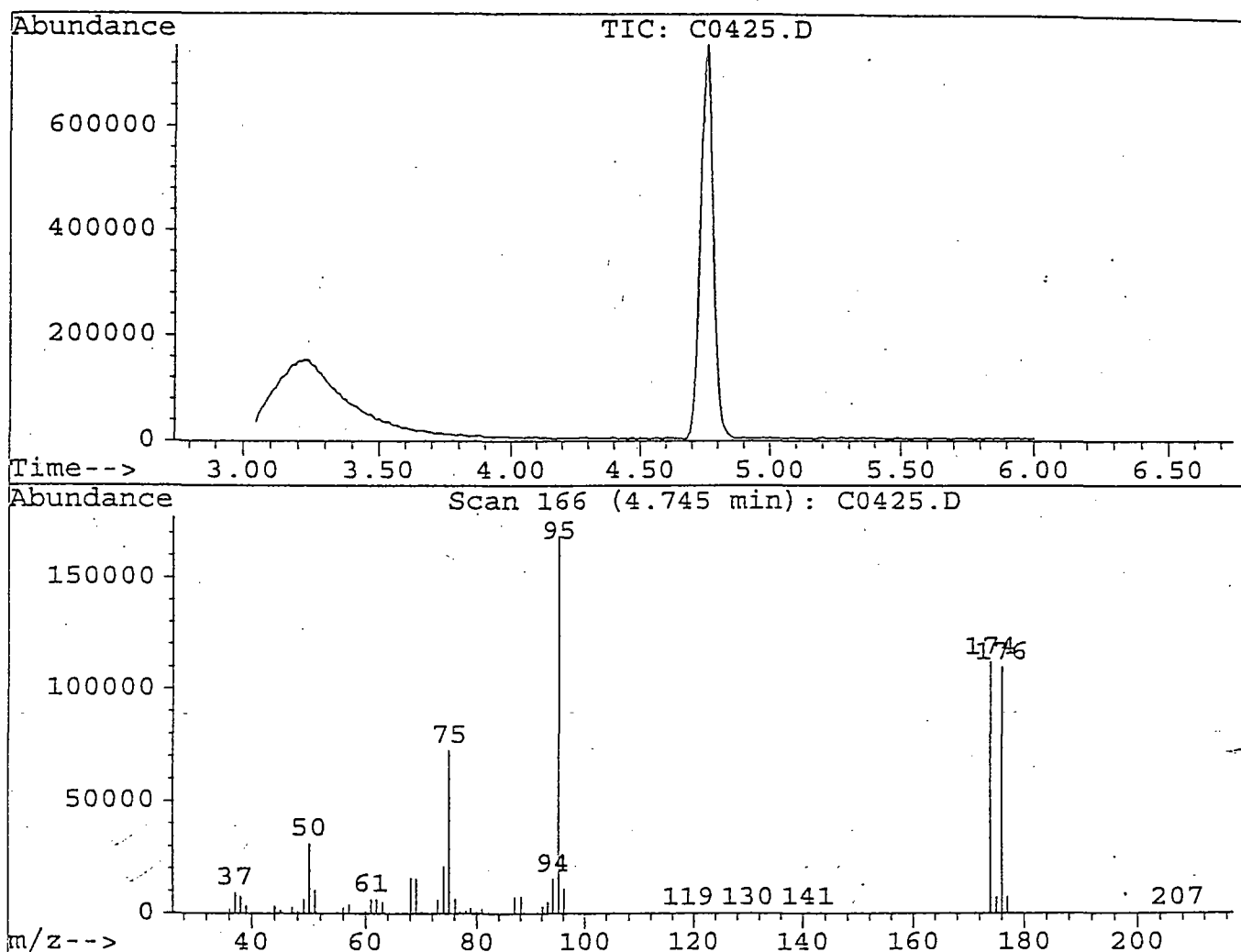
Inst : 5972 - In

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

056



Peak Apex is scan: 166.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	31280	PASS
75	95	30	80	43.1	72880	PASS
95	95	100	100	100.0	168960	PASS
96	95	5	9	6.7	11258	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	66.3	112080	PASS
175	174	5	9	6.7	7513	PASS
176	174	95	101	97.9	109744	PASS
177	176	5	9	6.8	7409	PASS

Scan 166 (4.745 min): C0425.D
BFB TUNE

m/z	abund.	m/z	abund.
36.10	1840	49.05	6223
37.10	9334	50.05	31280
38.10	7583	51.05	10694
39.10	3430	52.05	578
40.00	784	54.95	929
41.10	512	56.00	2572
43.00	593	57.10	4191
44.00	3356	60.00	1394
45.00	1518	61.00	6520
47.05	2903	62.00	6442
48.05	1147	63.00	5300

Scan 166 (4.745 min): C0425.D
BFB TUNE

m/z	abund.	m/z	abund.
96.95	503		
116.95	531		
119.00	566		
129.95	557		
140.90	787		
143.00	653		
173.95	112080		
174.95	7513		
175.95	109744		
176.95	7409		
207.10	543		

m/z	abund.
68.05	16024
69.05	15535
70.05	1159
71.95	855
72.95	6164
74.05	21272
75.05	72880
76.05	6616
77.00	1207
78.00	1346
78.90	2768

m/z	abund.
79.90	854
81.00	2231
82.00	554
86.90	7424
88.05	7573
91.05	699
92.05	3103
93.05	5212
94.05	15580
95.05	168960
96.05	11258

057

7A
VOLATILE CONTINUING CALIBRATION CHECK

058

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 12/2/95 Time: 1510

Lab File ID: C0426.D Init. Calib. Date(s): 11/21/95

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

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

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.271	0.251		7.4	30.0
Chloromethane	0.206	0.204		1.0	30.0
Vinyl chloride	0.229	0.234		-2.2	30.0
Bromomethane	0.159	0.161		-1.3	30.0
Chloroethane	0.127	0.104		18.1	30.0
Trichlorofluoromethane	0.395	0.306		22.5	30.0
1,1-Dichloroethene	0.237	0.227		4.2	30.0
Methylene chloride	0.237	0.231		2.5	30.0
trans-1,2-Dichloroethene	0.270	0.267		1.1	30.0
1,1-Dichloroethane	0.508	0.499		1.8	30.0
2,2-Dichloropropane	0.424	0.432		-1.9	30.0
cis-1,2-Dichloroethene	0.266	0.265		0.4	30.0
Bromochloromethane	0.115	0.107		7.0	30.0
Chloroform	0.469	0.459		2.1	30.0
1,1,1-Trichloroethane	0.454	0.455		-0.2	30.0
Carbon tetrachloride	0.429	0.431		-0.5	30.0
1,1-Dichloropropene	0.424	0.430		-1.4	30.0
Benzene	0.870	0.854		1.8	30.0
1,2-Dichloroethane	0.195	0.183		6.2	30.0
Trichloroethene	0.361	0.361		0.0	30.0
1,2-Dichloropropane	0.302	0.297		1.7	30.0
Dibromomethane	0.132	0.126		4.5	30.0
Bromodichloromethane	0.391	0.380		2.8	30.0
cis-1,3-Dichloropropene	0.352	0.343		2.6	30.0
Toluene	0.614	0.617		-0.5	30.0
trans-1,3-Dichloropropene	0.243	0.230		5.3	30.0
1,1,2-Trichloroethane	0.131	0.124		5.3	30.0
Tetrachloroethene	0.435	0.431		0.9	30.0
1,3-Dichloropropane	0.247	0.238		3.6	30.0
Dibromochloromethane	0.260	0.245		5.8	30.0
1,2-Dibromoethane	0.000	0.000			30.0
Chlorobenzene	0.707	0.699		1.1	30.0
1,1,1,2-Tetrachloroethane	0.294	0.291		1.0	30.0
Ethylbenzene	1.261	1.258		0.2	30.0
Xylene (para & meta)	0.477	0.480		-0.6	30.0
Xylene (Ortho)	0.438	0.434		0.9	30.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

059

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 12/2/95Time: 1510Lab File ID: C0426.DInit. Calib. Date(s): 11/21/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

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

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.672	0.670		0.3	30.0
Bromoform	0.142	0.133		6.3	30.0
Isopropylbenzene	1.219	1.223		-0.3	30.0
Bromobenzene	0.316	0.310		1.9	30.0
1,1,2,2-Tetrachloroethane	0.160	0.150		6.3	30.0
1,2,3-Trichloropropane	0.164	0.155		5.5	30.0
n-Propylbenzene	1.664	1.701		-2.2	30.0
2-Chlorotoluene	0.973	0.936		3.8	30.0
4-Chlorotoluene	1.084	1.099		-1.4	30.0
1,3,5-Trimethylbenzene	1.057	1.056		0.1	30.0
tert-Butylbenzene	1.187	1.208		-1.8	30.0
1,2,4-Trimethylbenzene	1.056	1.036		1.9	30.0
sec-Butylbenzene	1.612	1.667		-3.4	30.0
1,3-Dichlorobenzene	0.625	0.613		1.9	30.0
4-Isopropyltoluene	1.296	1.344		-3.7	30.0
1,4-Dichlorobenzene	0.612	0.594		2.9	30.0
1,2-Dichlorobenzene	0.494	0.469		5.1	30.0
n-Butylbenzene	1.315	1.352		-2.8	30.0
1,2-Dibromo-3-chloropropane	0.034	0.029		14.7	30.0
1,2,4-Trichlorobenzene	0.400	0.363		9.3	30.0
Hexachlorobutadiene	0.348	0.330		5.2	30.0
Naphthalene	0.387	0.331		14.5	30.0
1,2,3-Trichlorobenzene	0.292	0.258		11.6	30.0
4-Bromofluorobenzene	0.540	0.533		1.3	30.0
1,2-Dichlorobenzene-d4	0.338	0.331		2.1	30.0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0426.D

Acq On : 2 Dec 95 3:10 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

Operator: MDC

Inst : 5972 - In

Multiplr: 1.00

060

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Wed Nov 22 09:25:47 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	106	-0.05
2 M	Dichlorodifluoromethane	0.271	0.251	7.2	100	-0.02
3 M	Chloromethane	0.206	0.204	0.8	104	0.00
4 M	Vinyl chloride	0.229	0.234	-2.4	109	-0.04
5 M	Bromomethane	0.159	0.161	-1.6	104	-0.07
6 M	Chloroethane	0.127	0.104	18.5	79	-0.11
7 M	Trichlorofluoromethane	0.395	0.306	22.5	83	-0.20
8 M	1,1-Dichloroethene	0.237	0.227	4.0	103	-0.13
9 M	Methylene chloride	0.237	0.231	2.3	88	-0.08
10 M	trans-1,2-Dichloroethene	0.270	0.267	1.1	105	-0.07
11	Hexane	0.000	0.000#	0.0	0#	-0.50#
12 M	1,1-Dichloroethane	0.508	0.499	1.8	103	-0.06
13 M	2,2-Dichloropropane	0.424	0.432	-1.7	112	-0.06
14 M	cis-1,2-Dichloroethene	0.266	0.265	0.2	102	-0.05
15	2-Butanone	0.000	0.000#	0.0	0#	0.00
16 M	Bromochloromethane	0.115	0.107	6.7	92	-0.05
17 M	Chloroform	0.469	0.459	2.2	102	-0.05
18 M	1,1,1-Trichloroethane	0.454	0.455	-0.1	106	-0.05
19 M	Carbon tetrachloride	0.429	0.431	-0.3	106	-0.05
20 M	1,1-Dichloropropene	0.424	0.430	-1.6	108	-0.06
21 M	Benzene	0.870	0.854	1.9	103	-0.05
22 M	1,2-Dichloroethane	0.195	0.183	6.3	92	-0.05
23 M	Trichloroethene	0.361	0.361	0.0	105	-0.05
24 M	1,2-Dichloropropane	0.302	0.297	1.8	99	-0.04
25 M	Dibromomethane	0.132	0.126	4.8	92	-0.04
26 M	Bromodichloromethane	0.391	0.380	2.7	98	-0.04
27 M	cis-1,3-Dichloropropene	0.352	0.343	2.7	98	-0.04
28 M	Toluene	0.614	0.617	-0.6	102	-0.05
29 M	trans-1,3-Dichloropropene	0.243	0.230	5.6	93	-0.05
30 M	1,1,2-Trichloroethane	0.131	0.124	5.2	91	-0.04
31 M	Tetrachloroethene	0.435	0.431	1.0	105	-0.05
32 M	1,3-Dichloropropane	0.247	0.238	3.8	93	-0.05
33 M	Dibromochloromethane	0.260	0.245	5.6	92	-0.05
34 M	1,2-Dibromoethane	0.190	0.180	5.4	90	-0.05
35 M	Chlorobenzene	0.707	0.699	1.2	101	-0.04
36 M	1,1,1,2-Tetrachloroethane	0.294	0.291	0.9	98	-0.05
37 M	Ethylbenzene	1.261	1.258	0.3	104	-0.05
38 M	Xylene (para & meta)	0.477	0.480	-0.7	104	-0.05
39 M	Xylene (Ortho)	0.438	0.434	0.9	101	-0.05
40 M	Styrene	0.672	0.670	0.3	99	-0.05
41 M	Bromoform	0.142	0.133	6.9	87	-0.05
42 M	Isopropylbenzene	1.219	1.223	-0.4	104	-0.05

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0426.D
 Acq On : 2 Dec 95 3:10 pm
 Sample : 10 PPB CHK STANDARD
 Misc :

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

061

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 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	0.540	0.533	1.3	101	-0.04
44 M	Bromobenzene	0.316	0.310	1.9	96	-0.05
45 M	1,1,2,2-Tetrachloroethane	0.160	0.150	5.9	87	-0.05
46 M	1,2,3-Trichloropropane	0.164	0.155	5.5	90	-0.05
47 M	n-Propylbenzene	1.664	1.701	-2.3	106	-0.05
48 M	2-Chlorotoluene	0.973	0.936	3.8	102	-0.05
49 M	4-Chlorotoluene	1.084	1.099	-1.4	103	-0.05
50 M	1,3,5-Trimethylbenzene	1.057	1.056	0.1	102	-0.05
51 M	tert-Butylbenzene	1.187	1.208	-1.7	104	-0.05
52 M	1,2,4-Trimethylbenzene	1.056	1.036	2.0	100	-0.06
53 M	sec-Butylbenzene	1.612	1.667	-3.4	106	-0.05
54 M	1,3-Dichlorobenzene	0.625	0.613	2.0	97	-0.05
55 M	4-Isopropyltoluene	1.296	1.344	-3.7	105	-0.05
56 M	1,4-Dichlorobenzene	0.612	0.594	3.1	95	-0.06
57 S	1,2-Dichlorobenzene-d4	0.338	0.331	2.1	95	-0.06
58 M	1,2-Dichlorobenzene	0.494	0.469	5.1	92	-0.05
59 M	n-Butylbenzene	1.315	1.352	-2.8	105	-0.05
60 M	1,2-Dibromo-3-chloropropane	0.034	0.029	14.5	82	-0.05
61 M	1,2,4-Trichlorobenzene	0.400	0.363	9.2	86	-0.06
62 M	Hexachlorobutadiene	0.348	0.330	5.1	96	-0.07
63 M	Naphthalene	0.387	0.331	14.4	79	-0.06
64 M	1,2,3-Trichlorobenzene	0.292	0.258	11.6	81	-0.08
65	Methyl-tert butyl ether	0.306	0.271	11.4	85	-0.02
66	tert-Butyl Alcohol	0.005	0.005	-19.0	111	0.10

Quantitation Report

Data File : d:\hpcchem\1\data\c0426.d

Acq On : 2 Dec 95 3:10 pm

Sample : 10 PPB CHK STANDARD

Misc :

Quant Time: Dec 5 11:48 1995

Vial: 2 062

Operator: MDC

Inst : 5972 - In

Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Wed Nov 22 09:25:47 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.16	96	1705729	5.00	ug/L	-0.05
System Monitoring Compounds				%Recovery		
43) 4-Bromofluorobenzene	19.41	95	908868	4.94	ug/L	98.71%
57) 1,2-Dichlorobenzene-d4	22.19	152	565010	4.89	ug/L	97.86%
Target Compounds				Qvalue		
2) Dichlorodifluoromethane	3.52	85	856970	9.28	ug/L	98
3) Chloromethane	3.99	50	695700	9.92	ug/L	m 0
4) Vinyl chloride	4.14	62	798674	10.24	ug/L	95
5) Bromomethane	4.81	94	550920	10.16	ug/L	95
6) Chloroethane	5.00	64	353364	8.15	ug/L	98
7) Trichlorofluoromethane	5.52	101	1044896	7.75	ug/L	99
8) 1,1-Dichloroethene	6.69	96	775304	9.60	ug/L	95
9) Methylene chloride	7.75	84	789018	9.77	ug/L	99
10) trans-1,2-Dichloroethene	8.29	96	912127	9.89	ug/L	98
12) 1,1-Dichloroethane	9.10	63	1700914	9.82	ug/L	98
13) 2,2-Dichloropropane	10.15	77	1472718	10.17	ug/L	97
14) cis-1,2-Dichloroethene	10.17	96	904597	9.98	ug/L	99
16) Bromochloromethane	10.59	128	366668	9.33	ug/L	98
17) Chloroform	10.74	83	1566049	9.78	ug/L	100
18) 1,1,1-Trichloroethane	11.04	97	1551232	10.01	ug/L	100
19) Carbon tetrachloride	11.33	117	1469879	10.03	ug/L	98
20) 1,1-Dichloropropene	11.32	75	1468216	10.16	ug/L	99
21) Benzene	11.68	78	2912377	9.81	ug/L	99
22) 1,2-Dichloroethane	11.71	62	623027	9.37	ug/L	97
23) Trichloroethene	12.79	95	1230366	10.00	ug/L	99
24) 1,2-Dichloropropane	13.17	63	1012080	9.82	ug/L	100
25) Dibromomethane	13.37	93	430260	9.52	ug/L	99
26) Bromodichloromethane	13.63	83	1297306	9.73	ug/L	97
27) cis-1,3-Dichloropropene	14.39	75	1170291	9.73	ug/L	98
28) Toluene	14.95	92	2105743	10.06	ug/L	99
29) trans-1,3-Dichloropropene	15.31	75	783292	9.44	ug/L	99
30) 1,1,2-Trichloroethane	15.63	83	422366	9.48	ug/L	97
31) Tetrachloroethene	15.90	166	1470134	9.90	ug/L	98
32) 1,3-Dichloropropane	15.92	76	811574	9.62	ug/L	99
33) Dibromochloromethane	16.32	129	837111	9.44	ug/L	99
34) 1,2-Dibromoethane	16.53	107	613992	9.46	ug/L	98
35) Chlorobenzene	17.39	112	2384763	9.88	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.52	131	992957	9.91	ug/L	100
37) Ethylbenzene	17.56	91	4290456	9.97	ug/L	100
38) Xylene (para & meta)	17.77	106	3276875	20.14	ug/L	98
39) Xylene (Ortho)	18.47	106	1479577	9.91	ug/L	99
40) Styrene	18.49	104	2286170	9.97	ug/L	100

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

Quantitation Report

Data File : d:\hpcchem\1\data\c0426.d
 Acq On : 2 Dec 95 3:10 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Dec 5 11:48 1995

Vial: 2 **063**
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

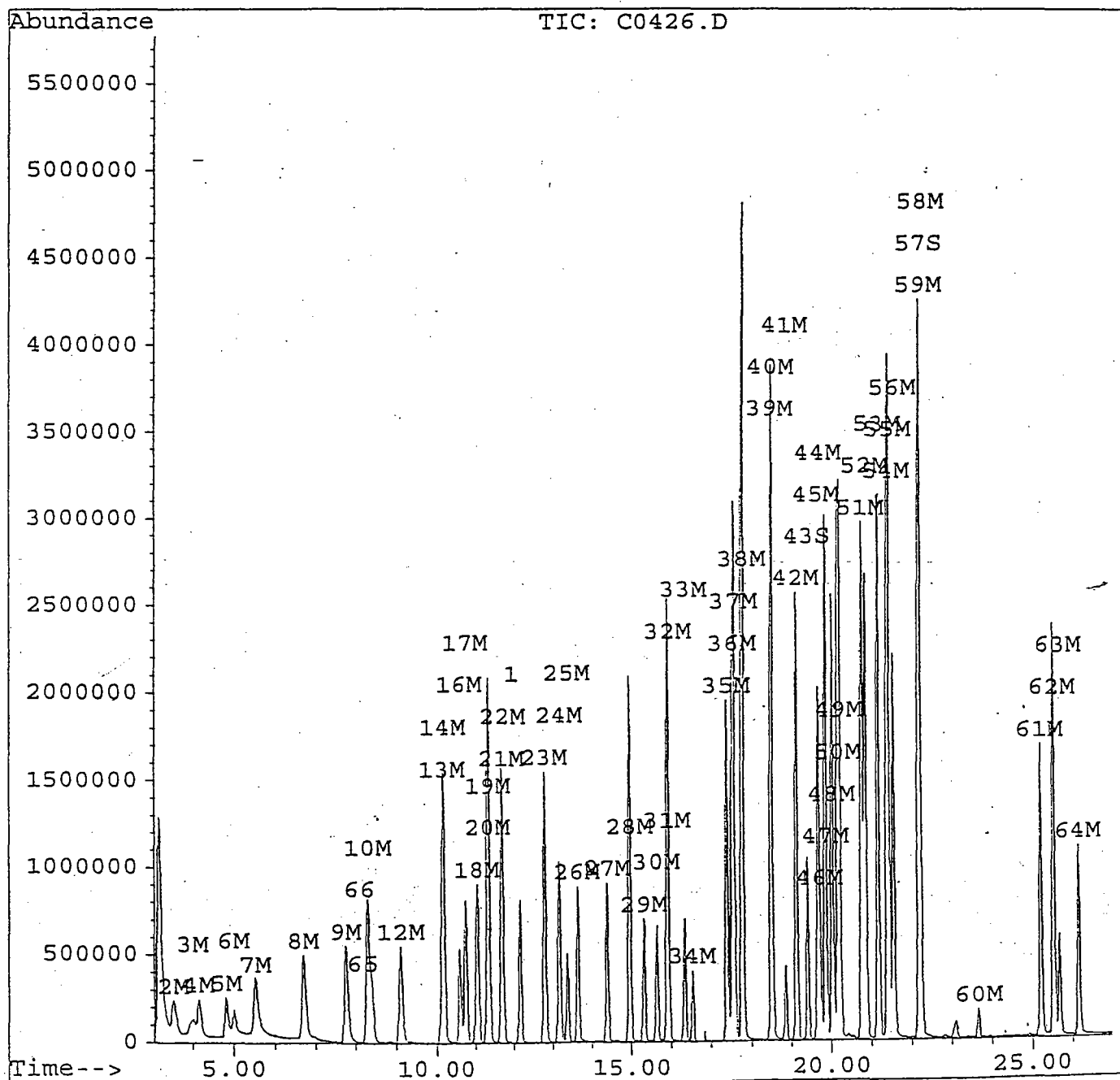
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.84	173	452299	9.31	ug/L	100
42) Isopropylbenzene	19.12	105	4173599	10.04	ug/L m	0
44) Bromobenzene	19.68	156	1057253	9.81	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.64	83	513094	9.41	ug/L	99
46) 1,2,3-Trichloropropane	19.73	75	529285	9.45	ug/L	100
47) n-Propylbenzene	19.86	91	5803596	10.23	ug/L	100
48) 2-Chlorotoluene	20.03	91	3191951	9.62	ug/L	100
49) 4-Chlorotoluene	20.22	91	3748606	10.14	ug/L	100
50) 1,3,5-Trimethylbenzene	20.17	105	3604101	9.99	ug/L	98
51) tert-Butylbenzene	20.77	119	4120085	10.17	ug/L	98
52) 1,2,4-Trimethylbenzene	20.85	105	3533025	9.80	ug/L	100
53) sec-Butylbenzene	21.17	105	5687670	10.34	ug/L	100
54) 1,3-Dichlorobenzene	21.39	146	2089699	9.80	ug/L	99
55) 4-Isopropyltoluene	21.43	119	4584134	10.37	ug/L	100
56) 1,4-Dichlorobenzene	21.54	146	2025135	9.69	ug/L	99
58) 1,2-Dichlorobenzene	22.23	146	1600104	9.49	ug/L	97
59) n-Butylbenzene	22.18	91	4613919	10.28	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.65	75	98502	8.55	ug/L	98
61) 1,2,4-Trichlorobenzene	25.19	180	1239963	9.08	ug/L	100
62) Hexachlorobutadiene	25.51	225	1125882	9.49	ug/L	99
63) Naphthalene	25.66	128	1129436	8.56	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.15	180	879695	8.84	ug/L m	0
65) Methyl-tert butyl ether	8.38	73	924483	8.86	ug/L	99
66) tert-Butyl Alcohol	8.29	59	36590	23.80	ug/L m	100

Quantitation Report

Data File : d:\hpchem\1\data\c0426.d
 Acq On : 2 Dec 95 3:10 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Dec 5 11:48 1995

Vial: 2 **064**
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpcchem\1\data\c0427.d
 Acq On : 2 Dec 95 3:44 pm
 Sample : 10 PPB QCS
 Misc :
 Quant Time: Dec 5 11:50 1995

Vial: 3 065
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.17	96	1696795	5.00	ug/L	-0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.40	95	908806	4.96	ug/L	99.22%
57) 1,2-Dichlorobenzene-d4	22.20	152	567828	4.94	ug/L	98.87%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.52	85	931653	10.15	ug/L	99
3) Chloromethane	3.96	50	592833	8.49	ug/L	100
4) Vinyl chloride	4.16	62	766960	9.88	ug/L	100
5) Bromomethane	4.81	94	541440	10.04	ug/L	97
6) Chloroethane	5.02	64	331696	7.69	ug/L	98
7) Trichlorofluoromethane	5.62	101	1372203	10.23	ug/L	99
8) 1,1-Dichloroethene	6.76	96	875213	10.90	ug/L	99
9) Methylene chloride	7.77	84	821134	10.22	ug/L	99
10) trans-1,2-Dichloroethene	8.31	96	960433	10.47	ug/L	99
12) 1,1-Dichloroethane	9.11	63	1769981	10.27	ug/L	99
13) 2,2-Dichloropropane	10.17	77	1477588	10.26	ug/L	99
14) cis-1,2-Dichloroethene	10.18	96	933834	10.35	ug/L	99
16) Bromochloromethane	10.60	128	390056	9.98	ug/L	99
17) Chloroform	10.74	83	1605081	10.08	ug/L	100
18) 1,1,1-Trichloroethane	11.05	97	1569689	10.18	ug/L	100
19) Carbon tetrachloride	11.35	117	1504710	10.33	ug/L	98
20) 1,1-Dichloropropene	11.34	75	1562320	10.87	ug/L	99
21) Benzene	11.69	78	2829954	9.59	ug/L	100
22) 1,2-Dichloroethane	11.72	62	651192	9.85	ug/L	98
23) Trichloroethene	12.80	95	1268068	10.36	ug/L	99
24) 1,2-Dichloropropane	13.17	63	1044460	10.19	ug/L	100
25) Dibromomethane	13.37	93	454491	10.11	ug/L	94
26) Bromodichloromethane	13.63	83	1369980	10.33	ug/L	100
27) cis-1,3-Dichloropropene	14.38	75	1319370	11.03	ug/L	98
28) Toluene	14.96	92	2023813	9.72	ug/L	98
29) trans-1,3-Dichloropropene	15.31	75	861707	10.44	ug/L m	50
30) 1,1,2-Trichloroethane	15.63	83	447902	10.11	ug/L	97
31) Tetrachloroethene	15.91	166	1482773	10.04	ug/L	99
32) 1,3-Dichloropropane	15.93	76	854527	10.18	ug/L	99
33) Dibromochloromethane	16.33	129	888175	10.07	ug/L	99
34) 1,2-Dibromoethane	16.53	107	648644	10.04	ug/L	99
35) Chlorobenzene	17.38	112	2385736	9.94	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.52	131	1022348	10.25	ug/L	99
37) Ethylbenzene	17.56	91	4178772	9.77	ug/L	99
38) Xylene (para & meta)	17.76	106	3211221	19.84	ug/L	99
39) Xylene (Ortho)	18.47	106	1489801	10.03	ug/L	96
40) Styrene	18.49	104	2305249	10.11	ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c0427.d
 Acq On : 2 Dec 95 3:44 pm
 Sample : 10 PPB QCS
 Misc :
 Quant Time: Dec 5 11:50 1995

Vial: 3 066
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

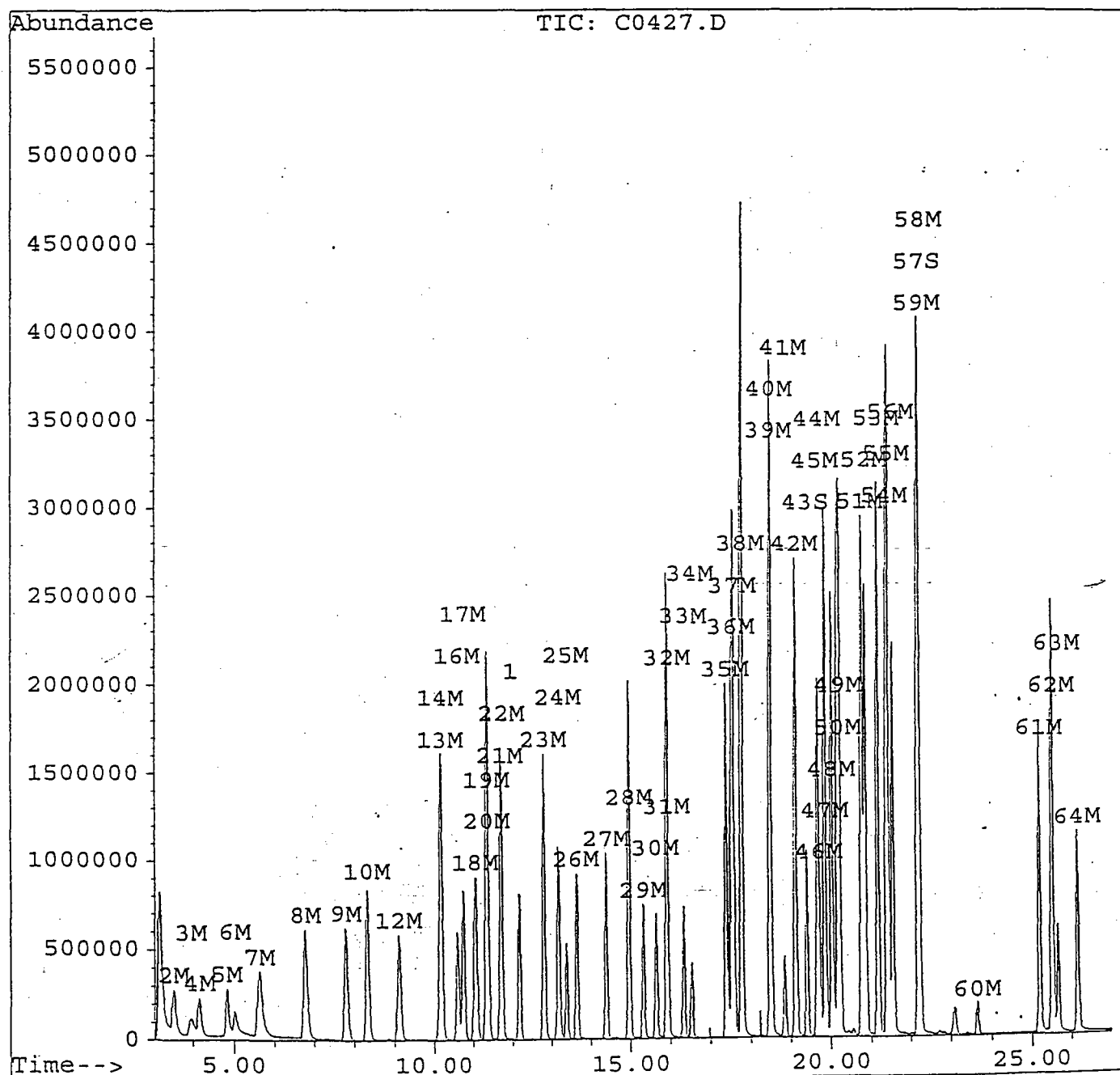
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.84	173	482962	9.99	ug/L	100
42) Isopropylbenzene	19.12	105	4455553	10.77	ug/L m	0
44) Bromobenzene	19.68	156	1039887	9.70	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.64	83	568803	10.48	ug/L	98
46) 1,2,3-Trichloropropane	19.72	75	558178	10.02	ug/L	93
47) n-Propylbenzene	19.86	91	5738104	10.16	ug/L	100
48) 2-Chlorotoluene	20.03	91	3207929	9.72	ug/L	97
49) 4-Chlorotoluene	20.22	91	3708360	10.08	ug/L	99
50) 1,3,5-Trimethylbenzene	20.18	105	3458711	9.64	ug/L	98
51) tert-Butylbenzene	20.77	119	4064034	10.09	ug/L	99
52) 1,2,4-Trimethylbenzene	20.86	105	3344978	9.33	ug/L	99
53) sec-Butylbenzene	21.17	105	5625860	10.28	ug/L	100
54) 1,3-Dichlorobenzene	21.38	146	2111505	9.96	ug/L	99
55) 4-Isopropyltoluene	21.43	119	4447893	10.11	ug/L	100
56) 1,4-Dichlorobenzene	21.55	146	2081863	10.02	ug/L	99
58) 1,2-Dichlorobenzene	22.23	146	1641813	9.79	ug/L	98
59) n-Butylbenzene	22.18	91	4450184	9.97	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.64	75	110917	9.68	ug/L	92
61) 1,2,4-Trichlorobenzene	25.20	180	1259570	9.27	ug/L	97
62) Hexachlorobutadiene	25.52	225	1195848	10.13	ug/L	100
63) Naphthalene	25.66	128	1156997	8.82	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.16	180	914790	9.24	ug/L	99

Library Quantitation Reportort

Data File : d:\hpchem\1\data\c0427.d
Acq On : 2 Dec 95 3:44 pm
Sample : 10 PPB QCS
Misc :
Quant Time: Dec 5 11:50 1995

Vial: 3 067
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0428.d
 Acq On : 2 Dec 95 4:18 pm
 Sample : 1 PPB STANDARD
 Misc :
 Quant Time: Dec 2 16:46 1995

Vial: 4 **068**
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.18	96	1696953	5.00	ug/L	-0.03
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.40	95	899221	4.91	ug/L	98.16%
57) 1,2-Dichlorobenzene-d4	22.20	152	568907	4.95	ug/L	99.05%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.50	85	92435	1.01	ug/L	96
3) Chloromethane	3.96	50	80228	1.15	ug/L	98
4) Vinyl chloride	4.14	62	84536	1.09	ug/L	91
5) Bromomethane	4.82	94	86699	1.61	ug/L	92
6) Chloroethane	5.03	64	40842	0.95	ug/L	99
7) Trichlorofluoromethane	5.64	101	144066	1.07	ug/L	99
8) 1,1-Dichloroethene	6.76	96	90895	1.13	ug/L	99
9) Methylene chloride	7.79	84	208192	2.59	ug/L	96
10) trans-1,2-Dichloroethene	8.32	96	102057	1.11	ug/L	97
12) 1,1-Dichloroethane	9.11	63	187306	1.09	ug/L	99
13) 2,2-Dichloropropane	10.18	77	157362	1.09	ug/L	99
14) cis-1,2-Dichloroethene	10.19	96	99799	1.11	ug/L	98
16) Bromochloromethane	10.60	128	42395	1.08	ug/L	94
17) Chloroform	10.75	83	176794	1.11	ug/L	98
18) 1,1,1-Trichloroethane	11.06	97	167711	1.09	ug/L	100
19) Carbon tetrachloride	11.35	117	154353	1.06	ug/L	96
20) 1,1-Dichloropropene	11.34	75	160448	1.12	ug/L	98
21) Benzene	11.70	78	323363	1.10	ug/L	99
22) 1,2-Dichloroethane	11.72	62	70227	1.06	ug/L	98
23) Trichloroethene	12.79	95	132952	1.09	ug/L	95
24) 1,2-Dichloropropane	13.17	63	113651	1.11	ug/L	100
25) Dibromomethane	13.38	93	49937	1.11	ug/L	93
26) Bromodichloromethane	13.64	83	142251	1.07	ug/L	100
27) cis-1,3-Dichloropropene	14.38	75	128330	1.07	ug/L	97
28) Toluene	14.96	92	233796	1.12	ug/L	97
29) trans-1,3-Dichloropropene	15.32	75	89375	1.08	ug/L	96
30) 1,1,2-Trichloroethane	15.64	83	50139	1.13	ug/L	99
31) Tetrachloroethene	15.91	166	159032	1.08	ug/L	99
32) 1,3-Dichloropropane	15.93	76	95374	1.14	ug/L	97
33) Dibromochloromethane	16.32	129	93789	1.06	ug/L	92
34) 1,2-Dibromoethane	16.54	107	68958	1.07	ug/L	93
35) Chlorobenzene	17.38	112	271747	1.13	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.52	131	112753	1.13	ug/L	97
37) Ethylbenzene	17.56	91	480994	1.12	ug/L	99
38) Xylene (para & meta)	17.76	106	363580	2.25	ug/L	100
39) Xylene (Ortho)	18.46	106	166681	1.12	ug/L	98
40) Styrene	18.50	104	252084	1.11	ug/L	100

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

Quantitation Report

Data File : d:\hpcchem\1\data\c0428.d
 Acq On : 2 Dec 95 4:18 pm
 Sample : 1 PPB STANDARD
 Misc :
 Quant Time: Dec 2 16:46 1995

Vial: 4 069
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

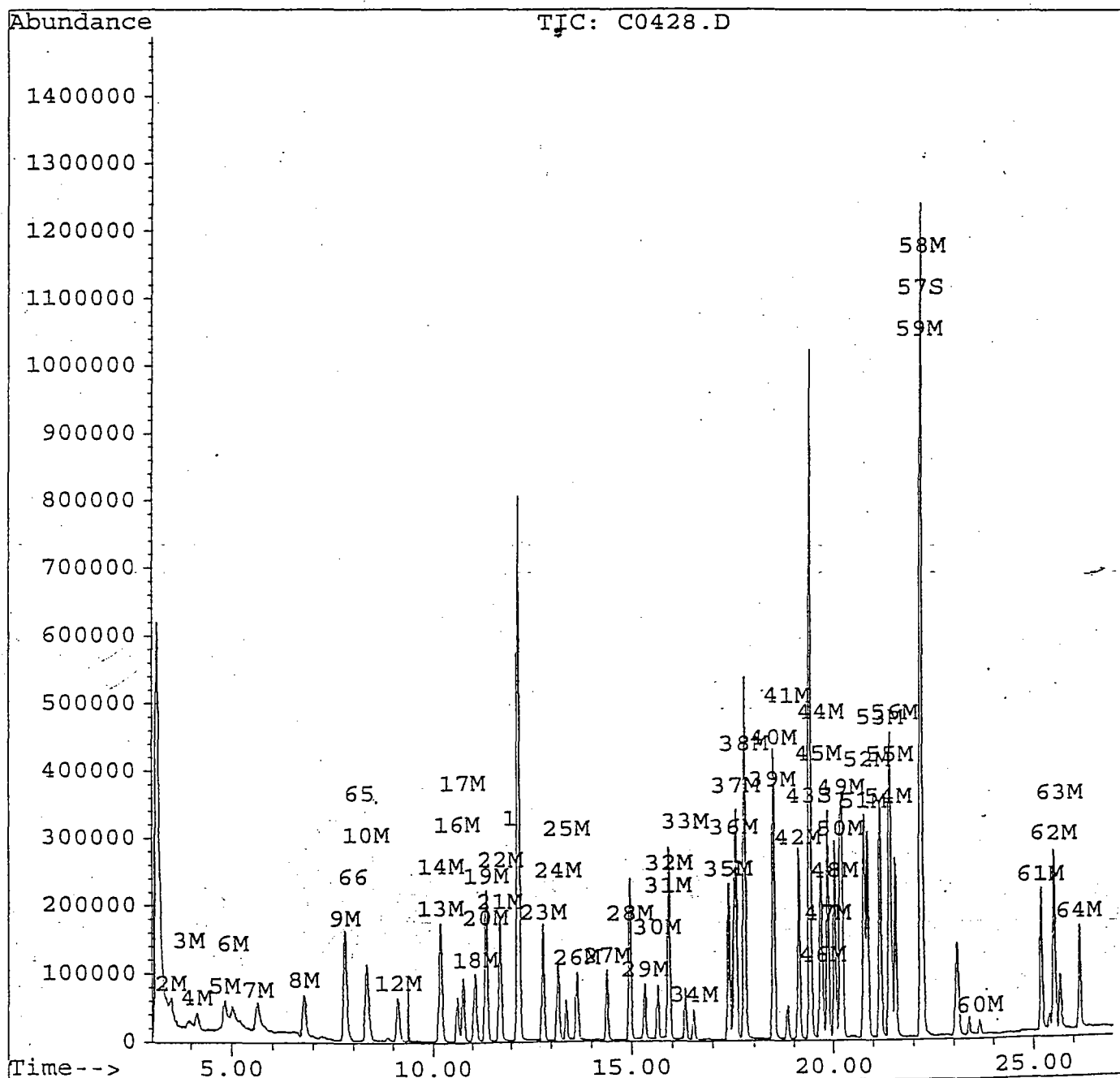
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.84	173	52408	1.08	ug/L	95
42) Isopropylbenzene	19.12	105	464873	1.12	ug/L	94
44) Bromobenzene	19.69	156	124444	1.16	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.64	83	66700	1.23	ug/L	99
46) 1,2,3-Trichloropropane	19.73	75	70802	1.27	ug/L #	61
47) n-Propylbenzene	19.86	91	643192	1.14	ug/L	99
48) 2-Chlorotoluene	20.03	91	369204	1.12	ug/L	100
49) 4-Chlorotoluene	20.22	91	430438	1.17	ug/L	98
50) 1,3,5-Trimethylbenzene	20.18	105	406396	1.13	ug/L	95
51) tert-Butylbenzene	20.76	119	464587	1.15	ug/L	97
52) 1,2,4-Trimethylbenzene	20.86	105	403432	1.13	ug/L	99
53) sec-Butylbenzene	21.17	105	637458	1.17	ug/L	99
54) 1,3-Dichlorobenzene	21.38	146	246447	1.16	ug/L	99
55) 4-Isopropyltoluene	21.42	119	502971	1.14	ug/L	99
56) 1,4-Dichlorobenzene	21.55	146	243225	1.17	ug/L	99
58) 1,2-Dichlorobenzene	22.24	146	199971	1.19	ug/L	98
59) n-Butylbenzene	22.18	91	523940	1.17	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.65	75	13979	1.22	ug/L	92
61) 1,2,4-Trichlorobenzene	25.20	180	160211	1.18	ug/L	98
62) Hexachlorobutadiene	25.52	225	131685	1.12	ug/L	99
63) Naphthalene	25.67	128	164967	1.26	ug/L	100
64) 1,2,3-Trichlorobenzene	26.16	180	120276	1.21	ug/L	97
65) Methyl-tert butyl ether	8.36	73	111745	1.08	ug/L	100
66) tert-Butyl Alcohol	8.20	59	1723	1.13	ug/L	100

Quantitation Report

Data File : d:\hpchem\1\data\c0428.d
 Acq On : 2 Dec 95 4:18 pm
 Sample : 1 PPB STANDARD
 Misc :
 Quant Time: Dec 2 16:46 1995

Vial: 4 070
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration



5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

071

Lab Name : EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Lab File ID: C0472.D BFB Injection Date: 12/5/95
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1712
 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	19.4
75	30.0 - 66.0% of mass 95	41.8
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	50.0 - 120.0% of mass 95	67.5
175	4.0 - 9.0% of mass 174	5.2 (7.7)1
176	93.0 - 101.0% of mass 174	66.0 (97.8)1
177	5.0 - 9.0% of mass 176	4.2 (6.4)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	C0473.D	12/5/95	1724
02	VBLK01	M. BLANK	C0474.D	12/5/95	1800
03	9554553V	9554553V	C0475.D	12/5/95	1833
04	9554554V	9554554V	C0476.D	12/5/95	1907
05	9554109V	9554109V	C0477.D	12/5/95	1942
06	9554110V	9554110V	C0478.D	12/5/95	2016
07	9554551V	9554551V	C0479.D	12/5/95	2051
08	9554552V	9554552V	C0480.D	12/5/95	2125
09	9554555V	9554555V	C0481.D	12/5/95	2200
10	9554557V	9554557V	C0483.D	12/5/95	2310
11	9554558V	9554558V	C0484.D	12/5/95	2344
12	9554552MS	54552MS	C0485.D	12/6/95	0019
13	9554552MSD	54552MSD	C0486.D	12/6/95	0054
14	10 QCS	10 QCS	C0487.D	12/6/95	0129
15	1 STND	1 STND	C0488.D	12/6/95	0204
16					
17					
18					
19					
20					
21					
22					

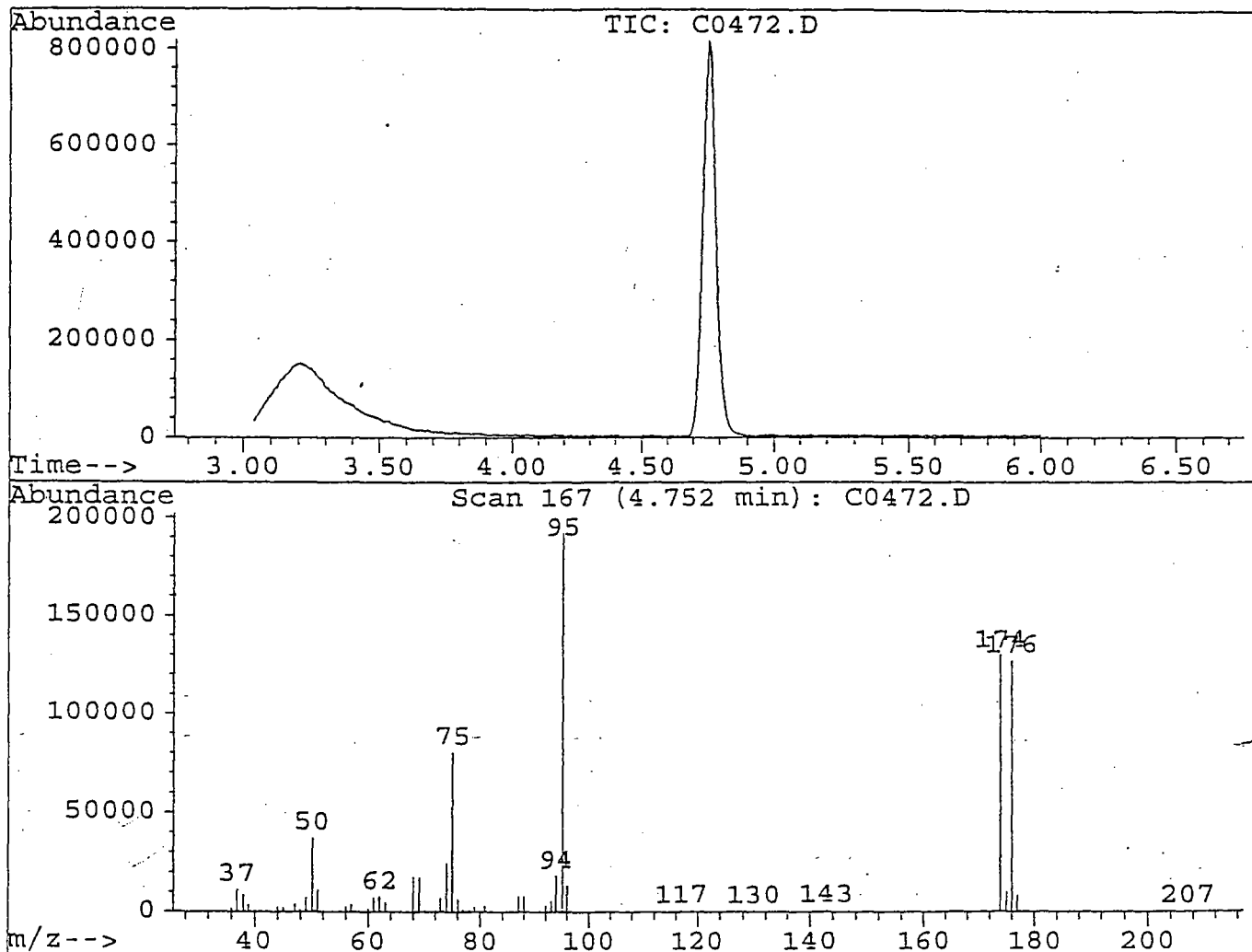
CLPBFB

072

Data File : D:\HPCHEM\1\DATA\C0472.D
Acq On : 5 Dec 95 5:12 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: 167

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	37352	PASS
75	95	30	80	41.8	80504	PASS
95	95	100	100	100.0	192576	PASS
96	95	5	9	6.8	13138	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	67.5	129976	PASS
175	174	5	9	7.7	9946	PASS
176	174	95	101	97.8	127072	PASS
177	176	5	9	6.4	8097	PASS

Scan 167 (4.752 min): C0472.D
BFB TUNE

073

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1700	51.05	11046	69.05	17472	80.90	2963
37.00	11369	52.05	627	70.05	1284	81.90	837
38.10	8611	54.95	741	72.05	1101	87.00	7792
39.00	3671	56.00	2630	72.95	6979	87.95	7828
40.00	853	57.00	4042	74.05	24616	90.95	743
44.00	2448	60.00	1890	75.05	80504	91.95	3451
45.00	2140	61.00	7271	76.05	6506	93.05	5882
47.05	3924	62.00	7706	77.00	1213	93.95	18328
47.95	1174	63.00	4861	78.00	1177	95.05	192576
49.05	7326	66.95	584	79.00	2853	95.95	13138
50.05	37352	68.05	17672	80.00	813	103.90	602

Scan 167 (4.752 min): C0472.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.95	824						
119.00	794						
129.95	565						
140.90	920						
142.90	1113						
173.95	129976						
174.95	9946						
175.95	127072						
176.95	8097						
207.00	517						

7A
VOLATILE CONTINUING CALIBRATION CHECK

074

Lab Name: EMSL ANALYTICAL Contract: _____
 Project No. _____ Site: _____ Location: _____ Group: _____
 Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 12/5/95 Time: 1724
 Lab File ID: C0473.D Init. Calib. Date(s): 11/21/95
 Heated Purge: (Y/N) N Init. Calib. Times: _____
 GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.271	0.264		2.6	30.0
Chloromethane	0.206	0.192		6.8	30.0
Vinyl chloride	0.229	0.221		3.5	30.0
Bromomethane	0.159	0.146		8.2	30.0
Chloroethane	0.127	0.135		-6.3	30.0
Trichlorofluoromethane	0.395	0.370		6.3	30.0
1,1-Dichloroethene	0.237	0.223		5.9	30.0
Methylene chloride	0.237	0.256		-8.0	30.0
trans-1,2-Dichloroethene	0.270	0.252		6.7	30.0
1,1-Dichloroethane	0.508	0.468		7.9	30.0
2,2-Dichloropropane	0.424	0.379		10.6	30.0
cis-1,2-Dichloroethene	0.266	0.249		6.4	30.0
Bromochloromethane	0.115	0.110		4.3	30.0
Chloroform	0.469	0.430		8.3	30.0
1,1,1-Trichloroethane	0.454	0.408		10.1	30.0
Carbon tetrachloride	0.429	0.390		9.1	30.0
1,1-Dichloropropene	0.424	0.391		7.8	30.0
Benzene	0.870	0.784		9.9	30.0
1,2-Dichloroethane	0.195	0.183		6.2	30.0
Trichloroethene	0.361	0.328		9.1	30.0
1,2-Dichloropropane	0.302	0.282		6.6	30.0
Dibromomethane	0.132	0.131		0.8	30.0
Bromodichloromethane	0.391	0.371		5.1	30.0
cis-1,3-Dichloropropene	0.352	0.336		4.5	30.0
Toluene	0.614	0.564		8.1	30.0
trans-1,3-Dichloropropene	0.243	0.233		4.1	30.0
1,1,2-Trichloroethane	0.131	0.129		1.5	30.0
Tetrachloroethene	0.435	0.385		11.5	30.0
1,3-Dichloropropane	0.247	0.244		1.2	30.0
Dibromochloromethane	0.260	0.252		3.1	30.0
1,2-Dibromoethane	0.000	0.000			30.0
Chlorobenzene	0.707	0.653		7.6	30.0
1,1,1,2-Tetrachloroethane	0.294	0.277		5.8	30.0
Ethylbenzene	1.261	1.140		9.6	30.0
Xylene (para & meta)	0.477	0.435		8.8	30.0
Xylene (Ortho)	0.438	0.402		8.2	30.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

075

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 12/5/95Time: 1724Lab File ID: C0473.DInit. Calib. Date(s): 11/21/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

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

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.672	0.630		6.3	30.0
Bromoform	0.142	0.142		0.0	30.0
Isopropylbenzene	1.219	1.099		9.8	30.0
Bromobenzene	0.316	0.297		6.0	30.0
1,1,2,2-Tetrachloroethane	0.160	0.167		-4.4	30.0
1,2,3-Trichloropropane	0.164	0.160		2.4	30.0
n-Propylbenzene	1.664	1.513		9.1	30.0
2-Chlorotoluene	0.973	0.854		12.2	30.0
4-Chlorotoluene	1.084	1.000		7.7	30.0
1,3,5-Trimethylbenzene	1.057	0.946		10.5	30.0
tert-Butylbenzene	1.187	1.080		9.0	30.0
1,2,4-Trimethylbenzene	1.056	0.943		10.7	30.0
sec-Butylbenzene	1.612	1.478		8.3	30.0
1,3-Dichlorobenzene	0.625	0.573		8.3	30.0
4-Isopropyltoluene	1.296	1.195		7.8	30.0
1,4-Dichlorobenzene	0.612	0.571		6.7	30.0
1,2-Dichlorobenzene	0.494	0.461		6.7	30.0
n-Butylbenzene	1.315	1.211		7.9	30.0
1,2-Dibromo-3-chloropropane	0.034	0.032		5.9	30.0
1,2,4-Trichlorobenzene	0.400	0.372		7.0	30.0
Hexachlorobutadiene	0.348	0.302		13.2	30.0
Naphthalene	0.387	0.370		4.4	30.0
1,2,3-Trichlorobenzene	0.292	0.272		6.8	30.0
4-Bromofluorobenzene	0.540	0.542		-0.4	30.0
1,2-Dichlorobenzene-d4	0.338	0.351		-3.8	30.0

Evaluate Continuing Calibration Report

076

Data File : D:\HPCHEM\1\DATA\C0473.D
Acq On : 5 Dec 95 5:24 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 : Wed Nov 22 09:25:47 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	113	-0.02
2 M	Dichlorodifluoromethane	0.271	0.264	2.5	112	-0.02
3 M	Chloromethane	0.206	0.192	6.6	105	-0.04
4 M	Vinyl chloride	0.229	0.221	3.2	110	-0.02
5 M	Bromomethane	0.159	0.146	8.0	100	-0.03
6 M	Chloroethane	0.127	0.135	-6.1	111	-0.03
7 M	Trichlorofluoromethane	0.395	0.370	6.2	108	0.00
8 M	1,1-Dichloroethene	0.237	0.223	5.6	109	0.00
9 M	Methylene chloride	0.237	0.256	-8.0	104	-0.02
10 M	trans-1,2-Dichloroethene	0.270	0.252	6.8	106	-0.02
11	Hexane	0.000	0.000#	0.0	0#	-0.49#
12 M	1,1-Dichloroethane	0.508	0.468	7.9	103	0.00
13 M	2,2-Dichloropropane	0.424	0.379	10.7	105	-0.02
14 M	cis-1,2-Dichloroethene	0.266	0.249	6.4	103	-0.02
15	2-Butanone	0.000	0.000#	0.0	0#	-0.44#
16 M	Bromochloromethane	0.115	0.110	4.7	100	-0.02
17 M	Chloroform	0.469	0.430	8.3	102	-0.02
18 M	1,1,1-Trichloroethane	0.454	0.408	10.2	101	-0.02
19 M	Carbon tetrachloride	0.429	0.390	9.1	102	0.00
20 M	1,1-Dichloropropene	0.424	0.391	7.7	105	-0.02
21 M	Benzene	0.870	0.784	9.8	101	0.00
22 M	1,2-Dichloroethane	0.195	0.183	6.0	99	-0.02
23 M	Trichloroethene	0.361	0.328	9.1	102	-0.02
24 M	1,2-Dichloropropane	0.302	0.282	6.5	100	-0.02
25 M	Dibromomethane	0.132	0.131	0.9	103	-0.02
26 M	Bromodichloromethane	0.391	0.371	5.0	102	-0.02
27 M	cis-1,3-Dichloropropene	0.352	0.336	4.6	102	-0.02
28 M	Toluene	0.614	0.564	8.1	100	-0.03
29 M	trans-1,3-Dichloropropene	0.243	0.233	4.2	100	-0.03
30 M	1,1,2-Trichloroethane	0.131	0.129	1.4	101	-0.02
31 M	Tetrachloroethene	0.435	0.385	11.5	100	-0.03
32 M	1,3-Dichloropropane	0.247	0.244	1.4	101	-0.03
33 M	Dibromochloromethane	0.260	0.252	2.9	101	-0.03
34 M	1,2-Dibromoethane	0.190	0.189	0.5	101	-0.03
35 M	Chlorobenzene	0.707	0.653	7.6	101	-0.03
36 M	1,1,1,2-Tetrachloroethane	0.294	0.277	5.8	99	-0.04
37 M	Ethylbenzene	1.261	1.140	9.6	100	-0.04
38 M	Xylene (para & meta)	0.477	0.435	8.7	101	-0.04
39 M	Xylene (Ortho)	0.438	0.402	8.1	100	-0.04
40 M	Styrene	0.672	0.630	6.3	100	-0.03
41 M	Bromoform	0.142	0.142	0.1	100	-0.04
42 M	Isopropylbenzene	1.219	1.099	9.8	100	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0473.D
 Acq On : 5 Dec 95 5:24 pm
 Sample : 10 PPB CHK STANDARD
 Misc :

Vial: 2 077
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 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	0.540	0.542	-0.4	110	-0.03
44 M	Bromobenzene	0.316	0.297	5.8	98	-0.04
45 M	1,1,2,2-Tetrachloroethane	0.160	0.167	-4.6	104	-0.04
46 M	1,2,3-Trichloropropane	0.164	0.160	2.3	100	-0.04
47 M	n-Propylbenzene	1.664	1.513	9.1	101	-0.04
48 M	2-Chlorotoluene	0.973	0.854	12.2	100	-0.03
49 M	4-Chlorotoluene	1.084	1.000	7.7	101	-0.04
50 M	1,3,5-Trimethylbenzene	1.057	0.946	10.5	98	-0.04
51 M	tert-Butylbenzene	1.187	1.080	9.0	99	-0.04
52 M	1,2,4-Trimethylbenzene	1.056	0.943	10.8	98	-0.04
53 M	sec-Butylbenzene	1.612	1.478	8.3	101	-0.04
54 M	1,3-Dichlorobenzene	0.625	0.573	8.4	97	-0.04
55 M	4-Isopropyltoluene	1.296	1.195	7.8	100	-0.04
56 M	1,4-Dichlorobenzene	0.612	0.571	6.8	98	-0.04
57 S	1,2-Dichlorobenzene-d4	0.338	0.351	-3.6	108	-0.05
58 M	1,2-Dichlorobenzene	0.494	0.461	6.7	96	-0.04
59 M	n-Butylbenzene	1.315	1.211	7.9	100	-0.04
60 M	1,2-Dibromo-3-chloropropane	0.034	0.032	5.4	97	-0.04
61 M	1,2,4-Trichlorobenzene	0.400	0.372	7.2	95	-0.05
62 M	Hexachlorobutadiene	0.348	0.302	13.1	94	-0.05
63 M	Naphthalene	0.387	0.370	4.3	95	-0.05
64 M	1,2,3-Trichlorobenzene	0.292	0.272	6.7	91	-0.06
65	Methyl-tert butyl ether	0.306	0.295	3.7	99	-0.02
66	tert-Butyl Alcohol	0.005	0.005	-6.5	106	-0.03

Quantitation Report

Data File : d:\hpcchem\1\data\c0473.d
 Acq On : 5 Dec 95 5:24 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Dec 6 10:33 1995

Vial: 2 078
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.19	96	1824708	5.00	ug/L	-0.02
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.42	95	989206	5.02	ug/L	100.43%
57) 1,2-Dichlorobenzene-d4	22.20	152	640170	5.18	ug/L	103.65%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.52	85	963149	9.75	ug/L	99
3) Chloromethane	3.95	50	701156	9.34	ug/L	99
4) Vinyl chloride	4.16	62	807910	9.68	ug/L	98
5) Bromomethane	4.85	94	533519	9.20	ug/L	98
6) Chloroethane	5.09	64	492313	10.61	ug/L	98
7) Trichlorofluoromethane	5.70	101	1351922	9.38	ug/L	99
8) 1,1-Dichloroethene	6.82	96	815162	9.44	ug/L	99
9) Methylene chloride	7.81	84	932937	10.80	ug/L	99
10) trans-1,2-Dichloroethene	8.34	96	919623	9.32	ug/L	97
12) 1,1-Dichloroethane	9.15	63	1707293	9.21	ug/L	100
13) 2,2-Dichloropropane	10.19	77	1382701	8.93	ug/L	98
14) cis-1,2-Dichloroethene	10.20	96	907385	9.36	ug/L	99
16) Bromochloromethane	10.62	128	400814	9.53	ug/L	94
17) Chloroform	10.77	83	1570839	9.17	ug/L	99
18) 1,1,1-Trichloroethane	11.08	97	1488349	8.98	ug/L	97
19) Carbon tetrachloride	11.37	117	1423796	9.09	ug/L	99
20) 1,1-Dichloropropene	11.36	75	1427388	9.23	ug/L	100
21) Benzene	11.73	78	2862182	9.02	ug/L	99
22) 1,2-Dichloroethane	11.75	62	668834	9.40	ug/L	96
23) Trichloroethene	12.82	95	1196162	9.09	ug/L	99
24) 1,2-Dichloropropane	13.19	63	1030528	9.35	ug/L	100
25) Dibromomethane	13.40	93	478997	9.91	ug/L	96
26) Bromodichloromethane	13.65	83	1354654	9.50	ug/L	98
27) cis-1,3-Dichloropropene	14.41	75	1226779	9.54	ug/L	98
28) Toluene	14.97	92	2058509	9.19	ug/L	100
29) trans-1,3-Dichloropropene	15.33	75	850643	9.58	ug/L	100
30) 1,1,2-Trichloroethane	15.65	83	470003	9.86	ug/L	94
31) Tetrachloroethene	15.92	166	1406253	8.85	ug/L	98
32) 1,3-Dichloropropane	15.94	76	889546	9.86	ug/L	100
33) Dibromochloromethane	16.34	129	921120	9.71	ug/L	99
34) 1,2-Dibromoethane	16.55	107	690914	9.95	ug/L	99
35) Chlorobenzene	17.40	112	2384893	9.24	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.53	131	1009655	9.42	ug/L	98
37) Ethylbenzene	17.57	91	4159500	9.04	ug/L	99
38) Xylene (para & meta)	17.78	106	3178531	18.26	ug/L	98
39) Xylene (Ortho)	18.48	106	1467827	9.19	ug/L	98
40) Styrene	18.51	104	2297795	9.37	ug/L	97

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

Quantitation Report

Data File : d:\hpcchem\1\data\c0473.d
 Acq On : 5 Dec 95 5:24 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Dec 6 10:33 1995

Vial: 2 079
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.85	173	519591	9.99	ug/L	97
42) Isopropylbenzene	19.13	105	4011236	9.02	ug/L m	0
44) Bromobenzene	19.69	156	1085281	9.42	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.65	83	610316	10.46	ug/L	97
46) 1,2,3-Trichloropropane	19.74	75	585670	9.77	ug/L	98
47) n-Propylbenzene	19.87	91	5519869	9.09	ug/L	99
48) 2-Chlorotoluene	20.05	91	3115955	8.78	ug/L	98
49) 4-Chlorotoluene	20.23	91	3649523	9.23	ug/L	100
50) 1,3,5-Trimethylbenzene	20.18	105	3451696	8.95	ug/L	98
51) tert-Butylbenzene	20.78	119	3942690	9.10	ug/L	98
52) 1,2,4-Trimethylbenzene	20.87	105	3440435	8.92	ug/L	98
53) sec-Butylbenzene	21.18	105	5395306	9.17	ug/L	99
54) 1,3-Dichlorobenzene	21.40	146	2089321	9.16	ug/L	100
55) 4-Isopropyltoluene	21.44	119	4361514	9.22	ug/L	100
56) 1,4-Dichlorobenzene	21.56	146	2082256	9.32	ug/L	100
58) 1,2-Dichlorobenzene	22.24	146	1683212	9.33	ug/L	98
59) n-Butylbenzene	22.19	91	4420683	9.21	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.66	75	116567	9.46	ug/L	97
61) 1,2,4-Trichlorobenzene	25.20	180	1356227	9.28	ug/L	99
62) Hexachlorobutadiene	25.53	225	1102647	8.69	ug/L	99
63) Naphthalene	25.68	128	1351269	9.57	ug/L	100
64) 1,2,3-Trichlorobenzene	26.17	180	992846	9.33	ug/L	98
65) Methyl-tert butyl ether	8.38	73	1075392	9.63	ug/L	99
66) tert-Butyl Alcohol	8.16	59	35046	21.31	ug/L	100

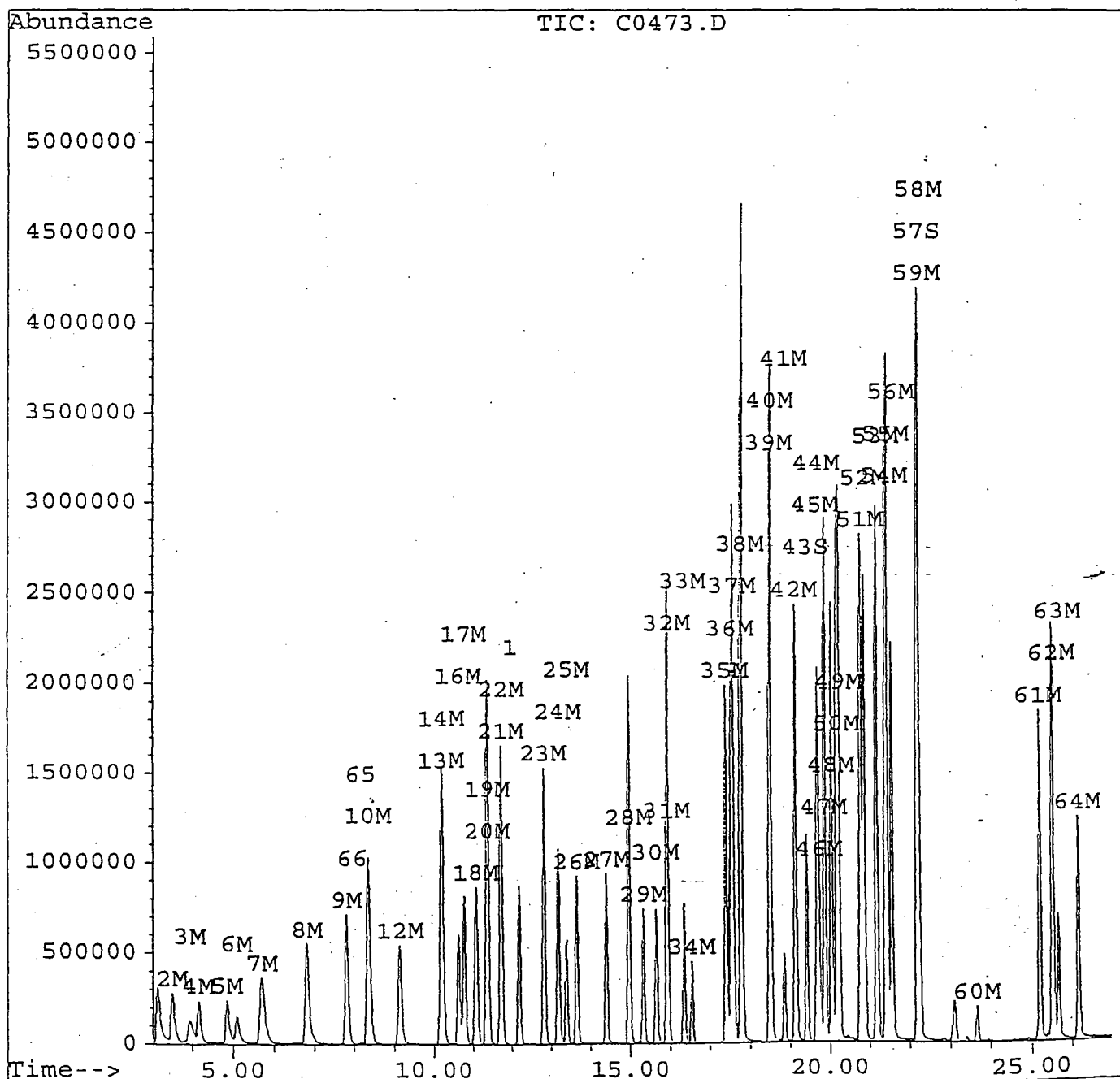
Quantitation Report

080

Data File : d:\hpchem\1\data\c0473.d
 Acq On : 5 Dec 95 5:24 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Dec 6 10:33 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 : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpcchem\1\data\c0487.d
Acq On : 6 Dec 95 1:29 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Dec 6 10:53 1995

Vial: 16 **081**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1516340	5.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.43	95	804351	4.91	ug/L	98.27%
57) 1,2-Dichlorobenzene-d4	22.22	152	512829	5.00	ug/L	99.92%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.52	85	867610	10.57	ug/L	98
3) Chloromethane	3.95	50	531868	8.53	ug/L	100
4) Vinyl chloride	4.17	62	677967	9.77	ug/L	100
5) Bromomethane	4.86	94	450743	9.35	ug/L	99
6) Chloroethane	5.10	64	395672	10.26	ug/L	100
7) Trichlorofluoromethane	5.69	101	1259591	10.51	ug/L	98
8) 1,1-Dichloroethene	6.82	96	783143	10.91	ug/L	98
9) Methylene chloride	7.82	84	827251	11.53	ug/L	98
10) trans-1,2-Dichloroethene	8.36	96	848409	10.35	ug/L	97
12) 1,1-Dichloroethane	9.16	63	1554549	10.09	ug/L	99
13) 2,2-Dichloropropane	10.20	77	1080819	8.40	ug/L	100
14) cis-1,2-Dichloroethene	10.22	96	829501	10.29	ug/L	95
16) Bromochloromethane	10.64	128	350117	10.02	ug/L	96
17) Chloroform	10.79	83	1419360	9.98	ug/L	99
18) 1,1,1-Trichloroethane	11.10	97	1387083	10.07	ug/L	97
19) Carbon tetrachloride	11.38	117	1306108	10.03	ug/L	98
20) 1,1-Dichloropropene	11.38	75	1357386	10.56	ug/L	99
21) Benzene	11.73	78	2485237	9.42	ug/L	99
22) 1,2-Dichloroethane	11.76	62	578805	9.79	ug/L	96
23) Trichloroethene	12.83	95	1110688	10.15	ug/L	99
24) 1,2-Dichloropropane	13.20	63	921138	10.06	ug/L	99
25) Dibromomethane	13.41	93	405939	10.11	ug/L	94
26) Bromodichloromethane	13.66	83	1204032	10.16	ug/L	98
27) cis-1,3-Dichloropropene	14.42	75	1121941	10.50	ug/L	100
28) Toluene	14.99	92	1769051	9.51	ug/L	100
29) trans-1,3-Dichloropropene	15.34	75	726415	9.85	ug/L	99
30) 1,1,2-Trichloroethane	15.66	83	398112	10.05	ug/L	97
31) Tetrachloroethene	15.94	166	1300976	9.85	ug/L	98
32) 1,3-Dichloropropane	15.95	76	753799	10.05	ug/L	100
33) Dibromochloromethane	16.35	129	793302	10.06	ug/L	100
34) 1,2-Dibromoethane	16.56	107	582895	10.10	ug/L	97
35) Chlorobenzene	17.41	112	2091393	9.75	ug/L	100
37) Ethylbenzene	17.58	91	3603145	9.42	ug/L	99
38) Xylene (para & meta)	17.79	106	2791038	19.29	ug/L	98
39) Xylene (Ortho)	18.50	106	1300469	9.79	ug/L	98
40) Styrene	18.52	104	2001856	9.82	ug/L	98
41) Bromoform	18.86	173	431887	10.00	ug/L	98

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

Quantitation Report

082

Data File : d:\hpcchem\1\data\c0487.d

Acq On : 6 Dec 95 1:29 am

Sample : 10 PPB QCS

Misc : 25 ML

Quant Time: Dec 6 10:53 1995

Vial: 16

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Wed Nov 22 09:25:47 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) Isopropylbenzene	19.14	105	3867892	10.47	ug/L m	0
44) Bromobenzene	19.70	156	911419	9.52	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.66	83	520620	10.74	ug/L	100
46) 1,2,3-Trichloropropane	19.75	75	472673	9.49	ug/L	90
47) n-Propylbenzene	19.88	91	4934911	9.78	ug/L	99
48) 2-Chlorotoluene	20.06	91	2804675	9.51	ug/L	99
49) 4-Chlorotoluene	20.24	91	3210805	9.77	ug/L	100
50) 1,3,5-Trimethylbenzene	20.19	105	2971318	9.27	ug/L	100
51) tert-Butylbenzene	20.79	119	3518602	9.77	ug/L	98
52) 1,2,4-Trimethylbenzene	20.88	105	2892431	9.03	ug/L	99
53) sec-Butylbenzene	21.19	105	4865255	9.95	ug/L	99
54) 1,3-Dichlorobenzene	21.41	146	1840570	9.71	ug/L	100
55) 4-Isopropyltoluene	21.45	119	3822454	9.73	ug/L	100
56) 1,4-Dichlorobenzene	21.57	146	1796116	9.67	ug/L	100
58) 1,2-Dichlorobenzene	22.25	146	1450528	9.68	ug/L	96
59) n-Butylbenzene	22.20	91	3817746	9.57	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.66	75	100186	9.78	ug/L	96
61) 1,2,4-Trichlorobenzene	25.21	180	1134439	9.35	ug/L	97
62) Hexachlorobutadiene	25.54	225	1034757	9.81	ug/L	100
63) Naphthalene	25.68	128	1120702	9.56	ug/L	100
64) 1,2,3-Trichlorobenzene	26.18	180	854149	9.66	ug/L	97
66) tert-Butyl Alcohol	8.35	59	31661	23.16	ug/L	100

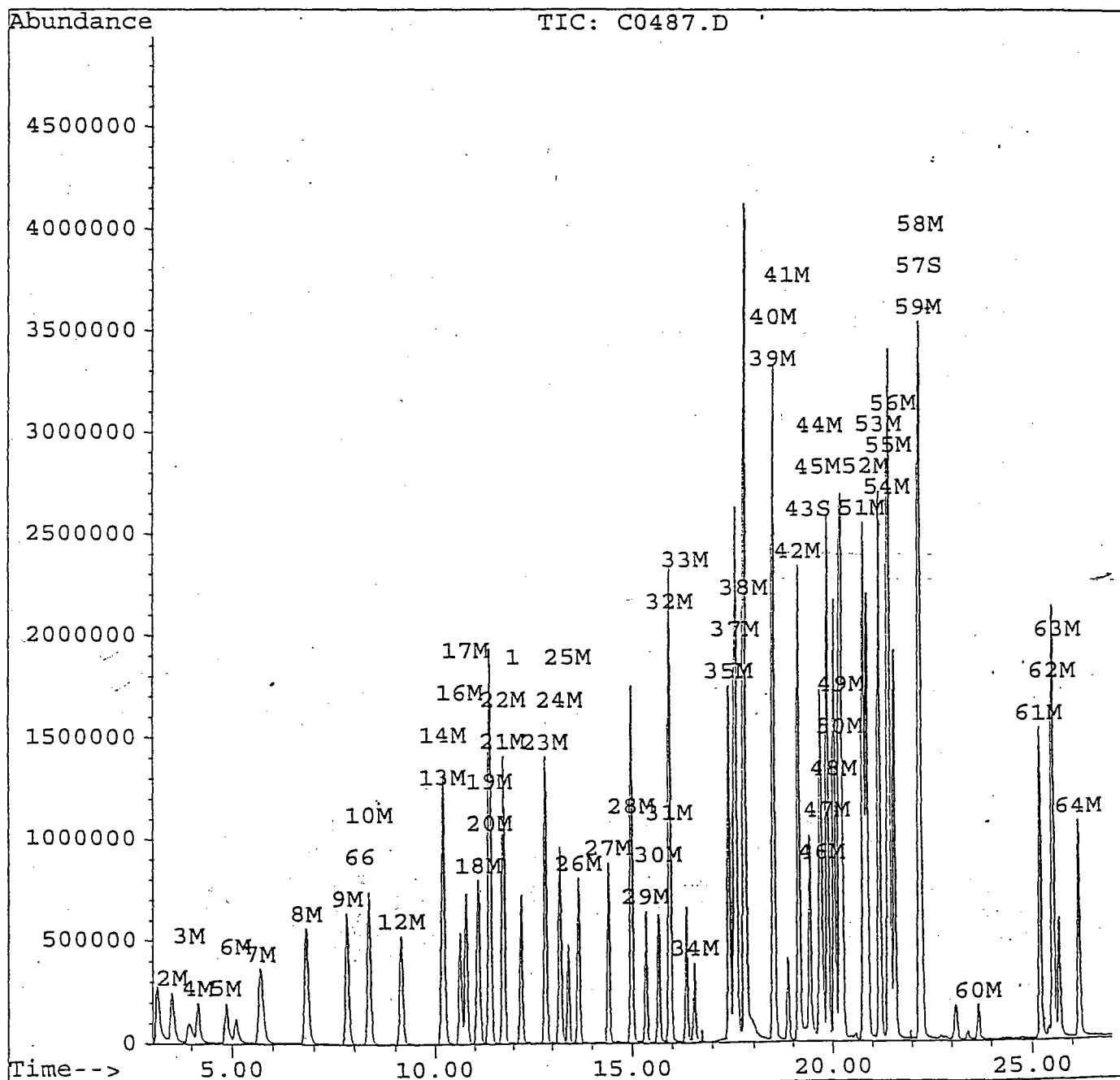
Quantitation Report

083

Data File : d:\hpcchem\1\data\c0487.d
 Acq On : 6 Dec 95 1:29 am
 Sample : 10 PPB QCS
 Misc : 25 ML
 Quant Time: Dec 6 10:53 1995

Vial: 16
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0488.d
 Acq On : 6 Dec 95 2:04 am
 Sample : 1 STANDARD
 Misc : 25 ML
 Quant Time: Dec 6 2:31 1995

Vial: 17 **084**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.21	96	1495748	5.00	ug/L	0.00
System Monitoring Compounds				%Recovery		
43) 4-Bromofluorobenzene	19.43	95	795125	4.92	ug/L	98.48%
57) 1,2-Dichlorobenzene-d4	22.22	152	509830	5.04	ug/L	100.70%
Target Compounds				Qvalue		
2) Dichlorodifluoromethane	3.52	85	93640	1.16	ug/L	96
3) Chloromethane	3.95	50	66428	1.08	ug/L	92
4) Vinyl chloride	4.16	62	74051	1.08	ug/L	99
5) Bromomethane	4.88	94	54917	1.16	ug/L	100
6) Chloroethane	5.11	64	46540	1.22	ug/L	95
7) Trichlorofluoromethane	5.69	101	128110	1.08	ug/L	96
8) 1,1-Dichloroethene	6.80	96	79925	1.13	ug/L	90
9) Methylene chloride	7.82	84	287691	4.06	ug/L	100
10) trans-1,2-Dichloroethene	8.36	96	88565	1.09	ug/L	96
12) 1,1-Dichloroethane	9.15	63	166419	1.10	ug/L	99
13) 2,2-Dichloropropane	10.21	77	111099	0.88	ug/L	94
14) cis-1,2-Dichloroethene	10.21	96	88678	1.12	ug/L	89
16) Bromochloromethane	10.64	128	38675	1.12	ug/L	95
17) Chloroform	10.79	83	153394	1.09	ug/L	98
18) 1,1,1-Trichloroethane	11.10	97	143033	1.05	ug/L	97
19) Carbon tetrachloride	11.38	117	133995	1.04	ug/L	97
20) 1,1-Dichloropropene	11.37	75	137827	1.09	ug/L	98
21) Benzene	11.74	78	287877	1.11	ug/L	100
22) 1,2-Dichloroethane	11.76	62	67024	1.15	ug/L	99
23) Trichloroethene	12.83	95	118292	1.10	ug/L	98
24) 1,2-Dichloropropane	13.20	63	103547	1.15	ug/L	99
25) Dibromomethane	13.41	93	46440	1.17	ug/L	96
26) Bromodichloromethane	13.67	83	127858	1.09	ug/L	98
27) cis-1,3-Dichloropropene	14.42	75	113825	1.08	ug/L	99
28) Toluene	14.99	92	232344	1.27	ug/L	98
29) trans-1,3-Dichloropropene	15.34	75	80559	1.11	ug/L	98
30) 1,1,2-Trichloroethane	15.66	83	50406	1.29	ug/L	97
31) Tetrachloroethene	15.93	166	137365	1.05	ug/L	95
32) 1,3-Dichloropropane	15.95	76	94663	1.28	ug/L	99
33) Dibromochloromethane	16.35	129	88779	1.14	ug/L	99
34) 1,2-Dibromoethane	16.56	107	70338	1.24	ug/L	100
35) Chlorobenzene	17.42	112	248085	1.17	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.54	131	106148	1.21	ug/L	95
37) Ethylbenzene	17.59	91	438748	1.16	ug/L	99
38) Xylene (para & meta)	17.80	106	344561	2.41	ug/L	96
39) Xylene (Ortho)	18.50	106	157828	1.20	ug/L	97
40) Styrene	18.52	104	236316	1.18	ug/L	97

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

Quantitation Report

Data File : d:\hpchem\1\data\c0488.d
Acq On : 6 Dec 95 2:04 am
Sample : 1 STANDARD
Misc : 25 ML
Quant Time: Dec 6 2:31 1995

Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.86	173	50988	1.20	ug/L	98
42) Isopropylbenzene	19.15	105	421833	1.16	ug/L	98
44) Bromobenzene	19.72	156	116845	1.24	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.66	83	70506	1.47	ug/L	99
46) 1,2,3-Trichloropropane	19.76	75	67970	1.38	ug/L #	62
47) n-Propylbenzene	19.88	91	584059	1.17	ug/L	100
48) 2-Chlorotoluene	20.06	91	337440	1.16	ug/L	96
49) 4-Chlorotoluene	20.24	91	391805	1.21	ug/L	97
50) 1,3,5-Trimethylbenzene	20.19	105	369323	1.17	ug/L	98
51) tert-Butylbenzene	20.79	119	424051	1.19	ug/L	97
52) 1,2,4-Trimethylbenzene	20.88	105	379103	1.20	ug/L	99
53) sec-Butylbenzene	21.19	105	578424	1.20	ug/L	99
54) 1,3-Dichlorobenzene	21.41	146	238600	1.28	ug/L	99
55) 4-Isopropyltoluene	21.45	119	461139	1.19	ug/L	99
56) 1,4-Dichlorobenzene	21.57	146	230016	1.26	ug/L	99
58) 1,2-Dichlorobenzene	22.25	146	192291	1.30	ug/L	96
59) n-Butylbenzene	22.20	91	472645	1.20	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.66	75	13842	1.37	ug/L #	84
61) 1,2,4-Trichlorobenzene	25.21	180	150331	1.26	ug/L	99
62) Hexachlorobutadiene	25.53	225	111169	1.07	ug/L	95
63) Naphthalene	25.69	128	178792	1.55	ug/L	100
64) 1,2,3-Trichlorobenzene	26.18	180	118995	1.36	ug/L	95
65) Methyl-tert butyl ether	8.39	73	97934	1.07	ug/L	98
66) tert-Butyl Alcohol	8.36	59	1896	1.41	ug/L	100

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

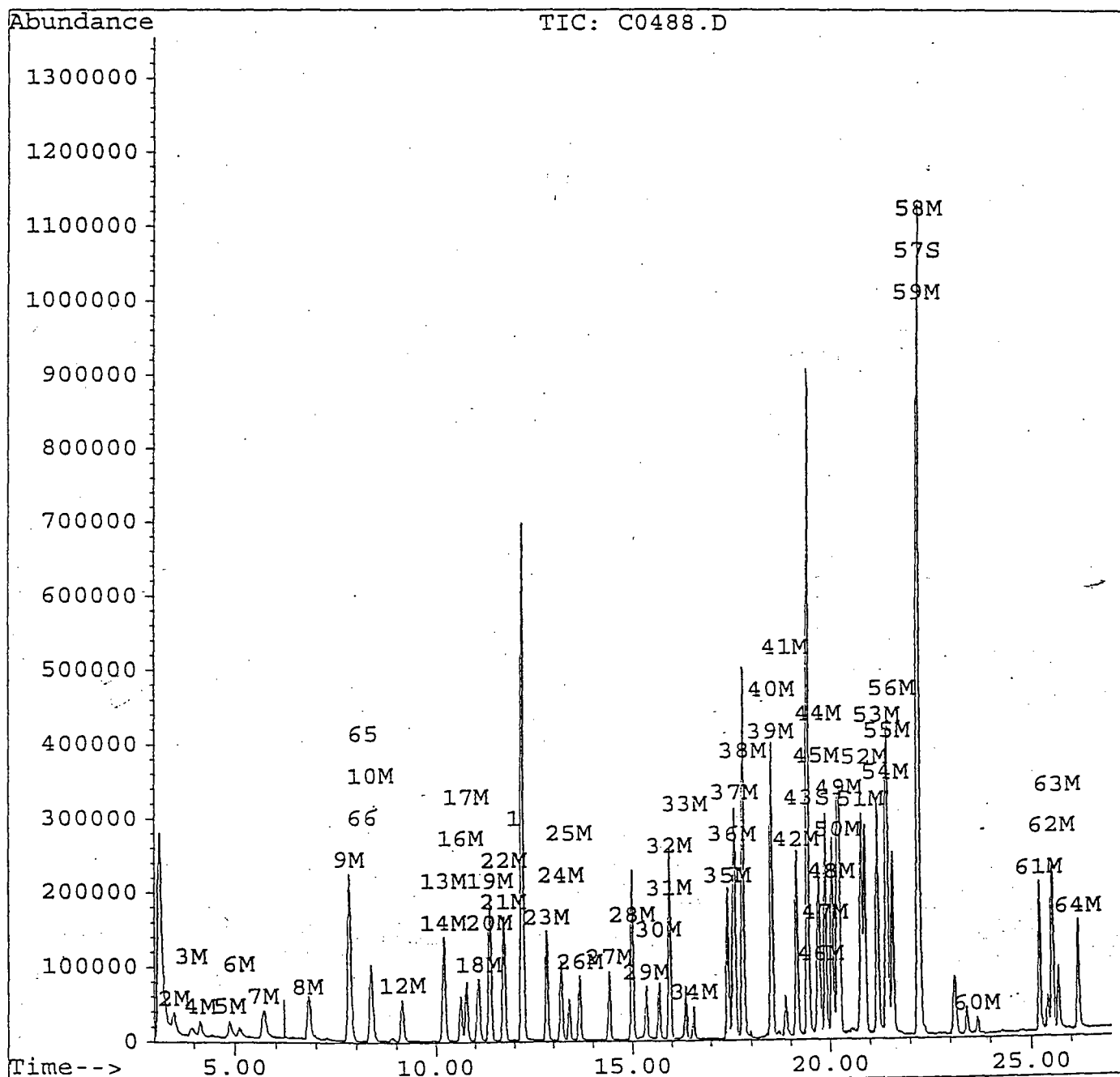
Quantitation Report

086

Data File : d:\hpchem\1\data\c0488.d
 Acq On : 6 Dec 95 2:04 am
 Sample : 1 STANDARD
 Misc : 25 ML
 Quant Time: Dec 6 2:31 1995

Vial: 17
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

087

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): C0426.DDate Analyzed: 12/2/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1510GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	1705729	12.16				
UPPER LIMIT	3411458	12.66				
LOWER LIMIT	852865	11.66				
SAMPLE NO.						
01 10 QCS	1696795	12.17				
02 1 STND	1696953	12.18				
03 VBLK01	1681347	12.18				
04 9554060V	1653394	12.18				
05 9554061V	1699146	12.18				
06 9554062V	1709216	12.18				
07 9554101V	1741817	12.18				
08 9554102V	1664338	12.18				
09 9554063V	1656749	12.18				
10 9554060MS	1703293	12.18				
11 9554060MSD	1698292	12.18				
12						
13						
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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

088

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): C0473.D Date Analyzed: 12/5/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1724

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	1824708	12.19				
UPPER LIMIT	2372120	12.69				
LOWER LIMIT	1277296	11.69				
SAMPLE NO.						
01 VBLK01	1696123	12.03				
02 9554553V	1687824	12.20				
03 9554554V	1699615	12.21				
04 9554109V	1657783	12.20				
05 9554110V	1623919	12.21				
06 9554551V	1650134	12.20				
07 9554552V	1594528	12.21				
08 9554555V	1562330	12.21				
09 9554557V	1493739	12.20				
10 9554558V	1563969	12.21				
11 9554552MS	1549748	12.21				
12 9554552MSD	1512739	12.21				
13 10 QCS	1516340	12.21				
14 1 STND	1495748	12.21				
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 ORGANICS ANALYSIS DATA SHEET

FMETL#

089

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Trip Blank

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0475.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	.70		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

090

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Trip Blank

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0475.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

Trip Blank

091

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY
 Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: TB Group: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9554553V
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D
 Level: (low/med) LOW Date Received: 11/27/95
 % Moisture: not dec. NA Date Analyzed: 12/5/95
 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: 2 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.74	3	J
2.	Column Bleed	23.11	1	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0475.d
 Acq On : 5 Dec 95 6:33 pm
 Sample : 9554553 BLDG 482 TB
 Misc : 25 ML
 Quant Time: Dec 6 10:35 1995

Vial: 4 **092**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

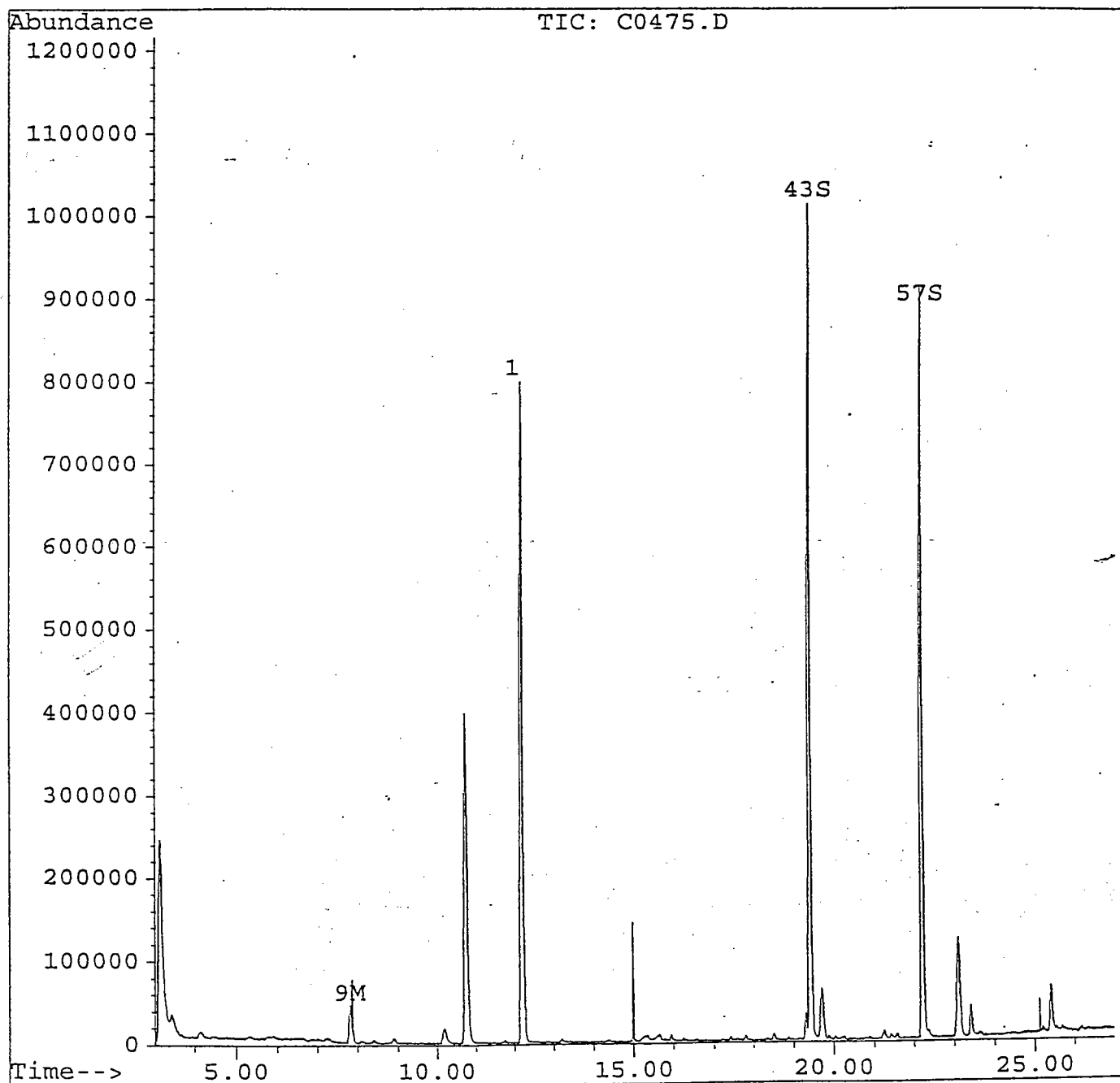
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.20	96	1687824	5.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.43	95	900563	4.94	ug/L	98.84%
57) 1,2-Dichlorobenzene-d4	22.22	152	575548	5.04	ug/L	100.74%
Target Compounds						Qvalue
9) Methylene chloride	7.81	84	54437	0.68	ug/L	92

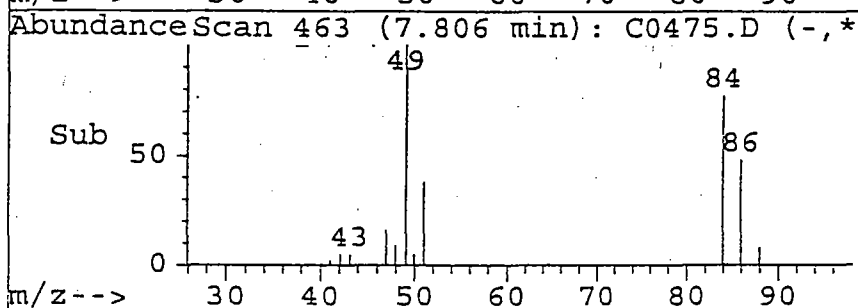
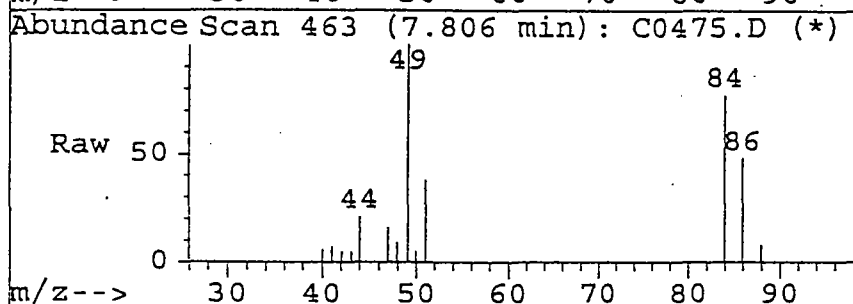
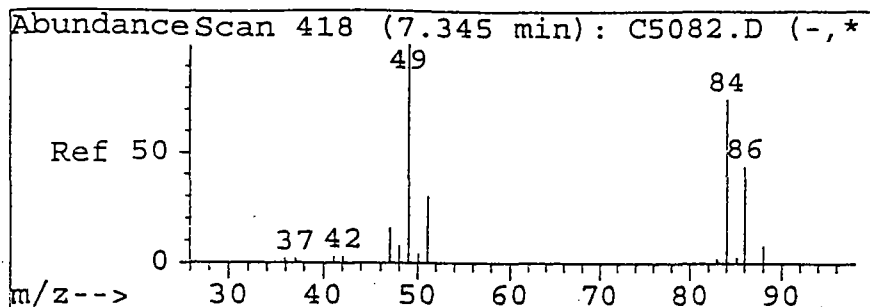
Quantitation Report

Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML
Quant Time: Dec 6 10:35 1995

Vial: 4 093
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration





#9

Methylene chloride

Concen: 0.68 ug/L

RT: 7.81 min Scan# 463

Delta R.T. -0.02 min

Lab File: c0475.d

Acq: 5 Dec 95 6:33 pm

Tgt Ion: 84 Resp: 54437

Ion Ratio Lower Upper

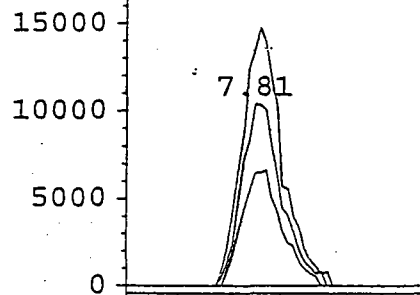
84 100

86 62.1 45.2 85.2

49 129.6 121.1 161.1

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.
20000 Ion 86.00 (85.
Ion 49.00 (48.



Time--> 7.57 8.04

Library Search Compound Report

095

Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

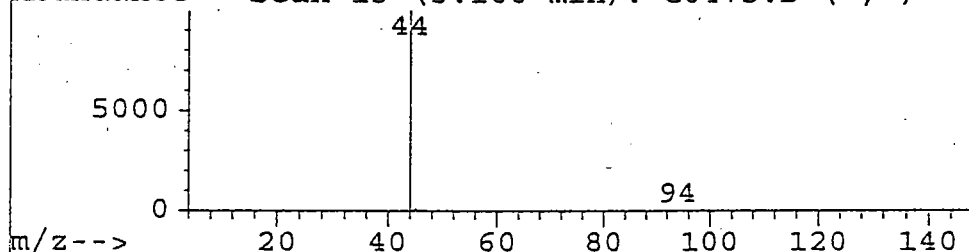
Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

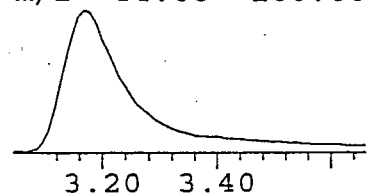
R.T.	Conc	Area	Relative to ISTD	R.T.
3.17	2.55 ug/L	1800959	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	62271	010024-97-2	3
3	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
4	Carbamic acid, monoammonium salt	391	001111-78-0	2
5	Acetaldehyde	62264	000075-07-0	2

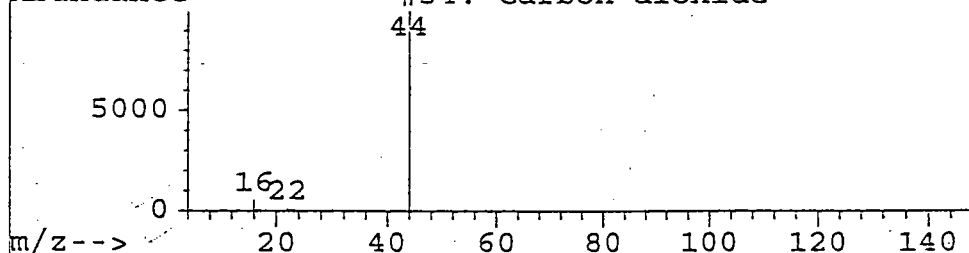
Abundance Scan 13 (3.166 min): C0475.D (-,*)



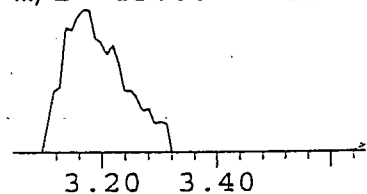
m/z 44.00 100.00%



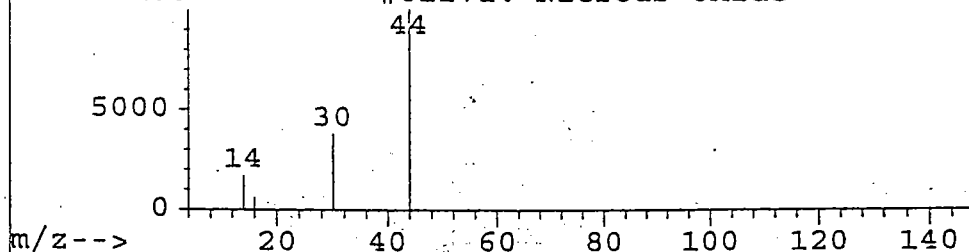
Abundance #34: Carbon dioxide



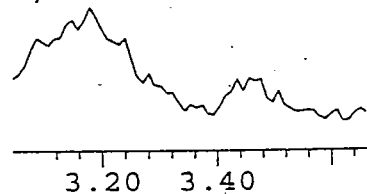
m/z 45.00 1.19%



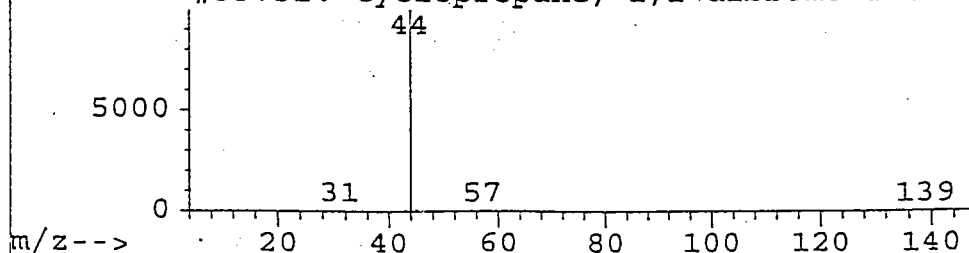
Abundance #62271: Nitrous Oxide



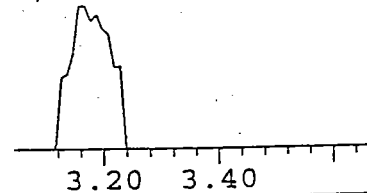
m/z 40.00 0.49%



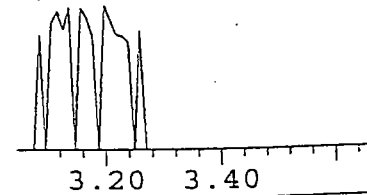
Abundance #33732: Cyclopropane, 1,1-dibromo-2-chlo



m/z 46.05 0.45%



m/z 94.05 0.29%



Library Search Compound Report

096

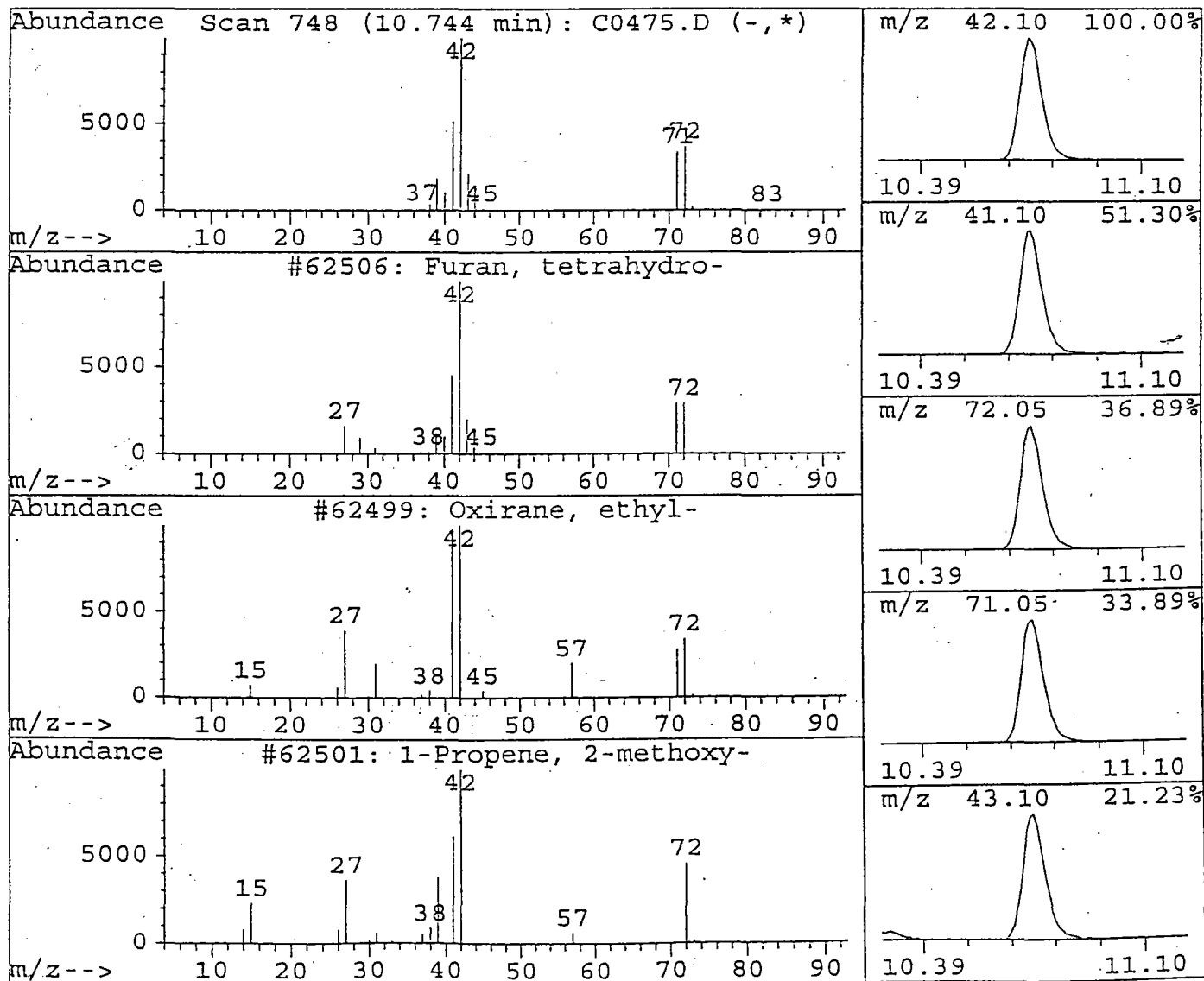
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.74	2.84 ug/L	2005011	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Furan, tetrahydro-	62506	000109-99-9	90
2	Oxirane, ethyl-	62499	000106-88-7	39
3	1-Propene, 2-methoxy-	62501	000116-11-0	38
4	3-Buten-1-ol	264	000627-27-0	4
5	Oxirane, 2,2-dimethyl-	62511	000558-30-5	46



Library Search Compound Report

Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

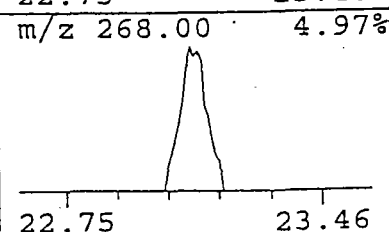
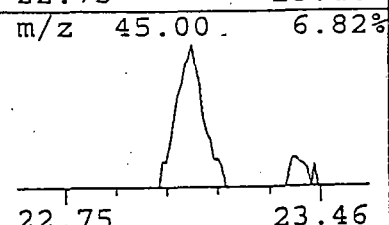
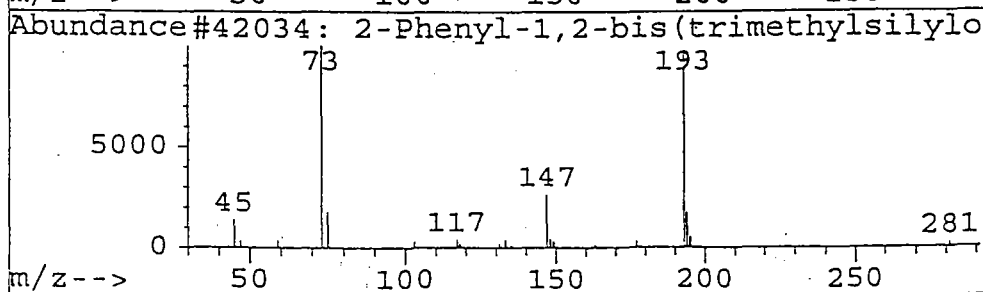
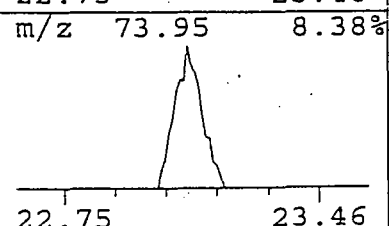
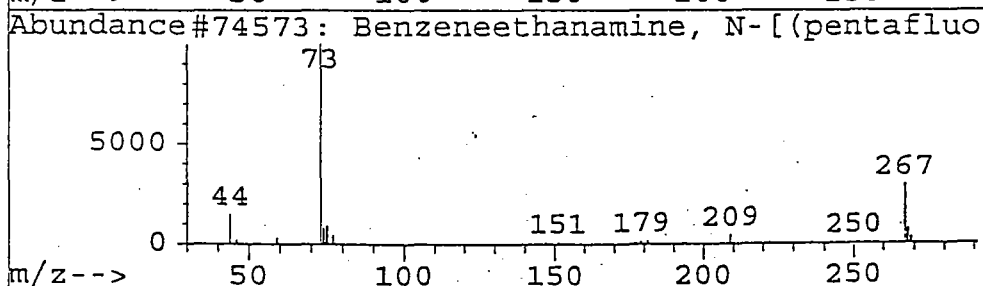
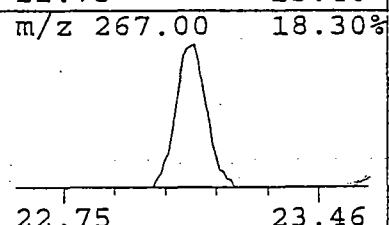
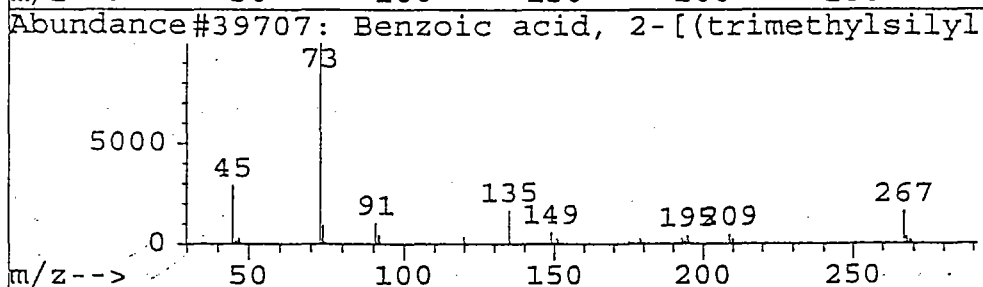
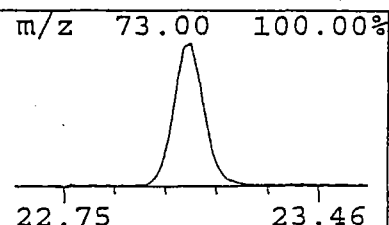
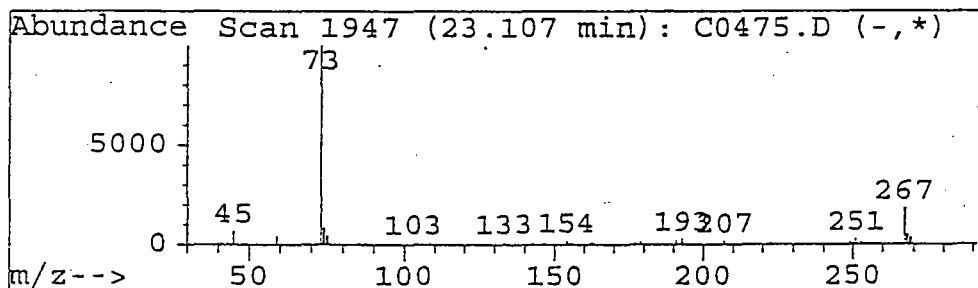
Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

097

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.11	0.81 ug/L	573643	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	9
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	9
3	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	2
4	N-Ethylformamide	292	000627-45-2	3
5	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	4



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Field blank

098

Project No.: FT. MONMOUTH NJ Bldg#: 482

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9554554V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0476.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		.60	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Field Blank

09

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: FB

Matrix: (soil/water) WATER Lab Sample ID: 9554554V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0476.D

Level: (low/med) LOW Date Received: 11/27/95

% Moisture: not dec. NA Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

Field Blank

100

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg: 482

NJDEP MW#: FB

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554554V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0476.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

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: 4

Concentration Units:

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	10.19	1	J
2. 109-99-9	Furan, tetrahydro-	10.75	3	J
3.	Column Bleed	19.71	1	J
4.	Unknown Hydrocarbon	23.10	2	J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0476.d
 Acq On : 5 Dec 95 7:07 pm
 Sample : 9554554 BLDG 482 FB
 Misc : 25 ML
 Quant Time: Dec 6 10:36 1995

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

101

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

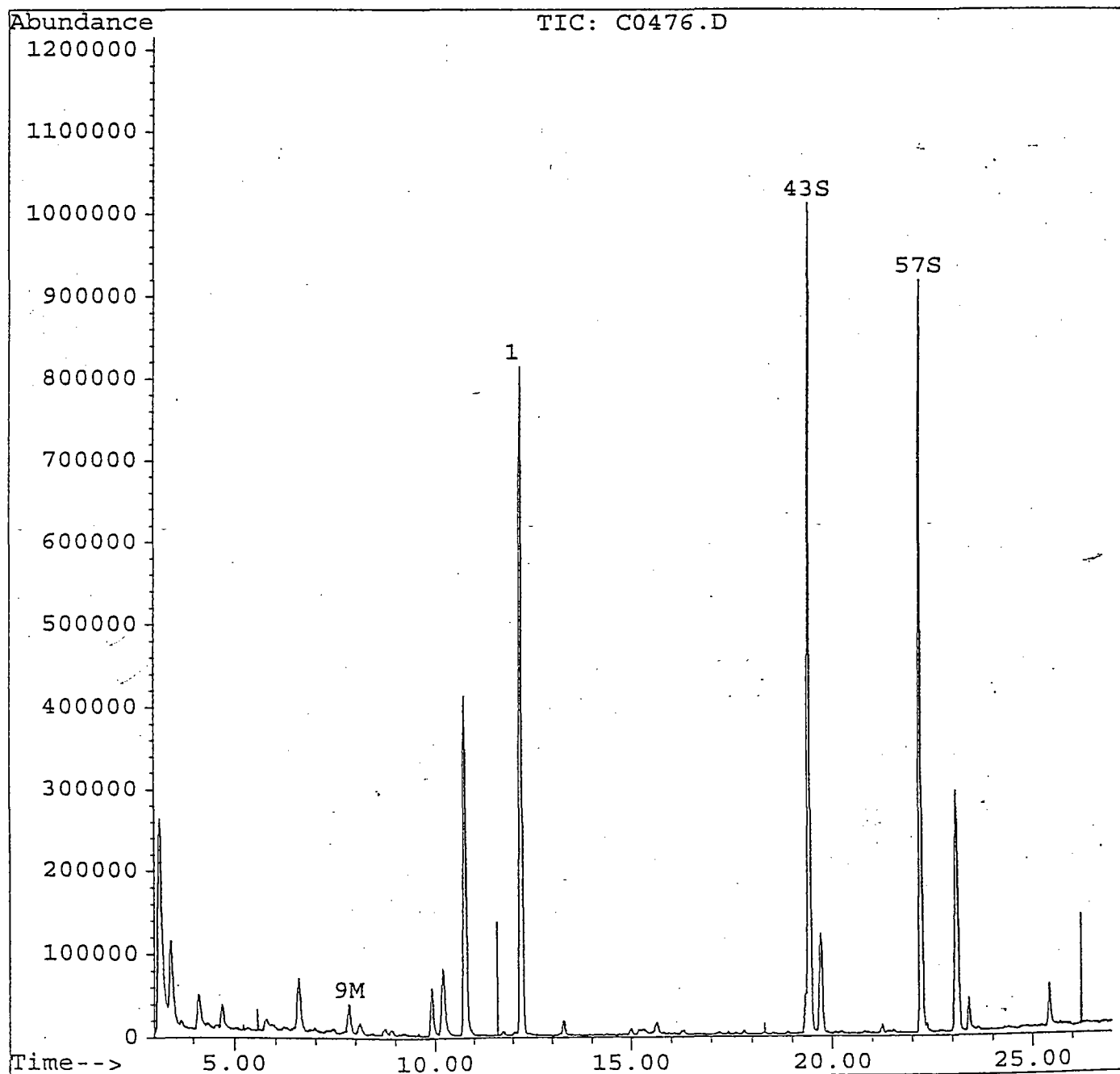
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1699615	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.42	95	898069	4.89	ug/L	97.88%
57) 1,2-Dichlorobenzene-d4	22.22	152	575033	5.00	ug/L	99.96%
Target Compounds						Qvalue
9) Methylene chloride	7.83	84	44990	0.56	ug/L	91

Quantitation Report

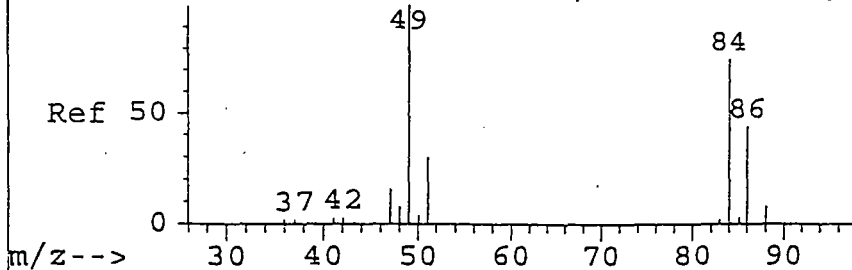
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML
Quant Time: Dec 6 10:36 1995

Vial: 5 102
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

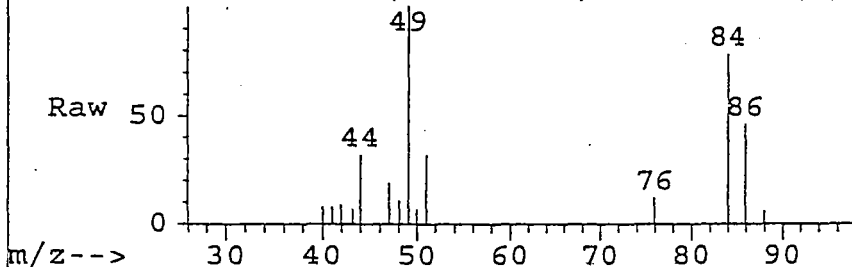
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



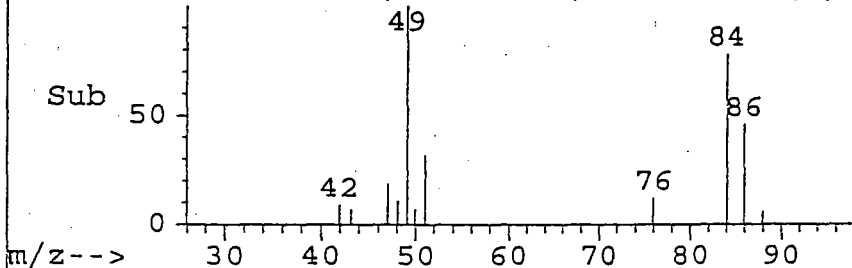
Abundance Scan 418 (7.345 min): C5082.D (-, *



Abundance Scan 466 (7.835 min): C0476.D (*)



Abundance Scan 466 (7.835 min): C0476.D (-, *



#9

Methylene chloride

Concen: 0.56 ug/L

RT: 7.83 min Scan# 466

Delta R.T. 0.01 min

Lab File: c0476.d

Acq: 5 Dec 95 7:07 pm

Tgt Ion: 84 Resp: 44990

Ion Ratio Lower Upper

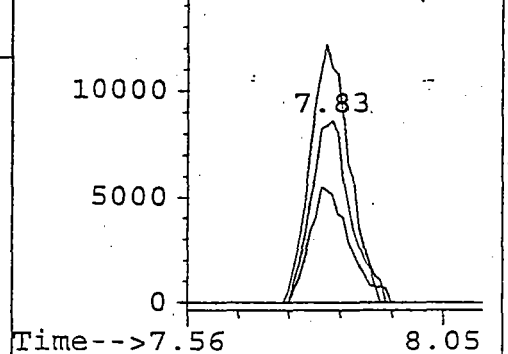
84 100

86 59.6 45.2 85.2

49 128.5 121.1 161.1

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.
15000 Ion 86.00 (85.
Ion 49.00 (48.



Library Search Compound Report

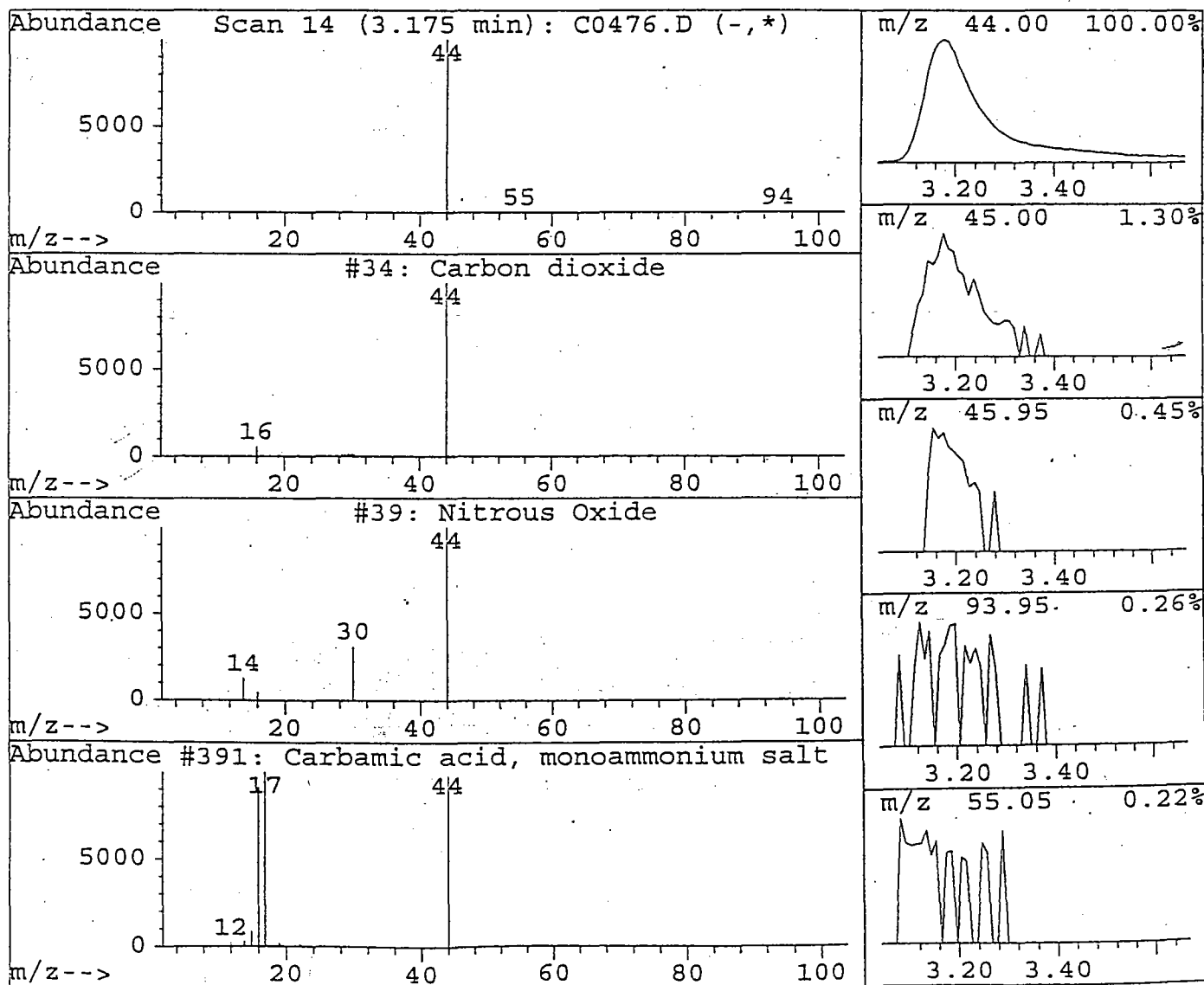
Data File : d:\hpchem\1\data\c0476.d
 Acq On : 5 Dec 95 7:07 pm
 Sample : 9554554 BLDG 482 FB
 Misc : 25 ML

Vial: 5 **104**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.17	2.70 ug/L	1923726	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	39	010024-97-2	3
3	Carbamic acid, monoammonium salt	391	001111-78-0	2
4	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
5	Acetaldehyde	62264	000075-07-0	2



Library Search Compound Report

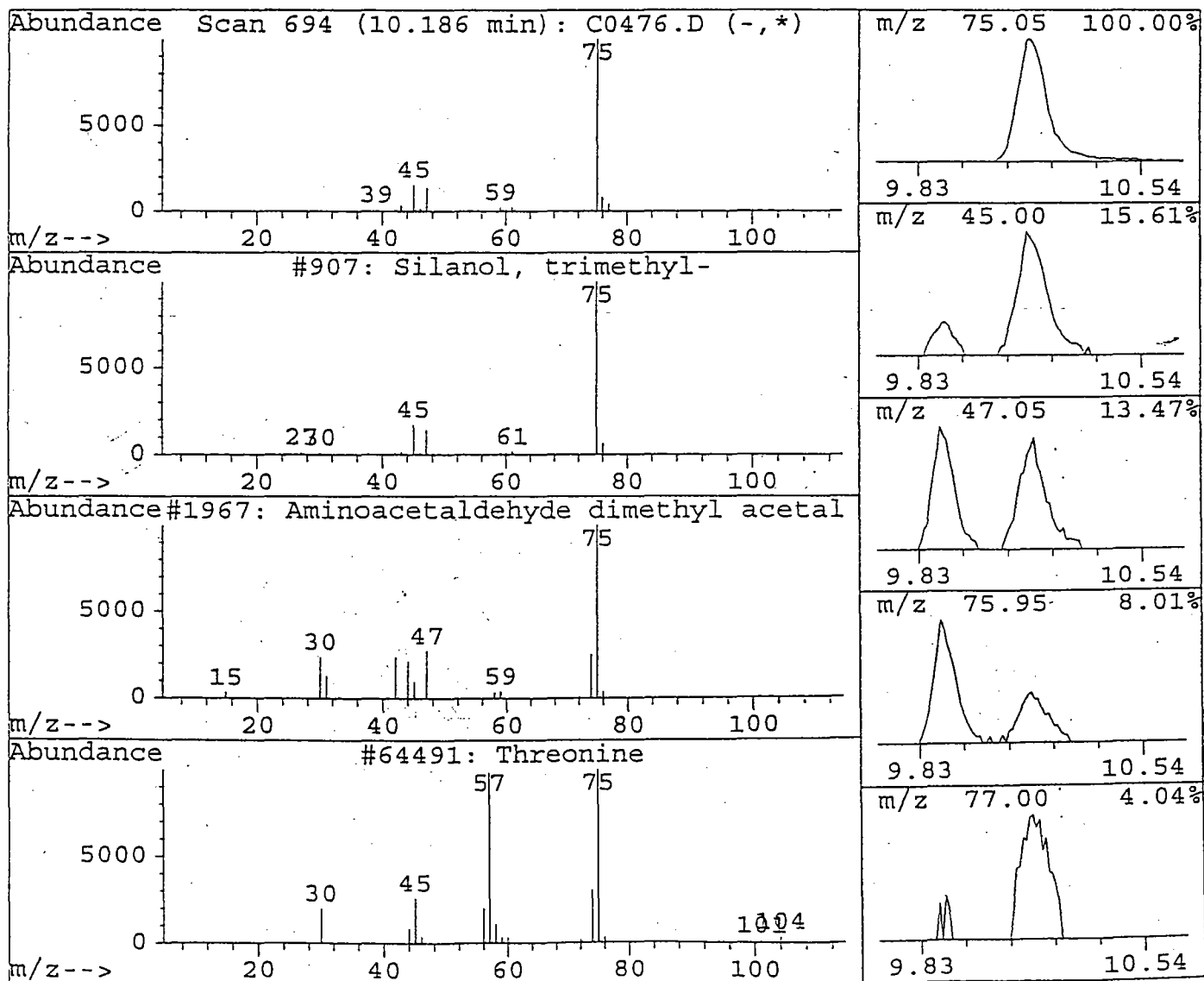
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Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

Vial: 5 **105**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.19	0.65 ug/L	462371	Fluorobenzene	12.21

Hit# of 19	Tentative ID	Ref#	CAS#	Qual
1	Silanol, trimethyl-	907	001066-40-6	64
2	Aminoacetaldehyde dimethyl acetal	1967	022483-09-6	1
3	Threonine	64491	000072-19-5	1
4	Penicillamine	9413	000052-67-5	1
5	Propanoic acid, heptyl ester	68350	002216-81-1	1



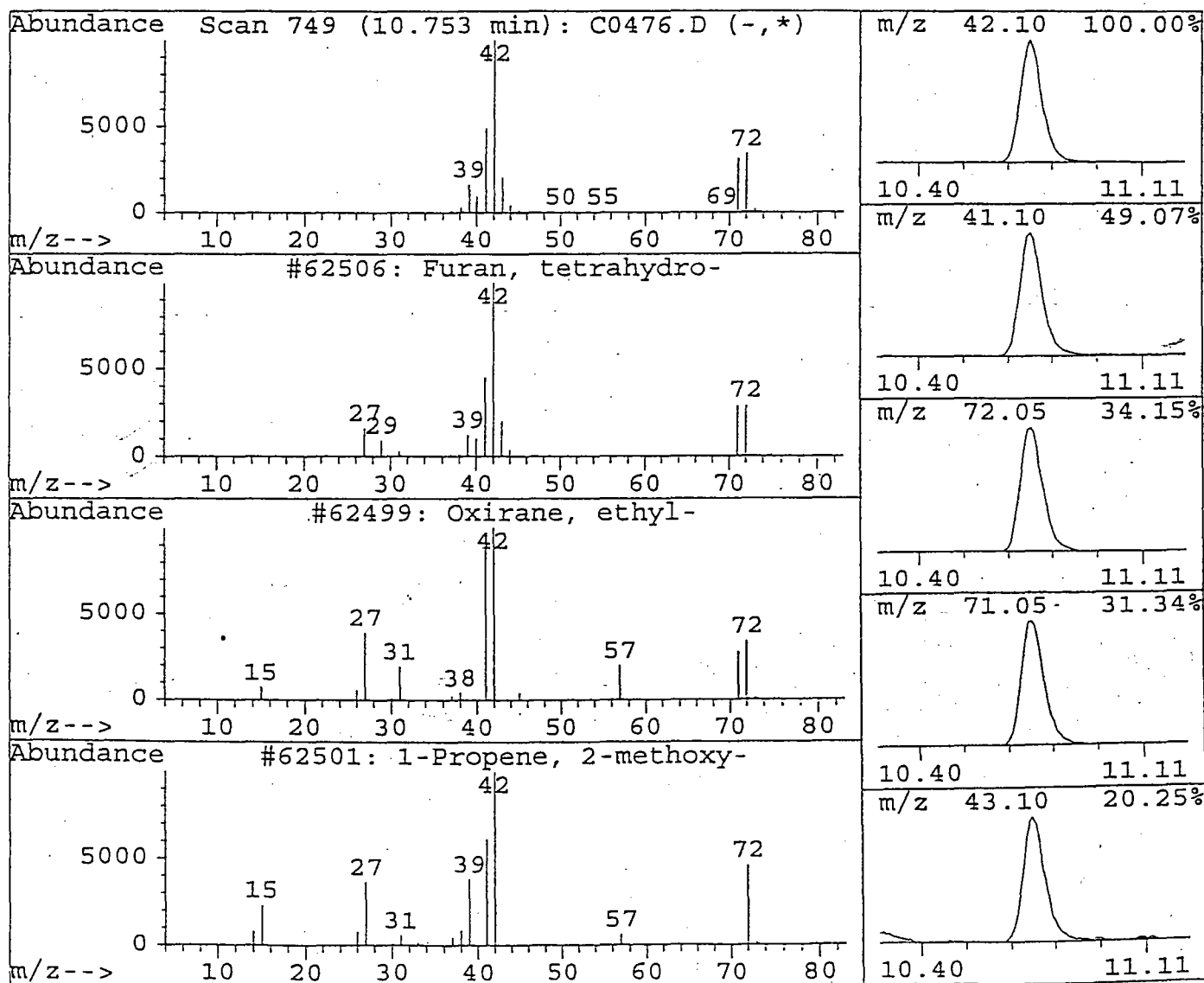
Library Search Compound Report

Data File : d:\hpcchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

106
Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
10.75	2.92 ug/L	2080661	Fluorobenzene	12.21	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Furan, tetrahydro-		62506	000109-99-9	91
2	Oxirane, ethyl-		62499	000106-88-7	39
3	1-Propene, 2-methoxy-		62501	000116-11-0	38
4	3-Buten-1-ol		264	000627-27-0	4
5	Ethenone		29	000463-51-4	3



Library Search Compound Report

107

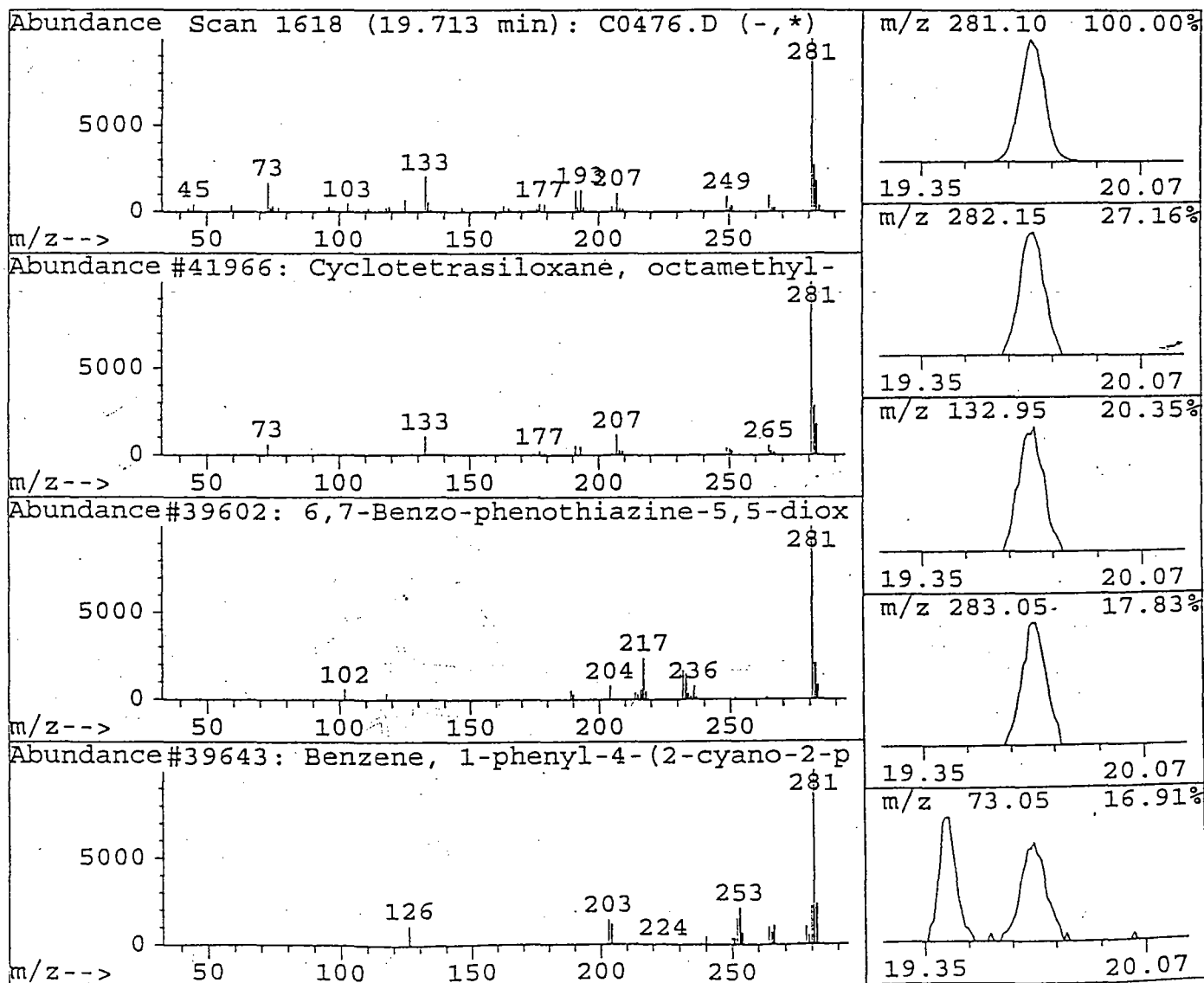
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.71	0.71 ug/L	504520	Fluorobenzene	12.21

Hit# of 17	Tentative ID	Ref#	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	41966	000556-67-2	43
2	6,7-Benzo-phenothiazine-5,5-dioxide	39602	000000-00-0	9
3	Benzene, 1-phenyl-4-(2-cyano-2-phen	39643	027869-56-3	50
4	4-(1-Benzimidazolyl)-7-nitro-2,1,3-ox	39560	091485-32-4	5
5	3,6-Bis(N-dimethylamino)-9-ethylcar	39624	057103-04-5	7



Library Search Compound Report

108

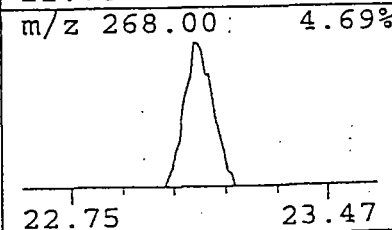
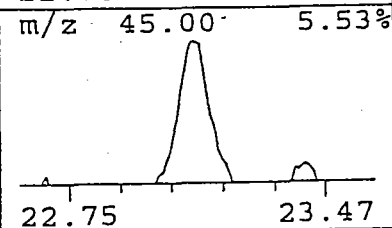
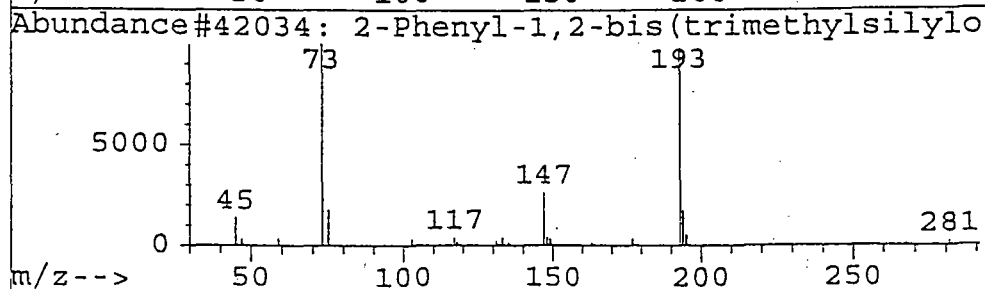
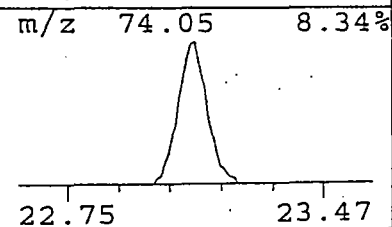
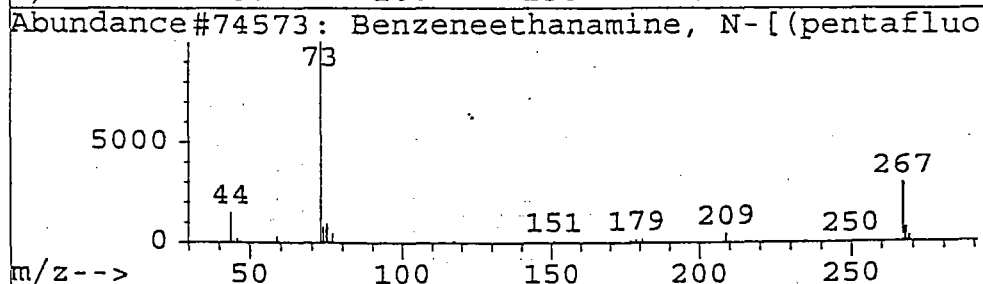
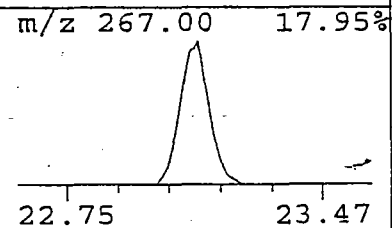
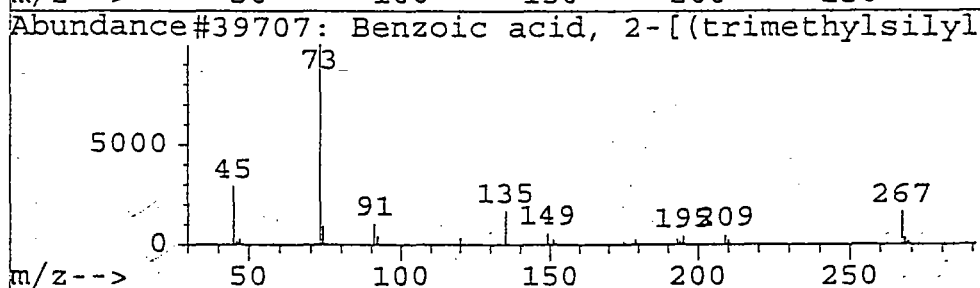
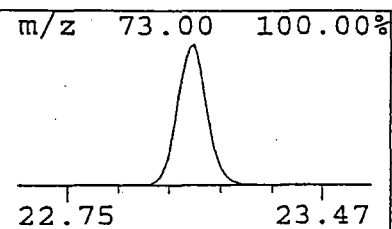
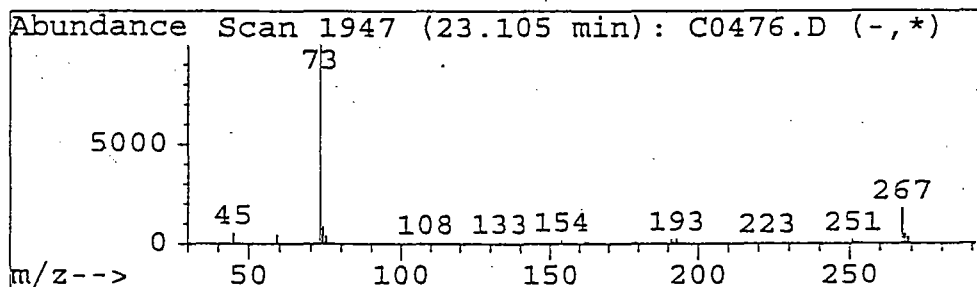
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.10	1.92 ug/L	1369048	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	33
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	38
3	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	2
4	N-Ethylformamide	292	000627-45-2	3
5	Benzeneacetic acid, trimethylsilyl	70090	002078-18-4	3



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

711W 1-2933756

10.

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9554558V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0484.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	.50	U
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

711W1-2933756

110

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9554558V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0484.D

Level: (low/med) LOW

Date Received: 11/27/95

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

111

THW1-2933756

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY
 Project No. FT. MONMOUTH NJ Bldg: 430 NJDEP MW#: 1 Group: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9554558V
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0484.D
 Level: (low/med) LOW Date Received: 11/27/95
 % Moisture: not dec. NA Date Analyzed: 12/5/95
 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: 3 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 1074-17-5	Benzene, 1-methyl-2-propyl-	21.19	1	J
2.	Unknown	23.10	1	J
3.	Unknown	23.12	1	J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0484.d
 Acq On : 5 Dec 95 11:44 pm
 Sample : 9554558 BLDG 430 MW-1
 Misc : 25 ML
 Quant Time: Dec 6 10:49 1995

Vial: 13
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

112

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1563969	5.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.43	95	879953	5.21	ug/L	104.23%
57) 1,2-Dichlorobenzene-d4	22.22	152	539759	5.10	ug/L	101.96%

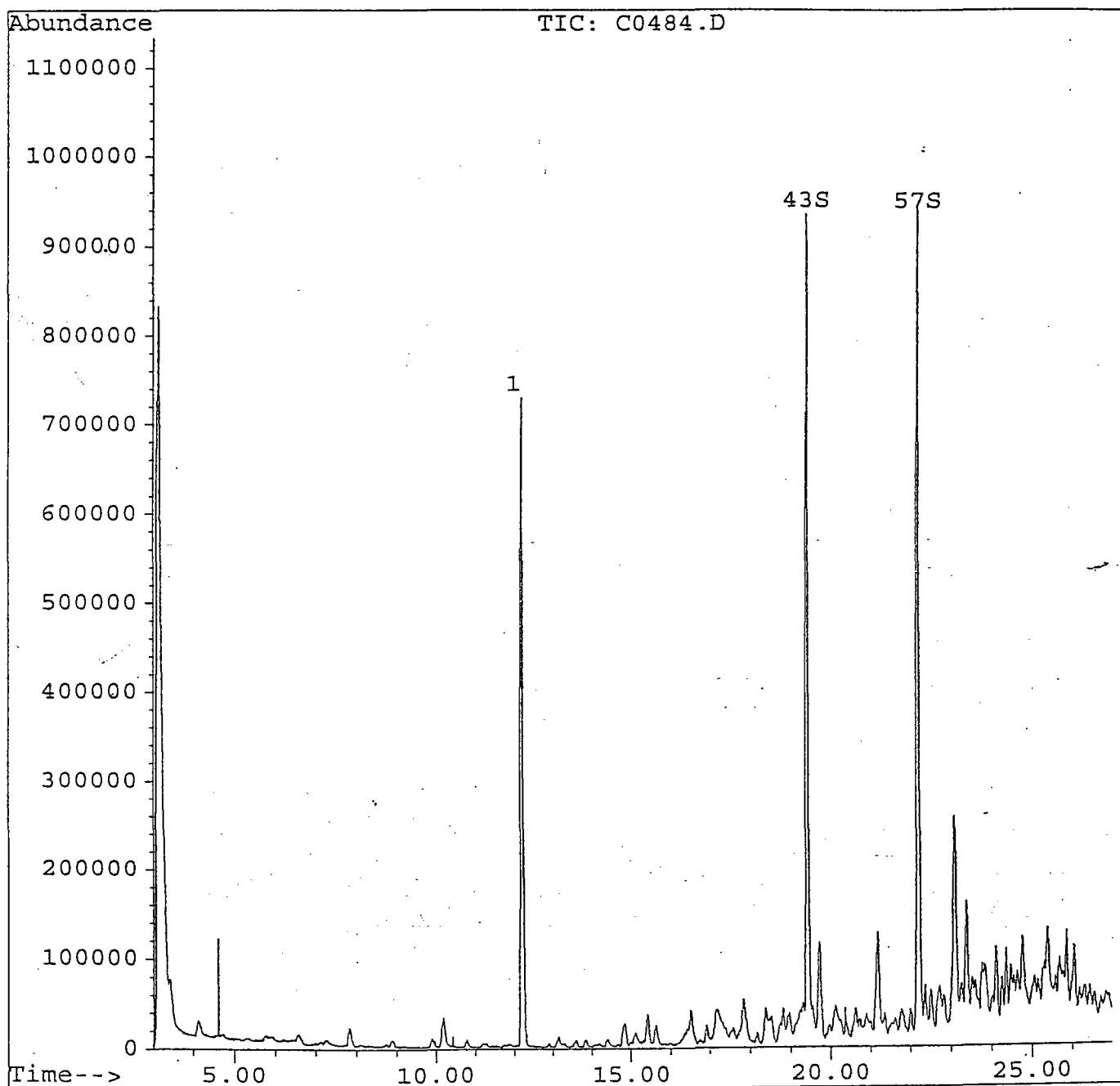
Target Compounds	Qvalue

Quantitation Report

Data File : d:\hpchem\1\data\c0484.d
Acq On : 5 Dec 95 11:44 pm
Sample : 9554558 BLDG 430 MW-1
Misc : 25 ML
Quant Time: Dec 6 10:49 1995

Vial: 13 **113**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



Library Search Compound Report

114

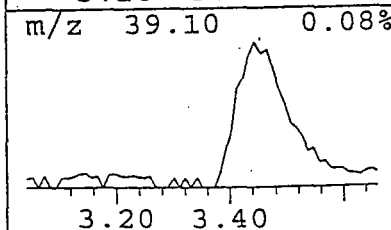
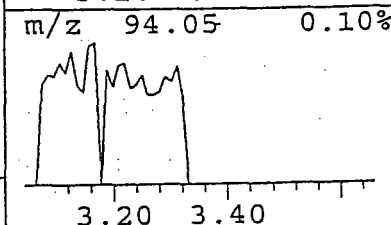
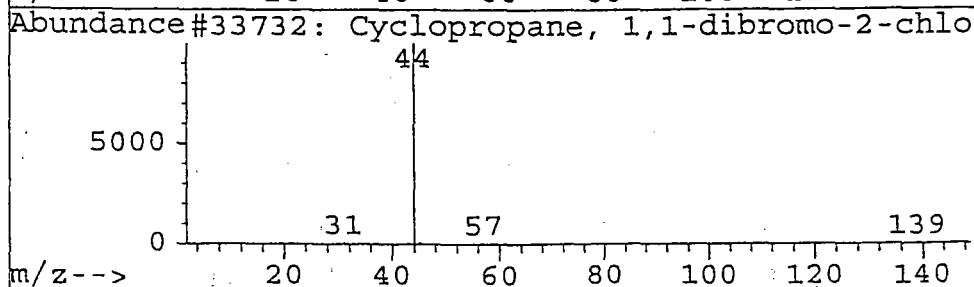
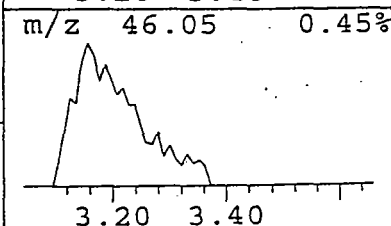
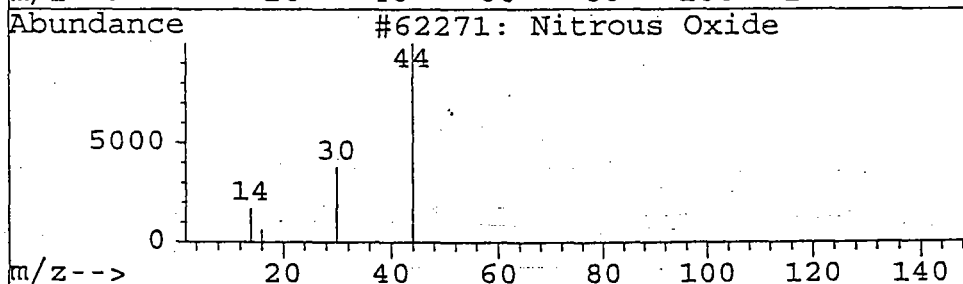
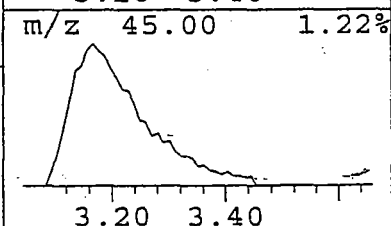
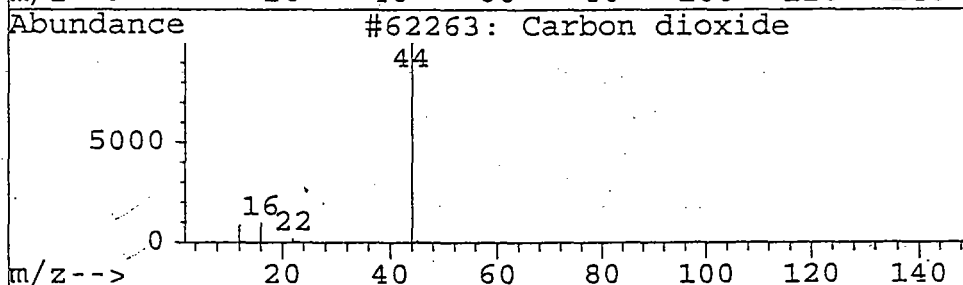
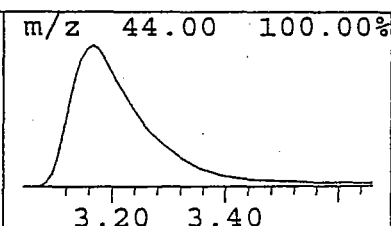
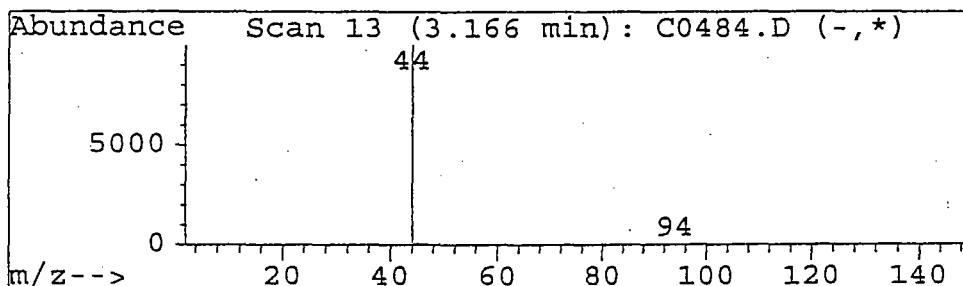
Data File : d:\hpchem\1\data\c0484.d
Acq On : 5 Dec 95 11:44 pm
Sample : 9554558 BLDG 430 MW-1
Misc : 25 ML

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.17	10.69 ug/L	6941156	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Nitrous Oxide	62271	010024-97-2	3
3	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
4	Carbamic acid, monoammonium salt	391	001111-78-0	2
5	2,5-Dimethoxy-4-(methylsulfonyl) amp	38246	000000-00-0	1



Library Search Compound Report

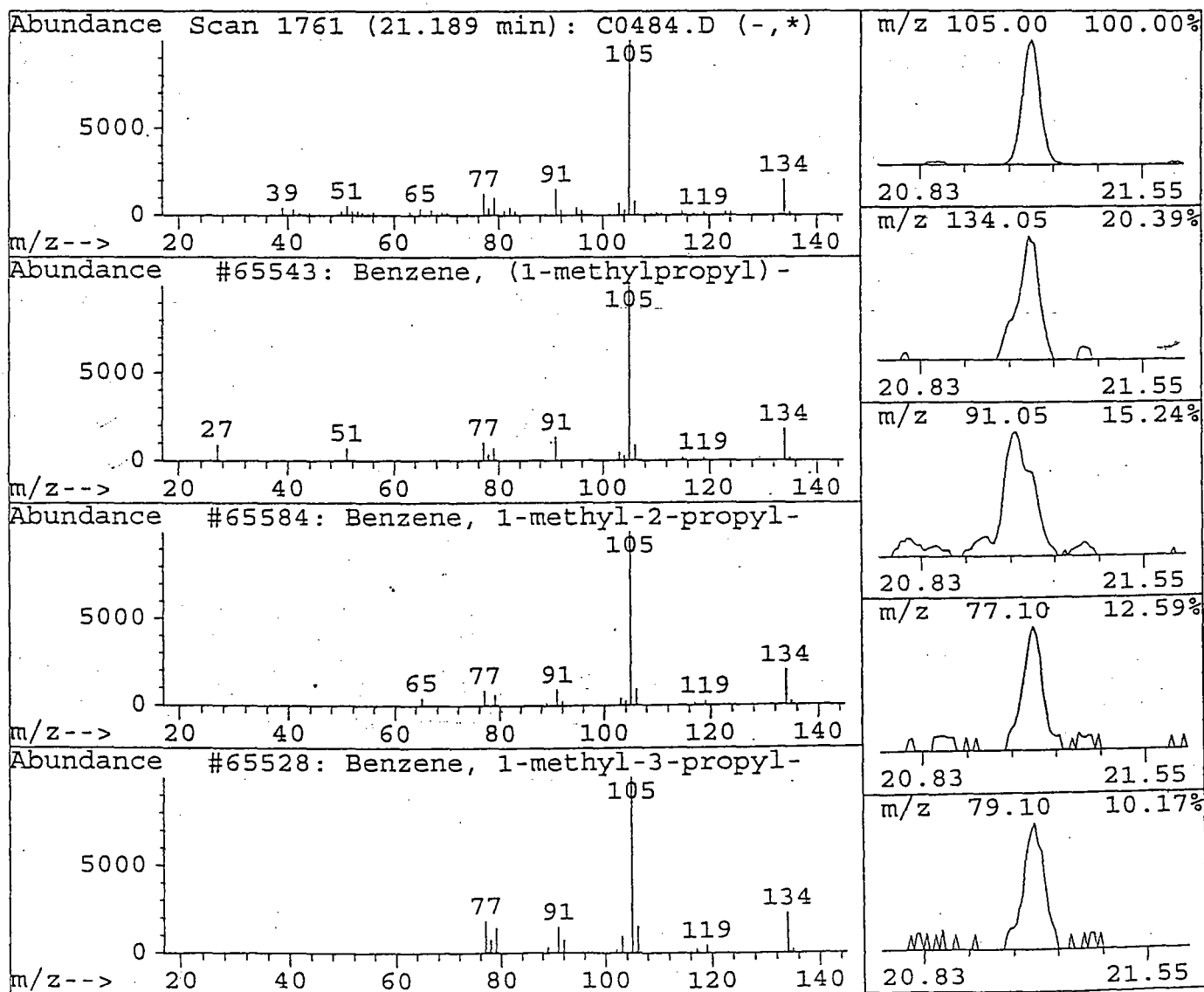
115

Data File : d:\hpchem\1\data\c0484.d
Acq On : 5 Dec 95 11:44 pm
Sample : 9554558 BLDG 430 MW-1
Misc : 25 ML

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
21.19	0.68 ug/L	443909	Fluorobenzene	12.21	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, (1-methylpropyl)-		65543	000135-98-8	90
2	Benzene, 1-methyl-2-propyl-		65584	001074-17-5	93
3	Benzene, 1-methyl-3-propyl-		65528	001074-43-7	53
4	Benzene, 1-methyl-4-propyl-		6216	001074-55-1	81
5	Benzeneacetaldehyde, .alpha.-methyl		65510	000093-53-8	37



Library Search Compound Report

116

Data File : d:\hpchem\1\data\c0484.d
Acq On : 5 Dec 95 11:44 pm
Sample : 9554558 BLDG 430 MW-1
Misc : 25 ML

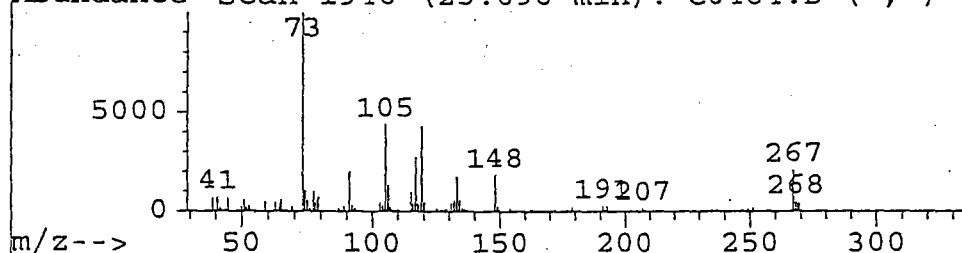
Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

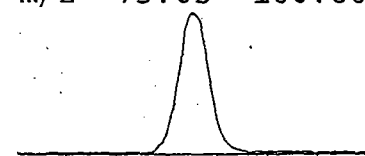
R.T.	Conc	Area	Relative to ISTD	R.T.
23.10	1.02 ug/L	664209	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Butanol, 3-(1-methyl-2-phenyletho	24917	074810-46-1	32
2	3,6-Dioxa-2,7-disilaoctane, 2,2,7,7	46298	074810-85-8	7
3	3,6,9-Trioxa-2,10-disilaundecane, 2	33793	016654-74-3	9
4	3,6,9,12-Tetraoxa-2,13-disilatetrad	41695	062185-58-4	7
5	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	9

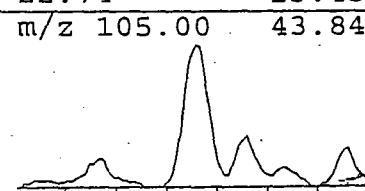
Abundance Scan 1946 (23.096 min): C0484.D (-,*)



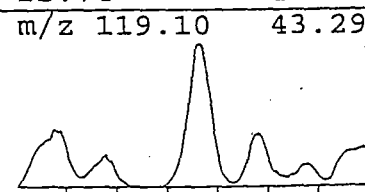
m/z 73.05 100.00%



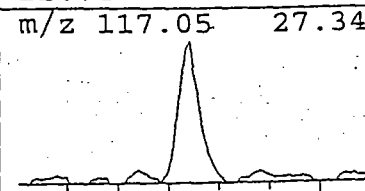
m/z 105.00 43.84%



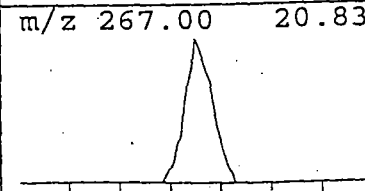
m/z 119.10 43.29%



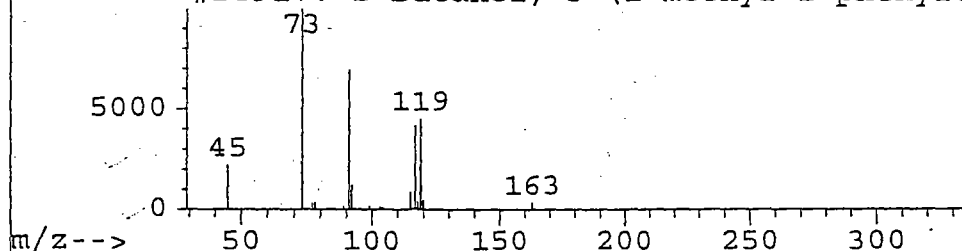
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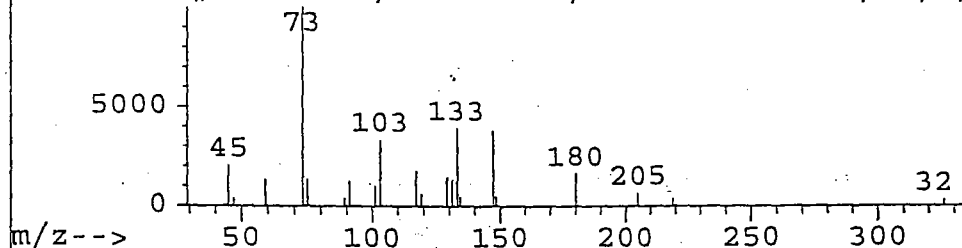
m/z 267.00 20.83%



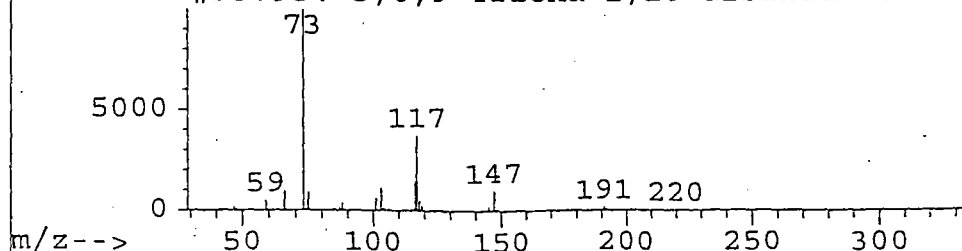
Abundance#24917: 2-Butanol, 3-(1-methyl-2-phenyle



Abundance#46298: 3,6-Dioxa-2,7-disilaoctane, 2,2,



Abundance#33793: 3,6,9-Trioxa-2,10-disilaundecane



Library Search Compound Report

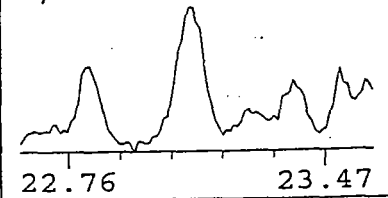
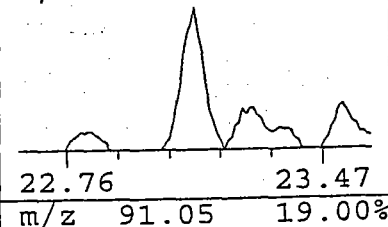
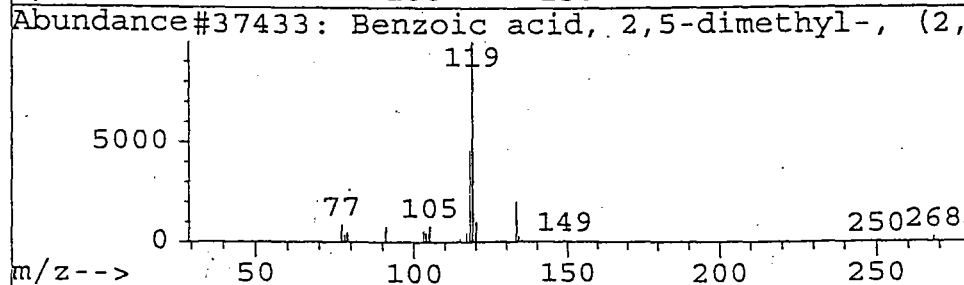
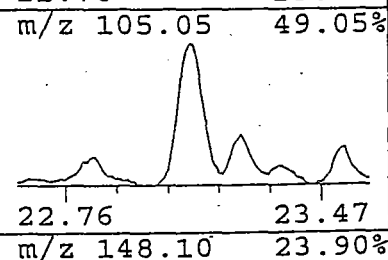
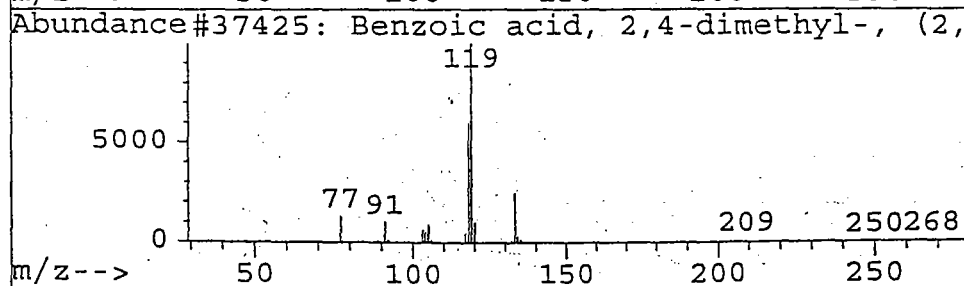
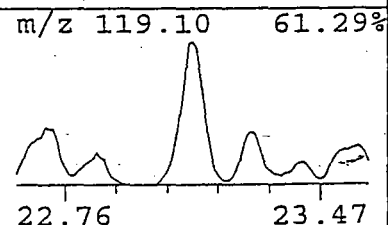
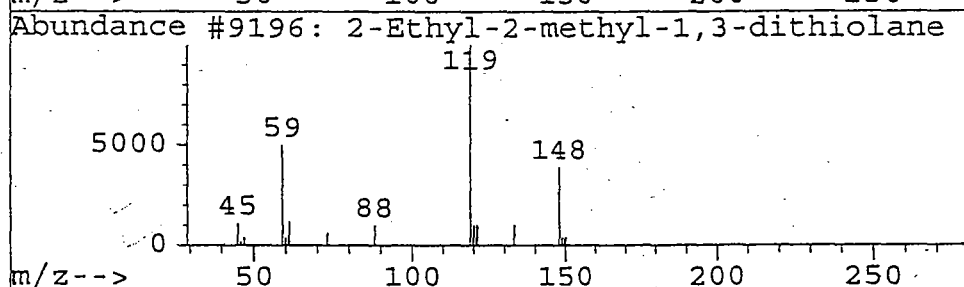
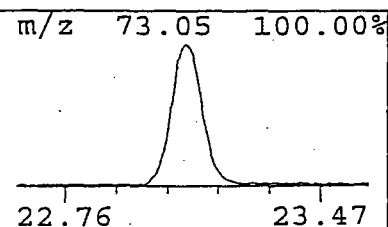
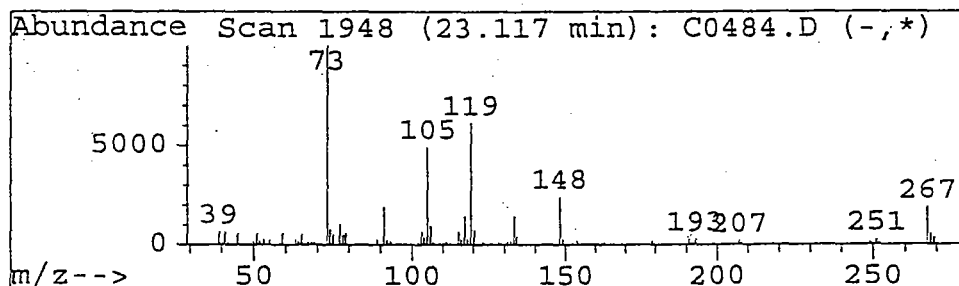
117

Data File : d:\hpcchem\1\data\c0484.d
Acq On : 5 Dec 95 11:44 pm
Sample : 9554558 BLDG 430 MW-1
Misc : 25 ML

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.12	0.58 ug/L	376987	Fluorobenzene	12.21	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	2-Ethyl-2-methyl-1,3-dithiolane		9196	006008-81-7	32
2	Benzoic acid, 2,4-dimethyl-, (2,4-d		37425	055000-43-6	35
3	Benzoic acid, 2,5-dimethyl-, (2,4-d		37433	055000-48-1	35
4	Benzene, 1,3-diethyl-		65564	000141-93-5	27
5	Benzene, 1,4-diethyl-		65557	000105-05-5	22



2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

118

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	10 QCS	99	99			
02	1 STND	98	99			
03	VBLK01	99	101			
04	9554060V	101	103			
05	9554061V	99	102			
06	9554062V	97	101			
07	9554101V	104	101			
08	9554102V	99	101			
09	9554063V	98	99			
10	9554060MS	98	96			
11	9554060MSD	96	97			
12						
13						
14						
15						
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SMC1 (BFB) = 4-Bromofluorobenzene
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS
 (80-120)
 (80-120)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL

Contract: _____

119

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	VBLK01	89	89			
02	9554553V	99	101			
03	9554554V	98	100			
04	9554109V	103	103			
05	9554110V	100	101			
06	9554551V	110	101			
07	9554552V	111	103			
08	9554555V	109	103			
09	9554557V	103	104			
10	9554558V	104	102			
11	9554552MS	106	103			
12	9554552MSD	105	103			
13	10 QCS	98	100			
14	1 STND	98	101			
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (BFB) = 4-Bromofluorobenzene
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS
 (80-120)
 (80-120)

- # Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D System Monitoring Compound diluted out

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. **120**

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: C0429.D Lab Sample ID: M. BLANK

Date Analyzed: 12/2/95 Time Analyzed: 1652

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	10 QCS	10 QCS	C0427.D	1544
02	1 STND	1 STND	C0428.D	1618
03	9554060V	9554060V	C0430.D	1726
04	9554061V	9554061V	C0431.D	1800
05	9554062V	9554062V	C0432.D	1835
06	9554101V	9554101V	C0433.D	1909
07	9554102V	9554102V	C0434.D	1944
08	9554063V	9554063V	C0435.D	2017
09	9554060MS	54060MS	C0438.D	2159
10	9554060MSD	54060MSD	C0439.D	2233
11				
12				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

121

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#:

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0429.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 12/2/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	.50		
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

122

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#:

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0429.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 12/2/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

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: C0429.D

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

% Moisture: not dec. NA Date Analyzed: 12/2/95

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.				
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Quantitation Report

124

Data File : D:\HPCHEM\1\DATA\C0429.D
 Acq On : 2 Dec 95 4:52 pm
 Sample : METHOD BLANK
 Misc :
 Quant Time: Dec 5 11:51 1995

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	Q Ion	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.18	96	1681347	5.00	ug/L	-0.03
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.40	95	900410	4.96	ug/L	99.21%
57) 1,2-Dichlorobenzene-d4	22.20	152	577627	5.07	ug/L	101.50%
						Qvalue
Target Compounds						
9) Methylene chloride	7.79	84	36677	0.46	ug/L	98

Quantitation Report

125

Data File : D:\HPCHEM\1\DATA\C0429.D

Acq On : 2 Dec 95 4:52 pm

Sample : METHOD BLANK

Misc :

Quant Time: Dec 5 11:51 1995

Vial: 5

Operator: MDC

Inst : 5972 - In

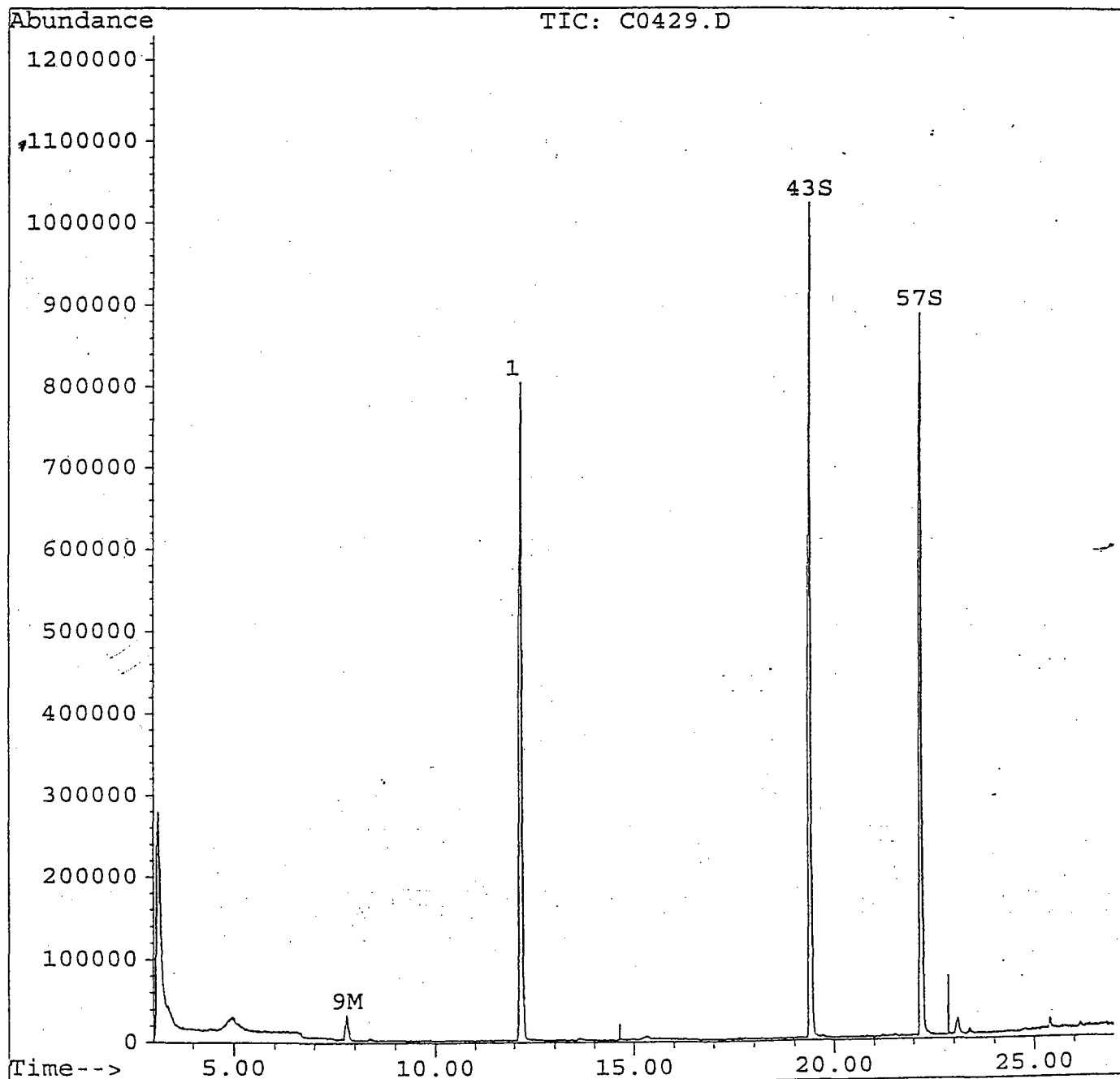
Multiplr: 1.00

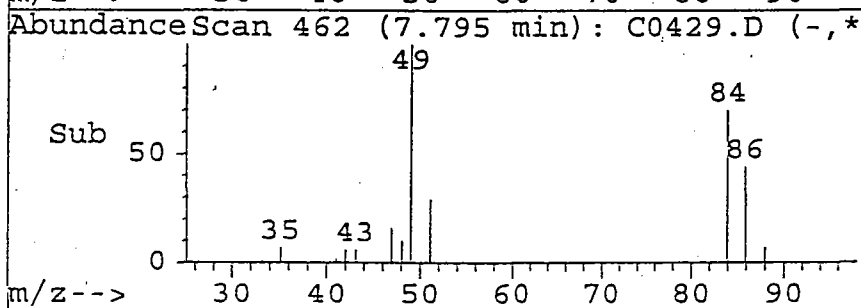
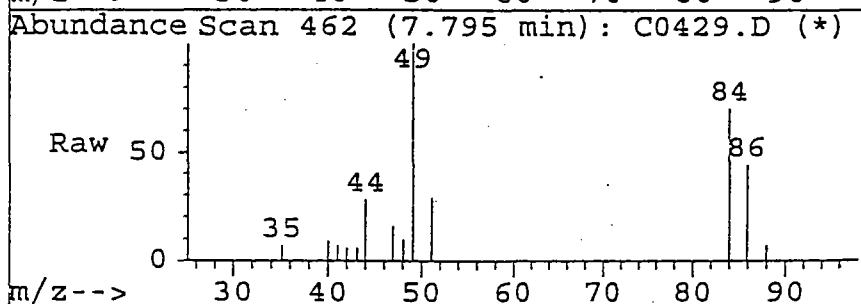
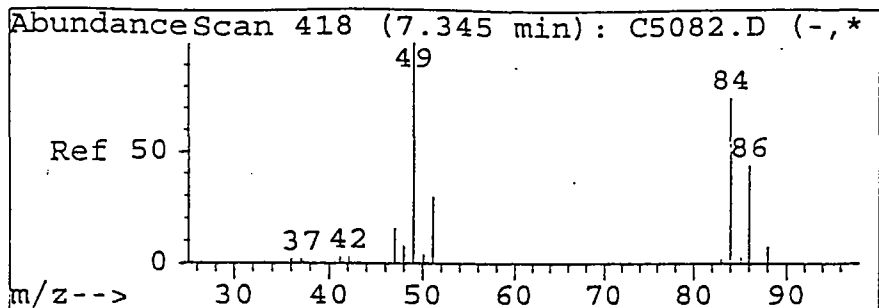
Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Wed Nov 22 09:25:47 1995

Response via : Multiple Level Calibration



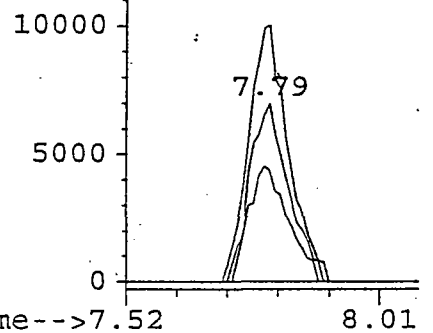


#9
Methylene chloride
Concen: 0.46 ug/L
RT: 7.79 min Scan# 462
Delta R.T. -0.03 min
Lab File: C0429.D
Acq: 2 Dec 95 4:52 pm

126

Tgt Ion:84	Resp:	36677
Ion Ratio	Lower	Upper
84	100	
86	62.9	45.2 85.2
49	143.5	121.1 161.1
0	0.0	0.0 0.0

Abundance	Ion	84.00 (83.
	Ion	86.00 (85.
	Ion	49.00 (48.



Library Search Compound Report

127

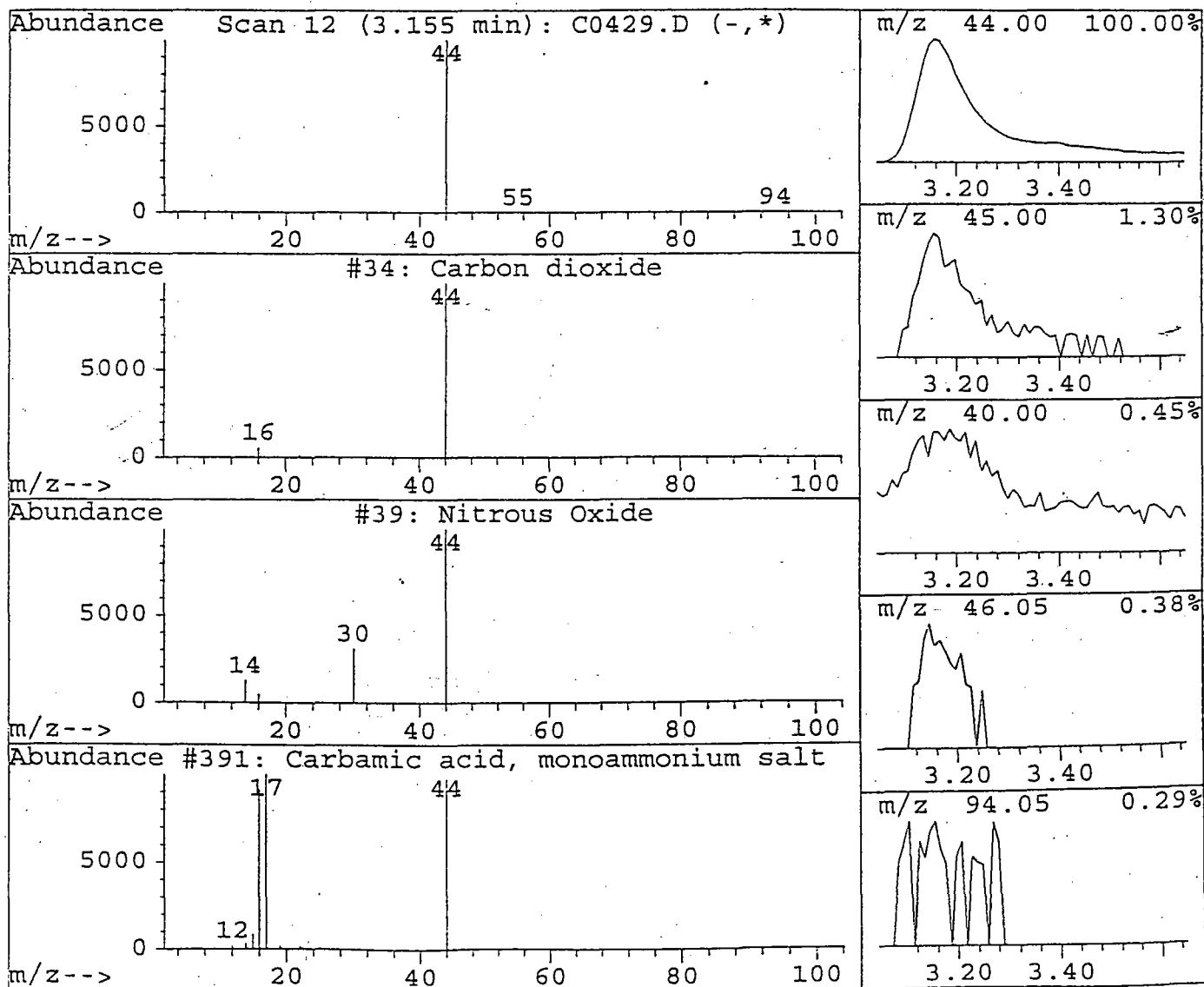
Data File : D:\HPCHEM\1\DATA\C0429.D
Acq On : 2 Dec 95 4:52 pm
Sample : METHOD BLANK
Misc :

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.15	3.00 ug/L	2109797	Fluorobenzene	12.18

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	39	010024-97-2	3
3	Carbamic acid, monoammonium salt	391	001111-78-0	2
4	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
5	Acetaldehyde	62264	000075-07-0	2



4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. **128**

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: C0474.D Lab Sample ID: M. BLANK

Date Analyzed: 12/5/95 Time Analyzed: 1800

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	9554553V	9554553V	C0475.D	1833
02	9554554V	9554554V	C0476.D	1907
03	9554109V	9554109V	C0477.D	1942
04	9554110V	9554110V	C0478.D	2016
05	9554551V	9554551V	C0479.D	2051
06	9554552V	9554552V	C0480.D	2125
07	9554555V	9554555V	C0481.D	2200
08	9554557V	9554557V	C0483.D	2310
09	9554558V	9554558V	C0484.D	2344
10	9554552MS	54552MS	C0485.D	0019
11	9554552MSD	54552MSD	C0486.D	0054
12	10 QCS	10 QCS	C0487.D	0129
13	1 STND	1 STND	C0488.D	0204
14				
15				
16				
17				
18				
19				
20				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

129

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: C0474.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 12/5/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.2		
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromoethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

130

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: C0474.D

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

% Moisture: not dec. NA Date Analyzed: 12/5/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

131

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: C0474.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 12/5/95

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.				
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Quantitation Report

Data File : d:\hpchem\1\data\c0474.d
 Acq On : 5 Dec 95 6:00 pm
 Sample : METHOD BLANK
 Misc : 25 ML
 Quant Time: Dec 5 18:43 1995

Vial: 1 132
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.03	96	1696123	5.00	ug/L	-0.17

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.28	95	817441	4.46	ug/L	89.28%
57) 1,2-Dichlorobenzene-d4	22.09	152	508158	4.43	ug/L	88.51%

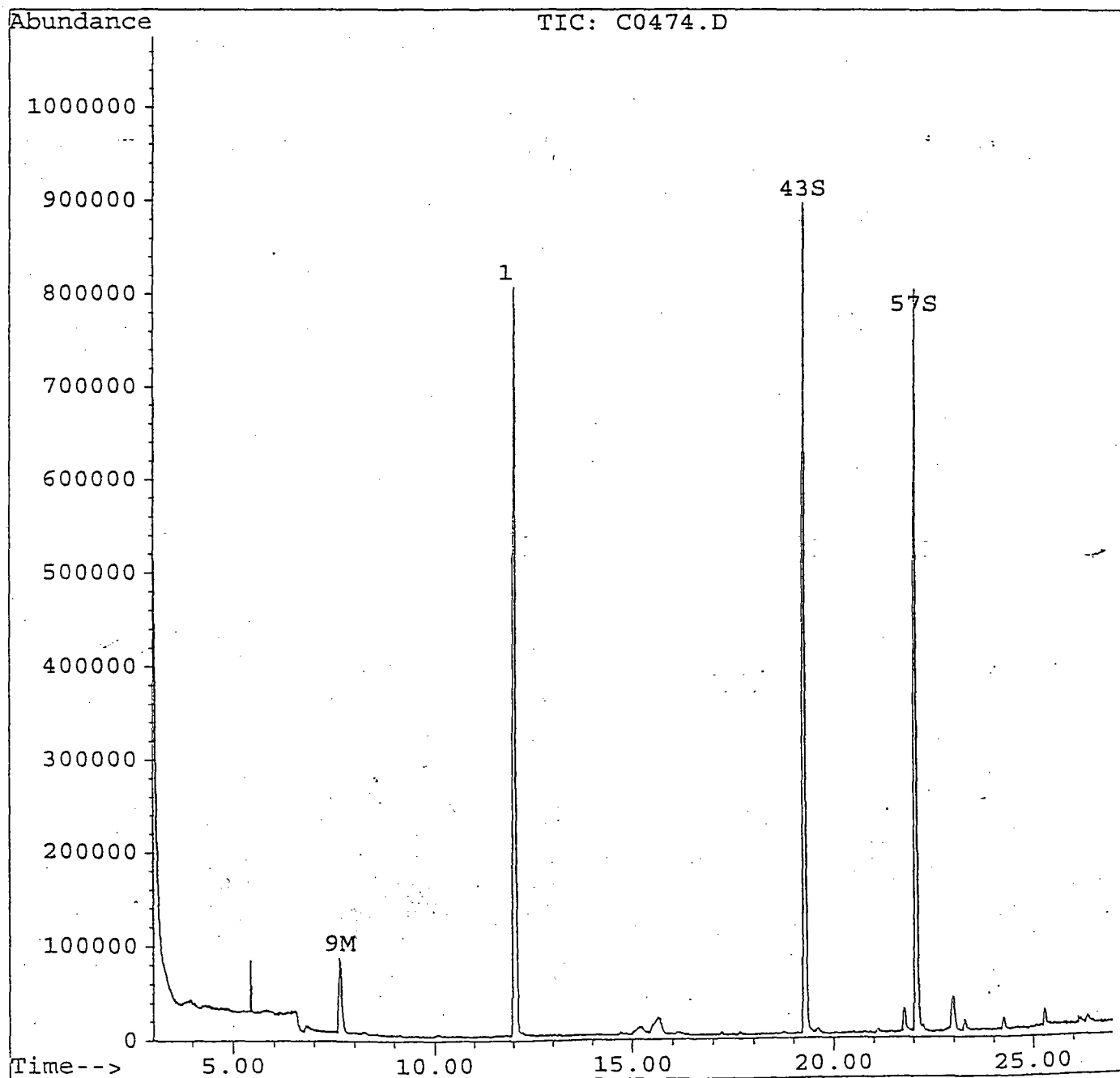
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) Methylene chloride	7.63	84	98742	1.23	ug/L	96

Quantitation Report

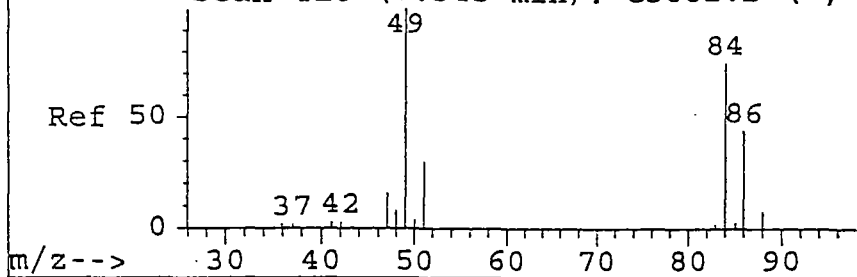
Data File : d:\hpchem\1\data\c0474.d
Acq On : 5 Dec 95 6:00 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Dec 5 18:43 1995

Vial: 1 133
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

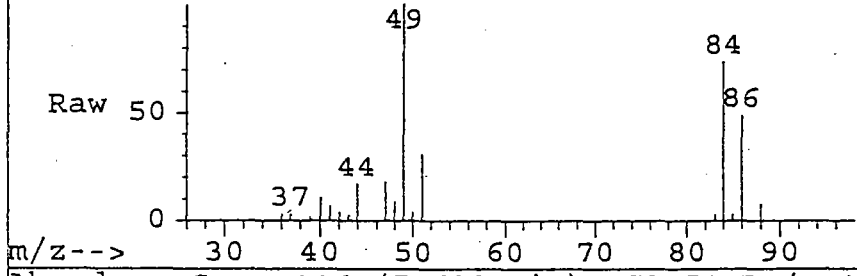
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Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



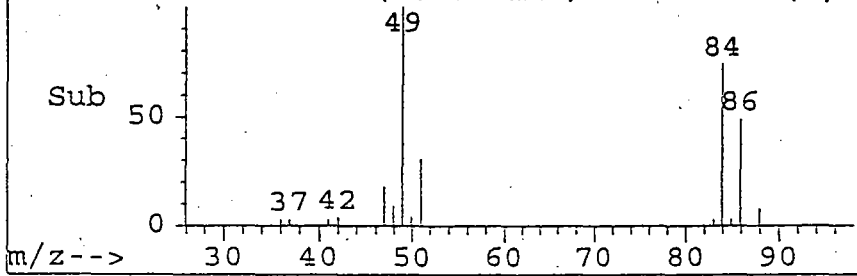
Abundance Scan 418 (7.345 min): C5082.D (-,*



Abundance Scan 446 (7.632 min): C0474.D (*)



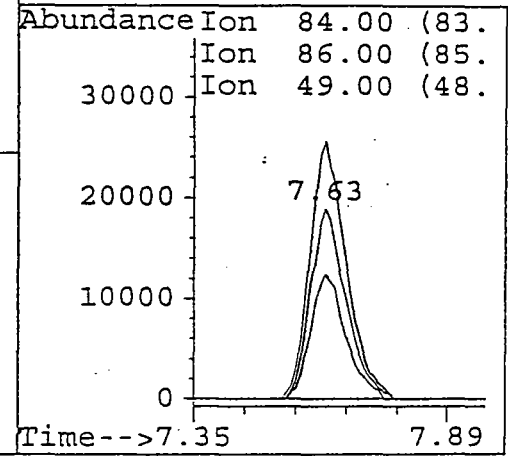
Abundance Scan 446 (7.632 min): C0474.D (-,*



#9
Methylene chloride
Concen: 1.23 ug/L
RT: 7.63 min Scan# 446
Delta R.T. -0.19 min
Lab File: c0474.d
Acq: 5 Dec 95 6:00 pm

134

Tgt Ion:	84	Resp:	98742
Ion	Ratio	Lower	Upper
84	100		
86	65.9	45.2	85.2
49	134.9	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

135

Data File : d:\hpchem\1\data\c0474.d
Acq On : 5 Dec 95 6:00 pm
Sample : METHOD BLANK
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : NBS75K.L

No Library Search Compounds Detected

Spike Recovery and RPD Summary Report - WATER

136

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Initial Calibration

Non-Spiked Sample: C0430.D

Spike Sample	Spike Duplicate Sample
File ID : C0438.D	C0439.D
Sample : 9554060 MS BLDG 108 MW-3	9554060 MSD BLDG 108 MW-3
Acq Time: 2 Dec 95 9:59 pm	2 Dec 95 10:33 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	% Rec
Dichlorodifluorometh	0.0	10	9	9	89	89	1	25	80-120
Chloromethane	0.0	10	10	10	100	97	2	25	80-120
Vinyl chloride	0.0	10	10	10	102	99	4	25	80-120
Bromomethane	0.0	10	10	10	96	97	1	25	80-120
Chloroethane	0.0	10	12	12	117	116	1	25	80-120
Trichlorofluorometha	0.0	10	10	10	102	100	2	25	80-120
1,1-Dichloroethene	0.0	10	10	10	102	101	1	25	80-120
Methylene chloride	0.7	10	9	9	86	86	0	25	80-120
trans-1,2-Dichloroet	0.0	10	10	10	101	101	0	25	80-120
1,1-Dichloroethane	0.0	10	10	10	102	102	0	25	80-120
2,2-Dichloropropane	0.1	10	9	9	88	87	1	25	80-120
cis-1,2-Dichloroethe	0.0	10	10	10	101	101	0	25	80-120
Bromochloromethane	0.0	10	10	10	96	97	0	25	80-120
Chloroform	0.0	10	10	10	99	99	0	25	80-120
1,1,1-Trichloroethan	0.0	10	10	10	100	100	0	25	80-120
Carbon tetrachloride	0.0	10	10	10	99	99	0	25	80-120
1,1-Dichloropropene	0.0	10	10	10	101	100	1	25	80-120
Benzene	0.0	10	10	10	99	98	0	25	80-120
1,2-Dichloroethane	0.0	10	10	9	96	95	1	25	80-120
Trichloroethene	0.0	10	10	10	100	98	1	25	80-120
1,2-Dichloropropane	0.0	10	10	10	102	103	1	25	80-120
Dibromomethane	0.0	10	10	10	98	98	1	25	80-120
Bromodichloromethane	0.0	10	10	10	97	96	1	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	9	96	94	2	25	80-120
Toluene	0.0	10	10	10	100	99	1	25	80-120
trans-1,3-Dichloropr	0.0	10	9	9	94	91	3	25	80-120
1,1,2-Trichloroethan	0.0	10	10	10	97	97	0	25	80-120
Tetrachloroethene	0.0	10	10	10	97	97	1	25	80-120
1,3-Dichloropropane	0.0	10	10	10	98	97	1	25	80-120
Dibromochloromethane	0.0	10	10	9	95	93	3	25	80-120
1,2-Dibromoethane	0.0	10	10	10	96	96	0	25	80-120
Chlorobenzene	0.0	10	10	10	98	98	1	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	10	10	98	97	1	25	80-120
Ethylbenzene	0.0	10	10	10	98	97	1	25	80-120
Xylene (para & meta)	0.0	20	19	19	97	96	1	25	80-120
Xylene (Ortho)	0.0	10	10	10	97	96	1	25	80-120
Styrene	0.0	10	9	9	90	90	0	25	80-120
Bromoform	0.0	10	9	9	93	91	2	25	80-120
Isopropylbenzene	0.0	10	10	10	99	97	1	25	80-120
Bromobenzene	0.0	10	10	10	98	96	1	25	80-120
1,1,1,2,2-Pentachloroethane	0.0	10	10	10	102	101	1	25	80-120

2-Chlorotoluene	0.0	10	9	9	95	94	0	25	80-120
4-Chlorotoluene	0.0	10	10	10	99	98	1	25	80-120
1,3,5-Trimethylbenze	0.0	10	9	9	92	90	2	25	80-120
tert-Butylbenzene	0.0	10	10	10	99	98	1	25	80-120
1,2,4-Trimethylbenze	0.0	10	9	9	92	91	2	25	80-120
sec-Butylbenzene	0.0	10	10	10	100	99	1	25	80-120
1,3-Dichlorobenzene	0.0	10	10	10	96	95	2	25	80-120
4-Isopropyltoluene	0.0	10	10	10	98	97	1	25	80-120
1,4-Dichlorobenzene	0.0	10	10	10	97	95	3	25	80-120
1,2-Dichlorobenzene	0.0	10	10	9	96	94	2	25	80-120
n-Butylbenzene	0.0	10	10	10	99	99	1	25	80-120
1,2-Dibromo-3-chloro	0.0	10	9	9	90	88	2	25	80-120
1,2,4-Trichlorobenze	0.0	10	9	9	91	92	2	25	80-120
Hexachlorobutadiene	0.0	10	9	9	93	95	3	25	80-120
Naphthalene	0.0	10	9	9	93	92	1	25	80-120
1,2,3-Trichlorobenze	0.0	10	9	9	89	91	3	25	80-120

VOA524.M

Fri Dec 08 12:19:24 1995

VOA

Quantitation Report

Data File : d:\hpcchem\1\data\c0438.d
 Acq On : 2 Dec 95 9:59 pm
 Sample : 9554060 MS BLDG 108 MW-3
 Misc : 25 ML
 Quant Time: Dec 5 12:10 1995

Vial: 14
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.18	96	1703293	5.00	ug/L	-0.03
System Monitoring Compounds				%Recovery		
43) 4-Bromofluorobenzene	19.40	95	897430	4.88	ug/L	97.60%
57) 1,2-Dichlorobenzene-d4	22.20	152	553194	4.80	ug/L	95.95%
Target Compounds				Qvalue		
2) Dichlorodifluoromethane	3.51	85	820685	8.90	ug/L	99
3) Chloromethane	3.94	50	698309	9.97	ug/L	96
4) Vinyl chloride	4.15	62	797767	10.24	ug/L	99
5) Bromomethane	4.85	94	526929	9.73	ug/L	99
6) Chloroethane	5.08	64	506891	11.71	ug/L	99
7) Trichlorofluoromethane	5.68	101	1376902	10.23	ug/L	98
8) 1,1-Dichloroethene	6.80	96	823573	10.21	ug/L	99
9) Methylene chloride	7.79	84	753291	9.34	ug/L	97
10) trans-1,2-Dichloroethene	8.33	96	927299	10.07	ug/L	98
12) 1,1-Dichloroethane	9.13	63	1767798	10.22	ug/L	99
13) 2,2-Dichloropropane	10.17	77	1278341	8.84	ug/L	99
14) cis-1,2-Dichloroethene	10.18	96	911322	10.07	ug/L	98
16) Bromochloromethane	10.60	128	377895	9.63	ug/L	# 91
17) Chloroform	10.75	83	1582880	9.90	ug/L	98
18) 1,1,1-Trichloroethane	11.05	97	1542519	9.97	ug/L	98
19) Carbon tetrachloride	11.35	117	1450672	9.92	ug/L	99
20) 1,1-Dichloropropene	11.34	75	1459229	10.11	ug/L	99
21) Benzene	11.70	78	2943226	9.93	ug/L	99
22) 1,2-Dichloroethane	11.72	62	634752	9.56	ug/L	97
23) Trichloroethene	12.80	95	1223246	9.95	ug/L	98
24) 1,2-Dichloropropane	13.17	63	1047852	10.19	ug/L	99
25) Dibromomethane	13.37	93	443065	9.82	ug/L	94
26) Bromodichloromethane	13.63	83	1298055	9.75	ug/L	100
27) cis-1,3-Dichloropropene	14.38	75	1152102	9.60	ug/L	99
28) Toluene	14.96	92	2090210	10.00	ug/L	99
29) trans-1,3-Dichloropropene	15.31	75	776000	9.37	ug/L	99
30) 1,1,2-Trichloroethane	15.63	83	430739	9.68	ug/L	99
31) Tetrachloroethene	15.91	166	1443936	9.74	ug/L	98
32) 1,3-Dichloropropane	15.92	76	824220	9.78	ug/L	99
33) Dibromochloromethane	16.32	129	845187	9.55	ug/L	98
34) 1,2-Dibromoethane	16.53	107	624674	9.63	ug/L	98
35) Chlorobenzene	17.38	112	2371559	9.84	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.52	131	980852	9.80	ug/L	98
37) Ethylbenzene	17.56	91	4220466	9.83	ug/L	99
38) Xylene (para & meta)	17.77	106	3161312	19.45	ug/L	97
39) Xylene (Ortho)	18.47	106	1446932	9.70	ug/L	98
40) Styrene	18.49	104	2056886	8.99	ug/L	100

Quantitation Report

139

Data File : d:\hpchem\1\data\c0438.d
Acq On : 2 Dec 95 9:59 pm
Sample : 9554060 MS BLDG 108 MW-3
Misc : 25 ML
Quant Time: Dec 5 12:10 1995

Vial: 14
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

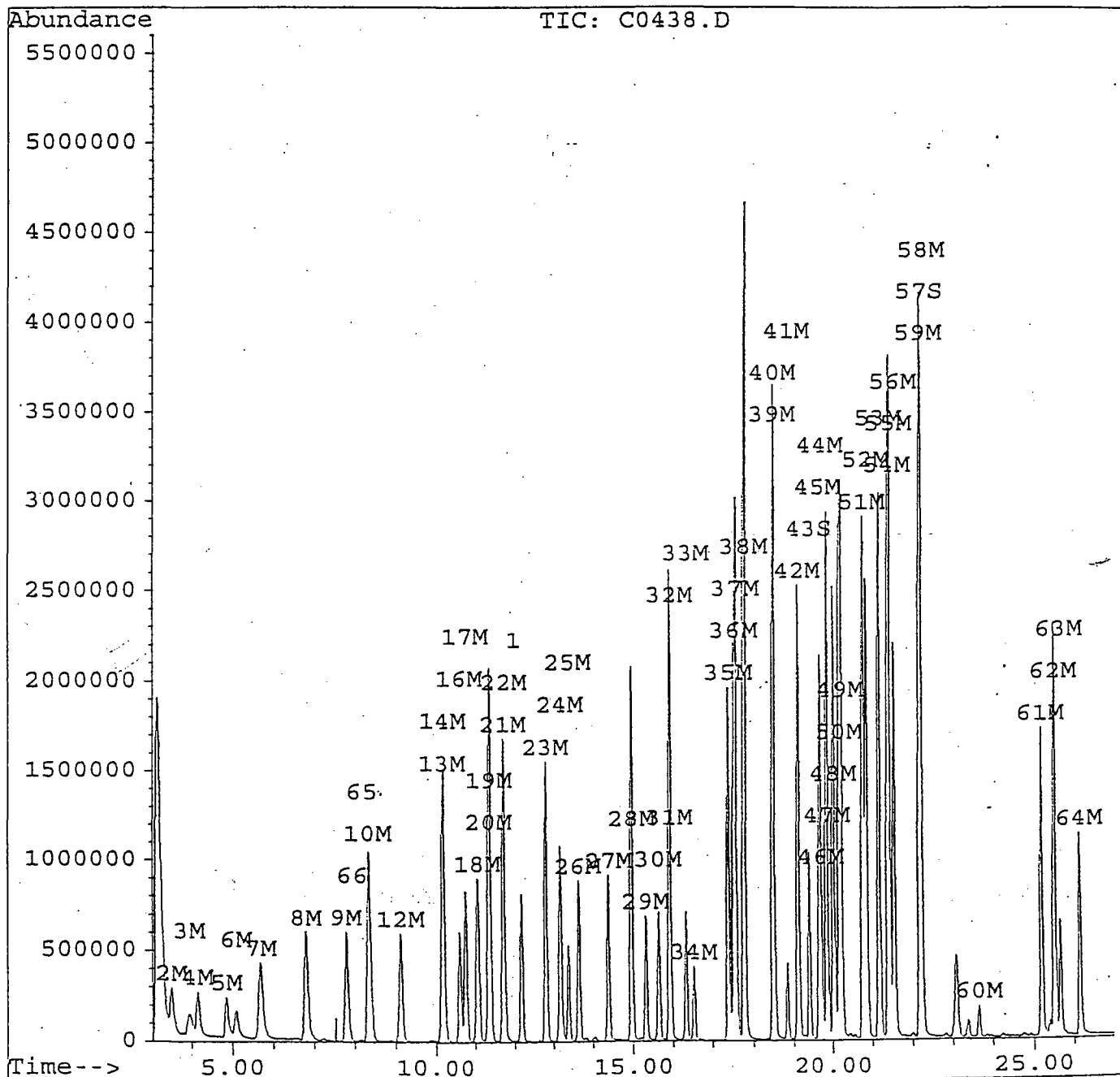
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.84	173	451295	9.30	ug/L	99
42) Isopropylbenzene	19.12	105	4095957	9.87	ug/L m	0
44) Bromobenzene	19.68	156	1052449	9.78	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.64	83	558844	10.26	ug/L	100
46) 1,2,3-Trichloropropane	19.72	75	538462	9.62	ug/L	94
47) n-Propylbenzene	19.86	91	5613614	9.91	ug/L	100
48) 2-Chlorotoluene	20.02	91	3138751	9.47	ug/L	100
49) 4-Chlorotoluene	20.22	91	3658824	9.91	ug/L	99
50) 1,3,5-Trimethylbenzene	20.17	105	3331590	9.25	ug/L	98
51) tert-Butylbenzene	20.77	119	4019878	9.94	ug/L	98
52) 1,2,4-Trimethylbenzene	20.85	105	3330253	9.25	ug/L	99
53) sec-Butylbenzene	21.17	105	5518689	10.05	ug/L	100
54) 1,3-Dichlorobenzene	21.38	146	2069849	9.72	ug/L	99
55) 4-Isopropyltoluene	21.43	119	4337269	9.83	ug/L	100
56) 1,4-Dichlorobenzene	21.54	146	2046903	9.81	ug/L	99
58) 1,2-Dichlorobenzene	22.23	146	1620495	9.63	ug/L	98
59) n-Butylbenzene	22.17	91	4466334	9.97	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.64	75	103985	9.04	ug/L	93
61) 1,2,4-Trichlorobenzene	25.19	180	1236512	9.07	ug/L	100
62) Hexachlorobutadiene	25.51	225	1096197	9.25	ug/L	99
63) Naphthalene	25.66	128	1229866	9.34	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.15	180	884388	8.90	ug/L	99
65) Methyl-tert butyl ether	8.37	73	1022390	9.81	ug/L	99
66) tert-Butyl Alcohol	8.15	59	34747	22.63	ug/L	100

Quantitation Report

Data File : d:\hpcchem\1\data\c0438.d
 Acq On : 2 Dec 95 9:59 pm
 Sample : 9554060 MS BLDG 108 MW-3
 Misc : 25 ML
 Quant Time: Dec 5 12:10 1995

140
 Vial: 14
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration



Quantitation Report

141

Data File : d:\hpchem\1\data\c0439.d
 Acq On : 2 Dec 95 10:33 pm
 Sample : 9554060 MSD BLDG 108 MW-3
 Misc : 25 ML
 Quant Time: Dec 5 12:11 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.18	96	1698292	5.00	ug/L	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.40	95	883203	4.82	ug/L	96.34%
57) 1,2-Dichlorobenzene-d4	22.20	152	555400	4.83	ug/L	96.62%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.50	85	813406	8.85	ug/L	97
3) Chloromethane	3.94	50	679127	9.72	ug/L	100
4) Vinyl chloride	4.14	62	766232	9.86	ug/L	98
5) Bromomethane	4.83	94	531136	9.84	ug/L	97
6) Chloroethane	5.09	64	499315	11.56	ug/L	97
7) Trichlorofluoromethane	5.68	101	1352386	10.08	ug/L	99
8) 1,1-Dichloroethene	6.79	96	814526	10.13	ug/L	99
9) Methylene chloride	7.79	84	748911	9.32	ug/L	99
10) trans-1,2-Dichloroethene	8.33	96	927475	10.10	ug/L	99
12) 1,1-Dichloroethane	9.12	63	1756085	10.18	ug/L	99
13) 2,2-Dichloropropane	10.16	77	1263265	8.76	ug/L	100
14) cis-1,2-Dichloroethene	10.18	96	911494	10.10	ug/L	98
16) Bromochloromethane	10.60	128	378121	9.66	ug/L	93
17) Chloroform	10.75	83	1578477	9.91	ug/L	99
18) 1,1,1-Trichloroethane	11.06	97	1542978	10.00	ug/L	100
19) Carbon tetrachloride	11.35	117	1441710	9.89	ug/L	98
20) 1,1-Dichloropropene	11.35	75	1440937	10.01	ug/L	99
21) Benzene	11.70	78	2920025	9.88	ug/L	100
22) 1,2-Dichloroethane	11.72	62	627677	9.48	ug/L	98
23) Trichloroethene	12.80	95	1204168	9.83	ug/L	98
24) 1,2-Dichloropropane	13.17	63	1053165	10.27	ug/L	99
25) Dibromomethane	13.37	93	439241	9.76	ug/L	96
26) Bromodichloromethane	13.64	83	1282014	9.65	ug/L	97
27) cis-1,3-Dichloropropene	14.38	75	1126773	9.41	ug/L	98
28) Toluene	14.96	92	2067420	9.92	ug/L	99
29) trans-1,3-Dichloropropene	15.32	75	749502	9.07	ug/L	99
30) 1,1,2-Trichloroethane	15.64	83	430766	9.71	ug/L	98
31) Tetrachloroethene	15.91	166	1430996	9.68	ug/L	99
32) 1,3-Dichloropropane	15.93	76	813068	9.68	ug/L	99
33) Dibromochloromethane	16.33	129	820032	9.29	ug/L	100
34) 1,2-Dibromoethane	16.54	107	620011	9.59	ug/L	98
35) Chlorobenzene	17.38	112	2351583	9.79	ug/L	100
36) 1,1,1,2-Tetrachloroethane	17.52	131	966332	9.68	ug/L	99
37) Ethylbenzene	17.56	91	4161259	9.72	ug/L	100
38) Xylene (para & meta)	17.76	106	3116953	19.24	ug/L	99
39) Xylene (Ortho)	18.48	106	1433164	9.64	ug/L	97
40) Styrene	18.50	104	2048262	8.97	ug/L	97

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

Quantitation Report

Data File : d:\hpchem\1\data\c0439.d
 Acq On : 2 Dec 95 10:33 pm
 Sample : 9554060 MSD BLDG 108 MW-3
 Misc : 25 ML
 Quant Time: Dec 5 12:11 1995

Vial: 15 **142**
 Operator: MDC
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Wed Nov 22 09:25:47 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.84	173	440898	9.11	ug/L	98
42) Isopropylbenzene	19.12	105	4039408	9.76	ug/L m	0
44) Bromobenzene	19.69	156	1034795	9.65	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.65	83	550664	10.14	ug/L	96
46) 1,2,3-Trichloropropane	19.72	75	529868	9.50	ug/L #	74
47) n-Propylbenzene	19.86	91	5528055	9.78	ug/L	100
48) 2-Chlorotoluene	20.03	91	3115655	9.43	ug/L	99
49) 4-Chlorotoluene	20.22	91	3597275	9.77	ug/L	98
50) 1,3,5-Trimethylbenzene	20.18	105	3256240	9.07	ug/L	98
51) tert-Butylbenzene	20.76	119	3975738	9.86	ug/L	97
52) 1,2,4-Trimethylbenzene	20.86	105	3267491	9.11	ug/L	99
53) sec-Butylbenzene	21.17	105	5446678	9.95	ug/L	99
54) 1,3-Dichlorobenzene	21.38	146	2031549	9.57	ug/L	99
55) 4-Isopropyltoluene	21.42	119	4299083	9.77	ug/L	99
56) 1,4-Dichlorobenzene	21.55	146	1988592	9.56	ug/L	100
58) 1,2-Dichlorobenzene	22.23	146	1588483	9.46	ug/L	97
59) n-Butylbenzene	22.18	91	4430414	9.92	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.65	75	101512	8.85	ug/L	98
61) 1,2,4-Trichlorobenzene	25.20	180	1253282	9.22	ug/L	100
62) Hexachlorobutadiene	25.52	225	1120719	9.49	ug/L	99
63) Naphthalene	25.66	128	1212182	9.23	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.16	180	905706	9.14	ug/L	96
65) Methyl-tert butyl ether	8.37	73	1003755	9.66	ug/L	99
66) tert-Butyl Alcohol	8.11	59	74140	48.43	ug/L	100

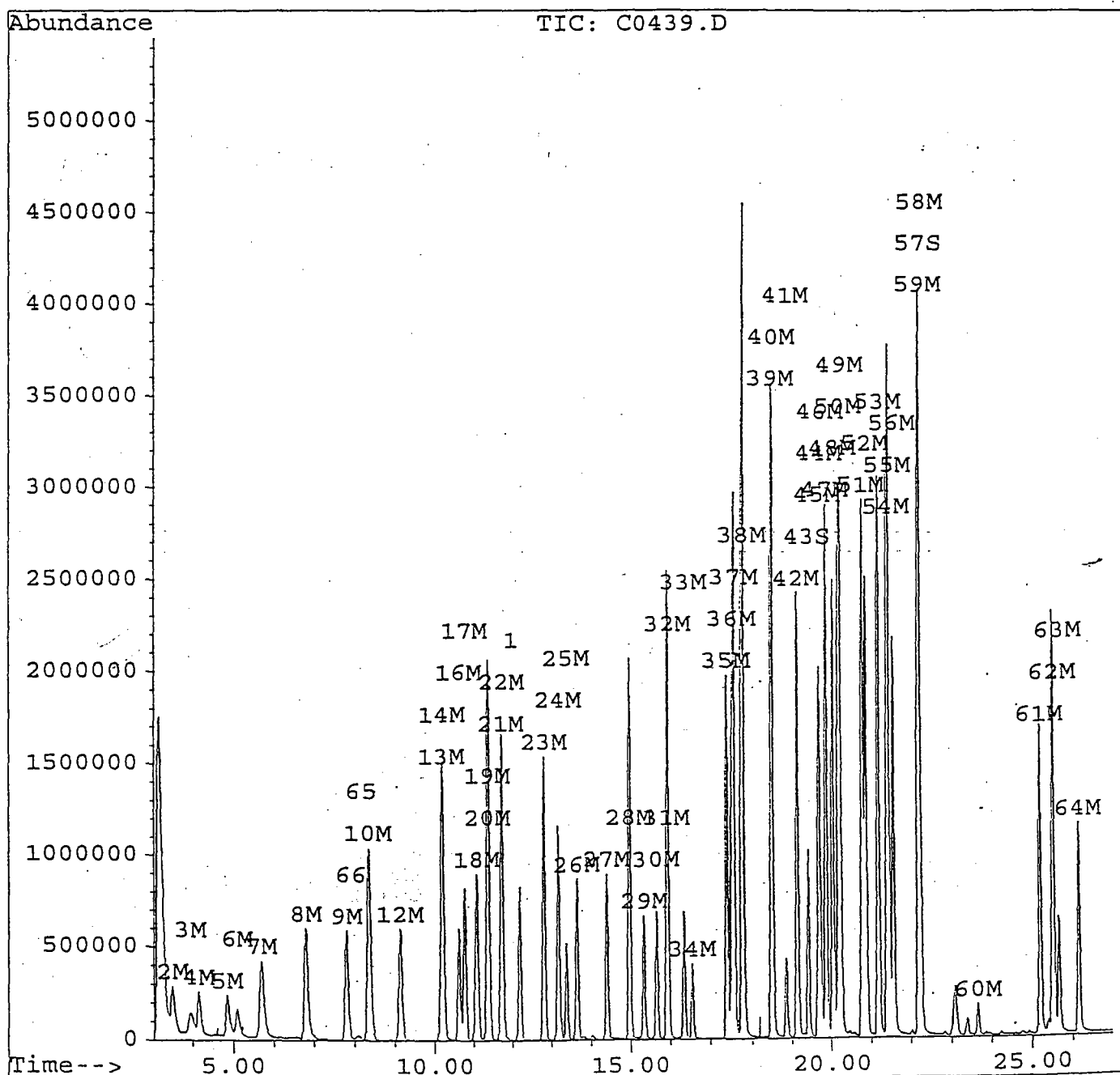
Quantitation Report

143

Data File : d:\hpchem\1\data\c0439.d
Acq On : 2 Dec 95 10:33 pm
Sample : 9554060 MSD BLDG 108 MW-3
Misc : 25 ML
Quant Time: Dec 5 12:11 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration





GC/MS SEMIVOLATILE DATA PACKAGE

A

Lab Nam EMSL Analytical Contract: _____
Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____
Lab File ID: B8951.D DFTPP Injection Date: 10/22/95
Instrument ID: ABNA DFTPP Injection Time: 1620

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	58.1
68	Less than 2.0% of mass 69	0.0
69	Mass 69 relative abundance	82.8
70	Less than 2.0% of mass 69	0.2
127	25.0 - 75.0% of mass 198	44.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	20.2
365	Greater than 0.75% of mass 198	2.5
441	Present, but less than mass 443	10.3
442	40.0 - 110.0% of mass 198	72.0
443	15.0 - 24.0% of mass 442	13.9

1-Value is 1 mass 69

2-Value is * mass 442

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

[illegible]

DFTPP

146

Data File : C:\HPCHEM\1\DATA2\B8951.D

Acq On : 22 Oct 95 4:20 pm

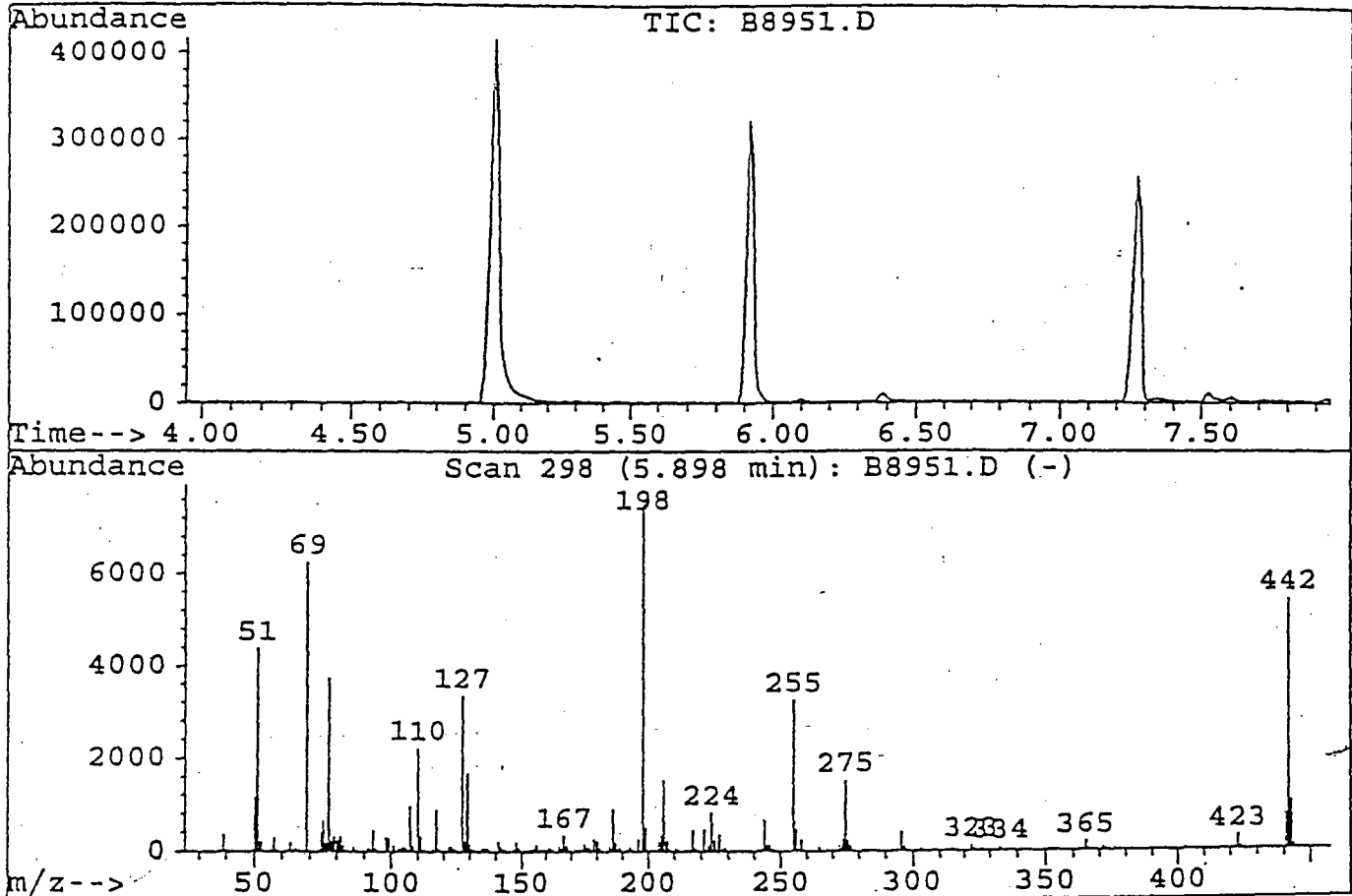
Vial: 1

Sample : DFTPP Converted from RTE d Inst : SCOTTV

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58.1	4393	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	82.8	6258	PASS
70	69	0	2	0.3	17	PASS
127	198	40	60	44.6	3367	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	7557	PASS
199	198	5	9	6.7	509	PASS
275	198	10	30	20.2	1529	PASS
365	198	1	100	2.5	192	PASS
441	443	0	100	74.6	781	PASS
442	198	40	100	72.0	5439	PASS
443	442	17	23	19.2	1047	PASS

Scan 293 (5.893 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	48	53.20	32	66.25	16	81.05	330
39.10	377	55.15	21	69.05	6258	82.05	125
40.05	27	56.05	141	70.00	17	83.10	43
41.10	10	57.15	307	73.05	24	85.15	33
44.05	7	58.05	32	74.10	427	86.05	107
46.60	11	59.95	22	75.05	682	87.05	21
47.80	16	61.05	55	76.05	197	91.15	87
49.10	37	61.95	44	77.05	3745	92.00	60
50.10	1180	63.05	185	78.10	240	93.00	454
51.10	4393	64.15	16	79.05	321	94.00	50
52.15	214	65.10	64	80.15	246	97.10	3

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
98.00	325	110.00	2222	122.95	109	137.05	74
99.00	281	111.00	317	124.10	52	140.95	229
100.10	5	112.00	46	125.05	31	141.95	94
100.95	139	113.10	20	127.00	3367	142.95	55
102.10	18	115.90	71	128.00	243	145.95	27
102.90	73	117.00	896	129.00	1693	147.00	82
104.00	105	117.90	36	129.90	141	148.00	203
105.00	92	118.10	58	130.95	51	148.95	66
105.90	39	119.00	20	134.00	53	151.05	39
107.00	988	120.00	31	134.95	101	151.85	31
108.00	125	122.00	109	136.05	69	152.05	32

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
152.95	60	165.05	106	176.90	82	187.90	28
154.05	51	166.05	68	177.80	28	188.85	72
154.95	105	166.90	354	178.10	24	191.10	44
156.05	158	167.95	121	178.90	282	192.00	61
156.85	36	169.10	30	180.00	203	193.00	102
157.95	40	170.10	16	181.00	77	194.00	21
158.95	24	171.90	35	183.10	15	195.10	31
159.25	25	173.00	24	183.90	27	195.95	283
159.95	67	173.95	67	184.90	108	197.90	7557
160.95	104	175.00	148	186.00	914	198.90	509
161.75	45	175.90	65	186.95	185	200.00	46

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.60	61	215.95	46	231.05	30	246.80	43
202.90	37	216.80	458	233.85	24	248.80	25
203.95	217	217.95	63	234.85	34	254.85	3269
204.95	357	220.95	493	236.95	39	255.90	462
205.95	1535	222.90	129	238.85	14	256.90	41
206.95	222	223.90	845	240.80	39	257.90	257
207.85	61	224.95	251	242.00	53	258.90	35
210.00	28	226.05	23	243.00	42	264.80	100
210.65	74	226.90	375	243.90	676	265.60	2
211.15	58	227.85	48	244.90	125	271.10	17
214.95	32	228.85	86	245.90	118	272.90	118

148

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.95	258	303.05	54	340.80	21	382.75	22
274.90	1529	314.00	18	351.85	43	389.90	20
275.90	208	314.80	56	352.85	33	401.90	34
276.80	117	315.80	36	353.85	41	402.80	36
277.65	28	321.00	19	354.65	19	420.80	38
284.25	14	322.85	124	364.75	192	421.80	40
284.55	12	323.80	30	365.65	20	422.75	303
285.05	41	326.80	31	370.75	21	423.85	52
292.75	37	332.00	18	371.85	86	440.80	781
295.80	403	333.80	79	372.75	20	441.85	5439
296.85	79	334.90	23	372.95	20	442.85	1047

Scan 298 (5.898 min): B8951.D

Modified:subtracted

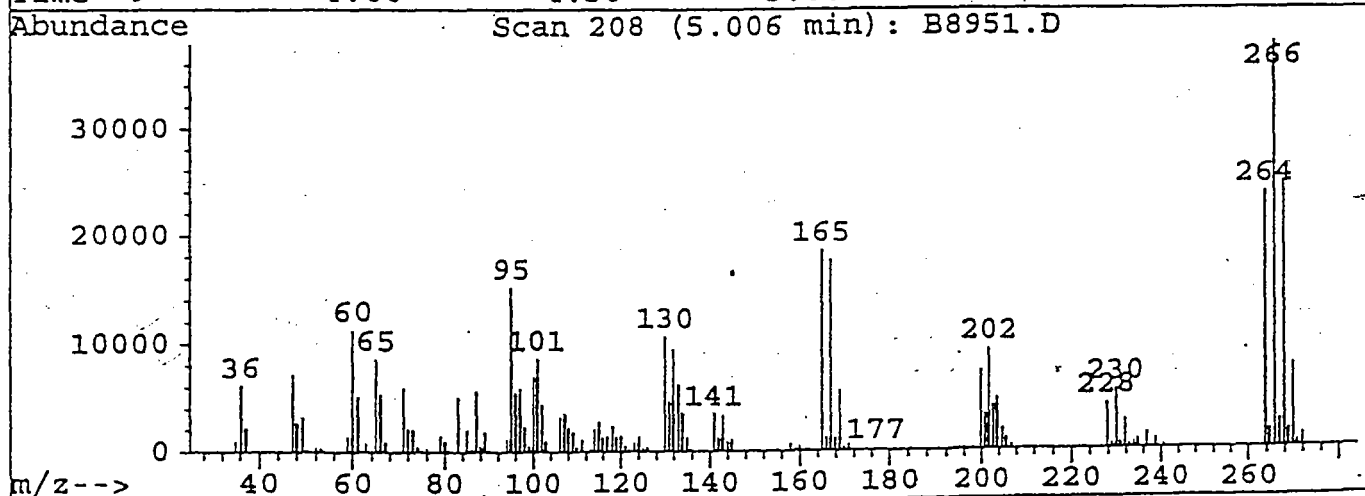
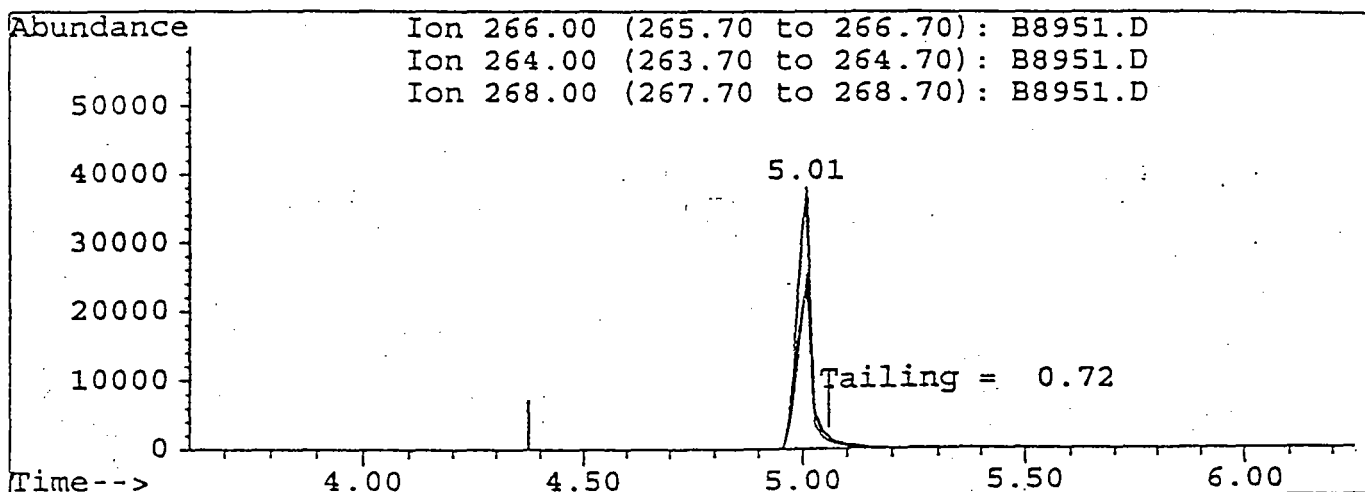
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.85	86						

Quantitation Report

149

Data File : C:\HPCHEM\1\DATA2\B8951.D
 Acq On : 22 Oct 95 4:20 pm
 Sample : DFTPP Converted from RTE d Inst : ABNA
 Misc :
 Quant Time: Oct 23 14:06 1995
 Vial: 1
 Operator: SCOTTV
 BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration



TIC: B8951.D

(1) Pentachlorophenol (CM)

5.01min 266.46ug/mL

response 88011

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	67.02
268.00	64.70	64.58
0.00	0.00	0.00

Quantitation Report

150

Data File : C:\HPCHEM\1\DATA2\B8951.D

Acq. On : 22 Oct 95 4:20 pm

Sample : DFTPP Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

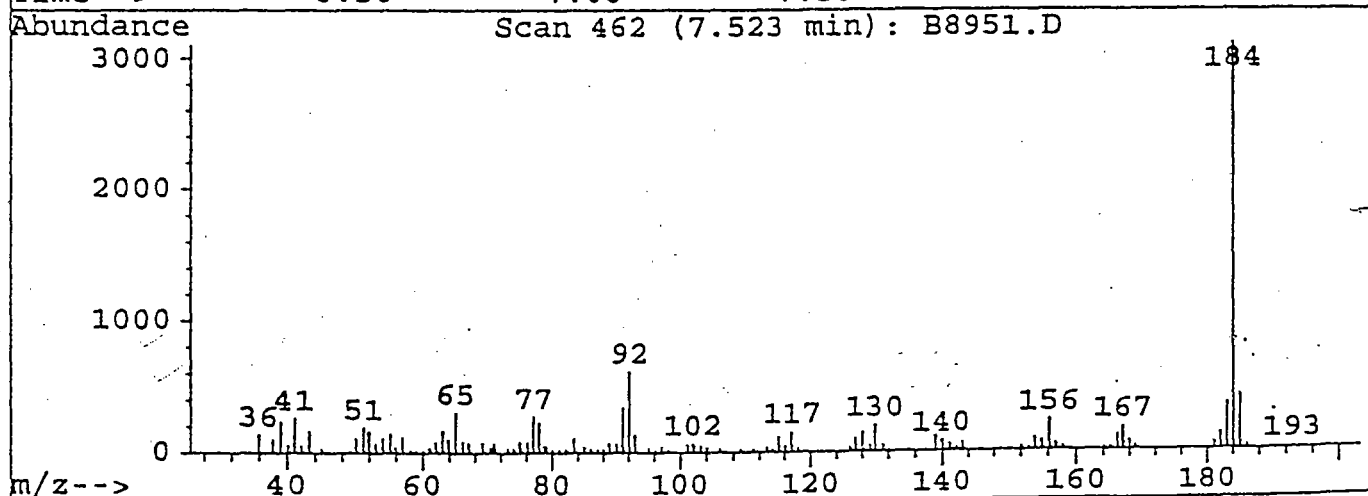
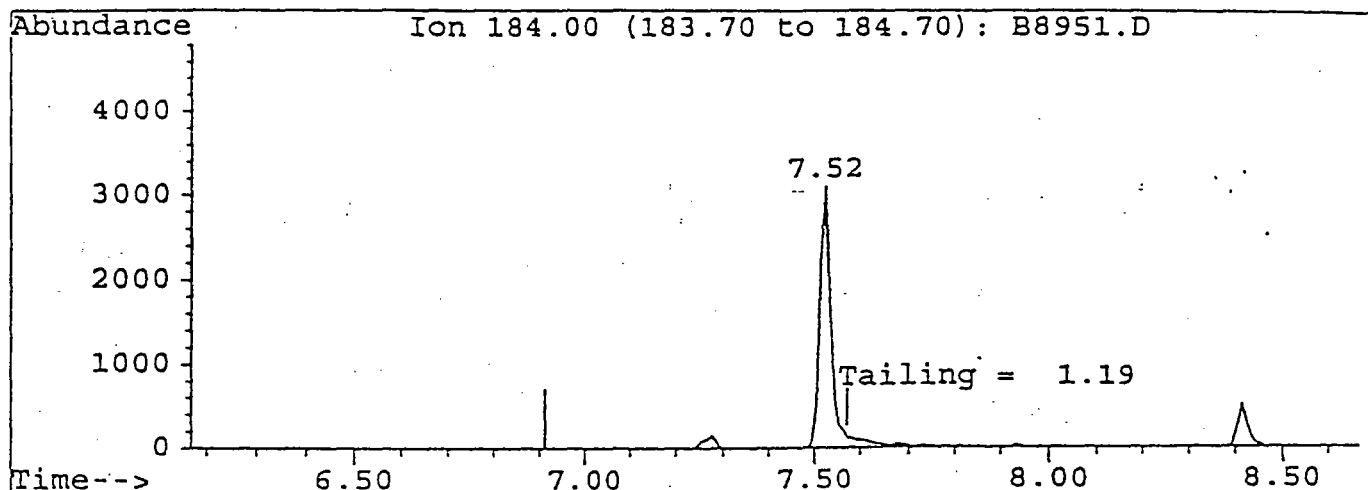
Quant Time: Oct 23 14:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



TIC: B8951.D

(2) Benzidine

7.52min 18.09ug/ml

response 5556

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

151

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Oct 25 10:15:01 1995
 Response via : Initial Calibration

Calibration Files

160 =B8955.D 120 =B8955.D 80 =B8954.D
 50 =B8953.D 20 =B8952.D

	Compound	160	120	80	50	20	Avg	%RSD
1) I	1,4-Dichlorobenzene-d	-----ISTD-----						
2) S	2-Fluorophenol	1.298	1.281	1.315	1.267	1.215	1.275	2.98
3) S	Phenol-d5	2.193	2.110	2.121	2.008	1.912	2.069	5.30
4) M	N-nitrosodimethylamin	0.949	0.938	0.778	0.886		0.887	8.80
5)	Pyridine	0.977	0.898	0.594	0.908	0.596	0.795	23.24
6) CM	Phenol	2.058	1.866	1.941	1.876	1.963	1.941	4.00
7) MT	bis(2-Chloroethyl)eth	2.339	2.271	2.478	2.298	2.478	2.373	4.17
8) M	2-Chlorophenol	1.340	1.326	1.370	1.335	1.293	1.333	2.08
9) MT	1,3-Dichlorobenzene	1.333	1.349	1.417	1.396	1.341	1.367	2.72
10) CM	1,4-Dichlorobenzene	1.341	1.339	1.435	1.444	1.359	1.383	3.74
11) M	1,2-Dichlorobenzene	1.327	1.309	1.391	1.387	1.322	1.347	2.88
12) T	2-Methylphenol	1.282	1.266	1.246	1.281	1.320	1.279	2.15
13) M	bis(2-chloroisopropyl	3.117	2.080	2.102	1.860	2.012	2.234	22.50
14) T	4-Methylphenol	1.346	1.396	1.393	1.481	1.395	1.402	3.48
15) PM	N-Nitroso-Di-n-propyl	1.635	1.504	1.491	1.495	1.515	1.528	3.97
16) M	Hexachloroethane	0.866	0.842	0.908	0.877	0.847	0.868	3.04
17) I	Naphthalene-d8	-----ISTD-----						
18) S	Nitrobenzene-d5	0.536	0.548	0.540	0.529	0.557	0.542	2.00
19) M	Nitrobenzene	0.665	0.462	0.486	0.489	0.494	0.519	15.90
20) M	Isophorone	1.023	1.026	1.061	1.021	1.376	1.101	13.99
21) MC	2-Nitrophenol	0.233	0.242	0.253	0.246	0.223	0.239	4.94
22) M	2,4-Dimethylphenol	0.406	0.400	0.396	0.376	0.355	0.387	5.48
23) M	bis(2-Chloroethoxy)me	0.594	0.586	0.623	0.583	0.629	0.603	3.57
24) MC	2,4-Dichlorophenol	0.301	0.295	0.305	0.294	0.281	0.295	3.20
25) M	1,2,4-Trichlorobenzen	0.299	0.303	0.314	0.309	0.297	0.304	2.24
26) M	Naphthalene	0.999	1.022	0.994	1.016	0.985	1.003	1.53
27) T	4-Chloroaniline	0.476	0.462	0.491	0.449	0.476	0.470	3.41
28) MC	Hexachlorobutadiene	0.155	0.162	0.164	0.161	0.155	0.160	2.53
29) MC	4-Chloro-3-methylphen	0.402	0.386	0.385	0.392	0.376	0.388	2.50
30) M	2-Chloronaphthalene	0.643	0.619	0.649	0.634	0.627	0.634	1.88
31) T	2-Methylnaphthalene	0.823	0.860	0.870	0.905	0.890	0.870	3.60
32) I	Acenaphthene-d10	-----ISTD-----						
33) P	Hexachlorocyclopentad	0.305	0.321	0.324	0.243	0.254	0.289	13.21
34) MC	2,4,6-Trichlorophenol	0.491	0.481	0.415	0.404	0.339	0.426	14.61
35) T	2,4,5-Trichlorophenol	0.271	0.293	0.373	0.403	0.396	0.347	17.62
36) S	2-Fluorobiphenyl	1.238	1.248	1.189	1.241	1.184	1.220	2.53
37) T	2-Nitroaniline	0.841	0.736	0.817	0.751	0.769	0.783	5.72
38) M	Dimethylphthalate	1.333	1.293	1.362	1.377	1.474	1.368	4.92
39) M	Acenaphthylene	1.777	1.826	1.858	1.846	1.697	1.801	3.66
40) M	2,6-Dinitrotoluene	0.243	0.258	0.320	0.377	0.339	0.308	18.23
41) T	3-Nitroaniline	0.298	0.316	0.358	0.366	0.372	0.342	9.62

Response Factor Report ABNA

152

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Oct 25 10:15:01 1995
 Response via : Initial Calibration

Calibration Files

160 =B8956.D 120 =B8955.D 80 =B8954.D
 50 =B8953.D 20 =B8952.D

	Compound	160	120	80	50	20	Avg	%RSD
42)	CM Acenaphthene	0.987	1.017	1.050	1.041	1.005	1.020	2.52
43)	MP 2,4-Dinitrophenol	0.242	0.217	0.207	0.173		0.210	13.59
44)	PM 4-Nitrophenol	0.243	0.224	0.225	0.220		0.228	4.42
45)	T Dibenzofuran	1.535	1.581	1.527	1.568	1.461	1.534	3.05
46)	M 2,4-Dinitrotoluene	0.350	0.503	0.509	0.467	0.434	0.452	14.36
47)	M Diethylphthalate	1.464	1.545	1.538	1.580	1.653	1.556	4.40
48)	M Fluorene	1.177	1.197	1.128	1.203	1.132	1.167	3.03
49)	M 4-Chlorophenyl-phenyl	0.476	0.512	0.504	0.514	0.538	0.509	4.32
50)	Phenanthrene-d10	-----ISTD-----						
51)	T 4-Nitroaniline	0.201	0.219	0.237	0.246	0.248	0.230	8.80
52)	MC 4,6-Dinitro-2-methylp	0.143	0.147	0.146	0.157		0.148	4.25
53)	T n-Nitrosodiphenylamin	0.502	0.521	0.559	0.565	0.566	0.543	5.37
54)	S 2,4,6-Tribromophenol	0.137	0.130	0.130	0.122	0.114	0.127	6.88
55)	1,2-Diphenylhydrazine	1.727	1.765	1.839	1.876	1.714	1.784	3.97
56)	M 4-Bromophenyl-phenyle	0.170	0.189	0.192	0.186	0.198	0.187	5.57
57)	M Hexachlorobenzene	0.234	0.240	0.250	0.239	0.223	0.237	4.16
58)	CM Pentachlorophenol	0.176	0.169	0.159	0.146		0.163	7.89
59)	M Phenanthrene	1.052	1.101	1.091	1.128	1.062	1.087	2.81
60)	M Anthracene	1.028	1.059	1.084	1.099	1.067	1.068	2.50
61)	Carbazole	1.073	1.102	1.155	1.045	0.948	1.065	7.19
62)	M Di-n-butylphthalate	1.934	2.050	1.972	2.064	2.036	2.011	2.76
63)	MC Fluoranthene	1.064	1.116	1.124	1.122	1.034	1.092	3.74
64)	I Chrysene-d12	-----ISTD-----						
65)	Benzidine	0.292	0.287	0.271	0.235	0.282	0.274	8.41
66)	M Pyrene	1.738	1.691	1.628	1.557	1.388	1.600	8.56
67)	S Terphenyl-d14	1.136	1.078	0.983	0.913	0.857	0.994	11.56
68)	M Butylbenzylphthalate	1.325	1.272	1.223	1.223	1.183	1.245	4.39
69)	M Benzo[a]anthracene	1.452	1.523	1.454	1.486	1.231	1.429	8.01
70)	M 3,3'-Dichlorobenzidin	0.363	0.382	0.412	0.399	0.375	0.386	5.04
71)	M Chrysene	0.772	0.885	0.894	0.868	0.865	0.857	5.70
72)	M bis(2-Ethylhexyl)phth	1.753	1.891	1.767	1.774	1.738	1.785	3.42
73)	I Perylene-d12	-----ISTD-----						
74)	MC Di-n-octylphthalate	5.446	5.792	5.574	5.955		5.692	3.97
75)	M Benzo[b]fluoranthene	1.854	2.099	1.614	2.424	1.772	1.952	16.21
76)	m Benzo[k]fluoranthene	1.092	1.112	1.104	1.200	1.303	1.162	7.73
77)	mc Benzo[a]pyrene	1.053	1.059	1.082	1.079	1.132	1.081	2.85
78)	m Indeno[1,2,3-cd]pyren	0.593	0.636	0.621	0.586	0.371	0.561	19.33
79)	m Dibenz[a,h]anthracene	0.600	0.602	0.587	0.572	0.382	0.549	17.12
80)	M Benzo[g,h,i]perylene	0.552	0.576	0.573	0.534	0.312	0.510	21.93
81)	1-Methyl naphthalene						0.000#	-1.00
82)	7,12-Dimethylbenz(a)a						0.000#	-1.00

Response Factor Report ABNA

153

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:15:01 1995
Response via : Initial Calibration

Calibration Files

160 =B8956.D 120 =B8955.D 80 =B8954.D
50 =B8953.D 20 =B8952.D

	Compound	160	120	80	50	20	Avg	%RSD
83)	Quinoline						0.000#	-1.00
84)	Thiophenol						0.000#	-1.00
85)	4-Methyl chrysene						0.000#	-1.00
86)	Dibenz(a,j)acridine						0.000#	-1.00
87)	Indene						0.000#	-1.00
88)	Benzyl alcohol						0.000#	-1.00
89)	Benzoic acid						0.000#	-1.00

Quantitation Report

154

Data File : c:\hpcchem\1\data2\b8952.d

Acq On : 22 Oct 95 4:58 pm

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 9:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	29442	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.41	136	115955	40.00	ug/mL	-0.35
32) Acenaphthene-d10	17.73	164	69183	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.20	188	103757	40.00	ug/ml	-0.38
64) Chrysene-d12	30.29	240	75851	40.00	ug/mL	-0.40
73) Perylene-d12	34.27	264	29259	40.00	ug/mL	-0.43

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	44724	46.49	ug/mL	46.49%
3) Phenol-d5	8.08	99	70383	45.87	ug/mL	45.87%
18) Nitrobenzene-d5	10.37	82	80764	52.70	ug/mL	52.70%
36) 2-Fluorobiphenyl	15.88	172	102384	48.24	ug/mL	48.24%
54) 2,4,6-Tribromophenol	20.14	330	14825	53.50	ug/mL	53.50%
67) Terphenyl-d14	27.36	244	81257	33.34	ug/mL	33.34%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	15448	25.20	ug/ml	100
6) Phenol	8.11	94	28900	20.59	ug/mL	100
7) bis(2-Chloroethyl) ether	12.10	93	36472	22.04	ug/mL	94
8) 2-Chlorophenol	8.09	128	19030	19.10	ug/mL#	81
9) 1,3-Dichlorobenzene	8.48	146	19737	19.33	ug/mL	96
10) 1,4-Dichlorobenzene	8.73	146	20003	19.12	ug/mL	96
11) 1,2-Dichlorobenzene	9.12	146	19457	19.34	ug/mL	97
12) 2-Methylphenol	9.81	108	19438	21.22	ug/mLm	100
13) bis(2-chloroisopropyl) ethe	9.79	45	29616	23.05	ug/mL#	40
14) 4-Methylphenol	10.31	108	20537	20.05	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.18	70	22300	21.23	ug/mL	94
16) Hexachloroethane	10.08	117	12474	20.33	ug/mL#	63
19) Nitrobenzene	10.43	77	28618	20.36	ug/mL	93
20) Isophorone	10.37	82	79753	25.72	ug/mL#	67
21) 2-Nitrophenol	11.37	139	12913	20.42	ug/mL#	86
22) 2,4-Dimethylphenol	11.83	107	20567	18.72	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.10	93	36472	21.56	ug/mL#	100
24) 2,4-Dichlorophenol	12.16	162	16269	19.83	ug/mL#	93
25) 1,2,4-Trichlorobenzene	12.32	180	17221	20.08	ug/mL	95
26) Naphthalene	12.47	128	57119	19.89	ug/mL	100
27) 4-Chloroaniline	12.84	127	27603	20.47	ug/mL	99
28) Hexachlorobutadiene	12.99	225	9013	20.60	ug/mL	95
29) 4-Chloro-3-methylphenol	14.57	107	21812	20.86	ug/mL	96
30) 2-Chloronaphthalene	16.05	162	36338	21.53	ug/ml#	100
31) 2-Methylnaphthalene	14.61	142	51624	30.41	ug/mL	95
33) Hexachlorocyclopentadiene	15.13	237	8772	19.27	ug/mL#	90
34) 2,4,6-Trichlorophenol	15.59	196	11710	15.31	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	13699	21.15	ug/mL	97

Quantitation Report

155

Data File : c:\hpcchem\1\data2\b8952.d

Acq On : 22 Oct 95 4:58 pm

Sample : 20 STD..... Converted from RTE d

Misc : BT Multiplr: 1.00

Quant Time: Oct 25 9:45 1995

Vial: 2

Operator: SCOTTV

Inst : ABNA

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.83	65	26617	23.54	ug/mL	72
38) Dimethylphthalate	17.31	163	50983	22.95	ug/mL#	13
39) Acenaphthylene	17.25	152	58691	19.03	ug/mL	98
40) 2,6-Dinitrotoluene	17.40	165	11726	19.95	ug/mL#	87
41) 3-Nitroaniline	19.68	138	12871	24.57	ug/mL#	87
42) Acenaphthene	17.81	153	34778	18.65	ug/mL	99
43) 2,4-Dinitrophenol	18.15	184	4144	18.76	ug/mL#	66
44) 4-Nitrophenol	18.65	109	6336	21.77	ug/mL#	57
45) Dibenzofuran	18.37	168	50539	19.77	ug/mL#	88
46) 2,4-Dinitrotoluene	18.56	165	15019	23.85	ug/mL#	1
47) Diethylphthalate	19.54	149	57169	23.32	ug/mL	95
48) Fluorene	19.39	166	39160	19.64	ug/mL	99
49) 4-Chlorophenyl-phenylether	19.60	204	18593	20.88	ug/mL	90
51) 4-Nitroaniline	19.68	138	12871	21.96	ug/mL	87
52) 4,6-Dinitro-2-methylphenol	19.77	198	6716	20.84	ug/mL	100
53) n-Nitrosodiphenylamine	20.02	169	29360	21.36	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.08	77	88943	17.28	ug/ml	100
56) 4-Bromophenyl-phenylether	21.06	248	10252	18.11	ug/mL#	76
57) Hexachlorobenzene	21.01	284	11578	18.19	ug/mL#	52
58) Pentachlorophenol	21.74	266	5478	14.77	ug/mL	99
59) Phenanthrene	22.28	178	55118	18.45	ug/mL	100
60) Anthracene	22.41	178	55350	19.28	ug/mLm	100
61) Carbazole	23.07	167	49203	17.84	ug/ml	97
62) Di-n-butylphthalate	24.61	149	105600	19.26	ug/mL	99
63) Fluoranthene	25.88	202	53632	19.37	ug/mL#	58
65) Benzidine	26.57	184	10709	16.44	ug/ml	100
66) Pyrene	26.50	202	52626	12.69	ug/mL#	75
68) Butylbenzylphthalate	29.14	149	44863	17.91	ug/mL#	9
69) Benzo[a]anthracene	30.26	228	46690	19.16	ug/mL	100
70) 3,3'-Dichlorobenzidine	30.43	252	14204	27.28	ug/mL#	88
71) Chrysene	30.35	228	32814	17.31	ug/mLm	100
72) bis(2-Ethylhexyl)phthalate	31.12	149	65904	18.81	ug/mL#	35
74) Di-n-octylphthalate	33.03	149	94455	16.40	ug/mL#	100
75) Benzo[b]fluoranthene	33.30	252	25924	16.54	ug/mL#	85
76) Benzo[k]fluoranthene	33.38	252	19069	16.16	ug/mLm	85
77) Benzo[a]pyrene	34.11	252	16555	19.26	ug/mLm	85
78) Indeno[1,2,3-cd]pyrene	36.79	276	5424	14.32	ug/mL#	23
79) Dibenz[a,h]anthracene	36.91	278	5588	18.32	ug/mL#	74
80) Benzo[g,h,i]perylene	37.31	276	4565	14.10	ug/mLm	59

Quantitation Report

156

Data File : c:\hpchem\1\data2\b8952.d

Acq On : 22 Oct 95 4:58 pm

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

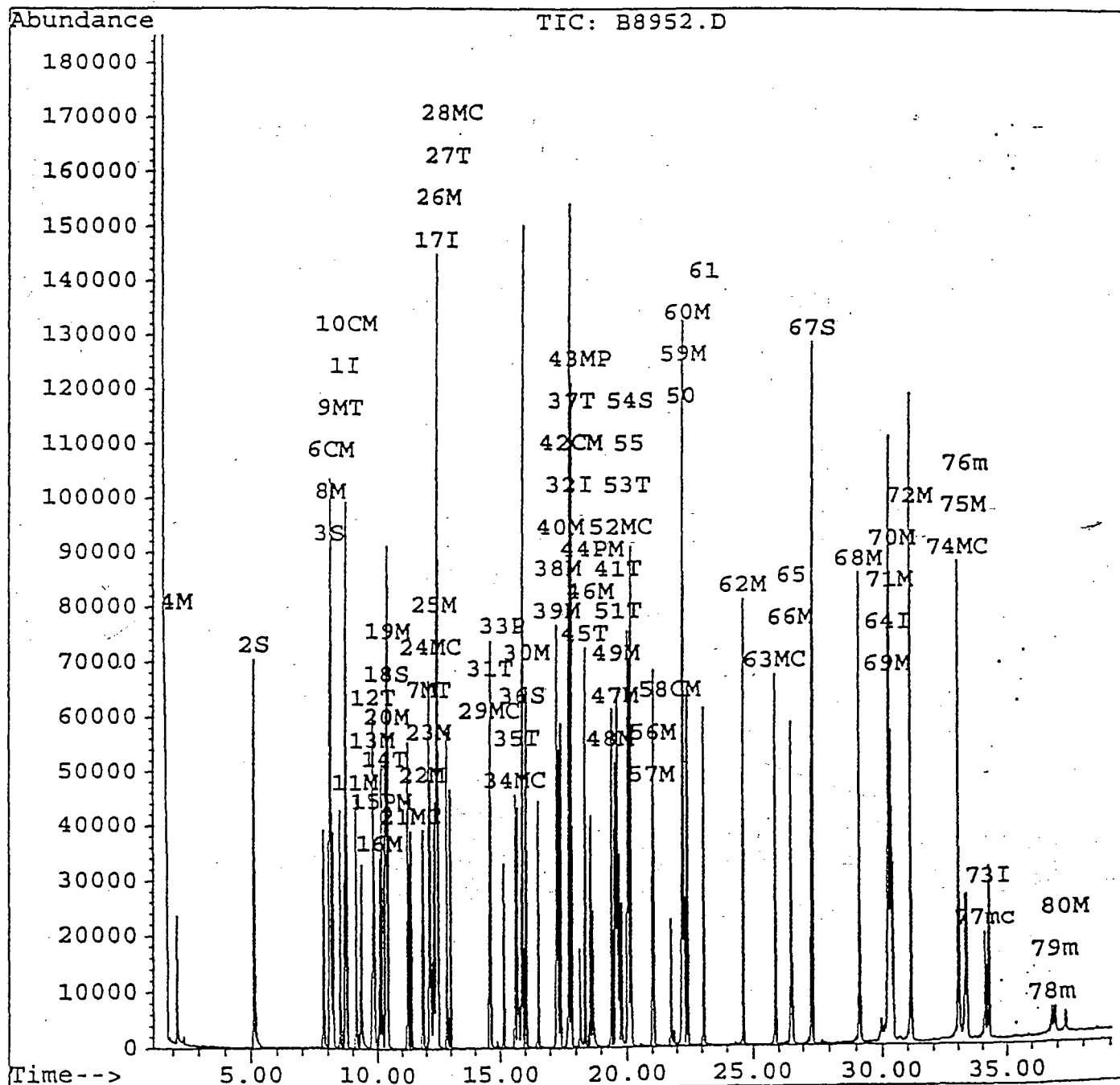
Quant Time: Oct 25 9:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



Quantitation Report

157

Data File : c:\hpcchem\1\data2\b8953.d

Vial: 3

Acq On : 22 Oct 95 5:49 pm

Operator: SCOTTV

Sample : 50 STD..... Converted from RTE d Inst

: ABNA

Misc :

BT Multiplier: 1.00

Quant Time: Oct 25 9:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	30029	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	118447	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.73	164	66652	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.23	188	99018	40.00	ug/mL	-0.35
64) Chrysene-d12	30.29	240	71387	40.00	ug/mL	-0.41
73) Perylene-d12	34.24	264	29156	40.00	ug/mL	-0.45

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	47542	48.46	ug/mL	48.46%
3) Phenol-d5	8.09	99	75366	48.16	ug/mL	48.16%
18) Nitrobenzene-d5	10.39	82	78309	50.02	ug/mL	50.02%
36) 2-Fluorobiphenyl	15.90	172	103420	50.58	ug/mL	50.58%
54) 2,4,6-Tribromophenol	20.17	330	15101	57.11	ug/mL	57.11%
67) Terphenyl-d14	27.36	244	81512	35.53	ug/mL	35.53%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	33256	53.18	ug/mL	100
6) Phenol	8.13	94	70425	49.19	ug/mL	100
7) bis(2-Chloroethyl) ether	12.12	93	86266	51.11	ug/mL	97
8) 2-Chlorophenol	8.11	128	50107	49.31	ug/mL#	79
9) 1,3-Dichlorobenzene	8.48	146	52404	50.32	ug/mL	98
10) 1,4-Dichlorobenzene	8.75	146	54194	50.78	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	52073	50.76	ug/mL	96
12) 2-Methylphenol	9.83	108	48095	51.48	ug/mLm	99
13) bis(2-chloroisopropyl) ethe	9.77	45	69800	53.26	ug/mL	98
14) 4-Methylphenol	10.35	108	55590	53.22	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.22	70	56128	52.39	ug/mL#	95
16) Hexachloroethane	10.08	117	32913	52.60	ug/mL#	72
19) Nitrobenzene	10.45	77	72432	50.46	ug/mL	88
20) Isophorone	11.28	82	151156	47.73	ug/mL	94
21) 2-Nitrophenol	11.39	139	36365	56.30	ug/mL#	87
22) 2,4-Dimethylphenol	11.87	107	55686	49.62	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.12	93	86266	49.92	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	43494	51.90	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.32	180	45688	52.14	ug/mL	95
26) Naphthalene	12.49	128	150500	51.30	ug/mL	98
27) 4-Chloroaniline	12.86	127	66405	48.20	ug/mL	99
28) Hexachlorobutadiene	12.99	225	23776	53.19	ug/mL	97
29) 4-Chloro-3-methylphenol	14.57	107	58006	54.32	ug/mL	87
30) 2-Chloronaphthalene	16.06	162	93821	54.43	ug/mL#	100
31) 2-Methylnaphthalene	14.63	142	133962	77.26	ug/mL	96
33) Hexachlorocyclopentadiene	15.13	237	20265	46.21	ug/mL	98
34) 2,4,6-Trichlorophenol	15.61	196	33685	45.73	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	33610	53.87	ug/mL	96

Quantitation Report

158

Data File : c:\hpcchem\1\data2\b8953.d

Acq On : 22 Oct 95 5:49 pm

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 9:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

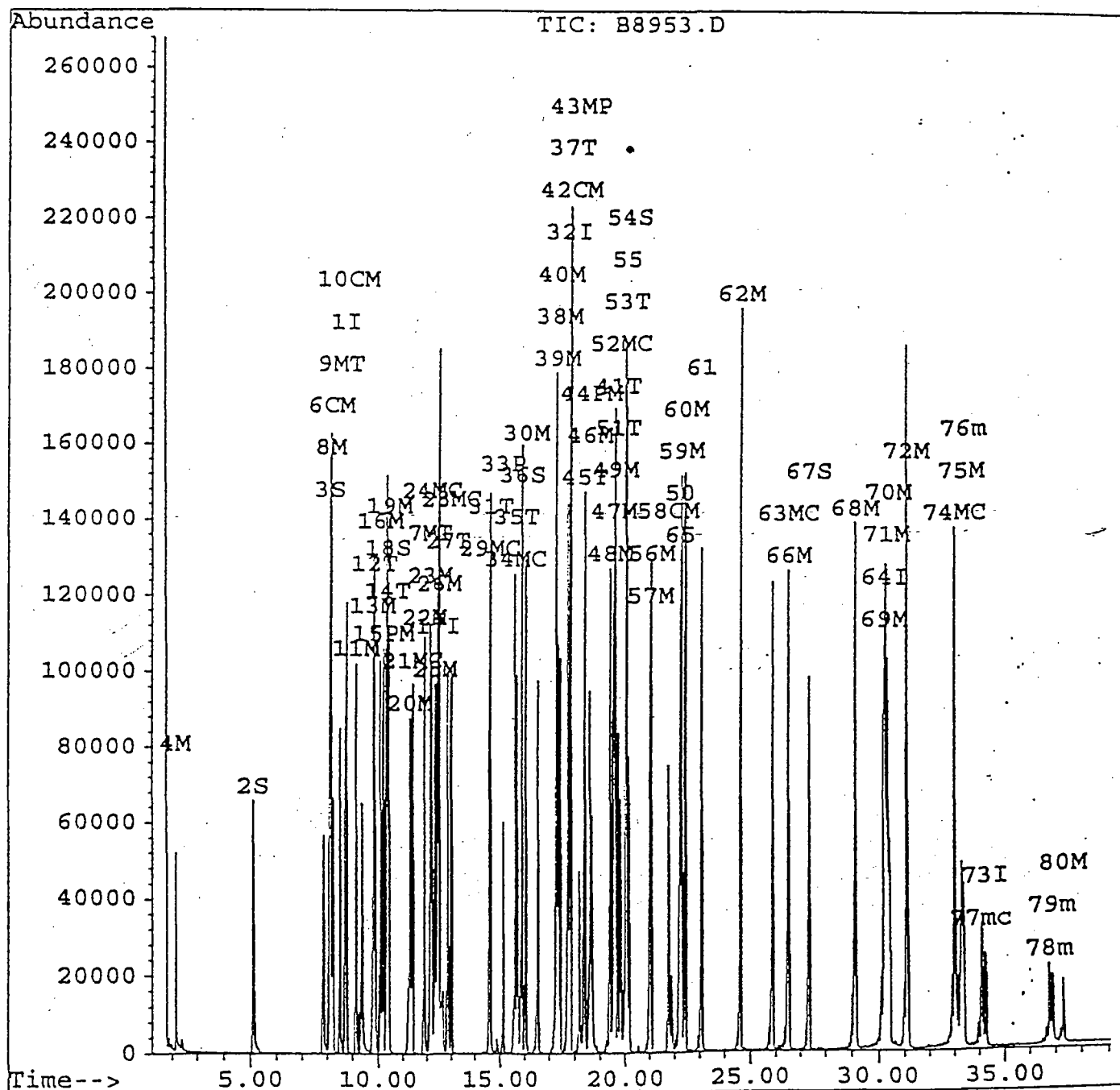
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.85	65	62561	57.42	ug/mL	88
38) Dimethylphthalate	17.35	163	114727	53.61	ug/mL#	12
39) Acenaphthylene	17.27	152	153827	51.77	ug/mL	98
40) 2,6-Dinitrotoluene	17.43	165	31425	55.50	ug/mL#	99
41) 3-Nitroaniline	19.74	138	30489	60.41	ug/mL#	88
42) Acenaphthene	17.83	153	86706	48.26	ug/mL	98
43) 2,4-Dinitrophenol	18.18	184	14425	67.78	ug/mL#	82
44) 4-Nitrophenol	18.66	109	18330	65.38	ug/mL#	60
45) Dibenzofuran	18.39	168	130635	53.03	ug/mL#	88
46) 2,4-Dinitrotoluene	18.60	165	38874	64.08	ug/mL#	1
47) Diethylphthalate	19.57	149	131625	55.73	ug/mL	94
48) Fluorene	19.41	166	100228	52.18	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.62	204	42840	49.93	ug/mL#	83
51) 4-Nitroaniline	19.74	138	30489	54.51	ug/mL	88
52) 4,6-Dinitro-2-methylphenol	19.82	198	19462	63.27	ug/mL	100
53) n-Nitrosodiphenylamine	20.05	169	69895	53.29	ug/mL	94
55) 1,2-Diphenylhydrazine (as	20.09	77	232246	47.27	ug/ml	100
56) 4-Bromophenyl-phenylether	21.07	248	23079	42.71	ug/mL#	91
57) Hexachlorobenzene	21.03	284	29529	48.61	ug/mL#	45
58) Pentachlorophenol	21.77	266	18120	51.19	ug/mL	99
59) Phenanthrene	22.29	178	139586	48.95	ug/mL	99
60) Anthracene	22.44	178	136009	49.65	ug/mLm	99
61) Carbazole	23.10	167	129337	49.15	ug/ml	97
62) Di-n-butylphthalate	24.64	149	255450	48.81	ug/mL#	97
63) Fluoranthene	26.53	202	138921	52.58	ug/mL#	56
65) Benzidine	22.23	184	20957	34.19	ug/mlm	100
66) Pyrene	26.53	202	138921	35.60	ug/mL#	69
68) Butylbenzylphthalate	29.15	149	109116	46.28	ug/mL#	9
69) Benzo[a]anthracene	30.27	228	132632	57.82	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.42	252	35599	72.64	ug/mL#	92
71) Chrysene	30.36	228	77428	43.39	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.14	149	158269	47.99	ug/mL#	37
74) Di-n-octylphthalate	33.04	149	217022	37.81	ug/mL#	100
75) Benzo[b]fluoranthene	33.31	252	88341	56.55	ug/mLm	86
76) Benzo[k]fluoranthene	33.39	252	43746	37.21	ug/mLm	86
77) Benzo[a]pyrene	34.09	252	39340	45.93	ug/mLm	86
78) Indeno[1,2,3-cd]pyrene	36.76	276	21346	56.57	ug/mL#	25
79) Dibenz[a,h]anthracene	36.88	278	20854	68.60	ug/mL#	76
80) Benzo[g,h,i]perylene	37.30	276	19464	60.33	ug/mLm	60

Quantitation Report

159

Data File : c:\hpchem\1\data2\b8953.d
 Acq On : 22 Oct 95 5:49 pm
 Sample : 50 STD..... Converted from RTE d Inst : ABNA
 Misc :
 Quant Time: Oct 25 9:46 1995
 Vial: 3
 Operator: SCOTTV
 BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration



Quantitation Report

160

Data File : c:\hpcchem\1\data2\b8954.d

Acq On : 22 Oct 95 6:42 pm

Sample : 80 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: Oct 25 9:48 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	27758	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	110409	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.74	164	64239	40.00	ug/mL	-0.34
50) Phenanthrene-d10	22.23	188	96790	40.00	ug/mL	-0.34
64) Chrysene-d12	30.31	240	65927	40.00	ug/mL	-0.38
73) Perylene-d12	34.25	264	27421	40.00	ug/mL	-0.45

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	5.11	112	45615	50.30	ug/mL	50.30%
3) Phenol-d5	8.11	99	73604	50.88	ug/mL	50.88%
18) Nitrobenzene-d5	10.41	82	74558	51.09	ug/mL	51.09%
36) 2-Fluorobiphenyl	15.90	172	95476	48.45	ug/mL	48.45%
54) 2,4,6-Tribromophenol	20.19	330	15745	60.91	ug/mL	60.91%
67) Terphenyl-d14	27.36	244	80989	38.23	ug/mL	38.23%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	2.14	74	43170	74.69	ug/mL	100
6) Phenol	8.15	94	107752	81.42	ug/mL	100
7) bis(2-Chloroethyl) ether	12.14	93	137545	88.16	ug/mL	93
8) 2-Chlorophenol	8.11	128	76031	80.94	ug/mL#	84
9) 1,3-Dichlorobenzene	8.50	146	78669	81.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.75	146	79665	80.76	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	77232	81.44	ug/mL	97
12) 2-Methylphenol	9.85	108	69148	80.08	ug/mLm	99
13) bis(2-chloroisopropyl) ethe	9.81	45	116703	96.34	ug/mL#	59
14) 4-Methylphenol	10.37	108	77308	80.07	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.24	70	82768	83.57	ug/mL	93
16) Hexachloroethane	10.08	117	50425	87.18	ug/mL#	78
19) Nitrobenzene	10.47	77	107228	80.13	ug/mL	91
20) Isophorone	11.31	82	234237	79.35	ug/mL	95
21) 2-Nitrophenol	11.39	139	55945	92.92	ug/mL#	92
22) 2,4-Dimethylphenol	11.89	107	87491	83.64	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.14	93	137545	85.38	ug/mL#	100
24) 2,4-Dichlorophenol	12.20	162	67435	86.32	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.34	180	69245	84.78	ug/mL	94
26) Naphthalene	12.49	128	219568	80.29	ug/mL	100
27) 4-Chloroaniline	12.88	127	108351	84.37	ug/mL	100
28) Hexachlorobutadiene	13.01	225	36309	87.14	ug/mL	100
29) 4-Chloro-3-methylphenol	14.59	107	85056	85.45	ug/mL#	77
30) 2-Chloronaphthalene	16.08	162	143223	89.13	ug/mL#	100
31) 2-Methylnaphthalene	14.63	142	192207	118.92	ug/mL	96
33) Hexachlorocyclopentadiene	15.15	237	41659	98.56	ug/mL	98
34) 2,4,6-Trichlorophenol	15.63	196	53315	75.09	ug/mL	96
35) 2,4,5-Trichlorophenol	15.71	196	47946	79.73	ug/mL	97

Quantitation Report

161

Data File : c:\hpcchem\1\data2\b8954.d

Vial: 4

Acq On : 22 Oct 95 6:42 pm

Operator: SCOTTV

Sample : 80 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 9:48 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.87	65	104963	99.96	ug/mL	87
38) Dimethylphthalate	17.37	163	175032	84.87	ug/mL#	12
39) Acenaphthylene	17.29	152	238659	83.33	ug/mL	97
40) 2,6-Dinitrotoluene	17.47	165	41143	75.39	ug/mL#	91
41) 3-Nitroaniline	19.76	138	45967	94.49	ug/mL	87
42) Acenaphthene	17.85	153	134868	77.88	ug/mL	99
43) 2,4-Dinitrophenol	18.20	184	26551	129.44	ug/mL#	84
44) 4-Nitrophenol	18.70	109	28923	107.04	ug/mL#	53
45) Dibenzofuran	18.39	168	196167	82.63	ug/mL	93
46) 2,4-Dinitrotoluene	18.62	165	65450	111.94	ug/mL#	1
47) Diethylphthalate	19.59	149	197611	86.81	ug/mL	95
48) Fluorene	19.43	166	144915	78.28	ug/mL	100
49) 4-Chlorophenyl-phenylether	19.63	204	64693	78.23	ug/mL#	85
51) 4-Nitroaniline	19.76	138	45967	84.07	ug/mL	87
52) 4,6-Dinitro-2-methylphenol	19.86	198	28218	93.85	ug/mL	100
53) n-Nitrosodiphenylamine	20.07	169	108144	84.35	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.11	77	356011	74.13	ug/ml	100
56) 4-Bromophenyl-phenylether	21.08	248	37114	70.27	ug/mL	95
57) Hexachlorobenzene	21.06	284	48488	81.66	ug/mL#	37
58) Pentachlorophenol	21.77	266	30727	88.81	ug/mL	99
59) Phenanthrene	22.31	178	211278	75.80	ug/mL	99
60) Anthracene	22.47	178	209890	78.38	ug/mLm	99
61) Carbazole	23.12	167	223505	86.89	ug/ml	97
62) Di-n-butylphthalate	24.64	149	381823	74.63	ug/mL	98
63) Fluoranthene	25.91	202	217602	84.25	ug/mL#	58
65) Benzidine	26.59	184	35718	63.11	ug/ml	100
66) Pyrene	26.53	202	214611	59.55	ug/mL#	71
68) Butylbenzylphthalate	29.15	149	161233	74.04	ug/mL#	11
69) Benzo[a]anthracene	30.27	228	191680	90.48	ug/mL	98
70) 3,3'-Dichlorobenzidine	30.41	252	54288	119.95	ug/mL#	91
71) Chrysene	30.37	228	117879	71.53	ug/mLm	98
72) bis(2-Ethylhexyl)phthalate	31.12	149	232983	76.50	ug/mL#	36
74) Di-n-octylphthalate	33.03	149	305687	56.63	ug/mL#	100
75) Benzo[b]fluoranthene	33.32	252	88515	60.24	ug/mL#	85
76) Benzo[k]fluoranthene	33.38	252	60541	54.76	ug/mLm	85
77) Benzo[a]pyrene	34.09	252	59358	73.68	ug/mLm	85
78) Indeno[1,2,3-cd]pyrene	36.77	276	34042	95.92	ug/mL#	27
79) Dibenz[a,h]anthracene	36.89	278	32174	112.54	ug/mL#	73
80) Benzo[g,h,i]perylene	37.31	276	31449	103.65	ug/mLm	61

Quantitation Report

Data File : c:\hpchem\1\data2\b8954.d

Acq On : 22 Oct 95 6:42 pm

Sample : 80 STD..... Converted from RTE d Inst : ABNA

Misc :

Quant Time: Oct 25 9:48 1995

Vial: 4

Operator: SCOTTV

BT Multiplr: 1.00

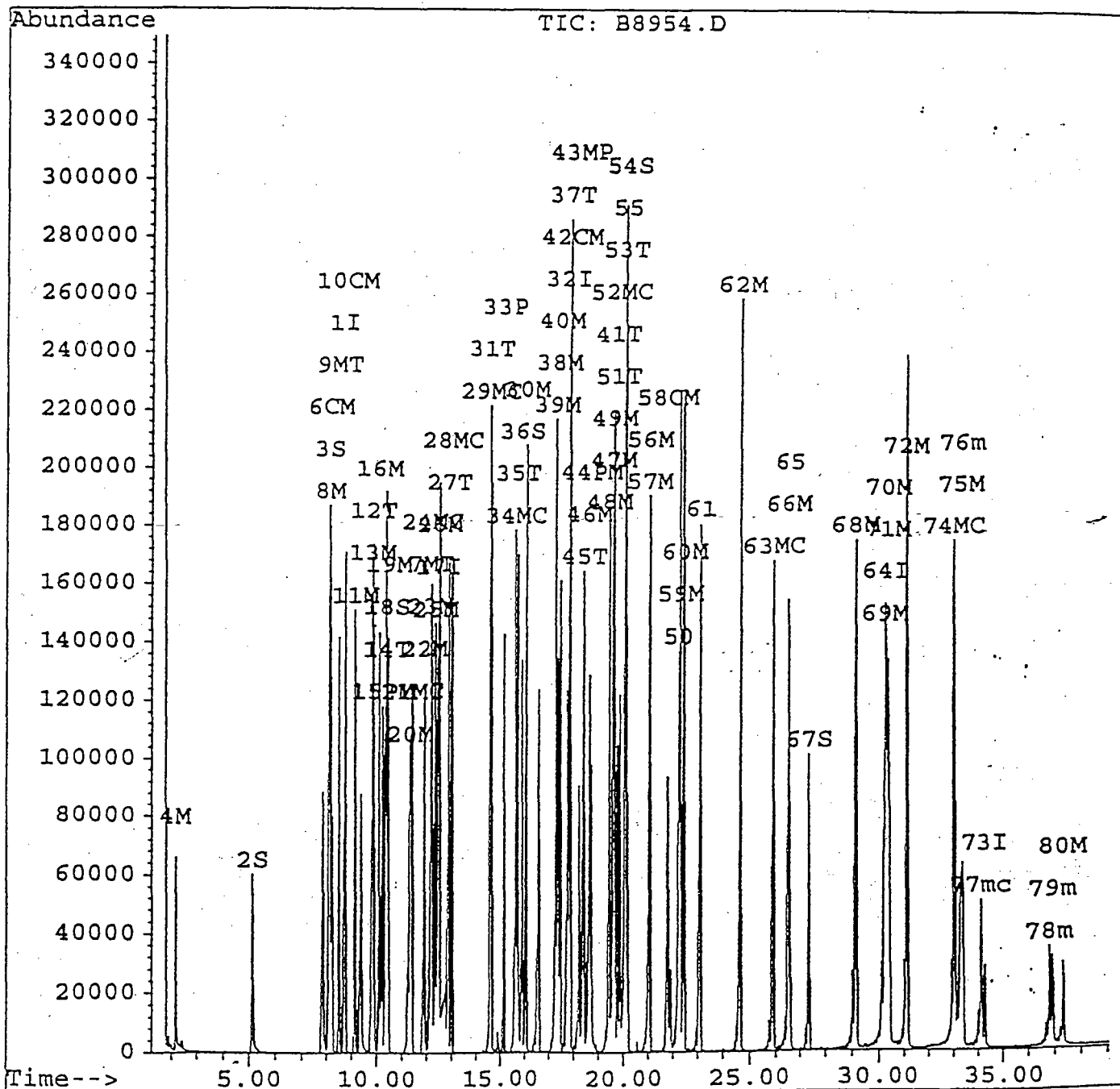
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

162



Quantitation Report

163

Data File : c:\hpcchem\1\data2\b8955.d
 Acq On : 22 Oct 95 7:33 pm
 Sample : 120 STD..... Converted from RTE d
 Misc :
 Quant Time: Oct 25 10:18 1995

Vial: 5
 Operator: SCOTTV
 Inst : ABNA
 BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.70	152	27461	40.00	ug/mL	-0.32
17) Naphthalene-d8	12.44	136	106422	40.00	ug/mL	-0.32
32) Acenaphthene-d10	17.75	164	62579	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.23	188	90364	40.00	ug/mL	-0.35
64) Chrysene-d12	30.31	240	57405	40.00	ug/mL	-0.39
73) Perylene-d12	34.25	264	23394	40.00	ug/mL	-0.45

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	5.12	112	43975	49.01	ug/mL	49.01%
3) Phenol-d5	8.14	99	72439	50.61	ug/mL	50.61%
18) Nitrobenzene-d5	10.42	82	72866	51.80	ug/mL	51.80%
36) 2-Fluorobiphenyl	15.91	172	97613	50.85	ug/mL	50.85%
54) 2,4,6-Tribromophenol	20.20	330	14666	60.77	ug/mL	60.77%
67) Terphenyl-d14	27.36	244	77377	41.94	ug/mL	41.94%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	2.15	74	77244	135.08	ug/mL	100
6) Phenol	8.18	94	153731	117.41	ug/mL	100
7) bis(2-Chloroethyl) ether	12.17	93	187081	121.20	ug/mL	88
8) 2-Chlorophenol	8.14	128	109258	117.57	ug/mL#	81
9) 1,3-Dichlorobenzene	8.51	146	111126	116.67	ug/mL	98
10) 1,4-Dichlorobenzene	8.76	146	110282	113.00	ug/mL	96
11) 1,2-Dichlorobenzene	9.14	146	107878	114.99	ug/mL	96
12) 2-Methylphenol	9.88	108	104312	122.10	ug/mLm	98
13) bis(2-chloroisopropyl) ethe	9.80	45	171386	143.01	ug/mL#	85
14) 4-Methylphenol	10.40	108	115007	120.40	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.28	70	123864	126.42	ug/mL	94
16) Hexachloroethane	10.09	117	69400	121.28	ug/mL#	76
19) Nitrobenzene	10.49	77	147477	114.34	ug/mL	99
20) Isophorone	11.36	82	327700	115.17	ug/mLm	95
21) 2-Nitrophenol	11.42	139	77152	132.95	ug/mL#	94
22) 2,4-Dimethylphenol	11.92	107	127738	126.70	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.17	93	187081	120.48	ug/mL#	100
24) 2,4-Dichlorophenol	12.23	162	94341	125.29	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.35	180	96836	123.00	ug/mL	94
26) Naphthalene	12.52	128	326255	123.77	ug/mL	98
27) 4-Chloroaniline	12.89	127	147346	119.03	ug/mL	100
28) Hexachlorobutadiene	13.02	225	51692	128.71	ug/mL	99
29) 4-Chloro-3-methylphenol	14.60	107	123083	128.28	ug/mL#	60
30) 2-Chloronaphthalene	16.09	162	197694	127.64	ug/mL#	100
31) 2-Methylnaphthalene	14.64	142	274545	176.23	ug/mL	96
33) Hexachlorocyclopentadiene	15.16	237	60194	146.19	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.64	196	90332	130.60	ug/mL	97
35) 2,4,5-Trichlorophenol	15.72	196	54995	93.88	ug/mL	97

Quantitation Report

164

Data File : c:\hpchem\1\data2\b8955.d

Acq On : 22 Oct 95 7:33 pm

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 10:18 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.90	65	138140	135.05	ug/mL	88
38) Dimethylphthalate	17.40	163	242759	120.83	ug/mL#	12
39) Acenaphthylene	17.30	152	342901	122.91	ug/mL	97
40) 2,6-Dinitrotoluene	17.48	165	48493	91.22	ug/mL#	96
41) 3-Nitroaniline	19.78	138	59286	125.11	ug/mL	88
42) Acenaphthene	17.86	153	190884	113.15	ug/mL	98
43) 2,4-Dinitrophenol	18.23	184	40770	204.04	ug/mL#	89
44) 4-Nitrophenol	18.71	109	42019	159.64	ug/mL#	54
45) Dibenzofuran	18.42	168	296801	128.34	ug/mL	89
46) 2,4-Dinitrotoluene	18.66	165	94345	165.64	ug/mL#	1
47) Diethylphthalate	19.62	149	290137	130.83	ug/mL#	92
48) Fluorene	19.45	166	224635	124.55	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.64	204	96095	119.28	ug/mL#	87
51) 4-Nitroaniline	19.78	138	59286	116.15	ug/mL	88
52) 4,6-Dinitro-2-methylphenol	19.89	198	39986	142.45	ug/mL	100
53) n-Nitrosodiphenylamine	20.09	169	141300	118.05	ug/mL	94
55) 1,2-Diphenylhydrazine (as	20.12	77	478381	106.69	ug/ml	100
56) 4-Bromophenyl-phenylether	21.09	248	51369	104.17	ug/mL#	91
57) Hexachlorobenzene	21.07	284	65026	117.30	ug/mL#	42
58) Pentachlorophenol	21.78	266	45899	142.10	ug/mL	100
59) Phenanthrene	22.33	178	298581	114.74	ug/mL	99
60) Anthracene	22.48	178	287179	114.86	ug/mLm	99
61) Carbazole	23.12	167	298791	124.42	ug/ml	96
62) Di-n-butylphthalate	24.66	149	555739	116.35	ug/mL#	97
63) Fluoranthene	25.91	202	302618	125.50	ug/mL#	71
65) Benzidine	26.59	184	49499	100.44	ug/ml	100
66) Pyrene	26.55	202	291218	92.80	ug/mL#	69
68) Butylbenzylphthalate	29.15	149	219105	115.56	ug/mL#	13
69) Benzo[a]anthracene	30.29	228	262300	142.20	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.43	252	65850	167.10	ug/mL#	92
71) Chrysene	30.35	228	152357	106.18	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.14	149	325654	122.80	ug/mL#	38
74) Di-n-octylphthalate	33.03	149	406461	88.26	ug/mL#	100
75) Benzo[b]fluoranthene	33.30	252	147288	117.50	ug/mL#	84
76) Benzo[k]fluoranthene	33.38	252	78044	82.74	ug/mLm	84
77) Benzo[a]pyrene	34.11	252	74349	108.18	ug/mLm	83
78) Indeno[1,2,3-cd]pyrene	36.77	276	44660	147.50	ug/mL#	47
79) Dibenz[a,h]anthracene	36.89	278	42251	173.22	ug/mL#	78
80) Benzo[g,h,i]perylene	37.31	276	40459	156.30	ug/mLm	71

Quantitation Report

165

Data File : c:\hpchem\1\data2\b8955.d

Acq On : 22 Oct 95 7:33 pm

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

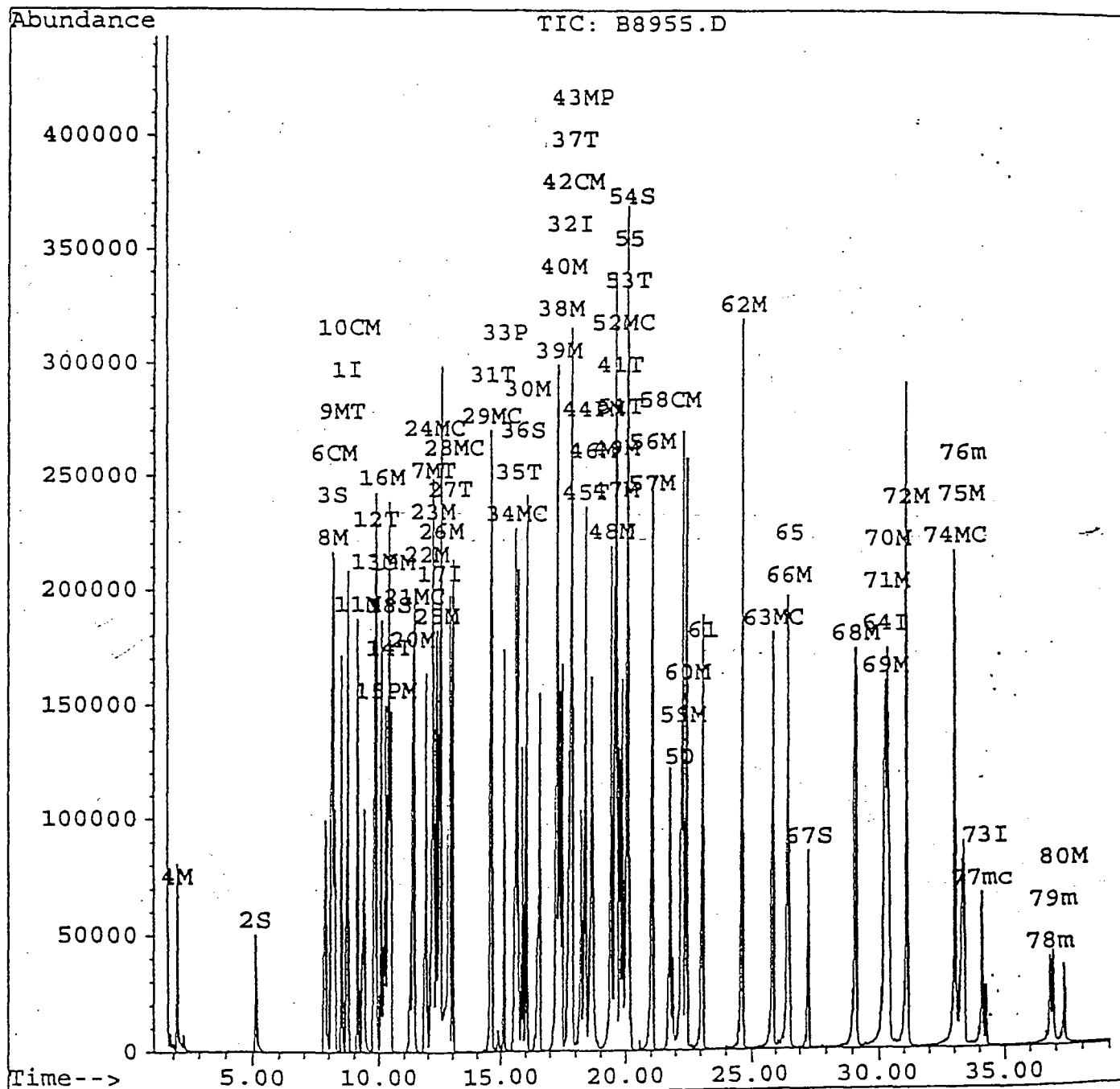
Quant Time: Oct 25 10:13 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



Quantitation Report

166

Data File : c:\hpcchem\1\data2\b8956.d

Acq On : 22 Oct 95 8:24 pm

Sample : 160 STD....

Misc :

Quant Time: Oct 25 10:17 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.72	152	27386	40.00	ug/mL	-0.31
17) Naphthalene-d8	12.46	136	107758	40.00	ug/mL	-0.30
32) Acenaphthene-d10	17.76	164	64001	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.24	188	95140	40.00	ug/mL	-0.33
64) Chrysene-d12	30.32	240	58225	40.00	ug/mL	-0.37
73) Perylene-d12	34.24	264	21063	40.00	ug/mL	-0.45

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.13	112	44445	49.67	ug/mL	49.67%
3) Phenol-d5	8.16	99	75083	52.60	ug/mL	52.60%
18) Nitrobenzene-d5	10.43	82	72264	50.74	ug/mL	50.74%
36) 2-Fluorobiphenyl	15.91	172	99060	50.46	ug/mL	50.46%
54) 2,4,6-Tribromophenol	20.22	330	16295	64.13	ug/mL	64.13%
67) Terphenyl-d14	27.35	244	82703	44.20	ug/mL	44.20%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.17	74	103908	182.21	ug/mL	100
6) Phenol	8.21	94	225479	172.68	ug/mL	100
7) bis(2-Chloroethyl) ether	12.19	93	256181	166.42	ug/mL#	85
8) 2-Chlorophenol	8.16	128	146818	158.42	ug/mL#	83
9) 1,3-Dichlorobenzene	8.52	146	146004	153.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.77	146	146889	150.93	ug/mL	96
11) 1,2-Dichlorobenzene	9.16	146	145353	155.36	ug/mL	97
12) 2-Methylphenol	9.89	108	140431	164.83	ug/mLm	98
13) bis(2-chloroisopropyl) ethe	9.91	45	341496	285.74	ug/mL#	1
14) 4-Methylphenol	10.43	108	147459	154.79	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.34	70	179120	183.32	ug/mL#	95
16) Hexachloroethane	10.10	117	94889	166.27	ug/mL#	68
19) Nitrobenzene	10.51	77	286692	219.52	ug/mL	90
20) Isophorone	11.42	82	441137	153.12	ug/mLm	92
21) 2-Nitrophenol	11.44	139	100411	170.88	ug/mL#	93
22) 2,4-Dimethylphenol	11.96	107	175209	171.62	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.19	93	256181	162.94	ug/mL#	100
24) 2,4-Dichlorophenol	12.27	162	129942	170.43	ug/mL#	91
25) 1,2,4-Trichlorobenzene	12.36	180	128880	161.68	ug/mL	94
26) Naphthalene	12.54	128	430569	161.32	ug/mL	98
27) 4-Chloroaniline	12.90	127	204994	163.55	ug/mL	100
28) Hexachlorobutadiene	13.02	225	66955	164.65	ug/mL	98
29) 4-Chloro-3-methylphenol	14.64	107	173471	178.55	ug/mL#	24
30) 2-Chloronaphthalene	16.10	162	277170	176.73	ug/mL#	100
31) 2-Methylnaphthalene	14.64	142	354781	224.91	ug/mL#	68
33) Hexachlorocyclopentadiene	15.16	237	78011	185.25	ug/mL	98
34) 2,4,6-Trichlorophenol	15.66	196	125669	177.65	ug/mL	96
35) 2,4,5-Trichlorophenol	15.74	196	69360	115.77	ug/mL	95

Quantitation Report

167

Data File : c:\hpcchem\1\data2\b8956.d

Acq On : 22 Oct 95 8:24 pm

Sample : 160 STD....

Misc :

Quant Time: Oct 25 10:17 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.94	65	215417	205.92	ug/mL	88
38) Dimethylphthalate	17.44	163	341294	166.10	ug/mL#	12
39) Acenaphthylene	17.32	152	455035	159.47	ug/mL	97
40) 2,6-Dinitrotoluene	17.51	165	62227	114.45	ug/mL#	92
41) 3-Nitroaniline	19.87	138	76342	157.52	ug/mL	90
42) Acenaphthene	17.88	153	252605	146.41	ug/mL	98
43) 2,4-Dinitrophenol	18.29	184	61925	303.03	ug/mL#	73
44) 4-Nitrophenol	18.77	109	62124	230.78	ug/mL#	58
45) Dibenzofuran	18.44	168	392936	166.13	ug/mL#	88
46) 2,4-Dinitrotoluene	18.71	165	89489	153.63	ug/mL#	1
47) Diethylphthalate	19.66	149	374865	165.28	ug/mL	94
48) Fluorene	19.46	166	301296	163.35	ug/mL	99
49) 4-Chlorophenyl-phenylether	19.68	204	121982	148.05	ug/mL#	70
51) 4-Nitroaniline	19.87	138	76342	142.05	ug/mL	90
52) 4,6-Dinitro-2-methylphenol	19.93	198	54285	183.68	ug/mL	100
53) n-Nitrosodiphenylamine	20.10	169	191063	151.61	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.14	77	657253	139.22	ug/ml	100
56) 4-Bromophenyl-phenylether	21.10	248	64647	124.52	ug/mL#	84
57) Hexachlorobenzene	21.09	284	89180	152.80	ug/mL#	34
58) Pentachlorophenol	21.82	266	66850	196.57	ug/mL	98
59) Phenanthrene	22.34	178	400329	146.12	ug/mL	99
60) Anthracene	22.50	178	391392	148.69	ug/mLm	99
61) Carbazole	23.13	167	408325	161.50	ug/ml	95
62) Di-n-butylphthalate	24.65	149	736070	146.37	ug/mL#	98
63) Fluoranthene	26.52	202	405072	159.56	ug/mL#	56
65) Benzidine	26.60	184	67999	136.03	ug/ml	100
66) Pyrene	26.52	202	404840	127.19	ug/mL#	69
68) Butylbenzylphthalate	29.15	149	308513	160.42	ug/mL#	9
69) Benzo[a]anthracene	30.30	228	338083	180.70	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.44	252	84475	211.34	ug/mL#	93
71) Chrysene	30.38	228	179795	123.54	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.13	149	408318	151.80	ug/mL#	37
74) Di-n-octylphthalate	33.02	149	458843	110.66	ug/mL#	100
75) Benzo[b]fluoranthene	33.31	252	156175	138.38	ug/mL#	83
76) Benzo[k]fluoranthene	33.39	252	91964	108.29	ug/mLm	83
77) Benzo[a]pyrene	34.10	252	88750	143.42	ug/mLm	83
78) Indeno[1,2,3-cd]pyrene	36.78	276	49957	183.25	ug/mL#	44
79) Dibenz[a,h]anthracene	36.90	278	50575	230.29	ug/mL#	79
80) Benzo[g,h,i]perylene	37.32	276	46503	199.53	ug/mLm	69

Quantitation Report

168

Data File : c:\hpchem\1\data2\b8956.d

Acq On : 22 Oct 95 8:24 pm

Sample : 160 STD....

Misc :

Quant Time: Oct 25 10:17 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

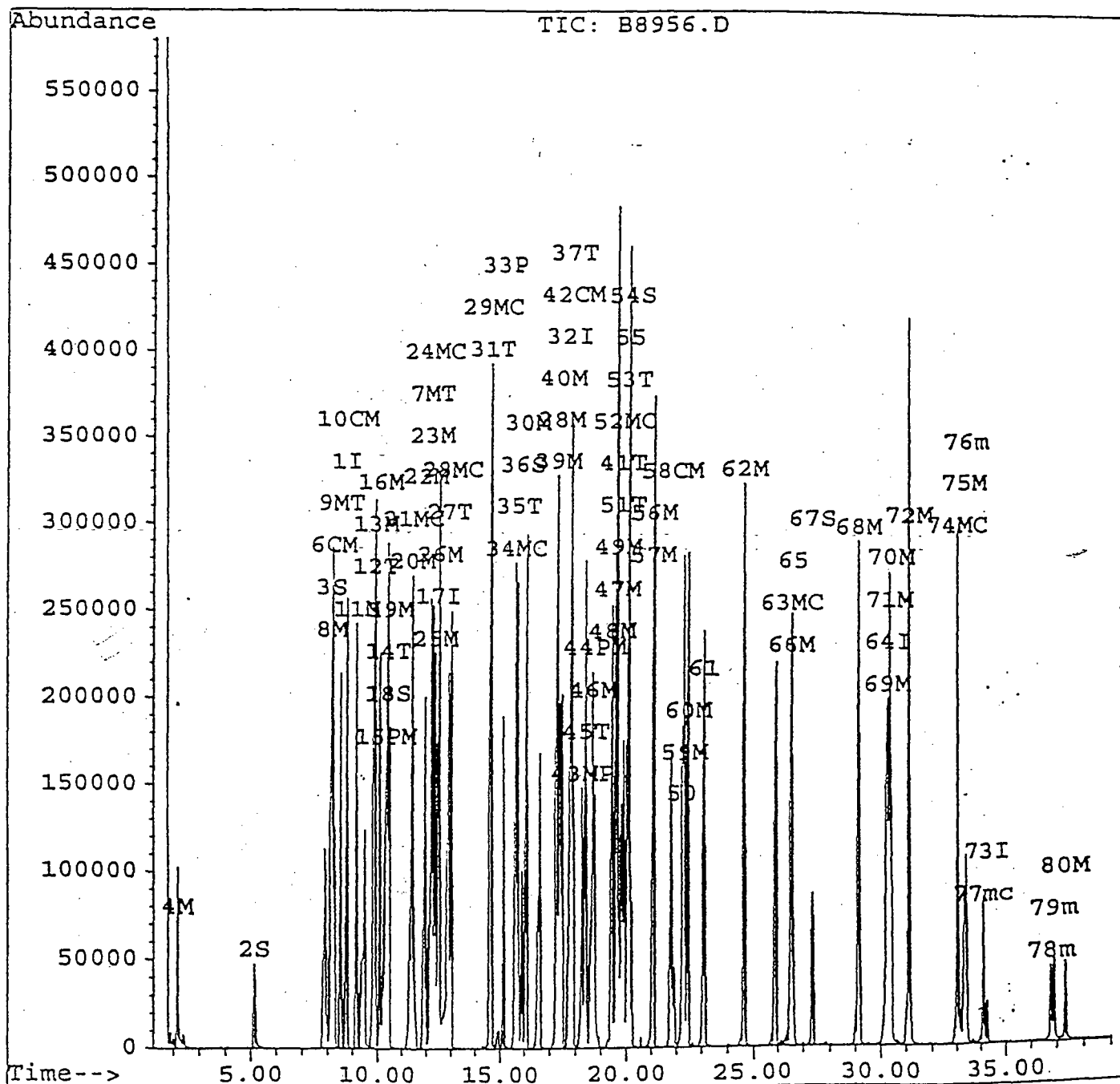
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACL.P.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

169

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B9151.D DFTPP Injection Date: 11/20/95

Instrument ID: ABNA DFTPP Injection Time: 1031

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	49.9
68	Less than 2.0% of mass 69	0.4 (0.6)1
69	Mass 69 relative abundance	69.6
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	25.0 - 75.0% of mass 198	40.6
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	17.7
365	Greater than 0.75% of mass 198	1.7
441	Present, but less than mass 443	5.9
442	40.0 - 110.0% of mass 198	40.0
443	15.0 - 24.0% of mass 442	7.5 (18.9)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	SSTD020	20 STD	B9152.D	11/20/95	1229
02	SSTD050	50 STD	B9153.D	11/20/95	1322
03	SSTD080	80 STD	B9154.D	11/20/95	1414
04	SSTD120	120 STD	B9155.D	11/20/95	1511
05	SSTD160	160 STD	B9156.D	11/20/95	1604
06	SBLK01	BLANK1	B9159.D	11/20/95	1906
07	9552294B	9552294B	B9160.D	11/20/95	1959
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

170

Data File : C:\HPCHEM\1\DATA2\B9151.D

Vial: 1

Acq On : 20 Nov 95 10:31 am

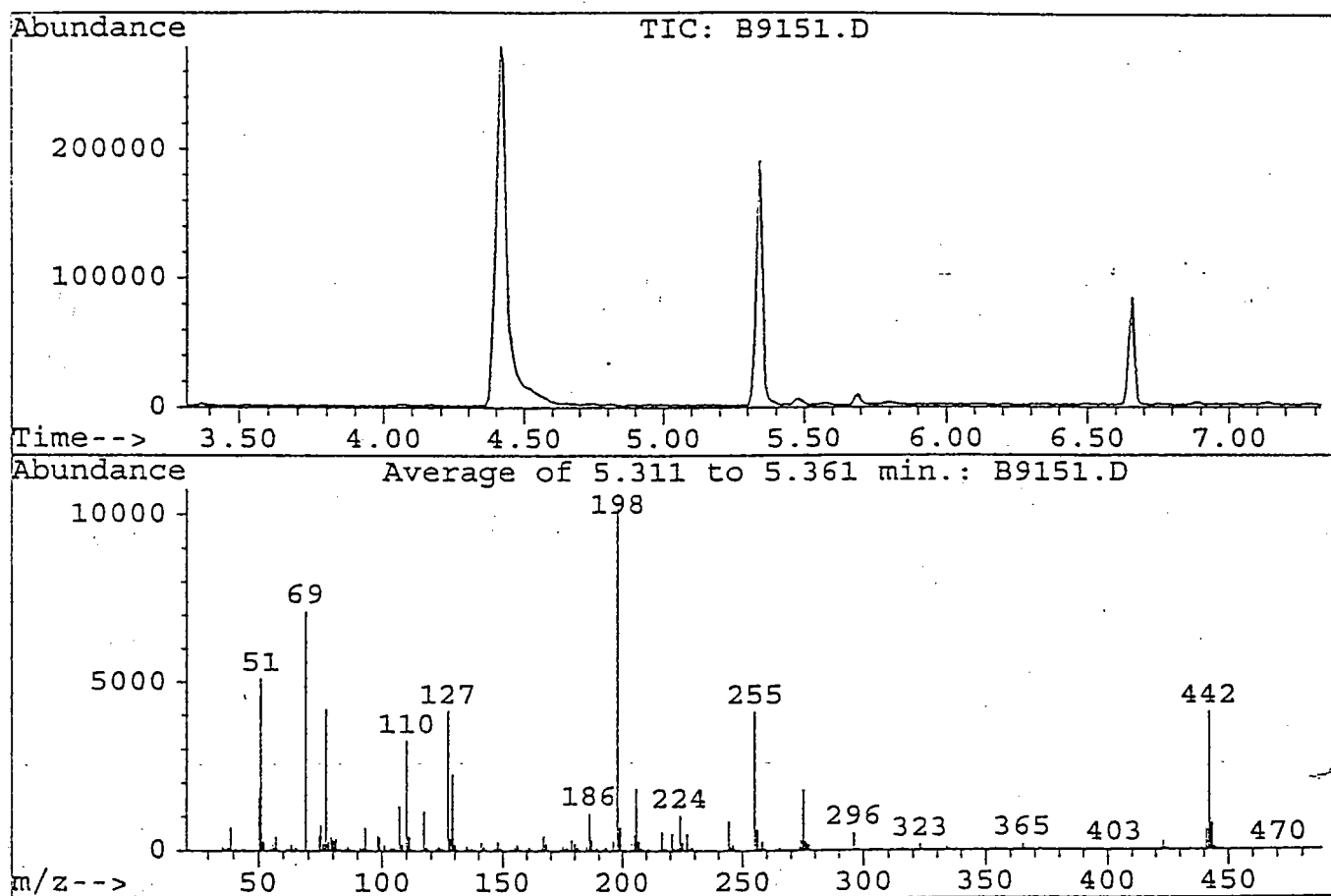
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 232

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.9	5113	PASS
68	69	0	2	0.6	43	PASS
69	198	0	100	69.6	7132	PASS
70	69	0	2	0.5	36	PASS
127	198	40	60	40.6	4156	PASS
197	198	0	1	0.3	34	PASS
198	198	100	100	100.0	10248	PASS
199	198	5	9	6.9	707	PASS
275	198	10	30	17.7	1811	PASS
365	198	1	100	1.7	178	PASS
441	443	0	100	78.4	606	PASS
442	198	40	100	40.0	4100	PASS
443	442	17	23	18.9	773	PASS

Average of 5.311 to 5.361 min.: B9151.D

171

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	120	43.05	78	50.00	1553	56.85	6
36.90	32	44.00	61	51.05	5113	57.05	408
37.25	8	44.80	5	52.00	268	57.95	19
37.85	37	45.05	3	52.25	3	58.45	3
38.10	117	47.05	5	52.65	3	58.95	9
39.05	668	47.60	9	53.05	19	59.55	6
40.00	7	47.85	3	53.45	6	59.80	19
40.30	15	48.15	8	53.95	4	60.05	3
40.75	20	48.45	7	55.00	82	60.85	7
41.05	63	49.05	67	55.35	8	61.05	55
41.95	6	49.85	15	55.95	186	61.65	17

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
61.95	91	68.05	43	75.05	781	82.65	4
62.35	9	68.95	7132	76.00	232	82.95	83
63.05	195	70.05	36	77.05	4211	83.55	6
63.25	2	70.85	7	78.00	302	83.85	8
64.10	28	71.00	23	79.00	410	84.10	10
64.45	5	71.55	12	79.85	5	85.05	91
65.05	99	72.05	2	80.05	305	85.20	27
65.75	6	73.00	49	80.45	3	86.00	124
66.30	15	73.45	3	80.65	3	87.05	37
67.10	27	73.85	7	81.00	365	87.90	22
67.65	4	74.00	456	82.10	83	88.85	3

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.05	106	97.10	18	104.00	123	112.00	64
92.00	101	98.00	455	105.00	102	112.85	8
93.05	696	98.45	8	105.20	9	113.00	14
94.00	43	99.00	388	105.95	18	113.35	4
94.65	3	99.55	6	106.15	5	113.55	5
95.05	38	99.85	6	107.05	1331	114.75	3
95.55	7	100.10	30	108.05	189	115.15	14
95.85	21	101.00	167	108.45	7	115.35	2
95.95	5	102.00	13	108.75	3	116.05	80
96.10	19	103.00	68	110.05	3266	117.05	1191
96.85	18	103.65	5	111.05	423	117.65	4

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.00	90	125.00	57	133.50	5	139.60	3
119.00	18	125.30	11	133.90	75	139.90	8
120.00	20	127.05	4156	135.00	150	140.10	23
120.95	12	128.05	357	136.05	65	140.30	10
121.30	13	129.05	2268	136.60	5	141.00	266
122.00	118	129.75	6	137.00	76	142.00	105
122.65	5	130.00	167	137.60	8	142.80	16
123.05	135	131.00	32	137.90	5	143.00	30
123.35	5	131.90	26	138.00	7	143.60	3
123.75	3	132.85	18	138.15	12	143.80	6
124.00	87	133.30	4	138.95	19	143.90	14

Average of 5.311 to 5.361 min.: B9151.D

172

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.10	7	150.20	5	156.70	6	164.00	13
144.85	6	151.00	10	157.05	40	164.20	4
145.15	10	151.25	30	157.95	38	164.80	6
146.05	50	151.70	5	159.00	35	165.00	91
146.95	113	151.90	12	160.00	80	166.00	68
147.70	6	152.50	7	161.00	105	166.90	9
148.00	265	153.00	51	161.65	11	167.05	425
148.80	16	154.00	78	162.05	39	167.40	5
149.05	70	154.80	5	162.90	2	167.60	4
149.70	5	155.05	124	163.20	8	168.00	208
150.00	19	156.10	186	163.60	4	169.05	31

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.30	3	173.05	39	182.05	18	191.10	15
169.70	7	174.00	102	184.00	4	192.00	92
169.95	21	174.80	7	184.15	20	192.30	4
170.10	2	175.10	145	184.80	2	192.85	15
170.30	7	176.05	74	185.05	149	193.05	105
170.70	4	177.00	98	186.10	1117	194.10	7
171.00	11	177.95	26	187.10	307	194.50	3
171.20	3	178.95	317	188.15	30	194.80	3
171.60	3	179.70	3	189.05	98	195.10	13
171.90	11	180.05	218	190.05	13	196.05	282
172.80	9	181.05	102	190.40	3	196.75	34

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
198.00	10248	204.05	270	210.70	2	217.75	7
199.00	707	204.30	4	211.15	82	218.00	73
200.00	49	205.10	475	211.60	17	218.75	6
200.60	4	206.10	1870	212.15	13	218.95	3
200.80	5	207.10	276	212.95	20	219.55	2
201.15	16	207.50	2	214.50	3	220.25	4
201.55	45	208.10	80	215.05	23	221.05	517
202.10	5	209.05	32	215.90	9	221.80	51
202.30	5	209.80	13	216.10	46	223.05	108
203.05	55	210.15	21	216.85	13	224.05	1053
203.80	4	210.50	28	216.95	548	225.05	252

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.05	18	233.05	2	240.25	3	252.55	8
226.75	7	234.00	29	241.00	25	253.10	10
227.05	507	234.85	13	242.05	35	253.45	5
228.00	79	235.05	19	243.05	60	253.65	5
229.00	104	235.35	5	244.05	857	254.00	23
229.95	10	235.95	44	245.10	112	255.05	4135
230.25	7	236.65	4	246.05	167	256.05	597
231.05	42	237.00	30	247.00	22	256.85	5
232.05	5	237.85	4	247.75	3	257.10	49
232.55	4	239.05	26	249.00	24	258.05	259
232.80	10	239.95	5	252.25	6	259.00	50

Average of 5.311 to 5.361 min.: B9151.D

173

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.90	8	265.90	24	275.05	1811	285.55	3
260.95	5	266.90	11	276.00	239	289.15	4
261.15	4	267.65	2	277.10	168	290.15	4
261.65	2	268.45	2	277.65	3	291.15	4
262.75	3	270.15	4	277.95	22	291.45	2
263.85	13	270.85	3	279.35	5	292.05	2
264.15	4	271.20	9	283.05	19	293.00	32
264.65	4	271.55	2	283.35	3	294.95	7
265.05	95	272.05	6	283.65	3	295.25	4
265.45	6	273.05	121	284.10	11	296.05	513
265.65	6	274.05	328	285.15	26	297.00	69

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
297.65	5	303.50	3	314.05	27	323.10	165
297.95	4	304.10	6	315.05	48	323.80	2
298.25	4	304.40	7	315.30	5	324.10	19
298.75	2	304.70	3	316.05	32	324.90	3
299.75	3	305.60	2	316.70	2	325.10	3
300.65	3	307.85	6	317.00	2	326.30	3
301.60	7	308.10	4	318.10	2	327.10	30
301.85	3	310.10	6	320.60	3	328.00	6
302.05	3	311.90	3	321.00	3	331.40	3
302.55	7	312.20	2	321.70	3	332.00	18
303.10	54	312.95	6	322.10	6	333.05	13

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.30	3	346.10	40	355.90	2	370.90	3
334.05	93	346.60	2	356.55	7	371.30	6
334.50	3	347.90	3	356.80	3	372.15	82
335.05	22	349.40	3	360.50	3	373.10	30
335.90	6	350.70	4	362.80	4	373.65	6
336.90	3	351.10	3	365.05	178	375.20	2
337.50	3	352.00	13	366.10	16	376.20	4
340.30	2	352.15	36	367.70	3	376.80	3
341.20	5	353.10	35	369.60	2	379.10	3
341.50	3	353.60	4	370.10	3	380.40	2
342.30	4	354.05	51	370.50	2	381.30	2

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
382.50	2	390.95	9	404.15	4	419.05	4
383.20	10	391.25	3	404.50	5	420.45	3
383.50	3	391.95	3	407.35	2	421.10	37
384.00	10	395.65	2	408.45	2	421.45	3
384.80	6	396.95	2	412.85	5	421.75	4
385.10	3	399.15	4	413.25	2	422.00	30
386.00	2	401.05	2	414.35	2	423.10	239
389.25	3	401.95	26	415.05	3	424.10	50
389.75	5	402.80	14	416.05	2	430.05	2
390.10	9	403.10	38	417.55	3	434.15	4
390.35	3	403.75	3	417.85	3	436.55	2

Average of 5.311 to 5.361 min.: B9151.D

174

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
437.75	2	452.55	3	472.55	4		
440.15	5	457.85	3	473.05	4		
441.05	606	459.95	3				
442.05	4100	460.15	3				
443.10	773	461.15	2				
444.10	85	463.15	3				
444.95	4	465.05	2				
447.35	3	468.85	2				
450.75	9	470.15	3				
451.55	5	470.55	5				
452.05	2	471.35	2				

Quantitation Report

175

Data File : C:\HPCHEM\1\DATA2\B9151.D

Acq On : 20 Nov 95 10:31 am

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

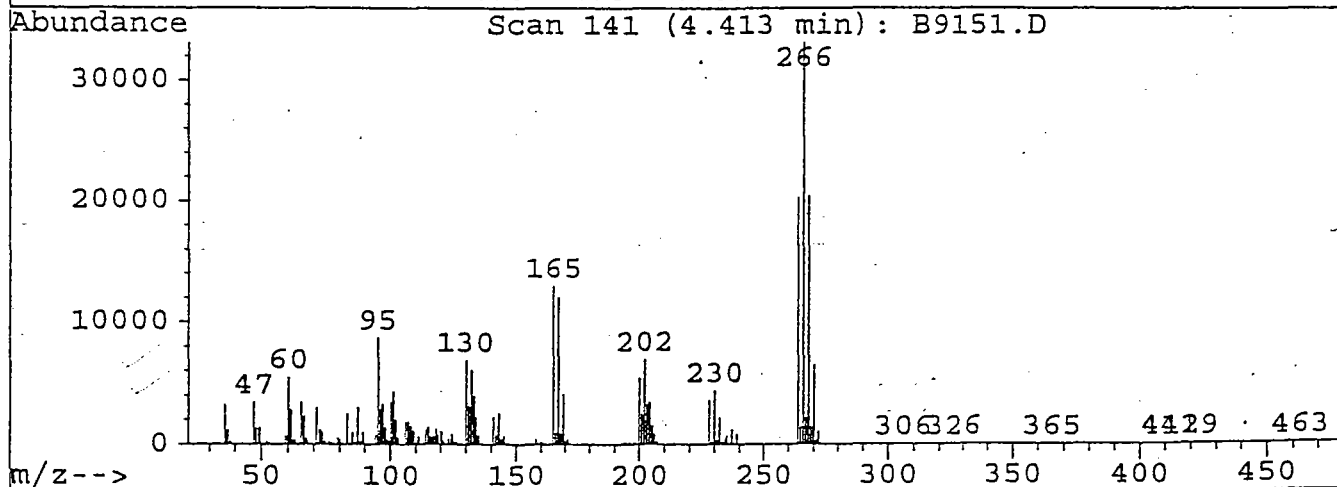
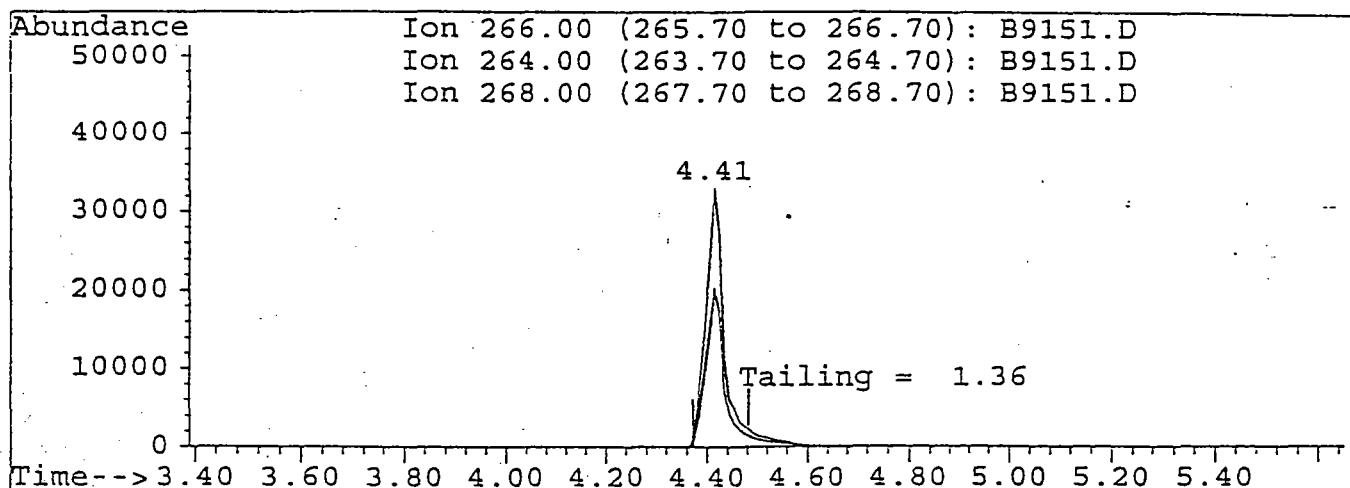
Quant Time: Nov 20 10:49 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



TIC: B9151.D

(1) Pentachlorophenol (CM)

4.41min 222.79ug/mL

response 73587

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	61.17
268.00	64.70	61.60
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9151.D

Acq On : 20 Nov 95 10:31 am

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

Quant Time: Nov 20 10:49 1995

Vial: 1 **176**

Operator: SCOTTV

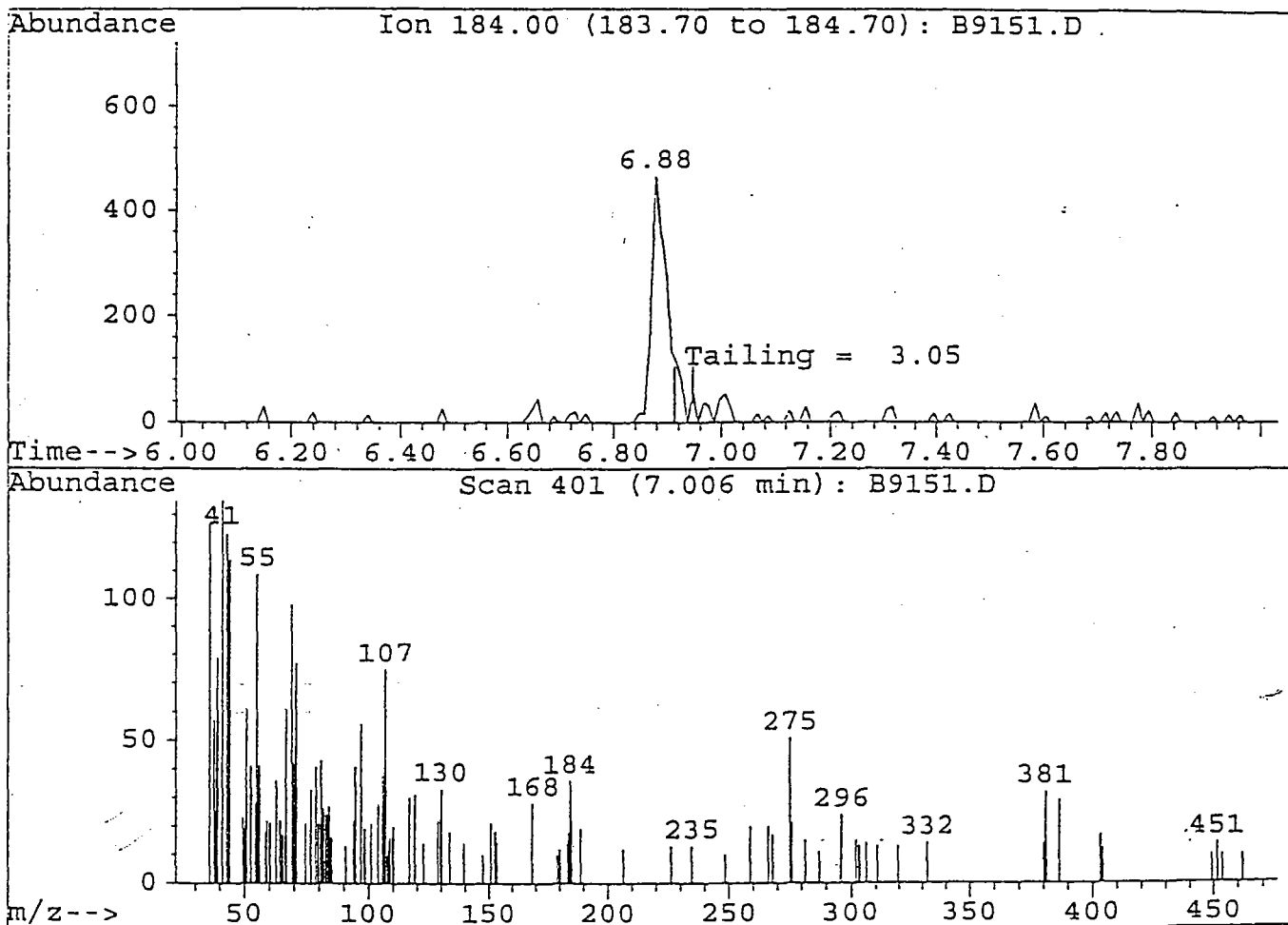
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



TIC: B9151.D

(2) Benzidine

7.01min 0.25ug/ml

response 76

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

177

Method : C:\HPCHEM\1\METHODS\BNACL.P.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 22 12:12:16 1995
 Response via : Initial Calibration

Calibration Files

160 =B9156.D 120 =B9155.D 80 =B9154.D
 50 =B9153.D 20 =B9152.D

	Compound	160	120	80	50	20	Avg	%RSD
1) I	1,4-Dichlorobenzene-d	-----ISTD-----						
2) S	2-Fluorophenol	1.149	1.168	1.181	1.140	1.056	1.139	4.30
3) S	Phenol-d5	1.977	1.978	1.952	1.867	1.707	1.896	6.06
4) M	N-nitrosodimethylamin	0.809	0.955	0.814	0.835		0.853	8.06
5)	Pyridine		1.153		1.244	0.907	1.101	15.86
6) CM	Phenol	1.570	1.774	1.746	1.573	1.582	1.649	6.18
7) MT	bis(2-Chloroethyl)eth	2.083	2.141	2.231	2.154	2.174	2.157	2.48
8) M	2-Chlorophenol	1.311	1.315	1.366	1.270	1.248	1.302	3.52
9) MT	1,3-Dichlorobenzene	1.279	1.317	1.423	1.382	1.364	1.353	4.15
10) CM	1,4-Dichlorobenzene	1.299	1.335	1.437	1.417	1.358	1.369	4.17
11) M	1,2-Dichlorobenzene	1.265	1.367	1.444	1.392	1.326	1.359	4.98
12) T	2-Methylphenol	1.228	1.263	1.204	1.186	1.210	1.218	2.39
13) M	bis(2-chloroisopropyl	3.004	2.147	2.112	2.072	1.892	2.246	19.38
14) T	4-Methylphenol	1.293	1.364	1.273	1.273	1.330	1.307	3.03
15) PM	N-Nitroso-Di-n-propyl	1.485	1.449	1.447	1.345	1.312	1.408	5.32
16) M	Hexachloroethane	0.799	0.838	0.878	0.841	0.785	0.828	4.46
17) I	Naphthalene-d8	-----ISTD-----						
18) S	Nitrobenzene-d5	0.492	0.503	0.501	0.450	0.444	0.478	6.05
19) M	Nitrobenzene	0.579	0.567	0.603	0.547	0.500	0.559	6.90
20) M	Isophorone	0.672	0.656	0.913	0.854	0.757	0.770	14.58
21) MC	2-Nitrophenol	0.218	0.224	0.231	0.208	0.196	0.215	6.44
22) M	2,4-Dimethylphenol	0.401	0.402	0.405	0.360	0.332	0.380	8.62
23) M	bis(2-Chloroethoxy)me	0.500	0.509	0.542	0.511	0.521	0.517	3.05
24) MC	2,4-Dichlorophenol	0.265	0.270	0.290	0.274	0.286	0.277	3.84
25) M	1,2,4-Trichlorobenzen	0.288	0.303	0.328	0.316	0.329	0.313	5.53
26) M	Naphthalene	0.932	0.984	0.960	0.959	0.955	0.958	1.93
27) T	4-Chloroaniline	0.440	0.452	0.466	0.434	0.438	0.446	2.93
28) MC	Hexachlorobutadiene	0.168	0.175	0.201	0.191	0.202	0.188	8.12
29) MC	4-Chloro-3-methylphen	0.392	0.421	0.416	0.373	0.384	0.397	5.19
30) M	2-Chloronaphthalene	0.634	0.707	0.749	0.665	0.708	0.693	6.38
31) T	2-Methylnaphthalene	0.832	0.905	0.922	0.853	0.683	0.839	11.29
32) I	Acenaphthene-d10	-----ISTD-----						
33) P	Hexachlorocyclopentad	0.293	0.272	0.288	0.247	0.241	0.268	8.83
34) MC	2,4,6-Trichlorophenol	0.372	0.346	0.344	0.311	0.384	0.351	8.12
35) T	2,4,5-Trichlorophenol	0.346	0.341	0.355	0.357	0.384	0.357	4.76
36) S	2-Fluorobiphenyl	1.141	1.089	1.028	0.966	1.093	1.063	6.37
37) T	2-Nitroaniline	0.720	0.709	0.649	0.596	0.578	0.650	9.85
38) M	Dimethylphthalate	1.336	1.336	1.348	1.314	1.496	1.366	5.39
39) M	Acenaphthylene	1.516	1.563	1.571	1.641	1.743	1.607	5.49
40) M	2,6-Dinitrotoluene	0.340	0.324	0.346	0.332	0.338	0.336	2.53
41) T	3-Nitroaniline	0.332	0.307	0.297	0.331	0.361	0.326	7.66

Response Factor Report ABNA

178

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 22 12:12:16 1995
 Response via : Initial Calibration

Calibration Files

160 =B9156.D 120 =B9155.D 80 =B9154.D
 50 =B9153.D 20 =B9152.D

	Compound	160	120	80	50	20	Avg	%RSD
42) CM	Acenaphthene	0.969	1.011	0.999	1.038	1.086	1.020	4.32
43) MP	2,4-Dinitrophenol	0.213	0.201	0.181	0.135		0.183	18.75
44) PM	4-Nitrophenol	0.265	0.244	0.231	0.197		0.234	12.20
45) T	Dibenzofuran	1.278	1.362	1.485	1.435	1.602	1.433	8.57
46) M	2,4-Dinitrotoluene	0.494	0.468	0.490	0.442	0.414	0.462	7.26
47) M	Diethylphthalate	1.370	1.342	1.434	1.547	1.798	1.498	12.36
48) M	Fluorene	1.013	1.072	1.131	1.160	1.246	1.125	7.87
49) M	4-Chlorophenyl-phenyl	0.444	0.487	0.523	0.536	0.668	0.532	15.83
50)	Phenanthrene-d10	-----ISTD-----						
51) T	4-Nitroaniline	0.182	0.169	0.165	0.180	0.200	0.179	7.62
52) MC	4,6-Dinitro-2-methylp	0.148	0.133	0.116	0.126		0.131	10.01
53) T	n-Nitrosodiphenylamin	0.369	0.401	0.411	0.406	0.532	0.424	14.81
54) S	2,4,6-Tribromophenol	0.172	0.180	0.173	0.166	0.191	0.176	5.40
55)	1,2-Diphenylhydrazine	1.113	1.118	1.290	1.195	1.250	1.193	6.58
56) M	4-Bromophenyl-phenyle	0.168	0.191	0.213	0.212	0.262	0.209	16.64
57) M	Hexachlorobenzene	0.255	0.282	0.296	0.297	0.338	0.294	10.17
58) CM	Pentachlorophenol	0.195	0.190	0.189	0.155		0.182	10.07
59) M	Phenanthrene	0.962	0.968	1.041	0.933	1.040	0.989	4.93
60) M	Anthracene	0.973	0.985	1.021	0.945	1.068	0.998	4.77
61)	Carbazole	0.958	0.971	0.988	0.903	0.939	0.952	3.41
62) M	Di-n-butylphthalate	1.841	1.773	1.864	1.743	1.930	1.830	4.07
63) MC	Fluoranthene	1.199	1.070	1.098	1.020	1.074	1.092	6.04
64) I	Chrysene-d12	-----ISTD-----						
65)	Benzidine	0.088	0.104	0.113	0.160		0.116	26.55
66) M	Pyrene	1.549	1.656	1.565	1.353	1.284	1.481	10.53
67) S	Terphenyl-d14	1.237	1.223	1.200	0.953	0.903	1.103	14.62
68) M	Butylbenzylphthalate	1.100	1.195	1.185	0.947	1.002	1.086	10.12
69) M	Benzo[a]anthracene	1.326	1.388	1.275	1.166	1.112	1.253	9.06
70) M	3,3'-Dichlorobenzidin	0.396	0.417	0.388	0.338	0.398	0.387	7.67
71) M	Chrysene	0.801	0.884	0.963	0.846	1.030	0.905	10.16
72) M	bis(2-Ethylhexyl)phth	1.402	1.581	1.620	1.371	1.469	1.489	7.30
73) I	Perylene-d12	-----ISTD-----						
74) MC	Di-n-octylphthalate	3.439	3.618	5.097	4.812		4.241	19.68
75) M	Benzo[b]fluoranthene	1.486	1.439	1.979	1.620	1.591	1.623	13.09
76) m	Benzo[k]fluoranthene	1.061	1.050	1.412	1.195	1.379	1.220	14.02
77) mc	Benzo[a]pyrene	1.005	0.979	1.197	0.992	0.989	1.032	8.94
78) m	Indeno[1,2,3-cd]pyren	0.635	0.748	0.839	0.688		0.728	12.03
79) m	Dibenz[a,h]anthracene	0.632	0.716	0.921	0.583		0.713	20.97
80) M	Benzo[g,h,i]perylene	0.641	0.793	0.905	0.561		0.725	21.22

Quantitation Report

Data File : c:\hpchem\1\data2\b9152.d

Acq On : 20 Nov 95 12:29 pm

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:04 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Vial: 2 179

Operator: SCOTTV

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.82	152	19366	40.00	ug/mL	-0.87
17) Naphthalene-d8	11.55	136	80785	40.00	ug/mL	-0.88
32) Acenaphthene-d10	16.81	164	60680	40.00	ug/mL	-0.92
50) Phenanthrene-d10	21.24	188	109687	40.00	ug/mL	-0.99
64) Chrysene-d12	29.21	240	94436	40.00	ug/mL	-1.07
73) Perylene-d12	33.16	264	40655	40.00	ug/mL	-1.08

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.14	112	25564	41.41	ug/mL	41.41%
3) Phenol-d5	7.32	99	41332	41.26	ug/mL	41.26%
18) Nitrobenzene-d5	9.53	82	44810	40.93	ug/mL	40.93%
36) 2-Fluorobiphenyl	15.02	172	82935	44.81	ug/mL	44.81%
54) 2,4,6-Tribromophenol	19.22	330	26134	75.24	ug/mL	75.24%
67) Terphenyl-d14	26.36	244	106635	45.46	ug/mL	45.46%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	8144	18.95	ug/mlm	100
6) Phenol	7.34	94	15318	16.30	ug/mL	100
7) bis(2-Chloroethyl) ether	11.30	93	21053	18.33	ug/mL	95
8) 2-Chlorophenol	7.24	128	12080	18.72	ug/mL	98
9) 1,3-Dichlorobenzene	7.61	146	13209	19.96	ug/mL	100
10) 1,4-Dichlorobenzene	7.86	146	13150	19.63	ug/mL	99
11) 1,2-Dichlorobenzene	8.24	146	12839	19.68	ug/mL	96
12) 2-Methylphenol	9.05	108	11721	18.93	ug/mLm	96
13) bis(2-chloroisopropyl) ethe	8.97	45	18321	16.94	ug/mL	99
14) 4-Methylphenol	9.55	108	12878	18.97	ug/mL	96
15) N-Nitroso-Di-n-propylamine	9.36	70	12705	17.17	ug/mL	92
16) Hexachloroethane	9.21	117	7598	18.08	ug/mL#	79
19) Nitrobenzene	9.57	77	20210	19.28	ug/mL	93
20) Isophorone	10.40	82	30563	13.74	ug/mL	95
21) 2-Nitrophenol	10.51	139	7899	16.35	ug/mL	89
22) 2,4-Dimethylphenol	11.07	107	13413	17.17	ug/mL#	100
23) bis(2-Chloroethoxy) methane	11.30	93	21053	17.29	ug/mL#	100
24) 2,4-Dichlorophenol	11.34	162	11549	19.36	ug/mL	99
25) 1,2,4-Trichlorobenzene	11.46	180	13274	21.60	ug/mL	94
26) Naphthalene	11.59	128	38588	19.04	ug/mL	100
27) 4-Chloroaniline	12.00	127	17680	18.61	ug/mL	99
28) Hexachlorobutadiene	12.13	225	8178	25.38	ug/mL	97
29) 4-Chloro-3-methylphenol	13.79	107	15510	19.78	ug/mL	93
30) 2-Chloronaphthalene	15.16	162	28609	22.33	ug/mL#	100
31) 2-Methylnaphthalene	13.73	142	27588	15.71	ug/mL	97
33) Hexachlorocyclopentadiene	14.25	237	7301	16.64	ug/mL	97
34) 2,4,6-Trichlorophenol	14.85	196	11665	18.05	ug/mL	97
35) 2,4,5-Trichlorophenol	14.85	196	11665	22.14	ug/mL	97

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

RNA

Page 1

Quantitation Report

Data File : c:\hpcchem\1\data2\b9152.d

Acq On : 20 Nov 95 12:29 pm

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:04 1995

Vial: 2 180

Operator: SCOTTV

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.95	65	17542	14.77	ug/mL	89
38) Dimethylphthalate	16.46	163	45385	21.87	ug/mL#	11
39) Acenaphthylene	16.33	152	52878	19.36	ug/mL	97
40) 2,6-Dinitrotoluene	16.54	165	10244	21.96	ug/mL#	96
41) 3-Nitroaniline	18.80	138	10963	21.13	ug/mL	96
42) Acenaphthene	16.89	153	32947	21.30	ug/mL	99
43) 2,4-Dinitrophenol	17.27	184	3292	10.35	ug/mL	89
44) 4-Nitrophenol	17.87	109	5992	17.33	ug/mL	89
45) Dibenzofuran	17.45	168	48601	20.88	ug/mL#	87
46) 2,4-Dinitrotoluene	17.68	165	12573	18.32	ug/mL#	1
47) Diethylphthalate	18.68	149	54555	23.11	ug/mL	96
48) Fluorene	18.47	166	37810	21.35	ug/mL	98
49) 4-Chlorophenyl-phenylether	18.70	204	20266	26.26	ug/mL#	82
51) 4-Nitroaniline	18.80	138	10963	17.36	ug/mL	96
52) 4,6-Dinitro-2-methylphenol	18.87	198	6263	15.40	ug/mL	100
53) n-Nitrosodiphenylamine	19.12	169	29203	19.63	ug/mL	94
55) 1,2-Diphenylhydrazine (as	19.16	77	68532	14.01	ug/ml	100
56) 4-Bromophenyl-phenylether	20.13	248	14362	28.00	ug/mL	97
57) Hexachlorobenzene	20.05	284	18525	28.47	ug/mL	94
58) Pentachlorophenol	20.80	266	8983	20.16	ug/mL	95
59) Phenanthrene	21.30	178	57020	19.13	ug/mLm	99
60) Anthracene	21.45	178	58588	20.01	ug/mL	99
61) Carbazole	22.13	167	51513	17.65	ug/ml	98
62) Di-n-butylphthalate	23.71	149	105848	19.19	ug/mL	99
63) Fluoranthene	24.86	202	58902	19.67	ug/mLm	71
65) Benzidine	21.24	184	15975	24.74	ug/ml	100
66) Pyrene	25.48	202	60645	16.05	ug/mL#	81
68) Butylbenzylphthalate	28.15	149	47305	16.09	ug/mL#	26
69) Benzo[a]anthracene	29.19	228	52514	15.56	ug/mL	98
70) 3,3'-Dichlorobenzidine	29.41	252	18775	20.60	ug/mL#	94
71) Chrysene	29.29	228	48650	24.05	ug/mLm	98
72) bis(2-Ethylhexyl)phthalate	30.16	149	69386	16.47	ug/mL#	23
74) Di-n-octylphthalate	32.06	149	102182	17.66	ug/mL#	100
75) Benzo[b]fluoranthene	32.20	252	32331	16.29	ug/mL#	96
76) Benzo[k]fluoranthene	32.28	252	28031	23.73	ug/mLm	96
77) Benzo[a]pyrene	32.99	252	20100	18.29	ug/mLm	96
78) Indeno[1,2,3-cd]pyrene	35.65	276	8011	14.04	ug/mL#	78
79) Dibenz[a,h]anthracene	35.78	278	7814	14.01	ug/mL	94
80) Benzo[g,h,i]perylene	36.17	276	7059	13.63	ug/mLm	87

Quantitation Report

Data File : c:\hpchem\1\data2\b9152.d

Acq On : 20 Nov 95 12:29 pm

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:04 1995

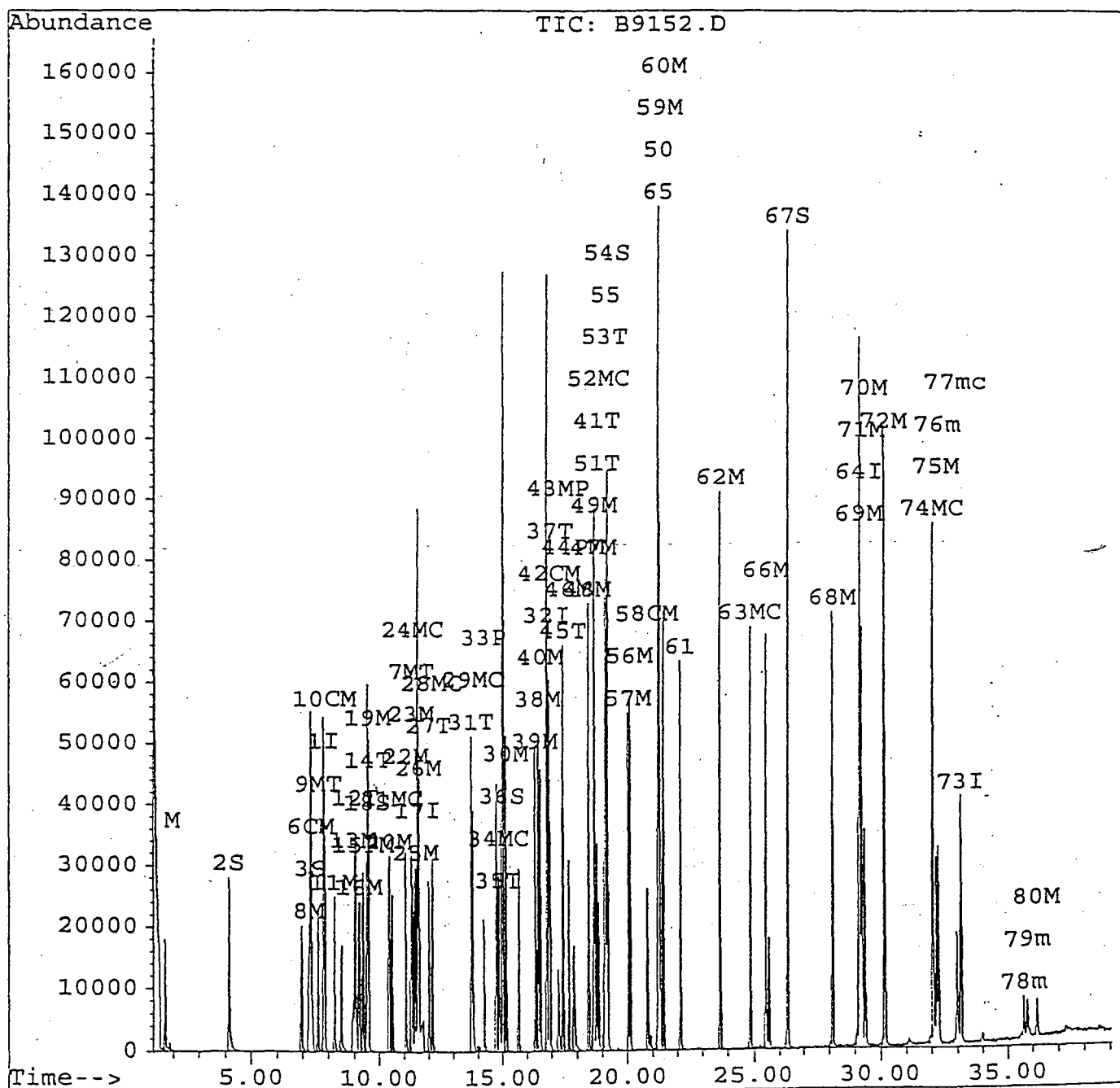
Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Vial: 2 **181**



Quantitation Report

Data File : c:\hpcchem\1\data2\b9153.d

Acq On : 20 Nov 95 1:22 pm

Sample : 50 STD..... Converted from RTE d

Misc :

Quant Time: Nov 22 12:06 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 Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.84	152	21909	40.00	ug/mL	-0.85
17) Naphthalene-d8	11.58	136	92328	40.00	ug/mL	-0.86
32) Acenaphthene-d10	16.83	164	67130	40.00	ug/mL	-0.90
50) Phenanthrene-d10	21.25	188	123423	40.00	ug/mL	-0.98
64) Chrysene-d12	29.24	240	92844	40.00	ug/mL	-1.04
73) Perylene-d12	33.15	264	30755	40.00	ug/mL	-1.09

System Monitoring Compounds

%Recovery

2) 2-Fluorophenol	4.16	112	31216	44.69	ug/mL	44.69%
3) Phenol-d5	7.34	99	51130	45.12	ug/mL	45.12%
18) Nitrobenzene-d5	9.55	82	51901	41.48	ug/mL	41.48%
36) 2-Fluorobiphenyl	15.04	172	81039	39.58	ug/mL	39.58%
54) 2,4,6-Tribromophenol	19.24	330	25579	65.45	ug/mL	65.45%
67) Terphenyl-d14	26.37	244	110564	47.94	ug/mL	47.94%

Target Compounds

Qvalue

4) N-nitrosodimethylamine	1.68	74	22873	47.06	ug/mLm	100
6) Phenol	7.38	94	43087	40.53	ug/mL	100
7) bis(2-Chloroethyl) ether	11.34	93	58997	45.40	ug/mL	90
8) 2-Chlorophenol	7.26	128	34772	47.64	ug/mL	96
9) 1,3-Dichlorobenzene	7.63	146	37839	50.53	ug/mL	96
10) 1,4-Dichlorobenzene	7.88	146	38816	51.23	ug/mL	95
11) 1,2-Dichlorobenzene	8.26	146	38125	51.66	ug/mL	99
12) 2-Methylphenol	9.07	108	32481	46.36	ug/mLm	97
13) bis(2-chloroisopropyl) ethe	8.99	45	56748	46.37	ug/mL	98
14) 4-Methylphenol	9.59	108	34858	45.39	ug/mL	97
15) N-Nitroso-Di-n-propylamine	9.40	70	36828	44.01	ug/mL	97
16) Hexachloroethane	9.23	117	23023	48.41	ug/mL#	74
19) Nitrobenzene	9.61	77	63152	52.71	ug/mL	98
20) Isophorone	10.44	82	98532	38.76	ug/mL	94
21) 2-Nitrophenol	10.55	139	24042	43.53	ug/mL	97
22) 2,4-Dimethylphenol	11.11	107	41512	46.50	ug/mL#	100
23) bis(2-Chloroethoxy) methane	11.34	93	58997	42.39	ug/mL#	100
24) 2,4-Dichlorophenol	11.38	162	31594	46.35	ug/mL	96
25) 1,2,4-Trichlorobenzene	11.48	180	36479	51.94	ug/mL	96
26) Naphthalene	11.63	128	110640	47.77	ug/mL	98
27) 4-Chloroaniline	12.04	127	50119	46.15	ug/mL	97
28) Hexachlorobutadiene	12.15	225	22043	59.86	ug/mL	98
29) 4-Chloro-3-methylphenol	13.81	107	43074	48.07	ug/mL#	83
30) 2-Chloronaphthalene	15.18	162	76788	52.45	ug/mL#	100
31) 2-Methylnaphthalene	13.75	142	98486	49.06	ug/mL	97
33) Hexachlorocyclopentadiene	14.27	237	20721	42.68	ug/mL	97
34) 2,4,6-Trichlorophenol	14.77	196	26093	36.50	ug/mL	97
35) 2,4,5-Trichlorophenol	14.87	196	29970	51.42	ug/mL	97

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

Quantitation Report

183

Data File : c:\hpcchem\1\data2\b9153.d
 Acq On : 20 Nov 95 1:22 pm
 Sample : 50 STD..... Converted from RTE d
 Misc :
 Quant Time: Nov 22 12:06 1995

Vial: 3
 Operator: SCOTTV
 Inst : ABNA
 BT Multiplr: 1.00

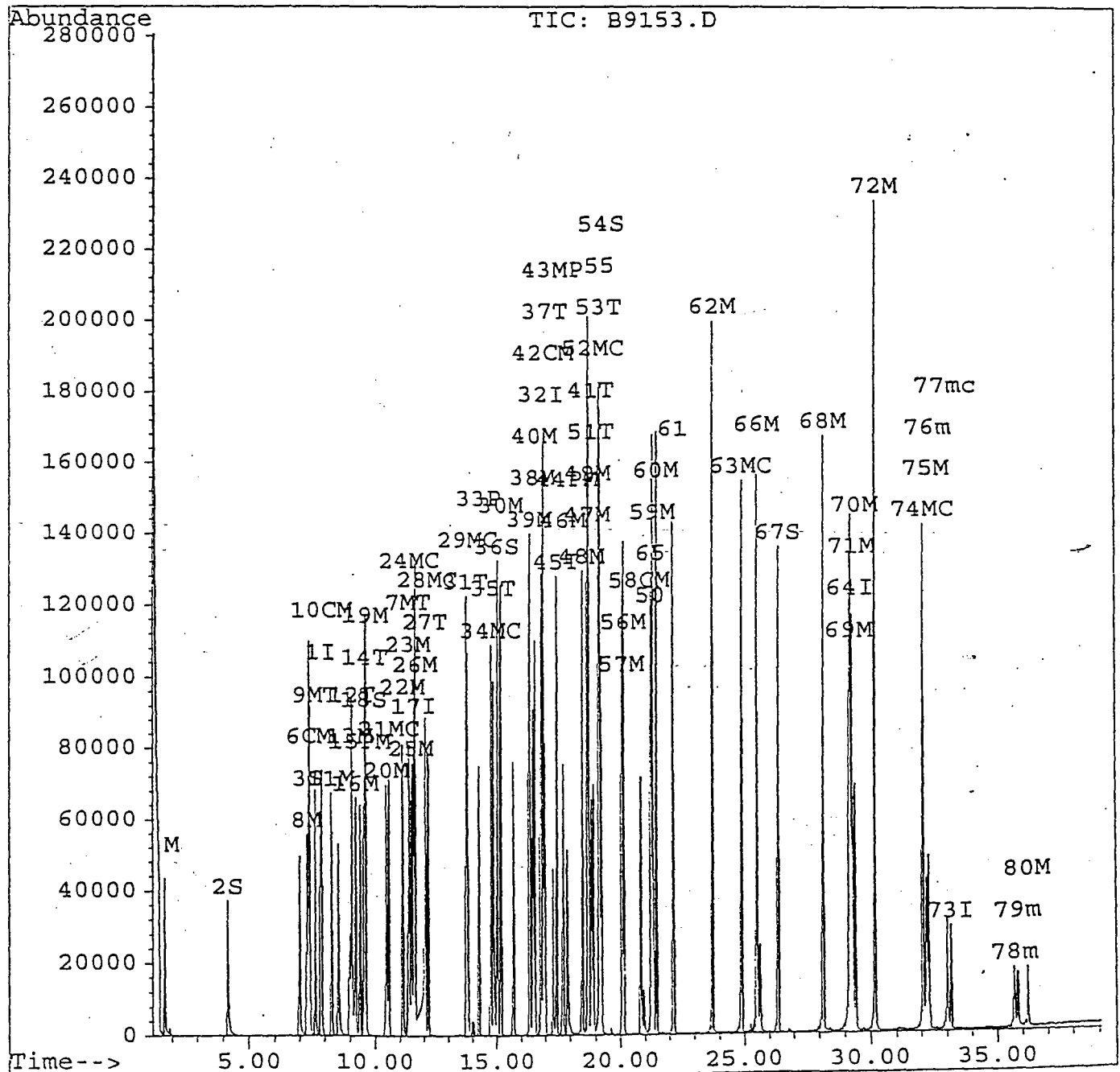
Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 22 12:21:54 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.99	65	50018	38.07	ug/mL	93
38) Dimethylphthalate	16.51	163	110296	48.05	ug/mL#	12
39) Acenaphthylene	16.37	152	137726	45.57	ug/mL	99
40) 2,6-Dinitrotoluene	16.58	165	27838	53.93	ug/mL#	95
41) 3-Nitroaniline	18.86	138	27743	48.34	ug/mL	95
42) Acenaphthene	16.93	153	87062	50.87	ug/mL	95
43) 2,4-Dinitrophenol	17.30	184	11345	32.23	ug/mL	96
44) 4-Nitrophenol	17.89	109	16525	43.20	ug/mL#	85
45) Dibenzofuran	17.47	168	120453	46.78	ug/mL	92
46) 2,4-Dinitrotoluene	17.72	165	37128	48.90	ug/mL#	1
47) Diethylphthalate	18.70	149	129774	49.69	ug/mL	95
48) Fluorene	18.49	166	97369	49.70	ug/mL	98
49) 4-Chlorophenyl-phenylether	18.72	204	44994	52.70	ug/mL#	80
51) 4-Nitroaniline	18.86	138	27743	39.05	ug/mL	95
52) 4,6-Dinitro-2-methylphenol	18.94	198	19466	42.54	ug/mL	100
53) n-Nitrosodiphenylamine	19.15	169	62685	37.45	ug/mL	98
55) 1,2-Diphenylhydrazine (as	19.19	77	184330	33.48	ug/ml	100
56) 4-Bromophenyl-phenylether	20.15	248	32649	56.57	ug/mL	92
57) Hexachlorobenzene	20.07	284	45836	62.60	ug/mL#	89
58) Pentachlorophenol	20.82	266	23919	47.70	ug/mL	95
59) Phenanthrene	21.33	178	143981	42.93	ug/mL	99
60) Anthracene	21.48	178	145750	44.25	ug/mL	100
61) Carbazole	22.15	167	139335	42.42	ug/ml	95
62) Di-n-butylphthalate	23.73	149	268835	43.32	ug/mL#	97
63) Fluoranthene	24.89	202	157414	46.71	ug/mLm	78
65) Benzidine	21.27	184	18516	29.17	ug/ml	100
66) Pyrene	25.51	202	157017	42.27	ug/mL#	87
68) Butylbenzylphthalate	28.18	149	109897	38.03	ug/mL#	19
69) Benzo[a]anthracene	29.20	228	135286	40.78	ug/mL	99
70) 3,3'-Dichlorobenzidine	29.42	252	39213	43.76	ug/mL#	98
71) Chrysene	29.30	228	98159	49.36	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	30.19	149	159156	38.42	ug/mL#	30
74) Di-n-octylphthalate	32.07	149	184983	42.27	ug/mL#	100
75) Benzo[b]fluoranthene	32.21	252	62291	41.49	ug/mL#	94
76) Benzo[k]fluoranthene	32.29	252	45934	51.40	ug/mLm	94
77) Benzo[a]pyrene	33.00	252	38144	45.88	ug/mLm	94
78) Indeno[1,2,3-cd]pyrene	35.66	276	26456	61.30	ug/mLm	80
79) Dibenz[a,h]anthracene	35.79	278	22396	53.09	ug/mL#	93
80) Benzo[g,h,i]perylene	36.18	276	21568	55.05	ug/mL#	89

Quantitation Report

Data File : c:\hpchem\1\data2\b9153.d Vial: 3 184
 Acq On : 20 Nov 95 1:22 pm Operator: SCOTTV
 Sample : 50 STD..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00
 Quant Time: Nov 22 12:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 22 12:21:54 1995
 Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpcchem\1\data2\b9154.d

Acq On : 20 Nov 95 2:14 pm

Sample : 80 STD..... Converted from RTE d

Misc :

Quant Time: Nov 22 12:07 1995

Vial: 4 185

Operator: SCOTT V

Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	21149	40.00	ug/mL	-0.85
17) Naphthalene-d8	11.58	136	87105	40.00	ug/mL	-0.85
32) Acenaphthene-d10	16.85	164	65230	40.00	ug/mL	-0.89
50) Phenanthrene-d10	21.26	188	117422	40.00	ug/mL	-0.97
64) Chrysene-d12	29.26	240	78246	40.00	ug/mL	-1.03
73) Perylene-d12	33.15	264	29586	40.00	ug/mL	-1.09

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.17	112	31217	46.30	ug/mL	46.30%
3) Phenol-d5	7.36	99	51615	47.18	ug/mL	47.18%
18) Nitrobenzene-d5	9.56	82	54570	46.23	ug/mL	46.23%
36) 2-Fluorobiphenyl	15.05	172	83814	42.13	ug/mL	42.13%
54) 2,4,6-Tribromophenol	19.26	330	25349	68.18	ug/mL	68.18%
67) Terphenyl-d14	26.37	244	117341	60.37	ug/mL	60.37%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.69	74	34411	73.34	ug/mLm	100
6) Phenol	7.40	94	73852	71.96	ug/mL	100
7) bis(2-Chloroethyl) ether	11.35	93	94368	75.23	ug/mL	96
8) 2-Chlorophenol	7.29	128	57794	82.02	ug/mL	91
9) 1,3-Dichlorobenzene	7.63	146	60192	83.27	ug/mL	100
10) 1,4-Dichlorobenzene	7.90	146	60774	83.09	ug/mL	97
11) 1,2-Dichlorobenzene	8.29	146	61063	85.72	ug/mL	95
12) 2-Methylphenol	9.10	108	50920	75.29	ug/mLm	100
13) bis(2-chloroisopropyl) ethe	9.00	45	89347	75.63	ug/mL	96
14) 4-Methylphenol	9.62	108	53851	72.64	ug/mL	100
15) N-Nitroso-Di-n-propylamine	9.45	70	61188	75.74	ug/mL#	94
16) Hexachloroethane	9.23	117	37125	80.87	ug/mL#	75
19) Nitrobenzene	9.64	77	105018	92.90	ug/mL	97
20) Isophorone	10.49	82	159088	66.33	ug/mL	97
21) 2-Nitrophenol	10.56	139	40246	77.24	ug/mL	91
22) 2,4-Dimethylphenol	11.14	107	70519	83.74	ug/mL#	100
23) bis(2-Chloroethoxy) methane	11.35	93	94368	71.87	ug/mL#	100
24) 2,4-Dichlorophenol	11.41	162	50454	78.45	ug/mL	95
25) 1,2,4-Trichlorobenzene	11.49	180	57084	86.14	ug/mL	96
26) Naphthalene	11.64	128	167173	76.51	ug/mL	100
27) 4-Chloroaniline	12.07	127	81200	79.26	ug/mL	98
28) Hexachlorobutadiene	12.18	225	34993	100.72	ug/mL	98
29) 4-Chloro-3-methylphenol	13.82	107	72479	85.73	ug/mL	89
30) 2-Chloronaphthalene	15.19	162	130435	94.44	ug/mL#	100
31) 2-Methylnaphthalene	13.76	142	160669	84.83	ug/mL	99
33) Hexachlorocyclopentadiene	14.28	237	37611	79.73	ug/mL#	97
34) 2,4,6-Trichlorophenol	14.78	196	44855	64.57	ug/mL	98
35) 2,4,5-Trichlorophenol	14.88	196	46266	81.69	ug/mL	96

Quantitation Report

Data File : c:\hpchem\1\data2\b9154.d

Acq On : 20 Nov 95 2:14 pm

Sample : 80 STD..... Converted from RTE d

Misc : BT Multiplr: 1.00

Quant Time: Nov 22 12:07 1995

Vial: 4

186

Operator: SCOTTV

Inst : ABNA

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.02	65	84624	66.28	ug/mL	89
38) Dimethylphthalate	16.54	163	175842	78.83	ug/mL#	12
39) Acenaphthylene	16.38	152	205000	69.80	ug/mL	99
40) 2,6-Dinitrotoluene	16.61	165	45185	90.09	ug/mL#	99
41) 3-Nitroaniline	18.91	138	38767	69.52	ug/mL	98
42) Acenaphthene	16.94	153	130279	78.33	ug/mL	99
43) 2,4-Dinitrophenol	17.35	184	23597	69.00	ug/mL#	81
44) 4-Nitrophenol	17.91	109	30181	81.21	ug/mL	84
45) Dibenzofuran	17.50	168	193762	77.44	ug/mL	88
46) 2,4-Dinitrotoluene	17.75	165	63886	86.58	ug/mL#	1
47) Diethylphthalate	18.74	149	187094	73.73	ug/mL	95
48) Fluorene	18.52	166	147613	77.55	ug/mL	96
49) 4-Chlorophenyl-phenylether	18.74	204	68166	82.17	ug/mL#	83
51) 4-Nitroaniline	18.91	138	38767	57.36	ug/mL	98
52) 4,6-Dinitro-2-methylphenol	18.97	198	27346	62.82	ug/mL	100
53) n-Nitrosodiphenylamine	19.18	169	96556	60.63	ug/mL	97
55) 1,2-Diphenylhydrazine (as	19.20	77	303006	57.85	ug/ml	100
56) 4-Bromophenyl-phenylether	20.16	248	49920	90.92	ug/mL	93
57) Hexachlorobenzene	20.11	284	69411	99.65	ug/mL#	80
58) Pentachlorophenol	20.86	266	44474	93.22	ug/mL	100
59) Phenanthrene	21.34	178	244369	76.58	ug/mLm	98
60) Anthracene	21.49	178	239679	76.48	ug/mL	98
61) Carbazole	22.17	167	231960	74.22	ug/ml	95
62) Di-n-butylphthalate	23.75	149	437710	74.14	ug/mL#	97
63) Fluoranthene	24.90	202	257785	80.40	ug/mLm	79
65) Benzidine	21.26	184	17684	33.05	ug/ml	100
66) Pyrene	25.52	202	244857	78.22	ug/mL#	89
68) Butylbenzylphthalate	28.20	149	185366	76.11	ug/mL#	18
69) Benzo[a]anthracene	29.22	228	199585	71.39	ug/mL	100
70) 3,3'-Dichlorobenzidine	29.42	252	60675	80.35	ug/mL#	94
71) Chrysene	29.32	228	150741	89.95	ug/mLm	100
72) bis(2-Ethylhexyl)phthalate	30.19	149	253443	72.60	ug/mL#	24
74) Di-n-octylphthalate	32.07	149	301609	71.64	ug/mL#	100
75) Benzo[b]fluoranthene	32.21	252	117097	81.08	ug/mL#	94
76) Benzo[k]fluoranthene	32.31	252	83571	97.21	ug/mLm	94
77) Benzo[a]pyrene	33.00	252	70806	88.54	ug/mLm	93
78) Indeno[1,2,3-cd]pyrene	35.66	276	49674	119.65	ug/mLm	71
79) Dibenz[a,h]anthracene	35.79	278	54514	134.34	ug/mL	93
80) Benzo[g,h,i]perylene	36.20	276	53556	142.09	ug/mL#	83

Quantitation Report

Data File : c:\hpchem\1\data2\b9154.d

Acq On : 20 Nov 95 2:14 pm

Sample : 80 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

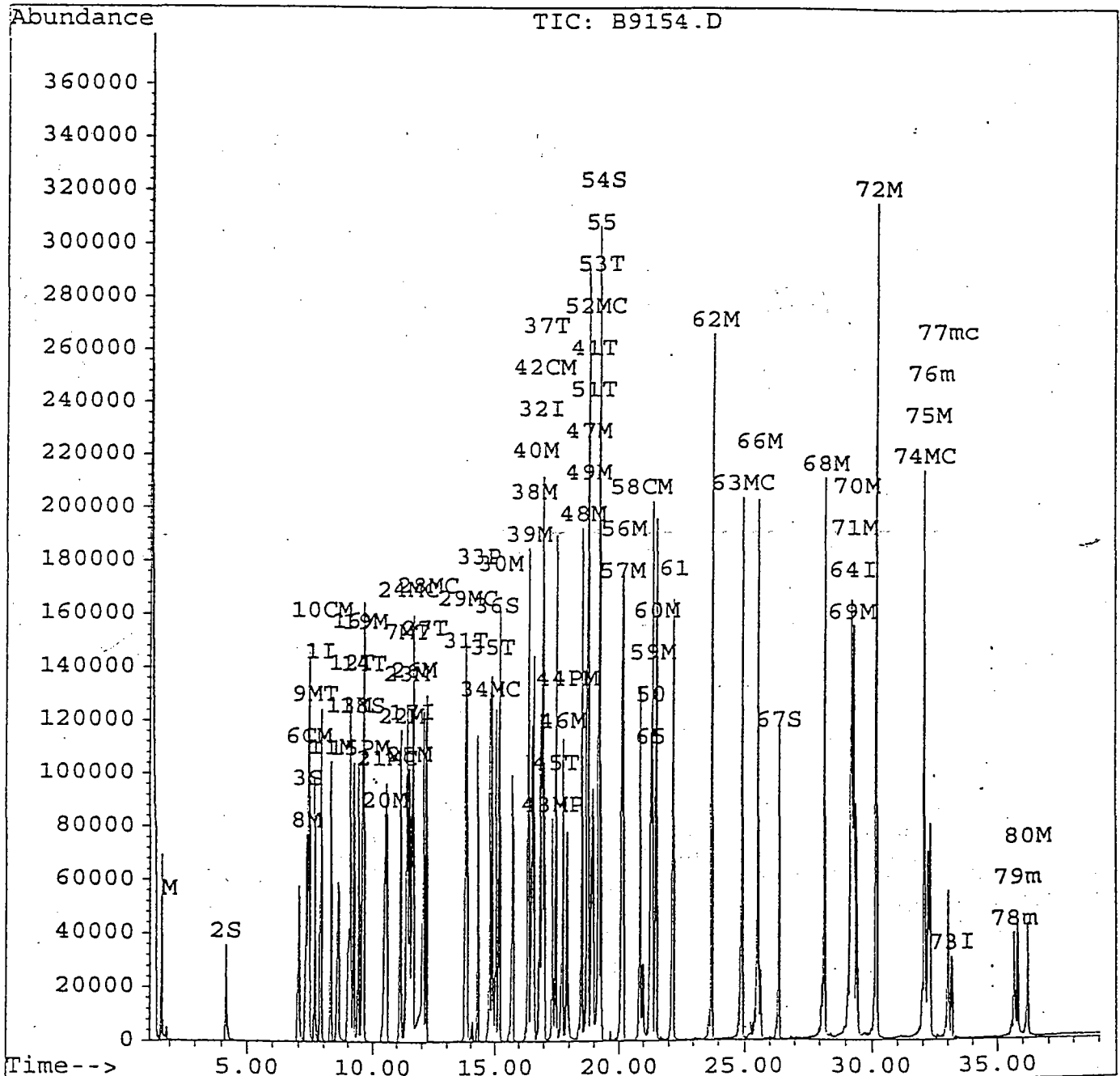
Response via : Multiple Level Calibration

Vial: 4 **187**

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00



Quantitation Report

Data File : c:\hpchem\1\data2\b9155.d

Acq On : 20 Nov 95 3:11 pm

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

Quant Time: Nov 22 12:18 1995

Vial: 5

Operator: SCOTT V

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.86	152	21393	40.00	ug/mL	-0.83
17) Naphthalene-d8	11.60	136	89884	40.00	ug/mL	-0.83
32) Acenaphthene-d10	16.86	164	68594	40.00	ug/mL	-0.87
50) Phenanthrene-d10	21.28	188	124831	40.00	ug/mL	-0.95
64) Chrysene-d12	29.28	240	80803	40.00	ug/mL	-1.01
73) Perylene-d12	33.17	264	40378	40.00	ug/mL	-1.07

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.18	112	31242	45.81	ug/mL	45.81%
3) Phenol-d5	7.38	99	52903	47.81	ug/mL	47.81%
18) Nitrobenzene-d5	9.60	82	56558	46.43	ug/mL	46.43%
36) 2-Fluorobiphenyl	15.07	172	93337	44.61	ug/mL	44.61%
54) 2,4,6-Tribromophenol	19.30	330	28016	70.88	ug/mL	70.88%
67) Terphenyl-d14	26.37	244	123504	61.53	ug/mL	61.53%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	61263	129.08	ug/mLm	100
6) Phenol	7.44	94	113845	109.67	ug/mL	100
7) bis(2-Chloroethyl) ether	11.39	93	137382	108.27	ug/mL	90
8) 2-Chlorophenol	7.30	128	84421	118.44	ug/mL	94
9) 1,3-Dichlorobenzene	7.65	146	84510	115.58	ug/mL	96
10) 1,4-Dichlorobenzene	7.92	146	85696	115.82	ug/mL	99
11) 1,2-Dichlorobenzene	8.29	146	87755	121.79	ug/mL	99
12) 2-Methylphenol	9.13	108	81052	118.48	ug/mLm	100
13) bis(2-chloroisopropyl) ethe	9.02	45	137800	115.32	ug/mL	97
14) 4-Methylphenol	9.67	108	87534	116.73	ug/mL	100
15) N-Nitroso-Di-n-propylamine	9.48	70	93023	113.83	ug/mL	98
16) Hexachloroethane	9.23	117	53808	115.88	ug/mL	85
19) Nitrobenzene	9.65	77	153016	131.18	ug/mL	95
20) Isophorone	10.56	82	176763	71.42	ug/mL#	93
21) 2-Nitrophenol	10.60	139	60412	112.37	ug/mL	96
22) 2,4-Dimethylphenol	11.18	107	108531	124.89	ug/mL#	100
23) bis(2-Chloroethoxy) methane	11.39	93	137382	101.39	ug/mL#	100
24) 2,4-Dichlorophenol	11.45	162	72744	109.61	ug/mL	95
25) 1,2,4-Trichlorobenzene	11.50	180	81586	119.31	ug/mL	93
26) Naphthalene	11.68	128	265432	117.73	ug/mL	99
27) 4-Chloroaniline	12.08	127	121913	115.32	ug/mL	96
28) Hexachlorobutadiene	12.18	225	47234	131.75	ug/mL	99
29) 4-Chloro-3-methylphenol	13.86	107	113540	130.15	ug/mL#	83
30) 2-Chloronaphthalene	15.21	162	190634	133.76	ug/mL#	100
31) 2-Methylnaphthalene	13.78	142	244141	124.92	ug/mL	97
33) Hexachlorocyclopentadiene	14.30	237	55971	112.83	ug/mL	98
34) 2,4,6-Trichlorophenol	14.80	196	71133	97.38	ug/mL	95
35) 2,4,5-Trichlorophenol	14.90	196	70146	117.78	ug/mL	96

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

Quantitation Report

Data File : c:\hpchem\1\data2\b9155.d

Acq On : 20 Nov 95 3:11 pm

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:18 1995

Vial: 5 189

Operator: SCOTTV

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.08	65	145818	108.61	ug/mL	85
38) Dimethylphthalate	16.57	163	274872	117.18	ug/mL#	12
39) Acenaphthylene	16.40	152	321563	104.12	ug/mL	99
40) 2,6-Dinitrotoluene	16.65	165	66698	126.46	ug/mL#	96
41) 3-Nitroaniline	18.97	138	63194	107.76	ug/mL	97
42) Acenaphthene	16.96	153	208073	118.97	ug/mL	99
43) 2,4-Dinitrophenol	17.40	184	41392	115.10	ug/mL#	70
44) 4-Nitrophenol	17.96	109	50217	128.49	ug/mL#	88
45) Dibenzofuran	17.52	168	280201	106.49	ug/mL#	87
46) 2,4-Dinitrotoluene	17.81	165	96403	124.25	ug/mL#	1
47) Diethylphthalate	18.77	149	276218	103.51	ug/mL#	93
48) Fluorene	18.54	166	220505	110.16	ug/mL	95
49) 4-Chlorophenyl-phenylether	18.75	204	100302	114.98	ug/mL#	80
51) 4-Nitroaniline	18.97	138	63194	87.95	ug/mL	97
52) 4,6-Dinitro-2-methylphenol	19.03	198	49923	107.88	ug/mL	100
53) n-Nitrosodiphenylamine	19.22	169	150343	88.80	ug/mL	99
55) 1,2-Diphenylhydrazine (as	19.24	77	418716	75.19	ug/ml	100
56) 4-Bromophenyl-phenylether	20.18	248	71656	122.76	ug/mL	93
57) Hexachlorobenzene	20.12	284	105667	142.69	ug/mL#	76
58) Pentachlorophenol	20.88	266	71152	140.28	ug/mL	99
59) Phenanthrene	21.38	178	362651	106.91	ug/mL	99
60) Anthracene	21.53	178	368967	110.75	ug/mL	99
61) Carbazole	22.19	167	363617	109.44	ug/ml	94
62) Di-n-butylphthalate	23.75	149	663866	105.77	ug/mL	98
63) Fluoranthene	24.92	202	400665	117.55	ug/mLm	72
65) Benzidine	21.28	184	25272	45.74	ug/mlm	100
66) Pyrene	25.54	202	401509	124.20	ug/mL#	83
68) Butylbenzylphthalate	28.20	149	289743	115.20	ug/mL#	18
69) Benzo[a]anthracene	29.24	228	336557	116.57	ug/mL	98
70) 3,3'-Dichlorobenzidine	29.43	252	101174	129.73	ug/mL#	96
71) Chrysene	29.34	228	214314	123.84	ug/mLm	98
72) bis(2-Ethylhexyl)phthalate	30.19	149	383155	106.29	ug/mL#	22
74) Di-n-octylphthalate	32.07	149	438231	76.28	ug/mL#	100
75) Benzo[b]fluoranthene	32.25	252	174291	88.43	ug/mL#	92
76) Benzo[k]fluoranthene	32.33	252	127243	108.45	ug/mLm	92
77) Benzo[a]pyrene	33.02	252	118613	108.67	ug/mLm	92
78) Indeno[1,2,3-cd]pyrene	35.68	276	90641	159.97	ug/mLm	70
79) Dibenz[a,h]anthracene	35.81	278	86714	156.58	ug/mL	93
80) Benzo[g,h,i]perylene	36.22	276	96038	186.69	ug/mL#	83

Quantitation Report

Data File : c:\hpchem\1\data2\b9155.d

Acq On : 20 Nov 95 3:11 pm

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:18 1995

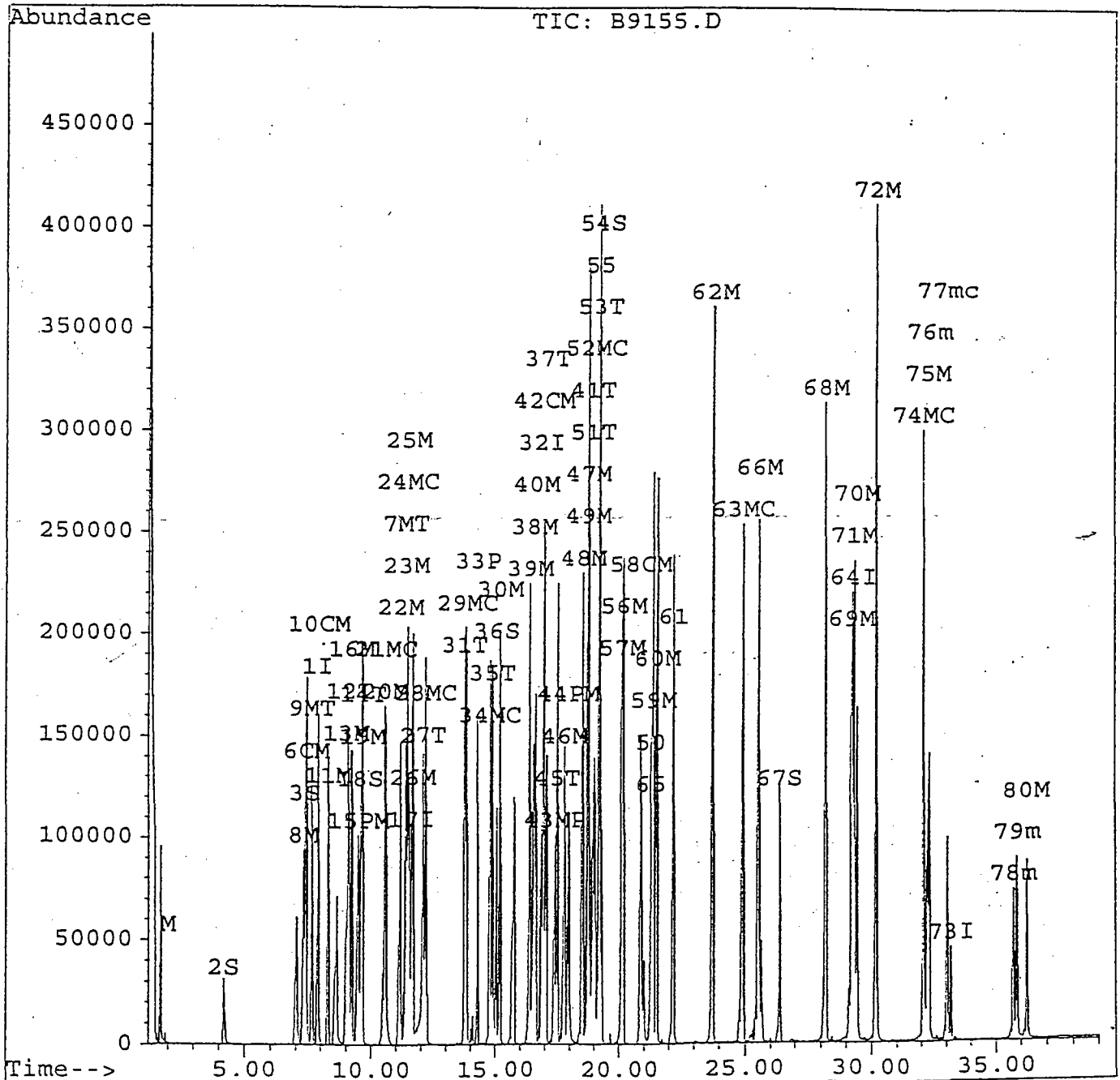
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

190



Quantitation Report

191

Data File : c:\hpchem\1\data2\b9156.d

Acq On : 20 Nov 95 4:04 pm

Sample : 160 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Nov 22 12:21 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.86	152	22101	40.00	ug/mL	-0.83
17) Naphthalene-d8	11.62	136	92020	40.00	ug/mL	-0.81
32) Acenaphthene-d10	16.87	164	64329	40.00	ug/mL	-0.87
50) Phenanthrene-d10	21.30	188	117328	40.00	ug/mL	-0.93
64) Chrysene-d12	29.28	240	89266	40.00	ug/mL	-1.00
73) Perylene-d12	33.18	264	45167	40.00	ug/mL	-1.06
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.20	112	31739	45.05	ug/mL	45.05%
3) Phenol-d5	7.42	99	54612	47.77	ug/mL	47.77%
18) Nitrobenzene-d5	9.62	82	56583	45.37	ug/mL	45.37%
36) 2-Fluorobiphenyl	15.07	172	91744	46.76	ug/mL	46.76%
54) 2,4,6-Tribromophenol	19.32	330	25154	67.71	ug/mL	67.71%
67) Terphenyl-d14	26.37	244	137972	62.22	ug/mL	62.22%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	71477	145.77	ug/mL	100
6) Phenol	7.46	94	138751	129.38	ug/mL	100
7) bis(2-Chloroethyl) ether	11.41	93	184172	140.49	ug/mL	89
8) 2-Chlorophenol	7.32	128	115858	157.34	ug/mL	94
9) 1,3-Dichlorobenzene	7.67	146	113094	149.72	ug/mL	97
10) 1,4-Dichlorobenzene	7.92	146	114850	150.25	ug/mL	98
11) 1,2-Dichlorobenzene	8.30	146	111815	150.20	ug/mL	97
12) 2-Methylphenol	9.15	108	108583	153.64	ug/mL	68
13) bis(2-chloroisopropyl) ethe	9.02	45	265566	215.12	ug/mL#	95
14) 4-Methylphenol	9.71	108	114296	147.53	ug/mL	98
15) N-Nitroso-Di-n-propylamine	9.54	70	131314	155.54	ug/mL#	98
16) Hexachloroethane	9.25	117	70643	147.26	ug/mL#	80
19) Nitrobenzene	9.69	77	212977	178.35	ug/mL	90
20) Isophorone	10.62	82	247293	97.60	ug/mL#	93
21) 2-Nitrophenol	10.62	139	80291	145.87	ug/mL	99
22) 2,4-Dimethylphenol	11.22	107	147781	166.11	ug/mL#	100
23) bis(2-Chloroethoxy) methane	11.41	93	184172	132.77	ug/mL#	100
24) 2,4-Dichlorophenol	11.47	162	97425	143.39	ug/mL	94
25) 1,2,4-Trichlorobenzene	11.52	180	106068	151.52	ug/mL	93
26) Naphthalene	11.68	128	343139	148.66	ug/mL	100
27) 4-Chloroaniline	12.10	127	161976	149.65	ug/mL	99
28) Hexachlorobutadiene	12.20	225	62019	168.98	ug/mL	98
29) 4-Chloro-3-methylphenol	13.88	107	144226	161.48	ug/mL	86
30) 2-Chloronaphthalene	15.23	162	233262	159.87	ug/mL#	100
31) 2-Methylnaphthalene	13.80	142	306392	153.13	ug/mL	92
33) Hexachlorocyclopentadiene	14.30	237	75372	162.01	ug/mL	99
34) 2,4,6-Trichlorophenol	14.84	196	95784	139.82	ug/mL	100
35) 2,4,5-Trichlorophenol	14.92	196	88905	159.18	ug/mL	98

Quantitation Report

192

Data File : c:\hpchem\1\data2\b9156.d

Acq On : 20 Nov 95 4:04 pm

Vial: 6

Sample : 160 STD..... Converted from RTE d Inst : SCOTTV

Misc : BT Multiplr: 1.00

Quant Time: Nov 22 12:21 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.12	65	185263	147.14	ug/mL	89
38) Dimethylphthalate	16.59	163	343745	156.26	ug/mL#	12
39) Acenaphthylene	16.42	152	390100	134.69	ug/mL	99
40) 2,6-Dinitrotoluene	16.69	165	87603	177.11	ug/mL#	94
41) 3-Nitroaniline	19.01	138	85342	155.18	ug/mL	94
42) Acenaphthene	16.98	153	249378	152.04	ug/mL	97
43) 2,4-Dinitrophenol	17.44	184	54798	162.48	ug/mL#	85
44) 4-Nitrophenol	18.02	109	68223	186.14	ug/mL#	77
45) Dibenzofuran	17.54	168	328941	133.31	ug/mL#	83
46) 2,4-Dinitrotoluene	17.85	165	127167	174.76	ug/mL#	1
47) Diethylphthalate	18.81	149	352507	140.86	ug/mL#	92
48) Fluorene	18.56	166	260696	138.87	ug/mL	98
49) 4-Chlorophenyl-phenylether	18.78	204	114266	139.67	ug/mL#	75
51) 4-Nitroaniline	19.01	138	85342	126.37	ug/mL	94
52) 4,6-Dinitro-2-methylphenol	19.08	198	69259	159.23	ug/mL	100
53) n-Nitrosodiphenylamine	19.24	169	173217	108.85	ug/mL	96
55) 1,2-Diphenylhydrazine (as	19.26	77	522383	99.81	ug/ml	100
56) 4-Bromophenyl-phenylether	20.20	248	78677	143.41	ug/mL#	87
57) Hexachlorobenzene	20.15	284	119797	172.12	ug/mL#	66
58) Pentachlorophenol	20.90	266	91464	191.86	ug/mL	98
59) Phenanthrene	21.40	178	451397	141.58	ug/mLm	99
60) Anthracene	21.56	178	456755	145.86	ug/mL	99
61) Carbazole	22.21	167	449707	144.01	ug/ml	95
62) Di-n-butylphthalate	23.77	149	863992	146.46	ug/mL#	98
63) Fluoranthene	24.95	202	562658	175.63	ug/mLm	77
65) Benzidine	21.30	184	31272	51.24	ug/mlm	100
66) Pyrene	25.54	202	552982	154.84	ug/mL#	87
68) Butylbenzylphthalate	28.22	149	392647	141.31	ug/mL#	17
69) Benzo[a]anthracene	29.26	228	473299	148.40	ug/mL	99
70) 3,3'-Dichlorobenzidine	29.44	252	141407	164.13	ug/mL#	95
71) Chrysene	29.36	228	286102	149.64	ug/mLm	100
72) bis(2-Ethylhexyl)phthalate	30.19	149	500621	125.71	ug/mL#	29
74) Di-n-octylphthalate	32.10	149	621312	96.68	ug/mL#	100
75) Benzo[b]fluoranthene	32.27	252	268405	121.74	ug/mL#	93
76) Benzo[k]fluoranthene	32.35	252	191711	146.08	ug/mLm	93
77) Benzo[a]pyrene	33.04	252	181522	148.68	ug/mLm	93
78) Indeno[1,2,3-cd]pyrene	35.70	276	114792	181.12	ug/mL#	78
79) Dibenz[a,h]anthracene	35.84	278	114109	184.20	ug/mL#	86
80) Benzo[g,h,i]perylene	36.22	276	115784	201.21	ug/mL#	86

Quantitation Report

Data File : c:\hpchem\1\data2\b9156.d

Vial: 6

193

Acq On : 20 Nov 95 4:04 pm

Operator: SCOTTV

Sample : 160 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

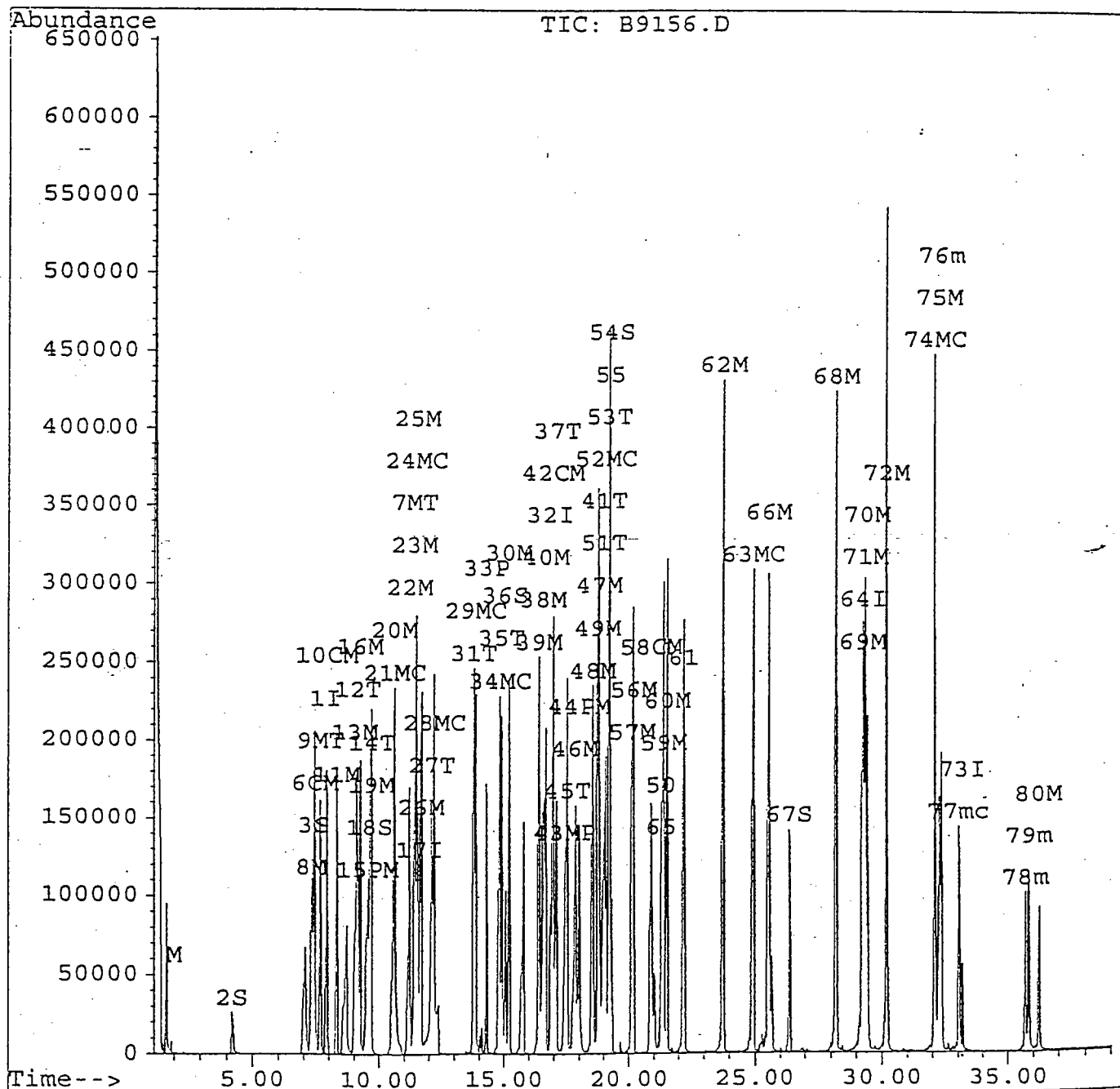
Quant Time: Nov 22 12:21 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration



5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

194

Lab Name : EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Lab File ID: B9005.D DFTPP Injection Date: 10/27/95
 Instrument ID: ABNA DFTPP Injection Time: 1121

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	58.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	76.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	46.5
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	7.5
275	10.0 - 30.0% of mass 198	19.3
365	Greater than 0.75% of mass 198	2.3
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	62.3
443	15.0 - 24.0% of mass 442	11.8 (19.0)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	B9008.D	10/27/95	1329
02	SBLK01	BLANK1	B9009.D	10/27/95	1421
03	9547000B	9547000B	B9010.D	10/27/95	1512
04	46360MS	46360MS	B9011.D	10/27/95	1604
05	46360MSD	46360MSD	B9012.D	10/27/95	1656
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

195

Data File : C:\HPCHEM\1\DATA2\B9005.D

Acq On : 27 Oct 95 11:21 am

Vial: 1

Sample : DFTPP.....

Operator: SCOTTV

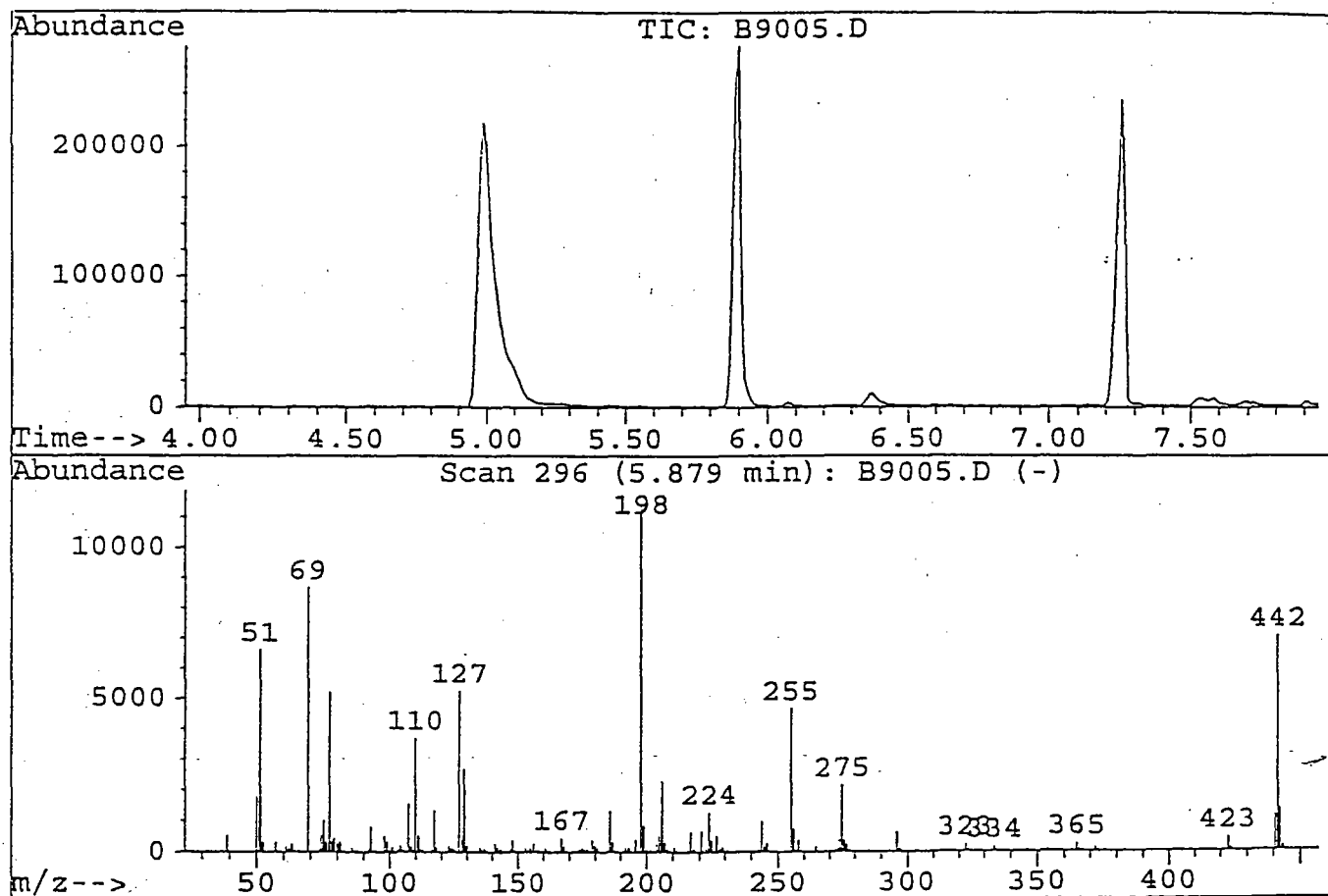
Misc :

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58.5	6640	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	76.5	8681	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	46.5	5278	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	11354	PASS
199	198	5	9	7.5	851	PASS
275	198	10	30	19.3	2186	PASS
365	198	1	100	2.3	262	PASS
441	443	0	100	85.7	1150	PASS
442	198	40	100	62.3	7070	PASS
443	442	17	23	19.0	1342	PASS

Scan 296 (5.879 min): B9005.D

196

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	76	61.05	162	78.05	357	92.95	836
39.10	538	62.05	105	78.95	456	94.05	60
40.10	11	63.05	251	80.05	272	96.00	4
49.15	60	64.05	21	81.05	337	98.00	514
50.10	1802	65.05	39	82.05	22	99.00	334
51.10	6640	69.05	8681	83.95	27	100.00	61
52.10	309	73.25	96	84.15	30	100.90	173
56.05	84	74.05	568	85.95	152	102.10	23
57.05	325	74.95	1043	87.05	60	103.00	131
57.95	40	75.95	325	88.15	24	104.00	213
58.95	33	77.05	5224	92.15	139	105.00	77

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
106.10	45	119.20	28	131.95	21	145.95	60
107.00	1558	120.10	23	133.85	94	147.05	123
108.00	176	122.10	159	135.05	173	147.95	389
109.10	71	123.10	219	135.95	85	148.85	58
109.95	3714	124.00	134	136.95	116	150.05	34
111.00	519	125.00	94	137.75	36	151.25	56
112.00	87	127.00	5278	140.05	29	151.95	43
113.10	31	128.00	424	140.95	285	152.95	140
116.00	131	128.95	2715	141.95	153	153.95	69
117.00	1370	129.85	217	143.05	97	154.95	138
117.90	140	131.10	50	145.05	19	156.05	290

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
157.15	71	169.10	53	178.80	398	189.90	28
157.95	86	170.20	25	179.85	215	190.90	62
158.95	48	170.90	34	180.90	122	191.90	140
159.95	73	171.90	78	181.90	29	193.00	137
160.85	143	173.00	95	182.80	17	195.00	27
161.95	53	174.00	147	184.00	47	195.90	402
164.05	17	175.00	154	184.80	122	197.90	11354
164.90	13	176.00	98	185.85	1327	198.80	851
165.95	79	177.10	135	186.90	319	200.00	72
166.90	470	177.80	31	187.90	49	201.40	85
167.90	186	178.10	37	188.80	46	203.00	60

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.80	274	220.95	681	234.95	47	246.90	54
204.95	542	222.85	148	235.95	43	247.60	10
205.95	2320	223.85	1298	236.95	67	248.90	64
206.85	289	224.95	385	239.05	37	253.40	16
207.95	112	225.95	47	239.90	19	254.90	4690
208.95	41	226.95	533	240.90	49	255.80	735
210.75	167	227.95	107	241.80	74	256.90	64
214.85	42	228.85	163	242.90	80	257.90	400
215.95	68	229.95	32	243.90	1011	258.90	49
216.75	644	230.85	57	244.80	168	264.90	163
217.95	101	233.85	55	245.90	273	271.80	20

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.90	141	302.85	75	331.70	25	365.85	41
273.80	394	303.95	33	332.90	24	370.85	31
274.90	2186	313.80	44	333.90	159	371.85	130
275.90	356	314.90	72	334.90	33	382.55	16
276.85	235	315.90	45	340.70	20	382.95	24
277.75	37	320.70	24	345.80	64	389.70	22
282.95	18	321.80	17	351.95	54	401.90	58
284.95	37	322.90	232	352.95	51	402.80	67
293.05	43	323.90	53	353.85	74	403.70	21
295.85	649	326.70	36	354.85	17	420.90	47
296.85	108	327.90	29	364.85	262	422.90	447

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
423.85	81						
440.85	1150						
441.85	7070						
442.75	1342						
443.75	155						

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9005.D

Acq On : 27 Oct 95 11:21 am

Sample : DFTPP.....

Misc :

Quant Time: Oct 27 12:32 1995

Vial: 1

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

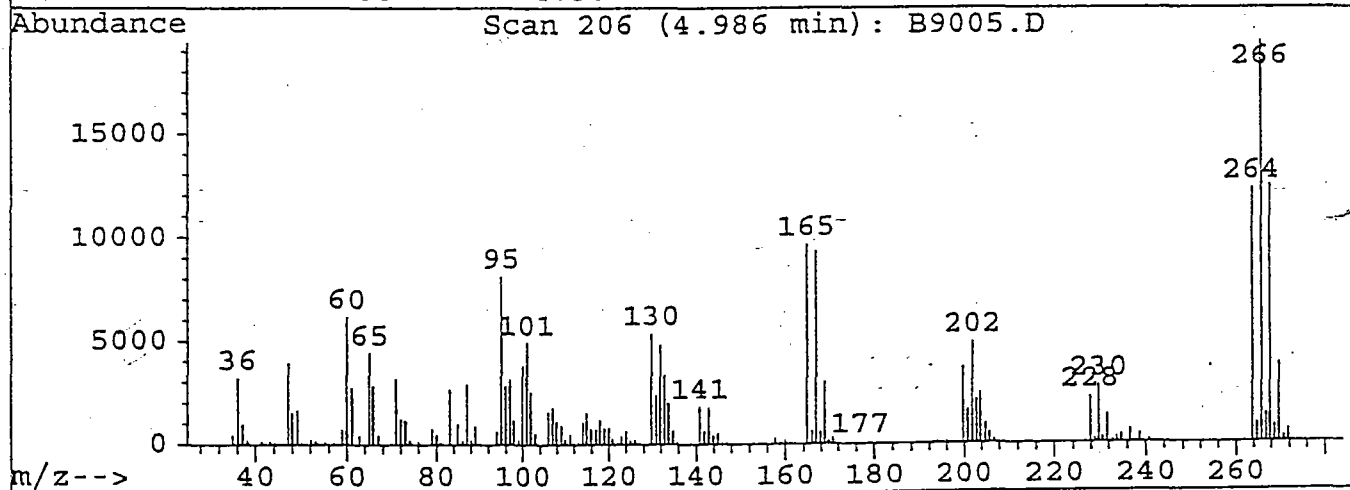
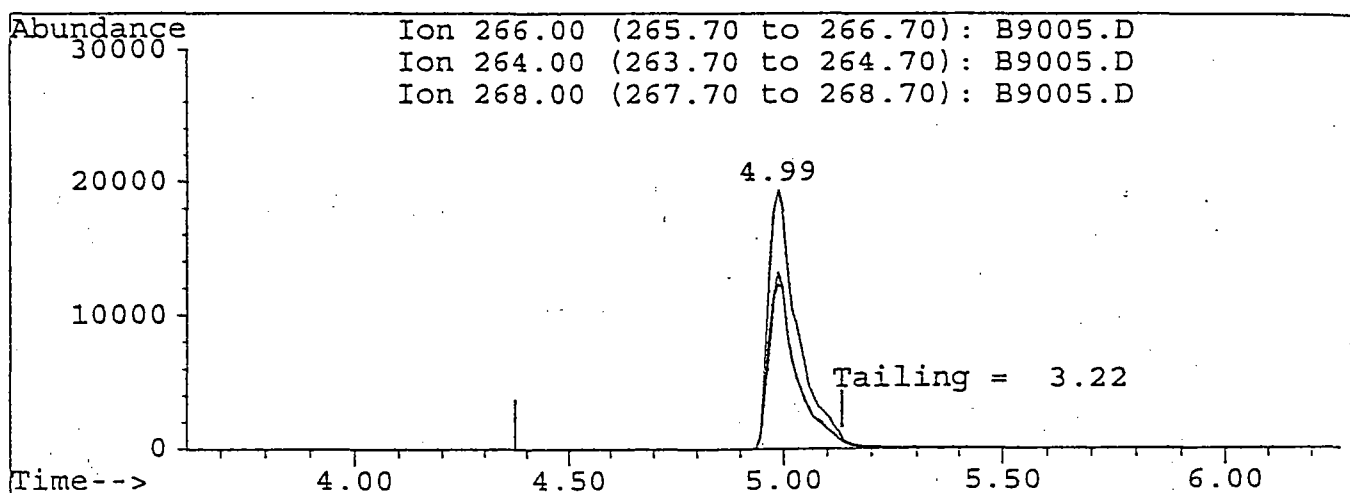
Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

198



TIC: B9005.D

(1) Pentachlorophenol (CM)

4.99min 272.64ug/mL

response 90052

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	63.35
268.00	64.70	68.27
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9005.D

Acq On : 27 Oct 95 11:21 am

Sample : DFTPP.....

Misc :

Quant Time: Oct 27 12:32 1995

Vial: 1

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

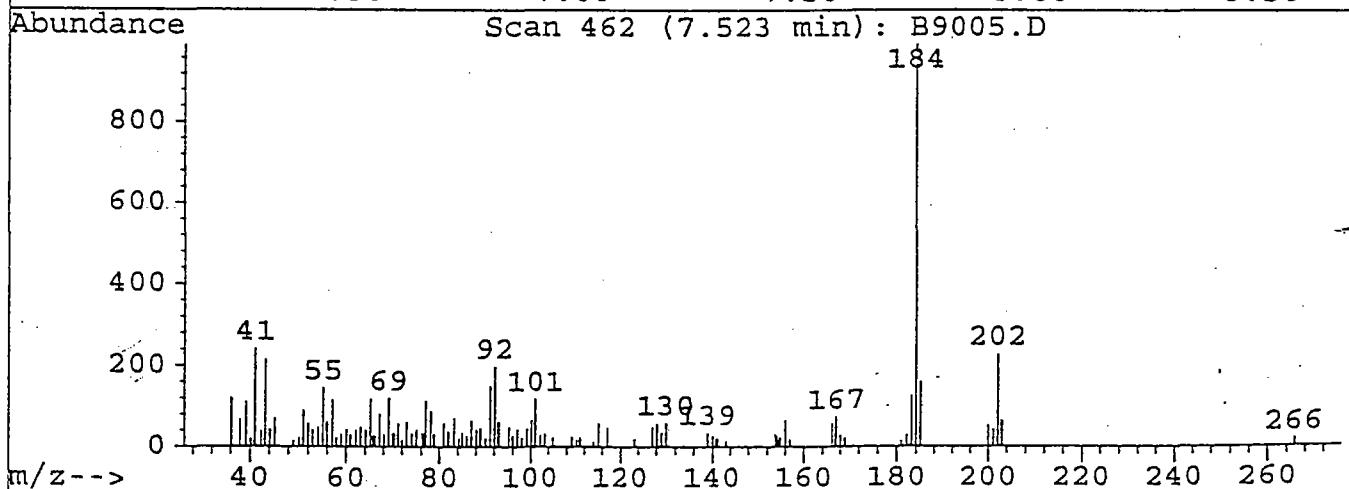
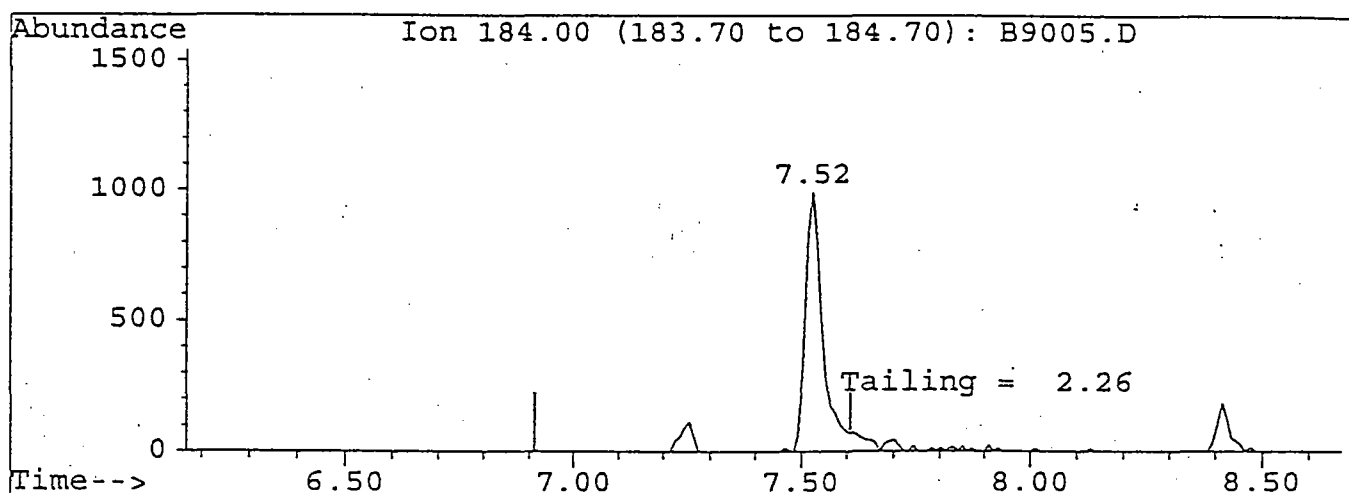
Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

199



TIC: B9005.D

(2) Benzidine

7.52min 9.14ug/ml

response 2809

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

200

Lab Name: EMSL ANALYTICAL Contract: _____
 Project No. _____ Site: _____ Location: _____ Group: _____
 Instrument ID: ABNA Calibration Date: #### Time: 1329
 Lab File ID: B9008.D Init. Calib. Date(s): #### 1/0/00
 Init. Calib. Times: 1329 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.887	0.841		5.2	
bis(2-Chloroethyl)ether	2.373	2.336		1.6	
1,3-Dichlorobenzene	1.367	1.410		-3.1	
1,4-Dichlorobenzene	1.383	1.419		-2.6	30.0
1,2-Dichlorobenzene	1.347	1.385		-2.8	
bis(2-chloroisopropyl)ether	2.234	1.940		13.2	
N-Nitroso-Di-n-propylamine	1.528	1.444	0.050	5.5	
Hexachloroethane	0.868	0.883		-1.7	
Nitrobenzene	0.519	0.516		0.6	
Isophorone	1.101	1.024		7.0	
bis(2-Chloroethoxy)methane	0.603	0.598		0.8	
1,2,4-Trichlorobenzene	0.304	0.309		-1.6	
Naphthalene	1.003	0.942		6.1	
Hexachlorobutadiene	0.160	0.160		0.0	30.0
Hexachlorocyclopentadiene	0.289	0.246	0.050	14.9	
2-Chloronaphthalene	0.634	0.647		-2.1	
Dimethylphthalate	1.368	1.400		-2.3	
Acenaphthylene	1.801	1.833		-1.8	
2,6-Dinitrotoluene	0.308	0.351		-14.0	
Acenaphthene	1.020	1.150		-12.7	30.0
2,4-Dinitrotoluene	0.452	0.459		-1.5	
Diethylphthalate	1.556	1.602		-3.0	
Fluorene	1.167	1.206		-3.3	
4-Chlorophenyl-phenylether	0.509	0.505		0.8	
n-Nitrosodiphenylamine	0.543	0.578		-6.4	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.187	0.199		-6.4	
Hexachlorobenzene	0.237	0.247		-4.2	
Phenanthrene	1.087	1.152		-6.0	
Anthracene	1.068	1.135		-6.3	
Di-n-butylphthalate	2.011	1.728		14.1	
Fluoranthene	1.092	0.939		14.0	30.0
Benzidine	0.274	0.276		-0.7	
Pyrene	1.600	1.832		-14.5	
Butylbenzylphthalate	1.245	1.293		-3.9	
Benzo[a]anthracene	1.429	1.239		13.3	
3,3'-Dichlorobenzidine	0.386	0.330		14.5	

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Contract:

Group:

Time: 1329

Init. Calib. Times: 1329 0000

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

202

Data File : C:\HPCHEM\1\DATA2\B9008.D

Vial: 2

Acq On : 27 Oct 95 1:29 pm

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 Oct 25 10:20:51 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	89	-0.10
2 S	2-Fluorophenol	1.275	1.248	2.1	88	-0.08
3 S	Phenol-d5	2.069	2.002	3.2	89	-0.04
4 M	N-nitrosodimethylamine	0.887	0.841	5.2	84	-0.06
5	Pyridine	0.795	0.000#	100.0#	0#	-1.55#
6 CM	Phenol	1.941	2.100	-8.2	100	-0.04
7 MT	bis(2-Chloroethyl)ether	2.373	2.336	1.6	90	-0.08
8 M	2-Chlorophenol	1.333	1.349	-1.2	90	-0.08
9 MT	1,3-Dichlorobenzene	1.367	1.410	-3.1	90	-0.08
10 CM	1,4-Dichlorobenzene	1.383	1.419	-2.6	87	-0.10
11 M	1,2-Dichlorobenzene	1.347	1.385	-2.8	89	-0.10
12 T	2-Methylphenol	1.279	1.273	0.5	88	-0.06
13 M	bis(2-chloroisopropyl)ether	2.234	1.940	13.2	93	-0.06
14 T	4-Methylphenol	1.402	1.302	7.1	78	-0.06
15 PM	N-Nitroso-Di-n-propylamine	1.528	1.444	5.5	86	-0.08
16 M	Hexachloroethane	0.868	0.883	-1.7	90	-0.10
17 I	Naphthalene-d8	1.000	1.000	0.0	88	-0.10
18 S	Nitrobenzene-d5	0.542	0.524	3.4	87	-0.08
19 M	Nitrobenzene	0.519	0.516	0.6	93	-0.08
20 M	Isophorone	1.101	1.024	7.0	88	-0.10
21 MC	2-Nitrophenol	0.239	0.227	5.2	81	-0.10
22 M	2,4-Dimethylphenol	0.387	0.378	2.2	89	-0.06
23 M	bis(2-Chloroethoxy)methane	0.603	0.598	0.8	90	-0.08
24 MC	2,4-Dichlorophenol	0.295	0.282	4.4	85	-0.06
25 M	1,2,4-Trichlorobenzene	0.304	0.309	-1.6	88	-0.10
26 M	Naphthalene	1.003	0.942	6.1	82	-0.10
27 T	4-Chloroaniline	0.470	0.439	6.7	86	-0.08
28 MC	Hexachlorobutadiene	0.160	0.160	-0.5	88	-0.08
29 MC	4-Chloro-3-methylphenol	0.388	0.356	8.4	80	-0.04
30 M	2-Chloronaphthalene	0.634	0.647	-2.0	90	-0.08
31 T	2-Methylnaphthalene	0.870	0.829	4.7	81	-0.10
32 I	Acenaphthene-d10	1.000	1.000	0.0	87	-0.10
33 P	Hexachlorocyclopentadiene	0.289	0.246	15.1	88	-0.08
34 MC	2,4,6-Trichlorophenol	0.426	0.387	9.2	83	-0.08
35 T	2,4,5-Trichlorophenol	0.347	0.413	-18.9	89	-0.06
36 S	2-Fluorobiphenyl	1.220	1.209	0.9	84	-0.10
37 T	2-Nitroaniline	0.783	0.773	1.3	89	-0.06
38 M	Dimethylphthalate	1.368	1.400	-2.3	88	-0.08
39 M	Acenaphthylene	1.801	1.833	-1.8	86	-0.10
40 M	2,6-Dinitrotoluene	0.308	0.351	-14.1	81	-0.08

(#)= Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9008.D

Acq On : 27 Oct 95 1:29 pm

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Vial: 2 203

Operator: SCOTTV SUP

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 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	0.342	0.354	-3.5	84	-0.06
42 CM	Acenaphthene	1.020	1.150	-12.8	96	-0.10
43 MP	2,4-Dinitrophenol	0.210	0.227	-8.3	114	-0.08
44 PM	4-Nitrophenol	0.228	0.222	2.4	88	0.00
45 T	Dibenzofuran	1.534	1.481	3.5	82	-0.10
46 M	2,4-Dinitrotoluene	0.452	0.459	-1.4	85	-0.08
47 M	Diethylphthalate	1.556	1.602	-2.9	88	-0.08
48 M	Fluorene	1.167	1.206	-3.3	87	-0.08
49 M	4-Chlorophenyl-phenylether	0.509	0.505	0.8	85	-0.10
50	Phenanthrene-d10	1.000	1.000	0.0	80	-0.10
51 T	4-Nitroaniline	0.230	0.259	-12.3	84	-0.06
52 MC	4,6-Dinitro-2-methylphenol	0.148	0.147	1.1	74	-0.08
53 T	n-Nitrosodiphenylamine	0.543	0.578	-6.6	82	-0.08
54 S	2,4,6-Tribromophenol	0.127	0.123	2.6	81	-0.08
55	1,2-Diphenylhydrazine (as a	1.784	1.999	-12.0	85	-0.08
56 M	4-Bromophenyl-phenylether	0.187	0.199	-6.3	85	-0.10
57 M	Hexachlorobenzene	0.237	0.247	-4.3	83	-0.10
58 CM	Pentachlorophenol	0.163	0.130	19.7	71	-0.10
59 M	Phenanthrene	1.087	1.152	-6.0	82	-0.09
60 M	Anthracene	1.068	1.135	-6.3	82	-0.09
61	Carbazole	1.065	0.890	16.4	68	-0.09
62 M	Di-n-butylphthalate	2.011	1.728	14.1	67	-0.11
63 MC	Fluoranthene	1.092	0.939	14.1	67	-0.74#
64 I	Chrysene-d12	1.000	1.000	0.0	36#	-0.11
65	Benzidine	0.274	0.276	-0.9	42#	-0.10
66 M	Pyrene	1.600	1.832	-14.5	42#	-0.11
67 S	Terphenyl-d14	0.994	1.151	-15.8	45#	-0.11
68 M	Butylbenzylphthalate	1.245	1.293	-3.9	38#	-0.11
69 M	Benzo[a]anthracene	1.429	1.239	13.3	30#	-0.13
70 M	3,3'-Dichlorobenzidine	0.386	0.330	14.4	30#	-0.09
71 M	Chrysene	0.857	1.008	-17.6	42#	-0.11
72 M	bis(2-Ethylhexyl)phthalate	1.785	1.714	3.9	35#	-0.11
73 I	Perylene-d12	1.000	1.000	0.0	34#	-0.09
74 MC	Di-n-octylphthalate	5.692	5.727	-0.6	33#	-0.11
75 M	Benzo[b]fluoranthene	1.952	1.846	5.5	26#	-0.11
76 m	Benzo[k]fluoranthene	1.162	1.246	-7.2	36#	-0.11
77 mc	Benzo[a]pyrene	1.081	1.178	-8.9	37#	-0.09
78 m	Indeno[1,2,3-cd]pyrene	0.561	0.585	-4.3	34#	-0.09
79 m	Dibenz[a,h]anthracene	0.549	0.494	9.9	30#	-0.09

Evaluate Continuing Calibration Report

204

Data File : C:\HPCHEM\1\DATA2\B9008.D Vial: 2
 Acq On : 27 Oct 95 1:29 pm 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 Oct 25 10:20:51 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	0.510	0.437	14.3	28#	-0.09
81	1-Methyl naphthalene	0.000	0.000#	0.0	0#	-14.07#
82	7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	0#	-36.48#
83	Quinoline	0.000	0.000#	0.0	85	-0.08
84	Thiophenol	0.000	0.000#	0.0	0#	-5.86#
85	4-Methyl chrysene	0.000	0.000#	0.0	0#	-31.87#
86	Dibenz(a,j)acridine	0.000	0.000#	0.0	29#	-0.09
87	Indene	0.000	0.000#	0.0	0#	-9.67#
88	Benzyl alcohol	0.000	0.000#	0.0	91	-0.10
89	Benzoic acid	0.000	0.000#	0.0	90	-0.06

Quantitation Report

205

Data File : c:\hpcchem\1\data2\b9008.d

Acq On : 27 Oct 95 1:29 pm

Sample : 50 STD..... Converted from RTE d

Misc :

Quant Time: Oct 30 14:27 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 Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.59	152	26722	40.00	ug/mL	-0.10
17) Naphthalene-d8	12.33	136	104351	40.00	ug/mL	-0.10
32) Acenaphthene-d10	17.63	164	57774	40.00	ug/mL	-0.10
50) Phenanthrene-d10	22.12	188	79042	40.00	ug/mL	-0.10
64) Chrysene-d12	30.18	240	25699	40.00	ug/mL	-0.11
73) Perylene-d12	34.15	264	9983	40.00	ug/mL	-0.09

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.03	112	41696	48.95	ug/mL	48.95%
3) Phenol-d5	8.05	99	66887	48.39	ug/mL	48.39%
18) Nitrobenzene-d5	10.31	82	68307	48.30	ug/mL	48.30%
36) 2-Fluorobiphenyl	15.80	172	87328	49.56	ug/mL	49.56%
54) 2,4,6-Tribromophenol	20.08	330	12186	48.69	ug/mL	48.69%
67) Terphenyl-d14	27.25	244	36967	57.91	ug/mL	57.91%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.08	74	28093	47.39	ug/mL	100
6) Phenol	8.09	94	70156	54.11	ug/mL	100
7) bis(2-Chloroethyl) ether	12.04	93	78019	49.22	ug/mL	99
8) 2-Chlorophenol	8.03	128	45049	50.60	ug/mL#	80
9) 1,3-Dichlorobenzene	8.40	146	47089	51.56	ug/mL	96
10) 1,4-Dichlorobenzene	8.65	146	47410	51.30	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	46258	51.39	ug/mL	96
12) 2-Methylphenol	9.77	108	42525	49.77	ug/mLm	100
13) bis(2-chloroisopropyl) ethe	9.71	45	64814	43.42	ug/mL	99
14) 4-Methylphenol	10.29	108	43505	46.44	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.13	70	48217	47.24	ug/mL	93
16) Hexachloroethane	9.98	117	29491	50.85	ug/mL#	74
19) Nitrobenzene	10.37	77	67275	49.68	ug/mLm	91
20) Isophorone	11.17	82	133559	46.48	ug/mL	94
21) 2-Nitrophenol	11.29	139	29599	47.42	ug/mL#	90
22) 2,4-Dimethylphenol	11.81	107	49328	48.89	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.04	93	78019	49.60	ug/mL#	100
24) 2,4-Dichlorophenol	12.12	162	36829	47.80	ug/mL	96
25) 1,2,4-Trichlorobenzene	12.22	180	40319	50.79	ug/mL	94
26) Naphthalene	12.39	128	122894	46.95	ug/mL	100
27) 4-Chloroaniline	12.78	127	57235	46.63	ug/mL	99
28) Hexachlorobutadiene	12.91	225	20908	50.23	ug/mL	99
29) 4-Chloro-3-methylphenol	14.53	107	46386	45.80	ug/mL#	1
30) 2-Chloronaphthalene	15.97	162	84381	51.00	ug/mL#	100
31) 2-Methylnaphthalene	14.53	142	108166	47.67	ug/mL#	71
33) Hexachlorocyclopentadiene	15.05	237	17734	42.44	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.53	196	27935	45.40	ug/mL	96
35) 2,4,5-Trichlorophenol	15.63	196	29810	59.43	ug/mL	95

(4) multiplier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpcchem\1\data2\b9008.d

Vial: 2

Acq On : 27 Oct 95 1:29 pm

Operator: SCOTTV

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 30 14:27 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.79	65	55820	49.36	ug/mL	86
38) Dimethylphthalate	17.27	163	101087	51.16	ug/mL#	12
39) Acenaphthylene	17.17	152	132357	50.88	ug/mL	98
40) 2,6-Dinitrotoluene	17.34	165	25335	57.03	ug/mLm	99
41) 3-Nitroaniline	19.68	138	25550	51.73	ug/mL	89
42) Acenaphthene	17.73	153	83055	56.38	ug/mL	98
43) 2,4-Dinitrophenol	18.10	184	16396	54.13	ug/mLm	83
44) 4-Nitrophenol	18.65	109	16063	48.80	ug/mLm	55
45) Dibenzofuran	18.29	168	106926	48.25	ug/mL	94
46) 2,4-Dinitrotoluene	18.52	165	33124	50.69	ug/mL#	1
47) Diethylphthalate	19.48	149	115678	51.47	ug/mL#	93
48) Fluorene	19.33	166	87065	51.64	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.52	204	36435	49.59	ug/mL#	85
51) 4-Nitroaniline	19.68	138	25550	56.16	ug/mL	89
52) 4,6-Dinitro-2-methylphenol	19.73	198	14484	49.43	ug/mL	100
53) n-Nitrosodiphenylamine	19.97	169	57135	53.30	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.00	77	197478	56.01	ug/ml	100
56) 4-Bromophenyl-phenylether	20.97	248	19642	53.15	ug/mL	91
57) Hexachlorobenzene	20.93	284	24441	52.13	ug/mL#	50
58) Pentachlorophenol	21.66	266	12892	40.14	ug/mLm	97
59) Phenanthrene	22.20	178	113864	53.01	ug/mL	99
60) Anthracene	22.36	178	112150	53.16	ug/mLm	99
61) Carbazole	23.01	167	87921	41.79	ug/ml	96
62) Di-n-butylphthalate	24.53	149	170725	42.96	ug/mL	99
63) Fluoranthene	25.78	202	92729	42.97	ug/mLm	70
65) Benzidine	22.12	184	8865	50.45	ug/mlm	100
66) Pyrene	26.42	202	58853	57.24	ug/mLm	60
68) Butylbenzylphthalate	29.04	149	41544	51.93	ug/mL#	12
69) Benzo[a]anthracene	30.14	228	39805	43.35	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.33	252	10615	42.80	ug/mL#	90
71) Chrysene	30.25	228	32370	58.81	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.03	149	55067	48.03	ug/mL#	34
74) Di-n-octylphthalate	32.93	149	71466	50.31	ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	23032	47.27	ug/mL#	80
76) Benzo[k]fluoranthene	33.28	252	15551	53.61	ug/mLm	80
77) Benzo[a]pyrene	34.00	252	14699	54.47	ug/mLm	80
78) Indeno[1,2,3-cd]pyrene	36.67	276	7304	52.14	ug/mLm	32
79) Dibenz[a,h]anthracene	36.79	278	6166	45.03	ug/mL#	83
80) Benzo[g,h,i]perylene	37.21	276	5449	42.84	ug/mL#	63

Quantitation Report

Data File : c:\hpchem\1\data2\b9008.d

Acq On : 27 Oct '95 1:29 pm

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 30 14:27 1995

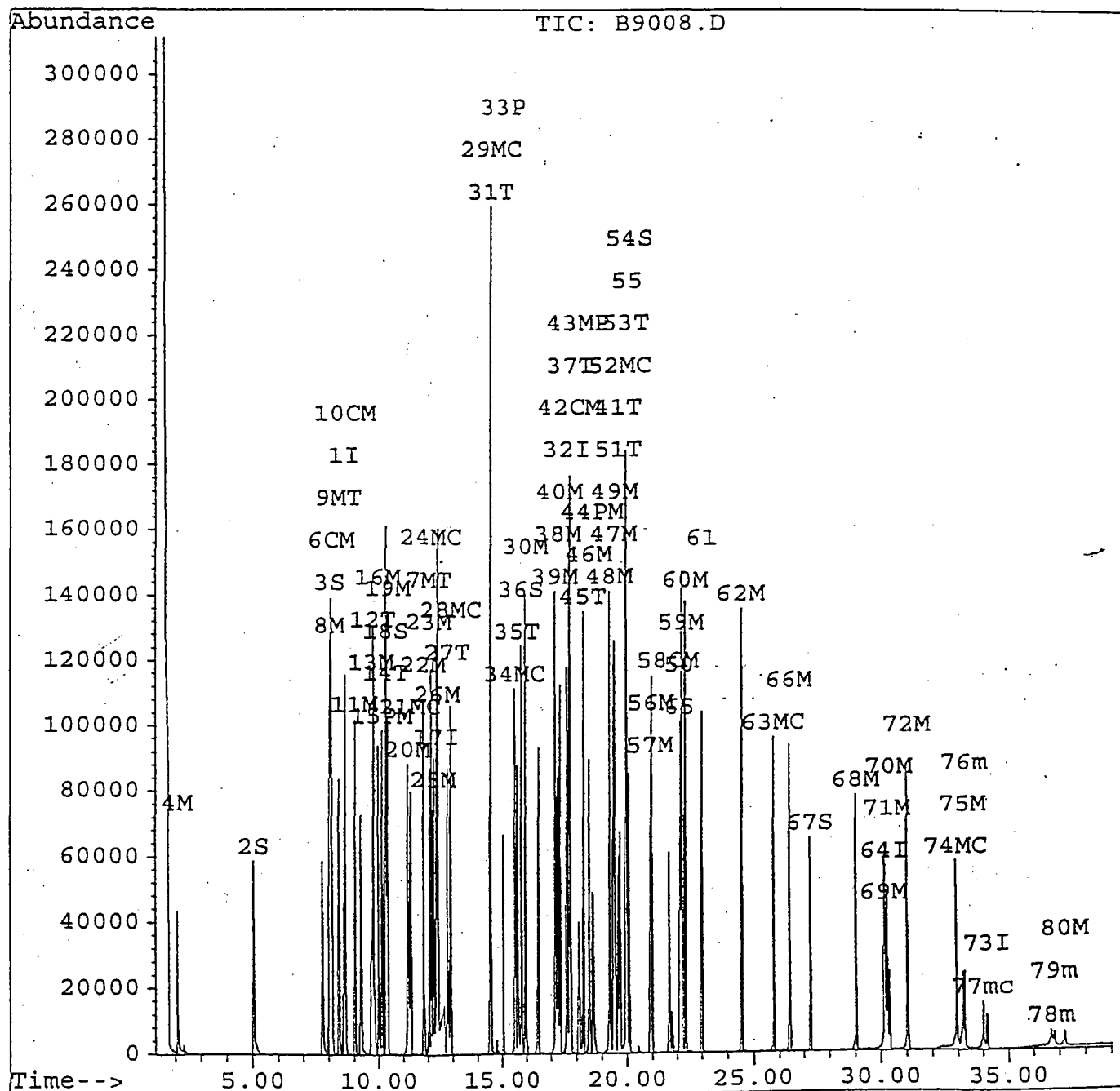
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

207



SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B9300.D DFTPP Injection Date: 12/7/95

Instrument ID: ABNA DFTPP Injection Time: 1749

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	55.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.4
70	Less than 2.0% of mass 69	1.2 (1.8)1
127	25.0 - 75.0% of mass 198	40.5
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	5.5
275	10.0 - 30.0% of mass 198	13.6
365	Greater than 0.75% of mass 198	2.2
441	Present, but less than mass 443	5.4
442	40.0 - 110.0% of mass 198	42.4
443	15.0 - 24.0% of mass 442	7.9 (18.7)2

1-Value is % mass 69

2-Value is % mass 442

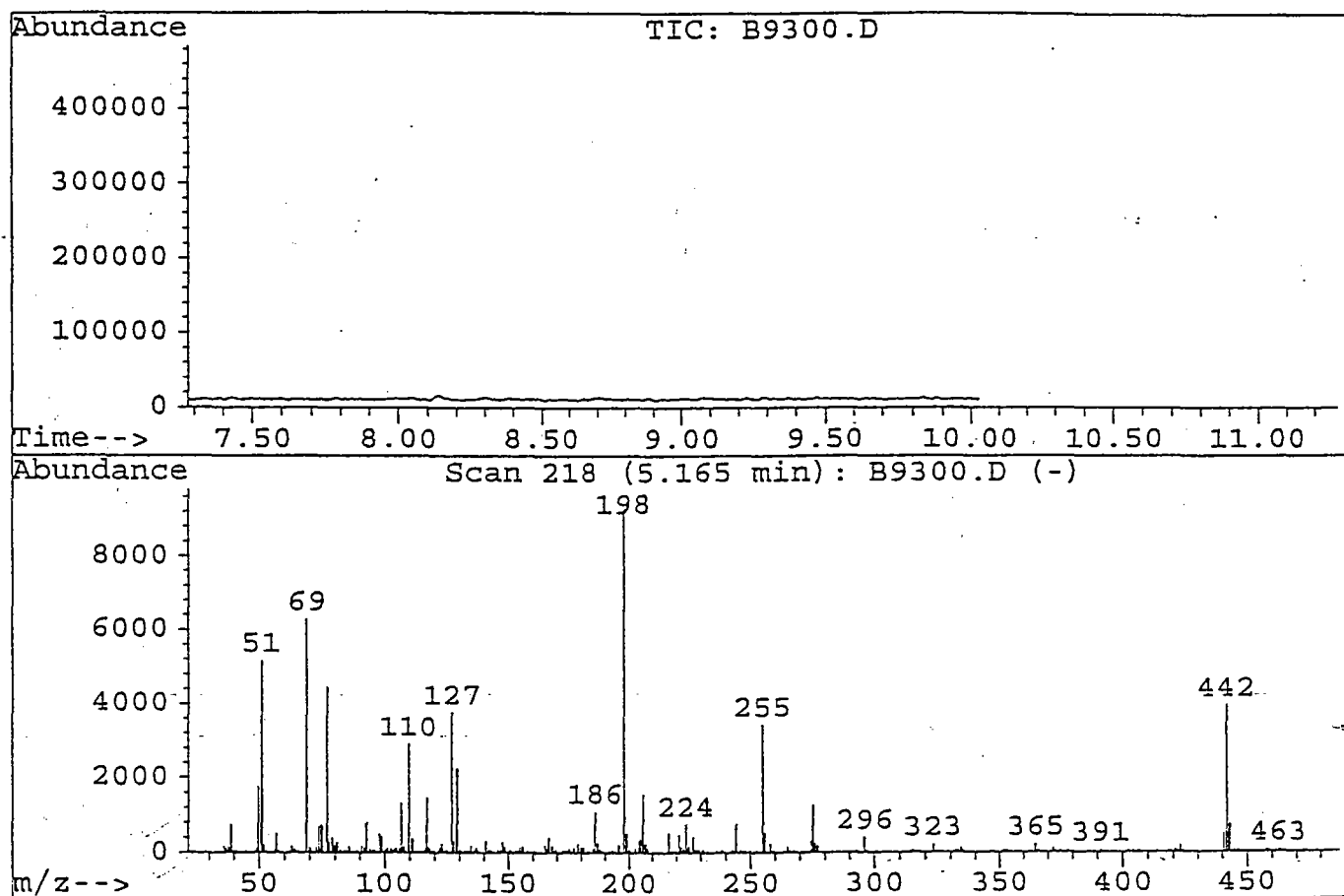
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B9301.D	12/7/95	1832
02	SBLK01	BLANK1	B9302.D	12/7/95	1923
03	9554748B	9554748B	B9303.D	12/7/95	2014
04	SBLK02	BLANK2	B9304.D	12/7/95	2105
05	9554739B	9554739B	B9305.D	12/7/95	2156
06	9554740B	9554740B	B9306.D	12/7/95	2247
07	9554741B	9554741B	B9307.D	12/7/95	2338
08	9554738B	9554738B	B9308.D	12/8/95	0029
09	SBLK03	BLANK3	B9309.D	12/8/95	0120
10	9554551B	9554551B	B9310.D	12/8/95	0210
11	9554552B	9554552B	B9311.D	12/8/95	0301
12	9554554B	9554554B	B9312.D	12/8/95	0352
13	9554555B	9554555B	B9313.D	12/8/95	0443
14	9554556B	9554556B	B9314.D	12/8/95	0534
15	9554557B	9554557B	B9315.D	12/8/95	0625
16	9554558B	9554558B	B9316.D	12/8/95	0716
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B9300.D Vial: 1
 Acq On : 7 Dec 95 5:49 pm Operator: SCOTT
 Sample : DFTPP..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration



Peak Apex is scan: 623.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.5	5181	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	67.4	6289	PASS
70	69	0	2	1.8	112	PASS
127	198	40	60	40.5	3780	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	9335	PASS
199	198	5	9	5.5	513	PASS
275	198	10	30	13.6	1265	PASS
365	198	1	100	2.2	209	PASS
441	443	0	100	67.7	501	PASS
442	198	40	100	42.4	3954	PASS
443	442	17	23	18.7	740	PASS

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.20	171	51.05	5181	64.05	82	77.80	281
36.80	101	52.05	189	65.05	35	79.00	395
37.80	156	52.95	18	66.05	21	79.85	167
39.10	753	56.05	96	68.95	6289	80.05	180
40.00	61	56.95	513	70.00	112	80.95	274
41.05	35	57.85	31	70.75	34	82.20	62
44.95	46	60.95	22	72.45	83	83.95	70
47.65	22	61.85	20	72.95	144	84.85	78
48.35	69	62.15	46	73.95	725	85.95	176
49.05	140	62.45	2	74.95	744	87.10	14
49.95	1765	63.05	175	77.05	4458	87.95	55

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.05	65	100.65	85	111.65	5	119.65	60
89.85	11	101.05	132	112.55	41	121.40	28
90.95	197	102.75	117	112.85	39	121.65	98
92.05	143	103.15	69	113.05	52	122.05	153
92.90	801	104.00	124	114.55	70	122.25	143
94.55	82	104.95	135	115.35	32	123.05	249
95.75	66	106.05	131	116.15	136	123.85	35
95.95	63	107.05	1344	117.05	1481	124.45	63
98.05	500	107.95	148	118.15	129	125.15	67
98.90	417	109.95	2921	118.75	28	127.00	3780
100.15	66	111.05	384	119.15	20	127.95	309

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
129.00	2243	137.50	22	150.10	53	163.20	28
130.00	31	139.10	27	151.00	83	165.00	203
130.30	77	140.90	309	153.00	69	166.00	118
130.60	69	142.05	68	154.20	60	166.90	405
132.20	75	142.80	73	154.80	149	168.00	193
132.70	26	143.05	35	155.95	155	169.05	68
133.40	64	145.90	82	158.00	53	169.70	65
134.90	198	147.00	78	158.90	27	172.00	76
136.20	72	147.90	291	159.95	39	172.60	68
136.40	61	148.50	139	160.70	47	173.10	71
137.00	133	149.50	22	161.10	70	174.10	81

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	123	187.00	265	199.00	513	210.20	52
175.95	36	188.00	95	199.70	11	210.95	25
177.10	141	189.00	57	200.20	76	211.40	55
178.90	233	189.80	21	201.60	38	211.80	45
180.05	152	191.60	49	202.80	120	212.40	23
181.00	143	191.90	44	204.10	350	216.10	73
183.00	45	192.10	43	204.95	398	216.95	539
183.40	26	193.00	87	206.10	1587	218.05	76
184.80	104	194.30	46	207.00	232	219.35	59
185.10	124	196.10	203	207.80	99	220.05	46

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.65	148	230.75	92	246.05	65	259.00	45
222.85	98	232.65	34	247.45	39	261.75	11
223.95	769	236.25	75	248.85	53	263.65	72
225.05	166	237.65	43	249.85	37	264.95	150
226.05	9	237.95	46	251.25	32	265.65	50
226.95	430	238.15	47	252.65	92	267.15	33
227.75	81	238.75	77	253.95	42	267.35	32
228.05	74	241.85	53	254.95	3451	267.75	54
228.25	60	242.15	58	255.95	517	270.45	30
228.55	58	242.95	84	256.85	38	272.95	65
229.05	109	244.05	764	258.05	245	274.05	310

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.95	1265	296.00	405	311.80	16	334.20	129
275.95	216	296.65	44	314.00	54	334.90	37
276.90	167	296.95	52	314.90	92	339.90	14
279.65	15	298.75	23	317.60	52	340.80	15
282.35	14	300.10	13	322.40	35	346.20	73
284.90	41	300.85	60	323.00	215	347.50	41
285.15	45	302.75	11	324.60	21	351.70	64
287.65	26	304.10	28	325.50	32	352.70	43
291.25	54	304.90	23	328.80	41	353.10	55
292.95	49	306.10	31	331.80	52	356.00	7
293.55	51	308.50	30	333.30	43	356.40	15

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
357.30	34	391.95	41	407.85	28	439.65	39
364.90	209	395.45	33	410.15	21	440.95	501
365.85	28	396.25	11	413.55	6	441.95	3954
371.60	39	396.55	29	418.55	29	442.95	740
372.10	99	400.85	20	420.95	93	444.75	44
375.10	37	402.05	45	421.75	23	446.55	61
378.20	45	402.55	25	423.05	187	449.45	36
386.40	47	403.85	30	423.85	56	453.35	39
388.50	38	404.05	28	427.35	28	457.95	66
390.90	2	405.75	21	429.65	38	458.85	40
391.45	66	406.55	41	435.35	36	459.75	11

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
462.95	66						
467.35	32						
467.85	16						
472.95	54						

Quantitation Report

212

Data File : C:\HPCHEM\1\DATA2\B9300.D

Acq On : 7 Dec 95 5:49 pm

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

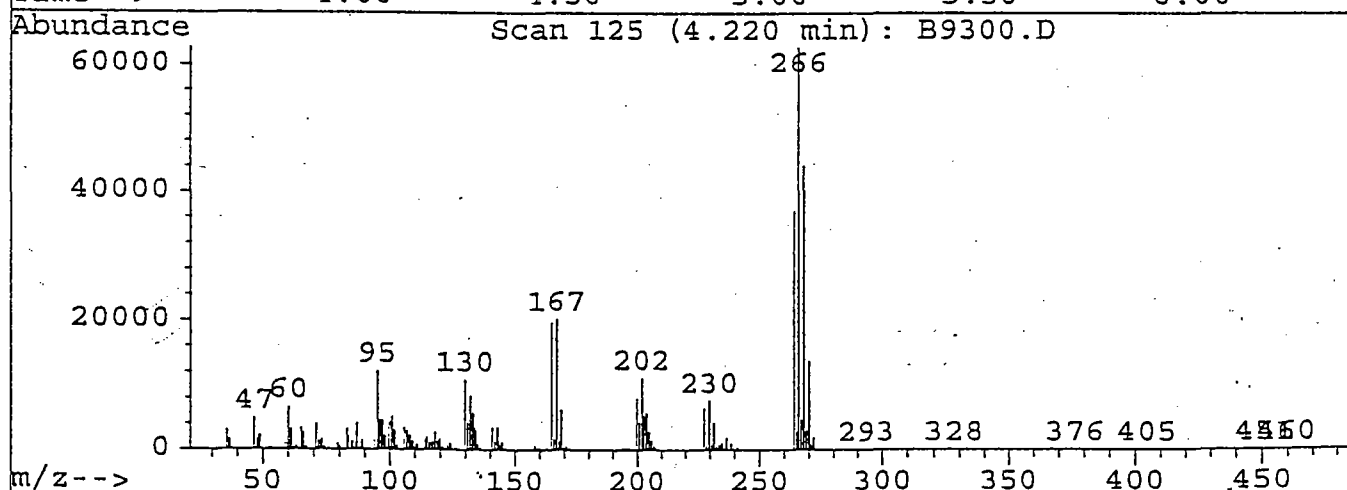
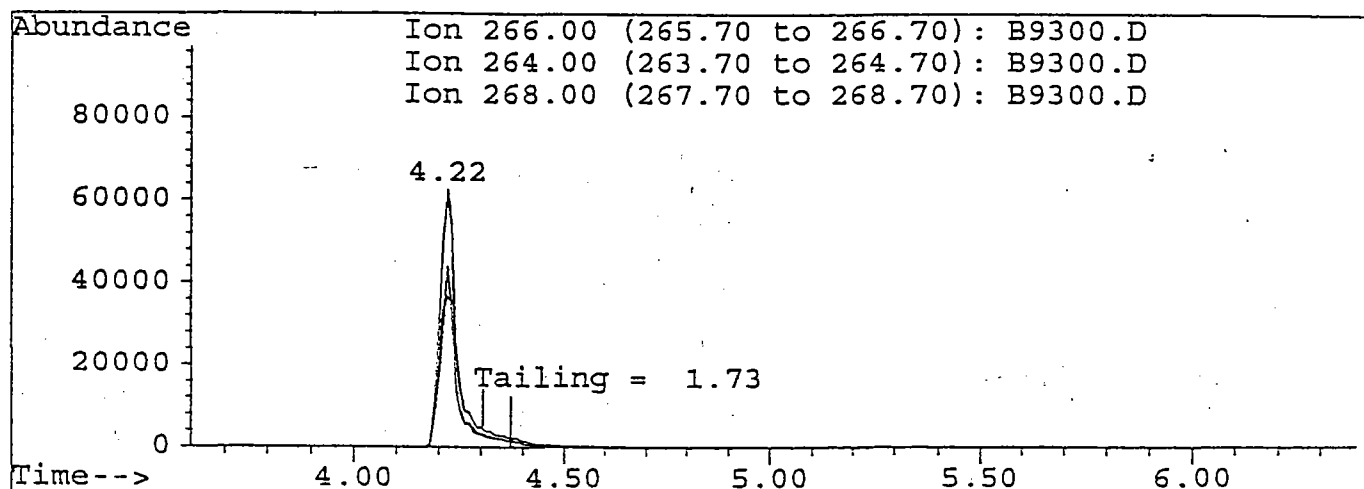
Quant Time: Dec 7 18:19 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration



TIC: B9300.D

(1) Pentachlorophenol (CM)

5.34min 1.21ug/mL

response 399

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	47.66#
268.00	64.70	39.84#
0.00	0.00	0.00

Quantitation Report

213

Data File : C:\HPCHEM\1\DATA2\B9300.D

Acq On : 7 Dec 95 5:49 pm

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

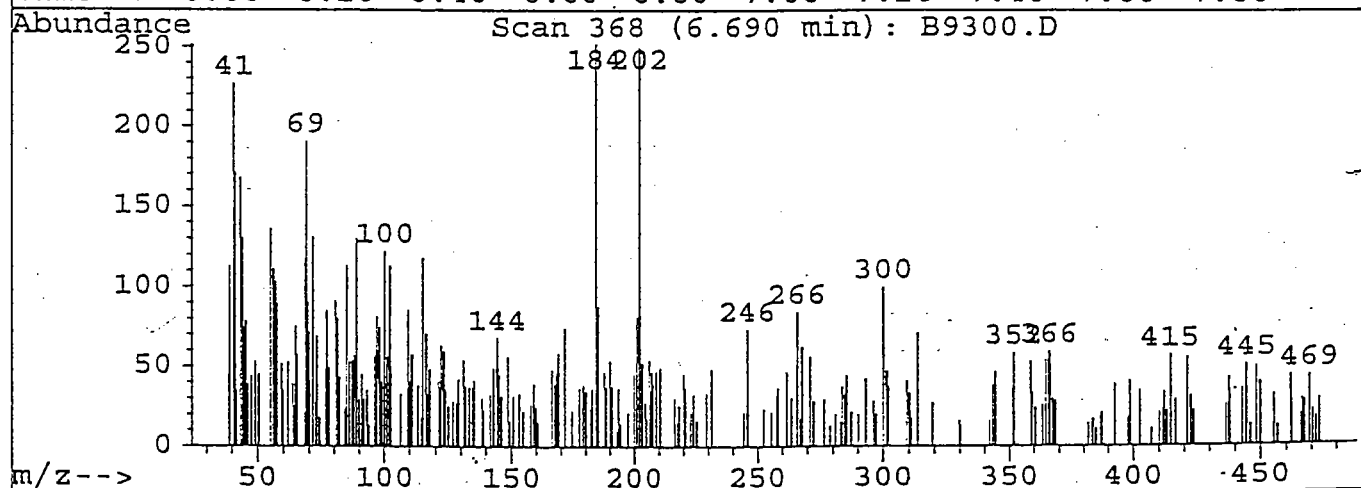
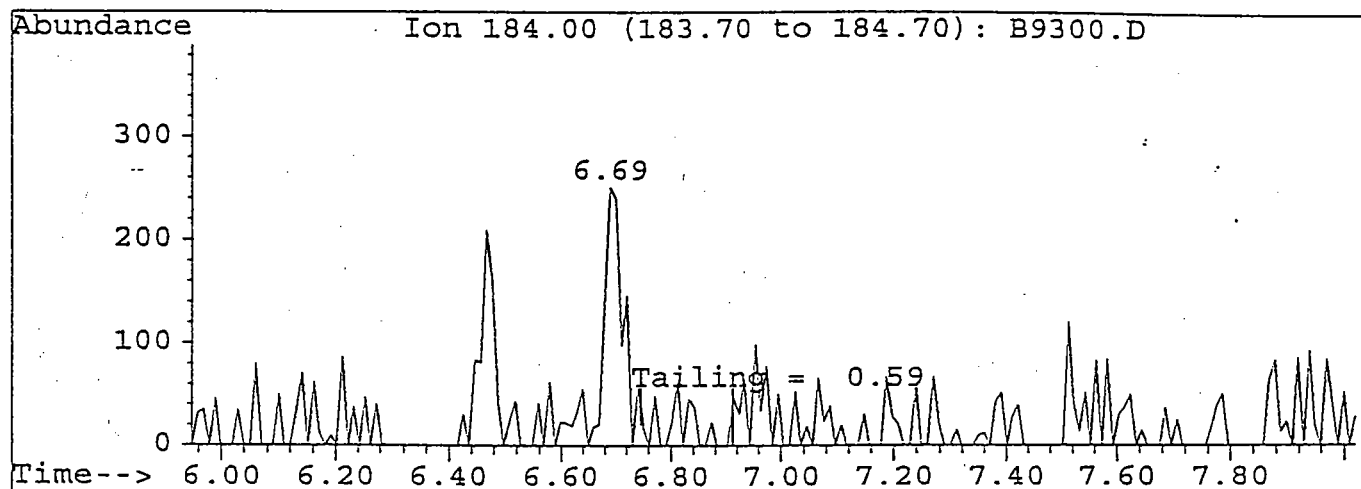
Quant Time: Dec 7 18:19 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration



TIC: B9300.D

(2) Benzidine

6.95min 0.52ug/ml

response 160

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

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: ABNACalibration Date: 12/7/95Time: 1832Lab File ID: B9301.DInit. Calib. Date(s): 12/7/95 1/0/00Init. Calib. Times: 1832 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.853	0.693		18.8	
bis(2-Chloroethyl)ether	2.157	1.828		15.3	
1,3-Dichlorobenzene	1.353	1.349		0.3	
1,4-Dichlorobenzene	1.369	1.375		-0.4	30.0
1,2-Dichlorobenzene	1.359	1.338		1.5	
bis(2-chloroisopropyl)ether	2.246	1.880		16.3	
N-Nitroso-Di-n-propylamine	1.408	1.263	0.050	10.3	
Hexachloroethane	0.828	0.847		-2.3	
Nitrobenzene	0.559	0.455		18.6	
Isophorone	0.770	0.662		14.0	
bis(2-Chloroethoxy)methane	0.517	0.423		18.2	
1,2,4-Trichlorobenzene	0.313	0.325		-3.8	
Naphthalene	0.958	0.885		7.6	
Hexachlorobutadiene	0.188	0.217		-15.4	30.0
Hexachlorocyclopentadiene	0.268	0.216	0.050	19.4	
2-Chloronaphthalene	0.693	0.716		-3.3	
Dimethylphthalate	1.366	1.334		2.3	
Acenaphthylene	1.607	1.596		0.7	
2,6-Dinitrotoluene	0.336	0.352		-4.8	
Acenaphthene	1.020	0.971		4.8	30.0
2,4-Dinitrotoluene	0.462	0.423		8.4	
Diethylphthalate	1.498	1.418		5.3	
Fluorene	1.125	1.175		-4.4	
4-Chlorophenyl-phenylether	0.532	0.559		-5.1	
n-Nitrosodiphenylamine	0.424	0.410		3.3	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.209	0.229		-9.6	
Hexachlorobenzene	0.294	0.322		-9.5	
Phenanthrene	0.989	0.952		3.7	
Anthracene	0.998	0.935		6.3	
Di-n-butylphthalate	1.830	1.738		5.0	
Fluoranthene	1.092	1.110		-1.6	30.0
Benzidine	0.116	0.124		-6.9	
Pyrene	1.481	1.336		9.8	
Butylbenzylphthalate	1.086	0.940		13.4	
Benzo[a]anthracene	1.253	1.107		11.7	
3,3'-Dichlorobenzidine	0.387	0.365		5.7	

All other compounds must meet a minimum RRF of 0.010.

7B

Contract:

Site:

Location:

Group:

Calibration Date: 12/7/95

Time: 1832

Init. Calib. Date(s): 12/7/95 1/0/00

Init. Calib. Times: 1832 0000

[illegible]

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

216

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
 Acq On : 7 Dec 95 6:32 pm 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 Nov 22 12:21:54 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	57	-0.32
2 S	2-Fluorophenol	1.139	1.009	11.4	51	-0.36
3 S	Phenol-d5	1.896	1.587	16.3	49#	-0.29
4 M	N-nitrosodimethylamine	0.853	0.693	18.8	48#	-0.15
5	Pyridine	1.101	0.000#	100.0#	0#	-1.55#
6 CM	Phenol	1.649	1.487	9.8	54	-0.29
7 MT	bis(2-Chloroethyl) ether	2.157	1.828	15.2	49#	-0.31
8 M	2-Chlorophenol	1.302	1.185	9.0	53	-0.32
9 MT	1,3-Dichlorobenzene	1.353	1.349	0.3	56	-0.32
10 CM	1,4-Dichlorobenzene	1.369	1.375	-0.4	56	-0.32
11 M	1,2-Dichlorobenzene	1.359	1.338	1.5	55	-0.32
12 T	2-Methylphenol	1.218	1.170	4.0	57	-0.29
13 M	bis(2-chloroisopropyl) ether	2.246	1.880	16.3	52	-0.25
14 T	4-Methylphenol	1.307	1.278	2.2	58	-0.27
15 PM	N-Nitroso-Di-n-propylamine	1.408	1.263	10.3	54	-0.29
16 M	Hexachloroethane	0.828	0.847	-2.2	58	-0.34
17 I	Naphthalene-d8	1.000	1.000	0.0	61	-0.32
18 S	Nitrobenzene-d5	0.478	0.417	12.7	56	-0.30
19 M	Nitrobenzene	0.559	0.455	18.7	50	-0.30
20 M	Isophorone	0.770	0.662	14.0	47#	-0.29
21 MC	2-Nitrophenol	0.215	0.201	6.5	58	-0.32
22 M	2,4-Dimethylphenol	0.380	0.325	14.5	55	-0.29
23 M	bis(2-Chloroethoxy) methane	0.517	0.423	18.2	50	-0.31
24 MC	2,4-Dichlorophenol	0.277	0.283	-2.4	63	-0.29
25 M	1,2,4-Trichlorobenzene	0.313	0.325	-3.8	62	-0.32
26 M	Naphthalene	0.958	0.885	7.6	56	-0.32
27 T	4-Chloroaniline	0.446	0.413	7.4	58	-0.31
28 MC	Hexachlorobutadiene	0.188	0.217	-15.6	69	-0.31
29 MC	4-Chloro-3-methylphenol	0.397	0.333	16.1	54	-0.29
30 M	2-Chloronaphthalene	0.693	0.716	-3.4	65	-0.32
31 T	2-Methylnaphthalene	0.839	0.908	-8.2	64	-0.32
32 I	Acenaphthene-d10	1.000	1.000	0.0	61	-0.34
33 P	Hexachlorocyclopentadiene	0.268	0.216	19.5	54	-0.32
34 MC	2,4,6-Trichlorophenol	0.351	0.352	-0.2	70	-0.32
35 T	2,4,5-Trichlorophenol	0.357	0.405	-13.5	70	-0.31
36 S	2-Fluorobiphenyl	1.063	1.061	0.3	67	-0.32
37 T	2-Nitroaniline	0.650	0.529	18.7	55	-0.31
38 M	Dimethylphthalate	1.366	1.334	2.3	62	-0.31
39 M	Acenaphthylene	1.607	1.596	0.7	60	-0.34
40 M	2,6-Dinitrotoluene	0.336	0.352	-4.7	65	-0.31

Evaluate Continuing Calibration Report

217

Data File : C:\HPCHEM\1\DATA2\B9301.D

Vial: 2

Acq On : 7 Dec 95 6:32 pm

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 Nov 22 12:21:54 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	0.326	0.306	6.1	57	-0.33
42 CM	Acenaphthene	1.020	0.971	4.8	58	-0.34
43 MP	2,4-Dinitrophenol	0.183	0.179	2.1	81	-0.31
44 PM	4-Nitrophenol	0.234	0.231	1.6	72	-0.29
45 T	Dibenzofuran	1.433	1.509	-5.4	65	-0.34
46 M	2,4-Dinitrotoluene	0.462	0.423	8.4	59	-0.31
47 M	Diethylphthalate	1.498	1.418	5.3	56	-0.33
48 M	Fluorene	1.125	1.175	-4.5	62	-0.34
49 M	4-Chlorophenyl-phenylether	0.532	0.559	-5.1	64	-0.34
50	Phenanthrene-d10	1.000	1.000	0.0	60	-0.35
51 T	4-Nitroaniline	0.179	0.170	4.8	57	-0.33
52 MC	4,6-Dinitro-2-methylphenol	0.131	0.108	17.6	51	-0.33
53 T	n-Nitrosodiphenylamine	0.424	0.410	3.4	60	-0.33
54 S	2,4,6-Tribromophenol	0.176	0.178	-1.4	65	-0.34
55	1,2-Diphenylhydrazine (as a	1.193	0.966	19.0	48#	-0.34
56 M	4-Bromophenyl-phenylether	0.209	0.229	-9.3	65	-0.34
57 M	Hexachlorobenzene	0.294	0.322	-9.8	65	-0.34
58 CM	Pentachlorophenol	0.182	0.177	3.2	68	-0.33
59 M	Phenanthrene	0.989	0.952	3.8	61	-0.35
60 M	Anthracene	0.998	0.935	6.4	59	-0.36
61	Carbazole	0.952	0.859	9.8	57	-0.35
62 M	Di-n-butylphthalate	1.830	1.738	5.0	60	-0.35
63 MC	Fluoranthene	1.092	1.110	-1.6	65	-0.37
64 I	Chrysene-d12	1.000	1.000	0.0	69	-0.37
65	Benzidine	0.116	0.124	-6.8	54	-0.36
66 M	Pyrene	1.481	1.336	9.8	68	-0.37
67 S	Terphenyl-d14	1.103	1.054	4.4	76	-0.35
68 M	Butylbenzylphthalate	1.086	0.940	13.5	68	-0.35
69 M	Benzo[a]anthracene	1.253	1.107	11.7	65	-0.37
70 M	3,3'-Dichlorobenzidine	0.387	0.365	5.7	75	-0.37
71 M	Chrysene	0.905	0.858	5.2	70	-0.37
72 M	bis(2-Ethylhexyl)phthalate	1.489	1.262	15.2	63	-0.35
73 I	Perylene-d12	1.000	1.000	0.0	62	-0.35
74 MC	Di-n-octylphthalate	4.241	4.181	1.4	54	-0.35
75 M	Benzo[b]fluoranthene	1.623	1.574	3.0	60	-0.37
76 m	Benzo[k]fluoranthene	1.220	1.407	-15.4	73	-0.37
77 mc	Benzo[a]pyrene	1.032	0.972	5.8	61	-0.35
78 m	Indeno[1,2,3-cd]pyrene	0.728	0.630	13.5	57	-0.35
79 m	Dibenz[a,h]anthracene	0.713	0.559	21.5	59	-0.35

Evaluate Continuing Calibration Report

218

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
 Acq On : 7 Dec 95 6:32 pm 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 Nov 22 12:21:54 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	0.725	0.676	6.8	75	-0.35

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

219

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9008.DDate Analyzed: 10/27/95Instrument ID: ABNATime Analyzed: 1329

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	26722	8.59	104351	12.33	57774	17.63
UPPER LIMIT	53444	9.09	208702	12.83	115548	18.13
LOWER LIMIT	13361	8.09	52176	11.83	28887	17.13
SAMPLE NO.						
01 SBLK01	22496	8.59	83610	12.31	47426	17.62
02 9547000B	24097	8.60	94497	12.32	54817	17.61
03 46360MS	24328	8.60	97435	12.32	56181	17.64
04 46360MSD	25002	8.60	97241	12.34	55587	17.64
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (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.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

220

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9008.DDate Analyzed: 10/27/95Instrument ID: ABNATime Analyzed: 1329

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	79042	22.12	25699	30.18	9983	34.15
UPPER LIMIT	158084	22.62	51398	30.68	19966	34.65
LOWER LIMIT	39521	21.62	12850	29.68	4992	33.65
SAMPLE NO.						
01 SBLK01	61940	22.09	43279	30.18	19502	34.16
02 9547000B	77921	22.11	44563	30.17	16352	34.16
03 46360MS	74786	22.13	35528	30.18	16536	34.14
04 46360MSD	77102	22.13	28509	30.19	10719	34.15
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
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.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

221.

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9301.DDate Analyzed: 12/7/95Instrument ID: ABNATime Analyzed: 1832

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	12552	7.51	55859	11.25	41239	16.49
UPPER LIMIT	25104	8.01	111718	11.75	82478	16.99
LOWER LIMIT	6276	7.01	27930	10.75	20620	15.99
SAMPLE NO.						
01 SBLK01	10248	7.49	47523	11.23	30909	16.46
02 9554748B	10448	7.49	46119	11.21	32492	16.46
03 SBLK02	10754	7.50	45450	11.21	30398	16.47
04 9554739B	11429	7.49	48207	11.22	33956	16.46
05 9554740B	12152	7.49	54261	11.21	34229	16.46
06 9554741B	11926	7.49	51863	11.21	37751	16.46
07 9554738B	12481	7.48	51577	11.21	36232	16.47
08 SBLK03	13214	7.49	57506	11.23	38030	16.46
09 9554551B	12591	7.49	55162	11.23	39445	16.47
10 9554552B	11760	7.49	49833	11.21	35216	16.47
11 9554554B	10086	7.49	45945	11.21	31194	16.46
12 9554555B	11834	7.49	48191	11.21	34931	16.47
13 9554556B	10233	7.49	41813	11.21	31976	16.46
14 9554557B	13122	7.49	55278	11.21	37148	16.46
15 9554558B	10925	7.47	45621	11.21	32808	16.46
16						
17						
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.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

222

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9301.DDate Analyzed: 12/7/95Instrument ID: ABNATime Analyzed: 1832

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	73998	20.90	64001	28.88	19039	32.81
UPPER LIMIT	147996	21.40	128002	29.38	38078	33.31
LOWER LIMIT	36999	20.40	32001	28.38	9520	32.31
SAMPLE NO.						
01 SBLK01	51342	20.87	48010	28.84	15946	32.81
02 9554748B	52081	20.87	42633	28.84	15392	32.79
03 SBLK02	54361	20.87	43820	28.84	14326	32.81
04 9554739B	58099	20.86	54163	28.84	20120	32.79
05 9554740B	56159	20.87	54498	28.84	18350	32.79
06 9554741B	63262	20.87	54199	28.84	22178	32.79
07 9554738B	63510	20.87	51164	28.83	21186	32.79
08 SBLK03	61176	20.87	55171	28.84	17234	32.79
09 9554551B	65698	20.88	50081	28.84	18361	32.79
10 9554552B	64514	20.88	47488	28.84	14577	32.78
11 9554554B	50056	20.87	37914	28.84	12115	32.78
12 9554555B	60678	20.86	44912	28.84	14123	32.79
13 9554556B	51660	20.87	38952	28.84	11771	32.78
14 9554557B	61548	20.87	50354	28.82	13578	32.79
15 9554558B	56480	20.87	40684	28.84	11235	32.79
16						
17						
18						
19						
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.

223

Lab Name: EMSL ANALYTICAL

Contract: _____

1980-3
9554554B

Field Bl/mL

Project No.: _____

Site: Bldg 482

Location: FB

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: B9312.D

Level: (low/med) _____

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(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

Lab Name: EMSL ANALYTICAL

Contract:

Project No.:

Site: BHG 482

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9312.D

Level: (low/med)

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

[illegible]

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

225

1980.3
9554554B
Field Blank

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: Bldg 482

Location: FB

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B9312.D

Level: (low/med) _____

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N) N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

Number TICs found: 2

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown Hydrocarbon	8.14	5	J
2. 57-10-3	Hexadecanoic acid	23.52	2	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

226

Data File : c:\hpcchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 13:31 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	10086	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.21	136	45945	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.46	164	31194	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	50056	40.00	ug/mL	-0.38
64) Chrysene-d12	28.84	240	37914	40.00	ug/mL	-0.41
73) Perylene-d12	32.78	264	12115	40.00	ug/mL	-0.37

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	233	0.49	ug/mL	0.49%
18) Nitrobenzene-d5	9.20	82	34693	63.19	ug/mL	63.19%
36) 2-Fluorobiphenyl	14.69	172	63804	76.94	ug/mL	76.94%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	97434	93.20	ug/mL	93.20%

Target Compounds

Qvalue

Quantitation Report

227

Data File : c:\hpchem\1\data2\b9312.d

Acq On : 8 Dec 95 3:52 am

Sample : 54554..... Converted from RTE.d Inst

Misc :

Quant Time: Dec 11 13:31 1995

Vial: 13

Operator: SCOTTV

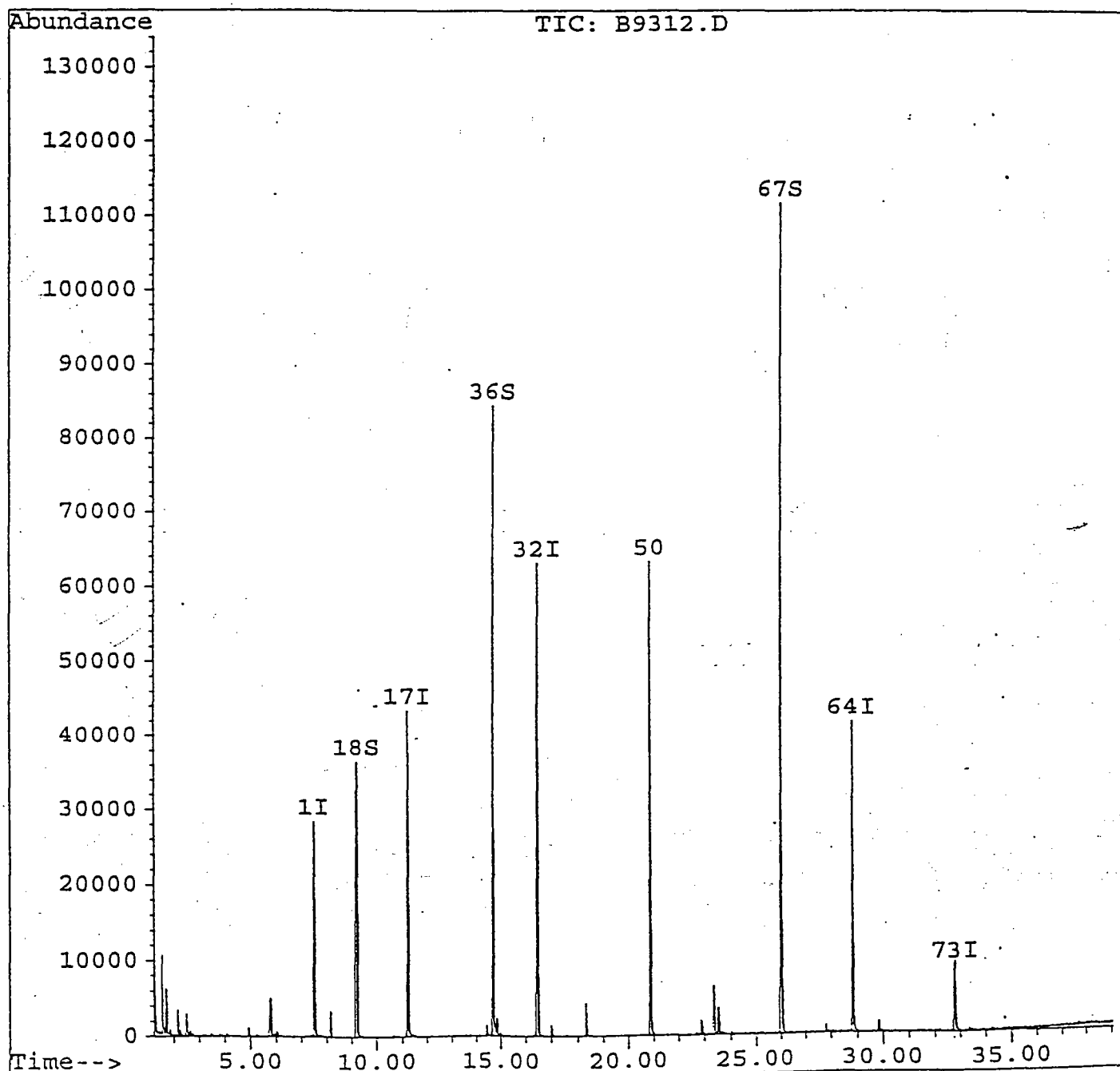
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration



Library Search Compound Report

228

Data File : c:\hpchem\1\data2\b9312.d

Acq On : 8 Dec 95 3:52 am

Sample : 54554.....

Misc :

Vial: 13

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

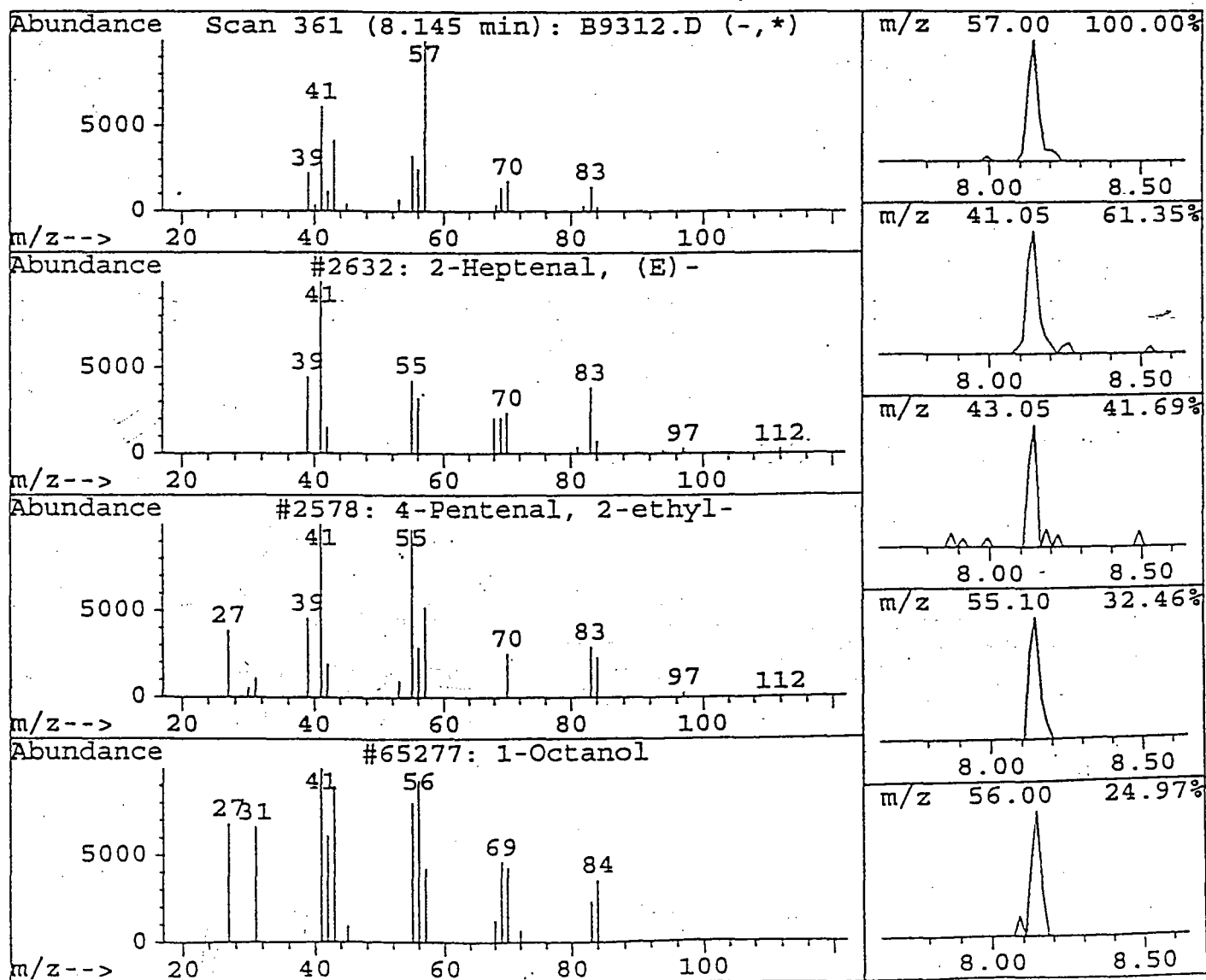
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
8.14	4.63 ug/mL	8300	1,4-Dichlorobenzene-d4	7.49

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Heptenal, (E)-	2632	018829-55-5	42
2	4-Pentenal, 2-ethyl-	2578	005204-80-8	40
3	1-Octanol	65277	000111-87-5	38
4	Propanoic acid, heptyl ester	68350	002216-81-1	17
5	1-Butene	62308	000106-98-9	9



Library Search Compound Report

229

Data File : c:\hpchem\1\data2\b9312.d

Acq On : 8 Dec 95 3:52 am

Sample : 54554..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

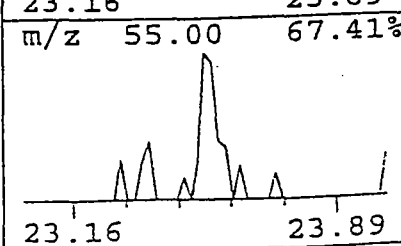
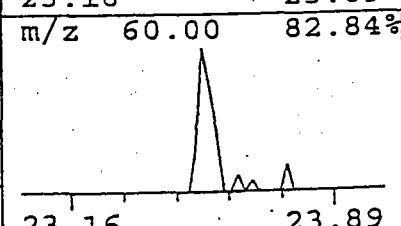
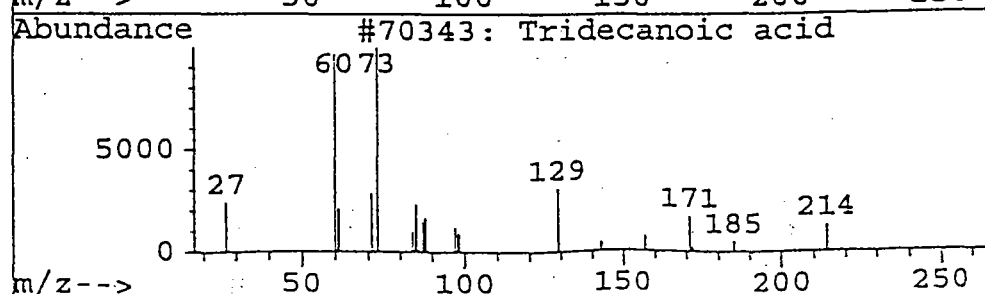
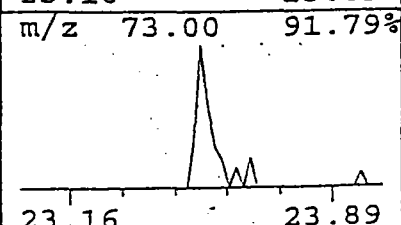
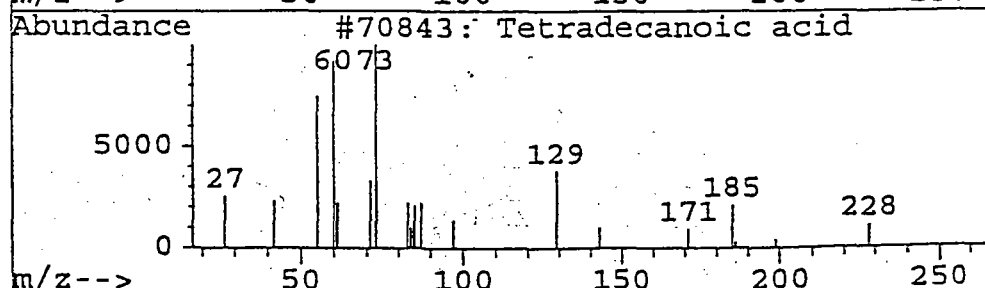
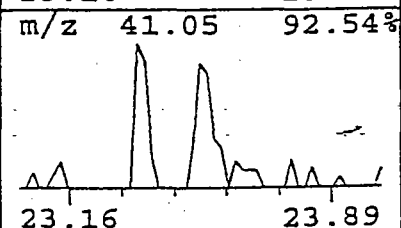
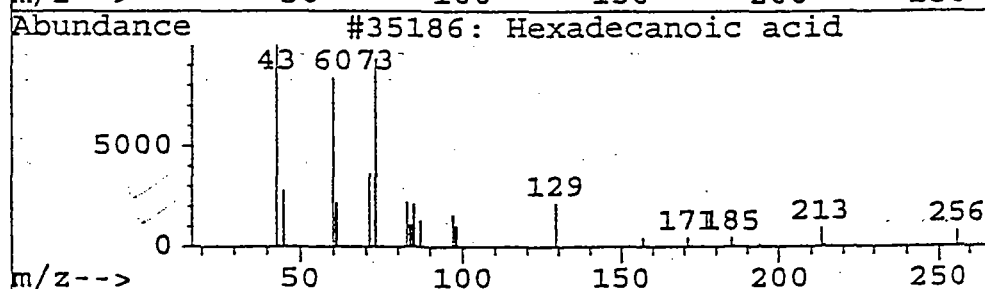
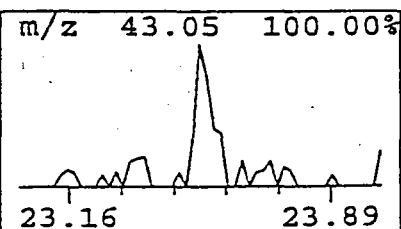
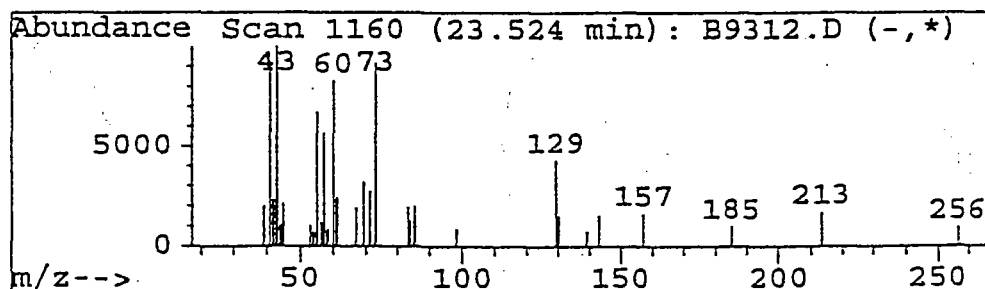
Library : C:\DATABASE\NBS75K.L

Vial: 13

Operator: SCOTTV

BT Multiplr: 1.00

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.52	2.45 ug/mL	9490	Phenanthrene-d10	20.87	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Hexadecanoic acid		35186	000057-10-3	93
2	Tetradecanoic acid		70843	000544-63-8	72
3	Tridecanoic acid		70343	000638-53-9	59
4	Pentadecanoic acid		32396	001002-84-2	59
5	Undecanoic acid		69096	000112-37-8	53



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

230

Lab Name: EMSL ANALYTICAL

Contract: _____

9554558B

11/11-2933756

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554558B

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: B9316.D

Level: (low/med) _____

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N): N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(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

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

232

9554558B

MW-2933756

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9554558B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B9316.D

Level: (low/med) _____

Date Received: 11/27/95

% Moisture: 0

decanted: (Y/N) N

Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

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.				
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Quantitation Report

233

Data File : c:\hpchem\1\data2\b9316.d

Vial: 17

Acq On : 8 Dec 95 7:16 am

Operator: SCOTTV

Sample : 54558..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: Dec 11 13:35 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.47	152	10925	40.00	ug/mL	-0.37
17) Naphthalene-d8	11.21	136	45621	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.46	164	32808	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	56480	40.00	ug/mL	-0.38
64) Chrysene-d12	28.84	240	40684	40.00	ug/mL	-0.40
73) Perylene-d12	32.79	264	11235	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.68	112	37	0.12	ug/mL	0.12%
3) Phenol-d5	7.49	99	150	0.29	ug/mL	0.29%
18) Nitrobenzene-d5	9.20	82	29499	54.11	ug/mL	54.11%
36) 2-Fluorobiphenyl	14.69	172	47898	54.92	ug/mL	54.92%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.01	244	99094	88.33	ug/mL	88.33%

Target Compounds

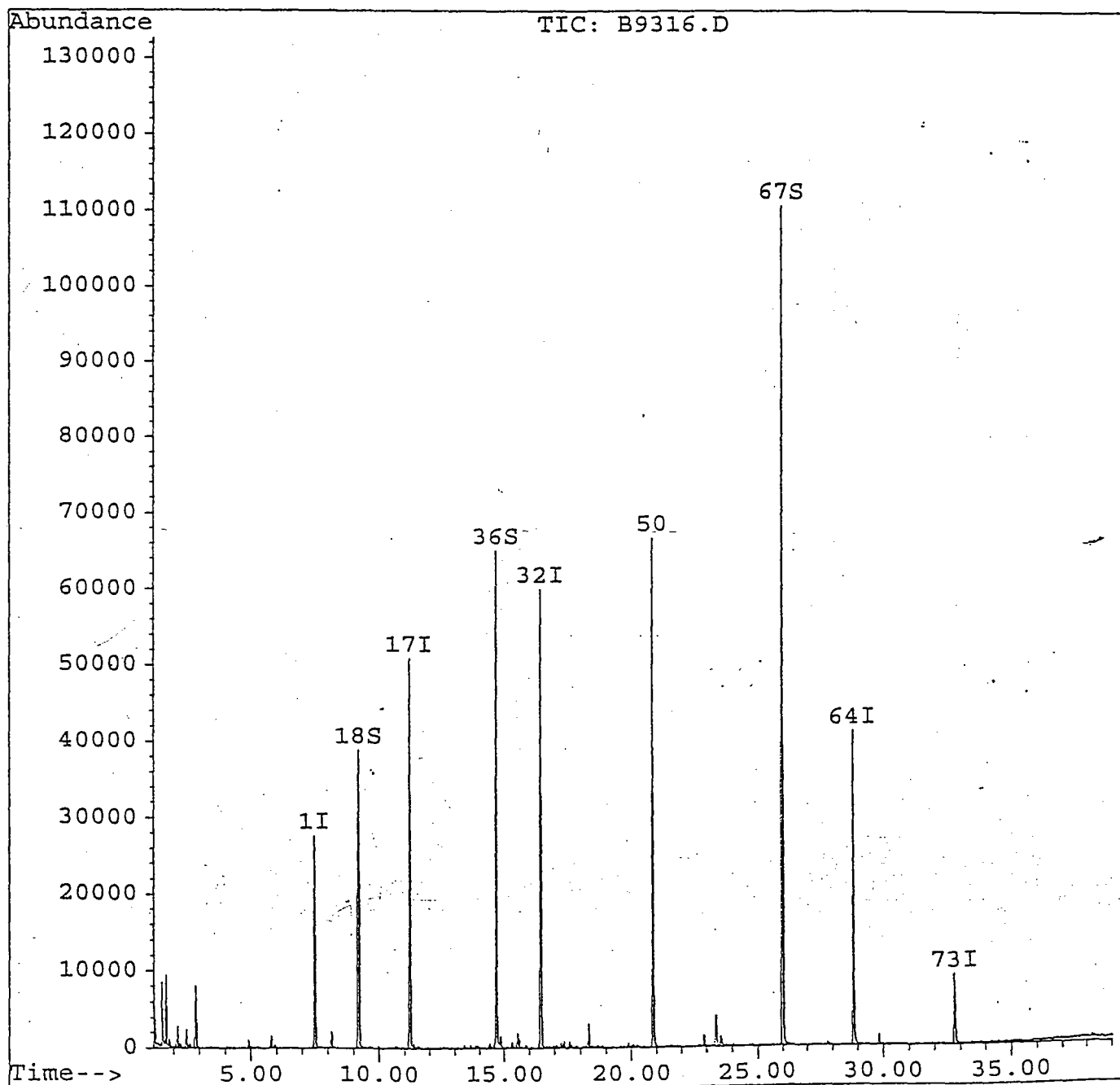
Qvalue

Quantitation Report

234

Data File : c:\hpchem\1\data2\b9316.d Vial: 17
 Acq On : 8 Dec 95 7:16 am Operator: SCOTTV
 Sample : 54558..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00
 Quant Time: Dec 11 13:35 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 22 12:21:54 1995
 Response via : Multiple Level Calibration



2C
WATER SEMIVOLATILE SURROGATE RECOVERY

235

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	41	37	65						
02	9547000B	56	49	91						
03	46360MS	54	58	110						
04	46360MSD	51	56	121						
05										
06										
07										
08										
09										
10										
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30										

S1 (NBZ) = Nitrobenzene-d5
S2 (FBP) = 2-Fluorobiphenyl
S3 (TPH) = Terphenyl-d14

QC LIMITS
(22-101)
(20-94)
(35-127)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

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	62	80	78						
02	9554748B	66	78	90						
03	SBLK03	57	66	84						
04	9554551B	43	57	76						
05	9554552B	58	65	93						
06	9554554B	63	77	93						
07	9554555B	54	65	94						
08	9554556B	61	72	97						
09	9554557B	64	73	80						
10	9554558B	54	55	88						
11										
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29										
30										

S1 (NBZ) = Nitrobenzene-d5
 S2 (FBP) = 2-Fluorobiphenyl
 S3 (TPH) = Terphenyl-d14

QC LIMITS
 (22-101)
 (20-94)
 (35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 237

SBLK01

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID: B9009.DLab Sample ID: BLANK1Instrument ID: ABNADate Extracted: 10/18/95Matrix: (soil/water) WATERDate Analyzed: 10/27/95

Level: (low/med) _____

Time Analyzed: 1421

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9547000B	9547000B	B9010.D	10/27/95
02	46360MS	46360MS	B9011.D	10/27/95
03	46360MSD	46360MSD	B9012.D	10/27/95
04				
05				
06				
07				
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 238

SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK1

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B9009.D

Level: (low/med) _____ Date Received: 10/13/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 10/18/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/95

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	
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

SAMPLE NO.

SBLK01

Lab Name: EMSL ANALYTICAL

Contract:

Project No.:

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: BLANK1

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9009.D

Level: (low/med)

Date Received: 10/13/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 10/18/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/27/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

IF
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 240

SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK1

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9009.D

Level: (low/med) _____ Date Received: 10/13/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/18/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/95

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	6.94	2	J
2.				
3.				
4.				
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Quantitation Report

241

Data File : c:\hpcchem\1\data2\b9009.d

Acq On : 27 Oct 95 2:21 pm

Sample : BLANK.....

Misc :

Quant Time: Oct 31 15:20 1995

Vial: 3

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.59	152	22496	40.00	ug/mL	-0.10
17) Naphthalene-d8	12.31	136	83610	40.00	ug/mL	-0.12
32) Acenaphthene-d10	17.62	164	47426	40.00	ug/mL	-0.11
50) Phenanthrene-d10	22.09	188	61940	40.00	ug/mL	-0.14
64) Chrysene-d12	30.18	240	43279	40.00	ug/mL	-0.11
73) Perylene-d12	34.16	264	19502	40.00	ug/mL	-0.08
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.01	112	31567	44.02	ug/mL	44.02%
3) Phenol-d5	8.01	99	53072	45.61	ug/mL	45.61%
18) Nitrobenzene-d5	10.27	82	46833	41.33	ug/mL	41.33%
36) 2-Fluorobiphenyl	15.77	172	53376	36.90	ug/mL	36.90%
54) 2,4,6-Tribromophenol	20.03	330	7869	40.12	ug/mL	40.12%
67) Terphenyl-d14	27.27	244	69697	64.83	ug/mL	64.83%
Target Compounds						Qvalue
62) Di-n-butylphthalate	24.52	149	16902	5.43	ug/mL#	98

Quantitation Report

242

Data File : c:\hpchem\1\data2\b9009.d

Acq On : 27 Oct 95 2:21 pm

Sample : BLANK.....

Misc :

Quant Time: Oct 31 15:20 1995

Vial: 3

Operator: SCOTTV

Inst : ABNA

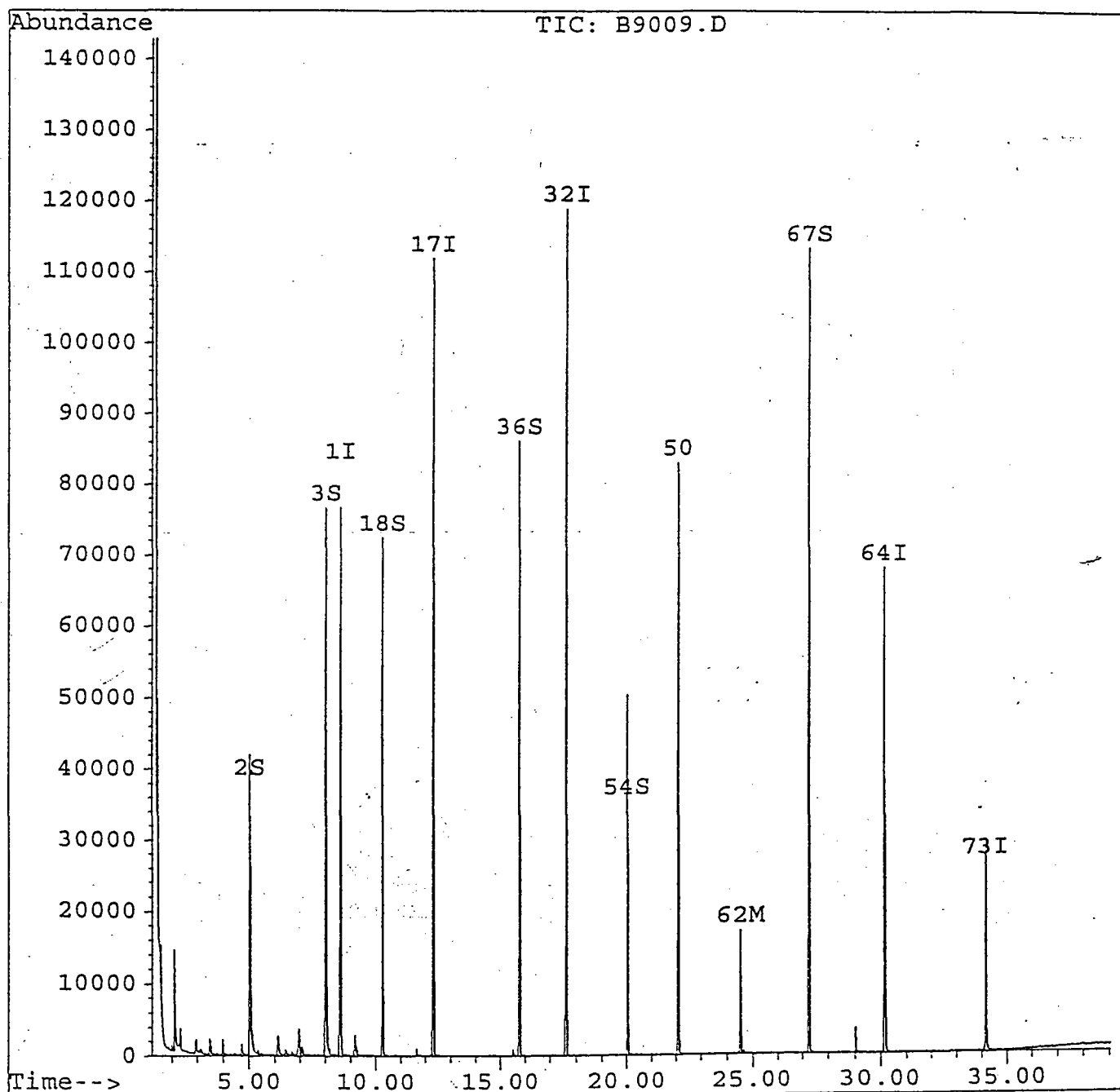
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

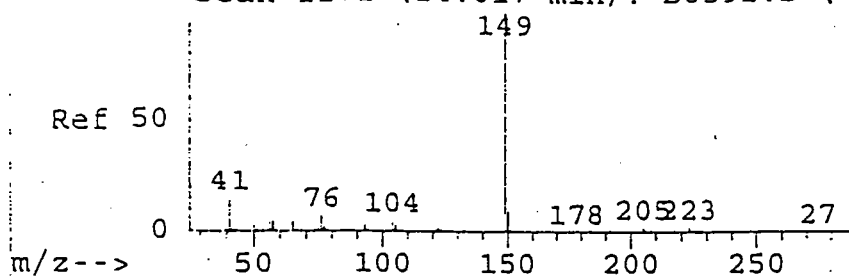
Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

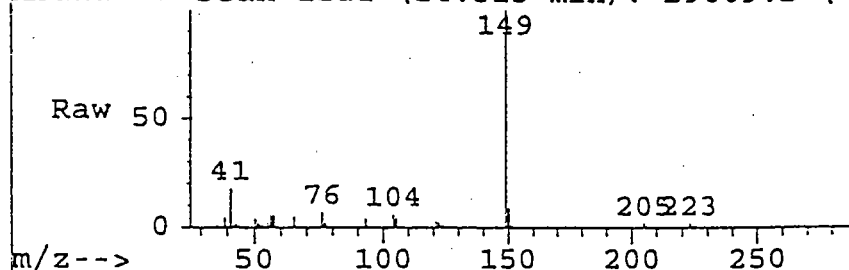
Response via : Multiple Level Calibration



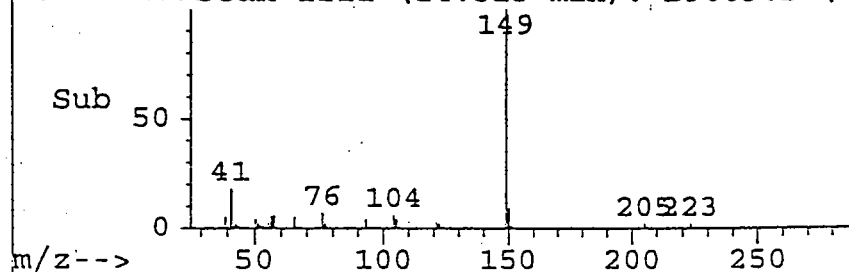
AbundanceScan 1171 (24.017 min): B6592.D (*)



AbundanceScan 1211 (24.515 min): B9009.D (*)



AbundanceScan 1211 (24.515 min): B9009.D (-



#62

Di-n-butylphthalate

Concen: 5.43 ug/mL

RT: 24.52 min Scan# 1211

Delta R.T. -0.12 min

Lab File: b9009.d

Acq: 27 Oct 95 2:21 pm

Tgt Ion:149 Resp: 16902

Ion Ratio Lower Upper

149 100

150 8.9 7.3 10.9

104 6.4 3.7 5.5#

0 0.0 0.0 0.0

Abundance Ion 149.00 (148

Ion 150.00 (149

Ion 104.00 (103

24.52

10000

5000

0

Time-->24.36 24.62

Library Search Compound Report

244

Data File : c:\hpchem\1\data2\b9009.d

Vial: 3

Acq On : 27 Oct 95 2:21 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

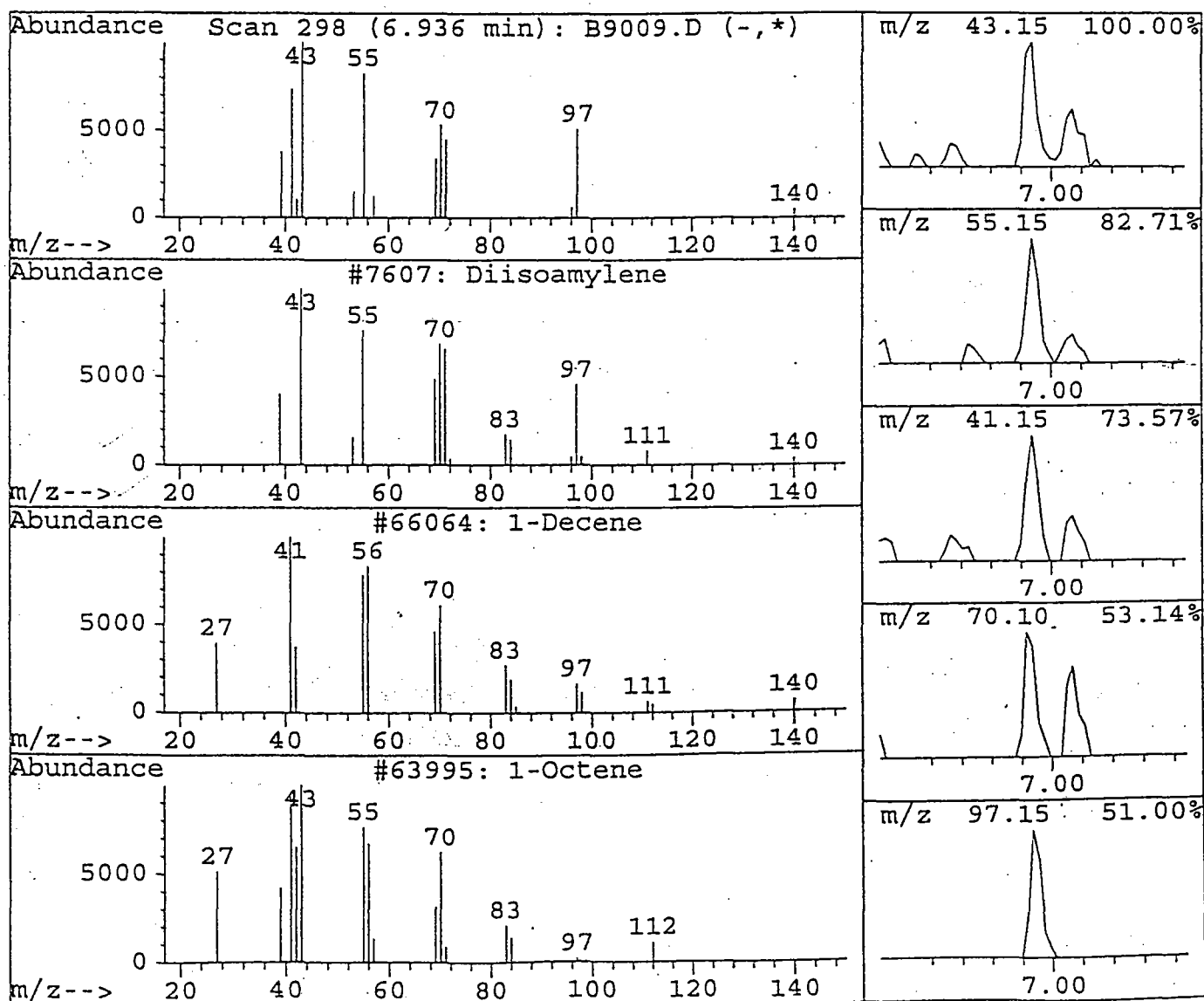
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
6.94	2.46 ug/ml	10825	1,4-Dichlorobenzene-d4	8.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Diisoamylenes	7607	054063-09-1	64
2	1-Decene	66064	000872-05-9	35
3	1-Octene	63995	000111-66-0	35
4	Heptane, 4-methyl-	3096	000589-53-7	25
5	Cyclopentane, 1,2-dimethyl-, cis-	1367	001192-18-3	25



4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. ²⁴⁵

SBLK03

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID: B9309.DLab Sample ID: BLANK3Instrument ID: ABNADate Extracted: 12/4/95Matrix: (soil/water) WATERDate Analyzed: 12/8/95

Level: (low/med) _____

Time Analyzed: 0120

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9554551B	9554551B	B9310.D	12/08/95
02	9554552B	9554552B	B9311.D	12/08/95
03	9554554B	9554554B	B9312.D	12/08/95
04	9554555B	9554555B	B9313.D	12/08/95
05	9554556B	9554556B	B9314.D	12/08/95
06	9554557B	9554557B	B9315.D	12/08/95
07	9554558B	9554558B	B9316.D	12/08/95
08				
09				
10				
11				
12				
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30				

COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. **246**

SBLK03

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B9309.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

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

IF
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

SBLK03

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9309.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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.				
10.				
11.				
12.				
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14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

249

Data File : c:\hpchem\1\data2\b9309.d Vial: 10
Acq On : 8 Dec 95 1:20 am Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 12:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	13214	40.00	ug/mL	-0.34
17) Naphthalene-d8	11.23	136	57506	40.00	ug/mL	-0.35
32) Acenaphthene-d10	16.46	164	38030	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	61176	40.00	ug/mL	-0.38
64) Chrysene-d12	28.84	240	55171	40.00	ug/mL	-0.40
73) Perylene-d12	32.79	264	17234	40.00	ug/mL	-0.37

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	359	0.57	ug/mL	0.57%
18) Nitrobenzene-d5	9.23	82	39268	57.14	ug/mL	57.14%
36) 2-Fluorobiphenyl	14.69	172	66686	65.96	ug/mL	65.96%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	127672	83.92	ug/mL	83.92%

Target Compounds

Qvalue

Quantitation Report

250

Data File : c:\hpchem\1\data2\b9309.d

Acq On : 8 Dec 95 1:20 am

Sample : BLANK..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

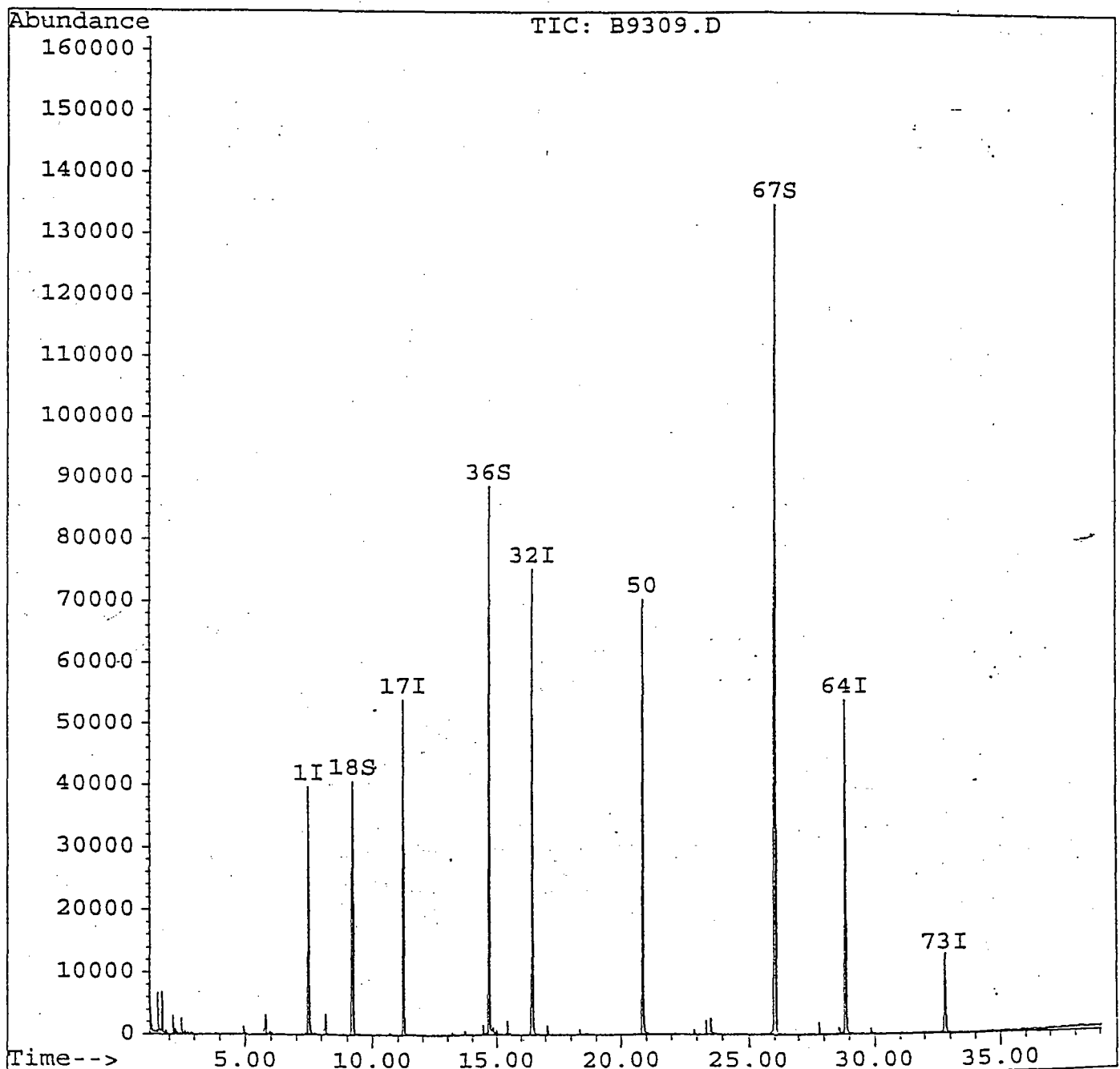
Quant Time: Dec 11 12:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 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 Nov 22 12:21:54 1995
 Response via : Initial Calibration

251

Non-Spiked Sample: B8997.D

Spike
SampleSpike
Duplicate Sample

File ID : B9011.D | B9012.D
 Sample : 46360MS..... Converted from RTE data file >B9011::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC RPD	Limits % Rec
N-nitrosodimethylami	0.3	100	42	50	41	49	18	100	1-300
Phenol	0.6	100	59	59	59	59	0	23	5-112
bis(2-Chloroethyl)et	0.0	100	57	51	57	51	11	55	12-158
2-Chlorophenol	0.0	100	57	53	57	53	8	29	23-134
1,3-Dichlorobenzene	0.0	100	45	43	45	43	3	42	1-172
1,4-Dichlorobenzene	0.0	100	47	45	47	45	5	32	20-124
1,2-Dichlorobenzene	0.0	100	47	45	47	45	5	31	32-129
bis(2-chloroisopropy	0.0	100	77	72	77	72	7	46	36-166
N-Nitroso-Di-n-propy	0.0	100	51	47	51	47	9	55	1-230
Hexachloroethane	0.0	100	44	41	44	41	7	25	40-113
Nitrobenzene	0.2	100	50	48	50	47	5	39	35-180
Isophorone	0.0	100	48	45	48	45	7	63	21-196
2-Nitrophenol	0.0	100	54	50	54	50	8	35	29-182
2,4-Dimethylphenol	0.0	100	75	84	75	84	11	26	32-119
bis(2-Chloroethoxy)m	0.0	100	56	51	56	51	8	35	33-184
2,4-Dichlorophenol	0.0	100	72	77	72	77	7	26	39-135
1,2,4-Trichlorobenze	0.0	100	49	46	49	46	7	28	44-142
Naphthalene	0.3	100	52	48	51	48	7	30	21-133
Hexachlorobutadiene	0.0	100	52	48	52	48	6	26	24-116
4-Chloro-3-methylphe	0.0	100	74	83	74	83	11	37	22-147
2-Chloronaphthalene	0.0	100	63	61	63	61	3	13	60-118
2,4,6-Trichloropheno	0.0	100	65	73	65	73	12	32	37-144
Dimethylphthalate	0.0	100	11	11	11	11	3	23	1-112
Acenaphthylene	0.0	100	62	63	62	63	2	40	33-145
2,6-Dinitrotoluene	0.0	100	96	99	96	99	3	30	50-158
Acenaphthene	0.0	100	73	74	73	74	1	28	47-145
2,4-Dinitrophenol	0.0	100	54	60	54	60	10	50	1-191
4-Nitrophenol	0.0	100	50	52	50	52	3	47	1-132
2,4-Dinitrotoluene	0.0	100	83	83	83	83	0	22	39-139
Diethylphthalate	0.0	100	20	20	20	20	1	27	1-114
Fluorene	0.0	100	80	83	80	83	4	21	59-121
4-Chlorophenyl-pheny	0.0	100	78	81	78	81	3	33	25-158
4,6-Dinitro-2-methyl	0.1	100	85	87	85	87	2	93	1-181
4-Bromophenyl-phenyl	0.0	100	93	89	93	89	4	23	53-127
Hexachlorobenzene	0.0	100	88	88	88	88	0	25	1-152
Pentachlorophenol	0.0	100	77	81	77	81	5	49	14-176
Phenanthrene	0.1	100	86	94	86	94	9	21	54-120
Anthracene	0.1	100	74	79	74	79	7	32	52-115
Di-n-butylphthalate	20.6	100	53	59	33	38	14	17	1-118
Fluoranthene	0.1	100	75	75	75	75	0	33	26-137
Pyrene	0.2	100	102	101	102	100	2	25	52-115
Butylbenzylphthalate	0.0	100	62	65	62	65	5	23	1-152

Chrysene	0.3	100	86	92	85	92	8	48	17-168
bis(2-Ethylhexyl)pht	0.0	100	89	101	89	101	12	41	8-158
Di-n-octylphthalate	0.2	100	74	87	74	86	16	31	4-146
Benzo[b]fluoranthene	0.0	100	71	89	71	89	23	39	24-159
Benzo[k]fluoranthene	0.0	100	71	77	71	77	7	32	11-162
Benzo[a]pyrene	0.0	100	83	88	83	88	7	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	81	94	81	94	15	45	1-171
Dibenz[a,h]anthracen	0.0	100	70	86	70	86	20	70	1-227
Benzo[g,h,i]perylene	0.0	100	72	86	72	86	17	59	1-219

252

BNACLP.M

Wed Nov 22 14:47:04 1995

BNA

Quantitation Report

Data File : c:\hpcchem\1\data2\b9011.d

Acq On : 27 Oct 95 4:04 pm

Sample : 46360MS.....

Misc :

Quant Time: Oct 31 15:39 1995

Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

253

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	24328	40.00	ug/mL	-0.09
17) Naphthalene-d8	12.32	136	97435	40.00	ug/mL	-0.11
32) Acenaphthene-d10	17.64	164	56181	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	74786	40.00	ug/mL	-0.10
64) Chrysene-d12	30.18	240	35528	40.00	ug/mL	-0.10
73) Perylene-d12	34.14	264	16536	40.00	ug/mL	-0.10

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	5.07	112	40915	52.76	ug/mL	52.76%
3) Phenol-d5	8.10	99	81492	64.76	ug/mL	64.76%
18) Nitrobenzene-d5	10.29	82	71765	54.35	ug/mL	54.35%
36) 2-Fluorobiphenyl	15.81	172	99873	58.28	ug/mL	58.28%
54) 2,4,6-Tribromophenol	20.10	330	20403	86.16	ug/mL	86.16%
67) Terphenyl-d14	27.26	244	97283	110.24	ug/mL	110.24%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	2.10	74	22456	41.61	ug/mL	100
6) Phenol	8.12	94	70099	59.38	ug/mL	100
7) bis(2-Chloroethyl) ether	12.03	93	82048	56.86	ug/mL	100
8) 2-Chlorophenol	8.06	128	46342	57.17	ug/mL#	83
9) 1,3-Dichlorobenzene	8.39	146	37275	44.83	ug/mL	99
10) 1,4-Dichlorobenzene	8.66	146	39314	46.72	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	38547	47.04	ug/mL#	96
12) 2-Methylphenol	9.29	108	5196	6.68	ug/mL	53
13) bis(2-chloroisopropyl) ether	9.72	45	104911	77.20	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.12	70	47254	50.85	ug/mL	98
16) Hexachloroethane	9.99	117	23206	43.95	ug/mL#	67
19) Nitrobenzene	10.35	77	62972	49.80	ug/mL#	86
20) Isophorone	11.18	82	128772	48.00	ug/mL#	93
21) 2-Nitrophenol	11.30	139	31651	54.31	ug/mL#	92
22) 2,4-Dimethylphenol	14.60	107	70299	74.63	ug/mLm	100
23) bis(2-Chloroethoxy) methane	12.03	93	82048	55.86	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	51706	71.87	ug/mL#	90
25) 1,2,4-Trichlorobenzene	12.22	180	36372	49.07	ug/mL	95
26) Naphthalene	12.40	128	126554	51.78	ug/mL	98
27) 4-Chloroaniline	12.40	127	15664	13.67	ug/mL#	13
28) Hexachlorobutadiene	12.90	225	20087	51.69	ug/mL	98
29) 4-Chloro-3-methylphenol	14.60	107	70394	74.44	ug/mL	90
30) 2-Chloronaphthalene	15.97	162	96889	62.71	ug/mLm	100
31) 2-Methylnaphthalene	14.60	142	50713	23.94	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.56	196	38970	65.14	ug/mL	97
35) 2,4,5-Trichlorophenol	15.56	196	38970	79.89	ug/mL	97
37) 2-Nitroaniline	18.53	65	4756	4.33	ug/mL#	38
38) Dimethylphthalate	17.26	163	21170	11.02	ug/mL#	13

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

Quantitation Report

254

Data File : c:\hpcchem\1\data2\b9011.d

Vial: 5

Acq On : 27 Oct 95 4:04 pm

Operator: SCOTTV

Sample : 46360MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 31 15:39 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Acenaphthylene	17.18	152	156148	61.73	ug/mL	97
40) 2,6-Dinitrotoluene	17.35	165	41277	95.56	ug/mL#	79
41) 3-Nitroaniline	19.34	138	1557	3.24	ug/mL#	19
42) Acenaphthene	17.74	153	105172	73.42	ug/mL	98
43) 2,4-Dinitrophenol	18.11	184	15991	54.29	ug/mL#	85
44) 4-Nitrophenol	18.86	109	16078	50.23	ug/mL#	61
46) 2,4-Dinitrotoluene	18.53	165	52578	82.74	ug/mL#	1
47) Diethylphthalate	19.46	149	43228	19.78	ug/mL	97
48) Fluorene	19.34	166	131556	80.24	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.54	204	55916	78.26	ug/mL#	84
51) 4-Nitroaniline	19.34	138	1557	3.62	ug/mL#	19
52) 4,6-Dinitro-2-methylphenol	19.73	198	23619	85.19	ug/mL	100
53) n-Nitrosodiphenylamine	19.94	169	71016	70.01	ug/mL	96
55) 1,2-Diphenylhydrazine (as	19.54	77	69196	20.74	ug/ml	100
56) 4-Bromophenyl-phenylether	20.99	248	32480	92.88	ug/mL#	88
57) Hexachlorobenzene	20.95	284	38892	87.66	ug/mL#	39
58) Pentachlorophenol	21.70	266	23340	76.81	ug/mL	99
59) Phenanthrene	22.20	178	174965	86.09	ug/mL	99
60) Anthracene	22.36	178	148000	74.15	ug/mLm	99
62) Di-n-butylphthalate	24.54	149	201030	53.46	ug/mL	99
63) Fluoranthene	25.81	202	152814	74.83	ug/mL#	53
65) Benzidine	22.13	184	11493	47.31	ug/ml	100
66) Pyrene	26.43	202	145327	102.25	ug/mL#	70
68) Butylbenzylphthalate	29.04	149	68443	61.89	ug/mL#	15
69) Benzo[a]anthracene	30.17	228	106111	83.59	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.32	252	3672	10.71	ug/mL#	93
71) Chrysene	30.26	228	65164	85.64	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.04	149	141688	89.39	ug/mL#	37
74) Di-n-octylphthalate	32.95	149	174136	74.01	ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	56999	70.62	ug/mL#	89
76) Benzo[k]fluoranthene	33.28	252	34292	71.37	ug/mLm	89
77) Benzo[a]pyrene	34.01	252	36949	82.66	ug/mLm	89
78) Indeno[1,2,3-cd]pyrene	36.69	276	18775	80.91	ug/mL#	25
79) Dibenz[a,h]anthracene	36.81	278	15952	70.33	ug/mL#	75
80) Benzo[g,h,i]perylene	37.21	276	15258	72.43	ug/mLm	60

Quantitation Report

255

Data File : c:\hpchem\1\data2\b9011.d

Acq On : 27 Oct 95 4:04 pm

Sample : 46360MS.....

Misc :

Quant Time: Oct 31 15:39 1995

Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

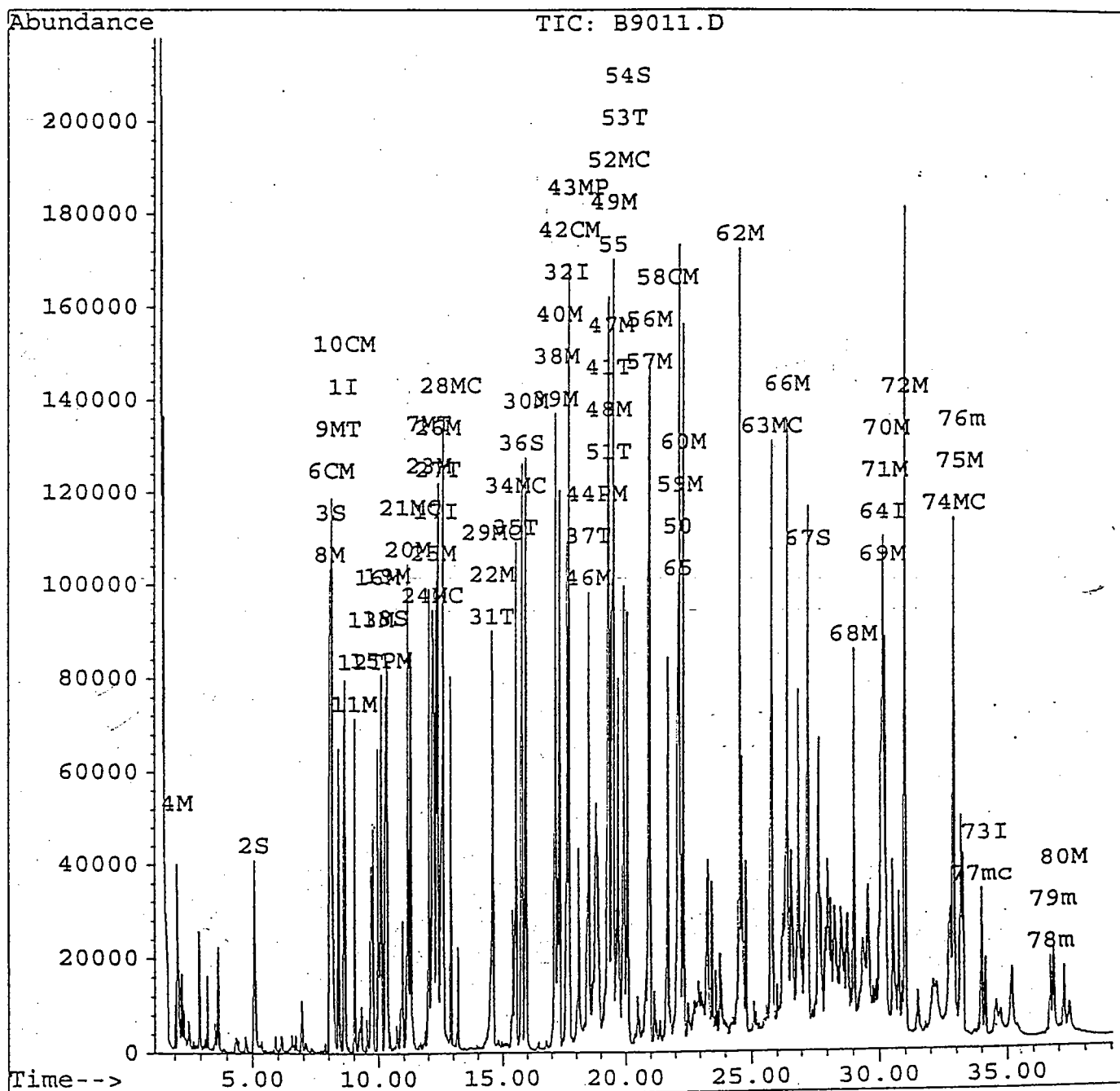
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d

Acq On : 27 Oct 95 4:56 pm

Sample : 46360MSD.....

Misc :

Quant Time: Oct 31 15:38 1995

Vial: 6 256

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	25002	40.00	ug/mL	-0.09
17) Naphthalene-d8	12.34	136	97241	40.00	ug/mL	-0.09
32) Acenaphthene-d10	17.64	164	55587	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	77102	40.00	ug/mL	-0.10
64) Chrysene-d12	30.19	240	28509	40.00	ug/mL	-0.10
73) Perylene-d12	34.15	264	10719	40.00	ug/mL	-0.09

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.07	112	41071	51.53	ug/mL	51.53%
3) Phenol-d5	8.10	99	86409	66.82	ug/mL	66.82%
18) Nitrobenzene-d5	10.29	82	67083	50.90	ug/mL	50.90%
36) 2-Fluorobiphenyl	15.81	172	95217	56.16	ug/mL	56.16%
54) 2,4,6-Tribromophenol	20.10	330	21999	90.11	ug/mL	90.11%
67) Terphenyl-d14	27.29	244	85795	121.15	ug/mL	121.15%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.10	74	27505	49.59	ug/mL	100
6) Phenol	8.13	94	71763	59.15	ug/mL	100
7) bis(2-Chloroethyl) ether	12.03	93	75257	50.75	ug/mL	97
8) 2-Chlorophenol	8.06	128	44078	52.91	ug/mL#	84
9) 1,3-Dichlorobenzene	8.39	146	37044	43.35	ug/mL	96
10) 1,4-Dichlorobenzene	8.66	146	38620	44.66	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	37641	44.70	ug/mL	97
12) 2-Methylphenol	9.29	108	5280	6.60	ug/mL	56
13) bis(2-chloroisopropyl) ether	9.72	45	100159	71.72	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.12	70	44456	46.55	ug/mL#	97
16) Hexachloroethane	9.99	117	22213	40.93	ug/mL#	69
19) Nitrobenzene	10.35	77	59971	47.52	ug/mL	88
20) Isophorone	11.18	82	119927	44.79	ug/mL#	92
21) 2-Nitrophenol	11.30	139	29087	50.01	ug/mL#	93
22) 2,4-Dimethylphenol	14.61	107	78542	83.54	ug/mLm	100
23) bis(2-Chloroethoxy) methane	12.03	93	75257	51.34	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	55427	77.20	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.22	180	33976	45.93	ug/mL	94
26) Naphthalene	12.40	128	117900	48.34	ug/mL	99
27) 4-Chloroaniline	12.40	127	14859	12.99	ug/mL#	9
28) Hexachlorobutadiene	12.90	225	18787	48.44	ug/mL	98
29) 4-Chloro-3-methylphenol	14.61	107	78226	82.88	ug/mL	88
30) 2-Chloronaphthalene	15.96	162	94046	60.99	ug/mLm	100
31) 2-Methylnaphthalene	14.61	142	56412	26.68	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.58	196	43455	73.41	ug/mL	96
35) 2,4,5-Trichlorophenol	15.58	196	43455	90.04	ug/mL	96
37) 2-Nitroaniline	18.53	65	5027	4.62	ug/mL#	36
38) Dimethylphthalate	17.26	163	21488	11.30	ug/mL#	14

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

b9012.d BNACLP.M

Tue Oct 31 15:41:10 1995

BNA

Page 1

Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d

Vial: 6 257

Acq On : 27 Oct 95 4:56 pm

Operator: SCOTTV

Sample : 46360MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 31 15:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Acenaphthylene	17.18	152	157682	63.01	ug/mL	98
40) 2,6-Dinitrotoluene	17.35	165	42117	98.54	ug/mL#	93
41) 3-Nitroaniline	19.34	138	1555	3.27	ug/mL#	19
42) Acenaphthene	17.74	153	104941	74.04	ug/mL	98
43) 2,4-Dinitrophenol	18.13	184	17570	60.29	ug/mL#	82
44) 4-Nitrophenol	18.96	109	16471	52.01	ug/mL#	60
46) 2,4-Dinitrotoluene	18.53	165	52140	82.92	ug/mL#	1
47) Diethylphthalate	19.48	149	43087	19.93	ug/mL#	93
48) Fluorene	19.34	166	134877	83.15	ug/mL	99
49) 4-Chlorophenyl-phenylether	19.54	204	56911	80.50	ug/mL#	86
51) 4-Nitroaniline	19.34	138	1555	3.50	ug/mL#	19
52) 4,6-Dinitro-2-methylphenol	19.73	198	24840	86.90	ug/mL	100
53) n-Nitrosodiphenylamine	19.96	169	73730	70.51	ug/mL	94
55) 1,2-Diphenylhydrazine (as	19.54	77	71856	20.89	ug/ml	100
56) 4-Bromophenyl-phenylether	20.99	248	32240	89.43	ug/mL#	90
57) Hexachlorobenzene	20.95	284	40163	87.81	ug/mL#	46
58) Pentachlorophenol	21.72	266	25232	80.54	ug/mL	99
59) Phenanthrene	22.20	178	196854	93.95	ug/mL	99
60) Anthracene	22.36	178	162894	79.16	ug/mLm	99
62) Di-n-butylphthalate	24.56	149	227050	58.57	ug/mLm	98
63) Fluoranthene	25.82	202	157448	74.79	ug/mL#	68
65) Benzidine	22.13	184	12053	61.83	ug/ml	100
66) Pyrene	26.44	202	114720	100.58	ug/mLm	73
68) Butylbenzylphthalate	29.07	149	57991	65.35	ug/mLm	1
69) Benzo[a]anthracene	30.17	228	89943	88.30	ug/mL	98
70) 3,3'-Dichlorobenzidine	30.33	252	3072	11.16	ug/mL#	89
71) Chrysene	30.27	228	56444	92.44	ug/mLm	98
72) bis(2-Ethylhexyl)phthalate	31.04	149	127927	100.58	ug/mL#	36
74) Di-n-octylphthalate	32.93	149	132028	86.56	ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	46610	89.08	ug/mL#	86
76) Benzo[k]fluoranthene	33.28	252	23877	76.66	ug/mLm	86
77) Benzo[a]pyrene	34.02	252	25611	88.39	ug/mLm	86
78) Indeno[1,2,3-cd]pyrene	36.70	276	14190	94.34	ug/mL#	28
79) Dibenz[a,h]anthracene	36.81	278	12632	85.92	ug/mL#	72
80) Benzo[g,h,i]perylene	37.22	276	11729	85.89	ug/mLm	61

Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d

Vial: 6 **258**

Acq On : 27 Oct 95 4:56 pm

Operator: SCOTTV

Sample : 46360MSD.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

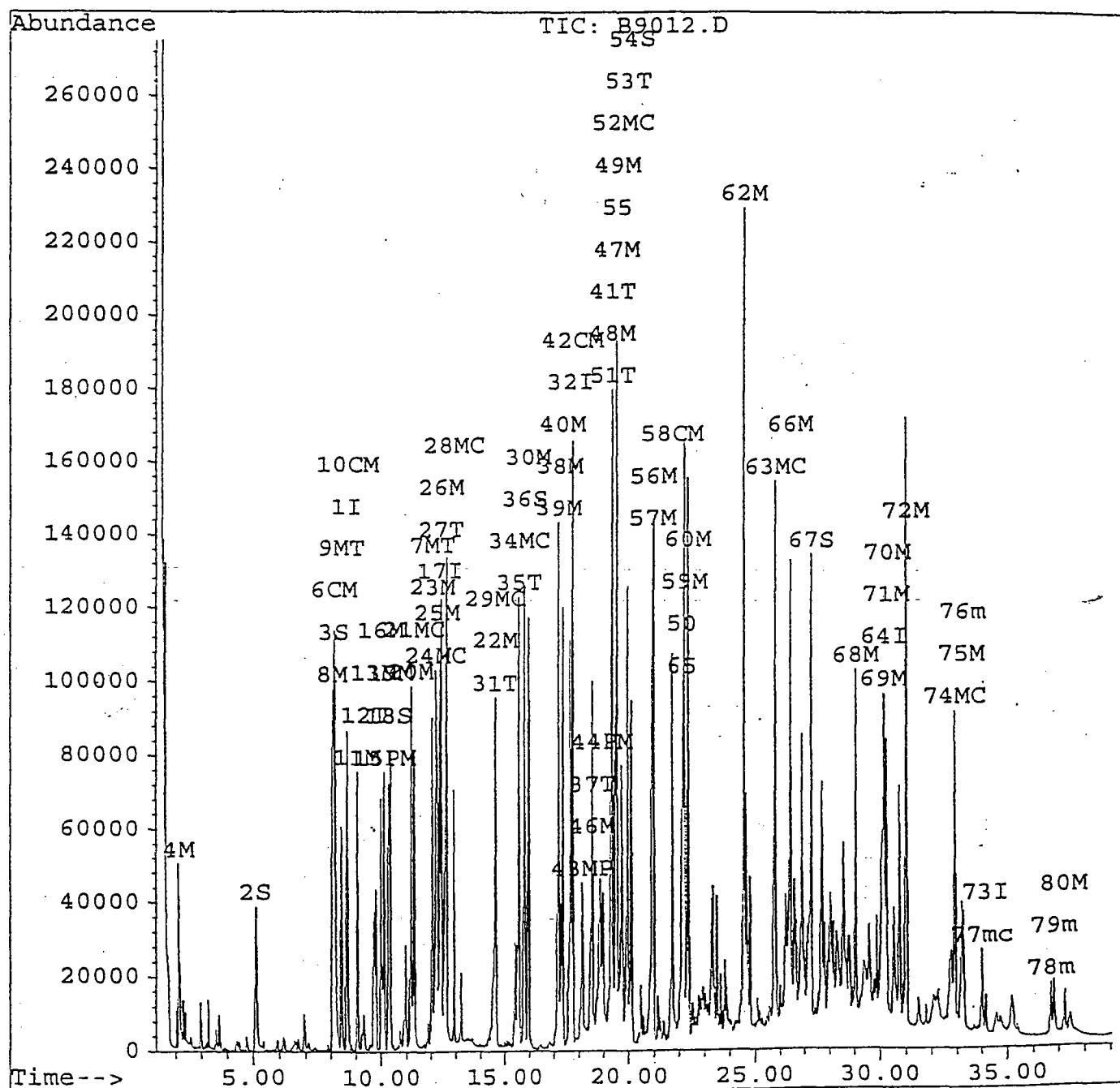
Quant Time: Oct 31 15:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



EMSL

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.



Laboratory Manager (as defined in N.J.A.C. 7:18)

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 430B
Main Post***

NJDEP UST Registration No. 0090010-45

NJDEP Closure Approval No. C-93-3897

Spill Case No. 94-7-27-1344

Volume 2 of 2

Appendix G (Continued)

February 1997

The logo for SMITH Technology Corporation features the word "SMITH" in a large, bold, sans-serif font. A solid black circle is positioned above the letter "I". Below "SMITH", the words "TECHNOLOGY CORPORATION" are written in a smaller, all-caps, sans-serif font.

SMITH
TECHNOLOGY CORPORATION

SMITH

APPENDIX G
GROUNDWATER ANALYTICAL DATA PACKAGE
(CONTINUED)



ANALYTICAL, INC.

Bldg. 430

MW Anal

12/18/95

001

Asbestos - Lead - Environmental - Materials

New Jersey

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

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

1056 Stelton Road
Piscataway, NJ 08854
(908) 981-0550

ANALYTICAL DATA REPORT

FOR

E-SYSTEMS

P.O. Box 360

Fort Monmouth, NJ 07703

PROJECT : MW Sampling, Bldg. 430

EMSL Project: # 95129582

New York

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

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

Field Sample No. & Location
2004.1 MW1, 2933756
2002.2, Trip Blank
2002.3, Field Blank

Laboratory Sample ID
95-58314
95-58312
95-58313

Matrix
Aqueous
Aqueous
Aqueous

Date & Time of Collection
12/18/95 @ 1450
12/18/95 @ 0700
12/18/95 @ 1450

Date Received
12/18/95
12/18/95
12/18/95

California

1720 S. Amphler Blvd.
Suite 130
San Mateo, Ca. 4402
(415) 570-5401

Georgia

1600 Rosewell Street, SE
Suite One
Smyrna, GA 30080
(770) 333-6066

Michigan

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

Laboratory Name

Certification No.

North Carolina

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

Supervisor/Manager Signature

Texas

Printed Name

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

Date

Washington

Harbor Marina Corp. Ctr.
1001 SW Klickitat Way
Suite 107
Seattle, WA 98134
(206) 233-9007

EMSL ANALYTICAL, INC.

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

Paul V. Laraia
Paul V. Laraia

1-23-96

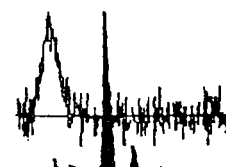


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SAMPLE DATA SUMMARY PACKAGE





Attention: Barbara O'Toole
E-Systems
P.O. Box 360
Fort Monmouth NJ 07703

Date of Report: 01/11/96
Project Number: 95129582
Lab ID: 95-0058314
Date Collected: 12/18/95 14:50
Collected By: Client
Date Received: 12/18/95 16:00

Client Project: MW Sampling Bldg.430

Client Designation: MW1-2933756

	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
Xylenes	see attached	ug/l

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 005
2004.1
9558314B
2933756

Lab Name: EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: MW 1 Group: Bldg 430
 Matrix: (soil/water) WATER Lab Sample ID: 9558314B
 Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B9480.D
 Level: (low/med) _____ Date Received: _____
 % Moisture: _____ decanted: (Y/N): N Date Extracted: 12/23/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/26/95
 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

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 007

2004.1
9558314B
2933756

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: MU1

Group: Bldg 430

Matrix: (soil/water) WATER

Lab Sample ID: 9558314B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B9480.D

Level: (low/med) _____

Date Received: _____

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 582-16-1	Naphthalene, 2,7-dimethyl-	15.31	1	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW 1
2933756

008

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Bldg 430
2004.1

Matrix: (soil/water) WATER

Lab Sample ID: 9558314V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0786.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	.90		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

2004.1
2933756

003

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Bldg 430

Matrix: (soil/water) WATER

Lab Sample ID: 9558314V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0786.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

2004.1
2933756

010

Bldg 430

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9558314V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0786.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/95

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: 15

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	19.61	2	J
2. 135-98-8	Benzene, (1-methylpropyl)-	21.09	1	J
3. 105-05-5	Benzene, 1,4-diethyl-	22.04	1	J
4. 141-93-5	Benzene, 1,3-diethyl-	22.04	1	J
5. 535-77-3	Benzene, 1-methyl-3-(1-methy	22.61	2	J
6.	Unknown	22.98	1	J
7.	Unknown	22.99	1	J
8.	Unknown	23.01	3	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	23.58	1	J
10.	Unknown Hydrocarbon	24.37	1	J
11.	Unknown	24.98	1	J
12.	Unknown	25.27	2	J
13.	Unknown	25.76	2	J
14.	Unknown	25.94	1	J
15.	Unknown	26.76	1	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				



Attention: Barbara O'Toole
E-Systems
P.O. Box 360
Fort Monmouth NJ 07703

Date of Report: 01/17/96
Project Number: 95129581
Lab ID: 95-0058312
Date Collected: 12/18/95 07:00
Collected By: Client
Date Received: 12/18/95 16:00

Client Project: MW Sampling Bldg 290

Client Designation: Trip Blank

ORGANIC

Volatiles

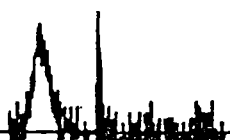
Volatiles by 524.2 w/ Library Search

Xylenes

Conc. Unit

see attached ug/l

see attached ug/l



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

012

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1.0 Blank

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9558312V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0783.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

013

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Trip Blank

Project No.: FT. MONMOUTH NJ Bldg#: 290

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9558312V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0783.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

014

Trip Blank

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9558312V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0783.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. NA Date Analyzed: 12/29/95

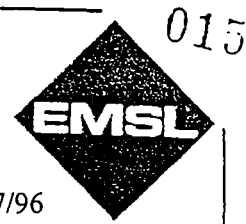
GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

Number TICs found: 3 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.61	2	J
2.	Column Bleed	19.62	2	J
3.	Column Bleed	23.00	1	J
4.				
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Attention: Barbara O'Toole
E-Systems
P.O. Box 360
Fort Monmouth NJ 07703

Date of Report: 01/17/96
Project Number: 95129581
Lab ID: 95-0058313
Date Collected: 12/18/95 14:50
Collected By: Client
Date Received: 12/18/95 16:00

Client Project: MW Sampling Bldg. 290

Client Designation: Field Blank

	Conc.	Unit
ORGANIC		
Semi-Volatiles		
TCL BNA's with Library Search	see attached	ug/l
Volatiles		
Volatiles by 524.2 w/Library Search	see attached	ug/l
Xylenes	see attached	ug/l

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 016

9558313B

Field Blank

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9558313B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9479.D

Level: (low/med)

Date Received: _____

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
108-95-2	Phenol	10		U
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	bis(2-chloroisopropyl)ether	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-Di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
208-96-8	Acenaphthylene	10		U
606-20-2	2,6-Dinitrotoluene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 017

9558313B

Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9558313B
 Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B9479.D
 Level: (low/med) _____ Date Received: _____
 % Moisture: _____ decanted: (Y/N): N Date Extracted: 12/23/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/26/95
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
132-64-9	Dibenzofuran	10		U
121-14-2	2,4-Dinitrotoluene	10		U
84-66-2	Diethylphthalate	10		U
86-73-7	Fluorene	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methylphenol	25		U
86-30-6	n-Nitrosodiphenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-08	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
56-55-3	Benzo[a]anthracene	10		U
91-94-1	3,3'-Dichlorobenzidine	20		U
218-01-9	Chrysene	10		U
117-81-7	bis(2-Ethylhexyl)phthalate	10		U
117-84-0	Di-n-octylphthalate	10		U
205-99-2	Benzo[b]fluoranthene	10		U
207-08-9	Benzo[k]fluoranthene	10		U
50-32-8	Benzo[a]pyrene	10		U
193-39-5	Indeno[1,2,3-cd]pyrene	10		U
53-70-3	Dibenz[a,h]anthracene	10		U
191-24-2	Benzo[g,h,i]perylene	10		U

018

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9558313B

*Field Blank*Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: 9558313BSample wt/vol: 1000.0 (g/mL) MLLab File ID: B9479.D

Level: (low/med) _____

Date Received: _____

% Moisture: _____

decanted: (Y/N) NDate Extracted: 12/23/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/26/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown Hydrocarbon	27.84	6	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

019

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Field Blank

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9558313V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0784.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

020

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Field Blank

Project No.: FT. MONMOUTH NJ Bldg#: 290

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9558313V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0784.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

021

Feld Blush

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: NJDEP MW#: FB

Matrix: (soil/water) WATER Lab Sample ID: 9558313V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0784.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. NA Date Analyzed: 12/29/95

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.60	2	J
2.	Column Bleed	19.61	1	J
3.				
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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.	<u>X</u>
2. Table of Contents	<u>X</u>
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds.	<u>X</u>
4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	<u>X</u>
5. Document bound, paginated and legible.	<u>X</u>
6. Chain of Custody	<u>X</u>
7. Methodology Summary	<u>X</u>
8. Laboratory Chronicle and Holding Time Check.	<u>X</u>
9. Results submitted on a dry weight basis (if applicable).	<u>X</u>
10. Method Detection Limits.	<u>X</u>
11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	<u>X</u>
12. Non-Conformance Summary	<u>X</u>

Paul Trowig

Laboratory Manager or Environmental
Consultant's Signature

1-23-95

Date



QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

Page

- | | |
|--------------|---|
| <u>1</u> | 1. Name and address of the facility. |
| <u>1</u> | 2. Name of the laboratory performing the sample analysis. |
| <u>1</u> | 3. NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18. |
| <u>1</u> | 4. Laboratory sample identification number. |
| <u>1</u> | 5. Customer sample identification number corresponding to the laboratory sample identification. |
| <u>1</u> | 6. Sample Location (also on the site diagram). |
| <u>1</u> | 7. Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges).
All sediment results must be reported on a dry weight basis. |
| <u>29-30</u> | 8. The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136). |
| <u>1</u> | 9. The signature of the person completing the report form. |
| <u>1</u> | 10. The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed. |
| <u>31</u> | 11. A list of all parameters (constituents and conditions) for which the analyses were performed. |
| <u>3-21</u> | 12. Sample results and corresponding units for each parameter. |

CHAIN OF CUSTODY

EMSL Project # 95129582
PO # IJO#95-0091/SAI

[illegible]

Released by (Signature)	Date/Time Released	Delivery Method	Received by (Signature)	Company/Agency Affiliation	Date/Time Received	Condition Noted
A. Huilard	12/18/15 1600		[Signature]	EMSL	12-18-15 1600	
	/				/	
	/				/	

Please indicate turnaround time: standard 10D 5D 72HR 48HR 24HR (Must call for quick turn)

Comments: Page _____ of _____
* A drawing depicting sample location on reverse side. *WJ*

Please indicate reporting requirements:
1) Results only 2) Results & QC 3) Reduced Deliverables

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△
▽



EMSL LAB ID NO. 58314

PROJECT NO. 95-129582

PARAMETERS

70/12

[illegible]

INTERNAL CHAIN OF CUSTODY(ORGANICS)

SAMPLE No(S).	ANALYSIS	DATE ANALYZED	NAME (PRINT)	NAME (SIGNATURE)
9556580	VOA 8240	12/20/95	M. CIAMPI	<i>[Signature]</i>
56178	BN625	12/21/95	S. VanBaten	<i>[Signature]</i>
56570-85	8021/8240	12/18, 12/19, 12/20	S. Kossel	<i>[Signature]</i>
9556805-807	VOA + LS	12/15 - 12/26	M. CIAMPI	<i>[Signature]</i>
9556784	VOA + LS	12/14 - 12/26	M. CIAMPI	<i>[Signature]</i>
9556785-88	VOA + NAPH + LS	12/14 - 12/26	M. CIAMPI	<i>[Signature]</i>
9558182	TCLP	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9558375	TCLP	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9557721	TCLP	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9557087-99	TCLP	12/21 - 12/26	M. CIAMPI	<i>[Signature]</i>
9558050-51	BTEX 8240	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9558378-83	BTEX	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9558366	BENZENE + QL	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9557838	BENZENE + QL	12/22 - 12/26	M. CIAMPI	<i>[Signature]</i>
9556789-96	VOA + LS	12/14 - 12/26	M. CIAMPI	<i>[Signature]</i>
9557835	VOA + AC/AC + 2CIS + DCBS	12/26/95	M. CIAMPI	<i>[Signature]</i>
9557836	VOA + AC/AC + 2CIS + DCBS	12/26/95	M. CIAMPI	<i>[Signature]</i>
9557564	VOA + AC/AC + 2CIS + DCBS	12/20 - 12/26/95	M. CIAMPI	<i>[Signature]</i>
9558188-91, 9590	BN625 +	12/26/95	S. VanBaten	<i>[Signature]</i>
58311 + 13	TCL BNAT	11	S. VanBaten	<i>[Signature]</i>
58314-7	BN625 +	11	S. VanBaten	<i>[Signature]</i>
9556808-912	VOA + MTBR + TBR + LS	12/14 - 12/28/95	M. CIAMPI	<i>[Signature]</i>

INTERNAL CHAIN OF CUSTODY(ORGANICS)

AMPLE No(S).	ANALYSIS	DATE ANALYZED	NAME (PRINT)	NAME (SIGNATURE)
59189-96	602+MTBE	12/28/95	S. Van Etta	SV
59189	TULIPAR	1-1-96	S. Van Etta	SV
59189	"	1-1-96	S. Van Etta	SV
58920	"	1-4-96	S. Van Etta	SV
59346	BNA625+	1-3-96	S. Van Etta	SV
9600201	GASOLINE	01/04/96	M. Ciampi	MCI
9558432	VOA+LS+TWA	01/02/96	M. Ciampi	MCI
9558920	BTEX 8240	01/04/96	M. Ciampi	MCI
9558823	VOA+QC	12/29/95	M. Ciampi	MCI
9558311-59346	S242	12/29/95/1/1/96	S. Kessle	SK
96-275	PAT	1-10-96	S. Van Etta	SV
59202/4	BNA625	1-10-96	S. Van Etta	SV
59223	BNA625	1-10-96	S. Van Etta	SV
96-271+4	TULIPAR	1-11-96	S. Van Etta	SV
96-465	"	1-11-96	S. Van Etta	SV
9558751, 52, 54	TULIPAR+TWA+TCS+SCOTT	12/29/95-01/05/96	M. Ciampi	MCI
9559334-339	VOA+LS+TWA	01/04/96	M. Ciampi	MCI
9558873-882	VOA+LS	12/26-12/28/95	M. Ciampi	MCI
9559168, 70	VOA	12/29/95-01/04/96	M. Ciampi	MCI
9559771-774	VOA+LS+TWA	01/09/96	M. Ciampi	MCI
9600271, 274	TULIPAR	01/11/96	M. Ciampi	MCI
483-807	BTEX/MTBE	1/11-12/96	S. Van Etta	SV

**U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET**

IJO#95-0091

BLDG.#: 430 MW#: 1 NJDEPE WELL ID # 2933756 1340

LABORATORY: EMSL Analytical Services, NJDEP CERT # 04653

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

SAMPLERS NAMES: Tom Baxter, Susan Palilonis

DATE: 12-18-95

WEATHER CONDITIONS: Cold, overcast

ELEVATION OF CASING SURVEY MARK: _____ FT

TOTAL DEPTH FROM TOP OF SURVEYORS MARK: 1212 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT

DEPTH TO H2O PRIOR TO PURGING AND SAMPLING: 2.48 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: 0.0 FT

PID/Hnu READING IMMEDIATELY AFTER CAP REMOVAL: 1 PPM

DEPTH OF WELL: _____ FT HEIGHT OF WATER: _____ FT

GAL OF H2O TO BE EVACUATED (EST) 19 GAL

$(9.63 \times 0.65 \times 3 = 18.77)$

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

PURGE RATE (0.5 GPM): 2 GPM

PURGE START TIME: 1355

pH: 5.32 s.u.

TEMP: 10.2 Deg.C

Dissolved Oxygen: 2.7 PPM Specific Conductivity: 134 us/cm

PURGE END TIME: 1410

pH: 5.32 s.u.

TEMP: 10.4 Deg.C

Dissolved Oxygen: 2.7 PPM Specific Conductivity: 148 us/cm

DEPTH TO H2O AFTER PURGING AND BEFORE SAMPLING: 3.60 FT

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

TOTAL VOLUME PURGED: 19 GAL.

pH: 5.36 s.u.

TEMP: 10.2 Deg.C

Dissolved Oxygen: 3.1 PPM Specific Conductivity: 147 us/cm 1415

COMMENTS: Inside Casing filled w/ H2O

Frozen over well cap.

METHODOLOGY SUMMARY

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 capillary column (DB-624 0.53 mm ID).

Method detection limits are as stated.

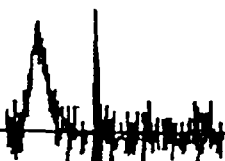
Semivolatiles by GC/MS - Aqueous

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. Reference is Federal Register, Vol. 40, No. 136, July, 1988.

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

If tentatively identified compounds are requested, a computer program analyzes the non-priority pollutant/HSL/TCL compounds with standard mass spectra found in the latest version of the NIH/NBS/EPA mass spectral library.

Method detection limits are as stated.



LABORATORY CHRONICLE

Lab ID: 95-58314, 95-58312, 95-58313

Client: ESystems

	I	DATE	II	Hold Time
Date Sampled		12/18/95		
Receipt/Refrigeration		12/18/95		
Extractions				
1. Semivolatile Organics		12/23/95		7 days
Analyses				
1. Volatile Organics		12/29/95		14 days
2. Semivolatile Organics		12/26/95		40 days

QC Supervisor
Review & Approval(Signature) Peter B. Pantan
(Printed Name) Peter B. Pantan(Date) 01/25/96

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.

EMSL

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	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 <u>Methylene Chloride 0.90 ppb.</u>		
b. B/N Fraction <u>49360 MS/MSD: Di-n-butylphthalate 5 ppb.</u>		
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 <u>58311-58317 IS #6 outside QC limits.</u>	X	

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

	No	Yes
10. Extraction Holding Time Met	_____	<u>X</u>

If not met, list number of days exceeded for each sample:

11. Analysis Holding Time Met	_____	<u>X</u>
-------------------------------	-------	----------

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 Jaraig

Date:

1-23-96



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: C0610.D BFB Injection Date: 12/18/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1640

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	18.5
75	30.0 - 60.0% of mass 95	44.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	Greater than 50.0% of mass 95	63.6
175	5.0 - 9.0% of mass 174	4.7 (7.4) 1
176	95.0 - 101.0% of mass 174	62.9 (98.9) 1
177	5.0 - 9.0% of mass 176	4.2 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

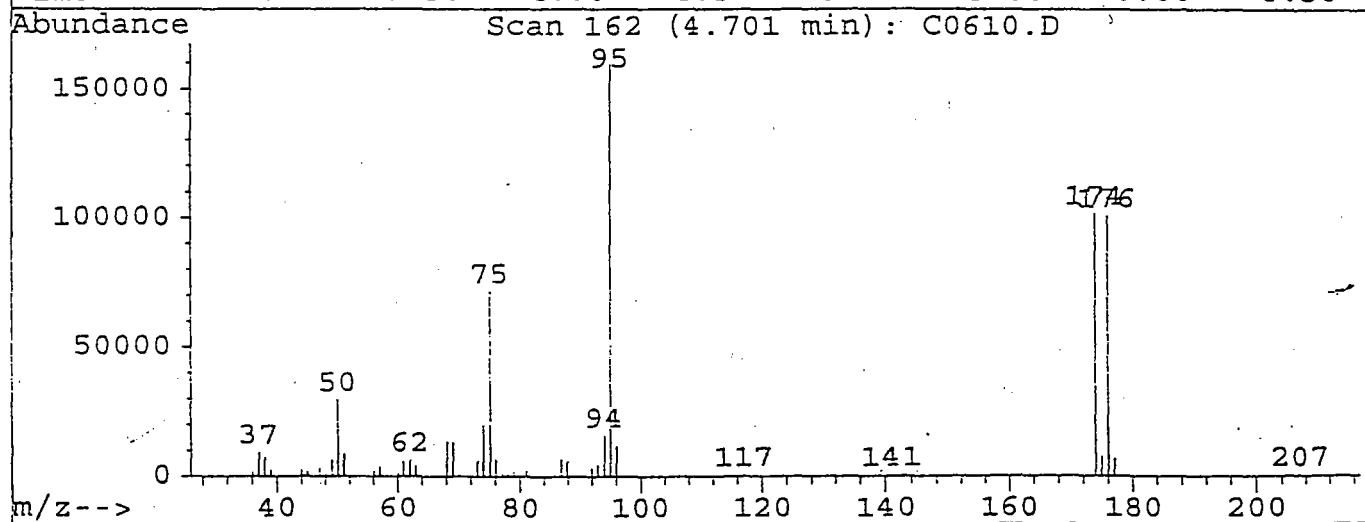
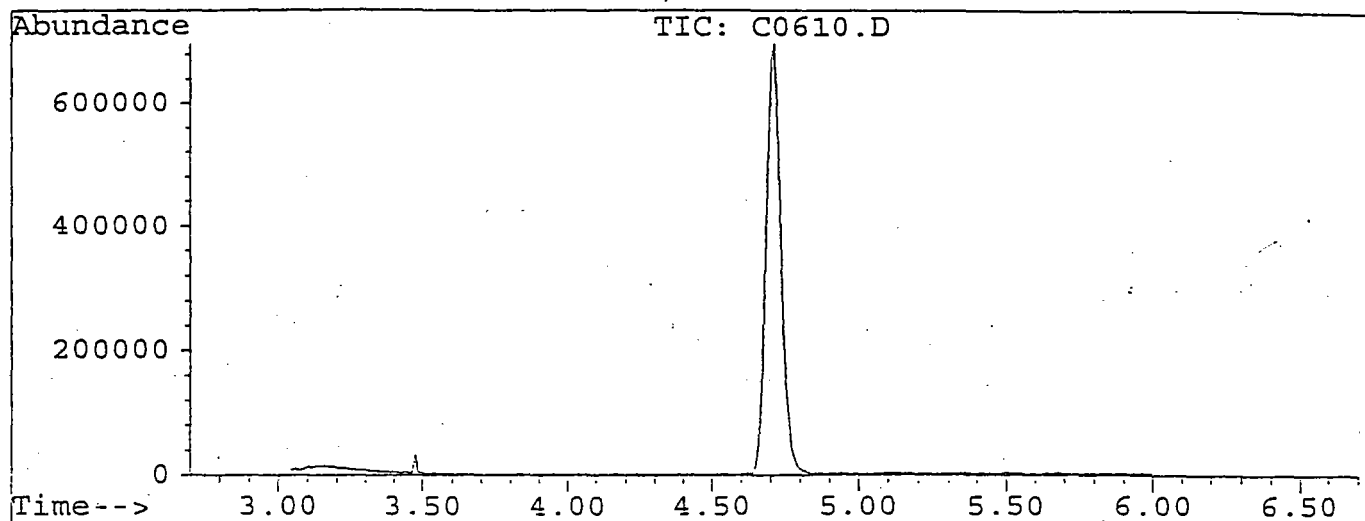
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT	LAB	LAB	DATE	TIME
SAMPLE ID	SAMPLE ID	FILE ID	ANALYZED	ANALYZED
01	0.5 PPB STANDARD	C0611.D	12/18/95	1653
02	10 PPB STANDARD	C0612.D	12/18/95	1727
03	20 PPB STANDARD	C0613.D	12/18/95	1801
04	30 PPB STANDARD	C0614.D	12/18/95	1836
05	40 PPB STANDARD	C0615.D	12/18/95	1910
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

Data File : D:\HPCHEM\1\DATA\C0610.D
 Acq On : 18 Dec 95 4:40 pm
 Sample : BFB TUNE
 Misc : 50 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: 162

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	29648	PASS
75	95	30	80	44.8	71608	PASS
95	95	100	100	100.0	159872	PASS
96	95	5	9	7.3	11653	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	63.6	101680	PASS
175	174	5	9	7.4	7494	PASS
176	174	95	101	98.9	100576	PASS
177	176	5	9	6.7	6725	PASS

Scan 162 (4.701 min): C0610.D
BFB TUNE

037

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1951	51.05	8686	72.05	774	87.00	6910
37.10	9477	55.05	543	73.05	6276	87.95	5903
38.10	7601	56.10	2264	74.05	20048	90.95	540
39.10	2622	57.10	3783	75.05	71608	92.05	3239
40.00	562	60.10	1637	76.05	6530	93.05	4789
44.00	2493	61.00	5859	77.10	1173	94.05	15988
45.00	1687	62.00	6282	78.00	918	95.05	159872
47.05	3137	63.00	4298	79.00	1963	96.05	11653
48.05	1090	68.05	13513	80.00	687	116.95	676
49.05	6503	69.05	13174	81.00	2275	118.90	565
50.05	29648	70.05	980	82.00	509	140.90	664

Scan 162 (4.701 min): C0610.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.90	660						
173.95	101680						
174.95	7494						
175.95	100576						
176.95	6725						
207.00	554						

Response Factor Report 5972 - In

038

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 19 13:49:27 1995
 Response via : Initial Calibration

Calibration Files

0.5 =C0611.D 10 =C0612.D 20 =C0613.D
 30 =C0614.D 40 =C0615.D

Compound		0.5	10	20	30	40	Avg	%RSD
-----		-----						
1)	Fluorobenzene	-----ISTD-----						
2) M	Dichlorodifluorometha	0.188	0.216	0.206	0.209	0.206	0.205	5.14
3) M	Chloromethane	0.200	0.212	0.202	0.199	0.195	0.202	3.20
4) M	Vinyl chloride	0.192	0.229	0.219	0.216	0.215	0.214	6.39
5) M	Bromomethane	0.132	0.119	0.119	0.119	0.117	0.121	5.05
6) M	Chloroethane	0.132	0.148	0.137	0.126	0.108	0.130	11.36
7) M	Trichlorofluoromethan	0.355	0.395	0.385	0.374	0.373	0.376	3.98
8) M	1,1-Dichloroethene	0.215	0.244	0.238	0.238	0.238	0.234	4.85
9) M	Methylene chloride		0.252	0.217	0.209	0.201	0.220	10.33
10) M	trans-1,2-Dichloroeth	0.242	0.275	0.274	0.272	0.273	0.267	5.30
11)	Hexane						0.000#	-1.00
12) M	1,1-Dichloroethane	0.463	0.514	0.505	0.504	0.500	0.497	3.94
13) M	2,2-Dichloropropane	0.385	0.424	0.414	0.407	0.403	0.407	3.60
14) M	cis-1,2-Dichloroethen	0.233	0.261	0.256	0.260	0.259	0.254	4.70
15)	2-Butanone						0.000#	-1.00
16) M	Bromochloromethane	0.092	0.099	0.099	0.102	0.101	0.098	3.88
17) M	Chloroform	0.416	0.446	0.443	0.445	0.443	0.439	2.92
18) M	1,1,1-Trichloroethane	0.417	0.459	0.452	0.453	0.452	0.447	3.75
19) M	Carbon tetrachloride	0.347	0.420	0.418	0.417	0.419	0.404	7.88
20) M	1,1-Dichloropropene	0.379	0.432	0.425	0.421	0.420	0.416	5.07
21) M	Benzene	0.858	0.870	0.854	0.855	0.846	0.857	1.00
22) M	1,2-Dichloroethane	0.148	0.167	0.164	0.168	0.165	0.163	5.22
23) M	Trichloroethene	0.319	0.358	0.356	0.355	0.354	0.348	4.74
24) M	1,2-Dichloropropane	0.265	0.293	0.291	0.291	0.284	0.285	4.02
25) M	Dibromomethane	0.102	0.115	0.114	0.117	0.115	0.113	5.20
26) M	Bromodichloromethane	0.296	0.350	0.349	0.356	0.352	0.341	7.39
27) M	cis-1,3-Dichloroprope	0.275	0.321	0.323	0.326	0.319	0.313	6.85
28) M	Toluene	0.643	0.626	0.619	0.619	0.613	0.624	1.84
29) M	trans-1,3-Dichloropro	0.176	0.213	0.214	0.217	0.211	0.206	8.35
30) M	1,1,2-Trichloroethane	0.095	0.112	0.113	0.115	0.113	0.110	7.81
31) M	Tetrachloroethene	0.384	0.419	0.414	0.415	0.416	0.410	3.50
32) M	1,3-Dichloropropane	0.201	0.216	0.216	0.221	0.213	0.213	3.54
33) M	Dibromochloromethane	0.185	0.218	0.220	0.228	0.225	0.215	7.98
34) M	1,2-Dibromoethane	0.136	0.158	0.161	0.164	0.161	0.156	7.38
35) M	Chlorobenzene	0.610	0.678	0.670	0.677	0.662	0.660	4.33
36) M	1,1,1,2-Tetrachloroet	0.235	0.270	0.271	0.275	0.272	0.265	6.34
37) M	Ethylbenzene	1.163	1.285	1.258	1.256	1.241	1.241	3.71
38) M	Xylene (para & meta)	0.447	0.496	0.479	0.476	0.468	0.473	3.77
39) M	Xylene (Ortho)	0.400	0.438	0.429	0.431	0.424	0.424	3.45
40) M	Styrene	0.545	0.654	0.645	0.650	0.637	0.626	7.34
41) M	Bromoform		0.115	0.119	0.123	0.121	0.119	3.09
42) M	Isopropylbenzene	1.121	1.253	1.227	1.229	1.217	1.210	4.23
43) S	4-Bromofluorobenzene	0.478	0.470	0.471	0.472	0.467	0.472	0.90

(#) = Out of Range

VOA524.M

Tue Dec 19 13:51:19 1995

VOA

Page 1

040
 Vial: 2
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

HEM\1\METHODS\VOA524.M
 Purgable Organics
 c 19 13:49:27 1995
 1 Calibration

			10	=C0612.D	20	=C0613.D					
			40	=C0615.D							
			0.5	10	20	30	40	Avg	%RSD		
Use	Conc	Units	Dev(Min)								
03	5.00	ug/L	0.00	loroet	0.124	0.145	0.145	0.148	0.144	0.141	6.83
				propan	0.138	0.131	0.138	0.132	0.136	0.135	2.43
					1.571	1.739	1.693	1.687	1.669	1.672	3.70
					0.913	1.006	0.985	0.977	0.953	0.967	3.67
6	4.43	ug/L	88.60%		0.963	1.084	1.051	1.048	1.029	1.035	4.32
1	4.15	ug/L	82.99%	benzen	0.944	1.065	1.037	1.039	1.028	1.023	4.51
				ene	0.997	1.086	1.192	1.068	1.045	1.078	6.70
				benzen	0.917	1.036	1.011	1.011	0.992	0.993	4.60
0	0.35	ug/L	94	ie	1.506	1.697	1.648	1.638	1.615	1.621	4.35
3	0.49	ug/L	95	nzene	0.515	0.574	0.562	0.563	0.552	0.553	4.14
0	0.42	ug/L	85	ene	1.161	1.354	1.304	1.297	1.272	1.277	5.60
5	0.42	ug/L	# 80	nzene	0.502	0.555	0.544	0.544	0.532	0.536	3.80
	0.52	ug/L	99	nzene-d	0.281	0.280	0.278	0.280	0.268	0.278	1.91
	0.45	ug/L	88	nzene	0.400	0.433	0.425	0.429	0.417	0.421	3.04
	0.45	ug/L	94		1.197	1.397	1.349	1.340	1.317	1.320	5.65
	4.62	ug/L	98	chlorop		0.026	0.026	0.028	0.027	0.027	3.34
	0.45	ug/L	97	obenzen	0.307	0.351	0.347	0.355	0.346	0.341	5.76
	0.46	ug/L	95	diene	0.278	0.329	0.323	0.329	0.322	0.316	6.81
	0.45	ug/L	98		0.339	0.336	0.339	0.345	0.332	0.338	1.40
	0.44	ug/L	96	robenzen	0.216	0.257	0.254	0.262	0.250	0.248	7.38
	0.40	ug/L	95	tyl eth		0.266	0.264	0.271	0.263	0.266	1.38
	0.44	ug/L	89	cohol		0.004	0.004	0.004	0.004	0.004	5.17
	0.46	ug/L	94								
	0.40	ug/L	96								
	0.45	ug/L	96								
	0.49	ug/L	97								
	0.38	ug/L	96								
	0.44	ug/L	90								
	0.44	ug/L	87								
	0.39	ug/L	# 83								
	0.38	ug/L	99								
	0.39	ug/L	98								
	0.52	ug/L	99								
	0.36	ug/L	89								
	0.36	ug/L	93								
	0.44	ug/L	96								
	0.41	ug/L	99								
	0.36	ug/L	96								
	0.36	ug/L	m 95								
	0.43	ug/L	96								
	0.40	ug/L	92								
	0.46	ug/L	m 65								
	0.94	ug/L	93								
	0.46	ug/L	92								
	0.41	ug/L	97								

Quantitation Report

040

Data File : D:\HPCHEM\1\DATA\C0611.D
 Acq On : 18 Dec 95 4:53 pm
 Sample : 0.5 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 12:50 1995

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Mon Dec 18 17:39:51 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) Fluorobenzene	12.07	96	1410703	5.00	ug/L	0.0
System Monitoring Compounds						%Recover
43) 4-Bromofluorobenzene	19.31	95	674726	4.43	ug/L	88.6
57) 1,2-Dichlorobenzene-d4	22.11	152	396261	4.15	ug/L	82.9
Target Compounds						Qvalu
2) Dichlorodifluoromethane	3.44	85	26510	0.35	ug/L	9
3) Chloromethane	3.84	50	28198	0.49	ug/L	9
4) Vinyl chloride	4.05	62	27080	0.42	ug/L	8
5) Bromomethane	4.79	94	18626	0.42	ug/L #	8
6) Chloroethane	5.00	64	18626	0.52	ug/L	9
7) Trichlorofluoromethane	5.56	101	50085	0.45	ug/L	8
8) 1,1-Dichloroethene	6.67	96	30283	0.45	ug/L	9
9) Methylene chloride	7.68	84	308737	4.62	ug/L	9
10) trans-1,2-Dichloroethene	8.23	96	34130	0.45	ug/L	9
12) 1,1-Dichloroethane	9.01	63	65371	0.46	ug/L	9
13) 2,2-Dichloropropane	10.06	77	54250	0.45	ug/L	9
14) cis-1,2-Dichloroethene	10.07	96	32804	0.44	ug/L	9
16) Bromochloromethane	10.51	128	12987	0.40	ug/L	9
17) Chloroform	10.65	83	58675	0.44	ug/L	8
18) 1,1,1-Trichloroethane	10.95	97	58842	0.46	ug/L	9
19) Carbon tetrachloride	11.24	117	48969	0.40	ug/L	9
20) 1,1-Dichloropropene	11.24	75	53433	0.45	ug/L	9
21) Benzene	11.60	78	121095	0.49	ug/L	9
22) 1,2-Dichloroethane	11.63	62	20829	0.38	ug/L	9
23) Trichloroethene	12.69	95	45011	0.44	ug/L	9
24) 1,2-Dichloropropane	13.07	63	37391	0.44	ug/L	8
25) Dibromomethane	13.28	93	14440	0.39	ug/L #	8
26) Bromodichloromethane	13.55	83	41730	0.38	ug/L	9
27) cis-1,3-Dichloropropene	14.29	75	38735	0.39	ug/L	9
28) Toluene	14.87	92	90694	0.52	ug/L	9
29) trans-1,3-Dichloropropene	15.23	75	24799	0.36	ug/L	8
30) 1,1,2-Trichloroethane	15.54	83	13334	0.36	ug/L	9
31) Tetrachloroethene	15.82	166	54196	0.44	ug/L	9
32) 1,3-Dichloropropane	15.84	76	28304	0.41	ug/L	9
33) Dibromochloromethane	16.24	129	26111	0.36	ug/L	9
34) 1,2-Dibromoethane	16.45	107	19123	0.36	ug/L m	9
35) Chlorobenzene	17.29	112	86019	0.43	ug/L	9
36) 1,1,1,2-Tetrachloroethane	17.44	131	33132	0.40	ug/L	9
37) Ethylbenzene	17.48	91	164092	0.46	ug/L m	6
38) Xylene (para & meta)	17.67	106	126091	0.94	ug/L	9
39) Xylene (Ortho)	18.38	106	56402	0.46	ug/L	9
40) Styrene	18.41	104	76878	0.41	ug/L	9

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

Quantitation Report

041

Data File : D:\HPCHEM\1\DATA\C0611.D
Acq On : 18 Dec 95 4:53 pm
Sample : 0.5 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 12:50 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 : Mon Dec 18 17:39:51 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.75	173	12260	0.31	ug/L	97
42) Isopropylbenzene	19.03	105	158171	0.46	ug/L	95
44) Bromobenzene	19.60	156	34990	0.39	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.56	83	17548	0.39	ug/L	93
46) 1,2,3-Trichloropropane	19.64	75	19419	0.42	ug/L m	24
47) n-Propylbenzene	19.78	91	221664	0.47	ug/L	98
48) 2-Chlorotoluene	19.94	91	128781	0.47	ug/L m	98
49) 4-Chlorotoluene	20.13	91	135904	0.44	ug/L	99
50) 1,3,5-Trimethylbenzene	20.09	105	133193	0.45	ug/L	96
51) tert-Butylbenzene	20.68	119	140621	0.42	ug/L m	99
52) 1,2,4-Trimethylbenzene	20.77	105	129296	0.43	ug/L	99
53) sec-Butylbenzene	21.08	105	212499	0.47	ug/L	98
54) 1,3-Dichlorobenzene	21.30	146	72600	0.41	ug/L m	98
55) 4-Isopropyltoluene	21.34	119	163775	0.45	ug/L	97
56) 1,4-Dichlorobenzene	21.46	146	70849	0.41	ug/L	99
58) 1,2-Dichlorobenzene	22.14	146	56487	0.41	ug/L	99
59) n-Butylbenzene	22.10	91	168895	0.46	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.57	75	2913	0.31	ug/L	90
61) 1,2,4-Trichlorobenzene	25.12	180	43246	0.38	ug/L	94
62) Hexachlorobutadiene	25.44	225	39266	0.40	ug/L	100
63) Naphthalene	25.58	128	47805	0.44	ug/L	100
64) 1,2,3-Trichlorobenzene	26.07	180	30509	0.37	ug/L	93
65) Methyl-tert butyl ether	8.28	73	49934	0.58	ug/L	95

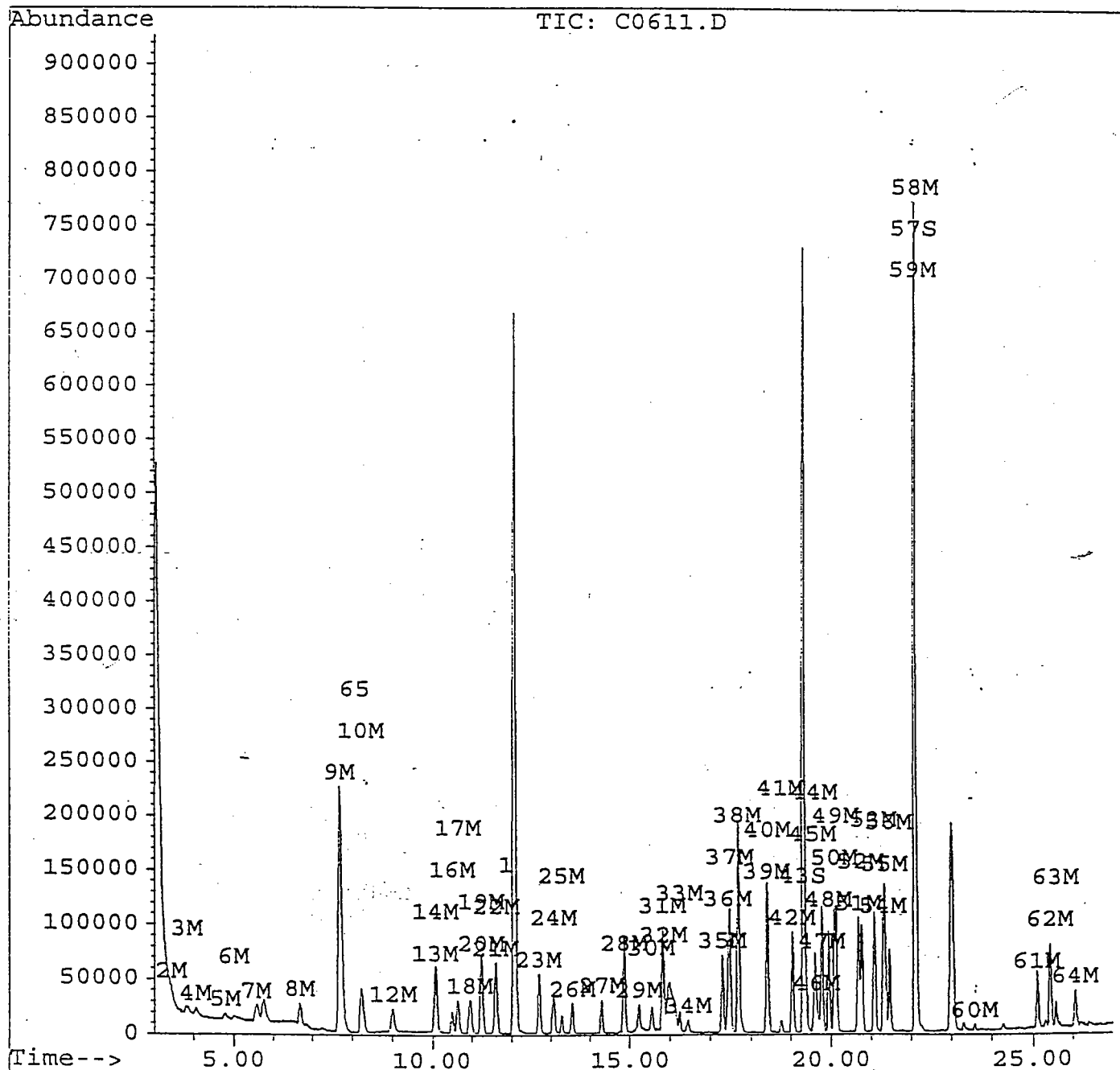
Quantitation Report

042

Data File : D:\HPCHEM\1\DATA\C0611.D
Acq On : 18 Dec 95 4:53 pm
Sample : 0.5 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 12:50 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 : Mon Dec 18 17:39:51 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpcchem\1\data\c0612.d
 Acq On : 18 Dec 95 5:27 pm
 Sample : 10 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 12:55 1995

043
 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 Dec 19 13:49:27 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.07	96	1438450	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.32	95	676254	4.35	ug/L	87.09%
57) 1,2-Dichlorobenzene-d4	22.12	152	403346	4.14	ug/L	82.84%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.44	85	622804	8.00	ug/L	99
3) Chloromethane	3.85	50	610433	10.32	ug/L	99
4) Vinyl chloride	4.07	62	659628	10.02	ug/L	99
5) Bromomethane	4.74	94	343472	7.51	ug/L	99
6) Chloroethane	4.99	64	425615	11.64	ug/L	100
7) Trichlorofluoromethane	5.58	101	1136662	10.00	ug/L	98
8) 1,1-Dichloroethene	6.68	96	702241	10.31	ug/L	99
9) Methylene chloride	7.69	84	725538	10.66	ug/L	97
10) trans-1,2-Dichloroethene	8.23	96	792522	10.19	ug/L	100
12) 1,1-Dichloroethane	9.02	63	1478477	10.12	ug/L	98
13) 2,2-Dichloropropane	10.07	77	1220112	9.99	ug/L	99
14) cis-1,2-Dichloroethene	10.08	96	749877	9.81	ug/L	96
16) Bromochloromethane	10.51	128	284264	8.58	ug/L	96
17) Chloroform	10.65	83	1283724	9.51	ug/L	99
18) 1,1,1-Trichloroethane	10.96	97	1320582	10.11	ug/L	99
19) Carbon tetrachloride	11.26	117	1207310	9.77	ug/L	99
20) 1,1-Dichloropropene	11.25	75	1242676	10.20	ug/L	99
21) Benzene	11.60	78	2501575	10.00	ug/L	100
22) 1,2-Dichloroethane	11.63	62	481648	8.59	ug/L	97
23) Trichloroethene	12.70	95	1031083	9.94	ug/L	97
24) 1,2-Dichloropropane	13.07	63	842803	9.70	ug/L	99
25) Dibromomethane	13.28	93	330109	8.66	ug/L	96
26) Bromodichloromethane	13.55	83	1008179	8.96	ug/L	99
27) cis-1,3-Dichloropropene	14.29	75	923180	9.11	ug/L	99
28) Toluene	14.87	92	1799577	10.20	ug/L	99
29) trans-1,3-Dichloropropene	15.23	75	613382	8.77	ug/L	100
30) 1,1,2-Trichloroethane	15.55	83	323232	8.60	ug/L	99
31) Tetrachloroethene	15.82	166	1204667	9.62	ug/L	97
32) 1,3-Dichloropropane	15.84	76	620713	8.73	ug/L	99
33) Dibromochloromethane	16.24	129	626620	8.38	ug/L	100
34) 1,2-Dibromoethane	16.44	107	453960	8.29	ug/L	98
35) Chlorobenzene	17.29	112	1951331	9.59	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.43	131	777407	9.20	ug/L	99
37) Ethylbenzene	17.48	91	3696407	10.19	ug/L	100
38) Xylene (para & meta)	17.68	106	2853533	20.79	ug/L	94
39) Xylene (Ortho)	18.38	106	1260630	10.01	ug/L	100
40) Styrene	18.40	104	1882088	9.74	ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c0612.d
 Acq On : 18 Dec 95 5:27 pm
 Sample : 10 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 12:55 1995

Vial: 3 **044**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 19 13:49:27 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.75	173	329927	8.05	ug/L	98
42) Isopropylbenzene	19.03	105	3605914	10.29	ug/L m	0
44) Bromobenzene	19.60	156	817692	9.00	ug/L	96
45) 1,1,2,2-Tetrachloroethane	19.56	83	417968	9.09	ug/L	99
46) 1,2,3-Trichloropropane	19.64	75	377473	7.99	ug/L m	99
47) n-Propylbenzene	19.78	91	5001751	10.45	ug/L	100
48) 2-Chlorotoluene	19.95	91	2893424	10.34	ug/L m	99
49) 4-Chlorotoluene	20.14	91	3118209	10.00	ug/L	99
50) 1,3,5-Trimethylbenzene	20.09	105	3065048	10.08	ug/L	98
51) tert-Butylbenzene	20.68	119	3125169	9.15	ug/L m	99
52) 1,2,4-Trimethylbenzene	20.78	105	2979989	9.81	ug/L	99
53) sec-Butylbenzene	21.08	105	4881376	10.53	ug/L	100
54) 1,3-Dichlorobenzene	21.30	146	1650878	9.18	ug/L	100
55) 4-Isopropyltoluene	21.34	119	3894952	10.45	ug/L	99
56) 1,4-Dichlorobenzene	21.47	146	1597802	9.07	ug/L	99
58) 1,2-Dichlorobenzene	22.15	146	1244718	8.76	ug/L	96
59) n-Butylbenzene	22.09	91	4019796	10.62	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.57	75	74841	7.70	ug/L	97
61) 1,2,4-Trichlorobenzene	25.12	180	1009467	8.77	ug/L	99
62) Hexachlorobutadiene	25.44	225	947757	9.47	ug/L	99
63) Naphthalene	25.58	128	966149	8.68	ug/L	100
64) 1,2,3-Trichlorobenzene	26.06	180	739730	8.82	ug/L	99
65) Methyl-tert butyl ether	8.27	73	764807	8.69	ug/L	99
66) tert-Butyl Alcohol	8.03	59	22206	17.13	ug/L m	100

Quantitation Report

046

045

4
SRK
5972 - In
1.00
File : d:\hpchem\1\data\c0612.d
On : 18 Dec 95 5:27 pm
le : 10 PPB STANDARD
: 25 ML 524.2 INITIAL CALIBRATION
t Time: Dec 19 12:55 1995

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

nod : C:\HPCHEM\1\METHODS\VOA524.M
le : 524.2 Purgable Organics
t Update : Tue Dec 19 13:49:27 1995
ponse via : Multiple Level Calibration

Dev (Min)

.0.00

recovery

87.28%

82.06%

Qvalue

100

99

100

96

99

99

99

95

97

99

100

100

96

100

99

99

99

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98

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99

96

100

98

100

99

98

97

100

100

99

100

99

100

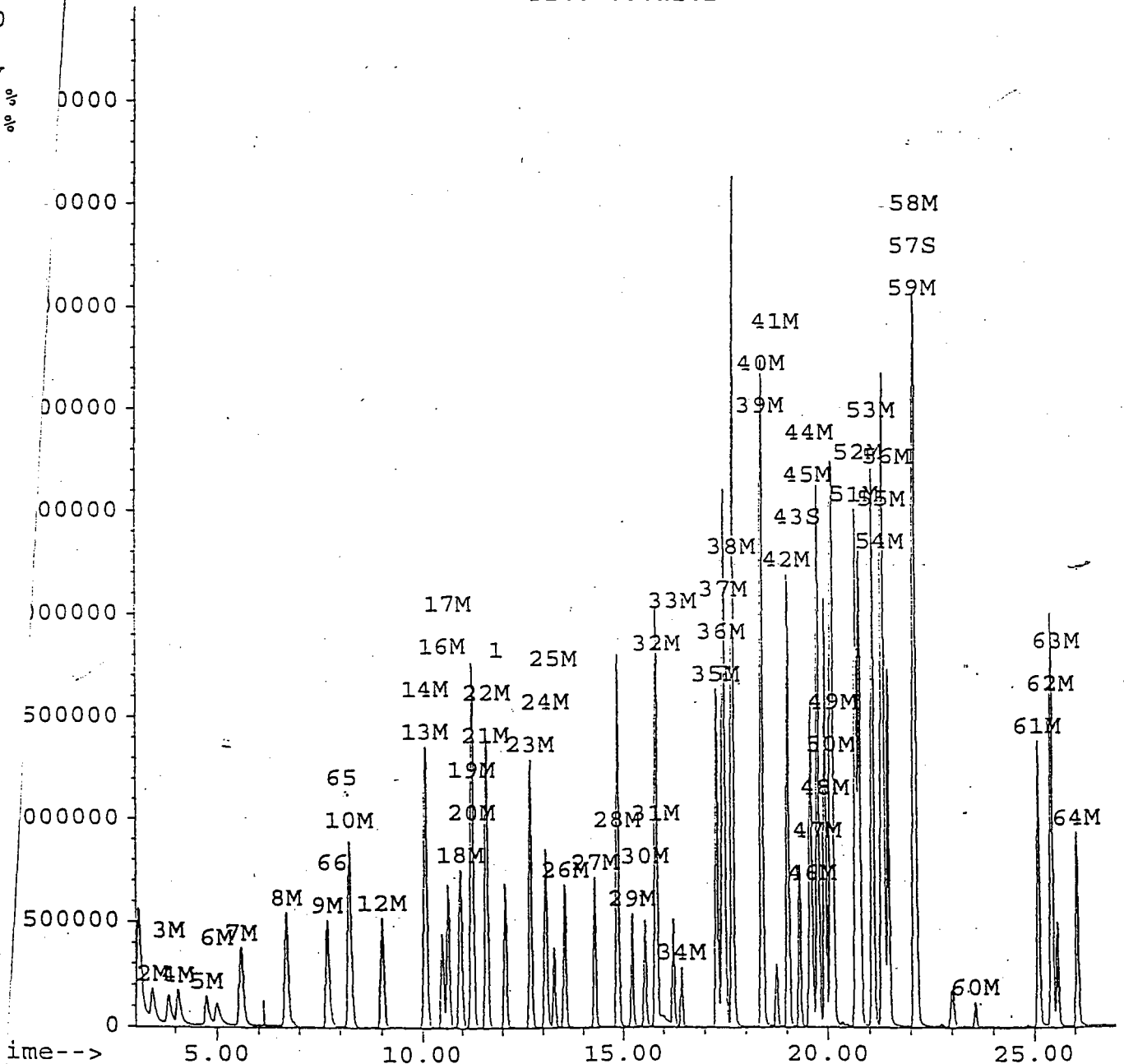
96

98

99

ance

TIC: C0612.D



Quantitation Report

Data File : d:\hpchem\1\data\c0613.d
 Acq On : 18 Dec 95 6:01 pm
 Sample : 20 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 12:59 1995

046
 Vial: 4
 Operator: SRK
 Inst : 5972 - I
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 19 13:49:27 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min
1) Fluorobenzene	12.08	96	1407214	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.32	95	662993	4.36	ug/L	87.28
57) 1,2-Dichlorobenzene-d4	22.12	152	390880	4.10	ug/L	82.06
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.45	85	1157405	15.20	ug/L	100
3) Chloromethane	3.85	50	1135619	19.62	ug/L	99
4) Vinyl chloride	4.07	62	1232853	19.15	ug/L	100
5) Bromomethane	4.73	94	668805	14.96	ug/L	96
6) Chloroethane	4.97	64	770953	21.55	ug/L	99
7) Trichlorofluoromethane	5.56	101	2167619	19.49	ug/L	99
8) 1,1-Dichloroethene	6.68	96	1337170	20.07	ug/L	99
9) Methylene chloride	7.69	84	1220128	18.32	ug/L	99
10) trans-1,2-Dichloroethene	8.23	96	1540653	20.24	ug/L	97
12) 1,1-Dichloroethane	9.01	63	2840312	19.87	ug/L	99
13) 2,2-Dichloropropane	10.08	77	2329892	19.51	ug/L	100
14) cis-1,2-Dichloroethene	10.09	96	1442121	19.28	ug/L	100
16) Bromochloromethane	10.51	128	555971	17.15	ug/L	96
17) Chloroform	10.65	83	2494279	18.89	ug/L	100
18) 1,1,1-Trichloroethane	10.96	97	2543034	19.89	ug/L	99
19) Carbon tetrachloride	11.26	117	2351013	19.45	ug/L	99
20) 1,1-Dichloropropene	11.25	75	2393919	20.08	ug/L	99
21) Benzene	11.60	78	4808098	19.64	ug/L	99
22) 1,2-Dichloroethane	11.63	62	925848	16.88	ug/L	98
23) Trichloroethene	12.70	95	2002780	19.73	ug/L	99
24) 1,2-Dichloropropane	13.08	63	1635263	19.24	ug/L	99
25) Dibromomethane	13.28	93	641361	17.21	ug/L	96
26) Bromodichloromethane	13.55	83	1966352	17.87	ug/L	100
27) cis-1,3-Dichloropropene	14.29	75	1817611	18.33	ug/L	98
28) Toluene	14.87	92	3486596	20.19	ug/L	100
29) trans-1,3-Dichloropropene	15.23	75	1205130	17.61	ug/L	99
30) 1,1,2-Trichloroethane	15.55	83	637883	17.36	ug/L	98
31) Tetrachloroethene	15.82	166	2329861	19.02	ug/L	97
32) 1,3-Dichloropropane	15.84	76	1217712	17.50	ug/L	100
33) Dibromochloromethane	16.24	129	1240668	16.96	ug/L	100
34) 1,2-Dibromoethane	16.45	107	903843	16.87	ug/L	99
35) Chlorobenzene	17.29	112	3773745	18.96	ug/L	100
36) 1,1,1,2-Tetrachloroethane	17.44	131	1525321	18.44	ug/L	99
37) Ethylbenzene	17.48	91	7083623	19.96	ug/L	100
38) Xylene (para & meta)	17.68	106	5388703	40.14	ug/L	99
39) Xylene (Ortho)	18.39	106	2413775	19.59	ug/L	99
40) Styrene	18.41	104	3633015	19.21	ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c0613.d
Acq On : 18 Dec 95 6:01 pm
Sample : 20 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 12:59 1995

Vial: 4 047
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 19 13:49:27 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.75	173	668039	16.66	ug/L	100
42) Isopropylbenzene	19.04	105	6904404	20.13	ug/L m	0
44) Bromobenzene	19.60	156	1579998	17.78	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.56	83	813627	18.08	ug/L	99
46) 1,2,3-Trichloropropane	19.64	75	778215	16.84	ug/L m	1
47) n-Propylbenzene	19.78	91	9531856	20.36	ug/L	100
48) 2-Chlorotoluene	19.94	91	5543384	20.25	ug/L m	99
49) 4-Chlorotoluene	20.14	91	5917632	19.40	ug/L	100
50) 1,3,5-Trimethylbenzene	20.09	105	5839813	19.63	ug/L	98
51) tert-Butylbenzene	20.68	119	6709069	20.08	ug/L	99
52) 1,2,4-Trimethylbenzene	20.78	105	5692640	19.15	ug/L	99
53) sec-Butylbenzene	21.09	105	9273631	20.44	ug/L	99
54) 1,3-Dichlorobenzene	21.30	146	3164433	17.99	ug/L	98
55) 4-Isopropyltoluene	21.34	119	7337427	20.12	ug/L	99
56) 1,4-Dichlorobenzene	21.47	146	3059938	17.75	ug/L	99
58) 1,2-Dichlorobenzene	22.15	146	2392863	17.21	ug/L	97
59) n-Butylbenzene	22.10	91	7591468	20.51	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.57	75	145800	15.34	ug/L	97
61) 1,2,4-Trichlorobenzene	25.12	180	1950474	17.31	ug/L	99
62) Hexachlorobutadiene	25.44	225	1819360	18.59	ug/L	99
63) Naphthalene	25.58	128	1910502	17.55	ug/L	100
64) 1,2,3-Trichlorobenzene	26.07	180	1430512	17.43	ug/L	98
65) Methyl-tert butyl ether	8.27	73	1486618	17.26	ug/L	100
66) tert-Butyl Alcohol	8.04	59	44313	34.94	ug/L m	100

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

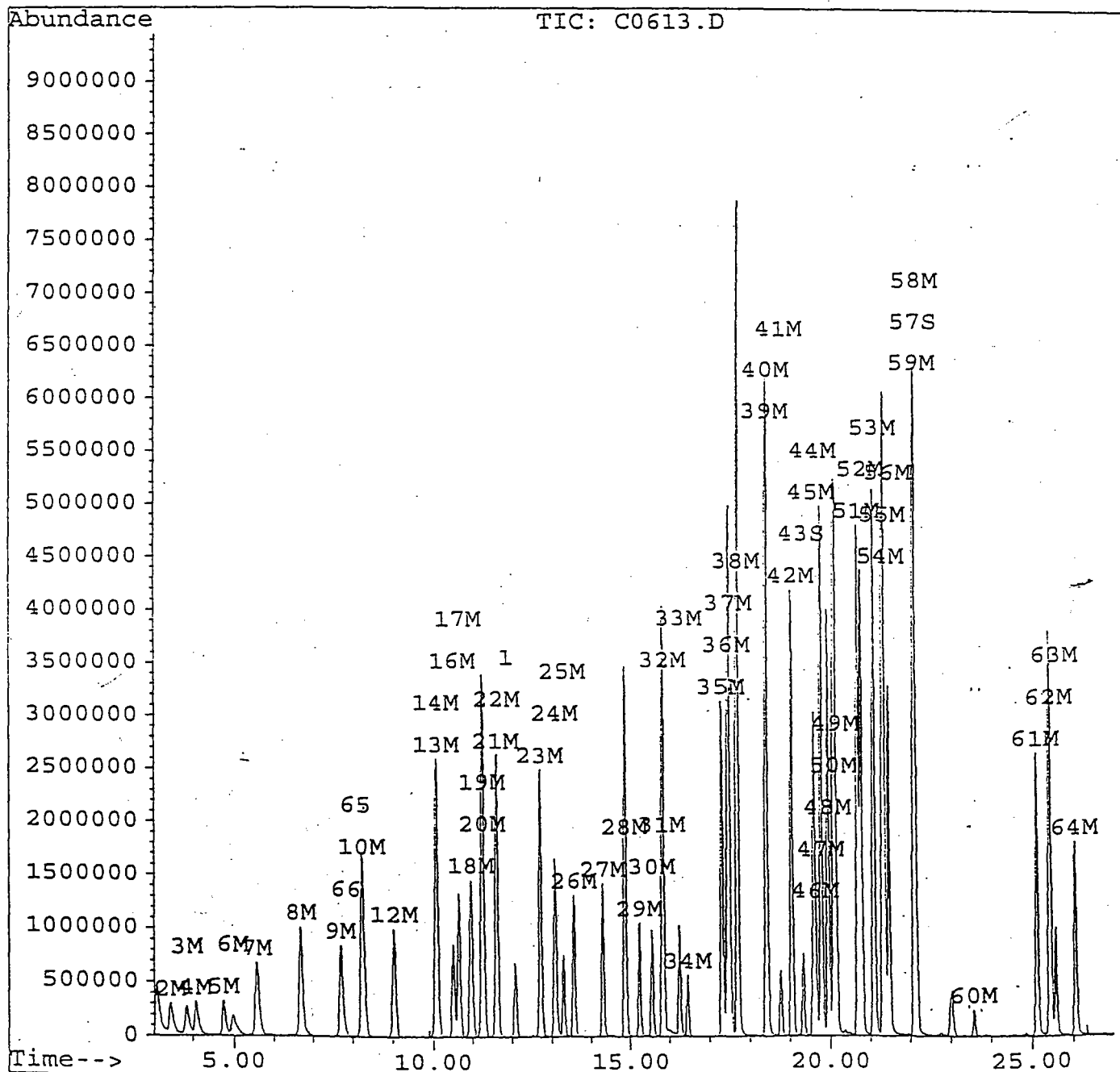
Quantitation Report

048

Data File : d:\hpchem\1\data\c0613.d
Acq On : 18 Dec 95 6:01 pm
Sample : 20 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 12:59 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 Dec 19 13:49:27 1995
Response via : Multiple Level Calibration



Quantitation Report

049

Data File : d:\hpchem\1\data\c0614.d
 Acq On : 18 Dec 95 6:36 pm
 Sample : 30 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 13:03 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 : Tue Dec 19 13:49:27 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.08	96	1332396	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.32	95	629223	4.37	ug/L	87.48%
57) 1,2-Dichlorobenzene-d4	22.12	152	373341	4.14	ug/L	82.78%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.44	85	1674231	23.22	ug/L	99
3) Chloromethane	3.84	50	1589959	29.01	ug/L	99
4) Vinyl chloride	4.07	62	1728649	28.36	ug/L	98
5) Bromomethane	4.73	94	948463	22.40	ug/L	98
6) Chloroethane	4.95	64	1004742	29.66	ug/L	99
7) Trichlorofluoromethane	5.55	101	2993479	28.43	ug/L	99
8) 1,1-Dichloroethene	6.68	96	1901722	30.15	ug/L	98
9) Methylene chloride	7.69	84	1669396	26.47	ug/L	99
10) trans-1,2-Dichloroethene	8.23	96	2174013	30.17	ug/L	98
12) 1,1-Dichloroethane	9.02	63	4028967	29.77	ug/L	99
13) 2,2-Dichloropropane	10.07	77	3257364	28.80	ug/L	99
14) cis-1,2-Dichloroethene	10.08	96	2077736	29.34	ug/L	98
16) Bromochloromethane	10.52	128	812023	26.45	ug/L	98
17) Chloroform	10.66	83	3559313	28.47	ug/L	99
18) 1,1,1-Trichloroethane	10.97	97	3620306	29.91	ug/L	99
19) Carbon tetrachloride	11.26	117	3331686	29.12	ug/L	99
20) 1,1-Dichloropropene	11.26	75	3369064	29.84	ug/L	99
21) Benzene	11.61	78	6834627	29.48	ug/L	100
22) 1,2-Dichloroethane	11.63	62	1346517	25.93	ug/L	98
23) Trichloroethene	12.71	95	2836186	29.51	ug/L	99
24) 1,2-Dichloropropane	13.08	63	2324715	28.89	ug/L	100
25) Dibromomethane	13.29	93	934117	26.47	ug/L	97
26) Bromodichloromethane	13.55	83	2842039	27.28	ug/L	99
27) cis-1,3-Dichloropropene	14.30	75	2604057	27.73	ug/L	99
28) Toluene	14.88	92	4950191	30.28	ug/L	98
29) trans-1,3-Dichloropropene	15.23	75	1737974	26.82	ug/L	99
30) 1,1,2-Trichloroethane	15.55	83	922443	26.51	ug/L	99
31) Tetrachloroethene	15.83	166	3320481	28.62	ug/L	98
32) 1,3-Dichloropropane	15.84	76	1763212	26.76	ug/L	99
33) Dibromochloromethane	16.25	129	1818986	26.26	ug/L	99
34) 1,2-Dibromoethane	16.44	107	1309782	25.83	ug/L	98
35) Chlorobenzene	17.30	112	5411175	28.71	ug/L	100
36) 1,1,1,2-Tetrachloroethane	17.43	131	2199322	28.09	ug/L	99
37) Ethylbenzene	17.49	91	10037171	29.87	ug/L	100
38) Xylene (para & meta)	17.69	106	7617139	59.92	ug/L	95
39) Xylene (Ortho)	18.39	106	3446421	29.54	ug/L	97
40) Styrene	18.41	104	5197567	29.03	ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c0614.d
Acq On : 18 Dec 95 6:36 pm
Sample : 30 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 13:03 1995

Vial: 5 050
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 19 13:49:27 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.75	173	984215	25.92	ug/L	98
42) Isopropylbenzene	19.04	105	9827464	30.26	ug/L m	0
44) Bromobenzene	19.61	156	2296884	27.30	ug/L	100
45) 1,1,2,2-Tetrachloroethane	19.57	83	1187143	27.86	ug/L	100
46) 1,2,3-Trichloropropane	19.65	75	1054548	24.10	ug/L m	1
47) n-Propylbenzene	19.78	91	13486064	30.42	ug/L	100
48) 2-Chlorotoluene	19.95	91	7806544	30.12	ug/L m	100
49) 4-Chlorotoluene	20.15	91	8376804	29.01	ug/L	99
50) 1,3,5-Trimethylbenzene	20.09	105	8309199	29.50	ug/L	99
51) tert-Butylbenzene	20.69	119	8540352	26.99	ug/L m	99
52) 1,2,4-Trimethylbenzene	20.77	105	8085353	28.72	ug/L	100
53) sec-Butylbenzene	21.09	105	13095526	30.48	ug/L	100
54) 1,3-Dichlorobenzene	21.31	146	4501828	27.04	ug/L	99
55) 4-Isopropyltoluene	21.35	119	10368606	30.03	ug/L	100
56) 1,4-Dichlorobenzene	21.47	146	4349999	26.65	ug/L	99
58) 1,2-Dichlorobenzene	22.16	146	3428548	26.04	ug/L	98
59) n-Butylbenzene	22.10	91	10709424	30.55	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.58	75	222530	24.72	ug/L	100
61) 1,2,4-Trichlorobenzene	25.12	180	2838531	26.61	ug/L	99
62) Hexachlorobutadiene	25.45	225	2630469	28.39	ug/L m	81
63) Naphthalene	25.59	128	2755342	26.74	ug/L m	0
64) 1,2,3-Trichlorobenzene	26.07	180	2097630	26.99	ug/L	100
65) Methyl-tert butyl ether	8.27	73	2169381	26.60	ug/L	100
66) tert-Butyl Alcohol	8.06	59	69142	57.57	ug/L m	100

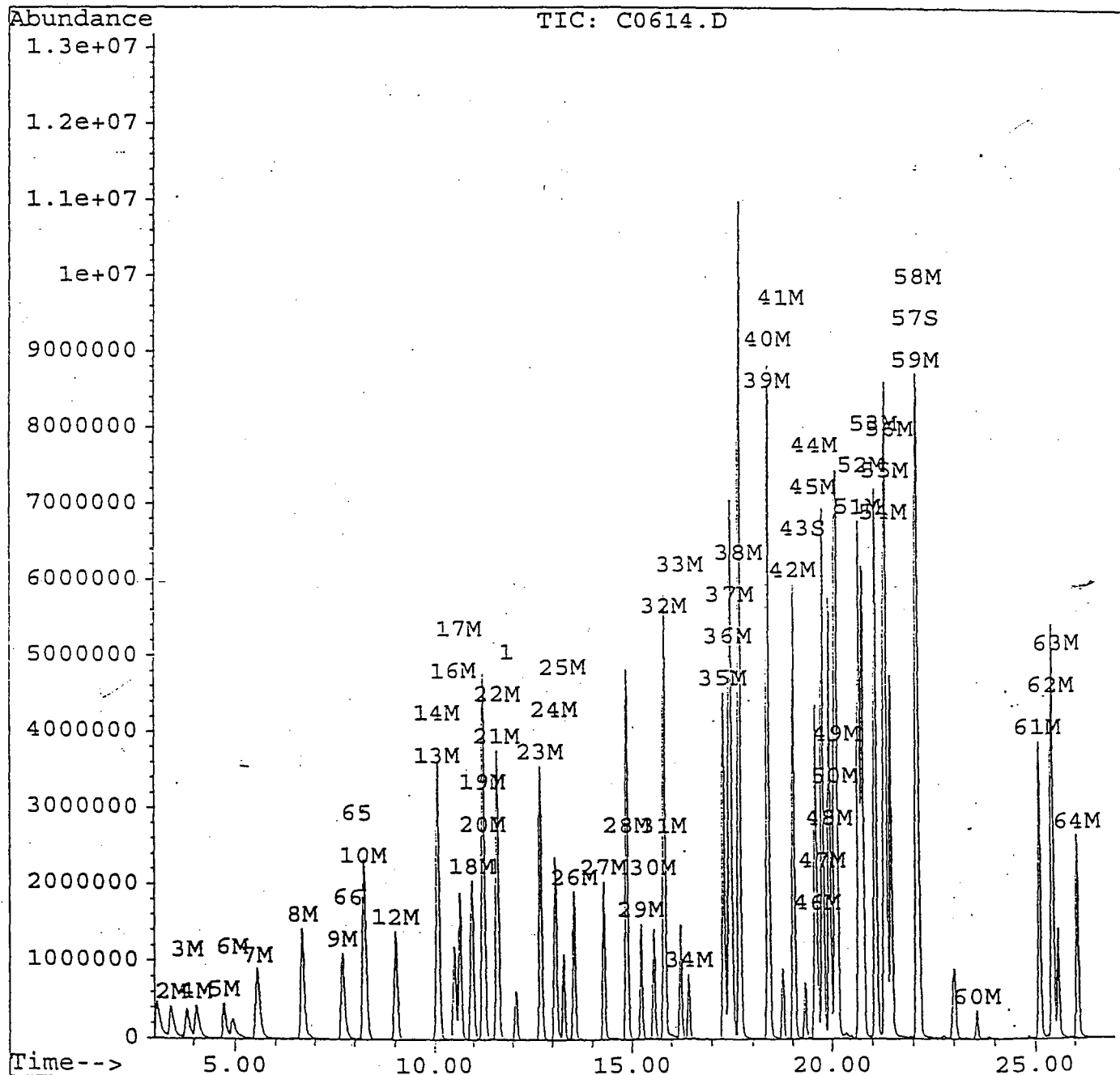
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0614.d
 Acq On : 18 Dec 95 6:36 pm
 Sample : 30 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 13:03 1995

Vial: 5 **051**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 19 13:49:27 1995
 Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpcchem\1\data\c0615.d
 Acq On : 18 Dec 95 7:10 pm
 Sample : 40 PPB STANDARD
 Misc : 25 ML 524.2 INITIAL CALIBRATION
 Quant Time: Dec 19 13:31 1995

Vial: 6 052
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 19 13:49:27 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.08	96	1328775	5.00	ug/L	0.00

System Monitoring Compounds

%Recovery

43) 4-Bromofluorobenzene	19.33	95	620145	4.32	ug/L	86.46%
57) 1,2-Dichlorobenzene-d4	22.13	152	356451	3.96	ug/L	79.25%

Target Compounds

Qvalue

2) Dichlorodifluoromethane	3.45	85	2193367	30.50	ug/L	99
3) Chloromethane	3.85	50	2072353	37.92	ug/L	99
4) Vinyl chloride	4.07	62	2286904	37.62	ug/L	99
5) Bromomethane	4.73	94	1244374	29.47	ug/L m	84
6) Chloroethane	4.93	64	1148775	34.01	ug/L	99
7) Trichlorofluoromethane	5.54	101	3961033	37.72	ug/L	99
8) 1,1-Dichloroethene	6.67	96	2527689	40.18	ug/L	98
9) Methylene chloride	7.69	84	2133222	33.92	ug/L	98
10) trans-1,2-Dichloroethene	8.23	96	2898883	40.34	ug/L	98
12) 1,1-Dichloroethane	9.02	63	5317393	39.39	ug/L	99
13) 2,2-Dichloropropane	10.07	77	4286098	38.00	ug/L	99
14) cis-1,2-Dichloroethene	10.09	96	2752262	38.97	ug/L	98
16) Bromochloromethane	10.52	128	1075806	35.14	ug/L	96
17) Chloroform	10.66	83	4712224	37.79	ug/L	100
18) 1,1,1-Trichloroethane	10.97	97	4809583	39.84	ug/L	99
19) Carbon tetrachloride	11.27	117	4454103	39.03	ug/L	99
20) 1,1-Dichloropropene	11.26	75	4466516	39.67	ug/L	99
21) Benzene	11.61	78	8993183	38.90	ug/L	100
22) 1,2-Dichloroethane	11.64	62	1749723	33.79	ug/L	96
23) Trichloroethene	12.71	95	3767691	39.30	ug/L	99
24) 1,2-Dichloropropane	13.08	63	3024057	37.68	ug/L	99
25) Dibromomethane	13.29	93	1227344	34.87	ug/L	95
26) Bromodichloromethane	13.56	83	3743643	36.03	ug/L	98
27) cis-1,3-Dichloropropene	14.30	75	3392954	36.23	ug/L	99
28) Toluene	14.88	92	6516098	39.96	ug/L	100
29) trans-1,3-Dichloropropene	15.24	75	2247586	34.77	ug/L	99
30) 1,1,2-Trichloroethane	15.56	83	1201692	34.63	ug/L	98
31) Tetrachloroethene	15.83	166	4420107	38.21	ug/L	98
32) 1,3-Dichloropropane	15.85	76	2266167	34.49	ug/L	100
33) Dibromochloromethane	16.25	129	2386589	34.55	ug/L	99
34) 1,2-Dibromoethane	16.45	107	1712137	33.85	ug/L	99
35) Chlorobenzene	17.30	112	7040420	37.46	ug/L m	0
36) 1,1,1,2-Tetrachloroethane	17.44	131	2894177	37.06	ug/L	99
37) Ethylbenzene	17.49	91	13196176	39.38	ug/L	99
38) Xylene (para & meta)	17.69	106	9951484	78.50	ug/L	96
39) Xylene (Ortho)	18.39	106	4510500	38.76	ug/L	96
40) Styrene	18.41	104	6772604	37.92	ug/L	100

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

Quantitation Report

053

Data File : d:\hpchem\1\data\c0615.d
Acq On : 18 Dec 95 7:10 pm
Sample : 40 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 13:31 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 : Tue Dec 19 13:49:27 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.75	173	1291562	34.11	ug/L	99
42) Isopropylbenzene	19.04	105	12938843	39.95	ug/L	97
44) Bromobenzene	19.61	156	2999030	35.74	ug/L	100
45) 1,1,2,2-Tetrachloroethane	19.57	83	1533825	36.09	ug/L	99
46) 1,2,3-Trichloropropane	19.65	75	1448800	33.20	ug/L m	1
47) n-Propylbenzene	19.79	91	17739162	40.12	ug/L	99
48) 2-Chlorotoluene	19.96	91	10134696	39.21	ug/L m	100
49) 4-Chlorotoluene	20.15	91	10939409	37.99	ug/L	100
50) 1,3,5-Trimethylbenzene	20.10	105	10924965	38.89	ug/L	99
51) tert-Butylbenzene	20.69	119	11106671	35.20	ug/L m	100
52) 1,2,4-Trimethylbenzene	20.79	105	10547838	37.57	ug/L	99
53) sec-Butylbenzene	21.09	105	17163941	40.06	ug/L	99
54) 1,3-Dichlorobenzene	21.31	146	5867148	35.33	ug/L	99
55) 4-Isopropyltoluene	21.35	119	13520952	39.26	ug/L	99
56) 1,4-Dichlorobenzene	21.48	146	5658632	34.77	ug/L	100
58) 1,2-Dichlorobenzene	22.16	146	4429755	33.73	ug/L	97
59) n-Butylbenzene	22.11	91	14000701	40.05	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.58	75	283978	31.64	ug/L	98
61) 1,2,4-Trichlorobenzene	25.13	180	3682422	34.62	ug/L	99
62) Hexachlorobutadiene	25.45	225	3421695	37.03	ug/L m	83
63) Naphthalene	25.59	128	3527603	34.33	ug/L	100
64) 1,2,3-Trichlorobenzene	26.07	180	2654417	34.24	ug/L	100
65) Methyl-tert butyl ether	8.28	73	2797003	34.39	ug/L	98
66) tert-Butyl Alcohol	8.08	59	84092	70.21	ug/L m	100

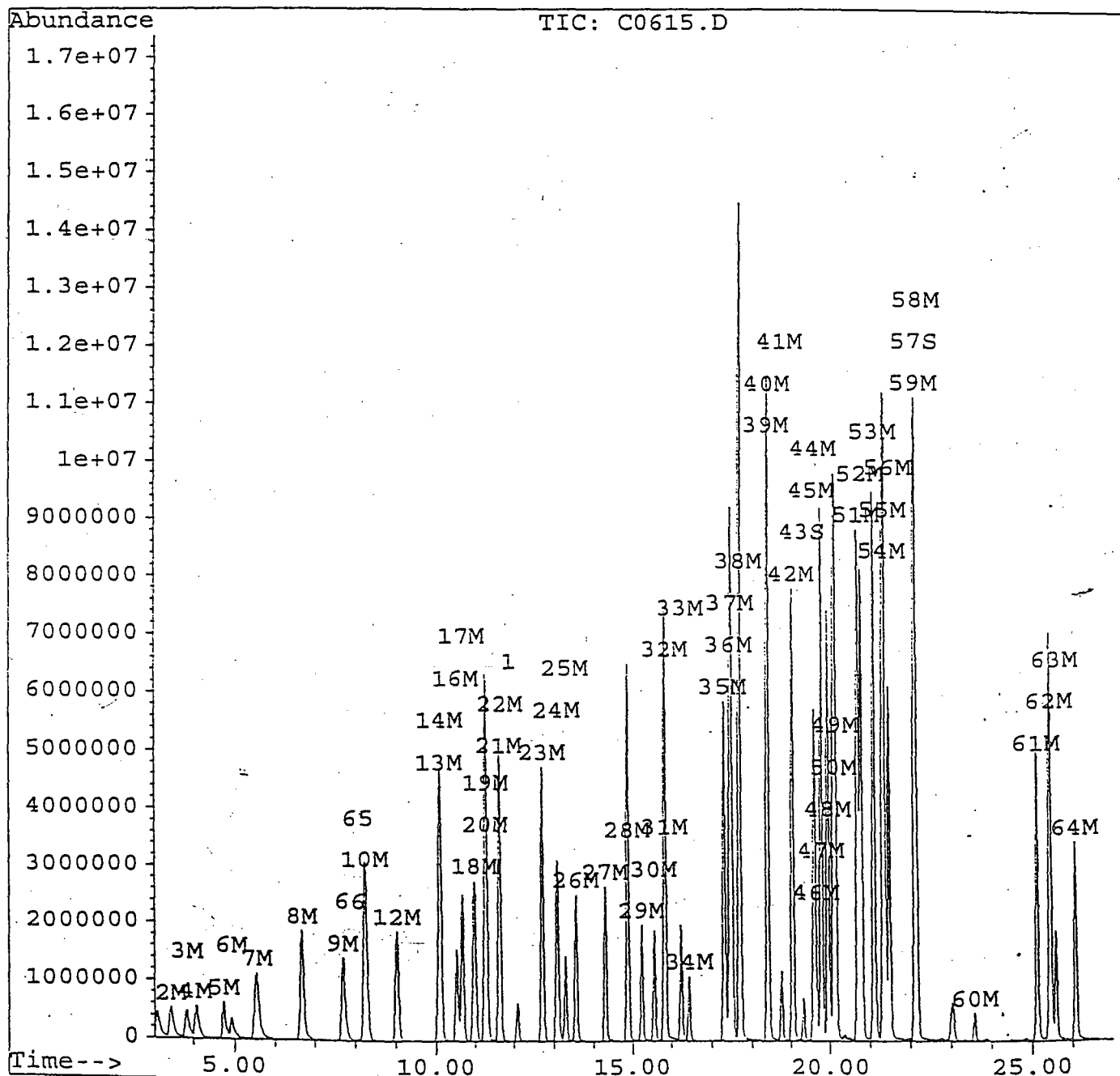
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0615.d
Acq On : 18 Dec 95 7:10 pm
Sample : 40 PPB STANDARD
Misc : 25 ML 524.2 INITIAL CALIBRATION
Quant Time: Dec 19 13:31 1995

Vial: 6 054
Operator: SRK
Inst : 5972 - I=
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 19 13:49:27 1995
Response via : Multiple Level Calibration



5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

055

Lab Name : EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Lab File ID: C0695.D BFB Injection Date: 12/26/95
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1653
 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	18.1
75	30.0 - 66.0% of mass 95	42.1
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	50.0 - 120.0% of mass 95	64.9
175	4.0 - 9.0% of mass 174	4.7 (7.2)1
176	93.0 - 101.0% of mass 174	63.9 (98.5)1
177	5.0 - 9.0% of mass 176	4.0 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

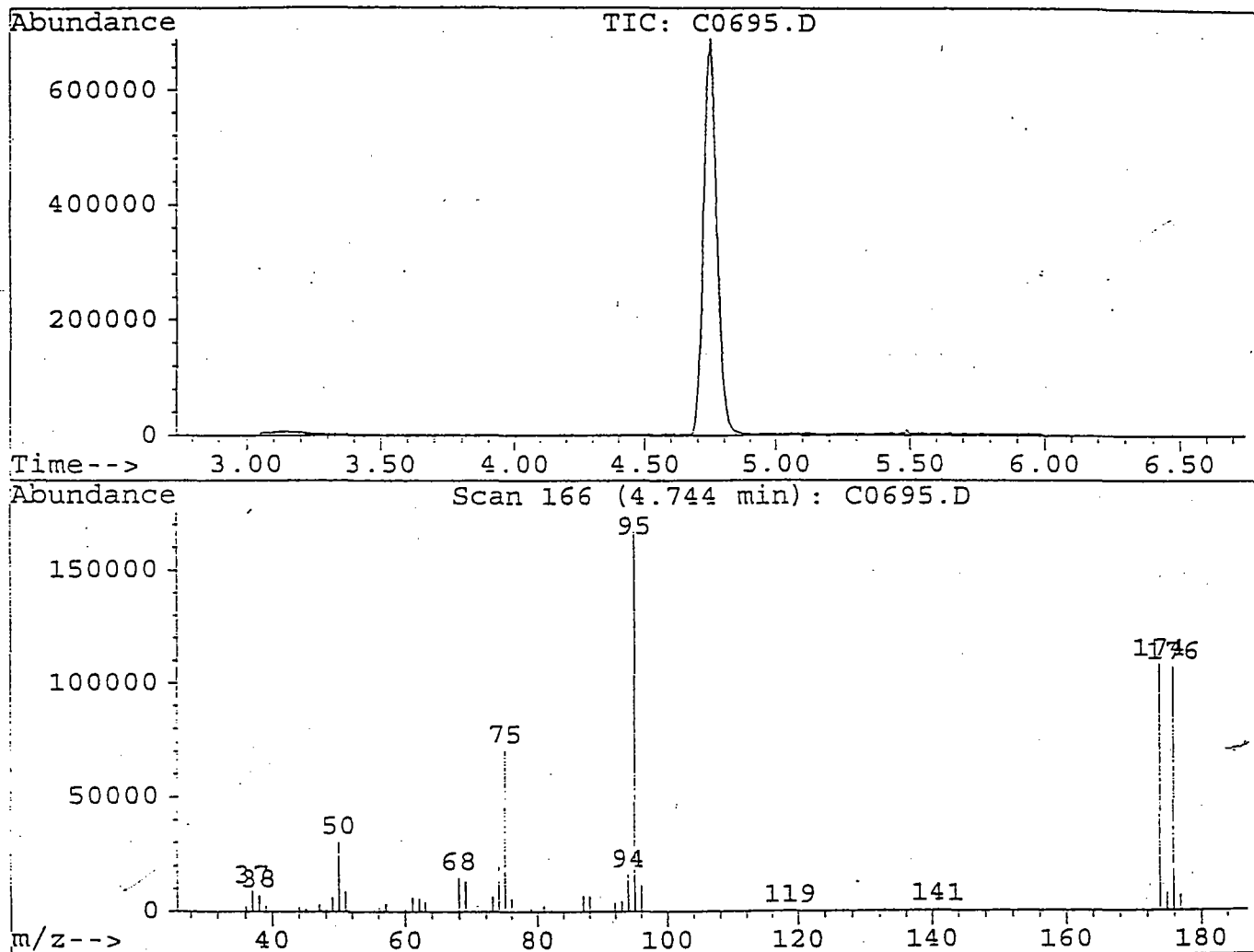
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C0696.D	12/26/95	1706
02	VBK01	M. BLANK	C0697.D	12/26/95	1741
03	9557856V	9557856V	C0698.D	12/26/95	1815
04	9557857V	9557857V	C0699.D	12/26/95	1850
05	9558188V	9558188V	C0700.D	12/26/95	1924
06	9558189V	9558189V	C0701.D	12/26/95	1958
07	9558190V	9558190V	C0702.D	12/26/95	2032
08	9558191V	9558191V	C0703.D	12/26/95	2107
09	9558192V	9558192V	C0704.D	12/26/95	2141
10	9558196V	9558196V	C0705.D	12/26/95	2215
11	9558197V	9558197V	C0706.D	12/26/95	2250
12	9558195V	9558195V	C0707.D	12/26/95	2324
13	9557856MS	57856MS	C0708.D	12/26/95	2358
14	9557856MSD	57856MSD	C0709.D	12/27/95	0032
15	10 QCS	10 QCS	C0710.D	12/27/95	0107
16	1 STND	1 STND	C0711.D	12/27/95	0141
17					
18					
19					
20					
21					
22					

Data File : D:\HPCHEM\1\DATA\C0695.D
Acq On : 26 Dec 95 4:53 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: 166

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	30208	PASS
75	95	30	80	42.1	70408	PASS
95	95	100	100	100.0	167168	PASS
96	95	5	9	6.8	11321	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	64.9	108464	PASS
175	174	5	9	7.2	7852	PASS
176	174	95	101	98.5	106816	PASS
177	176	5	9	6.3	6723	PASS

Scan 166 (4.744 min): C0695.D

BFB TUNE

057

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	2075	51.05	8964	72.05	879	87.00	6983
37.10	9106	55.05	634	73.05	6510	88.05	6954
38.10	7359	56.10	1741	74.05	20264	91.05	593
39.10	2709	57.10	3765	75.05	70408	91.95	3884
40.00	840	60.00	1615	76.05	6088	93.05	4447
44.00	2129	61.10	6353	77.00	1019	94.05	15855
45.00	1351	62.10	5874	78.00	686	95.05	167168
47.05	3168	63.00	4585	79.00	1970	96.05	11321
48.05	964	68.05	14864	79.90	859	118.80	530
49.05	6323	69.05	13479	81.00	2637	140.90	1017
50.05	30208	70.05	981	82.00	642	143.00	873

Scan 166 (4.744 min): C0695.D

BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
173.95	108464						
174.95	7852						
175.95	106816						
176.95	6723						

7A
VOLATILE CONTINUING CALIBRATION CHECK

058

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 12/26/95 Time: 1706

Lab File ID: C0696.D Init. Calib. Date(s): 12/18/95

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

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

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.205	0.176		14.1	30.0
Chloromethane	0.202	0.173		14.4	30.0
Vinyl chloride	0.214	0.205		4.2	30.0
Bromomethane	0.121	0.132		-9.1	30.0
Chloroethane	0.130	0.137		-5.4	30.0
Trichlorofluoromethane	0.376	0.368		2.1	30.0
1,1-Dichloroethene	0.234	0.234		0.0	30.0
Methylene chloride	0.220	0.238		-8.2	30.0
trans-1,2-Dichloroethene	0.267	0.270		-1.1	30.0
1,1-Dichloroethane	0.497	0.500		-0.6	30.0
2,2-Dichloropropane	0.407	0.412		-1.2	30.0
cis-1,2-Dichloroethene	0.254	0.258		-1.6	30.0
Bromochloromethane	0.098	0.101		-3.1	30.0
Chloroform	0.439	0.439		0.0	30.0
1,1,1-Trichloroethane	0.447	0.444		0.7	30.0
Carbon tetrachloride	0.404	0.411		-1.7	30.0
1,1-Dichloropropene	0.416	0.422		-1.4	30.0
Benzene	0.857	0.869		-1.4	30.0
1,2-Dichloroethane	0.163	0.167		-2.5	30.0
Trichloroethene	0.348	0.355		-2.0	30.0
1,2-Dichloropropane	0.285	0.289		-1.4	30.0
Dibromomethane	0.113	0.118		-4.4	30.0
Bromodichloromethane	0.341	0.351		-2.9	30.0
cis-1,3-Dichloropropene	0.313	0.323		-3.2	30.0
Toluene	0.624	0.619		0.8	30.0
trans-1,3-Dichloropropene	0.206	0.213		-3.4	30.0
1,1,2-Trichloroethane	0.110	0.115		-4.5	30.0
Tetrachloroethene	0.410	0.419		-2.2	30.0
1,3-Dichloropropane	0.213	0.218		-2.3	30.0
Dibromochloromethane	0.215	0.226		-5.1	30.0
1,2-Dibromoethane	0.000	0.000			30.0
Chlorobenzene	0.660	0.682		-3.3	30.0
1,1,1,2-Tetrachloroethane	0.265	0.274		-3.4	30.0
Ethylbenzene	1.241	1.268		-2.2	30.0
Xylene (para & meta)	0.473	0.484		-2.3	30.0
Xylene (Ortho)	0.424	0.436		-2.8	30.0

VOLATILE CONTINUING CALIBRATION CHECK

059

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 12/26/95Time: 1706Lab File ID: C0696.DInit. Calib. Date(s): 12/18/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

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

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.626	0.654		-4.5	30.0
Bromoform	0.119	0.120		-0.8	30.0
Isopropylbenzene	1.210	1.237		-2.2	30.0
Bromobenzene	0.276	0.286		-3.6	30.0
1,1,2,2-Tetrachloroethane	0.141	0.147		-4.3	30.0
1,2,3-Trichloropropane	0.135	0.133		1.5	30.0
n-Propylbenzene	1.672	1.715		-2.6	30.0
2-Chlorotoluene	0.967	0.981		-1.4	30.0
4-Chlorotoluene	1.035	1.077		-4.1	30.0
1,3,5-Trimethylbenzene	1.023	1.058		-3.4	30.0
tert-Butylbenzene	1.078	1.204		-11.7	30.0
1,2,4-Trimethylbenzene	0.993	1.033		-4.0	30.0
sec-Butylbenzene	1.621	1.682		-3.8	30.0
1,3-Dichlorobenzene	0.553	0.578		-4.5	30.0
4-Isopropyltoluene	1.277	1.334		-4.5	30.0
1,4-Dichlorobenzene	0.536	0.558		-4.1	30.0
1,2-Dichlorobenzene	0.421	0.442		-5.0	30.0
n-Butylbenzene	1.320	1.378		-4.4	30.0
1,2-Dibromo-3-chloropropane	0.027	0.027		0.0	30.0
1,2,4-Trichlorobenzene	0.341	0.351		-2.9	30.0
Hexachlorobutadiene	0.316	0.324		-2.5	30.0
Naphthalene	0.338	0.311		8.0	30.0
1,2,3-Trichlorobenzene	0.248	0.258		-4.0	30.0
4-Bromofluorobenzene	0.472	0.486		-3.0	30.0
1,2-Dichlorobenzene-d4	0.278	0.290		-4.3	30.0

Evaluate Continuing Calibration Report

060

Data File : D:\HPCHEM\1\DATA\C0696.D
 Acq On : 26 Dec 95 5:06 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 Dec 26 17:40:31 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	98	0.00
2 M	Dichlorodifluoromethane	0.205	0.176	14.3	79	0.00
3 M	Chloromethane	0.202	0.173	14.0	80	0.00
4 M	Vinyl chloride	0.214	0.205	4.6	87	0.00
5 M	Bromomethane	0.121	0.132	-9.2	108	0.00
6 M	Chloroethane	0.130	0.137	-5.5	91	0.00
7 M	Trichlorofluoromethane	0.376	0.368	2.3	91	0.00
8 M	1,1-Dichloroethene	0.234	0.234	0.1	94	0.00
9 M	Methylene chloride	0.220	0.238	-8.3	92	0.00
10 M	trans-1,2-Dichloroethene	0.267	0.270	-1.1	96	0.00
11	Hexane	0.000	0.000#	0.0	0#	-8.89#
12 M	1,1-Dichloroethane	0.497	0.500	-0.5	95	0.00
13 M	2,2-Dichloropropane	0.407	0.412	-1.2	95	0.00
14 M	cis-1,2-Dichloroethene	0.254	0.258	-1.6	96	0.00
15	2-Butanone	0.000	0.000#	0.0	0#	-11.21#
16 M	Bromochloromethane	0.098	0.101	-2.7	100	0.00
17 M	Chloroform	0.439	0.439	-0.1	96	0.00
18 M	1,1,1-Trichloroethane	0.447	0.444	0.7	94	0.00
19 M	Carbon tetrachloride	0.404	0.411	-1.7	95	0.00
20 M	1,1-Dichloropropene	0.416	0.422	-1.7	95	0.00
21 M	Benzene	0.857	0.869	-1.5	98	0.00
22 M	1,2-Dichloroethane	0.163	0.167	-3.0	98	0.00
23 M	Trichloroethene	0.348	0.355	-1.9	97	0.00
24 M	1,2-Dichloropropane	0.285	0.289	-1.5	96	0.00
25 M	Dibromomethane	0.113	0.118	-4.5	100	0.00
26 M	Bromodichloromethane	0.341	0.351	-3.1	98	0.00
27 M	cis-1,3-Dichloropropene	0.313	0.323	-3.2	98	0.00
28 M	Toluene	0.624	0.619	0.8	97	0.00
29 M	trans-1,3-Dichloropropene	0.206	0.213	-3.3	98	0.00
30 M	1,1,2-Trichloroethane	0.110	0.115	-4.7	100	0.00
31 M	Tetrachloroethene	0.410	0.419	-2.4	98	0.00
32 M	1,3-Dichloropropane	0.213	0.218	-2.4	99	0.00
33 M	Dibromochloromethane	0.215	0.226	-4.9	101	0.00
34 M	1,2-Dibromoethane	0.156	0.162	-3.8	100	0.00
35 M	Chlorobenzene	0.660	0.682	-3.5	98	0.00
36 M	1,1,1,2-Tetrachloroethane	0.265	0.274	-3.4	99	0.00
37 M	Ethylbenzene	1.241	1.268	-2.2	96	0.00
38 M	Xylene (para & meta)	0.473	0.484	-2.4	95	0.00
39 M	Xylene (Ortho)	0.424	0.436	-2.8	97	0.00
40 M	Styrene	0.626	0.654	-4.4	97	0.00
41 M	Bromoform	0.119	0.120	-0.5	102	0.00
42 M	Isopropylbenzene	1.210	1.237	-2.2	96	0.00

(#) = Out of Range

C0696.D: VOA524.M

Tue Dec 26 17:41:46 1995

VOA

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0696.D
 Acq On : 26 Dec 95 5:06 pm
 Sample : 10 PPB CHK STANDARD
 Misc :

001

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 Dec 26 17:40:31 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	0.472	0.486	-3.0	101	0.00
44 M	Bromobenzene	0.276	0.286	-3.6	98	0.00
45 M	1,1,2,2-Tetrachloroethane	0.141	0.147	-3.8	99	0.00
46 M	1,2,3-Trichloropropane	0.135	0.133	1.4	99	0.00
47 M	n-Propylbenzene	1.672	1.715	-2.6	96	0.00
48 M	2-Chlorotoluene	0.967	0.981	-1.5	95	0.00
49 M	4-Chlorotoluene	1.035	1.077	-4.0	97	0.00
50 M	1,3,5-Trimethylbenzene	1.023	1.058	-3.4	97	0.00
51 M	tert-Butylbenzene	1.078	1.204	-11.7	108	0.00
52 M	1,2,4-Trimethylbenzene	0.993	1.033	-3.9	97	0.00
53 M	sec-Butylbenzene	1.621	1.682	-3.8	97	0.00
54 M	1,3-Dichlorobenzene	0.553	0.578	-4.6	98	0.00
55 M	4-Isopropyltoluene	1.277	1.334	-4.4	96	0.00
56 M	1,4-Dichlorobenzene	0.536	0.558	-4.2	98	0.00
57 S	1,2-Dichlorobenzene-d4	0.278	0.290	-4.4	101	0.00
58 M	1,2-Dichlorobenzene	0.421	0.442	-5.2	100	0.00
59 M	n-Butylbenzene	1.320	1.378	-4.4	96	0.00
60 M	1,2-Dibromo-3-chloropropane	0.027	0.027	-2.4	102	0.00
61 M	1,2,4-Trichlorobenzene	0.341	0.351	-2.9	98	0.00
62 M	Hexachlorobutadiene	0.316	0.324	-2.4	96	0.00
63 M	Naphthalene	0.338	0.311	8.1	90	0.00
64 M	1,2,3-Trichlorobenzene	0.248	0.258	-3.9	98	0.00
65	Methyl-tert butyl ether	0.266	0.266	-0.0	98	0.00
66	tert-Butyl Alcohol	0.004	0.004	-6.8	108	0.00

Quantitation Report

Data File : d:\hpcchem\1\data\c0696.d
 Acq On : 26 Dec 95 5:06 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Dec 26 17:39 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 Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.14	96	1403167	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.38	95	681508	5.15	ug/L	102.97%
57) 1,2-Dichlorobenzene-d4	22.17	152	406430	5.22	ug/L	104.38%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.48	85	493270	8.57	ug/L	100
3) Chloromethane	3.88	50	486572	8.60	ug/L	99
4) Vinyl chloride	4.11	62	574012	9.54	ug/L	99
5) Bromomethane	4.80	94	371292	10.92	ug/L	98
6) Chloroethane	5.04	64	385254	10.55	ug/L	99
7) Trichlorofluoromethane	5.63	101	1032052	9.77	ug/L	98
8) 1,1-Dichloroethene	6.75	96	657202	9.99	ug/L	98
9) Methylene chloride	7.76	84	667534	10.83	ug/L	98
10) trans-1,2-Dichloroethene	8.28	96	757969	10.11	ug/L	99
12) 1,1-Dichloroethane	9.09	63	1402366	10.05	ug/L	100
13) 2,2-Dichloropropane	10.13	77	1155122	10.12	ug/L	99
14) cis-1,2-Dichloroethene	10.14	96	723498	10.16	ug/L	98
16) Bromochloromethane	10.57	128	283928	10.27	ug/L	97
17) Chloroform	10.71	83	1231987	10.01	ug/L	99
18) 1,1,1-Trichloroethane	11.02	97	1244672	9.93	ug/L	100
19) Carbon tetrachloride	11.32	117	1152683	10.17	ug/L	99
20) 1,1-Dichloropropene	11.31	75	1185490	10.17	ug/L	99
21) Benzene	11.66	78	2439835	10.15	ug/L	99
22) 1,2-Dichloroethane	11.69	62	469768	10.30	ug/L	97
23) Trichloroethene	12.77	95	996628	10.19	ug/L	99
24) 1,2-Dichloropropane	13.14	63	811439	10.15	ug/L	99
25) Dibromomethane	13.34	93	330426	10.45	ug/L	94
26) Bromodichloromethane	13.60	83	985527	10.31	ug/L	98
27) cis-1,3-Dichloropropene	14.35	75	905453	10.32	ug/L	99
28) Toluene	14.93	92	1737580	9.92	ug/L	100
29) trans-1,3-Dichloropropene	15.29	75	598212	10.33	ug/L	100
30) 1,1,2-Trichloroethane	15.61	83	322323	10.47	ug/L	97
31) Tetrachloroethene	15.88	166	1177161	10.24	ug/L	98
32) 1,3-Dichloropropane	15.90	76	613056	10.24	ug/L	99
33) Dibromochloromethane	16.30	129	632972	10.49	ug/L	99
34) 1,2-Dibromoethane	16.50	107	453900	10.38	ug/L	98
35) Chlorobenzene	17.35	112	1915273	10.35	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.49	131	767856	10.34	ug/L	98
37) Ethylbenzene	17.53	91	3559197	10.22	ug/L	99
38) Xylene (para & meta)	17.74	106	2718543	20.47	ug/L	95
39) Xylene (Ortho)	18.45	106	1224575	10.28	ug/L	96
40) Styrene	18.47	104	1834733	10.44	ug/L	98

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

Quantitation Report

003

Data File : d:\hpcchem\1\data\c0696.d
Acq On : 26 Dec 95 5:06 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 26 17:39 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 Dec 26 17:40:31 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.81	173	336954	10.05	ug/L	97
42) Isopropylbenzene	19.10	105	3470125	10.22	ug/L m	0
44) Bromobenzene	19.66	156	803870	10.36	ug/L	100
45) 1,1,2,2-Tetrachloroethane	19.61	83	411922	10.38	ug/L	100
46) 1,2,3-Trichloropropane	19.71	75	373657	9.86	ug/L m	1
47) n-Propylbenzene	19.83	91	4813508	10.26	ug/L m	81
48) 2-Chlorotoluene	20.00	91	2752454	10.15	ug/L m	99
49) 4-Chlorotoluene	20.19	91	3021831	10.40	ug/L	100
50) 1,3,5-Trimethylbenzene	20.15	105	2968321	10.34	ug/L	99
51) tert-Butylbenzene	20.74	119	3378863	11.17	ug/L	99
52) 1,2,4-Trimethylbenzene	20.83	105	2897883	10.39	ug/L	100
53) sec-Butylbenzene	21.14	105	4719391	10.38	ug/L	98
54) 1,3-Dichlorobenzene	21.36	146	1623019	10.46	ug/L	99
55) 4-Isopropyltoluene	21.40	119	3743600	10.44	ug/L	99
56) 1,4-Dichlorobenzene	21.52	146	1566399	10.42	ug/L	99
58) 1,2-Dichlorobenzene	22.20	146	1241775	10.52	ug/L m	0
59) n-Butylbenzene	22.15	91	3866192	10.44	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.62	75	76499	10.24	ug/L	99
61) 1,2,4-Trichlorobenzene	25.17	180	984670	10.29	ug/L	99
62) Hexachlorobutadiene	25.49	225	909531	10.24	ug/L	100
63) Naphthalene	25.63	128	872343	9.19	ug/L	100
64) 1,2,3-Trichlorobenzene	26.13	180	722817	10.39	ug/L	99
65) Methyl-tert butyl ether	8.32	73	746983	10.00	ug/L	99
66) tert-Butyl Alcohol	8.09	59	24090	21.36	ug/L m	100

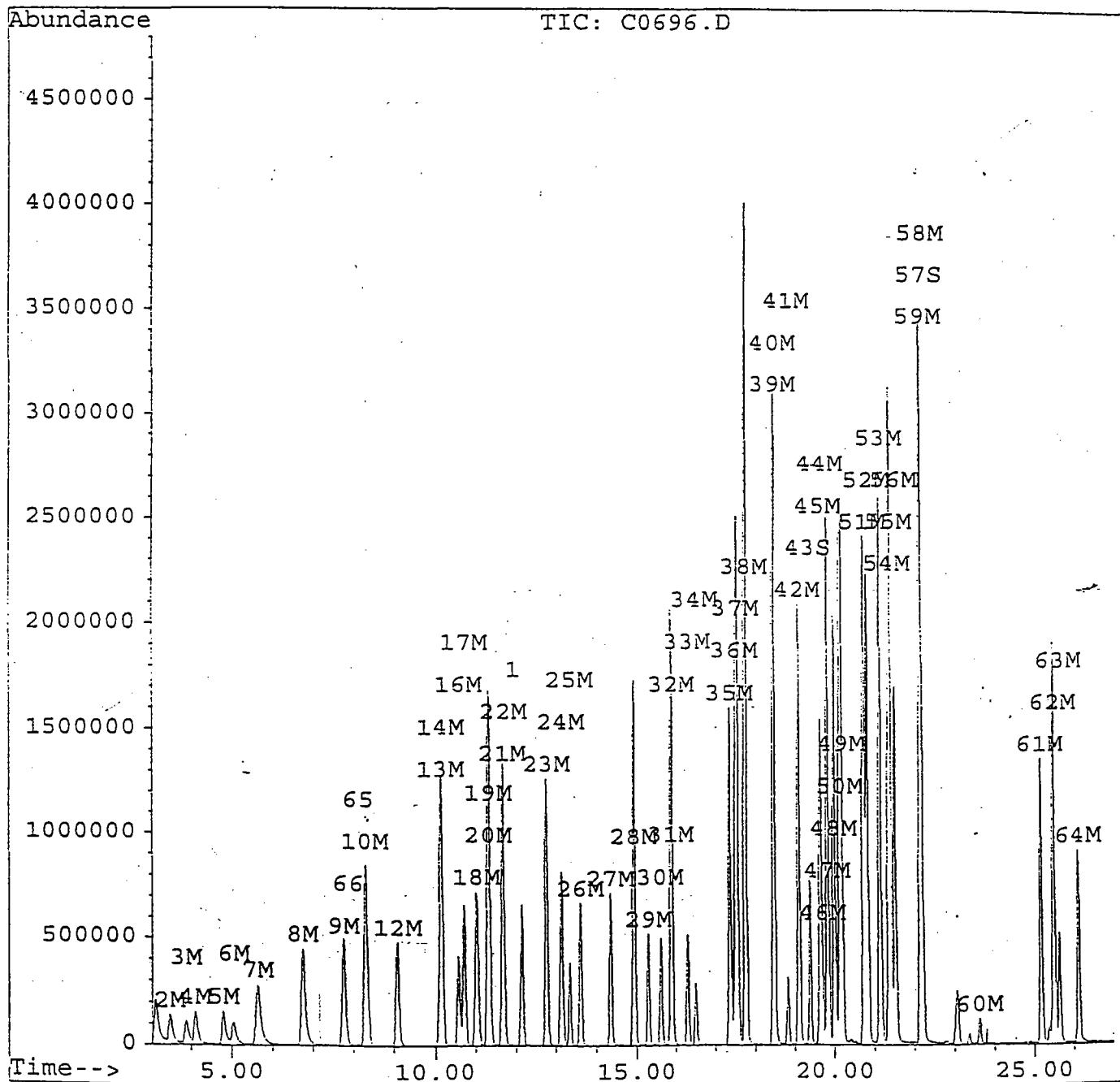
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0696.d
Acq On : 26 Dec 95 5:06 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 26 17:39 1995

064
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 Dec 26 17:40:31 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0710.d
 Acq On : 27 Dec 95 1:07 am
 Sample : 10 QCS
 Misc : 25 ML
 Quant Time: Dec 27 14:32 1995

005
 Vial: 16
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.13	96	1346351	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.37	95	630557	4.96	ug/L	99.29%
57) 1,2-Dichlorobenzene-d4	22.17	152	376006	5.03	ug/L	100.64%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.47	85	697975	12.63	ug/L	99
3) Chloromethane	3.89	50	474412	8.74	ug/L	100
4) Vinyl chloride	4.11	62	613036	10.62	ug/L	99
5) Bromomethane	4.79	94	409447	12.55	ug/L	97
6) Chloroethane	5.04	64	371470	10.60	ug/L	100
7) Trichlorofluoromethane	5.64	101	1142891	11.27	ug/L	100
8) 1,1-Dichloroethene	6.75	96	733451	11.62	ug/L	94
9) Methylene chloride	7.75	84	658917	11.14	ug/L	97
10) trans-1,2-Dichloroethene	8.29	96	792597	11.02	ug/L	98
12) 1,1-Dichloroethane	9.08	63	1445364	10.80	ug/L	99
13) 2,2-Dichloropropane	10.13	77	1000156	9.13	ug/L	99
14) cis-1,2-Dichloroethene	10.15	96	742214	10.87	ug/L	97
16) Bromochloromethane	10.57	128	283743	10.70	ug/L	98
17) Chloroform	10.71	83	1242003	10.51	ug/L	100
18) 1,1,1-Trichloroethane	11.02	97	1267712	10.54	ug/L	99
19) Carbon tetrachloride	11.32	117	1188851	10.93	ug/L	99
20) 1,1-Dichloropropene	11.31	75	1273460	11.38	ug/L	98
21) Benzene	11.67	78	2324175	10.08	ug/L	98
22) 1,2-Dichloroethane	11.69	62	470311	10.75	ug/L	100
23) Trichloroethene	12.76	95	1016714	10.83	ug/L	99
24) 1,2-Dichloropropane	13.14	63	804755	10.50	ug/L	99
25) Dibromomethane	13.34	93	315172	10.39	ug/L	98
26) Bromodichloromethane	13.61	83	978994	10.67	ug/L	98
27) cis-1,3-Dichloropropene	14.35	75	927183	11.01	ug/L	100
28) Toluene	14.93	92	1638728	9.75	ug/L	99
29) trans-1,3-Dichloropropene	15.29	75	587053	10.56	ug/L	100
30) 1,1,2-Trichloroethane	15.60	83	317654	10.75	ug/L	97
31) Tetrachloroethene	15.88	166	1181411	10.71	ug/L	99
32) 1,3-Dichloropropane	15.90	76	606123	10.55	ug/L	99
33) Dibromochloromethane	16.30	129	609925	10.53	ug/L	95
34) 1,2-Dibromoethane	16.51	107	439984	10.49	ug/L	99
35) Chlorobenzene	17.35	112	1845640	10.39	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.49	131	764607	10.73	ug/L	96
37) Ethylbenzene	17.53	91	3377097	10.11	ug/L	99
38) Xylene (para & meta)	17.73	106	2607690	20.47	ug/L	98
39) Xylene (Ortho)	18.44	106	1183670	10.36	ug/L	99
40) Styrene	18.47	104	1756129	10.41	ug/L	100

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

Quantitation Report

066

Data File : d:\hpchem\1\data\c0710.d
Acq On : 27 Dec 95 1:07 am
Sample : 10 QCS
Misc : 25 ML
Quant Time: Dec 27 14:32 1995

Vial: 16
Operator: SRK
Inst. : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.81	173	321494	9.99	ug/L	98
42) Isopropylbenzene	19.09	105	3659960	11.24	ug/L m	0
44) Bromobenzene	19.66	156	757636	10.18	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.62	83	399660	10.50	ug/L	100
46) 1,2,3-Trichloropropane	19.70	75	384258	10.57	ug/L #	2
47) n-Propylbenzene	19.84	91	4658830	10.35	ug/L	94
48) 2-Chlorotoluene	20.00	91	2514798	9.66	ug/L	93
49) 4-Chlorotoluene	20.20	91	2843147	10.20	ug/L	98
50) 1,3,5-Trimethylbenzene	20.15	105	2780359	10.10	ug/L	100
51) tert-Butylbenzene	20.74	119	3290800	11.34	ug/L	98
52) 1,2,4-Trimethylbenzene	20.83	105	2655809	9.93	ug/L	100
53) sec-Butylbenzene	21.15	105	4617600	10.58	ug/L	99
54) 1,3-Dichlorobenzene	21.36	146	1566352	10.52	ug/L	99
55) 4-Isopropyltoluene	21.40	119	3609010	10.49	ug/L	99
56) 1,4-Dichlorobenzene	21.52	146	1516321	10.52	ug/L	98
58) 1,2-Dichlorobenzene	22.21	146	1196636	10.56	ug/L	97
59) n-Butylbenzene	22.16	91	3604256	10.14	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.63	75	72502	10.12	ug/L	99
61) 1,2,4-Trichlorobenzene	25.17	180	917640	9.99	ug/L	99
62) Hexachlorobutadiene	25.50	225	893852	10.49	ug/L	100
63) Naphthalene	25.64	128	906990	9.96	ug/L	100
64) 1,2,3-Trichlorobenzene	26.13	180	678490	10.16	ug/L	98

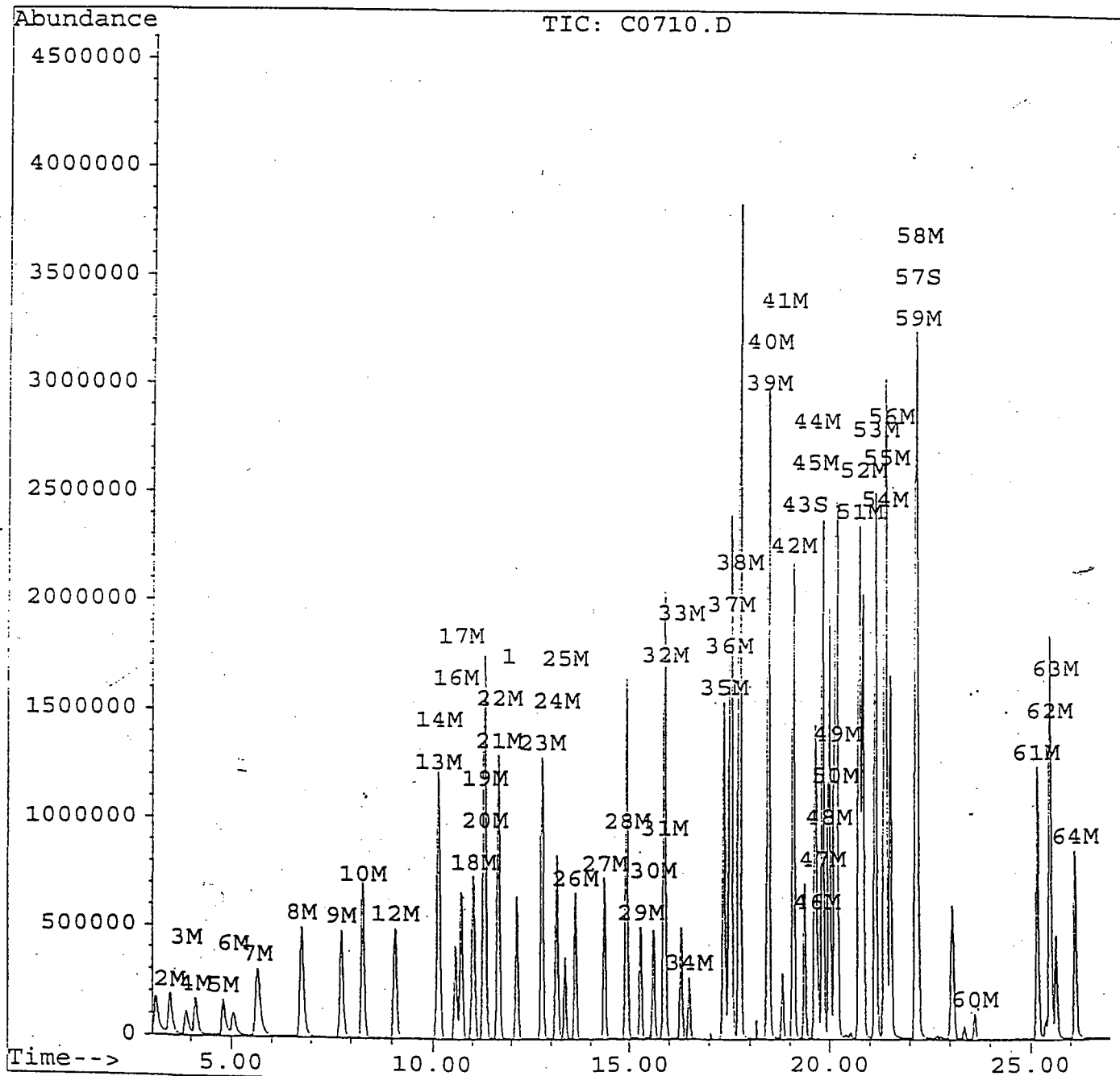
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0710.d
 Acq On : 27 Dec 95 1:07 am
 Sample : 10 QCS
 Misc : 25 ML
 Quant Time: Dec 27 14:32 1995

Vial: 16
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration



Quantitation Report

068

Data File : d:\hpchem\1\data\c0711.d
 Acq On : 27 Dec 95 1:41 am
 Sample : 1 STND
 Misc : 25 ML
 Quant Time: Dec 27 2:09 1995

Vial: 17
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.14	96	1286016	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.38	95	615296	5.07	ug/L	101.43%
57) 1,2-Dichlorobenzene-d4	22.17	152	375132	5.26	ug/L	105.12%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.48	85	58817	1.11	ug/L	96
3) Chloromethane	3.87	50	47430	0.92	ug/L	96
4) Vinyl chloride	4.11	62	55981	1.02	ug/L	95
5) Bromomethane	4.81	94	42701	1.37	ug/L	91
6) Chloroethane	5.07	64	38809	1.16	ug/L	95
7) Trichlorofluoromethane	5.64	101	100026	1.03	ug/L	95
8) 1,1-Dichloroethene	6.76	96	63986	1.06	ug/L	# 87
9) Methylene chloride	7.75	84	177797	3.15	ug/L	99
10) trans-1,2-Dichloroethene	8.28	96	71755	1.04	ug/L	96
12) 1,1-Dichloroethane	9.08	63	136476	1.07	ug/L	94
13) 2,2-Dichloropropane	10.14	77	94898	0.91	ug/L	100
14) cis-1,2-Dichloroethene	10.14	96	73425	1.13	ug/L	93
16) Bromochloromethane	10.57	128	28778	1.14	ug/L	91
17) Chloroform	10.72	83	123482	1.09	ug/L	98
18) 1,1,1-Trichloroethane	11.03	97	119544	1.04	ug/L	98
19) Carbon tetrachloride	11.32	117	110881	1.07	ug/L	99
20) 1,1-Dichloropropene	11.31	75	115092	1.08	ug/L	98
21) Benzene	11.66	78	246277	1.12	ug/L	100
22) 1,2-Dichloroethane	11.69	62	46307	1.11	ug/L	91
23) Trichloroethene	12.77	95	98588	1.10	ug/L	98
24) 1,2-Dichloropropane	13.14	63	81397	1.11	ug/L	98
25) Dibromomethane	13.34	93	32772	1.13	ug/L	93
26) Bromodichloromethane	13.61	83	96933	1.11	ug/L	94
27) cis-1,3-Dichloropropene	14.35	75	86538	1.08	ug/L	98
28) Toluene	14.92	92	176365	1.10	ug/L	96
29) trans-1,3-Dichloropropene	15.29	75	58753	1.11	ug/L	94
30) 1,1,2-Trichloroethane	15.61	83	32109	1.14	ug/L	98
31) Tetrachloroethene	15.88	166	114827	1.09	ug/L	96
32) 1,3-Dichloropropane	15.90	76	62646	1.14	ug/L	96
33) Dibromochloromethane	16.30	129	59804	1.08	ug/L	94
34) 1,2-Dibromoethane	16.50	107	44592	1.11	ug/L	91
35) Chlorobenzene	17.36	112	191225	1.13	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.49	131	76472	1.12	ug/L	94
37) Ethylbenzene	17.53	91	352270	1.10	ug/L	100
38) Xylene (para & meta)	17.74	106	270164	2.22	ug/L	100
39) Xylene (Ortho)	18.44	106	124211	1.14	ug/L	91
40) Styrene	18.46	104	176351	1.09	ug/L	96

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

Quantitation Report

Data File : d:\hpchem\1\data\c0711.d
Acq On : 27 Dec 95 1:41 am
Sample : 1 STND
Misc : 25 ML
Quant Time: Dec 27 2:09 1995

009
Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.82	173	30664	1.00	ug/L	98
42) Isopropylbenzene	19.10	105	345163	1.11	ug/L	99
44) Bromobenzene	19.66	156	82706	1.16	ug/L	96
45) 1,1,2,2-Tetrachloroethane	19.62	83	41214	1.13	ug/L	98
46) 1,2,3-Trichloropropane	19.71	75	43515	1.25	ug/L #	1
47) n-Propylbenzene	19.83	91	477540	1.11	ug/L	93
48) 2-Chlorotoluene	20.00	91	283866	1.14	ug/L	92
49) 4-Chlorotoluene	20.19	91	313563	1.18	ug/L	99
50) 1,3,5-Trimethylbenzene	20.15	105	296756	1.13	ug/L	99
51) tert-Butylbenzene	20.75	119	342119	1.23	ug/L	97
52) 1,2,4-Trimethylbenzene	20.83	105	309306	1.21	ug/L	97
53) sec-Butylbenzene	21.14	105	469641	1.13	ug/L	98
54) 1,3-Dichlorobenzene	21.36	146	167641	1.18	ug/L	99
55) 4-Isopropyltoluene	21.40	119	374661	1.14	ug/L	99
56) 1,4-Dichlorobenzene	21.52	146	159716	1.16	ug/L	97
58) 1,2-Dichlorobenzene	22.20	146	130322	1.20	ug/L	96
59) n-Butylbenzene	22.16	91	394240	1.16	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.63	75	7870	1.15	ug/L	84
61) 1,2,4-Trichlorobenzene	25.18	180	102936	1.17	ug/L	97
62) Hexachlorobutadiene	25.50	225	89378	1.10	ug/L	99
63) Naphthalene	25.64	128	122191	1.41	ug/L	100
64) 1,2,3-Trichlorobenzene	26.14	180	77999	1.22	ug/L	92
65) Methyl-tert butyl ether	8.32	73	75918	1.11	ug/L	98

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

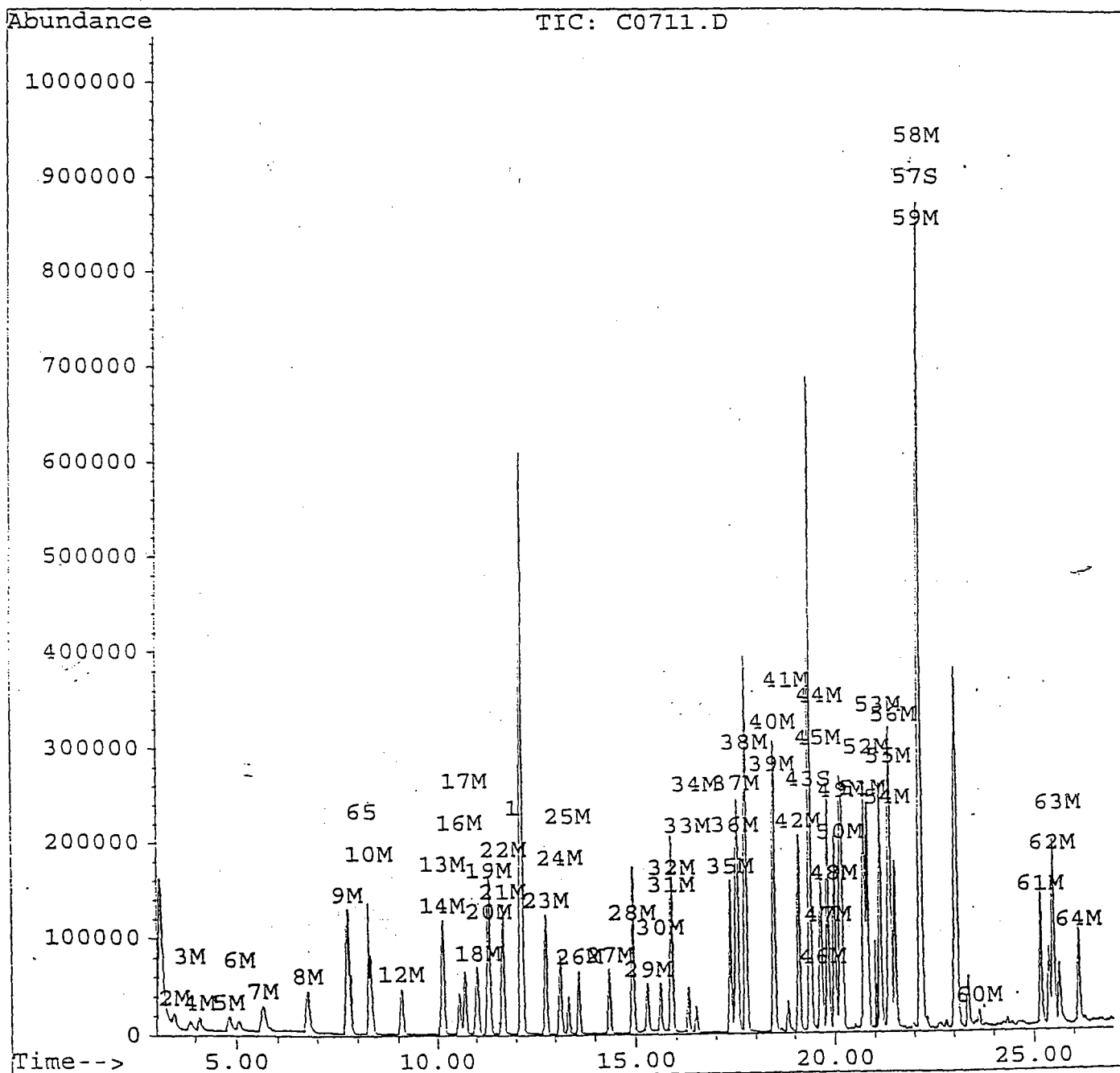
Quantitation Report

070

Data File : d:\hpcchem\1\data\c0711.d
Acq On : 27 Dec 95 1:41 am
Sample : 1 STND
Misc : 25 ML
Quant Time: Dec 27 2:09 1995

Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

085

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): C0777.DDate Analyzed: 12/29/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 0746GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N)

	IS1 (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	1403737	12.05				
UPPER LIMIT	1824858	12.55				
LOWER LIMIT	982616	11.55				
SAMPLE NO.						
01 VBLK01	1420918	12.06				
02 9558500V	1402153	12.07				
03 9558501V	1394848	12.08				
04 9558191V	1320567	12.08				
05 9558192V	1349002	12.08				
06 9558312V	1322876	12.07				
07 9558313V	1334653	12.07				
08 9558311V	1342950	12.07				
09 9558314V	1339570	12.06				
10 9558315V	1257455	12.07				
11 9558316V	1340207	12.06				
12 9558317V	1252968	12.07				
13 9559346V	1142560	12.06				
14 9558196V	1293768	12.05				
15 1 STND	1245852	12.06				
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 ORGANICS ANALYSIS DATA SHEET

FMETL#

086

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9558312V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0783.D

Level: (low/med) LOW

Date Received: 12/18/95

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

087

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 290

NJDEP MW#: TB

Matrix: (soil/water) WATER

Lab Sample ID: 9558312V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0783.D

Level: (low/med) LOW

Date Received: 12/18/95

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

IE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

088

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9558312V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0783.D

Level: (low/med) LOW Date Received: 12/18/95

% Moisture: not dec. NA Date Analyzed: 12/29/95

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: 3 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.61	2	J
2.	Column Bleed	19.62	2	J
3.	Column Bleed	23.00	1	J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0783.d
 Acq On : 29 Dec 95 11:14 am
 Sample : 9558312 TB
 Misc : 25 ML
 Quant Time: Dec 31 8:35 1995

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

089

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

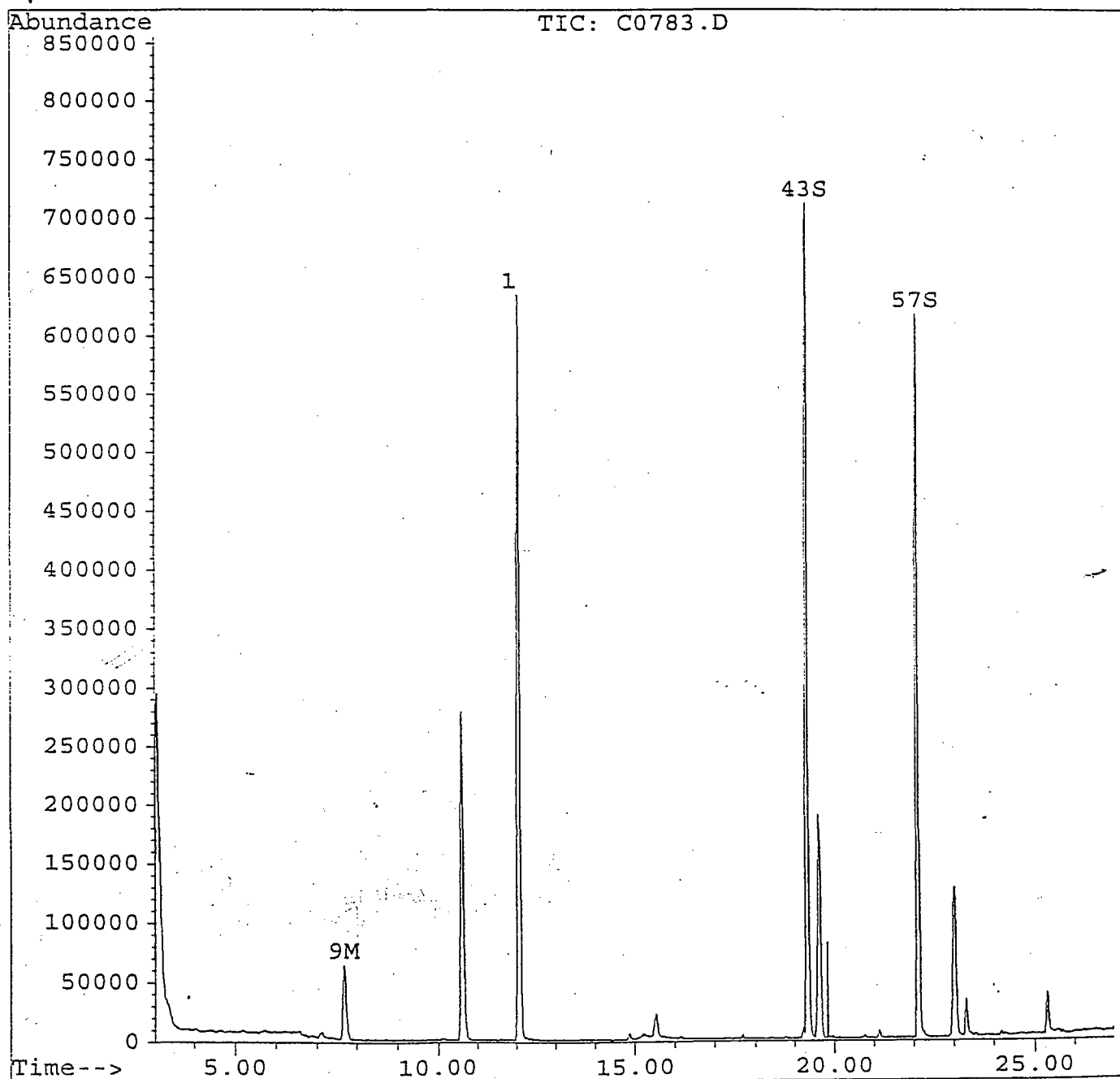
Internal Standards	R.T.	Q	Ion	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.07	96		1322876	5.00	ug/L	-0.06
							%Recovery
System Monitoring Compounds							
43) 4-Bromofluorobenzene	19.32	95		643966	5.16	ug/L	103.20%
57) 1,2-Dichlorobenzene-d4	22.11	152		380637	5.18	ug/L	103.69%
							Qvalue
Target Compounds							
9) Methylene chloride	7.67	84		81198	1.40	ug/L	95

Quantitation Report

Data File : d:\hpchem\1\data\c0783.d
Acq On : 29 Dec 95 11:14 am
Sample : 9558312 TB
Misc : 25 ML
Quant Time: Dec 31 8:35 1995

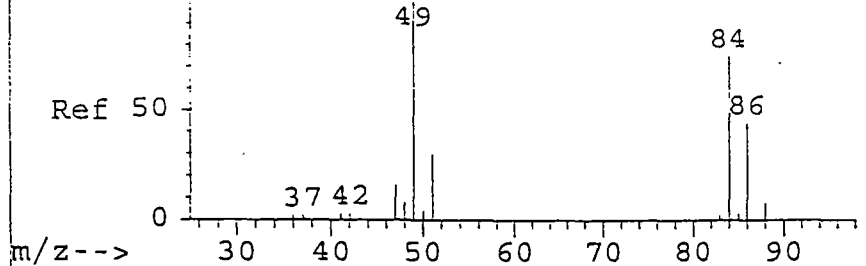
Vial: 8 090
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration



091

Abundance Scan 418 (7.345 min): C5082.D (-, *



#9

Methylene chloride

Concen: 1.40 ug/L

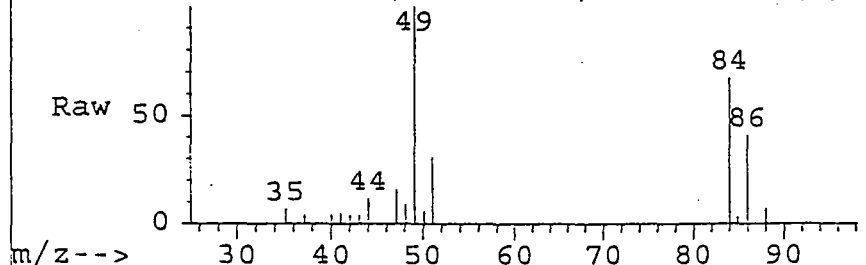
RT: 7.67 min Scan# 450

Delta R.T. -0.08 min

Lab File: c0783.d

Acq: 29 Dec 95 11:14 am

Abundance Scan 450 (7.672 min): C0783.D (*)



Tgt Ion: 84 Resp: 81198

Ion Ratio Lower Upper

84 100

86 60.9 41.4 81.4

49 148.7 120.0 160.0

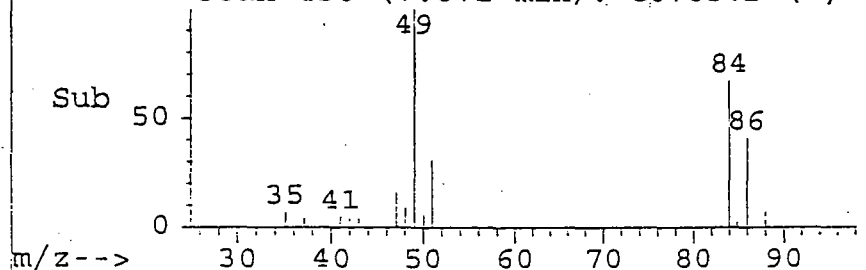
0 0.0 0.0 0.0

Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.

Abundance Scan 450 (7.672 min): C0783.D (-, *



20000

10000

0

7.67

Time--> 7.36

7.95

Library Search Compound Report

092

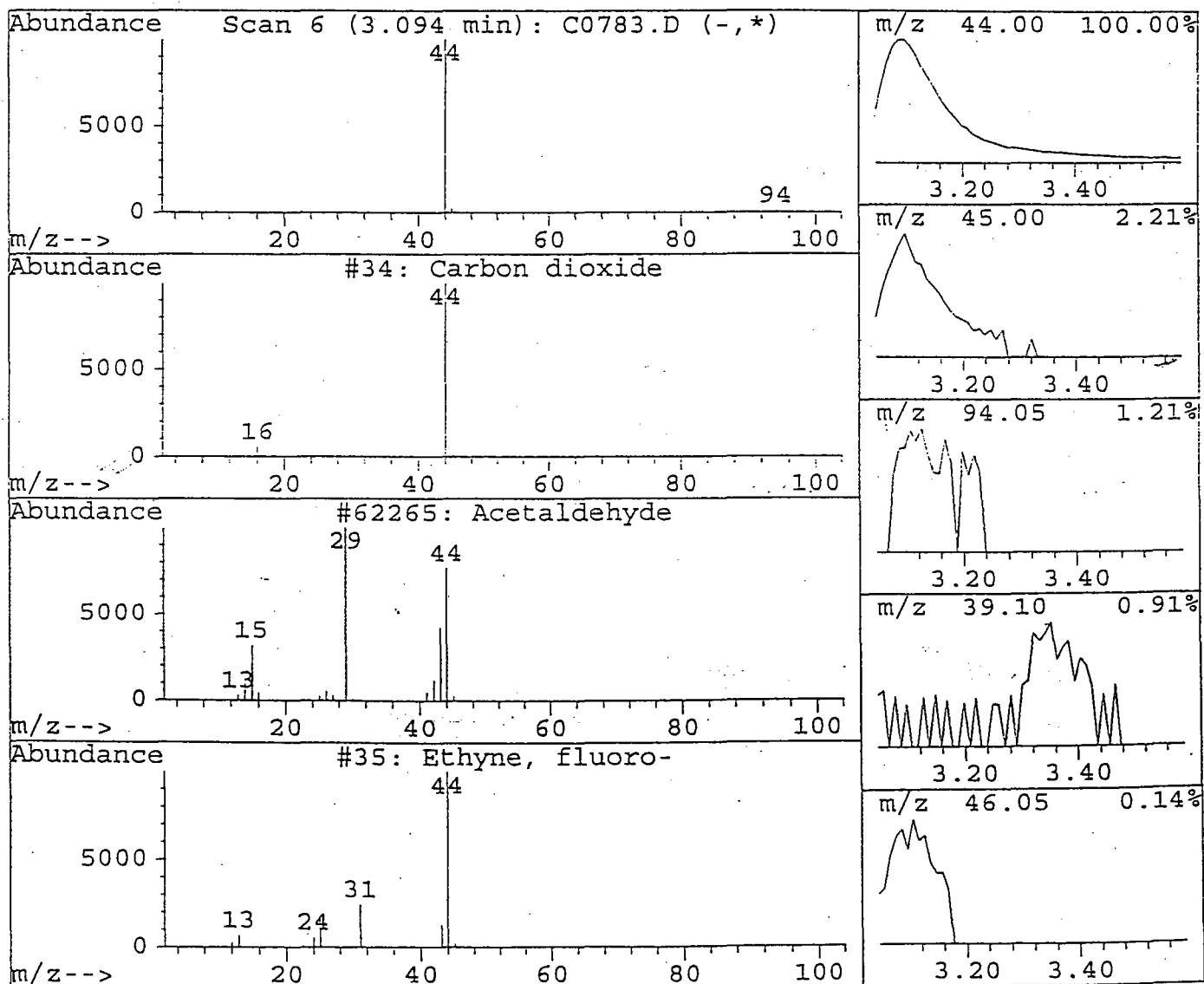
Data File : d:\hpchem\1\data\c0783.d
Acq On : 29 Dec 95 11:14 am
Sample : 9558312 TB
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.09	3.38 ug/L	1890229	Fluorobenzene	12.07

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	3
2	Acetaldehyde	62265	000075-07-0	3
3	Ethyne, fluoro-	35	002713-09-9	3
4	Ethylene oxide	37	000075-21-8	3
5	Propane	62269	000074-98-6	2



Library Search Compound Report

093

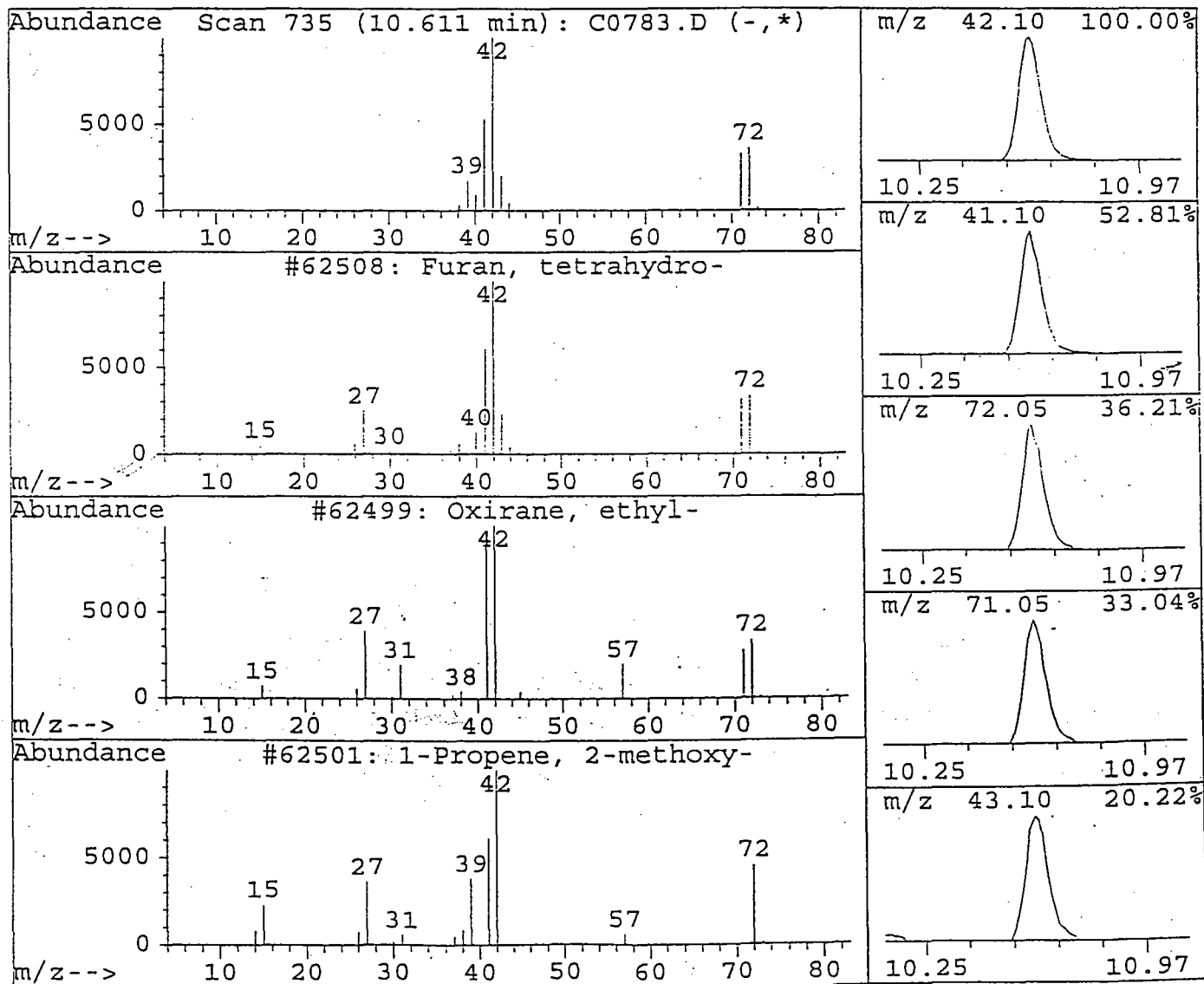
Data File : d:\hpchem\1\data\c0783.d
Acq On : 29 Dec 95 11:14 am
Sample : 9558312 TB
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.61	2.48 ug/L	1383277	Fluorobenzene	12.07

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Furan, tetrahydro-	62508	000109-99-9	90
2	Oxirane, ethyl-	62499	000106-88-7	40
3	1-Propene, 2-methoxy-	62501	000116-11-0	38
4	Azetidine, 1-methyl-	246	004923-79-9	4
5	Oxirane, 2,2-dimethyl-	62511	000558-30-5	9



Library Search Compound Report

094

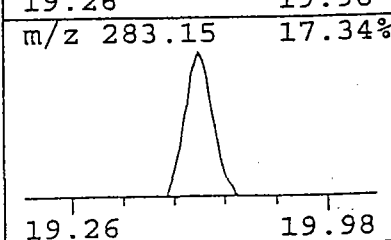
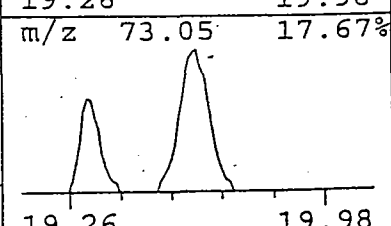
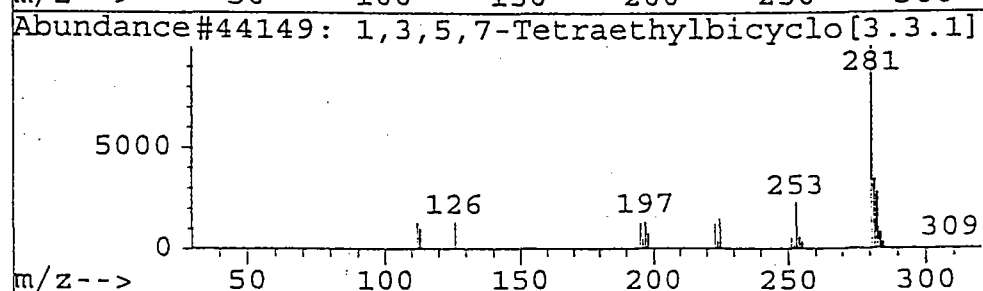
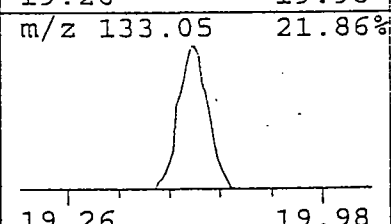
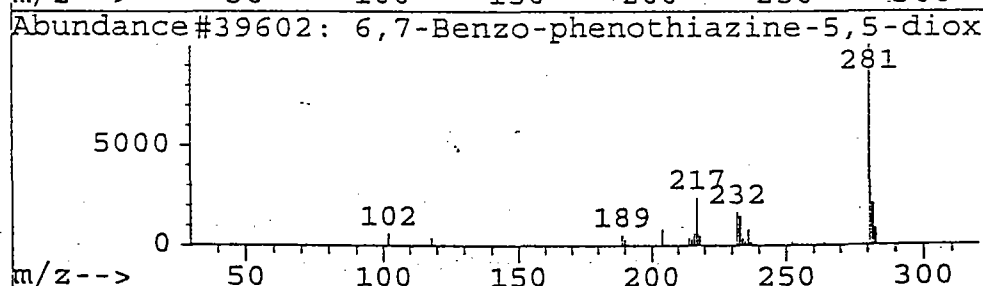
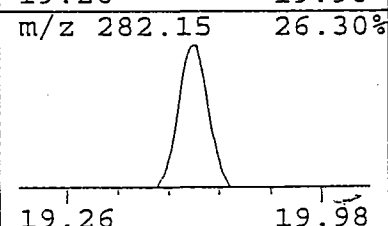
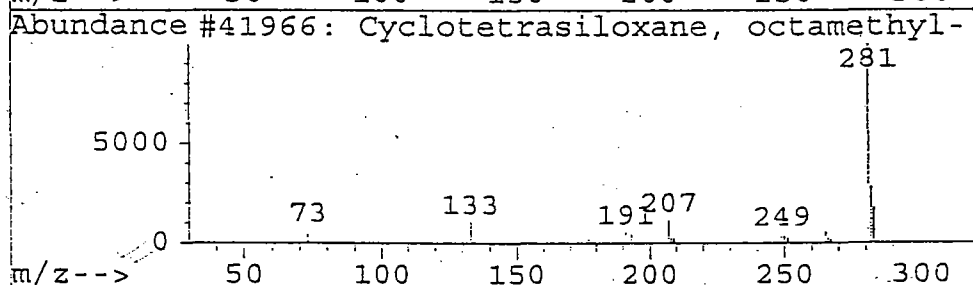
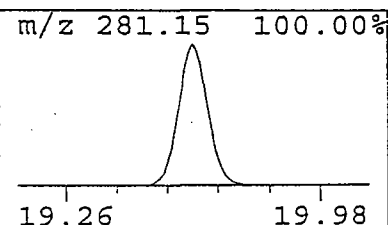
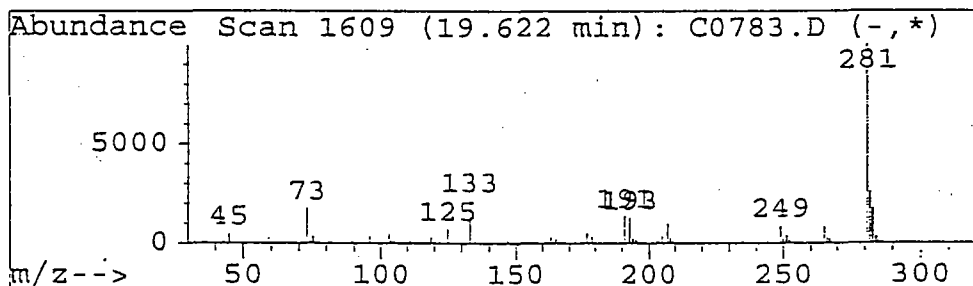
Data File : d:\hpchem\1\data\c0783.d
Acq On : 29 Dec 95 11:14 am
Sample : 9558312 TB
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.62	1.62 ug/L	902532	Fluorobenzene	12.07

Hit# of 17	Tentative ID	Ref#	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	41966	000556-67-2	72
2	6,7-Benzo-phenothiazine-5,5-dioxide	39602	000000-00-0	9
3	1,3,5,7-Tetraethylbicyclo[3.3.1]tet	44149	073420-21-0	9
4	4-(1-Benzimidazolyl)-7-nitro-2,1,3-ox	39560	091485-32-4	9
5	Benzene, 1-phenyl-4-(2-cyano-2-phen	39643	027869-56-3	47



Library Search Compound Report

095

Data File : d:\hpchem\1\data\c0783.d
Acq On : 29 Dec 95 11:14 am
Sample : 9558312 TB
Misc : 25 ML

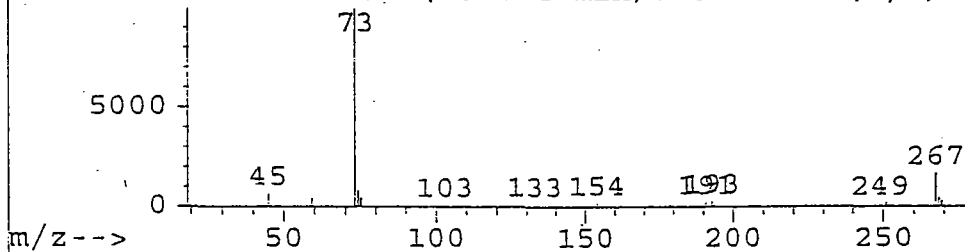
Vial: 8
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

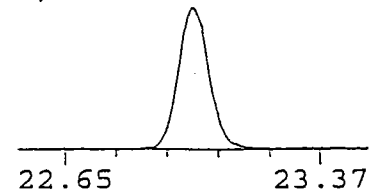
R.T.	Conc	Area	Relative to ISTD	R.T.
23.00	1.10 ug/L	615108	Fluorobenzene	12.07

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	36
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	9
3	Acetaldehyde, O-methyloxime	289	033581-43-0	4
4	Trimethylsilyl ether of glycerol	43898	006787-10-6	2
5	N-Ethylformamide	292	000627-45-2	3

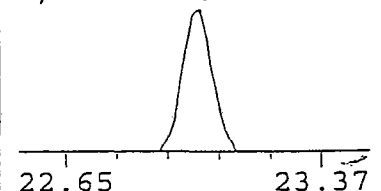
Abundance Scan 1937 (23.004 min): C0783.D (-,*)



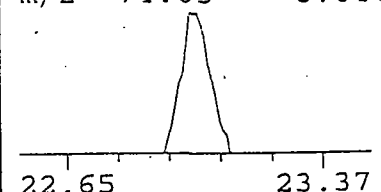
m/z 73.05 100.00%



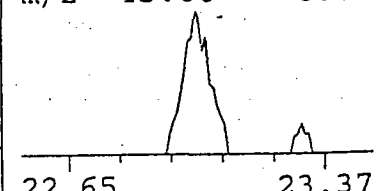
m/z 267.10 16.72%



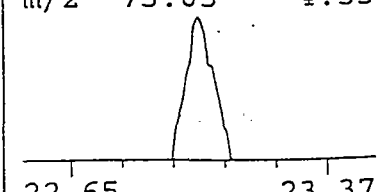
m/z 74.05 8.04%



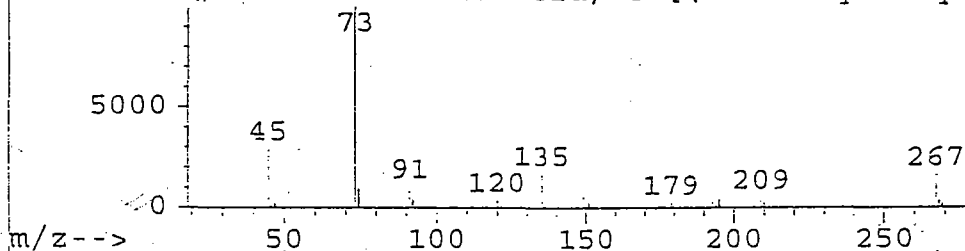
m/z 45.00 6.63%



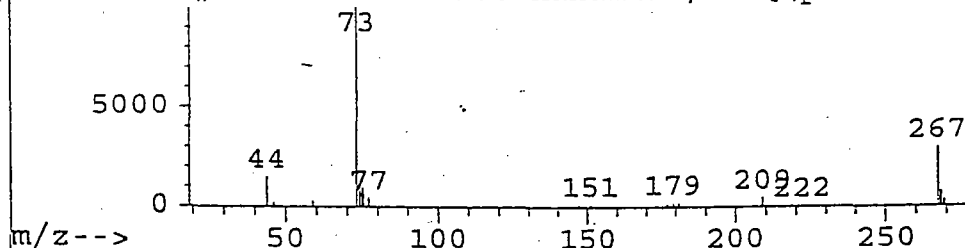
m/z 75.05 4.55%



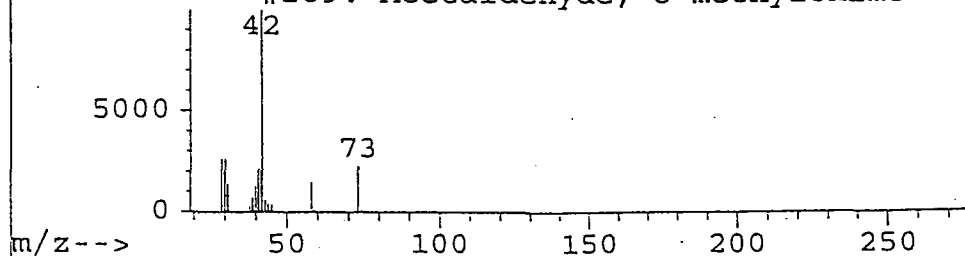
Abundance#39707: Benzoic acid, 2-[(trimethylsilyl



Abundance#74573: Benzeneethanamine, N-[(pentaflu



Abundance #289: Acetaldehyde, O-methyloxime



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

096

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9558313V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0784.D

Level: (low/med) LOW

Date Received: 12/18/95

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

097

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 290

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9558313V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0784.D

Level: (low/med) LOW

Date Received: 12/18/95

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

096

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: NJDEP MW#: FB

Matrix: (soil/water) WATER Lab Sample ID: 9558313V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0784.D

Level: (low/med) LOW Date Received: 12/15/95

% Moisture: not dec. NA Date Analyzed: 12/29/95

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: 2 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.60	2	J
2.	Column Bleed	19.61	1	J
3.				
4.				
5.				
6.				
7.				
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30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0784.d
 Acq On : 29 Dec 95 11:49 am
 Sample : 9558313 FB
 Misc : 25 ML
 Quant Time: Dec 31 8:36 1995

Vial: 9 099
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

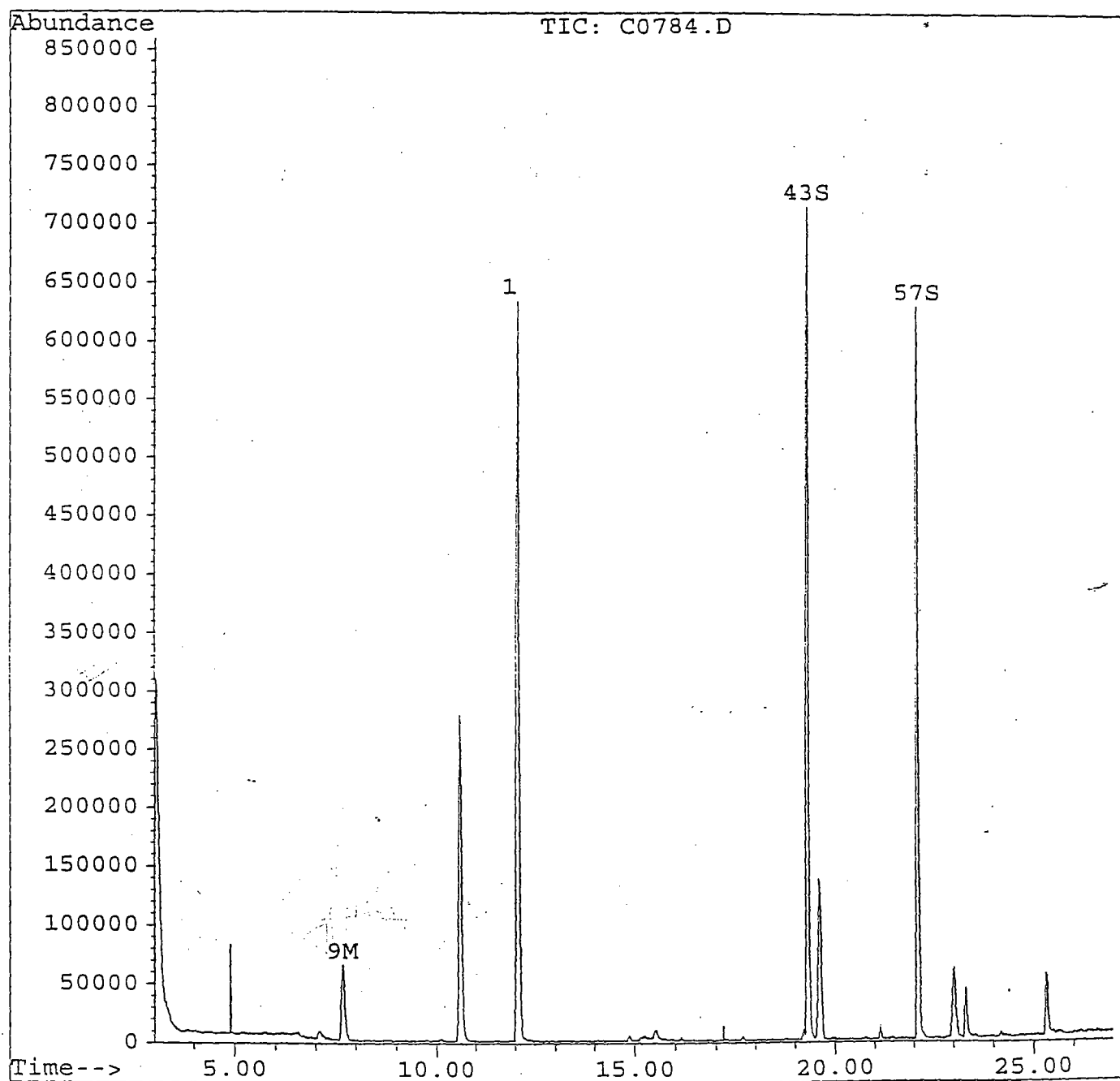
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.07	96	1334653	5.00	ug/L	-0.07
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.31	95	648486	5.15	ug/L	103.01%
57) 1,2-Dichlorobenzene-d4	22.11	152	383609	5.18	ug/L	103.57%
Target Compounds						Qvalue
9) Methylene chloride	7.67	84	84415	1.44	ug/L	98

Quantitation Report

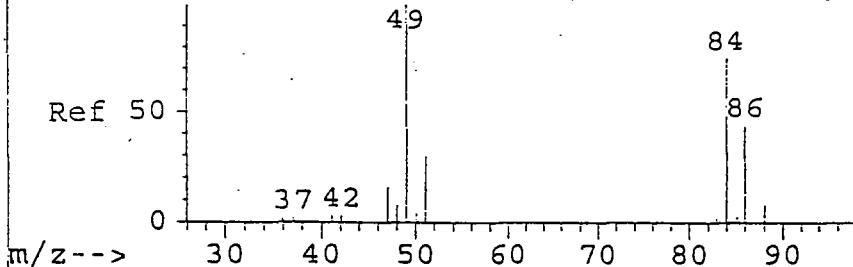
Data File : d:\hpcchem\1\data\c0784.d
Acq On : 29 Dec 95 11:49 am
Sample : 9558313 FB
Misc : 25 ML
Quant Time: Dec 31 8:36 1995

Vial: 9 100
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

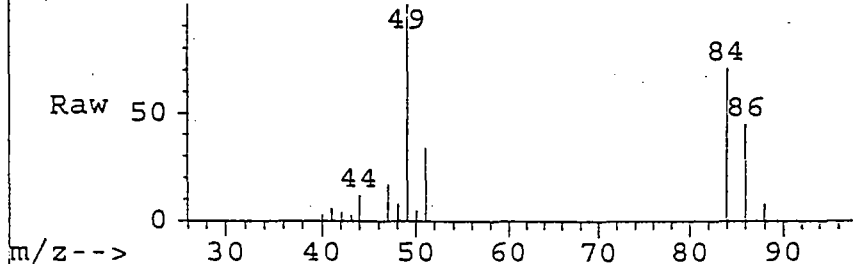
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration



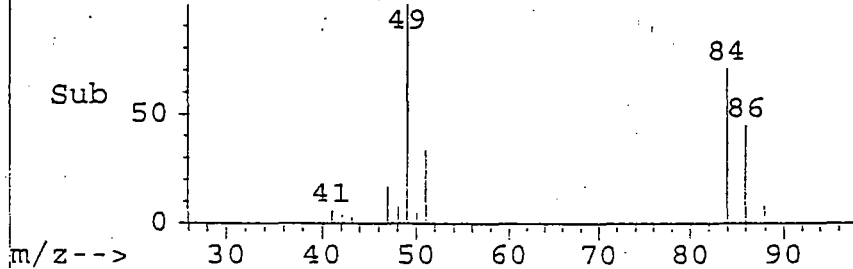
Abundance Scan 418 (7.345 min): C5082.D (-, *



Abundance Scan 450 (7.673 min): C0784.D (*)



Abundance Scan 450 (7.673 min): C0784.D (-, *



#9

Methylene chloride

Concen: 1.44 ug/L

RT: 7.67 min Scan# 450

Delta R.T. -0.08 min

Lab File: c0784.d

Acq: 29 Dec 95 11:49 am

Tgt Ion: 84 Resp: 84415

Ion Ratio Lower Upper

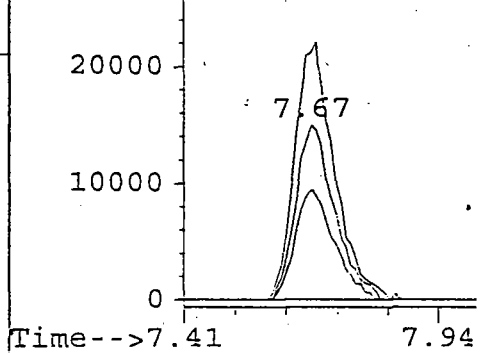
84 100

86 63.4 41.4 81.4

49 141.8 120.0 160.0

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.
30000 Ion 86.00 (85.
Ion 49.00 (48.



101

Library Search Compound Report

Data File : d:\hpchem\1\data\c0784.d
Acq On : 29 Dec 95 11:49 am
Sample : 9558313 FB
Misc : 25 ML

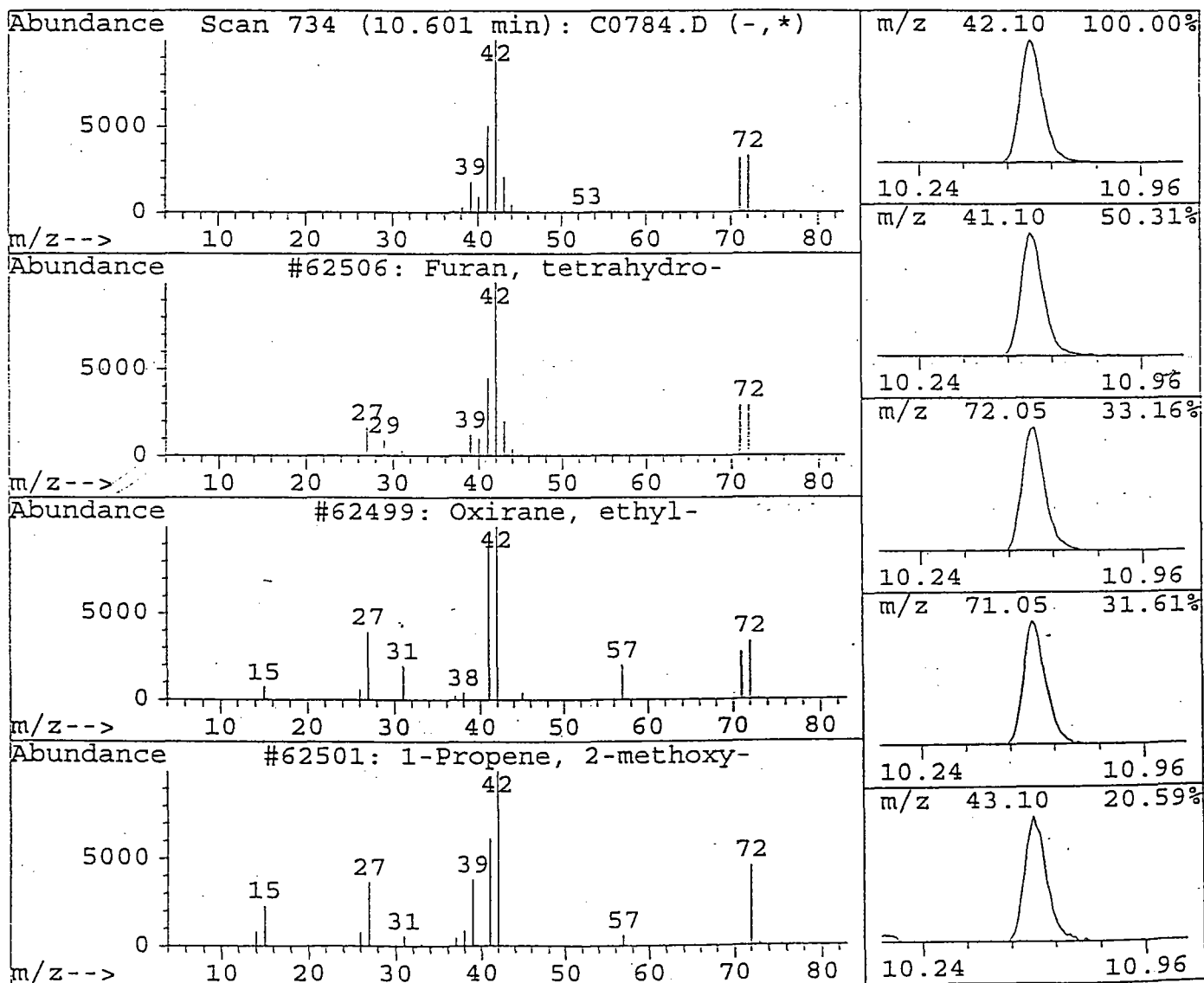
102

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.60	2.48 ug/L	1398893	Fluorobenzene	12.07

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Furan, tetrahydro-	62506	000109-99-9	90
2	Oxirane, ethyl-	62499	000106-88-7	40
3	1-Propene, 2-methoxy-	62501	000116-11-0	38
4	Oxirane, 2,2-dimethyl-	62511	000558-30-5	43
5	Formaldehyde, dimethylhydrazone	257	002035-89-4	4



Library Search Compound Report

103

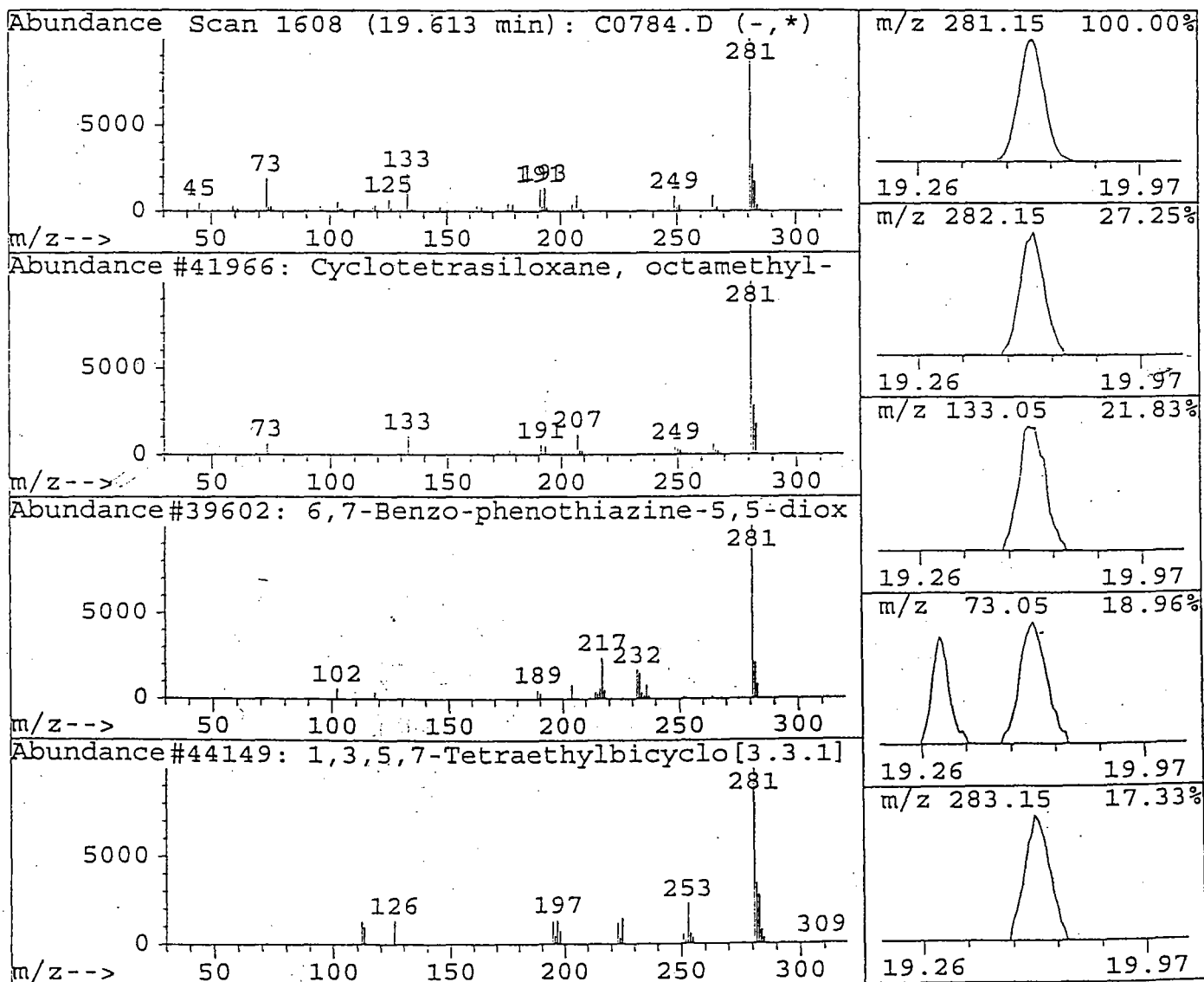
Data File : d:\hpchem\1\data\c0784.d
Acq On : 29 Dec 95 11:49 am
Sample : 9558313 FB
Misc : 25 ML

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.61	1.05 ug/L	594136	Fluorobenzene	12.07

Hit# of 18	Tentative ID	Ref#	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	41966	000556-67-2	10
2	6,7-Benzo-phenothiazine-5,5-dioxide	39602	000000-00-0	9
3	1,3,5,7-Tetraethylbicyclo[3.3.1]tet	44149	073420-21-0	4
4	4-(1-Benzimidazolyl)-7-nitro-2,1,3-ox	39560	091485-32-4	5
5	Benzene, 1-phenyl-4-(2-cyano-2-phen	39643	027869-56-3	47



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

2004.1

104

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW-1 243374

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9558314V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0786.D

Level: (low/med) LOW

Date Received: 12/18/95

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	.90		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

2004.1

105

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW-1 293374

Project No.: FT. MONMOUTH NJ Bldg#: 430

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9558314V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C0786.D

Level: (low/med) LOW

Date Received: 12/18/95

% Moisture: not dec. NA

Date Analyzed: 12/29/96

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

2004.1
MW 2933750

100

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 430 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9558314V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0786.D

Level: (low/med) LOW Date Received: 12/18/95

% Moisture: not dec. NA Date Analyzed: 12/29/95

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: 15 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	19.61	2	J
2. 135-98-8	Benzene, (1-methylpropyl)-	21.09	1	J
3. 105-05-5	Benzene, 1,4-diethyl-	22.04	1	J
4. 141-93-5	Benzene, 1,3-diethyl-	22.04	1	J
5. 535-77-3	Benzene, 1-methyl-3-(1-methy	22.61	2	J
6.	Unknown	22.98	1	J
7.	Unknown	22.99	1	J
8.	Unknown	23.01	3	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	23.58	1	J
10.	Unknown Hydrocarbon	24.37	1	J
11.	Unknown	24.98	1	J
12.	Unknown	25.27	2	J
13.	Unknown	25.76	2	J
14.	Unknown	25.94	1	J
15.	Unknown	26.76	1	J
16.				
17.				
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Quantitation Report

Data File : d:\hpchem\1\data\c0786.d
 Acq On : 29 Dec 95 12:57 pm
 Sample : 9558314 BLDG.430 MW-1
 Misc : 25 ML
 Quant Time: Dec 31 8:38 1995

Vial: 11 **107**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.06	96	1339570	5.00	ug/L	-0.07
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.31	95	702543	5.56	ug/L	111.18%
57) 1,2-Dichlorobenzene-d4	22.11	152	381188	5.13	ug/L	102.54%
						Qvalue
Target Compounds						
9) Methylene chloride	7.67	84	53260	0.91	ug/L	96

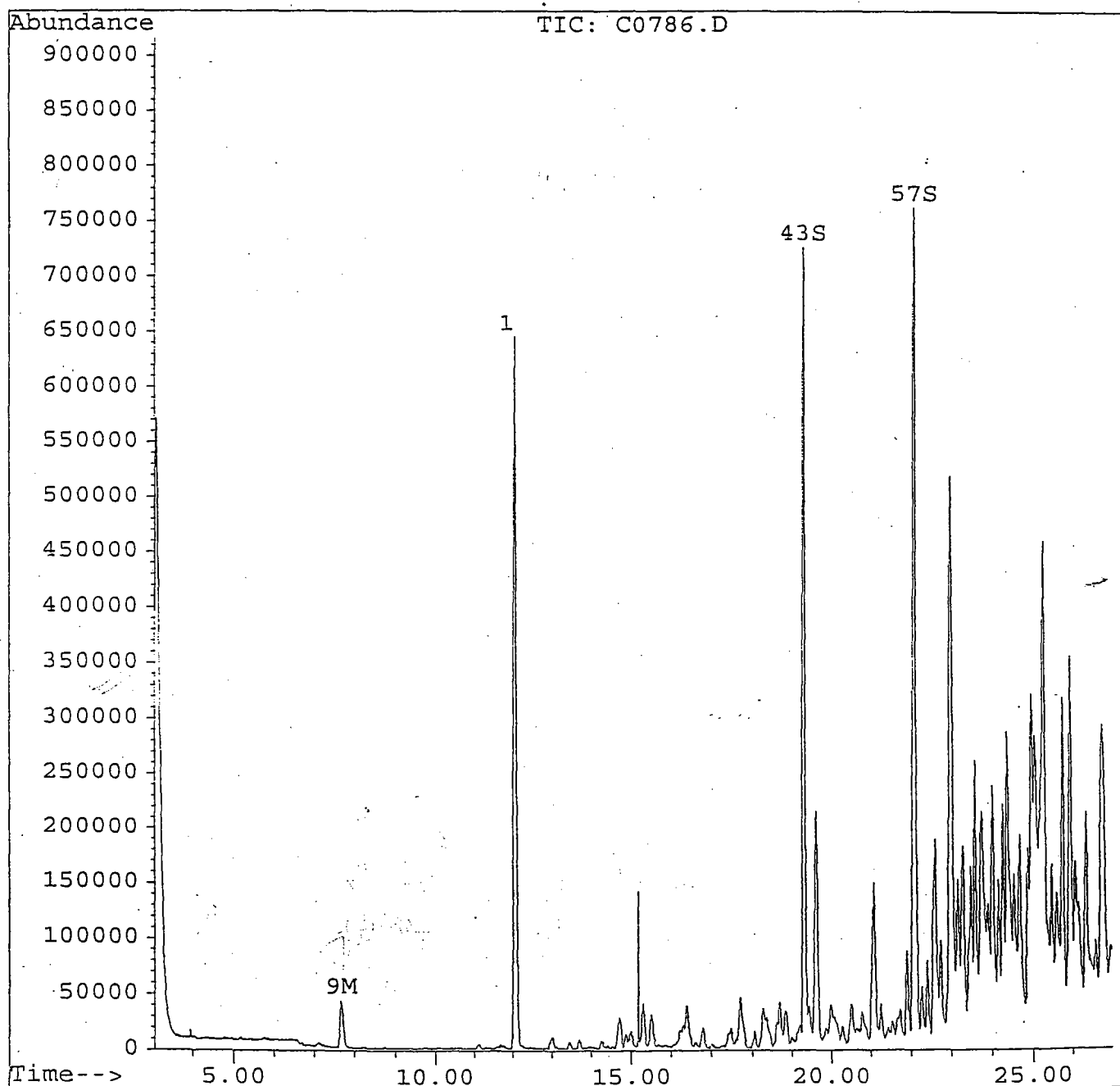
Quantitation Report

Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML
Quant Time: Dec 31 8:38 1995

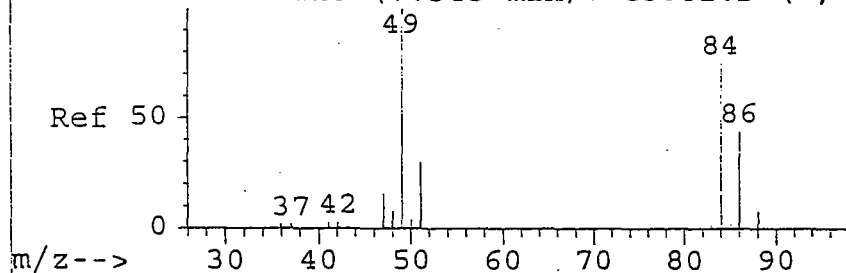
Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

108

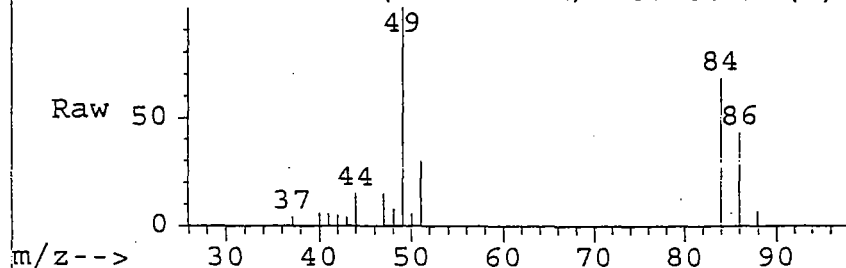
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration



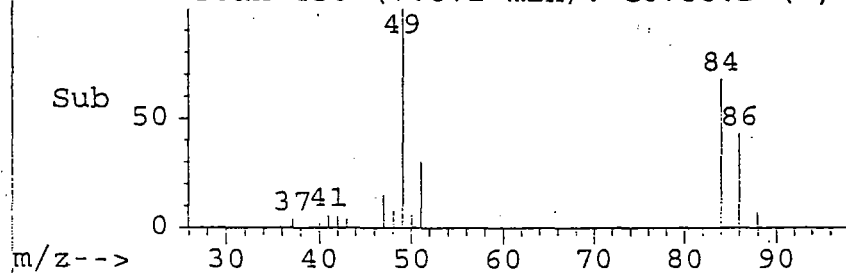
Abundance Scan 418 (7.345 min): C5082.D (-, *



Abundance Scan 450 (7.672 min): C0786.D (*, *



Abundance Scan 450 (7.672 min): C0786.D (-, *



#9

Methylene chloride

Concen: 0.91 ug/L

RT: 7.67 min Scan# 450

Delta R.T. -0.08 min

Lab File: c0786.d

Acq: 29 Dec 95 12:57 pm

Tgt Ion: 84 Resp: 53260

Ion Ratio Lower Upper

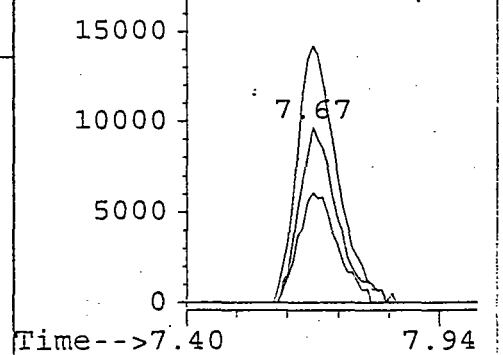
84 100

86 62.7 41.4 81.4

49 146.9 120.0 160.0

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.
Ion 86.00 (85.
Ion 49.00 (48.



Library Search Compound Report

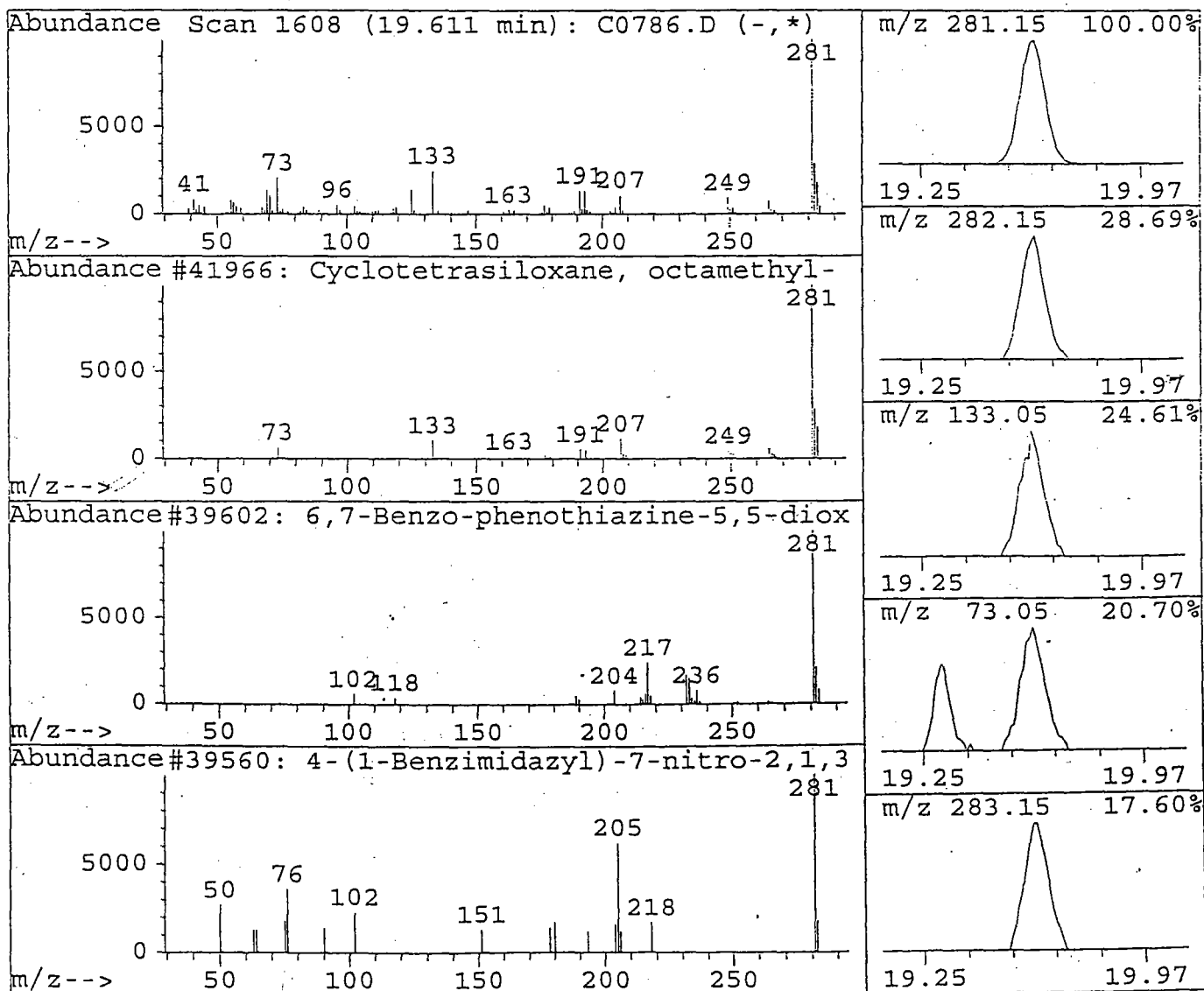
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11 110
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.61	1.74 ug/L	986486	Fluorobenzene	12.06

Hit# of 16	Tentative ID	Ref#	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	41966	000556-67-2	64
2	6,7-Benzo-phenothiazine-5,5-dioxide	39602	000000-00-0	9
3	4-(1-Benzimidazolyl)-7-nitro-2,1,3-ox	39560	091485-32-4	5
4	Benzene, 1-phenyl-4-(2-cyano-2-phen	39643	027869-56-3	9
5	3,6-Bis(N-dimethylamino)-9-ethylcar	39624	057103-04-5	9



Library Search Compound Report

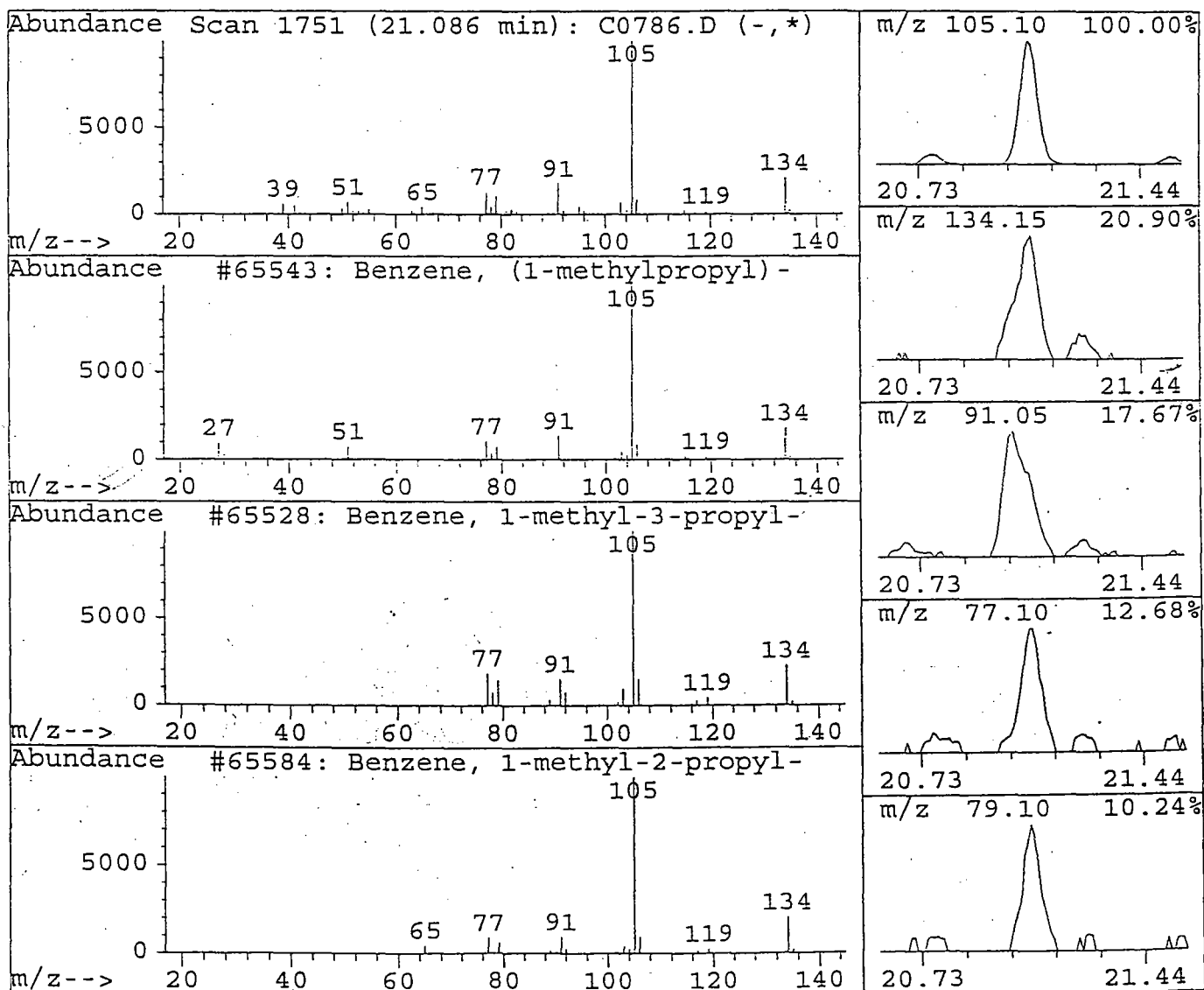
Data File : d:\hpcchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11 **111**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.09	1.08 ug/L	611449	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methylpropyl)-	65543	000135-98-8	93
2	Benzene, 1-methyl-3-propyl-	65528	001074-43-7	42
3	Benzene, 1-methyl-2-propyl-	65584	001074-17-5	81
4	Benzene, 1-methyl-4-propyl-	6216	001074-55-1	76
5	Benzeneacetaldehyde, .alpha.-methyl	65510	000093-53-8	43



Library Search Compound Report

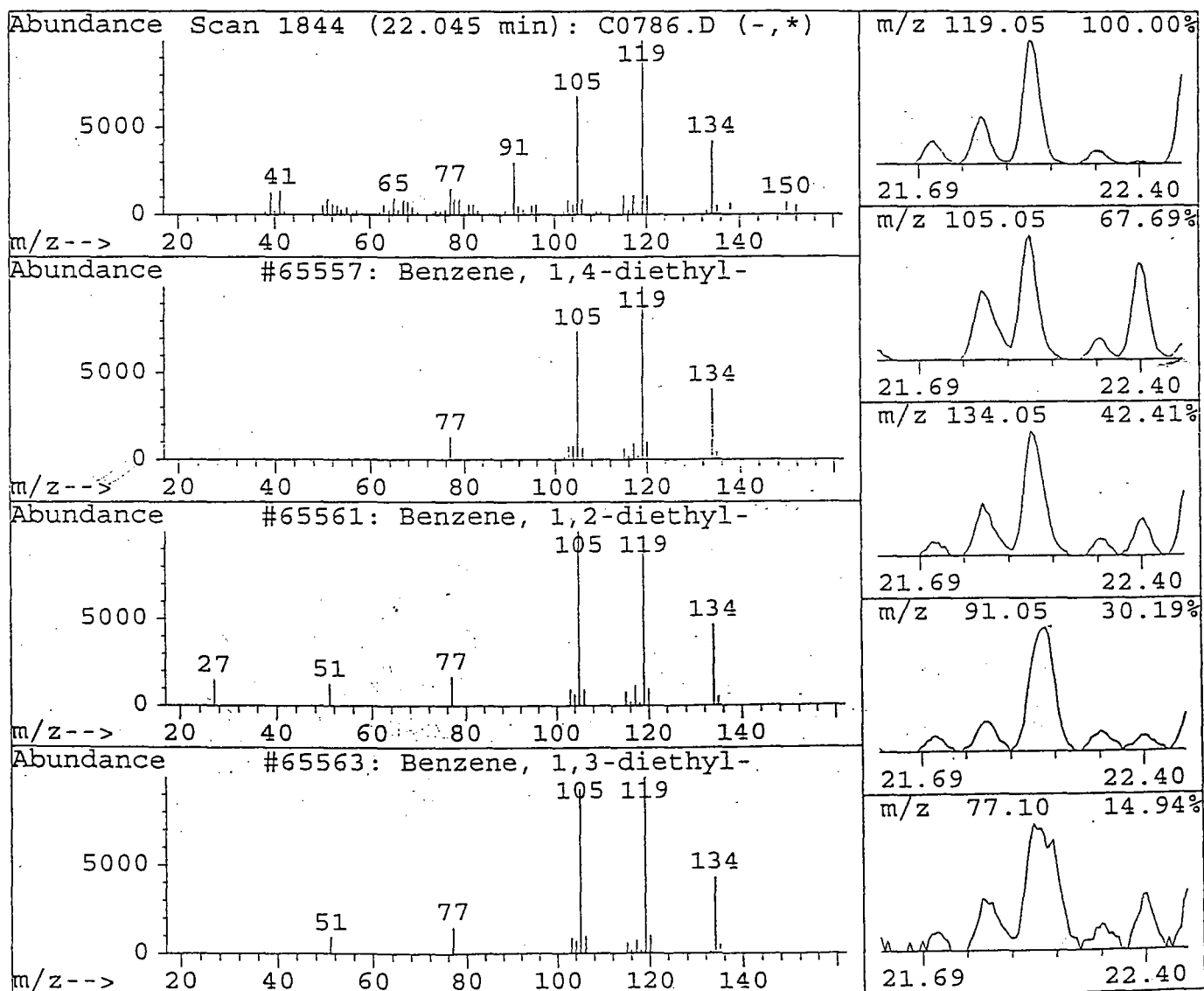
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11 **112**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.04	1.16 ug/L	660266	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,4-diethyl-	65557	000105-05-5	94
2	Benzene, 1,2-diethyl-	65561	000135-01-3	92
3	Benzene, 1,3-diethyl-	65563	000141-93-5	95
4	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	83
5	Benzene, 1-ethyl-3,5-dimethyl-	65553	000934-74-7	90



Library Search Compound Report

Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

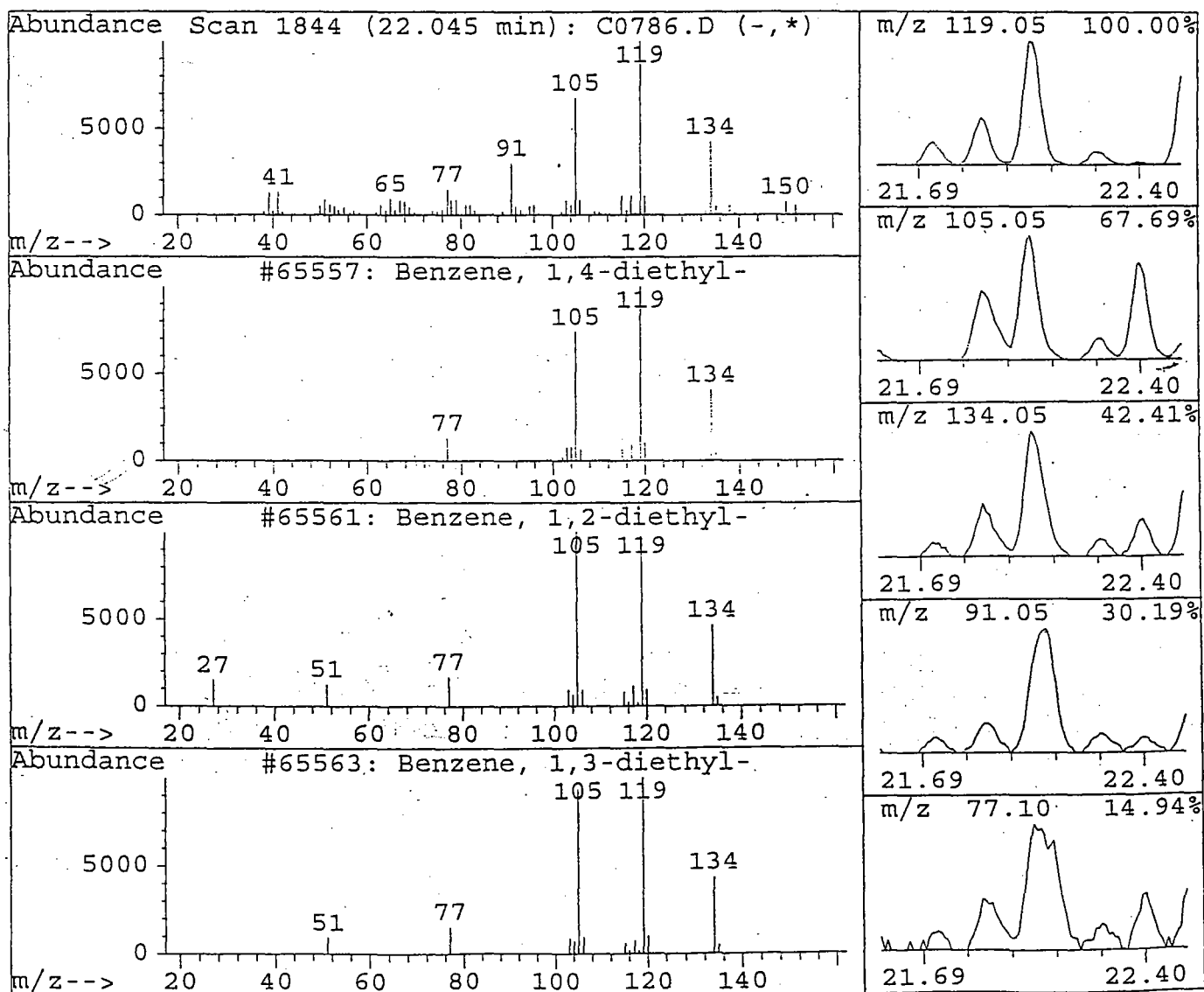
Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

113

R.T.	Conc	Area	Relative to ISTD	R.T.
22.04	0.88 ug/L	498396	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,4-diethyl-	65557	000105-05-5	94
2	Benzene, 1,2-diethyl-	65561	000135-01-3	92
3	Benzene, 1,3-diethyl-	65563	000141-93-5	95
4	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	83
5	Benzene, 1-ethyl-3,5-dimethyl-	65553	000934-74-7	90



Library Search Compound Report

114

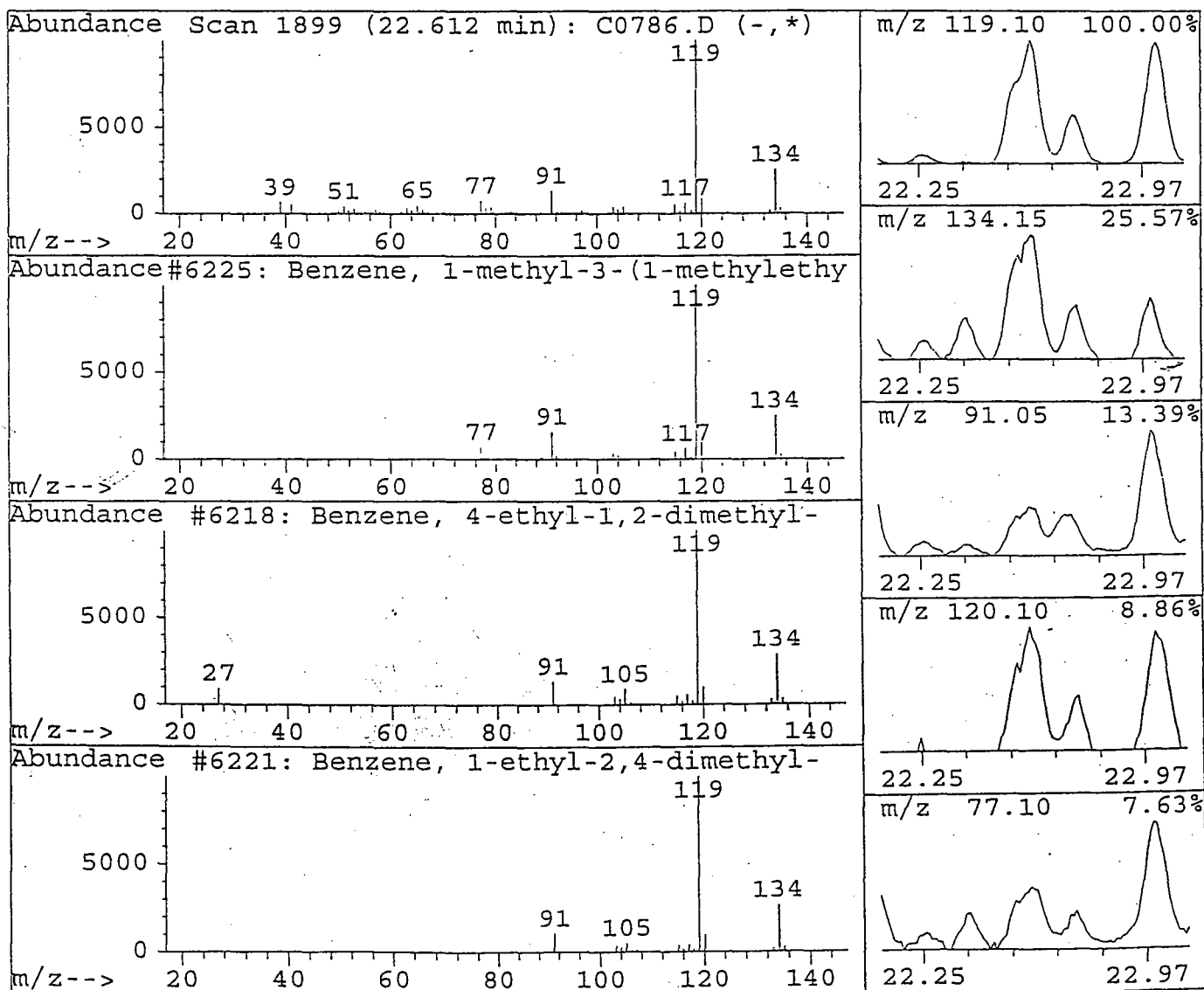
Data File : d:\hpcchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc.	Area	Relative to ISTD	R.T.
22.61	1.94 ug/L	1101027	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	90
2	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	91
3	Benzene, 1-ethyl-2,4-dimethyl-	6221	000874-41-9	94
4	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	86
5	Benzene, 2-ethyl-1,3-dimethyl-	65532	002870-04-4	91



Library Search Compound Report

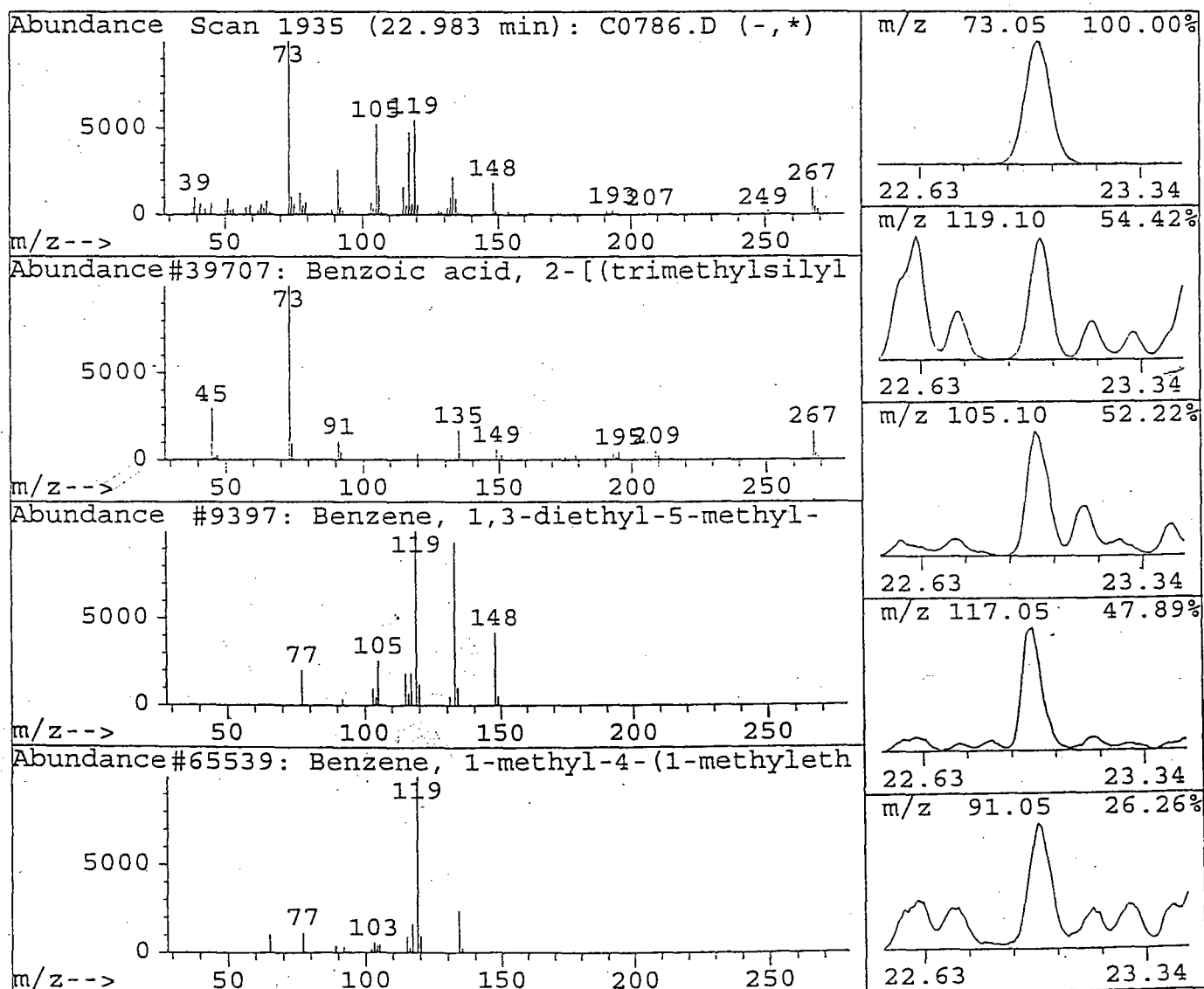
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Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

115
Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.98	1.09 ug/L	619970	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	10
2	Benzene, 1,3-diethyl-5-methyl-	9397	002050-24-0	30
3	Benzene, 1-methyl-4-(1-methylethyl)	65539	000099-87-6	14
4	Benzene, 1-methyl-2-(1-methylethyl)	65582	000527-84-4	14
5	Butyric acid, 3-methyl-4-(2,5-xylyl)	24378	030275-76-4	12



Library Search Compound Report

116

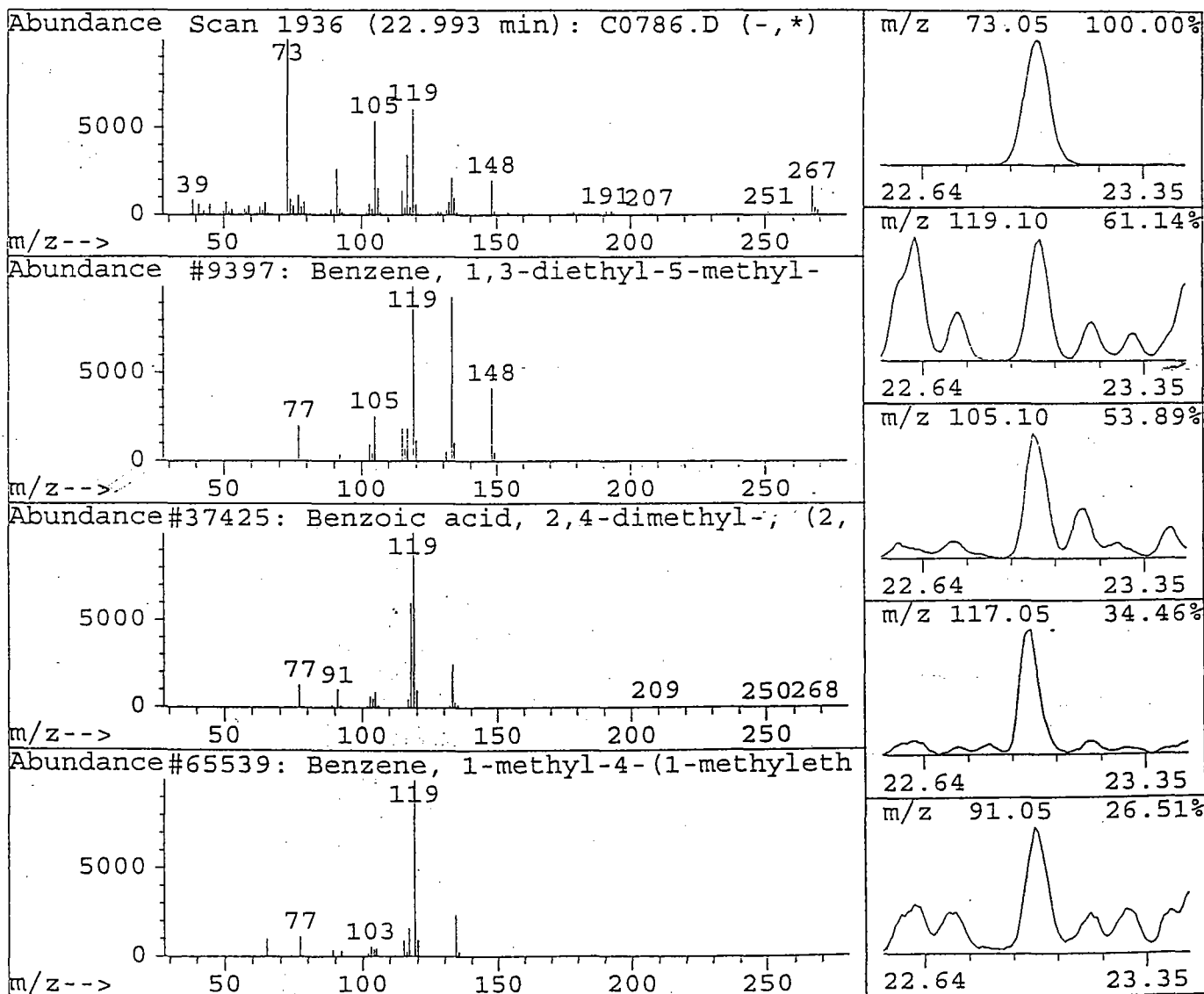
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.99	1.31 ug/L	745082	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,3-diethyl-5-methyl-	9397	002050-24-0	41
2	Benzoic acid, 2,4-dimethyl-, (2,4-d	37425	055000-43-6	35
3	Benzene, 1-methyl-4-(1-methylethyl)	65539	000099-87-6	25
4	Benzene, 1-methyl-2-(1-methylethyl)	65582	000527-84-4	14
5	Benzene, 1-methyl-3-(1-methylethyl)	65580	000535-77-3	25



Library Search Compound Report

117

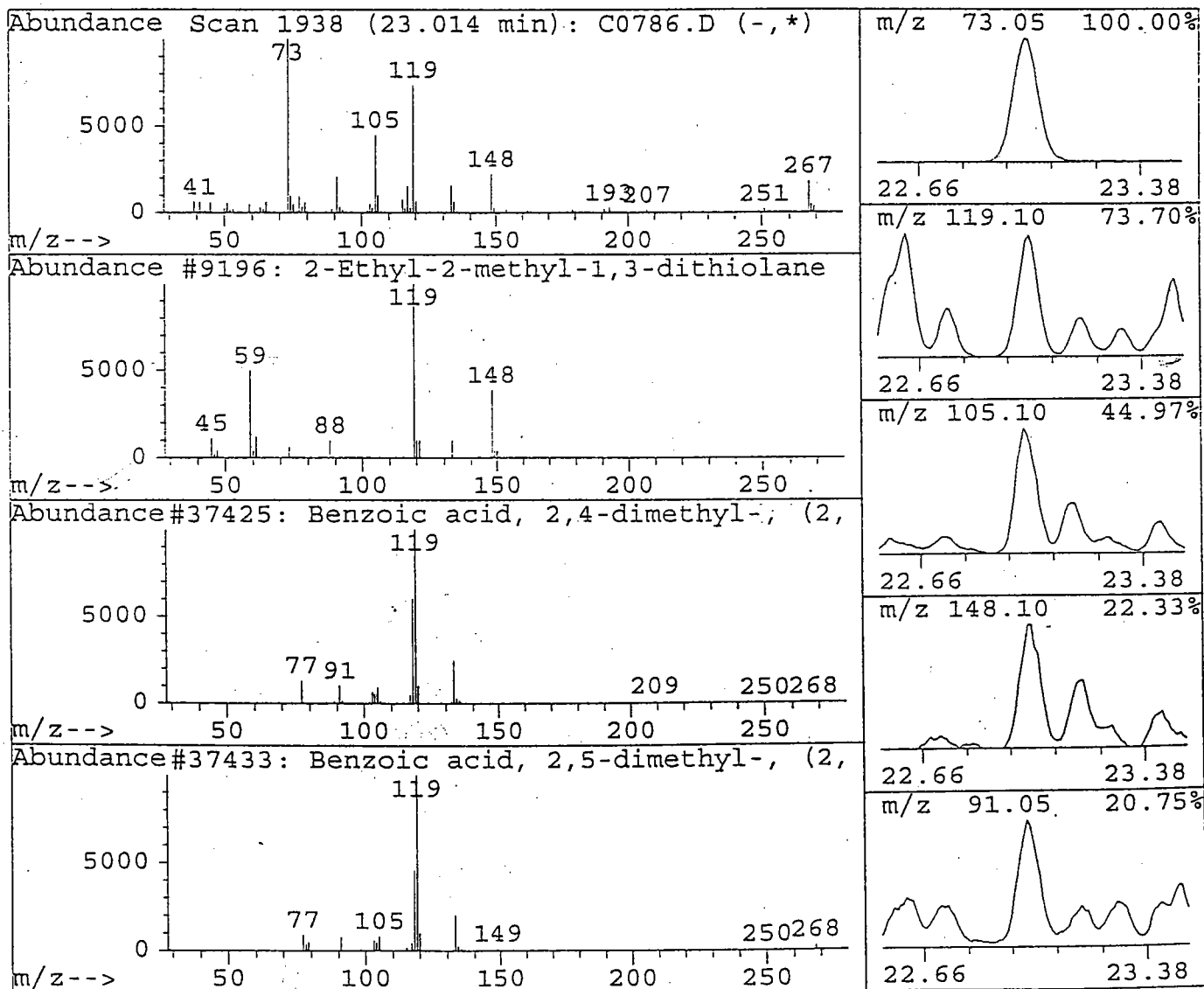
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.01	2.52 ug/L	1432567	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Ethyl-2-methyl-1,3-dithiolane	9196	006008-81-7	47
2	Benzoic acid, 2,4-dimethyl-, (2,4-d	37425	055000-43-6	38
3	Benzoic acid, 2,5-dimethyl-, (2,4-d	37433	055000-48-1	47
4	Benzene, 1-ethyl-2,3-dimethyl-	65555	000933-98-2	32
5	Benzene, 1,4-diethyl-	65558	000105-05-5	37



Library Search Compound Report

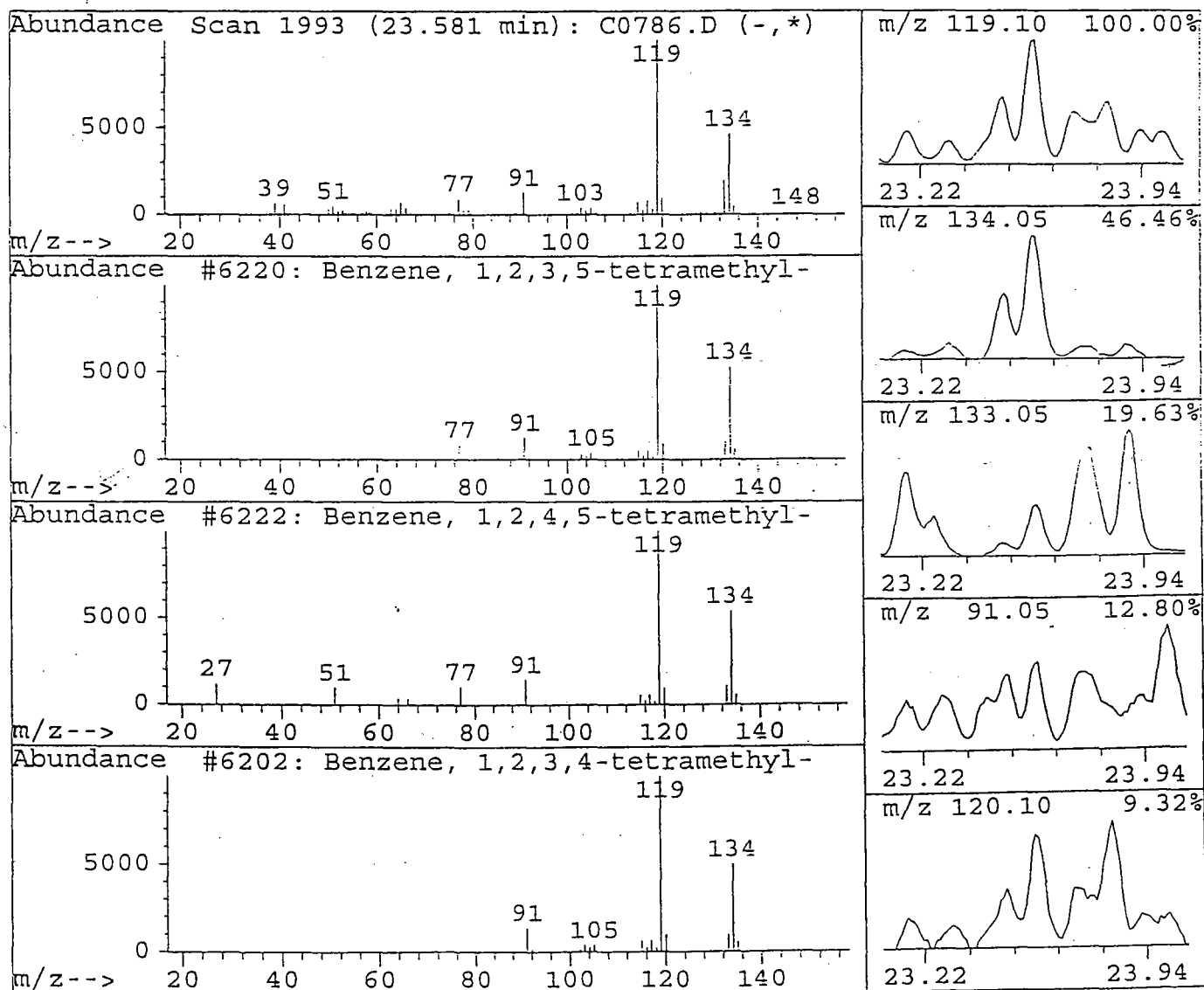
118

Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.58	1.15 ug/L	652013	Fluorobenzene	12.06
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	93
2	Benzene, 1,2,4,5-tetramethyl-	6222	000095-93-2	90
3	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	93
4	Benzene, 1-ethyl-2,3-dimethyl-	65555	000933-98-2	83
5	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	87



Library Search Compound Report

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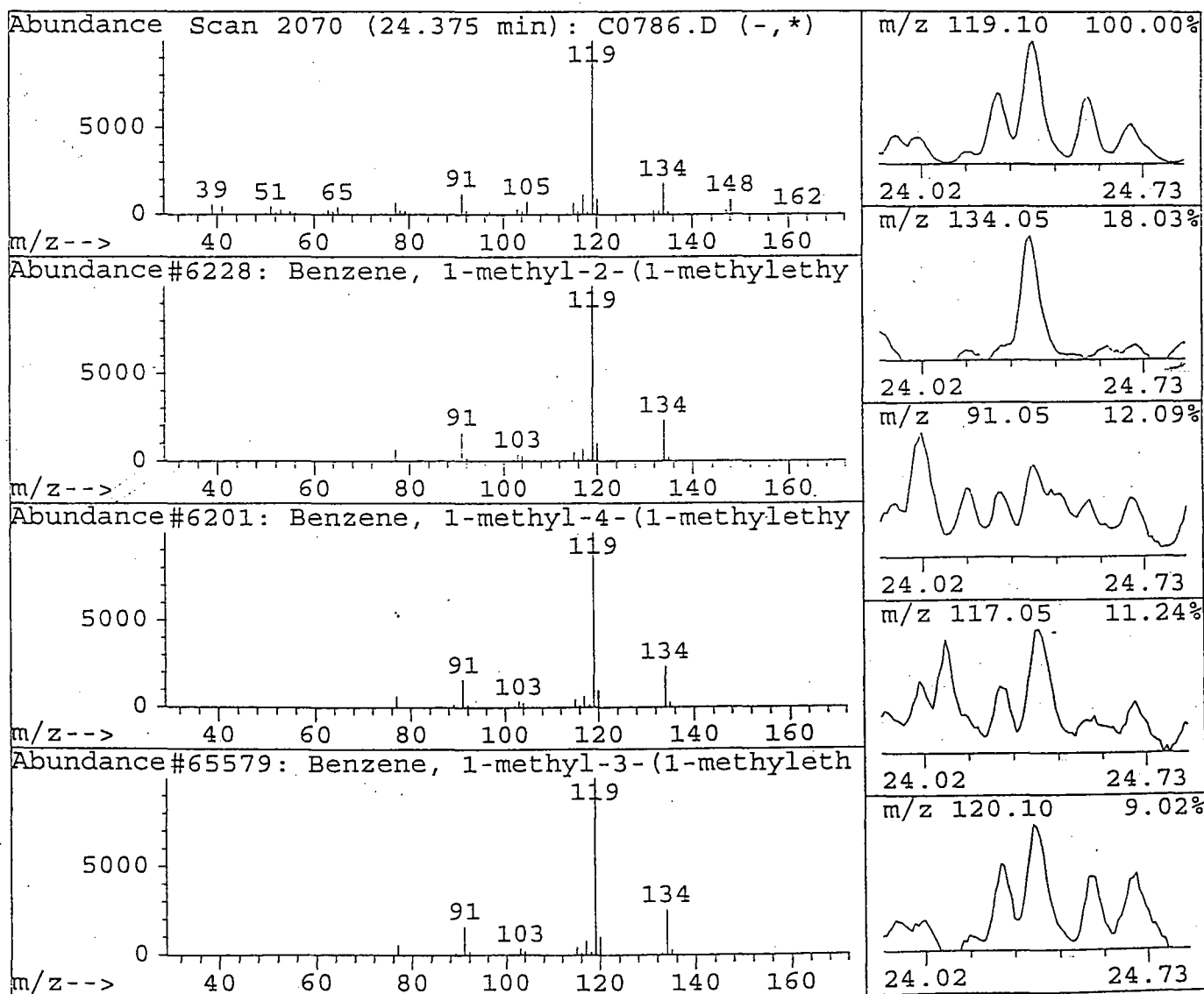
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.37	0.87 ug/L	494499	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	49
2	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	87
3	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	90
4	Benzene, methyl(1-methylethyl)-	6208	025155-15-1	46
5	Benzene, 1-ethyl-2,4-dimethyl-	6221	000874-41-9	83



Library Search Compound Report

Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

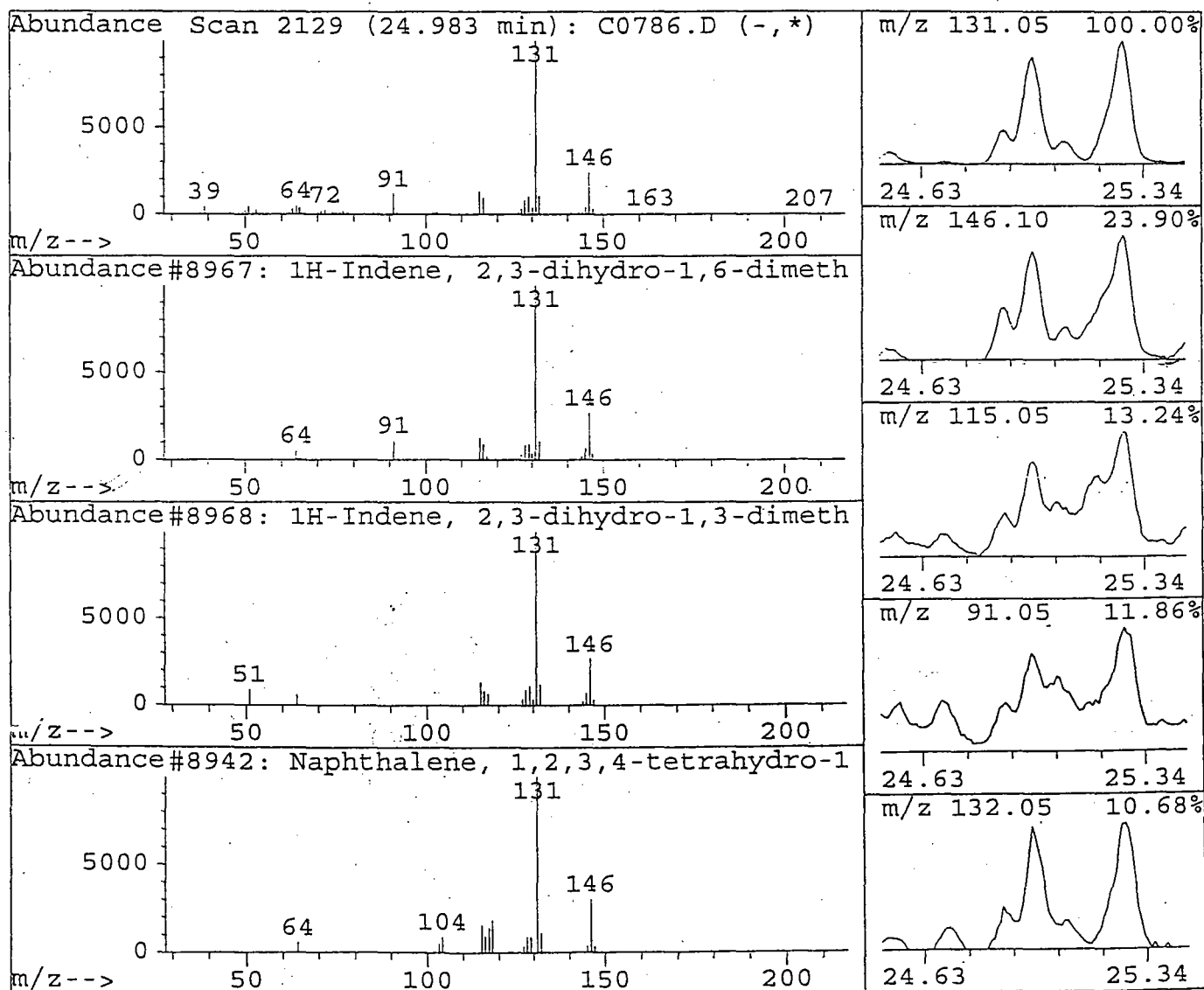
Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

120

R.T.	Conc	Area	Relative to ISTD	R.T.
24.98	1.15 ug/L	654875	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	76
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	90
3	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90
4	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	87
5	1H-Indene, 2,3-dihydro-4,7-dimethyl	8955	006682-71-9	70



Library Search Compound Report

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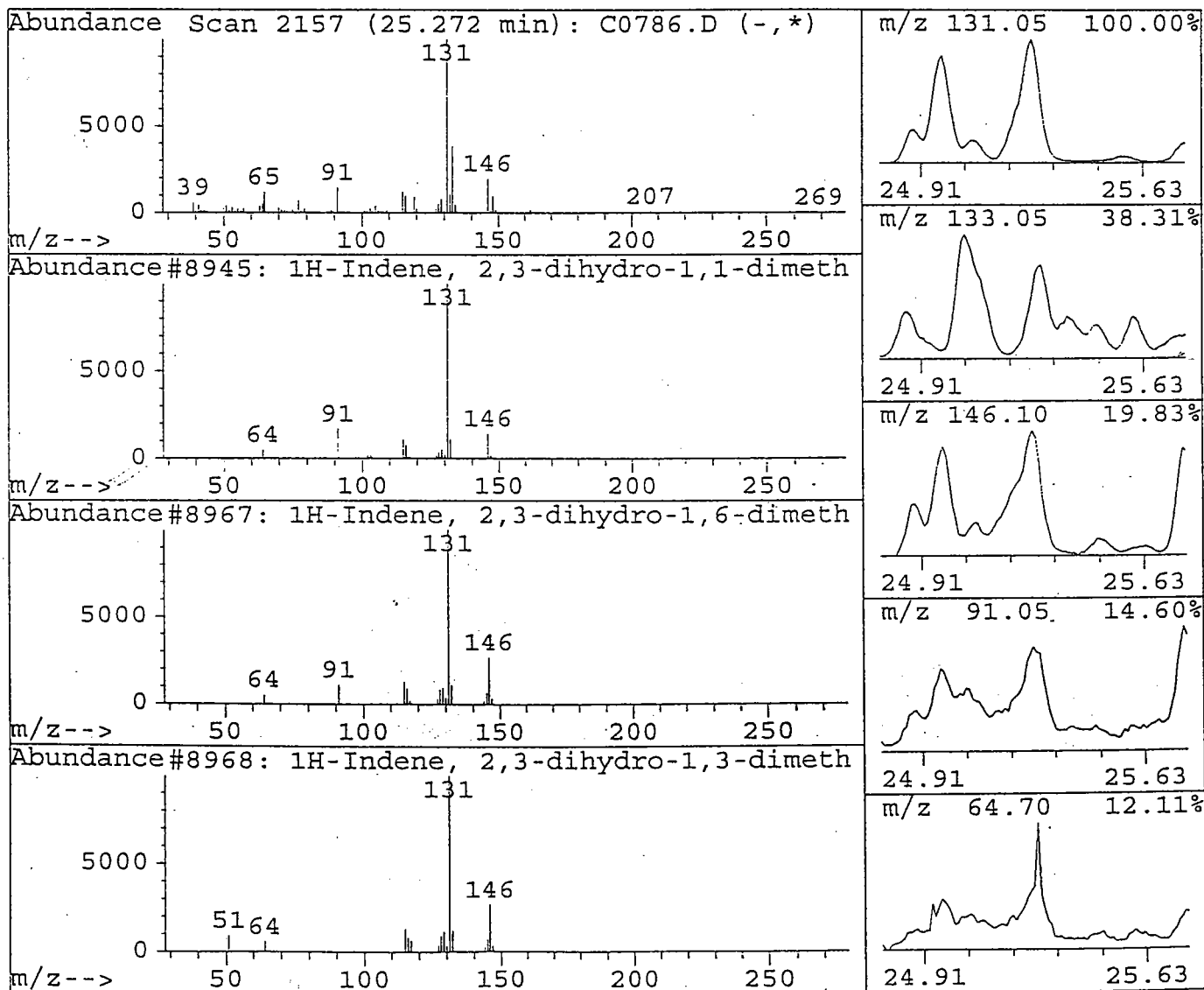
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.27	2.12 ug/L	1205960	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	47
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	58
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	12
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	25
5	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	16



Library Search Compound Report

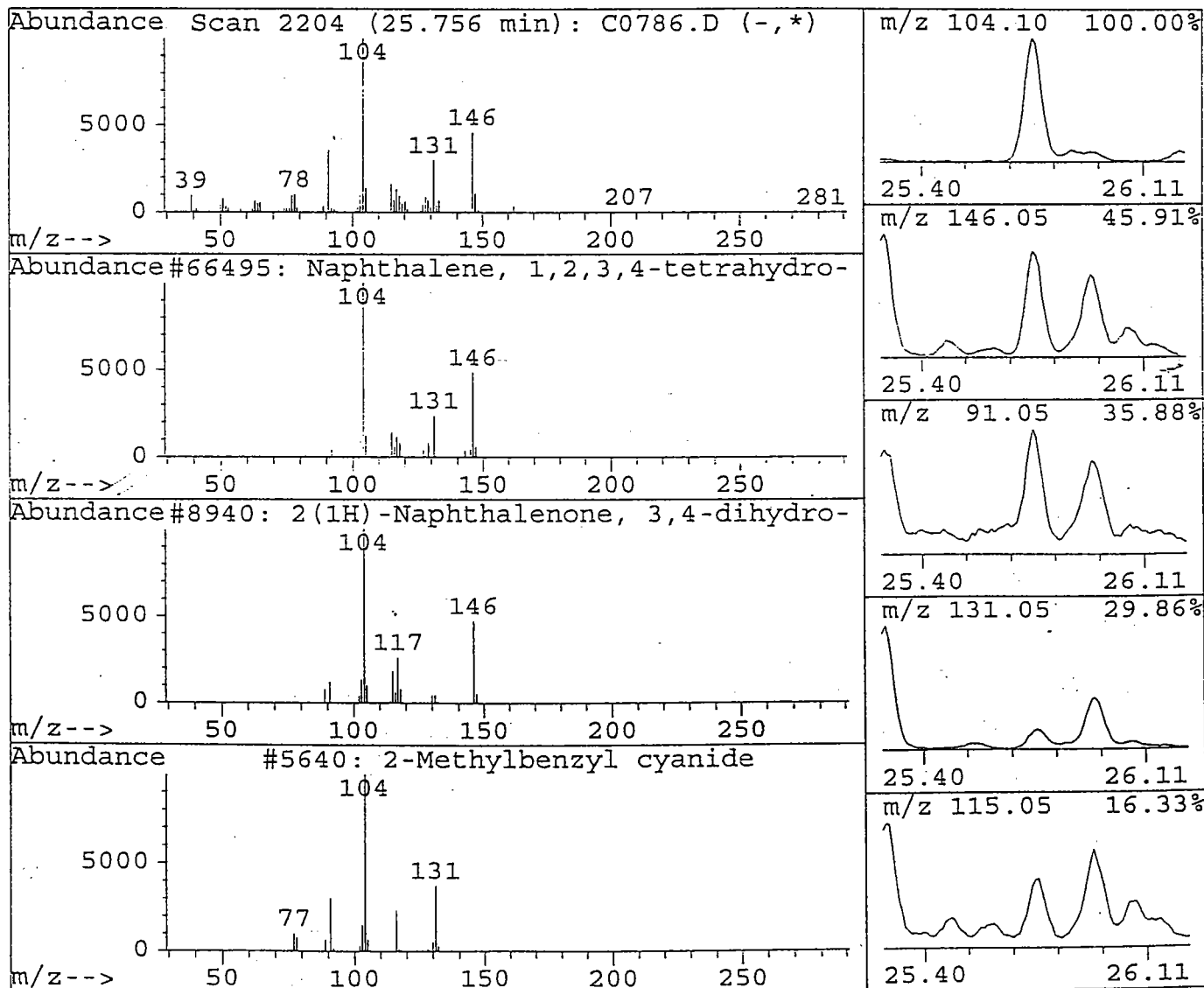
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.76	1.81 ug/L	1027555	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-2-m	66495	003877-19-8	94
2	2(1H)-Naphthalenone, 3,4-dihydro-	8940	000530-93-8	59
3	2-Methylbenzyl cyanide	5640	022364-68-7	43
4	Benzene, 3-cyclohexen-1-yl-	12107	004994-16-5	32
5	Benzene, 1,1'-(1,2-cyclobutanediyl)	25027	020071-09-4	35



Library Search Compound Report

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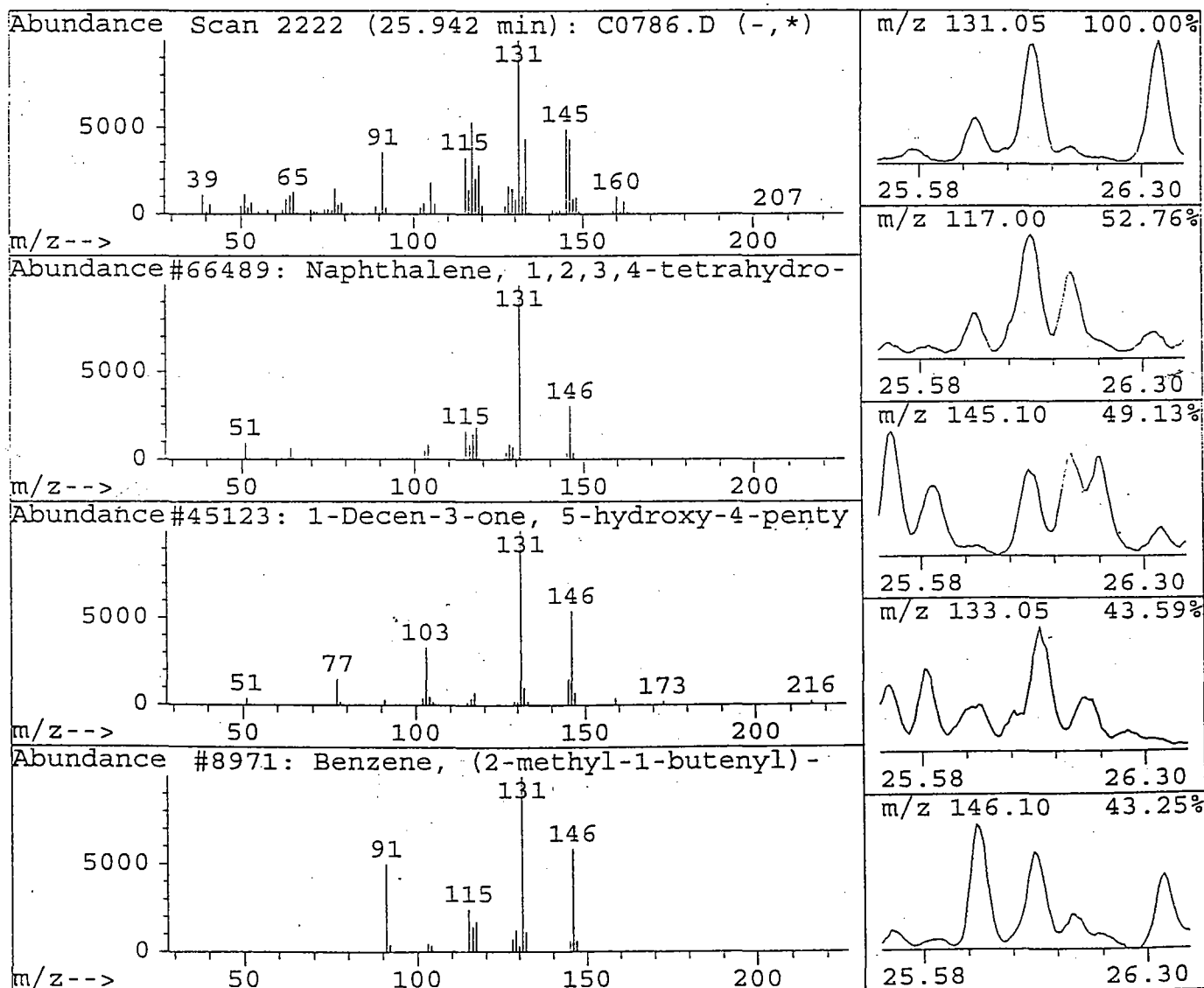
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.94	1.24 ug/L	702370	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1-m	66489	001559-81-5	50
2	1-Decen-3-one, 5-hydroxy-4-pentyl-1	45123	000000-00-0	25
3	Benzene, (2-methyl-1-butenyl)-	8971	056253-64-6	46
4	1H-Indene, 2,3-dihydro-5,6-dimethyl	8944	001075-22-5	35
5	Benzene, (3-methyl-2-butenyl)-	8959	004489-84-3	41



Library Search Compound Report

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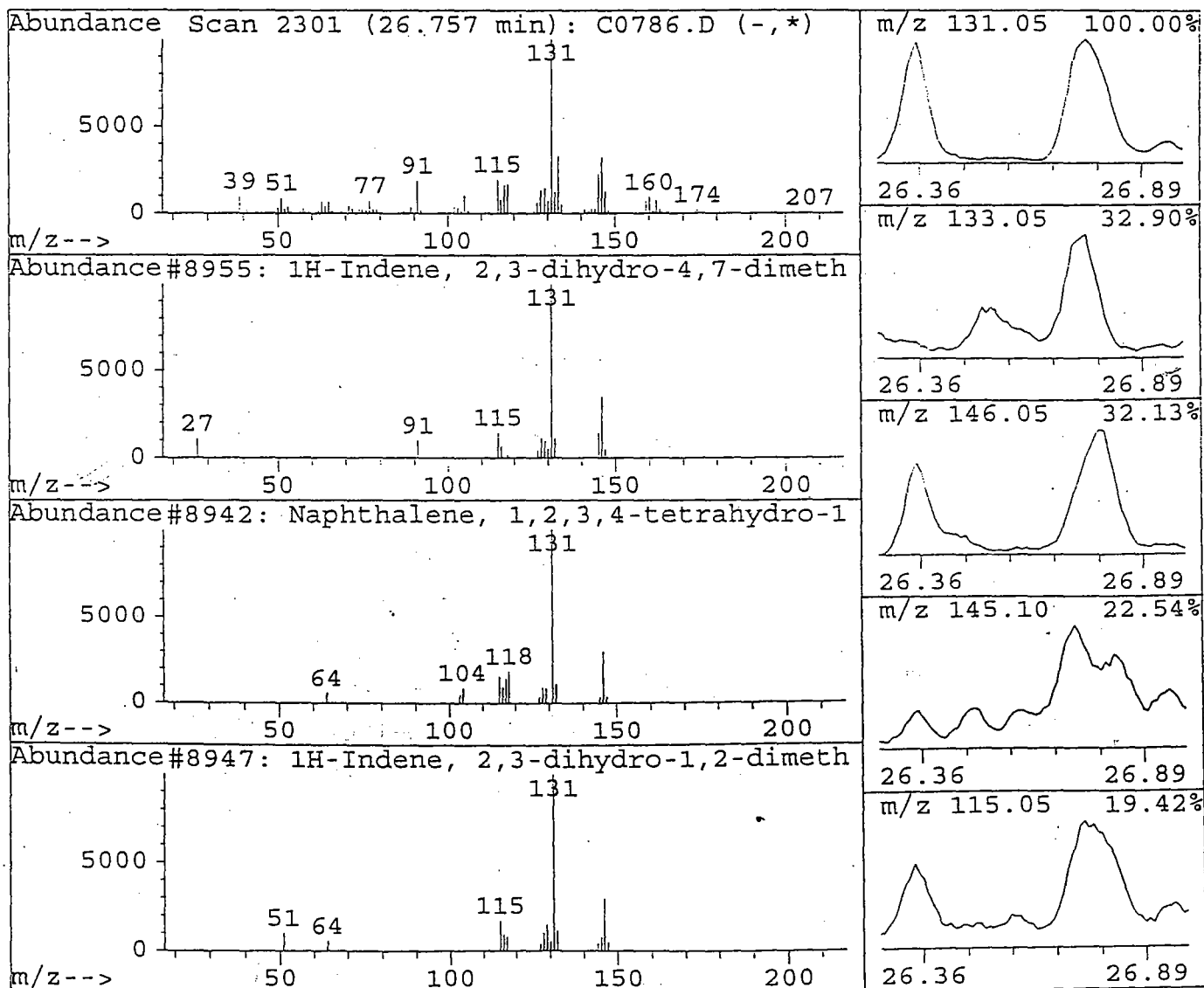
Data File : d:\hpchem\1\data\c0786.d
Acq On : 29 Dec 95 12:57 pm
Sample : 9558314 BLDG.430 MW-1
Misc : 25 ML

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.76	1.17 ug/L	663447	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimethyl	8955	006682-71-9	70
2	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	50
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	58
4	1H-Indene, 2,3-dihydro-5,6-dimethyl	8944	001075-22-5	58
5	1H-Indene, 2,3-dihydro-4,6-dimethyl	8950	001685-82-1	70



WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL

Contract: _____

125

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	VBLK01	104	105			
02	9557856V	103	105			
03	9557857V	102	104			
04	9558188V	108	107			
05	9558189V	103	105			
06	9558190V	105	107			
07	9558191V	100	103			
08	9558192V	100	102			
09	9558196V	101	105			
10	9558197V	102	105			
11	9558195V	103	105			
12	9557856MS	102	105			
13	9557856MSD	102	104			
14	10 QCS	99	101			
15	1 STND	101	105			
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (BFB) = 4-Bromofluorobenzene
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS
 (80-120)
 (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

126

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	VBLK01	102	104			
02	9558500V	104	106			
03	9558501V	104	104			
04	9558191V	105	108			
05	9558192V	103	105			
06	9558312V	103	104			
07	9558313V	103	104			
08	9558311V	104	103			
09	9558314V	111	103			
10	9558315V	106	107			
11	9558316V	101	104			
12	9558317V	112	110			
13	9559346V	118	107			
14	9558196V	102	105			
15	1 STND	104	106			
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (BFB) = 4-Bromofluorobenzene
SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS
(80-120)
(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. **127**

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: C0697.D Lab Sample ID: M. BLANK

Date Analyzed: 12/26/95 Time Analyzed: 1741

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	9557856V	9557856V	C0698.D	1815
02	9557857V	9557857V	C0699.D	1850
03	9558188V	9558188V	C0700.D	1924
04	9558189V	9558189V	C0701.D	1958
05	9558190V	9558190V	C0702.D	2032
06	9558191V	9558191V	C0703.D	2107
07	9558192V	9558192V	C0704.D	2141
08	9558196V	9558196V	C0705.D	2215
09	9558197V	9558197V	C0706.D	2250
10	9558195V	9558195V	C0707.D	2324
11	9557856MS	57856MS	C0708.D	2358
12	9557856MSD	57856MSD	C0709.D	0032
13	10 QCS	10 QCS	C0710.D	0107
14	1 STND	1 STND	C0711.D	0141
15				
16				
17				
18				
19				
20				
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22				
23				
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25				
26				
27				
28				
29				
30				

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

126

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: C0697.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 12/26/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	.50	U
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

D. 130

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

129

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: M. BLANKSample wt/vol: 25.0 (g/mL) MLLab File ID: C0697.DLevel: (low/med) LOWDate Received: NA% Moisture: not dec. NADate Analyzed: 12/26/95GC Column: DB-624 x 75mID: 0.53 (mm)Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. **13**

VBK01

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: C0697.D
 Level: (low/med) LOW Date Received: NA
 % Moisture: not dec. NA Date Analyzed: 12/26/95
 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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Quantitation Report

Data File : d:\hpchem\1\data\c0697.d
 Acq On : 26 Dec 95 5:41 pm
 Sample : METHOD BLANK
 Misc : 25 ML
 Quant Time: Dec 27 13:36 1995

Vial: 3 131
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

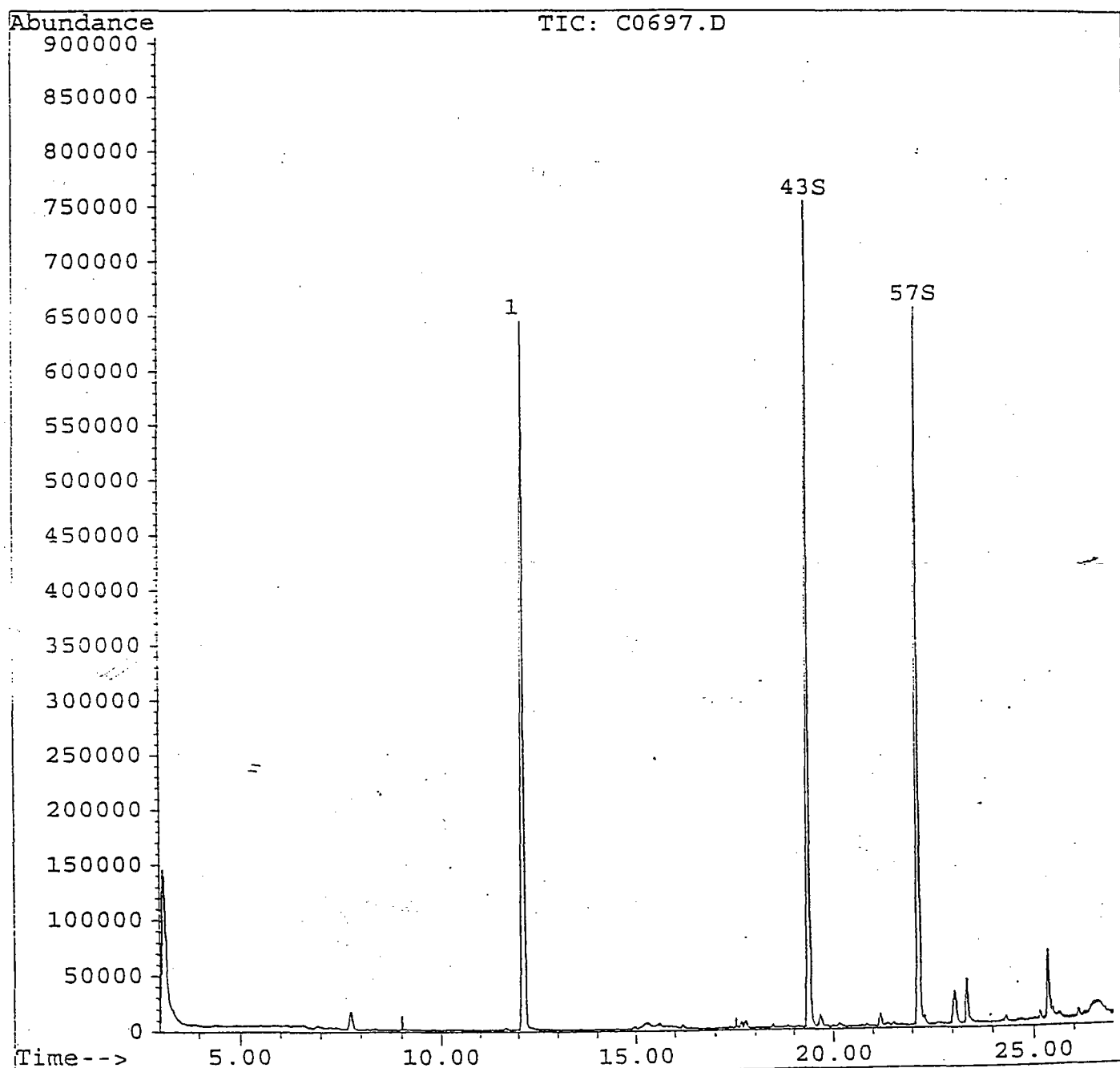
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.14	96	1394456	5.00	ug/L	0.00
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.37	95	683004	5.19	ug/L	103.84%
57) 1,2-Dichlorobenzene-d4	22.17	152	407809	5.27	ug/L	105.39%
Target Compounds						Qvalue

Quantitation Report

Data File : d:\hpchem\1\data\c0697.d
Acq On : 26 Dec 95 5:41 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Dec 27 13:36 1995

132
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 Dec 26 17:40:31 1995
Response via : Multiple Level Calibration



Library Search Compound Report

133

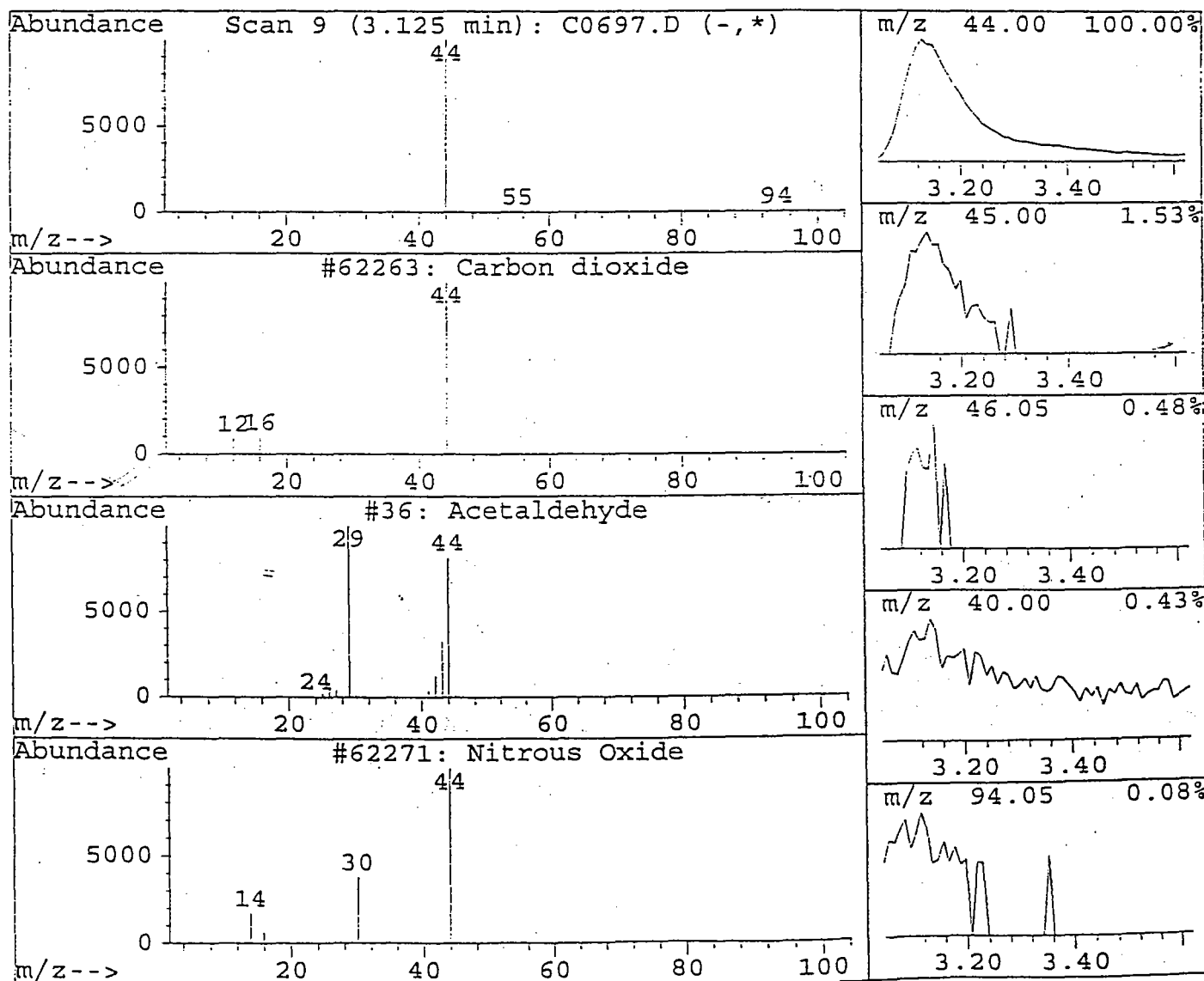
Data File : d:\hpchem\1\data\c0697.d
Acq On : 26 Dec 95 5:41 pm
Sample : METHOD BLANK
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.13	1.49 ug/L	861401	Fluorobenzene	12.14

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Acetaldehyde	36	000075-07-0	3
3	Nitrous Oxide	62271	010024-97-2	3
4	Ethyne, fluoro-	35	002713-09-9	2
5	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2



4A
VOLATILE METHOD BLANK SUMMARY

134
SAMPLE NO.

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: C0778.D Lab Sample ID: M. BLANK

Date Analyzed: 12/29/95 Time Analyzed: 0821

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/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	9558500V	9558500V	C0779.D	0856
02	9558501V	9558501V	C0780.D	0931
03	9558191V	9558191V	C0781.D	1005
04	9558192V	9558192V	C0782.D	1040
05	9558312V	9558312V	C0783.D	1114
06	9558313V	9558313V	C0784.D	1149
07	9558311V	9558311V	C0785.D	1223
08	9558314V	9558314V	C0786.D	1257
09	9558315V	9558315V	C0787.D	1332
10	9558316V	9558316V	C0788.D	1406
11	9558317V	9558317V	C0789.D	1440
12	9559346V	9559346V	C0790.D	1514
13	9558196V	9558196V	C0791.D	1549
14	1 STND	1 STND	C0792.D	1623
15				
16				
17				
18				
19				
20				
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22				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. **135**

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: C0778.D

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

% Moisture: not dec. NA Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 7

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: C0778.D

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

% Moisture: not dec. NA Date Analyzed: 12/29/96

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.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
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.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
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

137

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: C0778.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. NA

Date Analyzed: 12/29/95

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.				
10.				
11.				
12.				
13.				
14.				
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27.				
28.				
29.				
30.				

Quantitation Report

138

Data File : d:\hpchem\1\data\c0778.d
Acq On : 29 Dec 95 8:21 am
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Dec 31 8:27 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 Dec 26 17:40:31 1995
Response via : Multiple Level Calibration

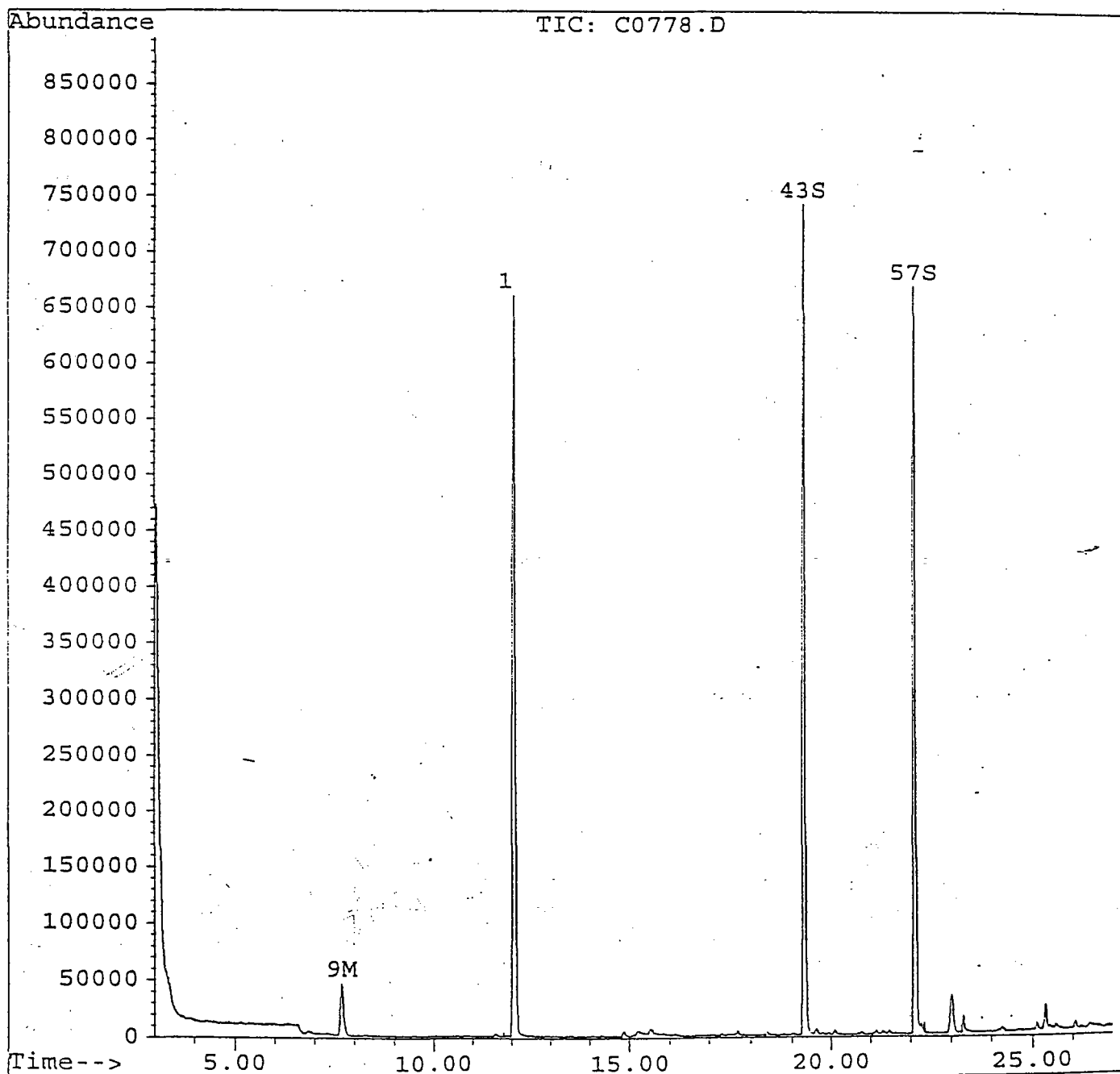
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.06	96	1420918	5.00	ug/L	-0.07
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.31	95	683281	5.10	ug/L	101.94%
57) 1,2-Dichlorobenzene-d4	22.11	152	408458	5.18	ug/L	103.59%
						Qvalue
Target Compounds						
9) Methylene chloride	7.67	84	58341	0.93	ug/L	99

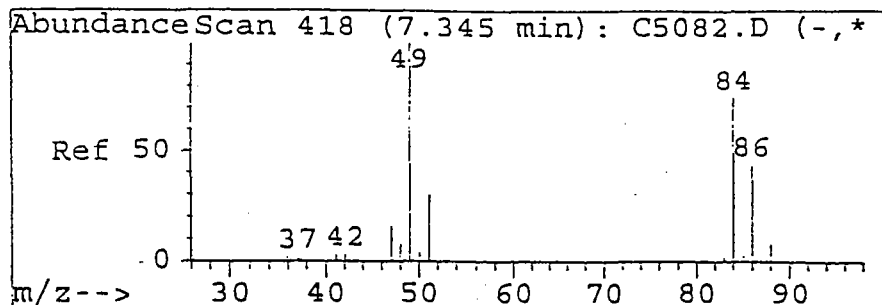
Quantitation Report

Data File : d:\hpchem\1\data\c0778.d
Acq On : 29 Dec 95 8:21 am
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Dec 31 8:27 1995

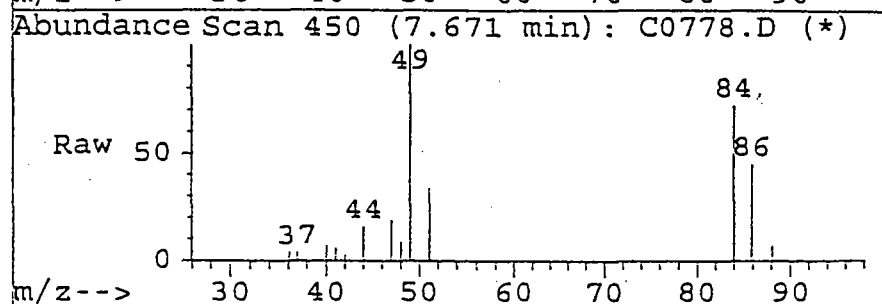
Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Dec 26 17:40:31 1995
Response via : Multiple Level Calibration

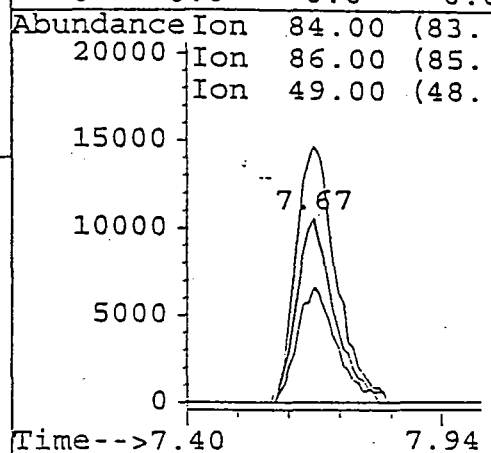
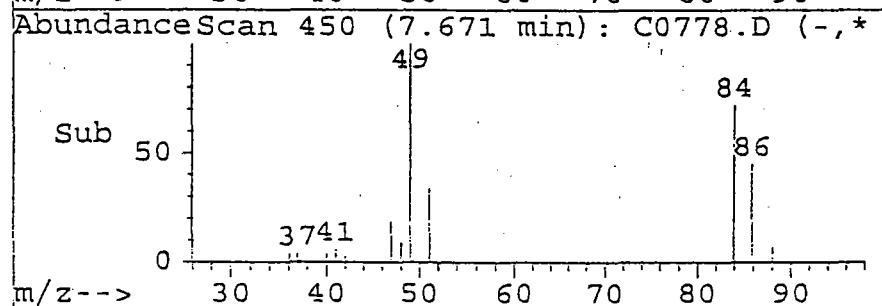




#9
 Methylene chloride 140
 Concen: 0.93 ug/L
 RT: 7.67 min Scan# 450
 Delta R.T. -0.08 min
 Lab File: c0778.d
 Acq: 29 Dec 95 8:21 am



Tgt Ion	Ratio	Lower	Upper
84	100		
86	62.6	41.4	81.4
49	138.4	120.0	160.0
0	0.0	0.0	0.0



Library Search Compound Report

141

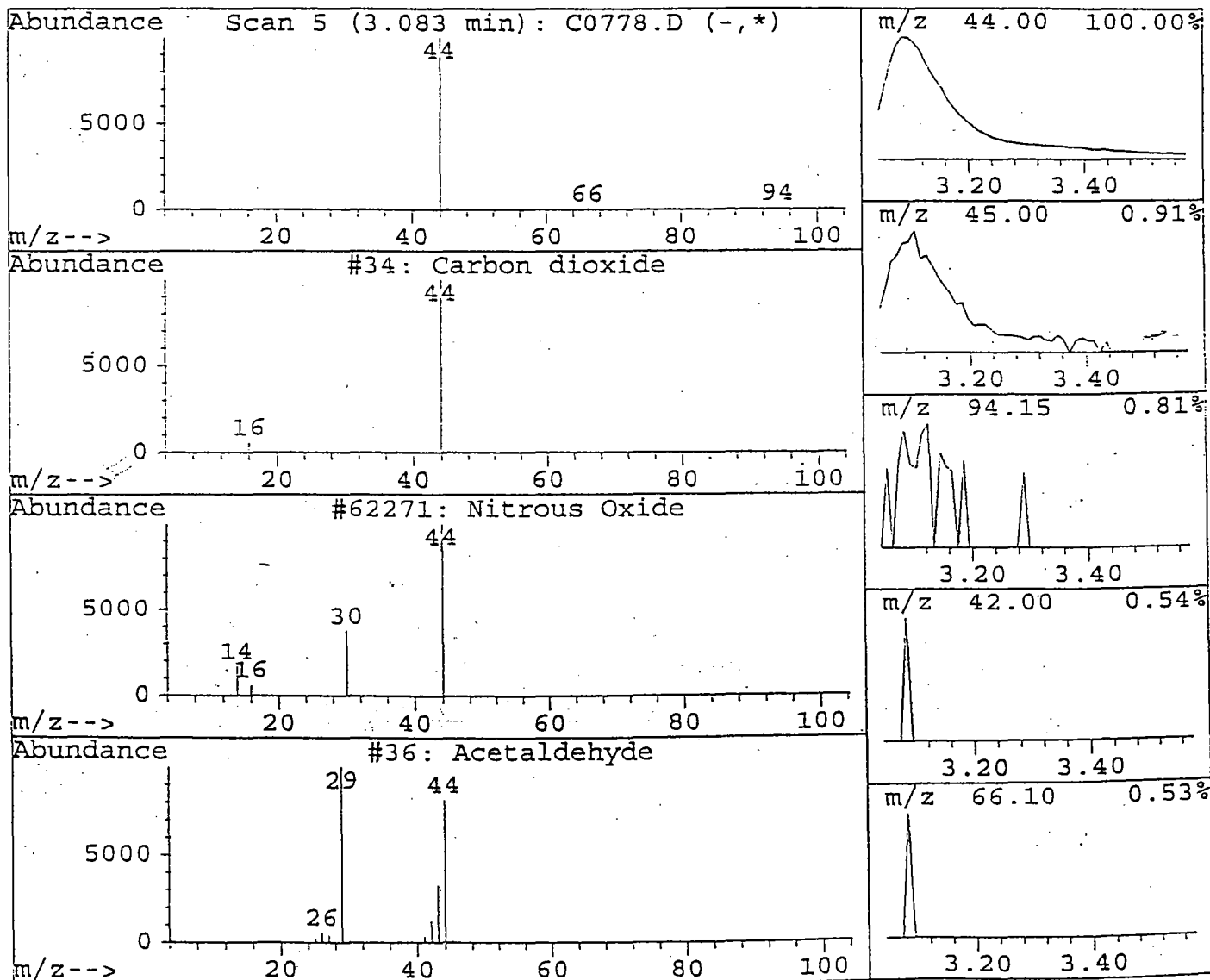
Data File : d:\hpchem\1\data\c0778.d
Acq On : 29 Dec 95 8:21 am
Sample : METHOD BLANK
Misc : 25 ML

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.08	4.26 ug/L	2533529	Fluorobenzene	12.06

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	62271	010024-97-2	3
3	Acetaldehyde	36	000075-07-0	2
4	Carbamic acid, monoammonium salt	391	001111-78-0	2
5	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2



Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Initial Calibration

142

Non-Spiked Sample: C0698.D

Spike Sample	Spike Duplicate Sample
File ID : C0708.D	C0709.D
Sample : 9557856 MS	9557856 MSD
Acq Time: 26 Dec 95 11:58 pm	27 Dec 95 12:32 am

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	% Rec
Dichlorodifluorometh	0.0	10	9	8	85	82	3	25	80-120
Chloromethane	0.0	10	8	8	84	84	0	25	80-120
Vinyl chloride	0.0	10	10	9	95	92	3	25	80-120
Bromomethane	0.0	10	11	12	111	119	7	25	80-120
Chloroethane	0.0	10	11	11	108	105	3	25	80-120
Trichlorofluorometha	0.0	10	10	10	97	97	0	25	80-120
1,1-Dichloroethene	0.0	10	10	10	99	98	1	25	80-120
Methylene chloride	0.6	10	9	9	86	85	2	25	80-120
trans-1,2-Dichloroet	0.0	10	10	10	101	101	0	25	80-120
1,1-Dichloroethane	0.0	10	10	10	102	101	1	25	80-120
2,2-Dichloropropane	0.0	10	9	9	90	89	2	25	80-120
cis-1,2-Dichloroethe	0.0	10	10	10	104	104	0	25	80-120
Bromochloromethane	0.0	10	10	10	104	104	0	25	80-120
Chloroform	0.0	10	10	10	102	102	0	25	80-120
1,1,1-Trichloroethan	0.0	10	10	10	100	99	1	25	80-120
Carbon tetrachloride	0.0	10	10	10	101	101	0	25	80-120
1,1-Dichloropropene	0.0	10	10	10	100	98	3	25	80-120
Benzene	0.0	10	10	10	102	102	0	25	80-120
1,2-Dichloroethane	0.0	10	11	11	107	105	1	25	80-120
Trichloroethene	0.0	10	10	10	102	102	1	25	80-120
1,2-Dichloropropane	0.0	10	10	10	104	104	1	25	80-120
Dibromomethane	0.0	10	10	10	104	102	2	25	80-120
Bromodichloromethane	0.0	10	10	10	104	103	1	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	10	103	101	2	25	80-120
Toluene	0.0	10	10	10	99	98	1	25	80-120
trans-1,3-Dichloropr	0.0	10	10	10	103	100	3	25	80-120
1,1,2-Trichloroethan	0.0	10	11	10	106	103	3	25	80-120
Tetrachloroethene	0.0	10	10	10	102	102	1	25	80-120
1,3-Dichloropropane	0.0	10	11	10	106	103	3	25	80-120
Dibromochloromethane	0.0	10	11	10	106	104	2	25	80-120
1,2-Dibromoethane	0.0	10	11	10	107	104	3	25	80-120
Chlorobenzene	0.0	10	10	11	105	106	1	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	11	11	114	106	7	25	80-120
Ethylbenzene	0.0	10	10	10	100	99	1	25	80-120
Xylene (para & meta)	0.0	20	20	18	99	92	7	25	80-120
Xylene (Ortho)	0.0	10	10	9	101	93	7	25	80-120
Styrene	0.0	10	10	8	98	83	16	25	80-120
Bromoform	0.0	10	10	10	100	98	2	25	80-120
Isopropylbenzene	0.0	10	10	10	101	101	1	25	80-120
Bromobenzene	0.0	10	11	11	106	107	0	25	80-120
1,1,2,2-Tetrachloroe	0.0	10	11	10	106	104	2	25	80-120

2-Chlorotoluene	0.0	10	9	10	94	97	2	25	80-120
4-Chlorotoluene	0.0	10	10	10	103	102	1	25	80-120
1,3,5-Trimethylbenze	0.0	10	10	8	96	84	13	25	80-120
tert-Butylbenzene	0.0	10	11	11	111	110	1	25	80-120
1,2,4-Trimethylbenze	0.0	10	10	8	97	80	19	25	80-120
sec-Butylbenzene	0.0	10	10	10	102	101	0	25	80-120
1,3-Dichlorobenzene	0.0	10	11	11	105	106	1	25	80-120
4-Isopropyltoluene	0.0	10	10	10	101	96	5	25	80-120
1,4-Dichlorobenzene	0.0	10	10	11	104	109	4	25	80-120
1,2-Dichlorobenzene	0.0	10	11	11	107	106	0	25	80-120
n-Butylbenzene	0.0	10	10	10	102	100	1	25	80-120
1,2-Dibromo-3-chloro	0.0	10	10	10	101	99	2	25	80-120
1,2,4-Trichlorobenze	0.0	10	10	10	103	104	1	25	80-120
Hexachlorobutadiene	0.0	10	10	10	100	100	0	25	80-120
Naphthalene	0.9	10	12	12	108	107	1	25	80-120
1,2,3-Trichlorobenze	0.0	10	10	11	105	105	1	25	80-120

VOA524.M

Thu Dec 28 09:02:38 1995

VOA

Quantitation Report

Data File : d:\hpchem\1\data\c0708.d
 Acq On : 26 Dec 95 11:58 pm
 Sample : 9557856 MS
 Misc : 25 ML
 Quant Time: Dec 27 14:28 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 Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	12.14	96	1289903	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.38	95	621347	5.11	ug/L	102.12%
57) 1,2-Dichlorobenzene-d4	22.17	152	377524	5.27	ug/L	105.47%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.48	85	454768	8.59	ug/L	100
3) Chloromethane	3.89	50	436370	8.39	ug/L	97
4) Vinyl chloride	4.11	62	526351	9.52	ug/L	100
5) Bromomethane	4.79	94	346632	11.09	ug/L	96
6) Chloroethane	5.04	64	364082	10.84	ug/L	99
7) Trichlorofluoromethane	5.64	101	943265	9.71	ug/L	99
8) 1,1-Dichloroethene	6.76	96	598365	9.90	ug/L	95
9) Methylene chloride	7.76	84	524096	9.25	ug/L	95
10) trans-1,2-Dichloroethene	8.29	96	696270	10.10	ug/L	98
12) 1,1-Dichloroethane	9.08	63	1302738	10.16	ug/L	99
13) 2,2-Dichloropropane	10.14	77	951129	9.07	ug/L	98
14) cis-1,2-Dichloroethene	10.15	96	680168	10.39	ug/L	98
16) Bromochloromethane	10.57	128	263775	10.38	ug/L	97
17) Chloroform	10.71	83	1152833	10.18	ug/L	100
18) 1,1,1-Trichloroethane	11.02	97	1152279	10.00	ug/L	99
19) Carbon tetrachloride	11.32	117	1056508	10.14	ug/L	99
20) 1,1-Dichloropropene	11.31	75	1072549	10.01	ug/L	99
21) Benzene	11.66	78	2267277	10.26	ug/L	99
22) 1,2-Dichloroethane	11.69	62	446648	10.65	ug/L	100
23) Trichloroethene	12.77	95	914222	10.17	ug/L	99
24) 1,2-Dichloropropane	13.14	63	766848	10.44	ug/L	99
25) Dibromomethane	13.34	93	303491	10.44	ug/L	98
26) Bromodichloromethane	13.60	83	915060	10.41	ug/L	97
27) cis-1,3-Dichloropropene	14.35	75	831476	10.31	ug/L	100
28) Toluene	14.93	92	1595567	9.91	ug/L	99
29) trans-1,3-Dichloropropene	15.29	75	550786	10.34	ug/L	100
30) 1,1,2-Trichloroethane	15.61	83	301325	10.64	ug/L	97
31) Tetrachloroethene	15.88	166	1074633	10.17	ug/L	98
32) 1,3-Dichloropropane	15.90	76	583576	10.61	ug/L	100
33) Dibromochloromethane	16.30	129	590105	10.64	ug/L	97
34) 1,2-Dibromoethane	16.51	107	431194	10.73	ug/L	99
35) Chlorobenzene	17.35	112	1781113	10.47	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.50	131	778509	11.40	ug/L	97
37) Ethylbenzene	17.54	91	3222686	10.07	ug/L	100
38) Xylene (para & meta)	17.74	106	2410170	19.74	ug/L	98
39) Xylene (Ortho)	18.45	106	1102810	10.07	ug/L	97
40) Styrene	18.47	104	1585439	9.81	ug/L	100

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

Quantitation Report

145

Data File : d:\hpchem\1\data\c0708.d
Acq On : 26 Dec 95 11:58 pm
Sample : 9557856 MS
Misc : 25 ML
Quant Time: Dec 27 14:28 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 Dec 26 17:40:31 1995
Response via : Multiple Level Calibration

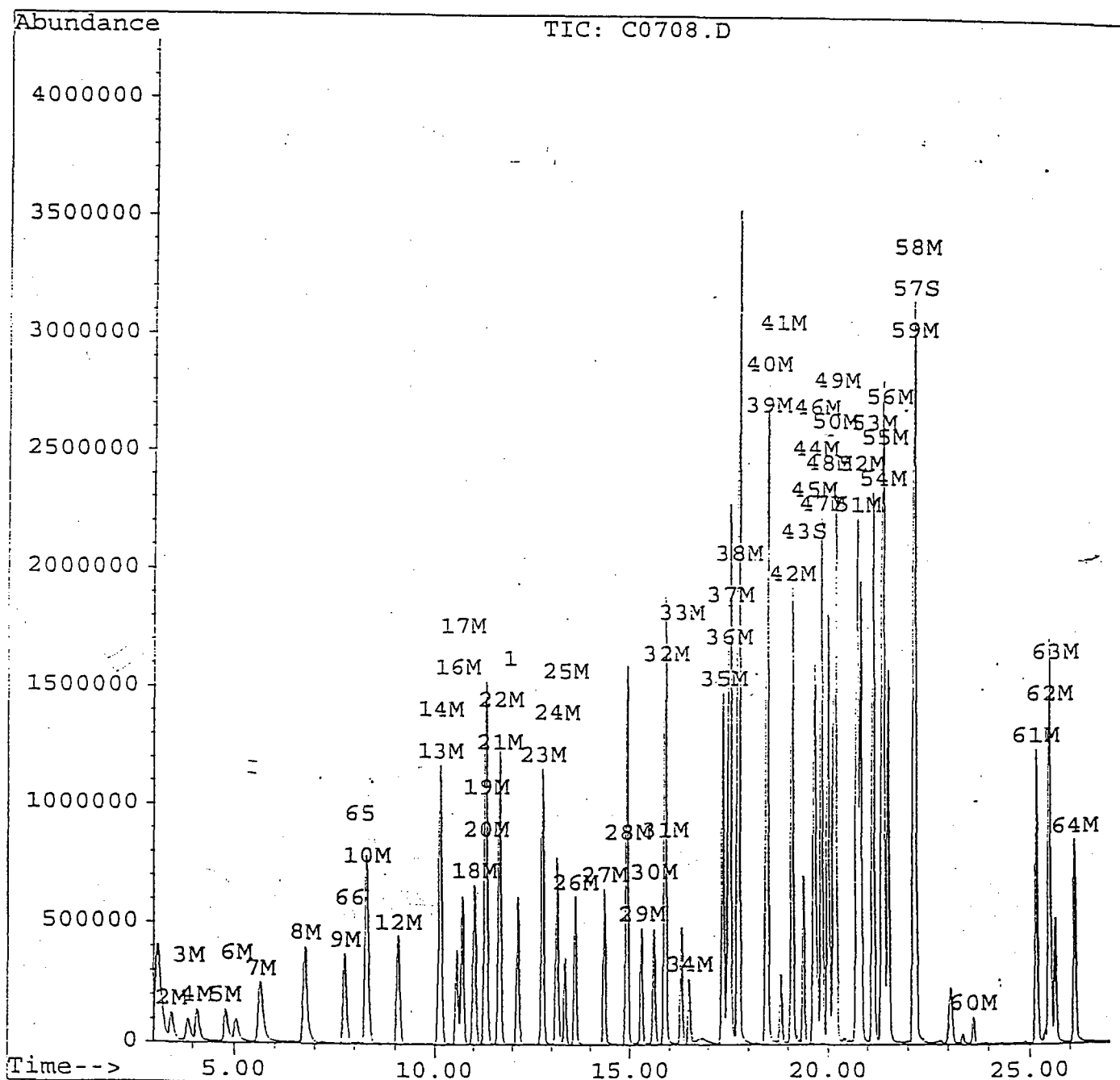
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.81	173	308571	10.01	ug/L	98
42) Isopropylbenzene	19.10	105	3153419	10.11	ug/L m	0
44) Bromobenzene	19.66	156	757517	10.62	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.62	83	387323	10.62	ug/L	98
46) 1,2,3-Trichloropropane	19.69	75	380382	10.92	ug/L #	39
47) n-Propylbenzene	19.83	91	4308873	9.99	ug/L	93
48) 2-Chlorotoluene	20.00	91	2358529	9.46	ug/L	92
49) 4-Chlorotoluene	20.19	91	2755759	10.32	ug/L	99
50) 1,3,5-Trimethylbenzene	20.15	105	2528574	9.58	ug/L	99
51) tert-Butylbenzene	20.75	119	3090275	11.12	ug/L	99
52) 1,2,4-Trimethylbenzene	20.83	105	2499382	9.75	ug/L	99
53) sec-Butylbenzene	21.14	105	4256632	10.18	ug/L	99
54) 1,3-Dichlorobenzene	21.37	146	1498472	10.50	ug/L	98
55) 4-Isopropyltoluene	21.41	119	3342037	10.14	ug/L	99
56) 1,4-Dichlorobenzene	21.52	146	1441758	10.44	ug/L	99
58) 1,2-Dichlorobenzene	22.21	146	1156268	10.65	ug/L	97
59) n-Butylbenzene	22.15	91	3476871	10.21	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.62	75	69586	10.13	ug/L	96
61) 1,2,4-Trichlorobenzene	25.17	180	908930	10.33	ug/L	100
62) Hexachlorobutadiene	25.49	225	816995	10.01	ug/L	96
63) Naphthalene	25.64	128	1023095	11.73	ug/L	100
64) 1,2,3-Trichlorobenzene	26.13	180	669440	10.47	ug/L	99
65) Methyl-tert butyl ether	8.33	73	703704	10.25	ug/L	96
66) tert-Butyl Alcohol	8.09	59	24056	23.20	ug/L	100

Quantitation Report

Data File : d:\hpchem\1\data\c0708.d
 Acq On : 26 Dec 95 11:58 pm
 Sample : 9557856 MS
 Misc : 25 ML
 Quant Time: Dec 27 14:28 1995

146
 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 Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration



Quantitation Report

147

Data File : d:\hpcchem\1\data\c0709.d
 Acq On : 27 Dec 95 12:32 am
 Sample : 9557856 MSD
 Misc : 25 ML
 Quant Time: Dec 27 14:31 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 Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.12	96	1165721	5.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.37	95	558836	5.08	ug/L	101.63%
57) 1,2-Dichlorobenzene-d4	22.17	152	336903	5.21	ug/L	104.15%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.43	85	398790	8.34	ug/L	99
3) Chloromethane	3.82	50	393812	8.38	ug/L	100
4) Vinyl chloride	4.06	62	461378	9.23	ug/L	99
5) Bromomethane	4.75	94	335508	11.87	ug/L	98
6) Chloroethane	5.00	64	318893	10.51	ug/L	99
7) Trichlorofluoromethane	5.59	101	849039	9.67	ug/L	98
8) 1,1-Dichloroethene	6.71	96	536093	9.81	ug/L	98
9) Methylene chloride	7.72	84	464154	9.07	ug/L	96
10) trans-1,2-Dichloroethene	8.27	96	628599	10.09	ug/L	98
12) 1,1-Dichloroethane	9.06	63	1169142	10.09	ug/L	98
13) 2,2-Dichloropropane	10.11	77	846833	8.93	ug/L	97
14) cis-1,2-Dichloroethene	10.13	96	615188	10.40	ug/L	95
16) Bromochloromethane	10.56	128	238044	10.37	ug/L	99
17) Chloroform	10.70	83	1038510	10.15	ug/L	100
18) 1,1,1-Trichloroethane	11.01	97	1034493	9.93	ug/L	99
19) Carbon tetrachloride	11.30	117	952154	10.11	ug/L	98
20) 1,1-Dichloropropene	11.30	75	944871	9.75	ug/L	100
21) Benzene	11.66	78	2041839	10.22	ug/L	98
22) 1,2-Dichloroethane	11.68	62	397980	10.50	ug/L	99
23) Trichloroethene	12.75	95	831010	10.23	ug/L	99
24) 1,2-Dichloropropane	13.12	63	688416	10.37	ug/L	100
25) Dibromomethane	13.33	93	269038	10.24	ug/L	96
26) Bromodichloromethane	13.60	83	820724	10.33	ug/L	100
27) cis-1,3-Dichloropropene	14.35	75	734963	10.08	ug/L	100
28) Toluene	14.92	92	1426913	9.81	ug/L	99
29) trans-1,3-Dichloropropene	15.28	75	483118	10.04	ug/L	100
30) 1,1,2-Trichloroethane	15.60	83	264644	10.34	ug/L	99
31) Tetrachloroethene	15.88	166	976963	10.23	ug/L	99
32) 1,3-Dichloropropene	15.89	76	513145	10.32	ug/L	99
33) Dibromochloromethane	16.30	129	521342	10.40	ug/L	97
34) 1,2-Dibromoethane	16.50	107	379373	10.45	ug/L	99
35) Chlorobenzene	17.35	112	1625906	10.57	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.49	131	653312	10.59	ug/L	99
37) Ethylbenzene	17.53	91	2874005	9.94	ug/L	99
38) Xylene (para & meta)	17.73	106	2025997	18.36	ug/L	99
39) Xylene (Ortho)	18.44	106	925083	9.35	ug/L	100
40) Styrene	18.46	104	1221539	8.36	ug/L m	98

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

Quantitation Report

Data File : d:\hpcchem\1\data\c0709.d
 Acq On : 27 Dec 95 12:32 am
 Sample : 9557856 MSD
 Misc : 25 ML
 Quant Time: Dec 27 14:31 1995

Vial: 15 **143**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue Dec 26 17:40:31 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.81	173	272756	9.79	ug/L	99
42) Isopropylbenzene	19.09	105	2834796	10.05	ug/L m	0
44) Bromobenzene	19.66	156	687913	10.67	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.62	83	341913	10.37	ug/L	99
46) 1,2,3-Trichloropropane	19.69	75	339785	10.79	ug/L #	55
47) n-Propylbenzene	19.84	91	3875450	9.94	ug/L	94
48) 2-Chlorotoluene	20.00	91	2181447	9.68	ug/L	90
49) 4-Chlorotoluene	20.20	91	2471632	10.24	ug/L	100
50) 1,3,5-Trimethylbenzene	20.15	105	2001607	8.39	ug/L m	98
51) tert-Butylbenzene	20.74	119	2766504	11.01	ug/L	98
52) 1,2,4-Trimethylbenzene	20.83	105	1874573	8.09	ug/L	98
53) sec-Butylbenzene	21.15	105	3846072	10.18	ug/L	99
54) 1,3-Dichlorobenzene	21.36	146	1366502	10.60	ug/L	98
55) 4-Isopropyltoluene	21.40	119	2875318	9.65	ug/L	100
56) 1,4-Dichlorobenzene	21.52	146	1357652	10.87	ug/L	99
58) 1,2-Dichlorobenzene	22.21	146	1041982	10.62	ug/L	97
59) n-Butylbenzene	22.16	91	3101072	10.08	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.62	75	61392	9.89	ug/L	88
61) 1,2,4-Trichlorobenzene	25.17	180	828685	10.42	ug/L	100
62) Hexachlorobutadiene	25.50	225	739015	10.02	ug/L	99
63) Naphthalene	25.64	128	914925	11.61	ug/L	100
64) 1,2,3-Trichlorobenzene	26.13	180	608513	10.53	ug/L	99
65) Methyl-tert butyl ether	8.31	73	615540	9.92	ug/L	100
66) tert-Butyl Alcohol	8.07	59	20790	22.19	ug/L	100

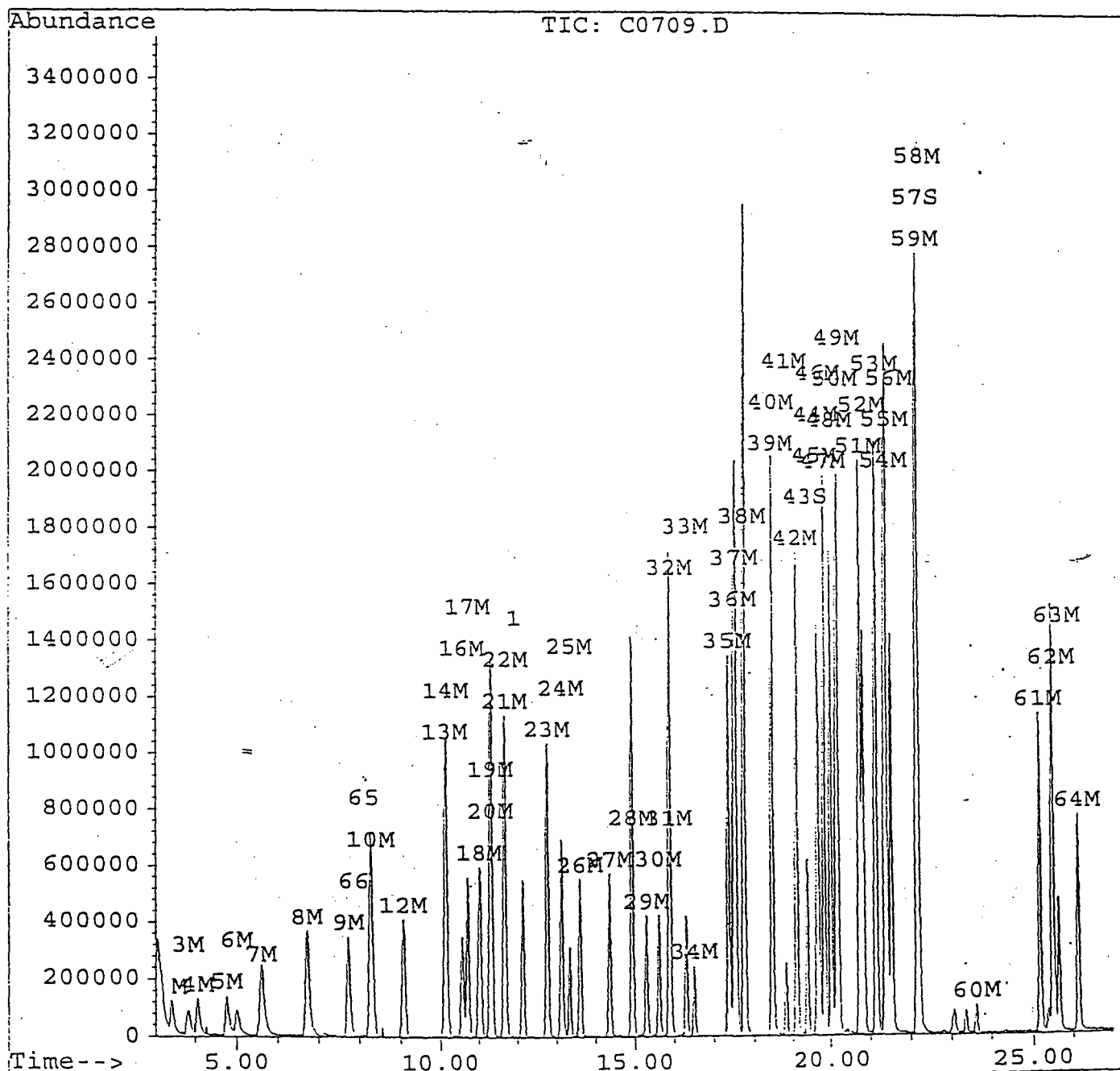
Quantitation Report

149

Data File : d:\hpchem\1\data\c0709.d
Acq On : 27 Dec 95 12:32 am
Sample : 9557856 MSD
Misc : 25 ML
Quant Time: Dec 27 14:31 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 Dec 26 17:40:31 1995
Response via : Multiple Level Calibration





GC/MS SEMIVOLATILE DATA PACKAGE

Lab Nam EMSL Analytical Contract: _____

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

Lab File ID: B89S1.D DFTPP Injection Date: 10/22/95

Instrument ID: ABNA DFTPP Injection Time: 1620

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	58.1
68	Less than 2.0% of mass 69	0.0
69	Mass 69 relative abundance	82.8
70	Less than 2.0% of mass 69	0.2
127	25.0 - 75.0% of mass 198	44.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	20.2
365	Greater than 0.75% of mass 198	2.5
441	Present, but less than mass 443	10.3
442	40.0 - 110.0% of mass 198	72.0
443	15.0 - 24.0% of mass 442	13.9

2-Value is 3 mass 442

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

[illegible]

Data File : C:\HPCHEM\1\DATA2\B8951.D

Vial: 1

Acq On : 22 Oct 95 4:20 pm

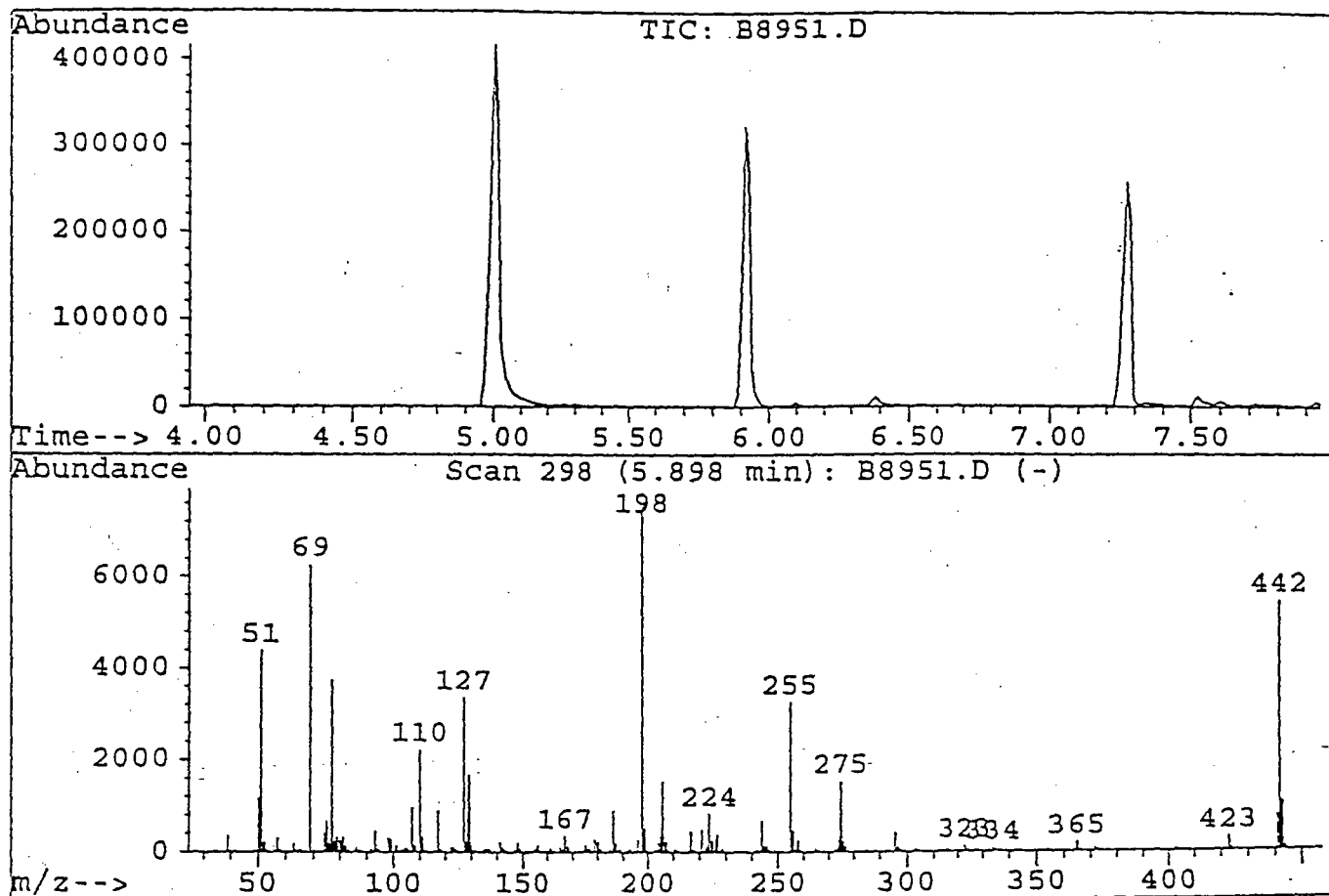
Operator: SCOTTV

Sample : DFTPP Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58.1	4393	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	82.8	6258	PASS
70	69	0	2	0.3	17	PASS
127	198	40	60	44.6	3367	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	7557	PASS
199	198	5	9	6.7	509	PASS
275	198	10	30	20.2	1529	PASS
365	198	1	100	2.5	192	PASS
441	443	0	100	74.6	781	PASS
442	198	40	100	72.0	5439	PASS
443	442	17	23	19.2	1047	PASS

Scan 293 (5.893 min): B8951.D

153

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
39.10	48	53.20	32	66.25	16	81.05	330
39.10	377	55.15	21	69.05	6258	82.05	125
40.05	27	56.05	141	70.00	17	83.10	43
41.10	10	57.15	307	73.05	24	85.15	33
44.05	7	58.05	32	74.10	427	86.05	107
45.60	11	59.95	22	75.05	682	87.05	21
47.80	16	61.05	55	76.05	197	91.15	87
49.10	37	61.95	44	77.05	3745	92.00	60
50.10	1180	63.05	185	78.10	240	93.00	454
51.10	4393	64.15	16	79.05	321	94.00	50
52.15	214	65.10	64	80.15	246	97.10	3

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
98.00	325	110.00	2222	122.95	109	137.05	74
99.00	281	111.00	317	124.10	52	140.95	229
100.10	5	112.00	46	125.05	31	141.95	94
100.95	139	113.10	20	127.00	3367	142.95	55
102.10	18	115.90	71	128.00	243	145.95	27
102.90	73	117.00	896	129.00	1693	147.00	82
104.00	105	117.90	36	129.90	141	148.00	203
105.00	92	118.10	58	130.95	51	148.95	66
105.90	39	119.00	20	134.00	53	151.05	39
107.00	988	120.00	31	134.95	101	151.85	31
108.00	125	122.00	109	136.05	69	152.05	32

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
152.95	60	165.05	106	176.90	82	187.90	28
154.05	51	166.05	68	177.80	28	188.85	72
154.95	105	166.90	354	178.10	24	191.10	44
156.05	158	167.95	121	178.90	282	192.00	61
156.85	36	169.10	30	180.00	203	193.00	102
157.95	40	170.10	16	181.00	77	194.00	21
158.95	24	171.90	35	183.10	15	195.10	31
159.25	25	173.00	24	183.90	27	195.95	283
159.95	67	173.95	67	184.90	108	197.90	7557
160.95	104	175.00	148	186.00	914	198.90	509
161.75	45	175.90	65	186.95	185	200.00	46

Scan 298 (5.898 min): B8951.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.60	61	215.95	46	231.05	30	246.80	43
202.90	37	216.80	458	233.85	24	248.80	25
203.95	217	217.95	63	234.85	34	254.85	3269
204.95	357	220.95	493	236.95	39	255.90	462
205.95	1535	222.90	129	238.85	14	256.90	41
206.95	222	223.90	845	240.80	39	257.90	257
207.85	61	224.95	251	242.00	53	258.90	35
210.00	28	226.05	23	243.00	42	264.80	100
210.65	74	226.90	375	243.90	676	265.60	2
211.15	58	227.85	48	244.90	125	271.10	17
214.95	32	228.85	86	245.90	118	272.90	118

Scan 293 (5.893 min): B3951.D

Modified:subtracted							
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.95	258	303.05	54	340.80	21	382.75	22
274.90	1529	314.00	18	351.85	43	389.90	20
275.90	208	314.80	56	352.85	33	401.90	34
276.80	117	315.80	36	353.85	41	402.80	36
277.65	28	321.00	19	354.65	19	420.80	38
284.25	14	322.85	124	364.75	192	421.80	40
284.55	12	323.80	30	365.65	20	422.75	303
285.05	41	326.80	31	370.75	21	423.85	52
292.75	37	332.00	18	371.85	86	440.80	781
295.80	403	333.80	79	372.75	20	441.85	5439
296.85	79	334.90	23	372.95	20	442.85	1047

Scan 298 (5.898 min): B8951.D

Modified:subtracted							
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.85	86						

Quantitation Report

155

Data File : C:\HPCHEM\1\DATA2\B8951.D

Acq On : 22 Oct 95 4:20 pm

Sample : DFTPP Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

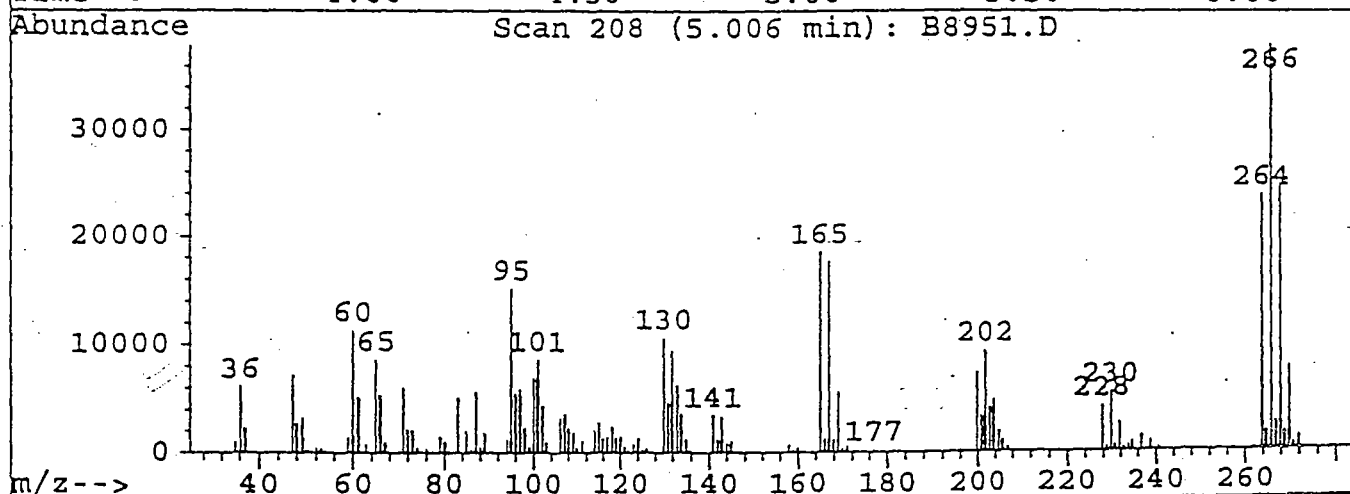
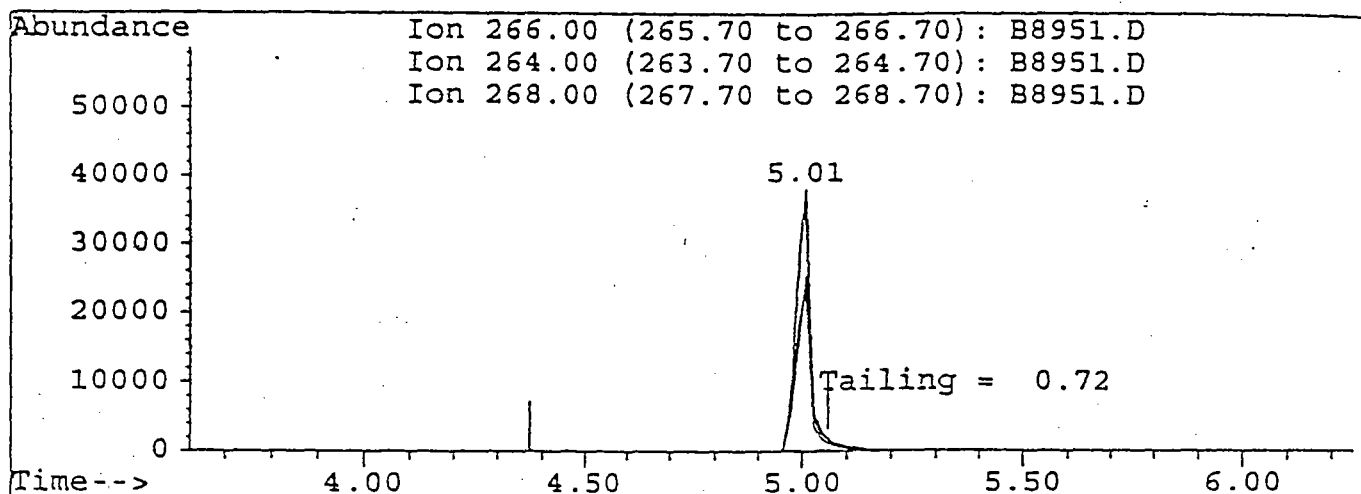
Quant Time: Oct 23 14:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



TIC: B8951.D

(1) Pentachlorophenol (CM)

5.01min 266.46ug/mL

response 88011

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	67.02
268.00	64.70	64.58
0.00	0.00	0.00

Quantitation Report

156

Data File : C:\HPCHEM\1\DATA2\B8951.D

Acq On : 22 Oct 95 4:20 pm

Sample : DFTPP Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

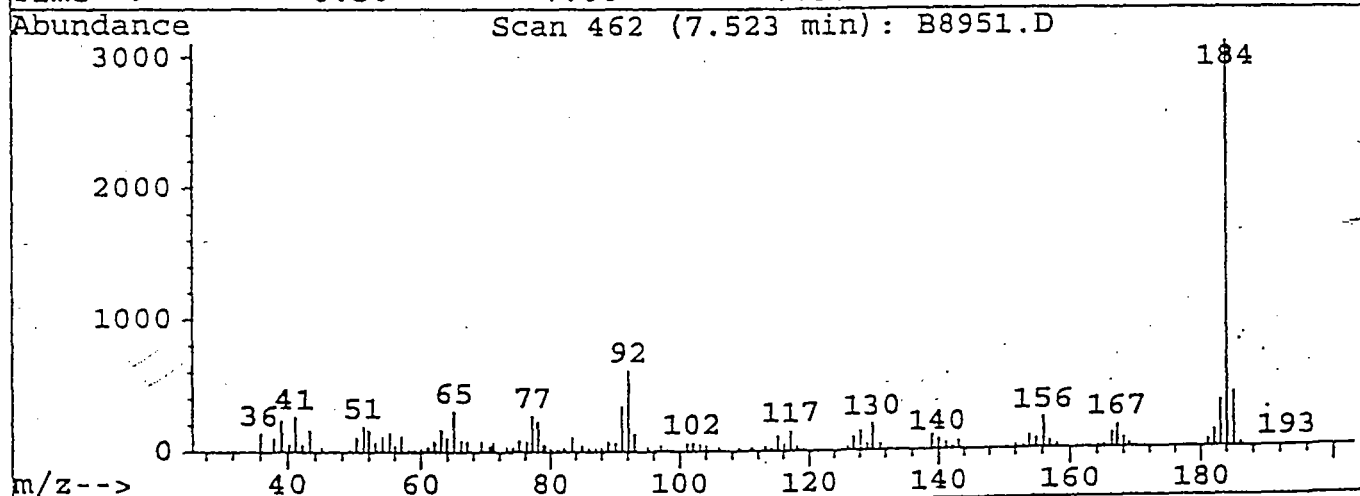
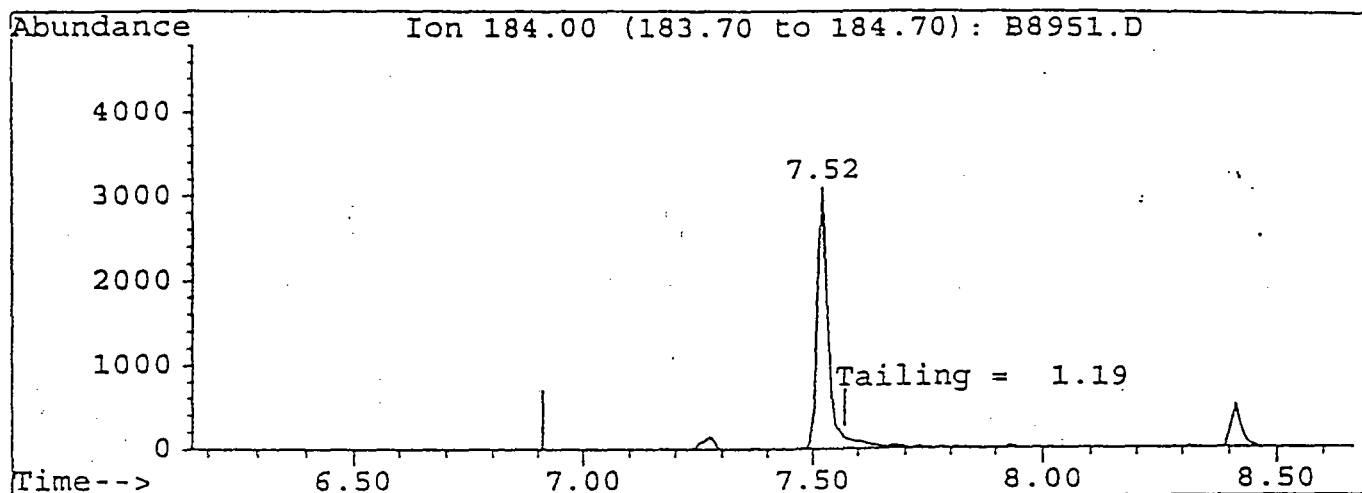
Quant Time: Oct 23 14:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



TIC: B8951.D

(2) Benzidine

7.52min 18.09ug/ml

response 5556

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

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Oct 25 10:15:01 1995
 Response via : Initial Calibration

Calibration Files

160 =B8956.D 120 =B8955.D 80 =B8954.D
 50 =B8953.D 20 =B8952.D

Compound		160	120	80	50	20	Avg	%RSD
-----		-----						
1) I	1,4-Dichlorobenzene-d	-----ISTD-----						
2) S	2-Fluorophenol	1.298	1.281	1.315	1.267	1.215	1.275	2.98
3) S	Phenol-d5	2.193	2.110	2.121	2.008	1.912	2.069	5.30
4) M	N-nitrosodimethylamin	0.949	0.938	0.778	0.886		0.887	8.80
5)	Pyridine	0.977	0.898	0.594	0.908	0.596	0.795	23.24
6) CM	Phenol	2.058	1.866	1.941	1.876	1.963	1.941	4.00
7) MT	bis(2-Chloroethyl)eth	2.339	2.271	2.478	2.298	2.478	2.373	4.17
8) M	2-Chlorophenol	1.340	1.326	1.370	1.335	1.293	1.333	2.08
9) MT	1,3-Dichlorobenzene	1.333	1.349	1.417	1.396	1.341	1.367	2.72
10) CM	1,4-Dichlorobenzene	1.341	1.339	1.435	1.444	1.359	1.383	3.74
11) M	1,2-Dichlorobenzene	1.327	1.309	1.391	1.387	1.322	1.347	2.88
12) T	2-Methylphenol	1.282	1.266	1.246	1.281	1.320	1.279	2.15
13) M	bis(2-chloroisopropyl	3.117	2.080	2.102	1.860	2.012	2.234	22.50
14) T	4-Methylphenol	1.346	1.396	1.393	1.481	1.395	1.402	3.48
15) PM	N-Nitroso-Di-n-propyl	1.635	1.504	1.491	1.495	1.515	1.528	3.97
16) M	Hexachloroethane	0.866	0.842	0.908	0.877	0.847	0.868	3.04
-----		-----						
17) I	Naphthalene-d8	-----ISTD-----						
18) S	Nitrobenzene-d5	0.536	0.548	0.540	0.529	0.557	0.542	2.00
19) M	Nitrobenzene	0.665	0.462	0.486	0.489	0.494	0.519	15.90
20) M	Isophorone	1.023	1.026	1.061	1.021	1.376	1.101	13.99
21) MC	2-Nitrophenol	0.233	0.242	0.253	0.246	0.223	0.239	4.94
22) M	2,4-Dimethylphenol	0.406	0.400	0.396	0.376	0.355	0.387	5.48
23) M	bis(2-Chloroethoxy)me	0.594	0.586	0.623	0.583	0.629	0.603	3.57
24) MC	2,4-Dichlorophenol	0.301	0.295	0.305	0.294	0.281	0.295	3.20
25) M	1,2,4-Trichlorobenzen	0.299	0.303	0.314	0.309	0.297	0.304	2.24
26) M	Naphthalene	0.999	1.022	0.994	1.016	0.985	1.003	1.53
27) T	4-Chloroaniline	0.476	0.462	0.491	0.449	0.476	0.470	3.41
28) MC	Hexachlorobutadiene	0.155	0.162	0.164	0.161	0.155	0.160	2.53
29) MC	4-Chloro-3-methylphen	0.402	0.386	0.385	0.392	0.376	0.388	2.50
30) M	2-Chloronaphthalene	0.643	0.619	0.649	0.634	0.627	0.634	1.88
31) T	2-Methylnaphthalene	0.823	0.860	0.870	0.905	0.890	0.870	3.60
-----		-----						
32) I	Acenaphthene-d10	-----ISTD-----						
33) P	Hexachlorocyclopentad	0.305	0.321	0.324	0.243	0.254	0.289	13.21
34) MC	2,4,6-Trichlorophenol	0.491	0.481	0.415	0.404	0.339	0.426	14.61
35) T	2,4,5-Trichlorophenol	0.271	0.293	0.373	0.403	0.396	0.347	17.62
36) S	2-Fluorobiphenyl	1.238	1.248	1.189	1.241	1.184	1.220	2.53
37) T	2-Nitroaniline	0.841	0.736	0.817	0.751	0.769	0.783	5.72
38) M	Dimethylphthalate	1.333	1.293	1.362	1.377	1.474	1.368	4.92
39) M	Acenaphthylene	1.777	1.826	1.858	1.846	1.697	1.801	3.66
40) M	2,6-Dinitrotoluene	0.243	0.258	0.320	0.377	0.339	0.308	18.23
41) T	3-Nitroaniline	0.298	0.316	0.358	0.366	0.372	0.342	9.62

Response Factor Report ABNA

158

Method : C:\HPCHEM\1\METHODS\SNACLP.M
 Title : CLP BNA Calibration
 Last Update : Wed Oct 25 10:15:01 1995
 Response via : Initial Calibration

Calibration Files

160 =B8956.D 120 =B8955.D 80 =B8954.D
 50 =B8953.D 20 =B8952.D

	Compound	160	120	80	50	20	Avg	%RSD
42)	CM Acenaphthene	0.987	1.017	1.050	1.041	1.005	1.020	2.52
43)	MP 2,4-Dinitrophenol	0.242	0.217	0.207	0.173		0.210	13.59
44)	PM 4-Nitrophenol	0.243	0.224	0.225	0.220		0.228	4.42
45)	T Dibenzofuran	1.535	1.581	1.527	1.568	1.461	1.534	3.05
46)	M 2,4-Dinitrotoluene	0.350	0.503	0.509	0.467	0.434	0.452	14.36
47)	M Diethylphthalate	1.464	1.545	1.538	1.580	1.653	1.556	4.40
48)	M Fluorene	1.177	1.197	1.128	1.203	1.132	1.167	3.03
49)	M 4-Chlorophenyl-phenyl	0.476	0.512	0.504	0.514	0.538	0.509	4.32
50)	Phenanthrene-d10	-----ISTD-----						
51)	T 4-Nitroaniline	0.201	0.219	0.237	0.246	0.248	0.230	8.80
52)	MC 4,6-Dinitro-2-methylp	0.143	0.147	0.146	0.157		0.148	4.25
53)	T n-Nitrosodiphenylamin	0.502	0.521	0.559	0.565	0.566	0.543	5.37
54)	S 2,4,6-Tribromophenol	0.137	0.130	0.130	0.122	0.114	0.127	6.88
55)	1,2-Diphenylhydrazine	1.727	1.765	1.839	1.876	1.714	1.784	3.97
56)	M 4-Bromophenyl-phenyle	0.170	0.189	0.192	0.186	0.198	0.187	5.57
57)	M Hexachlorobenzene	0.234	0.240	0.250	0.239	0.223	0.237	4.16
58)	CM Pentachlorophenol	0.176	0.169	0.159	0.146		0.163	7.89
59)	M Phenanthrene	1.052	1.101	1.091	1.128	1.062	1.087	2.81
60)	M Anthracene	1.028	1.059	1.084	1.099	1.067	1.068	2.50
61)	Carbazole	1.073	1.102	1.155	1.045	0.948	1.065	7.19
62)	M Di-n-butylphthalate	1.934	2.050	1.972	2.064	2.036	2.011	2.76
63)	MC Fluoranthene	1.064	1.116	1.124	1.122	1.034	1.092	3.74
64)	I Chrysene-d12	-----ISTD-----						
65)	Benzidine	0.292	0.287	0.271	0.235	0.282	0.274	8.41
66)	M Pyrene	1.738	1.691	1.628	1.557	1.388	1.600	8.56
67)	S Terphenyl-d14	1.136	1.078	0.983	0.913	0.857	0.994	11.56
68)	M Butylbenzylphthalate	1.325	1.272	1.223	1.223	1.183	1.245	4.39
69)	M Benzo[a]anthracene	1.452	1.523	1.454	1.486	1.231	1.429	8.01
70)	M 3,3'-Dichlorobenzidin	0.363	0.382	0.412	0.399	0.375	0.386	5.04
71)	M Chrysene	0.772	0.885	0.894	0.868	0.865	0.857	5.70
72)	M bis(2-Ethylhexyl)phth	1.753	1.891	1.767	1.774	1.738	1.785	3.42
73)	I Perylene-d12	-----ISTD-----						
74)	MC Di-n-octylphthalate	5.446	5.792	5.574	5.955		5.692	3.97
75)	M Benzo[b]fluoranthene	1.854	2.099	1.614	2.424	1.772	1.952	16.21
76)	m Benzo[k]fluoranthene	1.092	1.112	1.104	1.200	1.303	1.162	7.73
77)	mc Benzo[a]pyrene	1.053	1.059	1.082	1.079	1.132	1.081	2.85
78)	m Indeno[1,2,3-cd]pyren	0.593	0.636	0.621	0.586	0.371	0.561	19.33
79)	m Dibenz[a,h]anthracene	0.600	0.602	0.587	0.572	0.382	0.549	17.12
80)	M Benzo[g,h,i]perylene	0.552	0.576	0.573	0.534	0.312	0.510	21.93
81)	1-Methyl naphthalene						0.000#	-1.00
82)	7,12-Dimethylbenz(a)a						0.000#	-1.00

Response Factor Report ASNA

153

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:15:01 1995
Response via : Initial Calibration

Calibration Files

160 =B8956.D 120 =B8955.D 80 =B8954.D
50 =B8953.D 20 =B8952.D

	Compound	160	120	80	50	20	Avg	%RSD
83)	Quinoline						0.000#	-1.00
84)	Thiophenol						0.000#	-1.00
85)	4-Methyl chrysene						0.000#	-1.00
86)	Dibenz(a,j)acridine						0.000#	-1.00
87)	Indene						0.000#	-1.00
88)	Benzyl alcohol						0.000#	-1.00
89)	Benzoic acid						0.000#	-1.00

Quantitation Report

160

Data File : c:\hpcchem\1\data2\b8952.d

Acq On : 22 Oct 95 4:58 pm

Sample : 20 STD..... Converted from RTE d

Misc : BT Multiplr: 1.00

Quant Time: Oct 25 9:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	29442	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.41	136	115955	40.00	ug/mL	-0.35
32) Acenaphthene-d10	17.73	164	69183	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.20	188	103757	40.00	ug/mL	-0.38
64) Chrysene-d12	30.29	240	75851	40.00	ug/mL	-0.40
73) Perylene-d12	34.27	264	29259	40.00	ug/mL	-0.43
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	44724	46.49	ug/mL	46.49%
3) Phenol-d5	8.08	99	70383	45.87	ug/mL	45.87%
18) Nitrobenzene-d5	10.37	82	80764	52.70	ug/mL	52.70%
36) 2-Fluorobiphenyl	15.88	172	102384	48.24	ug/mL	48.24%
54) 2,4,6-Tribromophenol	20.14	330	14825	53.50	ug/mL	53.50%
67) Terphenyl-d14	27.36	244	81257	33.34	ug/mL	33.34%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	15448	25.20	ug/mL	100
6) Phenol	8.11	94	28900	20.59	ug/mL	100
7) bis(2-Chloroethyl) ether	12.10	93	36472	22.04	ug/mL	94
8) 2-Chlorophenol	8.09	128	19030	19.10	ug/mL#	81
9) 1,3-Dichlorobenzene	8.48	146	19737	19.33	ug/mL	96
10) 1,4-Dichlorobenzene	8.73	146	20003	19.12	ug/mL	96
11) 1,2-Dichlorobenzene	9.12	146	19457	19.34	ug/mL	97
12) 2-Methylphenol	9.81	108	19438	21.22	ug/mLm	100
13) bis(2-chloroisopropyl) ethe	9.79	45	29616	23.05	ug/mL#	40
14) 4-Methylphenol	10.31	108	20537	20.05	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.18	70	22300	21.23	ug/mL	94
16) Hexachloroethane	10.08	117	12474	20.33	ug/mL#	63
19) Nitrobenzene	10.43	77	28618	20.36	ug/mL	93
20) Isophorone	10.37	82	79753	25.72	ug/mL#	67
21) 2-Nitrophenol	11.37	139	12913	20.42	ug/mL#	86
22) 2,4-Dimethylphenol	11.83	107	20567	18.72	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.10	93	36472	21.56	ug/mL#	100
24) 2,4-Dichlorophenol	12.16	162	16269	19.83	ug/mL#	93
25) 1,2,4-Trichlorobenzene	12.32	180	17221	20.08	ug/mL	95
26) Naphthalene	12.47	128	57119	19.89	ug/mL	100
27) 4-Chloroaniline	12.84	127	27603	20.47	ug/mL	99
28) Hexachlorobutadiene	12.99	225	9013	20.60	ug/mL	95
29) 4-Chloro-3-methylphenol	14.57	107	21812	20.86	ug/mL	96
30) 2-Chloronaphthalene	16.05	162	36338	21.53	ug/mL#	100
31) 2-Methylnaphthalene	14.61	142	51624	30.41	ug/mL	95
33) Hexachlorocyclopentadiene	15.13	237	8772	19.27	ug/mL#	90
34) 2,4,6-Trichlorophenol	15.59	196	11710	15.31	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	13699	21.15	ug/mL	97

Quantitation Report

161

Data File : c:\hpcchem\1\data2\b8952.d Vial: 2
 Acq On : 22 Oct 95 4:58 pm Operator: SCOTTV
 Sample : 20 STD..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00
 Quant Time: Oct 25 9:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.83	65	26617	23.54	ug/mL	72
38) Dimethylphthalate	17.31	163	50983	22.95	ug/mL#	13
39) Acenaphthylene	17.25	152	58691	19.03	ug/mL	98
40) 2,6-Dinitrotoluene	17.40	165	11726	19.95	ug/mL#	87
41) 3-Nitroaniline	19.68	138	12871	24.57	ug/mL#	87
42) Acenaphthene	17.81	153	34778	18.65	ug/mL	99
43) 2,4-Dinitrophenol	18.15	184	4144	18.76	ug/mL#	66
44) 4-Nitrophenol	18.65	109	6336	21.77	ug/mL#	57
45) Dibenzofuran	18.37	168	50539	19.77	ug/mL#	88
46) 2,4-Dinitrotoluene	18.56	165	15019	23.85	ug/mL#	1
47) Diethylphthalate	19.54	149	57169	23.32	ug/mL	95
48) Fluorene	19.39	166	39160	19.64	ug/mL	99
49) 4-Chlorophenyl-phenylether	19.60	204	18593	20.88	ug/mL	90
51) 4-Nitroaniline	19.68	138	12871	21.96	ug/mL	87
52) 4,6-Dinitro-2-methylphenol	19.77	198	6716	20.84	ug/mL	100
53) n-Nitrosodiphenylamine	20.02	169	29360	21.36	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.08	77	88943	17.28	ug/mL	100
56) 4-Bromophenyl-phenylether	21.06	248	10252	18.11	ug/mL#	76
57) Hexachlorobenzene	21.01	284	11578	18.19	ug/mL#	52
58) Pentachlorophenol	21.74	266	5478	14.77	ug/mL	99
59) Phenanthrene	22.28	178	55118	18.45	ug/mL	100
60) Anthracene	22.41	178	55350	19.28	ug/mLm	100
61) Carbazole	23.07	167	49203	17.84	ug/mL	97
62) Di-n-butylphthalate	24.61	149	105600	19.26	ug/mL	99
63) Fluoranthene	25.88	202	53632	19.37	ug/mL#	58
65) Benzidine	26.57	184	10709	16.44	ug/mL	100
66) Pyrene	26.50	202	52626	12.69	ug/mL#	75
68) Butylbenzylphthalate	29.14	149	44863	17.91	ug/mL#	9
69) Benzo[a]anthracene	30.26	228	46690	19.16	ug/mL	100
70) 3,3'-Dichlorobenzidine	30.43	252	14204	27.28	ug/mL#	88
71) Chrysene	30.35	228	32814	17.31	ug/mLm	100
72) bis(2-Ethylhexyl)phthalate	31.12	149	65904	18.81	ug/mL#	35
74) Di-n-octylphthalate	33.03	149	94455	16.40	ug/mL#	100
75) Benzo[b]fluoranthene	33.30	252	25924	16.54	ug/mL#	85
76) Benzo[k]fluoranthene	33.38	252	19069	16.16	ug/mLm	85
77) Benzo[a]pyrene	34.11	252	16555	19.26	ug/mLm	85
78) Indeno[1,2,3-cd]pyrene	36.79	276	5424	14.32	ug/mL#	23
79) Dibenz[a,h]anthracene	36.91	278	5588	18.32	ug/mL#	74
80) Benzo[g,h,i]perylene	37.31	276	4565	14.10	ug/mLm	59

Quantitation Report

162

Data File : c:\hpcchem\1\data2\b8952.d

Acq On : 22 Oct 95 4:58 pm

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

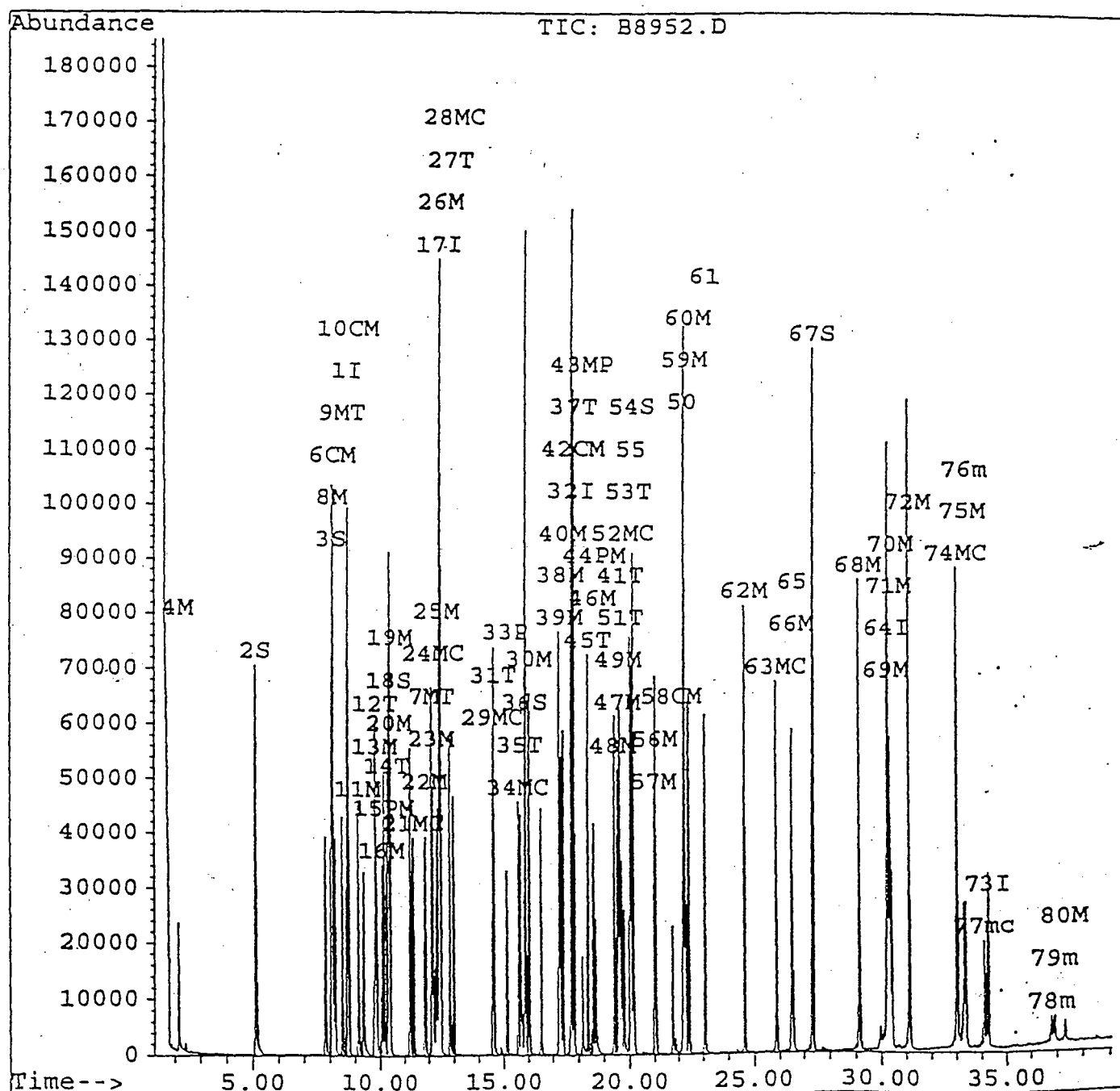
Quant Time: Oct 25 9:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



Quantitation Report

163

Data File : c:\hpcchem\1\data2\b8953.d

Acq On : 22 Oct 95 5:49 pm

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: Oct 25 9:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	30029	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	118447	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.73	164	66652	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.23	188	99018	40.00	ug/mL	-0.35
64) Chrysene-d12	30.29	240	71387	40.00	ug/mL	-0.41
73) Perylene-d12	34.24	264	29156	40.00	ug/mL	-0.45
System Monitoring Compounds				%Recovery		
2) 2-Fluorophenol	5.11	112	47542	48.46	ug/mL	48.46%
3) Phenol-d5	8.09	99	75366	48.16	ug/mL	48.16%
18) Nitrobenzene-d5	10.39	82	78309	50.02	ug/mL	50.02%
36) 2-Fluorobiphenyl	15.90	172	103420	50.58	ug/mL	50.58%
54) 2,4,6-Tribromophenol	20.17	330	15101	57.11	ug/mL	57.11%
67) Terphenyl-d14	27.36	244	81512	35.53	ug/mL	35.53%
Target Compounds				Qvalue		
4) N-nitrosodimethylamine	2.14	74	33256	53.18	ug/mL	100
6) Phenol	8.13	94	70425	49.19	ug/mL	100
7) bis(2-Chloroethyl) ether	12.12	93	86266	51.11	ug/mL	97
8) 2-Chlorophenol	8.11	128	50107	49.31	ug/mL#	79
9) 1,3-Dichlorobenzene	8.48	146	52404	50.32	ug/mL	98
10) 1,4-Dichlorobenzene	8.75	146	54194	50.78	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	52073	50.76	ug/mL	96
12) 2-Methylphenol	9.83	108	48095	51.48	ug/mLm	99
13) bis(2-chloroisopropyl) ethe	9.77	45	69800	53.26	ug/mL	98
14) 4-Methylphenol	10.35	108	55590	53.22	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.22	70	56128	52.39	ug/mL#	95
16) Hexachloroethane	10.08	117	32913	52.60	ug/mL#	72
19) Nitrobenzene	10.45	77	72432	50.46	ug/mL	88
20) Isophorone	11.28	82	151156	47.73	ug/mL	94
21) 2-Nitrophenol	11.39	139	36365	56.30	ug/mL#	87
22) 2,4-Dimethylphenol	11.87	107	55686	49.62	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.12	93	86266	49.92	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	43494	51.90	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.32	180	45688	52.14	ug/mL	95
26) Naphthalene	12.49	128	150500	51.30	ug/mL	98
27) 4-Chloroaniline	12.86	127	66405	48.20	ug/mL	99
28) Hexachlorobutadiene	12.99	225	23776	53.19	ug/mL	97
29) 4-Chloro-3-methylphenol	14.57	107	58006	54.32	ug/mL	87
30) 2-Chloronaphthalene	16.06	162	93821	54.43	ug/mL#	100
31) 2-Methylnaphthalene	14.63	142	133962	77.26	ug/mL	96
33) Hexachlorocyclopentadiene	15.13	237	20265	46.21	ug/mL	98
34) 2,4,6-Trichlorophenol	15.61	196	33685	45.73	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	33610	53.87	ug/mL	96

Quantitation Report

164

Data File : c:\hpcchem\1\data2\b8953.d Vial: 3
 Acq On : 22 Oct 95 5:49 pm Operator: SCOTTV
 Sample : 50 STD..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00
 Quant Time: Oct 25 9:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration

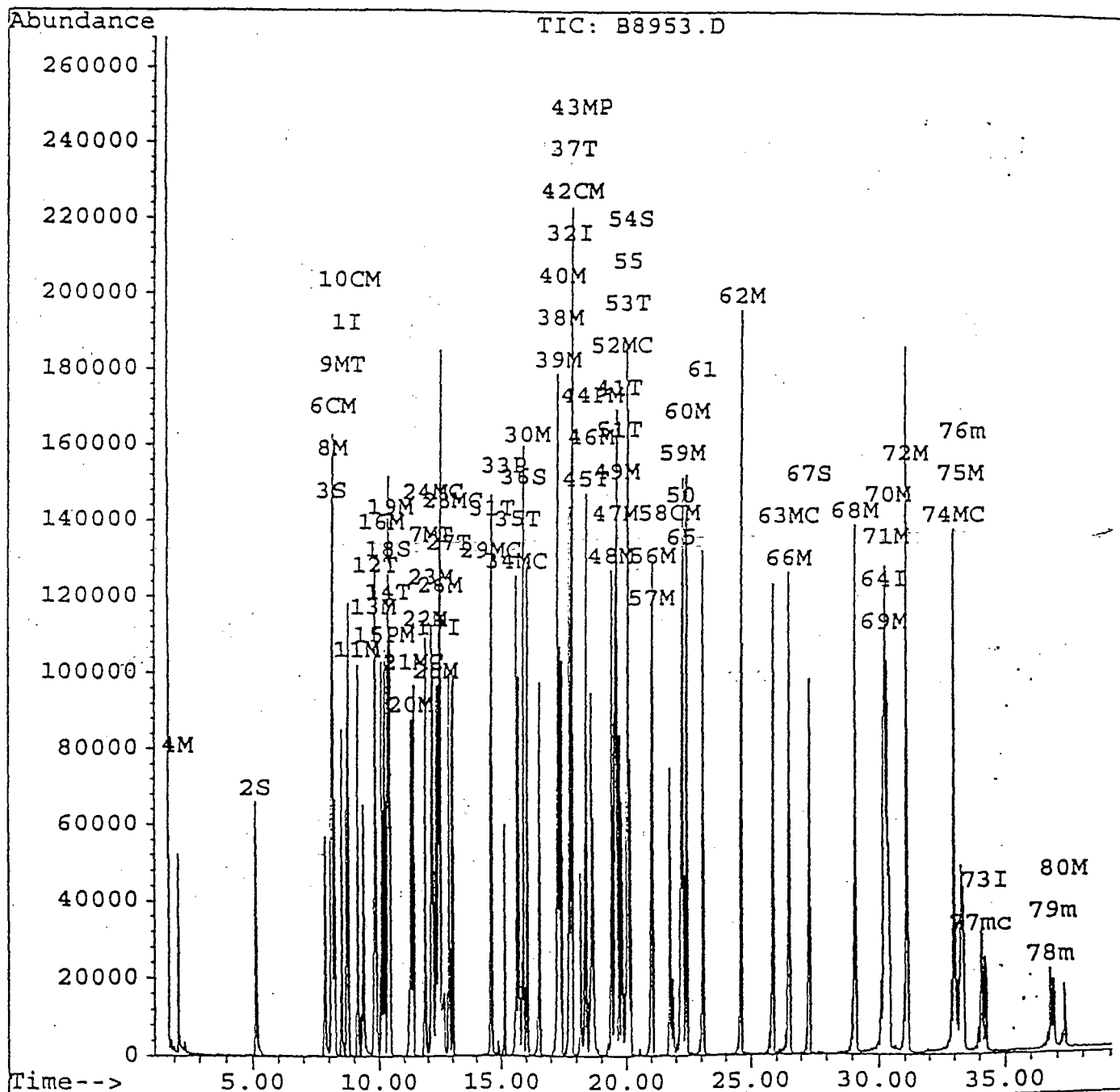
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.85	65	62561	57.42	ug/mL	88
38) Dimethylphthalate	17.35	163	114727	53.61	ug/mL#	12
39) Acenaphthylene	17.27	152	153827	51.77	ug/mL	98
40) 2,6-Dinitrotoluene	17.43	165	31425	55.50	ug/mL#	99
41) 3-Nitroaniline	19.74	138	30489	60.41	ug/mL#	88
42) Acenaphthene	17.83	153	86706	48.26	ug/mL	98
43) 2,4-Dinitrophenol	18.18	184	14425	67.78	ug/mL#	82
44) 4-Nitrophenol	18.66	109	18330	65.38	ug/mL#	60
45) Dibenzofuran	18.39	168	130635	53.03	ug/mL#	88
46) 2,4-Dinitrotoluene	18.60	165	38874	64.08	ug/mL#	1
47) Diethylphthalate	19.57	149	131625	55.73	ug/mL	94
48) Fluorene	19.41	166	100228	52.18	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.62	204	42840	49.93	ug/mL#	83
51) 4-Nitroaniline	19.74	138	30489	54.51	ug/mL	88
52) 4,6-Dinitro-2-methylphenol	19.82	198	19462	63.27	ug/mL	100
53) n-Nitrosodiphenylamine	20.05	169	69895	53.29	ug/mL	94
55) 1,2-Diphenylhydrazine (as	20.09	77	232246	47.27	ug/ml	100
56) 4-Bromophenyl-phenylether	21.07	248	23079	42.71	ug/mL#	91
57) Hexachlorobenzene	21.03	284	29529	48.61	ug/mL#	45
58) Pentachlorophenol	21.77	266	18120	51.19	ug/mL	99
59) Phenanthrene	22.29	178	139586	48.95	ug/mL	99
60) Anthracene	22.44	178	136009	49.65	ug/mLm	99
61) Carbazole	23.10	167	129337	49.15	ug/ml	97
62) Di-n-butylphthalate	24.64	149	255450	48.81	ug/mL#	97
63) Fluoranthene	26.53	202	138921	52.58	ug/mL#	56
65) Benzidine	22.23	184	20957	34.19	ug/mlm	100
66) Pyrene	26.53	202	138921	35.60	ug/mL#	69
68) Butylbenzylphthalate	29.15	149	109116	46.28	ug/mL#	9
69) Benzo[a]anthracene	30.27	228	132632	57.82	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.42	252	35599	72.64	ug/mL#	92
71) Chrysene	30.36	228	77428	43.39	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.14	149	158269	47.99	ug/mL#	37
74) Di-n-octylphthalate	33.04	149	217022	37.81	ug/mL#	100
75) Benzo[b]fluoranthene	33.31	252	88341	56.55	ug/mLm	86
76) Benzo[k]fluoranthene	33.39	252	43746	37.21	ug/mLm	86
77) Benzo[a]pyrene	34.09	252	39340	45.93	ug/mLm	86
78) Indeno[1,2,3-cd]pyrene	36.76	276	21346	56.57	ug/mL#	25
79) Dibenz[a,h]anthracene	36.88	278	20854	68.60	ug/mL#	76
80) Benzo[g,h,i]perylene	37.30	276	19464	60.33	ug/mLm	60

Quantitation Report

165

Data File : c:\hpcchem\1\data2\b8953.d Vial: 3
 Acq On : 22 Oct 95 5:49 pm Operator: SCOTTV
 Sample : 50 STD..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00
 Quant Time: Oct 25 9:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration



Quantitation Report

166

Data File : c:\hpcchem\1\data2\b8954.d
 Acq On : 22 Oct 95 6:42 pm
 Sample : 80 STD..... Converted from RTE d Inst : ABNA
 Misc :
 Quant Time: Oct 25 9:48 1995
 Vial: 4
 Operator: SCOTTV
 BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Thu Sep 21 12:47:27 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	27758	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	110409	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.74	164	64239	40.00	ug/mL	-0.34
50) Phenanthrene-d10	22.23	188	96790	40.00	ug/mL	-0.34
64) Chrysene-d12	30.31	240	65927	40.00	ug/mL	-0.38
73) Perylene-d12	34.25	264	27421	40.00	ug/mL	-0.45

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	45615	50.30	ug/mL	50.30%
3) Phenol-d5	8.11	99	73604	50.88	ug/mL	50.88%
18) Nitrobenzene-d5	10.41	82	74558	51.09	ug/mL	51.09%
36) 2-Fluorobiphenyl	15.90	172	95476	48.45	ug/mL	48.45%
54) 2,4,6-Tribromophenol	20.19	330	15745	60.91	ug/mL	60.91%
67) Terphenyl-d14	27.36	244	80989	38.23	ug/mL	38.23%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	43170	74.69	ug/mL	100
6) Phenol	8.15	94	107752	81.42	ug/mL	100
7) bis(2-Chloroethyl) ether	12.14	93	137545	88.16	ug/mL	93
8) 2-Chlorophenol	8.11	128	76031	80.94	ug/mL#	84
9) 1,3-Dichlorobenzene	8.50	146	78669	81.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.75	146	79665	80.76	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	77232	81.44	ug/mL	97
12) 2-Methylphenol	9.85	108	69148	80.08	ug/mLm	99
13) bis(2-chloroisopropyl) ethe	9.81	45	116703	96.34	ug/mL#	59
14) 4-Methylphenol	10.37	108	77308	80.07	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.24	70	82768	83.57	ug/mL	93
16) Hexachloroethane	10.08	117	50425	87.18	ug/mL#	78
19) Nitrobenzene	10.47	77	107228	80.13	ug/mL	91
20) Isophorone	11.31	82	234237	79.35	ug/mL	95
21) 2-Nitrophenol	11.39	139	55945	92.92	ug/mL#	92
22) 2,4-Dimethylphenol	11.89	107	87491	83.64	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.14	93	137545	85.38	ug/mL#	100
24) 2,4-Dichlorophenol	12.20	162	67435	86.32	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.34	180	69245	84.78	ug/mL	94
26) Naphthalene	12.49	128	219568	80.29	ug/mL	100
27) 4-Chloroaniline	12.88	127	108351	84.37	ug/mL	100
28) Hexachlorobutadiene	13.01	225	36309	87.14	ug/mL	100
29) 4-Chloro-3-methylphenol	14.59	107	85056	85.45	ug/mL#	77
30) 2-Chloronaphthalene	16.08	162	143223	89.13	ug/mL#	100
31) 2-Methylnaphthalene	14.63	142	192207	118.92	ug/mL	96
33) Hexachlorocyclopentadiene	15.15	237	41659	98.56	ug/mL	98
34) 2,4,6-Trichlorophenol	15.63	196	53315	75.09	ug/mL	96
35) 2,4,5-Trichlorophenol	15.71	196	47946	79.73	ug/mL	97

Quantitation Report

167

Data File : c:\hpcchem\1\data2\b8954.d

Acq On : 22 Oct 95 6:42 pm

Sample : 80 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 9:48 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.87	65	104963	99.96	ug/mL	87
38) Dimethylphthalate	17.37	163	175032	84.87	ug/mL#	12
39) Acenaphthylene	17.29	152	238659	83.33	ug/mL	97
40) 2,6-Dinitrotoluene	17.47	165	41143	75.39	ug/mL#	91
41) 3-Nitroaniline	19.76	138	45967	94.49	ug/mL	87
42) Acenaphthene	17.85	153	134868	77.88	ug/mL	99
43) 2,4-Dinitrophenol	18.20	184	26551	129.44	ug/mL#	84
44) 4-Nitrophenol	18.70	109	28923	107.04	ug/mL#	53
45) Dibenzofuran	18.39	168	196167	82.63	ug/mL	93
46) 2,4-Dinitrotoluene	18.62	165	65450	111.94	ug/mL#	1
47) Diethylphthalate	19.59	149	197611	86.81	ug/mL	95
48) Fluorene	19.43	166	144915	78.28	ug/mL	100
49) 4-Chlorophenyl-phenylether	19.63	204	64693	78.23	ug/mL#	85
51) 4-Nitroaniline	19.76	138	45967	84.07	ug/mL	87
52) 4,6-Dinitro-2-methylphenol	19.86	198	28218	93.85	ug/mL	100
53) n-Nitrosodiphenylamine	20.07	169	108144	84.35	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.11	77	356011	74.13	ug/ml	100
56) 4-Bromophenyl-phenylether	21.08	248	37114	70.27	ug/mL	95
57) Hexachlorobenzene	21.06	284	48488	81.66	ug/mL#	37
58) Pentachlorophenol	21.77	266	30727	88.81	ug/mL	99
59) Phenanthrene	22.31	178	211278	75.80	ug/mL	99
60) Anthracene	22.47	178	209890	78.38	ug/mLm	99
61) Carbazole	23.12	167	223505	86.89	ug/ml	97
62) Di-n-butylphthalate	24.64	149	381823	74.63	ug/mL	98
63) Fluoranthene	25.91	202	217602	84.25	ug/mL#	58
65) Benzidine	26.59	184	35718	63.11	ug/ml	100
66) Pyrene	26.53	202	214611	59.55	ug/mL#	71
68) Butylbenzylphthalate	29.15	149	161233	74.04	ug/mL#	11
69) Benzo[a]anthracene	30.27	228	191680	90.48	ug/mL	98
70) 3,3'-Dichlorobenzidine	30.41	252	54288	119.95	ug/mL#	91
71) Chrysene	30.37	228	117879	71.53	ug/mLm	98
72) bis(2-Ethylhexyl)phthalate	31.12	149	232983	76.50	ug/mL#	36
74) Di-n-octylphthalate	33.03	149	305687	56.63	ug/mL#	100
75) Benzo[b]fluoranthene	33.32	252	88515	60.24	ug/mL#	85
76) Benzo[k]fluoranthene	33.38	252	60541	54.76	ug/mLm	85
77) Benzo[a]pyrene	34.09	252	59358	73.68	ug/mLm	85
78) Indeno[1,2,3-cd]pyrene	36.77	276	34042	95.92	ug/mL#	27
79) Dibenz[a,h]anthracene	36.89	278	32174	112.54	ug/mL#	73
80) Benzo[g,h,i]perylene	37.31	276	31449	103.65	ug/mLm	61

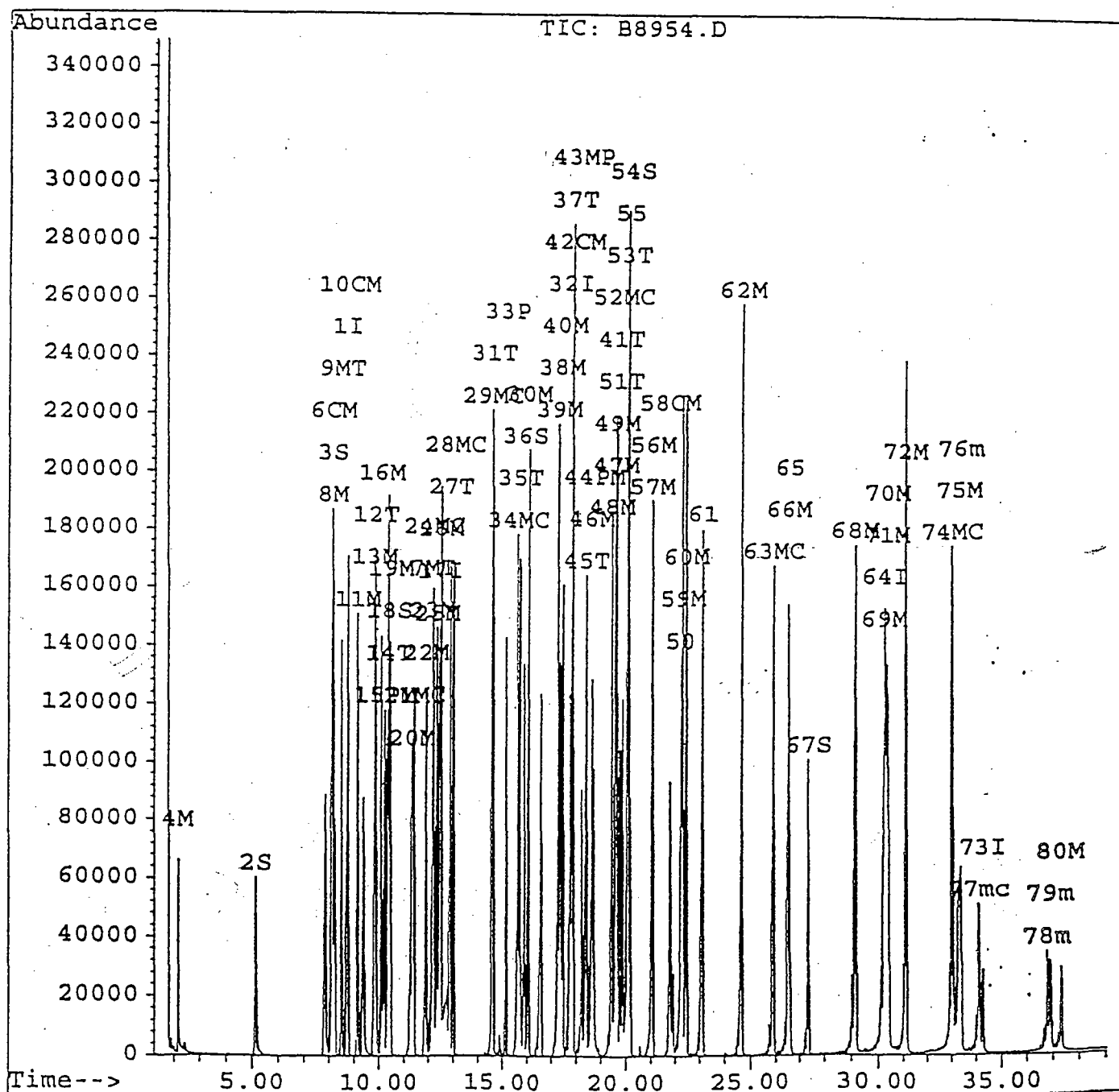
Quantitation Report

168

Data File : c:\hpcchem\1\data2\b8954.d
Acq On : 22 Oct 95 6:42 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:48 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration



Quantitation Report

109

Data File : c:\hpcchem\1\data2\b8955.d

Vial: 5

Acq On : 22 Oct 95 7:33 pm

Operator: SCOTTV

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 10:18 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.70	152	27461	40.00	ug/mL	-0.32
17) Naphthalene-d8	12.44	136	106422	40.00	ug/mL	-0.32
32) Acenaphthene-d10	17.75	164	62579	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.23	188	90364	40.00	ug/mL	-0.35
64) Chrysene-d12	30.31	240	57405	40.00	ug/mL	-0.39
73) Perylene-d12	34.25	264	23394	40.00	ug/mL	-0.45

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	5.12	112	43975	49.01	ug/mL	49.01%
3) Phenol-d5	8.14	99	72439	50.61	ug/mL	50.61%
18) Nitrobenzene-d5	10.42	82	72866	51.80	ug/mL	51.80%
36) 2-Fluorobiphenyl	15.91	172	97613	50.85	ug/mL	50.85%
54) 2,4,6-Tribromophenol	20.20	330	14666	60.77	ug/mL	60.77%
67) Terphenyl-d14	27.36	244	77377	41.94	ug/mL	41.94%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	2.15	74	77244	135.08	ug/mL	100
6) Phenol	8.18	94	153731	117.41	ug/mL	100
7) bis(2-Chloroethyl) ether	12.17	93	187081	121.20	ug/mL	88
8) 2-Chlorophenol	8.14	128	109258	117.57	ug/mL#	81
9) 1,3-Dichlorobenzene	8.51	146	111126	116.67	ug/mL	98
10) 1,4-Dichlorobenzene	8.76	146	110282	113.00	ug/mL	96
11) 1,2-Dichlorobenzene	9.14	146	107878	114.99	ug/mL	96
12) 2-Methylphenol	9.88	108	104312	122.10	ug/mLm	98
13) bis(2-chloroisopropyl) ethe	9.80	45	171386	143.01	ug/mL#	85
14) 4-Methylphenol	10.40	108	115007	120.40	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.28	70	123864	126.42	ug/mL	94
16) Hexachloroethane	10.09	117	69400	121.28	ug/mL#	76
19) Nitrobenzene	10.49	77	147477	114.34	ug/mL	99
20) Isophorone	11.36	82	327700	115.17	ug/mLm	95
21) 2-Nitrophenol	11.42	139	77152	132.95	ug/mL#	94
22) 2,4-Dimethylphenol	11.92	107	127738	126.70	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.17	93	187081	120.48	ug/mL#	100
24) 2,4-Dichlorophenol	12.23	162	94341	125.29	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.35	180	96836	123.00	ug/mL	94
26) Naphthalene	12.52	128	326255	123.77	ug/mL	98
27) 4-Chloroaniline	12.89	127	147346	119.03	ug/mL	100
28) Hexachlorobutadiene	13.02	225	51692	128.71	ug/mL	99
29) 4-Chloro-3-methylphenol	14.60	107	123083	128.28	ug/mL#	60
30) 2-Chloronaphthalene	16.09	162	197694	127.64	ug/mL#	100
31) 2-Methylnaphthalene	14.64	142	274545	176.23	ug/mL	96
33) Hexachlorocyclopentadiene	15.16	237	60194	146.19	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.64	196	90332	130.60	ug/mL	97
35) 2,4,5-Trichlorophenol	15.72	196	54995	93.88	ug/mL	97

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

Quantitation Report

170

Data File : c:\hpchem\1\data2\b8955.d

Vial: 5

Acq On : 22 Oct 95 7:33 pm

Operator: SCOTTV

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 25 10:18 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.90	65	138140	135.05	ug/mL	88
38) Dimethylphthalate	17.40	163	242759	120.83	ug/mL#	12
39) Acenaphthylene	17.30	152	342901	122.91	ug/mL	97
40) 2,6-Dinitrotoluene	17.48	165	48493	91.22	ug/mL#	96
41) 3-Nitroaniline	19.78	138	59286	125.11	ug/mL	88
42) Acenaphthene	17.86	153	190884	113.15	ug/mL	98
43) 2,4-Dinitrophenol	18.23	184	40770	204.04	ug/mL#	89
44) 4-Nitrophenol	18.71	109	42019	159.64	ug/mL#	54
45) Dibenzofuran	18.42	168	296801	128.34	ug/mL	89
46) 2,4-Dinitrotoluene	18.66	165	94345	165.64	ug/mL#	1
47) Diethylphthalate	19.62	149	290137	130.83	ug/mL#	92
48) Fluorene	19.45	166	224635	124.55	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.64	204	96095	119.28	ug/mL#	87
51) 4-Nitroaniline	19.78	138	59286	116.15	ug/mL	88
52) 4,6-Dinitro-2-methylphenol	19.89	198	39986	142.45	ug/mL	100
53) n-Nitrosodiphenylamine	20.09	169	141300	118.05	ug/mL	94
55) 1,2-Diphenylhydrazine (as	20.12	77	478381	106.69	ug/ml	100
56) 4-Bromophenyl-phenylether	21.09	248	51369	104.17	ug/mL#	91
57) Hexachlorobenzene	21.07	284	65026	117.30	ug/mL#	42
58) Pentachlorophenol	21.78	266	45899	142.10	ug/mL	100
59) Phenanthrene	22.33	178	298581	114.74	ug/mL	99
60) Anthracene	22.48	178	287179	114.86	ug/mLm	99
61) Carbazole	23.12	167	298791	124.42	ug/ml	96
62) Di-n-butylphthalate	24.66	149	555739	116.35	ug/mL#	97
63) Fluoranthene	25.91	202	302618	125.50	ug/mL#	71
65) Benzidine	26.59	184	49499	100.44	ug/ml	100
66) Pyrene	26.55	202	291218	92.80	ug/mL#	69
68) Butylbenzylphthalate	29.15	149	219105	115.56	ug/mL#	13
69) Benzo[a]anthracene	30.29	228	262300	142.20	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.43	252	65850	167.10	ug/mL#	92
71) Chrysene	30.35	228	152357	106.18	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.14	149	325654	122.80	ug/mL#	38
74) Di-n-octylphthalate	33.03	149	406461	88.26	ug/mL#	100
75) Benzo[b]fluoranthene	33.30	252	147288	117.50	ug/mL#	84
76) Benzo[k]fluoranthene	33.38	252	78044	82.74	ug/mLm	84
77) Benzo[a]pyrene	34.11	252	74349	108.18	ug/mLm	83
78) Indeno[1,2,3-cd]pyrene	36.77	276	44660	147.50	ug/mL#	47
79) Dibenz[a,h]anthracene	36.89	278	42251	173.22	ug/mL#	78
80) Benzo[g,h,i]perylene	37.31	276	40459	156.30	ug/mLm	71

Quantitation Report

Data File : c:\hpcchem\1\data2\b8955.d

Acq On : 22 Oct 95 7:33 pm

Sample : 120 STD..... Converted from RTE d Inst : ABNA

Misc :

Quant Time: Oct 25 10:18 1995

Vial: 5

Operator: SCOTT V

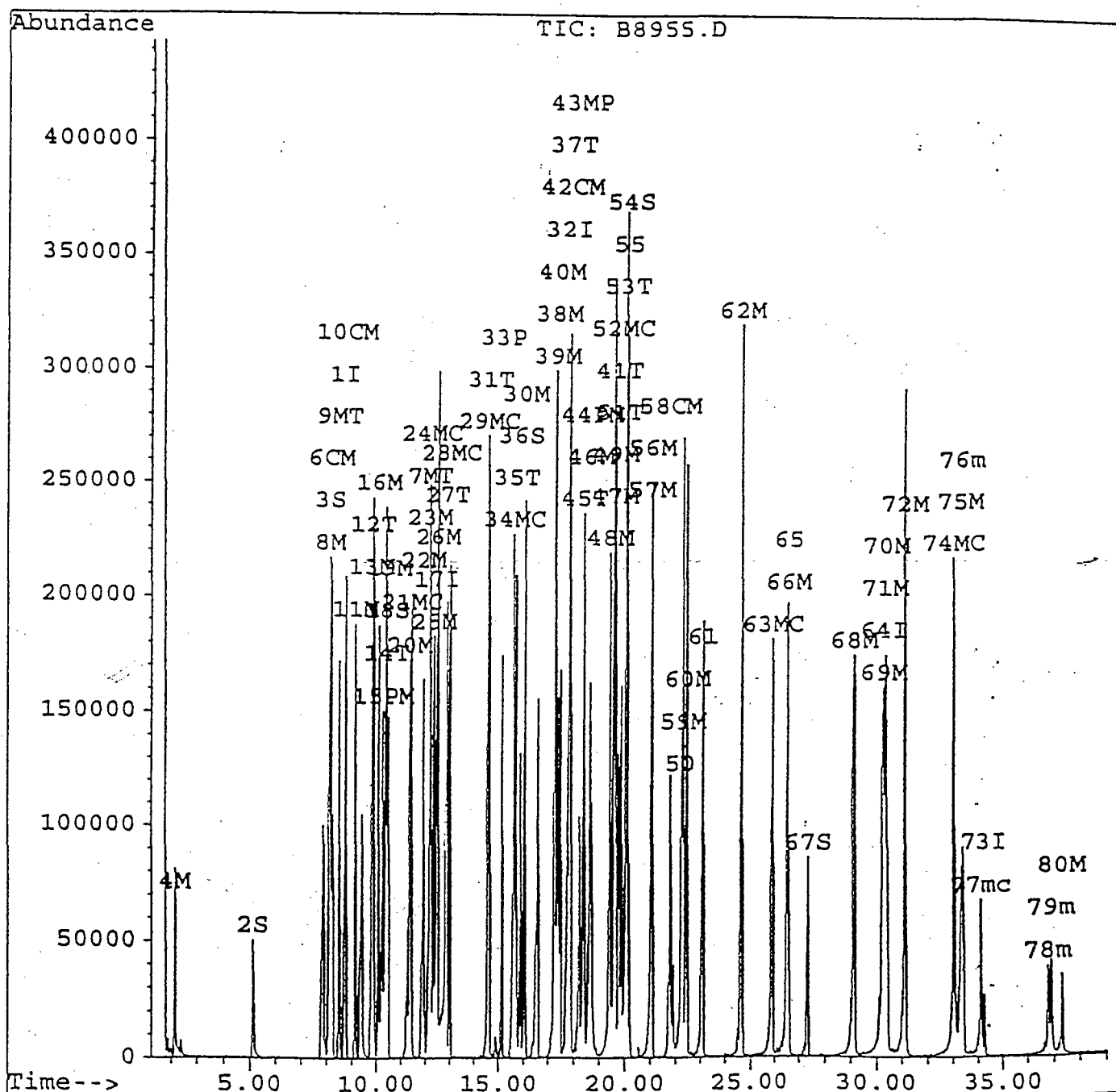
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



Quantitation Report

172

Data File : c:\hpcchem\1\data2\b8956.d

Acq On : 22 Oct 95 8:24 pm

Sample : 150 STD....

Misc :

Quant Time: Oct 25 10:17 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.72	152	27386	40.00	ug/mL	-0.31
17) Naphthalene-d8	12.46	136	107758	40.00	ug/mL	-0.30
32) Acenaphthene-d10	17.76	164	64001	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.24	188	95140	40.00	ug/mL	-0.33
64) Chrysene-d12	30.32	240	58225	40.00	ug/mL	-0.37
73) Perylene-d12	34.24	264	21063	40.00	ug/mL	-0.45

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	5.13	112	44445	49.67	ug/mL	49.67%
3) Phenol-d5	8.16	99	75083	52.60	ug/mL	52.60%
18) Nitrobenzene-d5	10.43	82	72264	50.74	ug/mL	50.74%
36) 2-Fluorobiphenyl	15.91	172	99060	50.46	ug/mL	50.46%
54) 2,4,6-Tribromophenol	20.22	330	16295	64.13	ug/mL	64.13%
67) Terphenyl-d14	27.35	244	82703	44.20	ug/mL	44.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	2.17	74	103908	182.21	ug/mL	100
6) Phenol	8.21	94	225479	172.68	ug/mL	100
7) bis(2-Chloroethyl) ether	12.19	93	256181	166.42	ug/mL#	85
8) 2-Chlorophenol	8.16	128	146818	158.42	ug/mL#	83
9) 1,3-Dichlorobenzene	8.52	146	146004	153.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.77	146	146889	150.93	ug/mL	96
11) 1,2-Dichlorobenzene	9.16	146	145353	155.36	ug/mL	97
12) 2-Methylphenol	9.89	108	140431	164.83	ug/mLm	98
13) bis(2-chloroisopropyl) ethe	9.91	45	341496	285.74	ug/mL#	1
14) 4-Methylphenol	10.43	108	147459	154.79	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.34	70	179120	183.32	ug/mL#	95
16) Hexachloroethane	10.10	117	94889	166.27	ug/mL#	68
19) Nitrobenzene	10.51	77	286692	219.52	ug/mL	90
20) Isophorone	11.42	82	441137	153.12	ug/mLm	92
21) 2-Nitrophenol	11.44	139	100411	170.88	ug/mL#	93
22) 2,4-Dimethylphenol	11.96	107	175209	171.62	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.19	93	256181	162.94	ug/mL#	100
24) 2,4-Dichlorophenol	12.27	162	129942	170.43	ug/mL#	91
25) 1,2,4-Trichlorobenzene	12.36	180	128880	161.68	ug/mL	94
26) Naphthalene	12.54	128	430569	161.32	ug/mL	98
27) 4-Chloroaniline	12.90	127	204994	163.55	ug/mL	100
28) Hexachlorobutadiene	13.02	225	66955	164.65	ug/mL	98
29) 4-Chloro-3-methylphenol	14.64	107	173471	178.55	ug/mL#	24
30) 2-Chloronaphthalene	16.10	162	277170	176.73	ug/mL#	100
31) 2-Methylnaphthalene	14.64	142	354781	224.91	ug/mL#	68
33) Hexachlorocyclopentadiene	15.16	237	78011	185.25	ug/mL	98
34) 2,4,6-Trichlorophenol	15.66	196	125669	177.65	ug/mL	96
35) 2,4,5-Trichlorophenol	15.74	196	69360	115.77	ug/mL	95

Quantitation Report

173

Data File : c:\hpcchem\1\data2\b8956.d

Acq On : 22 Oct 95 8:24 pm

Sample : 150 STD....

Misc :

Quant Time: Oct 25 10:17 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.94	65	215417	205.92	ug/mL	88
38) Dimethylphthalate	17.44	163	341294	166.10	ug/mL#	12
39) Acenaphthylene	17.32	152	455035	159.47	ug/mL	97
40) 2,6-Dinitrotoluene	17.51	165	62227	114.45	ug/mL#	92
41) 3-Nitroaniline	19.87	138	76342	157.52	ug/mL	90
42) Acenaphthene	17.88	153	252605	146.41	ug/mL	98
43) 2,4-Dinitrophenol	18.29	184	61925	303.03	ug/mL#	73
44) 4-Nitrophenol	18.77	109	62124	230.78	ug/mL#	58
45) Dibenzofuran	18.44	168	392936	166.13	ug/mL#	88
46) 2,4-Dinitrotoluene	18.71	165	89489	153.63	ug/mL#	1
47) Diethylphthalate	19.66	149	374865	165.28	ug/mL	94
48) Fluorene	19.46	166	301296	163.35	ug/mL	99
49) 4-Chlorophenyl-phenylether	19.68	204	121982	148.05	ug/mL#	70
51) 4-Nitroaniline	19.87	138	76342	142.05	ug/mL	90
52) 4,6-Dinitro-2-methylphenol	19.93	198	54285	183.68	ug/mL	100
53) n-Nitrosodiphenylamine	20.10	169	191063	151.61	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.14	77	657253	139.22	ug/ml	100
56) 4-Bromophenyl-phenylether	21.10	248	64647	124.52	ug/mL#	84
57) Hexachlorobenzene	21.09	284	89180	152.80	ug/mL#	34
58) Pentachlorophenol	21.82	266	66850	196.57	ug/mL	98
59) Phenanthrene	22.34	178	400329	146.12	ug/mL	99
60) Anthracene	22.50	178	391392	148.69	ug/mLm	99
61) Carbazole	23.13	167	408325	161.50	ug/ml	95
62) Di-n-butylphthalate	24.65	149	736070	146.37	ug/mL#	98
63) Fluoranthene	26.52	202	405072	159.56	ug/mL#	56
65) Benzidine	26.60	184	67999	136.03	ug/ml	100
66) Pyrene	26.52	202	404840	127.19	ug/mL#	69
68) Butylbenzylphthalate	29.15	149	308513	160.42	ug/mL#	9
69) Benzo[a]anthracene	30.30	228	338083	180.70	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.44	252	84475	211.34	ug/mL#	93
71) Chrysene	30.38	228	179795	123.54	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.13	149	408318	151.80	ug/mL#	37
74) Di-n-octylphthalate	33.02	149	458843	110.66	ug/mL#	100
75) Benzo[b]fluoranthene	33.31	252	156175	138.38	ug/mL#	83
76) Benzo[k]fluoranthene	33.39	252	91964	108.29	ug/mLm	83
77) Benzo[a]pyrene	34.10	252	88750	143.42	ug/mLm	83
78) Indeno[1,2,3-cd]pyrene	36.78	276	49957	183.25	ug/mL#	44
79) Dibenz[a,h]anthracene	36.90	278	50575	230.29	ug/mL#	79
80) Benzo[g,h,i]perylene	37.32	276	46503	199.53	ug/mLm	69

Quantitation Report

174

Data File : c:\hpcchem\1\data2\b8956.d

Acq On : 22 Oct 95 8:24 pm

Sample : 160 STD....

Misc :

Quant Time: Oct 25 10:17 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

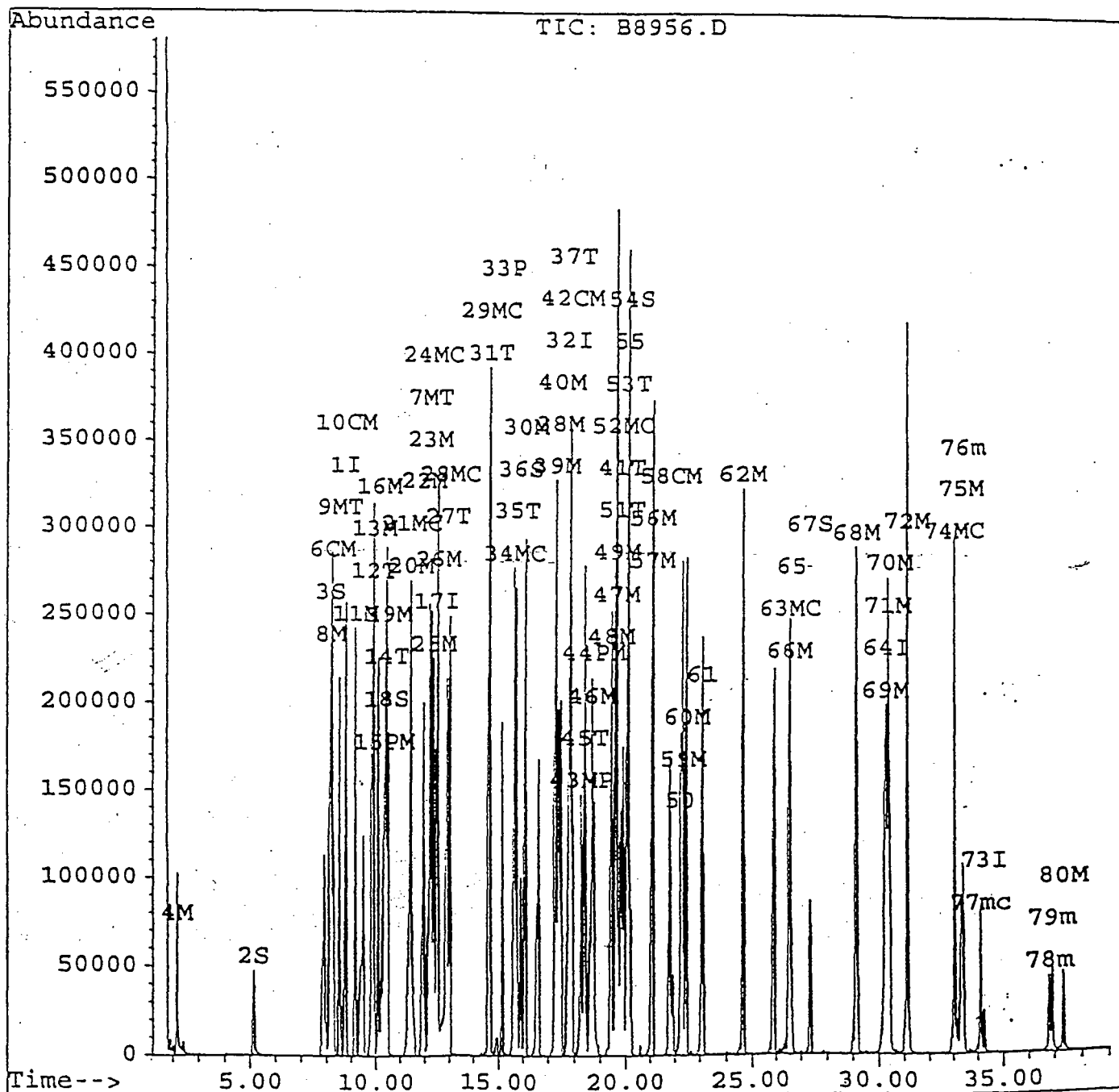
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Sep 21 12:47:27 1995

Response via : Multiple Level Calibration



SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Nam EMSL Analytical Contract:

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

Lab File ID: B9453.D DFTPP Injection Date: 12/21/95

Instrument ID: ABNA DFTPP Injection Time: 1040

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	30.0 - 80.0% of mass 198	41.0		
68	Less than 2.0% of mass 69	0.0	0.0	)1
69	Mass 69 relative abundance	60.5		
70	Less than 2.0% of mass 69	0.9	1.5	)1
127	25.0 - 75.0% of mass 198	41.5		
197	Less than 1.0% of mass 198	0.0		
198	Base Peak, 100% relative abundance	100.0		
199	5.0 to 9.0% of mass 198	6.0		
275	10.0 - 30.0% of mass 198	19.0		
365	Greater than 0.75% of mass 198	2.6		
441	Present, but less than mass 443	105.0		
442	40.0 - 110.0% of mass 198	64.0		
443	15.0 - 24.0% of mass 442	11.5	17.9	)2

1-Value is % mass 69

2-Value is % mass 442

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

[illegible]

Data File : C:\HPCHEM\1\DATA2\B9453.D

Acq On : 21 Dec 95 10:40 am

Vial: 1

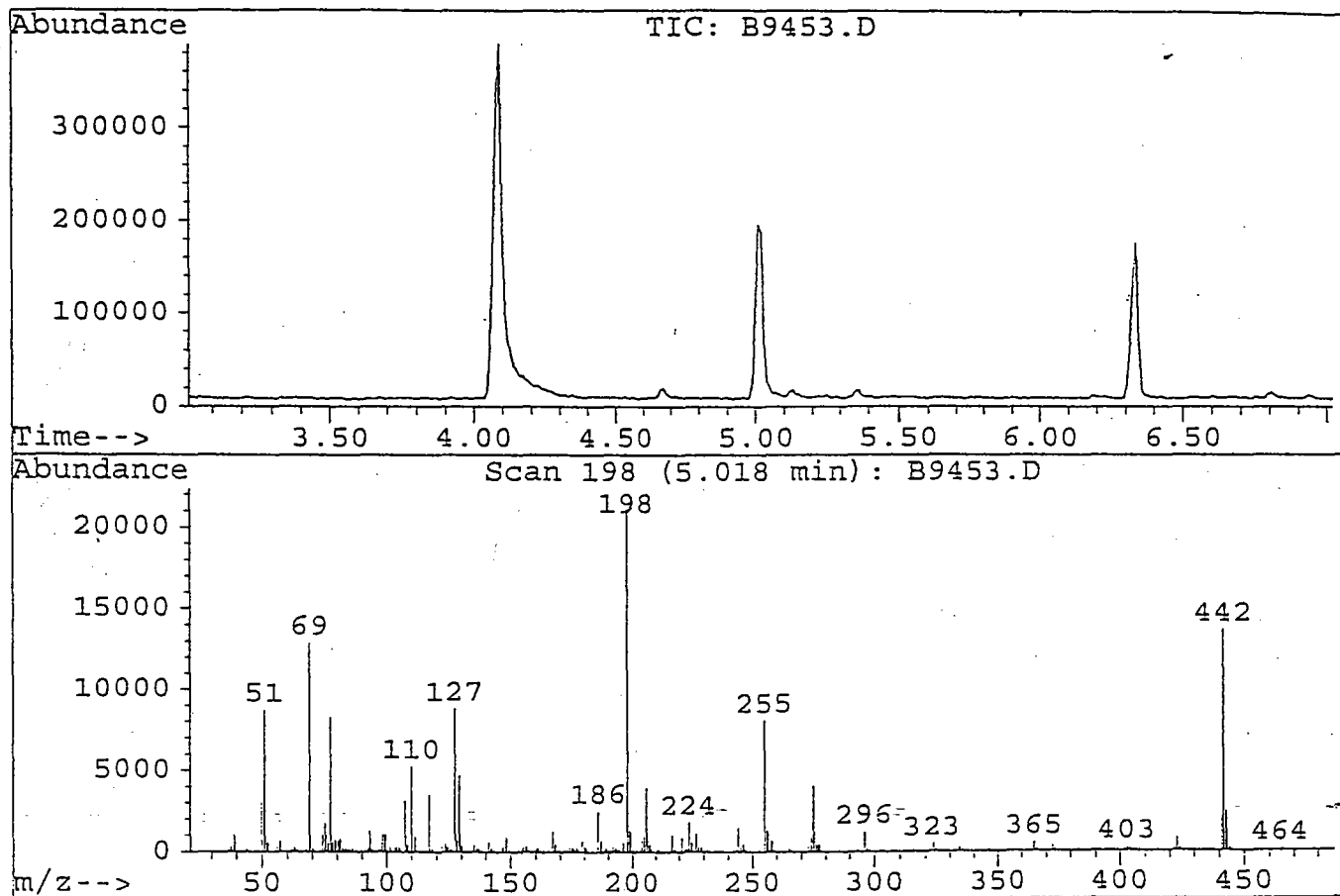
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 198

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.0	8742	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	60.5	12879	PASS
70	69	0	2	1.5	189	PASS
127	198	40	60	41.5	8838	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	21304	PASS
199	198	5	9	6.0	1278	PASS
275	198	10	30	19.0	4048	PASS
365	198	1	100	2.6	547	PASS
441	443	0	100	92.1	2247	PASS
442	198	40	100	64.0	13633	PASS
443	442	17	23	17.9	2441	PASS

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

177

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	62	49.95	3032	61.25	138	67.55	178
36.80	144	50.95	8742	61.45	122	68.95	12879
37.90	298	51.95	554	61.75	90	70.05	189
39.10	1022	53.65	49	62.05	77	72.15	18
40.60	12	54.15	21	62.85	289	72.85	127
42.10	38	54.95	139	63.85	80	74.05	1066
42.80	117	55.15	151	64.65	83	75.05	1774
43.95	188	55.85	375	65.15	81	76.05	565
47.15	52	56.95	679	66.45	101	77.05	8292
47.85	62	58.95	50	66.65	108	78.05	598
48.65	90	60.85	110	67.05	63	79.05	744

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.05	680	87.65	42	97.05	165	108.05	435
80.95	831	88.65	74	98.05	1101	109.95	5269
81.95	222	89.35	48	99.05	1040	111.05	935
82.35	95	91.05	253	99.95	102	111.95	82
82.55	93	92.05	219	101.05	281	112.65	60
83.05	208	92.95	1301	101.75	51	113.15	93
83.35	200	93.75	134	101.95	53	113.95	81
84.05	109	94.65	39	102.95	284	114.85	134
84.85	224	95.25	84	103.95	315	115.95	188
85.95	232	96.05	104	104.95	219	116.95	3544
87.05	173	96.65	120	107.05	3186	118.05	184

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.85	53	130.00	375	140.90	569	154.10	117
119.75	86	130.90	103	142.00	234	155.00	331
121.95	340	132.40	81	142.90	95	156.10	365
123.05	517	132.90	45	145.30	28	157.00	115
123.95	265	134.10	139	145.90	113	158.70	82
125.05	141	135.00	427	146.80	317	159.00	127
125.25	160	135.90	202	147.90	901	160.00	240
125.55	113	136.80	214	148.90	127	161.00	281
127.05	8838	137.70	36	150.00	68	161.70	30
127.95	709	139.50	56	151.00	118	162.80	47
129.05	4726	140.10	102	153.00	161	163.00	44

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
163.80	31	173.90	257	183.50	41	193.90	116
165.10	141	175.00	326	183.80	36	194.60	70
167.00	1310	176.00	154	185.00	346	196.10	579
168.00	493	176.90	292	186.00	2523	198.00	21304
168.70	76	178.00	70	187.00	724	199.00	1278
169.10	87	179.00	679	188.00	66	200.10	160
170.00	67	180.00	342	188.90	233	200.80	62
170.50	30	180.80	219	189.90	116	201.50	157
171.00	79	182.20	40	191.10	67	202.90	302
171.80	148	182.90	32	191.90	297	204.00	704
173.00	146	183.30	42	193.00	254	205.10	1039

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

178

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.00	3967	216.85	1060	229.95	60	239.85	20
207.10	429	217.85	161	230.95	129	240.15	30
207.90	206	220.95	883	231.25	90	240.95	85
208.90	35	222.05	188	233.55	48	242.05	88
210.40	181	222.95	247	234.05	78	242.75	150
210.90	175	223.95	1827	234.95	133	243.05	137
213.30	77	224.95	607	235.95	84	243.95	1490
214.00	11	225.85	93	236.75	104	244.95	274
214.60	101	226.95	1141	237.95	24	245.95	464
214.90	51	227.85	275	238.25	16	246.95	113
216.10	152	228.95	303	239.15	53	248.85	74

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
249.85	69	260.75	23	274.95	4048	285.45	31
251.25	40	261.05	17	275.95	436	285.65	32
251.55	45	263.05	58	276.95	432	286.65	12
251.85	84	264.95	190	278.15	73	289.75	24
252.95	71	265.85	43	279.25	29	292.35	27
254.95	8092	267.65	37	280.15	34	293.15	153
255.95	1298	267.85	35	281.65	25	295.95	1227
256.95	174	269.65	37	282.75	54	296.85	184
257.95	677	271.95	89	282.95	52	298.25	22
258.75	70	272.95	341	283.95	32	298.55	23
258.95	76	273.95	849	285.05	67	300.45	52

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
300.75	42	311.80	50	321.80	57	334.90	58
301.05	35	312.70	49	322.10	50	335.70	31
302.05	91	314.00	58	323.00	465	336.90	16
302.70	116	314.60	95	323.80	96	340.30	23
303.10	132	314.90	117	324.10	75	342.00	26
303.70	48	315.80	55	327.90	72	343.20	13
305.50	41	318.20	71	330.90	19	343.80	26
308.00	76	318.60	33	331.20	19	345.90	111
308.60	40	318.90	27	332.00	75	350.80	37
309.80	43	319.60	36	333.10	74	352.00	103
311.50	30	320.90	64	333.90	248	353.10	107

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
354.10	160	371.00	60	389.65	29	404.15	89
355.00	32	372.10	302	389.85	31	410.75	31
356.00	30	372.70	53	390.75	18	412.95	23
357.20	46	372.90	68	393.65	37	414.95	33
359.00	32	374.10	33	393.95	34	416.35	42
363.80	20	374.50	19	394.95	12	416.75	27
364.90	547	379.00	91	396.35	39	420.95	87
366.00	111	381.70	28	400.35	16	421.85	94
369.90	32	383.00	105	401.05	47	422.05	94
370.10	36	383.70	18	401.85	126	422.95	792
370.50	30	384.00	25	402.95	226	423.85	170

Scan 198 (5.018 min): B9453.D

DFTPP..... Converted from RTE data file >B9453::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
426.85	17	453.35	40				
435.05	42	459.15	23				
436.45	46	460.65	52				
437.35	29	464.35	85				
440.95	2247	468.05	39				
441.95	13633	470.25	26				
442.95	2441	472.05	20				
444.15	185						
449.05	27						
450.45	16						
451.05	12						

179

Quantitation Report

180

Data File : C:\HPCHEM\1\DATA2\B9453.D

Acq On : 21 Dec 95 10:40 am

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

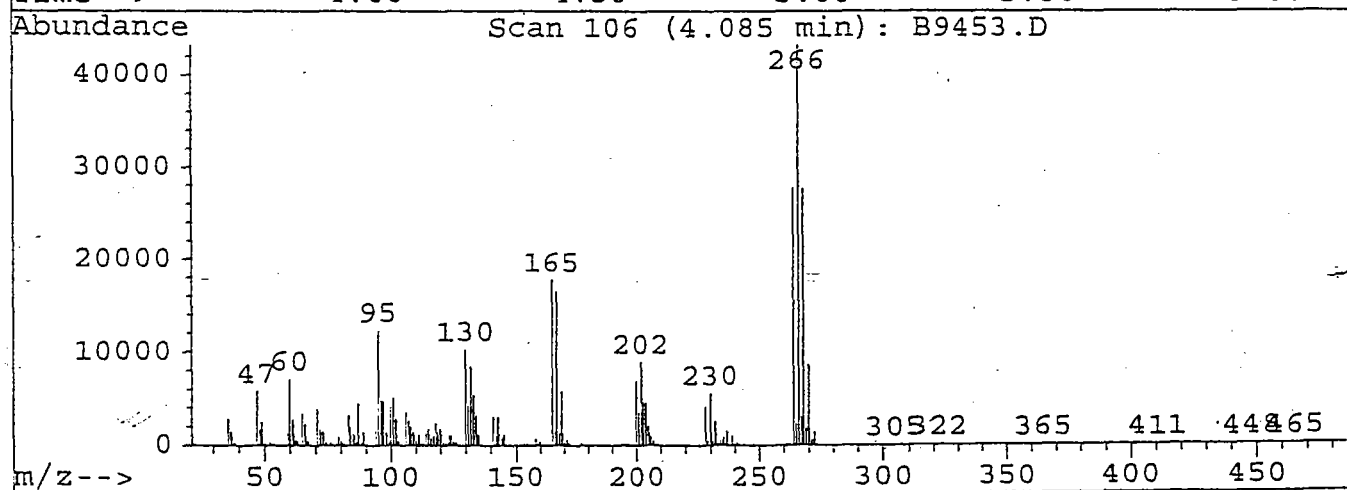
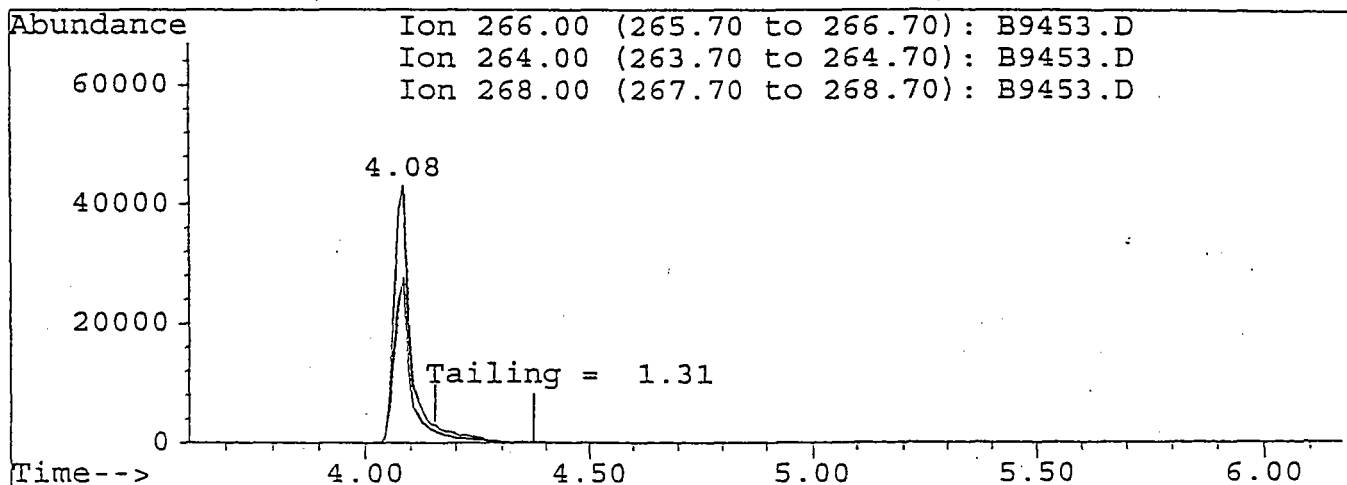
Quant Time: Dec 21 11:09 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration



TIC: B9453.D

(1) Pentachlorophenol (CM)

5.12min 1.14ug/mL

response 376

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	33.51#
268.00	64.70	25.26#
0.00	0.00	0.00

Quantitation Report

181

Data File : C:\HPCHEM\1\DATA2\B9453.D

Acq On : 21 Dec 95 10:40 am

Vial: 1

Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

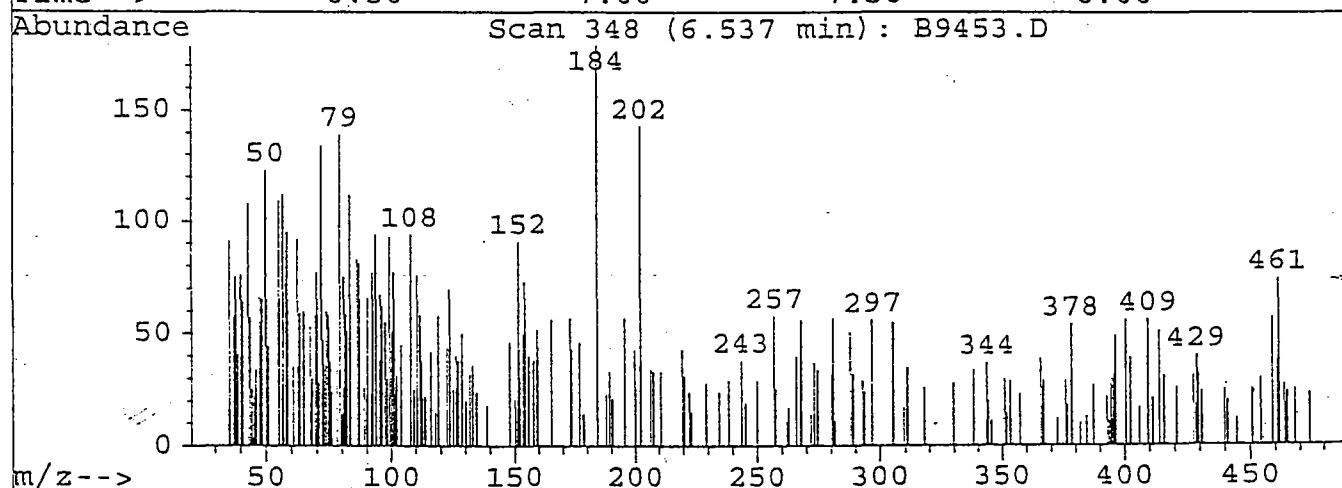
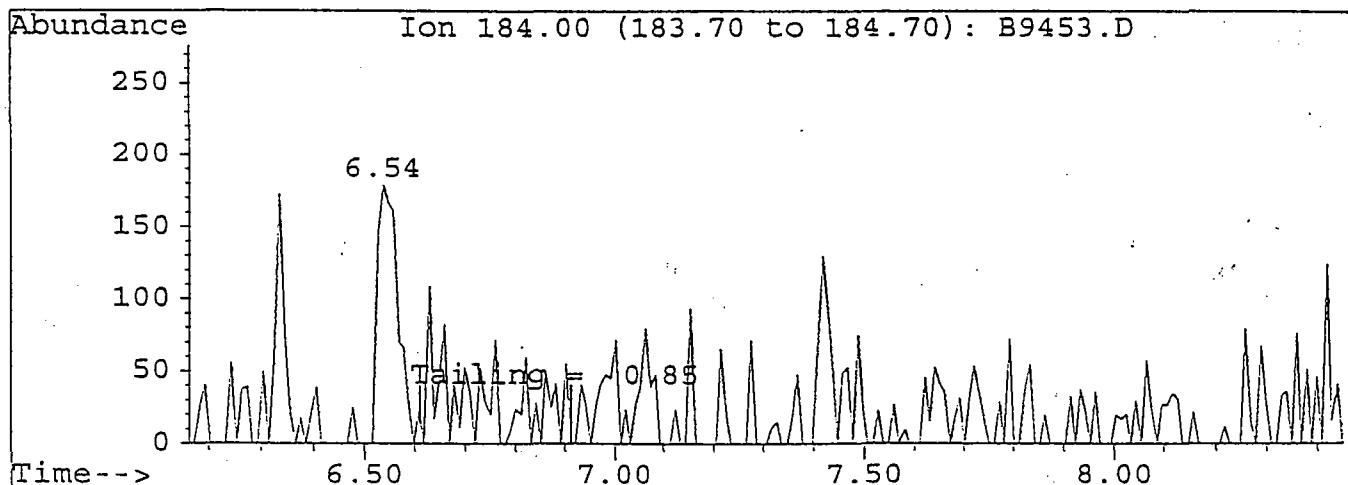
Quant Time: Dec 21 11:09 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Nov 22 12:21:54 1995

Response via : Multiple Level Calibration



TIC: B9453.D

(2) Benzidine

7.42min 0.67ug/ml

response 205

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

182

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Tue Dec 26 12:04:15 1995
 Response via : Initial Calibration

Calibration Files

160 =B9458.D 120 =B9457.D 80 =B9456.D
 50 =B9455.D 20 =B9454.D

Compound		160	120	80	50	20	Avg	%RSD
-----		-----						
1) I	1,4-Dichlorobenzene-d	-----ISTD-----						
2) S	2-Fluorophenol	1.228	1.184	1.154	1.079	0.994	1.128	8.21
3) S	Phenol-d5	2.072	1.805	1.745	1.612	1.425	1.732	13.84
4) M	N-nitrosodimethylamin	0.863	0.840	0.578	0.697	0.631	0.722	17.42
5)	Pyridine		3.013				3.013	0.00
6) CM	Phenol	1.609	1.727	1.640	1.575	1.310	1.572	9.98
7) MT	bis(2-Chloroethyl)eth	1.872	1.941	1.803	1.860	1.547	1.805	8.43
8) M	2-Chlorophenol	1.300	1.350	1.289	1.318	1.202	1.292	4.28
9) MT	1,3-Dichlorobenzene	1.365	1.409	1.336	1.361	1.301	1.354	2.94
10) CM	1,4-Dichlorobenzene	1.360	1.457	1.372	1.415	1.375	1.396	2.87
11) M	1,2-Dichlorobenzene	1.322	1.404	1.352	1.379	1.323	1.356	2.62
12) T	2-Methylphenol	1.129	1.192	1.189	1.154	0.951	1.123	8.89
13) M	bis(2-chloroisopropyl	1.954	1.967	1.222	1.242	1.456	1.568	23.57
14) T	4-Methylphenol	1.290	1.306	1.304	1.244	1.106	1.250	6.75
15) PM	N-Nitroso-Di-n-propyl	1.125	1.113	0.984	1.048	0.818	1.018	12.29
16) M	Hexachloroethane	0.850	0.895	0.888	0.896	0.803	0.866	4.67
-----		-----						
17) I	Naphthalene-d8	-----ISTD-----						
18) S	Nitrobenzene-d5	0.413	0.407	0.396	0.366	0.323	0.381	9.80
19) M	Nitrobenzene	0.505	0.488	0.480	0.459	0.393	0.465	9.35
20) M	Isophorone	0.739	0.723	0.702	0.689	0.603	0.691	7.61
21) MC	2-Nitrophenol	0.212	0.213	0.207	0.213	0.182	0.205	6.47
22) M	2,4-Dimethylphenol	0.371	0.362	0.360	0.356	0.323	0.355	5.20
23) M	bis(2-Chloroethoxy)me	0.449	0.449	0.416	0.427	0.367	0.421	8.01
24) MC	2,4-Dichlorophenol	0.259	0.267	0.272	0.289	0.258	0.269	4.63
25) M	1,2,4-Trichlorobenzen	0.281	0.288	0.291	0.303	0.319	0.296	5.00
26) M	Naphthalene	0.940	0.867	0.903	0.944	0.874	0.906	3.96
27) T	4-Chloroaniline	0.426	0.447	0.436	0.406	0.378	0.419	6.49
28) MC	Hexachlorobutadiene	0.173	0.186	0.175	0.193	0.199	0.185	6.05
29) MC	4-Chloro-3-methylphen	0.344	0.345	0.334	0.339	0.289	0.330	7.10
30) M	2-Chloronaphthalene	0.648	0.636	0.586	0.643	0.647	0.632	4.11
31) T	2-Methylnaphthalene	0.661	0.595	0.602	0.601	0.587	0.609	4.82
-----		-----						
32) I	Acenaphthene-d10	-----ISTD-----						
33) P	Hexachlorocyclopentad	0.346	0.354	0.344	0.348	0.283	0.335	8.73
34) MC	2,4,6-Trichlorophenol	0.429	0.371	0.357	0.362	0.358	0.375	8.06
35) T	2,4,5-Trichlorophenol	0.295	0.347	0.371	0.362	0.308	0.337	9.96
36) S	2-Fluorobiphenyl	1.221	1.177	1.206	1.205	1.227	1.207	1.60
37) T	2-Nitroaniline	0.424	0.435	0.481	0.378	0.274	0.399	19.68
38) M	Dimethylphthalate	1.045	1.180	1.271	1.324	1.353	1.235	10.11
39) M	Acenaphthylene	1.716	1.723	1.667	1.724	1.614	1.689	2.83
40) M	2,6-Dinitrotoluene	0.270	0.290	0.308	0.315	0.279	0.292	6.48
41) T	3-Nitroaniline	0.161	0.220	0.291	0.222	0.170	0.213	24.31

Response Factor Report ABNA

Method : C:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Tue Dec 26 12:04:15 1995
 Response via : Initial Calibration

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Calibration Files

160 =B9458.D 120 =B9457.D 80 =B9456.D
 50 =B9455.D 20 =B9454.D

	Compound	160	120	80	50	20	Avg	%RSD
42) CM	Acenaphthene	1.079	1.071	1.018	1.069	1.026	1.053	2.71
43) MP	2,4-Dinitrophenol	0.145	0.164	0.148	0.099		0.139	19.97
44) PM	4-Nitrophenol	0.188	0.255	0.246	0.177		0.216	18.37
45) T	Dibenzofuran	1.245	1.299	1.506	1.464	1.412	1.385	7.96
46) M	2,4-Dinitrotoluene	0.330	0.391	0.424	0.329	0.281	0.351	16.06
47) M	Diethylphthalate	1.135	1.322	1.391	1.397	1.423	1.334	8.78
48) M	Fluorene	0.932	1.076	1.070	1.099	1.098	1.055	6.62
49) M	4-Chlorophenyl-phenyl	0.413	0.466	0.482	0.506	0.515	0.476	8.46
50)	Phenanthrene-d10	-----ISTD-----						
51) T	4-Nitroaniline	0.125	0.141	0.177	0.181	0.134	0.152	16.67
52) MC	4,6-Dinitro-2-methylp	0.107	0.151	0.146	0.116	0.088	0.122	21.65
53) T	n-Nitrosodiphenylamin	0.453	0.426	0.406	0.540	0.533	0.472	13.03
54) S	2,4,6-Tribromophenol	0.243	0.231	0.221	0.250	0.238	0.237	4.72
55)	1,2-Diphenylhydrazine	1.271	1.193	1.107	1.356	1.180	1.221	7.79
56) M	4-Bromophenyl-phenyle	0.236	0.223	0.220	0.278	0.254	0.242	9.95
57) M	Hexachlorobenzene	0.352	0.339	0.320	0.366	0.294	0.334	8.32
58) CM	Pentachlorophenol	0.207	0.207	0.183	0.146		0.186	15.51
59) M	Phenanthrene	1.071	1.035	1.013	1.045	0.977	1.028	3.42
60) M	Anthracene	1.067	1.012	1.026	1.052	0.943	1.020	4.69
61)	Carbazole	0.975	1.004	0.959	0.823	0.563	0.865	21.12
62) M	Di-n-butylphthalate	1.840	1.863	1.901	1.738	1.445	1.757	10.52
63) MC	Fluoranthene	1.176	1.195	1.252	1.065	0.850	1.108	14.37
64) I	Chrysene-d12	-----ISTD-----						
65)	Benzidine	0.015	0.010	0.009	0.011		0.011#	22.14
66) M	Pyrene	1.369	1.312	1.259	1.189	0.974	1.221	12.54
67) S	Terphenyl-d14	1.083	1.022	0.997	0.890	0.809	0.960	11.40
68) M	Butylbenzylphthalate	0.888	0.877	0.834	0.818	0.684	0.820	9.95
69) M	Benzo[a]anthracene	1.350	1.271	1.156	1.092	0.964	1.167	12.95
70) M	3,3'-Dichlorobenzidin	0.394	0.506	0.385	0.375	0.368	0.406	14.09
71) M	Chrysene	0.724	0.830	0.895	0.958	0.975	0.876	11.71
72) M	bis(2-Ethylhexyl)phth	1.266	1.226	1.169	1.140	1.004	1.161	8.63
73) I	Perylene-d12	-----ISTD-----						
74) MC	Di-n-octylphthalate	3.247	3.396	3.061	2.567		3.068	11.75
75) M	Benzo[b]fluoranthene	1.411	1.440	1.591	1.328	1.036	1.361	15.07
76) m	Benzo[k]fluoranthene	1.350	0.971	1.142	1.177	1.138	1.156	11.68
77) mc	Benzo[a]pyrene	1.067	1.059	1.152	1.008	0.917	1.041	8.30
78) m	Indeno[1,2,3-cd]pyren	0.513	0.520	0.606	0.513	0.537	0.538	7.33
79) m	Dibenz[a,h]anthracene	0.545	0.524	0.616	0.530	0.501	0.543	8.04
80) M	Benzo[g,h,i]perylene	0.433	0.511	0.614	0.445	0.471	0.495	14.80

Quantitation Report

184

Data File : c:\hpchem\1\data2\b9454.d

Acq On : 21 Dec 95 11:27 am

Sample : 20 STD.....

Misc :

Quant Time: Dec 26 12:00 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 Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.28	152	7662	40.00	ug/mL	-0.56
17) Naphthalene-d8	11.01	136	32322	40.00	ug/mL	-0.56
32) Acenaphthene-d10	16.25	164	19863	40.00	ug/mL	-0.58
50) Phenanthrene-d10	20.64	188	25176	40.00	ug/mL	-0.61
64) Chrysene-d12	28.61	240	22480	40.00	ug/mL	-0.63
73) Perylene-d12	32.56	264	20050	40.00	ug/mL	-0.60

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	3.54	112	9517	43.63	ug/mL	43.63
3) Phenol-d5	6.82	99	13651	37.58	ug/mL	37.58
18) Nitrobenzene-d5	9.01	82	13036	33.75	ug/mL	33.75
36) 2-Fluorobiphenyl	14.50	172	30473	57.71	ug/mL	57.71
54) 2,4,6-Tribromophenol	18.66	330	7498	67.67	ug/mL	67.67
67) Terphenyl-d14	25.78	244	22736	36.68	ug/mL	36.68

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	1.43	74	2412	14.76	ug/mL	100
6) Phenol	6.85	94	5020	15.89	ug/mL	100
7) bis(2-Chloroethyl) ether	10.80	93	5927	14.35	ug/mL	89
8) 2-Chlorophenol	6.72	128	4605	18.47	ug/mL#	89
9) 1,3-Dichlorobenzene	7.05	146	4983	19.23	ug/mL#	94
10) 1,4-Dichlorobenzene	7.32	146	5266	20.08	ug/mL	98
11) 1,2-Dichlorobenzene	7.70	146	5069	19.48	ug/mL	98
12) 2-Methylphenol	8.57	108	3642	15.61	ug/mLm	89
13) bis(2-chloroisopropyl) ether	8.53	45	5577	12.97	ug/mLm	95
14) 4-Methylphenol	9.09	108	4236	16.93	ug/mL	89
15) N-Nitroso-Di-n-propylamine	8.84	70	3134	11.62	ug/mL#	87
16) Hexachloroethane	8.67	117	3075	19.39	ug/mL#	76
19) Nitrobenzene	9.05	77	6355	14.06	ug/mL#	62
20) Isophorone	9.88	82	9752	15.67	ug/mL	99
21) 2-Nitrophenol	9.99	139	2943	16.91	ug/mL#	79
22) 2,4-Dimethylphenol	10.59	107	5223	17.01	ug/mL#	100
23) bis(2-Chloroethoxy) methane	10.80	93	5927	14.19	ug/mL#	100
24) 2,4-Dichlorophenol	10.86	162	4169	18.64	ug/mL	94
25) 1,2,4-Trichlorobenzene	10.94	180	5150	20.39	ug/mL	91
26) Naphthalene	11.07	128	14124	18.24	ug/mL	98
27) 4-Chloroaniline	11.50	127	6115	16.97	ug/mL	91
28) Hexachlorobutadiene	11.63	225	3208	21.16	ug/mL	91
29) 4-Chloro-3-methylphenol	13.32	107	4666	14.54	ug/mL	91
30) 2-Chloronaphthalene	14.61	162	10449	18.67	ug/mL#	100
31) 2-Methylnaphthalene	13.19	142	9490	13.99	ug/mL	91
33) Hexachlorocyclopentadiene	13.73	237	2810	21.10	ug/mL	91
34) 2,4,6-Trichlorophenol	14.23	196	3554	20.37	ug/mL	81
35) 2,4,5-Trichlorophenol	14.38	196	3056	17.26	ug/mL	91

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

b9454.d BNACLP.M

Tue Dec 26 12:37:15 1995

BNA

Page 1

Quantitation Report

Data File : c:\hpchem\1\data2\b9454.d

Acq On : 21 Dec 95 11:27 am

Sample : 20 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 26 12:00 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

185

Vial: 2

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.42	65	2724	8.44	ug/mL	91
38) Dimethylphthalate	15.94	163	13442	19.82	ug/mL#	12
39) Acenaphthylene	15.79	152	16031	20.09	ug/mL	97
40) 2,6-Dinitrotoluene	16.00	165	2773	16.62	ug/mL#	87
41) 3-Nitroaniline	18.23	138	1691	10.46	ug/mL	87
42) Acenaphthene	16.33	153	10185	20.10	ug/mL	96
43) 2,4-Dinitrophenol	10.94	184	777	8.57	ug/mLm	91
44) 4-Nitrophenol	17.48	109	787	6.76	ug/mLm	76
45) Dibenzofuran	16.89	168	14025	19.72	ug/mL#	86
46) 2,4-Dinitrotoluene	17.16	165	2795	12.19	ug/mL#	1
47) Diethylphthalate	18.14	149	14134	19.00	ug/mL#	93
48) Fluorene	17.91	166	10906	19.53	ug/mL	98
49) 4-Chlorophenyl-phenylether	18.14	204	5114	19.37	ug/mL#	88
51) 4-Nitroaniline	18.23	138	1691	15.00	ug/mL	87
52) 4,6-Dinitro-2-methylphenol	18.33	198	1110	13.48	ug/mL	100
53) n-Nitrosodiphenylamine	18.56	169	6704	25.12	ug/mL	96
55) 1,2-Diphenylhydrazine (as	18.60	77	14848	19.77	ug/mL	100
56) 4-Bromophenyl-phenylether	19.56	248	3203	24.35	ug/mL	93
57) Hexachlorobenzene	19.47	284	3706	20.06	ug/mL	96
58) Pentachlorophenol	20.26	266	1247	10.87	ug/mL	91
59) Phenanthrene	20.70	178	12303	19.77	ug/mL	93
60) Anthracene	20.85	178	11874	18.90	ug/mLm	93
61) Carbazole	21.56	167	7085	11.83	ug/mL	97
62) Di-n-butylphthalate	23.16	149	18189	15.79	ug/mL	99
63) Fluoranthene	24.26	202	10702	15.57	ug/mLm	98
65) Benzidine	20.31	184	79	1.21	ug/mLm	100
66) Pyrene	24.86	202	10946	13.15	ug/mL	94
68) Butylbenzylphthalate	27.61	149	7686	12.60	ug/mL#	28
69) Benzo[a]anthracene	28.59	228	10834	15.38	ug/mL	99
70) 3,3'-Dichlorobenzidine	28.82	252	4132	18.98	ug/mL	96
71) Chrysene	28.67	228	10955	21.54	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	29.63	149	11290	13.50	ug/mL#	28
74) Di-n-octylphthalate	31.52	149	18880	8.88	ug/mL#	100
75) Benzo[b]fluoranthene	31.59	252	10387	12.77	ug/mLm	96
76) Benzo[k]fluoranthene	31.69	252	11411	18.67	ug/mL	96
77) Benzo[a]pyrene	32.40	252	9191	17.76	ug/mLm	96
78) Indeno[1,2,3-cd]pyrene	35.04	276	5380	14.75	ug/mL	90
79) Dibenz[a,h]anthracene	35.19	278	5024	14.06	ug/mL	97
80) Benzo[g,h,i]perylene	35.58	276	4721	12.99	ug/mLm	90

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

b9454.d BNACLP.M

Tue Dec 26 12:37:20 1995

BNA

Page 2

Quantitation Report

186

Data File : c:\hpchem\1\data2\b9454.d

Acq On : 21 Dec 95 11:27 am

Sample : 20 STD.....

Misc :

Quant Time: Dec 26 12:00 1995

Vial: 2

Operator: SCOTTV

Converted from RTE d Inst : ABNA

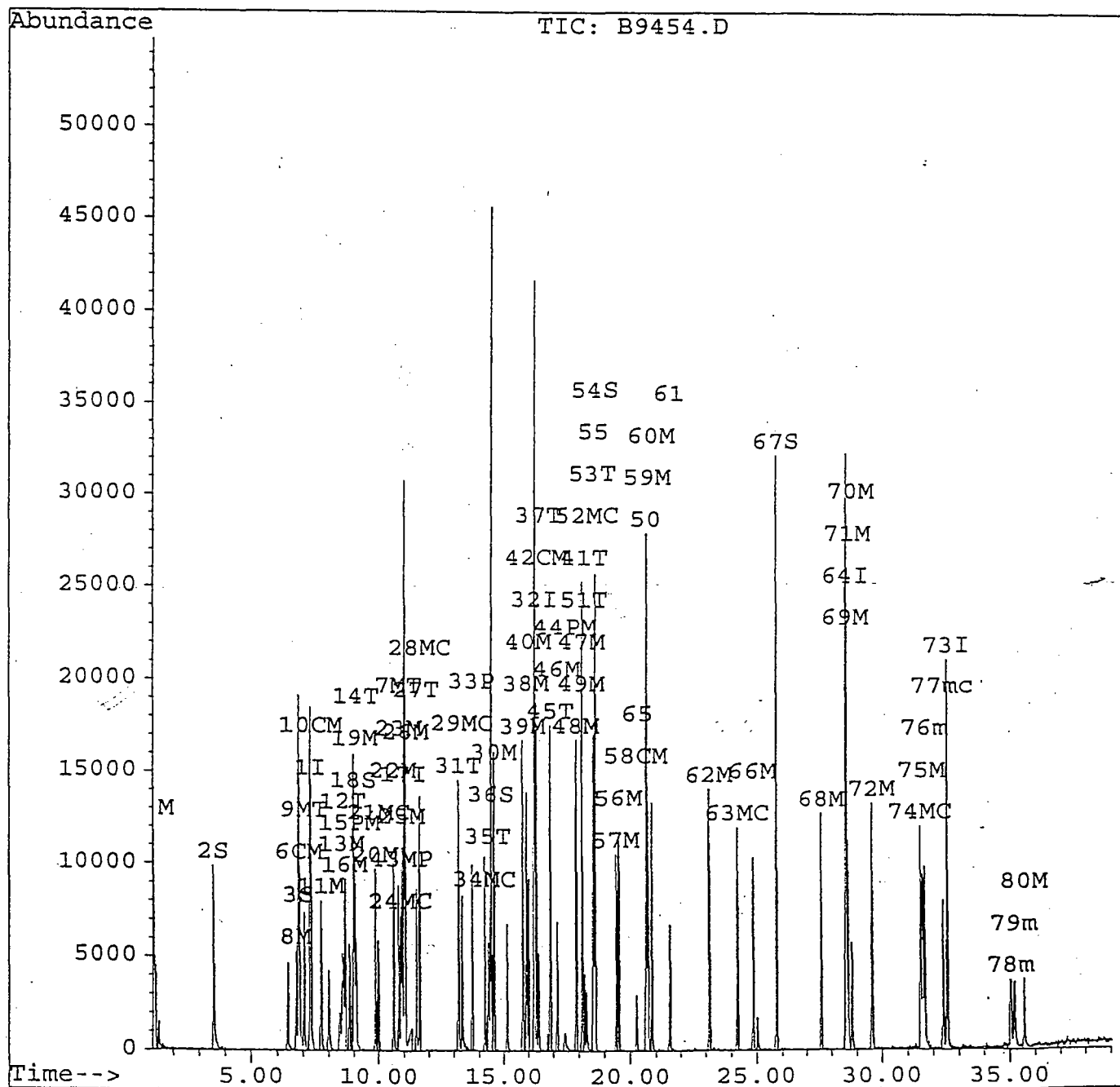
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b9455.d

Acq On : 21 Dec 95 12:18 pm

Sample : 50 STD.....

Misc :

Quant Time: Dec 26 11:51 1995

187

Vial: 3

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.28	152	8004	40.00	ug/mL	-0.56
17) Naphthalene-d8	11.04	136	34892	40.00	ug/mL	-0.54
32) Acenaphthene-d10	16.26	164	20965	40.00	ug/mL	-0.58
50) Phenanthrene-d10	20.65	188	25751	40.00	ug/mL	-0.60
64) Chrysene-d12	28.62	240	23396	40.00	ug/mL	-0.63
73) Perylene-d12	32.55	264	16072	40.00	ug/mL	-0.61
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	3.55	112	10796	47.38	ug/mL	47.38%
3) Phenol-d5	6.84	99	16130	42.51	ug/mL	42.51%
18) Nitrobenzene-d5	9.01	82	15954	38.26	ug/mL	38.26%
36) 2-Fluorobiphenyl	14.50	172	31574	56.65	ug/mL	56.65%
54) 2,4,6-Tribromophenol	18.66	330	8050	71.03	ug/mL	71.03%
67) Terphenyl-d14	25.79	244	26040	40.36	ug/mL	40.36%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.43	74	6976	40.87	ug/mlm	100
6) Phenol	6.88	94	15753	47.74	ug/mL	100
7) bis(2-Chloroethyl) ether	10.82	93	18609	43.12	ug/mL	89
8) 2-Chlorophenol	6.72	128	13188	50.62	ug/mL	90
9) 1,3-Dichlorobenzene	7.07	146	13616	50.29	ug/mL	99
10) 1,4-Dichlorobenzene	7.34	146	14161	51.68	ug/mL	97
11) 1,2-Dichlorobenzene	7.72	146	13798	50.75	ug/mL	98
12) 2-Methylphenol	8.59	108	11542	47.35	ug/mLm	97
13) bis(2-chloroisopropyl) ethe	8.47	45	12427	27.66	ug/mL#	93
14) 4-Methylphenol	9.11	108	12447	47.61	ug/mL	97
15) N-Nitroso-Di-n-propylamine	8.88	70	10482	37.21	ug/mL	88
16) Hexachloroethane	8.67	117	8967	54.11	ug/mL#	77
19) Nitrobenzene	9.07	77	20011	41.02	ug/mL#	77
20) Isophorone	9.92	82	30040	44.71	ug/mL	97
21) 2-Nitrophenol	10.02	139	9284	49.41	ug/mL#	80
22) 2,4-Dimethylphenol	10.61	107	15516	46.80	ug/mL#	100
23) bis(2-Chloroethoxy) methane	10.82	93	18609	41.28	ug/mL#	100
24) 2,4-Dichlorophenol	10.88	162	12585	52.13	ug/mL	95
25) 1,2,4-Trichlorobenzene	10.94	180	13201	48.41	ug/mL	94
26) Naphthalene	11.09	128	41172	49.27	ug/mL	100
27) 4-Chloroaniline	11.52	127	17713	45.52	ug/mL	94
28) Hexachlorobutadiene	11.63	225	8430	51.52	ug/mL	95
29) 4-Chloro-3-methylphenol	13.33	107	14771	42.63	ug/mL	92
30) 2-Chloronaphthalene	14.62	162	28046	46.42	ug/ml#	100
31) 2-Methylnaphthalene	13.21	142	26210	35.80	ug/mL	99
33) Hexachlorocyclopentadiene	13.73	237	9109	64.81	ug/mL	99
34) 2,4,6-Trichlorophenol	14.25	196	9481	51.47	ug/mL	99
35) 2,4,5-Trichlorophenol	14.37	196	9487	50.77	ug/mL	98

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

b9455.d BNACLP.M

Tue Dec 26 12:38:00 1995

BNA

Page 1

Quantitation Report

188

Data File : c:\hpchem\1\data2\b9455.d

Vial: 3

Acq On : 21 Dec 95 12:18 pm

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 26 11:51 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.45	65	9916	29.09	ug/mL	92
38) Dimethylphthalate	15.97	163	34709	48.48	ug/mL#	12
39) Acenaphthylene	15.79	152	45172	53.64	ug/mL	99
40) 2,6-Dinitrotoluene	16.04	165	8250	46.84	ug/mL#	99
41) 3-Nitroaniline	18.30	138	5812	34.06	ug/mL#	77
42) Acenaphthene	16.35	153	28015	52.38	ug/mL	96
43) 2,4-Dinitrophenol	16.78	184	2600	27.17	ug/mLm	71
44) 4-Nitrophenol	17.43	109	4634	37.73	ug/mLm	78
45) Dibenzofuran	16.91	168	38364	51.10	ug/mL#	84
46) 2,4-Dinitrotoluene	17.18	165	8614	35.59	ug/mL#	1
47) Diethylphthalate	18.16	149	36616	46.63	ug/mL	95
48) Fluorene	17.91	166	28788	48.84	ug/mL	94
49) 4-Chlorophenyl-phenylether	18.16	204	13265	47.61	ug/mL#	73
51) 4-Nitroaniline	18.30	138	5812	50.41	ug/mL	77
52) 4,6-Dinitro-2-methylphenol	18.35	198	3739	44.38	ug/mL	100
53) n-Nitrosodiphenylamine	18.59	169	17383	63.67	ug/mL	99
55) 1,2-Diphenylhydrazine (as	18.61	77	43654	56.83	ug/ml	100
56) 4-Bromophenyl-phenylether	19.57	248	8944	66.47	ug/mL	93
57) Hexachlorobenzene	19.49	284	11769	62.27	ug/mL#	78
58) Pentachlorophenol	20.26	266	4704	40.08	ug/mL	97
59) Phenanthrene	20.72	178	33635	52.84	ug/mL	99
60) Anthracene	20.88	178	33856	52.67	ug/mLm	99
61) Carbazole	21.57	167	26489	43.23	ug/ml	94
62) Di-n-butylphthalate	23.17	149	55929	47.47	ug/mL#	98
63) Fluoranthene	24.27	202	34277	48.75	ug/mLm	83
65) Benzidine	20.32	184	317	4.67	ug/mLm	100
66) Pyrene	24.88	202	34777	40.14	ug/mL	95
68) Butylbenzylphthalate	27.62	149	23933	37.69	ug/mL#	25
69) Benzo[a]anthracene	28.60	228	31934	43.56	ug/mL	97
70) 3,3'-Dichlorobenzidine	28.83	252	10964	48.40	ug/mL	97
71) Chrysene	28.69	228	28025	52.95	ug/mLm	97
72) bis(2-Ethylhexyl)phthalate	29.62	149	33349	38.30	ug/mL#	19
74) Di-n-octylphthalate	31.51	149	51581	30.27	ug/mL#	100
75) Benzo[b]fluoranthene	31.60	252	26682	40.92	ug/mL	99
76) Benzo[k]fluoranthene	31.68	252	23647	48.26	ug/mLm	99
77) Benzo[a]pyrene	32.39	252	20248	48.82	ug/mLm	99
78) Indeno[1,2,3-cd]pyrene	35.05	276	10316	35.28	ug/mL	96
79) Dibenz[a,h]anthracene	35.18	278	10651	37.19	ug/mL	95
80) Benzo[g,h,i]perylene	35.57	276	8932	30.66	ug/mLm	97

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

b9455.d BNACLP.M

Tue Dec 26 12:38:39 1995

BNA

Page 2

Quantitation Report

Data File : c:\hpchem\1\data2\b9455.d

Acq On : 21 Dec 95 12:18 pm

Sample : 50 STD.....

Misc :

Quant Time: Dec 26 11:51 1995

Vial: 3

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

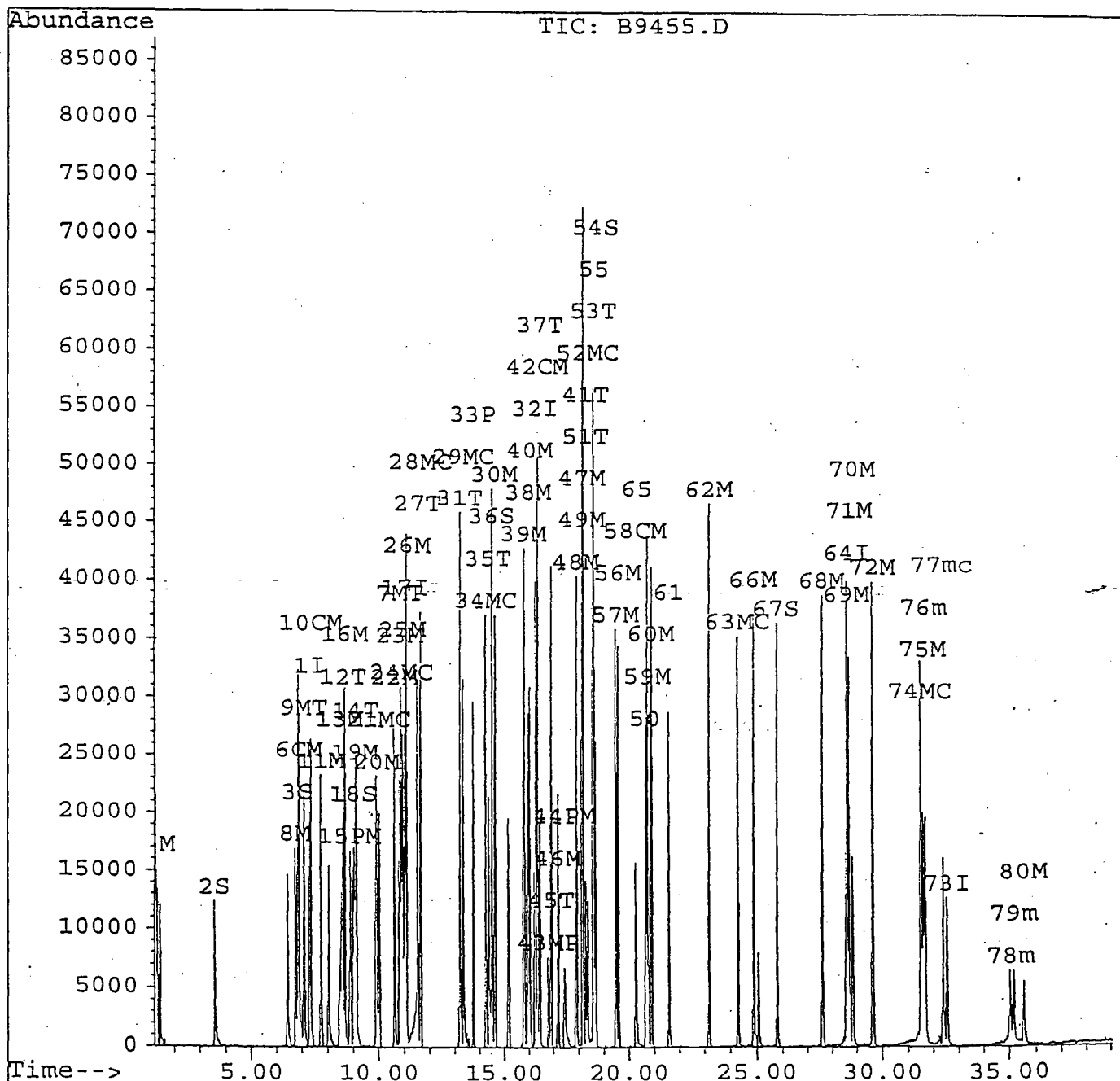
189

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpcchem\1\data2\b9456.d

Acq On : 21 Dec 95 1:10 pm

Sample : 80 STD.....

Misc :

Quant Time: Dec 26 12:00 1995

Vial: 4 180

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.28	152	8895	40.00	ug/mL	-0.55
17) Naphthalene-d8	11.04	136	38554	40.00	ug/mL	-0.53
32) Acenaphthene-d10	16.28	164	23163	40.00	ug/mL	-0.55
50) Phenanthrene-d10	20.68	188	38104	40.00	ug/mL	-0.57
64) Chrysene-d12	28.65	240	38515	40.00	ug/mL	-0.59
73) Perylene-d12	32.54	264	22559	40.00	ug/mL	-0.61
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	3.57	112	12835	50.68	ug/mL	50.68%
3) Phenol-d5	6.86	99	19407	46.02	ug/mL	46.02%
18) Nitrobenzene-d5	9.04	82	19101	41.46	ug/mL	41.46%
36) 2-Fluorobiphenyl	14.51	172	34911	56.70	ug/mL	56.70%
54) 2,4,6-Tribromophenol	18.69	330	10517	62.72	ug/mL	62.72%
67) Terphenyl-d14	25.80	244	48017	45.21	ug/mL	45.21%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.43	74	10289	54.25	ug/mL	100
6) Phenol	6.90	94	29184	79.59	ug/mL	100
7) bis(2-Chloroethyl) ether	10.85	93	32076	66.88	ug/mL	94
8) 2-Chlorophenol	6.73	128	22932	79.21	ug/mL	94
9) 1,3-Dichlorobenzene	7.07	146	23775	79.02	ug/mL	92
10) 1,4-Dichlorobenzene	7.34	146	24405	80.15	ug/mL	97
11) 1,2-Dichlorobenzene	7.73	146	24045	79.58	ug/mL	98
12) 2-Methylphenol	8.61	108	21155	78.09	ug/mL	99
13) bis(2-chloroisopropyl) ethe	8.50	45	21748	43.55	ug/mL	98
14) 4-Methylphenol	9.13	108	23194	79.83	ug/mL	99
15) N-Nitroso-Di-n-propylamine	8.92	70	17507	55.93	ug/mL	94
16) Hexachloroethane	8.67	117	15793	85.76	ug/mL#	80
19) Nitrobenzene	9.10	77	37043	68.72	ug/mL#	82
20) Isophorone	9.96	82	54123	72.91	ug/mL	96
21) 2-Nitrophenol	10.04	139	15978	76.96	ug/mL#	84
22) 2,4-Dimethylphenol	10.65	107	27775	75.81	ug/mL#	100
23) bis(2-Chloroethoxy) methane	10.85	93	32076	64.40	ug/mL#	100
24) 2,4-Dichlorophenol	10.91	162	20955	78.56	ug/mL	99
25) 1,2,4-Trichlorobenzene	10.96	180	22417	74.40	ug/mL	95
26) Naphthalene	11.10	128	69662	75.44	ug/mL	100
27) 4-Chloroaniline	11.54	127	33624	78.21	ug/mL	99
28) Hexachlorobutadiene	11.64	225	13513	74.73	ug/mL	99
29) 4-Chloro-3-methylphenol	13.33	107	25746	67.24	ug/mL	98
30) 2-Chloronaphthalene	14.64	162	45214	67.73	ug/mL#	100
31) 2-Methylnaphthalene	13.22	142	46386	57.34	ug/mL	96
33) Hexachlorocyclopentadiene	13.74	237	15949	102.71	ug/mL	99
34) 2,4,6-Trichlorophenol	14.26	196	16557	81.36	ug/mL	97
35) 2,4,5-Trichlorophenol	14.35	196	17168	83.15	ug/mL	93

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

b9456.d BNACLP.M

Tue Dec 26 12:39:45 1995

BNA

Page 1

Quantitation Report

Data File : c:\hpchem\1\data2\b9456.d

Vial: 4 191

Acq On : 21 Dec 95 1:10 pm

Operator: SCOTTV

Sample : 80 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 26 12:00 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.47	65	22280	59.17	ug/mL	85
38) Dimethylphthalate	16.01	163	58869	74.42	ug/mL#	12
39) Acenaphthylene	15.82	152	77218	82.99	ug/mL	99
40) 2,6-Dinitrotoluene	16.07	165	14251	73.23	ug/mL#	100
41) 3-Nitroaniline	18.36	138	13461	71.40	ug/mL#	83
42) Acenaphthene	16.38	153	47163	79.81	ug/mL	97
43) 2,4-Dinitrophenol	16.80	184	6858	64.88	ug/mL	89
44) 4-Nitrophenol	17.42	109	11409	84.07	ug/mL#	78
45) Dibenzofuran	16.92	168	69770	84.11	ug/mL	89
46) 2,4-Dinitrotoluene	17.21	165	19651	73.48	ug/mL#	1
47) Diethylphthalate	18.19	149	64429	74.26	ug/mL	95
48) Fluorene	17.94	166	49570	76.12	ug/mL	96
49) 4-Chlorophenyl-phenylether	18.17	204	22315	72.49	ug/mL#	81
51) 4-Nitroaniline	18.36	138	13461	78.91	ug/mL	83
52) 4,6-Dinitro-2-methylphenol	18.42	198	11092	88.97	ug/mL	100
53) n-Nitrosodiphenylamine	18.61	169	30957	76.63	ug/mL	97
55) 1,2-Diphenylhydrazine (as	18.63	77	84354	74.22	ug/mL	100
56) 4-Bromophenyl-phenylether	19.60	248	16761	84.18	ug/mL#	83
57) Hexachlorobenzene	19.52	284	24393	87.22	ug/mL#	67
58) Pentachlorophenol	20.29	266	13970	80.43	ug/mL	97
59) Phenanthrene	20.75	178	77201	81.97	ug/mLm	99
60) Anthracene	20.91	178	78172	82.19	ug/mL	99
61) Carbazole	21.60	167	73111	80.63	ug/mL	95
62) Di-n-butylphthalate	23.18	149	144908	83.12	ug/mL	99
63) Fluoranthene	24.30	202	95434	91.73	ug/mLm	81
65) Benzidine	20.33	184	688	6.15	ug/mLm	100
66) Pyrene	24.91	202	97013	68.01	ug/mL#	90
68) Butylbenzylphthalate	27.63	149	64270	61.48	ug/mL#	23
69) Benzo[a]anthracene	28.61	228	89034	73.77	ug/mL	100
70) 3,3'-Dichlorobenzidine	28.84	252	29641	79.48	ug/mL#	93
71) Chrysene	28.71	228	68904	79.08	ug/mLm	100
72) bis(2-Ethylhexyl)phthalate	29.63	149	90066	62.84	ug/mL#	28
74) Di-n-octylphthalate	31.52	149	138120	57.74	ug/mL#	100
75) Benzo[b]fluoranthene	31.62	252	71800	78.45	ug/mL	99
76) Benzo[k]fluoranthene	31.69	252	51514	74.90	ug/mLm	99
77) Benzo[a]pyrene	32.41	252	51963	89.25	ug/mLm	99
78) Indeno[1,2,3-cd]pyrene	35.04	276	27346	66.62	ug/mL	99
79) Dibenz[a,h]anthracene	35.18	278	27796	69.14	ug/mL	95
80) Benzo[g,h,i]perylene	35.56	276	27708	67.77	ug/mLm	99

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

Quantitation Report

192

Data File : c:\hpchem\1\data2\b9456.d

Acq On : 21 Dec 95 1:10 pm

Sample : 80 STD.....

Misc :

Quant Time: Dec 26 12:00 1995

Vial: 4

Operator: SCOTTV

Converted from RTE d Inst : ABNA

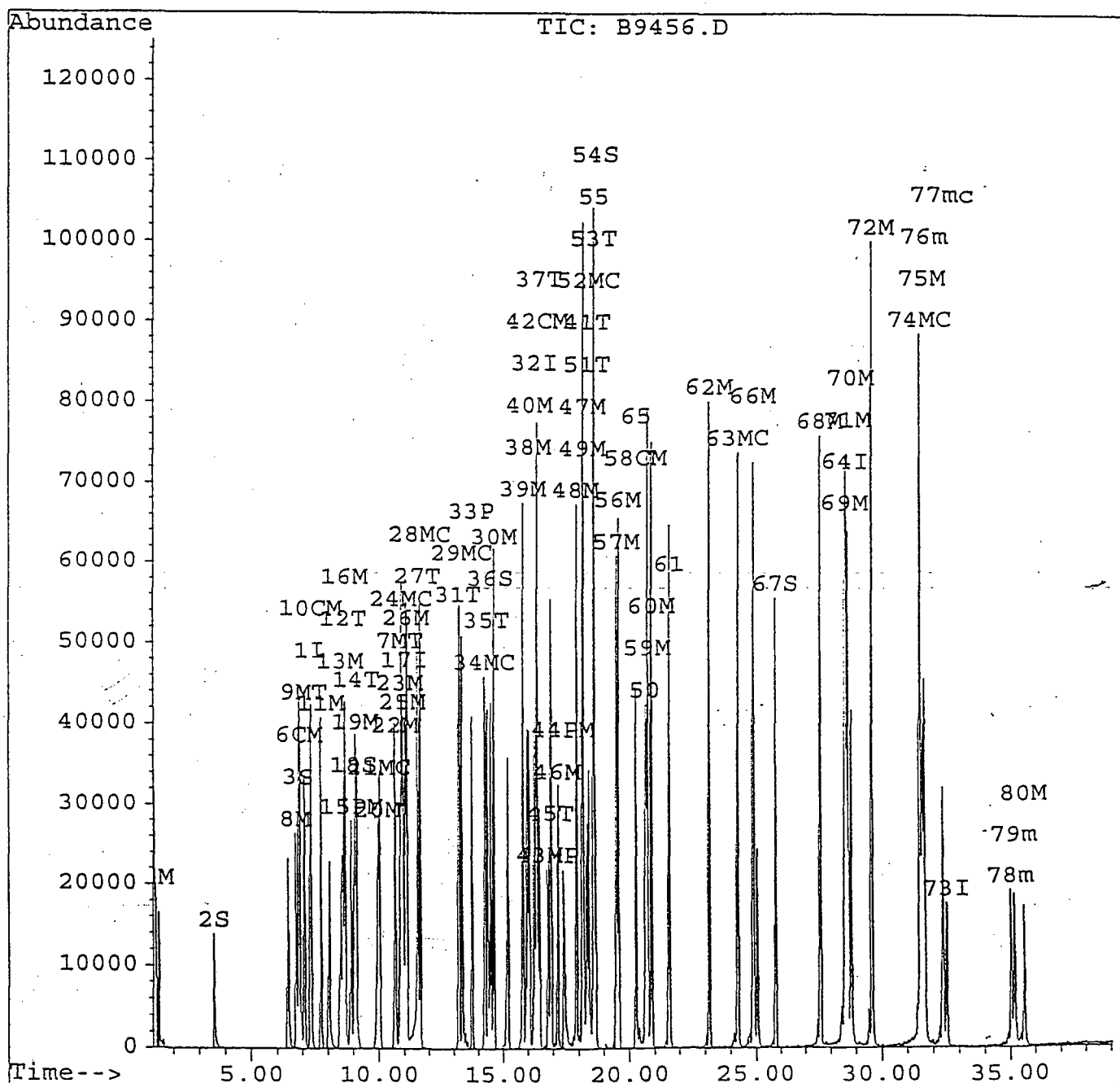
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpcchem\1\data2\b9457.d

Vial: 5 193

Acq On : 21 Dec 95 2:02 pm

Operator: SCOTTV

Sample : 120 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 26 12:00 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.30	152	8190	40.00	ug/mL	-0.54
17) Naphthalene-d8	11.06	136	35391	40.00	ug/mL	-0.51
32) Acenaphthene-d10	16.28	164	22200	40.00	ug/mL	-0.55
50) Phenanthrene-d10	20.68	188	34602	40.00	ug/mL	-0.57
64) Chrysene-d12	28.66	240	32600	40.00	ug/mL	-0.59
73) Perylene-d12	32.53	264	18735	40.00	ug/mL	-0.62

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	3.57	112	12125	52.00	ug/mL	52.00%
3) Phenol-d5	6.88	99	18477	47.59	ug/mL	47.59%
18) Nitrobenzene-d5	9.06	82	17988	42.53	ug/mL	42.53%
36) 2-Fluorobiphenyl	14.53	172	32672	55.36	ug/mL	55.36%
54) 2,4,6-Tribromophenol	18.69	330	10000	65.67	ug/mL	65.67%
67) Terphenyl-d14	25.79	244	41637	46.32	ug/mL	46.32%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.45	74	20634	118.15	ug/mlm	100
6) Phenol	6.92	94	42436	125.69	ug/mL	100
7) bis(2-Chloroethyl) ether	10.87	93	47690	108.00	ug/mL	96
8) 2-Chlorophenol	6.74	128	33167	124.42	ug/mL	96
9) 1,3-Dichlorobenzene	7.09	146	34619	124.97	ug/mL	100
10) 1,4-Dichlorobenzene	7.36	146	35798	127.68	ug/mL	97
11) 1,2-Dichlorobenzene	7.75	146	34486	123.96	ug/mL	96
12) 2-Methylphenol	8.63	108	29290	117.42	ug/mLm	99
13) bis(2-chloroisopropyl) ethe	8.50	45	48332	105.12	ug/mL#	94
14) 4-Methylphenol	9.17	108	32087	119.94	ug/mL	99
15) N-Nitroso-Di-n-propylamine	8.96	70	27347	94.88	ug/mL	93
16) Hexachloroethane	8.69	117	22000	129.75	ug/mL#	70
19) Nitrobenzene	9.11	77	51833	104.75	ug/mL	92
20) Isophorone	10.02	82	76712	112.57	ug/mL	99
21) 2-Nitrophenol	10.06	139	22639	118.78	ug/mL#	88
22) 2,4-Dimethylphenol	10.67	107	38451	114.33	ug/mL#	100
23) bis(2-Chloroethoxy) methane	10.87	93	47690	104.30	ug/mL#	100
24) 2,4-Dichlorophenol	10.93	162	28385	115.92	ug/mL	96
25) 1,2,4-Trichlorobenzene	10.96	180	30567	110.51	ug/mL	94
26) Naphthalene	11.12	128	92013	108.55	ug/mL	100
27) 4-Chloroaniline	11.56	127	47491	120.34	ug/mL	99
28) Hexachlorobutadiene	11.64	225	19723	118.83	ug/mL	98
29) 4-Chloro-3-methylphenol	13.35	107	36615	104.18	ug/mL	96
30) 2-Chloronaphthalene	14.64	162	67502	110.15	ug/mL#	100
31) 2-Methylnaphthalene	13.24	142	63165	85.06	ug/mL	97
33) Hexachlorocyclopentadiene	13.76	237	23556	158.28	ug/mL	99
34) 2,4,6-Trichlorophenol	14.28	196	24740	126.84	ug/mL	99
35) 2,4,5-Trichlorophenol	14.37	196	23132	116.90	ug/mL	94

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

b9457.d BNACLP.M

Tue Dec 26 12:40:48 1995

BNA

Page 1

Quantitation Report

Data File : c:\hpchem\1\data2\b9457.d

Acq On : 21 Dec 95 2:02 pm

Sample : 120 STD.....

Misc :

Quant Time: Dec 26 12:00 1995

Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

194

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.49	65	28959	80.24	ug/mL	93
38) Dimethylphthalate	16.03	163	78566	103.63	ug/mL#	12
39) Acenaphthylene	15.82	152	114738	128.66	ug/mL	99
40) 2,6-Dinitrotoluene	16.09	165	19290	103.42	ug/mL#	97
41) 3-Nitroaniline	18.37	138	14668	81.18	ug/mL#	85
42) Acenaphthene	16.38	153	71340	125.96	ug/mL	99
43) 2,4-Dinitrophenol	16.82	184	10898	107.57	ug/mL	94
44) 4-Nitrophenol	17.44	109	16951	130.32	ug/mL	85
45) Dibenzofuran	16.94	168	86490	108.79	ug/mL#	83
46) 2,4-Dinitrotoluene	17.23	165	26014	101.49	ug/mL#	1
47) Diethylphthalate	18.21	149	88020	105.86	ug/mL#	93
48) Fluorene	17.96	166	71673	114.84	ug/mL	97
49) 4-Chlorophenyl-phenylether	18.19	204	31028	105.16	ug/mL#	69
51) 4-Nitroaniline	18.37	138	14668	94.69	ug/mL	85
52) 4,6-Dinitro-2-methylphenol	18.42	198	15657	138.30	ug/mL	100
53) n-Nitrosodiphenylamine	18.62	169	44226	120.55	ug/mL	94
55) 1,2-Diphenylhydrazine (as	18.66	77	123892	120.03	ug/mL	100
56) 4-Bromophenyl-phenylether	19.60	248	23142	128.00	ug/mL#	85
57) Hexachlorobenzene	19.52	284	35191	138.57	ug/mL#	83
58) Pentachlorophenol	20.29	266	21519	136.44	ug/mL	97
59) Phenanthrene	20.76	178	107392	125.56	ug/mL	99
60) Anthracene	20.91	178	105043	121.62	ug/mLm	99
61) Carbazole	21.61	167	104225	126.58	ug/mL	96
62) Di-n-butylphthalate	23.18	149	193398	122.17	ug/mL#	99
63) Fluoranthene	24.30	202	123997	131.25	ug/mLm	77
65) Benzidine	20.33	184	1007	10.64	ug/mLm	100
66) Pyrene	24.92	202	128320	106.28	ug/mL#	88
68) Butylbenzylphthalate	27.62	149	85757	96.92	ug/mL#	27
69) Benzo[a]anthracene	28.62	228	124306	121.68	ug/mL	100
70) 3,3'-Dichlorobenzidine	28.83	252	49504	156.82	ug/mL#	95
71) Chrysene	28.71	228	81173	110.06	ug/mLm	100
72) bis(2-Ethylhexyl)phthalate	29.62	149	119876	98.81	ug/mL#	23
74) Di-n-octylphthalate	31.51	149	190845	96.07	ug/mL#	100
75) Benzo[b]fluoranthene	31.63	252	80942	106.49	ug/mLm	97
76) Benzo[k]fluoranthene	31.70	252	54593	95.58	ug/mLm	97
77) Benzo[a]pyrene	32.40	252	59541	123.14	ug/mLm	97
78) Indeno[1,2,3-cd]pyrene	35.03	276	29204	85.67	ug/mL	99
79) Dibenz[a,h]anthracene	35.17	278	29443	88.19	ug/mL#	91
80) Benzo[g,h,i]perylene	35.56	276	28700	84.52	ug/mLm	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b9457.d

Acq On : 21 Dec 95 2:02 pm

Sample : 120 STD.....

Misc :

Quant Time: Dec 26 12:00 1995

Vial: 5 195

Operator: SCOTTV

Converted from RTE d Inst : ABNA

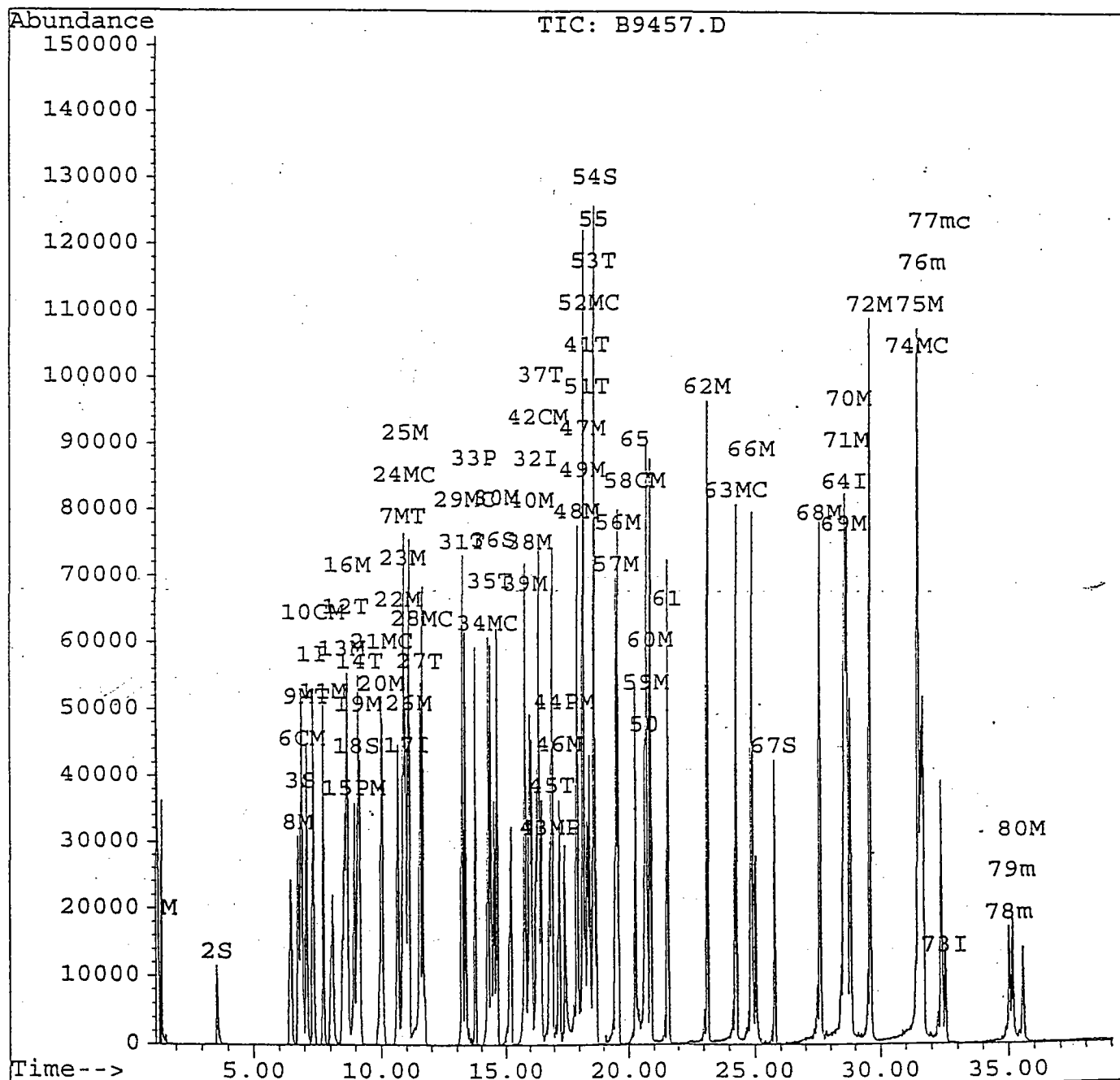
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



Quantitation Report

196

Data File : c:\hpcchem\1\data2\b9458.d

Vial: 6

Acq On : 21 Dec 95 2:54 pm

Operator: SCOTTV

Sample : 160 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 26 12:02 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.30	152	8269	40.00	ug/mL	-0.54
17) Naphthalene-d8	11.06	136	34499	40.00	ug/mL	-0.51
32) Acenaphthene-d10	16.29	164	21782	40.00	ug/mL	-0.55
50) Phenanthrene-d10	20.67	188	27930	40.00	ug/mL	-0.58
64) Chrysene-d12	28.65	240	23706	40.00	ug/mL	-0.59
73) Perylene-d12	32.54	264	14423	40.00	ug/mL	-0.61

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	3.57	112	12694	53.92	ug/mL	53.92%
3) Phenol-d5	6.88	99	21421	54.64	ug/mL	54.64%
18) Nitrobenzene-d5	9.06	82	17829	43.25	ug/mL	43.25%
36) 2-Fluorobiphenyl	14.53	172	33244	57.41	ug/mL	57.41%
54) 2,4,6-Tribromophenol	18.70	330	8467	68.88	ug/mL	68.88%
67) Terphenyl-d14	25.79	244	32094	49.10	ug/mL	49.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-nitrosodimethylamine	1.45	74	28534	161.82	ug/mlm	100
6) Phenol	6.92	94	53208	156.09	ug/mL	100
7) bis(2-Chloroethyl) ether	10.89	93	61925	138.90	ug/mL	87
8) 2-Chlorophenol	6.76	128	42995	159.75	ug/mL	97
9) 1,3-Dichlorobenzene	7.09	146	45149	161.42	ug/mL	99
10) 1,4-Dichlorobenzene	7.36	146	44987	158.92	ug/mL	97
11) 1,2-Dichlorobenzene	7.75	146	43720	155.65	ug/mL	97
12) 2-Methylphenol	8.65	108	37342	148.27	ug/mLm	94
13) bis(2-chloroisopropyl) ethe	8.50	45	64623	139.21	ug/mL#	93
14) 4-Methylphenol	9.19	108	42669	157.98	ug/mL	94
15) N-Nitroso-Di-n-propylamine	8.98	70	37226	127.93	ug/mL	99
16) Hexachloroethane	8.69	117	28100	164.14	ug/mL#	78
19) Nitrobenzene	9.13	77	69678	144.45	ug/mL	98
20) Isophorone	10.06	82	101950	153.48	ug/mLm	97
21) 2-Nitrophenol	10.06	139	29260	157.49	ug/mL	91
22) 2,4-Dimethylphenol	10.68	107	51255	156.35	ug/mL#	100
23) bis(2-Chloroethoxy) methane	10.89	93	61925	138.93	ug/mL#	100
24) 2,4-Dichlorophenol	10.93	162	35697	149.55	ug/mL	97
25) 1,2,4-Trichlorobenzene	10.98	180	38777	143.82	ug/mL	93
26) Naphthalene	11.14	128	129660	156.92	ug/mL	99
27) 4-Chloroaniline	11.56	127	58737	152.68	ug/mL	99
28) Hexachlorobutadiene	11.66	225	23811	147.16	ug/mL	98
29) 4-Chloro-3-methylphenol	13.35	107	47402	138.36	ug/mL	96
30) 2-Chloronaphthalene	14.67	162	89457	149.75	ug/ml#	100
31) 2-Methylnaphthalene	13.24	142	91151	125.92	ug/mL	95
33) Hexachlorocyclopentadiene	13.76	237	30132	206.35	ug/mL	98
34) 2,4,6-Trichlorophenol	14.28	196	37340	195.12	ug/mL	97
35) 2,4,5-Trichlorophenol	14.38	196	25693	132.34	ug/mL	97

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

b9458.d BNACLP.M

Tue Dec 26 12:41:44 1995

BNA

Page 1

Quantitation Report

197

Data File : c:\hpchem\1\data2\b9458.d

Acq On : 21 Dec 95 2:54 pm

Sample : 160 STD.....

Misc :

Quant Time: Dec 26 12:02 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.52	65	36969	104.40	ug/mL	87
38) Dimethylphthalate	16.03	163	91077	122.44	ug/mL#	11
39) Acenaphthylene	15.84	152	149482	170.84	ug/mL	100
40) 2,6-Dinitrotoluene	16.11	165	23495	128.39	ug/mL#	93
41) 3-Nitroaniline	18.37	138	14010	79.02	ug/mL	90
42) Acenaphthene	16.40	153	94052	169.25	ug/mL	96
43) 2,4-Dinitrophenol	16.83	184	12676	127.52	ug/mL	86
44) 4-Nitrophenol	17.44	109	16337	128.01	ug/mL#	81
45) Dibenzofuran	16.94	168	108498	139.09	ug/mL#	87
46) 2,4-Dinitrotoluene	17.25	165	28746	114.30	ug/mL#	1
47) Diethylphthalate	18.22	149	98897	121.22	ug/mL#	92
48) Fluorene	17.96	166	81212	132.62	ug/mL	95
49) 4-Chlorophenyl-phenylether	18.20	204	36009	124.38	ug/mL#	70
51) 4-Nitroaniline	18.37	138	14010	112.04	ug/mL	90
52) 4,6-Dinitro-2-methylphenol	18.45	198	12005	131.37	ug/mL	100
53) n-Nitrosodiphenylamine	18.62	169	50591	170.84	ug/mL	98
55) 1,2-Diphenylhydrazine (as	18.66	77	141967	170.40	ug/ml	100
56) 4-Bromophenyl-phenylether	19.61	248	26396	180.87	ug/mL#	89
57) Hexachlorobenzene	19.53	284	39275	191.60	ug/mL#	87
58) Pentachlorophenol	20.30	266	23142	181.78	ug/mL	95
59) Phenanthrene	20.76	178	119616	173.26	ug/mL	99
60) Anthracene	20.92	178	119156	170.92	ug/mLm	99
61) Carbazole	21.61	167	108930	163.89	ug/ml	95
62) Di-n-butylphthalate	23.19	149	205554	160.87	ug/mL#	98
63) Fluoranthene	24.31	202	131389	172.29	ug/mLm	82
65) Benzidine	20.34	184	1395	20.27	ug/mlm	100
66) Pyrene	24.91	202	129819	147.87	ug/mL	92
68) Butylbenzylphthalate	27.63	149	84223	130.90	ug/mL#	25
69) Benzo[a]anthracene	28.63	228	128013	172.33	ug/mL	99
70) 3,3'-Dichlorobenzidine	28.84	252	37391	162.89	ug/mL#	95
71) Chrysene	28.73	228	68647	128.00	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	29.63	149	120019	136.04	ug/mL#	25
74) Di-n-octylphthalate	31.52	149	187341	122.50	ug/mL#	100
75) Benzo[b]fluoranthene	31.64	252	81381	139.08	ug/mLm	97
76) Benzo[k]fluoranthene	31.64	252	77913	177.18	ug/mLm	97
77) Benzo[a]pyrene	32.41	252	61572	165.42	ug/mLm	97
78) Indeno[1,2,3-cd]pyrene	35.05	276	29591	112.76	ug/mL	98
79) Dibenz[a,h]anthracene	35.18	278	31456	122.38	ug/mL#	92
80) Benzo[g,h,i]perylene	35.57	276	24967	95.51	ug/mLm	99

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

b9458.d BNACLP.M

Tue Dec 26 12:41:52 1995

BNA

Page 2

Quantitation Report

198

Data File : c:\hpchem\1\data2\b9458.d

Acq On : 21 Dec 95 2:54 pm

Sample : 160 STD.....

Misc :

Quant Time: Dec 26 12:02 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

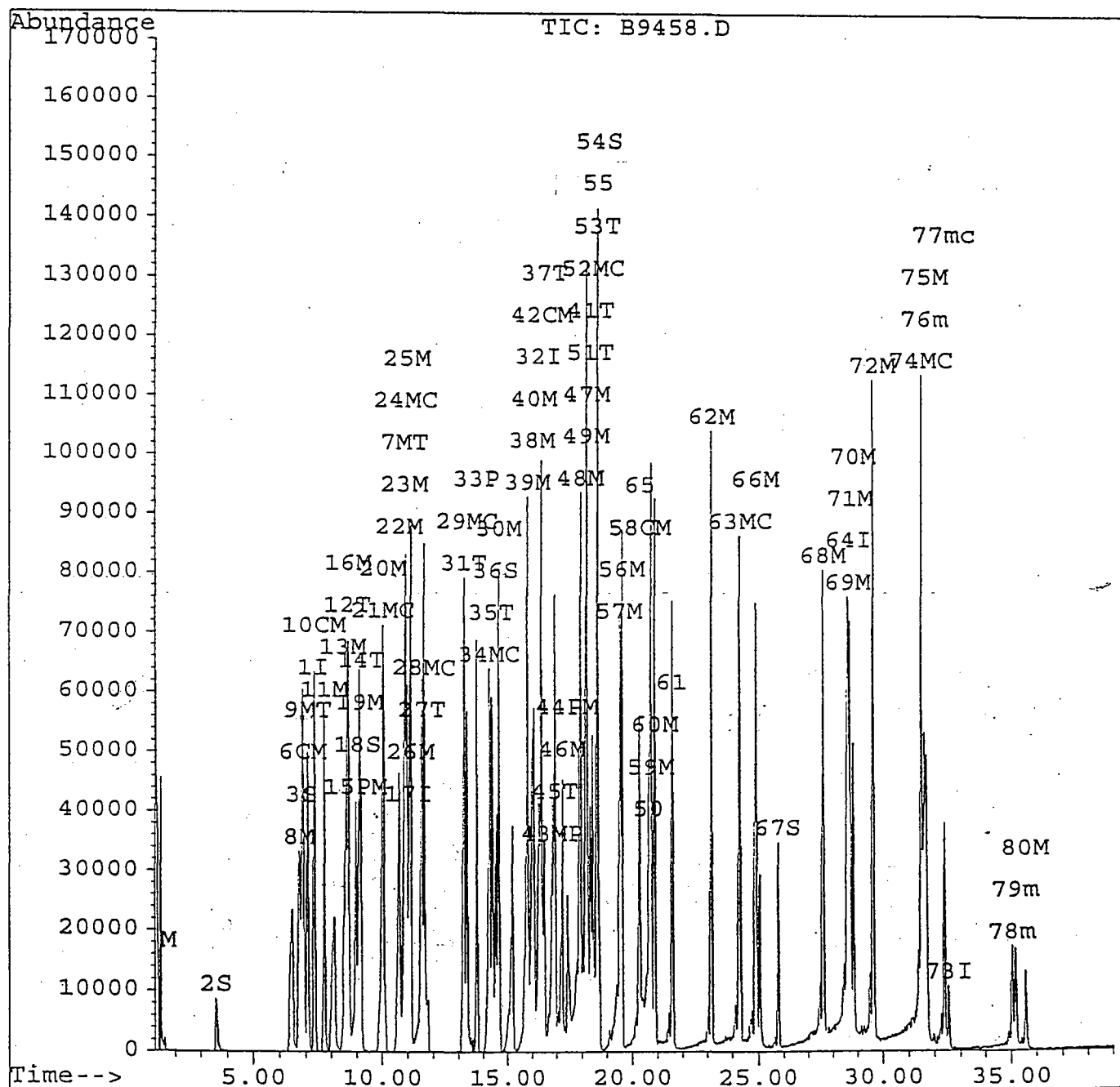
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

199

Lab Name : EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Lab File ID: B9005.D DFTPP Injection Date: 10/27/95
 Instrument ID: ABNA DFTPP Injection Time: 1121

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	58.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	76.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	46.5
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	7.5
275	10.0 - 30.0% of mass 198	19.3
365	Greater than 0.75% of mass 198	2.3
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	62.3
443	15.0 - 24.0% of mass 442	11.8 (19.0)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	B9008.D	10/27/95	1329
02	SBLK01	BLANK1	B9009.D	10/27/95	1421
03	9547000B	9547000B	B9010.D	10/27/95	1512
04	46360MS	46360MS	B9011.D	10/27/95	1604
05	46360MSD	46360MSD	B9012.D	10/27/95	1656
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

200

Data File : C:\HPCHEM\1\DATA2\B9005.D

Vial: 1

Acq On : 27 Oct 95 11:21 am

Operator: SCOTTV

Sample : DFTPP.....

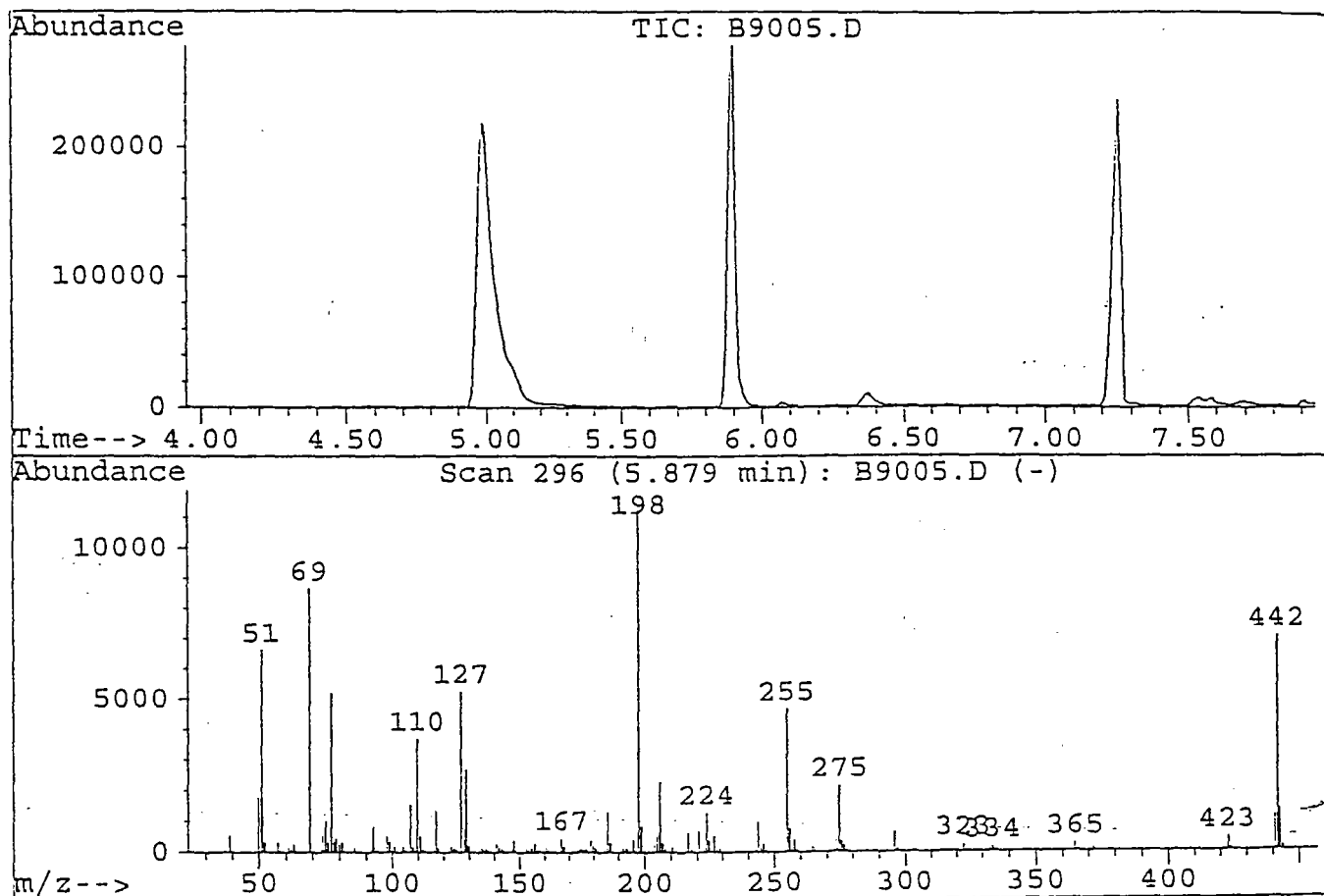
Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58.5	6640	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	76.5	8681	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	46.5	5278	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	11354	PASS
199	198	5	9	7.5	851	PASS
275	198	10	30	19.3	2186	PASS
365	198	1	100	2.3	262	PASS
441	443	0	100	85.7	1150	PASS
442	198	40	100	62.3	7070	PASS
443	442	17	23	19.0	1342	PASS

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	76	61.05	162	78.05	357	92.95	836
39.10	538	62.05	105	78.95	456	94.05	60
40.10	11	63.05	251	80.05	272	96.00	4
49.15	60	64.05	21	81.05	337	98.00	514
50.10	1802	65.05	39	82.05	22	99.00	334
51.10	6640	69.05	8681	83.95	27	100.00	61
52.10	309	73.25	96	84.15	30	100.90	173
56.05	84	74.05	568	85.95	152	102.10	23
57.05	325	74.95	1043	87.05	60	103.00	131
57.95	40	75.95	325	88.15	24	104.00	213
58.95	33	77.05	5224	92.15	139	105.00	77

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
106.10	45	119.20	28	131.95	21	145.95	60
107.00	1558	120.10	23	133.85	94	147.05	123
108.00	176	122.10	159	135.05	173	147.95	389
109.10	71	123.10	219	135.95	85	148.85	58
109.95	3714	124.00	134	136.95	116	150.05	34
111.00	519	125.00	94	137.75	36	151.25	56
112.00	87	127.00	5278	140.05	29	151.95	43
113.10	31	128.00	424	140.95	285	152.95	140
116.00	131	128.95	2715	141.95	153	153.95	69
117.00	1370	129.85	217	143.05	97	154.95	138
117.90	140	131.10	50	145.05	19	156.05	290

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
157.15	71	169.10	53	178.80	398	189.90	28
157.95	86	170.20	25	179.85	215	190.90	62
158.95	48	170.90	34	180.90	122	191.90	140
159.95	73	171.90	78	181.90	29	193.00	137
160.85	143	173.00	95	182.80	17	195.00	27
161.95	53	174.00	147	184.00	47	195.90	402
164.05	17	175.00	154	184.80	122	197.90	11354
164.90	13	176.00	98	185.85	1327	198.80	851
165.95	79	177.10	135	186.90	319	200.00	72
166.90	470	177.80	31	187.90	49	201.40	85
167.90	186	178.10	37	188.80	46	203.00	60

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.80	274	220.95	681	234.95	47	246.90	54
204.95	542	222.85	148	235.95	43	247.60	10
205.95	2320	223.85	1298	236.95	67	248.90	64
206.85	289	224.95	385	239.05	37	253.40	16
207.95	112	225.95	47	239.90	19	254.90	4690
208.95	41	226.95	533	240.90	49	255.80	735
210.75	167	227.95	107	241.80	74	256.90	64
214.85	42	228.85	163	242.90	80	257.90	400
215.95	68	229.95	32	243.90	1011	258.90	49
216.75	644	230.85	57	244.80	168	264.90	163
217.95	101	233.85	55	245.90	273	271.80	20

Scan 296 (5.879 min): B9005.D

202

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.90	141	302.85	75	331.70	25	365.85	41
273.80	394	303.95	33	332.90	24	370.85	31
274.90	2186	313.80	44	333.90	159	371.85	130
275.90	356	314.90	72	334.90	33	382.55	16
276.85	235	315.90	45	340.70	20	382.95	24
277.75	37	320.70	24	345.80	64	389.70	22
282.95	18	321.80	17	351.95	54	401.90	58
284.95	37	322.90	232	352.95	51	402.80	67
293.05	43	323.90	53	353.85	74	403.70	21
295.85	649	326.70	36	354.85	17	420.90	47
296.85	108	327.90	29	364.85	262	422.90	447

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
423.85	81						
440.85	1150						
441.85	7070						
442.75	1342						
443.75	155						

Quantitation Report

203

Data File : C:\HPCHEM\1\DATA2\B9005.D

Vial: 1

Acq On : 27 Oct 95 11:21 am

Operator: SCOTTV

Sample : DFTPP.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

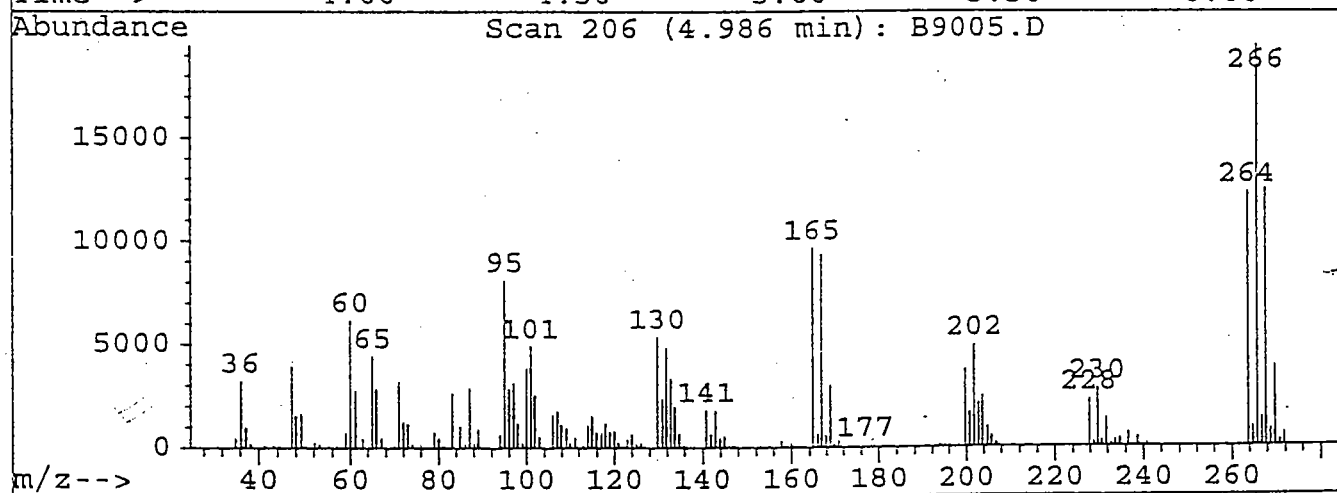
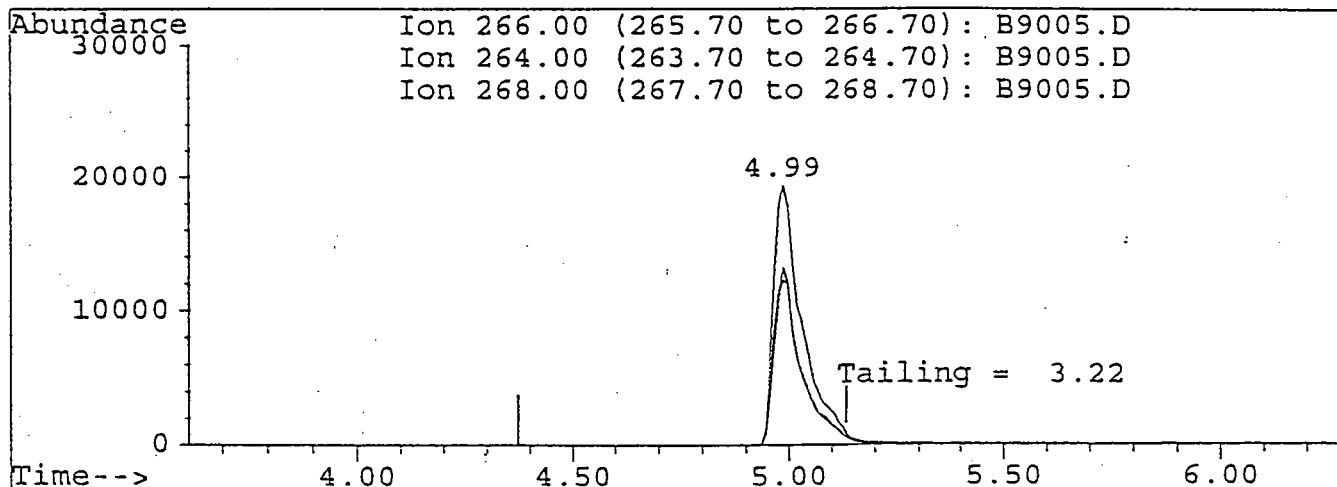
Quant Time: Oct 27 12:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



TIC: B9005.D

(1) Pentachlorophenol (CM)

4.99min 272.64ug/mL

response 90052

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	63.35
268.00	64.70	68.27
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9005.D

Acq On : 27 Oct 95 11:21 am

Sample : DFTPP.....

Misc :

Quant Time: Oct 27 12:32 1995

Vial: 1

Operator: SCOTTV

Converted from RTE d Inst : ABNA

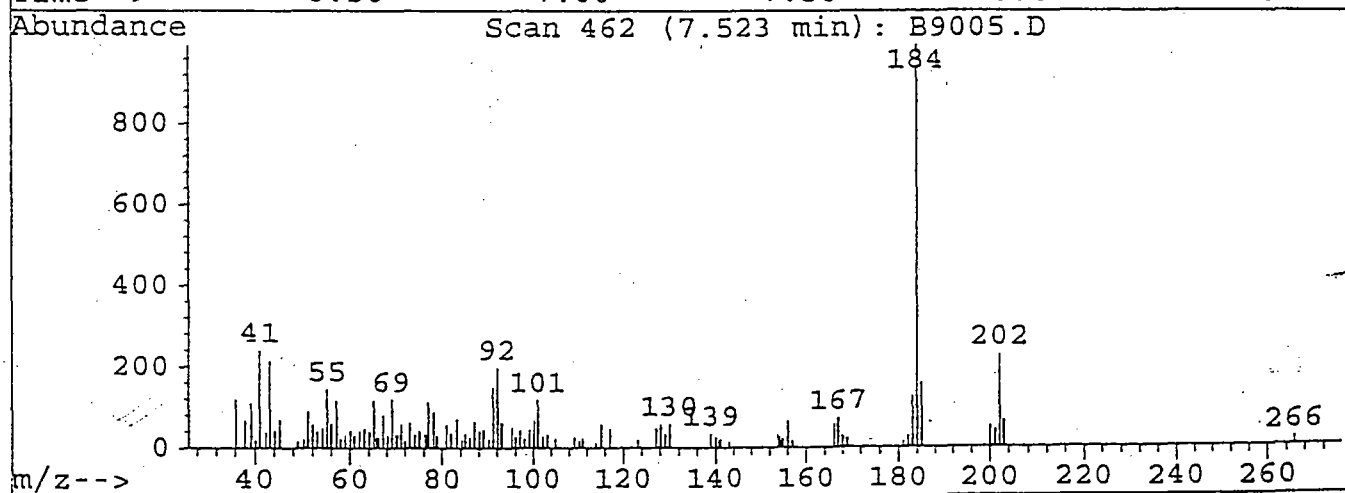
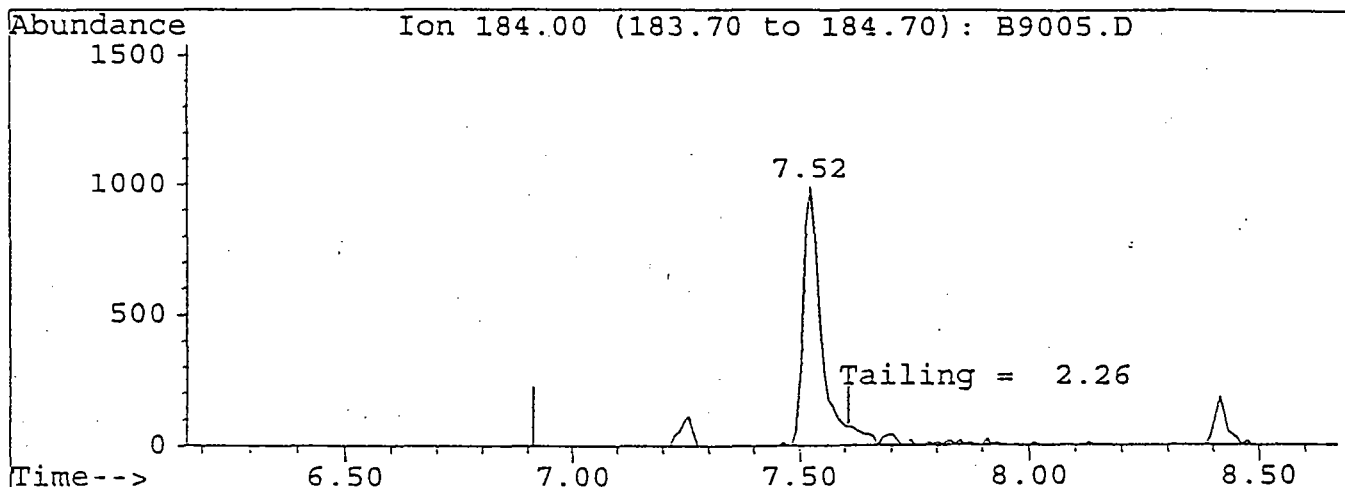
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



TIC: B9005.D

(2) Benzidine

7.52min 9.14ug/ml

response 2809

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

SEMIVOLATILE CONTINUING CALIBRATION CHECK

205

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: ABNA

Calibration Date: ####

Time: 1329

Lab File ID: B9008.D

Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1329 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.887	0.841		5.2	
bis(2-Chloroethyl)ether	2.373	2.336		1.6	
1,3-Dichlorobenzene	1.367	1.410		-3.1	
1,4-Dichlorobenzene	1.383	1.419		-2.6	30.0
1,2-Dichlorobenzene	1.347	1.385		-2.8	
bis(2-chloroisopropyl)ether	2.234	1.940		13.2	
N-Nitroso-Di-n-propylamine	1.528	1.444	0.050	5.5	
Hexachloroethane	0.868	0.883		-1.7	
Nitrobenzene	0.519	0.516		0.6	
Isophorone	1.101	1.024		7.0	
bis(2-Chloroethoxy)methane	0.603	0.598		0.8	
1,2,4-Trichlorobenzene	0.304	0.309		-1.6	
Naphthalene	1.003	0.942		6.1	
Hexachlorobutadiene	0.160	0.160		0.0	30.0
Hexachlorocyclopentadiene	0.289	0.246	0.050	14.9	
2-Chloronaphthalene	0.634	0.647		-2.1	
Dimethylphthalate	1.368	1.400		-2.3	
Acenaphthylene	1.801	1.833		-1.8	
2,6-Dinitrotoluene	0.308	0.351		-14.0	
Acenaphthene	1.020	1.150		-12.7	30.0
2,4-Dinitrotoluene	0.452	0.459		-1.5	
Diethylphthalate	1.556	1.602		-3.0	
Fluorene	1.167	1.206		-3.3	
4-Chlorophenyl-phenylether	0.509	0.505		0.8	
n-Nitrosodiphenylamine	0.543	0.578		-6.4	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.187	0.199		-6.4	
Hexachlorobenzene	0.237	0.247		-4.2	
Phenanthrene	1.087	1.152		-6.0	
Anthracene	1.068	1.135		-6.3	
Di-n-butylphthalate	2.011	1.728		14.1	
Fluoranthene	1.092	0.939		14.0	30.0
Benzidine	0.274	0.276		-0.7	
Pyrene	1.600	1.832		-14.5	
Butylbenzylphthalate	1.245	1.293		-3.9	
Benzo[a]anthracene	1.429	1.239		13.3	
3,3'-Dichlorobenzidine	0.386	0.330		14.5	

All other compounds must meet a minimum RRF of 0.010.

Contract:

Site:

Location:

Group:

Calibration Date: ####

Time: 1329

Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1329 0000

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

207

Data File : C:\HPCHEM\1\DATA2\B9008.D

Vial: 2

Acq On : 27 Oct 95 1:29 pm

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 Oct 25 10:20:51 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	89	-0.10
2 S	2-Fluorophenol	1.275	1.248	2.1	88	-0.08
3 S	Phenol-d5	2.069	2.002	3.2	89	-0.04
4 M	N-nitrosodimethylamine	0.887	0.841	5.2	84	-0.06
5	Pyridine	0.795	0.000#	100.0#	0#	-1.55#
6 CM	Phenol	1.941	2.100	-8.2	100	-0.04
7 MT	bis(2-Chloroethyl)ether	2.373	2.336	1.6	90	-0.08
8 M	2-Chlorophenol	1.333	1.349	-1.2	90	-0.08
9 MT	1,3-Dichlorobenzene	1.367	1.410	-3.1	90	-0.08
10 CM	1,4-Dichlorobenzene	1.383	1.419	-2.6	87	-0.10
11 M	1,2-Dichlorobenzene	1.347	1.385	-2.8	89	-0.10
12 T	2-Methylphenol	1.279	1.273	0.5	88	-0.06
13 M	bis(2-chloroisopropyl)ether	2.234	1.940	13.2	93	-0.06
14 T	4-Methylphenol	1.402	1.302	7.1	78	-0.06
15 PM	N-Nitroso-Di-n-propylamine	1.528	1.444	5.5	86	-0.08
16 M	Hexachloroethane	0.868	0.883	-1.7	90	-0.10
17 I	Naphthalene-d8	1.000	1.000	0.0	88	-0.10
18 S	Nitrobenzene-d5	0.542	0.524	3.4	87	-0.08
19 M	Nitrobenzene-	0.519	0.516	0.6	93	-0.08
20 M	Isophorone	1.101	1.024	7.0	88	-0.10
21 MC	2-Nitrophenol	0.239	0.227	5.2	81	-0.10
22 M	2,4-Dimethylphenol	0.387	0.378	2.2	89	-0.06
23 M	bis(2-Chloroethoxy)methane	0.603	0.598	0.8	90	-0.08
24 MC	2,4-Dichlorophenol	0.295	0.282	4.4	85	-0.06
25 M	1,2,4-Trichlorobenzene	0.304	0.309	-1.6	88	-0.10
26 M	Naphthalene	1.003	0.942	6.1	82	-0.10
27 T	4-Chloroaniline	0.470	0.439	6.7	86	-0.08
28 MC	Hexachlorobutadiene	0.160	0.160	-0.5	88	-0.08
29 MC	4-Chloro-3-methylphenol	0.388	0.356	8.4	80	-0.04
30 M	2-Chloronaphthalene	0.634	0.647	-2.0	90	-0.08
31 T	2-Methylnaphthalene	0.870	0.829	4.7	81	-0.10
32 I	Acenaphthene-d10	1.000	1.000	0.0	87	-0.10
33 P	Hexachlorocyclopentadiene	0.289	0.246	15.1	88	-0.08
34 MC	2,4,6-Trichlorophenol	0.426	0.387	9.2	83	-0.08
35 T	2,4,5-Trichlorophenol	0.347	0.413	-18.9	89	-0.06
36 S	2-Fluorobiphenyl	1.220	1.209	0.9	84	-0.10
37 T	2-Nitroaniline	0.783	0.773	1.3	89	-0.06
38 M	Dimethylphthalate	1.368	1.400	-2.3	88	-0.08
39 M	Acenaphthylene	1.801	1.833	-1.8	86	-0.10
40 M	2,6-Dinitrotoluene	0.308	0.351	-14.1	81	-0.08

(#)= Out of Range

B9008.D BNACLP.M Wed Oct 25 11:27:50 1995

DNA

Page 1

Evaluate Continuing Calibration Report

208

Data File : C:\HPCHEM\1\DATA2\B9008.D Vial: 2
 Acq On : 27 Oct 95 1:29 pm 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 Oct 25 10:20:51 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	0.342	0.354	-3.5	84	-0.06
42 CM	Acenaphthene	1.020	1.150	-12.8	96	-0.10
43 MP	2,4-Dinitrophenol	0.210	0.227	-8.3	114	-0.08
44 PM	4-Nitrophenol	0.228	0.222	2.4	88	0.00
45 T	Dibenzofuran	1.534	1.481	3.5	82	-0.10
46 M	2,4-Dinitrotoluene	0.452	0.459	-1.4	85	-0.08
47 M	Diethylphthalate	1.556	1.602	-2.9	88	-0.08
48 M	Fluorene	1.167	1.206	-3.3	87	-0.08
49 M	4-Chlorophenyl-phenylether	0.509	0.505	0.8	85	-0.10
50	Phenanthrene-d10	1.000	1.000	0.0	80	-0.10
51 T	4-Nitroaniline	0.230	0.259	-12.3	84	-0.06
52 MC	4,6-Dinitro-2-methylphenol	0.148	0.147	1.1	74	-0.08
53 T	n-Nitrosodiphenylamine	0.543	0.578	-6.6	82	-0.08
54 S	2,4,6-Tribromophenol	0.127	0.123	2.6	81	-0.08
55	1,2-Diphenylhydrazine (as a	1.784	1.999	-12.0	85	-0.08
56 M	4-Bromophenyl-phenylether	0.187	0.199	-6.3	85	-0.10
57 M	Hexachlorobenzene	0.237	0.247	-4.3	83	-0.10
58 CM	Pentachlorophenol	0.163	0.130	19.7	71	-0.10
59 M	Phenanthrene	1.087	1.152	-6.0	82	-0.09
60 M	Anthracene	1.068	1.135	-6.3	82	-0.09
61	Carbazole	1.065	0.890	16.4	68	-0.09
62 M	Di-n-butylphthalate	2.011	1.728	14.1	67	-0.11
63 MC	Fluoranthene	1.092	0.939	14.1	67	-0.74#
64 I	Chrysene-d12	1.000	1.000	0.0	36#	-0.11
65	Benzidine	0.274	0.276	-0.9	42#	-0.10
66 M	Pyrene	1.600	1.832	-14.5	42#	-0.11
67 S	Terphenyl-d14	0.994	1.151	-15.8	45#	-0.11
68 M	Butylbenzylphthalate	1.245	1.293	-3.9	38#	-0.11
69 M	Benzo[a]anthracene	1.429	1.239	13.3	30#	-0.13
70 M	3,3'-Dichlorobenzidine	0.386	0.330	14.4	30#	-0.09
71 M	Chrysene	0.857	1.008	-17.6	42#	-0.11
72 M	bis(2-Ethylhexyl)phthalate	1.785	1.714	3.9	35#	-0.11
73 I	Perylene-d12	1.000	1.000	0.0	34#	-0.09
74 MC	Di-n-octylphthalate	5.692	5.727	-0.6	33#	-0.11
75 M	Benzo[b]fluoranthene	1.952	1.846	5.5	26#	-0.11
76 m	Benzo[k]fluoranthene	1.162	1.246	-7.2	36#	-0.11
77 mc	Benzo[a]pyrene	1.081	1.178	-8.9	37#	-0.09
78 m	Indeno[1,2,3-cd]pyrene	0.561	0.585	-4.3	34#	-0.09
79 m	Dibenz[a,h]anthracene	0.549	0.494	9.9	30#	-0.09

(#) = Out of Range

B9008.D BNACLP.M

Mon Oct 30 14:28:03 1995

BNA

Page 2

Evaluate Continuing Calibration Report

209

Data File : C:\HPCHEM\1\DATA2\B9008.D Vial: 2
 Acq On : 27 Oct 95 1:29 pm 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 Oct 25 10:20:51 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	0.510	0.437	14.3	28#	-0.09
81	1-Methyl naphthalene	0.000	0.000#	0.0	0#	-14.07#
82	7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	0#	-36.48#
83	Quinoline	0.000	0.000#	0.0	85	-0.08
84	Thiophenol	0.000	0.000#	0.0	0#	-5.86#
85	4-Methyl chrysene	0.000	0.000#	0.0	0#	-31.87#
86	Dibenz(a,j)acridine	0.000	0.000#	0.0	29#	-0.09
87	Indene	0.000	0.000#	0.0	0#	-9.67#
88	Benzyl alcohol	0.000	0.000#	0.0	91	-0.10
89	Benzoic acid	0.000	0.000#	0.0	90	-0.06

Quantitation Report

210

Data File : c:\hpcchem\1\data2\b9008.d

Acq On : 27 Oct 95 1:29 pm

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 30 14:27 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.59	152	26722	40.00	ug/mL	-0.10
17) Naphthalene-d8	12.33	136	104351	40.00	ug/mL	-0.10
32) Acenaphthene-d10	17.63	164	57774	40.00	ug/mL	-0.10
50) Phenanthrene-d10	22.12	188	79042	40.00	ug/mL	-0.10
64) Chrysene-d12	30.18	240	25699	40.00	ug/mL	-0.11
73) Perylene-d12	34.15	264	9983	40.00	ug/mL	-0.09

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.03	112	41696	48.95	ug/mL	48.95%
3) Phenol-d5	8.05	99	66887	48.39	ug/mL	48.39%
18) Nitrobenzene-d5	10.31	82	68307	48.30	ug/mL	48.30%
36) 2-Fluorobiphenyl	15.80	172	87328	49.56	ug/mL	49.56%
54) 2,4,6-Tribromophenol	20.08	330	12186	48.69	ug/mL	48.69%
67) Terphenyl-d14	27.25	244	36967	57.91	ug/mL	57.91%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.08	74	28093	47.39	ug/mL	100
6) Phenol	8.09	94	70156	54.11	ug/mL	100
7) bis(2-Chloroethyl) ether	12.04	93	78019	49.22	ug/mL	99
8) 2-Chlorophenol	8.03	128	45049	50.60	ug/mL#	80
9) 1,3-Dichlorobenzene	8.40	146	47089	51.56	ug/mL	96
10) 1,4-Dichlorobenzene	8.65	146	47410	51.30	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	46258	51.39	ug/mL	96
12) 2-Methylphenol	9.77	108	42525	49.77	ug/mLm	100
13) bis(2-chloroisopropyl) ethe	9.71	45	64814	43.42	ug/mL	99
14) 4-Methylphenol	10.29	108	43505	46.44	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.13	70	48217	47.24	ug/mL	93
16) Hexachloroethane	9.98	117	29491	50.85	ug/mL#	74
19) Nitrobenzene	10.37	77	67275	49.68	ug/mLm	91
20) Isophorone	11.17	82	133559	46.48	ug/mL	94
21) 2-Nitrophenol	11.29	139	29599	47.42	ug/mL#	90
22) 2,4-Dimethylphenol	11.81	107	49328	48.89	ug/mL#	100
23) bis(2-Chloroethoxy) methane	12.04	93	78019	49.60	ug/mL#	100
24) 2,4-Dichlorophenol	12.12	162	36829	47.80	ug/mL	96
25) 1,2,4-Trichlorobenzene	12.22	180	40319	50.79	ug/mL	94
26) Naphthalene	12.39	128	122894	46.95	ug/mL	100
27) 4-Chloroaniline	12.78	127	57235	46.63	ug/mL	99
28) Hexachlorobutadiene	12.91	225	20908	50.23	ug/mL	99
29) 4-Chloro-3-methylphenol	14.53	107	46386	45.80	ug/mL#	1
30) 2-Chloronaphthalene	15.97	162	84381	51.00	ug/mL#	100
31) 2-Methylnaphthalene	14.53	142	108166	47.67	ug/mL#	71
33) Hexachlorocyclopentadiene	15.05	237	17734	42.44	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.53	196	27935	45.40	ug/mL	96
35) 2,4,5-Trichlorophenol	15.63	196	29810	59.43	ug/mL	95

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

b9008.d BNACLP.M

Tue Oct 31 15:10:11 1995

BNA

Page 1

Quantitation Report

211

Data File : c:\hpchem\1\data2\b9008.d

Vial: 2

Acq On : 27 Oct 95 1:29 pm

Operator: SCOTTV

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 30 14:27 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	17.79	65	55820	49.36	ug/mL	86
38) Dimethylphthalate	17.27	163	101087	51.16	ug/mL#	12
39) Acenaphthylene	17.17	152	132357	50.88	ug/mL	98
40) 2,6-Dinitrotoluene	17.34	165	25335	57.03	ug/mLm	99
41) 3-Nitroaniline	19.68	138	25550	51.73	ug/mL	89
42) Acenaphthene	17.73	153	83055	56.38	ug/mL	98
43) 2,4-Dinitrophenol	18.10	184	16396	54.13	ug/mLm	83
44) 4-Nitrophenol	18.65	109	16063	48.80	ug/mLm	55
45) Dibenzofuran	18.29	168	106926	48.25	ug/mL	94
46) 2,4-Dinitrotoluene	18.52	165	33124	50.69	ug/mL#	1
47) Diethylphthalate	19.48	149	115678	51.47	ug/mL#	93
48) Fluorene	19.33	166	87065	51.64	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.52	204	36435	49.59	ug/mL#	85
51) 4-Nitroaniline	19.68	138	25550	56.16	ug/mL	89
52) 4,6-Dinitro-2-methylphenol	19.73	198	14484	49.43	ug/mL	100
53) n-Nitrosodiphenylamine	19.97	169	57135	53.30	ug/mL	95
55) 1,2-Diphenylhydrazine (as	20.00	77	197478	56.01	ug/ml	100
56) 4-Bromophenyl-phenylether	20.97	248	19642	53.15	ug/mL	91
57) Hexachlorobenzene	20.93	284	24441	52.13	ug/mL#	50
58) Pentachlorophenol	21.66	266	12892	40.14	ug/mLm	97
59) Phenanthrene	22.20	178	113864	53.01	ug/mL	99
60) Anthracene	22.36	178	112150	53.16	ug/mLm	99
61) Carbazole	23.01	167	87921	41.79	ug/ml	96
62) Di-n-butylphthalate	24.53	149	170725	42.96	ug/mL	99
63) Fluoranthene	25.78	202	92729	42.97	ug/mLm	70
65) Benzidine	22.12	184	8865	50.45	ug/mlm	100
66) Pyrene	26.42	202	58853	57.24	ug/mLm	60
68) Butylbenzylphthalate	29.04	149	41544	51.93	ug/mL#	12
69) Benzo[a]anthracene	30.14	228	39805	43.35	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.33	252	10615	42.80	ug/mL#	90
71) Chrysene	30.25	228	32370	58.81	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.03	149	55067	48.03	ug/mL#	34
74) Di-n-octylphthalate	32.93	149	71466	50.31	ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	23032	47.27	ug/mL#	80
76) Benzo[k]fluoranthene	33.28	252	15551	53.61	ug/mLm	80
77) Benzo[a]pyrene	34.00	252	14699	54.47	ug/mLm	80
78) Indeno[1,2,3-cd]pyrene	36.67	276	7304	52.14	ug/mLm	32
79) Dibenz[a,h]anthracene	36.79	278	6166	45.03	ug/mL#	83
80) Benzo[g,h,i]perylene	37.21	276	5449	42.84	ug/mL#	63

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

Quantitation Report

Data File : c:\hpchem\1\data2\b9008.d

Acq On : 27 Oct 95 1:29 pm

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 30 14:27 1995

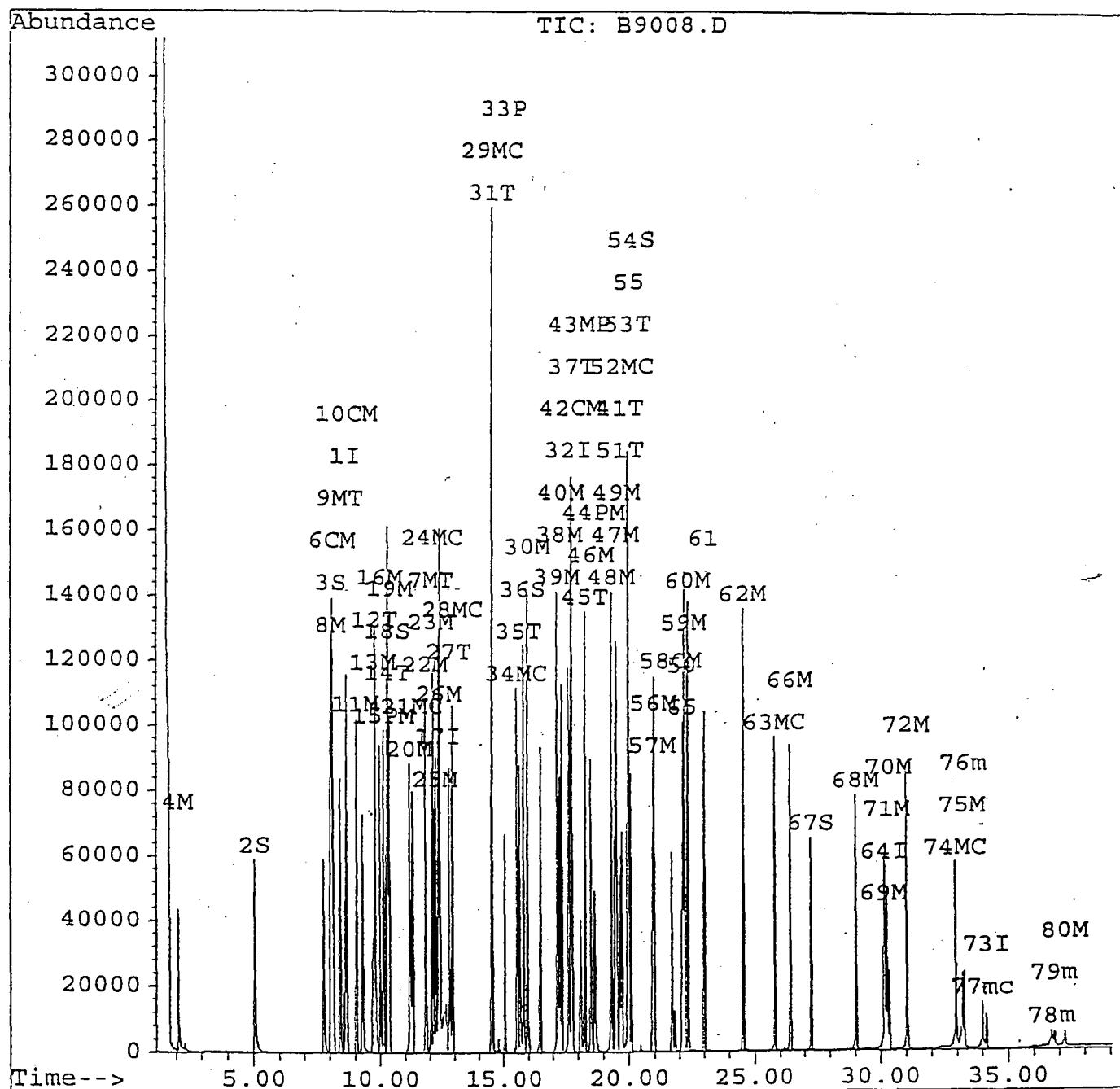
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

212



5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

213

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B9468.D DFTPP Injection Date: 12/26/95

Instrument ID: ABNA DFTPP Injection Time: 1104

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	54.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	71.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	42.8
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	7.8
275	10.0 - 30.0% of mass 198	18.4
365	Greater than 0.75% of mass 198	2.9
441	Present, but less than mass 443	9.5
442	40.0 - 110.0% of mass 198	52.8
443	15.0 - 24.0% of mass 442	10.8 (20.4)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	B9469.D	12/26/95	1125
02	SBLK01	BLANK1	B9470.D	12/26/95	1236
03	9558188B	9558188B	B9471.D	12/26/95	1328
04	9558189B	9558189B	B9472.D	12/26/95	1420
05	9558190B	9558190B	B9473.D	12/26/95	1513
06	9558191B	9558191B	B9474.D	12/26/95	1605
07	9558195B	9558195B	B9475.D	12/26/95	1656
08	9558196B	9558196B	B9476.D	12/26/95	1749
09	SBLK02	BLANK2	B9477.D	12/26/95	1840
10	9558311B	9558311B	B9478.D	12/26/95	1932
11	9558313B	9558313B	B9479.D	12/26/95	2023
12	9558314B	9558314B	B9480.D	12/26/95	2115
13	9558315B	9558315B	B9481.D	12/26/95	2206
14	9558316B	9558316B	B9482.D	12/26/95	2257
15	9558317B	9558317B	B9483.D	12/26/95	2348
16					
17					
18					
19					
20					
21					
22					

Data File : C:\HPCHEM\1\DATA2\B9468.D

Acq On : 26 Dec 95 11:04 am

Vial: 1

Sample : DFTPP.....

Converted from RTE d Inst

Operator: SCOTTV

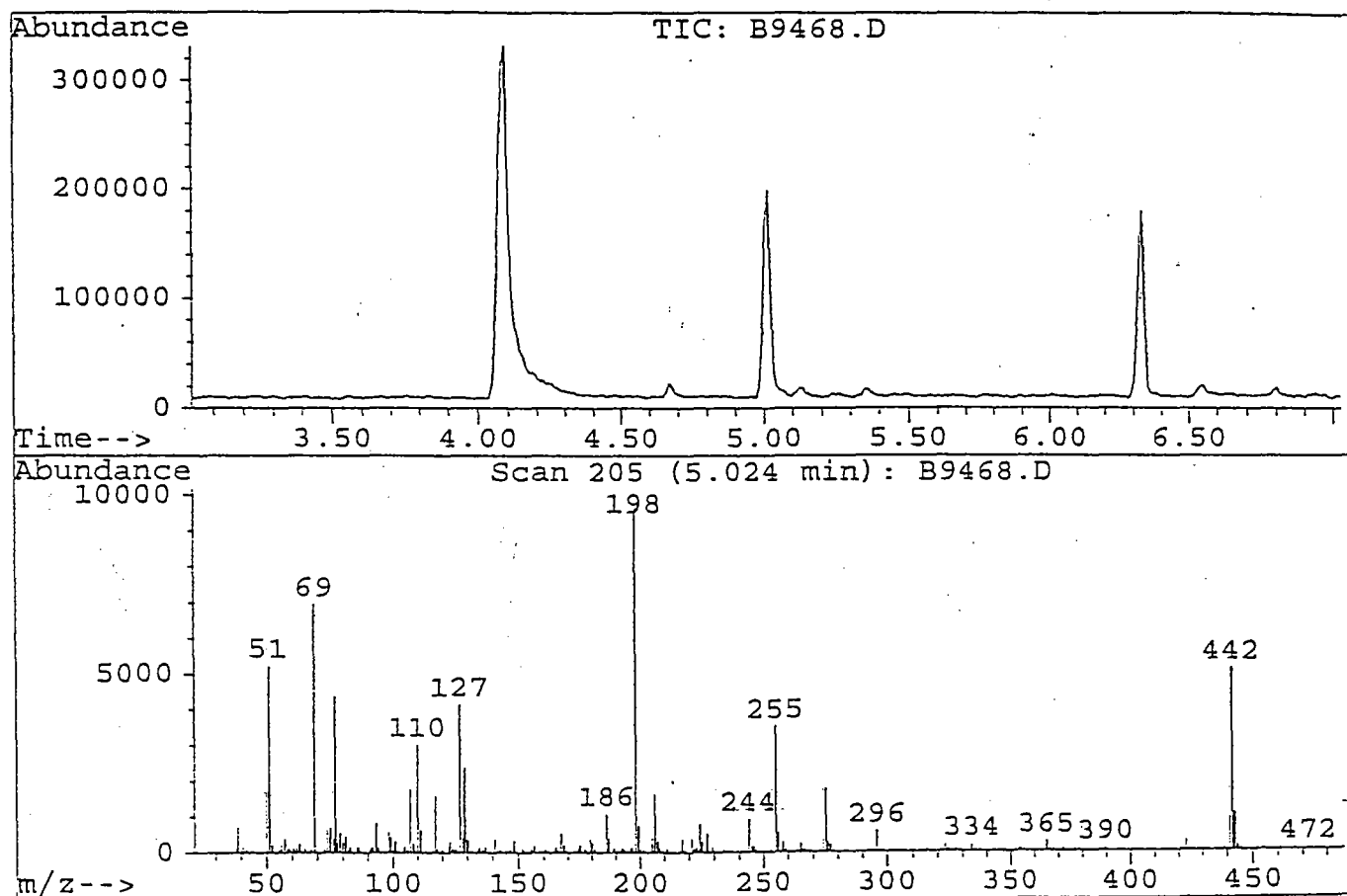
Misc :

ABNA

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 205

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.0	5234	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	71.7	6954	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	42.8	4153	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	9693	PASS
199	198	5	9	7.8	753	PASS
275	198	10	30	18.4	1788	PASS
365	198	1	100	2.9	284	PASS
441	443	0	100	88.4	923	PASS
442	198	40	100	52.8	5118	PASS
443	442	17	23	20.4	1044	PASS

Scan 205 (5.024 min): B9468.D

DFTPP.....

Converted from RTE data file >B9468::D5

215

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	47	51.05	5234	61.85	145	72.95	150
38.10	137	52.15	219	62.95	258	74.05	694
38.90	706	54.35	69	64.75	91	74.95	713
40.00	58	55.05	96	65.05	112	76.15	395
40.80	137	55.85	243	66.75	61	77.05	4390
41.80	72	56.95	401	67.05	65	78.05	260
42.50	37	58.15	122	67.25	59	79.05	568
44.05	129	58.75	60	67.65	93	79.95	283
44.75	28	58.95	64	68.95	6954	81.05	463
48.95	151	60.15	148	70.75	40	82.15	86
49.95	1732	60.85	77	72.05	89	83.05	176

Scan 205 (5.024 min): B9468.D

DFTPP.....

Converted from RTE data file >B9468::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.15	163	95.45	44	105.85	85	117.85	104
85.95	177	96.05	40	107.05	1802	119.85	89
86.65	38	97.05	78	108.05	248	122.15	174
87.15	38	97.95	577	108.95	47	122.85	306
89.05	21	98.95	424	110.05	3036	123.95	109
89.95	38	100.05	76	110.95	644	124.45	43
90.45	100	100.85	317	112.85	48	125.25	93
91.05	163	102.05	40	114.35	24	126.95	4153
91.85	193	102.45	21	115.85	79	128.05	410
92.95	842	103.85	137	116.05	81	129.05	2392
94.05	134	104.85	208	116.95	1606	129.95	359

Scan 205 (5.024 min): B9468.D

DFTPP.....

Converted from RTE data file >B9468::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.10	58	142.90	98	151.30	107	164.00	81
131.90	59	143.60	31	151.50	106	165.00	154
133.90	111	144.60	20	151.80	64	165.70	30
134.90	161	145.00	68	154.00	92	167.00	545
135.80	82	145.70	61	155.00	129	168.00	209
136.30	39	146.00	79	156.10	200	169.30	58
137.00	167	146.20	81	158.10	53	171.80	80
138.70	21	146.90	149	158.90	49	172.80	70
139.60	14	148.00	338	159.80	76	173.30	66
140.90	391	148.70	43	160.70	111	174.00	146
141.80	88	150.30	17	163.30	43	174.90	216

Scan 205 (5.024 min): B9468.D

DFTPP.....

Converted from RTE data file >B9468::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.80	96	186.90	403	199.00	753	209.00	61
177.10	66	188.20	73	199.90	76	210.30	40
177.40	48	189.00	137	200.50	22	210.80	100
179.00	373	191.10	89	201.30	72	211.10	108
179.80	266	192.00	104	201.70	32	213.70	42
181.00	95	192.70	132	203.00	47	216.10	86
182.50	27	193.20	77	204.10	271	216.95	378
183.20	20	195.10	59	205.00	416	217.85	56
183.80	56	195.90	148	206.00	1641	219.75	18
184.80	134	196.40	140	207.00	321	220.95	368
186.00	1089	198.00	9693	207.90	112	221.75	100

Scan 205 (5.024 min): B9468.D

DFTPP.....

Converted from RTE data file >B9468::D5

216

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.65	119	235.15	45	242.85	29	252.25	20
222.95	127	236.25	31	244.05	933	252.65	45
224.05	792	236.75	32	244.95	168	253.25	35
224.95	279	239.05	70	245.95	152	254.95	3537
226.95	536	239.95	37	246.55	55	255.95	537
228.95	143	240.25	35	247.95	35	257.15	54
230.05	28	240.85	52	248.95	57	257.95	283
233.55	96	241.35	23	249.85	34	258.95	69
234.25	23	241.65	40	250.65	17	260.85	33
234.55	33	241.85	45	251.65	46	262.75	15
234.85	38	242.55	28	251.95	33	263.35	60

Scan 205 (5.024 min): B9468.D

DFTPP.....

Converted from RTE data file >B9468::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
263.85	106	276.05	261	290.45	15	306.20	22
264.95	251	277.05	207	291.75	26	309.40	13
265.95	60	277.95	57	292.35	77	310.10	29
266.85	51	278.95	25	293.15	30	312.90	53
267.65	47	279.25	20	294.05	26	315.00	68
268.65	41	281.85	27	296.05	582	315.90	54
268.95	37	282.65	47	300.55	29	317.80	23
272.05	50	283.15	37	301.05	24	321.00	51
273.05	90	283.35	40	303.90	45	323.10	180
274.05	335	283.75	39	304.90	25	324.00	62
275.05	1788	290.15	34	305.20	45	327.00	55

Scan 205 (5.024 min): B9468.D

FTPP.....

Converted from RTE data file >B9468::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.20	55	350.60	23	367.10	23	388.65	55
329.20	13	351.90	71	368.10	39	389.65	76
331.70	19	353.40	56	369.80	17	395.95	26
333.90	180	354.00	84	371.90	93	396.25	29
335.50	34	357.80	26	373.20	47	396.65	44
336.90	35	359.70	21	376.70	67	399.95	24
340.20	20	360.70	27	377.90	31	400.35	12
341.00	13	362.80	45	378.90	52	400.65	18
342.40	31	364.40	39	383.80	59	401.45	23
345.10	34	365.00	284	385.10	34	403.75	32
346.00	80	366.00	31	387.40	35	407.15	32

Scan 205 (5.024 min): B9468.D

FTPP.....

Converted from RTE data file >B9468::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
407.65	16	422.95	277	445.45	41	469.45	19
407.85	21	425.15	11	448.15	36	472.25	42
408.45	43	428.75	18	450.35	13		
409.25	10	430.25	28	450.95	33		
410.15	17	434.95	47	451.55	72		
412.45	30	437.35	20	453.95	34		
415.15	38	438.75	49	454.55	17		
418.05	33	441.05	923	454.85	19		
419.95	25	441.95	5118	457.55	10		
420.15	23	443.05	1044	460.55	37		
421.85	38	443.95	130	465.95	33		

SEMIVOLATILE CONTINUING CALIBRATION CHECK

217

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: ABNACalibration Date: ###Time: 1125Lab File ID: B9469.DInit. Calib. Date(s): ### 1/0/00Init. Calib. Times: 1125 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.722	0.640		11.4	
bis(2-Chloroethyl)ether	1.805	1.717		4.9	
1,3-Dichlorobenzene	1.354	1.414		-4.4	
1,4-Dichlorobenzene	1.396	1.400		-0.3	30.0
1,2-Dichlorobenzene	1.356	1.356		0.0	
bis(2-chloroisopropyl)ether	1.568	1.668		-6.4	
N-Nitroso-Di-n-propylamine	1.018	0.877	0.050	13.9	
Hexachloroethane	0.866	0.842		2.8	
Nitrobenzene	0.465	0.462		0.6	
Isophorone	0.691	0.667		3.5	
bis(2-Chloroethoxy)methane	0.421	0.424		-0.7	
1,2,4-Trichlorobenzene	0.296	0.315		-6.4	
Naphthalene	0.906	0.903		0.3	
Hexachlorobutadiene	0.185	0.200		-8.1	30.0
Hexachlorocyclopentadiene	0.335	0.303	0.050	9.6	
2-Chloronaphthalene	0.632	0.670		-6.0	
Dimethylphthalate	1.235	1.292		-4.6	
Acenaphthylene	1.689	1.698		-0.5	
2,6-Dinitrotoluene	0.292	0.323		-10.6	
Acenaphthene	1.053	1.117		-6.1	30.0
2,4-Dinitrotoluene	0.351	0.322		8.3	
Diethylphthalate	1.334	1.547		-16.0	
Fluorene	1.055	1.259		-19.3	
4-Chlorophenyl-phenylether	0.476	0.547		-14.9	
n-Nitrosodiphenylamine	0.472	0.485		-2.8	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.242	0.268		-10.7	
Hexachlorobenzene	0.334	0.357		-6.9	
Phenanthrene	1.028	1.106		-7.6	
Anthracene	1.020	1.117		-9.5	
Di-n-butylphthalate	1.757	1.960		-11.6	
Fluoranthene	1.108	1.305		-17.8	30.0
Benzidine	0.011	0.012		-9.1	
Pyrene	1.221	1.291		-5.7	
Butylbenzylphthalate	0.820	0.858		-4.6	
Benzo[a]anthracene	1.167	1.222		-4.7	
3,3'-Dichlorobenzidine	0.406	0.393		3.2	

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL

Contract:

Project No.

Site:

Location:

Group:

Instrument ID: ABNA

Calibration Date: ####

Time: 1125

Lab File ID: B9469.D

Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1125 0000

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

219

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: ABNACalibration Date: ###Time: 1125Lab File ID: B9469.DInit. Calib. Date(s): ### 1/0/00Init. Calib. Times: 1125 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.572	1.543		1.8	30.0
bis(2-Chloroethyl)ether	1.805	1.717		4.9	
2-Chlorophenol	1.292	1.276		1.2	
1,3-Dichlorobenzene	1.354	1.414		-4.4	
1,4-Dichlorobenzene	1.396	1.400		-0.3	30.0
1,2-Dichlorobenzene	1.356	1.356		0.0	
2-Methylphenol	1.123	1.198		-6.7	
bis(2-chloroisopropyl)ether	1.568	1.668		-6.4	
4-Methylphenol	1.250	1.198		4.2	
N-Nitroso-Di-n-propylamine	1.018	0.877	0.050	13.9	
Hexachloroethane	0.866	0.842		2.8	
Nitrobenzene	0.465	0.462		0.6	
Isophorone	0.691	0.667		3.5	
2-Nitrophenol	0.205	0.235		-14.6	30.0
2,4-Dimethylphenol	0.355	0.353		0.6	
bis(2-Chloroethoxy)methane	0.421	0.424		-0.7	
2,4-Dichlorophenol	0.269	0.285		-5.9	30.0
1,2,4-Trichlorobenzene	0.296	0.315		-6.4	
Naphthalene	0.906	0.903		0.3	
4-Chloroaniline	0.419	0.431		-2.9	
Hexachlorobutadiene	0.185	0.200		-8.1	30.0
4-Chloro-3-methylphenol	0.330	0.334		-1.2	30.0
2-Methylnaphthalene	0.609	0.617		-1.3	
Hexachlorocyclopentadiene	0.335	0.303	0.050	9.6	
2,4,6-Trichlorophenol	0.375	0.357		4.8	30.0
2,4,5-Trichlorophenol	0.337	0.382		-13.4	
2-Chloronaphthalene	0.632	0.670		-6.0	
2-Nitroaniline	0.399	0.439		-10.0	
Dimethylphthalate	1.235	1.292		-4.6	
Acenaphthylene	1.689	1.698		-0.5	
2,6-Dinitrotoluene	0.292	0.323		-10.6	
3-Nitroaniline	0.213	0.254		-19.2	
Acenaphthene	1.053	1.117		-6.1	30.0
2,4-Dinitrophenol	0.139	0.119	0.050	14.4	
4-Nitrophenol	0.216	0.215	0.050	0.5	
Dibenzofuran	1.385	1.409		-1.7	
2,4-Dinitrotoluene	0.351	0.322		8.3	

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: ABNACalibration Date: ####Time: 1125Lab File ID: B9469.DInit. Calib. Date(s): #### 1/0/00Init. Calib. Times: 1125 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.334	1.547		-16.0	
Fluorene	1.055	1.259		-19.3	
4-Chlorophenyl-phenylether	0.476	0.547		-14.9	
4-Nitroaniline	0.152	0.143		5.9	
4,6-Dinitro-2-methylphenol	0.122	0.119		2.5	30.0
n-Nitrosodiphenylamine	0.472	0.485		-2.8	
4-Bromophenyl-phenylether	0.242	0.268		-10.7	
Hexachlorobenzene	0.334	0.357		-6.9	
Pentachlorophenol	0.186	0.202		-8.6	30.0
Phenanthrene	1.028	1.106		-7.6	
Anthracene	1.020	1.117		-9.5	
Carbazole	0.865	0.994		-14.9	
Di-n-butylphthalate	1.757	1.960		-11.6	
Fluoranthene	1.108	1.305		-17.8	30.0
Pyrene	1.221	1.291		-5.7	
Butylbenzylphthalate	0.820	0.858		-4.6	
Benzo[a]anthracene	1.167	1.222		-4.7	
3,3'-Dichlorobenzidine	0.406	0.393		3.2	
Chrysene	0.876	0.899		-2.6	
bis(2-Ethylhexyl)phthalate	1.161	1.250		-7.7	
Di-n-octylphthalate	3.068	3.082		-0.5	30.0
Benzo[b]fluoranthene	1.361	1.588		-16.7	
Benzo[k]fluoranthene	1.156	1.098		5.0	
Benzo[a]pyrene	1.041	1.163		-11.7	30.0
Indeno[1,2,3-cd]pyrene	0.538	0.572		-6.3	
Dibenz[a,h]anthracene	0.543	0.586		-7.9	
Benzo[g,h,i]perylene	0.495	0.531		-7.3	
2-Fluorophenol	1.128	1.078		4.4	
Phenol-d5	1.732	1.585		8.5	
Nitrobenzene-d5	0.381	0.366		3.9	
2-Fluorobiphenyl	1.207	1.129		6.5	
2,4,6-Tribromophenol	0.237	0.248		-4.6	
Terphenyl-d14	0.960	1.009		-5.1	

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: ABNACalibration Date: ###Time: 1125Lab File ID: B9469.DInit. Calib. Date(s): ### 1/0/00Init. Calib. Times: 1125 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.722	0.640		11.4	
Phenol	1.572	1.543		1.8	30.0
bis(2-Chloroethyl)ether	1.805	1.717		4.9	
2-Chlorophenol	1.292	1.276		1.2	
1,3-Dichlorobenzene	1.354	1.414		-4.4	
1,4-Dichlorobenzene	1.396	1.400		-0.3	30.0
1,2-Dichlorobenzene	1.356	1.356		0.0	
bis(2-chloroisopropyl)ether	1.568	1.668		-6.4	
N-Nitroso-Di-n-propylamine	1.018	0.877	0.050	13.9	
Hexachloroethane	0.866	0.842		2.8	
Nitrobenzene	0.465	0.462		0.6	
Isophorone	0.691	0.667		3.5	
2-Nitrophenol	0.205	0.235		-14.6	30.0
2,4-Dimethylphenol	0.355	0.353		0.6	
bis(2-Chloroethoxy)methane	0.421	0.424		-0.7	
2,4-Dichlorophenol	0.269	0.285		-5.9	30.0
1,2,4-Trichlorobenzene	0.296	0.315		-6.4	
Naphthalene	0.906	0.903		0.3	
Hexachlorobutadiene	0.185	0.200		-8.1	30.0
4-Chloro-3-methylphenol	0.330	0.334		-1.2	30.0
Hexachlorocyclopentadiene	0.335	0.303	0.050	9.6	
2,4,6-Trichlorophenol	0.375	0.357		4.8	30.0
2-Chloronaphthalene	0.632	0.670		-6.0	
Dimethylphthalate	1.235	1.292		-4.6	
Acenaphthylene	1.689	1.698		-0.5	
2,6-Dinitrotoluene	0.292	0.323		-10.6	
Acenaphthene	1.053	1.117		-6.1	30.0
2,4-Dinitrophenol	0.139	0.119	0.050	14.4	
4-Nitrophenol	0.216	0.215	0.050	0.5	
2,4-Dinitrotoluene	0.351	0.322		8.3	
Diethylphthalate	1.334	1.547		-16.0	
Fluorene	1.055	1.259		-19.3	
4-Chlorophenyl-phenylether	0.476	0.547		-14.9	
4,6-Dinitro-2-methylphenol	0.122	0.119		2.5	30.0
n-Nitrosodiphenylamine	0.472	0.485		-2.8	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.242	0.268		-10.7	

All other compounds must meet a minimum RRF of 0.010.

Contract:

Site:

Location:

Group:

Calibration Date: ####

Time: 1125

Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1125 0000

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

223

Data File : C:\HPCHEM\1\DATA2\B9469.D

Acq On : 26 Dec 95 11:25 am

Sample : 50 STD.....

Misc :

Vial: 2

Operator: SCOTTV SUF

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 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	97	-0.01
2 S	2-Fluorophenol	1.128	1.078	4.4	97	0.00
3 S	Phenol-d5	1.732	1.585	8.5	95	-0.01
4 M	N-nitrosodimethylamine	0.722	0.640	11.4	89	0.00
5	Pyridine	3.013	0.000#	100.0#	0#	-1.49#
6 CM	Phenol	1.572	1.543	1.8	95	-0.01
7 MT	bis(2-Chloroethyl) ether	1.805	1.717	4.9	90	0.00
8 M	2-Chlorophenol	1.292	1.276	1.2	94	-0.01
9 MT	1,3-Dichlorobenzene	1.354	1.414	-4.4	101	-0.01
10 CM	1,4-Dichlorobenzene	1.396	1.400	-0.3	96	-0.01
11 M	1,2-Dichlorobenzene	1.356	1.356	0.0	95	-0.01
12 T	2-Methylphenol	1.123	1.198	-6.7	101	0.52#
13 M	bis(2-chloroisopropyl) ether	1.568	1.668	-6.4	130	0.06
14 T	4-Methylphenol	1.250	1.198	4.2	93	0.00
15 PM	N-Nitroso-Di-n-propylamine	1.018	0.877	13.9	81	0.00
16 M	Hexachloroethane	0.866	0.842	2.8	91	-0.02
17 I	Naphthalene-d8	1.000	1.000	0.0	90	-0.02
18 S	Nitrobenzene-d5	0.381	0.366	3.8	90	0.00
19 M	Nitrobenzene	0.465	0.462	0.8	91	0.00
20 M	Isophorone	0.691	0.667	3.4	87	-0.01
21 MC	2-Nitrophenol	0.205	0.235	-14.3	99	0.00
22 M	2,4-Dimethylphenol	0.355	0.353	0.3	90	0.00
23 M	bis(2-Chloroethoxy) methane	0.421	0.424	-0.7	90	0.00
24 MC	2,4-Dichlorophenol	0.269	0.285	-6.0	89	-0.02
25 M	1,2,4-Trichlorobenzene	0.296	0.315	-6.5	94	0.00
26 M	Naphthalene	0.906	0.903	0.3	86	-0.02
27 T	4-Chloroaniline	0.419	0.431	-3.0	96	-0.02
28 MC	Hexachlorobutadiene	0.185	0.200	-8.1	93	-0.02
29 MC	4-Chloro-3-methylphenol	0.330	0.334	-1.1	89	-0.02
30 M	2-Chloronaphthalene	0.632	0.670	-6.0	94	0.00
31 T	2-Methylnaphthalene	0.609	0.617	-1.3	93	-0.02
32 I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00
33 P	Hexachlorocyclopentadiene	0.335	0.303	9.4	85	-0.02
34 MC	2,4,6-Trichlorophenol	0.375	0.357	5.0	96	-0.02
35 T	2,4,5-Trichlorophenol	0.337	0.382	-13.6	103	-0.02
36 S	2-Fluorobiphenyl	1.207	1.129	6.4	92	-0.02
37 T	2-Nitroaniline	0.399	0.439	-10.1	113	0.00
38 M	Dimethylphthalate	1.235	1.292	-4.7	95	0.00
39 M	Acenaphthylene	1.689	1.698	-0.5	96	0.00
40 M	2,6-Dinitrotoluene	0.292	0.323	-10.5	100	-0.02

(#) = Out of Range

B9469.D BNACLP.M

Wed Dec 27 09:58:44 1995

RNA

Page 1

Evaluate Continuing Calibration Report

224

Data File : C:\HPCHEM\1\DATA2\B9469.D

Vial: 2

Acq On : 26 Dec 95 11:25 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 : Tue Dec 26 12:09:14 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	0.213	0.254	-19.4	112	0.00
42 CM	Acenaphthene	1.053	1.117	-6.2	102	0.00
43 MP	2,4-Dinitrophenol	0.139	0.119	14.1	118	-0.02
44 PM	4-Nitrophenol	0.216	0.215	0.7	118	-0.02
45 T	Dibenzofuran	1.385	1.409	-1.7	94	-0.02
46 M	2,4-Dinitrotoluene	0.351	0.322	8.3	96	0.00
47 M	Diethylphthalate	1.334	1.547	-16.0	108	-0.02
48 M	Fluorene	1.055	1.259	-19.3	112	0.00
49 M	4-Chlorophenyl-phenylether	0.476	0.547	-14.8	106	-0.02
50	Phenanthrene-d10	1.000	1.000	0.0	137	0.00
51 T	4-Nitroaniline	0.152	0.143	5.7	109	0.00
52 MC	4,6-Dinitro-2-methylphenol	0.122	0.119	1.9	141	0.00
53 T	n-Nitrosodiphenylamine	0.472	0.485	-2.9	123	0.00
54 S	2,4,6-Tribromophenol	0.237	0.248	-4.6	136	0.00
55	1,2-Diphenylhydrazine (as a	1.221	1.051	13.9	106	0.00
56 M	4-Bromophenyl-phenylether	0.242	0.268	-10.4	132	0.00
57 M	Hexachlorobenzene	0.334	0.357	-6.7	134	-0.01
58 CM	Pentachlorophenol	0.186	0.202	-8.7	190#	0.00
59 M	Phenanthrene	1.028	1.106	-7.6	145	0.00
60 M	Anthracene	1.020	1.117	-9.6	146	-0.01
61	Carbazole	0.865	0.994	-15.0	166#	0.00
62 M	Di-n-butylphthalate	1.757	1.960	-11.6	155#	-0.01
63 MC	Fluoranthene	1.108	1.305	-17.8	168#	0.00
64 I	Chrysene-d12	1.000	1.000	0.0	151#	0.00
65	Benzidine	0.011	0.012#	-9.2	170#	-0.34
66 M	Pyrene	1.221	1.291	-5.7	163#	0.00
67 S	Terphenyl-d14	0.960	1.009	-5.0	171#	-0.01
68 M	Butylbenzylphthalate	0.820	0.858	-4.5	158#	-0.01
69 M	Benzo[a]anthracene	1.167	1.222	-4.8	168#	-0.01
70 M	3,3'-Dichlorobenzidine	0.406	0.393	3.0	158#	-0.01
71 M	Chrysene	0.876	0.899	-2.6	141	0.00
72 M	bis(2-Ethylhexyl)phthalate	1.161	1.250	-7.6	165#	0.00
73 I	Perylene-d12	1.000	1.000	0.0	110	-0.01
74 MC	Di-n-octylphthalate	3.068	3.082	-0.5	132	0.00
75 M	Benzo[b]fluoranthene	1.361	1.588	-16.7	132	0.00
76 m	Benzo[k]fluoranthene	1.156	1.098	5.0	103	0.00
77 mc	Benzo[a]pyrene	1.041	1.163	-11.8	127	0.00
78 m	Indeno[1,2,3-cd]pyrene	0.538	0.572	-6.4	123	-0.01
79 m	Dibenz[a,h]anthracene	0.543	0.586	-7.9	122	-0.01

(#) = Out of Range

B9469.D BNACLP.M

Wed Dec 27 09:58:57 1995

RNA

Page 2

Evaluate Continuing Calibration Report

225

Data File : C:\HPCHEM\1\DATA2\B9469.D Vial: 2
 Acq On : 26 Dec 95 11:25 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 : Tue Dec 26 12:09:14 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	0.495	0.531	-7.4	131	-0.01

Quantitation Report

226

Data File : c:\hpchem\1\data2\b9469.d

Vial: 2

Acq On : 26 Dec 95 11:25 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 27 9:58 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.27	152	7771	40.00	ug/mL	-0.01
17) Naphthalene-d8	11.02	136	31449	40.00	ug/mL	-0.02
32) Acenaphthene-d10	16.26	164	20468	40.00	ug/mL	0.00
50) Phenanthrene-d10	20.65	188	35324	40.00	ug/mL	0.00
64) Chrysene-d12	28.62	240	35218	40.00	ug/mL	0.00
73) Perylene-d12	32.53	264	17686	40.00	ug/mL	-0.01

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	3.55	112	10470	47.78	ug/mL	47.78%
3) Phenol-d5	6.82	99	15400	45.77	ug/mL	45.77%
18) Nitrobenzene-d5	9.02	82	14407	48.10	ug/mL	48.10%
36) 2-Fluorobiphenyl	14.49	172	28898	46.78	ug/mL	46.78%
54) 2,4,6-Tribromophenol	18.67	330	10931	52.32	ug/mL	52.32%
67) Terphenyl-d14	25.77	244	44400	52.51	ug/mL	52.51%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.43	74	6215	44.32	ug/mL	100
6) Phenol	6.86	94	14993	49.09	ug/mL	100
7) bis(2-Chloroethyl) ether	10.83	93	16677	47.57	ug/mL	95
8) 2-Chlorophenol	6.71	128	12395	49.39	ug/mL#	88
9) 1,3-Dichlorobenzene	7.05	146	13739	52.21	ug/mL	98
10) 1,4-Dichlorobenzene	7.32	146	13595	50.14	ug/mL	98
11) 1,2-Dichlorobenzene	7.71	146	13168	49.99	ug/mL	94
12) 2-Methylphenol	9.11	108	11634	53.33	ug/mL	93
13) bis(2-chloroisopropyl) ethe	8.54	45	16205	53.19	ug/mLm	97
14) 4-Methylphenol	9.11	108	11634	47.91	ug/mL	93
15) N-Nitroso-Di-n-propylamine	8.88	70	8516	43.07	ug/mL	95
16) Hexachloroethane	8.65	117	8177	48.58	ug/mL	85
19) Nitrobenzene	9.08	77	18146	49.62	ug/mL#	86
20) Isophorone	9.90	82	26231	48.28	ug/mL	99
21) 2-Nitrophenol	10.02	139	9235	57.16	ug/mL#	81
22) 2,4-Dimethylphenol	10.62	107	13895	49.85	ug/mL#	100
23) bis(2-Chloroethoxy) methane	10.83	93	16677	50.33	ug/mL#	100
24) 2,4-Dichlorophenol	10.87	162	11201	52.99	ug/mL	95
25) 1,2,4-Trichlorobenzene	10.94	180	12401	53.25	ug/mL	98
26) Naphthalene	11.08	128	35495	49.86	ug/mL	99
27) 4-Chloroaniline	11.50	127	16961	51.52	ug/mL	100
28) Hexachlorobutadiene	11.62	225	7862	54.03	ug/mL	97
29) 4-Chloro-3-methylphenol	13.31	107	13111	50.54	ug/mL	96
30) 2-Chloronaphthalene	14.62	162	26337	53.00	ug/mL#	100
31) 2-Methylnaphthalene	13.20	142	24264	50.67	ug/mL	96
33) Hexachlorocyclopentadiene	13.72	237	7760	45.29	ug/mL	90
34) 2,4,6-Trichlorophenol	14.24	196	9125	47.50	ug/mL	97
35) 2,4,5-Trichlorophenol	14.35	196	9780	56.80	ug/mL	91

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

Quantitation Report

227

Data File : c:\hpcchem\1\data2\b9469.d

Vial: 2

Acq On : 26 Dec 95 11:25 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Dec 27 9:58 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) 2-Nitroaniline	16.45	65	11227	55.05	ug/mL	97
38) Dimethylphthalate	15.97	163	33061	52.33	ug/mL#	13
39) Acenaphthylene	15.80	152	43437	50.27	ug/mL	100
40) 2,6-Dinitrotoluene	16.03	165	8264	55.27	ug/mL#	89
41) 3-Nitroaniline	18.30	138	6499	59.70	ug/mLm	94
42) Acenaphthene	16.36	153	28589	53.08	ug/mL	97
43) 2,4-Dinitrophenol	16.76	184	3056	42.94	ug/mL	88
44) 4-Nitrophenol	17.41	109	5493	49.63	ug/mL	86
45) Dibenzofuran	16.89	168	36044	50.85	ug/mL#	86
46) 2,4-Dinitrotoluene	17.18	165	8238	45.87	ug/mLm	1
47) Diethylphthalate	18.15	149	39585	58.01	ug/mL	94
48) Fluorene	17.92	166	32203	59.65	ug/mL	97
49) 4-Chlorophenyl-phenylether	18.15	204	13995	57.41	ug/mL#	78
51) 4-Nitroaniline	18.30	138	6314	47.15	ug/mLm	94
52) 4,6-Dinitro-2-methylphenol	18.36	198	5268	49.04	ug/mL	100
53) n-Nitrosodiphenylamine	18.59	169	21420	51.44	ug/mL	98
55) 1,2-Diphenylhydrazine (as	18.61	77	46423	43.04	ug/ml	100
56) 4-Bromophenyl-phenylether	19.57	248	11816	55.22	ug/mL#	90
57) Hexachlorobenzene	19.48	284	15744	53.36	ug/mL	95
58) Pentachlorophenol	20.27	266	8927	54.36	ug/mL	95
59) Phenanthrene	20.73	178	48833	53.79	ug/mL	99
60) Anthracene	20.86	178	49342	54.79	ug/mLm	99
61) Carbazole	21.58	167	43897	57.48	ug/ml	96
62) Di-n-butylphthalate	23.15	149	86560	55.78	ug/mL#	98
63) Fluoranthene	24.27	202	57609	58.90	ug/mLm	81
65) Benzidine	20.30	184	538	54.58	ug/mlm	100
66) Pyrene	24.89	202	56817	52.86	ug/mL#	91
68) Butylbenzylphthalate	27.60	149	37751	52.27	ug/mL#	31
69) Benzo[a]anthracene	28.58	228	53808	52.39	ug/mL	99
70) 3,3'-Dichlorobenzidine	28.82	252	17310	48.48	ug/mL	97
71) Chrysene	28.70	228	39564	51.28	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	29.62	149	55020	53.82	ug/mL#	24
74) Di-n-octylphthalate	31.51	149	68136	50.23	ug/mLm	100
75) Benzo[b]fluoranthene	31.61	252	35111	58.34	ug/mLm	96
76) Benzo[k]fluoranthene	31.69	252	24269	47.49	ug/mLm	96
77) Benzo[a]pyrene	32.40	252	25718	55.90	ug/mLm	96
78) Indeno[1,2,3-cd]pyrene	35.04	276	12648	53.19	ug/mL	97
79) Dibenz[a,h]anthracene	35.17	278	12959	53.95	ug/mL#	93
80) Benzo[g,h,i]perylene	35.56	276	11744	53.70	ug/mLm	96

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

b9469.d BNACLP.M

Wed Dec 27 10:00:24 1995

BNA

Page 2

Quantitation Report

228

Data File : c:\hpchem\1\data2\b9469.d

Acq On : 26 Dec 95 11:25 am

Sample : 50 STD.....

Misc :

Quant Time: Dec 27 9:58 1995

Vial: 2

Operator: SCOTTV

Converted from RTE d Inst : ABNA

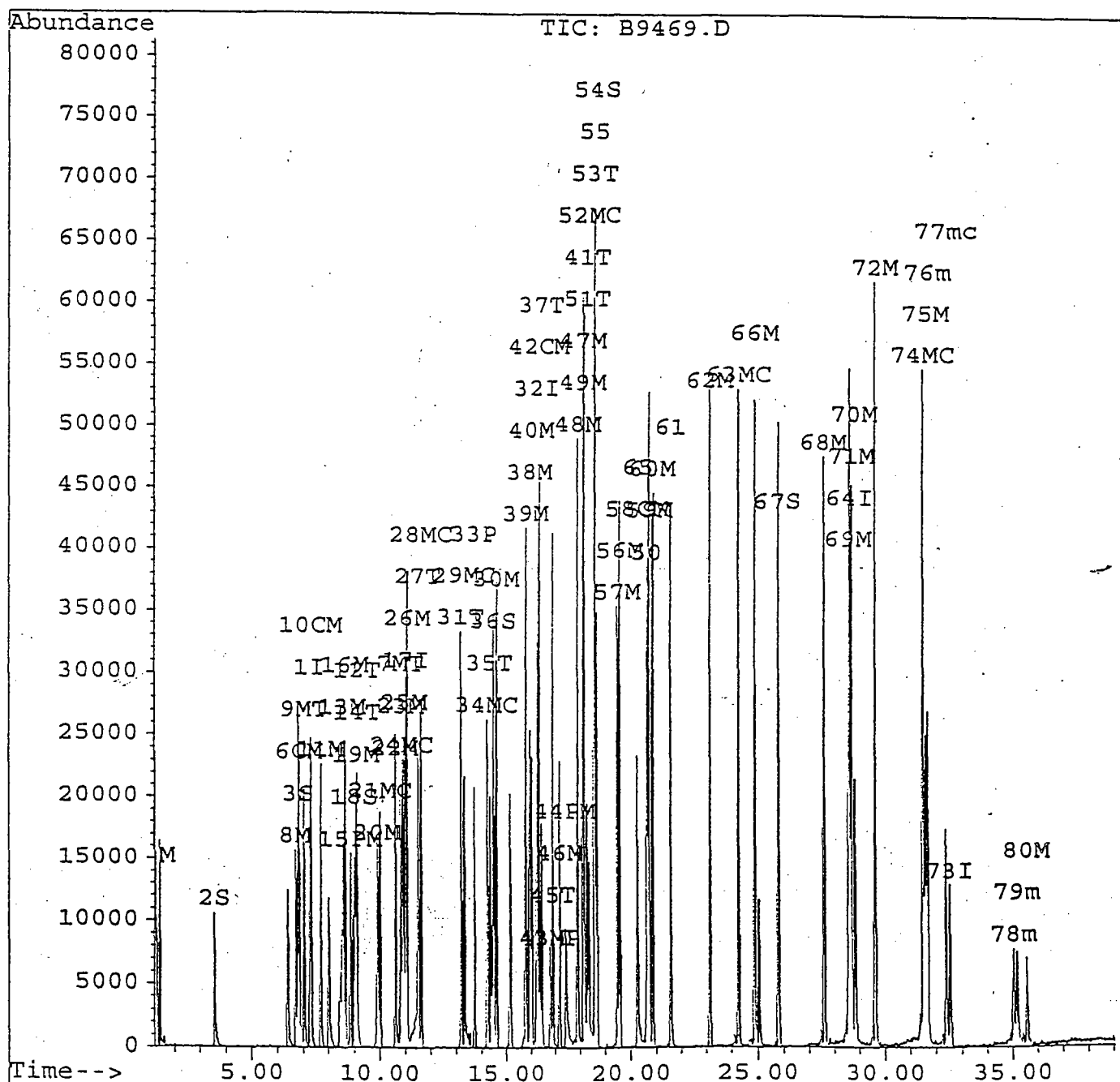
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

229

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9008.DDate Analyzed: 10/27/95Instrument ID: ABNATime Analyzed: 1329

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	26722	8.59	104351	12.33	57774	17.63
UPPER LIMIT	53444	9.09	208702	12.83	115548	18.13
LOWER LIMIT	13361	8.09	52176	11.83	28887	17.13
SAMPLE NO.						
01 SBLK01	22496	8.59	83610	12.31	47426	17.62
02 9547000B	24097	8.60	94497	12.32	54817	17.61
03 46360MS	24328	8.60	97435	12.32	56181	17.64
04 46360MSD	25002	8.60	97241	12.34	55587	17.64
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (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.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

230

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9008.D

Date Analyzed: 10/27/95

Instrument ID: ABNA

Time Analyzed: 1329

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
12 HOUR STD	79042	22.12	25699	30.18	9983	34.15
UPPER LIMIT	158084	22.62	51398	30.68	19966	34.65
LOWER LIMIT	39521	21.62	12850	29.68	4992	33.65
SAMPLE NO.						
01 SBLK01	61940	22.09	43279	30.18	19502	34.16
02 9547000B	77921	22.11	44563	30.17	16352	34.16
03 46360MS	74786	22.13	35528	30.18	16536	34.14
04 46360MSD	77102	22.13	28509	30.19	10719	34.15
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
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.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

231

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): B9469.DDate Analyzed: 12/26/95Instrument ID: ABNATime Analyzed: 1125

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	7771	7.27	31449	11.02	20468	16.26
UPPER LIMIT	15542	7.77	62898	11.52	40936	16.76
LOWER LIMIT	3886	6.77	15725	10.52	10234	15.76
SAMPLE NO.						
01 SBLK01	7458	7.26	29914	11.00	18755	16.23
02 9558188B	8924	7.26	36767	11.00	23340	16.24
03 9558189B	7941	7.26	31079	11.00	20400	16.24
04 9558190B	7796	7.26	31276	11.00	20007	16.23
05 9558191B	7989	7.26	31787	10.99	19890	16.23
06 9558195B	8219	7.26	31514	11.00	22858	16.23
07 9558196B	7150	7.26	27915	11.00	17186	16.23
08 SBLK02	8386	7.26	32580	11.00	22116	16.23
09 9558311B	9544	7.26	38966	11.00	24933	16.23
10 9558313B	7690	7.26	30820	11.00	19267	16.23
11 9558314B	8550	7.26	35386	11.00	22395	16.23
12 9558315B	8213	7.26	32583	11.00	20978	16.23
13 9558316B	7706	7.26	32060	11.00	21124	16.23
14 9558317B	8821	7.27	38250	11.00	25653	16.24
15						
16						
17						
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

232

Lab Name: EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Lab File ID (Standard): B9469.D Date Analyzed: 12/26/95
 Instrument ID: ABNA Time Analyzed: 1125

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	35324	20.65	35218	28.62	17686	32.53
UPPER LIMIT	70648	21.15	70436	29.12	35372	33.03
LOWER LIMIT	17662	20.15	17609	28.12	8843	32.03
SAMPLE NO.						
01 SBLK01	35414	20.64	45521	28.61	31190	32.56
02 9558188B	40695	20.65	46341	28.60	31872	32.55
03 9558189B	35349	20.65	39375	28.60	25346	32.54
04 9558190B	35474	20.64	42253	28.59	27158	32.54
05 9558191B	32983	20.64	49439	28.61	36893 *	32.55
06 9558195B	38128	20.64	44965	28.59	30511	32.54
07 9558196B	31872	20.62	44817	28.59	34345	32.56
08 SBLK02	39178	20.64	48266	28.59	36878 *	32.56
09 9558311B	41078	20.64	60115	28.61	41191 *	32.54
10 9558313B	37750	20.64	48903	28.59	37763 *	32.56
11 9558314B	39827	20.62	50880	28.59	44639 *	32.54
12 9558315B	38289	20.64	53562	28.59	40526 *	32.54
13 9558316B	38478	20.64	50164	28.59	37293 *	32.54
14 9558317B	43586	20.63	53856	28.61	40386 *	32.55
15						
16						
17						
18						
19						
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. 233

Lab Name: <u>EMSL ANALYTICAL</u>	Contract: _____	9558313B <i>Field Blank</i>
Project No.: _____	Site: _____	
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9558313B</u>	
Sample wt/vol: <u>1000.0</u> (g/mL <u>ML</u>)	Lab File ID: <u>B9479.D</u>	
Level: (low/med) _____	Date Received: <u>12/07/95</u>	
% Moisture: _____	decanted: (Y/N): <u>N</u>	Date Extracted: <u>12/23/95</u>
Concentrated Extract Volume: <u>1000</u> (uL)	Date Analyzed: <u>12/26/95</u>	
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>	
GPC Cleanup: (Y/N) <u>N</u>	pH: _____	

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	bis(2-chloroisopropyl)ether	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

234

9558313B

Field Blank

Lab Name: EMSL ANALYTICAL

Contract:

Project No.:

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: 9558313B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9479.D

Level: (low/med)

Date Received: 12/18/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
132-64-9	Dibenzofuran	10		U
121-14-2	2,4-Dinitrotoluene	10		U
84-66-2	Diethylphthalate	10		U
86-73-7	Fluorene	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methylphenol	25		U
86-30-6	n-Nitrosodiphenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-08	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
56-55-3	Benzo[a]anthracene	10		U
91-94-1	3,3'-Dichlorobenzidine	20		U
218-01-9	Chrysene	10		U
117-81-7	bis(2-Ethylhexyl)phthalate	10		U
117-84-0	Di-n-octylphthalate	10		U
205-99-2	Benzo[b]fluoranthene	10		U
207-08-9	Benzo[k]fluoranthene	10		U
50-32-8	Benzo[a]pyrene	10		U
193-39-5	Indeno[1,2,3-cd]pyrene	10		U
53-70-3	Dibenz[a,h]anthracene	10		U
191-24-2	Benzo[g,h,i]perylene	10		U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

235

9558313B

Field Blank

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9558313B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B9479.D

Level: (low/med) _____

Date Received: 12/18/95

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown Hydrocarbon	27.84	6	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
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22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : c:\hpcchem\1\data2\b9479.d Vial: 12 236
 Acq On : 26 Dec 95 8:23 pm Operator: SCOTTV
 Sample : 58313..... Converted from RTE d Inst : ABNA
 Misc : BT Multiplr: 1.00
 Quant Time: Dec 27 11:00 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
 Title : CLP BNA Calibration
 Last Update : Tue Dec 26 12:09:14 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.26	152	7690	40.00	ug/mL	-0.02
17) Naphthalene-d8	11.00	136	30820	40.00	ug/mL	-0.04
32) Acenaphthene-d10	16.23	164	19267	40.00	ug/mL	-0.02
50) Phenanthrene-d10	20.64	188	37750	40.00	ug/ml	0.00
64) Chrysene-d12	28.59	240	48903	40.00	ug/mL	-0.03
73) Perylene-d12	32.56	264	37763	40.00	ug/mL	0.00

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	3.55	112	8809	40.62	ug/mL	40.62%
3) Phenol-d5	6.80	99	8566	25.72	ug/mL	25.72%
18) Nitrobenzene-d5	8.99	82	16404	55.88	ug/mL	55.88%
36) 2-Fluorobiphenyl	14.48	172	31019	53.34	ug/mL	53.34%
54) 2,4,6-Tribromophenol	18.64	330	15518	69.50	ug/mL	69.50%
67) Terphenyl-d14	25.80	244	85905	73.17	ug/mL	73.17%

Target Compounds Qvalue

Quantitation Report

Data File : c:\hpchem\1\data2\b9479.d

Acq On : 26 Dec 95 8:23 pm

Sample : 58313.....

Misc :

Quant Time: Dec 27 11:00 1995

Vial: 12 ²³⁷

Operator: SCOTTV

Converted from RTE d Inst : ABNA

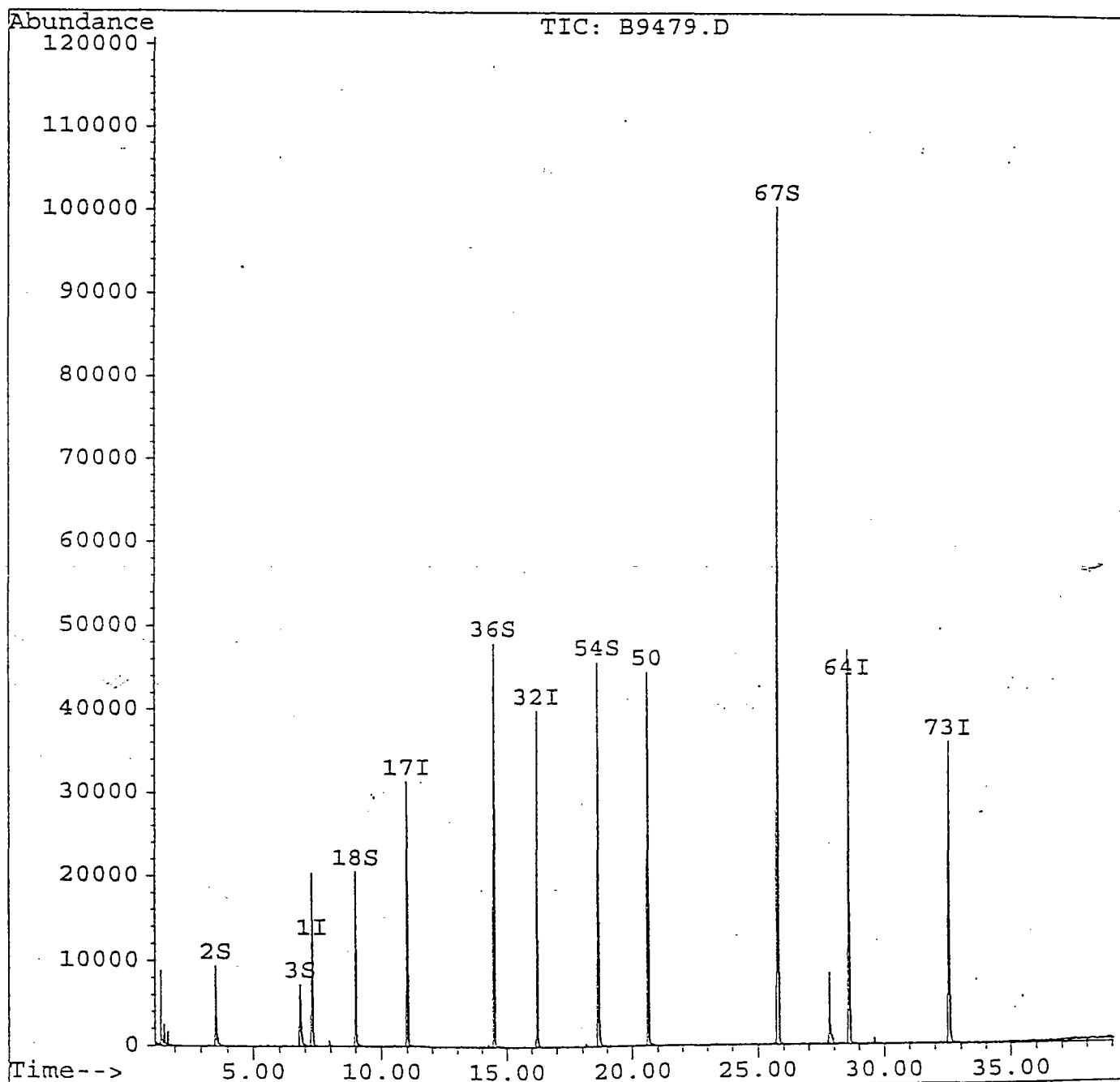
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACL.P.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



Library Search Compound Report

238

Data File : c:\hpchem\1\data2\b9479.d

Acq On : 26 Dec 95 8:23 pm

Sample : 58313.....

Misc :

Vial: 12

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

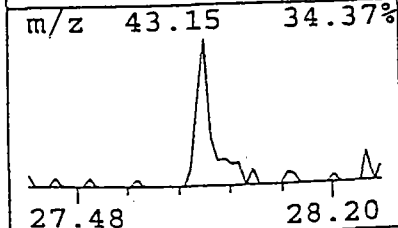
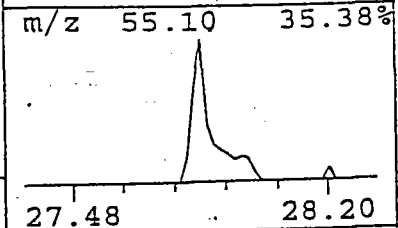
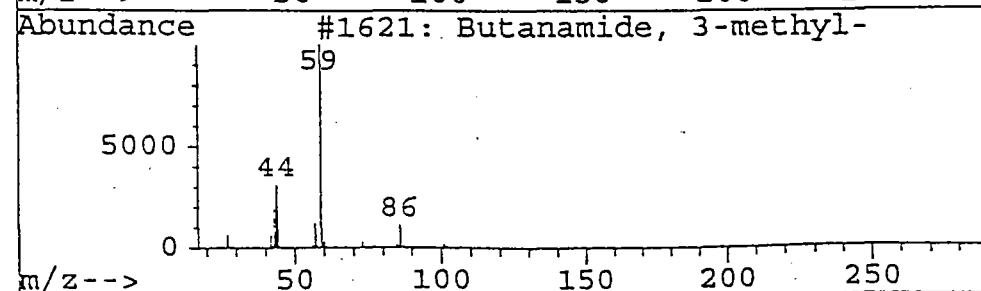
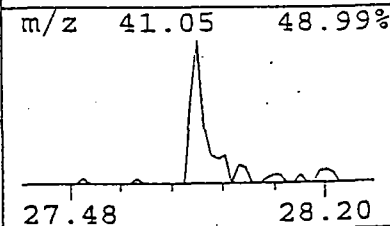
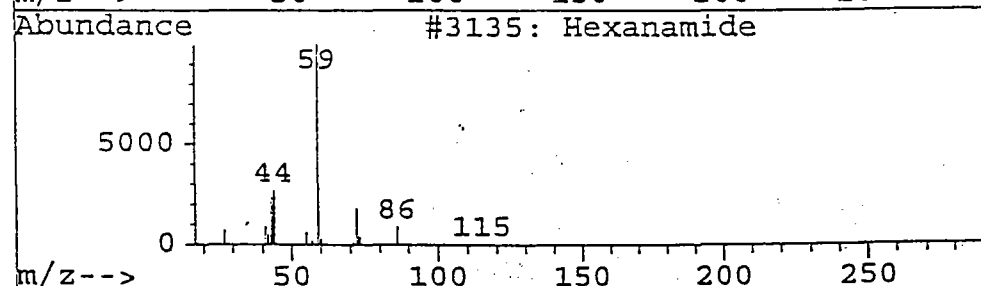
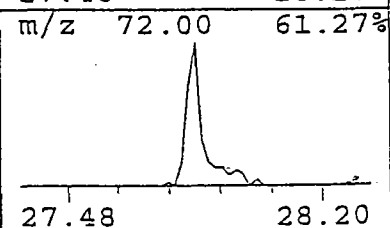
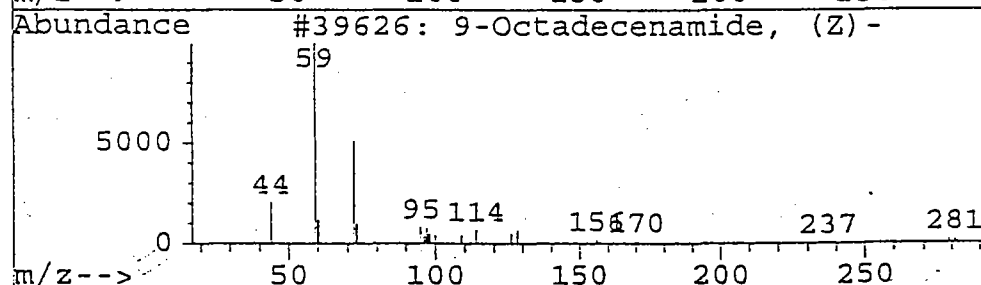
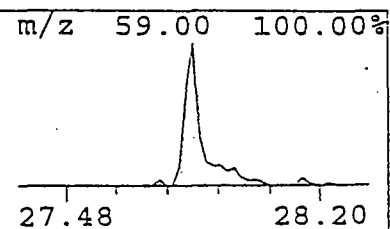
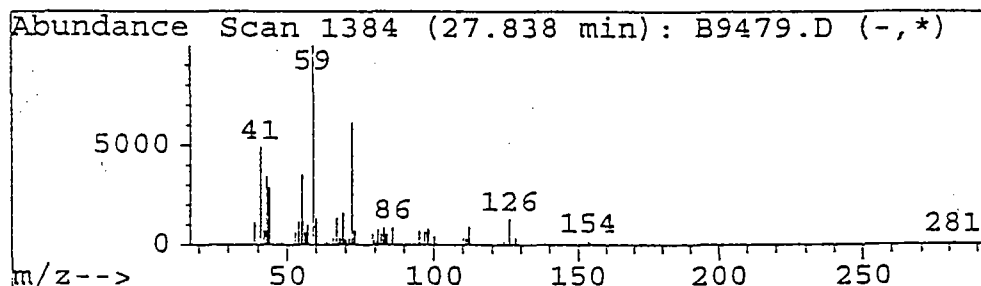
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.84	6.33 ug/mL	22455	Chrysene-d12	28.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	9-Octadecenamide, (Z)-	39626	000301-02-0	72
2	Hexanamide	3135	000628-02-4	38
3	Butanamide, 3-methyl-	1621	000541-46-8	37
4	Cyclooctanemethanol, .alpha.,.alpha	15325	016624-06-9	35
5	2-Propanone, 1-cyclopentyl-	4580	001122-98-1	32



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

239

Lab Name: EMSL ANALYTICAL

Contract: _____

9558314B

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9558314B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9480.D

Level: (low/med) _____

Date Received: 12/18/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(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

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

241

MU-1
9558314B
2933756

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9558314B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B9480.D

Level: (low/med) _____

Date Received: 12/18/95

% Moisture: _____

decanted: (Y/N) N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 582-16-1	Naphthalene, 2,7-dimethyl-	15.31	1	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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24.				
25.				
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27.				
28.				
29.				
30.				

Quantitation Report

242

Data File : c:\hpchem\1\data2\b9480.d

Acq On : 26 Dec 95 9:15 pm

Sample : 58314.....

Misc :

Quant Time: Dec 27 11:01 1995

Vial: 13

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.26	152	8550	40.00	ug/mL	-0.02
17) Naphthalene-d8	11.00	136	35386	40.00	ug/mL	-0.04
32) Acenaphthene-d10	16.23	164	22395	40.00	ug/mL	-0.02
50) Phenanthrene-d10	20.62	188	39827	40.00	ug/mL	-0.02
64) Chrysene-d12	28.59	240	50880	40.00	ug/mL	-0.02
73) Perylene-d12	32.54	264	44639	40.00	ug/mL	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	3.05	112	49	0.20	ug/mL	0.20%
3) Phenol-d5	7.26	99	267	0.72	ug/mL	0.72%
18) Nitrobenzene-d5	9.00	82	21510	63.82	ug/mL	63.82%
36) 2-Fluorobiphenyl	14.48	172	37837	55.98	ug/mL	55.98%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	25.78	244	82602	67.62	ug/mL	67.62%

Target Compounds

Qvalue

Quantitation Report

243

Data File : c:\hpchem\1\data2\b9480.d

Acq On : 26 Dec 95 9:15 pm

Sample : 58314.....

Misc :

Quant Time: Dec 27 11:01 1995

Vial: 13

Operator: SCOTTV

Converted from RTE d Inst : ABNA

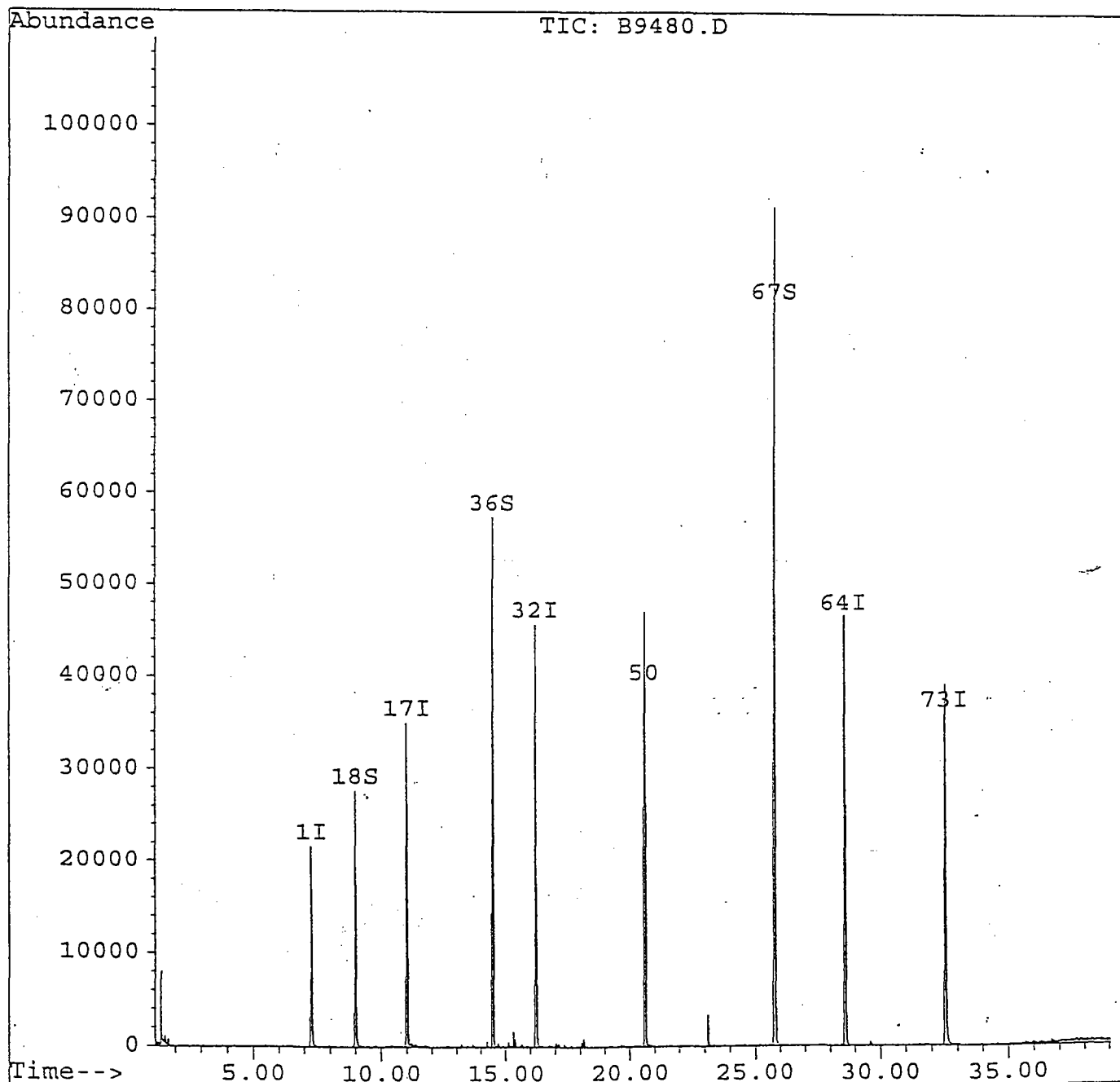
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 1995

Response via : Multiple Level Calibration



Library Search Compound Report

244

Data File : c:\hpchem\1\data2\b9480.d

Acq On : 26 Dec 95 9:15 pm

Sample : 58314.....

Misc :

Vial: 13

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

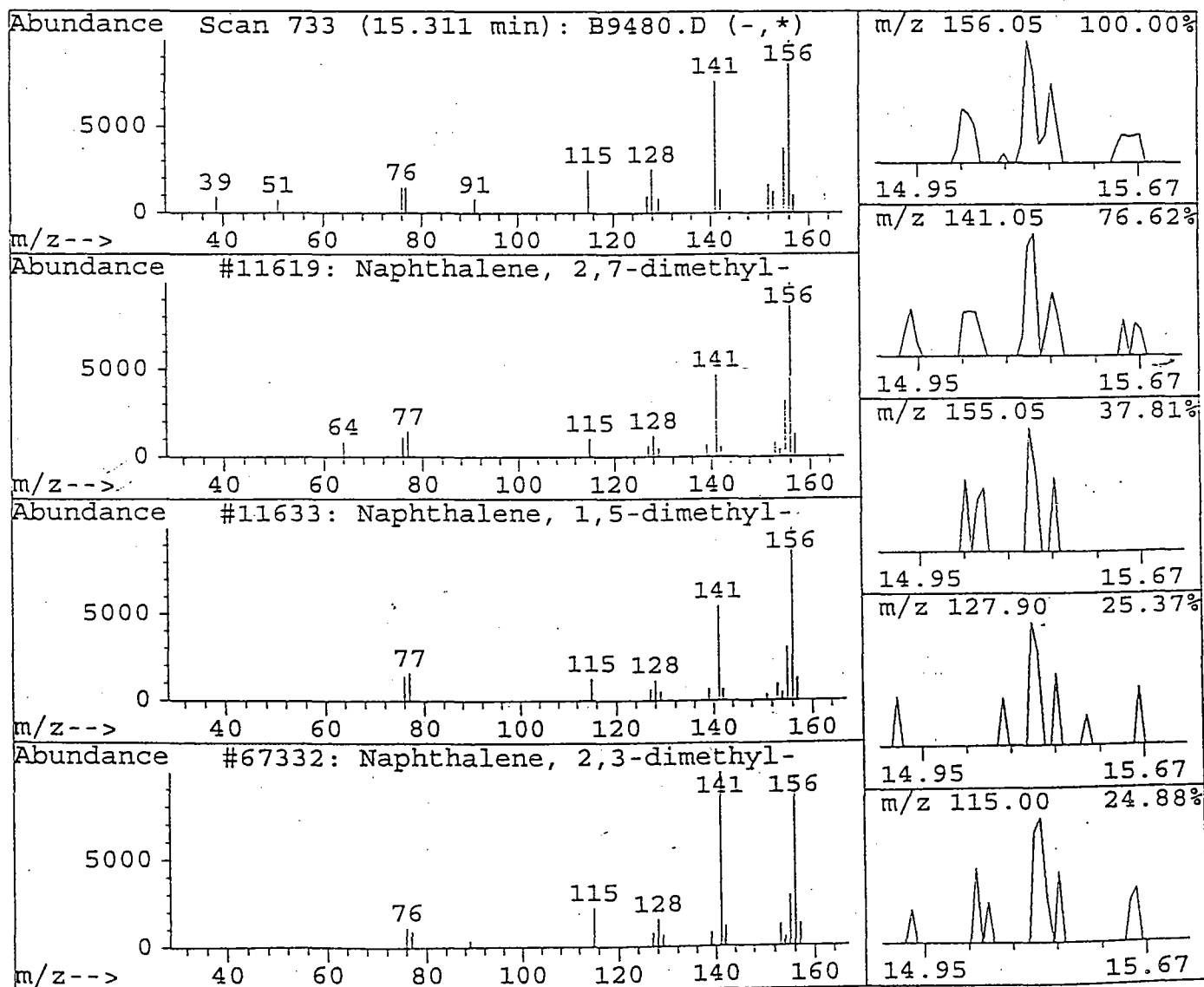
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
15.31	1.42 ug/mL	3946	Acenaphthene-d10	16.23

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	11619	000582-16-1	90
2	Naphthalene, 1,5-dimethyl-	11633	000571-61-9	87
3	Naphthalene, 2,3-dimethyl-	67332	000581-40-8	87
4	Naphthalene, 2,6-dimethyl-	11624	000581-42-0	87
5	Naphthalene, 1,7-dimethyl-	11628	000575-37-1	81



2C
WATER SEMIVOLATILE SURROGATE RECOVERY

245

Lab Name: EMSL ANALYTICAL Contract: _____
Project No.: _____ Site: _____ Location: _____ Group: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	41	37	65						
02	9547000B	56	49	91						
03	46360MS	54	58	110						
04	46360MSD	51	56	121						
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

S1 (NBZ) = Nitrobenzene-d5
S2 (FBP) = 2-Fluorobiphenyl
S3 (TPH) = Terphenyl-d14

QC LIMITS
(22-101)
(20-94)
(35-127)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

246

Lab Name: EMSL ANALYTICAL Contract: _____
Project No.: _____ Site: _____ Location: _____ Group: _____

	SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	#	#	TOT OUT
01	SBLK01	43	28	59	58	71	72			
02	9558188B	26	18	33	35	64	59			
03	9558189B	28	20	51	52	73	83			
04	9558190B	29	21	61	56	62	77			
05	9558191B	36	24	52	48	63	64			
06	9558195B	38	27	64	57	66	74			
07	9558196B	40	27	63	60	59	70			
08	SBLK02	45	29	64	58	67	73			
09	9558311B	42	30	62	55	83	67			
10	9558313B	41	26	56	53	70	73			
11	9558314B			64	56		68			
12	9558315B			74	59		75			
13	9558316B			68	53		76			
14	9558317B			46	37		61			
15										
16										
17										
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19										
20										
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28										
29										
30										

S1 (2FP) = 2-Fluorophenol
S2 (PHL) = Phenol-d5
S3 (NBZ) = Nitrobenzene-d5
S4 (FBP) = 2-Fluorobiphenyl
S5 (TBP) = 2,4,6-Tribromophenol
S6 (TPH) = Terphenyl-d14

QC LIMITS
(4-106)
(5-87)
(22-101)
(20-94)
(17-126)
(35-127)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 247

SBLK01

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID: B9009.DLab Sample ID: BLANK1Instrument ID: ABNADate Extracted: 10/18/95Matrix: (soil/water) WATERDate Analyzed: 10/27/95

Level: (low/med) _____

Time Analyzed: 1421

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9547000B	9547000B	B9010.D	10/27/95
02	46360MS	46360MS	B9011.D	10/27/95
03	46360MSD	46360MSD	B9012.D	10/27/95
04				
05				
06				
07				
08				
09				
10				
11				
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29				
30				

COMMENTS:

IB
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 248

SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK1

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B9009.D

Level: (low/med) _____ Date Received: 10/13/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 10/18/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound	(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

IF
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 250

SBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK1

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9009.D

Level: (low/med) _____ Date Received: 10/13/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/18/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/95

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	6.94	2	J
2.				
3.				
4.				
5.				
6.				
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25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

251

Data File : c:\hpchem\1\data2\b9009.d

Vial: 3

Acq On : 27 Oct 95 2:21 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Oct 31 15:20 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.59	152	22496	40.00	ug/mL	-0.10
17) Naphthalene-d8	12.31	136	83610	40.00	ug/mL	-0.12
32) Acenaphthene-d10	17.62	164	47426	40.00	ug/mL	-0.11
50) Phenanthrene-d10	22.09	188	61940	40.00	ug/mL	-0.14
64) Chrysene-d12	30.18	240	43279	40.00	ug/mL	-0.11
73) Perylene-d12	34.16	264	19502	40.00	ug/mL	-0.08
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.01	112	31567	44.02	ug/mL	44.02%
3) Phenol-d5	8.01	99	53072	45.61	ug/mL	45.61%
18) Nitrobenzene-d5	10.27	82	46833	41.33	ug/mL	41.33%
36) 2-Fluorobiphenyl	15.77	172	53376	36.90	ug/mL	36.90%
54) 2,4,6-Tribromophenol	20.03	330	7869	40.12	ug/mL	40.12%
67) Terphenyl-d14	27.27	244	69697	64.83	ug/mL	64.83%
Target Compounds						Qvalue
62) Di-n-butylphthalate	24.52	149	16902	5.43	ug/mL#	98

Quantitation Report

252

Data File : c:\hpchem\1\data2\b9009.d

Acq On : 27 Oct 95 2:21 pm

Sample : BLANK.....

Misc :

Quant Time: Oct 31 15:20 1995

Vial: 3

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

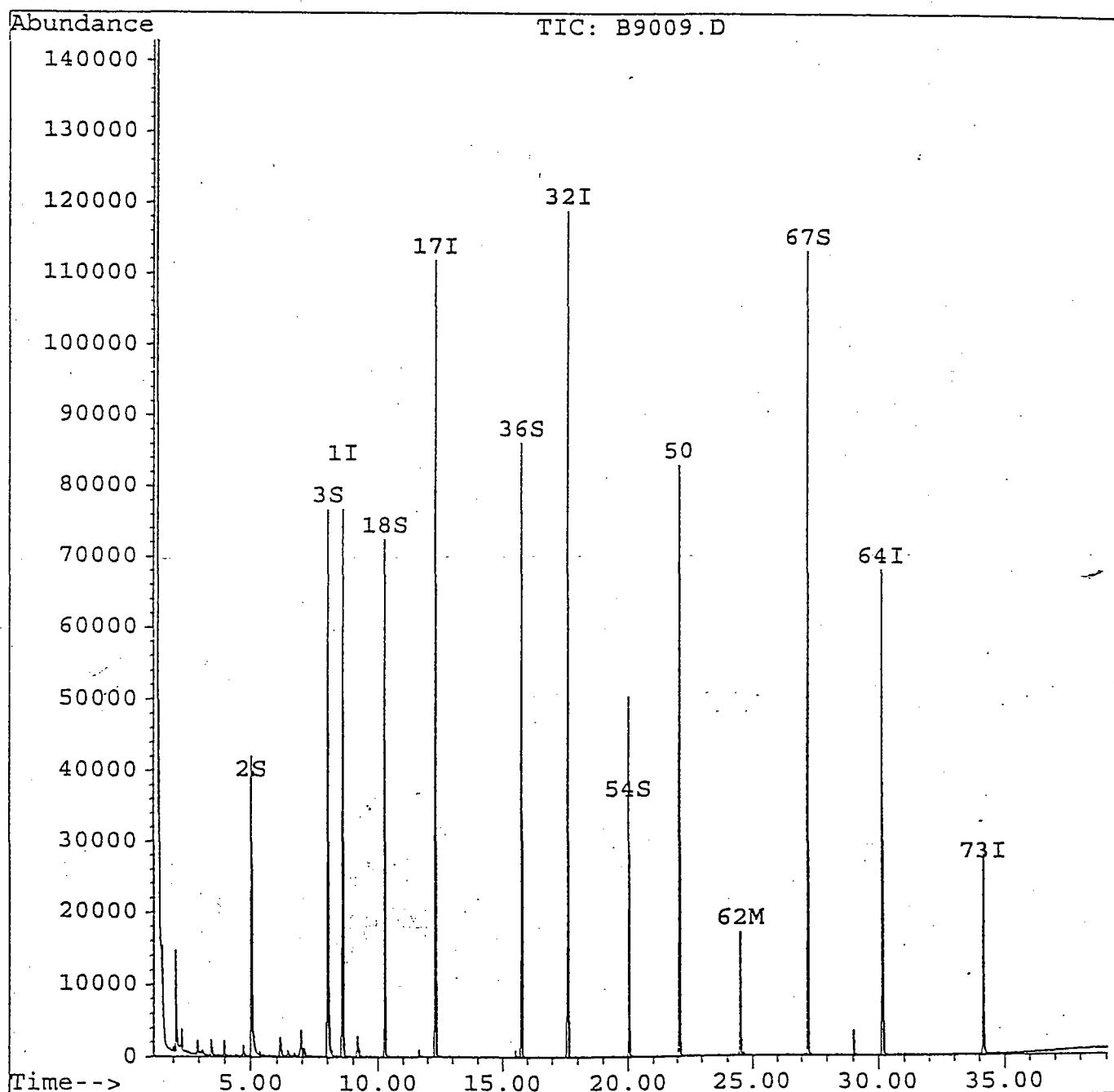
Converted from RTE d

Method : c:\HPCHEM\1\METHODS\BNACLP.M

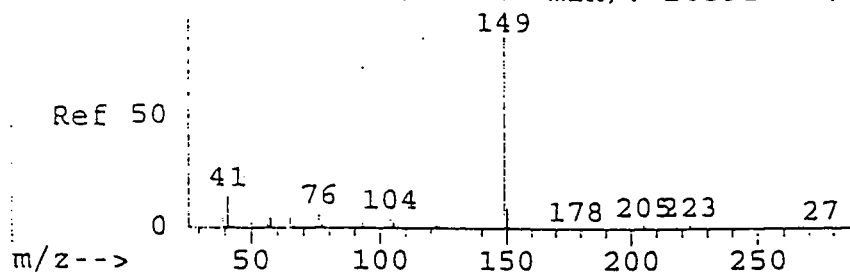
Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

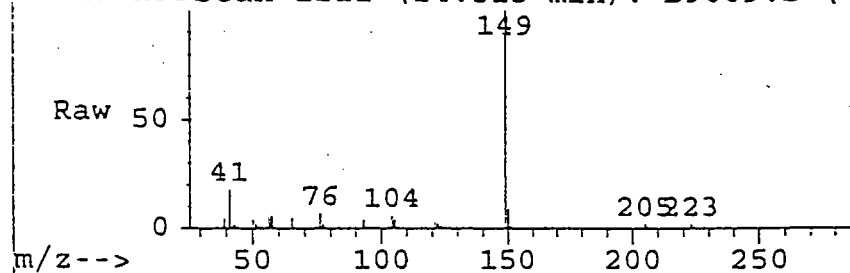
Response via : Multiple Level Calibration



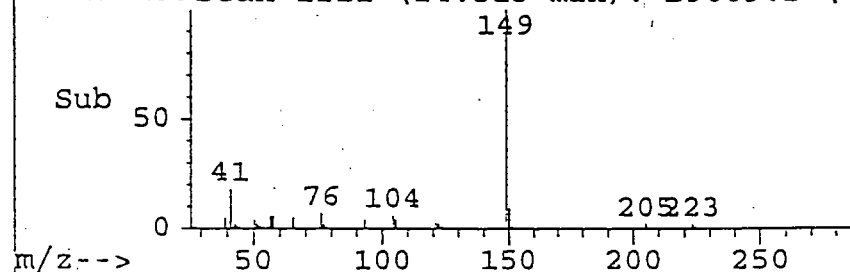
AbundanceScan 1171 (24.017 min): B6592.D (*)



AbundanceScan 1211 (24.515 min): B9009.D (*)



AbundanceScan 1211 (24.515 min): B9009.D (-



#62

Di-n-butylphthalate

Concen: 5.43 ug/mL

RT: 24.52 min Scan# 1211

Delta R.T. -0.12 min

Lab File: b9009.d

Acq: 27 Oct 95 2:21 pm

Tgt Ion:149 Resp: 16902

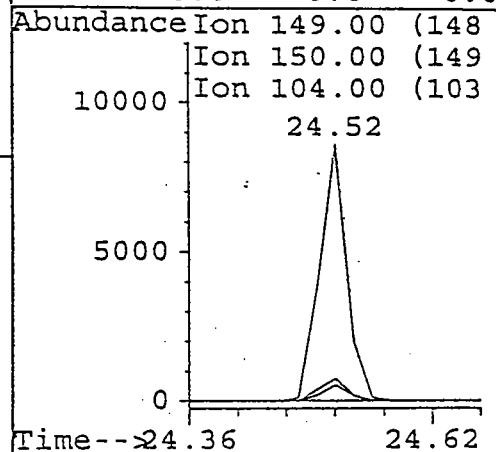
Ion Ratio Lower Upper

149 100

150 8.9 7.3 10.9

104 6.4 3.7 5.5#

0 0.0 0.0 0.0



253

Library Search Compound Report

254

Data File : c:\hpchem\1\data2\b9009.d

Acq On : 27 Oct 95 2:21 pm

Sample : BLANK.....

Misc :

Vial: 3

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

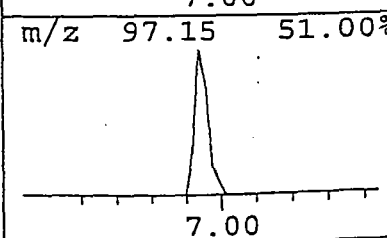
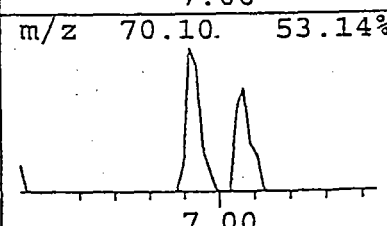
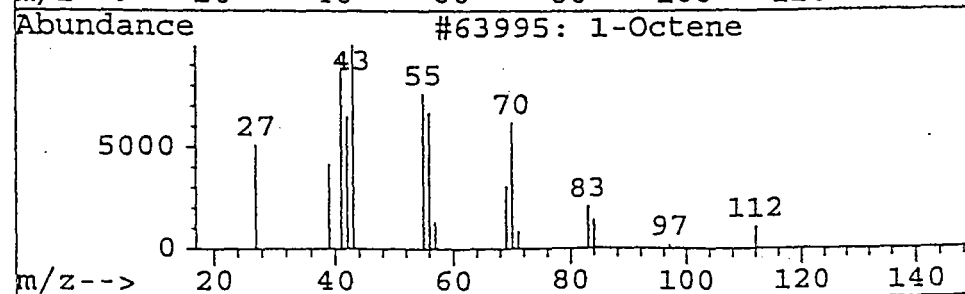
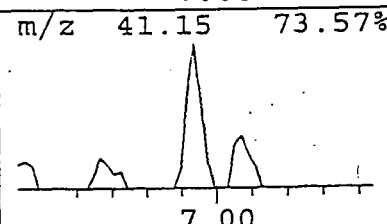
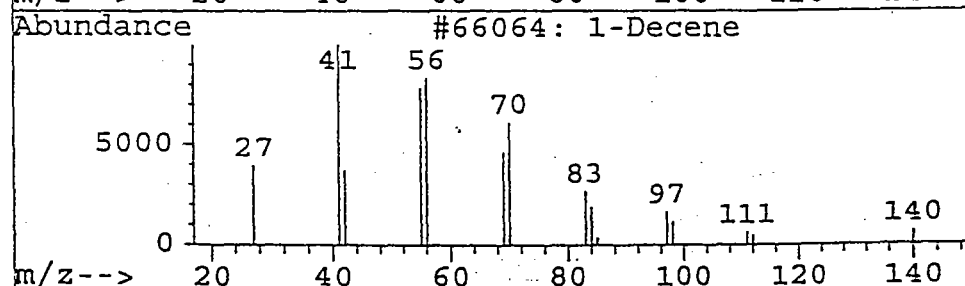
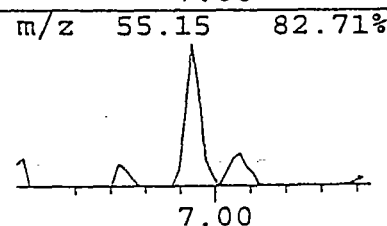
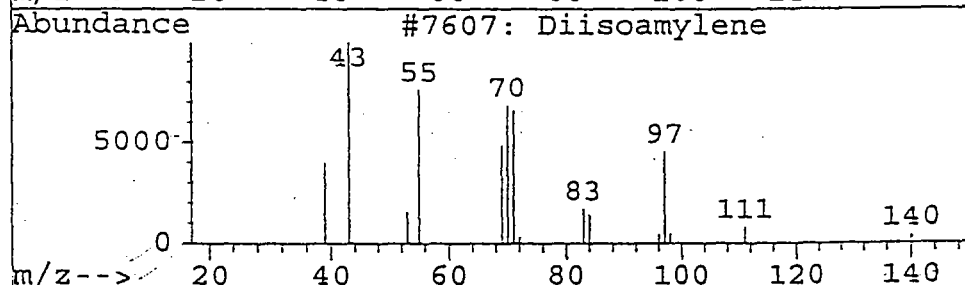
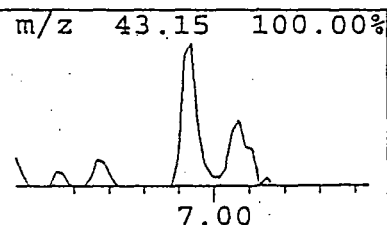
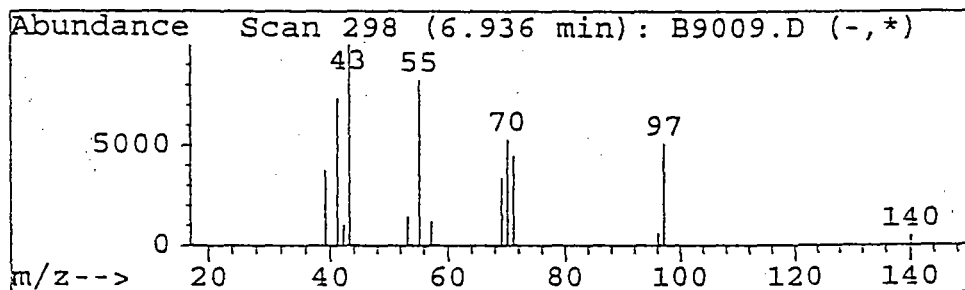
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
6.94	2.46 ug/ml	10825	1,4-Dichlorobenzene-d4	8.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Diisoamylene	7607	054063-09-1	64
2	1-Decene	66064	000872-05-9	35
3	1-Octene	63995	000111-66-0	35
4	Heptane, 4-methyl-	3096	000589-53-7	25
5	Cyclopentane, 1,2-dimethyl-, cis-	1367	001192-18-3	25



4B
SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 255

SBLK02

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID: B9477.D

Lab Sample ID: BLANK2

Instrument ID: ABNA

Date Extracted: 12/23/95

Matrix: (soil/water) WATER

Date Analyzed: 12/26/95

Level: (low/med) _____

Time Analyzed: 1840

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9558311B	9558311B	B9478.D	12/26/95
02	9558313B	9558313B	B9479.D	12/26/95
03	9558314B	9558314B	B9480.D	12/26/95
04	9558315B	9558315B	B9481.D	12/26/95
05	9558316B	9558316B	B9482.D	12/26/95
06	9558317B	9558317B	B9483.D	12/26/95
07				
08				
09				
10				
11				
12				
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 256

SBLK02

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B9477.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N): N Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound	(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.

258

SBLK02

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B9477.D

Level: (low/med) _____

Date Received: _____

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	bis(2-chloroisopropyl)ether	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK02

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: BLANK2Sample wt/vol: 1000.0 (g/mL ML)Lab File ID: B9477.D

Level: (low/med) _____

Date Received: _____

% Moisture: _____

decanted: (Y/N): NDate Extracted: 12/23/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 12/26/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
132-64-9	Dibenzofuran	10		U
121-14-2	2,4-Dinitrotoluene	10		U
84-66-2	Diethylphthalate	10		U
86-73-7	Fluorene	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methylphenol	25		U
86-30-6	n-Nitrosodiphenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-08	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
56-55-3	Benzo[a]anthracene	10		U
91-94-1	3,3'-Dichlorobenzidine	20		U
218-01-9	Chrysene	10		U
117-81-7	bis(2-Ethylhexyl)phthalate	10		U
117-84-0	Di-n-octylphthalate	10		U
205-99-2	Benzo[b]fluoranthene	10		U
207-08-9	Benzo[k]fluoranthene	10		U
50-32-8	Benzo[a]pyrene	10		U
193-39-5	Indeno[1,2,3-cd]pyrene	10		U
53-70-3	Dibenz[a,h]anthracene	10		U
191-24-2	Benzo[g,h,i]perylene	10		U

IF
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 260

SBLK02

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9477.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/26/95

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.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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15.				
16.				
17.				
18.				
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20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

261

Data File : c:\hpchem\1\data2\b9477.d Vial: 10
Acq On : 26 Dec 95 6:40 pm Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 27 10:58 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue Dec 26 12:09:14 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.26	152	8386	40.00	ug/mL	-0.02
17) Naphthalene-d8	11.00	136	32580	40.00	ug/mL	-0.04
32) Acenaphthene-d10	16.23	164	22116	40.00	ug/mL	-0.02
50) Phenanthrene-d10	20.64	188	39178	40.00	ug/mL	0.00
64) Chrysene-d12	28.59	240	48266	40.00	ug/mL	-0.03
73) Perylene-d12	32.56	264	36878	40.00	ug/mL	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
2) 2-Fluorophenol	3.53	112	10529	44.53	ug/mL	44.53%
3) Phenol-d5	6.78	99	10502	28.92	ug/mL	28.92%
18) Nitrobenzene-d5	9.00	82	19835	63.92	ug/mL	63.92%
36) 2-Fluorobiphenyl	14.48	172	38587	57.81	ug/mL	57.81%
54) 2,4,6-Tribromophenol	18.64	330	15568	67.19	ug/mL	67.19%
67) Terphenyl-d14	25.80	244	85054	73.40	ug/mL	73.40%

Target Compounds

Qvalue

Quantitation Report

262

Data File : c:\hpchem\1\data2\b9477.d

Acq On : 26 Dec 95 6:40 pm

Sample : BLANK.....

Misc :

Quant Time: Dec 27 10:58 1995

Vial: 10

Operator: SCOTTV

Converted from RTE d Inst : ABNA

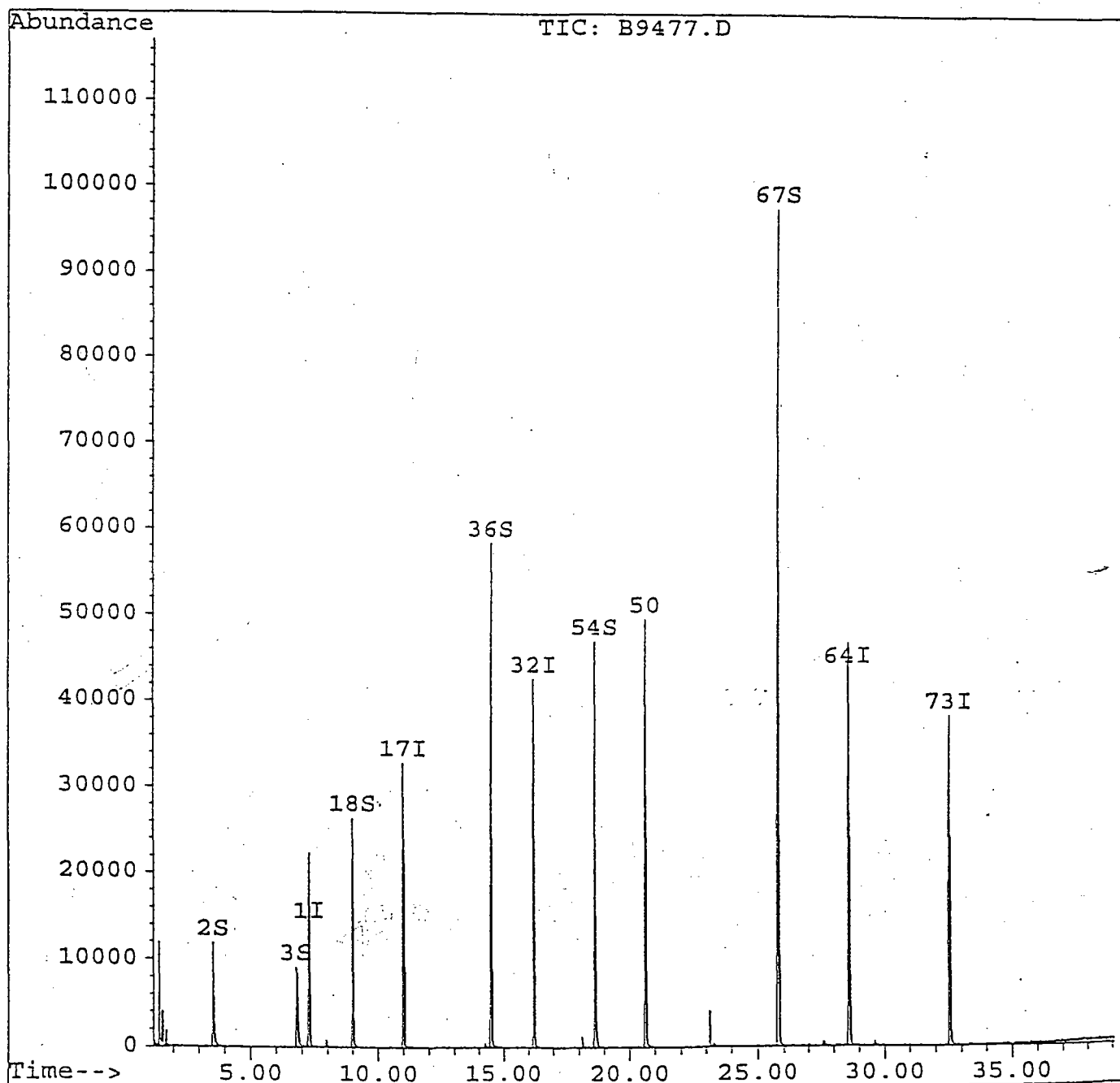
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue Dec 26 12:09:14 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 Nov 22 12:21:54 1995
 Response via : Initial Calibration

263

Non-Spiked Sample: B8997.D

Spike Sample	Spike Duplicate Sample
File ID : B9011.D	B9012.D
Sample : 46360MS.....	Converted from RTE data file >B9011::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD % Rec
N-nitrosodimethylami	0.3	100	42	50	41	49	18	100 1-300
Phenol	0.6	100	59	59	59	59	0	23 5-112
bis(2-Chloroethyl)et	0.0	100	57	51	57	51	11	55 12-158
2-Chlorophenol	0.0	100	57	53	57	53	8	29 23-134
1,3-Dichlorobenzene	0.0	100	45	43	45	43	3	42 1-172
1,4-Dichlorobenzene	0.0	100	47	45	47	45	5	32 20-124
1,2-Dichlorobenzene	0.0	100	47	45	47	45	5	31 32-129
bis(2-chloroisopropy	0.0	100	77	72	77	72	7	46 36-166
N-Nitroso-Di-n-propy	0.0	100	51	47	51	47	9	55 1-230
Hexachloroethane	0.0	100	44	41	44	41	7	25 40-113
Nitrobenzene	0.2	100	50	48	50	47	5	39 35-180
Isophorone	0.0	100	48	45	48	45	7	63 21-196
2-Nitrophenol	0.0	100	54	50	54	50	8	35 29-182
2,4-Dimethylphenol	0.0	100	75	84	75	84	11	26 32-119
bis(2-Chloroethoxy)m	0.0	100	56	51	56	51	8	35 33-184
2,4-Dichlorophenol	0.0	100	72	77	72	77	7	26 39-135
1,2,4-Trichlorobenze	0.0	100	49	46	49	46	7	28 44-142
Naphthalene	0.3	100	52	48	51	48	7	30 21-133
Hexachlorobutadiene	0.0	100	52	48	52	48	6	26 24-116
4-Chloro-3-methylphe	0.0	100	74	83	74	83	11	37 22-147
2-Chloronaphthalene	0.0	100	63	61	63	61	3	13 60-118
2,4,6-Trichloropheno	0.0	100	65	73	65	73	12	32 37-144
Dimethylphthalate	0.0	100	11	11	11	11	3	23 1-112
Acenaphthylene	0.0	100	62	63	62	63	2	40 33-145
2,6-Dinitrotoluene	0.0	100	96	99	96	99	3	30 50-158
Acenaphthene	0.0	100	73	74	73	74	1	28 47-145
2,4-Dinitrophenol	0.0	100	54	60	54	60	10	50 1-191
4-Nitrophenol	0.0	100	50	52	50	52	3	47 1-132
2,4-Dinitrotoluene	0.0	100	83	83	83	83	0	22 39-139
Diethylphthalate	0.0	100	20	20	20	20	1	27 1-114
Fluorene	0.0	100	80	83	80	83	4	21 59-121
4-Chlorophenyl-pheny	0.0	100	78	81	78	81	3	33 25-158
4,6-Dinitro-2-methyl	0.1	100	85	87	85	87	2	93 1-181
4-Bromophenyl-phenyl	0.0	100	93	89	93	89	4	23 53-127
Hexachlorobenzene	0.0	100	88	88	88	88	0	25 1-152
Pentachlorophenol	0.0	100	77	81	77	81	5	49 14-176
Phenanthrene	0.1	100	86	94	86	94	9	21 54-120
Anthracene	0.1	100	74	79	74	79	7	32 52-115
Di-n-butylphthalate	20.6	100	53	59	33	38	14	17 1-118
Fluoranthene	0.1	100	75	75	75	75	0	33 26-137
Pyrene	0.2	100	102	101	102	100	2	25 52-115
Butylbenzylphthalate	0.0	100	62	65	62	65	5	23 1-152

264

Chrysene	0.3	100	86	92	85	92	8	48	17-168
bis(2-Ethylhexyl)pht	0.0	100	89	101	89	101	12	41	8-158
Di-n-octylphthalate	0.2	100	74	87	74	86	16	31	4-146
Benzo[b]fluoranthene	0.0	100	71	89	71	89	23	39	24-159
Benzo[k]fluoranthene	0.0	100	71	77	71	77	7	32	11-162
Benzo[a]pyrene	0.0	100	83	88	83	88	7	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	81	94	81	94	15	45	1-171
Dibenz[a,h]anthracen	0.0	100	70	86	70	86	20	70	1-227
Benzo[g,h,i]perylene	0.0	100	72	86	72	86	17	59	1-219

BNACLP.M

Wed Nov 22 14:47:04 1995

BNA

Quantitation Report

Data File : c:\hpcchem\1\data2\b9011.d

Acq On : 27 Oct 95 4:04 pm

Sample : 46360MS.....

Misc :

Quant Time: Oct 31 15:39 1995

Vial: 5 265

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	24328	40.00	ug/mL	-0.09
17) Naphthalene-d8	12.32	136	97435	40.00	ug/mL	-0.11
32) Acenaphthene-d10	17.64	164	56181	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	74786	40.00	ug/mL	-0.10
64) Chrysene-d12	30.18	240	35528	40.00	ug/mL	-0.10
73) Perylene-d12	34.14	264	16536	40.00	ug/mL	-0.10

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.07	112	40915	52.76	ug/mL	52.76%
3) Phenol-d5	8.10	99	81492	64.76	ug/mL	64.76%
18) Nitrobenzene-d5	10.29	82	71765	54.35	ug/mL	54.35%
36) 2-Fluorobiphenyl	15.81	172	99873	58.28	ug/mL	58.28%
54) 2,4,6-Tribromophenol	20.10	330	20403	86.16	ug/mL	86.16%
67) Terphenyl-d14	27.26	244	97283	110.24	ug/mL	110.24%

Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.10	74	22456	41.61	ug/mL	100
6) Phenol	8.12	94	70099	59.38	ug/mL	100
7) bis(2-Chloroethyl)ether	12.03	93	82048	56.86	ug/mL	100
8) 2-Chlorophenol	8.06	128	46342	57.17	ug/mL#	83
9) 1,3-Dichlorobenzene	8.39	146	37275	44.83	ug/mL	99
10) 1,4-Dichlorobenzene	8.66	146	39314	46.72	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	38547	47.04	ug/mL#	96
12) 2-Methylphenol	9.29	108	5196	6.68	ug/mL	53
13) bis(2-chloroisopropyl)ethe	9.72	45	104911	77.20	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.12	70	47254	50.85	ug/mL	98
16) Hexachloroethane	9.99	117	23206	43.95	ug/mL#	67
19) Nitrobenzene	10.35	77	62972	49.80	ug/mL#	86
20) Isophorone	11.18	82	128772	48.00	ug/mL#	93
21) 2-Nitrophenol	11.30	139	31651	54.31	ug/mL#	92
22) 2,4-Dimethylphenol	14.60	107	70299	74.63	ug/mLm	100
23) bis(2-Chloroethoxy)methane	12.03	93	82048	55.86	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	51706	71.87	ug/mL#	90
25) 1,2,4-Trichlorobenzene	12.22	180	36372	49.07	ug/mL	95
26) Naphthalene	12.40	128	126554	51.78	ug/mL	98
27) 4-Chloroaniline	12.40	127	15664	13.67	ug/mL#	13
28) Hexachlorobutadiene	12.90	225	20087	51.69	ug/mL	98
29) 4-Chloro-3-methylphenol	14.60	107	70394	74.44	ug/mL	90
30) 2-Chloronaphthalene	15.97	162	96889	62.71	ug/mlm	100
31) 2-Methylnaphthalene	14.60	142	50713	23.94	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.56	196	38970	65.14	ug/mL	97
35) 2,4,5-Trichlorophenol	15.56	196	38970	79.89	ug/mL	97
37) 2-Nitroaniline	18.53	65	4756	4.33	ug/mL#	38
38) Dimethylphthalate	17.26	163	21170	11.02	ug/mL#	13

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

b9011.d BNACLP.M

Tue Oct 31 15:40:16 1995

BNA

Page 1

Quantitation Report

Data File : c:\hpcchem\1\data2\b9011.d

Acq On : 27 Oct 95 4:04 pm

Sample : 46360MS.....

Misc :

Quant Time: Oct 31 15:39 1995

Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

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Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Acenaphthylene	17.18	152	156148	61.73	ug/mL	97
40) 2,6-Dinitrotoluene	17.35	165	41277	95.56	ug/mL#	79
41) 3-Nitroaniline	19.34	138	1557	3.24	ug/mL#	19
42) Acenaphthene	17.74	153	105172	73.42	ug/mL	98
43) 2,4-Dinitrophenol	18.11	184	15991	54.29	ug/mL#	85
44) 4-Nitrophenol	18.86	109	16078	50.23	ug/mL#	61
46) 2,4-Dinitrotoluene	18.53	165	52578	82.74	ug/mL#	1
47) Diethylphthalate	19.46	149	43228	19.78	ug/mL	97
48) Fluorene	19.34	166	131556	80.24	ug/mL	98
49) 4-Chlorophenyl-phenylether	19.54	204	55916	78.26	ug/mL#	84
51) 4-Nitroaniline	19.34	138	1557	3.62	ug/mL#	19
52) 4,6-Dinitro-2-methylphenol	19.73	198	23619	85.19	ug/mL	100
53) n-Nitrosodiphenylamine	19.94	169	71016	70.01	ug/mL	96
55) 1,2-Diphenylhydrazine (as	19.54	77	69196	20.74	ug/mL	100
56) 4-Bromophenyl-phenylether	20.99	248	32480	92.88	ug/mL#	88
57) Hexachlorobenzene	20.95	284	38892	87.66	ug/mL#	39
58) Pentachlorophenol	21.70	266	23340	76.81	ug/mL	99
59) Phenanthrene	22.20	178	174965	86.09	ug/mL	99
60) Anthracene	22.36	178	148000	74.15	ug/mLm	99
62) Di-n-butylphthalate	24.54	149	201030	53.46	ug/mL	99
63) Fluoranthene	25.81	202	152814	74.83	ug/mL#	53
65) Benzidine	22.13	184	11493	47.31	ug/mL	100
66) Pyrene	26.43	202	145327	102.25	ug/mL#	70
68) Butylbenzylphthalate	29.04	149	68443	61.89	ug/mL#	15
69) Benzo[a]anthracene	30.17	228	106111	83.59	ug/mL	99
70) 3,3'-Dichlorobenzidine	30.32	252	3672	10.71	ug/mL#	93
71) Chrysene	30.26	228	65164	85.64	ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.04	149	141688	89.39	ug/mL#	37
74) Di-n-octylphthalate	32.95	149	174136	74.01	ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	56999	70.62	ug/mL#	89
76) Benzo[k]fluoranthene	33.28	252	34292	71.37	ug/mLm	89
77) Benzo[a]pyrene	34.01	252	36949	82.66	ug/mLm	89
78) Indeno[1,2,3-cd]pyrene	36.69	276	18775	80.91	ug/mL#	25
79) Dibenz[a,h]anthracene	36.81	278	15952	70.33	ug/mL#	75
80) Benzo[g,h,i]perylene	37.21	276	15258	72.43	ug/mLm	60

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

b9011.d BNACLP.M

Tue Oct 31 15:40:22 1995

BNA

Page 2

Quantitation Report

Data File : c:\hpchem\1\data2\b9011.d

Acq On : 27 Oct 95 4:04 pm

Sample : 46360MS.....

Misc :

Quant Time: Oct 31 15:39 1995

267
Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

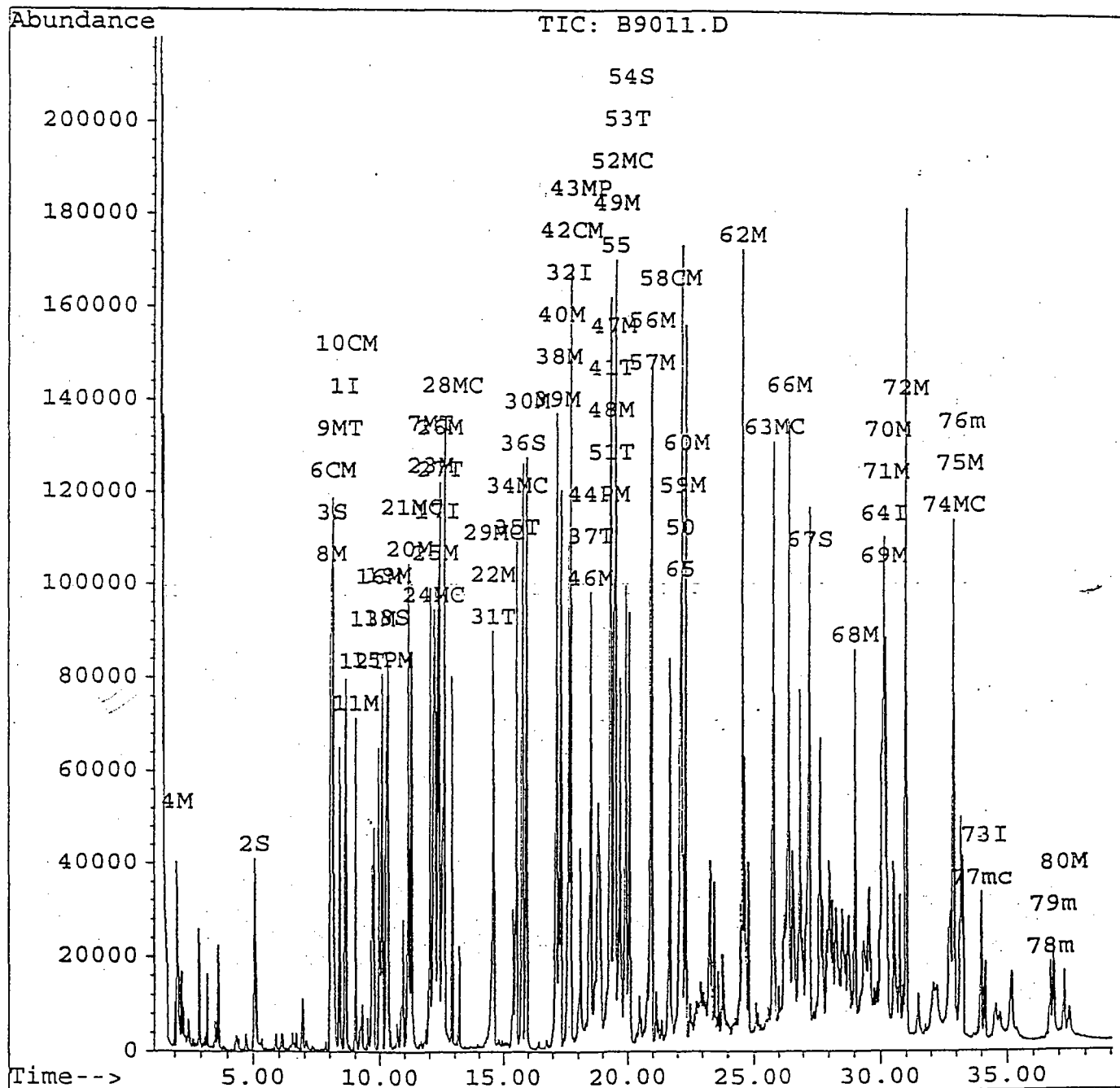
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpcchem\1\data2\b9012.d

Acq On : 27 Oct 95 4:56 pm

Sample : 46360MSD.....

Misc :

Quant Time: Oct 31 15:38 1995

Vial: 6

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	25002	40.00	ug/mL	-0.09
17) Naphthalene-d8	12.34	136	97241	40.00	ug/mL	-0.09
32) Acenaphthene-d10	17.64	164	55587	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	77102	40.00	ug/mL	-0.10
64) Chrysene-d12	30.19	240	28509	40.00	ug/mL	-0.10
73) Perylene-d12	34.15	264	10719	40.00	ug/mL	-0.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.07	112	41071	51.53	ug/mL	51.53%
3) Phenol-d5	8.10	99	86409	66.82	ug/mL	66.82%
18) Nitrobenzene-d5	10.29	82	67083	50.90	ug/mL	50.90%
36) 2-Fluorobiphenyl	15.81	172	95217	56.16	ug/mL	56.16%
54) 2,4,6-Tribromophenol	20.10	330	21999	90.11	ug/mL	90.11%
67) Terphenyl-d14	27.29	244	85795	121.15	ug/mL	121.15%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.10	74	27505	49.59	ug/mL	100
6) Phenol	8.13	94	71763	59.15	ug/mL	100
7) bis(2-Chloroethyl) ether	12.03	93	75257	50.75	ug/mL	97
8) 2-Chlorophenol	8.06	128	44078	52.91	ug/mL#	84
9) 1,3-Dichlorobenzene	8.39	146	37044	43.35	ug/mL	96
10) 1,4-Dichlorobenzene	8.66	146	38620	44.66	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	37641	44.70	ug/mL	97
12) 2-Methylphenol	9.29	108	5280	6.60	ug/mL	56
13) bis(2-chloroisopropyl) ethe	9.72	45	100159	71.72	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.12	70	44456	46.55	ug/mL#	97
16) Hexachloroethane	9.99	117	22213	40.93	ug/mL#	69
19) Nitrobenzene	10.35	77	59971	47.52	ug/mL	88
20) Isophorone	11.18	82	119927	44.79	ug/mL#	92
21) 2-Nitrophenol	11.30	139	29087	50.01	ug/mL#	93
22) 2,4-Dimethylphenol	14.61	107	78542	83.54	ug/mLm	100
23) bis(2-Chloroethoxy) methane	12.03	93	75257	51.34	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	55427	77.20	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.22	180	33976	45.93	ug/mL	94
26) Naphthalene	12.40	128	117900	48.34	ug/mL	99
27) 4-Chloroaniline	12.40	127	14859	12.99	ug/mL#	9
28) Hexachlorobutadiene	12.90	225	18787	48.44	ug/mL	98
29) 4-Chloro-3-methylphenol	14.61	107	78226	82.88	ug/mL	88
30) 2-Chloronaphthalene	15.96	162	94046	60.99	ug/mLm	100
31) 2-Methylnaphthalene	14.61	142	56412	26.68	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.58	196	43455	73.41	ug/mL	96
35) 2,4,5-Trichlorophenol	15.58	196	43455	90.04	ug/mL	96
37) 2-Nitroaniline	18.53	65	5027	4.62	ug/mL#	36
38) Dimethylphthalate	17.26	163	21488	11.30	ug/mL#	14

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

b9012.d BNACLP.M

Tue Oct 31 15:41:10 1995

BNA

Page 1

Quantitation Report

269

Data File : c:\hpchem\1\data2\b9012.d

Acq On : 27 Oct 95 4:56 pm

Sample : 46360MSD.....

Misc :

Quant Time: Oct 31 15:38 1995

Vial: 6

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Acenaphthylene	17.18	152	157682	63.01	ug/mL	98
40) 2,6-Dinitrotoluene	17.35	165	42117	98.54	ug/mL#	93
41) 3-Nitroaniline	19.34	138	1555	3.27	ug/mL#	19
42) Acenaphthene	17.74	153	104941	74.04	ug/mL	98
43) 2,4-Dinitrophenol	18.13	184	17570	60.29	ug/mL#	82
44) 4-Nitrophenol	18.96	109	16471	52.01	ug/mL#	60
46) 2,4-Dinitrotoluene	18.53	165	52140	82.92	ug/mL#	1
47) Diethylphthalate	19.48	149	43087	19.93	ug/mL#	93
48) Fluorene	19.34	166	134877	83.15	ug/mL	99
49) 4-Chlorophenyl-phenylether	19.54	204	56911	80.50	ug/mL#	86
51) 4-Nitroaniline	19.34	138	1555	3.50	ug/mL#	19
52) 4,6-Dinitro-2-methylphenol	19.73	198	24840	86.90	ug/mL	100
53) n-Nitrosodiphenylamine	19.96	169	73730	70.51	ug/mL	94
55) 1,2-Diphenylhydrazine (as	19.54	77	71856	20.89	ug/mL	100
56) 4-Bromophenyl-phenylether	20.99	248	32240	89.43	ug/mL#	90
57) Hexachlorobenzene	20.95	284	40163	87.81	ug/mL#	46
58) Pentachlorophenol	21.72	266	25232	80.54	ug/mL	99
59) Phenanthrene	22.20	178	196854	93.95	ug/mL	99
60) Anthracene	22.36	178	162894	79.16	ug/mLm	99
62) Di-n-butylphthalate	24.56	149	227050	58.57	ug/mLm	98
63) Fluoranthene	25.82	202	157448	74.79	ug/mL#	68
65) Benzidine	22.13	184	12053	61.83	ug/mL	100
66) Pyrene	26.44	202	114720	100.58	ug/mLm	73
68) Butylbenzylphthalate	29.07	149	57991	65.35	ug/mLm	1
69) Benzo[a]anthracene	30.17	228	89943	88.30	ug/mL	98
70) 3,3'-Dichlorobenzidine	30.33	252	3072	11.16	ug/mL#	89
71) Chrysene	30.27	228	56444	92.44	ug/mLm	98
72) bis(2-Ethylhexyl)phthalate	31.04	149	127927	100.58	ug/mL#	36
74) Di-n-octylphthalate	32.93	149	132028	86.56	ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	46610	89.08	ug/mL#	86
76) Benzo[k]fluoranthene	33.28	252	23877	76.66	ug/mLm	86
77) Benzo[a]pyrene	34.02	252	25611	88.39	ug/mLm	86
78) Indeno[1,2,3-cd]pyrene	36.70	276	14190	94.34	ug/mL#	28
79) Dibenz[a,h]anthracene	36.81	278	12632	85.92	ug/mL#	72
80) Benzo[g,h,i]perylene	37.22	276	11729	85.89	ug/mLm	61

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

Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d

Acq On : 27 Oct 95 4:56 pm

Sample : 46360MSD.....

Misc :

Quant Time: Oct 31 15:38 1995

Vial: 6 270

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed Oct 25 10:20:51 1995

Response via : Multiple Level Calibration

