United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 2534
Charles Wood-West

VOLUME I of III

NJDEP UST Registration No. 81515-24
NJDEP Case No. 94-5-24-0945-1

March 2002

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 2534

CHARLES WOOD-WEST
NJDEP UST REGISTRATION NO. 81515-24
NJDEP CASE No. 94-5-24-0945-1

MARCH 2002

PREPARED FOR:

UNITED STATES ARMY, FORT MONMOUTH, NEW JERSEY
DIRECTORATE OF PUBLIC WORKS
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EXECUTIVE SUMMARY

UST Closure

On May 5, 1994, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) underground storage tank procedures at the Charles Wood-West area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 81515-24 (Fort Monmouth ID No. 2534), was located southwest of Building 2534. UST No. 81515-24 was a 1,000-gallon No. 2 fuel oil UST.

Site Assessment

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*. 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*. 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 or punctures. No holes or punctures were noted in the UST. Groundwater was encountered at a depth of 3.0 feet bgs. Based on organic vapors detected in post-excavation soil samples, the DPW concluded that a discharge was associated with this UST. The NJDEP hotline was notified and the case was assigned DICAR No. 94-5-24-0945-1. Soil samples contained TPH concentrations ranging from 11 to 935 mg/kg, below the regulatory criteria of 10,000 mg/kg. In September 1994, monitoring well 2534-MW1 was installed at the site to evaluate groundwater conditions. Four rounds of groundwater samples were collected and analyzed for VOCs and SVOCs (in May 1995, June 1995, November 2001, and December 2001). There were no compounds detected in groundwater at concentrations exceeding the NJDEP groundwater quality criteria (GWQC) during the two most recent rounds collected at the site.

Site Restoration

Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with crushed stone, sand, and native backfill and restored to its original condition.

Conclusions and Recommendations

Based on the post-excavation soil sampling results, soils with TPH 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 groundwater sampling results, groundwater with concentrations exceeding the GWQC do not exist in the former location of the UST.

No further action is proposed in regard to the closure and site assessment of UST No. 81515-24 at Building 2534, NJDEP Case No. 94-5-24-0945-1.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 81515-24, was closed at Building 2534 at the Charles Wood-West area of U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on May 24, 1994. Refer to site location map on Figure 1. This report presents the results of the Department of Public Works (DPW) implementation of the UST Decommissioning/Closure Plan approved by the NJDEP. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 81515-24 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. The decommissioning activities were conducted by DPW personnel who are registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 81515-24 proceeded under the approval of the NJDEP Bureau of Federal Case Management (NJDEP-BFCM).

Based on organic vapors detected in post-excavation soil samples, the DPW concluded that a discharge was associated with this UST. The NJDEP hotline was notified and the case was assigned DICAR No. 94-5-24-0945-1.

This UST Closure and Site Investigation Report has been prepared by Versar, to assist the United States Army Directorate of Public Works (DPW) in complying with the 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. October 1990 and revisions dated November 1, 1991). Refer to Appendix A for the UST Closure Certification form.

1.2 SITE DESCRIPTION

Building 2534 was located in the Charles Wood-West area of the Fort Monmouth Army Base. Buidling 2534 was removed in 1993. UST No. 81515-24 was located southwest of Building 2534 and appurtenant copper piping ran approximately sixteen (16) feet northeast from the excavation to Building 2534. 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 2534. 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 Charles Wood area.

Regional Geology

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

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

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

Local Geology

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

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

Over the last 80 years, the natural topography of Fort Monmouth has been altered by excavation and filling activities by the military. Topographic elevations for the Charles Wood area range from 20 feet above mean seal level (MSL) to 71 feet above MSL.

Hydrogeology

The water table aquifer in the Charles Wood 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.

Six well records for monitor wells installed at locations within the Charles Wood area in February 1981 were used for reference. The wells were completed to total depths ranging from 20 to 25 feet below ground surface (bgs). Water was encountered at depths ranging from 5 to 12 feet bgs.

The lithologic descriptions for these borings described deposits that were primarily fine to coarse, glauconitic sands, with traces of gravel, silt, and clay. These sediments are part of the Hornerstown Marl, from the Tertiary Period (Paleocene Series, approximately 58 to 66 Ma). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce from 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Shallow groundwater is locally influenced within the Charles Wood area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers, and tributaries)
- topography
- nature of the fill material within the Charles Wood area
- presence of clay and silt lenses in the natural overburden deposits
- local groundwater recharge areas (i.e., streams, lakes)

Due to the fluvial nature of the overburden deposits (i.e., sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. Building 2534 is located approximately 200 feet southeast of an unnamed stream which runs from east to west through the Charles Wood area. Based on the Charles Wood area topography, the groundwater flow in the area of Building 2534 is anticipated to be to the northwest.

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 involved 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 identified 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

After the removal of all liquids, the tank was entered through a manway to allow for proper cleaning. The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. All liquid from the UST and its associated piping were removed and transported to a NJDEP-approved petroleum recycling and disposal company. Waste manifests are provided in Appendix B. The UST disposal certificate is provided in Appendix C.

After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No holes or punctures 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. Organic vapors were detected with the OVA during post-excavation soil sampling (see Section 2.3). Soil screening was also performed along the piping run associated with the UST closure. No contamination was noted anywhere along the piping length. Groundwater was encountered at a depth of 3.0 feet bgs and no sheen was observed. A cross section of the UST is shown in Figure 3.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported to Mazza and Sons, Inc., Metal Recyclers. See Appendix D for a copy of the UST disposal certificate and Appendix F for photographs of the UST. The transportation of the UST was in compliance with all applicable regulations and laws.

The UST was labeled prior to transport with the following information:

- Site of origin
- Contact person
- NJDEP UST Facility ID number
- Former contents

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on TPH analysis results from the post-excavation soil samples, no soils exhibited signs of

contamination. Therefore, the excavated soils 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* (October 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.

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. Soil excavated from around the tank and appurtenant piping, as well as the UST excavation sidewalls and bottom, did not exhibit any evidence of potential contamination. Groundwater was encountered at a depth of 3.0 feet bgs and no sheen was observed.

2.3 SOIL SAMPLING

On May 24, 1994, following the removal of the UST, post-excavation soil samples A, B, C, D, E, and DUP F were collected from a total of five (5) locations of the UST excavation. On June 3, 1994, three additional samples were collected from three locations, G, H, and I. All samples were analyzed for total petroleum hydrocarbons (TPH) and total solids. Organic vapors were detected with an OVA in samples A, B, C, and D at concentrations ranging from 8 to 30 ppm.

U.S. Army personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the site assessment. A summary of soil sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using NJDEP *Field Sampling Procedures Manual* (1992) standard sampling procedures. 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

Due to the presence of organic vapors detected in the excavation of UST No. 81515-24, monitoring well 2534-MW1 was installed at the former location of the UST to assess the quality of groundwater at the site. Well 2534-MW1 was installed to a total depth of 12.5 feet bgs, with a 3 foot stickup at the ground surface. The lithology encountered in the boring of well 2534-MW1 consisted of light and dark gray medium sand with pebbles in the top 6 inches bgs, brown fine sand between 6 inches

and 2 feet bgs, and yellowish-orange, fine to medium sand between 2 feet bgs and 12.5 feet bgs. The location of monitoring well 2534-MW1 is shown on Figure 5. Monitoring well boring logs and permit documents are provided in Appendix D.

2.4.2 Groundwater Sample Collection

Groundwater samples were collected May 22, 1995 and June 15, 1994 and again on November 5, 2001 and December 5, 2001. All samples were analyzed for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds and 15 tentatively identified compounds (SVOC's). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* (1992). A summary of groundwater sampling activities including parameters analyzed is provided in Table 2.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST, post-excavation soil samples were collected on May 24 and June 3, 1994, from a total of eight (8) locations. All samples were analyzed for TPH and total solids. 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 3 and the soil sampling locations are illustrated on Figure 4. The soil analytical data package is provided in Appendix E.

Samples collected from the UST excavation and from below piping associated with the UST on May 24 and June 3, 1994 contained levels of TPH ranging in concentration from 11 to 935 mg/kg. All post-excavation soil samples contained concentrations of TPH below the NJDEP soil cleanup criteria.

3.2 GROUNDWATER SAMPLING RESULTS

Two rounds of groundwater samples were collected from monitoring well 2534-MW1 on May 22 and June 15, 1995. Samples were analyzed for VOCs and SVOCs. The groundwater samples collected May 22 and June 15, 1995 each contained methylene chloride, at concentrations below the NJDEP Groundwater Quality Criteria (GWQC) of 2 ug/L. The sample collected June 15 also contained chloromethane at a concentration of 1.1 ug/L (there is no GWC for chloromethane), and 1,2-dichloroethane at a concentration of 7.5 ug/L, which is above the GWQC of 0.3 ug/L. The associated trip blank and field blank collected on June 15, 1995 also contained 6.4 and 9.8 ug/L 1,2-dichloroethane, respectively. Groundwater sample results are summarized in Table 4. The groundwater analytical data package is provided in Appendix F. The location of monitoring well 2534-MW1 is shown on Figure 5.

Two additional rounds of groundwater samples were collected from the well November 5-7 and December 5, 2001. These groundwater samples were analyzed for VOCs and SVOCs. One VOC (chloroform) was detected in the groundwater sample collected in December 2001 at a concentration of 1.34 ug/L, which is below the GWQC of 6 ug/L. No other VOCs or SVOCs were detected in the groundwater samples collected in November and December 2001.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 2534 were below the NJDEP soil cleanup criteria for total organic contaminants. Therefore, soils with TPH 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.

Groundwater collected at the site contained one compound that exceeded the NJDEP Groundwater Quality Criteria in June 15, 1995. However, that compound was also detected in associated

laboratory blanks and therefore is not considered indicative of groundwater quality at the site. The two most recent samples collected at the site did not contain any detectable volatile compounds. Therefore, groundwater exceeding the NJDEP GWQC does not exist in the former UST location.

No further action is proposed in regard to the closure and site assessment of UST No. 81515-24 at Building 2534, NJDEP Case No. 94-5-24-0945-1.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SOIL SAMPLING ACTIVITIES
BUILDING 2534, CHARLES WOOD-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth (feet bgs)	Laboratory Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
A/3.5-4	1504.1	5/24/94	5/25/94	Soil	Post-Excavation	TPH	OQA-QAM-025
B/3.5-4	1504.2	5/24/94	5/25/94	Soil	Post-Excavation	TPH	OQA-QAM-025
C/3.5-4	1504.3	5/24/94	5/25/94	Soil	Post-Excavation	TPH	OQA-QAM-025
D/3.5-4	1504.4	5/24/94	5/25/94	Soil	Post-Excavation	TPH	OQA-QAM-025
E/3.5-4	1504.5	5/24/94	5/25/94	Soil	Post-Excavation	TPH	OQA-QAM-025
F (Dup of C)	1504.6	5/24/94	5/25/94	Soil	Post-Excavation	TPH	OQA-QAM-025
G/3.5-4	1515.1	6/3/94	6/3/94	Soil	Post-Excavation	TPH	OQA-QAM-025
H/3.5-4	1515.2	6/3/94	6/3/94	Soil	Post-Excavation	TPH	OQA-QAM-025
I/3.5-4	1515.3	6/3/94	6/3/94	Soil	Post-Excavation	TPH	OQA-QAM-025

Note:
* TPH Total Petroleum Hydrocarbons
Dup Duplicate

TABLE 2

SUMMARY OF GROUNDDWATER SAMPLING ACTIVITIES
BUILDING 2534, CHARLES WOOD-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Location	Laboratory Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
2534-MW1	1840.1	5/22/95	6/3/95	Aqueous	Groundwater	VOCs; SVOCs	EPA 524.2; 625
Trip Blank	1840.2	5/22/95	6/3/95	Aqueous	Blank	VOCs	EPA 524.2
Field Blank	1840.3	5/22/95	6/3/95	Aqueous	Blank	VOCs; SVOCs	EPA 524.2; 625
2534-MW1	1873.1	6/15/95	6/26/95	Aqueous	Groundwater	VOCs; SVOCs	EPA 524.2
Trip Blank	1872.1	6/15/95	6/26/95	Aqueous	Blank	VOCs	EPA 524.2; 625
Field Blank	1873.2	6/15/95	6/26/95	Aqueous	Blank	VOCs; SVOCs	EPA 524.2; 625
2534-MW1	1655401	11/5/01	11/6/01	Aqueous	Groundwater	VOCs	EPA 624
2534-MW1	1656201	11/7/01	11/14/01	Aqueous	Groundwater	SVOCs	EPA 625
2534-MW1	1662601	12/5/01	12/10/01	Aqueous	Groundwater	VOCs; SVOCs	EPA 624; 625
2534-MW1 (Dup)	1662602	12/5/01	12/10/01	Aqueous	Groundwater	VOCs; SVOCs	EPA 624; 625

Note:

VOCs	Volatile organic compounds
SVOCs	Semi-volatile organic compounds
Dup	Duplicate

TABLE 3

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 2534, CHARLES WOOD-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth (feet bgs)	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
A/3.5-4	1504.1	5/24/94	5/24/94	Total Solid	--	93	--	--
				TPH	yes	376	10,000	No
B/3.5-4	1504.2	5/24/94	5/24/94	Total Solid	--	91	--	--
				TPH	yes	935	10,000	No
C/3.5-4	1504.3	5/24/94	5/24/94	Total Solid	--	91	--	--
				TPH	yes	469	10,000	No
D/3.5-4	1504.4	5/24/94	5/24/94	Total Solid	--	89	--	--
				TPH	yes	58	10,000	No
E/3.5-4	1504.5	5/24/94	5/24/94	Total Solid	--	93	--	--
				TPH	yes	156	10,000	No
F (Dup of C)	1504.6	5/24/94	5/24/94	Total Solid	--	90	--	--
				TPH	yes	536	10,000	No
G/3.5-4	1515.1	6/3/94	6/3/94	Total Solid	--	94	--	--
				TPH	yes	18	10,000	No
H/3.5-4	1515.2	6/3/94	6/3/94	Total Solid	--	87	--	--
				TPH	yes	11	10,000	No
I/3.5-4	1515.3	6/3/94	6/3/94	Total Solid	--	88	--	--
				TPH	yes	19	10,000	No

Note:

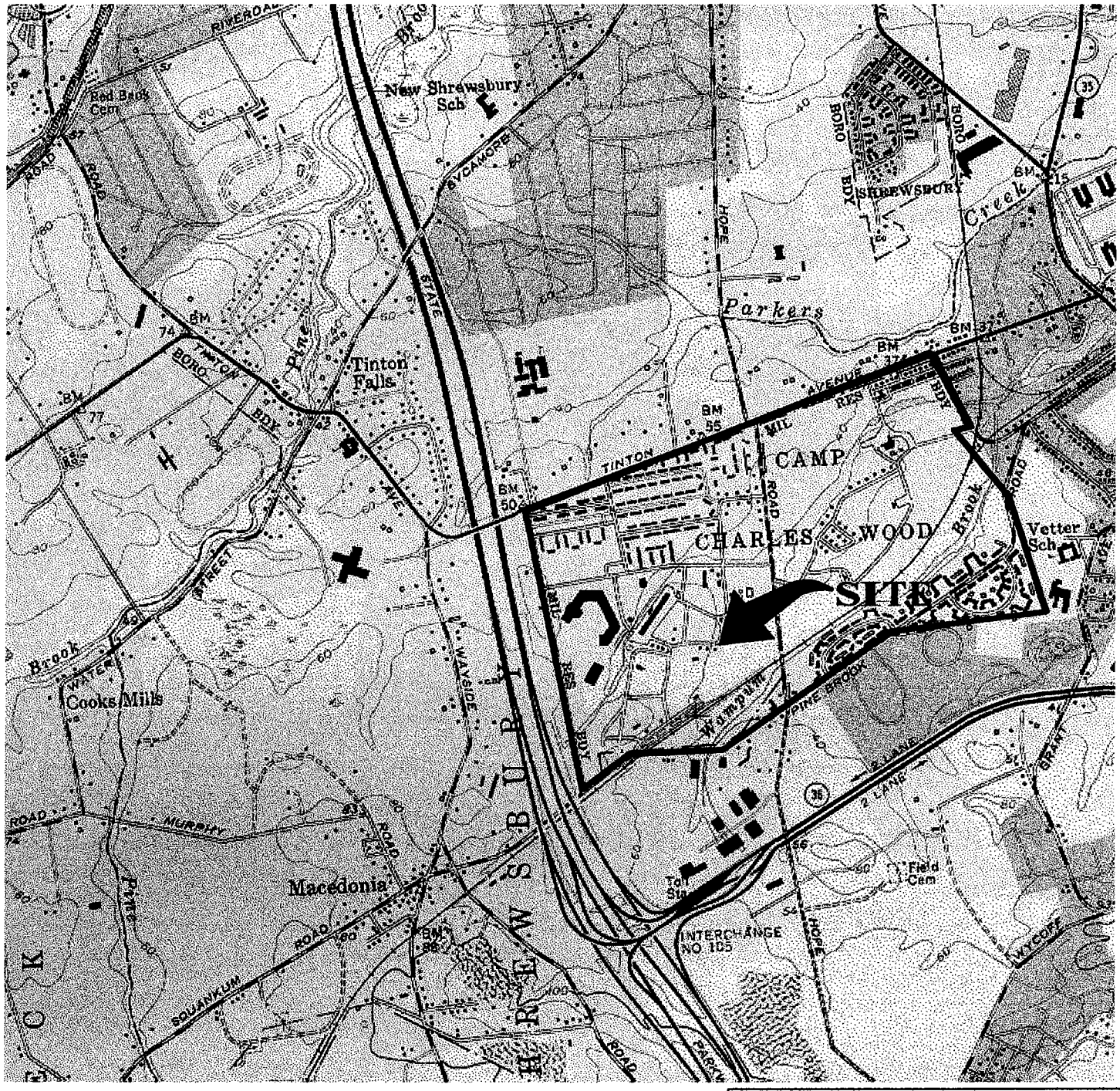
*	Total Solid results are expressed as a percentage.
**	NJDEP Residential Direct Contact soil cleanup criteria for total organics
--	Not detected above stated sample quantitation limit
TPH	Total Petroleum Hydrocarbons
Bgs	Below ground surface
Dup	Duplicate

TABLE 4
Groundwater Sample Results
Building 2534
Fort Monmouth, New Jersey

			VOCs						
Sample ID/ Location	Lab Sample ID	Sample Date	Chloroform	Chloromethane	Methylene Chloride	1,2-Dichloroethane	Toluene	2-Chlorotoluene	4-Chlorotoluene
		GWQC	6	NLE	2	2	1000	NLE	NLE
		units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2534-MW1	1840.1	5/22/1995	ND	ND	1.0 B	ND	ND	ND	ND
Trip Blank	1840.2	5/22/1995	ND	ND	4.9 B	ND	0.80	1.7	0.60
Field Blank	1840.3	5/22/1995	ND	ND	5.6 B	ND	0.80	1.7	0.60
2534-MW1	1873.1	6/15/1995	ND	1.1	0.80 B	7.5	ND	ND	ND
Trip Blank	1872.1	6/15/1995	ND	1.2	0.90 B	6.4	ND	ND	ND
Field Blank	1873.2	6/15/1995	ND	1.3	1.1 B	9.8	ND	ND	ND
2534-MW1	1655401	11/5/2001	ND	ND	ND	ND	ND	ND	ND
2534-MW1	1656201	11/7/2001	ND	ND	ND	ND	ND	ND	ND
2534-MW1	1662601	12/5/2001	1.34	ND	ND	ND	ND	ND	ND
2534-MW1 (Dup)	1662602	12/5/2001	ND	ND	ND	ND	ND	ND	ND

Note:
VOCs = Volatile organic compounds
SVOCs = Semi-volatile organic compounds (there were no SVOCs detected)
GWQC = Higher of Practical Quantitation Limits (PQLs) and Groundwater Quality Criteria per N.J.A.C. 7:9-6
NLE = No Limit Established
ND = not detected above method detection limit
B = Detected in method blank

FIGURES



LONG BRANCH, N. J.

40073-C8-TF-024

1954

PHOTOREVISED 1981

DMA 6164 I SE-SERIES V822

NEW JERSEY

QUADRANGLE LOCATION

Mapped, edited and published by the Geological Survey

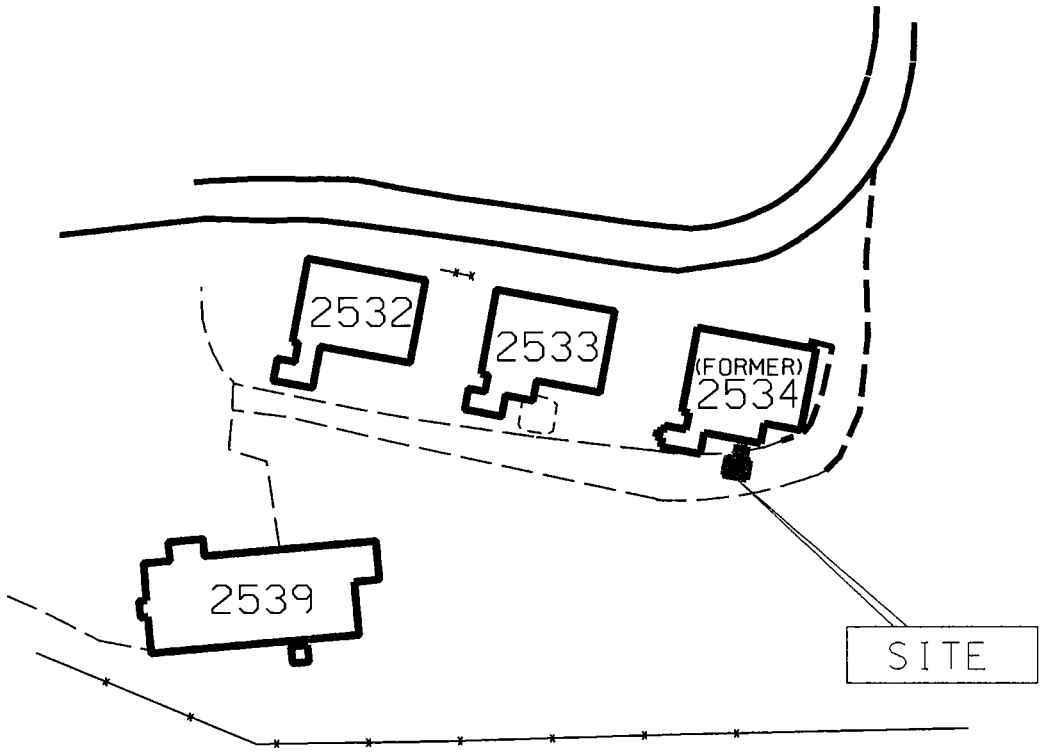
FIGURE 1

LOCATION MAP
Building 2534
Charles Wood
Fort Monmouth Army Base
Monmouth County, NJ

VERSAR
Engineers, Managers, Scientists, & Planners
Bristol, PA

Scale: 1" = 2000'

Date: June 1997



LEGEND

ROAD

ROAD (UNPAVED)

FENCE

BUILDING

FIGURE 2
SITE MAP
BUILDING 2534
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100'

DATE: JUNE 1994

2534 FIG2

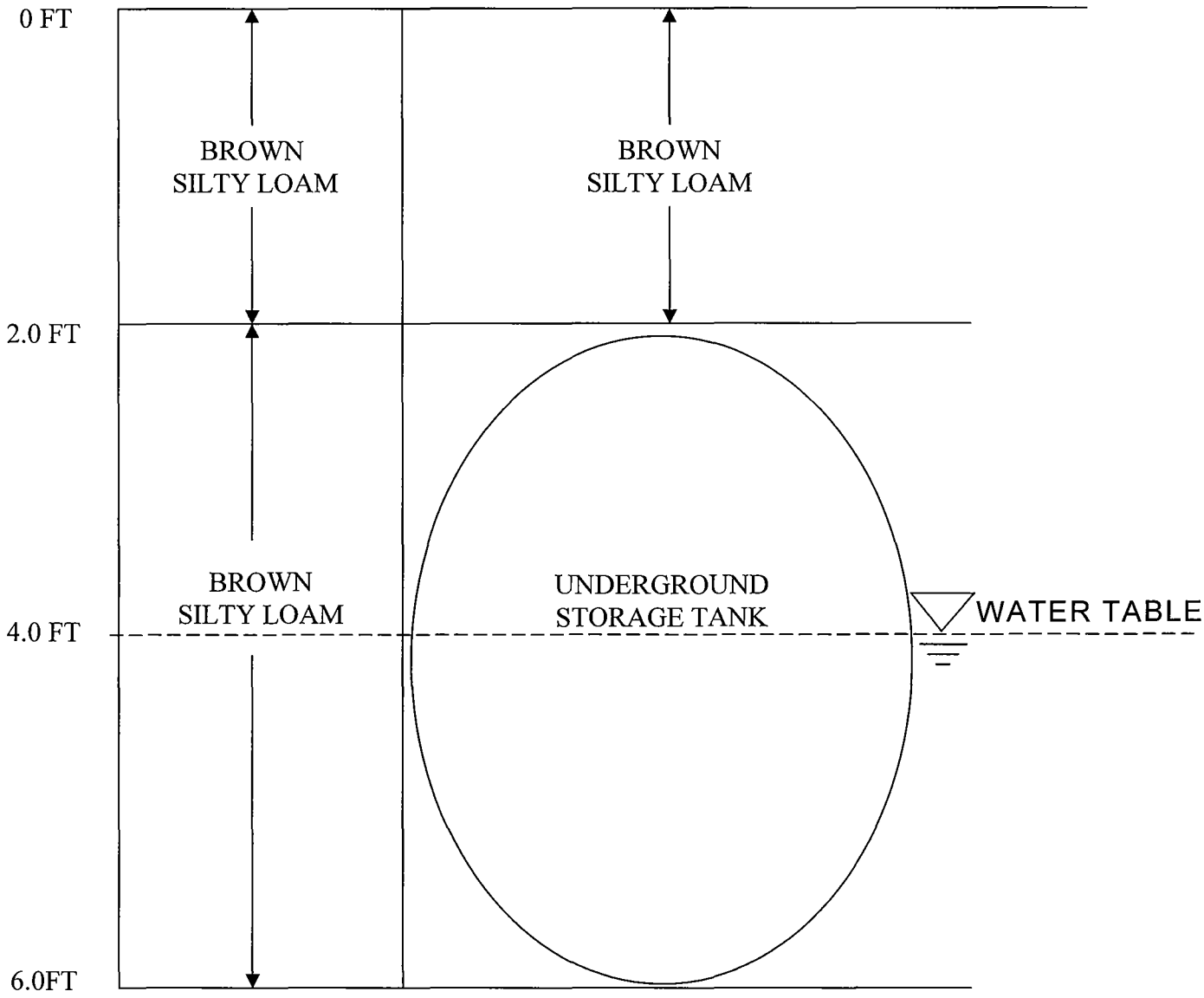
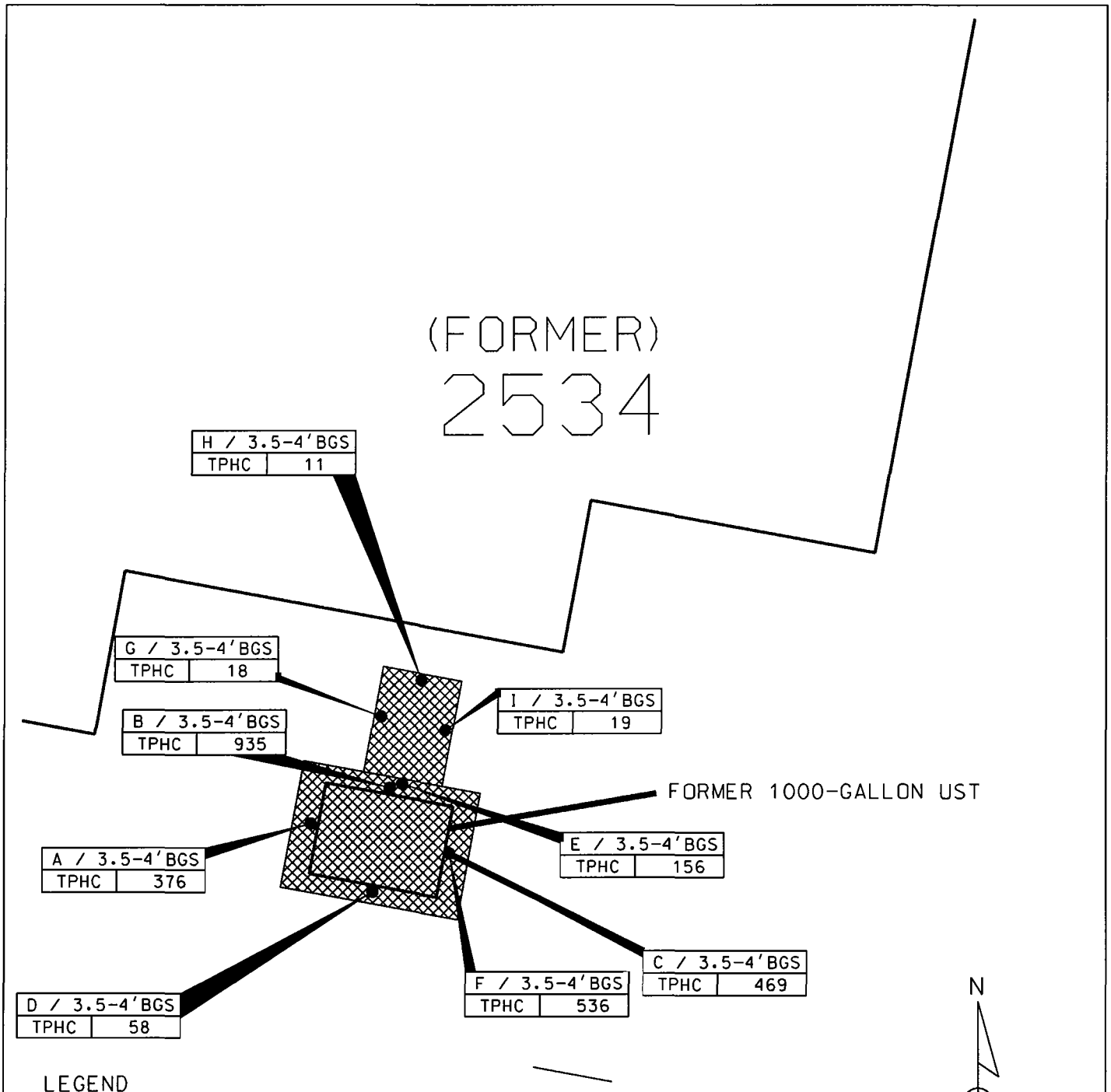


FIGURE 3
CROSS SECTION
BUILDING 2534
FORT MONMOUTH, NEW
JERSEY



LEGEND

- SOIL SAMPLE LOCATION (MAY 24, 1994)
- SOIL SAMPLE LOCATION (JUNE 3, 1994)
- LIMIT OF EXCAVATION (MAY 24, 1994)
- LIMIT OF EXCAVATION (JUNE 3, 1994)

NOTES:

1. ALL RESULTS IN MG/KG.
2. SEE TABLE 3 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS = BELOW GROUND SURFACE

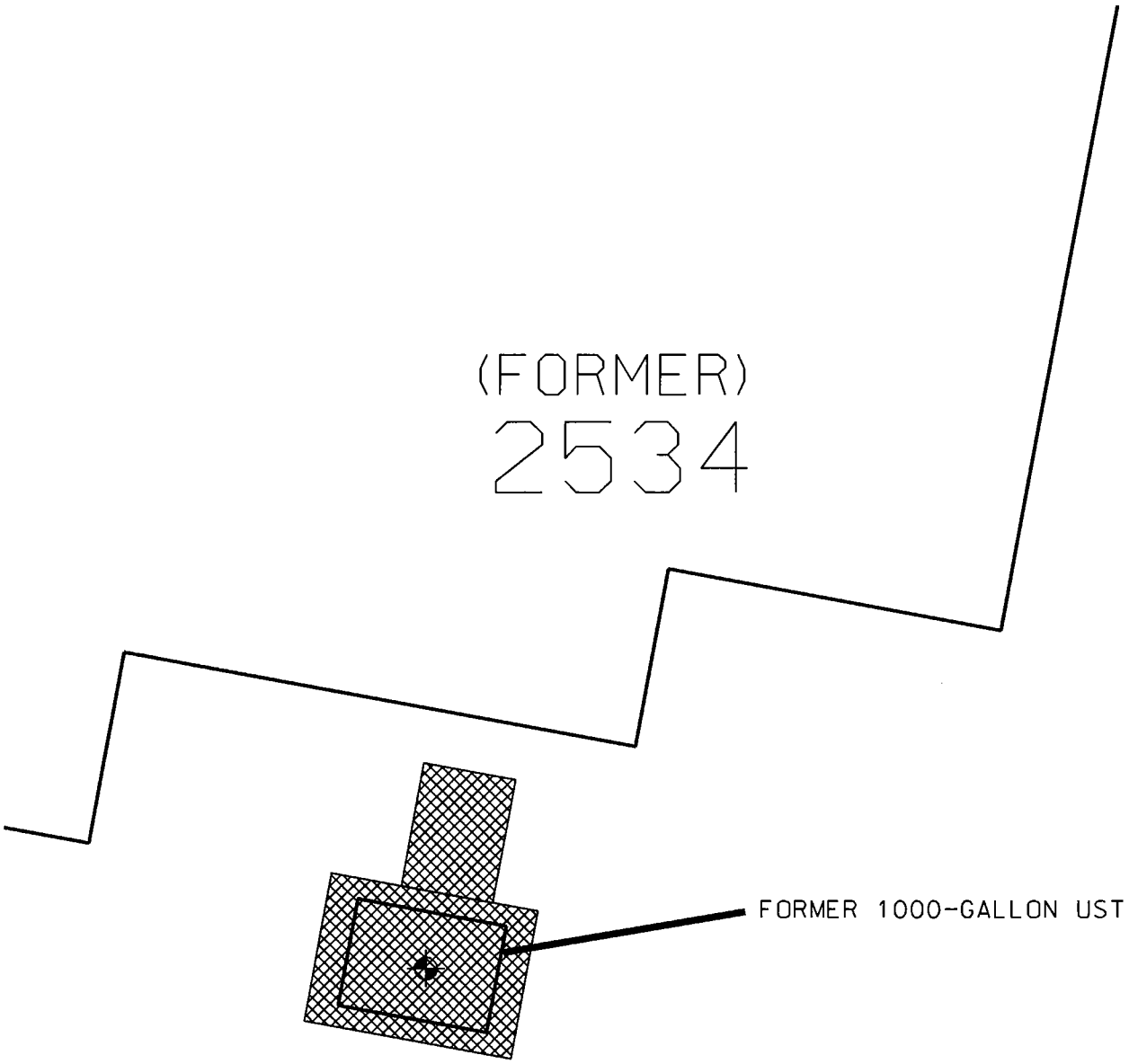
FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 2534
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=10'

DATE: MARCH 1997

2534 FIG5



LEGEND

MONITORING WELL
(CONSTRUCTED SEPT 23, 1994)

LIMIT OF EXCAVATION
(MAY 24, 1994)

LIMIT OF EXCAVATION
(JUNE 3, 1994)

NOTES:
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 4 FOR ANALYTICAL RESULTS

FIGURE 5
MONITORING WELL LOCATION MAP
BUILDING 2534
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=10'

DATE: MARCH 1997

2534 FIG4

APPENDIX A

NJDEP UST Closure Certification Form

(12/97) **New Jersey Department of Environmental Protection**

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name : U.S. Army Fort Monmouth New Jersey
Facility Street Address : Directorate of Public Works Building 173
Municipality: Oceanport County: Monmouth

Block: _____ Lot(s): _____ Telephone Number : 732-532-6224

B. Owner (RP)'s Name: _____

Street Address: _____ City : _____

State: _____ Zip: _____ Telephone Number : _____

C. (Check as appropriate)

- ☐ Site Investigation Report (SIR) $500 Fee
- ☐ Remedial Investigation Report (RIR) $1000 Fee

D. (Complete all that apply)

- Assigned Case Manager: Ian Curtis, Federal Case Manager
- UST Registration Number : 0081515-24
- Incident Report Number : 94-5-24-0945-01
- Tank Closure Number: _____

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E .....Yes No

Name: Dinker Desai Signature: _____ UST Cert. No.: _____

Firm: U.S. Army Fort Monmouth Firm's UST Cert. Number: N/A – U.S. Army

Firm Address: Directorate of Public Works Buildings 173 City: Fort Monmouth

State:NJ Zip:07703 Telephone Number : 732-532-6224

(NOTE: Certification numbers required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)

F. Certification by the Responsible Party(ies) of the Facility:

The following certification shall be signed [according to the requirements of N.J.A.C. 7:14B-1.7(b)]as follows:

1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
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 a principal executive officer or ranking elected Official.

"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 responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Name (Print or Type): James Ott Title: Directorate of Public Works

Signature: _____

Company Name: U.S. Army Fort Monmouth Date: _____

APPENDIX B

WASTE MANIFEST

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

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) *Form Approved. OMB No. 2050-0039. Expires 9-30-94*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJ 2 2 1 0 0 2 0 9 7 8 — Manifest Document No. 03793
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: US Army Communications Electronics Command
Charles Wood Area, c/o James Shirghio, Bldg 2504
ATTN: SELFM-DL-EM-MS, Fort Monmouth, NJ 07703
4. Generator's Phone (908) 532-6223

Manifest Document Number: **NJA** 1603193

B. State Generator's ID: SAME

5. Transporter 1 Company Name: Freehold Cartage, Inc.
6. US EPA ID Number: NJD054126164
C. State Trans. ID: NJDEPE522655

7. Transporter 2 Company Name
8. US EPA ID Number
D. Transporter's Phone (908) 462-1001
E. State Trans. ID

9. Designated Facility Name and Site Address: Lionetti Oil Recovery, Co., Inc.
Runyon & Cheesequake Rds.
Old Bridge, NJ 08857
10. US EPA ID Number: NJD084044064
F. Transporter's Phone ( )
G. State Facility's ID
H. Facility's Phone (908) 721-0900

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	001	TT	XX523	G	X722
b. X Petroleum Oil, N.O.S. Class 3 Combustible Liquid UN1270 PG III	001	TT	XX222	G	X722
c. X Petroleum Oil, N.O.S. Class 3 Combustible Liquid UN1270 PG III	001	TT	XX775	G	X722
d. X Petroleum Oil, N.O.S. Class 3 Combustible Liquid UN1270 PG III	001	TT	XX572	G	X722

J. Additional Descriptions for Materials Listed Above
a. Petroleum Oil 95 %
Water 5 % L,T
b. Water 5% L,T Petroleum Oil 95%
c. Water 5% L,T Petroleum Oil 95%
d. Water 5% L,T Petroleum Oil 95%

K. Handling Codes for Wastes Listed Above
a. T04 Filtration T04 D2
b. T04 Filtration T04 Filtration

15. Special Handling Instructions and Additional Information
NOT EPA REGULATED. REGULATED AS HAZARDOUS WASTE IN NJ. 11a. ERG #27 Bldg.
24 HOUR EMERGENCY PHONE: 201-427-2881 a) Bldg 2337 c) 2000
NJ DECAL# 55182 b) Bldg 2534 d) Bldg 2067

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.

GENERATOR — Printed/Typed Name: Joseph M. Fallon — Signature: Joseph M. Fallon — Month Day Year: 05 12 94

TRANSPORTER
17. Transporter 1 Acknowledgement of Receipt of Materials — Printed/Typed Name: David S. Smith — Signature: David S. Smith — Month Day Year: 05 12 94
18. Transporter 2 Acknowledgement of Receipt of Materials — Printed/Typed Name — Signature — Month Day Year

FACILITY
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

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

1 — TSD MAIL TO - TSD'S STATE

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. [illegible]-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
U. S. Army K Communications Electronics Command
Charles Wood Area Hexagon C/O James Shirghio, Bldg. 2304
ATTN: SELFM-DL-EV-HS
Fort Monmouth, NJ 07703
4. Generator's Phone (908) 532-4359

5. Transporter 1 Company Name: Casie Ecology Oil Salvage, Inc. TA Casie/Rn Protank
6. US EPA ID Number: NJD045995693

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
Casie Ecology Oil Salvage, Inc. TA Casie/Protank
3209 N. Mill Road
Vineland, NJ 08360
10. US EPA ID Number: NJD045995693

A. State Manifest Doc. No. [illegible]
B. State Trans. ID No. [illegible]
C. Transporter's Phone ([illegible])
D. State Trans. ID No. [illegible]
E. State Facility's ID [illegible]
F. Transporter's Phone ([illegible])
G. State Facility's ID [illegible]
H. Facility's Phone (609) 696-4401

11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	State Waste No.
a. Oil contaminated solids Non D.O.T. regulated	001	DM	00110	P	X172
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a. S,T
b.

K. Handling Codes for Wastes Listed Above
a.
b.

15. Special Handling Instructions and Additional Information
This is a NJ regulated waste not a RCRA hazardous waste.
24 hr emergency response #609-696-4401 Greg Clifford

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.

GENERATOR
Printed/Typed Name: X Charles M. Apsley SELFM FW-EV
Signature: X
Month Day Year: 06 23 94

TRANSPORTER
17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] Vasty
Signature:
Month Day Year: 06 23 94
18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

FACILITY
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

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.
SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES
8 GENERATOR COPY

APPENDIX C

UST DISPOSAL CERTIFICATE

Fort Monmouth
Bldg 2534 8081515-24
2337
117

MAZZA & SONS, INC.

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

NO. _____

DATE 3 Jun 94

Customer's Name Cutrise

Address _____

Bldg 2534
Bldg 2337
Bldg 117

43380 LB 6

38820 LB 6

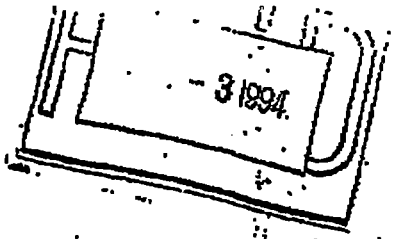
Dave For Sims-Air

4/56

Make of Autos

Tires
Tank
Price

	Weight	Price
Cast Iron		
Steel	91	20
Lt. Iron		
Copper #1		
Copper #2		
Lt. Copper		
Brass		
Alum Clean		
Lead		
Stainless		
Radiators		
Battery		
TOTAL AMOUNT:		



Weigher _____ Customer _____

U.S. ARMY, FORT MONMOUTH UST HAZARDOUS WASTE TRACKING FORM
(ONE PER EACH CONTAINER)

WASTE DESCRIPTION	SOURCE (BLDG.#)	NJDEPE WASTE CODE	QUANT. (GAL.)	HANDLERS NAME/COMPANY	DATE/TIME
		X722			
#2 oil Bottom	2534	X722	10	Cate Env. John L.	5-24-94
#2 oil Bottom	2337	X722	17	CETEC Lounging	5/24
	Mix Sludge + PPE				

THIS CONTAINER WAS ACCEPTED INTO (CIRCLE ONE) MP / (CW) / EA
HAZARDOUS WASTE STORAGE AREA ON

(DATE) 5-25-94 BY

(GOV. REP.) DPW-EV

THIS FORM MUST ACCOMPANY THE CONTAINER UNTIL A MANIFEST IS COMPLETED AND SIGNED BY THE GOVERNMENT HAZARDOUS WASTE COORDINATOR OR HIS REPRESENTAITIVE

Cassie Proton
NJA1908881
C. Appl'd 6-28-94

Bldg 2534 - X722 - 10gal NJA1908881

APPENDIX D

MONITORING WELL BORING LOGS AND PERMITS

U.S. ARMY
FORT MONMOUTH
SELFM PW EV

LOG OF BORING 2534-mw1

Produced for Charles Appleby

Project Name	: BLDG. 2534	Completion Date	: 9/23/94
NJDEP Case #	: 94-5-24-0945-01	Northing	: N 532654.149
Logged By	: TYREE INC.	Easting	: E 2163051.014
Start Date	: 9/23/94	Driller	: M. Beck

Depth in Feet	29-31789 ELEV: 45.82	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	Well Construction Information
0		Light and dark gray medium sand with pebbles		SP			Well Construction Date Completed : 9/23/94 Hole Diameter : 8 in Drill Method : HSA Company Rep : M. Beck 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
.6							
1		Brown fine sand		SW			
2							
2		Yellowish-orange, fine-medium sand					
4							
6							NOTES Well #1 is 2534 MW1
				SW			
8	9/23/94						
10							
12							
12.5							
14							

2-23-1996 C:\2534MW\GEO\2534 mw1.ge3

SERIAL # 41175

DWR-133M (10/93)

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

Mail to

NJDEPE
Bureau Water Allocation
CN426
Trenton, NJ 08625

MONITORING WELL PERMIT

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

Permit No. 29B31789

COORD #: 29 .136 15

Owner US Army - Fort Monmouth

Address SELFM-PW-EV
Fort Monmouth NJ 07703

Name of Facility S-2534

Address Charles Wood
Fort Monmouth

Driller Tyree Organization, Ltd.

Address 1350 US Hwy 130
Burlington NJ 08016

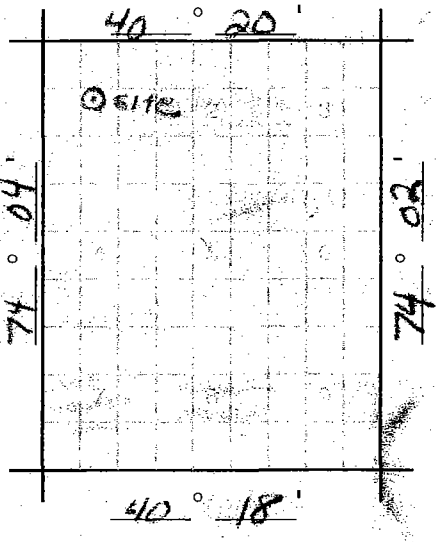
Diameter of Well(s) 4 Inches	Proposed Depth of Well(s) 15 Feet
# of Wells Applied for (max. 10) 1	Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) Monitoring	If Yes, give pump capacity N/A GPM

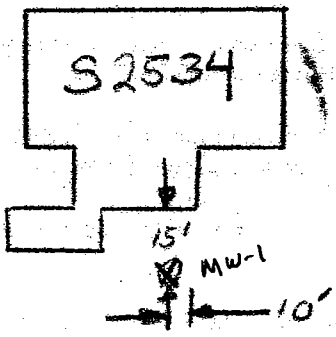
LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		~~Fort Monmouth~~	Monmouth

State Atlas Map No. 29 Oceanport

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





N↑

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

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

CASE I.D. Number

94-5-24-0945-01
Site Bldg. 2534

This Space for Approval Stamp

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

FOR D.E.P.E. USE

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

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

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

Date 7-25-94

Signature of Driller _____ License # 1421

Signature of Owner _____ SELFM-PW-EV

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

DWS-138 M
12/91

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

MONITORING WELL RECORD

Well Permit No. 29 31789
Atlas Sheet Coordinates 29 13 615

OWNER IDENTIFICATION - Owner US ARMY FORT MONMOUTH
Address CHIEF-FM-EV
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 2534 MW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. Block No.
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9/23/94
Regulatory Program Requiring Well IRP Case I.D. # 94-5-24-0946-01
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION
Total depth drilled 12½ ft.
Well finished to 12½ ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☑ above grade ☐ flush mounted
If finished above grade, casing height (stick up) above land surface 3 ft.
Was steel protective casing installed? ☑ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0	2'	4	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	2'	12½'	4	20 slot PVC
Tail Piece				
Gravel Pack	1'	12½'		#2 Fine sand
Annular Seal/Grout	6"	1'		Bentonite Pellets
Method of Grouting	Tremie			

Static water level after drilling 8 ft.
Water level was measured using tape
Well was developed for 1 hours at 10 gpm
Method of development pump
Was permanent pumping equipment installed? ☐ Yes ☑ No
Pump capacity gpm
Pump type:
Drilling Method Auger
Drilling Fluid Type of Rig B80
Name of Driller Michael E. Beck
Health and Safety Plan submitted? ☑ Yes ☐ No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 142
Name of Drilling Company TYREE ENVIRONMENTAL TECHNOLOGY

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

0-6" light gray + dark gray med. sand w/ pebbles
6"-2' Brown, fine sand
2'-12½' Yellowish-orange, fine-med. sand

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

Driller's Signature Michael E. Beck Date 10-10-94

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

DWR-138 M
12/91

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

MONITORING WELL RECORD

Well Permit No. 29- 31709
Atlas Sheet Coordinates 29 15 615

OWNER IDENTIFICATION - Owner US ARMY FORT MONMOUTH
Address SELFRIDGE AVE
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 2534 MW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. Block No.
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9/23/94
Regulatory Program Requiring Well UST Case I.D. # 94-6-24 0945 01
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 12½ ft.
Well finished to 12½ ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☑ above grade ☐ flush mounted
If finished above grade, casing height (stick up) above land surface 3 ft.
Was steel protective casing installed? ☑ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0	2'	4	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	2'	12½'	4	20 slot PVC
Tail Piece				
Gravel Pack	1'	12½'		#2 Morie sand
Annular Seal/Grout	6"	1'		Bentonite Pellets
Method of Grouting	Tremie			

Static water level after drilling 8 ft.
Water level was measured using tape
Well was developed for 1 hours at 10 gpm
Method of development pump
Was permanent pumping equipment installed? ☐ Yes ☑ No
Pump capacity gpm
Pump type:
Drilling Method Auger
Drilling Fluid Type of Rig B80
Name of Driller Michael E. Beck
Health and Safety Plan submitted? ☑ Yes ☐ No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 1121
Name of Drilling Company TYLER ENVIRONMENTAL TECHNOLOGY

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

0-6" light grey & dark grey med. sand w/ pebbles
6"-2' Brown, fine sand
2'-12½' Yellowish-orange fine-med. sand

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

Driller's Signature Michael E. Beck Date 10-10-94

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

~~THIS FORM MUST BE COMPLETED BY THE PERMITTEE AND/OR SURVEYOR~~

~~MONITORING WE~~ CERTIFICATION-FORM B-LOCAL ~~J~~ CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
~~NJPDES~~ Number: 94-5-24-0945-01
Drear

LAND SURVEYOR'S CERTIFICATION

Well Permit Number: 29-31789-
This number must be permanently affixed to the well casing.

Longitude (to nearest second): West 74° 04' 55.80"

Latitude (to nearest second): North 40° 17' 39.18"

Elevation of Top of Inner Casing (cap off) (one-hundredth of a foot): 45.82

Elevation of ground level (1/100th ft.) 43.27

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.) Source: BM CW-206

☑ 1927 ☐ 1983

Elev.:

Owners Well Number (As shown on application or plans): BLDG. 2534 MW-1

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

AUTHENTICATION

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

Wayne W. Burgett
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

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

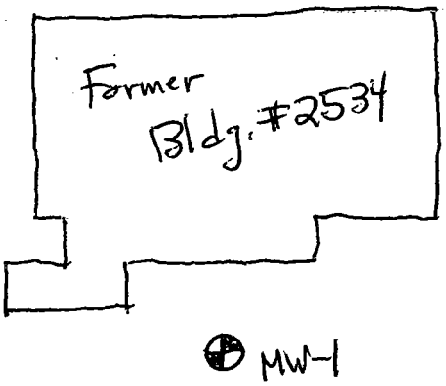
SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: US Army Ft. Monmouth | BORING NO: MW-1

TOTAL DEPTH: 12½'

JOB NO:

LOGGED BY: E. Pyc

PROJ. MGR.: Capriffi

EDITED BY:

DRILLING CONTRACTOR: Tyree

DRILL RIG TYPE: B 80

DRILLERS NAME: M. Beck

SAMPLING METHODS: SS

HAMMER WT.: 120 lbs. | DROP:

STARTED, TIME: 1:30 PM | DATE:

COMPLETED, TIME: 2:30 PM | DATE:

BORING DEPTH (ft): 12½'

CASI[illegible]PTH (ft): 2

[illegible] (ft): 7'8"

9/30/94

30PM DATE: 9/23/94 BY: Tyree

DATUM:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6 IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min./ft.)	PID READING (ppm)	ODOR (Y / N ?)	GRAPHIC WELL CONST.	DEPTH FEET	G	
									Casing w/ 3' stick up / bentonite	0	SP	L. gray, med. sand w/ pebbles
										1	SP	Br. c sand w/ fines.
2-4'	SS	3	6	21			<1	N		2		Yellowish – orange, fine – medium sand
		2	6									w/ black fines. Moist at approx.
		3	6							3		4'.
		5	6							4	SP	
									Screen Morie Sand	5		
										6		
										7		
										8		
										9		
										10		

TYREE ENVIRONMENTAL TECHNOLOGIES

FIELD LOG OF BORING (CONTINUED)

SHEET 2 OF 2

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D	COND.	D. RATE	PID	ODOR	GR.WELL	DEPTH	GRAPHIC LOG	PROJECT:	NO:	BORING NO:
									Screen / Sand	11 12 13 14 5 6 7 8 9 0 1 2 3 4 5 6 7 8	SP	* No samples were collected.		

TYREE ENVIRONMENTAL TECHNOLOGIES

APPENDIX E

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 #: 1504.1-.6
Sample Rec'd: 05/24/94
Analysis Start: 05/25/94
Analysis Comp: 05/25/94

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

NJDEPE UST Reg.#: **0081533-24**
Closure #: **C-93-2617**
DICAR #: **94-5-24-0945-01**
Location #: **Bldg. 2534**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1504.1	Site A, Sidewall 3.5-4'OVA= 8.0	93	376.	5.0
1504.2	Site B, Sidewall 3.5-4'OVA= 30.	91	935.	6.6
1504.3	Site C, Sidewall 3.5-4'OVA= 2.0.	91	469.	6.6
1504.4	Site D, Sidewall 3.5-4'OVA= 4.0	89	58.0	6.6
1504.5	Site E, Sidewall 3.5-4'OVA= ND	93	156.	6.6
1504.6	Site F, NA OVA= NA	90	536.	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1504.5 dup= 98% 1504.5 s= 83% 1504.5 sd= 80% 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 #: 1504.1-.6
Sample Rec'd: 05/24/94
Analysis Start: 05/25/94
Analysis Comp: 05/25/94

Analysis: Munsel

Lab ID#	Soil Color
1504.1	2.5Y 4/4 Dusky Red
1504.2	2.5Y 4/2 Dusky Red
1504.3	2.5Y 4/3 Dusky Red
1504.4	2.5Y 4/3 Dusky Red
1504.5	2.5Y 4/3 Dusky Red
1504.6	2.5Y 4/3 Dusky Red

Brian K. McKee
Laboratory Director

SERV-AIR, INC.

P.O. #: PWS-007

Chain of Custody

Project #: C.93-2617	Sampler: C. Appleby / Citeine	Date / Time 5-24-94 11Am	Analysis Parameters
Customer: C. Appleby SELFm-PW-EV	Site Name: Bldg. 2534 UST# 0081515-24 TMS# C-93-2617 DICBE# 94-5-24-0945-01		Start: Finish:
Phone: X 26224			Preservation Method

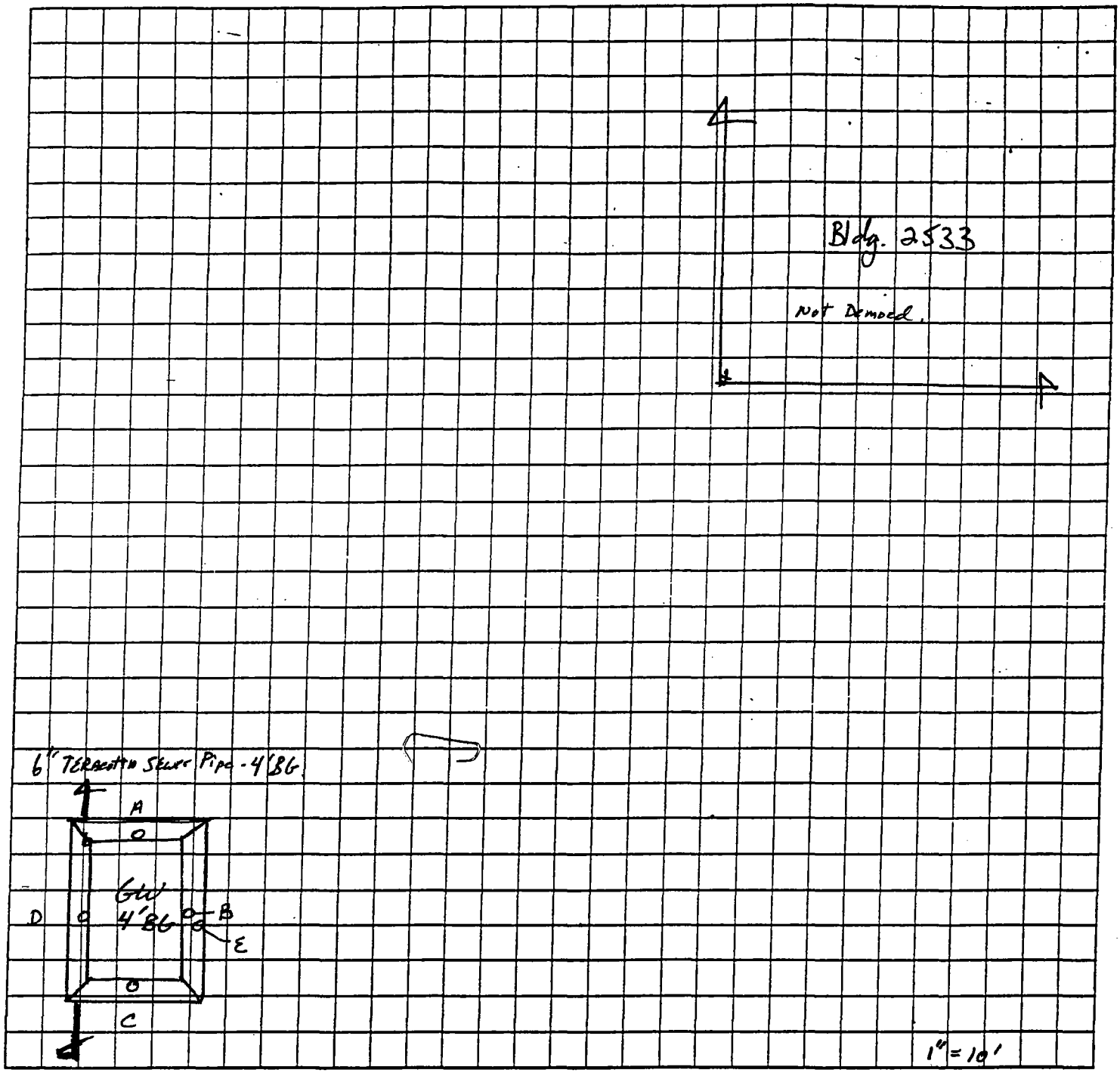
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	Mansul o/b Solid	OVM Reading	Remarks
1504.1	5/24/94 1342	Site A, 3.5-4' Stonewall	Soil	1	X X X		8	Samples Kept 4°C
.2	1340	Site B 3.5-4' Stonewall		1	X X X		30	
.3	1337	Site C 3.5-4' Sidewall		1	X X X		2	
.4	1335	Site D 3.5-4' Sidewall		1	X X X		4	
.5	1341	Site E 3.5-4' Sidewall		1	X X X		ND	
.6	NA	Site F NA		1	X X X		NA	OVM-1286C-SN A52114
								Calibrated w/ zero Air + 95 ppm methane, Gas elut = 300
								Read 92 ppm - Good C. Appleby
								5-24-94 - 11:20 Am

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	5/24/94 1405		5/24/94 1405

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

SERV-AIR, INC. FORT MONMOUTH, NEW JERSEY

PROPOSED SITE PLAN



NOTE: *Indicate scale and compass direction.*

5-24-94 C. Appleby.

REMARKS

- ~ 10 yd³ of Suspected Cont. Soil ID-27
- Soil taken to CW ID27 Soil Pile Area
- Lined + Covered w/ Poly tarps..
- Bldg. Was Removed 1993.
- Concrete Deadman in Excavation - Backhoe could not Remove.
- Samples taken 6" Above WT -

TANK LOCATION

BLDG# 2534

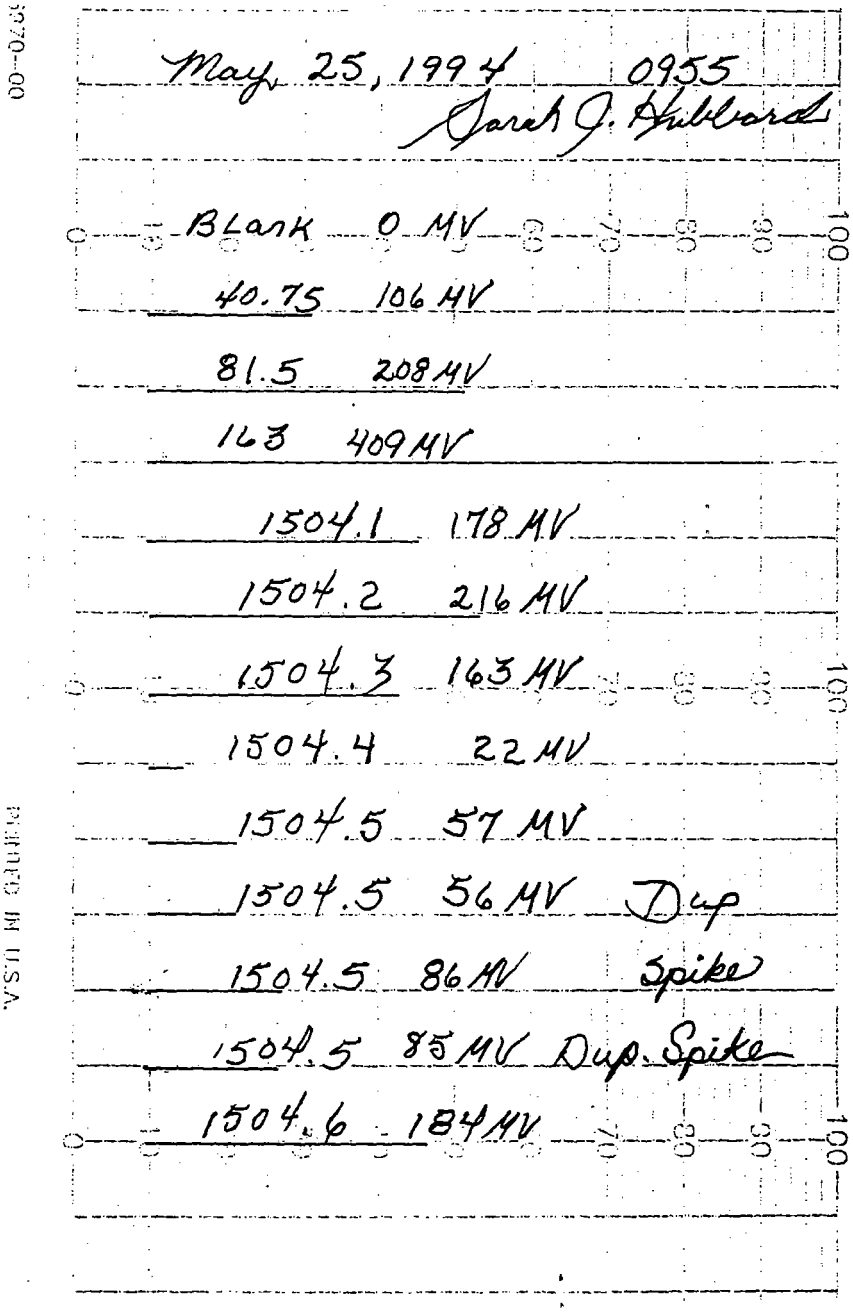
TANK # 0081515-24

TANK SIZE 1000

TANK CONTENTS #2 H-07

Dicne # 94-5-24-0945-1

28076


May 25, 1994 0955
Sarah J. Hubbard
Blank 0 MV
40.75 106 MV
81.5 208 MV
163 409 MV
1504.1 178 MV
1504.2 216 MV
1504.3 163 MV
1504.4 22 MV
1504.5 57 MV
1504.5 56 MV Dup
1504.5 86 MV Spike
1504.5 85 MV Dup. Spike
1504.6 184 MV

PHC Conformance/Non-conformance Summary Report

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

Comments:

Laboratory Authentication Statement

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

Project #1504

Brian K. McKee
Laboratory Manager

AIR, INC.

P.O. #: PWS-007

Chain of Custody

5-2617

Sampler: C. Appleby / Cuteiva

Date / Time: 5-24-94 11Am

Analysis Parameters

Start:

Finish:

Site Name: Bldg. 2534
UST# 00815-24
TMS# C-98-2617
DHSE# 94-5-24-0945-01

Fm-PW-EV

Phone: X 26224

Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	Monsel	% Solid	OVM Reading	Remarks
1504.1	5/24/94	1342	Site A, 3.5-4' Stopwall	Soil	1	X	X	X	8	Samples Kept <4°C
.2		1340	Site B 3.5-4' Stopwall		1	X	X	X	30	
.3		1337	Site C 3.5-4' Sidewall		1	X	X	X	2	
.4		1335	Site D 3.5-4' Sidewall		1	X	X	X	4	
.5		1341	Site E 3.5-4' Sidewall		1	X	X	X	ND	
.6		NA	Site F NA		1	X	X	X	NA	OVM-1286C - SN A52114
										Calibrated w/ Zero Air + 95 ppm methane, Gas cal = 300
										Read 92 ppm - Good C. Appleby
										5-24-94 - 11:20 Am

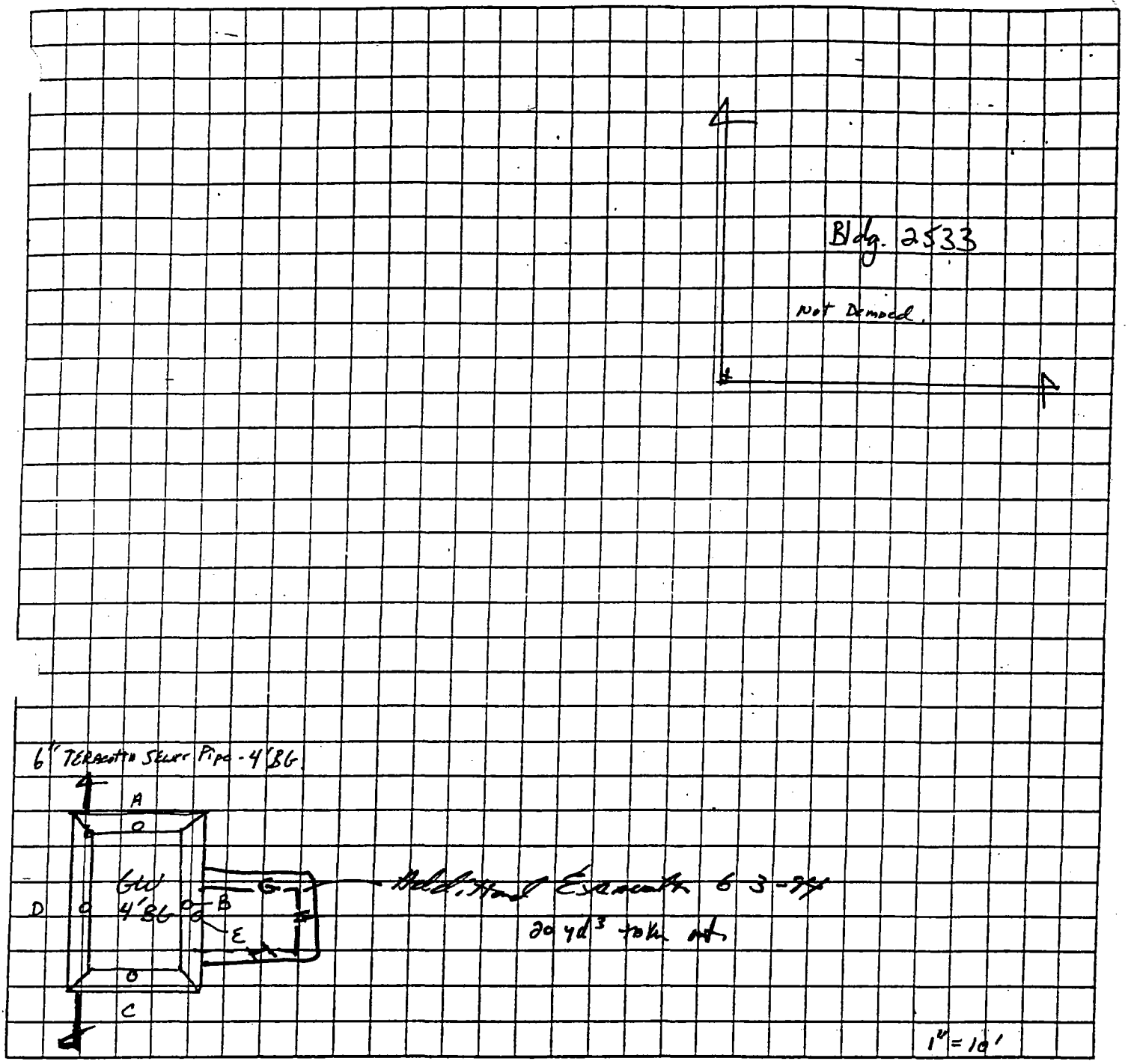
Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	5/24/94 1405		5/24/94 1405

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

SERV-AIR, INC. FORT MONMOUTH, NEW JERSEY

PROPOSED SITE PLAN



NOTE: *Indicate scale and compass direction.*

5-24-94 C. Appleby,
6-3-94 C. Appleby

REMARKS

- ~ 10 yd³ of Suspected Cont. Soil ID-27
- Soil taken to CW ID27 Soil Pile Area
- Lined + Covered w/ Poly tarps..

Bldg. Was Removed 1993.

Concrete Deadmen in Excavation - Backhoe could not Remove.

- Sample taken 6" above WT.

TANK LOCATION

BLDG# 2534

TANK # 0081515-24

TANK SIZE 1000

TANK CONTENTS #2 H-07

Dicke # 94-5-24-0945-1

4 T - 108
81.5 - 212
163 - 413
R. 9998

U.S. ARMY FO__ MONMOUTH

6/3/94
1100
Sarah J. Hubbard

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Blank	30	0	ND	—	—	—	—	—
1515.1	15	10	18	5.068	4.756	.94	10YR 4/4	dark yellow brown
.2	15	7	11	5.205	4.549	.87	10YR 4/6	dark yellow brown
.3	15	10	19	3.735	3.284	.88	10YR 4/4	~~dark~~ dark yellow brown
Dup .3	15	9	17	—	—	.88	↓	↓
Spk .3	15	34	91	—	—	.88		
Dup. Spk. 3	15	38	103	—	—	.88	↓	↓

Certification Number 13461

SERV-AIR, INC.

P.O. #: PW5-007

Chain of Custody

Project #: C-93-2617	Sampler: Cate Env. - John, L.	Date / Time 6-3-94 | 9:30	Analysis Parameters	Start:
Customer: C. Appleby, SELFM-PW-EV	Site Name: Bldg. 2534			Finish:
Phone: x26224	UST # 0081515-24			Preservation Method
	NJDEPE Case # 94-5-24-0945-01			

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	o/g Solid	Immsell	OVA Readings	Remarks
1515.1	6-3-94 955	Sit G - 3.5-4'	Soil	1	X	X	X	ND	Samples Kept @ 4°C
.2	6-3-94 958	H - 3.5-4'	↓	1	X	X	X	ND	
√ .3	6-3-94 957	I - 3.5-4'	↓	1	X	X	X	ND	
									OVA - 128 LC SN-5314
									Calibrated w/ zero air
									and 95 ppm methane at
									Gas Select 300 - Read 88 ppm
									OK C. Appleby 9:45-6-3-94

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
[signature]	6-3-94 | 1020	Sarah J Hubbard	6/3/94 1027

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

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 #: 1515.1-.3
Sample Rec'd: 06/03/94
Analysis Start: 06/03/94
Analysis Comp: 06/03/94

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

NJDEPE UST Reg.#: **0081533-24**
Closure #: **C-93-2617**
DICAR #: **94-5-24-0945-01**
Location #: **Bldg. 2534**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1515.1	Site G, 3.5-4' OVA= ND	94	18.0	6.6
1515.2	Site H, 3.5-4' OVA= ND	87	11.0	6.6
1515.3	Site I, 3.5-4' OVA= ND	88	19.0	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1515.3 dup= 89% 1515.3 s= 91% 1515.3 sd= 103% RPD= 12.4%

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 #: 1515.1-.3
Sample Rec'd: 06/03/94
Analysis Start: 06/03/94
Analysis Comp: 06/03/94

Analysis: Munsel

Lab ID#	Soil Color
1515.1	10YR Dark Yellowish Brown
1515.2	10YR Dark Yellowish Brown
1515.3	10YR Dark Yellowish Brown

Brian K. McKee
Laboratory Director

SERV-AIR, INC.

P.O. #: PWS-007

Chain of Custody

Project #: C-93-2617

Customer: C. Appleby, SECAn-PW-EV

Phone: x26224

Sampler: Cute Inc. - John, L.

Date / Time: 6-3-94 | 9:30

Site Name: Bldg. 2534
UST # 0081515-24
NJDEPE Case # 94-5-24-0945-01

Analysis Parameters: TPHC, % Solid, munsell, OVA Reading

Start:

Finish:

Preservation Method

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solid	munsell				OVA Reading	Remarks
1515.1	6-3-94	955	Site G - 3.5-4'	Soil	1	X	X	X				ND	Sample Kept < 4°C
.2	6-3-94	958	H - 3.5-4'	↓	1	X	X	X				ND	
↓ .3	6-3-94	957	I - 3.5-4'	↓	1	X	X	X				ND	
													OVA - 128 GC SN-5314
													Calibrated w/ zero air
													And 95 PPM methane at
													Gas Select 300 - read 88 PPM
													OK C. Ap 9:45-6-3-94

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
C. Ap [signature]	6-3-94 / 1020	Sarah J Hubbard	6/3/94 1027

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

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

June 3, 1994 1122
Sarah J. Hubbard

Blank 0 MV

40.75 108 MV

81.5 212 MV

163 413 MV

1515.1 10 MV

1515.2 7 MV

1515.3 10 MV

1515.3 9 MV Dup

1515.3 34 MV Spike

1515.3 38 MV Dup Spike

PHC Conformance/Non-conformance Summary Report

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

Comments:

Laboratory Authentication Statement

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

Project #1515

Brian K. McKee
Laboratory Manager

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 2534
Charles Wood-West

VOLUME II of III

NJDEP UST Registration No. 81515-24
NJDEP Case No. 94-5-24-0945-1

March 2002
United States Army

APPENDIX F

GROUNDWATER ANALYTICAL DATA PACKAGE

ANALYTICAL SERVICES

0000001

environmental

materials

asbestos

New Jersey

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

3 Cooper Street
Westmont, NJ 08108
(609) 858-9573

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

New York

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

Georgia

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

Florida

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

Michigan

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

California

1720 S. Amphlett Boulevard
Suite 130
San Mateo, CA 94402
(415) 570-5401

ANALYTICAL DATA REPORT
FOR
U.S. ARMY, FORT MONMOUTH
SELFM-PW-EV
Building 173
Fort Monmouth, NJ 07703

PROJECT : **#94524094501**

EMSL Project: # 9508359

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1840.1 Bldg. 2534 MW-2931789	**95-23536**	**Aqueous**	**5/22/95 @ 1556**	**5/23/95**
1840.2 Trip Blank	**95-23532**	**Aqueous**	**5/22/95 @ 0615**	**5/23/95**
1840.3 Field Blank	**95-23533**	**Aqueous**	**5/22/95 @ 1540**	**5/23/95**

Laboratory Name: EMSL ANALYTICAL, INC.

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

Supervisor/Manager Signature: Paul Laraia

Printed Name: Paul V. Laraia

Date: 06-27-95

REPORT NARRATIVE

All initial runs for the Ft. Monmouth P.O. #IJO #95-0091/SAI were analyzed within hold. The samples were taken by EMSL between the dates of 5/18/95 thru 5/25/95.

There was a problem with the water used for the field and trip blanks. On certain days the field crew used DI water from the incorrect system resulting in low level contamination of Toluene, 2-Chlorotoluene and sometimes Chlorobenzene. However the resultant concentrations of these compounds were very low and the samples accompanying these field and trip blanks did not show these compounds to be present.

EMSL

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EMSL

SAMPLE DATA SUMMARY PACKAGE

Date of Report: 06/23/95
Project Number: 09508359
Lab ID: 95-0023536
Date Collected: 05/22/95 15:56
Collected By: Client
Date Received: 05/23/95 07:00

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

Client Project: 94524094501

Client Designation: Bldg.2534-2931789

	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

U.S Army Ft. Monmouth FMETL#1840.1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523536B mw-005

Pkg 25 34 (2931789)

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523536B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7820.D

Level: (low/med) _____ Date Received: 5/23/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

US ARMY Ft. Monmouth N.J. FMETL #1840.1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 9523536B (mw-Bldg 2534 (293178) 006

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523536B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7820.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

US Army Ft. Monmouth NJ FMETL # 1840.1

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523536B mw-007
Bldg 2534 (2931789)

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523536B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7820.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.86	5	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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13.				
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16.				
17.				
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19.				
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21.				
22.				
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26.				
27.				
28.				
29.				
30.				

US ARMY Ft. Monmouth N.J. FMETC # 1840.1

003

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA 524.2

Bldg 2524 (mw-2931789)

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

Lab Sample ID: 9523536
Lab File ID: C8350.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.0	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US ARMY Ft. Monmouth N.J.

003

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETC # 1840.1
Bldg 2534 (mw-293789)

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

Lab Sample ID: 9523536
Lab File ID: C8350.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

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

COMMENT
U= Not Detected

BLDG.#: 2534 MW#: 1 NJDEPE WELL ID # 2931789 9a

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 5-22-95

IJC#95-0091
SAMPLING CONTRACTOR: EMSL Analytical Services Inc.
LABORATORY: EMSL Analytical Services, NJDEP CERT #:
SAMPLERS NAMES: Tom Baxter Susan Palilonis

WEATHER CONDITIONS: sunny, hot
ELEVATION OF CASING SURVEY MARK: ____.____
TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 15.10 FT
DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____FT
LENGTH OF SCREENED SECTION: ____FT.
DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 7.19 FT
ELEVATION OF GW PRIOR TO PURGING: ____.___FT
THICKNESS OF LNAPL PRIOR TO PURGING : 0.01 FT
PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS REMOVED: <1 PPM none detected 15.24 D.O. 6.8 ppm
pH: 6.40 TEMP: 62.3 °F SPECIFIC CONDUCTIVITY: 356 µs/cm
DEPTH OF WELL: ____.___FT
HEIGHT OF WATER: 7.91 FT
EVACUATED GAL. H2O: 16 GAL (7.91 X .65 X 3 = 15.4245
PURGING START TIME: 1530 END TIME: 1540
PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) Pump
PURGE RATE (<0.5 GPM): 2 GPM
TOTAL VOLUME PURGED: 16 GAL.
DEPTH TO WATER AFTER PURGING AND BEFORE SAMPLING: 7.84 FT
DISSOLVED OXYGEN: 7.6 ppm pH: 6.54 TEMP: 62.1 °F
SPECIFIC CONDUCTIVITY: 332 µs/cm
SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER
START TIME OF SAMPLING: 1550 END TIME: 1556
DISSOLVED OXYGEN: 7.1 ppm pH: 6.46 TEMP: 62.3 °F
SPECIFIC CONDUCTIVITY: 344 µs/cm

COMMENTS: on site 322pm
[illegible]

1542

10

EMSL

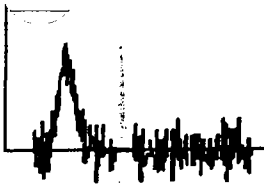
Date of Report: 07/18/95
Project Number: 09508356
Lab ID: 95-0023532
Date Collected: 05/22/95 06:15
Collected By: Client
Date Received: 05/23/95 07:00

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

Client Project: 94516144530

Client Designation: Trip Blank

	Conc.	Unit
ORGANIC		
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l



US ARMY Ft. Monmouth N.J. 011

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETC # 1840.2
TRIP BLANK

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

Lab Sample ID: 9523532
Lab File ID: C8347.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	4.9	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.80	
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1840.2 012

TRIP BLANK

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

Lab Sample ID: 9523532
Lab File ID: C8347.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	1.7	
106-43-4	4-Chlorotoluene	.60	
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

13

EMSL

Date of Report: 07/18/95
Project Number: 09508356
Lab ID: 95-0023533
Date Collected: 05/22/95 15:40
Collected By: Client
Date Received: 05/23/95 07:00

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

Client Project: 94516144530

Client Designation: Field Blank

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

US Army Ft. Monmouth N.J. FMETC #1840.3

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523533B Field Blank 01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523533B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7817.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

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

US ARMY Ft. Monmouth NJ. FMETC #1840.3

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523533B Field Blank 015

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523533B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7817.D

Level: (low/med) _____ Date Received: 5/23/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

US ARMY Ft. Monmouth N.J

FMETL # 1840.3

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9523533B 016
Field Blank

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523533B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7817.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.86	5	J
2.				
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.				

US Army Ft. Monmouth NJ

017

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET FMETL # 1840.3

EPA 524.2

Field Blank

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

Lab Sample ID: 9523533
Lab File ID: C8348.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.6	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.80	
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

J= Not Detected

US Army Ft. Monmouth N.J.

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET FMERC#1840.3 013

EPA 524.2

Field Blank

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

Lab Sample ID: 9523533
Lab File ID: C8348.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	1.7	
106-43-4	4-Chlorotoluene	.60	
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

LABORATORY DELIVERABLES

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

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

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

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

Paul Faas

Laboratory Manager or Environmental Consultant's Signature

06-27-95

Date

EMSL

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 #		
1	1.	Name and address of the facility.
1	2.	Name of the laboratory performing the sample analysis.
1	3.	NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.
1	4.	Laboratory sample identification number.
1	5.	Customer sample identification number corresponding to the laboratory sample identification.
1	6.	Sample Location (also on the site diagram).
1	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.
27-28	8.	The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).
1	9.	The signature of the person completing the report form.
1	10.	The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.
29	11.	A list of all parameters (constituents and conditions) for which the analyses were performed.
3-18	12.	Sample results and corresponding units for each parameter.

CHAIN OF CUSTODY AND PRESERVATION CHECKLIST

U.S. ARMY FORT MONMOUTH

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

Chain of Custody 950835-9

Project #: 945240941501	Sampler: EMSL (Baxter)	Date / Time 5/22/95 1556	Analysis Parameters
Customer: Charles Appleby SELFM-PW-EV	Site Name: Bldg 2534 MW Sampling		Start: / Finish:
Phone: 908-532-6224			Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	VOA 524.2 + Xylene	BN +5 (methods 625)						Remarks
18401	5/22/95 1556	Bldg 2534 MW1-293,789	Aq	5	X	X			23536			
18402	5/22/95 1615	TRIP Blank	Aq	3	X				23532			
18403	5/22/95 1540	Field Blank	Aq	5	X	X			23533			

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Client not available for sig.	5/22/95 18:30		
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	5/23/95 10:00		5/23 10:00

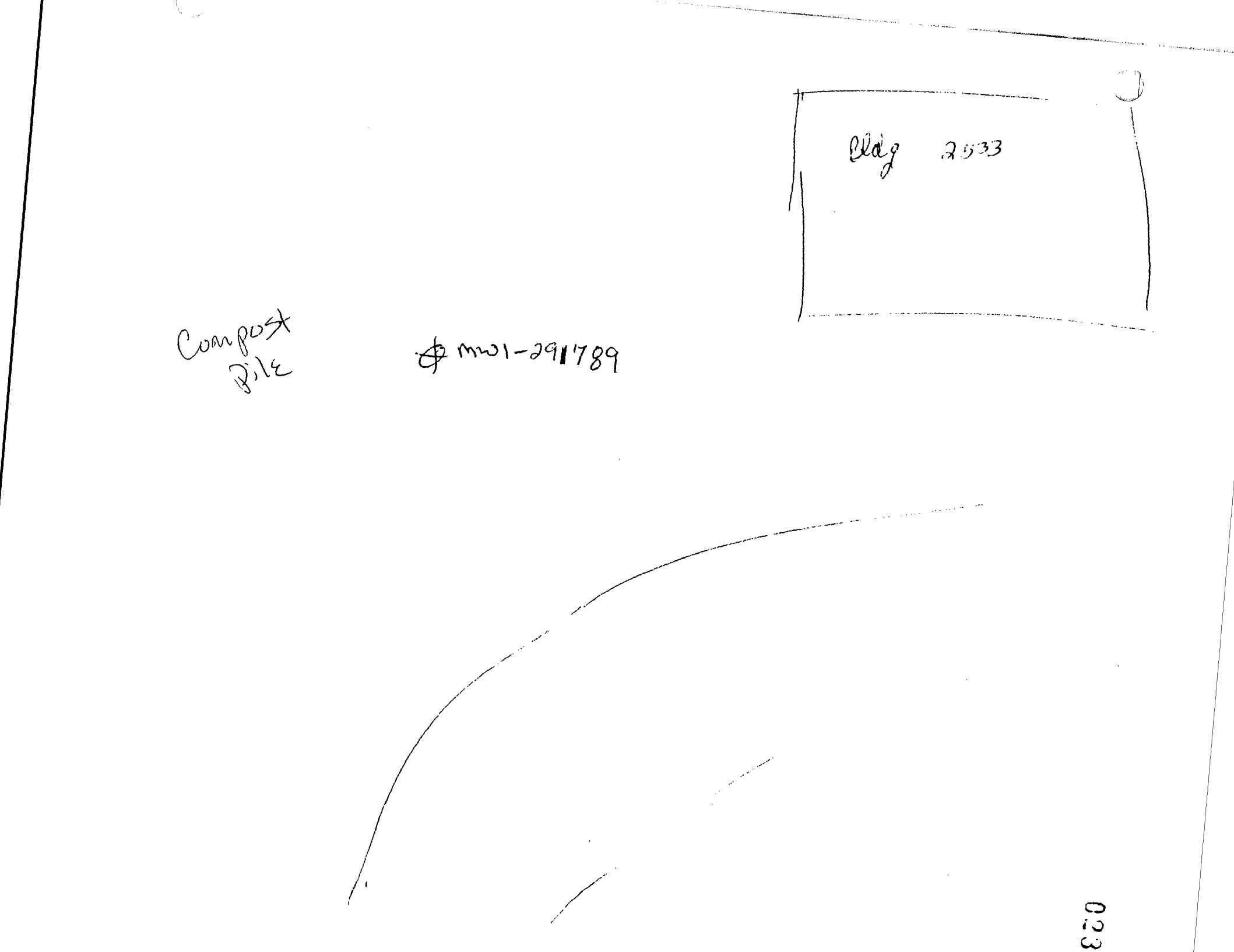
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. (ORIGINAL on Back)

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

Enviornmental Laboratory

Certification Number 13461

022


Bldg 2533
Compost Pile
MW1-291789

To be completed upon sample receipt

Instructions:

1. Place an X in box if okay.
2. Record actual pH if outside acceptable range
3. Record temperature of cool blank or note "NW" if samples are cooled.
4. Record corrective action in remarks.

					pH≤2							>9	≥12	deg C	SAMPLES	
COD	PHEN	TKN	TOX	VOA*	PHENOL	TOC	PHC	O&G	METALS	HARD	TPO4	NO2&3	SO2	TCN	TEMP	EMSL #	REMARKS
[illegible]	[illegible]	[illegible]	H2SO4	HCL	H2SO4	H2SO4	H2SO4	H2SO4	HNO3	HNO3	H2SO4	H2SO4	NaOH ZNAC	NaOH			
				X											4	23536	

EMSL ANALYTICAL, INC.

INTERNAL CHAIN OF CUSTODY

EMSL LAB ID NO. 95-23536, 95-23533 PROJECT NO. 9508359

SAMPLE/CONTAINERS PARAMETERS

DATE	TIME	ANALYSIS	NAME (PRINT)	SIGNATURE
5/26/95		BN Extraction Prep	Charles Bartolone	Charles Bartolone

Project #: 9508359 02

Lab ID #'s: 95-23536, 95-23532, 95-23533

Analyst

	Name (please print)	Signature	Date
1. Base/Neutrals	Scott Van Etten		6/3, 6/4/95
2. Acids			
3. Pesticides			
4. Herbicides			
5. PCB's			
6. Metals:			
Flame			
Furnace			
ICP			
7. Volatiles:			
GC			
GC/MS	Scott Kessler	S. Kessler	6/3/95
8. TOC			
9. TOX			
10. Phenols (Total)			
11. Cyanide (Total)			
12. TPH -IR			
13. Mercury			
14. Other			
15. Other			
16. Other			

027

EMSL

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 capiullary column (DB-624 0.53 mn ID).

Method detection limits are as stated.

Semivolatiles by GC/MS - Aqueous

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. 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: **95-23536, 95-23532, 95-23533** Client: **U.S. Army, Fort Monmouth**

	I DATE	II	Hold Time
Date Sampled	**5/22/95**		
Receipt/Refrigeration	**5/23/95**		
Extractions			
1. Semivolatile Organics	**5/26/95**		**7 days**
Analyses			
1. Volatile Organics	**6/3/95**		**14 days**
2. Semivolatile Organics	**6/3, 4/95**		**40 days**

QC Supervisor
Review & Approval

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

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

GC/MS 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 **Methylene Chloride 5.6 ppb.**		
	b. B/N Fraction		
	c. Acid Fraction		
7.	Surrogate Recoveries Meet Criteria		X
	If not met, list those compounds and their recoveries which fall outside the acceptable range:		
	a. VOA Fraction		
	b. B/N Fraction		
	c. Acid Fraction		
	If not met, were the calculations checked and the results qualified as "estimated"?		
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	X	
	a. VOA Fraction **Methylene Chloride MS/MSD 69%/70%; Xylene (para & meta) MS 65% RPD 32; Xylene (ortho) MS 70% RPD 30; Styrene MS/MSD 21%/39% RPD 62; 1,1,2,2-Tetrachloroethane MS/MSD 122%/124%**		
	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.

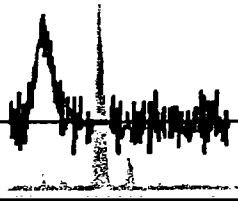
		No	Yes
10.	Extraction Holding Time Met		X
	If not met, list number of days exceeded for each sample:		
11.	Analysis Holding Time Met		X
	If not met, list number of days exceeded for each sample:		

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

Additional Comments:

Laboratory Manager Paul Tarara Date: 06-27-95

GC/MS VOLATILE ORGANIC DATA PACKAGE



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

033

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

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

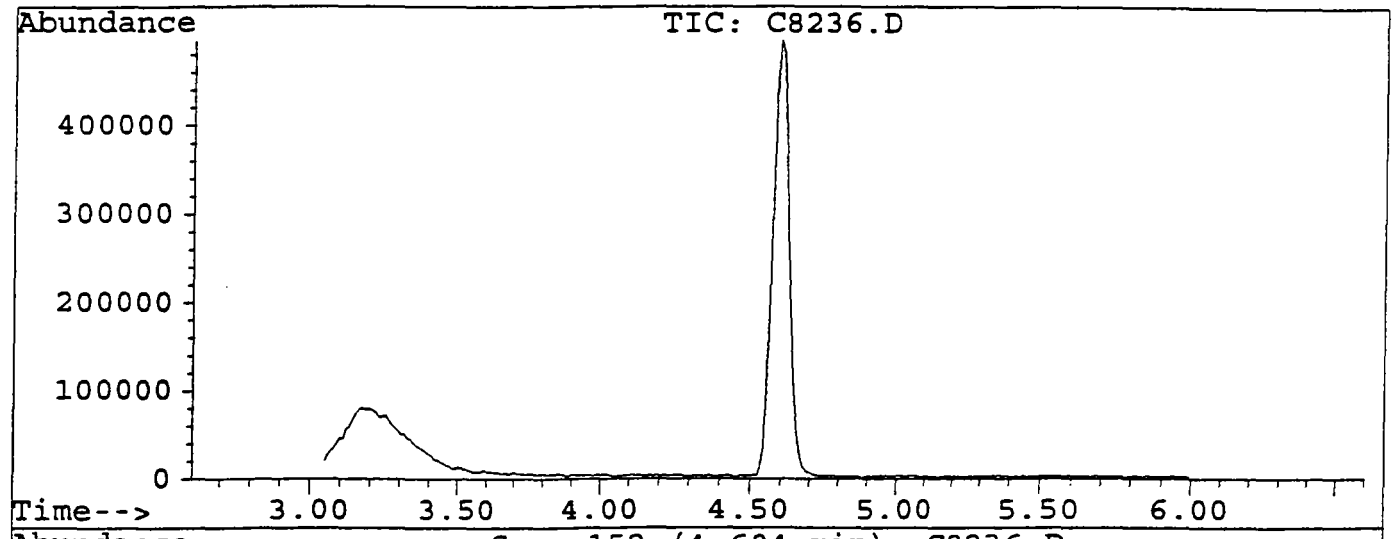
	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		4 PPB STANDARD	C8237.D	05/26/95	1035
02		10 PPB STANDARD	C8238.D	05/26/95	1117
03		20 PPB STANDARD	C8239.D	05/26/95	1151
04		30 PPB STANDARD	C8240.D	05/26/95	1226
05		40 PPB STANDARD	C8241.D	05/26/95	1300
06					
07					
08		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

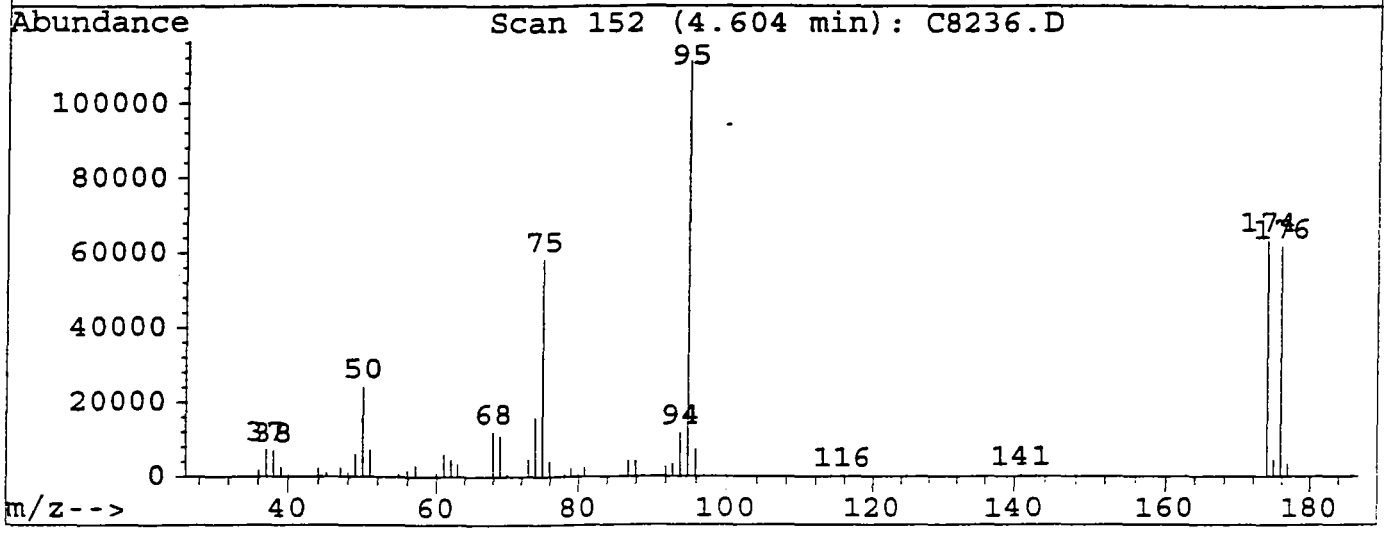
CLPBFB

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

Vial: 1034
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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





Peak Apex is scan: 152

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

C8236.D VOA524.M Fri May 26 10:07:43 1995 VOA

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

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

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

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

Response Factor Report 5972 - In

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

036

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

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

(#) = Out of Range

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

037

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

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

(#) = Out of Range

Quantitation Report

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

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

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

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

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

Quantitation Report

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

Vial: 2 03
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

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

Vial: 3 010
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

011

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

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

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

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

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

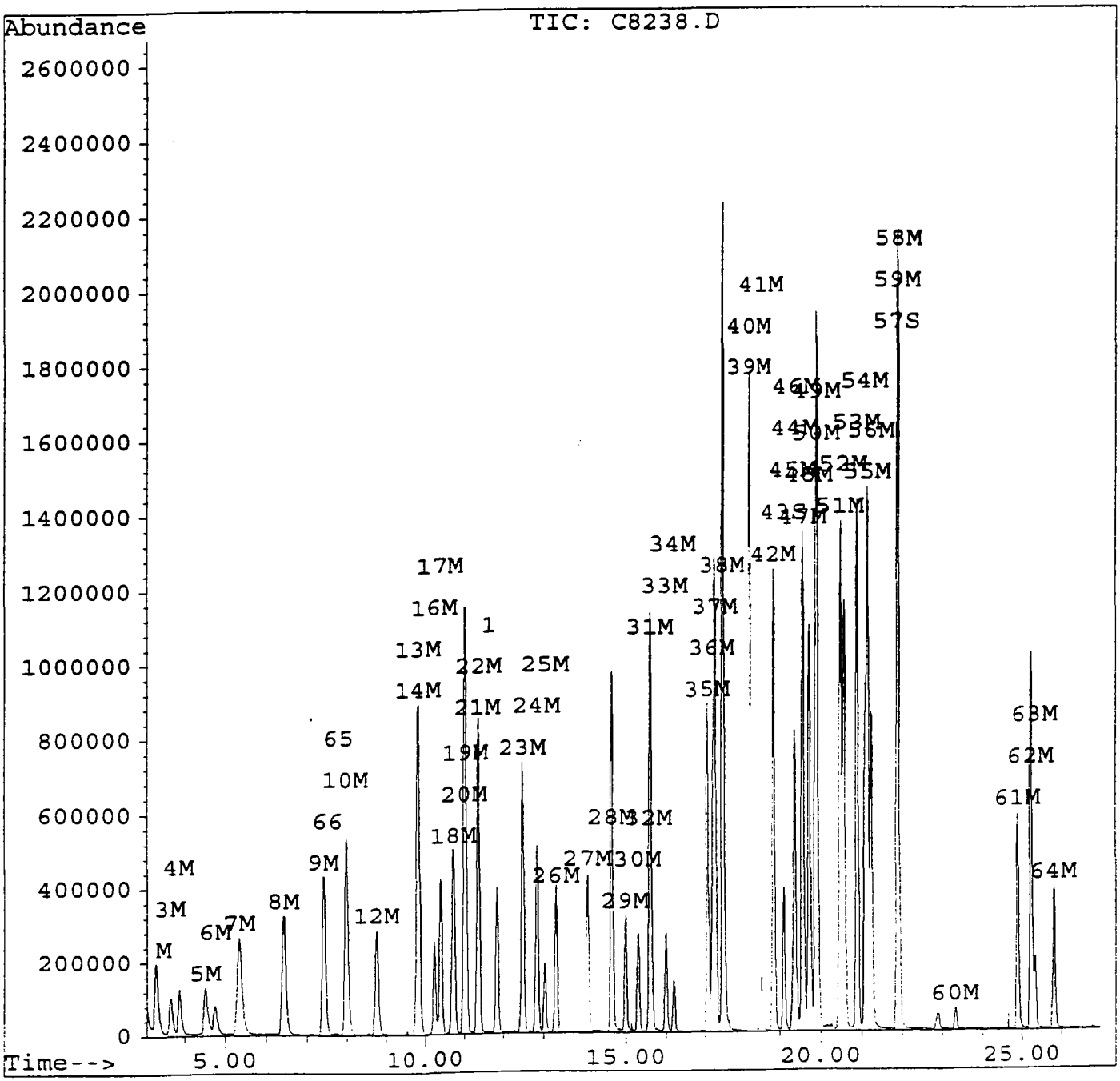
Quantitation Report

042

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

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

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



Quantitation Report

043

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

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

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

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

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

Quantitation Report

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

Vial: 4
Operator: SRK 014
Inst : 5972 - In
Multiplr: 1.00

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

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

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

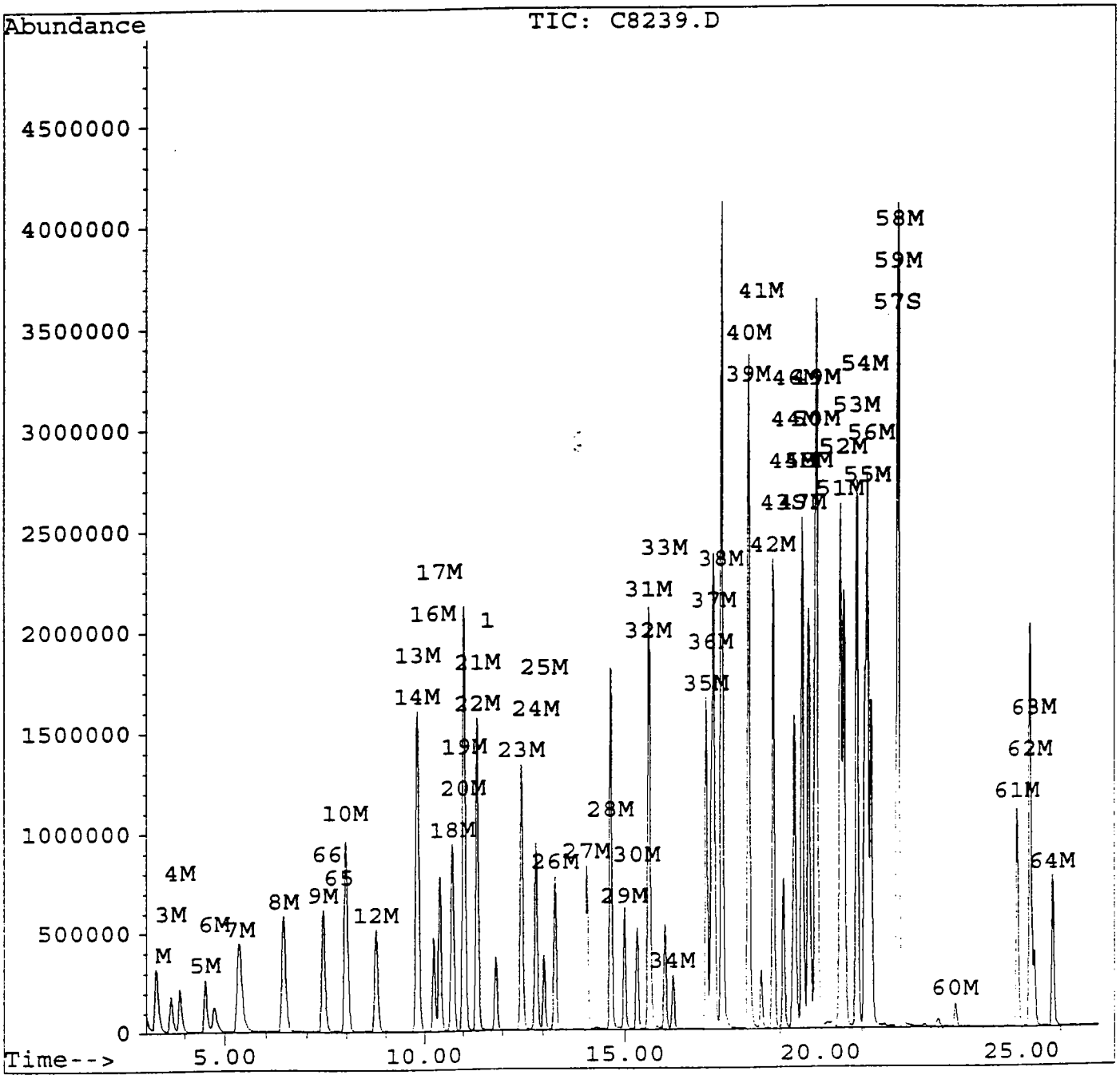
Quantitation Report

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

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

045

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



Quantitation Report

046

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

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

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

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

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

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

Vial: 5
Operator: SRK 017
Inst : 5972 - In
Multiplr: 1.00

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

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

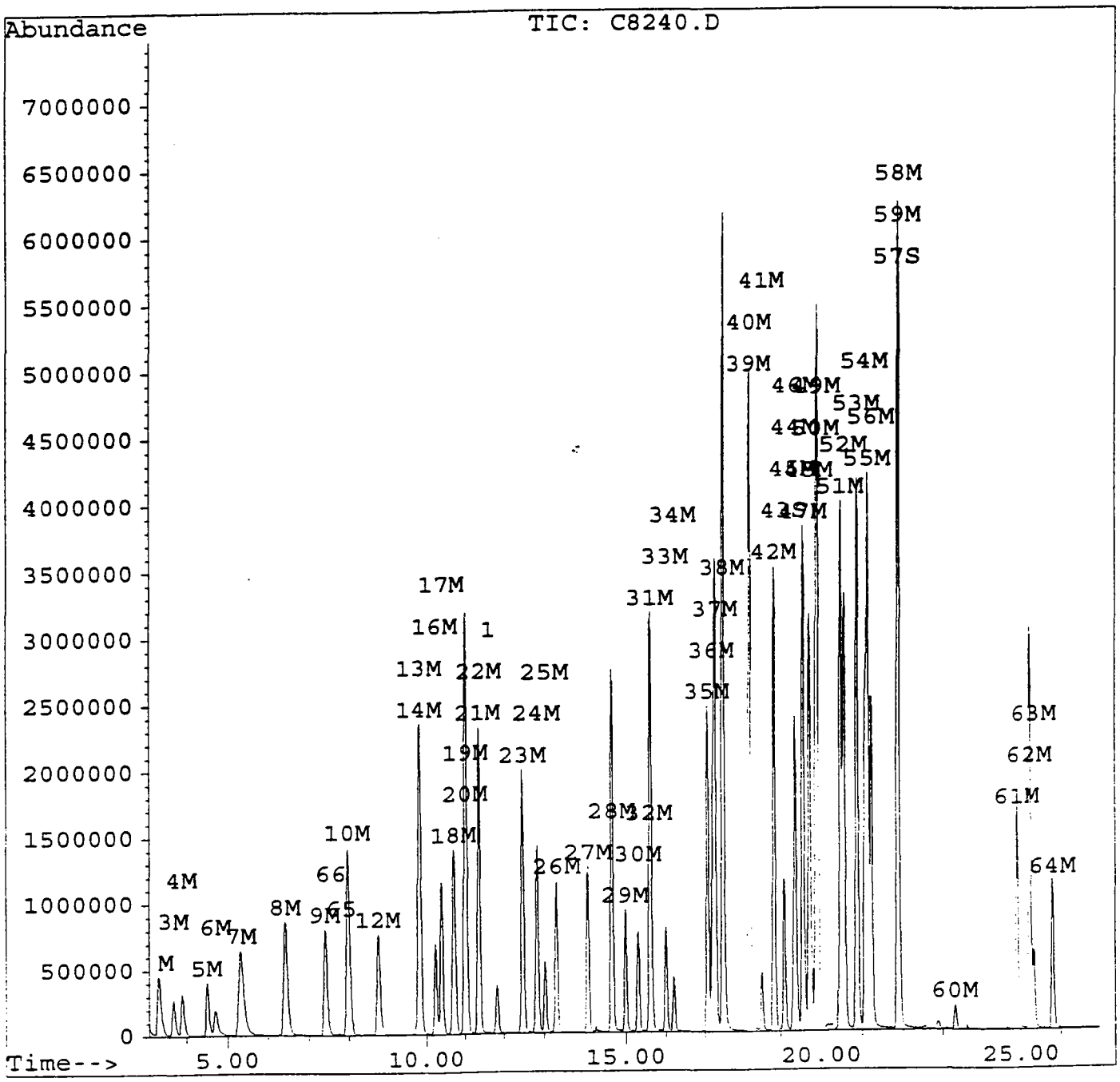
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

Vial: 5 043
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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



Quantitation Report

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

Vial: 6 040
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

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

Vial: 6
Operator: SRK 050
Inst : 5972 - In
Multiplr: 1.00

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

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

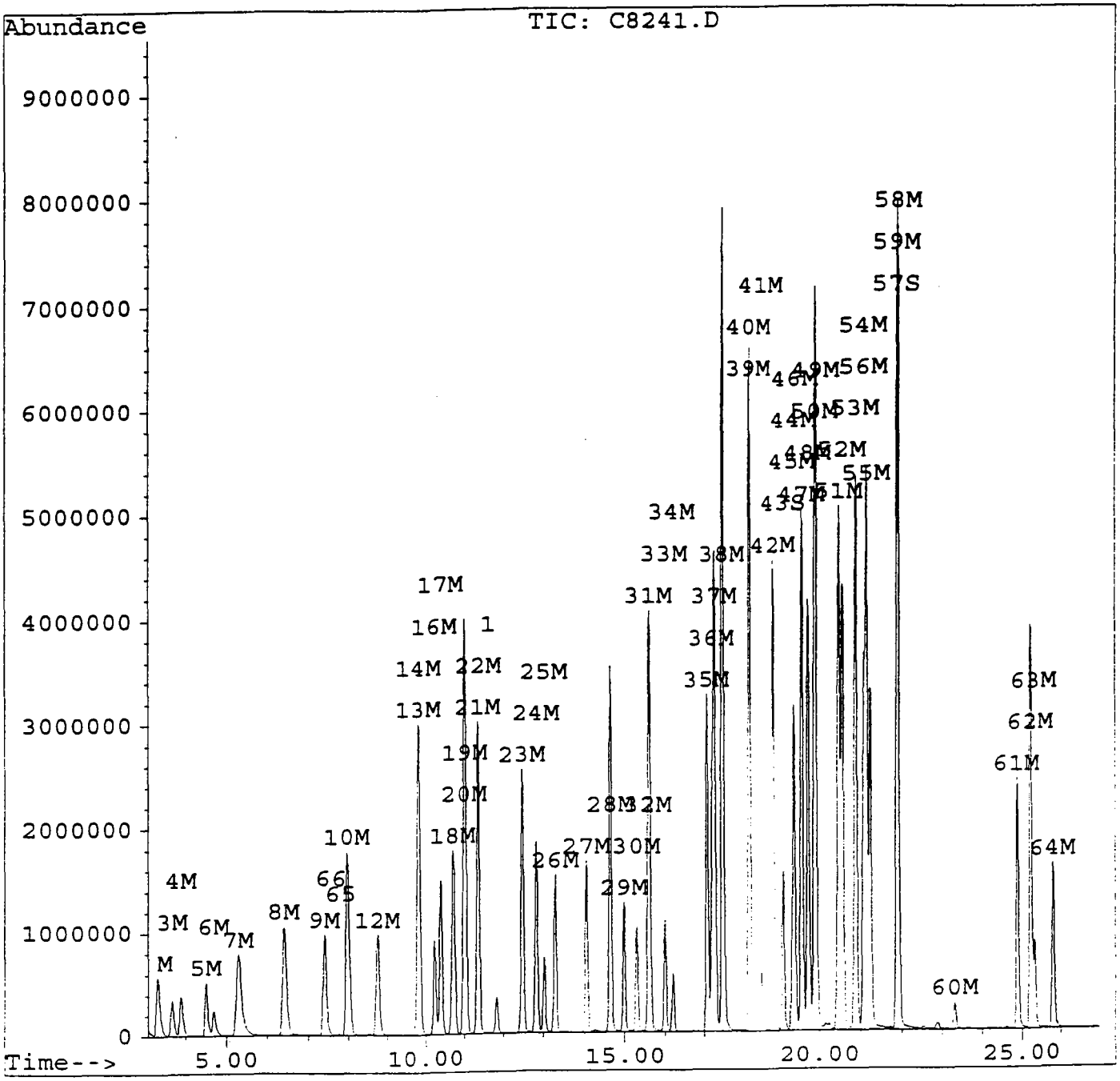
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

Vial: 6 051
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

052

Lab Name : EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

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

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

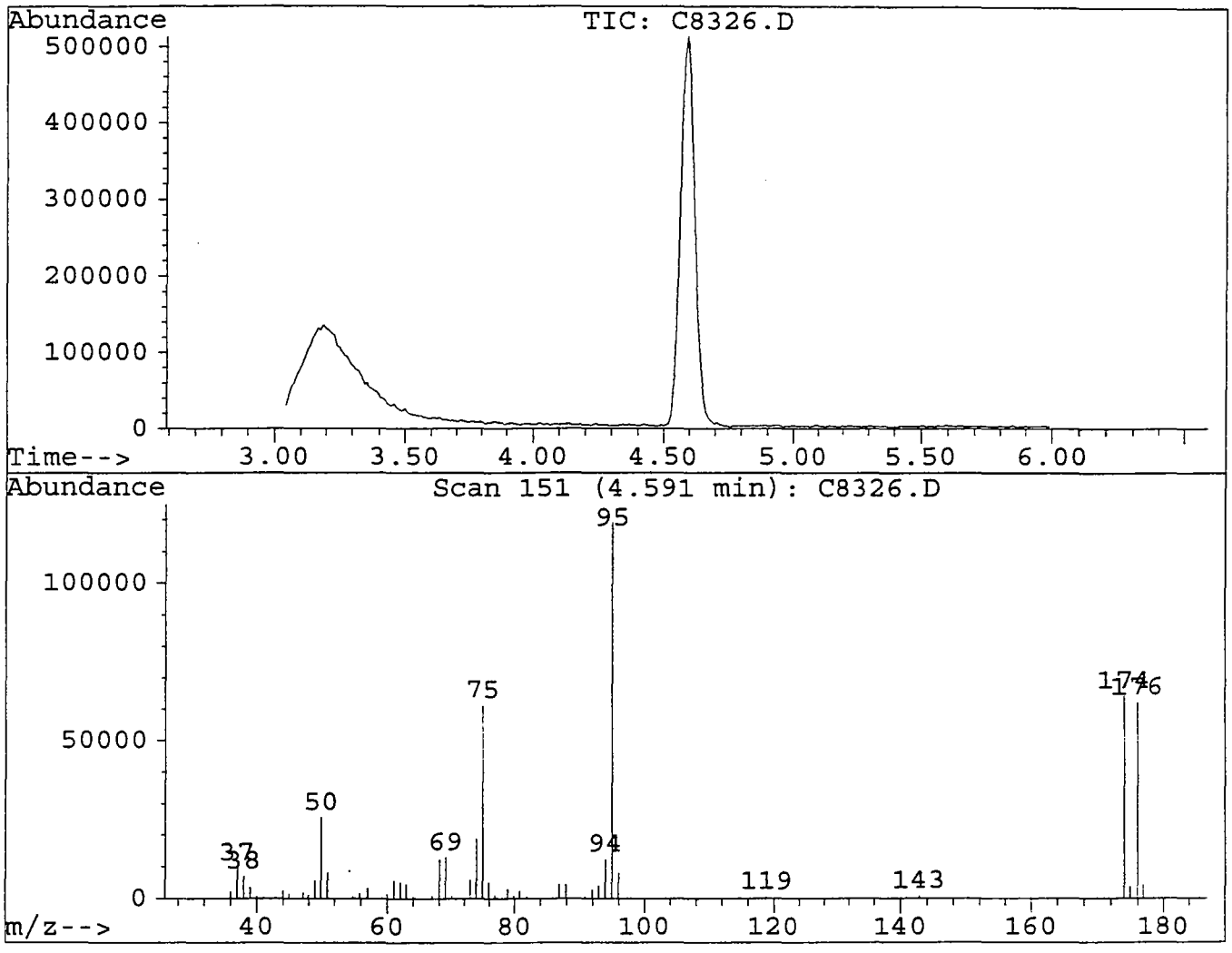
CLPBFB

053

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

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

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



Peak Apex is scan: 151

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

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

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

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

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

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

7A

VOLATILE CONTINUING CALIBRATION CHECK

055

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

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

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

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

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

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

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

Evaluate Continuing Calibration Report

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

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

057

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

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

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

(#) = Out of Range

Evaluate Continuing Calibration Report

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

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

058

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

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

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

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

Evaluate Continuing Calibration Report

059

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

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

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

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

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

(#) = Out of Range

Evaluate Continuing Calibration Report

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

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

060

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

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

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

Quantitation Report

061

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

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

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

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

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

Quantitation Report

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

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

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

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

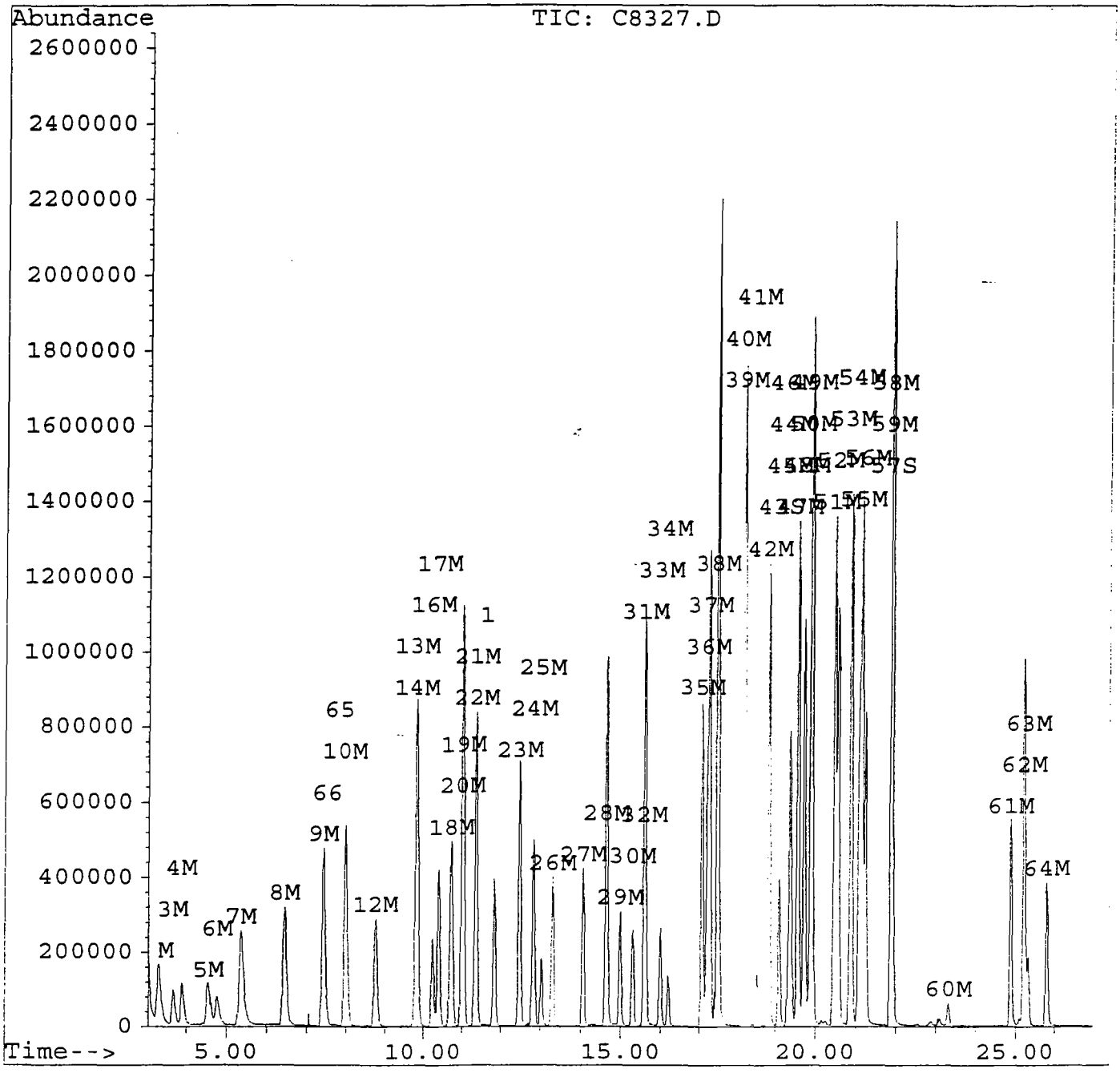
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

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

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



Quantitation Report

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

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

0064

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

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

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

Quantitation Report

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

Vial: 3 085
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.50	173	18185	1.23	ug/L		83
42)	Isopropylbenzene	18.83	105	190069	1.02	ug/L		92
44)	Bromobenzene	19.37	156	38075	1.13	ug/L		95
45)	1,1,2,2-Tetrachloroethane	19.32	83	21192	1.28	ug/L		94
46)	1,2,3-Trichloropropane	19.40	75	26851	1.34	ug/L	#	78
47)	n-Propylbenzene	19.57	91	258094	1.06	ug/L		96
48)	2-Chlorotoluene	19.72	91	155848	1.16	ug/L		99
49)	4-Chlorotoluene	19.91	91	181185	1.13	ug/L		79
50)	1,3,5-Trimethylbenzene	19.89	105	160790	1.04	ug/L		98
51)	tert-Butylbenzene	20.48	119	168154	1.05	ug/L		99
52)	1,2,4-Trimethylbenzene	20.56	105	158808	1.12	ug/L		97
53)	sec-Butylbenzene	20.87	105	253326	1.07	ug/L		99
54)	1,3-Dichlorobenzene	21.08	146	79249	1.15	ug/L		93
55)	4-Isopropyltoluene	21.14	119	187231	1.05	ug/L		97
56)	1,4-Dichlorobenzene	21.23	146	79905	1.17	ug/L		92
58)	1,2-Dichlorobenzene	21.91	146	59283	1.16	ug/L		91
59)	n-Butylbenzene	21.89	91	208059	1.09	ug/L		98
60)	1,2-Dibromo-3-chloropropan	23.31	75	5339	1.27	ug/L	#	75
61)	1,2,4-Trichlorobenzene	24.89	180	46194	1.23	ug/L		97
62)	Hexachlorobutadiene	25.23	225	47903	1.06	ug/L		96
63)	Naphthalene	25.34	128	45226	1.39	ug/L		100
64)	1,2,3-Trichlorobenzene	25.81	180	37447	1.43	ug/L		90
65)	Methyl-tert butyl ether	8.01	73	56568	1.38	ug/L		91

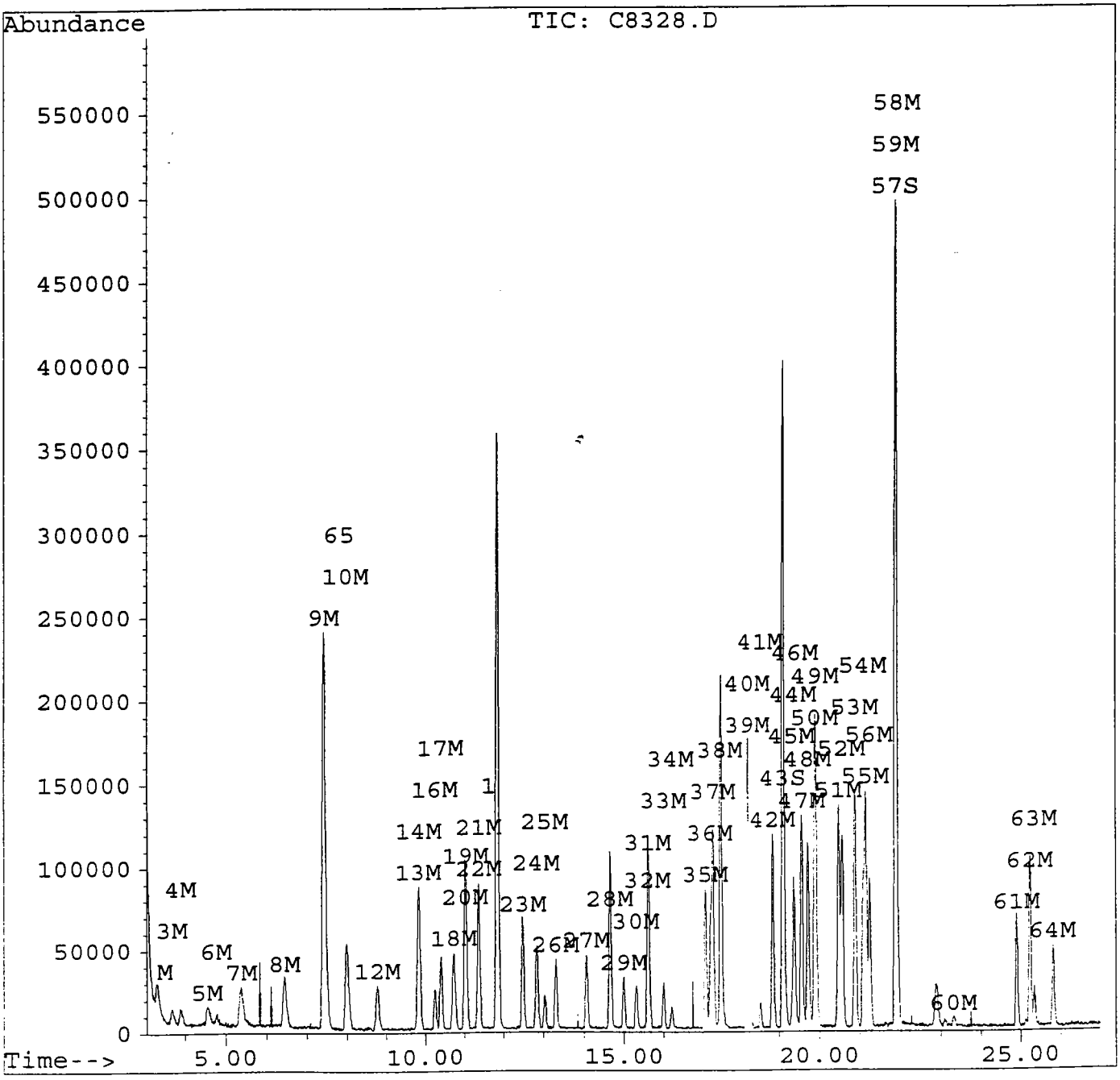
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

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

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



Quantitation Report

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

Vial: 15067
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

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

Vial: 15 0083
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

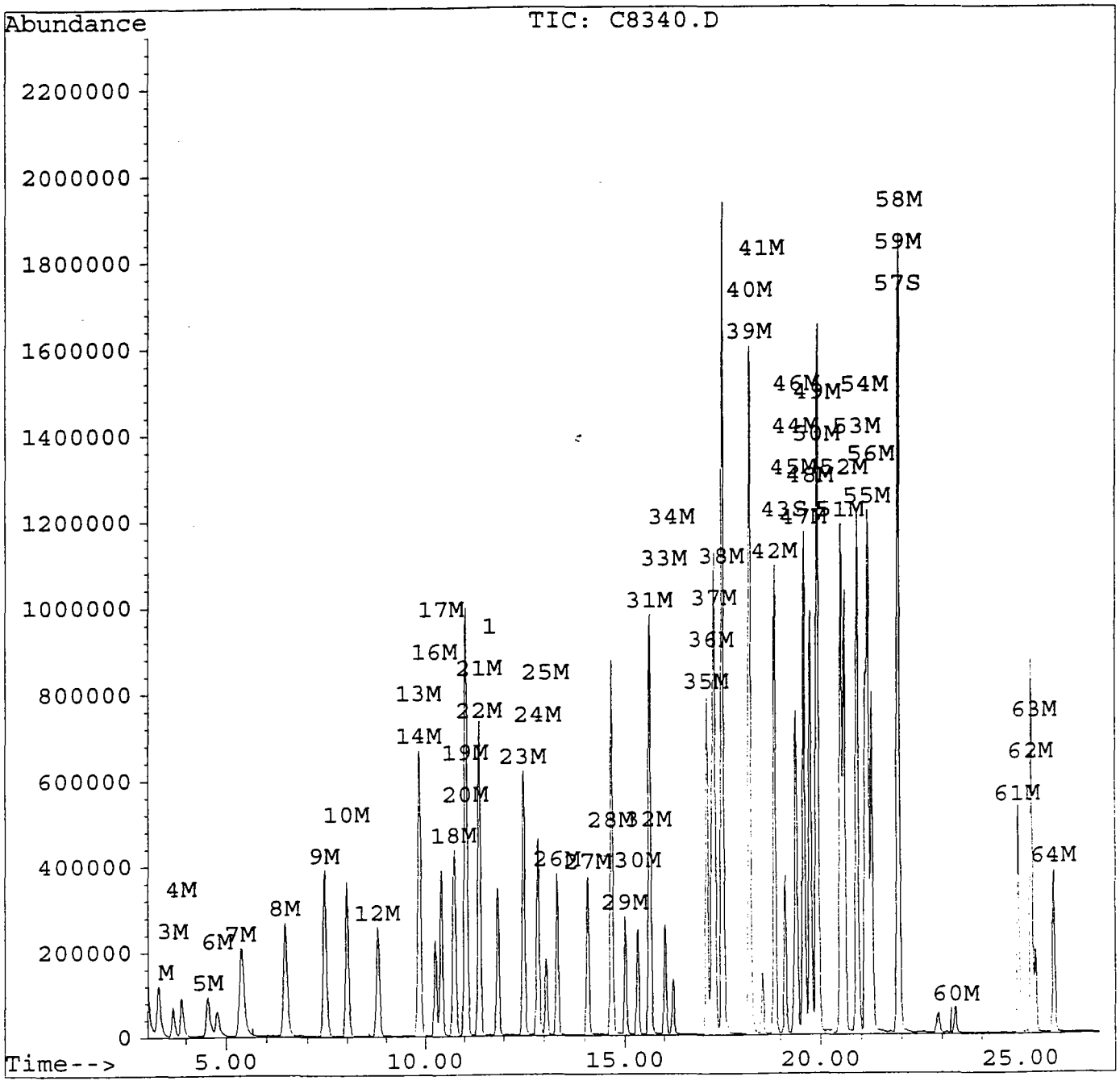
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

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

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



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

070

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: C8341.D BFB Injection Date: 6/3/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1604

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	22.4
75	30.0 - 66.0% of mass 95	48.8
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	55.7
175	4.0 - 9.0% of mass 174	4.5 (8.0)1
176	93.0 - 101.0% of mass 174	53.8 (96.6)1
177	5.0 - 9.0% of mass 176	3.2 (5.9)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	C8342.D	6/3/95	1614
02	1PPB STD	1PPB STD	C8343.D	6/3/95	1650
03	VBLK01	M. BLANK	C8344.D	6/3/95	1726
04	9523530V	9523530V	C8345.D	6/3/95	1801
05	9523531V	9523531V	C8346.D	6/3/95	1837
06	9523532V	9523532V	C8347.D	6/3/95	1912
07	9523533V	9523533V	C8348.D	6/3/95	1947
08	9523535V	9523535V	C8349.D	6/3/95	2022
09	9523536V	9523536V	C8350.D	6/3/95	2057
10	9523787V	9523787V	C8351.D	6/3/95	2132
11	9523788V	9523788V	C8352.D	6/3/95	2206
12	9523789V	9523789V	C8353.D	6/3/95	2241
13	9523534V	9523534V	C8354.D	6/3/95	2315
14	10PPBQCS	10PPQCS	C8355.D	6/3/95	2349
15					
16					
17					
18					
19					
20					
21					
22					

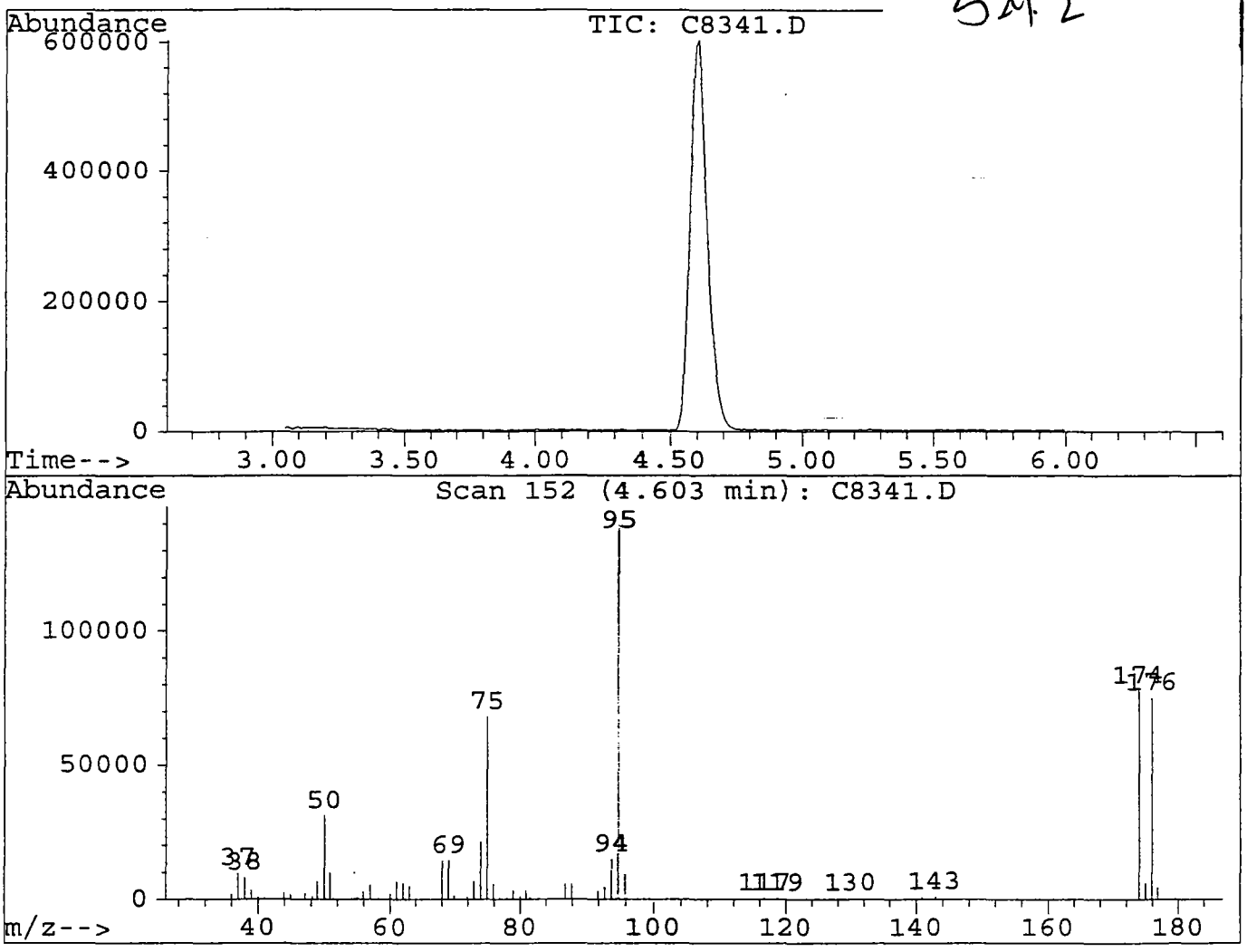
CLPBFB

Data File : D:\HPCHEM\1\DATA\C8341.D
Acq On : 3 Jun 95 4:04 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1071

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

Deleted
+
Printed
524.2



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.4	31192	PASS
75	95	30	60	48.8	68096	PASS
95	95	100	100	100.0	139520	PASS
96	95	5	9	6.7	9406	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	55.7	77696	PASS
175	174	5	9	8.0	6229	PASS
176	174	95	101	96.6	75016	PASS
177	176	5	9	5.9	4424	PASS

Scan 152 (4.603 min): C8341.D
BFB TUNE

072

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1904	48.95	6594	67.05	545	78.90	3304
37.00	9863	50.05	31192	68.05	14525	80.00	1112
38.00	8160	50.95	9771	69.05	14543	80.90	3338
39.00	3440	55.05	710	69.95	1255	81.60	593
40.00	974	55.95	2911	71.95	939	86.90	5772
41.00	642	57.00	5331	72.95	6807	87.95	5574
43.00	531	60.00	1868	73.95	21312	91.95	3054
43.90	2551	61.00	6881	74.95	68096	92.95	4726
44.90	1682	62.00	6020	75.95	5793	93.95	14928
47.05	2291	63.00	5092	76.95	570	94.95	139520
48.15	1092	64.00	549	78.00	602	95.95	9406

Scan 152 (4.603 min): C8341.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.75	624						
118.75	518						
129.95	557						
140.90	833						
142.90	995						
173.95	77696						
174.95	6229						
175.95	75016						
176.85	4424						

7A

VOLATILE CONTINUING CALIBRATION CHECK

073

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/3/95 Time: 1614

Lab File ID: C8342.D Init. Calib. Date(s): 5/26/95 _____

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

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

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.396	0.374		5.6	30.0
Chloromethane	0.233	0.227		2.6	30.0
Vinyl chloride	0.263	0.255		3.0	30.0
Bromomethane	0.178	0.185		-3.9	30.0
Chloroethane	0.154	0.162		-5.2	30.0
Trichlorofluoromethane	0.588	0.565		3.9	30.0
1,1-Dichloroethene	0.258	0.250		3.1	30.0
Methylene chloride	0.274	0.328		-19.7	30.0
trans-1,2-Dichloroethene	0.273	0.266		2.6	30.0
1,1-Dichloroethane	0.545	0.552		-1.3	30.0
2,2-Dichloropropane	0.534	0.536		-0.4	30.0
cis-1,2-Dichloroethene	0.257	0.259		-0.8	30.0
Bromochloromethane	0.090	0.094		-4.4	30.0
Chloroform	0.512	0.520		-1.6	30.0
1,1,1-Trichloroethane	0.566	0.547		3.4	30.0
Carbon tetrachloride	0.526	0.494		6.1	30.0
1,1-Dichloropropene	0.495	0.474		4.2	30.0
Benzene	0.871	0.850		2.4	30.0
1,2-Dichloroethane	0.214	0.221		-3.3	30.0
Trichloroethene	0.386	0.371		3.9	30.0
1,2-Dichloropropane	0.285	0.291		-2.1	30.0
Dibromomethane	0.115	0.121		-5.2	30.0
Bromodichloromethane	0.396	0.407		-2.8	30.0
cis-1,3-Dichloropropene	0.342	0.357		-4.4	30.0
Toluene	0.619	0.608		1.8	30.0
trans-1,3-Dichloropropene	0.236	0.247		-4.7	30.0
1,1,2-Trichloroethane	0.110	0.112		-1.8	30.0
Tetrachloroethene	0.388	0.360		7.2	30.0
1,3-Dichloropropane	0.219	0.229		-4.6	30.0
Dibromochloromethane	0.215	0.216		-0.5	30.0
1,2-Dibromomethane	0.152	0.159		-4.6	30.0
Chlorobenzene	0.644	0.638		0.9	30.0
1,1,1,2-Tetrachloroethane	0.256	0.255		0.4	30.0
Ethylbenzene	1.302	1.274		2.2	30.0
Xylene (para & meta)	0.468	0.454		3.0	30.0
Xylene (Ortho)	0.414	0.411		0.7	30.0

VOLATILE CONTINUING CALIBRATION CHECK

074

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/3/95 Time: 1614

Lab File ID: C8342.D Init. Calib. Date(s): 5/26/95 _____

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

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

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0.641	0.642		-0.2	30.0
Bromoform	0.105	0.109		-3.8	30.0
Isopropylbenzene	1.330	1.276		4.1	30.0
Bromobenzene	0.240	0.239		0.4	30.0
1,1,2,2-Tetrachloroethane	0.118	0.135		-14.4	30.0
1,2,3-Trichloropropane	0.143	0.148		-3.5	30.0
n-Propylbenzene	1.731	1.663		3.9	30.0
2-Chlorotoluene	0.960	1.001		-4.3	30.0
4-Chlorotoluene	1.140	1.127		1.1	30.0
1,3,5-Trimethylbenzene	1.101	1.059		3.8	30.0
tert-Butylbenzene	1.142	1.106		3.2	30.0
1,2,4-Trimethylbenzene	1.009	1.013		-0.4	30.0
sec-Butylbenzene	1.693	1.574		7.0	30.0
1,3-Dichlorobenzene	0.489	0.480		1.8	30.0
4-Isopropyltoluene	1.264	1.206		4.6	30.0
1,4-Dichlorobenzene	0.485	0.479		1.2	30.0
1,2-Dichlorobenzene	0.364	0.363		0.3	30.0
n-Butylbenzene	1.355	1.291		4.7	30.0
1,2-Dibromo-3-chloropropane	0.030	0.032		-6.7	30.0
1,2,4-Trichlorobenzene	0.268	0.260		3.0	30.0
Hexachlorobutadiene	0.323	0.275		14.9	30.0
Naphthalene	0.232	0.242		-4.3	30.0
1,2,3-Trichlorobenzene	0.187	0.191		-2.1	30.0
4-Bromofluorobenzene	0.499	0.522		-4.6	30.0
1,2-Dichlorobenzene-d4	0.228	0.247		-8.3	30.0

Evaluate Continuing Calibration Report

075

Data File : D:\HPCHEM\1\DATA\C8342.D
Acq On : 3 Jun 95 4:14 pm
Sample : 10 PPB CHK STANDARD
Misc :

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

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	94	0.00
2	M	Dichlorodifluoromethane	0.396	0.374	5.7	83	0.03
3	M	Chloromethane	0.233	0.227	2.9	86	0.03
4	M	Vinyl chloride	0.263	0.255	3.1	87	0.02
5	M	Bromomethane	0.178	0.185	-4.0	88	0.01
6	M	Chloroethane	0.154	0.162	-4.9	89	0.00
7	M	Trichlorofluoromethane	0.588	0.565	3.8	89	-0.02
8	M	1,1-Dichloroethene	0.258	0.250	3.2	88	-0.02
9	M	Methylene chloride	0.274	0.328	-19.7	88	-0.03
10	M	trans-1,2-Dichloroethene	0.273	0.266	2.5	90	-0.03
11		Hexane	0.000	0.000#	0.0	0#	-9.46#
12	M	1,1-Dichloroethane	0.545	0.552	-1.3	95	-0.02
13	M	2,2-Dichloropropane	0.534	0.536	-0.3	92	-0.02
14	M	cis-1,2-Dichloroethene	0.257	0.259	-0.7	93	-0.02
15		2-Butanone	0.000	0.000#	0.0	0#	0.13
16	M	Bromochloromethane	0.090	0.094	-4.0	100	-0.02
17	M	Chloroform	0.512	0.520	-1.6	96	0.00
18	M	1,1,1-Trichloroethane	0.566	0.547	3.4	91	0.00
19	M	Carbon tetrachloride	0.526	0.494	6.1	89	-0.02
20	M	1,1-Dichloropropene	0.495	0.474	4.3	88	0.00
21	M	Benzene	0.871	0.850	2.4	90	0.00
22	M	1,2-Dichloroethane	0.214	0.221	-3.4	99	0.00
23	M	Trichloroethene	0.386	0.371	3.9	90	0.00
24	M	1,2-Dichloropropane	0.285	0.291	-2.2	97	0.00
25	M	Dibromomethane	0.115	0.121	-5.1	101	0.00
26	M	Bromodichloromethane	0.396	0.407	-2.9	99	0.01
27	M	cis-1,3-Dichloropropene	0.342	0.357	-4.3	100	0.01
28	M	Toluene	0.619	0.608	1.7	94	0.02
29	M	trans-1,3-Dichloropropene	0.236	0.247	-4.7	101	0.02
30	M	1,1,2-Trichloroethane	0.110	0.112	-1.7	98	0.02
31	M	Tetrachloroethene	0.388	0.360	7.2	88	0.01
32	M	1,3-Dichloropropane	0.219	0.229	-4.7	101	0.02
33	M	Dibromochloromethane	0.215	0.216	-0.6	99	0.02
34	M	1,2-Dibromomethane	0.152	0.159	-4.5	103	0.02
35	M	Chlorobenzene	0.644	0.638	0.9	94	0.02
36	M	1,1,1,2-Tetrachloroethane	0.256	0.255	0.4	97	0.02
37	M	Ethylbenzene	1.302	1.274	2.1	94	0.02
38	M	Xylene (para & meta)	0.468	0.454	3.0	92	0.02
39	M	Xylene (Ortho)	0.414	0.411	0.8	94	0.02
40	M	Styrene	0.641	0.642	-0.1	96	0.02
41	M	Bromoform	0.105	0.109	-3.4	103	0.02
42	M	Isopropylbenzene	1.330	1.276	4.1	92	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8342.D Vial: 2
Acq On : 3 Jun 95 4:14 pm Operator: SRK
Sample : 10 PPB CHK STANDARD Inst : 5972 - In
Misc : Multiplr: 1.00

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43	S	4-Bromofluorobenzene	0.499	0.522	-4.7	102	0.03
44	M	Bromobenzene	0.240	0.239	0.2	97	0.02
45	M	1,1,2,2-Tetrachloroethane	0.118	0.135	-14.9	114	0.03
46	M	1,2,3-Trichloropropane	0.143	0.148	-3.5	101	0.02
47	M	n-Propylbenzene	1.731	1.663	3.9	93	0.02
48	M	2-Chlorotoluene	0.960	1.001	-4.2	102	0.02
49	M	4-Chlorotoluene	1.140	1.127	1.2	95	0.03
50	M	1,3,5-Trimethylbenzene	1.101	1.059	3.8	93	0.02
51	M	tert-Butylbenzene	1.142	1.106	3.2	94	0.02
52	M	1,2,4-Trimethylbenzene	1.009	1.013	-0.3	96	0.03
53	M	sec-Butylbenzene	1.693	1.574	7.0	91	0.03
54	M	1,3-Dichlorobenzene	0.489	0.480	1.9	96	0.03
55	M	4-Isopropyltoluene	1.264	1.206	4.6	92	0.03
56	M	1,4-Dichlorobenzene	0.485	0.479	1.2	97	0.02
57	S	1,2-Dichlorobenzene-d4	0.228	0.247	-8.4	106	0.03
58	M	1,2-Dichlorobenzene	0.364	0.363	0.5	97	0.03
59	M	n-Butylbenzene	1.355	1.291	4.7	94	0.03
60	M	1,2-Dibromo-3-chloropropane	0.030	0.032	-6.1	110	0.03
61	M	1,2,4-Trichlorobenzene	0.268	0.260	2.8	96	0.02
62	M	Hexachlorobutadiene	0.323	0.275	14.9	85	0.03
63	M	Naphthalene	0.232	0.242	-4.4	103	0.03
64	M	1,2,3-Trichlorobenzene	0.187	0.191	-2.1	103	0.03
65		Methyl-tert butyl ether	0.292	0.319	-9.3	105	-0.03
66		tert-Butyl Alcohol	0.004	0.005	-14.8	124	-0.02

Quantitation Report

Data File : d:\hpchem\1\data\c8342.d
Acq On : 3 Jun 95 4:14 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 11:41 1995

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 : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.83	96	724490	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.12	95	378330	5.23	ug/L		104.70%
57) 1,2-Dichlorobenzene-d4	21.91	152	178940	5.42	ug/L		108.41%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.31	85	541806	9.43	ug/L		99
3) Chloromethane	3.67	50	328374	9.71	ug/L		95
4) Vinyl chloride	3.89	62	369101	9.69	ug/L		96
5) Bromomethane	4.53	94	267915	10.40	ug/L		99
6) Chloroethane	4.75	64	234241	10.49	ug/L		96
7) Trichlorofluoromethane	5.32	101	818983	9.62	ug/L		99
8) 1,1-Dichloroethene	6.40	96	362017	9.68	ug/L		94
9) Methylene chloride	7.38	84	474692	11.97	ug/L	m	98
10) trans-1,2-Dichloroethene	7.94	96	385317	9.75	ug/L		96
12) 1,1-Dichloroethane	8.74	63	800384	10.13	ug/L		94
13) 2,2-Dichloropropane	9.81	77	776617	10.03	ug/L		99
14) cis-1,2-Dichloroethene	9.81	96	375133	10.07	ug/L		99
16) Bromochloromethane	10.22	128	135671	10.40	ug/L		99
17) Chloroform	10.39	83	753209	10.16	ug/L		97
18) 1,1,1-Trichloroethane	10.72	97	792497	9.66	ug/L		96
19) Carbon tetrachloride	11.01	117	715786	9.39	ug/L		97
20) 1,1-Dichloropropene	11.00	75	686119	9.57	ug/L		97
21) Benzene	11.36	78	1231270	9.76	ug/L		100
22) 1,2-Dichloroethane	11.36	62	320299	10.34	ug/L		97
23) Trichloroethene	12.48	95	537626	9.61	ug/L		99
24) 1,2-Dichloropropane	12.83	63	421787	10.22	ug/L		98
25) Dibromomethane	13.04	93	175865	10.51	ug/L		94
26) Bromodichloromethane	13.30	83	590161	10.29	ug/L		99
27) cis-1,3-Dichloropropene	14.07	75	517309	10.43	ug/L		100
28) Toluene	14.66	92	880808	9.83	ug/L		99
29) trans-1,3-Dichloropropene	15.00	75	358561	10.47	ug/L		99
30) 1,1,2-Trichloroethane	15.32	83	162714	10.17	ug/L		96
31) Tetrachloroethene	15.62	166	521422	9.28	ug/L		98
32) 1,3-Dichloropropane	15.60	76	331880	10.47	ug/L		100
33) Dibromochloromethane	16.02	129	313119	10.06	ug/L		98
34) 1,2-Dibromomethane	16.21	107	230818	10.45	ug/L		97
35) Chlorobenzene	17.09	112	925093	9.91	ug/L		98
36) 1,1,1,2-Tetrachloroethane	17.22	131	369259	9.96	ug/L		91
37) Ethylbenzene	17.28	91	1846618	9.79	ug/L		100
38) Xylene (para & meta)	17.49	106	1314419	19.40	ug/L		94
39) Xylene (Ortho)	18.19	106	594897	9.92	ug/L		92
40) Styrene	18.21	104	929921	10.01	ug/L		97

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

Quantitation Report

Data File : d:\hpchem\1\data\c8342.d
Acq On : 3 Jun 95 4:14 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 11:41 1995

Vial: 2 073
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.53	173	157987	10.34	ug/L		90
42)	Isopropylbenzene	18.85	105	1848905	9.59	ug/L	m	0
44)	Bromobenzene	19.40	156	346850	9.98	ug/L	#	90
45)	1,1,2,2-Tetrachloroethane	19.36	83	196274	11.49	ug/L		93
46)	1,2,3-Trichloropropane	19.42	75	214638	10.35	ug/L	#	81
47)	n-Propylbenzene	19.59	91	2410092	9.61	ug/L		99
48)	2-Chlorotoluene	19.75	91	1449828	10.42	ug/L		97
49)	4-Chlorotoluene	19.94	91	1632419	9.88	ug/L		83
50)	1,3,5-Trimethylbenzene	19.91	105	1535043	9.62	ug/L		99
51)	tert-Butylbenzene	20.50	119	1602573	9.68	ug/L		98
52)	1,2,4-Trimethylbenzene	20.59	105	1467203	10.03	ug/L		97
53)	sec-Butylbenzene	20.91	105	2280232	9.30	ug/L		100
54)	1,3-Dichlorobenzene	21.11	146	695515	9.81	ug/L		98
55)	4-Isopropyltoluene	21.17	119	1747492	9.54	ug/L		97
56)	1,4-Dichlorobenzene	21.26	146	694315	9.88	ug/L		91
58)	1,2-Dichlorobenzene	21.94	146	525314	9.95	ug/L		97
59)	n-Butylbenzene	21.92	91	1871146	9.53	ug/L		100
60)	1,2-Dibromo-3-chloropropan	23.35	75	46055	10.61	ug/L		87
61)	1,2,4-Trichlorobenzene	24.91	180	377341	9.72	ug/L		96
62)	Hexachlorobutadiene	25.26	225	398436	8.51	ug/L		100
63)	Naphthalene	25.37	128	350816	10.44	ug/L		100
64)	1,2,3-Trichlorobenzene	25.84	180	276527	10.21	ug/L		99
65)	Methyl-tert butyl ether	7.96	73	462549	10.93	ug/L		98
66)	tert-Butyl Alcohol	7.71	59	14895	22.96	ug/L		100

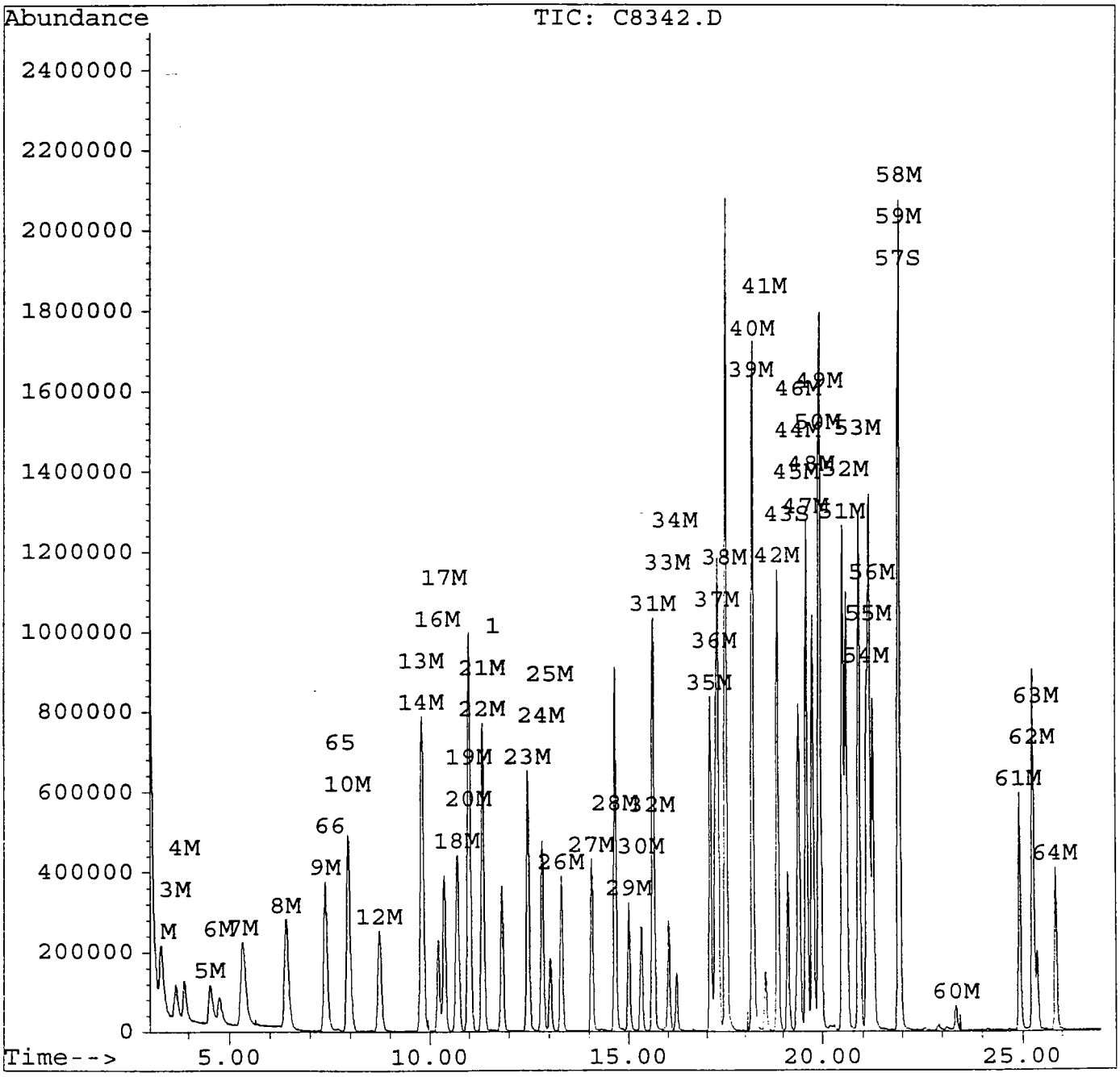
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8342.d
Acq On : 3 Jun 95 4:14 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 11:41 1995

Vial: 2079
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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



Quantitation Report

Data File : d:\hpchem\1\data\c8343.d
Acq On : 3 Jun 95 4:50 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 3 17:18 1995

Vial: 3 050
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.87	96	638685	5.00	ug/L		0.03
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.12	95	351726	5.52	ug/L		110.41%
57) 1,2-Dichlorobenzene-d4	21.90	152	166558	5.72	ug/L		114.46%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.31	85	52177	1.03	ug/L		94
3) Chloromethane	3.69	50	31209	1.05	ug/L		96
4) Vinyl chloride	3.91	62	35608	1.06	ug/L		78
5) Bromomethane	4.59	94	26998	1.19	ug/L		96
6) Chloroethane	4.83	64	20050	1.02	ug/L		99
7) Trichlorofluoromethane	5.41	101	79768	1.06	ug/L		100
8) 1,1-Dichloroethene	6.47	96	34089	1.03	ug/L	#	84
9) Methylene chloride	7.46	84	213461	6.10	ug/L		99
10) trans-1,2-Dichloroethene	8.01	96	36517	1.05	ug/L		95
12) 1,1-Dichloroethane	8.82	63	77099	1.11	ug/L		92
13) 2,2-Dichloropropane	9.86	77	74520	1.09	ug/L		93
14) cis-1,2-Dichloroethene	9.87	96	37039	1.13	ug/L		95
16) Bromochloromethane	10.28	128	11616	1.01	ug/L		92
17) Chloroform	10.44	83	75454	1.15	ug/L		99
18) 1,1,1-Trichloroethane	10.77	97	76400	1.06	ug/L		97
19) Carbon tetrachloride	11.06	117	75365	1.12	ug/L		98
20) 1,1-Dichloropropene	11.05	75	67776	1.07	ug/L		98
21) Benzene	11.39	78	119576	1.08	ug/L		93
22) 1,2-Dichloroethane	11.41	62	30711	1.13	ug/L		100
23) Trichloroethene	12.52	95	54375	1.10	ug/L		93
24) 1,2-Dichloropropane	12.87	63	38120	1.05	ug/L		89
25) Dibromomethane	13.06	93	16706	1.13	ug/L		92
26) Bromodichloromethane	13.33	83	57614	1.14	ug/L		86
27) cis-1,3-Dichloropropene	14.10	75	46339	1.06	ug/L		96
28) Toluene	14.68	92	87173	1.10	ug/L		100
29) trans-1,3-Dichloropropene	15.02	75	32505	1.08	ug/L		90
30) 1,1,2-Trichloroethane	15.33	83	14278	1.01	ug/L		91
31) Tetrachloroethene	15.64	166	50097	1.01	ug/L		95
32) 1,3-Dichloropropane	15.62	76	32332	1.16	ug/L		92
33) Dibromochloromethane	16.02	129	29308	1.07	ug/L		88
34) 1,2-Dibromomethane	16.23	107	20198	1.04	ug/L		91
35) Chlorobenzene	17.10	112	88332	1.07	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17.23	131	36555	1.12	ug/L		97
37) Ethylbenzene	17.29	91	186288	1.12	ug/L		92
38) Xylene (para & meta)	17.50	106	127400	2.13	ug/L		99
39) Xylene (Ortho)	18.19	106	58221	1.10	ug/L		91
40) Styrene	18.21	104	85682	1.05	ug/L		100

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

Quantitation Report

Data File : d:\hpchem\1\data\c8343.d
Acq On : 3 Jun 95 4:50 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 3 17:18 1995

Vial: 3 031
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.53	173	14000	1.04 ug/L		81
42)	Isopropylbenzene	18.85	105	180615	1.06 ug/L		88
44)	Bromobenzene	19.41	156	32962	1.08 ug/L	#	89
45)	1,1,2,2-Tetrachloroethane	19.34	83	18948	1.26 ug/L		86
46)	1,2,3-Trichloropropane	19.42	75	22038	1.21 ug/L		95
47)	n-Propylbenzene	19.59	91	238418	1.08 ug/L		99
48)	2-Chlorotoluene	19.76	91	144199	1.18 ug/L		96
49)	4-Chlorotoluene	19.94	91	163635	1.12 ug/L		79
50)	1,3,5-Trimethylbenzene	19.91	105	151205	1.07 ug/L		99
51)	tert-Butylbenzene	20.50	119	163511	1.12 ug/L		94
52)	1,2,4-Trimethylbenzene	20.59	105	146279	1.13 ug/L		98
53)	sec-Butylbenzene	20.90	105	232711	1.08 ug/L		96
54)	1,3-Dichlorobenzene	21.10	146	70596	1.13 ug/L		97
55)	4-Isopropyltoluene	21.17	119	172953	1.07 ug/L		97
56)	1,4-Dichlorobenzene	21.27	146	69829	1.13 ug/L		92
58)	1,2-Dichlorobenzene	21.94	146	55171	1.19 ug/L		96
59)	n-Butylbenzene	21.92	91	184629	1.07 ug/L		96
60)	1,2-Dibromo-3-chloropropan	23.34	75	4159	1.09 ug/L		85
61)	1,2,4-Trichlorobenzene	24.92	180	39458	1.15 ug/L		97
62)	Hexachlorobutadiene	25.25	225	45271	1.10 ug/L		95
63)	Naphthalene	25.36	128	35819	1.21 ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	29390	1.23 ug/L		89
65)	Methyl-tert butyl ether	8.06	73	46289	1.24 ug/L		97
66)	tert-Butyl Alcohol	8.02	59	1110	1.94 ug/L		100

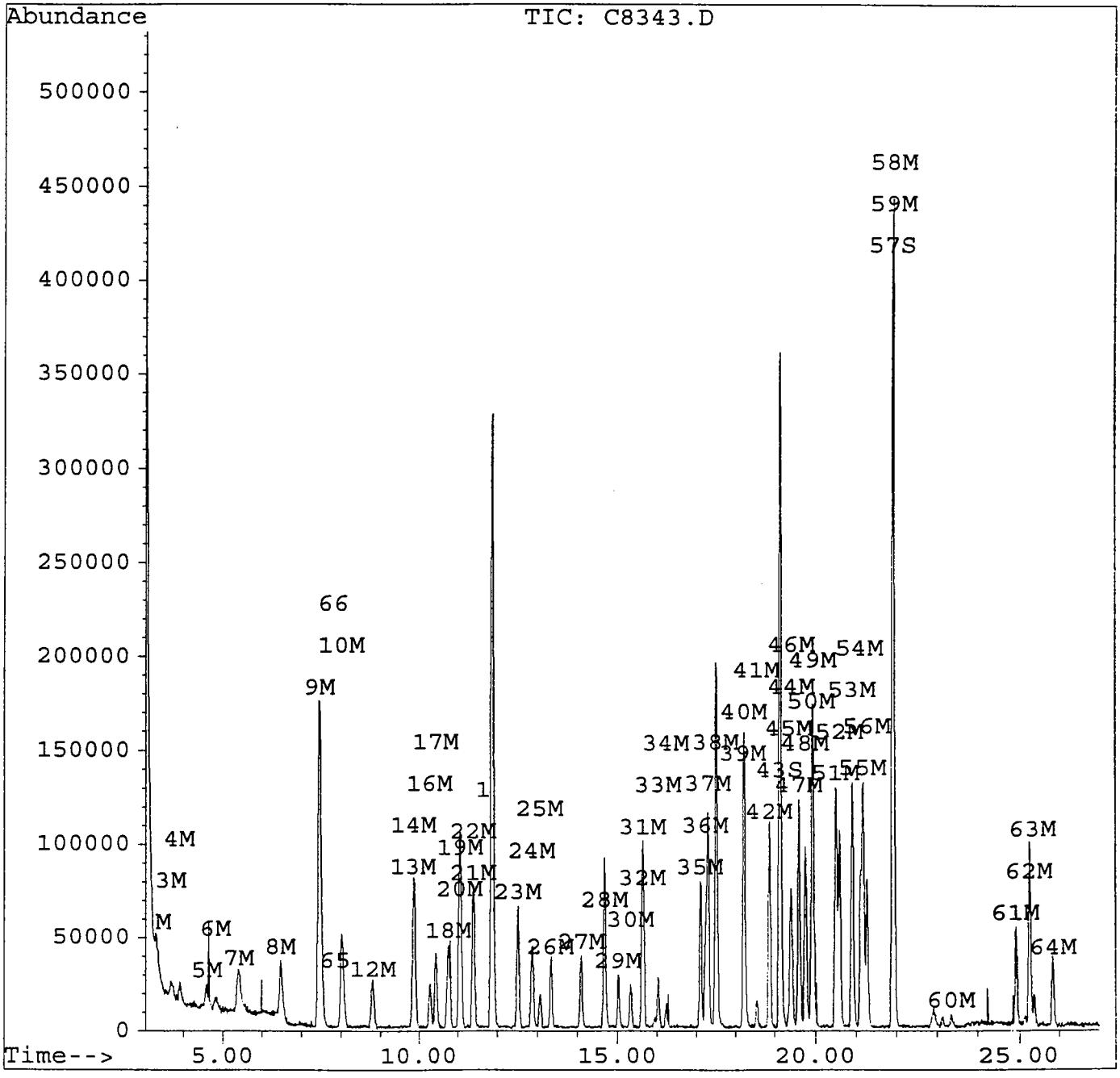
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8343.d
Acq On : 3 Jun 95 4:50 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 3 17:18 1995

Vial: 3 082
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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



Quantitation Report

Data File : d:\hpchem\1\data\c8355.d
Acq On : 3 Jun 95 11:49 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 8 12:06 1995

Vial: 083
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.89	96	657206	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.14	95	368664	5.62	ug/L	112.47%
57) 1,2-Dichlorobenzene-d4	21.92	152	158817	5.30	ug/L	106.07%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.32	85	400953	7.70	ug/L	98
3) Chloromethane	3.70	50	255947	8.35	ug/L	97
4) Vinyl chloride	3.92	62	329956	9.55	ug/L	97
5) Bromomethane	4.57	94	234099	10.02	ug/L	100
6) Chloroethane	4.81	64	209199	10.33	ug/L	95
7) Trichlorofluoromethane	5.39	101	768690	9.95	ug/L	99
8) 1,1-Dichloroethene	6.49	96	347825	10.25	ug/L	94
9) Methylene chloride	7.46	84	453695	12.61	ug/L	93
10) trans-1,2-Dichloroethene	8.02	96	383266	10.70	ug/L	95
12) 1,1-Dichloroethane	8.81	63	786901	10.98	ug/L	97
13) 2,2-Dichloropropane	9.89	77	637859	9.08	ug/L	98
14) cis-1,2-Dichloroethene	9.87	96	350693	10.38	ug/L	98
16) Bromochloromethane	10.29	128	122397	10.34	ug/L	91
17) Chloroform	10.45	83	735654	10.94	ug/L	97
18) 1,1,1-Trichloroethane	10.78	97	804994	10.81	ug/L	100
19) Carbon tetrachloride	11.08	117	728451	10.54	ug/L	99
20) 1,1-Dichloropropene	11.07	75	705945	10.86	ug/L	96
21) Benzene	11.42	78	1224365	10.70	ug/L	98
22) 1,2-Dichloroethane	11.42	62	292084	10.40	ug/L	97
23) Trichloroethene	12.53	95	545575	10.75	ug/L	98
24) 1,2-Dichloropropane	12.88	63	407028	10.87	ug/L	99
25) Dibromomethane	13.08	93	168331	11.09	ug/L	98
26) Bromodichloromethane	13.35	83	585366	11.25	ug/L	97
27) cis-1,3-Dichloropropene	14.11	75	472731	10.51	ug/L	99
28) Toluene	14.69	92	878824	10.81	ug/L	97
29) trans-1,3-Dichloropropene	15.03	75	317163	10.21	ug/L	97
30) 1,1,2-Trichloroethane	15.35	83	165374	11.40	ug/L	96
31) Tetrachloroethene	15.65	166	531952	10.44	ug/L	99
32) 1,3-Dichloropropane	15.63	76	310227	10.79	ug/L	99
33) Dibromochloromethane	16.04	129	313116	11.09	ug/L	98
34) 1,2-Dibromomethane	16.24	107	224354	11.20	ug/L	96
35) Chlorobenzene	17.11	112	925020	10.92	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.25	131	370529	11.02	ug/L	97
37) Ethylbenzene	17.30	91	1848318	10.80	ug/L	98
38) Xylene (para & meta)	17.51	106	1337245	21.76	ug/L	95
39) Xylene (Ortho)	18.21	106	598780	11.01	ug/L	98
40) Styrene	18.23	104	924311	10.97	ug/L	97

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

Quantitation Report

034

Data File : d:\hpchem\1\data\c8355.d
Acq On : 3 Jun 95 11:49 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 8 12:06 1995

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

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

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.55	173	138906	10.02	ug/L		94
42)	Isopropylbenzene	18.87	105	1941998	11.11	ug/L	m	0
44)	Bromobenzene	19.42	156	333362	10.58	ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.37	83	182996	11.81	ug/L		98
46)	1,2,3-Trichloropropane	19.43	75	194741	10.35	ug/L	#	34
47)	n-Propylbenzene	19.61	91	2521846	11.09	ug/L		99
48)	2-Chlorotoluene	19.77	91	1485910	11.77	ug/L		96
49)	4-Chlorotoluene	19.95	91	1648276	11.00	ug/L	m	85
50)	1,3,5-Trimethylbenzene	19.93	105	1518690	10.49	ug/L		99
51)	tert-Butylbenzene	20.52	119	1661462	11.07	ug/L		99
52)	1,2,4-Trimethylbenzene	20.60	105	1501841	11.32	ug/L		100
53)	sec-Butylbenzene	20.92	105	2386298	10.72	ug/L		100
54)	1,3-Dichlorobenzene	21.12	146	690534	10.74	ug/L		98
55)	4-Isopropyltoluene	21.18	119	1765161	10.62	ug/L		99
56)	1,4-Dichlorobenzene	21.28	146	691999	10.85	ug/L		90
58)	1,2-Dichlorobenzene	21.95	146	522660	10.91	ug/L		98
59)	n-Butylbenzene	21.93	91	1862336	10.46	ug/L		98
60)	1,2-Dibromo-3-chloropropan	23.36	75	39701	10.09	ug/L		95
61)	1,2,4-Trichlorobenzene	24.93	180	380172	10.79	ug/L		100
62)	Hexachlorobutadiene	25.27	225	381392	8.98	ug/L		97
63)	Naphthalene	25.38	128	359266	11.79	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	269839	10.99	ug/L		99

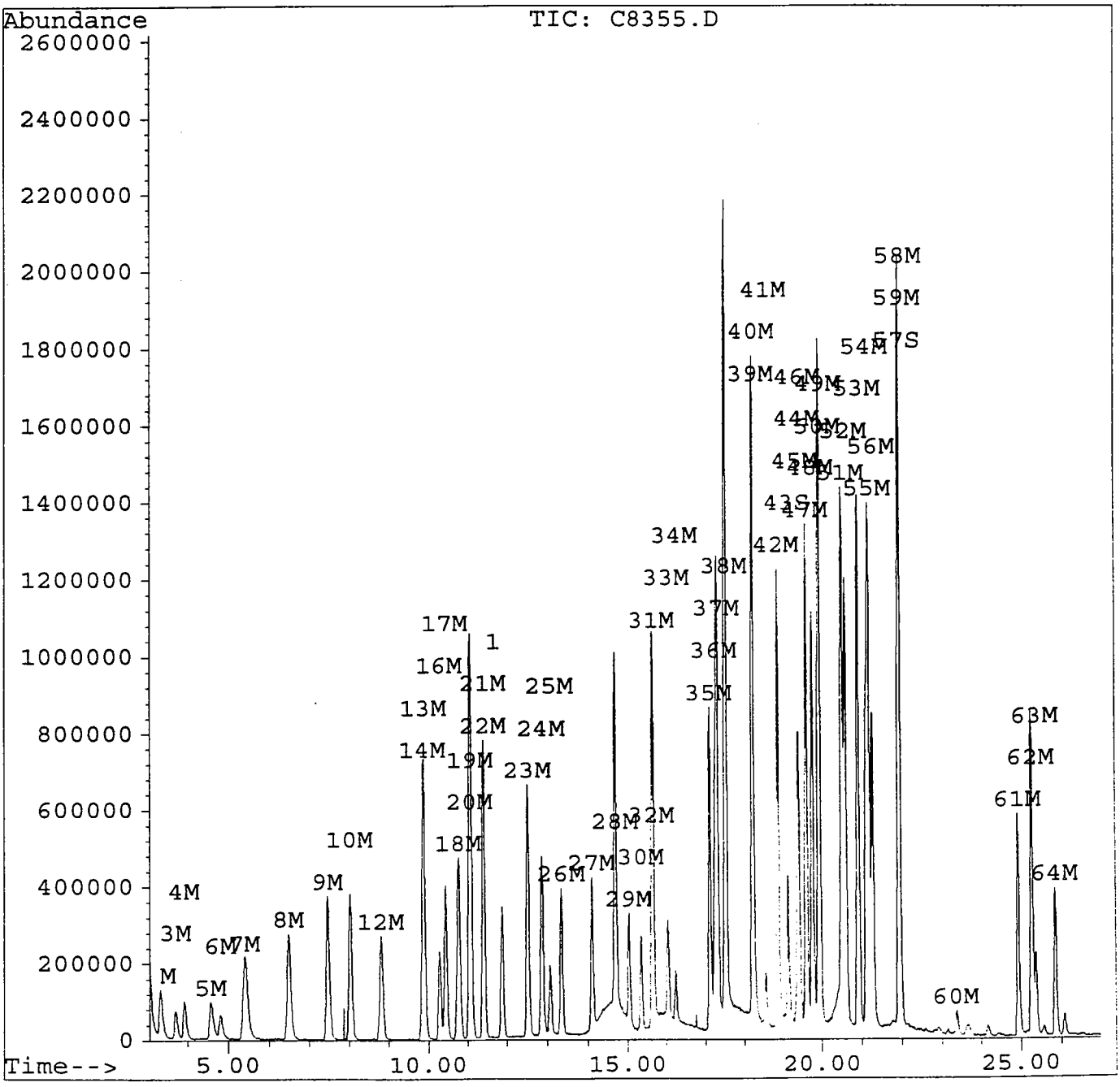
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8355.d
Acq On : 3 Jun 95 11:49 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 8 12:06 1995

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

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



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

086

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1438

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

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

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area
AREA LOWER LIMIT = -30% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): C8342.D Date Analyzed: 6/3/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1614

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	724490	11.83				
	UPPER LIMIT	1448980	12.33				
	LOWER LIMIT	362245	11.33				
	SAMPLE NO.						
01	1PPB STD	638685	11.87				
02	VBLK01	657283	11.88				
03	9523530V	671039	11.87				
04	9523531V	652357	11.88				
05	9523532V	666177	11.88				
06	9523533V	554920	11.88				
07	9523535V	690507	11.87				
08	9523536V	709512	11.88				
09	9523787V	707249	11.88				
10	9523788V	473251	11.88				
11	9523789V	690098	11.89				
12	9523534V	691643	11.88				
13	10PPBQCS	657206	11.89				
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area
AREA LOWER LIMIT = -30% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

Lab Sample ID: 9523532 TB
Lab File ID: C8347.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	4.9	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.80	
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

Lab Sample ID: 9523532 TB
Lab File ID: C8347.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	1.7	
106-43-4	4-Chlorotoluene	.60	
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523532V 09

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523532V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8347.D

Level: (low/med) LOW Date Received: 5/23/95

% Moisture: not dec. NA Date Analyzed: 6/3/95

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.				
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14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

091

Data File : d:\hpchem\1\data\c8347.d
Acq On : 3 Jun 95 7:12 pm
Sample : 9523532
Misc : 25 ML
Quant Time: Jun 8 11:45 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.88	96	666177	5.00	ug/L	0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	352967	5.31	ug/L	106.23%
57) 1,2-Dichlorobenzene-d4	21.91	152	162391	5.35	ug/L	106.99%
Target Compounds						Qvalue
9) Methylene chloride	7.45	84	179037	4.91	ug/L	98
28) Toluene	14.68	92	67173	0.81	ug/L	100
48) 2-Chlorotoluene	19.76	91	212475	1.66	ug/L	97
49) 4-Chlorotoluene	19.94	91	93003	0.61	ug/L	88

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

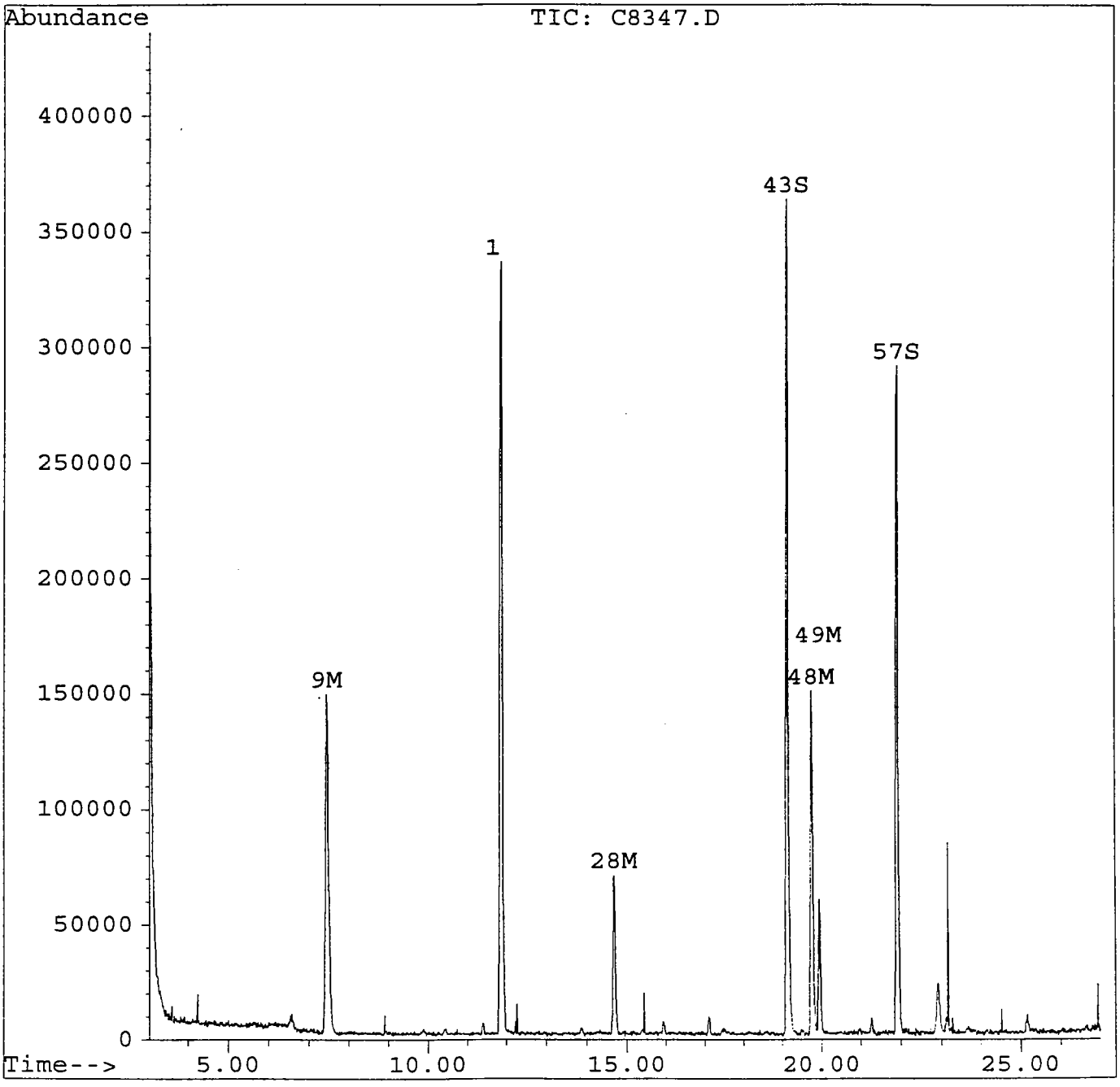
Quantitation Report

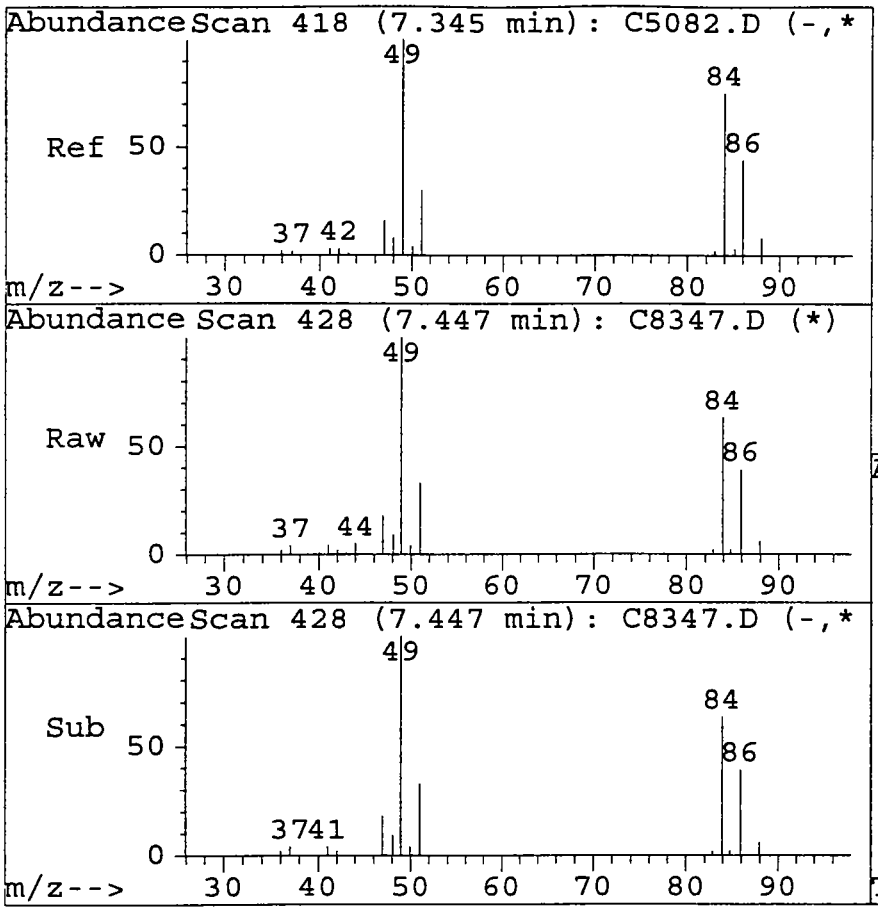
092

Data File : d:\hpchem\1\data\c8347.d
Acq On : 3 Jun 95 7:12 pm
Sample : 9523532
Misc : 25 ML
Quant Time: Jun 8 11:45 1995

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

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

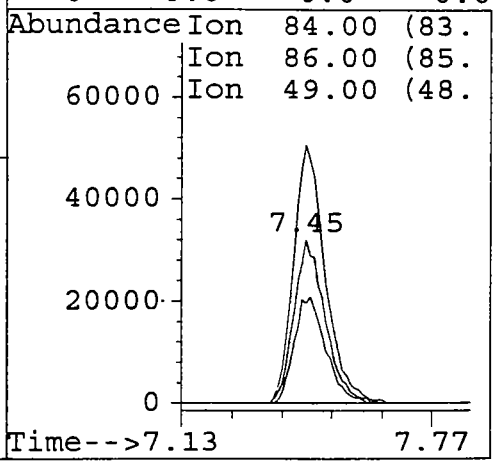


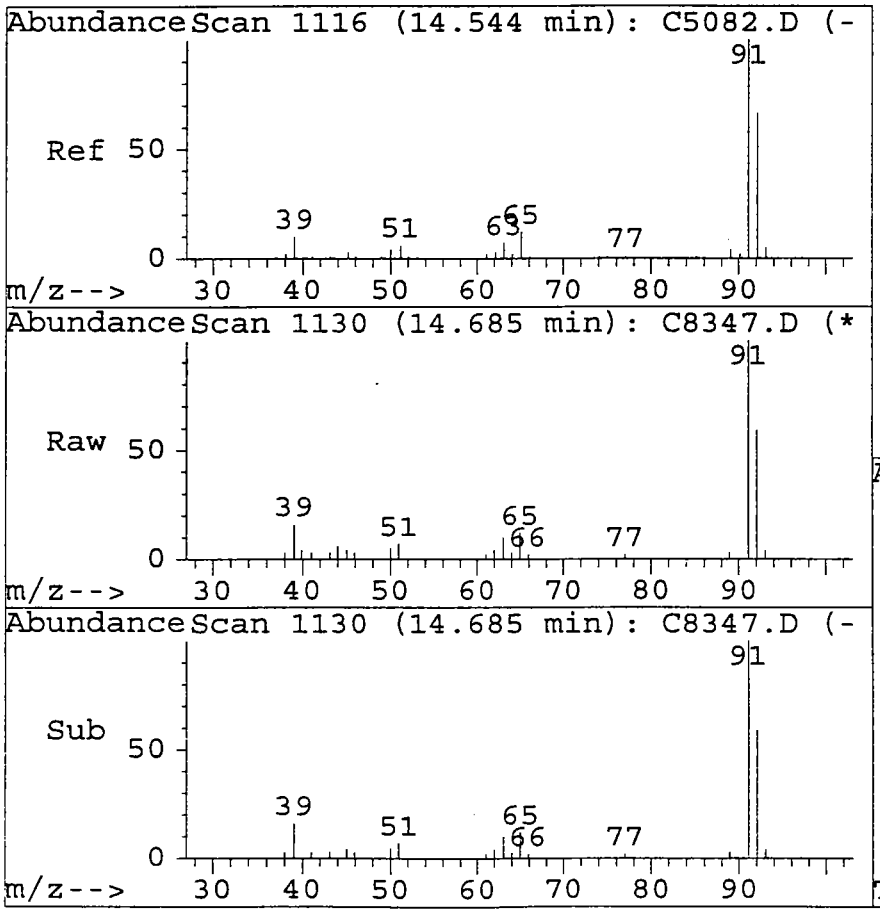


#9
Methylene chloride
Concen: 4.91 ug/L
RT: 7.45 min Scan# 428
Delta R.T. 0.04 min
Lab File: c8347.d
Acq: 3 Jun 95 7:12 pm

Tgt Ion:84 Resp: 179037

Ion	Ratio	Lower	Upper
84	100		
86	61.4	43.1	83.1
49	158.2	136.3	176.3
0	0.0	0.0	0.0

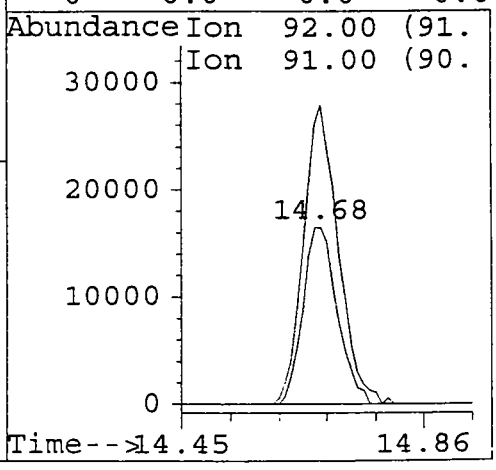


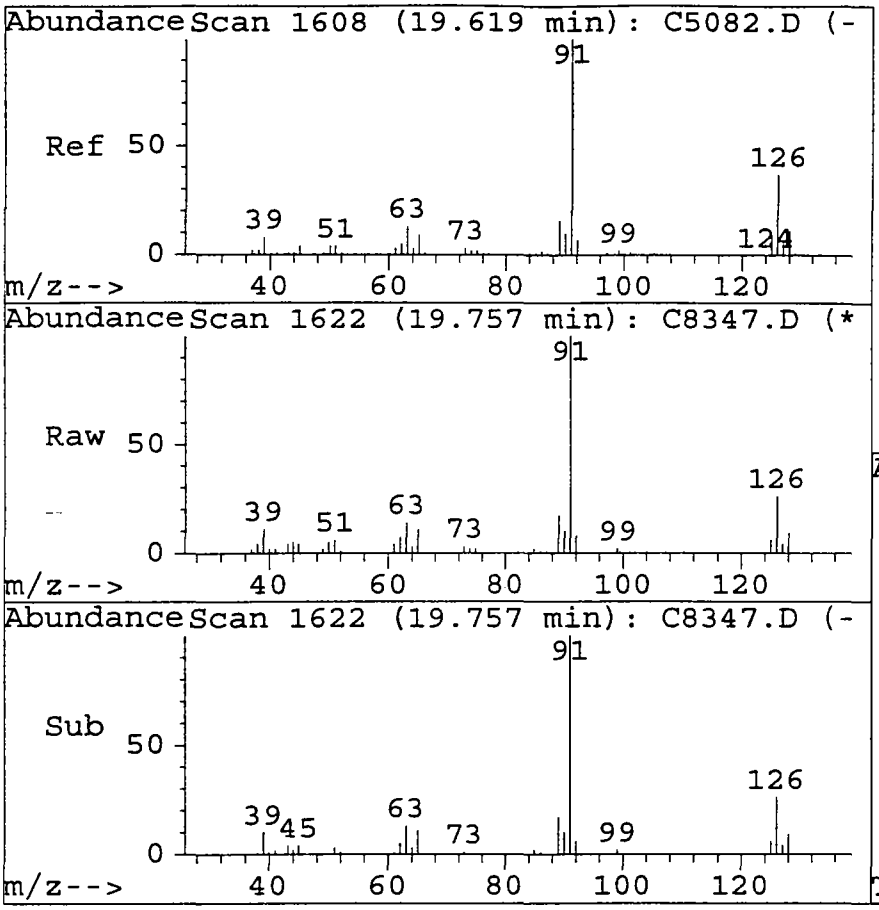


#28
Toluene
Concen: 0.81 ug/L
RT: 14.68 min Scan# 1130
Delta R.T. 0.04 min
Lab File: c8347.d
Acq: 3 Jun 95 7:12 pm

Tgt Ion:92 Resp: 67173

Ion	Ratio	Lower	Upper
92	100		
91	169.0	149.4	189.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

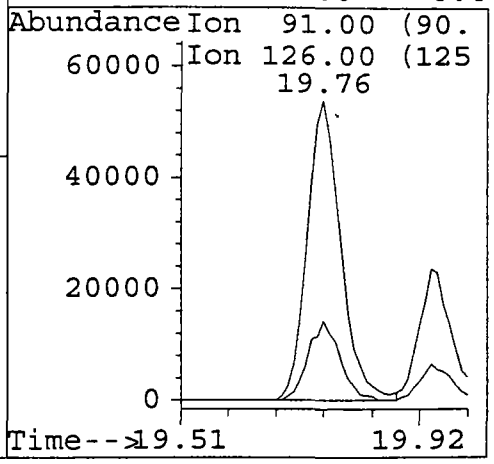


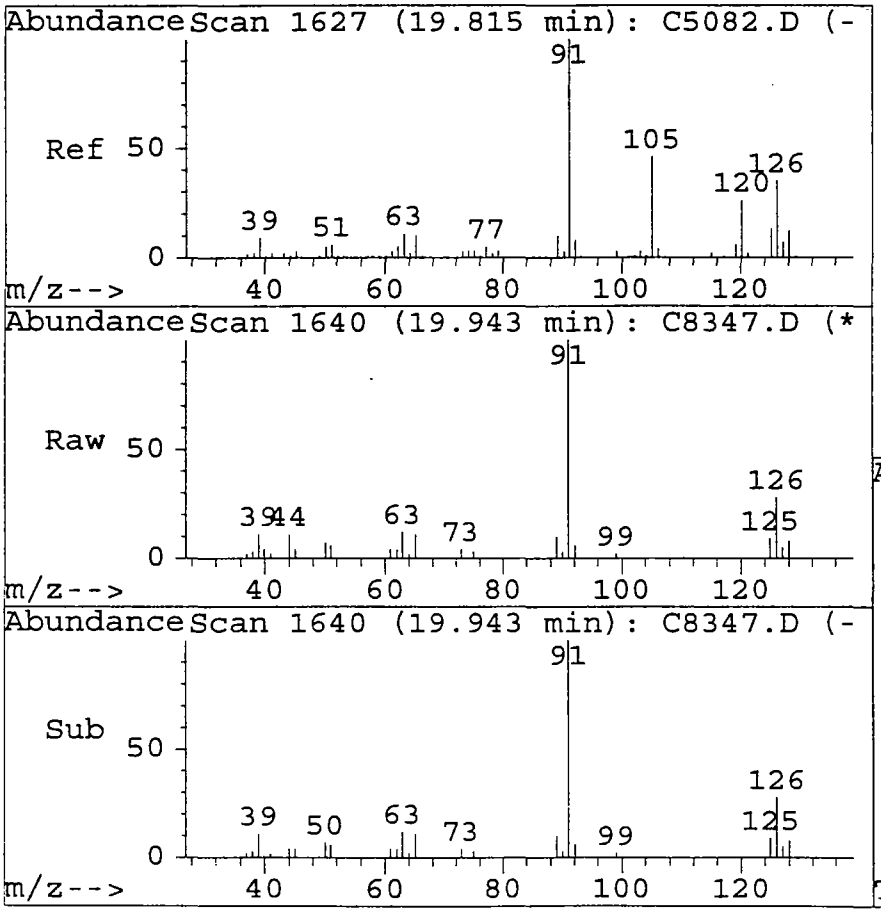


#48
2-Chlorotoluene
Concen: 1.66 ug/L
RT: 19.76 min Scan# 1622
Delta R.T. 0.03 min
Lab File: c8347.d
Acq: 3 Jun 95 7:12 pm

Tgt Ion:91 Resp: 212475

Ion	Ratio	Lower	Upper
91	100		
126	26.4	8.1	48.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

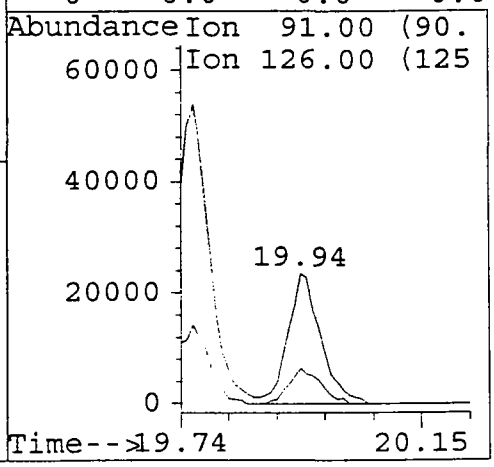




#49
4-Chlorotoluene
Concen: 0.61 ug/L
RT: 19.94 min Scan# 1640
Delta R.T. 0.03 min
Lab File: c8347.d
Acq: 3 Jun 95 7:12 pm

Tgt Ion:91 Resp: 93003

Ion	Ratio	Lower	Upper
91	100		
126	27.7	14.9	54.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

Lab Sample ID: 9523533 FB
Lab File ID: C8348.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.6	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.80	
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

Lab Sample ID: 9523533 FB
Lab File ID: C8348.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	1.6	
106-43-4	4-Chlorotoluene	.60	
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523533V 01

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523533V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8348.D

Level: (low/med) LOW Date Received: 5/23/95

% Moisture: not dec. NA Date Analyzed: 6/3/95

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	22.91	1	J
2.				
3.				
4.				
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24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

098

Data File : d:\hpchem\1\data\c8348.d
Acq On : 3 Jun 95 7:47 pm
Sample : 9523533
Misc : 25 ML
Quant Time: Jun 8 11:47 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.88	96	554920	5.00	ug/L	0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	302124	5.46	ug/L	109.16%
57) 1,2-Dichlorobenzene-d4	21.91	152	145934	5.77	ug/L	115.43%
Target Compounds						Qvalue
9) Methylene chloride	7.45	84	168594	5.55	ug/L	97
28) Toluene	14.67	92	55410	0.81	ug/L	92
48) 2-Chlorotoluene	19.76	91	169028	1.59	ug/L	98
49) 4-Chlorotoluene	19.95	91	74247	0.59	ug/L	82

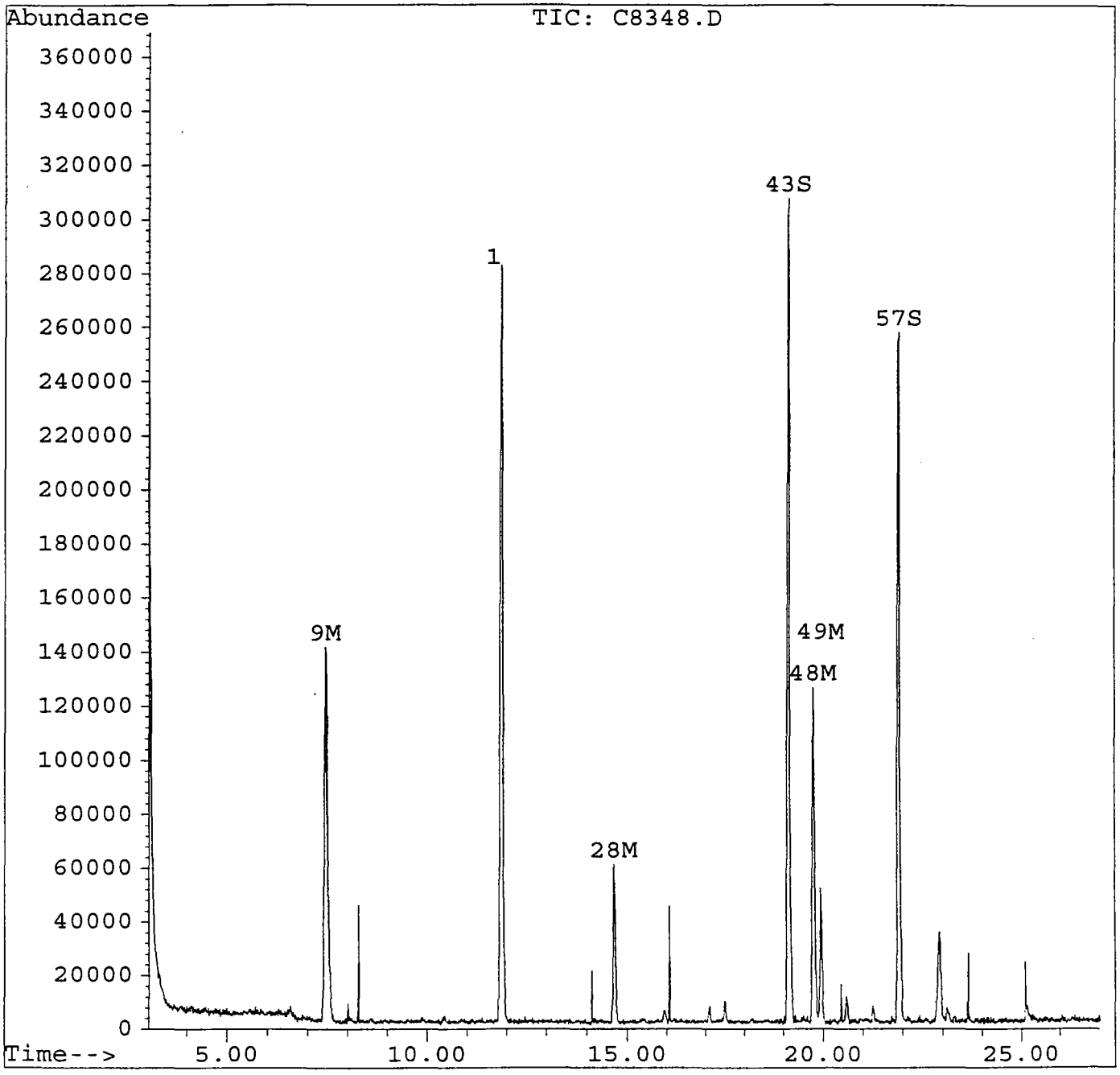
(#) = qualifier out of range (m) = manual integration

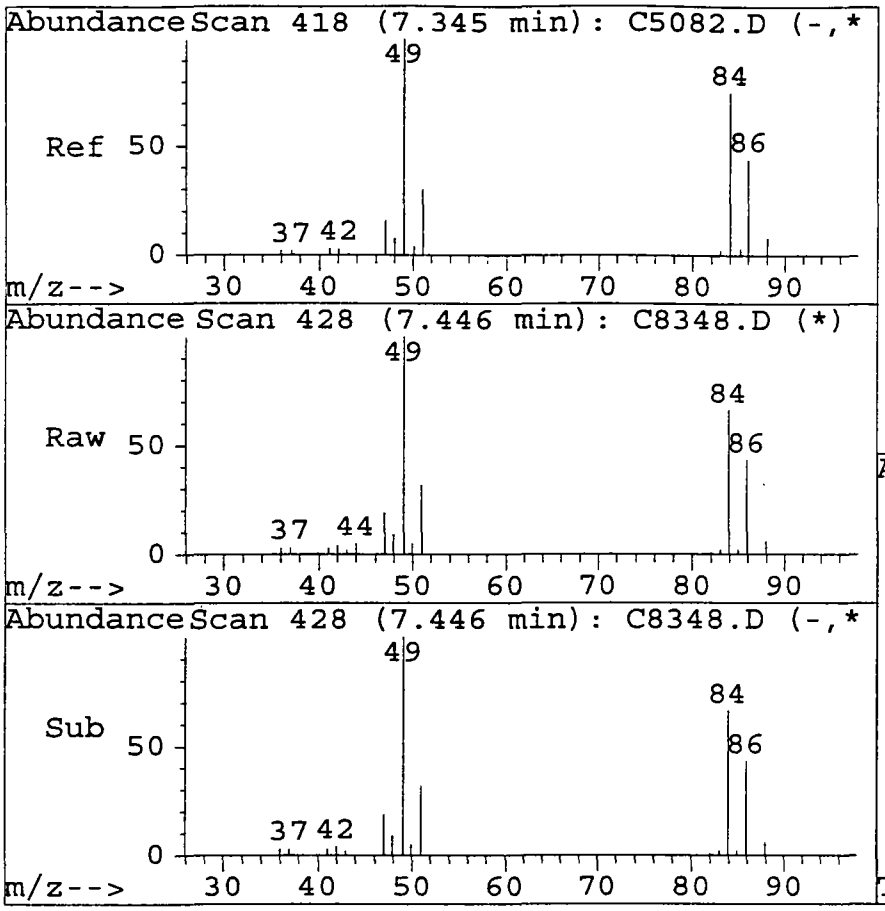
Quantitation Report

Data File : d:\hpchem\1\data\c8348.d
Acq On : 3 Jun 95 7:47 pm
Sample : 9523533
Misc : 25 ML
Quant Time: Jun 8 11:47 1995

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

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

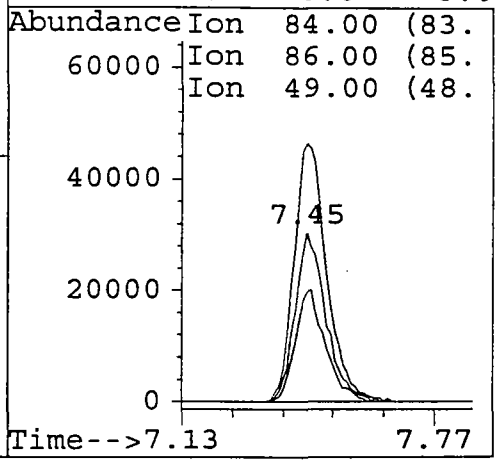


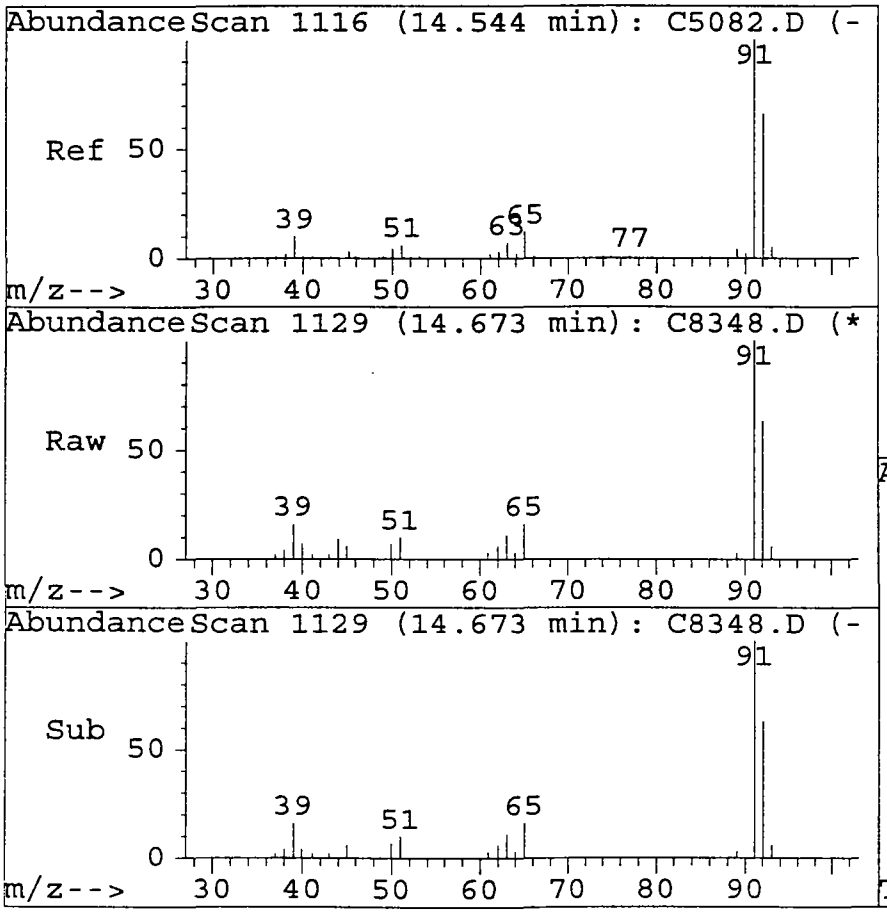


#9
Methylene chloride
Concen: 5.55 ug/L
RT: 7.45 min Scan# 428
Delta R.T. 0.04 min
Lab File: c8348.d
Acq: 3 Jun 95 7:47 pm

Tgt Ion:84 Resp: 168594

Ion	Ratio	Lower	Upper
84	100		
86	64.7	43.1	83.1
49	151.8	136.3	176.3
0	0.0	0.0	0.0

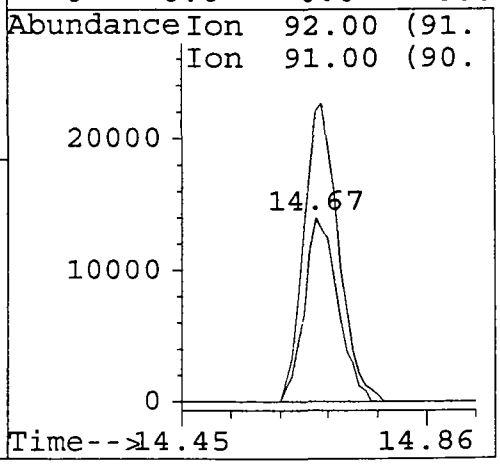


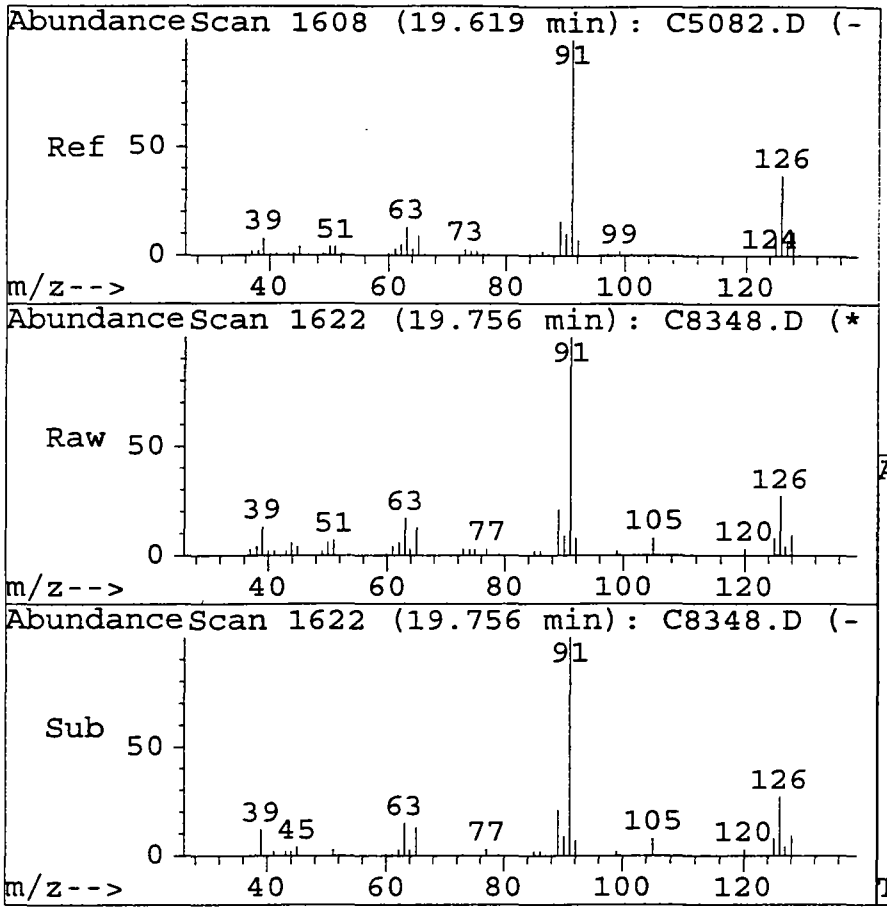


#28
Toluene
Concen: 0.81 ug/L
RT: 14.67 min Scan# 1129
Delta R.T. 0.03 min
Lab File: c8348.d
Acq: 3 Jun 95 7:47 pm

Tgt Ion:92 Resp: 55410

Ion	Ratio	Lower	Upper
92	100		
91	157.9	149.4	189.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

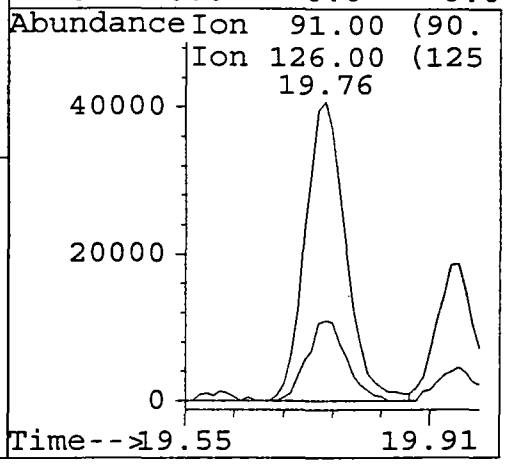


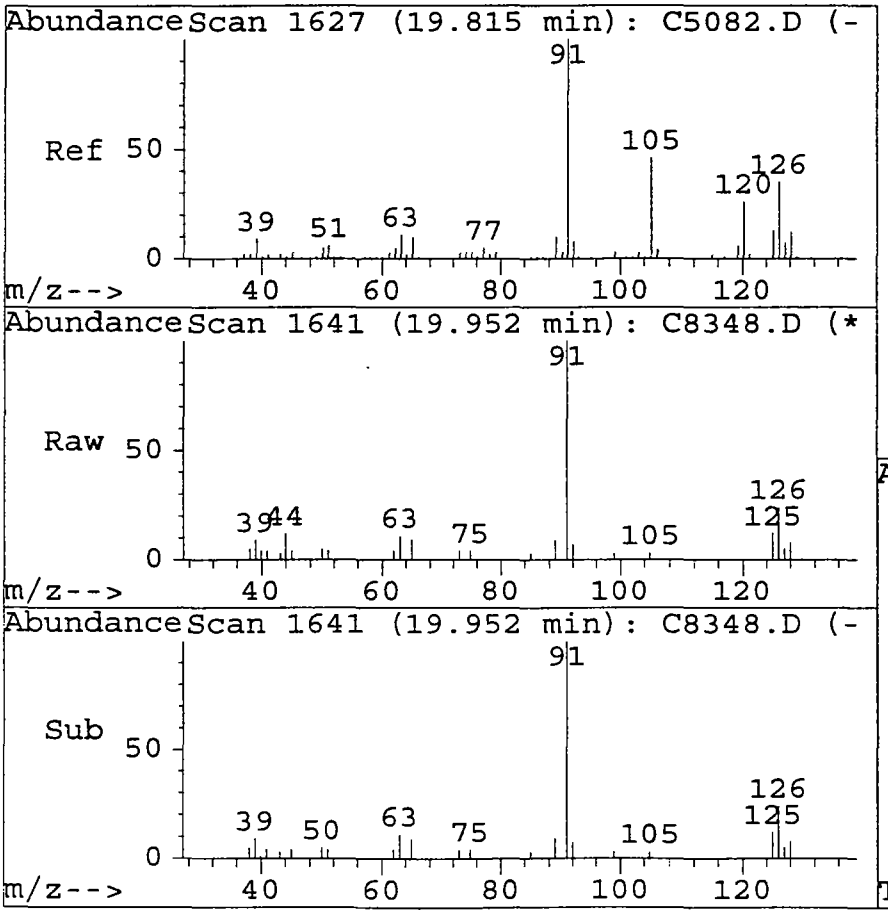


#48
2-Chlorotoluene
Concen: 1.59 ug/L
RT: 19.76 min Scan# 1622
Delta R.T. 0.03 min
Lab File: c8348.d
Acq: 3 Jun 95 7:47 pm

Tgt Ion:91 Resp: 169028

Ion	Ratio	Lower	Upper
91	100		
126	26.9	8.1	48.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

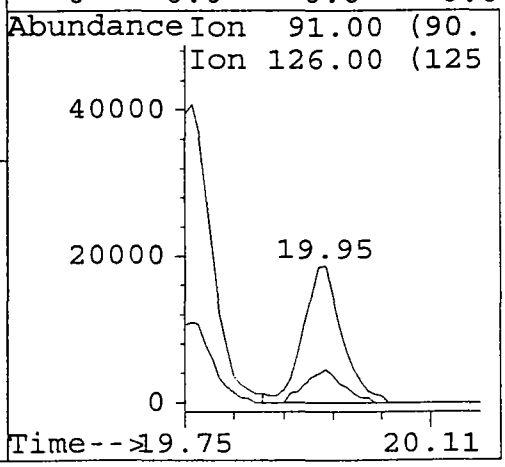




#49
4-Chlorotoluene
Concen: 0.59 ug/L
RT: 19.95 min Scan# 1641
Delta R.T. 0.04 min
Lab File: c8348.d
Acq: 3 Jun 95 7:47 pm

Tgt Ion:91 Resp: 74247

Ion	Ratio	Lower	Upper
91	100		
126	24.3	14.9	54.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

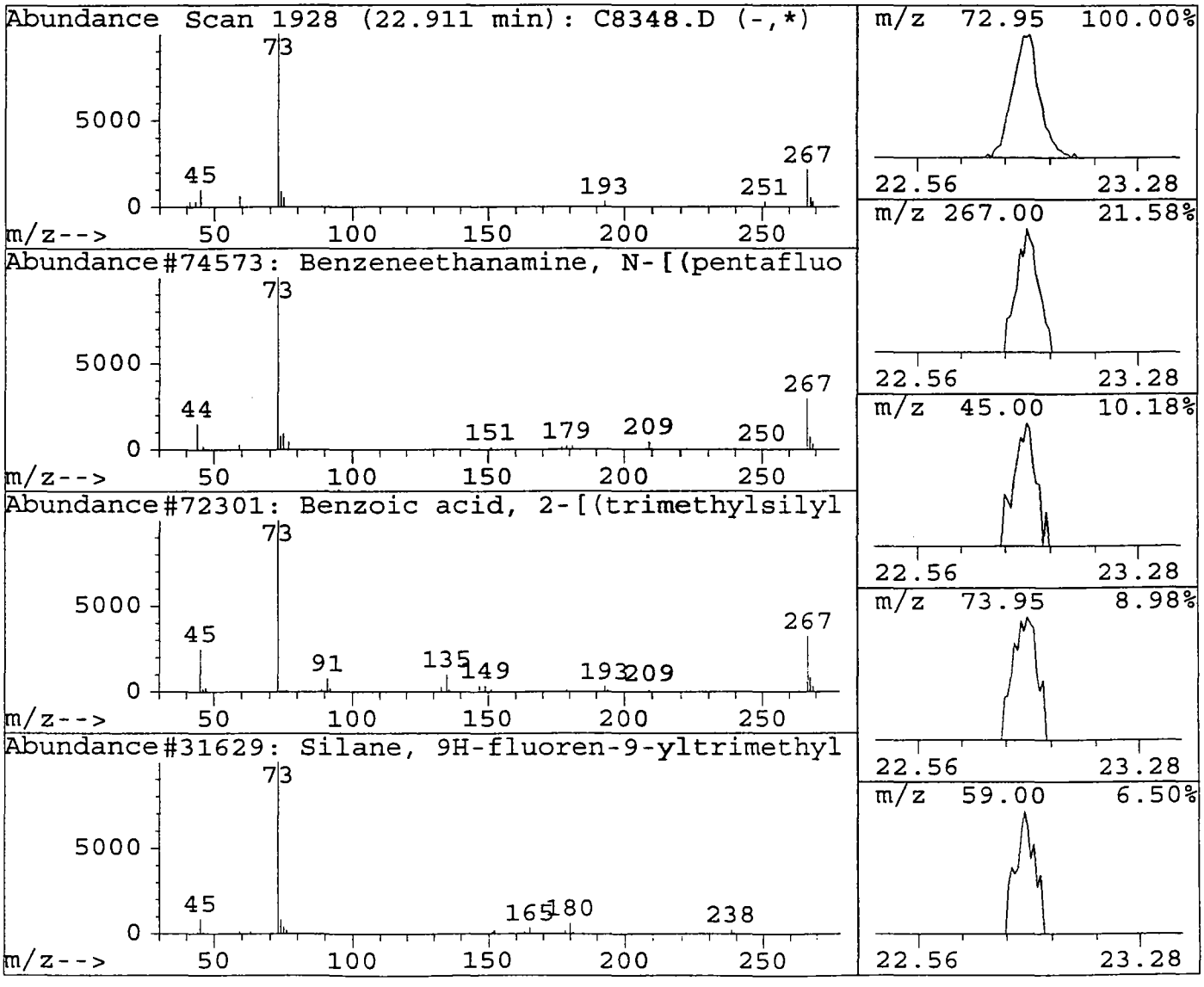
Data File : d:\hpchem\1\data\c8348.d
Acq On : 3 Jun 95 7:47 pm
Sample : 9523533
Misc : 25 ML

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.
22.91	0.68 ug/L	172559	Fluorobenzene	11.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	9
2	Benzoic acid, 2-[(trimethylsilyl)ox	72301	003789-85-3	4
3	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	2
4	Silane, trimethyl(1-methyl-1-propen	5010	010111-13-4	4
5	1-Butanamine	299	000109-73-9	3



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Bldg. 2534-

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

Lab Sample ID: 9523536 2931789
Lab File ID: C8350.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.0	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETC # 1840.1
Bldg 2534 (MW-293789)

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

Lab Sample ID: 9523536
Lab File ID: C8350.D
Date Received: 05/23/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

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

COMMENT
U= Not Detected

1E

SAMPLE NO.

105

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

9523536V
Bldg. 2534-
2931789

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523536V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8350.D

Level: (low/med) LOW Date Received: 5/23/95

% Moisture: not dec. NA Date Analyzed: 6/3/95

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\c8349.d
Acq On : 3 Jun 95 8:22 pm
Sample : 9523535
Misc : 25 ML
Quant Time: Jun 18 13:35 1995

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.87	96	690507	5.00	ug/L	0.03
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	373595	5.42	ug/L	108.47%
57) 1,2-Dichlorobenzene-d4	21.91	152	182096	5.79	ug/L	115.75%
Target Compounds						Qvalue
9) Methylene chloride	7.44	84	42270	1.12	ug/L	86
23) Trichloroethene	12.51	95	75893	1.42	ug/L	97
31) Tetrachloroethene	15.64	166	107012	2.00	ug/L	96

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

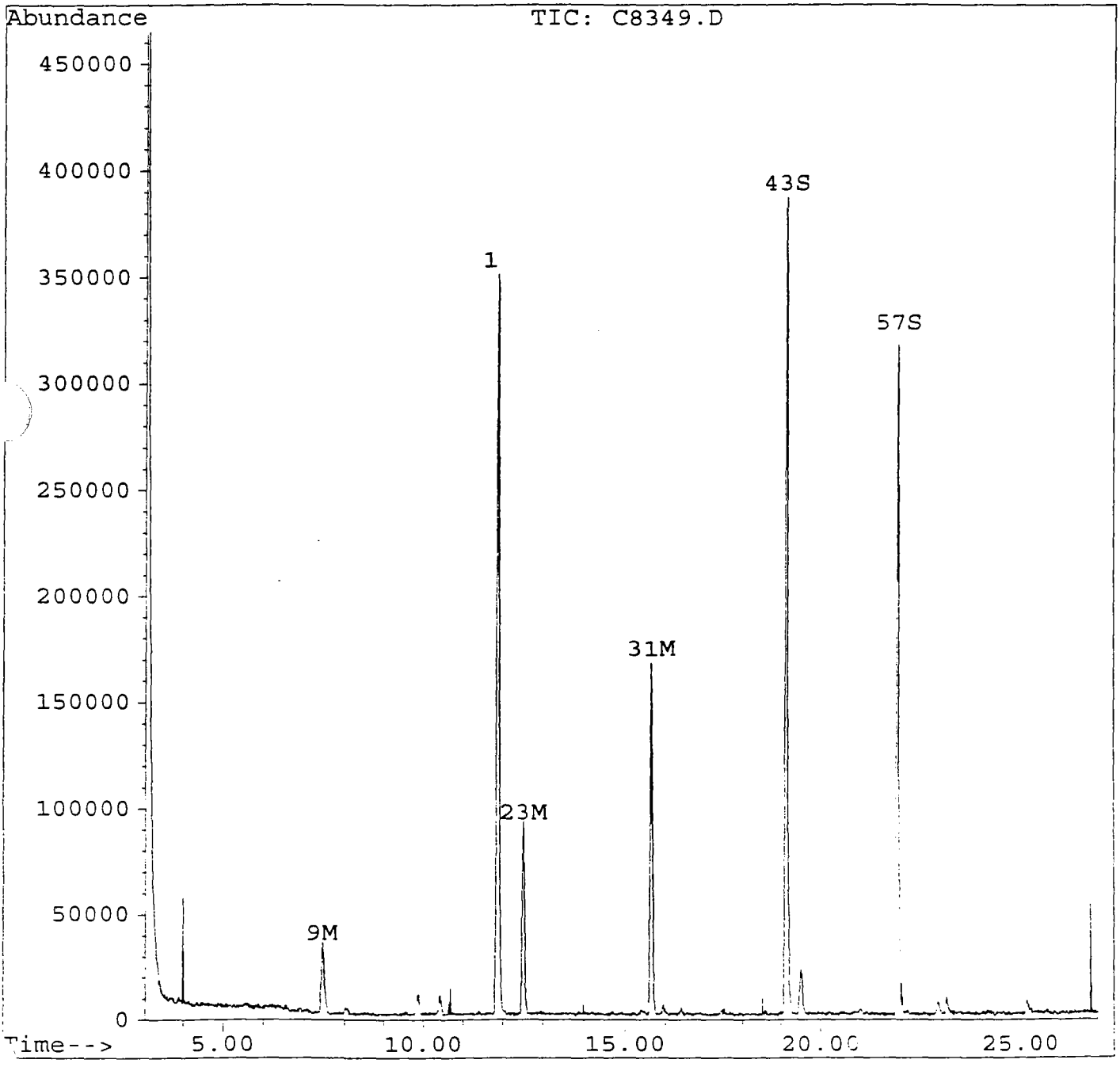
Quantitation Report

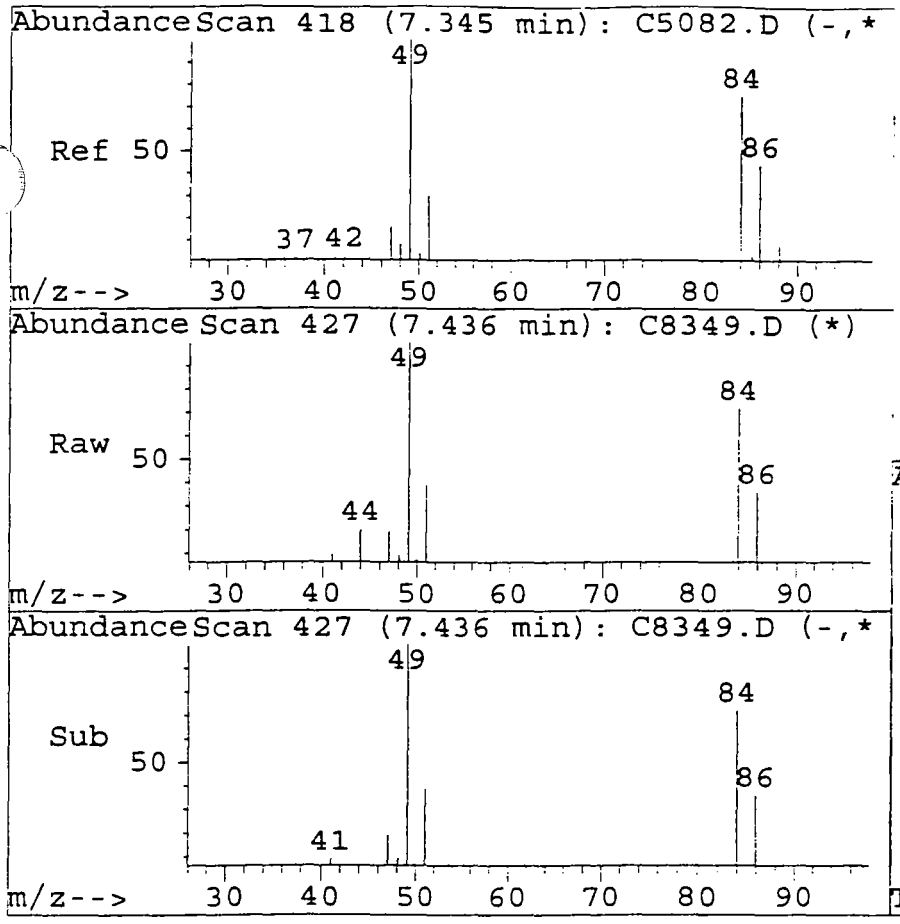
Data File : d:\hpchem\1\data\c8349.d
Acq On : 3 Jun 95 8:22 pm
Sample : 9523535
Misc : 25 ML
Quant Time: Jun 18 13:35 1995

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

107

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

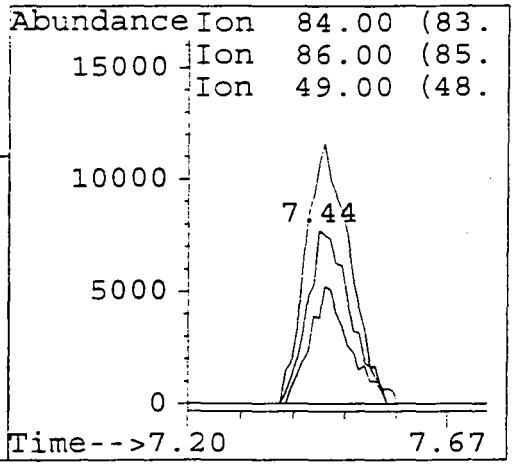


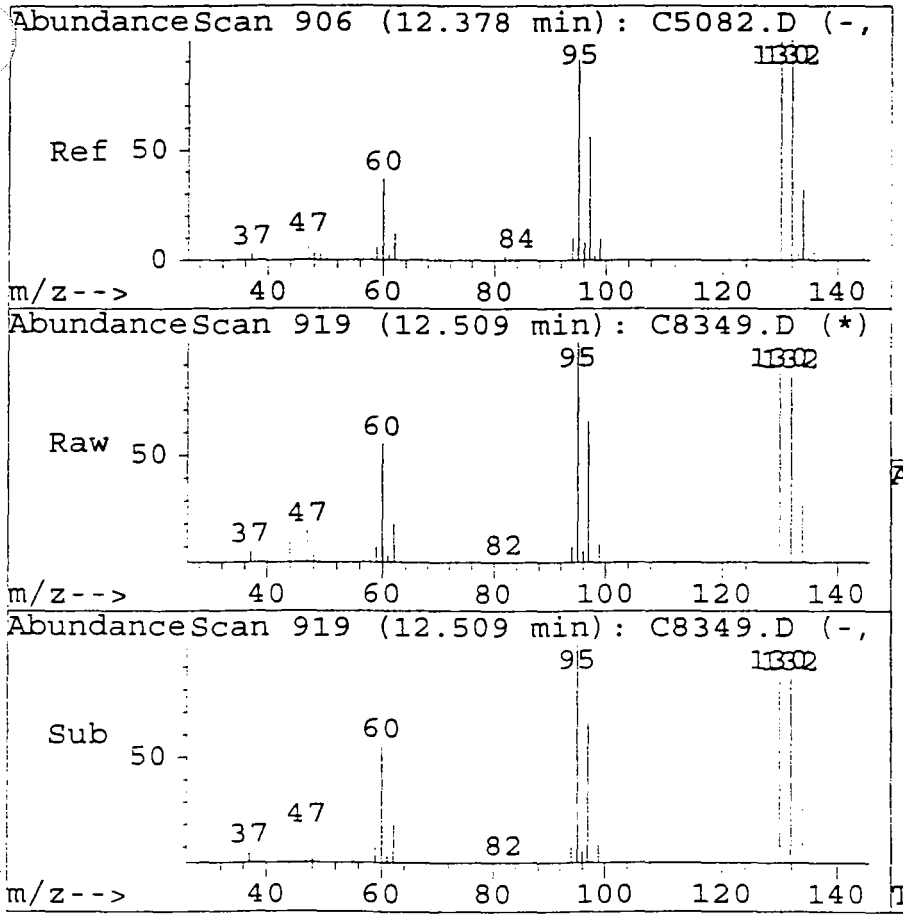


#9
Methylene chloride
Concen: 1.12 ug/L
RT: 7.44 min Scan# 427
Delta R.T. 0.03 min
Lab File: c8349.d
Acq: 3 Jun 95 8:22 pm

Tgt Ion:84 Resp: 42270

Ion	Ratio	Lower	Upper
84	100		
86	49.8	43.1	83.1
49	139.1	136.3	176.3
0	0.0	0.0	0.0

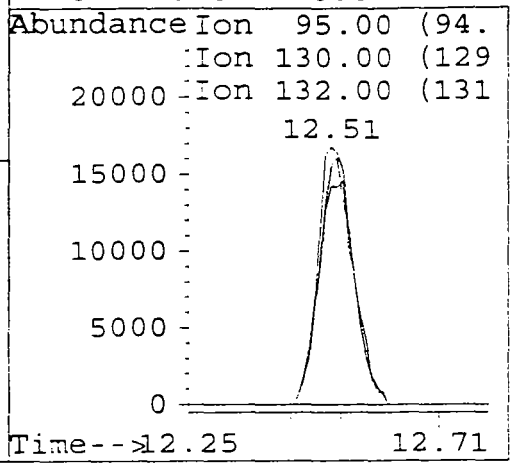


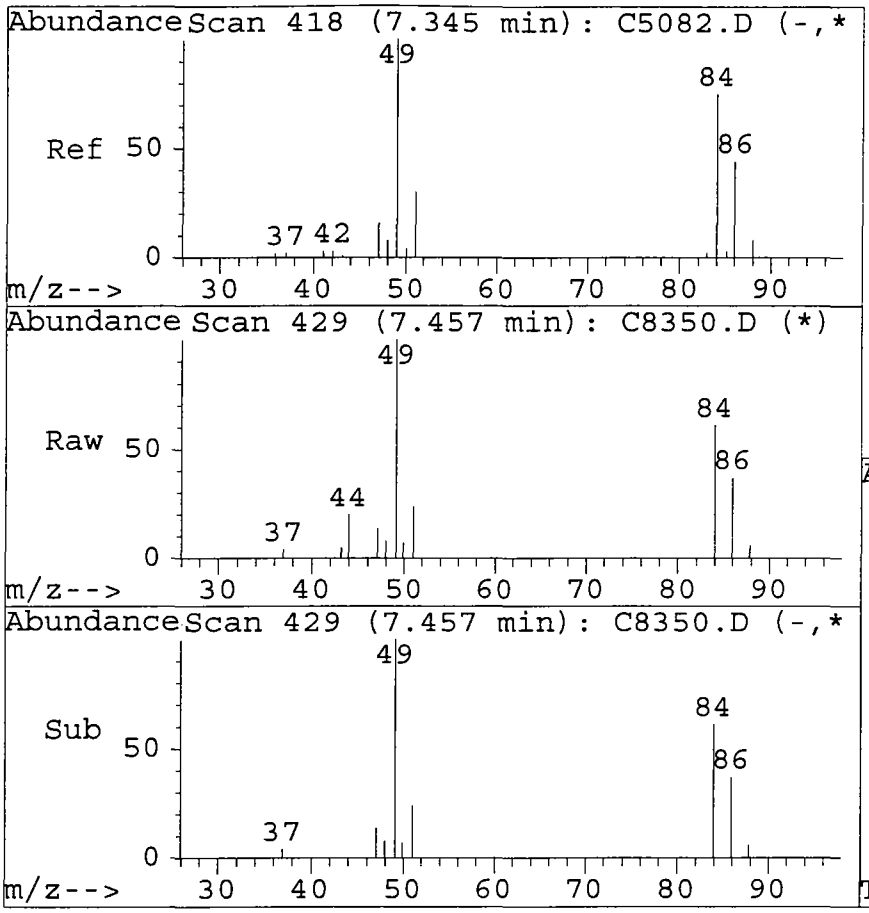


#23
Trichloroethene
Concen: 1.42 ug/L
RT: 12.51 min Scan# 919
Delta R.T. 0.03 min
Lab File: c8349.d
Acq: 3 Jun 95 8:22 pm

Tgt Ion:95 Resp: 75893

Ion	Ratio	Lower	Upper
95	100		
130	92.9	69.6	109.6
132	84.8	66.5	106.5
0	0.0	0.0	0.0

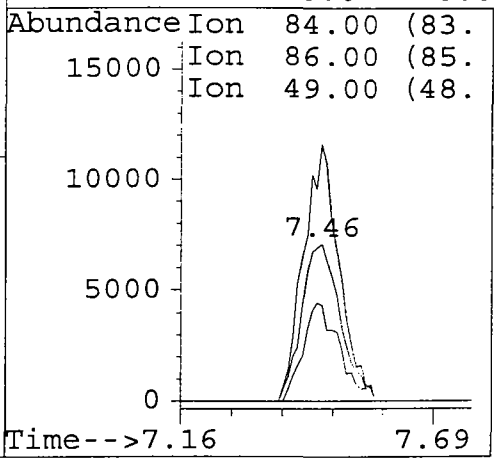




#9
Methylene chloride
Concen: 1.04 ug/L
RT: 7.46 min Scan# 429
Delta R.T. 0.05 min
Lab File: c8350.d
Acq: 3 Jun 95 8:57 pm

Tgt Ion:84 Resp: 40301

Ion	Ratio	Lower	Upper
84	100		
86	61.0	43.1	83.1
49	164.7	136.3	176.3
0	0.0	0.0	0.0



2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	112	118			
02	VBLK01	106	112			
03	9523339V	108	115			
04	9523340V	103	108			
05	9523341V	104	113			
06	9523342V	104	109			
07	9523343V	103	111			
08	9523163V	104	112			
09	9523167V	107	104			
10	9523166V	105	113			
11	9523343MS	105	109			
12	9523343MSD	108	114			
13	10PPBQCS	102	104			
14						
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29						
30						

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

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	110	114			
02	VBLK01	109	113			
03	9523530V	105	111			
04	9523531V	110	120			
05	9523532V	106	107			
06	9523533V	109	115			
07	9523535V	108	116			
08	9523536V	103	106			
09	9523787V	104	109			
10	9523788V	108	111			
11	9523789V	99	104			
12	9523534V	104	117			
13	10PPBQCS	112	106			
14						
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24						
25						
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27						
28						
29						
30						

QC LIMITS

SMC1 (BFB) = 4-Bromofluorobenzene (80-120)

SMC2 (DCB) = 1,2-Dichlorobenzene-d4 (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01 1 1 1

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

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

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

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

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8328.D	1514
02	9523339V	9523339V	C8330.D	1626
03	9523340V	9523340V	C8331.D	1703
04	9523341V	9523341V	C8332.D	1739
05	9523342V	9523342V	C8333.D	1817
06	9523343V	9523343V	C8334.D	1853
07	9523163V	9523163V	C8335.D	1929
08	9523167V	9523167V	C8336.D	2004
09	9523166V	9523166V	C8337.D	2040
10	9523343MS	23343MS	C8338.D	2115
11	9523343MSD	23343MSD	C8339.D	2150
12	10PPBQCS	10PPBQCS	C8340.D	2224
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COMMENTS:

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

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

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

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

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

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

COMMENT
U= Not Detected

1E

SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

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

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

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

Quantitation Report

Data File : d:\hpchem\1\data\c8329.d Vial: 4
Acq On : 2 Jun 95 3:50 pm Operator: SRK
Sample : METHOD BLANK Inst : 5972 - In
Misc : 25 ML Multiplr: 1.00
Quant Time: Jun 3 14:08 1995

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	689722	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	364668	5.30	ug/L	106.00%
57) 1,2-Dichlorobenzene-d4	21.88	152	176494	5.62	ug/L	112.32%
Target Compounds						Qvalue
9) Methylene chloride	7.42	84	178459	4.73	ug/L	96

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

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: C8344.D

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

% Moisture: not dec. NA Date Analyzed: 6/3/95

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

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

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

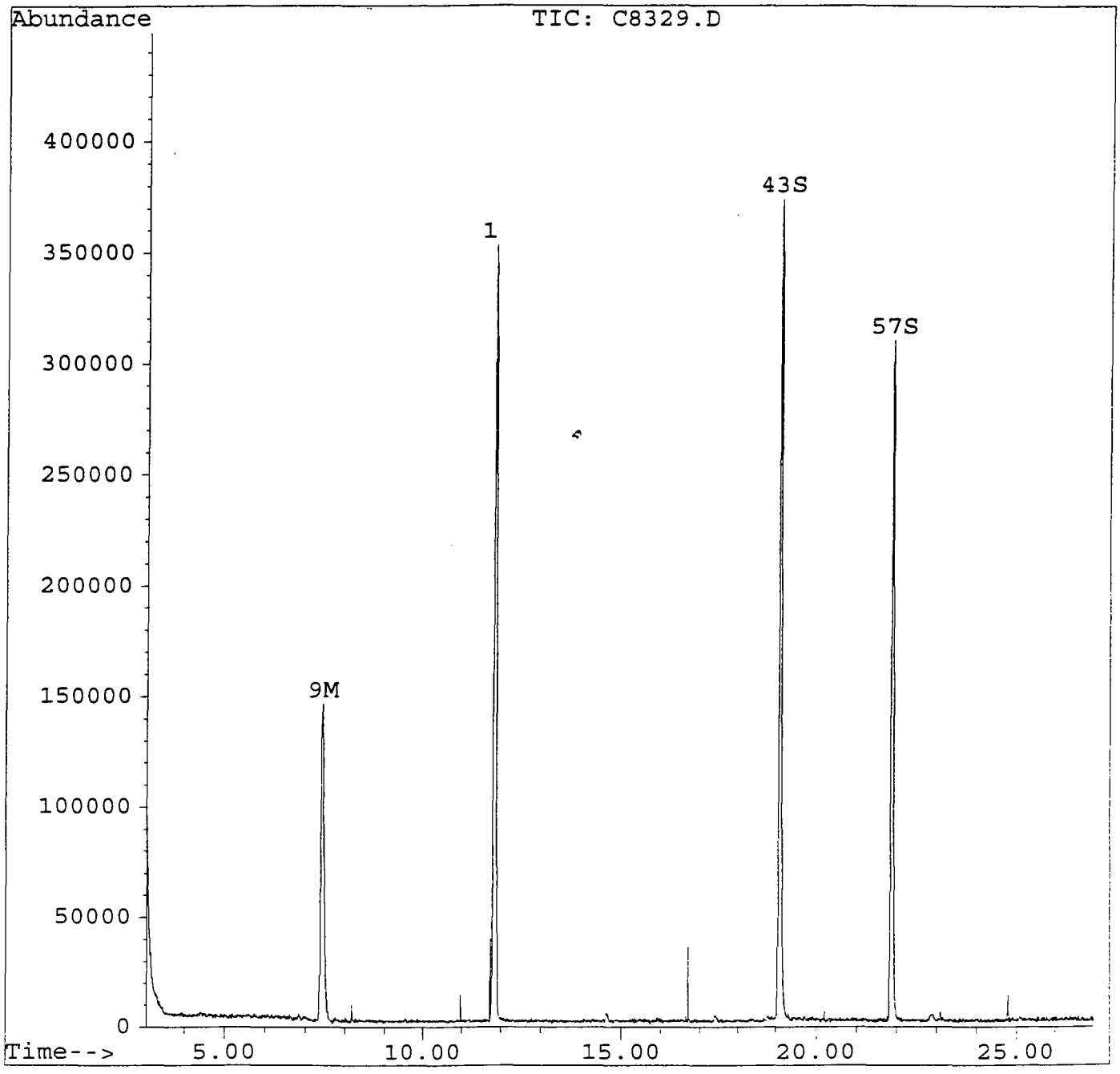
CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	22.90	0	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

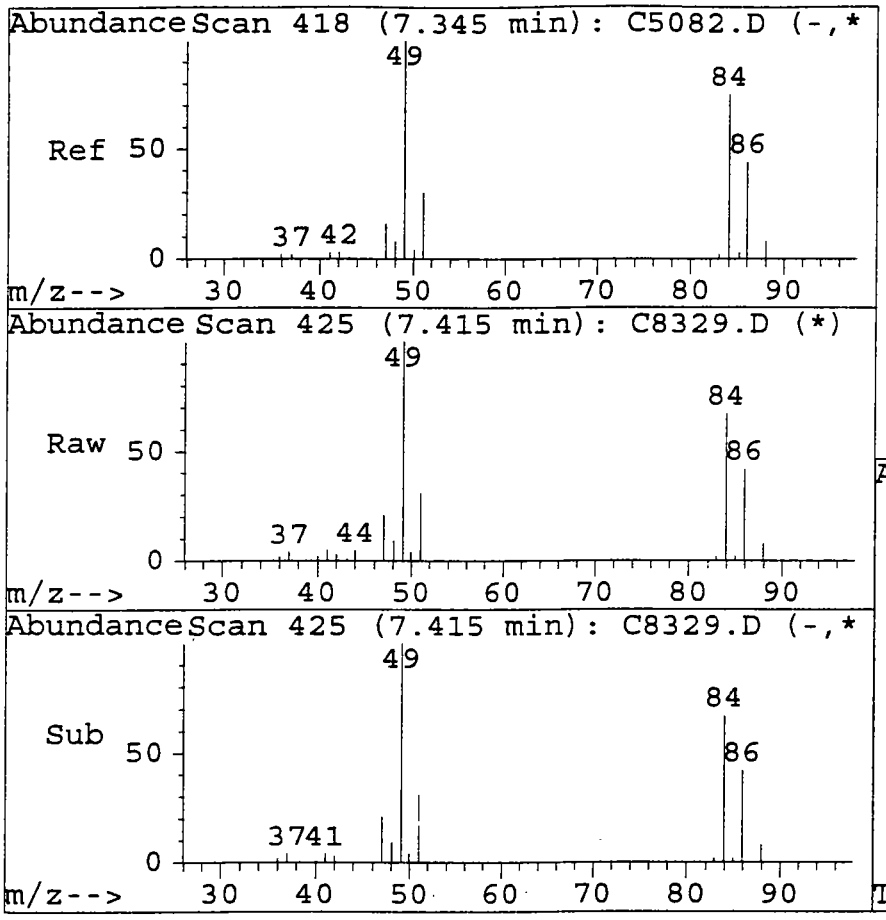
Quantitation Report

Data File : d:\hpchem\1\data\c8329.d
Acq On : 2 Jun 95 3:50 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 3 14:08 1995

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

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

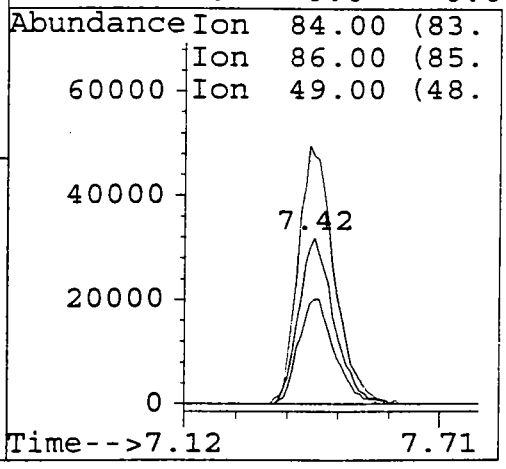




#9
Methylene chloride
Concen: 4.73 ug/L
RT: 7.42 min Scan# 425
Delta R.T. 0.01 min
Lab File: c8329.d
Acq: 2 Jun 95 3:50 pm

Tgt Ion:84 Resp: 178459

Ion	Ratio	Lower	Upper
84	100		
86	63.3	43.1	83.1
49	149.6	136.3	176.3
0	0.0	0.0	0.0



4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: C8344.D Lab Sample ID: M. BLANK

Date Analyzed: 6/3/95 Time Analyzed: 1726

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

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8343.D	1650
02	9523530V	9523530V	C8345.D	1801
03	9523531V	9523531V	C8346.D	1837
04	9523532V	9523532V	C8347.D	1912
05	9523533V	9523533V	C8348.D	1947
06	9523535V	9523535V	C8349.D	2022
07	9523536V	9523536V	C8350.D	2057
08	9523787V	9523787V	C8351.D	2132
09	9523788V	9523788V	C8352.D	2206
10	9523789V	9523789V	C8353.D	2241
11	9523534V	9523534V	C8354.D	2315
12	10PPBQCS	10PPQCS	C8355.D	2349
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

Lab Sample ID: METHOD BLANK
Lab File ID: C8344.D
Date Received: NA
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.6	
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

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

Lab Sample ID: METHOD BLANK
Lab File ID: C8344.D
Date Received: NA
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

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

COMMENT
U= Not Detected

Quantitation Report

Data File : d:\hpchem\1\data\c8344.d
Acq On : 3 Jun 95 5:26 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 8 11:43 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.88	96	657283	5.00	ug/L	0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.12	95	358139	5.46	ug/L	109.24%
57) 1,2-Dichlorobenzene-d4	21.91	152	168701	5.63	ug/L	112.65%
Target Compounds						Qvalue
9) Methylene chloride	7.43	84	200316	5.57	ug/L	93

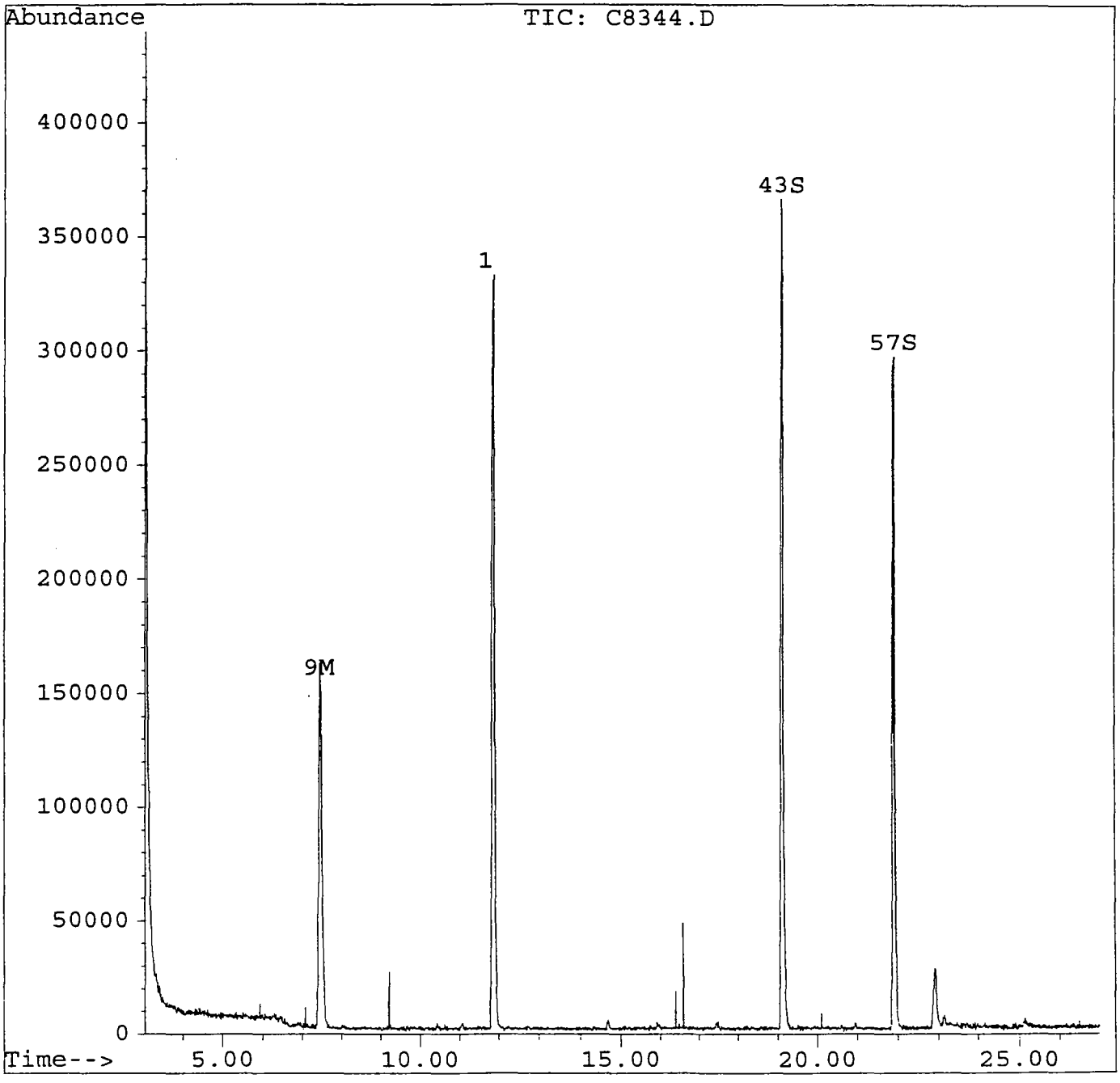
(#) = qualifier out of range (m) = manual integration

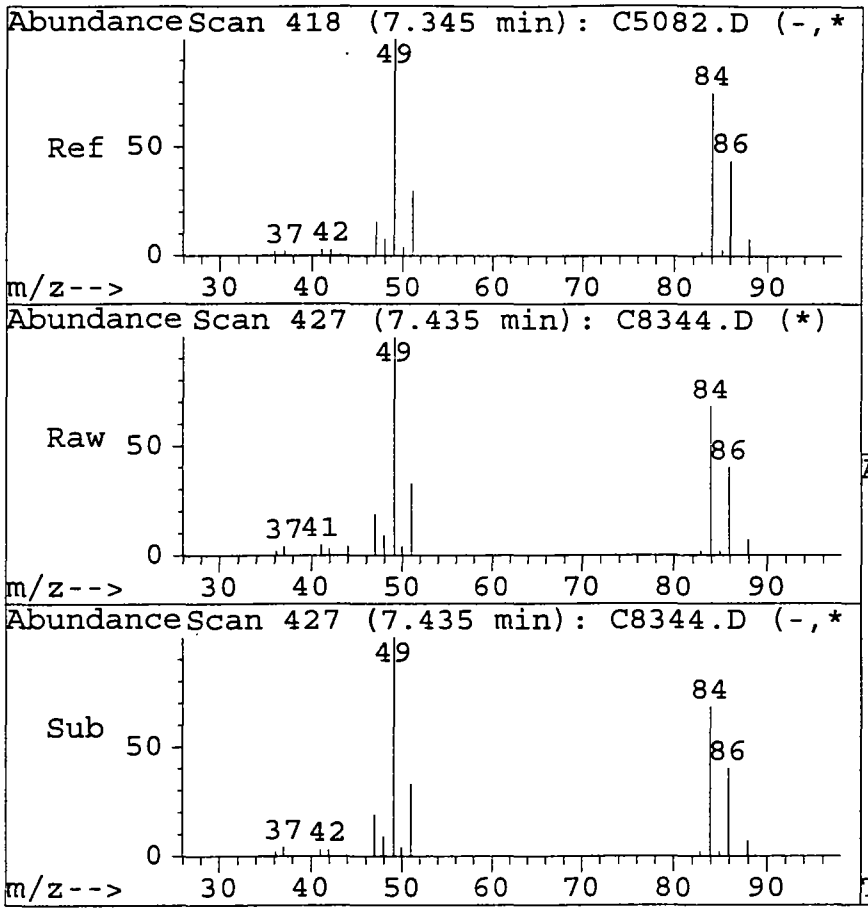
Quantitation Report

Data File : d:\hpchem\1\data\c8344.d
Acq On : 3 Jun 95 5:26 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 8 11:43 1995

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

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

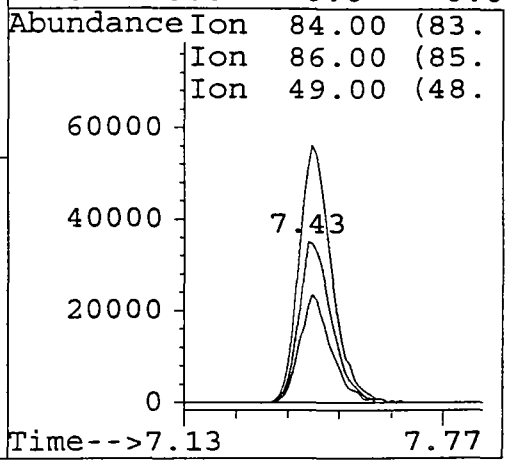




#9
Methylene chloride
Concen: 5.57 ug/L
RT: 7.43 min Scan# 427
Delta R.T. 0.03 min
Lab File: c8344.d
Acq: 3 Jun 95 5:26 pm

Tgt Ion:84 Resp: 200316

Ion	Ratio	Lower	Upper
84	100		
86	59.1	43.1	83.1
49	146.1	136.3	176.3
0	0.0	0.0	0.0



Library Search Compound Report

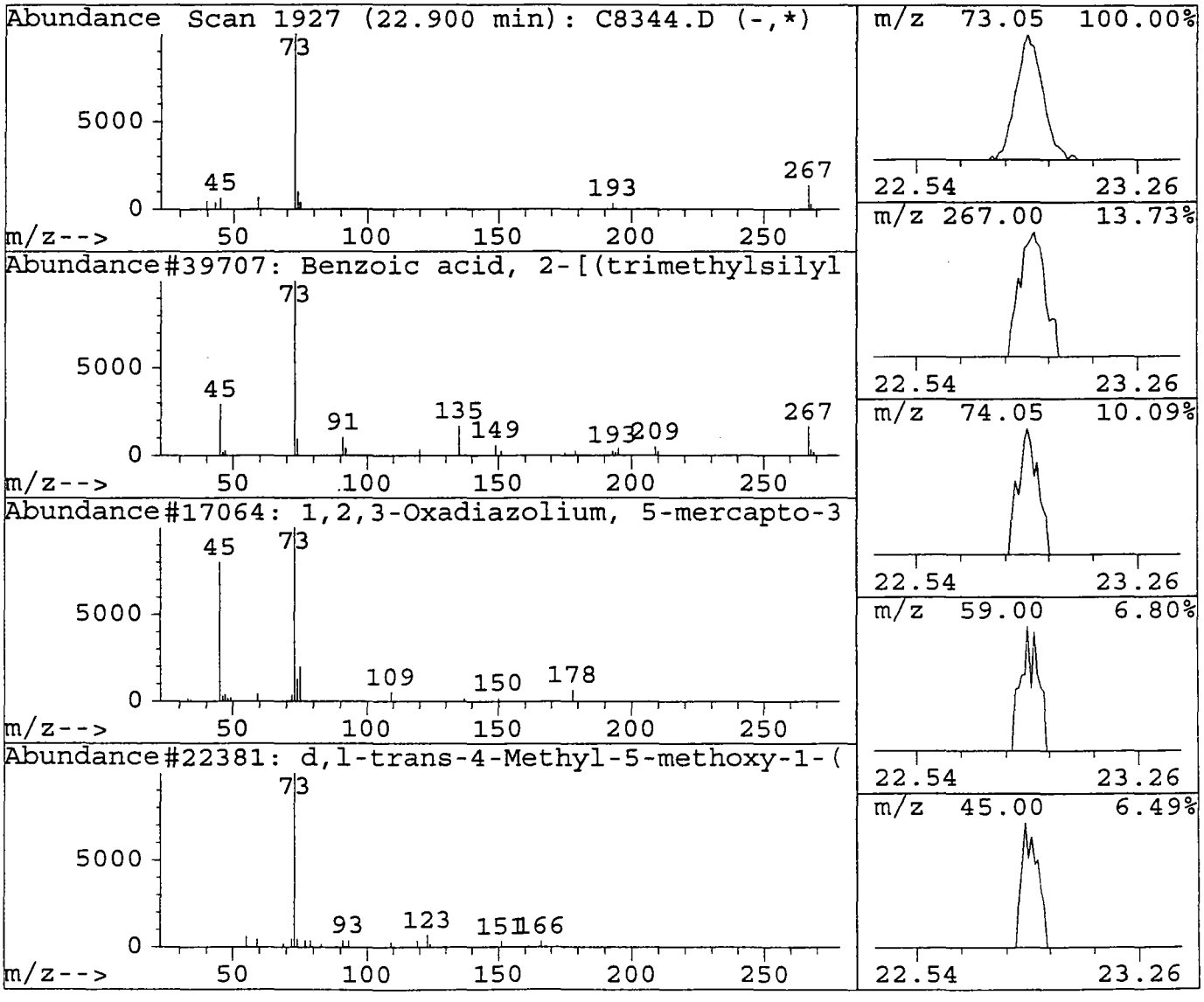
Data File : d:\hpchem\1\data\c8344.d
Acq On : 3 Jun 95 5:26 pm
Sample : METHOD BLANK
Misc : 25 ML

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.
22.90	0.48 ug/L	144039	Fluorobenzene	11.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	9
2	1,2,3-Oxadiazolium, 5-mercapto-3-ph	17064	056666-77-4	2
3	d,l-trans-4-Methyl-5-methoxy-1-(1-m	22381	000000-00-0	2
4	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	2
5	Butane, 2,3-dimethoxy-2-methyl-	5815	074421-00-4	2



Spike Recovery and RPD Summary Report - WATER

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

Non-Spiked Sample: C8334.D

	Spike Sample	Spike Duplicate Sample
File ID :	C8338.D	C8339.D
Sample :	9523343 MS	9523343 MSD
Acq Time:	2 Jun 95 9:15 pm	2 Jun 95 9:50 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodifluorometh	0.0	10	10	10	96	97	1	25	80-120
Chloromethane	0.0	10	10	10	101	98	3	25	80-120
Vinyl chloride	0.0	10	9	10	93	98	6	25	80-120
Bromomethane	0.0	10	10	10	101	103	2	25	80-120
Chloroethane	0.0	10	11	11	107	105	2	25	80-120
Trichlorofluorometha	0.0	10	10	10	98	101	2	25	80-120
1,1-Dichloroethene	0.0	10	9	9	87	94	8	25	80-120
Methylene chloride	1.4	10	8	8	69#	70#	1	25	80-120
trans-1,2-Dichloroet	0.0	10	10	10	95	99	4	25	80-120
1,1-Dichloroethane	0.0	10	10	10	102	103	1	25	80-120
2,2-Dichloropropane	0.0	10	8	8	81	82	2	25	80-120
cis-1,2-Dichloroethe	0.0	10	10	10	100	102	3	25	80-120
Bromochloromethane	0.0	10	10	11	101	107	5	25	80-120
Chloroform	0.0	10	10	10	101	103	2	25	80-120
1,1,1-Trichloroethan	0.0	10	10	10	102	101	1	25	80-120
Carbon tetrachloride	0.0	10	10	10	97	101	4	25	80-120
1,1-Dichloropropene	0.0	10	9	10	86	97	12	25	80-120
Benzene	0.0	10	10	10	99	101	2	25	80-120
1,2-Dichloroethane	0.0	10	10	11	104	107	2	25	80-120
Trichloroethene	0.0	10	10	10	98	99	1	25	80-120
1,2-Dichloropropane	0.0	10	10	10	105	105	0	25	80-120
Dibromomethane	0.0	10	10	11	102	108	5	25	80-120
Bromodichloromethane	0.0	10	10	11	99	105	6	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	10	97	102	5	25	80-120
Toluene	0.0	10	10	10	95	99	4	25	80-120
trans-1,3-Dichloropr	0.0	10	10	10	96	104	8	25	80-120
1,1,2-Trichloroethan	0.0	10	11	11	106	108	3	25	80-120
Tetrachloroethene	0.0	10	10	10	98	100	2	25	80-120
1,3-Dichloropropane	0.0	10	11	11	105	108	3	25	80-120
Dibromochloromethane	0.0	10	10	11	104	105	2	25	80-120
1,2-Dibromomethane	0.0	10	10	11	105	109	4	25	80-120
Chlorobenzene	0.0	10	10	10	102	104	2	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	11	11	113	105	7	25	80-120
Ethylbenzene	0.0	10	9	10	87	98	12	25	80-120
Xylene (para & meta)	0.0	20	13	18	65#	90	32#	25	80-120
Xylene (Ortho)	0.0	10	7	9	70#	94	30#	25	80-120
Styrene	0.0	10	2	4	21#	39#	62#	25	80-120
Bromoform	0.0	10	10	11	99	105	6	25	80-120
Isopropylbenzene	0.0	10	9	10	93	98	6	25	80-120
Bromobenzene	0.0	10	10	11	103	107	3	25	80-120
1,1,2,2-Tetrachloroe	0.0	10	12	12	122#	124#	1	25	80-120
1,2,3-Trichloropropa	0.0	10	11	12	107	118	10	25	80-120
n-Propylbenzene	0.0	10	9	10	90	99	10	25	80-120

Quantitation Report

Data File : d:\hpchem\1\data\c8338.d
Acq On : 2 Jun 95 9:15 pm
Sample : 9523343 MS
Misc : 25 ML
Quant Time: Jun 18 11:08 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.85	96	668860	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.11	95	350931	5.26	ug/L		105.19%
57) 1,2-Dichlorobenzene-d4	21.89	152	166698	5.47	ug/L		109.39%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.30	85	506687	9.56	ug/L		99
3) Chloromethane	3.67	50	315932	10.12	ug/L		93
4) Vinyl chloride	3.89	62	326875	9.29	ug/L		96
5) Bromomethane	4.55	94	240023	10.09	ug/L		99
6) Chloroethane	4.79	64	221059	10.72	ug/L		90
7) Trichlorofluoromethane	5.36	101	772924	9.83	ug/L		99
8) 1,1-Dichloroethene	6.45	96	301226	8.73	ug/L	#	85
9) Methylene chloride	7.43	84	303995	8.30	ug/L		99
10) trans-1,2-Dichloroethene	7.97	96	346768	9.51	ug/L		96
12) 1,1-Dichloroethane	8.78	63	742577	10.18	ug/L		95
13) 2,2-Dichloropropane	9.84	77	577515	8.08	ug/L		99
14) cis-1,2-Dichloroethene	9.84	96	342923	9.98	ug/L		95
16) Bromochloromethane	10.26	128	121916	10.12	ug/L		95
17) Chloroform	10.41	83	695548	10.16	ug/L		99
18) 1,1,1-Trichloroethane	10.74	97	773283	10.21	ug/L		99
19) Carbon tetrachloride	11.05	117	680258	9.67	ug/L		99
20) 1,1-Dichloropropene	11.02	75	569965	8.61	ug/L		95
21) Benzene	11.37	78	1151235	9.88	ug/L		95
22) 1,2-Dichloroethane	11.37	62	300143	10.50	ug/L		96
23) Trichloroethene	12.49	95	504205	9.76	ug/L		99
24) 1,2-Dichloropropane	12.84	63	399285	10.47	ug/L		100
25) Dibromomethane	13.05	93	158049	10.23	ug/L		98
26) Bromodichloromethane	13.32	83	526552	9.94	ug/L		99
27) cis-1,3-Dichloropropene	14.08	75	441899	9.65	ug/L		97
28) Toluene	14.65	92	793802	9.59	ug/L		97
29) trans-1,3-Dichloropropene	15.00	75	304361	9.63	ug/L		94
30) 1,1,2-Trichloroethane	15.30	83	156077	10.57	ug/L		96
31) Tetrachloroethene	15.62	166	509635	9.83	ug/L		98
32) 1,3-Dichloropropane	15.60	76	308567	10.54	ug/L		98
33) Dibromochloromethane	16.00	129	298279	10.38	ug/L		99
34) 1,2-Dibromomethane	16.20	107	213188	10.46	ug/L		97
35) Chlorobenzene	17.08	112	879010	10.20	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.21	131	387142	11.31	ug/L		96
37) Ethylbenzene	17.27	91	1525869	8.76	ug/L		95
38) Xylene (para & meta)	17.48	106	809779	12.95	ug/L		95
39) Xylene (Ortho)	18.18	106	384862	6.95	ug/L		95
40) Styrene	18.19	104	177099	2.07	ug/L	#	67

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

Data File : d:\hpchem\1\data\c8338.d
Acq On : 2 Jun 95 9:15 pm
Sample : 9523343 MS
Misc : 25 ML
Quant Time: Jun 18 11:08 1995

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

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

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41) Bromoform	18.51	173	140076	9.93	ug/L		88
42) Isopropylbenzene	18.84	105	1649700	9.27	ug/L	m	45
44) Bromobenzene	19.38	156	331886	10.35	ug/L	#	91
45) 1,1,2,2-Tetrachloroethane	19.33	83	193031	12.24	ug/L		96
46) 1,2,3-Trichloropropane	19.40	75	204110	10.66	ug/L	#	53
47) n-Propylbenzene	19.58	91	2079546	8.98	ug/L		99
48) 2-Chlorotoluene	19.74	91	1387983	10.80	ug/L		100
49) 4-Chlorotoluene	19.92	91	1404670	9.21	ug/L		85
50) 1,3,5-Trimethylbenzene	19.90	105	573100	3.89	ug/L		96
51) tert-Butylbenzene	20.49	119	1507256	9.86	ug/L		96
52) 1,2,4-Trimethylbenzene	20.57	105	534017	3.96	ug/L		98
53) sec-Butylbenzene	20.89	105	2145893	9.48	ug/L		99
54) 1,3-Dichlorobenzene	21.09	146	690338	10.55	ug/L		100
55) 4-Isopropyltoluene	21.15	119	1220351	7.22	ug/L		98
56) 1,4-Dichlorobenzene	21.24	146	685885	10.57	ug/L		92
58) 1,2-Dichlorobenzene	21.92	146	524499	10.76	ug/L		98
59) n-Butylbenzene	21.90	91	1648408	9.09	ug/L		100
60) 1,2-Dibromo-3-chloropropan	23.32	75	41948	10.47	ug/L		90
61) 1,2,4-Trichlorobenzene	24.89	180	395288	11.03	ug/L		96
62) Hexachlorobutadiene	25.23	225	446035	10.32	ug/L		97
63) Naphthalene	25.35	128	359109	11.58	ug/L		100
64) 1,2,3-Trichlorobenzene	25.82	180	284412	11.38	ug/L		95
65) Methyl-tert butyl ether	8.01	73	398581	10.20	ug/L		93
66) tert-Butyl Alcohol	7.76	59	12669	21.16	ug/L		100

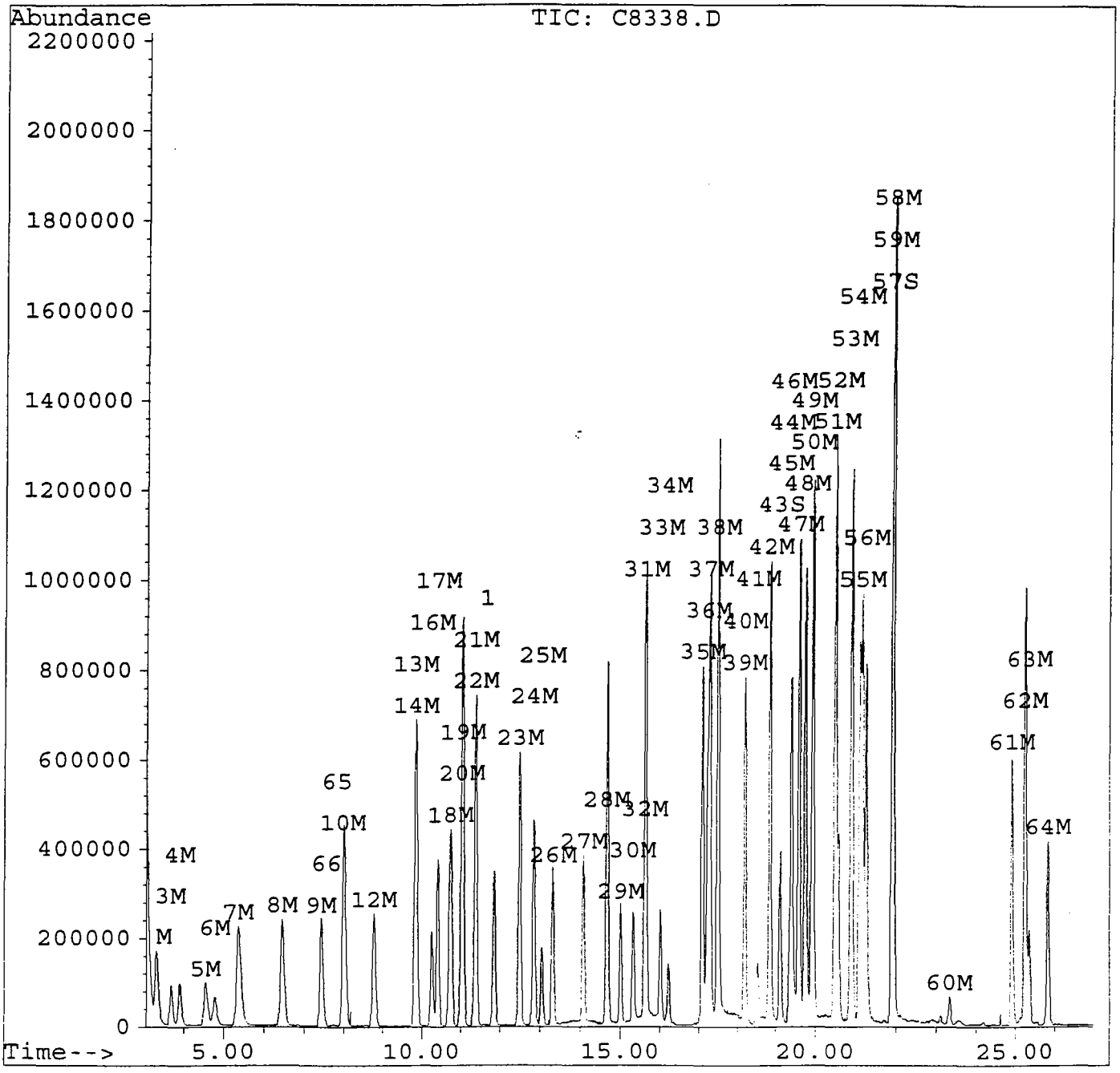
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8338.d
Acq On : 2 Jun 95 9:15 pm
Sample : 9523343 MS
Misc : 25 ML
Quant Time: Jun 18 11:08 1995

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

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



Quantitation Report

Data File : d:\hpchem\1\data\c8339.d
Acq On : 2 Jun 95 9:50 pm
Sample : 9523343 MSD
Misc : 25 ML
Quant Time: Jun 2 22:17 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.85	96	671183	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.10	95	363013	5.42	ug/L		108.44%
57) 1,2-Dichlorobenzene-d4	21.89	152	174022	5.69	ug/L		113.80%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.30	85	514610	9.67	ug/L		95
3) Chloromethane	3.68	50	307626	9.82	ug/L		98
4) Vinyl chloride	3.90	62	347134	9.84	ug/L		98
5) Bromomethane	4.55	94	244863	10.26	ug/L		98
6) Chloroethane	4.78	64	217226	10.50	ug/L		99
7) Trichlorofluoromethane	5.37	101	794300	10.07	ug/L		100
8) 1,1-Dichloroethene	6.45	96	326026	9.41	ug/L		93
9) Methylene chloride	7.42	84	307771	8.37	ug/L		96
10) trans-1,2-Dichloroethene	8.00	96	363849	9.94	ug/L		96
12) 1,1-Dichloroethane	8.77	63	753547	10.29	ug/L		95
13) 2,2-Dichloropropane	9.84	77	591780	8.25	ug/L		95
14) cis-1,2-Dichloroethene	9.85	96	353277	10.24	ug/L		100
16) Bromochloromethane	10.26	128	128809	10.66	ug/L	#	86
17) Chloroform	10.42	83	709486	10.33	ug/L		98
18) 1,1,1-Trichloroethane	10.74	97	767323	10.09	ug/L		98
19) Carbon tetrachloride	11.05	117	712622	10.10	ug/L		97
20) 1,1-Dichloropropene	11.03	75	645965	9.73	ug/L		98
21) Benzene	11.38	78	1177103	10.07	ug/L		98
22) 1,2-Dichloroethane	11.38	62	308090	10.74	ug/L		94
23) Trichloroethene	12.49	95	512750	9.90	ug/L		98
24) 1,2-Dichloropropane	12.85	63	401590	10.50	ug/L		99
25) Dibromomethane	13.05	93	166737	10.76	ug/L		97
26) Bromodichloromethane	13.32	83	559898	10.53	ug/L		97
27) cis-1,3-Dichloropropene	14.07	75	468363	10.20	ug/L		100
28) Toluene	14.66	92	826190	9.95	ug/L		96
29) trans-1,3-Dichloropropene	15.00	75	329303	10.38	ug/L		98
30) 1,1,2-Trichloroethane	15.32	83	160754	10.85	ug/L		94
31) Tetrachloroethene	15.63	166	521708	10.03	ug/L		99
32) 1,3-Dichloropropane	15.60	76	317842	10.82	ug/L		98
33) Dibromochloromethane	16.01	129	303964	10.54	ug/L		99
34) 1,2-Dibromomethane	16.20	107	222064	10.86	ug/L		97
35) Chlorobenzene	17.08	112	898884	10.39	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17.22	131	361598	10.53	ug/L		98
37) Ethylbenzene	17.27	91	1723486	9.86	ug/L		99
38) Xylene (para & meta)	17.48	106	1124706	17.92	ug/L		90
39) Xylene (Ortho)	18.18	106	524326	9.44	ug/L		96
40) Styrene	18.20	104	338953	3.94	ug/L		98

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

Quantitation Report

Data File : d:\hpchem\1\data\c8339.d
Acq On : 2 Jun 95 9:50 pm
Sample : 9523343 MSD
Misc : 25 ML
Quant Time: Jun 2 22:17 1995

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

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

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.52	173	148876	10.52	ug/L		90
42)	Isopropylbenzene	18.84	105	1755979	9.83	ug/L		90
44)	Bromobenzene	19.38	156	343805	10.68	ug/L	#	89
45)	1,1,2,2-Tetrachloroethane	19.34	83	195543	12.36	ug/L		98
46)	1,2,3-Trichloropropane	19.41	75	226162	11.77	ug/L		90
47)	n-Propylbenzene	19.57	91	2297109	9.89	ug/L		99
48)	2-Chlorotoluene	19.74	91	1404422	10.89	ug/L		100
49)	4-Chlorotoluene	19.92	91	1519434	9.93	ug/L		83
50)	1,3,5-Trimethylbenzene	19.89	105	1127211	7.62	ug/L		97
51)	tert-Butylbenzene	20.49	119	1533078	10.00	ug/L		96
52)	1,2,4-Trimethylbenzene	20.57	105	874755	6.46	ug/L		98
53)	sec-Butylbenzene	20.89	105	2237152	9.84	ug/L		99
54)	1,3-Dichlorobenzene	21.09	146	692686	10.55	ug/L		97
55)	4-Isopropyltoluene	21.15	119	1588304	9.36	ug/L		100
56)	1,4-Dichlorobenzene	21.24	146	693155	10.64	ug/L		91
58)	1,2-Dichlorobenzene	21.92	146	536739	10.97	ug/L		98
59)	n-Butylbenzene	21.90	91	1829900	10.06	ug/L		98
60)	1,2-Dibromo-3-chloropropan	23.33	75	44811	11.15	ug/L		87
61)	1,2,4-Trichlorobenzene	24.90	180	403043	11.20	ug/L		99
62)	Hexachlorobutadiene	25.24	225	430915	9.93	ug/L		98
63)	Naphthalene	25.35	128	369223	11.86	ug/L		100
64)	1,2,3-Trichlorobenzene	25.82	180	297987	11.88	ug/L		99
65)	Methyl-tert butyl ether	8.02	73	424237	10.82	ug/L		97
66)	tert-Butyl Alcohol	7.72	59	12194	20.29	ug/L		100

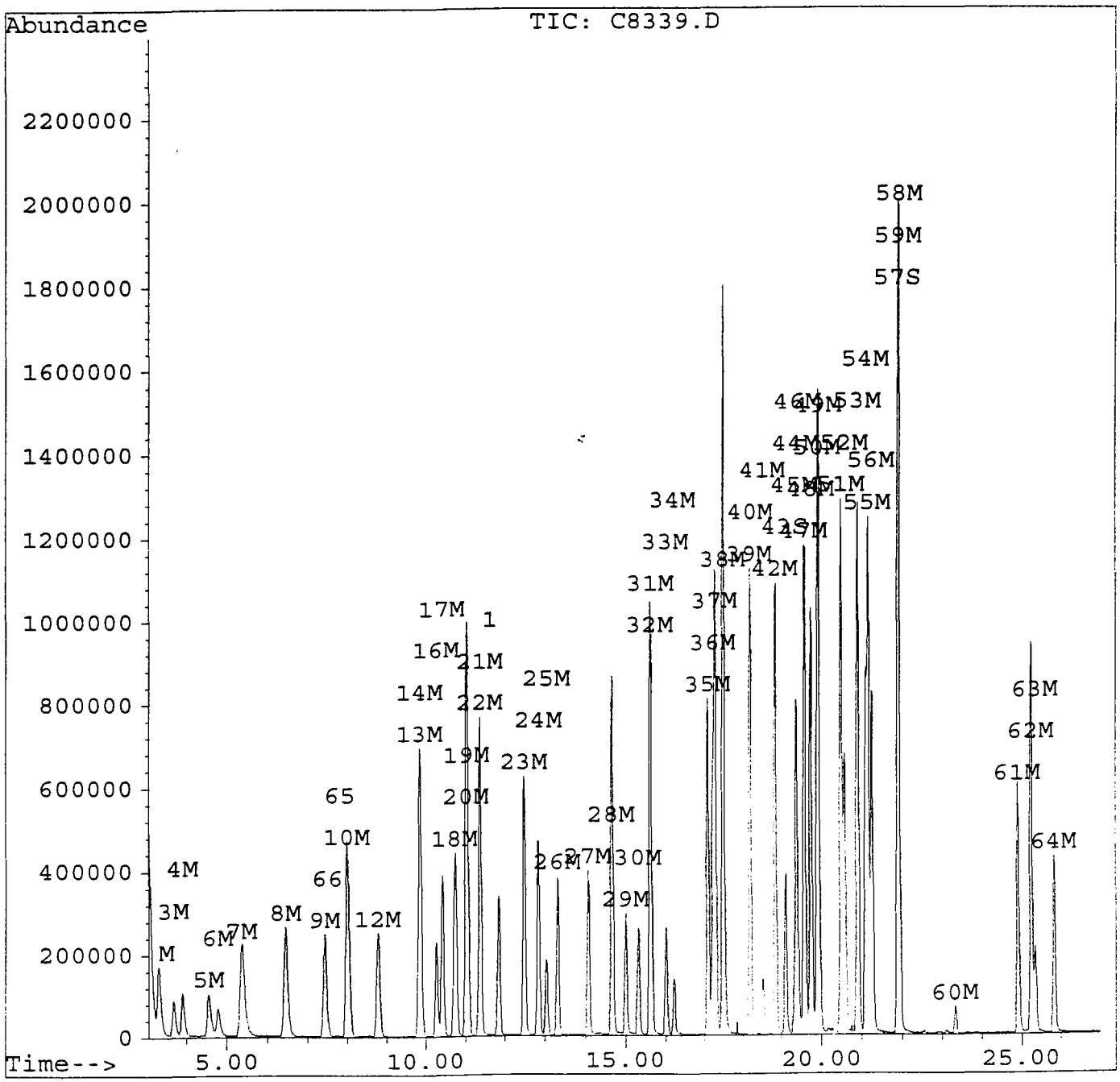
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8339.d
Acq On : 2 Jun 95 9:50 pm
Sample : 9523343 MSD
Misc : 25 ML
Quant Time: Jun 2 22:17 1995

Vial: 14132
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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



EMSL

GC/MS SEMIVOLATILE DATA PACKAGE

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Nam EMSL Analytical Contract: _____

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

Lab File ID: B7750.D DFTPP Injection Date: 05/30/95

Instrument ID: ABNA DFTPP Injection Time: 0914

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	30.0 - 80.0% of mass 198	51.3		
68	Less than 2.0% of mass 69	0.0	0.0	)1
69	Mass 69 relative abundance	61.1		
70	Less than 2.0% of mass 69	0.3	0.6	)1
127	25.0 - 75.0% of mass 198	44.4		
197	Less than 1.0% of mass 198	0.0		
198	Base Peak, 100% relative abundance	100.0		
199	5.0 to 9.0% of mass 198	7.5		
275	10.0 - 30.0% of mass 198	23.1		
365	Greater than 0.75% of mass 198	2.8		
441	Present, but less than mass 443	9.3		
442	40.0 - 110.0% of mass 198	64.3		
443	15.0 - 24.0% of mass 442	13.1	20.3	)2

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

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

	EPA SAMPLE N	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
#		20 STANDARD	B7751.D	05/30/95	0944
#		50 STANDARD	B7752.D	05/30/95	1035
#		80 STANDARD	B7753.D	05/30/95	1127
#		120 STANDARD	B7754.D	05/30/95	1220
#		160 STANDARD	B7755.D	05/30/95	1312
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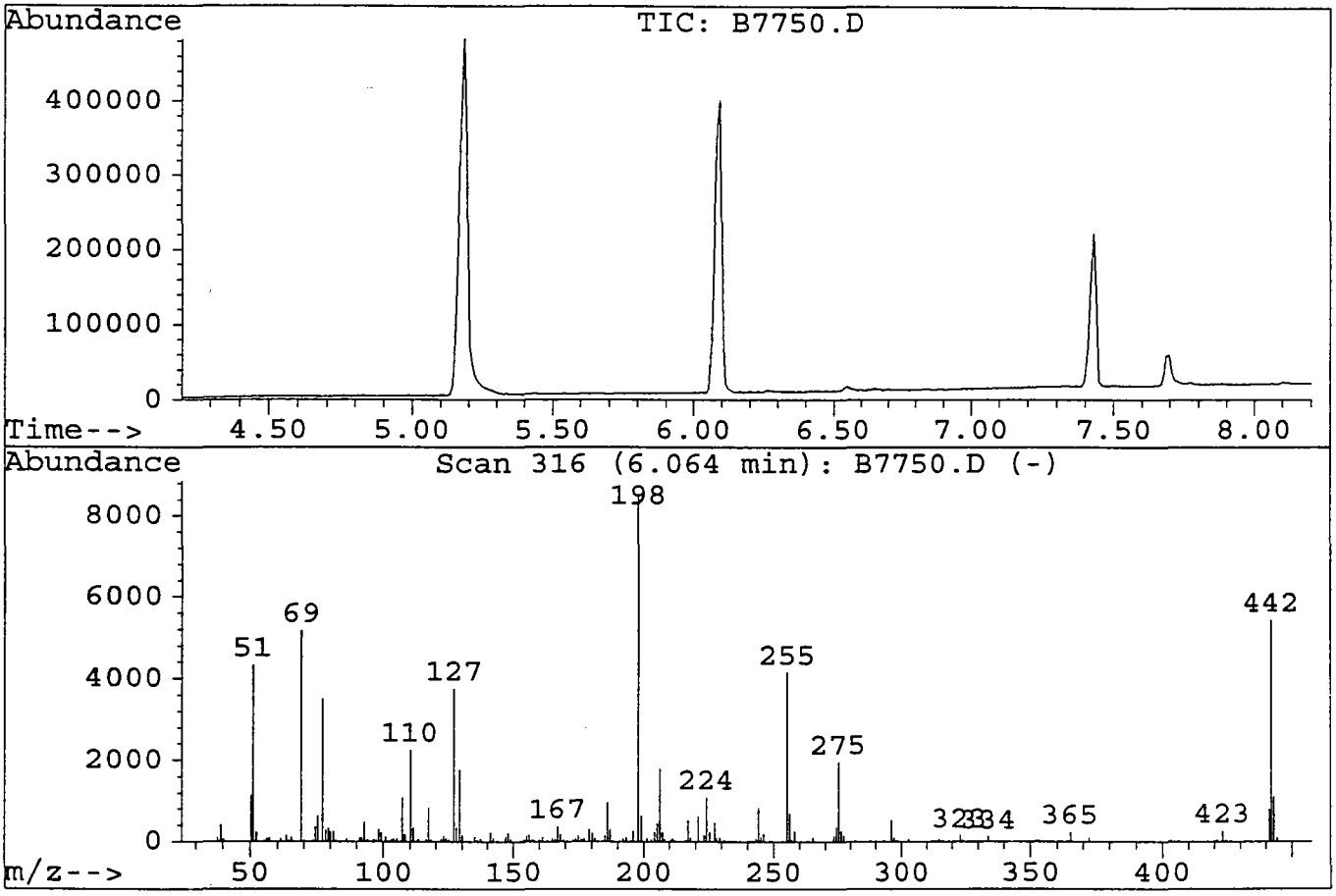
DFTPP

Data File : C:\HPCHEM\1\DATA2\B7750.D Vial: 1
Acq On : 30 May 95 9:14 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:. 330

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.3	4339	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	61.1	5169	PASS
70	69	0	2	0.6	29	PASS
127	198	40	60	44.4	3758	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	8456	PASS
199	198	5	9	7.5	631	PASS
275	198	10	30	23.1	1951	PASS
365	198	1	100	2.8	238	PASS
441	443	0	100	71.3	788	PASS
442	198	40	100	64.3	5436	PASS
443	442	17	23	20.3	1105	PASS

Scan 316 (6.064 min): B7750.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	111	58.05	13	78.05	284	96.05	58
39.05	417	61.15	74	79.05	332	97.05	35
40.10	59	63.05	154	79.95	245	98.05	313
50.05	1128	64.05	37	81.05	252	99.05	224
51.00	4339	65.05	105	82.05	44	100.95	120
52.05	241	68.95	5169	83.10	16	103.15	68
53.00	10	70.05	29	86.15	75	103.95	87
54.05	4	73.05	43	91.05	88	105.05	85
55.05	32	74.05	376	91.95	98	107.05	1091
56.05	93	75.05	636	92.95	482	107.95	178
57.05	94	77.00	3509	94.05	48	110.05	2258

Scan 316 (6.064 min): B7750.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.05	347	128.00	343	154.10	63	168.00	172
112.15	17	129.00	1776	155.00	140	169.10	54
113.05	65	130.00	152	156.00	177	173.00	40
116.15	81	135.00	123	157.10	46	173.90	77
117.05	837	136.00	50	157.80	35	175.00	147
118.05	55	137.10	72	158.00	32	176.10	56
121.90	87	141.00	242	160.00	52	177.10	85
123.00	132	142.00	80	161.10	108	179.00	311
124.00	82	147.00	121	165.00	75	180.10	207
124.90	49	148.00	213	166.20	66	181.10	81
127.00	3758	148.90	57	167.00	382	182.10	5

Scan 316 (6.064 min): B7750.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.10	155	205.05	451	222.95	151	249.05	34
186.10	970	206.05	1785	224.05	1088	255.05	4157
187.10	295	207.05	238	225.05	239	256.05	688
192.00	75	207.95	66	227.05	470	256.95	53
193.10	96	210.25	50	227.95	86	257.95	257
196.00	270	211.05	79	229.05	93	265.05	108
198.00	8456	211.65	38	230.95	42	273.05	139
199.00	631	215.95	52	243.05	75	274.05	352
201.35	77	216.95	525	244.05	828	275.05	1951
202.85	45	217.95	89	245.05	118	276.05	266
204.05	257	220.95	629	246.05	185	277.05	157

Scan 316 (6.064 min): B7750.D

Modified:subtracted

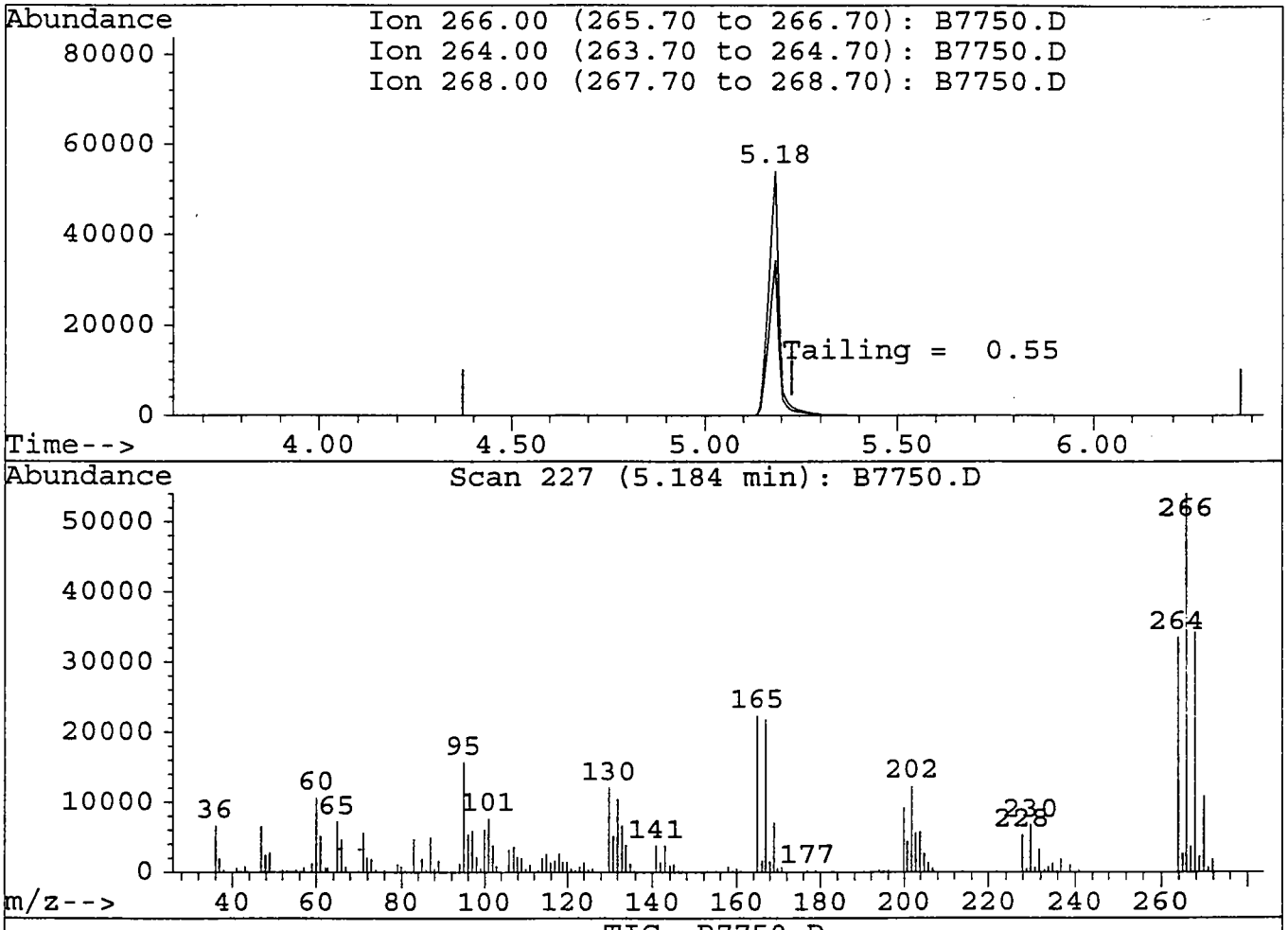
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.00	31	364.95	238				
296.00	527	372.05	89				
297.00	89	403.05	44				
303.00	67	420.95	40				
314.00	27	423.05	267				
314.90	61	424.05	52				
323.10	148	441.10	788				
324.10	39	442.00	5436				
334.00	124	443.00	1105				
352.10	49	444.10	101				
353.10	51						

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7750.D
Acq On : 30 May 95 9:14 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: May 30 8:29 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



TIC: B7750.D

(1) Pentachlorophenol (CM)

5.18min 321.74ug/mL

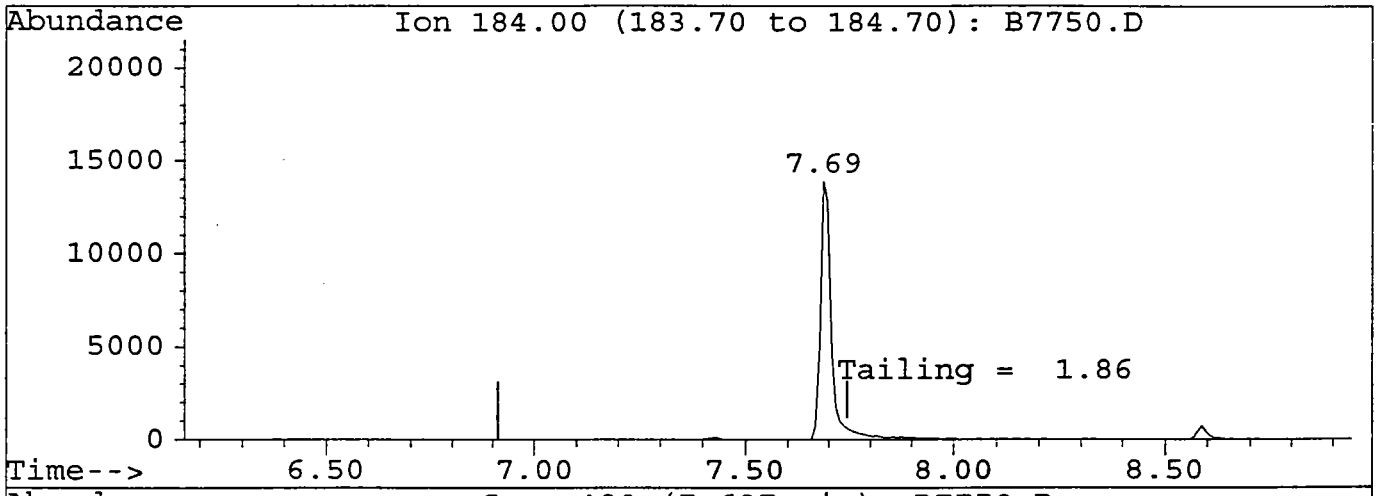
response 106272

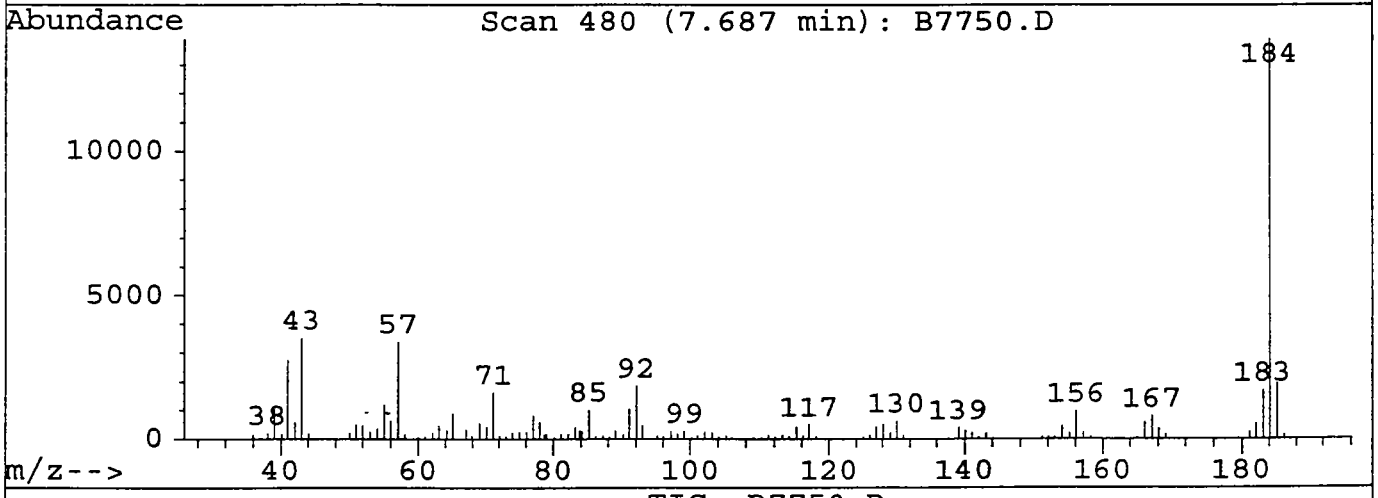
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	62.02
268.00	64.70	63.47
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7750.D Vial: 1
Acq On : 30 May 95 9:14 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration





TIC: B7750.D

(2) Benzidine
7.69min 86.22ug/ml
response 26489

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Response Factor Report ABNA

139

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 09:37:17 1995
Response via : Initial Calibration

Calibration Files
160 =B7755.D 120 =B7754.D 80 =B7753.D
50 =B7752.D 20 =B7751.D

		Compound	160	120	80	50	20	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD						
2)	S	2-Fluorophenol	1.046	1.205	1.170	1.071	1.165	1.131	6.09
3)	S	Phenol-d5	1.808	2.019	1.924	1.724	1.888	1.873	6.00
4)	M	N-nitrosodimethylamin	0.599	0.546	0.436	0.731		0.578	21.22
5)		Pyridine	0.424	0.364	0.429	0.496		0.428	12.65
6)	CM	Phenol	1.442	1.792	1.686	1.698	1.721	1.668	7.94
7)	MT	bis(2-Chloroethyl)eth	1.893	2.082	2.104	2.042	2.008	2.026	4.10
8)	M	2-Chlorophenol	1.138	1.284	1.307	1.245	1.372	1.269	6.83
9)	MT	1,3-Dichlorobenzene	1.295	1.404	1.490	1.416	1.320	1.385	5.65
10)	CM	1,4-Dichlorobenzene	1.318	1.468	1.512	1.469	1.379	1.429	5.51
11)	M	1,2-Dichlorobenzene	1.255	1.391	1.452	1.374	1.315	1.357	5.54
12)	T	2-Methylphenol	1.109	1.268	1.262	1.164	1.220	1.204	5.61
13)	M	bis(2-chloroisopropyl	1.886	1.860	1.988	1.730	1.878	1.868	4.92
14)	T	4-Methylphenol	1.216	1.432	1.330	1.310	1.320	1.322	5.82
15)	PM	N-Nitroso-Di-n-propyl	1.289	1.444	1.471	1.267	1.257	1.346	7.68
16)	M	Hexachloroethane	0.691	0.756	0.792	0.747	0.701	0.737	5.65
17)	I	Naphthalene-d8	ISTD						
18)	S	Nitrobenzene-d5	0.437	0.466	0.478	0.437	0.460	0.456	4.02
19)	M	Nitrobenzene	0.398	0.409	0.461	0.436	0.416	0.424	5.86
20)	M	Isophorone	0.776	0.850	0.875	0.817	1.149	0.893	16.52
21)	MC	2-Nitrophenol	0.189	0.225	0.225	0.200	0.213	0.210	7.50
22)	M	2,4-Dimethylphenol	0.362	0.429	0.388	0.382	0.407	0.394	6.49
23)	M	bis(2-Chloroethoxy)me	0.441	0.448	0.467	0.455	0.469	0.456	2.57
24)	MC	2,4-Dichlorophenol	0.271	0.299	0.307	0.292	0.322	0.298	6.39
25)	M	1,2,4-Trichlorobenzen	0.293	0.318	0.326	0.322	0.326	0.317	4.42
26)	M	Naphthalene	0.922	0.948	1.039	0.963	1.023	0.979	5.12
27)	T	4-Chloroaniline	0.455	0.465	0.471	0.468	0.457	0.463	1.47
28)	MC	Hexachlorobutadiene	0.175	0.186	0.189	0.186	0.190	0.185	3.26
29)	MC	4-Chloro-3-methylphen	0.355	0.396	0.398	0.385	0.385	0.384	4.45
30)	M	2-Chloronaphthalene	0.672	0.680	0.719	0.700	0.709	0.696	2.81
31)	T	2-Methylnaphthalene	0.890	0.985	0.640	0.702	0.711	0.786	18.46
32)	I	Acenaphthene-d10	ISTD						
33)	P	Hexachlorocyclopentad	0.294	0.303	0.302	0.258	0.233	0.278	11.19
34)	MC	2,4,6-Trichlorophenol	0.470	0.452	0.413	0.381	0.361	0.415	11.10
35)	T	2,4,5-Trichlorophenol	0.221	0.317	0.348	0.370	0.365	0.324	18.94
36)	S	2-Fluorobiphenyl	1.163	1.254	1.230	1.178	1.174	1.200	3.30
37)	T	2-Nitroaniline	0.527	0.566	0.592	0.578	0.483	0.549	8.04
38)	M	Dimethylphthalate	1.233	1.348	1.373	1.295	1.248	1.299	4.68
39)	M	Acenaphthylene	1.606	1.717	1.805	1.711	1.683	1.704	4.20
40)	M	2,6-Dinitrotoluene	0.295	0.312	0.346	0.327	0.271	0.310	9.34
41)	T	3-Nitroaniline	0.279	0.370	0.403	0.363	0.315	0.346	14.10

(#) = Out of Range

Response Factor Report ABNA

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 09:37:17 1995
Response via : Initial Calibration

140

Calibration Files
160 =B7755.D 120 =B7754.D 80 =B7753.D
50 =B7752.D 20 =B7751.D

		Compound	160	120	80	50	20	Avg	%RSD
42)	CM	Acenaphthene	0.982	1.056	1.036	1.024	1.028	1.025	2.65
43)	MP	2,4-Dinitrophenol	0.189	0.213	0.198	0.155	0.107	0.172	24.56
44)	PM	4-Nitrophenol	0.151	0.178	0.188	0.168	0.142	0.166	11.52
45)	T	Dibenzofuran	1.475	1.700	1.686	1.669	1.512	1.609	6.62
46)	M	2,4-Dinitrotoluene	1.132	1.243	1.193	1.143	1.125	1.167	4.29
47)	M	Diethylphthalate	1.274	1.533	1.576	1.452	1.379	1.443	8.38
48)	M	Fluorene	1.222	1.333	1.295	1.228	1.216	1.259	4.17
49)	M	4-Chlorophenyl-phenyl	0.554	0.608	0.613	0.591	0.615	0.596	4.25
50)		Phenanthrene-d10	----------ISTD----------						
51)	T	4-Nitroaniline	0.131	0.151	0.160	0.214	0.175	0.166	18.75
52)	MC	4,6-Dinitro-2-methylp	0.141	0.142	0.151	0.129	0.096	0.132	16.20
53)	T	n-Nitrosodiphenylamin	0.458	0.524	0.531	0.530	0.499	0.508	6.15
54)	S	2,4,6-Tribromophenol	0.098	0.113	0.112	0.106	0.111	0.108	5.77
55)		1,2-Diphenylhydrazine	1.065	1.251	1.281	1.312	1.147	1.211	8.48
56)	M	4-Bromophenyl-phenyle	0.186	0.198	0.212	0.220	0.213	0.206	6.61
57)	M	Hexachlorobenzene	0.138	0.231	0.244	0.228	0.233	0.215	20.20
58)	CM	Pentachlorophenol	0.131	0.150	0.154	0.133	0.119	0.137	10.26
59)	M	Phenanthrene	0.983	1.142	1.181	1.095	1.071	1.094	6.87
60)	M	Anthracene	0.809	1.021	1.128	1.028	1.059	1.009	11.85
61)		Carbazole	0.656	1.051	1.106	0.964	0.941	0.944	18.43
62)	M	Di-n-butylphthalate	1.441	1.645	1.749	1.638	1.559	1.606	7.11
63)	MC	Fluoranthene	0.922	0.947	1.162	1.124	1.019	1.035	10.22
64)	I	Chrysene-d12	----------ISTD----------						
65)		Benzidine	0.569	0.427	0.364	0.399	0.428	0.437	17.86
66)	M	Pyrene	1.857	1.452	1.658	1.267	1.273	1.502	16.98
67)	S	Terphenyl-d14	1.355	1.039	1.124	0.880	0.911	1.062	17.99
68)	M	Butylbenzylphthalate	1.130	0.958	1.080	0.843	0.796	0.962	15.08
69)	M	Benzo[a]anthracene	1.813	1.529	1.731	1.342	1.163	1.516	17.74
70)	M	3,3'-Dichlorobenzidin	0.345	0.347	0.471	0.353	0.416	0.386	14.47
71)	M	Chrysene	0.661	0.691	1.035	0.768	1.060	0.843	22.65
72)	M	bis(2-Ethylhexyl)phth	1.536	1.331	1.560	1.243	1.151	1.364	13.17
73)	I	Perylene-d12	----------ISTD----------						
74)	MC	Di-n-octylphthalate	4.287	5.460	5.911	4.718		5.094	14.31
75)	M	Benzo[b]fluoranthene	2.445	2.215	2.794	2.522	2.357	2.467	8.75
76)	m	Benzo[k]fluoranthene	1.248	0.961	1.258	1.108	1.376	1.190	13.40
77)	mc	Benzo[a]pyrene	1.114	0.945	1.269	1.355	1.450	1.227	16.33
78)	m	Indeno[1,2,3-cd]pyren	0.493	0.521	0.450	0.417	0.381	0.452	12.46
79)	m	Dibenz[a,h]anthracene	0.471	0.517	0.454	0.365	0.371	0.436	15.14
80)	M	Benzo[g,h,i]perylene	0.385	0.372	0.381	0.326	0.314	0.356	9.28
81)		1-Methyl naphthalene						0.000#	-1.00
82)		7,12-Dimethylbenz(a)a						0.000#	-1.00

(#) = Out of Range

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2 141
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	25556	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.74	136	103257	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.06	164	74029	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.53	188	123712	40.00	ug/ml	-0.36
64) Chrysene-d12	30.59	240	101227	40.00	ug/mL	-0.44
73) Perylene-d12	34.60	264	55866	40.00	ug/mL	-0.44
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	37223	52.40	ug/mL	52.40%
3) Phenol-d5	8.39	99	60299	61.22	ug/mL	61.22%
18) Nitrobenzene-d5	10.70	82	59323	55.23	ug/mL	55.23%
36) 2-Fluorobiphenyl	16.21	172	108666	45.06	ug/mL	45.06%
54) 2,4,6-Tribromophenol	20.47	330	17160	50.11	ug/mL	50.11%
67) Terphenyl-d14	27.65	244	115295	44.07	ug/mL	44.07%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	11819	64.09	ug/mlm	0
6) Phenol	8.41	94	21988	23.29	ug/mL	100
7) bis(2-Chloroethyl)ether	12.42	93	25656	25.13	ug/mL	94
8) 2-Chlorophenol	8.45	128	17535	22.70	ug/mL	91
9) 1,3-Dichlorobenzene	8.84	146	16873	19.30	ug/mL	95
10) 1,4-Dichlorobenzene	9.09	146	17619	19.90	ug/mL	99
11) 1,2-Dichlorobenzene	9.47	146	16808	18.80	ug/mL	99
12) 2-Methylphenol	10.13	108	15585	20.61	ug/mLm	62
13) bis(2-chloroisopropyl)ethe	10.13	45	23996	14.64	ug/mL#	8
14) 4-Methylphenol	10.63	108	16867	20.62	ug/mL	96
15) N-Nitroso-Di-n-propylamine	10.47	70	16063	19.56	ug/mL	95
16) Hexachloroethane	10.43	117	8960	16.89	ug/mL	93
19) Nitrobenzene	10.74	77	21469	22.12	ug/mL#	73
20) Isophorone	10.70	82	59319	34.39	ug/mL#	68
21) 2-Nitrophenol	11.70	139	11002	19.97	ug/mL	97
22) 2,4-Dimethylphenol	10.63	107	20989	21.66	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.16	93	24189	20.63	ug/mL#	42
24) 2,4-Dichlorophenol	12.47	162	16624	20.82	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.65	180	16825	18.32	ug/mL	99
26) Naphthalene	12.80	128	52795	20.11	ug/mL#	89
27) 4-Chloroaniline	13.15	127	23600	19.35	ug/mL	98
28) Hexachlorobutadiene	13.32	225	9812	16.62	ug/mL	99
29) 4-Chloro-3-methylphenol	14.86	107	19868	19.58	ug/mL	90
30) 2-Chloronaphthalene	16.38	162	36612	17.42	ug/ml	97
31) 2-Methylnaphthalene	14.94	142	36729	19.16	ug/mL	98
33) Hexachlorocyclopentadiene	15.48	237	8635	12.84	ug/mL	99
34) 2,4,6-Trichlorophenol	15.92	196	13356	18.21	ug/mL	96
35) 2,4,5-Trichlorophenol	16.02	196	13494	17.54	ug/mL	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

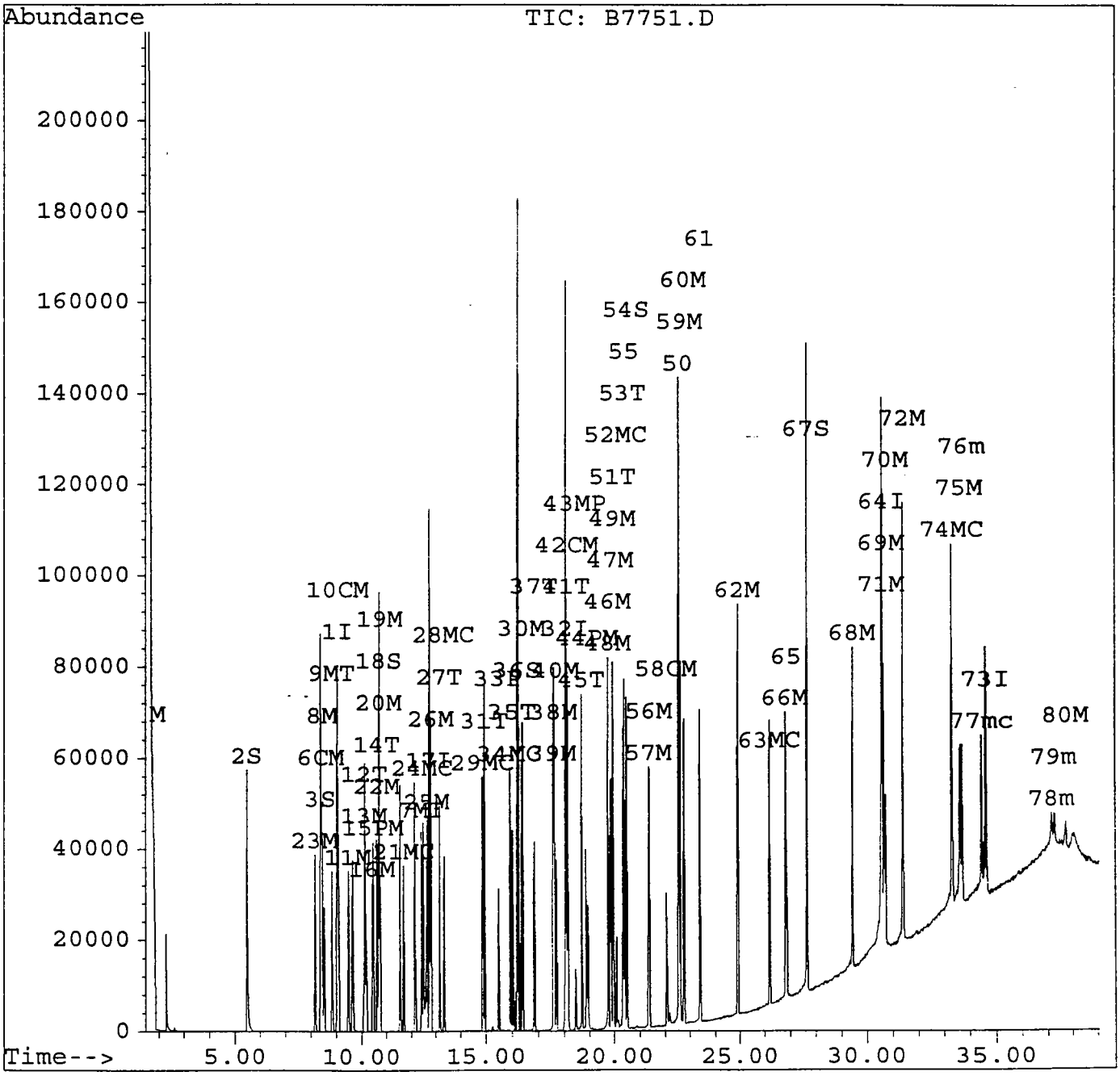
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.85	65	17876	21.08	ug/mL#	100
38)	Dimethylphthalate	17.62	163	46196	21.25	ug/mL	100
39)	Acenaphthylene	17.58	152	62290	16.75	ug/mL	98
40)	2,6-Dinitrotoluene	17.69	165	10022	19.61	ug/mL	99
41)	3-Nitroaniline	18.12	138	11669	15.38	ug/mL	98
42)	Acenaphthene	18.14	153	38044	16.56	ug/mL	99
43)	2,4-Dinitrophenol	18.44	184	3955	15.55	ug/mLm	95
44)	4-Nitrophenol	18.93	109	5206	21.05	ug/mL	91
45)	Dibenzofuran	18.69	168	55975	17.19	ug/mL	98
46)	2,4-Dinitrotoluene	19.73	165	41635	17.45	ug/mL#	34
47)	Diethylphthalate	19.83	149	51035	19.15	ug/mL	99
48)	Fluorene	19.73	166	45015	17.98	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.93	204	22774	18.71	ug/mL	94
51)	4-Nitroaniline	19.95	138	10837	22.35	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.06	198	5946	17.19	ug/mL	100
53)	n-Nitrosodiphenylamine	20.33	169	30841	25.02	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.39	77	70933	22.38	ug/ml	100
56)	4-Bromophenyl-phenylether	21.37	248	13195	20.03	ug/mL#	89
57)	Hexachlorobenzene	21.35	284	14382	18.78	ug/mL#	51
58)	Pentachlorophenol	22.07	266	7390	16.37	ug/mL	99
59)	Phenanthrene	22.61	178	66272	19.37	ug/mL	98
60)	Anthracene	22.74	178	65476	19.46	ug/mLm	97
61)	Carbazole	23.40	167	58205	18.79	ug/ml	100
62)	Di-n-butylphthalate	24.92	149	96445	16.33	ug/mL	99
63)	Fluoranthene	26.19	202	63031	16.63	ug/mLm	93
65)	Benzidine	26.88	184	21650	24.83	ug/mlm	100
66)	Pyrene	26.83	202	64445	15.73	ug/mL#	87
68)	Butylbenzylphthalate	29.43	149	40290	16.46	ug/mL	90
69)	Benzo[a]anthracene	30.57	228	58860	18.72	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	21074	24.51	ug/mL	98
71)	Chrysene	30.57	228	53653	19.46	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.40	149	58259	15.97	ug/mL	100
74)	Di-n-octylphthalate	33.31	149	92370	9.30	ug/mL	98
75)	Benzo[b]fluoranthene	33.62	252	65848	26.94	ug/mLm	98
76)	Benzo[k]fluoranthene	33.70	252	38434	16.42	ug/mLm	91
77)	Benzo[a]pyrene	34.45	252	40502	24.28	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.16	276	10646	15.19	ug/mL#	85
79)	Dibenz[a,h]anthracene	37.27	278	10355	16.78	ug/mL#	91
80)	Benzo[g,h,i]perylene	37.74	276	8780	14.39	ug/mLm	97

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.03	152	29664	40.00	ug/mL	-0.27
17) Naphthalene-d8	12.75	136	124059	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.05	164	81773	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.52	188	131721	40.00	ug/ml	-0.37
64) Chrysene-d12	30.58	240	118287	40.00	ug/mL	-0.45
73) Perylene-d12	34.60	264	45273	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	39705	48.15	ug/mL	48.15%
3) Phenol-d5	8.39	99	63940	55.92	ug/mL	55.92%
18) Nitrobenzene-d5	10.71	82	67799	52.53	ug/mL	52.53%
36) 2-Fluorobiphenyl	16.20	172	120432	45.21	ug/mL	45.21%
54) 2,4,6-Tribromophenol	20.46	330	17504	48.01	ug/mL	48.01%
67) Terphenyl-d14	27.65	244	130090	42.56	ug/mL	42.56%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	27115	126.68	ug/mlm	0
6) Phenol	8.43	94	62958	57.46	ug/mL	100
7) bis(2-Chloroethyl)ether	12.42	93	75709	63.88	ug/mL	99
8) 2-Chlorophenol	8.45	128	46179	51.50	ug/mL#	84
9) 1,3-Dichlorobenzene	8.84	146	52488	51.73	ug/mL	98
10) 1,4-Dichlorobenzene	9.09	146	54452	52.99	ug/mL	99
11) 1,2-Dichlorobenzene	9.47	146	50964	49.12	ug/mL	99
12) 2-Methylphenol	10.13	108	43177	49.20	ug/mLm	65
13) bis(2-chloroisopropyl)ethe	10.09	45	64159	33.73	ug/mL#	67
14) 4-Methylphenol	10.63	108	48583	51.18	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.49	70	46969	49.27	ug/mL	99
16) Hexachloroethane	10.42	117	27701	44.99	ug/mL#	69
19) Nitrobenzene	10.76	77	67644	58.02	ug/mL	89
20) Isophorone	11.57	82	126657	61.12	ug/mL	97
21) 2-Nitrophenol	11.69	139	31019	46.87	ug/mL	88
22) 2,4-Dimethylphenol	10.63	107	59303	50.95	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.16	93	70617	50.13	ug/mL#	42
24) 2,4-Dichlorophenol	12.48	162	45218	47.12	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.65	180	49933	45.25	ug/mL	98
26) Naphthalene	12.81	128	149358	47.34	ug/mL#	91
27) 4-Chloroaniline	13.15	127	72575	49.52	ug/mL	100
28) Hexachlorobutadiene	13.33	225	28798	40.59	ug/mL	98
29) 4-Chloro-3-methylphenol	14.87	107	59715	48.98	ug/mL	99
30) 2-Chloronaphthalene	16.37	162	108511	42.96	ug/ml	97
31) 2-Methylnaphthalene	14.94	142	108935	47.31	ug/mL	98
33) Hexachlorocyclopentadiene	15.46	237	26413	35.57	ug/mL	98
34) 2,4,6-Trichlorophenol	15.91	196	38933	48.06	ug/mL	99
35) 2,4,5-Trichlorophenol	16.00	196	37853	44.55	ug/mL	100

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

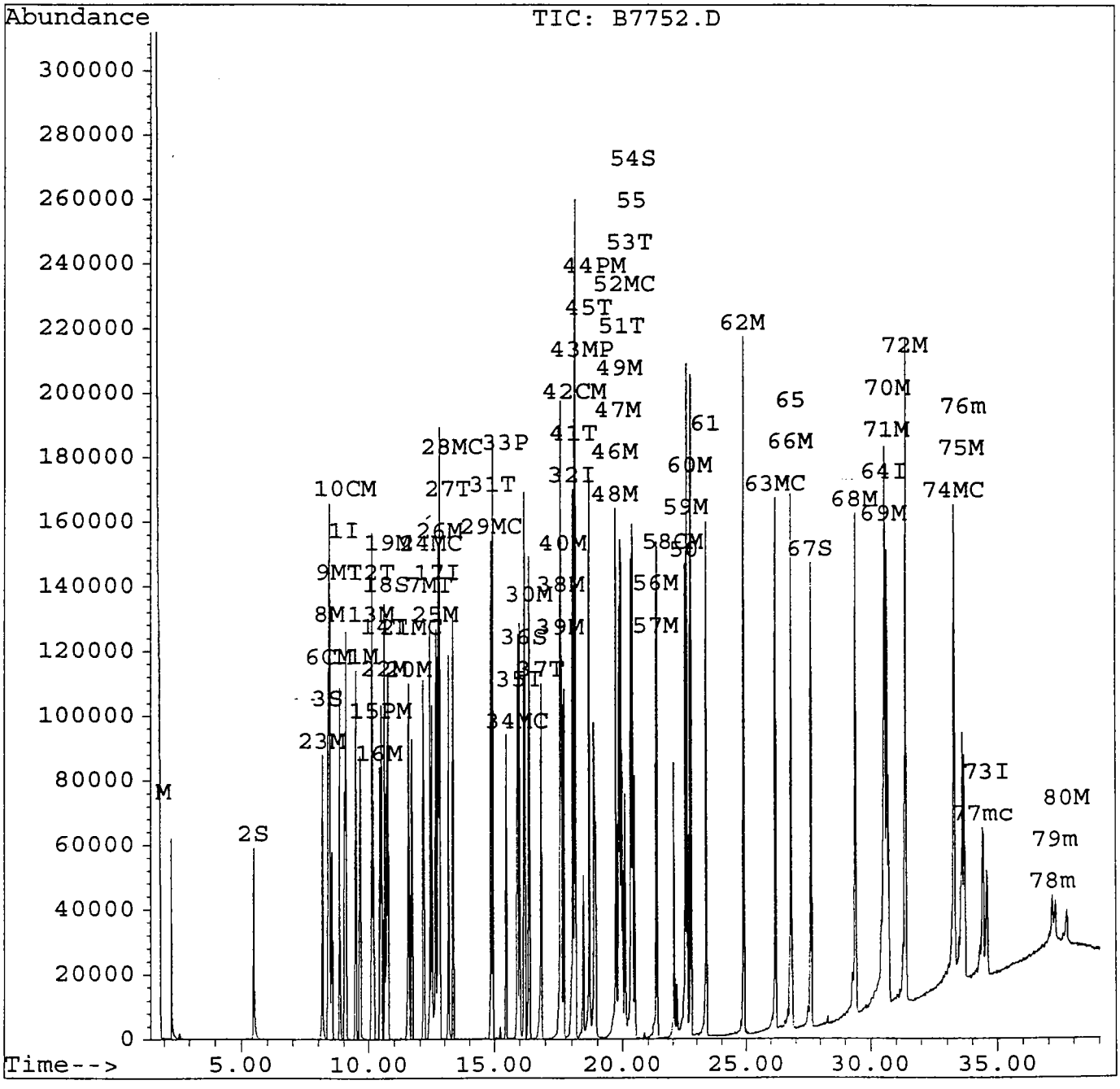
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.85	65	59044	63.04	ug/mL#	100
38)	Dimethylphthalate	17.62	163	132350	55.11	ug/mL	99
39)	Acenaphthylene	17.58	152	174919	42.58	ug/mL	99
40)	2,6-Dinitrotoluene	17.70	165	33402	59.16	ug/mL	98
41)	3-Nitroaniline	18.12	138	37075	44.25	ug/mL	98
42)	Acenaphthene	18.14	153	104702	41.25	ug/mL	100
43)	2,4-Dinitrophenol	18.45	184	15812	56.30	ug/mL#	91
44)	4-Nitrophenol	18.93	109	17219	63.03	ug/mL#	83
45)	Dibenzofuran	18.70	168	170626	47.45	ug/mL	97
46)	2,4-Dinitrotoluene	19.72	165	116800	44.33	ug/mL#	32
47)	Diethylphthalate	19.86	149	148456	50.42	ug/mL	98
48)	Fluorene	19.72	166	125476	45.36	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.92	204	60420	44.93	ug/mL	95
51)	4-Nitroaniline	19.99	138	35220	68.23	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.09	198	21308	57.84	ug/mL	100
53)	n-Nitrosodiphenylamine	20.32	169	87310	66.53	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.38	77	216080	64.04	ug/ml	100
56)	4-Bromophenyl-phenylether	21.36	248	36244	51.67	ug/mL#	89
57)	Hexachlorobenzene	21.34	284	37570	46.07	ug/mL#	76
58)	Pentachlorophenol	22.06	266	21962	45.70	ug/mL	98
59)	Phenanthrene	22.60	178	180287	49.49	ug/mL	100
60)	Anthracene	22.75	178	169255	47.24	ug/mLm	99
61)	Carbazole	23.39	167	158797	48.15	ug/ml	99
62)	Di-n-butylphthalate	24.91	149	269738	42.89	ug/mL	100
63)	Fluoranthene	26.20	202	185037	45.86	ug/mLm	81
65)	Benzidine	26.87	184	58973	57.88	ug/mlm	100
66)	Pyrene	26.84	202	187374	39.15	ug/mL	97
68)	Butylbenzylphthalate	29.42	149	124656	43.57	ug/mL	91
69)	Benzo[a]anthracene	30.56	228	198412	54.00	ug/mL	100
70)	3,3'-Dichlorobenzidine	30.71	252	52146	51.91	ug/mL	98
71)	Chrysene	30.66	228	113518	35.24	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.39	149	183732	43.10	ug/mL	99
74)	Di-n-octylphthalate	33.30	149	267010	33.18	ug/mL	98
75)	Benzo[b]fluoranthene	33.63	252	142718	72.04	ug/mL	98
76)	Benzo[k]fluoranthene	33.71	252	62677	33.05	ug/mLm	95
77)	Benzo[a]pyrene	34.44	252	76698	56.74	ug/mLm	99
78)	Indeno[1,2,3-cd]pyrene	37.16	276	23591	41.53	ug/mLm	96
79)	Dibenz[a,h]anthracene	37.28	278	20678	41.35	ug/mL	96
80)	Benzo[g,h,i]perylene	37.74	276	18451	37.32	ug/mL	95

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	29814	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.75	136	126317	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.05	164	87574	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.54	188	151522	40.00	ug/ml	-0.35
64) Chrysene-d12	30.60	240	106944	40.00	ug/mL	-0.42
73) Perylene-d12	34.60	264	39840	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	43593	52.60	ug/mL	52.60%
3) Phenol-d5	8.41	99	71703	62.40	ug/mL	62.40%
18) Nitrobenzene-d5	10.72	82	75552	57.49	ug/mL	57.49%
36) 2-Fluorobiphenyl	16.22	172	134602	47.18	ug/mL	47.18%
54) 2,4,6-Tribromophenol	20.48	330	21167	50.47	ug/mL	50.47%
67) Terphenyl-d14	27.65	244	150199	54.35	ug/mL	54.35%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.62	74	25992	120.82	ug/ml	100
6) Phenol	8.45	94	100529	91.29	ug/mL	100
7) bis(2-Chloroethyl)ether	12.44	93	125480	105.34	ug/mL	99
8) 2-Chlorophenol	8.45	128	77924	86.47	ug/mL#	89
9) 1,3-Dichlorobenzene	8.86	146	88850	87.12	ug/mL	98
10) 1,4-Dichlorobenzene	9.09	146	90142	87.29	ug/mL	98
11) 1,2-Dichlorobenzene	9.49	146	86576	83.03	ug/mL	99
12) 2-Methylphenol	10.15	108	75232	85.29	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.11	45	118548	62.01	ug/mL#	81
14) 4-Methylphenol	10.65	108	79296	83.11	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.53	70	87737	91.57	ug/mL	94
16) Hexachloroethane	10.44	117	47246	76.35	ug/mL	93
19) Nitrobenzene	10.78	77	116413	98.06	ug/mL#	86
20) Isophorone	11.61	82	221062	104.76	ug/mL	99
21) 2-Nitrophenol	11.71	139	56797	84.29	ug/mL	91
22) 2,4-Dimethylphenol	10.65	107	97981	82.67	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.18	93	117962	82.25	ug/mL#	42
24) 2,4-Dichlorophenol	12.50	162	77661	79.49	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.65	180	82424	73.37	ug/mL	100
26) Naphthalene	12.83	128	262498	81.72	ug/mL#	92
27) 4-Chloroaniline	13.17	127	118867	79.65	ug/mL	99
28) Hexachlorobutadiene	13.33	225	47670	66.00	ug/mL	96
29) 4-Chloro-3-methylphenol	14.87	107	100652	81.09	ug/mL	90
30) 2-Chloronaphthalene	16.39	162	181668	70.65	ug/ml	100
31) 2-Methylnaphthalene	14.94	142	161698	68.97	ug/mL	98
33) Hexachlorocyclopentadiene	15.46	237	52969	66.60	ug/mL	100
34) 2,4,6-Trichlorophenol	15.93	196	72387	83.44	ug/mL	98
35) 2,4,5-Trichlorophenol	16.00	196	60973	67.01	ug/mL	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

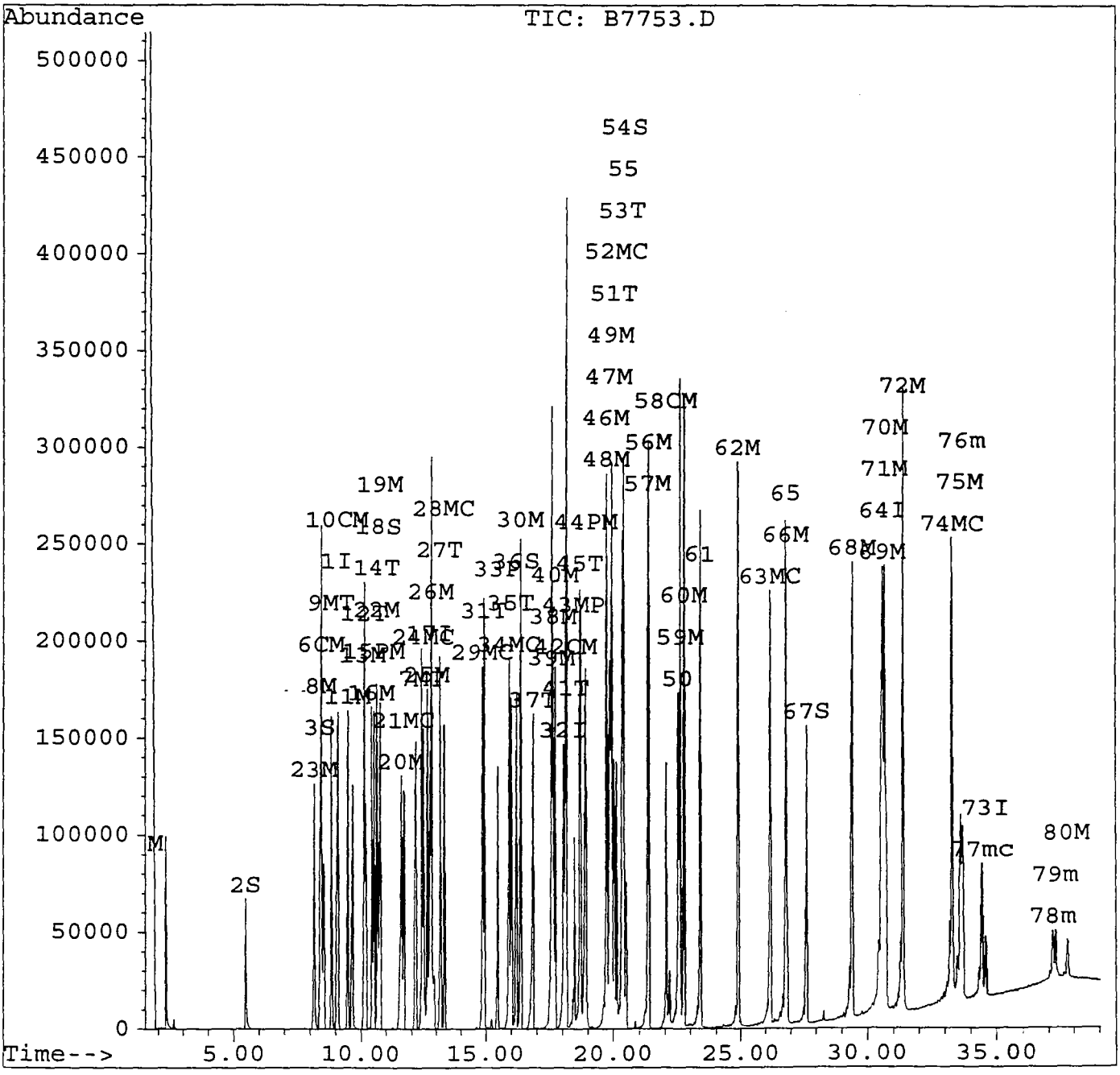
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.87	65	103690	103.37	ug/mL#	100
38)	Dimethylphthalate	17.66	163	240471	93.49	ug/mL#	99
39)	Acenaphthylene	17.60	152	316138	71.86	ug/mL	99
40)	2,6-Dinitrotoluene	17.74	165	60631	100.28	ug/mL	92
41)	3-Nitroaniline	18.16	138	70580	78.65	ug/mL	92
42)	Acenaphthene	18.16	153	181405	66.74	ug/mL	99
43)	2,4-Dinitrophenol	18.47	184	34630	115.13	ug/mL	93
44)	4-Nitrophenol	18.95	109	33002	112.80	ug/mL	86
45)	Dibenzofuran	18.70	168	295374	76.70	ug/mL	95
46)	2,4-Dinitrotoluene	19.74	165	209002	74.07	ug/mL#	32
47)	Diethylphthalate	19.86	149	275990	87.53	ug/mL	98
48)	Fluorene	19.74	166	226899	76.60	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.94	204	107387	74.57	ug/mL	95
51)	4-Nitroaniline	20.03	138	48638	81.91	ug/mL	96
52)	4,6-Dinitro-2-methylphenol	20.11	198	45736	107.93	ug/mL	100
53)	n-Nitrosodiphenylamine	20.34	169	161028	106.67	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.40	77	388272	100.03	ug/ml	100
56)	4-Bromophenyl-phenylether	21.38	248	64383	79.79	ug/mL	94
57)	Hexachlorobenzene	21.37	284	73929	78.80	ug/mL#	70
58)	Pentachlorophenol	22.06	266	46630	84.35	ug/mL	97
59)	Phenanthrene	22.62	178	357765	85.38	ug/mL	99
60)	Anthracene	22.77	178	341982	82.98	ug/mLm	98
61)	Carbazole	23.41	167	335154	88.34	ug/ml	99
62)	Di-n-butylphthalate	24.91	149	529878	73.24	ug/mL	99
63)	Fluoranthene	26.20	202	352244	75.89	ug/mLm	91
65)	Benzidine	26.88	184	77859	84.53	ug/ml	100
66)	Pyrene	26.84	202	354638	81.96	ug/mL#	89
68)	Butylbenzylphthalate	29.42	149	231051	89.32	ug/mL	95
69)	Benzo[a]anthracene	30.58	228	370214	111.44	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	100778	110.96	ug/mL	98
71)	Chrysene	30.68	228	221302	75.99	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.39	149	333704	86.58	ug/mL	97
74)	Di-n-octylphthalate	33.30	149	471006	66.51	ug/mL	99
75)	Benzo[b]fluoranthene	33.63	252	222662	127.72	ug/mL	97
76)	Benzo[k]fluoranthene	33.71	252	100220	60.05	ug/mLm	94
77)	Benzo[a]pyrene	34.44	252	101126	85.01	ug/mLm	99
78)	Indeno[1,2,3-cd]pyrene	37.17	276	35858	71.73	ug/mL	88
79)	Dibenz[a,h]anthracene	37.28	278	36175	82.20	ug/mL	94
80)	Benzo[g,h,i]perylene	37.75	276	30352	69.77	ug/mLm	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	27011	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.77	136	112346	40.00	ug/mL	-0.26
32) Acenaphthene-d10	18.05	164	74142	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.53	188	133454	40.00	ug/ml	-0.36
64) Chrysene-d12	30.59	240	102268	40.00	ug/mL	-0.43
73) Perylene-d12	34.61	264	30843	40.00	ug/mL	-0.44
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	40691	54.19	ug/mL	54.19%
3) Phenol-d5	8.41	99	68173	65.48	ug/mL	65.48%
18) Nitrobenzene-d5	10.73	82	65499	56.04	ug/mL	56.04%
36) 2-Fluorobiphenyl	16.22	172	116201	48.11	ug/mL	48.11%
54) 2,4,6-Tribromophenol	20.48	330	18886	51.13	ug/mL	51.13%
67) Terphenyl-d14	27.64	244	132840	50.26	ug/mL	50.26%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.64	74	44263	227.10	ug/ml	100
6) Phenol	8.47	94	145178	145.51	ug/mL	100
7) bis(2-Chloroethyl)ether	12.44	93	168732	156.34	ug/mL	98
8) 2-Chlorophenol	8.47	128	104043	127.43	ug/mL#	87
9) 1,3-Dichlorobenzene	8.86	146	113739	123.10	ug/mL	98
10) 1,4-Dichlorobenzene	9.11	146	118937	127.12	ug/mL	99
11) 1,2-Dichlorobenzene	9.49	146	112702	119.30	ug/mL	98
12) 2-Methylphenol	10.17	108	102718	128.54	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.11	45	150752	87.04	ug/mL#	79
14) 4-Methylphenol	10.67	108	116050	134.26	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.53	70	117037	134.82	ug/mL	99
16) Hexachloroethane	10.44	117	61265	109.28	ug/mL#	81
19) Nitrobenzene	10.78	77	137726	130.44	ug/mL#	79
20) Isophorone	11.63	82	286449	152.63	ug/mL	100
21) 2-Nitrophenol	11.73	139	75814	126.50	ug/mL	95
22) 2,4-Dimethylphenol	10.67	107	144674	137.24	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.18	93	151120	118.47	ug/mL#	42
24) 2,4-Dichlorophenol	12.52	162	100762	115.96	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.67	180	107106	107.19	ug/mL	98
26) Naphthalene	12.83	128	319371	111.79	ug/mL#	91
27) 4-Chloroaniline	13.17	127	156643	118.02	ug/mL	98
28) Hexachlorobutadiene	13.35	225	62689	97.58	ug/mL	98
29) 4-Chloro-3-methylphenol	14.89	107	133371	120.81	ug/mL#	86
30) 2-Chloronaphthalene	16.39	162	229152	100.19	ug/ml	100
31) 2-Methylnaphthalene	14.96	142	331843	159.13	ug/mL	97
33) Hexachlorocyclopentadiene	15.46	237	67420	100.13	ug/mL	97
34) 2,4,6-Trichlorophenol	15.93	196	100492	136.82	ug/mL	99
35) 2,4,5-Trichlorophenol	16.00	196	70403	91.40	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

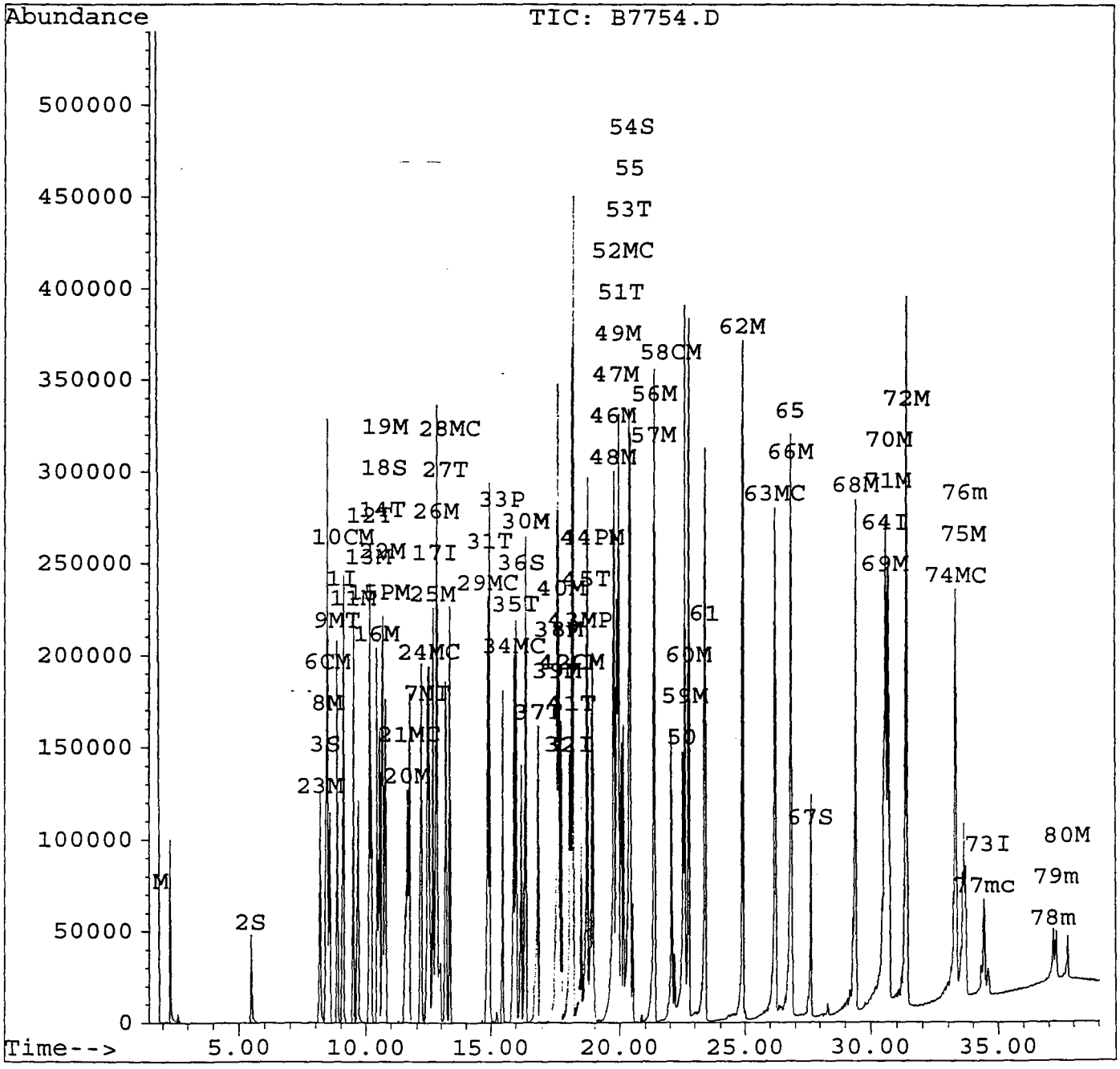
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.87	65	125966	148.33	ug/mL#	100
38)	Dimethylphthalate	17.66	163	299887	137.71	ug/mL	99
39)	Acenaphthylene	17.61	152	381978	102.55	ug/mL	99
40)	2,6-Dinitrotoluene	17.74	165	69446	135.67	ug/mLm	93
41)	3-Nitroaniline	18.16	138	82189	108.18	ug/mL	95
42)	Acenaphthene	18.16	153	234884	102.07	ug/mL	99
43)	2,4-Dinitrophenol	18.49	184	47322	185.83	ug/mL	87
44)	4-Nitrophenol	18.96	109	39654	160.09	ug/mL	90
45)	Dibenzofuran	18.72	168	378169	115.99	ug/mL	98
46)	2,4-Dinitrotoluene	19.75	165	276442	115.72	ug/mL#	32
47)	Diethylphthalate	19.86	149	341020	127.75	ug/mL	99
48)	Fluorene	19.75	166	296520	118.24	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.94	204	135159	110.86	ug/mL	94
51)	4-Nitroaniline	20.06	138	60415	115.52	ug/mL	95
52)	4,6-Dinitro-2-methylphenol	20.13	198	56816	152.23	ug/mLm	100
53)	n-Nitrosodiphenylamine	20.35	169	209653	157.68	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.40	77	500723	146.47	ug/ml	100
56)	4-Bromophenyl-phenylether	21.39	248	79413	111.75	ug/mL	95
57)	Hexachlorobenzene	21.37	284	92449	111.89	ug/mL#	68
58)	Pentachlorophenol	22.06	266	59890	123.01	ug/mL	99
59)	Phenanthrene	22.62	178	457295	123.90	ug/mL	99
60)	Anthracene	22.78	178	408657	112.58	ug/mLm	99
61)	Carbazole	23.41	167	420878	125.96	ug/ml	99
62)	Di-n-butylphthalate	24.92	149	658579	103.35	ug/mL	100
63)	Fluoranthene	26.21	202	379190	92.76	ug/mLm	91
65)	Benzidine	26.87	184	131098	148.83	ug/mlm	100
66)	Pyrene	26.85	202	445627	107.70	ug/mL#	89
68)	Butylbenzylphthalate	29.43	149	293901	118.82	ug/mL	93
69)	Benzo[a]anthracene	30.57	228	469239	147.71	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.73	252	106370	122.47	ug/mL#	97
71)	Chrysene	30.67	228	211972	76.11	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.40	149	408257	110.77	ug/mL	98
74)	Di-n-octylphthalate	33.31	149	505170	92.14	ug/mL	100
75)	Benzo[b]fluoranthene	33.64	252	204971	151.87	ug/mLm	97
76)	Benzo[k]fluoranthene	33.72	252	88924	68.83	ug/mLm	96
77)	Benzo[a]pyrene	34.45	252	87415	94.92	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.18	276	48224	124.60	ug/mL#	81
79)	Dibenz[a,h]anthracene	37.31	278	47851	140.44	ug/mL	98
80)	Benzo[g,h,i]perylene	37.76	276	34423	102.21	ug/mLm	95

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	29361	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.77	136	123075	40.00	ug/mL	-0.26
32) Acenaphthene-d10	18.07	164	86872	40.00	ug/mL	-0.31
50) Phenanthrene-d10	22.53	188	155037	40.00	ug/ml	-0.36
64) Chrysene-d12	30.60	240	82528	40.00	ug/mL	-0.43
73) Perylene-d12	34.62	264	32039	40.00	ug/mL	-0.43
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	38395	47.04	ug/mL	47.04%
3) Phenol-d5	8.43	99	66343	58.62	ug/mL	58.62%
18) Nitrobenzene-d5	10.73	82	67218	52.50	ug/mL	52.50%
36) 2-Fluorobiphenyl	16.22	172	126324	44.63	ug/mL	44.63%
54) 2,4,6-Tribromophenol	20.49	330	18970	44.21	ug/mL	44.21%
67) Terphenyl-d14	27.64	244	139748	65.52	ug/mL	65.52%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.64	74	70397	332.28	ug/ml	100
6) Phenol	8.47	94	169408	156.21	ug/mL	100
7) bis(2-Chloroethyl)ether	12.46	93	222301	189.49	ug/mL	91
8) 2-Chlorophenol	8.47	128	133653	150.59	ug/mL#	88
9) 1,3-Dichlorobenzene	8.86	146	152142	151.49	ug/mL	97
10) 1,4-Dichlorobenzene	9.11	146	154778	152.19	ug/mL	98
11) 1,2-Dichlorobenzene	9.49	146	147372	143.51	ug/mL	99
12) 2-Methylphenol	10.17	108	130214	149.90	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.13	45	221469	117.64	ug/mL	93
14) 4-Methylphenol	10.67	108	142777	151.95	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.55	70	151444	160.49	ug/mL	97
16) Hexachloroethane	10.44	117	81125	133.13	ug/mL#	82
19) Nitrobenzene	10.80	77	196043	169.49	ug/mL#	87
20) Isophorone	11.65	82	382084	185.84	ug/mL	99
21) 2-Nitrophenol	11.73	139	92995	141.64	ug/mL	89
22) 2,4-Dimethylphenol	10.67	107	178112	154.23	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.20	93	217251	155.46	ug/mL#	42
24) 2,4-Dichlorophenol	12.52	162	133269	140.00	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.67	180	144061	131.61	ug/mL	99
26) Naphthalene	12.83	128	453739	144.98	ug/mL#	91
27) 4-Chloroaniline	13.19	127	223903	153.98	ug/mL	98
28) Hexachlorobutadiene	13.35	225	86033	122.24	ug/mL	97
29) 4-Chloro-3-methylphenol	14.89	107	174950	144.66	ug/mL#	75
30) 2-Chloronaphthalene	16.39	162	331044	132.12	ug/ml	99
31) 2-Methylnaphthalene	14.97	142	438189	191.81	ug/mL	98
33) Hexachlorocyclopentadiene	15.49	237	102334	129.71	ug/mL	99
34) 2,4,6-Trichlorophenol	15.95	196	163412	189.89	ug/mL	97
35) 2,4,5-Trichlorophenol	16.03	196	76742	85.03	ug/mL	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

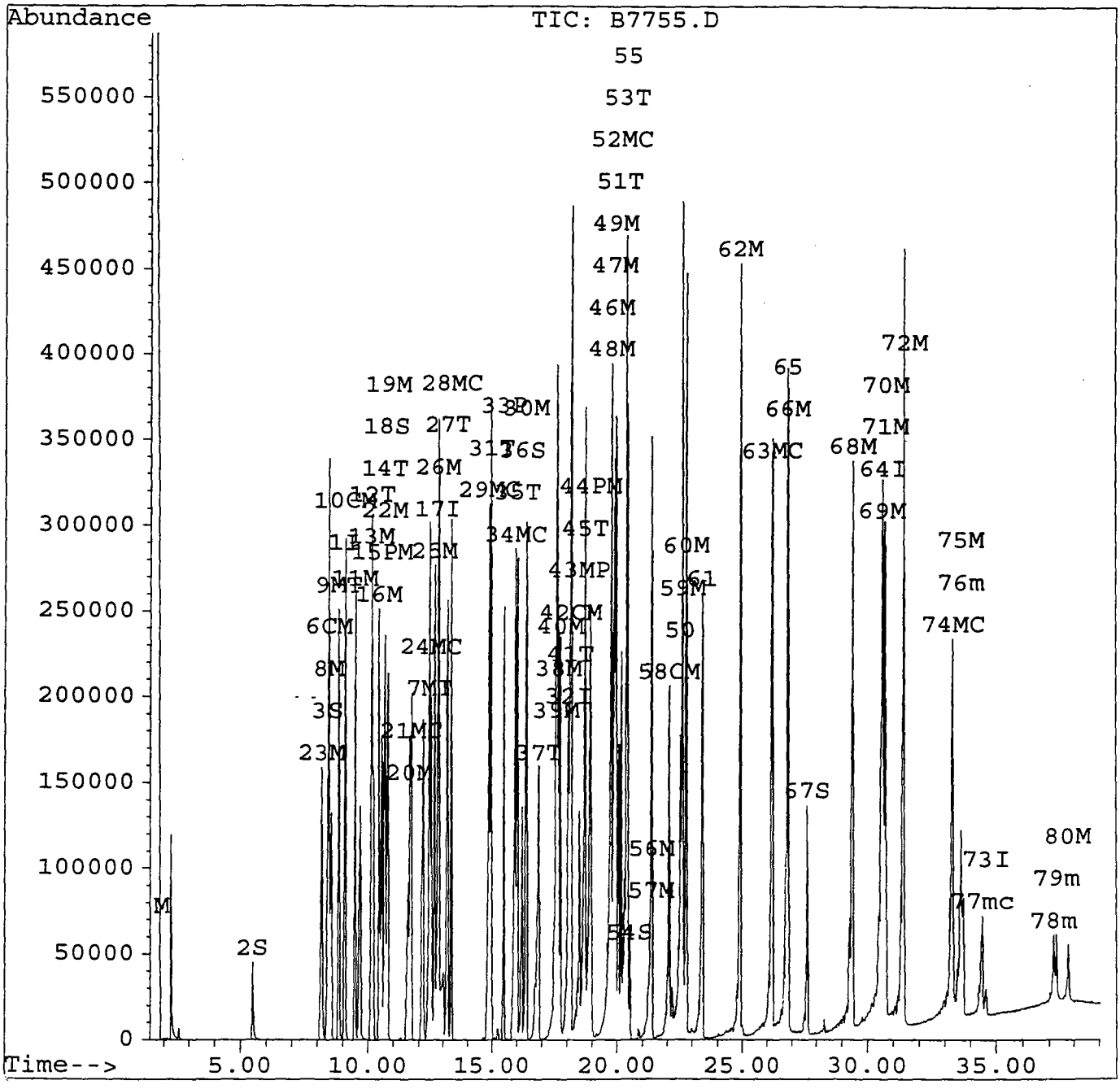
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.89	65	183241	184.15	ug/mL#	100
38)	Dimethylphthalate	17.67	163	428564	167.96	ug/mL	99
39)	Acenaphthylene	17.61	152	558058	127.87	ug/mL	99
40)	2,6-Dinitrotoluene	17.76	165	102561	171.00	ug/mLm	92
41)	3-Nitroaniline	18.17	138	96949	108.91	ug/mL	100
42)	Acenaphthene	18.17	153	341152	126.53	ug/mL	99
43)	2,4-Dinitrophenol	18.50	184	65640	219.99	ug/mL	88
44)	4-Nitrophenol	18.96	109	52458	180.75	ug/mL	93
45)	Dibenzofuran	18.73	168	512481	134.15	ug/mL	98
46)	2,4-Dinitrotoluene	19.77	165	393324	140.52	ug/mL#	35
47)	Diethylphthalate	19.89	149	442732	141.55	ug/mL	97
48)	Fluorene	19.77	166	424603	144.50	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.94	204	192605	134.83	ug/mL	98
51)	4-Nitroaniline	20.08	138	81046	133.39	ug/mL	90
52)	4,6-Dinitro-2-methylphenol	20.16	198	87159	201.02	ug/mLm	100
53)	n-Nitrosodiphenylamine	20.37	169	283832	183.75	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.41	77	660607	166.34	ug/ml	100
56)	4-Bromophenyl-phenylether	21.39	248	115508	139.91	ug/mLm	91
57)	Hexachlorobenzene	21.37	284	85494	89.06	ug/mLm	53
58)	Pentachlorophenol	22.09	266	81327	143.79	ug/mL	100
59)	Phenanthrene	22.63	178	609750	142.21	ug/mL	99
60)	Anthracene	22.78	178	501796	118.99	ug/mLm	99
61)	Carbazole	23.40	167	406913	104.82	ug/ml	98
62)	Di-n-butylphthalate	24.92	149	893793	120.74	ug/mL	99
63)	Fluoranthene	26.22	202	572007	120.45	ug/mLm	92
65)	Benzidine	26.87	184	187882	264.32	ug/ml	100
66)	Pyrene	26.85	202	612856	183.54	ug/mL#	89
68)	Butylbenzylphthalate	29.44	149	373168	186.95	ug/mL	91
69)	Benzo[a]anthracene	30.58	228	598348	233.40	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	113910	162.52	ug/mL	99
71)	Chrysene	30.68	228	218157	97.07	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.41	149	506955	170.44	ug/mL	96
74)	Di-n-octylphthalate	33.32	149	549407	96.47	ug/mL	99
75)	Benzo[b]fluoranthene	33.65	252	313299	223.47	ug/mLm	96
76)	Benzo[k]fluoranthene	33.65	252	159963	119.19	ug/mLm	96
77)	Benzo[a]pyrene	34.46	252	142747	149.22	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.20	276	63169	157.13	ug/mL	98
79)	Dibenz[a,h]anthracene	37.32	278	60387	170.62	ug/mL	99
80)	Benzo[g,h,i]perylene	37.76	276	49358	141.09	ug/mLm	94

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

156

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B7802.D DFTPP Injection Date: 6/3/95

Instrument ID: ABNA DFTPP Injection Time: 0953

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.9
365	Greater than 0.75% of mass 198	2.8
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.0 (19.8)2

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

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B7803.D	6/3/95	1013
02	SBLK01	BLANK1	B7804.D	6/3/95	1104
03	9521072B	9521072B	B7805.D	6/3/95	1154
04	9521073B	9521073B	B7806.D	6/3/95	1244
05	SBLK02	BLANK2	B7807.D	6/3/95	1334
06	9522265B	9522265B	B7808.D	6/3/95	1424
07	9522845B	9522845B	B7809.D	6/3/95	1515
08	SBLK03	BLANK3	B7810.D	6/3/95	1606
09	9523339B	9523339B	B7811.D	6/3/95	1656
10	9523341B	9523341B	B7812.D	6/3/95	1747
11	9523342B	9523342B	B7813.D	6/3/95	1838
12	9523343B	9523343B	B7814.D	6/3/95	1928
13	9523530B	9523530B	B7815.D	6/3/95	2018
14	9523531B	9523531B	B7816.D	6/3/95	2108
15	9523533B	9523533B	B7817.D	6/3/95	2158
16	9523534B	9523534B	B7818.D	6/3/95	2248
17	9523535B	9523535B	B7819.D	6/3/95	2337
18	9523536B	9523536B	B7820.D	6/4/95	0027
19	SBLK04	BLANK4	B7821.D	6/4/95	0117
20	9523789B	9523789B	B7822.D	6/4/95	0206
21	9523792B	9523792B	B7823.D	6/4/95	0256
22	9523787B	9523787B	B7824.D	6/4/95	0346

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B7802.D DFTPP Injection Date: 6/3/95

Instrument ID: ABNA DFTPP Injection Time: 0953

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.9
365	Greater than 0.75% of mass 198	2.8
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.0 (19.8)2

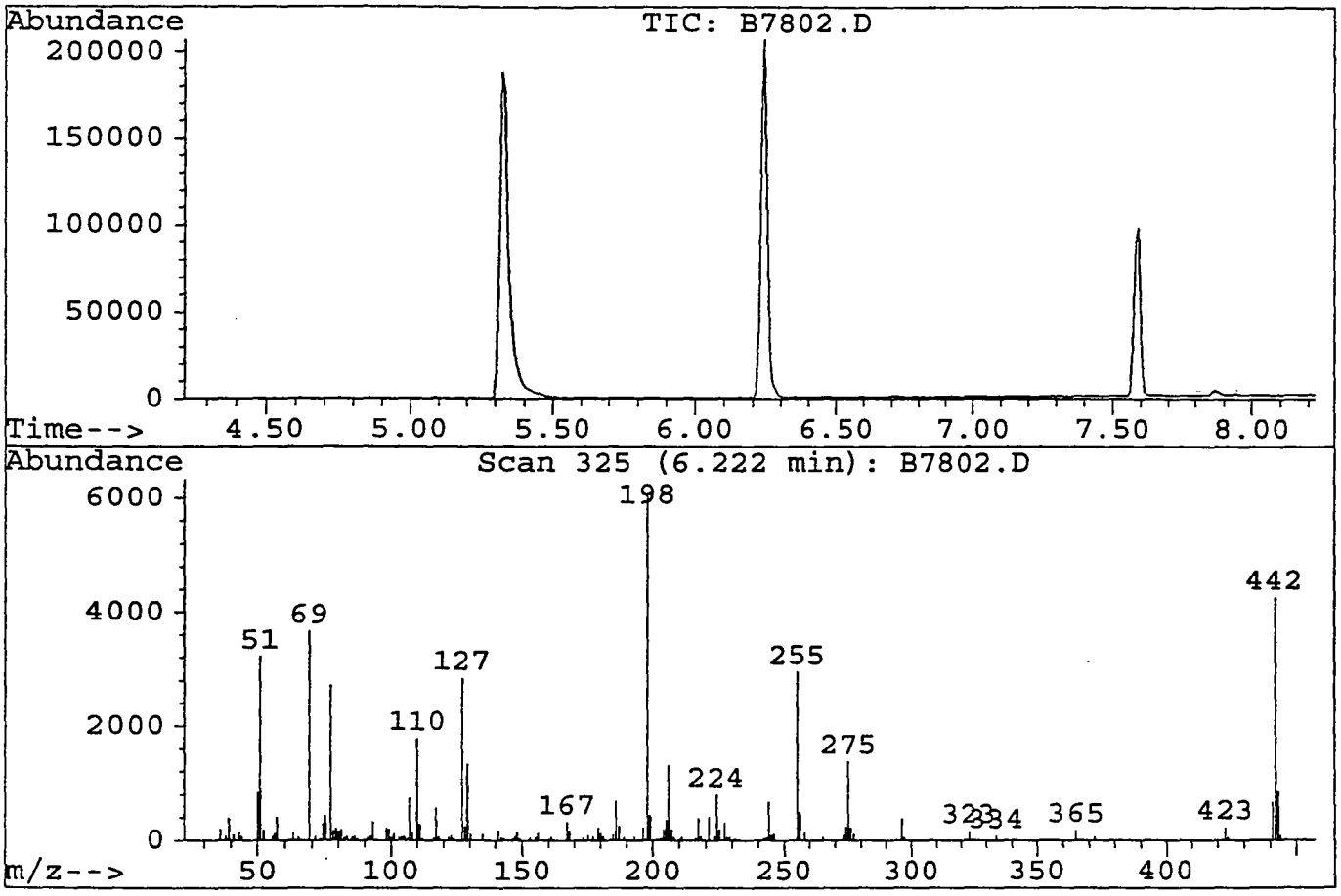
1-Value is % mass 69 2-Value is % mass 442

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SBLK05	BLANK5	B7825.D	6/4/95	0435
02	22654MS	22654MS	B7826.D	6/4/95	0525
03	22654MSD	22654MSD	B7827.D	6/4/95	0615
04	22659MS	22659MS	B7828.D	6/4/95	0704
05	22659MSD	22659MSD	B7829.D	6/4/95	0754
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Data File : C:\HPCHEM\1\DATA2\B7802.D Vial: 1
Acq On : 3 Jun 95 9:53 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: 325

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.6	3226	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	60.9	3667	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	47.3	2846	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	6021	PASS
199	198	5	9	7.2	434	PASS
275	198	10	30	22.9	1379	PASS
365	198	1	100	2.8	170	PASS
441	443	0	100	79.3	669	PASS
442	198	40	100	70.8	4261	PASS
443	442	17	23	19.8	844	PASS

B7802.D BNACLP.M Sat Jun 03 09:48:56 1995 BNA

Scan 325 (6.222 min): B7802.D
DFTPP..... Converted from RTE data file >B7802::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	195	57.05	413	79.95	160	99.05	186
37.90	74	63.05	134	81.05	193	100.05	51
39.10	386	65.05	66	81.95	54	100.95	118
41.05	94	68.95	3667	82.95	76	102.95	50
43.05	140	71.15	74	85.05	67	103.95	70
43.95	71	73.05	38	85.95	78	105.05	69
50.05	844	74.05	294	87.05	29	106.15	34
51.05	3226	74.95	427	90.95	51	107.05	746
52.05	179	77.05	2720	92.05	75	107.95	136
55.15	74	78.05	169	92.95	316	109.95	1785
55.95	133	79.05	215	98.05	224	111.05	275

Scan 325 (6.222 min): B7802.D
DFTPP..... Converted from RTE data file >B7802::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.85	36	134.90	114	160.00	39	186.00	683
116.05	42	140.90	173	161.00	63	187.00	242
117.05	564	142.10	53	167.00	318	188.90	51
118.05	51	142.90	34	168.00	162	193.00	70
121.90	66	145.90	30	173.00	42	196.10	225
123.00	89	147.00	83	175.00	88	198.00	6021
123.90	35	147.90	160	177.00	64	199.00	434
127.00	2846	149.00	36	179.00	216	201.65	29
128.10	250	152.90	50	180.00	127	202.95	41
128.90	1336	155.00	69	180.90	71	203.95	197
130.10	102	156.00	130	185.00	110	205.05	353

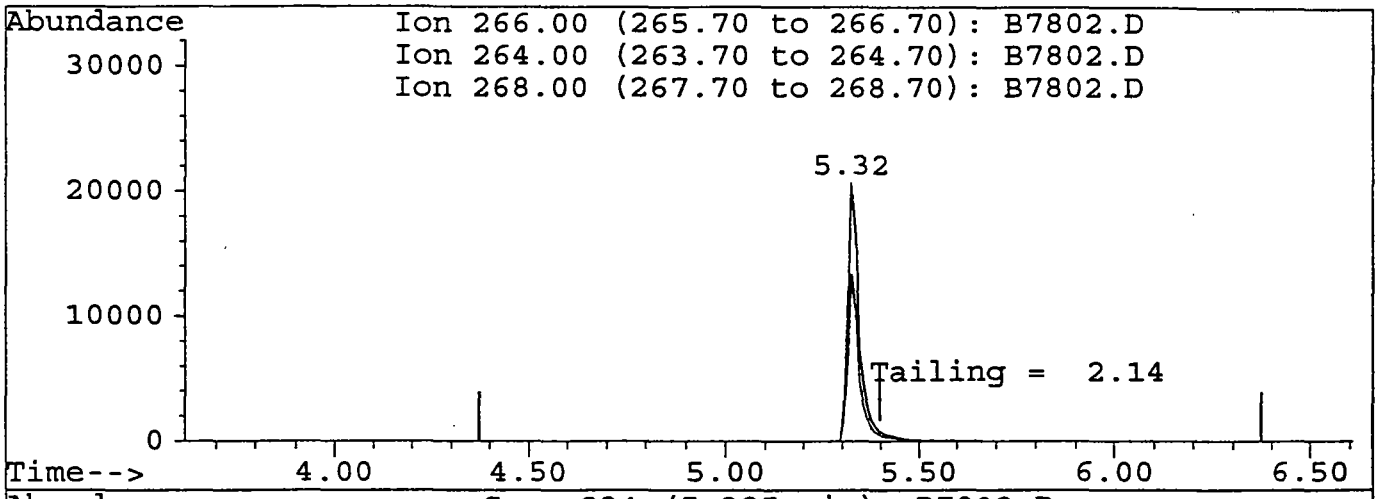
Scan 325 (6.222 min): B7802.D
DFTPP..... Converted from RTE data file >B7802::D5

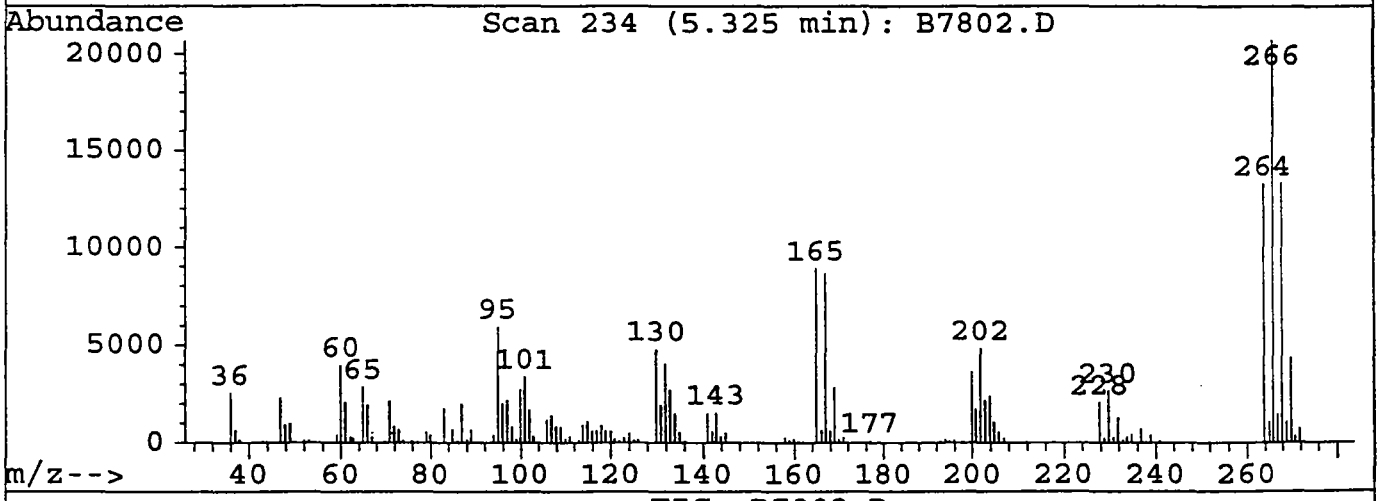
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.05	1320	224.95	192	255.95	487	334.00	73
207.05	189	226.95	305	258.05	143	364.95	170
207.95	55	227.95	55	264.95	68	372.05	67
210.15	33	228.85	61	272.95	102	423.05	224
211.05	66	231.05	37	274.05	239	423.95	49
216.15	46	242.05	44	275.05	1379	441.00	669
216.95	373	243.05	52	276.05	219	442.00	4261
217.95	69	244.05	676	277.05	109	443.00	844
220.95	411	245.05	91	296.00	378	444.00	72
222.95	81	245.95	117	297.00	45		
224.05	802	255.05	2950	323.10	156		

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D Vial: 1
Acq On : 3 Jun 95 9:53 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 3 9:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7802.D

(1) Pentachlorophenol (CM)

5.32min 133.02ug/mL

response 43936

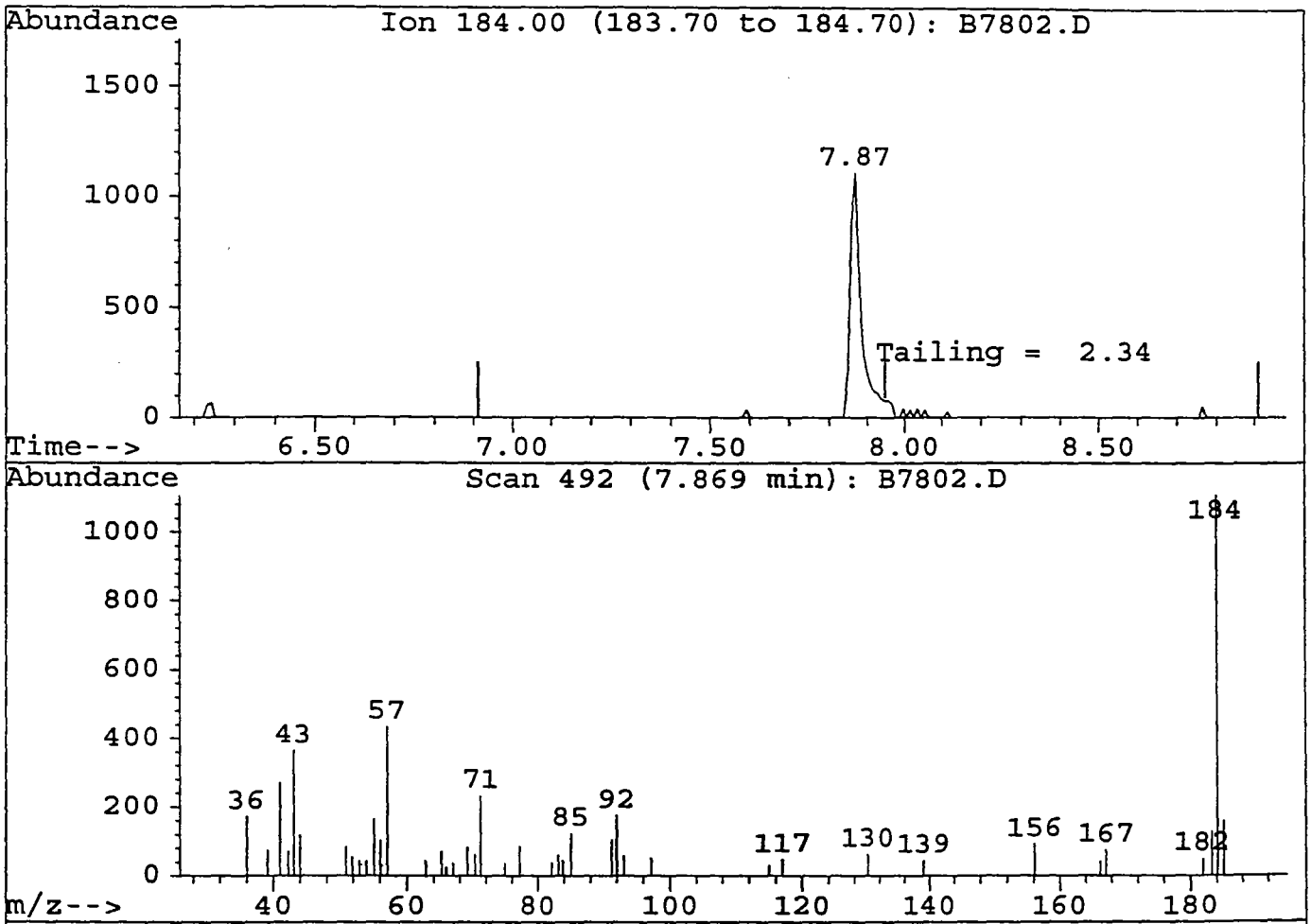
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	64.30
268.00	64.70	64.53
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D
Acq On : 3 Jun 95 9:53 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Jun 3 9:06 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



TIC: B7802.D

(2) Benzidine
7.87min 7.97ug/ml
response 2449

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
bis(2-Chloroethyl)ether	2.026	2.027		0.0	
1,3-Dichlorobenzene	1.385	1.449		-4.6	
1,4-Dichlorobenzene	1.429	1.500		-5.0	30.0
1,2-Dichlorobenzene	1.357	1.424		-4.9	
bis(2-chloroisopropyl)ether	1.868	1.769		5.3	
N-Nitroso-Di-n-propylamine	1.346	1.315	0.050	2.3	
Hexachloroethane	0.737	0.736		0.1	
Nitrobenzene	0.424	0.446		-5.2	
Isophorone	0.893	0.814		8.8	
bis(2-Chloroethoxy)methane	0.456	0.453		0.7	
1,2,4-Trichlorobenzene	0.317	0.332		-4.7	
Naphthalene	0.979	1.023		-4.5	
4-Chloroaniline	0.463	0.464		-0.2	
Hexachlorobutadiene	0.185	0.191		-3.2	30.0
2-Methylnaphthalene	0.786	0.742		5.6	
Hexachlorocyclopentadiene	0.278	0.250	0.050	10.1	
2-Chloronaphthalene	0.696	0.716		-2.9	
2-Nitroaniline	0.549	0.487		11.3	
Dimethylphthalate	1.299	1.277		1.7	
Acenaphthylene	1.704	1.652		3.1	
2,6-Dinitrotoluene	0.310	0.301		2.9	
3-Nitroaniline	0.346	0.344		0.6	
Acenaphthene	1.025	1.040		-1.5	30.0
Dibenzofuran	1.609	1.625		-1.0	
2,4-Dinitrotoluene	1.167	1.125		3.6	
Diethylphthalate	1.443	1.376		4.6	
Fluorene	1.259	1.219		3.2	
4-Chlorophenyl-phenylether	0.596	0.628		-5.4	
4-Nitroaniline	0.166	0.194		-16.9	
n-Nitrosodiphenylamine	0.508	0.502		1.2	
4-Bromophenyl-phenylether	0.206	0.219		-6.3	
Hexachlorobenzene	0.215	0.232		-7.9	
Phenanthrene	1.094	1.129		-3.2	
Anthracene	1.009	1.064		-5.5	
Carbazole	0.944	1.015		-7.5	
Di-n-butylphthalate	1.606	1.633		-1.7	
Fluoranthene	1.035	1.139		-10.0	30.0

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Pyrene	1.502	1.240		17.4	
Butylbenzylphthalate	0.962	0.769		20.1	
Benzo[a]anthracene	1.516	1.300		14.2	
3,3'-Dichlorobenzidine	0.386	0.357		7.5	
Chrysene	0.843	0.806		4.4	
bis(2-Ethylhexyl)phthalate	1.364	1.148		15.8	
Di-n-octylphthalate	5.094	4.570		10.3	30.0
Benzo[b]fluoranthene	2.467	2.153		12.7	
Benzo[k]fluoranthene	1.190	1.273		-7.0	
Benzo[a]pyrene	1.227	1.266		-3.2	30.0
Indeno[1,2,3-cd]pyrene	0.452	0.458		-1.3	
Dibenz[a,h]anthracene	0.436	0.384		11.9	
Benzo[g,h,i]perylene	0.356	0.291		18.3	
Nitrobenzene-d5	0.456	0.443		2.9	
2-Fluorobiphenyl	1.200	1.187		1.1	
Terphenyl-d14	1.062	0.881		17.0	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.18
2	S	2-Fluorophenol	1.131	1.044	7.7	96	0.16
3	S	Phenol-d5	1.873	1.712	8.6	98	0.14
4	M	N-nitrosodimethylamine	0.578	0.585	-1.1	79	-0.10
5		Pyridine	0.428	0.000#	100.0#	0#	-1.62#
6	CM	Phenol	1.668	1.607	3.7	93	0.14
7	MT	bis(2-Chloroethyl)ether	2.026	2.027	-0.1	98	0.18
8	M	2-Chlorophenol	1.269	1.290	-1.6	102	0.16
9	MT	1,3-Dichlorobenzene	1.385	1.449	-4.6	101	0.18
10	CM	1,4-Dichlorobenzene	1.429	1.500	-5.0	101	0.18
11	M	1,2-Dichlorobenzene	1.357	1.424	-4.9	102	0.18
12	T	2-Methylphenol	1.204	1.299	-7.9	110	0.66#
13	M	bis(2-chloroisopropyl)ether	1.868	1.769	5.3	101	0.20
14	T	4-Methylphenol	1.322	1.299	1.7	98	0.16
15	PM	N-Nitroso-Di-n-propylamine	1.346	1.315	2.3	102	0.18
16	M	Hexachloroethane	0.737	0.736	0.1	97	0.19
17	I	Naphthalene-d8	1.000	1.000	0.0	94	0.18
18	S	Nitrobenzene-d5	0.456	0.443	2.8	96	0.18
19	M	Nitrobenzene	0.424	0.446	-5.2	96	0.18
20	M	Isophorone	0.893	0.814	8.8	94	0.16
21	MC	2-Nitrophenol	0.210	0.202	4.2	95	0.20
22	M	2,4-Dimethylphenol	0.394	0.392	0.4	97	0.16
23	M	bis(2-Chloroethoxy)methane	0.456	0.453	0.7	94	0.16
24	MC	2,4-Dichlorophenol	0.298	0.301	-0.8	97	0.18
25	M	1,2,4-Trichlorobenzene	0.317	0.332	-4.7	97	0.18
26	M	Naphthalene	0.979	1.023	-4.5	100	0.20
27	T	4-Chloroaniline	0.463	0.464	-0.1	93	0.20
28	MC	Hexachlorobutadiene	0.185	0.191	-3.3	97	0.18
29	MC	4-Chloro-3-methylphenol	0.384	0.376	2.0	92	0.18
30	M	2-Chloronaphthalene	0.696	0.716	-2.8	96	0.21
31	T	2-Methylnaphthalene	0.786	0.742	5.5	100	0.19
32	I	Acenaphthene-d10	1.000	1.000	0.0	99	0.21
33	P	Hexachlorocyclopentadiene	0.278	0.250	10.3	95	0.19
34	MC	2,4,6-Trichlorophenol	0.415	0.353	15.0	91	0.20
35	T	2,4,5-Trichlorophenol	0.324	0.384	-18.4	102	0.19
36	S	2-Fluorobiphenyl	1.200	1.187	1.1	99	0.19
37	T	2-Nitroaniline	0.549	0.487	11.3	83	0.19
38	M	Dimethylphthalate	1.299	1.277	1.8	97	0.19
39	M	Acenaphthylene	1.704	1.652	3.1	95	0.21
40	M	2,6-Dinitrotoluene	0.310	0.301	2.8	91	0.21

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	T	3-Nitroaniline	0.346	0.344	0.6	94	0.21
42	CM	Acenaphthene	1.025	1.040	-1.5	100	0.21
43	MP	2,4-Dinitrophenol	0.172	0.164	4.8	104	0.21
44	PM	4-Nitrophenol	0.166	0.160	3.5	94	0.19
45	T	Dibenzofuran	1.609	1.625	-1.0	96	0.21
46	M	2,4-Dinitrotoluene	1.167	1.125	3.6	97	0.23
47	M	Diethylphthalate	1.443	1.376	4.6	93	0.21
48	M	Fluorene	1.259	1.219	3.2	98	0.23
49	M	4-Chlorophenyl-phenylether	0.596	0.628	-5.4	105	0.23
50		Phenanthrene-d10	1.000	1.000	0.0	102	0.25
51	T	4-Nitroaniline	0.166	0.194	-16.9	93	0.21
52	MC	4,6-Dinitro-2-methylphenol	0.132	0.139	-5.1	109	0.21
53	T	n-Nitrosodiphenylamine	0.508	0.502	1.2	96	0.23
54	S	2,4,6-Tribromophenol	0.108	0.110	-2.0	106	0.23
55		1,2-Diphenylhydrazine (as a	1.211	1.189	1.8	92	0.23
56	M	4-Bromophenyl-phenylether	0.206	0.219	-6.2	101	0.23
57	M	Hexachlorobenzene	0.215	0.232	-8.2	104	0.23
58	CM	Pentachlorophenol	0.137	0.160	-16.2	122	0.23
59	M	Phenanthrene	1.094	1.129	-3.2	105	0.25
60	M	Anthracene	1.009	1.064	-5.5	105	0.25
61		Carbazole	0.944	1.015	-7.5	107	0.25
62	M	Di-n-butylphthalate	1.606	1.633	-1.6	102	0.23
63	MC	Fluoranthene	1.035	1.139	-10.1	103	0.27
64	I	Chrysene-d12	1.000	1.000	0.0	110	0.31
65		Benzidine	0.437	0.361	17.5	99	0.27
66	M	Pyrene	1.502	1.240	17.4	107	0.27
67	S	Terphenyl-d14	1.062	0.881	17.1	110	0.27
68	M	Butylbenzylphthalate	0.962	0.769	20.0	100	0.27
69	M	Benzo[a]anthracene	1.516	1.300	14.2	106	0.31
70	M	3,3'-Dichlorobenzidine	0.386	0.357	7.5	111	0.29
71	M	Chrysene	0.843	0.806	4.4	115	0.31
72	M	bis(2-Ethylhexyl)phthalate	1.364	1.148	15.8	101	0.27
73	I	Perylene-d12	1.000	1.000	0.0	206#	0.30
74	MC	Di-n-octylphthalate	5.094	4.570	10.3	200#	0.27
75	M	Benzo[b]fluoranthene	2.467	2.153	12.7	176#	0.30
76	m	Benzo[k]fluoranthene	1.190	1.273	-7.0	237#	0.31
77	mc	Benzo[a]pyrene	1.227	1.266	-3.2	193#	-0.51#
78	m	Indeno[1,2,3-cd]pyrene	0.452	0.458	-1.1	227#	0.26
79	m	Dibenz[a,h]anthracene	0.436	0.384	11.8	217#	0.26

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0.356	0.291	18.1	185#	0.26
81		1-Methyl naphthalene	0.000	0.000#	0.0	0#	-13.33#
82		7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	191#	0.30
83		Quinoline	0.000	0.000#	0.0	95	0.20
84		Thiophenol	0.000	0.000#	0.0	72	0.17
85		4-Methyl chrysene	0.000	0.000#	0.0	118	0.31
86		Dibenz(a,j)acridine	0.000	0.000#	0.0	131	0.27
87		Indene	0.000	0.000#	0.0	94	0.18

Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.21	152	29236	40.00	ug/mL	0.18
17) Naphthalene-d8	12.92	136	116999	40.00	ug/mL	0.18
32) Acenaphthene-d10	18.26	164	80656	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	134208	40.00	ug/ml	0.25
64) Chrysene-d12	30.89	240	129676	40.00	ug/mL	0.31
73) Perylene-d12	34.90	264	93467	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.63	112	38146	46.13	ug/mL	46.13%
3) Phenol-d5	8.53	99	62550	45.70	ug/mL	45.70%
18) Nitrobenzene-d5	10.88	82	64784	48.60	ug/mL	48.60%
36) 2-Fluorobiphenyl	16.39	172	119643	49.45	ug/mL	49.45%
54) 2,4,6-Tribromophenol	20.69	330	18489	51.01	ug/mL	51.01%
67) Terphenyl-d14	27.91	244	142742	41.47	ug/mL	41.47%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.85	74	21365	50.56	ug/mlm	100
6) Phenol	8.57	94	58717	48.17	ug/mL	100
7) bis(2-Chloroethyl)ether	12.60	93	74087	50.04	ug/mL	96
8) 2-Chlorophenol	8.61	128	47149	50.82	ug/mL	95
9) 1,3-Dichlorobenzene	9.01	146	52942	52.30	ug/mL	98
10) 1,4-Dichlorobenzene	9.26	146	54825	52.49	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	52051	52.46	ug/mL	98
12) 2-Methylphenol	10.79	108	47472	53.93	ug/mL	65
13) bis(2-chloroisopropyl)ethe	10.28	45	64632	47.33	ug/mL#	1
14) 4-Methylphenol	10.79	108	47472	49.15	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.67	70	48058	48.86	ug/mL	91
16) Hexachloroethane	10.61	117	26915	49.93	ug/mL	99
19) Nitrobenzene	10.94	77	65242	52.61	ug/mL#	89
20) Isophorone	11.73	82	119099	45.58	ug/mL	96
21) 2-Nitrophenol	11.88	139	29485	47.92	ug/mL	98
22) 2,4-Dimethylphenol	10.79	107	57307	49.78	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.32	93	66255	49.66	ug/mL#	42
24) 2,4-Dichlorophenol	12.65	162	43957	50.41	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.83	180	48531	52.36	ug/mL	98
26) Naphthalene	13.00	128	149571	52.24	ug/mL#	91
27) 4-Chloroaniline	13.35	127	67787	50.05	ug/mL	98
28) Hexachlorobutadiene	13.50	225	27957	51.65	ug/mL	96
29) 4-Chloro-3-methylphenol	15.04	107	55034	49.01	ug/mL	100
30) 2-Chloronaphthalene	16.58	162	104679	51.41	ug/ml	99
31) 2-Methylnaphthalene	15.14	142	108545	47.23	ug/mL	100
33) Hexachlorocyclopentadiene	15.66	237	25173	44.85	ug/mL	96
34) 2,4,6-Trichlorophenol	16.10	196	35610	42.51	ug/mL	99
35) 2,4,5-Trichlorophenol	16.20	196	38697	59.22	ug/mL	100

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

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

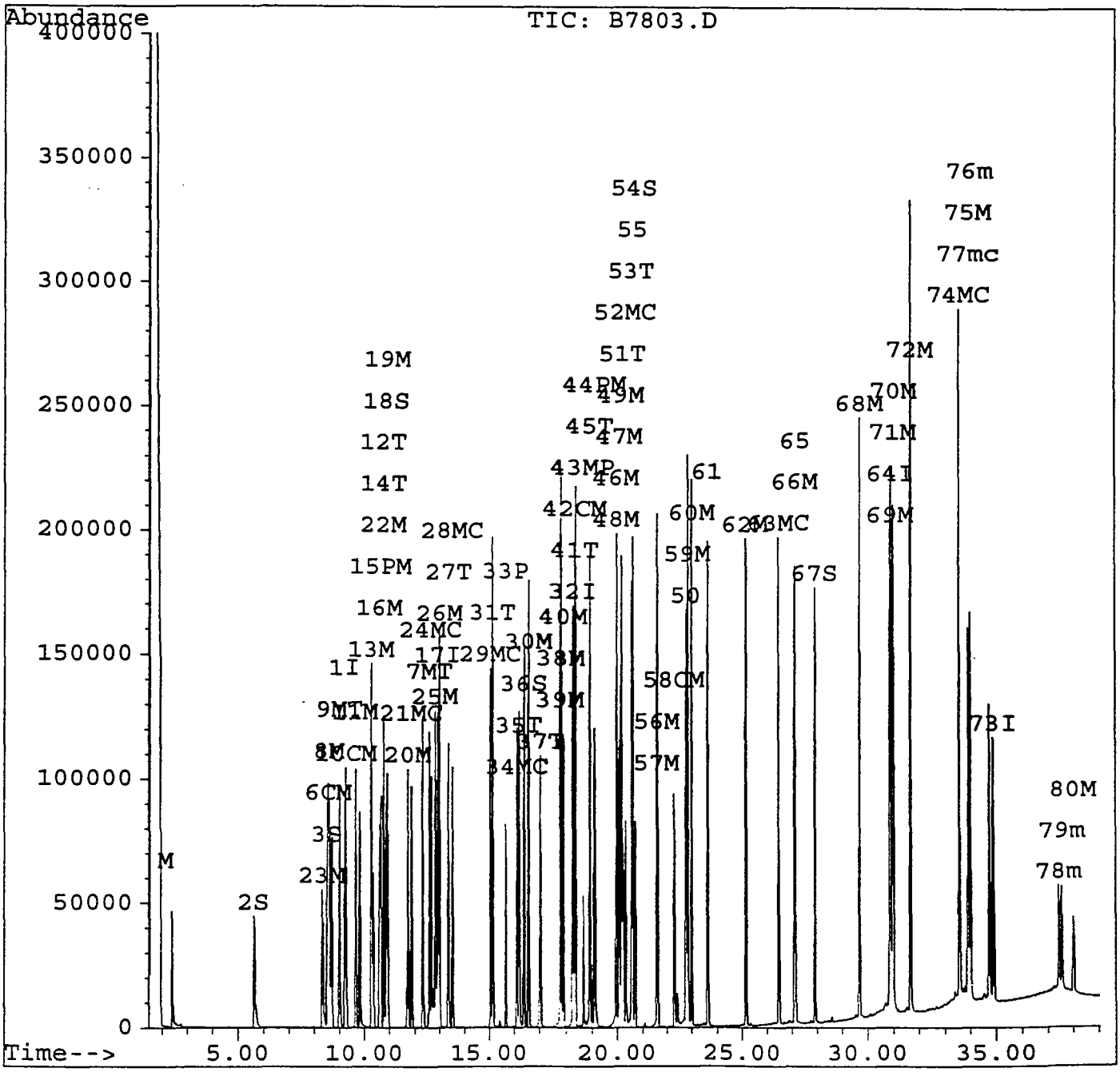
Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.05	65	49104	44.34	ug/mL#	100
38)	Dimethylphthalate	17.82	163	128716	49.12	ug/mL	99
39)	Acenaphthylene	17.80	152	166597	48.47	ug/mL	99
40)	2,6-Dinitrotoluene	17.91	165	30393	48.59	ug/mL	97
41)	3-Nitroaniline	18.34	138	34672	49.71	ug/mL	95
42)	Acenaphthene	18.36	153	104858	50.73	ug/mL	100
43)	2,4-Dinitrophenol	18.66	184	16518	47.58	ug/mL	99
44)	4-Nitrophenol	19.13	109	16116	48.25	ug/mL	89
45)	Dibenzofuran	18.92	168	163832	50.51	ug/mL	95
46)	2,4-Dinitrotoluene	19.96	165	113430	48.20	ug/mL#	32
47)	Diethylphthalate	20.07	149	138770	47.70	ug/mL	100
48)	Fluorene	19.96	166	122870	48.41	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	63340	52.68	ug/mL	93
51)	4-Nitroaniline	20.21	138	32609	58.46	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.30	198	23243	52.57	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	84236	49.39	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.61	77	199476	49.08	ug/ml	100
56)	4-Bromophenyl-phenylether	21.59	248	36733	53.12	ug/mL#	89
57)	Hexachlorobenzene	21.58	284	38977	54.11	ug/mL	91
58)	Pentachlorophenol	22.29	266	26808	58.11	ug/mL	98
59)	Phenanthrene	22.85	178	189424	51.58	ug/mL	100
60)	Anthracene	23.00	178	178492	52.73	ug/mLm	99
61)	Carbazole	23.64	167	170215	53.76	ug/ml	100
62)	Di-n-butylphthalate	25.14	149	273873	50.81	ug/mL	99
63)	Fluoranthene	26.47	202	191126	55.04	ug/mLm	95
65)	Benzidine	27.14	184	58486	41.24	ug/mlm	100
66)	Pyrene	27.10	202	200950	41.28	ug/mLm	87
68)	Butylbenzylphthalate	29.69	149	124639	39.98	ug/mL	95
69)	Benzo[a]anthracene	30.87	228	210709	42.89	ug/mLm	99
70)	3,3'-Dichlorobenzidine	31.00	252	57942	46.26	ug/mL	99
71)	Chrysene	30.96	228	130675	47.82	ug/mLm	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	186121	42.09	ug/mL	99
74)	Di-n-octylphthalate	33.57	149	533971	44.86	ug/mLm	99
75)	Benzo[b]fluoranthene	33.93	252	251584	43.65	ug/mLm	99
76)	Benzo[k]fluoranthene	34.01	252	148737	53.49	ug/mLm	94
77)	Benzo[a]pyrene	33.93	252	147880	51.60	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.43	276	53465	50.57	ug/mLm	89
79)	Dibenz[a,h]anthracene	37.54	278	44917	44.12	ug/mL	98
80)	Benzo[g,h,i]perylene	38.01	276	34048	40.97	ug/mLm	98

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

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	29236	9.21	116999	12.92	80656	18.26
	UPPER LIMIT	58472	9.71	233998	13.42	161312	18.76
	LOWER LIMIT	14618	8.71	58500	12.42	40328	17.76
	SAMPLE NO.						
01	SBLK01	29342	9.21	113640	12.92	77393	18.25
02	9521072B	43362	9.20	172473	12.92	120771	18.25
03	9521073B	49674	9.20	207002	12.94	136613	18.27
04	SBLK02	45568	9.20	183778	12.92	124916	18.27
05	9522265B	38448	9.21	156239	12.92	104790	18.25
06	9522845B	34293	9.20	139874	12.92	94484	18.25
07	SBLK03	31802	9.20	131302	12.92	86836	18.27
08	9523339B	31877	9.20	132687	12.92	87914	18.25
09	9523341B	37996	9.20	159444	12.94	104434	18.27
10	9523342B	34168	9.20	146228	12.94	97312	18.27
11	9523343B	33809	9.20	139851	12.92	93023	18.27
12	9523530B	34840	9.20	145007	12.92	98737	18.25
13	9523531B	35055	9.20	145276	12.92	99265	18.27
14	9523533B	36725	9.20	152052	12.92	102907	18.27
15	9523534B	37321	9.29	127658	13.06	64338	18.50
16	9523535B	36905	9.21	144207	12.92	97310	18.26
17	9523536B	36125	9.20	148482	12.92	99681	18.27
18	SBLK04	38489	9.20	152333	12.92	104920	18.25
19	9523789B	39839	9.20	162610	12.92	110929	18.27
20	9523792B	36962	9.20	155161	12.92	105988	18.27
21	9523787B	38496	9.20	159554	12.92	108441	18.27
22	SBLK05	43303	9.20	177127	12.92	122916	18.27

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	29236	9.21	116999	12.92	80656	18.26
	UPPER LIMIT	58472	9.71	233998	13.42	161312	18.76
	LOWER LIMIT	14618	8.71	58500	12.42	40328	17.76
	SAMPLE NO.						
01	22654MS	33780	9.20	129967	12.94	93254	18.26
02	22654MSD	35303	9.20	144937	12.94	99611	18.26
03	22659MS	28616	9.20	119812	12.94	81829	18.26
04	22659MSD	30456	9.21	121585	12.94	84364	18.26
05							
06							
07							
08							
09							
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20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	134208	22.77	129676	30.89	93467	34.90
	UPPER LIMIT	268416	23.27	259352	31.39	186934	35.40
	LOWER LIMIT	67104	22.27	64838	30.39	46734	34.40
	SAMPLE NO.						
01	SBLK01	127774	22.76	144639	30.86	143369	34.89
02	9521072B	201946	22.77	208937	30.89	160791	34.90
03	9521073B	222787	22.77	231737	30.89	165808	34.90
04	SBLK02	200423	22.77	227269	30.88	184816	34.91
05	9522265B	172502	22.78	184570	30.88	122938	34.91
06	9522845B	149864	22.78	156654	30.88	124082	34.91
07	SBLK03	142609	22.77	151919	30.88	122270	34.91
08	9523339B	145640	22.78	157437	30.89	128975	34.92
09	9523341B	172617	22.77	198222	30.90	166777	34.93
10	9523342B	156213	22.77	174808	30.88	147217	34.91
11	9523343B	149747	22.77	162481	30.88	137109	34.91
12	9523530B	159922	22.78	179407	30.88	152667	34.91
13	9523531B	164218	22.77	179435	30.88	151215	34.91
14	9523533B	167089	22.77	185071	30.88	155624	34.91
15	9523534B	126172	22.95	162548	30.91	85072	34.88
16	9523535B	153052	22.76	160811	30.89	134801	34.89
17	9523536B	149413	22.77	158425	30.88	129419	34.91
18	SBLK04	168411	22.78	175380	30.88	148566	34.91
19	9523789B	183194	22.77	209328	30.88	181543	34.91
20	9523792B	175832	22.77	198461	30.88	168915	34.91
21	9523787B	177208	22.77	191680	30.88	155077	34.91
22	SBLK05	199698	22.77	216974	30.88	174620	34.91

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	134208	22.77	129676	30.89	93467	34.90
	UPPER LIMIT	268416	23.27	259352	31.39	186934	35.40
	LOWER LIMIT	67104	22.27	64838	30.39	46734	34.40
	SAMPLE NO.						
01	22654MS	155903	22.77	148922	30.91	65345	34.91
02	22654MSD	164759	22.77	152801	30.91	66464	34.91
03	22659MS	135678	22.77	133913	30.90	64806	34.89
04	22659MSD	145091	22.77	140877	30.90	65773	34.90
05							
06							
07							
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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.

9523533B

FB

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523533B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7817.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523533B 17
FB

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523533B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7817.D

Level: (low/med) _____ Date Received: 5/23/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9523533B FB

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523533B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7817.D

Level: (low/med) _____ Date Received: 5/23/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.86	5	J
2.				
3.				
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29.				
30.				

Quantitation Report

Data File : c:\hpchem\1\data2\b7817.d Vial: 167
Acq On : 3 Jun 95 9:58 pm Operator: SCOTTV
Sample : 23533..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 15:54 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	36725	40.00	ug/mL	0.17
17) Naphthalene-d8	12.92	136	152052	40.00	ug/mL	0.17
32) Acenaphthene-d10	18.27	164	102907	40.00	ug/mL	0.22
50) Phenanthrene-d10	22.77	188	167089	40.00	ug/ml	0.25
64) Chrysene-d12	30.88	240	185071	40.00	ug/mL	0.30
73) Perylene-d12	34.91	264	155624	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.20	99	367	0.21	ug/mL	0.21%
18) Nitrobenzene-d5	10.86	82	69935	40.37	ug/mL	40.37%
36) 2-Fluorobiphenyl	16.40	172	119023	38.56	ug/mL	38.56%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	27.93	244	314438	64.01	ug/mL	64.01%
Target Compounds						Qvalue

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

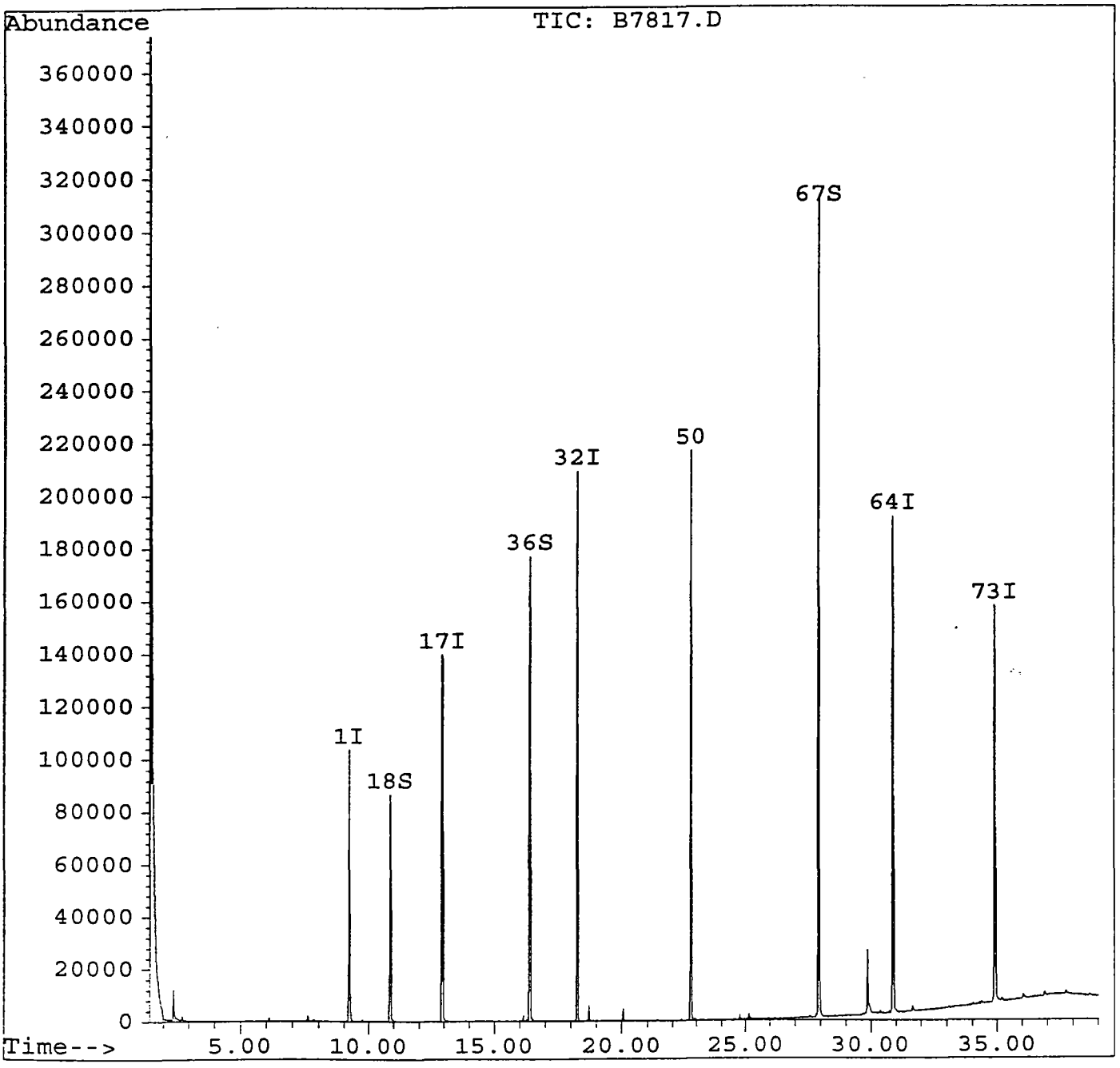
Quantitation Report

Data File : c:\hpchem\1\data2\b7817.d
Acq On : 3 Jun 95 9:58 pm
Sample : 23533.....
Misc :
Quant Time: Jun 5 15:54 1995

Converted from RTE d

Vial: 16
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



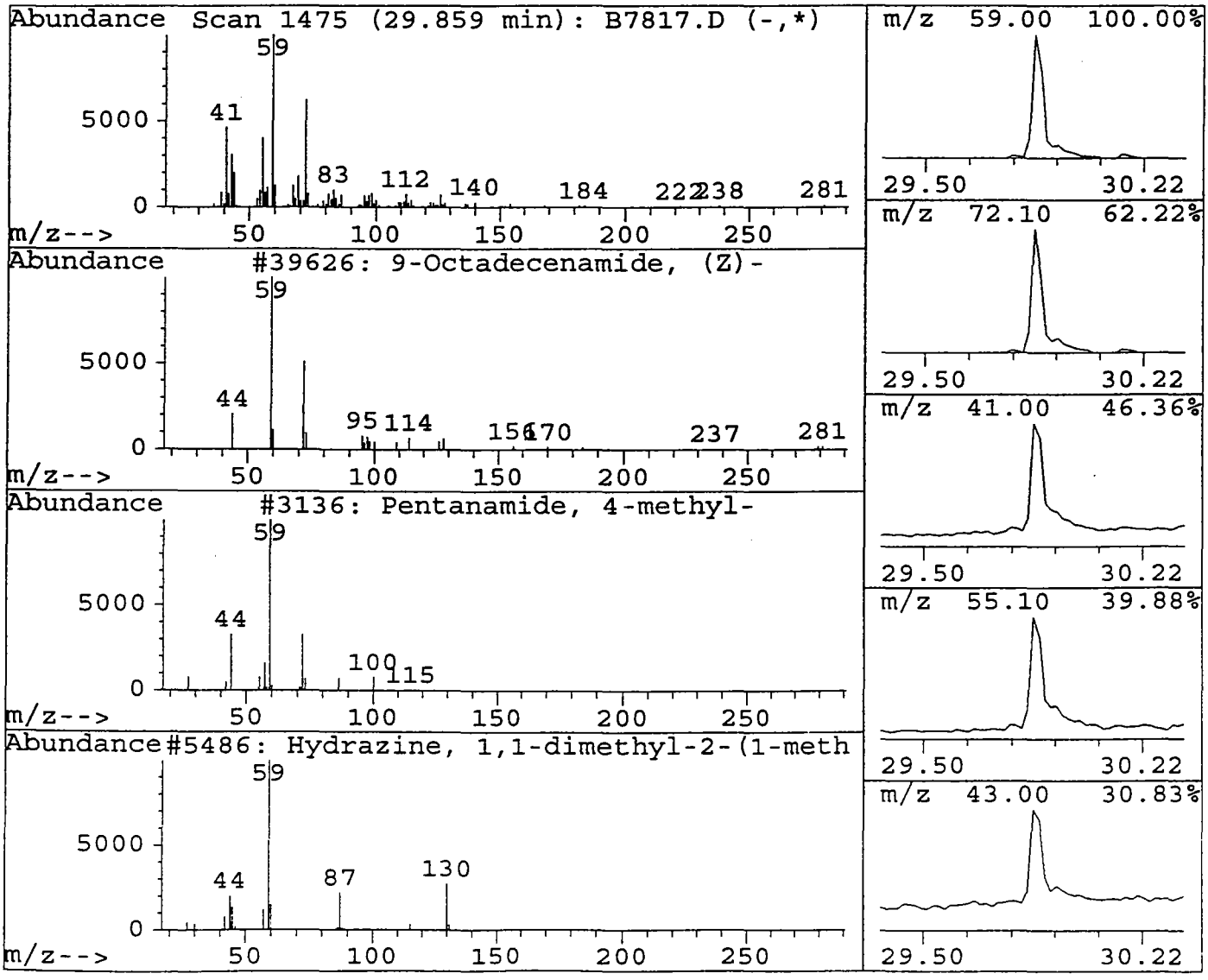
Library Search Compound Report

Data File : c:\hpchem\1\data2\b7817.d
Acq On : 3 Jun 95 9:58 pm
Sample : 23533.....
Misc :
Vial: 16
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.
29.86	4.57 ug/ml	61699	Chrysene-d12	30.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	9-Octadecenamide, (Z)-	39626	000301-02-0	49
2	Pentanamide, 4-methyl-	3136	001119-29-5	47
3	Hydrazine, 1,1-dimethyl-2-(1-methyl	5486	075267-97-9	38
4	Undecanol-3	15854	006929-08-4	32
5	Octanal, 7-hydroxy-3,7-dimethyl-	15806	000107-75-5	32



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523536B
Bldg. 2531 - 190
2931789

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523536B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7820.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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. 191

9523536B
Bldg. 2534-293/789

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523536B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7820.D

Level: (low/med) _____ Date Received: 5/23/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 1 9523536B
Bldg. 2534-263178?

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9523536B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7820.D

Level: (low/med) Date Received: 5/23/95

% Moisture: decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.86	5	J
2.				
3.				
4.				
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Quantitation Report

Data File : c:\hpchem\1\data2\b7820.d Vial: 19
Acq On : 4 Jun 95 12:27 am Operator: SCOTTV
Sample : 23536..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 16:01 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

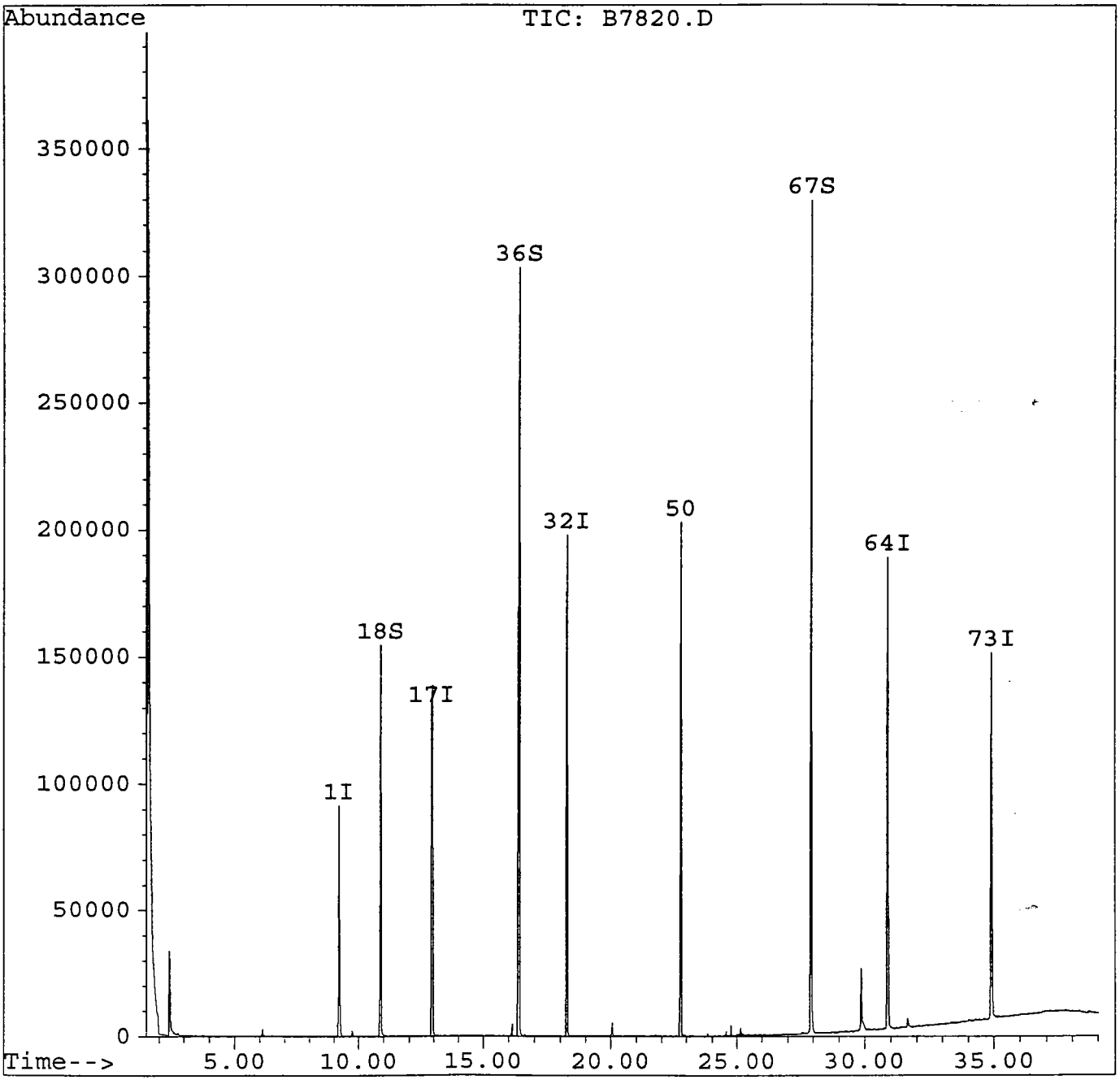
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	36125	40.00	ug/mL	0.17
17) Naphthalene-d8	12.92	136	148482	40.00	ug/mL	0.17
32) Acenaphthene-d10	18.27	164	99681	40.00	ug/mL	0.22
50) Phenanthrene-d10	22.77	188	149413	40.00	ug/ml	0.25
64) Chrysene-d12	30.88	240	158425	40.00	ug/mL	0.30
73) Perylene-d12	34.91	264	129419	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.20	99	348	0.21	ug/mL	0.21%
18) Nitrobenzene-d5	10.88	82	104793	61.95	ug/mL	61.95%
36) 2-Fluorobiphenyl	16.40	172	193690	64.78	ug/mL	64.78%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	27.93	244	287678	68.41	ug/mL	68.41%
Target Compounds						Qvalue

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7820.d Vial: 19
Acq On : 4 Jun 95 12:27 am Operator: SCOTTV
Sample : 23536..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 16:01 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

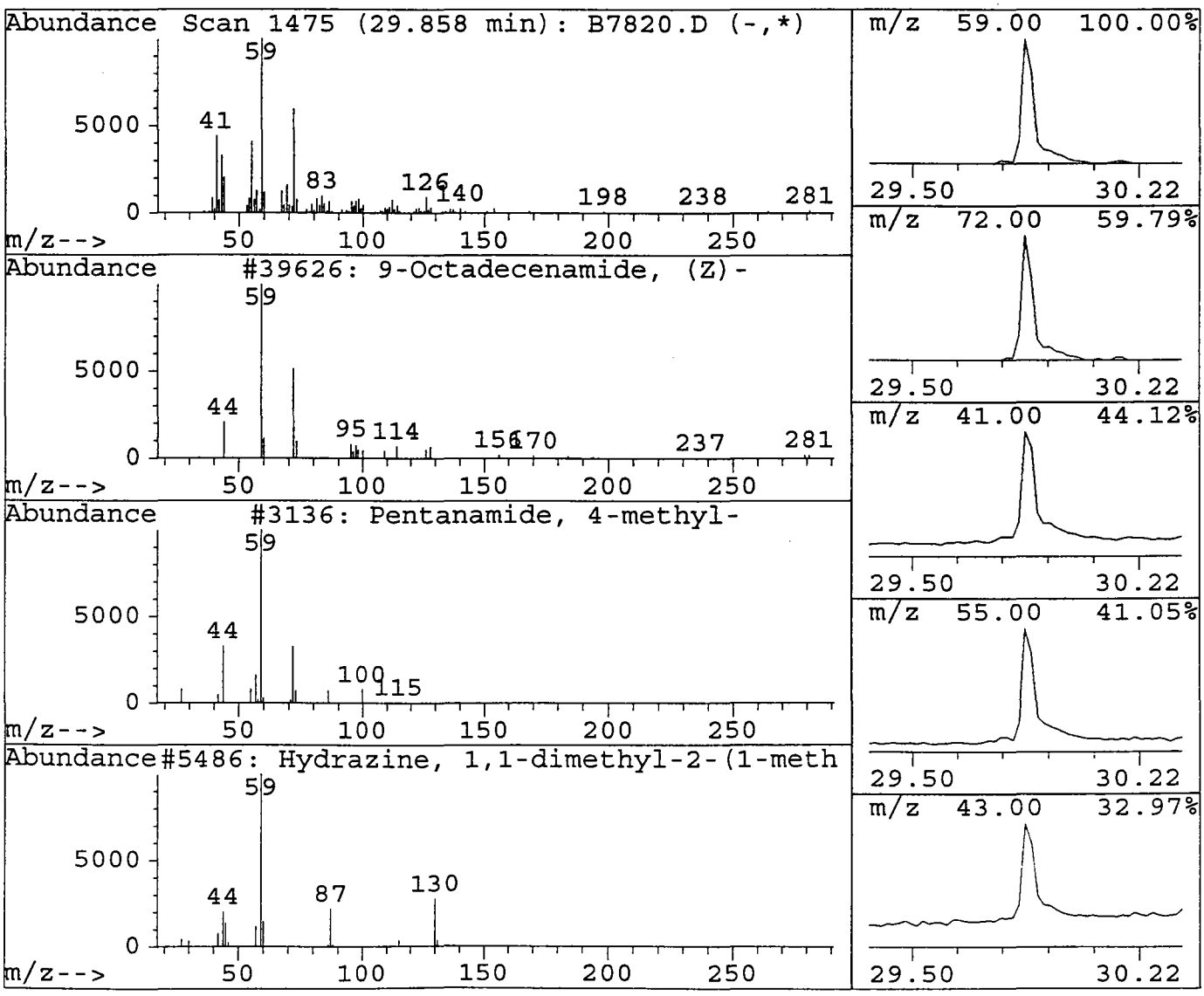


Data File : c:\hpchem\1\data2\b7820.d Vial: 19
Acq On : 4 Jun 95 12:27 am Operator: SCOTTV
Sample : 23536..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.86	5.41 ug/ml	61693	Chrysene-d12	30.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	9-Octadecenamide, (Z)-	39626	000301-02-0	80
2	Pentanamide, 4-methyl-	3136	001119-29-5	50
3	Hydrazine, 1,1-dimethyl-2-(1-methyl	5486	075267-97-9	38
4	Propane, 1-ethoxy-2-methyl-	63543	000627-02-1	37
5	Dodecanamide	22660	001120-16-7	35



2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK02	29	23	38						
02	9522265B	44	37	66						
03	9522845B	60	49	73						
04	SBLK03	68	67	89						
05	9523339B	73	69	60						
06	9523341B	61	60	63						
07	9523342B	74	70	68						
08	9523343B	64	62	72						
09	9523530B	64	61	65						
10	9523531B	73	67	69						
11	9523533B	40	39	64						
12	9523534B	81	67	76						
13	9523535B	70	69	68						
14	9523536B	62	65	68						
15	SBLK04	62	61	68						
16	9523789B	57	61	72						
17	9523792B	60	64	70						
18	9523787B	39	43	63						
19	SBLK05	57	55	63						
20	22654MS	91	63	82						
21	22654MSD	74	61	72						
22	22659MS	75	67	80						
23	22659MSD	78	65	78						
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.
SBLK03

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: B7810.D Lab Sample ID: BLANK3

Instrument ID: ABNA Date Extracted: 5/26/95

Matrix: (soil/water) WATER Date Analyzed: 6/3/95

Level: (low/med) Time Analyzed: 1606

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9523339B	9523339B	B7811.D	06/03/95
02	9523341B	9523341B	B7812.D	06/03/95
03	9523342B	9523342B	B7813.D	06/03/95
04	9523343B	9523343B	B7814.D	06/03/95
05	9523530B	9523530B	B7815.D	06/03/95
06	9523531B	9523531B	B7816.D	06/03/95
07	9523533B	9523533B	B7817.D	06/03/95
08	9523534B	9523534B	B7818.D	06/03/95
09	9523535B	9523535B	B7819.D	06/03/95
10	9523536B	9523536B	B7820.D	06/04/95
11				
12				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK03 103

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: B7810.D

Level: (low/med) _____ Date Received: 5/22/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK03 103

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: B7810.D

Level: (low/med) _____ Date Received: 5/22/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
SBLK03 1100

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: B7810.D

Level: (low/med) Date Received: 5/22/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

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	29.86	8	J
2.	Unknown	34.37	5	J
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Quantitation Report

Data File : c:\hpchem\1\data2\b7810.d Vial: 9
Acq On : 3 Jun 95 4:06 pm Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 15:43 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

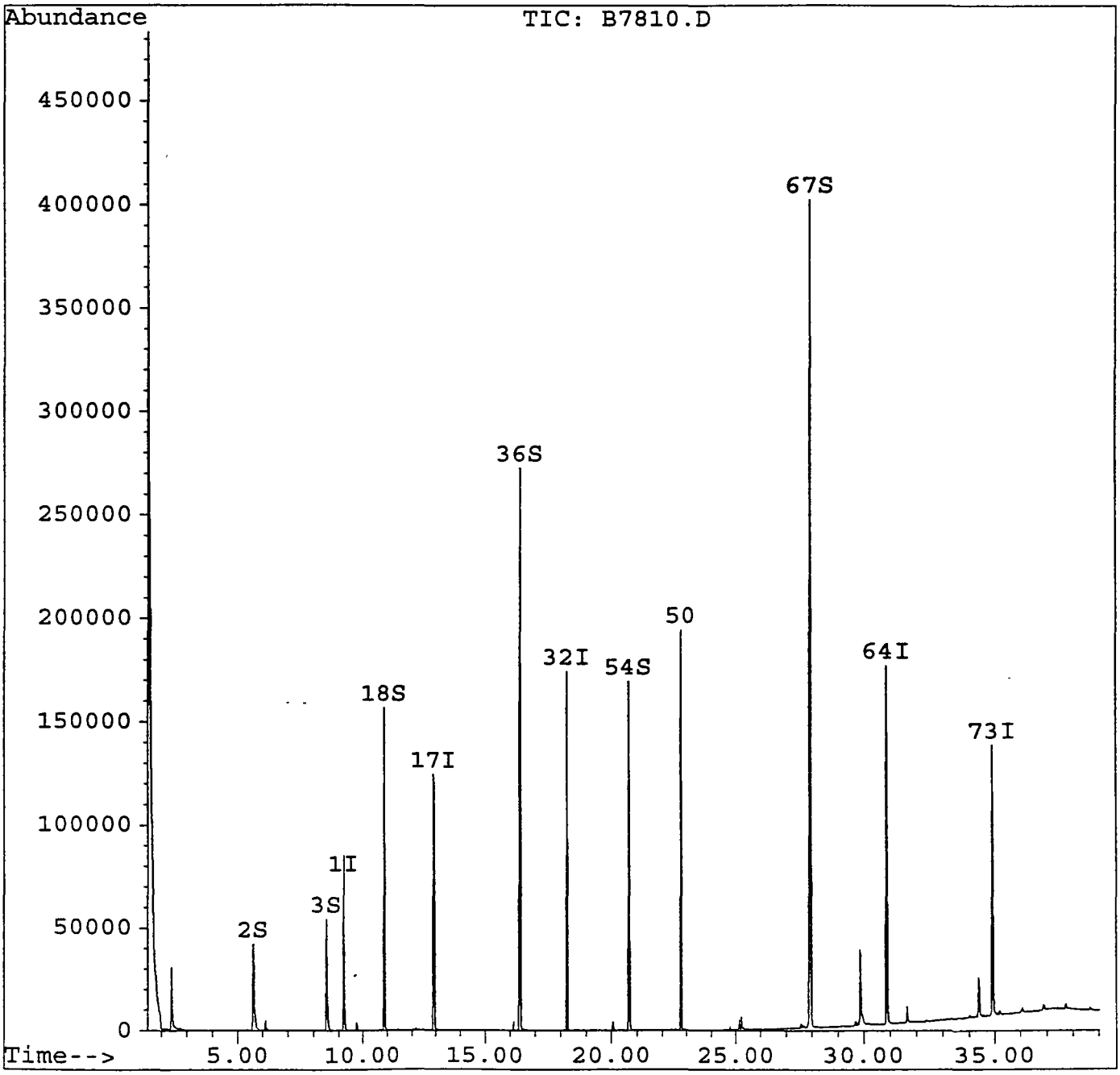
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	31802	40.00	ug/mL	0.17
17) Naphthalene-d8	12.92	136	131302	40.00	ug/mL	0.17
32) Acenaphthene-d10	18.27	164	86836	40.00	ug/mL	0.22
50) Phenanthrene-d10	22.77	188	142609	40.00	ug/ml	0.25
64) Chrysene-d12	30.88	240	151919	40.00	ug/mL	0.30
73) Perylene-d12	34.91	264	122270	40.00	ug/mL	0.31
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	5.62	112	39963	44.43	ug/mL	44.43%
3) Phenol-d5	8.53	99	41380	27.79	ug/mL	27.79%
18) Nitrobenzene-d5	10.88	82	101686	67.97	ug/mL	67.97%
36) 2-Fluorobiphenyl	16.40	172	173985	66.80	ug/mL	66.80%
54) 2,4,6-Tribromophenol	20.69	330	34408	89.34	ug/mL	89.34%
67) Terphenyl-d14	27.95	244	360667	89.45	ug/mL	89.45%
Target Compounds						**Qvalue**

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7810.d Vial: 9
Acq On : 3 Jun 95 4:06 pm Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 15:43 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



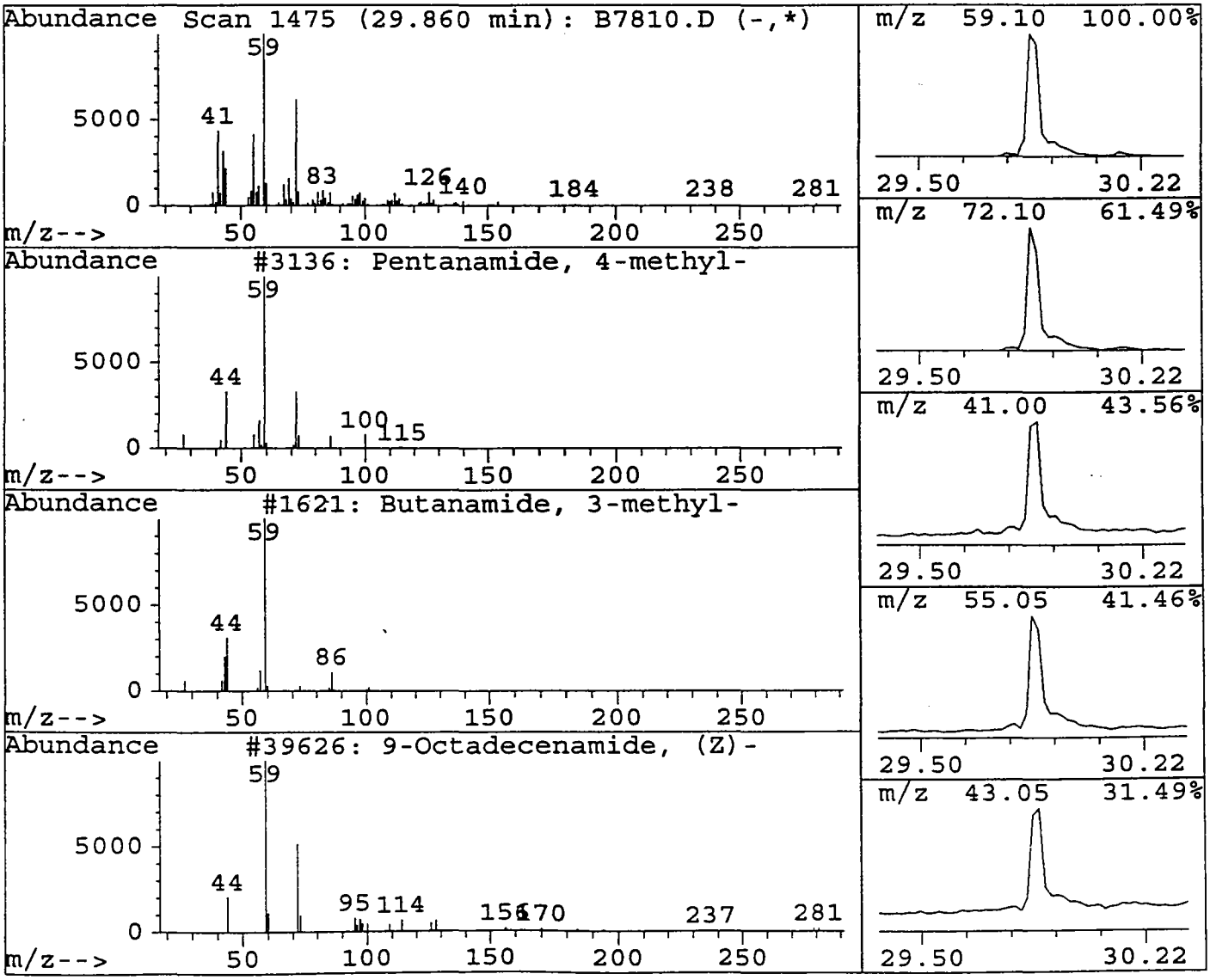
Library Search Compound Report

Data File : c:\hpchem\1\data2\b7810.d Vial: 9
Acq On : 3 Jun 95 4:06 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.
29.86	8.47 ug/ml	96921	Chrysene-d12	30.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanamide, 4-methyl-	3136	001119-29-5	50
2	Butanamide, 3-methyl-	1621	000541-46-8	47
3	9-Octadecenamide, (Z)-	39626	000301-02-0	43
4	2,3-Dimethyl-4-penten-2-ol	3046	019781-52-3	38
5	Hydrazine, 1,1-dimethyl-2-(1-methyl	5486	075267-97-9	38



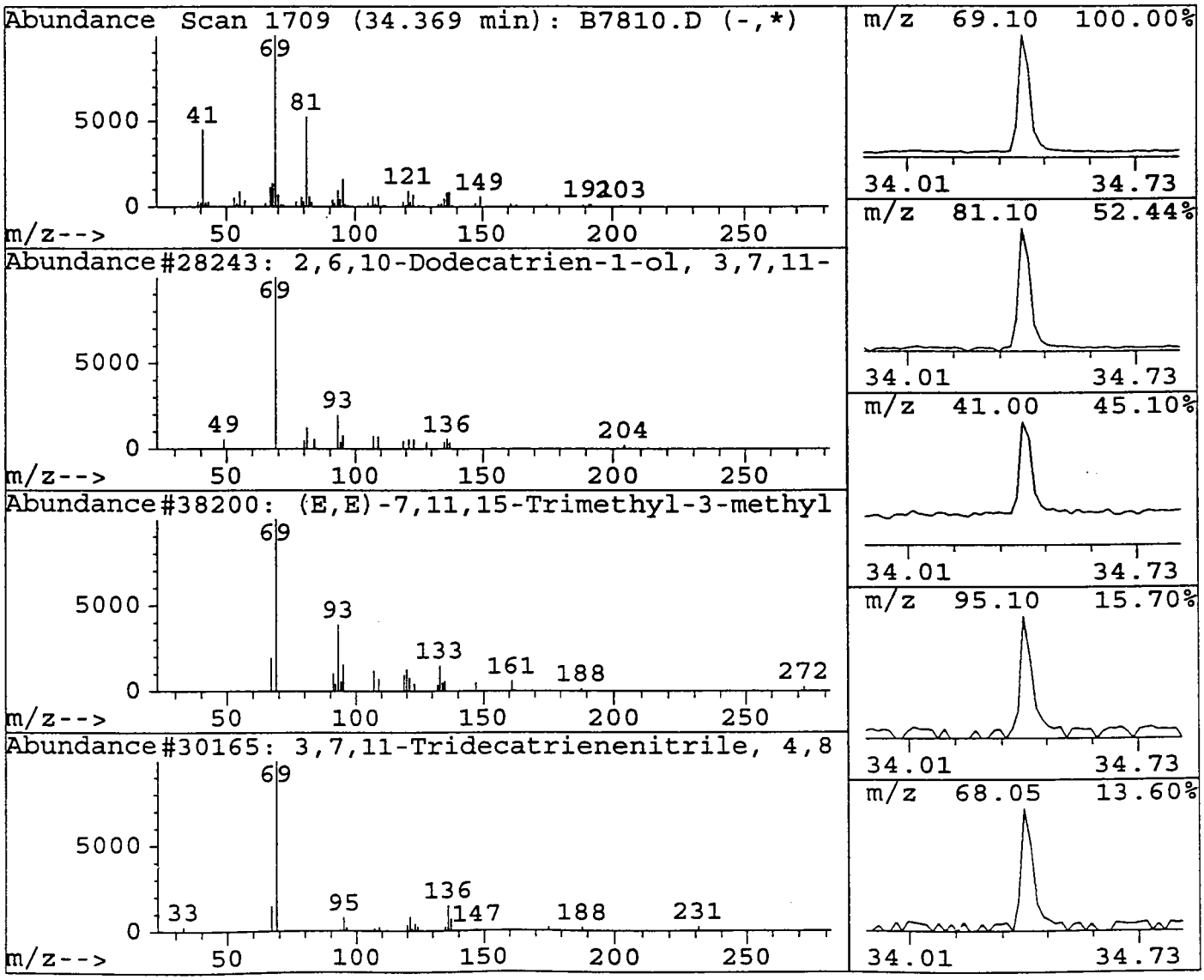
Library Search Compound Report

Data File : c:\hpchem\1\data2\b7810.d Vial: 9
Acq On : 3 Jun 95 4:06 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.
34.37	5.41 ug/ml	50573	Perylene-d12	34.91

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,6,10-Dodecatrien-1-ol, 3,7,11-tri	28243	004602-84-0	64
2	(E,E)-7,11,15-Trimethyl-3-methylene	38200	070901-63-2	56
3	3,7,11-Tridecatrienenitrile, 4,8,12	30165	006006-01-5	56
4	1,6-Octadiene, 3,5-dimethyl-, cis-	7016	000000-00-0	53
5	2,6-Octadien-1-ol, 3,7-dimethyl-, (	67079	000106-25-2	53



4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 1035

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: B7825.D Lab Sample ID: BLANK5

Instrument ID: ABNA Date Extracted: 5/23/95

Matrix: (soil/water) WATER Date Analyzed: 6/4/95

Level: (low/med) _____ Time Analyzed: 0435

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	22654MS	22654MS	B7826.D	06/04/95
02	22654MSD	22654MSD	B7827.D	06/04/95
03	22659MS	22659MS	B7828.D	06/04/95
04	22659MSD	22659MSD	B7829.D	06/04/95
05				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 196

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
108-95-2	Phenol	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
95-57-8	2-Chlorophenol	2	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
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	3	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	3	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	3	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
51-28-5	2,4-Dinitrophenol	24	U
100-02-7	4-Nitrophenol	21	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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 197

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
534-52-1	4,6-Dinitro-2-methylphenol	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
87-86-5	Pentachlorophenol	5	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

Quantitation Report

Data File : c:\hpchem\1\data2\b7825.d Vial: 24
Acq On : 4 Jun 95 4:35 am Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 16:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

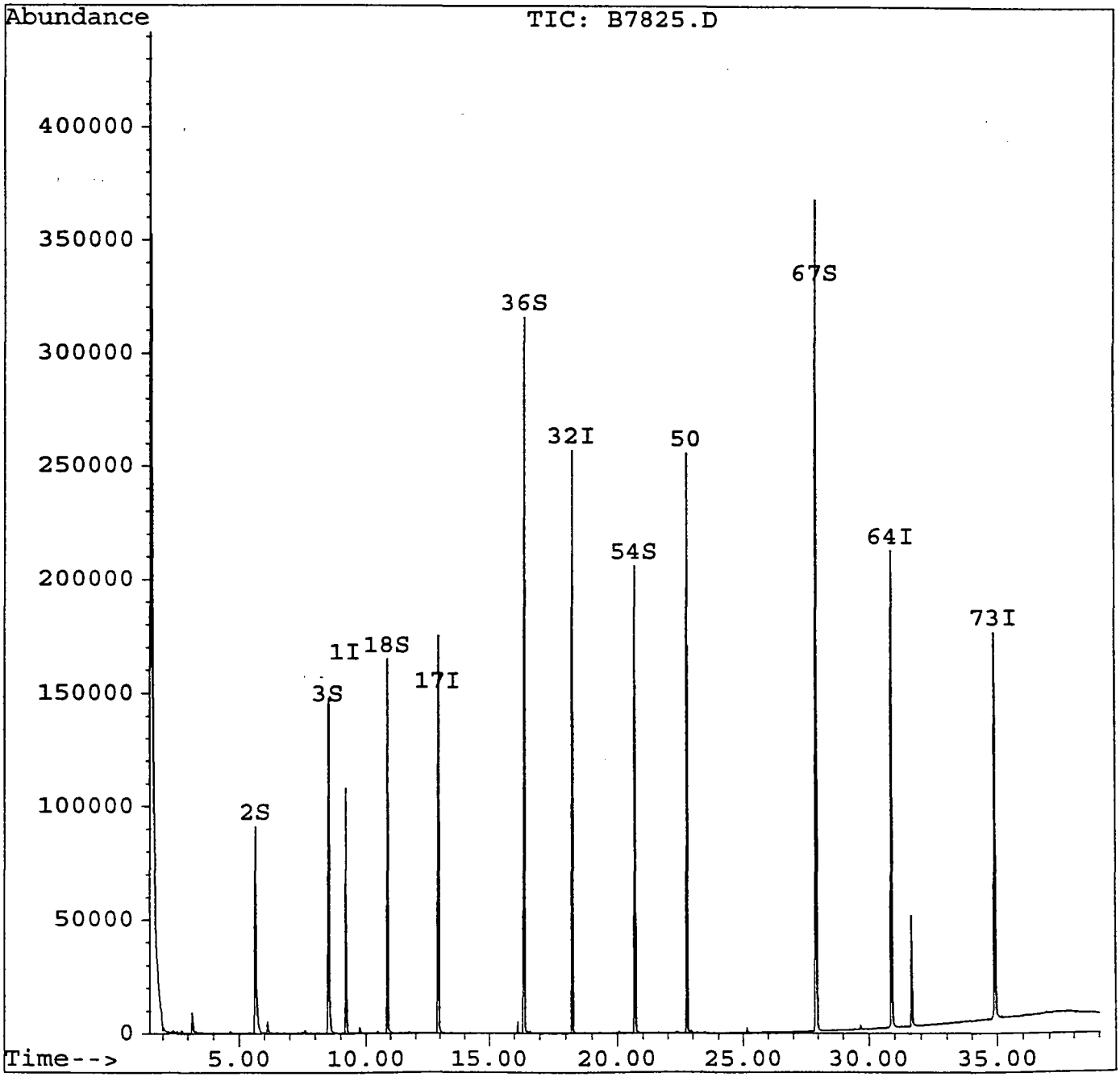
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	43303	40.00	ug/mL	0.17
17) Naphthalene-d8	12.92	136	177127	40.00	ug/mL	0.17
32) Acenaphthene-d10	18.27	164	122916	40.00	ug/mL	0.22
50) Phenanthrene-d10	22.77	188	199698	40.00	ug/ml	0.26
64) Chrysene-d12	30.88	240	216974	40.00	ug/mL	0.30
73) Perylene-d12	34.91	264	174620	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.64	112	78262	63.90	ug/mL	63.90%
3) Phenol-d5	8.53	99	133633	65.92	ug/mL	65.92%
18) Nitrobenzene-d5	10.88	82	114709	56.84	ug/mL	56.84%
36) 2-Fluorobiphenyl	16.40	172	202657	54.96	ug/mL	54.96%
54) 2,4,6-Tribromophenol	20.70	330	47874	88.77	ug/mL	88.77%
67) Terphenyl-d14	27.93	244	363044	63.04	ug/mL	63.04%
Target Compounds						Qvalue

Quantitation Report

Data File : c:\hpchem\1\data2\b7825.d
Acq On : 4 Jun 95 4:35 am
Sample : BLANK..... Converted from RTE d
Misc :
Quant Time: Jun 5 16:06 1995

Vial: 24
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Initial Calibration

Non-Spiked Sample: B7742.D

	Spike Sample	Spike Duplicate Sample
File ID :	B7826.D	B7827.D
Sample :	22654MS.....	Converted from RTE data file >B7826::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.0	100	108	91	108	91	17	100	1-300
Phenol	0.0	100	69	64	69	64	7	23	5-112
bis(2-Chloroethyl)et	0.0	100	77	68	77	68	13	55	12-158
2-Chlorophenol	0.0	100	76	67	76	67	13	29	23-134
1,3-Dichlorobenzene	0.0	100	57	50	57	50	14	42	1-172
1,4-Dichlorobenzene	0.0	100	58	51	58	51	13	32	20-124
1,2-Dichlorobenzene	0.0	100	62	53	62	53	15	31	32-129
bis(2-chloroisopropy	0.0	100	134	118	134	118	13	46	36-166
N-Nitroso-Di-n-propy	0.0	100	78	66	78	66	16	55	1-230
Hexachloroethane	0.0	100	50	42	50	42	18	25	40-113
Nitrobenzene	0.2	100	84	71	83	71	17	39	35-180
Isophorone	0.0	100	70	59	70	59	17	63	21-196
2-Nitrophenol	0.0	100	79	65	79	65	19	35	29-182
2,4-Dimethylphenol	0.0	100	43	40	43	40	7	26	32-119
bis(2-Chloroethoxy)m	0.0	100	58	49	58	49	18	35	33-184
2,4-Dichlorophenol	0.0	100	79	67	79	67	16	26	39-135
1,2,4-Trichlorobenze	0.0	100	67	59	67	59	13	28	44-142
Naphthalene	0.0	100	71	61	71	61	15	30	21-133
Hexachlorobutadiene	0.0	100	55	49	55	49	11	26	24-116
4-Chloro-3-methylphe	0.0	100	73	63	73	63	15	37	22-147
2-Chloronaphthalene	0.0	100	77	68	77	68	12	13	60-118
2,4,6-Trichloropheno	0.0	100	57	52	57	52	8	32	37-144
Dimethylphthalate	0.0	100	44	35	44	35	22	23	1-112
Acenaphthylene	0.0	100	56	50	56	50	12	40	33-145
2,6-Dinitrotoluene	0.0	100	73	71	73	71	3	30	50-158
Acenaphthene	0.0	100	77	71	77	71	8	28	47-145
2,4-Dinitrophenol	0.0	100	68	65	68	65	4	50	1-191
4-Nitrophenol	0.5	100	76	70	76	70	8	47	1-132
2,4-Dinitrotoluene	0.0	100	75	68	75	68	9	22	39-139
Diethylphthalate	0.1	100	47	41	47	41	15	27	1-114
Fluorene	0.9	100	75	69	74	68	9	21	59-121
4-Chlorophenyl-pheny	0.0	100	77	69	77	69	11	33	25-158
4,6-Dinitro-2-methyl	0.0	100	76	70	76	70	8	93	1-181
4-Bromophenyl-phenyl	0.0	100	78	72	78	72	8	23	53-127
Hexachlorobenzene	0.0	100	90	82	90	82	10	25	1-152
Pentachlorophenol	0.0	100	100	93	100	93	7	49	14-176
Phenanthrene	0.0	100	81	75	81	75	9	21	54-120
Anthracene	0.0	100	96	83	96	83	14	32	52-115
Di-n-butylphthalate	0.2	100	77	71	77	71	8	17	1-118
Fluoranthene	0.0	100	95	88	95	88	8	33	26-137
Pyrene	0.0	100	68	65	68	65	5	25	52-115
Butylbenzylphthalate	0.3	100	65	58	64	57	12	23	1-152
Benzo[a]anthracene	0.1	100	65	58	65	58	11	28	33-143
3,3'-Dichlorobenzidi	0.0	100	81	74	81	74	9	71	1-262

Chrysene	0.1	100	118	106	118	106	10	48	17-168
bis(2-Ethylhexyl)pht	0.4	100	71	63	71	62	13	41	8-158
Di-n-octylphthalate	0.0	100	67	59	67	59	13	31	4-146
Benzo[b]fluoranthene	0.0	100	53	48	53	48	11	39	24-159
Benzo[k]fluoranthene	0.1	100	108	99	108	99	8	32	11-162
Benzo[a]pyrene	0.1	100	101	90	101	90	12	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	42	38	42	38	10	45	1-171
Dibenz[a,h]anthracen	0.0	100	47	50	47	50	5	70	1-227
Benzo[g,h,i]perylene	0.0	100	54	48	54	48	11	59	1-219

BNACLP.M Tue Jun 13 13:08:56 1995 BNA

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d Vial: 25
Acq On : 4 Jun 95 5:25 am Operator: SCOTTV
Sample : 22654MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	33780	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	129967	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	93254	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	155903	40.00	ug/ml	0.25
64) Chrysene-d12	30.91	240	148922	40.00	ug/mL	0.33
73) Perylene-d12	34.91	264	65345	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.66	112	86730	90.77	ug/mL	90.77%
3) Phenol-d5	8.57	99	147096	93.02	ug/mL	93.02%
18) Nitrobenzene-d5	10.90	82	134034	90.52	ug/mL	90.52%
36) 2-Fluorobiphenyl	16.41	172	175522	62.75	ug/mL	62.75%
54) 2,4,6-Tribromophenol	20.71	330	46665	110.83	ug/mL	110.83%
67) Terphenyl-d14	27.94	244	322279	81.53	ug/mL	81.53%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.43	74	52801	108.13	ug/mlm	0
5) Pyridine	1.58	79	3052	8.44	ug/ml	100
6) Phenol	8.61	94	97169	68.99	ug/mL	100
7) bis(2-Chloroethyl)ether	12.61	93	132335	77.35	ug/mL	96
8) 2-Chlorophenol	8.63	128	81945	76.45	ug/mL	90
9) 1,3-Dichlorobenzene	9.01	146	66629	56.96	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	69858	57.89	ug/mL	100
11) 1,2-Dichlorobenzene	9.65	146	70561	61.55	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.30	45	211229	133.86	ug/mL#	65
15) N-Nitroso-Di-n-propylamine	10.69	70	88152	77.56	ug/mL	95
16) Hexachloroethane	10.61	117	31123	49.97	ug/mL	89
19) Nitrobenzene	10.96	77	115194	83.63	ug/mL#	85
20) Isophorone	11.75	82	203312	70.04	ug/mL	98
21) 2-Nitrophenol	11.88	139	53977	78.97	ug/mL#	85
22) 2,4-Dimethylphenol	12.33	107	55100	43.09	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.72	93	86556	58.41	ug/mL	98
24) 2,4-Dichlorophenol	12.67	162	76577	79.05	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.83	180	68935	66.95	ug/mL	98
26) Naphthalene	13.00	128	225507	70.91	ug/mL#	90
27) 4-Chloroaniline	13.00	127	28186	18.73	ug/mL#	1
28) Hexachlorobutadiene	13.52	225	33083	55.03	ug/mL	98
29) 4-Chloro-3-methylphenol	15.04	107	91543	73.39	ug/mL	95
30) 2-Chloronaphthalene	16.60	162	173185	76.58	ug/mlm	95
31) 2-Methylnaphthalene	15.04	142	68690	26.91	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	54836	56.62	ug/mL	98
35) 2,4,5-Trichlorophenol	16.12	196	54836	72.58	ug/mL	98
37) 2-Nitroaniline	17.93	65	3806	2.97	ug/mL#	100
38) Dimethylphthalate	17.83	163	132688	43.80	ug/mL	100

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d Vial: 25
Acq On : 4 Jun 95 5:25 am Operator: SCOTTV
Sample : 22654MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	221369	55.71	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	52674	72.83	ug/mL	98
42)	Acenaphthene	18.37	153	184037	77.01	ug/mL	98
43)	2,4-Dinitrophenol	18.68	184	27438	68.35	ug/mL#	82
44)	4-Nitrophenol	19.15	109	29448	76.25	ug/mL	93
46)	2,4-Dinitrotoluene	19.97	165	203714	74.87	ug/mL#	33
47)	Diethylphthalate	20.07	149	159610	47.45	ug/mL	100
48)	Fluorene	19.97	166	219880	74.92	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	106703	76.76	ug/mL	99
51)	4-Nitroaniline	19.97	138	2333	3.60	ug/mL#	26
52)	4,6-Dinitro-2-methylphenol	20.32	198	38799	75.54	ug/mL	100
53)	n-Nitrosodiphenylamine	20.57	169	120798	60.97	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	341255	72.29	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	63010	78.44	ug/mL	93
57)	Hexachlorobenzene	21.59	284	75708	90.48	ug/mL#	81
58)	Pentachlorophenol	22.31	266	53483	99.80	ug/mL	98
59)	Phenanthrene	22.87	178	347261	81.41	ug/mL	99
60)	Anthracene	22.87	178	375780	95.56	ug/mL	98
62)	Di-n-butylphthalate	25.16	149	485216	77.50	ug/mL	100
63)	Fluoranthene	27.13	202	383198	95.00	ug/mL	95
65)	Benzidine	27.15	184	31355	19.25	ug/ml	100
66)	Pyrene	27.13	202	382718	68.46	ug/mL#	87
68)	Butylbenzylphthalate	29.69	149	231108	64.56	ug/mL	98
69)	Benzo[a]anthracene	30.89	228	364541	64.61	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.03	252	116175	80.76	ug/mL	99
71)	Chrysene	30.89	228	369164	117.64	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	362642	71.41	ug/mL	98
74)	Di-n-octylphthalate	33.57	149	561704	67.50	ug/mL	99
75)	Benzo[b]fluoranthene	33.94	252	214943	53.34	ug/mL	99
76)	Benzo[k]fluoranthene	33.94	252	210450	108.25	ug/mL	91
77)	Benzo[a]pyrene	34.04	252	202935	101.27	ug/mL	97
78)	Indeno[1,2,3-cd]pyrene	37.41	276	31241	42.27	ug/mL#	76
79)	Dibenz[a,h]anthracene	37.53	278	33601	47.21	ug/mL#	91
80)	Benzo[g,h,i]perylene	37.41	276	31328	53.91	ug/mL#	91

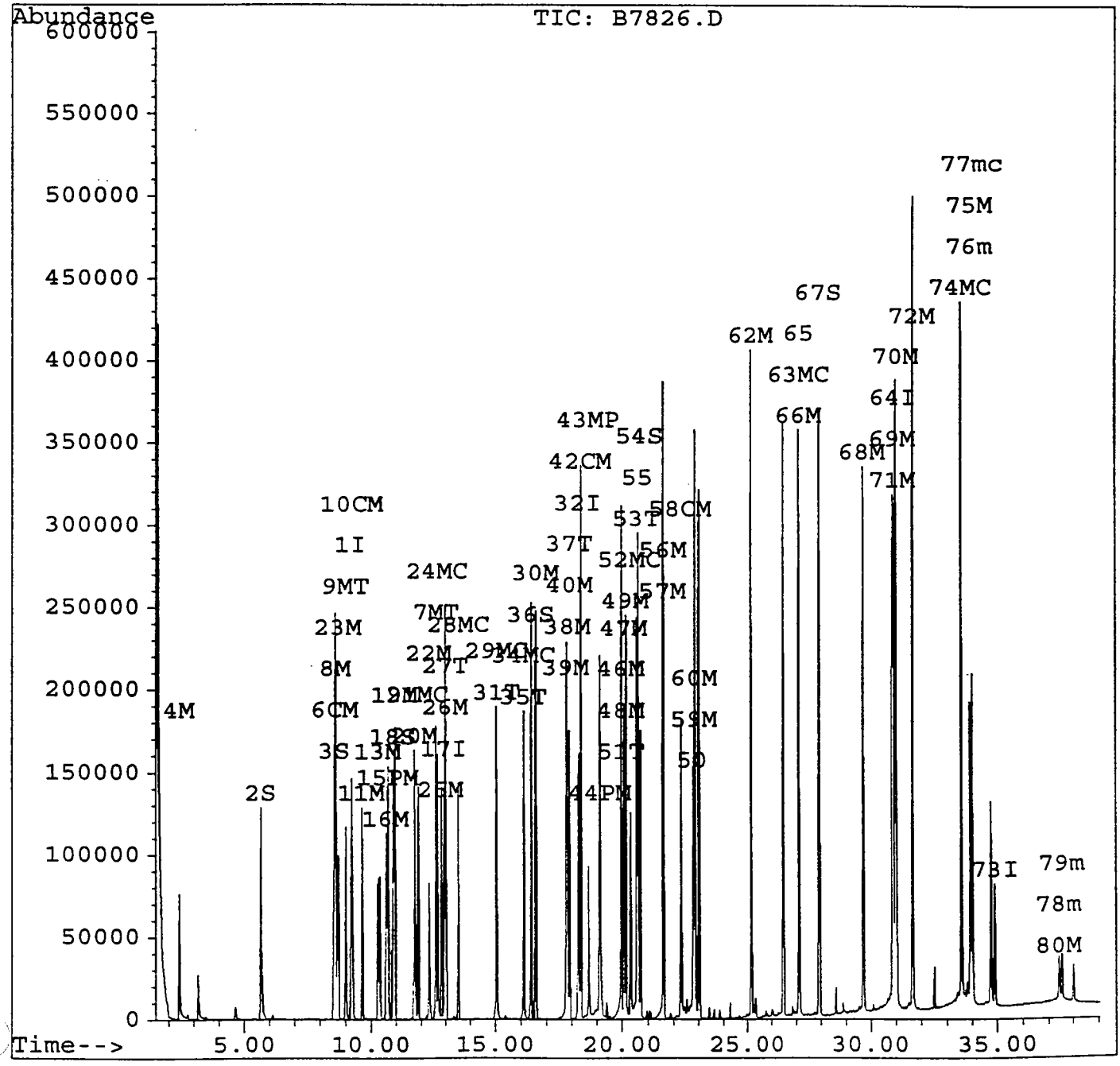
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d
Acq On : 4 Jun 95 5:25 am
Sample : 22654MS..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:06 1995

Vial: 25
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d Vial: 26
Acq On : 4 Jun 95 6:15 am Operator: SCOTTV
Sample : 22654MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	35303	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	144937	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	99611	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	164759	40.00	ug/ml	0.25
64) Chrysene-d12	30.91	240	152801	40.00	ug/mL	0.33
73) Perylene-d12	34.91	264	66464	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.66	112	82094	82.21	ug/mL	82.21%
3) Phenol-d5	8.57	99	140345	84.92	ug/mL	84.92%
18) Nitrobenzene-d5	10.90	82	122579	74.23	ug/mL	74.23%
36) 2-Fluorobiphenyl	16.41	172	181198	60.64	ug/mL	60.64%
54) 2,4,6-Tribromophenol	20.71	330	47406	106.54	ug/mL	106.54%
67) Terphenyl-d14	27.94	244	291235	71.81	ug/mL	71.81%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.43	74	46421	90.97	ug/mlm	100
5) Pyridine	1.58	79	3239	8.57	ug/ml	100
6) Phenol	8.61	94	94440	64.16	ug/mL	100
7) bis(2-Chloroethyl)ether	12.59	93	122019	68.25	ug/mL	93
8) 2-Chlorophenol	8.63	128	74868	66.83	ug/mL#	87
9) 1,3-Dichlorobenzene	9.01	146	60664	49.63	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	63929	50.69	ug/mL	97
11) 1,2-Dichlorobenzene	9.65	146	63514	53.01	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.26	45	194225	117.78	ug/mL#	64
15) N-Nitroso-Di-n-propylamine	10.67	70	78184	65.82	ug/mL	99
16) Hexachloroethane	10.61	117	27204	41.80	ug/mL	93
19) Nitrobenzene	10.96	77	108893	70.89	ug/mL	92
20) Isophorone	11.75	82	190833	58.95	ug/mL	99
21) 2-Nitrophenol	11.88	139	49518	64.97	ug/mL#	85
22) 2,4-Dimethylphenol	12.33	107	57269	40.16	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.72	93	80511	48.72	ug/mL	99
24) 2,4-Dichlorophenol	12.67	162	72662	67.26	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.83	180	67428	58.72	ug/mL	99
26) Naphthalene	13.00	128	216145	60.94	ug/mL#	91
27) 4-Chloroaniline	13.00	127	27276	16.26	ug/mL#	4
28) Hexachlorobutadiene	13.52	225	33024	49.25	ug/mL	99
29) 4-Chloro-3-methylphenol	15.04	107	87494	62.90	ug/mL	94
30) 2-Chloronaphthalene	16.58	162	170492	67.60	ug/ml	97
31) 2-Methylnaphthalene	15.04	142	66426	23.33	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	53903	52.11	ug/mL	99
35) 2,4,5-Trichlorophenol	16.12	196	53903	66.79	ug/mL	99
37) 2-Nitroaniline	17.93	65	3941	2.88	ug/mL#	100
38) Dimethylphthalate	17.83	163	113606	35.11	ug/mL	99

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

Data File : c:\hpchem\1\data2\b7827.d Vial: 26
Acq On : 4 Jun 95 6:15 am Operator: SCOTTV
Sample : 22654MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

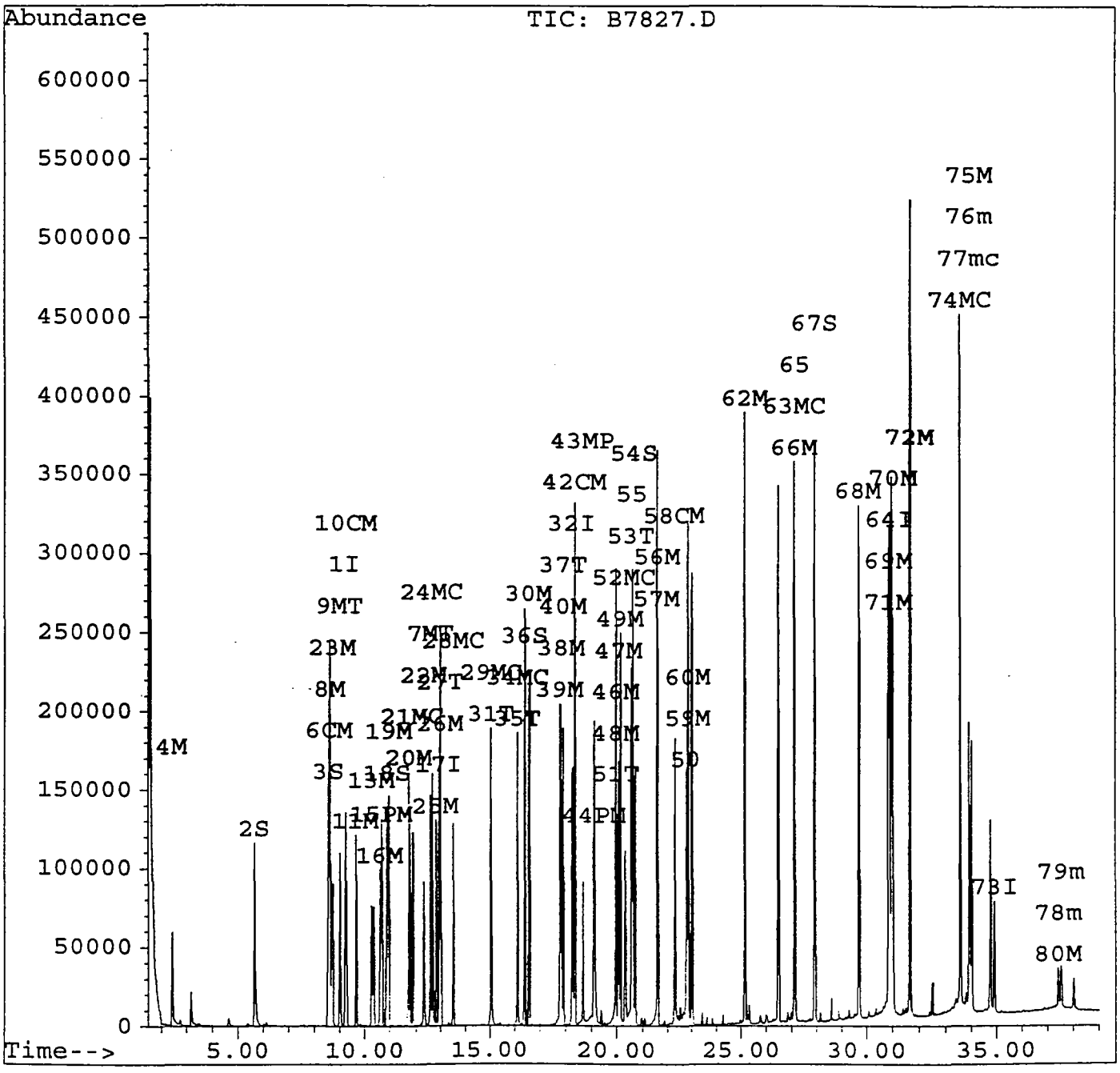
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	210414	49.57	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	54747	70.87	ug/mL	92
42)	Acenaphthene	18.37	153	181623	71.15	ug/mL	99
43)	2,4-Dinitrophenol	18.68	184	28083	65.49	ug/mL#	78
44)	4-Nitrophenol	19.15	109	28931	70.14	ug/mL	91
46)	2,4-Dinitrotoluene	19.97	165	198956	68.45	ug/mL#	33
47)	Diethylphthalate	20.07	149	146204	40.69	ug/mL	99
48)	Fluorene	19.97	166	215505	68.74	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	102158	68.80	ug/mL	99
51)	4-Nitroaniline	19.97	138	2275	3.32	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	38003	70.01	ug/mL	100
53)	n-Nitrosodiphenylamine	20.57	169	120181	57.40	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	326407	65.42	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	61314	72.23	ug/mL	92
57)	Hexachlorobenzene	21.59	284	72489	81.98	ug/mL#	80
58)	Pentachlorophenol	22.31	266	52714	93.08	ug/mL	99
59)	Phenanthrene	22.87	178	336724	74.69	ug/mL	98
60)	Anthracene	22.87	178	345412	83.11	ug/mL	97
62)	Di-n-butylphthalate	25.16	149	472693	71.44	ug/mL	100
63)	Fluoranthene	27.13	202	375315	88.04	ug/mL	93
65)	Benzidine	27.15	184	42901	25.67	ug/ml	100
66)	Pyrene	27.13	202	374572	65.30	ug/mL#	88
68)	Butylbenzylphthalate	29.69	149	211242	57.51	ug/mL	99
69)	Benzo[a]anthracene	30.87	228	336521	58.13	ug/mL	100
70)	3,3'-Dichlorobenzidine	31.03	252	109427	74.14	ug/mL#	96
71)	Chrysene	30.87	228	341333	106.01	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	327633	62.88	ug/mL	99
74)	Di-n-octylphthalate	33.57	149	500739	59.16	ug/mL	99
75)	Benzo[b]fluoranthene	33.94	252	196612	47.97	ug/mL	99
76)	Benzo[k]fluoranthene	33.94	252	196612	99.43	ug/mL	93
77)	Benzo[a]pyrene	33.94	252	182768	89.67	ug/mL	100
78)	Indeno[1,2,3-cd]pyrene	37.41	276	28662	38.13	ug/mL#	78
79)	Dibenz[a,h]anthracene	37.53	278	36034	49.77	ug/mL#	92
80)	Benzo[g,h,i]perylene	37.41	276	28604	48.40	ug/mL	93

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

Data File : c:\hpchem\1\data2\b7827.d
Acq On : 4 Jun 95 6:15 am
Sample : 22654MSD..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:07 1995

Vial: 26
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Initial Calibration

Non-Spiked Sample: B7741.D

	Spike Sample	Spike Duplicate Sample
File ID :	B7828.D	B7829.D
Sample :	22659MS.....	Converted from RTE data file >B7828::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.0	100	83	85	83	85	1	100	1-300
Phenol	0.0	100	65	65	65	65	0	23	5-112
bis(2-Chloroethyl)et	0.0	100	66	64	66	64	2	55	12-158
2-Chlorophenol	0.0	100	65	65	65	65	1	29	23-134
1,3-Dichlorobenzene	0.0	100	48	48	48	48	1	42	1-172
1,4-Dichlorobenzene	0.0	100	49	50	49	50	2	32	20-124
1,2-Dichlorobenzene	0.0	100	52	53	52	53	1	31	32-129
bis(2-chloroisopropy	0.0	100	118	119	118	119	1	46	36-166
N-Nitroso-Di-n-propy	0.0	100	67	65	67	65	3	55	1-230
Hexachloroethane	0.0	100	51	42	51	42	19	25	40-113
Nitrobenzene	0.1	100	62	66	62	66	6	39	35-180
Isophorone	0.0	100	60	63	60	63	5	63	21-196
2-Nitrophenol	0.0	100	63	65	63	65	4	35	29-182
2,4-Dimethylphenol	0.0	100	34	32	34	32	7	26	32-119
bis(2-Chloroethoxy)m	0.0	100	47	50	47	50	6	35	33-184
2,4-Dichlorophenol	0.0	100	68	68	68	68	1	26	39-135
1,2,4-Trichlorobenze	0.0	100	57	60	57	60	6	28	44-142
Naphthalene	0.0	100	63	66	63	66	4	30	21-133
Hexachlorobutadiene	0.0	100	50	52	50	52	4	26	24-116
4-Chloro-3-methylphe	0.0	100	63	63	63	63	1	37	22-147
2-Chloronaphthalene	0.0	100	67	70	67	70	4	13	60-118
2,4,6-Trichloropheno	0.0	100	55	54	55	54	3	32	37-144
Dimethylphthalate	0.0	100	38	34	38	34	11	23	1-112
Acenaphthylene	0.0	100	52	52	52	52	0	40	33-145
2,6-Dinitrotoluene	0.0	100	76	74	76	74	3	30	50-158
Acenaphthene	0.0	100	75	76	75	76	1	28	47-145
2,4-Dinitrophenol	0.0	100	67	66	67	66	2	50	1-191
4-Nitrophenol	0.6	100	79	80	79	79	0	47	1-132
2,4-Dinitrotoluene	0.0	100	71	74	71	74	3	22	39-139
Diethylphthalate	0.0	100	49	48	49	48	2	27	1-114
Fluorene	0.7	100	71	74	70	73	3	21	59-121
4-Chlorophenyl-pheny	0.0	100	70	74	70	74	5	33	25-158
4,6-Dinitro-2-methyl	0.0	100	75	72	75	72	4	93	1-181
4-Bromophenyl-phenyl	0.0	100	73	76	73	76	3	23	53-127
Hexachlorobenzene	0.0	100	84	84	84	84	1	25	1-152
Pentachlorophenol	0.0	100	90	92	90	92	2	49	14-176
Phenanthrene	0.0	100	79	76	79	76	3	21	54-120
Anthracene	0.0	100	88	84	88	84	5	32	52-115
Di-n-butylphthalate	0.1	100	80	79	80	79	1	17	1-118
Fluoranthene	0.0	100	96	96	96	96	0	33	26-137
Pyrene	0.0	100	67	68	67	68	2	25	52-115
Butylbenzylphthalate	0.2	100	67	68	67	67	0	23	1-152
Benzo[a]anthracene	0.1	100	65	64	65	64	1	28	33-143
3,3'-Dichlorobenzidi	0.0	100	20	31	20	31	46	71	1-262

Chrysene	0.1	100	117	117	117	117	0	48	17-168
bis(2-Ethylhexyl)pht	0.4	100	76	74	75	73	3	41	8-158
Di-n-octylphthalate	0.0	100	65	68	65	68	6	31	4-146
Benzo[b]fluoranthene	0.0	100	52	51	52	51	2	39	24-159
Benzo[k]fluoranthene	0.1	100	108	106	108	106	2	32	11-162
Benzo[a]pyrene	0.1	100	104	103	104	102	2	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	42	39	42	39	8	45	1-171
Dibenz[a,h]anthracen	0.0	100	52	48	52	48	8	70	1-227
Benzo[g,h,i]perylene	0.0	100	53	49	53	49	9	59	1-219

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d Vial: 27
Acq On : 4 Jun 95 7:04 am Operator: SCOTTV
Sample : 22659MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	28616	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	119812	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	81829	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	135678	40.00	ug/ml	0.25
64) Chrysene-d12	30.90	240	133913	40.00	ug/mL	0.32
73) Perylene-d12	34.89	264	64806	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.64	112	38324	47.35	ug/mL	47.35%
3) Phenol-d5	8.55	99	92701	69.20	ug/mL	69.20%
18) Nitrobenzene-d5	10.88	82	102452	75.05	ug/mL	75.05%
36) 2-Fluorobiphenyl	16.41	172	163275	66.52	ug/mL	66.52%
54) 2,4,6-Tribromophenol	20.71	330	33951	92.66	ug/mL	92.66%
67) Terphenyl-d14	27.93	244	283818	79.85	ug/mL	79.85%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.41	74	34539	83.50	ug/mlm	0
5) Pyridine	1.54	79	2567	8.38	ug/ml	100
6) Phenol	8.59	94	77522	64.98	ug/mL	100
7) bis(2-Chloroethyl)ether	12.59	93	95053	65.59	ug/mL	96
8) 2-Chlorophenol	8.61	128	59112	65.10	ug/mL	95
9) 1,3-Dichlorobenzene	9.01	146	47356	47.79	ug/mL	98
10) 1,4-Dichlorobenzene	9.26	146	50047	48.96	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	50447	51.95	ug/mL	97
13) bis(2-chloroisopropyl)ethe	10.28	45	157284	117.66	ug/mL#	66
15) N-Nitroso-Di-n-propylamine	10.67	70	64689	67.19	ug/mL	99
16) Hexachloroethane	10.61	117	26874	50.94	ug/mLm	92
19) Nitrobenzene	10.94	77	78667	61.95	ug/mL#	76
20) Isophorone	11.75	82	159932	59.77	ug/mL	99
21) 2-Nitrophenol	11.88	139	39464	62.63	ug/mL	87
22) 2,4-Dimethylphenol	12.33	107	40415	34.28	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.70	93	64392	47.13	ug/mL	98
24) 2,4-Dichlorophenol	12.67	162	60633	67.90	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.83	180	53810	56.69	ug/mL	99
26) Naphthalene	13.00	128	185978	63.43	ug/mL#	91
27) 4-Chloroaniline	13.00	127	23324	16.82	ug/mL#	8
28) Hexachlorobutadiene	13.52	225	27583	49.77	ug/mL	98
29) 4-Chloro-3-methylphenol	15.04	107	71878	62.51	ug/mL	92
30) 2-Chloronaphthalene	16.58	162	140364	67.32	ug/ml	95
31) 2-Methylnaphthalene	15.04	142	56186	23.87	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	47014	55.32	ug/mL	97
35) 2,4,5-Trichlorophenol	16.12	196	47014	70.91	ug/mL	98
37) 2-Nitroaniline	17.93	65	3809	3.39	ug/mL#	100
38) Dimethylphthalate	17.83	163	100094	37.65	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d Vial: 27
Acq On : 4 Jun 95 7:04 am Operator: SCOTTV
Sample : 22659MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

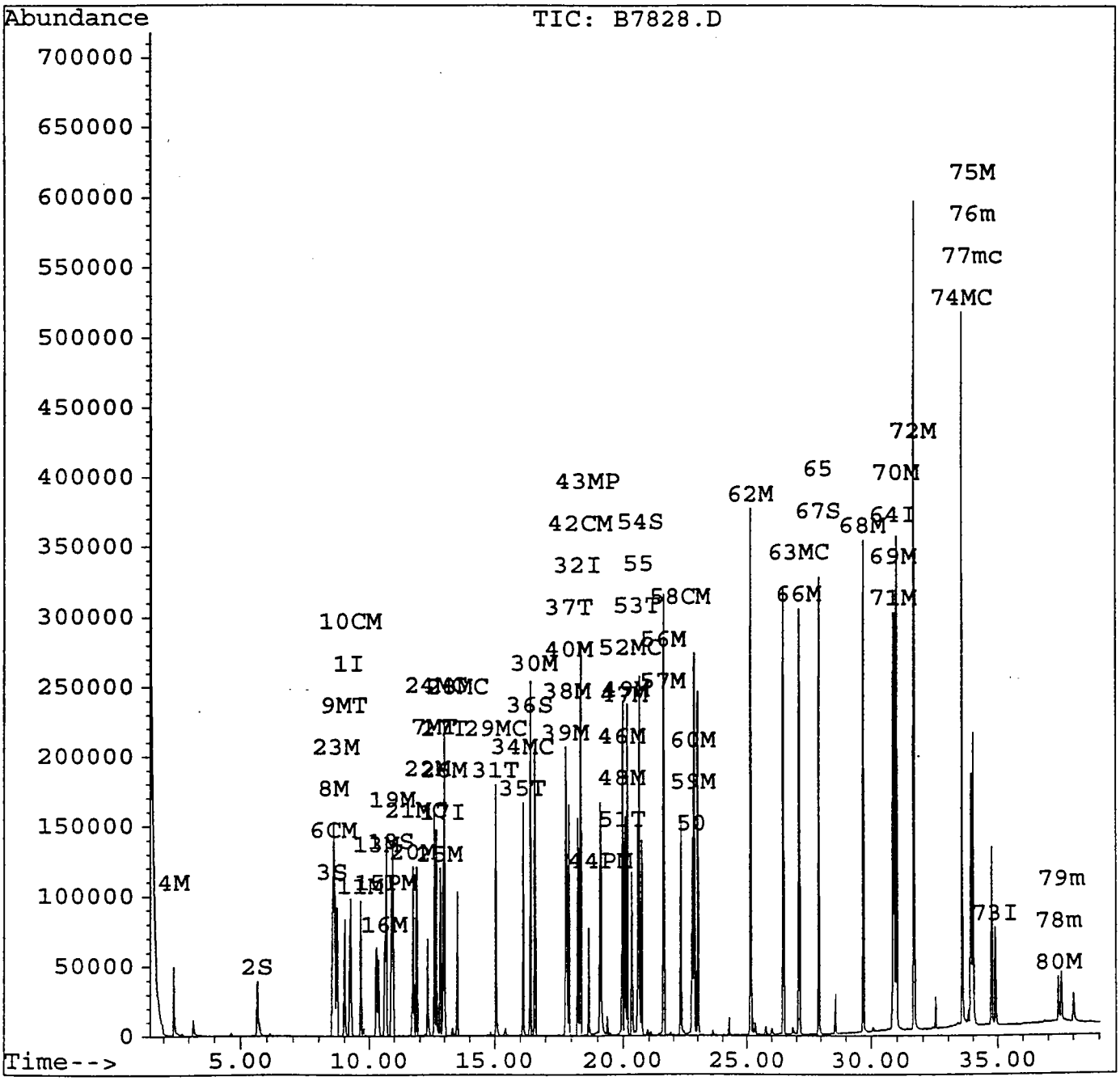
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	181282	51.99	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	48485	76.40	ug/mL	81
42)	Acenaphthene	18.37	153	158243	75.46	ug/mL	99
43)	2,4-Dinitrophenol	18.66	184	23597	66.99	ug/mL	99
44)	4-Nitrophenol	19.14	109	26892	79.36	ug/mL	88
46)	2,4-Dinitrotoluene	19.97	165	169896	71.16	ug/mL#	34
47)	Diethylphthalate	20.07	149	145441	49.27	ug/mL	98
48)	Fluorene	19.97	166	183372	71.21	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	85539	70.12	ug/mL	98
51)	4-Nitroaniline	19.97	138	1902	3.37	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	33506	74.96	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	89532	51.93	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	282944	68.87	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	51088	73.08	ug/mL	94
57)	Hexachlorobenzene	21.59	284	60888	83.62	ug/mL#	75
58)	Pentachlorophenol	22.31	266	42101	90.27	ug/mL	99
59)	Phenanthrene	22.85	178	292342	78.75	ug/mL	99
60)	Anthracene	22.85	178	302620	88.42	ug/mL	99
62)	Di-n-butylphthalate	25.16	149	437772	80.34	ug/mL	99
63)	Fluoranthene	27.12	202	337156	96.04	ug/mL	94
65)	Benzidine	27.93	184	3699	2.53	ug/ml	100
66)	Pyrene	27.12	202	336460	66.93	ug/mL#	87
68)	Butylbenzylphthalate	29.70	149	217209	67.48	ug/mL	87
69)	Benzo[a]anthracene	30.88	228	328642	64.77	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.00	252	25385	19.62	ug/mLm	97
71)	Chrysene	30.88	228	330668	117.19	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.67	149	345135	75.58	ug/mL	100
74)	Di-n-octylphthalate	33.58	149	533567	64.65	ug/mL	100
75)	Benzo[b]fluoranthene	34.03	252	207506	51.92	ug/mL	99
76)	Benzo[k]fluoranthene	34.03	252	207506	107.62	ug/mL	92
77)	Benzo[a]pyrene	34.03	252	207506	104.42	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.42	276	30768	41.98	ug/mL#	84
79)	Dibenz[a,h]anthracene	37.54	278	36991	52.40	ug/mL	94
80)	Benzo[g,h,i]perylene	37.42	276	30768	53.39	ug/mL	97

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d Vial: 27
Acq On : 4 Jun 95 7:04 am Operator: SCOTTV
Sample : 22659MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.21	152	30456	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	121585	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	84364	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	145091	40.00	ug/ml	0.25
64) Chrysene-d12	30.90	240	140877	40.00	ug/mL	0.32
73) Perylene-d12	34.90	264	65773	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.62	112	46772	54.29	ug/mL	54.29%
3) Phenol-d5	8.55	99	107330	75.28	ug/mL	75.28%
18) Nitrobenzene-d5	10.88	82	108636	78.42	ug/mL	78.42%
36) 2-Fluorobiphenyl	16.41	172	165709	65.48	ug/mL	65.48%
54) 2,4,6-Tribromophenol	20.71	330	39093	99.77	ug/mL	99.77%
67) Terphenyl-d14	27.93	244	291732	78.02	ug/mL	78.02%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.41	74	37285	84.69	ug/mlm	0
5) Pyridine	1.56	79	2539	7.79	ug/ml	100
6) Phenol	8.59	94	82228	64.76	ug/mL	100
7) bis(2-Chloroethyl)ether	12.60	93	99103	64.25	ug/mL	98
8) 2-Chlorophenol	8.61	128	63241	65.44	ug/mL	94
9) 1,3-Dichlorobenzene	9.01	146	51022	48.38	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	54214	49.83	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	54332	52.57	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.28	45	169096	118.86	ug/mL#	65
15) N-Nitroso-Di-n-propylamine	10.67	70	66550	64.95	ug/mL	99
16) Hexachloroethane	10.61	117	23688	42.19	ug/mL	96
19) Nitrobenzene	10.94	77	84987	65.95	ug/mL#	77
20) Isophorone	11.75	82	169858	62.55	ug/mL	99
21) 2-Nitrophenol	11.88	139	41660	65.15	ug/mL	88
22) 2,4-Dimethylphenol	12.33	107	38383	32.08	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.70	93	69472	50.11	ug/mL	100
24) 2,4-Dichlorophenol	12.67	162	61214	67.55	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.83	180	58047	60.26	ug/mL	99
26) Naphthalene	13.00	128	195977	65.87	ug/mL#	91
27) 4-Chloroaniline	13.00	127	24740	17.58	ug/mL#	10
28) Hexachlorobutadiene	13.50	225	28998	51.56	ug/mL	97
29) 4-Chloro-3-methylphenol	15.04	107	73983	63.40	ug/mL	98
30) 2-Chloronaphthalene	16.58	162	148187	70.04	ug/ml	98
31) 2-Methylnaphthalene	15.04	142	56674	23.73	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	47065	53.72	ug/mL	98
35) 2,4,5-Trichlorophenol	16.12	196	47065	68.86	ug/mL	99
37) 2-Nitroaniline	17.93	65	3818	3.30	ug/mL#	100
38) Dimethylphthalate	17.83	163	92844	33.88	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

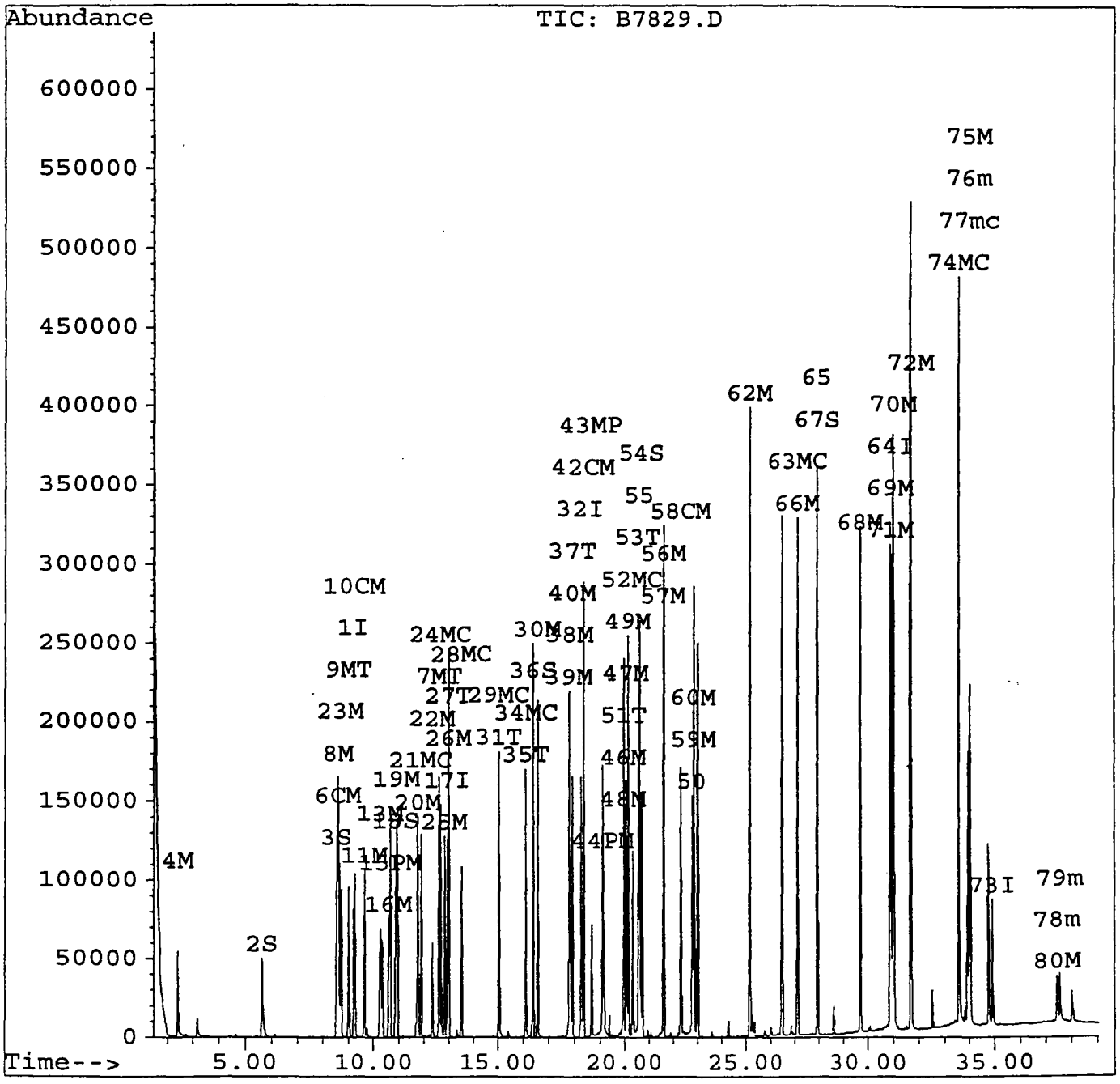
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	187395	52.13	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	48705	74.44	ug/mL	81
42)	Acenaphthene	18.37	153	164599	76.13	ug/mL	99
43)	2,4-Dinitrophenol	18.66	184	23948	65.95	ug/mL	99
44)	4-Nitrophenol	19.15	109	27839	79.68	ug/mL	90
46)	2,4-Dinitrotoluene	19.95	165	181124	73.58	ug/mL#	31
47)	Diethylphthalate	20.07	149	147246	48.39	ug/mL	98
48)	Fluorene	19.95	166	195315	73.56	ug/mL	100
49)	4-Chlorophenyl-phenylether	20.15	204	92973	73.93	ug/mL	99
51)	4-Nitroaniline	19.97	138	2140	3.55	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	34580	72.34	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	103444	56.10	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	304015	69.20	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	56539	75.63	ug/mL	94
57)	Hexachlorobenzene	21.59	284	65629	84.28	ug/mL#	76
58)	Pentachlorophenol	22.31	266	45874	91.98	ug/mL	96
59)	Phenanthrene	22.85	178	302063	76.09	ug/mL	100
60)	Anthracene	22.85	178	307177	83.93	ug/mL	99
62)	Di-n-butylphthalate	25.16	149	462525	79.38	ug/mL	100
63)	Fluoranthene	27.12	202	360324	95.98	ug/mL	93
65)	Benzidine	27.93	184	3521	2.29	ug/ml	100
66)	Pyrene	27.12	202	359722	68.02	ug/mL#	89
68)	Butylbenzylphthalate	29.69	149	229144	67.66	ug/mL	98
69)	Benzo[a]anthracene	30.88	228	343280	64.31	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.00	252	42496	31.23	ug/mLm	95
71)	Chrysene	30.88	228	346867	116.85	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.68	149	354135	73.72	ug/mL	97
74)	Di-n-octylphthalate	33.58	149	572669	68.37	ug/mL	99
75)	Benzo[b]fluoranthene	34.03	252	206742	50.97	ug/mL	98
76)	Benzo[k]fluoranthene	34.03	252	206742	105.65	ug/mL	95
77)	Benzo[a]pyrene	34.03	252	206742	102.50	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.42	276	28894	38.84	ug/mL	89
79)	Dibenz[a,h]anthracene	37.52	278	34681	48.41	ug/mL#	86
80)	Benzo[g,h,i]perylene	37.42	276	28610	48.92	ug/mL	100

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



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)

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials

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ANALYTICAL DATA REPORT
FOR
U.S. ARMY, FORT MONMOUTH
SELFM-PW-EV
Building 173
Fort Monmouth, NJ 07703

PROJECT : **#94524094501**

EMSL Project: # 95063979

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1872.1, Trip Blank	**95-26604**	**Aqueous**	**6/15/95 @ 0600**	**6/15/95**
1872.2, Field Blank	**95-26605**	**Aqueous**	**6/15/95 @ 1450**	**6/15/95**
1873.1, MW1-2931789, Bldg. 2534	**95-26609**	**Aqueous**	**6/15/95 @ 1237**	**6/15/95**

Laboratory Name: EMSL ANALYTICAL, INC.

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

Supervisor/Manager Signature: Paul Laraia

Printed Name: Paul V. Laraia

Date: 07-17-95

REPORT NARRATIVE

All initial runs for the Ft. Monmouth P.O. #IJO #95-0091/SAI were analyzed within hold. The samples were taken by EMSL between the dates of 5/18/95 thru 5/25/95.

There was a problem with the water used for the field and trip blanks. On certain days the field crew used DI water from the incorrect system resulting in low level contamination of Toluene, 2-Chlorotoluene and sometimes Chlorobenzene. However the resultant concentrations of these compounds were very low and the samples accompanying these field and trip blanks did not show these compounds to be present.

EMSL

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SAMPLE DATA SUMMARY PACKAGE

001

EMSL

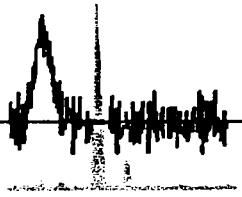
Date of Report: 07/14/95
Project Number: 95063976
Lab ID: 95-0026604
Date Collected: 06/15/95 06:00
Collected By: Client
Date Received: 06/15/95 17:51

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

Client Project: N/A

Client Designation: Trip Blank

	Conc.	Unit
ORGANIC		
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1872.1

005

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526604

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8684.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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	1.2	
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	6.4	
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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1372.1 005

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526604

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8684.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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FMETL# 1872.1 007

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Project No. FT. MONMOUTH NJ Bldg#: _____ NJDEPMW#: TRIP BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526604V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8684.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	2	J
2.	Column Bleed	22.92	1	J
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EMSL

Date of Report: 07/14/95
Project Number: 95063976
Lab ID: 95-0026605
Date Collected: 06/15/95 14:50
Collected By: Client
Date Received: 06/15/95 17:51

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

Client Project: N/A

Client Designation: Field Blank

	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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1872.2 009

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526605

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8685.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

CAS No.	Compound		Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	1.3	
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	1.1	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	9.8	
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# 1872.2 010

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526605

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8685.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

CAS No.	Compound		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

FMETL# 1872.2 011

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Project No. FT. MONMOUTH NJ Bldg#: _____ NJDEPMW#: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526605V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8685.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	4	J
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SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

9526605B

01

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 1872.2 Site: Field Blank BLDG# NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526605B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8038.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO. 9526605B

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 18722 Site: Field Blank BLDG# NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526605B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8038.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

FORT MONMOUTH NJ 1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9526605B

014

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 1872.2 Site: Field Blank BLDG# NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526605B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8038.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N) N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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			
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EMSL

Date of Report: 07/14/95
Project Number: 95063979
Lab ID: 95-0026609
Date Collected: 06/15/95 12:37
Collected By: Client
Date Received: 06/15/95 17:51

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

Client Project: 94524094501

Client Designation: Bldg.2534.MW1-2931789

	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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1873.1

015

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

Project No.: FT. MONMOUTH NJ Bldg#: 2534 NJDEP MW#: 1-2931789

Matrix: (soil/water) WATER Lab Sample ID: 9526609

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8688.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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	1.1	
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	.80	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	7.5	
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

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1873.1

017

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

Project No.: FT. MONMOUTH NJ Bldg#: 2534 NJDEP MW#: 1-2931789

Matrix: (soil/water) WATER Lab Sample ID: 9526609

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8688.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

1E

FMETL# 18731

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

015

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

Project No. FT. MONMOUTH NJ Bldg#: 2534 NJDEPMW#: 1-2931789

Matrix: (soil/water) WATER Lab Sample ID: 9526609V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8688.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	3	J
2.				
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1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
FORT MONMOUTH, NJ

SAMPLE NO. 9526609B

01

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 1873.1 Site: MW1 BLDG# 2534 NJDEP# 1-2931789

Matrix: (soil/water) WATER Lab Sample ID: 9526609B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8042.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO. 020

9526609B

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 1873.1 Site: MW1 BLDG# 2534 NJDEP# 1-2931789

Matrix: (soil/water) WATER Lab Sample ID: 9526609B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8042.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

FORT MONMOUTH NJ 1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 021

9526609B

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 18731 Site: mw1 BLDG# 2534 NJDEP# 1-2931789

Matrix: (soil/water) WATER Lab Sample ID: 9526609B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8042.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N) N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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. 112-27-6	Triethylene glycol	29.46	9	J
2. 23778-52-1	2,5,8,11,14-Pentaoxahexadeca	32.36	5	J
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BLDG.#: 2534 MW#: 1 NJDEPE WELL ID # 231789 022

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 6-15-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tom Baxter

WEATHER CONDITIONS: Sunny, hot

ELEVATION OF CASING SURVEY MARK: ____.____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 15.75 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____FT 0.17' to screen

LENGTH OF SCREENED SECTION: ____FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 8.50 FT from screen

ELEVATION OF GW PRIOR TO PURGING: ____.___FT

THICKNESS OF LNAPL PRIOR TO PURGING : ____.0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS REMOVED: 21 PPM 1148 none detected. D.O. 6.3 ppm

① pH: 5.73 TEMP: 21.60 °C, SPECIFIC CONDUCTIVITY: 339 µs/cm

DEPTH OF WELL: ____.___FT

HEIGHT OF WATER: ____.____FT

EVACUATED GAL. H2O: 110 GAL (7.75 X .65 X 3 = 15.1125)

PURGING START TIME: 1154 END TIME: 1225

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

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 110 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE SAMPLING: 8.92 FT

② DISSOLVED OXYGEN: 6.6 ppm pH: 6.05 TEMP: 21.3 °C

SPECIFIC CONDUCTIVITY: 335 µs/cm

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

START TIME OF SAMPLING: 1228 END TIME: 1237

③ DISSOLVED OXYGEN: 2.8 ppm pH: 6.01 TEMP: 21.2 °C

SPECIFIC CONDUCTIVITY: 204 µs/cm

Color [illegible] ODOR [illegible]

COMMENTS: on site 1145am

023

EMSL

LABORATORY DELIVERABLES

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

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

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

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

Paul Tonais

Laboratory Manager or Environmental Consultant's Signature

01-17-95

Date

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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 #		
1	1.	Name and address of the facility.
1	2.	Name of the laboratory performing the sample analysis.
1	3.	NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.
1	4.	Laboratory sample identification number.
1	5.	Customer sample identification number corresponding to the laboratory sample identification.
1	6.	Sample Location (also on the site diagram).
1	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.
30-31	8.	The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).
1	9.	The signature of the person completing the report form.
1	10.	The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.
32	11.	A list of all parameters (constituents and conditions) for which the analyses were performed.
3-22	12.	Sample results and corresponding units for each parameter.

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CHAIN OF CUSTODY

U.S. ARMY FORT MONMOUTH

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

Chain of Custody

Project #: 945240945O1	Sampler: EMSL (Baxter)	Date / Time 6/5/95	Analysis Parameters
Customer: Charles Appleby SELFM-RO-EV	Site Name: Bldg. # 2534 MW Sampling		Start: Finish:
Phone: 908-532-6024			Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Analysis Parameters	Remarks
1872.1	6/5/95 1600	TRIP BLANK	aq.	4	X	Samples Kept at 4 °C
1872.2	1152	Field Blank	aq.	6	X X	
1873.1	1334	Bldg. #2534 MW1-2931784	aq.	6	X	

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
X Sarah J Hubbard	6/5/95 1515	X	E.M.S.L.
Relinquished By (signature)	Date / Time	Received for Lab By (signature):	Date / Time
	6/5/95 1751		

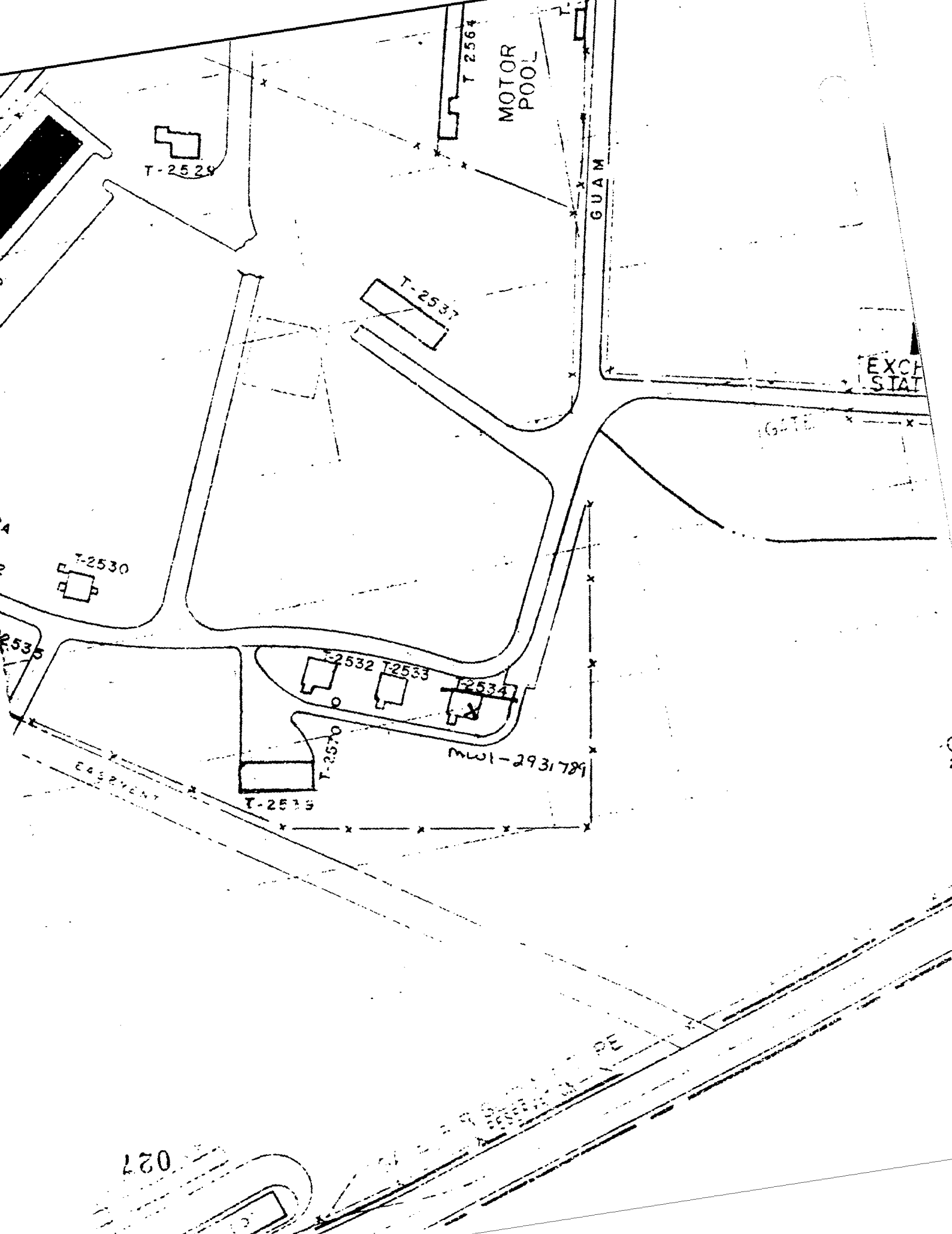
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. (ORIGINAL on Reverse Side)

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

Enviornmental Laboratory

Certification Number

020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T 2564
T-2529
GUAM
T-2537
EXCH
STAT
GATE
T-2530
T-2535
T-2532
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T-2534
T-2536
T-2538
MW1-293789
EASEMENT
027

EMSL ANALYTICAL, INC.

INTERNAL CHAIN OF CUSTODY

EMSL

EMSL LAB ID NO. 95-266609

PROJECT NO. 95063979

SAMPLE/CONTAINERS

PARAMETERS BN-Ext.

DATE	TIME	ANALYSIS	NAME (PRINT)	SIGNATURE
6/21/95		BN Extraction Prep.	Charles Bartolone	CB

INTERNAL CUSTODY

Project #: 95063979

Lab ID #'s: 95-26609

Analyst

	Name (please print)	Signature	Date
1. Base/Neutrals	Scott Van Etten	SV	6/26/95
2. Acids			
3. Pesticides			
4. Herbicides			
5. PCB's			
6. Metals:			
Flame			
Furnace			
ICP			
7. Volatiles:			
GC			
GC/MS	Scott Kessler	SK	6/27/95
8. TOC			
9. TOX			
10. Phenols (Total)			
11. Cyanide (Total)			
12. TPH -IR			
13. Mercury			
14. Other			
15. Other			
16. Other			

EMSL

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 capiullary column (DB-624 0.53 mn ID).

Method detection limits are as stated.

Semivolatiles by GC/MS - Aqueous

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. 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.

EMSL

LABORATORY CHRONICLE

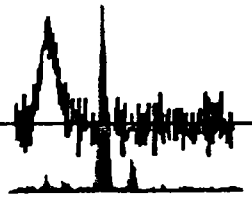
Lab ID: **95-26604, 95-26605, 95-26609** Client: **U.S. Army, Fort Monmouth**

	I DATE	II	Hold Time
Date Sampled	**6/15/95**		
Receipt/Refrigeration	**6/15/95**		
Extractions			
1. Semivolatile Organics, aqueous	**6/21/95**		**7 days**
Analyses			
1. Volatile Organics, aqueous	**6/27/95**		**14 days**
2. Semivolatile Organics, aqueous	**6/26/95**		**40 days**

QC Supervisor
Review & Approval

(Signature) Peter B. Panton
(Printed Name) Peter B. Panton
(Date) 07/18/95

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



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 **Methylene Chloride 2.0-2.1 ppb.**		
	b. B/N Fraction		
	c. Acid Fraction		
7.	Surrogate Recoveries Meet Criteria		X
	If not met, list those compounds and their recoveries which fall outside the acceptable range:		
	a. VOA Fraction		
	b. B/N Fraction		
	c. Acid Fraction		
	If not met, were the calculations checked and the results qualified as "estimated"?		
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	X	
	a. VOA Fraction **95-26607 Methylene Chloride 76%, Chloromethane 122%, 1,2-Dichloroethane 121%.**		
	b. B/N Fraction		
	c. Acid Fraction		
9.	Internal Standard Area/Retention Time Shift Meet Criteria		X

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

		No	Yes
10.	Extraction Holding Time Met		X

If not met, list number of days exceeded for each sample:

_____

_____

		No	Yes
11.	Analysis Holding Time Met		X

If not met, list number of days exceeded for each sample:

_____

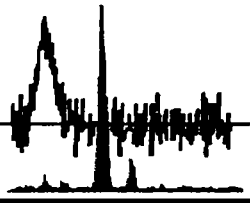
_____

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

Additional Comments: _____

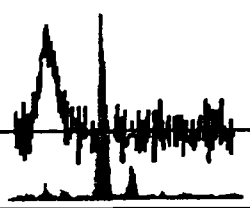
_____

Laboratory Manager Paul Faraia Date: 07-17-95



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: C8651.D BFB Injection Date: 06/26/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1349

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	19.0
75	30.0 - 60.0% of mass 95	45.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	60.1
175	5.0 - 9.0% of mass 174	4.0 (6.7)1
176	95.0 - 101.0% of mass 174	58.6 (97.5)1
177	5.0 - 9.0% of mass 176	3.7 (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:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		4 PPB STANDARD	C8652.D	06/26/95	1412
02		10 PPB STANDARD	C8653.D	06/26/95	1450
03		20 PPB STANDARD	C8654.D	06/26/95	1534
04		30 PPB STANDARD	C8655.D	06/26/95	1635
05		40 PPB STANDARD	C8656.D	06/26/95	1711
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07					
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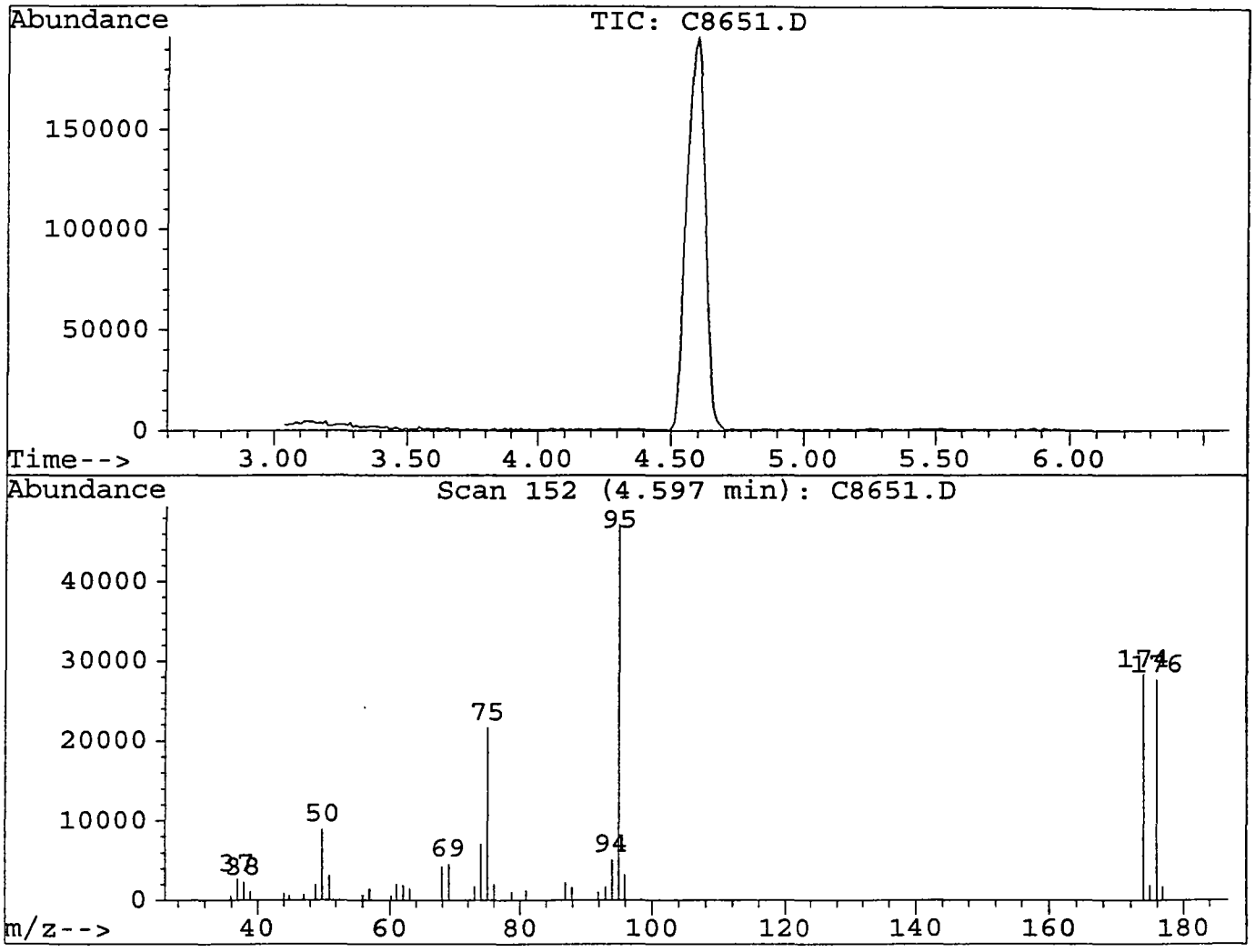
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C8651.D
Acq On : 26 Jun 95 1:49 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1 **037**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	8949	PASS
75	95	30	60	45.9	21648	PASS
95	95	100	100	100.0	47168	PASS
96	95	5	9	6.8	3184	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	60.1	28352	PASS
175	174	5	9	6.7	1888	PASS
176	174	95	101	97.5	27656	PASS
177	176	5	9	6.3	1739	PASS

C8651.D VOA524.M Mon Jun 26 18:31:50 1995 VOA

Scan 152 (4.597 min): C8651.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	630	56.95	1450	78.70	1099	175.90	27656
36.95	2704	60.10	636	80.90	1240	176.80	1739
37.95	2267	61.00	2061	86.90	2206		
38.95	1115	62.00	1896	87.85	1606		
44.00	852	63.00	1468	91.85	1038		
44.90	560	67.90	4286	92.95	1720		
47.00	730	68.95	4580	93.95	5132		
48.90	1993	72.95	1787	94.95	47168		
49.90	8949	73.95	7174	95.85	3184		
50.95	3073	74.95	21648	173.90	28352		
55.95	697	75.95	2011	174.90	1888		

Response Factor Report 5972 - In

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Initial Calibration

039

Calibration Files
4 =C8652.D 10 =C8653.D 20 =C8654.D
30 =C8655.D 40 =C8656.D

		Compound	4	10	20	30	40	Avg	%RSD
1)		Fluorobenzene	----------ISTD----------						
2)	M	Dichlorodifluorometha	0.386	0.381	0.373	0.356	0.365	0.372	3.20
3)	M	Chloromethane	0.172	0.168	0.164	0.158	0.168	0.166	3.12
4)	M	Vinyl chloride	0.206	0.219	0.216	0.208	0.212	0.212	2.44
5)	M	Bromomethane	0.191	0.182	0.162	0.156	0.158	0.170	9.36
6)	M	Chloroethane	0.131	0.139	0.136	0.099	0.090	0.119	19.20
7)	M	Trichlorofluoromethan	0.581	0.604	0.604	0.591	0.588	0.594	1.70
8)	M	1,1-Dichloroethene	0.247	0.259	0.257	0.254	0.256	0.255	1.78
9)	M	Methylene chloride		0.342	0.273	0.243	0.231	0.272	18.36
10)	M	trans-1,2-Dichloroeth	0.266	0.281	0.269	0.268	0.270	0.271	2.16
11)		Hexane						0.000#	-1.00
12)	M	1,1-Dichloroethane	0.474	0.485	0.472	0.470	0.473	0.475	1.25
13)	M	2,2-Dichloropropane	0.514	0.502	0.504	0.480	0.469	0.494	3.74
14)	M	cis-1,2-Dichloroethen	0.277	0.273	0.260	0.257	0.259	0.265	3.44
15)		2-Butanone						0.000#	-1.00
16)	M	Bromochloromethane	0.104	0.107	0.105	0.107	0.105	0.105	1.29
17)	M	Chloroform	0.520	0.519	0.502	0.508	0.507	0.511	1.52
18)	M	1,1,1-Trichloroethane	0.567	0.583	0.568	0.566	0.569	0.571	1.23
19)	M	Carbon tetrachloride	0.539	0.548	0.540	0.539	0.537	0.541	0.83
20)	M	1,1-Dichloropropene	0.455	0.465	0.452	0.446	0.439	0.451	2.18
21)	M	Benzene	0.812	0.826	0.806	0.805	0.803	0.810	1.13
22)	M	1,2-Dichloroethane	0.211	0.207	0.199	0.204	0.206	0.205	2.04
23)	M	Trichloroethene	0.390	0.398	0.391	0.386	0.385	0.390	1.23
24)	M	1,2-Dichloropropane	0.261	0.262	0.255	0.255	0.255	0.258	1.43
25)	M	Dibromomethane	0.134	0.133	0.130	0.133	0.130	0.132	1.46
26)	M	Bromodichloromethane	0.425	0.418	0.413	0.421	0.411	0.418	1.39
27)	M	cis-1,3-Dichloroprope	0.341	0.340	0.338	0.341	0.332	0.339	1.04
28)	M	Toluene	0.606	0.610	0.597	0.601	0.597	0.602	0.93
29)	M	trans-1,3-Dichloropro	0.249	0.241	0.244	0.247	0.238	0.244	1.80
30)	M	1,1,2-Trichloroethane	0.120	0.118	0.115	0.119	0.116	0.118	1.95
31)	M	Tetrachloroethene	0.424	0.418	0.414	0.416	0.409	0.416	1.32
32)	M	1,3-Dichloropropane	0.228	0.224	0.216	0.224	0.215	0.222	2.52
33)	M	Dibromochloromethane	0.255	0.257	0.254	0.265	0.257	0.258	1.65
34)	M	1,2-Dibromomethane	0.174	0.179	0.173	0.181	0.176	0.177	1.90
35)	M	Chlorobenzene	0.688	0.688	0.678	0.689	0.673	0.683	1.06
36)	M	1,1,1,2-Tetrachloroet	0.308	0.298	0.295	0.299	0.295	0.299	1.80
37)	M	Ethylbenzene	1.328	1.309	1.285	1.287	1.275	1.297	1.65
38)	M	Xylene (para & meta)	0.484	0.478	0.467	0.470	0.456	0.471	2.23
39)	M	Xylene (Ortho)	0.438	0.436	0.425	0.432	0.420	0.430	1.79
40)	M	Styrene	0.676	0.678	0.659	0.671	0.654	0.668	1.61
41)	M	Bromoform	0.132	0.136	0.134	0.142	0.140	0.137	2.96
)	M	Isopropylbenzene	1.369	1.360	1.343	1.351	1.328	1.350	1.17
)	S	4-Bromofluorobenzene	0.213	0.532	0.525	0.534	0.531	0.467	30.39

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Initial Calibration

040

Calibration Files
4 =C8652.D 10 =C8653.D 20 =C8654.D
30 =C8655.D 40 =C8656.D

		Compound	4	10	20	30	40	Avg	%RSD
44)	M	Bromobenzene	0.280	0.289	0.283	0.292	0.284	0.286	1.60
45)	M	1,1,2,2-Tetrachloroet	0.163	0.148	0.143	0.145	0.140	0.148	6.03
46)	M	1,2,3-Trichloropropan	0.149	0.152	0.148	0.155	0.147	0.150	2.28
47)	M	n-Propylbenzene	1.799	1.762	1.749	1.735	1.728	1.755	1.61
48)	M	2-Chlorotoluene	1.093	1.052	1.010	1.032	1.039	1.045	2.95
49)	M	4-Chlorotoluene	1.211	1.202	1.149	1.156	1.152	1.174	2.53
50)	M	1,3,5-Trimethylbenzen	1.151	1.163	1.126	1.139	1.119	1.140	1.58
51)	M	tert-Butylbenzene	1.268	1.250	1.234	1.241	1.224	1.243	1.35
52)	M	1,2,4-Trimethylbenzen	1.101	1.104	1.087	1.100	1.077	1.094	1.03
53)	M	sec-Butylbenzene	1.787	1.745	1.713	1.725	1.696	1.733	2.02
54)	M	1,3-Dichlorobenzene	0.590	0.582	0.561	0.571	0.566	0.574	2.07
55)	M	4-Isopropyltoluene	1.391	1.391	1.377	1.377	1.359	1.379	0.96
56)	M	1,4-Dichlorobenzene	0.590	0.572	0.567	0.579	0.561	0.574	1.95
57)	S	1,2-Dichlorobenzene-d	0.281	0.276	0.271	0.275	0.270	0.275	1.61
58)	M	1,2-Dichlorobenzene	0.456	0.450	0.434	0.441	0.425	0.441	2.81
59)	M	n-Butylbenzene	1.421	1.425	1.396	1.372	1.347	1.392	2.37
60)	M	1,2-Dibromo-3-chlorop	0.032	0.034	0.034	0.036	0.036	0.034	5.08
61)	M	1,2,4-Trichlorobenzen	0.360	0.349	0.340	0.352	0.347	0.350	2.04
62)	M	Hexachlorobutadiene	0.386	0.383	0.371	0.368	0.373	0.376	2.07
63)	M	Naphthalene	0.324	0.324	0.309	0.334	0.312	0.321	3.14
64)	M	1,2,3-Trichlorobenzen	0.259	0.262	0.253	0.259	0.258	0.258	1.20
65)		Methyl-tert butyl eth	0.336	0.322	0.305	0.311	0.307	0.316	3.99
66)		tert-Butyl Alcohol	0.006	0.009	0.009	0.010	0.010	0.009	18.64

(#) = Out of Range

Quantitation Report

Data File : d:\hpchem\1\data\c8652.d
Acq On : 26 Jun 95 2:12 pm
Sample : 4 PPB STANDARD
Misc :
Quant Time: Jun 26 14:40 1995

Vial: 2 041
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.87	96	224089	5.00	ug/L		0.03
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.13	95	47774	2.14	ug/L		42.74%
57) 1,2-Dichlorobenzene-d4	21.92	152	25203	2.47	ug/L		49.36%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.24	85	69175	3.89	ug/L		93
3) Chloromethane	3.59	50	30867	2.95	ug/L		96
4) Vinyl chloride	3.84	62	37007	3.14	ug/L		91
5) Bromomethane	4.51	94	34305	4.31	ug/L		97
6) Chloroethane	4.73	64	23444	3.39	ug/L		94
7) Trichlorofluoromethane	5.34	101	104207	3.96	ug/L		98
8) 1,1-Dichloroethene	6.44	96	44308	3.83	ug/L	#	84
9) Methylene chloride	7.41	84	111435	9.08	ug/L	#	86
10) trans-1,2-Dichloroethene	7.99	96	47768	3.91	ug/L	#	83
12) 1,1-Dichloroethane	8.77	63	84913	3.47	ug/L		98
13) 2,2-Dichloropropane	9.85	77	92210	3.85	ug/L		95
14) cis-1,2-Dichloroethene	9.85	96	49613	4.31	ug/L	#	83
16) Bromochloromethane	10.27	128	18647	4.62	ug/L	#	72
17) Chloroform	10.43	83	93211	4.06	ug/L		98
18) 1,1,1-Trichloroethane	10.76	97	101575	4.00	ug/L		95
19) Carbon tetrachloride	11.06	117	96580	4.10	ug/L		99
20) 1,1-Dichloropropene	11.04	75	81585	3.68	ug/L		96
21) Benzene	11.40	78	145582	3.73	ug/L		95
22) 1,2-Dichloroethane	11.40	62	37823	3.95	ug/L		90
23) Trichloroethene	12.52	95	69879	4.04	ug/L		92
24) 1,2-Dichloropropane	12.87	63	46748	3.66	ug/L		94
25) Dibromomethane	13.07	93	24054	4.65	ug/L		94
26) Bromodichloromethane	13.34	83	76253	4.30	ug/L		97
27) cis-1,3-Dichloropropene	14.10	75	61134	3.99	ug/L		100
28) Toluene	14.68	92	108604	3.92	ug/L		98
29) trans-1,3-Dichloropropene	15.02	75	44645	4.21	ug/L		95
30) 1,1,2-Trichloroethane	15.34	83	21596	4.36	ug/L		94
31) Tetrachloroethene	15.64	166	76065	4.38	ug/L		97
32) 1,3-Dichloropropane	15.63	76	40918	4.17	ug/L		99
33) Dibromochloromethane	16.03	129	45734	4.75	ug/L		99
34) 1,2-Dibromomethane	16.24	107	31157	4.56	ug/L		99
35) Chlorobenzene	17.12	112	123274	4.27	ug/L		95
36) 1,1,1,2-Tetrachloroethane	17.25	131	55209	4.82	ug/L		97
37) Ethylbenzene	17.30	91	238157	4.08	ug/L		99
38) Xylene (para & meta)	17.51	106	173387	8.27	ug/L		100
39) Xylene (Ortho)	18.21	106	78570	4.24	ug/L		91
40) Styrene	18.23	104	121233	4.22	ug/L		99

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

Quantitation Report

Data File : d:\hpchem\1\data\c8652.d
Acq On : 26 Jun 95 2:12 pm
Sample : 4 PPB STANDARD
Misc :
Quant Time: Jun 26 14:40 1995

Vial: 2 042
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.55	173	23749	5.03	ug/L		95
42)	Isopropylbenzene	18.87	105	245372	4.12	ug/L		92
44)	Bromobenzene	19.41	156	50264	4.68	ug/L		94
45)	1,1,2,2-Tetrachloroethane	19.36	83	29146	5.52	ug/L		93
46)	1,2,3-Trichloropropane	19.43	75	26778	4.17	ug/L	#	85
47)	n-Propylbenzene	19.61	91	322582	4.16	ug/L		95
48)	2-Chlorotoluene	19.76	91	195929	4.55	ug/L		97
49)	4-Chlorotoluene	19.96	91	217040	4.25	ug/L		89
50)	1,3,5-Trimethylbenzene	19.93	105	206401	4.18	ug/L		98
51)	tert-Butylbenzene	20.52	119	227230	4.44	ug/L		97
52)	1,2,4-Trimethylbenzene	20.60	105	197300	4.36	ug/L		100
53)	sec-Butylbenzene	20.92	105	320389	4.22	ug/L		97
54)	1,3-Dichlorobenzene	21.12	146	105858	4.83	ug/L		97
55)	4-Isopropyltoluene	21.18	119	249354	4.40	ug/L		96
56)	1,4-Dichlorobenzene	21.28	146	105830	4.87	ug/L		91
58)	1,2-Dichlorobenzene	21.96	146	81762	5.01	ug/L		92
59)	n-Butylbenzene	21.93	91	254788	4.20	ug/L		98
60)	1,2-Dibromo-3-chloropropan	23.35	75	5747	4.28	ug/L		81
61)	1,2,4-Trichlorobenzene	24.93	180	64460	5.37	ug/L		96
62)	Hexachlorobutadiene	25.28	225	69136	4.77	ug/L		98
63)	Naphthalene	25.37	128	58165	5.60	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	46363	5.54	ug/L		97
65)	Methyl-tert butyl ether	8.02	73	60179	4.60	ug/L		98
66)	tert-Butyl Alcohol	7.98	59	1112	5.54	ug/L		100

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

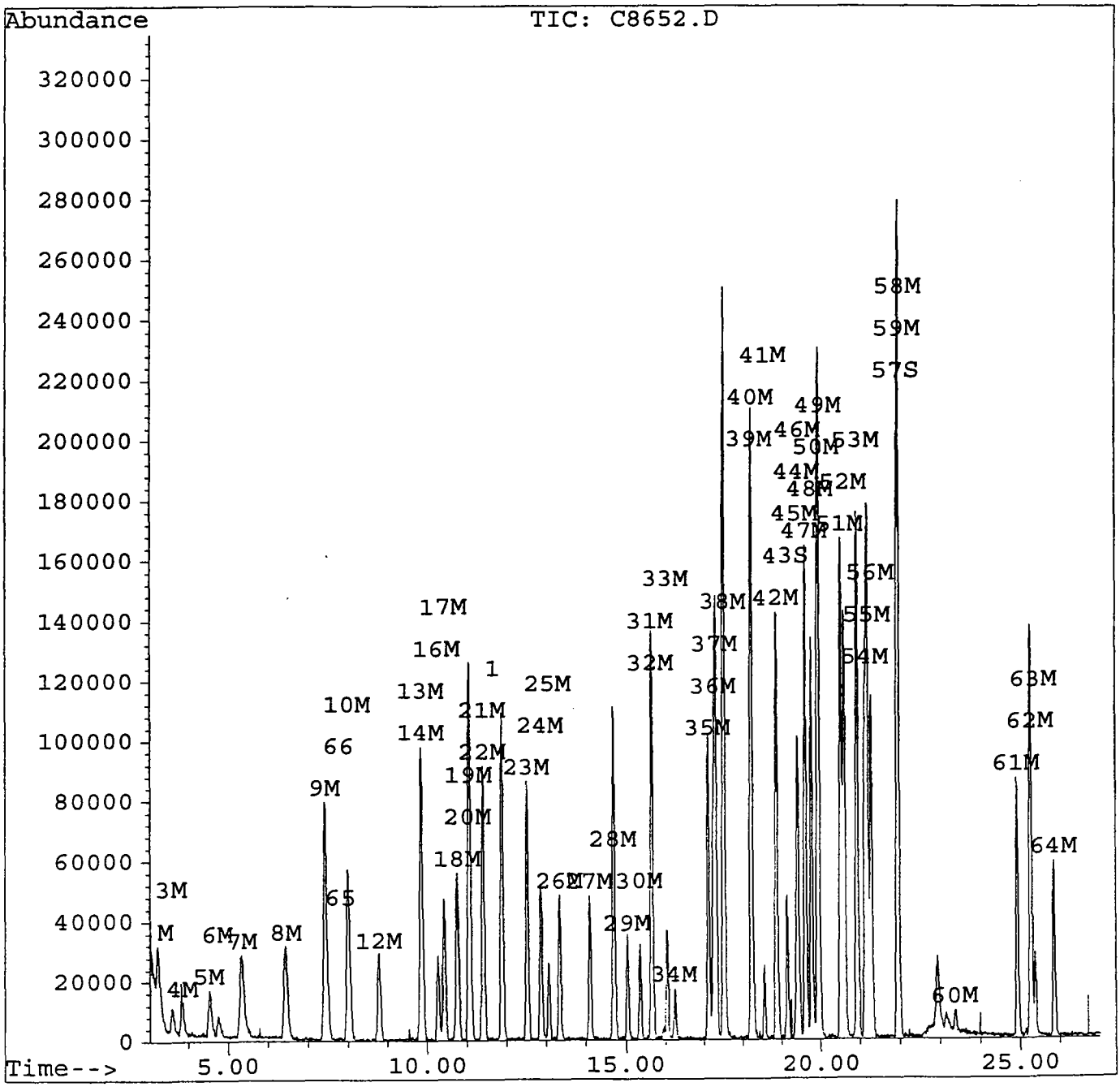
Quantitation Report

Data File : d:\hpchem\1\data\c8652.d
Acq On : 26 Jun 95 2:12 pm
Sample : 4 PPB STANDARD
Misc :
Quant Time: Jun 26 14:40 1995

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

043

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration



Quantitation Report

044

Data File : d:\hpchem\1\data\c8653.d
Acq On : 26 Jun 95 2:50 pm
Sample : 10 PPB STANDARD
Misc :
Quant Time: Jun 26 18:47 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	368960	5.00	ug/L		0.06
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.13	95	196151	5.33	ug/L		106.59%
57) 1,2-Dichlorobenzene-d4	21.93	152	101918	6.06	ug/L		121.24%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	280838	9.60	ug/L		100
3) Chloromethane	3.72	50	124227	7.22	ug/L		94
4) Vinyl chloride	3.94	62	161318	8.31	ug/L		100
5) Bromomethane	4.59	94	134314	10.24	ug/L		98
6) Chloroethane	4.83	64	102594	9.02	ug/L		99
7) Trichlorofluoromethane	5.42	101	445972	10.29	ug/L		99
8) 1,1-Dichloroethene	6.50	96	191191	10.04	ug/L	#	84
9) Methylene chloride	7.47	84	252706	12.51	ug/L	m	89
10) trans-1,2-Dichloroethene	8.04	96	207478	10.31	ug/L	#	85
12) 1,1-Dichloroethane	8.83	63	357923	8.90	ug/L		100
13) 2,2-Dichloropropane	9.89	77	370413	9.39	ug/L		99
14) cis-1,2-Dichloroethene	9.89	96	201584	10.63	ug/L	#	87
16) Bromochloromethane	10.31	128	78809	11.86	ug/L	#	68
17) Chloroform	10.46	83	383089	10.15	ug/L		97
18) 1,1,1-Trichloroethane	10.79	97	430219	10.29	ug/L		94
19) Carbon tetrachloride	11.10	117	404572	10.43	ug/L		99
20) 1,1-Dichloropropene	11.08	75	343108	9.40	ug/L		96
21) Benzene	11.43	78	609294	9.48	ug/L		98
22) 1,2-Dichloroethane	11.44	62	152455	9.67	ug/L		100
23) Trichloroethene	12.54	95	293351	10.30	ug/L		93
24) 1,2-Dichloropropane	12.89	63	193677	9.21	ug/L		97
25) Dibromomethane	13.09	93	98220	11.53	ug/L		96
26) Bromodichloromethane	13.35	83	308703	10.57	ug/L		95
27) cis-1,3-Dichloropropene	14.12	75	251017	9.94	ug/L		92
28) Toluene	14.70	92	450259	9.86	ug/L		99
29) trans-1,3-Dichloropropene	15.04	75	178084	10.21	ug/L		94
30) 1,1,2-Trichloroethane	15.35	83	87287	10.71	ug/L		95
31) Tetrachloroethene	15.66	166	308584	10.79	ug/L		99
32) 1,3-Dichloropropane	15.64	76	165333	10.24	ug/L		99
33) Dibromochloromethane	16.04	129	189730	11.96	ug/L		97
34) 1,2-Dibromomethane	16.25	107	131879	11.73	ug/L		95
35) Chlorobenzene	17.11	112	508050	10.69	ug/L		95
36) 1,1,1,2-Tetrachloroethane	17.26	131	219959	11.65	ug/L		98
37) Ethylbenzene	17.31	91	965672	10.05	ug/L		99
38) Xylene (para & meta)	17.52	106	705403	20.44	ug/L		98
39) Xylene (Ortho)	18.22	106	322067	10.55	ug/L		97
40) Styrene	18.24	104	500496	10.58	ug/L		98

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

Data File : d:\hpchem\1\data\c8653.d
Acq On : 26 Jun 95 2:50 pm
Sample : 10 PPB STANDARD
Misc :
Quant Time: Jun 26 18:47 1995

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

045

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	100251	12.88	ug/L		95
42)	Isopropylbenzene	18.88	105	1003904	10.23	ug/L		93
44)	Bromobenzene	19.42	156	213131	12.04	ug/L	#	88
45)	1,1,2,2-Tetrachloroethane	19.37	83	108980	12.53	ug/L		90
46)	1,2,3-Trichloropropane	19.43	75	112509	10.65	ug/L	#	51
47)	n-Propylbenzene	19.62	91	1300401	10.18	ug/L		97
48)	2-Chlorotoluene	19.77	91	776614	10.96	ug/L		95
49)	4-Chlorotoluene	19.96	91	886677	10.54	ug/L	m	92
50)	1,3,5-Trimethylbenzene	19.93	105	858128	10.56	ug/L		99
51)	tert-Butylbenzene	20.52	119	922128	10.94	ug/L		97
52)	1,2,4-Trimethylbenzene	20.61	105	814433	10.94	ug/L		97
53)	sec-Butylbenzene	20.93	105	1287414	10.31	ug/L		97
54)	1,3-Dichlorobenzene	21.12	146	429311	11.89	ug/L		96
55)	4-Isopropyltoluene	21.18	119	1026323	11.00	ug/L		97
56)	1,4-Dichlorobenzene	21.29	146	422281	11.80	ug/L		94
58)	1,2-Dichlorobenzene	21.96	146	331822	12.34	ug/L		95
59)	n-Butylbenzene	21.94	91	1051727	10.52	ug/L		95
60)	1,2-Dibromo-3-chloropropan	23.36	75	24740	11.20	ug/L		93
61)	1,2,4-Trichlorobenzene	24.93	180	257764	13.03	ug/L		98
62)	Hexachlorobutadiene	25.26	225	282368	11.84	ug/L		95
63)	Naphthalene	25.38	128	239454	13.99	ug/L		100
64)	1,2,3-Trichlorobenzene	25.86	180	192968	14.00	ug/L		99
65)	Methyl-tert butyl ether	8.07	73	237264	11.01	ug/L		100
66)	tert-Butyl Alcohol	7.80	59	6372	19.29	ug/L		100

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

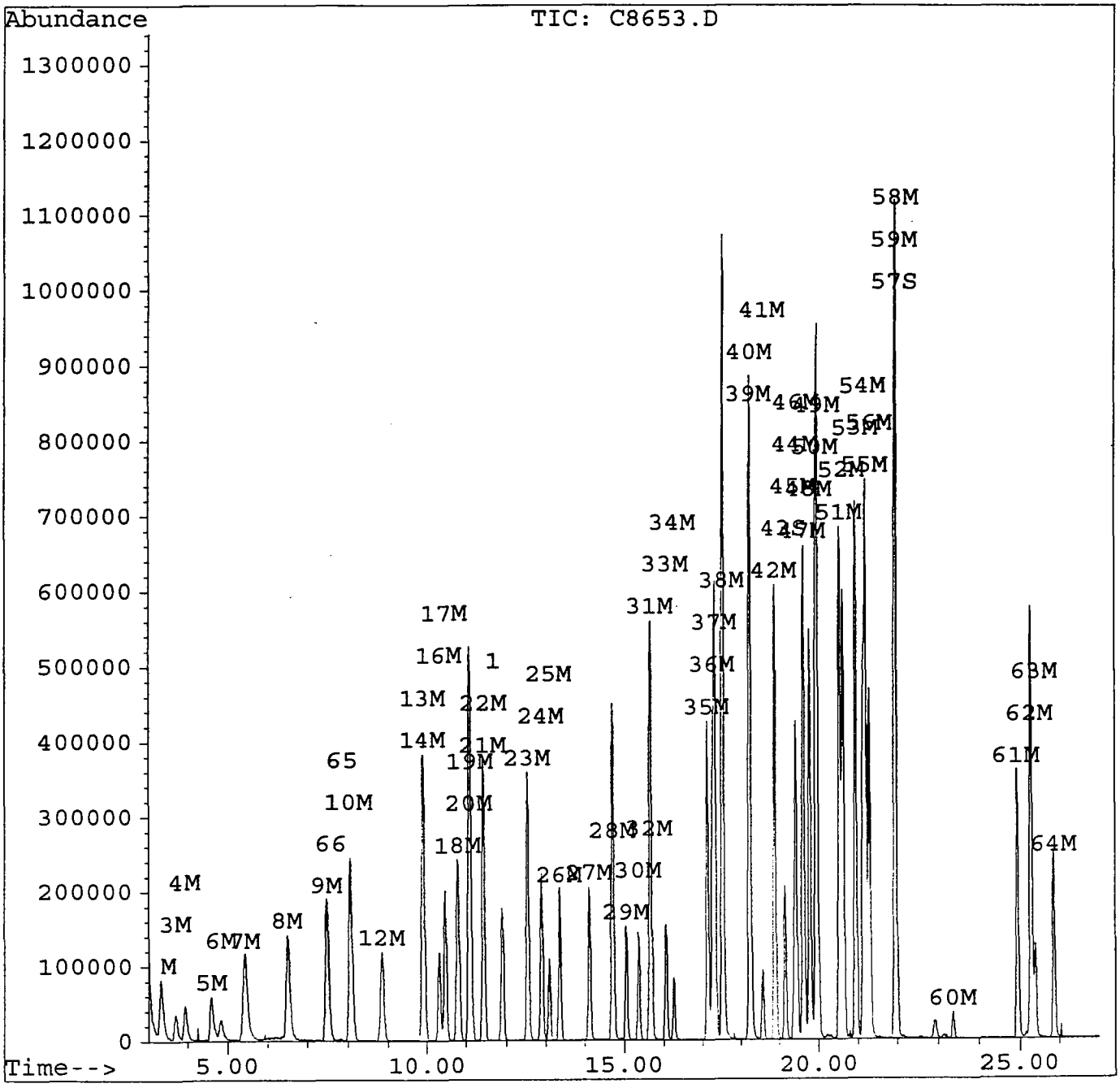
Quantitation Report

046

Data File : d:\hpchem\1\data\c8653.d
Acq On : 26 Jun 95 2:50 pm
Sample : 10 PPB STANDARD
Misc :
Quant Time: Jun 26 18:47 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration



Quantitation Report

047

Data File : d:\hpchem\1\data\c8654.d
Acq On : 26 Jun 95 3:34 pm
Sample : 20 PPB STANDARD
Misc :
Quant Time: Jun 26 18:38 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.89	96	363430	5.00	ug/L		0.05
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.13	95	381556	10.52	ug/L		210.49%
57) 1,2-Dichlorobenzene-d4	21.92	152	197116	11.90	ug/L		238.06%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	542001	18.81	ug/L		98
3) Chloromethane	3.70	50	238402	14.06	ug/L		99
4) Vinyl chloride	3.93	62	314181	16.44	ug/L		99
5) Bromomethane	4.56	94	235570	18.23	ug/L		93
6) Chloroethane	4.77	64	198109	17.69	ug/L		97
7) Trichlorofluoromethane	5.39	101	877713	20.55	ug/L		100
8) 1,1-Dichloroethene	6.48	96	372929	19.88	ug/L		90
9) Methylene chloride	7.46	84	397089	19.95	ug/L	#	84
10) trans-1,2-Dichloroethene	8.03	96	391770	19.77	ug/L		90
12) 1,1-Dichloroethane	8.82	63	686093	17.31	ug/L		98
13) 2,2-Dichloropropane	9.88	77	732191	18.85	ug/L		95
14) cis-1,2-Dichloroethene	9.88	96	378261	20.25	ug/L		90
16) Bromochloromethane	10.29	128	152376	23.28	ug/L	#	73
17) Chloroform	10.45	83	730460	19.64	ug/L		97
18) 1,1,1-Trichloroethane	10.78	97	825891	20.06	ug/L		95
19) Carbon tetrachloride	11.09	117	785602	20.55	ug/L		97
20) 1,1-Dichloropropene	11.07	75	657615	18.29	ug/L		95
21) Benzene	11.42	78	1172038	18.52	ug/L		97
22) 1,2-Dichloroethane	11.42	62	290009	18.67	ug/L		99
23) Trichloroethene	12.53	95	567916	20.24	ug/L		97
24) 1,2-Dichloropropane	12.88	63	371261	17.92	ug/L		97
25) Dibromomethane	13.09	93	189599	22.59	ug/L		94
26) Bromodichloromethane	13.35	83	600894	20.88	ug/L		97
27) cis-1,3-Dichloropropene	14.11	75	492077	19.78	ug/L		94
28) Toluene	14.69	92	868102	19.31	ug/L		99
29) trans-1,3-Dichloropropene	15.04	75	354382	20.63	ug/L		95
30) 1,1,2-Trichloroethane	15.35	83	167724	20.90	ug/L		96
31) Tetrachloroethene	15.66	166	601551	21.35	ug/L		99
32) 1,3-Dichloropropane	15.63	76	314722	19.79	ug/L		99
33) Dibromochloromethane	16.04	129	369526	23.66	ug/L		97
34) 1,2-Dibromomethane	16.24	107	251859	22.74	ug/L		97
35) Chlorobenzene	17.12	112	986023	21.05	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.25	131	428363	23.04	ug/L		98
37) Ethylbenzene	17.31	91	1868743	19.74	ug/L		100
38) Xylene (para & meta)	17.52	106	1358232	39.96	ug/L		98
39) Xylene (Ortho)	18.22	106	617420	20.53	ug/L		99
40) Styrene	18.23	104	958161	20.56	ug/L		99

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

Quantitation Report

Data File : d:\hpchem\1\data\c8654.d
Acq On : 26 Jun 95 3:34 pm
Sample : 20 PPB STANDARD
Misc :
Quant Time: Jun 26 18:38 1995

Vial: 4 048
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.55	173	194881	25.43	ug/L		88
42)	Isopropylbenzene	18.87	105	1952985	20.20	ug/L		94
44)	Bromobenzene	19.41	156	410948	23.58	ug/L	#	90
45)	1,1,2,2-Tetrachloroethane	19.36	83	208347	24.31	ug/L		96
46)	1,2,3-Trichloropropane	19.44	75	215742	20.73	ug/L	#	78
47)	n-Propylbenzene	19.61	91	2543193	20.22	ug/L		97
48)	2-Chlorotoluene	19.76	91	1467640	21.02	ug/L		98
49)	4-Chlorotoluene	19.96	91	1670386	20.15	ug/L		87
50)	1,3,5-Trimethylbenzene	19.93	105	1636992	20.45	ug/L		98
51)	tert-Butylbenzene	20.53	119	1793222	21.60	ug/L		97
52)	1,2,4-Trimethylbenzene	20.61	105	1580854	21.55	ug/L		95
53)	sec-Butylbenzene	20.92	105	2490496	20.24	ug/L		99
54)	1,3-Dichlorobenzene	21.12	146	815628	22.94	ug/L		96
55)	4-Isopropyltoluene	21.18	119	2001847	21.78	ug/L		96
56)	1,4-Dichlorobenzene	21.28	146	824320	23.38	ug/L		93
58)	1,2-Dichlorobenzene	21.96	146	631052	23.82	ug/L	m	0
59)	n-Butylbenzene	21.94	91	2028690	20.60	ug/L		96
60)	1,2-Dibromo-3-chloropropan	23.36	75	49570	22.77	ug/L		91
61)	1,2,4-Trichlorobenzene	24.92	180	494403	25.38	ug/L		98
62)	Hexachlorobutadiene	25.27	225	539565	22.97	ug/L		94
63)	Naphthalene	25.37	128	449327	26.66	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	368003	27.10	ug/L		96
65)	Methyl-tert butyl ether	8.06	73	443351	20.88	ug/L		97
66)	tert-Butyl Alcohol	7.78	59	12905	39.66	ug/L		100

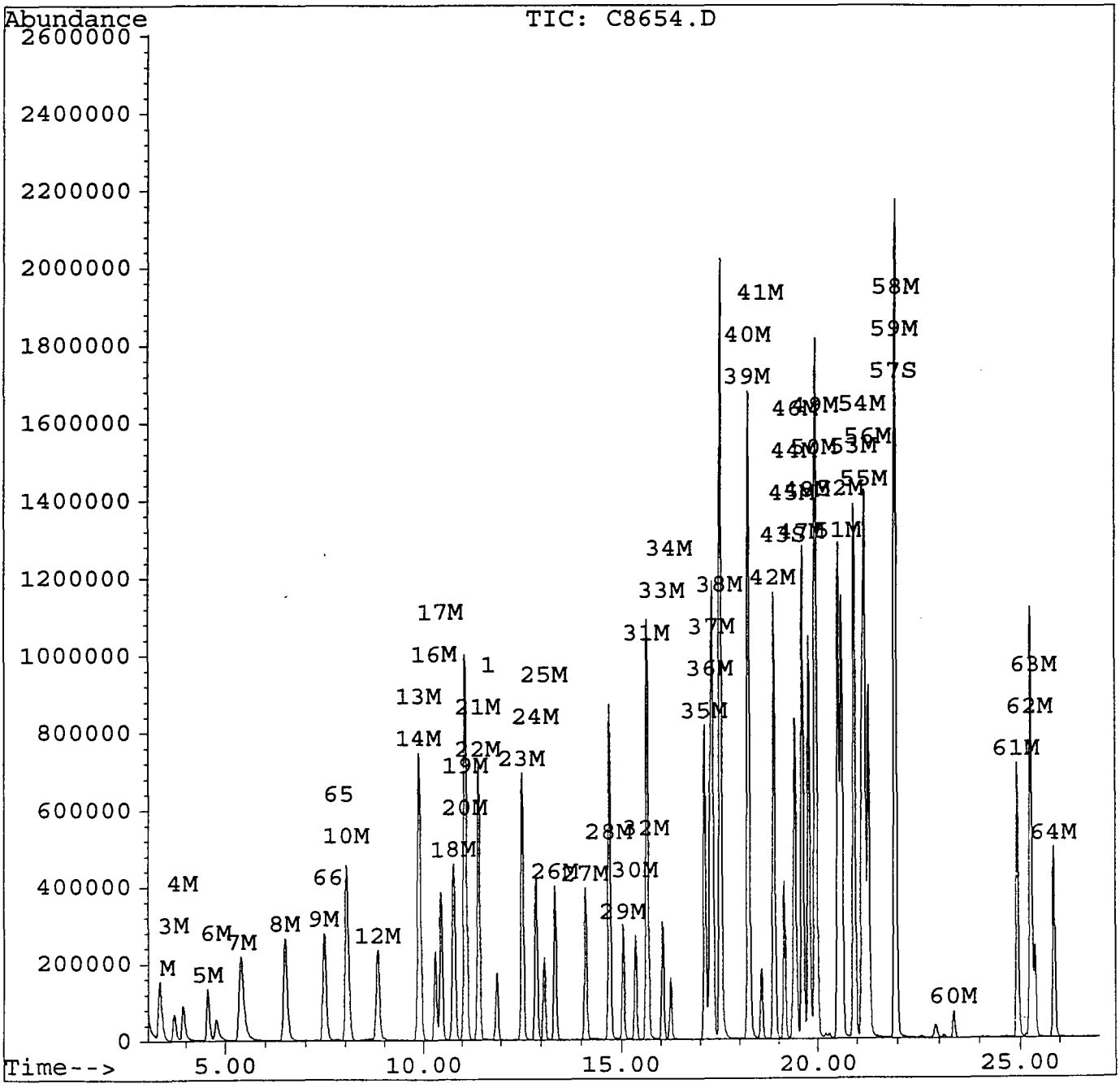
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8654.d
Acq On : 26 Jun 95 3:34 pm
Sample : 20 PPB STANDARD
Misc :
Quant Time: Jun 26 18:38 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8655.d
Acq On : 26 Jun 95 4:35 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: Jun 26 18:39 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.89	96	358297	5.00	ug/L		0.05
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	573750	16.05	ug/L		321.05%
57) 1,2-Dichlorobenzene-d4	21.92	152	296123	18.14	ug/L		362.75%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.32	85	766059	26.97	ug/L		99
3) Chloromethane	3.70	50	340725	20.38	ug/L		99
4) Vinyl chloride	3.92	62	447154	23.73	ug/L		100
5) Bromomethane	4.54	94	335011	26.30	ug/L		94
6) Chloroethane	4.74	64	213726	19.35	ug/L		94
7) Trichlorofluoromethane	5.36	101	1270617	30.18	ug/L		97
8) 1,1-Dichloroethene	6.47	96	546040	29.53	ug/L		91
9) Methylene chloride	7.46	84	522426	26.63	ug/L	#	83
10) trans-1,2-Dichloroethene	8.02	96	575427	29.45	ug/L		90
12) 1,1-Dichloroethane	8.81	63	1010275	25.86	ug/L		99
13) 2,2-Dichloropropane	9.88	77	1032645	26.96	ug/L		94
14) cis-1,2-Dichloroethene	9.88	96	552545	30.00	ug/L		88
16) Bromochloromethane	10.29	128	229963	35.64	ug/L	#	69
17) Chloroform	10.45	83	1091594	29.77	ug/L		98
18) 1,1,1-Trichloroethane	10.78	97	1217514	30.00	ug/L		95
19) Carbon tetrachloride	11.09	117	1157844	30.73	ug/L		99
20) 1,1-Dichloropropene	11.07	75	959511	27.07	ug/L		96
21) Benzene	11.42	78	1731246	27.75	ug/L		98
22) 1,2-Dichloroethane	11.42	62	438197	28.61	ug/L		98
23) Trichloroethene	12.53	95	830130	30.01	ug/L		93
24) 1,2-Dichloropropane	12.88	63	547652	26.82	ug/L		97
25) Dibromomethane	13.09	93	285463	34.50	ug/L		95
26) Bromodichloromethane	13.35	83	904059	31.86	ug/L		99
27) cis-1,3-Dichloropropene	14.11	75	732008	29.85	ug/L		95
28) Toluene	14.69	92	1292344	29.15	ug/L		97
29) trans-1,3-Dichloropropene	15.03	75	531590	31.38	ug/L	m	56
30) 1,1,2-Trichloroethane	15.35	83	256853	32.47	ug/L		99
31) Tetrachloroethene	15.66	166	894602	32.21	ug/L		99
32) 1,3-Dichloropropane	15.64	76	481819	30.73	ug/L		98
33) Dibromochloromethane	16.04	129	569640	36.99	ug/L		98
34) 1,2-Dibromomethane	16.25	107	389569	35.68	ug/L		97
35) Chlorobenzene	17.11	112	1480615	32.07	ug/L		95
36) 1,1,1,2-Tetrachloroethane	17.25	131	643820	35.13	ug/L		98
37) Ethylbenzene	17.31	91	2766353	29.65	ug/L		99
38) Xylene (para & meta)	17.52	106	2021292	60.32	ug/L		99
39) Xylene (Ortho)	18.22	106	929759	31.36	ug/L		100
40) Styrene	18.24	104	1441785	31.39	ug/L		98

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

Quantitation Report

Data File : d:\hpchem\1\data\c8655.d
Acq On : 26 Jun 95 4:35 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: Jun 26 18:39 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.55	173	305991	40.50	ug/L		87
42)	Isopropylbenzene	18.88	105	2905392	30.48	ug/L	m	0
44)	Bromobenzene	19.42	156	626940	36.48	ug/L	#	88
45)	1,1,2,2-Tetrachloroethane	19.37	83	310912	36.80	ug/L		97
46)	1,2,3-Trichloropropane	19.44	75	333515	32.51	ug/L	#	89
47)	n-Propylbenzene	19.62	91	3729091	30.07	ug/L		96
48)	2-Chlorotoluene	19.77	91	2218236	32.23	ug/L		98
49)	4-Chlorotoluene	19.96	91	2485427	30.42	ug/L		87
50)	1,3,5-Trimethylbenzene	19.93	105	2449465	31.03	ug/L		100
51)	tert-Butylbenzene	20.52	119	2667221	32.59	ug/L		96
52)	1,2,4-Trimethylbenzene	20.61	105	2365588	32.72	ug/L		96
53)	sec-Butylbenzene	20.93	105	3708945	30.57	ug/L		97
54)	1,3-Dichlorobenzene	21.12	146	1228546	35.05	ug/L		98
55)	4-Isopropyltoluene	21.18	119	2961111	32.68	ug/L		96
56)	1,4-Dichlorobenzene	21.29	146	1244028	35.79	ug/L		94
58)	1,2-Dichlorobenzene	21.96	146	947311	36.28	ug/L		97
59)	n-Butylbenzene	21.94	91	2949542	30.38	ug/L		95
60)	1,2-Dibromo-3-chloropropan	23.36	75	78194	36.44	ug/L		92
61)	1,2,4-Trichlorobenzene	24.92	180	756964	39.42	ug/L		100
62)	Hexachlorobutadiene	25.27	225	790352	34.13	ug/L		94
63)	Naphthalene	25.38	128	717487	43.17	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	557776	41.66	ug/L		95
65)	Methyl-tert butyl ether	8.06	73	668640	31.94	ug/L		96
66)	tert-Butyl Alcohol	7.83	59	22370	69.73	ug/L		100

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

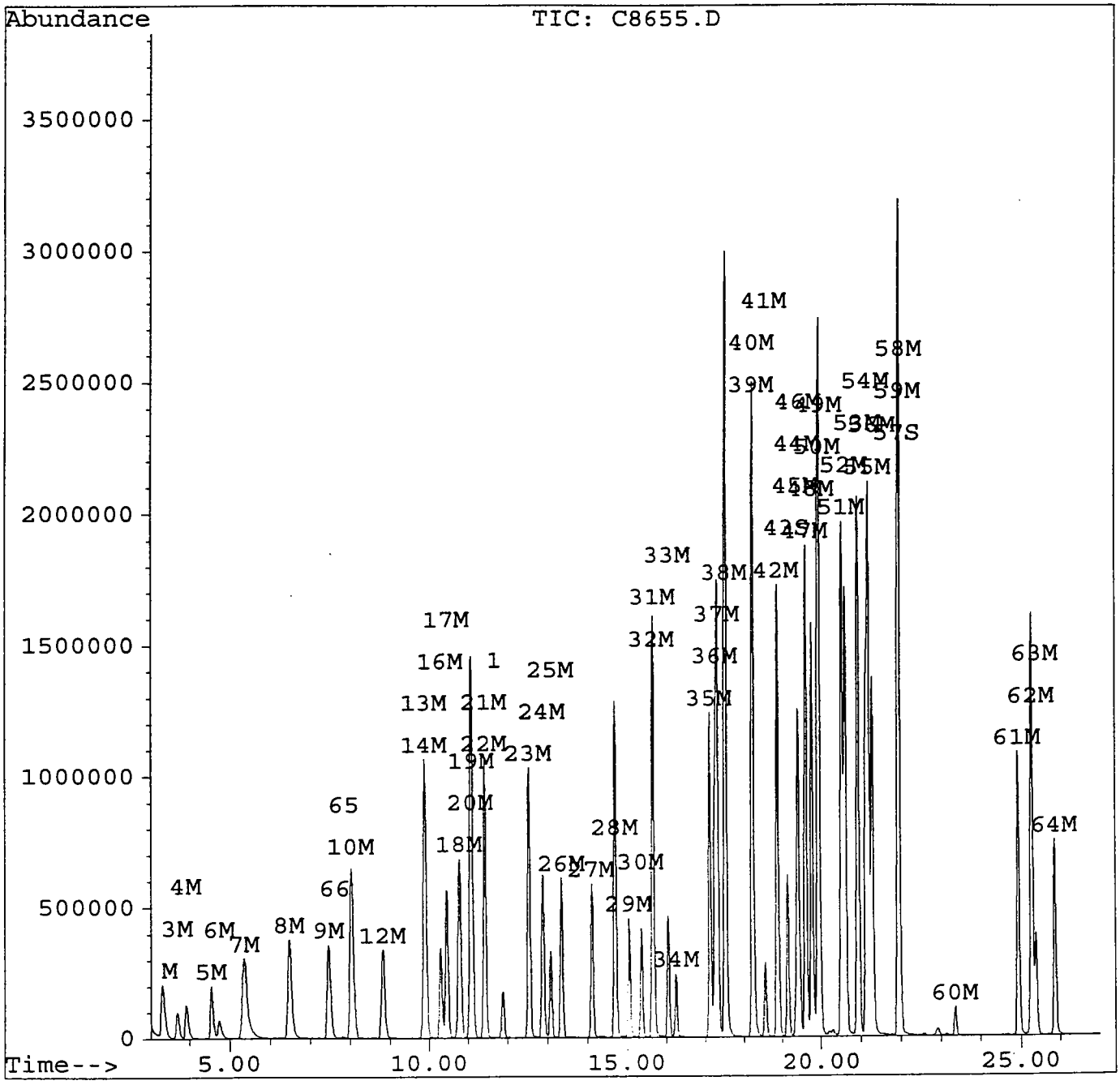
Quantitation Report

052

Data File : d:\hpchem\1\data\c8655.d
Acq On : 26 Jun 95 4:35 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: Jun 26 18:39 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration



Quantitation Report

053

Data File : d:\hpchem\1\data\c8656.d
Acq On : 26 Jun 95 5:11 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: Jun 26 18:40 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	363604	5.00	ug/L		0.06
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	772947	21.31	ug/L		426.20%
57) 1,2-Dichlorobenzene-d4	21.93	152	392763	23.71	ug/L		474.12%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	1060487	36.80	ug/L		98
3) Chloromethane	3.71	50	488523	28.79	ug/L		97
4) Vinyl chloride	3.94	62	616250	32.23	ug/L		100
5) Bromomethane	4.57	94	459401	35.53	ug/L		98
6) Chloroethane	4.76	64	260518	23.25	ug/L		97
7) Trichlorofluoromethane	5.36	101	1710787	40.04	ug/L		99
8) 1,1-Dichloroethene	6.49	96	744884	39.69	ug/L		89
9) Methylene chloride	7.47	84	671485	33.73	ug/L	#	84
10) trans-1,2-Dichloroethene	8.04	96	786800	39.69	ug/L		90
12) 1,1-Dichloroethane	8.83	63	1375890	34.70	ug/L		100
13) 2,2-Dichloropropane	9.90	77	1365109	35.13	ug/L		94
14) cis-1,2-Dichloroethene	9.89	96	752279	40.25	ug/L	#	88
16) Bromochloromethane	10.31	128	304179	46.45	ug/L	#	72
17) Chloroform	10.47	83	1475559	39.66	ug/L		99
18) 1,1,1-Trichloroethane	10.79	97	1655569	40.20	ug/L		96
19) Carbon tetrachloride	11.10	117	1561620	40.84	ug/L		99
20) 1,1-Dichloropropene	11.08	75	1275995	35.47	ug/L		95
21) Benzene	11.43	78	2336100	36.90	ug/L		99
22) 1,2-Dichloroethane	11.43	62	599613	38.58	ug/L		98
23) Trichloroethene	12.54	95	1121352	39.95	ug/L		95
24) 1,2-Dichloropropane	12.89	63	741113	35.76	ug/L		96
25) Dibromomethane	13.09	93	376987	44.89	ug/L		94
26) Bromodichloromethane	13.36	83	1194872	41.50	ug/L		99
27) cis-1,3-Dichloropropene	14.12	75	967004	38.86	ug/L		93
28) Toluene	14.70	92	1737678	38.63	ug/L		97
29) trans-1,3-Dichloropropene	15.04	75	692767	40.30	ug/L	m	56
30) 1,1,2-Trichloroethane	15.35	83	336042	41.86	ug/L		96
31) Tetrachloroethene	15.66	166	1190931	42.25	ug/L		99
32) 1,3-Dichloropropane	15.64	76	625736	39.32	ug/L		98
33) Dibromochloromethane	16.05	129	748996	47.93	ug/L		96
34) 1,2-Dibromomethane	16.25	107	512332	46.24	ug/L		95
35) Chlorobenzene	17.13	112	1957063	41.77	ug/L		95
36) 1,1,1,2-Tetrachloroethane	17.26	131	858156	46.14	ug/L		99
37) Ethylbenzene	17.32	91	3710162	39.18	ug/L		100
38) Xylene (para & meta)	17.53	106	2654410	78.06	ug/L		98
39) Xylene (Ortho)	18.23	106	1222465	40.63	ug/L		98
40) Styrene	18.24	104	1901674	40.79	ug/L		99

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

Data File : d:\hpchem\1\data\c8656.d
Acq On : 26 Jun 95 5:11 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: Jun 26 18:40 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	406163	52.97	ug/L		89
42)	Isopropylbenzene	18.88	105	3862052	39.92	ug/L	m	0
44)	Bromobenzene	19.42	156	827164	47.43	ug/L	#	90
45)	1,1,2,2-Tetrachloroethane	19.37	83	405928	47.35	ug/L		93
46)	1,2,3-Trichloropropane	19.44	75	426163	40.94	ug/L	#	77
47)	n-Propylbenzene	19.62	91	5027633	39.95	ug/L		97
48)	2-Chlorotoluene	19.77	91	3022550	43.28	ug/L		97
49)	4-Chlorotoluene	19.97	91	3350823	40.41	ug/L	m	90
50)	1,3,5-Trimethylbenzene	19.94	105	3253930	40.63	ug/L		99
51)	tert-Butylbenzene	20.53	119	3559052	42.85	ug/L		99
52)	1,2,4-Trimethylbenzene	20.62	105	3133241	42.70	ug/L		94
53)	sec-Butylbenzene	20.93	105	4932738	40.07	ug/L		98
54)	1,3-Dichlorobenzene	21.13	146	1647620	46.32	ug/L		96
55)	4-Isopropyltoluene	21.20	119	3952303	42.99	ug/L		97
56)	1,4-Dichlorobenzene	21.29	146	1632915	46.29	ug/L		94
58)	1,2-Dichlorobenzene	21.97	146	1235530	46.62	ug/L		95
59)	n-Butylbenzene	21.94	91	3919480	39.78	ug/L		96
60)	1,2-Dibromo-3-chloropropan	23.37	75	104168	47.84	ug/L		91
61)	1,2,4-Trichlorobenzene	24.94	180	1009305	51.79	ug/L		100
62)	Hexachlorobutadiene	25.28	225	1083830	46.12	ug/L		96
63)	Naphthalene	25.38	128	907970	53.84	ug/L	m	0
64)	1,2,3-Trichlorobenzene	25.86	180	750680	55.25	ug/L		96
65)	Methyl-tert butyl ether	8.09	73	894243	42.10	ug/L		96
66)	tert-Butyl Alcohol	7.85	59	29136	89.50	ug/L		100

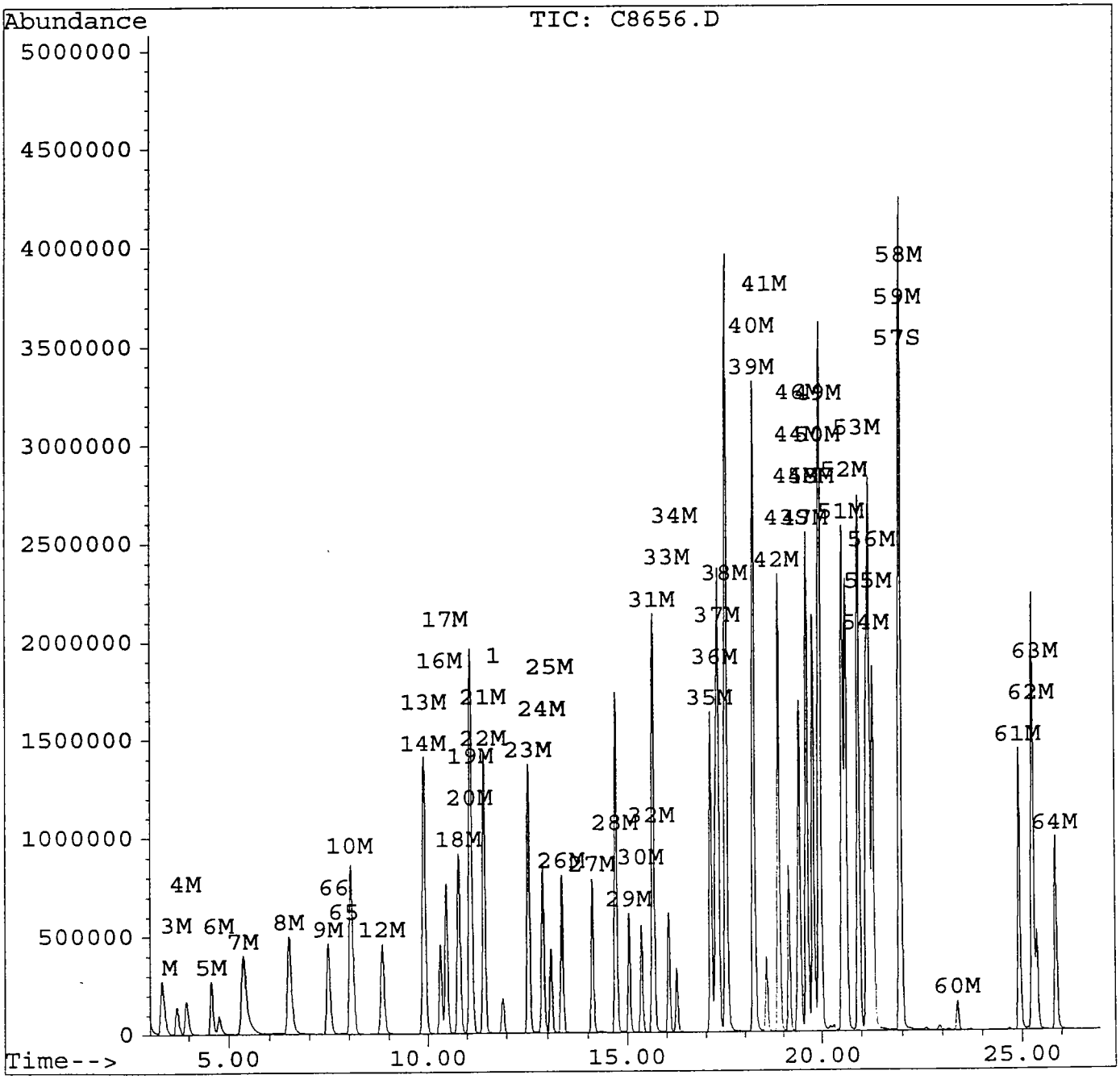
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8656.d
Acq On : 26 Jun 95 5:11 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: Jun 26 18:40 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 : Mon Jun 26 18:48:37 1995
Response via : Multiple Level Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

056

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: C8657.D BFB Injection Date: 6/26/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1821

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	18.2
75	30.0 - 66.0% of mass 95	51.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	59.9
175	4.0 - 9.0% of mass 174	4.0 (6.7)1
176	93.0 - 101.0% of mass 174	58.9 (98.3)1
177	5.0 - 9.0% of mass 176	3.6 (6.1)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	C8658.D	6/26/95	1836
02	1PPB STD	1PPB STD	C8659.D	6/26/95	1912
03	VBLK01	M. BLANK	C8660.D	6/26/95	1947
04	9526461V	9526461V	C8663.D	6/26/95	2131
05	9526606V	9526606V	C8664.D	6/26/95	2206
06	9526607V	9526607V	C8665.D	6/26/95	2240
07	9526607MS	26607MS	C8666.D	6/26/95	2315
08	9526607MSD	26607MSD	C8667.D	6/26/95	2349
09	9526435V	9526435V	C8670.D	6/27/95	0133
10	1PPB QCS	1PPB QCS	C8671.D	6/27/95	0208
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

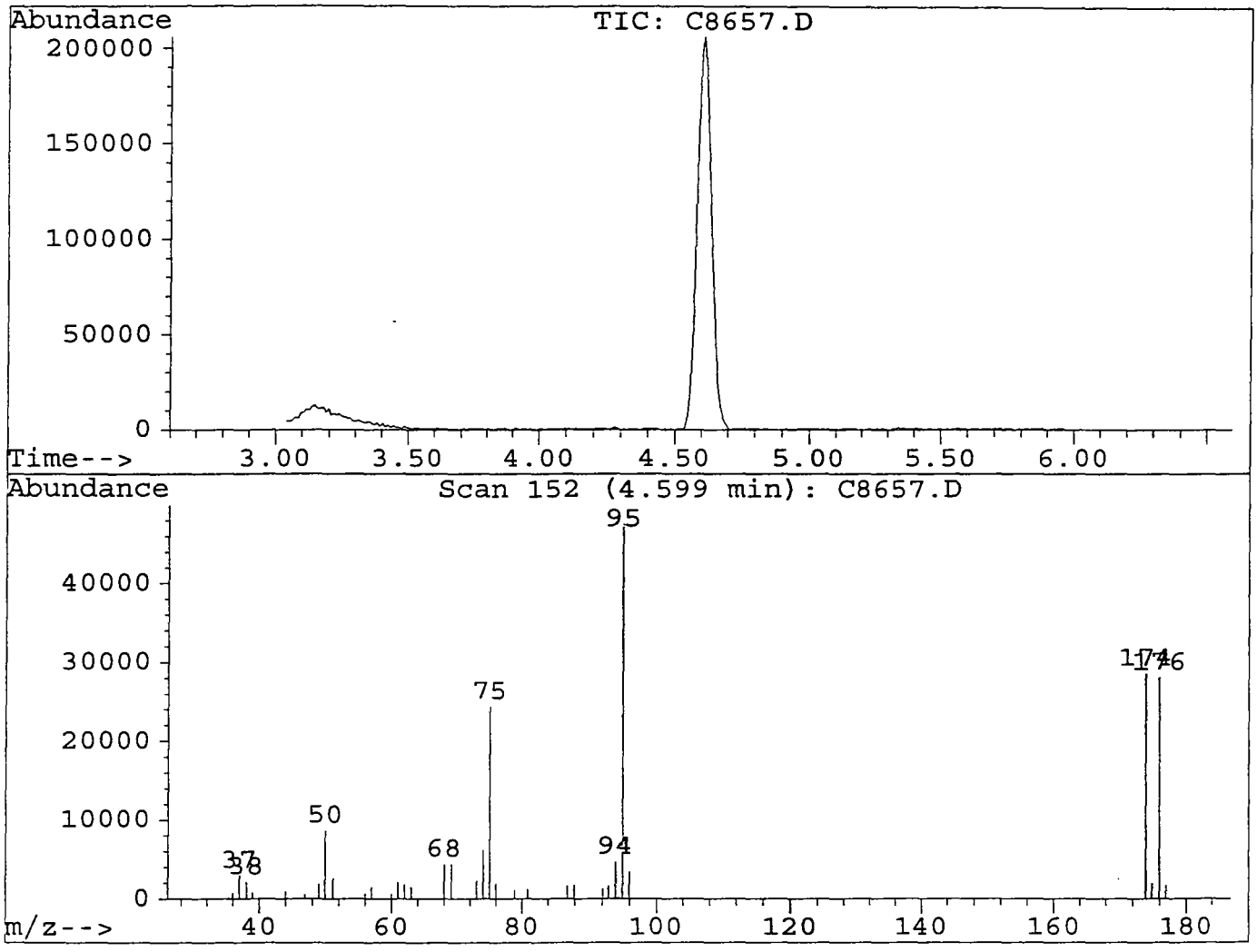
CLPBFB

057

Data File : D:\HPCHEM\1\DATA\C8657.D
Acq On : 26 Jun 95 6:21 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

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

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



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.2	8663	PASS
75	95	30	60	51.1	24352	PASS
95	95	100	100	100.0	47624	PASS
96	95	5	9	7.4	3533	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	59.9	28512	PASS
175	174	5	9	6.7	1914	PASS
176	174	95	101	98.3	28040	PASS
177	176	5	9	6.1	1712	PASS

C8657.D VOA524.M Mon Jun 26 18:36:14 1995 VOA

Scan 152 (4.599 min): C8657.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	674	60.00	579	80.90	1178	176.90	1712
36.95	2951	61.00	2071	86.90	1749		
38.05	2125	62.00	1820	87.95	1794		
38.95	768	63.00	1528	92.05	1366		
44.00	904	68.00	4404	92.95	1604		
46.90	636	69.05	4384	93.95	4729		
49.00	1902	72.95	2217	94.95	47624		
49.90	8663	73.95	6154	95.95	3533		
51.05	2632	74.95	24352	173.90	28512		
55.95	717	75.95	1950	174.80	1914		
56.95	1512	78.90	1135	175.90	28040		

VOLATILE CONTINUING CALIBRATION CHECK

059

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/26/95 Time: 1836

Lab File ID: C8658.D Init. Calib. Date(s): 6/26/95 _____

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

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

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.372	0.380		-2.2	30.0
Chloromethane	0.166	0.164		1.2	30.0
Vinyl chloride	0.212	0.217		-2.4	30.0
Bromomethane	0.170	0.201		-18.2	30.0
Chloroethane	0.119	0.137		-15.1	30.0
Trichlorofluoromethane	0.594	0.616		-3.7	30.0
1,1-Dichloroethene	0.255	0.264		-3.5	30.0
Methylene chloride	0.272	0.325		-19.5	30.0
trans-1,2-Dichloroethene	0.271	0.286		-5.5	30.0
1,1-Dichloroethane	0.475	0.492		-3.6	30.0
2,2-Dichloropropane	0.494	0.539		-9.1	30.0
cis-1,2-Dichloroethene	0.265	0.277		-4.5	30.0
Bromochloromethane	0.105	0.109		-3.8	30.0
Chloroform	0.511	0.533		-4.3	30.0
1,1,1-Trichloroethane	0.571	0.601		-5.3	30.0
Carbon tetrachloride	0.541	0.568		-5.0	30.0
1,1-Dichloropropene	0.451	0.471		-4.4	30.0
Benzene	0.810	0.845		-4.3	30.0
1,2-Dichloroethane	0.205	0.212		-3.4	30.0
Trichloroethene	0.390	0.410		-5.1	30.0
1,2-Dichloropropane	0.258	0.268		-3.9	30.0
Dibromomethane	0.132	0.136		-3.0	30.0
Bromodichloromethane	0.418	0.437		-4.5	30.0
cis-1,3-Dichloropropene	0.339	0.356		-5.0	30.0
Toluene	0.602	0.635		-5.5	30.0
trans-1,3-Dichloropropene	0.244	0.252		-3.3	30.0
1,1,2-Trichloroethane	0.118	0.123		-4.2	30.0
Tetrachloroethene	0.416	0.442		-6.3	30.0
1,3-Dichloropropane	0.222	0.234		-5.4	30.0
Dibromochloromethane	0.258	0.274		-6.2	30.0
1,2-Dibromomethane	0.177	0.183		-3.4	30.0
Chlorobenzene	0.683	0.730		-6.9	30.0
1,1,1,2-Tetrachloroethane	0.299	0.312		-4.3	30.0
Ethylbenzene	1.297	1.364		-5.2	30.0
Xylene (para & meta)	0.471	0.500		-6.2	30.0
Xylene (Ortho)	0.430	0.460		-7.0	30.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

060

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/26/95 Time: 1836

Lab File ID: C8658.D Init. Calib. Date(s): 6/26/95 _____

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

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

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0.668	0.706		-5.7	30.0
Bromoform	0.137	0.144		-5.1	30.0
Isopropylbenzene	1.350	1.410		-4.4	30.0
Bromobenzene	0.286	0.303		-5.9	30.0
1,1,2,2-Tetrachloroethane	0.148	0.155		-4.7	30.0
1,2,3-Trichloropropane	0.150	0.160		-6.7	30.0
n-Propylbenzene	1.755	1.836		-4.6	30.0
2-Chlorotoluene	1.045	1.030		1.4	30.0
4-Chlorotoluene	1.174	1.226		-4.4	30.0
1,3,5-Trimethylbenzene	1.140	1.211		-6.2	30.0
tert-Butylbenzene	1.243	1.303		-4.8	30.0
1,2,4-Trimethylbenzene	1.094	1.154		-5.5	30.0
sec-Butylbenzene	1.733	1.816		-4.8	30.0
1,3-Dichlorobenzene	0.574	0.604		-5.2	30.0
4-Isopropyltoluene	1.379	1.436		-4.1	30.0
1,4-Dichlorobenzene	0.574	0.610		-6.3	30.0
1,2-Dichlorobenzene	0.441	0.475		-7.7	30.0
n-Butylbenzene	1.392	1.462		-5.0	30.0
1,2-Dibromo-3-chloropropane	0.034	0.036		-5.9	30.0
1,2,4-Trichlorobenzene	0.350	0.365		-4.3	30.0
Hexachlorobutadiene	0.376	0.387		-2.9	30.0
Naphthalene	0.321	0.331		-3.1	30.0
1,2,3-Trichlorobenzene	0.258	0.269		-4.3	30.0
4-Bromofluorobenzene	0.467	0.551		-18.0	30.0
1,2-Dichlorobenzene-d4	0.275	0.303		-10.2	30.0

Evaluate Continuing Calibration Report

061

Data File : D:\HPCHEM\1\DATA\C8658.D
Acq On : 26 Jun 95 6:36 pm
Sample : 10 PPB CHK STANDARD
Misc :

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	94	0.00
2	M	Dichlorodifluoromethane	0.372	0.380	-2.2	94	0.00
3	M	Chloromethane	0.166	0.164	1.3	92	0.00
4	M	Vinyl chloride	0.212	0.217	-2.3	93	0.00
5	M	Bromomethane	0.170	0.201	-18.1	103	0.01
6	M	Chloroethane	0.119	0.137	-14.7	92	0.00
7	M	Trichlorofluoromethane	0.594	0.616	-3.7	96	0.01
8	M	1,1-Dichloroethene	0.255	0.264	-3.8	96	0.01
9	M	Methylene chloride	0.272	0.325	-19.3	89	0.02
10	M	trans-1,2-Dichloroethene	0.271	0.286	-5.6	96	0.00
11		Hexane	0.000	0.000#	0.0	0#	-9.46#
12	M	1,1-Dichloroethane	0.475	0.492	-3.5	95	0.00
13	M	2,2-Dichloropropane	0.494	0.539	-9.1	101	0.00
14	M	cis-1,2-Dichloroethene	0.265	0.277	-4.6	95	0.01
15		2-Butanone	0.000	0.000#	0.0	0#	-11.24#
16	M	Bromochloromethane	0.105	0.109	-3.8	96	0.00
17	M	Chloroform	0.511	0.533	-4.3	96	0.01
18	M	1,1,1-Trichloroethane	0.571	0.601	-5.4	97	0.00
19	M	Carbon tetrachloride	0.541	0.568	-5.1	97	0.00
20	M	1,1-Dichloropropene	0.451	0.471	-4.4	95	0.01
21	M	Benzene	0.810	0.845	-4.3	96	0.00
22	M	1,2-Dichloroethane	0.205	0.212	-3.1	96	0.00
23	M	Trichloroethene	0.390	0.410	-5.2	97	0.00
24	M	1,2-Dichloropropane	0.258	0.268	-4.1	96	0.00
25	M	Dibromomethane	0.132	0.136	-3.3	96	0.01
26	M	Bromodichloromethane	0.418	0.437	-4.5	98	0.00
27	M	cis-1,3-Dichloropropene	0.339	0.356	-5.1	98	0.00
28	M	Toluene	0.602	0.635	-5.4	98	0.00
29	M	trans-1,3-Dichloropropene	0.244	0.252	-3.1	98	0.00
30	M	1,1,2-Trichloroethane	0.118	0.123	-4.5	98	0.00
31	M	Tetrachloroethene	0.416	0.442	-6.2	99	0.00
32	M	1,3-Dichloropropane	0.222	0.234	-5.8	98	0.00
33	M	Dibromochloromethane	0.258	0.274	-6.3	100	0.00
34	M	1,2-Dibromomethane	0.177	0.183	-3.6	96	0.00
35	M	Chlorobenzene	0.683	0.730	-6.8	100	0.00
36	M	1,1,1,2-Tetrachloroethane	0.299	0.312	-4.3	98	0.00
37	M	Ethylbenzene	1.297	1.364	-5.1	98	0.00
38	M	Xylene (para & meta)	0.471	0.500	-6.2	98	0.00
39	M	Xylene (Ortho)	0.430	0.460	-7.0	99	0.00
40	M	Styrene	0.668	0.706	-5.7	98	0.00
41	M	Bromoform	0.137	0.144	-5.1	99	0.00
42	M	Isopropylbenzene	1.350	1.410	-4.4	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8658.D
Acq On : 26 Jun 95 6:36 pm
Sample : 10 PPB CHK STANDARD
Misc :

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 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	0.467	0.551	-17.9	97	0.00
44	M	Bromobenzene	0.286	0.303	-6.0	98	0.00
45	M	1,1,2,2-Tetrachloroethane	0.148	0.155	-4.9	98	0.00
46	M	1,2,3-Trichloropropane	0.150	0.160	-6.6	99	0.01
47	M	n-Propylbenzene	1.755	1.836	-4.7	98	0.00
48	M	2-Chlorotoluene	1.045	1.030	1.4	92	0.00
49	M	4-Chlorotoluene	1.174	1.226	-4.5	96	0.00
50	M	1,3,5-Trimethylbenzene	1.140	1.211	-6.2	98	0.00
51	M	tert-Butylbenzene	1.243	1.303	-4.9	98	0.00
52	M	1,2,4-Trimethylbenzene	1.094	1.154	-5.5	98	0.00
53	M	sec-Butylbenzene	1.733	1.816	-4.8	98	0.00
54	M	1,3-Dichlorobenzene	0.574	0.604	-5.2	97	0.00
55	M	4-Isopropyltoluene	1.379	1.436	-4.1	97	0.00
56	M	1,4-Dichlorobenzene	0.574	0.610	-6.2	100	0.00
57	S	1,2-Dichlorobenzene-d4	0.275	0.303	-10.3	103	0.00
58	M	1,2-Dichlorobenzene	0.441	0.475	-7.6	99	0.00
59	M	n-Butylbenzene	1.392	1.462	-5.0	96	0.00
60	M	1,2-Dibromo-3-chloropropane	0.034	0.036	-4.3	100	0.00
61	M	1,2,4-Trichlorobenzene	0.350	0.365	-4.5	98	0.00
62	M	Hexachlorobutadiene	0.376	0.387	-3.0	95	0.01
63	M	Naphthalene	0.321	0.331	-3.1	96	0.00
64	M	1,2,3-Trichlorobenzene	0.258	0.269	-4.3	97	0.00
65		Methyl-tert butyl ether	0.316	0.317	-0.4	93	0.00
66		tert-Butyl Alcohol	0.004	0.004	2.9	93	0.01

Quantitation Report

063

Data File : d:\hpchem\1\data\c8658.d
Acq On : 26 Jun 95 6:36 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 10:38 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	346431	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.13	95	190715	5.89	ug/L		117.88%
57) 1,2-Dichlorobenzene-d4	21.93	152	105018	5.52	ug/L		110.30%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.33	85	263562	10.22	ug/L		95
3) Chloromethane	3.71	50	113673	9.87	ug/L		98
4) Vinyl chloride	3.94	62	150401	10.23	ug/L		98
5) Bromomethane	4.60	94	138974	11.81	ug/L		98
6) Chloroethane	4.82	64	94586	11.47	ug/L		97
7) Trichlorofluoromethane	5.43	101	426583	10.37	ug/L		100
8) 1,1-Dichloroethene	6.51	96	183045	10.38	ug/L		92
9) Methylene chloride	7.49	84	225190	11.93	ug/L	m	87
10) trans-1,2-Dichloroethene	8.04	96	198331	10.56	ug/L		95
12) 1,1-Dichloroethane	8.83	63	340573	10.35	ug/L		99
13) 2,2-Dichloropropane	9.89	77	373308	10.91	ug/L		100
14) cis-1,2-Dichloroethene	9.90	96	192078	10.46	ug/L		97
16) Bromochloromethane	10.30	128	75803	10.38	ug/L		96
17) Chloroform	10.47	83	369567	10.43	ug/L		98
18) 1,1,1-Trichloroethane	10.79	97	416669	10.54	ug/L		96
19) Carbon tetrachloride	11.10	117	393552	10.51	ug/L		100
20) 1,1-Dichloropropene	11.09	75	326596	10.44	ug/L		98
21) Benzene	11.43	78	585656	10.43	ug/L		100
22) 1,2-Dichloroethane	11.43	62	146743	10.31	ug/L		98
23) Trichloroethene	12.54	95	284154	10.52	ug/L		97
24) 1,2-Dichloropropane	12.89	63	185741	10.41	ug/L		99
25) Dibromomethane	13.10	93	94457	10.33	ug/L		99
26) Bromodichloromethane	13.35	83	302550	10.45	ug/L		99
27) cis-1,3-Dichloropropene	14.12	75	246567	10.51	ug/L		98
28) Toluene	14.69	92	440033	10.54	ug/L		94
29) trans-1,3-Dichloropropene	15.03	75	174288	10.31	ug/L		99
30) 1,1,2-Trichloroethane	15.35	83	85319	10.45	ug/L		95
31) Tetrachloroethene	15.65	166	306332	10.62	ug/L		97
32) 1,3-Dichloropropane	15.64	76	162375	10.58	ug/L		99
33) Dibromochloromethane	16.04	129	189861	10.63	ug/L		96
34) 1,2-Dibromomethane	16.25	107	126762	10.36	ug/L		96
35) Chlorobenzene	17.12	112	505647	10.68	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.25	131	216016	10.43	ug/L		96
37) Ethylbenzene	17.31	91	944755	10.51	ug/L		99
38) Xylene (para & meta)	17.52	106	693177	21.24	ug/L		100
39) Xylene (Ortho)	18.22	106	319007	10.70	ug/L		100
40) Styrene	18.23	104	489051	10.57	ug/L		97

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

Quantitation Report

Data File : d:\hpchem\1\data\c8658.d
Acq On : 26 Jun 95 6:36 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 10:38 1995

Vial: 8
Operator: SRK 064
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	99700	10.51	ug/L		98
42)	Isopropylbenzene	18.88	105	976875	10.44	ug/L		100
44)	Bromobenzene	19.41	156	209707	10.60	ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.36	83	107198	10.49	ug/L		98
46)	1,2,3-Trichloropropane	19.44	75	111084	10.66	ug/L	#	42
47)	n-Propylbenzene	19.61	91	1272421	10.47	ug/L		99
48)	2-Chlorotoluene	19.77	91	713761	9.86	ug/L		97
49)	4-Chlorotoluene	19.96	91	849656	10.45	ug/L		100
50)	1,3,5-Trimethylbenzene	19.93	105	838758	10.62	ug/L		99
51)	tert-Butylbenzene	20.53	119	903124	10.49	ug/L		99
52)	1,2,4-Trimethylbenzene	20.61	105	799667	10.55	ug/L		98
53)	sec-Butylbenzene	20.93	105	1258030	10.48	ug/L		99
54)	1,3-Dichlorobenzene	21.12	146	418569	10.52	ug/L		97
55)	4-Isopropyltoluene	21.18	119	994609	10.41	ug/L		99
56)	1,4-Dichlorobenzene	21.28	146	422310	10.62	ug/L		99
58)	1,2-Dichlorobenzene	21.96	146	328787	10.76	ug/L		99
59)	n-Butylbenzene	21.94	91	1013097	10.50	ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.36	75	24835	10.43	ug/L		93
61)	1,2,4-Trichlorobenzene	24.93	180	253161	10.45	ug/L		97
62)	Hexachlorobutadiene	25.28	225	268406	10.30	ug/L		97
63)	Naphthalene	25.38	128	229075	10.31	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	186523	10.43	ug/L		92
65)	Methyl-tert butyl ether	8.07	73	219929	10.04	ug/L		97
66)	tert-Butyl Alcohol	7.81	59	5940	19.42	ug/L		100

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

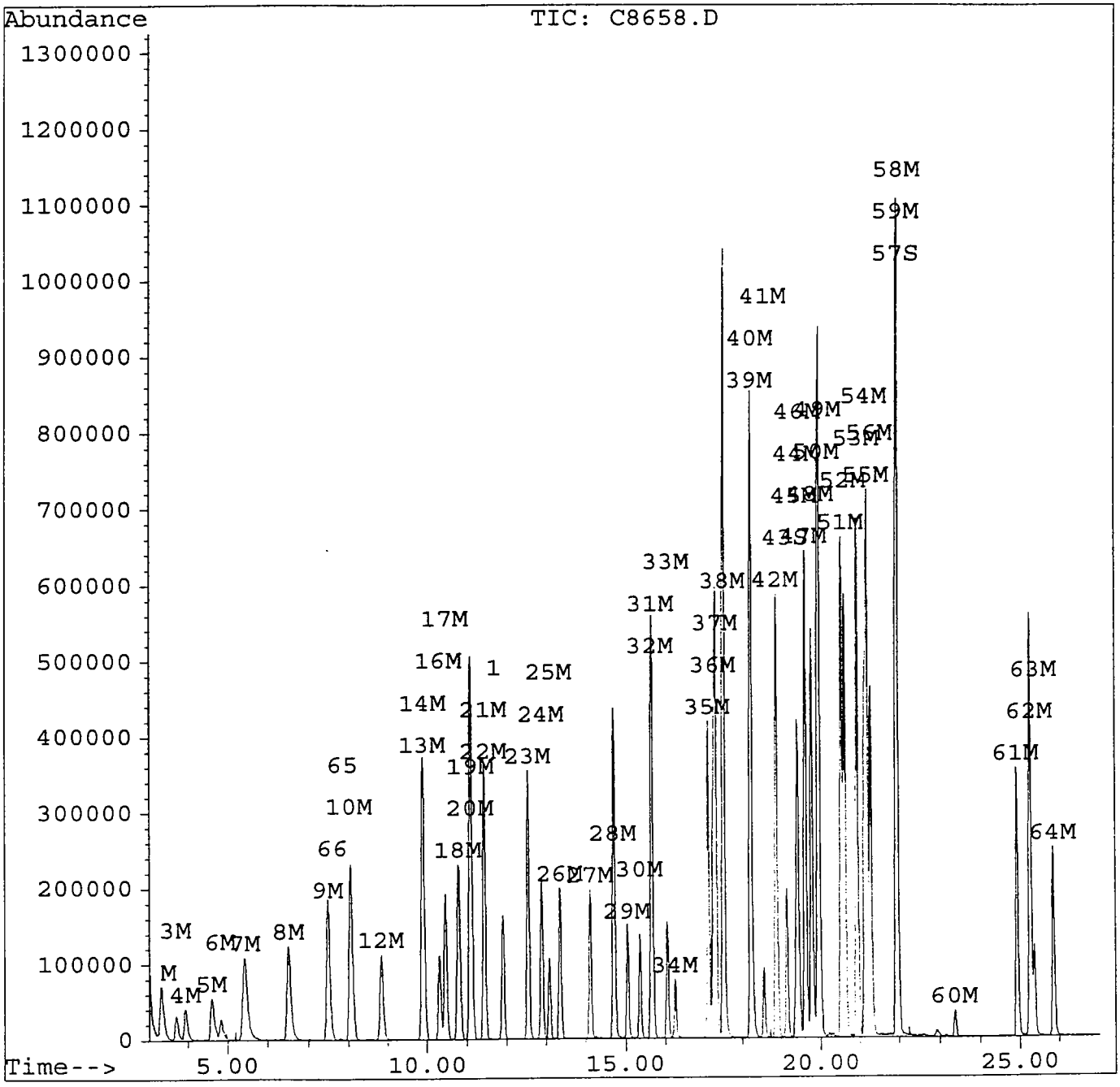
Quantitation Report

Data File : d:\hpchem\1\data\c8658.d
Acq On : 26 Jun 95 6:36 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 10:38 1995

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

065

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8659.d
Acq On : 26 Jun 95 7:12 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 10:36 1995

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	357198	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	184261	5.52	ug/L		110.46%
57) 1,2-Dichlorobenzene-d4	21.93	152	106860	5.44	ug/L		108.85%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	30589	1.15	ug/L		95
3) Chloromethane	3.71	50	13645	1.15	ug/L		84
4) Vinyl chloride	3.94	62	16328	1.08	ug/L		93
5) Bromomethane	4.63	94	18016	1.48	ug/L		96
6) Chloroethane	4.84	64	10220	1.20	ug/L		86
7) Trichlorofluoromethane	5.42	101	48757	1.15	ug/L		94
8) 1,1-Dichloroethene	6.51	96	21259	1.17	ug/L		96
9) Methylene chloride	7.48	84	155537	7.99	ug/L		93
10) trans-1,2-Dichloroethene	8.05	96	23684	1.22	ug/L		93
12) 1,1-Dichloroethane	8.83	63	39109	1.15	ug/L		99
13) 2,2-Dichloropropane	9.90	77	41474	1.18	ug/L		96
14) cis-1,2-Dichloroethene	9.90	96	22679	1.20	ug/L		91
16) Bromochloromethane	10.30	128	8331	1.11	ug/L	#	89
17) Chloroform	10.46	83	43315	1.19	ug/L		100
18) 1,1,1-Trichloroethane	10.78	97	47248	1.16	ug/L		96
19) Carbon tetrachloride	11.09	117	45224	1.17	ug/L		92
20) 1,1-Dichloropropene	11.09	75	38724	1.20	ug/L		98
21) Benzene	11.43	78	68147	1.18	ug/L		93
22) 1,2-Dichloroethane	11.44	62	16883	1.15	ug/L		75
23) Trichloroethene	12.53	95	32516	1.17	ug/L		90
24) 1,2-Dichloropropane	12.89	63	21434	1.16	ug/L		86
25) Dibromomethane	13.09	93	10276	1.09	ug/L		94
26) Bromodichloromethane	13.37	83	34255	1.15	ug/L		94
27) cis-1,3-Dichloropropene	14.12	75	27824	1.15	ug/L		94
28) Toluene	14.70	92	52409	1.22	ug/L		98
29) trans-1,3-Dichloropropene	15.05	75	18497	1.06	ug/L		100
30) 1,1,2-Trichloroethane	15.35	83	10212	1.21	ug/L		89
31) Tetrachloroethene	15.66	166	36391	1.22	ug/L		97
32) 1,3-Dichloropropane	15.64	76	18610	1.18	ug/L		96
33) Dibromochloromethane	16.05	129	19815	1.08	ug/L		98
34) 1,2-Dibromomethane	16.24	107	13678	1.08	ug/L		93
35) Chlorobenzene	17.12	112	59137	1.21	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.25	131	24262	1.14	ug/L		93
37) Ethylbenzene	17.31	91	111305	1.20	ug/L		98
38) Xylene (para & meta)	17.52	106	79279	2.36	ug/L		94
39) Xylene (Ortho)	18.22	106	36565	1.19	ug/L		90
40) Styrene	18.23	104	57656	1.21	ug/L		96

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

Quantitation Report

Data File : d:\hpchem\1\data\c8659.d
Acq On : 26 Jun 95 7:12 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 10:36 1995

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	10635	1.09	ug/L		83
42)	Isopropylbenzene	18.88	105	112588	1.17	ug/L		97
44)	Bromobenzene	19.42	156	24118	1.18	ug/L		94
45)	1,1,2,2-Tetrachloroethane	19.36	83	11129	1.06	ug/L		77
46)	1,2,3-Trichloropropane	19.45	75	12813	1.19	ug/L	#	21
47)	n-Propylbenzene	19.61	91	147497	1.18	ug/L		98
48)	2-Chlorotoluene	19.77	91	88396	1.18	ug/L		99
49)	4-Chlorotoluene	19.96	91	99559	1.19	ug/L		99
50)	1,3,5-Trimethylbenzene	19.93	105	96501	1.19	ug/L		99
51)	tert-Butylbenzene	20.53	119	105202	1.18	ug/L		99
52)	1,2,4-Trimethylbenzene	20.61	105	91844	1.18	ug/L		99
53)	sec-Butylbenzene	20.92	105	147189	1.19	ug/L		98
54)	1,3-Dichlorobenzene	21.12	146	50594	1.23	ug/L		98
55)	4-Isopropyltoluene	21.19	119	112216	1.14	ug/L		98
56)	1,4-Dichlorobenzene	21.28	146	48976	1.19	ug/L		97
58)	1,2-Dichlorobenzene	21.96	146	39727	1.26	ug/L		96
59)	n-Butylbenzene	21.94	91	115078	1.16	ug/L		97
60)	1,2-Dibromo-3-chloropropan	23.38	75	2089	0.85	ug/L	#	56
61)	1,2,4-Trichlorobenzene	24.93	180	31894	1.28	ug/L		98
62)	Hexachlorobutadiene	25.28	225	32098	1.20	ug/L		97
63)	Naphthalene	25.39	128	30930	1.35	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	25052	1.36	ug/L		93
65)	Methyl-tert butyl ether	8.09	73	28826	1.28	ug/L		94

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

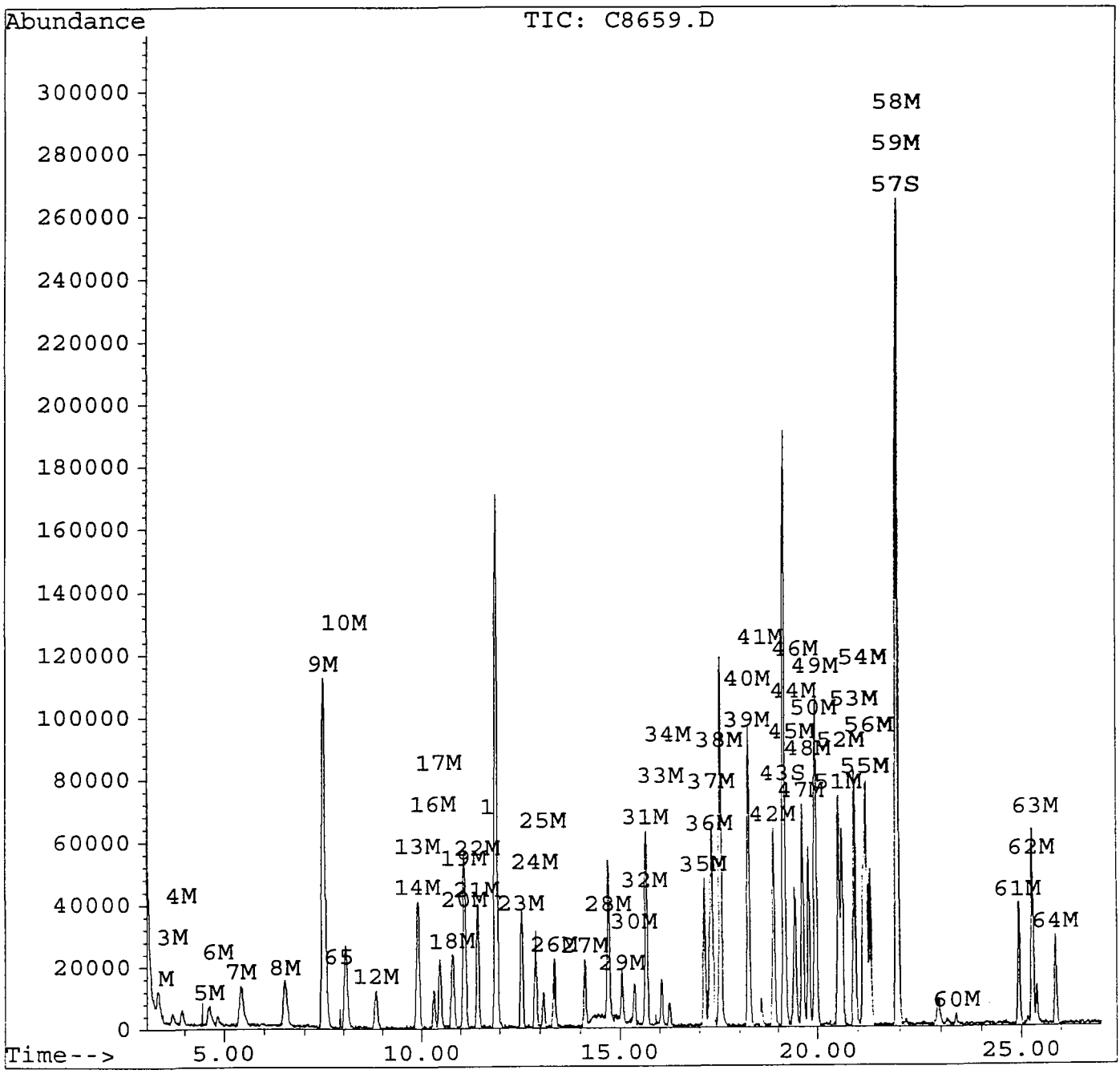
Quantitation Report

Data File : d:\hpchem\1\data\c8659.d
Acq On : 26 Jun 95 7:12 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 10:36 1995

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

068

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8671.d
Acq On : 27 Jun 95 2:08 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 27 11:04 1995

Vial: 21
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

069

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.91	96	371402	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	178870	5.16	ug/L		103.13%
57) 1,2-Dichlorobenzene-d4	21.94	152	99111	4.86	ug/L		97.10%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	301048	10.89	ug/L		97
3) Chloromethane	3.71	50	122853	9.95	ug/L		98
4) Vinyl chloride	3.94	62	163440	10.37	ug/L		94
5) Bromomethane	4.62	94	132909	10.54	ug/L		97
6) Chloroethane	4.84	64	98377	11.13	ug/L		95
7) Trichlorofluoromethane	5.44	101	433952	9.84	ug/L		99
8) 1,1-Dichloroethene	6.52	96	200279	10.59	ug/L		94
9) Methylene chloride	7.49	84	264490	13.07	ug/L	m	99
10) trans-1,2-Dichloroethene	8.06	96	217039	10.78	ug/L		93
12) 1,1-Dichloroethane	8.85	63	370684	10.51	ug/L		99
13) 2,2-Dichloropropane	9.91	77	319087	8.70	ug/L		91
14) cis-1,2-Dichloroethene	9.91	96	197550	10.03	ug/L		99
16) Bromochloromethane	10.32	128	73921	9.44	ug/L		95
17) Chloroform	10.48	83	391746	10.31	ug/L		95
18) 1,1,1-Trichloroethane	10.81	97	449182	10.60	ug/L		98
19) Carbon tetrachloride	11.11	117	424828	10.58	ug/L		99
20) 1,1-Dichloropropene	11.10	75	362913	10.82	ug/L		98
21) Benzene	11.44	78	616057	10.23	ug/L		99
22) 1,2-Dichloroethane	11.45	62	146488	9.60	ug/L		98
23) Trichloroethene	12.55	95	312761	10.80	ug/L		96
24) 1,2-Dichloropropane	12.90	63	194766	10.18	ug/L		100
25) Dibromomethane	13.10	93	88881	9.06	ug/L		97
26) Bromodichloromethane	13.37	83	310173	10.00	ug/L	m	95
27) cis-1,3-Dichloropropene	14.13	75	228062	9.07	ug/L		97
28) Toluene	14.71	92	462902	10.35	ug/L		96
29) trans-1,3-Dichloropropene	15.05	75	158939	8.77	ug/L		100
30) 1,1,2-Trichloroethane	15.37	83	83207	9.51	ug/L		96
31) Tetrachloroethene	15.67	166	320327	10.36	ug/L		99
32) 1,3-Dichloropropane	15.65	76	154352	9.38	ug/L		97
33) Dibromochloromethane	16.05	129	191090	9.98	ug/L		99
34) 1,2-Dibromomethane	16.26	107	129123	9.84	ug/L	m	97
35) Chlorobenzene	17.13	112	513626	10.12	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17.26	131	238264	10.73	ug/L		96
37) Ethylbenzene	17.31	91	1004724	10.43	ug/L		97
38) Xylene (para & meta)	17.53	106	734821	21.00	ug/L		99
39) Xylene (Ortho)	18.23	106	330113	10.32	ug/L		99
40) Styrene	18.24	104	498169	10.05	ug/L		99

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

Quantitation Report

Data File : d:\hpchem\1\data\c8671.d
Acq On : 27 Jun 95 2:08 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 27 11:04 1995

Vial: 21 070
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	88346	8.69	ug/L		93
42)	Isopropylbenzene	18.89	105	1064243	10.61	ug/L	m	0
44)	Bromobenzene	19.43	156	199763	9.42	ug/L		98
45)	1,1,2,2-Tetrachloroethane	19.37	83	99327	9.06	ug/L	m	16
46)	1,2,3-Trichloropropane	19.45	75	101951	9.13	ug/L	#	59
47)	n-Propylbenzene	19.62	91	1357857	10.42	ug/L		100
48)	2-Chlorotoluene	19.78	91	789572	10.17	ug/L		97
49)	4-Chlorotoluene	19.97	91	873530	10.02	ug/L		98
50)	1,3,5-Trimethylbenzene	19.94	105	846787	10.00	ug/L		99
51)	tert-Butylbenzene	20.54	119	967366	10.48	ug/L		98
52)	1,2,4-Trimethylbenzene	20.62	105	825889	10.16	ug/L		97
53)	sec-Butylbenzene	20.94	105	1348058	10.47	ug/L		99
54)	1,3-Dichlorobenzene	21.13	146	415773	9.75	ug/L		99
55)	4-Isopropyltoluene	21.19	119	1033677	10.09	ug/L		99
56)	1,4-Dichlorobenzene	21.30	146	415376	9.74	ug/L		99
58)	1,2-Dichlorobenzene	21.97	146	313298	9.56	ug/L		98
59)	n-Butylbenzene	21.95	91	1071742	10.36	ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.37	75	21537	8.44	ug/L		91
61)	1,2,4-Trichlorobenzene	24.94	180	236663	9.11	ug/L		100
62)	Hexachlorobutadiene	25.29	225	287080	10.28	ug/L		99
63)	Naphthalene	25.39	128	208299	8.74	ug/L		100
64)	1,2,3-Trichlorobenzene	25.86	180	170360	8.88	ug/L		92

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

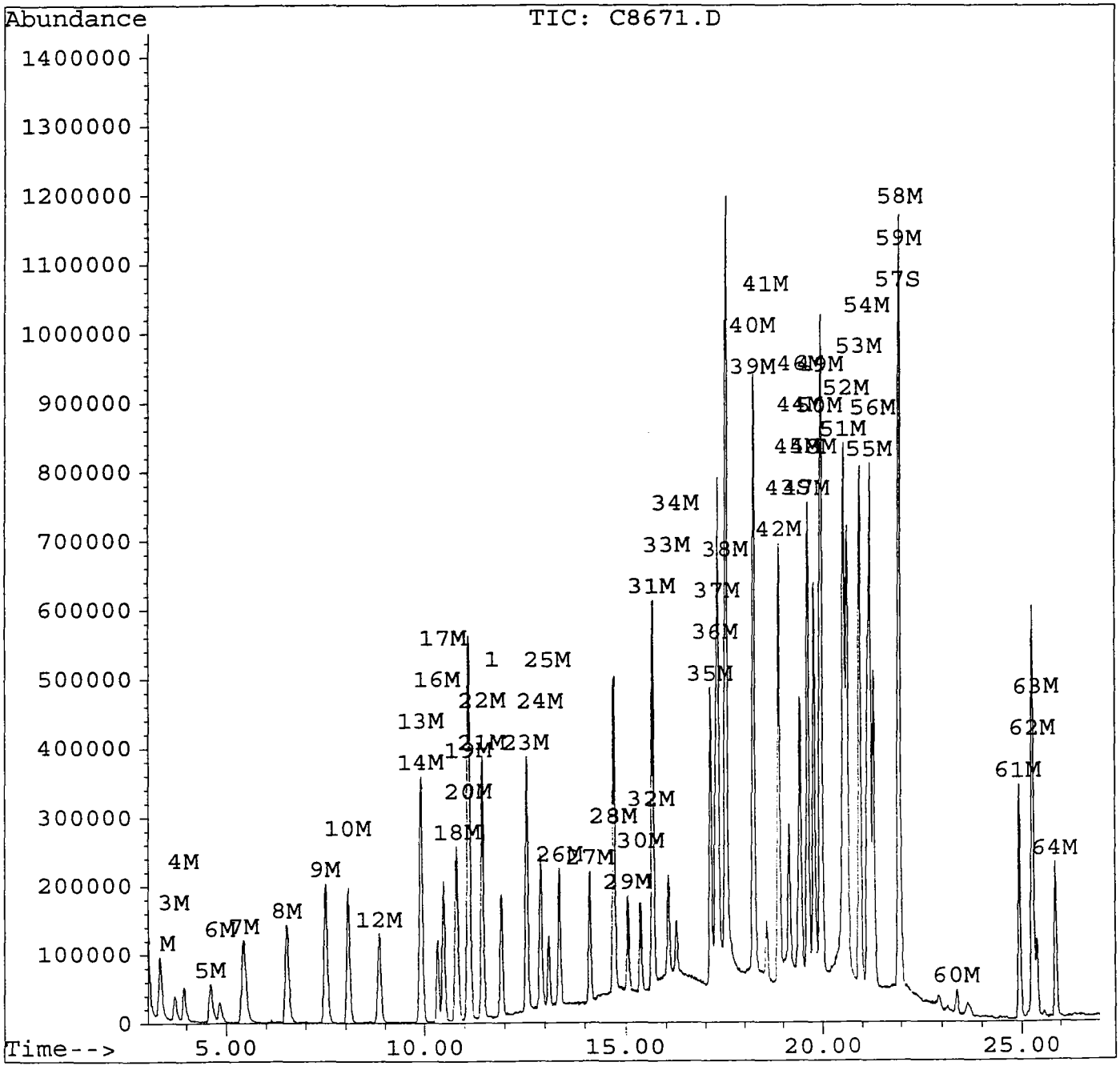
Quantitation Report

Data File : d:\hpchem\1\data\c8671.d
Acq On : 27 Jun 95 2:08 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 27 11:04 1995

Vial: 21
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

071

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

072

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: C8680.D BFB Injection Date: 6/27/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1634

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	20.6
75	30.0 - 66.0% of mass 95	49.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	50.2
175	4.0 - 9.0% of mass 174	4.5 (8.9)1
176	93.0 - 101.0% of mass 174	50.4 (100.4)1
177	5.0 - 9.0% of mass 176	3.4 (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:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C8681.D	6/27/95	1648
02	1PPB STD	1PPB STD	C8682.D	6/27/95	1723
03	VBLK01	M. BLANK	C8683.D	6/27/95	1757
04	9526604V	9526604V	C8684.D	6/27/95	1831
05	9526605V	9526605V	C8685.D	6/27/95	1905
06	9526797V	9526797V	C8686.D	6/27/95	1939
07	9526798V	9526798V	C8687.D	6/27/95	2013
08	9526609V	9526609V	C8688.D	6/27/95	2047
09	9526460V	9526460V	C8689.D	6/27/95	2121
10	9526799V	9526799V	C8690.D	6/27/95	2155
11	9526800V	9526800V	C8691.D	6/27/95	2230
12	9526801V	9526801V	C8692.D	6/27/95	2304
13	9526608V	9526608V	C8693.D	6/27/95	2338
14	1PPB QCS	1PPB QCS	C8694.D	6/28/95	0012
15					
16					
17					
18					
19					
20					
21					
22					

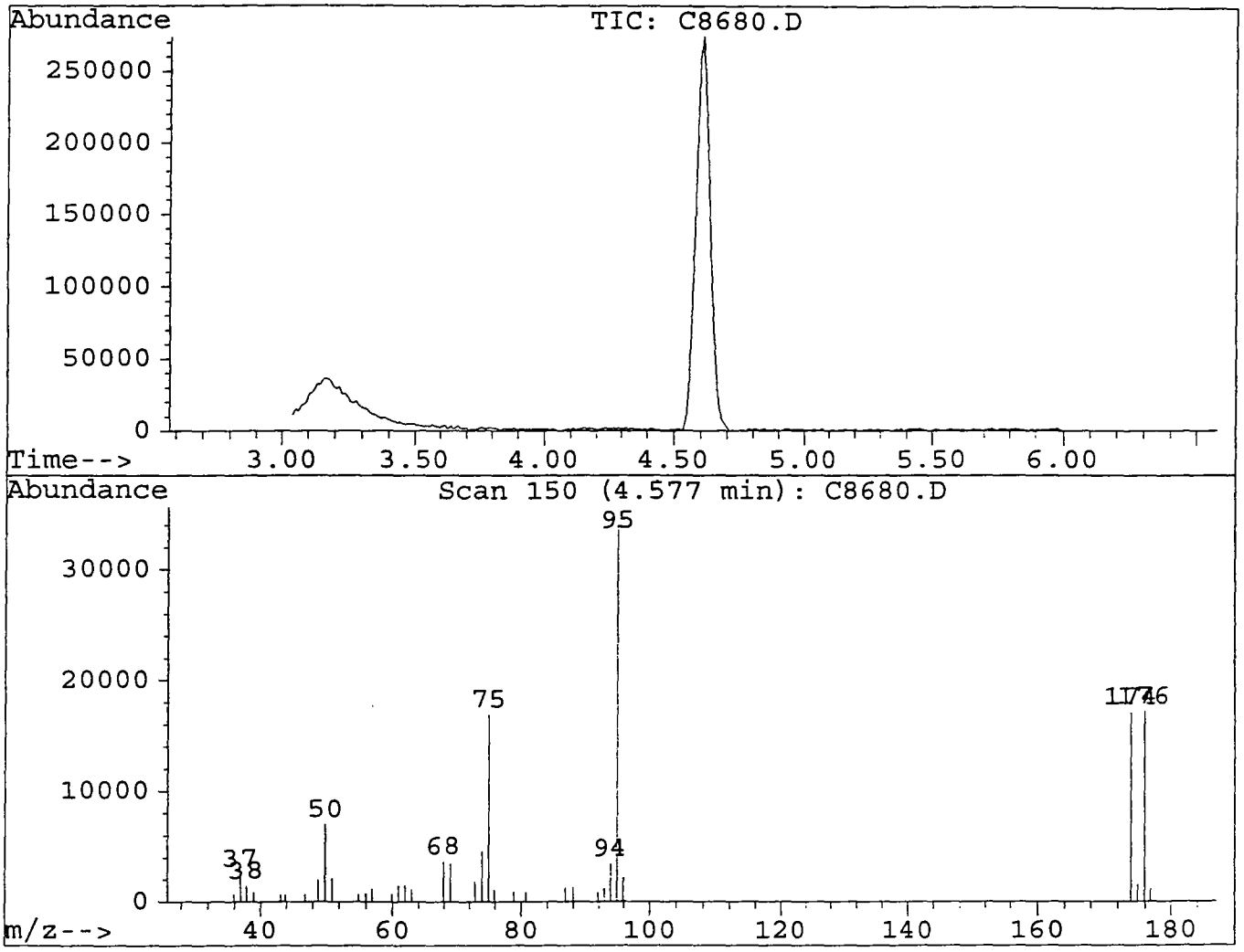
CLPBFB

073

Data File : D:\HPCHEM\1\DATA\C8680.D
Acq On : 27 Jun 95 4:34 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

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

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



Peak Apex is scan: 150

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	6997	PASS
75	95	30	60	49.6	16848	PASS
95	95	100	100	100.0	34000	PASS
96	95	5	9	6.4	2181	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	50.2	17080	PASS
175	174	5	9	8.9	1522	PASS
176	174	95	101	100.4	17144	PASS
177	176	5	9	6.7	1144	PASS

C8680.D VOA524.M Tue Jun 27 16:44:19 1995 VOA

Scan 150 (4.577 min): C8680.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	684	55.95	745	75.85	1070	174.90	1522
36.95	2534	56.85	1173	78.90	942	175.90	17144
37.85	1412	59.90	711	80.70	925	176.80	1144
38.95	845	60.90	1495	86.80	1297		
43.10	624	61.90	1496	87.95	1330		
43.90	658	62.90	1147	91.85	852		
46.90	663	67.90	3658	92.85	1205		
48.90	1981	68.95	3466	93.85	3442		
49.90	6997	72.85	1820	94.85	34000		
50.95	2115	73.95	4595	95.85	2181		
54.85	647	74.95	16848	173.90	17080		

7A

VOLATILE CONTINUING CALIBRATION CHECK

075

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/27/95 Time: 1648

Lab File ID: C8681.D Init. Calib. Date(s): 6/26/95 _____

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

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

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.372	0.404		-8.6	30.0
Chloromethane	0.166	0.194		-16.9	30.0
Vinyl chloride	0.212	0.251		-18.4	30.0
Bromomethane	0.170	0.205		-20.6	30.0
Chloroethane	0.119	0.137		-15.1	30.0
Trichlorofluoromethane	0.594	0.656		-10.4	30.0
1,1-Dichloroethene	0.255	0.286		-12.2	30.0
Methylene chloride	0.272	0.319		-17.3	30.0
trans-1,2-Dichloroethene	0.271	0.296		-9.2	30.0
1,1-Dichloroethane	0.475	0.517		-8.8	30.0
2,2-Dichloropropane	0.494	0.545		-10.3	30.0
cis-1,2-Dichloroethene	0.265	0.275		-3.8	30.0
Bromochloromethane	0.105	0.104		1.0	30.0
Chloroform	0.511	0.526		-2.9	30.0
1,1,1-Trichloroethane	0.571	0.604		-5.8	30.0
Carbon tetrachloride	0.541	0.575		-6.3	30.0
1,1-Dichloropropene	0.451	0.487		-8.0	30.0
Benzene	0.810	0.850		-4.9	30.0
1,2-Dichloroethane	0.205	0.203		1.0	30.0
Trichloroethene	0.390	0.404		-3.6	30.0
1,2-Dichloropropane	0.258	0.257		0.4	30.0
Dibromomethane	0.132	0.125		5.3	30.0
Bromodichloromethane	0.418	0.411		1.7	30.0
cis-1,3-Dichloropropene	0.339	0.333		1.8	30.0
Toluene	0.602	0.620		-3.0	30.0
trans-1,3-Dichloropropene	0.244	0.229		6.1	30.0
1,1,2-Trichloroethane	0.118	0.110		6.8	30.0
Tetrachloroethene	0.416	0.438		-5.3	30.0
1,3-Dichloropropane	0.222	0.212		4.5	30.0
Dibromochloromethane	0.258	0.241		6.6	30.0
1,2-Dibromomethane	0.177	0.162		8.5	30.0
Chlorobenzene	0.683	0.683		0.0	30.0
1,1,1,2-Tetrachloroethane	0.299	0.283		5.4	30.0
Ethylbenzene	1.297	1.319		-1.7	30.0
Xylene (para & meta)	0.471	0.482		-2.3	30.0
Xylene (Ortho)	0.430	0.435		-1.2	30.0

VOLATILE CONTINUING CALIBRATION CHECK

076

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/27/95 Time: 1648

Lab File ID: C8681.D Init. Calib. Date(s): 6/26/95 _____

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

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

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0.668	0.660		1.2	30.0
Bromoform	0.137	0.120		12.4	30.0
Isopropylbenzene	1.350	1.375		-1.9	30.0
Bromobenzene	0.286	0.270		5.6	30.0
1,1,2,2-Tetrachloroethane	0.148	0.127		14.2	30.0
1,2,3-Trichloropropane	0.150	0.138		8.0	30.0
n-Propylbenzene	1.755	1.757		-0.1	30.0
2-Chlorotoluene	1.045	0.965		7.7	30.0
4-Chlorotoluene	1.174	1.143		2.6	30.0
1,3,5-Trimethylbenzene	1.140	1.147		-0.6	30.0
tert-Butylbenzene	1.243	1.242		0.1	30.0
1,2,4-Trimethylbenzene	1.094	1.081		1.2	30.0
sec-Butylbenzene	1.733	1.772		-2.3	30.0
1,3-Dichlorobenzene	0.574	0.543		5.4	30.0
4-Isopropyltoluene	1.379	1.365		1.0	30.0
1,4-Dichlorobenzene	0.574	0.551		4.0	30.0
1,2-Dichlorobenzene	0.441	0.420		4.8	30.0
n-Butylbenzene	1.392	1.410		-1.3	30.0
1,2-Dibromo-3-chloropropane	0.034	0.029		14.7	30.0
1,2,4-Trichlorobenzene	0.350	0.312		10.9	30.0
Hexachlorobutadiene	0.376	0.376		0.0	30.0
Naphthalene	0.321	0.261		18.7	30.0
1,2,3-Trichlorobenzene	0.258	0.223		13.6	30.0
4-Bromofluorobenzene	0.467	0.502		-7.5	30.0
1,2-Dichlorobenzene-d4	0.275	0.269		2.2	30.0

Evaluate Continuing Calibration Report

077

Data File : D:\HPCHEM\1\DATA\C8681.D
Acq On : 27 Jun 95 4:48 pm
Sample : 10 PPB CHK STANDARD
Misc :

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 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	111	0.00
2	M	Dichlorodifluoromethane	0.372	0.404	-8.6	118	0.00
3	M	Chloromethane	0.166	0.194	-16.7	128	-0.02
4	M	Vinyl chloride	0.212	0.251	-18.4	128	0.00
5	M	Bromomethane	0.170	0.205	-20.7	125	0.02
6	M	Chloroethane	0.119	0.137	-15.4	110	0.01
7	M	Trichlorofluoromethane	0.594	0.656	-10.5	121	0.00
8	M	1,1-Dichloroethene	0.255	0.286	-12.3	123	0.01
9	M	Methylene chloride	0.272	0.319	-17.1	103	0.02
10	M	trans-1,2-Dichloroethene	0.271	0.296	-9.2	117	0.01
11		Hexane	0.000	0.000#	0.0	0#	-9.46#
12	M	1,1-Dichloroethane	0.475	0.517	-8.8	118	0.00
13	M	2,2-Dichloropropane	0.494	0.545	-10.3	120	0.00
14	M	cis-1,2-Dichloroethene	0.265	0.275	-3.5	112	0.01
15		2-Butanone	0.000	0.000#	0.0	0#	0.10
16	M	Bromochloromethane	0.105	0.104	1.8	108	0.00
17	M	Chloroform	0.511	0.526	-2.9	112	0.01
18	M	1,1,1-Trichloroethane	0.571	0.604	-5.8	115	0.00
19	M	Carbon tetrachloride	0.541	0.575	-6.3	116	0.00
20	M	1,1-Dichloropropene	0.451	0.487	-7.8	116	0.00
21	M	Benzene	0.810	0.850	-4.9	114	0.00
22	M	1,2-Dichloroethane	0.205	0.203	1.1	109	0.00
23	M	Trichloroethene	0.390	0.404	-3.6	113	0.00
24	M	1,2-Dichloropropane	0.258	0.257	0.2	109	0.01
25	M	Dibromomethane	0.132	0.125	5.3	104	0.00
26	M	Bromodichloromethane	0.418	0.411	1.6	109	0.01
27	M	cis-1,3-Dichloropropene	0.339	0.333	1.7	109	0.00
28	M	Toluene	0.602	0.620	-3.0	113	0.00
29	M	trans-1,3-Dichloropropene	0.244	0.229	6.3	105	0.00
30	M	1,1,2-Trichloroethane	0.118	0.110	6.9	103	0.00
31	M	Tetrachloroethene	0.416	0.438	-5.3	116	0.00
32	M	1,3-Dichloropropane	0.222	0.212	4.4	105	0.00
33	M	Dibromochloromethane	0.258	0.241	6.5	104	0.00
34	M	1,2-Dibromomethane	0.177	0.162	8.5	100	0.00
35	M	Chlorobenzene	0.683	0.683	0.0	110	0.00
36	M	1,1,1,2-Tetrachloroethane	0.299	0.283	5.5	105	0.00
37	M	Ethylbenzene	1.297	1.319	-1.7	112	0.00
38	M	Xylene (para & meta)	0.471	0.482	-2.2	112	0.00
39	M	Xylene (Ortho)	0.430	0.435	-1.0	111	0.00
40	M	Styrene	0.668	0.660	1.2	108	0.00
41	M	Bromoform	0.137	0.120	12.5	98	0.00
42	M	Isopropylbenzene	1.350	1.375	-1.8	112	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

078

Data File : D:\HPCHEM\1\DATA\C8681.D
Acq On : 27 Jun 95 4:48 pm
Sample : 10 PPB CHK STANDARD
Misc :

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 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	0.467	0.502	-7.6	105	0.00
44	M	Bromobenzene	0.286	0.270	5.3	104	0.00
45	M	1,1,2,2-Tetrachloroethane	0.148	0.127	13.6	96	0.00
46	M	1,2,3-Trichloropropane	0.150	0.138	8.3	100	0.01
47	M	n-Propylbenzene	1.755	1.757	-0.1	111	0.00
48	M	2-Chlorotoluene	1.045	0.965	7.6	102	0.00
49	M	4-Chlorotoluene	1.174	1.143	2.6	106	0.00
50	M	1,3,5-Trimethylbenzene	1.140	1.147	-0.7	110	0.00
51	M	tert-Butylbenzene	1.243	1.242	0.1	110	0.00
52	M	1,2,4-Trimethylbenzene	1.094	1.081	1.2	109	0.00
53	M	sec-Butylbenzene	1.733	1.772	-2.2	113	0.00
54	M	1,3-Dichlorobenzene	0.574	0.543	5.4	104	0.00
55	M	4-Isopropyltoluene	1.379	1.365	1.0	109	0.00
56	M	1,4-Dichlorobenzene	0.574	0.551	4.0	107	0.00
57	S	1,2-Dichlorobenzene-d4	0.275	0.269	2.3	108	0.00
58	M	1,2-Dichlorobenzene	0.441	0.420	4.8	104	0.00
59	M	n-Butylbenzene	1.392	1.410	-1.3	110	0.00
60	M	1,2-Dibromo-3-chloropropane	0.034	0.029	15.6	96	0.00
61	M	1,2,4-Trichlorobenzene	0.350	0.312	10.8	99	0.00
62	M	Hexachlorobutadiene	0.376	0.376	0.0	109	0.00
63	M	Naphthalene	0.321	0.261	18.6	89	0.00
64	M	1,2,3-Trichlorobenzene	0.258	0.223	13.5	95	0.00
65		Methyl-tert butyl ether	0.316	0.298	5.6	103	0.00
66		tert-Butyl Alcohol	0.004	0.004	17.7	93	0.00

Quantitation Report

Data File : d:\hpchem\1\data\c8681.d
Acq On : 27 Jun 95 4:48 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 28 9:45 1995

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

079

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	409662	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	205760	5.38	ug/L		107.55%
57) 1,2-Dichlorobenzene-d4	21.93	152	110033	4.89	ug/L		97.73%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.33	85	331058	10.86	ug/L		99
3) Chloromethane	3.70	50	158915	11.67	ug/L		97
4) Vinyl chloride	3.93	62	205871	11.84	ug/L		100
5) Bromomethane	4.61	94	167927	12.07	ug/L	m	92
6) Chloroethane	4.85	64	112552	11.54	ug/L	m	99
7) Trichlorofluoromethane	5.42	101	537546	11.05	ug/L		98
8) 1,1-Dichloroethene	6.52	96	234242	11.23	ug/L		97
9) Methylene chloride	7.49	84	261358	11.71	ug/L	m	97
10) trans-1,2-Dichloroethene	8.05	96	242603	10.92	ug/L		90
12) 1,1-Dichloroethane	8.83	63	423332	10.88	ug/L		100
13) 2,2-Dichloropropane	9.89	77	446342	11.03	ug/L		97
14) cis-1,2-Dichloroethene	9.91	96	224908	10.35	ug/L		96
16) Bromochloromethane	10.32	128	84845	9.82	ug/L		89
17) Chloroform	10.47	83	430953	10.29	ug/L		98
18) 1,1,1-Trichloroethane	10.79	97	494771	10.58	ug/L		96
19) Carbon tetrachloride	11.09	117	470990	10.63	ug/L		96
20) 1,1-Dichloropropene	11.08	75	398649	10.78	ug/L		98
21) Benzene	11.43	78	696498	10.49	ug/L		99
22) 1,2-Dichloroethane	11.44	62	166467	9.89	ug/L		100
23) Trichloroethene	12.54	95	330983	10.36	ug/L		96
24) 1,2-Dichloropropane	12.90	63	210744	9.98	ug/L		99
25) Dibromomethane	13.09	93	102411	9.47	ug/L		97
26) Bromodichloromethane	13.37	83	336568	9.84	ug/L		98
27) cis-1,3-Dichloropropene	14.12	75	272704	9.83	ug/L		98
28) Toluene	14.71	92	508231	10.30	ug/L		100
29) trans-1,3-Dichloropropene	15.05	75	187258	9.37	ug/L		97
30) 1,1,2-Trichloroethane	15.36	83	89907	9.31	ug/L		97
31) Tetrachloroethene	15.66	166	359061	10.53	ug/L		99
32) 1,3-Dichloropropane	15.64	76	173495	9.56	ug/L		98
33) Dibromochloromethane	16.05	129	197447	9.35	ug/L		98
34) 1,2-Dibromomethane	16.24	107	132436	9.15	ug/L		98
35) Chlorobenzene	17.12	112	559559	10.00	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17.25	131	231656	9.45	ug/L		94
37) Ethylbenzene	17.31	91	1080678	10.17	ug/L		98
38) Xylene (para & meta)	17.52	106	789073	20.45	ug/L		98
39) Xylene (Ortho)	18.22	106	356277	10.10	ug/L		96
40) Styrene	18.24	104	540440	9.88	ug/L		94

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

Quantitation Report

Data File : d:\hpchem\1\data\c8681.d
Acq On : 27 Jun 95 4:48 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 28 9:45 1995

Vial: 8 080
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.55	173	98107	8.75	ug/L		91
42)	Isopropylbenzene	18.88	105	1126485	10.18	ug/L		99
44)	Bromobenzene	19.42	156	221507	9.47	ug/L		95
45)	1,1,2,2-Tetrachloroethane	19.37	83	104402	8.64	ug/L		93
46)	1,2,3-Trichloropropane	19.45	75	113039	9.17	ug/L	#	50
47)	n-Propylbenzene	19.61	91	1439550	10.01	ug/L		99
48)	2-Chlorotoluene	19.78	91	790929	9.24	ug/L		98
49)	4-Chlorotoluene	19.96	91	936482	9.74	ug/L		99
50)	1,3,5-Trimethylbenzene	19.93	105	939938	10.07	ug/L		99
51)	tert-Butylbenzene	20.53	119	1017705	9.99	ug/L		99
52)	1,2,4-Trimethylbenzene	20.61	105	885746	9.88	ug/L		99
53)	sec-Butylbenzene	20.93	105	1451842	10.22	ug/L		100
54)	1,3-Dichlorobenzene	21.13	146	445262	9.46	ug/L		99
55)	4-Isopropyltoluene	21.19	119	1118757	9.90	ug/L		98
56)	1,4-Dichlorobenzene	21.28	146	451520	9.60	ug/L		99
58)	1,2-Dichlorobenzene	21.96	146	344140	9.52	ug/L		99
59)	n-Butylbenzene	21.94	91	1155581	10.13	ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.36	75	23779	8.44	ug/L		95
61)	1,2,4-Trichlorobenzene	24.94	180	255475	8.92	ug/L		97
62)	Hexachlorobutadiene	25.27	225	308018	10.00	ug/L		99
63)	Naphthalene	25.38	128	214016	8.14	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	182973	8.65	ug/L		93
65)	Methyl-tert butyl ether	8.07	73	244463	9.44	ug/L		100
66)	tert-Butyl Alcohol	7.80	59	5955	16.47	ug/L	m	100

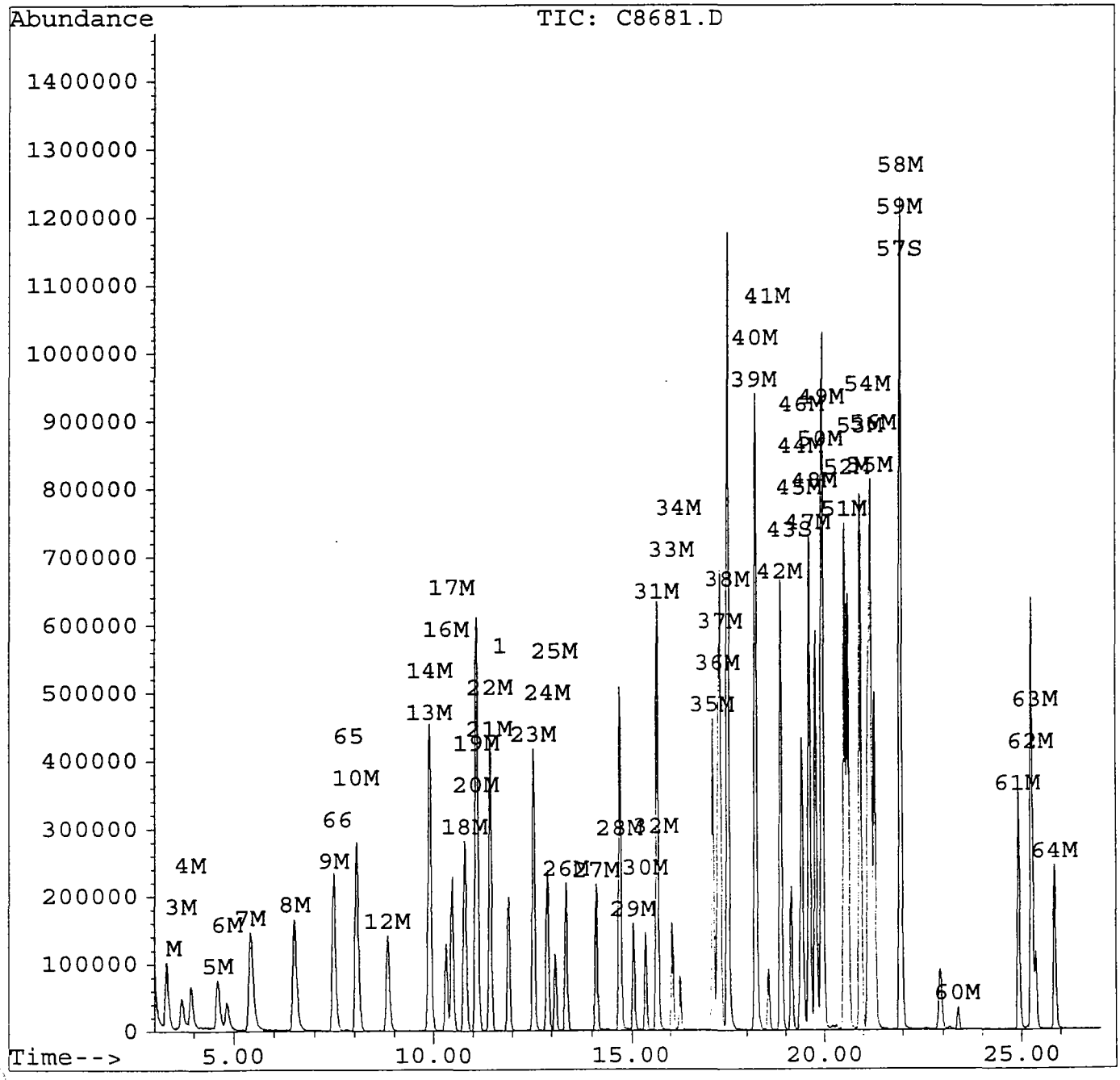
(#) = qualifier out of range (m) = manual integration

081

Data File : d:\hpchem\1\data\c8681.d
Acq On : 27 Jun 95 4:48 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 28 9:45 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



Quantitation Report

082

Data File : d:\hpchem\1\data\c8682.d
Acq On : 27 Jun 95 5:23 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 17:50 1995

Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.88	96	263808	5.00	ug/L		-0.02
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	137316	5.57	ug/L		111.46%
57) 1,2-Dichlorobenzene-d4	21.93	152	76724	5.29	ug/L		105.82%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.26	85	22602	1.15	ug/L		94
3) Chloromethane	3.62	50	10343	1.18	ug/L		97
4) Vinyl chloride	3.86	62	12530	1.12	ug/L		100
5) Bromomethane	4.54	94	12840	1.43	ug/L		82
6) Chloroethane	4.77	64	7887	1.26	ug/L		86
7) Trichlorofluoromethane	5.35	101	35286	1.13	ug/L		99
8) 1,1-Dichloroethene	6.44	96	14764	1.10	ug/L		89
9) Methylene chloride	7.42	84	114634	7.98	ug/L		97
10) trans-1,2-Dichloroethene	8.00	96	16388	1.15	ug/L		96
12) 1,1-Dichloroethane	8.79	63	28932	1.16	ug/L		94
13) 2,2-Dichloropropane	9.86	77	30183	1.16	ug/L		95
14) cis-1,2-Dichloroethene	9.86	96	15970	1.14	ug/L		87
16) Bromochloromethane	10.28	128	5581	1.00	ug/L		92
17) Chloroform	10.43	83	31554	1.17	ug/L		98
18) 1,1,1-Trichloroethane	10.76	97	33861	1.12	ug/L		94
19) Carbon tetrachloride	11.07	117	31113	1.09	ug/L		99
20) 1,1-Dichloropropene	11.06	75	27263	1.14	ug/L		97
21) Benzene	11.40	78	49099	1.15	ug/L		98
22) 1,2-Dichloroethane	11.41	62	11845	1.09	ug/L		75
23) Trichloroethene	12.52	95	22428	1.09	ug/L		93
24) 1,2-Dichloropropane	12.87	63	15280	1.12	ug/L		86
25) Dibromomethane	13.07	93	7466	1.07	ug/L		99
26) Bromodichloromethane	13.35	83	24509	1.11	ug/L		99
27) cis-1,3-Dichloropropene	14.10	75	19184	1.07	ug/L		99
28) Toluene	14.70	92	36945	1.16	ug/L		94
29) trans-1,3-Dichloropropene	15.03	75	13315	1.03	ug/L		88
30) 1,1,2-Trichloroethane	15.35	83	6291	1.01	ug/L	#	86
31) Tetrachloroethene	15.65	166	25193	1.15	ug/L		92
32) 1,3-Dichloropropane	15.63	76	12303	1.05	ug/L		95
33) Dibromochloromethane	16.04	129	14502	1.07	ug/L		98
34) 1,2-Dibromomethane	16.24	107	9467	1.02	ug/L		93
35) Chlorobenzene	17.12	112	41128	1.14	ug/L		93
36) 1,1,1,2-Tetrachloroethane	17.25	131	17181	1.09	ug/L		92
37) Ethylbenzene	17.31	91	76398	1.12	ug/L		97
38) Xylene (para & meta)	17.52	106	55916	2.25	ug/L		90
39) Xylene (Ortho)	18.21	106	26115	1.15	ug/L		94
40) Styrene	18.24	104	39324	1.12	ug/L		92

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

Quantitation Report

Data File : d:\hpchem\1\data\c8682.d
Acq On : 27 Jun 95 5:23 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 17:50 1995

Vial: 9
Operator: SRK 083
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	7207	1.00	ug/L		86
42)	Isopropylbenzene	18.87	105	79811	1.12	ug/L		99
44)	Bromobenzene	19.42	156	17152	1.14	ug/L	#	87
45)	1,1,2,2-Tetrachloroethane	19.36	83	7304	0.94	ug/L		96
46)	1,2,3-Trichloropropane	19.43	75	9868	1.24	ug/L		92
47)	n-Propylbenzene	19.61	91	102029	1.10	ug/L		98
48)	2-Chlorotoluene	19.77	91	64581	1.17	ug/L		99
49)	4-Chlorotoluene	19.96	91	71389	1.15	ug/L		96
50)	1,3,5-Trimethylbenzene	19.93	105	66144	1.10	ug/L		97
51)	tert-Butylbenzene	20.52	119	73140	1.12	ug/L		100
52)	1,2,4-Trimethylbenzene	20.61	105	64279	1.11	ug/L		99
53)	sec-Butylbenzene	20.92	105	101804	1.11	ug/L		99
54)	1,3-Dichlorobenzene	21.13	146	34724	1.15	ug/L		97
55)	4-Isopropyltoluene	21.19	119	79236	1.09	ug/L		96
56)	1,4-Dichlorobenzene	21.28	146	34821	1.15	ug/L		98
58)	1,2-Dichlorobenzene	21.95	146	27570	1.18	ug/L		93
59)	n-Butylbenzene	21.94	91	82538	1.12	ug/L		97
61)	1,2,4-Trichlorobenzene	24.93	180	21662	1.17	ug/L		95
62)	Hexachlorobutadiene	25.27	225	21927	1.11	ug/L		93
63)	Naphthalene	25.37	128	20937	1.24	ug/L		100
64)	1,2,3-Trichlorobenzene	25.84	180	16216	1.19	ug/L		100
65)	Methyl-tert butyl ether	8.05	73	20584	1.23	ug/L		92

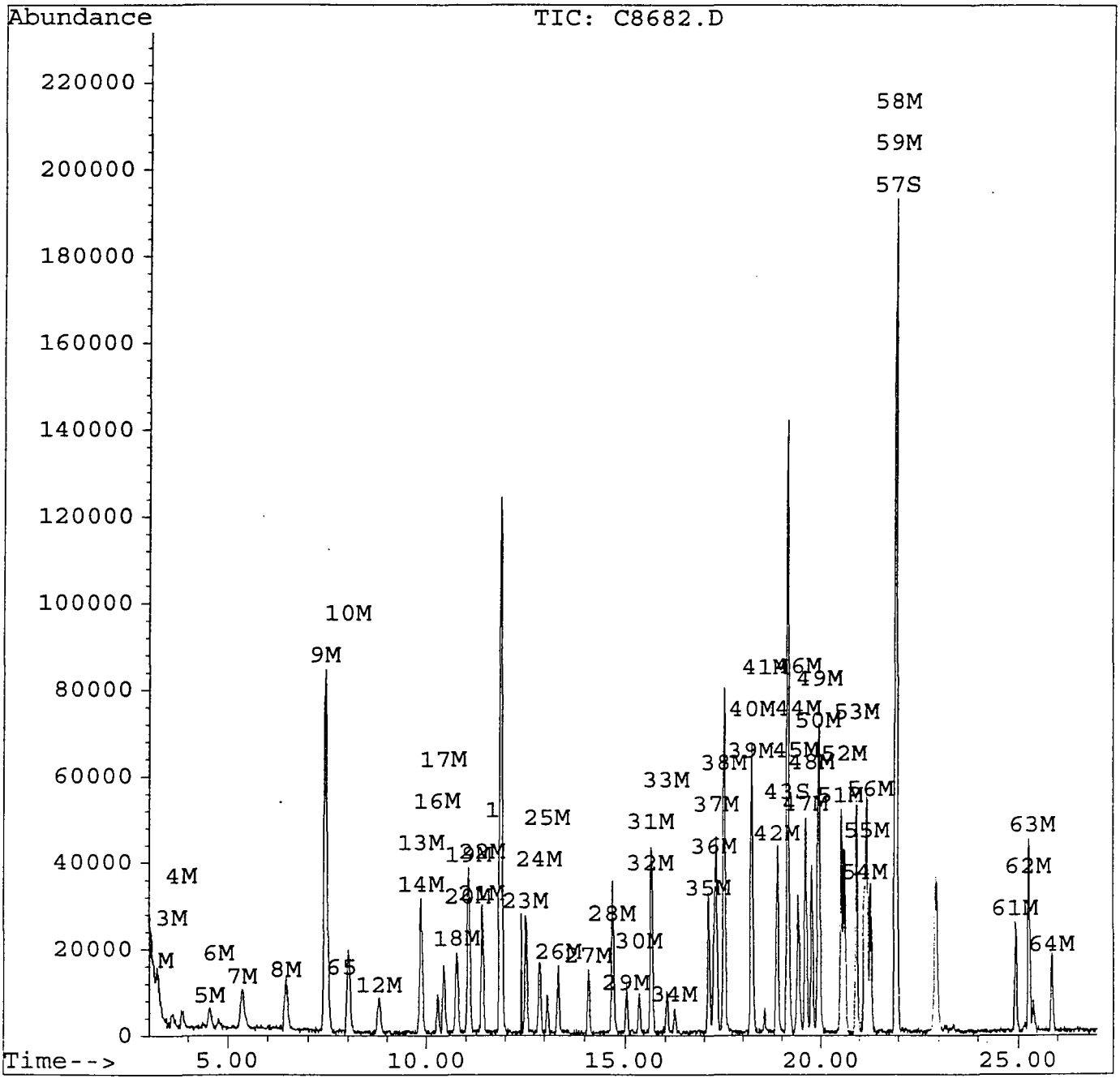
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8682.d
Acq On : 27 Jun 95 5:23 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 27 17:50 1995

Vial: 9 084
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8694.d
Acq On : 28 Jun 95 12:12 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 28 10:32 1995

Vial: 21 085
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	379632	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	194311	5.48	ug/L		109.60%
57) 1,2-Dichlorobenzene-d4	21.93	152	104370	5.00	ug/L		100.04%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	315568	11.17	ug/L		99
3) Chloromethane	3.72	50	128256	10.16	ug/L		97
4) Vinyl chloride	3.95	62	174736	10.85	ug/L		97
5) Bromomethane	4.61	94	149044	11.56	ug/L		95
6) Chloroethane	4.83	64	106070	11.74	ug/L		92
7) Trichlorofluoromethane	5.43	101	475738	10.55	ug/L		99
8) 1,1-Dichloroethene	6.51	96	221383	11.45	ug/L		94
9) Methylene chloride	7.48	84	246490	11.92	ug/L	m	96
10) trans-1,2-Dichloroethene	8.05	96	230531	11.20	ug/L		95
12) 1,1-Dichloroethane	8.84	63	393805	10.93	ug/L		97
13) 2,2-Dichloropropane	9.90	77	348648	9.30	ug/L		96
14) cis-1,2-Dichloroethene	9.90	96	206176	10.24	ug/L		97
16) Bromochloromethane	10.31	128	80040	10.00	ug/L		92
17) Chloroform	10.47	83	400088	10.31	ug/L		100
18) 1,1,1-Trichloroethane	10.80	97	471990	10.89	ug/L		99
19) Carbon tetrachloride	11.10	117	453943	11.06	ug/L		99
20) 1,1-Dichloropropene	11.09	75	384500	11.22	ug/L		95
21) Benzene	11.44	78	642985	10.45	ug/L		100
22) 1,2-Dichloroethane	11.44	62	151892	9.74	ug/L		99
23) Trichloroethene	12.54	95	313029	10.57	ug/L		97
24) 1,2-Dichloropropane	12.89	63	201601	10.31	ug/L		97
25) Dibromomethane	13.10	93	92689	9.25	ug/L		97
26) Bromodichloromethane	13.36	83	312800	9.86	ug/L		98
27) cis-1,3-Dichloropropene	14.12	75	239788	9.33	ug/L		100
28) Toluene	14.70	92	478723	10.47	ug/L		97
29) trans-1,3-Dichloropropene	15.04	75	164860	8.90	ug/L		99
30) 1,1,2-Trichloroethane	15.35	83	83657	9.35	ug/L		96
31) Tetrachloroethene	15.66	166	337519	10.68	ug/L		98
32) 1,3-Dichloropropane	15.64	76	159908	9.50	ug/L		99
33) Dibromochloromethane	16.05	129	185310	9.47	ug/L		97
34) 1,2-Dibromomethane	16.25	107	123241	9.19	ug/L		98
35) Chlorobenzene	17.12	112	534718	10.31	ug/L		98
36) 1,1,1,2-Tetrachloroethane	17.26	131	225224	9.92	ug/L		99
37) Ethylbenzene	17.31	91	1018160	10.34	ug/L		98
38) Xylene (para & meta)	17.52	106	740251	20.70	ug/L		99
39) Xylene (Ortho)	18.22	106	337049	10.31	ug/L		99
40) Styrene	18.24	104	512024	10.10	ug/L		99

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

Quantitation Report

086

Data File : d:\hpchem\1\data\c8694.d
Acq On : 28 Jun 95 12:12 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 28 10:32 1995

Vial: 21
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	89912	8.65	ug/L		96
42)	Isopropylbenzene	18.88	105	1111141	10.84	ug/L	m	0
44)	Bromobenzene	19.42	156	204497	9.43	ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.37	83	102400	9.14	ug/L		94
46)	1,2,3-Trichloropropane	19.43	75	103256	9.04	ug/L	#	85
47)	n-Propylbenzene	19.62	91	1409392	10.58	ug/L		99
48)	2-Chlorotoluene	19.77	91	770228	9.71	ug/L		97
49)	4-Chlorotoluene	19.96	91	890343	9.99	ug/L		100
50)	1,3,5-Trimethylbenzene	19.93	105	875416	10.12	ug/L		98
51)	tert-Butylbenzene	20.53	119	998023	10.58	ug/L		97
52)	1,2,4-Trimethylbenzene	20.61	105	859065	10.34	ug/L		99
53)	sec-Butylbenzene	20.93	105	1410372	10.72	ug/L		99
54)	1,3-Dichlorobenzene	21.12	146	432969	9.93	ug/L		100
55)	4-Isopropyltoluene	21.18	119	1080844	10.32	ug/L		99
56)	1,4-Dichlorobenzene	21.29	146	429940	9.87	ug/L		98
58)	1,2-Dichlorobenzene	21.96	146	319349	9.54	ug/L		99
59)	n-Butylbenzene	21.94	91	1120802	10.60	ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.36	75	21566	8.26	ug/L		97
61)	1,2,4-Trichlorobenzene	24.92	180	239352	9.02	ug/L		98
62)	Hexachlorobutadiene	25.27	225	299893	10.51	ug/L		98
63)	Naphthalene	25.38	128	209564	8.60	ug/L		100
64)	1,2,3-Trichlorobenzene	25.85	180	170189	8.68	ug/L		94

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

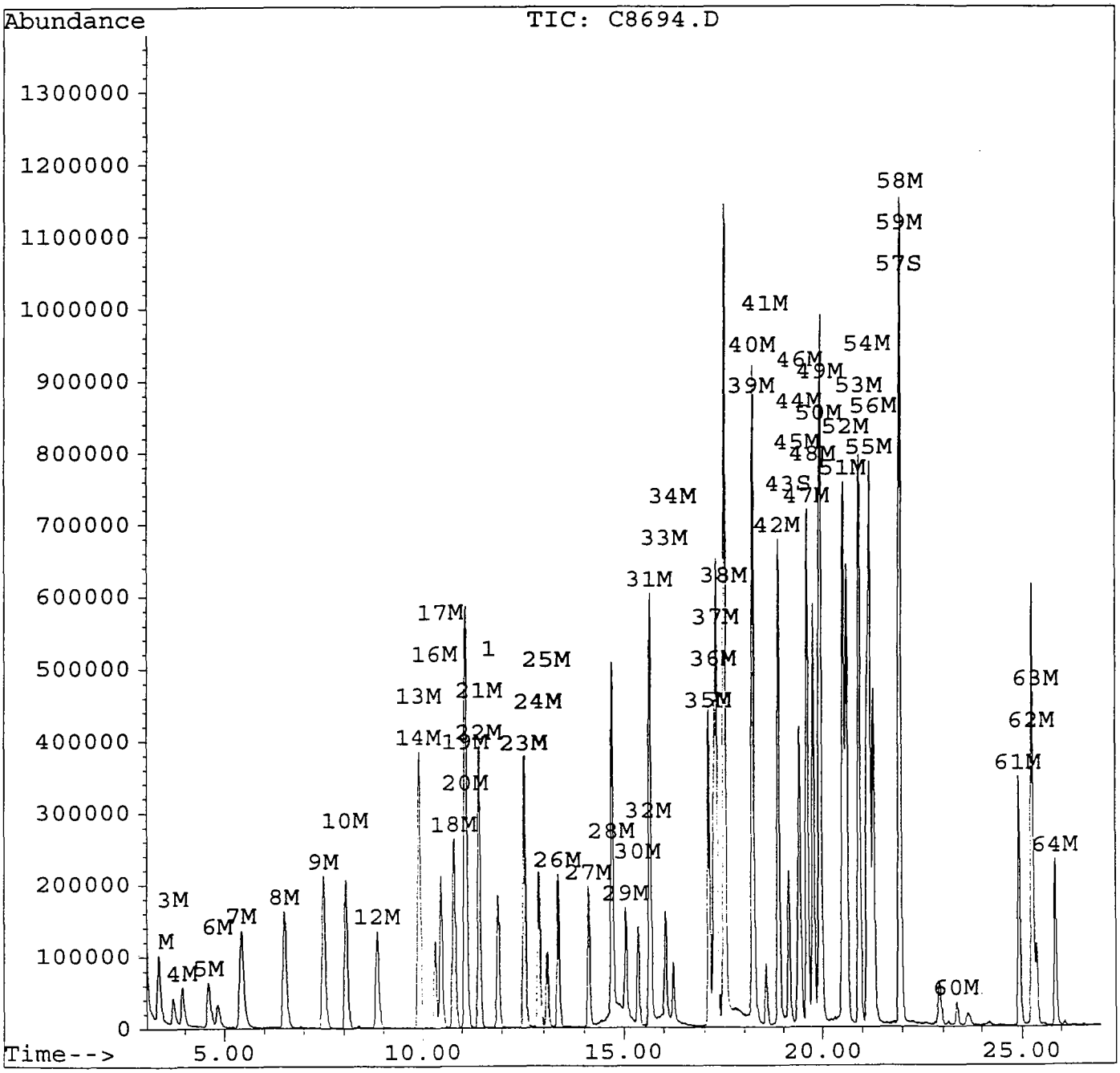
Quantitation Report

Data File : d:\hpchem\1\data\c8694.d
Acq On : 28 Jun 95 12:12 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Jun 28 10:32 1995

Vial: 21
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

087

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

088

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): C8658.D Date Analyzed: 6/26/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1836

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	346431	11.90				
	UPPER LIMIT	692862	12.40				
	LOWER LIMIT	173216	11.40				
	SAMPLE NO.						
01	1PPB STD	357198	11.90				
02	VBLK01	356851	11.91				
03	9526461V	364162	11.91				
04	9526606V	355384	11.91				
05	9526607V	348754	11.90				
06	9526607MS	366716	11.92				
07	9526607MSD	362102	11.91				
08	9526435V	333198	11.91				
09	1PPB QCS	371402	11.91				
10							
11							
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

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): C8681.D Date Analyzed: 6/27/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1648

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	409662	11.90				
	UPPER LIMIT	819324	12.40				
	LOWER LIMIT	204831	11.40				
	SAMPLE NO.						
01	1PPB STD	263808	11.88				
02	VBLK01	390703	11.90				
03	9526604V	379554	11.90				
04	9526605V	373858	11.90				
05	9526797V	370831	11.90				
06	9526798V	373021	11.90				
07	9526609V	383064	11.90				
08	9526460V	384686	11.91				
09	9526799V	377715	11.90				
10	9526800V	375620	11.90				
11	9526801V	381531	11.90				
12	9526608V	365952	11.90				
13	1PPB QCS	379632	11.90				
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area
AREA LOWER LIMIT = -30% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

090

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526604

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8684.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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	1.2	
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	6.4	
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

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

091

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

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526604

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8684.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

1E

FMETL#

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

092

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

Project No. FT. MONMOUTH NJ Bldg#: NJDEPMW#: TRIP BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526604V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8684.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	2	J
2.	Column Bleed	22.92	1	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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27.				
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29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8684.d
Acq On : 27 Jun 95 6:31 pm
Sample : 9526604
Misc : 25 ML
Quant Time: Jun 28 9:49 1995

Vial: 11 093
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.90	96	379554	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.14	95	187881	5.30	ug/L	106.00%
57) 1,2-Dichlorobenzene-d4	21.92	152	104031	4.99	ug/L	99.73%
Target Compounds						Qvalue
3) Chloromethane	3.71	50	14798	1.17	ug/L	86
9) Methylene chloride	7.47	84	17742	0.86	ug/L	91
22) 1,2-Dichloroethane	11.44	62	100478	6.44	ug/L	97

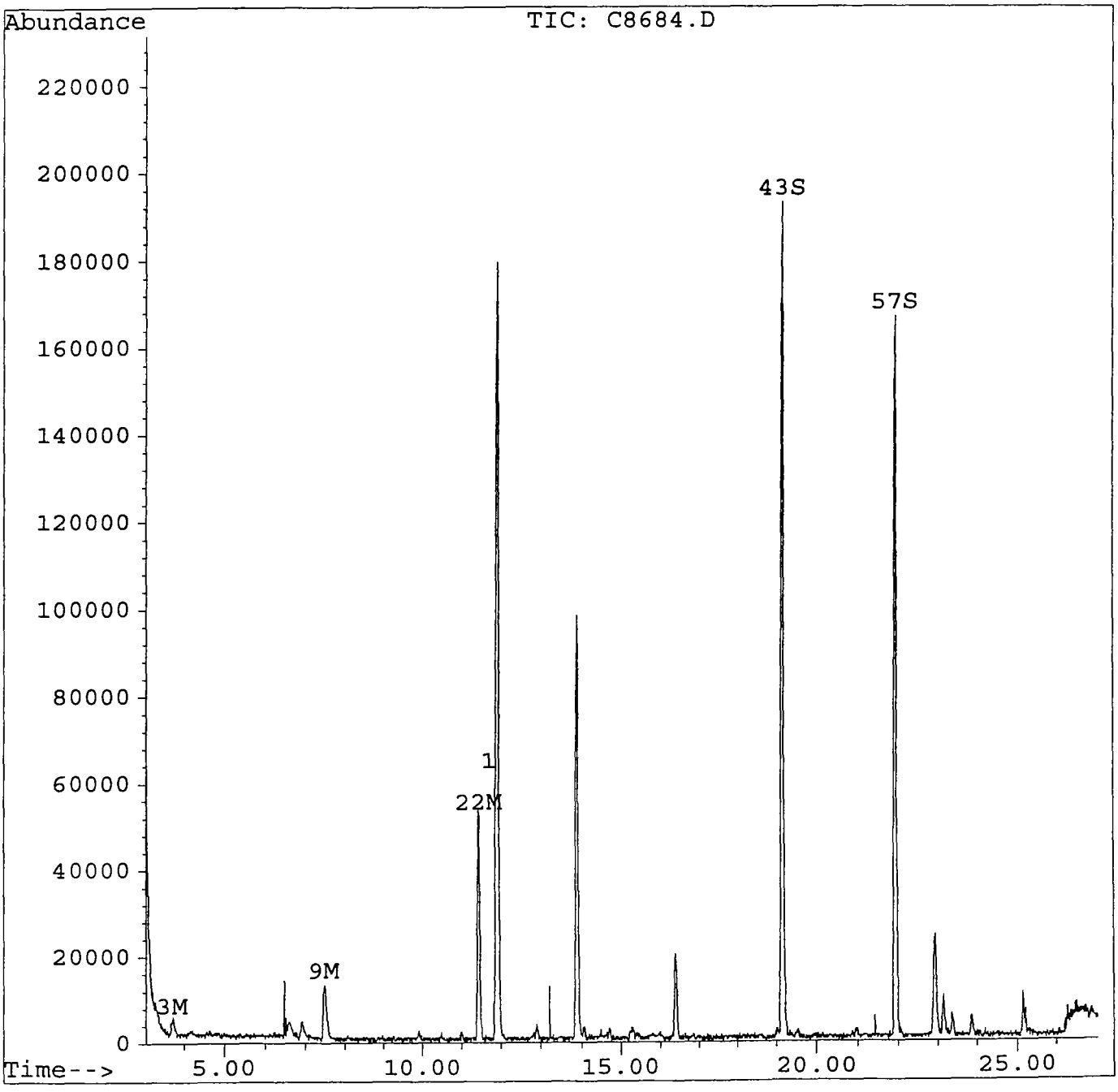
(#) = qualifier out of range (m) = manual integration

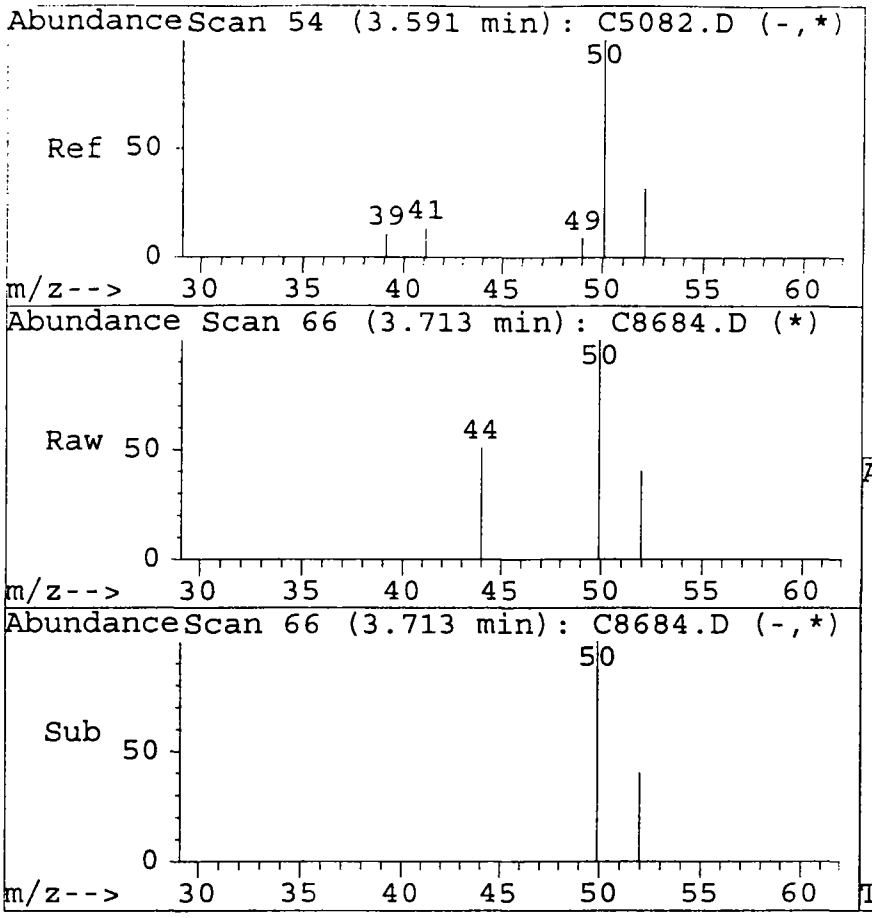
Quantitation Report

Data File : d:\hpchem\1\data\c8684.d
Acq On : 27 Jun 95 6:31 pm
Sample : 9526604
Misc : 25 ML
Quant Time: Jun 28 9:49 1995

Vial: 11
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration





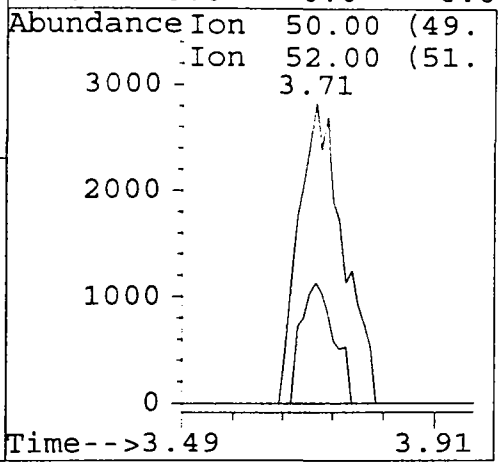
#3
Chloromethane

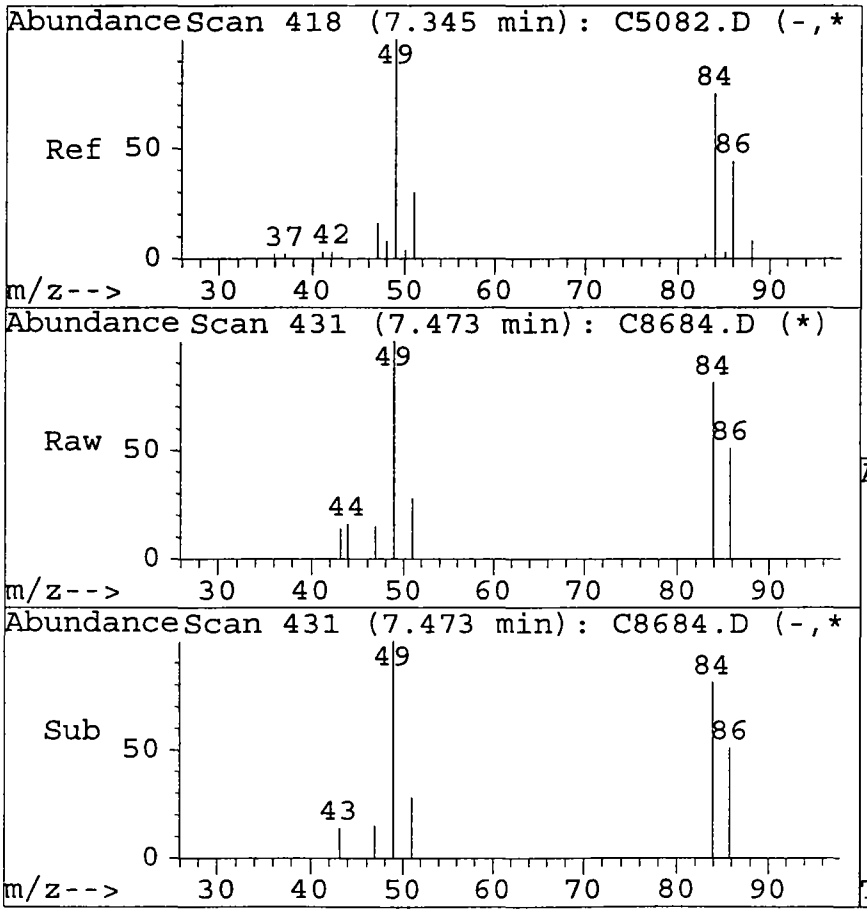
095

Concen: 1.17 ug/L
RT: 3.71 min Scan# 66
Delta R.T. -0.01 min
Lab File: c8684.d
Acq: 27 Jun 95 6:31 pm

Tgt Ion:50 Resp: 14798

Ion	Ratio	Lower	Upper
50	100		
52	40.0	12.0	52.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

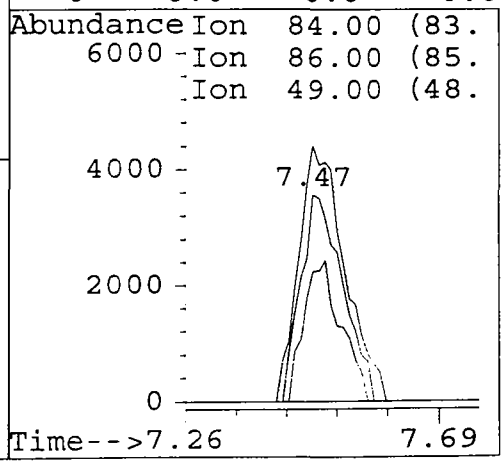


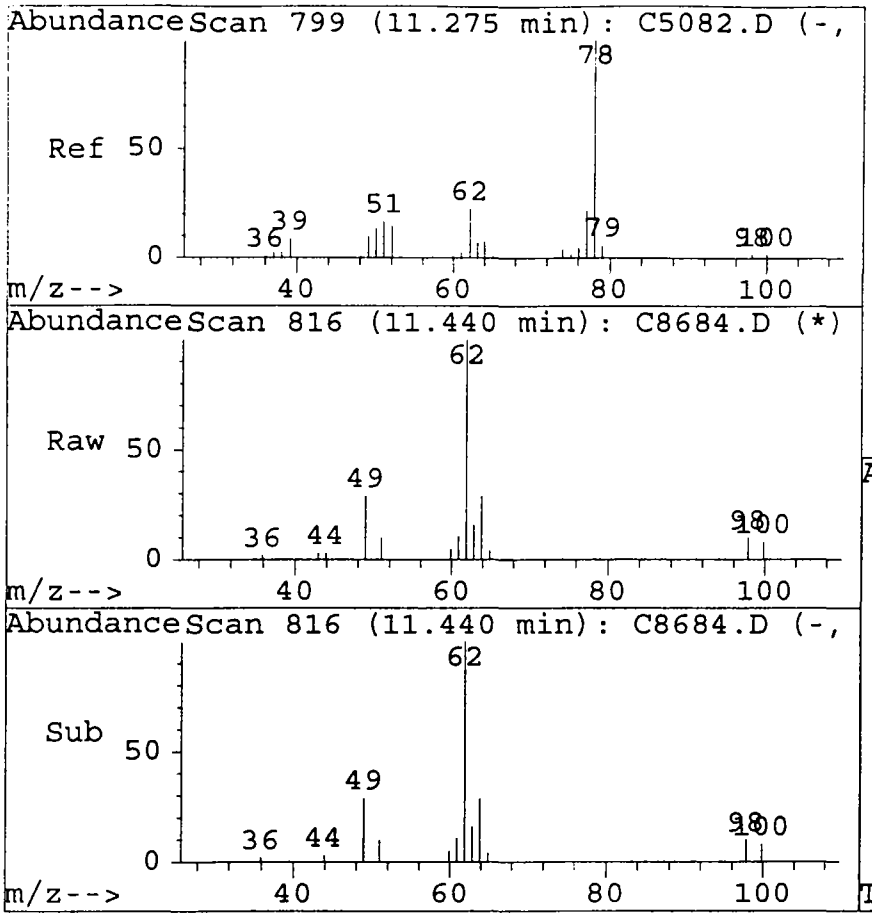


#9
Methylene chloride
Concen: 0.86 ug/L
RT: 7.47 min Scan# 431
Delta R.T. 0.00 min
Lab File: c8684.d
Acq: 27 Jun 95 6:31 pm

Tgt Ion:84 Resp: 17742

Ion	Ratio	Lower	Upper
84	100		
86	62.7	45.6	85.6
49	123.7	117.2	157.2
0	0.0	0.0	0.0

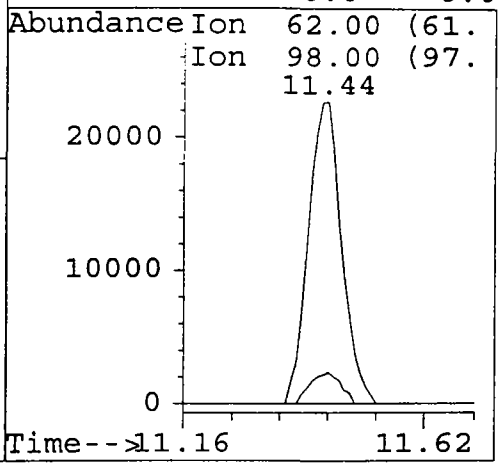




#22
1,2-Dichloroethane
Concen: 6.44 ug/L
RT: 11.44 min Scan# 816
Delta R.T. 0.00 min
Lab File: c8684.d
Acq: 27 Jun 95 6:31 pm

Tgt Ion:62 Resp: 100478

Ion	Ratio	Lower	Upper
62	100		
98	10.4	0.0	29.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

097

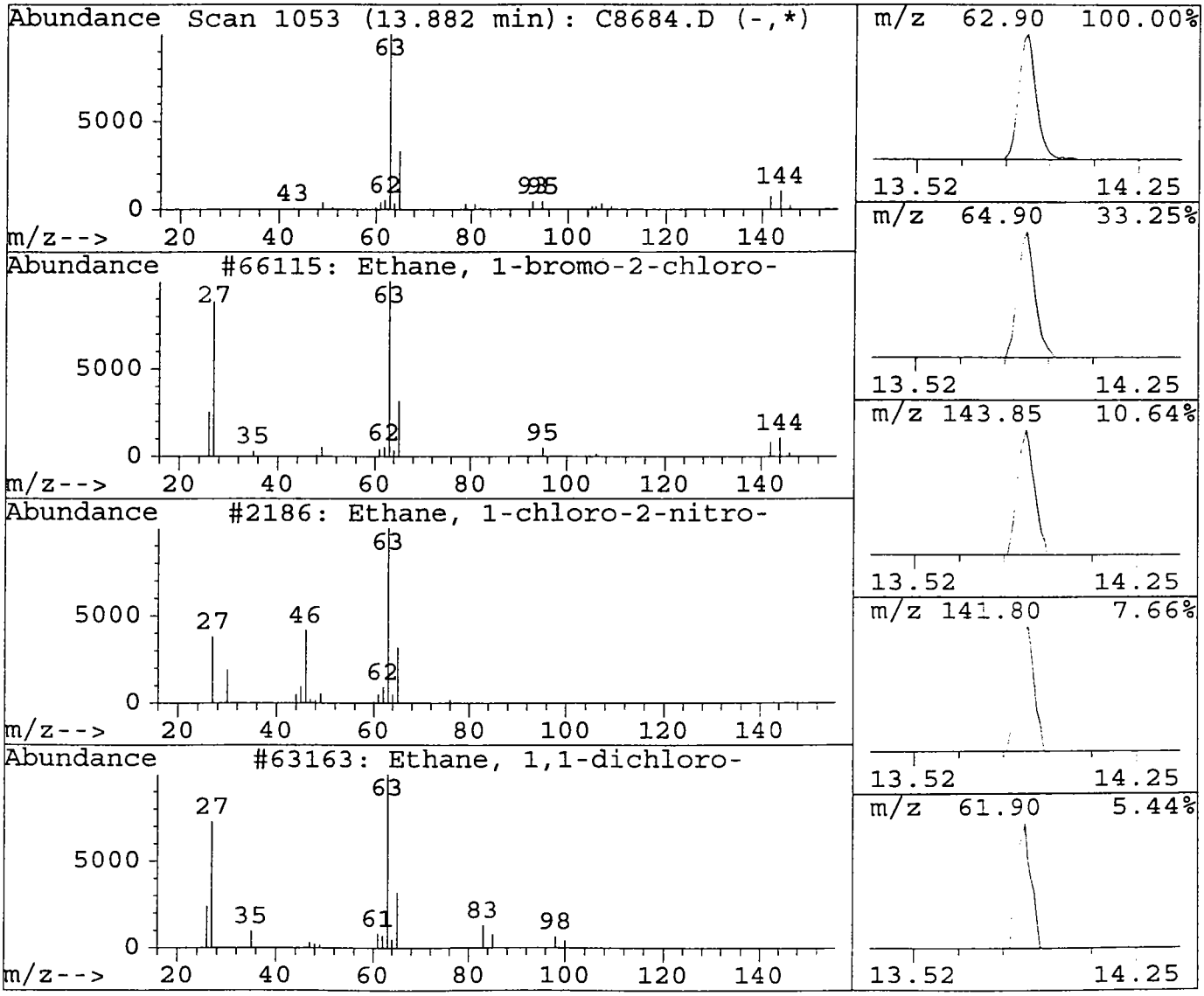
Data File : d:\hpchem\1\data\c8684.d
Acq On : 27 Jun 95 6:31 pm
Sample : 9526604
Misc : 25 ML

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.
13.88	2.37 ug/L	380158	Fluorobenzene	11.90

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethane, 1-bromo-2-chloro-	66115	000107-04-0	91
2	Ethane, 1-chloro-2-nitro-	2186	000625-47-8	9
3	Ethane, 1,1-dichloro-	63163	000075-34-3	4
4	Carbonochloridic acid, ethyl ester	63749	000541-41-3	4
5	2-Chloropropionyl chloride	4369	007623-09-8	43



098

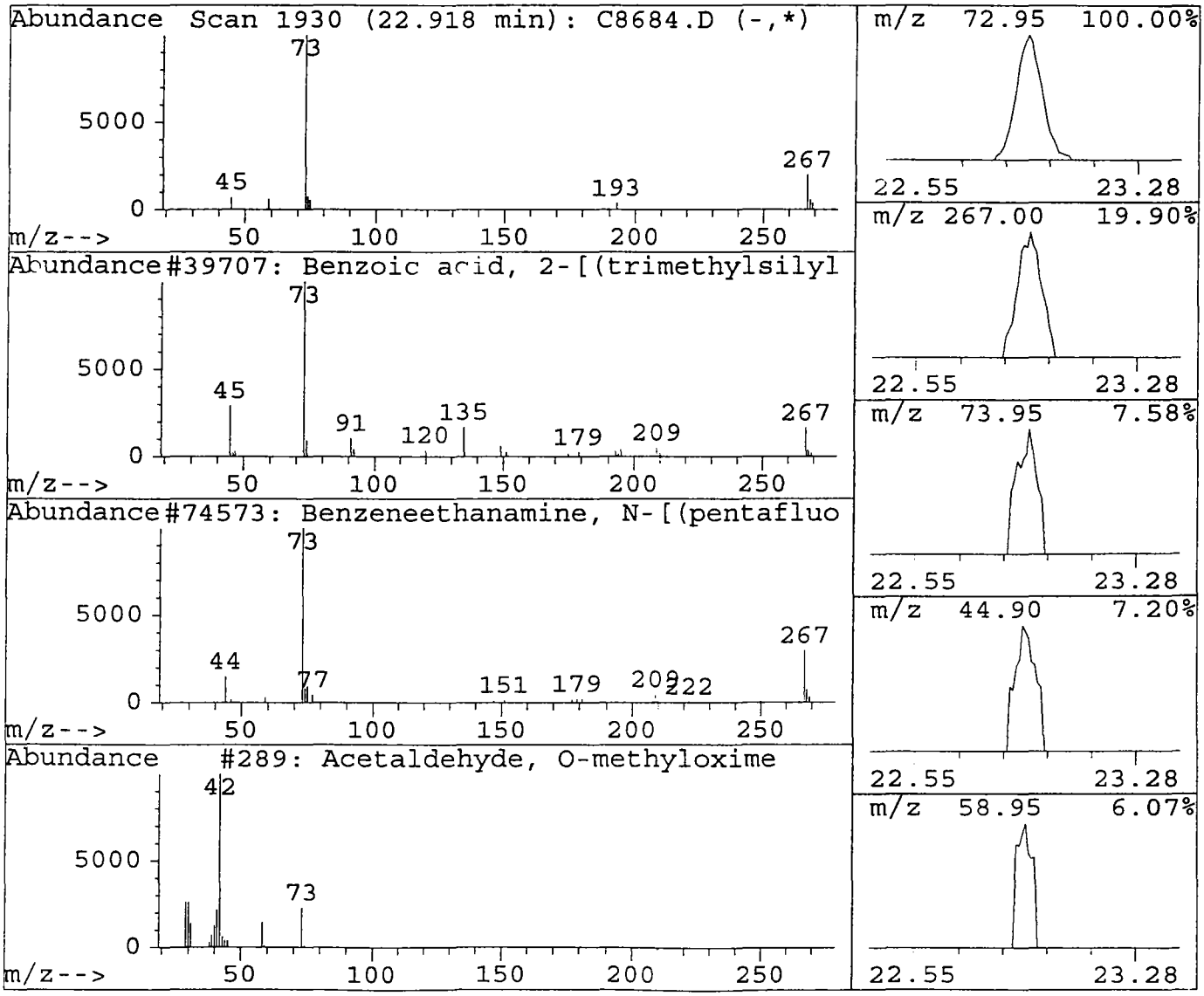
Data File : d:\hpchem\1\data\c8684.d
Acq On : 27 Jun 95 6:31 pm
Sample : 9526604
Misc : 25 ML

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.
22.92	0.64 ug/L	102923	Fluorobenzene	11.90

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	4
3	Acetaldehyde, O-methyloxime	289	033581-43-0	4
4	Silane, trimethyl(1-methyl-1-propen	5010	010111-13-4	2
5	N-Ethylformamide	292	000627-45-2	3



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 099

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526605

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8685.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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	1.3	
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	1.1	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	9.8	
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

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 100

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

Project No.: FT. MONMOUTH NJ Bldg#: NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526605

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8685.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 101

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

Project No. FT. MONMOUTH NJ Bldg#: NJDEPMW#: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 9526605V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8685.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	4	J
2.				
3.				
4.				
5.				
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29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8685.d
Acq On : 27 Jun 95 7:05 pm
Sample : 9526605
Misc : 25 ML
Quant Time: Jun 28 9:49 1995

Vial: 12
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.90	96	373858	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.14	95	191165	5.47	ug/L	109.49%
57) 1,2-Dichlorobenzene-d4	21.93	152	106632	5.19	ug/L	103.78%
Target Compounds						Qvalue
3) Chloromethane	3.71	50	16814	1.35	ug/L	94
9) Methylene chloride	7.47	84	22389	1.10	ug/L #	86
22) 1,2-Dichloroethane	11.44	62	150225	9.78	ug/L	98

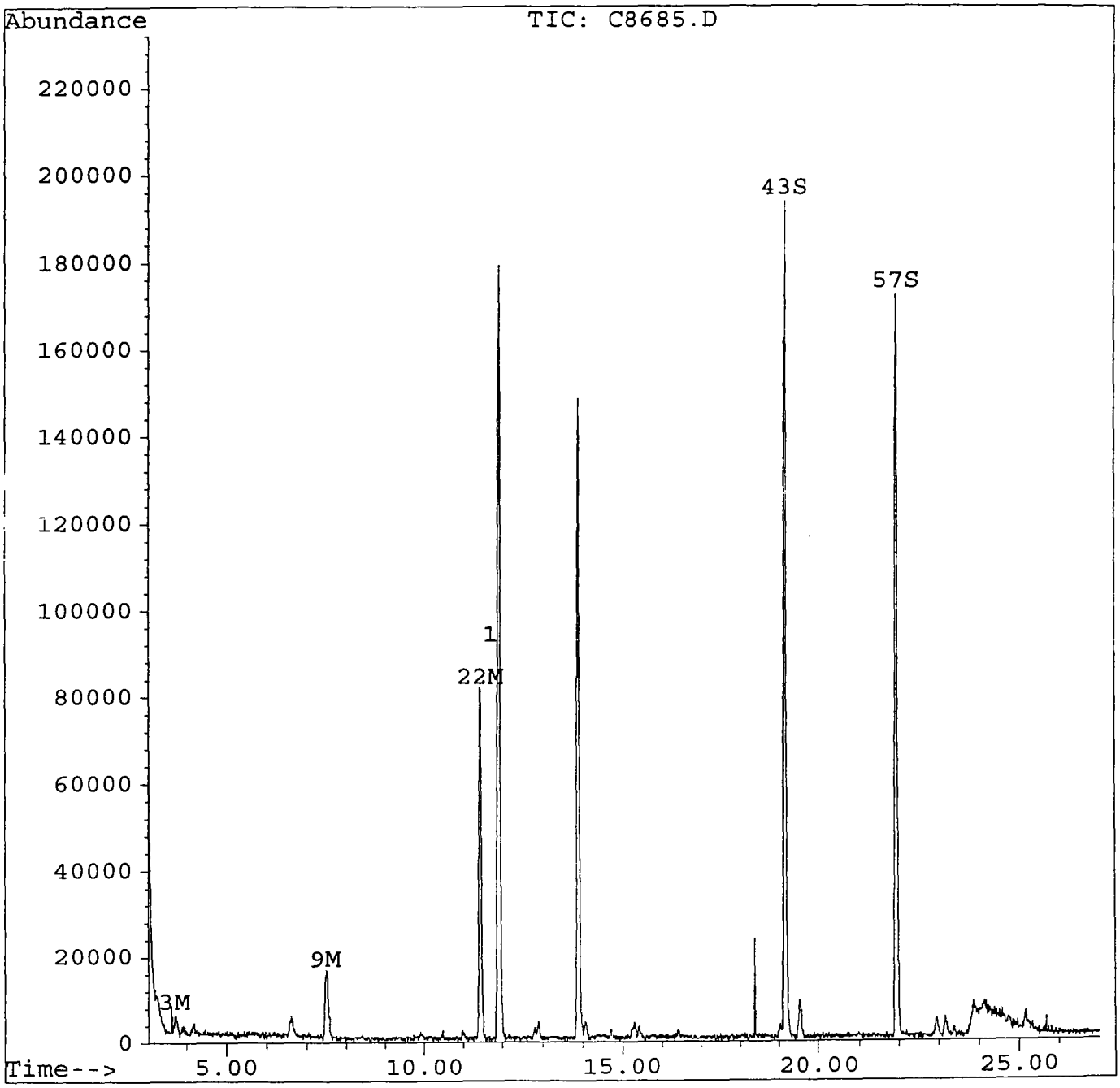
(#) = qualifier out of range (m) = manual integration

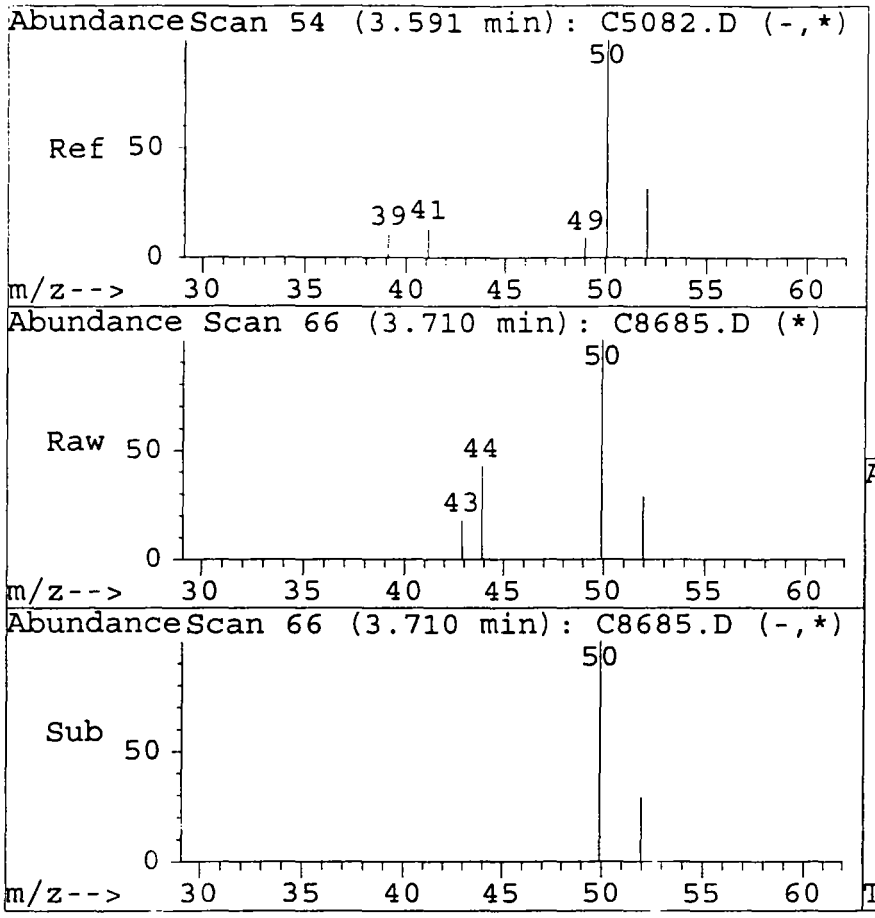
Quantitation Report

Data File : d:\hpchem\1\data\c8685.d
Acq On : 27 Jun 95 7:05 pm
Sample : 9526605
Misc : 25 ML
Quant Time: Jun 28 9:49 1995

Vial: 12 103
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

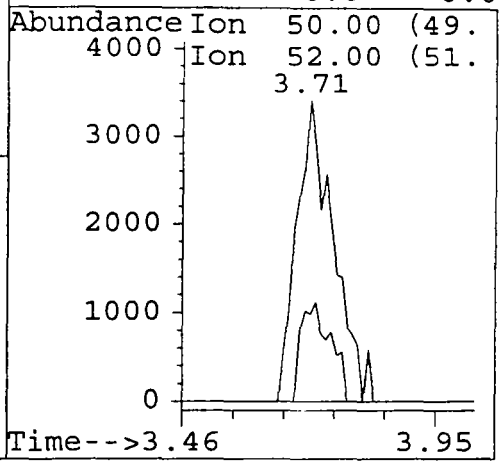


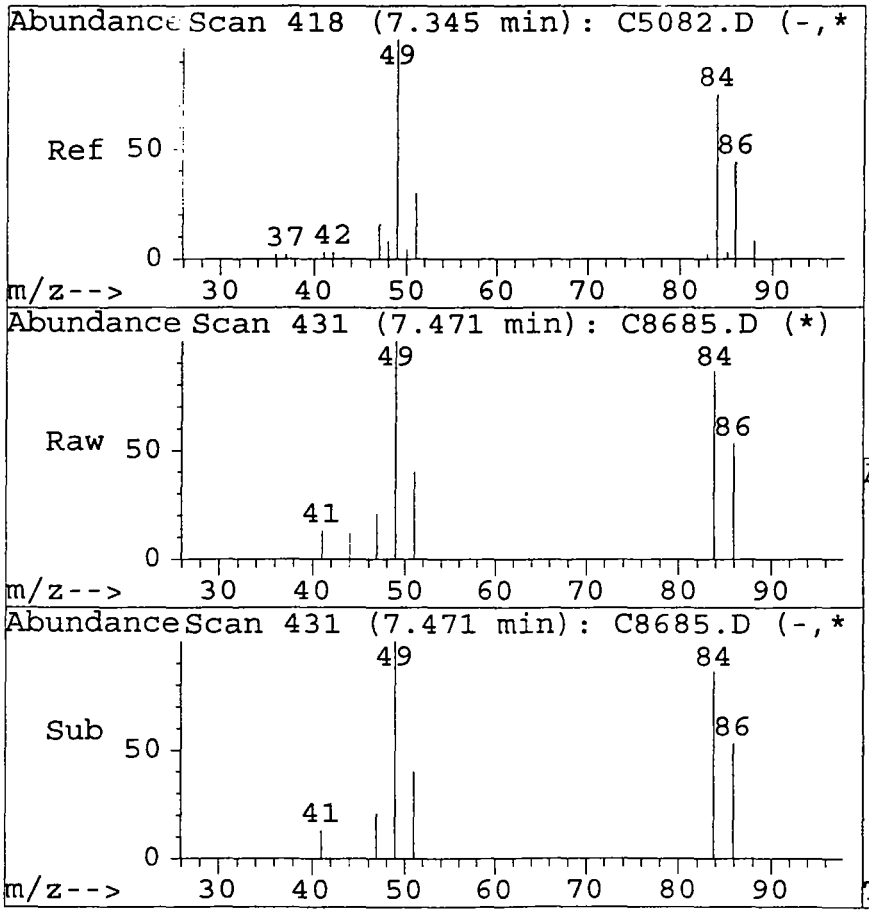


#3
Chloromethane
Concen: 1.35 ug/L
RT: 3.71 min Scan# 66
Delta R.T. -0.01 min
Lab File: c8685.d
Acq: 27 Jun 95 7:05 pm

Tgt Ion:50 Resp: 16814

Ion	Ratio	Lower	Upper
50	100		
52	28.8	12.0	52.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

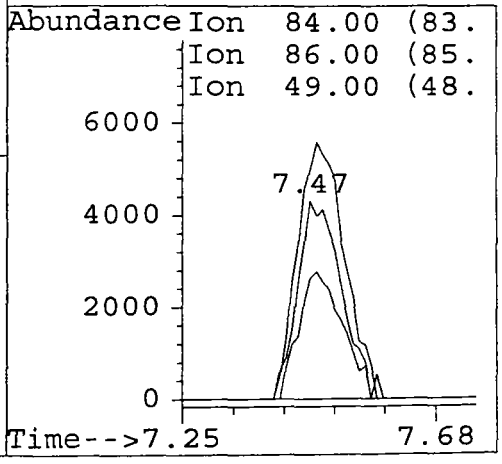


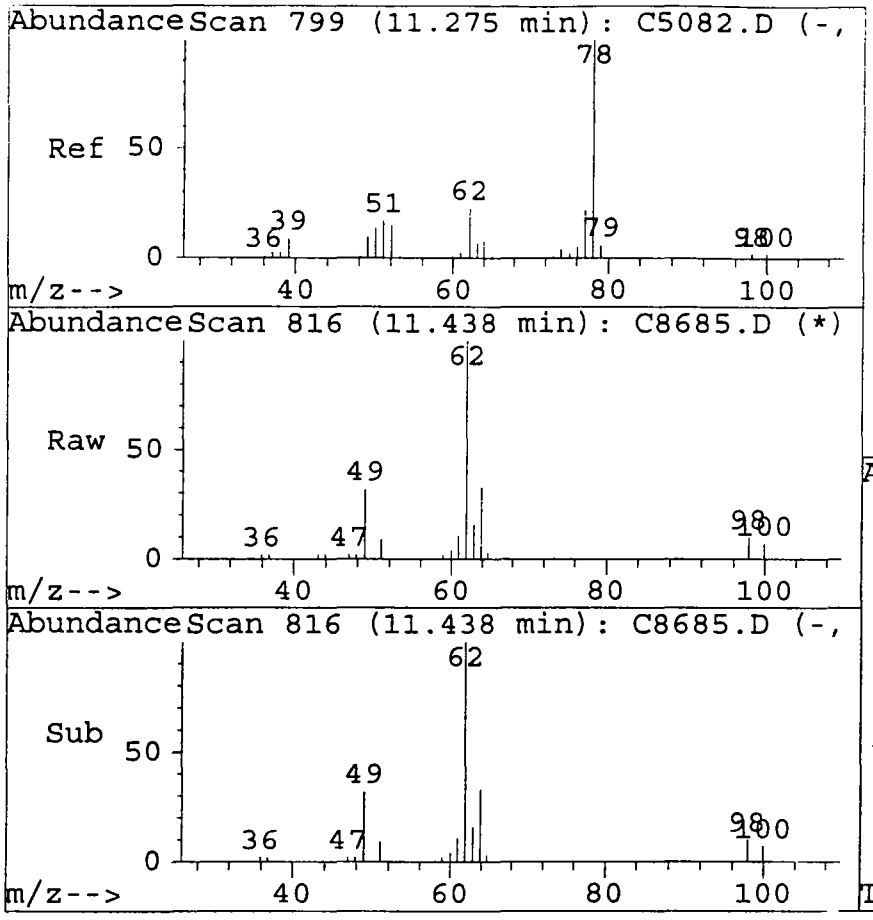


#9
Methylene chloride
Concen: 1.10 ug/L
RT: 7.47 min Scan# 431
Delta R.T. 0.00 min
Lab File: c8685.d
Acq: 27 Jun 95 7:05 pm

Tgt Ion:84 Resp: 22389

Ion	Ratio	Lower	Upper
84	100		
86	61.1	45.6	85.6
49	116.0	117.2	157.2#
0	0.0	0.0	0.0

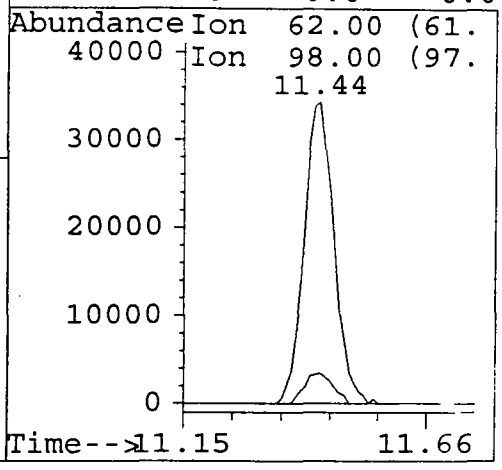




#22
1,2-Dichloroethane
Concen: 9.78 ug/L
RT: 11.44 min Scan# 816
Delta R.T. 0.00 min
Lab File: c8685.d
Acq: 27 Jun 95 7:05 pm

Tgt Ion:62 Resp: 150225

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	29.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



106

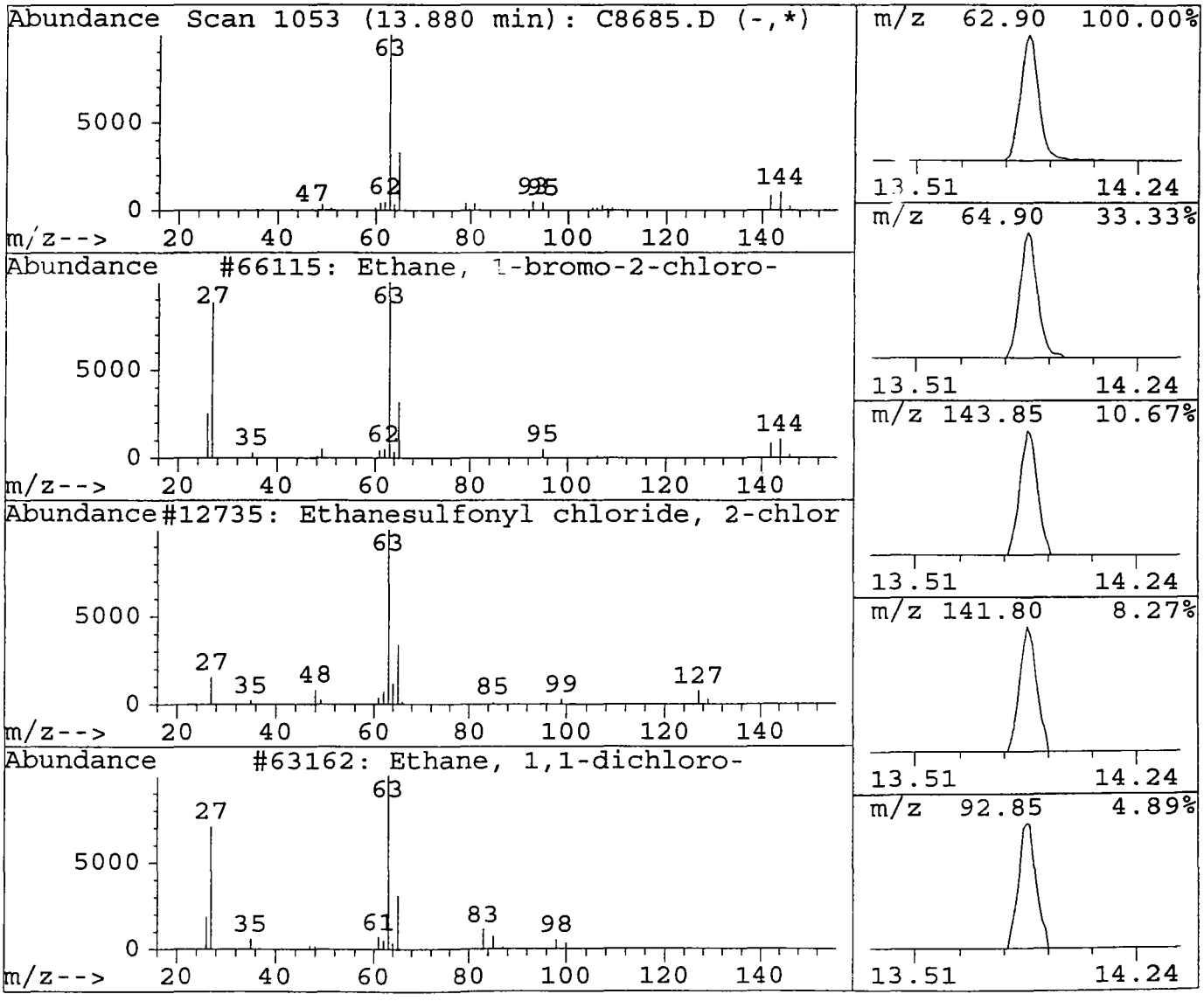
Data File : d:\hpchem\1\data\c8685.d
Acq On : 27 Jun 95 7:05 pm
Sample : 9526605
Misc : 25 ML

Vial: 12
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.
13.88	3.69 ug/L	590872	Fluorobenzene	11.90

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethane, 1-bromo-2-chloro-	66115	000107-04-0	91
2	Ethanesulfonyl chloride, 2-chloro-	12735	001622-32-8	9
3	Ethane, 1,1-dichloro-	63162	000075-34-3	9
4	Ethane, 1-chloro-2-nitro-	2186	000625-47-8	40
5	Carbonochloridic acid, ethyl ester	63749	000541-41-3	9



VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 107

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

Project No.: FT. MONMOUTH NJ Bldg#: 2534 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9526609

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8688.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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	1.1	
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	.80	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	7.5	
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

FMETL#

VOLATILE ORGANICS ANALYSIS DATA SHEET

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

Project No.: FT. MONMOUTH NJ Bldg#: 2534 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9526609

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8688.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

1E

FMETL# 109

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Project No. FT. MONMOUTH NJ Bldg#: 2534 NJDEPMW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9526609V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8688.D

Level: (low/med) LOW Date Received: 6/15/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	3	J
2.				
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Quantitation Report

110

Data File : d:\hpchem\1\data\c8688.d
Acq On : 27 Jun 95 8:47 pm
Sample : 9526609
Misc : 25 ML
Quant Time: Jun 28 10:13 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.90	96	383064	5.00	ug/L		0.00
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.14	95	189293	5.29	ug/L		105.82%
57) 1,2-Dichlorobenzene-d4	21.93	152	101740	4.83	ug/L		96.64%
Target Compounds							Qvalue
3) Chloromethane	3.70	50	13563	1.07	ug/L		96
9) Methylene chloride	7.46	84	16990	0.81	ug/L	#	81
22) 1,2-Dichloroethane	11.44	62	117538	7.47	ug/L		97

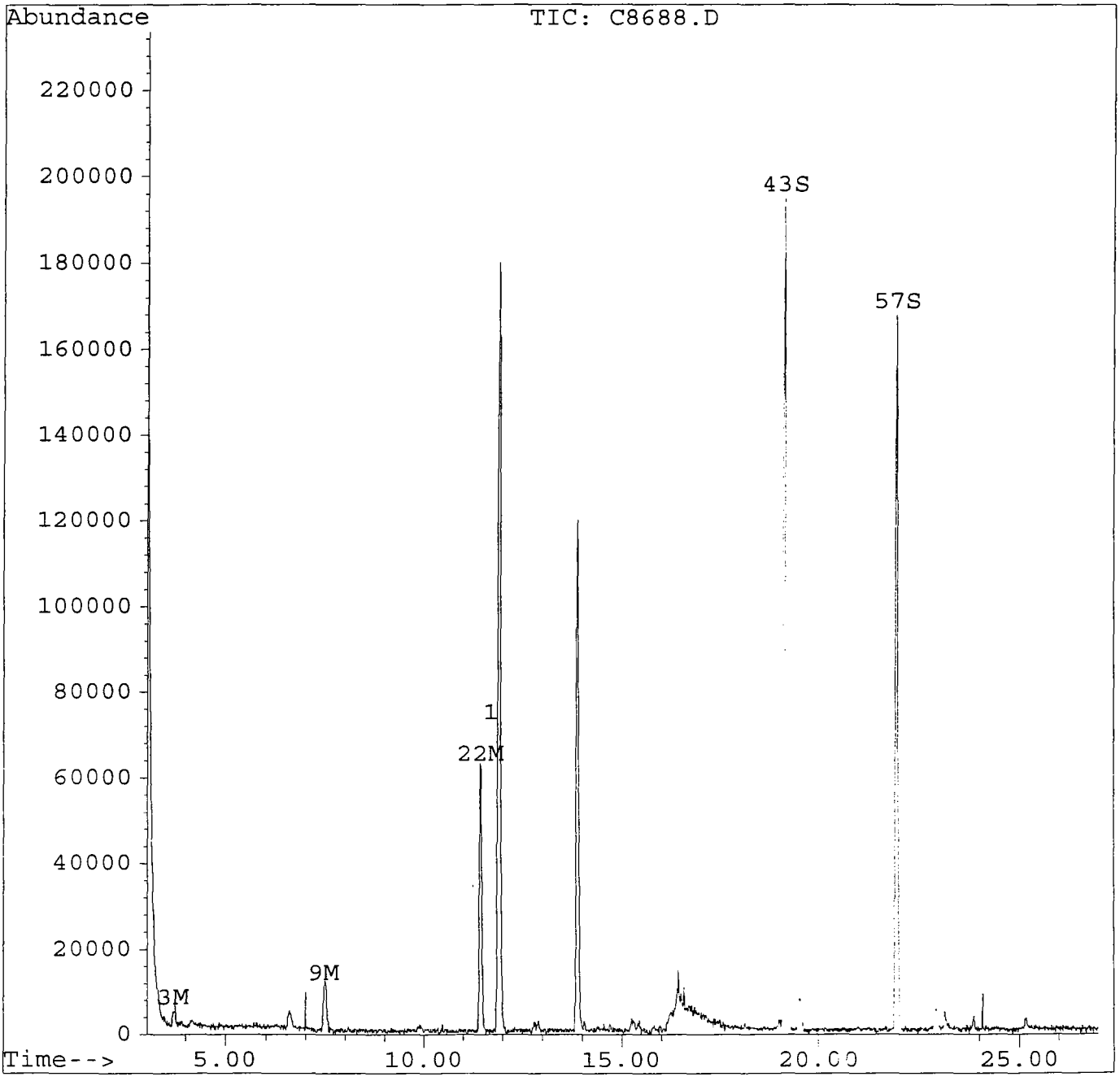
(#) = qualifier out of range (m) = manual integration

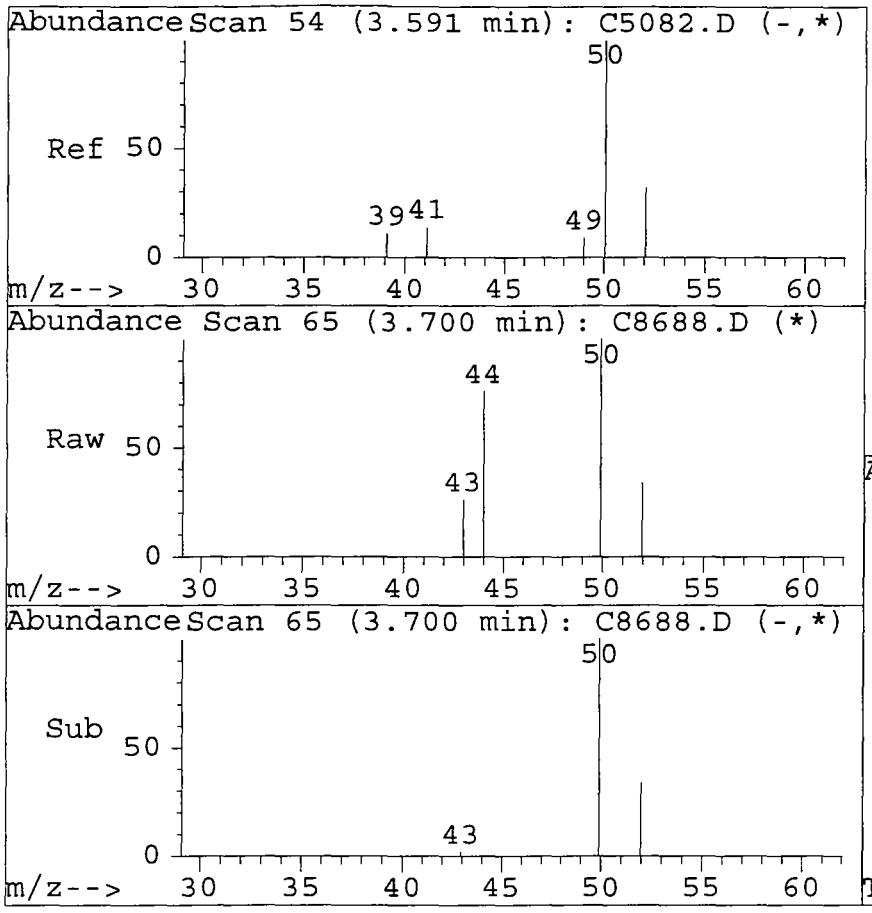
Quantitation Report

Data File : d:\hpchem\1\data\c8688.d
Acq On : 27 Jun 95 8:47 pm
Sample : 9526609
Misc : 25 ML
Quant Time: Jun 28 10:13 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

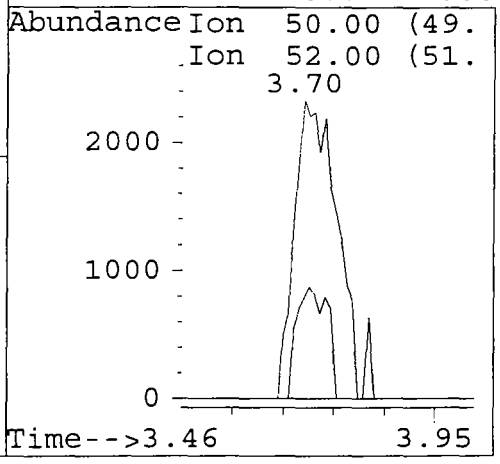


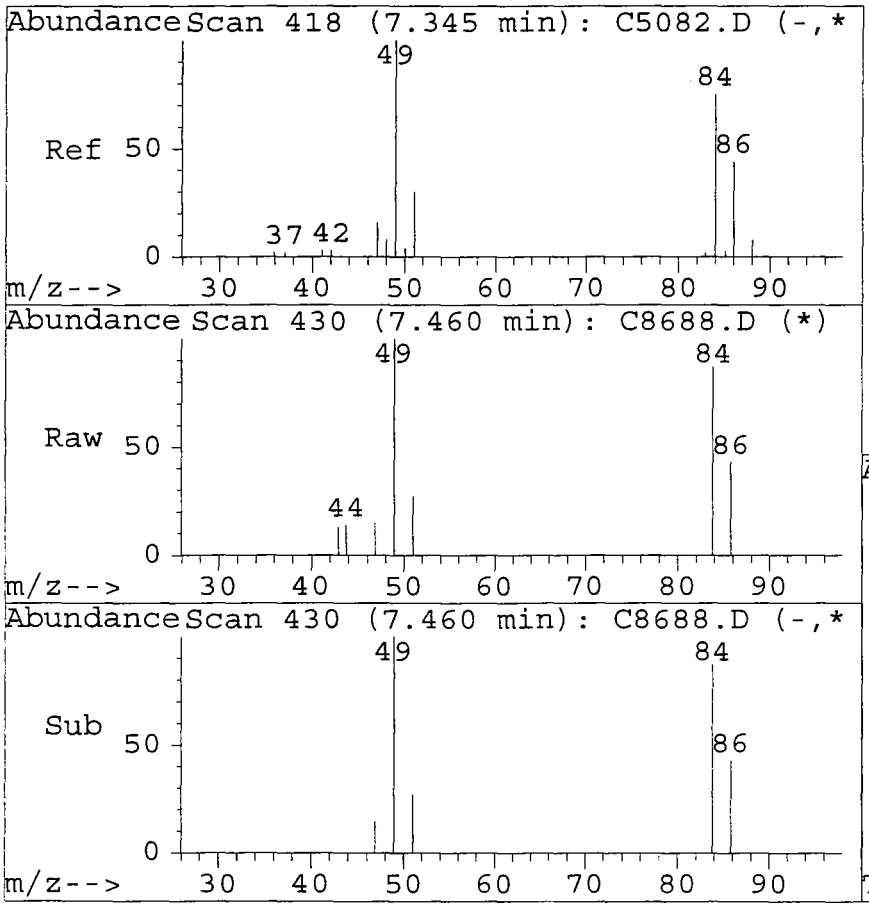


#3
Chloromethane
Concen: 1.07 ug/L
RT: 3.70 min Scan# 65
Delta R.T. -0.02 min
Lab File: c8688.d
Acq: 27 Jun 95 8:47 pm

Tgt Ion:50 Resp: 13563

Ion	Ratio	Lower	Upper
50	100		
52	34.1	12.0	52.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

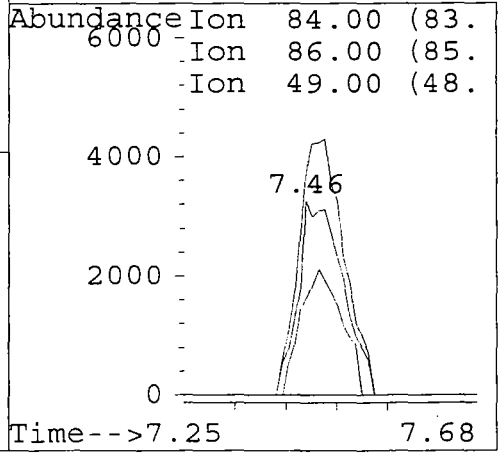


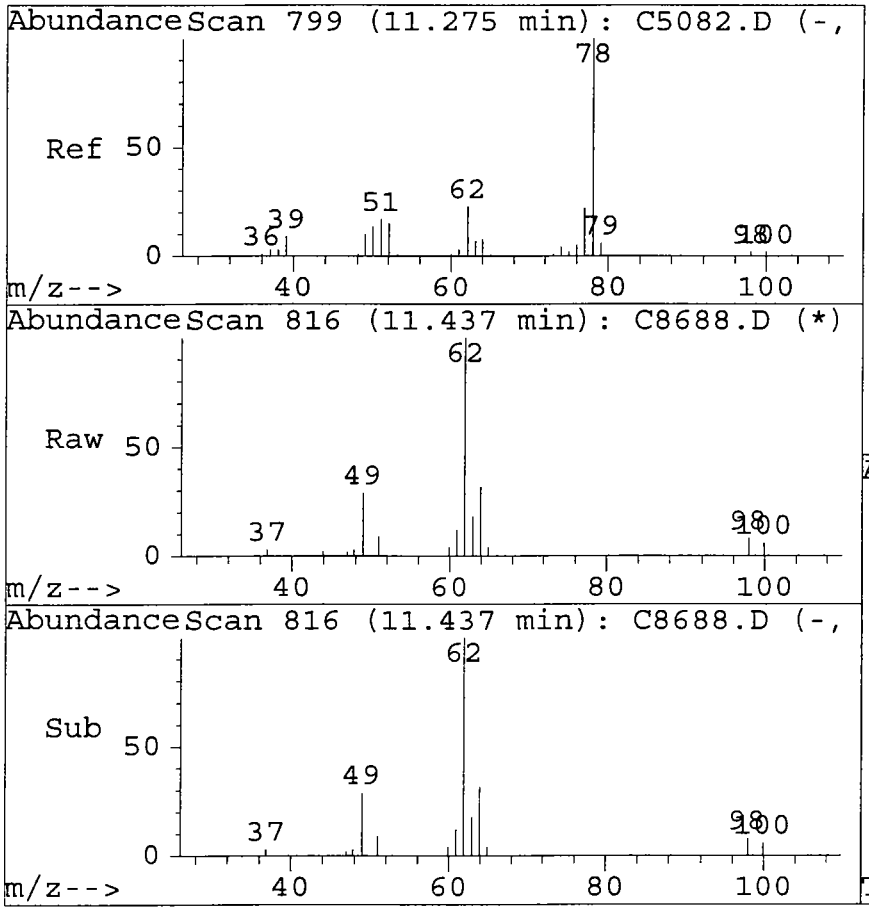


#9
Methylene chloride
Concen: 0.81 ug/L
RT: 7.46 min Scan# 430
Delta R.T. -0.01 min
Lab File: c8688.d
Acq: 27 Jun 95 8:47 pm

Tgt Ion:84 Resp: 16990

Ion	Ratio	Lower	Upper
84	100		
86	49.9	45.6	85.6
49	115.6	117.2	157.2#
0	0.0	0.0	0.0





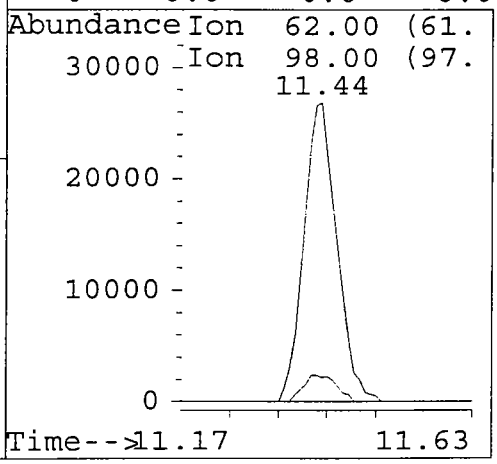
#22
1,2-Dichloroethane

113

Concen: 7.47 ug/L
RT: 11.44 min Scan# 816
Delta R.T. 0.00 min
Lab File: c8688.d
Acq: 27 Jun 95 8:47 pm

Tgt Ion:62 Resp: 117538

Ion	Ratio	Lower	Upper
62	100		
98	8.2	0.0	29.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

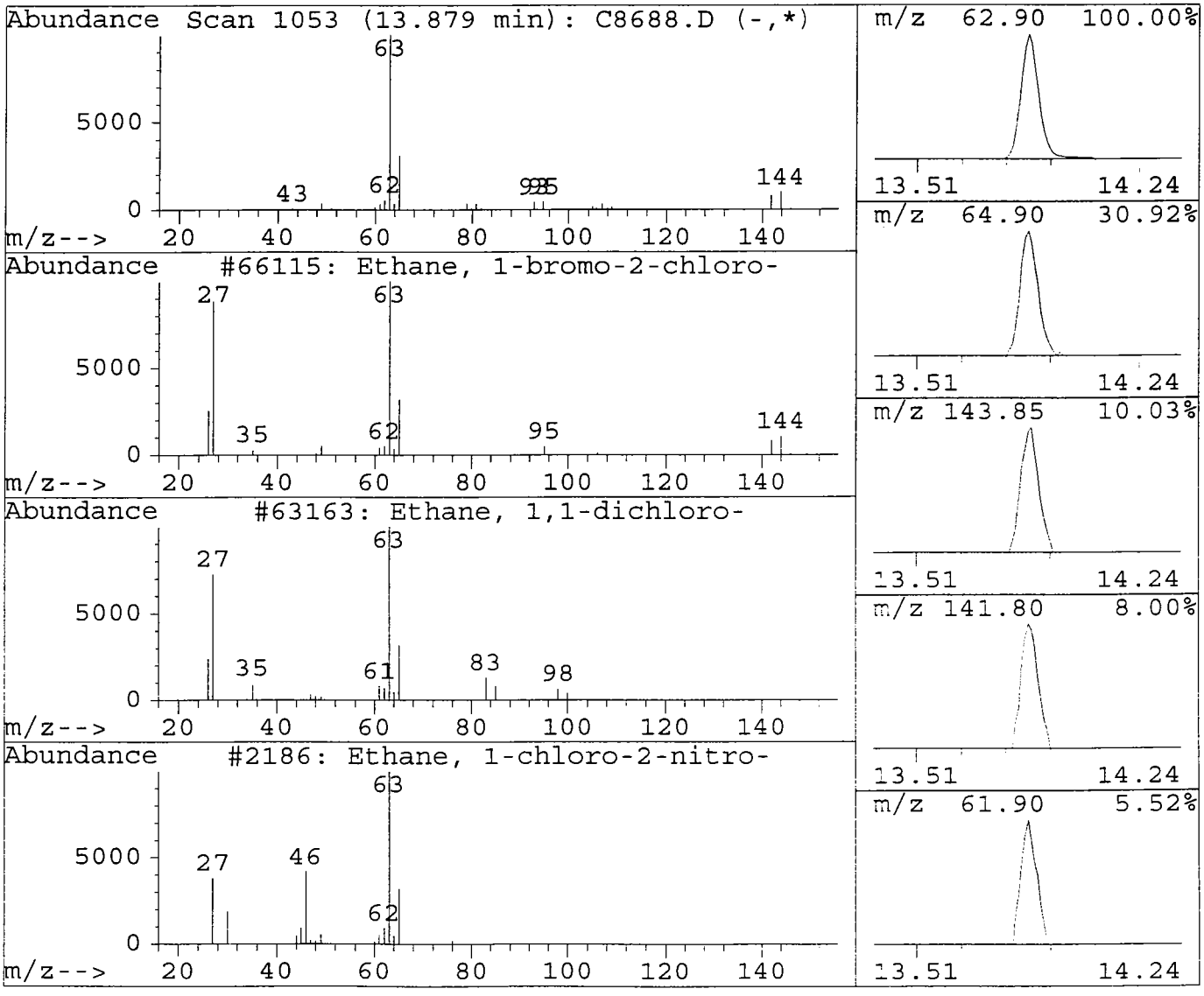
Data File : d:\hpchem\1\data\c8688.d
Acq On : 27 Jun 95 8:47 pm
Sample : 9526609
Misc : 25 ML

Vial: 15
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.
13.88	2.94 ug/L	476041	Fluorobenzene	11.90

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethane, 1-bromo-2-chloro-	66115	000107-04-0	91
2	Ethane, 1,1-dichloro-	63163	000075-34-3	9
3	Ethane, 1-chloro-2-nitro-	2186	000625-47-8	4
4	Carbonochloridic acid, ethyl ester	63749	000541-41-3	4
5	Propanoic acid, 2-chloro-, methyl e	3872	073246-45-4	2



2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	110	109			
02	VBLK01	111	104			
03	9526461V	109	104			
04	9526606V	111	105			
05	9526607V	107	102			
06	9526607MS	110	102			
07	9526607MSD	108	102			
08	9526435V	111	106			
09	1PPB QCS	103	97			
10						
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QC LIMITS

SMC1 (BFB) = 4-Bromofluorobenzene (80-120)

SMC2 (DCB) = 1,2-Dichlorobenzene-d4 (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	111	106			
02	VBLK01	105	100			
03	9526604V	106	100			
04	9526605V	109	104			
05	9526797V	106	101			
06	9526798V	104	100			
07	9526609V	106	97			
08	9526460V	109	100			
09	9526799V	104	97			
10	9526800V	106	101			
11	9526801V	115	102			
12	9526608V	111	104			
13	1PPB QCS	110	100			
14						
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QC LIMITS

SMC1 (BFB) = 4-Bromofluorobenzene (80-120)

SMC2 (DCB) = 1,2-Dichlorobenzene-d4 (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: C8660.D Lab Sample ID: M. BLANK

Date Analyzed: 6/26/95 Time Analyzed: 1947

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

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8659.D	1912
02	9526461V	9526461V	C8663.D	2131
03	9526606V	9526606V	C8664.D	2206
04	9526607V	9526607V	C8665.D	2240
05	9526607MS	26607MS	C8666.D	2315
06	9526607MSD	26607MSD	C8667.D	2349
07	9526435V	9526435V	C8670.D	0133
08	1PPB QCS	1PPB QCS	C8671.D	0208
09				
10				
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COMMENTS:

1A

FMETL#

VOLATILE ORGANICS ANALYSIS DATA SHEET

118

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: C8660.D

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

% Moisture: not dec. NA Date Analyzed: 6/26/95

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	2.0	
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

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

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: C8660.D

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

% Moisture: not dec. NA Date Analyzed: 6/26/95

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

1E

FMETL#

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

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

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8660.D

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

% Moisture: not dec. NA Date Analyzed: 6/26/95

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.				
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Quantitation Report

Data File : d:\hpchem\1\data\c8660.d
Acq On : 26 Jun 95 7:47 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 27 10:42 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.91	96	356851	5.00	ug/L	0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.15	95	184279	5.53	ug/L	110.58%
57) 1,2-Dichlorobenzene-d4	21.93	152	101848	5.19	ug/L	103.85%
Target Compounds						Qvalue
9) Methylene chloride	7.49	84	39510	2.03	ug/L	90

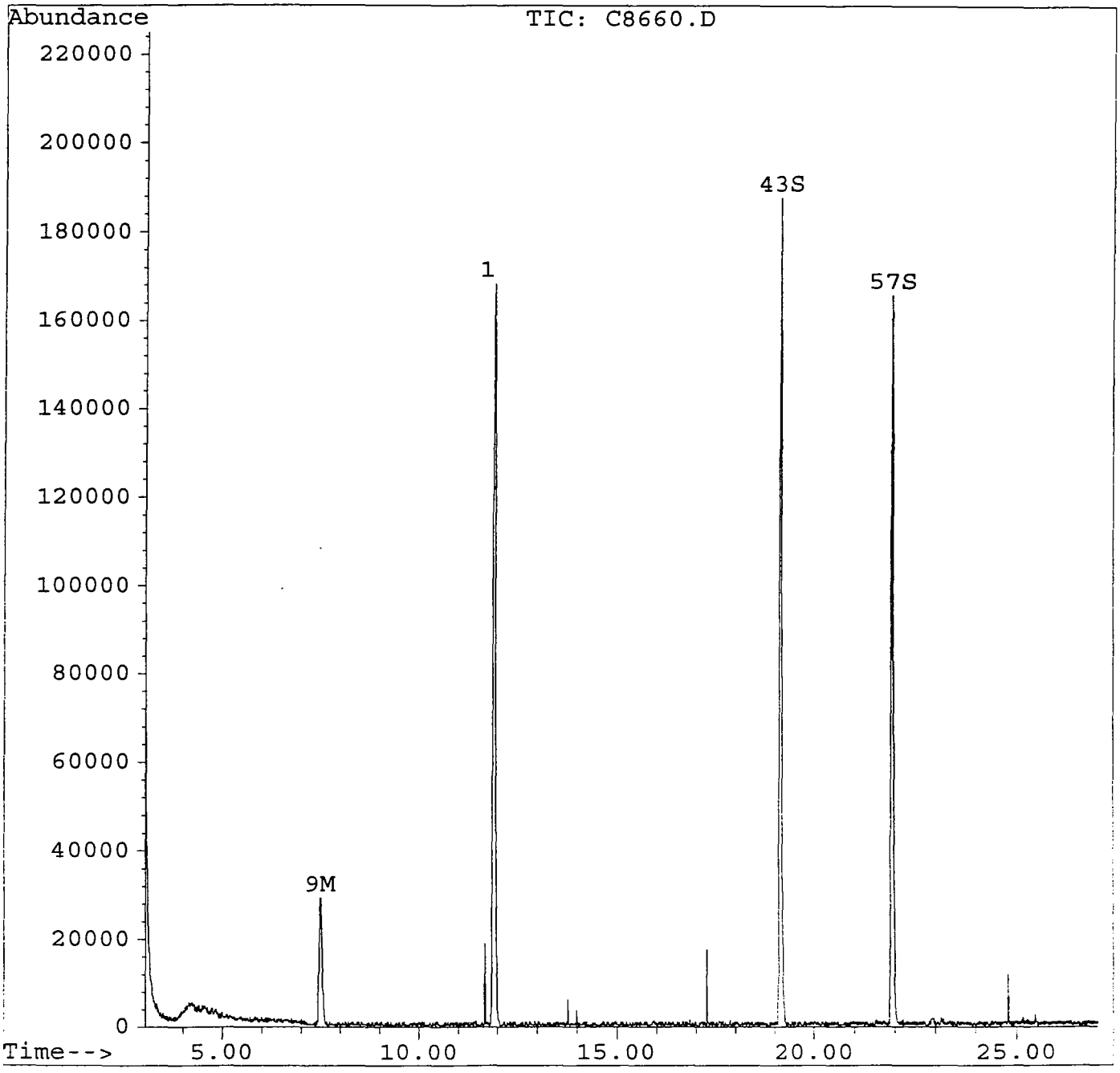
(#) = qualifier out of range (m) = manual integration

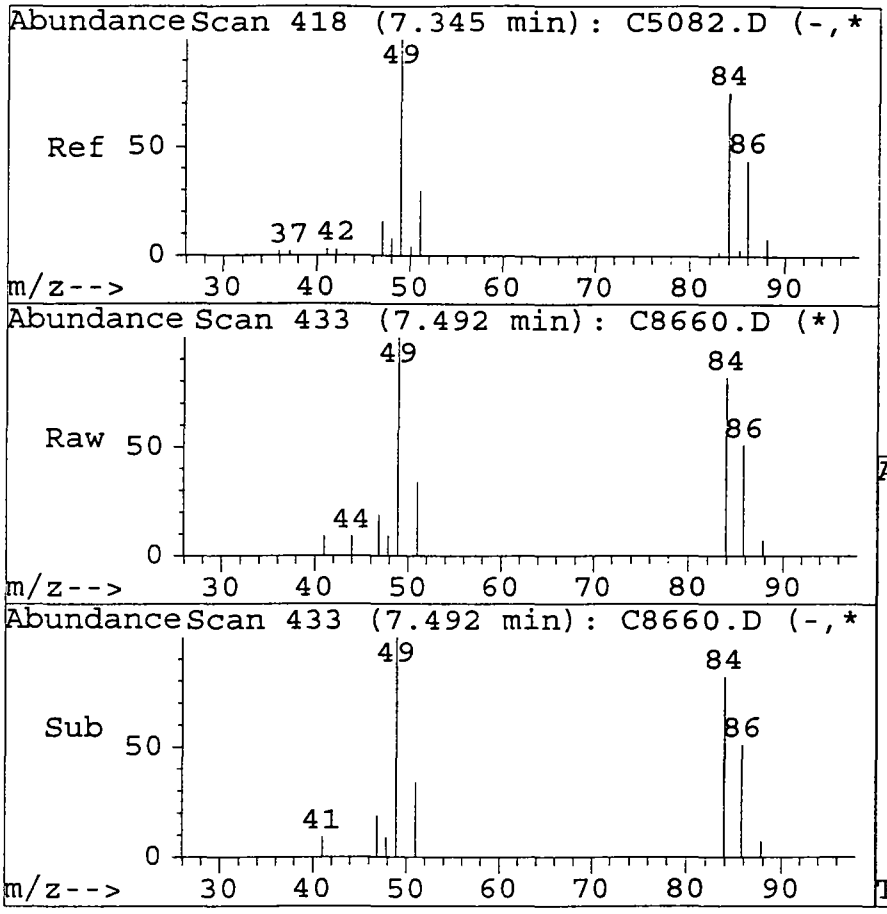
Quantitation Report

Data File : d:\hpchem\1\data\c8660.d
Acq On : 26 Jun 95 7:47 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 27 10:42 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

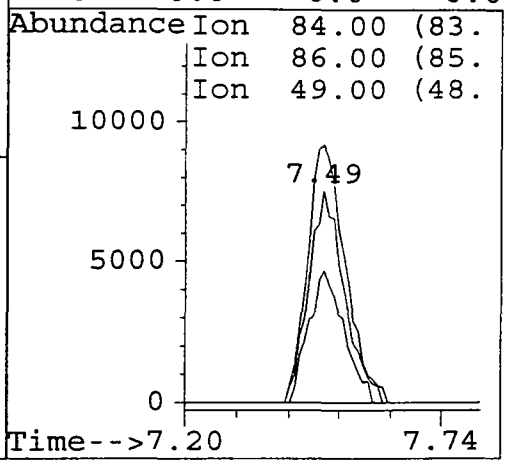




#9
Methylene chloride
Concen: 2.03 ug/L
RT: 7.49 min Scan# 433
Delta R.T. 0.02 min
Lab File: c8660.d
Acq: 26 Jun 95 7:47 pm

Tgt Ion:84 Resp: 39510

Ion	Ratio	Lower	Upper
84	100		
86	62.1	45.6	85.6
49	122.0	117.2	157.2
0	0.0	0.0	0.0



Library Search Compound Report

Data File : d:\hpchem\1\data\c8660.d
Acq On : 26 Jun 95 7:47 pm
Sample : METHOD BLANK
Misc : 25 ML

Vial: 10
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

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

125

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

Project No.: FT. MONMOUTH NJ Site: _____ Location: _____ Group: _____

Lab File ID: C8683.D Lab Sample ID: M. BLANK

Date Analyzed: 6/27/95 Time Analyzed: 1757

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

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8682.D	1723
02	9526604V	9526604V	C8684.D	1831
03	9526605V	9526605V	C8685.D	1905
04	9526797V	9526797V	C8686.D	1939
05	9526798V	9526798V	C8687.D	2013
06	9526609V	9526609V	C8688.D	2047
07	9526460V	9526460V	C8689.D	2121
08	9526799V	9526799V	C8690.D	2155
09	9526800V	9526800V	C8691.D	2230
10	9526801V	9526801V	C8692.D	2304
11	9526608V	9526608V	C8693.D	2338
12	1PPB QCS	1PPB QCS	C8694.D	0012
13				
14				
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25				
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27				
28				
29				
30				

COMMENTS:

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

126

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: C8683.D

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

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

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

CAS No.	Compound		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	2.1	
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

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: C8683.D

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

% Moisture: not dec. NA Date Analyzed: 6/27/95

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

1E

FMETL#

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

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

Project No. FT. MONMOUTH NJ Bldg#: _____ NJDEPMW#: _____

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8683.D

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

% Moisture: not dec. NA Date Analyzed: 6/27/95

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.				
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19.				
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26.				
27.				
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29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8683.d
Acq On : 27 Jun 95 5:57 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 28 9:48 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.90	96	390703	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.14	95	192203	5.27	ug/L	105.34%
57) 1,2-Dichlorobenzene-d4	21.93	152	107530	5.01	ug/L	100.14%
Target Compounds						Qvalue
9) Methylene chloride	7.48	84	43951	2.07	ug/L	88

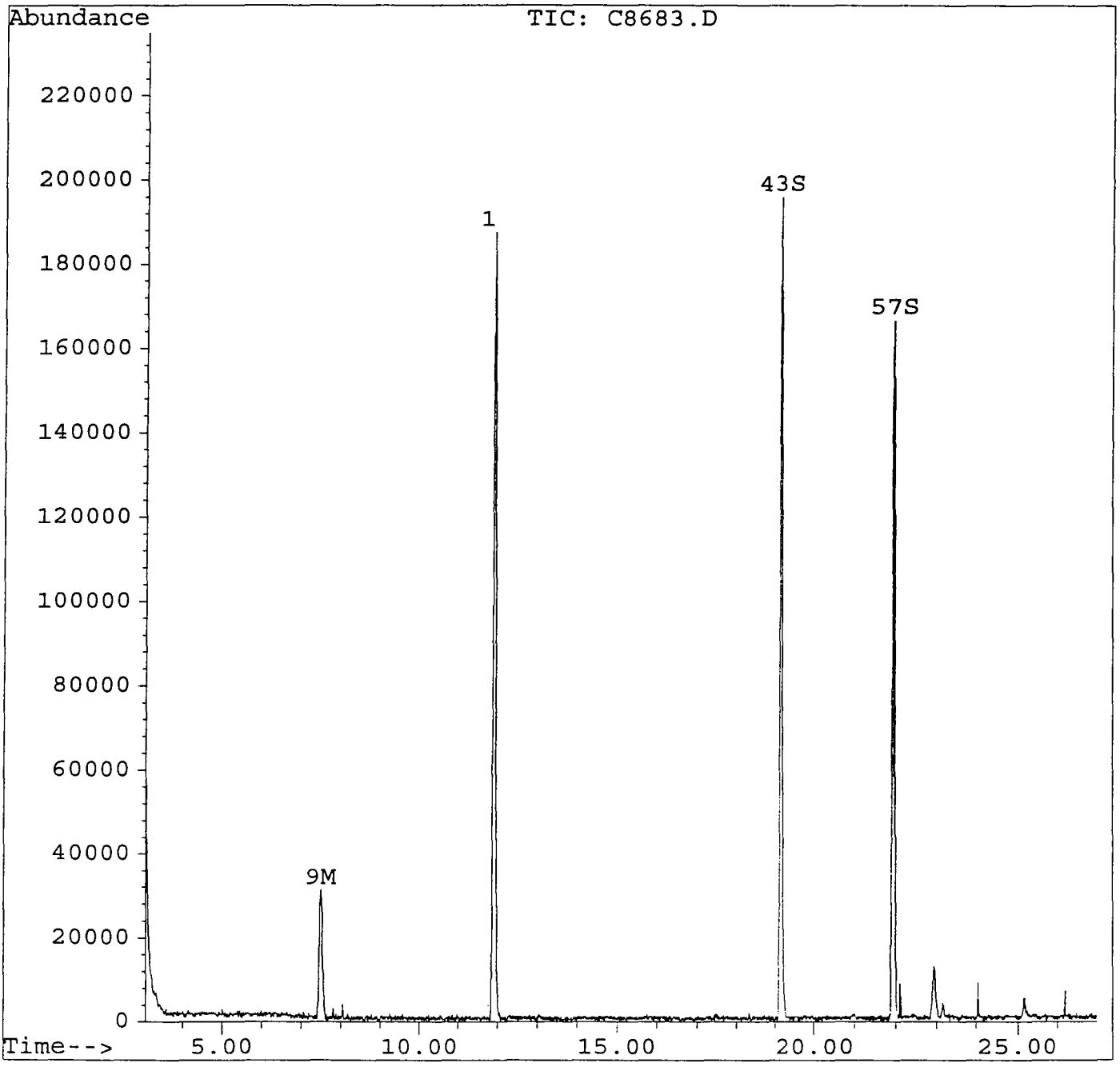
(#) = qualifier out of range (m) = manual integration

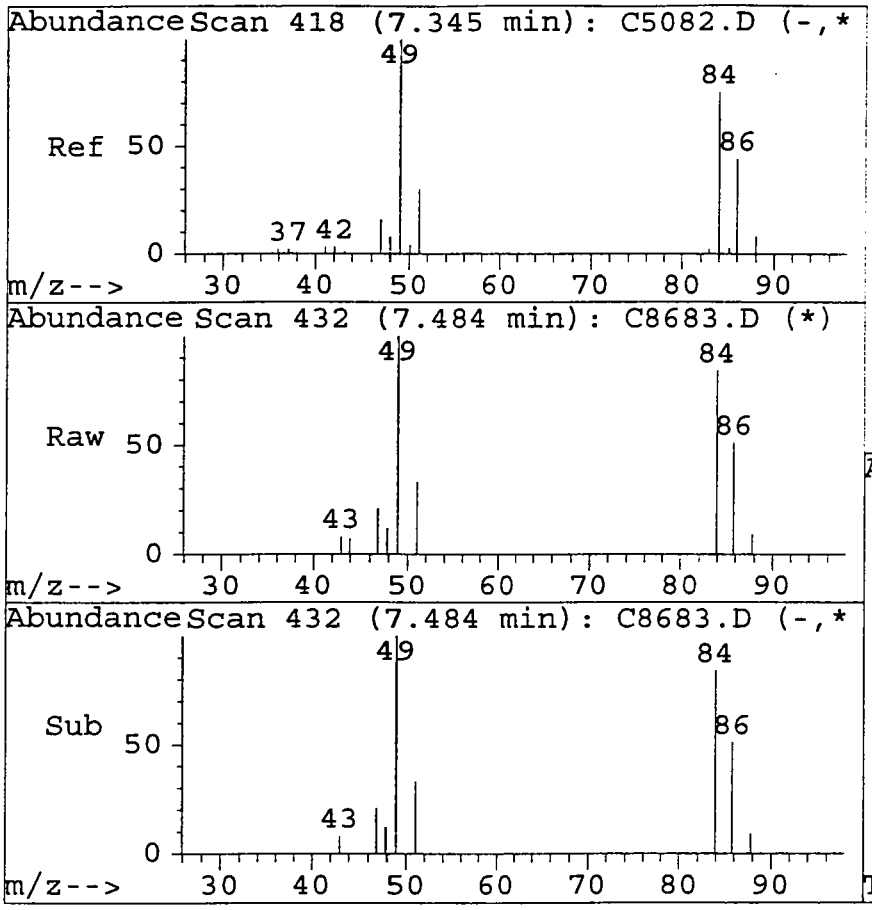
Quantitation Report

Data File : d:\hpchem\1\data\c8683.d
Acq On : 27 Jun 95 5:57 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 28 9:48 1995

Vial: 10 130
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

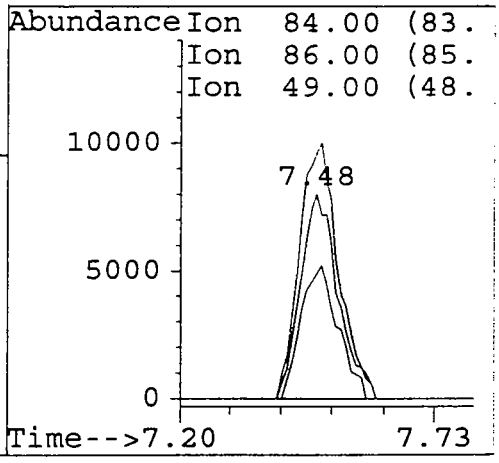




#9
Methylene chloride
Concen: 2.07 ug/L
RT: 7.48 min Scan# 432
Delta R.T. 0.01 min
Lab File: c8683.d
Acq: 27 Jun 95 5:57 pm

Tgt Ion:84 Resp: 43951

Ion	Ratio	Lower	Upper
84	100		
86	60.9	45.6	85.6
49	119.6	117.2	157.2
0	0.0	0.0	0.0



Library Search Compound Report

Data File : d:\hpchem\1\data\c8683.d
Acq On : 27 Jun 95 5:57 pm
Sample : METHOD BLANK
Misc : 25 ML

Vial: 10
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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Jun 27 10:34:27 1995
Response via : Initial Calibration

n-Spiked Sample: C8665.D

	Spike Sample	Spike Duplicate Sample
File ID :	C8666.D	C8667.D
Sample :	9526607 MS	9526607 MSD
Acq Time:	26 Jun 95 11:15 pm	26 Jun 95 11:49 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodifluorometh	0.0	10	11	11	107	108	0	25	80-120
Chloromethane	0.0	10	12	12	119	122#	2	25	80-120
Vinyl chloride	0.0	10	12	11	115	114	1	25	80-120
Bromomethane	0.0	10	12	12	119	120	1	25	80-120
Chloroethane	0.0	10	12	11	117	110	7	25	80-120
Trichlorofluorometha	0.0	10	11	11	110	112	2	25	80-120
1,1-Dichloroethene	0.0	10	11	11	111	111	1	25	80-120
Methylene chloride	1.4	10	10	9	81	76#	7	25	80-120
trans-1,2-Dichloroet	0.0	10	11	11	110	109	1	25	80-120
1,1-Dichloroethane	0.0	10	11	11	109	109	1	25	80-120
2,2-Dichloropropane	0.0	10	9	9	94	93	1	25	80-120
cis-1,2-Dichloroethe	0.0	10	11	11	105	107	2	25	80-120
Bromochloromethane	0.0	10	10	10	101	102	1	25	80-120
Chloroform	0.0	10	11	11	105	104	1	25	80-120
1,1,1-Trichloroethan	0.0	10	11	11	109	109	0	25	80-120
Carbon tetrachloride	0.0	10	11	11	106	108	2	25	80-120
1,1-Dichloropropene	0.0	10	11	11	106	107	2	25	80-120
Benzene	0.0	10	11	11	106	107	1	25	80-120
1,2-Dichloroethane	6.3	10	17	18	103	121#	17	25	80-120
Trichloroethene	1.2	10	12	12	103	103	0	25	80-120
1,2-Dichloropropane	0.0	10	11	11	106	106	0	25	80-120
Dibromomethane	0.0	10	10	10	96	98	2	25	80-120
Bromodichloromethane	0.0	10	10	10	97	100	3	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	10	96	98	2	25	80-120
Toluene	0.0	10	11	11	105	105	0	25	80-120
trans-1,3-Dichloropr	0.0	10	9	9	92	94	3	25	80-120
1,1,2-Trichloroethan	0.0	10	10	10	98	97	1	25	80-120
Tetrachloroethene	1.9	10	12	13	106	108	2	25	80-120
1,3-Dichloropropane	0.0	10	10	10	97	98	1	25	80-120
Dibromochloromethane	0.0	10	9	10	95	96	2	25	80-120
1,2-Dibromomethane	0.0	10	9	9	95	94	1	25	80-120
Chlorobenzene	0.0	10	10	11	104	106	2	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	10	10	98	100	2	25	80-120
Ethylbenzene	0.0	10	10	10	102	103	1	25	80-120
Xylene (para & meta)	0.0	20	20	20	100	100	0	25	80-120
Xylene (Ortho)	0.0	10	10	10	99	100	1	25	80-120
Styrene	0.0	10	8	9	85	89	5	25	80-120
Bromoform	0.0	10	9	9	88	91	4	25	80-120
Isopropylbenzene	0.0	10	10	10	102	102	1	25	80-120
Bromobenzene	0.0	10	10	10	99	100	2	25	80-120
1,1,2,2-Tetrachloroe	0.0	10	10	10	97	97	1	25	80-120
1,2,3-Trichloropropa	0.0	10	9	10	95	104	9	25	80-120
n-Propylbenzene	0.0	10	10	10	101	101	1	25	80-120

2-Chlorotoluene	0.0	10	10	10	97	100	4	25	80-120
4-Chlorotoluene	0.0	10	10	10	99	100	1	25	80-120
1,3,5-Trimethylbenze	0.0	10	9	9	93	94	1	25	80-120
tert-Butylbenzene	0.0	10	10	10	102	101	0	25	80-120
1,2,4-Trimethylbenze	0.0	10	9	9	90	92	2	25	80-120
sec-Butylbenzene	0.0	10	10	10	101	102	1	25	80-120
1,3-Dichlorobenzene	0.0	10	10	10	99	99	0	25	80-120
p-Isopropyltoluene	0.0	10	10	10	97	98	1	25	80-120
1,4-Dichlorobenzene	0.0	10	10	10	99	100	1	25	80-120
1,2-Dichlorobenzene	0.0	10	10	10	99	100	1	25	80-120
n-Butylbenzene	0.0	10	10	10	100	102	2	25	80-120
1,2-Dibromo-3-chloro	0.0	10	9	9	87	89	2	25	80-120
1,2,4-Trichlorobenze	0.0	10	9	10	92	97	5	25	80-120
Hexachlorobutadiene	0.0	10	10	10	99	101	2	25	80-120
Naphthalene	0.0	10	9	10	90	96	6	25	80-120
1,2,3-Trichlorobenze	0.0	10	9	10	91	97	6	25	80-120

VOA524.M Wed Jun 28 15:56:41 1995 VOA

Quantitation Report

Data File : d:\hpchem\1\data\c8666.d
Acq On : 26 Jun 95 11:15 pm
Sample : 9526607 MS
Misc : 25 ML
Quant Time: Jun 27 10:52 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.92	96	366716	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.15	95	187984	5.49	ug/L		109.77%
57) 1,2-Dichlorobenzene-d4	21.93	152	102813	5.10	ug/L		102.01%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	294550	10.79	ug/L		100
3) Chloromethane	3.71	50	145303	11.92	ug/L		98
4) Vinyl chloride	3.94	62	179373	11.53	ug/L		94
5) Bromomethane	4.62	94	147746	11.86	ug/L	m	98
6) Chloroethane	4.85	64	102491	11.74	ug/L	m	98
7) Trichlorofluoromethane	5.44	101	478947	11.00	ug/L		99
8) 1,1-Dichloroethene	6.52	96	206498	11.06	ug/L		93
9) Methylene chloride	7.50	84	190453	9.53	ug/L		99
10) trans-1,2-Dichloroethene	8.06	96	219023	11.02	ug/L		97
12) 1,1-Dichloroethane	8.84	63	380990	10.94	ug/L		100
13) 2,2-Dichloropropane	9.91	77	339836	9.38	ug/L		95
14) cis-1,2-Dichloroethene	9.91	96	208774	10.74	ug/L		99
16) Bromochloromethane	10.32	128	78104	10.10	ug/L		95
17) Chloroform	10.47	83	401312	10.70	ug/L		98
18) 1,1,1-Trichloroethane	10.80	97	456313	10.90	ug/L		99
19) Carbon tetrachloride	11.11	117	419622	10.58	ug/L		99
20) 1,1-Dichloropropene	11.09	75	349543	10.56	ug/L		96
21) Benzene	11.44	78	631143	10.62	ug/L		100
22) 1,2-Dichloroethane	11.44	62	249251	16.54	ug/L		97
23) Trichloroethene	12.55	95	330824	11.57	ug/L		98
24) 1,2-Dichloropropane	12.90	63	201128	10.64	ug/L		98
25) Dibromomethane	13.10	93	93133	9.62	ug/L		95
26) Bromodichloromethane	13.37	83	295790	9.66	ug/L		98
27) cis-1,3-Dichloropropene	14.13	75	237859	9.58	ug/L		99
28) Toluene	14.71	92	465040	10.53	ug/L		96
29) trans-1,3-Dichloropropene	15.05	75	163932	9.16	ug/L		94
30) 1,1,2-Trichloroethane	15.37	83	84598	9.79	ug/L		96
31) Tetrachloroethene	15.68	166	381423	12.49	ug/L		99
32) 1,3-Dichloropropane	15.66	76	157214	9.67	ug/L		100
33) Dibromochloromethane	16.06	129	178848	9.46	ug/L		98
34) 1,2-Dibromomethane	16.25	107	123061	9.50	ug/L		98
35) Chlorobenzene	17.13	112	519639	10.37	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.26	131	214777	9.79	ug/L		98
37) Ethylbenzene	17.32	91	971803	10.22	ug/L		99
38) Xylene (para & meta)	17.53	106	693500	20.07	ug/L		100
39) Xylene (Ortho)	18.23	106	313986	9.95	ug/L		98
40) Styrene	18.24	104	414352	8.46	ug/L		95

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

Quantitation Report

Data File : d:\hpchem\1\data\c8666.d
Acq On : 26 Jun 95 11:15 pm
Sample : 9526607 MS
Misc : 25 ML
Quant Time: Jun 27 10:52 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	88349	8.80	ug/L		95
42)	Isopropylbenzene	18.88	105	1005993	10.16	ug/L		100
44)	Bromobenzene	19.43	156	206816	9.87	ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.37	83	104602	9.67	ug/L		97
46)	1,2,3-Trichloropropane	19.46	75	104571	9.48	ug/L	#	43
47)	n-Propylbenzene	19.62	91	1294469	10.06	ug/L		100
48)	2-Chlorotoluene	19.78	91	740653	9.66	ug/L		99
49)	4-Chlorotoluene	19.97	91	851990	9.90	ug/L		99
50)	1,3,5-Trimethylbenzene	19.94	105	776108	9.29	ug/L		96
51)	tert-Butylbenzene	20.54	119	926333	10.16	ug/L		99
52)	1,2,4-Trimethylbenzene	20.62	105	723849	9.02	ug/L		99
53)	sec-Butylbenzene	20.93	105	1279023	10.06	ug/L		99
54)	1,3-Dichlorobenzene	21.14	146	417162	9.90	ug/L		97
55)	4-Isopropyltoluene	21.20	119	982866	9.72	ug/L		99
56)	1,4-Dichlorobenzene	21.29	146	416822	9.90	ug/L		99
58)	1,2-Dichlorobenzene	21.97	146	319868	9.89	ug/L		98
59)	n-Butylbenzene	21.95	91	1022461	10.01	ug/L		100
60)	1,2-Dibromo-3-chloropropan	23.37	75	21873	8.68	ug/L		95
61)	1,2,4-Trichlorobenzene	24.94	180	236769	9.23	ug/L		100
62)	Hexachlorobutadiene	25.28	225	273187	9.91	ug/L		99
63)	Naphthalene	25.38	128	212146	9.02	ug/L		100
64)	1,2,3-Trichlorobenzene	25.87	180	173013	9.14	ug/L		90
65)	Methyl-tert butyl ether	8.09	73	225139	9.71	ug/L		99
66)	tert-Butyl Alcohol	7.79	59	5737	17.72	ug/L		100

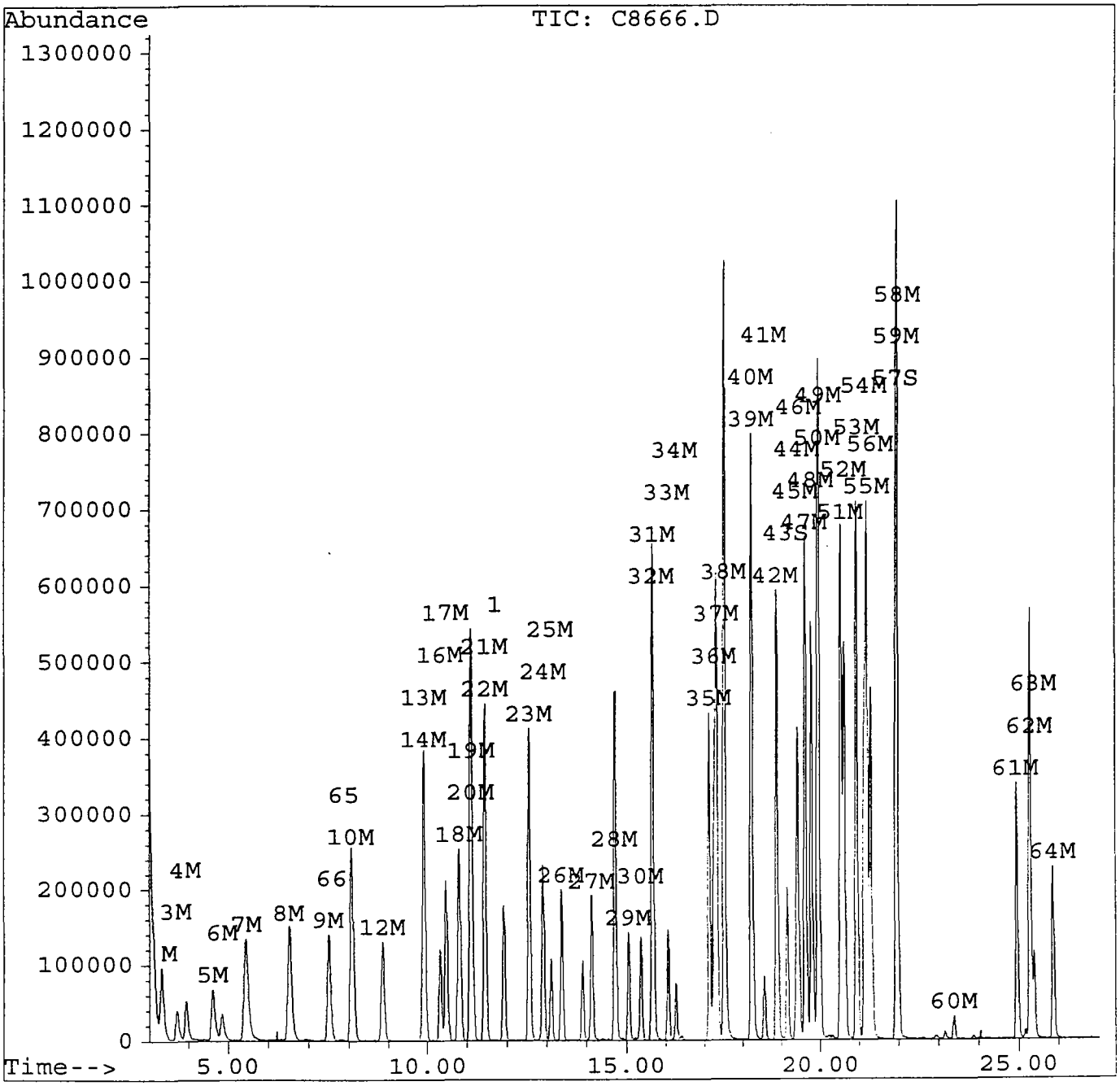
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8666.d
Acq On : 26 Jun 95 11:15 pm
Sample : 9526607 MS
Misc : 25 ML
Quant Time: Jun 27 10:52 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8667.d
Acq On : 26 Jun 95 11:49 pm
Sample : 9526607 MSD
Misc : 25 ML
Quant Time: Jun 27 10:54 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	11.91	96	362102	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.15	95	183144	5.42	ug/L		108.30%
57) 1,2-Dichlorobenzene-d4	21.94	152	101122	5.08	ug/L		101.61%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.34	85	292002	10.84	ug/L		97
3) Chloromethane	3.72	50	147044	12.22	ug/L		98
4) Vinyl chloride	3.95	62	174863	11.38	ug/L		100
5) Bromomethane	4.62	94	147013	11.95	ug/L	m	99
6) Chloroethane	4.84	64	94432	10.96	ug/L	m	93
7) Trichlorofluoromethane	5.44	101	482448	11.22	ug/L		99
8) 1,1-Dichloroethene	6.52	96	205227	11.13	ug/L		95
9) Methylene chloride	7.49	84	177659	9.01	ug/L		96
10) trans-1,2-Dichloroethene	8.06	96	214273	10.92	ug/L		92
12) 1,1-Dichloroethane	8.84	63	373903	10.88	ug/L		97
13) 2,2-Dichloropropane	9.90	77	330931	9.25	ug/L		97
14) cis-1,2-Dichloroethene	9.91	96	210192	10.95	ug/L		98
16) Bromochloromethane	10.32	128	78041	10.22	ug/L		93
17) Chloroform	10.48	83	394165	10.64	ug/L		95
18) 1,1,1-Trichloroethane	10.81	97	450949	10.91	ug/L		98
19) Carbon tetrachloride	11.11	117	424129	10.83	ug/L		100
20) 1,1-Dichloropropene	11.10	75	350365	10.72	ug/L		98
21) Benzene	11.44	78	629132	10.72	ug/L		100
22) 1,2-Dichloroethane	11.44	62	274073	18.42	ug/L		99
23) Trichloroethene	12.55	95	326065	11.55	ug/L		98
24) 1,2-Dichloropropane	12.90	63	198544	10.64	ug/L		99
25) Dibromomethane	13.10	93	93447	9.77	ug/L		100
26) Bromodichloromethane	13.37	83	301419	9.96	ug/L		94
27) cis-1,3-Dichloropropene	14.13	75	239425	9.77	ug/L		100
28) Toluene	14.71	92	458808	10.52	ug/L		99
29) trans-1,3-Dichloropropene	15.05	75	166605	9.43	ug/L		98
30) 1,1,2-Trichloroethane	15.36	83	82546	9.67	ug/L		94
31) Tetrachloroethene	15.67	166	382367	12.68	ug/L		96
32) 1,3-Dichloropropane	15.65	76	157077	9.79	ug/L		96
33) Dibromochloromethane	16.05	129	179723	9.63	ug/L		95
34) 1,2-Dibromomethane	16.26	107	120027	9.38	ug/L		96
35) Chlorobenzene	17.12	112	525919	10.63	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17.26	131	216242	9.98	ug/L		97
37) Ethylbenzene	17.32	91	968974	10.32	ug/L		98
38) Xylene (para & meta)	17.53	106	687039	20.14	ug/L		98
39) Xylene (Ortho)	18.23	106	312436	10.02	ug/L		98
40) Styrene	18.25	104	431711	8.93	ug/L		99

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

Quantitation Report

Data File : d:\hpchem\1\data\c8667.d
Acq On : 26 Jun 95 11:49 pm
Sample : 9526607 MSD
Misc : 25 ML
Quant Time: Jun 27 10:54 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	Bromoform	18.56	173	90459	9.13	ug/L		97
42)	Isopropylbenzene	18.89	105	998763	10.21	ug/L		99
44)	Bromobenzene	19.42	156	207305	10.02	ug/L		98
45)	1,1,2,2-Tetrachloroethane	19.37	83	103955	9.73	ug/L		88
46)	1,2,3-Trichloropropane	19.45	75	113427	10.42	ug/L	#	56
47)	n-Propylbenzene	19.62	91	1288217	10.14	ug/L		98
48)	2-Chlorotoluene	19.78	91	758885	10.03	ug/L		98
49)	4-Chlorotoluene	19.97	91	851223	10.01	ug/L		100
50)	1,3,5-Trimethylbenzene	19.94	105	776986	9.41	ug/L		97
51)	tert-Butylbenzene	20.54	119	912485	10.14	ug/L		100
52)	1,2,4-Trimethylbenzene	20.62	105	730553	9.22	ug/L		97
53)	sec-Butylbenzene	20.94	105	1276049	10.17	ug/L		99
54)	1,3-Dichlorobenzene	21.13	146	413323	9.94	ug/L		97
55)	4-Isopropyltoluene	21.19	119	981175	9.82	ug/L		99
56)	1,4-Dichlorobenzene	21.29	146	415632	10.00	ug/L		96
58)	1,2-Dichlorobenzene	21.97	146	320312	10.03	ug/L		99
59)	n-Butylbenzene	21.95	91	1029548	10.21	ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.36	75	22130	8.89	ug/L		89
61)	1,2,4-Trichlorobenzene	24.95	180	245715	9.70	ug/L		96
62)	Hexachlorobutadiene	25.27	225	274520	10.08	ug/L		99
63)	Naphthalene	25.39	128	223347	9.61	ug/L		100
64)	1,2,3-Trichlorobenzene	25.86	180	181557	9.71	ug/L		99
65)	Methyl-tert butyl ether	8.09	73	227593	9.94	ug/L		96
66)	tert-Butyl Alcohol	7.82	59	6093	19.06	ug/L		100

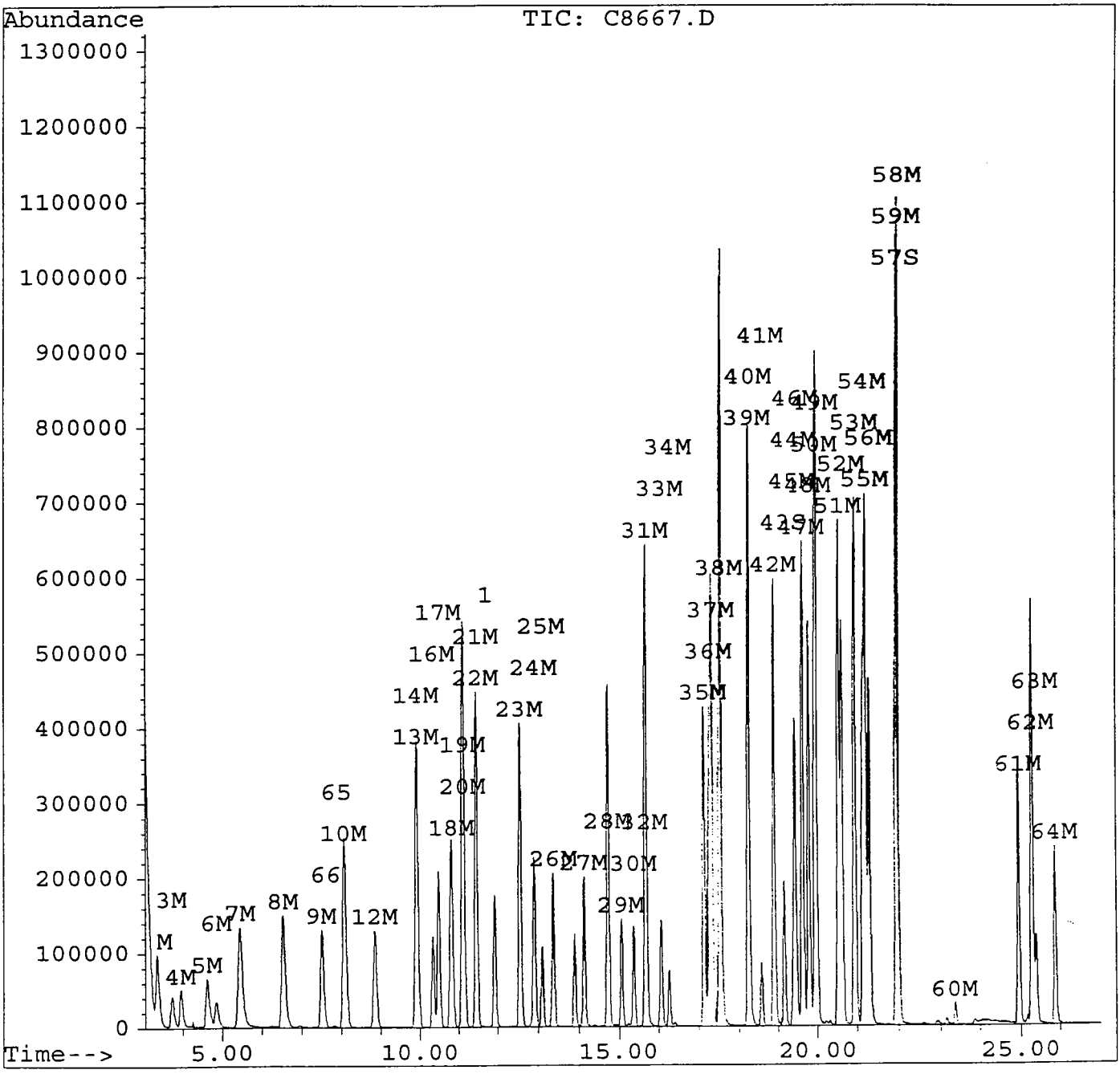
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8667.d
Acq On : 26 Jun 95 11:49 pm
Sample : 9526607 MSD
Misc : 25 ML
Quant Time: Jun 27 10:54 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 Jun 27 10:34:27 1995
Response via : Multiple Level Calibration



EMSL

GC/MS SEMIVOLATILE DATA PACKAGE

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Nam EMSL Analytical Contract: _____

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

Lab File ID: B7750.D DFTPP Injection Date: 05/30/95

Instrument ID: ABNA DFTPP Injection Time: 0914

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	30.0 - 80.0% of mass 198	51.3		
68	Less than 2.0% of mass 69	0.0	0.0	)1
69	Mass 69 relative abundance	61.1		
70	Less than 2.0% of mass 69	0.3	0.6	)1
127	25.0 - 75.0% of mass 198	44.4		
197	Less than 1.0% of mass 198	0.0		
198	Base Peak, 100% relative abundance	100.0		
199	5.0 to 9.0% of mass 198	7.5		
275	10.0 - 30.0% of mass 198	23.1		
365	Greater than 0.75% of mass 198	2.8		
441	Present, but less than mass 443	9.3		
442	40.0 - 110.0% of mass 198	64.3		
443	15.0 - 24.0% of mass 442	13.1	20.3	)2

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

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

	EPA SAMPLE N	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
#		20 STANDARD	B7751.D	05/30/95	0944
#		50 STANDARD	B7752.D	05/30/95	1035
#		80 STANDARD	B7753.D	05/30/95	1127
#		120 STANDARD	B7754.D	05/30/95	1220
#		160 STANDARD	B7755.D	05/30/95	1312
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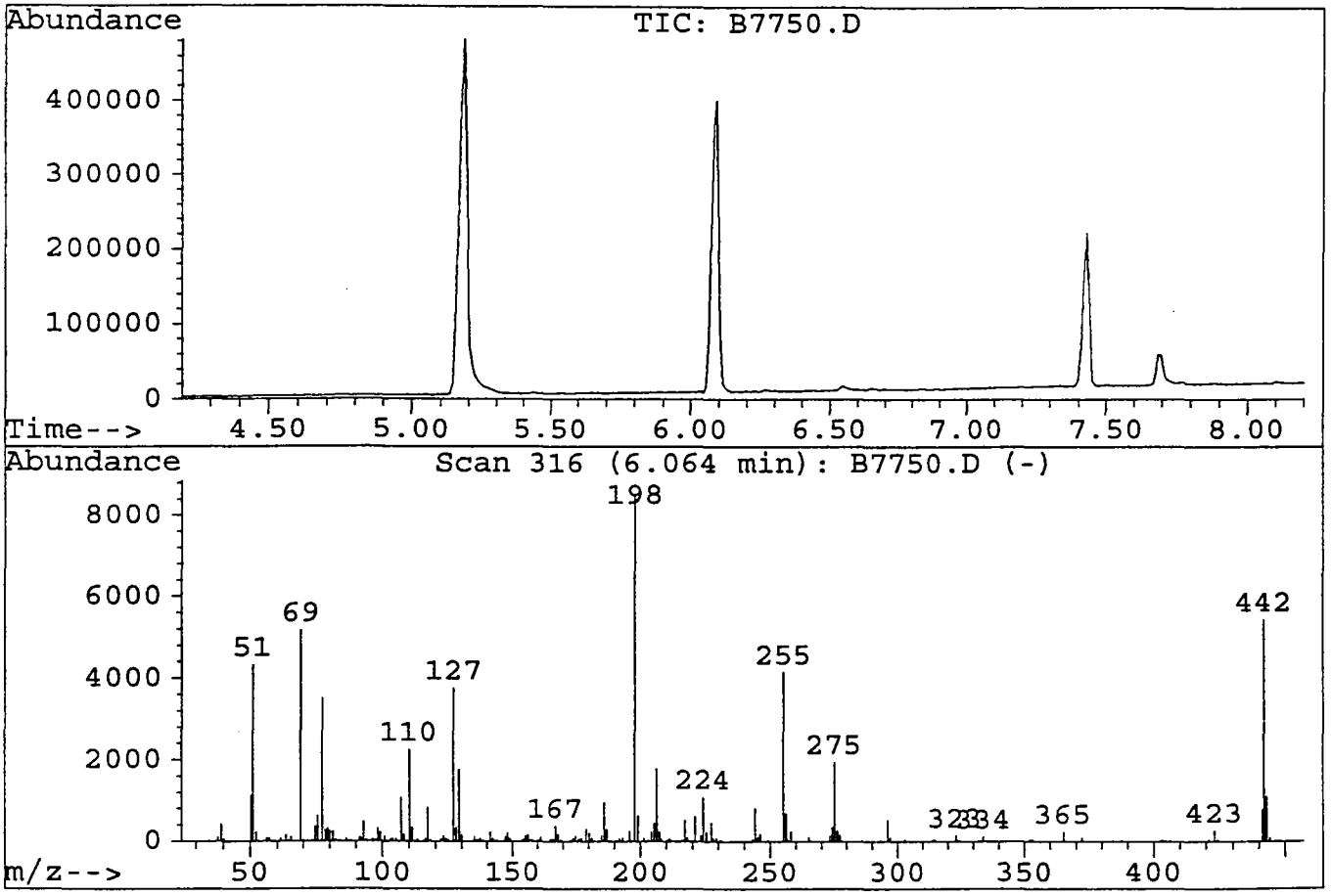
DFTPP

Data File : C:\HPCHEM\1\DATA2\B7750.D Vial: 1
Acq On : 30 May 95 9:14 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: 330

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.3	4339	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	61.1	5169	PASS
70	69	0	2	0.6	29	PASS
127	198	40	60	44.4	3758	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	8456	PASS
199	198	5	9	7.5	631	PASS
275	198	10	30	23.1	1951	PASS
365	198	1	100	2.8	238	PASS
441	443	0	100	71.3	788	PASS
442	198	40	100	64.3	5436	PASS
443	442	17	23	20.3	1105	PASS

B7750.D BNACLP.M Tue May 30 08:40:10 1995 BNA

can 316 (6.064 min): B7750.D

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	111	58.05	13	78.05	284	96.05	58
39.05	417	61.15	74	79.05	332	97.05	35
40.10	59	63.05	154	79.95	245	98.05	313
0.05	1128	64.05	37	81.05	252	99.05	224
1.00	4339	65.05	105	82.05	44	100.95	120
52.05	241	68.95	5169	83.10	16	103.15	68
53.00	10	70.05	29	86.15	75	103.95	87
54.05	4	73.05	43	91.05	88	105.05	85
55.05	32	74.05	376	91.95	98	107.05	1091
56.05	93	75.05	636	92.95	482	107.95	178
57.05	94	77.00	3509	94.05	48	110.05	2258

can 316 (6.064 min): B7750.D

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.05	347	128.00	343	154.10	63	168.00	172
112.15	17	129.00	1776	155.00	140	169.10	54
113.05	65	130.00	152	156.00	177	173.00	40
116.15	81	135.00	123	157.10	46	173.90	77
117.05	837	136.00	50	157.80	35	175.00	147
118.05	55	137.10	72	158.00	32	176.10	56
121.90	87	141.00	242	160.00	52	177.10	85
123.00	132	142.00	80	161.10	108	179.00	311
124.00	82	147.00	121	165.00	75	180.10	207
124.90	49	148.00	213	166.20	66	181.10	81
127.00	3758	148.90	57	167.00	382	182.10	5

can 316 (6.064 min): B7750.D

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.10	155	205.05	451	222.95	151	249.05	34
186.10	970	206.05	1785	224.05	1088	255.05	4157
187.10	295	207.05	238	225.05	239	256.05	688
192.00	75	207.95	66	227.05	470	256.95	53
193.10	96	210.25	50	227.95	86	257.95	257
196.00	270	211.05	79	229.05	93	265.05	108
198.00	8456	211.65	38	230.95	42	273.05	139
199.00	631	215.95	52	243.05	75	274.05	352
201.35	77	216.95	525	244.05	828	275.05	1951
202.85	45	217.95	89	245.05	118	276.05	266
204.05	257	220.95	629	246.05	185	277.05	157

can 316 (6.064 min): B7750.D

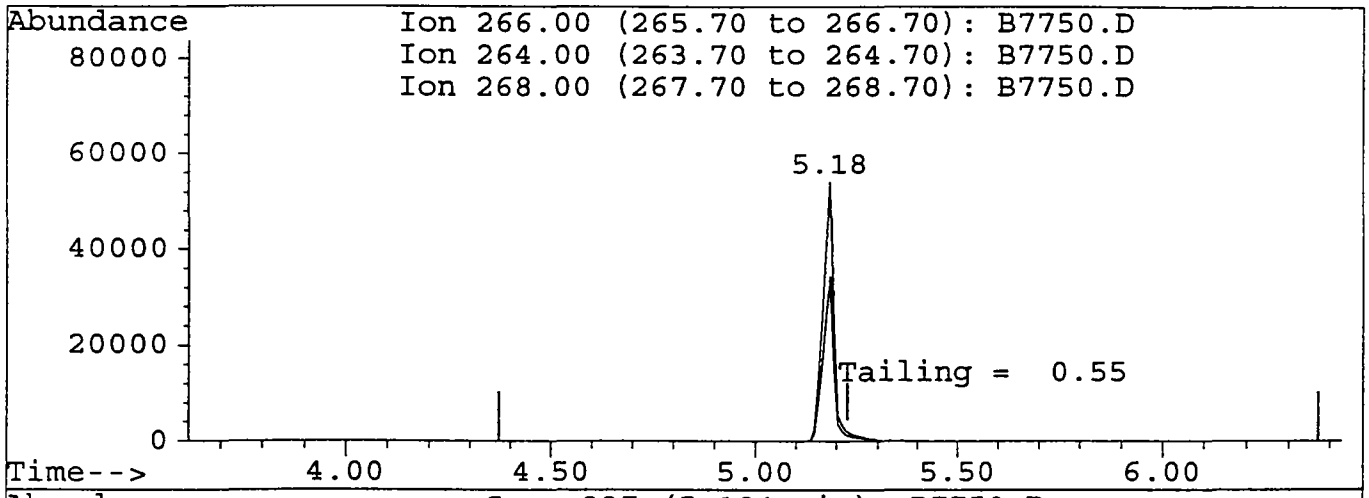
odified:subtracted

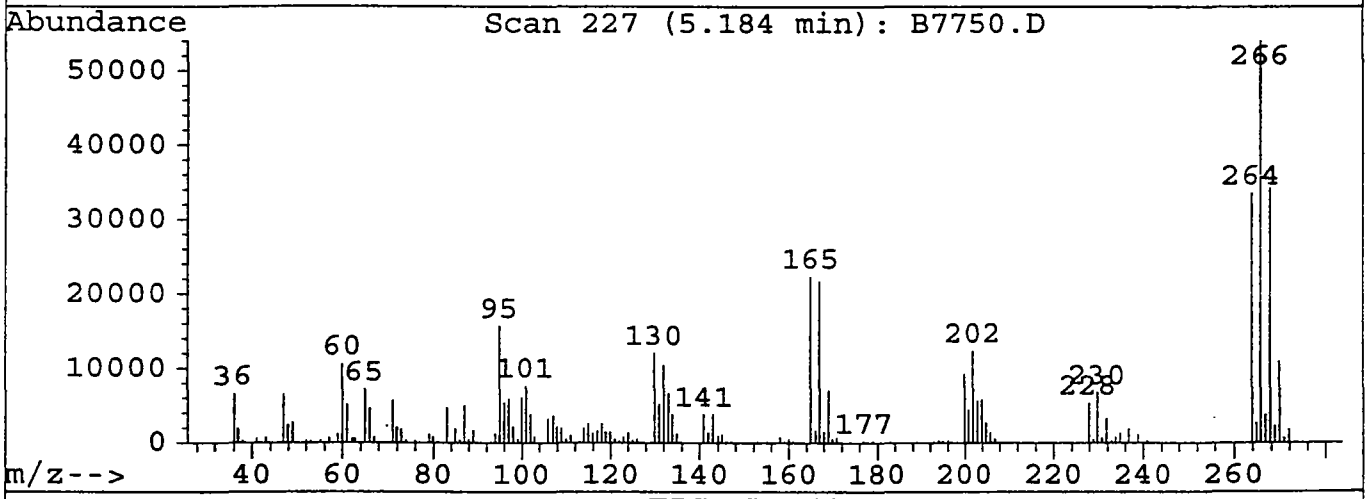
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.00	31	364.95	238				
296.00	527	372.05	89				
297.00	89	403.05	44				
303.00	67	420.95	40				
314.00	27	423.05	267				
314.90	61	424.05	52				
323.10	148	441.10	788				
4.10	39	442.00	5436				
4.00	124	443.00	1105				
352.10	49	444.10	101				
353.10	51						

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7750.D Vial: 1
Acq On : 30 May 95 9:14 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration





TIC: B7750.D

(1) Pentachlorophenol (CM)

5.18min 321.74ug/mL

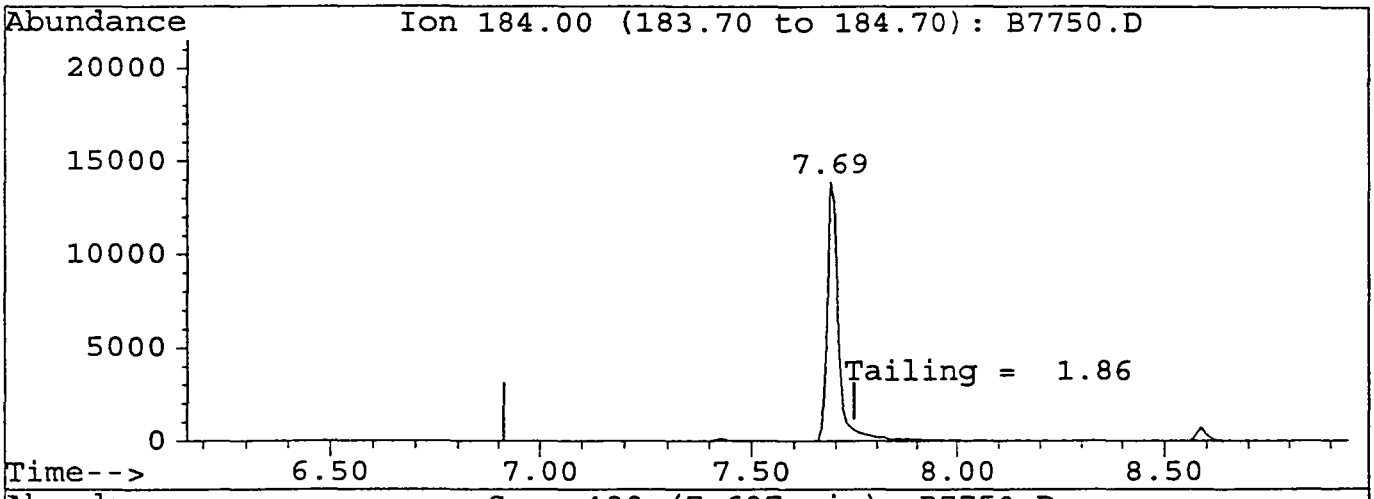
response 106272

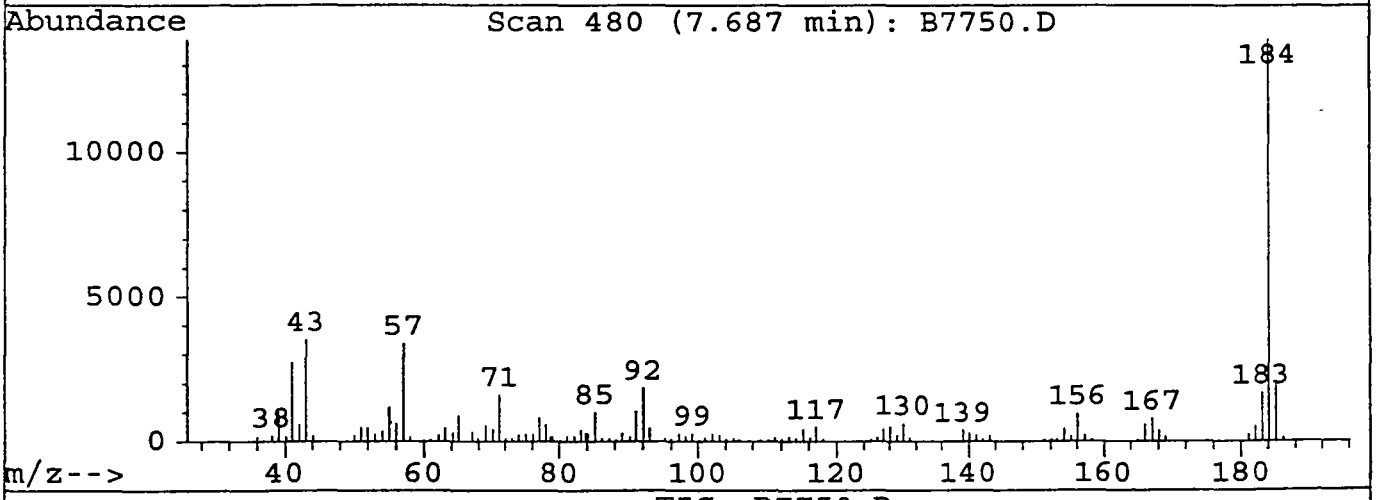
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	62.02
268.00	64.70	63.47
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7750.D Vial: 1
Acq On : 30 May 95 9:14 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration





TIC: B7750.D

(2) Benzidine
7.69min 86.22ug/ml
response 26489

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Response Factor Report ABNA

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 09:37:17 1995
Response via : Initial Calibration

147

Calibration Files
160 =B7755.D 120 =B7754.D 80 =B7753.D
50 =B7752.D 20 =B7751.D

		Compound	160	120	80	50	20	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD						
2)	S	2-Fluorophenol	1.046	1.205	1.170	1.071	1.165	1.131	6.09
3)	S	Phenol-d5	1.808	2.019	1.924	1.724	1.888	1.873	6.00
4)	M	N-nitrosodimethylamin	0.599	0.546	0.436	0.731		0.578	21.22
5)		Pyridine	0.424	0.364	0.429	0.496		0.428	12.65
6)	CM	Phenol	1.442	1.792	1.686	1.698	1.721	1.668	7.94
7)	MT	bis(2-Chloroethyl)eth	1.893	2.082	2.104	2.042	2.008	2.026	4.10
8)	M	2-Chlorophenol	1.138	1.284	1.307	1.245	1.372	1.269	6.83
9)	MT	1,3-Dichlorobenzene	1.295	1.404	1.490	1.416	1.320	1.385	5.65
10)	CM	1,4-Dichlorobenzene	1.318	1.468	1.512	1.469	1.379	1.429	5.51
11)	M	1,2-Dichlorobenzene	1.255	1.391	1.452	1.374	1.315	1.357	5.54
12)	T	2-Methylphenol	1.109	1.268	1.262	1.164	1.220	1.204	5.61
13)	M	bis(2-chloroisopropyl	1.886	1.860	1.988	1.730	1.878	1.868	4.92
14)	T	4-Methylphenol	1.216	1.432	1.330	1.310	1.320	1.322	5.82
15)	PM	N-Nitroso-Di-n-propyl	1.289	1.444	1.471	1.267	1.257	1.346	7.68
16)	M	Hexachloroethane	0.691	0.756	0.792	0.747	0.701	0.737	5.65
17)	I	Naphthalene-d8	ISTD						
18)	S	Nitrobenzene-d5	0.437	0.466	0.478	0.437	0.460	0.456	4.02
19)	M	Nitrobenzene	0.398	0.409	0.461	0.436	0.416	0.424	5.86
20)	M	Isophorone	0.776	0.850	0.875	0.817	1.149	0.893	16.52
21)	MC	2-Nitrophenol	0.189	0.225	0.225	0.200	0.213	0.210	7.50
22)	M	2,4-Dimethylphenol	0.362	0.429	0.388	0.382	0.407	0.394	6.49
23)	M	bis(2-Chloroethoxy)me	0.441	0.448	0.467	0.455	0.469	0.456	2.57
24)	MC	2,4-Dichlorophenol	0.271	0.299	0.307	0.292	0.322	0.298	6.39
25)	M	1,2,4-Trichlorobenzen	0.293	0.318	0.326	0.322	0.326	0.317	4.42
26)	M	Naphthalene	0.922	0.948	1.039	0.963	1.023	0.979	5.12
27)	T	4-Chloroaniline	0.455	0.465	0.471	0.468	0.457	0.463	1.47
28)	MC	Hexachlorobutadiene	0.175	0.186	0.189	0.186	0.190	0.185	3.26
29)	MC	4-Chloro-3-methylphen	0.355	0.396	0.398	0.385	0.385	0.384	4.45
30)	M	2-Chloronaphthalene	0.672	0.680	0.719	0.700	0.709	0.696	2.81
31)	T	2-Methylnaphthalene	0.890	0.985	0.640	0.702	0.711	0.786	18.46
32)	I	Acenaphthene-d10	ISTD						
33)	P	Hexachlorocyclopentad	0.294	0.303	0.302	0.258	0.233	0.278	11.19
34)	MC	2,4,6-Trichlorophenol	0.470	0.452	0.413	0.381	0.361	0.415	11.10
35)	T	2,4,5-Trichlorophenol	0.221	0.317	0.348	0.370	0.365	0.324	18.94
36)	S	2-Fluorobiphenyl	1.163	1.254	1.230	1.178	1.174	1.200	3.30
37)	T	2-Nitroaniline	0.527	0.566	0.592	0.578	0.483	0.549	8.04
38)	M	Dimethylphthalate	1.233	1.348	1.373	1.295	1.248	1.299	4.68
39)	M	Acenaphthylene	1.606	1.717	1.805	1.711	1.683	1.704	4.20
40)	M	2,6-Dinitrotoluene	0.295	0.312	0.346	0.327	0.271	0.310	9.34
41)	T	3-Nitroaniline	0.279	0.370	0.403	0.363	0.315	0.346	14.10

(#) = Out of Range

148

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 09:37:17 1995
Response via : Initial Calibration

Calibration Files
160 =B7755.D 120 =B7754.D 80 =B7753.D
50 =B7752.D 20 =B7751.D

		Compound	160	120	80	50	20	Avg	%RSD
42)	CM	Acenaphthene	0.982	1.056	1.036	1.024	1.028	1.025	2.65
43)	MP	2,4-Dinitrophenol	0.189	0.213	0.198	0.155	0.107	0.172	24.56
44)	PM	4-Nitrophenol	0.151	0.178	0.188	0.168	0.142	0.166	11.52
45)	T	Dibenzofuran	1.475	1.700	1.686	1.669	1.512	1.609	6.62
46)	M	2,4-Dinitrotoluene	1.132	1.243	1.193	1.143	1.125	1.167	4.29
47)	M	Diethylphthalate	1.274	1.533	1.576	1.452	1.379	1.443	8.38
48)	M	Fluorene	1.222	1.333	1.295	1.228	1.216	1.259	4.17
49)	M	4-Chlorophenyl-phenyl	0.554	0.608	0.613	0.591	0.615	0.596	4.25
50)		Phenanthrene-d10	----------ISTD----------						
51)	T	4-Nitroaniline	0.131	0.151	0.160	0.214	0.175	0.166	18.75
52)	MC	4,6-Dinitro-2-methylp	0.141	0.142	0.151	0.129	0.096	0.132	16.20
53)	T	n-Nitrosodiphenylamin	0.458	0.524	0.531	0.530	0.499	0.508	6.15
54)	S	2,4,6-Tribromophenol	0.098	0.113	0.112	0.106	0.111	0.108	5.77
55)		1,2-Diphenylhydrazine	1.065	1.251	1.281	1.312	1.147	1.211	8.48
56)	M	4-Bromophenyl-phenyle	0.186	0.198	0.212	0.220	0.213	0.206	6.61
57)	M	Hexachlorobenzene	0.138	0.231	0.244	0.228	0.233	0.215	20.20
58)	CM	Pentachlorophenol	0.131	0.150	0.154	0.133	0.119	0.137	10.26
59)	M	Phenanthrene	0.983	1.142	1.181	1.095	1.071	1.094	6.87
60)	M	Anthracene	0.809	1.021	1.128	1.028	1.059	1.009	11.85
61)		Carbazole	0.656	1.051	1.106	0.964	0.941	0.944	18.43
62)	M	Di-n-butylphthalate	1.441	1.645	1.749	1.638	1.559	1.606	7.11
63)	MC	Fluoranthene	0.922	0.947	1.162	1.124	1.019	1.035	10.22
64)	I	Chrysene-d12	----------ISTD----------						
65)		Benzidine	0.569	0.427	0.364	0.399	0.428	0.437	17.86
66)	M	Pyrene	1.857	1.452	1.658	1.267	1.273	1.502	16.98
67)	S	Terphenyl-d14	1.355	1.039	1.124	0.880	0.911	1.062	17.99
68)	M	Butylbenzylphthalate	1.130	0.958	1.080	0.843	0.796	0.962	15.08
69)	M	Benzo[a]anthracene	1.813	1.529	1.731	1.342	1.163	1.516	17.74
70)	M	3,3'-Dichlorobenzidin	0.345	0.347	0.471	0.353	0.416	0.386	14.47
71)	M	Chrysene	0.661	0.691	1.035	0.768	1.060	0.843	22.65
72)	M	bis(2-Ethylhexyl)phth	1.536	1.331	1.560	1.243	1.151	1.364	13.17
73)	I	Perylene-d12	----------ISTD----------						
74)	MC	Di-n-octylphthalate	4.287	5.460	5.911	4.718		5.094	14.31
75)	M	Benzo[b]fluoranthene	2.445	2.215	2.794	2.522	2.357	2.467	8.75
76)	m	Benzo[k]fluoranthene	1.248	0.961	1.258	1.108	1.376	1.190	13.40
77)	mc	Benzo[a]pyrene	1.114	0.945	1.269	1.355	1.450	1.227	16.33
78)	m	Indeno[1,2,3-cd]pyren	0.493	0.521	0.450	0.417	0.381	0.452	12.46
79)	m	Dibenz[a,h]anthracene	0.471	0.517	0.454	0.365	0.371	0.436	15.14
80)	M	Benzo[g,h,i]perylene	0.385	0.372	0.381	0.326	0.314	0.356	9.28
		1-Methyl naphthalene						0.000#	-1.00
		7,12-Dimethylbenz(a)a						0.000#	-1.00

(#) = Out of Range

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	25556	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.74	136	103257	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.06	164	74029	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.53	188	123712	40.00	ug/ml	-0.36
64) Chrysene-d12	30.59	240	101227	40.00	ug/mL	-0.44
73) Perylene-d12	34.60	264	55866	40.00	ug/mL	-0.44
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	37223	52.40	ug/mL	52.40%
3) Phenol-d5	8.39	99	60299	61.22	ug/mL	61.22%
18) Nitrobenzene-d5	10.70	82	59323	55.23	ug/mL	55.23%
36) 2-Fluorobiphenyl	16.21	172	108666	45.06	ug/mL	45.06%
54) 2,4,6-Tribromophenol	20.47	330	17160	50.11	ug/mL	50.11%
67) Terphenyl-d14	27.65	244	115295	44.07	ug/mL	44.07%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	11819	64.09	ug/mlm	0
6) Phenol	8.41	94	21988	23.29	ug/mL	100
7) bis(2-Chloroethyl)ether	12.42	93	25656	25.13	ug/mL	94
8) 2-Chlorophenol	8.45	128	17535	22.70	ug/mL	91
9) 1,3-Dichlorobenzene	8.84	146	16873	19.30	ug/mL	95
10) 1,4-Dichlorobenzene	9.09	146	17619	19.90	ug/mL	99
11) 1,2-Dichlorobenzene	9.47	146	16808	18.80	ug/mL	99
12) 2-Methylphenol	10.13	108	15585	20.61	ug/mLm	62
13) bis(2-chloroisopropyl)ethe	10.13	45	23996	14.64	ug/mL#	8
14) 4-Methylphenol	10.63	108	16867	20.62	ug/mL	96
15) N-Nitroso-Di-n-propylamine	10.47	70	16063	19.56	ug/mL	95
16) Hexachloroethane	10.43	117	8960	16.89	ug/mL	93
19) Nitrobenzene	10.74	77	21469	22.12	ug/mL#	73
20) Isophorone	10.70	82	59319	34.39	ug/mL#	68
21) 2-Nitrophenol	11.70	139	11002	19.97	ug/mL	97
22) 2,4-Dimethylphenol	10.63	107	20989	21.66	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.16	93	24189	20.63	ug/mL#	42
24) 2,4-Dichlorophenol	12.47	162	16624	20.82	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.65	180	16825	18.32	ug/mL	99
26) Naphthalene	12.80	128	52795	20.11	ug/mL#	89
27) 4-Chloroaniline	13.15	127	23600	19.35	ug/mL	98
28) Hexachlorobutadiene	13.32	225	9812	16.62	ug/mL	99
29) 4-Chloro-3-methylphenol	14.86	107	19868	19.58	ug/mL	90
30) 2-Chloronaphthalene	16.38	162	36612	17.42	ug/ml	97
31) 2-Methylnaphthalene	14.94	142	36729	19.16	ug/mL	98
33) Hexachlorocyclopentadiene	15.48	237	8635	12.84	ug/mL	99
34) 2,4,6-Trichlorophenol	15.92	196	13356	18.21	ug/mL	96
35) 2,4,5-Trichlorophenol	16.02	196	13494	17.54	ug/mL	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

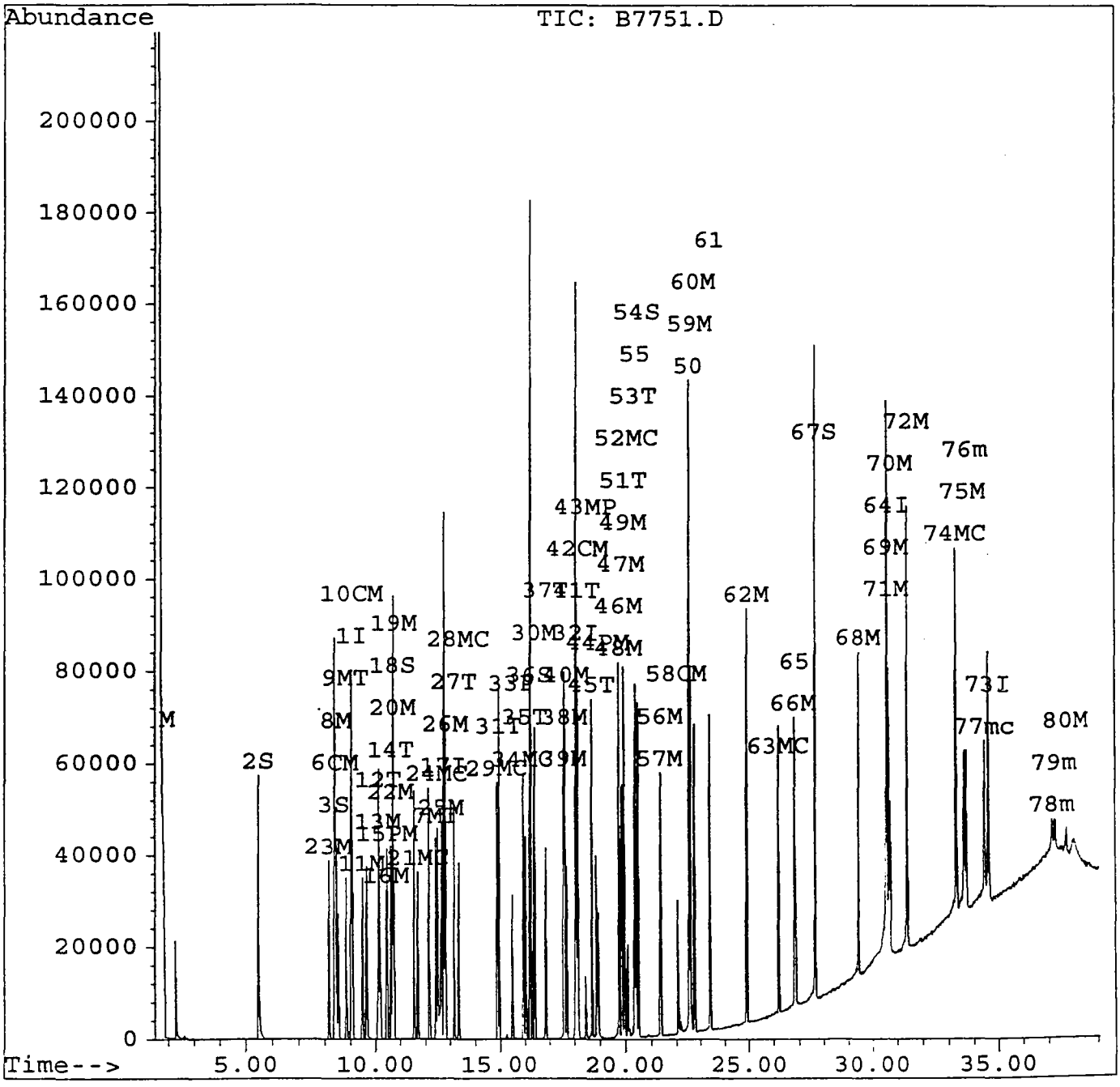
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.85	65	17876	21.08	ug/mL#	100
38)	Dimethylphthalate	17.62	163	46196	21.25	ug/mL	100
39)	Acenaphthylene	17.58	152	62290	16.75	ug/mL	98
40)	2,6-Dinitrotoluene	17.69	165	10022	19.61	ug/mL	99
41)	3-Nitroaniline	18.12	138	11669	15.38	ug/mL	98
42)	Acenaphthene	18.14	153	38044	16.56	ug/mL	99
43)	2,4-Dinitrophenol	18.44	184	3955	15.55	ug/mLm	95
44)	4-Nitrophenol	18.93	109	5206	21.05	ug/mL	91
45)	Dibenzofuran	18.69	168	55975	17.19	ug/mL	98
46)	2,4-Dinitrotoluene	19.73	165	41635	17.45	ug/mL#	34
47)	Diethylphthalate	19.83	149	51035	19.15	ug/mL	99
48)	Fluorene	19.73	166	45015	17.98	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.93	204	22774	18.71	ug/mL	94
51)	4-Nitroaniline	19.95	138	10837	22.35	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.06	198	5946	17.19	ug/mL	100
53)	n-Nitrosodiphenylamine	20.33	169	30841	25.02	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.39	77	70933	22.38	ug/ml	100
56)	4-Bromophenyl-phenylether	21.37	248	13195	20.03	ug/mL#	89
57)	Hexachlorobenzene	21.35	284	14382	18.78	ug/mL#	51
58)	Pentachlorophenol	22.07	266	7390	16.37	ug/mL	99
59)	Phenanthrene	22.61	178	66272	19.37	ug/mL	98
60)	Anthracene	22.74	178	65476	19.46	ug/mLm	97
61)	Carbazole	23.40	167	58205	18.79	ug/ml	100
62)	Di-n-butylphthalate	24.92	149	96445	16.33	ug/mL	99
63)	Fluoranthene	26.19	202	63031	16.63	ug/mLm	93
65)	Benzidine	26.88	184	21650	24.83	ug/mlm	100
66)	Pyrene	26.83	202	64445	15.73	ug/mL#	87
68)	Butylbenzylphthalate	29.43	149	40290	16.46	ug/mL	90
69)	Benzo[a]anthracene	30.57	228	58860	18.72	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	21074	24.51	ug/mL	98
71)	Chrysene	30.57	228	53653	19.46	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.40	149	58259	15.97	ug/mL	100
74)	Di-n-octylphthalate	33.31	149	92370	9.30	ug/mL	98
75)	Benzo[b]fluoranthene	33.62	252	65848	26.94	ug/mLm	98
76)	Benzo[k]fluoranthene	33.70	252	38434	16.42	ug/mLm	91
77)	Benzo[a]pyrene	34.45	252	40502	24.28	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.16	276	10646	15.19	ug/mL#	85
79)	Dibenz[a,h]anthracene	37.27	278	10355	16.78	ug/mL#	91
80)	Benzo[g,h,i]perylene	37.74	276	8780	14.39	ug/mLm	97

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d Vial: 2
Acq On : 30 May 95 9:44 am Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.03	152	29664	40.00	ug/mL	-0.27
17) Naphthalene-d8	12.75	136	124059	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.05	164	81773	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.52	188	131721	40.00	ug/ml	-0.37
64) Chrysene-d12	30.58	240	118287	40.00	ug/mL	-0.45
73) Perylene-d12	34.60	264	45273	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	39705	48.15	ug/mL	48.15%
3) Phenol-d5	8.39	99	63940	55.92	ug/mL	55.92%
18) Nitrobenzene-d5	10.71	82	67799	52.53	ug/mL	52.53%
36) 2-Fluorobiphenyl	16.20	172	120432	45.21	ug/mL	45.21%
54) 2,4,6-Tribromophenol	20.46	330	17504	48.01	ug/mL	48.01%
67) Terphenyl-d14	27.65	244	130090	42.56	ug/mL	42.56%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	27115	126.68	ug/mlm	0
6) Phenol	8.43	94	62958	57.46	ug/mL	100
7) bis(2-Chloroethyl)ether	12.42	93	75709	63.88	ug/mL	99
8) 2-Chlorophenol	8.45	128	46179	51.50	ug/mL#	84
9) 1,3-Dichlorobenzene	8.84	146	52488	51.73	ug/mL	98
10) 1,4-Dichlorobenzene	9.09	146	54452	52.99	ug/mL	99
11) 1,2-Dichlorobenzene	9.47	146	50964	49.12	ug/mL	99
12) 2-Methylphenol	10.13	108	43177	49.20	ug/mLm	65
13) bis(2-chloroisopropyl)ethe	10.09	45	64159	33.73	ug/mL#	67
14) 4-Methylphenol	10.63	108	48583	51.18	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.49	70	46969	49.27	ug/mL	99
16) Hexachloroethane	10.42	117	27701	44.99	ug/mL#	69
19) Nitrobenzene	10.76	77	67644	58.02	ug/mL	89
20) Isophorone	11.57	82	126657	61.12	ug/mL	97
21) 2-Nitrophenol	11.69	139	31019	46.87	ug/mL	88
22) 2,4-Dimethylphenol	10.63	107	59303	50.95	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.16	93	70617	50.13	ug/mL#	42
24) 2,4-Dichlorophenol	12.48	162	45218	47.12	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.65	180	49933	45.25	ug/mL	98
26) Naphthalene	12.81	128	149358	47.34	ug/mL#	91
27) 4-Chloroaniline	13.15	127	72575	49.52	ug/mL	100
28) Hexachlorobutadiene	13.33	225	28798	40.59	ug/mL	98
29) 4-Chloro-3-methylphenol	14.87	107	59715	48.98	ug/mL	99
30) 2-Chloronaphthalene	16.37	162	108511	42.96	ug/ml	97
31) 2-Methylnaphthalene	14.94	142	108935	47.31	ug/mL	98
33) Hexachlorocyclopentadiene	15.46	237	26413	35.57	ug/mL	98
34) 2,4,6-Trichlorophenol	15.91	196	38933	48.06	ug/mL	99
35) 2,4,5-Trichlorophenol	16.00	196	37853	44.55	ug/mL	100

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

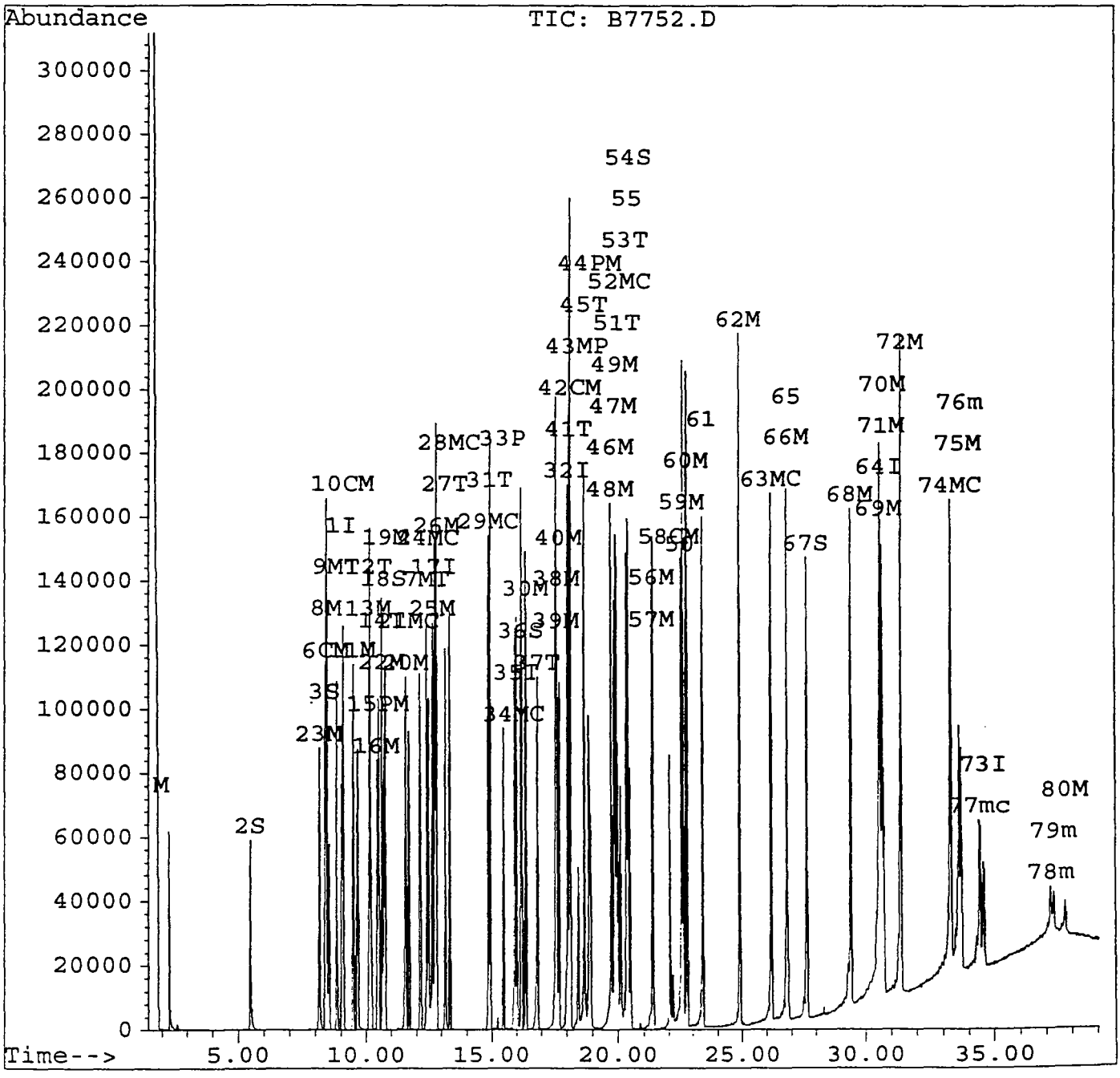
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.85	65	59044	63.04	ug/mL#	100
38)	Dimethylphthalate	17.62	163	132350	55.11	ug/mL	99
39)	Acenaphthylene	17.58	152	174919	42.58	ug/mL	99
40)	2,6-Dinitrotoluene	17.70	165	33402	59.16	ug/mL	98
41)	3-Nitroaniline	18.12	138	37075	44.25	ug/mL	98
42)	Acenaphthene	18.14	153	104702	41.25	ug/mL	100
43)	2,4-Dinitrophenol	18.45	184	15812	56.30	ug/mL#	91
44)	4-Nitrophenol	18.93	109	17219	63.03	ug/mL#	83
45)	Dibenzofuran	18.70	168	170626	47.45	ug/mL	97
46)	2,4-Dinitrotoluene	19.72	165	116800	44.33	ug/mL#	32
47)	Diethylphthalate	19.86	149	148456	50.42	ug/mL	98
48)	Fluorene	19.72	166	125476	45.36	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.92	204	60420	44.93	ug/mL	95
51)	4-Nitroaniline	19.99	138	35220	68.23	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.09	198	21308	57.84	ug/mL	100
53)	n-Nitrosodiphenylamine	20.32	169	87310	66.53	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.38	77	216080	64.04	ug/ml	100
56)	4-Bromophenyl-phenylether	21.36	248	36244	51.67	ug/mL#	89
57)	Hexachlorobenzene	21.34	284	37570	46.07	ug/mL#	76
58)	Pentachlorophenol	22.06	266	21962	45.70	ug/mL	98
59)	Phenanthrene	22.60	178	180287	49.49	ug/mL	100
60)	Anthracene	22.75	178	169255	47.24	ug/mLm	99
61)	Carbazole	23.39	167	158797	48.15	ug/ml	99
62)	Di-n-butylphthalate	24.91	149	269738	42.89	ug/mL	100
63)	Fluoranthene	26.20	202	185037	45.86	ug/mLm	81
65)	Benzidine	26.87	184	58973	57.88	ug/mlm	100
66)	Pyrene	26.84	202	187374	39.15	ug/mL	97
68)	Butylbenzylphthalate	29.42	149	124656	43.57	ug/mL	91
69)	Benzo[a]anthracene	30.56	228	198412	54.00	ug/mL	100
70)	3,3'-Dichlorobenzidine	30.71	252	52146	51.91	ug/mL	98
71)	Chrysene	30.66	228	113518	35.24	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.39	149	183732	43.10	ug/mL	99
74)	Di-n-octylphthalate	33.30	149	267010	33.18	ug/mL	98
75)	Benzo[b]fluoranthene	33.63	252	142718	72.04	ug/mL	98
76)	Benzo[k]fluoranthene	33.71	252	62677	33.05	ug/mLm	95
77)	Benzo[a]pyrene	34.44	252	76698	56.74	ug/mLm	99
78)	Indeno[1,2,3-cd]pyrene	37.16	276	23591	41.53	ug/mLm	96
79)	Dibenz[a,h]anthracene	37.28	278	20678	41.35	ug/mL	96
80)	Benzo[g,h,i]perylene	37.74	276	18451	37.32	ug/mL	95

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d Vial: 3
Acq On : 30 May 95 10:35 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	29814	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.75	136	126317	40.00	ug/mL	-0.28
32) Acenaphthene-d10	18.05	164	87574	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.54	188	151522	40.00	ug/ml	-0.35
64) Chrysene-d12	30.60	240	106944	40.00	ug/mL	-0.42
73) Perylene-d12	34.60	264	39840	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	43593	52.60	ug/mL	52.60%
3) Phenol-d5	8.41	99	71703	62.40	ug/mL	62.40%
18) Nitrobenzene-d5	10.72	82	75552	57.49	ug/mL	57.49%
36) 2-Fluorobiphenyl	16.22	172	134602	47.18	ug/mL	47.18%
54) 2,4,6-Tribromophenol	20.48	330	21167	50.47	ug/mL	50.47%
67) Terphenyl-d14	27.65	244	150199	54.35	ug/mL	54.35%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.62	74	25992	120.82	ug/ml	100
6) Phenol	8.45	94	100529	91.29	ug/mL	100
7) bis(2-Chloroethyl)ether	12.44	93	125480	105.34	ug/mL	99
8) 2-Chlorophenol	8.45	128	77924	86.47	ug/mL#	89
9) 1,3-Dichlorobenzene	8.86	146	88850	87.12	ug/mL	98
10) 1,4-Dichlorobenzene	9.09	146	90142	87.29	ug/mL	98
11) 1,2-Dichlorobenzene	9.49	146	86576	83.03	ug/mL	99
12) 2-Methylphenol	10.15	108	75232	85.29	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.11	45	118548	62.01	ug/mL#	81
14) 4-Methylphenol	10.65	108	79296	83.11	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.53	70	87737	91.57	ug/mL	94
16) Hexachloroethane	10.44	117	47246	76.35	ug/mL	93
19) Nitrobenzene	10.78	77	116413	98.06	ug/mL#	86
20) Isophorone	11.61	82	221062	104.76	ug/mL	99
21) 2-Nitrophenol	11.71	139	56797	84.29	ug/mL	91
22) 2,4-Dimethylphenol	10.65	107	97981	82.67	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.18	93	117962	82.25	ug/mL#	42
24) 2,4-Dichlorophenol	12.50	162	77661	79.49	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.65	180	82424	73.37	ug/mL	100
26) Naphthalene	12.83	128	262498	81.72	ug/mL#	92
27) 4-Chloroaniline	13.17	127	118867	79.65	ug/mL	99
28) Hexachlorobutadiene	13.33	225	47670	66.00	ug/mL	96
29) 4-Chloro-3-methylphenol	14.87	107	100652	81.09	ug/mL	90
30) 2-Chloronaphthalene	16.39	162	181668	70.65	ug/ml	100
31) 2-Methylnaphthalene	14.94	142	161698	68.97	ug/mL	98
33) Hexachlorocyclopentadiene	15.46	237	52969	66.60	ug/mL	100
34) 2,4,6-Trichlorophenol	15.93	196	72387	83.44	ug/mL	98
35) 2,4,5-Trichlorophenol	16.00	196	60973	67.01	ug/mL	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

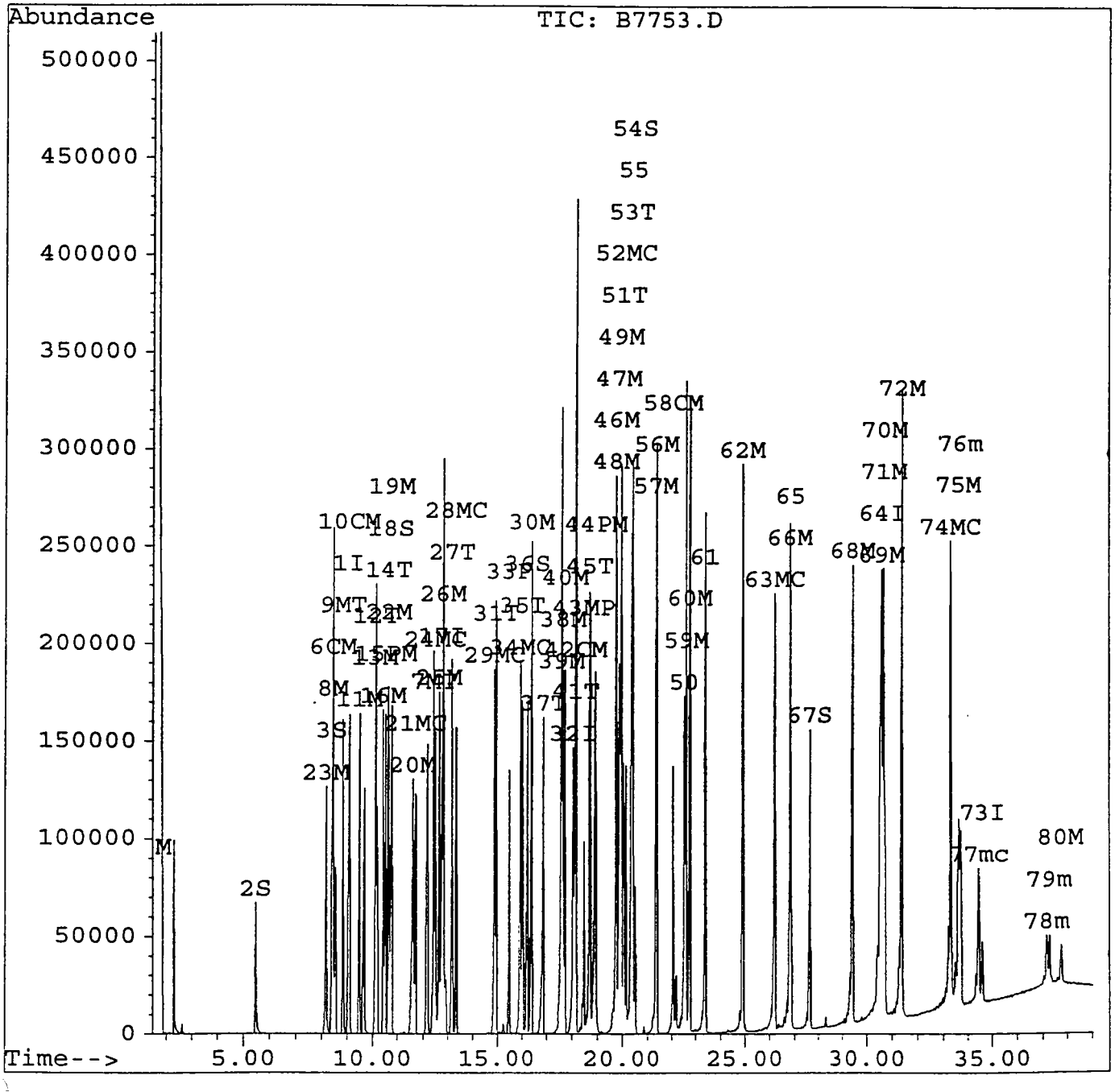
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.87	65	103690	103.37	ug/mL#	100
38)	Dimethylphthalate	17.66	163	240471	93.49	ug/mL#	99
39)	Acenaphthylene	17.60	152	316138	71.86	ug/mL	99
40)	2,6-Dinitrotoluene	17.74	165	60631	100.28	ug/mL	92
41)	3-Nitroaniline	18.16	138	70580	78.65	ug/mL	92
42)	Acenaphthene	18.16	153	181405	66.74	ug/mL	99
43)	2,4-Dinitrophenol	18.47	184	34630	115.13	ug/mL	93
44)	4-Nitrophenol	18.95	109	33002	112.80	ug/mL	86
45)	Dibenzofuran	18.70	168	295374	76.70	ug/mL	95
46)	2,4-Dinitrotoluene	19.74	165	209002	74.07	ug/mL#	32
47)	Diethylphthalate	19.86	149	275990	87.53	ug/mL	98
48)	Fluorene	19.74	166	226899	76.60	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.94	204	107387	74.57	ug/mL	95
51)	4-Nitroaniline	20.03	138	48638	81.91	ug/mL	96
52)	4,6-Dinitro-2-methylphenol	20.11	198	45736	107.93	ug/mL	100
53)	n-Nitrosodiphenylamine	20.34	169	161028	106.67	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.40	77	388272	100.03	ug/ml	100
56)	4-Bromophenyl-phenylether	21.38	248	64383	79.79	ug/mL	94
57)	Hexachlorobenzene	21.37	284	73929	78.80	ug/mL#	70
58)	Pentachlorophenol	22.06	266	46630	84.35	ug/mL	97
59)	Phenanthrene	22.62	178	357765	85.38	ug/mL	99
60)	Anthracene	22.77	178	341982	82.98	ug/mLm	98
61)	Carbazole	23.41	167	335154	88.34	ug/ml	99
62)	Di-n-butylphthalate	24.91	149	529878	73.24	ug/mL	99
63)	Fluoranthene	26.20	202	352244	75.89	ug/mLm	91
65)	Benzidine	26.88	184	77859	84.53	ug/ml	100
66)	Pyrene	26.84	202	354638	81.96	ug/mL#	89
68)	Butylbenzylphthalate	29.42	149	231051	89.32	ug/mL	95
69)	Benzo[a]anthracene	30.58	228	370214	111.44	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	100778	110.96	ug/mL	98
71)	Chrysene	30.68	228	221302	75.99	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.39	149	333704	86.58	ug/mL	97
74)	Di-n-octylphthalate	33.30	149	471006	66.51	ug/mL	99
75)	Benzo[b]fluoranthene	33.63	252	222662	127.72	ug/mL	97
76)	Benzo[k]fluoranthene	33.71	252	100220	60.05	ug/mLm	94
77)	Benzo[a]pyrene	34.44	252	101126	85.01	ug/mLm	99
78)	Indeno[1,2,3-cd]pyrene	37.17	276	35858	71.73	ug/mL	88
79)	Dibenz[a,h]anthracene	37.28	278	36175	82.20	ug/mL	94
80)	Benzo[g,h,i]perylene	37.75	276	30352	69.77	ug/mLm	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d Vial: 4
Acq On : 30 May 95 11:27 am Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	27011	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.77	136	112346	40.00	ug/mL	-0.26
32) Acenaphthene-d10	18.05	164	74142	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.53	188	133454	40.00	ug/ml	-0.36
64) Chrysene-d12	30.59	240	102268	40.00	ug/mL	-0.43
73) Perylene-d12	34.61	264	30843	40.00	ug/mL	-0.44
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	40691	54.19	ug/mL	54.19%
3) Phenol-d5	8.41	99	68173	65.48	ug/mL	65.48%
18) Nitrobenzene-d5	10.73	82	65499	56.04	ug/mL	56.04%
36) 2-Fluorobiphenyl	16.22	172	116201	48.11	ug/mL	48.11%
54) 2,4,6-Tribromophenol	20.48	330	18886	51.13	ug/mL	51.13%
67) Terphenyl-d14	27.64	244	132840	50.26	ug/mL	50.26%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.64	74	44263	227.10	ug/ml	100
6) Phenol	8.47	94	145178	145.51	ug/mL	100
7) bis(2-Chloroethyl)ether	12.44	93	168732	156.34	ug/mL	98
8) 2-Chlorophenol	8.47	128	104043	127.43	ug/mL#	87
9) 1,3-Dichlorobenzene	8.86	146	113739	123.10	ug/mL	98
10) 1,4-Dichlorobenzene	9.11	146	118937	127.12	ug/mL	99
11) 1,2-Dichlorobenzene	9.49	146	112702	119.30	ug/mL	98
12) 2-Methylphenol	10.17	108	102718	128.54	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.11	45	150752	87.04	ug/mL#	79
14) 4-Methylphenol	10.67	108	116050	134.26	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.53	70	117037	134.82	ug/mL	99
16) Hexachloroethane	10.44	117	61265	109.28	ug/mL#	81
19) Nitrobenzene	10.78	77	137726	130.44	ug/mL#	79
20) Isophorone	11.63	82	286449	152.63	ug/mL	100
21) 2-Nitrophenol	11.73	139	75814	126.50	ug/mL	95
22) 2,4-Dimethylphenol	10.67	107	144674	137.24	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.18	93	151120	118.47	ug/mL#	42
24) 2,4-Dichlorophenol	12.52	162	100762	115.96	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.67	180	107106	107.19	ug/mL	98
26) Naphthalene	12.83	128	319371	111.79	ug/mL#	91
27) 4-Chloroaniline	13.17	127	156643	118.02	ug/mL	98
28) Hexachlorobutadiene	13.35	225	62689	97.58	ug/mL	98
29) 4-Chloro-3-methylphenol	14.89	107	133371	120.81	ug/mL#	86
30) 2-Chloronaphthalene	16.39	162	229152	100.19	ug/ml	100
31) 2-Methylnaphthalene	14.96	142	331843	159.13	ug/mL	97
33) Hexachlorocyclopentadiene	15.46	237	67420	100.13	ug/mL	97
34) 2,4,6-Trichlorophenol	15.93	196	100492	136.82	ug/mL	99
35) 2,4,5-Trichlorophenol	16.00	196	70403	91.40	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d Vial: 5
Acq On : 30 May 95 12:20 pm Operator: SCOTTV
Sample : 120 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	16.87	65	125966	148.33 ug/mL#	100
38)	Dimethylphthalate	17.66	163	299887	137.71 ug/mL	99
39)	Acenaphthylene	17.61	152	381978	102.55 ug/mL	99
40)	2,6-Dinitrotoluene	17.74	165	69446	135.67 ug/mLm	93
41)	3-Nitroaniline	18.16	138	82189	108.18 ug/mL	95
42)	Acenaphthene	18.16	153	234884	102.07 ug/mL	99
43)	2,4-Dinitrophenol	18.49	184	47322	185.83 ug/mL	87
44)	4-Nitrophenol	18.96	109	39654	160.09 ug/mL	90
45)	Dibenzofuran	18.72	168	378169	115.99 ug/mL	98
46)	2,4-Dinitrotoluene	19.75	165	276442	115.72 ug/mL#	32
47)	Diethylphthalate	19.86	149	341020	127.75 ug/mL	99
48)	Fluorene	19.75	166	296520	118.24 ug/mL	98
49)	4-Chlorophenyl-phenylether	19.94	204	135159	110.86 ug/mL	94
51)	4-Nitroaniline	20.06	138	60415	115.52 ug/mL	95
52)	4,6-Dinitro-2-methylphenol	20.13	198	56816	152.23 ug/mLm	100
53)	n-Nitrosodiphenylamine	20.35	169	209653	157.68 ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.40	77	500723	146.47 ug/ml	100
56)	4-Bromophenyl-phenylether	21.39	248	79413	111.75 ug/mL	95
57)	Hexachlorobenzene	21.37	284	92449	111.89 ug/mL#	68
58)	Pentachlorophenol	22.06	266	59890	123.01 ug/mL	99
59)	Phenanthrene	22.62	178	457295	123.90 ug/mL	99
60)	Anthracene	22.78	178	408657	112.58 ug/mLm	99
61)	Carbazole	23.41	167	420878	125.96 ug/ml	99
62)	Di-n-butylphthalate	24.92	149	658579	103.35 ug/mL	100
63)	Fluoranthene	26.21	202	379190	92.76 ug/mLm	91
65)	Benzidine	26.87	184	131098	148.83 ug/mlm	100
66)	Pyrene	26.85	202	445627	107.70 ug/mL#	89
68)	Butylbenzylphthalate	29.43	149	293901	118.82 ug/mL	93
69)	Benzo[a]anthracene	30.57	228	469239	147.71 ug/mL	99
70)	3,3'-Dichlorobenzidine	30.73	252	106370	122.47 ug/mL#	97
71)	Chrysene	30.67	228	211972	76.11 ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.40	149	408257	110.77 ug/mL	98
74)	Di-n-octylphthalate	33.31	149	505170	92.14 ug/mL	100
75)	Benzo[b]fluoranthene	33.64	252	204971	151.87 ug/mLm	97
76)	Benzo[k]fluoranthene	33.72	252	88924	68.83 ug/mLm	96
77)	Benzo[a]pyrene	34.45	252	87415	94.92 ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.18	276	48224	124.60 ug/mL#	81
79)	Dibenz[a,h]anthracene	37.31	278	47851	140.44 ug/mL	98
80)	Benzo[g,h,i]perylene	37.76	276	34423	102.21 ug/mLm	95

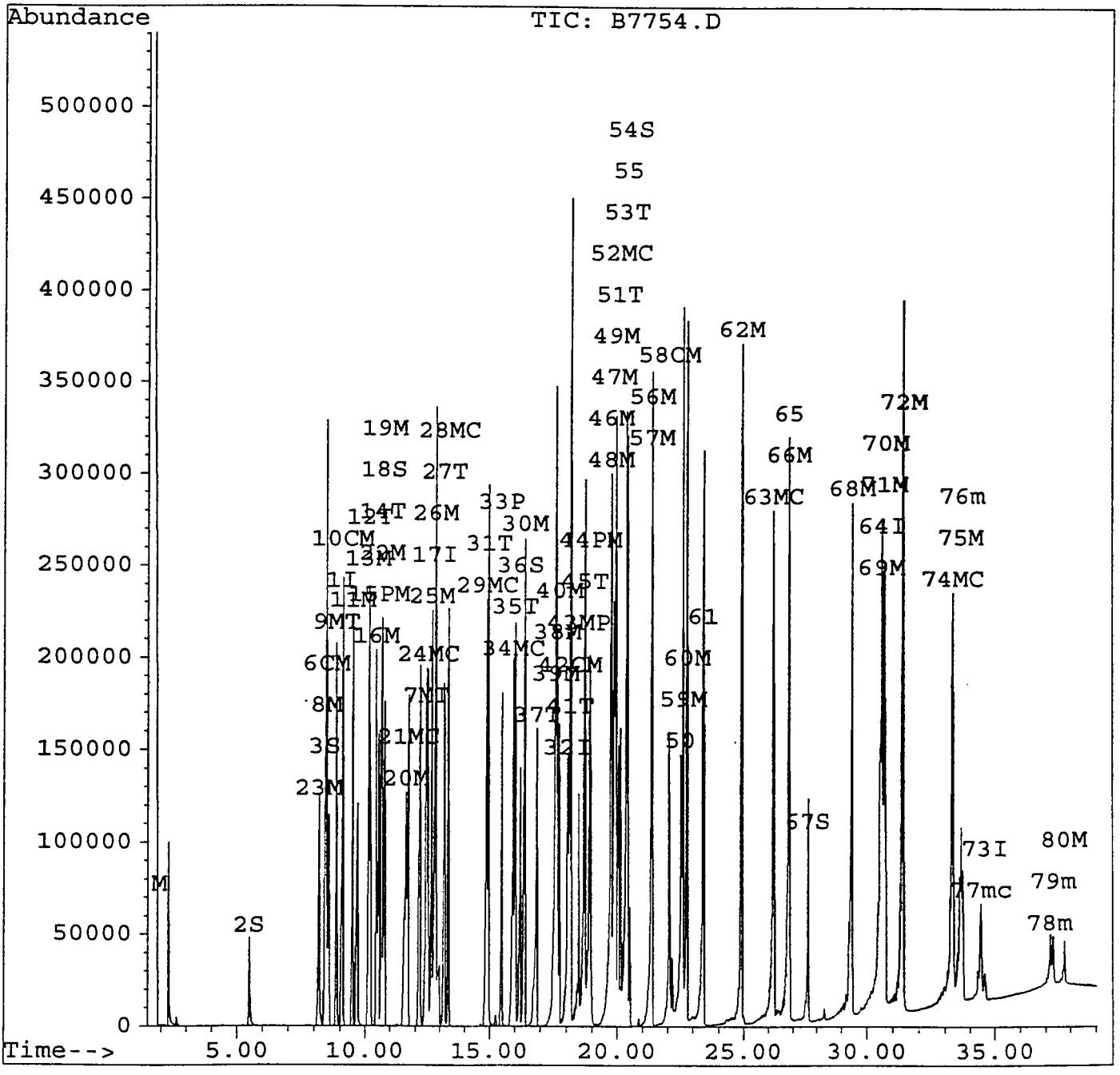
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d
Acq On : 30 May 95 12:20 pm
Sample : 120 STD.....
Misc :
Quant Time: May 31 9:49 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 May 30 08:17:48 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.05	152	29361	40.00	ug/mL	-0.26
17) Naphthalene-d8	12.77	136	123075	40.00	ug/mL	-0.26
32) Acenaphthene-d10	18.07	164	86872	40.00	ug/mL	-0.31
50) Phenanthrene-d10	22.53	188	155037	40.00	ug/ml	-0.36
64) Chrysene-d12	30.60	240	82528	40.00	ug/mL	-0.43
73) Perylene-d12	34.62	264	32039	40.00	ug/mL	-0.43
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.47	112	38395	47.04	ug/mL	47.04%
3) Phenol-d5	8.43	99	66343	58.62	ug/mL	58.62%
18) Nitrobenzene-d5	10.73	82	67218	52.50	ug/mL	52.50%
36) 2-Fluorobiphenyl	16.22	172	126324	44.63	ug/mL	44.63%
54) 2,4,6-Tribromophenol	20.49	330	18970	44.21	ug/mL	44.21%
67) Terphenyl-d14	27.64	244	139748	65.52	ug/mL	65.52%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.64	74	70397	332.28	ug/ml	100
6) Phenol	8.47	94	169408	156.21	ug/mL	100
7) bis(2-Chloroethyl)ether	12.46	93	222301	189.49	ug/mL	91
8) 2-Chlorophenol	8.47	128	133653	150.59	ug/mL#	88
9) 1,3-Dichlorobenzene	8.86	146	152142	151.49	ug/mL	97
10) 1,4-Dichlorobenzene	9.11	146	154778	152.19	ug/mL	98
11) 1,2-Dichlorobenzene	9.49	146	147372	143.51	ug/mL	99
12) 2-Methylphenol	10.17	108	130214	149.90	ug/mLm	63
13) bis(2-chloroisopropyl)ethe	10.13	45	221469	117.64	ug/mL	93
14) 4-Methylphenol	10.67	108	142777	151.95	ug/mL	97
15) N-Nitroso-Di-n-propylamine	10.55	70	151444	160.49	ug/mL	97
16) Hexachloroethane	10.44	117	81125	133.13	ug/mL#	82
19) Nitrobenzene	10.80	77	196043	169.49	ug/mL#	87
20) Isophorone	11.65	82	382084	185.84	ug/mL	99
21) 2-Nitrophenol	11.73	139	92995	141.64	ug/mL	89
22) 2,4-Dimethylphenol	10.67	107	178112	154.23	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.20	93	217251	155.46	ug/mL#	42
24) 2,4-Dichlorophenol	12.52	162	133269	140.00	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.67	180	144061	131.61	ug/mL	99
26) Naphthalene	12.83	128	453739	144.98	ug/mL#	91
27) 4-Chloroaniline	13.19	127	223903	153.98	ug/mL	98
28) Hexachlorobutadiene	13.35	225	86033	122.24	ug/mL	97
29) 4-Chloro-3-methylphenol	14.89	107	174950	144.66	ug/mL#	75
30) 2-Chloronaphthalene	16.39	162	331044	132.12	ug/ml	99
31) 2-Methylnaphthalene	14.97	142	438189	191.81	ug/mL	98
33) Hexachlorocyclopentadiene	15.49	237	102334	129.71	ug/mL	99
34) 2,4,6-Trichlorophenol	15.95	196	163412	189.89	ug/mL	97
35) 2,4,5-Trichlorophenol	16.03	196	76742	85.03	ug/mL	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d Vial: 6
Acq On : 30 May 95 1:12 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Tue May 30 08:17:48 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.89	65	183241	184.15	ug/mL#	100
38)	Dimethylphthalate	17.67	163	428564	167.96	ug/mL	99
39)	Acenaphthylene	17.61	152	558058	127.87	ug/mL	99
40)	2,6-Dinitrotoluene	17.76	165	102561	171.00	ug/mLm	92
41)	3-Nitroaniline	18.17	138	96949	108.91	ug/mL	100
42)	Acenaphthene	18.17	153	341152	126.53	ug/mL	99
43)	2,4-Dinitrophenol	18.50	184	65640	219.99	ug/mL	88
44)	4-Nitrophenol	18.96	109	52458	180.75	ug/mL	93
45)	Dibenzofuran	18.73	168	512481	134.15	ug/mL	98
46)	2,4-Dinitrotoluene	19.77	165	393324	140.52	ug/mL#	35
47)	Diethylphthalate	19.89	149	442732	141.55	ug/mL	97
48)	Fluorene	19.77	166	424603	144.50	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.94	204	192605	134.83	ug/mL	98
51)	4-Nitroaniline	20.08	138	81046	133.39	ug/mL	90
52)	4,6-Dinitro-2-methylphenol	20.16	198	87159	201.02	ug/mLm	100
53)	n-Nitrosodiphenylamine	20.37	169	283832	183.75	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.41	77	660607	166.34	ug/ml	100
56)	4-Bromophenyl-phenylether	21.39	248	115508	139.91	ug/mLm	91
57)	Hexachlorobenzene	21.37	284	85494	89.06	ug/mLm	53
58)	Pentachlorophenol	22.09	266	81327	143.79	ug/mL	100
59)	Phenanthrene	22.63	178	609750	142.21	ug/mL	99
60)	Anthracene	22.78	178	501796	118.99	ug/mLm	99
61)	Carbazole	23.40	167	406913	104.82	ug/ml	98
62)	Di-n-butylphthalate	24.92	149	893793	120.74	ug/mL	99
63)	Fluoranthene	26.22	202	572007	120.45	ug/mLm	92
65)	Benzidine	26.87	184	187882	264.32	ug/ml	100
66)	Pyrene	26.85	202	612856	183.54	ug/mL#	89
68)	Butylbenzylphthalate	29.44	149	373168	186.95	ug/mL	91
69)	Benzo[a]anthracene	30.58	228	598348	233.40	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.72	252	113910	162.52	ug/mL	99
71)	Chrysene	30.68	228	218157	97.07	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.41	149	506955	170.44	ug/mL	96
74)	Di-n-octylphthalate	33.32	149	549407	96.47	ug/mL	99
75)	Benzo[b]fluoranthene	33.65	252	313299	223.47	ug/mLm	96
76)	Benzo[k]fluoranthene	33.65	252	159963	119.19	ug/mLm	96
77)	Benzo[a]pyrene	34.46	252	142747	149.22	ug/mLm	97
78)	Indeno[1,2,3-cd]pyrene	37.20	276	63169	157.13	ug/mL	98
79)	Dibenz[a,h]anthracene	37.32	278	60387	170.62	ug/mL	99
80)	Benzo[g,h,i]perylene	37.76	276	49358	141.09	ug/mLm	94

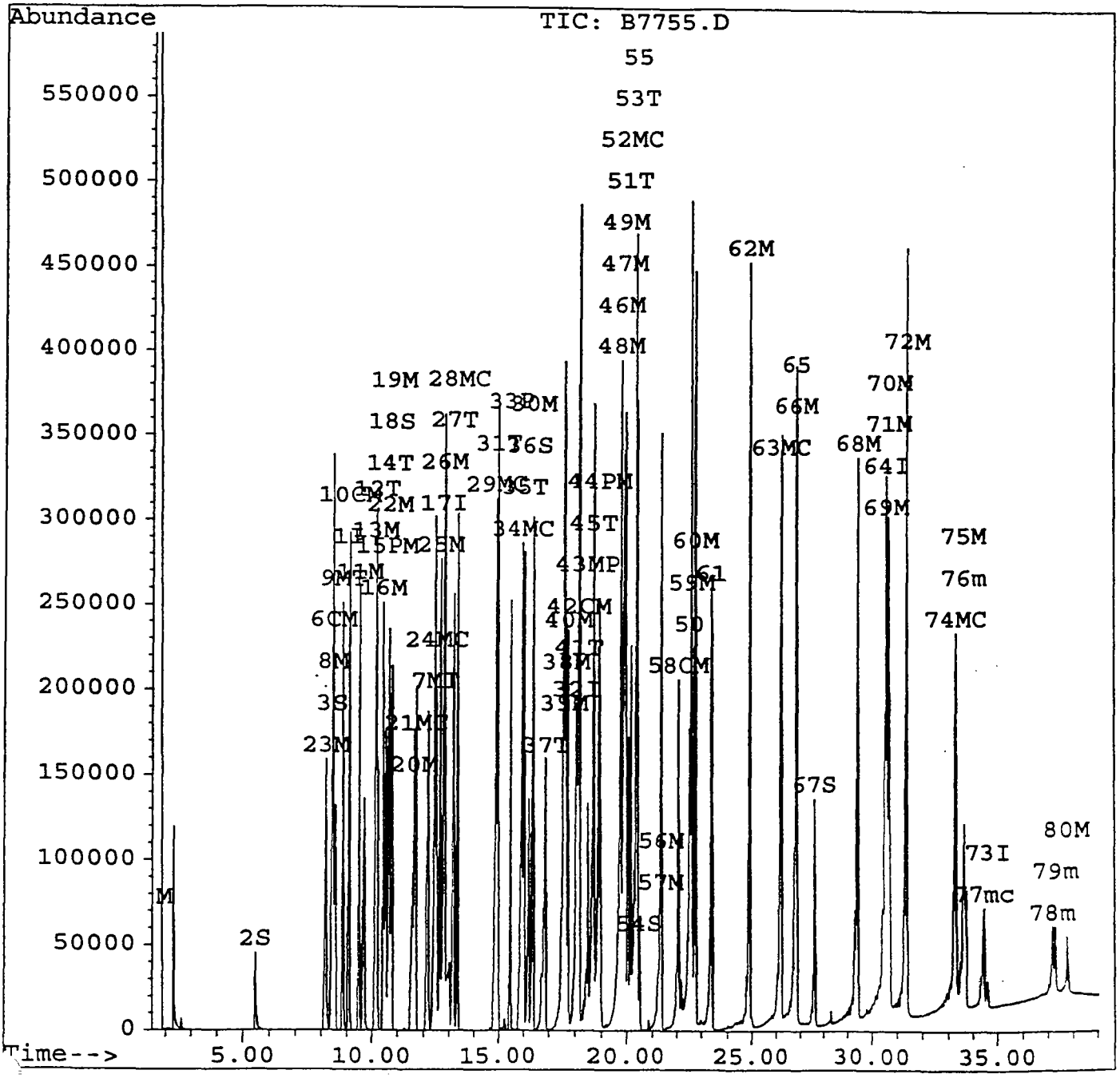
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d
Acq On : 30 May 95 1:12 pm
Sample : 160 STD.....
Misc :
Quant Time: May 31 9:52 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 May 30 08:17:48 1995
Response via : Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B7802.D DFTPP Injection Date: 6/3/95

Instrument ID: ABNA DFTPP Injection Time: 0953

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.9
365	Greater than 0.75% of mass 198	2.8
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.0 (19.8)2

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

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B7803.D	6/3/95	1013
02	SBLK01	BLANK1	B7804.D	6/3/95	1104
03	9521072B	9521072B	B7805.D	6/3/95	1154
04	9521073B	9521073B	B7806.D	6/3/95	1244
05	SBLK02	BLANK2	B7807.D	6/3/95	1334
06	9522265B	9522265B	B7808.D	6/3/95	1424
07	9522845B	9522845B	B7809.D	6/3/95	1515
08	SBLK03	BLANK3	B7810.D	6/3/95	1606
09	9523339B	9523339B	B7811.D	6/3/95	1656
10	9523341B	9523341B	B7812.D	6/3/95	1747
11	9523342B	9523342B	B7813.D	6/3/95	1838
12	9523343B	9523343B	B7814.D	6/3/95	1928
13	9523530B	9523530B	B7815.D	6/3/95	2018
14	9523531B	9523531B	B7816.D	6/3/95	2108
15	9523533B	9523533B	B7817.D	6/3/95	2158
16	9523534B	9523534B	B7818.D	6/3/95	2248
17	9523535B	9523535B	B7819.D	6/3/95	2337
18	9523536B	9523536B	B7820.D	6/4/95	0027
19	SBLK04	BLANK4	B7821.D	6/4/95	0117
20	9523789B	9523789B	B7822.D	6/4/95	0206
21	9523792B	9523792B	B7823.D	6/4/95	0256
22	9523787B	9523787B	B7824.D	6/4/95	0346

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B7802.D DFTPP Injection Date: 6/3/95

Instrument ID: ABNA DFTPP Injection Time: 0953

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.9
365	Greater than 0.75% of mass 198	2.8
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.0 (19.8)2

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

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

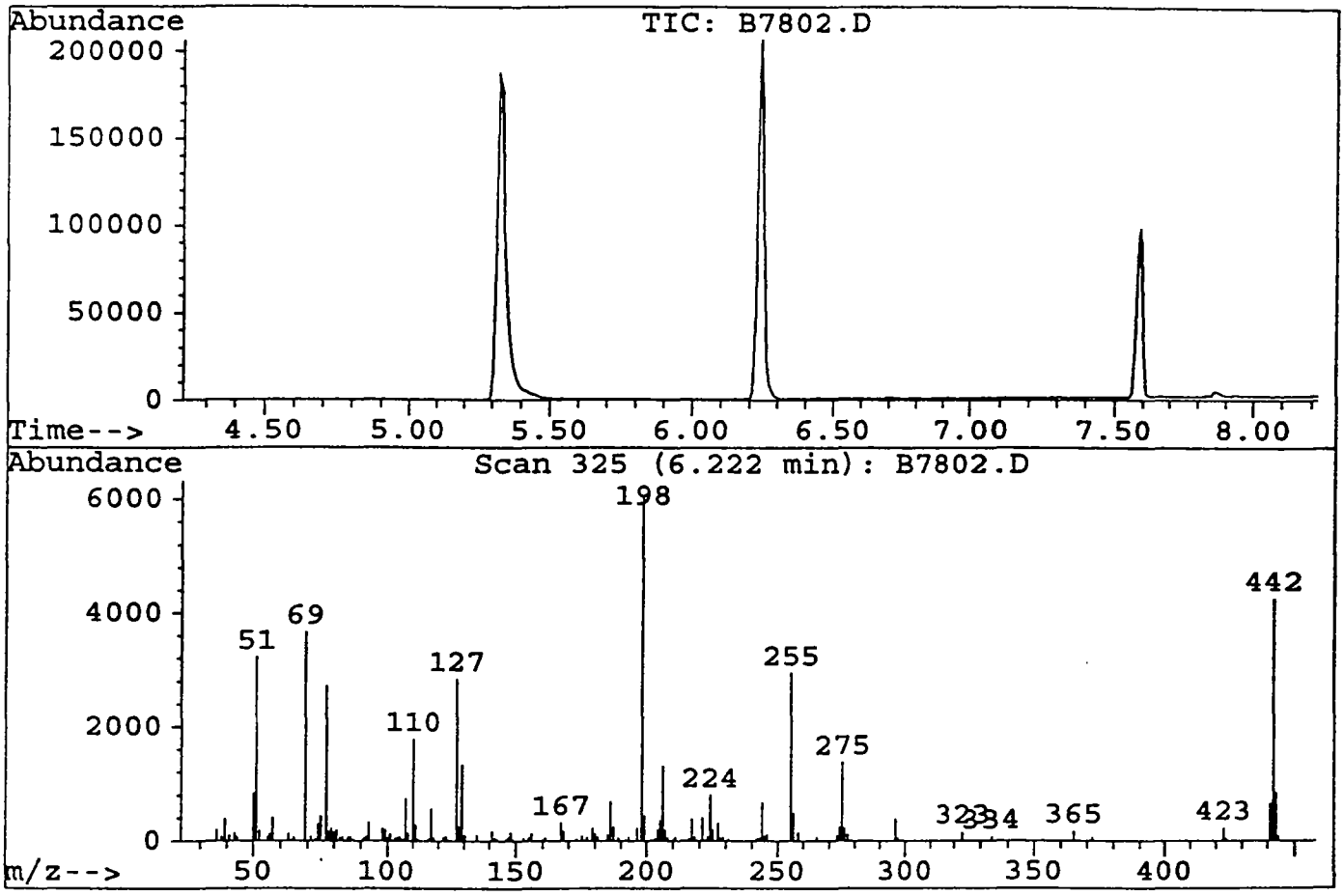
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SBLK05	BLANK5	B7825.D	6/4/95	0435
02	22654MS	22654MS	B7826.D	6/4/95	0525
03	22654MSD	22654MSD	B7827.D	6/4/95	0615
04	22659MS	22659MS	B7828.D	6/4/95	0704
05	22659MSD	22659MSD	B7829.D	6/4/95	0754
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B7802.D
Acq On : 3 Jun 95 9:53 am
Sample : DFTPP..... Converted from RTE d
Misc :

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 325

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.6	3226	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	60.9	3667	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	47.3	2846	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	6021	PASS
199	198	5	9	7.2	434	PASS
275	198	10	30	22.9	1379	PASS
365	198	1	100	2.8	170	PASS
441	443	0	100	79.3	669	PASS
442	198	40	100	70.8	4261	PASS
443	442	17	23	19.8	844	PASS

B7802.D BNACLP.M Sat Jun 03 09:48:56 1995 BNA

Scan 325 (6.222 min): B7802.D
DFTPP..... Converted from RTE data file >B7802::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	195	57.05	413	79.95	160	99.05	186
37.90	74	63.05	134	81.05	193	100.05	51
39.10	386	65.05	66	81.95	54	100.95	118
41.05	94	68.95	3667	82.95	76	102.95	50
43.05	140	71.15	74	85.05	67	103.95	70
43.95	71	73.05	38	85.95	78	105.05	69
50.05	844	74.05	294	87.05	29	106.15	34
51.05	3226	74.95	427	90.95	51	107.05	746
52.05	179	77.05	2720	92.05	75	107.95	136
55.15	74	78.05	169	92.95	316	109.95	1785
55.95	133	79.05	215	98.05	224	111.05	275

Scan 325 (6.222 min): B7802.D
DFTPP..... Converted from RTE data file >B7802::D5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.85	36	134.90	114	160.00	39	186.00	683
116.05	42	140.90	173	161.00	63	187.00	242
117.05	564	142.10	53	167.00	318	188.90	51
118.05	51	142.90	34	168.00	162	193.00	70
121.90	66	145.90	30	173.00	42	196.10	225
123.00	89	147.00	83	175.00	88	198.00	6021
123.90	35	147.90	160	177.00	64	199.00	434
127.00	2846	149.00	36	179.00	216	201.65	29
128.10	250	152.90	50	180.00	127	202.95	41
128.90	1336	155.00	69	180.90	71	203.95	197
130.10	102	156.00	130	185.00	110	205.05	353

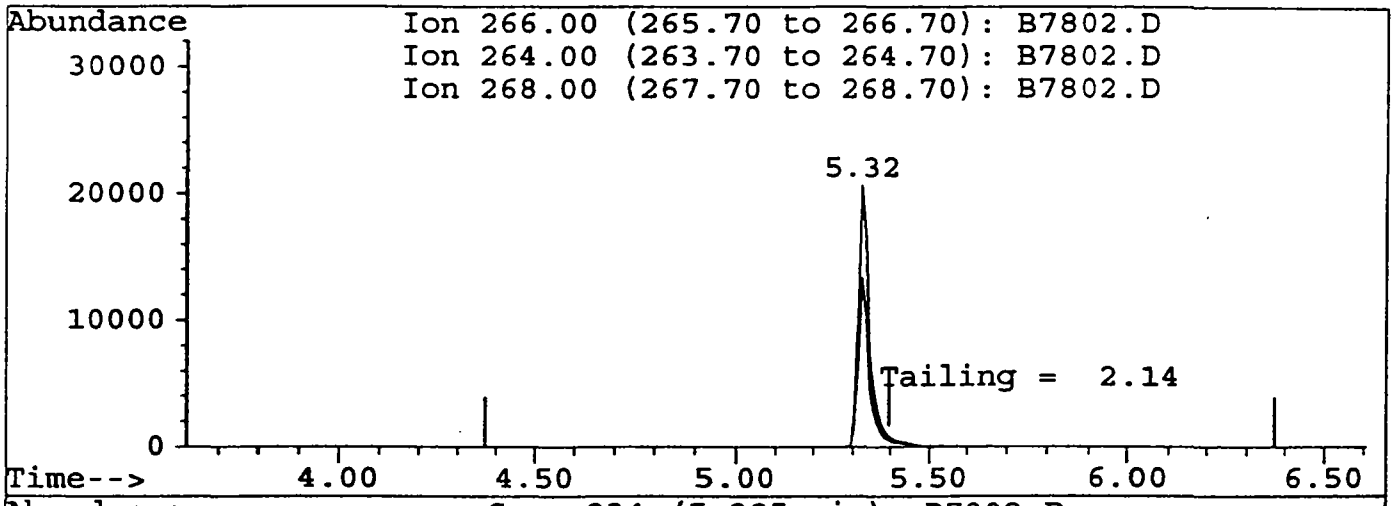
Scan 325 (6.222 min): B7802.D
DFTPP..... Converted from RTE data file >B7802::D5

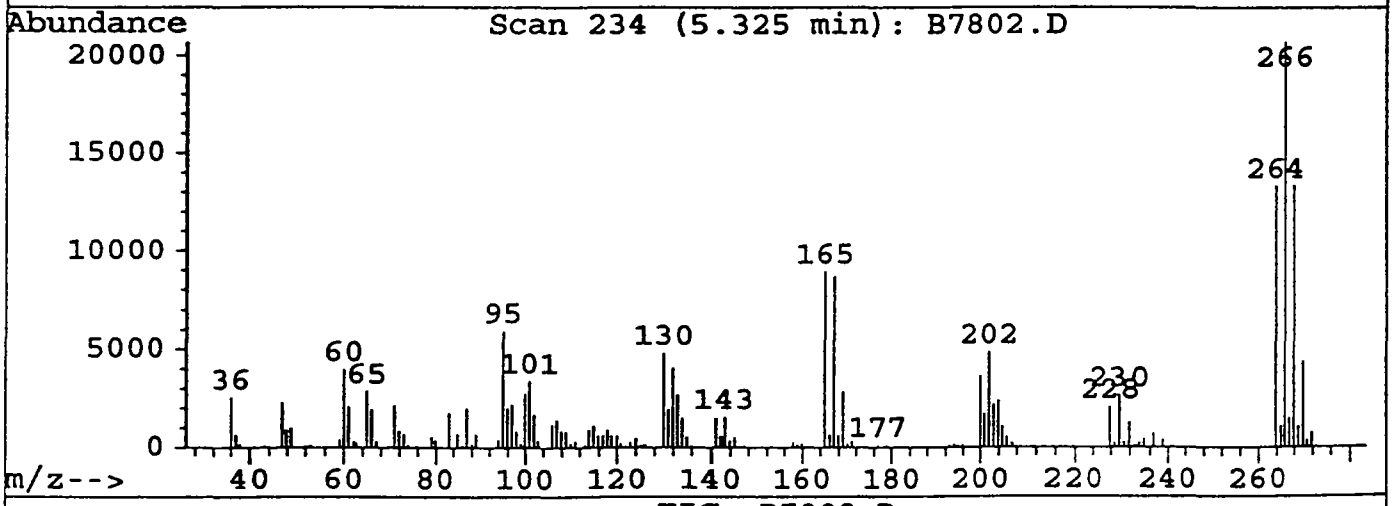
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.05	1320	224.95	192	255.95	487	334.00	73
207.05	189	226.95	305	258.05	143	364.95	170
207.95	55	227.95	55	264.95	68	372.05	67
210.15	33	228.85	61	272.95	102	423.05	224
211.05	66	231.05	37	274.05	239	423.95	49
216.15	46	242.05	44	275.05	1379	441.00	669
216.95	373	243.05	52	276.05	219	442.00	4261
217.95	69	244.05	676	277.05	109	443.00	844
220.95	411	245.05	91	296.00	378	444.00	72
222.95	81	245.95	117	297.00	45		
224.05	802	255.05	2950	323.10	156		

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D Vial: 1
Acq On : 3 Jun 95 9:53 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 3 9:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7802.D

(1) Pentachlorophenol (CM)

5.32min 133.02ug/mL

response 43936

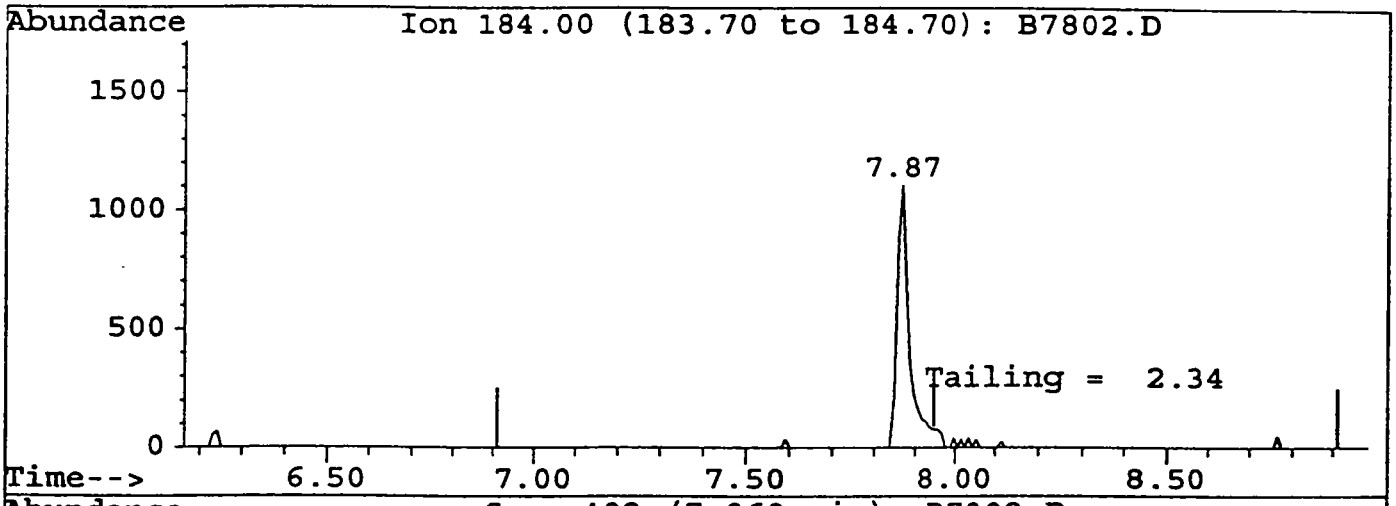
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	64.30
268.00	64.70	64.53
0.00	0.00	0.00

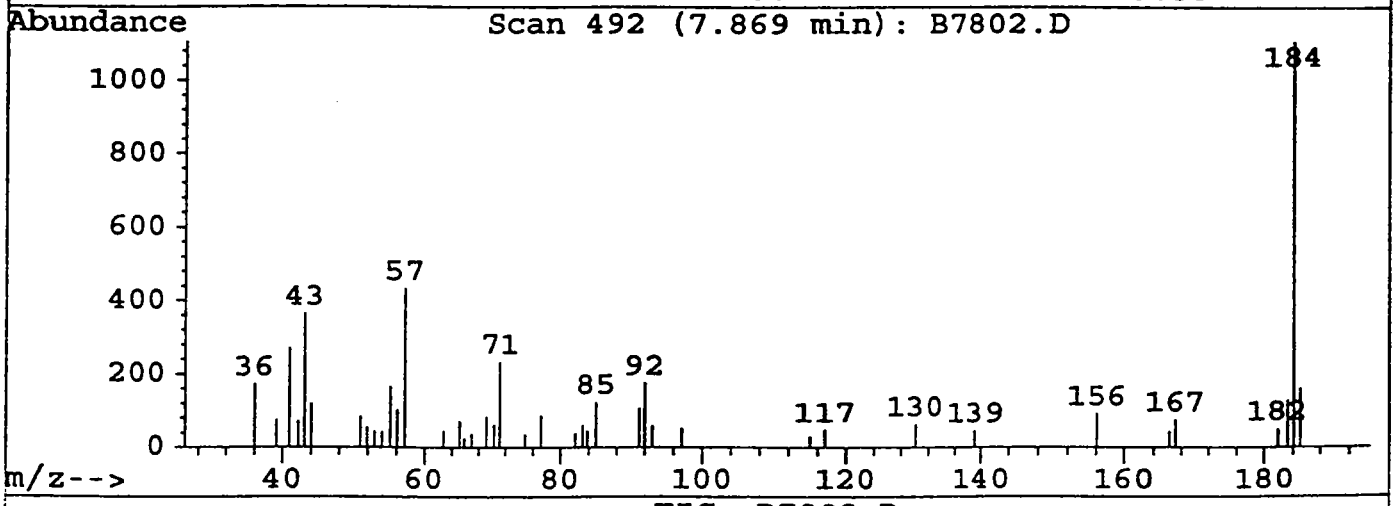
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D
Acq On : 3 Jun 95 9:53 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Jun 3 9:06 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration





TIC: B7802.D

(2) Benzidine
7.87min 7.97ug/ml
response 2449

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
bis(2-Chloroethyl)ether	2.026	2.027		0.0	
1,3-Dichlorobenzene	1.385	1.449		-4.6	
1,4-Dichlorobenzene	1.429	1.500		-5.0	30.0
1,2-Dichlorobenzene	1.357	1.424		-4.9	
bis(2-chloroisopropyl)ether	1.868	1.769		5.3	
N-Nitroso-Di-n-propylamine	1.346	1.315	0.050	2.3	
Hexachloroethane	0.737	0.736		0.1	
Nitrobenzene	0.424	0.446		-5.2	
Isophorone	0.893	0.814		8.8	
bis(2-Chloroethoxy)methane	0.456	0.453		0.7	
1,2,4-Trichlorobenzene	0.317	0.332		-4.7	
Naphthalene	0.979	1.023		-4.5	
4-Chloroaniline	0.463	0.464		-0.2	
Hexachlorobutadiene	0.185	0.191		-3.2	30.0
2-Methylnaphthalene	0.786	0.742		5.6	
Hexachlorocyclopentadiene	0.278	0.250	0.050	10.1	
2-Chloronaphthalene	0.696	0.716		-2.9	
2-Nitroaniline	0.549	0.487		11.3	
Dimethylphthalate	1.299	1.277		1.7	
Acenaphthylene	1.704	1.652		3.1	
2,6-Dinitrotoluene	0.310	0.301		2.9	
3-Nitroaniline	0.346	0.344		0.6	
Acenaphthene	1.025	1.040		-1.5	30.0
Dibenzofuran	1.609	1.625		-1.0	
2,4-Dinitrotoluene	1.167	1.125		3.6	
Diethylphthalate	1.443	1.376		4.6	
Fluorene	1.259	1.219		3.2	
4-Chlorophenyl-phenylether	0.596	0.628		-5.4	
4-Nitroaniline	0.166	0.194		-16.9	
n-Nitrosodiphenylamine	0.508	0.502		1.2	
4-Bromophenyl-phenylether	0.206	0.219		-6.3	
Hexachlorobenzene	0.215	0.232		-7.9	
Phenanthrene	1.094	1.129		-3.2	
Anthracene	1.009	1.064		-5.5	
Carbazole	0.944	1.015		-7.5	
Di-n-butylphthalate	1.606	1.633		-1.7	
Fluoranthene	1.035	1.139		-10.0	30.0

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Pyrene	1.502	1.240		17.4	
Butylbenzylphthalate	0.962	0.769		20.1	
Benzo[a]anthracene	1.516	1.300		14.2	
3,3'-Dichlorobenzidine	0.386	0.357		7.5	
Chrysene	0.843	0.806		4.4	
bis(2-Ethylhexyl)phthalate	1.364	1.148		15.8	
Di-n-octylphthalate	5.094	4.570		10.3	30.0
Benzo[b]fluoranthene	2.467	2.153		12.7	
Benzo[k]fluoranthene	1.190	1.273		-7.0	
Benzo[a]pyrene	1.227	1.266		-3.2	30.0
Indeno[1,2,3-cd]pyrene	0.452	0.458		-1.3	
Dibenz[a,h]anthracene	0.436	0.384		11.9	
Benzo[g,h,i]perylene	0.356	0.291		18.3	
Nitrobenzene-d5	0.456	0.443		2.9	
2-Fluorobiphenyl	1.200	1.187		1.1	
Terphenyl-d14	1.062	0.881		17.0	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.18
2	S	2-Fluorophenol	1.131	1.044	7.7	96	0.16
3	S	Phenol-d5	1.873	1.712	8.6	98	0.14
4	M	N-nitrosodimethylamine	0.578	0.585	-1.1	79	-0.10
5		Pyridine	0.428	0.000#	100.0#	0#	-1.62#
6	CM	Phenol	1.668	1.607	3.7	93	0.14
7	MT	bis(2-Chloroethyl)ether	2.026	2.027	-0.1	98	0.18
8	M	2-Chlorophenol	1.269	1.290	-1.6	102	0.16
9	MT	1,3-Dichlorobenzene	1.385	1.449	-4.6	101	0.18
10	CM	1,4-Dichlorobenzene	1.429	1.500	-5.0	101	0.18
11	M	1,2-Dichlorobenzene	1.357	1.424	-4.9	102	0.18
12	T	2-Methylphenol	1.204	1.299	-7.9	110	0.66#
13	M	bis(2-chloroisopropyl)ether	1.868	1.769	5.3	101	0.20
14	T	4-Methylphenol	1.322	1.299	1.7	98	0.16
15	PM	N-Nitroso-Di-n-propylamine	1.346	1.315	2.3	102	0.18
16	M	Hexachloroethane	0.737	0.736	0.1	97	0.19
17	I	Naphthalene-d8	1.000	1.000	0.0	94	0.18
18	S	Nitrobenzene-d5	0.456	0.443	2.8	96	0.18
19	M	Nitrobenzene	0.424	0.446	-5.2	96	0.18
20	M	Isophorone	0.893	0.814	8.8	94	0.16
21	MC	2-Nitrophenol	0.210	0.202	4.2	95	0.20
22	M	2,4-Dimethylphenol	0.394	0.392	0.4	97	0.16
23	M	bis(2-Chloroethoxy)methane	0.456	0.453	0.7	94	0.16
24	MC	2,4-Dichlorophenol	0.298	0.301	-0.8	97	0.18
25	M	1,2,4-Trichlorobenzene	0.317	0.332	-4.7	97	0.18
26	M	Naphthalene	0.979	1.023	-4.5	100	0.20
27	T	4-Chloroaniline	0.463	0.464	-0.1	93	0.20
28	MC	Hexachlorobutadiene	0.185	0.191	-3.3	97	0.18
29	MC	4-Chloro-3-methylphenol	0.384	0.376	2.0	92	0.18
30	M	2-Chloronaphthalene	0.696	0.716	-2.8	96	0.21
31	T	2-Methylnaphthalene	0.786	0.742	5.5	100	0.19
32	I	Acenaphthene-d10	1.000	1.000	0.0	99	0.21
33	P	Hexachlorocyclopentadiene	0.278	0.250	10.3	95	0.19
34	MC	2,4,6-Trichlorophenol	0.415	0.353	15.0	91	0.20
35	T	2,4,5-Trichlorophenol	0.324	0.384	-18.4	102	0.19
36	S	2-Fluorobiphenyl	1.200	1.187	1.1	99	0.19
37	T	2-Nitroaniline	0.549	0.487	11.3	83	0.19
38	M	Dimethylphthalate	1.299	1.277	1.8	97	0.19
39	M	Acenaphthylene	1.704	1.652	3.1	95	0.21
40	M	2,6-Dinitrotoluene	0.310	0.301	2.8	91	0.21

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	T	3-Nitroaniline	0.346	0.344	0.6	94	0.21
42	CM	Acenaphthene	1.025	1.040	-1.5	100	0.21
43	MP	2,4-Dinitrophenol	0.172	0.164	4.8	104	0.21
44	PM	4-Nitrophenol	0.166	0.160	3.5	94	0.19
45	T	Dibenzofuran	1.609	1.625	-1.0	96	0.21
46	M	2,4-Dinitrotoluene	1.167	1.125	3.6	97	0.23
47	M	Diethylphthalate	1.443	1.376	4.6	93	0.21
48	M	Fluorene	1.259	1.219	3.2	98	0.23
49	M	4-Chlorophenyl-phenylether	0.596	0.628	-5.4	105	0.23
50		Phenanthrene-d10	1.000	1.000	0.0	102	0.25
51	T	4-Nitroaniline	0.166	0.194	-16.9	93	0.21
52	MC	4,6-Dinitro-2-methylphenol	0.132	0.139	-5.1	109	0.21
53	T	n-Nitrosodiphenylamine	0.508	0.502	1.2	96	0.23
54	S	2,4,6-Tribromophenol	0.108	0.110	-2.0	106	0.23
55		1,2-Diphenylhydrazine (as a	1.211	1.189	1.8	92	0.23
56	M	4-Bromophenyl-phenylether	0.206	0.219	-6.2	101	0.23
57	M	Hexachlorobenzene	0.215	0.232	-8.2	104	0.23
58	CM	Pentachlorophenol	0.137	0.160	-16.2	122	0.23
59	M	Phenanthrene	1.094	1.129	-3.2	105	0.25
60	M	Anthracene	1.009	1.064	-5.5	105	0.25
61		Carbazole	0.944	1.015	-7.5	107	0.25
62	M	Di-n-butylphthalate	1.606	1.633	-1.6	102	0.23
63	MC	Fluoranthene	1.035	1.139	-10.1	103	0.27
64	I	Chrysene-d12	1.000	1.000	0.0	110	0.31
65		Benzidine	0.437	0.361	17.5	99	0.27
66	M	Pyrene	1.502	1.240	17.4	107	0.27
67	S	Terphenyl-d14	1.062	0.881	17.1	110	0.27
68	M	Butylbenzylphthalate	0.962	0.769	20.0	100	0.27
69	M	Benzo[a]anthracene	1.516	1.300	14.2	106	0.31
70	M	3,3'-Dichlorobenzidine	0.386	0.357	7.5	111	0.29
71	M	Chrysene	0.843	0.806	4.4	115	0.31
72	M	bis(2-Ethylhexyl)phthalate	1.364	1.148	15.8	101	0.27
73	I	Perylene-d12	1.000	1.000	0.0	206#	0.30
74	MC	Di-n-octylphthalate	5.094	4.570	10.3	200#	0.27
75	M	Benzo[b]fluoranthene	2.467	2.153	12.7	176#	0.30
76	m	Benzo[k]fluoranthene	1.190	1.273	-7.0	237#	0.31
77	mc	Benzo[a]pyrene	1.227	1.266	-3.2	193#	-0.51#
78	m	Indeno[1,2,3-cd]pyrene	0.452	0.458	-1.1	227#	0.26
79	m	Dibenz[a,h]anthracene	0.436	0.384	11.8	217#	0.26

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SU
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0.356	0.291	18.1	185#	0.26
81		1-Methyl naphthalene	0.000	0.000#	0.0	0#	-13.33#
82		7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	191#	0.30
83		Quinoline	0.000	0.000#	0.0	95	0.20
84		Thiophenol	0.000	0.000#	0.0	72	0.17
85		4-Methyl chrysene	0.000	0.000#	0.0	118	0.31
86		Dibenz(a,j)acridine	0.000	0.000#	0.0	131	0.27
87		Indene	0.000	0.000#	0.0	94	0.18

Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.21	152	29236	40.00	ug/mL	0.18
17) Naphthalene-d8	12.92	136	116999	40.00	ug/mL	0.18
32) Acenaphthene-d10	18.26	164	80656	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	134208	40.00	ug/ml	0.25
64) Chrysene-d12	30.89	240	129676	40.00	ug/mL	0.31
73) Perylene-d12	34.90	264	93467	40.00	ug/mL	0.30
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	5.63	112	38146	46.13	ug/mL	46.13%
3) Phenol-d5	8.53	99	62550	45.70	ug/mL	45.70%
18) Nitrobenzene-d5	10.88	82	64784	48.60	ug/mL	48.60%
36) 2-Fluorobiphenyl	16.39	172	119643	49.45	ug/mL	49.45%
54) 2,4,6-Tribromophenol	20.69	330	18489	51.01	ug/mL	51.01%
67) Terphenyl-d14	27.91	244	142742	41.47	ug/mL	41.47%
Target Compounds						**Qvalue**
4) N-nitrosodimethylamine	1.85	74	21365	50.56	ug/mlm	100
6) Phenol	8.57	94	58717	48.17	ug/mL	100
7) bis(2-Chloroethyl)ether	12.60	93	74087	50.04	ug/mL	96
8) 2-Chlorophenol	8.61	128	47149	50.82	ug/mL	95
9) 1,3-Dichlorobenzene	9.01	146	52942	52.30	ug/mL	98
10) 1,4-Dichlorobenzene	9.26	146	54825	52.49	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	52051	52.46	ug/mL	98
12) 2-Methylphenol	10.79	108	47472	53.93	ug/mL	65
13) bis(2-chloroisopropyl)ethe	10.28	45	64632	47.33	ug/mL#	1
14) 4-Methylphenol	10.79	108	47472	49.15	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.67	70	48058	48.86	ug/mL	91
16) Hexachloroethane	10.61	117	26915	49.93	ug/mL	99
19) Nitrobenzene	10.94	77	65242	52.61	ug/mL#	89
20) Isophorone	11.73	82	119099	45.58	ug/mL	96
21) 2-Nitrophenol	11.88	139	29485	47.92	ug/mL	98
22) 2,4-Dimethylphenol	10.79	107	57307	49.78	ug/mL#	32
23) bis(2-Chloroethoxy)methane	8.32	93	66255	49.66	ug/mL#	42
24) 2,4-Dichlorophenol	12.65	162	43957	50.41	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.83	180	48531	52.36	ug/mL	98
26) Naphthalene	13.00	128	149571	52.24	ug/mL#	91
27) 4-Chloroaniline	13.35	127	67787	50.05	ug/mL	98
28) Hexachlorobutadiene	13.50	225	27957	51.65	ug/mL	96
29) 4-Chloro-3-methylphenol	15.04	107	55034	49.01	ug/mL	100
30) 2-Chloronaphthalene	16.58	162	104679	51.41	ug/ml	99
31) 2-Methylnaphthalene	15.14	142	108545	47.23	ug/mL	100
33) Hexachlorocyclopentadiene	15.66	237	25173	44.85	ug/mL	96
34) 2,4,6-Trichlorophenol	16.10	196	35610	42.51	ug/mL	99
35) 2,4,5-Trichlorophenol	16.20	196	38697	59.22	ug/mL	100

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

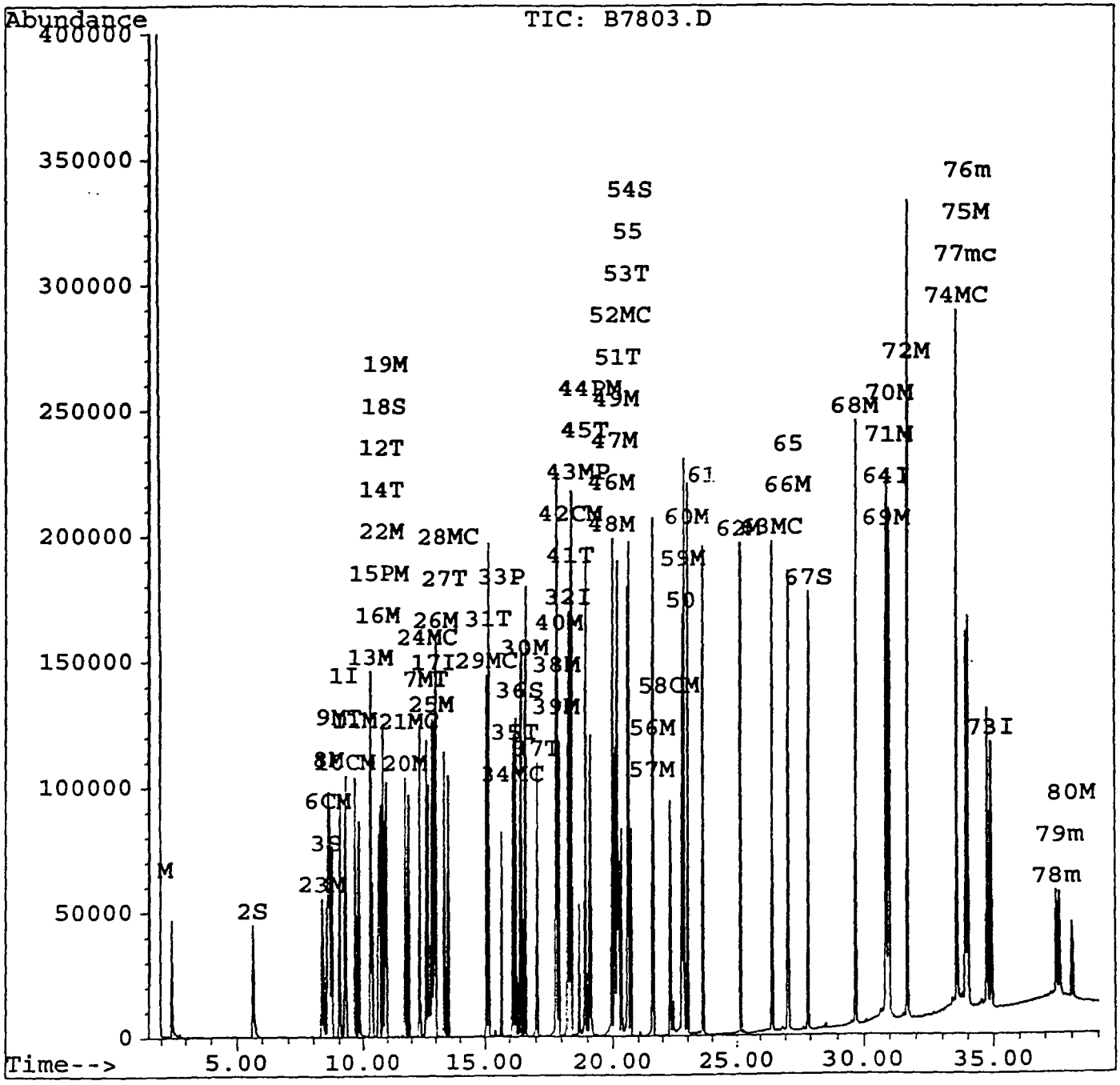
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.05	65	49104	44.34	ug/mL#	100
38)	Dimethylphthalate	17.82	163	128716	49.12	ug/mL	99
39)	Acenaphthylene	17.80	152	166597	48.47	ug/mL	99
40)	2,6-Dinitrotoluene	17.91	165	30393	48.59	ug/mL	97
41)	3-Nitroaniline	18.34	138	34672	49.71	ug/mL	95
42)	Acenaphthene	18.36	153	104858	50.73	ug/mL	100
43)	2,4-Dinitrophenol	18.66	184	16518	47.58	ug/mL	99
44)	4-Nitrophenol	19.13	109	16116	48.25	ug/mL	89
45)	Dibenzofuran	18.92	168	163832	50.51	ug/mL	95
46)	2,4-Dinitrotoluene	19.96	165	113430	48.20	ug/mL#	32
47)	Diethylphthalate	20.07	149	138770	47.70	ug/mL	100
48)	Fluorene	19.96	166	122870	48.41	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	63340	52.68	ug/mL	93
51)	4-Nitroaniline	20.21	138	32609	58.46	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	20.30	198	23243	52.57	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	84236	49.39	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.61	77	199476	49.08	ug/ml	100
56)	4-Bromophenyl-phenylether	21.59	248	36733	53.12	ug/mL#	89
57)	Hexachlorobenzene	21.58	284	38977	54.11	ug/mL	91
58)	Pentachlorophenol	22.29	266	26808	58.11	ug/mL	98
59)	Phenanthrene	22.85	178	189424	51.58	ug/mL	100
60)	Anthracene	23.00	178	178492	52.73	ug/mLm	99
61)	Carbazole	23.64	167	170215	53.76	ug/ml	100
62)	Di-n-butylphthalate	25.14	149	273873	50.81	ug/mL	99
63)	Fluoranthene	26.47	202	191126	55.04	ug/mLm	95
65)	Benzidine	27.14	184	58486	41.24	ug/mlm	100
66)	Pyrene	27.10	202	200950	41.28	ug/mLm	87
68)	Butylbenzylphthalate	29.69	149	124639	39.98	ug/mL	95
69)	Benzo[a]anthracene	30.87	228	210709	42.89	ug/mLm	99
70)	3,3'-Dichlorobenzidine	31.00	252	57942	46.26	ug/mL	99
71)	Chrysene	30.96	228	130675	47.82	ug/mLm	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	186121	42.09	ug/mL	99
74)	Di-n-octylphthalate	33.57	149	533971	44.86	ug/mLm	99
75)	Benzo[b]fluoranthene	33.93	252	251584	43.65	ug/mLm	99
76)	Benzo[k]fluoranthene	34.01	252	148737	53.49	ug/mLm	94
77)	Benzo[a]pyrene	33.93	252	147880	51.60	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.43	276	53465	50.57	ug/mLm	89
79)	Dibenz[a,h]anthracene	37.54	278	44917	44.12	ug/mL	98
80)	Benzo[g,h,i]perylene	38.01	276	34048	40.97	ug/mLm	98

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d Vial: 2
Acq On : 3 Jun 95 10:13 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: B8021.D DFTPP Injection Date: 6/26/95

Instrument ID: ABNA DFTPP Injection Time: 0057

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	54.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	68.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	50.7
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	8.6
275	10.0 - 30.0% of mass 198	23.0
365	Greater than 0.75% of mass 198	2.0
441	Present, but less than mass 443	8.3
442	40.0 - 110.0% of mass 198	47.8
443	15.0 - 24.0% of mass 442	10.1 (21.0)2

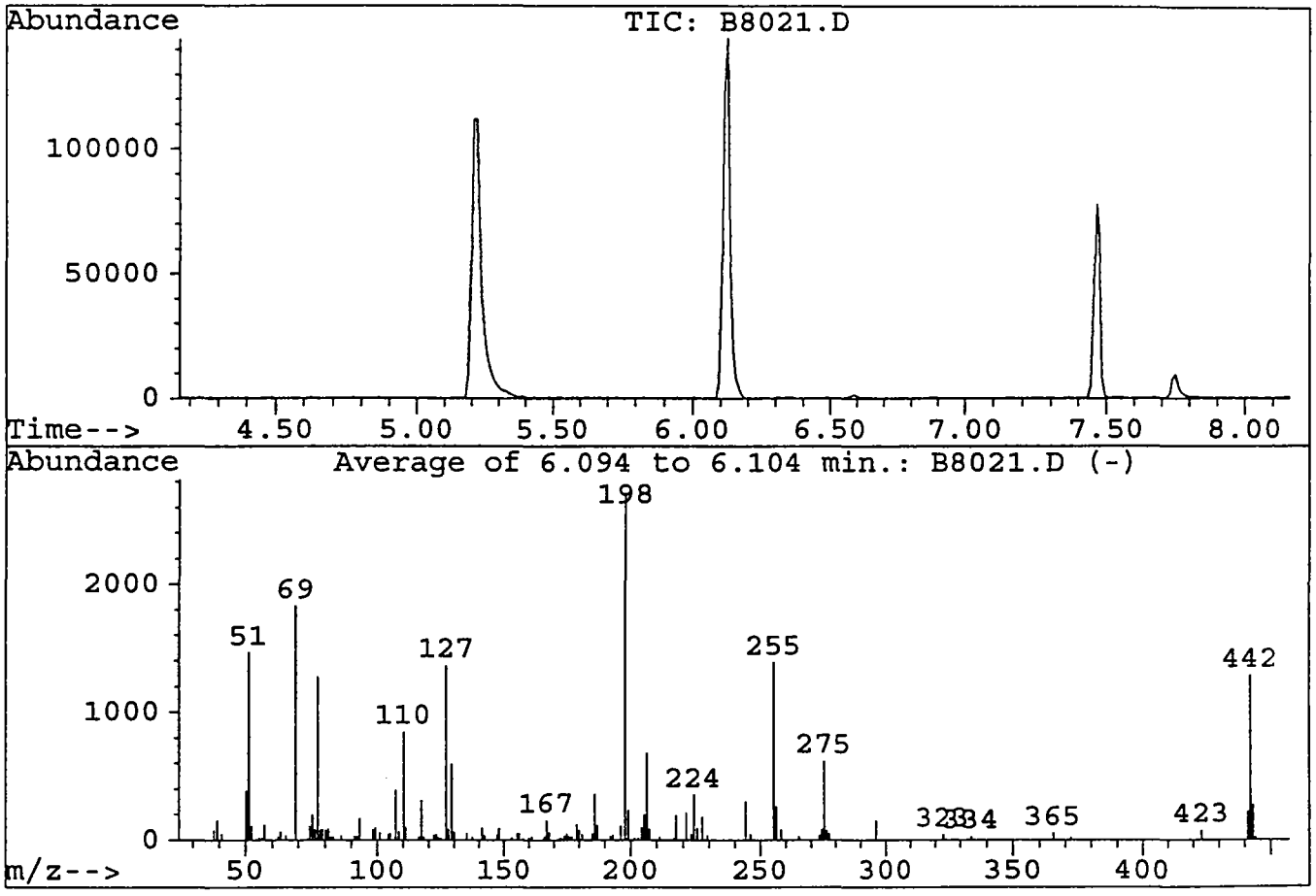
1-Value is % mass 69 2-Value is % mass 442

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	B8022.D	6/26/95	0132
02	SBLK01	BLANK1	B8023.D	6/26/95	0256
03	9526397B	9526397B	B8024.D	6/26/95	0349
04	9526427B	9526427B	B8025.D	6/26/95	0442
05	9526428B	9526428B	B8026.D	6/26/95	0535
06	9526429B	9526429B	B8027.D	6/26/95	0627
07	9526430B	9526430B	B8028.D	6/26/95	0719
08	9526431B	9526431B	B8029.D	6/26/95	0810
09	9526432B	9526432B	B8030.D	6/26/95	0901
10	9526433B	9526433B	B8031.D	6/26/95	0952
11	9526434B	9526434B	B8032.D	6/26/95	1043
12	9526404B	9526404B	B8033.D	6/26/95	1133
13	SBLK02	BLANK2	B8034.D	6/26/95	1223
14	9526460B	9526460B	B8035.D	6/26/95	1314
15	9526461B	9526461B	B8036.D	6/26/95	1404
16	9526462B	9526462B	B8037.D	6/26/95	1455
17	9526605B	9526605B	B8038.D	6/26/95	1545
18	9526606B	9526606B	B8039.D	6/26/95	1636
19	9526607B	9526607B	B8040.D	6/26/95	1726
20	9526608B	9526608B	B8041.D	6/26/95	1817
21	9526609B	9526609B	B8042.D	6/26/95	1907
22					

Data File : C:\HPCHEM\1\DATA2\B8021.D Vial: 1
Acq On : 26 Jun 95 12:57 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: 320

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.5	1464	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	68.1	1828	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	50.7	1362	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	2686	PASS
199	198	5	9	8.6	231	PASS
275	198	10	30	23.0	618	PASS
365	198	1	100	2.0	53	PASS
441	443	0	100	82.6	223	PASS
442	198	40	100	47.8	1283	PASS
443	442	17	23	21.0	270	PASS

Average of 6.094 to 6.104 min.: B8021.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	73	65.05	35	82.05	32	107.05	391
39.10	154	68.95	1828	83.05	24	108.15	63
41.00	47	73.15	15	85.95	33	110.05	845
50.05	385	74.05	106	91.05	29	111.00	98
51.05	1464	75.05	199	92.05	30	116.05	28
52.05	108	76.05	82	93.05	167	117.05	312
55.15	20	77.05	1273	98.05	82	117.95	23
56.05	14	78.05	80	99.05	95	122.00	38
57.05	119	79.00	85	100.95	58	122.90	46
62.05	25	80.05	80	104.05	42	124.00	22
63.05	63	81.05	88	104.95	53	124.90	16

Average of 6.094 to 6.104 min.: B8021.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.00	1362	155.10	51	175.10	51	196.10	109
127.95	83	156.00	47	176.00	29	198.00	2686
129.00	596	157.80	13	177.00	28	199.00	231
130.00	61	160.00	22	179.00	124	201.55	20
135.00	52	161.10	32	180.00	72	202.95	19
137.10	25	166.10	28	181.10	46	204.05	100
141.00	93	167.00	154	185.10	55	205.05	197
142.10	35	168.00	59	186.10	361	206.05	678
147.10	38	172.00	15	187.10	114	207.05	84
148.00	89	173.00	21	192.10	30	211.15	26
153.00	22	174.10	35	193.10	37	216.05	16

Average of 6.094 to 6.104 min.: B8021.D

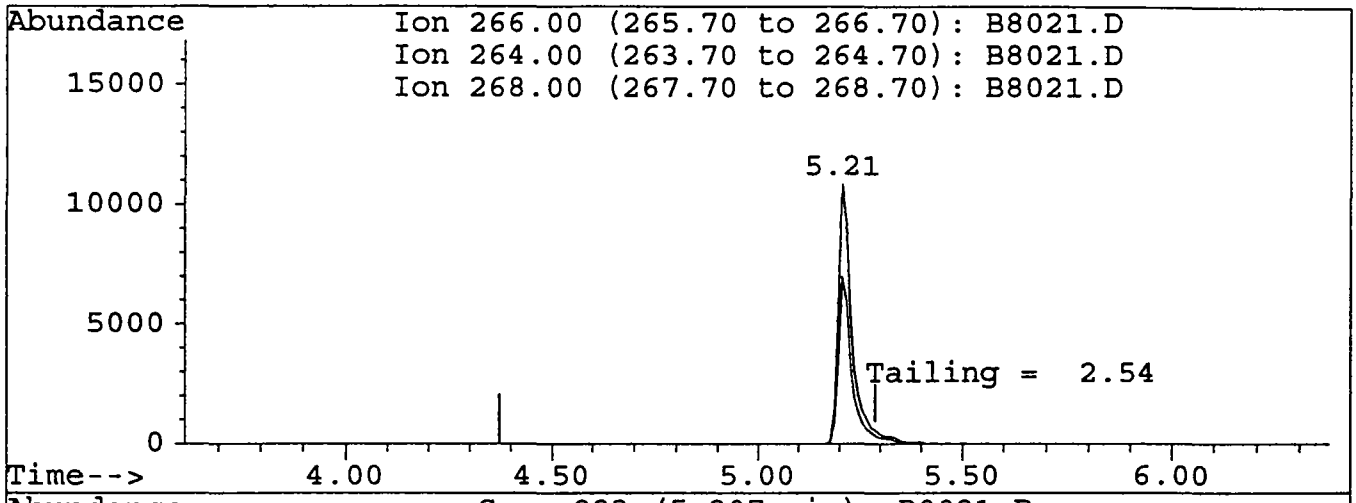
Modified:subtracted

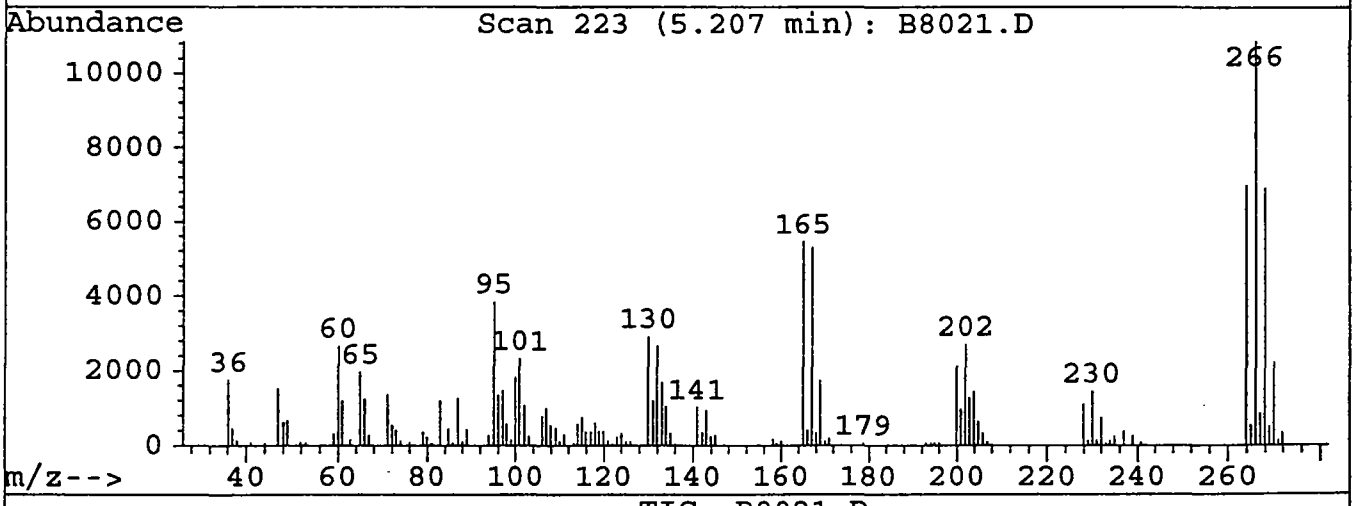
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
217.05	190	258.05	80	372.15	21		
221.05	214	265.05	28	423.10	74		
223.05	49	273.05	39	441.10	223		
224.00	353	274.05	86	442.10	1283		
225.05	91	275.05	618	443.10	270		
227.05	184	276.15	76	444.10	19		
229.05	33	277.15	48				
244.05	303	296.00	152				
246.05	46	323.10	44				
255.05	1384	334.20	26				
256.05	260	365.05	53				

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B8021.D Vial: 1
Acq On : 26 Jun 95 12:57 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 26 12:22 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration





TIC: B8021.D

(1) Pentachlorophenol (CM)

5.21min 78.31ug/mL

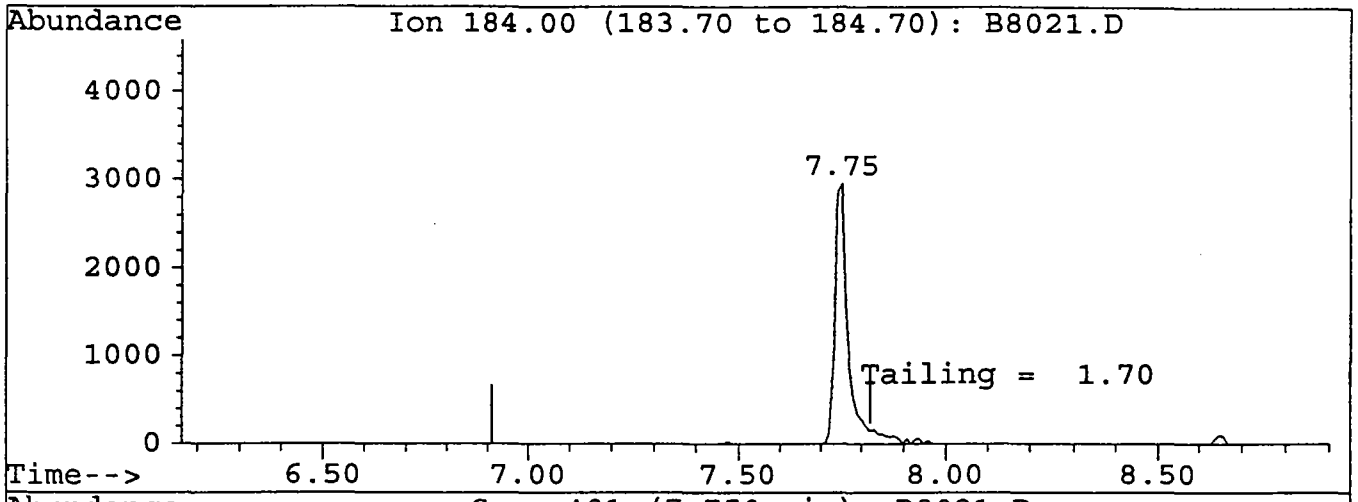
response 25865

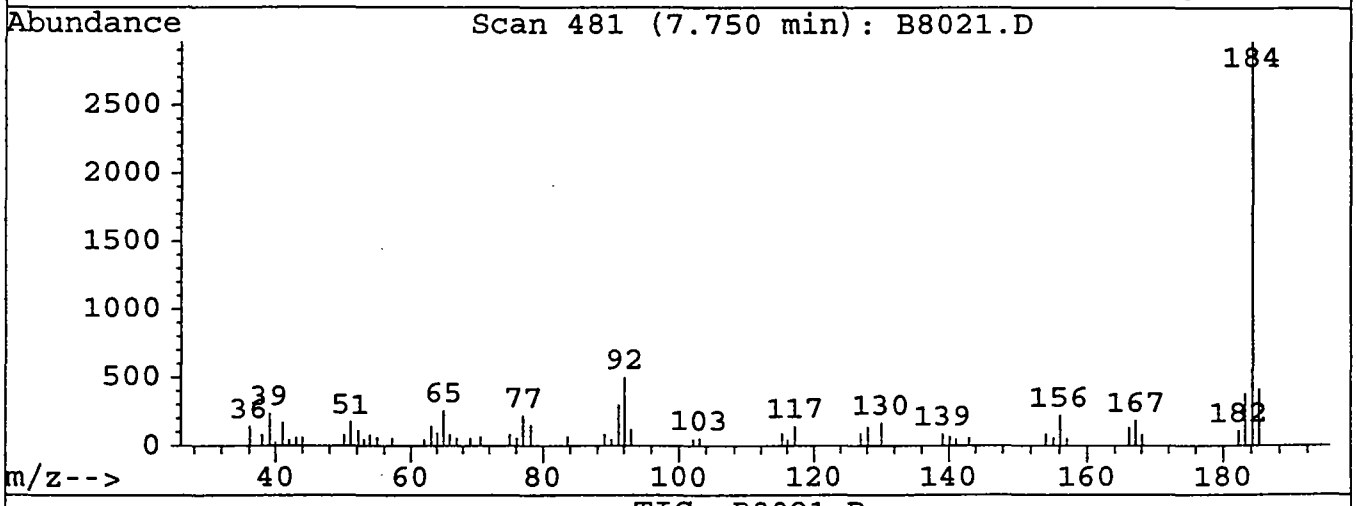
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	64.26
268.00	64.70	63.60
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B8021.D Vial: 1
Acq On : 26 Jun 95 12:57 am Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 26 12:22 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration





TIC: B8021.D

(2) Benzidine
7.75min 22.22ug/ml
response 6825

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: ABNA Calibration Date: 6/26/95 Time: 0132

Lab File ID: B8022.D Init. Calib. Date(s): 6/26/95 1/0/00

Init. Calib. Times: 0132 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.578	0.594		-2.8	
bis(2-Chloroethyl)ether	2.026	2.057		-1.5	
1,3-Dichlorobenzene	1.385	1.415		-2.2	
1,4-Dichlorobenzene	1.429	1.448		-1.3	30.0
1,2-Dichlorobenzene	1.357	1.394		-2.7	
bis(2-chloroisopropyl)ether	1.868	1.973		-5.6	
N-Nitroso-Di-n-propylamine	1.346	1.356	0.050	-0.7	
Hexachloroethane	0.737	0.753		-2.2	
Nitrobenzene	0.424	0.403		5.0	
Isophorone	0.893	0.801		10.3	
bis(2-Chloroethoxy)methane	0.456	0.437		4.2	
1,2,4-Trichlorobenzene	0.317	0.308		2.8	
Naphthalene	0.979	1.005		-2.7	
Hexachlorobutadiene	0.185	0.171		7.6	30.0
Hexachlorocyclopentadiene	0.278	0.256	0.050	7.9	
2-Chloronaphthalene	0.696	0.677		2.7	
Dimethylphthalate	1.299	1.315		-1.2	
Acenaphthylene	1.704	1.765		-3.6	
2,6-Dinitrotoluene	0.310	0.308		0.6	
Acenaphthene	1.025	1.045		-2.0	30.0
2,4-Dinitrotoluene	1.167	1.178		-0.9	
Diethylphthalate	1.443	1.428		1.0	
Fluorene	1.259	1.274		-1.2	
4-Chlorophenyl-phenylether	0.596	0.606		-1.7	
n-Nitrosodiphenylamine	0.508	0.555		-9.3	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.206	0.205		0.5	
Hexachlorobenzene	0.215	0.185		14.0	
Phenanthrene	1.094	1.121		-2.5	
Anthracene	1.009	1.054		-4.5	
Di-n-butylphthalate	1.606	1.858		-15.7	
Fluoranthene	1.035	1.239		-19.7	30.0
Benzidine	0.437	0.411		5.9	
Pyrene	1.502	1.348		10.3	
Butylbenzylphthalate	0.962	0.919		4.5	
Benzo[a]anthracene	1.516	1.273		16.0	
3,3'-Dichlorobenzidine	0.386	0.365		5.4	

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: 6/26/95 Time: 0132

Lab File ID: B8022.D Init. Calib. Date(s): 6/26/95 1/0/00

Init. Calib. Times: 0132 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chrysene	0.843	0.998		-18.4	
bis(2-Ethylhexyl)phthalate	1.364	1.344		1.5	
Di-n-octylphthalate	5.094	4.618		9.3	30.0
Benzo[b]fluoranthene	2.467	2.164		12.3	
Benzo[k]fluoranthene	1.190	1.213		-1.9	
Benzo[a]pyrene	1.227	1.263		-2.9	30.0
Indeno[1,2,3-cd]pyrene	0.452	0.378		16.4	
Dibenz[a,h]anthracene	0.436	0.371		14.9	
Benzo[g,h,i]perylene	0.356	0.325		8.7	
Nitrobenzene-d5	0.456	0.433		5.0	
2-Fluorobiphenyl	1.200	1.208		-0.7	
Terphenyl-d14	1.062	0.883		16.9	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B8022.D Vial: 2
Acq On : 26 Jun 95 1:32 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 : Thu Jun 15 14:15:34 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	72	0.00
2	S	2-Fluorophenol	1.131	1.081	4.4	73	0.04
3	S	Phenol-d5	1.873	1.726	7.8	72	0.04
4	M	N-nitrosodimethylamine	0.578	0.594	-2.7	59	0.36
5		Pyridine	1.374	0.000#	100.0#	0#	-1.62#
6	CM	Phenol	1.668	1.648	1.2	70	0.02
7	MT	bis(2-Chloroethyl)ether	2.026	2.057	-1.5	73	0.02
8	M	2-Chlorophenol	1.269	1.246	1.8	72	0.02
9	MT	1,3-Dichlorobenzene	1.385	1.415	-2.2	72	0.00
10	CM	1,4-Dichlorobenzene	1.429	1.448	-1.4	71	0.00
11	M	1,2-Dichlorobenzene	1.357	1.394	-2.7	73	0.00
12	T	2-Methylphenol	1.204	1.327	-10.2	82	0.54#
13	M	bis(2-chloroisopropyl)ether	1.868	1.973	-5.6	82	0.04
14	T	4-Methylphenol	1.322	1.327	-0.4	73	0.04
15	PM	N-Nitroso-Di-n-propylamine	1.346	1.356	-0.8	77	0.00
16	M	Hexachloroethane	0.737	0.753	-2.2	73	0.02
17	I	Naphthalene-d8	1.000	1.000	0.0	72	0.02
18	S	Nitrobenzene-d5	0.456	0.433	4.9	71	0.00
19	M	Nitrobenzene	0.424	0.403	5.0	66	0.00
20	M	Isophorone	0.893	0.801	10.4	70	0.00
21	MC	2-Nitrophenol	0.210	0.193	8.1	69	0.02
22	M	2,4-Dimethylphenol	0.394	0.394	-0.0	74	0.04
23	M	bis(2-Chloroethoxy)methane	0.456	0.437	4.1	69	0.00
24	MC	2,4-Dichlorophenol	0.298	0.276	7.3	68	0.06
25	M	1,2,4-Trichlorobenzene	0.317	0.308	2.8	69	0.00
26	M	Naphthalene	0.979	1.005	-2.7	75	0.02
27	T	4-Chloroaniline	0.463	0.417	9.9	64	0.02
28	MC	Hexachlorobutadiene	0.185	0.171	7.4	66	0.02
29	MC	4-Chloro-3-methylphenol	0.384	0.354	7.9	66	0.06
30	M	2-Chloronaphthalene	0.696	0.677	2.7	70	0.04
31	T	2-Methylnaphthalene	0.786	0.928	-18.1	95	0.02
32	I	Acenaphthene-d10	1.000	1.000	0.0	70	0.04
33	P	Hexachlorocyclopentadiene	0.278	0.256	7.9	70	0.02
34	MC	2,4,6-Trichlorophenol	0.415	0.340	18.2	63	0.04
35	T	2,4,5-Trichlorophenol	0.324	0.372	-14.8	70	0.06
36	S	2-Fluorobiphenyl	1.200	1.208	-0.7	72	0.04
37	T	2-Nitroaniline	0.549	0.507	7.6	62	0.04
	M	Dimethylphthalate	1.299	1.315	-1.2	71	0.04
	M	Acenaphthylene	1.704	1.765	-3.6	72	0.04
40	M	2,6-Dinitrotoluene	0.310	0.308	0.7	66	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B8022.D Vial: 2
Acq On : 26 Jun 95 1:32 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 : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	T	3-Nitroaniline	0.346	0.332	3.9	64	0.06
42	CM	Acenaphthene	1.025	1.045	-1.9	71	0.04
43	MP	2,4-Dinitrophenol	0.172	0.155	10.3	70	0.06
44	PM	4-Nitrophenol	0.166	0.158	4.4	66	0.09
45	T	Dibenzofuran	1.609	1.532	4.7	64	0.04
46	M	2,4-Dinitrotoluene	1.167	1.178	-0.9	72	0.05
47	M	Diethylphthalate	1.443	1.428	1.1	69	0.02
48	M	Fluorene	1.259	1.274	-1.2	73	0.05
49	M	4-Chlorophenyl-phenylether	0.596	0.606	-1.6	72	0.05
50		Phenanthrene-d10	1.000	1.000	0.0	67	0.05
51	T	4-Nitroaniline	0.166	0.198	-19.1	62	0.05
52	MC	4,6-Dinitro-2-methylphenol	0.132	0.136	-3.3	71	0.05
53	T	n-Nitrosodiphenylamine	0.508	0.555	-9.2	70	0.05
54	S	2,4,6-Tribromophenol	0.108	0.091	15.7	58	0.05
55		1,2-Diphenylhydrazine (as a	1.211	1.303	-7.6	67	0.05
56	M	4-Bromophenyl-phenylether	0.206	0.205	0.5	63	0.05
57	M	Hexachlorobenzene	0.215	0.185	13.9	54	0.05
58	CM	Pentachlorophenol	0.137	0.134	2.3	68	0.07
59	M	Phenanthrene	1.094	1.121	-2.4	69	0.05
60	M	Anthracene	1.009	1.054	-4.5	69	0.05
61		Carbazole	0.944	0.932	1.2	65	0.07
62	M	Di-n-butylphthalate	1.606	1.858	-15.7	76	0.05
63	MC	Fluoranthene	1.035	1.239	-19.7	74	0.07
64	I	Chrysene-d12	1.000	1.000	0.0	71	0.10
65		Benzidine	0.437	0.411	5.9	73	0.09
66	M	Pyrene	1.502	1.348	10.2	75	0.07
67	S	Terphenyl-d14	1.062	0.883	16.9	71	0.09
68	M	Butylbenzylphthalate	0.962	0.919	4.4	77	0.09
69	M	Benzo[a]anthracene	1.516	1.273	16.0	67	0.10
70	M	3,3'-Dichlorobenzidine	0.386	0.365	5.5	73	0.10
71	M	Chrysene	0.843	0.998	-18.4	92	0.10
72	M	bis(2-Ethylhexyl)phthalate	1.364	1.344	1.5	76	0.08
73	I	Perylene-d12	1.000	1.000	0.0	102	0.09
74	MC	Di-n-octylphthalate	5.094	4.618	9.4	100	0.08
75	M	Benzo[b]fluoranthene	2.467	2.164	12.3	88	0.10
76	m	Benzo[k]fluoranthene	1.190	1.213	-1.9	112	0.10
77	mc	Benzo[a]pyrene	1.227	1.263	-2.9	95	0.10
78	m	Indeno[1,2,3-cd]pyrene	0.452	0.378	16.3	93	0.05
79	m	Dibenz[a,h]anthracene	0.436	0.371	14.9	104	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B8022.D Vial: 2
Acq On : 26 Jun 95 1:32 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 : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration

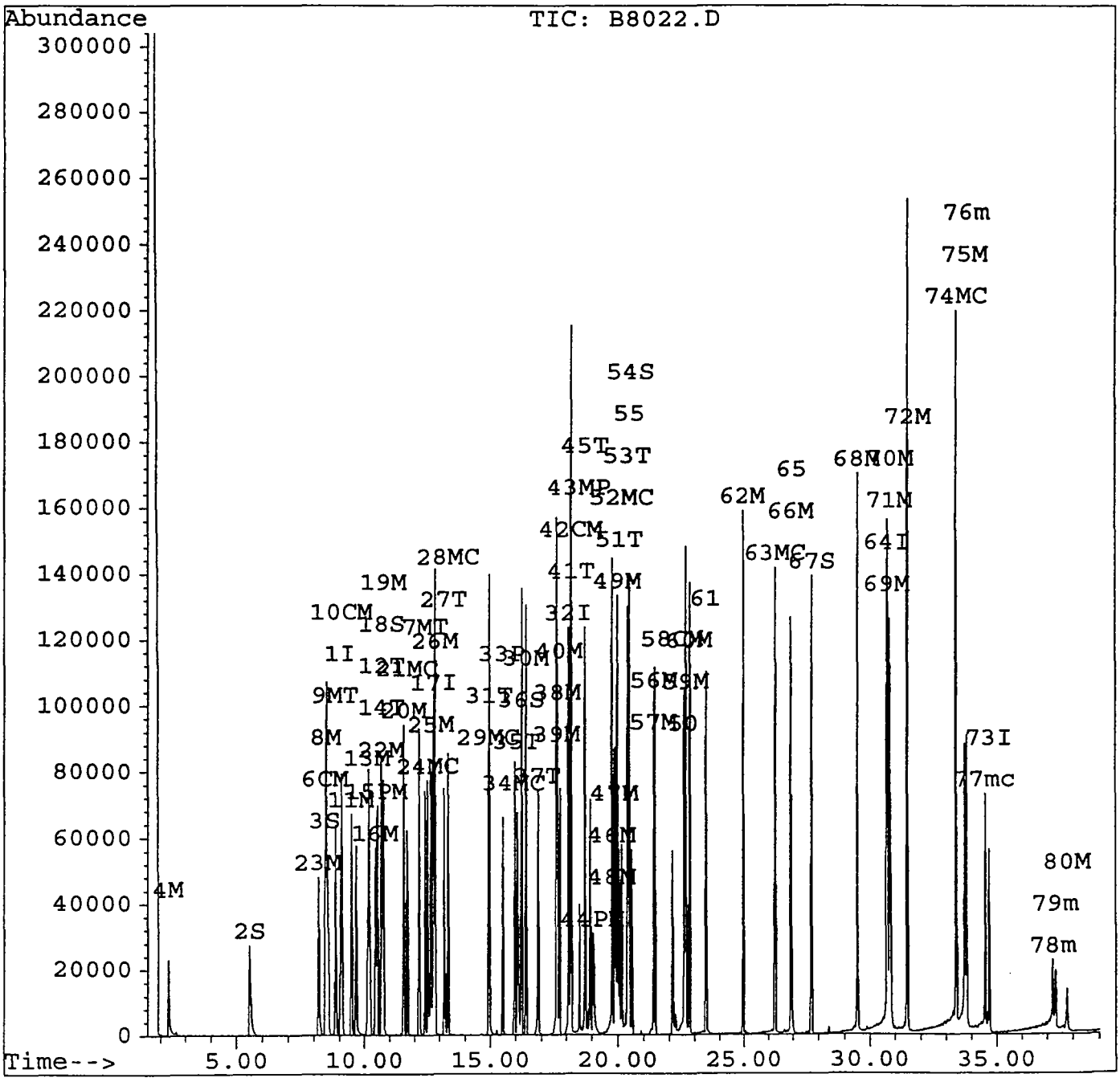
Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0.356	0.325	8.7	102	0.03
81		1-Methyl naphthalene	0.000	0.000#	0.0	27#	0.00
82		7,12-Dimethylbenz(a)anthrac	0.000	0.000#	0.0	97	0.09
83		Quinoline	0.000	0.000#	0.0	62	0.02
84		Thiophenol	0.000	0.000#	0.0	0#	-5.47#
85		4-Methyl chrysene	0.000	0.000#	0.0	78	0.10
86		Dibenz(a,j)acridine	0.000	0.000#	0.0	82	0.08
87		Indene	0.000	0.000#	0.0	0#	-9.03#
88		Benzyl alcohol	1.050	0.000#	100.0#	0#	-9.70#
89		Benzoic acid	0.964	0.000#	100.0#	0#	-12.98#

Quantitation Report

Data File : c:\hpchem\1\data2\b8022.d Vial: 2
Acq On : 26 Jun 95 1:32 am Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 13:51 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration



SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	29236	9.21	116999	12.92	80656	18.26
	UPPER LIMIT	58472	9.71	233998	13.42	161312	18.76
	LOWER LIMIT	14618	8.71	58500	12.42	40328	17.76
	SAMPLE NO.						
01	SBLK01	29342	9.21	113640	12.92	77393	18.25
02	9521072B	43362	9.20	172473	12.92	120771	18.25
03	9521073B	49674	9.20	207002	12.94	136613	18.27
04	SBLK02	45568	9.20	183778	12.92	124916	18.27
05	9522265B	38448	9.21	156239	12.92	104790	18.25
06	9522845B	34293	9.20	139874	12.92	94484	18.25
07	SBLK03	31802	9.20	131302	12.92	86836	18.27
08	9523339B	31877	9.20	132687	12.92	87914	18.25
09	9523341B	37996	9.20	159444	12.94	104434	18.27
10	9523342B	34168	9.20	146228	12.94	97312	18.27
11	9523343B	33809	9.20	139851	12.92	93023	18.27
12	9523530B	34840	9.20	145007	12.92	98737	18.25
13	9523531B	35055	9.20	145276	12.92	99265	18.27
14	9523533B	36725	9.20	152052	12.92	102907	18.27
15	9523534B	37321	9.29	127658	13.06	64338	18.50
16	9523535B	36905	9.21	144207	12.92	97310	18.26
17	9523536B	36125	9.20	148482	12.92	99681	18.27
18	SBLK04	38489	9.20	152333	12.92	104920	18.25
19	9523789B	39839	9.20	162610	12.92	110929	18.27
20	9523792B	36962	9.20	155161	12.92	105988	18.27
21	9523787B	38496	9.20	159554	12.92	108441	18.27
22	SBLK05	43303	9.20	177127	12.92	122916	18.27

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	29236	9.21	116999	12.92	80656	18.26
	UPPER LIMIT	58472	9.71	233998	13.42	161312	18.76
	LOWER LIMIT	14618	8.71	58500	12.42	40328	17.76
	SAMPLE NO.						
01	22654MS	33780	9.20	129967	12.94	93254	18.26
02	22654MSD	35303	9.20	144937	12.94	99611	18.26
03	22659MS	28616	9.20	119812	12.94	81829	18.26
04	22659MSD	30456	9.21	121585	12.94	84364	18.26
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	134208	22.77	129676	30.89	93467	34.90
	UPPER LIMIT	268416	23.27	259352	31.39	186934	35.40
	LOWER LIMIT	67104	22.27	64838	30.39	46734	34.40
	SAMPLE NO.						
01	SBLK01	127774	22.76	144639	30.86	143369	34.89
02	9521072B	201946	22.77	208937	30.89	160791	34.90
03	9521073B	222787	22.77	231737	30.89	165808	34.90
04	SBLK02	200423	22.77	227269	30.88	184816	34.91
05	9522265B	172502	22.78	184570	30.88	122938	34.91
06	9522845B	149864	22.78	156654	30.88	124082	34.91
07	SBLK03	142609	22.77	151919	30.88	122270	34.91
08	9523339B	145640	22.78	157437	30.89	128975	34.92
09	9523341B	172617	22.77	198222	30.90	166777	34.93
10	9523342B	156213	22.77	174808	30.88	147217	34.91
11	9523343B	149747	22.77	162481	30.88	137109	34.91
12	9523530B	159922	22.78	179407	30.88	152667	34.91
13	9523531B	164218	22.77	179435	30.88	151215	34.91
14	9523533B	167089	22.77	185071	30.88	155624	34.91
15	9523534B	126172	22.95	162548	30.91	85072	34.88
16	9523535B	153052	22.76	160811	30.89	134801	34.89
17	9523536B	149413	22.77	158425	30.88	129419	34.91
18	SBLK04	168411	22.78	175380	30.88	148566	34.91
19	9523789B	183194	22.77	209328	30.88	181543	34.91
20	9523792B	175832	22.77	198461	30.88	168915	34.91
21	9523787B	177208	22.77	191680	30.88	155077	34.91
22	SBLK05	199698	22.77	216974	30.88	174620	34.91

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95

Instrument ID: ABNA Time Analyzed: 1013

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	134208	22.77	129676	30.89	93467	34.90
	UPPER LIMIT	268416	23.27	259352	31.39	186934	35.40
	LOWER LIMIT	67104	22.27	64838	30.39	46734	34.40
	SAMPLE NO.						
01	22654MS	155903	22.77	148922	30.91	65345	34.91
02	22654MSD	164759	22.77	152801	30.91	66464	34.91
03	22659MS	135678	22.77	133913	30.90	64806	34.89
04	22659MSD	145091	22.77	140877	30.90	65773	34.90
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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

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B8022.D Date Analyzed: 6/26/95

Instrument ID: ABNA Time Analyzed: 0132

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	21442	9.03	89144	12.77	57304	18.08
	UPPER LIMIT	42884	9.53	178288	13.27	114608	18.58
	LOWER LIMIT	10721	8.53	44572	12.27	28652	17.58
	SAMPLE NO.						
01	SBLK01	18647	9.05	76527	12.74	50131	18.07
02	9526397B	23451	9.05	97748	12.74	61605	18.08
03	9526427B	24416	9.05	99072	12.75	65585	18.08
04	9526428B	24553	9.03	101580	12.75	66203	18.08
05	9526429B	27637	9.03	109180	12.75	72940	18.08
06	9526430B	30774	9.04	131052	12.75	85269	18.07
07	9526431B	28375	9.04	119977	12.73	76248	18.07
08	9526432B	26867	9.03	111812	12.75	72507	18.06
09	9526433B	31882	9.03	132938	12.75	85781	18.06
10	9526434B	31359	9.03	130386	12.75	86662	18.06
11	9526404B	27624	9.15	99335	12.91	50190	18.32
12	SBLK02	34799	9.04	143633	12.75	96973	18.06
13	9526460B	31927	9.03	123816	12.75	83112	18.06
14	9526461B	32045	9.03	130665	12.75	88931	18.06
15	9526462B	31027	9.04	127134	12.75	84900	18.06
16	9526605B	32505	9.03	129997	12.74	90498	18.06
17	9526606B	33509	9.03	130010	12.74	89335	18.06
18	9526607B	31707	9.03	125566	12.74	86746	18.06
19	9526608B	29751	9.03	123689	12.75	85078	18.06
20	9526609B	32785	9.03	132417	12.73	89239	18.06
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

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): B8022.D Date Analyzed: 6/26/95

Instrument ID: ABNA Time Analyzed: 0132

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	88470	22.57	83496	30.68	46248	34.69
	UPPER LIMIT	176940	23.07	166992	31.18	92496	35.19
	LOWER LIMIT	44235	22.07	41748	30.18	23124	34.19
	SAMPLE NO.						
01	SBLK01	82468	22.58	90615	30.68	86128	34.70
02	9526397B	102617	22.58	113970	30.68	83805	34.71
03	9526427B	109899	22.58	116909	30.67	78497	34.69
04	9526428B	106319	22.57	105542	30.67	89295	34.69
05	9526429B	118151	22.57	120174	30.67	83249	34.70
06	9526430B	138762	22.57	149884	30.67	58029	34.70
07	9526431B	128318	22.57	147780	30.68	61251	34.70
08	9526432B	120490	22.57	139055	30.67	62024	34.69
09	9526433B	142537	22.57	146160	30.67	48583	34.68
10	9526434B	139691	22.57	162373	30.67	59773	34.69
11	9526404B	80940	22.81	108486	30.70	87968	34.66
12	SBLK02	164949	22.57	155418	30.67	60234	34.68
13	9526460B	128520	22.57	125979	30.66	86508	34.68
14	9526461B	150455	22.57	151786	30.67	57313	34.70
15	9526462B	143517	22.57	163582	30.67	70818	34.70
16	9526605B	149315	22.56	159677	30.66	32874	34.69
17	9526606B	146020	22.56	165364	30.67	64198	34.69
18	9526607B	133121	22.56	156278	30.66	82524	34.69
19	9526608B	147468	22.58	155888	30.67	60262	34.69
20	9526609B	142783	22.56	163992	30.67	46820	34.68
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 ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO.

9526605B

F13

197

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# Site: BLDG# NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526605B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8038.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO.

9526605B
FB

198

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# Site: BLDG# NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526605B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8038.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

FORT MONMOUTH NJ IF

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9526605B
FB

199

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# Site: BLDG# NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526605B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8038.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N) N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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.				
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30.				

Data File : c:\hpchem\1\data2\b8038.d Vial: 18
Acq On : 26 Jun 95 3:45 pm Operator: SCOTTV
Sample : 26605..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 15:14 1995

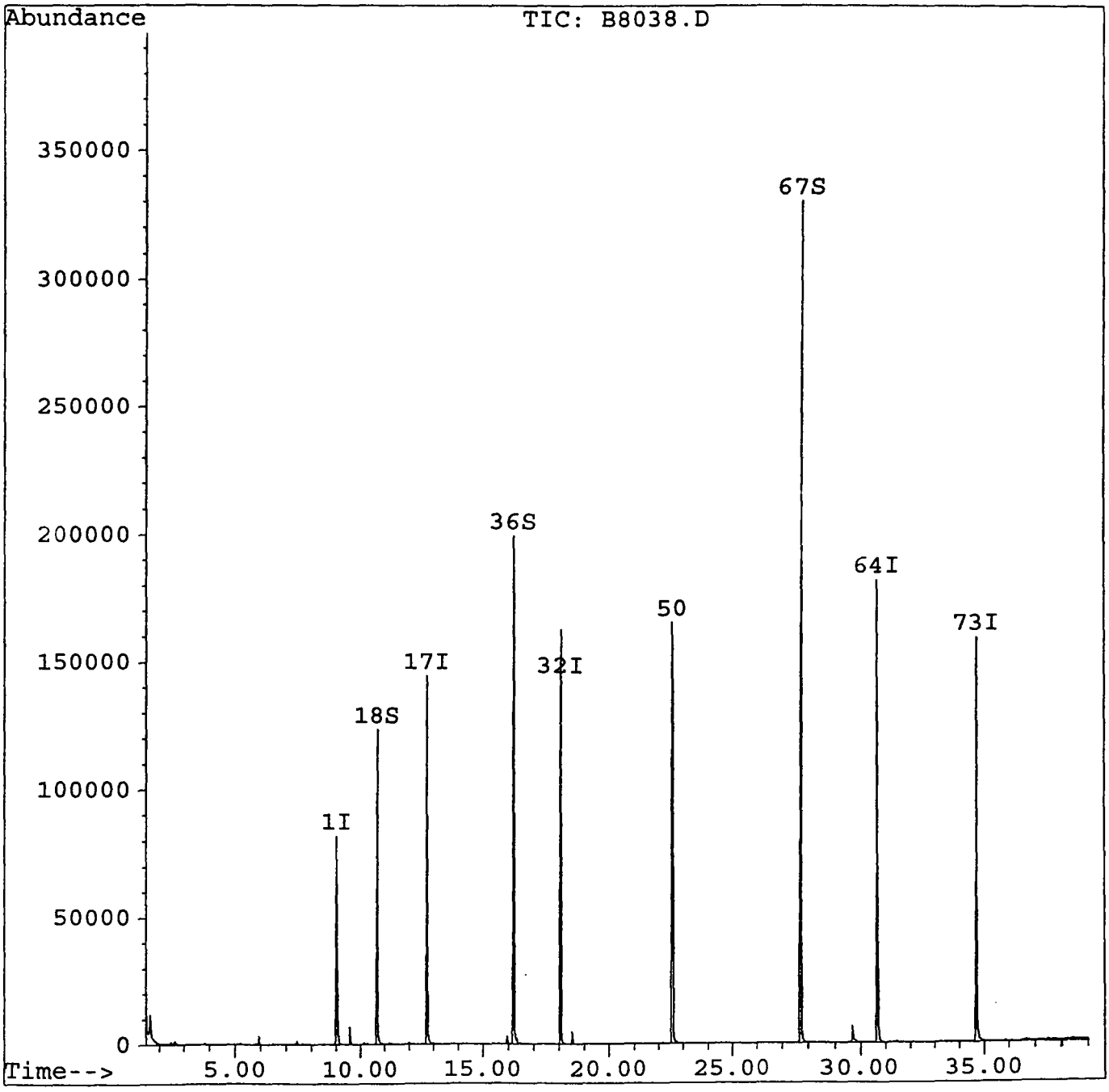
Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.03	152	32505	40.00	ug/mL	0.00
17) Naphthalene-d8	12.74	136	129997	40.00	ug/mL	0.00
32) Acenaphthene-d10	18.06	164	90498	40.00	ug/mL	0.01
50) Phenanthrene-d10	22.56	188	149315	40.00	ug/ml	0.04
64) Chrysene-d12	30.66	240	159677	40.00	ug/mL	0.09
73) Perylene-d12	34.69	264	32874	40.00	ug/mL	0.09
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.03	99	367	0.24	ug/mL	0.24%
18) Nitrobenzene-d5	10.70	82	85114	57.47	ug/mL	57.47%
36) 2-Fluorobiphenyl	16.21	172	166168	61.21	ug/mL	61.21%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	27.74	244	278687	65.76	ug/mL	65.76%
Target Compounds						**Qvalue**

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

Data File : c:\hpchem\1\data2\b8038.d Vial: 18
Acq On : 26 Jun 95 3:45 pm Operator: SCOTTV
Sample : 26605..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 15:14 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration



SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO.

9526609B

mw1-293789

202

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# Site: BLDG# 2534 NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526609B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8042.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO.

9526609B

MW1-253178

203

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# Site: BLDG# 234 NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526609B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8042.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

FORT MONMOUTH NJ 1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9526609B
MW1-293/789

204

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# Site: BLDG# 2534 NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526609B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8042.D

Level: (low/med) Date Received: 6/15/95

% Moisture: decanted: (Y/N) N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

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. 112-27-6	Triethylene glycol	29.46	9	J
2. 23778-52-1	2,5,8,11,14-Pentaoxahexadeca	32.36	5	J
3.				
4.				
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Quantitation Report

Data File : c:\hpchem\1\data2\b8042.d Vial: 22
Acq On : 26 Jun 95 7:07 pm Operator: SCOTTV
Sample : 26609..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 15:56 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration

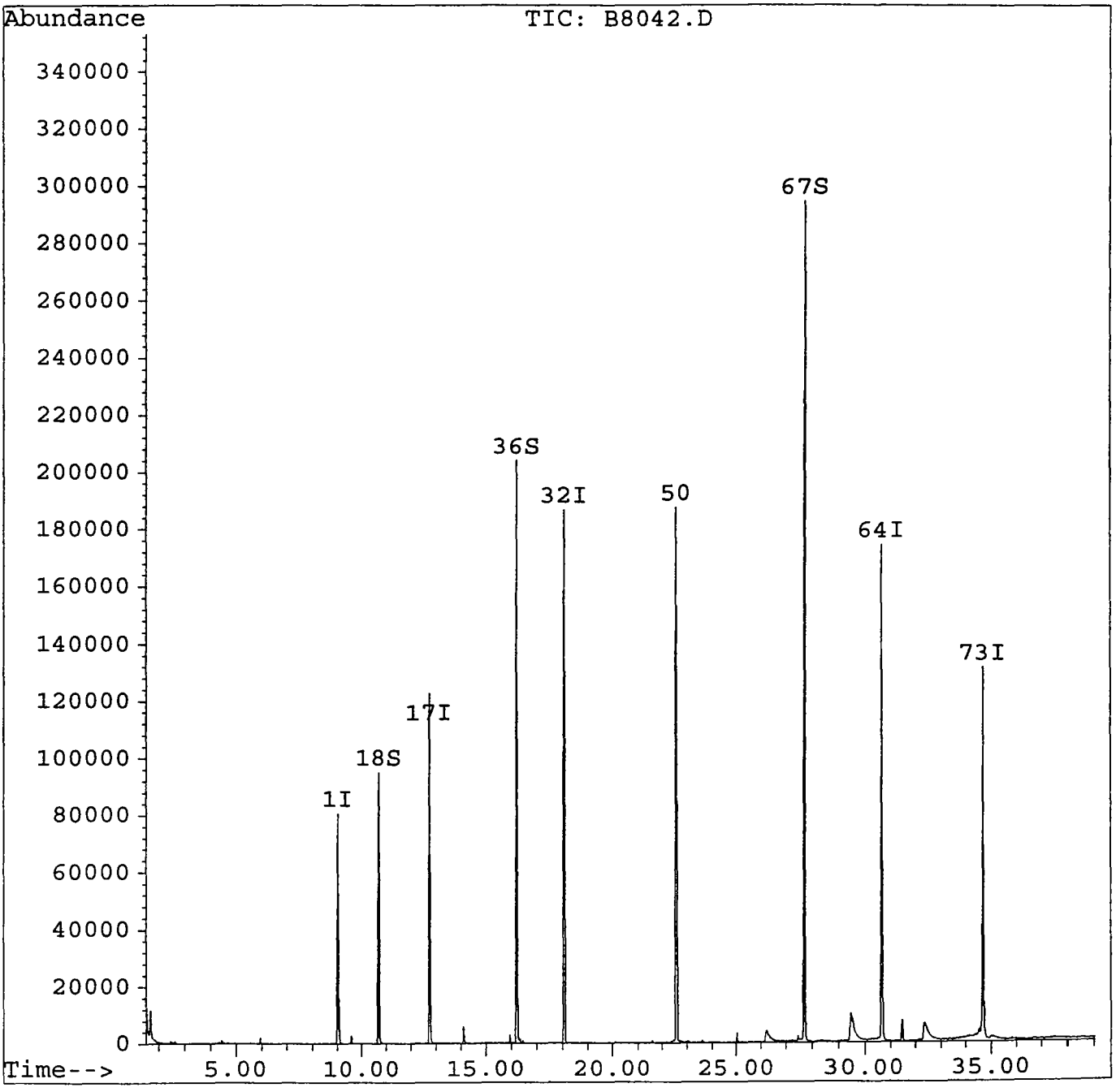
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.03	152	32785	40.00	ug/mL	0.00
17) Naphthalene-d8	12.73	136	132417	40.00	ug/mL	-0.02
32) Acenaphthene-d10	18.06	164	89239	40.00	ug/mL	0.01
50) Phenanthrene-d10	22.56	188	142783	40.00	ug/ml	0.05
64) Chrysene-d12	30.67	240	163992	40.00	ug/mL	0.09
73) Perylene-d12	34.68	264	46820	40.00	ug/mL	0.08
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.03	99	377	0.25	ug/mL	0.25%
18) Nitrobenzene-d5	10.69	82	64108	42.49	ug/mL	42.49%
36) 2-Fluorobiphenyl	16.21	172	137333	51.30	ug/mL	51.30%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	27.72	244	287795	66.12	ug/mL	66.12%
Target Compounds						**Qvalue**

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

Quantitation Report

Data File : c:\hpchem\1\data2\b8042.d Vial: 22
Acq On : 26 Jun 95 7:07 pm Operator: SCOTTV
Sample : 26609..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 15:56 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration



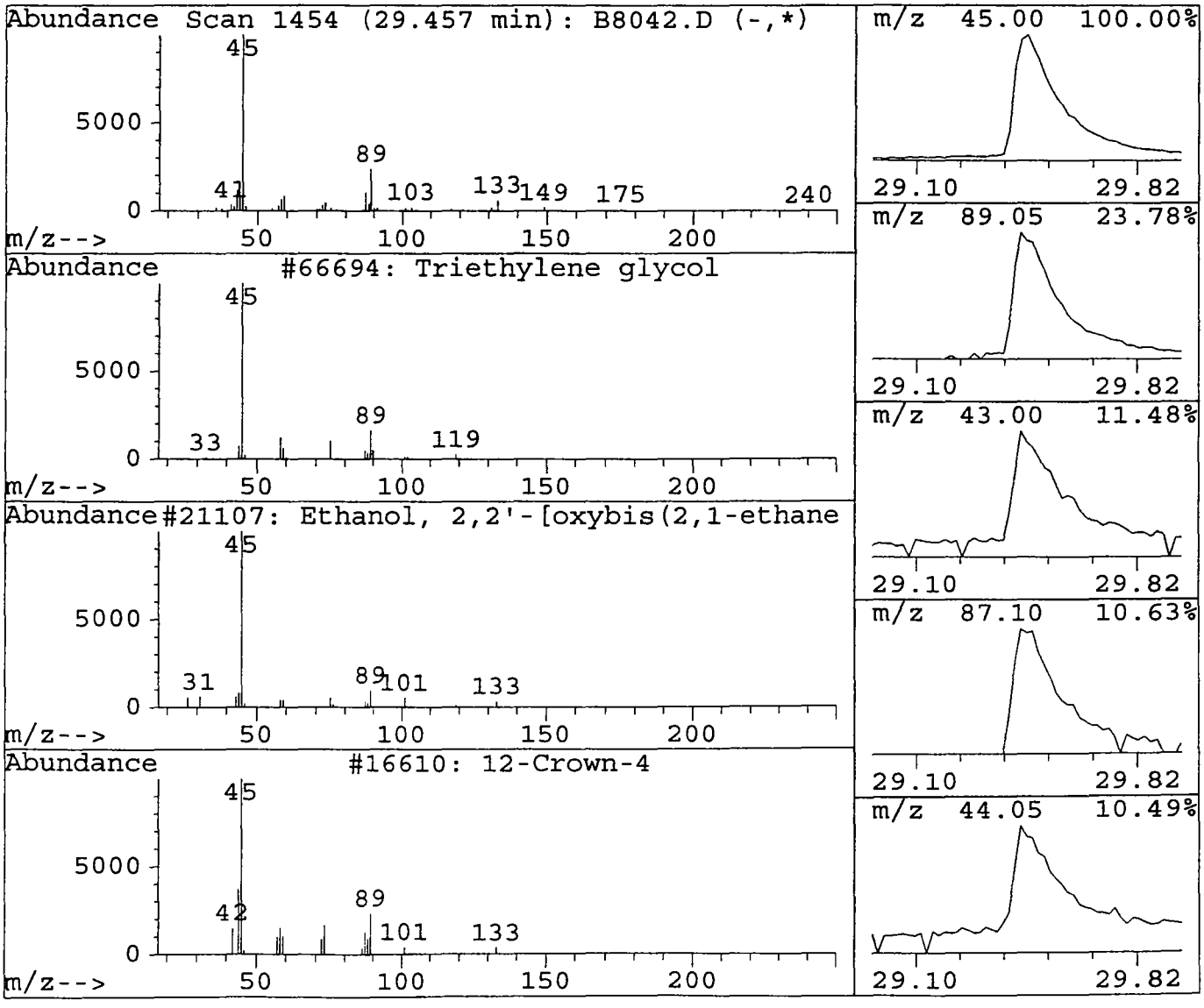
207

Data File : c:\hpchem\1\data2\b8042.d Vial: 22
Acq On : 26 Jun 95 7:07 pm Operator: SCOTTV
Sample : 26609..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.46	8.78 ug/ml	99481	Chrysene-d12	30.67

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Triethylene glycol	66694	000112-27-6	78
2	Ethanol, 2,2'-[oxybis(2,1-ethanediy	21107	000112-60-7	64
3	12-Crown-4	16610	000294-93-9	56
4	Ethanol, 2-[2-(2-methoxyethoxy)etho	13311	000112-35-6	56
5	2,5,8,11,14-Pentaoxahexadecan-16-ol	34228	023778-52-1	50

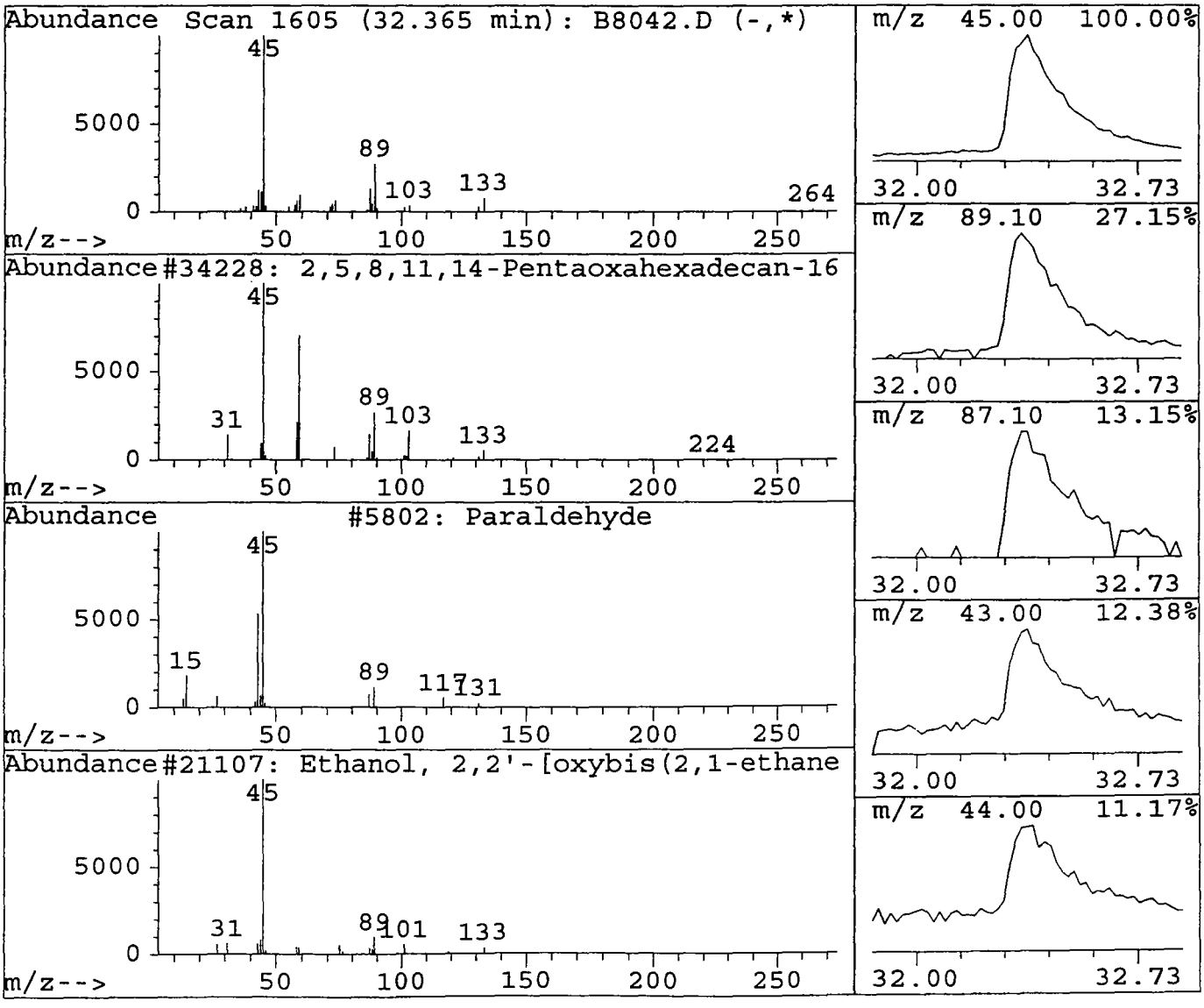


Data File : c:\hpchem\1\data2\b8042.d Vial: 22
Acq On : 26 Jun 95 7:07 pm Operator: SCOTTV
Sample : 26609..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

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.
32.36	4.90 ug/ml	55547	Chrysene-d12	30.67

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,5,8,11,14-Pentaoxahexadecan-16-ol	34228	023778-52-1	72
2	Paraldehyde	5802	000123-63-7	59
3	Ethanol, 2,2'-[oxybis(2,1-ethanediy	21107	000112-60-7	59
4	3,6,9,12-Tetraoxahexadecan-1-ol	33845	001559-34-8	56
5	12-Crown-4	68504	000294-93-9	56



2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK02	29	23	38						
02	9522265B	44	37	66						
03	9522845B	60	49	73						
04	SBLK03	68	67	89						
05	9523339B	73	69	60						
06	9523341B	61	60	63						
07	9523342B	74	70	68						
08	9523343B	64	62	72						
09	9523530B	64	61	65						
10	9523531B	73	67	69						
11	9523533B	40	39	64						
12	9523534B	81	67	76						
13	9523535B	70	69	68						
14	9523536B	62	65	68						
15	SBLK04	62	61	68						
16	9523789B	57	61	72						
17	9523792B	60	64	70						
18	9523787B	39	43	63						
19	SBLK05	57	55	63						
20	22654MS	91	63	82						
21	22654MSD	74	61	72						
22	22659MS	75	67	80						
23	22659MSD	78	65	78						
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

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	73	75	75						
02	9526397B	32	31	65						
03	9526427B	55	54	67						
04	9526428B	43	47	73						
05	9526429B	71	80	75						
06	9526430B	67	73	69						
07	9526431B	58	64	56						
08	9526432B	50	58	67						
09	9526433B	47	55	68						
10	9526434B	67	72	67						
11	9526404B	67	72	62						
12	SBLK02	42	47	82						
13	9526460B	43	53	67						
14	9526461B	46	54	82						
15	9526462B	43	54	68						
16	9526605B	57	61	66						
17	9526606B	50	53	69						
18	9526607B	40	43	41						
19	9526608B	24	36	47						
20	9526609B	42	51	66						
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLK05

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: B7825.D Lab Sample ID: BLANK5

Instrument ID: ABNA Date Extracted: 5/23/95

Matrix: (soil/water) WATER Date Analyzed: 6/4/95

Level: (low/med) Time Analyzed: 0435

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	22654MS	22654MS	B7826.D	06/04/95
02	22654MSD	22654MSD	B7827.D	06/04/95
03	22659MS	22659MS	B7828.D	06/04/95
04	22659MSD	22659MSD	B7829.D	06/04/95
05				
06				
07				
08				
09				
10				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 212

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
108-95-2	Phenol	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
95-57-8	2-Chlorophenol	2	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
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	3	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	3	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	3	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
51-28-5	2,4-Dinitrophenol	24	U
100-02-7	4-Nitrophenol	21	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

SAMPLE NO. 213

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: _____

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
534-52-1	4,6-Dinitro-2-methylphenol	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
87-86-5	Pentachlorophenol	5	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 214

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: 5/24/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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. 215

SBLK05

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7825.D

Level: (low/med) _____ Date Received: 5/24/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7825.d Vial: 24
Acq On : 4 Jun 95 4:35 am Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 16:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

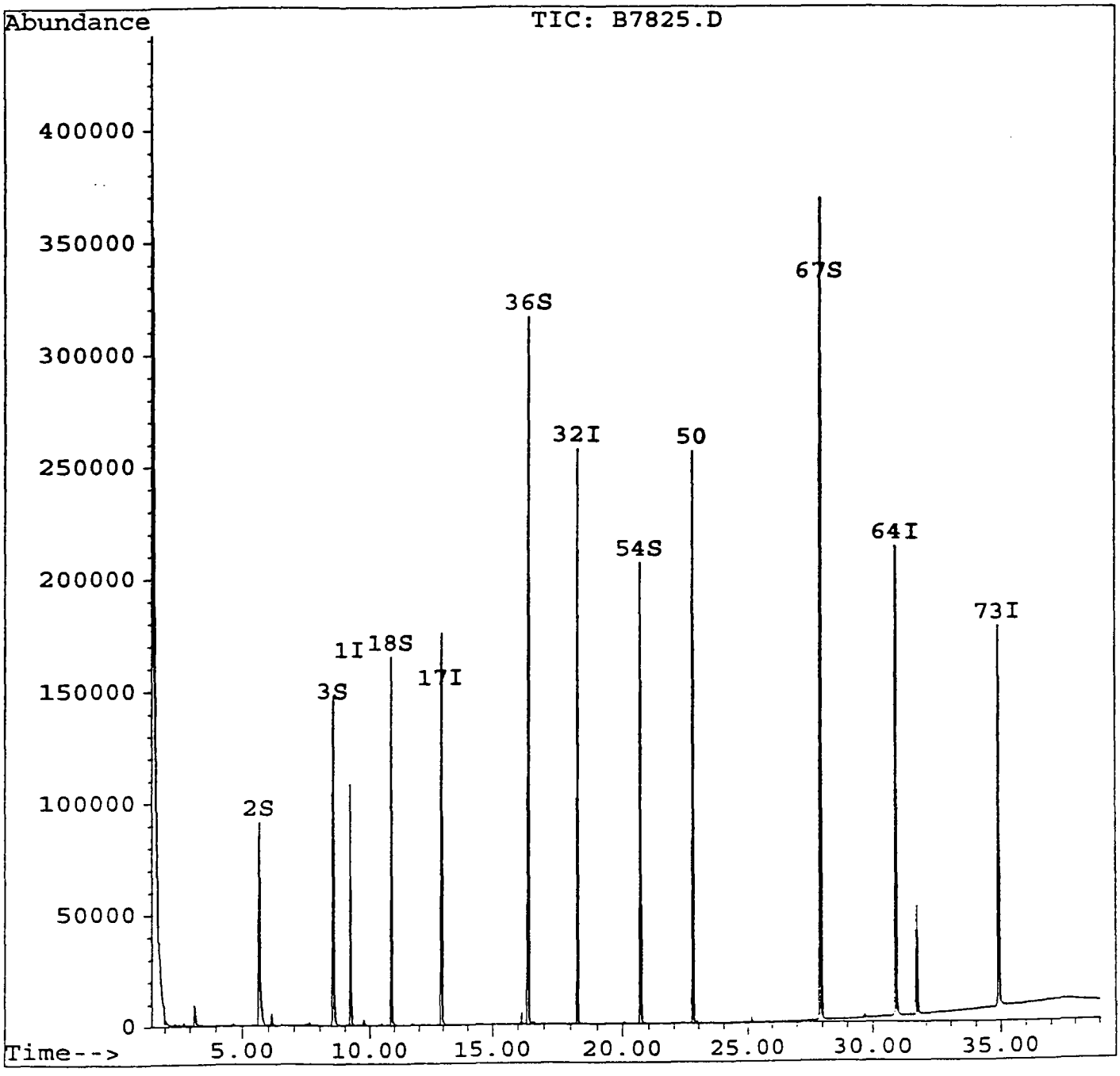
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	43303	40.00	ug/mL	0.17
17) Naphthalene-d8	12.92	136	177127	40.00	ug/mL	0.17
32) Acenaphthene-d10	18.27	164	122916	40.00	ug/mL	0.22
50) Phenanthrene-d10	22.77	188	199698	40.00	ug/ml	0.26
64) Chrysene-d12	30.88	240	216974	40.00	ug/mL	0.30
73) Perylene-d12	34.91	264	174620	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.64	112	78262	63.90	ug/mL	63.90%
3) Phenol-d5	8.53	99	133633	65.92	ug/mL	65.92%
18) Nitrobenzene-d5	10.88	82	114709	56.84	ug/mL	56.84%
36) 2-Fluorobiphenyl	16.40	172	202657	54.96	ug/mL	54.96%
54) 2,4,6-Tribromophenol	20.70	330	47874	88.77	ug/mL	88.77%
67) Terphenyl-d14	27.93	244	363044	63.04	ug/mL	63.04%
Target Compounds						Qvalue

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7825.d Vial: 24
Acq On : 4 Jun 95 4:35 am Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 5 16:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLK02

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: B8034.D Lab Sample ID: BLANK2

Instrument ID: ABNA Date Extracted: 6/21/95

Matrix: (soil/water) WATER Date Analyzed: 6/26/95

Level: (low/med) _____ Time Analyzed: 1223

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9526460B	9526460B	B8035.D	06/26/95
02	9526461B	9526461B	B8036.D	06/26/95
03	9526462B	9526462B	B8037.D	06/26/95
04	9526605B	9526605B	B8038.D	06/26/95
05	9526606B	9526606B	B8039.D	06/26/95
06	9526607B	9526607B	B8040.D	06/26/95
07	9526608B	9526608B	B8041.D	06/26/95
08	9526609B	9526609B	B8042.D	06/26/95
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
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30				

COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK02

219

Lab Name: EMSL ANALYTICAL

Site:

Matrix: (soil/water) WATER

Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B8034.D

Level: (low/med)

Date Received: 6/14/95

% Moisture: decanted: (Y/N): N

Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/26/95

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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.: SBLK02

220

Lab Name: EMSL ANALYTICAL

Site:

Matrix: (soil/water) WATER

Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B8034.D

Level: (low/med)

Date Received: 6/14/95

% Moisture: decanted: (Y/N): N

Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/26/95

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
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. SBLK02

Lab Name: EMSL ANALYTICAL

Site:

Matrix: (soil/water) WATER

Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B8034.D

Level: (low/med)

Date Received: 6/14/95

% Moisture: decanted: (Y/N) N

Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/26/95

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.				
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29.				
30.				

Data File : c:\hpchem\1\data2\b8034.d Vial: 14
Acq On : 26 Jun 95 12:23 pm Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 15:03 1995

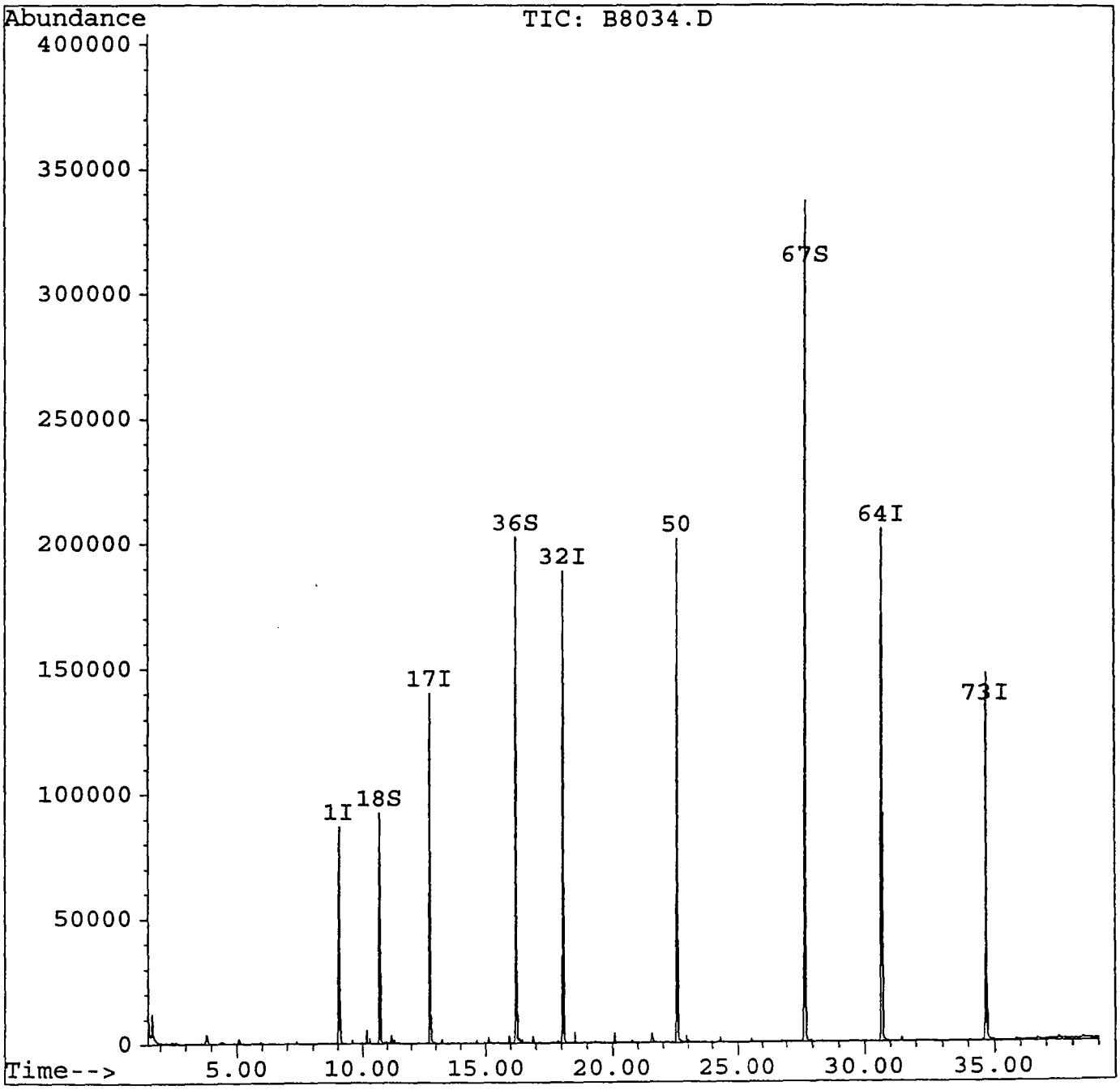
Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.04	152	34799	40.00	ug/mL	0.00
17) Naphthalene-d8	12.75	136	143633	40.00	ug/mL	0.00
32) Acenaphthene-d10	18.06	164	96973	40.00	ug/mL	0.02
50) Phenanthrene-d10	22.57	188	164949	40.00	ug/ml	0.05
64) Chrysene-d12	30.67	240	155418	40.00	ug/mL	0.10
73) Perylene-d12	34.68	264	60234	40.00	ug/mL	0.08
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	9.04	99	304	0.19	ug/mL	0.19%
18) Nitrobenzene-d5	10.69	82	67982	41.54	ug/mL	41.54%
36) 2-Fluorobiphenyl	16.22	172	135289	46.51	ug/mL	46.51%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	27.73	244	338841	82.14	ug/mL	82.14%
Target Compounds						**Qvalue**

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

Data File : c:\hpchem\1\data2\b8034.d Vial: 14
Acq On : 26 Jun 95 12:23 pm Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 28 15:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Jun 15 14:15:34 1995
Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b8034.d Vial: 14
Acq On : 26 Jun 95 12:23 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 : NBS75K.L

No Library Search Compounds Detected

Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Initial Calibration

Non-Spiked Sample: B7742.D

	Spike Sample	Spike Duplicate Sample
File ID :	B7826.D	B7827.D
Sample :	22654MS.....	Converted from RTE data file >B7826::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.0	100	108	91	108	91	17	100	1-300
Phenol	0.0	100	69	64	69	64	7	23	5-112
bis(2-Chloroethyl)et	0.0	100	77	68	77	68	13	55	12-158
2-Chlorophenol	0.0	100	76	67	76	67	13	29	23-134
1,3-Dichlorobenzene	0.0	100	57	50	57	50	14	42	1-172
1,4-Dichlorobenzene	0.0	100	58	51	58	51	13	32	20-124
1,2-Dichlorobenzene	0.0	100	62	53	62	53	15	31	32-129
bis(2-chloroisopropy	0.0	100	134	118	134	118	13	46	36-166
N-Nitroso-Di-n-propy	0.0	100	78	66	78	66	16	55	1-230
Hexachloroethane	0.0	100	50	42	50	42	18	25	40-113
Nitrobenzene	0.2	100	84	71	83	71	17	39	35-180
Isophorone	0.0	100	70	59	70	59	17	63	21-196
2-Nitrophenol	0.0	100	79	65	79	65	19	35	29-182
2,4-Dimethylphenol	0.0	100	43	40	43	40	7	26	32-119
bis(2-Chloroethoxy)m	0.0	100	58	49	58	49	18	35	33-184
2,4-Dichlorophenol	0.0	100	79	67	79	67	16	26	39-135
1,2,4-Trichlorobenze	0.0	100	67	59	67	59	13	28	44-142
Naphthalene	0.0	100	71	61	71	61	15	30	21-133
Hexachlorobutadiene	0.0	100	55	49	55	49	11	26	24-116
4-Chloro-3-methylphe	0.0	100	73	63	73	63	15	37	22-147
2-Chloronaphthalene	0.0	100	77	68	77	68	12	13	60-118
2,4,6-Trichloropheno	0.0	100	57	52	57	52	8	32	37-144
Dimethylphthalate	0.0	100	44	35	44	35	22	23	1-112
Acenaphthylene	0.0	100	56	50	56	50	12	40	33-145
2,6-Dinitrotoluene	0.0	100	73	71	73	71	3	30	50-158
Acenaphthene	0.0	100	77	71	77	71	8	28	47-145
2,4-Dinitrophenol	0.0	100	68	65	68	65	4	50	1-191
4-Nitrophenol	0.5	100	76	70	76	70	8	47	1-132
2,4-Dinitrotoluene	0.0	100	75	68	75	68	9	22	39-139
Diethylphthalate	0.1	100	47	41	47	41	15	27	1-114
Fluorene	0.9	100	75	69	74	68	9	21	59-121
4-Chlorophenyl-pheny	0.0	100	77	69	77	69	11	33	25-158
4,6-Dinitro-2-methyl	0.0	100	76	70	76	70	8	93	1-181
4-Bromophenyl-phenyl	0.0	100	78	72	78	72	8	23	53-127
Hexachlorobenzene	0.0	100	90	82	90	82	10	25	1-152
Pentachlorophenol	0.0	100	100	93	100	93	7	49	14-176
Phenanthrene	0.0	100	81	75	81	75	9	21	54-120
Anthracene	0.0	100	96	83	96	83	14	32	52-115
Di-n-butylphthalate	0.2	100	77	71	77	71	8	17	1-118
Fluoranthene	0.0	100	95	88	95	88	8	33	26-137
Pyrene	0.0	100	68	65	68	65	5	25	52-115
Butylbenzylphthalate	0.3	100	65	58	64	57	12	23	1-152
Benzo[a]anthracene	0.1	100	65	58	65	58	11	28	33-143
3,3'-Dichlorobenzidi	0.0	100	81	74	81	74	9	71	1-262

Chrysene	0.1	100	118	106	118	106	10	48	17-168
bis(2-Ethylhexyl)pht	0.4	100	71	63	71	62	13	41	8-158
Di-n-octylphthalate	0.0	100	67	59	67	59	13	31	4-146
Benzo[b]fluoranthene	0.0	100	53	48	53	48	11	39	24-159
Benzo[k]fluoranthene	0.1	100	108	99	108	99	8	32	11-162
Benzo[a]pyrene	0.1	100	101	90	101	90	12	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	42	38	42	38	10	45	1-171
Dibenz[a,h]anthracen	0.0	100	47	50	47	50	5	70	1-227
Benzo[g,h,i]perylene	0.0	100	54	48	54	48	11	59	1-219

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d Vial: 25
Acq On : 4 Jun 95 5:25 am Operator: SCOTTV
Sample : 22654MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.20	152	33780	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	129967	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	93254	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	155903	40.00	ug/ml	0.25
64) Chrysene-d12	30.91	240	148922	40.00	ug/mL	0.33
73) Perylene-d12	34.91	264	65345	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.66	112	86730	90.77	ug/mL	90.77%
3) Phenol-d5	8.57	99	147096	93.02	ug/mL	93.02%
18) Nitrobenzene-d5	10.90	82	134034	90.52	ug/mL	90.52%
36) 2-Fluorobiphenyl	16.41	172	175522	62.75	ug/mL	62.75%
54) 2,4,6-Tribromophenol	20.71	330	46665	110.83	ug/mL	110.83%
67) Terphenyl-d14	27.94	244	322279	81.53	ug/mL	81.53%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.43	74	52801	108.13	ug/mlm	0
5) Pyridine	1.58	79	3052	8.44	ug/ml	100
6) Phenol	8.61	94	97169	68.99	ug/mL	100
7) bis(2-Chloroethyl)ether	12.61	93	132335	77.35	ug/mL	96
8) 2-Chlorophenol	8.63	128	81945	76.45	ug/mL	90
9) 1,3-Dichlorobenzene	9.01	146	66629	56.96	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	69858	57.89	ug/mL	100
11) 1,2-Dichlorobenzene	9.65	146	70561	61.55	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.30	45	211229	133.86	ug/mL#	65
15) N-Nitroso-Di-n-propylamine	10.69	70	88152	77.56	ug/mL	95
16) Hexachloroethane	10.61	117	31123	49.97	ug/mL	89
19) Nitrobenzene	10.96	77	115194	83.63	ug/mL#	85
20) Isophorone	11.75	82	203312	70.04	ug/mL	98
21) 2-Nitrophenol	11.88	139	53977	78.97	ug/mL#	85
22) 2,4-Dimethylphenol	12.33	107	55100	43.09	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.72	93	86556	58.41	ug/mL	98
24) 2,4-Dichlorophenol	12.67	162	76577	79.05	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.83	180	68935	66.95	ug/mL	98
26) Naphthalene	13.00	128	225507	70.91	ug/mL#	90
27) 4-Chloroaniline	13.00	127	28186	18.73	ug/mL#	1
28) Hexachlorobutadiene	13.52	225	33083	55.03	ug/mL	98
29) 4-Chloro-3-methylphenol	15.04	107	91543	73.39	ug/mL	95
30) 2-Chloronaphthalene	16.60	162	173185	76.58	ug/mlm	95
31) 2-Methylnaphthalene	15.04	142	68690	26.91	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	54836	56.62	ug/mL	98
35) 2,4,5-Trichlorophenol	16.12	196	54836	72.58	ug/mL	98
37) 2-Nitroaniline	17.93	65	3806	2.97	ug/mL#	100
38) Dimethylphthalate	17.83	163	132688	43.80	ug/mL	100

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7826.d Vial: 25
Acq On : 4 Jun 95 5:25 am Operator: SCOTTV
Sample : 22654MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:06 1995

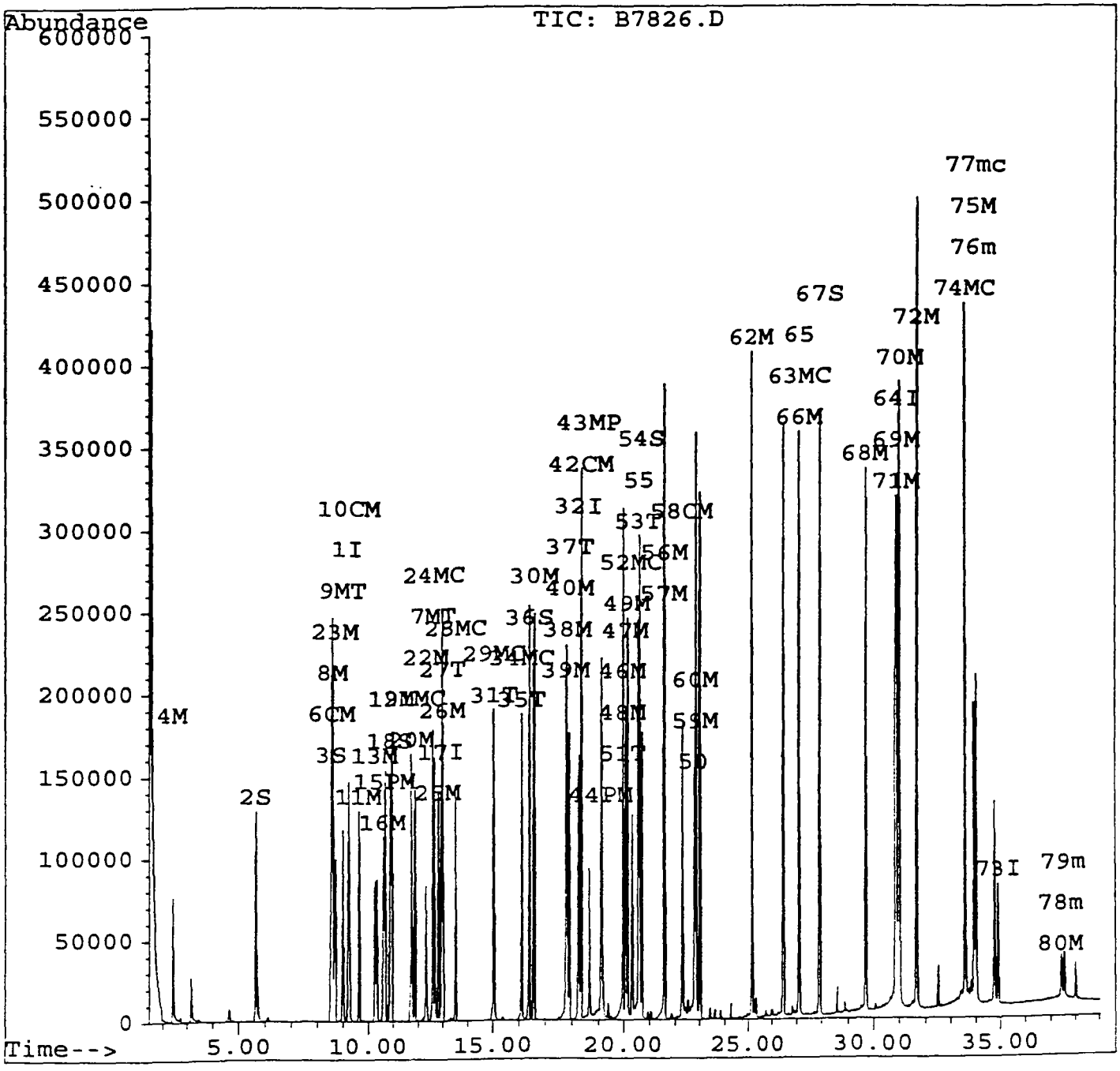
Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	221369	55.71	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	52674	72.83	ug/mL	98
42)	Acenaphthene	18.37	153	184037	77.01	ug/mL	98
43)	2,4-Dinitrophenol	18.68	184	27438	68.35	ug/mL#	82
44)	4-Nitrophenol	19.15	109	29448	76.25	ug/mL	93
46)	2,4-Dinitrotoluene	19.97	165	203714	74.87	ug/mL#	33
47)	Diethylphthalate	20.07	149	159610	47.45	ug/mL	100
48)	Fluorene	19.97	166	219880	74.92	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	106703	76.76	ug/mL	99
51)	4-Nitroaniline	19.97	138	2333	3.60	ug/mL#	26
52)	4,6-Dinitro-2-methylphenol	20.32	198	38799	75.54	ug/mL	100
53)	n-Nitrosodiphenylamine	20.57	169	120798	60.97	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	341255	72.29	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	63010	78.44	ug/mL	93
57)	Hexachlorobenzene	21.59	284	75708	90.48	ug/mL#	81
58)	Pentachlorophenol	22.31	266	53483	99.80	ug/mL	98
59)	Phenanthrene	22.87	178	347261	81.41	ug/mL	99
60)	Anthracene	22.87	178	375780	95.56	ug/mL	98
62)	Di-n-butylphthalate	25.16	149	485216	77.50	ug/mL	100
63)	Fluoranthene	27.13	202	383198	95.00	ug/mL	95
65)	Benzidine	27.15	184	31355	19.25	ug/ml	100
66)	Pyrene	27.13	202	382718	68.46	ug/mL#	87
68)	Butylbenzylphthalate	29.69	149	231108	64.56	ug/mL	98
69)	Benzo[a]anthracene	30.89	228	364541	64.61	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.03	252	116175	80.76	ug/mL	99
71)	Chrysene	30.89	228	369164	117.64	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	362642	71.41	ug/mL	98
74)	Di-n-octylphthalate	33.57	149	561704	67.50	ug/mL	99
75)	Benzo[b]fluoranthene	33.94	252	214943	53.34	ug/mL	99
76)	Benzo[k]fluoranthene	33.94	252	210450	108.25	ug/mL	91
77)	Benzo[a]pyrene	34.04	252	202935	101.27	ug/mL	97
78)	Indeno[1,2,3-cd]pyrene	37.41	276	31241	42.27	ug/mL#	76
79)	Dibenz[a,h]anthracene	37.53	278	33601	47.21	ug/mL#	91
80)	Benzo[g,h,i]perylene	37.41	276	31328	53.91	ug/mL#	91

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

Data File : c:\hpchem\1\data2\b7826.d Vial: 25
Acq On : 4 Jun 95 5:25 am Operator: SCOTTV
Sample : 22654MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d Vial: 26
Acq On : 4 Jun 95 6:15 am Operator: SCOTTV
Sample : 22654MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min
1) 1,4-Dichlorobenzene-d4	9.20	152	35303	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	144937	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	99611	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	164759	40.00	ug/ml	0.25
64) Chrysene-d12	30.91	240	152801	40.00	ug/mL	0.33
73) Perylene-d12	34.91	264	66464	40.00	ug/mL	0.31
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.66	112	82094	82.21	ug/mL	82.21%
3) Phenol-d5	8.57	99	140345	84.92	ug/mL	84.92%
18) Nitrobenzene-d5	10.90	82	122579	74.23	ug/mL	74.23%
36) 2-Fluorobiphenyl	16.41	172	181198	60.64	ug/mL	60.64%
54) 2,4,6-Tribromophenol	20.71	330	47406	106.54	ug/mL	106.54%
67) Terphenyl-d14	27.94	244	291235	71.81	ug/mL	71.81%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.43	74	46421	90.97	ug/mlm	100
5) Pyridine	1.58	79	3239	8.57	ug/ml	100
6) Phenol	8.61	94	94440	64.16	ug/mL	100
7) bis(2-Chloroethyl)ether	12.59	93	122019	68.25	ug/mL	93
8) 2-Chlorophenol	8.63	128	74868	66.83	ug/mL#	87
9) 1,3-Dichlorobenzene	9.01	146	60664	49.63	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	63929	50.69	ug/mL	97
11) 1,2-Dichlorobenzene	9.65	146	63514	53.01	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.26	45	194225	117.78	ug/mL#	64
15) N-Nitroso-Di-n-propylamine	10.67	70	78184	65.82	ug/mL	99
16) Hexachloroethane	10.61	117	27204	41.80	ug/mL	93
19) Nitrobenzene	10.96	77	108893	70.89	ug/mL	92
20) Isophorone	11.75	82	190833	58.95	ug/mL	99
21) 2-Nitrophenol	11.88	139	49518	64.97	ug/mL#	85
22) 2,4-Dimethylphenol	12.33	107	57269	40.16	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.72	93	80511	48.72	ug/mL	99
24) 2,4-Dichlorophenol	12.67	162	72662	67.26	ug/mL	99
25) 1,2,4-Trichlorobenzene	12.83	180	67428	58.72	ug/mL	99
26) Naphthalene	13.00	128	216145	60.94	ug/mL#	91
27) 4-Chloroaniline	13.00	127	27276	16.26	ug/mL#	4
28) Hexachlorobutadiene	13.52	225	33024	49.25	ug/mL	99
29) 4-Chloro-3-methylphenol	15.04	107	87494	62.90	ug/mL	94
30) 2-Chloronaphthalene	16.58	162	170492	67.60	ug/ml	97
31) 2-Methylnaphthalene	15.04	142	66426	23.33	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	53903	52.11	ug/mL	99
35) 2,4,5-Trichlorophenol	16.12	196	53903	66.79	ug/mL	99
37) 2-Nitroaniline	17.93	65	3941	2.88	ug/mL#	10
38) Dimethylphthalate	17.83	163	113606	35.11	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d Vial: 26
Acq On : 4 Jun 95 6:15 am Operator: SCOTTV
Sample : 22654MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	210414	49.57	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	54747	70.87	ug/mL	92
42)	Acenaphthene	18.37	153	181623	71.15	ug/mL	99
43)	2,4-Dinitrophenol	18.68	184	28083	65.49	ug/mL#	78
44)	4-Nitrophenol	19.15	109	28931	70.14	ug/mL	91
46)	2,4-Dinitrotoluene	19.97	165	198956	68.45	ug/mL#	33
47)	Diethylphthalate	20.07	149	146204	40.69	ug/mL	99
48)	Fluorene	19.97	166	215505	68.74	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	102158	68.80	ug/mL	99
51)	4-Nitroaniline	19.97	138	2275	3.32	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	38003	70.01	ug/mL	100
53)	n-Nitrosodiphenylamine	20.57	169	120181	57.40	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	326407	65.42	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	61314	72.23	ug/mL	92
57)	Hexachlorobenzene	21.59	284	72489	81.98	ug/mL#	80
58)	Pentachlorophenol	22.31	266	52714	93.08	ug/mL	99
59)	Phenanthrene	22.87	178	336724	74.69	ug/mL	98
60)	Anthracene	22.87	178	345412	83.11	ug/mL	97
62)	Di-n-butylphthalate	25.16	149	472693	71.44	ug/mL	100
63)	Fluoranthene	27.13	202	375315	88.04	ug/mL	93
65)	Benzidine	27.15	184	42901	25.67	ug/ml	100
66)	Pyrene	27.13	202	374572	65.30	ug/mL#	88
68)	Butylbenzylphthalate	29.69	149	211242	57.51	ug/mL	99
69)	Benzo[a]anthracene	30.87	228	336521	58.13	ug/mL	100
70)	3,3'-Dichlorobenzidine	31.03	252	109427	74.14	ug/mL#	96
71)	Chrysene	30.87	228	341333	106.01	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.66	149	327633	62.88	ug/mL	99
74)	Di-n-octylphthalate	33.57	149	500739	59.16	ug/mL	99
75)	Benzo[b]fluoranthene	33.94	252	196612	47.97	ug/mL	99
76)	Benzo[k]fluoranthene	33.94	252	196612	99.43	ug/mL	93
77)	Benzo[a]pyrene	33.94	252	182768	89.67	ug/mL	100
78)	Indeno[1,2,3-cd]pyrene	37.41	276	28662	38.13	ug/mL#	78
79)	Dibenz[a,h]anthracene	37.53	278	36034	49.77	ug/mL#	92
80)	Benzo[g,h,i]perylene	37.41	276	28604	48.40	ug/mL	93

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

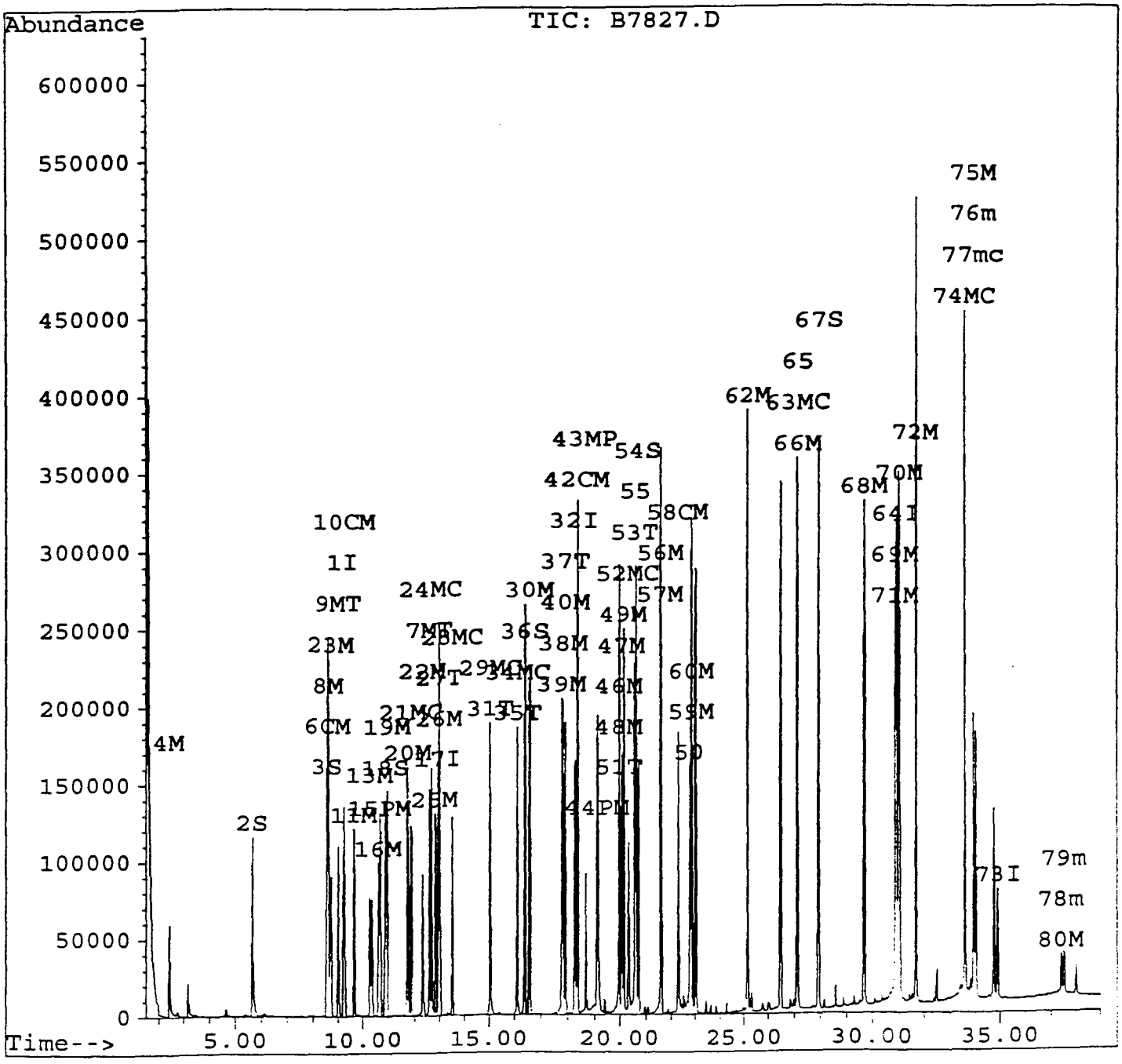
Quantitation Report

Data File : c:\hpchem\1\data2\b7827.d
Acq On : 4 Jun 95 6:15 am
Sample : 22654MSD.....
Misc :
Quant Time: Jun 13 13:07 1995

Converted from RTE d

Vial: 26
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Initial Calibration

233

Non-Spiked Sample: B7741.D

	Spike Sample	Spike Duplicate Sample
File ID :	B7828.D	B7829.D
Sample :	22659MS.....	Converted from RTE data file >B7828::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.0	100	83	85	83	85	1	100	1-300
Phenol	0.0	100	65	65	65	65	0	23	5-112
bis(2-Chloroethyl)et	0.0	100	66	64	66	64	2	55	12-158
2-Chlorophenol	0.0	100	65	65	65	65	1	29	23-134
1,3-Dichlorobenzene	0.0	100	48	48	48	48	1	42	1-172
1,4-Dichlorobenzene	0.0	100	49	50	49	50	2	32	20-124
1,2-Dichlorobenzene	0.0	100	52	53	52	53	1	31	32-129
bis(2-chloroisopropy	0.0	100	118	119	118	119	1	46	36-166
N-Nitroso-Di-n-propy	0.0	100	67	65	67	65	3	55	1-230
Hexachloroethane	0.0	100	51	42	51	42	19	25	40-113
Nitrobenzene	0.1	100	62	66	62	66	6	39	35-180
Isophorone	0.0	100	60	63	60	63	5	63	21-196
2-Nitrophenol	0.0	100	63	65	63	65	4	35	29-182
2,4-Dimethylphenol	0.0	100	34	32	34	32	7	26	32-119
bis(2-Chloroethoxy)m	0.0	100	47	50	47	50	6	35	33-184
2,4-Dichlorophenol	0.0	100	68	68	68	68	1	26	39-135
1,2,4-Trichlorobenze	0.0	100	57	60	57	60	6	28	44-142
Naphthalene	0.0	100	63	66	63	66	4	30	21-133
Hexachlorobutadiene	0.0	100	50	52	50	52	4	26	24-116
4-Chloro-3-methylphe	0.0	100	63	63	63	63	1	37	22-147
2-Chloronaphthalene	0.0	100	67	70	67	70	4	13	60-118
2,4,6-Trichloropheno	0.0	100	55	54	55	54	3	32	37-144
Dimethylphthalate	0.0	100	38	34	38	34	11	23	1-112
Acenaphthylene	0.0	100	52	52	52	52	0	40	33-145
2,6-Dinitrotoluene	0.0	100	76	74	76	74	3	30	50-158
Acenaphthene	0.0	100	75	76	75	76	1	28	47-145
2,4-Dinitrophenol	0.0	100	67	66	67	66	2	50	1-191
4-Nitrophenol	0.6	100	79	80	79	79	0	47	1-132
2,4-Dinitrotoluene	0.0	100	71	74	71	74	3	22	39-139
Diethylphthalate	0.0	100	49	48	49	48	2	27	1-114
Fluorene	0.7	100	71	74	70	73	3	21	59-121
4-Chlorophenyl-pheny	0.0	100	70	74	70	74	5	33	25-158
4,6-Dinitro-2-methyl	0.0	100	75	72	75	72	4	93	1-181
4-Bromophenyl-phenyl	0.0	100	73	76	73	76	3	23	53-127
Hexachlorobenzene	0.0	100	84	84	84	84	1	25	1-152
Pentachlorophenol	0.0	100	90	92	90	92	2	49	14-176
Phenanthrene	0.0	100	79	76	79	76	3	21	54-120
Anthracene	0.0	100	88	84	88	84	5	32	52-115
Di-n-butylphthalate	0.1	100	80	79	80	79	1	17	1-118
Fluoranthene	0.0	100	96	96	96	96	0	33	26-137
Pyrene	0.0	100	67	68	67	68	2	25	52-115
Butylbenzylphthalate	0.2	100	67	68	67	67	0	23	1-152
Benzo[a]anthracene	0.1	100	65	64	65	64	1	28	33-143
3,3'-Dichlorobenzidi	0.0	100	20	31	2[illegible]	31	46	71	1-262

Chrysene	0.1	100	117	117	117	117	0	48	17-168
bis(2-Ethylhexyl)pht	0.4	100	76	74	75	73	3	41	8-158
Di-n-octylphthalate	0.0	100	65	68	65	68	6	31	4-146
Benzo[b]fluoranthene	0.0	100	52	51	52	51	2	39	24-159
Benzo[k]fluoranthene	0.1	100	108	106	108	106	2	32	11-162
Benzo[a]pyrene	0.1	100	104	103	104	102	2	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	42	39	42	39	8	45	1-171
Dibenz[a,h]anthracen	0.0	100	52	48	52	48	8	70	1-227
Benzo[g,h,i]perylene	0.0	100	53	49	53	49	9	59	1-219

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d Vial: 27
Acq On : 4 Jun 95 7:04 am Operator: SCOTTV
Sample : 22659MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mir
1) 1,4-Dichlorobenzene-d4	9.20	152	28616	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	119812	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	81829	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	135678	40.00	ug/ml	0.25
64) Chrysene-d12	30.90	240	133913	40.00	ug/mL	0.32
73) Perylene-d12	34.89	264	64806	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.64	112	38324	47.35	ug/mL	47.35
3) Phenol-d5	8.55	99	92701	69.20	ug/mL	69.20
18) Nitrobenzene-d5	10.88	82	102452	75.05	ug/mL	75.05
36) 2-Fluorobiphenyl	16.41	172	163275	66.52	ug/mL	66.52
54) 2,4,6-Tribromophenol	20.71	330	33951	92.66	ug/mL	92.66
67) Terphenyl-d14	27.93	244	283818	79.85	ug/mL	79.85
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.41	74	34539	83.50	ug/mlm	0
5) Pyridine	1.54	79	2567	8.38	ug/ml	100
6) Phenol	8.59	94	77522	64.98	ug/mL	100
7) bis(2-Chloroethyl)ether	12.59	93	95053	65.59	ug/mL	96
8) 2-Chlorophenol	8.61	128	59112	65.10	ug/mL	95
9) 1,3-Dichlorobenzene	9.01	146	47356	47.79	ug/mL	98
10) 1,4-Dichlorobenzene	9.26	146	50047	48.96	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	50447	51.95	ug/mL	97
13) bis(2-chloroisopropyl)ethe	10.28	45	157284	117.66	ug/mL#	66
15) N-Nitroso-Di-n-propylamine	10.67	70	64689	67.19	ug/mL	99
16) Hexachloroethane	10.61	117	26874	50.94	ug/mLm	92
19) Nitrobenzene	10.94	77	78667	61.95	ug/mL#	76
20) Isophorone	11.75	82	159932	59.77	ug/mL	99
21) 2-Nitrophenol	11.88	139	39464	62.63	ug/mL	87
22) 2,4-Dimethylphenol	12.33	107	40415	34.28	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.70	93	64392	47.13	ug/mL	98
24) 2,4-Dichlorophenol	12.67	162	60633	67.90	ug/mL	98
25) 1,2,4-Trichlorobenzene	12.83	180	53810	56.69	ug/mL	99
26) Naphthalene	13.00	128	185978	63.43	ug/mL#	91
27) 4-Chloroaniline	13.00	127	23324	16.82	ug/mL#	8
28) Hexachlorobutadiene	13.52	225	27583	49.77	ug/mL	98
29) 4-Chloro-3-methylphenol	15.04	107	71878	62.51	ug/mL	92
30) 2-Chloronaphthalene	16.58	162	140364	67.32	ug/ml	95
31) 2-Methylnaphthalene	15.04	142	56186	23.87	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	47014	55.32	ug/mL	97
35) 2,4,5-Trichlorophenol	16.12	196	47014	70.91	ug/mL	98
37) 2-Nitroaniline	17.93	65	3809	3.39	ug/mL#	100
38) Dimethylphthalate	17.83	163	100094	37.65	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d Vial: 27
Acq On : 4 Jun 95 7:04 am Operator: SCOTTV
Sample : 22659MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	181282	51.99	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	48485	76.40	ug/mL	81
42)	Acenaphthene	18.37	153	158243	75.46	ug/mL	99
43)	2,4-Dinitrophenol	18.66	184	23597	66.99	ug/mL	99
44)	4-Nitrophenol	19.14	109	26892	79.36	ug/mL	88
46)	2,4-Dinitrotoluene	19.97	165	169896	71.16	ug/mL#	34
47)	Diethylphthalate	20.07	149	145441	49.27	ug/mL	98
48)	Fluorene	19.97	166	183372	71.21	ug/mL	99
49)	4-Chlorophenyl-phenylether	20.15	204	85539	70.12	ug/mL	98
51)	4-Nitroaniline	19.97	138	1902	3.37	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	33506	74.96	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	89532	51.93	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	282944	68.87	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	51088	73.08	ug/mL	94
57)	Hexachlorobenzene	21.59	284	60888	83.62	ug/mL#	75
58)	Pentachlorophenol	22.31	266	42101	90.27	ug/mL	99
59)	Phenanthrene	22.85	178	292342	78.75	ug/mL	99
60)	Anthracene	22.85	178	302620	88.42	ug/mL	99
62)	Di-n-butylphthalate	25.16	149	437772	80.34	ug/mL	99
63)	Fluoranthene	27.12	202	337156	96.04	ug/mL	94
65)	Benzidine	27.93	184	3699	2.53	ug/ml	100
66)	Pyrene	27.12	202	336460	66.93	ug/mL#	87
68)	Butylbenzylphthalate	29.70	149	217209	67.48	ug/mL	87
69)	Benzo[a]anthracene	30.88	228	328642	64.77	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.00	252	25385	19.62	ug/mLm	97
71)	Chrysene	30.88	228	330668	117.19	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.67	149	345135	75.58	ug/mL	100
74)	Di-n-octylphthalate	33.58	149	533567	64.65	ug/mL	100
75)	Benzo[b]fluoranthene	34.03	252	207506	51.92	ug/mL	99
76)	Benzo[k]fluoranthene	34.03	252	207506	107.62	ug/mL	92
77)	Benzo[a]pyrene	34.03	252	207506	104.42	ug/mL	93
78)	Indeno[1,2,3-cd]pyrene	37.42	276	30768	41.98	ug/mL#	84
79)	Dibenz[a,h]anthracene	37.54	278	36991	52.40	ug/mL	94
80)	Benzo[g,h,i]perylene	37.42	276	30768	53.39	ug/mL	97

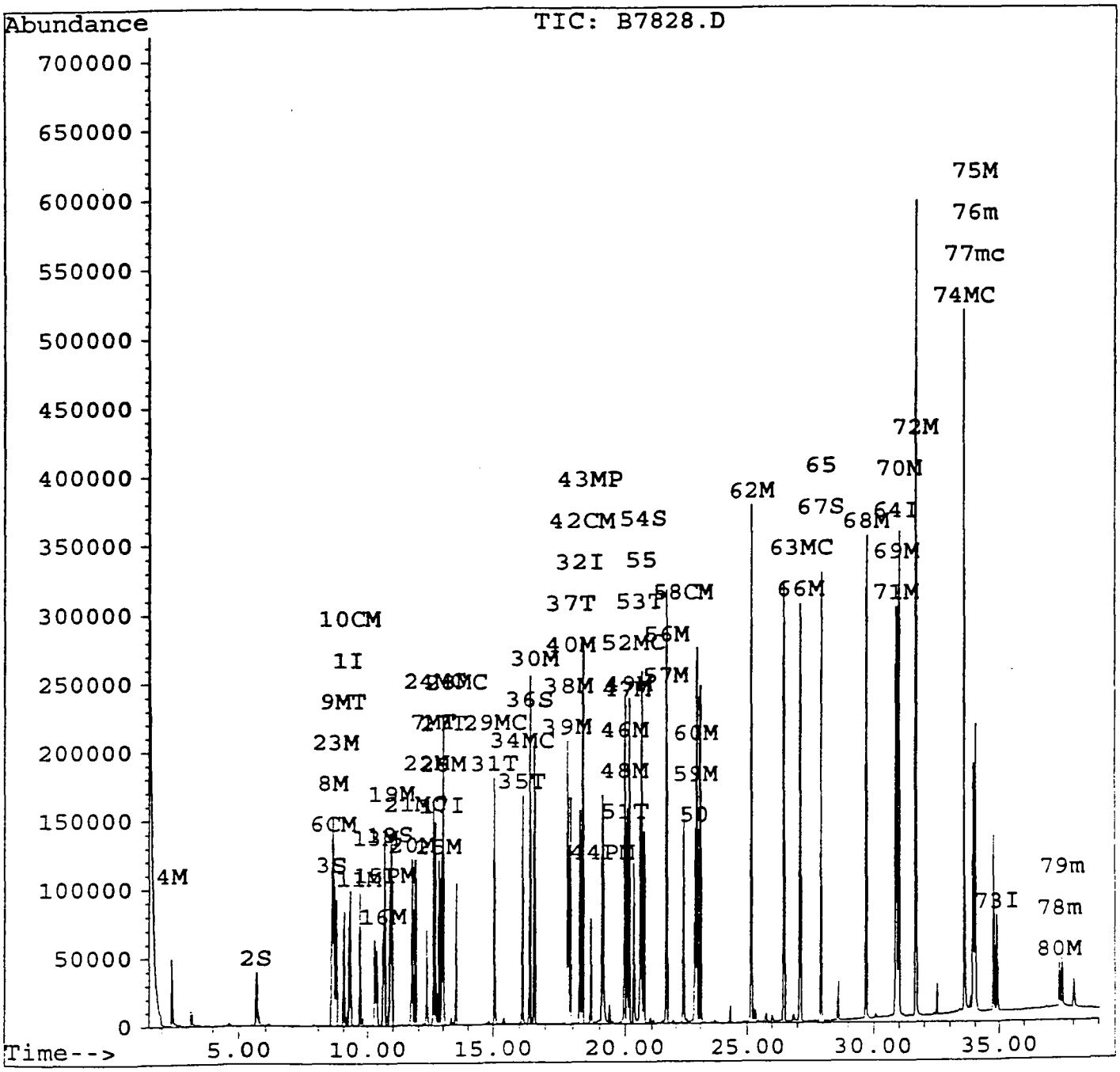
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b7828.d
Acq On : 4 Jun 95 7:04 am
Sample : 22659MS..... Converted from RTE d
Misc :
Quant Time: Jun 13 13:36 1995

Vial: 27
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min
1) 1,4-Dichlorobenzene-d4	9.21	152	30456	40.00	ug/mL	0.17
17) Naphthalene-d8	12.94	136	121585	40.00	ug/mL	0.19
32) Acenaphthene-d10	18.26	164	84364	40.00	ug/mL	0.21
50) Phenanthrene-d10	22.77	188	145091	40.00	ug/ml	0.25
64) Chrysene-d12	30.90	240	140877	40.00	ug/mL	0.32
73) Perylene-d12	34.90	264	65773	40.00	ug/mL	0.30
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.62	112	46772	54.29	ug/mL	54.29
3) Phenol-d5	8.55	99	107330	75.28	ug/mL	75.28
18) Nitrobenzene-d5	10.88	82	108636	78.42	ug/mL	78.42
36) 2-Fluorobiphenyl	16.41	172	165709	65.48	ug/mL	65.48
54) 2,4,6-Tribromophenol	20.71	330	39093	99.77	ug/mL	99.77
67) Terphenyl-d14	27.93	244	291732	78.02	ug/mL	78.02
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.41	74	37285	84.69	ug/mlm	0
5) Pyridine	1.56	79	2539	7.79	ug/ml	100
6) Phenol	8.59	94	82228	64.76	ug/mL	100
7) bis(2-Chloroethyl)ether	12.60	93	99103	64.25	ug/mL	98
8) 2-Chlorophenol	8.61	128	63241	65.44	ug/mL	94
9) 1,3-Dichlorobenzene	9.01	146	51022	48.38	ug/mL	97
10) 1,4-Dichlorobenzene	9.26	146	54214	49.83	ug/mL	99
11) 1,2-Dichlorobenzene	9.65	146	54332	52.57	ug/mL	98
13) bis(2-chloroisopropyl)ethe	10.28	45	169096	118.86	ug/mL#	65
15) N-Nitroso-Di-n-propylamine	10.67	70	66550	64.95	ug/mL	99
16) Hexachloroethane	10.61	117	23688	42.19	ug/mL	96
19) Nitrobenzene	10.94	77	84987	65.95	ug/mL#	77
20) Isophorone	11.75	82	169858	62.55	ug/mL	99
21) 2-Nitrophenol	11.88	139	41660	65.15	ug/mL	88
22) 2,4-Dimethylphenol	12.33	107	38383	32.08	ug/mLm	1
23) bis(2-Chloroethoxy)methane	8.70	93	69472	50.11	ug/mL	100
24) 2,4-Dichlorophenol	12.67	162	61214	67.55	ug/mL	97
25) 1,2,4-Trichlorobenzene	12.83	180	58047	60.26	ug/mL	99
26) Naphthalene	13.00	128	195977	65.87	ug/mL#	91
27) 4-Chloroaniline	13.00	127	24740	17.58	ug/mL#	10
28) Hexachlorobutadiene	13.50	225	28998	51.56	ug/mL	97
29) 4-Chloro-3-methylphenol	15.04	107	73983	63.40	ug/mL	98
30) 2-Chloronaphthalene	16.58	162	148187	70.04	ug/ml	98
31) 2-Methylnaphthalene	15.04	142	56674	23.73	ug/mL#	18
34) 2,4,6-Trichlorophenol	16.12	196	47065	53.72	ug/mL	98
35) 2,4,5-Trichlorophenol	16.12	196	47065	68.86	ug/mL	99
37) 2-Nitroaniline	17.93	65	3818	3.30	ug/mL#	100
38) Dimethylphthalate	17.83	163	92844	33.88	ug/mL	99

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

Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d Vial: 28
Acq On : 4 Jun 95 7:54 am Operator: SCOTTV
Sample : 22659MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.80	152	187395	52.13	ug/mL	99
40)	2,6-Dinitrotoluene	17.93	165	48705	74.44	ug/mL	81
42)	Acenaphthene	18.37	153	164599	76.13	ug/mL	99
43)	2,4-Dinitrophenol	18.66	184	23948	65.95	ug/mL	99
44)	4-Nitrophenol	19.15	109	27839	79.68	ug/mL	90
46)	2,4-Dinitrotoluene	19.95	165	181124	73.58	ug/mL#	31
47)	Diethylphthalate	20.07	149	147246	48.39	ug/mL	98
48)	Fluorene	19.95	166	195315	73.56	ug/mL	100
49)	4-Chlorophenyl-phenylether	20.15	204	92973	73.93	ug/mL	99
51)	4-Nitroaniline	19.97	138	2140	3.55	ug/mL#	23
52)	4,6-Dinitro-2-methylphenol	20.32	198	34580	72.34	ug/mL	100
53)	n-Nitrosodiphenylamine	20.55	169	103444	56.10	ug/mL#	1
55)	1,2-Diphenylhydrazine (as	20.63	77	304015	69.20	ug/ml	100
56)	4-Bromophenyl-phenylether	21.61	248	56539	75.63	ug/mL	94
57)	Hexachlorobenzene	21.59	284	65629	84.28	ug/mL#	76
58)	Pentachlorophenol	22.31	266	45874	91.98	ug/mL	96
59)	Phenanthrene	22.85	178	302063	76.09	ug/mL	100
60)	Anthracene	22.85	178	307177	83.93	ug/mL	99
62)	Di-n-butylphthalate	25.16	149	462525	79.38	ug/mL	100
63)	Fluoranthene	27.12	202	360324	95.98	ug/mL	93
65)	Benzidine	27.93	184	3521	2.29	ug/ml	100
66)	Pyrene	27.12	202	359722	68.02	ug/mL#	89
68)	Butylbenzylphthalate	29.69	149	229144	67.66	ug/mL	98
69)	Benzo[a]anthracene	30.88	228	343280	64.31	ug/mL	99
70)	3,3'-Dichlorobenzidine	31.00	252	42496	31.23	ug/mLm	95
71)	Chrysene	30.88	228	346867	116.85	ug/mL	97
72)	bis(2-Ethylhexyl)phthalate	31.68	149	354135	73.72	ug/mL	97
74)	Di-n-octylphthalate	33.58	149	572669	68.37	ug/mL	99
75)	Benzo[b]fluoranthene	34.03	252	206742	50.97	ug/mL	98
76)	Benzo[k]fluoranthene	34.03	252	206742	105.65	ug/mL	95
77)	Benzo[a]pyrene	34.03	252	206742	102.50	ug/mL	98
78)	Indeno[1,2,3-cd]pyrene	37.42	276	28894	38.84	ug/mL	89
79)	Dibenz[a,h]anthracene	37.52	278	34681	48.41	ug/mL#	86
80)	Benzo[g,h,i]perylene	37.42	276	28610	48.92	ug/mL	100

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

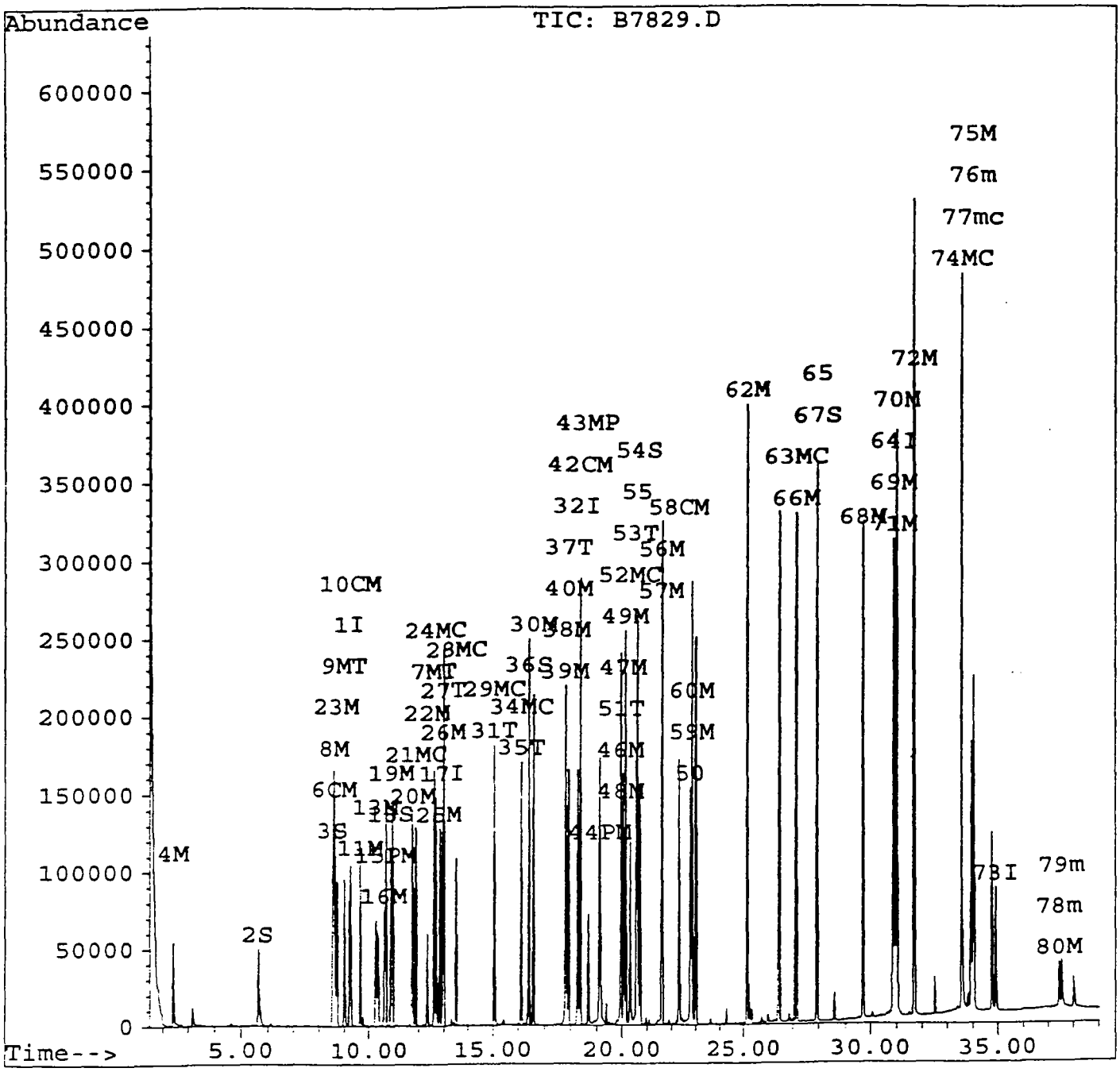
Quantitation Report

Data File : c:\hpchem\1\data2\b7829.d
Acq On : 4 Jun 95 7:54 am
Sample : 22659MSD.....
Misc :
Quant Time: Jun 13 13:38 1995

Converted from RTE d

Vial: 28
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed May 31 10:06:36 1995
Response via : Multiple Level Calibration



New Jersey Department of Environmental Protection
Division of Water Resources
Bureau of Underground Storage Tanks
CN-029, Trenton, New Jersey 08625

LABORATORY AUTHENTICATION STATEMENT

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Paul Faraci

Laboratory Manager (as defined in N.J.A.C. 7:18)

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 2534
Charles Wood-West

VOLUME III of III

NJDEP UST Registration No. 81515-24
NJDEP Case No. 94-5-24-0945-1

March 2002

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-4359 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 2534

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
2534-GW/6.6'	1655401	Aqueous	05-Nov-01 15:00	11/05/01
2534-GW/6.6'	1656201	Aqueous	07-Nov-01 11:45	11/07/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-20-01

Daniel Wright/Date
Laboratory Director

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CHAIN OF CUSTODY

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: X21475
( )DERA (√)OMA ( )Other:_____

Project No:
Location: BLDG. ~~2235~~ 2534 (MW 11-8-01) (FORMER)

Samplers Name / Company: MARK LAURA - TVS - PWS 07

Lims Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	Analysis Parameters: BN+15								Comments: Remarks / Preservation Method
110502 01	~~2235~~ 2534 GW 6.6'	11-7-01	1145	AQ.	1	X								<4°C

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	11-7-01 1545	[signature]			
[signature]		[signature]			

Report Type: (X)Full, (X)Reduced, (X)Standard, (X)Screen / non-certified, (X)EDD
Turnaround time: (X)Standard 3 wks, (X)Rush ____ Days, (X)ASAP Verbal ____ Hrs.

Remarks: RESAMPLE BN+15 - TOO MUCH IRON BAC. IN ORIG. SAMPLE - TAKEN FROM MW

000003

print legibly

Coc.xls2/6/01

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: 12415
( )DERA (✓)OMA ( )Other:_____
Project No:
Location: BLDG. 2534 (FORMER)
Samplers Name / Company: MARK LAURA - TVS-PWS07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	VOA + 15	BN + 15						Remarks / Preservation Method
16554 01	2534 6.6'	11-5-01	1500	AQ.	3	X	X						HCl, 4°C

Analysis Parameters

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	11-5-01 1530	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
		[signature]			

Report Type: ( )Full, (✓)Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (✓)Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: SAMPLES FROM MW @ SITE

000002

print legibly

Coc.xls9/27/01

METHOD SUMMARY

Method Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5-ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

EPA Method 3510/625
Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

CONFORMANCE-
NON-
CONFORMANCE

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate Yes, No, N/A

1. Chromatograms labeled/Compounds identified (Field samples and method blanks) — yes

2. Retention times for chromatograms provided — yes

3. GC/MS Tune Specifications

   a. BFB Meet Criteria — yes
   b. DFTPP Meet Criteria — yes

4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series — yes

5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series — yes

6. GC/MS Calibration requirements

   a. Calibration Check Compounds Meet Criteria — yes
   b. System Performance Check Compounds Meet Criteria — yes

7. Blank Contamination – If yes, List compounds and concentrations in each blank: — yes

   a. VOA Fraction _____
   b. B/N Fraction bis(2-Ethylhexyl)phthalate 4.8 ug/l
   c. Acid Fraction NA

8. Surrogate Recoveries Meet Criteria — yes

   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 NA

   If not met, were the calculations checked and the results qualified as "estimated"? _____

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — yes

   a. VOA Fraction _____
   b. B/N Fraction _____
   c. Acid Fraction NA

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria — YES
(If not met, list those compounds, which fall outside the acceptable range)

    a. VOA Fraction _____
    b. B/N Fraction _____
    c. Acid Fraction NA

11. Extraction Holding Time Met — YES

If not met, list the number of days exceeded for each sample: _____

12. Analysis Holding Time Met — YES

If not met, list the number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager: _____ Date: 11-20-01

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16554,62 Site: Bldg. 2534

	Date	Hold Time
Date Sampled	11/05/01*	NA
Receipt/Refrigeration	11/05/01	NA
Extractions		
1. BN	11/09/01	7 days
Analyses		
1. Volatile Organics	11/06/01	14 days
2. BN	11/14/01	40 days

*BN resampled and received on 11/07/01.

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	Method Detection Limit
J	:	Compound identified below detection limit
B	:	Compound found in blank
D	:	Results are from a dilution of the sample
U	:	Compound searched for but not detected
E	:	Compound exceeds calibration limit
PQL	:	Practical Quantitation Limit
NLE	:	No limit established
RT	:	Retention time

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010362.D**	Sample Name	**MB**
Operator	**Skelton**	Field ID	**MB**
Date Acquired	**6 Nov 2001 2:10 pm**	Sample Multiplier	**1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	8.41 ug/L	
107131	Acrylonitrile			not detected	50	3.40 ug/L	
75650	tert-Butyl alcohol			not detected	nle	6.61 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.39 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.43 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	0.34 ug/L	
74-87-3	Chloromethane			not detected	30	0.37 ug/L	
75-01-4	Vinyl Chloride			not detected	5	0.33 ug/L	
74-83-9	Bromomethane			not detected	10	0.56 ug/L	
75-00-3	Chloroethane			not detected	nle	0.44 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.48 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.40 ug/L	
67-64-1	Acetone			not detected	700	0.91 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.37 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.22 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.72 ug/L	
75-34-3	1,1-Dichloroethane			not detected	70	0.46 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.89 ug/L	
78-93-3	2-Butanone			not detected	300	0.68 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	10	0.45 ug/L	
67-66-3	Chloroform			not detected	6	0.36 ug/L	
71-55-6	1,1,1-Trichloroethane			not detected	30	0.54 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.39 ug/L	
71-43-2	Benzene			not detected	1	0.49 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.54 ug/L	
79-01-6	Trichloroethene			not detected	1	0.43 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.65 ug/L	
124-48-1	Bromodichloromethane			not detected	1	0.71 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.29 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.32 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.72 ug/L	
108-88-3	Toluene			not detected	1000	0.36 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.47 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.69 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.73 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.66 ug/L	
124-48-1	Dibromochloromethane			not detected	10	1.13 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.45 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.40 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.99 ug/L	
95-47-6	o-Xylene			not detected	nle	0.26 ug/L	
100-42-5	Styrene			not detected	100	0.39 ug/L	
75-25-2	Bromoform			not detected	4	0.85 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.87 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.25 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.43 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.52 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6 2-Sept-9

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time

C:\HPCHEM\CUSTRPT\VOLATILE\624FY01.CRT

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **MB**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010362.D

Level: (low/med) LOW Date Received: 11/5/01

% Moisture: not dec. Date Analyzed: 11/6/01

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010368.D**	Sample Name	**1655401**
Operator	**Skelton**	Field ID	**2534GW**
Date Acquired	**6 Nov 2001 7:10 pm**	Sample Multiplier	**1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	8.41 ug/L	
107131	Acrylonitrile			not detected	50	3.40 ug/L	
75650	tert-Butyl alcohol			not detected	nle	6.61 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.39 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.43 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	0.34 ug/L	
74-87-3	Chloromethane			not detected	30	0.37 ug/L	
75-01-4	Vinyl Chloride			not detected	5	0.33 ug/L	
74-83-9	Bromomethane			not detected	10	0.56 ug/L	
75-00-3	Chloroethane			not detected	nle	0.44 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.48 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.40 ug/L	
67-64-1	Acetone			not detected	700	0.91 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.37 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.22 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.72 ug/L	
75-34-3	1,1-Dichloroethane			not detected	70	0.46 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.89 ug/L	
78-93-3	2-Butanone			not detected	300	0.68 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	10	0.45 ug/L	
67-66-3	Chloroform	16.29	58525	1.34 ug/L	6	0.36 ug/L	
71-55-6	1,1,1-Trichloroethane			not detected	30	0.54 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.39 ug/L	
71-43-2	Benzene			not detected	1	0.49 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.54 ug/L	
79-01-6	Trichloroethene			not detected	1	0.43 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.65 ug/L	
124-48-1	Bromodichloromethane			not detected	1	0.71 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.29 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.32 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.72 ug/L	
108-88-3	Toluene			not detected	1000	0.36 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.47 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.69 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.73 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.66 ug/L	
124-48-1	Dibromochloromethane			not detected	10	1.13 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.45 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.40 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.99 ug/L	
95-47-6	o-Xylene			not detected	nle	0.26 ug/L	
100-42-5	Styrene			not detected	100	0.39 ug/L	
75-25-2	Bromoform			not detected	4	0.85 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.87 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.25 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.43 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.52 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6 2-Sept-9

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time

C:\HPCHEM\CUSTRPT\VOLATILE\624FY01.CRT

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **2534**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 1655401

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010368.D

Level: (low/med) LOW Date Received: 11/5/01

% Moisture: not dec. Date Analyzed: 11/6/01

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.:

Lab File ID: VB010244.D BFB Injection Date: 10/24/01

Instrument ID: GCMS#2 BFB Injection Time: 14:50

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

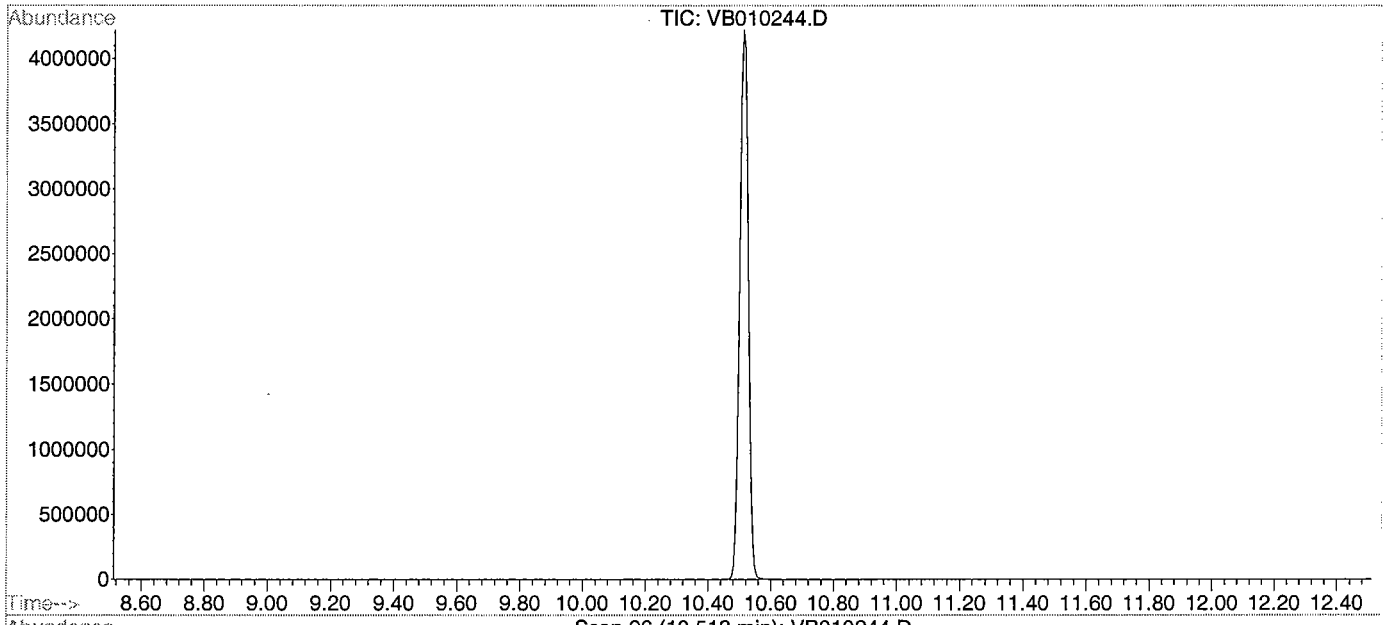
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	48.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	84.8
175	4.0 - 9.0% of mass 174	6.7 (7.8)1
176	93.0 - 101.0% of mass 174	83.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.7 (6.9)2

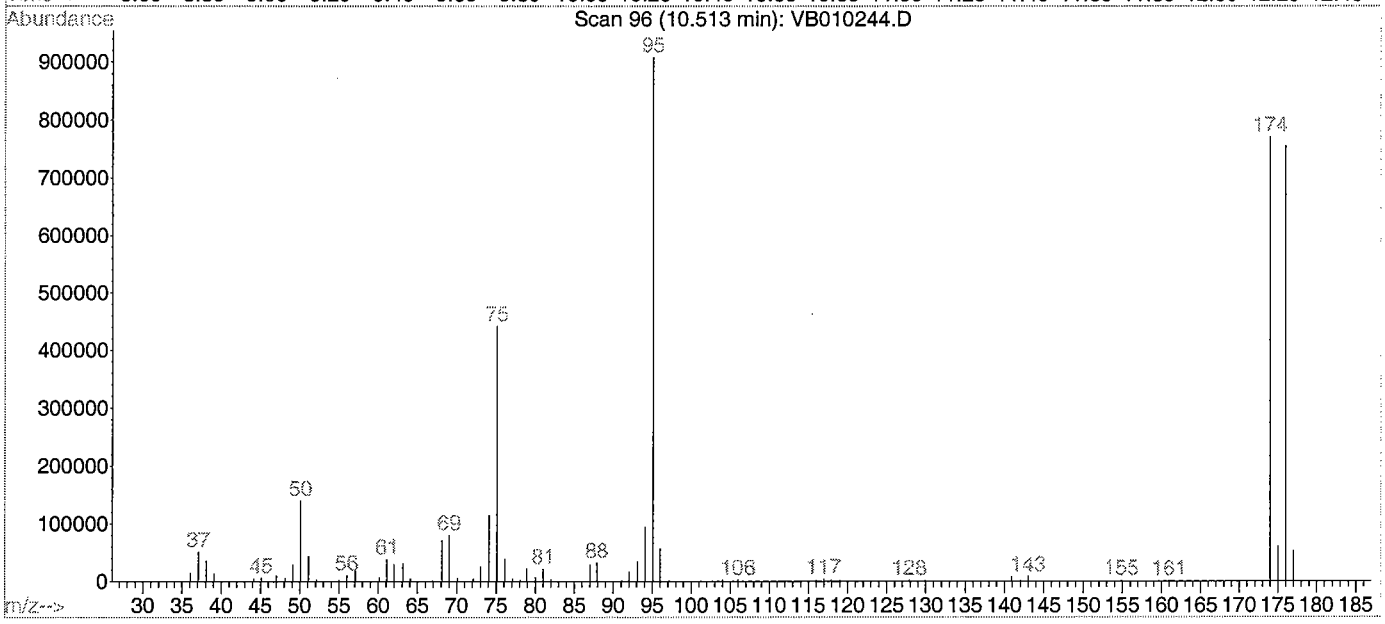
1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010245.D	10/24/01	15:18
02	VSTD100	VSTD100	VB010246.D	10/24/01	16:12
03	VSTD050	VSTD050	VB010247.D	10/24/01	16:57
04	VSTD010	VSTD010	VB010248.D	10/24/01	17:42
05	VSTD005	VSTD005	VB010249.D	10/24/01	18:26

Data File : C:\HPCHEM\1\DATA\011024\VB010244.D Vial: 1
Acq On : 24 Oct 2001 2:50 pm Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 96

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	139904	PASS
75	95	30	60	48.7	442432	PASS
95	95	100	100	100.0	908672	PASS
96	95	5	9	6.3	57112	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.8	770432	PASS
175	174	5	9	7.8	60448	PASS
176	174	95	101	98.0	755200	PASS
177	176	5	9	6.9	51944	PASS

Response Factor Report GC VOA 2

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration

Calibration Files
100 =VB010246.D 50 =VB010247.D 20 =VB010245.D
10 =VB010248.D 5 =VB010249.D

		Compound	100	50	20	10	5	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)	t	Acrolein	0.231	0.205	0.177	0.217	0.230	0.212	10.43
3)	t	Acrylonitrile	0.737	0.694	0.589	0.743	0.782	0.709	10.44
4)	t	tert-Butyl alcohol	0.143	0.127	0.109	0.142	0.139	0.132	10.92
5)	t	Methyl-tert-Butyl eth	5.273	4.947	3.990	5.151	5.185	4.909	10.74
6)	t	Di-isopropyl ether	1.585	1.430	1.150	1.492	1.409	1.413	11.47
7)	T	Dichlorodifluorometha	2.661	2.418	2.155	2.671	2.705	2.522	9.31
8)	TP	Chloromethane	2.569	2.356	1.952	2.580	2.739	2.439	12.47
9)	TC	Vinyl Chloride	2.552	2.416	1.979	2.608	2.712	2.453	11.65
10)	T	Bromomethane	1.377	1.199	1.114	1.381	1.711	1.356	16.89
11)	T	Chloroethane	1.372	1.263	1.095	1.352	1.404	1.297	9.57
12)	T	Trichlorofluoromethan	4.027	3.675	3.129	3.933	4.039	3.761	10.16
13)	MC	1,1-Dichloroethene	3.084	2.802	2.309	3.002	2.908	2.821	10.81
14)	T	Acetone	0.605	0.574	0.684	0.833	1.163	0.772	31.18
15)	T	Carbon Disulfide	5.898	5.272	4.379	5.415	5.624	5.318	10.82
16)	T	Methylene Chloride	1.893	1.767	1.495	2.010	2.096	1.852	12.68
17)	T	trans-1,2-Dichloroeth	2.652	2.449	1.961	2.699	2.660	2.484	12.40
18)	TP	1,1-Dichloroethane	3.070	2.789	2.474	2.948	2.937	2.843	8.07
19)	T	Vinyl Acetate	3.919	3.665	2.816	3.494	3.091	3.397	13.05
20)	T	2-Butanone	0.797	0.718	0.717	0.826	0.780	0.768	6.33
21)	T	cis-1,2-Dichloroethen	2.716	2.468	1.980	2.680	2.632	2.495	12.15
22)	TC	Chloroform	3.316	3.053	2.593	3.276	3.474	3.142	10.89
23)	T	1,1,1-Trichloroethane	2.794	2.572	2.161	2.753	2.704	2.597	9.92
24)	T	Carbon Tetrachloride	2.459	2.206	1.799	2.229	2.074	2.153	11.22
25)	S	1,2-Dichloroethane-d4	2.218	2.370	2.311	2.358	2.413	2.334	3.18
26)	I	1,4-Difluorobenzene	ISTD						
27)	TM	Benzene	1.072	0.974	0.863	1.107	1.097	1.023	10.14
28)	T	1,2-Dichloroethane	0.401	0.358	0.319	0.407	0.401	0.377	10.05
29)	TM	Trichloroethene	0.312	0.276	0.246	0.311	0.304	0.290	9.82
30)	TC	1,2-Dichloropropane	0.272	0.239	0.212	0.268	0.268	0.252	10.17
31)	T	Bromodichloromethane	0.354	0.306	0.263	0.316	0.309	0.310	10.36
32)	T	2-Chloroethyl vinyl e	0.103	0.092	0.079	0.103	0.104	0.096	11.01
33)	T	cis-1,3-Dichloroprope	0.434	0.374	0.306	0.373	0.365	0.370	12.28
34)	T	4-Methyl-2-Pentanone	0.087	0.076	0.067	0.077	0.073	0.076	9.38
35)	S	Toluene-d8	1.136	1.137	1.151	1.141	1.153	1.143	0.69
36)	TCM	Toluene	1.171	1.096	0.976	1.210	1.230	1.137	9.10
37)	I	Chlorobenzene-d5	ISTD						
38)	T	trans-1,3-Dichloropro	1.575	1.331	1.076	1.242	1.183	1.281	14.70
39)	T	1,1,2-Trichloroethane	0.918	0.823	0.732	0.910	0.869	0.850	8.96
40)	T	Tetrachloroethene	1.288	1.142	0.962	1.218	1.290	1.180	11.54
41)	T	2-Hexanone	0.603	0.521	0.462	0.492	0.484	0.512	10.70
42)	T	Dibromochloromethane	0.967	0.828	0.683	0.792	0.760	0.806	13.01
43)	TMP	Chlorobenzene	2.975	2.665	2.418	2.953	2.919	2.786	8.63
44)	TC	Ethylbenzene	4.786	4.644	4.148	5.222	5.087	4.778	8.81
45)	T	m+p-Xylenes	1.853	1.688	1.482	1.867	1.795	1.737	9.15
46)	T	o-Xylene	4.001	3.672	3.146	3.933	3.849	3.720	9.24
47)	T	Styrene	3.417	3.072	2.664	3.200	3.066	3.084	8.89
48)	TP	Bromoform	0.663	0.507	0.391	0.452	0.406	0.484	22.74
49)	S	Bromofluorobenzene	1.661	1.674	1.729	1.659	1.628	1.670	2.20
50)	TP	1,1,2,2-Tetrachloroet	1.141	1.026	0.917	1.124	1.166	1.075	9.60
51)	T	1,3-Dichlorobenzene	2.599	2.325	2.005	2.479	2.537	2.389	9.93
52)	T	1,4-Dichlorobenzene	2.742	2.466	2.108	2.680	2.681	2.535	10.29
53)	T	1,2-Dichlorobenzene	2.521	2.283	1.969	2.466	2.516	2.351	9.97
54)	t	Napthalene	3.928	3.809	3.064	3.989	3.747	3.707	10.04

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.:

Lab File ID: VB010360.D BFB Injection Date: 11/6/01

Instrument ID: GCMS#2 BFB Injection Time: 10:26

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

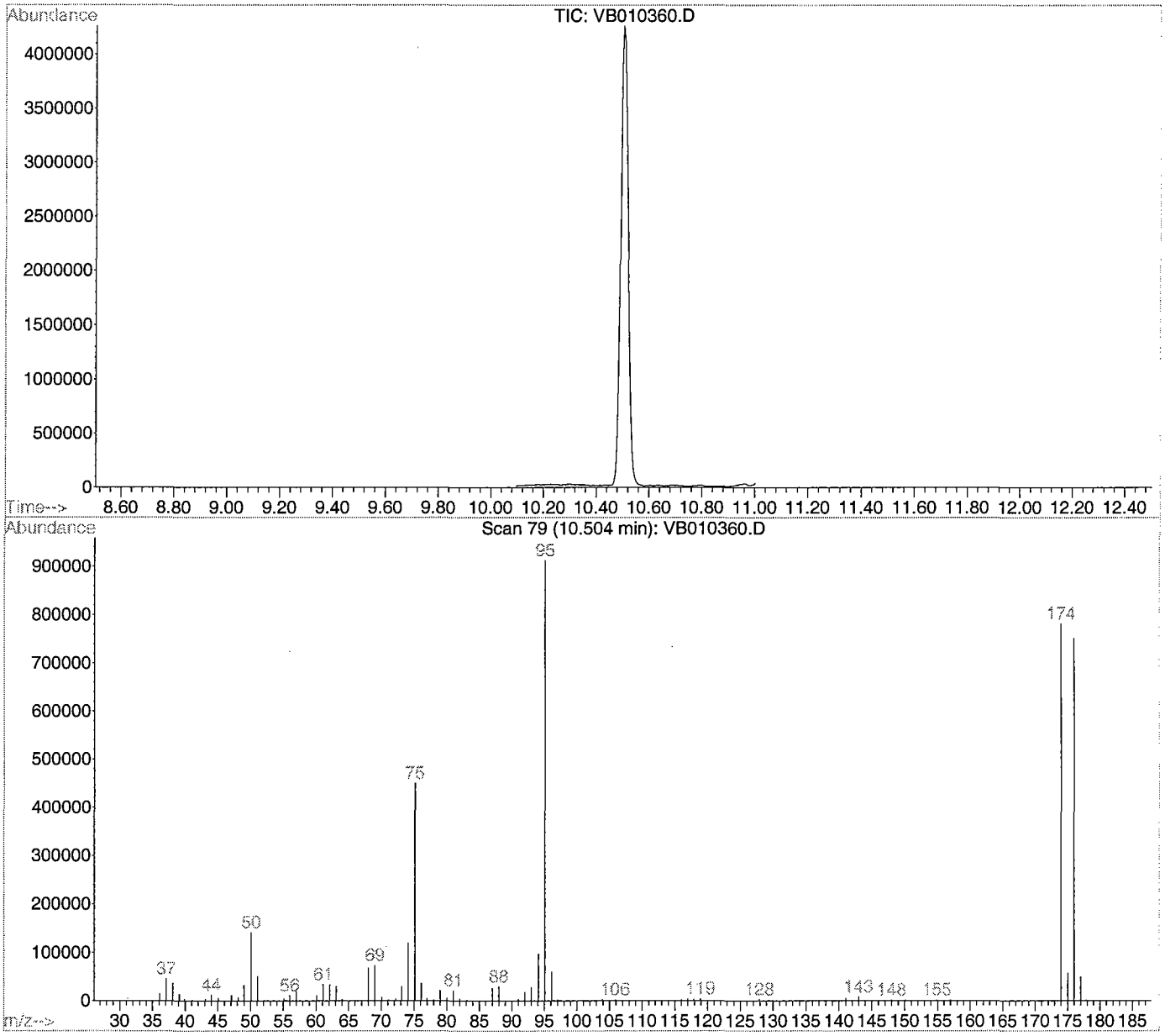
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.5
75	30.0 - 66.0% of mass 95	49.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	85.7
175	4.0 - 9.0% of mass 174	6.3 (7.4)1
176	93.0 - 101.0% of mass 174	82.4 (96.1)1
177	5.0 - 9.0% of mass 176	5.5 (6.6)2

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

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010361.D	11/6/01	12:02
02	MB	MB	VB010362.D	11/6/01	14:10
03	2534	1655401	VB010368.D	11/6/01	19:10
04	MS	1655003 MS	VB010369.D	11/6/01	19:55
05	MSD	1655003 MSD	VB010370.D	11/6/01	20:40

Data File : C:\HPCHEM\1\DATA\011106\VB010360.D Vial: 1
Acq On : 6 Nov 2001 10:26 am Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 79

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	141760	PASS
75	95	30	60	49.4	450880	PASS
95	95	100	100	100.0	912896	PASS
96	95	5	9	6.6	60464	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.7	782336	PASS
175	174	5	9	7.4	57656	PASS
176	174	95	101	96.1	752128	PASS
177	176	5	9	6.6	49808	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011106\VB010361.D Vial: 1
Acq On : 6 Nov 2001 12:02 pm Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	67	0.00
2	t	Acrolein	0.212	0.269	-26.9#	102	0.00
3	t	Acrylonitrile	0.709	0.807	-13.8	92	0.00
4	t	tert-Butyl alcohol	0.132	0.193	-46.2#	119	0.00
5	t	Methyl-tert-Butyl ether	4.909	5.508	-12.2	93	0.00
6	t	Di-isopropyl ether	1.413	1.573	-11.3	92	0.00
7	T	Dichlorodifluoromethane	2.522	2.111	16.3	66	0.00
8	TP	Chloromethane	2.439	2.249	7.8	77	0.00
9	TC	Vinyl Chloride	2.453	2.167	11.7	73	0.00
10	T	Bromomethane	1.356	1.226	9.6	74	0.00
11	T	Chloroethane	1.297	1.272	1.9	78	0.00
12	T	Trichlorofluoromethane	3.761	3.568	5.1	77	0.00
13	MC	1,1-Dichloroethene	2.821	2.909	-3.1	85	0.00
14	T	Acetone	0.772	0.821	-6.3	81	0.00
15	T	Carbon Disulfide	5.318	5.111	3.9	78	0.00
16	T	Methylene Chloride	1.852	1.939	-4.7	87	0.00
17	T	trans-1,2-Dichloroethene	2.484	2.601	-4.7	89	0.00
18	TP	1,1-Dichloroethane	2.843	3.281	-15.4	89	0.00
19	T	Vinyl Acetate	3.397	4.059	-19.5	97	0.00
20	T	2-Butanone	0.768	0.961	-25.1#	90	0.00
21	T	cis-1,2-Dichloroethene	2.495	2.677	-7.3	91	0.00
22	TC	Chloroform	3.142	3.258	-3.7	84	0.00
23	T	1,1,1-Trichloroethane	2.597	2.777	-6.9	86	0.00
24	T	Carbon Tetrachloride	2.153	2.529	-17.5	94	0.00
25	S	1,2-Dichloroethane-d4	2.334	2.427	-4.0	70	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	72	0.00
27	TM	Benzene	1.023	1.015	0.8	85	0.00
28	T	1,2-Dichloroethane	0.377	0.398	-5.6	90	0.00
29	TM	Trichloroethene	0.290	0.285	1.7	83	0.00
30	TC	1,2-Dichloropropane	0.252	0.265	-5.2	89	0.00
31	T	Bromodichloromethane	0.310	0.324	-4.5	88	0.00
32	T	2-Chloroethyl vinyl ether	0.096	0.100	-4.2	91	0.00
33	T	cis-1,3-Dichloropropene	0.370	0.402	-8.6	94	0.00
34	T	4-Methyl-2-Pentanone	0.076	0.100	-31.6#	107	0.00
35	S	Toluene-d8	1.143	1.206	-5.5	75	0.00
36	TCM	Toluene	1.137	1.144	-0.6	84	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	75	0.00
38	T	trans-1,3-Dichloropropene	1.281	1.370	-6.9	95	0.00
39	T	1,1,2-Trichloroethane	0.850	0.870	-2.4	89	0.00
40	T	Tetrachloroethene	1.180	1.114	5.6	87	0.00
41	T	2-Hexanone	0.512	0.630	-23.0	102	0.00
42	T	Dibromochloromethane	0.806	0.865	-7.3	95	0.00
43	TMP	Chlorobenzene	2.786	2.724	2.2	84	0.00
44	TC	Ethylbenzene	4.778	4.683	2.0	85	0.00
45	T	m+p-Xylenes	1.737	1.679	3.3	85	0.00
46	T	o-Xylene	3.720	3.612	2.9	86	0.00
47	T	Styrene	3.084	3.015	2.2	85	0.00
48	TP	Bromoform	0.484	0.557	-15.1	107	0.00
49	S	Bromofluorobenzene	1.670	1.699	-1.7	74	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.075	1.113	-3.5	91	0.00
51	T	1,3-Dichlorobenzene	2.389	2.321	2.8	87	0.00
52	T	1,4-Dichlorobenzene	2.535	2.426	4.3	86	0.00
53	T	1,2-Dichlorobenzene	2.351	2.240	4.7	85	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011106\VB010361.D Vial: 1
Acq On : 6 Nov 2001 12:02 pm Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54 t	Napthalene	3.707	4.129	-11.4	101	0.00

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

000023

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.:

Lab File ID: VB010362.D Lab Sample ID: MB

Date Analyzed: 11/6/01 Time Analyzed: 14:10

GC Column: RTX502. ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#2

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	2534	1655401	VB010368.D	19:10
02	MS	1655003 MS	VB010369.D	19:55
03	MSD	1655003 MSD	VB010370.D	20:40

COMMENTS:

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.: _____

	Lab ID.	SMC1 DCE #	SMC2 TOL #	SMC3 BFB #	TOT OUT
01	MB	102	103	103	0
02	2534	105	101	104	0
03	MS	107	102	101	0
04	MSD	107	102	100	0

				QC LIMITS
SMC1	DCE	=	1,2-Dichloroethane-d4	(70-121)
SMC2	TOL	=	Toluene-d8	(81-117)
SMC3	BFB	=	Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Volatile Matrix Spike Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010369.D**	Sample Name	**1655003 MS**
Date Acquired	**6-Nov-01**	Field ID	**1655003 MS**

Compound Name	Amount Added ug/L	Result ul/L	Percent Recovered
Acrolein	200	226.11	113.1
Acrylonitrile	200	219.85	109.9
tert-Butyl alcohol	200	199.67	99.8
Methyl-tert-Butyl ether	20	21.44	107.2
Di-isopropyl ether	20	21.26	106.3
Dichlorodifluoromethane	20	17.05	85.3
Chloromethane	20	19.25	96.3
Vinyl Chloride	20	19.59	98.0
Bromomethane	20	15.44	77.2
Chloroethane	20	19.30	96.5
Trichlorofluoromethane	20	19.53	97.7
1,1-Dichloroethene	20	21.78	108.9
Acetone	20	17.59	88.0
Carbon Disulfide	20	19.10	95.5
Methylene Chloride	20	20.70	103.5
trans-1,2-Dichloroethene	20	21.55	107.7
1,1-Dichloroethane	20	22.82	114.1
Vinyl Acetate	20	22.86	114.3
2-Butanone	20	23.10	115.5
cis-1,2-Dichloroethene	20	22.50	112.5
Chloroform	20	21.41	107.1
1,1,1-Trichloroethane	20	21.83	109.2
Carbon Tetrachloride	20	21.97	109.8
Benzene	20	21.18	105.9
1,2-Dichloroethane	20	21.28	106.4
Trichloroethene	20	21.52	107.6
1,2-Dichloropropane	20	20.82	104.1
Bromodichloromethane	20	21.30	106.5
2-Chloroethyl vinyl ether	20	21.88	109.4
cis-1,3-Dichloropropene	20	21.28	106.4
4-Methyl-2-Pentanone	20	23.10	115.5
Toluene	20	21.47	107.4
trans-1,3-Dichloropropene	20	20.56	102.8
1,1,2-Trichloroethane	20	20.49	102.5
Tetrachloroethene	20	20.31	101.5
2-Hexanone	20	23.15	115.7
Dibromochloromethane	20	20.73	103.6
Chlorobenzene	20	20.38	101.9
Ethylbenzene	20	27.32	136.6
m+p-Xylenes	40	51.64	129.1
o-Xylene	20	36.99	184.9
Styrene	20	20.84	104.2
Bromoform	20	19.48	97.4
1,1,2,2-Tetrachloroethane	20	20.80	104.0
1,3-Dichlorobenzene	20	20.44	102.2
1,4-Dichlorobenzene	20	20.52	102.6
1,2-Dichlorobenzene	20	25.21	126.0

Volatile Matrix Spike Duplicate Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010370.D**	Sample Name	**1655003 MSD**
Date Acquired	**6-Nov-01**	Field ID	**1655003 MSD**

Compound Name	Amount Added ug/L	Result ul/L	Percent Recovered
Acrolein	200	230.64	115.3
Acrylonitrile	200	217.26	108.6
tert-Butyl alcohol	200	202.00	101.0
Methyl-tert-Butyl ether	20	22.34	111.7
Di-isopropyl ether	20	22.18	110.9
Dichlorodifluoromethane	20	17.80	89.0
Chloromethane	20	20.22	101.1
Vinyl Chloride	20	19.81	99.1
Bromomethane	20	16.92	84.6
Chloroethane	20	20.17	100.9
Trichlorofluoromethane	20	20.03	100.1
1,1-Dichloroethene	20	22.34	111.7
Acetone	20	18.40	92.0
Carbon Disulfide	20	20.14	100.7
Methylene Chloride	20	21.65	108.3
trans-1,2-Dichloroethene	20	22.54	112.7
1,1-Dichloroethane	20	23.98	119.9
Vinyl Acetate	20	22.72	113.6
2-Butanone	20	24.22	121.1
cis-1,2-Dichloroethene	20	23.13	115.6
Chloroform	20	21.84	109.2
1,1,1-Trichloroethane	20	21.73	108.7
Carbon Tetrachloride	20	23.19	116.0
Benzene	20	21.37	106.8
1,2-Dichloroethane	20	21.78	108.9
Trichloroethene	20	21.64	108.2
1,2-Dichloropropane	20	21.80	109.0
Bromodichloromethane	20	21.90	109.5
2-Chloroethyl vinyl ether	20	22.77	113.9
cis-1,3-Dichloropropene	20	22.23	111.2
4-Methyl-2-Pentanone	20	23.34	116.7
Toluene	20	21.77	108.8
trans-1,3-Dichloropropene	20	20.89	104.5
1,1,2-Trichloroethane	20	21.65	108.3
Tetrachloroethene	20	20.15	100.8
2-Hexanone	20	24.18	120.9
Dibromochloromethane	20	22.03	110.2
Chlorobenzene	20	20.87	104.3
Ethylbenzene	20	27.85	139.2
m+p-Xylenes	40	51.82	129.5
o-Xylene	20	37.26	186.3
Styrene	20	20.28	101.4
Bromoform	20	20.79	103.9
1,1,2,2-Tetrachloroethane	20	21.16	105.8
1,3-Dichlorobenzene	20	20.78	103.9
1,4-Dichlorobenzene	20	20.91	104.5
1,2-Dichlorobenzene	20	25.41	127.1

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16554 Location: 2534 SDG No.:

Lab File ID (Standard): VB010361.D Date Analyzed: 11/6/01

Instrument ID: GCMS#2 Time Analyzed: 12:02

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	423775	16.76	3096051	19.48	854005	27.33
	UPPER LIMIT	847550	17.26	6192102	19.98	1708010	27.83
	LOWER LIMIT	211888	16.26	1548026	18.98	427003	26.83
	Lab ID.						
01	MB	448979	16.75	3164611	19.48	846203	27.32
02	2534	416944	16.77	2999360	19.49	786766	27.33
03	MS	419383	16.77	2992889	19.49	814688	27.33
04	MSD	415322	16.78	3017382	19.49	823007	27.33

IS1 BCM = Bromochloromethane
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5

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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011106\VB010362.D Vial: 1
Acq On : 6 Nov 2001 2:10 pm Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 6 14:49 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

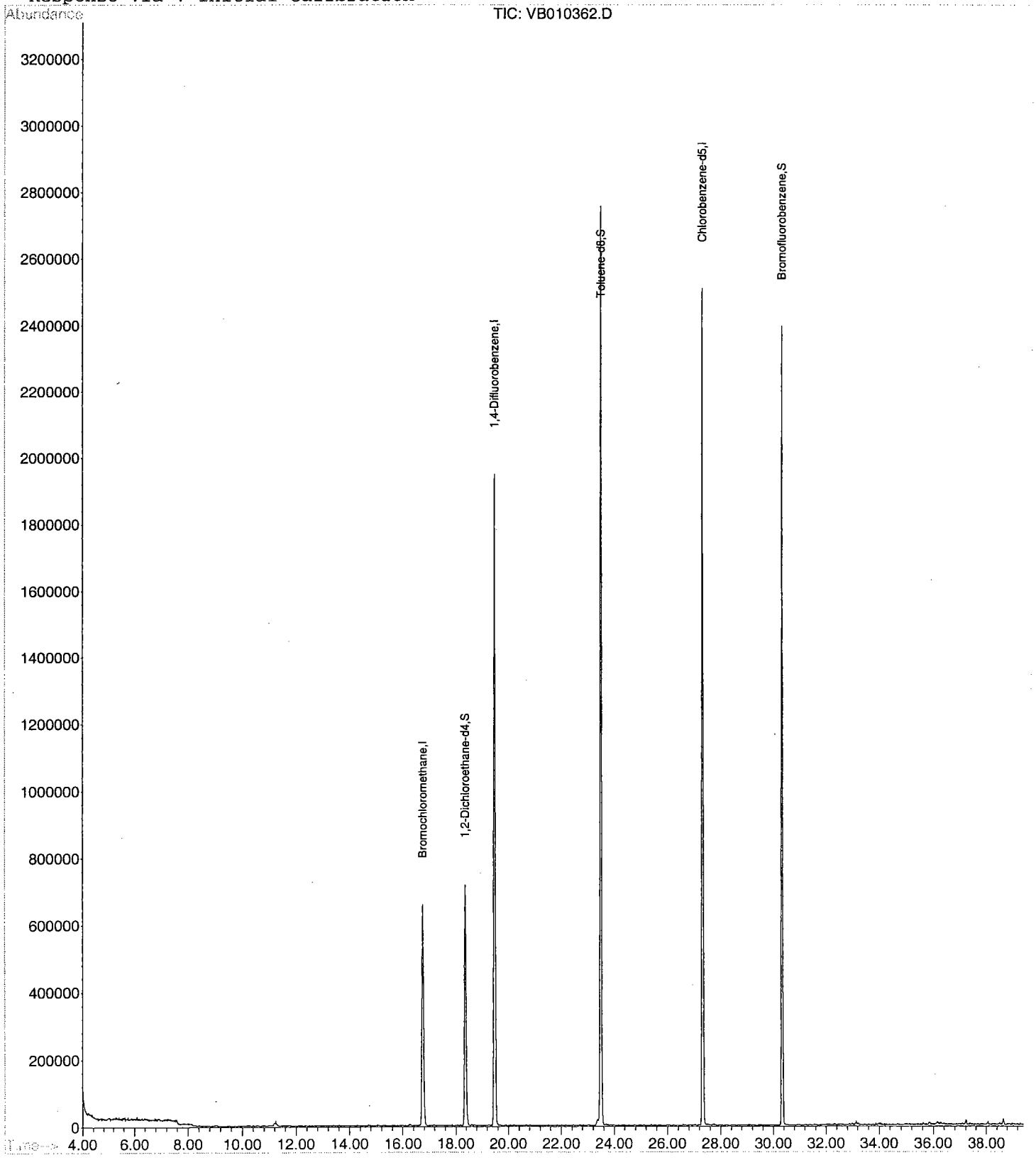
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	448979	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3164611	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	846203	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1065926	30.51	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 101.70%			
35) Toluene-d8	23.50	98	3726006	30.89	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 102.97%			
49) Bromofluorobenzene	30.34	95	1455982	30.91	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 103.03%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011106\VB010362.D Vial: 1
Acq On : 6 Nov 2001 2:10 pm Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 6 14:49 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



000030

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011106\VB010368.D Vial: 6
Acq On : 6 Nov 2001 7:10 pm Operator: Skelton
Sample : 1655401 Inst : GC VOA 2
Misc : 2534GW Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 6 19:49 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	416944	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	2999360	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	786766	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1017480	31.37	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 104.57%			
35) Toluene-d8	23.51	98	3452595	30.20	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 100.67%			
49) Bromofluorobenzene	30.34	95	1363944	31.14	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 103.80%			
Target Compounds						Qvalue
22) Chloroform	16.29	83	58525	1.34	ug/L	93

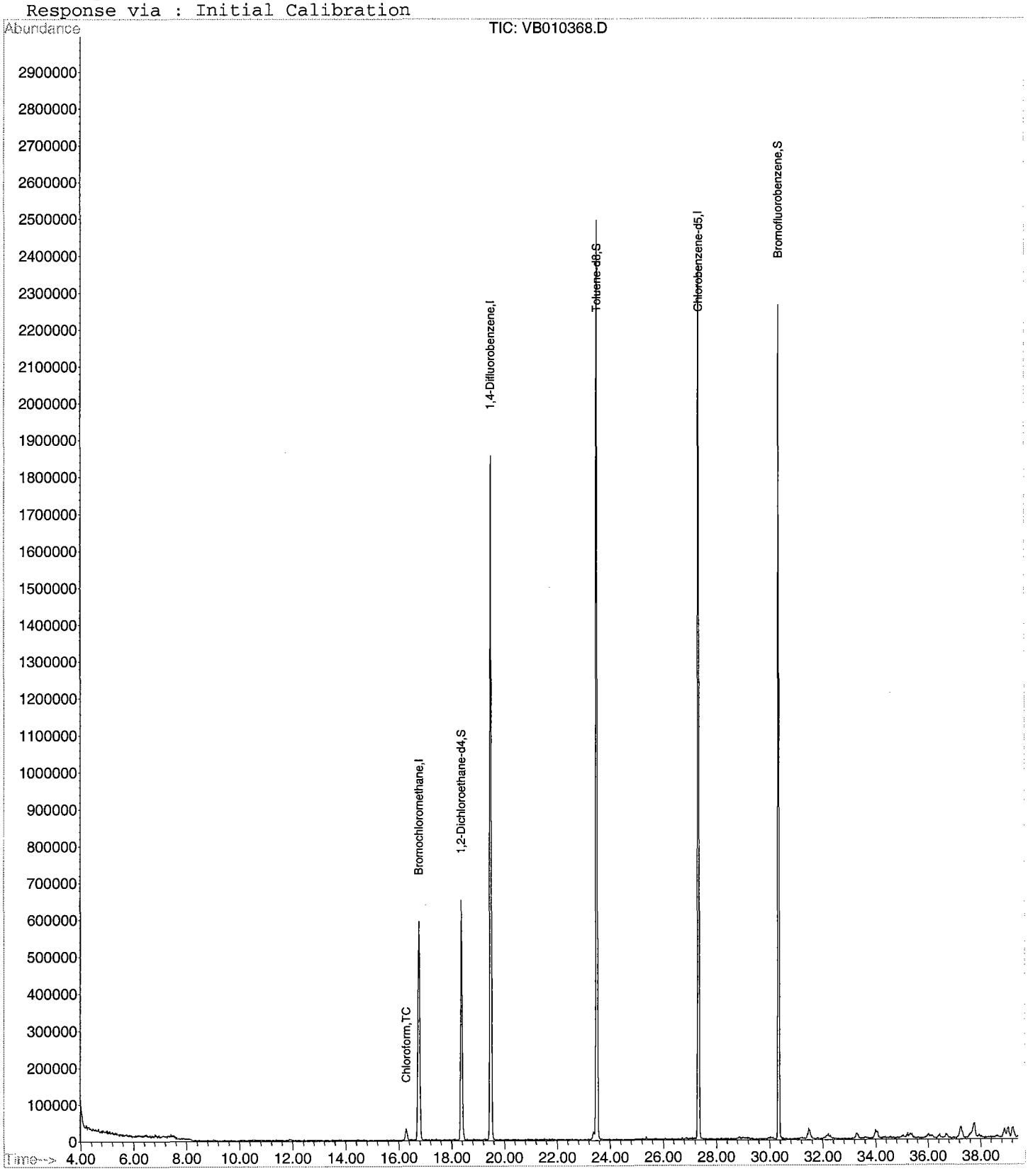
(#) = qualifier out of range (m) = manual integration

000031

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011106\VB010368.D Vial: 6
Acq On : 6 Nov 2001 7:10 pm Operator: Skelton
Sample : 1655401 Inst : GC VOA 2
Misc : 2534GW Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 6 19:49 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



BASE NEUTRAL

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06275.D**	Sample Name	**MB-011109**
Operator	**B.Patel**	Misc Info	**MB-011109**
Date Acquired	**14-Nov-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	0.61	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.64	ug/L	
62-53-3	Aniline			not detected	NLE	0.78	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.80	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.90	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.95	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.17	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.81	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.84	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.96	ug/L	
98-95-3	Nitrobenzene			not detected	10	1.27	ug/L	
78-59-1	Isophorone			not detected	100	0.88	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.11	ug/L	
91-20-3	Naphthalene			not detected	NLE	1.06	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.77	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	1.16	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.11	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.26	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.10	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.95	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.09	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.93	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.98	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.85	ug/L	
83-32-9	Acenaphthene			not detected	400	1.02	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.06	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.16	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.10	ug/L	
86-73-7	Fluorene			not detected	300	0.84	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.92	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.92	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.10	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.06	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.87	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.08	ug/L	
120-12-7	Anthracene			not detected	2000	0.93	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.23	ug/L	
206-44-0	Fluoranthene			not detected	300	0.90	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA06275.D**	Sample Name	**MB-011109**
Operator	**B.Patel**	Misc Info	**MB-011109**
Date Acquired	**14-Nov-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	1.81	ug/L	
129-00-0	Pyrene			not detected	200	1.01	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.13	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.87	ug/L	
218-01-9	Chrysene			not detected	20	1.05	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	26.89	352640	4.81 ug/L	30	0.99	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.20	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.07	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.24	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.04	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	1.32	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.12	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	1.00	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
D= Value from dilution
B= Compound in Related Blank
PQL= Practical Quantitation Limit

MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB-011109

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: MB-011109

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06275.D

Level: (low/med) LOW Date Received: 11/7/01

% Moisture: _____ decanted: (Y/N) N Date Extracted: 11/9/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/14/01

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06279.D**	Sample Name	**1656201**
Operator	**B.Patel**	Misc Info	**2534GW**
Date Acquired	**14-Nov-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	0.61	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.64	ug/L	
62-53-3	Aniline			not detected	NLE	0.78	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.80	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.90	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.95	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.17	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.81	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.84	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.96	ug/L	
98-95-3	Nitrobenzene			not detected	10	1.27	ug/L	
78-59-1	Isophorone			not detected	100	0.88	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.11	ug/L	
91-20-3	Naphthalene			not detected	NLE	1.06	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.77	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	1.16	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.11	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.26	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.10	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.95	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.09	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.93	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.98	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.85	ug/L	
83-32-9	Acenaphthene			not detected	400	1.02	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.06	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.16	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.10	ug/L	
86-73-7	Fluorene			not detected	300	0.84	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.92	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.92	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.10	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.06	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.87	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.08	ug/L	
120-12-7	Anthracene			not detected	2000	0.93	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.23	ug/L	
206-44-0	Fluoranthene			not detected	300	0.90	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA06279.D**	Sample Name	**1656201**
Operator	**B.Patel**	Misc Info	**2534GW**
Date Acquired	**14-Nov-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	1.81	ug/L	
129-00-0	Pyrene			not detected	200	1.01	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.13	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.87	ug/L	
218-01-9	Chrysene			not detected	20	1.05	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	0.99	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.20	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.07	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.24	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.04	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	1.32	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.12	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	1.00	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
D= Value from dilution
B= Compound in Related Blank
PQL= Practical Quantitation Limit

MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

2534GW

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: BI.2534 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1656201

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06279.D

Level: (low/med) LOW Date Received: 11/7/01

% Moisture: _____ decanted: (Y/N) N Date Extracted: 11/9/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/14/01

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID: BNA06032.D DFTPP Injection Date: 9/6/01

Instrument ID: GC_BNA_2 DFTPP Injection Time: 9:33

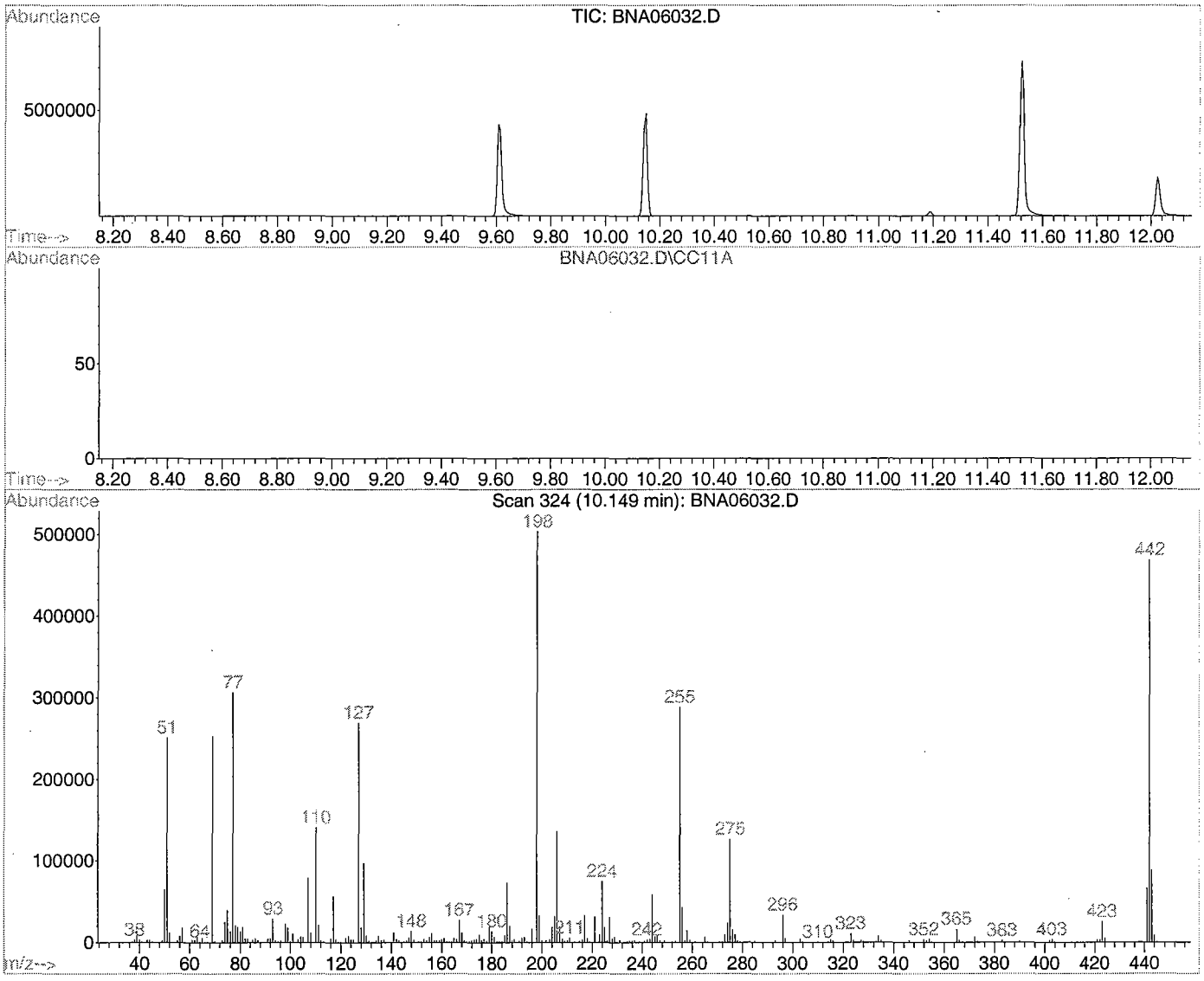
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	49.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	50.3
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	25.0 - 75.0% of mass 198	53.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	25.1
365	Greater than 0.75% of mass 198	3.2
441	Present, but less than mass 443	13.2
442	40.0 - 110.0% of mass 198	92.9
443	15.0 - 24.0% of mass 442	17.6 (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:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD120	SSTD120	BNA06033.D	9/6/01	9:58
02	SSTD010	SSTD010	BNA06034.D	9/6/01	10:42
03	SSTD050	SSTD050	BNA06035.D	9/6/01	11:26
04	SSTD020	SSTD020	BNA06036.D	9/6/01	12:11
05	SSTD080	SSTD080	BNA06037.D	9/6/01	12:58

Data File : D:\DATA\010906\BNA06032.D Vial: 99
Acq On : 6 Sep 2001 9:33 am Operator: B.Patel
Sample : DFTPP TUNE Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 324

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.8	251008	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	50.3	253120	PASS
70	69	0.00	2	0.6	1563	PASS
127	198	40	60	53.5	269632	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	503680	PASS
199	198	5	9	6.6	33112	PASS
275	198	10	30	25.1	126416	PASS
365	198	1	100	3.2	16079	PASS
441	443	1	99	75.0	66328	PASS
442	198	40	100	92.9	467968	PASS
443	442	17	23	18.9	88424	PASS

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration

Calibration Files
120 =BNA06033.D 80 =BNA06037.D 50 =BNA06035.D
20 =BNA06036.D 10 =BNA06034.D

		Compound	120	80	50	20	10	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	T	Pyridine	1.864	1.930	1.943	1.880	1.981	1.920	2.48
3)	T	N-nitroso-dimethylami	1.195	1.218	1.233	1.157	1.177	1.196	2.58
4)	S	2-Fluorophenol	1.496	1.521	1.568	1.544	1.519	1.530	1.79
5)	T	Aniline	2.344	2.406	2.531	2.548	2.653	2.496	4.90
6)	S	Phenol-d6	1.805	1.852	1.952	1.971	2.026	1.921	4.71
7)	TCM	Phenol	1.780	1.883	1.990	2.125	2.171	1.990	8.21
8)	T	bis(2-Chloroethyl)eth	1.843	1.902	1.994	2.004	2.040	1.957	4.16
9)	TM	2-Chlorophenol	1.361	1.397	1.459	1.468	1.517	1.440	4.28
10)	T	1,3-Dichlorobenzene	1.445	1.503	1.590	1.621	1.701	1.572	6.39
11)	TCM	1,4-Dichlorobenzene	1.443	1.517	1.603	1.641	1.719	1.584	6.78
12)	T	Benzyl alcohol	0.924	0.935	0.986	0.937	0.895	0.935	3.52
13)	T	1,2-Dichlorobenzene	1.340	1.402	1.478	1.538	1.634	1.478	7.79
14)	T	2-Methylphenol	1.347	1.404	1.497	1.506	1.579	1.466	6.21
15)	T	bis(2-chloroisopropyl	1.856	1.945	2.050	2.109	2.232	2.038	7.13
16)	T	4-Methylphenol	1.366	1.476	1.574	1.570	1.637	1.525	6.92
17)	TPM	n-Nitroso-di-n-propyl	0.278	0.282	0.295	0.296	0.304	0.291	3.72
18)	T	Hexachloroethane	0.586	0.630	0.674	0.693	0.721	0.661	8.10
19)	I	Naphthalene-d8	----------ISTD----------						
20)	S	Nitrobenzene-d5	0.464	0.483	0.496	0.502	0.521	0.493	4.34
21)	T	Nitrobenzene	0.463	0.490	0.511	0.524	0.543	0.506	6.11
22)	T	Isophorone	0.780	0.807	0.822	0.854	0.902	0.833	5.64
23)	TC	2-Nitrophenol	0.199	0.206	0.209	0.203	0.208	0.205	2.00
24)	T	2,4-Dimethylphenol	0.372	0.391	0.409	0.414	0.447	0.407	6.89
25)	T	bis(2-Chloroethoxy)me	0.538	0.577	0.602	0.621	0.650	0.598	7.13
26)	TC	2,4-Dichlorophenol	0.274	0.291	0.309	0.315	0.322	0.302	6.47
27)	T	Benzoic Acid	0.307	0.323	0.310	0.292	0.279	0.302	5.60
28)	TM	1,2,4-Trichlorobenzen	0.296	0.314	0.326	0.339	0.358	0.327	7.22
29)	T	Naphthalene	0.863	0.970	1.068	1.153	1.231	1.057	13.78
30)	T	4-Chloroaniline	0.407	0.432	0.447	0.453	0.465	0.441	5.06
31)	TC	Hexachlorobutadiene	0.170	0.180	0.188	0.195	0.209	0.188	7.99
32)	TCM	4-Chloro-3-methylphen	0.325	0.343	0.361	0.360	0.382	0.354	6.00
33)	T	2-Methylnaphthalene	0.576	0.624	0.662	0.697	0.744	0.661	9.84
34)	I	Acenaphthene-d10	----------ISTD----------						
35)	TP	Hexachlorocyclopentad	0.375	0.388	0.388	0.362	0.354	0.373	4.15
36)	TC	2,4,6-Trichlorophenol	0.372	0.388	0.402	0.411	0.429	0.401	5.39
37)	T	2,4,5-Trichlorophenol	0.431	0.454	0.476	0.459	0.459	0.456	3.51
38)	S	2-Fluorobiphenyl	1.147	1.236	1.324	1.416	1.516	1.328	10.94
39)	T	2-Chloronaphthalene	1.087	1.153	1.240	1.295	1.394	1.234	9.71
40)	T	2-Nitroaniline	0.442	0.453	0.463	0.455	0.453	0.453	1.66
41)	T	Dimethylphthalate	1.418	1.532	1.636	1.755	1.878	1.644	11.01
42)	T	Acenaphthylene	1.598	1.769	1.925	2.087	2.248	1.925	13.28
43)	T	2,6-Dinitrotoluene	0.368	0.387	0.400	0.414	0.434	0.401	6.35
44)	T	3-Nitroaniline	0.344	0.358	0.361	0.367	0.375	0.361	3.23
45)	TCM	Acenaphthene	1.033	1.112	1.191	1.267	1.364	1.193	10.84
46)	TP	2,4-Dinitrophenol	0.218	0.214	0.209	0.158	0.159	0.192	15.84
47)	T	Dibenzofuran	1.373	1.502	1.624	1.743	1.897	1.628	12.53
48)	TMP	4-Nitrophenol	0.374	0.334	0.320	0.342	0.340	0.342	5.86
49)	TM	2,4-Dinitrotoluene	0.433	0.448	0.459	0.472	0.492	0.461	4.87
50)	T	Diethylphthalate	1.393	1.521	1.634	1.773	1.929	1.650	12.69
51)	T	Fluorene	1.197	1.291	1.378	1.466	1.577	1.382	10.71
52)	T	4-Chlorophenyl-phenyl	0.695	0.726	0.776	0.812	0.879	0.777	9.28
53)	T	4-Nitroaniline	0.345	0.344	0.351	0.346	0.353	0.348	1.20
54)	I	Phenanthrene-d10	----------ISTD----------						

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration

Calibration Files
120 =BNA06033.D 80 =BNA06037.D 50 =BNA06035.D
20 =BNA06036.D 10 =BNA06034.D

		Compound	120	80	50	20	10	Avg	%RSD
55)	T	4,6-Dinitro-2-methylp	0.167	0.170	0.170	0.156	0.150	0.163	5.60
56)	TC	n-Nitrosodiphenylamin	0.605	0.645	0.694	0.729	0.794	0.693	10.58
57)	T	Azobenzene	1.015	1.009	1.090	1.172	1.249	1.107	9.32
58)	S	2,4,6-Tribromophenol	0.120	0.120	0.123	0.122	0.128	0.123	2.71
59)	T	4-Bromophenyl-phenyle	0.255	0.261	0.272	0.280	0.298	0.273	6.20
60)	T	Hexachlorobenzene	0.224	0.228	0.235	0.237	0.258	0.236	5.66
61)	TCM	Pentachlorophenol	0.140	0.141	0.140	0.131	0.124	0.135	5.55
62)	T	Phenanthrene	0.988	1.068	1.168	1.262	1.367	1.170	12.88
63)	T	Anthracene	1.003	1.095	1.201	1.293	1.400	1.198	13.08
64)	T	Di-n-butylphthalate	1.239	1.411	1.580	1.732	1.862	1.565	15.85
65)	TC	Fluoranthene	1.048	1.127	1.220	1.318	1.410	1.225	11.83
66)	I	Chrysene-d12	----------ISTD----------						
67)	T	Benzidine	0.619	0.599	0.593	0.642	0.770	0.645	11.32
68)	TM	Pyrene	1.204	1.272	1.356	1.427	1.516	1.355	9.10
69)	S	p-Terphenyl-d14	0.886	0.921	0.957	0.979	1.052	0.959	6.55
70)	T	Butylbenzylphthalate	0.732	0.775	0.812	0.835	0.865	0.804	6.46
71)	T	Benzo[a]anthracene	1.208	1.269	1.325	1.360	1.448	1.322	6.90
72)	T	3,3'-Dichlorobenzidin	0.554	0.558	0.559	0.577	0.618	0.574	4.64
73)	T	Chrysene	1.125	1.192	1.250	1.306	1.401	1.255	8.42
74)	T	bis(2-Ethylhexyl)phth	0.955	1.036	1.097	1.133	1.173	1.079	7.93
75)	I	Perylene-d12	----------ISTD----------						
76)	TC	Di-n-octylphthalate	1.847	2.042	2.290	2.442	2.566	2.237	13.08
77)	T	Benzo[b]fluoranthene	1.547	1.516	1.577	1.639	1.755	1.607	5.88
78)	T	Benzo[k]fluoranthene	1.390	1.499	1.599	1.686	1.769	1.588	9.43
79)	TC	Benzo[a]pyrene	1.431	1.462	1.541	1.621	1.710	1.553	7.37
80)	T	Indeno[1,2,3-cd]pyren	1.522	1.543	1.596	1.571	1.683	1.583	3.94
81)	T	Dibenz[a,h]anthracene	1.149	1.151	1.200	1.231	1.311	1.208	5.52
82)	T	Benzo[g,h,i]perylene	1.453	1.456	1.505	1.544	1.634	1.518	4.91

#) = Out of Range

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID: BNA06273.D DFTPP Injection Date: 11/14/01

Instrument ID: GC_BNA_2 DFTPP Injection Time: 11:08

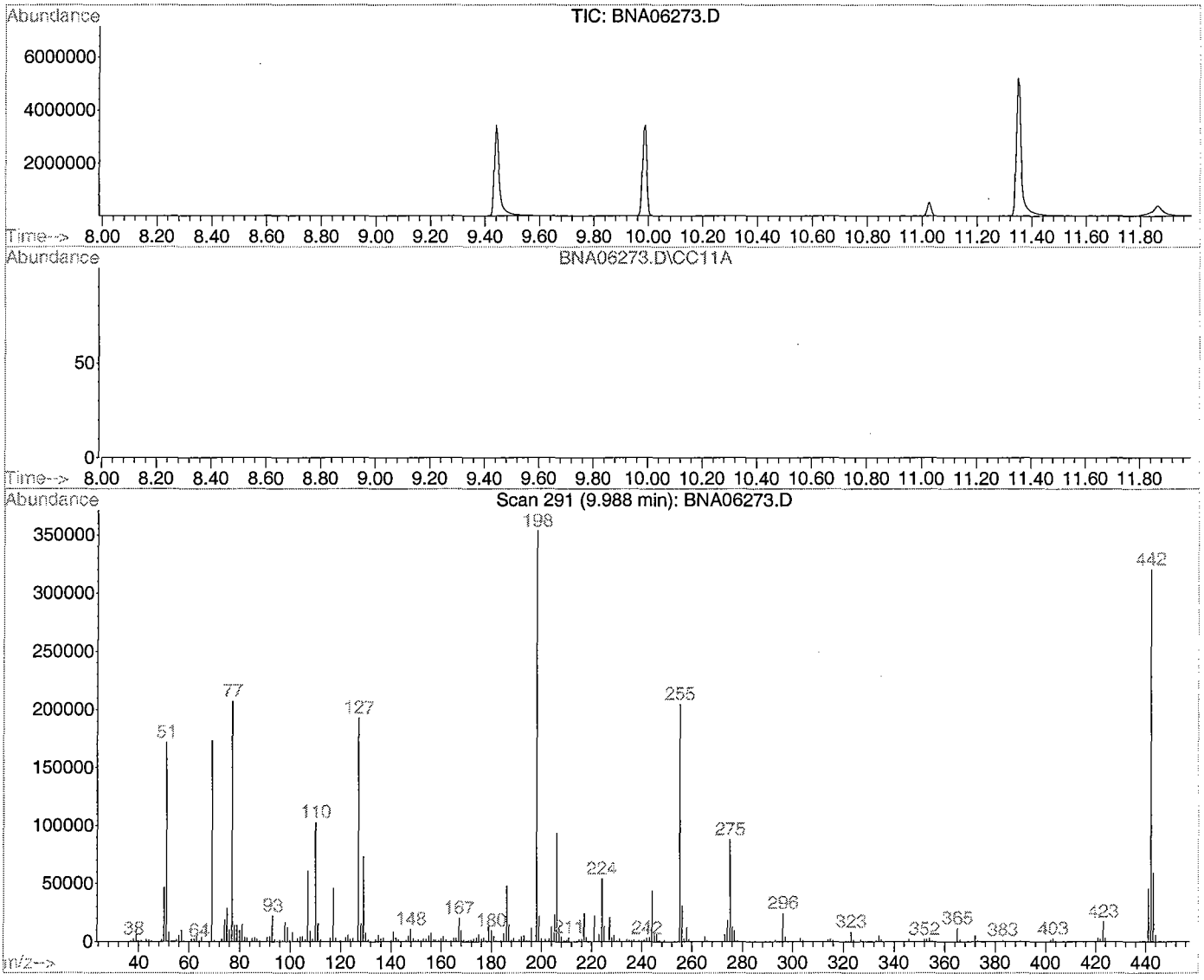
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	48.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	49.1
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	25.0 - 75.0% of mass 198	54.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 30.0% of mass 198	24.9
365	Greater than 0.75% of mass 198	3.2
441	Present, but less than mass 443	12.9
442	40.0 - 110.0% of mass 198	90.6
443	15.0 - 24.0% of mass 442	16.7 (18.4)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	BNA06274.D	11/14/01	11:23
02	MB-011109	MB-011109	BNA06275.D	11/14/01	12:06
03	2534GW	1656201	BNA06279.D	11/14/01	15:00

Data File : D:\DATA\011114\BNA06273.D Vial: 99
Acq On : 14 Nov 2001 11:08 am Operator: B.Patel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 291

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	48.5	171648	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.1	173504	PASS
70	69	0.00	2	0.7	1143	PASS
127	198	40	60	54.5	192704	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	353728	PASS
199	198	5	9	6.2	21896	PASS
275	198	10	30	24.9	87920	PASS
365	198	1	100	3.2	11282	PASS
441	443	1	99	77.5	45760	PASS
442	198	40	100	90.6	320448	PASS
443	442	17	23	18.4	59024	PASS

Evaluate Continuing Calibration Report

Data File : D:\DATA\011114\BNA06274.D Vial: 100
Acq On : 14 Nov 2001 11:23 am Operator: B.Patel
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	0.00
2	T	Pyridine	1.920	1.754	8.6	80	-0.09
3	T	N-nitroso-dimethylamine	1.196	1.131	5.4	81	0.00
4	S	2-Fluorophenol	1.530	1.451	5.2	82	-0.02
5	T	Aniline	2.496	2.145	14.1	75	-0.01
6	S	Phenol-d6	1.921	1.854	3.5	84	-0.01
7	TCM	Phenol	1.990	1.857	6.7	83	-0.02
8	T	bis(2-Chloroethyl)ether	1.957	1.897	3.1	84	-0.01
9	TM	2-Chlorophenol	1.440	1.391	3.4	84	-0.01
10	T	1,3-Dichlorobenzene	1.572	1.523	3.1	85	0.00
11	TCM	1,4-Dichlorobenzene	1.584	1.554	1.9	86	-0.01
12	T	Benzyl alcohol	0.935	0.896	4.2	80	-0.02
13	T	1,2-Dichlorobenzene	1.478	1.452	1.8	87	0.00
14	T	2-Methylphenol	1.466	1.436	2.0	85	-0.02
15	T	bis(2-chloroisopropyl)ether	2.038	1.845	9.5	80	0.00
16	T	4-Methylphenol	1.525	1.484	2.7	83	-0.02
17	TPM	n-Nitroso-di-n-propylamine	0.291	0.282	3.1	85	-0.01
18	T	Hexachloroethane	0.661	0.655	0.9	86	-0.01
19	I	Naphthalene-d8	1.000	1.000	0.0	89	-0.01
20	S	Nitrobenzene-d5	0.493	0.480	2.6	86	-0.01
21	T	Nitrobenzene	0.506	0.493	2.6	86	-0.01
22	T	Isophorone	0.833	0.787	5.5	85	-0.02
23	TC	2-Nitrophenol	0.205	0.196	4.4	84	-0.01
24	T	2,4-Dimethylphenol	0.407	0.392	3.7	85	-0.01
25	T	bis(2-Chloroethoxy)methane	0.598	0.569	4.8	84	-0.01
26	TC	2,4-Dichlorophenol	0.302	0.289	4.3	83	-0.02
27	T	Benzoic Acid	0.302	0.298	1.3	86	0.00
28	TM	1,2,4-Trichlorobenzene	0.327	0.322	1.5	88	-0.01
29	T	Naphthalene	1.057	1.046	1.0	87	-0.01
30	T	4-Chloroaniline	0.441	0.337	23.6	67	-0.02
31	TC	Hexachlorobutadiene	0.188	0.190	-1.1	90	-0.02
32	TCM	4-Chloro-3-methylphenol	0.354	0.344	2.8	85	-0.02
33	T	2-Methylnaphthalene	0.661	0.659	0.3	89	-0.01
34	I	Acenaphthene-d10	1.000	1.000	0.0	89	-0.01
35	TP	Hexachlorocyclopentadiene	0.373	0.383	-2.7	88	-0.01
36	TC	2,4,6-Trichlorophenol	0.401	0.392	2.2	87	-0.01
37	T	2,4,5-Trichlorophenol	0.456	0.451	1.1	85	-0.02
38	S	2-Fluorobiphenyl	1.328	1.311	1.3	88	-0.01
39	T	2-Chloronaphthalene	1.234	1.220	1.1	88	-0.01
40	T	2-Nitroaniline	0.453	0.438	3.3	85	0.00
41	T	Dimethylphthalate	1.644	1.635	0.5	89	-0.01
42	T	Acenaphthylene	1.925	1.915	0.5	89	-0.01
43	T	2,6-Dinitrotoluene	0.401	0.416	-3.7	93	-0.01
44	T	3-Nitroaniline	0.361	0.289	19.9	71	-0.01
45	TCM	Acenaphthene	1.193	1.183	0.8	89	-0.01
46	TP	2,4-Dinitrophenol	0.192	0.199	-3.6	85	0.00
47	T	Dibenzofuran	1.628	1.605	1.4	88	-0.01
48	TMP	4-Nitrophenol	0.342	0.368	-7.6	103	-0.01
49	TM	2,4-Dinitrotoluene	0.461	0.445	3.5	87	0.00
50	T	Diethylphthalate	1.650	1.646	0.2	90	-0.01
51	T	Fluorene	1.382	1.369	0.9	89	0.00
52	T	4-Chlorophenyl-phenylether	0.777	0.775	0.3	89	0.00
53	T	4-Nitroaniline	0.348	0.327	6.0	83	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\DATA\011114\BNA06274.D Vial: 100
Acq On : 14 Nov 2001 11:23 am Operator: B.Patel
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Phenanthrene-d10	1.000	1.000	0.0	90	-0.01
55	T	4,6-Dinitro-2-methylphenol	0.163	0.162	0.6	86	0.00
56	TC	n-Nitrosodiphenylamine	0.693	0.685	1.2	89	-0.01
57	T	Azobenzene	1.107	1.080	2.4	89	-0.01
58	S	2,4,6-Tribromophenol	0.123	0.121	1.6	88	-0.01
59	T	4-Bromophenyl-phenylether	0.273	0.274	-0.4	91	-0.01
60	T	Hexachlorobenzene	0.236	0.235	0.4	90	-0.01
61	TCM	Pentachlorophenol	0.135	0.146	-8.1	94	-0.01
62	T	Phenanthrene	1.170	1.160	0.9	89	0.00
63	T	Anthracene	1.198	1.194	0.3	89	-0.01
64	T	Di-n-butylphthalate	1.565	1.579	-0.9	90	-0.01
65	TC	Fluoranthene	1.225	1.218	0.6	90	-0.01
66	I	Chrysene-d12	1.000	1.000	0.0	94	0.00
67	T	Benzidine	0.645	0.469	27.3#	75	0.00
68	TM	Pyrene	1.355	1.284	5.2	89	-0.01
69	S	p-Terphenyl-d14	0.959	0.921	4.0	91	0.00
70	T	Butylbenzylphthalate	0.804	0.768	4.5	89	0.00
71	T	Benzo[a]anthracene	1.322	1.259	4.8	90	0.00
72	T	3,3'-Dichlorobenzidine	0.574	0.467	18.6	79	-0.01
73	T	Chrysene	1.255	1.199	4.5	90	-0.01
74	T	bis(2-Ethylhexyl)phthalate	1.079	1.032	4.4	89	-0.01
75	I	Perylene-d12	1.000	1.000	0.0	89	-0.01
76	TC	Di-n-octylphthalate	2.237	2.238	-0.0	87	0.00
77	T	Benzo[b]fluoranthene	1.607	1.603	0.2	91	0.00
78	T	Benzo[k]fluoranthene	1.588	1.591	-0.2	89	0.00
79	TC	Benzo[a]pyrene	1.553	1.532	1.4	89	0.00
80	T	Indeno[1,2,3-cd]pyrene	1.583	1.673	-5.7	94	-0.01
81	T	Dibenz[a,h]anthracene	1.208	1.188	1.7	88	-0.01
82	T	Benzo[g,h,i]perylene	1.518	1.484	2.2	88	-0.02

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID: BNA06228.D DFTPP Injection Date: 10/26/01

Instrument ID: GC_BNA_2 DFTPP Injection Time: 8:20

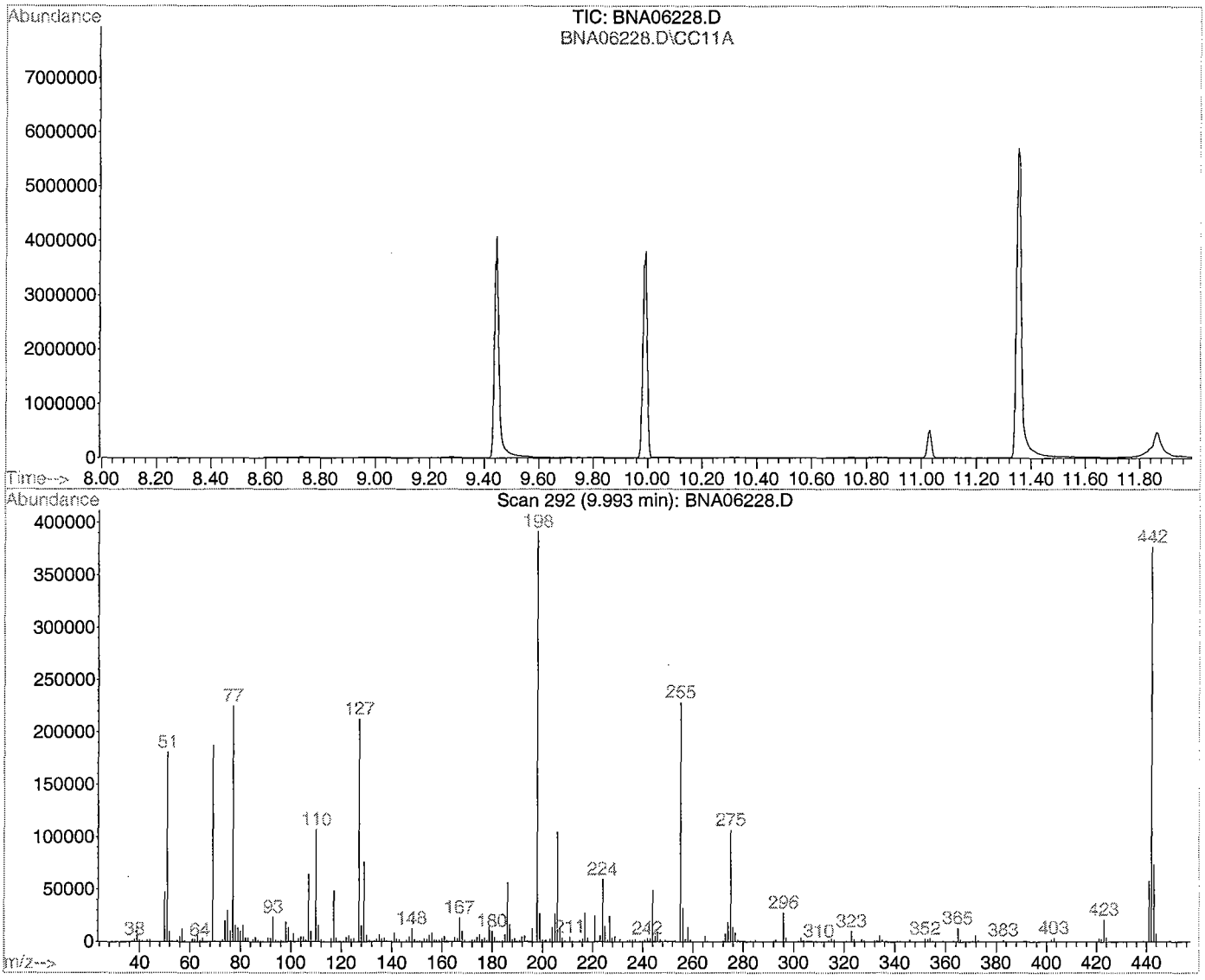
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	54.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	55.0
70	Less than 2.0% of mass 69	0.4 (0.7)1
127	25.0 - 75.0% of mass 198	57.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	24.8
365	Greater than 0.75% of mass 198	2.9
441	Present, but less than mass 443	10.5
442	40.0 - 110.0% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14.4 (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:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	BNA06229.D	10/26/01	8:44
02	1652806MS	1652806MS	BNA06253.D	10/27/01	2:16
03	1652806MSD	1652806MSD	BNA06254.D	10/27/01	2:59

Data File : D:\DATA\011026\BNA06228.D Vial: 99
Acq On : 26 Oct 2001 8:20 am Operator: B.Patel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 292

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.1	180608	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.9	187584	PASS
70	69	0.00	2	0.5	966	PASS
127	198	40	60	54.2	212544	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	391872	PASS
199	198	5	9	7.0	27256	PASS
275	198	10	30	27.1	106032	PASS
365	198	1	100	3.3	12813	PASS
441	443	1	99	79.0	58032	PASS
442	198	40	100	96.1	376512	PASS
443	442	17	23	19.5	73416	PASS

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-011109

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID: BNA06275.D Lab Sample ID: MB-011109

Instrument ID: GC/MS Ins Date Extracted: 11/9/01

Matrix: (soil/water) WATER Date Analyzed: 11/14/01

Level: (low/med) LOW Time Analyzed: 12:06

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2534GW	1656201	BNA06279.D	11/14/01

COMMENTS:

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.: _____

	EPA SAMPLE NO.	S1 NBZ #	S2 2FP #	S3 TPL #	TOT OUT
01	1652806MS	67	65	60	0
02	1652806MSD	63	59	48	0
03	MB-011109	39	36	37	0
04	2534GW	54	53	39	0

QC LIMITS

S1	NBZ	=	Nitrobenzene-d5	(24-97)
S2	2FP	=	2-Fluorobiphenyl	(27-106)
S3	TPL	=	p-Terphenyl-d14	(16-139)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BNA06253.D** Sample Name **1652806MS**

Date Acquired **27-Oct-01**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		6.63 ug/L	33.15
62-75-9	N-nitroso-dimethylamine		7.39 ug/L	36.94
62-53-3	Aniline		9.01 ug/L	45.06
111-44-4	bis(2-Chloroethyl)ether		11.50 ug/L	57.49
541-73-1	1,3-Dichlorobenzene		13.34 ug/L	66.71
106-46-7	1,4-Dichlorobenzene		13.56 ug/L	67.78
100-51-6	Benzyl alcohol		12.23 ug/L	61.15
95-50-1	1,2-Dichlorobenzene		13.83 ug/L	69.15
39638-32-9	bis(2-chloroisopropyl)ether		15.75 ug/L	78.76
621-64-7	n-Nitroso-di-n-propylamine		12.26 ug/L	61.30
67-72-1	Hexachloroethane		13.74 ug/L	68.70
98-95-3	Nitrobenzene		15.24 ug/L	76.20
78-59-1	Isophorone		16.03 ug/L	80.17
111-91-1	bis(2-Chloroethoxy)methane		12.79 ug/L	63.95
120-82-1	1,2,4-Trichlorobenzene		14.87 ug/L	74.34
91-20-3	Naphthalene		15.47 ug/L	77.35
106-47-8	4-Chloroaniline		11.20 ug/L	55.99
87-68-3	Hexachlorobutadiene		15.01 ug/L	75.03
91-57-6	2-Methylnaphthalene		15.83 ug/L	79.13
77-47-4	Hexachlorocyclopentadiene		8.72 ug/L	43.62
91-58-7	2-Chloronaphthalene		15.86 ug/L	79.31
88-74-4	2-Nitroaniline		14.39 ug/L	71.93
131-11-3	Dimethylphthalate		14.37 ug/L	71.85
208-96-8	Acenaphthylene		14.12 ug/L	70.59
606-20-2	2,6-Dinitrotoluene		16.50 ug/L	82.49
99-09-2	3-Nitroaniline		12.23 ug/L	61.14
83-32-9	Acenaphthene		16.29 ug/L	81.43
132-64-9	Dibenzofuran		16.03 ug/L	80.16
121-14-2	2,4-Dinitrotoluene		16.50 ug/L	82.52
84-66-2	Diethylphthalate		14.89 ug/L	74.44
86-73-7	Fluorene		16.77 ug/L	83.84
7005-72-3	4-Chlorophenyl-phenylether		13.78 ug/L	68.90
100-01-6	4-Nitroaniline		12.88 ug/L	64.42
86-30-6	n-Nitrosodiphenylamine		14.35 ug/L	71.76
103-33-3	Azobenzene		16.47 ug/L	82.34
101-55-3	4-Bromophenyl-phenylether		13.94 ug/L	69.71
118-74-1	Hexachlorobenzene		16.56 ug/L	82.80
85-01-8	Phenanthrene		17.37 ug/L	86.84
120-12-7	Anthracene		16.87 ug/L	84.34
84-74-2	Di-n-butylphthalate		15.76 ug/L	78.82
206-44-0	Fluoranthene		17.34 ug/L	86.72
129-00-0	Pyrene		17.30 ug/L	86.49
85-68-7	Butylbenzylphthalate		14.42 ug/L	72.09
56-55-3	Benzo[a]anthracene		17.01 ug/L	85.07
218-01-9	Chrysene		14.34 ug/L	71.71
117-81-7	bis(2-Ethylhexyl)phthalate		14.88 ug/L	74.42
117-84-0	Di-n-octylphthalate		14.16 ug/L	70.82
205-99-2	Benzo[b]fluoranthene		16.33 ug/L	81.64
207-08-9	Benzo[k]fluoranthene		16.71 ug/L	83.54
50-32-8	Benzo[a]pyrene		15.67 ug/L	78.33
193-39-5	Indeno[1,2,3-cd]pyrene		17.79 ug/L	88.97
53-70-3	Dibenz[a,h]anthracene		19.04 ug/L	95.20
191-24-2	Benzo[g,h,i]perylene		15.79 ug/L	78.94

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BNA06254.D** Sample Name **1652806MSD**

Date Acquired **27-Oct-01**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		6.92 ug/L	34.62
62-75-9	N-nitroso-dimethylamine		7.38 ug/L	36.89
62-53-3	Aniline		8.09 ug/L	40.44
111-44-4	bis(2-Chloroethyl)ether		10.32 ug/L	51.59
541-73-1	1,3-Dichlorobenzene		12.04 ug/L	60.21
106-46-7	1,4-Dichlorobenzene		12.10 ug/L	60.50
100-51-6	Benzyl alcohol		12.24 ug/L	61.22
95-50-1	1,2-Dichlorobenzene		12.33 ug/L	61.66
39638-32-9	bis(2-chloroisopropyl)ether		14.10 ug/L	70.48
621-64-7	n-Nitroso-di-n-propylamine		10.99 ug/L	54.93
67-72-1	Hexachloroethane		12.23 ug/L	61.14
98-95-3	Nitrobenzene		13.85 ug/L	69.27
78-59-1	Isophorone		14.66 ug/L	73.28
111-91-1	bis(2-Chloroethoxy)methane		11.43 ug/L	57.13
120-82-1	1,2,4-Trichlorobenzene		13.30 ug/L	66.48
91-20-3	Naphthalene		13.97 ug/L	69.87
106-47-8	4-Chloroaniline		9.87 ug/L	49.36
87-68-3	Hexachlorobutadiene		13.37 ug/L	66.87
91-57-6	2-Methylnaphthalene		14.19 ug/L	70.97
77-47-4	Hexachlorocyclopentadiene		7.71 ug/L	38.57
91-58-7	2-Chloronaphthalene		14.37 ug/L	71.84
88-74-4	2-Nitroaniline		13.00 ug/L	65.02
131-11-3	Dimethylphthalate		13.14 ug/L	65.69
208-96-8	Acenaphthylene		12.82 ug/L	64.11
606-20-2	2,6-Dinitrotoluene		15.10 ug/L	75.50
99-09-2	3-Nitroaniline		10.70 ug/L	53.50
83-32-9	Acenaphthene		14.73 ug/L	73.64
132-64-9	Dibenzofuran		14.57 ug/L	72.87
121-14-2	2,4-Dinitrotoluene		14.90 ug/L	74.50
84-66-2	Diethylphthalate		13.45 ug/L	67.25
86-73-7	Fluorene		15.18 ug/L	75.91
7005-72-3	4-Chlorophenyl-phenylether		12.59 ug/L	62.97
100-01-6	4-Nitroaniline		11.70 ug/L	58.51
86-30-6	n-Nitrosodiphenylamine		13.13 ug/L	65.63
103-33-3	Azobenzene		15.06 ug/L	75.32
101-55-3	4-Bromophenyl-phenylether		12.55 ug/L	62.74
118-74-1	Hexachlorobenzene		15.25 ug/L	76.23
85-01-8	Phenanthrene		15.73 ug/L	78.64
120-12-7	Anthracene		15.04 ug/L	75.19
84-74-2	Di-n-butylphthalate		14.03 ug/L	70.15
206-44-0	Fluoranthene		15.67 ug/L	78.36
129-00-0	Pyrene		15.58 ug/L	77.89
85-68-7	Butylbenzylphthalate		12.79 ug/L	63.93
56-55-3	Benzo[a]anthracene		15.28 ug/L	76.40
218-01-9	Chrysene		13.12 ug/L	65.62
117-81-7	bis(2-Ethylhexyl)phthalate		12.92 ug/L	64.60
117-84-0	Di-n-octylphthalate		12.89 ug/L	64.44
205-99-2	Benzo[b]fluoranthene		14.75 ug/L	73.73
207-08-9	Benzo[k]fluoranthene		15.22 ug/L	76.10
50-32-8	Benzo[a]pyrene		14.14 ug/L	70.72
193-39-5	Indeno[1,2,3-cd]pyrene		16.18 ug/L	80.89
53-70-3	Dibenz[a,h]anthracene		17.34 ug/L	86.69
191-24-2	Benzo[g,h,i]perylene		14.27 ug/L	71.36

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06229.D Date Analyzed: 10/26/01

Instrument ID: GC_BNA_2 Time Analyzed: 8:44

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	841068	9.57	3145572	12.49	1695170	16.69
	UPPER LIMIT	1682136	10.07	6291144	12.99	3390340	17.19
	LOWER LIMIT	420534	9.07	1572786	11.99	847585	16.19
	EPA SAMPLE NO.						
01	1652806MS	897537	9.57	3324835	12.48	1800806	16.69
02	1652806MSD	928363	9.56	3404630	12.49	1839846	16.69

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06229.D Date Analyzed: 10/26/01

Instrument ID: GC_BNA_2 Time Analyzed: 08:44

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	2835039	20.26	2793695	26.68	2104421	29.89
	UPPER LIMIT	5670078	19.76	5587390	26.18	4208842	29.39
	LOWER LIMIT	1417520	20.76	1396848	27.18	1052211	30.39
	EPA SAMPLE NO.						
01	1652806MS	2978122	20.26	2845747	26.67	2218716	29.88
02	1652806MSD	3049679	20.26	2909298	26.68	2273816	29.88

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06274.D Date Analyzed: 11/14/01

Instrument ID: GC_BNA_2 Time Analyzed: 11:23

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	896004	9.56	3371752	12.49	1798065	16.69
	UPPER LIMIT	1792008	10.06	6743504	12.99	3596130	17.19
	LOWER LIMIT	448002	9.06	1685876	11.99	899033	16.19
	EPA SAMPLE NO.						
01	MB-011109	865007	9.56	3216040	12.48	1738410	16.68
02	2534GW	825101	9.56	3107539	12.48	1686168	16.68

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16562 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06274.D Date Analyzed: 11/14/01

Instrument ID: GC_BNA_2 Time Analyzed: 11:23

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	2989194	20.26	2854004	26.68	2154964	29.88
	UPPER LIMIT	5978388	19.76	5708008	26.18	4309928	29.38
	LOWER LIMIT	1494597	20.76	1427002	27.18	1077482	30.38
	EPA SAMPLE NO.						
01	MB-011109	2896815	20.25	2717397	26.67	1961241	29.87
02	2534GW	2791381	20.25	2651247	26.67	2016274	29.87

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\DATA\011114\BNA06275.D Vial: 1
Acq On : 14 Nov 2001 12:06 pm Operator: B.Patel
Sample : MB-011109 Inst : GC/MS Ins
Misc : MB-011109 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Nov 15 8:17 2001 Quant Results File: M262550.RES

Quant Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration
DataAcq Meth : M262550

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.56	152	865007	40.00	ug/L	-0.01
19) Naphthalene-d8	12.48	136	3216040	40.00	ug/L	-0.02
34) Acenaphthene-d10	16.68	164	1738410	40.00	ug/L	-0.02
54) Phenanthrene-d10	20.25	188	2896815	40.00	ug/L	-0.02
66) Chrysene-d12	26.67	240	2717397	40.00	ug/L	-0.02
75) Perylene-d12	29.87	264	1961241	40.00	ug/L	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	6.82	112	828806	25.06	ug/L	-0.02
Spiked Amount 100.000	Range 21 - 100		Recovery = 25.06%			
6) Phenol-d6	8.93	99	644126	15.51	ug/L	-0.02
Spiked Amount 100.000	Range 10 - 94		Recovery = 15.51%			
20) Nitrobenzene-d5	10.88	82	779226	19.65	ug/L	-0.02
Spiked Amount 50.000	Range 35 - 114		Recovery = 39.30%			
38) 2-Fluorobiphenyl	15.11	172	1035121	17.94	ug/L	-0.02
Spiked Amount 50.000	Range 43 - 116		Recovery = 35.88%#			
58) 2,4,6-Tribromophenol	18.62	330	351975	39.65	ug/L	-0.02
Spiked Amount 100.000	Range 10 - 123		Recovery = 39.65%			
69) p-Terphenyl-d14	24.19	244	1208982	18.55	ug/L	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery = 37.10%			
Target Compounds						Qvalue
74) bis(2-Ethylhexyl)phthalate	26.89	149	352640	4.81	ug/L	98

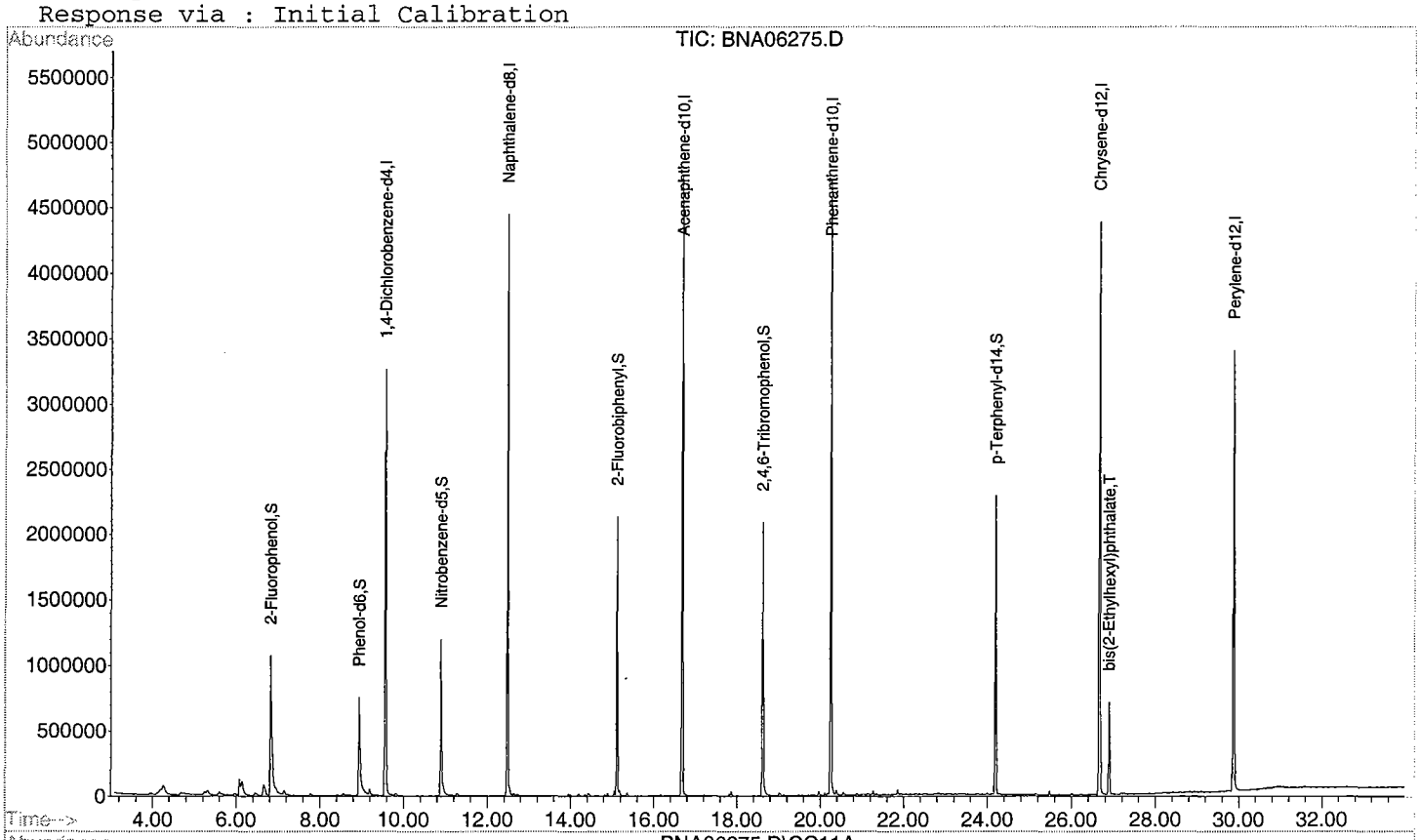
(#) = qualifier out of range (m) = manual integration

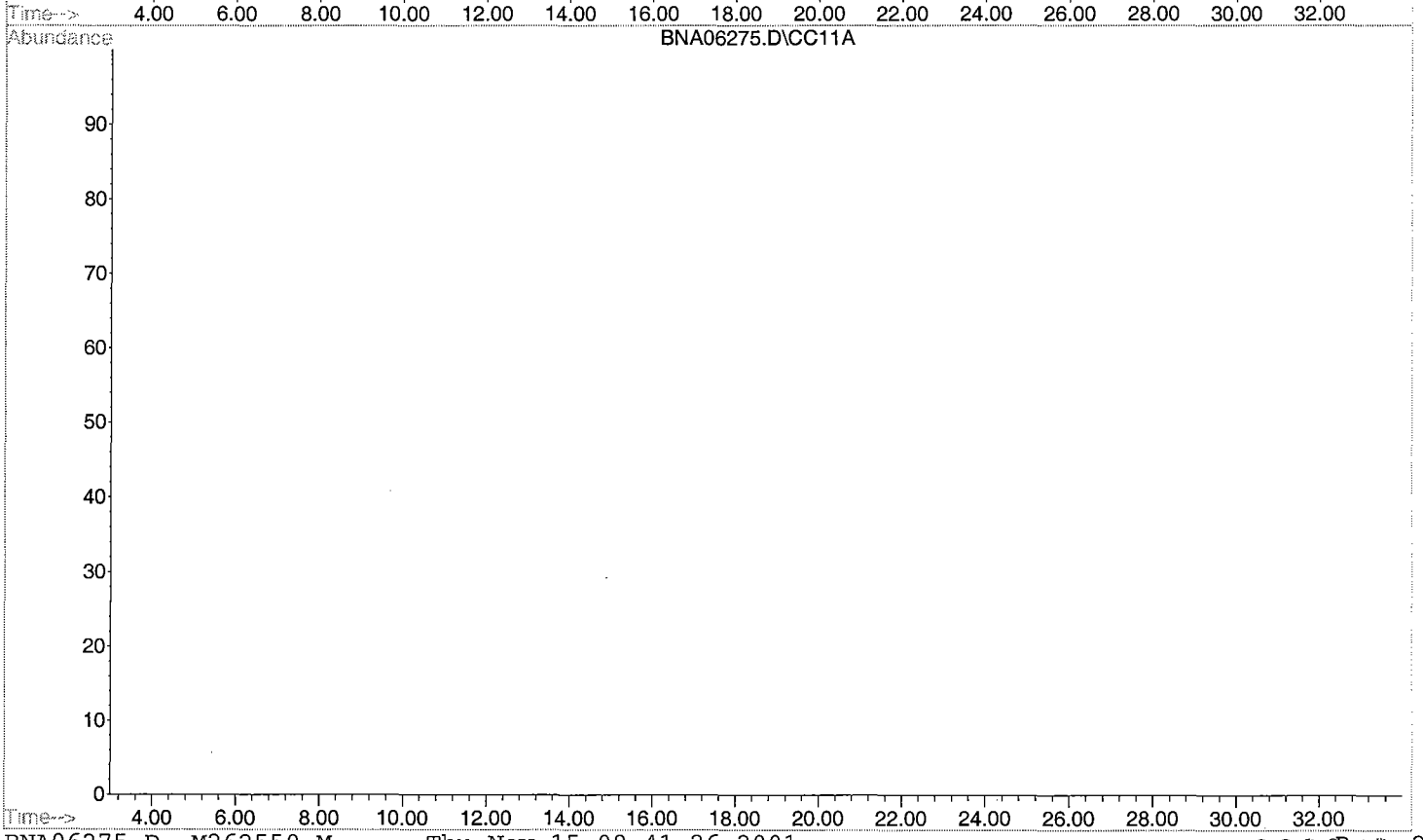
Quantitation Report

Data File : D:\DATA\011114\BNA06275.D
Acq On : 14 Nov 2001 12:06 pm
Sample : MB-011109
Misc : MB-011109
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:17 2001

Vial: 1
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262550.RES

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration





000059

Quantitation Report (QT Reviewed)

Data File : D:\DATA\011114\BNA06279.D Vial: 5
Acq On : 14 Nov 2001 3:00 pm Operator: B.Patel
Sample : 1656201 Inst : GC/MS Ins
Misc : 2534GW Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Nov 14 15:34 2001 Quant Results File: M262550.RES

Quant Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration
DataAcq Meth : M262550

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.56	152	825101	40.00	ug/L	0.00
19) Naphthalene-d8	12.48	136	3107539	40.00	ug/L	-0.02
34) Acenaphthene-d10	16.68	164	1686168	40.00	ug/L	-0.02
54) Phenanthrene-d10	20.25	188	2791381	40.00	ug/L	-0.02
66) Chrysene-d12	26.67	240	2651247	40.00	ug/L	-0.02
75) Perylene-d12	29.87	264	2016274	40.00	ug/L	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	10.88	82	1040508	27.16	ug/L	-0.02
Spiked Amount 50.000	Range 35 - 114		Recovery =	54.32%		
38) 2-Fluorobiphenyl	15.11	172	1469460	26.25	ug/L	-0.02
Spiked Amount 50.000	Range 43 - 116		Recovery =	52.50%		
58) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
69) p-Terphenyl-d14	24.19	244	1251645	19.69	ug/L	-0.02
Spiked Amount 50.000	Range 33 - 141		Recovery =	39.38%		

Target Compounds Qvalue

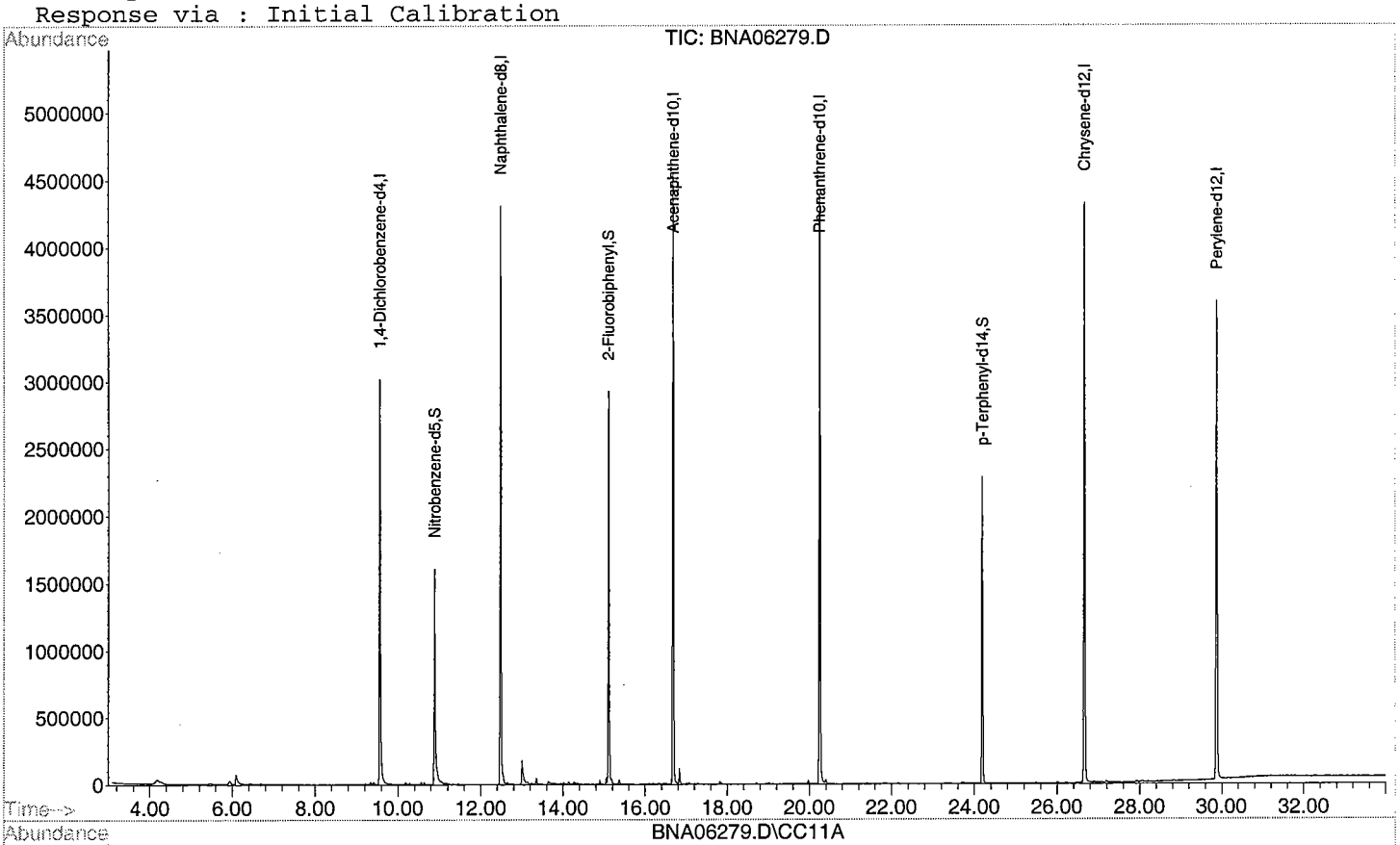
(#) = qualifier out of range (m) = manual integration

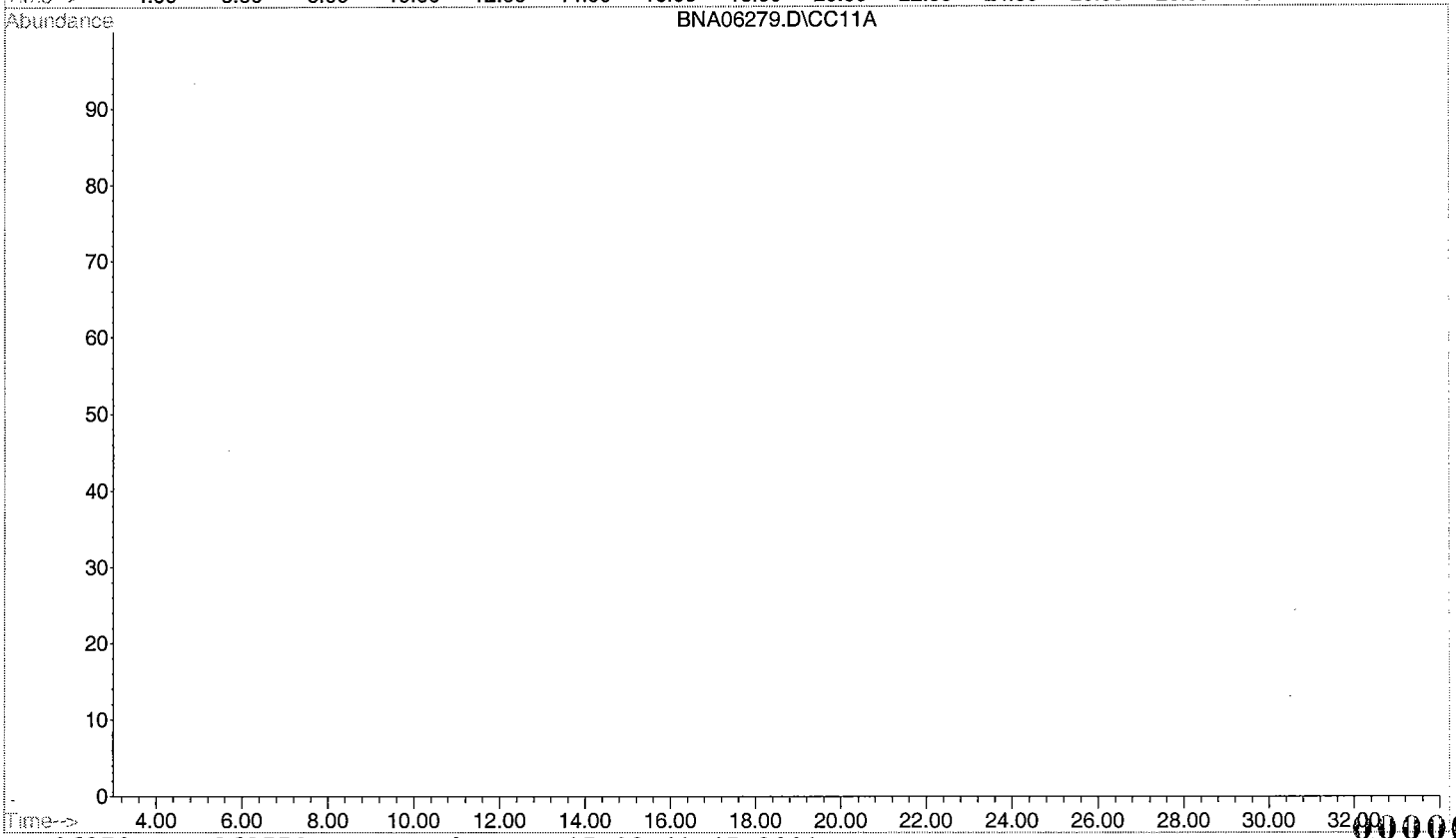
Quantitation Report

Data File : D:\DATA\011114\BNA06279.D
Acq On : 14 Nov 2001 3:00 pm
Sample : 1656201
Misc : 2534GW
MS Integration Params: RTEINT.P
Quant Time: Nov 14 15:34 2001

Vial: 5
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262550.RES

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration





LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, 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, practical quantitation limits, and the laboratory and/or sample numbers be included in one section of the data package and in the main body of the report.

1.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	✓
2.	Table of Contents submitted	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	✓
4.	Document paginated and legible	✓
5.	Chain of Custody submitted	✓
6.	Samples submitted to lab within 48 hours of sample collection	✓
7.	Methodology Summary submitted	✓
8.	Laboratory Chronicle and Holding Time Check submitted	✓
9.	Results submitted on a dry weight basis	NA
10.	Method Detection Limits submitted	✓
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	✓

Laboratory Manager or Environmental Consultant's Signature

Date 11/28/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 2534

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
2534/6.6'	1662601	Aqueous	05-Dec-01 12:55	12/05/01
F. D./6.6'	1662602	Aqueous	05-Dec-01	12/05/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

1-8-02
Daniel Wright Date
Laboratory Director

CHAIN OF CUSTODY

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: X2175
( )DERA (V)OMA ( )Other:_____

Project No:
Location: BLDG. 2534 (FORMER)

Samplers Name / Company: MARK LAURA - TVS - PWS07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	VOA + 15	BN + 15							Comments: Remarks / Preservation Method
Mel26 01	2534 6.6'	12-5-01	1255	AQ.	3	X	X							2 ND ROUND COMPLETE
02	F.D. 6.6'	"	—	"	3	X	X							

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	12-5-01 1345				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, (X)Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: SAMPLE FROM MONITOR WELL
SHARE TB + FB - BLDG. 263 SAME DAY

200000

print legibly

Coc.xls11/14/01

METHOD SUMMARY

Method Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5-ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

EPA Method 3510/625
Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

CONFORMANCE-NON-CONFORMANCE

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate Yes, No, N/A

1. Chromatograms labeled/Compounds identified (Field samples and method blanks) — Yes
2. Retention times for chromatograms provided — Yes
3. GC/MS Tune Specifications
   a. BFB Meet Criteria — Yes
   b. DFTPP Meet Criteria — Yes
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series — Yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series — Yes
6. GC/MS Calibration requirements
   a. Calibration Check Compounds Meet Criteria — Yes
   b. System Performance Check Compounds Meet Criteria — Yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank: — NO
   a. VOA Fraction _____
   b. B/N Fraction _____
   c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria — Yes

   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 NA

   If not met, were the calculations checked and the results qualified as "estimated"? _____
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — Yes
   a. VOA Fraction _____
   b. B/N Fraction _____
   c. Acid Fraction NA

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria — Yes
(If not met, list those compounds, which fall outside the acceptable range)

    a. VOA Fraction_____
    b. B/N Fraction_____
    c. Acid Fraction NA

11. Extraction Holding Time Met — Yes

    If not met, list the number of days exceeded for each sample:_____

12. Analysis Holding Time Met — Yes

    If not met, list the number of days exceeded for each sample:_____

Additional Comments:

Laboratory Manager: _____ Date: 1-8-02

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16626 Site: Bldg. 2534

	Date	Hold Time
Date Sampled	12/05/01	NA
Receipt/Refrigeration	12/05/01	NA
Extractions		
1. BN	12/10/01	7 days
Analyses		
1. Volatile Organics	12/10/01	14 days
2. BN	12/10,11/01	40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	Method Detection Limit
J	:	Compound identified below detection limit
B	:	Compound found in blank
D	:	Results are from a dilution of the sample
U	:	Compound searched for but not detected
E	:	Compound exceeds calibration limit
PQL	:	Practical Quantitation Limit
NLE	:	No limit established
RT	:	Retention time

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File	**VC007616.D**	Sample Name	**MB 10Dec01**
Operator	**Skelton**	Field ID	**MB 10Dec01**
Date Aquired	**10-Dec-01**	Multiplier	**1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C., 7:9-6 2-Sept 97

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time

12/11/01 2:44 PM

D:\HPCHEM\CUSTRPT\VOLATILE\624FY00.CRT

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **MB 10Dec01**

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16625 Location: Bldg.26 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB 10Dec01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC007616.D

Level: (low/med) LOW Date Received: 12/5/01

% Moisture: not dec. Date Analyzed: 12/10/01

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File	**VC007627.D**	Sample Name	**1662601**
Operator	**Skelton**	Field ID	**2534**
Date Aquired	**10-Dec-01**	Multiplier	**1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C., 7:9-6 2-Sept 97

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time

12/11/01 2:44 PM

D:\HPCHEM\CUSTRPT\VOLATILE\624FY00.CRT

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **2534**

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16626 Location: Bldg.25 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1662601

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC007627.D

Level: (low/med) LOW Date Received: 12/5/01

% Moisture: not dec. _____ Date Analyzed: 12/10/01

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File	**VC007628.D**	Sample Name	**1662602**
Operator	**Skelton**	Field ID	**FD**
Date Aquired	**10-Dec-01**	Multiplier	**1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C., 7:9-6 2-Sept 97

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time

12/11/01 2:44 PM

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000016

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **FD**

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16626 Location: Bldg.25 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1662602

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC007628.D

Level: (low/med) LOW Date Received: 12/5/01

% Moisture: not dec. _____ Date Analyzed: 12/10/01

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16625 Location: Bldg.26 SDG No.:

Lab File ID: VC007374.D BFB Injection Date: 11/15/01

Instrument ID: VoaInst#3 BFB Injection Time: 14:10

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.7
75	30.0 - 66.0% of mass 95	47.9
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	50.0 - 120.0% of mass 95	71.0
175	4.0 - 9.0% of mass 174	5.0 (7.1)1
176	93.0 - 101.0% of mass 174	69.5 (97.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.4)2

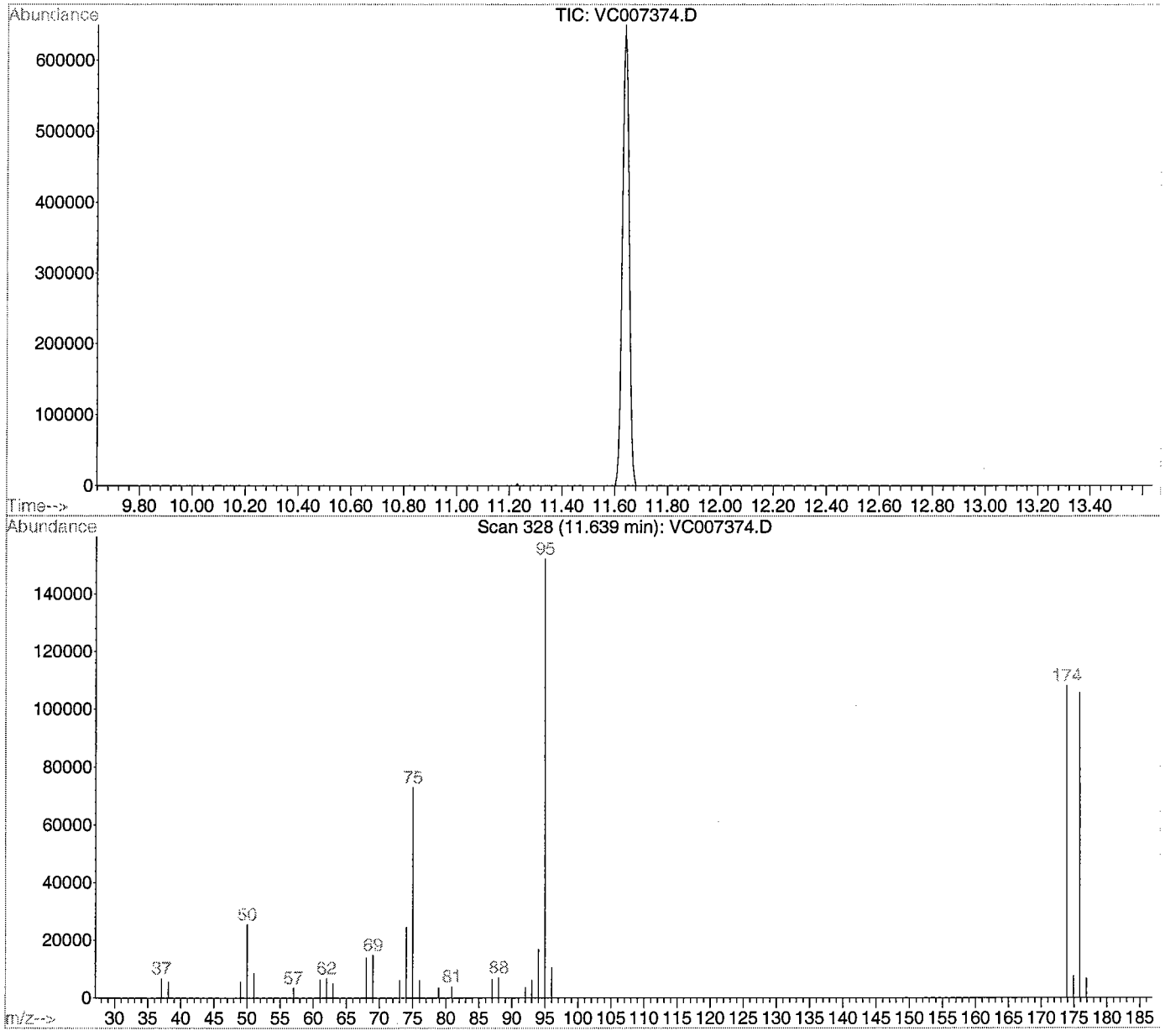
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID:	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VC007375.D	11/15/01	14:54
02	VSTD050	VSTD050	VC007376.D	11/15/01	15:34
03	VSTD020	VSTD020	VC007377.D	11/15/01	16:15
04	VSTD010	VSTD010	VC007378.D	11/15/01	16:55
05	VSTD005	VSTD005	VC007379.D	11/15/01	17:36

BFB

Data File : D:\HPCHEM\1\DATA\2001DATA\NOV2001\011115\VC007374.D Vial: 3
Acq On : 15 Nov 2001 2:10 pm Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 328

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	25472	PASS
75	95	30	60	47.9	73008	PASS
95	95	100	100	100.0	152320	PASS
96	95	5	9	6.9	10513	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.0	108168	PASS
175	174	5	9	7.1	7632	PASS
176	174	95	101	97.8	105832	PASS
177	176	5	9	6.4	6788	PASS

Response Factor Report GC/MS Ins

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Initial Calibration

Calibration Files
50 =VC007376.D 5 =VC007379.D 10 =VC007378.D
20 =VC007377.D 100 =VC007375.D

		Compound	50	5	10	20	100	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)	t	Acrolein	0.429	0.427	0.461	0.464	0.434	0.443	4.09
3)	t	Acrylonitrile	1.096	1.146	1.211	1.204	1.101	1.151	4.75
4)	t	tert-Butyl alcohol	0.152	0.121	0.151	0.161	0.158	0.149	10.58
5)	t	Methyl-tert-Butyl eth	5.537	5.411	5.821	5.839	5.577	5.637	3.31
6)	t	Di-isopropyl ether	1.735	1.327	1.675	1.719	1.743	1.640	10.79
7)	T	Dichlorodifluorometha	2.485	2.252	2.422	2.532	2.335	2.405	4.70
8)	TP	Chloromethane	3.081	3.086	3.213	3.197	2.908	3.097	3.95
9)	TC	Vinyl Chloride	2.971	3.059	3.168	3.100	2.846	3.029	4.12
10)	T	Bromomethane	1.483	1.454	1.599	1.530	1.394	1.492	5.19
11)	T	Chloroethane	1.579	1.599	1.624	1.631	1.575	1.601	1.59
12)	T	Trichlorofluoromethan	3.356	3.328	3.516	3.497	3.350	3.409	2.63
13)	MC	1,1-Dichloroethene	3.054	2.924	3.199	3.161	3.060	3.080	3.49
14)	T	Acetone	0.832	1.438	1.040	0.918	0.798	1.005	25.78
15)	T	Carbon Disulfide	7.101	7.077	7.422	7.334	7.109	7.209	2.19
16)	T	Methylene Chloride	2.150	2.174	2.352	2.233	2.141	2.210	3.94
17)	T	trans-1,2-Dichloroeth	2.875	2.833	3.019	2.956	2.880	2.912	2.55
18)	TP	1,1-Dichloroethane	3.813	3.815	4.070	3.939	3.782	3.884	3.10
19)	T	Vinyl Acetate	4.599	3.967	4.592	4.691	4.747	4.519	6.98
20)	T	2-Butanone	1.020	0.794	0.912	0.998	1.019	0.949	10.22
21)	T	cis-1,2-Dichloroethen	2.867	2.775	2.981	2.955	2.861	2.888	2.84
22)	TC	Chloroform	3.431	3.478	3.654	3.612	3.405	3.516	3.16
23)	T	1,1,1-Trichloroethane	2.778	2.661	2.869	2.851	2.767	2.785	2.96
24)	T	Carbon Tetrachloride	2.397	2.231	2.420	2.435	2.395	2.376	3.48
25)	S	1,2-Dichloroethane-d4	2.198	2.252	2.267	2.256	2.211	2.237	1.37
26)	I	1,4-Difluorobenzene	ISTD						
27)	TM	Benzene	1.318	1.378	1.399	1.367	1.264	1.345	4.02
28)	T	1,2-Dichloroethane	0.387	0.391	0.406	0.400	0.373	0.391	3.21
29)	TM	Trichloroethene	0.310	0.295	0.309	0.311	0.299	0.305	2.41
30)	TC	1,2-Dichloropropane	0.336	0.323	0.343	0.339	0.330	0.334	2.43
31)	T	Bromodichloromethane	0.382	0.368	0.384	0.385	0.377	0.379	1.79
32)	T	2-Chloroethyl vinyl e	0.110	0.080	0.100	0.110	0.108	0.102	12.79
33)	T	cis-1,3-Dichloroprope	0.503	0.450	0.494	0.506	0.502	0.491	4.79
34)	T	4-Methyl-2-Pentanone	0.117	0.093	0.111	0.124	0.119	0.113	10.55
35)	S	Toluene-d8	1.150	1.154	1.133	1.156	1.158	1.150	0.86
36)	TCM	Toluene	1.298	1.366	1.368	1.365	1.237	1.327	4.41
37)	I	Chlorobenzene-d5	ISTD						
38)	T	trans-1,3-Dichloropro	1.743	1.649	1.725	1.744	1.728	1.718	2.31
39)	T	1,1,2-Trichloroethane	1.032	1.011	1.105	1.076	0.999	1.045	4.26
40)	T	Tetrachloroethene	1.068	1.074	1.131	1.120	1.040	1.086	3.49
41)	T	2-Hexanone	0.709	0.580	0.661	0.703	0.715	0.674	8.36
42)	T	Dibromochloromethane	0.986	0.903	0.976	0.988	0.983	0.967	3.74
43)	TMP	Chlorobenzene	3.130	3.279	3.426	3.297	2.956	3.218	5.59
44)	TC	Ethylbenzene	5.409	5.570	5.810	5.643	5.198	5.526	4.22
45)	T	m+p-Xylenes	2.145	2.225	2.320	2.237	2.094	2.204	3.98
46)	T	o-Xylene	4.065	3.962	4.244	4.177	3.934	4.076	3.28
47)	T	Styrene	3.594	3.617	3.875	3.813	3.352	3.650	5.65
48)	TP	Bromoform	0.645	0.531	0.619	0.638	0.663	0.619	8.39
49)	S	Bromofluorobenzene	1.601	1.558	1.568	1.564	1.621	1.582	1.72
50)	TP	1,1,2,2-Tetrachloroet	1.430	1.505	1.583	1.531	1.419	1.494	4.65
51)	T	1,3-Dichlorobenzene	2.395	2.357	2.517	2.455	2.287	2.402	3.67
52)	T	1,4-Dichlorobenzene	2.476	2.470	2.584	2.542	2.347	2.484	3.63
53)	T	1,2-Dichlorobenzene	2.282	2.308	2.380	2.347	2.169	2.297	3.51

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16625 Location: Bldg.26 SDG No.:

Lab File ID: VC007614.D BFB Injection Date: 12/10/01

Instrument ID: VoaInst#3 BFB Injection Time: 12:54

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.1
75	30.0 - 66.0% of mass 95	47.5
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	50.0 - 120.0% of mass 95	65.5
175	4.0 - 9.0% of mass 174	4.8 (7.4)1
176	93.0 - 101.0% of mass 174	64.6 (98.7)1
177	5.0 - 9.0% of mass 176	4.3 (6.7)2

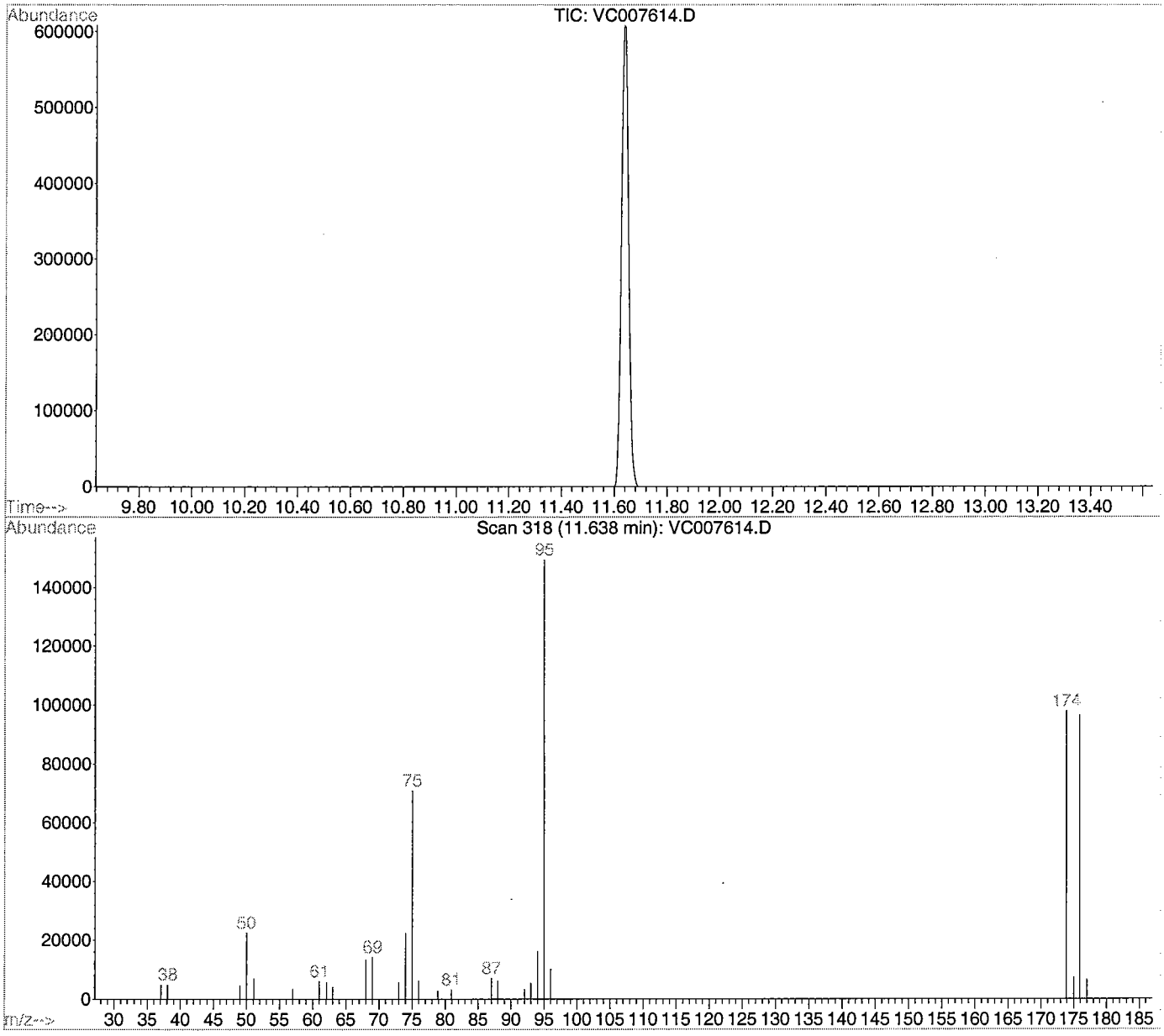
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID:	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007615.D	12/10/01	13:29
02	MB 10DEC01	MB 10DEC01	VC007616.D	12/10/01	14:21
03	1662821 MS	1662821 MS	VC007622.D	12/10/01	18:51
04	1662821 MSD	1662821 MSD	VC007623.D	12/10/01	19:31
05	TB	1662501	VC007624.D	12/10/01	20:12
06	FB	1662502	VC007625.D	12/10/01	20:52
07	263	1662503	VC007626.D	12/10/01	21:32
08	2534	1662601	VC007627.D	12/10/01	22:13
09	FD	1662602	VC007628.D	12/10/01	22:53

BFB

Data File : D:\HPCHEM\1\DATA\011210\VC007614.D Vial: 1
Acq On : 10 Dec 2001 12:54 pm Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 318

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	22552	PASS
75	95	30	60	47.5	71024	PASS
95	95	100	100	100.0	149568	PASS
96	95	5	9	6.9	10264	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	65.5	97896	PASS
175	174	5	9	7.4	7221	PASS
176	174	95	101	98.7	96592	PASS
177	176	5	9	6.7	6452	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011210\VC007615.D Vial: 2
Acq On : 10 Dec 2001 1:29 pm Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: ACETONE.P

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	98	0.00
2	t	Acrolein	0.443	0.455	-2.7	96	0.00
3	t	Acrylonitrile	1.151	1.171	-1.7	95	0.00
4	t	tert-Butyl alcohol	0.149	0.156	-4.7	95	0.00
5	t	Methyl-tert-Butyl ether	5.637	6.189	-9.8	104	0.00
6	t	Di-isopropyl ether	1.640	1.837	-12.0	105	0.00
7	T	Dichlorodifluoromethane	2.405	2.382	1.0	92	0.00
8	TP	Chloromethane	3.097	2.862	7.6	88	0.00
9	TC	Vinyl Chloride	3.029	2.784	8.1	88	0.00
10	T	Bromomethane	1.492	1.610	-7.9	103	0.00
11	T	Chloroethane	1.601	1.713	-7.0	103	0.00
12	T	Trichlorofluoromethane	3.409	4.012	-17.7	112	0.00
13	MC	1,1-Dichloroethene	3.080	3.409	-10.7	106	0.00
14	T	Acetone	1.005	0.647	35.6#	69	0.00
15	T	Carbon Disulfide	7.209	7.650	-6.1	102	0.00
16	T	Methylene Chloride	2.210	2.433	-10.1	107	0.00
17	T	trans-1,2-Dichloroethene	2.912	3.120	-7.1	103	0.00
18	TP	1,1-Dichloroethane	3.884	4.229	-8.9	105	0.00
19	T	Vinyl Acetate	4.519	4.381	3.1	91	0.00
20	T	2-Butanone	0.949	0.865	8.9	85	0.00
21	T	cis-1,2-Dichloroethene	2.888	3.139	-8.7	104	0.00
22	TC	Chloroform	3.516	4.050	-15.2	110	0.00
23	T	1,1,1-Trichloroethane	2.785	3.339	-19.9	115	0.00
24	T	Carbon Tetrachloride	2.376	2.937	-23.6	118	0.00
25	S	1,2-Dichloroethane-d4	2.237	2.440	-9.1	106	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	107	0.00
27	TM	Benzene	1.345	1.344	0.1	105	0.00
28	T	1,2-Dichloroethane	0.391	0.409	-4.6	109	0.00
29	TM	Trichloroethene	0.305	0.312	-2.3	107	0.00
30	TC	1,2-Dichloropropane	0.334	0.327	2.1	103	0.00
31	T	Bromodichloromethane	0.379	0.397	-4.7	110	0.00
32	T	2-Chloroethyl vinyl ether	0.102	0.109	-6.9	105	0.00
33	T	cis-1,3-Dichloropropene	0.491	0.501	-2.0	106	0.00
34	T	4-Methyl-2-Pentanone	0.113	0.100	11.5	87	0.00
35	S	Toluene-d8	1.150	1.158	-0.7	107	0.00
36	TCM	Toluene	1.327	1.327	0.0	104	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	115	0.00
38	T	trans-1,3-Dichloropropene	1.718	1.607	6.5	106	0.00
39	T	1,1,2-Trichloroethane	1.045	0.997	4.6	107	0.00
40	T	Tetrachloroethene	1.086	1.007	7.3	104	0.00
41	T	2-Hexanone	0.674	0.513	23.9	84	0.00
42	T	Dibromochloromethane	0.967	0.937	3.1	110	0.00
43	TMP	Chlorobenzene	3.218	2.952	8.3	103	0.00
44	TC	Ethylbenzene	5.526	5.266	4.7	108	0.00
45	T	m+p-Xylenes	2.204	1.946	11.7	100	0.00
46	T	o-Xylene	4.076	3.687	9.5	102	0.00
47	T	Styrene	3.650	2.761	24.4	84	0.00
48	TP	Bromoform	0.619	0.585	5.5	106	0.00
49	S	Bromofluorobenzene	1.582	1.664	-5.2	123	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.494	1.346	9.9	101	0.00
51	T	1,3-Dichlorobenzene	2.402	2.074	13.7	98	0.00
52	T	1,4-Dichlorobenzene	2.484	2.149	13.5	98	0.00
53	T	1,2-Dichlorobenzene	2.297	1.969	14.3	97	0.00

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

4A

VOLATILE METHOD BLANK SUMMARY

FIELD ID: **MB 10Dec01**

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16625 Location: Bldg.26 SDG No.:

Lab File ID: VC007616.D Lab Sample ID: MB 10Dec01

Date Analyzed: 12/10/01 Time Analyzed: 14:21

GC Column: RTX502. ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: VoaInst#3

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

	FIELD ID:	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1662821 MS	1662821 MS	VC007622.D	18:51
02	1662821 MSD	1662821 MSD	VC007623.D	19:31
03	TB	1662501	VC007624.D	20:12
04	FB	1662502	VC007625.D	20:52
05	263	1662503	VC007626.D	21:32
06	2534	1662601	VC007627.D	22:13
07	FD	1662602	VC007628.D	22:53

COMMENTS:

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16625 Location: Bldg.26 SDG No.: _____

	FIELD ID:	SMC1 DCE #	SMC2 TOL #	SMC3 BFB #	TOT OUT
01	MB 10DEC01	110	100	101	0
02	1662821 MS	111	101	106	0
03	1662821 MSD	109	101	105	0
04	TB	112	99	103	0
05	FB	112	100	102	0
06	263	114	101	103	0
07	2534	115	100	103	0
08	FD	115	101	103	0

QC LIMITS

SMC1	DCE	=	1,2-Dichloroethane-d4	(76-121)
SMC2	TOL	=	Toluene-d8	(88-110)
SMC3	BFB	=	Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Volatile Matrix Spike Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File	VC007622.D	Sample Name	1662821 MS
Date Aquired	10-Dec-01	Field ID	1662821 MS

CAS#	Amount Added ug/L	Result ug/L	Percent Recovery
Acrolein	200	206.22 ug/L	103.11
Acrylonitrile	200	208.42 ug/L	104.21
tert-Butyl alcohol	200	206.36 ug/L	103.18
Methyl-tert-Butyl ether	20	21.98 ug/L	109.88
Di-isopropyl ether	20	22.47 ug/L	112.33
Dichlorodifluoromethane	20	19.49 ug/L	97.45
Chloromethane	20	18.45 ug/L	92.25
Vinyl Chloride	20	17.87 ug/L	89.37
Bromomethane	20	21.36 ug/L	106.79
Chloroethane	20	21.52 ug/L	107.59
Trichlorofluoromethane	20	24.01 ug/L	120.05
1,1-Dichloroethene	20	22.05 ug/L	110.27
Acetone	20	12.07 ug/L	60.35
Carbon Disulfide	20	21.13 ug/L	105.63
Methylene Chloride	20	22.33 ug/L	111.64
trans-1,2-Dichloroethene	20	21.72 ug/L	108.58
1,1-Dichloroethane	20	22.16 ug/L	110.78
Vinyl Acetate	20	18.32 ug/L	91.59
2-Butanone	20	17.86 ug/L	89.31
cis-1,2-Dichloroethene	20	22.53 ug/L	112.67
Chloroform	20	23.41 ug/L	117.03
1,1,1-Trichloroethane	20	24.55 ug/L	122.77
Carbon Tetrachloride	20	24.99 ug/L	124.97
Benzene	20	20.05 ug/L	100.27
1,2-Dichloroethane	20	22.00 ug/L	110.02
Trichloroethene	20	20.56 ug/L	102.82
1,2-Dichloropropane	20	19.76 ug/L	98.80
Bromodichloromethane	20	21.47 ug/L	107.36
2-Chloroethyl vinyl ether	20	21.98 ug/L	109.88
cis-1,3-Dichloropropene	20	20.37 ug/L	101.86
4-Methyl-2-Pentanone	20	18.68 ug/L	93.42
Toluene	20	20.20 ug/L	101.02
trans-1,3-Dichloropropene	20	18.63 ug/L	93.13
1,1,2-Trichloroethane	20	19.55 ug/L	97.74
Tetrachloroethene	20	18.67 ug/L	93.37
2-Hexanone	20	15.04 ug/L	75.21
Dibromochloromethane	20	19.65 ug/L	98.23
Chlorobenzene	20	18.37 ug/L	91.86
Ethylbenzene	20	19.21 ug/L	96.06
m+p-Xylenes	40	35.57 ug/L	88.93
o-Xylene	20	18.22 ug/L	91.12
Styrene	20	14.58 ug/L	72.91
Bromoform	20	19.03 ug/L	95.15
1,1,2,2-Tetrachloroethane	20	18.48 ug/L	92.39
1,3-Dichlorobenzene	20	17.16 ug/L	85.78
1,4-Dichlorobenzene	20	17.25 ug/L	86.24
1,2-Dichlorobenzene	20	16.85 ug/L	84.25

Volatile Matrix Spike Duplicate Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File	**VC007623.D**	Sample Name	**1662821 MSD**
Date Aquired	**10-Dec-01**	Field ID	**1662821 MSD**

CAS#	Amount Added ug/L	Result ug/L	Percent Recovery
Acrolein	200	214.42 ug/L	107.21
Acrylonitrile	200	216.75 ug/L	108.38
tert-Butyl alcohol	200	223.39 ug/L	111.70
Methyl-tert-Butyl ether	20	22.48 ug/L	112.40
Di-isopropyl ether	20	22.53 ug/L	112.64
Dichlorodifluoromethane	20	19.28 ug/L	96.42
Chloromethane	20	18.25 ug/L	91.25
Vinyl Chloride	20	18.06 ug/L	90.31
Bromomethane	20	21.65 ug/L	108.24
Chloroethane	20	21.59 ug/L	107.95
Trichlorofluoromethane	20	23.63 ug/L	118.15
1,1-Dichloroethene	20	22.06 ug/L	110.29
Acetone	20	12.63 ug/L	63.13
Carbon Disulfide	20	21.11 ug/L	105.56
Methylene Chloride	20	22.50 ug/L	112.48
trans-1,2-Dichloroethene	20	21.51 ug/L	107.56
1,1-Dichloroethane	20	22.08 ug/L	110.39
Vinyl Acetate	20	19.11 ug/L	95.54
2-Butanone	20	19.18 ug/L	95.91
cis-1,2-Dichloroethene	20	22.03 ug/L	110.13
Chloroform	20	23.36 ug/L	116.81
1,1,1-Trichloroethane	20	24.55 ug/L	122.76
Carbon Tetrachloride	20	24.70 ug/L	123.51
Benzene	20	20.42 ug/L	102.11
1,2-Dichloroethane	20	22.16 ug/L	110.80
Trichloroethene	20	20.99 ug/L	104.93
1,2-Dichloropropane	20	20.24 ug/L	101.21
Bromodichloromethane	20	21.78 ug/L	108.90
2-Chloroethyl vinyl ether	20	22.30 ug/L	111.51
cis-1,3-Dichloropropene	20	20.60 ug/L	103.01
4-Methyl-2-Pentanone	20	20.62 ug/L	103.09
Toluene	20	20.75 ug/L	103.74
trans-1,3-Dichloropropene	20	19.16 ug/L	95.82
1,1,2-Trichloroethane	20	20.38 ug/L	101.90
Tetrachloroethene	20	19.21 ug/L	96.05
2-Hexanone	20	16.54 ug/L	82.71
Dibromochloromethane	20	20.37 ug/L	101.86
Chlorobenzene	20	19.13 ug/L	95.67
Ethylbenzene	20	19.65 ug/L	98.26
m+p-Xylenes	40	36.96 ug/L	92.39
o-Xylene	20	19.16 ug/L	95.80
Styrene	20	16.81 ug/L	84.03
Bromoform	20	19.85 ug/L	99.23
1,1,2,2-Tetrachloroethane	20	19.46 ug/L	97.30
1,3-Dichlorobenzene	20	18.16 ug/L	90.78
1,4-Dichlorobenzene	20	18.33 ug/L	91.63
1,2-Dichlorobenzene	20	18.51 ug/L	92.53

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP#: 13461

Project: 0212539 Case No.: 16625 Location: Bldg.26 SDG No.:

Lab File ID (Standard): VC007615.D Date Analyzed: 12/10/01

Instrument ID: VoaInst#3 Time Analyzed: 13:29

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	244348	16.69	1833629	19.41	535648	27.24
	UPPER LIMIT	488696	17.19	3667258	19.91	1071296	27.74
	LOWER LIMIT	122174	16.19	916815	18.91	267824	26.74
	FIELD ID:						
01	MB 10DEC01	222916	16.69	1647503	19.41	473161	27.25
02	1662821 MS	231953	16.69	1739681	19.42	510605	27.25
03	1662821 MSD	240087	16.70	1760410	19.41	514708	27.24
04	TB	226597	16.69	1692529	19.42	484092	27.25
05	FB	228215	16.69	1679795	19.42	483797	27.25
06	263	221758	16.69	1644987	19.42	479385	27.25
07	2534	213963	16.69	1606870	19.42	467072	27.25
08	FD	217457	16.69	1613069	19.42	470446	27.25

IS1 BCM = Bromochloromethane
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5

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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011210\VC007616.D Vial: 2
Acq On : 10 Dec 2001 2:21 pm Operator: Skelton
Sample : MB 10Dec01 Inst : GC/MS Ins
Misc : MB 10Dec01 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 11 10:33 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	222916	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	1647503	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	473161	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	550313	33.11	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 110.37%			
35) Toluene-d8	23.42	98	1895844	30.02	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 100.07%			
49) Bromofluorobenzene	30.25	95	758990	30.42	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 101.40%			

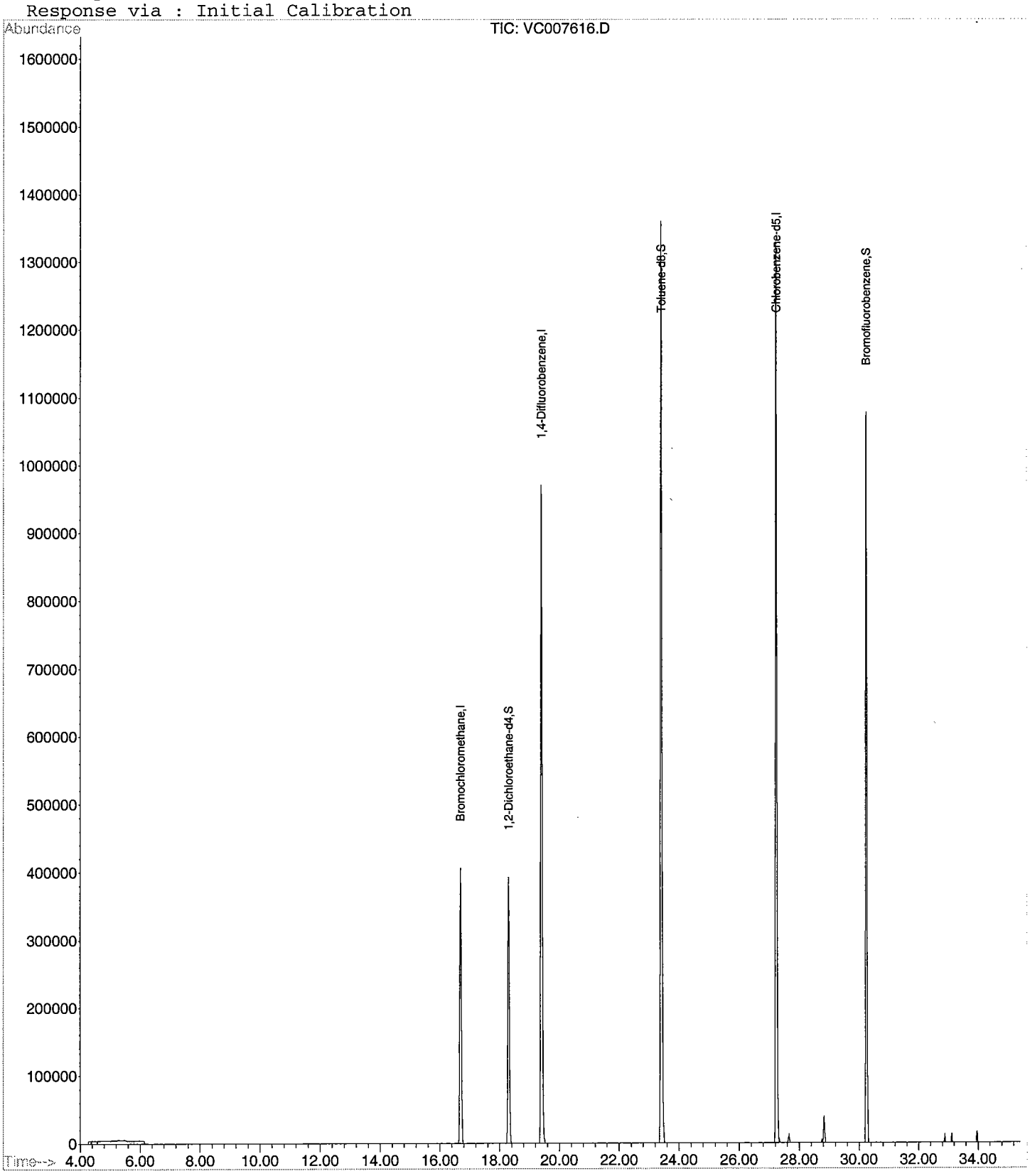
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011210\VC007616.D Vial: 2
Acq On : 10 Dec 2001 2:21 pm Operator: Skelton
Sample : MB 10Dec01 Inst : GC/MS Ins
Misc : MB 10Dec01 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 11 10:33 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Initial Calibration



000030

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011210\VC007627.D Vial: 11
Acq On : 10 Dec 2001 10:13 pm Operator: Skelton
Sample : 1662601 Inst : GC/MS Ins
Misc : 2534 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 10 22:48 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	213963	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.42	114	1606870	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	467072	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	551575	34.57	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 115.23%			
35) Toluene-d8	23.42	98	1839791	29.87	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 99.57%			
49) Bromofluorobenzene	30.25	95	757521	30.75	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 102.50%			

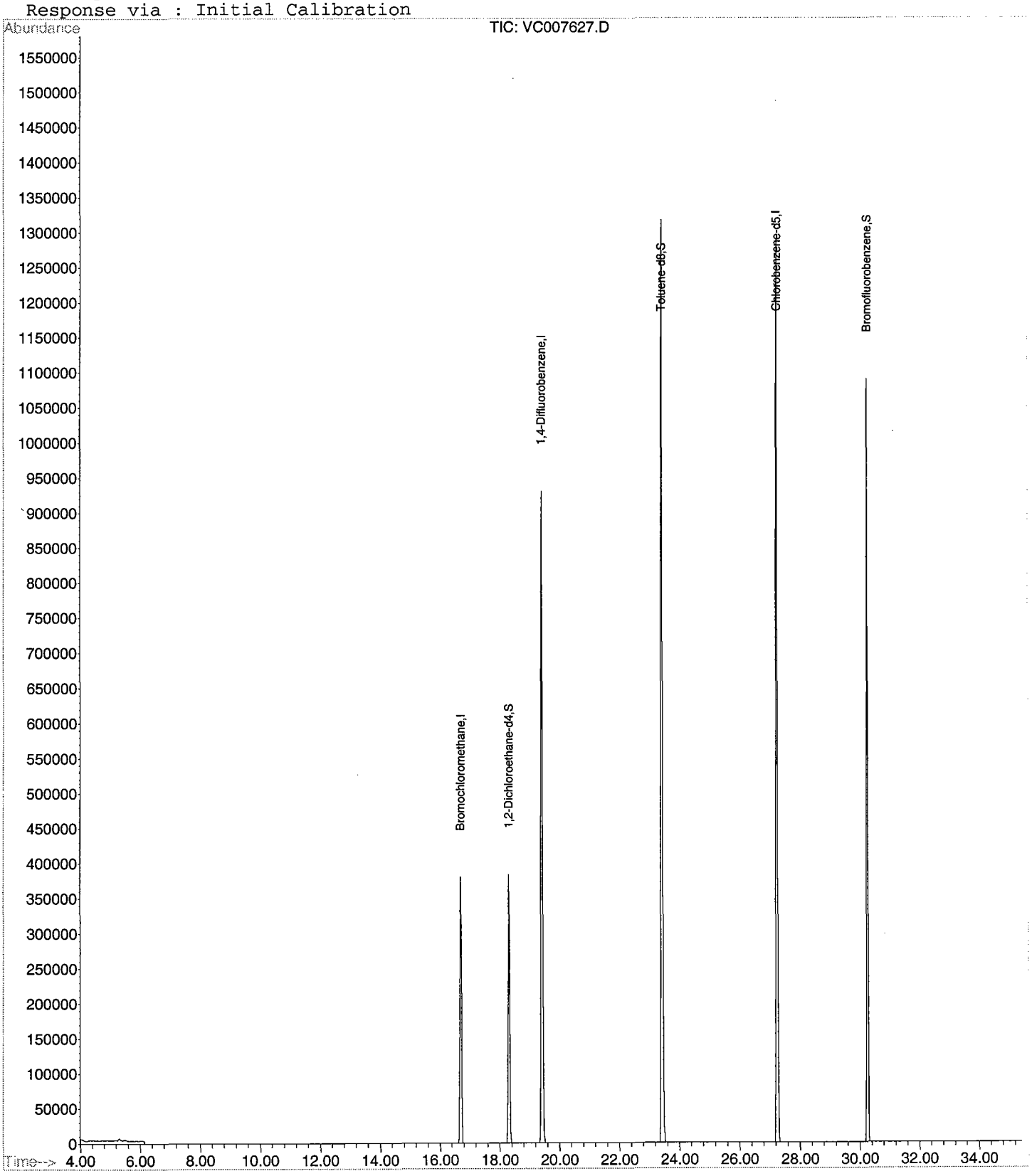
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011210\VC007627.D Vial: 11
Acq On : 10 Dec 2001 10:13 pm Operator: Skelton
Sample : 1662601 Inst : GC/MS Ins
Misc : 2534 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 10 22:48 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Initial Calibration



000032

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011210\VC007628.D Vial: 12
Acq On : 10 Dec 2001 10:53 pm Operator: Skelton
Sample : 1662602 Inst : GC/MS Ins
Misc : FD Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 10 23:29 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	217457	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.42	114	1613069	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	470446	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	557279	34.37	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	114.57%		
35) Toluene-d8	23.42	98	1865747	30.17	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	100.57%		
49) Bromofluorobenzene	30.25	95	769955	31.03	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	103.43%		

Target Compounds Qvalue

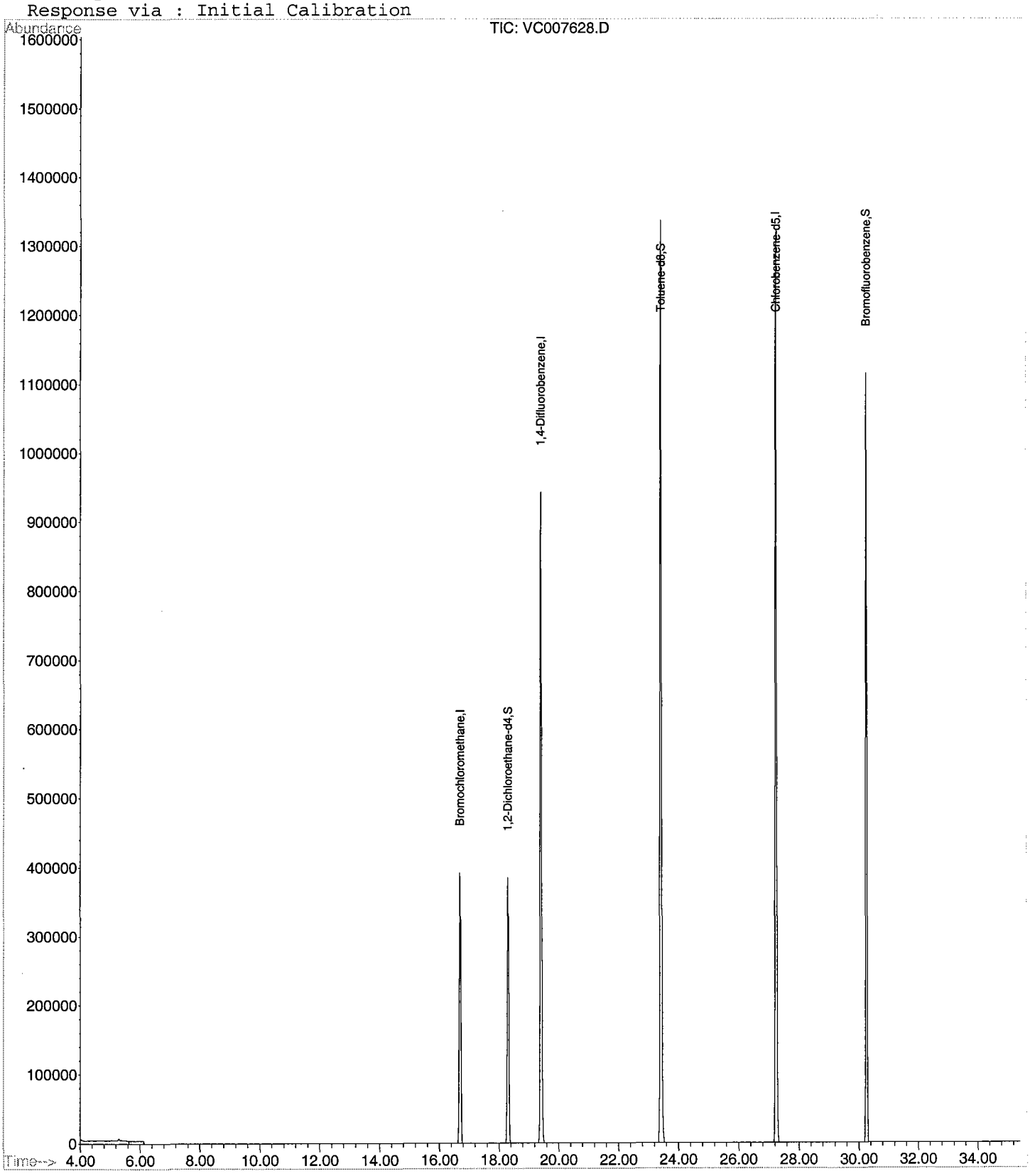
(#) = qualifier out of range (m) = manual integration

000033

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011210\VC007628.D Vial: 12
Acq On : 10 Dec 2001 10:53 pm Operator: Skelton
Sample : 1662602 Inst : GC/MS Ins
Misc : FD Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 10 23:29 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Dec 10 14:58:53 2001
Response via : Initial Calibration



BASE NEUTRAL

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06425.D**	Sample Name	**MB-2719**
Operator	**BPatel**	Misc Info	**MB-011210**
Date Acquired	**10-Dec-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	0.61	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.64	ug/L	
62-53-3	Aniline			not detected	NLE	0.78	ug/L	
108-95-2	Phenol			not detected	4000	0.65	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.80	ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.76	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.90	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.95	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.17	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.09	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.81	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.84	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.96	ug/L	
98-95-3	Nitrobenzene			not detected	10	1.27	ug/L	
78-59-1	Isophorone			not detected	100	0.88	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	1.16	ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.00	ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	1.04	ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.05	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.11	ug/L	
91-20-3	Naphthalene			not detected	NLE	1.06	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.77	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	1.16	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.92	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.11	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.26	ug/L	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.99	ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	1.01	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.10	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.95	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.09	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.93	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.98	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.85	ug/L	
83-32-9	Acenaphthene			not detected	400	1.02	ug/L	
51-28-5	2,4-Dinitrophenol			not detected	40	0.97	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.06	ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	0.88	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA06425.D**	Sample Name	**MB-2719**
Operator	**BPatel**	Misc Info	**MB-011210**
Date Acquired	**10-Dec-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
121-14-2	2,4-Dinitrotoluene			not detected	10	1.16	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.10	ug/L	
86-73-7	Fluorene			not detected	300	0.84	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.92	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.92	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	1.06	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.10	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.06	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.87	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
87-86-5	Pentachlorophenol			not detected	1	1.41	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.08	ug/L	
120-12-7	Anthracene			not detected	2000	0.93	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.23	ug/L	
206-44-0	Fluoranthene			not detected	300	0.90	ug/L	
92-87-5	Benzidine			not detected	50	1.81	ug/L	
129-00-0	Pyrene			not detected	200	1.01	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.13	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.87	ug/L	
218-01-9	Chrysene			not detected	20	1.05	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	0.99	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.20	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.07	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.24	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.04	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	1.32	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.12	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	1.00	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
D= Value from dilution
B= Compound in Related Blank
PQL= Practical Quantitation Limit

MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB-2719

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: MB-2719

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06425.D

Level: (low/med) LOW Date Received: 12/5/01

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/10/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/10/01

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06453.D**	Sample Name	**1662601**
Operator	**BPatel**	Misc Info	**2534**
Date Acquired	**11-Dec-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	0.61	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.64	ug/L	
62-53-3	Aniline			not detected	NLE	0.78	ug/L	
108-95-2	Phenol			not detected	4000	0.65	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.80	ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.76	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.90	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.95	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.17	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.09	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.81	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.84	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.96	ug/L	
98-95-3	Nitrobenzene			not detected	10	1.27	ug/L	
78-59-1	Isophorone			not detected	100	0.88	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	1.16	ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.00	ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	1.04	ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.05	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.11	ug/L	
91-20-3	Naphthalene			not detected	NLE	1.06	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.77	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	1.16	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.92	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.11	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.26	ug/L	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.99	ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	1.01	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.10	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.95	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.09	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.93	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.98	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.85	ug/L	
83-32-9	Acenaphthene			not detected	400	1.02	ug/L	
51-28-5	2,4-Dinitrophenol			not detected	40	0.97	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.06	ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	0.88	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA06453.D**	Sample Name	**1662601**
Operator	**BPatel**	Misc Info	**2534**
Date Acquired	**11-Dec-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
121-14-2	2,4-Dinitrotoluene			not detected	10	1.16	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.10	ug/L	
86-73-7	Fluorene			not detected	300	0.84	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.92	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.92	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	1.06	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.10	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.06	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.87	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
87-86-5	Pentachlorophenol			not detected	1	1.41	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.08	ug/L	
120-12-7	Anthracene			not detected	2000	0.93	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.23	ug/L	
206-44-0	Fluoranthene			not detected	300	0.90	ug/L	
92-87-5	Benzidine			not detected	50	1.81	ug/L	
129-00-0	Pyrene			not detected	200	1.01	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.13	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.87	ug/L	
218-01-9	Chrysene			not detected	20	1.05	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	0.99	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.20	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.07	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.24	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.04	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	1.32	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.12	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	1.00	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
D= Value from dilution
B= Compound in Related Blank
PQL= Practical Quantitation Limit
MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

2534

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 1662601

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06453.D

Level: (low/med) LOW Date Received: 12/5/01

% Moisture: decanted: (Y/N) N Date Extracted: 12/10/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/11/01

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06454.D**	Sample Name	**1662602**
Operator	**BPatel**	Misc Info	**Field Dup.**
Date Acquired	**11-Dec-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	0.61	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.64	ug/L	
62-53-3	Aniline			not detected	NLE	0.78	ug/L	
108-95-2	Phenol			not detected	4000	0.65	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.80	ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.76	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.90	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.95	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.17	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.96	ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.09	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.81	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.84	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.96	ug/L	
98-95-3	Nitrobenzene			not detected	10	1.27	ug/L	
78-59-1	Isophorone			not detected	100	0.88	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	1.16	ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.00	ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	1.04	ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.05	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.11	ug/L	
91-20-3	Naphthalene			not detected	NLE	1.06	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.77	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	1.16	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.92	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.11	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.26	ug/L	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.99	ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	1.01	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.10	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.95	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.09	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.93	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.98	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.85	ug/L	
83-32-9	Acenaphthene			not detected	400	1.02	ug/L	
51-28-5	2,4-Dinitrophenol			not detected	40	0.97	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.06	ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	0.88	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA06454.D**	Sample Name	**1662602**
Operator	**BPatel**	Misc Info	**Field Dup.**
Date Acquired	**11-Dec-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
121-14-2	2,4-Dinitrotoluene			not detected	10	1.16	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.10	ug/L	
86-73-7	Fluorene			not detected	300	0.84	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.92	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.92	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	1.06	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.10	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.06	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.87	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
87-86-5	Pentachlorophenol			not detected	1	1.41	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.08	ug/L	
120-12-7	Anthracene			not detected	2000	0.93	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.23	ug/L	
206-44-0	Fluoranthene			not detected	300	0.90	ug/L	
92-87-5	Benzidine			not detected	50	1.81	ug/L	
129-00-0	Pyrene			not detected	200	1.01	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.13	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.87	ug/L	
218-01-9	Chrysene			not detected	20	1.05	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	0.99	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.20	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.07	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.24	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.04	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	1.32	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.12	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	1.00	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
D= Value from dilution
B= Compound in Related Blank
PQL= Practical Quantitation Limit

MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Field Dup.

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 1662602

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06454.D

Level: (low/med) LOW Date Received: 12/5/01

% Moisture: decanted: (Y/N) N Date Extracted: 12/10/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/11/01

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: BI.2534 SDG No.:

Lab File ID: BNA06032.D DFTPP Injection Date: 9/6/01

Instrument ID: GC_BNA_2 DFTPP Injection Time: 9:33

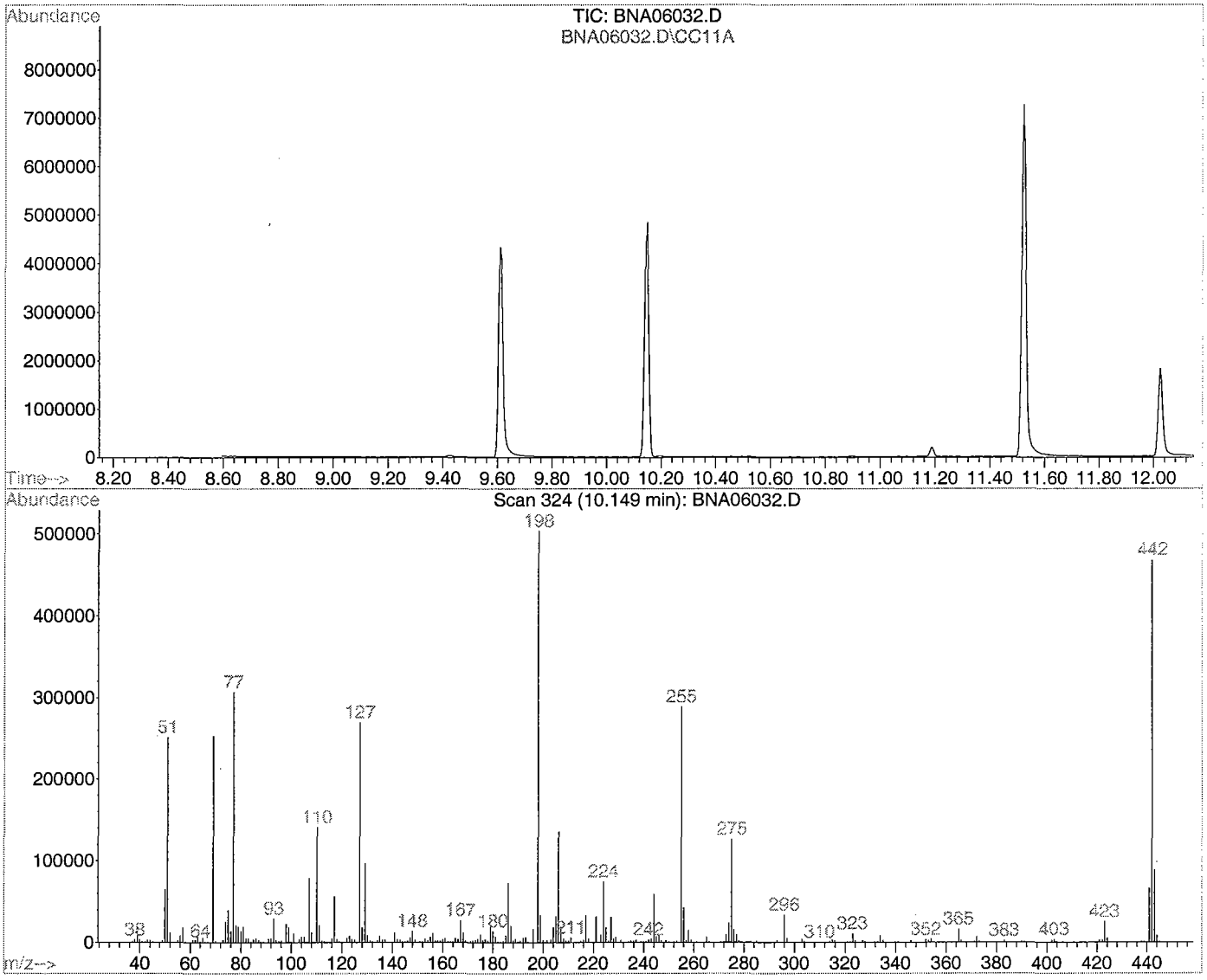
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	49.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	50.3
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	25.0 - 75.0% of mass 198	53.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	25.1
365	Greater than 0.75% of mass 198	3.2
441	Present, but less than mass 443	13.2
442	40.0 - 110.0% of mass 198	92.9
443	15.0 - 24.0% of mass 442	17.6 (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:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD120	SSTD120	BNA06033.D	9/6/01	9:58
02	SSTD010	SSTD010	BNA06034.D	9/6/01	10:42
03	SSTD050	SSTD050	BNA06035.D	9/6/01	11:26
04	SSTD020	SSTD020	BNA06036.D	9/6/01	12:11
05	SSTD080	SSTD080	BNA06037.D	9/6/01	12:58

Data File : D:\DATA\010906\BNA06032.D Vial: 99
Acq On : 6 Sep 2001 9:33 am Operator: B.Patel
Sample : DFTPP TUNE Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 324

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.8	251008	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	50.3	253120	PASS
70	69	0.00	2	0.6	1563	PASS
127	198	40	60	53.5	269632	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	503680	PASS
199	198	5	9	6.6	33112	PASS
275	198	10	30	25.1	126416	PASS
365	198	1	100	3.2	16079	PASS
441	443	1	99	75.0	66328	PASS
442	198	40	100	92.9	467968	PASS
443	442	17	23	18.9	88424	PASS

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration

Calibration Files
120 =BNA06033.D 80 =BNA06037.D 50 =BNA06035.D
20 =BNA06036.D 10 =BNA06034.D

		Compound	120	80	50	20	10	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	T	Pyridine	1.864	1.930	1.943	1.880	1.981	1.920	2.48
3)	T	N-nitroso-dimethylami	1.195	1.218	1.233	1.157	1.177	1.196	2.58
4)	S	2-Fluorophenol	1.496	1.521	1.568	1.544	1.519	1.530	1.79
5)	T	Aniline	2.344	2.406	2.531	2.548	2.653	2.496	4.90
6)	S	Phenol-d6	1.805	1.852	1.952	1.971	2.026	1.921	4.71
7)	TCM	Phenol	1.780	1.883	1.990	2.125	2.171	1.990	8.21
8)	T	bis(2-Chloroethyl)eth	1.843	1.902	1.994	2.004	2.040	1.957	4.16
9)	TM	2-Chlorophenol	1.361	1.397	1.459	1.468	1.517	1.440	4.28
10)	T	1,3-Dichlorobenzene	1.445	1.503	1.590	1.621	1.701	1.572	6.39
11)	TCM	1,4-Dichlorobenzene	1.443	1.517	1.603	1.641	1.719	1.584	6.78
12)	T	Benzyl alcohol	0.924	0.935	0.986	0.937	0.895	0.935	3.52
13)	T	1,2-Dichlorobenzene	1.340	1.402	1.478	1.538	1.634	1.478	7.79
14)	T	2-Methylphenol	1.347	1.404	1.497	1.506	1.579	1.466	6.21
15)	T	bis(2-chloroisopropyl	1.856	1.945	2.050	2.109	2.232	2.038	7.13
16)	T	4-Methylphenol	1.366	1.476	1.574	1.570	1.637	1.525	6.92
17)	TPM	n-Nitroso-di-n-propyl	0.278	0.282	0.295	0.296	0.304	0.291	3.72
18)	T	Hexachloroethane	0.586	0.630	0.674	0.693	0.721	0.661	8.10
19)	I	Naphthalene-d8	----------ISTD----------						
20)	S	Nitrobenzene-d5	0.464	0.483	0.496	0.502	0.521	0.493	4.34
21)	T	Nitrobenzene	0.463	0.490	0.511	0.524	0.543	0.506	6.11
22)	T	Isophorone	0.780	0.807	0.822	0.854	0.902	0.833	5.64
23)	TC	2-Nitrophenol	0.199	0.206	0.209	0.203	0.208	0.205	2.00
24)	T	2,4-Dimethylphenol	0.372	0.391	0.409	0.414	0.447	0.407	6.89
25)	T	bis(2-Chloroethoxy)me	0.538	0.577	0.602	0.621	0.650	0.598	7.13
26)	TC	2,4-Dichlorophenol	0.274	0.291	0.309	0.315	0.322	0.302	6.47
27)	T	Benzoic Acid	0.307	0.323	0.310	0.292	0.279	0.302	5.60
28)	TM	1,2,4-Trichlorobenzen	0.296	0.314	0.326	0.339	0.358	0.327	7.22
29)	T	Naphthalene	0.863	0.970	1.068	1.153	1.231	1.057	13.78
30)	T	4-Chloroaniline	0.407	0.432	0.447	0.453	0.465	0.441	5.06
31)	TC	Hexachlorobutadiene	0.170	0.180	0.188	0.195	0.209	0.188	7.99
32)	TCM	4-Chloro-3-methylphen	0.325	0.343	0.361	0.360	0.382	0.354	6.00
33)	T	2-Methylnaphthalene	0.576	0.624	0.662	0.697	0.744	0.661	9.84
34)	I	Acenaphthene-d10	----------ISTD----------						
35)	TP	Hexachlorocyclopentad	0.375	0.388	0.388	0.362	0.354	0.373	4.15
36)	TC	2,4,6-Trichlorophenol	0.372	0.388	0.402	0.411	0.429	0.401	5.39
37)	T	2,4,5-Trichlorophenol	0.431	0.454	0.476	0.459	0.459	0.456	3.51
38)	S	2-Fluorobiphenyl	1.147	1.236	1.324	1.416	1.516	1.328	10.94
39)	T	2-Chloronaphthalene	1.087	1.153	1.240	1.295	1.394	1.234	9.71
40)	T	2-Nitroaniline	0.442	0.453	0.463	0.455	0.453	0.453	1.66
41)	T	Dimethylphthalate	1.418	1.532	1.636	1.755	1.878	1.644	11.01
42)	T	Acenaphthylene	1.598	1.769	1.925	2.087	2.248	1.925	13.28
43)	T	2,6-Dinitrotoluene	0.368	0.387	0.400	0.414	0.434	0.401	6.35
44)	T	3-Nitroaniline	0.344	0.358	0.361	0.367	0.375	0.361	3.23
45)	TCM	Acenaphthene	1.033	1.112	1.191	1.267	1.364	1.193	10.84
46)	TP	2,4-Dinitrophenol	0.218	0.214	0.209	0.158	0.159	0.192	15.84
47)	T	Dibenzofuran	1.373	1.502	1.624	1.743	1.897	1.628	12.53
48)	TMP	4-Nitrophenol	0.374	0.334	0.320	0.342	0.340	0.342	5.86
49)	TM	2,4-Dinitrotoluene	0.433	0.448	0.459	0.472	0.492	0.461	4.87
50)	T	Diethylphthalate	1.393	1.521	1.634	1.773	1.929	1.650	12.69
51)	T	Fluorene	1.197	1.291	1.378	1.466	1.577	1.382	10.71
52)	T	4-Chlorophenyl-phenyl	0.695	0.726	0.776	0.812	0.879	0.777	9.28
53)	T	4-Nitroaniline	0.345	0.344	0.351	0.346	0.353	0.348	1.20
54)	I	Phenanthrene-d10	----------ISTD----------						

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration

Calibration Files
120 =BNA06033.D 80 =BNA06037.D 50 =BNA06035.D
20 =BNA06036.D 10 =BNA06034.D

		Compound	120	80	50	20	10	Avg	%RSD
55)	T	4,6-Dinitro-2-methylp	0.167	0.170	0.170	0.156	0.150	0.163	5.60
56)	TC	n-Nitrosodiphenylamin	0.605	0.645	0.694	0.729	0.794	0.693	10.58
57)	T	Azobenzene	1.015	1.009	1.090	1.172	1.249	1.107	9.32
58)	S	2,4,6-Tribromophenol	0.120	0.120	0.123	0.122	0.128	0.123	2.71
59)	T	4-Bromophenyl-phenyle	0.255	0.261	0.272	0.280	0.298	0.273	6.20
60)	T	Hexachlorobenzene	0.224	0.228	0.235	0.237	0.258	0.236	5.66
61)	TCM	Pentachlorophenol	0.140	0.141	0.140	0.131	0.124	0.135	5.55
62)	T	Phenanthrene	0.988	1.068	1.168	1.262	1.367	1.170	12.88
63)	T	Anthracene	1.003	1.095	1.201	1.293	1.400	1.198	13.08
64)	T	Di-n-butylphthalate	1.239	1.411	1.580	1.732	1.862	1.565	15.85
65)	TC	Fluoranthene	1.048	1.127	1.220	1.318	1.410	1.225	11.83
66)	I	Chrysene-d12	----------ISTD----------						
67)	T	Benzidine	0.619	0.599	0.593	0.642	0.770	0.645	11.32
68)	TM	Pyrene	1.204	1.272	1.356	1.427	1.516	1.355	9.10
69)	S	p-Terphenyl-d14	0.886	0.921	0.957	0.979	1.052	0.959	6.55
70)	T	Butylbenzylphthalate	0.732	0.775	0.812	0.835	0.865	0.804	6.46
71)	T	Benzo[a]anthracene	1.208	1.269	1.325	1.360	1.448	1.322	6.90
72)	T	3,3'-Dichlorobenzidin	0.554	0.558	0.559	0.577	0.618	0.574	4.64
73)	T	Chrysene	1.125	1.192	1.250	1.306	1.401	1.255	8.42
74)	T	bis(2-Ethylhexyl)phth	0.955	1.036	1.097	1.133	1.173	1.079	7.93
75)	I	Perylene-d12	----------ISTD----------						
76)	TC	Di-n-octylphthalate	1.847	2.042	2.290	2.442	2.566	2.237	13.08
77)	T	Benzo[b]fluoranthene	1.547	1.516	1.577	1.639	1.755	1.607	5.88
78)	T	Benzo[k]fluoranthene	1.390	1.499	1.599	1.686	1.769	1.588	9.43
79)	TC	Benzo[a]pyrene	1.431	1.462	1.541	1.621	1.710	1.553	7.37
80)	T	Indeno[1,2,3-cd]pyren	1.522	1.543	1.596	1.571	1.683	1.583	3.94
81)	T	Dibenz[a,h]anthracene	1.149	1.151	1.200	1.231	1.311	1.208	5.52
82)	T	Benzo[g,h,i]perylene	1.453	1.456	1.505	1.544	1.634	1.518	4.91

(#) = Out of Range

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID: BNA06396.D DFTPP Injection Date: 12/7/01

Instrument ID: GC_BNA_2 DFTPP Injection Time: 11:59

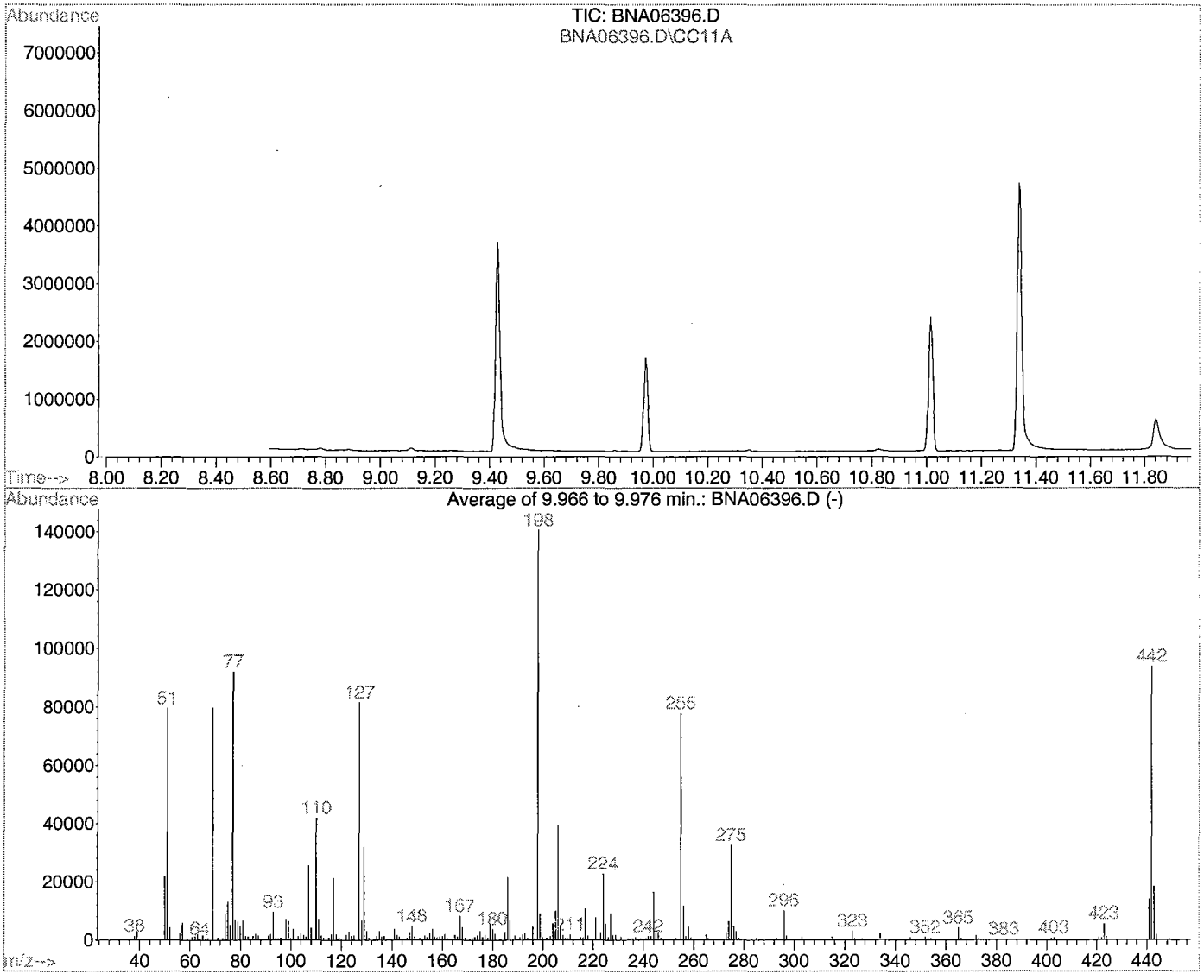
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	56.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	56.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	58.0
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 0.75% of mass 198	3.0
441	Present, but less than mass 443	9.9
442	40.0 - 110.0% of mass 198	66.6
443	15.0 - 24.0% of mass 442	13.0 (19.6)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	BNA06397.D	12/7/01	12:24
02	1662407MS	1662407MS	BNA06414.D	12/8/01	0:59
03	1662407MSD	1662407MSD	BNA06415.D	12/8/01	1:42

Data File : D:\DATA\011207\BNA06396.D Vial: 99
Acq On : 7 Dec 2001 11:59 am Operator: Skelton
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration



AutoFind: Scans 286, 287, 288; Background Corrected with Scan 280

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.6	79545	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	56.7	79716	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	58.0	81509	PASS
197	198	0.00	1	0.4	594	PASS
198	198	100	100	100.0	140565	PASS
199	198	5	9	6.5	9086	PASS
275	198	10	30	23.1	32424	PASS
365	198	1	100	3.0	4170	PASS
441	443	1	99	75.5	13849	PASS
442	198	40	100	66.6	93683	PASS
443	442	17	23	19.6	18340	PASS

Evaluate Continuing Calibration Report

Data File : D:\DATA\011207\BNA06397.D Vial: 100
Acq On : 7 Dec 2001 12:24 pm Operator: Skelton
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	-0.04
2	T	Pyridine	1.920	1.738	9.5	86	-0.13
3	T	N-nitroso-dimethylamine	1.196	1.100	8.0	86	-0.04
4	S	2-Fluorophenol	1.530	1.430	6.5	88	-0.04
5	T	Aniline	2.496	2.039	18.3	77	-0.04
6	S	Phenol-d6	1.921	1.856	3.4	91	-0.02
7	TCM	Phenol	1.990	1.827	8.2	88	-0.02
8	T	bis(2-Chloroethyl)ether	1.957	1.853	5.3	89	-0.04
9	TM	2-Chlorophenol	1.440	1.374	4.6	90	-0.03
10	T	1,3-Dichlorobenzene	1.572	1.532	2.5	93	-0.04
11	TCM	1,4-Dichlorobenzene	1.584	1.554	1.9	93	-0.04
12	T	Benzyl alcohol	0.935	0.871	6.8	85	-0.03
13	T	1,2-Dichlorobenzene	1.478	1.463	1.0	95	-0.04
14	T	2-Methylphenol	1.466	1.439	1.8	92	-0.03
15	T	bis(2-chloroisopropyl)ether	2.038	1.837	9.9	86	-0.04
16	T	4-Methylphenol	1.525	1.482	2.8	90	-0.03
17	TPM	n-Nitroso-di-n-propylamine	0.291	0.278	4.5	90	-0.03
18	T	Hexachloroethane	0.661	0.659	0.3	94	-0.04
19	I	Naphthalene-d8	1.000	1.000	0.0	97	-0.04
20	S	Nitrobenzene-d5	0.493	0.481	2.4	94	-0.04
21	T	Nitrobenzene	0.506	0.493	2.6	93	-0.03
22	T	Isophorone	0.833	0.787	5.5	93	-0.04
23	TC	2-Nitrophenol	0.205	0.194	5.4	90	-0.03
24	T	2,4-Dimethylphenol	0.407	0.394	3.2	93	-0.03
25	T	bis(2-Chloroethoxy)methane	0.598	0.567	5.2	91	-0.04
26	TC	2,4-Dichlorophenol	0.302	0.294	2.6	92	-0.04
27	T	Benzoic Acid	0.302	0.267	11.6	83	-0.01
28	TM	1,2,4-Trichlorobenzene	0.327	0.323	1.2	96	-0.04
29	T	Naphthalene	1.057	1.055	0.2	96	-0.04
30	T	4-Chloroaniline	0.441	0.276	37.4#	60	-0.04
31	TC	Hexachlorobutadiene	0.188	0.194	-3.2	100	-0.04
32	TCM	4-Chloro-3-methylphenol	0.354	0.351	0.8	94	-0.03
33	T	2-Methylnaphthalene	0.661	0.664	-0.5	97	-0.04
34	I	Acenaphthene-d10	1.000	1.000	0.0	99	-0.04
35	TP	Hexachlorocyclopentadiene	0.373	0.377	-1.1	96	-0.04
36	TC	2,4,6-Trichlorophenol	0.401	0.392	2.2	96	-0.03
37	T	2,4,5-Trichlorophenol	0.456	0.449	1.5	93	-0.04
38	S	2-Fluorobiphenyl	1.328	1.308	1.5	98	-0.04
39	T	2-Chloronaphthalene	1.234	1.204	2.4	96	-0.04
40	T	2-Nitroaniline	0.453	0.426	6.0	91	-0.03
41	T	Dimethylphthalate	1.644	1.625	1.2	98	-0.03
42	T	Acenaphthylene	1.925	1.914	0.6	99	-0.04
43	T	2,6-Dinitrotoluene	0.401	0.421	-5.0	104	-0.03
44	T	3-Nitroaniline	0.361	0.271	24.9	74	-0.03
45	TCM	Acenaphthene	1.193	1.182	0.9	98	-0.03
46	TP	2,4-Dinitrophenol	0.192	0.191	0.5	90	-0.03
47	T	Dibenzofuran	1.628	1.595	2.0	97	-0.04
48	TMP	4-Nitrophenol	0.342	0.368	-7.6	114	0.00
49	TM	2,4-Dinitrotoluene	0.461	0.443	3.9	96	-0.03
50	T	Diethylphthalate	1.650	1.643	0.4	100	-0.03
51	T	Fluorene	1.382	1.369	0.9	98	-0.03
52	T	4-Chlorophenyl-phenylether	0.777	0.775	0.3	99	-0.04
53	T	4-Nitroaniline	0.348	0.321	7.8	91	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\DATA\011207\BNA06397.D Vial: 100
Acq On : 7 Dec 2001 12:24 pm Operator: Skelton
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Phenanthrene-d10	1.000	1.000	0.0	100	-0.04
55	T	4,6-Dinitro-2-methylphenol	0.163	0.160	1.8	94	-0.03
56	TC	n-Nitrosodiphenylamine	0.693	0.673	2.9	97	-0.03
57	T	Azobenzene	1.107	1.166	-5.3	107	-0.04
58	S	2,4,6-Tribromophenol	0.123	0.123	0.0	100	-0.03
59	T	4-Bromophenyl-phenylether	0.273	0.277	-1.5	102	-0.04
60	T	Hexachlorobenzene	0.236	0.235	0.4	100	-0.04
61	TCM	Pentachlorophenol	0.135	0.140	-3.7	100	-0.03
62	T	Phenanthrene	1.170	1.156	1.2	99	-0.03
63	T	Anthracene	1.198	1.185	1.1	99	-0.04
64	T	Di-n-butylphthalate	1.565	1.566	-0.1	99	-0.03
65	TC	Fluoranthene	1.225	1.222	0.2	100	-0.04
66	I	Chrysene-d12	1.000	1.000	0.0	109	-0.03
67	T	Benzidine	0.645	0.420	34.9#	77	-0.03
68	TM	Pyrene	1.355	1.245	8.1	100	-0.04
69	S	p-Terphenyl-d14	0.959	0.889	7.3	101	-0.03
70	T	Butylbenzylphthalate	0.804	0.743	7.6	100	-0.03
71	T	Benzo[a]anthracene	1.322	1.225	7.3	101	-0.03
72	T	3,3'-Dichlorobenzidine	0.574	0.443	22.8	86	-0.03
73	T	Chrysene	1.255	1.151	8.3	101	-0.03
74	T	bis(2-Ethylhexyl)phthalate	1.079	1.005	6.9	100	-0.04
75	I	Perylene-d12	1.000	1.000	0.0	103	-0.03
76	TC	Di-n-octylphthalate	2.237	2.184	2.4	99	-0.03
77	T	Benzo[b]fluoranthene	1.607	1.551	3.5	102	-0.03
78	T	Benzo[k]fluoranthene	1.588	1.569	1.2	101	-0.03
79	TC	Benzo[a]pyrene	1.553	1.499	3.5	101	-0.03
80	T	Indeno[1,2,3-cd]pyrene	1.583	1.649	-4.2	107	-0.04
81	T	Dibenz[a,h]anthracene	1.208	1.174	2.8	101	-0.04
82	T	Benzo[g,h,i]perylene	1.518	1.435	5.5	99	-0.04

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID: BNA06423.D DFTPP Injection Date: 12/10/01

Instrument ID: GC_BNA_2 DFTPP Injection Time: 13:23

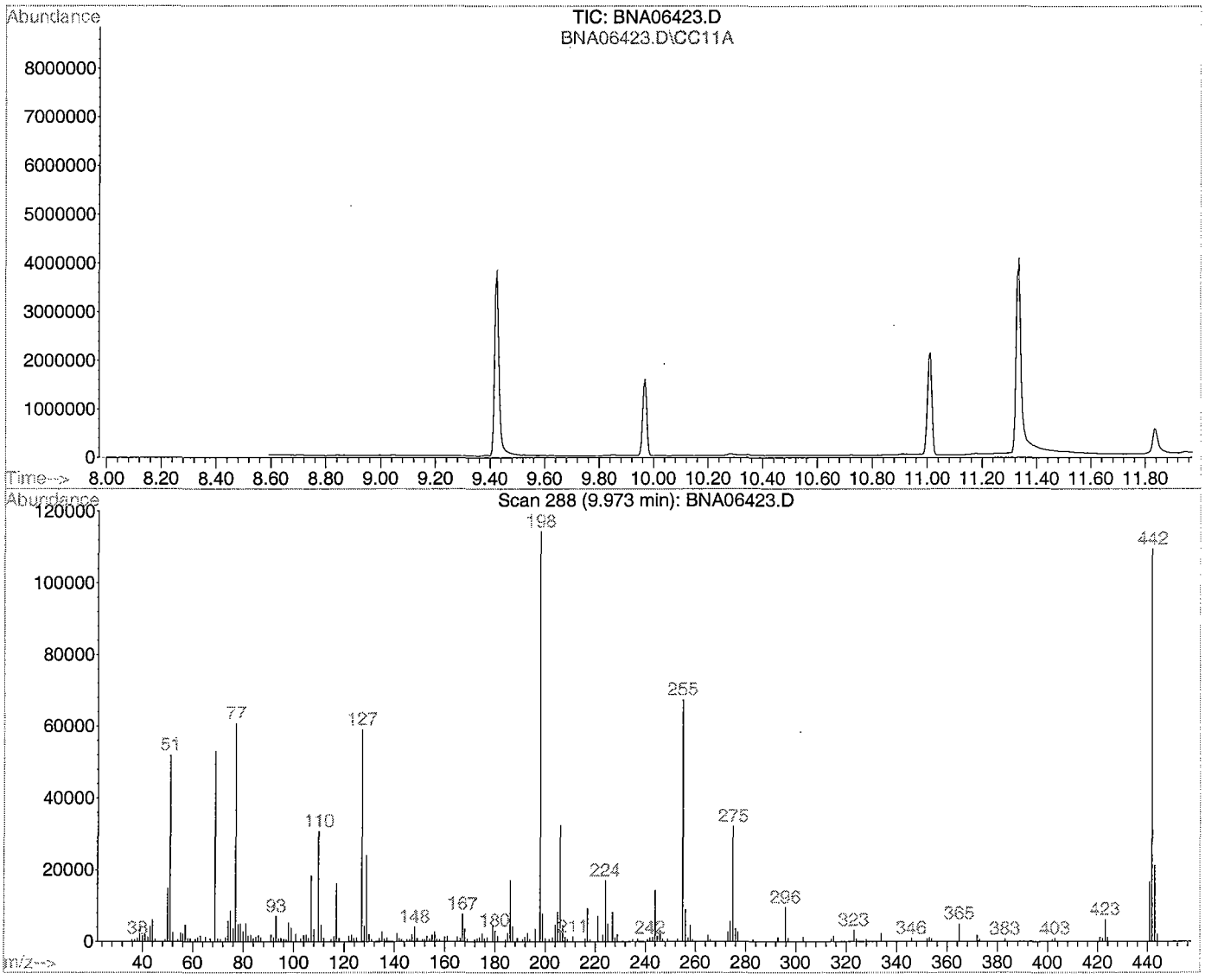
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	45.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	46.4
70	Less than 2.0% of mass 69	0.7 (1.5)1
127	25.0 - 75.0% of mass 198	51.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	28.0
365	Greater than 0.75% of mass 198	4.3
441	Present, but less than mass 443	14.5
442	40.0 - 110.0% of mass 198	95.7
443	15.0 - 24.0% of mass 442	18.5 (19.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	BNA06424.D	12/10/01	13:48
02	MB-2719	MB-2719	BNA06425.D	12/10/01	14:31
03	2534	1662601	BNA06453.D	12/11/01	10:34
04	FIELD DUP.	1662602	BNA06454.D	12/11/01	11:21

Data File : D:\DATA\011210\BNA06423.D Vial: 99
Acq On : 10 Dec 2001 1:23 pm Operator: BPatel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 288

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.4	51920	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.4	53040	PASS
70	69	0.00	2	1.5	821	PASS
127	198	40	60	51.6	59040	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	114424	PASS
199	198	5	9	6.8	7741	PASS
275	198	10	30	28.0	32072	PASS
365	198	1	100	4.3	4896	PASS
441	443	1	99	78.4	16600	PASS
442	198	40	100	95.7	109448	PASS
443	442	17	23	19.3	21176	PASS

Evaluate Continuing Calibration Report

Data File : D:\DATA\011210\BNA06424.D Vial: 100
Acq On : 10 Dec 2001 1:48 pm Operator: BPatel
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	-0.04
2	T	Pyridine	1.920	1.731	9.8	84	-0.14
3	T	N-nitroso-dimethylamine	1.196	1.122	6.2	85	-0.03
4	S	2-Fluorophenol	1.530	1.446	5.5	86	-0.04
5	T	Aniline	2.496	2.008	19.6	74	-0.04
6	S	Phenol-d6	1.921	1.884	1.9	90	-0.03
7	TCM	Phenol	1.990	1.842	7.4	87	-0.03
8	T	bis(2-Chloroethyl)ether	1.957	1.855	5.2	87	-0.04
9	TM	2-Chlorophenol	1.440	1.383	4.0	89	-0.03
10	T	1,3-Dichlorobenzene	1.572	1.543	1.8	91	-0.04
11	TCM	1,4-Dichlorobenzene	1.584	1.574	0.6	92	-0.04
12	T	Benzyl alcohol	0.935	0.927	0.9	88	-0.04
13	T	1,2-Dichlorobenzene	1.478	1.465	0.9	93	-0.04
14	T	2-Methylphenol	1.466	1.452	1.0	91	-0.03
15	T	bis(2-chloroisopropyl)ether	2.038	1.844	9.5	84	-0.04
16	T	4-Methylphenol	1.525	1.489	2.4	89	-0.03
17	TPM	n-Nitroso-di-n-propylamine	0.291	0.285	2.1	90	-0.03
18	T	Hexachloroethane	0.661	0.656	0.8	91	-0.04
19	I	Naphthalene-d8	1.000	1.000	0.0	94	-0.04
20	S	Nitrobenzene-d5	0.493	0.483	2.0	92	-0.04
21	T	Nitrobenzene	0.506	0.498	1.6	92	-0.04
22	T	Isophorone	0.833	0.787	5.5	90	-0.04
23	TC	2-Nitrophenol	0.205	0.198	3.4	89	-0.04
24	T	2,4-Dimethylphenol	0.407	0.398	2.2	92	-0.03
25	T	bis(2-Chloroethoxy)methane	0.598	0.565	5.5	89	-0.04
26	TC	2,4-Dichlorophenol	0.302	0.298	1.3	91	-0.04
27	T	Benzoic Acid	0.302	0.320	-6.0	97	0.00
28	TM	1,2,4-Trichlorobenzene	0.327	0.323	1.2	94	-0.04
29	T	Naphthalene	1.057	1.051	0.6	93	-0.04
30	T	4-Chloroaniline	0.441	0.290	34.2#	61	-0.04
31	TC	Hexachlorobutadiene	0.188	0.193	-2.7	97	-0.05
32	TCM	4-Chloro-3-methylphenol	0.354	0.349	1.4	91	-0.03
33	T	2-Methylnaphthalene	0.661	0.663	-0.3	95	-0.04
34	I	Acenaphthene-d10	1.000	1.000	0.0	95	-0.04
35	TP	Hexachlorocyclopentadiene	0.373	0.292	21.7	71	-0.04
36	TC	2,4,6-Trichlorophenol	0.401	0.401	0.0	95	-0.03
37	T	2,4,5-Trichlorophenol	0.456	0.454	0.4	91	-0.04
38	S	2-Fluorobiphenyl	1.328	1.328	0.0	95	-0.04
39	T	2-Chloronaphthalene	1.234	1.217	1.4	93	-0.04
40	T	2-Nitroaniline	0.453	0.434	4.2	89	-0.03
41	T	Dimethylphthalate	1.644	1.632	0.7	95	-0.03
42	T	Acenaphthylene	1.925	1.922	0.2	95	-0.04
43	T	2,6-Dinitrotoluene	0.401	0.423	-5.5	100	-0.03
44	T	3-Nitroaniline	0.361	0.274	24.1	72	-0.03
45	TCM	Acenaphthene	1.193	1.194	-0.1	95	-0.04
46	TP	2,4-Dinitrophenol	0.192	0.184	4.2	84	-0.03
47	T	Dibenzofuran	1.628	1.607	1.3	94	-0.04
48	TMP	4-Nitrophenol	0.342	0.387	-13.2	115	-0.02
49	TM	2,4-Dinitrotoluene	0.461	0.444	3.7	92	-0.03
50	T	Diethylphthalate	1.650	1.644	0.4	96	-0.04
51	T	Fluorene	1.382	1.380	0.1	95	-0.04
52	T	4-Chlorophenyl-phenylether	0.777	0.780	-0.4	96	-0.04
53	T	4-Nitroaniline	0.348	0.319	8.3	86	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\DATA\011210\BNA06424.D Vial: 100
Acq On : 10 Dec 2001 1:48 pm Operator: BPatel
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Phenanthrene-d10	1.000	1.000	0.0	96	-0.04
55	T	4,6-Dinitro-2-methylphenol	0.163	0.153	6.1	87	-0.03
56	TC	n-Nitrosodiphenylamine	0.693	0.676	2.5	94	-0.04
57	T	Azobenzene	1.107	1.166	-5.3	103	-0.04
58	S	2,4,6-Tribromophenol	0.123	0.125	-1.6	98	-0.04
59	T	4-Bromophenyl-phenylether	0.273	0.275	-0.7	98	-0.04
60	T	Hexachlorobenzene	0.236	0.236	0.0	97	-0.04
61	TCM	Pentachlorophenol	0.135	0.146	-8.1	100	-0.03
62	T	Phenanthrene	1.170	1.165	0.4	96	-0.04
63	T	Anthracene	1.198	1.177	1.8	94	-0.04
64	T	Di-n-butylphthalate	1.565	1.565	0.0	95	-0.04
65	TC	Fluoranthene	1.225	1.211	1.1	96	-0.04
66	I	Chrysene-d12	1.000	1.000	0.0	104	-0.04
67	T	Benzidine	0.645	0.364	43.6#	64	-0.03
68	TM	Pyrene	1.355	1.251	7.7	96	-0.04
69	S	p-Terphenyl-d14	0.959	0.886	7.6	96	-0.04
70	T	Butylbenzylphthalate	0.804	0.743	7.6	95	-0.04
71	T	Benzo[a]anthracene	1.322	1.225	7.3	96	-0.04
72	T	3,3'-Dichlorobenzidine	0.574	0.500	12.9	93	-0.04
73	T	Chrysene	1.255	1.169	6.9	97	-0.04
74	T	bis(2-Ethylhexyl)phthalate	1.079	1.005	6.9	95	-0.04
75	I	Perylene-d12	1.000	1.000	0.0	97	-0.04
76	TC	Di-n-octylphthalate	2.237	2.212	1.1	94	-0.04
77	T	Benzo[b]fluoranthene	1.607	1.569	2.4	96	-0.04
78	T	Benzo[k]fluoranthene	1.588	1.577	0.7	96	-0.03
79	TC	Benzo[a]pyrene	1.553	1.520	2.1	96	-0.03
80	T	Indeno[1,2,3-cd]pyrene	1.583	1.503	5.1	91	-0.05
81	T	Dibenz[a,h]anthracene	1.208	1.188	1.7	96	-0.05
82	T	Benzo[g,h,i]perylene	1.518	1.463	3.6	94	-0.06

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

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-2719

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID: BNA06425.D Lab Sample ID: MB-2719

Instrument ID: GC/MS Ins Date Extracted: 12/10/01

Matrix: (soil/water) WATER Date Analyzed: 12/10/01

Level: (low/med) LOW Time Analyzed: 14:31

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2534	1662601	BNA06453.D	12/11/01
02	FIELD DUP.	1662602	BNA06454.D	12/11/01

COMMENTS:

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.: _____

	EPA SAMPLE NO.	S1 NBZ #	S2 2FP #	S3 TPL #	TOT OUT
01	1662407MS	69	68	57	0
02	1662407MSD	71	68	56	0
03	MB-2719	64	61	41	0
04	2534	59	54	30	0
05	FIELD DUP.	58	54	25	0

QC LIMITS

S1	NBZ	=	Nitrobenzene-d5	(24-97)
S2	2FP	=	2-Fluorobiphenyl	(27-106)
S3	TPL	=	p-Terphenyl-d14	(14-119)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BNA06414.D** Sample Name **1662407MS**

Date Acquired **8-Dec-01**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		4.34 ug/L	21.72
62-75-9	N-nitroso-dimethylamine		5.50 ug/L	27.52
62-53-3	Aniline		8.19 ug/L	40.94
111-44-4	bis(2-Chloroethyl)ether		10.45 ug/L	52.23
541-73-1	1,3-Dichlorobenzene		10.66 ug/L	53.32
106-46-7	1,4-Dichlorobenzene		10.88 ug/L	54.38
100-51-6	Benzyl alcohol		11.69 ug/L	58.43
95-50-1	1,2-Dichlorobenzene		11.49 ug/L	57.43
39638-32-9	bis(2-chloroisopropyl)ether		14.84 ug/L	74.22
621-64-7	n-Nitroso-di-n-propylamine		11.56 ug/L	57.82
67-72-1	Hexachloroethane		11.06 ug/L	55.31
98-95-3	Nitrobenzene		14.61 ug/L	73.06
78-59-1	Isophorone		15.59 ug/L	77.93
111-91-1	bis(2-Chloroethoxy)methane		12.27 ug/L	61.36
120-82-1	1,2,4-Trichlorobenzene		13.15 ug/L	65.75
91-20-3	Naphthalene		14.36 ug/L	71.79
106-47-8	4-Chloroaniline		7.70 ug/L	38.51
87-68-3	Hexachlorobutadiene		13.27 ug/L	66.33
91-57-6	2-Methylnaphthalene		15.11 ug/L	75.54
77-47-4	Hexachlorocyclopentadiene		7.18 ug/L	35.88
91-58-7	2-Chloronaphthalene		15.46 ug/L	77.28
88-74-4	2-Nitroaniline		13.79 ug/L	68.97
131-11-3	Dimethylphthalate		14.22 ug/L	71.12
208-96-8	Acenaphthylene		13.99 ug/L	69.96
606-20-2	2,6-Dinitrotoluene		17.95 ug/L	89.76
99-09-2	3-Nitroaniline		11.14 ug/L	55.70
83-32-9	Acenaphthene		16.06 ug/L	80.30
132-64-9	Dibenzofuran		15.83 ug/L	79.16
121-14-2	2,4-Dinitrotoluene		15.92 ug/L	79.60
84-66-2	Diethylphthalate		14.55 ug/L	72.77
86-73-7	Fluorene		16.37 ug/L	81.84
7005-72-3	4-Chlorophenyl-phenylether		13.68 ug/L	68.38
100-01-6	4-Nitroaniline		12.36 ug/L	61.81
86-30-6	n-Nitrosodiphenylamine		13.89 ug/L	69.43
103-33-3	Azobenzene		16.70 ug/L	83.51
101-55-3	4-Bromophenyl-phenylether		13.45 ug/L	67.23
118-74-1	Hexachlorobenzene		15.71 ug/L	78.53
85-01-8	Phenanthrene		16.93 ug/L	84.66
120-12-7	Anthracene		16.14 ug/L	80.72
84-74-2	Di-n-butylphthalate		15.08 ug/L	75.40
206-44-0	Fluoranthene		16.80 ug/L	84.00
129-00-0	Pyrene		16.76 ug/L	83.81
85-68-7	Butylbenzylphthalate		14.00 ug/L	70.01
56-55-3	Benzo[a]anthracene		16.35 ug/L	81.73
218-01-9	Chrysene		13.90 ug/L	69.50
117-81-7	bis(2-Ethylhexyl)phthalate		13.72 ug/L	68.60
117-84-0	Di-n-octylphthalate		13.81 ug/L	69.05
205-99-2	Benzo[b]fluoranthene		16.08 ug/L	80.38
207-08-9	Benzo[k]fluoranthene		16.05 ug/L	80.24
50-32-8	Benzo[a]pyrene		15.37 ug/L	76.83
193-39-5	Indeno[1,2,3-cd]pyrene		15.31 ug/L	76.54
53-70-3	Dibenz[a,h]anthracene		18.31 ug/L	91.53
191-24-2	Benzo[g,h,i]perylene		15.18 ug/L	75.88

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BNA06415.D** Sample Name **1662407MSD**

Date Acquired **8-Dec-01**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		5.24 ug/L	26.20
62-75-9	N-nitroso-dimethylamine		6.64 ug/L	33.20
62-53-3	Aniline		8.95 ug/L	44.77
111-44-4	bis(2-Chloroethyl)ether		11.42 ug/L	57.12
541-73-1	1,3-Dichlorobenzene		13.40 ug/L	66.99
106-46-7	1,4-Dichlorobenzene		13.45 ug/L	67.24
100-51-6	Benzyl alcohol		10.93 ug/L	54.65
95-50-1	1,2-Dichlorobenzene		13.88 ug/L	69.42
39638-32-9	bis(2-chloroisopropyl)ether		15.67 ug/L	78.35
621-64-7	n-Nitroso-di-n-propylamine		12.36 ug/L	61.81
67-72-1	Hexachloroethane		13.88 ug/L	69.39
98-95-3	Nitrobenzene		15.31 ug/L	76.56
78-59-1	Isophorone		16.34 ug/L	81.68
111-91-1	bis(2-Chloroethoxy)methane		12.57 ug/L	62.85
120-82-1	1,2,4-Trichlorobenzene		14.61 ug/L	73.04
91-20-3	Naphthalene		15.37 ug/L	76.83
106-47-8	4-Chloroaniline		9.13 ug/L	45.65
87-68-3	Hexachlorobutadiene		15.14 ug/L	75.70
91-57-6	2-Methylnaphthalene		16.12 ug/L	80.59
77-47-4	Hexachlorocyclopentadiene		7.19 ug/L	35.96
91-58-7	2-Chloronaphthalene		16.06 ug/L	80.30
88-74-4	2-Nitroaniline		13.96 ug/L	69.81
131-11-3	Dimethylphthalate		14.50 ug/L	72.48
208-96-8	Acenaphthylene		14.45 ug/L	72.25
606-20-2	2,6-Dinitrotoluene		18.25 ug/L	91.27
99-09-2	3-Nitroaniline		12.36 ug/L	61.80
83-32-9	Acenaphthene		16.65 ug/L	83.27
132-64-9	Dibenzofuran		16.38 ug/L	81.90
121-14-2	2,4-Dinitrotoluene		16.42 ug/L	82.09
84-66-2	Diethylphthalate		15.06 ug/L	75.29
86-73-7	Fluorene		17.02 ug/L	85.11
7005-72-3	4-Chlorophenyl-phenylether		14.14 ug/L	70.68
100-01-6	4-Nitroaniline		12.39 ug/L	61.97
86-30-6	n-Nitrosodiphenylamine		14.35 ug/L	71.77
103-33-3	Azobenzene		17.11 ug/L	85.56
101-55-3	4-Bromophenyl-phenylether		13.88 ug/L	69.42
118-74-1	Hexachlorobenzene		16.17 ug/L	80.87
85-01-8	Phenanthrene		17.43 ug/L	87.15
120-12-7	Anthracene		16.71 ug/L	83.55
84-74-2	Di-n-butylphthalate		16.01 ug/L	80.04
206-44-0	Fluoranthene		17.49 ug/L	87.47
129-00-0	Pyrene		17.32 ug/L	86.58
85-68-7	Butylbenzylphthalate		14.49 ug/L	72.47
56-55-3	Benzo[a]anthracene		16.79 ug/L	83.93
218-01-9	Chrysene		14.59 ug/L	72.97
117-81-7	bis(2-Ethylhexyl)phthalate		14.12 ug/L	70.62
117-84-0	Di-n-octylphthalate		14.27 ug/L	71.35
205-99-2	Benzo[b]fluoranthene		16.43 ug/L	82.15
207-08-9	Benzo[k]fluoranthene		16.77 ug/L	83.84
50-32-8	Benzo[a]pyrene		15.78 ug/L	78.91
193-39-5	Indeno[1,2,3-cd]pyrene		15.49 ug/L	77.45
53-70-3	Dibenz[a,h]anthracene		18.91 ug/L	94.54
191-24-2	Benzo[g,h,i]perylene		15.67 ug/L	78.37

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06424.D Date Analyzed: 12/10/01

Instrument ID: GC_BNA_2 Time Analyzed: 13:48

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	949426	9.53	3575767	12.46	1915336	16.66
	UPPER LIMIT	1898852	10.03	7151534	12.96	3830672	17.16
	LOWER LIMIT	474713	9.03	1787884	11.96	957668	16.16
	EPA SAMPLE NO.						
01	MB-2719	773179	9.53	2913361	12.45	1612652	16.65
02	2534	828850	9.53	3191142	12.45	1754294	16.65
03	FIELD DUP.	702530	9.54	2661210	12.45	1460253	16.65

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06424.D Date Analyzed: 12/10/01

Instrument ID: GC_BNA_2 Time Analyzed: 13:48

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	3205373	20.23	3143952	26.65	2341688	29.85
	UPPER LIMIT	6410746	19.73	6287904	26.15	4683376	29.35
	LOWER LIMIT	1602687	20.73	1571976	27.15	1170844	30.35
	EPA SAMPLE NO.						
01	MB-2719	2658592	20.22	2540776	26.63	1957986	29.84
02	2534	2898114	20.22	2758280	26.63	2133904	29.84
03	FIELD DUP.	2439486	20.22	2347529	26.63	1800659	29.84

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06397.D Date Analyzed: 12/7/01

Instrument ID: GC_BNA_2 Time Analyzed: 12:24

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	973631	9.54	3662404	12.46	1995670	16.67
	UPPER LIMIT	1947262	10.04	7324808	12.96	3991340	17.17
	LOWER LIMIT	486816	9.04	1831202	11.96	997835	16.17
	EPA SAMPLE NO.						
01	1662407MS	889802	9.53	3335421	12.45	1798010	16.66
02	1662407MSD	907183	9.53	3372908	12.46	1821561	16.66

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: UST Case No.: 16626 Location: Bl.2534 SDG No.:

Lab File ID (Standard): BNA06397.D Date Analyzed: 12/07/01

Instrument ID: GC_BNA_2 Time Analyzed: 12:24

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	3330380	20.24	3304859	26.66	2497964	29.86
	UPPER LIMIT	6660760	19.74	6609718	26.16	4995928	29.36
	LOWER LIMIT	1665190	20.74	1652430	27.16	1248982	30.36
	EPA SAMPLE NO.						
01	1662407MS	2973176	20.23	2840903	26.64	2195438	29.85
02	1662407MSD	3000436	20.23	2889919	26.65	2236611	29.85

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = 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 to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\DATA\011210\BNA06425.D Vial: 1
Acq On : 10 Dec 2001 2:31 pm Operator: BPatel
Sample : MB-2719 Inst : GC/MS Ins
Misc : MB-011210 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Dec 10 15:05 2001 Quant Results File: M262550.RES

Quant Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration
DataAcq Meth : M262550

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.53	152	773179	40.00	ug/L	-0.04
19) Naphthalene-d8	12.45	136	2913361	40.00	ug/L	-0.05
34) Acenaphthene-d10	16.65	164	1612652	40.00	ug/L	-0.05
54) Phenanthrene-d10	20.22	188	2658592	40.00	ug/L	-0.05
66) Chrysene-d12	26.63	240	2540776	40.00	ug/L	-0.06
75) Perylene-d12	29.84	264	1957986	40.00	ug/L	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	10.85	82	1155197	32.16	ug/L	-0.05
Spiked Amount 50.000	Range 35 - 114		Recovery =	64.32%		
38) 2-Fluorobiphenyl	15.08	172	1626625	30.38	ug/L	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	60.76%		
58) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
69) p-Terphenyl-d14	24.16	244	1253086	20.57	ug/L	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	41.14%		

Target Compounds Qvalue

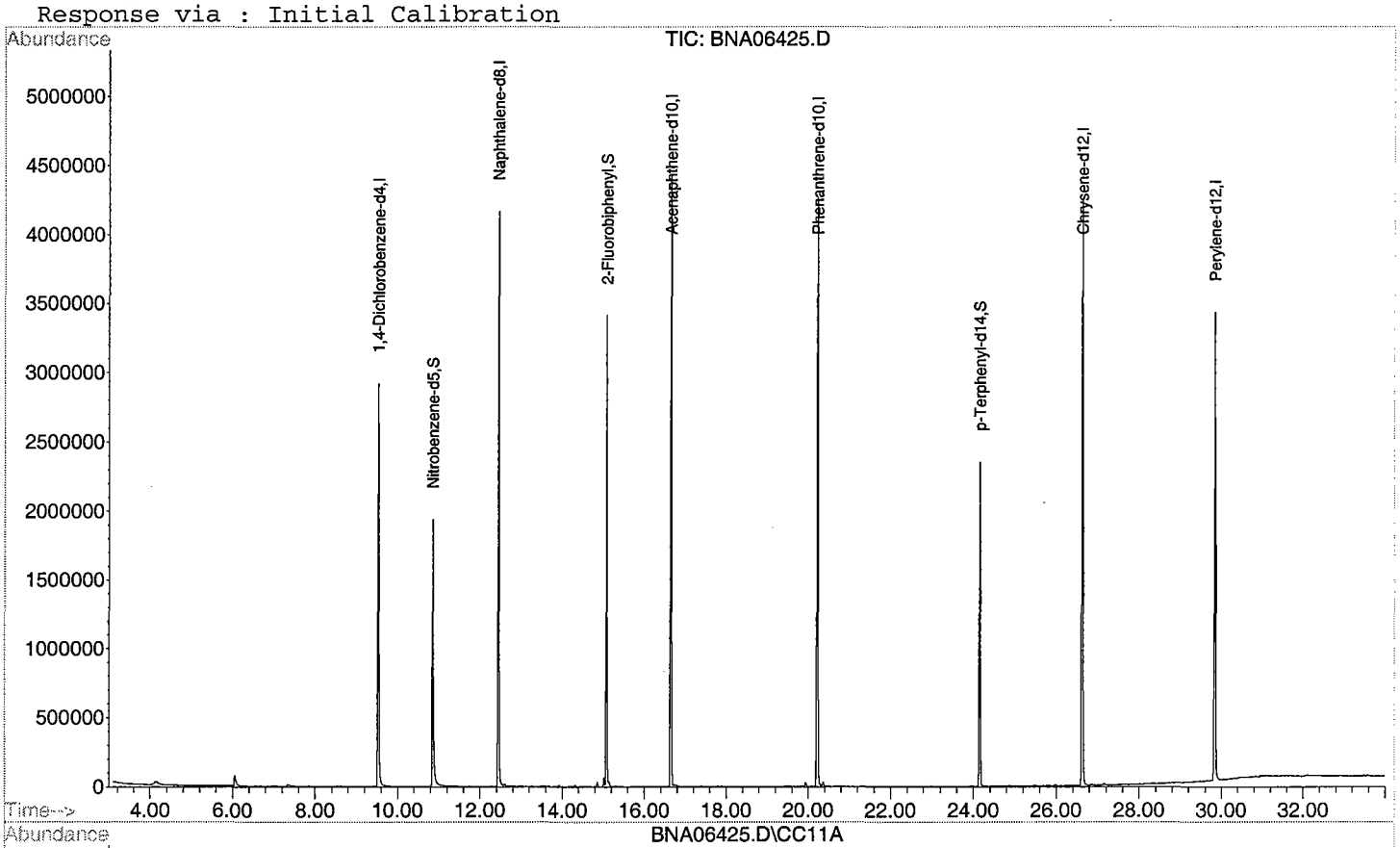
(#) = qualifier out of range (m) = manual integration

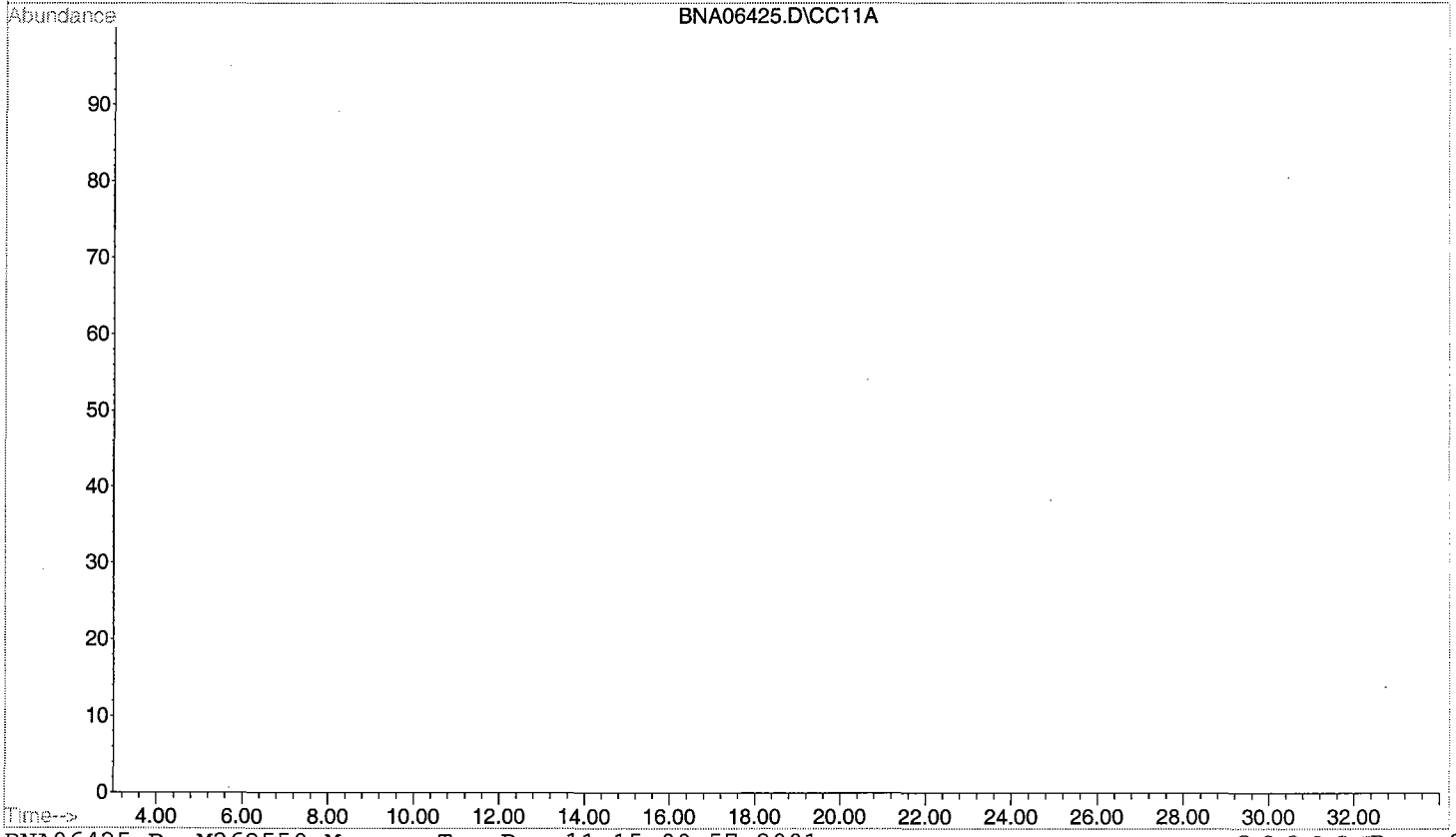
Quantitation Report

Data File : D:\DATA\011210\BNA06425.D
Acq On : 10 Dec 2001 2:31 pm
Sample : MB-2719
Misc : MB-011210
MS Integration Params: RTEINT.P
Quant Time: Dec 10 15:05 2001

Vial: 1
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262550.RES

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\DATA\011210\BNA06453.D Vial: 29
Acq On : 11 Dec 2001 10:34 am Operator: BPatel
Sample : 1662601 Inst : GC/MS Ins
Misc : 2534 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Dec 11 11:09 2001 Quant Results File: M262550.RES

Quant Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration
DataAcq Meth : M262550

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.53	152	828850	40.00	ug/L	-0.04
19) Naphthalene-d8	12.45	136	3191142	40.00	ug/L	-0.05
34) Acenaphthene-d10	16.65	164	1754294	40.00	ug/L	-0.05
54) Phenanthrene-d10	20.22	188	2898114	40.00	ug/L	-0.05
66) Chrysene-d12	26.63	240	2758280	40.00	ug/L	-0.06
75) Perylene-d12	29.84	264	2133904	40.00	ug/L	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	10.86	82	1160230	29.49	ug/L	-0.05
Spiked Amount 50.000	Range 35 - 114		Recovery =	58.98%		
38) 2-Fluorobiphenyl	15.08	172	1583712	27.19	ug/L	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	54.38%		
58) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
69) p-Terphenyl-d14	24.16	244	980012	14.82	ug/L	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	29.64%#		

Target Compounds Qvalue

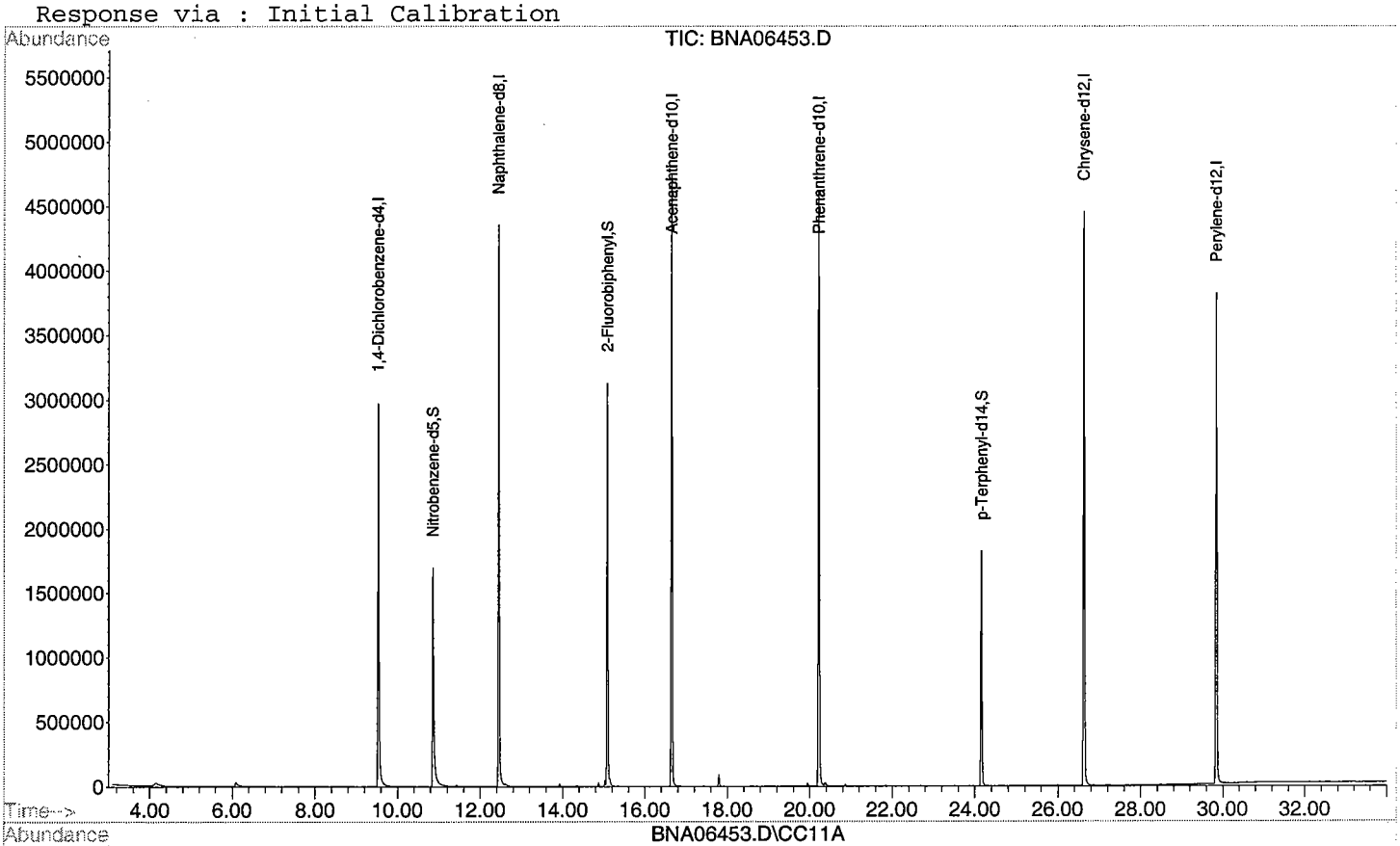
(#) = qualifier out of range (m) = manual integration

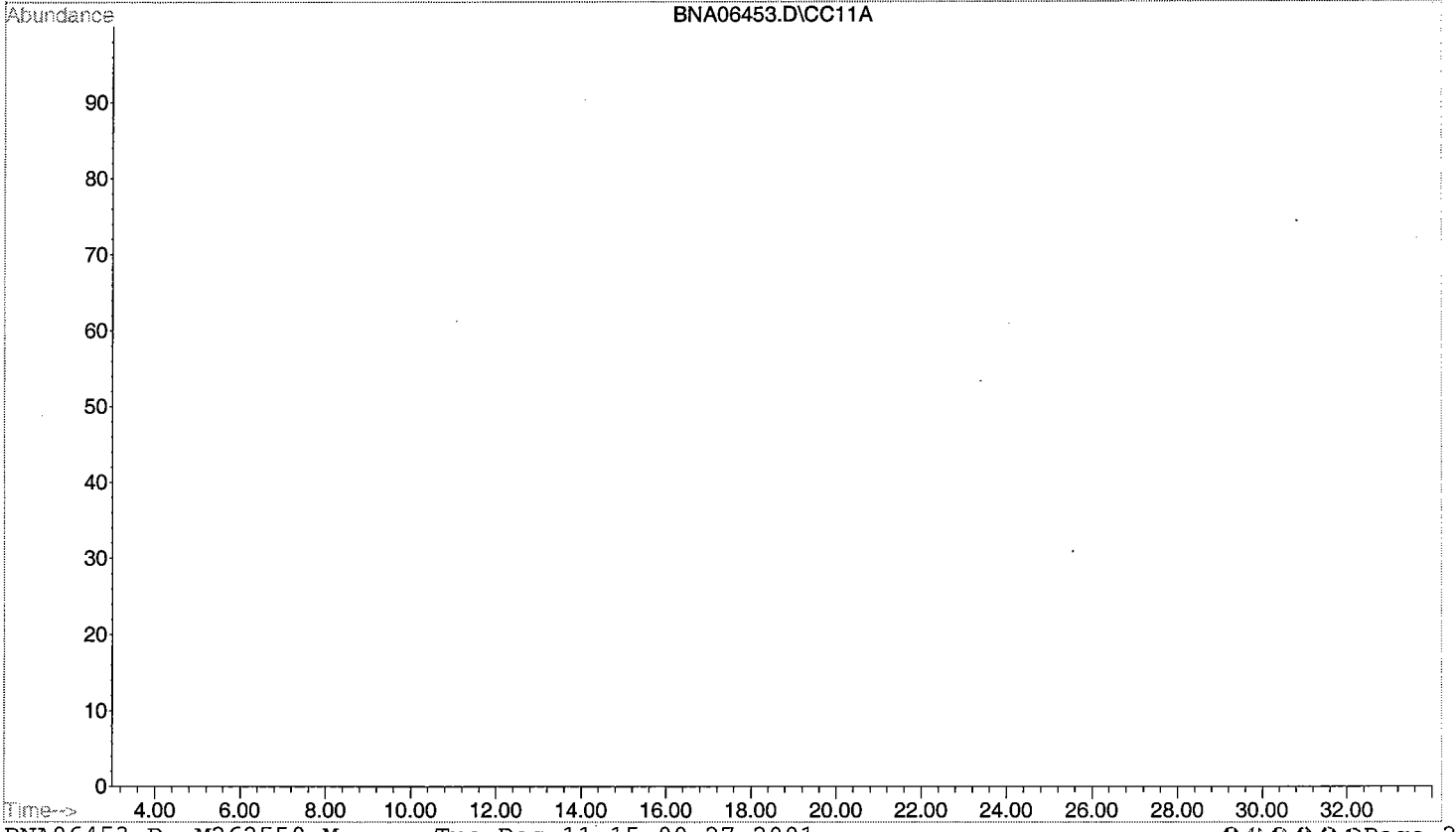
Quantitation Report

Data File : D:\DATA\011210\BNA06453.D
Acq On : 11 Dec 2001 10:34 am
Sample : 1662601
Misc : 2534
MS Integration Params: RTEINT.P
Quant Time: Dec 11 11:09 2001

Vial: 29
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262550.RES

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\DATA\011210\BNA06454.D Vial: 30
Acq On : 11 Dec 2001 11:21 am Operator: BPatel
Sample : 1662602 Inst : GC/MS Ins
Misc : Field Dup. Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Dec 11 11:55 2001 Quant Results File: M262550.RES

Quant Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration
DataAcq Meth : M262550

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.54	152	702530	40.00	ug/L	-0.03
19) Naphthalene-d8	12.45	136	2661210	40.00	ug/L	-0.05
34) Acenaphthene-d10	16.65	164	1460253	40.00	ug/L	-0.05
54) Phenanthrene-d10	20.22	188	2439486	40.00	ug/L	-0.05
66) Chrysene-d12	26.63	240	2347529	40.00	ug/L	-0.05
75) Perylene-d12	29.84	264	1800659	40.00	ug/L	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	10.86	82	956770	29.16	ug/L	-0.04
Spiked Amount 50.000	Range 35 - 114		Recovery =	58.32%		
38) 2-Fluorobiphenyl	15.09	172	1309200	27.00	ug/L	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	54.00%		
58) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
69) p-Terphenyl-d14	24.16	244	711459	12.64	ug/L	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	25.28%#		

Target Compounds Qvalue

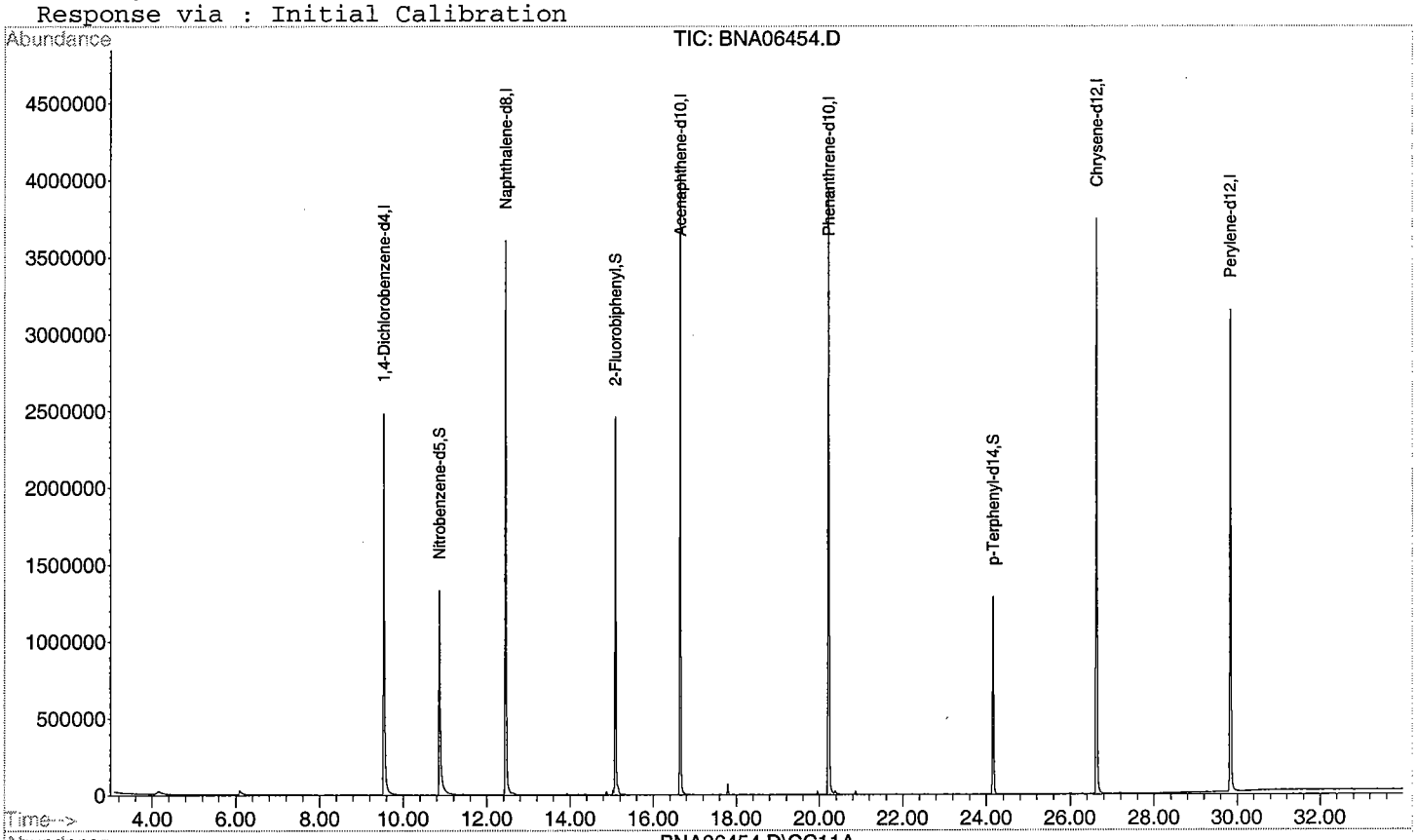
(#) = qualifier out of range (m) = manual integration

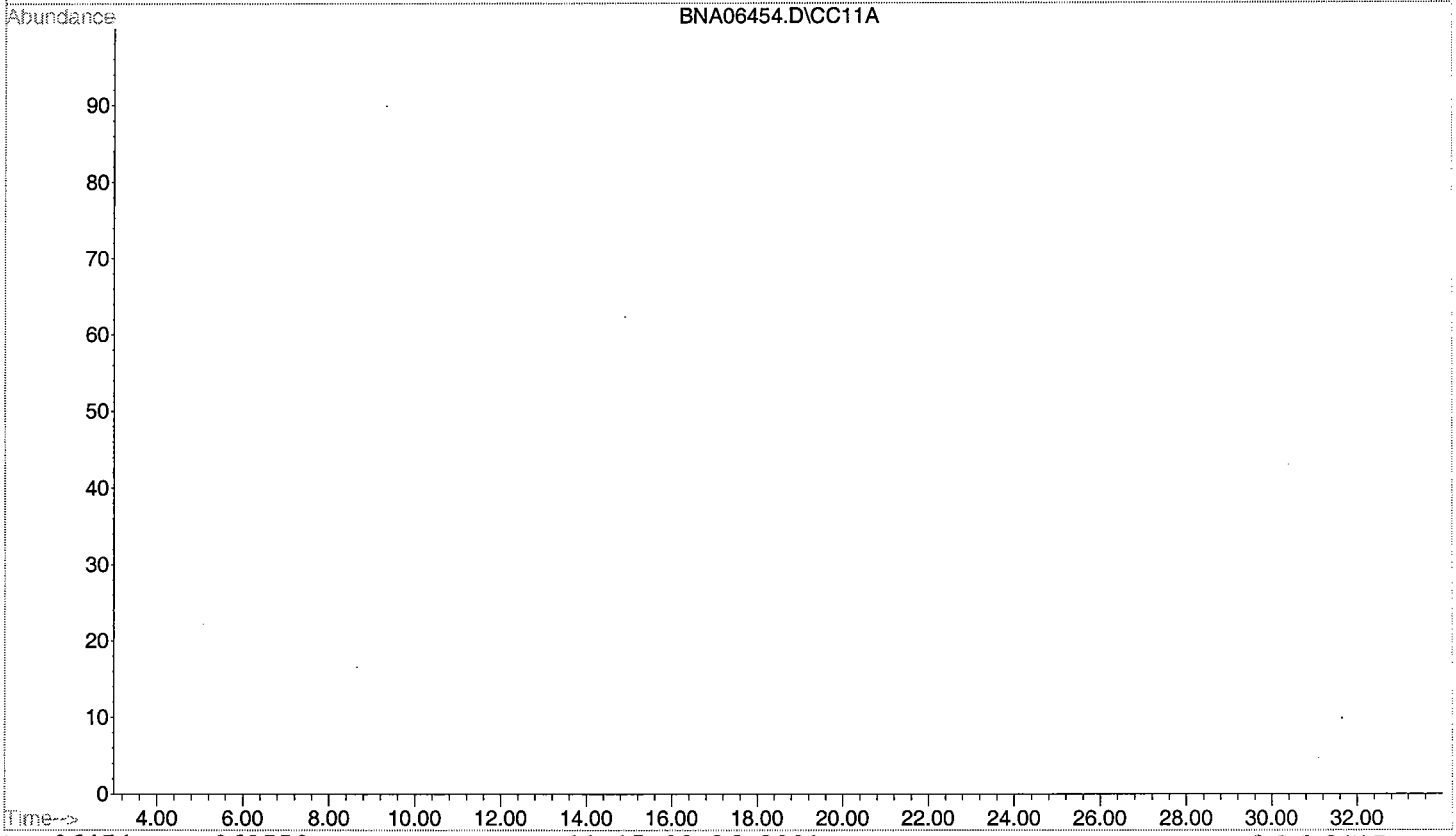
Quantitation Report

Data File : D:\DATA\011210\BNA06454.D
Acq On : 11 Dec 2001 11:21 am
Sample : 1662602
Misc : Field Dup.
MS Integration Params: RTEINT.P
Quant Time: Dec 11 11:55 2001

Vial: 30
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262550.RES

Method : C:\HPCHEM\1\METHODS\M262550.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Oct 11 15:27:53 2001
Response via : Initial Calibration





LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, 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, practical quantitation limits, and the laboratory and/or sample numbers be included in one section of the data package and in the main body of the report.

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis DA ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 1/8/02

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager