United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 482
Main Post-East Area

NJDEP UST Registration No. 90010-54
DICAR No. 94-8-11-1345-43

March 2002

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 482

MAIN POST-EAST AREA
NJDEP UST REGISTRATION NO. 90010-55

MARCH 2002

PREPARED FOR:

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

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UST Closure

On August 11, 1994, a steel underground storage tank (UST) was closed by removal in accordance with New Jersey Department of Environmental Protection (NJDEP) closure procedures at the Main Post-East area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 0090010-55 (Fort Monmouth ID No. 482), was located east of Building 482. UST No. 0090010-55 was a 1,000 gallon #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. No holes or punctures were noted in the UST, although stained soil was observed. The NJDEP hotline was notified and the case was assigned DICAR No. 94-8-11-1345-43. Approximately 80 cubic yards of potentially contaminated soil were removed from the excavated area and stored at the Fort Monmouth petroleum contaminated soil staging area.

On August 12, 1994, nine post-excavation soil samples, A through I, were collected from the UST and piping excavations. On August 26, 1994, additional soil removal was conducted at three soil sample locations, C, H, and I, which exhibited elevated levels of TPH. Post-excavation samples were then collected from the new extent of the excavations at the three locations.

On September 6, 1994, additional soil was removed from the vicinity of sample location C due to the elevated concentration of TPH in the August 26 sample. Yet another post-excavation sample was collected from the new extent of the excavation.

All of the samples collected on August 12, 1994 contained TPH concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg. However, subsequent samples collected at location C on August 26 and September 6, 1994 contained 29,400 mg/kg and 14,100 mg/kg, respectively. In order to address these results and determine current soil conditions, soil samples were collected at seven new locations on February 20, 2002. The soil samples were analyzed for TPH and VOCs. None of the results exceeded the NJDEP soil cleanup criteria for TPH. There were no VOCs detected in any of the seven samples.

Groundwater was encountered at 4.0 feet below ground surface and a sheen was observed on groundwater. In response to the observation of sheen on groundwater, two (2) monitoring wells, MW-1 and MW-2, were installed downgradient from the UST. Groundwater samples were collected from each of the wells on November 27 and

December 18, 1995. The samples were analyzed for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

No further action is proposed in regard to the closure and site assessment of UST No. 90010-55 at Building 482.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 90010-55, was closed at Building 482 at the Main Post-East area of U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on August 11, 1994. Refer to the 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. 90010-55 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. 90010-55 proceeded under the approval of the NJDEP Bureau of Federal Case Management (NJDEP-BFCM).

Based on field screening of subsurface soils and a sheen on the groundwater within the UST excavation, the DPW concluded that an historical discharge had occurred. On August 11, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 0090010-54 and was assigned Spill Case No. 94-8-11-1345-43.

This UST Closure and Site Investigation Report has been prepared by Versar, to assist the U.S. Army DPW in complying with the NJDEP regulations. The applicable NJDEP 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).

This report was prepared using information collected at the time of closure. Section 1 of this UST Closure and Site Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling and groundwater investigation, are presented in the final section of this report.

1.2 SITE DESCRIPTION

Building 482 is located in the Main Post-East area of the Fort Monmouth Army Base. UST No. 0090010-55 was located east of Building 482 and appurtenant copper piping ran approximately 6 feet northeast, 44 feet northwest, and 2 feet southwest from the UST excavation to Building 482. 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 482. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. More than 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 Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

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

Hydrogeology

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

Based on records of wells drilled in the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (bgs). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

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

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

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

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. This is consistent with lithologies observed in borings installed within the Main Post area, which primarily consisted of fine-to-medium grained sands, with occasional lenses or laminations of gravel silt and/or clay.

Building 482 is located approximately 800 feet southwest of Parkers Creek, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 482 is anticipated to be to the northeast.

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

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 122 gallons of liquid from the UST and its associated piping were transported by Lionetti Oil Recovery Co. Inc to the Lionetti Oil Recovery Co. Inc. facility, a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey.

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No holes or punctures were noted in the UST during the inspection by the Sub-Surface Evaluator.

Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. Soils were stained. Approximately 80 cubic yards of potentially contaminated soil were removed from the excavated area and transported to the Main Post

petroleum contaminated soil holding area. Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported in compliance with all applicable regulations and laws to Mazza and Sons, Inc.

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPH analysis results from the post-excavation soil samples, approximately 80 cubic yards of potentially contaminated soil were removed from the UST excavation. All potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to the soil staging area. Soils that did not exhibit signs of contamination were used as backfill following the removal of the UST. Groundwater was encountered at 4 feet below ground surface and sheen was observed on groundwater.

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 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. The Fort Monmouth DPW Environmental Office maintains all records of the Site Investigation activities.

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. Approximately 80 cubic yards of potentially petroleum contaminated soil were removed from the excavated area and transported to the Fort Monmouth petroleum contaminated soil holding area. Soils were removed from the excavation until no evidence of contamination remained. Groundwater was encountered at 4 feet below ground surface and sheen was observed on groundwater.

2.3 SOIL SAMPLING

On August 11, 1994, following removal of the UST, approximately 20 cubic yards of soil were removed from the base and sidewalls of the excavation. The soil was removed due to high FID readings and a sheen observed on the groundwater.

On August 12, 1994, approximately 30 cubic yards of soil were removed from the excavation and from the piping trench due to visible contamination. Post-excavation soil samples A, B, C, D, E, F, and a duplicate of F were collected from the UST excavation. Samples H, I, and J were collected from the piping excavation. All samples were analyzed for total petroleum hydrocarbons (TPH) and total solids.

On August 26, 1994, due to high levels of TPH, approximately 10 cubic yards of soil were removed from the UST excavation in the vicinity of sample C, and samples H and I. Post-excavation samples were then collected from the expanded portions of the excavation at locations C, H, and I. Samples were analyzed for TPH.

On September 6, 1994, approximately 20 cubic yards of potientially contaminated soil were removed from the excavation in the vicinity of sample C due to elevated TPH levels detected in the August 26 sample. A post-excavation sample was then collected from the new extent of the excavation at sample location C. The sample was analyzed for TPH.

In response to recommendations made in the May 2000, Smith Technology Corporation Underground Storage Tank Closure and Site Investigation Report for Building 482, additional soil samples were collected at the site on February 20, 2002. Soil samples, 1 through 7, were collected along the downgradient perimeter of the former excavation and analyzed for TPH and VOCs.

DPW personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the site assessment. A summary of 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

In response to the observation of potentially contaminated soil near the shallow water table, two shallow monitoring wells (MW-1 and MW-2) were installed at the Building 482 area on August 11, 1995. Monitoring well MW-1 was installed 25 feet east of the UST excavation and MW-2 was installed 17 feet east of the UST excavation. Both wells were assumed to be downgradient of the excavation. The wells were screened from 2 to 12 feet BGS. The wells were constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual.*

On November 27,1995, and December 18, 1995, groundwater was collected from each well and analyzed for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation.* Refer to Appendix F for the field sampling documentation.

Based on evidence of the former presence of a septic tank in the vicinity of the former No. 2 fuel oil UST, one Geoprobe groundwater sample was collected at the site and analyzed for VOC, SVOC, and total and fecal coliform on February 20, 2002. The monitoring wells were not sampled on that day because they were apparently destroyed during the construction of a new garage at Building 482.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 482, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
A	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
B	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
C	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
D	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
E	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
F	8/12/94	8/16/94	Soil	Post-excavation	TPH	OQA-QAM-025
G-DUP	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
H	8/12/94	8/16/94	Soil	Post-excavation	TPH	OQA-QAM-025
I	8/12/94	8/16/94	Soil	Post-Excavation	TPH	OQA-QAM-025
J	8/12/94	8/16/94	Soil	Post-excavation	TPH	OQA-QAM-025
C	8/26/94	8/31/94	Soil	Post-excavation	TPH	OQA-QAM-025
H	8/26/94	8/31/94	Soil	Post-excavation	TPH	OQA-QAM-025
I	8/26/94	8/31/94	Soil	Post-excavation	TPH	OQA-QAM-025

Note:
* TPH Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 482, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
C	9/6/94	9/8/94	Soil	Post-Excavation	TPH	OQA-QAM-025
1	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
2	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
3	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
4	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
5	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
6	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
7	2/20/02	2/20/02	Soil	Post-Excavation	TPH, VOC	OQA-QAM-025
MW-1	11/27/95	11/27/95	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
MW-2	11/27/95	11/27/95	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
MW-1	12/18/95	12/18/95	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
MW-2	12/18/95	12/18/95	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
482 GW	2/20/02	2/20/02	Aqueous	Groundwater	VOCs, SVOCs, fecal coliform	PPNDP

Note:
* TPH Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 482, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
A/4'	1609.1	8/12/94	8/16/94	Total Solid	--	--	87	--	--
				TPH	6.6	yes	240	10,000	No
B/4'	1609.2	8/12/94	8/16/94	Total Solid	--	--	87	--	--
				TPH	6.6	Yes	145	10,000	No
C/4.5'	1609.3	8/12/94	8/16/94	Total Solid	--	--	89	--	--
				TPH	6.6	Yes	1160	10,000	No
D/4'	1609.4	8/12/94	8/16/94	Total Solid	--	--	90	--	--
				TPH	6.6	yes	222	10,000	No
E/4'	1609.5	8/12/94	8/16/94	Total Solid	--	--	84	--	--
				TPH	6.6	yes	205	10,000	No
F/4'	1609.6	8/12/94	8/16/94	Total Solid	--	--	85	--	--
				TPH	6.6	yes	235	10,000	No
G-DUP/4'	1609.7	8/12/94	8/16/94	Total Solid	--	--	87	--	--
				TPH	6.6	yes	134	10,000	No
H/1.5'	1609.8	8/12/94	8/16/94	Total Solid	--	--	79	--	--
				TPH	46	yes	1300	10,000	No
I/1.5'	1609.9	8/12/94	8/16/94	Total Solid	--	--	80	--	--
				TPH	6.6	yes	1910	10,000	No
J/1.5'	1609.10	8/12/94	8/16/94	Total Solid	--	--	93	--	--
				TPH	195	yes	41.2	10,000	No
C/4.5'	1625.1	8/26/94	8/31/94	Total Solid	--	--	75	--	--
				TPH	158	yes	29,400	10,000	Yes

Note:

* Total Solid results are expressed as a percentage.

** NJDEP Residential Direct Contact soil cleanup criteria for total organics

ND Not detected above stated method detection limit

TPH Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 482, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
H/2'	1625.2	8/26/94	8/31/94	Total Solid	--	--	86	--	--
				TPH	46	yes	2610	10,000	No
I/2'	1625.3	8/26/94	8/31/94	Total Solid	--	--	85	--	--
				TPH	6.6	Yes	710	10,000	No
C/4'	1632.1	9/6/94	9/8/94	Total Solid	--	--	85	--	--
				TPH	46	Yes	14,100	10,000	Yes
1 /4'	20106.01	2/20/02	2/20/02	Total Solid	--	--	83.36	--	--
				TPH	180	Yes	2689.02	10,000	Yes
2/4'	20106.02	2/20/02	2/20/02	Total Solid	--	--	81.48	--	--
				TPH	183	Yes	ND	10,000	Yes
3 /4'	20106.03	2/20/02	2/20/02	Total Solid	--	--	458.84	--	--
				TPH	177	Yes	14,100	10,000	Yes
4 /4'	20106.04	2/20/02	2/20/02	Total Solid	--	--	565.50	--	--
				TPH	179	Yes	14,100	10,000	Yes
5 /4'	20106.05	2/20/02	2/20/02	Total Solid	--	--	368.59	--	--
				TPH	181	Yes	14,100	10,000	Yes
6 /4'	20106.06	2/20/02	2/20/02	Total Solid	--	--	594.92	--	--
				TPH	190	Yes	14,100	10,000	Yes
7 /4'	20106.07	2/20/02	2/20/02	Total Solid	--	--	462.70	--	--
				TPH	185	Yes	14,100	10,000	Yes

Note:

* Total Solid results are expressed as a percentage.

** NJDEP Residential Direct Contact soil cleanup criteria for total organics

ND Not detected above stated method detection limit

TPH Total Petroleum Hydrocarbons

TABLE 3

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING NO. 4824
FORT MONMOUTH, NEW JERSEY

Groundwater Sample	Sample Date	tert-butylbenzene	sec-butylbenzene	Methylene Chloride	Total Coliform	Fecal Coliform
UNITS:		ug/L	ug/L	ug/L	ug/L	ug/L
NJDEP CRITERIA:		NLE	NLE	100	NLE	NLE
MW1	11/27/95	1.2	6.4	ND	NA	NA
MW2	11/27/95	1.2	5.2	ND	NA	NA
MW1	12/18/95	1.3	6.4	1.2	NA	NA
MW2	12/18/95	1.4	ND	0.7	NA	NA
482-GW	02/20/02	ND	ND	ND	ND	ND

Abbreviations:

NLE: No Limit Established.
NA: Not Analyzed.
ND: Not Detected.
ug/L: Micrograms per liter.

FIGURES

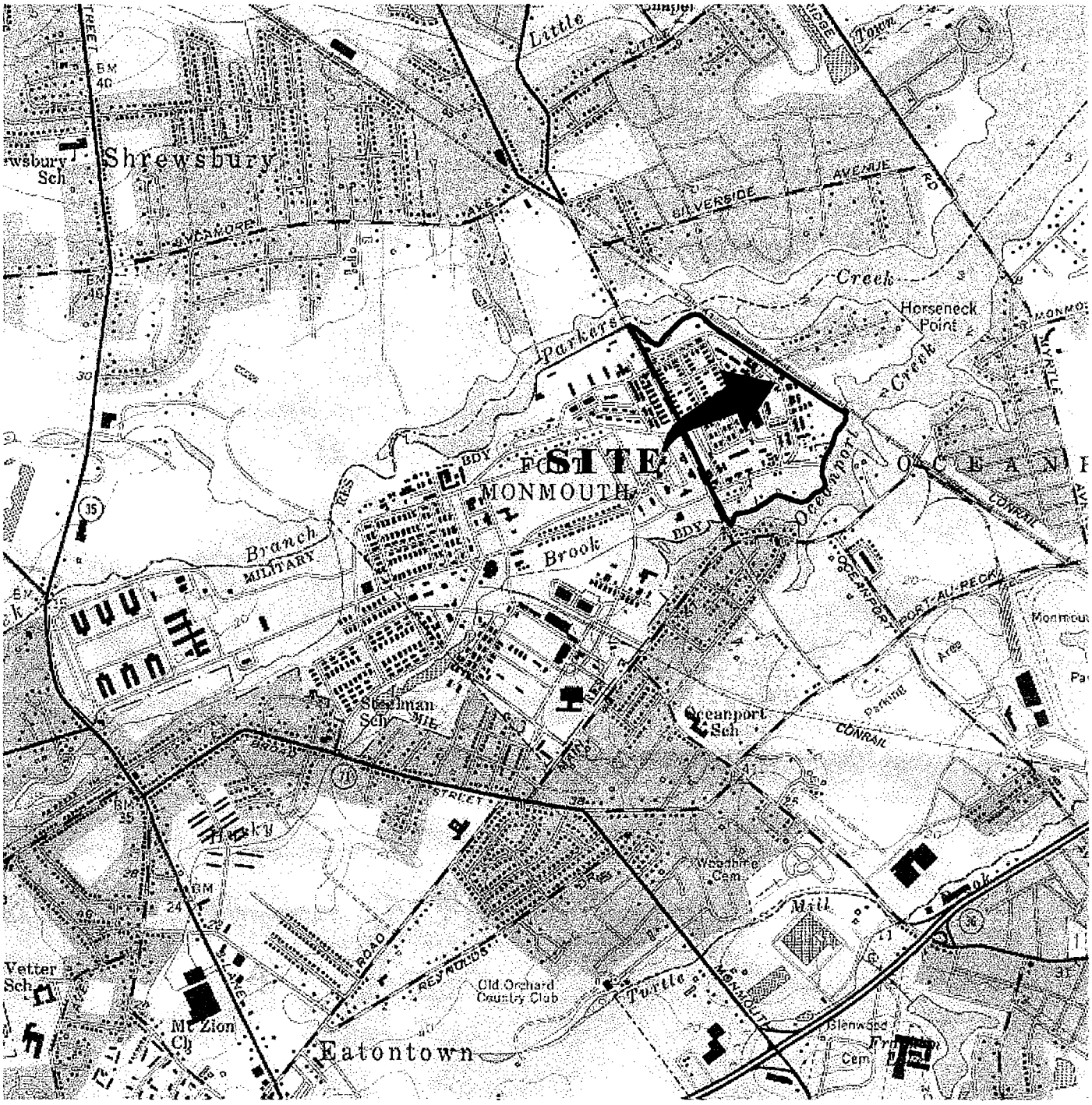


FIGURE 1

LOCATION MAP
Building 482
Main-Post East
Fort Monmouth Army Base
Monmouth County, NJ

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

Mapped, edited and published by the Geological Survey

Scale: 1" = 2000'

Date: March 2002

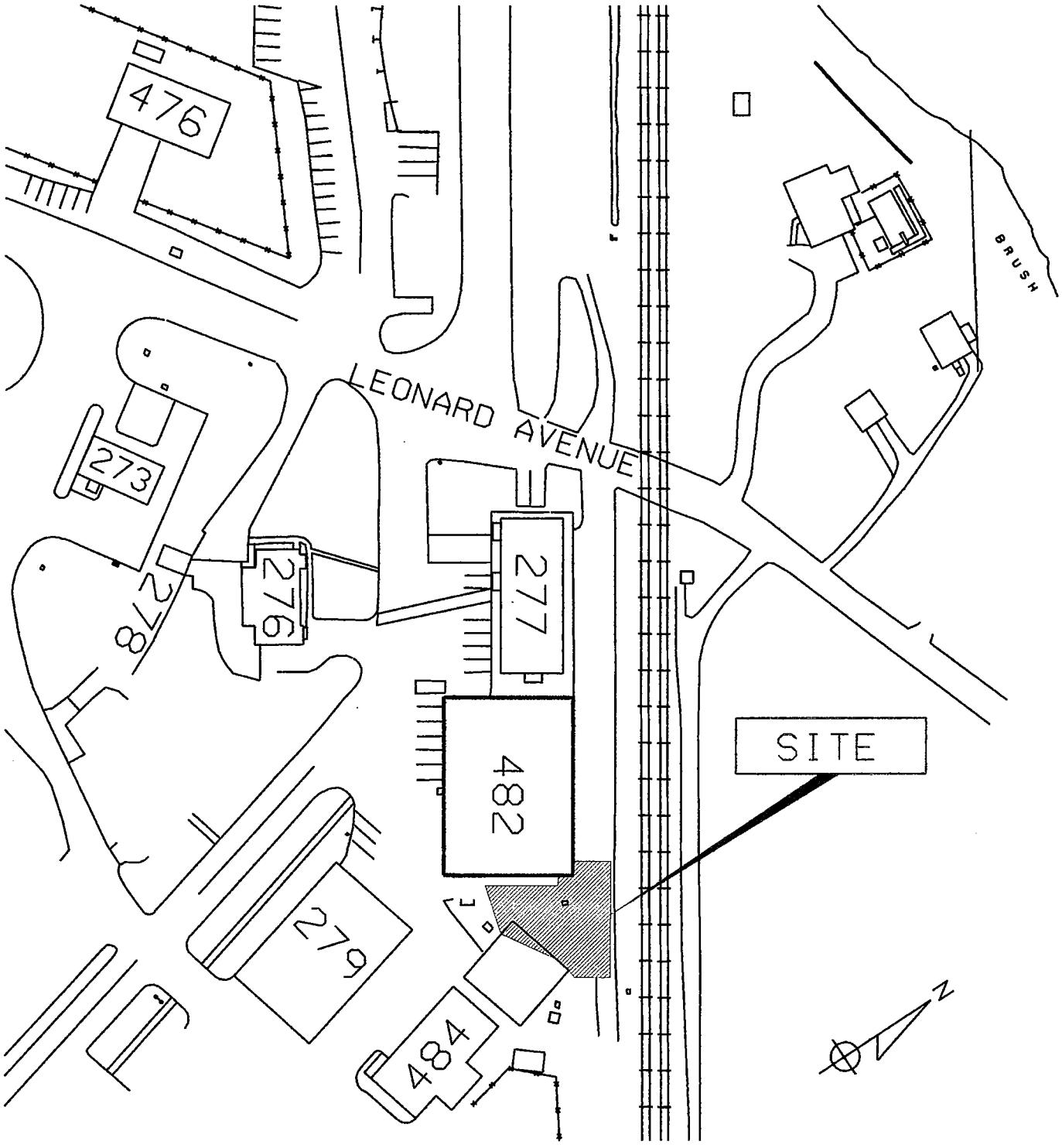
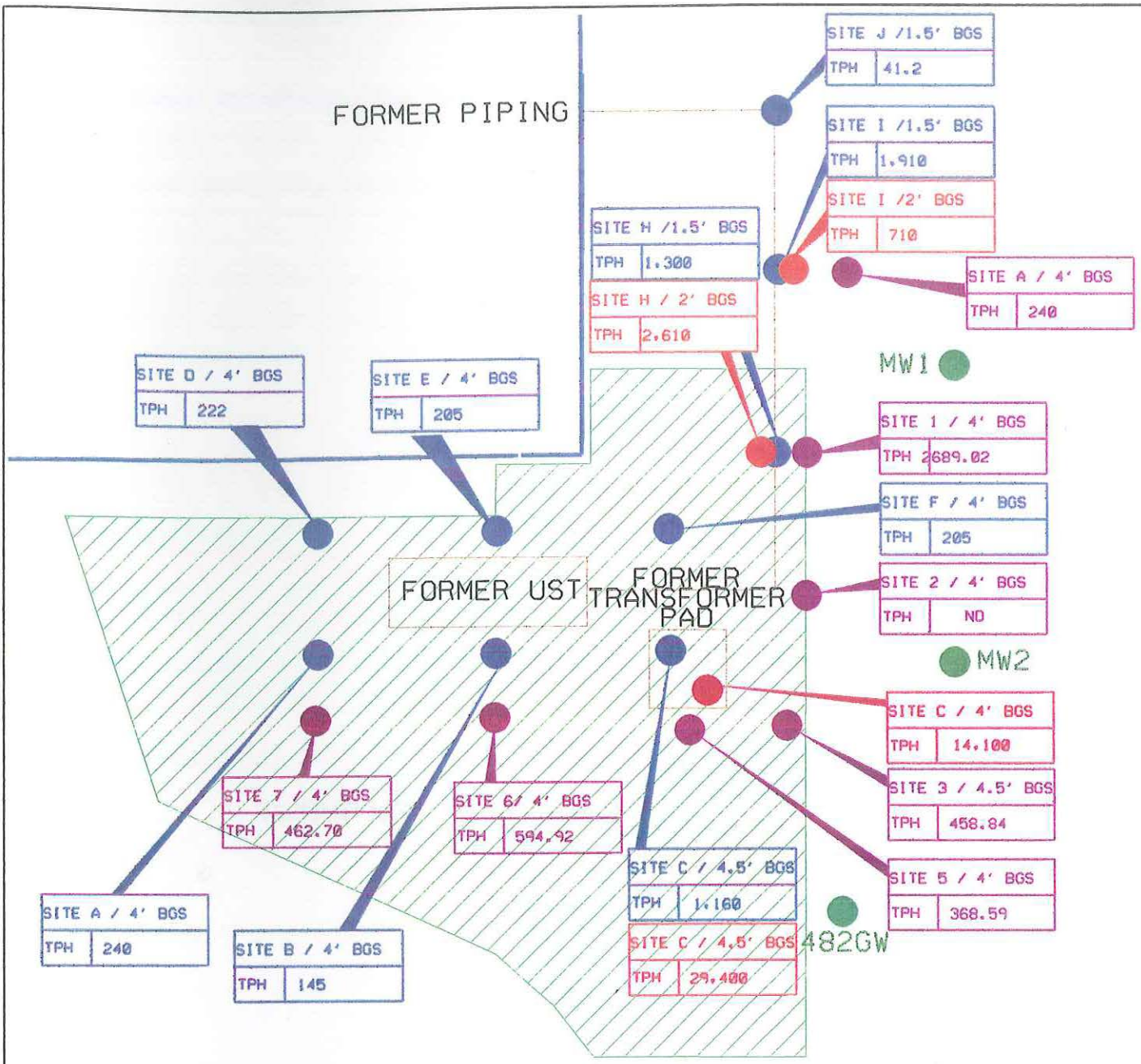


FIGURE 2
SITE MAP
BUILDING 482
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: AUGUST 1994



LEGEND

- SOIL SAMPLE LOCATION (AUG 12, 1994)
- SOIL SAMPLE LOCATION (AUG 26, 1994)
- SOIL SAMPLE LOCATION (SEP 6, 1994)
- SOIL SAMPLE LOCATION (FEB 20, 2002)
- MONITORING WELL LOCATION
- LIMIT OF EXCAVATION (JULY 7, 1994)

NOTES:

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

FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 482
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=10' | DATE: MARCH 2002

277 FIG4

APPENDIX A

NJDEP UST REPORT 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 : 0090010-54
- Incident Report Number : 94-8-11-1345-43
- 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: James Ott

Company Name: U.S. Army Fort Monmouth Date: 5/18/02

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. NJ3210020571 Manifest Document No. 10511810
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address: USArmy Communications Electronics Com, Main Post c/o James Shields Bldg 2504, Att: SELEM-DL-EMSMS Fort Monmouth NJ 07703
4. Generator's Phone (908) 532-6223
5. Transporter 1 Company Name: Freehold Cartage Inc. 6. US EPA ID Number: NJD054116161 4
7. Transporter 2 Company Name 8. US EPA ID Number
9. Designated Facility Name and Site Address: Lighthouse Recovery Co. INC. Runyon + Cheesequake R.D. Old Bridge, NJ 08857 10. US EPA ID Number: NJD084044064
A. State Manifest Document Number: NJA 1603180
B. State Generator's ID: MainPost
C. State Trans. ID: NJDEP2-2265
D. Transporter's Phone (908) 462-1001
E. State Trans. ID
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. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III	X	001	DT	00550	G	X171212
b. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III	X	001	DT	00550	G	X171212
c. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III	X	001	DT	00440	G	X171212
d. Petroleum oil, NOS class 3 (Petroleum oil) combustible liquid UN 1270 PG III	X	001	DT			

J. Additional Descriptions for Materials Listed Above
a. oil 60% water 40% LT
b. oil 60% water 40% LT
c. oil 60% water 40% LT
d.

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

15. Special Handling Instructions and Additional Information
Not EPA Regulated - NJ Hazardous
24 Hr Emerg ID 329-2861
DECal # 55404
a) NJDEPE009000-45
b) NJDEPE009000-54
c) NJDEPE009000-71

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Joseph M. Fallon — Signature: Joseph M. Fallon — Month Day Year: 07 13 94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: PAUL R. MEDEIROS — Signature — Month Day Year: 10 17 13 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

NJA 1603180

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.
1 — TSD MAIL TO - TSD'S STATE

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

FREEHOLD CARTAGE, INC.

P.O. BOX 5010
FREEHOLD, NJ 07728-5010
PHONE: (908) 462-1001
FAX: (908) 308 0924

175 BARTOW MUN. AIRPORT
BARTOW, FL 33830
PHONE: (813) 533-4599
FAX: (813) 533-1613

108 MONAHAN AVENUE
DUNMORE, PA 18512
PHONE: (717) 342-7232
FAX: (717) 342-7367

350 PIGEON POINT RD.
NEW CASTLE, DE 19720
PHONE: (302) 658-2005
FAX: (302) 658-6229

MANIFEST

FCI EPA ID NO.: NJD054126164

G 56095

GENERATOR NAME/ADDRESS	PHONE (AREA CODE)	GENERATOR EPA ID NO.
CUTE FORT MONMOUTH FORT MONMOUTH, N.J.	TRACTOR: 431 / TRAILER: NA	APPOINTMENT TIME: NA

FCI REP. LOADING (PRINT)	PROCEDURE	BOX SPOTTED	BOX REMOVED	TIME AT GENERATOR (MILITARY TIME ONLY)
ALFONSO TROCCHIO		*	*	12:10 ARRIVAL TIME / 14:10 DEPARTURE TIME

COMMENTS OR DELAYS AT GENERATOR: OW-1905 REC-12 15939-25123

EQUIPMENT USED: 1-VACUUM TRUCK

BROKER: CUTE

PO. NO#:

STATE MANIFEST NO.: NA

(X) HM		PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NO. CONT.	CONT. TYPE	WASTE NO.	PACKING GROUP	NA/UN NO.	FORM	NET QUANTITY	UNIT MEASURE
	1	WASTE GROUNDWATER	NA	NA	MA	NA	NA	NA	L	5000	G.
	2	From Bldg's 482	UST#	009	0010-54			~2000			
	3	Bldg 611	008533-B7					3000			

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transported named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.

GENERATOR'S SIGNATURE	PLEASE PRINT NAME/TITLE	DATE LOADED
X [signature] I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.	DINKER. M. DESAI	8 5 94 (MO. DAY YR.)

TSDF NAME/ADDRESS	PHONE (AREA CODE)	TSDF EPA ID NO.
DUPONT-CHAMBERS WORKS RT. 130 DEEPWATER, N.J.	TRACTOR: 431 / TRAILER: NA	APPOINTMENT TIME: DOES NOT APPLY

FCI REP. UNLOADING (PRINT)	PROCEDURE	BOX SPOTTED	BOX REMOVED	TIME AT TSDF (MILITARY TIME ONLY)
ALFONSO TROCCHIO		*	*	16:30 ARRIVAL TIME / 18:30 DEPARTURE TIME

COMMENTS OR DELAYS AT TSDF

EQUIPMENT USED

TSDF SIGNATURE	PLEASE PRINT NAME/TITLE	DATE UNLOADED
X [signature]	Michael D Bowen	8 / 25 / 94 (MO. DAY YR.)

AR H-0257 PC 944	ME ME-HWT-47 ME-WOT-47	MO H-1490	NOVA SCOTIA, CANADA NSC 000 147	QUEBEC, CANADA QC-6ML-047
CT CT-HW-307	MD HWH-167 91-OP-1765	ND WH-429	OH 333-HW	RI RI-535
DE DE-HW-203 DE-SW-203	MA MA-294	NH TNH-0047	OK 3358	TX 40705
IL SWH-1540	MN 61572	NJ S-2265 15939	ONTARIO, CANADA A 840943	WI 11602
		NY JA-113	PA PA-AH-0067	

White - FCI Original
Yellow - FCI Billing
Blue - FCI Office/Customer
Green - Retained by TSDF
Gold - Retained by Generator

BLUE COPY

G 56095

FREEHOLD CARTAGE, INC.

P.O. BOX 5010
FREEHOLD, NJ 07728-5010
PHONE: (908) 462-1001
FAX: (908) 308-0924

175 BARTOW MUN. AIRPORT
BARTOW, FL 33830
PHONE: (813) 533-4599
FAX: (813) 533-1613

108 MONAHAN AVENUE
DUNMORE, PA 18512
PHONE: (717) 342-7232
FAX: (717) 342-7367

MANIFEST

FCI EPA ID NO.:
NJD054126164

G51862

STATE MANIFEST NO.: CUTE

(X) HM		PROPER U.S. DOT SHIPPING NAME	U.S. DOT HAZARDOUS CLASS	PACKING GROUP	NA/UN NO.	FORM	NET QTY.	UNIT MEASURE
	1	Waste Water	—	—	—	Liq	2476	GAL
	2	Bill 482	UST # 990010-54					
	3	* (Note Invoice CUTE Inc.						

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

OW 1505 Rel-11 15939-75214

GENERATOR NAME/ADDRESS: Ft. Monmouth Dept. of Public Works - Bldg. 167 Ft. Monmouth NJ

PHONE (AREA CODE) –

GENERATOR EPA ID NO.:

TRACTOR: 65 TRAILER: 253

TIME AT GENERATOR (MILITARY TIME ONLY): 13:00 ARRIVAL TIME; 14:30 DEPARTURE TIME

FCI REP. LOADING (PRINT): Rob Paasch

PROCEDURE: VAC.

BOX SPOTTED: 500

BOX REMOVED:

EQUIPMENT USED: 2-3in Hoses 1-Fitting-

COMMENTS OR DELAYS AT GENERATOR:

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transported named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.

GENERATOR'S SIGNATURE: X _____ I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.

PLEASE PRINT NAME/TITLE: DINKEL M. DESAI ENV. ENGINEER

DATE LOADED: 8/11/94 (MO. DAY YR.)

TSDF NAME/ADDRESS: E.I DuPont Rt-130 Deepwater NJ

PHONE (AREA CODE) –

TSDF-ERA ID NO.:

TRACTOR: 27 TRAILER: 253

TIME AT TSDF: 4:35 ARRIVAL TIME; (MILITARY TIME ONLY) 6:25 DEPARTURE TIME

FCI REP. UNLOADING (PRINT): JAY KETCHUM

PROCEDURE: GRAVITY

BOX SPOTTED:

BOX REMOVED:

EQUIPMENT USED:

COMMENTS OR DELAYS AT TSDF:

TSDF SIGNATURE: X _____

PLEASE PRINT NAME/TITLE: JOHN A HOPE / LABTECH

DATE UNLOADED: 8/15/94 (MO. DAY YR.)

AR H-0257 PC 944
CT CT-HW-307
DE DE-HW-203 DE-SW-203
IL SWH-1540
ME ME-HWT-47 ME-WOT-47
MD HWH-167 91-OP-1765
MA MA-294
MN 61572
MO H-1490
ND WH-429
NH TNH-0047
NJ S-2265 15939
NY JA-113
NOVA SCOTIA, CANADA NSC 000 147
OH 333-HW
OK 3358
ONTARIO, CANADA A 840943
PA PA-AH-0067
QUEBEC, CANADA QC-6ML-047
RI RI-535
TX 40795
WI 11602

Original - FCI Office Copy
Yellow - FCI Office Copy
Blue - FCI Office Copy/Customer
Green - Retained by TSDF
Gold - Retained by Generator

G51862

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. 2050-0039. Expires 9-30-94*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJ 3 2 1 0 0 2 0 5 9 7 — Manifest Document No. 0 7 2 7 2 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: US Army Communications Electronics Command
c/o James Shirghio, Bldg 2504 ATTN: SELFM-DL-EM-MS MAIN POST
Fort Monmouth, NJ 07703
4. Generator's Phone (908) 532-6224

A. State Manifest Document Number: NJA 1907272

B. State Generator's ID-(Gen. Site Address): SAME

5. Transporter 1 Company Name: Freehold Cartage Inc. — 6. US EPA ID Number: N J D 0 5 4 1 2 6 1 6 4

C. State Trans. ID-NJDEPE: -52265 — Decal No.: -55263

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

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

E. State Trans. ID-NJDEPE

9. Designated Facility Name and Site Address: Lionetti Oil Recovery Co., Inc.
Runyon & Cheesequake Rds.
Old Bridge, NJ 08857 — 10. US EPA ID Number: N J D 0 8 4 0 4 4 0 6 4

Decal No.

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 or Division, ID Number and Packing Group)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Petroleum Oil N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG. III	X	0 0 1	T T	0 0 1 2 2	G	X 1 7 1 2 1 2
b.	Petroleum Oil N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	X	0 0 1	T T	0 0 4 5 3	G	X 1 7 1 2 1 2
c	Petroleum Oil N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	X	0 0 1	T T	0 0 4 7 7	G	X 1 7 1 2 1 2
d.	Petroleum Oil N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	X	0 0 1	T T	0 0 3 6 0	G	X 1 7 1 2 1 2

J. Additional Descriptions for Materials Listed Above — K. Handling Codes for Wastes Listed Above

a.	Petroleum Oil T,L Water %	Petroleum Oil T,L Water %	T04=Filtration T04=Filtration
b.	Petroleum Oil T,L Water %	Petroleum Oil T,L Water %	T04=Filtration T04=Filtration

15. Special Handling Instructions and Additional Information
NOT REGULATED BY EPA. REGULATED AS HAZARDOUS WASTE IN NJ
24 HOUR EMERGENCY PHONE: 201-427-2881
NJ DECAL# 55263
UA WEST # 0080870 - 94-482B
11B WEST # 0081533 - 97-655 ✓
11C WEST # 0081533 - 98-656 ✓
11D WEST # 0081533 - 99-657 ✓

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

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

Printed/Typed Name — Signature — Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: David S. Smith — Signature: David S. Smith — Month Day Year: 0 8 0 9 1 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

NJA 1907272

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.
1 — TSD MAIL TO - TSD'S STATE

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

CALCULATION SHEET

Building No. 482 B

NJDEPE Reg. No. 0090010-54

Tank Size 1080 gal

Tank Void 7.5 tons

CLEAN FILL

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
	Fill	27.70	18760
		24.45	18759
		23.05	18758

TOTAL 75.20

STONE

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
	Stone	24.55	961887
		27.84	961484
		26.29	961938
		26.44	961941

TOTAL ~~[illegible]~~ TCA
105.12

ID#27 soil to stockpile (75.20 + ~~[illegible]~~ 105.12) - 7.5 = 172.82 tons

Chargeable clean fill 75.20 - 7.5 = 67.7

Chargeable stone 105.12

S.C.M.I. - BOUND BROOK

CUSTOMER'S COPY

CONTROL NO. A-961484

Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 908/356-5700

X RUSH
DRIVER'S SIGNATURE

RECEIVED & ACCEPTED BY:
X [signature]
CUSTOMER'S SIGNATURE

CRUSHED STONE • SAND • GRAVEL

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, N.J.
908/542-2328

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

EXPLANATION OF DELIVERY CODES
1 - F.O.B.
2 - DELIVERED
3 - NET DELIVERED

DATE	08/12/94	CUST. NO.	08388	JOB NO.	08:05	TICKET NO.	961484

CUSTOMER
CLEANING UP THE ENVIORNMENT
103 GODWIN AVE.
P.O. BOX 237
MIDLAND PARK NJ 07432

DELIVER TO ZONE:FT MONMOUTH
BLDG 296

GROSS 41.29
TARE 13.45
NET 27.84

TRUCKER	TRUCK NO.	DRIVER NO.	METHOD OF PAYMENT	DELIVERY CODE	ZONE
515830	1		CHARGE	2	030

QUANTITY	PRODUCT CODE/DESCRIPTION	UNIT OF MEASURE	UNIT PRICE	EXTENDED	FREIGHT	SALES TAX	TOTAL
27.84	57 2/4 ASPH CLEAN S						

COMMENTS

LOADS 1

ACCU. TONS 27.84

WAIT TIME

GRAND TOTAL

S.C.M.I. - BOUND BROOK

CUSTOMER'S COPY

CONTROL NO. A-961887

Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 908/356-5700

X _____
DRIVER'S SIGNATURE

RECEIVED & ACCEPTED BY:
X _____
CUSTOMER'S SIGNATURE

CRUSHED STONE • SAND • GRAVEL

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, N.J.
908/542-2328

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

EXPLANATION OF DELIVERY CODES
1 - F.O.B.
2 - DELIVERED
3 - NET DELIVERED

DATE	08/12/94	CUST. NO.	05888	JOB NO.	00:44	TICKET NO.	961887

CUSTOMER
CLEANING UP THE ENVIORNMENT
103 BROWN AVE.
P.O. BOX 237
MIDLAND PARK NJ 07432

DELIVER TO
ZONE:ET MONMOUTH
BLDG 296

GROSS 39.00
TARE 14.45
NET 24.55

TRUCKER	TRUCK NO.	DRIVER NO.	METHOD OF PAYMENT	DELIVERY CODE	ZONE
24356	1		CHARGE	2	030

QUANTITY	PRODUCT CODE/DESCRIPTION	UNIT OF MEASURE	UNIT PRICE	EXTENDED	FREIGHT	SALES TAX	TOTAL
24.55	1 3/4 HOT CLEAN S	T			4.35		

COMMENTS

LOAD 3 ACCU. TONS 77.55

WAIT TIME

GRAND

S.C.M.I. - BOUND BROOK

CUSTOMER'S COPY

CONTROL NO. A-961941

Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 908/356-5700

X KAC
DRIVER'S SIGNATURE

RECEIVED & ACCEPTED BY:
X
CUSTOMER'S SIGNATURE

CRUSHED STONE • SAND • GRAVEL

EXECUTIVE OFFICE
HAMILTON ROAD
TINTON FALLS, N.J.
908/542-2328

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

ADDRESS REPLY TO
P.O. BOX 482
RED BANK, N.J. 07701

EXPLANATION OF DELIVERY CODES
1 - F.O.B.
2 - DELIVERED
3 - NET DELIVERED

DATE	CUST. NO.	JOB NO.	TICKET NO.
08/12/04	08688	11:09	961941

CUSTOMER
CLEANING UP THE ENVIORNMENT
103 GODWIN AVE.
P.O. BOX 237
MIDLAND PARK NJ 07432

DELIVER TO
ZONE:FT MONMOUTH
BLDG 296

GROSS	TARE	NET
38.44	12.00	26.44

TRUCKER	TRUCK NO.	DRIVER NO.	METHOD OF PAYMENT	DELIVERY CODE	ZONE
12419	1		CHARGE	2	030

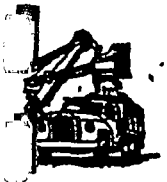
QUANTITY	PRODUCT CODE/DESCRIPTION	UNIT OF MEASURE	UNIT PRICE	EXTENDED	FREIGHT	SALES TAX	TOTAL
26.44	1 - 3/4 INCH CLEAN S	T			1.35		

COMMENTS

LOADS 3 ACCUM. TONS 130.28

WAIT TIME

GRAND TOTAL



Joseph Scarano Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

18760

Order Date 9/1/94

Name C.U.T.E. INC

Deliver Date ___/___/___

Address Clean Fill
Rec Fort Monmouth

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☒

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
		82,000	
		26,600	
		Sub Total 65,400	
		Delivery	27.70 ton
		N.J. Tax	
		Total	

Driver Wett #14 ...

Received

* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel will travel!
since 1925

Joseph Scarano Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

18759

Order Date 9 / 2 / 94

Name C.U.-T.E., INC.

Deliver Date ___ / ___ / ___

Address Cleanfill
Re: Fort Monmouth

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☐

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
		N: 72,900	
		T: 24,000	
		G: 48,900	
		Sub Total	24.45 tons
		Delivery	
		N.J. Tax	
		Total	

Driver MANDO #7

Received

* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel will travel!
since 1925

Joseph Scarano Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

18758

Order Date 9/2/94

Name C.W.T.E. INC

Deliver Date ___/___/___

Address Cream Fill
Re: Fort Monmouth

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☒

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
		NJ 70,100	
		T: 24'0000	
		Q:	
		46,100	

Driver Model #7

Received

Sub Total — 23.05 tons

Delivery

N.J. Tax

Total

* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel will travel!
since 1925

APPENDIX C

UST DISPOSAL CERTIFICATE

BLDG-656-UST 0081533-98 ✓
" 658 " 100 ✓
" 659 " 101 ✓
" 482B 0090010-54
Fort Monmouth
Eatontown, NJ

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

NO. _____

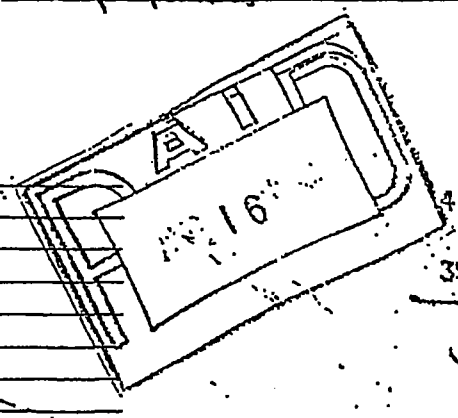
DATE 16 Aug 94

Customer's Name Cute Inc, 103 Godwin Ave Midland Pk NJ

Address Scrap tanks

Make of Autos

Tires
Tank
Price:



41720 LB G

35900 LB G

5820

	Weight	Price
Cast Iron		
Steel	1165	40
Lt. Iron		
Copper #1		
Copper #2		
Lt. Copper		
Brass		
Alum Clean		
Lead		
Stainless		
Radiators		
Battery		
TOTAL AMOUNT:		

Fort Monmouth
Eatontown, NJ
Bldg # UST #'s
656 0081533-98
658 0081533-100
659 0081533-101
482B 0090010-54

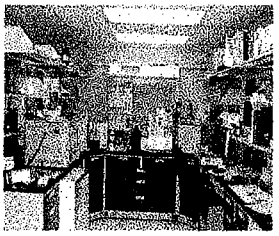
Weigher _____ Customer Dan Ellis

APPENDIX D

SOIL ANALYTICAL DATA PACKAGE

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. 482

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
T. B.	2010601	Methanol	20-Feb-02	02/20/02
F. B.	2010602	Aqueous	20-Feb-02 09:30	02/20/02
482-1/9.6'	2010603	Soil	20-Feb-02 10:45	02/20/02
482-2/9.6'	2010604	Soil	20-Feb-02 11:00	02/20/02
482-3/9.6'	2010605	Soil	20-Feb-02 11:15	02/20/02
482-4/9.6'	2010606	Soil	20-Feb-02 11:30	02/20/02
482-5/9.6'	2010607	Soil	20-Feb-02 13:15	02/20/02
482-6/9.6'	2010608	Soil	20-Feb-02 13:25	02/20/02
482-7/9.6'	2010609	Soil	20-Feb-02 13:35	02/20/02
482 GW/9.8'	2010610	Aqueous	20-Feb-02 13:45	02/20/02
F. D.	2010611	Soil	20-Feb-02	02/20/02

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15, TPHC, COLIFORM
%SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

3-12-02
Daniel Wright/Date
Laboratory Director

Table of Contents

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 #: X2475
( )DERA (✓)OMA ( )Other:
Project No: 02 -
Location: BLDG. 482
Samplers Name / Company: MARK LAURA - TVS-PWS 07

LIMS/Work Order #		Sample Location		Date	Time	Sample Type	# bottles	VOA+15	BN+15	TPHC	%SOLIDS	TOTAL COLI	FECAL COLI		HNU (PPM)	Remarks / Preservation Method
20106	1	T.B.		2-20-02	—	METH.	1	X							—	3013 <4°C
	2	F.B			0930	AQ.	3	X	X						—	~~3014~~
1	3	482-1	9.6'		1045	soil	2	X		X	X				300	3014 <4°C
	4	" -2	9.6'		1100	soil	2	X		X	X				0	3015 <4°C
	5	" -3	9.6'		1115	soil	2	X		X	X				5	3016 <4°C
	6	" -4	9.6'		1130	soil	2	X		X	X				0	3017 <4°C
	7	" -5	9.6'		1315	soil	2	X		X	X				0	3018 <4°C
	8	" -6	9.6'		1325	soil	2	X		X	X				0	3019 <4°C
	9	" -7	9.6'		1335	soil	2	X		X	X				0	3020 <4°C
	10	482 GW	9.8'		1345	AQ	5	X	X			X	X		—	HCl, <4°C
	11	F.D.	9.6'		—	soil	2	X		X	X				—	3021 <4°C

Comments: Remarks / Preservation Method

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
Matthew	2-20-02 1400				
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:

print legibly

Coc.xls10/17/01

METHOD SUMMARY

Method Summary

EPA Method 624 – Aqueous
Gas Chromatographic Determination of Volatiles in Water

A 5-ml volume of sample is added to 5-ml aliquot of water. Surrogates and internal standards are added and the sample is placed on a purge and trap concentrator. The sample is purged and desorbed into a GC/MS system. Volatiles are then identified and quantitated.

EPA SW-846 Method 8260
Gas Chromatographic Determination of Volatiles in Methanol

A 10-gram volume of soil is combined with 25-ml of Methanol and surrogates in the field. Internal standards are added and the sample is placed on a purge and trap concentrator. The sample as purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture and concentration.

EPA Method 3510/625
Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to a 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.

NJDEP Method OQA-QAM-025 10/97
Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g) of soil is added to a 125-ml acid cleaned and solvent rinsed capped Erlenmeyer flask. 15g anhydrous Sodium Sulfate is added to dry the sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five ml of Methylene Chloride is added to the flask and it is secured on an orbital shaker table. The agitation rate is set to 400 rpm and the sample is shaken for 30 minutes. The flask is removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25-ml of Methylene Chloride is added to the flask and shaken for an

additional 30 minutes. The flask is again removed and allowed to settle. The extracts are combined in the vial then transferred to a 1-ml autosampler vial.

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for Petroleum Hydrocarbons covering a range of C8-C42, including Pristane and Phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak. The final concentration of Total Petroleum Hydrocarbons is calculated using percent moisture, sample weight and concentration.

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)	NO
a. VOA Fraction Spike sec high soil TCE + Toluene	
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 N/A

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: 3-12-02

TPHC Conformance/Non-conformance Summary Report

		Indicate Yes, No, N/A
1.	Method Detection Limits provided.	yes
2.	Method Blank Contamination – If yes, list the sample and the Corresponding concentrations in each blank.	no
3.	Matrix Spike Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range). Recoveries low 2010603 but TPHC concentration high, Blank spike good	no
4.	Duplicate Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range).	yes
5.	IR Spectra submitted for standards, blanks and samples.	NA
6.	Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted.	
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	yes

Additional comments: _____

Laboratory Manager

3-12-02
Date

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 20106

Site: Bldg. 482

	Date	Hold Time
Date Sampled	02/20/02	NA
Receipt/Refrigeration	02/20/02	NA
Extractions		
1. TPHC	02/25/02	14 days
2. BN	02/22/02	7 days
Analyses		
1. Volatile Organics	02/21/02	14 days
2. TPHC	02/27/02	40 days
3. BN	02/25,26/02	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 #13461

Data File	**VB010893.D**	Sample Name	**MB 21Feb2002**
Operator	**Skelton**	Field ID	**MB 21Feb2002**
Date Acquired	**21 Feb 2002 10:23 am**	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

2/27/02 12:04 PM

000014

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **MB 21Feb02**

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB 21Feb2002

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010893.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 0 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	700	U
107131	Acrylonitrile	700	U
75650	tert-Butyl alcohol	1300	U
1634044	Methyl-tert-Butyl ether	300	U
108203	Di-isopropyl ether	200	U
75718	Dichlorodifluoromethane	400	U
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	300	U
74-83-9	Bromomethane	200	U
75-00-3	Chloroethane	300	U
75-69-4	Trichlorofluoromethane	200	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	200	U
156-60-5	trans-1,2-Dichloroethene	200	U
75-34-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
156-59-2	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	200	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	200	U
79-01-6	Trichloroethene	100	U
78-87-5	1,2-Dichloropropane	100	U
124-48-1	Bromodichloromethane	100	U
110-75-8	2-Chloroethyl vinyl ether	200	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	200	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	200	U
79-00-5	1,1,2-Trichloroethane	200	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	200	U
124-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 21Feb02

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB 21Feb2002

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010893.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 0 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	300	U
95-47-6	o-Xylene	200	U
100-42-5	Styrene	200	U
75-25-2	Bromoform	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
541-73-1	1,3-Dichlorobenzene	300	U
106-46-7	1,4-Dichlorobenzene	300	U
95-50-1	1,2-Dichlorobenzene	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

MB 21Feb02

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB 21Feb2002

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010893.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 0 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010601

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010894.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 0 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	700	U
107131	Acrylonitrile	700	U
75650	tert-Butyl alcohol	1300	U
1634044	Methyl-tert-Butyl ether	300	U
108203	Di-isopropyl ether	200	U
75718	Dichlorodifluoromethane	400	U
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	300	U
74-83-9	Bromomethane	200	U
75-00-3	Chloroethane	300	U
75-69-4	Trichlorofluoromethane	200	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	200	U
156-60-5	trans-1,2-Dichloroethene	200	U
75-34-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
156-59-2	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	200	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	200	U
79-01-6	Trichloroethene	100	U
78-87-5	1,2-Dichloropropane	100	U
124-48-1	Bromodichloromethane	100	U
110-75-8	2-Chloroethyl vinyl ether	200	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	200	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	200	U
79-00-5	1,1,2-Trichloroethane	200	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	200	U
124-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010601

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010894.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 0 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	300	U
95-47-6	o-Xylene	200	U
100-42-5	Styrene	200	U
75-25-2	Bromoform	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
541-73-1	1,3-Dichlorobenzene	300	U
106-46-7	1,4-Dichlorobenzene	300	U
95-50-1	1,2-Dichlorobenzene	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Trip Blank

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010601

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010894.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 0 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

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	**VB010905.D**	Sample Name	**2010602**
Operator	**Skelton**	Field ID	**Field Blank**
Date Acquired	**21 Feb 2002 6:43 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

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2/27/02 12:04 PM

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Field Blank

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 2010602

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010905.D

Level: (low/med) LOW Date Received: 2/20/02

% Moisture: not dec. _____ Date Analyzed: 2/21/02

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

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-1

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010603

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VB010895.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 16.64 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	800	U
107131	Acrylonitrile	800	U
75650	tert-Butyl alcohol	1500	U
1634044	Methyl-tert-Butyl ether	340	U
108203	Di-isopropyl ether	230	U
75718	Dichlorodifluoromethane	460	U
74-87-3	Chloromethane	110	U
75-01-4	Vinyl Chloride	340	U
74-83-9	Bromomethane	230	U
75-00-3	Chloroethane	340	U
75-69-4	Trichlorofluoromethane	230	U
75-35-4	1,1-Dichloroethene	110	U
67-64-1	Acetone	230	U
75-15-0	Carbon Disulfide	110	U
75-09-2	Methylene Chloride	230	U
156-60-5	trans-1,2-Dichloroethene	230	U
75-34-3	1,1-Dichloroethane	110	U
108-05-4	Vinyl Acetate	340	U
78-93-3	2-Butanone	340	U
156-59-2	cis-1,2-Dichloroethene	110	U
67-66-3	Chloroform	110	U
71-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon Tetrachloride	230	U
71-43-2	Benzene	110	U
107-06-2	1,2-Dichloroethane	230	U
79-01-6	Trichloroethene	110	U
78-87-5	1,2-Dichloropropane	110	U
124-48-1	Bromodichloromethane	110	U
110-75-8	2-Chloroethyl vinyl ether	230	U
10061-01-5	cis-1,3-Dichloropropene	110	U
108-10-1	4-Methyl-2-Pentanone	230	U
108-88-3	Toluene	110	U
10061-02-6	trans-1,3-Dichloropropene	230	U
79-00-5	1,1,2-Trichloroethane	230	U
127-18-4	Tetrachloroethene	110	U
591-78-6	2-Hexanone	230	U
124-48-1	Dibromochloromethane	230	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	740	

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-1

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010603

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VB010895.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 16.64 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	520	
95-47-6	o-Xylene	230	U
100-42-5	Styrene	230	U
75-25-2	Bromoform	230	U
79-34-5	1,1,2,2-Tetrachloroethane	230	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-1

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010603

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VB010895.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 16.64 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000124-18-5	Decane	30.40	5100	JN
2. 002847-72-5	Decane, 4-methyl-	31.00	6100	JN
3. 000108-67-8	Benzene, 1,3,5-trimethyl-	32.02	9300	JN
4. 013151-34-3	Decane, 3-methyl-	32.45	6200	JN
5. 001120-21-4	Undecane	33.21	5300	JN
6. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.47	9700	JN
7.	unknown	33.64	6900	J
8.	unknown	33.76	4300	J
9. 000496-11-7	Indane	33.87	5100	JN
10.	unknown	34.54	6400	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 482-2

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010604

Sample wt/vol: 9.8 (g/ml) G Lab File ID: VB010896.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 18.52 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	880	U
107131	Acrylonitrile	880	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	380	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	500	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	380	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	380	U
75-69-4	Trichlorofluoromethane	250	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	250	U
156-60-5	trans-1,2-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	380	U
78-93-3	2-Butanone	380	U
156-59-2	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
71-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	250	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	250	U
79-01-6	Trichloroethene	130	U
78-87-5	1,2-Dichloropropane	130	U
124-48-1	Bromodichloromethane	130	U
110-75-8	2-Chloroethyl vinyl ether	250	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	250	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	250	U
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	250	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-2

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010604

Sample wt/vol: 9.8 (g/ml) G Lab File ID: VB010896.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 18.52 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	380	U
95-47-6	o-Xylene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-2

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010604

Sample wt/vol: 9.8 (g/ml) G Lab File ID: VB010896.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 18.52 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000095-93-2	Benzene, 1,2,4,5-tetramethyl-	24.25	4900	JN
2. 000119-64-2	Naphthalene, 1,2,3,4-tetrahydro-	27.84	5700	JN
3. 001075-22-5	1H-Indene, 2,3-dihydro-5,6-dimet	28.78	4200	JN
4. 000091-20-3	Naphthalene	31.09	6000	JN
5.	unknown	31.63	3400	J
6. 017057-82-8	1H-Indene, 2,3-dihydro-1,2-dimet	32.39	4600	JN
7.	unknown	33.22	3200	J
8. 004175-53-5	1H-Indene, 2,3-dihydro-1,3-dimet	34.10	3100	JN
9.	unknown	34.45	5800	J
10. 040650-41-7	1H-Indene, 2,3-dihydro-1,1,5-trim	34.58	3500	JN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 482-3

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010605

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VB010897.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 15.67 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	860	U
107131	Acrylonitrile	860	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	370	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	490	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	370	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	370	U
75-69-4	Trichlorofluoromethane	250	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	250	U
156-60-5	trans-1,2-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
156-59-2	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
71-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	250	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	250	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
124-48-1	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	250	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	250	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	250	U
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	250	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **482-3**

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010605

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VB010897.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 15.67 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	370	U
95-47-6	o-Xylene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-3

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010605

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VB010897.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 15.67 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	30.17	900	J
2. 000090-12-0	Naphthalene, 1-methyl-	30.63	3100	JN
3. 002847-72-5	Decane, 4-methyl-	31.00	1400	JN
4.	unknown	31.23	910	J
5.	unknown	32.91	1900	J
6.	unknown	33.39	790	J
7.	unknown	33.76	920	J
8.	unknown	33.89	1200	J
9.	unknown	33.97	710	J
10. 007045-71-8	Undecane, 2-methyl-	34.74	890	JN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 482-4

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010606

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VB010898.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 17.72 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	890	U
107131	Acrylonitrile	890	U
75650	tert-Butyl alcohol	1700	U
1634044	Methyl-tert-Butyl ether	380	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	510	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	380	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	380	U
75-69-4	Trichlorofluoromethane	250	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	250	U
156-60-5	trans-1,2-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	380	U
78-93-3	2-Butanone	380	U
156-59-2	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
71-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	250	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	250	U
79-01-6	Trichloroethene	130	U
78-87-5	1,2-Dichloropropane	130	U
124-48-1	Bromodichloromethane	130	U
110-75-8	2-Chloroethyl vinyl ether	250	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	250	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	250	U
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	250	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **482-4**

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010606

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VB010898.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 17.72 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	380	U
95-47-6	o-Xylene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-4

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010606

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VB010898.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 17.72 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000629-50-5	Tridecane	31.04	2200	JN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 482-5

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010607

Sample wt/vol: 10.3 (g/ml) G Lab File ID: VB010899.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 18.27 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	830	U
107131	Acrylonitrile	830	U
75650	tert-Butyl alcohol	1500	U
1634044	Methyl-tert-Butyl ether	360	U
108203	Di-isopropyl ether	240	U
75718	Dichlorodifluoromethane	470	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	360	U
74-83-9	Bromomethane	240	U
75-00-3	Chloroethane	360	U
75-69-4	Trichlorofluoromethane	240	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	240	U
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	240	U
156-60-5	trans-1,2-Dichloroethene	240	U
75-34-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	360	U
78-93-3	2-Butanone	360	U
156-59-2	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
71-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	240	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	240	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
124-48-1	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	240	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	240	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	240	U
79-00-5	1,1,2-Trichloroethane	240	U
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	240	U
124-48-1	Dibromochloromethane	240	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	240	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 482-5

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010607

Sample wt/vol: 10.3 (g/ml) G Lab File ID: VB010899.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 18.27 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	360	U
95-47-6	o-Xylene	240	U
100-42-5	Styrene	240	U
75-25-2	Bromoform	240	U
79-34-5	1,1,2,2-Tetrachloroethane	240	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-5

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010607

Sample wt/vol: 10.3 (g/ml) G Lab File ID: VB010899.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 18.27 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-6

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010608

Sample wt/vol: 9.2 (g/ml) G Lab File ID: VB010900.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 21.5 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	980	U
107131	Acrylonitrile	980	U
75650	tert-Butyl alcohol	1800	U
1634044	Methyl-tert-Butyl ether	420	U
108203	Di-isopropyl ether	280	U
75718	Dichlorodifluoromethane	560	U
74-87-3	Chloromethane	140	U
75-01-4	Vinyl Chloride	420	U
74-83-9	Bromomethane	280	U
75-00-3	Chloroethane	420	U
75-69-4	Trichlorofluoromethane	280	U
75-35-4	1,1-Dichloroethene	140	U
67-64-1	Acetone	280	U
75-15-0	Carbon Disulfide	140	U
75-09-2	Methylene Chloride	280	U
156-60-5	trans-1,2-Dichloroethene	280	U
75-34-3	1,1-Dichloroethane	140	U
108-05-4	Vinyl Acetate	420	U
78-93-3	2-Butanone	420	U
156-59-2	cis-1,2-Dichloroethene	140	U
67-66-3	Chloroform	140	U
71-55-6	1,1,1-Trichloroethane	140	U
56-23-5	Carbon Tetrachloride	280	U
71-43-2	Benzene	140	U
107-06-2	1,2-Dichloroethane	280	U
79-01-6	Trichloroethene	140	U
78-87-5	1,2-Dichloropropane	140	U
124-48-1	Bromodichloromethane	140	U
110-75-8	2-Chloroethyl vinyl ether	280	U
10061-01-5	cis-1,3-Dichloropropene	140	U
108-10-1	4-Methyl-2-Pentanone	280	U
108-88-3	Toluene	140	U
10061-02-6	trans-1,3-Dichloropropene	280	U
79-00-5	1,1,2-Trichloroethane	280	U
127-18-4	Tetrachloroethene	140	U
591-78-6	2-Hexanone	280	U
124-48-1	Dibromochloromethane	280	U
108-90-7	Chlorobenzene	140	U
100-41-4	Ethylbenzene	280	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-6

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010608

Sample wt/vol: 9.2 (g/ml) G Lab File ID: VB010900.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 21.5 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	420	U
95-47-6	o-Xylene	280	U
100-42-5	Styrene	280	U
75-25-2	Bromoform	280	U
79-34-5	1,1,2,2-Tetrachloroethane	280	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-6

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010608

Sample wt/vol: 9.2 (g/ml) G Lab File ID: VB010900.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 21.5 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-7

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010609

Sample wt/vol: 10.6 (g/ml) G Lab File ID: VB010901.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 20.03 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	830	U
107131	Acrylonitrile	830	U
75650	tert-Butyl alcohol	1500	U
1634044	Methyl-tert-Butyl ether	350	U
108203	Di-isopropyl ether	240	U
75718	Dichlorodifluoromethane	470	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	350	U
74-83-9	Bromomethane	240	U
75-00-3	Chloroethane	350	U
75-69-4	Trichlorofluoromethane	240	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	240	U
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	240	U
156-60-5	trans-1,2-Dichloroethene	240	U
75-34-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	350	U
78-93-3	2-Butanone	350	U
156-59-2	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
71-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	240	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	240	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
124-48-1	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	240	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	240	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	240	U
79-00-5	1,1,2-Trichloroethane	240	U
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	240	U
124-48-1	Dibromochloromethane	240	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	240	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

482-7

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010609

Sample wt/vol: 10.6 (g/ml) G Lab File ID: VB010901.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 20.03 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	350	U
95-47-6	o-Xylene	240	U
100-42-5	Styrene	240	U
75-25-2	Bromoform	240	U
79-34-5	1,1,2,2-Tetrachloroethane	240	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 482-7

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010609

Sample wt/vol: 10.6 (g/ml) G Lab File ID: VB010901.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 20.03 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Dupe

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010611

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010902.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 16.33 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	860	U
107131	Acrylonitrile	860	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	370	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	490	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	370	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	370	U
75-69-4	Trichlorofluoromethane	250	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	250	U
156-60-5	trans-1,2-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
156-59-2	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
71-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	250	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	250	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
124-48-1	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	250	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	250	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	250	U
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	420	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

Field Dupe

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010611

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010902.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 16.33 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	330	J
95-47-6	o-Xylene	65	J
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Field Dupe

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 2010611

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010902.D

Level: (low/med) MED Date Received: 2/20/02

% Moisture: not dec. 16.33 Date Analyzed: 2/21/02

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000124-18-5	Decane	30.40	4100	JN
2. 002847-72-5	Decane, 4-methyl-	31.00	4300	JN
3. 000526-73-8	Benzene, 1,2,3-trimethyl-	32.02	5400	JN
4. 006975-98-0	Decane, 2-methyl-	32.20	2800	JN
5. 013151-34-3	Decane, 3-methyl-	32.45	3600	JN
6. 001120-21-4	Undecane	33.21	5100	JN
7. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.47	5600	JN
8.	unknown	33.64	4000	J
9.	unknown	33.88	3300	J
10.	unknown	34.54	4200	J

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Lab File ID: VB010761.D BFB Injection Date: 2/13/02

Instrument ID: GCMS#2 BFB Injection Time: 15:44

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	17.3
75	30.0 - 66.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	79.2
175	4.0 - 9.0% of mass 174	6.1 (7.7)1
176	93.0 - 101.0% of mass 174	78.2 (98.8)1
177	5.0 - 9.0% of mass 176	5.3 (6.7)2

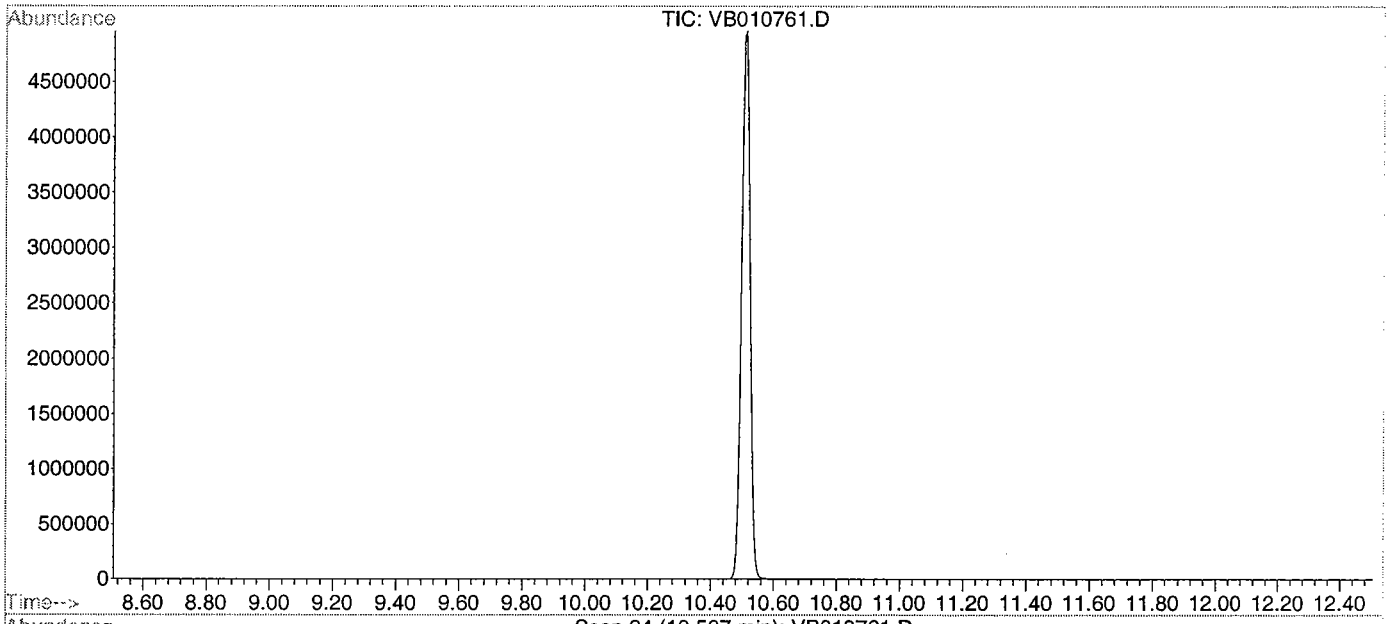
1-Value is % mass 174 2-Value is % mass 176

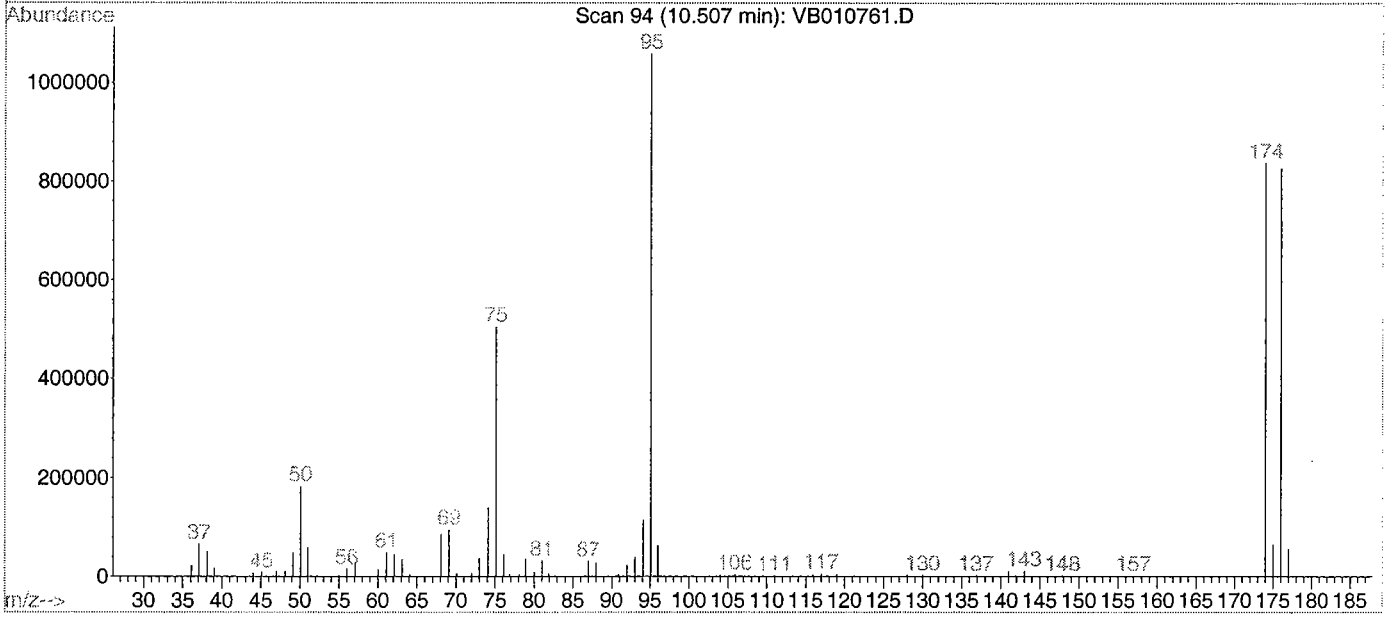
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VB010762.D	2/13/02	16:15
02	VSTD050	VSTD050	VB010763.D	2/13/02	16:56
03	VSTD020	VSTD020	VB010764.D	2/13/02	17:37
04	VSTD010	VSTD010	VB010765.D	2/13/02	18:18
05	VSTD005	VSTD005	VB010766.D	2/13/02	19:00

Data File : C:\HPCHEM\1\DATA\020213\VB010761.D
Acq On : 13 Feb 2002 3:44 pm
Sample : BFB Tune
Misc : BFB Tune
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP

Vial: 1
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00





Spectrum Information: Scan 94

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	183040	PASS
75	95	30	60	47.7	504960	PASS
95	95	100	100	100.0	1058304	PASS
96	95	5	9	6.0	62992	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.2	837824	PASS
175	174	5	9	7.7	64752	PASS
176	174	95	101	98.8	827840	PASS
177	176	5	9	6.7	55736	PASS

VB010761.D M262478.M Wed Feb 27 11:53:45 2002

Response Factor Report GC VOA 2

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration

Calibration Files
100 =VB010762.D 50 =VB010763.D 20 =VB010764.D
10 =VB010765.D 5 =VB010766.D

		Compound	100	50	20	10	5	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)	t	Acrolein	0.305	0.272	0.241	0.225	0.245	0.257	12.18
3)	t	Acrylonitrile	0.822	0.796	0.764	0.702	0.772	0.771	5.77
4)	t	tert-Butyl alcohol	0.144	0.140	0.136	0.113	0.123	0.131	9.71
5)	t	Methyl-tert-Butyl eth	5.664	5.486	4.949	4.608	4.774	5.096	8.98
6)	t	Di-isopropyl ether	1.568	1.500	1.349	1.265	1.201	1.377	11.25
7)	T	Dichlorodifluorometha	1.188	1.231	1.256	1.165	1.211	1.210	2.93
8)	TP	Chloromethane	1.905	1.920	1.883	1.978	2.095	1.956	4.36
9)	TC	Vinyl Chloride	2.065	2.123	2.075	1.974	2.130	2.073	3.01
10)	T	Bromomethane	1.327	1.216	1.145	1.143	1.268	1.220	6.53
11)	T	Chloroethane	1.304	1.236	1.170	1.204	1.268	1.236	4.26
12)	T	Trichlorofluoromethan	3.827	3.794	3.853	3.840	4.061	3.875	2.74
13)	MC	1,1-Dichloroethene	3.369	3.280	3.012	2.851	3.059	3.114	6.72
14)	T	Acetone	0.589	0.602	0.631	0.655	0.827	0.661	14.64
15)	T	Carbon Disulfide	5.709	5.665	5.369	5.048	5.350	5.428	4.95
16)	T	Methylene Chloride	2.030	1.982	1.911	1.931	2.031	1.977	2.78
17)	T	trans-1,2-Dichloroeth	3.009	3.036	2.831	2.760	2.826	2.892	4.23
18)	TP	1,1-Dichloroethane	3.632	3.523	3.349	3.429	3.493	3.485	3.03
19)	T	Vinyl Acetate	4.495	4.367	3.864	3.369	3.369	3.893	13.70
20)	T	2-Butanone	0.798	0.754	0.731	0.657	0.729	0.734	6.95
21)	T	cis-1,2-Dichloroethen	3.029	2.989	2.825	2.642	2.779	2.853	5.55
22)	TC	Chloroform	3.700	3.690	3.546	3.600	3.842	3.676	3.07
23)	T	1,1,1-Trichloroethane	3.356	3.311	3.041	2.887	2.973	3.114	6.71
24)	T	Carbon Tetrachloride	3.056	2.922	2.668	2.560	2.547	2.751	8.28
25)	S	1,2-Dichloroethane-d4	2.620	2.650	2.701	2.770	2.786	2.706	2.67
26)	I	1,4-Difluorobenzene	ISTD						
27)	TM	Benzene	1.168	1.157	1.100	1.062	1.128	1.123	3.85
28)	T	1,2-Dichloroethane	0.487	0.477	0.465	0.454	0.481	0.473	2.82
29)	TM	Trichloroethene	0.342	0.321	0.310	0.292	0.298	0.313	6.34
30)	TC	1,2-Dichloropropane	0.300	0.287	0.273	0.254	0.267	0.276	6.44
31)	T	Bromodichloromethane	0.407	0.383	0.355	0.334	0.343	0.364	8.33
32)	T	2-Chloroethyl vinyl e	0.122	0.122	0.117	0.111	0.121	0.118	4.12
33)	T	cis-1,3-Dichloroprope	0.481	0.451	0.390	0.347	0.340	0.402	15.57
34)	T	4-Methyl-2-Pentanone	0.098	0.090	0.082	0.068	0.069	0.081	15.93
35)	S	Toluene-d8	1.193	1.175	1.164	1.181	1.174	1.177	0.93
36)	TCM	Toluene	1.252	1.298	1.238	1.183	1.275	1.249	3.47
37)	I	Chlorobenzene-d5	ISTD						
38)	T	trans-1,3-Dichloropro	1.666	1.559	1.358	1.203	1.136	1.384	16.35
39)	T	1,1,2-Trichloroethane	0.972	0.936	0.921	0.881	0.888	0.920	4.02
40)	T	Tetrachloroethene	1.322	1.274	1.228	1.164	1.163	1.230	5.64
41)	T	2-Hexanone	0.662	0.595	0.537	0.446	0.449	0.538	17.41
42)	T	Dibromochloromethane	1.014	0.964	0.843	0.771	0.736	0.866	13.89
43)	TMP	Chlorobenzene	3.046	2.959	2.880	2.840	2.893	2.923	2.76
44)	TC	Ethylbenzene	4.822	5.209	5.081	4.786	4.877	4.955	3.68
45)	T	m+p-Xylenes	1.809	1.794	1.722	1.629	1.659	1.723	4.62
46)	T	o-Xylene	3.879	3.926	3.671	3.314	3.255	3.609	8.65
47)	T	Styrene	3.327	3.256	2.999	2.747	2.725	3.011	9.26
48)	TP	Bromoform	0.654	0.633	0.519	0.452	0.435	0.539	18.71
49)	S	Bromofluorobenzene	1.786	1.723	1.719	1.695	1.709	1.727	2.03
50)	TP	1,1,2,2-Tetrachloroet	1.297	1.212	1.174	1.103	1.159	1.189	6.07
51)	T	1,3-Dichlorobenzene	2.604	2.526	2.388	2.212	2.250	2.396	7.10
52)	T	1,4-Dichlorobenzene	2.747	2.721	2.560	2.424	2.441	2.579	5.87
53)	T	1,2-Dichlorobenzene	2.574	2.494	2.391	2.222	2.269	2.390	6.19

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Lab File ID: VB010891.D BFB Injection Date: 2/21/02

Instrument ID: GCMS#2 BFB Injection Time: 9:02

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	17.9
75	30.0 - 66.0% of mass 95	51.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	88.0
175	4.0 - 9.0% of mass 174	6.2 (7.1)1
176	93.0 - 101.0% of mass 174	85.6 (97.2)1
177	5.0 - 9.0% of mass 176	5.2 (6.1)2

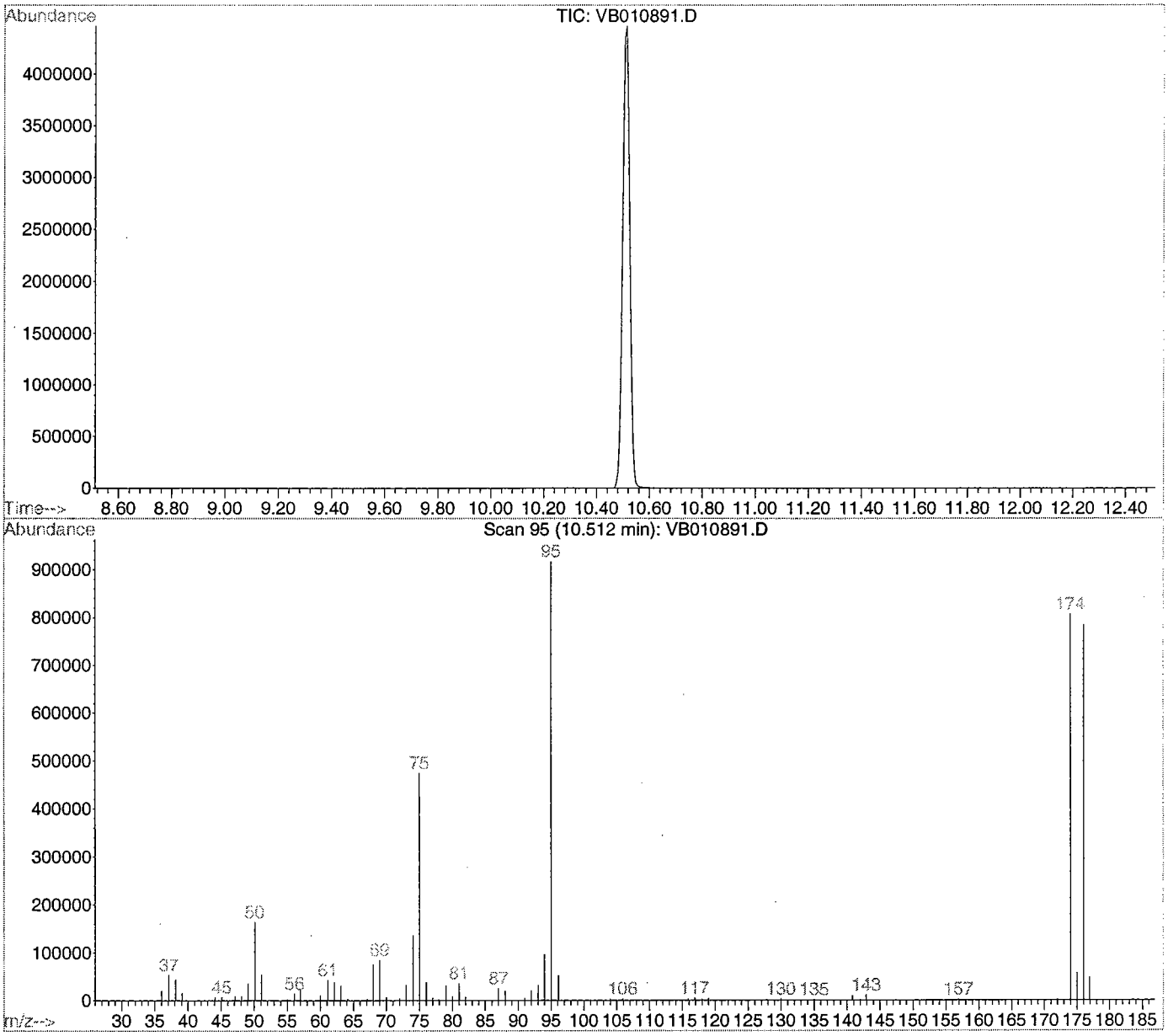
1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010892.D	2/21/02	9:33
02	MB 21FEB02	MB 21FEB2002	VB010893.D	2/21/02	10:23
03	TRIP BLANK	2010601	VB010894.D	2/21/02	11:14
04	482-1	2010603	VB010895.D	2/21/02	11:55
05	482-2	2010604	VB010896.D	2/21/02	12:35
06	482-3	2010605	VB010897.D	2/21/02	13:16
07	482-4	2010606	VB010898.D	2/21/02	13:57
08	482-5	2010607	VB010899.D	2/21/02	14:38
09	482-6	2010608	VB010900.D	2/21/02	15:18
10	482-7	2010609	VB010901.D	2/21/02	15:59
11	FIELD DUPE	2010611	VB010902.D	2/21/02	16:40
12	482-7 MS	2010609 MS	VB010903.D	2/21/02	17:21
13	482-7 MSD	2010609 MSD	VB010904.D	2/21/02	18:02
14	FIELD BLANK	2010602	VB010905.D	2/21/02	18:43
15	482GW	2010610	VB010906.D	2/21/02	19:24
16	482GW MS	2010610 MS	VB010907.D	2/21/02	20:06
17	482GW MSD	2010610 MSD	VB010908.D	2/21/02	20:47

BFB

Data File : C:\HPCHEM\1\DATA\020221\VB010891.D Vial: 1
Acq On : 21 Feb 2002 9:02 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\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 95

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	163968	PASS
75	95	30	60	51.8	474880	PASS
95	95	100	100	100.0	917504	PASS
96	95	5	9	5.7	52400	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.0	807360	PASS
175	174	5	9	7.1	57144	PASS
176	174	95	101	97.2	785152	PASS
177	176	5	9	6.1	47720	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020221\VB010892.D Vial: 1
Acq On : 21 Feb 2002 9:33 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
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	81	0.00
2	t	Acrolein	0.257	0.277	-7.8	93	0.00
3	t	Acrylonitrile	0.771	0.820	-6.4	87	0.00
4	t	tert-Butyl alcohol	0.131	0.125	4.6	74	0.00
5	t	Methyl-tert-Butyl ether	5.096	4.901	3.8	80	0.00
6	t	Di-isopropyl ether	1.377	1.304	5.3	78	0.00
7	T	Dichlorodifluoromethane	1.210	0.980	19.0	63	0.00
8	TP	Chloromethane	1.956	1.776	9.2	77	0.00
9	TC	Vinyl Chloride	2.073	1.944	6.2	76	0.00
10	T	Bromomethane	1.220	1.275	-4.5	90	0.00
11	T	Chloroethane	1.236	1.314	-6.3	91	0.00
12	T	Trichlorofluoromethane	3.875	4.421	-14.1	93	0.00
13	MC	1,1-Dichloroethene	3.114	3.076	1.2	83	0.00
14	T	Acetone	0.661	0.744	-12.6	96	0.00
15	T	Carbon Disulfide	5.428	5.350	1.4	81	0.00
16	T	Methylene Chloride	1.977	2.005	-1.4	85	0.00
17	T	trans-1,2-Dichloroethene	2.892	2.981	-3.1	85	0.00
18	TP	1,1-Dichloroethane	3.485	3.745	-7.5	91	0.00
19	T	Vinyl Acetate	3.893	3.858	0.9	81	0.00
20	T	2-Butanone	0.734	0.759	-3.4	84	0.00
21	T	cis-1,2-Dichloroethene	2.853	2.871	-0.6	82	0.00
22	TC	Chloroform	3.676	3.934	-7.0	90	0.00
23	T	1,1,1-Trichloroethane	3.114	3.280	-5.3	87	0.00
24	T	Carbon Tetrachloride	2.751	2.975	-8.1	90	0.00
25	S	1,2-Dichloroethane-d4	2.706	2.872	-6.1	86	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	79	0.00
27	TM	Benzene	1.123	1.217	-8.4	87	0.00
28	T	1,2-Dichloroethane	0.473	0.519	-9.7	88	0.00
29	TM	Trichloroethene	0.313	0.334	-6.7	85	0.00
30	TC	1,2-Dichloropropane	0.276	0.283	-2.5	82	0.00
31	T	Bromodichloromethane	0.364	0.400	-9.9	89	0.00
32	T	2-Chloroethyl vinyl ether	0.118	0.130	-10.2	87	0.00
33	T	cis-1,3-Dichloropropene	0.402	0.414	-3.0	83	0.00
34	T	4-Methyl-2-Pentanone	0.081	0.088	-8.6	85	0.00
35	S	Toluene-d8	1.177	1.241	-5.4	84	0.00
36	TCM	Toluene	1.249	1.406	-12.6	89	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
38	T	trans-1,3-Dichloropropene	1.384	1.413	-2.1	84	0.00
39	T	1,1,2-Trichloroethane	0.920	1.018	-10.7	89	0.00
40	T	Tetrachloroethene	1.230	1.295	-5.3	85	0.00
41	T	2-Hexanone	0.538	0.547	-1.7	82	0.00
42	T	Dibromochloromethane	0.866	0.939	-8.4	89	0.00
43	TMP	Chlorobenzene	2.923	3.205	-9.6	89	0.00
44	TC	Ethylbenzene	4.955	5.665	-14.3	90	0.00
45	T	m+p-Xylenes	1.723	1.913	-11.0	89	0.00
46	T	o-Xylene	3.609	4.015	-11.2	88	0.00
47	T	Styrene	3.011	3.236	-7.5	87	0.00
48	TP	Bromoform	0.539	0.614	-13.9	95	0.00
49	S	Bromofluorobenzene	1.727	1.788	-3.5	84	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.189	1.276	-7.3	87	0.00
51	T	1,3-Dichlorobenzene	2.396	2.472	-3.2	83	0.00
52	T	1,4-Dichlorobenzene	2.579	2.724	-5.6	85	0.00
53	T	1,2-Dichlorobenzene	2.390	2.547	-6.6	86	0.00

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

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID.

MB 21Feb02

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Lab File ID: VB010893.D Lab Sample ID: MB 21Feb2002

Date Analyzed: 2/21/02 Time Analyzed: 10:23

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	TRIP BLANK	2010601	VB010894.D	11:14
02	482-1	2010603	VB010895.D	11:55
03	482-2	2010604	VB010896.D	12:35
04	482-3	2010605	VB010897.D	13:16
05	482-4	2010606	VB010898.D	13:57
06	482-5	2010607	VB010899.D	14:38
07	482-6	2010608	VB010900.D	15:18
08	482-7	2010609	VB010901.D	15:59
09	FIELD DUPE	2010611	VB010902.D	16:40
10	482-7 MS	2010609 MS	VB010903.D	17:21
11	482-7 MSD	2010609 MSD	VB010904.D	18:02
12	FIELD BLANK	2010602	VB010905.D	18:43
13	482GW	2010610	VB010906.D	19:24
14	482GW MS	2010610 MS	VB010907.D	20:06
15	482GW MSD	2010610 MSD	VB010908.D	20:47

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	FMETL	**Project**	02-12539
NJDEP #	13461	**Location**	Bldg482

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB 5Jan02	107.0	104.0	96.0
02	Trip Blank	150.7	118.7	128.7
03	482-1	155.3	122.0	123.7
04	482-2	145.3	108.7	108.7
05	482-3	138.3	107.0	116.0
06	482-4	130.3	99.0	112.7
07	482-5	149.7	107.7	120.3
08	482-6	117.7	93.7	102.0
09	482-7	133.3	100.3	109.3
10	Field Dupe	130.0	99.0	106.7
11	Field Blank	105.0	101.0	98.0
12	482GW	99.0	102.0	99.0

SMC1 1,2-DCE-d4	=	1,2-Dichloroethane-d4
SMC2 Tol-d8	=	Toluene-d8
SMC3 BFB	=	Bromofluorobenzene

D System Monitoring Compounds diluted out

Volatile Matrix Spike Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010907.D**	Sample Name	**2010610 MS**
Date Acquired	**21-Feb-02**	Field ID	**482 GW MS**

Compound Name	Amount Added ug/L	Result ul/L	Percent Recovered
Acrolein	200	234.57	117.3
Acrylonitrile	200	229.71	114.9
tert-Butyl alcohol	200	281.25	140.6
Methyl-tert-Butyl ether	20	25.52	127.6
Di-isopropyl ether	20	25.66	128.3
Dichlorodifluoromethane	20	10.16	50.8
Chloromethane	20	15.81	79.0
Vinyl Chloride	20	17.81	89.1
Bromomethane	20	19.03	95.2
Chloroethane	20	19.50	97.5
Trichlorofluoromethane	20	19.56	97.8
1,1-Dichloroethene	20	21.98	109.9
Acetone	20	24.54	122.7
Carbon Disulfide	20	19.76	98.8
Methylene Chloride	20	22.76	113.8
trans-1,2-Dichloroethene	20	21.74	108.7
1,1-Dichloroethane	20	22.29	111.4
Vinyl Acetate	20	22.87	114.3
2-Butanone	20	27.65	138.2
cis-1,2-Dichloroethene	20	23.02	115.1
Chloroform	20	22.39	112.0
1,1,1-Trichloroethane	20	21.49	107.4
Carbon Tetrachloride	20	18.14	90.7
Benzene	20	21.83	109.1
1,2-Dichloroethane	20	20.64	103.2
Trichloroethene	20	21.63	108.1
1,2-Dichloropropane	20	21.67	108.4
Bromodichloromethane	20	19.42	97.1
2-Chloroethyl vinyl ether	20	20.67	103.4
cis-1,3-Dichloropropene	20	20.67	103.4
4-Methyl-2-Pentanone	20	25.77	128.9
Toluene	20	22.39	111.9
trans-1,3-Dichloropropene	20	19.79	99.0
1,1,2-Trichloroethane	20	21.77	108.9
Tetrachloroethene	20	21.53	107.7
2-Hexanone	20	25.18	125.9
Dibromochloromethane	20	18.53	92.6
Chlorobenzene	20	21.43	107.1
Ethylbenzene	20	22.44	112.2
m+p-Xylenes	40	43.72	109.3
o-Xylene	20	23.16	115.8
Styrene	20	21.87	109.4
Bromoform	20	18.23	91.1
1,1,2,2-Tetrachloroethane	20	20.98	104.9
1,3-Dichlorobenzene	20	21.90	109.5
1,4-Dichlorobenzene	20	21.22	106.1
1,2-Dichlorobenzene	20	21.48	107.4

Volatile Matrix Spike Duplicate Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010908.D**	Sample Name	**2010610 MSD**
Date Acquired	**21-Feb-02**	Field ID	**482 GW MSD**

Compound Name	Amount Added ug/L	Result ul/L	Percent Recovered
Acrolein	200	207.78	103.9
Acrylonitrile	200	213.90	107.0
tert-Butyl alcohol	200	282.36	141.2
Methyl-tert-Butyl ether	20	23.19	115.9
Di-isopropyl ether	20	23.04	115.2
Dichlorodifluoromethane	20	8.96	44.8
Chloromethane	20	13.71	68.5
Vinyl Chloride	20	15.53	77.7
Bromomethane	20	16.93	84.7
Chloroethane	20	17.89	89.5
Trichlorofluoromethane	20	17.35	86.8
1,1-Dichloroethene	20	19.85	99.2
Acetone	20	22.47	112.4
Carbon Disulfide	20	17.45	87.3
Methylene Chloride	20	20.31	101.5
trans-1,2-Dichloroethene	20	19.89	99.5
1,1-Dichloroethane	20	20.41	102.1
Vinyl Acetate	20	20.78	103.9
2-Butanone	20	25.93	129.7
cis-1,2-Dichloroethene	20	20.63	103.1
Chloroform	20	19.92	99.6
1,1,1-Trichloroethane	20	19.56	97.8
Carbon Tetrachloride	20	16.16	80.8
Benzene	20	19.79	99.0
1,2-Dichloroethane	20	18.76	93.8
Trichloroethene	20	19.60	98.0
1,2-Dichloropropane	20	19.90	99.5
Bromodichloromethane	20	17.76	88.8
2-Chloroethyl vinyl ether	20	18.54	92.7
cis-1,3-Dichloropropene	20	18.99	95.0
4-Methyl-2-Pentanone	20	24.31	121.6
Toluene	20	20.21	101.1
trans-1,3-Dichloropropene	20	17.83	89.1
1,1,2-Trichloroethane	20	19.84	99.2
Tetrachloroethene	20	19.25	96.2
2-Hexanone	20	23.57	117.9
Dibromochloromethane	20	16.75	83.7
Chlorobenzene	20	19.25	96.2
Ethylbenzene	20	20.05	100.3
m+p-Xylenes	40	38.04	95.1
o-Xylene	20	20.47	102.4
Styrene	20	19.41	97.0
Bromoform	20	17.24	86.2
1,1,2,2-Tetrachloroethane	20	19.13	95.7
1,3-Dichlorobenzene	20	19.23	96.2
1,4-Dichlorobenzene	20	18.77	93.9
1,2-Dichlorobenzene	20	19.44	97.2

Spike Recovery and RPD Summary Report - Soil

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration

Non-Spiked Sample: VB010901.D

	Spike Sample	Spike Duplicate Sample
File ID :	VB010903.D	VB010904.D
Sample :	2010609 MS	2010609 MSD
Acq Time:	21 Feb 2002 5:21 pm	21 Feb 2002 6:02 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
1,1-Dichloroethene	0.0	20	29	28	146	140	5	22	59-172
Benzene	0.0	20	27	25	137	126	8	21	66-142
Trichloroethene	0.0	20	28	25	140#	126	11	24	62-137
Toluene	0.0	20	30	27	149#	136	9	21	59-139
Chlorobenzene	0.0	20	26	25	129	126	3	21	60-133

- Fails Limit Check

M262478.M Wed Feb 27 12:03:56 2002

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Lab File ID (Standard): VB010892.D Date Analyzed: 2/21/02

Instrument ID: GCMS#2 Time Analyzed: 9:33

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	562406	16.76	3860053	19.49	1086790	27.32
	UPPER LIMIT	1124812	17.26	7720106	19.99	2173580	27.82
	LOWER LIMIT	281203	16.26	1930027	18.99	543395	26.82
	Lab ID.						
01	MB 21FEB02	537025	16.75	3628481	19.49	1037556	27.33
02	TRIP BLANK	532151	16.76	3936736	19.49	1077334	27.32
03	482-1	528801	16.76	4028403	19.49	1258920	27.33
04	482-2	634523	16.76	4983726	19.49	1540714	27.32
05	482-3	686601	16.75	5263623	19.49	1503148	27.32
06	482-4	700438	16.76	5483230	19.49	1513828	27.32
07	482-5	688208	16.77	5545062	19.49	1554414	27.33
08	482-6	709188	16.76	5506110	19.49	1540698	27.33
09	482-7	699761	16.76	5559053	19.49	1558836	27.32
10	FIELD DUPE	696791	16.77	5584290	19.49	1569487	27.33
11	482-7 MS	724613	16.77	5582982	19.49	1641508	27.33
12	482-7 MSD	707708	16.77	5539615	19.49	1540474	27.33
13	FIELD BLANK	708194	16.76	5488618	19.49	1559474	27.33
14	482GW	736842	16.76	5370132	19.49	1515552	27.33
15	482GW MS	716341	16.77	5427176	19.49	1502657	27.33
16	482GW MSD	729895	16.77	5404805	19.49	1523496	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\020221\VB010893.D Vial: 1
Acq On : 21 Feb 2002 10:23 am Operator: Skelton
Sample : MB 21Feb2002 Inst : GC VOA 2
Misc : MB 21Feb2002 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 21 10:58 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Wed Feb 20 11:16:39 2002
Response via : Initial Calibration
DataAcq Meth : M262478

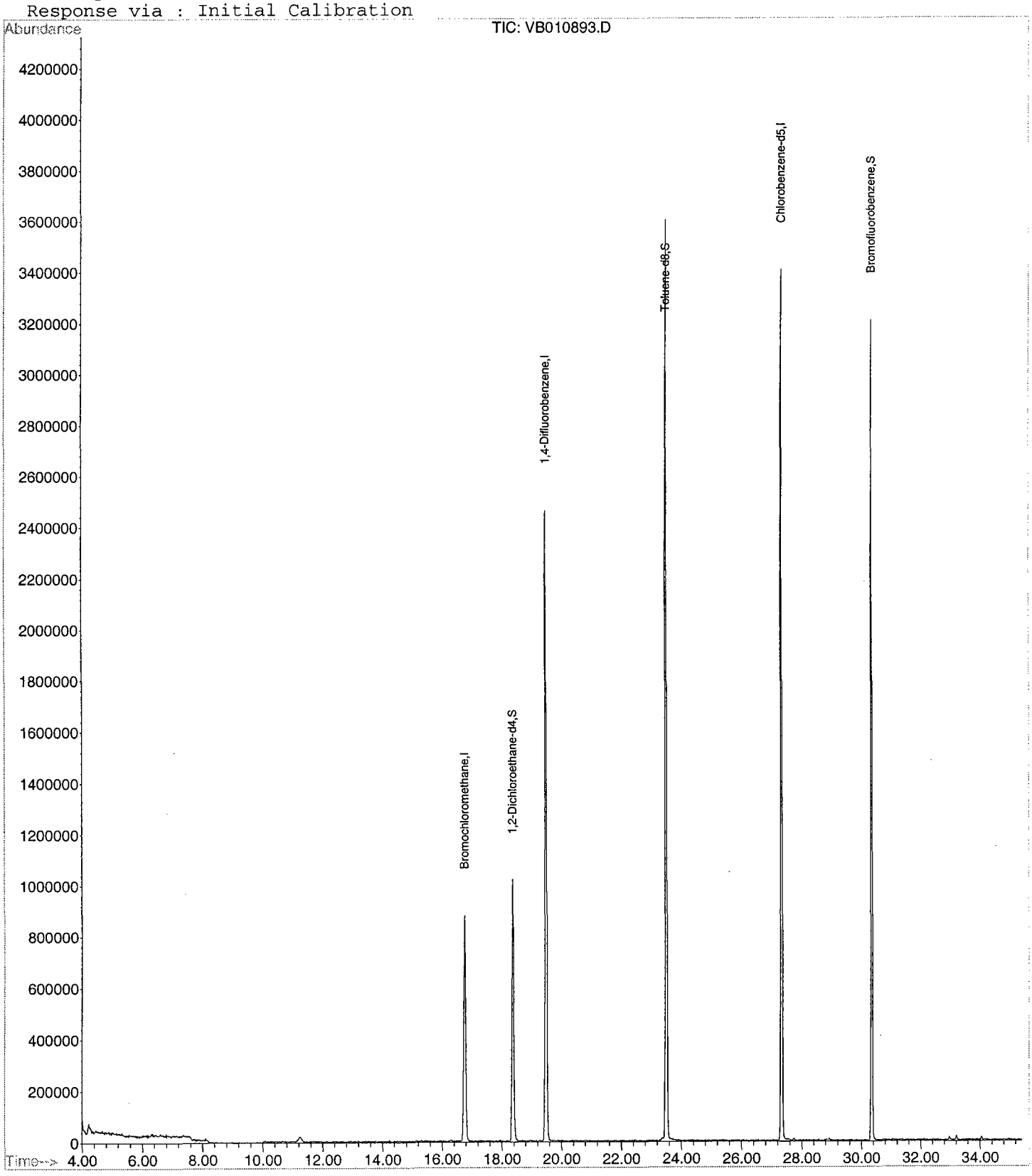
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	537025	30.00	ug/L	-0.02
26) 1,4-Difluorobenzene	19.49	114	3628481	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1037556	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1561043	32.23	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 107.43%			
35) Toluene-d8	23.50	98	4453330	31.27	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 104.23%			
49) Bromofluorobenzene	30.34	95	1716855	28.75	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 95.83%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010893.D Vial: 1
Acq On : 21 Feb 2002 10:23 am Operator: Skelton
Sample : MB 21Feb2002 Inst : GC VOA 2
Misc : MB 21Feb2002 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 21 10:58 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010894.D Vial: 1
Acq On : 21 Feb 2002 11:14 am Operator: Skelton
Sample : 2010601 Inst : GC VOA 2
Misc : Trip Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:42 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

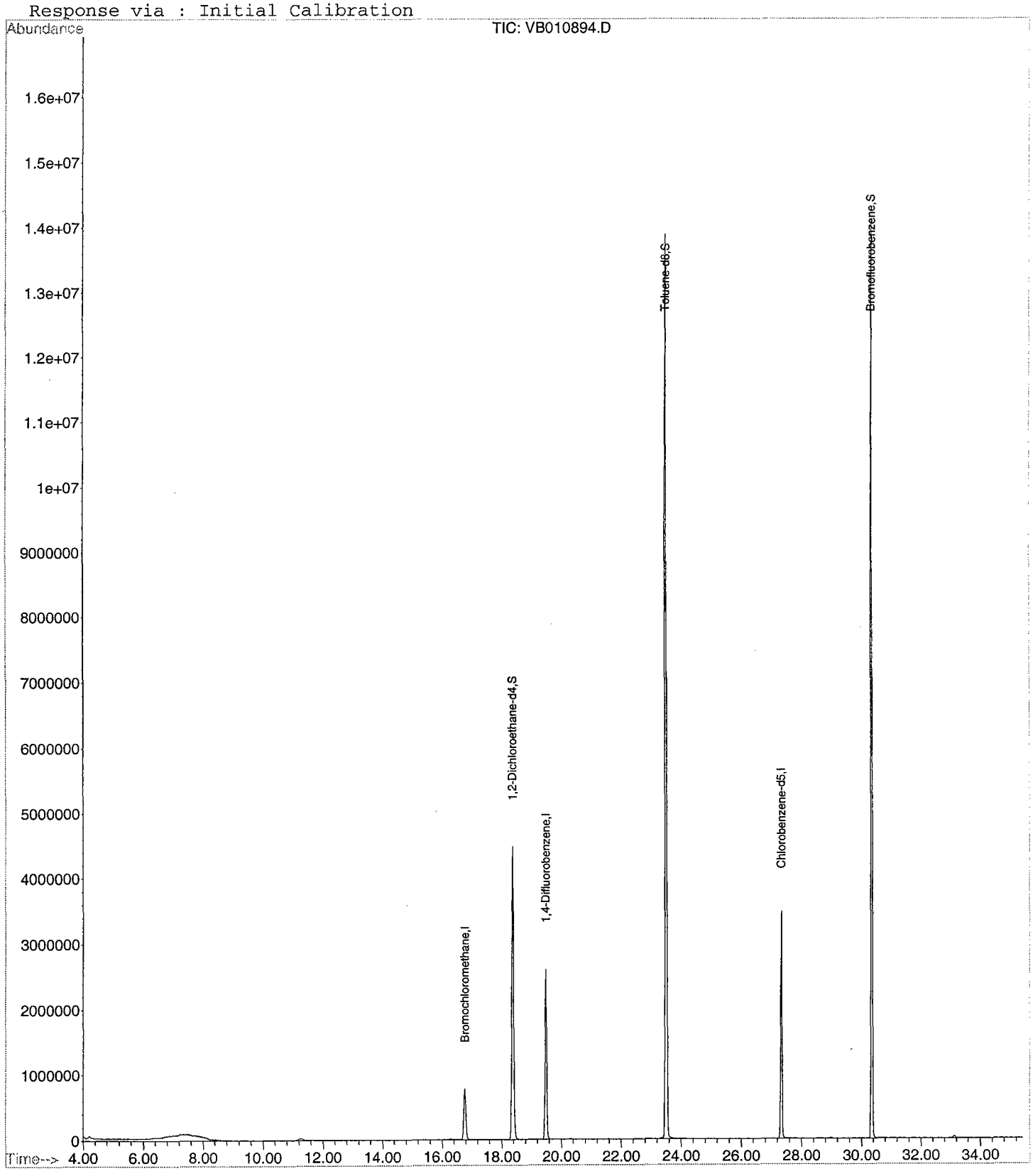
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	532151	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3936736	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1077334	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	6943173	144.67	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 482.23%#			
35) Toluene-d8	23.50	98	17885832	115.76	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 385.87%#			
49) Bromofluorobenzene	30.34	95	7745014	124.91	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 416.37%#			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010894.D Vial: 1
Acq On : 21 Feb 2002 11:14 am Operator: Skelton
Sample : 2010601 Inst : GC VOA 2
Misc : Trip Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:42 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010905.D Vial: 12
Acq On : 21 Feb 2002 6:43 pm Operator: Skelton
Sample : 2010602 Inst : GC VOA 2
Misc : Field Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 21 19:19 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

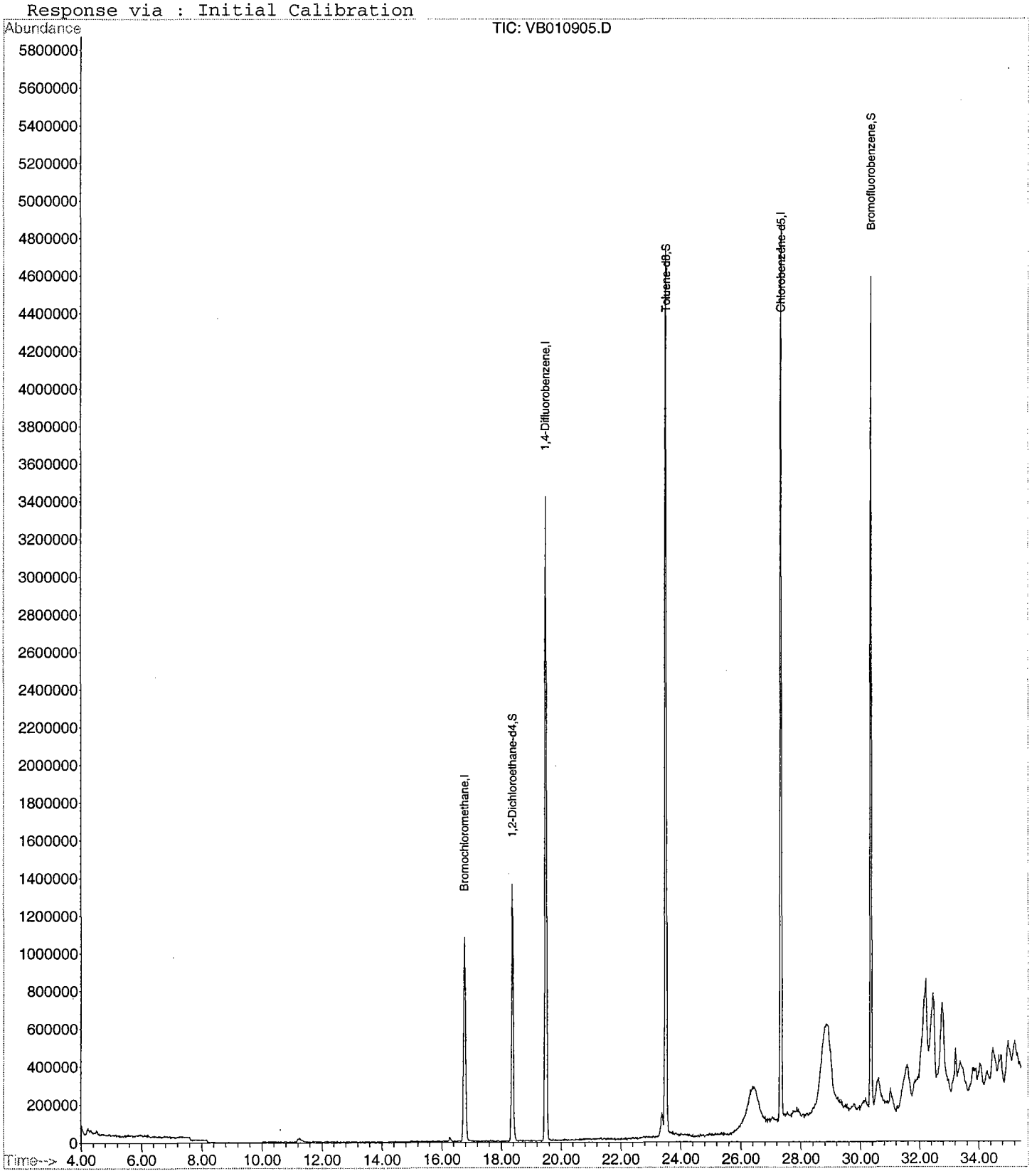
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	708194	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	5488618	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1559474	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	2014441	31.54	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 105.13%			
35) Toluene-d8	23.51	98	6530890	30.32	ug/L	0.01
Spiked Amount 30.000	Range 81 - 117		Recovery = 101.07%			
49) Bromofluorobenzene	30.34	95	2635245	29.36	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 97.87%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010905.D Vial: 12
Acq On : 21 Feb 2002 6:43 pm Operator: Skelton
Sample : 2010602 Inst : GC VOA 2
Misc : Field Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 21 19:19 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010895.D Vial: 2
Acq On : 21 Feb 2002 11:55 am Operator: Skelton
Sample : 2010603 Inst : GC VOA 2
Misc : 482-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:43 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

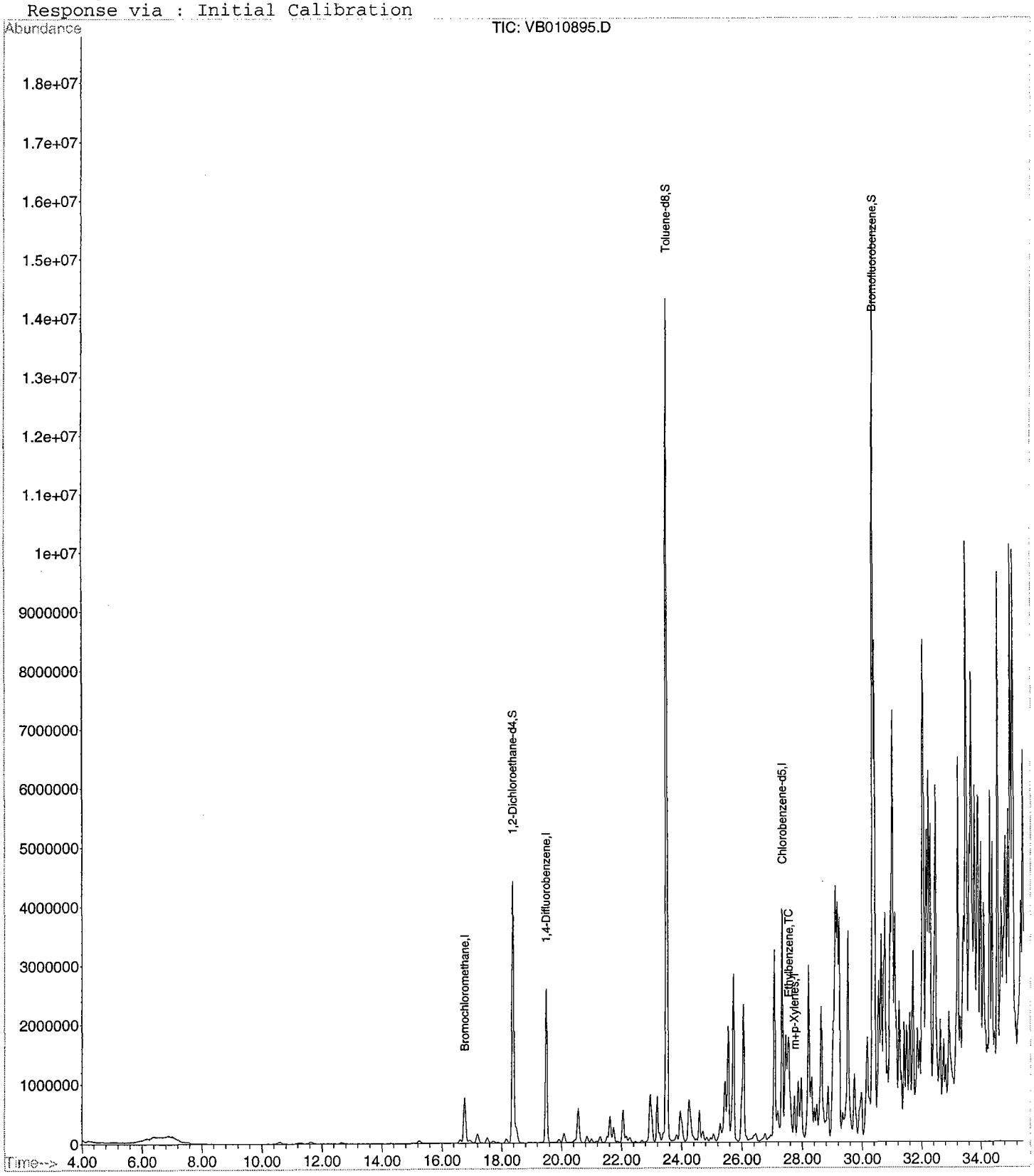
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	528801	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	4028403	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1258920	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	7099351	148.86	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 496.20%#			
35) Toluene-d8	23.50	98	18789819	118.85	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 396.17%#			
49) Bromofluorobenzene	30.34	95	8722843	120.39	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 401.30%#			
Target Compounds						Qvalue
44) Ethylbenzene	27.55	91	1343770	6.46	ug/L	98
45) m+p-Xylenes	27.74	106	329559	4.56	ug/L	98

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010895.D Vial: 2
Acq On : 21 Feb 2002 11:55 am Operator: Skelton
Sample : 2010603 Inst : GC VOA 2
Misc : 482-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:43 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010896.D Vial: 3
Acq On : 21 Feb 2002 12:35 pm Operator: Skelton
Sample : 2010604 Inst : GC VOA 2
Misc : 482-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:43 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

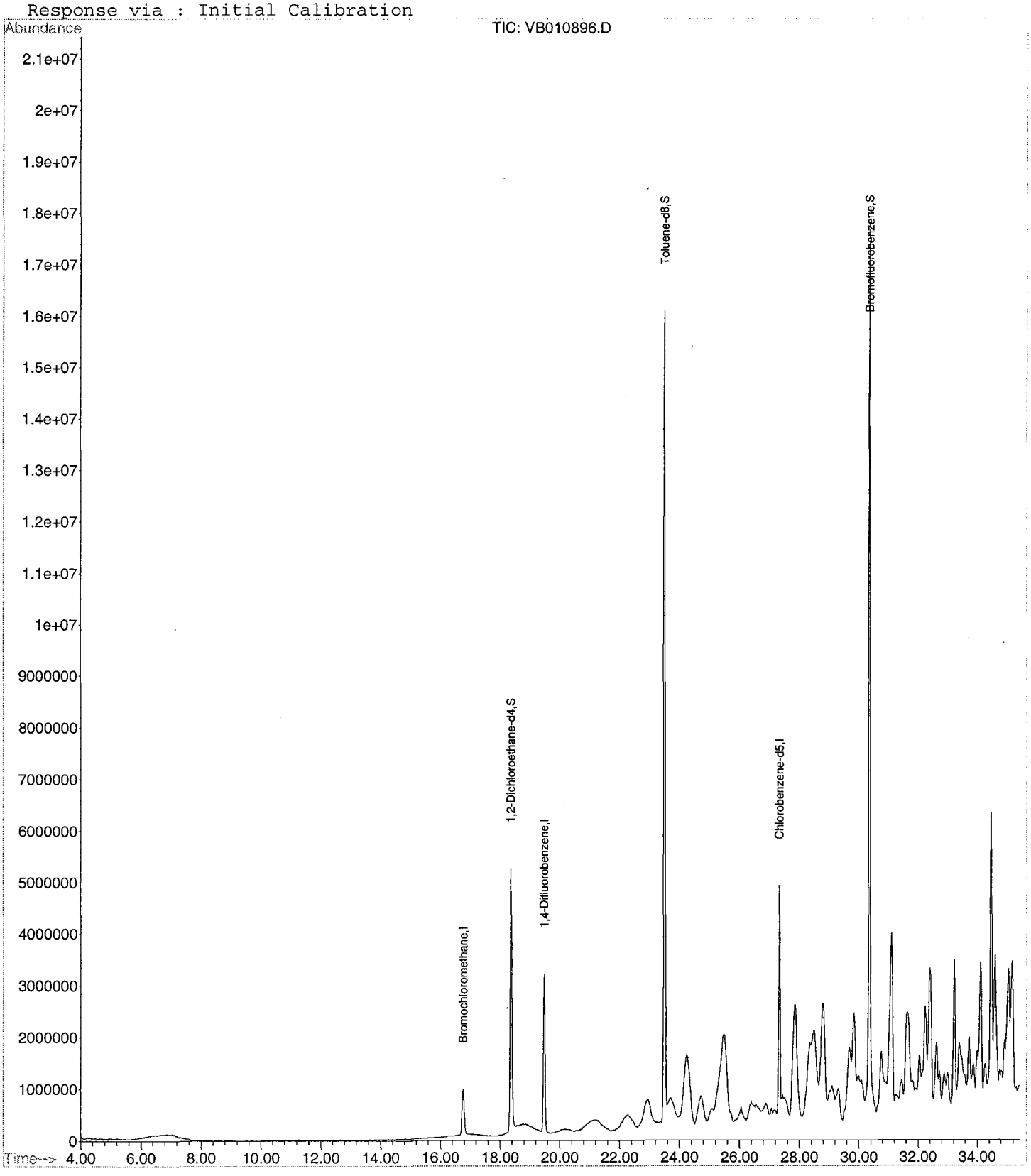
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	634523	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	4983726	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1540714	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	8007204	139.92	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 466.40%#			
35) Toluene-d8	23.50	98	20892574	106.82	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 356.07%#			
49) Bromofluorobenzene	30.34	95	9458666	106.67	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 355.57%#			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010896.D Vial: 3
Acq On : 21 Feb 2002 12:35 pm Operator: Skelton
Sample : 2010604 Inst : GC VOA 2
Misc : 482-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:43 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010897.D Vial: 4
Acq On : 21 Feb 2002 1:16 pm Operator: Skelton
Sample : 2010605 Inst : GC VOA 2
Misc : 482-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

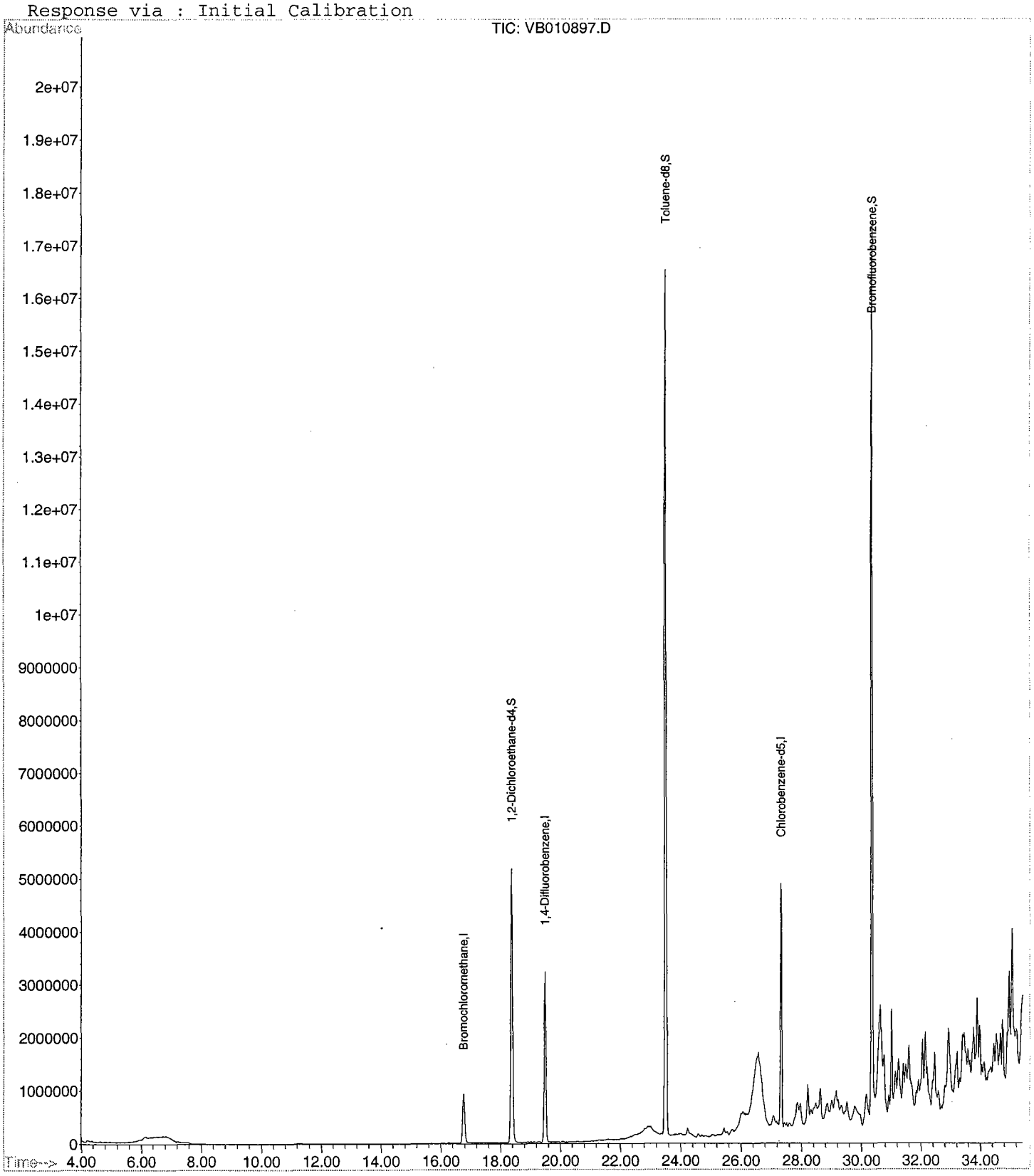
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	686601	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	5263623	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1503148	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	8264956	133.47	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 444.90%#			
35) Toluene-d8	23.50	98	21782094	105.44	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 351.47%#			
49) Bromofluorobenzene	30.34	95	9820867	113.52	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 378.40%#			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010897.D Vial: 4
Acq On : 21 Feb 2002 1:16 pm Operator: Skelton
Sample : 2010605 Inst : GC VOA 2
Misc : 482-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010898.D Vial: 5
Acq On : 21 Feb 2002 1:57 pm Operator: Skelton
Sample : 2010606 Inst : GC VOA 2
Misc : 482-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	700438	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	5483230	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1513828	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	7975337	126.25	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 420.83%#			
35) Toluene-d8	23.50	98	21140783	98.24	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 327.47%#			
49) Bromofluorobenzene	30.34	95	9615094	110.36	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 367.87%#			
Target Compounds						Qvalue

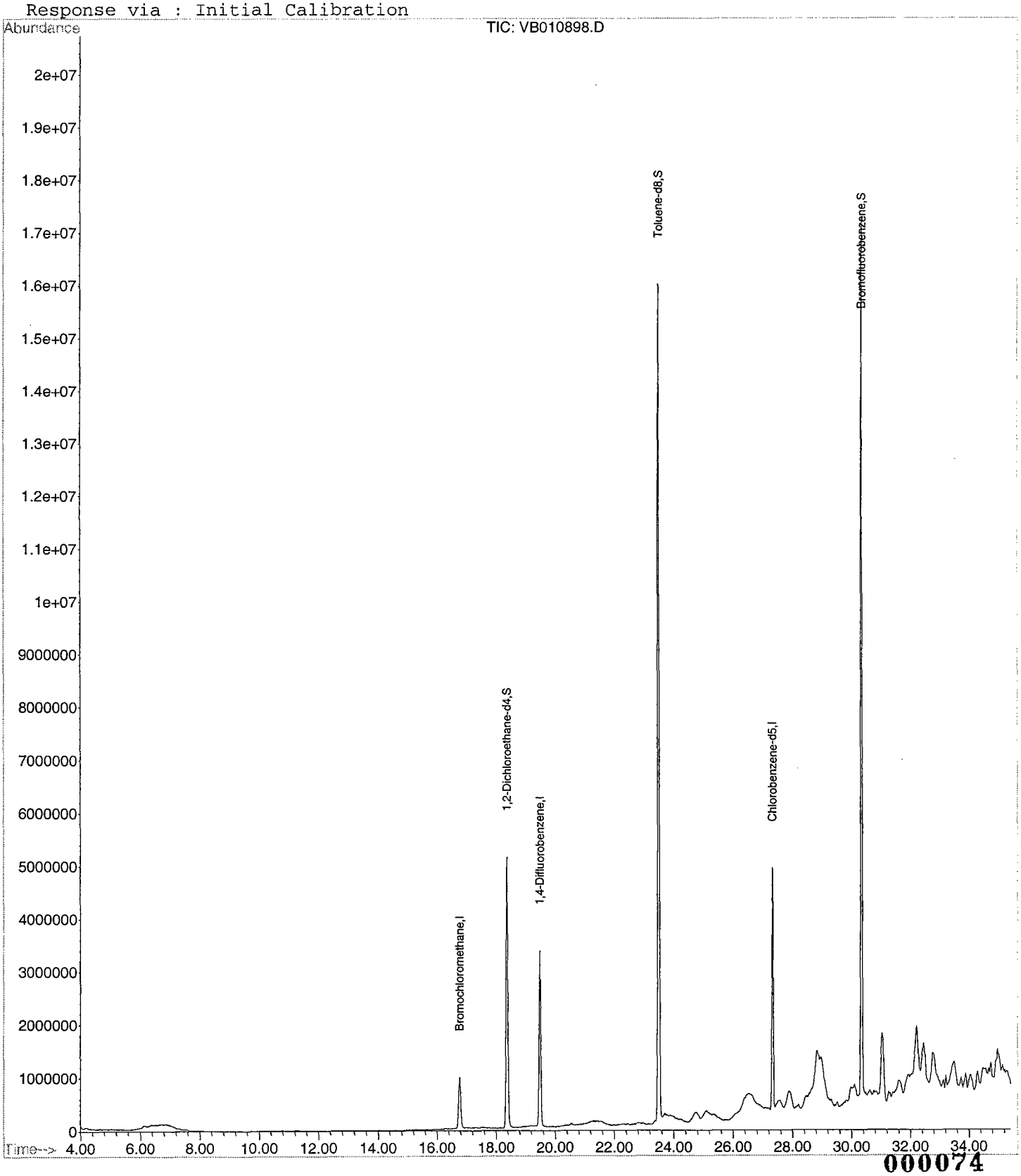
(#) = qualifier out of range (m) = manual integration

000073

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010898.D Vial: 5
Acq On : 21 Feb 2002 1:57 pm Operator: Skelton
Sample : 2010606 Inst : GC VOA 2
Misc : 482-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



000074

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010899.D Vial: 6
Acq On : 21 Feb 2002 2:38 pm Operator: Skelton
Sample : 2010607 Inst : GC VOA 2
Misc : 482-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

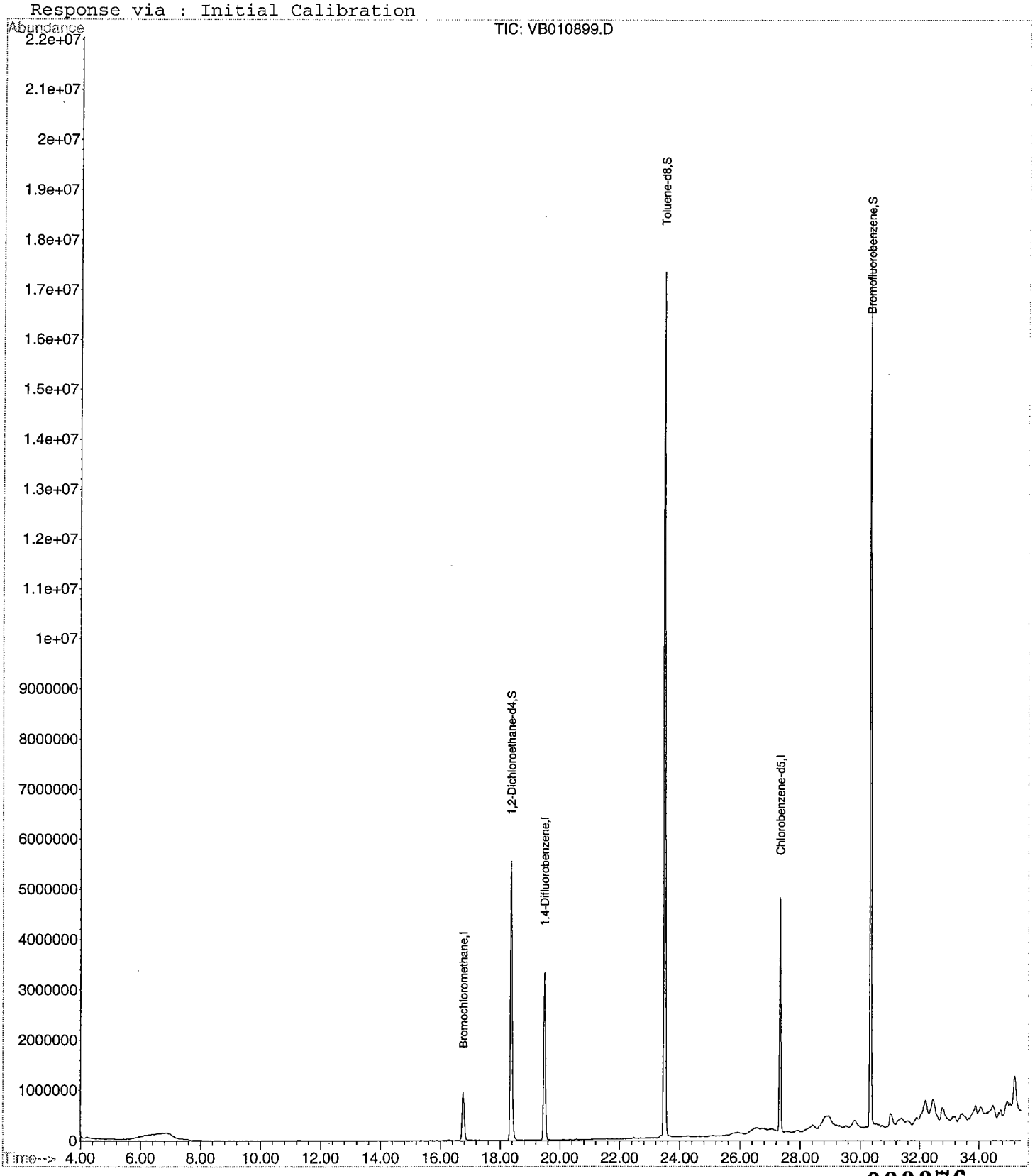
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	688208	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.49	114	5545062	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1554414	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	8918479	143.69	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 478.97%#			
35) Toluene-d8	23.50	98	23045869	105.90	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 353.00%#			
49) Bromofluorobenzene	30.34	95	10497976	117.35	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 391.17%#			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010899.D Vial: 6
Acq On : 21 Feb 2002 2:38 pm Operator: Skelton
Sample : 2010607 Inst : GC VOA 2
Misc : 482-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

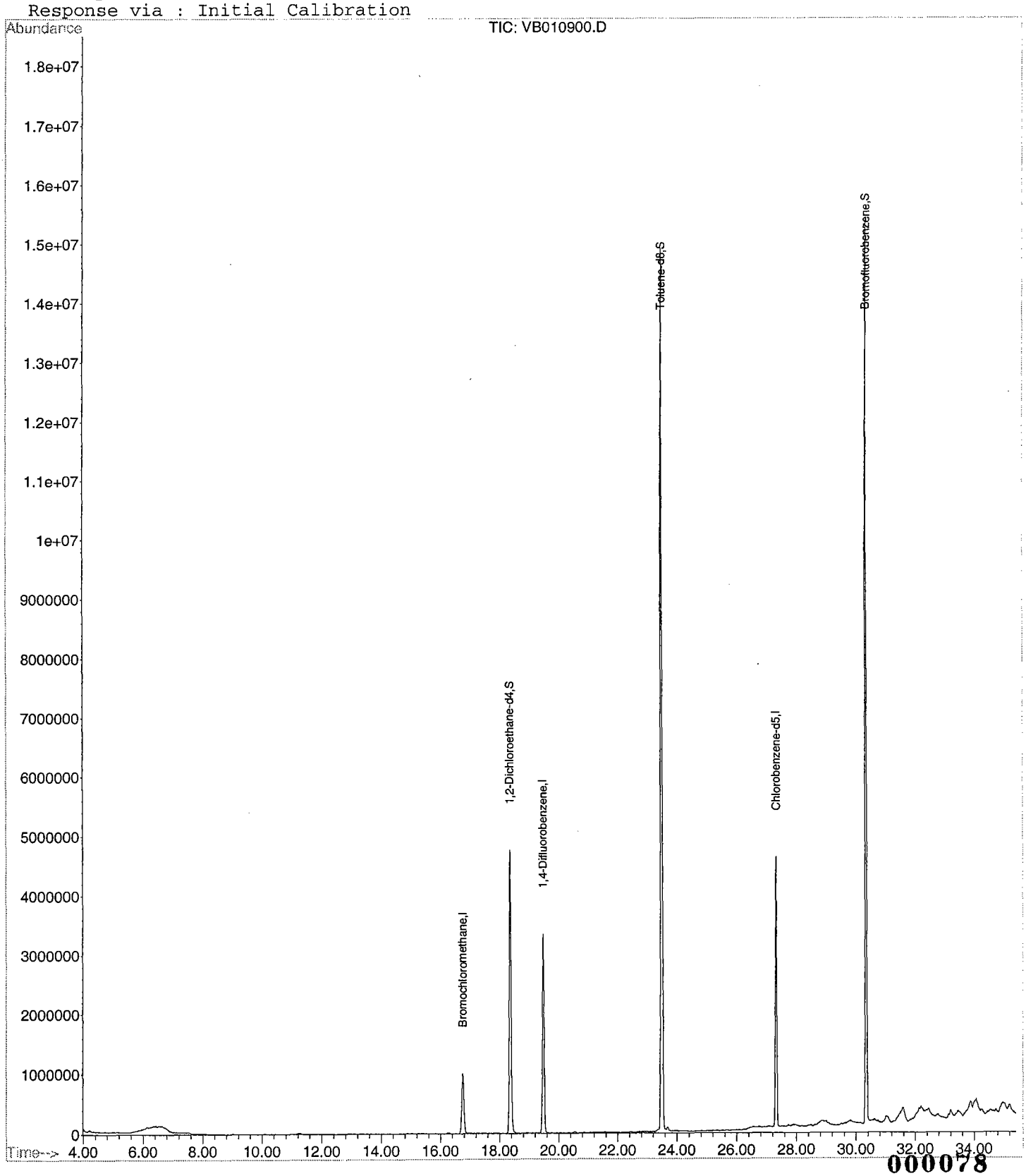
Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010900.D Vial: 7
Acq On : 21 Feb 2002 3:18 pm Operator: Skelton
Sample : 2010608 Inst : GC VOA 2
Misc : 482-7 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



000078

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010901.D Vial: 8
Acq On : 21 Feb 2002 3:59 pm Operator: Skelton
Sample : 2010609 Inst : GC VOA 2
Misc : 482-7 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

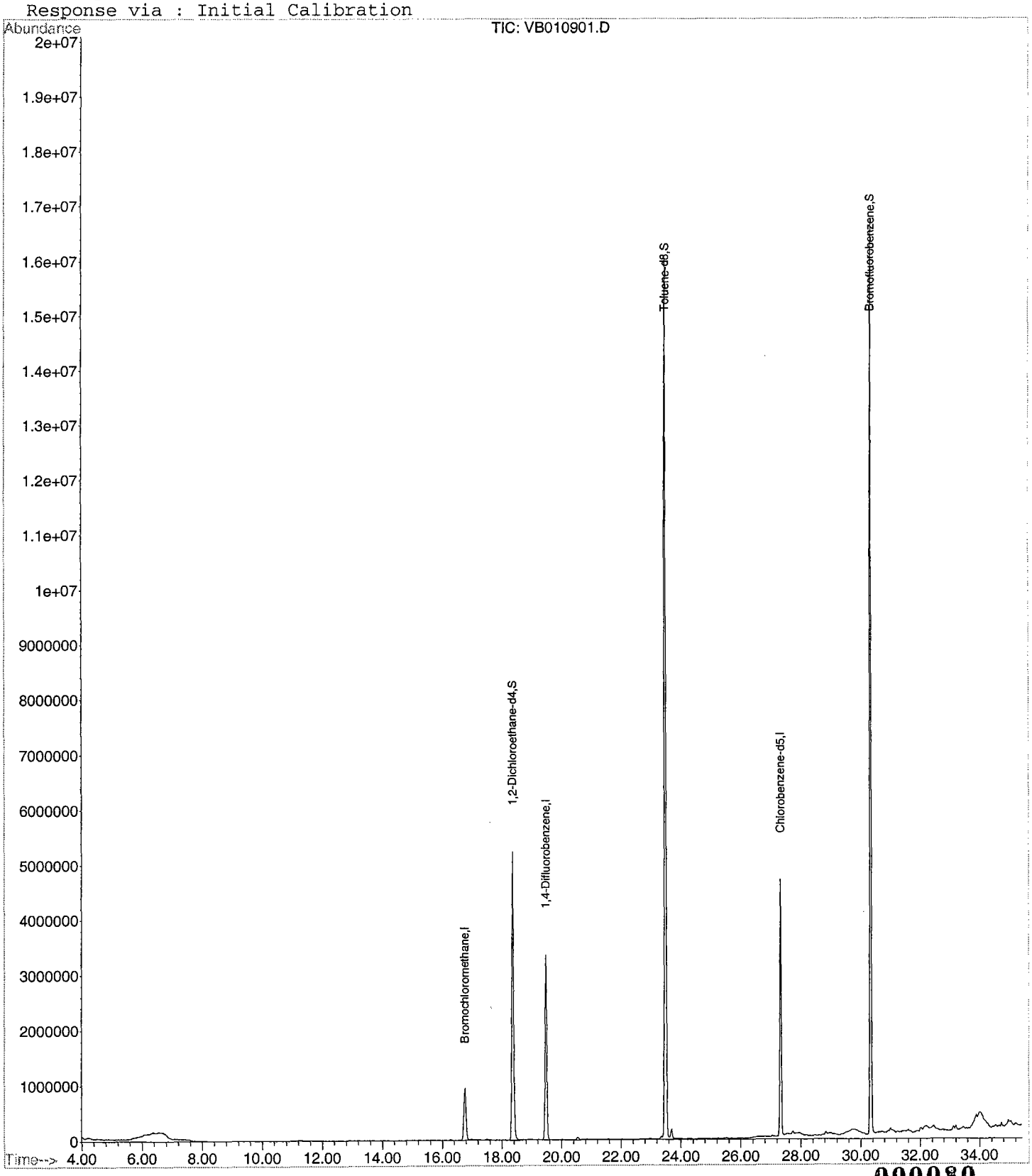
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	699761	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	5559053	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1558836	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	8150115	129.14	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 430.47%#			
35) Toluene-d8	23.50	98	21636086	99.17	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 330.57%#			
49) Bromofluorobenzene	30.34	95	9640299	107.46	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 358.20%#			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010901.D Vial: 8
Acq On : 21 Feb 2002 3:59 pm Operator: Skelton
Sample : 2010609 Inst : GC VOA 2
Misc : 482-7 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:44 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



000080

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010906.D Vial: 13
Acq On : 21 Feb 2002 7:24 pm Operator: Skelton
Sample : 2010610 Inst : GC VOA 2
Misc : 482 GW Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:46 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	736842	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	5370132	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1515552	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1979754	29.79	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 99.30%			
35) Toluene-d8	23.50	98	6422949	30.48	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 101.60%			
49) Bromofluorobenzene	30.34	95	2599731	29.81	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 99.37%			

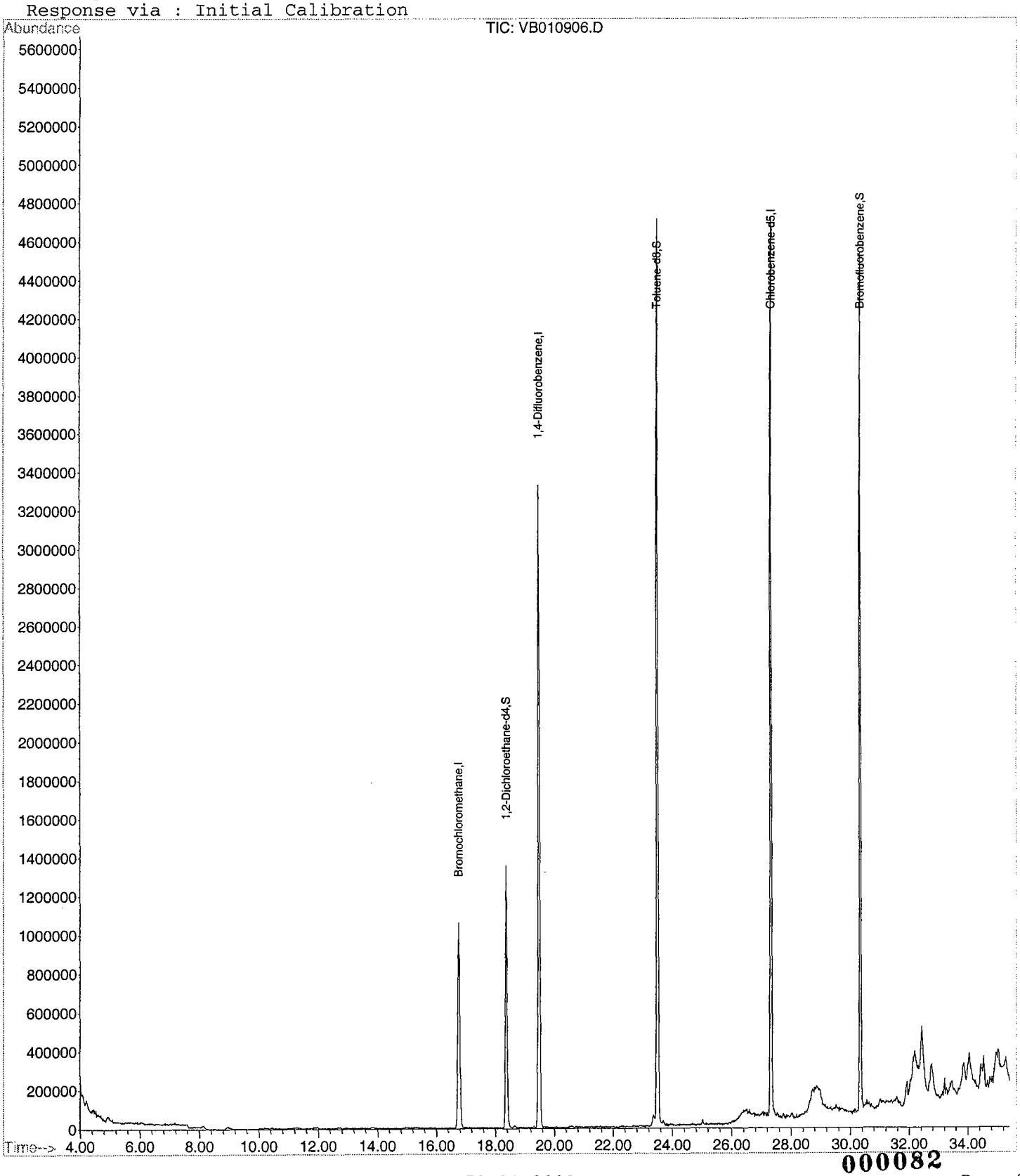
Target Compounds Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010906.D Vial: 13
Acq On : 21 Feb 2002 7:24 pm Operator: Skelton
Sample : 2010610 Inst : GC VOA 2
Misc : 482 GW Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:46 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



000082

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020221\VB010902.D Vial: 9
Acq On : 21 Feb 2002 4:40 pm Operator: Skelton
Sample : 2010611 Inst : GC VOA 2
Misc : Field Dupe Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:45 2002 Quant Results File: M262478.RES

Quant Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration
DataAcq Meth : M262478

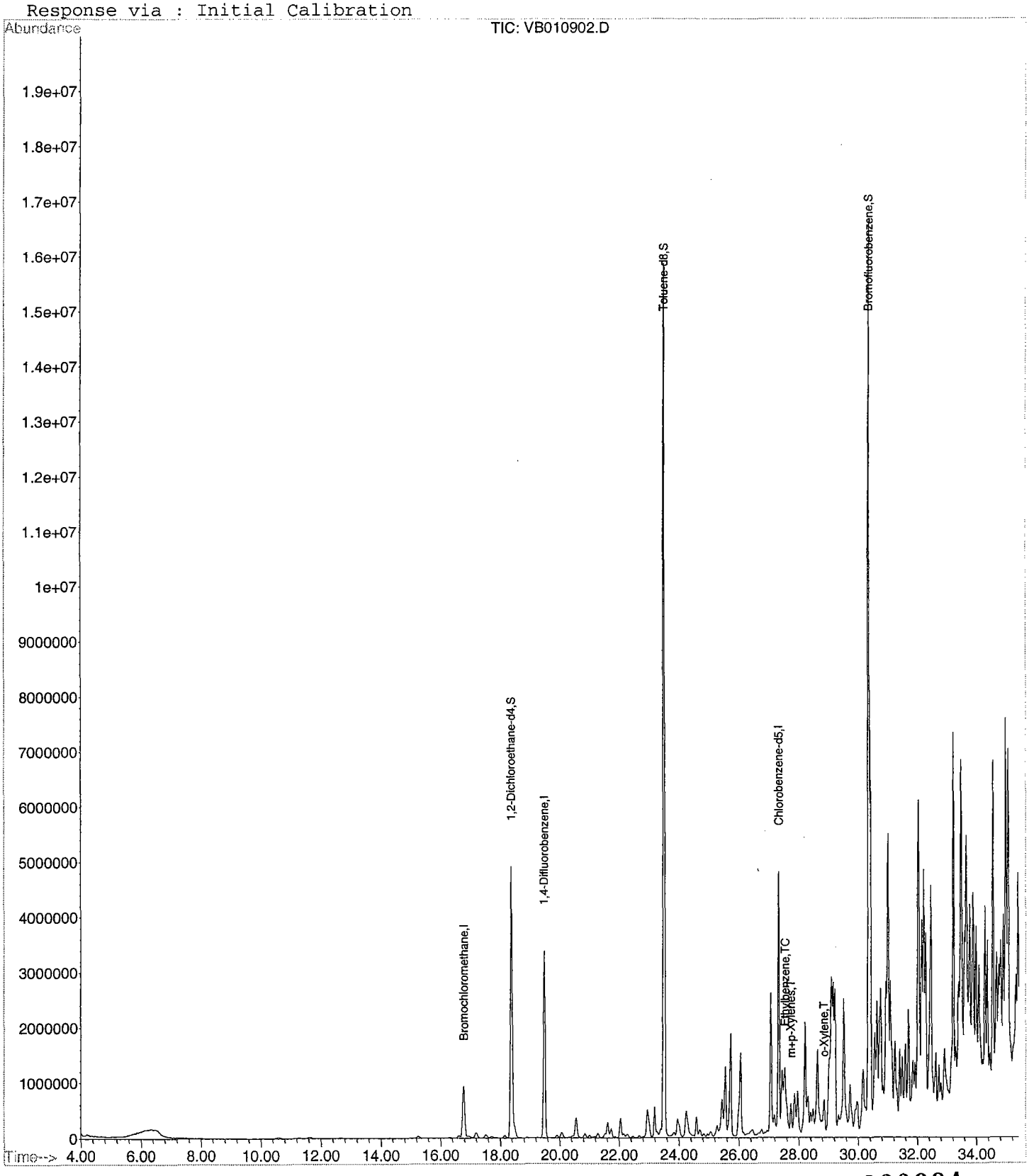
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	696791	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.49	114	5584290	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1569487	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	7923814	126.09	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 420.30%#			
35) Toluene-d8	23.50	98	21490877	98.06	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 326.87%#			
49) Bromofluorobenzene	30.34	95	9481293	104.97	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 349.90%#			
Target Compounds						Qvalue
44) Ethylbenzene	27.55	91	890547	3.44	ug/L	97
45) m+p-Xylenes	27.74	106	240849	2.67	ug/L	96
46) o-Xylene	28.84	91	99411	0.53	ug/L	97

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020221\VB010902.D Vial: 9
Acq On : 21 Feb 2002 4:40 pm Operator: Skelton
Sample : 2010611 Inst : GC VOA 2
Misc : Field Dupe Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 27 11:45 2002 Quant Results File: M262478.RES

Method : C:\HPCHEM\1\METHODS\M262478.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Feb 21 10:59:30 2002
Response via : Initial Calibration



BASE NEUTRAL

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05471.D**	Sample Name	**MB-2985**
Operator	**B.Patel**	Misc Info	**MB-022202**
Date Acquired	**25-Feb-02**	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	**BN05471.D**	Sample Name	**MB-2985**
Operator	**B.Patel**	Misc Info	**MB-022202**
Date Acquired	**25-Feb-02**	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.

MB-2985

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: BI.482 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB-2985

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05471.D

Level: (low/med) LOW Date Received: 2/20/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/22/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/25/02

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	**BN05484.D**	Sample Name	**2010602**
Operator	**B.Patel**	Misc Info	**Field Blank**
Date Acquired	**26-Feb-02**	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	**BN05484.D**	Sample Name	**2010602**
Operator	**B.Patel**	Misc Info	**Field Blank**
Date Acquired	**26-Feb-02**	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.

Field Blank

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: BI.482 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2010602

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05484.D

Level: (low/med) LOW Date Received: 2/20/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/22/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/26/02

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	**BN05485.D**	Sample Name	**2010610**
Operator	**B.Patel**	Misc Info	**482GW**
Date Acquired	**26-Feb-02**	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	**BN05485.D**	Sample Name	**2010610**
Operator	**B.Patel**	Misc Info	**482GW**
Date Acquired	**26-Feb-02**	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.

482-GW

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: BI.482 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2010610

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05485.D

Level: (low/med) LOW Date Received: 2/20/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/22/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/26/02

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	18.21	5	J

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: Bl.482 SDG No.:

Lab File ID: BN05461.D DFTPP Injection Date: 2/25/02

Instrument ID: GC_BNA_1 DFTPP Injection Time: 8:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	54.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	70.5
70	Less than 2.0% of mass 69	0.4 (0.6)1
127	25.0 - 75.0% of mass 198	50.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	24.8
365	Greater than 0.75% of mass 198	4.8
441	Present, but less than mass 443	12.6
442	40.0 - 110.0% of mass 198	85.9
443	15.0 - 24.0% of mass 442	16.8 (19.5)2

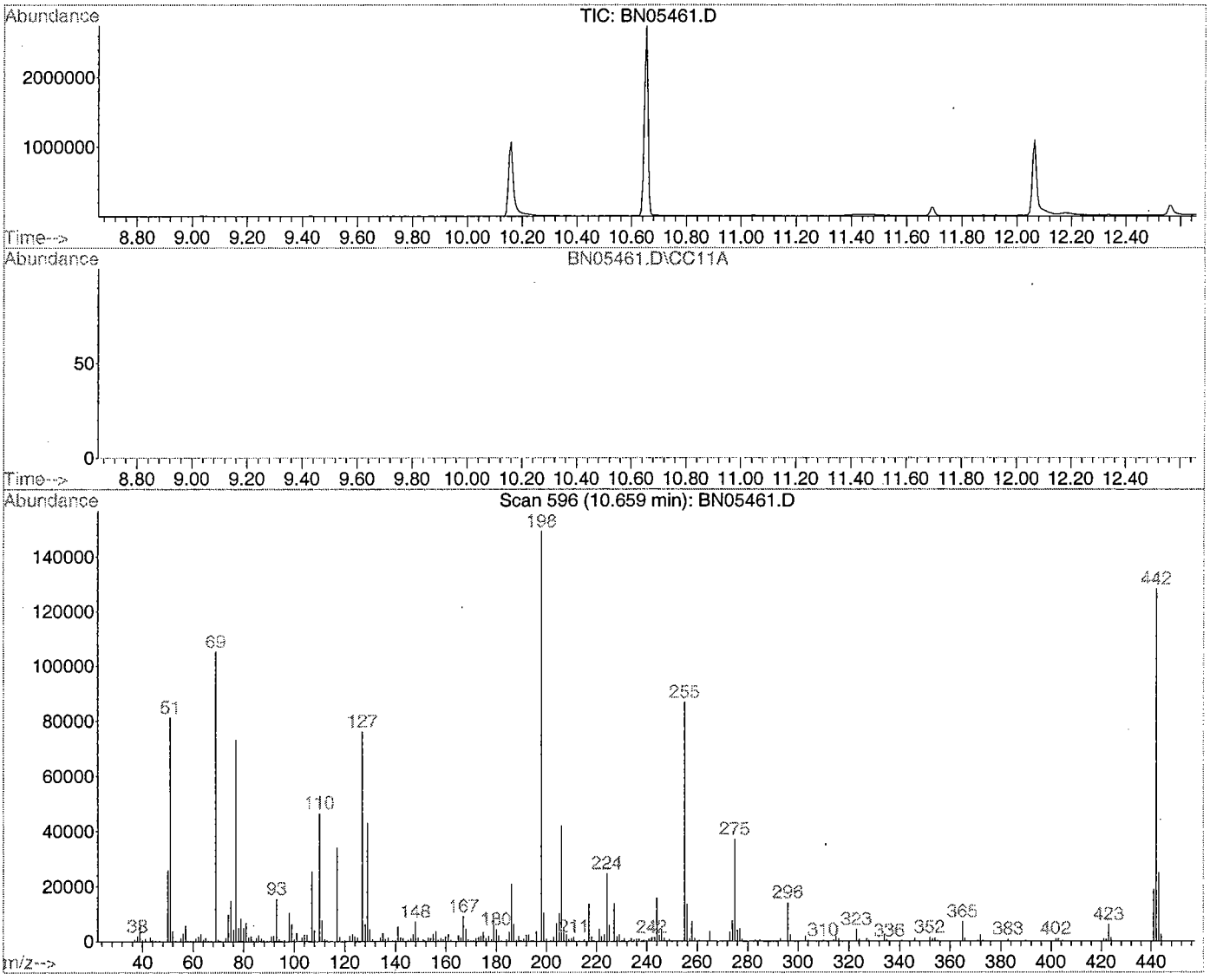
1-Value is % mass 69 2-Value is % mass 442

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	BN05462.D	2/25/02	8:34
02	SSTD120	SSTD120	BN05463.D	2/25/02	9:23
03	SSTD010	SSTD010	BN05464.D	2/25/02	10:07
04	SSTD020	SSTD020	BN05465.D	2/25/02	10:52
05	SSTD080	SSTD080	BN05466.D	2/25/02	11:36
06	MB-2985	MB-2985	BN05471.D	2/25/02	15:21
07	2009412MS	2009412MS	BN05479.D	2/25/02	21:22
08	2009412MSD	2009412MSD	BN05480.D	2/25/02	22:08
09	FIELD BLANK	2010602	BN05484.D	2/26/02	1:10
10	482-GW	2010610	BN05485.D	2/26/02	1:57

DFTPP

Data File : D:\HPCHEM\1\DATA\020225\BN05461.D Vial: 99
Acq On : 25 Feb 2002 8:11 am Operator: B.Patel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 596

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.4	81256	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	70.5	105264	PASS
70	69	0.00	2	0.6	668	PASS
127	198	40	60	50.9	76064	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	149312	PASS
199	198	5	9	7.0	10453	PASS
275	198	10	30	24.8	36976	PASS
365	198	1	100	4.8	7125	PASS
441	443	1	99	75.3	18872	PASS
442	198	40	100	85.9	128256	PASS
443	442	17	23	19.5	25056	PASS

BN05461.D M62553.M Tue Feb 26 13:14:38 2002 GC-BNA-1

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration

Calibration Files
120 =BN05463.D 80 =BN05466.D 50 =BN05462.D
20 =BN05465.D 10 =BN05464.D

		Compound	120	80	50	20	10	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	T	Pyridine	1.189	1.202	1.212	1.162	1.231	1.199	2.17
3)	T	N-nitroso-dimethylami	0.740	0.719	0.703	0.689	0.684	0.707	3.25
4)	S	2-Fluorophenol	1.420	1.385	1.360	1.304	1.237	1.341	5.37
5)	T	Aniline	1.394	1.388	1.381	1.379	1.359	1.380	0.97
6)	S	Phenol-d6	1.871	1.811	1.773	1.678	1.615	1.749	5.88
7)	TCM	Phenol	2.093	2.029	1.978	1.851	1.788	1.948	6.47
8)	T	bis(2-Chloroethyl)eth	1.394	1.388	1.381	1.379	1.359	1.380	0.97
9)	TM	2-Chlorophenol	1.461	1.442	1.416	1.329	1.316	1.393	4.75
10)	T	1,3-Dichlorobenzene	1.576	1.536	1.563	1.463	1.455	1.519	3.71
11)	TCM	1,4-Dichlorobenzene	1.615	1.585	1.574	1.480	1.505	1.552	3.67
12)	T	Benzyl alcohol	0.946	0.905	0.888	0.798	0.746	0.857	9.57
13)	T	1,2-Dichlorobenzene	1.532	1.497	1.515	1.411	1.442	1.479	3.46
14)	T	2-Methylphenol	1.350	1.300	1.276	1.180	1.186	1.259	5.87
15)	T	bis(2-chloroisopropyl	2.680	2.632	2.683	2.613	2.660	2.654	1.14
16)	T	4-Methylphenol	1.416	1.357	1.312	1.197	1.148	1.286	8.65
17)	TM	n-Nitroso-di-n-propyl	0.201	0.197	0.189	0.179	0.178	0.189	5.45
18)	T	Hexachloroethane	0.864	0.844	0.870	0.824	0.831	0.847	2.34
19)	I	Naphthalene-d8	----------ISTD----------						
20)	S	Nitrobenzene-d5	0.532	0.517	0.537	0.496	0.504	0.517	3.41
21)	T	Nitrobenzene	0.515	0.507	0.518	0.488	0.483	0.502	3.19
22)	T	Isophorone	0.826	0.802	0.814	0.770	0.787	0.800	2.73
23)	TC	2-Nitrophenol	0.231	0.224	0.224	0.200	0.191	0.214	8.16
24)	T	2,4-Dimethylphenol	0.447	0.439	0.443	0.415	0.407	0.430	4.16
25)	T	bis(2-Chloroethoxy)me	0.493	0.473	0.472	0.435	0.442	0.463	5.19
26)	TC	2,4-Dichlorophenol	0.319	0.306	0.301	0.273	0.267	0.293	7.63
27)	T	Benzoic Acid	0.334	0.314	0.284	0.231	0.226	0.278	17.41
28)	TM	1,2,4-Trichlorobenzen	0.349	0.333	0.347	0.321	0.322	0.334	3.92
29)	T	Naphthalene	1.144	1.105	1.098	1.025	1.039	1.082	4.56
30)	T	4-Chloroaniline	0.336	0.387	0.367	0.380	0.381	0.370	5.51
31)	TC	Hexachlorobutadiene	0.206	0.200	0.211	0.196	0.195	0.202	3.37
32)	TCM	4-Chloro-3-methylphen	0.374	0.368	0.365	0.335	0.330	0.354	5.72
33)	T	2-Methylnaphthalene	0.659	0.628	0.631	0.594	0.582	0.619	4.96
34)	I	Acenaphthene-d10	----------ISTD----------						
35)	T	Hexachlorocyclopentad	0.462	0.422	0.398	0.357	0.301	0.388	15.96
36)	TC	2,4,6-Trichlorophenol	0.463	0.447	0.436	0.403	0.387	0.427	7.32
37)	T	2,4,5-Trichlorophenol	0.484	0.464	0.415	0.408	0.372	0.429	10.52
38)	S	2-Fluorobiphenyl	1.440	1.414	1.329	1.297	1.314	1.359	4.73
39)	T	2-Chloronaphthalene	1.382	1.336	1.274	1.248	1.244	1.297	4.64
40)	T	2-Nitroaniline	0.534	0.522	0.495	0.468	0.464	0.497	6.33
41)	T	Dimethylphthalate	1.655	1.606	1.511	1.540	1.569	1.576	3.57
42)	T	Acenaphthylene	2.270	2.167	2.129	2.022	2.033	2.124	4.81
43)	T	2,6-Dinitrotoluene	0.560	0.539	0.538	0.547	0.544	0.546	1.57
44)	T	3-Nitroaniline	0.342	0.370	0.346	0.356	0.329	0.349	4.35
45)	TCM	Acenaphthene	1.367	1.336	1.248	1.243	1.240	1.287	4.67
46)	T	2,4-Dinitrophenol	0.268	0.244	0.214	0.175	0.156	0.211	22.02
47)	T	Dibenzofuran	1.836	1.771	1.709	1.648	1.701	1.733	4.15
48)	TM	4-Nitrophenol	0.382	0.342	0.268	0.353	0.306	0.330	13.35
49)	TM	2,4-Dinitrotoluene	0.521	0.496	0.491	0.476	0.465	0.490	4.39
50)	T	Diethylphthalate	1.891	1.833	1.752	1.763	1.838	1.815	3.17
51)	T	Fluorene	1.521	1.472	1.404	1.377	1.361	1.427	4.75
52)	T	4-Chlorophenyl-phenyl	0.672	0.644	0.628	0.602	0.611	0.631	4.42
53)	T	4-Nitroaniline	0.384	0.366	0.353	0.334	0.312	0.350	7.93
54)	I	Phenanthrene-d10	----------ISTD----------						

(#) = Out of Range

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration

Calibration Files
120 =BN05463.D 80 =BN05466.D 50 =BN05462.D
20 =BN05465.D 10 =BN05464.D

		Compound	120	80	50	20	10	Avg	%RSD
55)	T	4,6-Dinitro-2-methylp	0.195	0.189	0.175	0.161	0.145	0.173	12.00
56)	TC	n-Nitrosodiphenylamin	0.625	0.618	0.572	0.566	0.601	0.597	4.46
57)	T	Azobenzene	1.347	1.349	1.337	1.331	1.369	1.347	1.07
58)	S	2,4,6-Tribromophenol	0.136	0.136	0.135	0.126	0.131	0.133	3.41
59)	T	4-Bromophenyl-phenyle	0.226	0.223	0.221	0.213	0.225	0.221	2.22
60)	T	Hexachlorobenzene	0.262	0.267	0.265	0.255	0.273	0.264	2.39
61)	TCM	Pentachlorophenol	0.165	0.158	0.144	0.128	0.110	0.141	15.80
62)	T	Phenanthrene	1.199	1.177	1.170	1.151	1.161	1.172	1.55
63)	T	Anthracene	1.263	1.255	1.210	1.173	1.188	1.218	3.29
64)	T	Di-n-butylphthalate	1.823	1.843	1.747	1.710	1.759	1.776	3.10
65)	TC	Fluoranthene	1.214	1.223	1.192	1.139	1.194	1.192	2.72
66)	I	Chrysene-d12	----------ISTD----------						
67)	T	Benzidine	0.437	0.398	0.403	0.429	0.471	0.428	6.89
68)	TM	Pyrene	1.472	1.470	1.450	1.418	1.473	1.457	1.61
69)	S	p-Terphenyl-d14	0.884	0.879	0.882	0.872	0.873	0.878	0.62
70)	T	Butylbenzylphthalate	0.958	0.952	0.936	0.944	0.953	0.949	0.92
71)	T	Benzo[a]anthracene	1.227	1.209	1.203	1.176	1.210	1.205	1.55
72)	T	3,3'-Dichlorobenzidin	0.371	0.414	0.411	0.449	0.459	0.421	8.34
73)	T	Chrysene	1.139	1.155	1.118	1.114	1.158	1.137	1.78
74)	T	bis(2-Ethylhexyl)phth	1.324	1.315	1.263	1.241	1.274	1.283	2.76
75)	I	Perylene-d12	----------ISTD----------						
76)	TC	Di-n-octylphthalate	3.492	3.439	3.188	2.994	2.924	3.207	7.95
77)	T	Benzo[b]fluoranthene	1.739	1.707	1.659	1.560	1.572	1.648	4.83
78)	T	Benzo[k]fluoranthene	1.728	1.718	1.646	1.580	1.591	1.653	4.17
79)	TC	Benzo[a]pyrene	1.628	1.641	1.565	1.483	1.435	1.551	5.79
80)	T	Indeno[1,2,3-cd]pyren	1.792	1.598	1.707	1.564	1.536	1.640	6.53
81)	T	Dibenz[a,h]anthracene	1.498	1.481	1.405	1.269	1.248	1.380	8.45
82)	T	Benzo[g,h,i]perylene	1.479	1.478	1.426	1.331	1.303	1.403	5.86

#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\020225\BN05462.D Vial: 100
Acq On : 25 Feb 2002 8:34 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\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
2	T	Pyridine	1.199	1.218	-1.6	100	0.00
3	T	N-nitroso-dimethylamine	0.707	0.703	0.6	100	0.00
4	S	2-Fluorophenol	1.341	1.360	-1.4	100	0.00
5	T	Aniline	1.380	1.381	-0.1	100	0.00
6	S	Phenol-d6	1.749	1.773	-1.4	100	0.00
7	TCM	Phenol	1.948	1.978	-1.5	100	0.00
8	T	bis(2-Chloroethyl)ether	1.380	1.381	-0.1	100	0.00
9	TM	2-Chlorophenol	1.393	1.416	-1.7	100	0.00
10	T	1,3-Dichlorobenzene	1.519	1.563	-2.9	100	0.00
11	TCM	1,4-Dichlorobenzene	1.552	1.574	-1.4	100	0.00
12	T	Benzyl alcohol	0.857	0.888	-3.6	100	0.00
13	T	1,2-Dichlorobenzene	1.479	1.515	-2.4	100	0.00
14	T	2-Methylphenol	1.259	1.276	-1.4	100	0.00
15	T	bis(2-chloroisopropyl)ether	2.654	2.683	-1.1	100	0.00
16	T	4-Methylphenol	1.286	1.312	-2.0	100	0.00
17	TM	n-Nitroso-di-n-propylamine	0.189	0.189	0.0	100	0.00
18	T	Hexachloroethane	0.847	0.870	-2.7	100	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	100	0.00
20	S	Nitrobenzene-d5	0.517	0.537	-3.9	100	0.00
21	T	Nitrobenzene	0.502	0.518	-3.2	100	0.00
22	T	Isophorone	0.800	0.814	-1.7	100	0.00
23	TC	2-Nitrophenol	0.214	0.224	-4.7	100	0.00
24	T	2,4-Dimethylphenol	0.430	0.443	-3.0	100	0.00
25	T	bis(2-Chloroethoxy)methane	0.463	0.472	-1.9	100	0.00
26	TC	2,4-Dichlorophenol	0.293	0.301	-2.7	100	0.00
27	T	Benzoic Acid	0.278	0.286	-2.9	101	0.00
28	TM	1,2,4-Trichlorobenzene	0.334	0.347	-3.9	100	0.00
29	T	Naphthalene	1.082	1.098	-1.5	100	0.00
30	T	4-Chloroaniline	0.370	0.366	1.1	100	0.00
31	TC	Hexachlorobutadiene	0.202	0.211	-4.5	100	0.00
32	TCM	4-Chloro-3-methylphenol	0.354	0.365	-3.1	100	0.00
33	T	2-Methylnaphthalene	0.619	0.631	-1.9	100	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00
35	T	Hexachlorocyclopentadiene	0.388	0.398	-2.6	100	0.00
36	TC	2,4,6-Trichlorophenol	0.427	0.436	-2.1	100	0.00
37	T	2,4,5-Trichlorophenol	0.429	0.415	3.3	100	0.00
38	S	2-Fluorobiphenyl	1.359	1.329	2.2	100	0.00
39	T	2-Chloronaphthalene	1.297	1.274	1.8	100	0.00
40	T	2-Nitroaniline	0.497	0.495	0.4	100	0.00
41	T	Dimethylphthalate	1.576	1.511	4.1	100	0.00
42	T	Acenaphthylene	2.124	2.129	-0.2	100	0.00
43	T	2,6-Dinitrotoluene	0.546	0.538	1.5	100	0.00
44	T	3-Nitroaniline	0.349	0.346	0.9	100	0.00
45	TCM	Acenaphthene	1.287	1.248	3.0	100	0.00
46	T	2,4-Dinitrophenol	0.211	0.214	-1.4	100	0.00
47	T	Dibenzofuran	1.733	1.709	1.4	100	0.00
48	TM	4-Nitrophenol	0.330	0.268	18.8	100	0.00
49	TM	2,4-Dinitrotoluene	0.490	0.491	-0.2	100	0.00
50	T	Diethylphthalate	1.815	1.752	3.5	100	0.00
51	T	Fluorene	1.427	1.404	1.6	100	0.00
52	T	4-Chlorophenyl-phenylether	0.631	0.628	0.5	100	0.00
53	T	4-Nitroaniline	0.350	0.353	-0.9	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\020225\BN05462.D Vial: 100
Acq On : 25 Feb 2002 8:34 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\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00
55	T	4,6-Dinitro-2-methylphenol	0.173	0.175	-1.2	100	0.00
56	TC	n-Nitrosodiphenylamine	0.597	0.572	4.2	100	0.00
57	T	Azobenzene	1.347	1.337	0.7	100	0.00
58	S	2,4,6-Tribromophenol	0.133	0.135	-1.5	100	0.00
59	T	4-Bromophenyl-phenylether	0.221	0.221	0.0	100	0.00
60	T	Hexachlorobenzene	0.264	0.265	-0.4	100	0.00
61	TCM	Pentachlorophenol	0.141	0.144	-2.1	100	0.00
62	T	Phenanthrene	1.172	1.170	0.2	100	0.00
63	T	Anthracene	1.218	1.210	0.7	100	0.00
64	T	Di-n-butylphthalate	1.776	1.747	1.6	100	0.00
65	TC	Fluoranthene	1.192	1.192	0.0	100	0.00
66	I	Chrysene-d12	1.000	1.000	0.0	100	0.00
67	T	Benzidine	0.428	0.403	5.8	100	0.00
68	TM	Pyrene	1.457	1.450	0.5	100	0.00
69	S	p-Terphenyl-d14	0.878	0.882	-0.5	100	0.00
70	T	Butylbenzylphthalate	0.949	0.936	1.4	100	0.00
71	T	Benzo[a]anthracene	1.205	1.203	0.2	100	0.00
72	T	3,3'-Dichlorobenzidine	0.421	0.411	2.4	100	0.00
73	T	Chrysene	1.137	1.118	1.7	100	0.00
74	T	bis(2-Ethylhexyl)phthalate	1.283	1.263	1.6	100	0.00
75	I	Perylene-d12	1.000	1.000	0.0	100	0.00
76	TC	Di-n-octylphthalate	3.207	3.188	0.6	100	0.00
77	T	Benzo[b]fluoranthene	1.648	1.659	-0.7	100	0.00
78	T	Benzo[k]fluoranthene	1.653	1.646	0.4	100	0.00
79	TC	Benzo[a]pyrene	1.551	1.565	-0.9	100	0.00
80	T	Indeno[1,2,3-cd]pyrene	1.640	1.707	-4.1	100	0.00
81	T	Dibenz[a,h]anthracene	1.380	1.405	-1.8	100	0.00
82	T	Benzo[g,h,i]perylene	1.403	1.426	-1.6	100	0.00

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-2985

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: Bl.482 SDG No.:

Lab File ID: BN05471.D Lab Sample ID: MB-2985

Instrument ID: GC/MS Ins Date Extracted: 2/22/02

Matrix: (soil/water) WATER Date Analyzed: 2/25/02

Level: (low/med) LOW Time Analyzed: 15:21

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2009412MS	2009412MS	BN05479.D	2/25/02
02	2009412MSD	2009412MSD	BN05480.D	2/25/02
03	FIELD BLANK	2010602	BN05484.D	2/26/02
04	482-GW	2010610	BN05485.D	2/26/02

COMMENTS:

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: Bl.482 SDG No.: _____

	EPA SAMPLE NO.	S1 NBZ #	S2 2FP #	S3 TPL #	TOT OUT
01	MB-2985	63	63	77	0
02	2009412MS	79	77	76	0
03	2009412MSD	63	65	70	0
04	FIELD BLANK	66	69	76	0
05	482-GW	64	63	29	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 **BN05479.D** Sample Name **2009412MS**

Date Acquired **25-Feb-02**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		8.21 ug/L	41.05
62-75-9	N-nitroso-dimethylamine		10.56 ug/L	52.79
62-53-3	Aniline		15.59 ug/L	77.97
111-44-4	bis(2-Chloroethyl)ether		15.59 ug/L	77.97
541-73-1	1,3-Dichlorobenzene		14.48 ug/L	72.39
106-46-7	1,4-Dichlorobenzene		14.48 ug/L	72.42
100-51-6	Benzyl alcohol		12.88 ug/L	64.40
95-50-1	1,2-Dichlorobenzene		14.92 ug/L	74.58
39638-32-9	bis(2-chloroisopropyl)ether		17.25 ug/L	86.26
621-64-7	n-Nitroso-di-n-propylamine		15.70 ug/L	78.49
67-72-1	Hexachloroethane		14.88 ug/L	74.39
98-95-3	Nitrobenzene		16.94 ug/L	84.71
78-59-1	Isophorone		17.88 ug/L	89.38
111-91-1	bis(2-Chloroethoxy)methane		16.39 ug/L	81.94
120-82-1	1,2,4-Trichlorobenzene		15.11 ug/L	75.55
91-20-3	Naphthalene		15.07 ug/L	75.37
106-47-8	4-Chloroaniline		5.53 ug/L	27.65
87-68-3	Hexachlorobutadiene		14.68 ug/L	73.39
91-57-6	2-Methylnaphthalene		14.99 ug/L	74.93
77-47-4	Hexachlorocyclopentadiene		4.72 ug/L	23.61
91-58-7	2-Chloronaphthalene		16.39 ug/L	81.95
88-74-4	2-Nitroaniline		14.87 ug/L	74.36
131-11-3	Dimethylphthalate		17.03 ug/L	85.16
208-96-8	Acenaphthylene		14.84 ug/L	74.18
606-20-2	2,6-Dinitrotoluene		18.31 ug/L	91.54
99-09-2	3-Nitroaniline		10.20 ug/L	51.00
83-32-9	Acenaphthene		16.12 ug/L	80.62
132-64-9	Dibenzofuran		15.53 ug/L	77.66
121-14-2	2,4-Dinitrotoluene		16.86 ug/L	84.31
84-66-2	Diethylphthalate		17.40 ug/L	87.02
86-73-7	Fluorene		16.00 ug/L	80.02
7005-72-3	4-Chlorophenyl-phenylether		16.10 ug/L	80.52
100-01-6	4-Nitroaniline		11.89 ug/L	59.43
86-30-6	n-Nitrosodiphenylamine		16.60 ug/L	83.01
103-33-3	Azobenzene		17.41 ug/L	87.06
101-55-3	4-Bromophenyl-phenylether		16.98 ug/L	84.91
118-74-1	Hexachlorobenzene		17.83 ug/L	89.15
85-01-8	Phenanthrene		17.34 ug/L	86.68
120-12-7	Anthracene		16.34 ug/L	81.69
84-74-2	Di-n-butylphthalate		17.48 ug/L	87.38
206-44-0	Fluoranthene		16.10 ug/L	80.50
129-00-0	Pyrene		19.20 ug/L	96.01
85-68-7	Butylbenzylphthalate		19.20 ug/L	96.02
56-55-3	Benzo[a]anthracene		17.62 ug/L	88.08
218-01-9	Chrysene		18.39 ug/L	91.95
117-81-7	bis(2-Ethylhexyl)phthalate		18.90 ug/L	94.48
117-84-0	Di-n-octylphthalate		15.87 ug/L	79.37
205-99-2	Benzo[b]fluoranthene		16.31 ug/L	81.55
207-08-9	Benzo[k]fluoranthene		16.39 ug/L	81.95
50-32-8	Benzo[a]pyrene		15.37 ug/L	76.84
193-39-5	Indeno[1,2,3-cd]pyrene		16.66 ug/L	83.30
53-70-3	Dibenz[a,h]anthracene		16.92 ug/L	84.59
191-24-2	Benzo[g,h,i]perylene		16.98 ug/L	84.92

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BN05480.D** Sample Name **2009412MSD**

Date Acquired **25-Feb-02**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		5.64 ug/L	28.21
62-75-9	N-nitroso-dimethylamine		8.48 ug/L	42.40
62-53-3	Aniline		12.94 ug/L	64.68
111-44-4	bis(2-Chloroethyl)ether		12.94 ug/L	64.68
541-73-1	1,3-Dichlorobenzene		11.92 ug/L	59.58
106-46-7	1,4-Dichlorobenzene		12.18 ug/L	60.92
100-51-6	Benzyl alcohol		10.07 ug/L	50.33
95-50-1	1,2-Dichlorobenzene		12.09 ug/L	60.47
39638-32-9	bis(2-chloroisopropyl)ether		14.05 ug/L	70.24
621-64-7	n-Nitroso-di-n-propylamine		12.53 ug/L	62.66
67-72-1	Hexachloroethane		11.91 ug/L	59.56
98-95-3	Nitrobenzene		14.32 ug/L	71.60
78-59-1	Isophorone		14.98 ug/L	74.88
111-91-1	bis(2-Chloroethoxy)methane		13.42 ug/L	67.11
120-82-1	1,2,4-Trichlorobenzene		12.70 ug/L	63.49
91-20-3	Naphthalene		12.75 ug/L	63.73
106-47-8	4-Chloroaniline		5.56 ug/L	27.78
87-68-3	Hexachlorobutadiene		12.72 ug/L	63.61
91-57-6	2-Methylnaphthalene		12.56 ug/L	62.78
77-47-4	Hexachlorocyclopentadiene		3.79 ug/L	18.95
91-58-7	2-Chloronaphthalene		13.97 ug/L	69.84
88-74-4	2-Nitroaniline		12.83 ug/L	64.15
131-11-3	Dimethylphthalate		14.38 ug/L	71.92
208-96-8	Acenaphthylene		12.43 ug/L	62.16
606-20-2	2,6-Dinitrotoluene		15.44 ug/L	77.20
99-09-2	3-Nitroaniline		9.53 ug/L	47.64
83-32-9	Acenaphthene		13.67 ug/L	68.33
132-64-9	Dibenzofuran		12.97 ug/L	64.87
121-14-2	2,4-Dinitrotoluene		14.63 ug/L	73.15
84-66-2	Diethylphthalate		15.15 ug/L	75.75
86-73-7	Fluorene		13.77 ug/L	68.87
7005-72-3	4-Chlorophenyl-phenylether		13.68 ug/L	68.40
100-01-6	4-Nitroaniline		9.74 ug/L	48.71
86-30-6	n-Nitrosodiphenylamine		14.15 ug/L	70.75
103-33-3	Azobenzene		14.12 ug/L	70.62
101-55-3	4-Bromophenyl-phenylether		14.46 ug/L	72.32
118-74-1	Hexachlorobenzene		15.25 ug/L	76.27
85-01-8	Phenanthrene		14.64 ug/L	73.18
120-12-7	Anthracene		13.64 ug/L	68.21
84-74-2	Di-n-butylphthalate		15.01 ug/L	75.05
206-44-0	Fluoranthene		13.96 ug/L	69.82
129-00-0	Pyrene		16.50 ug/L	82.49
85-68-7	Butylbenzylphthalate		16.39 ug/L	81.97
56-55-3	Benzo[a]anthracene		15.26 ug/L	76.31
218-01-9	Chrysene		15.27 ug/L	76.36
117-81-7	bis(2-Ethylhexyl)phthalate		16.48 ug/L	82.40
117-84-0	Di-n-octylphthalate		14.35 ug/L	71.77
205-99-2	Benzo[b]fluoranthene		13.85 ug/L	69.25
207-08-9	Benzo[k]fluoranthene		14.11 ug/L	70.53
50-32-8	Benzo[a]pyrene		13.18 ug/L	65.90
193-39-5	Indeno[1,2,3-cd]pyrene		14.38 ug/L	71.91
53-70-3	Dibenz[a,h]anthracene		14.64 ug/L	73.22
191-24-2	Benzo[g,h,i]perylene		14.63 ug/L	73.16

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20106 Location: Bl.482 SDG No.:

Lab File ID (Standard): BN05462.D Date Analyzed: 2/25/02

Instrument ID: GC_BNA_1 Time Analyzed: 8:34

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	283222	9.98	1003469	12.90	493430	17.09
	UPPER LIMIT	566444	10.48	2006938	13.40	986860	17.59
	LOWER LIMIT	141611	9.48	501735	12.40	246715	16.59
	EPA SAMPLE NO.						
01	MB-2985	365159	9.98	1333313	12.89	614939	17.09
02	2009412MS	335912	9.98	1229216	12.90	562889	17.10
03	2009412MSD	322602	9.98	1171269	12.90	537509	17.10
04	FIELD BLANK	329017	9.98	1216139	12.90	561092	17.10
05	482-GW	347414	9.98	1262918	12.90	583060	17.10

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: 02 Case No.: 20106 Location: Bl.482 SDG No.:

Lab File ID (Standard): BN05462.D Date Analyzed: 02/25/02

Instrument ID: GC_BNA_1 Time Analyzed: 08:34

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	789653	20.66	617237	27.07	408576	30.26
	UPPER LIMIT	1579306	20.16	1234474	26.57	817152	29.76
	LOWER LIMIT	394827	21.16	308619	27.57	204288	30.76
	EPA SAMPLE NO.						
01	MB-2985	957317	20.66	718710	27.05	528795	30.26
02	2009412MS	858760	20.67	624935	27.07	485941	30.28
03	2009412MSD	860561	20.66	616183	27.07	463240	30.27
04	FIELD BLANK	851868	20.66	619382	27.07	425948	30.27
05	482-GW	898343	20.67	673848	27.07	469754	30.27

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:\HPCHEM\1\DATA\020225\BN05471.D Vial: 9
Acq On : 25 Feb 2002 3:21 pm Operator: B.Patel
Sample : MB-2985 Inst : GC/MS Ins
Misc : MB-022202 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:29 2002 Quant Results File: M62553.RES

Quant Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration
DataAcq Meth : M62553

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.98	152	365159	40.00	ug/L	0.00
19) Naphthalene-d8	12.89	136	1333313	40.00	ug/L	0.00
34) Acenaphthene-d10	17.09	164	614939	40.00	ug/L	0.00
54) Phenanthrene-d10	20.66	188	957317	40.00	ug/L	0.00
66) Chrysene-d12	27.05	240	718710	40.00	ug/L	-0.01
75) Perylene-d12	30.26	264	528795	40.00	ug/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	7.24	112	547146	44.68	ug/L	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 44.68%			
6) Phenol-d6	9.30	99	400545	25.08	ug/L	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 25.08%			
20) Nitrobenzene-d5	11.29	82	541180	31.40	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 62.80%			
38) 2-Fluorobiphenyl	15.51	172	662508	31.72	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 63.44%			
58) 2,4,6-Tribromophenol	19.02	330	213967	67.32	ug/L	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 67.32%			
69) p-Terphenyl-d14	24.58	244	604337	38.31	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 76.62%			

Target Compounds Qvalue

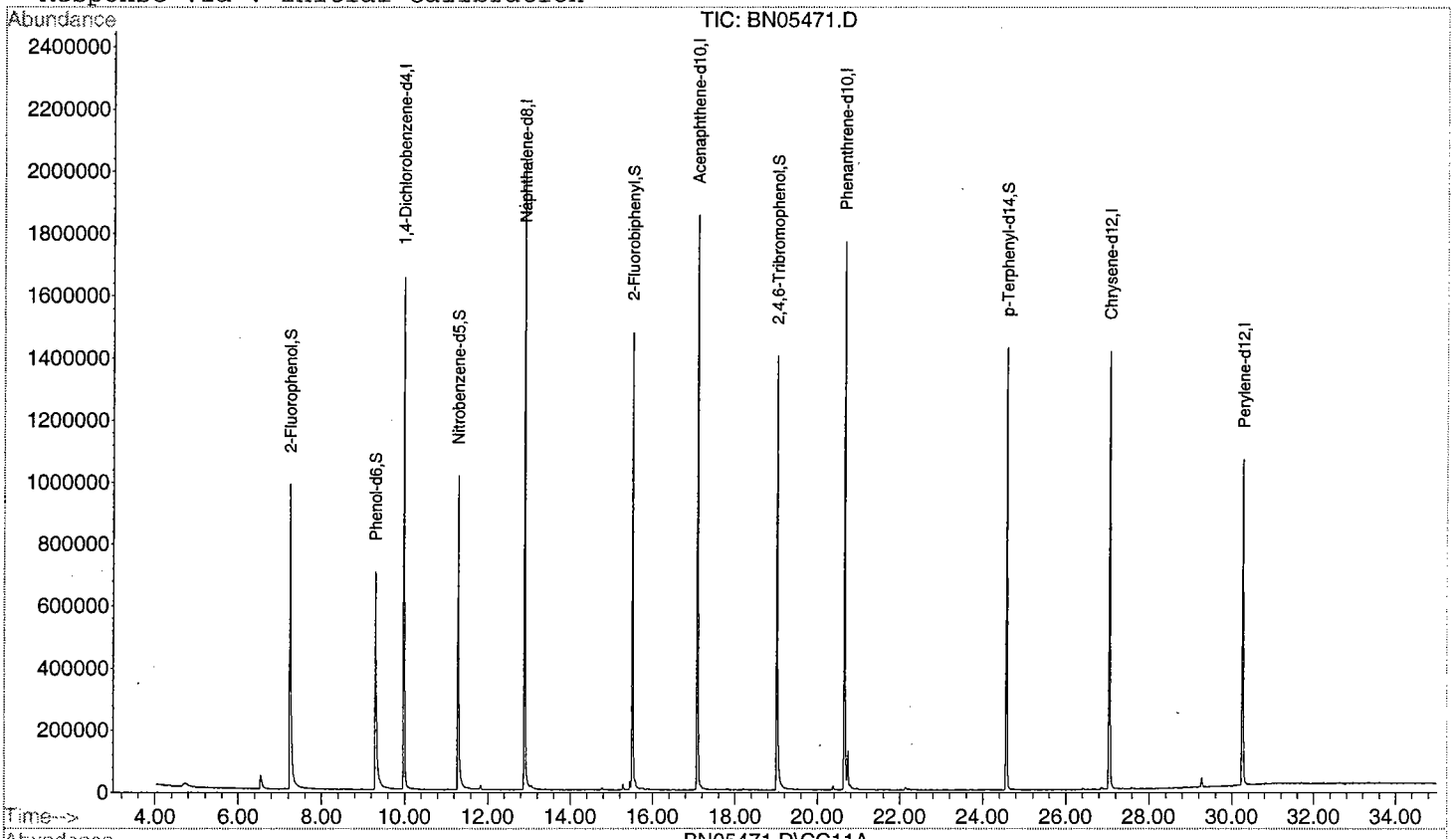
(#) = qualifier out of range (m) = manual integration

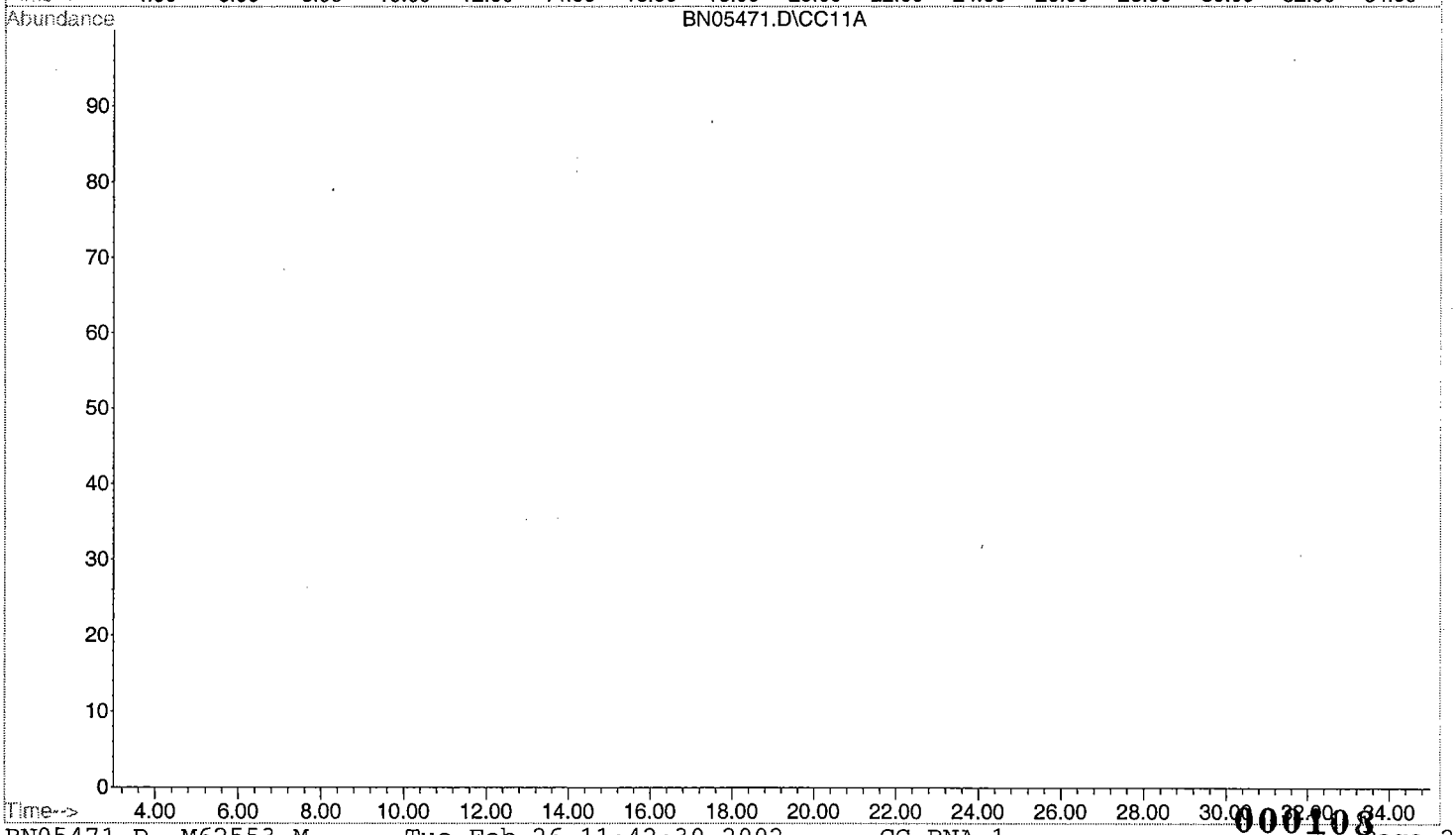
000107

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020225\BN05471.D Vial: 9
Acq On : 25 Feb 2002 3:21 pm Operator: B.Patel
Sample : MB-2985 Inst : GC/MS Ins
Misc : MB-022202 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:29 2002 Quant Results File: M62553.RES

Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\020225\BN05484.D Vial: 20
Acq On : 26 Feb 2002 1:10 am Operator: B.Patel
Sample : 2010602 Inst : GC/MS Ins
Misc : Field Blank Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:47 2002 Quant Results File: M62553.RES

Quant Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration
DataAcq Meth : M62553

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.98	152	329017	40.00	ug/L	0.00
19) Naphthalene-d8	12.90	136	1216139	40.00	ug/L	0.00
34) Acenaphthene-d10	17.10	164	561092	40.00	ug/L	0.00
54) Phenanthrene-d10	20.66	188	851868	40.00	ug/L	0.00
66) Chrysene-d12	27.07	240	619382	40.00	ug/L	0.00
75) Perylene-d12	30.27	264	425948	40.00	ug/L	0.00
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	11.29	82	517294	32.91	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	65.82%		
38) 2-Fluorobiphenyl	15.52	172	654446	34.34	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	68.68%		
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	24.58	244	514594	37.85	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	75.70%		

Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\020225\BN05484.D Vial: 20
Acq On : 26 Feb 2002 1:10 am Operator: B.Patel
Sample : 2010602 Inst : GC/MS Ins
Misc : Field Blank Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:47 2002 Quant Results File: M62553.RES

Quant Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration
DataAcq Meth : M62553

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.98	152	329017	40.00	ug/L	0.00
19) Naphthalene-d8	12.90	136	1216139	40.00	ug/L	0.00
34) Acenaphthene-d10	17.10	164	561092	40.00	ug/L	0.00
54) Phenanthrene-d10	20.66	188	851868	40.00	ug/L	0.00
66) Chrysene-d12	27.07	240	619382	40.00	ug/L	0.00
75) Perylene-d12	30.27	264	425948	40.00	ug/L	0.00
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	11.29	82	517294	32.91	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	65.82%		
38) 2-Fluorobiphenyl	15.52	172	654446	34.34	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	68.68%		
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	24.58	244	514594	37.85	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	75.70%		

Target Compounds Qvalue

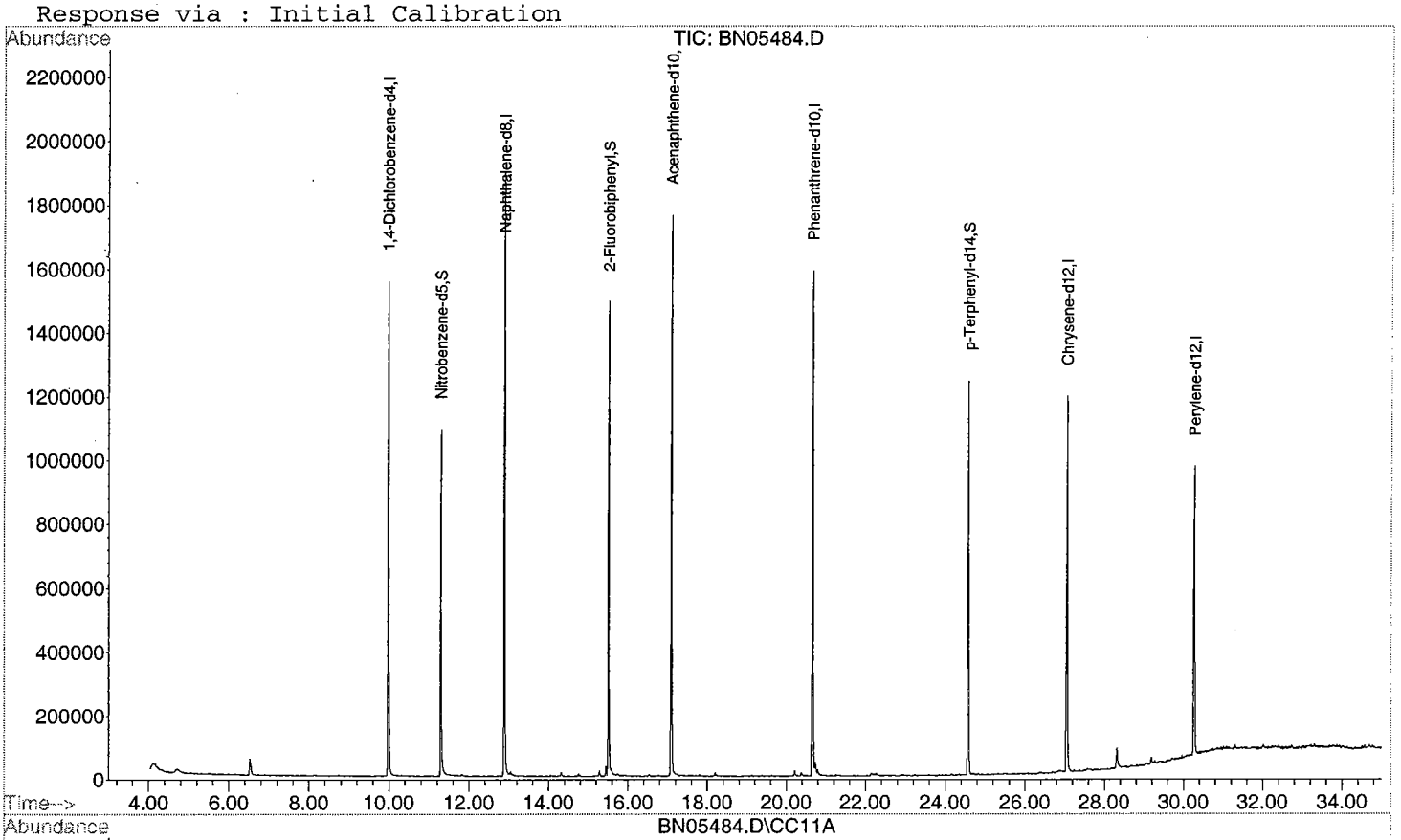
(#) = qualifier out of range (m) = manual integration

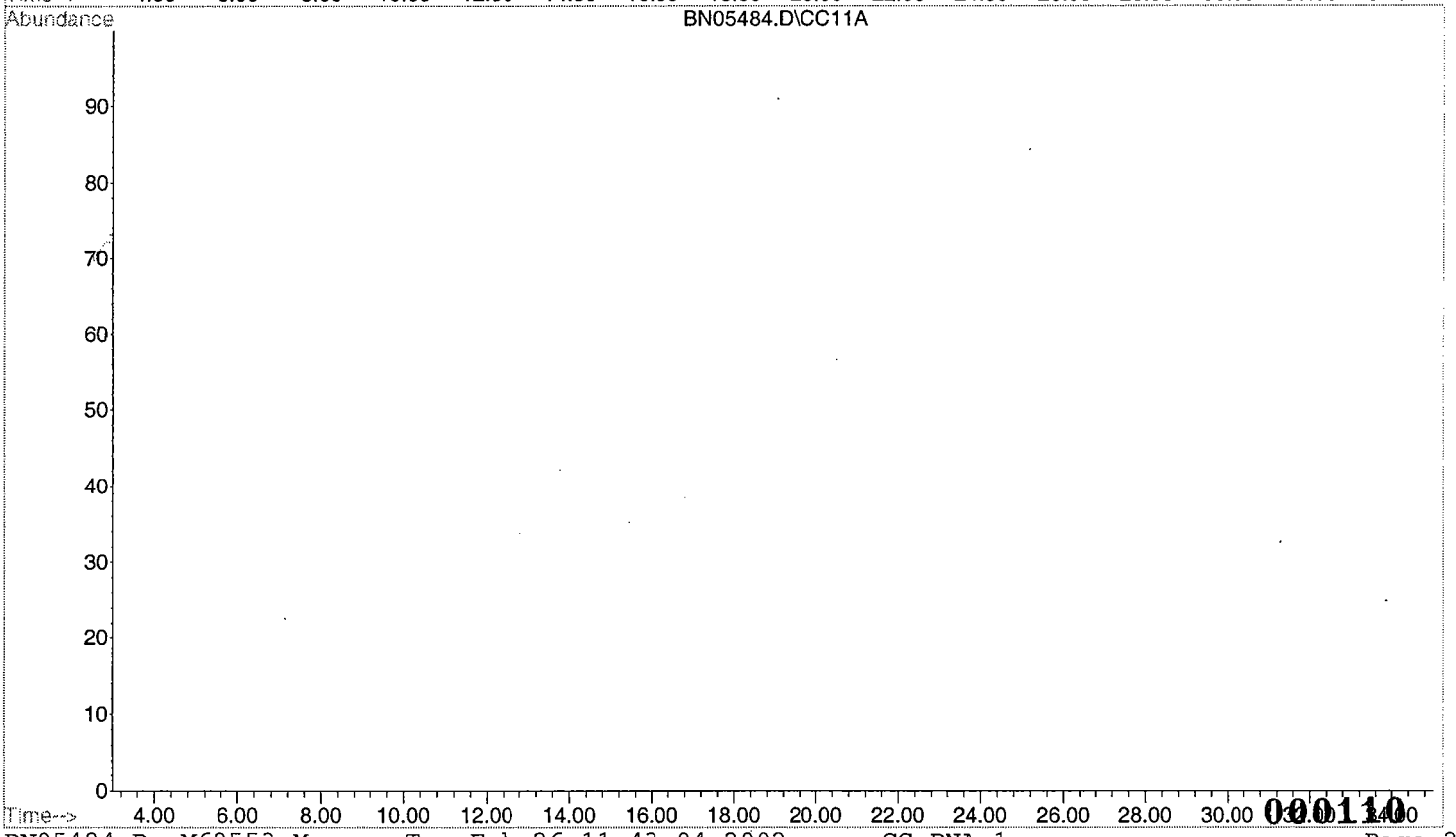
000109

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020225\BN05484.D Vial: 20
Acq On : 26 Feb 2002 1:10 am Operator: B.Patel
Sample : 2010602 Inst : GC/MS Ins
Misc : Field Blank Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:47 2002 Quant Results File: M62553.RES

Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration





000110

Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\020225\BN05485.D Vial: 21
Acq On : 26 Feb 2002 1:57 am Operator: B.Patel
Sample : 2010610 Inst : GC/MS Ins
Misc : 482GW Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:47 2002 Quant Results File: M62553.RES

Quant Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration
DataAcq Meth : M62553

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.98	152	347414	40.00	ug/L	0.00
19) Naphthalene-d8	12.90	136	1262918	40.00	ug/L	0.00
34) Acenaphthene-d10	17.10	164	583060	40.00	ug/L	0.00
54) Phenanthrene-d10	20.67	188	898343	40.00	ug/L	0.00
66) Chrysene-d12	27.07	240	673848	40.00	ug/L	0.00
75) Perylene-d12	30.27	264	469754	40.00	ug/L	0.01
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	11.29	82	518342	31.75	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	63.50%		
38) 2-Fluorobiphenyl	15.51	172	626846	31.65	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	63.30%		
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	24.58	244	216665	14.65	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	29.30%#		

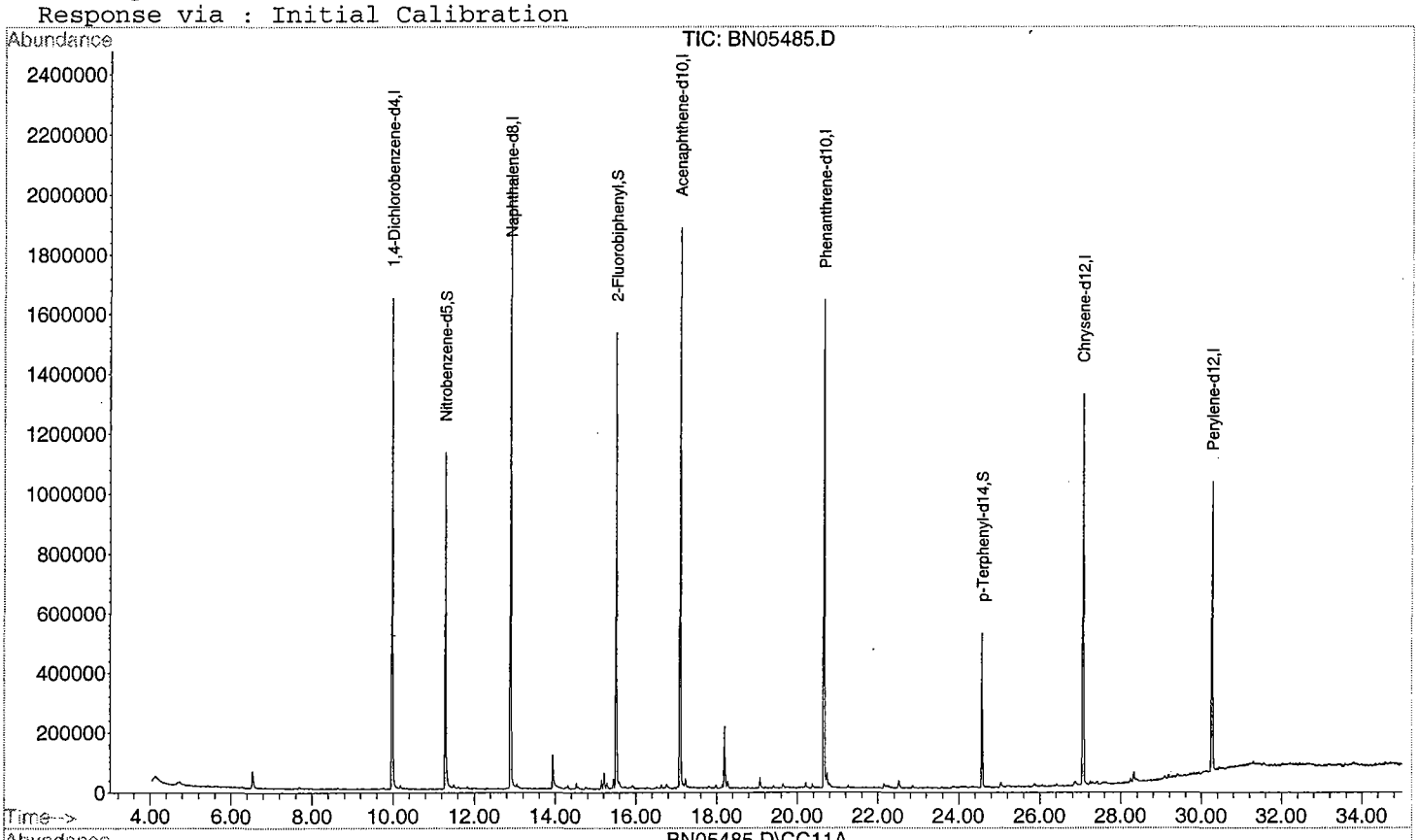
Target Compounds Qvalue

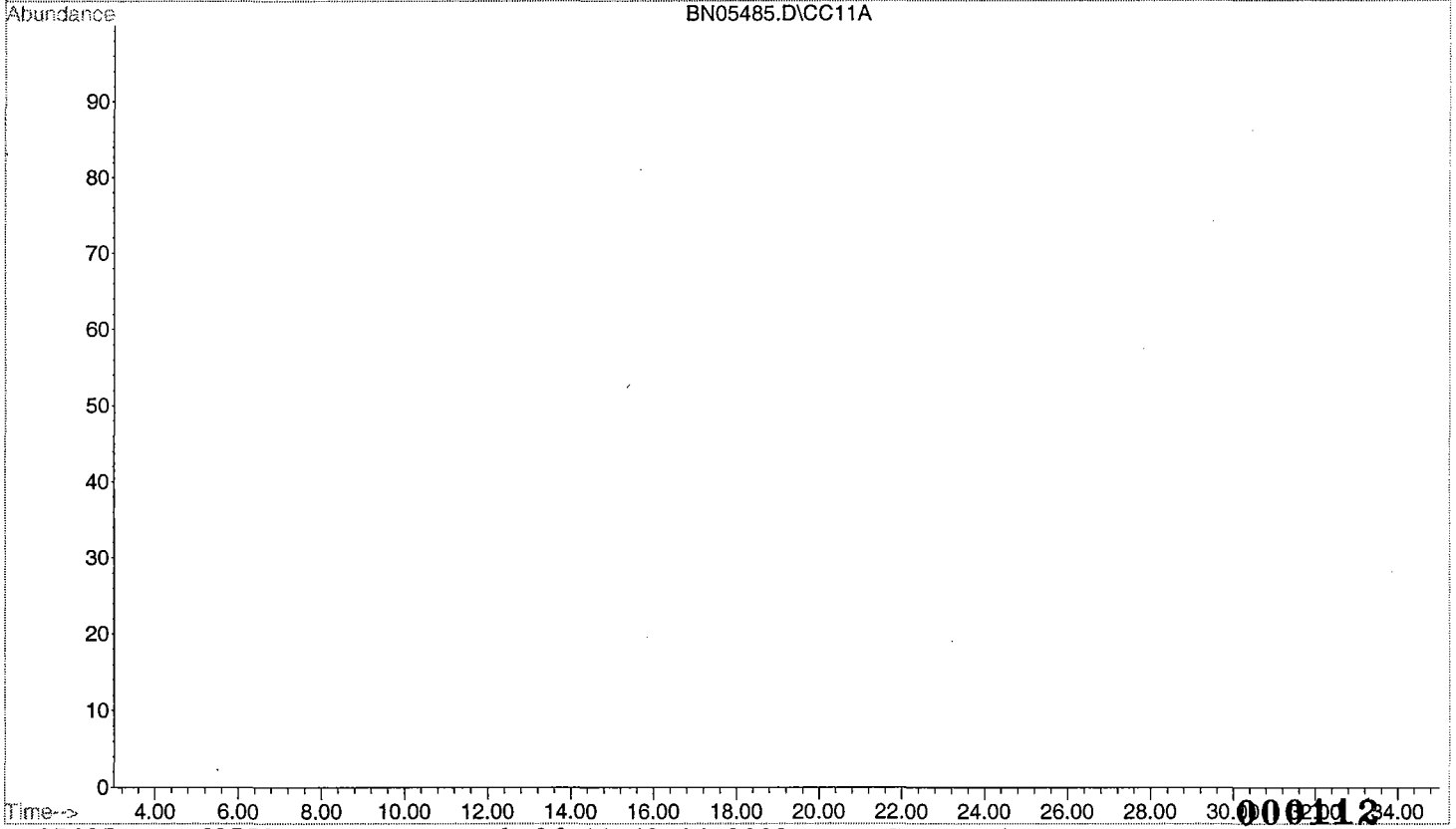
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020225\BN05485.D Vial: 21
Acq On : 26 Feb 2002 1:57 am Operator: B.Patel
Sample : 2010610 Inst : GC/MS Ins
Misc : 482GW Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 26 10:47 2002 Quant Results File: M62553.RES

Method : C:\HPCHEM\1\METHODS\M62553.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Feb 25 13:26:04 2002
Response via : Initial Calibration





TPHC

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	**Project # :**	20106
		Location :	Bldg.482
		UST Reg. # :	

Analysis :	OQA-QAM-025	**Date Received :**	20-Feb-02
Matrix :	Soil	**Date Extracted :**	25-Feb-02
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	27-Feb-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2010603	482-1	**1.00**	15.06	83.36	180	**2689.02**
2010604	482-2	**1.00**	15.23	81.48	183	**ND**
2010605	482-3	**1.00**	15.16	84.33	177	**458.84**
2010606	482-4	**1.00**	15.41	82.28	179	**565.50**
2010607	482-5	**1.00**	15.27	81.73	181	**368.59**
2010608	482-6	**1.00**	15.21	78.50	190	**594.92**
2010609	482-7	**1.00**	15.28	79.97	185	**462.70**
2010611	Field Dup.	**1.00**	15.16	83.67	179	**1223.63**
METHOD BLANK	MB-022502	**1.00**	15.00	100.00	151	**ND**

ND = Not Detected

MDL = Method Detection Limit

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002

Calibration Files
5 =T014006.D 100 =T014007.D 50 =T014008.D
20 =T014010.D 10 =T014009.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.808	2.607	2.359	2.113	2.205	2.218	E4	13.35
2)	tC	C10	2.208	2.906	2.466	2.276	2.457	2.462	E4	11.05
3)	TC	C12	2.212	2.903	2.610	2.381	2.605	2.542	E4	10.28
4)	tC	C14	2.432	2.982	2.686	2.459	2.642	2.640	E4	8.36
5)	tC	C16	2.456	3.045	2.732	2.528	2.731	2.698	E4	8.49
6)	tC	C18	2.281	2.990	2.839	2.583	2.658	2.670	E4	10.09
7)	tC	C20	2.494	3.130	2.789	2.563	2.763	2.748	E4	9.04
8)	tC	C22	2.663	3.213	2.879	2.664	2.907	2.865	E4	7.89
9)	tC	C24	2.693	3.250	2.911	2.698	2.944	2.899	E4	7.87
10)	tC	C26	2.717	3.278	2.931	2.723	2.978	2.926	E4	7.86
11)	tC	C28	2.641	3.232	2.884	2.669	2.911	2.867	E4	8.28
12)	tC	C30	2.612	3.327	2.960	2.732	2.968	2.920	E4	9.39
13)	tC	C32	2.643	3.301	2.937	2.705	2.935	2.904	E4	8.91
14)	tC	C34	2.639	3.300	2.915	2.677	2.921	2.890	E4	9.12
15)	tC	C36	2.691	3.443	3.027	2.759	3.005	2.985	E4	9.90
16)	tC	C38	2.562	3.310	2.901	2.637	2.873	2.857	E4	10.24
17)	tC	C40	2.434	3.183	2.768	2.517	2.743	2.729	E4	10.68
18)	tC	c42	2.326	3.132	2.731	2.459	2.678	2.665	E4	11.57
19)	TC	Pristane	2.631	2.913	2.655	2.558	2.793	2.710	E4	5.25
20)	TC	Phytane	2.780	3.148	2.822	2.661	2.948	2.872	E4	6.45
21)	sC	o-terphenyl	2.678	3.213	2.878	2.665	2.922	2.871	E4	7.77
22)	tC	TPHC - total	3.691	3.396	3.115	3.005	3.613	3.364	E4	8.93

) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020226\T014008.D Vial: 3
Acq On : 26 Feb 2002 9:50 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm Cal Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	tC	C8	22.184	23.593 E3	-6.4	100	0.00
2	tC	C10	24.624	24.659 E3	-0.1	100	0.00
3	TC	C12	25.424	26.104 E3	-2.7	100	0.00
4	tC	C14	26.404	26.859 E3	-1.7	100	0.00
5	tC	C16	26.982	27.315 E3	-1.2	100	0.00
6	tC	C18	26.702	27.751 E3	-3.9	98	0.00
7	tC	C20	27.479	27.938 E3	-1.7	100	0.00
8	tC	C22	28.652	28.787 E3	-0.5	100	0.00
9	tC	C24	28.991	29.107 E3	-0.4	100	0.00
10	tC	C26	29.257	29.313 E3	-0.2	100	0.00
11	tC	C28	28.674	28.841 E3	-0.6	100	0.00
12	tC	C30	29.197	29.599 E3	-1.4	100	0.00
13	tC	C32	29.042	29.370 E3	-1.1	100	0.00
14	tC	C34	28.903	29.147 E3	-0.8	100	0.00
15	tC	C36	29.849	30.270 E3	-1.4	100	0.00
16	tC	C38	28.567	29.007 E3	-1.5	100	0.00
17	tC	C40	27.289	27.677 E3	-1.4	100	0.00
18	tC	c42	26.652	27.312 E3	-2.5	100	0.00
19	TC	Pristane	27.100	26.435 E3	2.5	100	0.00
20	TC	Phytane	28.717	28.324 E3	1.4	100	0.00
21	sC	o-terphenyl	28.712	28.780 E3	-0.2	100	0.00
22	tC	TPHC - total	33.639	31.081 E3	7.6	100	0.00

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020226\T014021.D Vial: 16
Acq On : 26 Feb 2002 5:09 pm Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm std Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	tC	C8	22.184	23.307 E3	-5.1	99	0.00
2	tC	C10	24.624	26.006 E3	-5.6	105	0.00
3	TC	C12	25.424	25.858 E3	-1.7	99	0.00
4	tC	C14	26.404	26.529 E3	-0.5	99	0.00
5	tC	C16	26.982	27.079 E3	-0.4	99	0.00
6	tC	C18	26.702	27.525 E3	-3.1	97	0.00
7	tC	C20	27.479	27.756 E3	-1.0	100	0.00
8	tC	C22	28.652	28.518 E3	0.5	99	0.00
9	tC	C24	28.991	28.836 E3	0.5	99	0.00
10	tC	C26	29.257	29.044 E3	0.7	99	0.00
11	tC	C28	28.674	28.585 E3	0.3	99	0.00
12	tC	C30	29.197	29.342 E3	-0.5	99	0.00
13	tC	C32	29.042	29.047 E3	-0.0	99	0.00
14	tC	C34	28.903	28.921 E3	-0.1	99	0.00
15	tC	C36	29.849	29.986 E3	-0.5	99	0.00
16	tC	C38	28.567	28.700 E3	-0.5	99	0.00
17	tC	C40	27.289	27.635 E3	-1.3	100	0.00
18	tC	c42	26.652	27.190 E3	-2.0	100	0.01
19	TC	Pristane	27.100	26.800 E3	1.1	101	0.00
20	TC	Phytane	28.717	28.051 E3	2.3	99	0.00
21	sC	o-terphenyl	28.712	28.490 E3	0.8	99	0.00
22	tC	TPHC - total	33.639	30.864 E3	8.2	99	0.00

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020226\T014029.D Vial: 24
Acq On : 26 Feb 2002 9:37 pm Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm std Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	tC	C8	22.184	22.520 E3	-1.5	95	0.00
2	tC	C10	24.624	25.099 E3	-1.9	102	0.00
3	TC	C12	25.424	24.957 E3	1.8	96	0.00
4	tC	C14	26.404	25.648 E3	2.9	95	0.00
5	tC	C16	26.982	26.234 E3	2.8	96	0.00
6	tC	C18	26.702	26.997 E3	-1.1	95	0.00
7	tC	C20	27.479	26.779 E3	2.5	96	0.00
8	tC	C22	28.652	27.620 E3	3.6	96	0.00
9	tC	C24	28.991	27.905 E3	3.7	96	0.00
10	tC	C26	29.257	28.094 E3	4.0	96	0.00
11	tC	C28	28.674	27.670 E3	3.5	96	0.00
12	tC	C30	29.197	28.409 E3	2.7	96	0.00
13	tC	C32	29.042	28.120 E3	3.2	96	0.00
14	tC	C34	28.903	27.995 E3	3.1	96	0.00
15	tC	C36	29.849	29.062 E3	2.6	96	0.00
16	tC	C38	28.567	27.874 E3	2.4	96	0.00
17	tC	C40	27.289	26.756 E3	2.0	97	0.00
18	tC	c42	26.652	26.313 E3	1.3	96	-0.01
19	TC	Pristane	27.100	25.172 E3	7.1	95	0.00
20	TC	Phytane	28.717	27.161 E3	5.4	96	0.00
21	sC	o-terphenyl	28.712	27.621 E3	3.8	96	0.00
22	tC	TPHC - total	33.639	30.244 E3	10.1	97	-0.95#

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

Surrogate Recovery Report
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	U.S. Army	**Project # :**	20106
	DPW. SELFM-PW-EV	**Location :**	Bldg.482
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	20-Feb-02
Matrix:	Soil	**Date Extracted :**	25-Feb-02
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	27-Feb-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
2010603			10.00	12.02	**120.19**
2010604			10.00	9.95	**99.45**
2010605			10.00	10.78	**107.80**
2010606			10.00	9.91	**99.08**
2010607			10.00	9.80	**98.01**
2010608			10.00	9.43	**94.26**
2010609			10.00	10.09	**100.94**
2010611			10.00	9.30	**93.01**
METHOD BLANK	MB-022502		10.00	10.19	**101.94**

Surrogate Added : **o-Terphenyl**

Matrix Spike/ Duplicate Recovery Report
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	U.S. Army	**Project # :**	20106
	DPW. SELFM-PW-EV	**Location :**	Bldg.482
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	20-Feb-02
Matrix:	Soil	**Date Extracted :**	25-Feb-02
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	27-Feb-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
2010603MS	1000	675.18	1376.13	70.09	75-125
2010603MSD	1000	675.18	1282.84	60.77	75-125
			RPD	**14.26**	**20.00**

Quality Control Check Standard Summary
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	U.S. Army	**Project # :**	20106
	DPW. SELFM-PW-EV	**Location :**	Bldg.482
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	20-Feb-02
Matrix:	Soil	**Date Extracted :**	25-Feb-02
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	27-Feb-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-022502	25-Feb-02	1000	758.20	75.82	75-126

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014016.D Vial: 11
Acq On : 26 Feb 2002 2:20 pm Operator: B.Patel
Sample : MB-022502 Inst : GC/MS Ins
Misc : Soil Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 26 14:46 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 11:27:55 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	292685	10.194 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	101.94%#
Target Compounds			

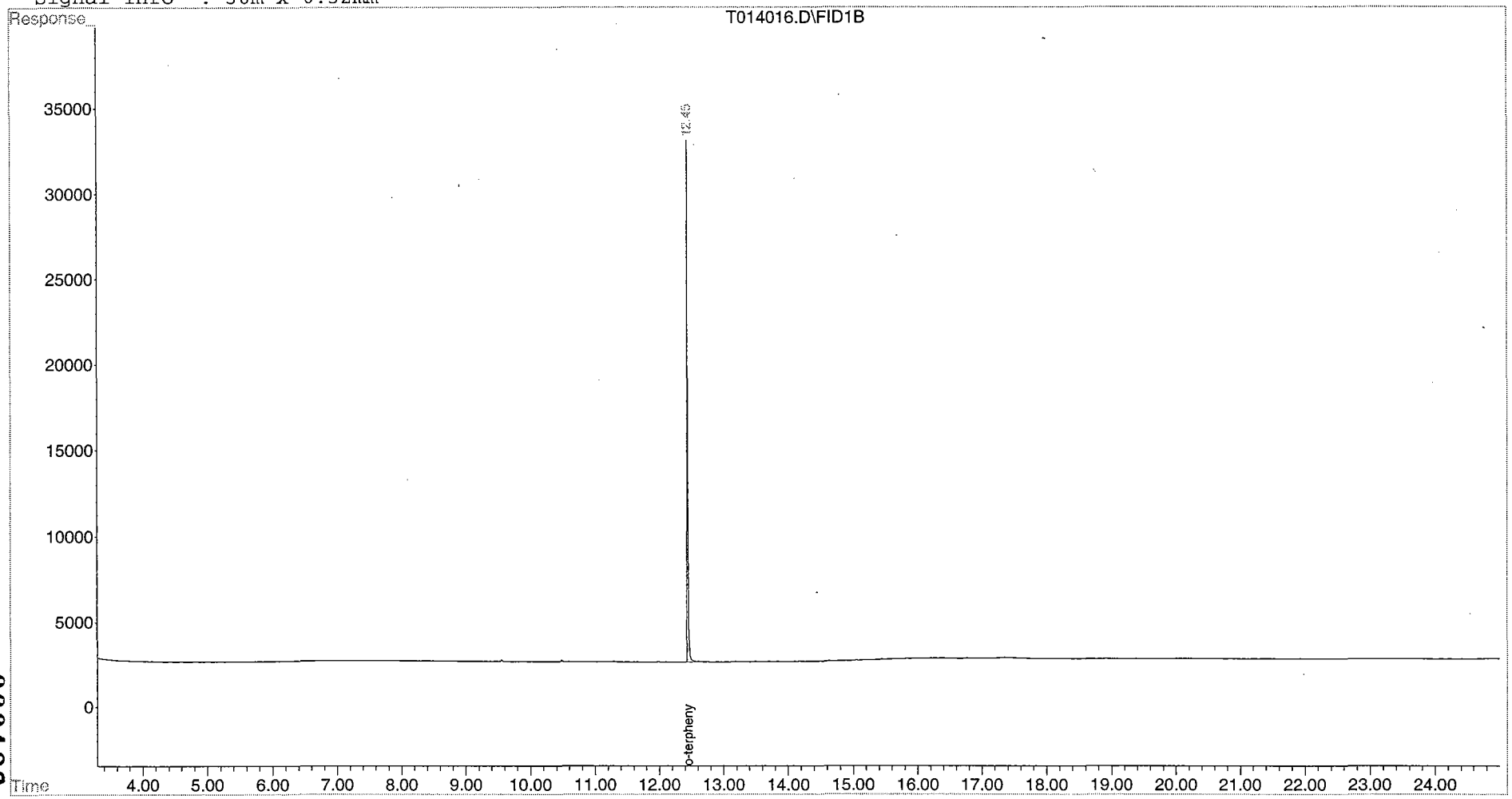
000122

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014016.D Vial: 11
Acq On : 26 Feb 2002 2:20 pm Operator: B.Patel
Sample : MB-022502 Inst : GC/MS Ins
Misc : Soil Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 26 14:46 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 11:27:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000123

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014017.D Vial: 12
Acq On : 26 Feb 2002 2:54 pm Operator: B.Patel
Sample : LCS-022502 Inst : GC/MS Ins
Misc : Soil Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:36 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
21)	sC o-terphenyl	12.45	273234	9.517 mg/L
Spiked Amount	10.000 Range	8 - 13	Recovery =	95.17%#
	Target Compounds			
2)	tC C10	7.11	192981	7.837 mg/L
3)	TC C12	8.81	330371	12.994 mg/L
4)	tC C14	10.01	368476	13.955 mg/L
5)	tC C16	11.01	341344	12.651 mg/L
6)	tC C18	11.48	229278	8.587 mg/L
7)	tC C20	11.91	219769	7.998 mg/L
8)	tC C22	12.73	134323	4.688 mg/L
9)	tC C24	13.47	62041	2.140 mg/L
19)	TC Pristane	11.48	229278	8.461 mg/L
20)	TC Phytane	11.95	86433	3.010 mg/L
22)	tC TPHC - total	10.53	25504853	758.201 mg/L m

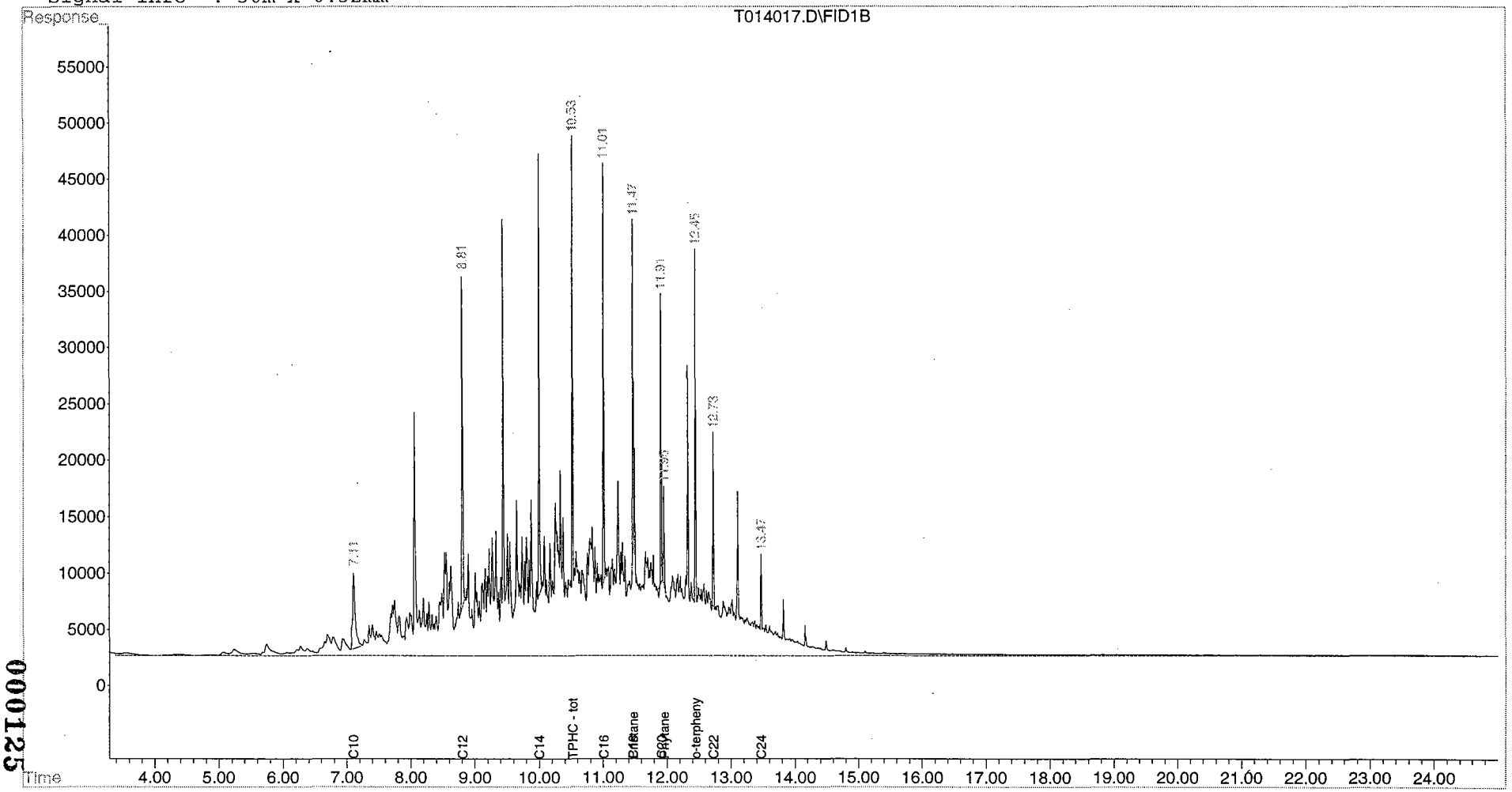
000124

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014017.D Vial: 12
Acq On : 26 Feb 2002 2:54 pm Operator: B.Patel
Sample : LCS-022502 Inst : GC/MS Ins
Misc : Soil Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:36 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014018.D Vial: 13
Acq On : 26 Feb 2002 3:28 pm Operator: B.Patel
Sample : 2010603s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:37 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

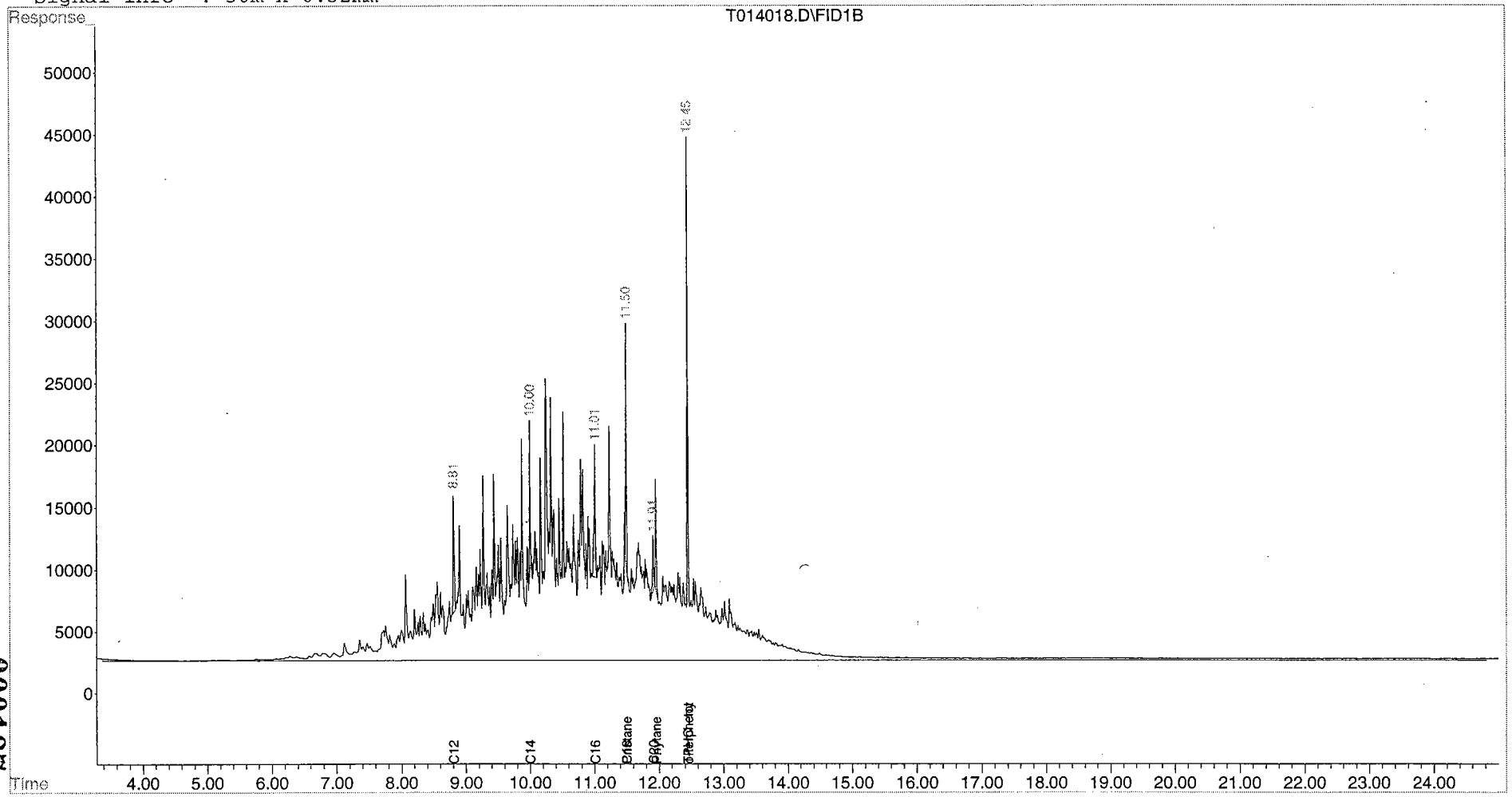
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
21)	sC o-terphenyl	12.45	345073	12.019 mg/L
Spiked Amount	10.000 Range 8 - 13	Recovery =	120.19%#	
	Target Compounds			
3)	TC C12	8.81	112247	4.415 mg/L
4)	tC C14	10.01	101851	3.857 mg/L
5)	tC C16	11.01	133838	4.960 mg/L
6)	tC C18	11.50	174344	6.529 mg/L
7)	tC C20	11.91	48774	1.775 mg/L
19)	TC Pristane	11.50	174344	6.433 mg/L
20)	TC Phytane	11.96	89318	3.110 mg/L
22)	tC TPHC - total	12.45	22712228	675.182 mg/L m

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014018.D Vial: 13
Acq On : 26 Feb 2002 3:28 pm Operator: B.Patel
Sample : 2010603s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:37 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000127

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014022.D Vial: 17
Acq On : 26 Feb 2002 5:42 pm Operator: B.Patel
Sample : 2010604s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:41 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

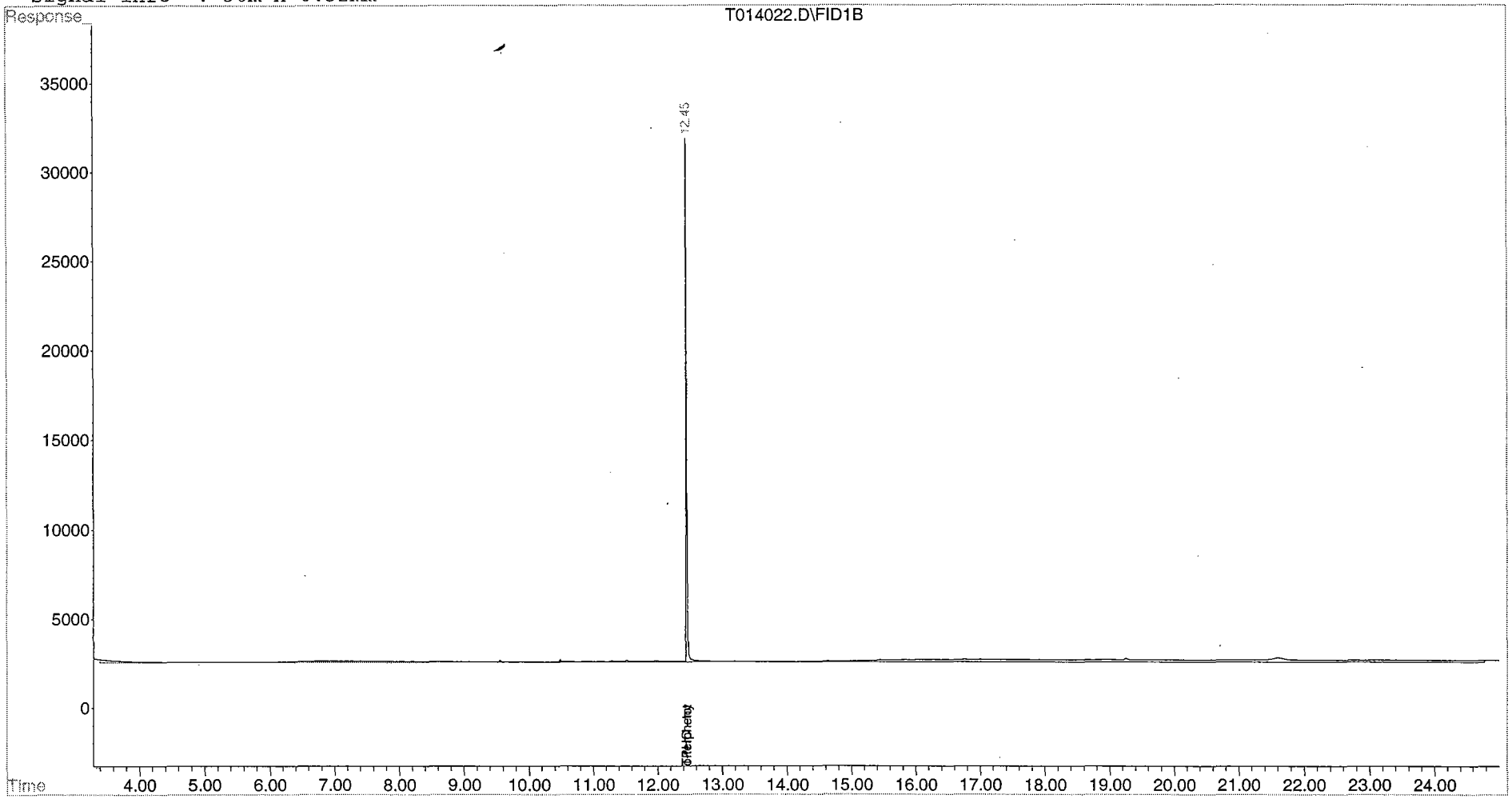
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	285523	9.945 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.45%#
Target Compounds			
22) tC TPHC - total	12.45	1267724	37.687 mg/L m

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014022.D Vial: 17
Acq On : 26 Feb 2002 5:42 pm Operator: B.Patel
Sample : 2010604s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:41 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000129

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014023.D Vial: 18
Acq On : 26 Feb 2002 6:16 pm Operator: B.Patel
Sample : 2010605s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:41 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	309503	10.780 mg/L
Spiked Amount 10.000 Range 8 - 13 Recovery = 107.80%#			
Target Compounds			
22) tC TPHC - total	12.45	3946702	117.326 mg/L m

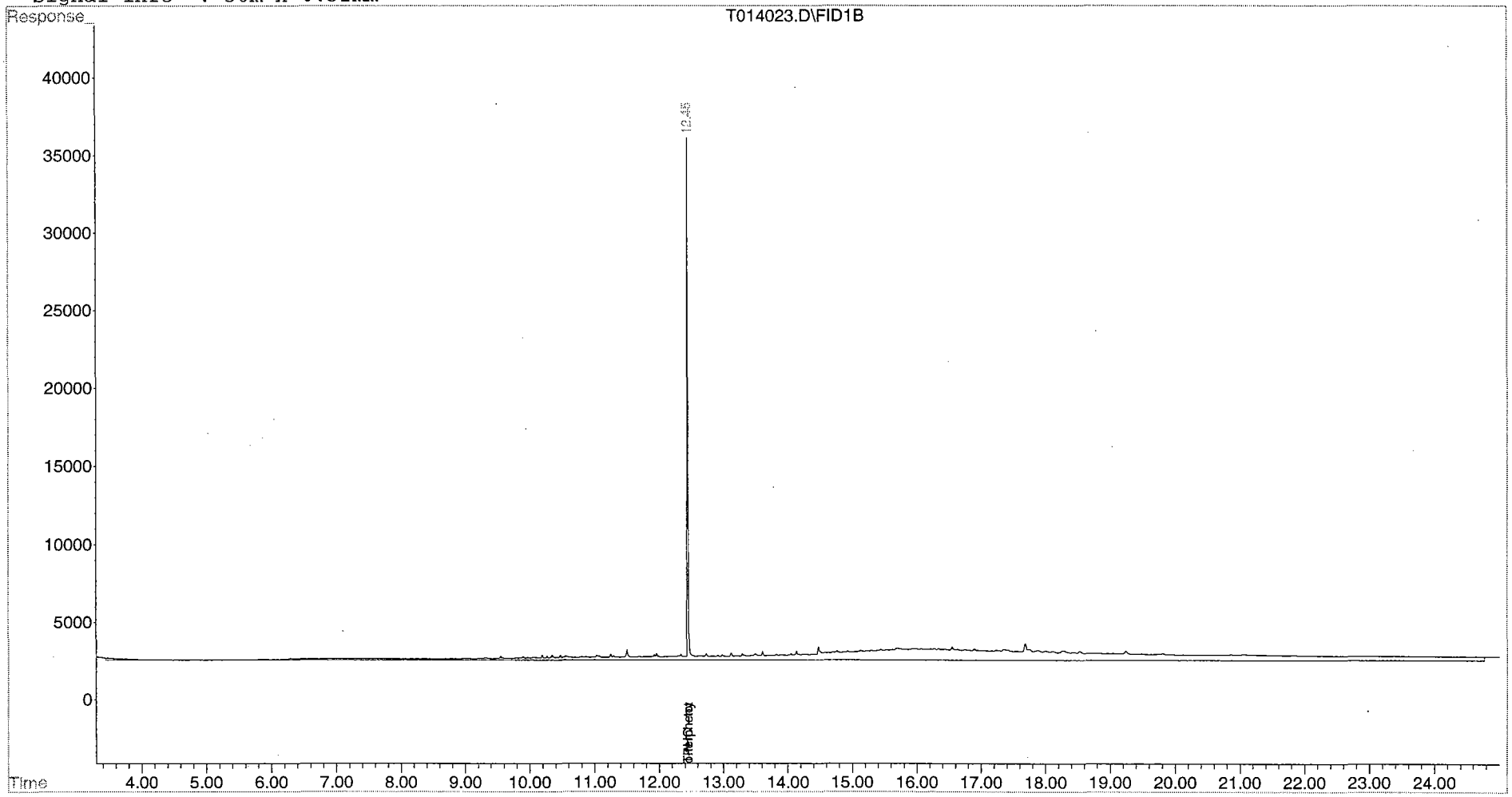
000130

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014023.D Vial: 18
Acq On : 26 Feb 2002 6:16 pm Operator: B.Patel
Sample : 2010605s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:41 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000131

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014024.D Vial: 19
Acq On : 26 Feb 2002 6:49 pm Operator: B.Patel
Sample : 2010606s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:41 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	284481	9.908 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.08%#
Target Compounds			
22) tC TPHC - total	12.45	4824159	143.411 mg/L m

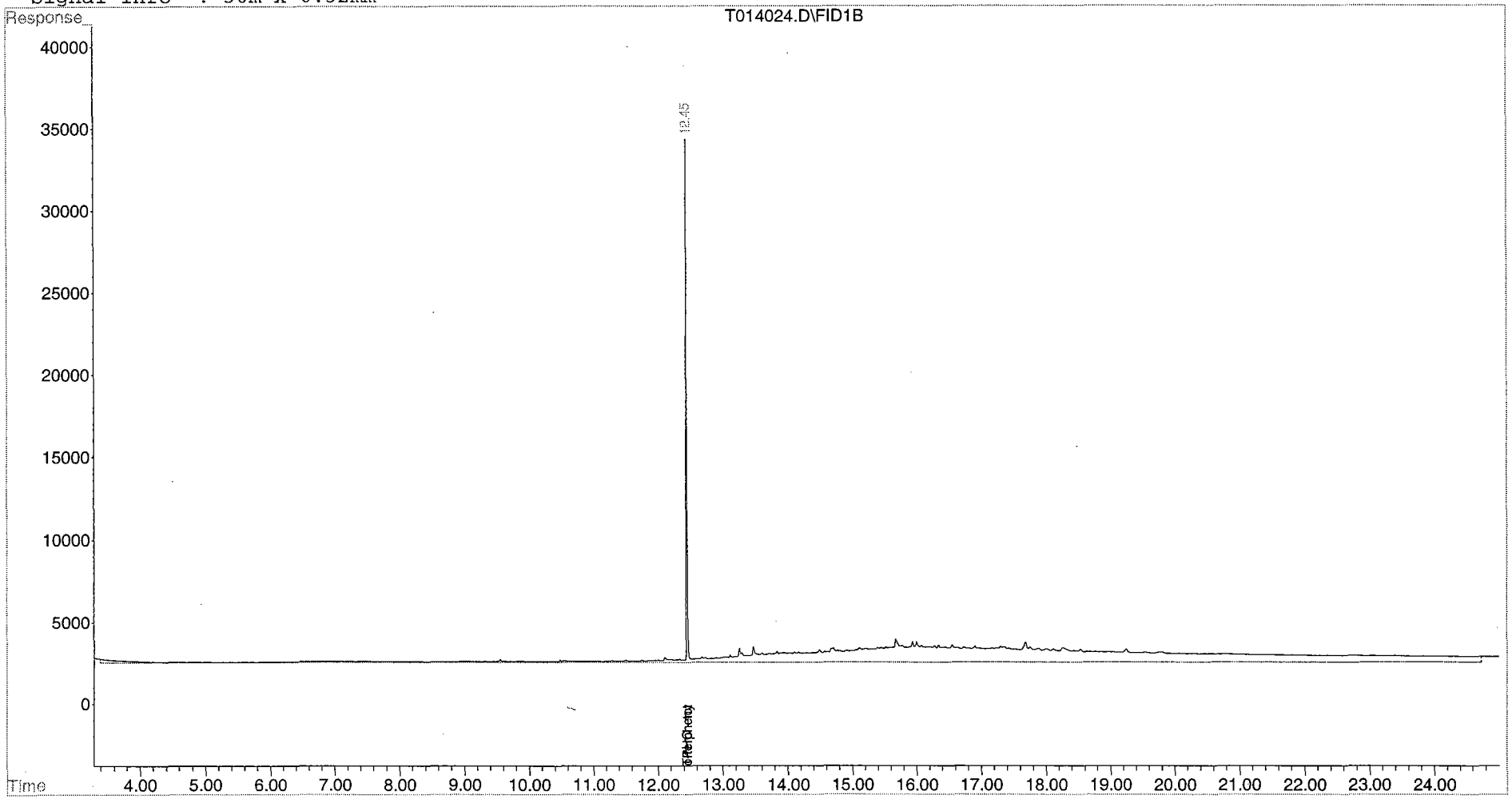
(f)=RT Delta > 1/2 Window (m)=manual int.

000132

Data File : C:\HPCHEM\1\DATA\020226\T014024.D Vial: 19
Acq On : 26 Feb 2002 6:49 pm Operator: B.Patel
Sample : 2010606s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:41 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000133

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014025.D Vial: 20
Acq On : 26 Feb 2002 7:23 pm Operator: B.Patel
Sample : 2010607s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:42 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	281388	9.801 mg/L
Spiked Amount 10.000 Range 8 - 13	Recovery =	98.01%#	
Target Compounds			
22) tC TPHC - total	12.45	3094667	91.997 mg/L m

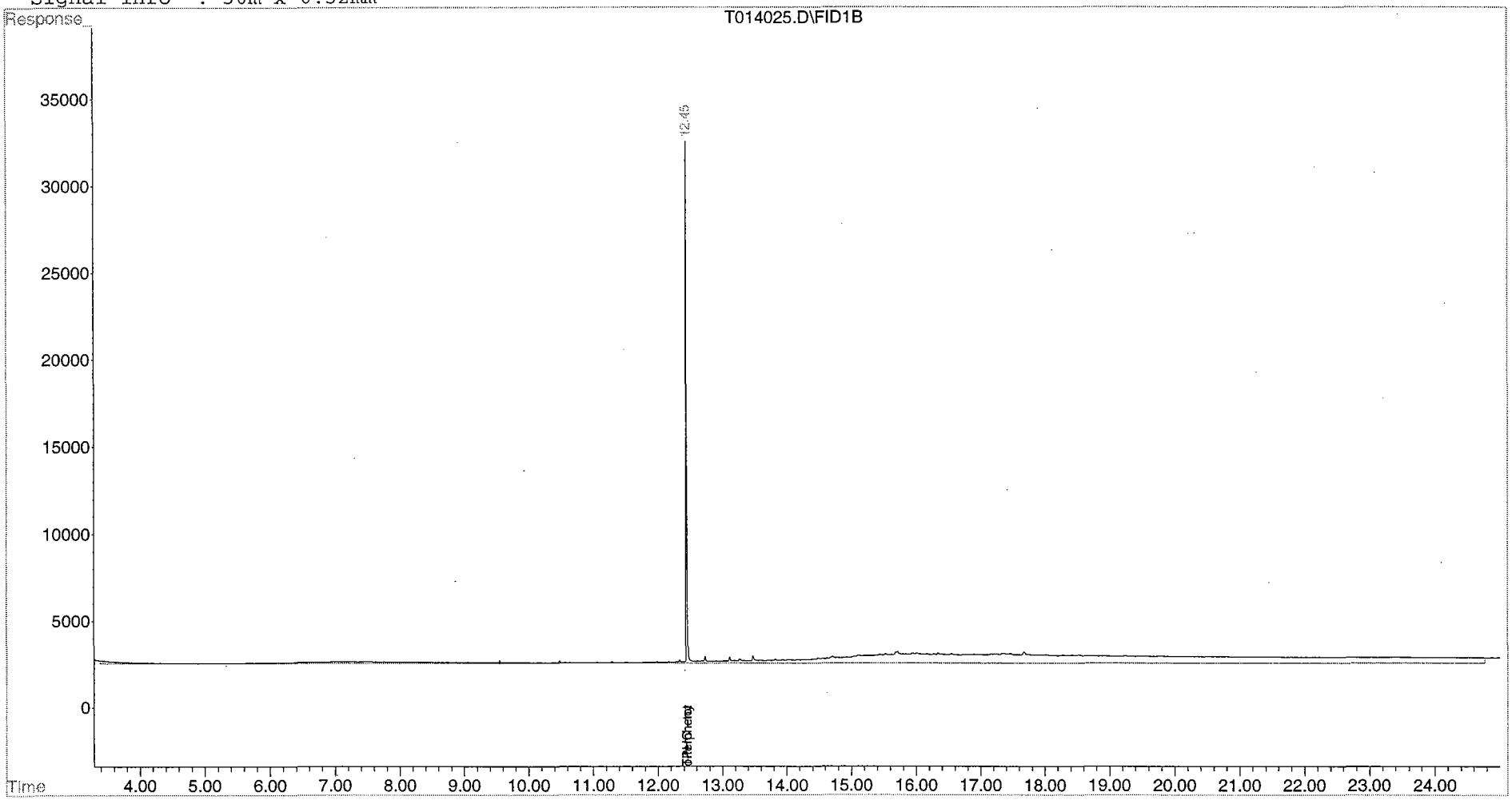
000134

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014025.D Vial: 20
Acq On : 26 Feb 2002 7:23 pm Operator: B.Patel
Sample : 2010607s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:42 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000135

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014026.D Vial: 21
Acq On : 26 Feb 2002 7:56 pm Operator: B.Patel
Sample : 2010608s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:42 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	270621	9.426 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	94.26%#
Target Compounds			
22) tC TPHC - total	12.45	4779011	142.069 mg/L m

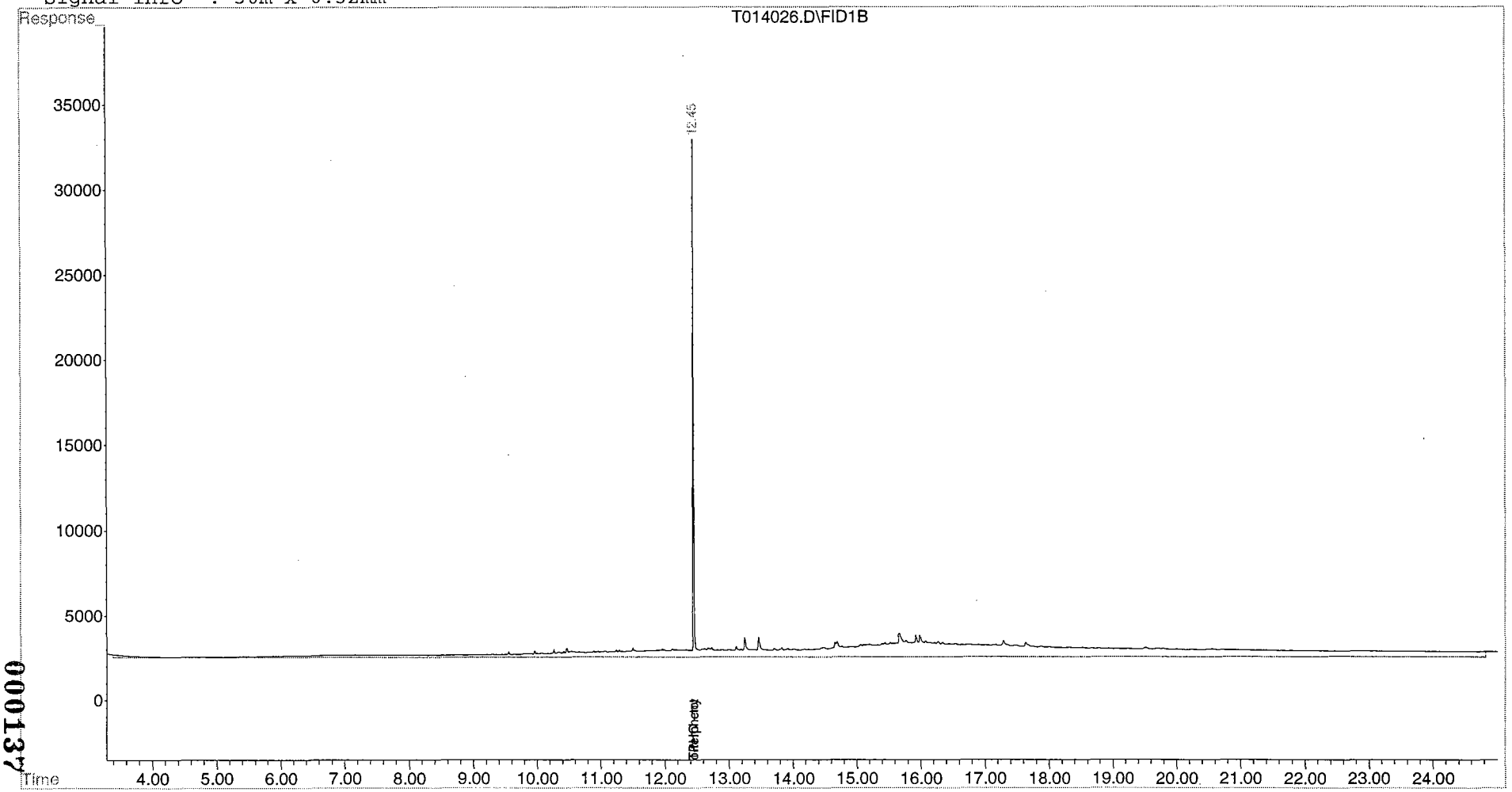
000136

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014026.D Vial: 21
Acq On : 26 Feb 2002 7:56 pm Operator: B.Patel
Sample : 2010608s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:42 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000137

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014027.D Vial: 22
Acq On : 26 Feb 2002 8:30 pm Operator: B.Patel
Sample : 2010609s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:43 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	289815	10.094 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 100.94%#	
Target Compounds			
22) tC TPHC - total	12.45	3803619	113.073 mg/L m

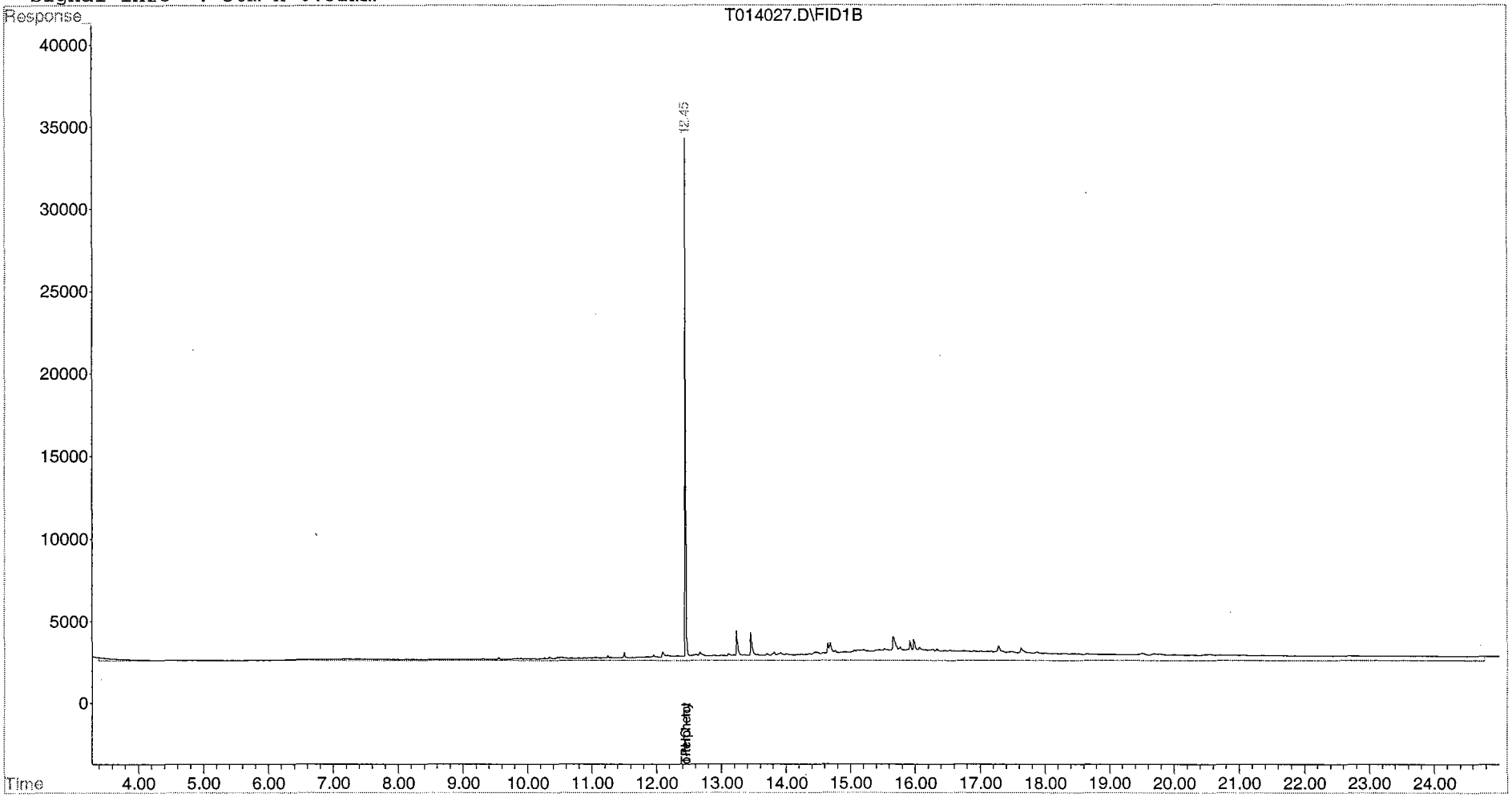
(f)=RT Delta > 1/2 Window (m)=manual int.

000138

Data File : C:\HPCHEM\1\DATA\020226\T014027.D Vial: 22
Acq On : 26 Feb 2002 8:30 pm Operator: B.Patel
Sample : 2010609s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:43 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000139

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020226\T014028.D Vial: 23
Acq On : 26 Feb 2002 9:03 pm Operator: B.Patel
Sample : 2010611s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:43 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Initial Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

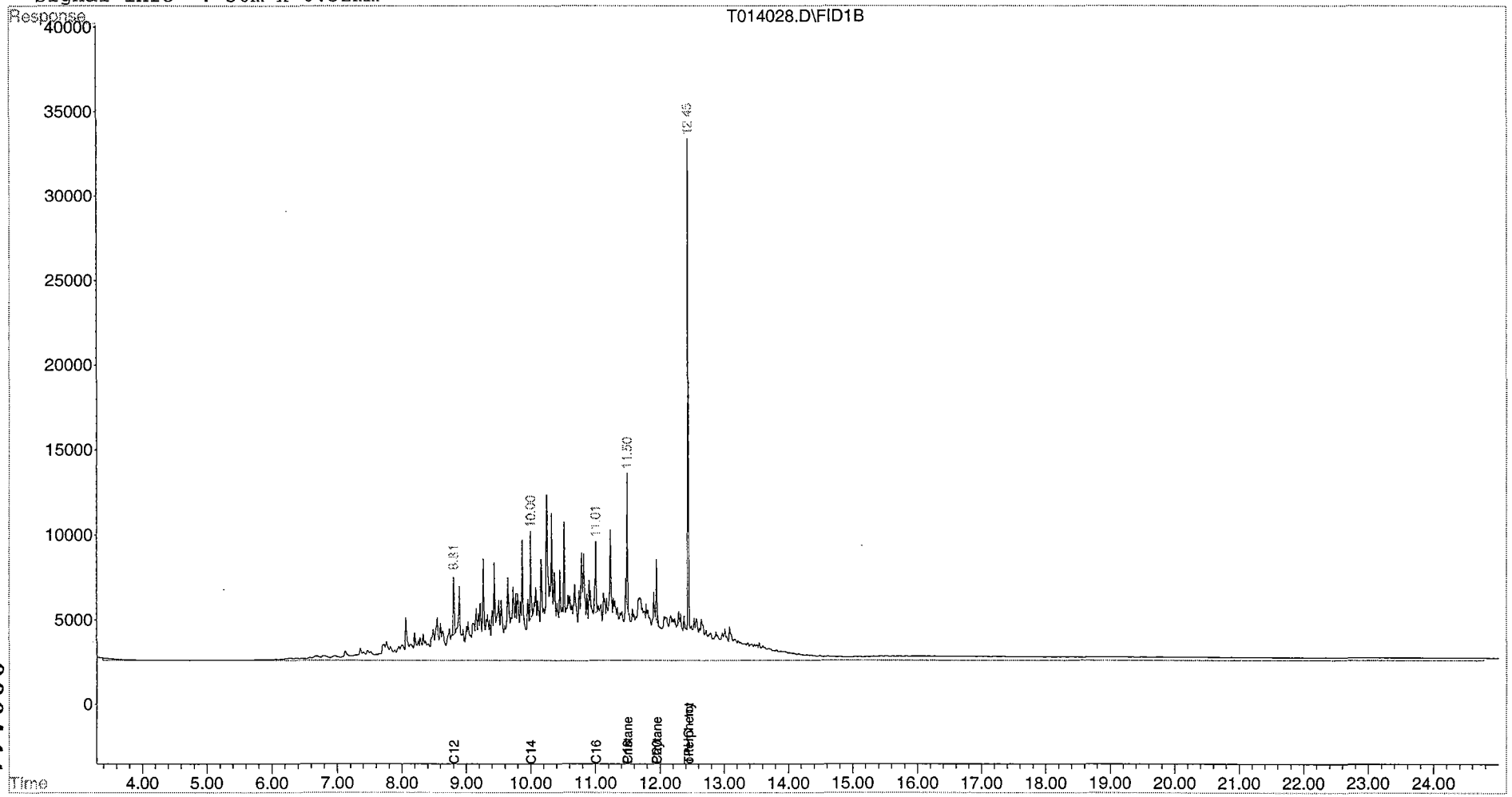
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	267033	9.301 mg/L
Spiked Amount 10.000 Range 8 - 13	Recovery =	93.01%#	
Target Compounds			
3) TC C12	8.81	40887	1.608 mg/L
4) tC C14	10.00	53064	2.010 mg/L
5) tC C16	11.01	52955	1.963 mg/L
6) tC C18	11.50	70010	2.622 mg/L
7) tC C20	11.95	36091	1.313 mg/L
19) TC Pristane	11.50	70010	2.583 mg/L
20) TC Phytane	11.95	36091	1.257 mg/L
22) tC TPHC - total	12.45	10442567	310.433 mg/L m

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020226\T014028.D Vial: 23
Acq On : 26 Feb 2002 9:03 pm Operator: B.Patel
Sample : 2010611s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 27 7:43 2002 Quant Results File: TPH96.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH96.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Feb 26 14:59:00 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH96.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



000141

WET CHEMISTRY

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

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 173
Ft. Monmouth, NJ 07703

Lab ID #: 2010610
Sample Received: 02/20/02
Analysis Start: 02/20/02
Analysis Completed: 02/20/02

Site: Ft. Monmouth
Bldg 482

Matrix: Aqueous

Analysis: Total & Fecal Coliform

Laboratory ID#	Sample Location	Total Coliform (cfu/100ml)	Fecal Coliform (cfu/100ml)	Detection Limit (cfu/100ml)
2010610	482 GW 9.8'	ND	ND	4

ND = Not Detected, cfu = colony forming unit

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 <u>and</u> 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 ✓
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 3/12/02

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

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 #: 1609.1-.10
Sample Rec'd: 08/12/94
Analysis Start: 08/16/94
Analysis Comp: 08/16/94

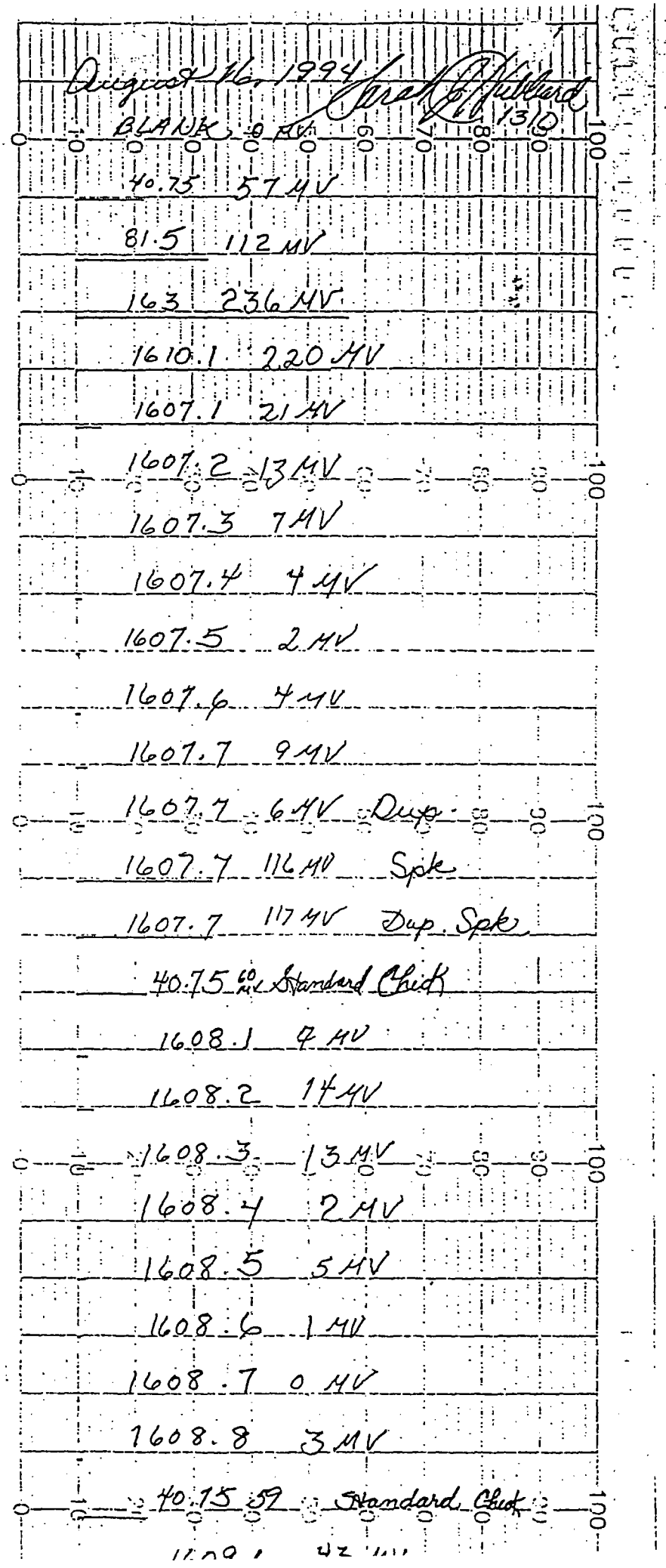
Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg.#: **0090010-54**
Closure #: **c93-3898**
DICAR #:
Location #: **Bldg. 482**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1609.1	Site A, SE	OVA= 3	87	240.	6.6
1609.2	Site B, S	OVA= <1	87	145.	6.6
1609.3	Site C, SE	OVA= <1	89	1160.	6.6
1609.4	Site D, NE	OVA= 3	90	222.	6.6
1609.5	Site E, N	OVA= 5	84	205.	6.6
1609.6	Site F, NE	OVA= 3	85	235.	6.6
1609.7	Site G (dup)	OVA= 3	87	134.	6.6
1609.8	Site H, PIPE	OVA= 9	79	1300.	6.6
1609.9	Site I	OVA= 10 *	80	1910.	46.
1609.10	Site J	OVA= 9	93	41.2	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1609.10dup= 112% 1609.10s= 87% 1609.10sd= 88% RPD= 1.0%

Brian K. McKee
Laboratory Director



1608.3 43 MV

1608.4 2 MV

1608.5 5 MV

1608.6 1 MV

1608.7 0 MV

1608.8 3 MV

40.75 59 Standard Check

1609.1 43 MV

1609.2 25 MV

1609.3 222 MV

1609.4 41 MV

1609.5 35 MV

1609.6 41 MV

1609.7 23 MV

1609.8 220 MV

1609.9 45 (dif 7)

1609.10 6 MV

1609.10 7 MV Dup

1609.10 121 MV Spk

1609.10 122 MV Spk Dup.

1603.1 9 MV

1603.2 9 MV

1603.3 8 MV

1603.4 8 MV

1603.5 10 MV

1603.6 30 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 #1609

Brian K. McKee
Laboratory Manager

40.75 - 57
81.5 - 112
163 - 236

R.9996

U.S. ARMY FORT MONMOUTH

Sarah J. Hubbard ✓

Bldg 482

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
609.1	15	43	240.4	5.900	5.157	.87	10YR 3/2	Very dark grayish Brown
.2	15	25	144.9	6.844	5.983	.87	10YR 3/4	dark yellowish Brown
.3	15	222	1,163.5	4.513	4.030	.89	10YR 2/2	Very dark Brown
.4	15	41	222.1	7.283	6.578	.90	10YR 3/2	Very dark grayish Brown
.5	15	35	205.0	7916	6.663	.84	10YR 3/2	Very dark grayish Brown
.6	15	41	235.2	~~7.01~~ 6.494	5.522	.85	10YR 3/2	11
.7	15	23	134.3	6.261	5.433	.87	10YR 3/1	Very dark Gray
.8	15	220	1,299.1	8.639	6.837	.79	10YR 3/2	Very dark Brown
.9*	15	45 (dil 7)	1,910.9	6651	5.326	.80	10YR 2/1	Black
.10	15	6	41.2	6.477	6.048	.93	6YR 5/6	Yellowish Brown
Blank	30	0	ND	—	—	—	—	—
Dup.10	15	7	46.2	~~6.477~~	—	.93	—	—
Spk.10	15	121	612.1	—	—	.93	—	—
Dup Spk.10	15	122	617.1	—	—	.93	—	—

Certification Number 13461

142.9
166.63
143.9
87
$\bar{x} = 143.2$

U.S. ARMY FORT MONMOUTH

P.O. #: PW3-007 TPHC

Chain of Custody

Project #: C93-3898	Sampler: Dinker Desai	Date / Time: 8/12/94 —	Analysis Parameters	Start:
Customer: Dinker Desai SELFM-PW-EV	Site Name: 482 Reg UST # 0090010-54 C93-3898			Finish:
Phone: (908) 532-1475				Preservation Method

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH-90S v Nussle						OVA	Remarks	
1609.1	8/12/94	3-45	Site A SE	Soil	1	✓						3		NONE
.2	↓	3-48	Site B S	↓	↓	✓						4		
.3	↓	3-NG	Site C SE	↓	↓	✓						4		
.4	↓	NG	Site D NE	↓	↓	✓						3		
.5	↓	NG	Site E	↓	↓	✓						5		
.6	↓	NG	Site F NE	↓	↓	✓						3	OVA SN	
.7	↓	NG	Site G (DUP)	↓	↓	✓						3	52114	
.8	↓	NG	Site H EPIPE	↓	↓	✓						9	Cal. w/ Air	
.9	↓	NG	Site I	↓	↓	✓						10	95 ppm	
.10	↓	NG	Site J	↓	↓	✓						9	CH4 · Lim # 3	
			NG: Not Given on Sample										Received TPO 8/12/94	

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Dinker Desai	8/12/94		

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
[signature]		[signature]	8/12/94 1620

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. * No site map enclosed with samples.

SAI-ENV COC form 01 Page 1 of 2 Pages Rev. A Date: 02 Apr 93

Enviornmental Laboratory

Chain of custody corrected by sample custodian ... Number 13461

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 #: 1609.1-.10
Sample Rec'd: 08/12/94
Analysis Start: 08/16/94
Analysis Comp: 08/16/94

Analysis: Munsel

Lab ID#	Soil Color
1609.1	10YR 3/2 Very Dark Grayish Brown
1609.2	10YR 3/4 Dark Yellowish Brown
1609.3	10YR 2/2 Very Dark Brown
1609.4	10YR 3/2 Very Dark Grayish Brown
1609.5	10YR 3/2 Very Dark Grayish Brown
1609.6	10YR 3/2 Very Dark Grayish Brown
1609.7	10YR 3/1 Very Dark Gray
1609.8	10YR 2/2 Very Dark
1609.9	10YR 2/1 Black
1609.10	10YR 5/6 Yellowish Brown

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 #: 1625.1-.3
Sample Rec'd: 08/26/94
Analysis Start: 08/31/94
Analysis Comp: 08/31/94

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

NJDEPE UST Reg.#: 90010-54
Closure #: C-93-3898
DICAR #:
Location #: Bldg. 482

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1625.1	Site C OVA= 60.	75	29400.	158
1625.2	Site H, FEEDLINE * OVA= 20.	86	2610.	46.
1625.3	Site I, FEEDLINE OVA= 5.	85	710.	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
BATHC dup= 115% BATCH s= 116% BATCH sd= 115% RPD= 0.8%

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 #: 1625.1-.3
Sample Rec'd: 08/26/94
Analysis Start: 08/31/94
Analysis Comp: 08/31/94

Analysis: Munsel

Lab ID#	Soil Color
1625.1	2.5Y 2.5/1 Blackrown
1625.2	2.5Y 3/1 Very Dark Gray
1625.3	2.5Y 3/1 Very Dark Gray

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: Nos-7 TPHC

Chain of Custody

Project #: 94-8-11-1345-43	Sampler: George Cuttermore	Date / Time: 8/26/94 9-30	Analysis Parameters
Customer: Dinkar Desai	Site Name: 482 TMS 0293-3898		Start:
Phone:	UST# 90010-54		Finish:

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solids	MOD/IW	OVA	Preservation Method	Remarks
1625.1	8/26	9-46	Site C,	Soil	1	X	X	X	60	Ice/Methanol 4°C	
.2	8/26	9-50	Site H, (Feedline)	"	1	X	X	X	20		
.3	8/26	9-53	Site I, (Feedline)	"	1	X	X	X	5		
											OVA calibrated at 9:30 AM Temp air 95° Methane 95 Reading 74 OVA # 52114

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Relinquished By (signature)	Date / Time	Received for Lab by (signature): B. Mk	Date / Time: 8-26-94 1630

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

Enviornmental Laboratory

Certification Number 13461

August 21, 1774

Sarah Pickard 1905

Blank

40.75 54 MV

81.5 111 MV

163 240 MV

1628.1 80 MV Building 625

1628.2 5 MV

1628.3 5 MV

1628.4 2 MV

1628.4 Dup. 3 MV

1628.4 Spk. 123 MV

1628.4 Dup Spk. 122 MV

1628.5 13 MV

1628.6 4 MV

1628.7 3 MV

1623.1 11 MV Building 601

1624.1 0 MV Building 621

1624.2 0 MV

1624.3 0 MV

1624.4 0 MV

1624.5 3 MV

1624.6 0 MV

1624.7 2 MV

1624.8 29 MV

1625.1 98 dil MV Building 482

1625.2 66 dil 7

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 #1625

Brian K. McKee
Laboratory Manager

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 #: 1632.1
Sample Rec'd: 09/06/94
Analysis Start: 09/08/94
Analysis Comp: 09/08/94

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

NJDEPE UST Reg.#: 90010-54
Closure #:
DICAR #: 94-8-11-1345-43
Location #: Bldg. 482

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1632.1	Site C2 (sidewall) SE OVA= 100.	85	14100.	46.
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
BATCH DUP= 105% BATCH S= 112% BATCH SD= 105% RPD= 6.3%

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 #: 1632.1
Sample Rec'd: 09/06/94
Analysis Start: 09/08/94
Analysis Comp: 09/08/94

Analysis: Munsel

Lab ID#	Soil Color
1632.1	2.5Y 2.5/1 Black

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: PW37 TIHC

Chain of Custody

Project #: 94-8-11-1345-43

Sampler: George Cah

Date / Time: 9/6 11-00

Analysis Parameters: TPH, Tot Solids, Moisture, OVA

Start:

Finish:

Customer: Clinton Dasa

Site Name: Bldg 482
90010 - 54
ACM 94-8-11-1345-43

Phone:

Preservation Method

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles		TPH	Tot Solids	Moisture				OVA	Remarks
BKm ~~1615.1~~ 1632.1	9/6	11-27	Site C2 (Sidewall) SE.	Soil	1		X	X	X				100	Sample 4° Tank
														OVA Cal. to Zero Air Isobutylene 95 ppm Resp. F.=.90

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
[signature]	9/6 1145	B. MK [signature]	9/6/94 1145

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

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

Enviornmental Laboratory

- No map

September 8, 1994
Sarah J Hubbard
begin 1738

40.75 55 MV

81.5 110 MV

163 231 MV

Method Blank 0 MV

1633.1 0 MV Building 611

1633.2 67 MV (247)

1633.3 199 MV

1633.4 58 MV

1633.5 95 MV

1633.6 130 MV

1633.7 22 MV

1633.8 174 MV

1633.9 6 MV

40.75 Calibration Ck 54 MV

Method Blank 0 MV

1631.1 25 Building 293

1631.2 117 MV

1631.3 11 MV

1631.4 42 MV

1631.5 33 MV

~~1631.6 76 MV~~ VOID SH 9/8/94

1631.6 34 MV

~~1631.6 82 MV~~ void duplicate SH 9/8/94

1631.6 31 MV

1631.6 149 MV Spike

1631.6 142 MV Spike Dup

PRINTED IN U.S.A.

1630.4 58 MV

1633.5 95 MV

1633.6 130 MV

1633.7 22 MV

1633.8 174 MV

1633.9 6 MV

4075 Calibration Ck 54 MV

Method Blank 0 MV

1631.1 25 Building 293

1631.2 117 MV

1631.3 11 MV

1631.4 42 MV

1631.5 33 MV

~~1631.6 76 MV~~ VOID DA 9/8/94

1631.6 34 MV

~~1631.6 82 MV~~ VOID Duplicate DA 9/8/94

1631.6 31 MV

1631.6 149 MV Spike

1631.6 142 MV Spike Dup

Method Blank 0 MV

1632.1 Building 282

360 MV did (7)

1637.1 103 MV

1637.2 115 MV did (7)

Calibration Check 4075

52 MV

135-6970-00

APPENDIX E

GROUNDWATER ANALYTICAL DATA PACKAGE

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	**VB010906.D**	Sample Name	**2010610**
Operator	**Skelton**	Field ID	**482 GW**
Date Acquired	**21 Feb 2002 7:24 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

2/27/02 12:25 PM

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **482GW**

Lab Name: FMETL Project: 0212539

NJDEP#: 13461 Case No.: 20106 Location: Bldg48 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2010610

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010906.D

Level: (low/med) LOW Date Received: 2/20/02

% Moisture: not dec. Date Analyzed: 2/21/02

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: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	32.43	4	J

Bldg 102 MW Mon 11/27/95 001

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials

New Jersey

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

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

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

New York

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

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

California

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

Florida

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

Georgia

3600 Rosewell Street, SE
Suite One
Smyrna, GA 30080
(404) 333-6066

Michigan

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

North Carolina

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

Texas

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

ANALYTICAL DATA REPORT
FOR
E-SYSTEMS
P.O. Box 360
Fort Monmouth, NJ 07703

PROJECT : **Bldg. 482, MW Sampling**

EMSL Project: # 95118844

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1982.1, MW1, 2933759	**95-54551**	**Aqueous**	**11/27/95 @ 1427**	**11/27/95**
1982.2, MW2, 2933758	**95-54552**	**Aqueous**	**11/27/95 @ 1454**	**11/27/95**
1980.2, Trip Blank	**95-54553**	**Aqueous**	**11/27/95 @ 0645**	**11/27/95**
1980.3, Field Blank	**95-54554**	**Aqueous**	**11/27/95 @ 1415**	**11/27/95**
1982.4, Duplicate	**95-54555**	**Aqueous**	**11/27/95 -------**	**11/27/95**

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: 1-18-96

EMSL

TABLE OF CONTENTS

SAMPLE DATA SUMMARY PACKAGE

EMSL

Date of Report: 12/13/95
Project Number: 95118844
Lab ID: 95-0054551
Date Collected: 11/27/95 14:27
Collected By: Client
Date Received: 11/27/95 17:30

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

Client Project: MW Sampling,Bldg.482

Client Designation: MW1-2933759

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 005

1982.1
9554551B
2933759

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: BIdg 482 Location: MW #1 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554551B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9310.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 006

1982.1
9554551B
2933759

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: Bldg 482 Location: MW#1 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554551B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9310.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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. 007
1982.1
9554551B
2933759

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Bldg 482 Location: mw#1 Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554551B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9310.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 10 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	10.38	2	J
2. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	11.53	2	J
3. 530-93-8	2(1H)-Naphthalenone, 3,4-dih	11.92	2	J
4. 1559-81-5	Naphthalene, 1,2,3,4-tetrahy	12.05	3	J
5. 582-16-1	Naphthalene, 2,7-dimethyl-	15.54	3	J
6. 132-64-9	Dibenzofuran	17.08	3	J
7. 544-76-3	Hexadecane	18.59	2	J
8. 1430-97-3	9H-Fluorene, 2-methyl-	19.88	2	J
9. 21164-95-4	Hexadecane, 7,9-dimethyl-	20.05	3	J
10.	Unknown Hydrocarbon	23.54	4	J
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1982.1 2933759 008

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9554551V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0479.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1982.1 29337 59

009

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9554551V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0479.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	1.2	
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	6.4	
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 1982.1 2933759 010

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

Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: 1 Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554551V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0479.D

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

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

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

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

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.13	2	J
2. 99-87-6	Benzene, 1-methyl-4-(1-methy	21.84	4	J
3.	Unknown	23.08	5	J
4.	Unknown	23.10	1	J
5.	Unknown	23.12	2	J
6. 4912-92-9	1H-Indene, 2,3-dihydro-1,1-d	23.40	4	J
7. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	23.86	2	J
8.	Unknown	24.10	6	J
9.	Unknown	24.24	1	J
10.	Unknown	24.79	1	J
11.	Unknown	25.87	4	J
12.	Unknown	26.06	7	J
13.	Unknown	26.19	2	J
14.	Unknown	26.55	2	J
15.				
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30.				

EMSL

Date of Report: 12/13/95
Project Number: 95118844
Lab ID: 95-0054552
Date Collected: 11/27/95 14:54
Collected By: Client
Date Received: 11/27/95 17:30

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

Client Project: MW Sampling,Bldg.482

lient Designation: MW2-2933758

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 1982.2 9554552B 2933758

012

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: Bldg 482 Location: MW#2 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554552B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9311.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	J
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	1	J
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. 013

1982.2
9554552B
2933758

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: Bldg 482 Location: mw#2 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554552B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9311.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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.
1982.2
9554552B
2933758
014

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: Bldg 482 Location: MW #2 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554552B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9311.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 7 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	10.36	2	J
2. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	12.05	3	J
3. 91-57-6	Naphthalene, 2-methyl-	13.40	3	J
4. 90-12-0	Naphthalene, 1-methyl-	13.65	3	J
5. 582-16-1	Naphthalene, 2,7-dimethyl-	15.54	2	J
6. 132-64-9	Dibenzofuran	17.08	2	J
7. 57-10-3	Hexadecanoic acid	23.58	29	J
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1982.2 2933758

015

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 2

Matrix: (soil/water) WATER Lab Sample ID: 9554552V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0480.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1982.2 / 2933758

016

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 2

Matrix: (soil/water) WATER Lab Sample ID: 9554552V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0480.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	1.2	
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	5.2	
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 1982.2 2933758 017

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

Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: 2 Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554552V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0480.D

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

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

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

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

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	17.83	1	J
2.	Unknown	21.12	2	J
3.	Unknown	23.07	3	J
4.	Unknown	23.40	4	J
5.	Unknown	23.53	1	J
6. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	23.86	3	J
7.	Unknown	24.10	7	J
8. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	24.24	2	J
9.	Unknown	25.27	1	J
10.	Unknown	25.59	2	J
11.	Unknown	25.87	3	J
12.	Unknown	26.06	6	J
13.	Unknown	26.19	3	J
14.	Unknown	26.56	3	J
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EMSL

Date of Report: 12/13/95
Project Number: 95118844
Lab ID: 95-0054553
Date Collected: 11/27/95 06:45
Collected By: Client
Date Received: 11/27/95 17:30

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

Client Project: MW Sampling,Bldg.482

Client Designation: Trip Blank

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1980.2 019

Trip Blank

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D

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

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

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

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 020
19863.2
Trip Blank

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 1980.2 Trip Blank 021

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D

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

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

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.74	3	J
2.	Column Bleed	23.11	1	J
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EMSL

Date of Report: 12/13/95
Project Number: 95118844
Lab ID: 95-0054554
Date Collected: 11/27/95 14:15
Collected By: Client
Date Received: 11/27/95 17:30

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

Client Project: MW Sampling,Bldg.482

Client Designation: Field Blank

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 023

1980.3
9554554B
Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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. 024

1960.3
9554554B
Field Blank

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: BH6482 Location: FB Group:

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

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

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

SAMPLE NO. 025

1980.3
9554554B
Field Blank

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: EMSL ANALYTICAL Contract:

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

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

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

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

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

FMETL# 1980.3 Field Blank 026

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

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

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

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

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1980.3 Field Blank

027

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

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

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

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

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 1980.3 Field Blank 028

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

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

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

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

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

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

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

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

Number TICs found: 4 Concentration Units: (ug/L or ug/Kg) ug/L

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

Date of Report: 12/13/95
Project Number: 95118844
Lab ID: 95-0054555
Date Collected: 11/27/95 00:00
Collected By: Client
Date Received: 11/27/95 17:30

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

Client Project: MW Sampling,Bldg.482

Client Designation: Duplicate

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 1982.4 9554555B Duplicate 030

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9554555B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9313.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	2	J
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. 031

1982.4
9554555B
Duplicate

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Bldg 482 Location: Dup Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554555B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9313.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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.
1982.4
9554555B
Duplicate

032

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Bldg 482 Location: Dup Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554555B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9313.D

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

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

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

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 9 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 93-53-8	Benzeneacetaldehyde, .alpha.	7.43	6	J
2. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	10.36	2	J
3. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	11.53	2	J
4. 3877-19-8	Naphthalene, 1,2,3,4-tetrahy	11.92	3	J
5. 1559-81-5	Naphthalene, 1,2,3,4-tetrahy	12.05	4	J
6. 575-37-1	Naphthalene, 1,7-dimethyl-	15.54	4	J
7. 132-64-9	Dibenzofuran	17.08	4	J
8.	Unknown Hydrocarbon	18.34	2	J
9. 57-10-3	Hexadecanoic acid	23.54	13	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1982.4 Duplicate 033

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554555V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0481.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1982.4 Duplicate 034

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554555V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0481.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	1.2	
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	6.8	
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 1982.4 Duplicate 035

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

Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: DUP Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554555V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0481.D

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

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

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

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

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.13	2	J
2. 99-87-6	Benzene, 1-methyl-4-(1-methy	21.84	4	J
3.	Unknown	23.07	6	J
4.	Unknown	23.10	3	J
5.	Unknown	23.12	2	J
6. 4912-92-9	1H-Indene, 2,3-dihydro-1,1-d	23.39	4	J
7. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	23.86	3	J
8.	Unknown	24.11	7	J
9.	Unknown	24.24	2	J
10.	Unknown	25.27	2	J
11.	Unknown	25.87	4	J
12.	Unknown	26.05	9	J
13.	Unknown	26.18	4	J
14.	Unknown	26.55	3	J
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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 USEPA CLP.	X
12	Non-Conformance Summary	X

Paul Forarig

Laboratory Manager or Environmental Consultant's Signature

1-18-96

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.
43-44	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.
45	11.	A list of all parameters (constituents and conditions) for which the analyses were performed.
3-35	12.	Sample results and corresponding units for each parameter.

EMSL

CHAIN OF CUSTODY

EMSL
3 Cooper Street
Westmont, New Jersey 08108
609-858-9573
609-858-4571 (Fax)

Chain of Custody / Analysis Request Form

EMSL Project # 951 18844
PO # IJO#95-0091/SAI

Custody and Sample Information - Print ALL information. Put N/A in blanks not applicable. Press firmly.

1. Report to:	2. Bill to:	Project: Bldg. 482
US ARMY FT.MONMOUTH Charles Appleby SELFM-PW-EV Env.Lab.Cert#13461		MW SAMPLING Tel #: 908-532-6224 FAX #:

3. Sampled by (Signature)	4. # of Samples in Shipment	5. Date of Sample Shipment	6. Date Results Needed
Baxter/Palilonis	Five	11-27-95	

Item No.	Sample Number	Station Location / Sample ID	COMP	GRAB	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: Date	Time	Number of Containers: 30	Indicate Analysis Requested: 5 VOA 524 + Library (Includ. MTBE, TBA, Xylene) BN 625 + 15	Laboratory Number
1	1982.1	MW1 - 2933759		X	X					X			X	X		11/27	1427	(7)	X X	54551
2	1982.2	MW2 - 2933758		X	X					X			X	X		11/27	1454	(7)	X X	52
3	1980 2	TRIP Blank		X	X					X			X			11/27	0645	(3)	X	53
4	1980_3	Field Blank		X	X					X			X	X		11/27	1415	(6)	X X	54
5	1982.4	Duplicate		X	X					X			X	X		11/27	—	(7)	X X	55
6																				
7																				
8																				
9																				

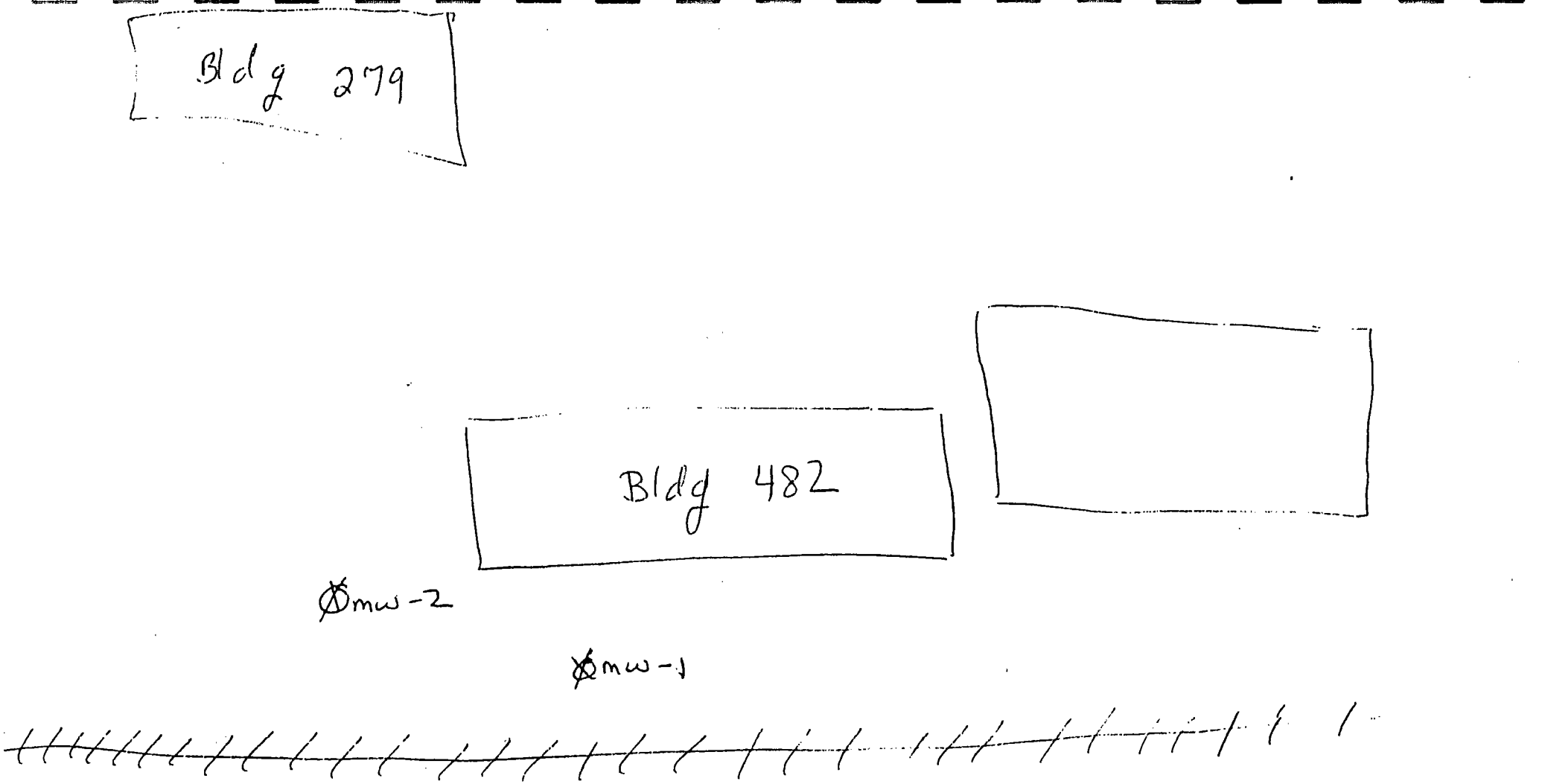
Released by (Signature)	Date/Time Released	Delivery Method	Received by (Signature)	Company/Agency Affiliation	Date/Time Received	Condition Noted
[illegible]	11/27/95 1515	Courier	[signature]	EMSL	11/27/95	1515
	/		[signature]	EMSL	11/27 /	17:30
	/				/	

Please indicate turnaround time: standard 10D 5D 72HR 48HR 24HR (Must call for quick turn)

Comments: Page 1 of 1
* A drawing depicting sample location on reverse side.

Please indicate reporting requirements:
1) Results only 2) Results & QC 3) Reduced Deliverables

039


Bldg 279
Bldg 482
mw-2
mw-1

INTERNAL CHAIN OF CUSTODY(ORGANICS)

SAMPLE No(S).	ANALYSIS	DATE ANALYZED	NAME (PRINT)	NAME (SIGNATURE)
55592	TCLP BNA	12/10/95	S. VanEtten	
9555533-5	BNA SOIL	12/8/95	S. VanEtten	
9554749	VOA TCLP	12/01/95	M. CIAMPI	
9554731	VOA + QC	12/01/95	M. CIAMPI	
9554732	TCLP VOA + LS + QC + Special	12/02/95	M. CIAMPI	
95 55592	GASOLINE	12/11/95	M. CIAMPI	
95 54733	BN+	12/1/95	S. VanEtten	
4551-8	BN+	12/8/95	S. VanEtten	
54779	BNA	12/8/95	S. VanEtten	
54985	BN+	12/8/95	S. VanEtten	
5478/24,5	TCLP BNA+	12/11/95	S. VanEtten	
9554989-92	VOA + LS	12/05/95	M. CIAMPI	
9556167	VOA	12/13/95	M. CIAMPI	
54[illegible]	BNT	12/12/95	S. VanEtten	
9556244	524.2	12/11/95	S. K[illegible]	
9554974-79	624	12/7/95	S. K[illegible]	
9555614	624	12/7/95	S. Kossler	
9554985	624	12/7/95	S. Kossler	
9554779	624	12/6/95	S. Kossler	
9555117-23	624	12/7/95	S. Kossler	
9554891-98	624	12/6-12/7/95	S. Kossler	
9555089-90	GASOLINE	12/13/95	M. CIAMPI	
95-54551-55	524.2	12/5/95	S. Kossler	

EMSL ANALYTICAL, INC.

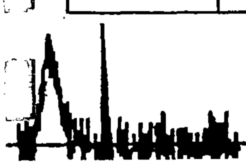
INTERNAL CHAIN OF CUSTODY

EMSL LAB ID NO. 54551- 54555 PROJECT NO. 95118844

SAMPLE/CONTAINERS

PARAMETERS 524, BN

DATE	TIME	ANALYSIS	NAME (PRINT)	SIGNATURE
12/4/95		B/N extraction	Charles Bartolone	Charles Bartolone



U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

IJO#95-0091
BLDG.#: 482 MW#: 1 NJDEPE WELL ID # 2933759
LABORATORY: EMSL Analytical Services, NJDEP CERT # 04653
SAMPLING CONTRACTOR: EMSL Analytical Services Inc.
SAMPLERS NAMES: Tom Baxter, Susan Palilonis 1352

DATE: 11-27-95
WEATHER CONDITIONS: Breezy, Cool

ELEVATION OF CASING SURVEY MARK: ____.____FT
TOTAL DEPTH FROM TOP OF SURVEYORS MARK: 14.80 FT
DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____FT
LENGTH OF SCREENED SECTION: ____.____FT
DEPTH TO H2O PRIOR TO PURGING AND SAMPLING: 4.87 FT
ELEVATION OF GW PRIOR TO PURGING: ____.____FT
THICKNESS OF LNAPL PRIOR TO PURGING: 0.0 FT

PID/Hnu READING IMMEDIATELY AFTER CAP REMOVAL: 1.5 PPM
DEPTH OF WELL: ____.____FT HEIGHT OF WATER: ____.____FT
GAL OF H2O TO BE EVACUATED (EST) 19.36 GAL
(9.93 X 0.65 X 3 = 19.36)
PURGE METHOD: (FLOW OF <0.5 GPM TO >5.0 GPM) Pump
PURGE RATE (0.5 GPM) : 2 GPM

PURGE START TIME: 1358
pH: 4.56 s.u. TEMP: 16.0 Deg.C
Dissolved Oxygen: 2.1 PPM Specific Conductivity: 203 us/cm

PURGE END TIME: 1421
pH: 4.59 s.u. TEMP: 15.2 Deg.C
Dissolved Oxygen: 2.6 PPM Specific Conductivity: 202 us/cm

DEPTH TO H2O AFTER PURGING AND BEFORE SAMPLING: 8.39 FT
SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON (R) BAILER 1427
TOTAL VOLUME PURGED : 20 GAL.
pH: 4.26 s.u. TEMP: 15.0 Deg.C
Dissolved Oxygen: 2.3 PPM Specific Conductivity: 206 us/cm

COMMENTS: _____

* Duplicate

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

IJO#95-0091
BLDG.#: 482 MW#: 2 NJDEPE WELL ID # 2933758
LABORATORY: EMSL Analytical Services, NJDEP CERT # 04653
SAMPLING CONTRACTOR: EMSL Analytical Services Inc. 1353
SAMPLERS NAMES: Tom Baxter, Susan Palilonis

DATE: 11-27-95
WEATHER CONDITIONS: Breezy, Cool — Cold.

ELEVATION OF CASING SURVEY MARK: ____.____FT
TOTAL DEPTH FROM TOP OF SURVEYORS MARK: 14.81 FT
DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____FT
LENGTH OF SCREENED SECTION: ____.____FT
DEPTH TO H2O PRIOR TO PURGING AND SAMPLING: 4.71 FT
ELEVATION OF GW PRIOR TO PURGING: ____.____FT
THICKNESS OF LNAPL PRIOR TO PURGING: 0.0 FT

PID/Hnu READING IMMEDIATELY AFTER CAP REMOVAL: 2.2 PPM
DEPTH OF WELL: ____.____FT HEIGHT OF WATER: ____.____FT
GAL OF H2O TO BE EVACUATED (EST) 20 GAL
(10.1 X 0.65 X 3 = 19.65)
PURGE METHOD: (FLOW OF <0.5 GPM TO >5.0 GPM) Pump
PURGE RATE (0.5 GPM) : 2 GPM

PURGE START TIME: 1425
pH: 4.53 s.u. TEMP: 14.8 Deg.C
Dissolved Oxygen: 2.1 PPM Specific Conductivity: 132 us/cm

PURGE END TIME: 1444
pH: 4.52 s.u. TEMP: 15.1 Deg.C
Dissolved Oxygen: 2.1 PPM Specific Conductivity: 178 us/cm

DEPTH TO H2O AFTER PURGING AND BEFORE SAMPLING: 6.40 FT
SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON (R) BAILER
TOTAL VOLUME PURGED : 20 GAL.
pH: 4.56 s.u. TEMP: 15.0 Deg.C
Dissolved Oxygen: 1.8 PPM Specific Conductivity: 178 us/cm

COMMENTS: _____

FB 1415

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: **95-54551 to 95-54555** Client: **E-Systems**

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

QC Supervisor
Review & Approval

(Signature) Peter B. Panton

(Printed Name) Peter B. Panton

(Date) 12/18/96

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

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 0.5 - 1.2 ppb.**		
	b. B/N Fraction **MS/MSD: Di-n-butylphthalate 5 ppb.**		
	c. Acid Fraction		
7.	Surrogate Recoveries Meet Criteria		X
	If not met, list those compounds and their recoveries which fall outside the acceptable range:		
	a. VOA Fraction		
	b. B/N Fraction		
	c. Acid Fraction		
	If not met, were the calculations checked and the results qualified as "estimated"?		
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		X
	a. VOA Fraction		
	b. B/N Fraction		
	c. Acid Fraction		
9.	Internal Standard Area/Retention Time Shift Meet Criteria		X

EMSL

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 Tonaig Date: 1-19-96

EMSL

GC/MS VOLATILE ORGANIC DATA PACKAGE

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: C0274.D BFB Injection Date: 11/21/95

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

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	42.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	70.3
175	5.0 - 9.0% of mass 174	4.9 (6.9)1
176	95.0 - 101.0% of mass 174	69.0 (98.1)1
177	5.0 - 9.0% of mass 176	4.8 (7.0)2

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

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		0.5 PPB STANDARD	C0275.D	11/21/95	0943
02		10 PPB STANDARD	C0279.D	11/21/95	1202
03		20 PPB STANDARD	C0278.D	11/21/95	1128
04		30 PPB STANDARD	C0277.D	11/21/95	1052
05		40 PPB STANDARD	C0276.D	11/21/95	1018
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

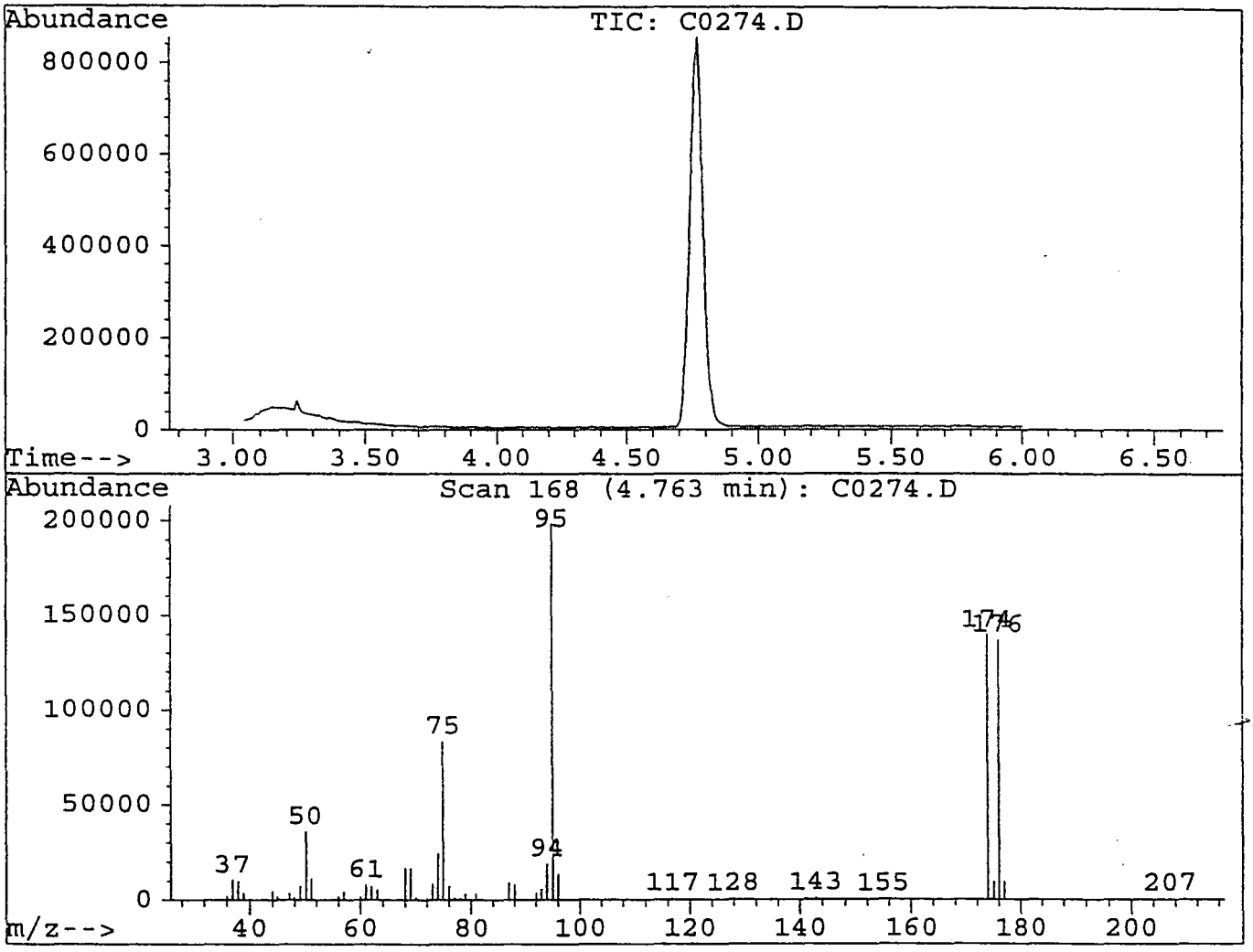
CLPBFB

050

Data File : D:\HPCHEM\1\DATA\C0274.D
Acq On : 21 Nov 95 9:30 am
Sample : BFB TUNE
Misc : 25 NG INJECTION

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

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



Peak Apex is scan: 168

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

C0274.D VOA524.M Tue Nov 21 11:09:55 1995 VOA

Scan 168 (4.763 min): C0274.D
BFB TUNE

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

Scan 168 (4.763 min): C0274.D
BFB TUNE

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

Response Factor Report 5972 - In

052

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

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

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

(#) = Out of Range

Response Factor Report 5972 - In

053

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

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

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

*) = Out of Range

Quantitation Report

Data File : D:\HPCHEM\1\DATA\C0275.D
Acq On : 21 Nov 95 9:43 am
Sample : 0.5 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:45 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	12.21	96	1820408	5.00	ug/L		0.42
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.44	95	969768	4.67	ug/L		93.41%
57) 1,2-Dichlorobenzene-d4	22.24	152	612531	4.91	ug/L		98.22%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.53	85	52316	0.39	ug/L		97
3) Chloromethane	3.98	50	42319	0.61	ug/L		98
4) Vinyl chloride	4.16	62	42117	0.51	ug/L		92
5) Bromomethane	4.90	94	37297	0.62	ug/L		97
6) Chloroethane	5.12	64	25997	0.54	ug/L		90
7) Trichlorofluoromethane	5.71	101	77594	0.41	ug/L		100
8) 1,1-Dichloroethene	6.81	96	46511	0.54	ug/L	#	71
9) Methylene chloride	7.81	84	319424	3.67	ug/L		97
10) trans-1,2-Dichloroethene	8.35	96	51408	0.53	ug/L		95
12) 1,1-Dichloroethane	9.14	63	96756	0.50	ug/L		100
13) 2,2-Dichloropropane	10.19	77	84847	0.44	ug/L		94
14) cis-1,2-Dichloroethene	10.21	96	49660	0.52	ug/L		97
16) Bromochloromethane	10.63	128	20891	0.50	ug/L		99
17) Chloroform	10.77	83	88666	0.45	ug/L		96
18) 1,1,1-Trichloroethane	11.09	97	85372	0.42	ug/L		93
19) Carbon tetrachloride	11.37	117	77995	0.41	ug/L		90
20) 1,1-Dichloropropene	11.37	75	81023	0.48	ug/L		94
21) Benzene	11.73	78	180526	0.59	ug/L		92
22) 1,2-Dichloroethane	11.76	62	36177	0.38	ug/L		83
23) Trichloroethene	12.83	95	68547	0.50	ug/L		97
24) 1,2-Dichloropropane	13.20	63	55699	0.54	ug/L		98
25) Dibromomethane	13.41	93	23381	0.45	ug/L		95
26) Bromodichloromethane	13.67	83	70253	0.42	ug/L		98
27) cis-1,3-Dichloropropene	14.41	75	63879	0.48	ug/L		92
28) Toluene	14.99	92	153622	0.69	ug/L	m	98
29) trans-1,3-Dichloropropene	15.35	75	43191	0.44	ug/L		89
30) 1,1,2-Trichloroethane	15.67	83	23162	0.49	ug/L		95
31) Tetrachloroethene	15.94	166	83338	0.52	ug/L		97
32) 1,3-Dichloropropane	15.96	76	45174	0.49	ug/L		95
33) Dibromochloromethane	16.36	129	43861	0.43	ug/L		99
34) 1,2-Dibromoethane	16.57	107	32720	0.46	ug/L	m	95
35) Chlorobenzene	17.41	112	135723	0.53	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.56	131	52286	0.47	ug/L		98
37) Ethylbenzene	17.60	91	246785	0.52	ug/L	m	67
38) Xylene (para & meta)	17.80	106	192842	1.13	ug/L		90
39) Xylene (Ortho)	18.51	106	85435	0.54	ug/L	m	93
40) Styrene	18.53	104	123015	0.51	ug/L		90

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

Quantitation Report

055

Data File : D:\HPCHEM\1\DATA\C0275.D
Acq On : 21 Nov 95 9:43 am
Sample : 0.5 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:45 1995

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

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

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

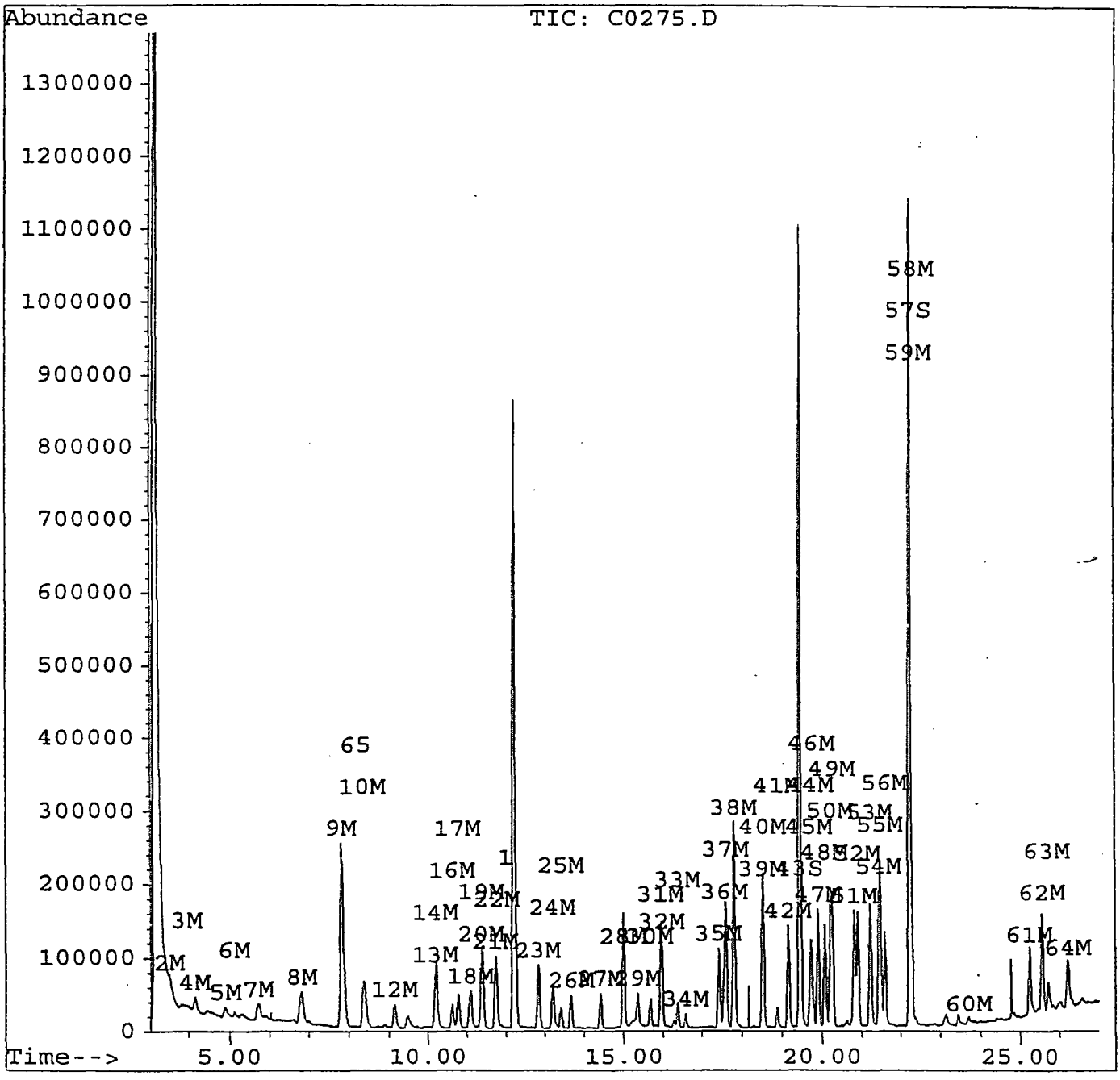
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\C0275.D
Acq On : 21 Nov 95 9:43 am
Sample : 0.5 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:45 1995

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

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



Quantitation Report

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

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

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

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

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

Quantitation Report

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

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

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

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

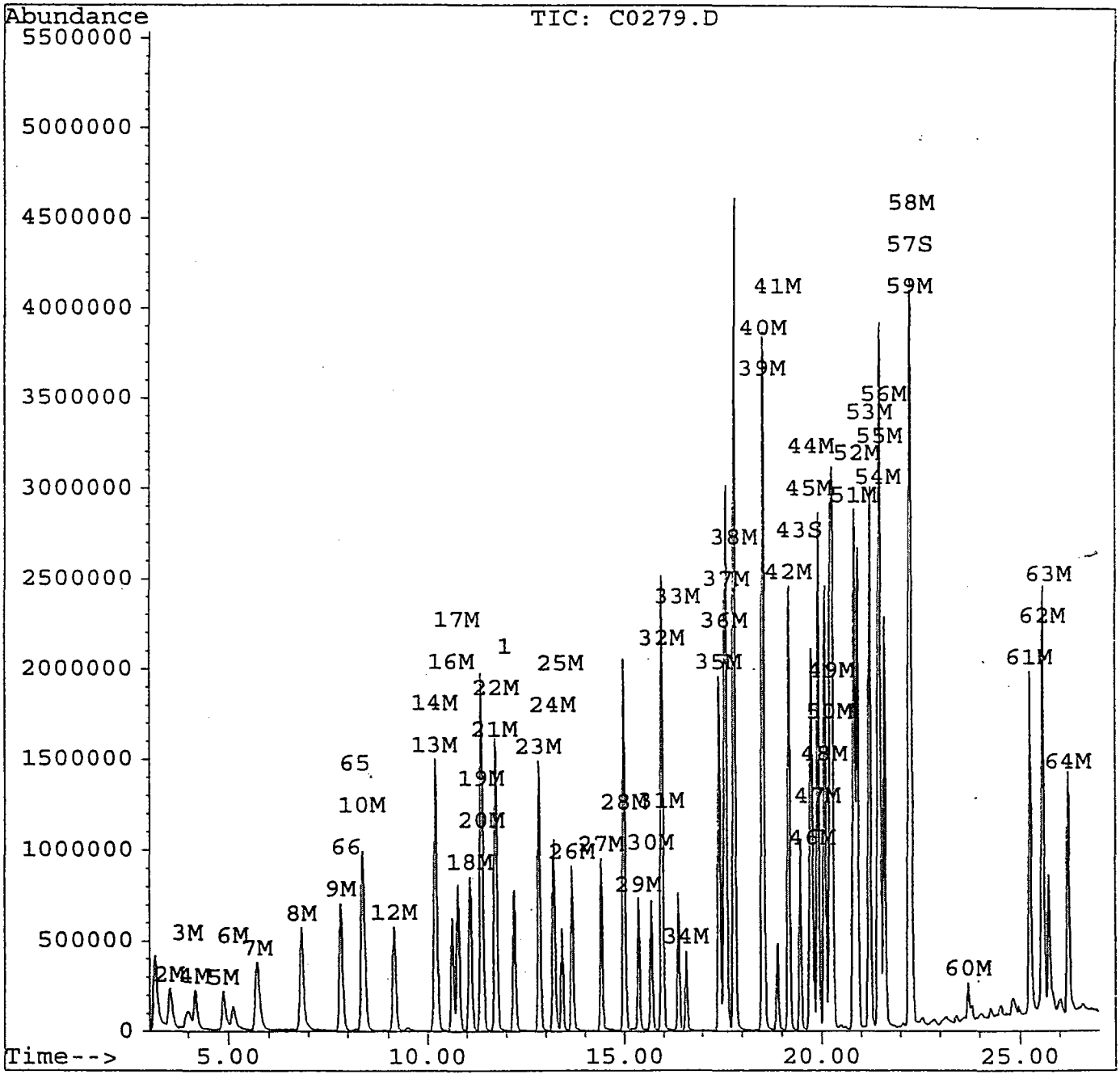
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

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

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



Quantitation Report

060

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

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

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

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

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

Quantitation Report

061

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

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

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

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

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

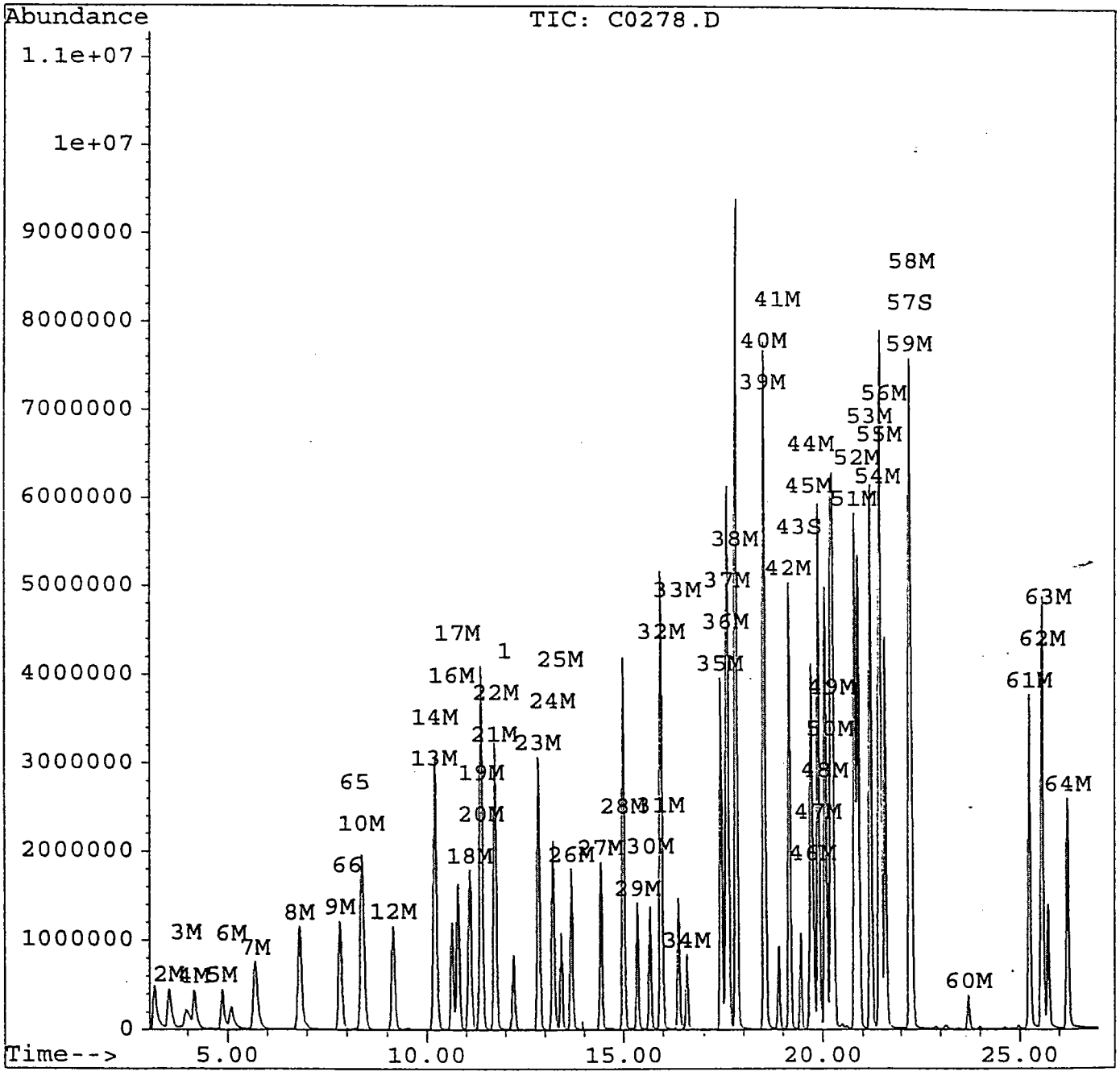
Quantitation Report

062

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

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

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



Quantitation Report

063

Data File : d:\hpchem\1\data\c0277.d
Acq On : 21 Nov 95 10:52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:04 1995

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

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

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

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

Quantitation Report

064

Data File : d:\hpchem\1\data\c0277.d
Acq On : 21 Nov 95 10:52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:04 1995

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

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

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

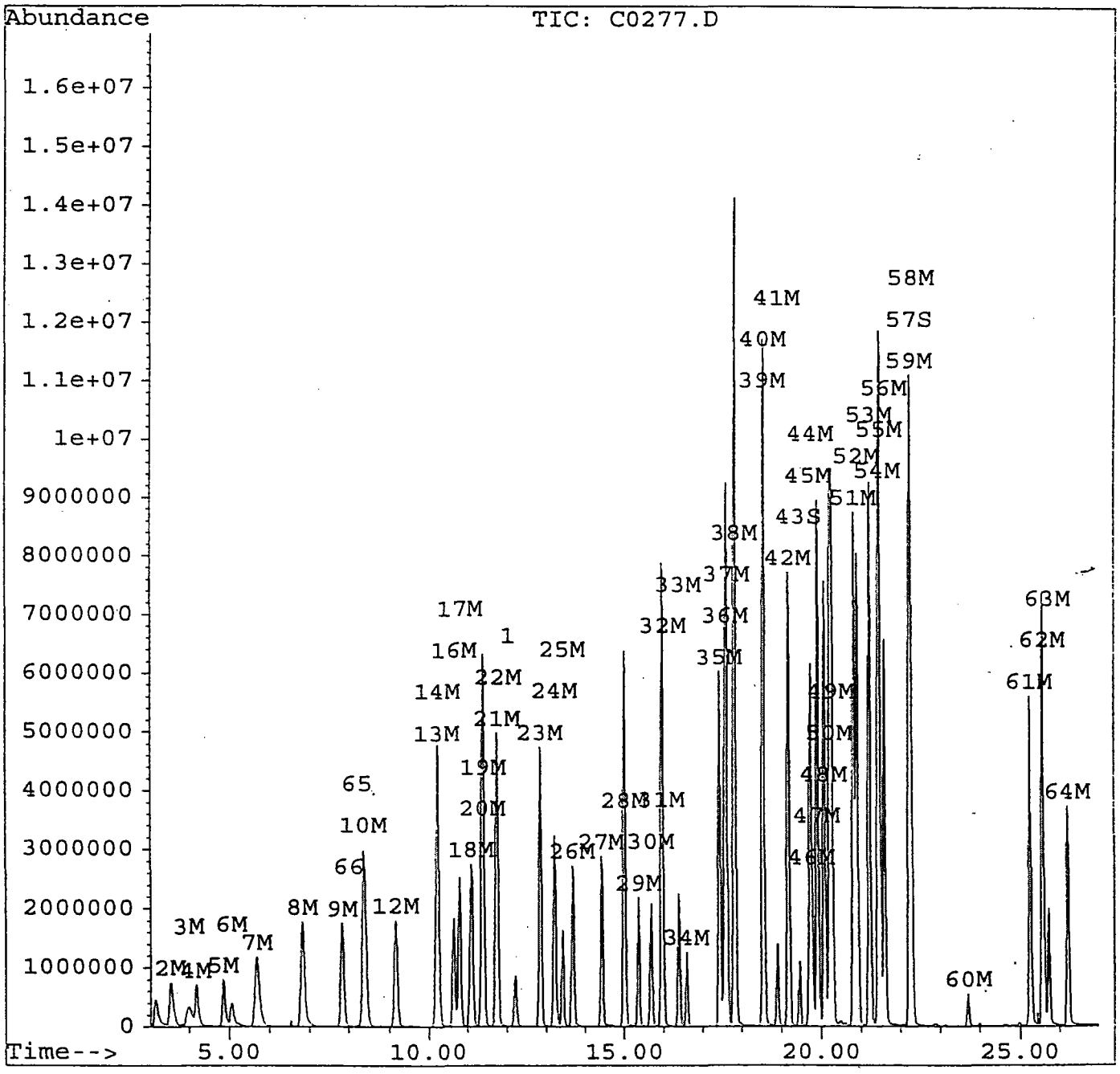
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0277.d
Acq On : 21 Nov 95 10:52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:04 1995

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

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



Quantitation Report

066

Data File : d:\hpchem\1\data\c0276.d
Acq On : 21 Nov 95 10:18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 11:18 1995

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

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

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

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

Quantitation Report

Data File : d:\hpchem\1\data\c0276.d
Acq On : 21 Nov 95 10:18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 11:18 1995

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

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

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

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

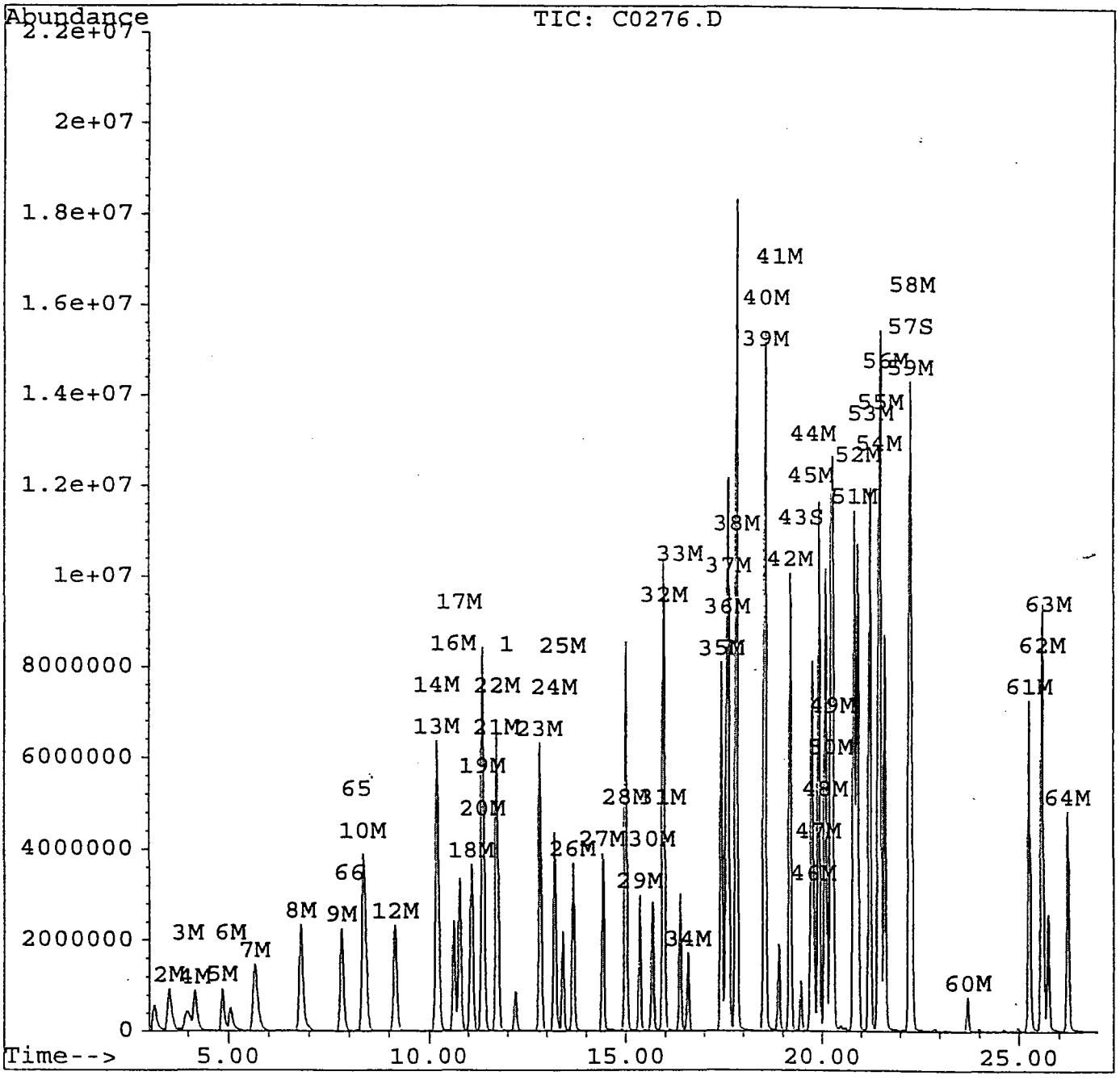
Quantitation Report

068

Data File : d:\hpchem\1\data\c0276.d
Acq On : 21 Nov 95 10:18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 11:18 1995

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

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



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

069

Lab Name : EMSL ANALYTICAL Contract: _____

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

Lab File ID: C0425.D BFB Injection Date: 12/2/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1457

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

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.5
75	30.0 - 66.0% of mass 95	43.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	66.3
175	4.0 - 9.0% of mass 174	4.4 (6.7)1
176	93.0 - 101.0% of mass 174	65.0 (97.9)1
177	5.0 - 9.0% of mass 176	4.4 (6.8)2

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

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

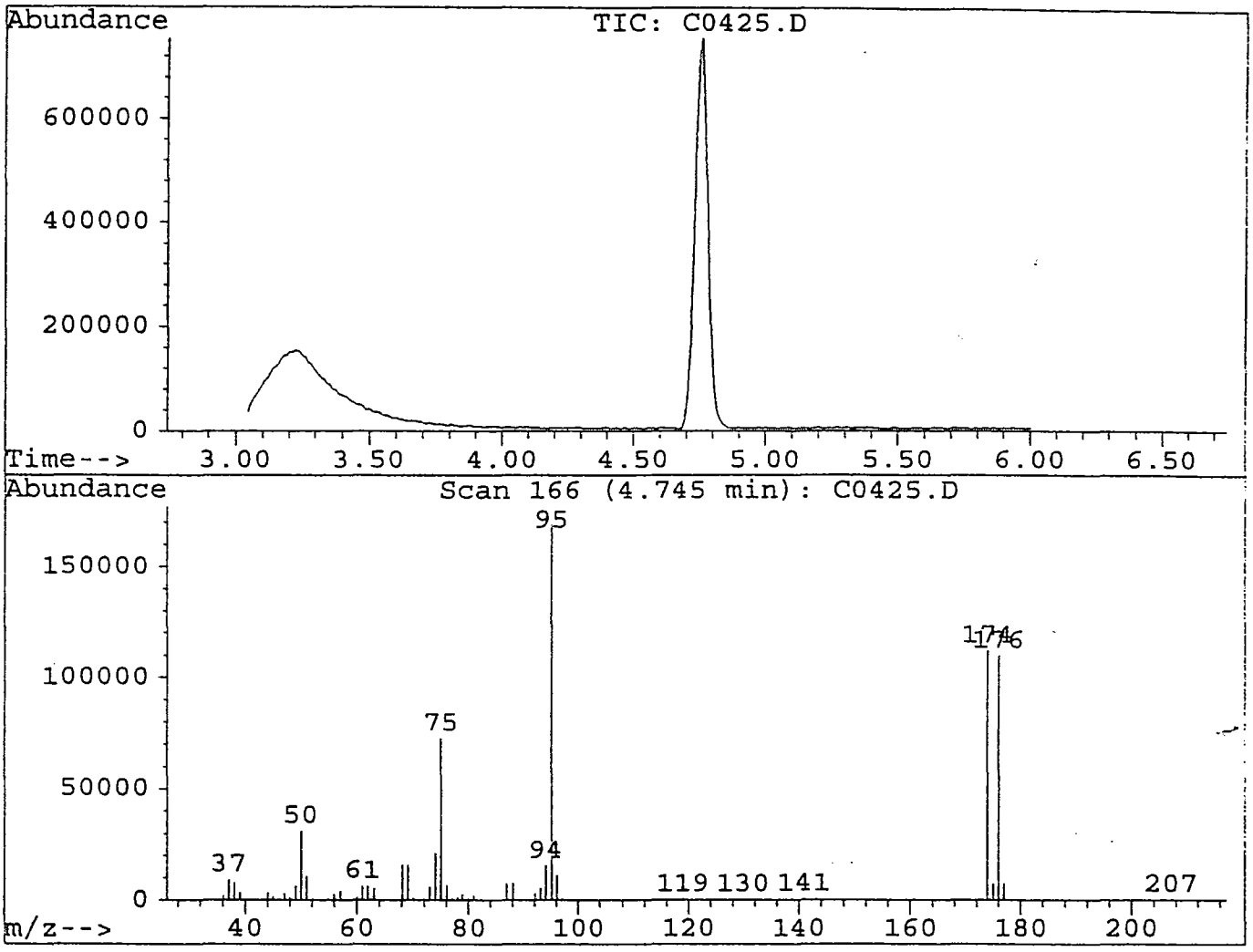
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C0426.D	12/2/95	1510
02	10 QCS	10 QCS	C0427.D	12/2/95	1544
03	1 STND	1 STND	C0428.D	12/2/95	1618
04	VBLK01	M. BLANK	C0429.D	12/2/95	1652
05	9554060V	9554060V	C0430.D	12/2/95	1726
06	9554061V	9554061V	C0431.D	12/2/95	1800
07	9554062V	9554062V	C0432.D	12/2/95	1835
08	9554101V	9554101V	C0433.D	12/2/95	1909
09	9554102V	9554102V	C0434.D	12/2/95	1944
10	9554063V	9554063V	C0435.D	12/2/95	2017
11	9554060MS	54060MS	C0438.D	12/2/95	2159
12	9554060MSD	54060MSD	C0439.D	12/2/95	2233
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C0425.D
Acq On : 2 Dec 95 2:57 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

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

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



Peak Apex is scan: 166

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

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

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1840	49.05	6223	68.05	16024	79.90	854
37.10	9334	50.05	31280	69.05	15535	81.00	2231
38.10	7583	51.05	10694	70.05	1159	82.00	554
39.10	3430	52.05	578	71.95	855	86.90	7424
40.00	784	54.95	929	72.95	6164	88.05	7573
41.10	512	56.00	2572	74.05	21272	91.05	699
43.00	593	57.10	4191	75.05	72880	92.05	3103
44.00	3356	60.00	1394	76.05	6616	93.05	5212
45.00	1518	61.00	6520	77.00	1207	94.05	15580
47.05	2903	62.00	6442	78.00	1346	95.05	168960
48.05	1147	63.00	5300	78.90	2768	96.05	11258

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

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

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

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

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

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

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

Evaluate Continuing Calibration Report

074

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

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

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	106	-0.05
2	M	Dichlorodifluoromethane	0.271	0.251	7.2	100	-0.02
3	M	Chloromethane	0.206	0.204	0.8	104	0.00
4	M	Vinyl chloride	0.229	0.234	-2.4	109	-0.04
5	M	Bromomethane	0.159	0.161	-1.6	104	-0.07
6	M	Chloroethane	0.127	0.104	18.5	79	-0.11
7	M	Trichlorofluoromethane	0.395	0.306	22.5	83	-0.20
8	M	1,1-Dichloroethene	0.237	0.227	4.0	103	-0.13
9	M	Methylene chloride	0.237	0.231	2.3	88	-0.08
10	M	trans-1,2-Dichloroethene	0.270	0.267	1.1	105	-0.07
11		Hexane	0.000	0.000#	0.0	0#	-0.50#
12	M	1,1-Dichloroethane	0.508	0.499	1.8	103	-0.06
13	M	2,2-Dichloropropane	0.424	0.432	-1.7	112	-0.06
14	M	cis-1,2-Dichloroethene	0.266	0.265	0.2	102	-0.05
15		2-Butanone	0.000	0.000#	0.0	0#	0.00
16	M	Bromochloromethane	0.115	0.107	6.7	92	-0.05
17	M	Chloroform	0.469	0.459	2.2	102	-0.05
18	M	1,1,1-Trichloroethane	0.454	0.455	-0.1	106	-0.05
19	M	Carbon tetrachloride	0.429	0.431	-0.3	106	-0.05
20	M	1,1-Dichloropropene	0.424	0.430	-1.6	108	-0.06
21	M	Benzene	0.870	0.854	1.9	103	-0.05
22	M	1,2-Dichloroethane	0.195	0.183	6.3	92	-0.05
23	M	Trichloroethene	0.361	0.361	0.0	105	-0.05
24	M	1,2-Dichloropropane	0.302	0.297	1.8	99	-0.04
25	M	Dibromomethane	0.132	0.126	4.8	92	-0.04
26	M	Bromodichloromethane	0.391	0.380	2.7	98	-0.04
27	M	cis-1,3-Dichloropropene	0.352	0.343	2.7	98	-0.04
28	M	Toluene	0.614	0.617	-0.6	102	-0.05
29	M	trans-1,3-Dichloropropene	0.243	0.230	5.6	93	-0.05
30	M	1,1,2-Trichloroethane	0.131	0.124	5.2	91	-0.04
31	M	Tetrachloroethene	0.435	0.431	1.0	105	-0.05
32	M	1,3-Dichloropropane	0.247	0.238	3.8	93	-0.05
33	M	Dibromochloromethane	0.260	0.245	5.6	92	-0.05
34	M	1,2-Dibromoethane	0.190	0.180	5.4	90	-0.05
35	M	Chlorobenzene	0.707	0.699	1.2	101	-0.04
36	M	1,1,1,2-Tetrachloroethane	0.294	0.291	0.9	98	-0.05
37	M	Ethylbenzene	1.261	1.258	0.3	104	-0.05
38	M	Xylene (para & meta)	0.477	0.480	-0.7	104	-0.05
39	M	Xylene (Ortho)	0.438	0.434	0.9	101	-0.05
40	M	Styrene	0.672	0.670	0.3	99	-0.05
41	M	Bromoform	0.142	0.133	6.9	87	-0.05
42	M	Isopropylbenzene	1.219	1.223	-0.4	104	-0.05

#) = Out of Range

Evaluate Continuing Calibration Report

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

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

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

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

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

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

Quantitation Report

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

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

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

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

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

Quantitation Report

077

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

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

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

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

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

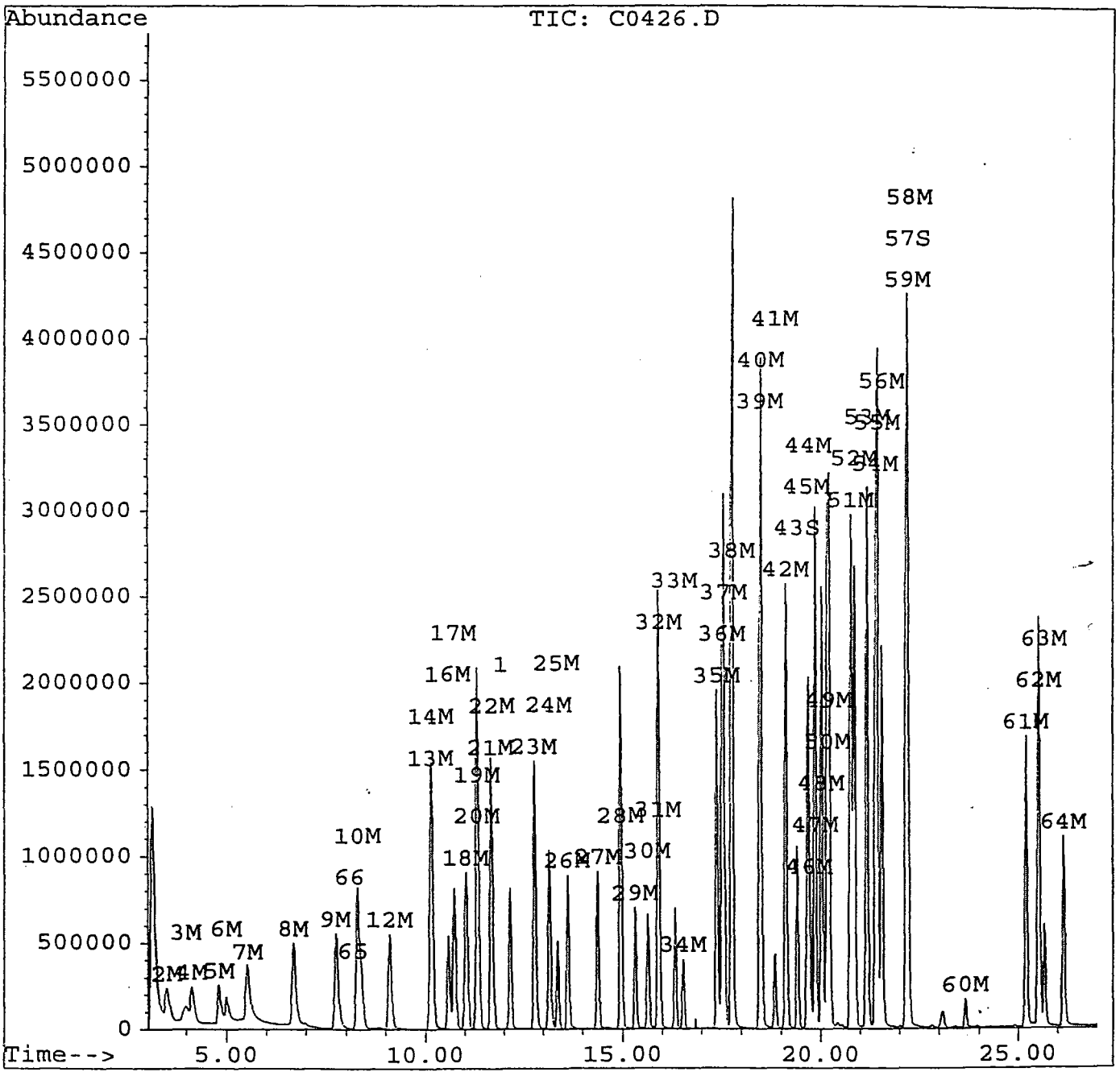
Quantitation Report

078

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

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

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



Quantitation Report

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

Vial: 3 079
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

080

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

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

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

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

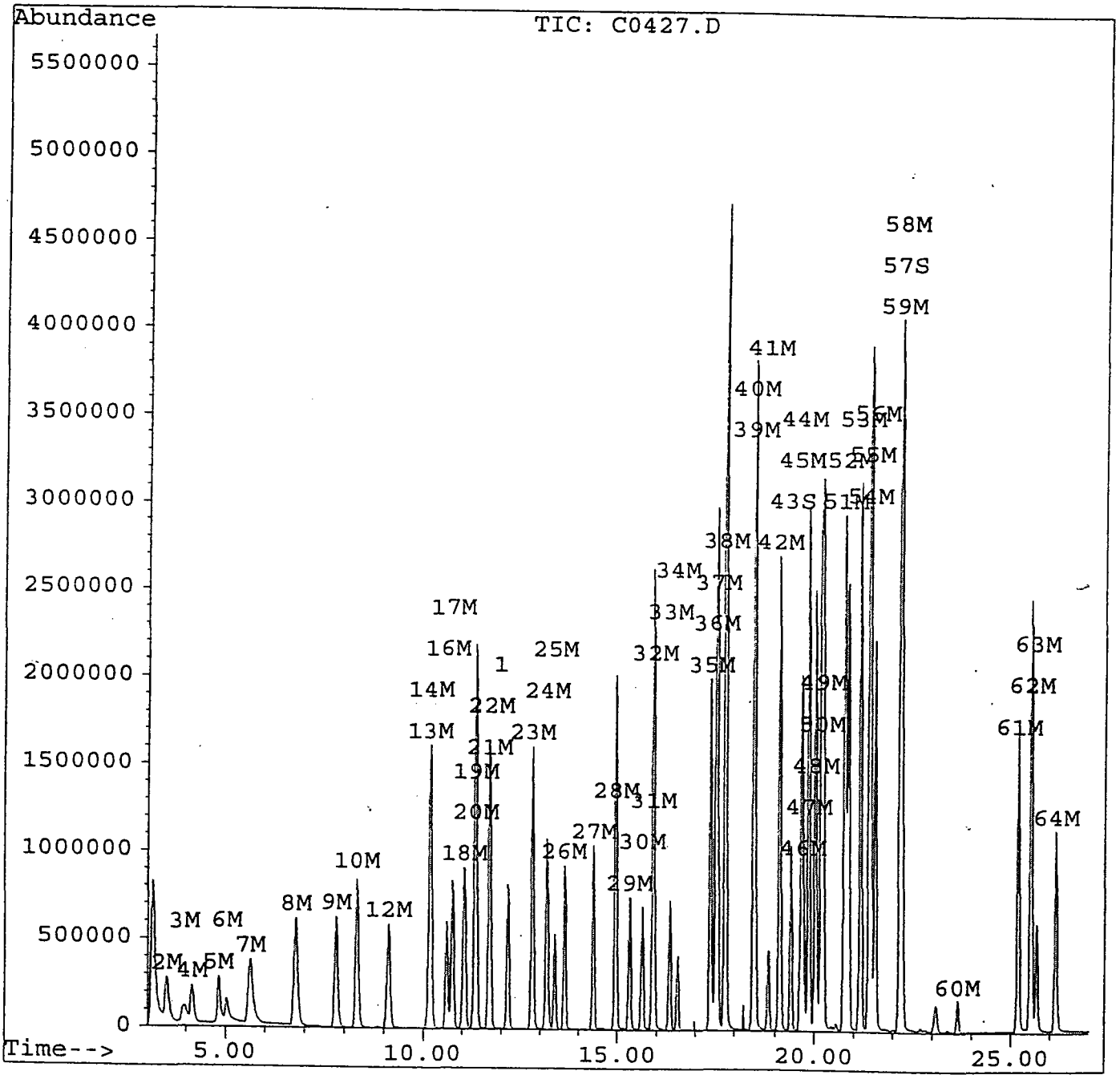
(#) = qualifier out of range (m) = manual integration

Library Quantitation Reportort

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

Vial: 3 081
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

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



Quantitation Report

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

Vial: 4 082
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

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

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

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

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

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

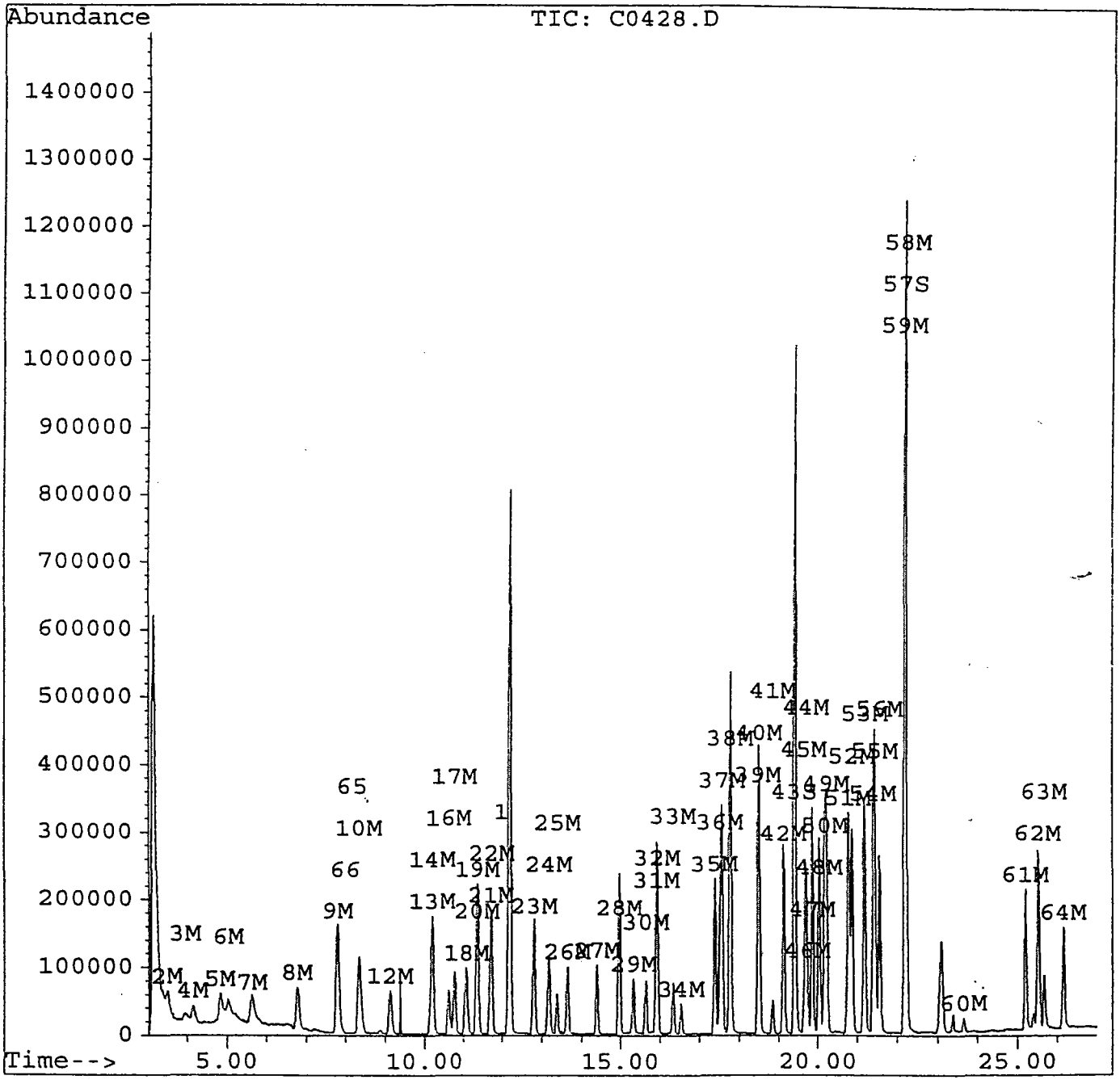
Quantitation Report

084

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

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

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



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

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

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

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

7A

VOLATILE CONTINUING CALIBRATION CHECK

088

Lab Name: EMSL ANALYTICAL Contract: _____

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

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 12/5/95 Time: 1724

Lab File ID: C0473.D Init. Calib. Date(s): 11/21/95 _____

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

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

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

7A

VOLATILE CONTINUING CALIBRATION CHECK

089

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 12/5/95 Time: 1724

Lab File ID: C0473.D Init. Calib. Date(s): 11/21/95

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

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

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

Evaluate Continuing Calibration Report

090

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

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

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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1		Fluorobenzene	1.000	1.000	0.0	113	-0.02
2	M	Dichlorodifluoromethane	0.271	0.264	2.5	112	-0.02
3	M	Chloromethane	0.206	0.192	6.6	105	-0.04
4	M	Vinyl chloride	0.229	0.221	3.2	110	-0.02
5	M	Bromomethane	0.159	0.146	8.0	100	-0.03
6	M	Chloroethane	0.127	0.135	-6.1	111	-0.03
7	M	Trichlorofluoromethane	0.395	0.370	6.2	108	0.00
8	M	1,1-Dichloroethene	0.237	0.223	5.6	109	0.00
9	M	Methylene chloride	0.237	0.256	-8.0	104	-0.02
10	M	trans-1,2-Dichloroethene	0.270	0.252	6.8	106	-0.02
11		Hexane	0.000	0.000#	0.0	0#	-0.49#
12	M	1,1-Dichloroethane	0.508	0.468	7.9	103	0.00
13	M	2,2-Dichloropropane	0.424	0.379	10.7	105	-0.02
14	M	cis-1,2-Dichloroethene	0.266	0.249	6.4	103	-0.02
15		2-Butanone	0.000	0.000#	0.0	0#	-0.44#
16	M	Bromochloromethane	0.115	0.110	4.7	100	-0.02
17	M	Chloroform	0.469	0.430	8.3	102	-0.02
18	M	1,1,1-Trichloroethane	0.454	0.408	10.2	101	-0.02
19	M	Carbon tetrachloride	0.429	0.390	9.1	102	0.00
20	M	1,1-Dichloropropene	0.424	0.391	7.7	105	-0.02
21	M	Benzene	0.870	0.784	9.8	101	0.00
22	M	1,2-Dichloroethane	0.195	0.183	6.0	99	-0.02
23	M	Trichloroethene	0.361	0.328	9.1	102	-0.02
24	M	1,2-Dichloropropane	0.302	0.282	6.5	100	-0.02
25	M	Dibromomethane	0.132	0.131	0.9	103	-0.02
26	M	Bromodichloromethane	0.391	0.371	5.0	102	-0.02
27	M	cis-1,3-Dichloropropene	0.352	0.336	4.6	102	-0.02
28	M	Toluene	0.614	0.564	8.1	100	-0.03
29	M	trans-1,3-Dichloropropene	0.243	0.233	4.2	100	-0.03
30	M	1,1,2-Trichloroethane	0.131	0.129	1.4	101	-0.02
31	M	Tetrachloroethene	0.435	0.385	11.5	100	-0.03
32	M	1,3-Dichloropropane	0.247	0.244	1.4	101	-0.03
33	M	Dibromochloromethane	0.260	0.252	2.9	101	-0.03
34	M	1,2-Dibromoethane	0.190	0.189	0.5	101	-0.03
35	M	Chlorobenzene	0.707	0.653	7.6	101	-0.03
36	M	1,1,1,2-Tetrachloroethane	0.294	0.277	5.8	99	-0.04
37	M	Ethylbenzene	1.261	1.140	9.6	100	-0.04
38	M	Xylene (para & meta)	0.477	0.435	8.7	101	-0.04
39	M	Xylene (Ortho)	0.438	0.402	8.1	100	-0.04
40	M	Styrene	0.672	0.630	6.3	100	-0.03
41	M	Bromoform	0.142	0.142	0.1	100	-0.04
42	M	Isopropylbenzene	1.219	1.099	9.8	100	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

091

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

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

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

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

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

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

Quantitation Report

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

Vial: 2 092
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

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

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

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

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

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

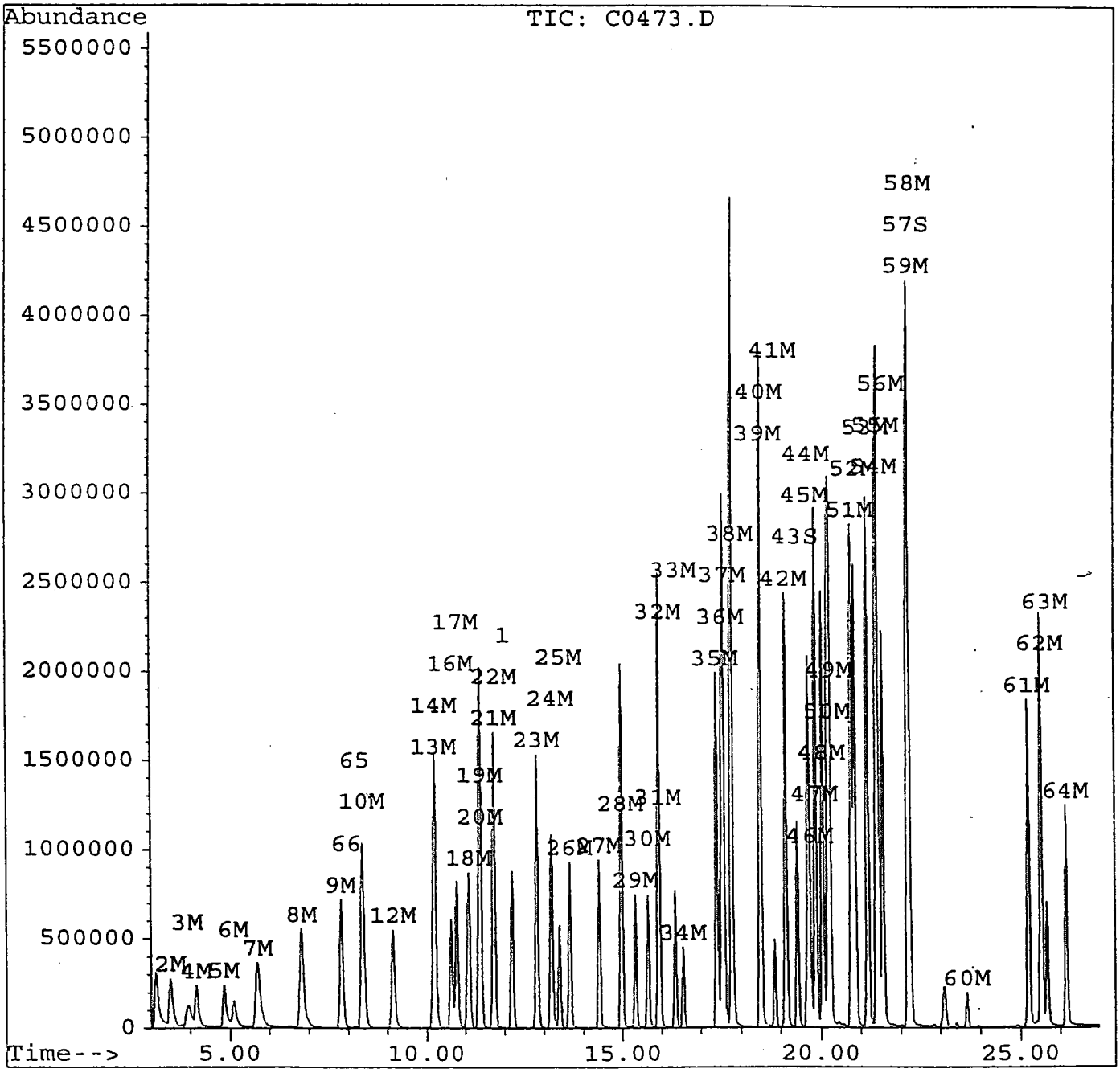
094

Quantitation Report

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

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

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



095

Quantitation Report

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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1516340	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.43	95	804351	4.91	ug/L	98.27%
57) 1,2-Dichlorobenzene-d4	22.22	152	512829	5.00	ug/L	99.92%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.52	85	867610	10.57	ug/L	98
3) Chloromethane	3.95	50	531868	8.53	ug/L	100
4) Vinyl chloride	4.17	62	677967	9.77	ug/L	100
5) Bromomethane	4.86	94	450743	9.35	ug/L	99
6) Chloroethane	5.10	64	395672	10.26	ug/L	100
7) Trichlorofluoromethane	5.69	101	1259591	10.51	ug/L	98
8) 1,1-Dichloroethene	6.82	96	783143	10.91	ug/L	98
9) Methylene chloride	7.82	84	827251	11.53	ug/L	98
10) trans-1,2-Dichloroethene	8.36	96	848409	10.35	ug/L	97
12) 1,1-Dichloroethane	9.16	63	1554549	10.09	ug/L	99
13) 2,2-Dichloropropane	10.20	77	1080819	8.40	ug/L	100
14) cis-1,2-Dichloroethene	10.22	96	829501	10.29	ug/L	95
16) Bromochloromethane	10.64	128	350117	10.02	ug/L	96
17) Chloroform	10.79	83	1419360	9.98	ug/L	99
18) 1,1,1-Trichloroethane	11.10	97	1387083	10.07	ug/L	97
19) Carbon tetrachloride	11.38	117	1306108	10.03	ug/L	98
20) 1,1-Dichloropropene	11.38	75	1357386	10.56	ug/L	99
21) Benzene	11.73	78	2485237	9.42	ug/L	99
22) 1,2-Dichloroethane	11.76	62	578805	9.79	ug/L	96
23) Trichloroethene	12.83	95	1110688	10.15	ug/L	99
24) 1,2-Dichloropropane	13.20	63	921138	10.06	ug/L	99
25) Dibromomethane	13.41	93	405939	10.11	ug/L	94
26) Bromodichloromethane	13.66	83	1204032	10.16	ug/L	98
27) cis-1,3-Dichloropropene	14.42	75	1121941	10.50	ug/L	100
28) Toluene	14.99	92	1769051	9.51	ug/L	100
29) trans-1,3-Dichloropropene	15.34	75	726415	9.85	ug/L	99
30) 1,1,2-Trichloroethane	15.66	83	398112	10.05	ug/L	97
31) Tetrachloroethene	15.94	166	1300976	9.85	ug/L	98
32) 1,3-Dichloropropane	15.95	76	753799	10.05	ug/L	100
33) Dibromochloromethane	16.35	129	793302	10.06	ug/L	100
34) 1,2-Dibromoethane	16.56	107	582895	10.10	ug/L	97
35) Chlorobenzene	17.41	112	2091393	9.75	ug/L	100
37) Ethylbenzene	17.58	91	3603145	9.42	ug/L	99
38) Xylene (para & meta)	17.79	106	2791038	19.29	ug/L	98
39) Xylene (Ortho)	18.50	106	1300469	9.79	ug/L	98
40) Styrene	18.52	104	2001856	9.82	ug/L	98
41) Bromoform	18.86	173	431887	10.00	ug/L	98

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

Quantitation Report

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

Vial: 16 096
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

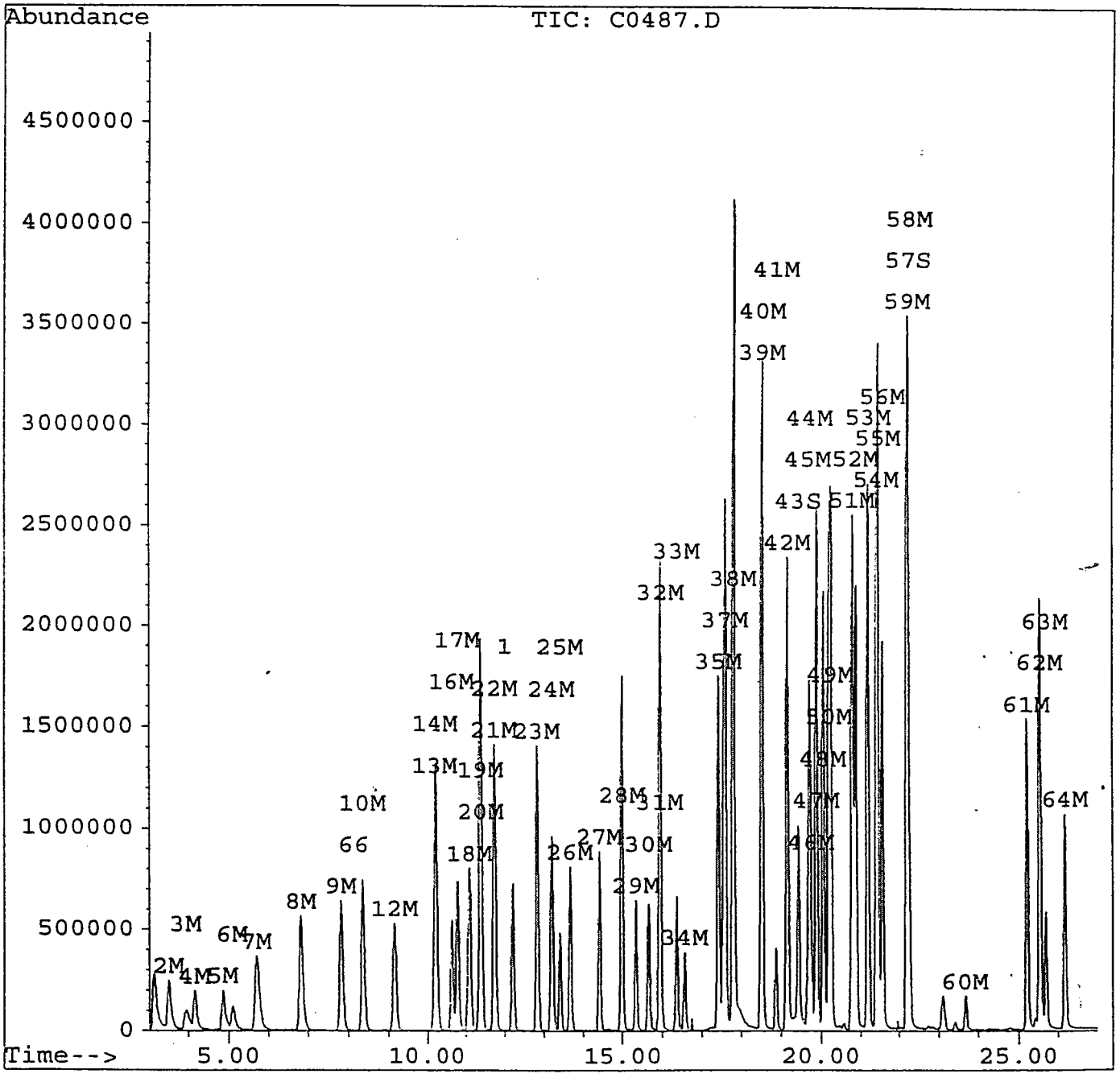
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

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

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



Quantitation Report

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

Vial: 17 098
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

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

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

Quantitation Report

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

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

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

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

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

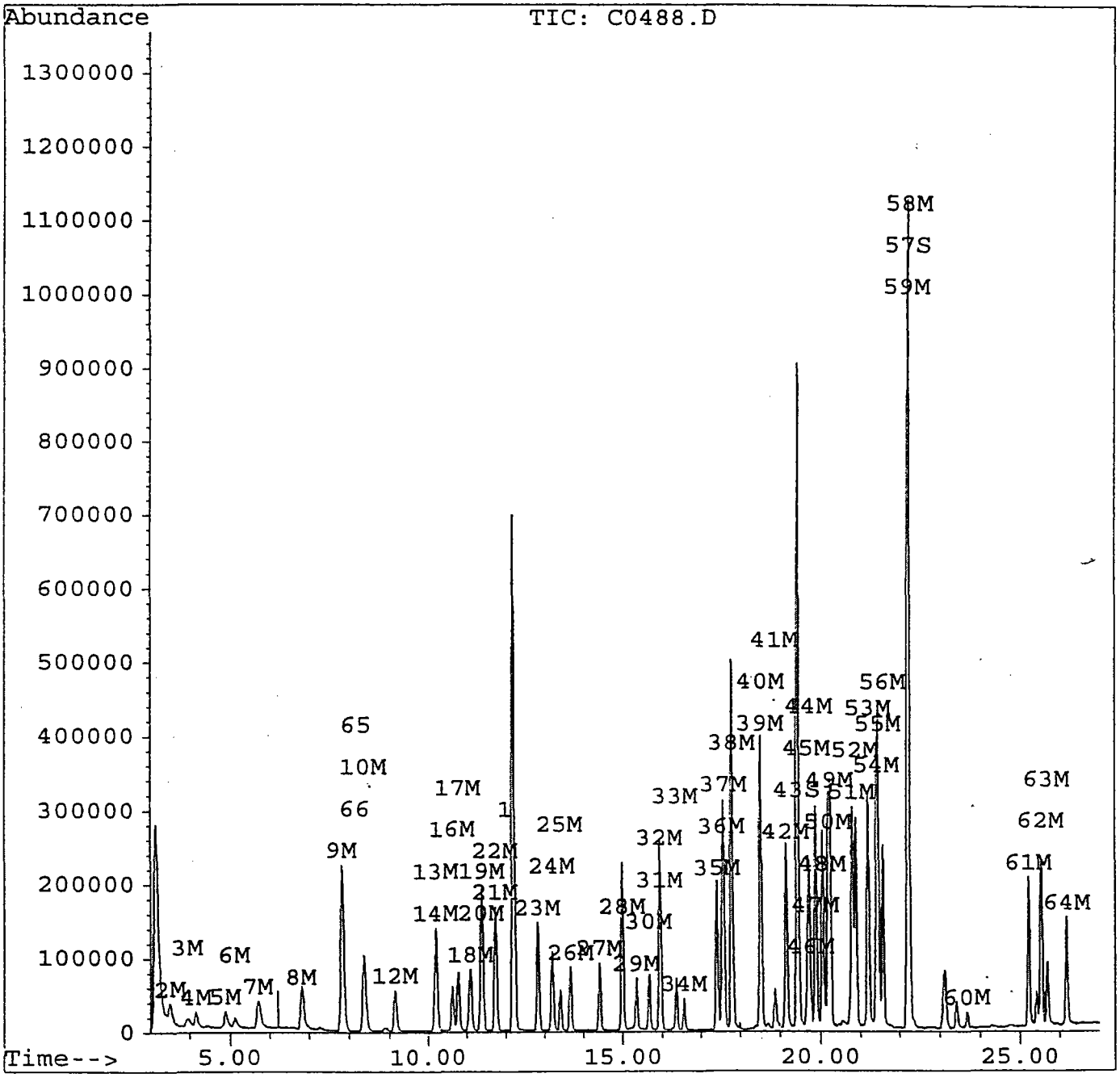
Quantitation Report

100

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

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

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



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID (Standard): C0426.D Date Analyzed: 12/2/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1510

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	1705729	12.16				
	UPPER LIMIT	3411458	12.66				
	LOWER LIMIT	852865	11.66				
	SAMPLE NO.						
01	10 QCS	1696795	12.17				
02	1 STND	1696953	12.18				
03	VBLK01	1681347	12.18				
04	9554060V	1653394	12.18				
05	9554061V	1699146	12.18				
06	9554062V	1709216	12.18				
07	9554101V	1741817	12.18				
08	9554102V	1664338	12.18				
09	9554063V	1656749	12.18				
10	9554060MS	1703293	12.18				
11	9554060MSD	1698292	12.18				
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

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

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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1724

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

		IS1 (FBZ) AREA #	RT #	AREA #	RT #	AREA #	RT #
	8 HOUR STD	1824708	12.19				
	UPPER LIMIT	2372120	12.69				
	LOWER LIMIT	1277296	11.69				
	SAMPLE NO.						
01	VBLK01	1696123	12.03				
02	9554553V	1687824	12.20				
03	9554554V	1699615	12.21				
04	9554109V	1657783	12.20				
05	9554110V	1623919	12.21				
06	9554551V	1650134	12.20				
07	9554552V	1594528	12.21				
08	9554555V	1562330	12.21				
09	9554557V	1493739	12.20				
10	9554558V	1563969	12.21				
11	9554552MS	1549748	12.21				
12	9554552MSD	1512739	12.21				
13	10 QCS	1516340	12.21				
14	1 STND	1495748	12.21				
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 103

mw1 - 2933759

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9554551V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0479.D

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

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

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 105

MW-29 33759

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

Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: 1 Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554551V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0479.D

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

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

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

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

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.13	2	J
2. 99-87-6	Benzene, 1-methyl-4-(1-methy	21.84	4	J
3.	Unknown	23.08	5	J
4.	Unknown	23.10	1	J
5.	Unknown	23.12	2	J
6. 4912-92-9	1H-Indene, 2,3-dihydro-1,1-d	23.40	4	J
7. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	23.86	2	J
8.	Unknown	24.10	6	J
9.	Unknown	24.24	1	J
10.	Unknown	24.79	1	J
11.	Unknown	25.87	4	J
12.	Unknown	26.06	7	J
13.	Unknown	26.19	2	J
14.	Unknown	26.55	2	J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
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24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML
Quant Time: Dec 6 10:41 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.20	96	1650134	5.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.43	95	980903	5.51	ug/L	110.12%
57) 1,2-Dichlorobenzene-d4	22.21	152	562540	5.04	ug/L	100.72%
Target Compounds						Qvalue
51) tert-Butylbenzene	20.78	119	450866	1.15	ug/L	98
53) sec-Butylbenzene	21.18	105	3408801	6.41	ug/L	99

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

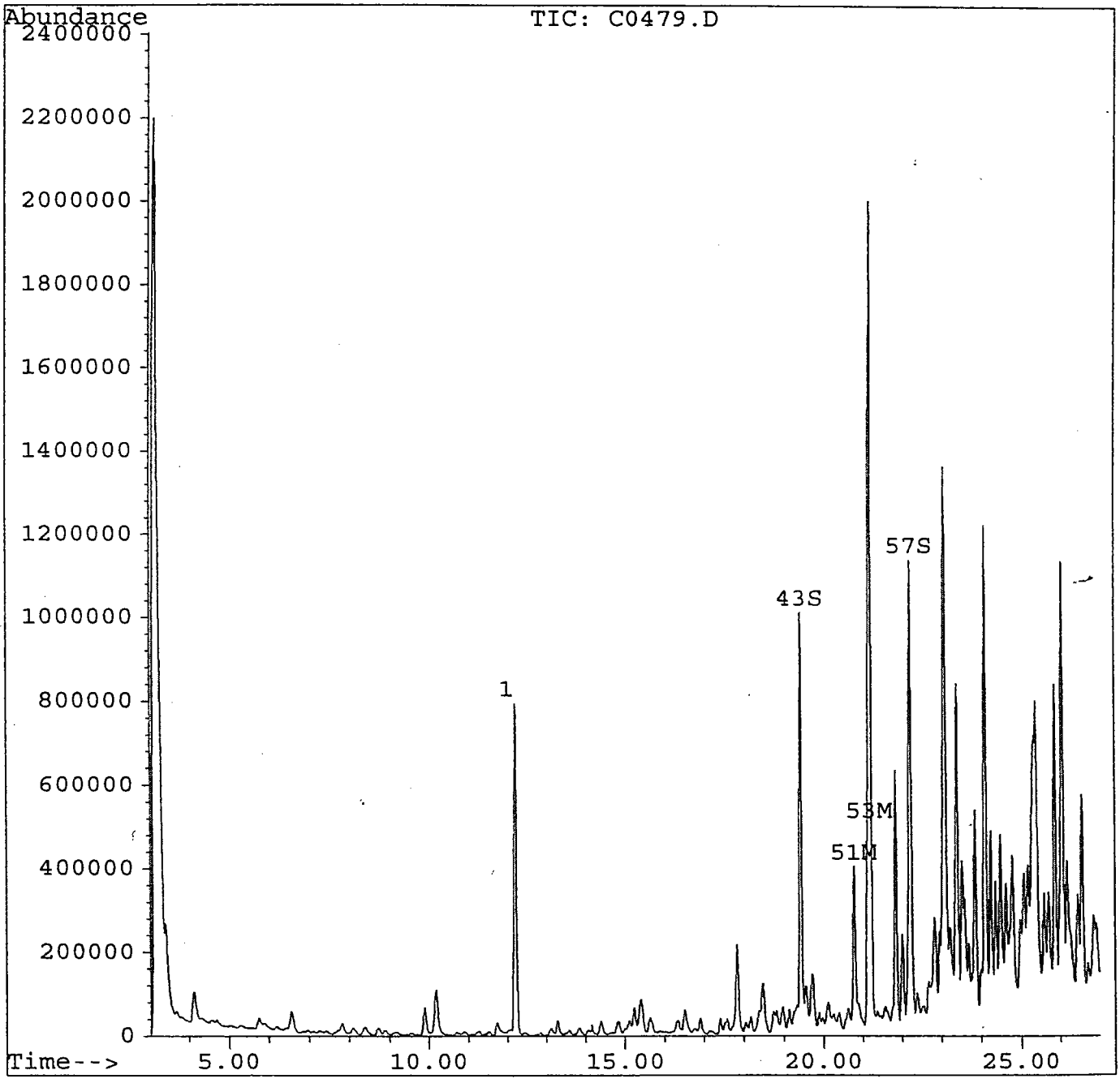
Quantitation Report

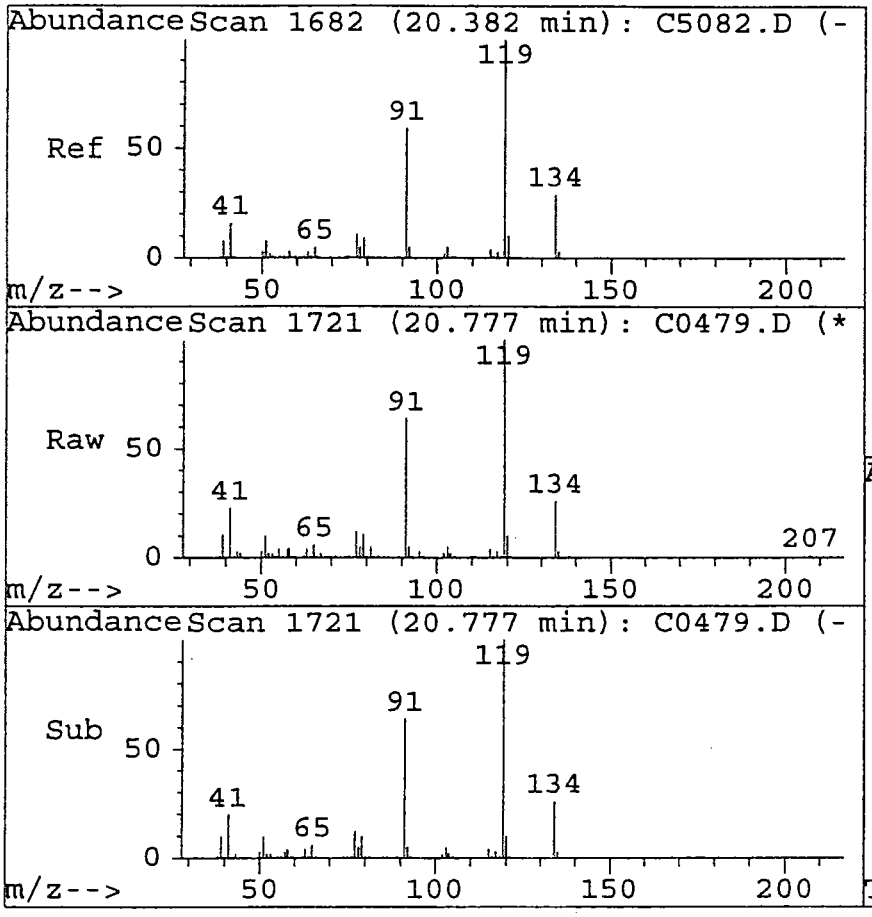
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML
Quant Time: Dec 6 10:41 1995

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

107

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

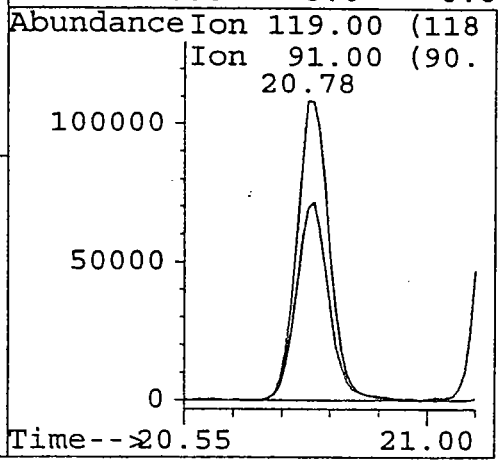


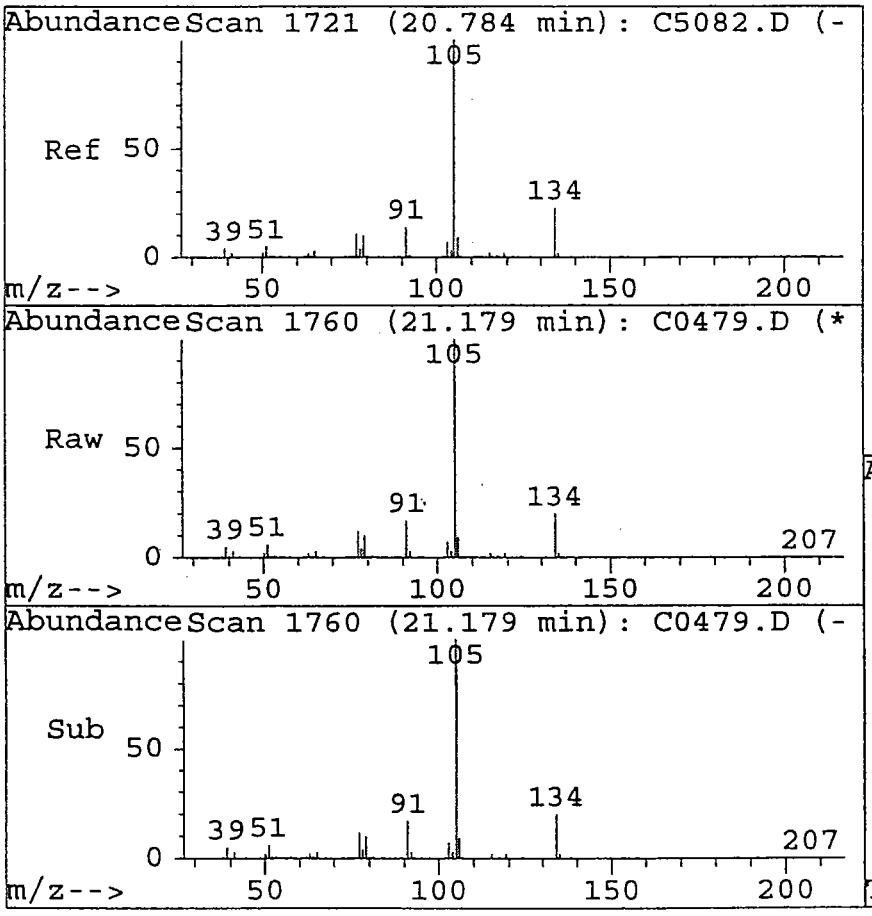


#51
tert-Butylbenzene
Concen: 1.15 ug/L
RT: 20.78 min Scan# 1721
Delta R.T. -0.04 min
Lab File: c0479.d
Acq: 5 Dec 95 8:51 pm

Tgt Ion:119 Resp: 450866

Ion	Ratio	Lower	Upper
119	100		
91	64.1	46.1	86.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

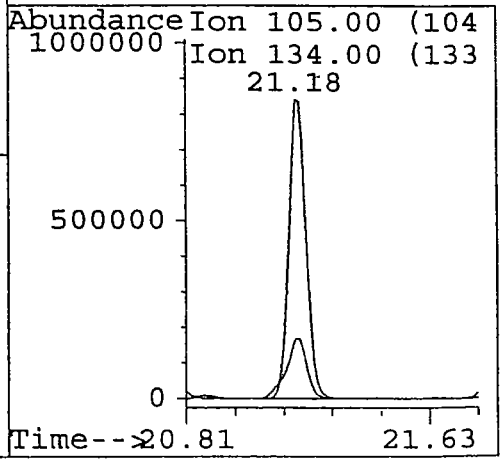




#53
sec-Butylbenzene
Concen: 6.41 ug/L
RT: 21.18 min Scan# 1760
Delta R.T. -0.04 min
Lab File: c0479.d
Acq: 5 Dec 95 8:51 pm

Tgt Ion:105 Resp: 3408801

Ion	Ratio	Lower	Upper
105	100		
134	19.9	0.2	40.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

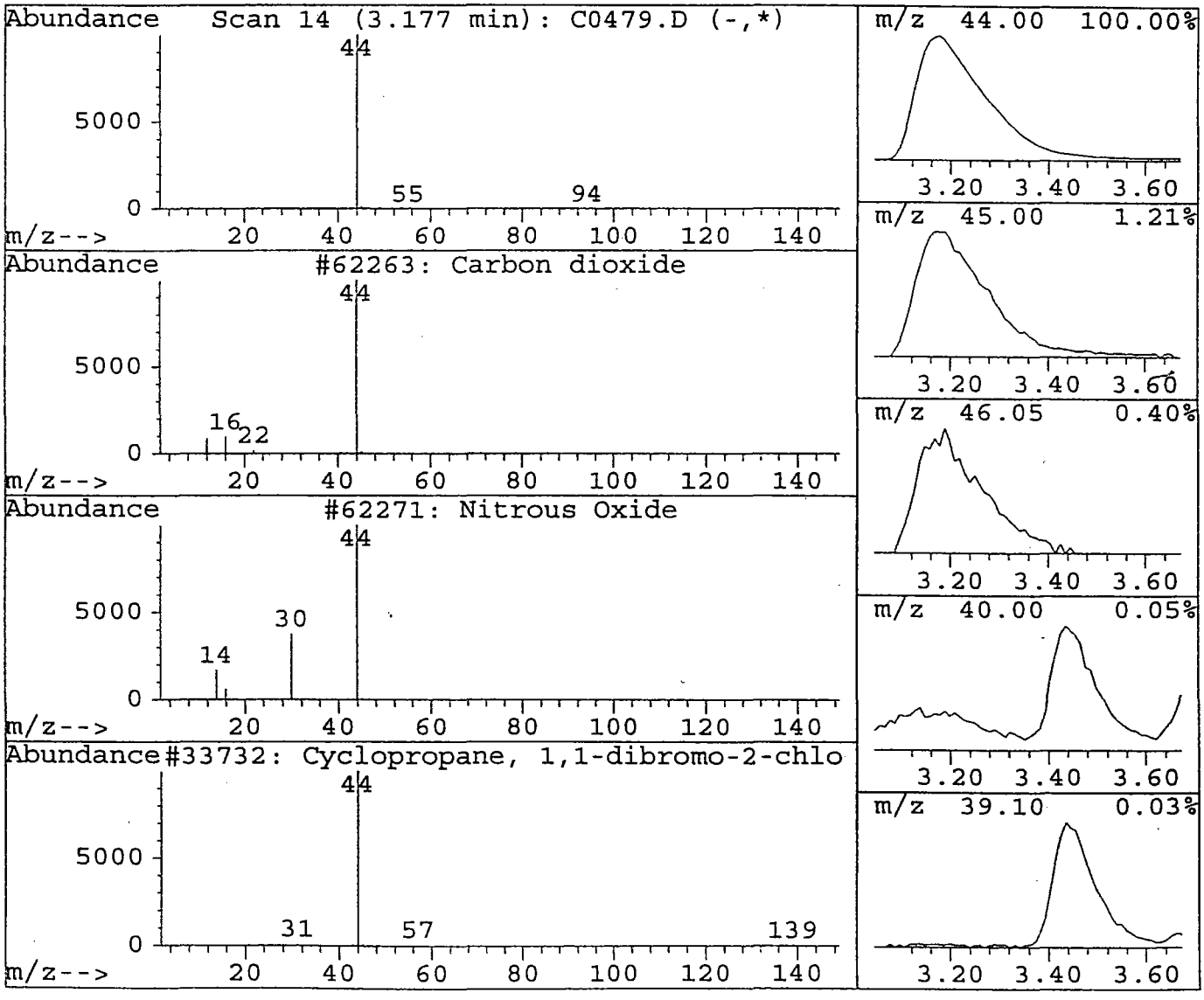
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
3.18	30.04 ug/L	21095470	Fluorobenzene	12.20

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



Library Search Compound Report

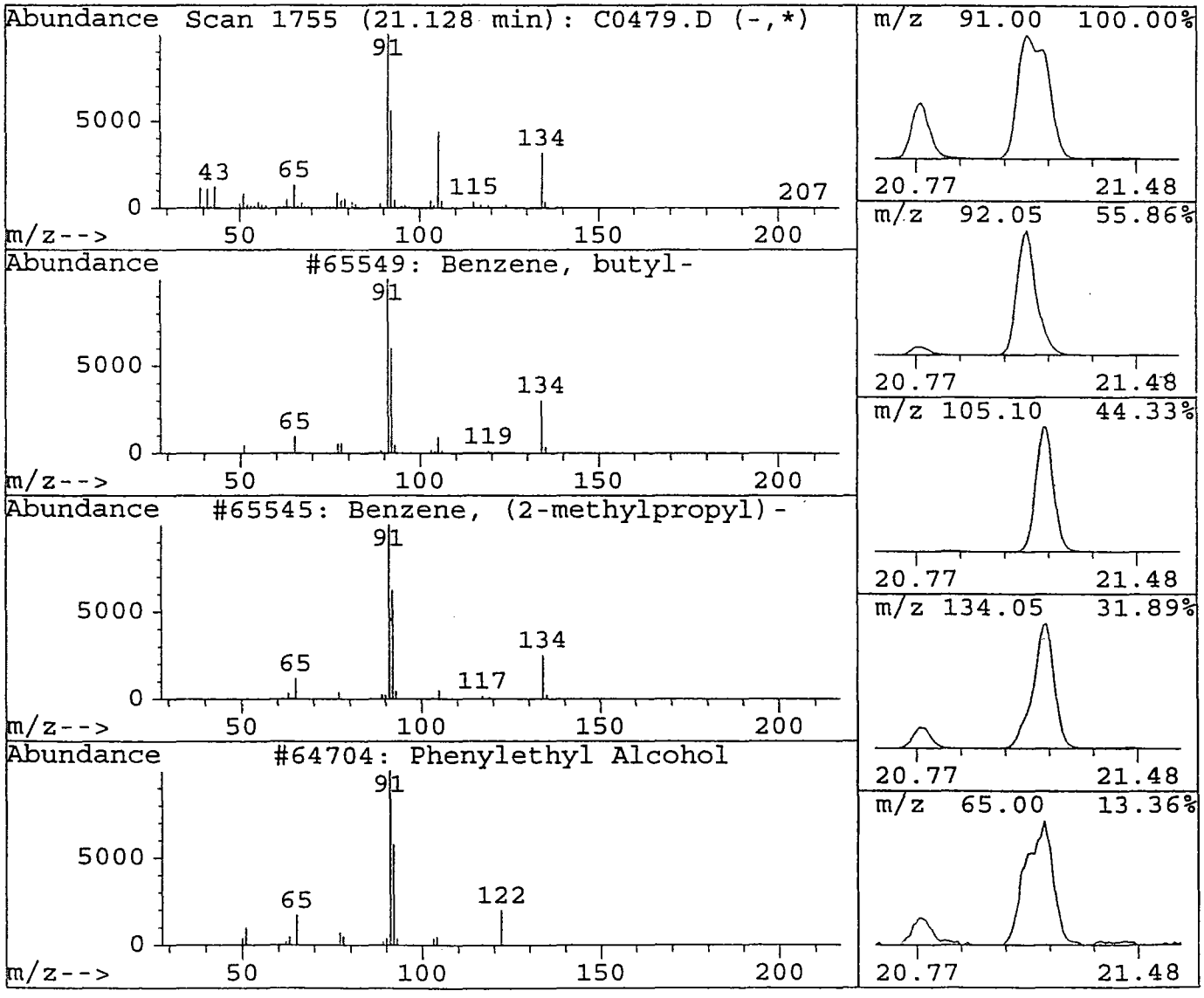
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
21.13	2.21 ug/L	1548616	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, butyl-	65549	000104-51-8	87
2	Benzene, (2-methylpropyl)-	65545	000538-93-2	87
3	Phenylethyl Alcohol	64704	000060-12-8	47
4	2,5-Norbornadiene	63032	000121-46-0	46
5	Toluene	63030	000108-88-3	46



Library Search Compound Report

111

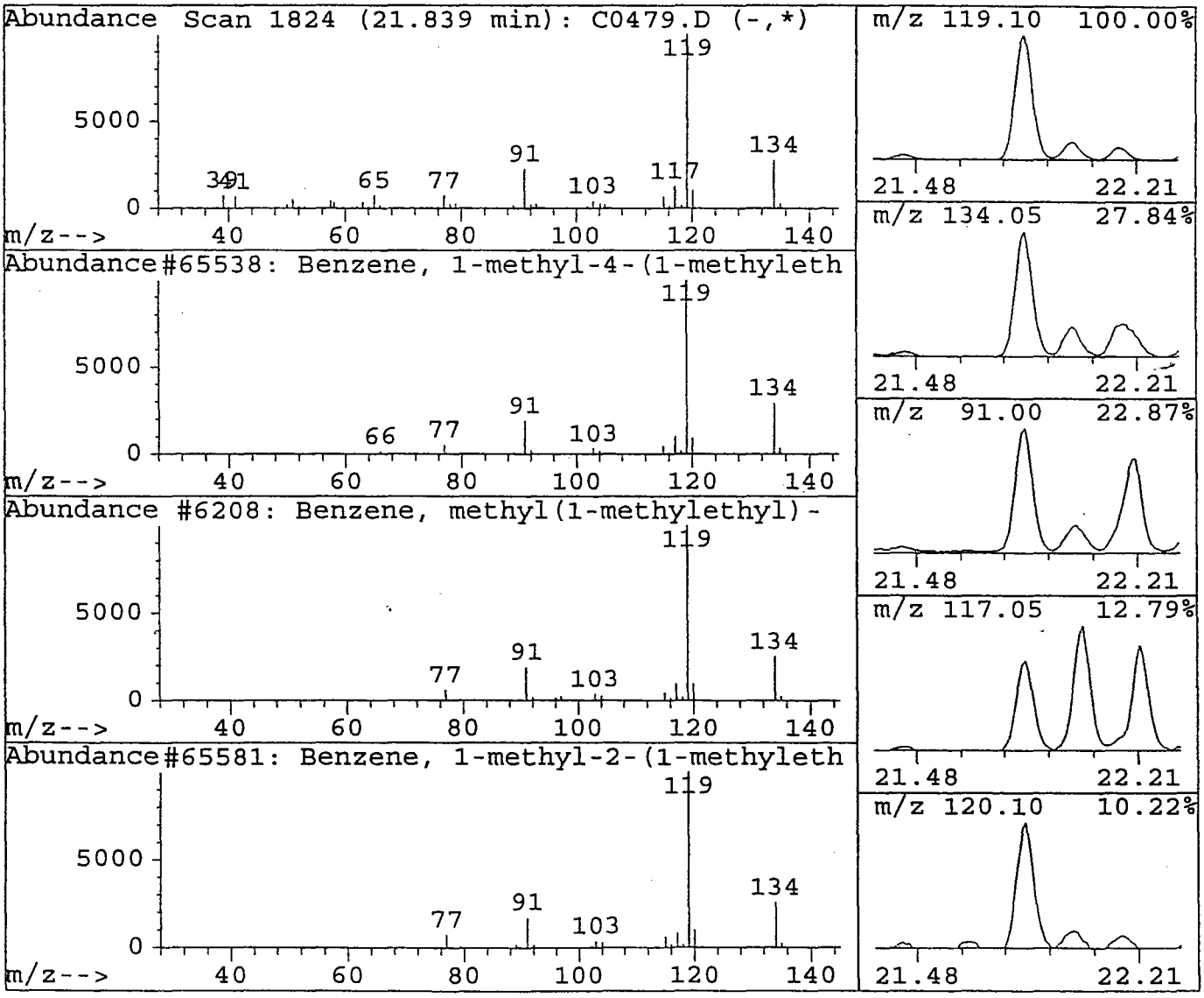
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
21.84	3.51 ug/L	2462580	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)	65538	000099-87-6	97
2	Benzene, methyl(1-methylethyl)-	6208	025155-15-1	94
3	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
4	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	95
5	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	90



Library Search Compound Report

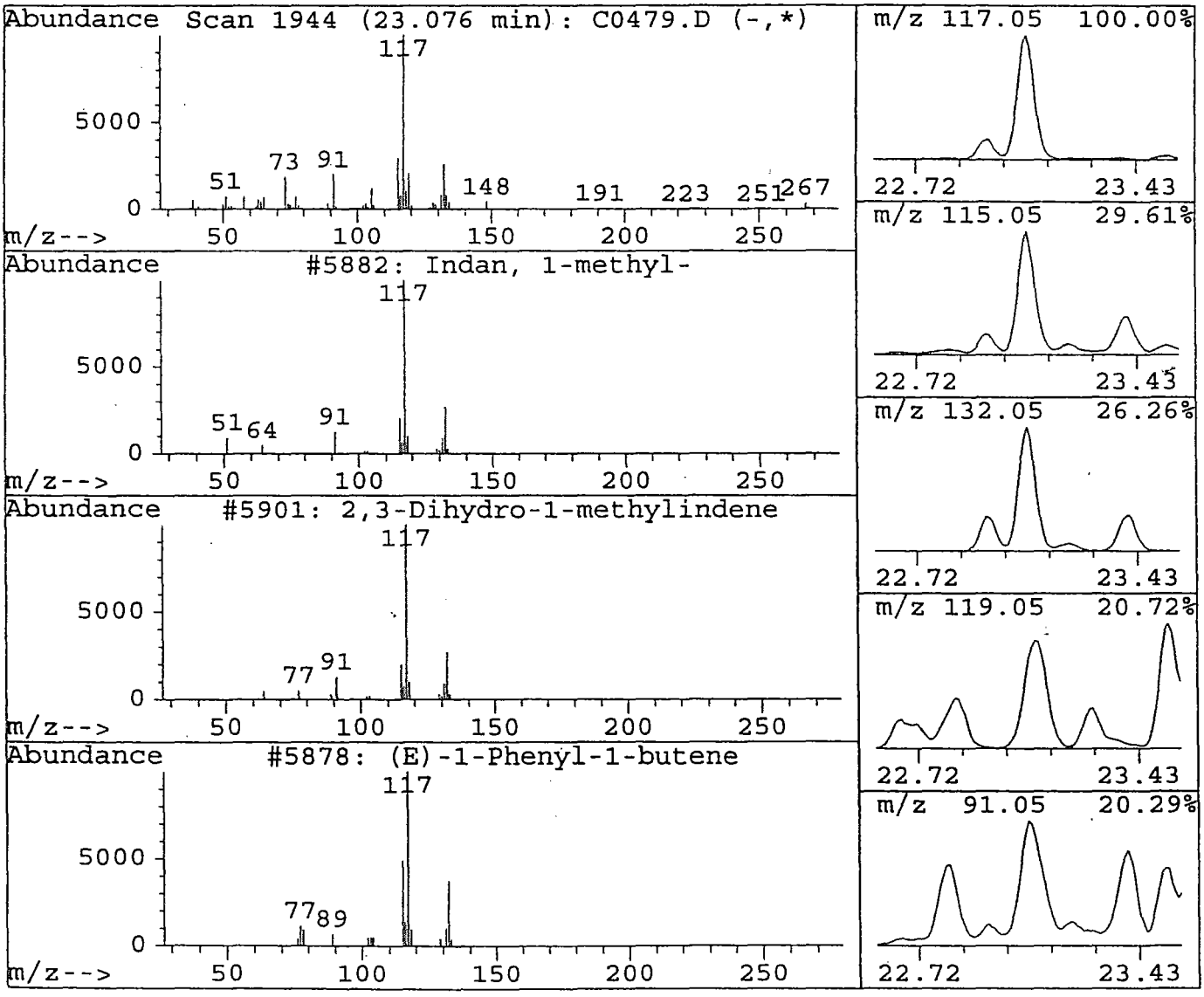
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.08	5.24 ug/L	3678909	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	70
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	70
3	(E)-1-Phenyl-1-butene	5878	001005-64-7	38
4	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	38
5	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	49



Library Search Compound Report

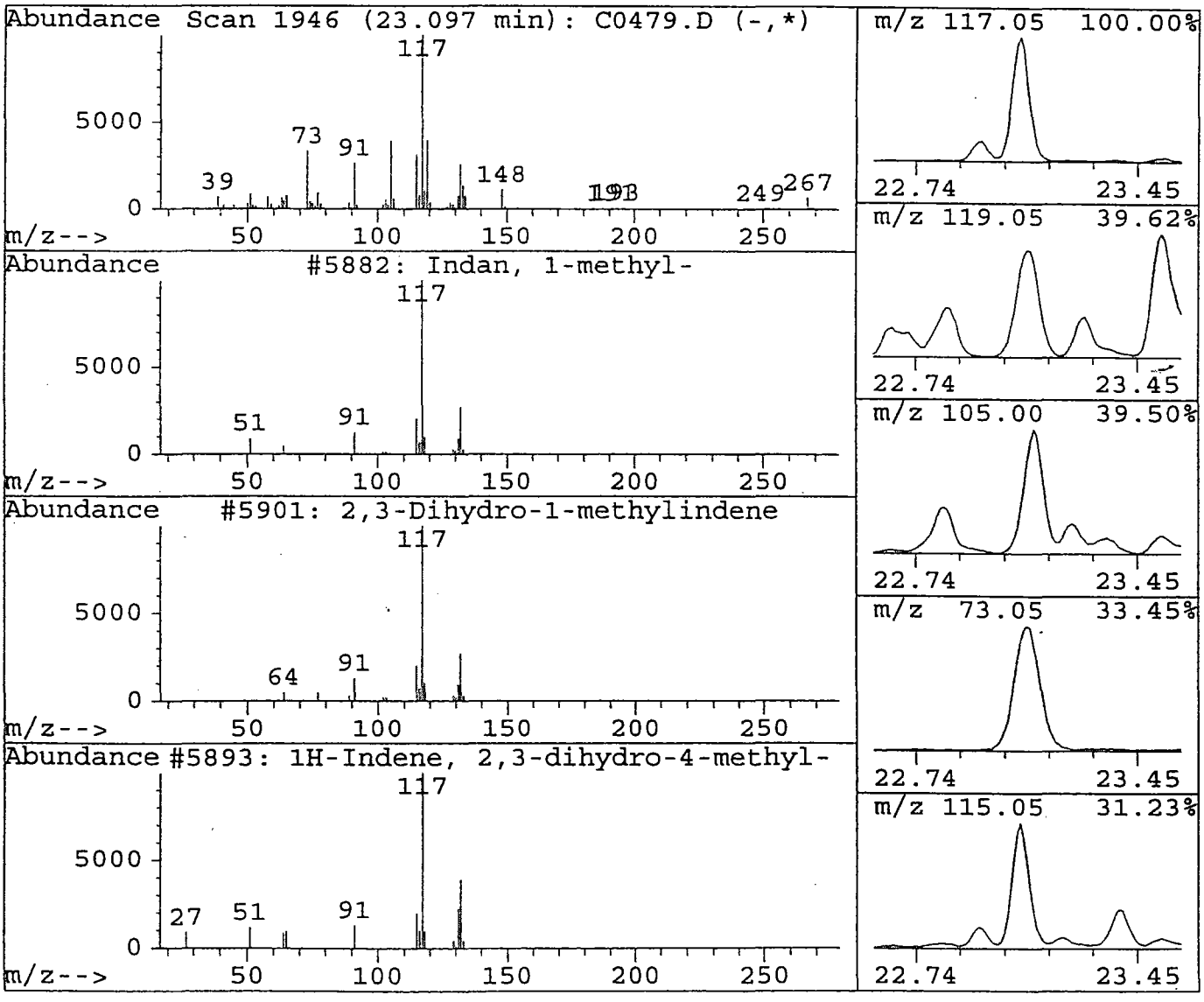
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.10	1.27 ug/L	894791	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	49
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	46
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	22
4	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	25
5	(E)-1-Phenyl-1-butene	5878	001005-64-7	30



Library Search Compound Report

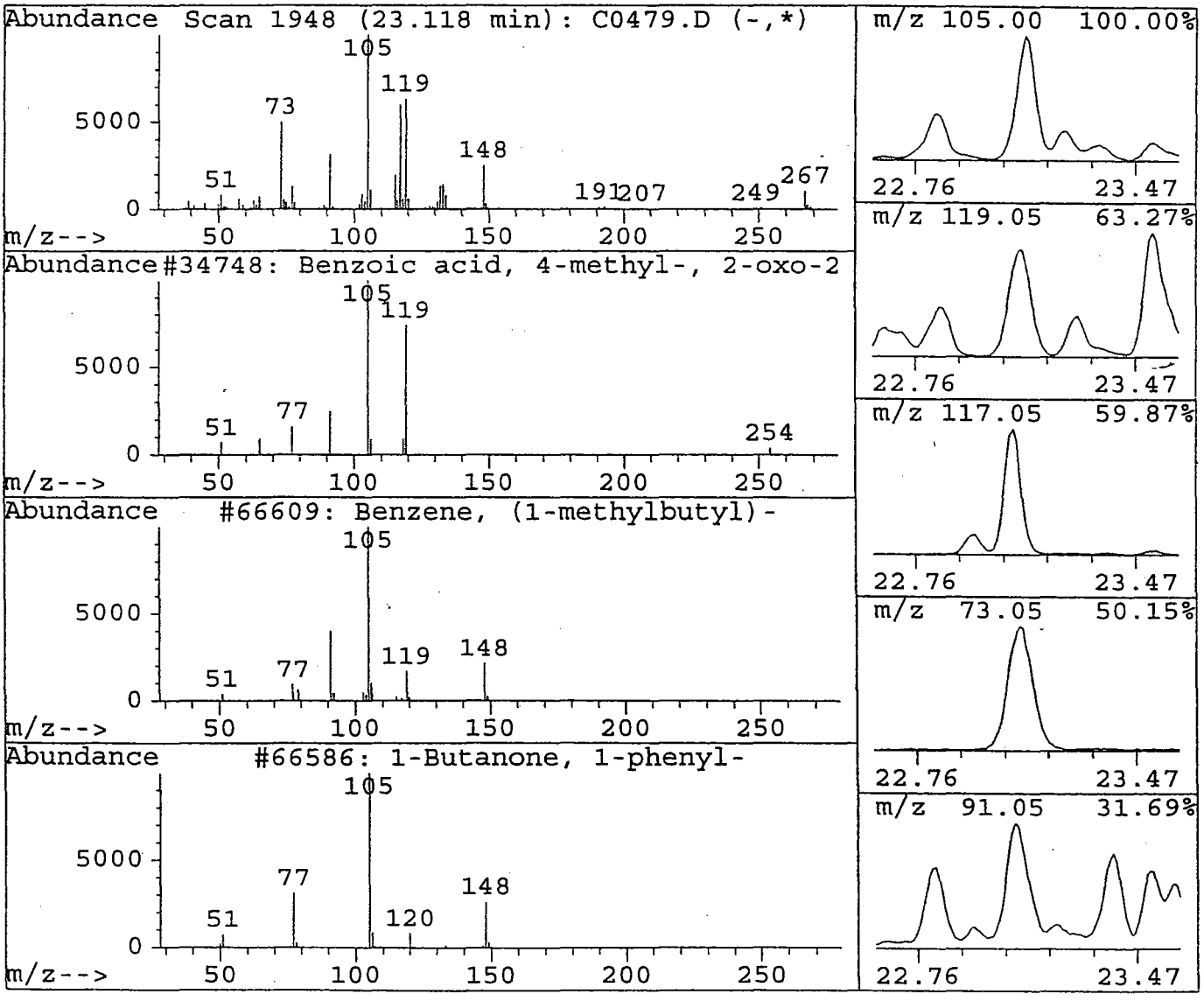
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.12	1.79 ug/L	1255795	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 4-methyl-, 2-oxo-2-ph	34748	054797-44-3	22
2	Benzene, (1-methylbutyl)-	66609	002719-52-0	25
3	1-Butanone, 1-phenyl-	66586	000495-40-9	10
4	3-Buten-2-ol, 4-phenyl-	9314	017488-65-2	11
5	Benzene, 1,3-diethyl-5-methyl-	9397	002050-24-0	38



Library Search Compound Report

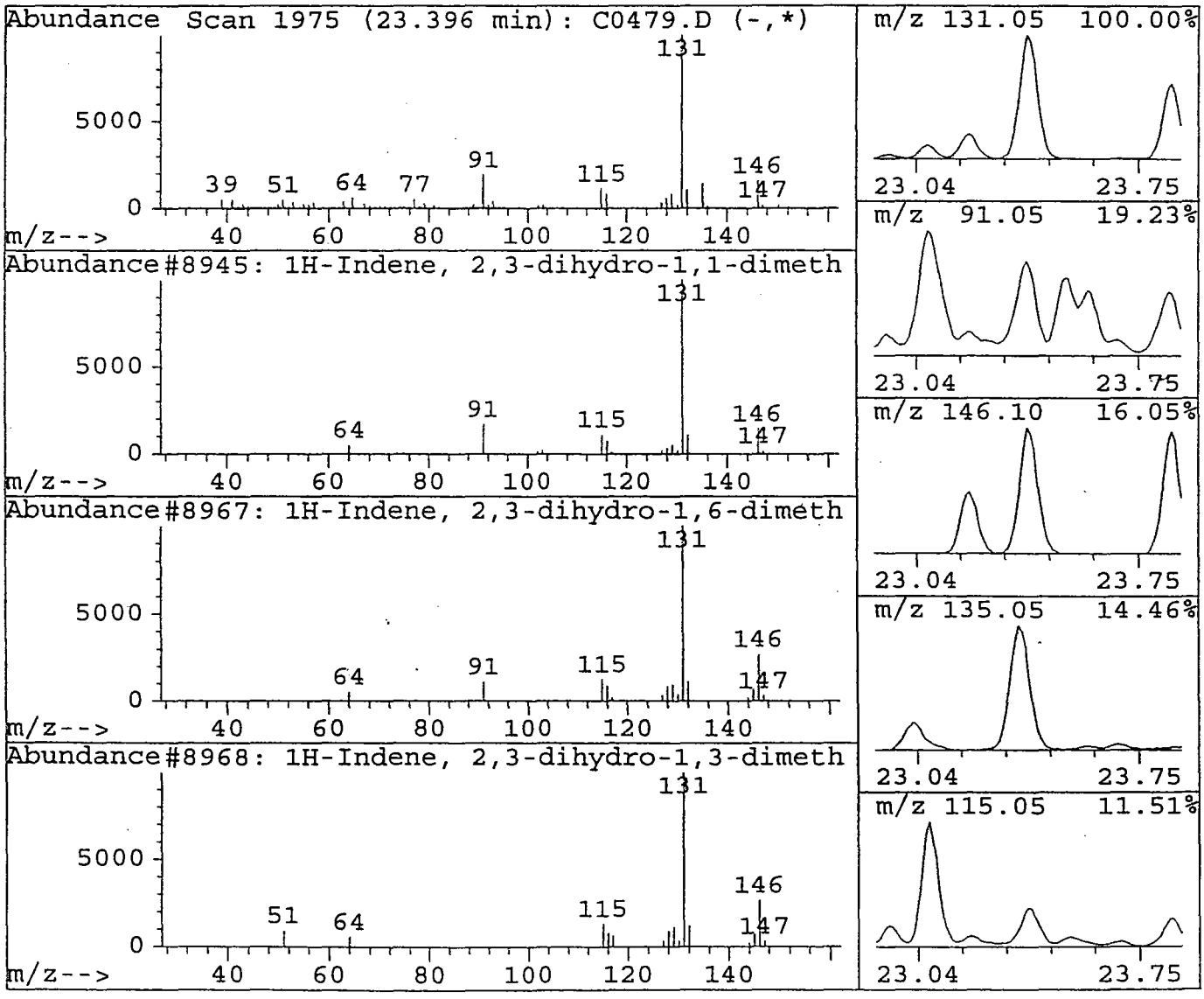
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.40	3.50 ug/L	2461258	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	90
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	49
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	60
4	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	25
5	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	27



Library Search Compound Report

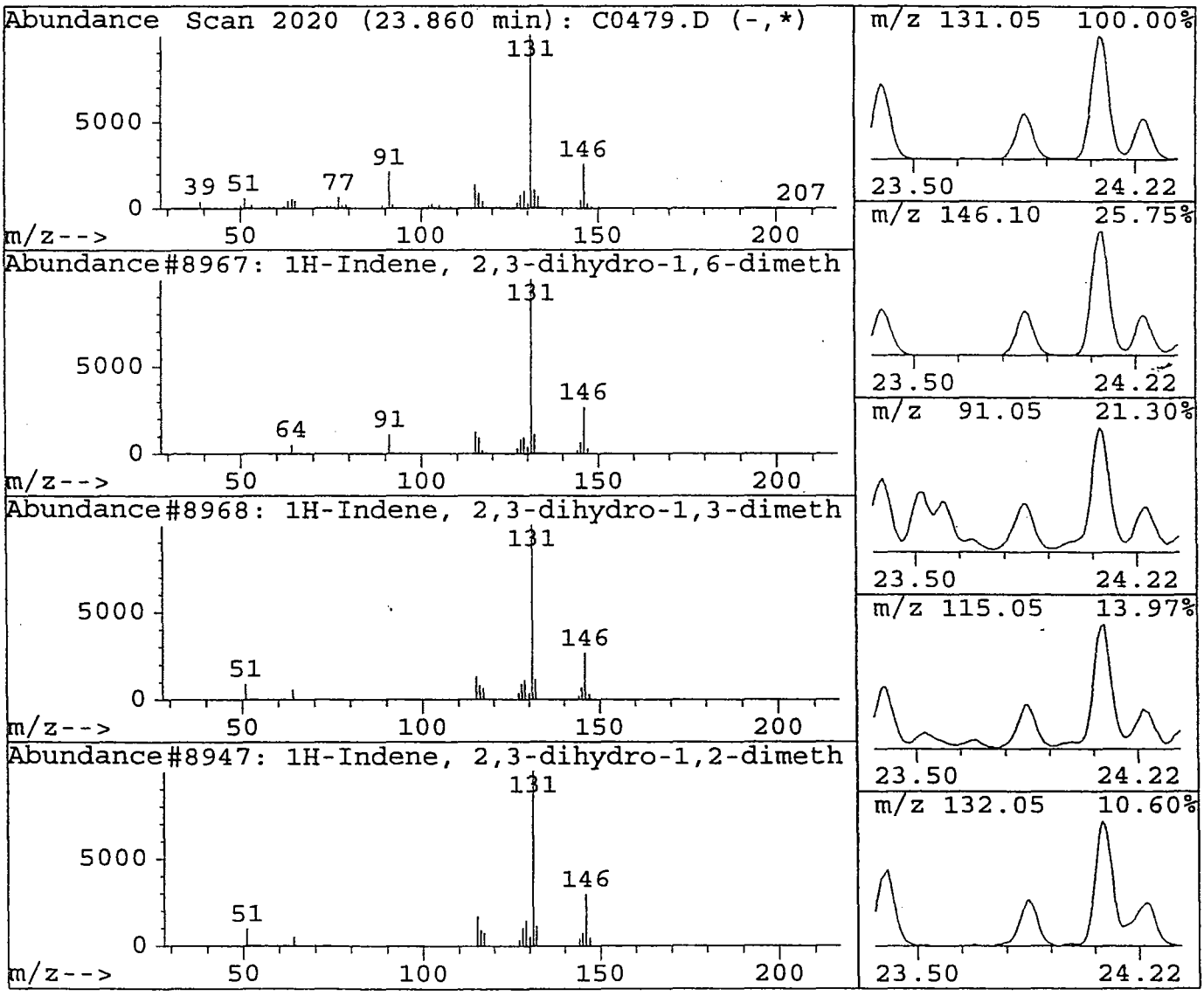
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.86	2.46 ug/L	1729403	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	94
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	47
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	49
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	52
5	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	52



Library Search Compound Report

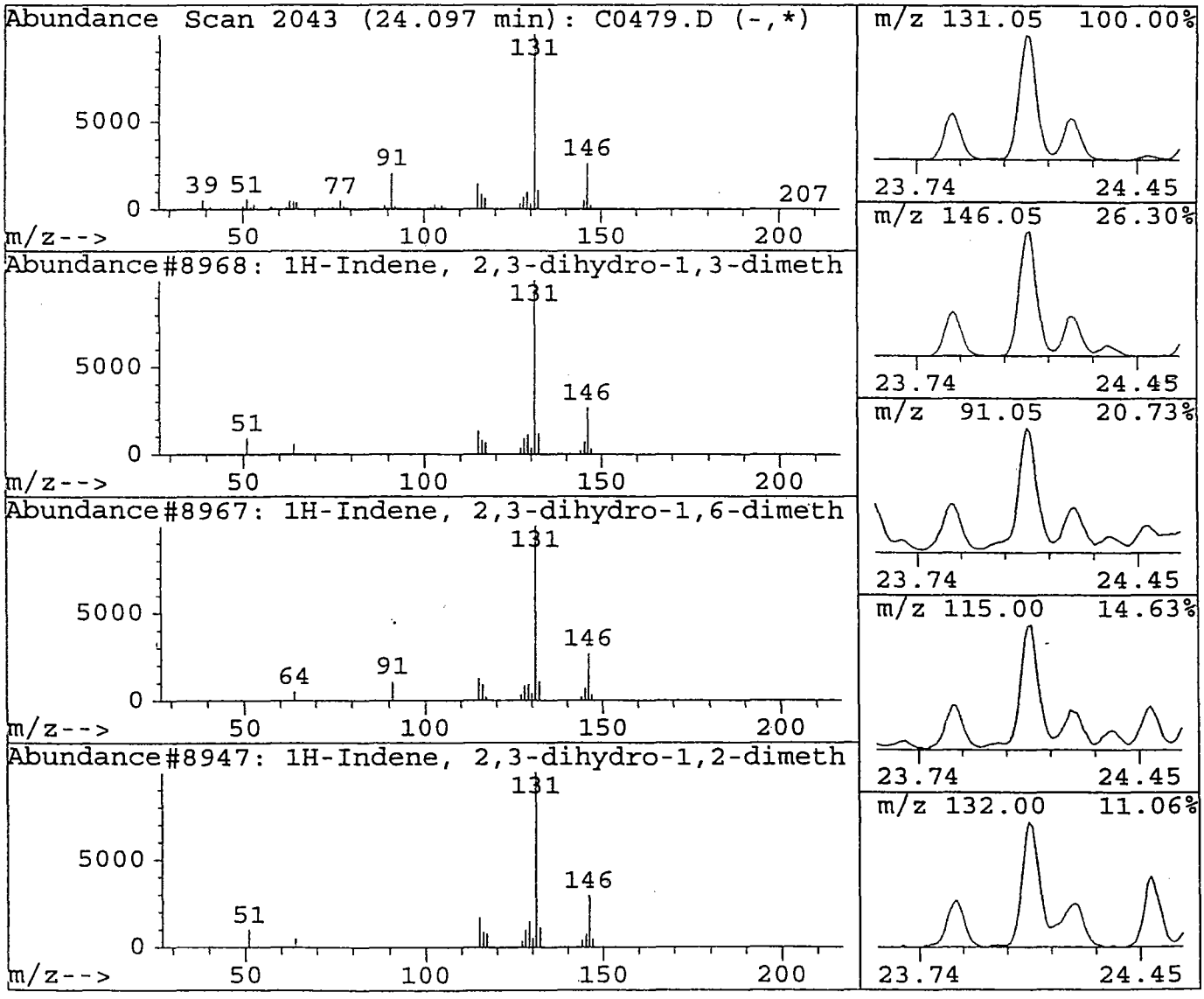
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
24.10	5.52 ug/L	3877659	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	50
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	94
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	53
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	78
5	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90



Library Search Compound Report

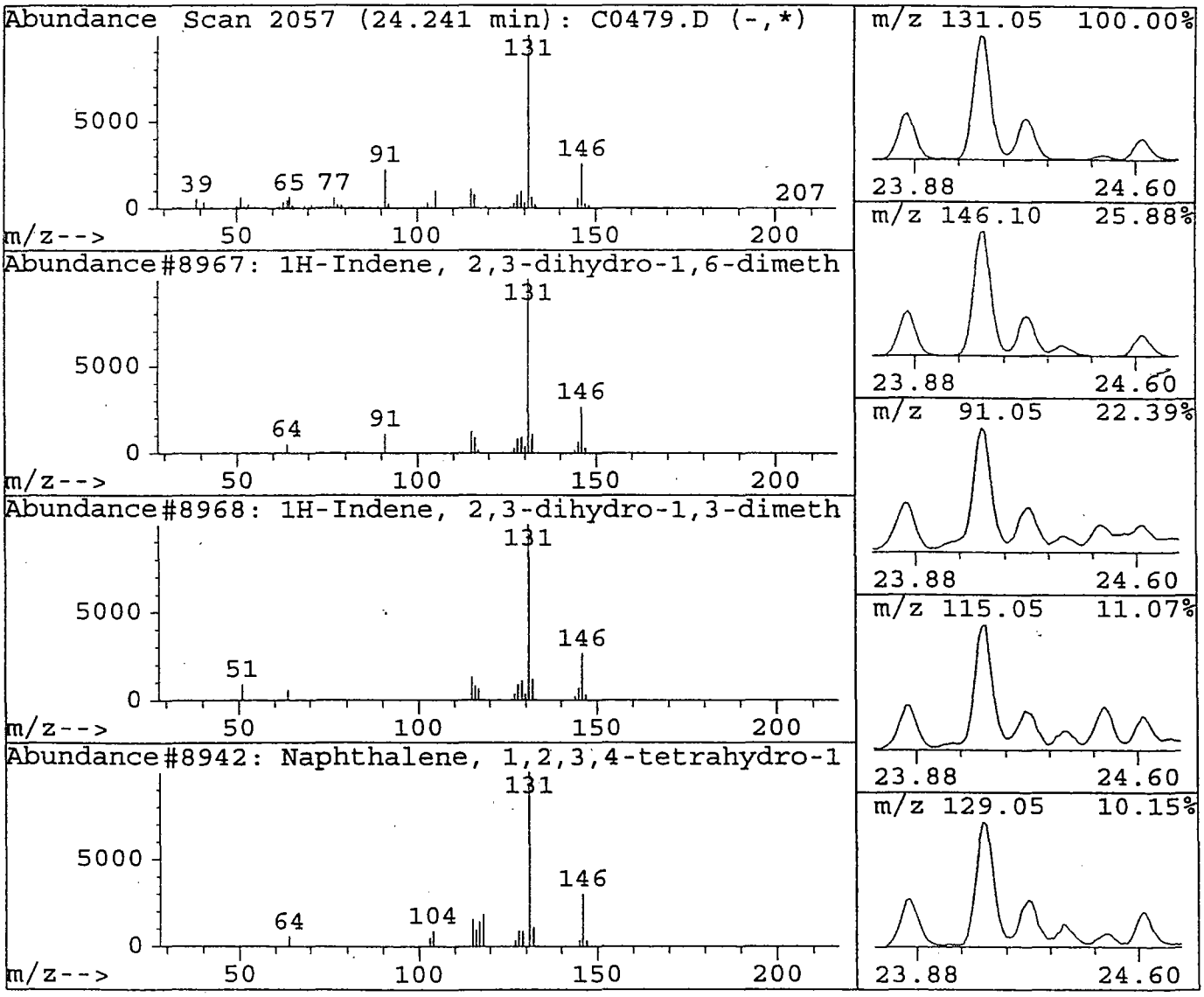
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
24.24	1.33 ug/L	934589	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	47
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	90
3	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	64
4	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	47
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	38



Library Search Compound Report

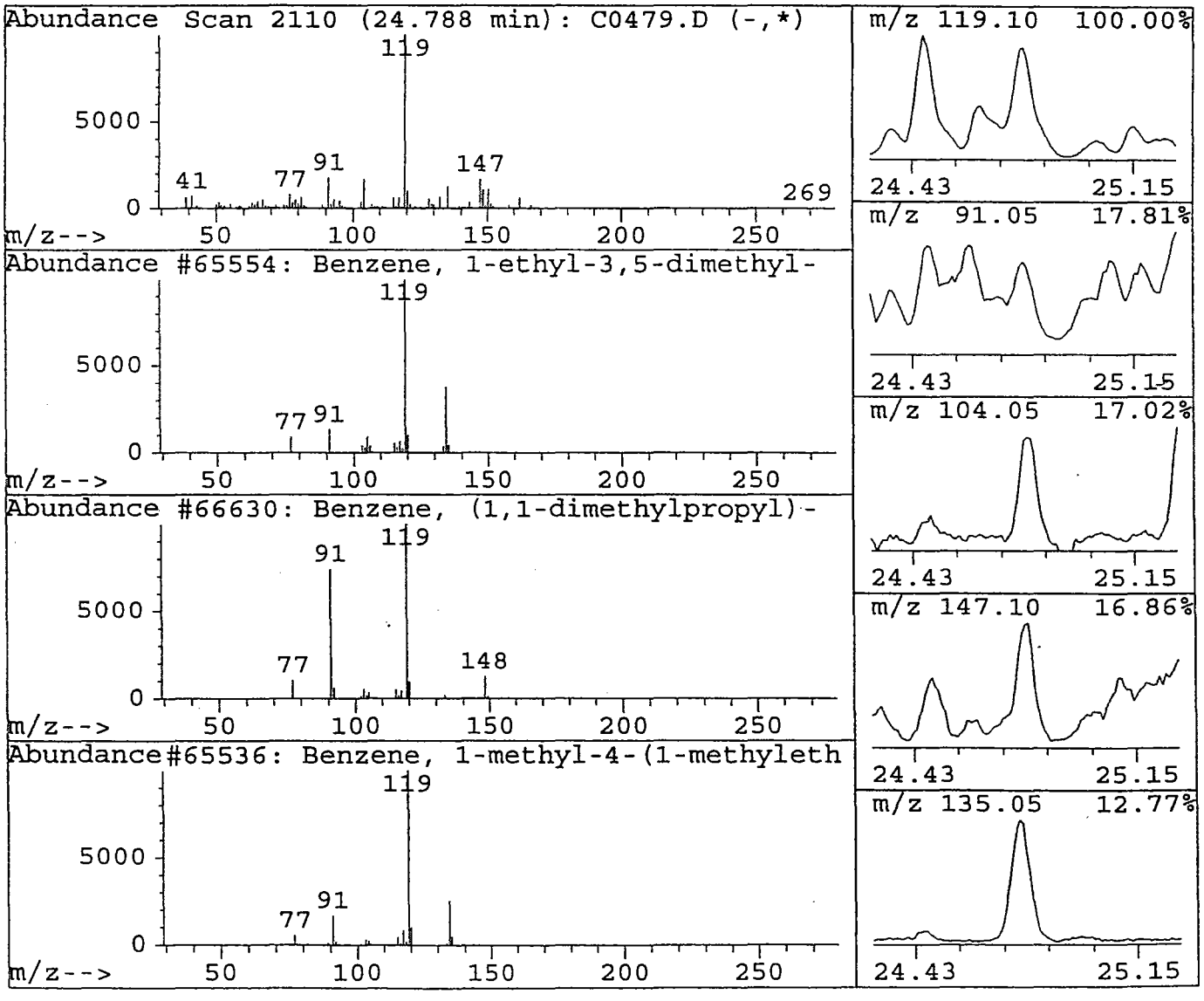
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
24.79	1.29 ug/L	904845	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	38
2	Benzene, (1,1-dimethylpropyl)-	66630	002049-95-8	30
3	Benzene, 1-methyl-4-(1-methylethyl)	65536	000099-87-6	47
4	Benzene, 4-ethyl-1,2-dimethyl-	65567	000934-80-5	38
5	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	47



Library Search Compound Report

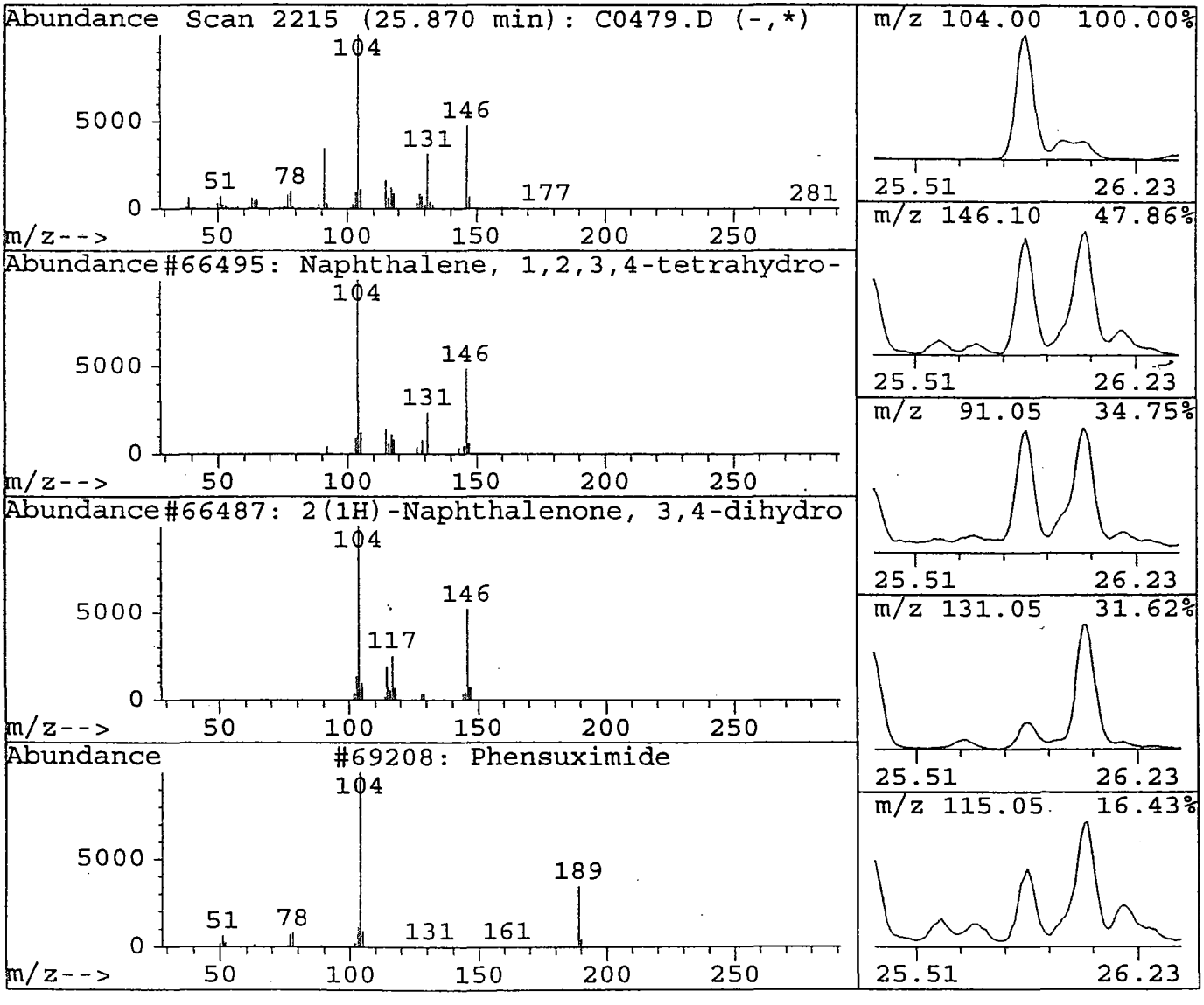
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
25.87	3.72 ug/L	2614122	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-2-m	66495	003877-19-8	93
2	2(1H)-Naphthalenone, 3,4-dihydro-	66487	000530-93-8	76
3	Phensuximide	69208	000086-34-0	35
4	Benzene, (4-methyl-4-pentenyl)-	12554	006683-49-4	35
5	Benzene, 1,1'-(1,2-cyclobutanediyl)	25034	007694-30-6	25



Library Search Compound Report

121

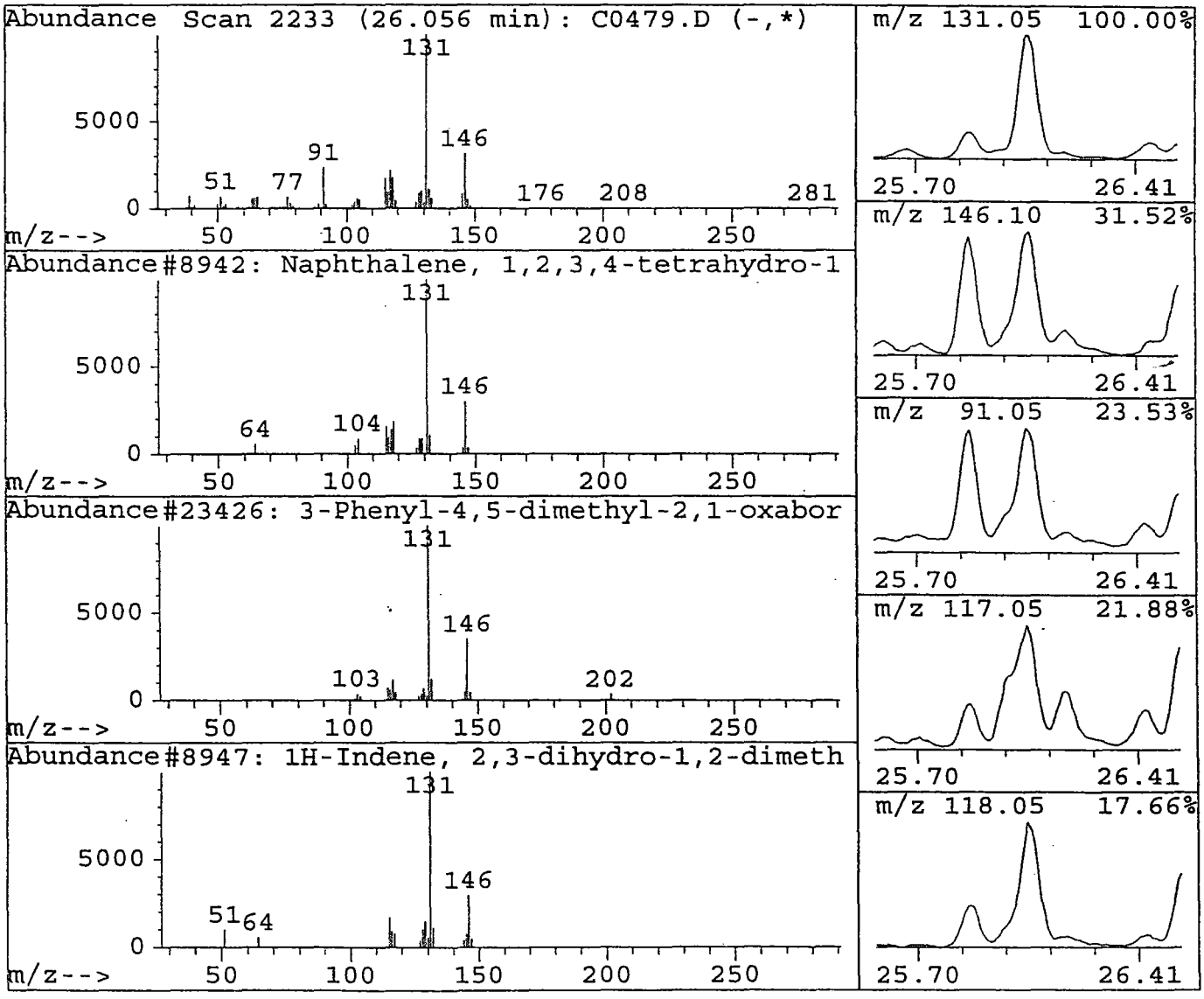
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
26.06	6.67 ug/L	4681419	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90
2	3-Phenyl-4,5-dimethyl-2,1-oxaborola	23426	000000-00-0	72
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	74
4	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	93
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	81



Library Search Compound Report

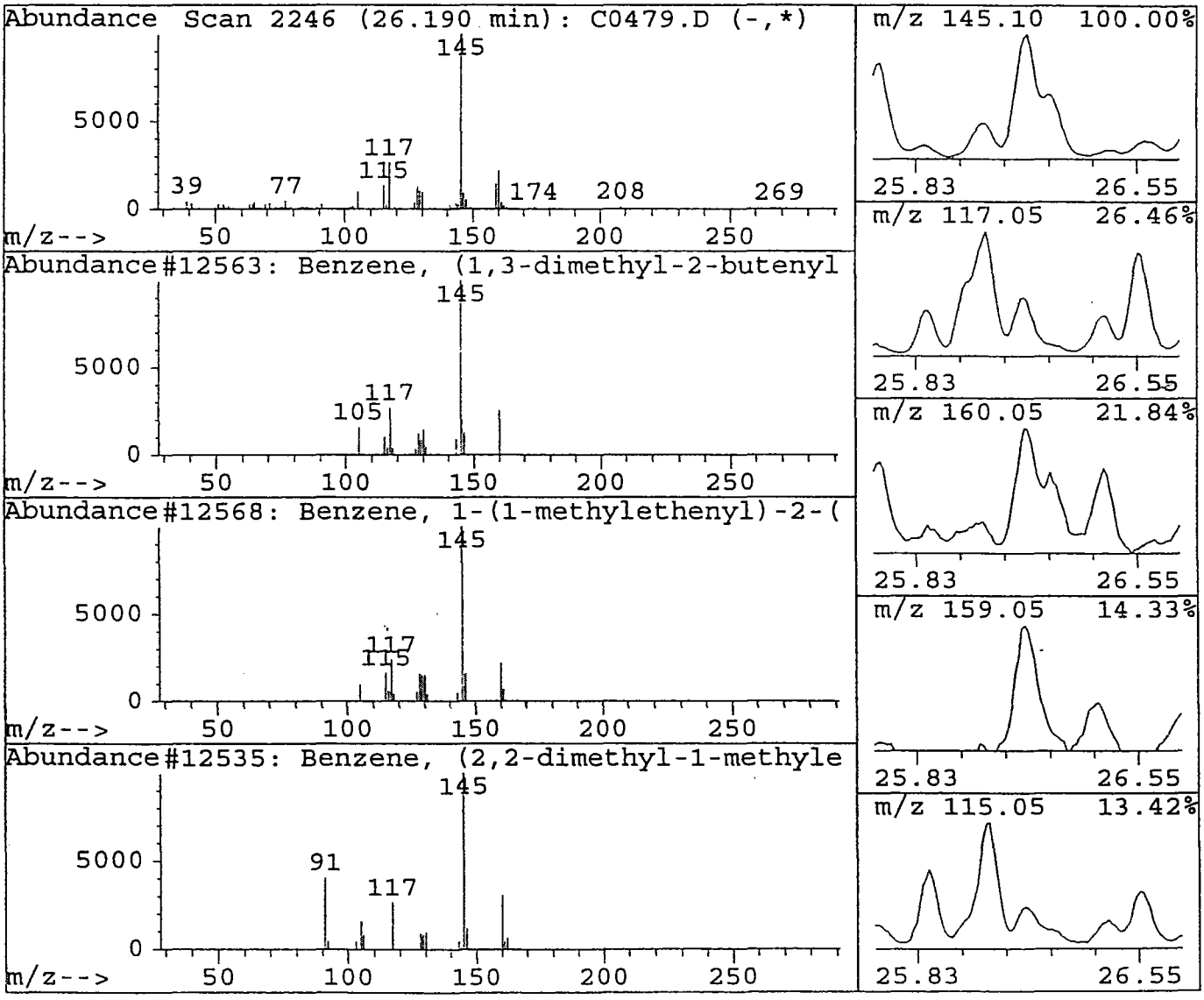
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
26.19	1.94 ug/L	1358957	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1,3-dimethyl-2-butenyl)-	12563	050704-01-3	46
2	Benzene, 1-(1-methylethenyl)-2-(1-m	12568	005557-93-7	38
3	Benzene, (2,2-dimethyl-1-methylenep	12535	005676-29-9	43
4	Benzene, 1-(1,1-dimethylethyl)-4-et	67572	001746-23-2	53
5	Naphthalene, 1,2,3,4-tetrahydro-1,1	67575	001985-59-7	80



Library Search Compound Report

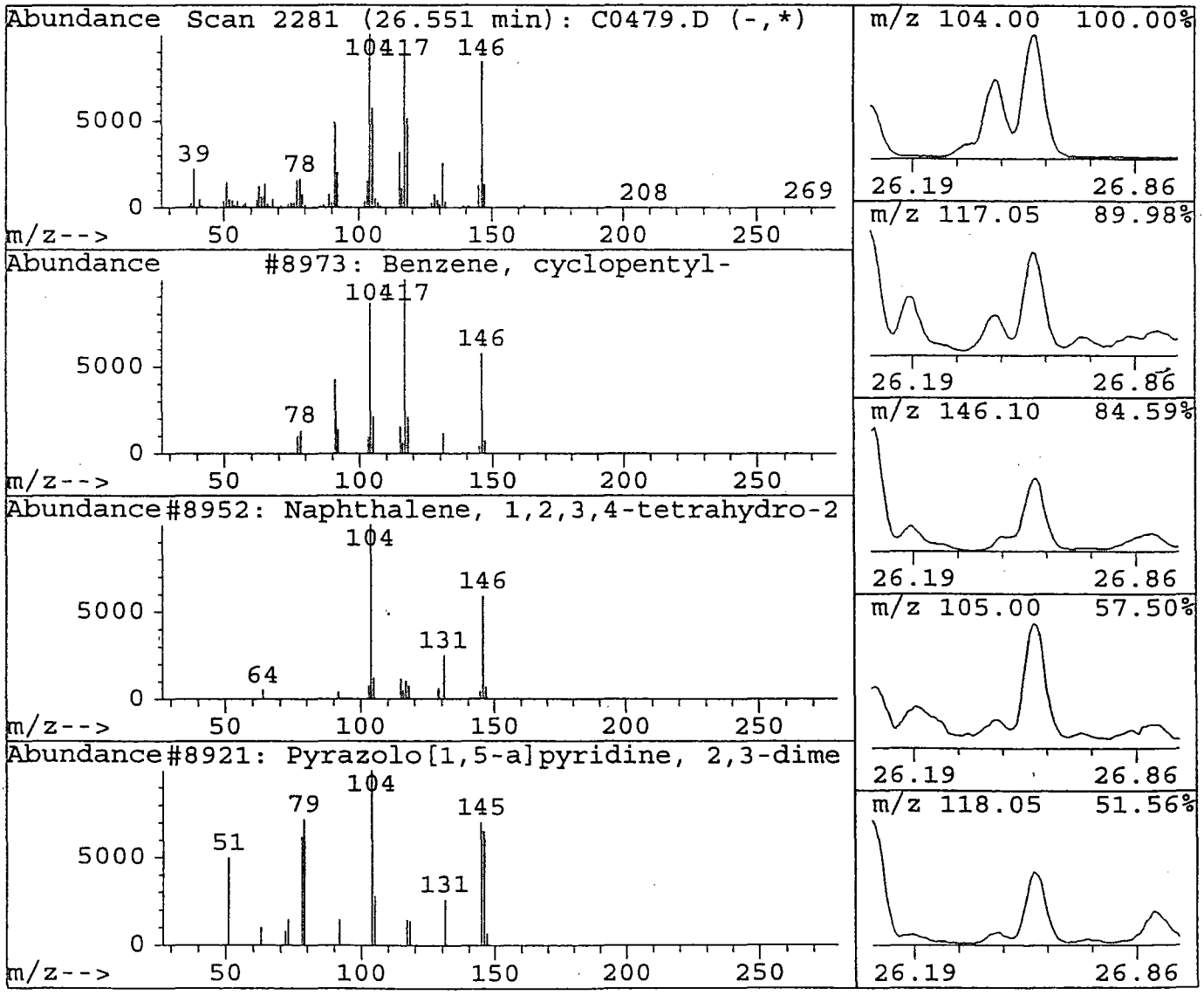
Data File : d:\hpchem\1\data\c0479.d
Acq On : 5 Dec 95 8:51 pm
Sample : 9554551 BLDG 482 MW-1
Misc : 25 ML

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.
26.55	2.21 ug/L	1551951	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, cyclopentyl-	8973	000700-88-9	58
2	Naphthalene, 1,2,3,4-tetrahydro-2-m	8952	003877-19-8	49
3	Pyrazolo[1,5-a]pyridine, 2,3-dimeth	8921	028537-56-6	49
4	Benzeneacetaldehyde, .alpha.-ethyli	8939	004411-89-6	38
5	1,3,5,7-Cyclooctatetraene, 1-butyl-	12533	013402-37-4	35



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 124

MW2-2933758

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 2

Matrix: (soil/water) WATER Lab Sample ID: 9554552V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0480.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# mw2-2933758 125

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

Project No.: FT. MONMOUTH NJ Bldg#: 482 NJDEP MW#: 2

Matrix: (soil/water) WATER Lab Sample ID: 9554552V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0480.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	1.2	
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	5.2	
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# mw2-2933758

126

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

Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: 2 Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554552V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0480.D

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

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

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

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

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	17.83	1	J
2.	Unknown	21.12	2	J
3.	Unknown	23.07	3	J
4.	Unknown	23.40	4	J
5.	Unknown	23.53	1	J
6. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	23.86	3	J
7.	Unknown	24.10	7	J
8. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	24.24	2	J
9.	Unknown	25.27	1	J
10.	Unknown	25.59	2	J
11.	Unknown	25.87	3	J
12.	Unknown	26.06	6	J
13.	Unknown	26.19	3	J
14.	Unknown	26.56	3	J
15.				
16.				
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Quantitation Report

Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML
Quant Time: Dec 11 16:13 1995

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

127

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1594528	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.42	95	953757	5.54	ug/L	110.81%
57) 1,2-Dichlorobenzene-d4	22.22	152	557801	5.17	ug/L	103.35%
Target Compounds						Qvalue
51) tert-Butylbenzene	20.78	119	462405	1.22	ug/L	97
53) sec-Butylbenzene	21.19	105	2666601	5.19	ug/L	100
63) ~~Naphthalene~~ with 1/10/96	~~25.68~~	~~128~~	~~221367~~	~~1.80~~	~~ug/L m~~	~~100~~

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

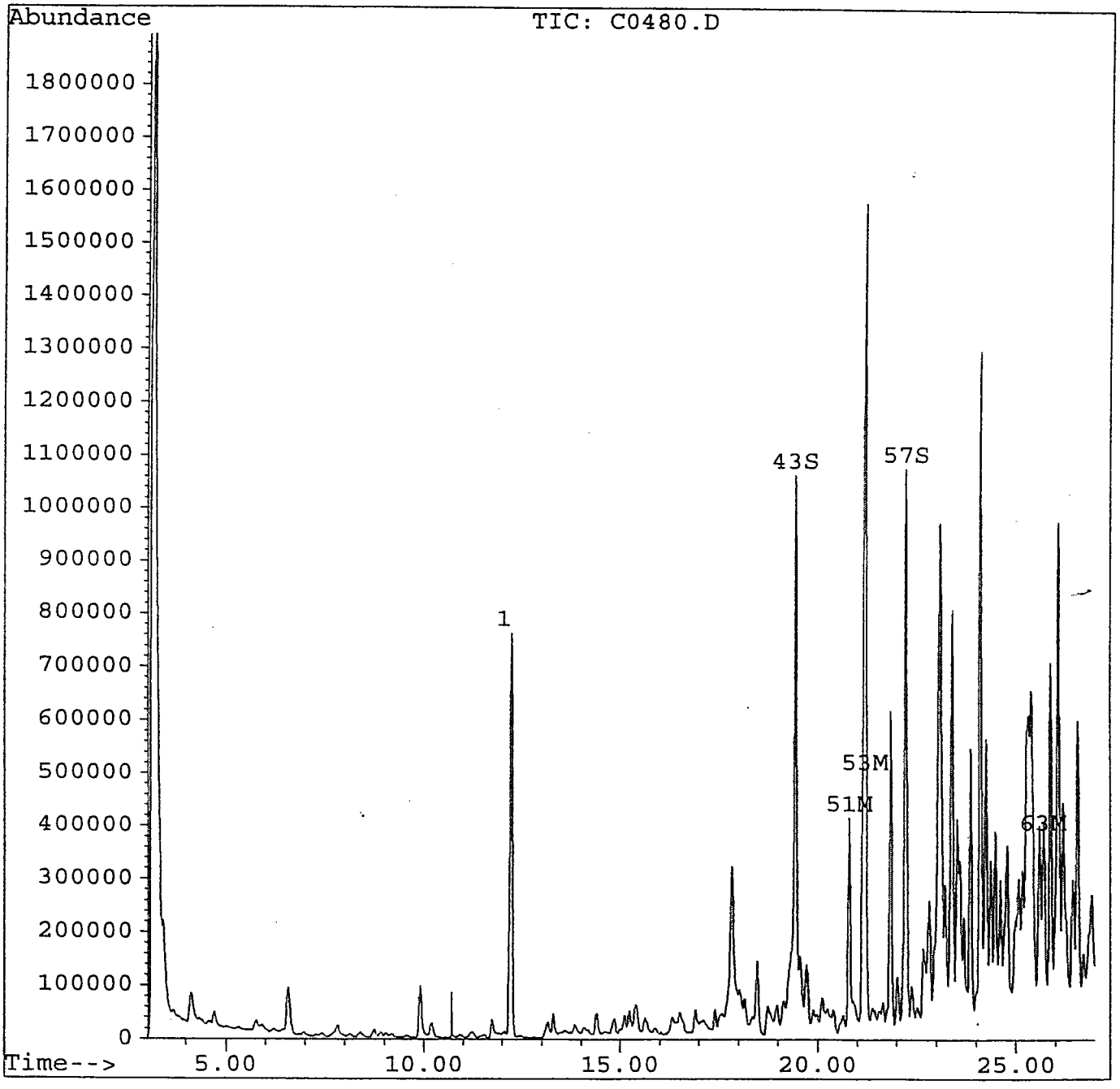
Quantitation Report

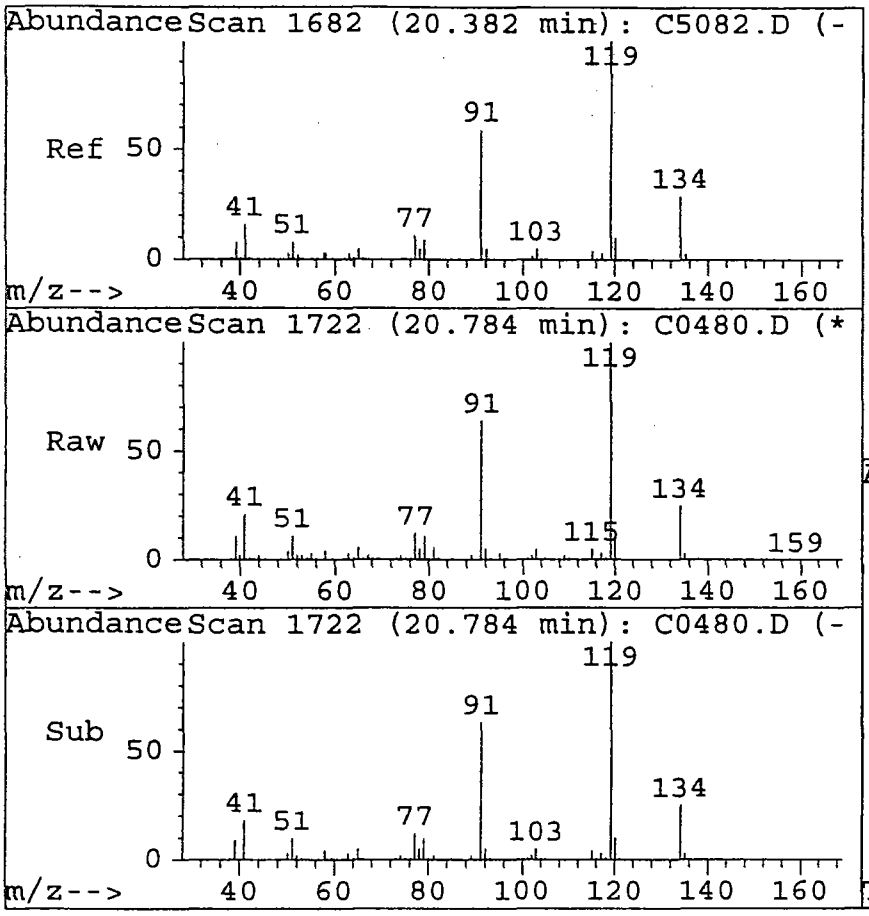
128

Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML
Quant Time: Dec 11 16:13 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

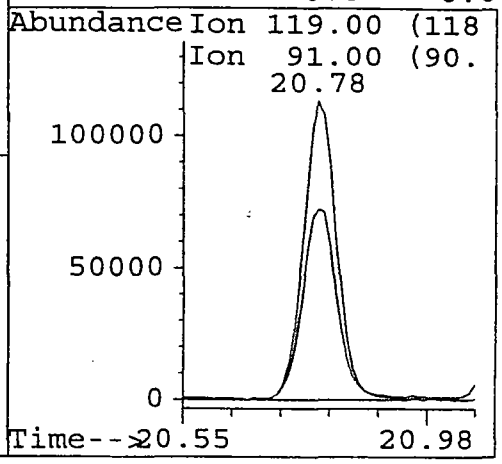


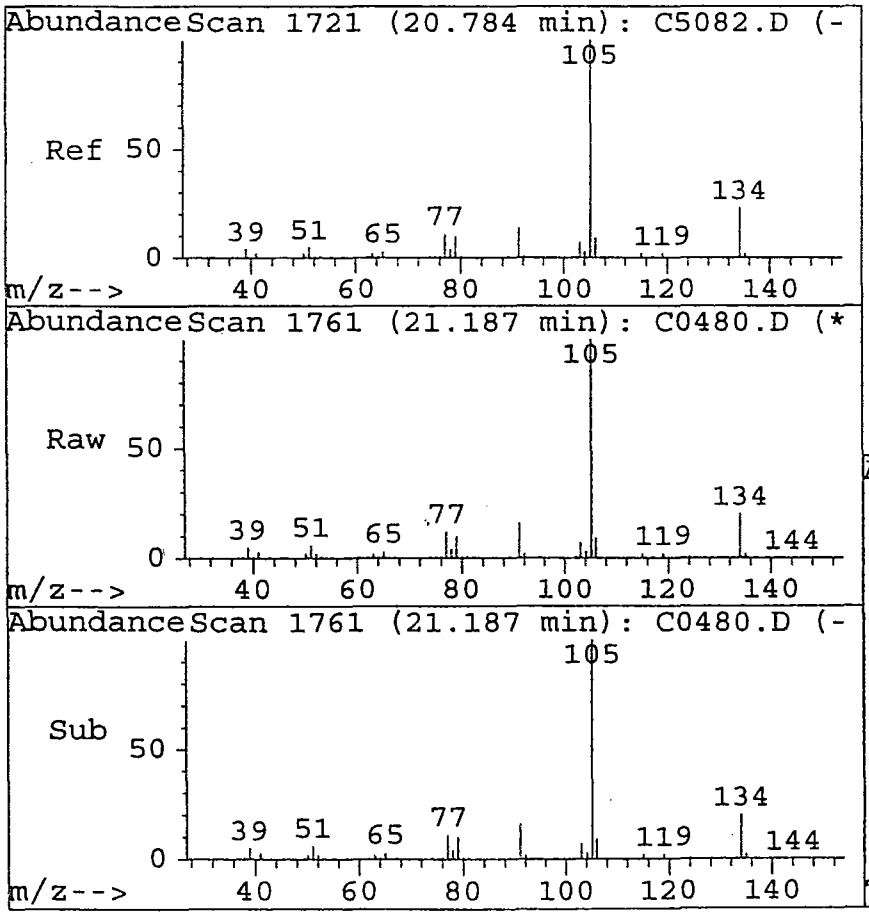


#51
tert-Butylbenzene
Concen: 1.22 ug/L
RT: 20.78 min Scan# 1722
Delta R.T. -0.03 min
Lab File: c0480.d
Acq: 5 Dec 95 9:25 pm

Tgt Ion:119 Resp: 462405

Ion	Ratio	Lower	Upper
119	100		
91	63.4	46.1	86.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

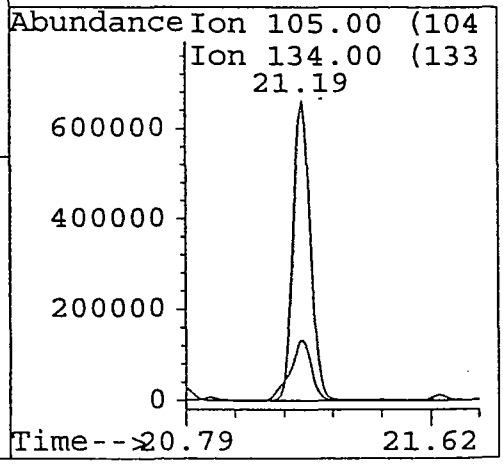




#53
sec-Butylbenzene
Concen: 5.19 ug/L
RT: 21.19 min Scan# 1761
Delta R.T. -0.03 min
Lab File: c0480.d
Acq: 5 Dec 95 9:25 pm

Tgt Ion:105 Resp: 2666601

Ion	Ratio	Lower	Upper
105	100		
134	20.0	0.2	40.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

130

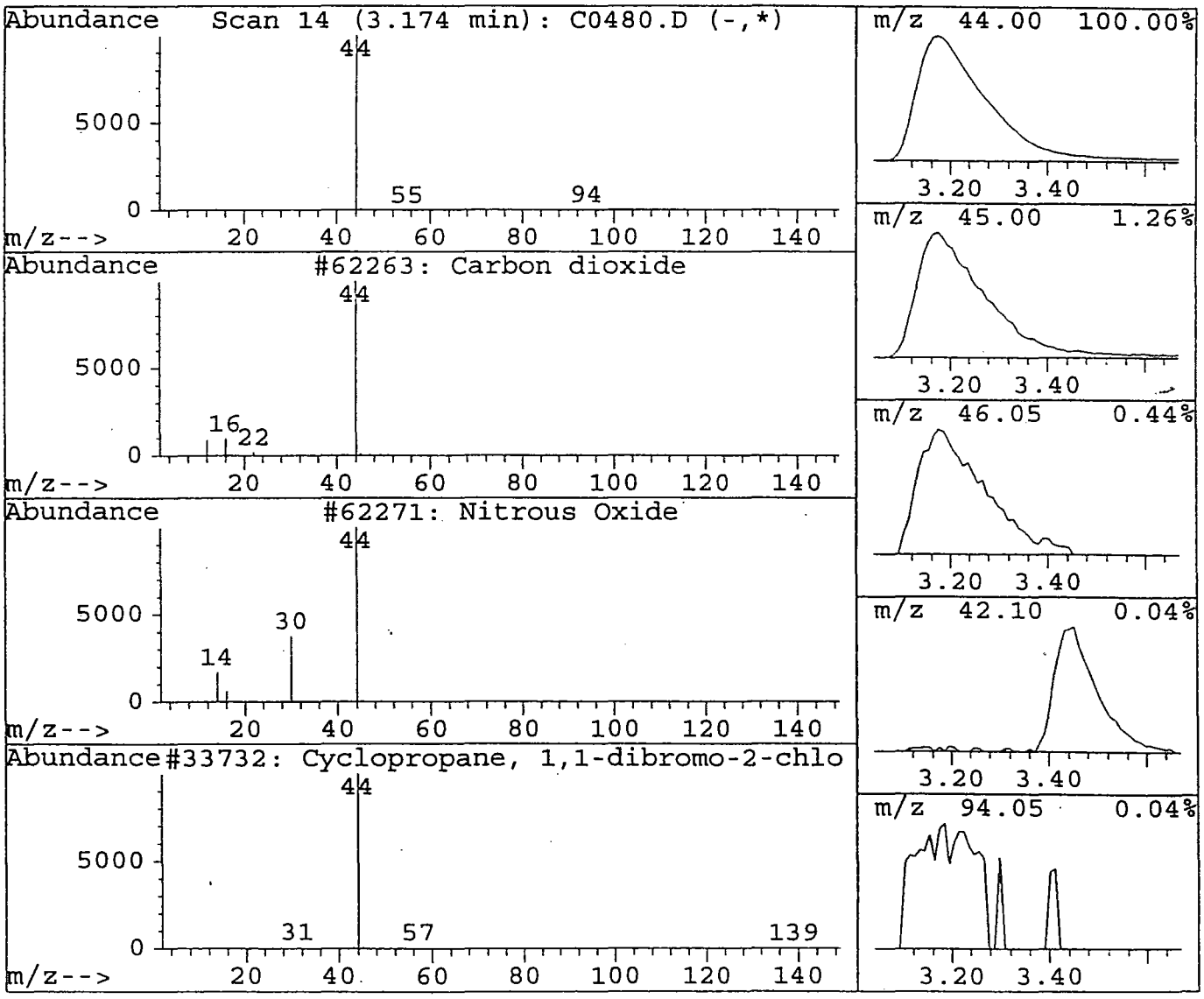
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
3.17	27.57 ug/L	18507237	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	62263	000124-38-9	4
2	Nitrous Oxide	62271	010024-97-2	3
3	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
4	Carbamic acid, monoammonium salt	391	001111-78-0	2
5	Ethyne, fluoro-	35	002713-09-9	2



Library Search Compound Report

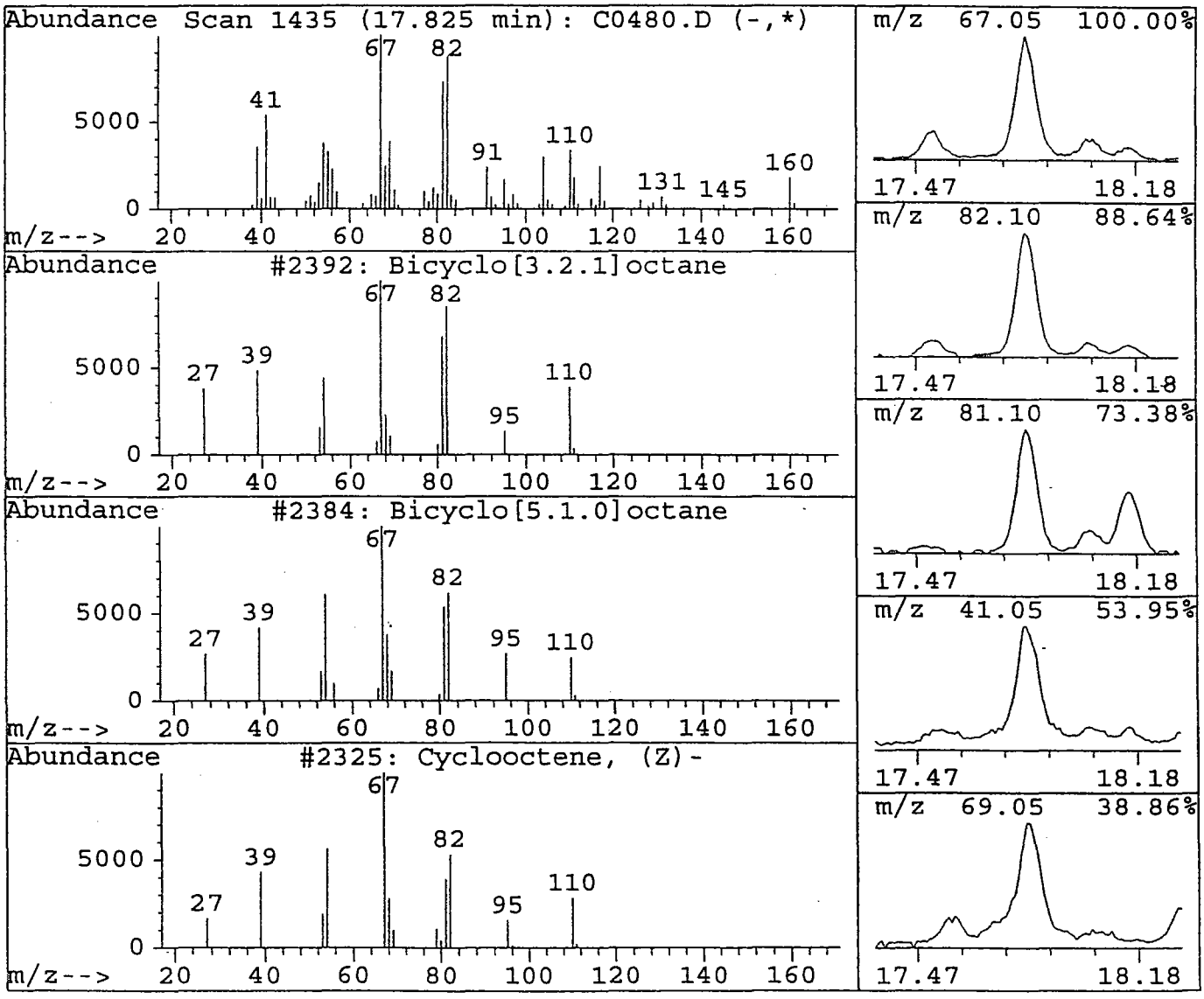
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
17.83	1.40 ug/L	941274	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Bicyclo[3.2.1]octane	2392	006221-55-2	93
2	Bicyclo[5.1.0]octane	2384	000286-43-1	22
3	Cyclooctene, (Z)-	2325	000931-87-3	27
4	Cyclohexane, ethenyl-	2345	000695-12-5	38
5	1-Decyne	65925	000764-93-2	27



Library Search Compound Report

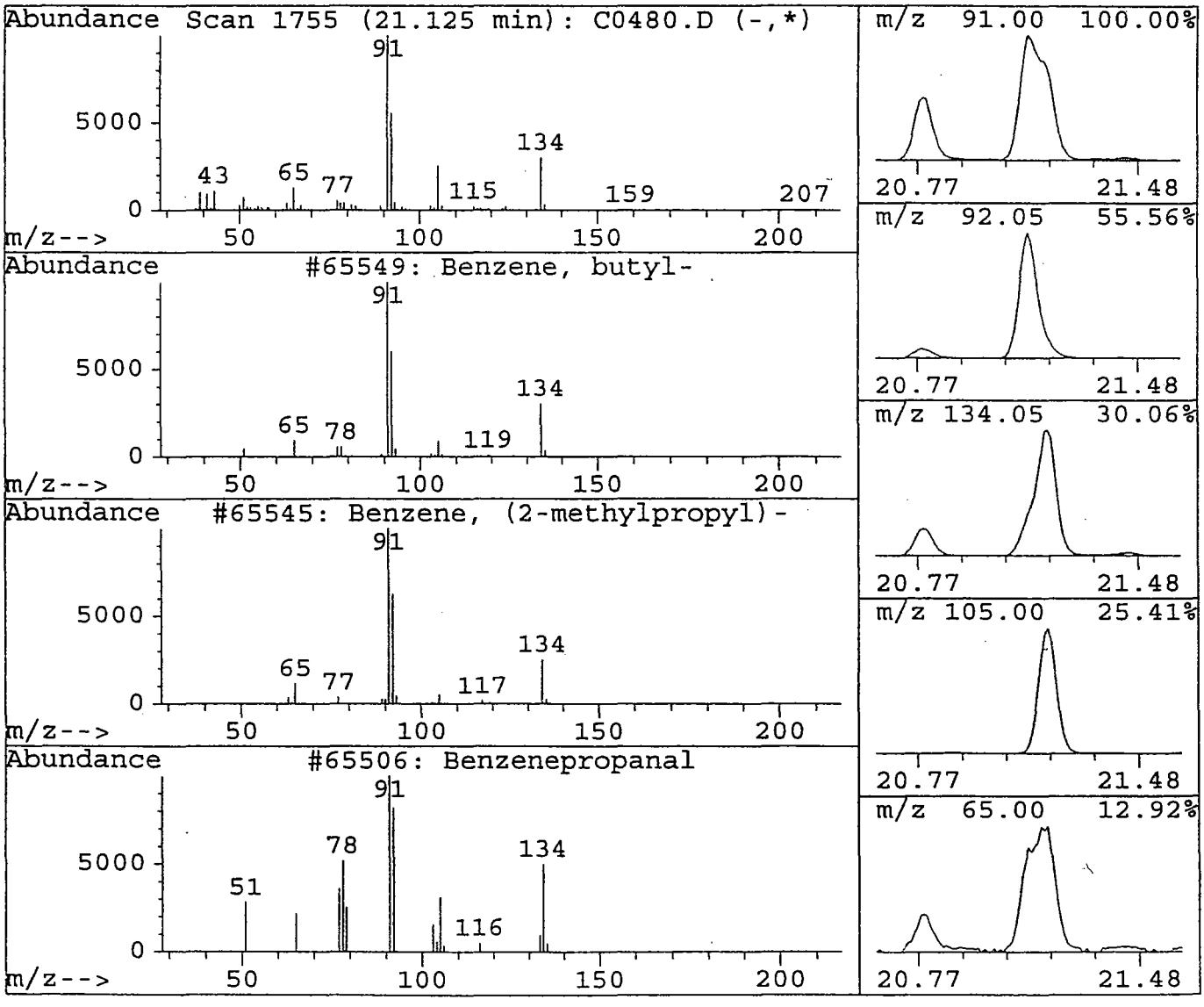
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
21.12	2.07 ug/L	1389429	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, butyl-	65549	000104-51-8	81
2	Benzene, (2-methylpropyl)-	65545	000538-93-2	38
3	Benzenepropanal	65506	000104-53-0	64
4	Benzene, hexyl-	67727	001077-16-3	37
5	Phenylethyl Alcohol	64703	000060-12-8	37



Library Search Compound Report

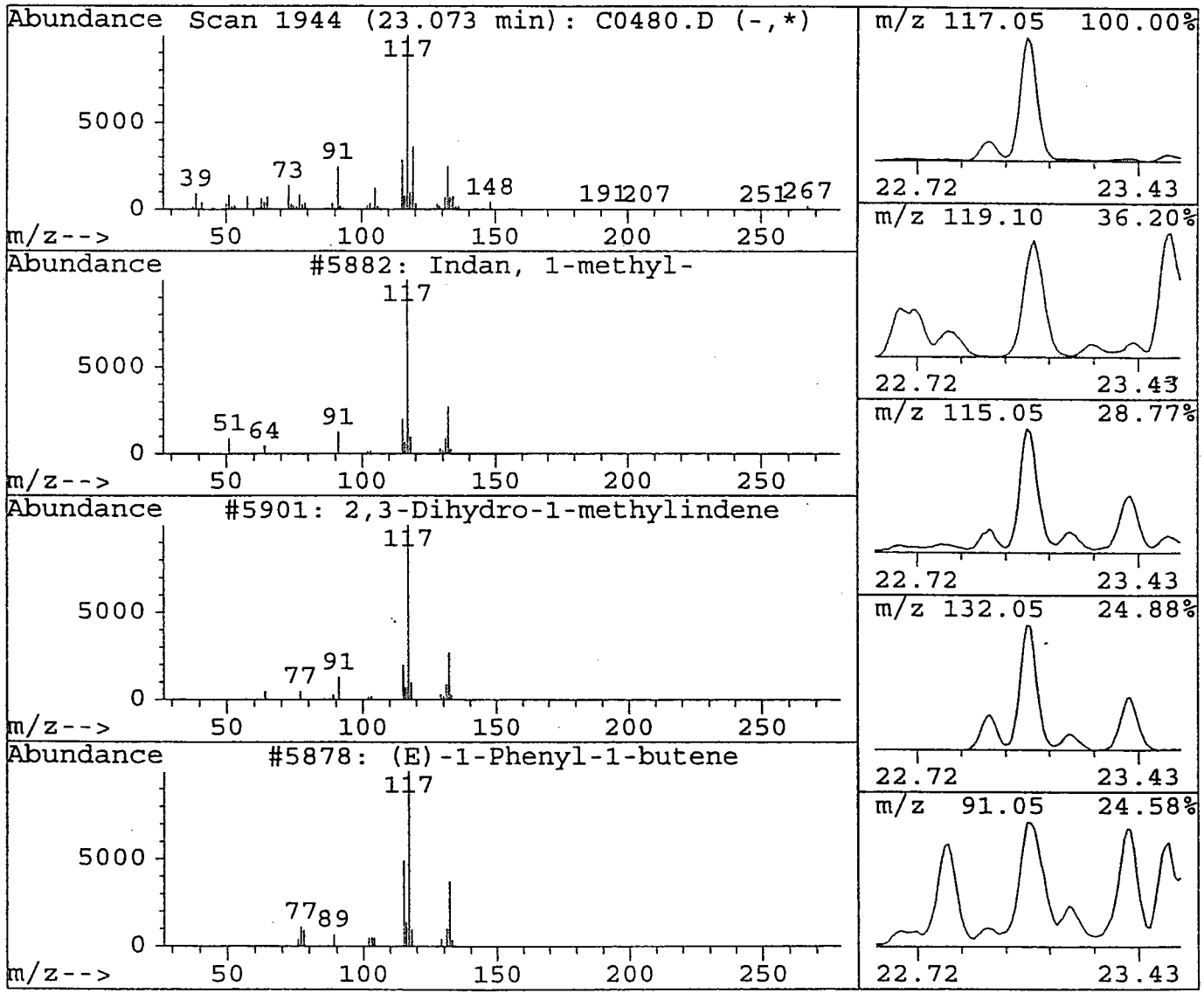
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.07	2.77 ug/L	1860696	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	62
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	58
3	(E)-1-Phenyl-1-butene	5878	001005-64-7	38
4	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	47
5	Borinic acid, diethyl-, 1-phenyl-1-	23427	034602-33-0	50



Library Search Compound Report

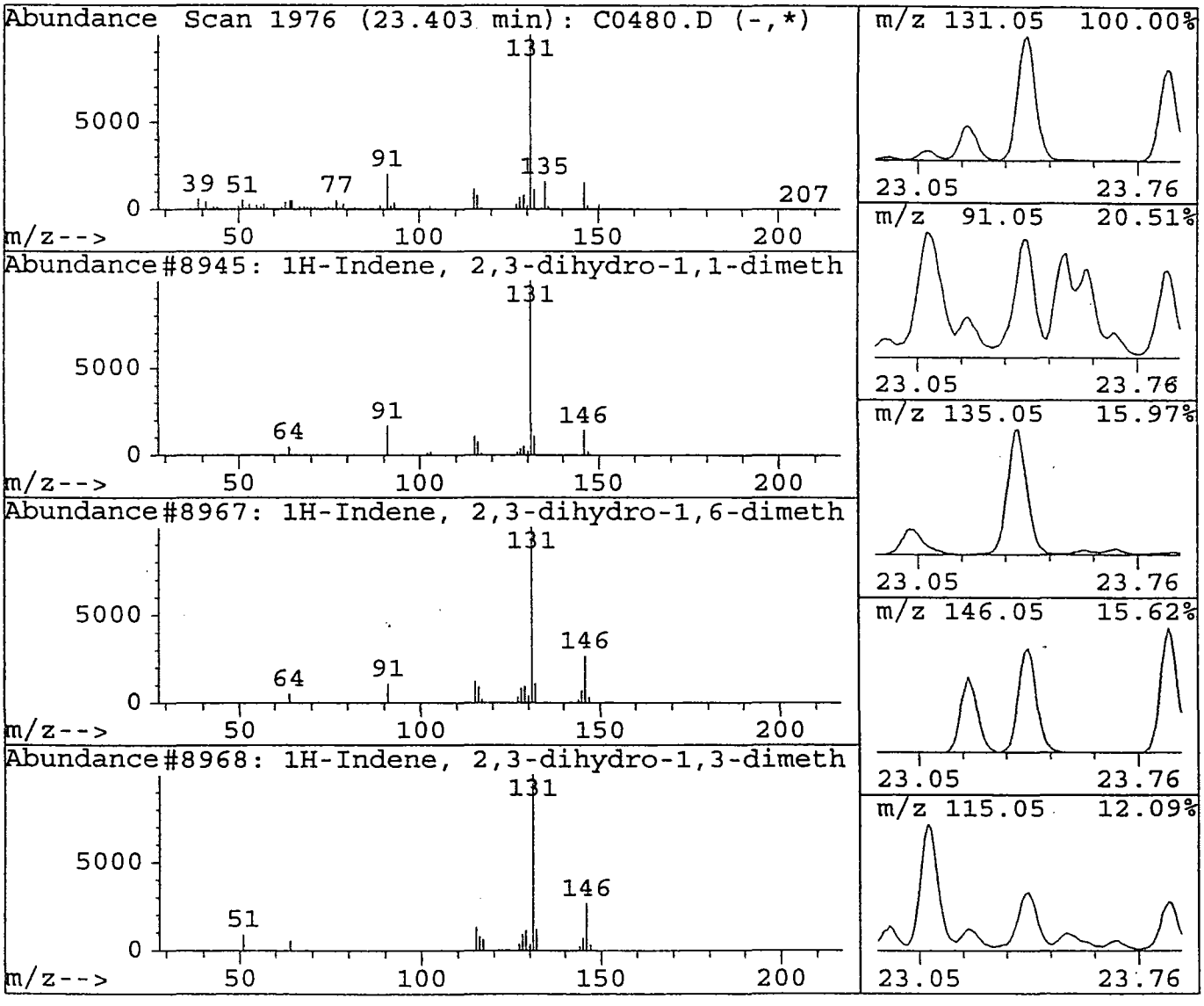
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.40	3.62 ug/L	2428509	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	95
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	60
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	60
4	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	49
5	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	46



Library Search Compound Report

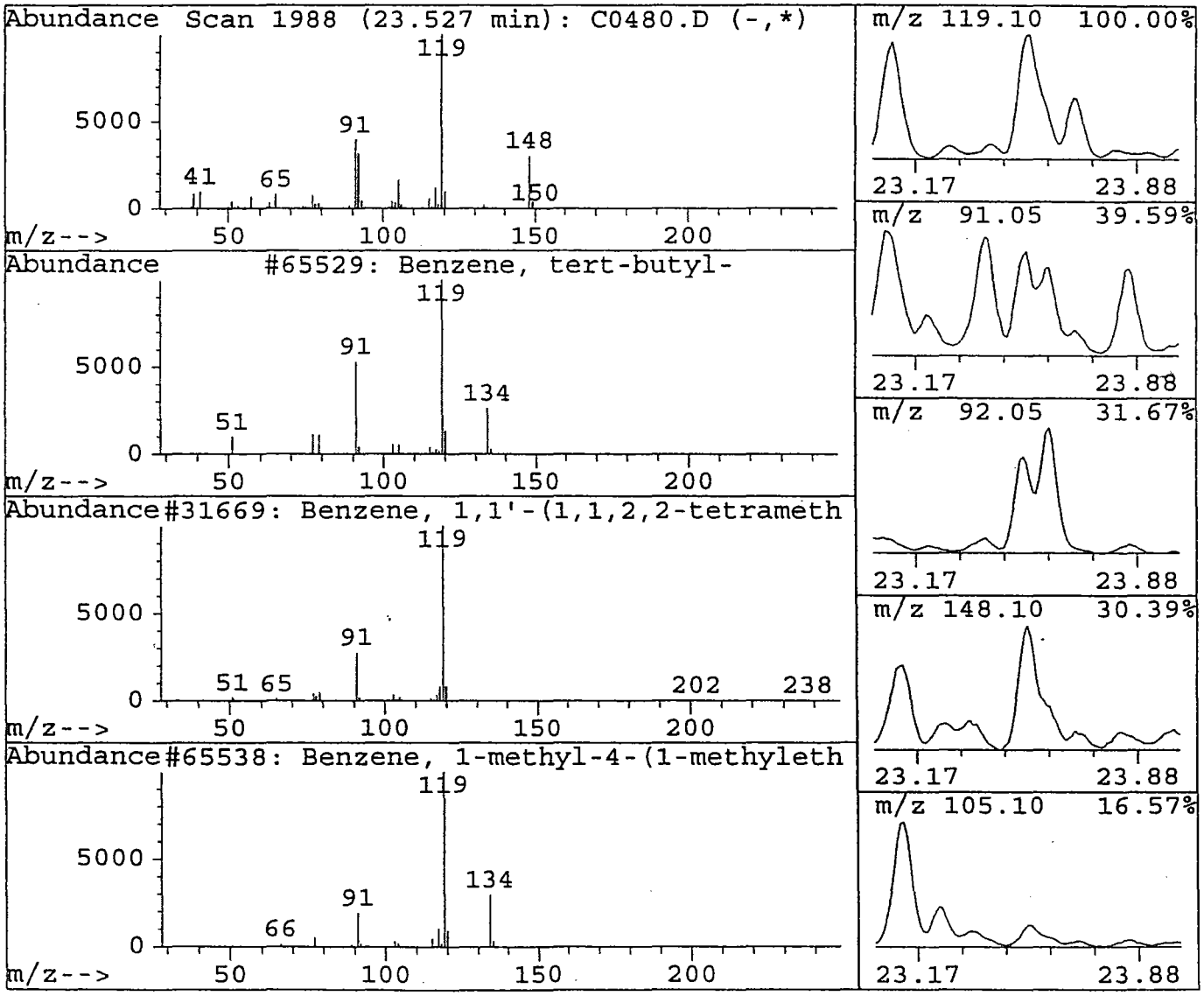
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.53	1.32 ug/L	885271	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, tert-butyl-	65529	000098-06-6	40
2	Benzene, 1,1'-(1,1,2,2-tetramethyl-	31669	001889-67-4	50
3	Benzene, 1-methyl-4-(1-methylethyl)	65538	000099-87-6	50
4	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	53
5	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	42



Library Search Compound Report

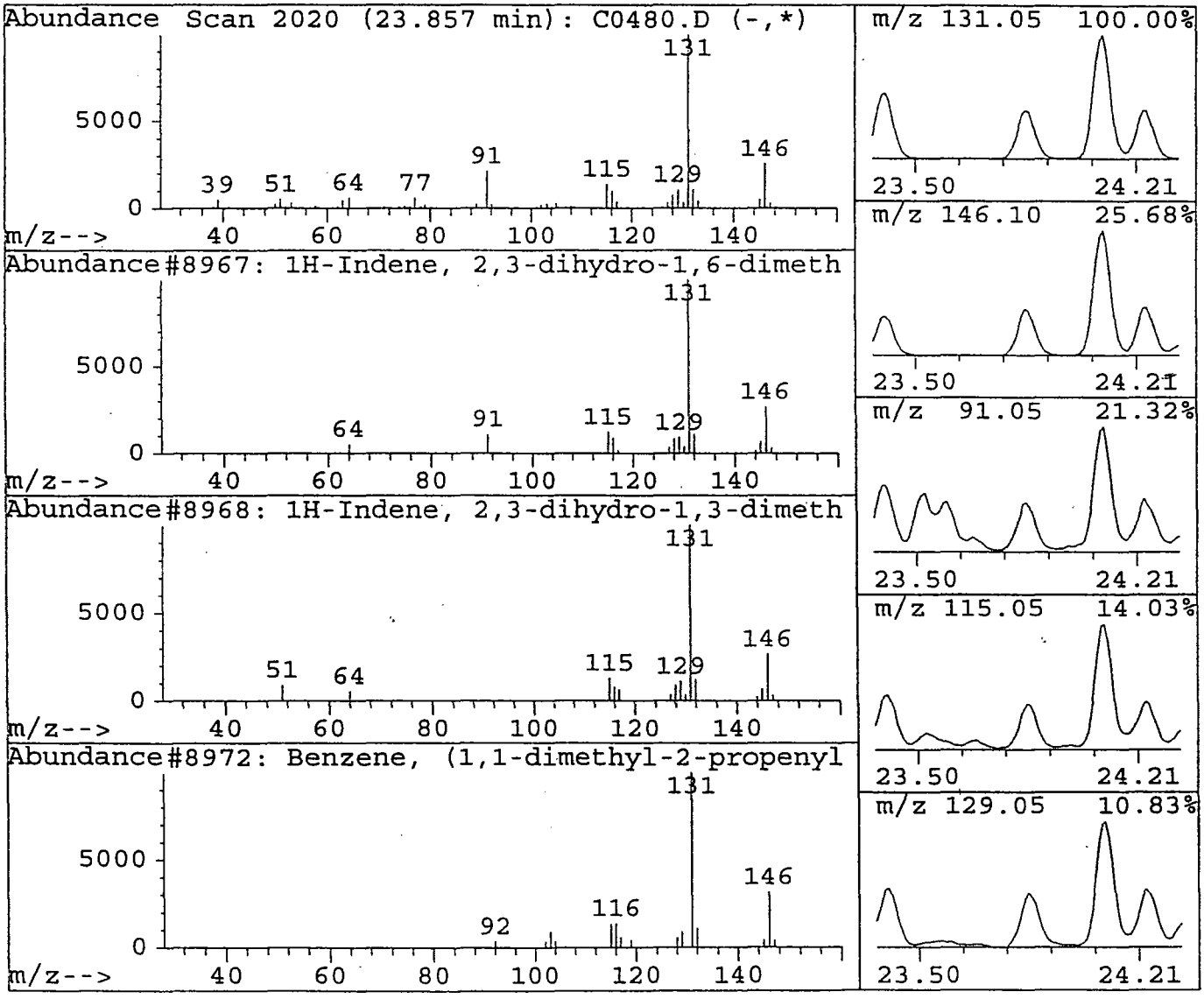
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.86	2.98 ug/L	2001938	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	94
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	50
3	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	52
4	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	38
5	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90



Library Search Compound Report

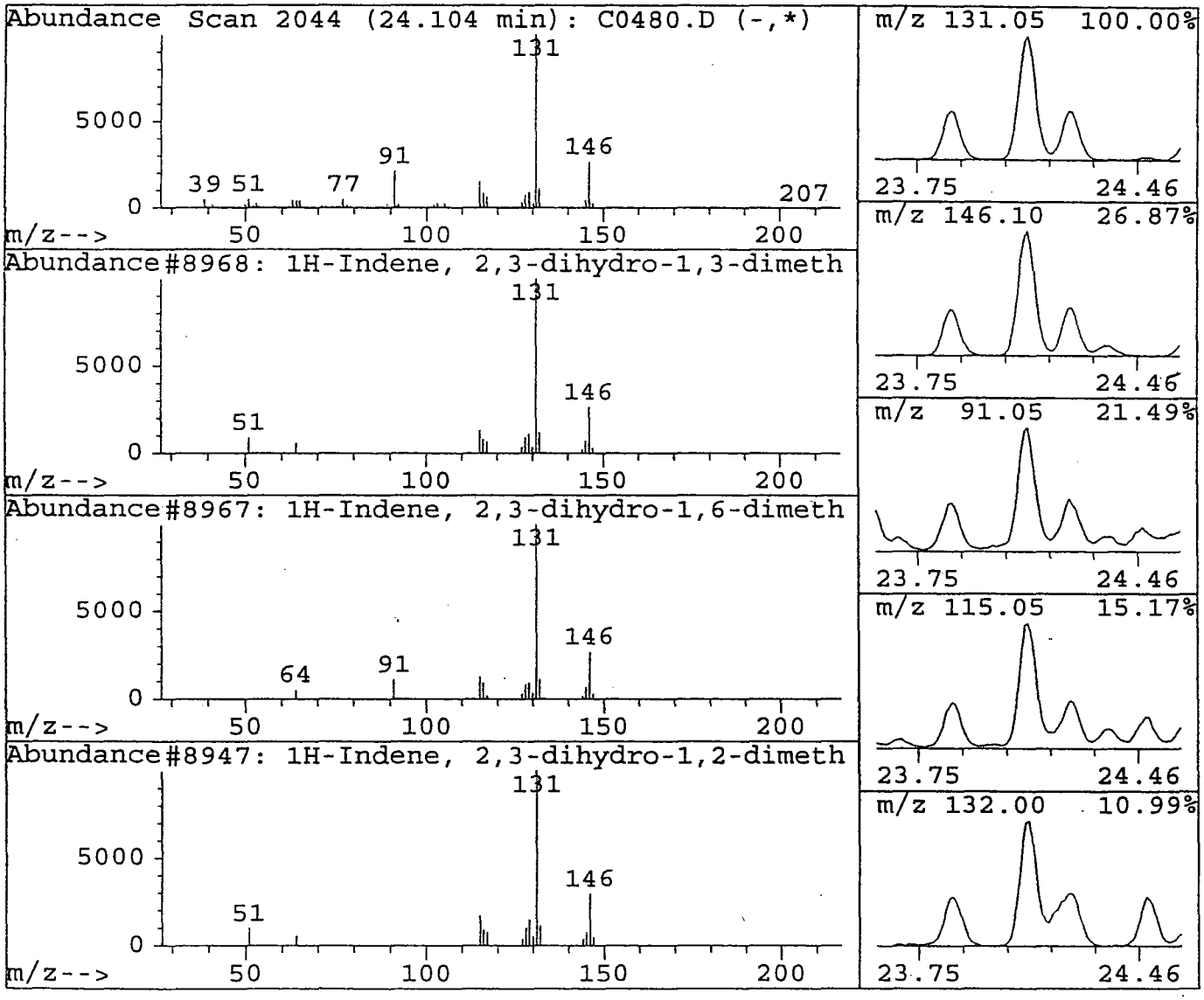
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
24.10	6.90 ug/L	4631575	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	50
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	94
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	52
4	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	91
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	64



Library Search Compound Report

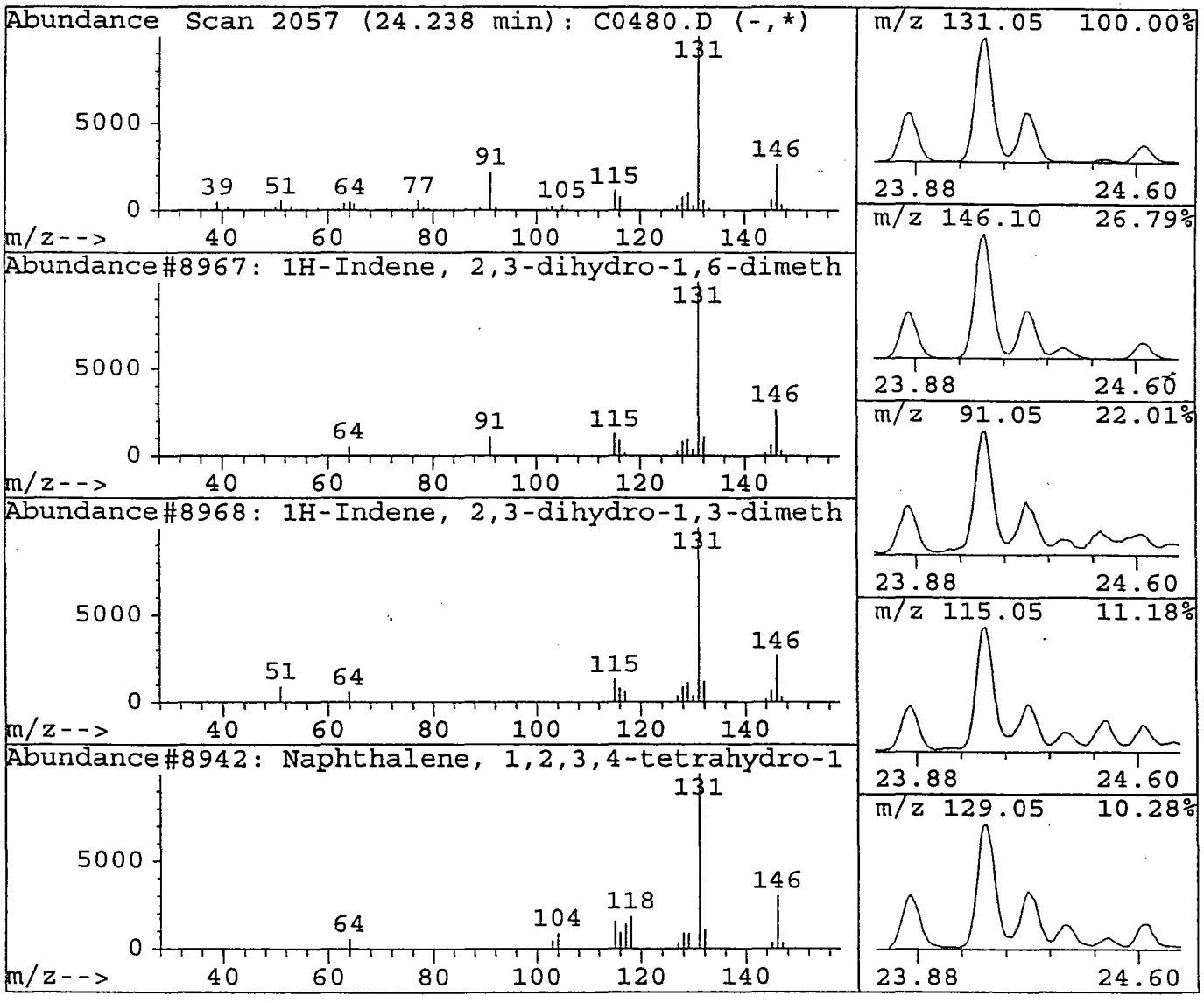
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
24.24	2.32 ug/L	1554071	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	91
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	91
3	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	72
4	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	40
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	78



Library Search Compound Report

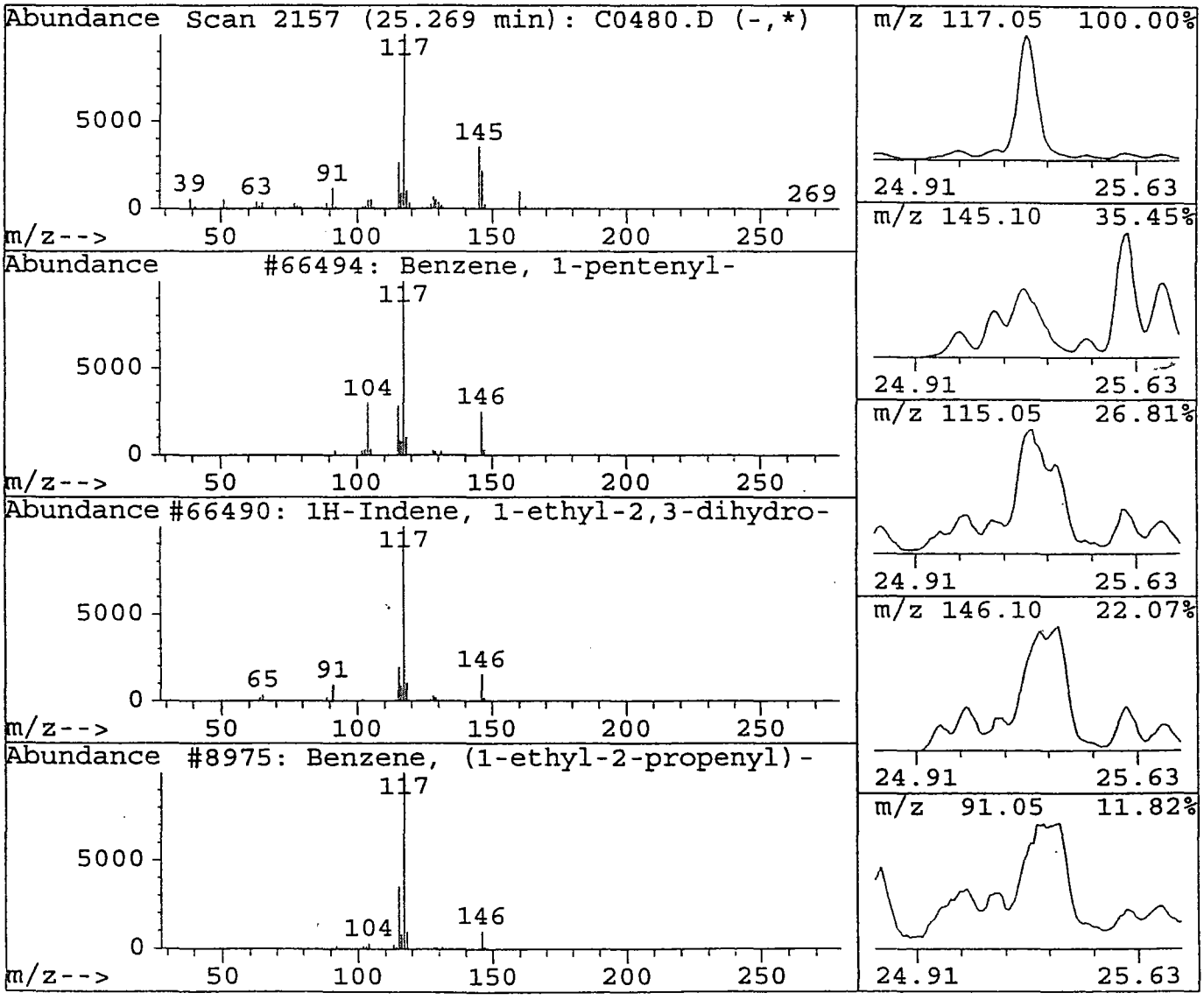
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
25.27	1.31 ug/L	879443	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-pentenyl-	66494	000826-18-6	64
2	1H-Indene, 1-ethyl-2,3-dihydro-	66490	004830-99-3	76
3	Benzene, (1-ethyl-2-propenyl)-	8975	019947-22-9	27
4	Benzene, (chloromethyl)ethenyl-	10204	030030-25-2	47
5	Indan, 1-methyl-	5882	000767-58-8	40



Library Search Compound Report

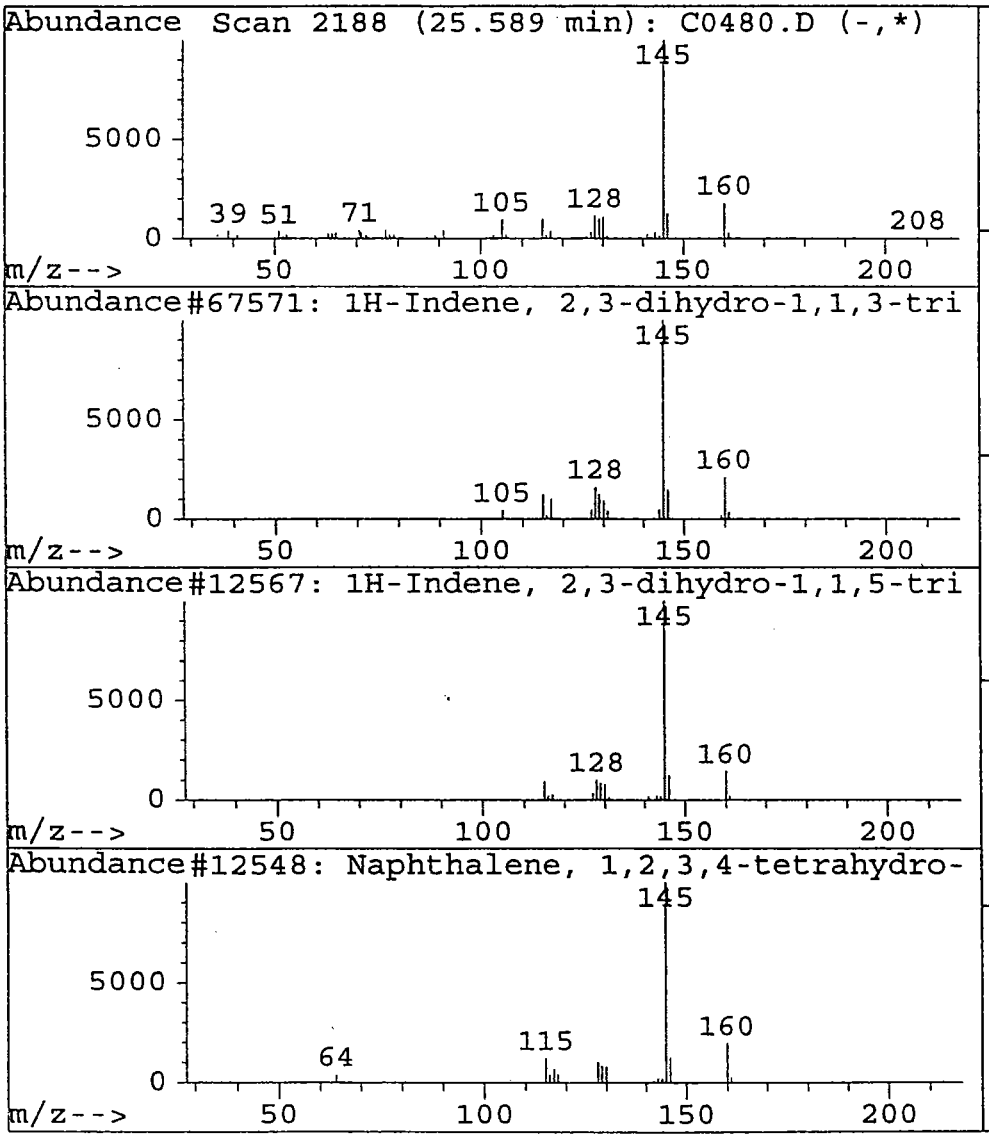
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

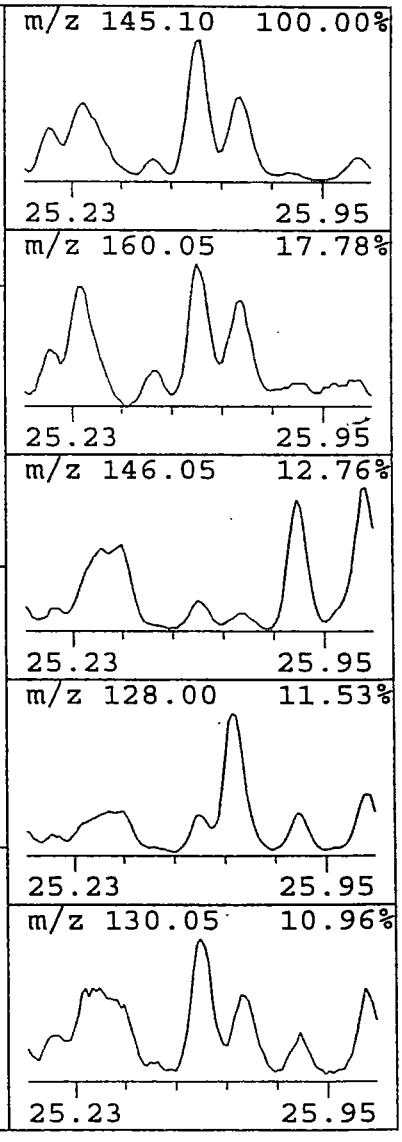
Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

R.T.	Conc	Area	Relative to ISTD	R.T.
25.59	1.87 ug/L	1255730	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1,3-trimet	67571	002613-76-5	86
2	1H-Indene, 2,3-dihydro-1,1,5-trimet	12567	040650-41-7	95
3	Naphthalene, 1,2,3,4-tetrahydro-1,8	12548	025419-33-4	80
4	1H-Indene, 2,3-dihydro-1,1,6-trimet	12551	014276-95-0	94
5	1H-Indene, 2,3-dihydro-1,1,4-trimet	12566	016204-72-1	94





Library Search Compound Report

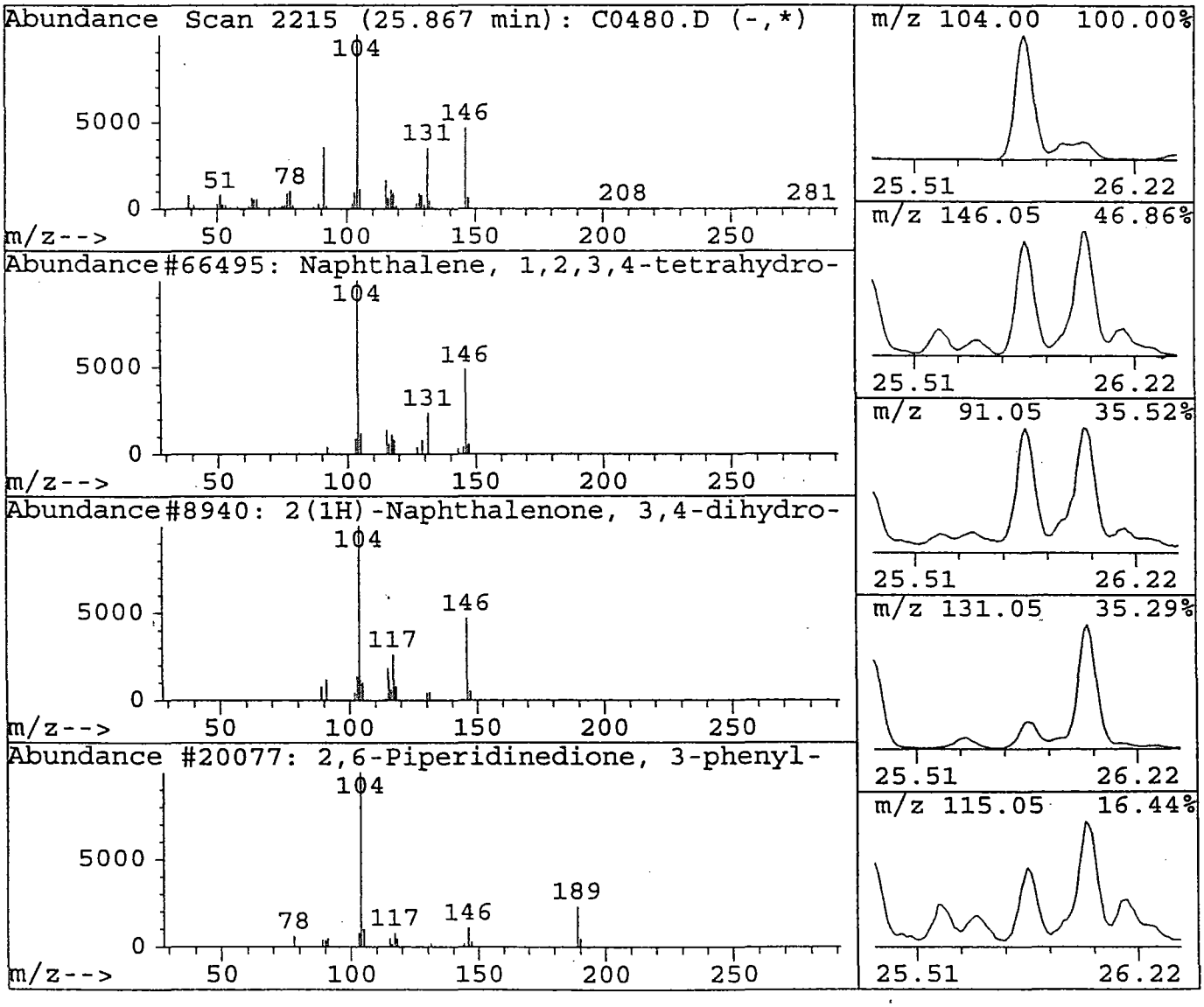
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
25.87	3.07 ug/L	2058883	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-2-m	66495	003877-19-8	91
2	2(1H)-Naphthalenone, 3,4-dihydro-	8940	000530-93-8	53
3	2,6-Piperidinedione, 3-phenyl-	20077	014149-34-9	40
4	2-Methylbenzyl cyanide	5640	022364-68-7	43
5	2-Propenoic acid, 3-phenyl-, 2-phen	34392	000103-53-7	37



Library Search Compound Report

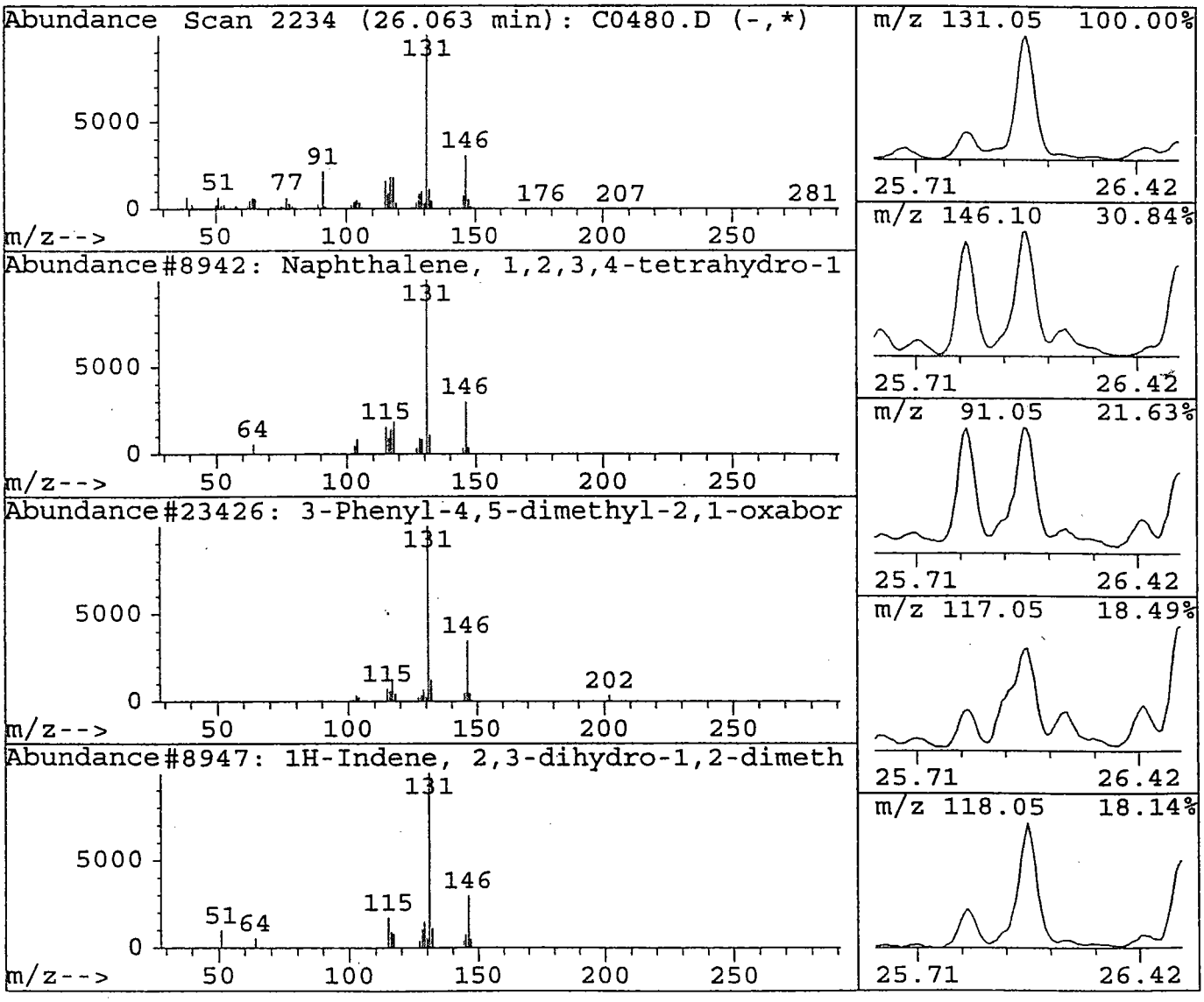
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
26.06	6.04 ug/L	4055126	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	94
2	3-Phenyl-4,5-dimethyl-2,1-oxaborola	23426	000000-00-0	78
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	43
4	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	81
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	74



Library Search Compound Report

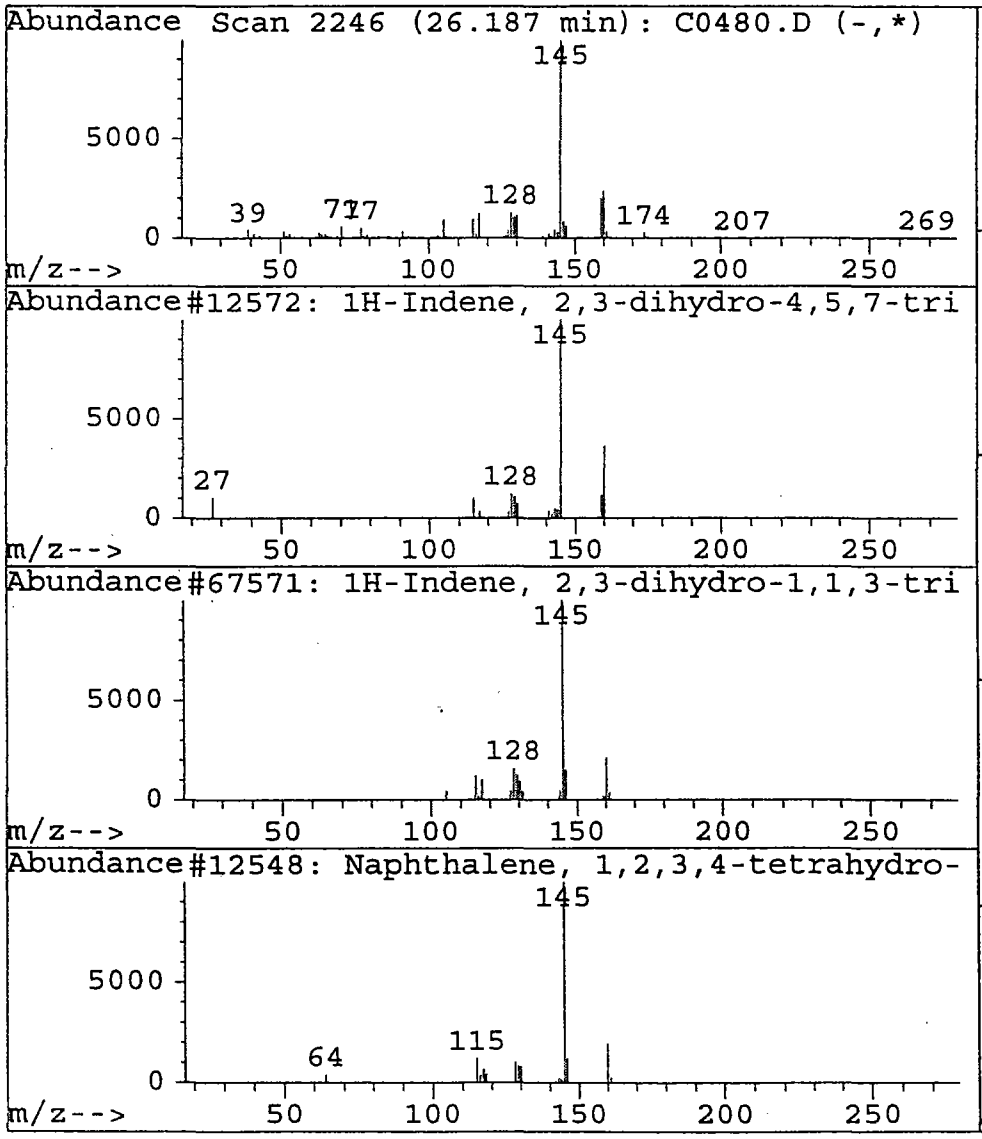
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

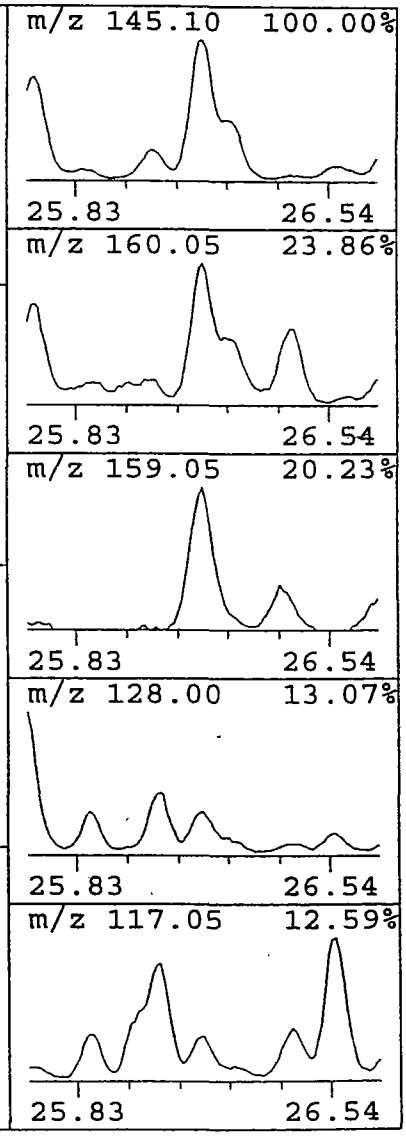
Vial: 9
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

R.T.	Conc	Area	Relative to ISTD	R.T.
26.19	3.03 ug/L	2036309	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,5,7-trimet	12572	006682-06-0	46
2	1H-Indene, 2,3-dihydro-1,1,3-trimet	67571	002613-76-5	38
3	Naphthalene, 1,2,3,4-tetrahydro-1,8	12548	025419-33-4	81
4	1H-Indene, 2,3-dihydro-1,4,7-trimet	12534	054340-87-3	81
5	1H-Indene, 2,3-dihydro-1,5,7-trimet	12537	054340-88-4	81





Library Search Compound Report

144

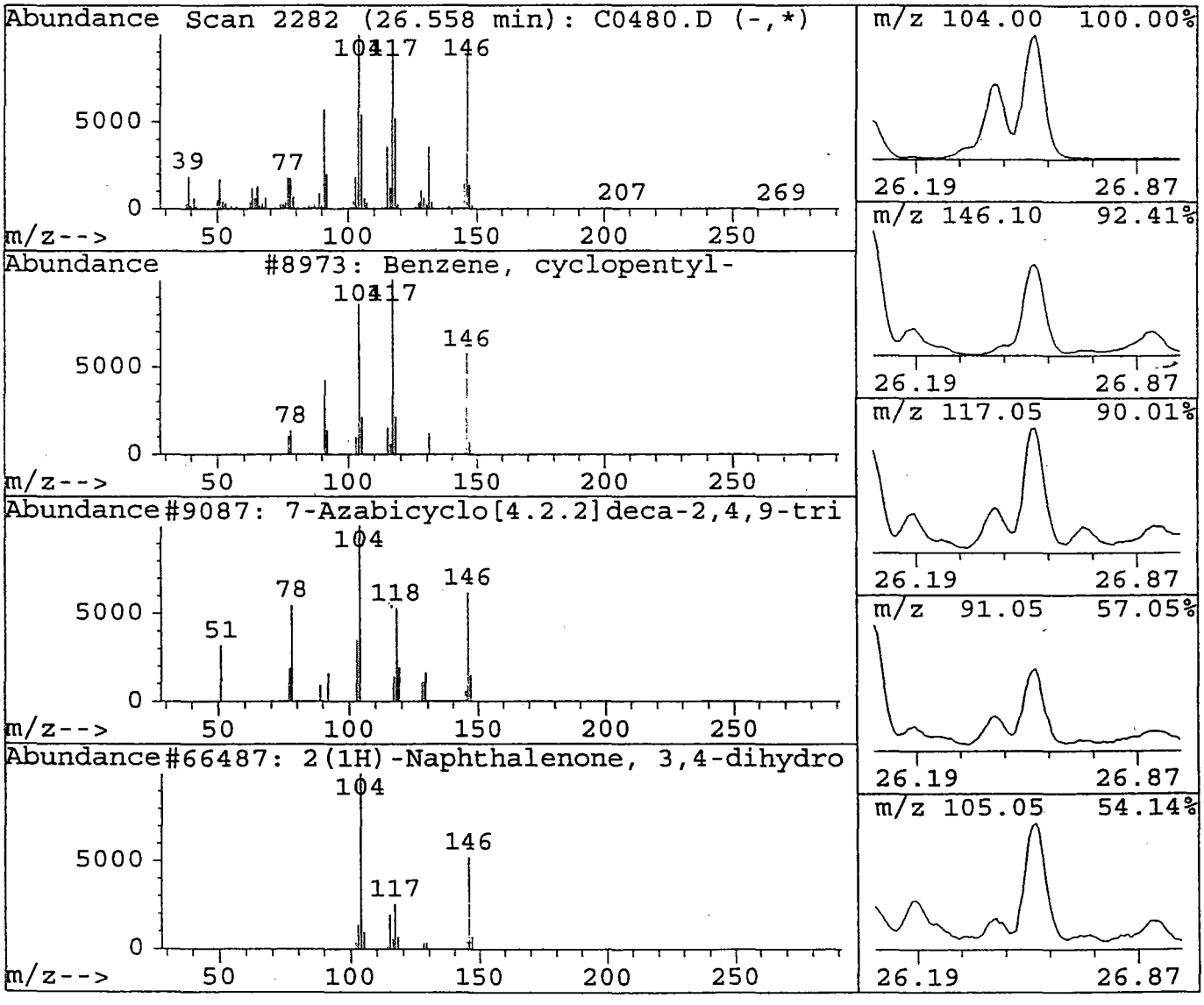
Data File : d:\hpchem\1\data\c0480.d
Acq On : 5 Dec 95 9:25 pm
Sample : 9554552 BLDG 482 MW-2
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
26.56	2.56 ug/L	1718494	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, cyclopentyl-	8973	000700-88-9	58
2	7-Azabicyclo[4.2.2]deca-2,4,9-trien	9087	017198-06-0	47
3	2(1H)-Naphthalenone, 3,4-dihydro-	66487	000530-93-8	35
4	1H-Imidazole, 4,5-dihydro-2-phenyl-	8912	000936-49-2	49
5	Naphthalene, 1,2,3,4-tetrahydro-2-m	66496	003877-19-8	30



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 145

Trip Blank

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# Trip Blank 146

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# Trip Blank 17

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554553V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0475.D

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

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

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

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 109-99-9	Furan, tetrahydro-	10.74	3	J
2.	Column Bleed	23.11	1	J
3.				
4.				
5.				
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Quantitation Report

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

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

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

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

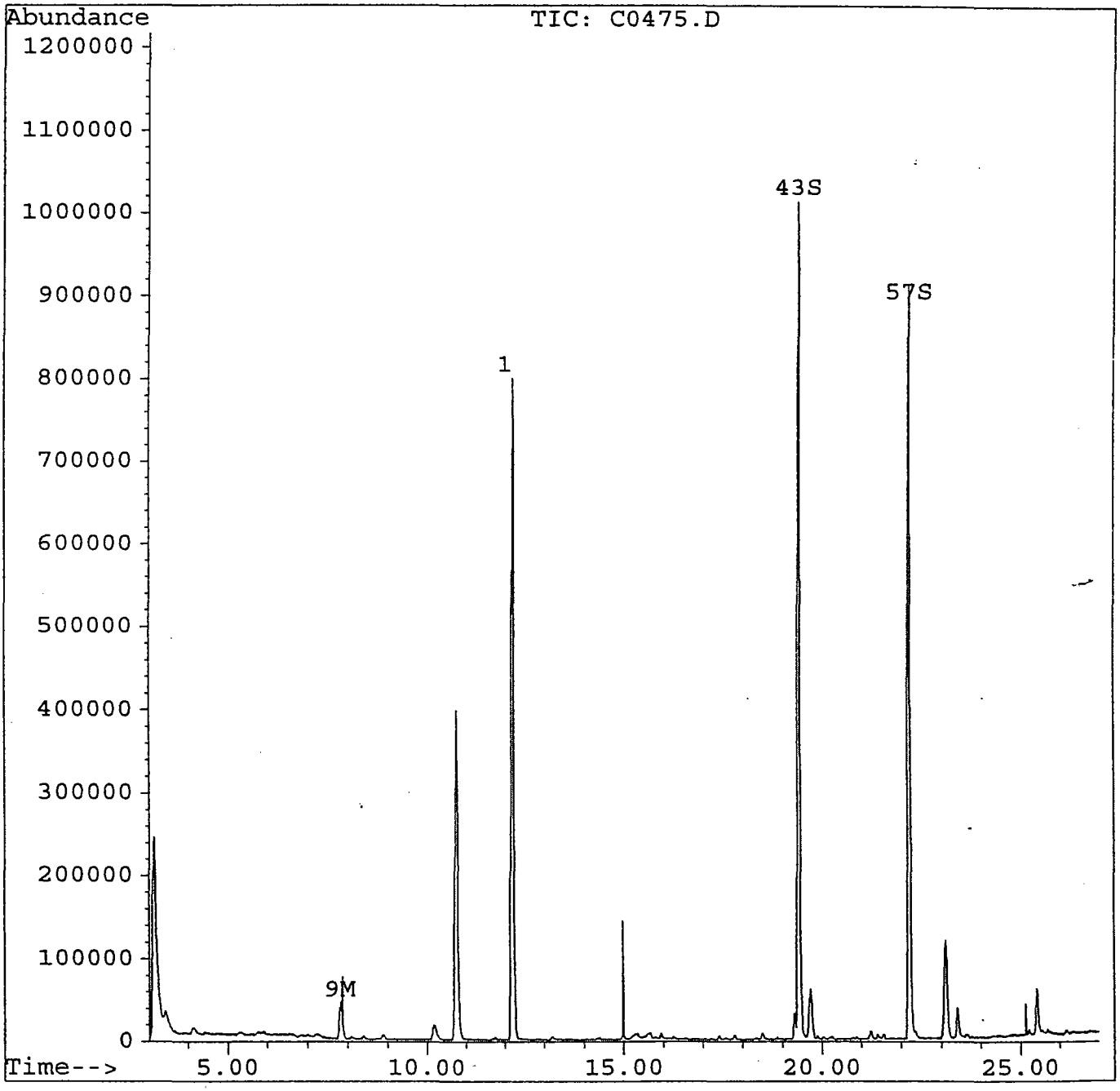
(#) = qualifier out of range (m) = manual integration

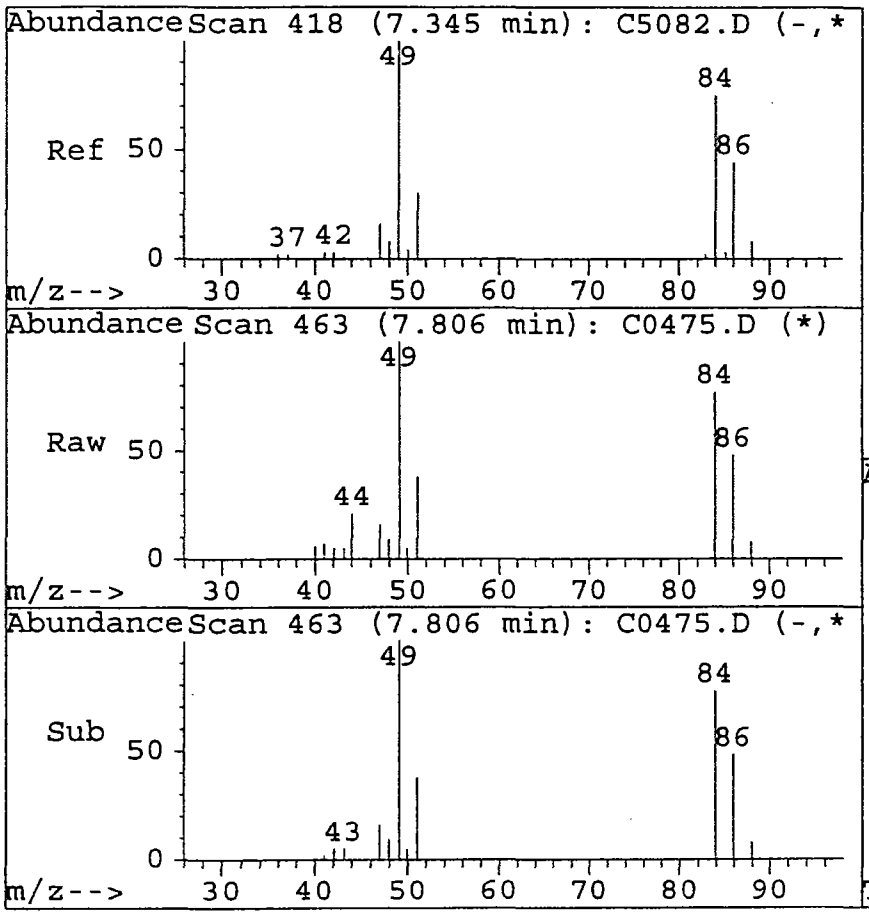
Quantitation Report

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

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

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



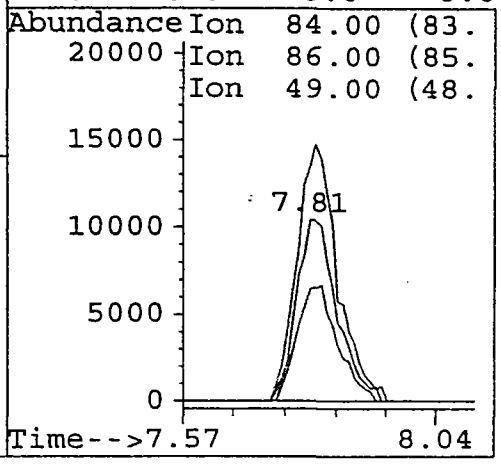


#9
Methylene chloride
Concen: 0.68 ug/L
RT: 7.81 min Scan# 463
Delta R.T. -0.02 min
Lab File: c0475.d
Acq: 5 Dec 95 6:33 pm

150

Tgt Ion:84 Resp: 54437

Ion	Ratio	Lower	Upper
84	100		
86	62.1	45.2	85.2
49	129.6	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

151

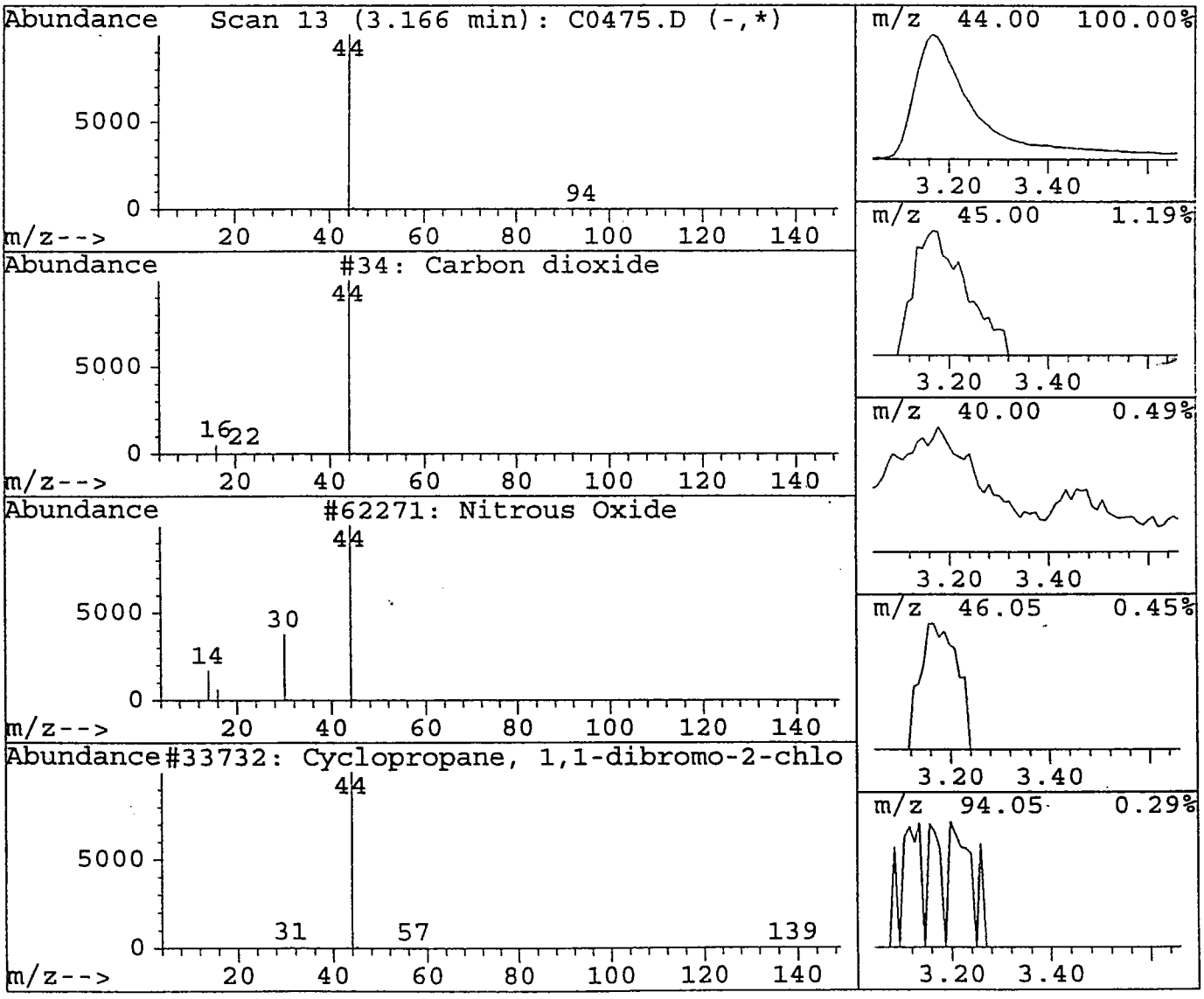
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

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

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

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

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



Library Search Compound Report

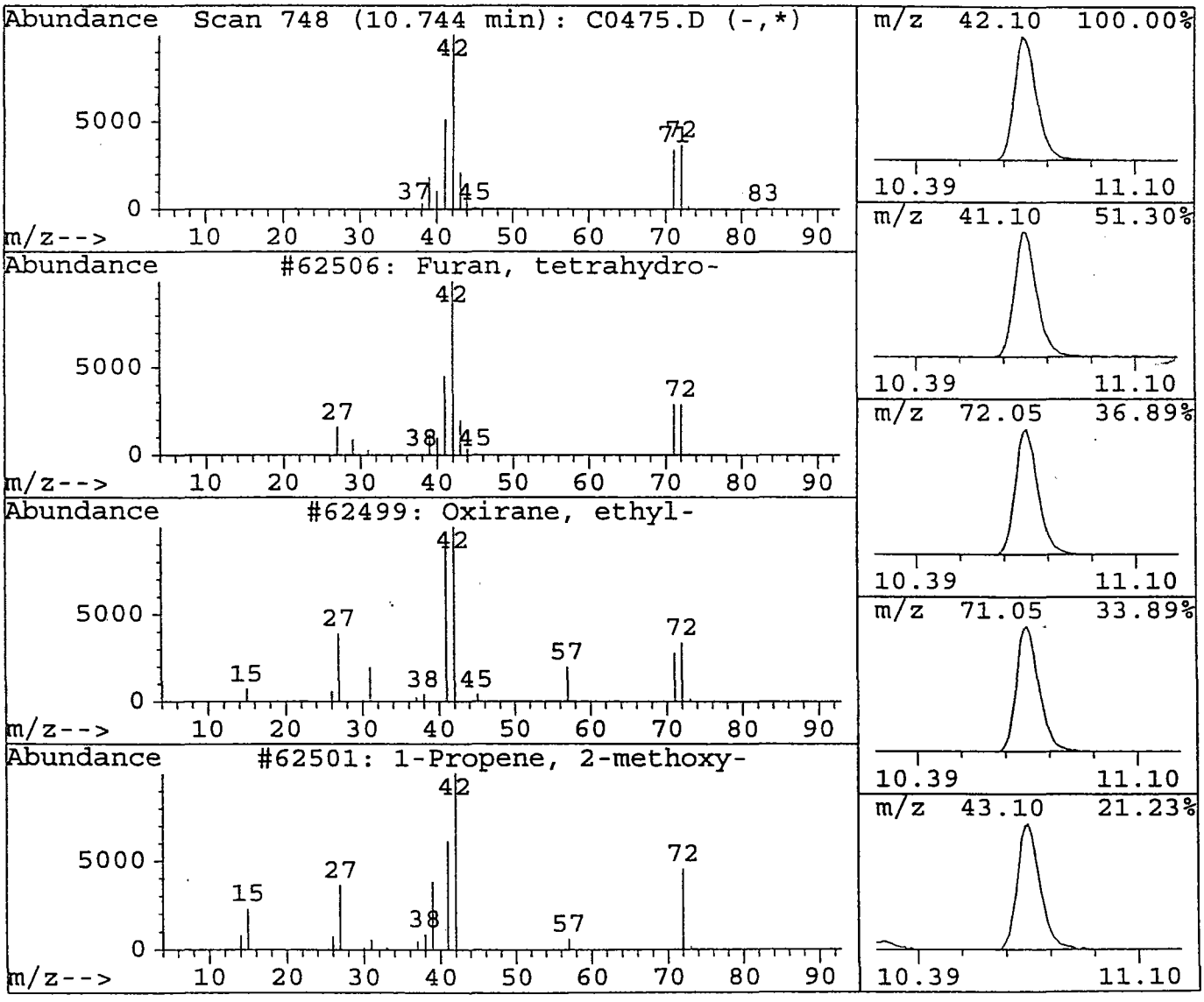
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

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

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

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

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



Library Search Compound Report

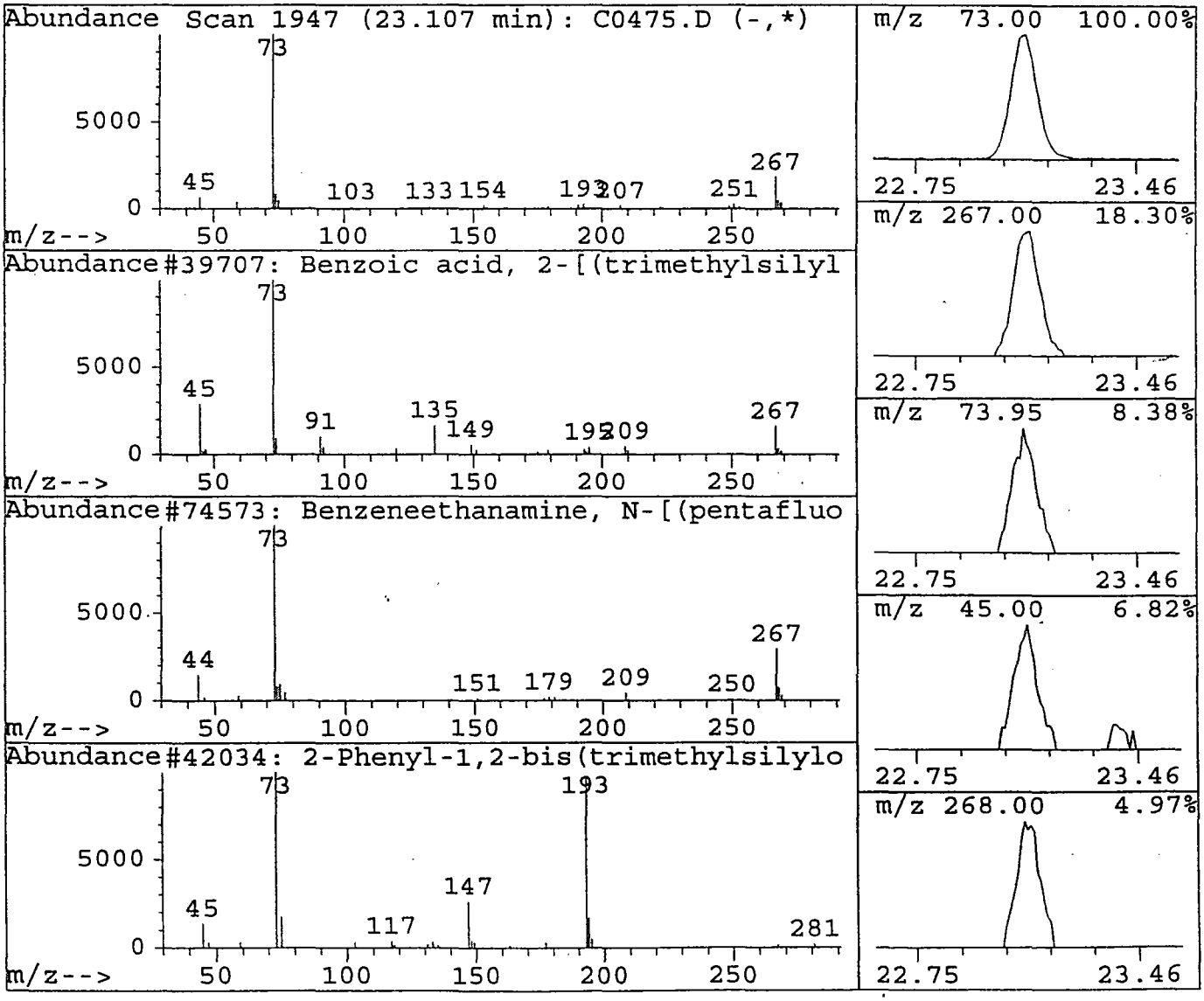
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

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

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

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

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



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VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# Field Blank

154

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

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

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

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

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# Field Blank

155

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

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

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

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

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# Field Blank

151

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

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

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

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

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

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

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

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

Concentration Units:

Number TICs found: 4 (ug/L or ug/Kg) ug/L

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

157

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

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

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

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

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

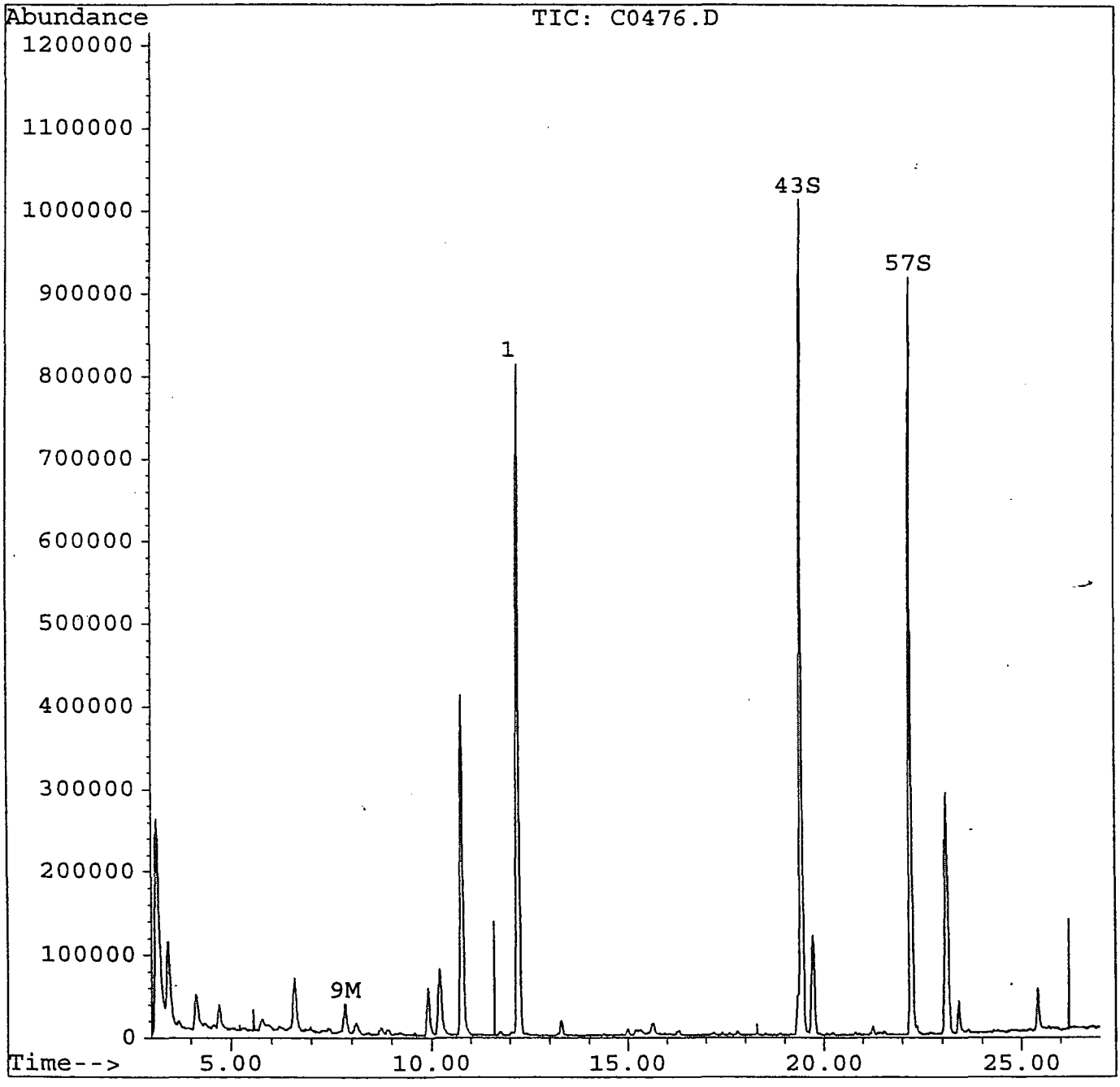
Quantitation Report

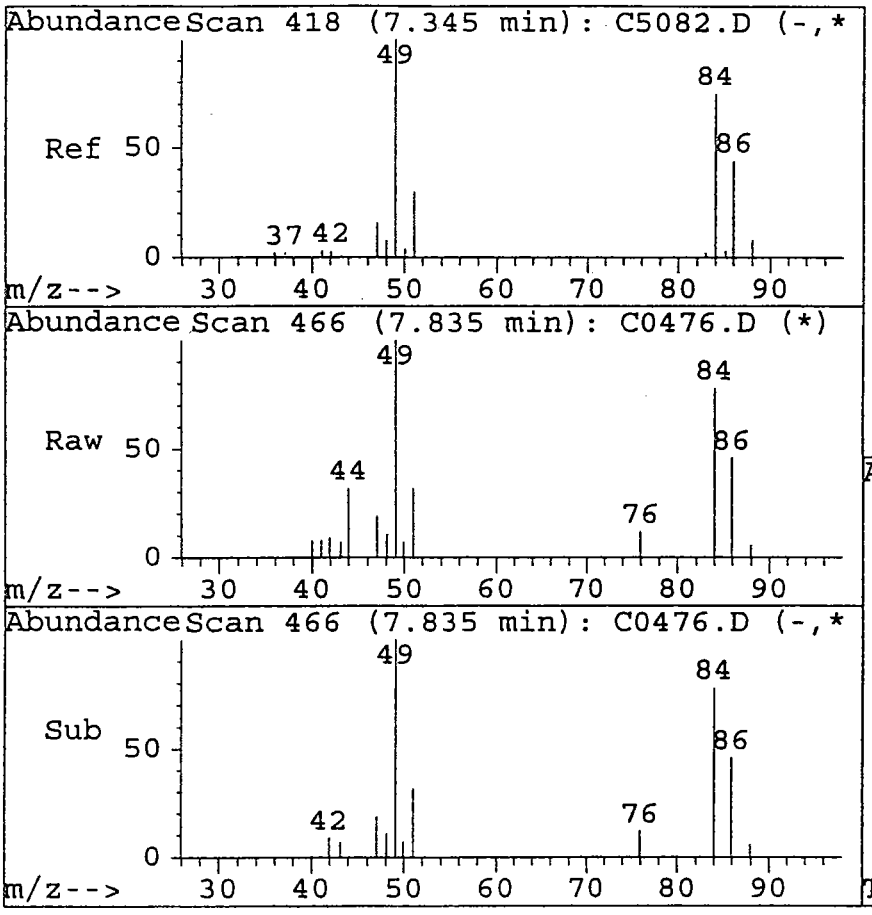
158

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

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

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

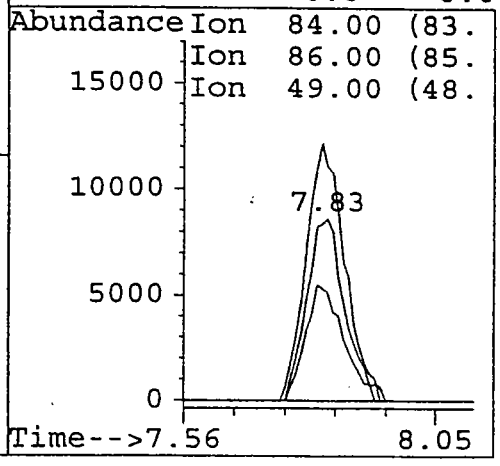




#9
Methylene chloride 159
Concen: 0.56 ug/L
RT: 7.83 min Scan# 466
Delta R.T. 0.01 min
Lab File: c0476.d
Acq: 5 Dec 95 7:07 pm

Tgt Ion:84 Resp: 44990

Ion	Ratio	Lower	Upper
84	100		
86	59.6	45.2	85.2
49	128.5	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

160

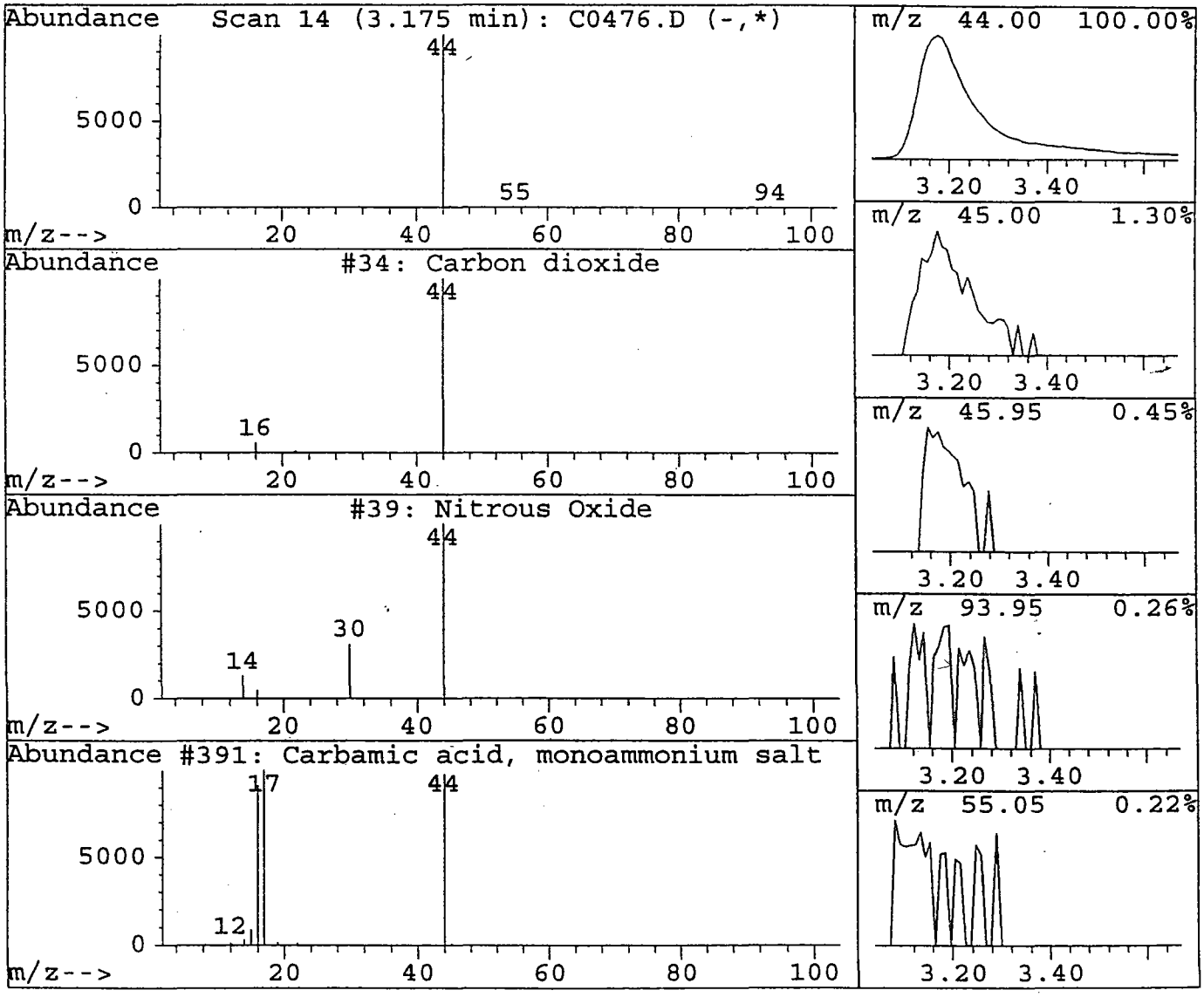
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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

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

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

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



Library Search Compound Report

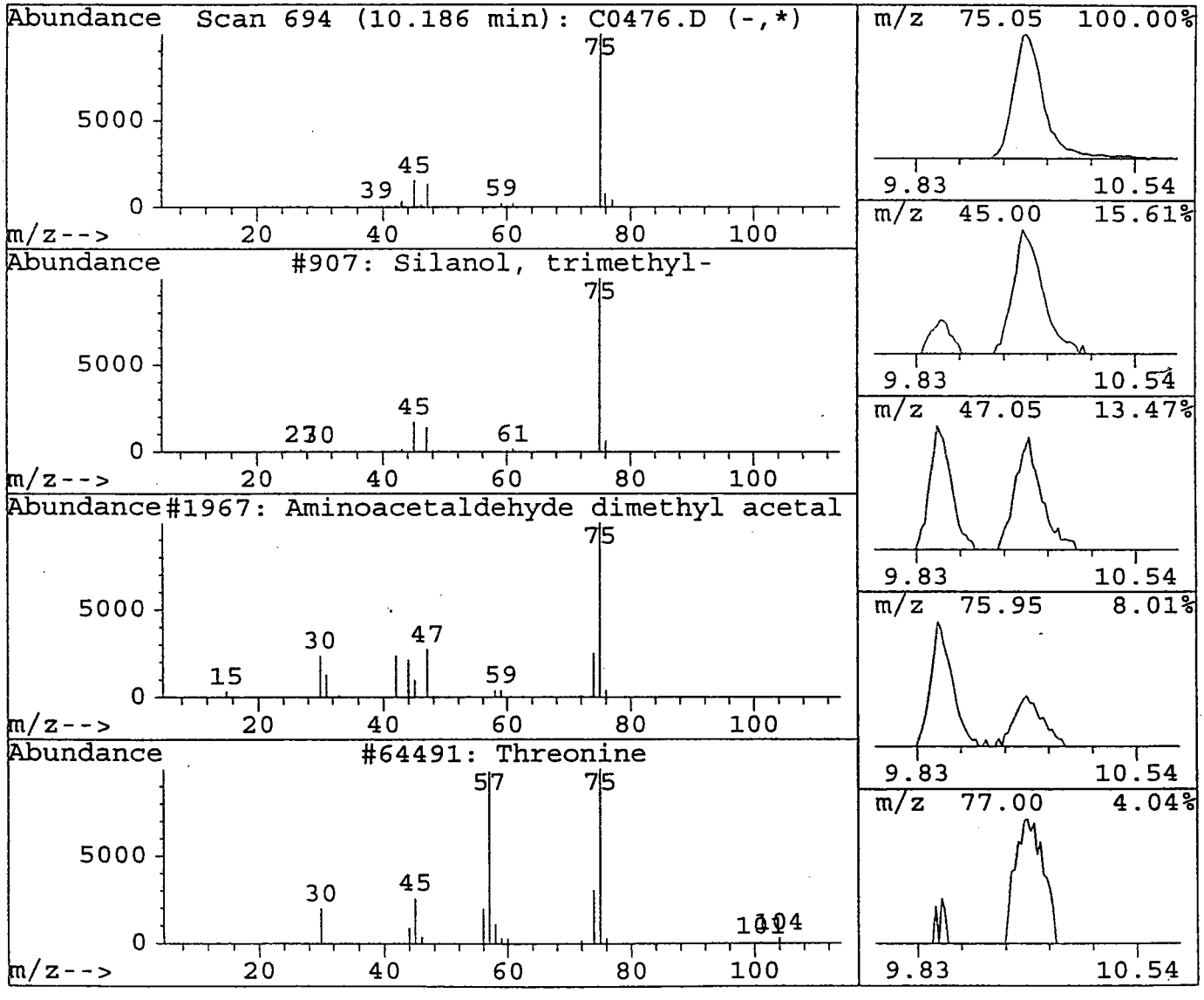
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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

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

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

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



Library Search Compound Report

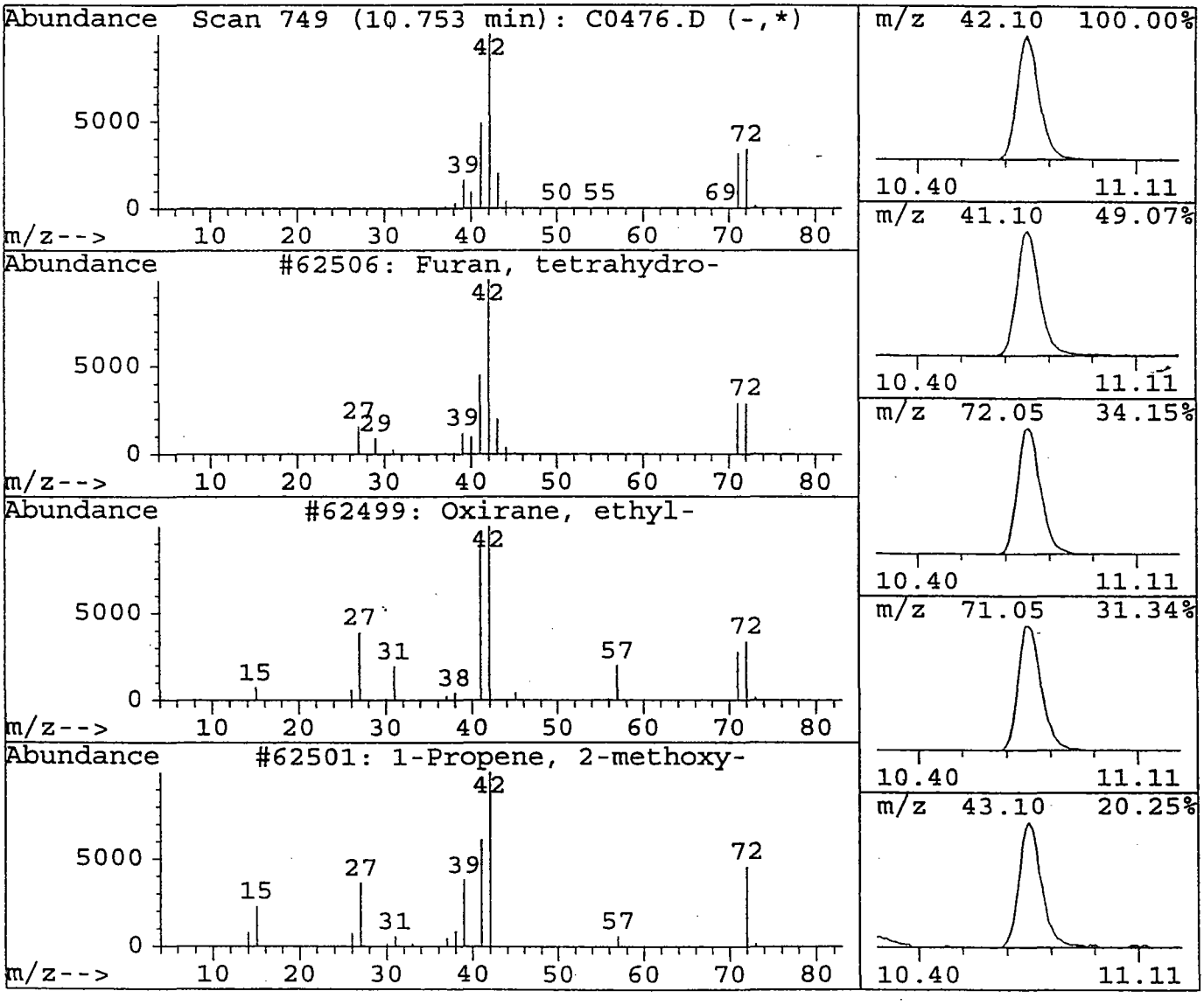
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
10.75	2.92 ug/L	2080661	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Furan, tetrahydro-	62506	000109-99-9	91
2	Oxirane, ethyl-	62499	000106-88-7	39
3	1-Propene, 2-methoxy-	62501	000116-11-0	38
4	3-Buten-1-ol	264	000627-27-0	4
5	Ethenone	29	000463-51-4	3



Library Search Compound Report

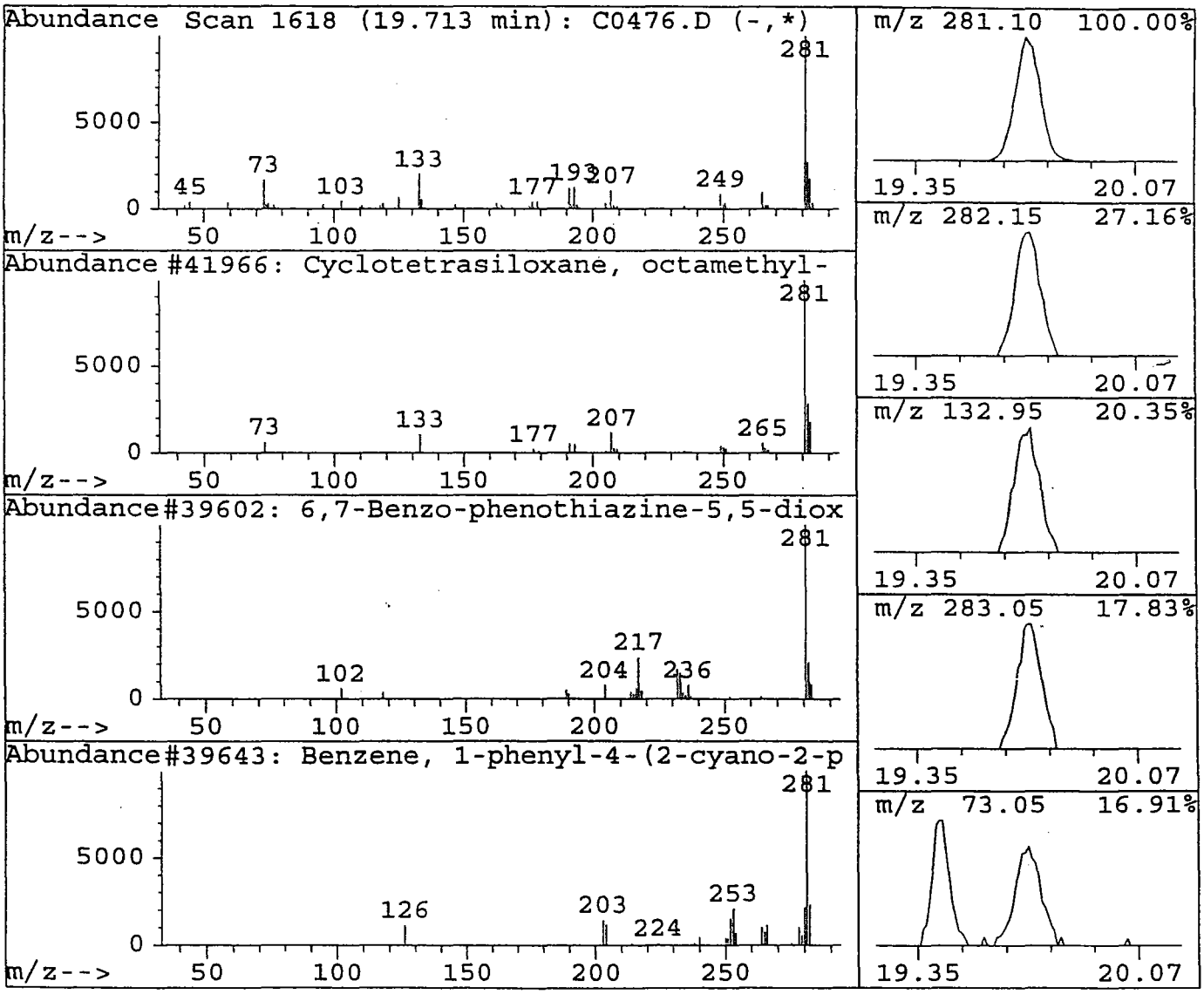
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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

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

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

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



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 165

Duplicate

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554555V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0481.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# Duplicate

166

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

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

Matrix: (soil/water) WATER Lab Sample ID: 9554555V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0481.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	1.2	
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	6.8	
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# Duplicate 167

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

Project No. FT. MONMOUTH NJ Bldg: 482 NJDEP MW#: DUP Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554555V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0481.D

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

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

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

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

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.13	2	J
2. 99-87-6	Benzene, 1-methyl-4-(1-methy	21.84	4	J
3.	Unknown	23.07	6	J
4.	Unknown	23.10	3	J
5.	Unknown	23.12	2	J
6. 4912-92-9	1H-Indene, 2,3-dihydro-1,1-d	23.39	4	J
7. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	23.86	3	J
8.	Unknown	24.11	7	J
9.	Unknown	24.24	2	J
10.	Unknown	25.27	2	J
11.	Unknown	25.87	4	J
12.	Unknown	26.05	9	J
13.	Unknown	26.18	4	J
14.	Unknown	26.55	3	J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML
Quant Time: Dec 6 10:46 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.21	96	1562330	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.42	95	919296	5.45	ug/L	109.00%
57) 1,2-Dichlorobenzene-d4	22.22	152	542456	5.13	ug/L	102.58%
Target Compounds						Qvalue
51) tert-Butylbenzene	20.79	119	437709	1.18	ug/L	98
53) sec-Butylbenzene	21.19	105	3408202	6.77	ug/L	99

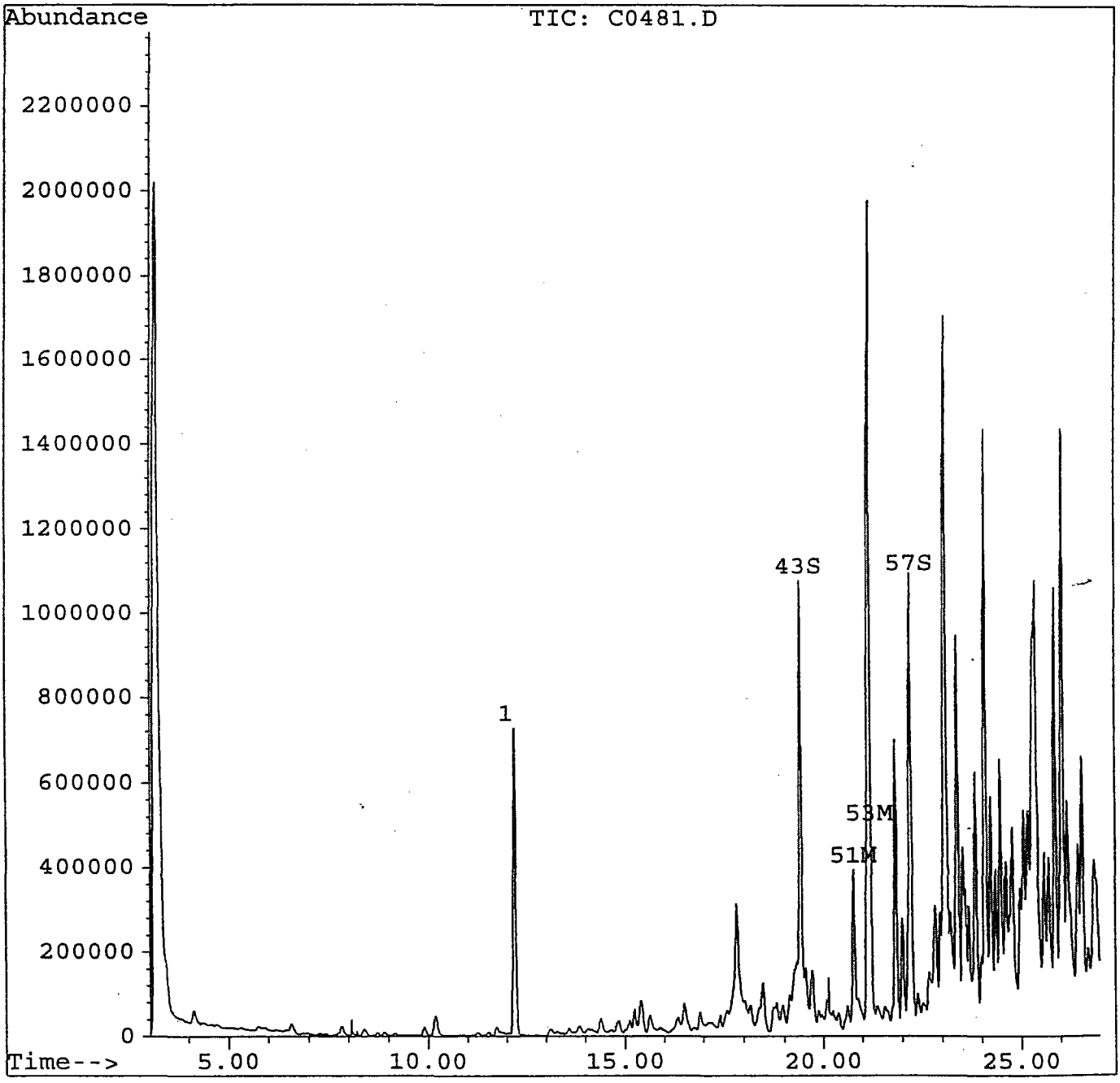
(#) = qualifier out of range (m) = manual integration

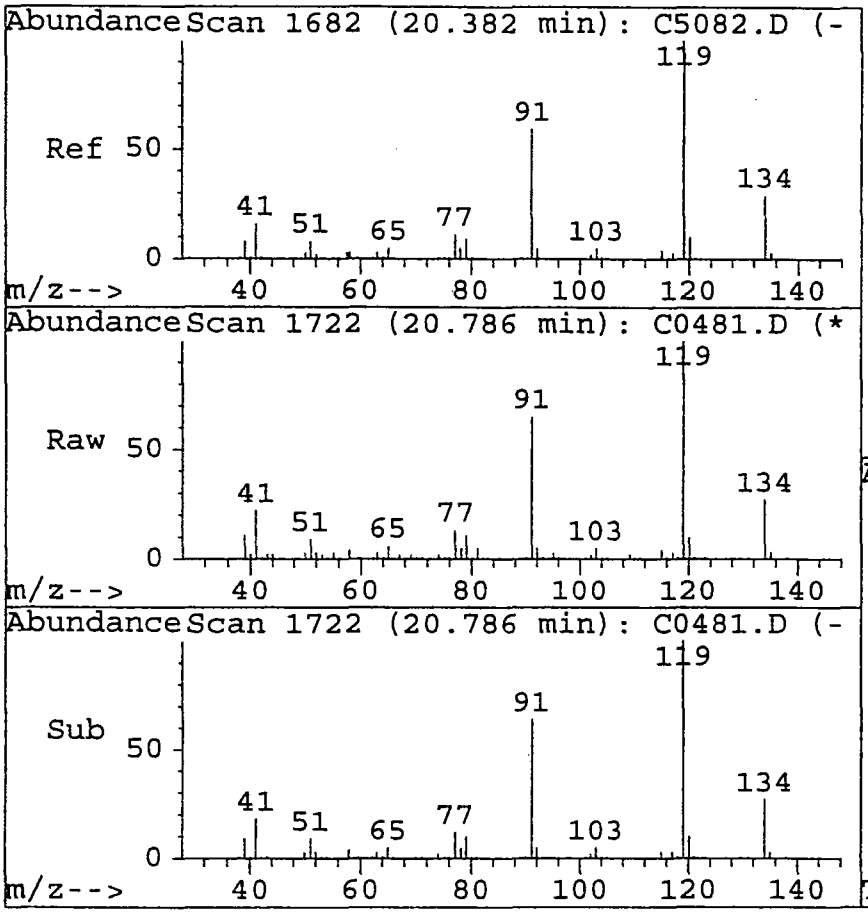
Quantitation Report

Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML
Quant Time: Dec 6 10:46 1995

Vial: 10 169
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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

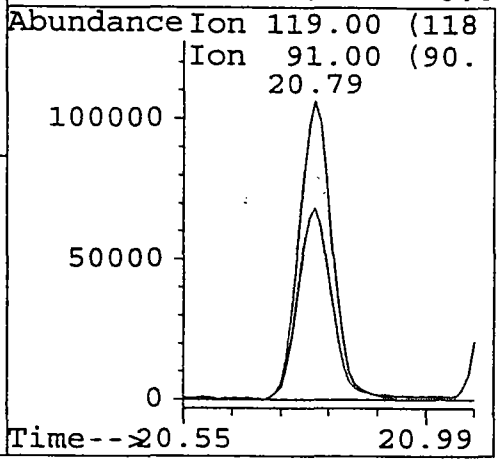


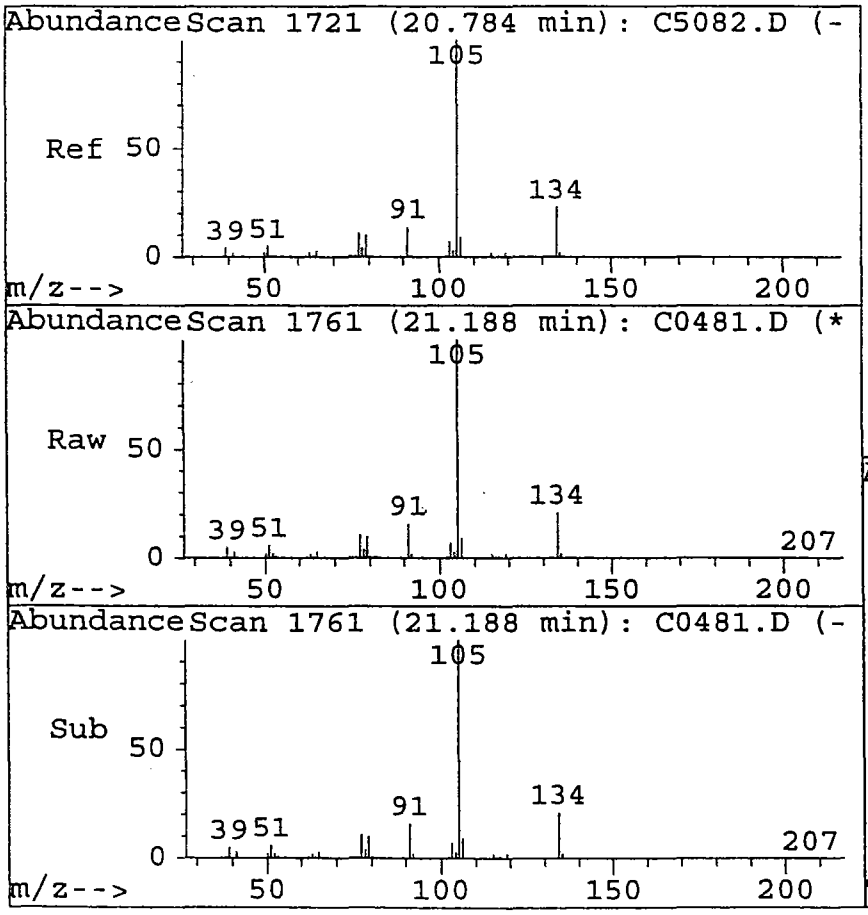


#51
tert-Butylbenzene
Concen: 1.18 ug/L
RT: 20.79 min Scan# 1722
Delta R.T. -0.03 min
Lab File: c0481.d
Acq: 5 Dec 95 10:00 pm

Tgt Ion:119 Resp: 437709

Ion	Ratio	Lower	Upper
119	100		
91	64.1	46.1	86.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

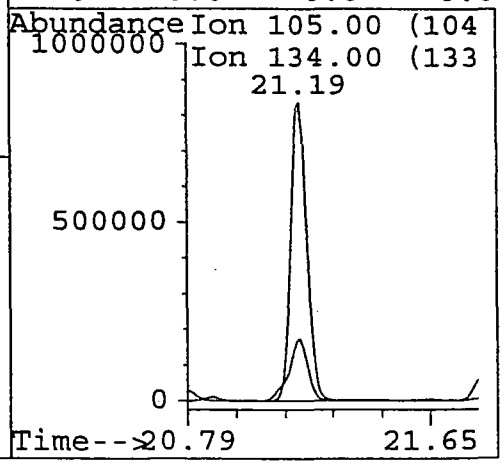




#53
sec-Butylbenzene
Concen: 6.77 ug/L
RT: 21.19 min Scan# 1761
Delta R.T. -0.03 min
Lab File: c0481.d
Acq: 5 Dec 95 10:00 pm

Tgt Ion:105 Resp: 3408202

Ion	Ratio	Lower	Upper
105	100		
134	20.9	0.2	40.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

171

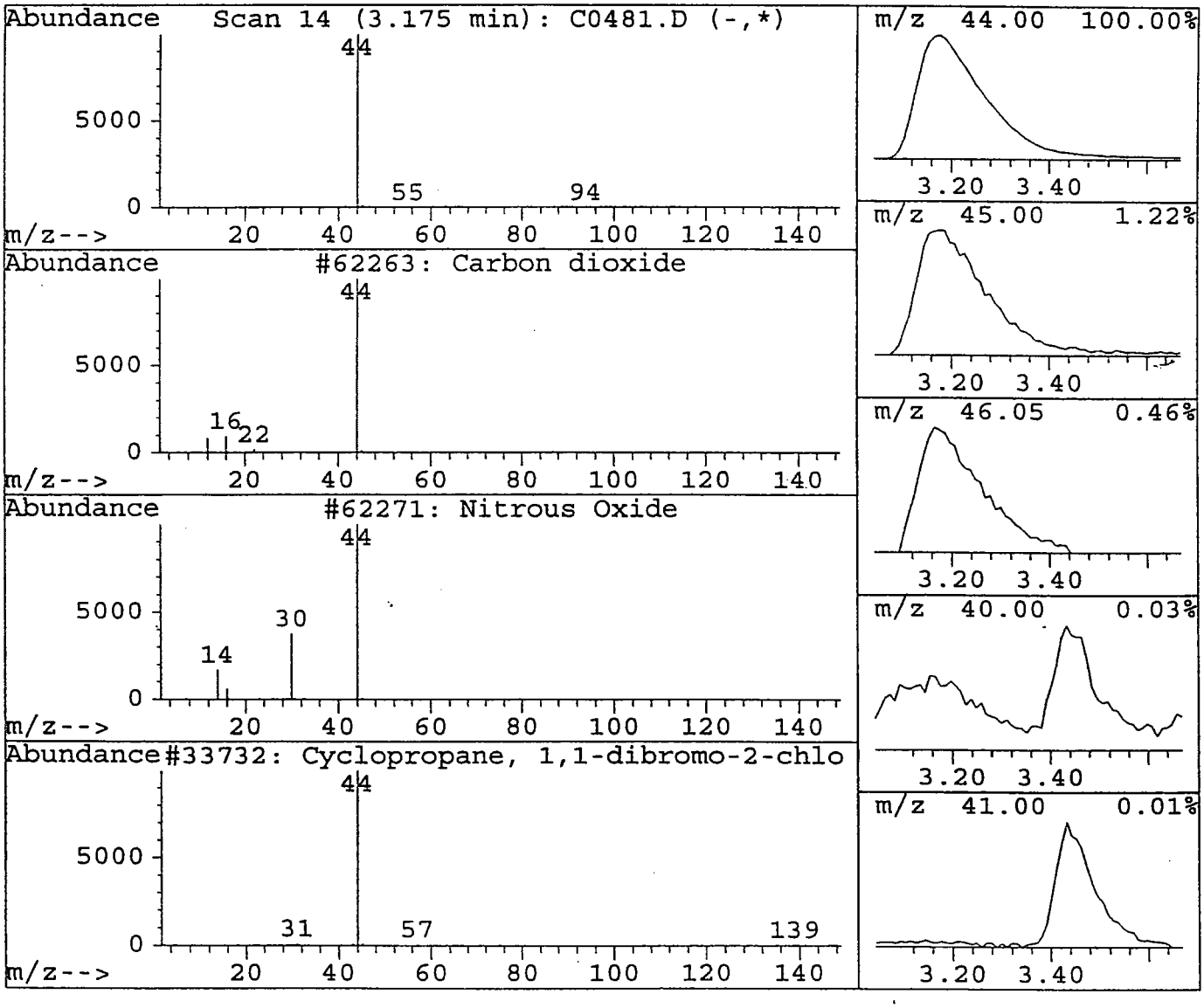
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
3.18	29.36 ug/L	18983979	Fluorobenzene	12.21

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



Library Search Compound Report

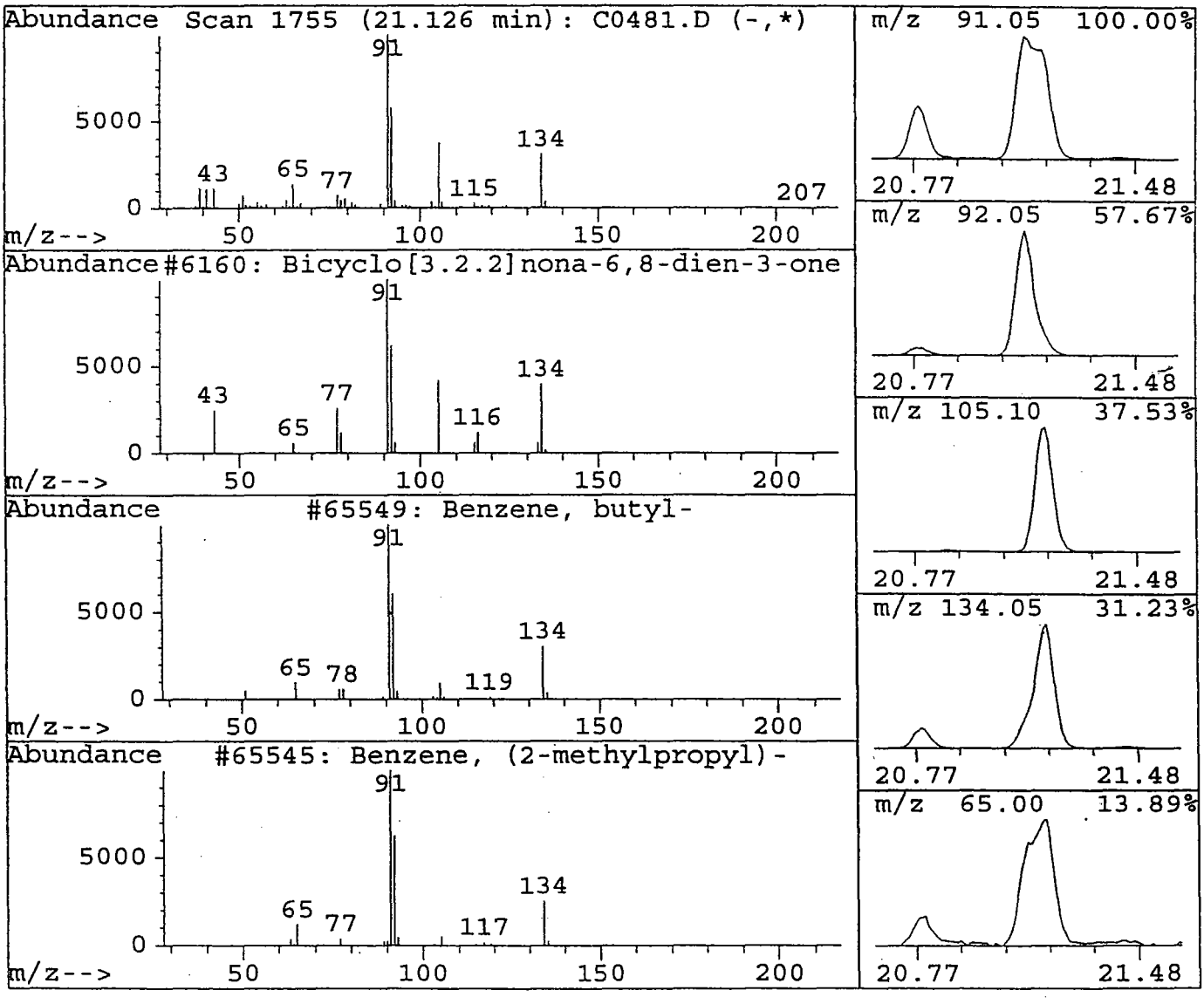
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
21.13	2.40 ug/L	1551879	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Bicyclo[3.2.2]nona-6,8-dien-3-one	6160	026788-91-0	64
2	Benzene, butyl-	65549	000104-51-8	81
3	Benzene, (2-methylpropyl)-	65545	000538-93-2	76
4	Benzene, hexyl-	13058	001077-16-3	37
5	Phenylethyl Alcohol	64704	000060-12-8	43



Library Search Compound Report

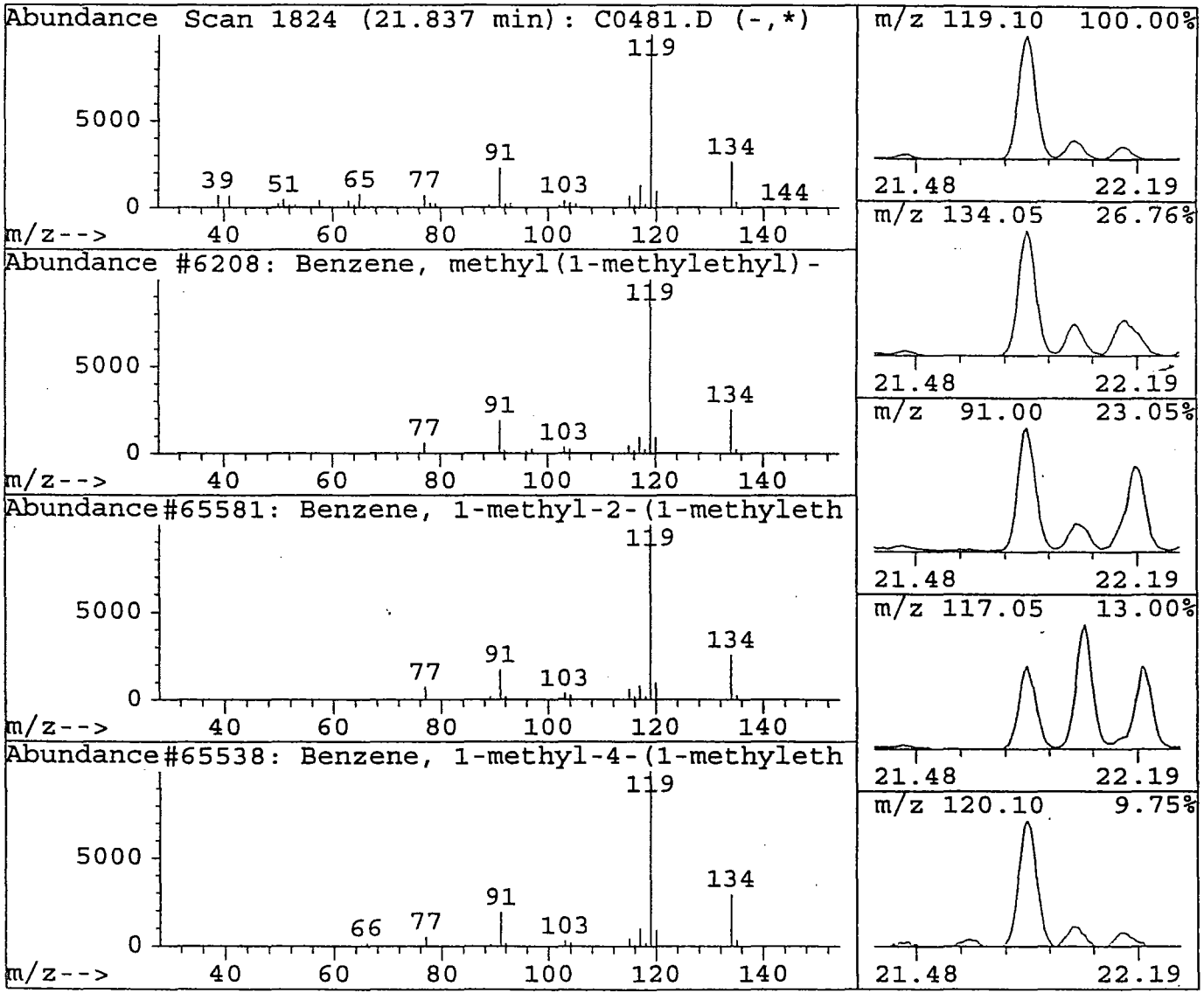
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
21.84	4.23 ug/L	2736477	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, methyl(1-methylethyl)-	6208	025155-15-1	94
2	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
3	Benzene, 1-methyl-4-(1-methylethyl)	65538	000099-87-6	95
4	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	91
5	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	90



Library Search Compound Report

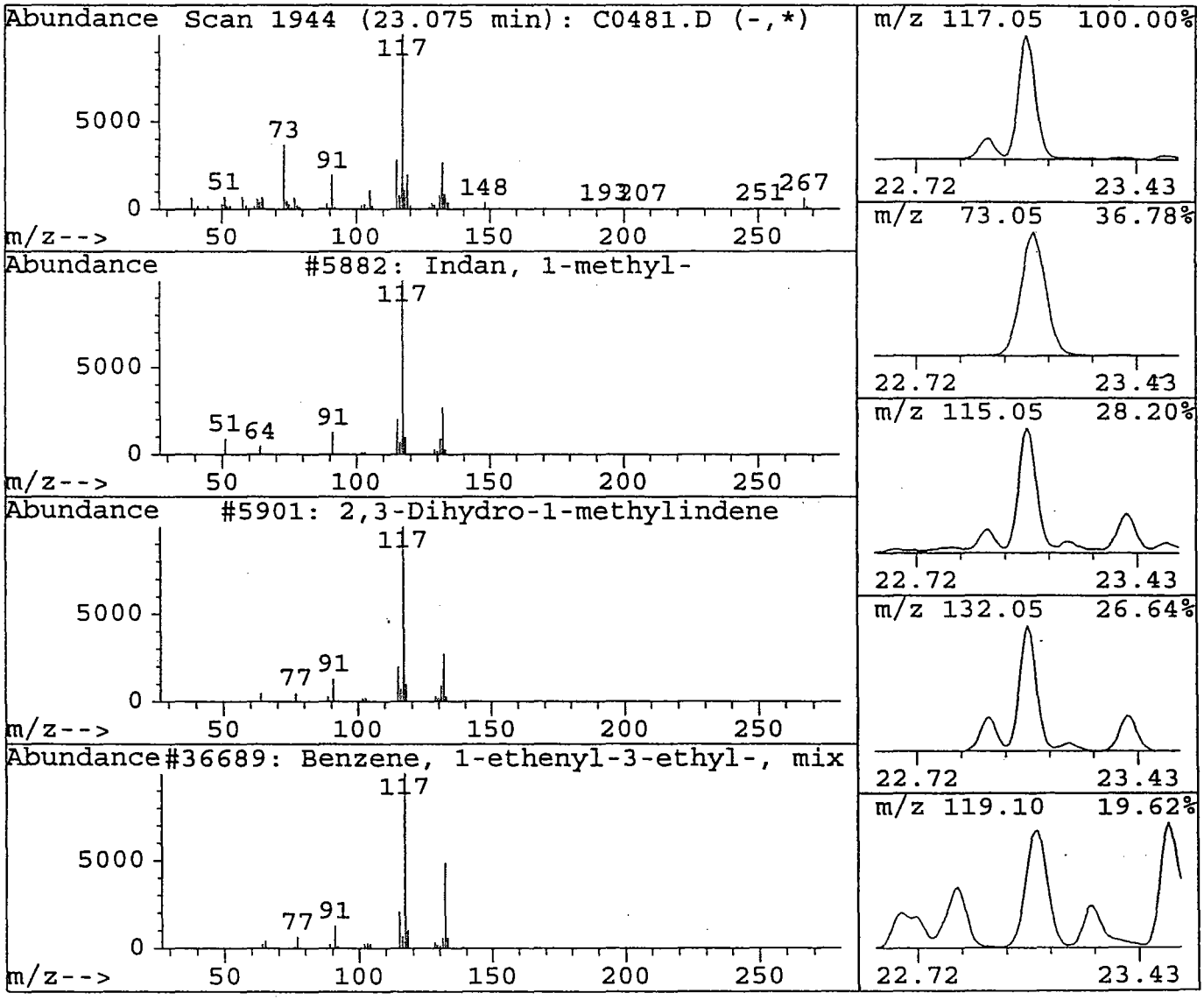
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.07	6.44 ug/L	4162352	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	60
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	60
3	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	43
4	Benzene, 1-ethenyl-4-ethyl-	5889	003454-07-7	32
5	Benzene, 1-ethenyl-3-ethyl-	5902	007525-62-4	43



Library Search Compound Report

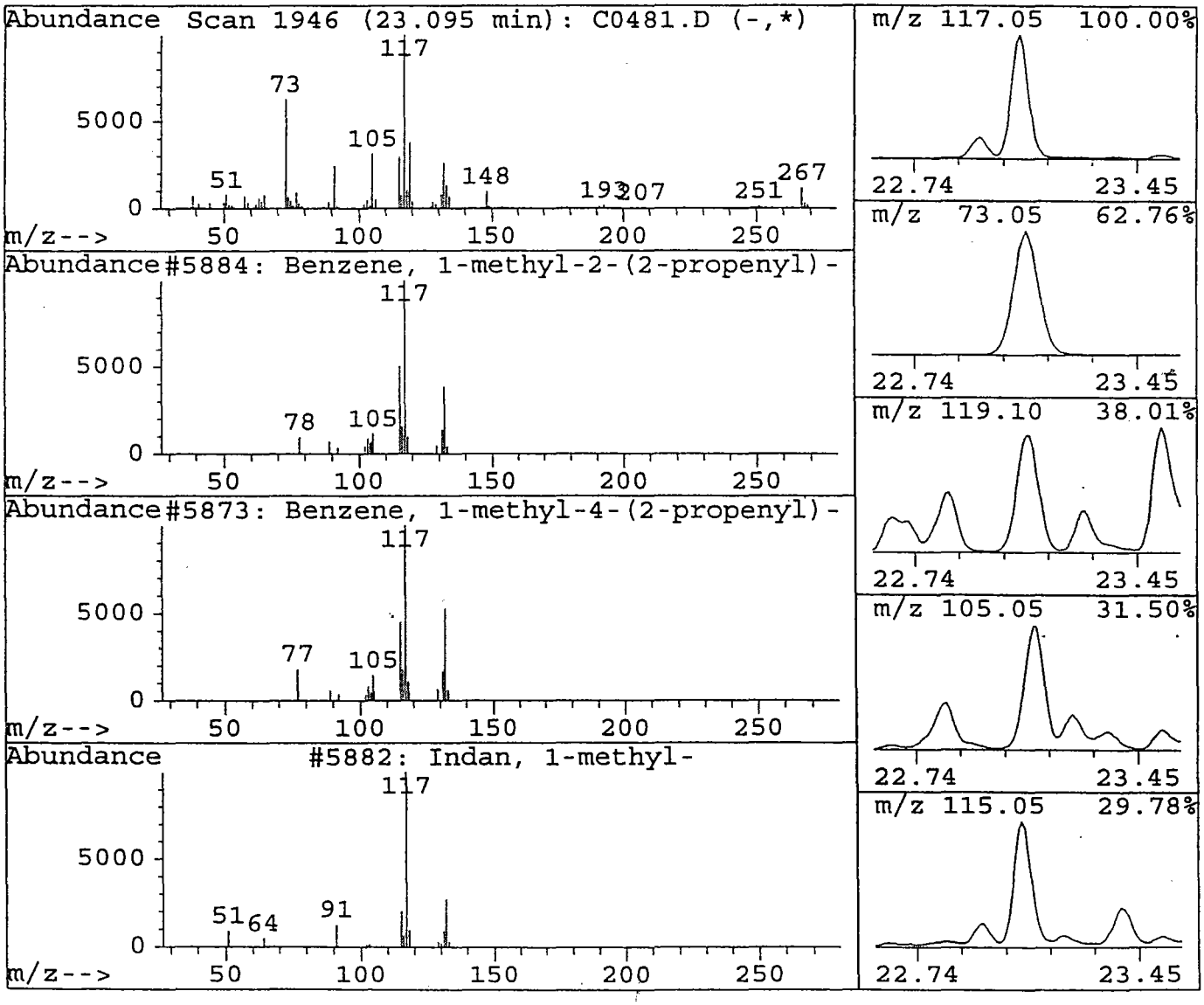
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.10	2.65 ug/L	1715188	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(2-propenyl)-	5884	001587-04-8	38
2	Benzene, 1-methyl-4-(2-propenyl)-	5873	003333-13-9	18
3	Indan, 1-methyl-	5882	000767-58-8	55
4	2,3-Dihydro-1-methylindene	5901	027133-93-3	46
5	Benzene, 1-ethenyl-4-ethyl-	5889	003454-07-7	32



Library Search Compound Report

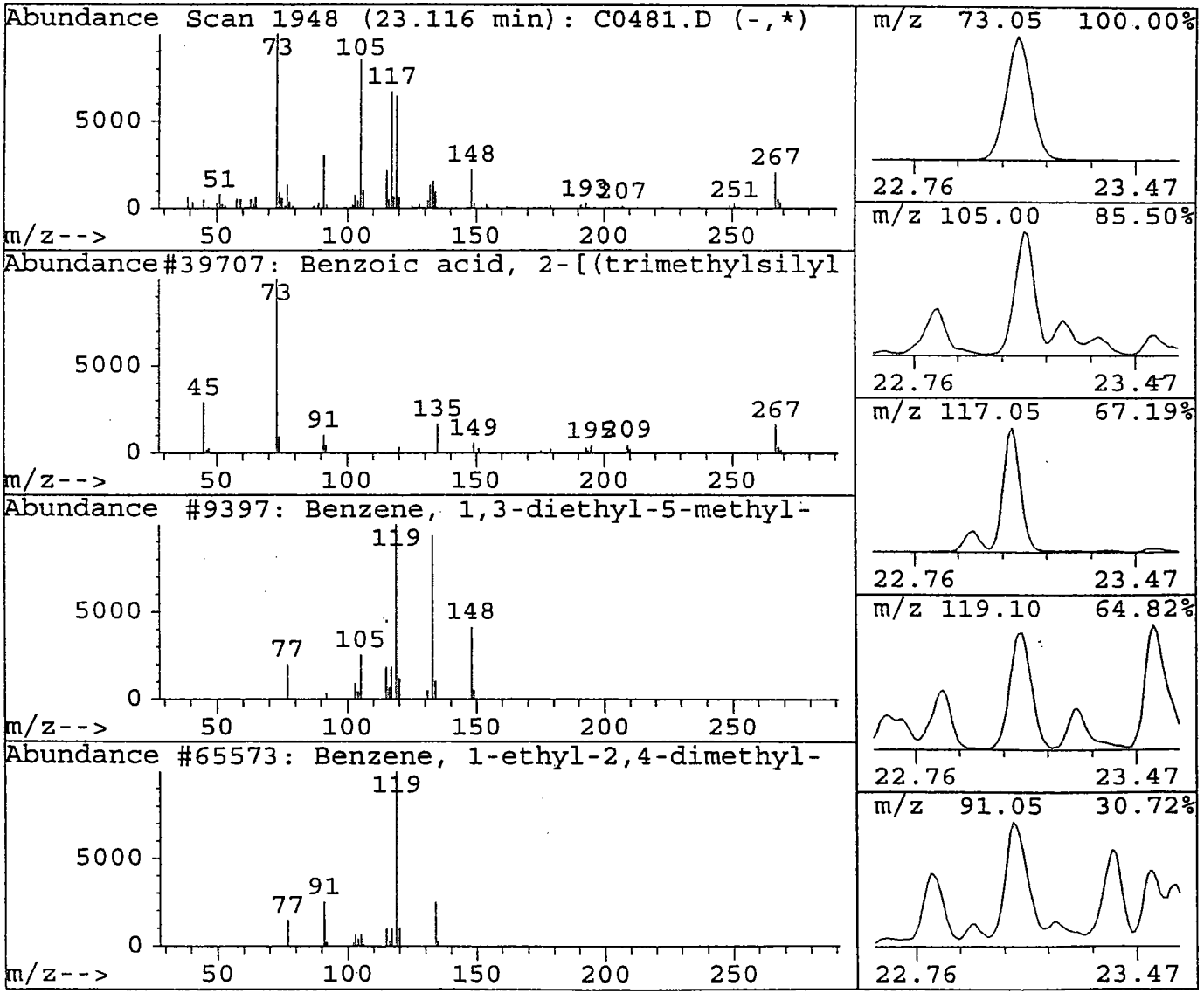
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.12	1.91 ug/L	1232664	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	10
2	Benzene, 1,3-diethyl-5-methyl-	9397	002050-24-0	46
3	Benzene, 1-ethyl-2,4-dimethyl-	65573	000874-41-9	9
4	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	9
5	Indan, 1-methyl-	5882	000767-58-8	14



Library Search Compound Report

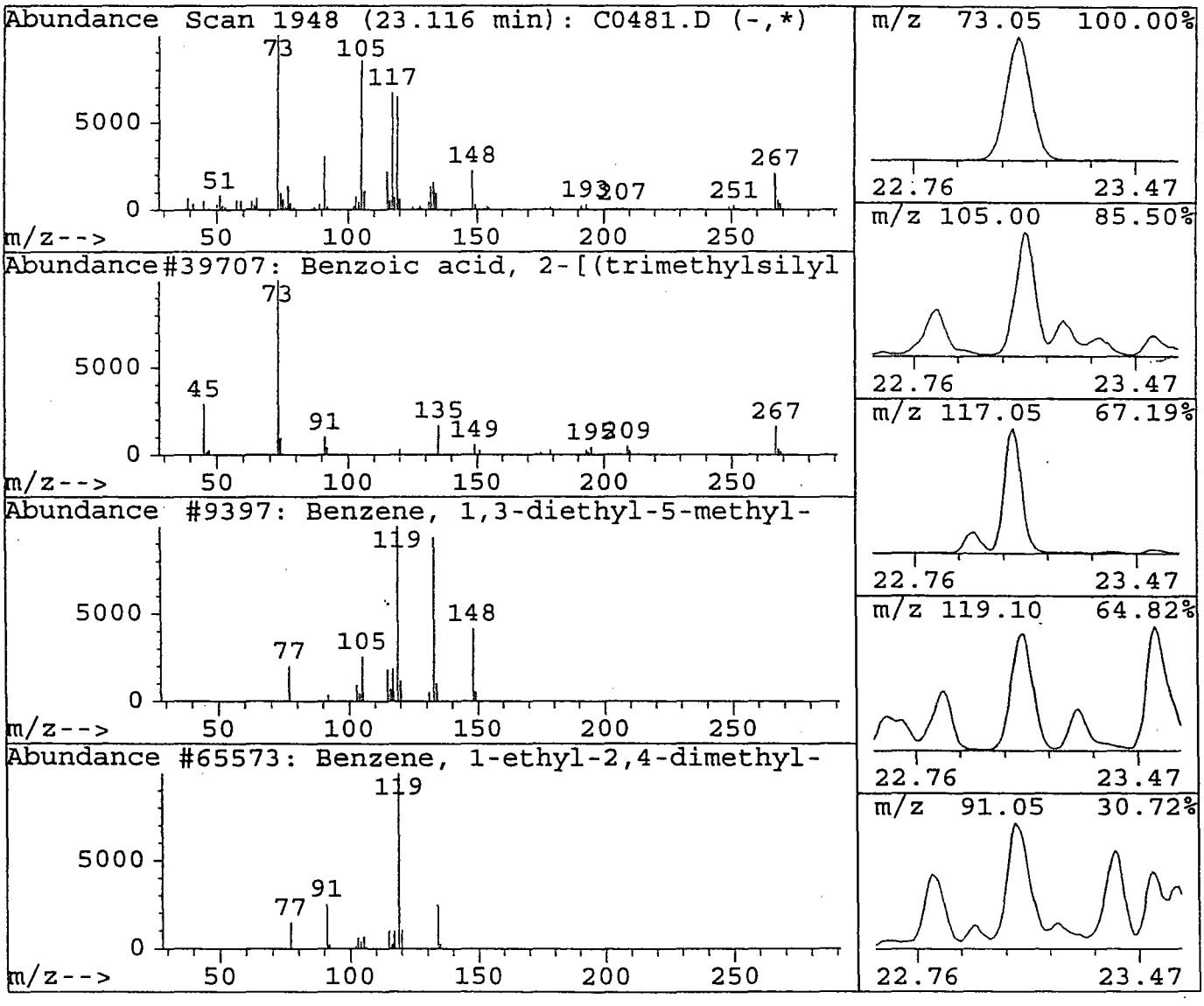
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.12	1.91 ug/L	1232664	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	10
2	Benzene, 1,3-diethyl-5-methyl-	9397	002050-24-0	46
3	Benzene, 1-ethyl-2,4-dimethyl-	65573	000874-41-9	9
4	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	9
5	Indan, 1-methyl-	5882	000767-58-8	14



Library Search Compound Report

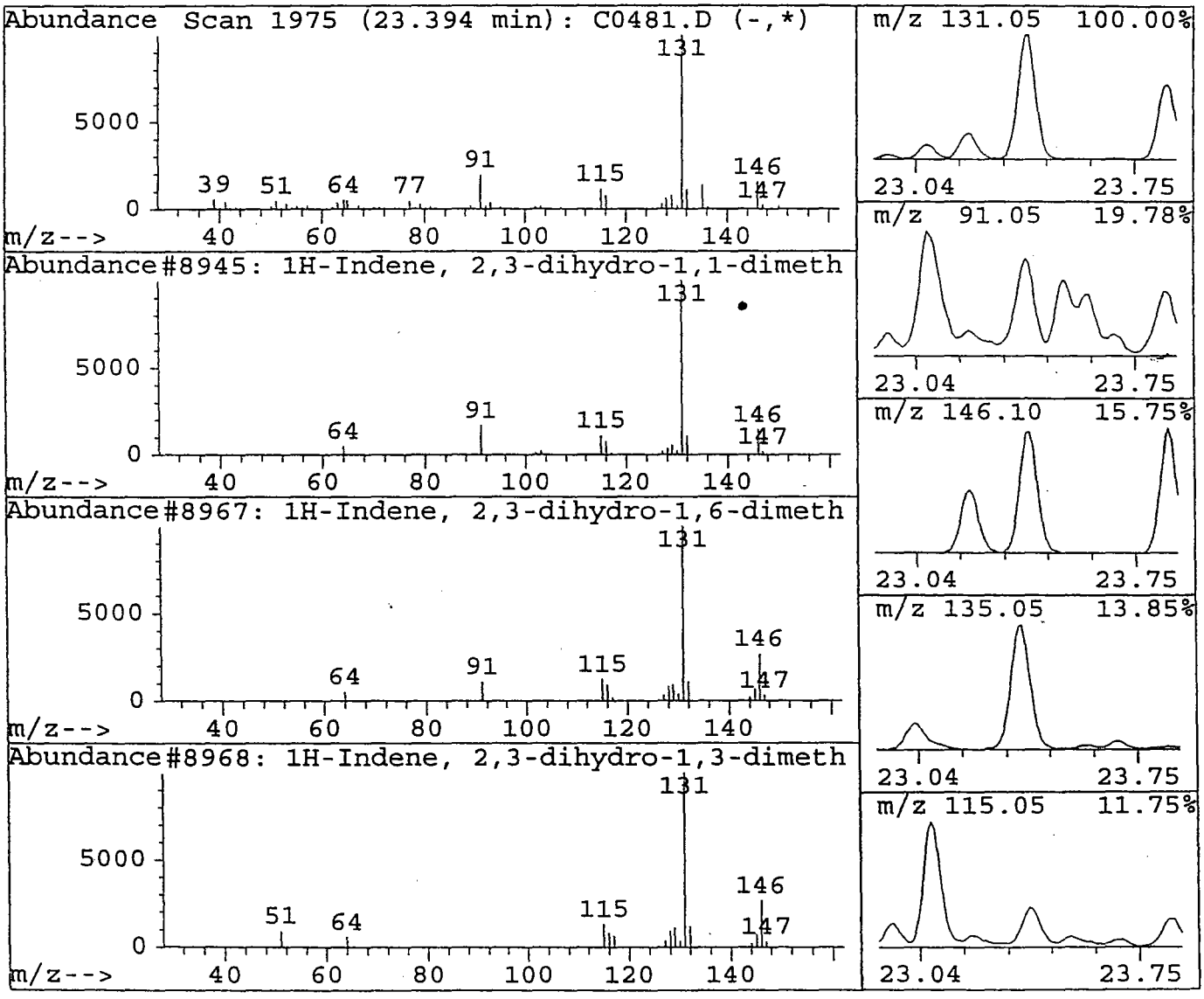
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.39	4.43 ug/L	2862969	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	90
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	46
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	60
4	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	43
5	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	37



Library Search Compound Report

178

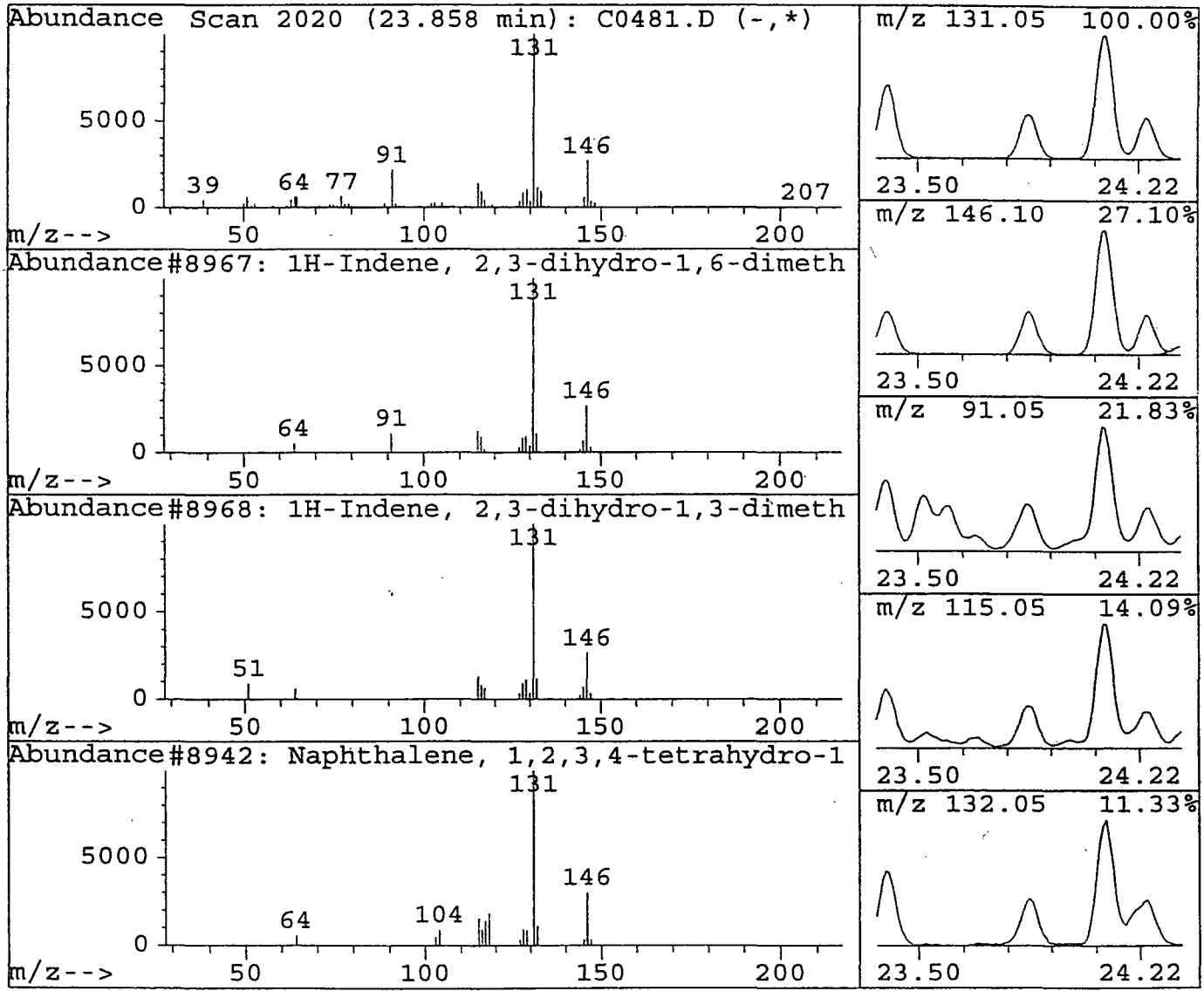
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
23.86	3.09 ug/L	1995490	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	94
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	50
3	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90
4	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	40
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	72



Library Search Compound Report

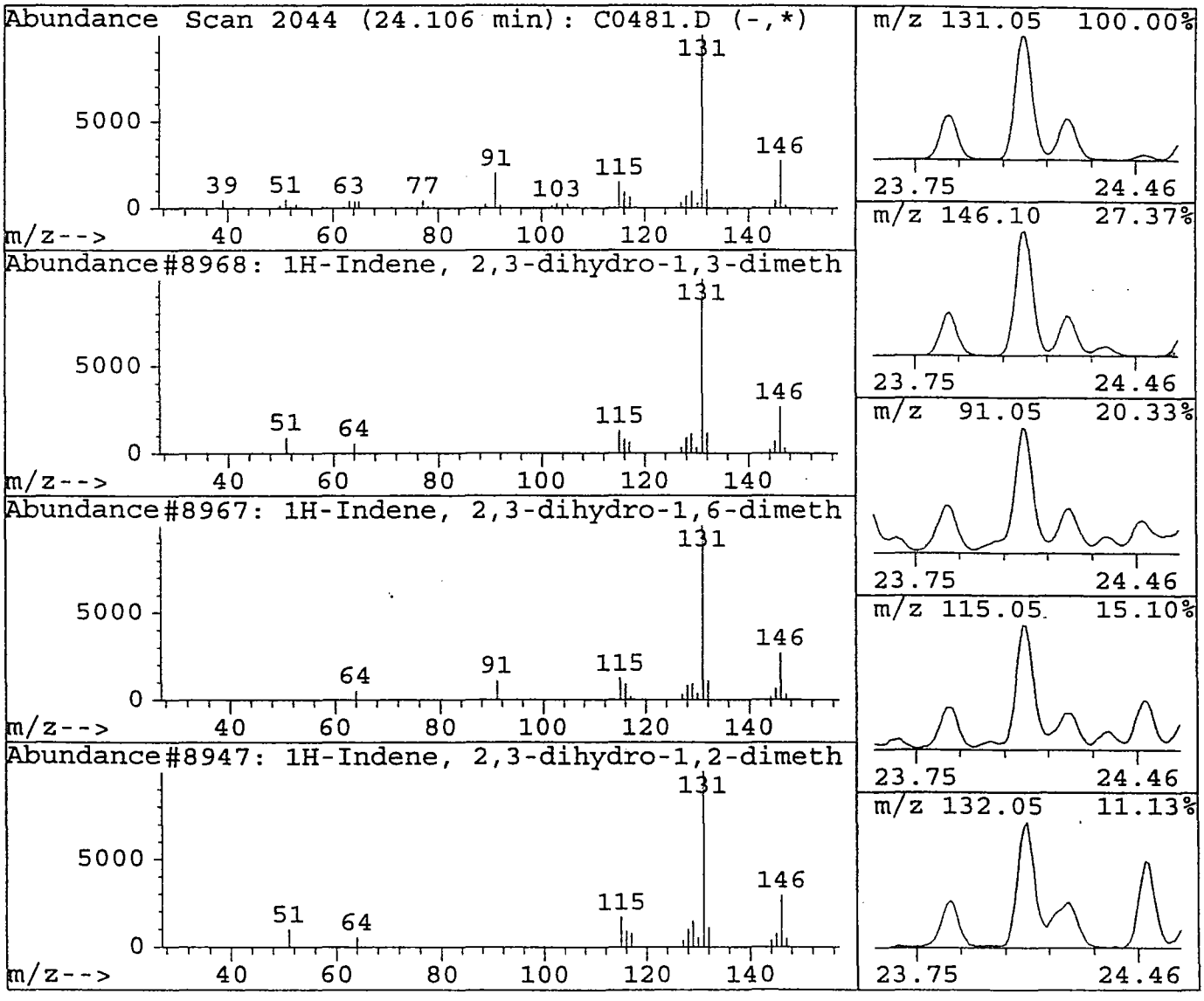
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
24.11	7.16 ug/L	4628254	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	86
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	50
3	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	53
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	64
5	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90



Library Search Compound Report

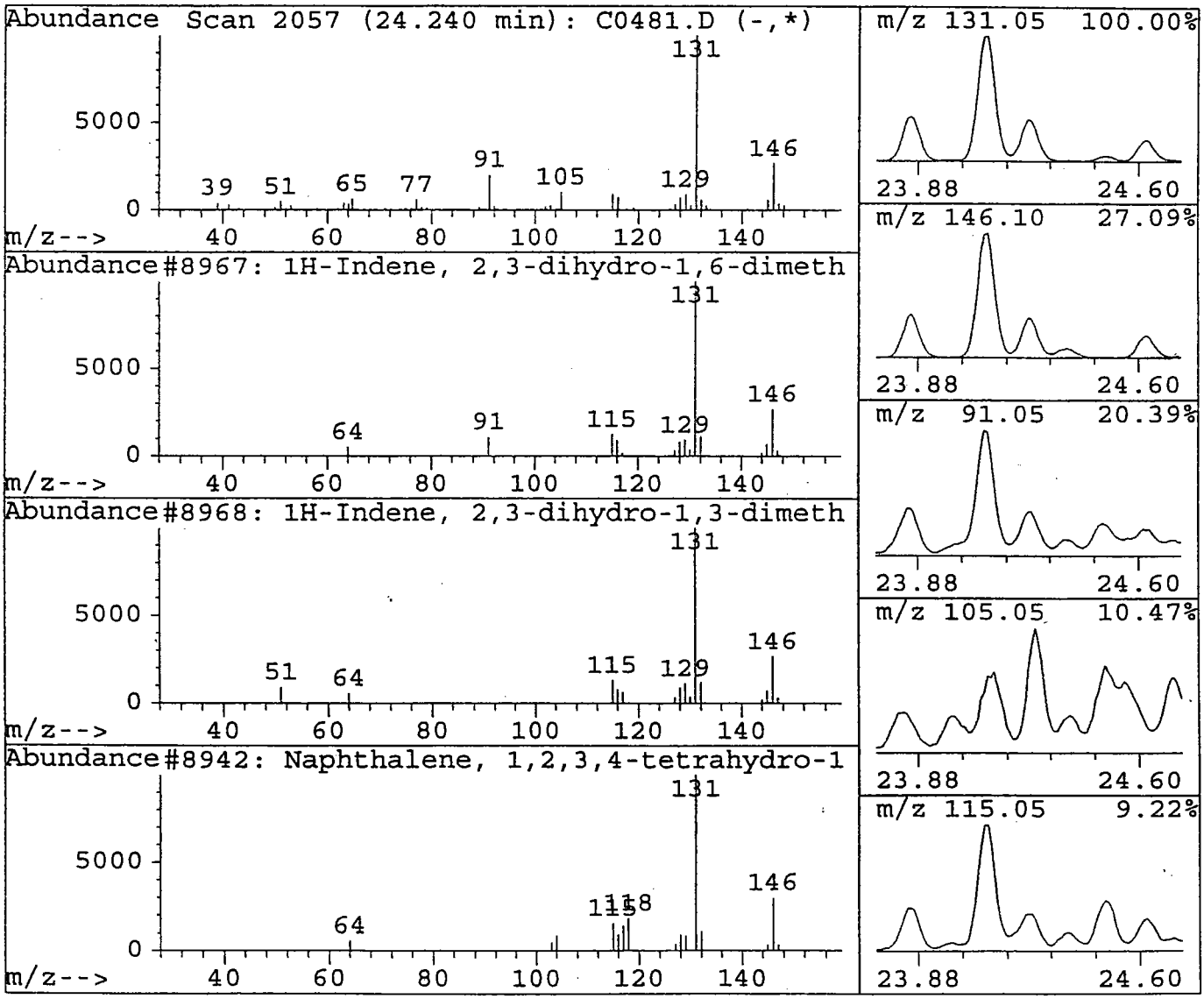
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
24.24	1.97 ug/L	1274450	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	47
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	64
3	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	47
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	25
5	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	38



Library Search Compound Report

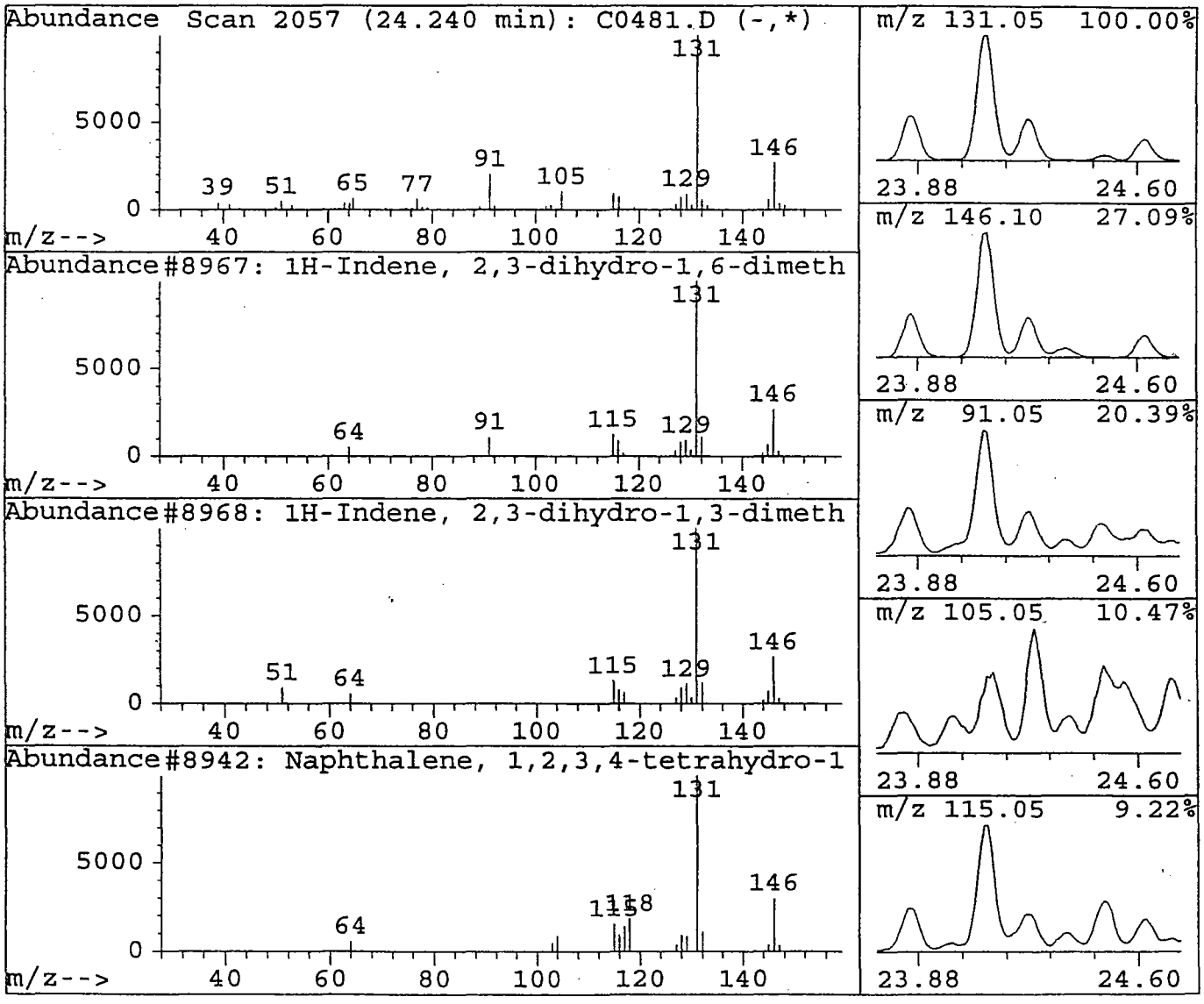
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
24.24	1.97 ug/L	1274450	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	47
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	64
3	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	47
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	25
5	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	38



Library Search Compound Report

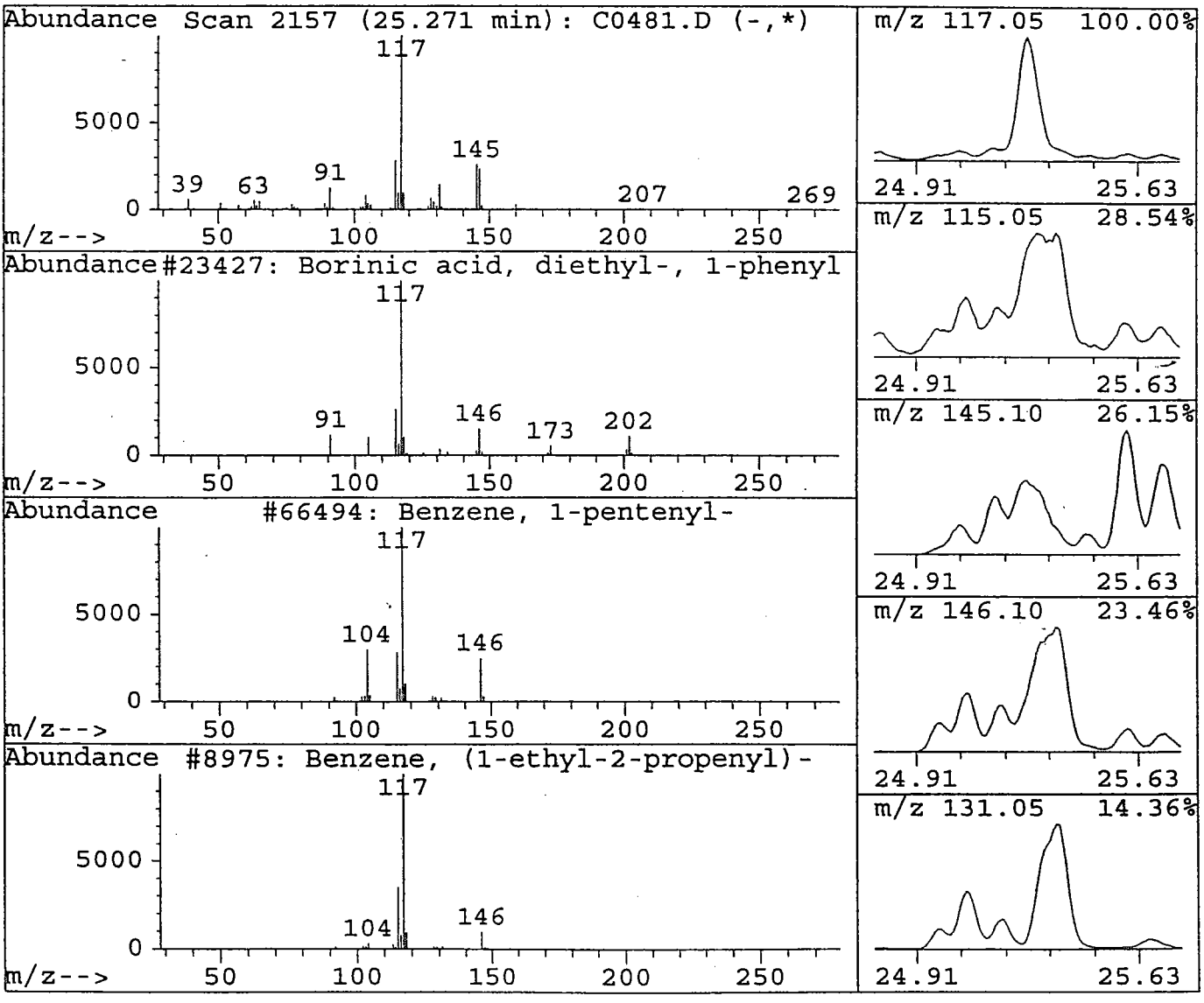
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
25.27	2.22 ug/L	1434531	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Borinic acid, diethyl-, 1-phenyl-1-	23427	034602-33-0	36
2	Benzene, 1-pentenyl-	66494	000826-18-6	72
3	Benzene, (1-ethyl-2-propenyl)-	8975	019947-22-9	42
4	1H-Indene, 1-ethyl-2,3-dihydro-	8943	004830-99-3	40
5	trans-1-Phenyl-1-pentene	8958	016002-93-0	25



Library Search Compound Report

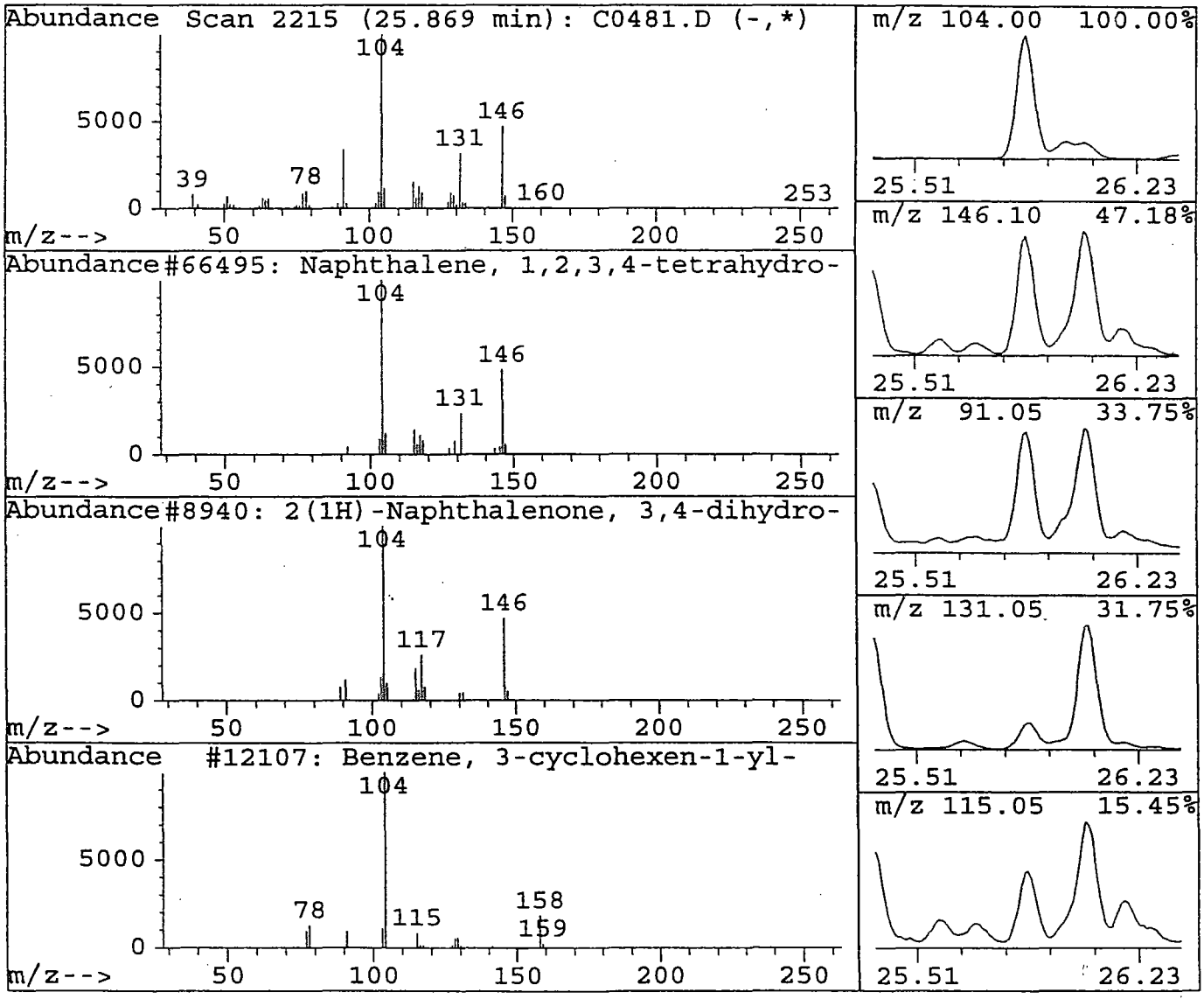
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
25.87	4.01 ug/L	2592191	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-2-m	66495	003877-19-8	90
2	2(1H)-Naphthalenone, 3,4-dihydro-	8940	000530-93-8	64
3	Benzene, 3-cyclohexen-1-yl-	12107	004994-16-5	38
4	Benzene, 1,1'-(1,2-cyclobutanediyl)	25034	007694-30-6	35
5	Acetic acid, 2-phenylethyl ester	67815	000103-45-7	35



Library Search Compound Report

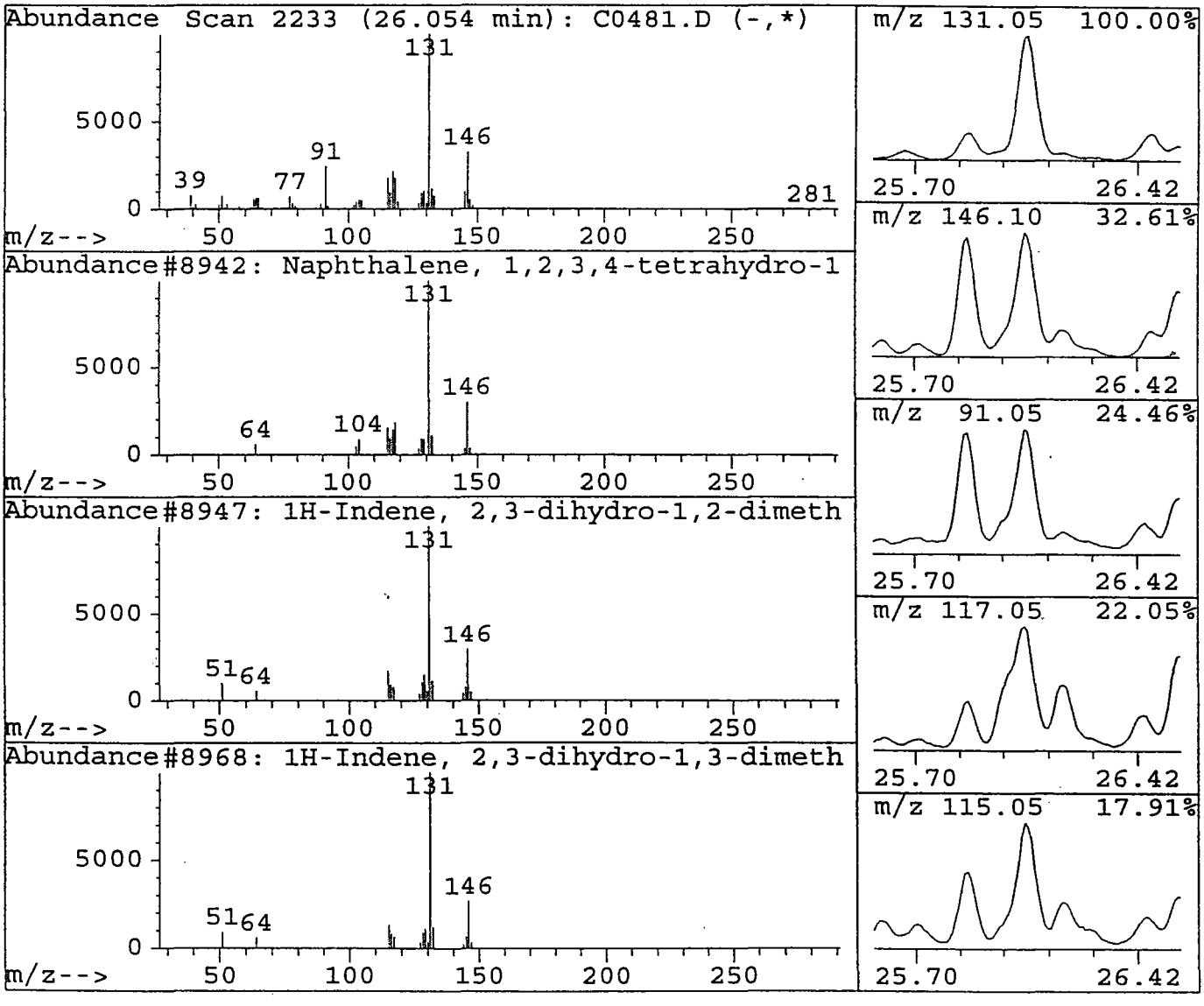
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
26.05	9.26 ug/L	5985386	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90
2	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	47
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	81
4	Benzene, (2-methyl-1-butenyl)-	66502	056253-64-6	72
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	59



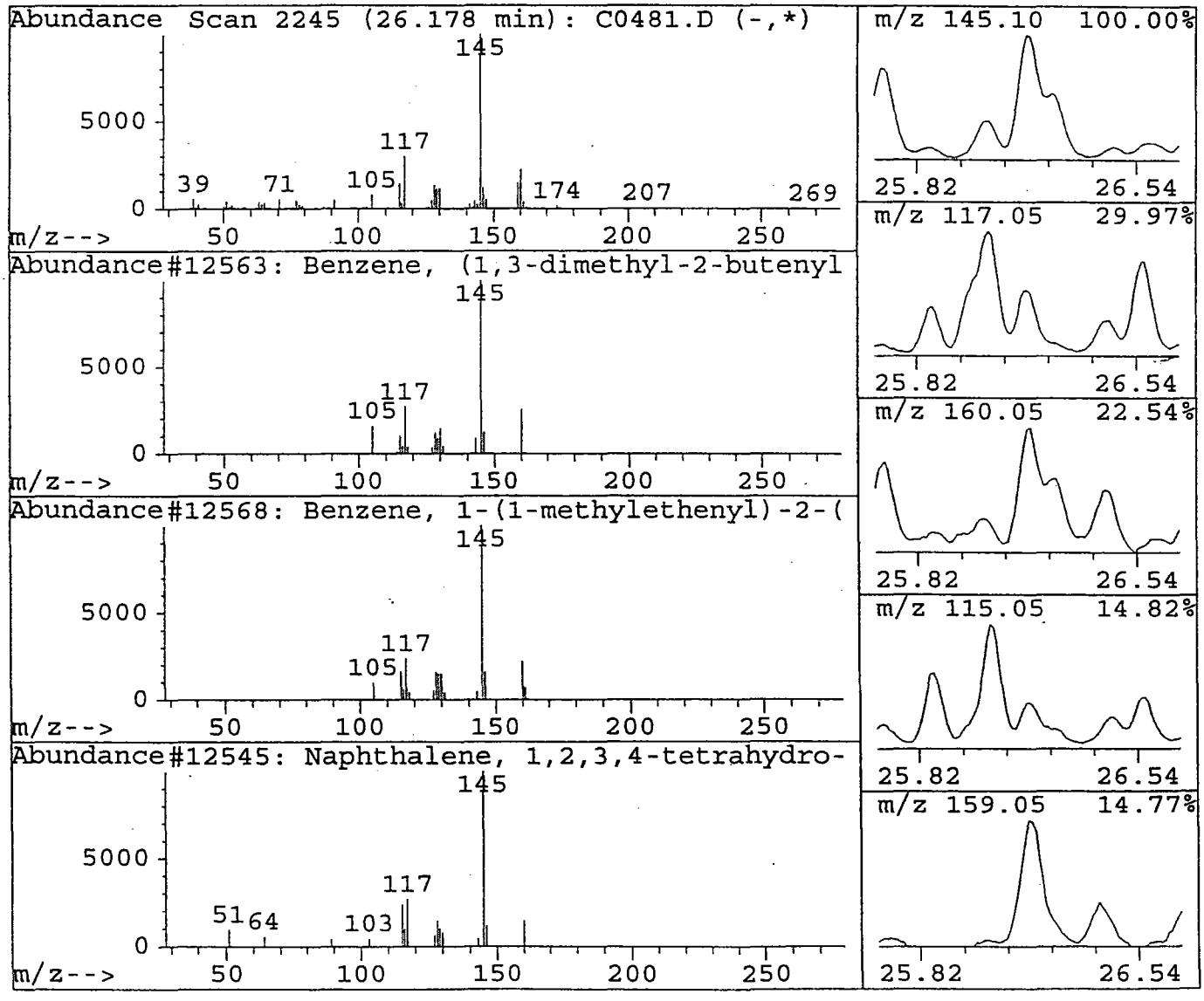
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
26.18	3.93 ug/L	2537701	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1,3-dimethyl-2-butenyl)-	12563	050704-01-3	87
2	Benzene, 1-(1-methylethenyl)-2-(1-m	12568	005557-93-7	43
3	Naphthalene, 1,2,3,4-tetrahydro-1,1	12545	001985-59-7	45
4	Benzene, 1-(1,1-dimethylethyl)-4-et	67572	001746-23-2	59
5	1H-Indene, 2,3-dihydro-1,1,3-trimet	67571	002613-76-5	87



Library Search Compound Report

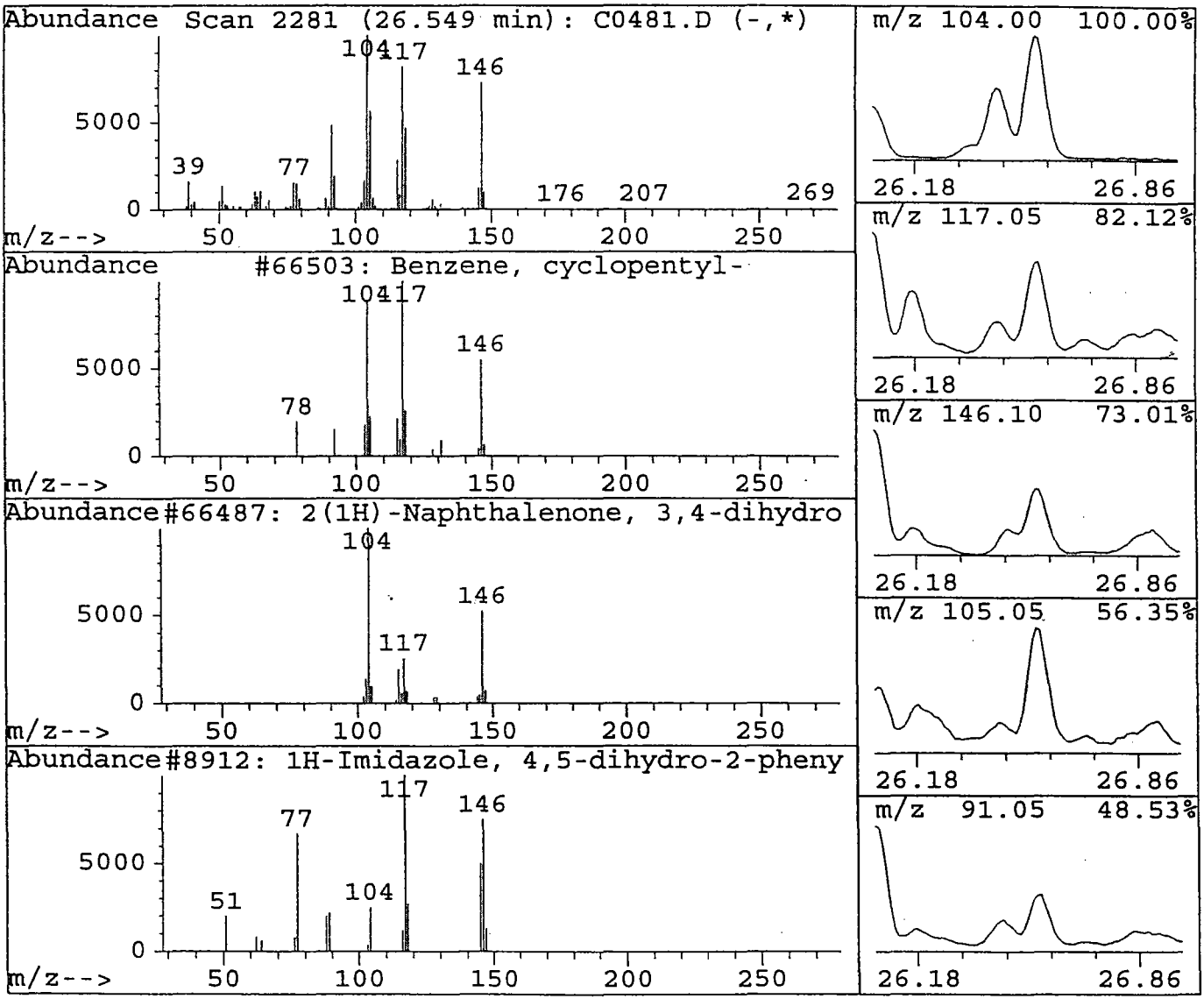
Data File : d:\hpchem\1\data\c0481.d
Acq On : 5 Dec 95 10:00 pm
Sample : 9554555 BLDG 482 DUP
Misc : 25 ML

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

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

R.T.	Conc	Area	Relative to ISTD	R.T.
26.55	2.68 ug/L	1733444	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, cyclopentyl-	66503	000700-88-9	47
2	2(1H)-Naphthalenone, 3,4-dihydro-	66487	000530-93-8	53
3	1H-Imidazole, 4,5-dihydro-2-phenyl-	8912	000936-49-2	35
4	Benzeneacetaldehyde, .alpha.-ethyli	66486	004411-89-6	43
5	Benzene, cyclopropyl-	64468	000873-49-4	30



2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

186

Lab Name: EMSL ANALYTICAL Contract: _____

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

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	10 QCS	99	99			
02	1 STND	98	99			
03	VBLK01	99	101			
04	9554060V	101	103			
05	9554061V	99	102			
06	9554062V	97	101			
07	9554101V	104	101			
08	9554102V	99	101			
09	9554063V	98	99			
10	9554060MS	98	96			
11	9554060MSD	96	97			
12						
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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	VBLK01	89	89			
02	9554553V	99	101			
03	9554554V	98	100			
04	9554109V	103	103			
05	9554110V	100	101			
06	9554551V	110	101			
07	9554552V	111	103			
08	9554555V	109	103			
09	9554557V	103	104			
10	9554558V	104	102			
11	9554552MS	106	103			
12	9554552MSD	105	103			
13	10 QCS	98	100			
14	1 STND	98	101			
15						
16						
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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. 188

VBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

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

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

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

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	10 QCS	10 QCS	C0427.D	1544
02	1 STND	1 STND	C0428.D	1618
03	9554060V	9554060V	C0430.D	1726
04	9554061V	9554061V	C0431.D	1800
05	9554062V	9554062V	C0432.D	1835
06	9554101V	9554101V	C0433.D	1909
07	9554102V	9554102V	C0434.D	1944
08	9554063V	9554063V	C0435.D	2017
09	9554060MS	54060MS	C0438.D	2159
10	9554060MSD	54060MSD	C0439.D	2233
11				
12				
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 189

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

Project No.: FT. MONMOUTH NJ Bldg#: _____ NJDEP MW#: _____

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0429.D

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

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

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

Concentration Units: (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	.50	
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 190

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

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

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0429.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
VBLK01

191

Lab Name: EMSL ANALYTICAL Contract:

Project No. Site: Location: Group:

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0429.D

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

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

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
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Quantitation Report

192

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

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

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

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

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

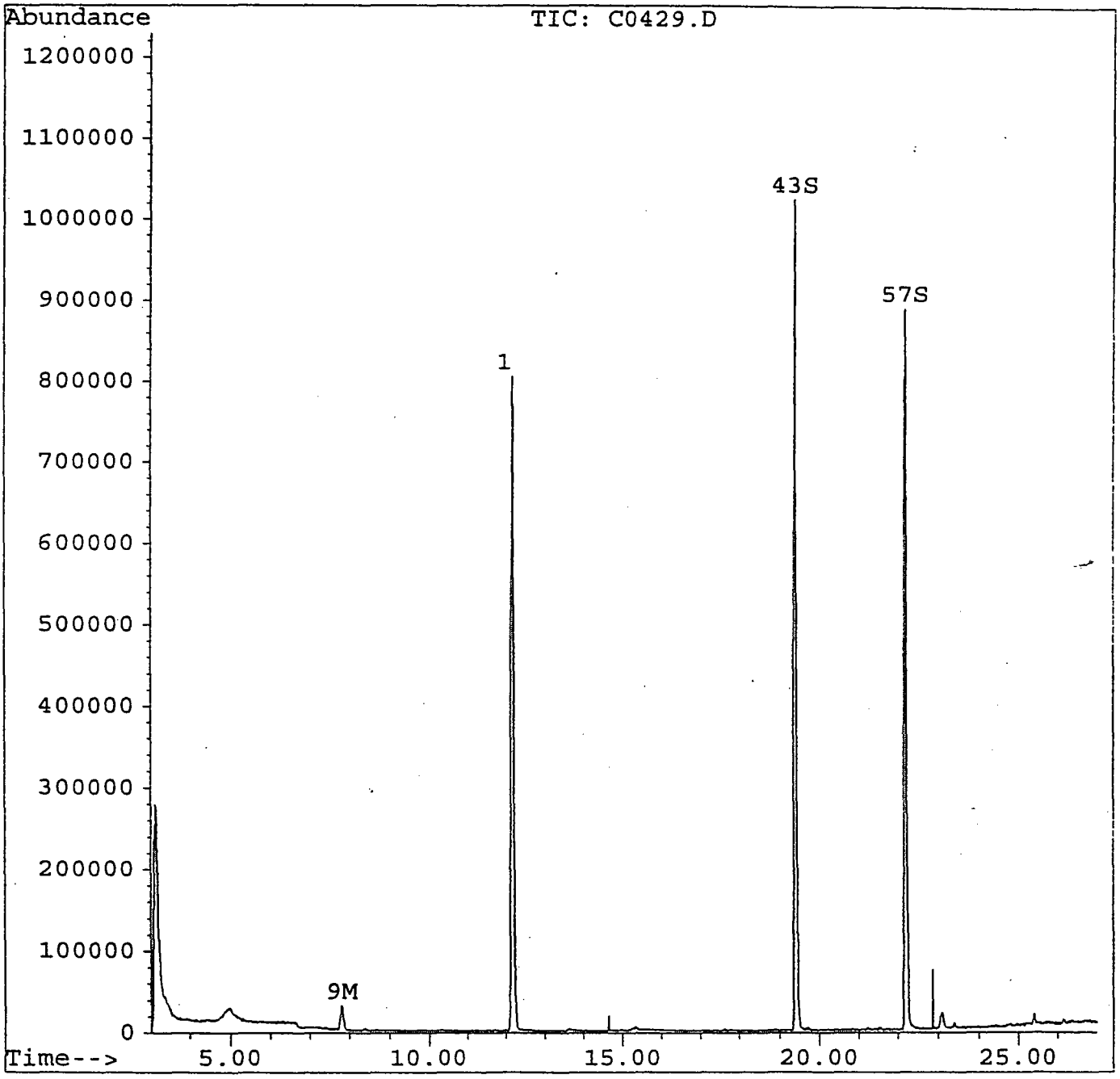
Quantitation Report

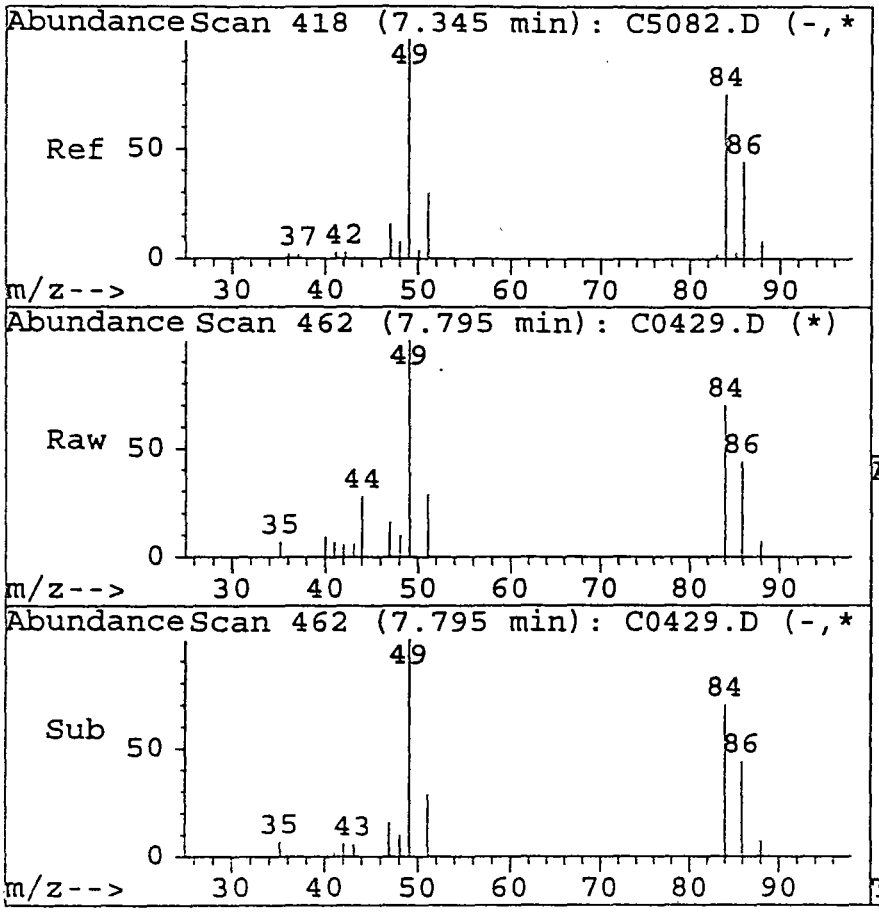
193

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

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

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

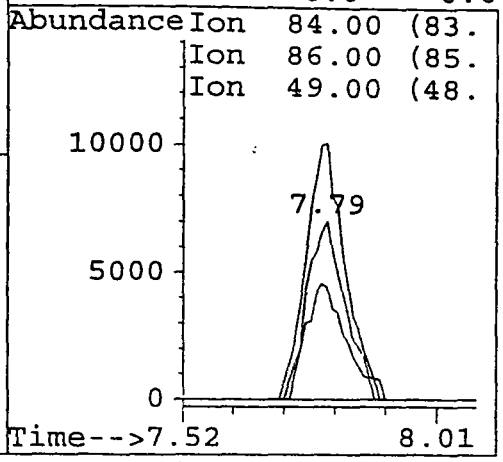




#9
Methylene chloride
Concen: 0.46 ug/L
RT: 7.79 min Scan# 462
Delta R.T. -0.03 min
Lab File: C0429.D
Acq: 2 Dec 95 4:52 pm

Tgt Ion:84 Resp: 36677

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



Library Search Compound Report

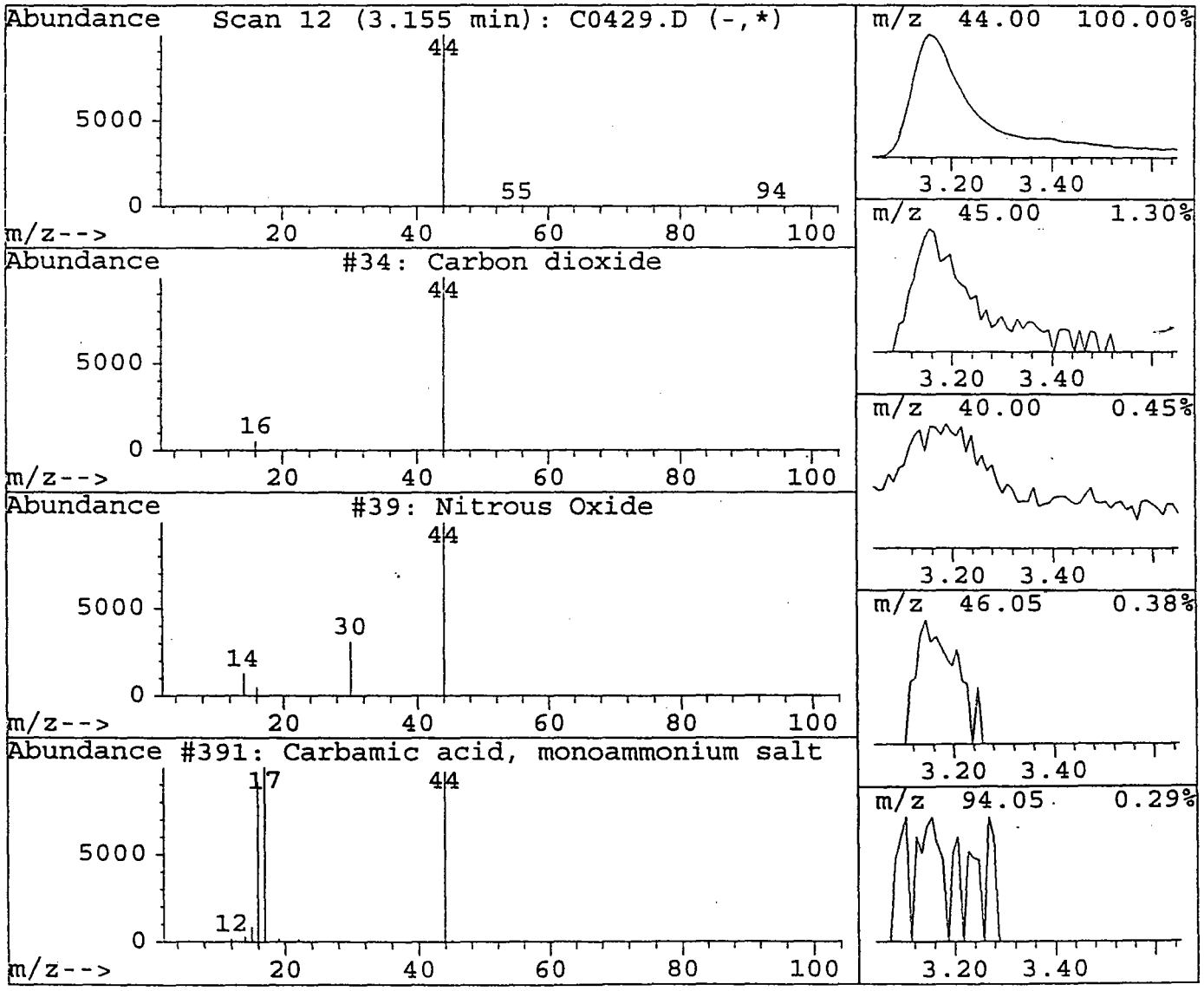
Data File : D:\HPCHEM\1\DATA\C0429.D
Acq On : 2 Dec 95 4:52 pm
Sample : METHOD BLANK
Misc :

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

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

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

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



4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

19

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

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

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

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

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	9554553V	9554553V	C0475.D	1833
02	9554554V	9554554V	C0476.D	1907
03	9554109V	9554109V	C0477.D	1942
04	9554110V	9554110V	C0478.D	2016
05	9554551V	9554551V	C0479.D	2051
06	9554552V	9554552V	C0480.D	2125
07	9554555V	9554555V	C0481.D	2200
08	9554557V	9554557V	C0483.D	2310
09	9554558V	9554558V	C0484.D	2344
10	9554552MS	54552MS	C0485.D	0019
11	9554552MSD	54552MSD	C0486.D	0054
12	10 QCS	10 QCS	C0487.D	0129
13	1 STND	1 STND	C0488.D	0204
14				
15				
16				
17				
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 197

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0474.D

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

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

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

198

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0474.D

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

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

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

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

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

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C0474.D

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

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

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

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

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
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9.				
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Quantitation Report

200

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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.03	96	1696123	5.00	ug/L	-0.17
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.28	95	817441	4.46	ug/L	89.28%
57) 1,2-Dichlorobenzene-d4	22.09	152	508158	4.43	ug/L	88.51%
Target Compounds						Qvalue
9) Methylene chloride	7.63	84	98742	1.23	ug/L	96

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

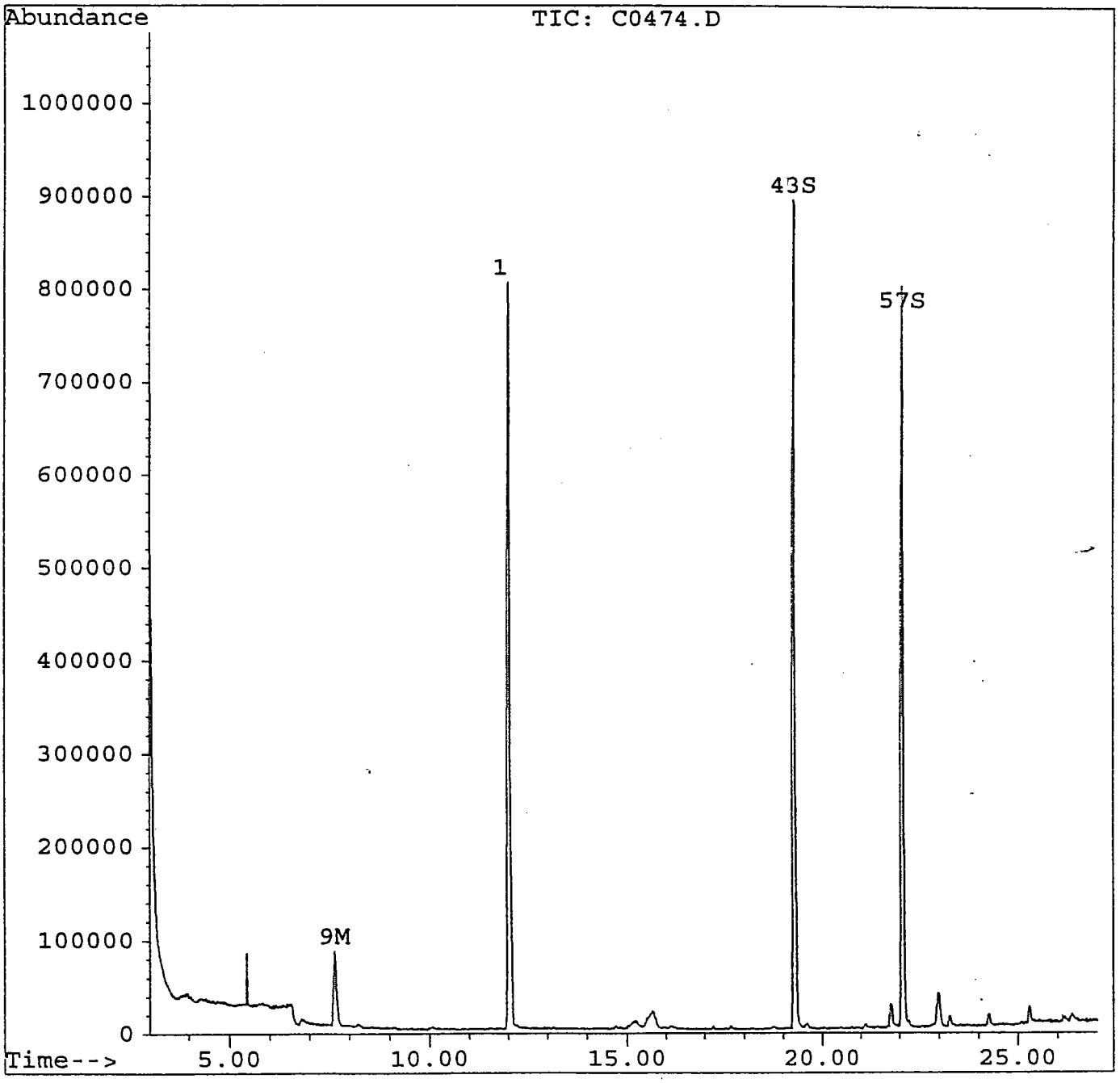
Quantitation Report

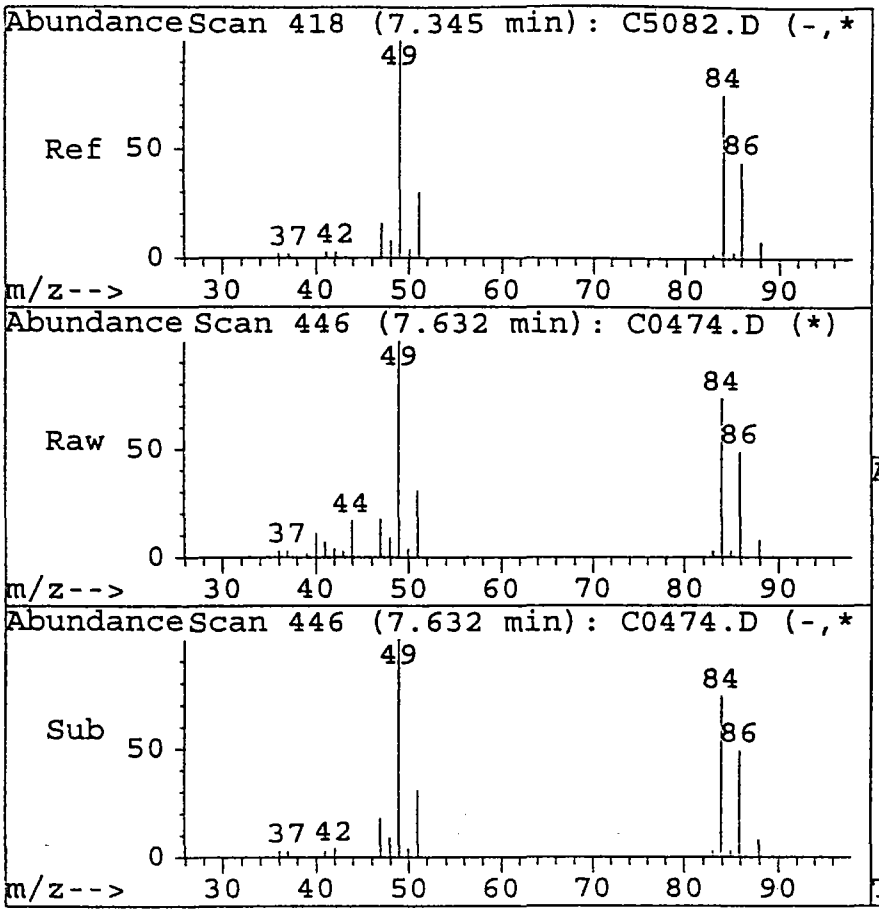
201

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

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

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

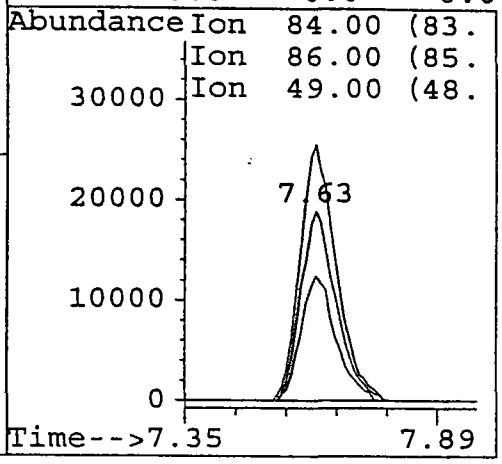




#9
Methylene chloride
Concen: 1.23 ug/L
RT: 7.63 min Scan# 446
Delta R.T. -0.19 min
Lab File: c0474.d
Acq: 5 Dec 95 6:00 pm

Tgt Ion:84 Resp: 98742

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



Library Search Compound Report

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

Vial: 1 203
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 : Wed Nov 22 09:25:47 1995
Response via : Initial Calibration

Non-Spiked Sample: C0430.D

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

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

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

205

Quantitation Report

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

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

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

206

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

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

Quantitation Report

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

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

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

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

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

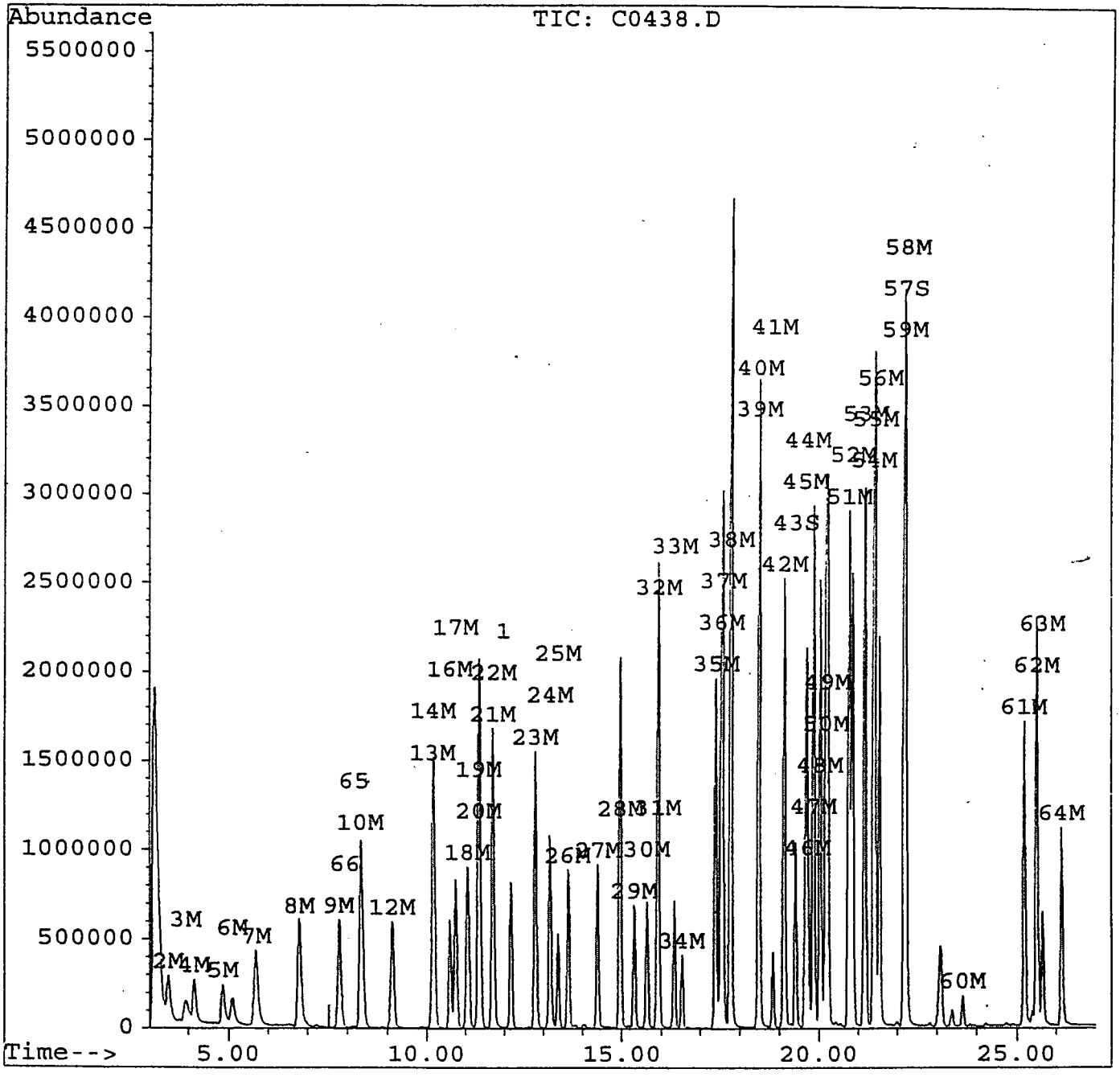
Quantitation Report

208

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

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

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



Quantitation Report

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

Vial: 15 209
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.18	96	1698292	5.00	ug/L	-0.03
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.40	95	883203	4.82	ug/L	96.34%
57) 1,2-Dichlorobenzene-d4	22.20	152	555400	4.83	ug/L	96.62%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.50	85	813406	8.85	ug/L	97
3) Chloromethane	3.94	50	679127	9.72	ug/L	100
4) Vinyl chloride	4.14	62	766232	9.86	ug/L	98
5) Bromomethane	4.83	94	531136	9.84	ug/L	97
6) Chloroethane	5.09	64	499315	11.56	ug/L	97
7) Trichlorofluoromethane	5.68	101	1352386	10.08	ug/L	99
8) 1,1-Dichloroethene	6.79	96	814526	10.13	ug/L	99
9) Methylene chloride	7.79	84	748911	9.32	ug/L	99
10) trans-1,2-Dichloroethene	8.33	96	927475	10.10	ug/L	99
12) 1,1-Dichloroethane	9.12	63	1756085	10.18	ug/L	99
13) 2,2-Dichloropropane	10.16	77	1263265	8.76	ug/L	100
14) cis-1,2-Dichloroethene	10.18	96	911494	10.10	ug/L	98
16) Bromochloromethane	10.60	128	378121	9.66	ug/L	93
17) Chloroform	10.75	83	1578477	9.91	ug/L	99
18) 1,1,1-Trichloroethane	11.06	97	1542978	10.00	ug/L	100
19) Carbon tetrachloride	11.35	117	1441710	9.89	ug/L	98
20) 1,1-Dichloropropene	11.35	75	1440937	10.01	ug/L	99
21) Benzene	11.70	78	2920025	9.88	ug/L	100
22) 1,2-Dichloroethane	11.72	62	627677	9.48	ug/L	98
23) Trichloroethene	12.80	95	1204168	9.83	ug/L	98
24) 1,2-Dichloropropane	13.17	63	1053165	10.27	ug/L	99
25) Dibromomethane	13.37	93	439241	9.76	ug/L	96
26) Bromodichloromethane	13.64	83	1282014	9.65	ug/L	97
27) cis-1,3-Dichloropropene	14.38	75	1126773	9.41	ug/L	98
28) Toluene	14.96	92	2067420	9.92	ug/L	99
29) trans-1,3-Dichloropropene	15.32	75	749502	9.07	ug/L	99
30) 1,1,2-Trichloroethane	15.64	83	430766	9.71	ug/L	98
31) Tetrachloroethene	15.91	166	1430996	9.68	ug/L	99
32) 1,3-Dichloropropane	15.93	76	813068	9.68	ug/L	99
33) Dibromochloromethane	16.33	129	820032	9.29	ug/L	100
34) 1,2-Dibromoethane	16.54	107	620011	9.59	ug/L	98
35) Chlorobenzene	17.38	112	2351583	9.79	ug/L	100
36) 1,1,1,2-Tetrachloroethane	17.52	131	966332	9.68	ug/L	99
37) Ethylbenzene	17.56	91	4161259	9.72	ug/L	100
38) Xylene (para & meta)	17.76	106	3116953	19.24	ug/L	99
39) Xylene (Ortho)	18.48	106	1433164	9.64	ug/L	97
40) Styrene	18.50	104	2048262	8.97	ug/L	97

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

Quantitation Report

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

Vial: 15 210
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

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

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

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

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: B8951.D DFTPP Injection Date: 10/22/95

Instrument ID: ABNA DFTPP Injection Time: 1620

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	30.0 - 80.0% of mass 198	58.1		
68	Less than 2.0% of mass 69	0.0	0.0	)1
69	Mass 69 relative abundance	82.8		
70	Less than 2.0% of mass 69	0.2	0.3	)1
127	25.0 - 75.0% of mass 198	44.6		
197	Less than 1.0% of mass 198	0.0		
198	Base Peak, 100% relative abundance	100.0		
199	5.0 to 9.0% of mass 198	6.7		
275	10.0 - 30.0% of mass 198	20.2		
365	Greater than 0.75% of mass 198	2.5		
441	Present, but less than mass 443	10.3		
442	40.0 - 110.0% of mass 198	72.0		
443	15.0 - 24.0% of mass 442	13.9	19.2	)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	B8952.D	10/22/95	1658
#		50 STANDARD	B8953.D	10/22/95	1749
#		80 STANDARD	B8954.D	10/22/95	1842
#		120 STANDARD	B8955.D	10/22/95	1933
#		160 STANDARD	B8956.D	10/22/95	2024
#					
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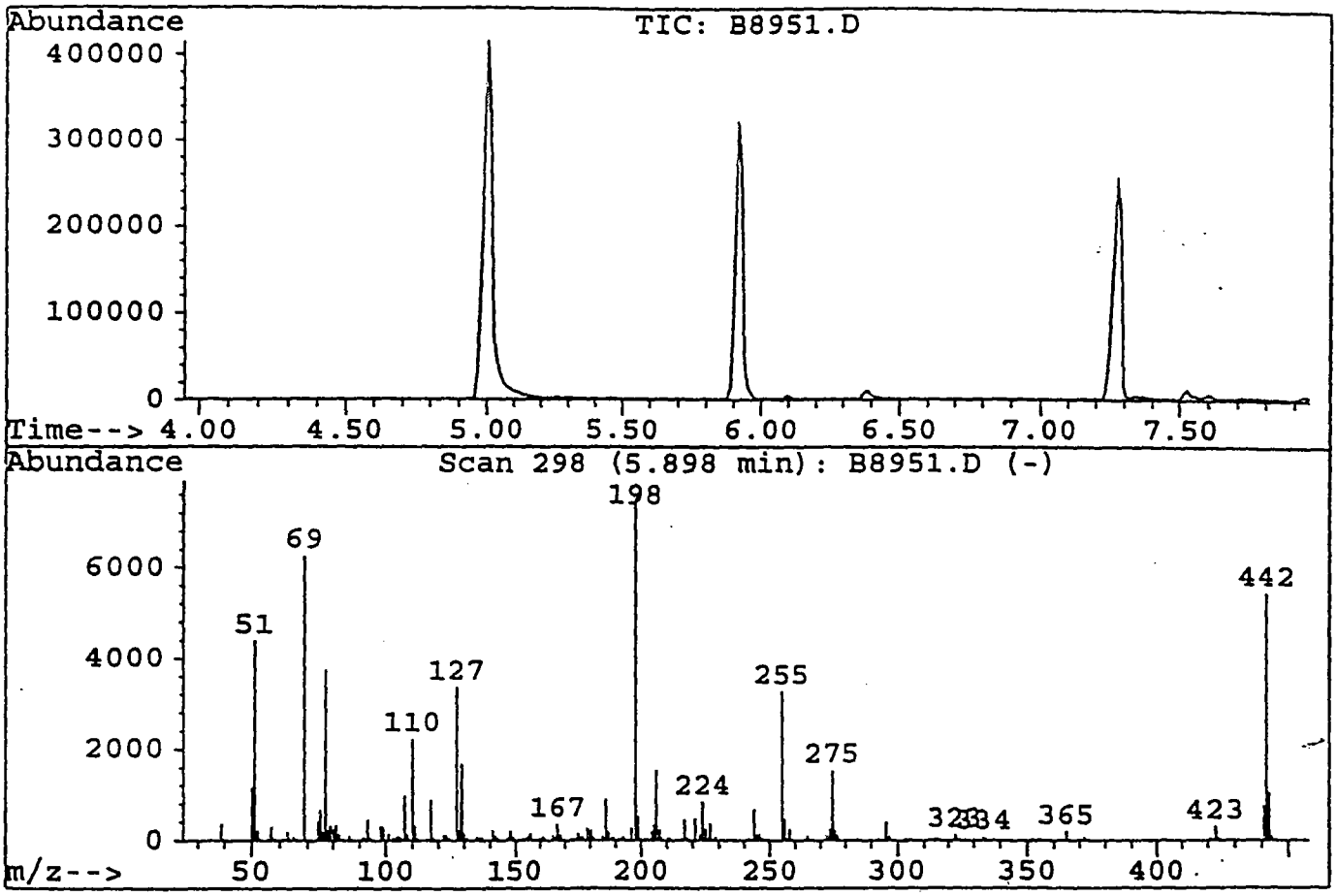
DFTPP

Data File : C:\HPCHEM\1\DATA2\B8951.D
Acq On : 22 Oct 95 4:20 pm
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: 303

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

Scan 293 (5.893 min): B8951.D

Modified:subtracted

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

Scan 298 (5.898 min): B8951.D

Modified:subtracted

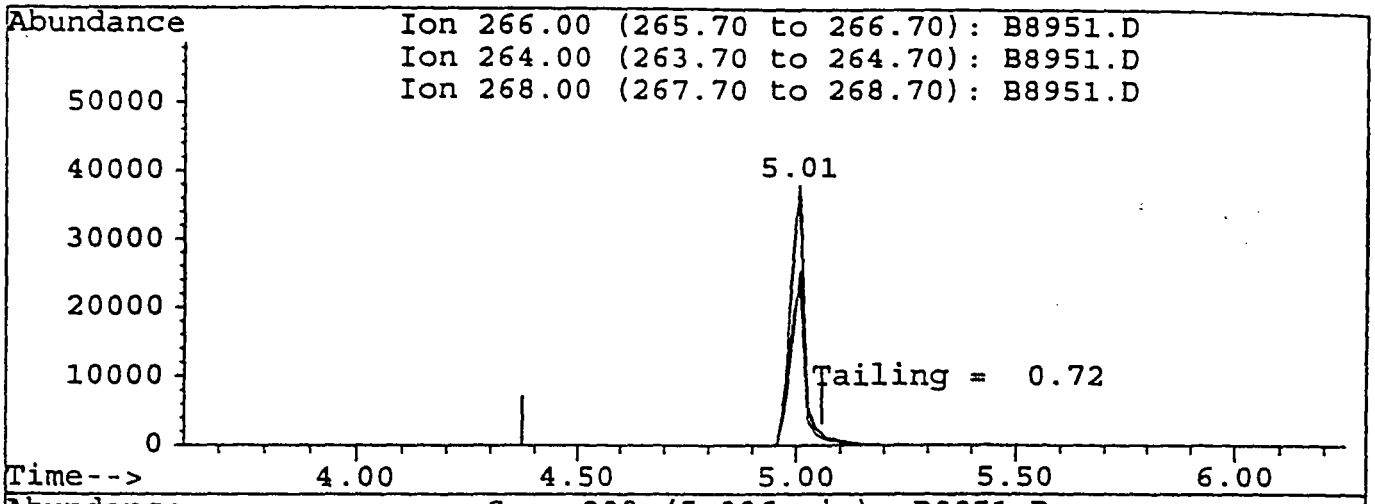
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.85	86						

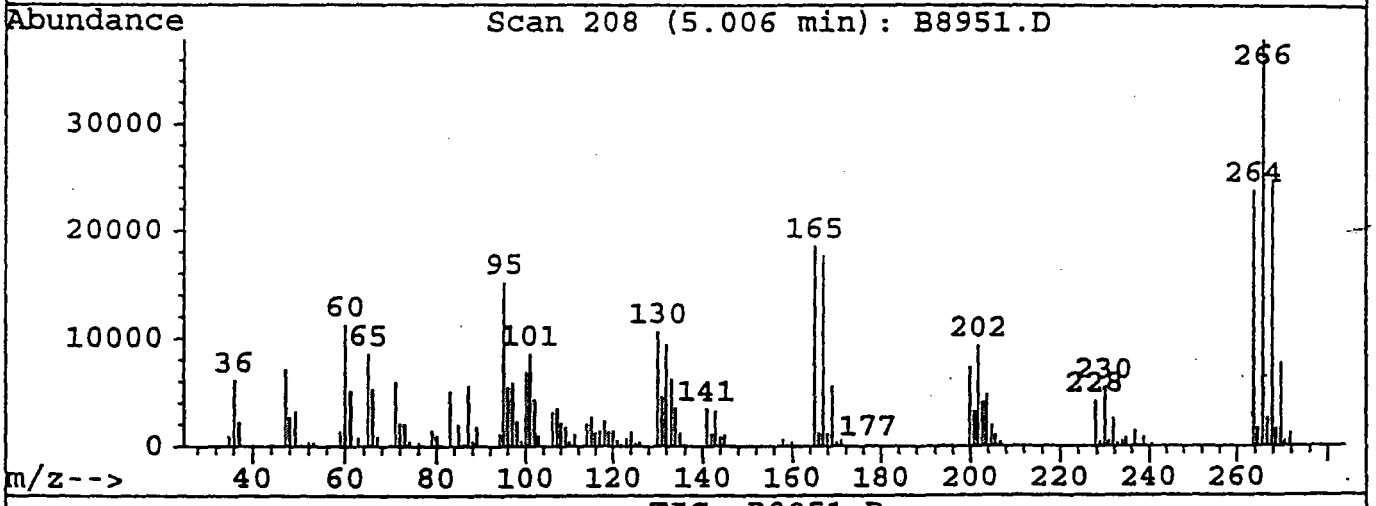
Quantitation Report

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

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

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





TIC: B8951.D

(1) Pentachlorophenol (CM)

5.01min 266.46ug/mL

response 88011

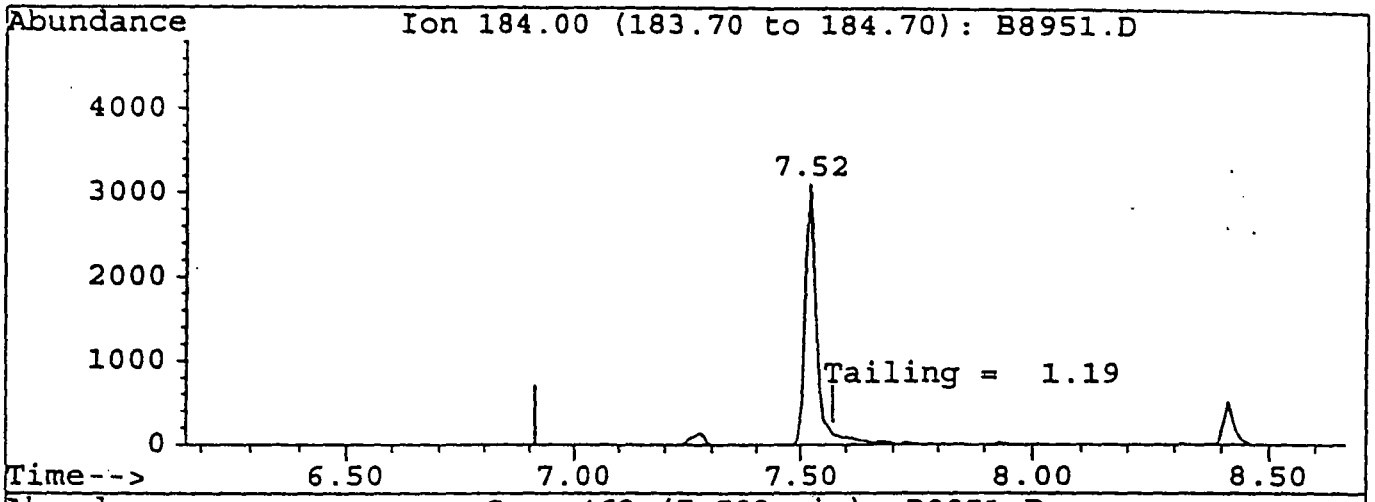
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	67.02
268.00	64.70	64.58
0.00	0.00	0.00

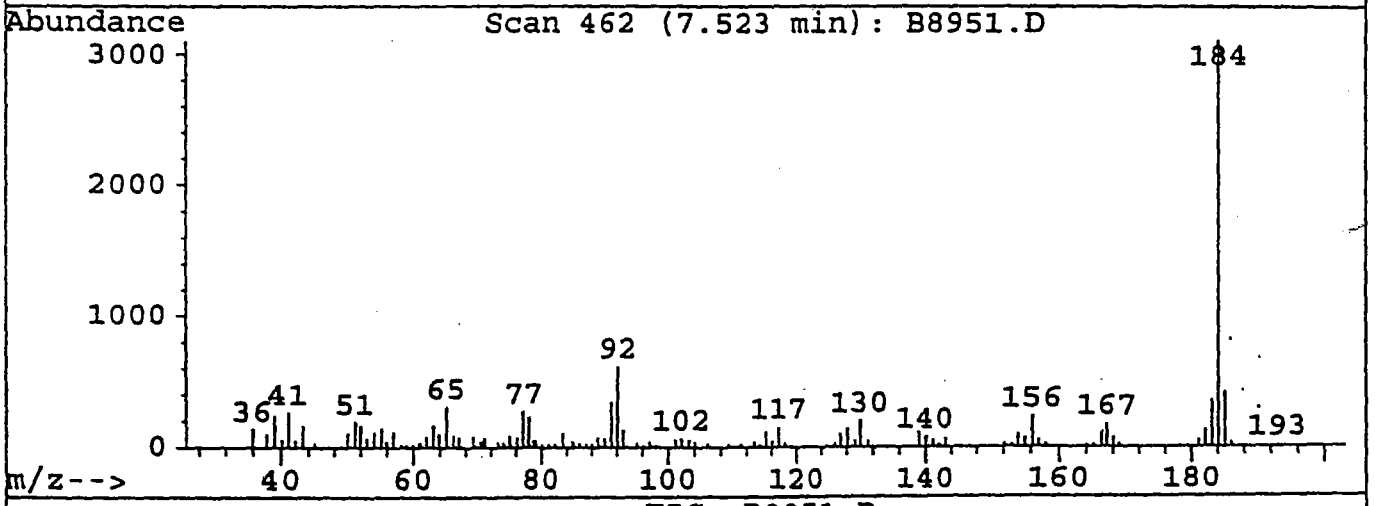
Quantitation Report

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

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

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





TIC: B8951.D

(2) Benzidine
7.52min 18.09ug/ml
response 5556

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

Response Factor Report ABNA

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

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

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

Response Factor Report ABNA

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

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

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

Response Factor Report ABNA

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

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

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

Quantitation Report

222

Data File : c:\hpchem\1\data2\b8952.d Vial: 2
Acq On : 22 Oct 95 4:58 pm Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 25 9:45 1995

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	29442	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.41	136	115955	40.00	ug/mL	-0.35
32) Acenaphthene-d10	17.73	164	69183	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.20	188	103757	40.00	ug/ml	-0.38
64) Chrysene-d12	30.29	240	75851	40.00	ug/mL	-0.40
73) Perylene-d12	34.27	264	29259	40.00	ug/mL	-0.43
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	44724	46.49	ug/mL	46.49%
3) Phenol-d5	8.08	99	70383	45.87	ug/mL	45.87%
18) Nitrobenzene-d5	10.37	82	80764	52.70	ug/mL	52.70%
36) 2-Fluorobiphenyl	15.88	172	102384	48.24	ug/mL	48.24%
54) 2,4,6-Tribromophenol	20.14	330	14825	53.50	ug/mL	53.50%
67) Terphenyl-d14	27.36	244	81257	33.34	ug/mL	33.34%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	15448	25.20	ug/ml	100
6) Phenol	8.11	94	28900	20.59	ug/mL	100
7) bis(2-Chloroethyl)ether	12.10	93	36472	22.04	ug/mL	94
8) 2-Chlorophenol	8.09	128	19030	19.10	ug/mL#	81
9) 1,3-Dichlorobenzene	8.48	146	19737	19.33	ug/mL	96
10) 1,4-Dichlorobenzene	8.73	146	20003	19.12	ug/mL	96
11) 1,2-Dichlorobenzene	9.12	146	19457	19.34	ug/mL	97
12) 2-Methylphenol	9.81	108	19438	21.22	ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.79	45	29616	23.05	ug/mL#	40
14) 4-Methylphenol	10.31	108	20537	20.05	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.18	70	22300	21.23	ug/mL	94
16) Hexachloroethane	10.08	117	12474	20.33	ug/mL#	63
19) Nitrobenzene	10.43	77	28618	20.36	ug/mL	93
20) Isophorone	10.37	82	79753	25.72	ug/mL#	67
21) 2-Nitrophenol	11.37	139	12913	20.42	ug/mL#	86
22) 2,4-Dimethylphenol	11.83	107	20567	18.72	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.10	93	36472	21.56	ug/mL#	100
24) 2,4-Dichlorophenol	12.16	162	16269	19.83	ug/mL#	93
25) 1,2,4-Trichlorobenzene	12.32	180	17221	20.08	ug/mL	95
26) Naphthalene	12.47	128	57119	19.89	ug/mL	100
27) 4-Chloroaniline	12.84	127	27603	20.47	ug/mL	99
28) Hexachlorobutadiene	12.99	225	9013	20.60	ug/mL	95
29) 4-Chloro-3-methylphenol	14.57	107	21812	20.86	ug/mL	96
30) 2-Chloronaphthalene	16.05	162	36338	21.53	ug/ml#	100
31) 2-Methylnaphthalene	14.61	142	51624	30.41	ug/mL	95
33) Hexachlorocyclopentadiene	15.13	237	8772	19.27	ug/mL#	90
34) 2,4,6-Trichlorophenol	15.59	196	11710	15.31	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	13699	21.15	ug/mL	97

Quantitation Report

Data File : c:\hpchem\1\data2\b8952.d Vial: 2
Acq On : 22 Oct 95 4:58 pm Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 25 9:45 1995

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

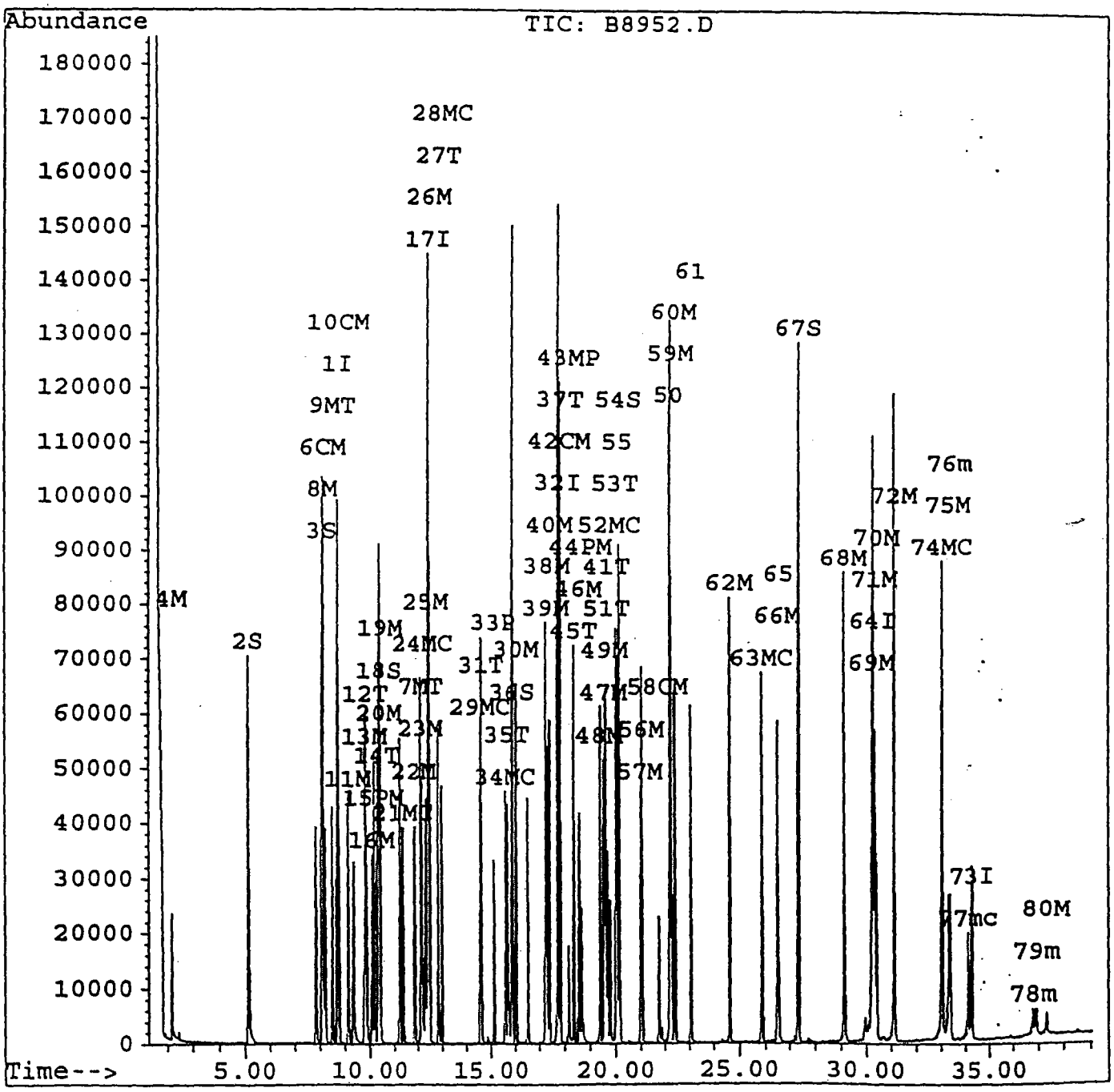
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.83	65	26617	23.54	ug/mL	72
38)	Dimethylphthalate	17.31	163	50983	22.95	ug/mL#	13
39)	Acenaphthylene	17.25	152	58691	19.03	ug/mL	98
40)	2,6-Dinitrotoluene	17.40	165	11726	19.95	ug/mL#	87
41)	3-Nitroaniline	19.68	138	12871	24.57	ug/mL#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

Quantitation Report

Data File : c:\hpchem\1\data2\b8952.d
Acq On : 22 Oct 95 4:58 pm
Sample : 20 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:45 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

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



Quantitation Report

Data File : c:\hpchem\1\data2\b8953.d
Acq On : 22 Oct 95 5:49 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:46 1995

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	30029	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	118447	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.73	164	66652	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.23	188	99018	40.00	ug/ml	-0.35
64) Chrysene-d12	30.29	240	71387	40.00	ug/mL	-0.41
73) Perylene-d12	34.24	264	29156	40.00	ug/mL	-0.45
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	5.11	112	47542	48.46	ug/mL	48.46%
3) Phenol-d5	8.09	99	75366	48.16	ug/mL	48.16%
18) Nitrobenzene-d5	10.39	82	78309	50.02	ug/mL	50.02%
36) 2-Fluorobiphenyl	15.90	172	103420	50.58	ug/mL	50.58%
54) 2,4,6-Tribromophenol	20.17	330	15101	57.11	ug/mL	57.11%
67) Terphenyl-d14	27.36	244	81512	35.53	ug/mL	35.53%
Target Compounds						**Qvalue**
4) N-nitrosodimethylamine	2.14	74	33256	53.18	ug/ml	100
6) Phenol	8.13	94	70425	49.19	ug/mL	100
7) bis(2-Chloroethyl)ether	12.12	93	86266	51.11	ug/mL	97
8) 2-Chlorophenol	8.11	128	50107	49.31	ug/mL#	79
9) 1,3-Dichlorobenzene	8.48	146	52404	50.32	ug/mL	98
10) 1,4-Dichlorobenzene	8.75	146	54194	50.78	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	52073	50.76	ug/mL	96
12) 2-Methylphenol	9.83	108	48095	51.48	ug/mLm	99
13) bis(2-chloroisopropyl)ethe	9.77	45	69800	53.26	ug/mL	98
14) 4-Methylphenol	10.35	108	55590	53.22	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.22	70	56128	52.39	ug/mL#	95
16) Hexachloroethane	10.08	117	32913	52.60	ug/mL#	72
19) Nitrobenzene	10.45	77	72432	50.46	ug/mL	88
20) Isophorone	11.28	82	151156	47.73	ug/mL	94
21) 2-Nitrophenol	11.39	139	36365	56.30	ug/mL#	87
22) 2,4-Dimethylphenol	11.87	107	55686	49.62	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.12	93	86266	49.92	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	43494	51.90	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.32	180	45688	52.14	ug/mL	95
26) Naphthalene	12.49	128	150500	51.30	ug/mL	98
27) 4-Chloroaniline	12.86	127	66405	48.20	ug/mL	99
28) Hexachlorobutadiene	12.99	225	23776	53.19	ug/mL	97
29) 4-Chloro-3-methylphenol	14.57	107	58006	54.32	ug/mL	87
30) 2-Chloronaphthalene	16.06	162	93821	54.43	ug/ml#	100
31) 2-Methylnaphthalene	14.63	142	133962	77.26	ug/mL	96
33) Hexachlorocyclopentadiene	15.13	237	20265	46.21	ug/mL	98
34) 2,4,6-Trichlorophenol	15.61	196	33685	45.73	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	33610			

Quantitation Report

Data File : c:\hpchem\1\data2\b8953.d
Acq On : 22 Oct 95 5:49 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:46 1995

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

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

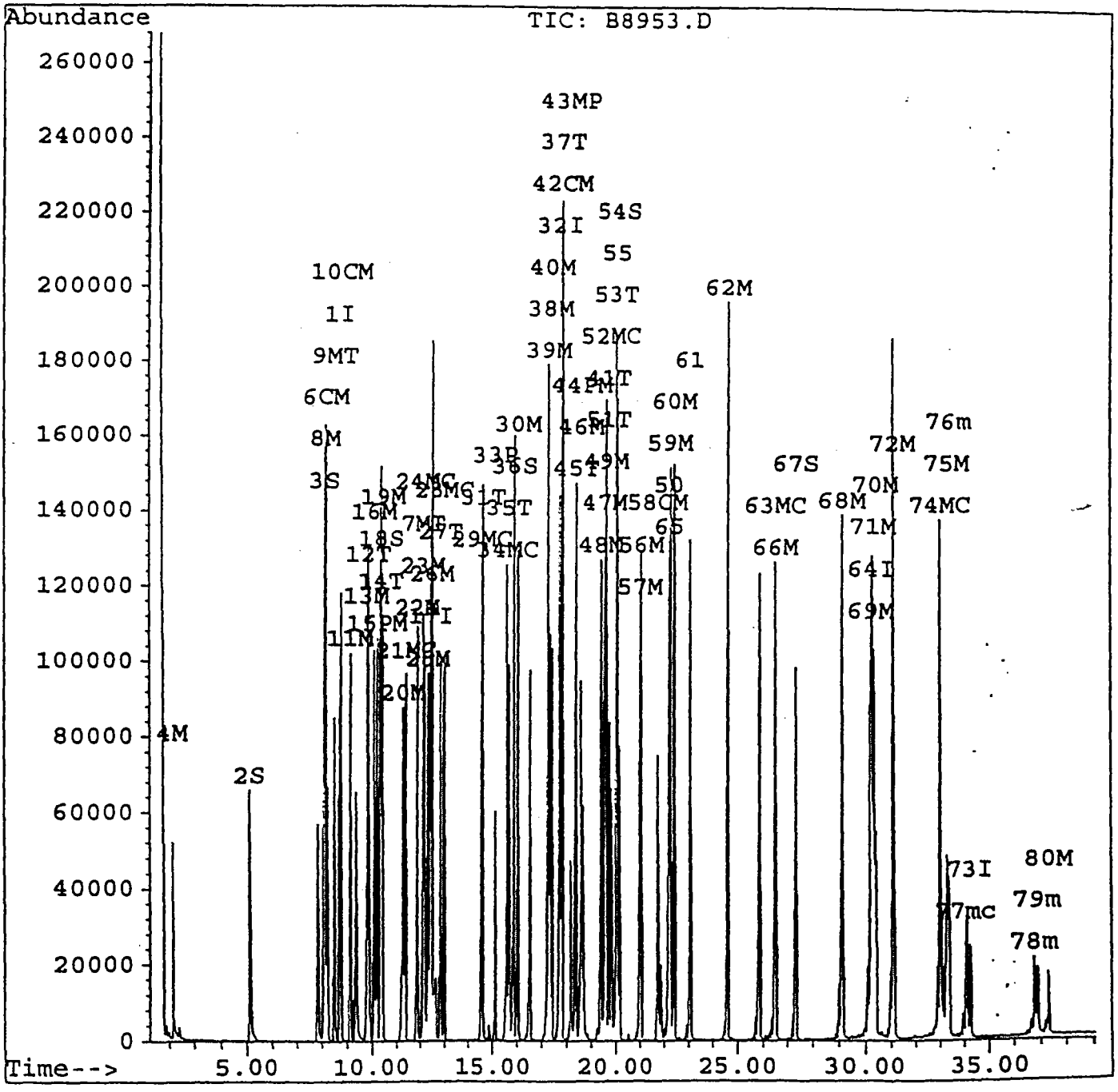
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17.85	65	62561	57.42 ug/mL	88
38)	Dimethylphthalate	17.35	163	114727	53.61 ug/mL#	12
39)	Acenaphthylene	17.27	152	153827	51.77 ug/mL	98
40)	2,6-Dinitrotoluene	17.43	165	31425	55.50 ug/mL#	99
41)	3-Nitroaniline	19.74	138	30489	60.41 ug/mL#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

Quantitation Report

Data File : c:\hpchem\1\data2\b8953.d
Acq On : 22 Oct 95 5:49 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:46 1995

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

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



Quantitation Report

228

Data File : c:\hpchem\1\data2\b8954.d
Acq On : 22 Oct 95 6:42 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:48 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	27758	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	110409	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.74	164	64239	40.00	ug/mL	-0.34
50) Phenanthrene-d10	22.23	188	96790	40.00	ug/ml	-0.34
64) Chrysene-d12	30.31	240	65927	40.00	ug/mL	-0.38
73) Perylene-d12	34.25	264	27421	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	45615	50.30	ug/mL	50.30%
3) Phenol-d5	8.11	99	73604	50.88	ug/mL	50.88%
18) Nitrobenzene-d5	10.41	82	74558	51.09	ug/mL	51.09%
36) 2-Fluorobiphenyl	15.90	172	95476	48.45	ug/mL	48.45%
54) 2,4,6-Tribromophenol	20.19	330	15745	60.91	ug/mL	60.91%
67) Terphenyl-d14	27.36	244	80989	38.23	ug/mL	38.23%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	43170	74.69	ug/ml	100
6) Phenol	8.15	94	107752	81.42	ug/mL	100
7) bis(2-Chloroethyl)ether	12.14	93	137545	88.16	ug/mL	93
8) 2-Chlorophenol	8.11	128	76031	80.94	ug/mL#	84
9) 1,3-Dichlorobenzene	8.50	146	78669	81.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.75	146	79665	80.76	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	77232	81.44	ug/mL	97
12) 2-Methylphenol	9.85	108	69148	80.08	ug/mLm	99
13) bis(2-chloroisopropyl)ethe	9.81	45	116703	96.34	ug/mL#	59
14) 4-Methylphenol	10.37	108	77308	80.07	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.24	70	82768	83.57	ug/mL	93
16) Hexachloroethane	10.08	117	50425	87.18	ug/mL#	78
19) Nitrobenzene	10.47	77	107228	80.13	ug/mL	91
20) Isophorone	11.31	82	234237	79.35	ug/mL	95
21) 2-Nitrophenol	11.39	139	55945	92.92	ug/mL#	92
22) 2,4-Dimethylphenol	11.89	107	87491	83.64	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.14	93	137545	85.38	ug/mL#	100
24) 2,4-Dichlorophenol	12.20	162	67435	86.32	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.34	180	69245	84.78	ug/mL	94
26) Naphthalene	12.49	128	219568	80.29	ug/mL	100
27) 4-Chloroaniline	12.88	127	108351	84.37	ug/mL	100
28) Hexachlorobutadiene	13.01	225	36309	87.14	ug/mL	100
29) 4-Chloro-3-methylphenol	14.59	107	85056	85.45	ug/mL#	77
30) 2-Chloronaphthalene	16.08	162	143223	89.13	ug/ml#	100
31) 2-Methylnaphthalene	14.63	142	192207	118.92	ug/mL	96
33) Hexachlorocyclopentadiene	15.15	237	41659	98.56	ug/mL	98
34) 2,4,6-Trichlorophenol	15.63	196	53315	75.09	ug/mL	96
35) 2,4,5-Trichlorophenol	15.71	196	47946	79.73	ug/mL	97

Quantitation Report

Data File : c:\hpchem\1\data2\b8954.d Vial: 4
Acq On : 22 Oct 95 6:42 pm Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 25 9:48 1995

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

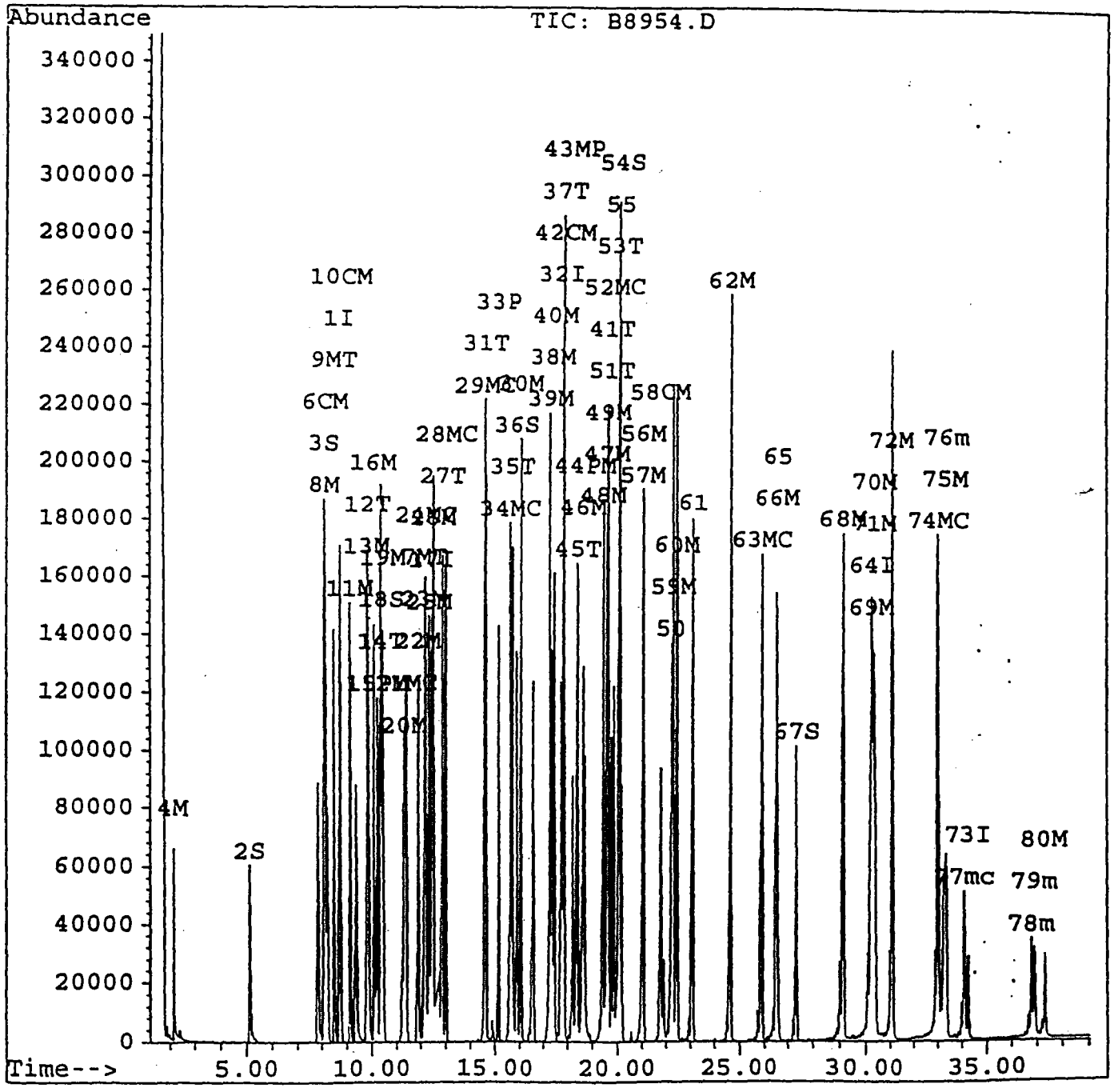
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.87	65	104963	99.96	ug/mL	87
38)	Dimethylphthalate	17.37	163	175032	84.87	ug/mL#	12
39)	Acenaphthylene	17.29	152	238659	83.33	ug/mL	97
40)	2,6-Dinitrotoluene	17.47	165	41143	75.39	ug/mL#	91
41)	3-Nitroaniline	19.76	138	45967	94.49	ug/mL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

Quantitation Report

Data File : c:\hpchem\1\data2\b8954.d
Acq On : 22 Oct 95 6:42 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:48 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

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



Quantitation Report

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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.70	152	27461	40.00	ug/mL	-0.32
17) Naphthalene-d8	12.44	136	106422	40.00	ug/mL	-0.32
32) Acenaphthene-d10	17.75	164	62579	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.23	188	90364	40.00	ug/ml	-0.35
64) Chrysene-d12	30.31	240	57405	40.00	ug/mL	-0.39
73) Perylene-d12	34.25	264	23394	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.12	112	43975	49.01	ug/mL	49.01%
3) Phenol-d5	8.14	99	72439	50.61	ug/mL	50.61%
18) Nitrobenzene-d5	10.42	82	72866	51.80	ug/mL	51.80%
36) 2-Fluorobiphenyl	15.91	172	97613	50.85	ug/mL	50.85%
54) 2,4,6-Tribromophenol	20.20	330	14666	60.77	ug/mL	60.77%
67) Terphenyl-d14	27.36	244	77377	41.94	ug/mL	41.94%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.15	74	77244	135.08	ug/ml	100
6) Phenol	8.18	94	153731	117.41	ug/mL	100
7) bis(2-Chloroethyl)ether	12.17	93	187081	121.20	ug/mL	88
8) 2-Chlorophenol	8.14	128	109258	117.57	ug/mL#	81
9) 1,3-Dichlorobenzene	8.51	146	111126	116.67	ug/mL	98
10) 1,4-Dichlorobenzene	8.76	146	110282	113.00	ug/mL	96
11) 1,2-Dichlorobenzene	9.14	146	107878	114.99	ug/mL	96
12) 2-Methylphenol	9.88	108	104312	122.10	ug/mLm	98
13) bis(2-chloroisopropyl)ethe	9.80	45	171386	143.01	ug/mL#	85
14) 4-Methylphenol	10.40	108	115007	120.40	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.28	70	123864	126.42	ug/mL	94
16) Hexachloroethane	10.09	117	69400	121.28	ug/mL#	76
19) Nitrobenzene	10.49	77	147477	114.34	ug/mL	99
20) Isophorone	11.36	82	327700	115.17	ug/mLm	95
21) 2-Nitrophenol	11.42	139	77152	132.95	ug/mL#	94
22) 2,4-Dimethylphenol	11.92	107	127738	126.70	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.17	93	187081	120.48	ug/mL#	100
24) 2,4-Dichlorophenol	12.23	162	94341	125.29	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.35	180	96836	123.00	ug/mL	94
26) Naphthalene	12.52	128	326255	123.77	ug/mL	98
27) 4-Chloroaniline	12.89	127	147346	119.03	ug/mL	100
28) Hexachlorobutadiene	13.02	225	51692	128.71	ug/mL	99
29) 4-Chloro-3-methylphenol	14.60	107	123083	128.28	ug/mL#	60
30) 2-Chloronaphthalene	16.09	162	197694	127.64	ug/ml#	100
31) 2-Methylnaphthalene	14.64	142	274545	176.23	ug/mL	96
33) Hexachlorocyclopentadiene	15.16	237	60194	146.19	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.64	196	90332	130.60	ug/mL	97
35) 2,4,5-Trichlorophenol	15.72	196	54995	93.88	ug/mL	97

Quantitation Report

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

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

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

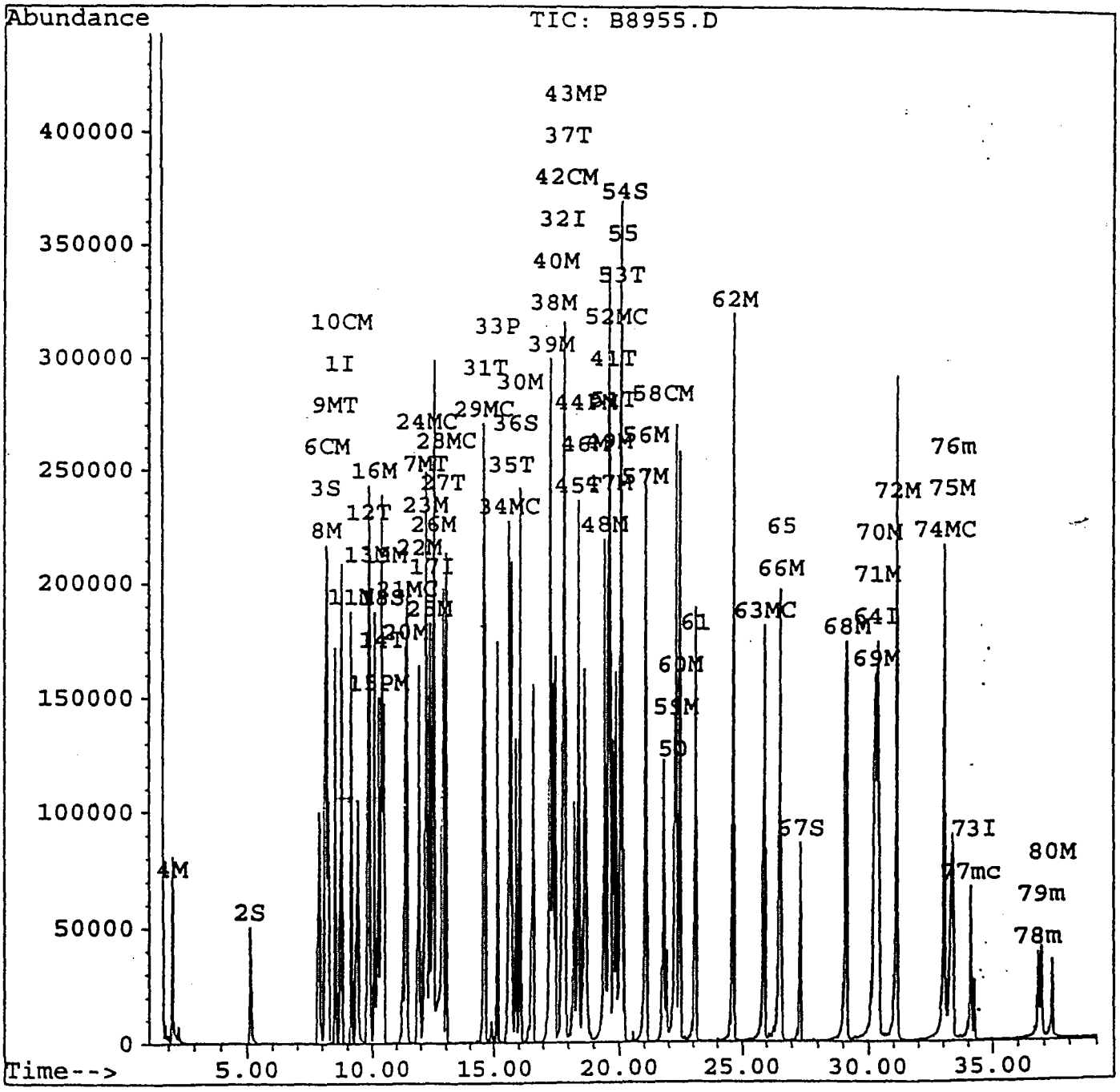
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.90	65	138140	135.05	ug/mL	88
38)	Dimethylphthalate	17.40	163	242759	120.83	ug/mL#	12
39)	Acenaphthylene	17.30	152	342901	122.91	ug/mL	97
40)	2,6-Dinitrotoluene	17.48	165	48493	91.22	ug/mL#	96
41)	3-Nitroaniline	19.78	138	59286	125.11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

Quantitation Report

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

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

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



Quantitation Report

Data File : c:\hpchem\1\data2\b8956.d Vial: 6
Acq On : 22 Oct 95 8:24 pm Operator: SCOTTV
Sample : 160 STD.... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 25 10:17 1995

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.72	152	27386	40.00	ug/mL	-0.31
17) Naphthalene-d8	12.46	136	107758	40.00	ug/mL	-0.30
32) Acenaphthene-d10	17.76	164	64001	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.24	188	95140	40.00	ug/ml	-0.33
64) Chrysene-d12	30.32	240	58225	40.00	ug/mL	-0.37
73) Perylene-d12	34.24	264	21063	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.13	112	44445	49.67	ug/mL	49.67%
3) Phenol-d5	8.16	99	75083	52.60	ug/mL	52.60%
18) Nitrobenzene-d5	10.43	82	72264	50.74	ug/mL	50.74%
36) 2-Fluorobiphenyl	15.91	172	99060	50.46	ug/mL	50.46%
54) 2,4,6-Tribromophenol	20.22	330	16295	64.13	ug/mL	64.13%
67) Terphenyl-d14	27.35	244	82703	44.20	ug/mL	44.20%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.17	74	103908	182.21	ug/ml	100
6) Phenol	8.21	94	225479	172.68	ug/mL	100
7) bis(2-Chloroethyl)ether	12.19	93	256181	166.42	ug/mL#	85
8) 2-Chlorophenol	8.16	128	146818	158.42	ug/mL#	83
9) 1,3-Dichlorobenzene	8.52	146	146004	153.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.77	146	146889	150.93	ug/mL	96
11) 1,2-Dichlorobenzene	9.16	146	145353	155.36	ug/mL	97
12) 2-Methylphenol	9.89	108	140431	164.83	ug/mLm	98
13) bis(2-chloroisopropyl)ethe	9.91	45	341496	285.74	ug/mL#	1
14) 4-Methylphenol	10.43	108	147459	154.79	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.34	70	179120	183.32	ug/mL#	95
16) Hexachloroethane	10.10	117	94889	166.27	ug/mL#	68
19) Nitrobenzene	10.51	77	286692	219.52	ug/mL	90
20) Isophorone	11.42	82	441137	153.12	ug/mLm	92
21) 2-Nitrophenol	11.44	139	100411	170.88	ug/mL#	93
22) 2,4-Dimethylphenol	11.96	107	175209	171.62	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.19	93	256181	162.94	ug/mL#	100
24) 2,4-Dichlorophenol	12.27	162	129942	170.43	ug/mL#	91
25) 1,2,4-Trichlorobenzene	12.36	180	128880	161.68	ug/mL	94
26) Naphthalene	12.54	128	430569	161.32	ug/mL	98
27) 4-Chloroaniline	12.90	127	204994	163.55	ug/mL	100
28) Hexachlorobutadiene	13.02	225	66955	164.65	ug/mL	98
29) 4-Chloro-3-methylphenol	14.64	107	173471	178.55	ug/mL#	24
30) 2-Chloronaphthalene	16.10	162	277170	176.73	ug/ml#	100
31) 2-Methylnaphthalene	14.64	142	354781	224.91	ug/mL#	68
33) Hexachlorocyclopentadiene	15.16	237	78011	185.25	ug/mL	98
34) 2,4,6-Trichlorophenol	15.66	196	125669	177.65	ug/mL	96
35) 2,4,5-Trichlorophenol	15.74	196	69360	115.77	ug/mL	95

Quantitation Report

Data File : c:\hpchem\1\data2\b8956.d Vial: 6
Acq On : 22 Oct 95 8:24 pm Operator: SCOTTV
Sample : 160 STD.... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 25 10:17 1995

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

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

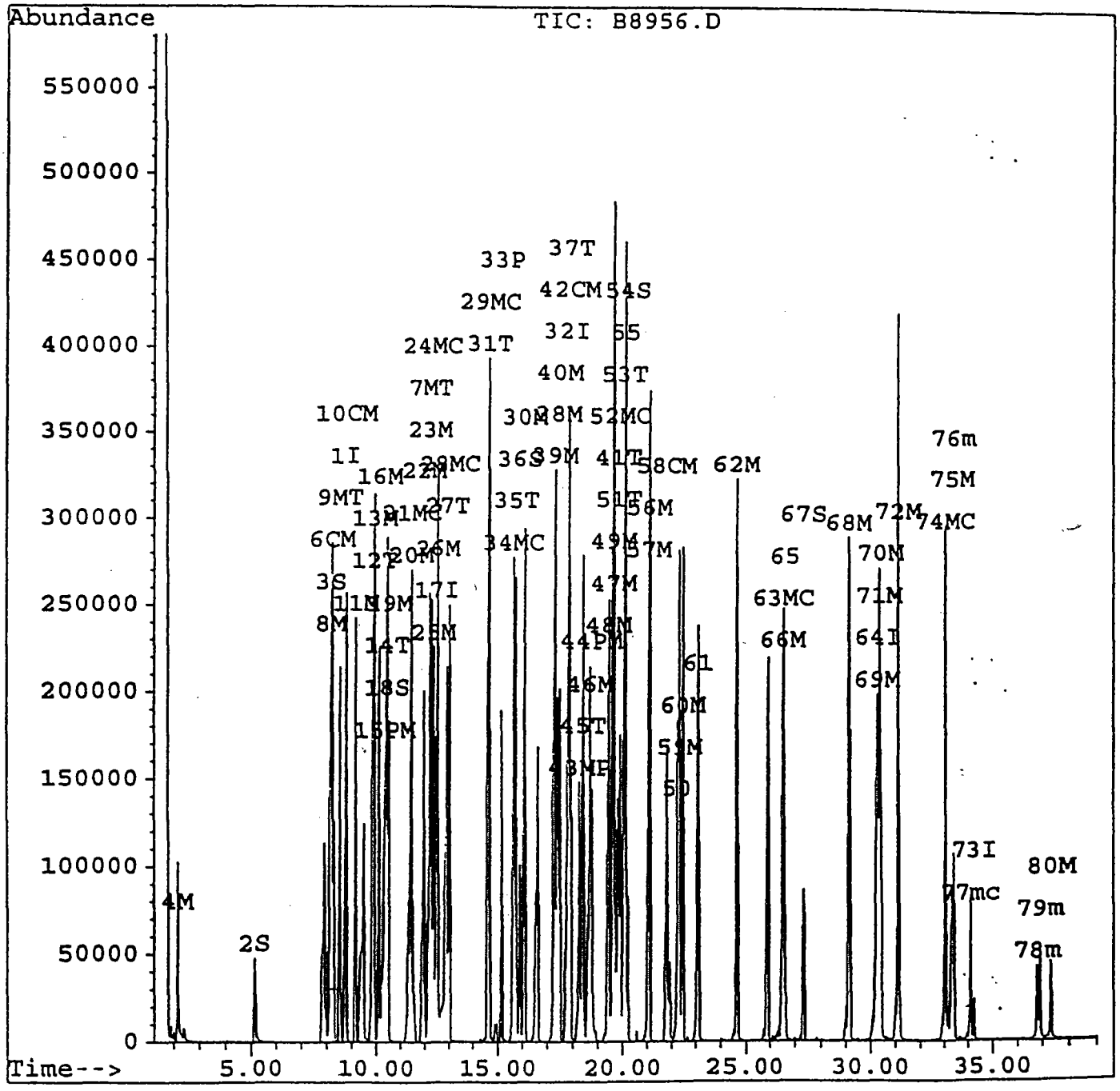
Quantitation Report

Data File : c:\hpchem\1\data2\b8956.d
Acq On : 22 Oct 95 8:24 pm
Sample : 160 STD....
Misc :
Quant Time: Oct 25 10:17 1995

Converted from RTE d

Vial: 6
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

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



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

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

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

Instrument ID: ABNA DFTPP Injection Time: 1031

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	49.9
68	Less than 2.0% of mass 69	0.4 (0.6)1
69	Mass 69 relative abundance	69.6
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	25.0 - 75.0% of mass 198	40.6
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100 % relative abundance	100.0
199	5.0 -.9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	17.7
365	Greater than 0.75% of mass 198	1.7
441	Present, but less than mass 443	5.9
442	40.0 - 110.0% of mass 198	40.0
443	15.0 - 24.0% of mass 442	7.5 (18.9)2

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

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

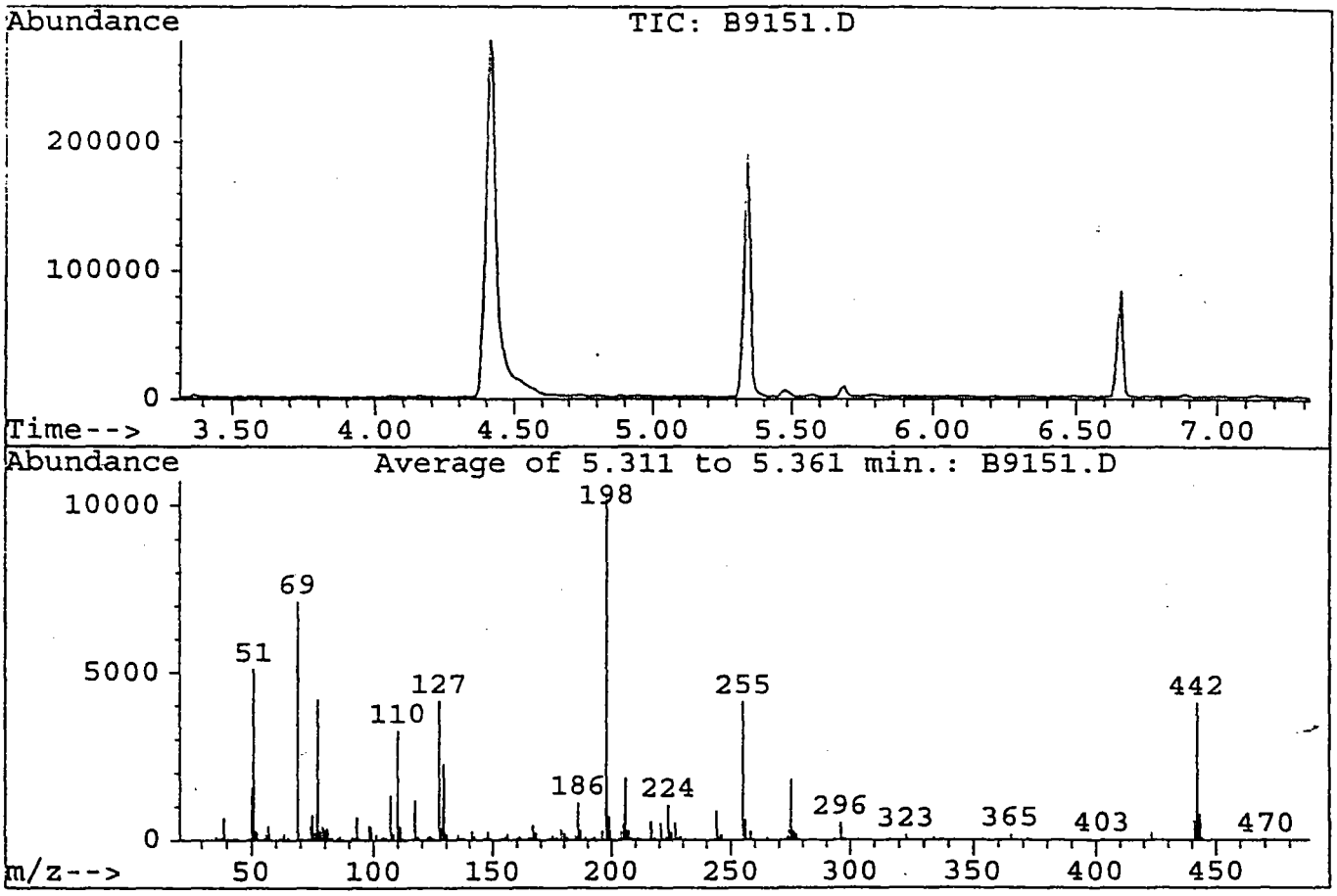
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	20 STD	B9152.D	11/20/95	1229
02	SSTD050	50 STD	B9153.D	11/20/95	1322
03	SSTD080	80 STD	B9154.D	11/20/95	1414
04	SSTD120	120 STD	B9155.D	11/20/95	1511
05	SSTD160	160 STD	B9156.D	11/20/95	1604
06	SBLK01	BLANK1	B9159.D	11/20/95	1906
07	9552294B	9552294B	B9160.D	11/20/95	1959
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B9151.D
Acq On : 20 Nov 95 10:31 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: 232

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

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

Average of 5.311 to 5.361 min.: B9151.D

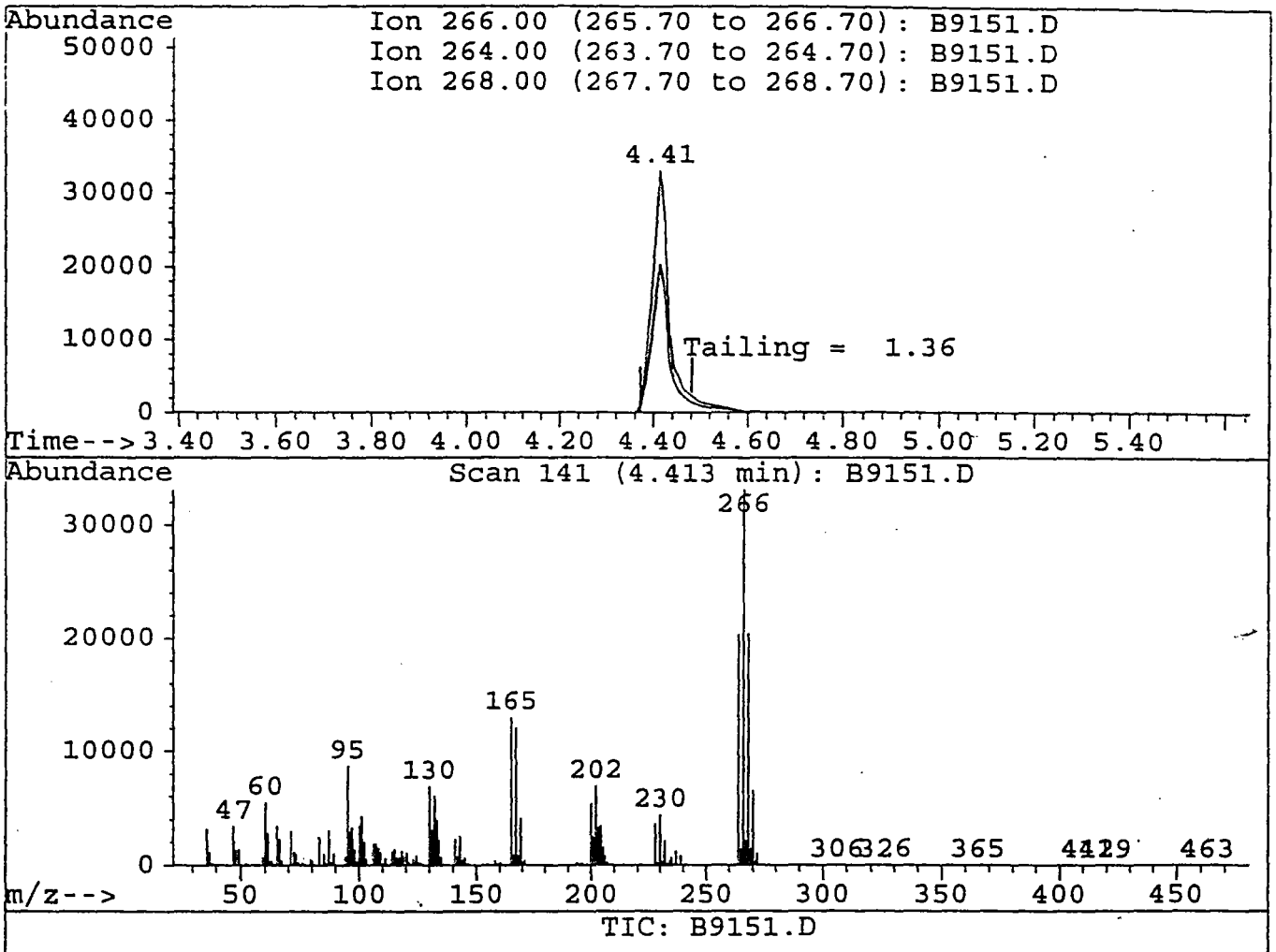
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
437.75	2	452.55	3	472.55	4		
440.15	5	457.85	3	473.05	4		
441.05	606	459.95	3				
442.05	4100	460.15	3				
443.10	773	461.15	2				
444.10	85	463.15	3				
444.95	4	465.05	2				
447.35	3	468.85	2				
450.75	9	470.15	3				
451.55	5	470.55	5				
452.05	2	471.35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

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9151.D
Acq On : 20 Nov 95 10:31 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Nov 20 10:49 1995

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

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration



TIC: B9151.D

(1) Pentachlorophenol (CM)

4.41min 222.79ug/mL

response 73587

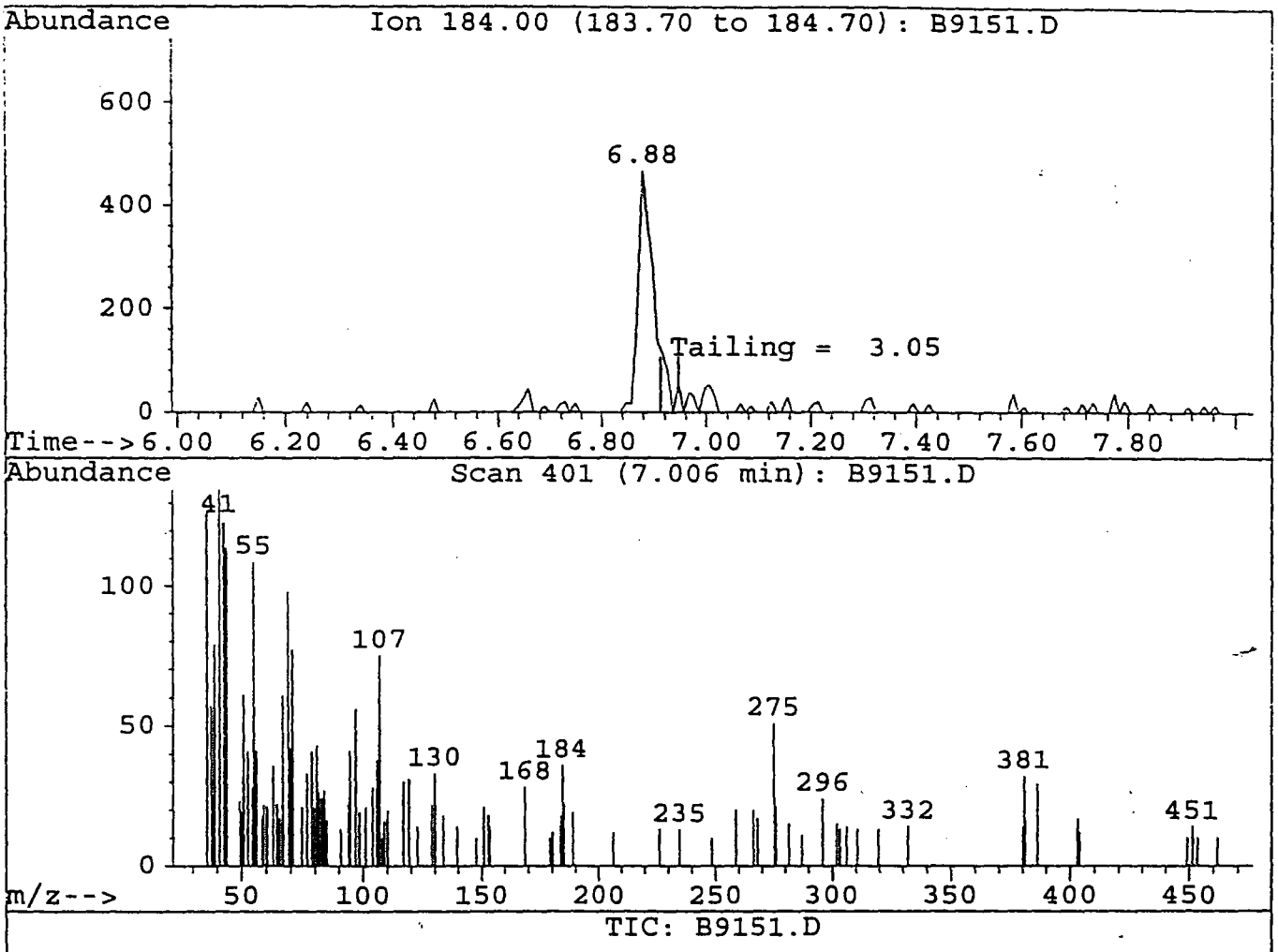
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	61.17
268.00	64.70	61.60
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9151.D
Acq On : 20 Nov 95 10:31 am
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Nov 20 10:49 1995

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

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration



TIC: B9151.D

(2) Benzidine
7.01min 0.25ug/ml
response 76

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

Response Factor Report ABNA

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

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

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

Response Factor Report ABNA

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

Calibration Files
160 =B9156.D 120 =B9155.D 80 =B9154.D
50 =B9153.D 20 =B9152.D

		Compound	160	120	80	50	20	Avg	%RSD
42)	CM	Acenaphthene	0.969	1.011	0.999	1.038	1.086	1.020	4.32
43)	MP	2,4-Dinitrophenol	0.213	0.201	0.181	0.135		0.183	18.75
44)	PM	4-Nitrophenol	0.265	0.244	0.231	0.197		0.234	12.20
45)	T	Dibenzofuran	1.278	1.362	1.485	1.435	1.602	1.433	8.57
46)	M	2,4-Dinitrotoluene	0.494	0.468	0.490	0.442	0.414	0.462	7.26
47)	M	Diethylphthalate	1.370	1.342	1.434	1.547	1.798	1.498	12.36
48)	M	Fluorene	1.013	1.072	1.131	1.160	1.246	1.125	7.87
49)	M	4-Chlorophenyl-phenyl	0.444	0.487	0.523	0.536	0.668	0.532	15.83
50)		Phenanthrene-d10	----------ISTD----------						
51)	T	4-Nitroaniline	0.182	0.169	0.165	0.180	0.200	0.179	7.62
52)	MC	4,6-Dinitro-2-methylp	0.148	0.133	0.116	0.126		0.131	10.01
53)	T	n-Nitrosodiphenylamin	0.369	0.401	0.411	0.406	0.532	0.424	14.81
54)	S	2,4,6-Tribromophenol	0.172	0.180	0.173	0.166	0.191	0.176	5.40
55)		1,2-Diphenylhydrazine	1.113	1.118	1.290	1.195	1.250	1.193	6.58
56)	M	4-Bromophenyl-phenyle	0.168	0.191	0.213	0.212	0.262	0.209	16.64
57)	M	Hexachlorobenzene	0.255	0.282	0.296	0.297	0.338	0.294	10.17
58)	CM	Pentachlorophenol	0.195	0.190	0.189	0.155		0.182	10.07
59)	M	Phenanthrene	0.962	0.968	1.041	0.933	1.040	0.989	4.93
60)	M	Anthracene	0.973	0.985	1.021	0.945	1.068	0.998	4.77
61)		Carbazole	0.958	0.971	0.988	0.903	0.939	0.952	3.41
62)	M	Di-n-butylphthalate	1.841	1.773	1.864	1.743	1.930	1.830	4.07
63)	MC	Fluoranthene	1.199	1.070	1.098	1.020	1.074	1.092	6.04
64)	I	Chrysene-d12	----------ISTD----------						
65)		Benzidine	0.088	0.104	0.113	0.160		0.116	26.55
66)	M	Pyrene	1.549	1.656	1.565	1.353	1.284	1.481	10.53
67)	S	Terphenyl-d14	1.237	1.223	1.200	0.953	0.903	1.103	14.62
68)	M	Butylbenzylphthalate	1.100	1.195	1.185	0.947	1.002	1.086	10.12
69)	M	Benzo[a]anthracene	1.326	1.388	1.275	1.166	1.112	1.253	9.06
70)	M	3,3'-Dichlorobenzidin	0.396	0.417	0.388	0.338	0.398	0.387	7.67
71)	M	Chrysene	0.801	0.884	0.963	0.846	1.030	0.905	10.16
72)	M	bis(2-Ethylhexyl)phth	1.402	1.581	1.620	1.371	1.469	1.489	7.30
73)	I	Perylene-d12	----------ISTD----------						
74)	MC	Di-n-octylphthalate	3.439	3.618	5.097	4.812		4.241	19.68
75)	M	Benzo[b]fluoranthene	1.486	1.439	1.979	1.620	1.591	1.623	13.09
76)	m	Benzo[k]fluoranthene	1.061	1.050	1.412	1.195	1.379	1.220	14.02
77)	mc	Benzo[a]pyrene	1.005	0.979	1.197	0.992	0.989	1.032	8.94
78)	m	Indeno[1,2,3-cd]pyren	0.635	0.748	0.839	0.688		0.728	12.03
79)	m	Dibenz[a,h]anthracene	0.632	0.716	0.921	0.583		0.713	20.97
80)	M	Benzo[g,h,i]perylene	0.641	0.793	0.905	0.561		0.725	21.22

(#) = Out of Range

Quantitation Report

Data File : c:\hpchem\1\data2\b9152.d Vial: 2
Acq On : 20 Nov 95 12:29 pm Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Nov 22 12:04 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.82	152	19366	40.00	ug/mL	-0.87
17) Naphthalene-d8	11.55	136	80785	40.00	ug/mL	-0.88
32) Acenaphthene-d10	16.81	164	60680	40.00	ug/mL	-0.92
50) Phenanthrene-d10	21.24	188	109687	40.00	ug/ml	-0.99
64) Chrysene-d12	29.21	240	94436	40.00	ug/mL	-1.07
73) Perylene-d12	33.16	264	40655	40.00	ug/mL	-1.08
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.14	112	25564	41.41	ug/mL	41.41%
3) Phenol-d5	7.32	99	41332	41.26	ug/mL	41.26%
18) Nitrobenzene-d5	9.53	82	44810	40.93	ug/mL	40.93%
36) 2-Fluorobiphenyl	15.02	172	82935	44.81	ug/mL	44.81%
54) 2,4,6-Tribromophenol	19.22	330	26134	75.24	ug/mL	75.24%
67) Terphenyl-d14	26.36	244	106635	45.46	ug/mL	45.46%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	8144	18.95	ug/mlm	100
6) Phenol	7.34	94	15318	16.30	ug/mL	100
7) bis(2-Chloroethyl)ether	11.30	93	21053	18.33	ug/mL	95
8) 2-Chlorophenol	7.24	128	12080	18.72	ug/mL	98
9) 1,3-Dichlorobenzene	7.61	146	13209	19.96	ug/mL	100
10) 1,4-Dichlorobenzene	7.86	146	13150	19.63	ug/mL	99
11) 1,2-Dichlorobenzene	8.24	146	12839	19.68	ug/mL	96
12) 2-Methylphenol	9.05	108	11721	18.93	ug/mLm	96
13) bis(2-chloroisopropyl)ethe	8.97	45	18321	16.94	ug/mL	99
14) 4-Methylphenol	9.55	108	12878	18.97	ug/mL	96
15) N-Nitroso-Di-n-propylamine	9.36	70	12705	17.17	ug/mL	92
16) Hexachloroethane	9.21	117	7598	18.08	ug/mL#	79
19) Nitrobenzene	9.57	77	20210	19.28	ug/mL	93
20) Isophorone	10.40	82	30563	13.74	ug/mL	95
21) 2-Nitrophenol	10.51	139	7899	16.35	ug/mL	89
22) 2,4-Dimethylphenol	11.07	107	13413	17.17	ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.30	93	21053	17.29	ug/mL#	100
24) 2,4-Dichlorophenol	11.34	162	11549	19.36	ug/mL	99
25) 1,2,4-Trichlorobenzene	11.46	180	13274	21.60	ug/mL	94
26) Naphthalene	11.59	128	38588	19.04	ug/mL	100
27) 4-Chloroaniline	12.00	127	17680	18.61	ug/mL	99
28) Hexachlorobutadiene	12.13	225	8178	25.38	ug/mL	97
29) 4-Chloro-3-methylphenol	13.79	107	15510	19.78	ug/mL	93
30) 2-Chloronaphthalene	15.16	162	28609	22.33	ug/ml#	100
31) 2-Methylnaphthalene	13.73	142	27588	15.71	ug/mL	97
33) Hexachlorocyclopentadiene	14.25	237	7301	16.64	ug/mL	97
34) 2,4,6-Trichlorophenol	14.85	196	11665	18.05	ug/mL	97
35) 2,4,5-Trichlorophenol	14.85	196	11665	22.14	ug/mL	97

Quantitation Report

Data File : c:\hpchem\1\data2\b9152.d Vial: 2 248
Acq On : 20 Nov 95 12:29 pm Operator: SCOTTV
Sample : 20 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Nov 22 12:04 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

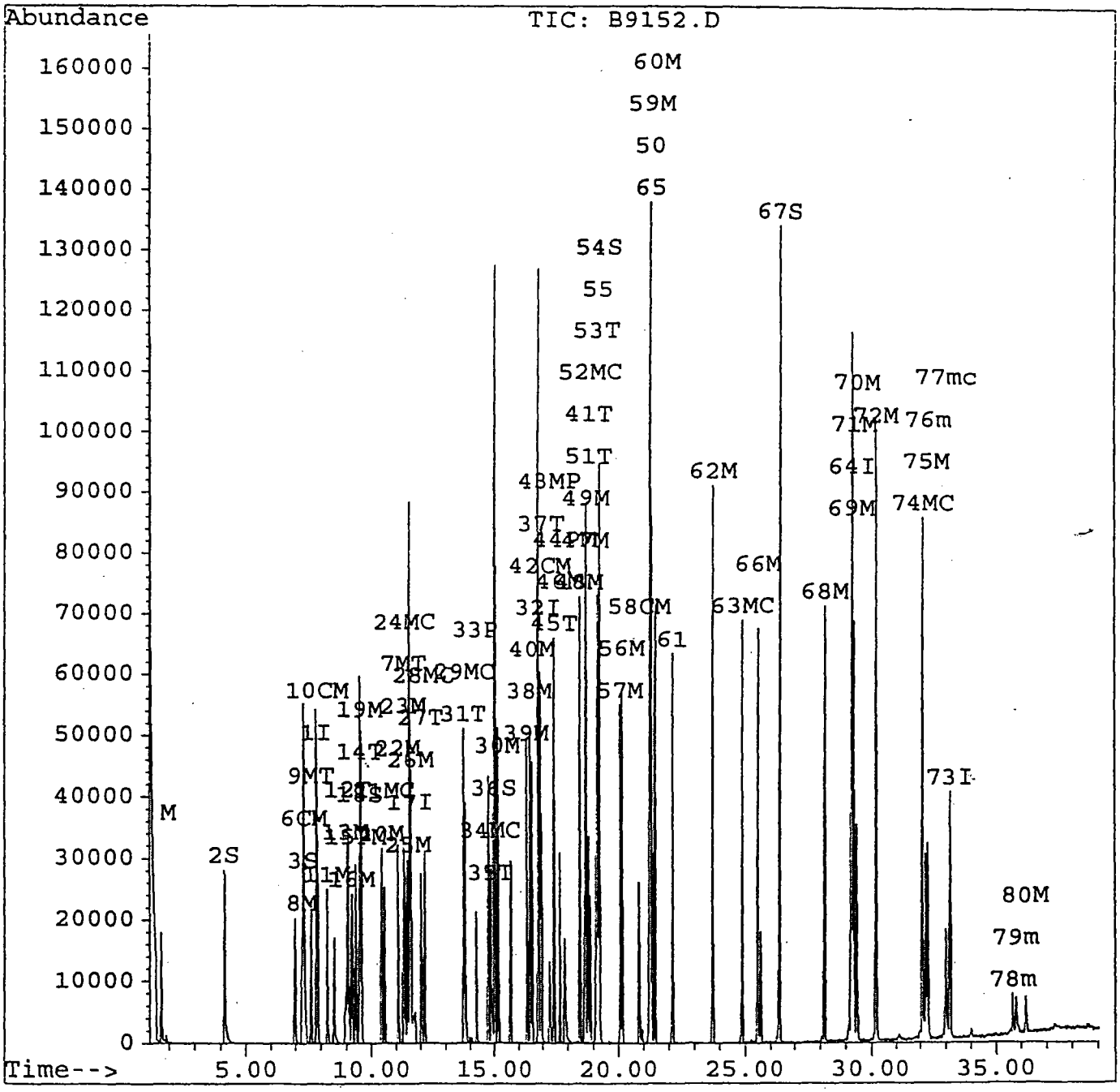
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.95	65	17542	14.77	ug/mL	89
38)	Dimethylphthalate	16.46	163	45385	21.87	ug/mL#	11
39)	Acenaphthylene	16.33	152	52878	19.36	ug/mL	97
40)	2,6-Dinitrotoluene	16.54	165	10244	21.96	ug/mL#	96
41)	3-Nitroaniline	18.80	138	10963	21.13	ug/mL	96
42)	Acenaphthene	16.89	153	32947	21.30	ug/mL	99
43)	2,4-Dinitrophenol	17.27	184	3292	10.35	ug/mL	89
44)	4-Nitrophenol	17.87	109	5992	17.33	ug/mL	89
45)	Dibenzofuran	17.45	168	48601	20.88	ug/mL#	87
46)	2,4-Dinitrotoluene	17.68	165	12573	18.32	ug/mL#	1
47)	Diethylphthalate	18.68	149	54555	23.11	ug/mL	96
48)	Fluorene	18.47	166	37810	21.35	ug/mL	98
49)	4-Chlorophenyl-phenylether	18.70	204	20266	26.26	ug/mL#	82
51)	4-Nitroaniline	18.80	138	10963	17.36	ug/mL	96
52)	4,6-Dinitro-2-methylphenol	18.87	198	6263	15.40	ug/mL	100
53)	n-Nitrosodiphenylamine	19.12	169	29203	19.63	ug/mL	94
55)	1,2-Diphenylhydrazine (as	19.16	77	68532	14.01	ug/ml	100
56)	4-Bromophenyl-phenylether	20.13	248	14362	28.00	ug/mL	97
57)	Hexachlorobenzene	20.05	284	18525	28.47	ug/mL	94
58)	Pentachlorophenol	20.80	266	8983	20.16	ug/mL	95
59)	Phenanthrene	21.30	178	57020	19.13	ug/mLm	99
60)	Anthracene	21.45	178	58588	20.01	ug/mL	99
61)	Carbazole	22.13	167	51513	17.65	ug/ml	98
62)	Di-n-butylphthalate	23.71	149	105848	19.19	ug/mL	99
63)	Fluoranthene	24.86	202	58902	19.67	ug/mLm	71
65)	Benzidine	21.24	184	15975	24.74	ug/ml	100
66)	Pyrene	25.48	202	60645	16.05	ug/mL#	81
68)	Butylbenzylphthalate	28.15	149	47305	16.09	ug/mL#	26
69)	Benzo[a]anthracene	29.19	228	52514	15.56	ug/mL	98
70)	3,3'-Dichlorobenzidine	29.41	252	18775	20.60	ug/mL#	94
71)	Chrysene	29.29	228	48650	24.05	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	30.16	149	69386	16.47	ug/mL#	23
74)	Di-n-octylphthalate	32.06	149	102182	17.66	ug/mL#	100
75)	Benzo[b]fluoranthene	32.20	252	32331	16.29	ug/mL#	96
76)	Benzo[k]fluoranthene	32.28	252	28031	23.73	ug/mLm	96
77)	Benzo[a]pyrene	32.99	252	20100	18.29	ug/mLm	96
78)	Indeno[1,2,3-cd]pyrene	35.65	276	8011	14.04	ug/mL#	78
79)	Dibenz[a,h]anthracene	35.78	278	7814	14.01	ug/mL	94
80)	Benzo[g,h,i]perylene	36.17	276	7059	13.63	ug/mLm	87

Quantitation Report

Data File : c:\hpchem\1\data2\b9152.d
Acq On : 20 Nov 95 12:29 pm
Sample : 20 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:04 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Quantitation Report

250

Data File : c:\hpchem\1\data2\b9153.d
Acq On : 20 Nov 95 1:22 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:06 1995

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.84	152	21909	40.00	ug/mL	-0.85
17) Naphthalene-d8	11.58	136	92328	40.00	ug/mL	-0.86
32) Acenaphthene-d10	16.83	164	67130	40.00	ug/mL	-0.90
50) Phenanthrene-d10	21.25	188	123423	40.00	ug/ml	-0.98
64) Chrysene-d12	29.24	240	92844	40.00	ug/mL	-1.04
73) Perylene-d12	33.15	264	30755	40.00	ug/mL	-1.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.16	112	31216	44.69	ug/mL	44.69%
3) Phenol-d5	7.34	99	51130	45.12	ug/mL	45.12%
18) Nitrobenzene-d5	9.55	82	51901	41.48	ug/mL	41.48%
36) 2-Fluorobiphenyl	15.04	172	81039	39.58	ug/mL	39.58%
54) 2,4,6-Tribromophenol	19.24	330	25579	65.45	ug/mL	65.45%
67) Terphenyl-d14	26.37	244	110564	47.94	ug/mL	47.94%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	22873	47.06	ug/mlm	100
6) Phenol	7.38	94	43087	40.53	ug/mL	100
7) bis(2-Chloroethyl)ether	11.34	93	58997	45.40	ug/mL	90
8) 2-Chlorophenol	7.26	128	34772	47.64	ug/mL	96
9) 1,3-Dichlorobenzene	7.63	146	37839	50.53	ug/mL	96
10) 1,4-Dichlorobenzene	7.88	146	38816	51.23	ug/mL	95
11) 1,2-Dichlorobenzene	8.26	146	38125	51.66	ug/mL	99
12) 2-Methylphenol	9.07	108	32481	46.36	ug/mLm	97
13) bis(2-chloroisopropyl)ethe	8.99	45	56748	46.37	ug/mL	98
14) 4-Methylphenol	9.59	108	34858	45.39	ug/mL	97
15) N-Nitroso-Di-n-propylamine	9.40	70	36828	44.01	ug/mL	97
16) Hexachloroethane	9.23	117	23023	48.41	ug/mL#	74
19) Nitrobenzene	9.61	77	63152	52.71	ug/mL	98
20) Isophorone	10.44	82	98532	38.76	ug/mL	94
21) 2-Nitrophenol	10.55	139	24042	43.53	ug/mL	97
22) 2,4-Dimethylphenol	11.11	107	41512	46.50	ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.34	93	58997	42.39	ug/mL#	100
24) 2,4-Dichlorophenol	11.38	162	31594	46.35	ug/mL	96
25) 1,2,4-Trichlorobenzene	11.48	180	36479	51.94	ug/mL	96
26) Naphthalene	11.63	128	110640	47.77	ug/mL	98
27) 4-Chloroaniline	12.04	127	50119	46.15	ug/mL	97
28) Hexachlorobutadiene	12.15	225	22043	59.86	ug/mL	98
29) 4-Chloro-3-methylphenol	13.81	107	43074	48.07	ug/mL#	83
30) 2-Chloronaphthalene	15.18	162	76788	52.45	ug/ml#	100
31) 2-Methylnaphthalene	13.75	142	98486	49.06	ug/mL	97
33) Hexachlorocyclopentadiene	14.27	237	20721	42.68	ug/mL	97
34) 2,4,6-Trichlorophenol	14.77	196	26093	36.50	ug/mL	97
35) 2,4,5-Trichlorophenol	14.87	196	29970	51.42	ug/mL	97

Quantitation Report

Data File : c:\hpchem\1\data2\b9153.d Vial: 3
Acq On : 20 Nov 95 1:22 pm Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Nov 22 12:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	16.99	65	50018	38.07	ug/mL	93
38)	Dimethylphthalate	16.51	163	110296	48.05	ug/mL#	12
39)	Acenaphthylene	16.37	152	137726	45.57	ug/mL	99
40)	2,6-Dinitrotoluene	16.58	165	27838	53.93	ug/mL#	95
41)	3-Nitroaniline	18.86	138	27743	48.34	ug/mL	95
42)	Acenaphthene	16.93	153	87062	50.87	ug/mL	95
43)	2,4-Dinitrophenol	17.30	184	11345	32.23	ug/mL	96
44)	4-Nitrophenol	17.89	109	16525	43.20	ug/mL#	85
45)	Dibenzofuran	17.47	168	120453	46.78	ug/mL	92
46)	2,4-Dinitrotoluene	17.72	165	37128	48.90	ug/mL#	1
47)	Diethylphthalate	18.70	149	129774	49.69	ug/mL	95
48)	Fluorene	18.49	166	97369	49.70	ug/mL	98
49)	4-Chlorophenyl-phenylether	18.72	204	44994	52.70	ug/mL#	80
51)	4-Nitroaniline	18.86	138	27743	39.05	ug/mL	95
52)	4,6-Dinitro-2-methylphenol	18.94	198	19466	42.54	ug/mL	100
53)	n-Nitrosodiphenylamine	19.15	169	62685	37.45	ug/mL	98
55)	1,2-Diphenylhydrazine (as	19.19	77	184330	33.48	ug/ml	100
56)	4-Bromophenyl-phenylether	20.15	248	32649	56.57	ug/mL	92
57)	Hexachlorobenzene	20.07	284	45836	62.60	ug/mL#	89
58)	Pentachlorophenol	20.82	266	23919	47.70	ug/mL	95
59)	Phenanthrene	21.33	178	143981	42.93	ug/mL	99
60)	Anthracene	21.48	178	145750	44.25	ug/mL	100
61)	Carbazole	22.15	167	139335	42.42	ug/ml	95
62)	Di-n-butylphthalate	23.73	149	268835	43.32	ug/mL#	97
63)	Fluoranthene	24.89	202	157414	46.71	ug/mLm	78
65)	Benzidine	21.27	184	18516	29.17	ug/ml	100
66)	Pyrene	25.51	202	157017	42.27	ug/mL#	87
68)	Butylbenzylphthalate	28.18	149	109897	38.03	ug/mL#	19
69)	Benzo[a]anthracene	29.20	228	135286	40.78	ug/mL	99
70)	3,3'-Dichlorobenzidine	29.42	252	39213	43.76	ug/mL#	98
71)	Chrysene	29.30	228	98159	49.36	ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	30.19	149	159156	38.42	ug/mL#	30
74)	Di-n-octylphthalate	32.07	149	184983	42.27	ug/mL#	100
75)	Benzo[b]fluoranthene	32.21	252	62291	41.49	ug/mL#	94
76)	Benzo[k]fluoranthene	32.29	252	45934	51.40	ug/mLm	94
77)	Benzo[a]pyrene	33.00	252	38144	45.88	ug/mLm	94
78)	Indeno[1,2,3-cd]pyrene	35.66	276	26456	61.30	ug/mLm	80
79)	Dibenz[a,h]anthracene	35.79	278	22396	53.09	ug/mL#	93
80)	Benzo[g,h,i]perylene	36.18	276	21568	55.05	ug/mL#	89

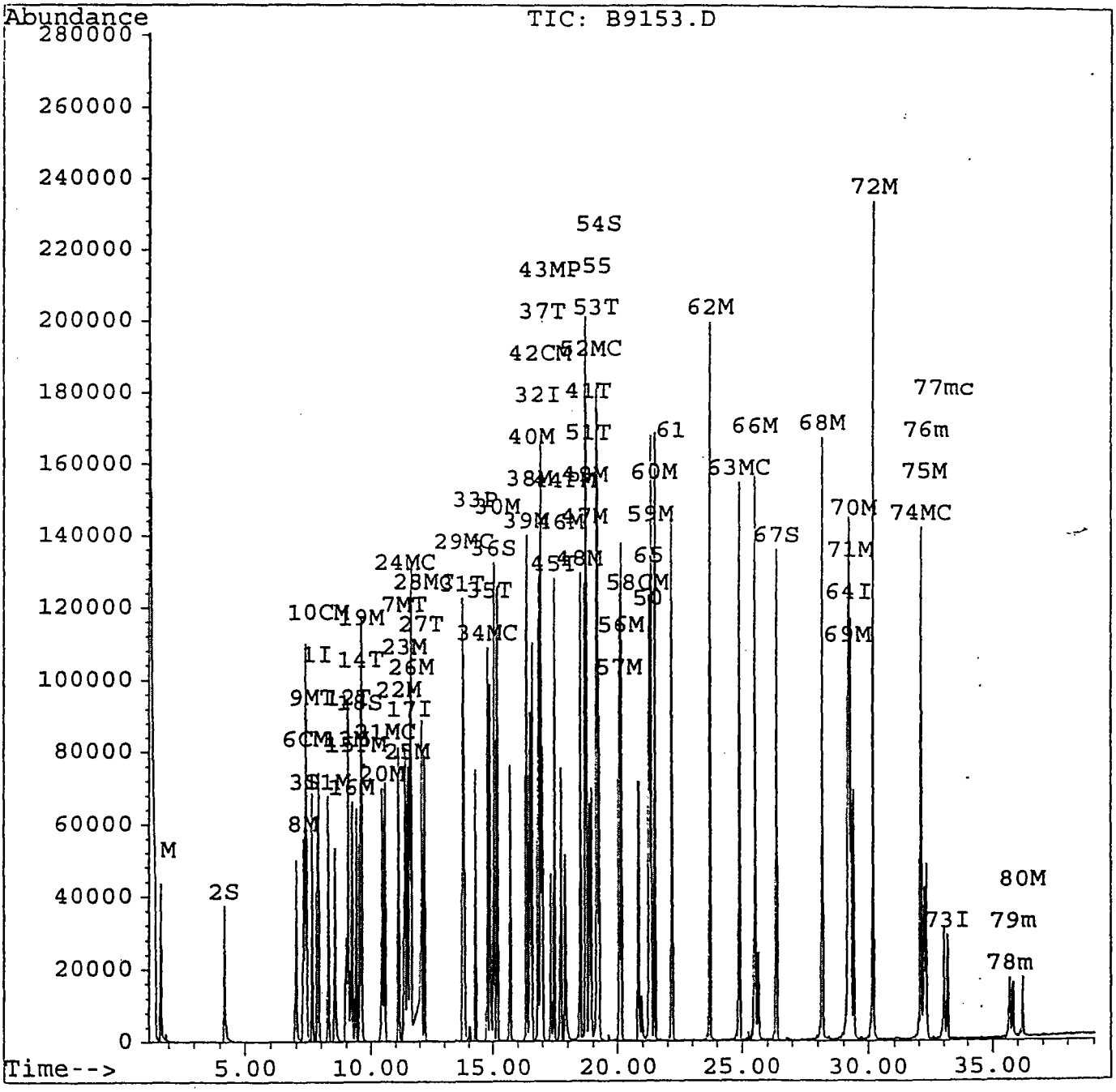
(#) = qualifier out of

Quantitation Report

Data File : c:\hpchem\1\data2\b9153.d
Acq On : 20 Nov 95 1:22 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:06 1995

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b9154.d
Acq On : 20 Nov 95 2:14 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:07 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	21149	40.00	ug/mL	-0.85
17) Naphthalene-d8	11.58	136	87105	40.00	ug/mL	-0.85
32) Acenaphthene-d10	16.85	164	65230	40.00	ug/mL	-0.89
50) Phenanthrene-d10	21.26	188	117422	40.00	ug/ml	-0.97
64) Chrysene-d12	29.26	240	78246	40.00	ug/mL	-1.03
73) Perylene-d12	33.15	264	29586	40.00	ug/mL	-1.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.17	112	31217	46.30	ug/mL	46.30%
3) Phenol-d5	7.36	99	51615	47.18	ug/mL	47.18%
18) Nitrobenzene-d5	9.56	82	54570	46.23	ug/mL	46.23%
36) 2-Fluorobiphenyl	15.05	172	83814	42.13	ug/mL	42.13%
54) 2,4,6-Tribromophenol	19.26	330	25349	68.18	ug/mL	68.18%
67) Terphenyl-d14	26.37	244	117341	60.37	ug/mL	60.37%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.69	74	34411	73.34	ug/mlm	100
6) Phenol	7.40	94	73852	71.96	ug/mL	100
7) bis(2-Chloroethyl)ether	11.35	93	94368	75.23	ug/mL	96
8) 2-Chlorophenol	7.29	128	57794	82.02	ug/mL	91
9) 1,3-Dichlorobenzene	7.63	146	60192	83.27	ug/mL	100
10) 1,4-Dichlorobenzene	7.90	146	60774	83.09	ug/mL	97
11) 1,2-Dichlorobenzene	8.29	146	61063	85.72	ug/mL	95
12) 2-Methylphenol	9.10	108	50920	75.29	ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.00	45	89347	75.63	ug/mL	96
14) 4-Methylphenol	9.62	108	53851	72.64	ug/mL	100
15) N-Nitroso-Di-n-propylamine	9.45	70	61188	75.74	ug/mL#	94
16) Hexachloroethane	9.23	117	37125	80.87	ug/mL#	75
19) Nitrobenzene	9.64	77	105018	92.90	ug/mL	97
20) Isophorone	10.49	82	159088	66.33	ug/mL	97
21) 2-Nitrophenol	10.56	139	40246	77.24	ug/mL	91
22) 2,4-Dimethylphenol	11.14	107	70519	83.74	ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.35	93	94368	71.87	ug/mL#	100
24) 2,4-Dichlorophenol	11.41	162	50454	78.45	ug/mL	95
25) 1,2,4-Trichlorobenzene	11.49	180	57084	86.14	ug/mL	96
26) Naphthalene	11.64	128	167173	76.51	ug/mL	100
27) 4-Chloroaniline	12.07	127	81200	79.26	ug/mL	98
28) Hexachlorobutadiene	12.18	225	34993	100.72	ug/mL	98
29) 4-Chloro-3-methylphenol	13.82	107	72479	85.73	ug/mL	89
30) 2-Chloronaphthalene	15.19	162	130435	94.44	ug/ml#	100
31) 2-Methylnaphthalene	13.76	142	160669	84.83	ug/mL	99
33) Hexachlorocyclopentadiene	14.28	237	37611	79.73	ug/mL#	97
34) 2,4,6-Trichlorophenol	14.78	196	44855	64.57	ug/mL	98
35) 2,4,5-Trichlorophenol	14.88	196	46266	81.69	ug/mL	96

(#) qualifier

Quantitation Report

254

Data File : c:\hpchem\1\data2\b9154.d Vial: 4
Acq On : 20 Nov 95 2:14 pm Operator: SCOTTV
Sample : 80 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Nov 22 12:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.02	65	84624	66.28	ug/mL	89
38)	Dimethylphthalate	16.54	163	175842	78.83	ug/mL#	12
39)	Acenaphthylene	16.38	152	205000	69.80	ug/mL	99
40)	2,6-Dinitrotoluene	16.61	165	45185	90.09	ug/mL#	99
41)	3-Nitroaniline	18.91	138	38767	69.52	ug/mL	98
42)	Acenaphthene	16.94	153	130279	78.33	ug/mL	99
43)	2,4-Dinitrophenol	17.35	184	23597	69.00	ug/mL#	81
44)	4-Nitrophenol	17.91	109	30181	81.21	ug/mL	84
45)	Dibenzofuran	17.50	168	193762	77.44	ug/mL	88
46)	2,4-Dinitrotoluene	17.75	165	63886	86.58	ug/mL#	1
47)	Diethylphthalate	18.74	149	187094	73.73	ug/mL	95
48)	Fluorene	18.52	166	147613	77.55	ug/mL	96
49)	4-Chlorophenyl-phenylether	18.74	204	68166	82.17	ug/mL#	83
51)	4-Nitroaniline	18.91	138	38767	57.36	ug/mL	98
52)	4,6-Dinitro-2-methylphenol	18.97	198	27346	62.82	ug/mL	100
53)	n-Nitrosodiphenylamine	19.18	169	96556	60.63	ug/mL	97
55)	1,2-Diphenylhydrazine (as	19.20	77	303006	57.85	ug/ml	100
56)	4-Bromophenyl-phenylether	20.16	248	49920	90.92	ug/mL	93
57)	Hexachlorobenzene	20.11	284	69411	99.65	ug/mL#	80
58)	Pentachlorophenol	20.86	266	44474	93.22	ug/mL	100
59)	Phenanthrene	21.34	178	244369	76.58	ug/mLm	98
60)	Anthracene	21.49	178	239679	76.48	ug/mL	98
61)	Carbazole	22.17	167	231960	74.22	ug/ml	95
62)	Di-n-butylphthalate	23.75	149	437710	74.14	ug/mL#	97
63)	Fluoranthene	24.90	202	257785	80.40	ug/mLm	79
65)	Benzidine	21.26	184	17684	33.05	ug/ml	100
66)	Pyrene	25.52	202	244857	78.22	ug/mL#	89
68)	Butylbenzylphthalate	28.20	149	185366	76.11	ug/mL#	18
69)	Benzo[a]anthracene	29.22	228	199585	71.39	ug/mL	100
70)	3,3'-Dichlorobenzidine	29.42	252	60675	80.35	ug/mL#	94
71)	Chrysene	29.32	228	150741	89.95	ug/mLm	100
72)	bis(2-Ethylhexyl)phthalate	30.19	149	253443	72.60	ug/mL#	24
74)	Di-n-octylphthalate	32.07	149	301609	71.64	ug/mL#	100
75)	Benzo[b]fluoranthene	32.21	252	117097	81.08	ug/mL#	94
76)	Benzo[k]fluoranthene	32.31	252	83571	97.21	ug/mLm	94
77)	Benzo[a]pyrene	33.00	252	70806	88.54	ug/mLm	93
78)	Indeno[1,2,3-cd]pyrene	35.66	276	49674	119.65	ug/mLm	71
79)	Dibenz[a,h]anthracene	35.79	278	54514	134.34	ug/mL	93
80)	Benzo[g,h,i]perylene	36.20	276	53556	142.09	ug/mL#	83

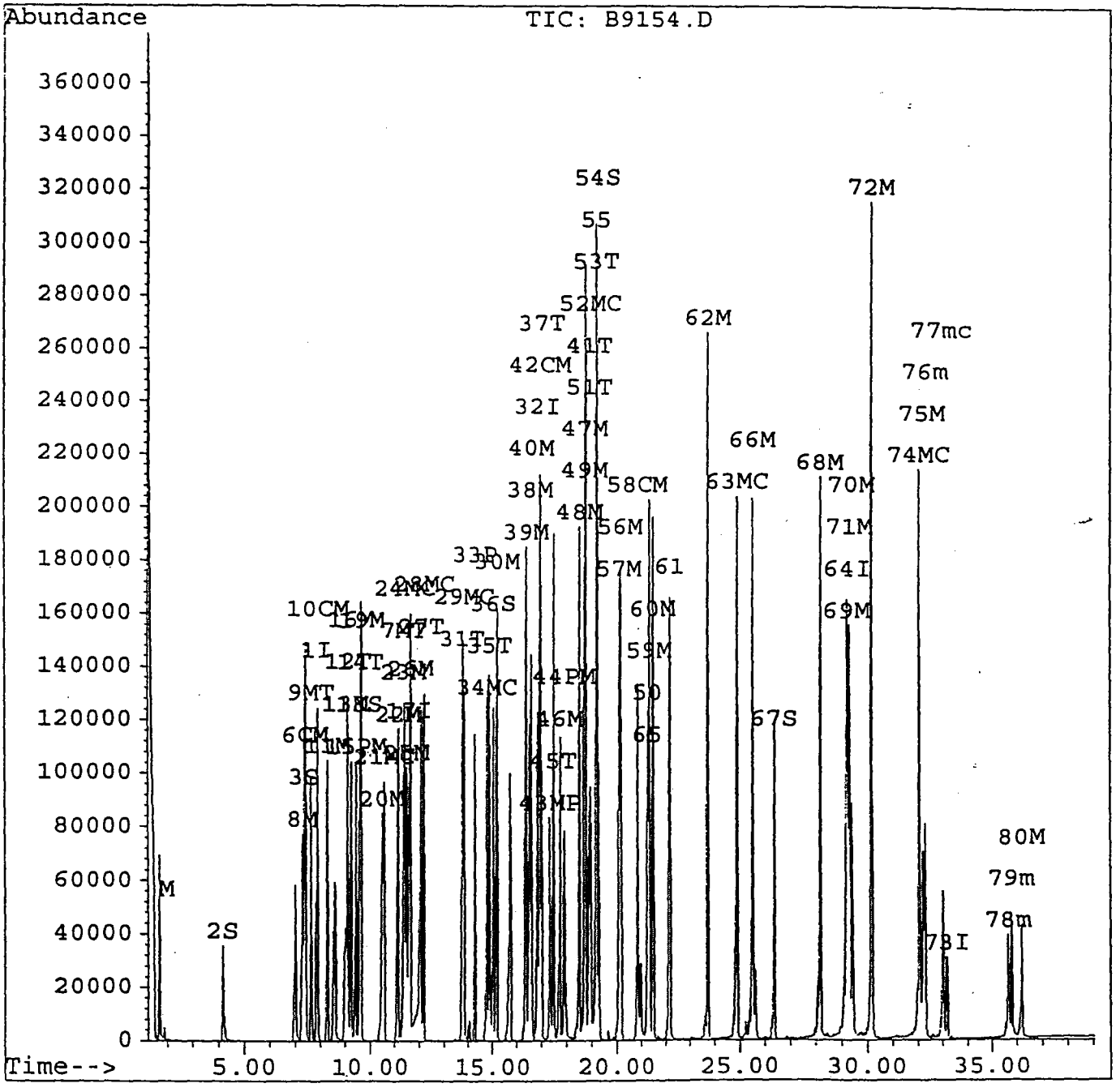
(#) = qualifier out of

Quantitation Report

Data File : c:\hpchem\1\data2\b9154.d
Acq On : 20 Nov 95 2:14 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:07 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b9155.d
Acq On : 20 Nov 95 3:11 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:18 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.86	152	21393	40.00	ug/mL	-0.83
17) Naphthalene-d8	11.60	136	89884	40.00	ug/mL	-0.83
32) Acenaphthene-d10	16.86	164	68594	40.00	ug/mL	-0.87
50) Phenanthrene-d10	21.28	188	124831	40.00	ug/ml	-0.95
64) Chrysene-d12	29.28	240	80803	40.00	ug/mL	-1.01
73) Perylene-d12	33.17	264	40378	40.00	ug/mL	-1.07
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.18	112	31242	45.81	ug/mL	45.81%
3) Phenol-d5	7.38	99	52903	47.81	ug/mL	47.81%
18) Nitrobenzene-d5	9.60	82	56558	46.43	ug/mL	46.43%
36) 2-Fluorobiphenyl	15.07	172	93337	44.61	ug/mL	44.61%
54) 2,4,6-Tribromophenol	19.30	330	28016	70.88	ug/mL	70.88%
67) Terphenyl-d14	26.37	244	123504	61.53	ug/mL	61.53%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	61263	129.08	ug/mlm	100
6) Phenol	7.44	94	113845	109.67	ug/mL	100
7) bis(2-Chloroethyl)ether	11.39	93	137382	108.27	ug/mL	90
8) 2-Chlorophenol	7.30	128	84421	118.44	ug/mL	94
9) 1,3-Dichlorobenzene	7.65	146	84510	115.58	ug/mL	96
10) 1,4-Dichlorobenzene	7.92	146	85696	115.82	ug/mL	99
11) 1,2-Dichlorobenzene	8.29	146	87755	121.79	ug/mL	99
12) 2-Methylphenol	9.13	108	81052	118.48	ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.02	45	137800	115.32	ug/mL	97
14) 4-Methylphenol	9.67	108	87534	116.73	ug/mL	100
15) N-Nitroso-Di-n-propylamine	9.48	70	93023	113.83	ug/mL	98
16) Hexachloroethane	9.23	117	53808	115.88	ug/mL	85
19) Nitrobenzene	9.65	77	153016	131.18	ug/mL	95
20) Isophorone	10.56	82	176763	71.42	ug/mL#	93
21) 2-Nitrophenol	10.60	139	60412	112.37	ug/mL	96
22) 2,4-Dimethylphenol	11.18	107	108531	124.89	ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.39	93	137382	101.39	ug/mL#	100
24) 2,4-Dichlorophenol	11.45	162	72744	109.61	ug/mL	95
25) 1,2,4-Trichlorobenzene	11.50	180	81586	119.31	ug/mL	93
26) Naphthalene	11.68	128	265432	117.73	ug/mL	99
27) 4-Chloroaniline	12.08	127	121913	115.32	ug/mL	96
28) Hexachlorobutadiene	12.18	225	47234	131.75	ug/mL	99
29) 4-Chloro-3-methylphenol	13.86	107	113540	130.15	ug/mL#	83
30) 2-Chloronaphthalene	15.21	162	190634	133.76	ug/ml#	100
31) 2-Methylnaphthalene	13.78	142	244141	124.92	ug/mL	97
33) Hexachlorocyclopentadiene	14.30	237	55971	112.83	ug/mL	98
34) 2,4,6-Trichlorophenol	14.80	196	71133	97.38	ug/mL	95
35) 2,4,5-Trichlorophenol	14.90	196	70146	117.78	ug/mL	96

(#) = qualifi...

Quantitation Report

Data File : c:\hpchem\1\data2\b9155.d
Acq On : 20 Nov 95 3:11 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:18 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

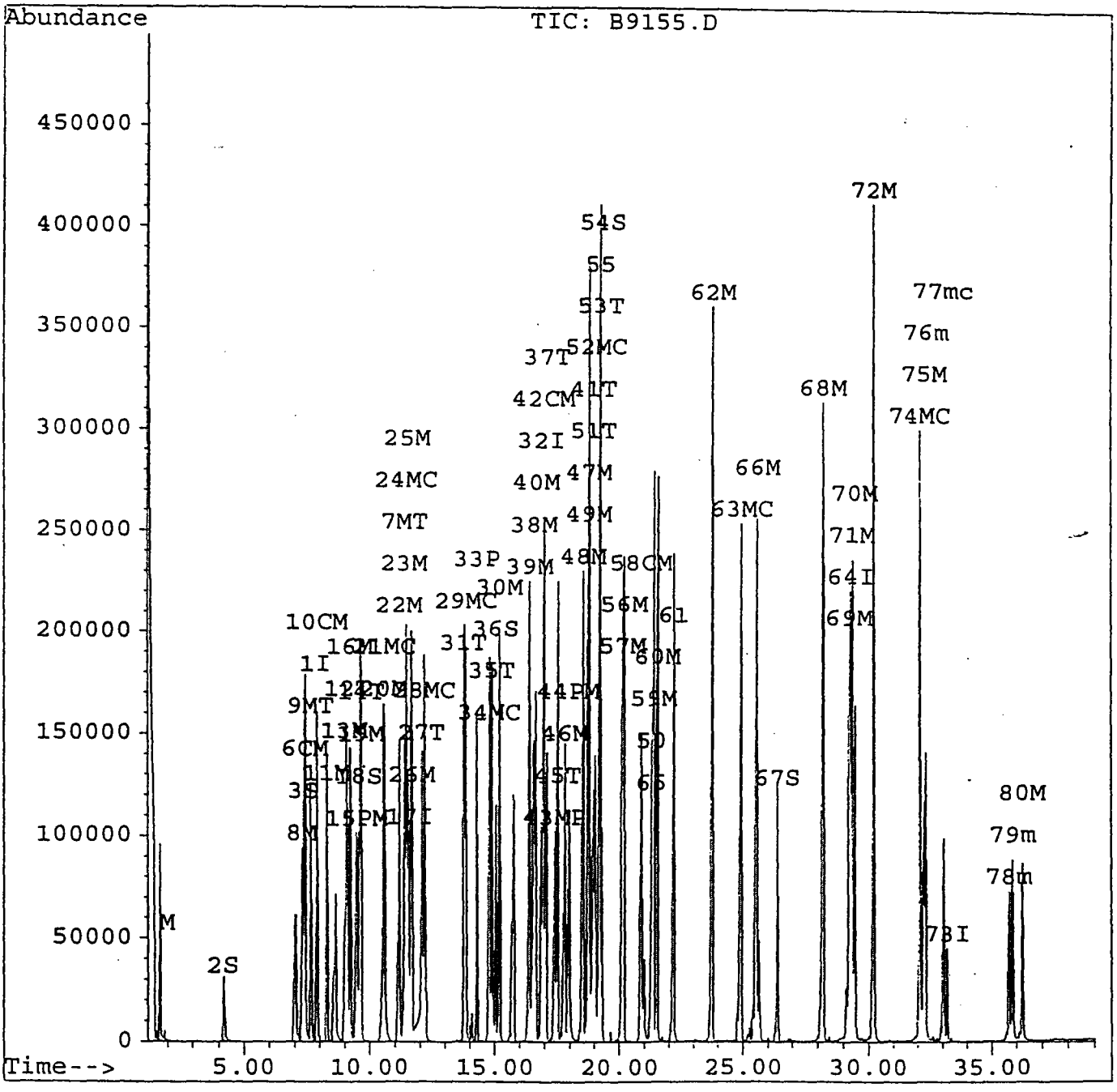
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.08	65	145818	108.61	ug/mL	85
38)	Dimethylphthalate	16.57	163	274872	117.18	ug/mL#	12
39)	Acenaphthylene	16.40	152	321563	104.12	ug/mL	99
40)	2,6-Dinitrotoluene	16.65	165	66698	126.46	ug/mL#	96
41)	3-Nitroaniline	18.97	138	63194	107.76	ug/mL	97
42)	Acenaphthene	16.96	153	208073	118.97	ug/mL	99
43)	2,4-Dinitrophenol	17.40	184	41392	115.10	ug/mL#	70
44)	4-Nitrophenol	17.96	109	50217	128.49	ug/mL#	88
45)	Dibenzofuran	17.52	168	280201	106.49	ug/mL#	87
46)	2,4-Dinitrotoluene	17.81	165	96403	124.25	ug/mL#	1
47)	Diethylphthalate	18.77	149	276218	103.51	ug/mL#	93
48)	Fluorene	18.54	166	220505	110.16	ug/mL	95
49)	4-Chlorophenyl-phenylether	18.75	204	100302	114.98	ug/mL#	80
51)	4-Nitroaniline	18.97	138	63194	87.95	ug/mL	97
52)	4,6-Dinitro-2-methylphenol	19.03	198	49923	107.88	ug/mL	100
53)	n-Nitrosodiphenylamine	19.22	169	150343	88.80	ug/mL	99
55)	1,2-Diphenylhydrazine (as	19.24	77	418716	75.19	ug/ml	100
56)	4-Bromophenyl-phenylether	20.18	248	71656	122.76	ug/mL	93
57)	Hexachlorobenzene	20.12	284	105667	142.69	ug/mL#	76
58)	Pentachlorophenol	20.88	266	71152	140.28	ug/mL	99
59)	Phenanthrene	21.38	178	362651	106.91	ug/mL	99
60)	Anthracene	21.53	178	368967	110.75	ug/mL	99
61)	Carbazole	22.19	167	363617	109.44	ug/ml	94
62)	Di-n-butylphthalate	23.75	149	663866	105.77	ug/mL	98
63)	Fluoranthene	24.92	202	400665	117.55	ug/mLm	72
65)	Benzidine	21.28	184	25272	45.74	ug/mlm	100
66)	Pyrene	25.54	202	401509	124.20	ug/mL#	83
68)	Butylbenzylphthalate	28.20	149	289743	115.20	ug/mL#	18
69)	Benzo[a]anthracene	29.24	228	336557	116.57	ug/mL	98
70)	3,3'-Dichlorobenzidine	29.43	252	101174	129.73	ug/mL#	96
71)	Chrysene	29.34	228	214314	123.84	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	30.19	149	383155	106.29	ug/mL#	22
74)	Di-n-octylphthalate	32.07	149	438231	76.28	ug/mL#	100
75)	Benzo[b]fluoranthene	32.25	252	174291	88.43	ug/mL#	92
76)	Benzo[k]fluoranthene	32.33	252	127243	108.45	ug/mLm	92
77)	Benzo[a]pyrene	33.02	252	118613	108.67	ug/mLm	92
78)	Indeno[1,2,3-cd]pyrene	35.68	276	90641	159.97	ug/mLm	70
79)	Dibenz[a,h]anthracene	35.81	278	86714	156.58	ug/mL	93
80)	Benzo[g,h,i]perylene	36.22	276	96038	186.69	ug/mL#	83

Quantitation Report

Data File : c:\hpchem\1\data2\b9155.d
Acq On : 20 Nov 95 3:11 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:18 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b9156.d Vial: 6
Acq On : 20 Nov 95 4:04 pm Operator: SCOTTV
Sample : 160 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Nov 22 12:21 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.86	152	22101	40.00	ug/mL	-0.83
17) Naphthalene-d8	11.62	136	92020	40.00	ug/mL	-0.81
32) Acenaphthene-d10	16.87	164	64329	40.00	ug/mL	-0.87
50) Phenanthrene-d10	21.30	188	117328	40.00	ug/ml	-0.93
64) Chrysene-d12	29.28	240	89266	40.00	ug/mL	-1.00
73) Perylene-d12	33.18	264	45167	40.00	ug/mL	-1.06
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.20	112	31739	45.05	ug/mL	45.05%
3) Phenol-d5	7.42	99	54612	47.77	ug/mL	47.77%
18) Nitrobenzene-d5	9.62	82	56583	45.37	ug/mL	45.37%
36) 2-Fluorobiphenyl	15.07	172	91744	46.76	ug/mL	46.76%
54) 2,4,6-Tribromophenol	19.32	330	25154	67.71	ug/mL	67.71%
67) Terphenyl-d14	26.37	244	137972	62.22	ug/mL	62.22%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.70	74	71477	145.77	ug/mlm	100
6) Phenol	7.46	94	138751	129.38	ug/mL	100
7) bis(2-Chloroethyl)ether	11.41	93	184172	140.49	ug/mL	89
8) 2-Chlorophenol	7.32	128	115858	157.34	ug/mL	94
9) 1,3-Dichlorobenzene	7.67	146	113094	149.72	ug/mL	97
10) 1,4-Dichlorobenzene	7.92	146	114850	150.25	ug/mL	98
11) 1,2-Dichlorobenzene	8.30	146	111815	150.20	ug/mL	97
12) 2-Methylphenol	9.15	108	108583	153.64	ug/mL	68
13) bis(2-chloroisopropyl)ethe	9.02	45	265566	215.12	ug/mL#	95
14) 4-Methylphenol	9.71	108	114296	147.53	ug/mL	98
15) N-Nitroso-Di-n-propylamine	9.54	70	131314	155.54	ug/mL#	98
16) Hexachloroethane	9.25	117	70643	147.26	ug/mL#	80
19) Nitrobenzene	9.69	77	212977	178.35	ug/mL	90
20) Isophorone	10.62	82	247293	97.60	ug/mL#	93
21) 2-Nitrophenol	10.62	139	80291	145.87	ug/mL	99
22) 2,4-Dimethylphenol	11.22	107	147781	166.11	ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.41	93	184172	132.77	ug/mL#	100
24) 2,4-Dichlorophenol	11.47	162	97425	143.39	ug/mL	94
25) 1,2,4-Trichlorobenzene	11.52	180	106068	151.52	ug/mL	93
26) Naphthalene	11.68	128	343139	148.66	ug/mL	100
27) 4-Chloroaniline	12.10	127	161976	149.65	ug/mL	99
28) Hexachlorobutadiene	12.20	225	62019	168.98	ug/mL	98
29) 4-Chloro-3-methylphenol	13.88	107	144226	161.48	ug/mL	86
30) 2-Chloronaphthalene	15.23	162	233262	159.87	ug/ml#	100
31) 2-Methylnaphthalene	13.80	142	306392	153.13	ug/mL	92
33) Hexachlorocyclopentadiene	14.30	237	75372	162.01	ug/mL	99
34) 2,4,6-Trichlorophenol	14.84	196	95784	139.82	ug/mL	100
35) 2,4,5-Trichlorophenol	14.92	196	88905	159.18	ug/mL	98

(#) = qualifier out of

Quantitation Report

260

Data File : c:\hpchem\1\data2\b9156.d
Acq On : 20 Nov 95 4:04 pm
Sample : 160 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:21 1995

Vial: 6
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.12	65	185263	147.14	ug/mL	89
38)	Dimethylphthalate	16.59	163	343745	156.26	ug/mL#	12
39)	Acenaphthylene	16.42	152	390100	134.69	ug/mL	99
40)	2,6-Dinitrotoluene	16.69	165	87603	177.11	ug/mL#	94
41)	3-Nitroaniline	19.01	138	85342	155.18	ug/mL	94
42)	Acenaphthene	16.98	153	249378	152.04	ug/mL	97
43)	2,4-Dinitrophenol	17.44	184	54798	162.48	ug/mL#	85
44)	4-Nitrophenol	18.02	109	68223	186.14	ug/mL#	77
45)	Dibenzofuran	17.54	168	328941	133.31	ug/mL#	83
46)	2,4-Dinitrotoluene	17.85	165	127167	174.76	ug/mL#	1
47)	Diethylphthalate	18.81	149	352507	140.86	ug/mL#	92
48)	Fluorene	18.56	166	260696	138.87	ug/mL	98
49)	4-Chlorophenyl-phenylether	18.78	204	114266	139.67	ug/mL#	75
51)	4-Nitroaniline	19.01	138	85342	126.37	ug/mL	94
52)	4,6-Dinitro-2-methylphenol	19.08	198	69259	159.23	ug/mL	100
53)	n-Nitrosodiphenylamine	19.24	169	173217	108.85	ug/mL	96
55)	1,2-Diphenylhydrazine (as	19.26	77	522383	99.81	ug/ml	100
56)	4-Bromophenyl-phenylether	20.20	248	78677	143.41	ug/mL#	87
57)	Hexachlorobenzene	20.15	284	119797	172.12	ug/mL#	66
58)	Pentachlorophenol	20.90	266	91464	191.86	ug/mL	98
59)	Phenanthrene	21.40	178	451397	141.58	ug/mLm	99
60)	Anthracene	21.56	178	456755	145.86	ug/mL	99
61)	Carbazole	22.21	167	449707	144.01	ug/ml	95
62)	Di-n-butylphthalate	23.77	149	863992	146.46	ug/mL#	98
63)	Fluoranthene	24.95	202	562658	175.63	ug/mLm	77
65)	Benzidine	21.30	184	31272	51.24	ug/mlm	100
66)	Pyrene	25.54	202	552982	154.84	ug/mL#	87
68)	Butylbenzylphthalate	28.22	149	392647	141.31	ug/mL#	17
69)	Benzo[a]anthracene	29.26	228	473299	148.40	ug/mL	99
70)	3,3'-Dichlorobenzidine	29.44	252	141407	164.13	ug/mL#	95
71)	Chrysene	29.36	228	286102	149.64	ug/mLm	100
72)	bis(2-Ethylhexyl)phthalate	30.19	149	500621	125.71	ug/mL#	29
74)	Di-n-octylphthalate	32.10	149	621312	96.68	ug/mL#	100
75)	Benzo[b]fluoranthene	32.27	252	268405	121.74	ug/mL#	93
76)	Benzo[k]fluoranthene	32.35	252	191711	146.08	ug/mLm	93
77)	Benzo[a]pyrene	33.04	252	181522	148.68	ug/mLm	93
78)	Indeno[1,2,3-cd]pyrene	35.70	276	114792	181.12	ug/mL#	78
79)	Dibenz[a,h]anthracene	35.84	278	114109	184.20	ug/mL#	86
80)	Benzo[g,h,i]perylene	36.22	276	115784	201.21	ug/mL#	86

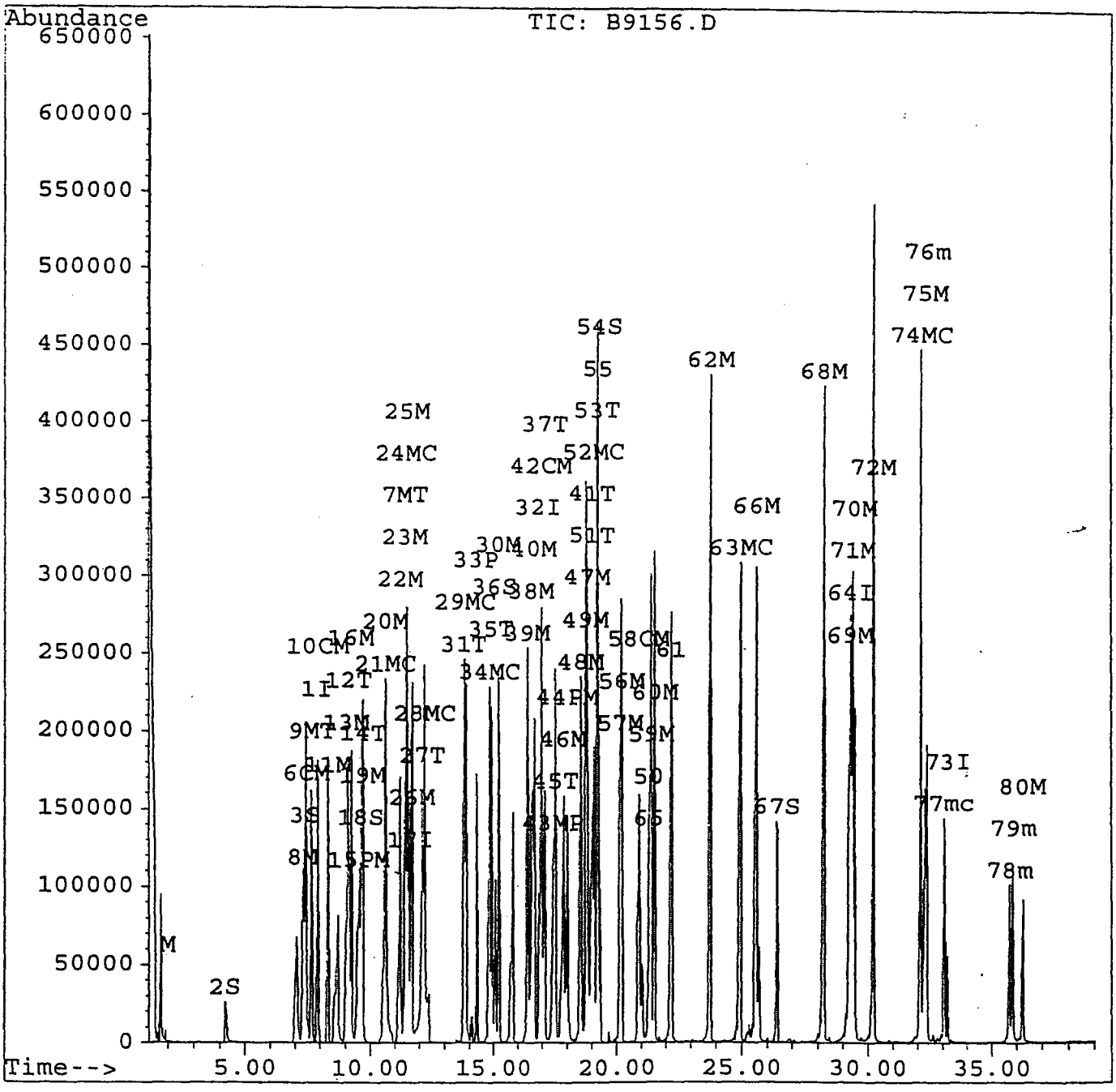
(#) qualifier

Quantitation Report

Data File : c:\hpchem\1\data2\b9156.d
Acq On : 20 Nov 95 4:04 pm
Sample : 160 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:21 1995

Vial: 6
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 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: B9005.D DFTPP Injection Date: 10/27/95

Instrument ID: ABNA DFTPP Injection Time: 1121

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	58.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	76.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	46.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.5
275	10.0 - 30.0% of mass 198	19.3
365	Greater than 0.75% of mass 198	2.3
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	62.3
443	15.0 - 24.0% of mass 442	11.8 (19.0)2

1-Value is % mass 69 2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

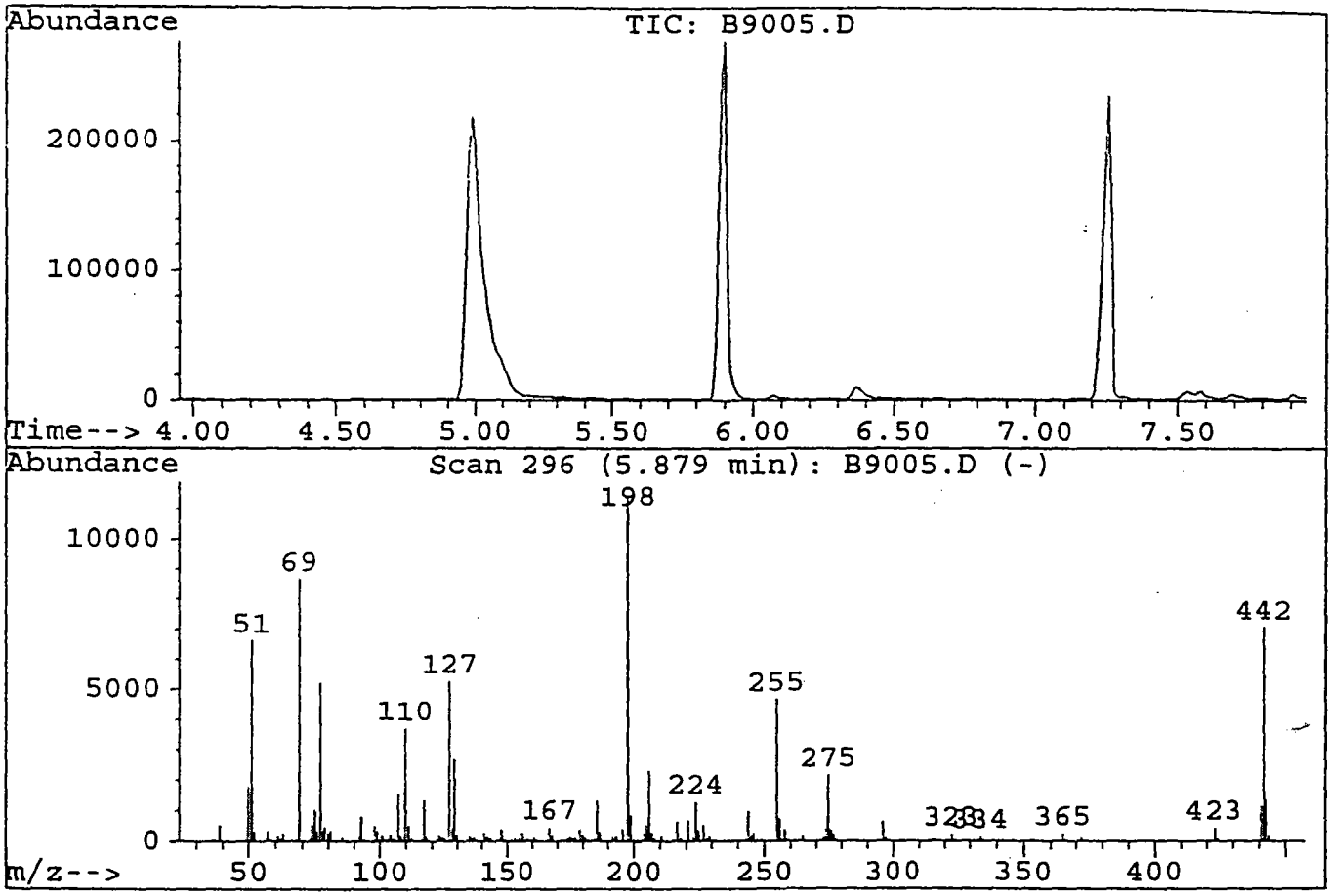
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B9008.D	10/27/95	1329
02	SBLK01	BLANK1	B9009.D	10/27/95	1421
03	9547000B	9547000B	B9010.D	10/27/95	1512
04	46360MS	46360MS	B9011.D	10/27/95	1604
05	46360MSD	46360MSD	B9012.D	10/27/95	1656
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B9005.D
Acq On : 27 Oct 95 11:21 am
Sample : DFTPP.....
Misc :

Vial: 1
Operator: SCOTTV
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58.5	6640	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	76.5	8681	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	46.5	5278	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	11354	PASS
199	198	5	9	7.5	851	PASS
275	198	10	30	19.3	2186	PASS
365	198	1	100	2.3	262	PASS
441	443	0	100	85.7	1150	PASS
442	198	40	100	62.3	7070	PASS
443	442	17	23	19.0	1342	PASS

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	76	61.05	162	78.05	357	92.95	836
39.10	538	62.05	105	78.95	456	94.05	60
40.10	11	63.05	251	80.05	272	96.00	4
49.15	60	64.05	21	81.05	337	98.00	514
50.10	1802	65.05	39	82.05	22	99.00	334
51.10	6640	69.05	8681	83.95	27	100.00	61
52.10	309	73.25	96	84.15	30	100.90	173
56.05	84	74.05	568	85.95	152	102.10	23
57.05	325	74.95	1043	87.05	60	103.00	131
57.95	40	75.95	325	88.15	24	104.00	213
58.95	33	77.05	5224	92.15	139	105.00	77

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
106.10	45	119.20	28	131.95	21	145.95	60
107.00	1558	120.10	23	133.85	94	147.05	123
108.00	176	122.10	159	135.05	173	147.95	389
109.10	71	123.10	219	135.95	85	148.85	58
109.95	3714	124.00	134	136.95	116	150.05	34
111.00	519	125.00	94	137.75	36	151.25	56
112.00	87	127.00	5278	140.05	29	151.95	43
113.10	31	128.00	424	140.95	285	152.95	140
116.00	131	128.95	2715	141.95	153	153.95	69
117.00	1370	129.85	217	143.05	97	154.95	138
117.90	140	131.10	50	145.05	19	156.05	290

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
157.15	71	169.10	53	178.80	398	189.90	28
157.95	86	170.20	25	179.85	215	190.90	62
158.95	48	170.90	34	180.90	122	191.90	140
159.95	73	171.90	78	181.90	29	193.00	137
160.85	143	173.00	95	182.80	17	195.00	27
161.95	53	174.00	147	184.00	47	195.90	402
164.05	17	175.00	154	184.80	122	197.90	11354
164.90	13	176.00	98	185.85	1327	198.80	851
165.95	79	177.10	135	186.90	319	200.00	72
166.90	470	177.80	31	187.90	49	201.40	85
167.90	186	178.10	37	188.80	46	203.00	60

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.80	274	220.95	681	234.95	47	246.90	54
204.95	542	222.85	148	235.95	43	247.60	10
205.95	2320	223.85	1298	236.95	67	248.90	64
206.85	289	224.95	385	239.05	37	253.40	16
207.95	112	225.95	47	239.90	19	254.90	4690
208.95	41	226.95	533	240.90	49	255.80	735
210.75	167	227.95	107	241.80	74	256.90	64
214.85	42	228.85	163	242.90	80	257.90	400
215.95	68	229.95	32	243.90	1011	258.90	49
216.75	644	230.85	57	244.80	168	264.90	163
217.95	101	233.85	55	245.90	273	271.80	20

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.90	141	302.85	75	331.70	25	365.85	41
273.80	394	303.95	33	332.90	24	370.85	31
274.90	2186	313.80	44	333.90	159	371.85	130
275.90	356	314.90	72	334.90	33	382.55	16
276.85	235	315.90	45	340.70	20	382.95	24
277.75	37	320.70	24	345.80	64	389.70	22
282.95	18	321.80	17	351.95	54	401.90	58
284.95	37	322.90	232	352.95	51	402.80	67
293.05	43	323.90	53	353.85	74	403.70	21
295.85	649	326.70	36	354.85	17	420.90	47
296.85	108	327.90	29	364.85	262	422.90	447

Scan 296 (5.879 min): B9005.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
423.85	81						
440.85	1150						
441.85	7070						
442.75	1342						
443.75	155						

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: #### Time: 1329

Lab File ID: B9008.D Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1329 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.887	0.841		5.2	
bis(2-Chloroethyl)ether	2.373	2.336		1.6	
1,3-Dichlorobenzene	1.367	1.410		-3.1	
1,4-Dichlorobenzene	1.383	1.419		-2.6	30.0
1,2-Dichlorobenzene	1.347	1.385		-2.8	
bis(2-chloroisopropyl)ether	2.234	1.940		13.2	
N-Nitroso-Di-n-propylamine	1.528	1.444	0.050	5.5	
Hexachloroethane	0.868	0.883		-1.7	
Nitrobenzene	0.519	0.516		0.6	
Isophorone	1.101	1.024		7.0	
bis(2-Chloroethoxy)methane	0.603	0.598		0.8	
1,2,4-Trichlorobenzene	0.304	0.309		-1.6	
Naphthalene	1.003	0.942		6.1	
Hexachlorobutadiene	0.160	0.160		0.0	30.0
Hexachlorocyclopentadiene	0.289	0.246	0.050	14.9	
2-Chloronaphthalene	0.634	0.647		-2.1	
Dimethylphthalate	1.368	1.400		-2.3	
Acenaphthylene	1.801	1.833		-1.8	
2,6-Dinitrotoluene	0.308	0.351		-14.0	
Acenaphthene	1.020	1.150		-12.7	30.0
2,4-Dinitrotoluene	0.452	0.459		-1.5	
Diethylphthalate	1.556	1.602		-3.0	
Fluorene	1.167	1.206		-3.3	
4-Chlorophenyl-phenylether	0.509	0.505		0.8	
n-Nitrosodiphenylamine	0.543	0.578		-6.4	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.187	0.199		-6.4	
Hexachlorobenzene	0.237	0.247		-4.2	
Phenanthrene	1.087	1.152		-6.0	
Anthracene	1.068	1.135		-6.3	
Di-n-butylphthalate	2.011	1.728		14.1	
Fluoranthene	1.092	0.939		14.0	30.0
Benzidine	0.274	0.276		-0.7	
Pyrene	1.600	1.832		-14.5	
Butylbenzylphthalate	1.245	1.293		-3.9	
Benzo[a]anthracene	1.429	1.239		13.3	
3,3'-Dichlorobenzidine	0.386	0.330		14.5	

All other compounds must meet a minimum RRF of 0.010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: #### Time: 1329

Lab File ID: B9008.D Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1329 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chrysene	0.857	1.008		-17.6	
bis(2-Ethylhexyl)phthalate	1.785	1.714		4.0	
Di-n-octylphthalate	5.692	5.727		-0.6	30.0
Benzo[b]fluoranthene	1.952	1.846		5.4	
Benzo[k]fluoranthene	1.162	1.246		-7.2	
Benzo[a]pyrene	1.081	1.178		-9.0	30.0
Indeno[1,2,3-cd]pyrene	0.561	0.585		-4.3	
Dibenz[a,h]anthracene	0.549	0.494		10.0	
Benzo[g,h,i]perylene	0.510	0.437		14.3	
Nitrobenzene-d5	0.542	0.524		3.3	
2-Fluorobiphenyl	1.220	1.209		0.9	
Terphenyl-d14	0.994	1.151		-15.8	

All other compounds must meet a minimum RRF of 0.010.

Quantitation Report

Data File : c:\hpchem\1\data2\b9008.d
Acq On : 27 Oct 95 1:29 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Oct 30 14:27 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.59	152	26722	40.00	ug/mL	-0.10
17) Naphthalene-d8	12.33	136	104351	40.00	ug/mL	-0.10
32) Acenaphthene-d10	17.63	164	57774	40.00	ug/mL	-0.10
50) Phenanthrene-d10	22.12	188	79042	40.00	ug/ml	-0.10
64) Chrysene-d12	30.18	240	25699	40.00	ug/mL	-0.11
73) Perylene-d12	34.15	264	9983	40.00	ug/mL	-0.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.03	112	41696	48.95	ug/mL	48.95%
3) Phenol-d5	8.05	99	66887	48.39	ug/mL	48.39%
18) Nitrobenzene-d5	10.31	82	68307	48.30	ug/mL	48.30%
36) 2-Fluorobiphenyl	15.80	172	87328	49.56	ug/mL	49.56%
54) 2,4,6-Tribromophenol	20.08	330	12186	48.69	ug/mL	48.69%
67) Terphenyl-d14	27.25	244	36967	57.91	ug/mL	57.91%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.08	74	28093	47.39	ug/ml	100
6) Phenol	8.09	94	70156	54.11	ug/mL	100
7) bis(2-Chloroethyl)ether	12.04	93	78019	49.22	ug/mL	99
8) 2-Chlorophenol	8.03	128	45049	50.60	ug/mL#	80
9) 1,3-Dichlorobenzene	8.40	146	47089	51.56	ug/mL	96
10) 1,4-Dichlorobenzene	8.65	146	47410	51.30	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	46258	51.39	ug/mL	96
12) 2-Methylphenol	9.77	108	42525	49.77	ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.71	45	64814	43.42	ug/mL	99
14) 4-Methylphenol	10.29	108	43505	46.44	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.13	70	48217	47.24	ug/mL	93
16) Hexachloroethane	9.98	117	29491	50.85	ug/mL#	74
19) Nitrobenzene	10.37	77	67275	49.68	ug/mLm	91
20) Isophorone	11.17	82	133559	46.48	ug/mL	94
21) 2-Nitrophenol	11.29	139	29599	47.42	ug/mL#	90
22) 2,4-Dimethylphenol	11.81	107	49328	48.89	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.04	93	78019	49.60	ug/mL#	100
24) 2,4-Dichlorophenol	12.12	162	36829	47.80	ug/mL	96
25) 1,2,4-Trichlorobenzene	12.22	180	40319	50.79	ug/mL	94
26) Naphthalene	12.39	128	122894	46.95	ug/mL	100
27) 4-Chloroaniline	12.78	127	57235	46.63	ug/mL	99
28) Hexachlorobutadiene	12.91	225	20908	50.23	ug/mL	99
29) 4-Chloro-3-methylphenol	14.53	107	46386	45.80	ug/mL#	1
30) 2-Chloronaphthalene	15.97	162	84381	51.00	ug/ml#	100
31) 2-Methylnaphthalene	14.53	142	108166	47.67	ug/mL#	71
33) Hexachlorocyclopentadiene	15.05	237	17734	42.44	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.53	196	27935	45.40	ug/mL	96
35) 2,4,5-Trichlorophenol	15.63	196	29810	59.43	ug/mL	95

Quantitation Report

Data File : c:\hpchem\1\data2\b9008.d Vial: 2
Acq On : 27 Oct 95 1:29 pm Operator: SCOTTV
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 30 14:27 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

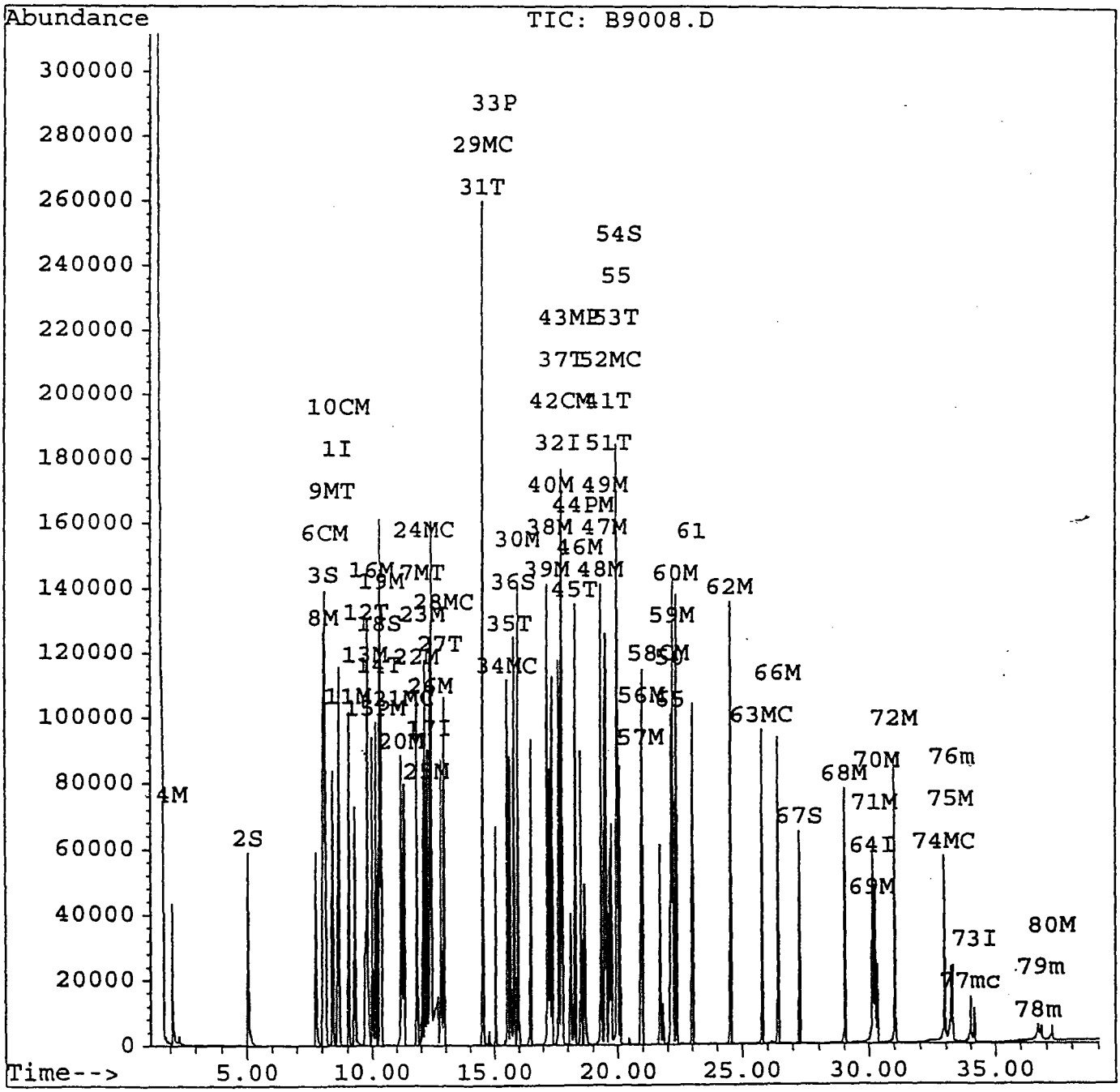
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.79	65	55820	49.36	ug/mL	86
38)	Dimethylphthalate	17.27	163	101087	51.16	ug/mL#	12
39)	Acenaphthylene	17.17	152	132357	50.88	ug/mL	98
40)	2,6-Dinitrotoluene	17.34	165	25335	57.03	ug/mLm	99
41)	3-Nitroaniline	19.68	138	25550	51.73	ug/mL	89
42)	Acenaphthene	17.73	153	83055	56.38	ug/mL	98
43)	2,4-Dinitrophenol	18.10	184	16396	54.13	ug/mLm	83
44)	4-Nitrophenol	18.65	109	16063	48.80	ug/mLm	55
45)	Dibenzofuran	18.29	168	106926	48.25	ug/mL	94
46)	2,4-Dinitrotoluene	18.52	165	33124	50.69	ug/mL#	1
47)	Diethylphthalate	19.48	149	115678	51.47	ug/mL#	93
48)	Fluorene	19.33	166	87065	51.64	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.52	204	36435	49.59	ug/mL#	85
51)	4-Nitroaniline	19.68	138	25550	56.16	ug/mL	89
52)	4,6-Dinitro-2-methylphenol	19.73	198	14484	49.43	ug/mL	100
53)	n-Nitrosodiphenylamine	19.97	169	57135	53.30	ug/mL	95
55)	1,2-Diphenylhydrazine (as	20.00	77	197478	56.01	ug/ml	100
56)	4-Bromophenyl-phenylether	20.97	248	19642	53.15	ug/mL	91
57)	Hexachlorobenzene	20.93	284	24441	52.13	ug/mL#	50
58)	Pentachlorophenol	21.66	266	12892	40.14	ug/mLm	97
59)	Phenanthrene	22.20	178	113864	53.01	ug/mL	99
60)	Anthracene	22.36	178	112150	53.16	ug/mLm	99
61)	Carbazole	23.01	167	87921	41.79	ug/ml	96
62)	Di-n-butylphthalate	24.53	149	170725	42.96	ug/mL	99
63)	Fluoranthene	25.78	202	92729	42.97	ug/mLm	70
65)	Benzidine	22.12	184	8865	50.45	ug/mlm	100
66)	Pyrene	26.42	202	58853	57.24	ug/mLm	60
68)	Butylbenzylphthalate	29.04	149	41544	51.93	ug/mL#	12
69)	Benzo[a]anthracene	30.14	228	39805	43.35	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.33	252	10615	42.80	ug/mL#	90
71)	Chrysene	30.25	228	32370	58.81	ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	31.03	149	55067	48.03	ug/mL#	34
74)	Di-n-octylphthalate	32.93	149	71466	50.31	ug/mL#	100
75)	Benzo[b]fluoranthene	33.20	252	23032	47.27	ug/mL#	80
76)	Benzo[k]fluoranthene	33.28	252	15551	53.61	ug/mLm	80
77)	Benzo[a]pyrene	34.00	252	14699	54.47	ug/mLm	80
78)	Indeno[1,2,3-cd]pyrene	36.67	276	7304	52.14	ug/mLm	32
79)	Dibenz[a,h]anthracene	36.79	278	6166	45.03	ug/mL#	83
80)	Benzo[g,h,i]perylene	37.21	276	5449	42.84	ug/mL#	63

Quantitation Report

Data File : c:\hpchem\1\data2\b9008.d
Acq On : 27 Oct 95 1:29 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Oct 30 14:27 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

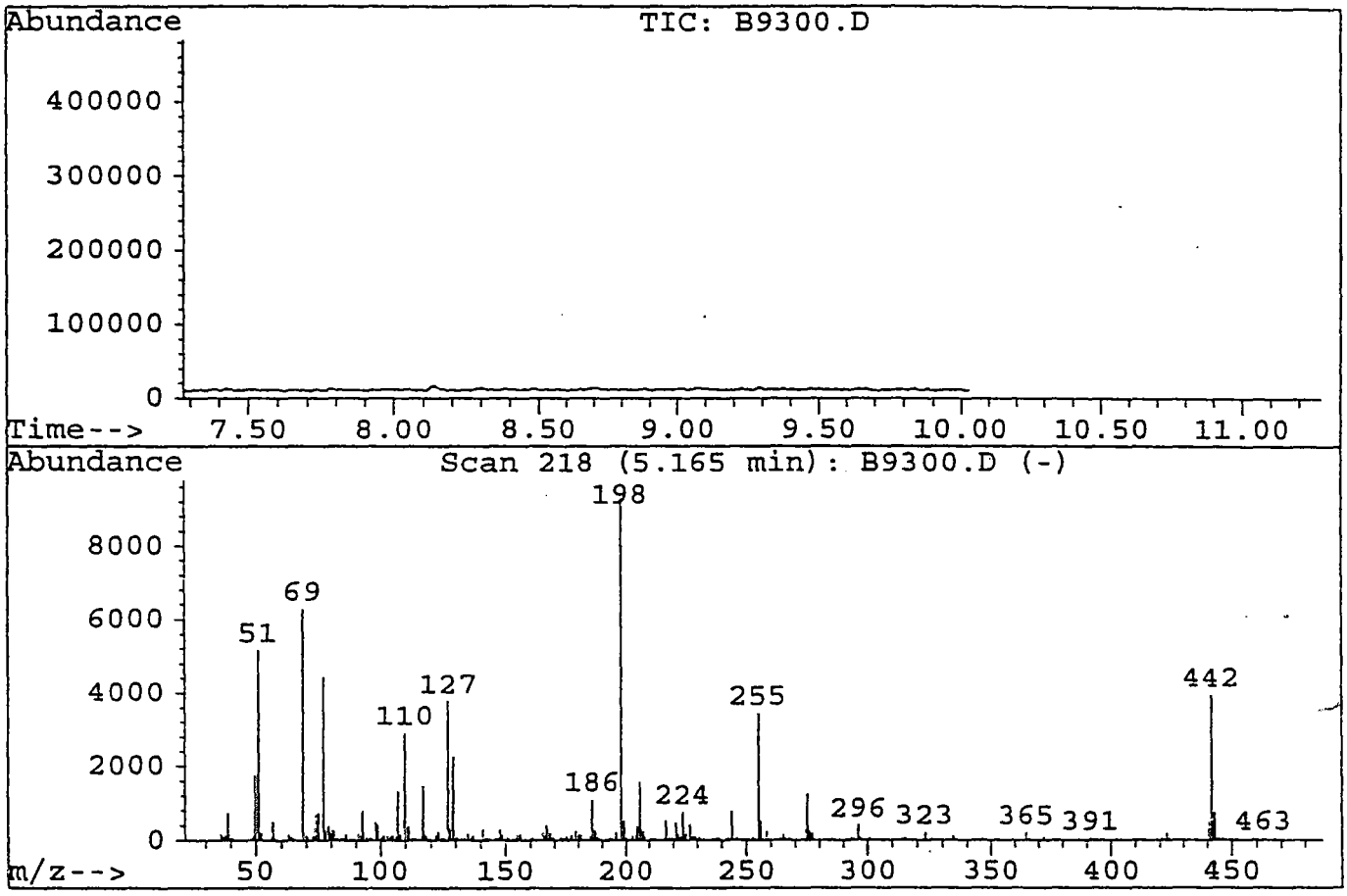
Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration



DFTPP

Data File : C:\HPCHEM\1\DATA2\B9300.D Vial: 1
Acq On : 7 Dec 95 5:49 pm Operator: SCOTTV
Sample : DFTPP..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 623.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.5	5181	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	67.4	6289	PASS
70	69	0	2	1.8	112	PASS
127	198	40	60	40.5	3780	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	9335	PASS
199	198	5	9	5.5	513	PASS
275	198	10	30	13.6	1265	PASS
365	198	1	100	2.2	209	PASS
441	443	0	100	67.7	501	PASS
442	198	40	100	42.4	3954	PASS
443	442	17	23	18.7	740	PASS

an 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.20	171	51.05	5181	64.05	82	77.80	281
36.80	101	52.05	189	65.05	35	79.00	395
37.80	156	52.95	18	66.05	21	79.85	167
39.10	753	56.05	96	68.95	6289	80.05	180
40.00	61	56.95	513	70.00	112	80.95	274
41.05	35	57.85	31	70.75	34	82.20	62
44.95	46	60.95	22	72.45	83	83.95	70
47.65	22	61.85	20	72.95	144	84.85	78
48.35	69	62.15	46	73.95	725	85.95	176
49.05	140	62.45	2	74.95	744	87.10	14
49.95	1765	63.05	175	77.05	4458	87.95	55

Scan 218 (5.165 min): B9300.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.05	65	100.65	85	111.65	5	119.65	60
89.85	11	101.05	132	112.55	41	121.40	28
90.95	197	102.75	117	112.85	39	121.65	98
92.05	143	103.15	69	113.05	52	122.05	153
92.90	801	104.00	124	114.55	70	122.25	143
94.55	82	104.95	135	115.35	32	123.05	249
95.75	66	106.05	131	116.15	136	123.85	35
95.95	63	107.05	1344	117.05	1481	124.45	63
98.05	500	107.95	148	118.15	129	125.15	67
98.90	417	109.95	2921	118.75	28	127.00	3780
100.15	66	111.05	384	119.15	20	127.95	309

n 218 (5.165 min): B9300.D

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
129.00	2243	137.50	22	150.10	53	163.20	28
130.00	31	139.10	27	151.00	83	165.00	203
130.30	77	140.90	309	153.00	69	166.00	118
130.60	69	142.05	68	154.20	60	166.90	405
132.20	75	142.80	73	154.80	149	168.00	193
132.70	26	143.05	35	155.95	155	169.05	68
133.40	64	145.90	82	158.00	53	169.70	65
134.90	198	147.00	78	158.90	27	172.00	76
136.20	72	147.90	291	159.95	39	172.60	68
136.40	61	148.50	139	160.70	47	173.10	71
137.00	133	149.50	22	161.10	70	174.10	81

can 218 (5.165 min): B9300.D

ified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	123	187.00	265	199.00	513	210.20	52
175.95	36	188.00	95	199.70	11	210.95	25
177.10	141	189.00	57	200.20	76	211.40	55
178.90	233	189.80	21	201.60	38	211.80	45
180.05	152	191.60	49	202.80	120	212.40	23
181.00	143	191.90	44	204.10	350	216.10	73
183.00	45	192.10	43	204.95	398	216.95	539
183.40	26	193.00	87	206.10	1587	218.05	76
184.80	104	194.30	46	207.00	232	219.35	59
185.10	124	196.10	203	207.80	99	220.05	46
186.00	1107						

an 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.65	148	230.75	92	246.05	65	259.00	45
222.85	98	232.65	34	247.45	39	261.75	11
223.95	769	236.25	75	248.85	53	263.65	72
225.05	166	237.65	43	249.85	37	264.95	150
226.05	9	237.95	46	251.25	32	265.65	50
226.95	430	238.15	47	252.65	92	267.15	33
227.75	81	238.75	77	253.95	42	267.35	32
228.05	74	241.85	53	254.95	3451	267.75	54
228.25	60	242.15	58	255.95	517	270.45	30
228.55	58	242.95	84	256.85	38	272.95	65
229.05	109	244.05	764	258.05	245	274.05	310

Scan 218 (5.165 min): B9300.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.95	1265	296.00	405	311.80	16	334.20	129
275.95	216	296.65	44	314.00	54	334.90	37
276.90	167	296.95	52	314.90	92	339.90	14
279.65	15	298.75	23	317.60	52	340.80	15
282.35	14	300.10	13	322.40	35	346.20	73
284.90	41	300.85	60	323.00	215	347.50	41
285.15	45	302.75	11	324.60	21	351.70	64
287.65	26	304.10	28	325.50	32	352.70	43
291.25	54	304.90	23	328.80	41	353.10	55
292.95	49	306.10	31	331.80	52	356.00	7
293.55	51	308.50	30	333.30	43	356.40	15

an 218 (5.165 min): B9300.D

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
357.30	34	391.95	41	407.85	28	439.65	39
364.90	209	395.45	33	410.15	21	440.95	501
365.85	28	396.25	11	413.55	6	441.95	3954
371.60	39	396.55	29	418.55	29	442.95	740
372.10	99	400.85	20	420.95	93	444.75	44
375.10	37	402.05	45	421.75	23	446.55	61
378.20	45	402.55	25	423.05	187	449.45	36
386.40	47	403.85	30	423.85	56	453.35	39
388.50	38	404.05	28	427.35	28	457.95	66
390.90	2	405.75	21	429.65	38	458.85	40
391.45	66	406.55	41	435.35	36	459.75	11

can 218 (5.165 min): B9300.D

ified:subtracted

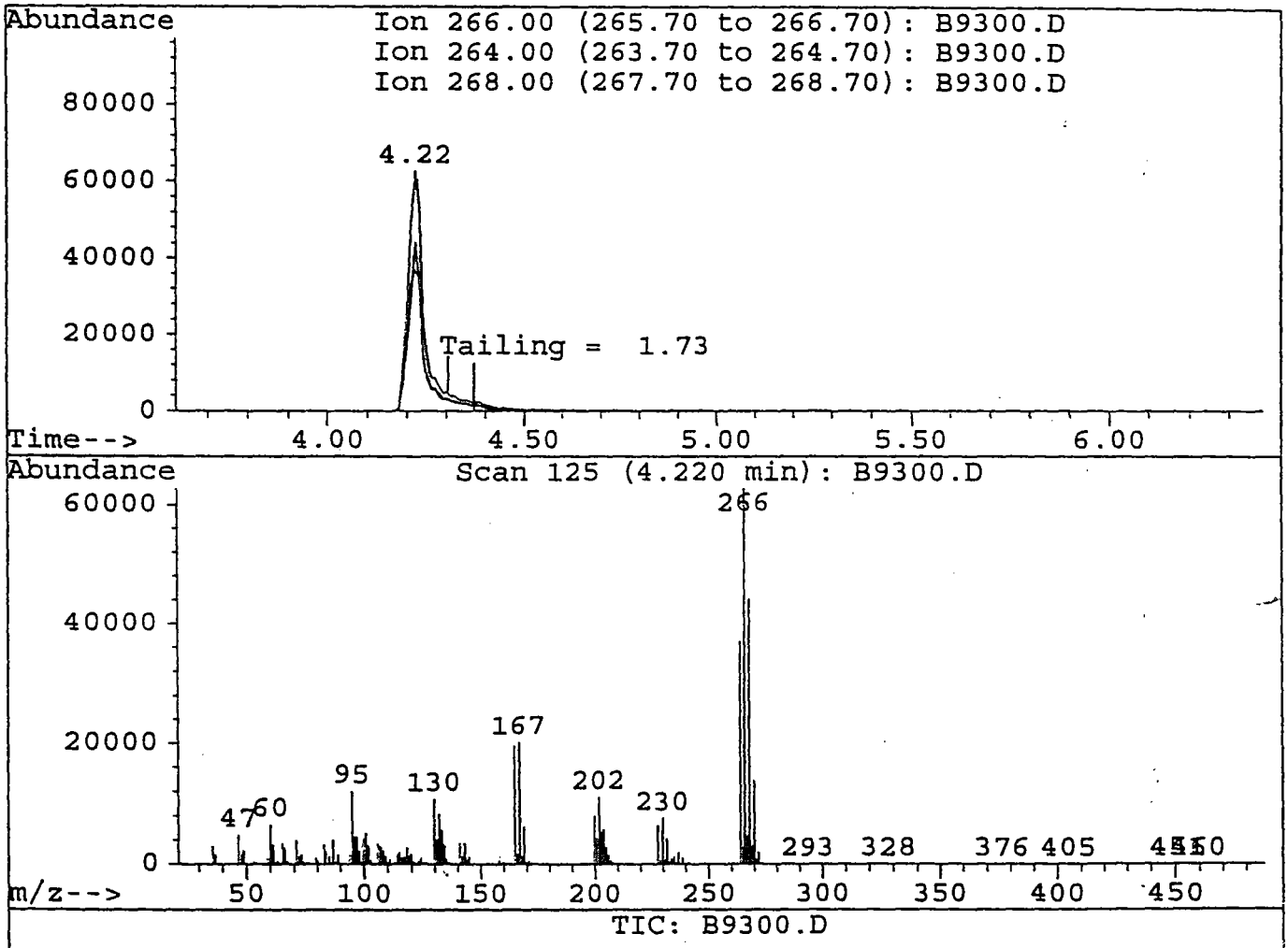
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
462.95	66						
467.35	32						
467.85	16						
472.95	54						

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9300.D
Acq On : 7 Dec 95 5:49 pm
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Dec 7 18:19 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 Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



TIC: B9300.D

(1) Pentachlorophenol (CM)

5.34min 1.21ug/mL

response 399

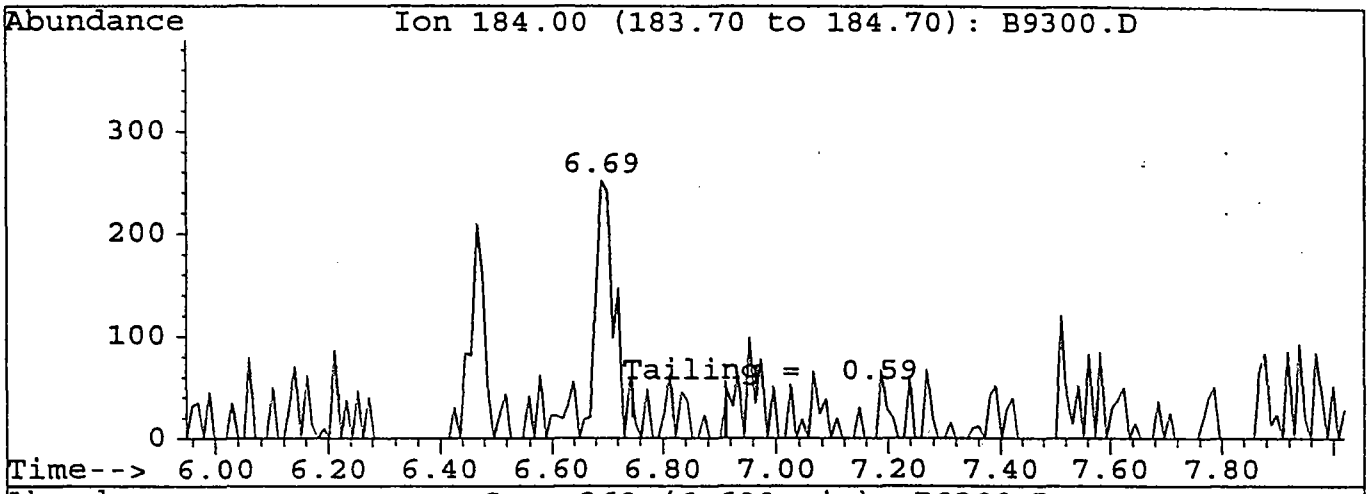
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	47.66#
268.00	64.70	39.84#
0.00	0.00	0.00

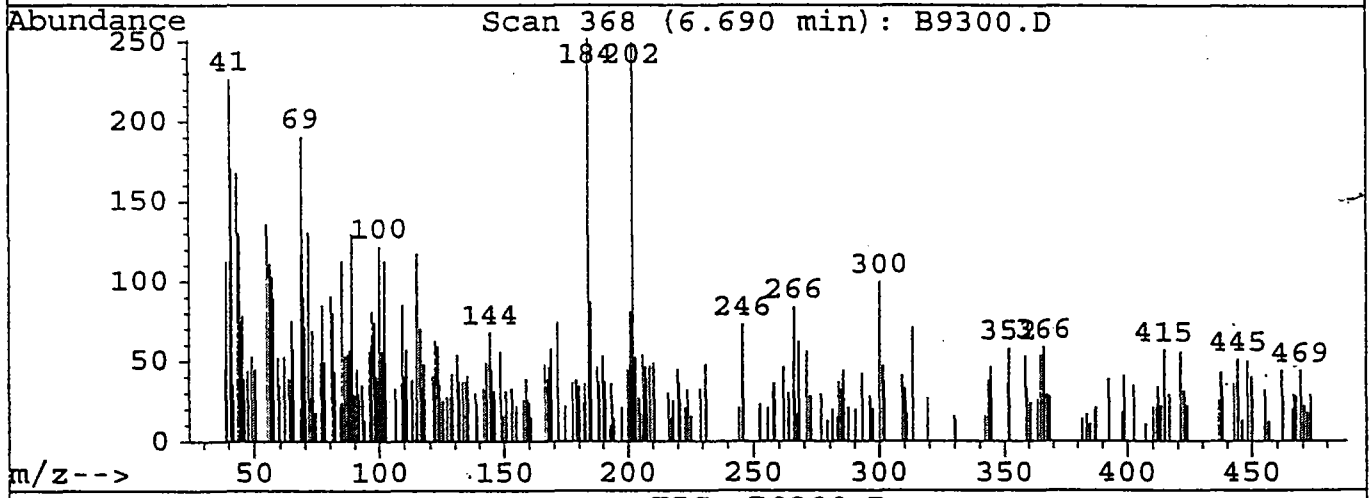
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9300.D
Acq On : 7 Dec 95 5:49 pm
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Dec 7 18:19 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 Nov 22 12:21:54 1995
Response via : Multiple Level Calibration





TIC: B9300.D

(2) Benzidine
6.95min 0.52ug/ml
response 160

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: 12/7/95 Time: 1832

Lab File ID: B9301.D Init. Calib. Date(s): 12/7/95 1/0/00

Init. Calib. Times: 1832 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.853	0.693		18.8	
bis(2-Chloroethyl)ether	2.157	1.828		15.3	
1,3-Dichlorobenzene	1.353	1.349		0.3	
1,4-Dichlorobenzene	1.369	1.375		-0.4	30.0
1,2-Dichlorobenzene	1.359	1.338		1.5	
bis(2-chloroisopropyl)ether	2.246	1.880		16.3	
N-Nitroso-Di-n-propylamine	1.408	1.263	0.050	10.3	
Hexachloroethane	0.828	0.847		-2.3	
Nitrobenzene	0.559	0.455		18.6	
Isophorone	0.770	0.662		14.0	
bis(2-Chloroethoxy)methane	0.517	0.423		18.2	
1,2,4-Trichlorobenzene	0.313	0.325		-3.8	
Naphthalene	0.958	0.885		7.6	
Hexachlorobutadiene	0.188	0.217		-15.4	30.0
Hexachlorocyclopentadiene	0.268	0.216	0.050	19.4	
2-Chloronaphthalene	0.693	0.716		-3.3	
Dimethylphthalate	1.366	1.334		2.3	
Acenaphthylene	1.607	1.596		0.7	
2,6-Dinitrotoluene	0.336	0.352		-4.8	
Acenaphthene	1.020	0.971		4.8	30.0
2,4-Dinitrotoluene	0.462	0.423		8.4	
Diethylphthalate	1.498	1.418		5.3	
Fluorene	1.125	1.175		-4.4	
4-Chlorophenyl-phenylether	0.532	0.559		-5.1	
n-Nitrosodiphenylamine	0.424	0.410		3.3	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.209	0.229		-9.6	
Hexachlorobenzene	0.294	0.322		-9.5	
Phenanthrene	0.989	0.952		3.7	
Anthracene	0.998	0.935		6.3	
Di-n-butylphthalate	1.830	1.738		5.0	
Fluoranthene	1.092	1.110		-1.6	30.0
Benzidine	0.116	0.124		-6.9	
Pyrene	1.481	1.336		9.8	
Butylbenzylphthalate	1.086	0.940		13.4	
Benzo[a]anthracene	1.253	1.107		11.7	
3,3'-Dichlorobenzidine	0.387	0.365		5.7	

All other compounds must meet a minimum RRF of 0.010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: 12/7/95 Time: 1832

Lab File ID: B9301.D Init. Calib. Date(s): 12/7/95 1/0/00

Init. Calib. Times: 1832 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chrysene	0.905	0.858		5.2	
bis(2-Ethylhexyl)phthalate	1.489	1.262		15.2	
Di-n-octylphthalate	4.241	4.181		1.4	30.0
Benzo[b]fluoranthene	1.623	1.574		3.0	
Benzo[k]fluoranthene	1.220	1.407		-15.3	
Benzo[a]pyrene	1.032	0.972		5.8	30.0
Indeno[1,2,3-cd]pyrene	0.728	0.630		13.5	
Dibenz[a,h]anthracene	0.713	0.559		21.6	
Benzo[g,h,i]perylene	0.725	0.676		6.8	
Nitrobenzene-d5	0.478	0.417		12.8	
2-Fluorobiphenyl	1.063	1.061		0.2	
Terphenyl-d14	1.103	1.054		4.4	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
Acq On : 7 Dec 95 6:32 pm Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	57	-0.32
2	S	2-Fluorophenol	1.139	1.009	11.4	51	-0.36
3	S	Phenol-d5	1.896	1.587	16.3	49#	-0.29
4	M	N-nitrosodimethylamine	0.853	0.693	18.8	48#	-0.15
5		Pyridine	1.101	0.000#	100.0#	0#	-1.55#
6	CM	Phenol	1.649	1.487	9.8	54	-0.29
7	MT	bis(2-Chloroethyl)ether	2.157	1.828	15.2	49#	-0.31
8	M	2-Chlorophenol	1.302	1.185	9.0	53	-0.32
9	MT	1,3-Dichlorobenzene	1.353	1.349	0.3	56	-0.32
10	CM	1,4-Dichlorobenzene	1.369	1.375	-0.4	56	-0.32
11	M	1,2-Dichlorobenzene	1.359	1.338	1.5	55	-0.32
12	T	2-Methylphenol	1.218	1.170	4.0	57	-0.29
13	M	bis(2-chloroisopropyl)ether	2.246	1.880	16.3	52	-0.25
14	T	4-Methylphenol	1.307	1.278	2.2	58	-0.27
15	PM	N-Nitroso-Di-n-propylamine	1.408	1.263	10.3	54	-0.29
16	M	Hexachloroethane	0.828	0.847	-2.2	58	-0.34
17	I	Naphthalene-d8	1.000	1.000	0.0	61	-0.32
18	S	Nitrobenzene-d5	0.478	0.417	12.7	56	-0.30
19	M	Nitrobenzene	0.559	0.455	18.7	50	-0.30
20	M	Isophorone	0.770	0.662	14.0	47#	-0.29
21	MC	2-Nitrophenol	0.215	0.201	6.5	58	-0.32
22	M	2,4-Dimethylphenol	0.380	0.325	14.5	55	-0.29
23	M	bis(2-Chloroethoxy)methane	0.517	0.423	18.2	50	-0.31
24	MC	2,4-Dichlorophenol	0.277	0.283	-2.4	63	-0.29
25	M	1,2,4-Trichlorobenzene	0.313	0.325	-3.8	62	-0.32
26	M	Naphthalene	0.958	0.885	7.6	56	-0.32
27	T	4-Chloroaniline	0.446	0.413	7.4	58	-0.31
28	MC	Hexachlorobutadiene	0.188	0.217	-15.6	69	-0.31
29	MC	4-Chloro-3-methylphenol	0.397	0.333	16.1	54	-0.29
30	M	2-Chloronaphthalene	0.693	0.716	-3.4	65	-0.32
31	T	2-Methylnaphthalene	0.839	0.908	-8.2	64	-0.32
32	I	Acenaphthene-d10	1.000	1.000	0.0	61	-0.34
33	P	Hexachlorocyclopentadiene	0.268	0.216	19.5	54	-0.32
34	MC	2,4,6-Trichlorophenol	0.351	0.352	-0.2	70	-0.32
35	T	2,4,5-Trichlorophenol	0.357	0.405	-13.5	70	-0.31
36	S	2-Fluorobiphenyl	1.063	1.061	0.3	67	-0.32
37	T	2-Nitroaniline	0.650	0.529	18.7	55	-0.31
38	M	Dimethylphthalate	1.366	1.334	2.3	62	-0.31
39	M	Acenaphthylene	1.607	1.596	0.7	60	-0.34
40	M	2,6-Dinitrotoluene	0.336	0.352	-4.7	65	-0.31

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
Acq On : 7 Dec 95 6:32 pm Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	T	3-Nitroaniline	0.326	0.306	6.1	57	-0.33
42	CM	Acenaphthene	1.020	0.971	4.8	58	-0.34
43	MP	2,4-Dinitrophenol	0.183	0.179	2.1	81	-0.31
4	PM	4-Nitrophenol	0.234	0.231	1.6	72	-0.29
45	T	Dibenzofuran	1.433	1.509	-5.4	65	-0.34
46	M	2,4-Dinitrotoluene	0.462	0.423	8.4	59	-0.31
7	M	Diethylphthalate	1.498	1.418	5.3	56	-0.33
8	M	Fluorene	1.125	1.175	-4.5	62	-0.34
49	M	4-Chlorophenyl-phenylether	0.532	0.559	-5.1	64	-0.34
0		Phenanthrene-d10	1.000	1.000	0.0	60	-0.35
51	T	4-Nitroaniline	0.179	0.170	4.8	57	-0.33
52	MC	4,6-Dinitro-2-methylphenol	0.131	0.108	17.6	51	-0.33
3	T	n-Nitrosodiphenylamine	0.424	0.410	3.4	60	-0.33
54	S	2,4,6-Tribromophenol	0.176	0.178	-1.4	65	-0.34
55		1,2-Diphenylhydrazine (as a	1.193	0.966	19.0	48#	-0.34
6	M	4-Bromophenyl-phenylether	0.209	0.229	-9.3	65	-0.34
7	M	Hexachlorobenzene	0.294	0.322	-9.8	65	-0.34
58	CM	Pentachlorophenol	0.182	0.177	3.2	68	-0.33
9	M	Phenanthrene	0.989	0.952	3.8	61	-0.35
0	M	Anthracene	0.998	0.935	6.4	59	-0.36
61		Carbazole	0.952	0.859	9.8	57	-0.35
62	M	Di-n-butylphthalate	1.830	1.738	5.0	60	-0.35
3	MC	Fluoranthene	1.092	1.110	-1.6	65	-0.37
64	I	Chrysene-d12	1.000	1.000	0.0	69	-0.37
5		Benzidine	0.116	0.124	-6.8	54	-0.36
6	M	Pyrene	1.481	1.336	9.8	68	-0.37
67	S	Terphenyl-d14	1.103	1.054	4.4	76	-0.35
8	M	Butylbenzylphthalate	1.086	0.940	13.5	68	-0.35
9	M	Benzo[a]anthracene	1.253	1.107	11.7	65	-0.37
70	M	3,3'-Dichlorobenzidine	0.387	0.365	5.7	75	-0.37
71	M	Chrysene	0.905	0.858	5.2	70	-0.37
2	M	bis(2-Ethylhexyl)phthalate	1.489	1.262	15.2	63	-0.35
73	I	Perylene-d12	1.000	1.000	0.0	62	-0.35
	MC	Di-n-octylphthalate	4.241	4.181	1.4	54	-0.35
5	M	Benzo[b]fluoranthene	1.623	1.574	3.0	60	-0.37
76	m	Benzo[k]fluoranthene	1.220	1.407	-15.4	73	-0.37
7	mc	Benzo[a]pyrene	1.032	0.972	5.8	61	-0.35
	m	Indeno[1,2,3-cd]pyrene	0.728	0.630	13.5	57	-0.35
79	m	Dibenz[a,h]anthracene	0.713	0.559	21.5	59	-0.35

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
Acq On : 7 Dec 95 6:32 pm Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
M	Benzo[g,h,i]perylene	0.725	0.676	6.8	75	-0.35

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B9008.D Date Analyzed: 10/27/95

Instrument ID: ABNA Time Analyzed: 1329

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	26722	8.59	104351	12.33	57774	17.63
	UPPER LIMIT	53444	9.09	208702	12.83	115548	18.13
	LOWER LIMIT	13361	8.09	52176	11.83	28887	17.13
	SAMPLE NO.						
01	SBLK01	22496	8.59	83610	12.31	47426	17.62
02	9547000B	24097	8.60	94497	12.32	54817	17.61
03	46360MS	24328	8.60	97435	12.32	56181	17.64
04	46360MSD	25002	8.60	97241	12.34	55587	17.64
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B9008.D Date Analyzed: 10/27/95

Instrument ID: ABNA Time Analyzed: 1329

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	79042	22.12	25699	30.18	9983	34.15
	UPPER LIMIT	158084	22.62	51398	30.68	19966	34.65
	LOWER LIMIT	39521	21.62	12850	29.68	4992	33.65
	SAMPLE NO.						
01	SBLK01	61940	22.09	43279	30.18	19502	34.16
02	9547000B	77921	22.11	44563	30.17	16352	34.16
03	46360MS	74786	22.13	35528	30.18	16536	34.14
04	46360MSD	77102	22.13	28509	30.19	10719	34.15
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B9301.D Date Analyzed: 12/7/95

Instrument ID: ABNA Time Analyzed: 1832

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	12552	7.51	55859	11.25	41239	16.49
	UPPER LIMIT	25104	8.01	111718	11.75	82478	16.99
	LOWER LIMIT	6276	7.01	27930	10.75	20620	15.99
	SAMPLE NO.						
01	SBLK01	10248	7.49	47523	11.23	30909	16.46
02	9554748B	10448	7.49	46119	11.21	32492	16.46
03	SBLK02	10754	7.50	45450	11.21	30398	16.47
04	9554739B	11429	7.49	48207	11.22	33956	16.46
05	9554740B	12152	7.49	54261	11.21	34229	16.46
06	9554741B	11926	7.49	51863	11.21	37751	16.46
07	9554738B	12481	7.48	51577	11.21	36232	16.47
08	SBLK03	13214	7.49	57506	11.23	38030	16.46
09	9554551B	12591	7.49	55162	11.23	39445	16.47
10	9554552B	11760	7.49	49833	11.21	35216	16.47
11	9554554B	10086	7.49	45945	11.21	31194	16.46
12	9554555B	11834	7.49	48191	11.21	34931	16.47
13	9554556B	10233	7.49	41813	11.21	31976	16.46
14	9554557B	13122	7.49	55278	11.21	37148	16.46
15	9554558B	10925	7.47	45621	11.21	32808	16.46
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B9301.D Date Analyzed: 12/7/95

Instrument ID: ABNA Time Analyzed: 1832

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	73998	20.90	64001	28.88	19039	32.81
	UPPER LIMIT	147996	21.40	128002	29.38	38078	33.31
	LOWER LIMIT	36999	20.40	32001	28.38	9520	32.31
	SAMPLE NO.						
01	SBLK01	51342	20.87	48010	28.84	15946	32.81
02	9554748B	52081	20.87	42633	28.84	15392	32.79
03	SBLK02	54361	20.87	43820	28.84	14326	32.81
04	9554739B	58099	20.86	54163	28.84	20120	32.79
05	9554740B	56159	20.87	54498	28.84	18350	32.79
06	9554741B	63262	20.87	54199	28.84	22178	32.79
07	9554738B	63510	20.87	51164	28.83	21186	32.79
08	SBLK03	61176	20.87	55171	28.84	17234	32.79
09	9554551B	65698	20.88	50081	28.84	18361	32.79
10	9554552B	64514	20.88	47488	28.84	14577	32.78
11	9554554B	50056	20.87	37914	28.84	12115	32.78
12	9554555B	60678	20.86	44912	28.84	14123	32.79
13	9554556B	51660	20.87	38952	28.84	11771	32.78
14	9554557B	61548	20.87	50354	28.82	13578	32.79
15	9554558B	56480	20.87	40684	28.84	11235	32.79
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 291

9554551B

MW1-223759

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554551B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9310.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 9554551B MCU-2933759

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554551B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9310.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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. 293

9554551B
MW1-293759

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554551B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9310.D

Level: (low/med) Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 10 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	10.38	2	J
2. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	11.53	2	J
3. 530-93-8	2(1H)-Naphthalenone, 3,4-dih	11.92	2	J
4. 1559-81-5	Naphthalene, 1,2,3,4-tetrahy	12.05	3	J
5. 582-16-1	Naphthalene, 2,7-dimethyl-	15.54	3	J
6. 132-64-9	Dibenzofuran	17.08	3	J
7. 544-76-3	Hexadecane	18.59	2	J
8. 1430-97-3	9H-Fluorene, 2-methyl-	19.88	2	J
9. 21164-95-4	Hexadecane, 7,9-dimethyl-	20.05	3	J
10.	Unknown Hydrocarbon	23.54	4	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : c:\hpchem\1\data2\b9310.d Vial: 11
Acq On : 8 Dec 95 2:10 am Operator: SCOTTV
Sample : 54551..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 13:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	12591	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.23	136	55162	40.00	ug/mL	-0.35
32) Acenaphthene-d10	16.47	164	39445	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.88	188	65698	40.00	ug/ml	-0.37
64) Chrysene-d12	28.84	240	50081	40.00	ug/mL	-0.40
73) Perylene-d12	32.79	264	18361	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	257	0.43	ug/mL	0.43%
18) Nitrobenzene-d5	9.20	82	28131	42.68	ug/mL	42.68%
36) 2-Fluorobiphenyl	14.69	172	60006	57.23	ug/mL	57.23%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	104311	75.53	ug/mL	75.53%
Target Compounds						Qvalue

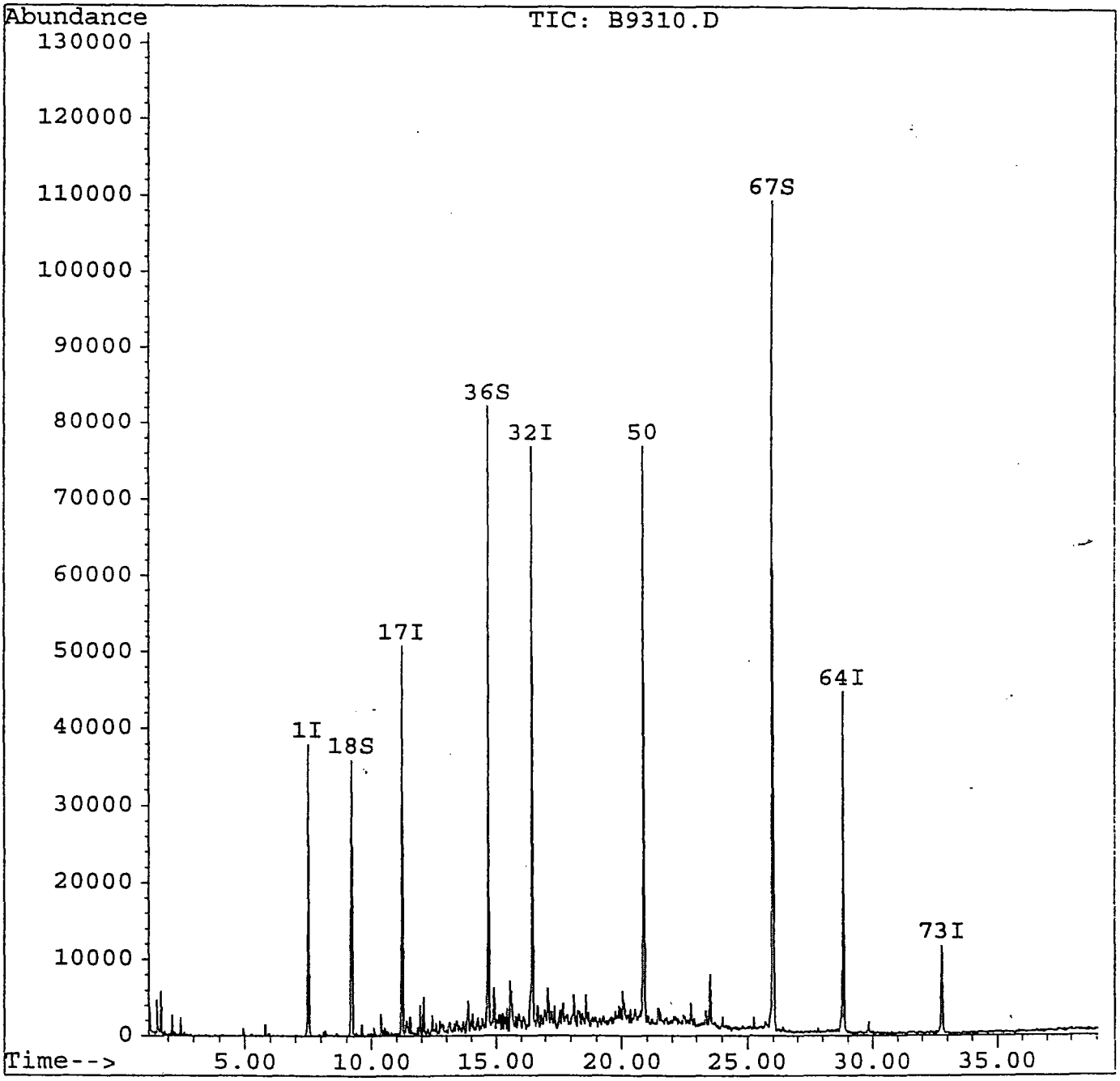
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551..... Converted from RTE d
Misc :
Quant Time: Dec 11 13:03 1995

Vial: 11
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



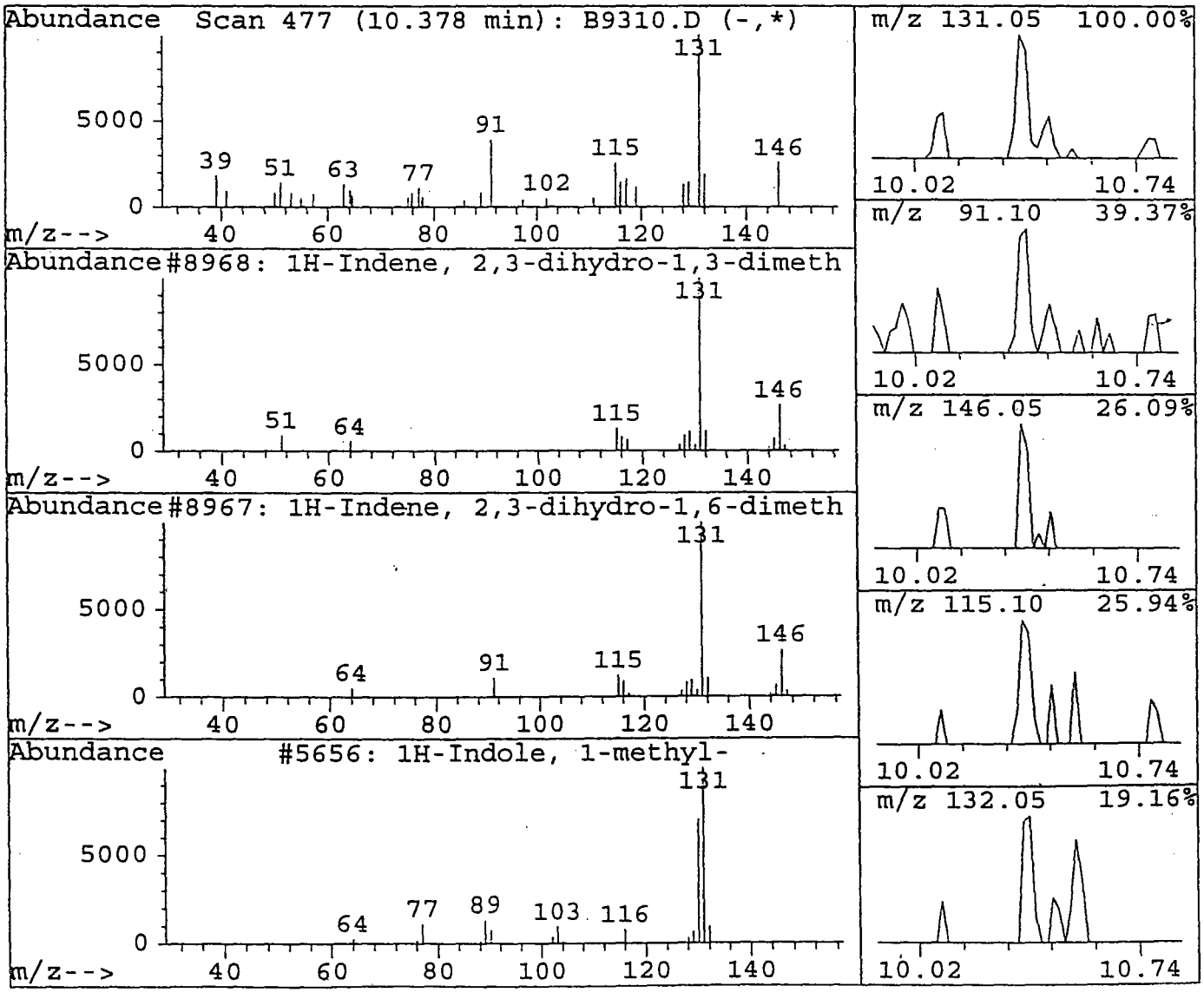
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9310.d Vial: 11
Acq On : 8 Dec 95 2:10 am Operator: SCOTTV
Sample : 54551..... 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.
10.38	2.10 ug/mL	7425	Naphthalene-d8	11.23

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	72
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	64
3	1H-Indole, 1-methyl-	5656	000603-76-9	47
4	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	43
5	1H-Indene, 2,3-dihydro-4,6-dimethyl	8950	001685-82-1	40



Library Search Compound Report

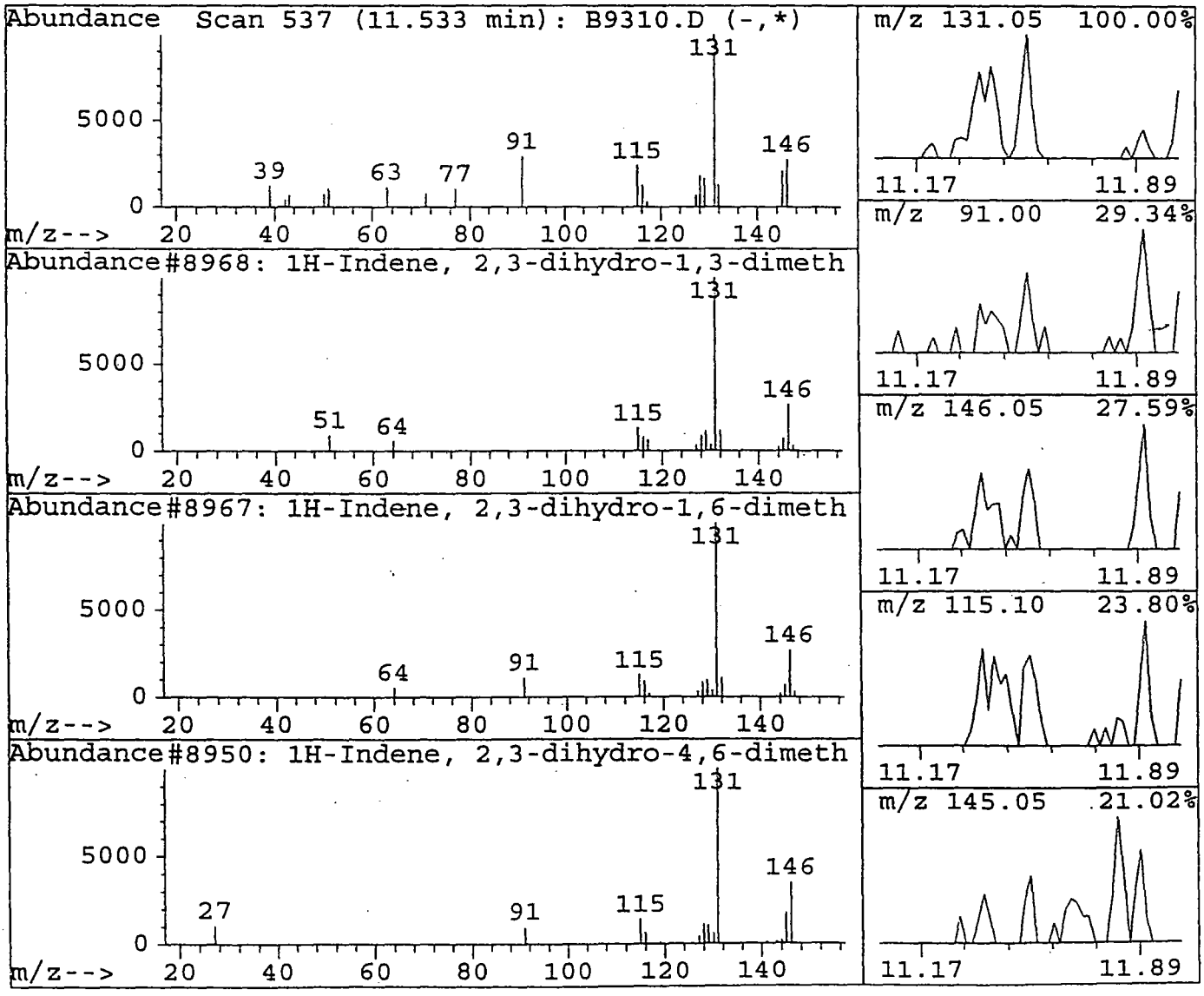
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551..... Converted from RTE d
Misc :

Vial: 11
Operator: SCOTTV
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.
11.53	1.54 ug/mL	5448	Naphthalene-d8	11.23

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	64
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	64
3	1H-Indene, 2,3-dihydro-4,6-dimethyl	8950	001685-82-1	50
4	1H-Indole, 1-methyl-	5656	000603-76-9	37
5	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	10



Library Search Compound Report

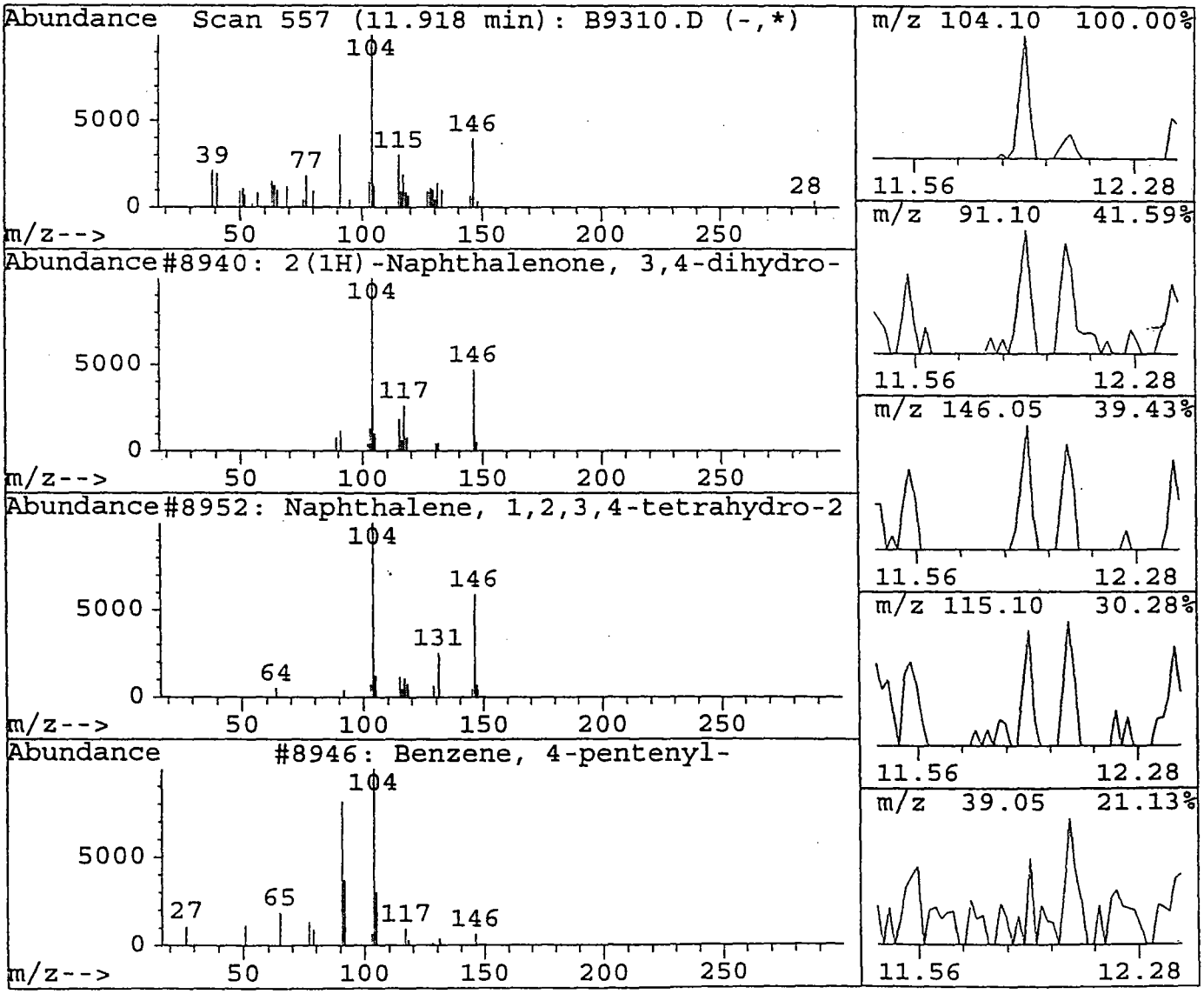
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551..... Converted from RTE d
Misc :

Vial: 11
Operator: SCOTTV
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.
11.92	1.97 ug/mL	6954	Naphthalene-d8	11.23

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2(1H)-Naphthalenone, 3,4-dihydro-	8940	000530-93-8	68
2	Naphthalene, 1,2,3,4-tetrahydro-2-m	8952	003877-19-8	59
3	Benzene, 4-pentenyl-	8946	001075-74-7	53
4	Benzenemethanimine, .alpha.-(1,1-di	12714	033611-54-0	27
5	2-Azetidinone, 4-phenyl-	9071	005661-55-2	27



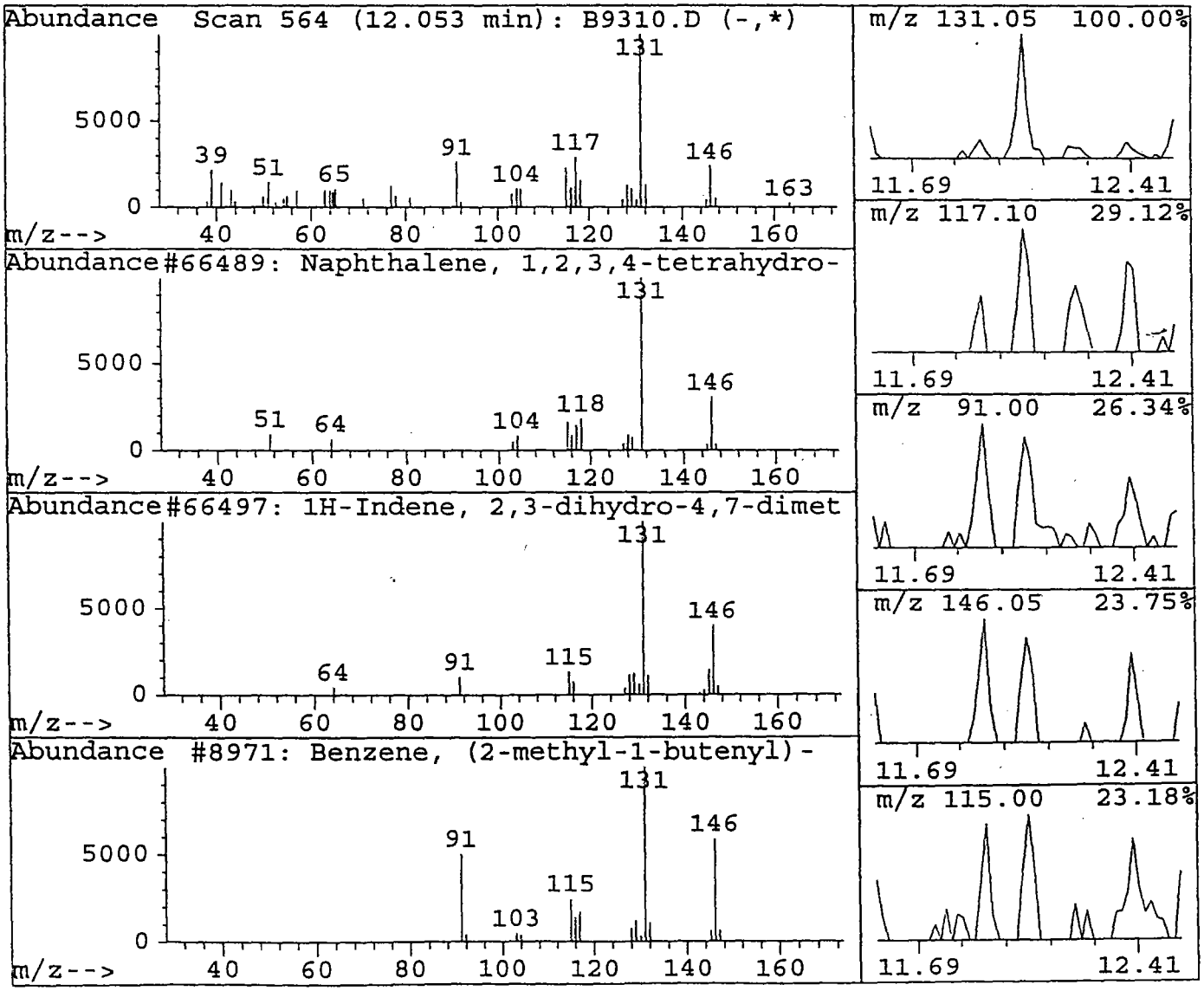
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9310.d Vial: 11
Acq On : 8 Dec 95 2:10 am Operator: SCOTTV
Sample : 54551..... 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.
12.05	3.16 ug/mL	11183	Naphthalene-d8	11.23

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1-m	66489	001559-81-5	93
2	1H-Indene, 2,3-dihydro-4,7-dimethyl	66497	006682-71-9	81
3	Benzene, (2-methyl-1-butenyl)-	8971	056253-64-6	81
4	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	76
5	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	76



Library Search Compound Report

300

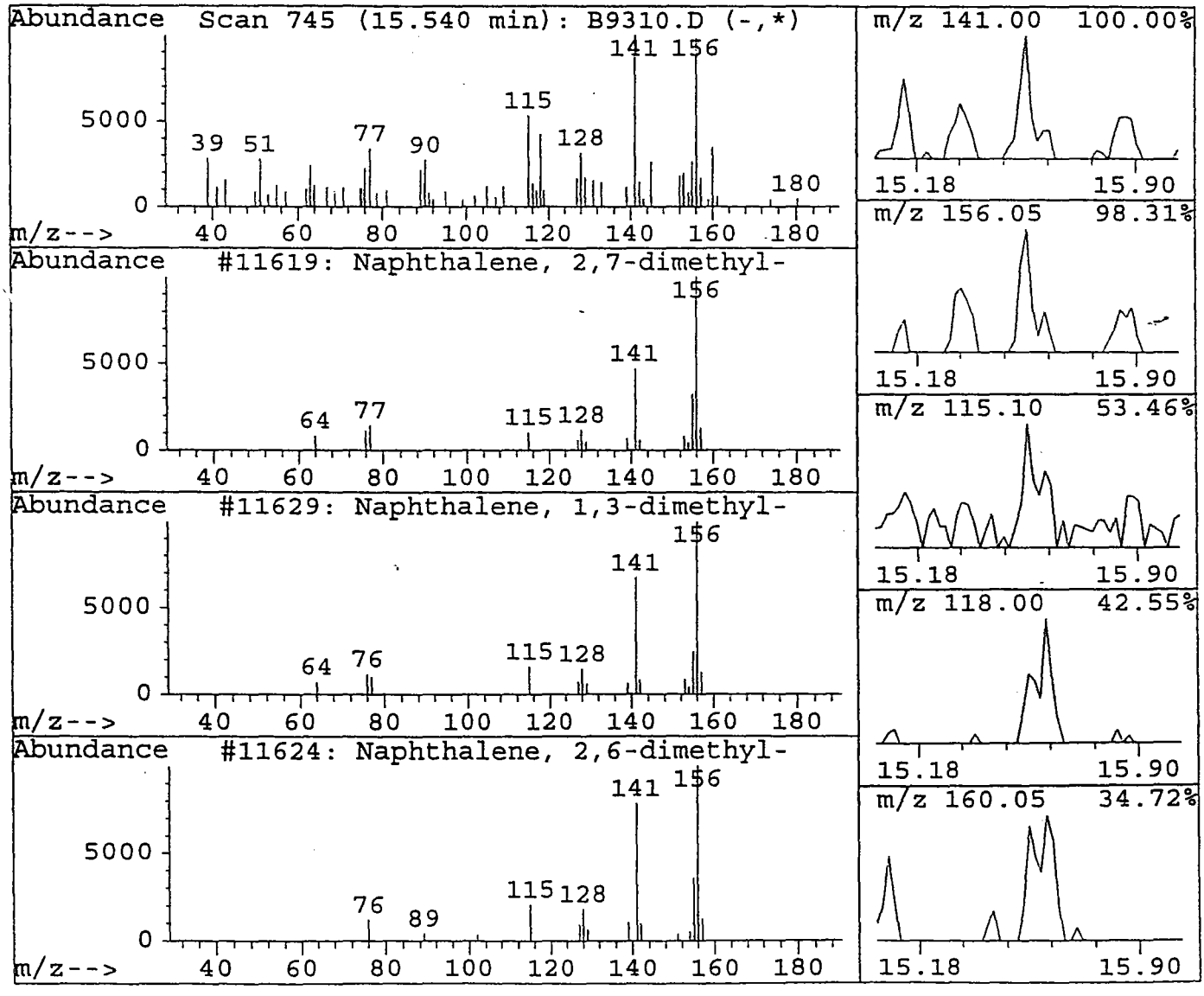
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551..... Converted from RTE d
Misc :

Vial: 11
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
15.54	3.32 ug/mL	17274	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	11619	000582-16-1	90
2	Naphthalene, 1,3-dimethyl-	11629	000575-41-7	90
3	Naphthalene, 2,6-dimethyl-	11624	000581-42-0	89
4	Naphthalene, 1,5-dimethyl-	11633	000571-61-9	78
5	Naphthalene, 1,7-dimethyl-	11628	000575-37-1	64



Library Search Compound Report

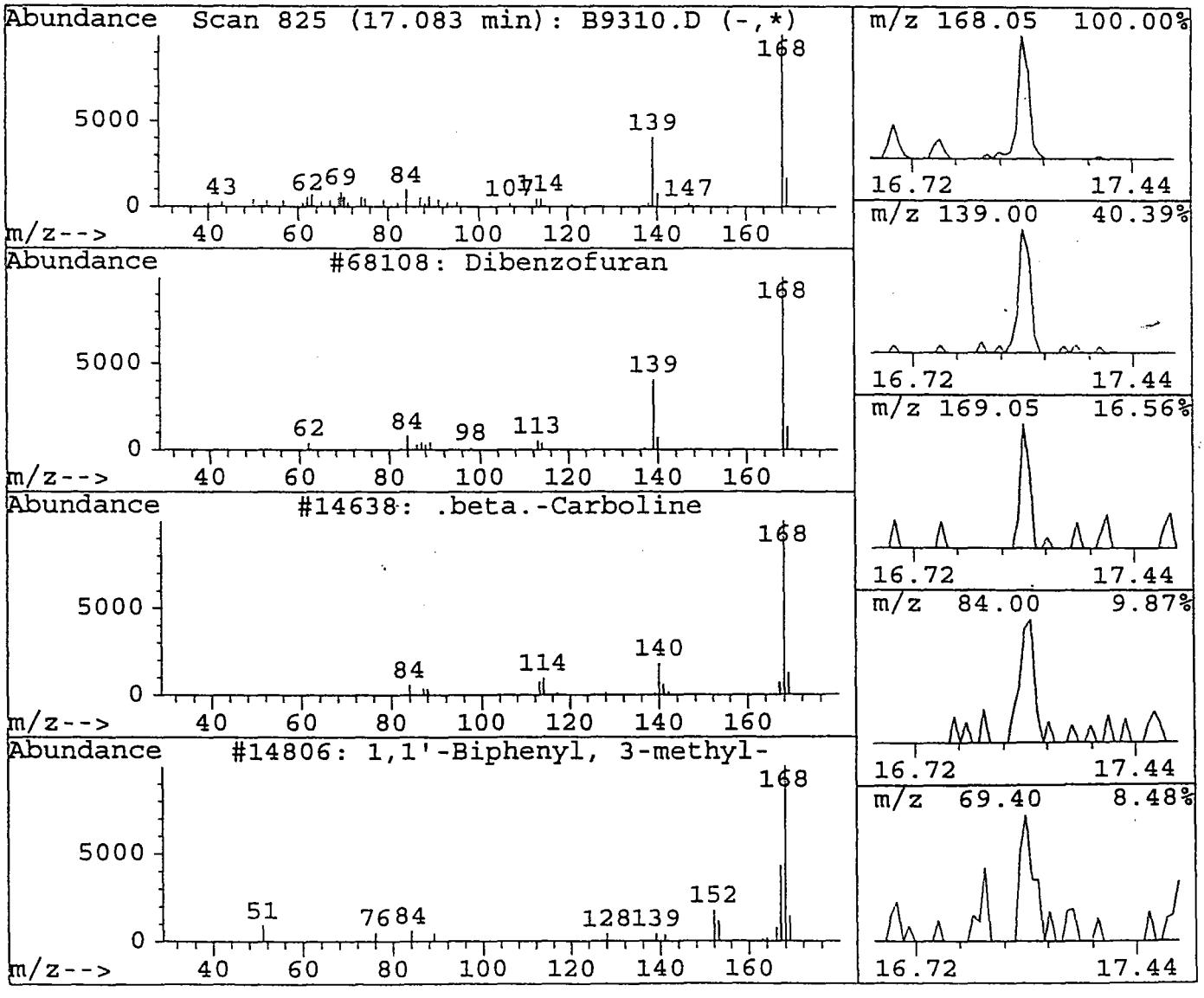
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551..... Converted from RTE d
Misc :

Vial: 11
Operator: SCOTTV
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.
17.08	3.07 ug/mL	15953	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dibenzofuran	68108	000132-64-9	91
2	.beta.-Carboline	14638	000000-00-0	50
3	1,1'-Biphenyl, 3-methyl-	14806	000643-93-6	38
4	1,1'-Biphenyl, 4-methyl-	14810	000644-08-6	38
5	Pyridine, 2-(phenylmethyl)-	68159	000101-82-6	9



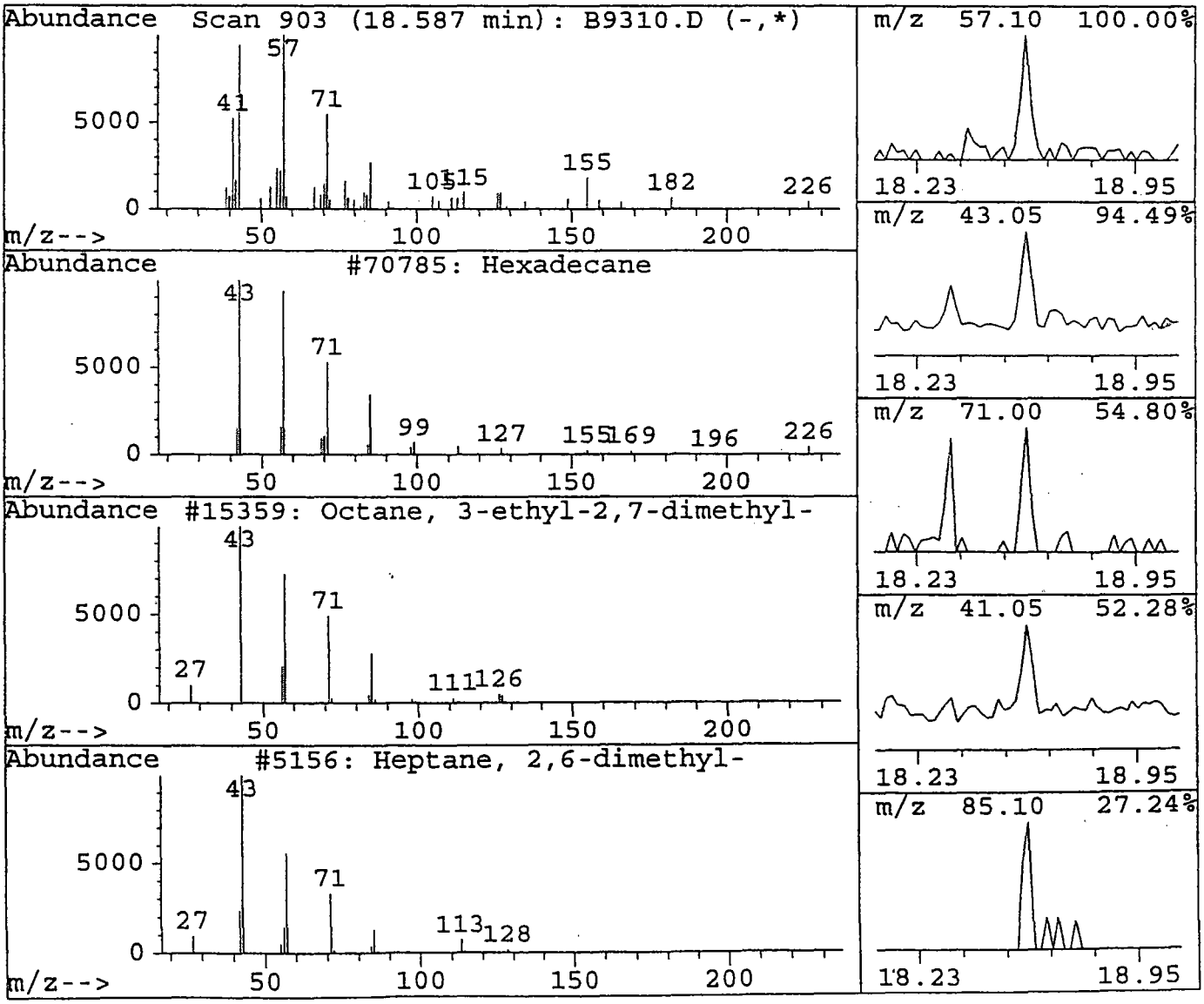
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551.....
Misc :
Vial: 11
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.
18.59	1.64 ug/mL	8542	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecane	70785	000544-76-3	64
2	Octane, 3-ethyl-2,7-dimethyl-	15359	062183-55-5	59
3	Heptane, 2,6-dimethyl-	5156	001072-05-5	52
4	Dodecane	68253	000112-40-3	50
5	Decane, 2,4-dimethyl-	15360	002801-84-5	50



Library Search Compound Report

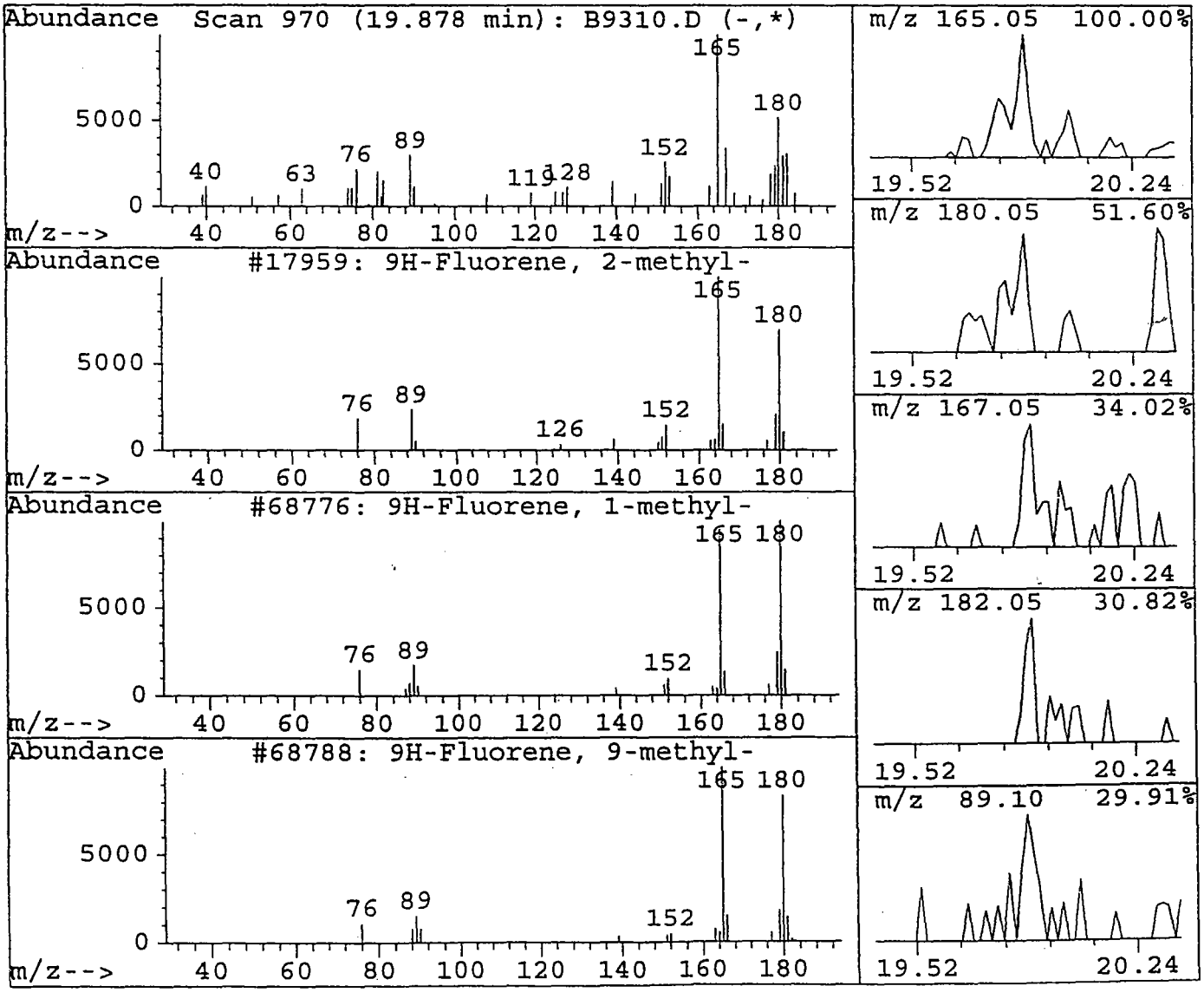
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551.....
Misc :

Vial: 11
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.
19.88	1.54 ug/mL	8091	Phenanthrene-d10	20.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	9H-Fluorene, 2-methyl-	17959	001430-97-3	62
2	9H-Fluorene, 1-methyl-	68776	001730-37-6	58
3	9H-Fluorene, 9-methyl-	68788	002523-37-7	50
4	9H-Fluorene, 4-methyl-	17949	001556-99-6	50
5	9H-Fluorene, 3-methyl-	17950	002523-39-9	38



Library Search Compound Report

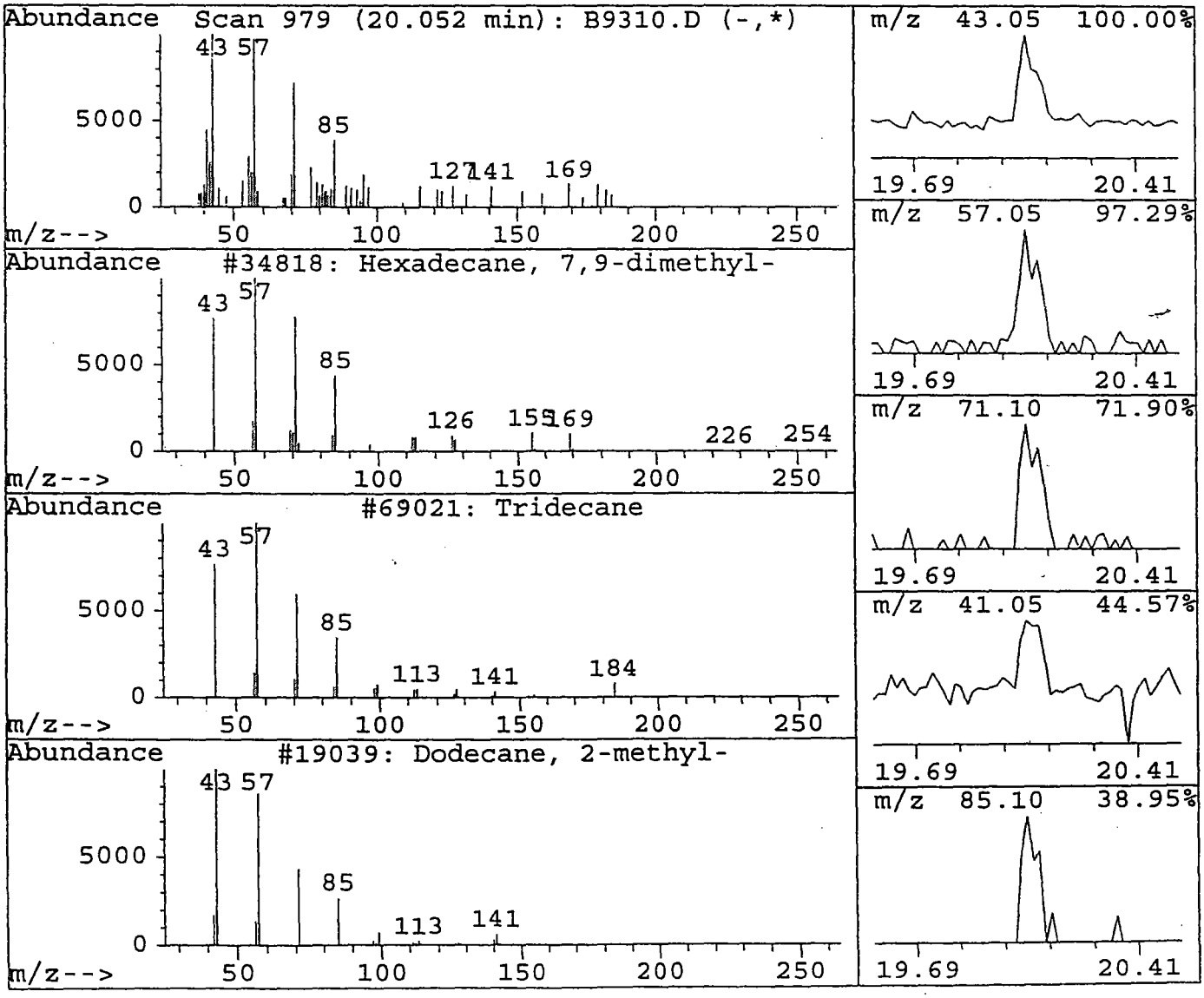
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551.....
Misc :

Vial: 11
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.
20.05	3.05 ug/mL	16025	Phenanthrene-d10	20.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecane, 7,9-dimethyl-	34818	021164-95-4	50
2	Tridecane	69021	000629-50-5	49
3	Dodecane, 2-methyl-	19039	001560-97-0	47
4	Hexadecane	70787	000544-76-3	43
5	Nonadecane	71948	000629-92-5	43



Library Search Compound Report

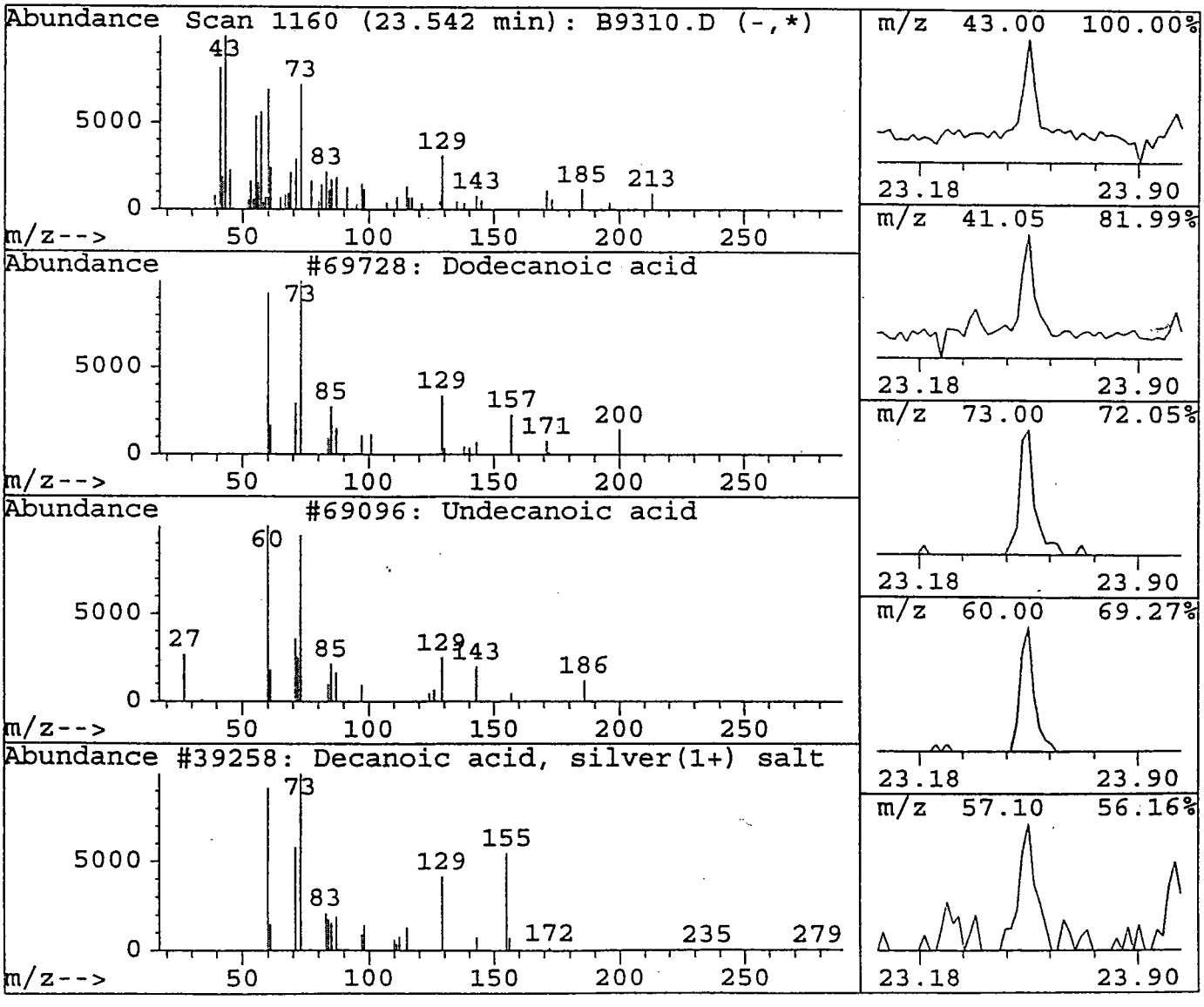
Data File : c:\hpchem\1\data2\b9310.d
Acq On : 8 Dec 95 2:10 am
Sample : 54551..... Converted from RTE d
Misc :

Vial: 11
Operator: SCOTTV
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.
23.54	3.96 ug/mL	20847	Phenanthrene-d10	20.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecanoic acid	69728	000143-07-7	50
2	Undecanoic acid	69096	000112-37-8	47
3	Decanoic acid, silver(1+) salt	39258	013126-67-5	47
4	Decanoic acid	15788	000334-48-5	47
5	.alpha.-D-Glucopyranoside, .alpha.-	48309	000099-20-7	47



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 306

9554552B

MW2-293758

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554552B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9311.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	J
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	1	J
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. 307

9554552B

MW2-293758

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554552B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9311.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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. 308

9554552B
MB-293758

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554552B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9311.D

Level: (low/med) Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 7 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	10.36	2	J
2. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	12.05	3	J
3. 91-57-6	Naphthalene, 2-methyl-	13.40	3	J
4. 90-12-0	Naphthalene, 1-methyl-	13.65	3	J
5. 582-16-1	Naphthalene, 2,7-dimethyl-	15.54	2	J
6. 132-64-9	Dibenzofuran	17.08	2	J
7. 57-10-3	Hexadecanoic acid	23.58	29	J
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 : c:\hpchem\1\data2\b9311.d Vial: 12
Acq On : 8 Dec 95 3:01 am Operator: SCOTTV
Sample : 54552..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 13:30 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	11760	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.21	136	49833	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.47	164	35216	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.88	188	64514	40.00	ug/ml	-0.37
64) Chrysene-d12	28.84	240	47488	40.00	ug/mL	-0.41
73) Perylene-d12	32.78	264	14577	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	324	0.58	ug/mL	0.58%
18) Nitrobenzene-d5	9.20	82	34734	58.33	ug/mL	58.33%
36) 2-Fluorobiphenyl	14.69	172	61244	65.42	ug/mL	65.42%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.02	244	121802	93.02	ug/mL	93.02%
Target Compounds						Qvalue
26) Naphthalene	11.26	128	2322	1.95	ug/mLm	99
48) Fluorene	18.10	166	1324	1.34	ug/mL	95

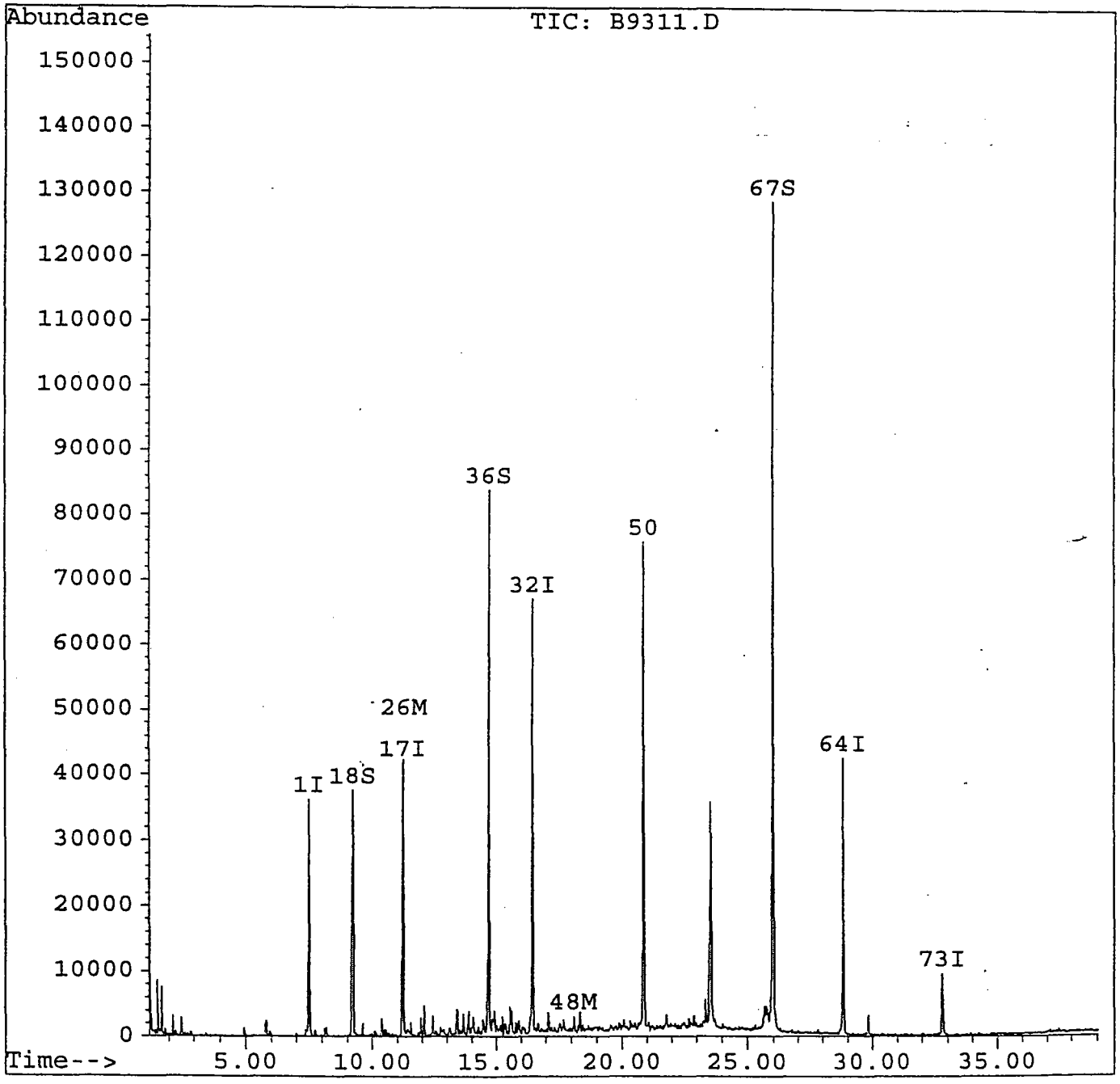
(#) = qualifier out of range (m) = manual integration

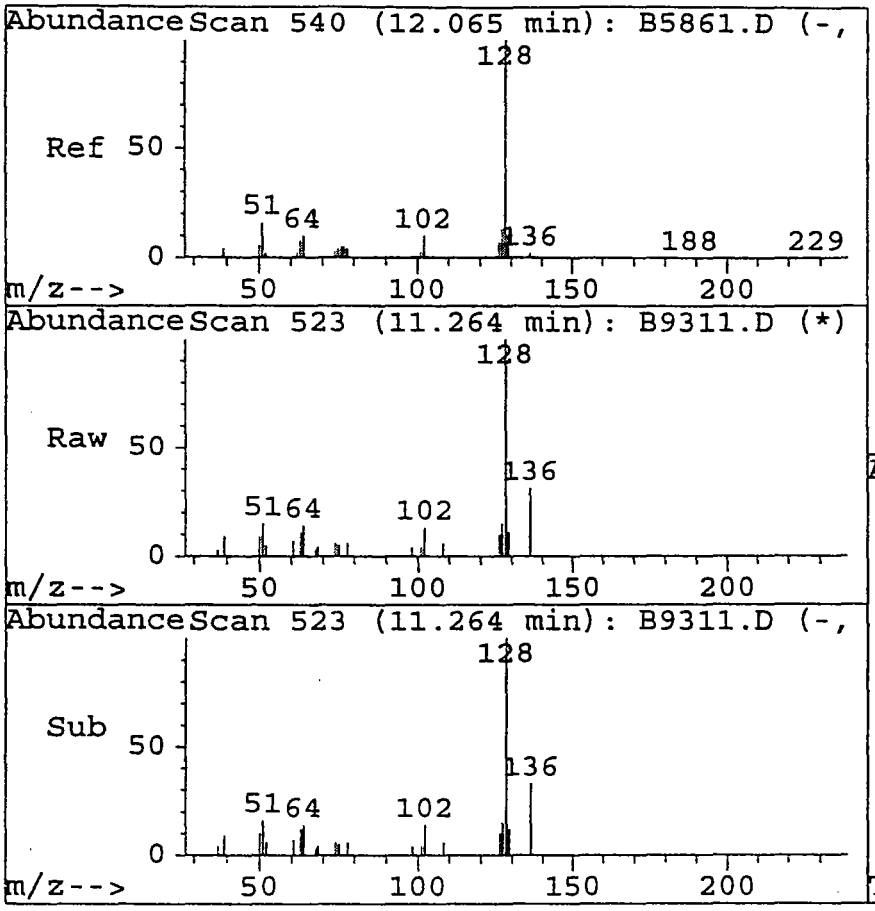
Quantitation Report

Data File : c:\hpchem\1\data2\b9311.d
Acq On : 8 Dec 95 3:01 am
Sample : 54552..... Converted from RTE d
Misc :
Quant Time: Dec 11 13:30 1995

Vial: 12
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

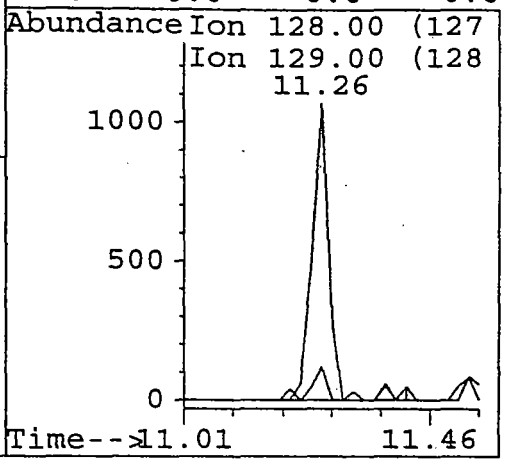


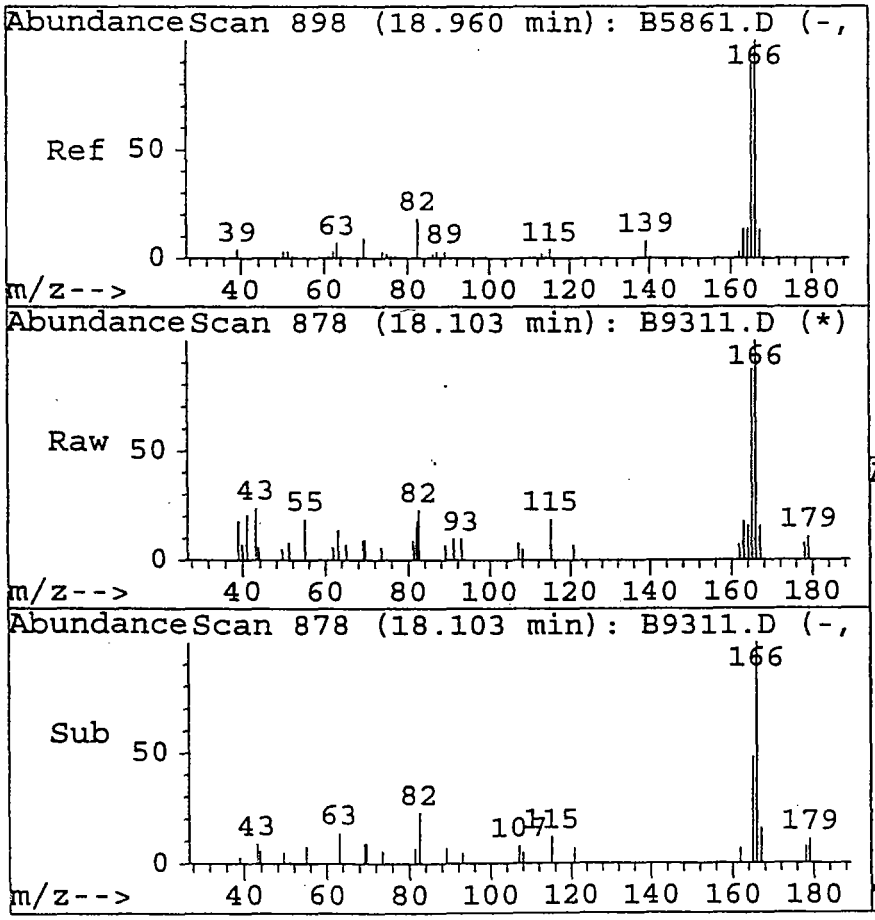


#26
Naphthalene
Concen: 1.95 ug/mL m
RT: 11.26 min Scan# 523
Delta R.T. -0.37 min
Lab File: b9311.d
Acq: 8 Dec 95 3:01 am

Tgt Ion:128 Resp: 2322

Ion	Ratio	Lower	Upper
128	100		
129	11.3	8.7	13.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

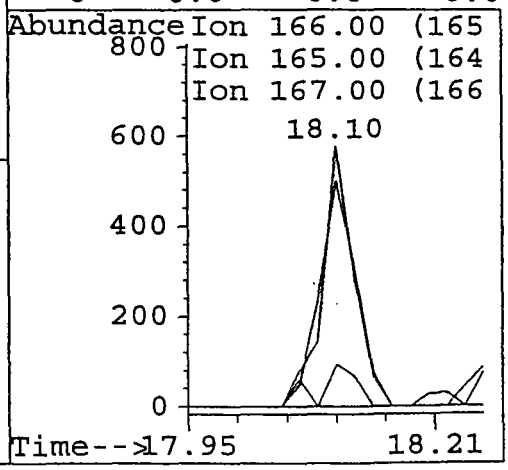




#48
Fluorene
Concen: 1.34 ug/mL
RT: 18.10 min Scan# 878
Delta R.T. -0.39 min
Lab File: b9311.d
Acq: 8 Dec 95 3:01 am

Tgt Ion:166 Resp: 1324

Ion	Ratio	Lower	Upper
166	100		
165	86.7	73.3	110.0
167	15.9	10.9	16.4
0	0.0	0.0	0.0



Library Search Compound Report

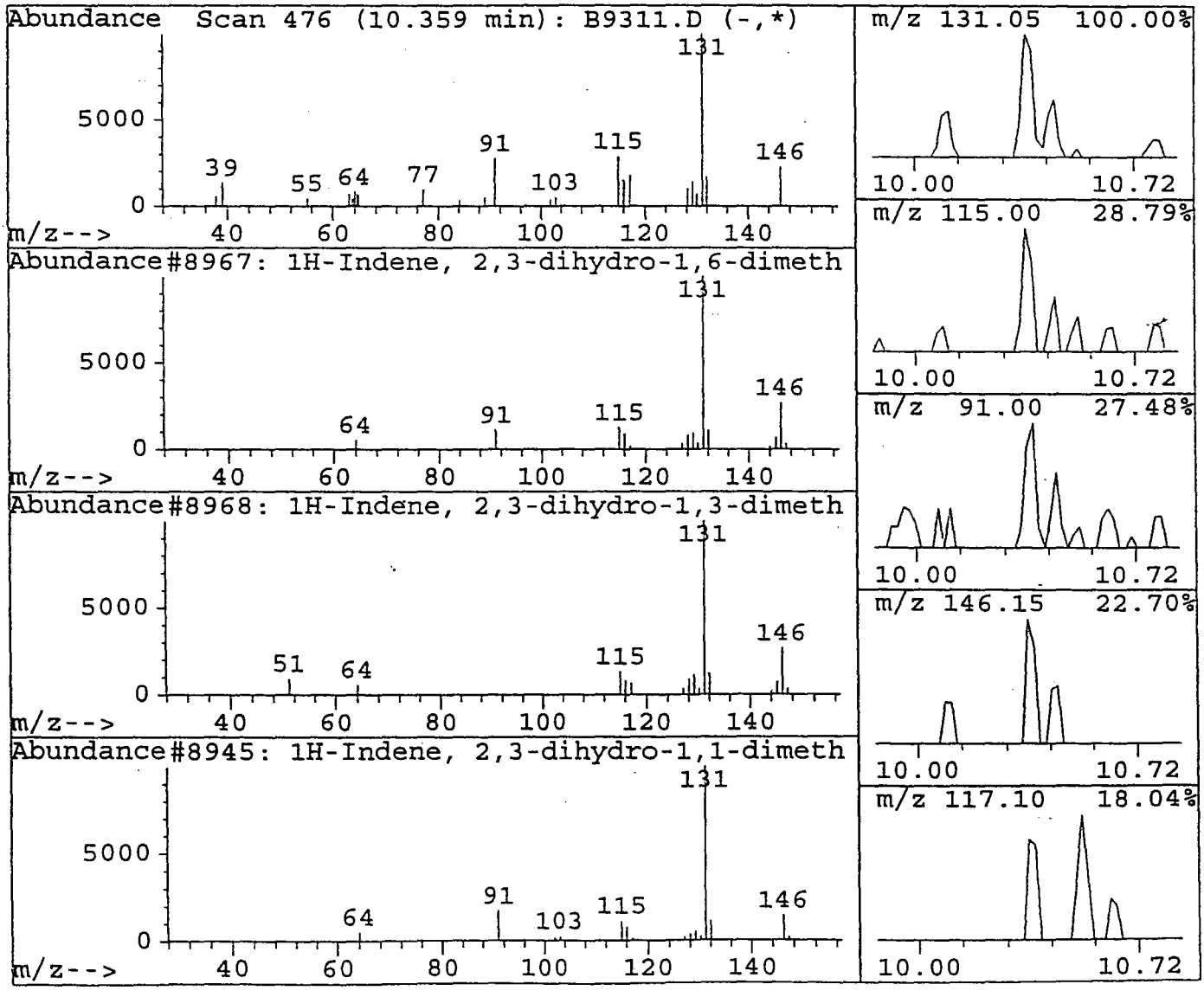
Data File : c:\hpchem\1\data2\b9311.d
Acq On : 8 Dec 95 3:01 am
Sample : 54552..... Converted from RTE d
Misc :

Vial: 12
Operator: SCOTTV
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.
10.36	2.26 ug/mL	7497	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	80
2	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	72
3	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	41
4	Naphthalen-1,4-imine, 1,2,3,4-tetra	12236	055257-99-3	25
5	1H-Indole, 1-methyl-	65343	000603-76-9	25



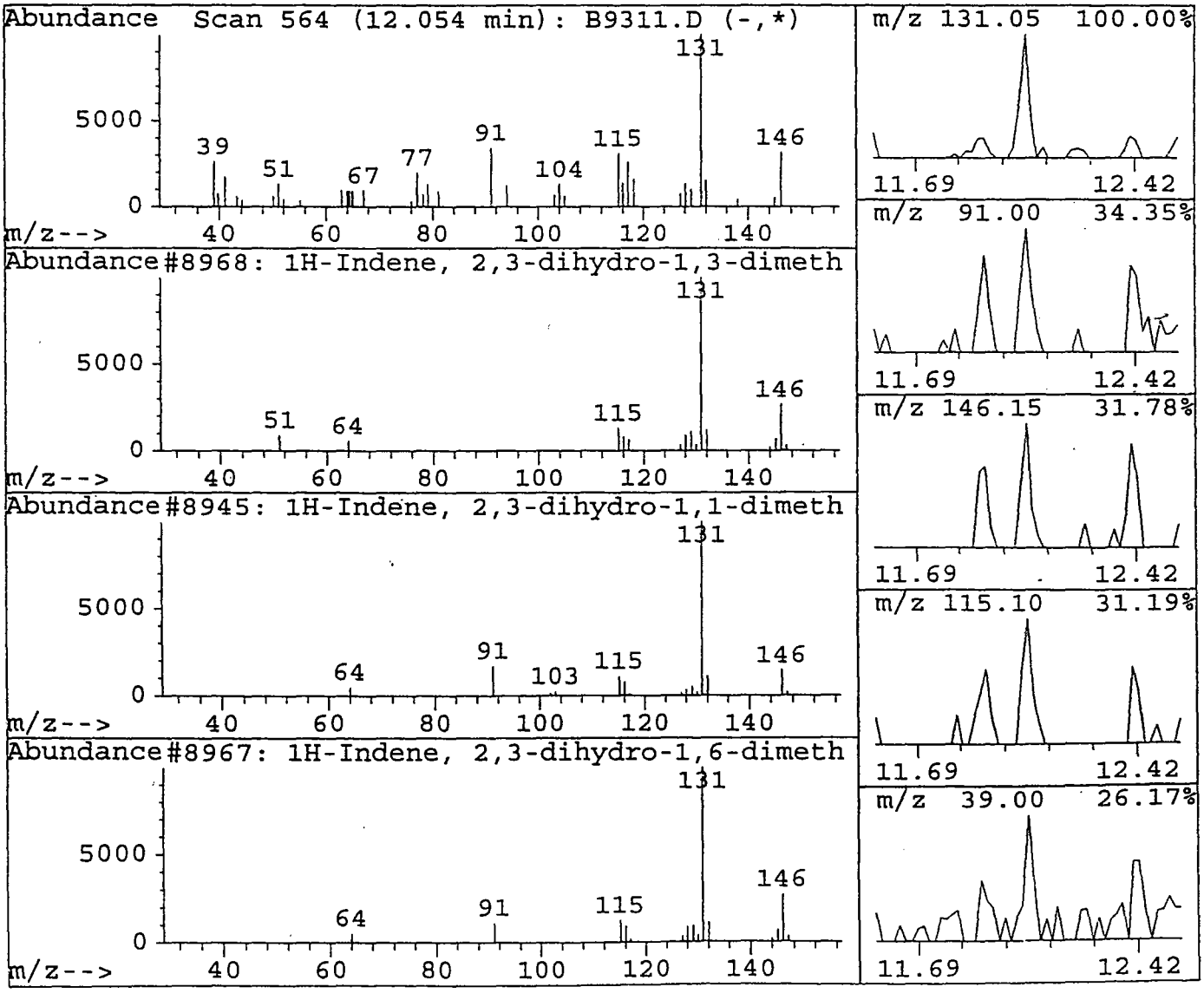
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9311.d Vial: 12
Acq On : 8 Dec 95 3:01 am Operator: SCOTTV
Sample : 54552..... 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.
12.05	2.81 ug/mL	9290	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	64
2	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	59
3	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	59
4	Naphthalene, 1,2,3,4-tetrahydro-6-m	66500	001680-51-9	25
5	Pyrido[2,3-b]pyrazine	5626	000322-46-3	13



Library Search Compound Report

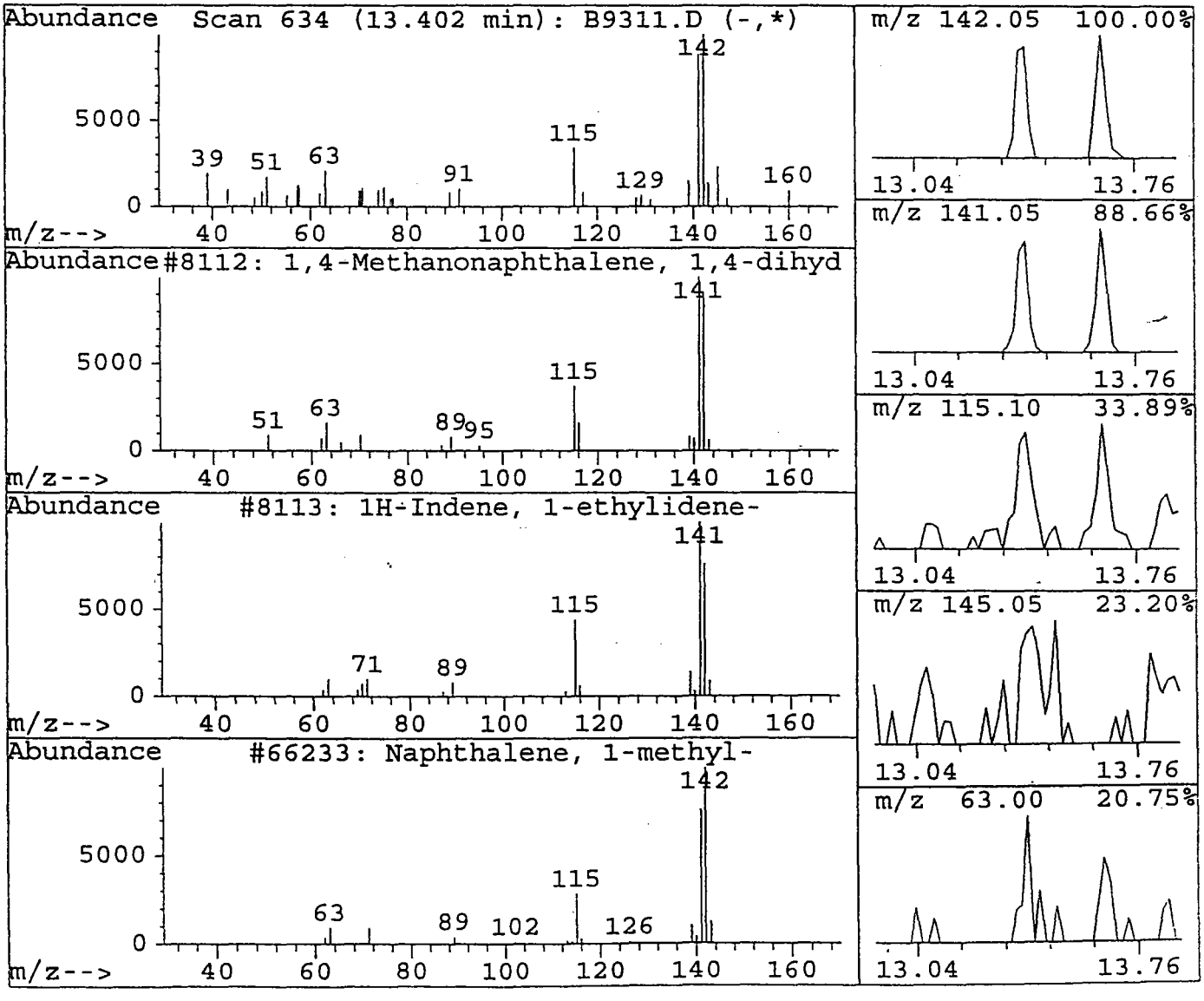
Data File : c:\hpchem\1\data2\b9311.d
Acq On : 8 Dec 95 3:01 am
Sample : 54552.....
Misc :

Vial: 12
Operator: SCOTTV
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
13.40	2.75 ug/mL	9096	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,4-Methanonaphthalene, 1,4-dihydro	8112	004453-90-1	74
2	1H-Indene, 1-ethylidene-	8113	002471-83-2	72
3	Naphthalene, 1-methyl-	66233	000090-12-0	64
4	Benzocycloheptatriene	8114	000264-09-5	59
5	Naphthalene, 2-methyl-	8115	000091-57-6	58



Library Search Compound Report

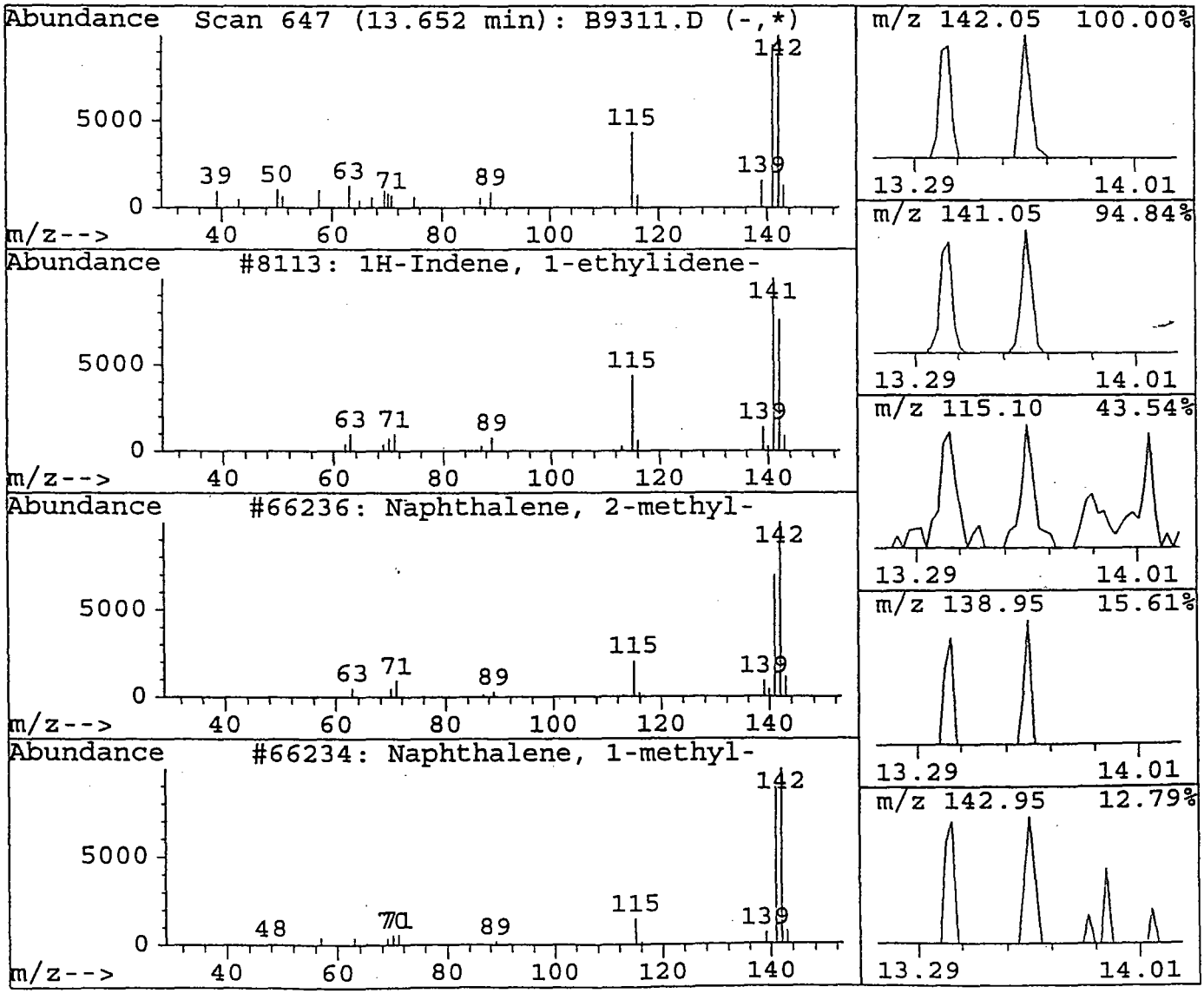
Data File : c:\hpchem\1\data2\b9311.d
Acq On : 8 Dec 95 3:01 am
Sample : 54552.....
Misc :

Vial: 12
Operator: SCOTTV
Inst : ABNA
Converted from RTE d
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.
13.65	2.95 ug/mL	9779	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 1-ethylidene-	8113	002471-83-2	91
2	Naphthalene, 2-methyl-	66236	000091-57-6	91
3	Naphthalene, 1-methyl-	66234	000090-12-0	91
4	1,4-Methanonaphthalene, 1,4-dihydro	8112	004453-90-1	80
5	Benzocycloheptatriene	8114	000264-09-5	78



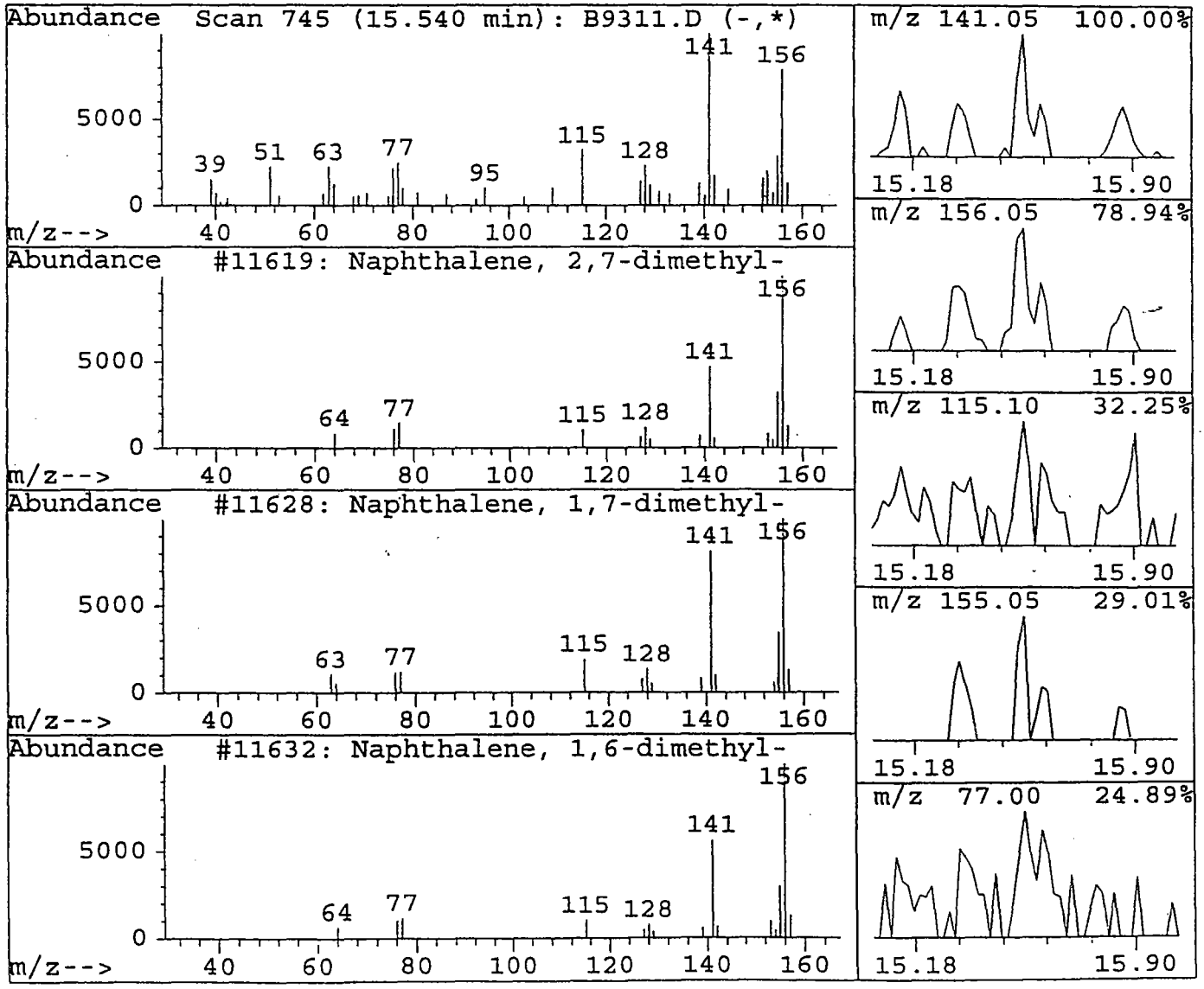
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9311.d Vial: 12
Acq On : 8 Dec 95 3:01 am Operator: SCOTTV
Sample : 54552..... 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.
15.54	2.22 ug/mL	10068	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	11619	000582-16-1	96
2	Naphthalene, 1,7-dimethyl-	11628	000575-37-1	96
3	Naphthalene, 1,6-dimethyl-	11632	000575-43-9	96
4	Naphthalene, 1,5-dimethyl-	11633	000571-61-9	95
5	Naphthalene, 2,6-dimethyl-	67335	000581-42-0	95



Library Search Compound Report

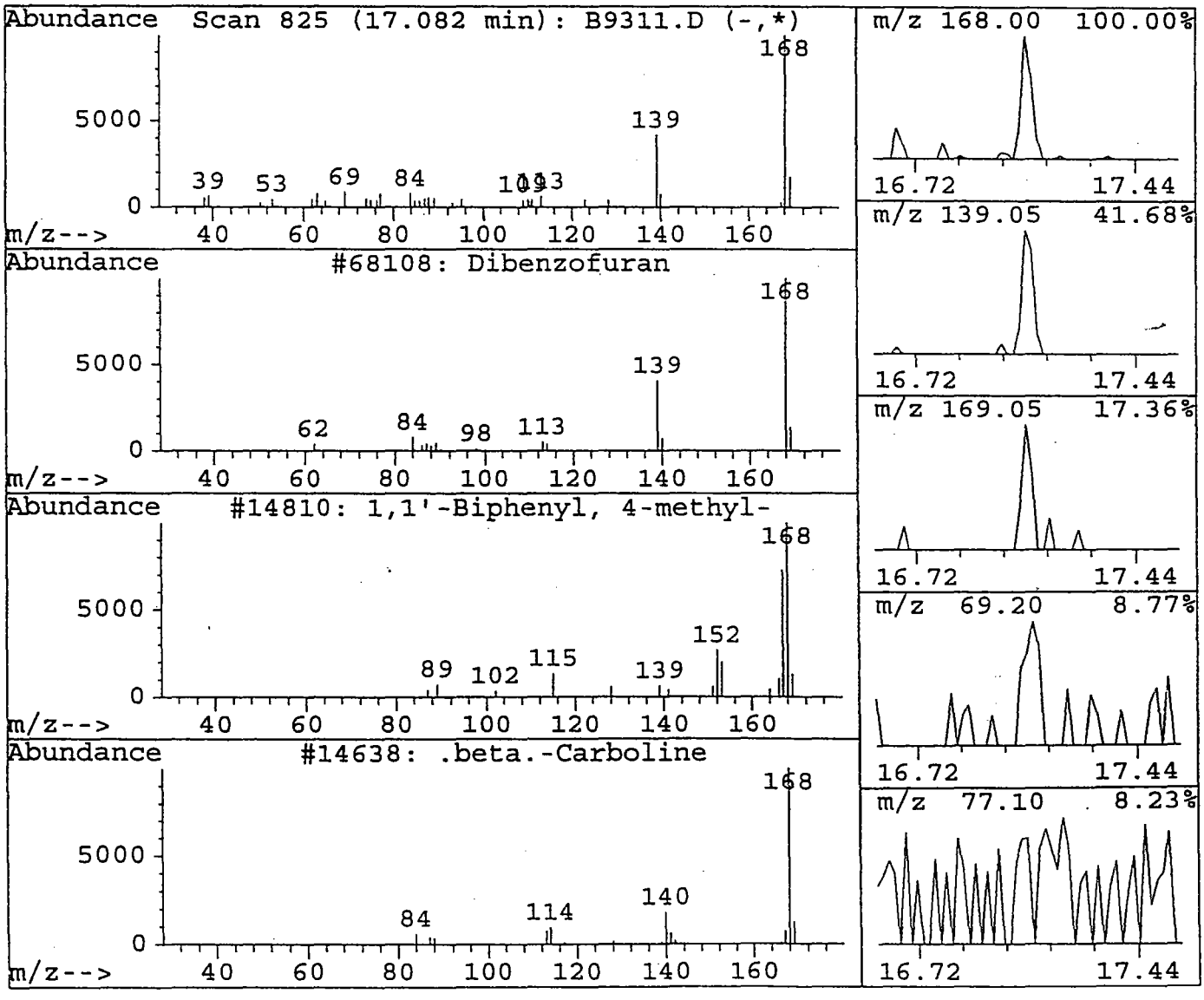
Data File : c:\hpchem\1\data2\b9311.d
Acq On : 8 Dec 95 3:01 am
Sample : 54552..... Converted from RTE d
Misc :

Vial: 12
Operator: SCOTTV
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.
17.08	1.80 ug/mL	8169	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dibenzofuran	68108	000132-64-9	87
2	1,1'-Biphenyl, 4-methyl-	14810	000644-08-6	47
3	.beta.-Carboline	14638	000000-00-0	43
4	1-Naphthalenecarbonitrile, 4-amino-	14643	058728-64-6	43
5	1,1'-Biphenyl, 3-methyl-	14806	000643-93-6	38



Library Search Compound Report

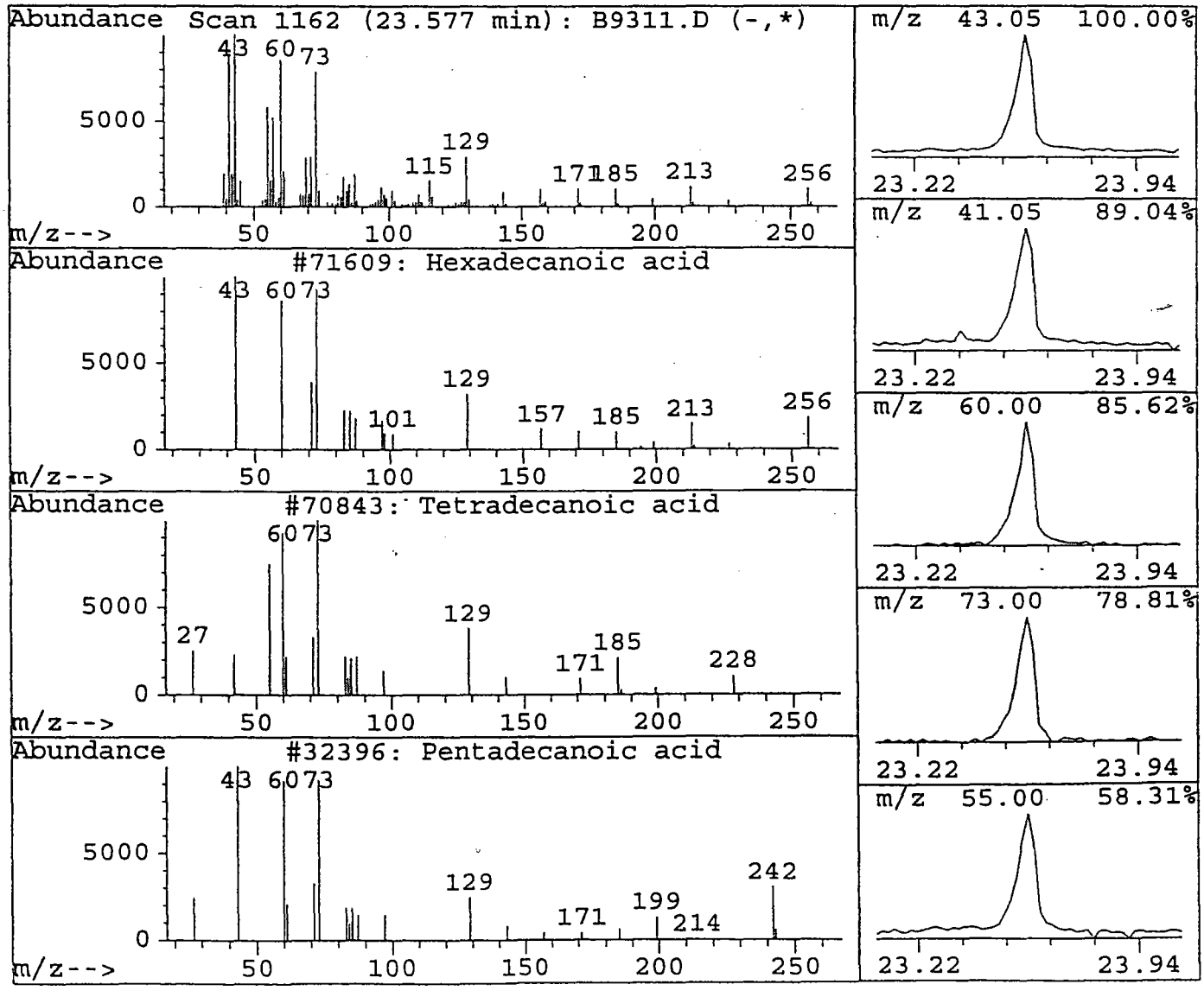
Data File : c:\hpchem\1\data2\b9311.d
Acq On : 8 Dec 95 3:01 am
Sample : 54552..... Converted from RTE d
Misc :

Vial: 12
Operator: SCOTTV
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.
23.58	29.34 ug/mL	147865	Phenanthrene-d10	20.88

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecanoic acid	71609	000057-10-3	96
2	Tetradecanoic acid	70843	000544-63-8	72
3	Pentadecanoic acid	32396	001002-84-2	58
4	Dodecanamide, N,N-bis(2-hydroxyethy	40673	000120-40-1	53
5	Nonanoic acid	67434	000112-05-0	49



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 319

9554554B
Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9312.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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. 319

9554554B
Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9312.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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. 320

9554554B
Field Blank

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9312.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

SAMPLE NO. 321

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

9554554B
Field Blank

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9312.D

Level: (low/med) Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown Hydrocarbon	8.14	5	J
2. 57-10-3	Hexadecanoic acid	23.52	2	J
3.				
4.				
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Quantitation Report

Data File : c:\hpchem\1\data2\b9312.d Vial: 13
Acq On : 8 Dec 95 3:52 am Operator: SCOTTV
Sample : 54554..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 13:31 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	10086	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.21	136	45945	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.46	164	31194	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	50056	40.00	ug/ml	-0.38
64) Chrysene-d12	28.84	240	37914	40.00	ug/mL	-0.41
73) Perylene-d12	32.78	264	12115	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	233	0.49	ug/mL	0.49%
18) Nitrobenzene-d5	9.20	82	34693	63.19	ug/mL	63.19%
36) 2-Fluorobiphenyl	14.69	172	63804	76.94	ug/mL	76.94%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	97434	93.20	ug/mL	93.20%
Target Compounds						Qvalue

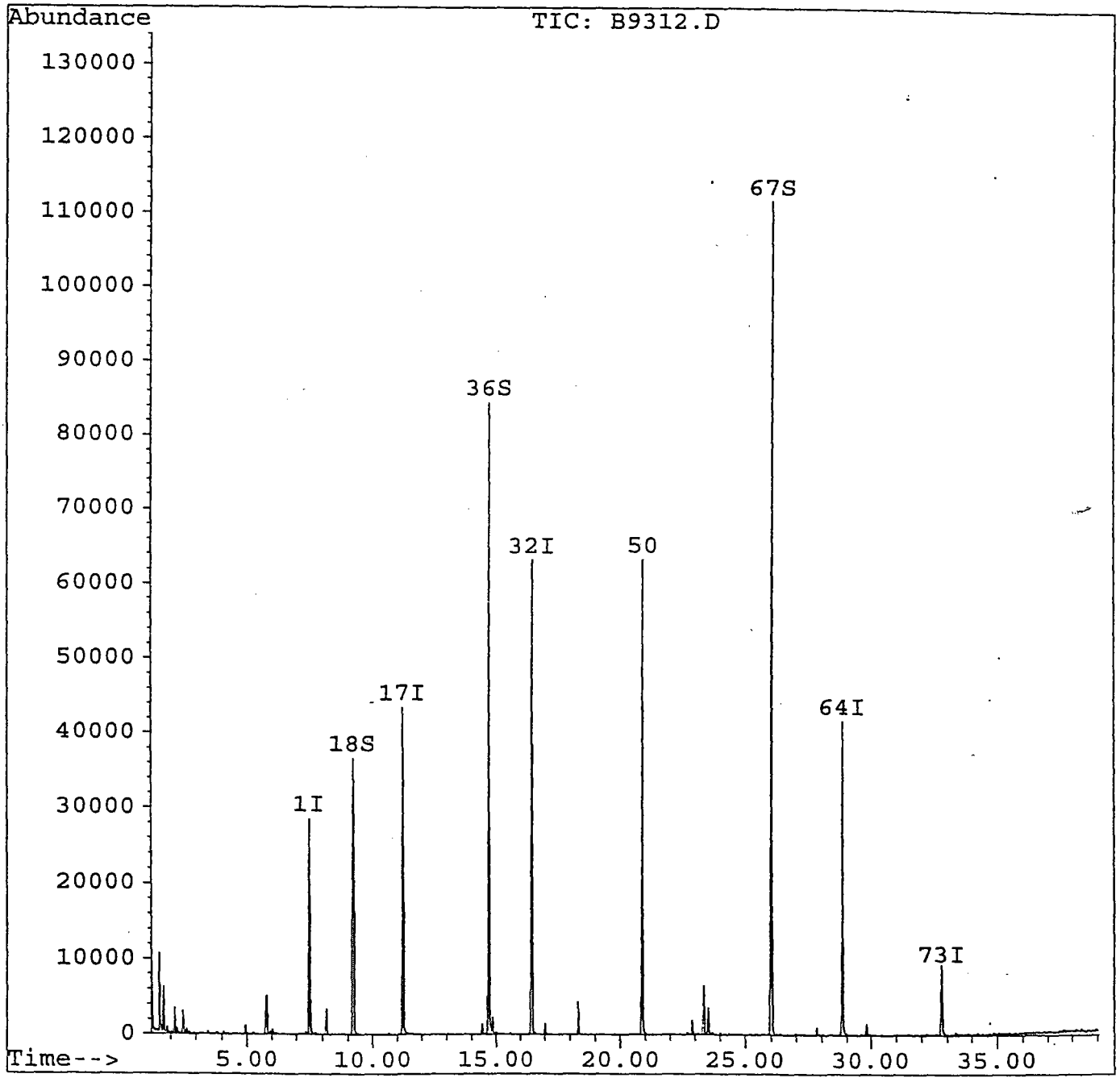
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554..... Converted from RTE d
Misc :
Quant Time: Dec 11 13:31 1995

Vial: 13
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Library Search Compound Report

Data File : c:\hpchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554.....
Misc :

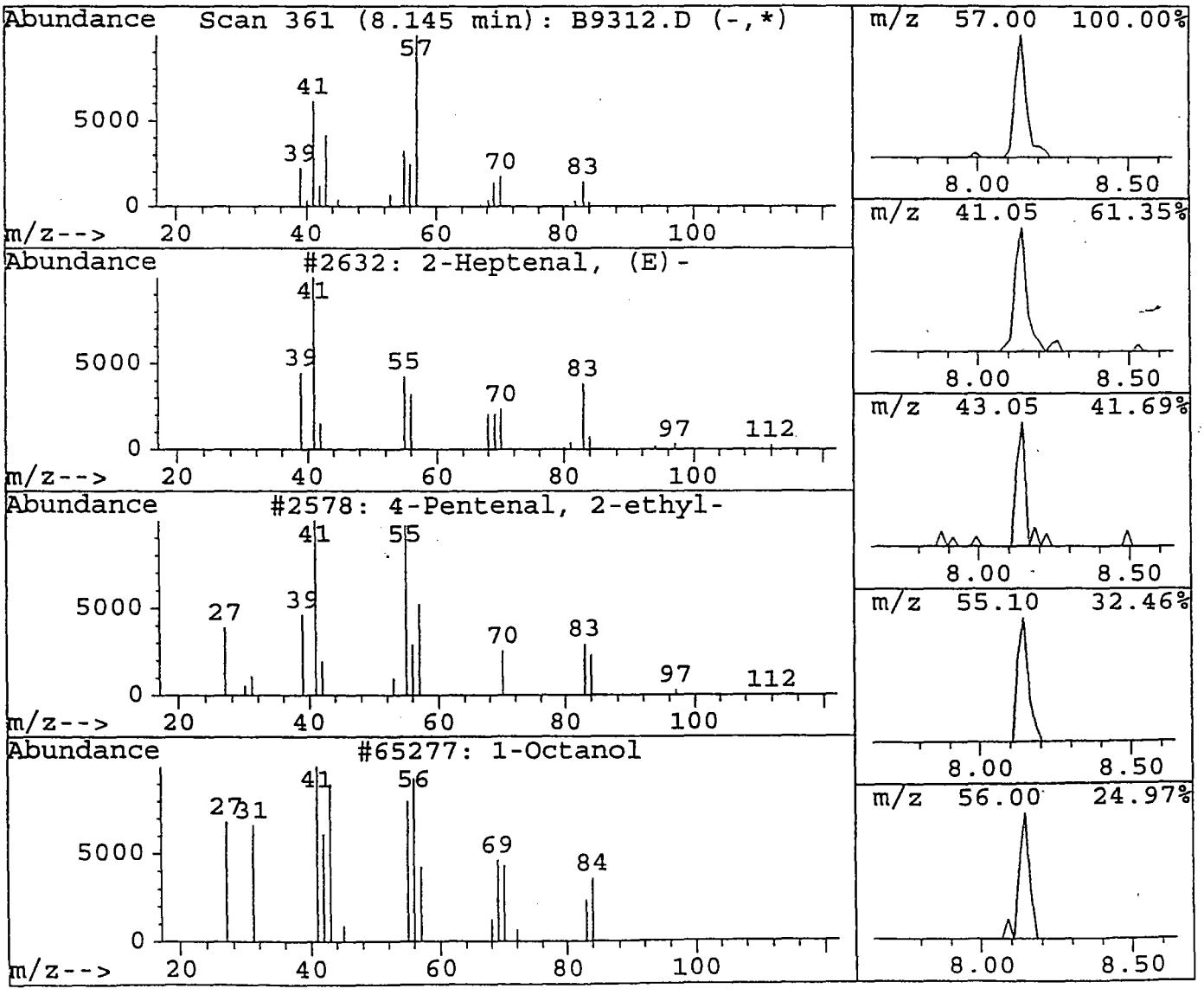
Converted from RTE d

Vial: 13
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
8.14	4.63 ug/mL	8300	1,4-Dichlorobenzene-d4	7.49

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Heptenal, (E)-	2632	018829-55-5	42
2	4-Pentenal, 2-ethyl-	2578	005204-80-8	40
3	1-Octanol	65277	000111-87-5	38
4	Propanoic acid, heptyl ester	68350	002216-81-1	17
5	1-Butene	62308	000106-98-9	9



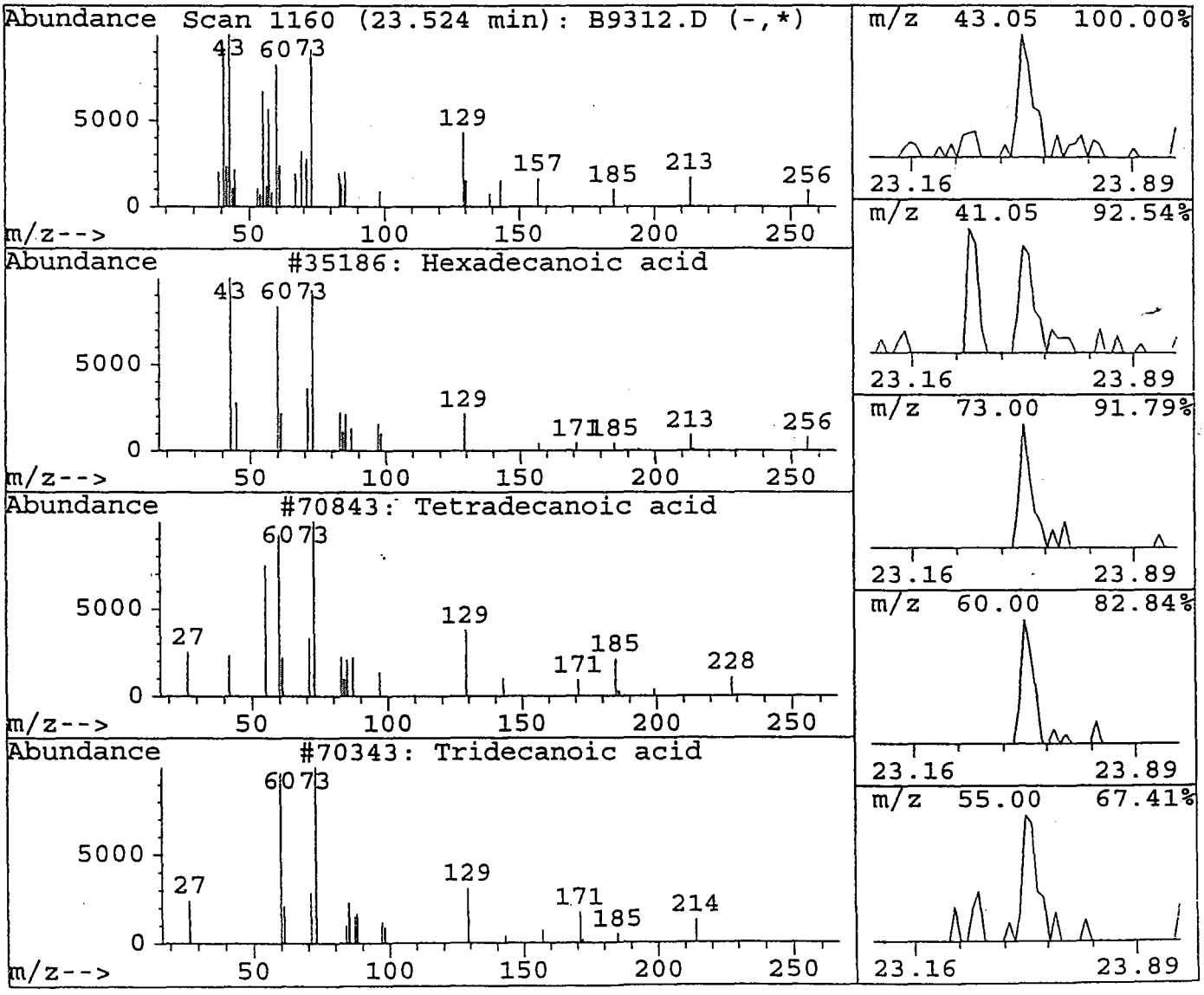
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9312.d Vial: 13
Acq On : 8 Dec 95 3:52 am Operator: SCOTTV
Sample : 54554..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.52	2.45 ug/mL	9490	Phenanthrene-d10	20.87

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecanoic acid	35186	000057-10-3	93
2	Tetradecanoic acid	70843	000544-63-8	72
3	Tridecanoic acid	70343	000638-53-9	59
4	Pentadecanoic acid	32396	001002-84-2	59
5	Undecanoic acid	69096	000112-37-8	53



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 326

9554555B Duplicate

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554555B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9313.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	2	J
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. 327

9554555B Duplicate

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9554555B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9313.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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.
9554555B
Duplicate

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9554555B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9313.D

Level: (low/med) Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 9 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 93-53-8	Benzeneacetaldehyde, .alpha.	7.43	6	J
2. 4175-53-5	1H-Indene, 2,3-dihydro-1,3-d	10.36	2	J
3. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	11.53	2	J
4. 3877-19-8	Naphthalene, 1,2,3,4-tetrahy	11.92	3	J
5. 1559-81-5	Naphthalene, 1,2,3,4-tetrahy	12.05	4	J
6. 575-37-1	Naphthalene, 1,7-dimethyl-	15.54	4	J
7. 132-64-9	Dibenzofuran	17.08	4	J
8.	Unknown Hydrocarbon	18.34	2	J
9. 57-10-3	Hexadecanoic acid	23.54	13	J
10.				
11.				
12.				
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Quantitation Report

Data File : c:\hpchem\1\data2\b9313.d Vial: 14
Acq On : 8 Dec 95 4:43 am Operator: SCOTTV
Sample : 54555..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 13:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	11834	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.21	136	48191	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.47	164	34931	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.86	188	60678	40.00	ug/ml	-0.38
64) Chrysene-d12	28.84	240	44912	40.00	ug/mL	-0.40
73) Perylene-d12	32.79	264	14123	40.00	ug/mL	-0.36
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	310	0.55	ug/mL	0.55%
18) Nitrobenzene-d5	9.20	82	31199	54.18	ug/mL	54.18%
36) 2-Fluorobiphenyl	14.69	172	60647	65.31	ug/mL	65.31%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.01	244	116839	94.34	ug/mL	94.34%
Target Compounds						Qvalue
48) Fluorene	18.11	166	2273	2.31	ug/mL	89

(#) = qualifier out of range (m) = manual integration

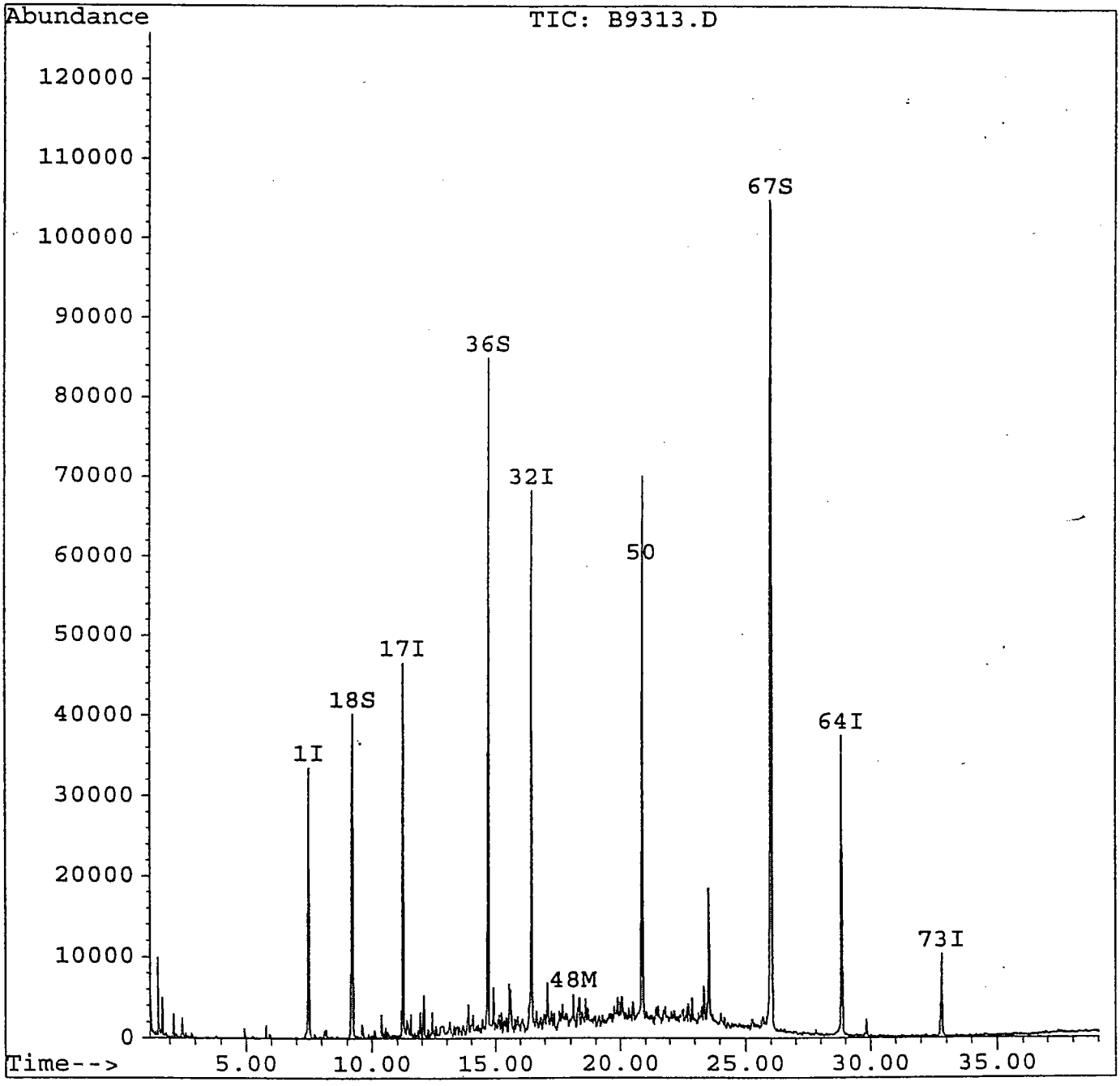
Quantitation Report

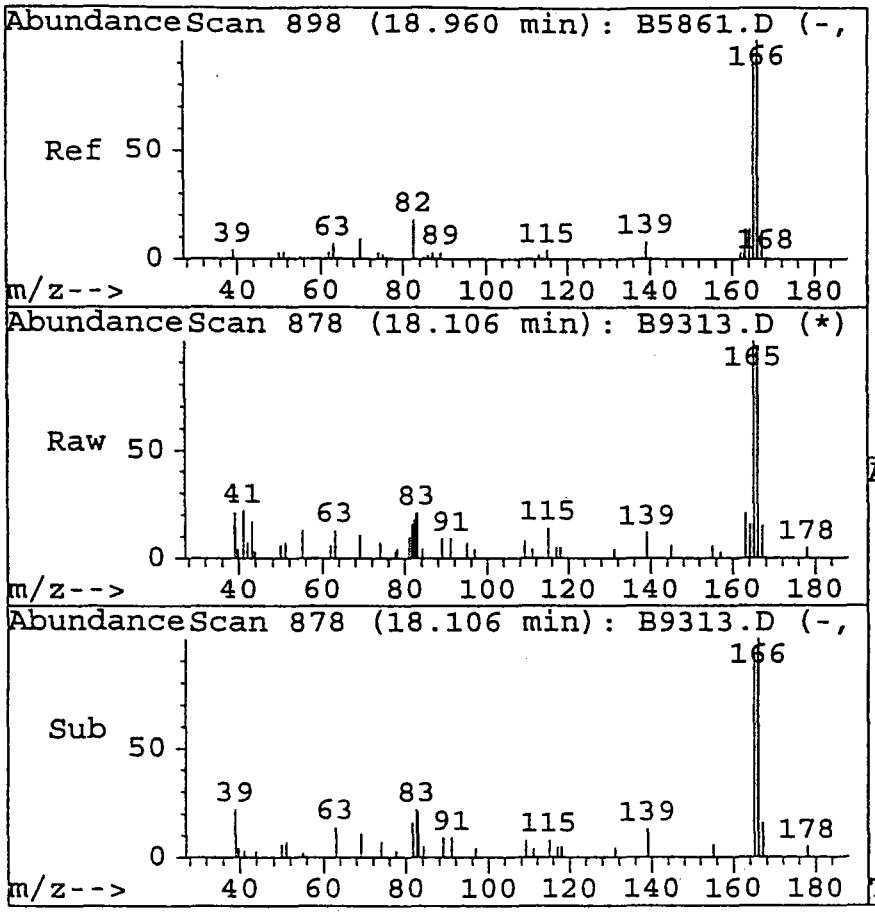
Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555.....
Misc :
Quant Time: Dec 11 13:32 1995

Converted from RTE d

Vial: 14
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

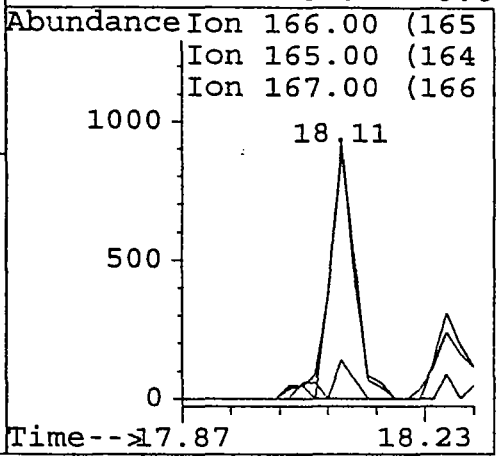




#48
Fluorene
Concen: 2.31 ug/mL
RT: 18.11 min Scan# 878
Delta R.T. -0.39 min
Lab File: b9313.d
Acq: 8 Dec 95 4:43 am

Tgt Ion:166 Resp: 2273

Ion	Ratio	Lower	Upper
166	100		
165	103.3	73.3	110.0
167	15.6	10.9	16.4
0	0.0	0.0	0.0



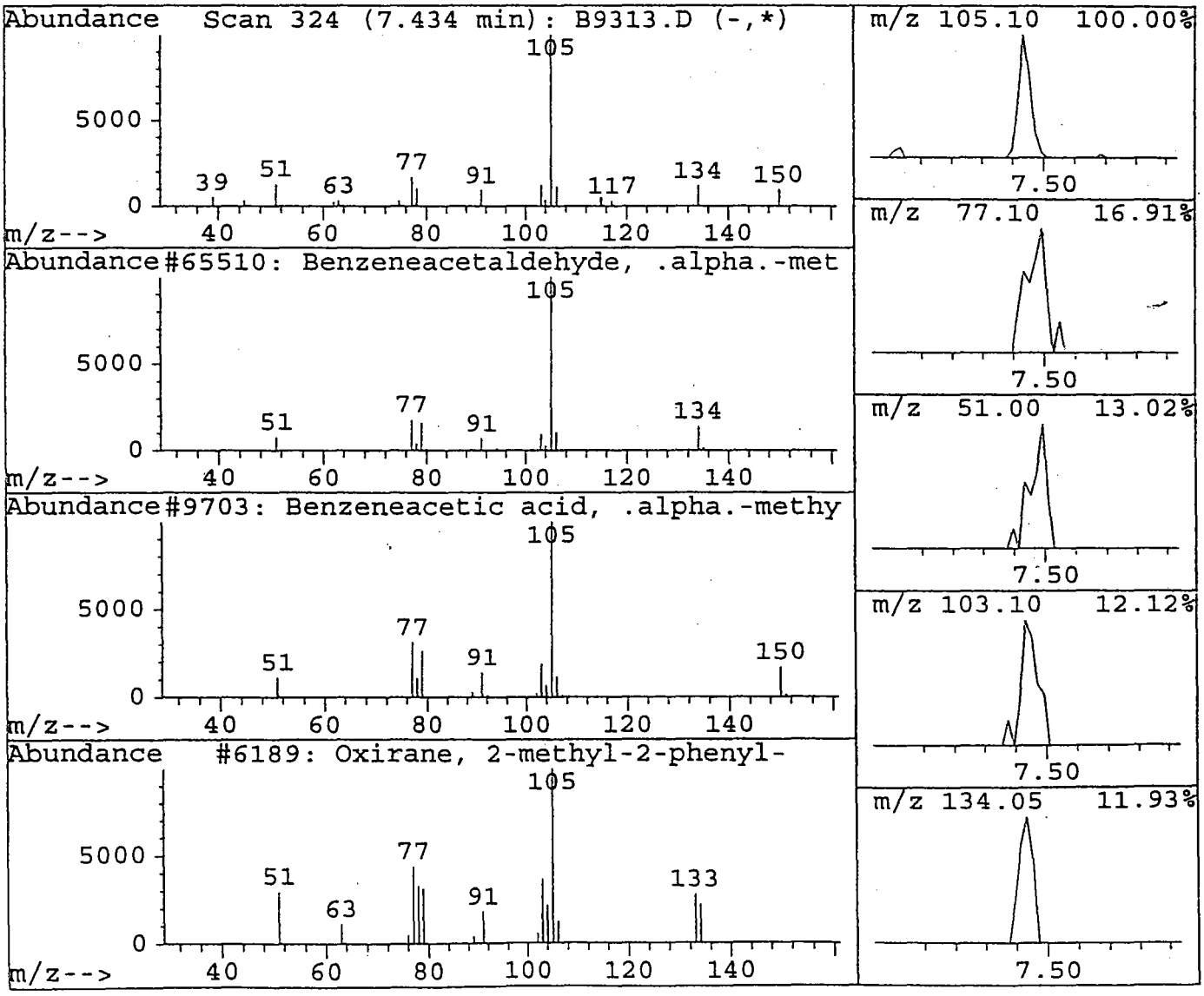
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9313.d Vial: 14
Acq On : 8 Dec 95 4:43 am Operator: SCOTTV
Sample : 54555..... 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.
7.43	5.63 ug/mL	12518	1,4-Dichlorobenzene-d4	7.49

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzeneacetaldehyde, .alpha.-methyl	65510	000093-53-8	64
2	Benzeneacetic acid, .alpha.-methyl-	9703	000492-37-5	58
3	Oxirane, 2-methyl-2-phenyl-	6189	002085-88-3	53
4	Benzene, (1-methylpropyl)-	65544	000135-98-8	53
5	Benzene, 1-methyl-3-propyl-	65527	001074-43-7	52



Library Search Compound Report

Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555.....
Misc :

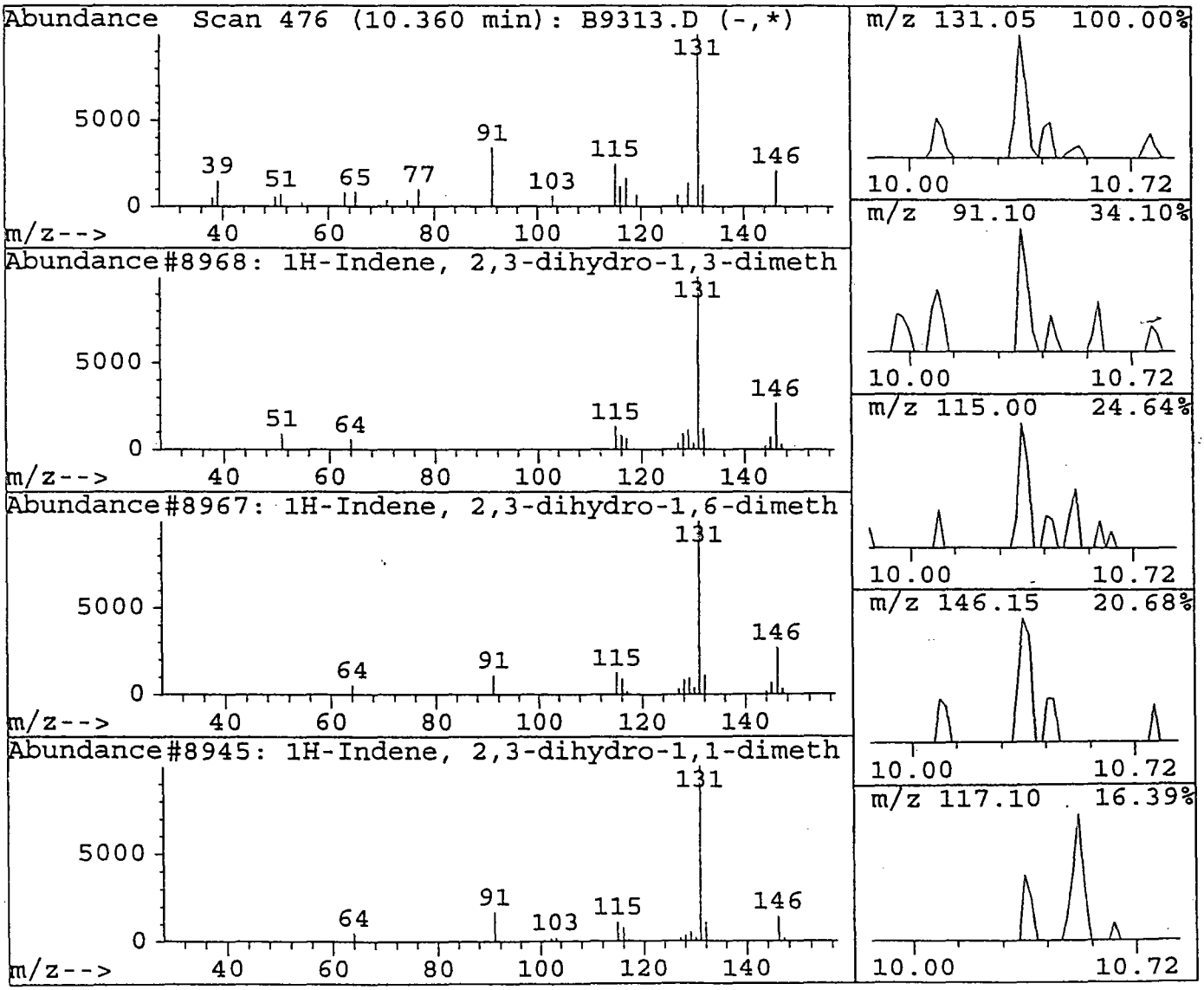
Converted from RTE d

Vial: 14
Operator: SCOTTV
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.
10.36	2.08 ug/mL	6526	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	91
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	64
3	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	50
4	1H-Indole, 1-methyl-	5656	000603-76-9	28
5	1H-Indene, 2,3-dihydro-4,6-dimethyl	8950	001685-82-1	9



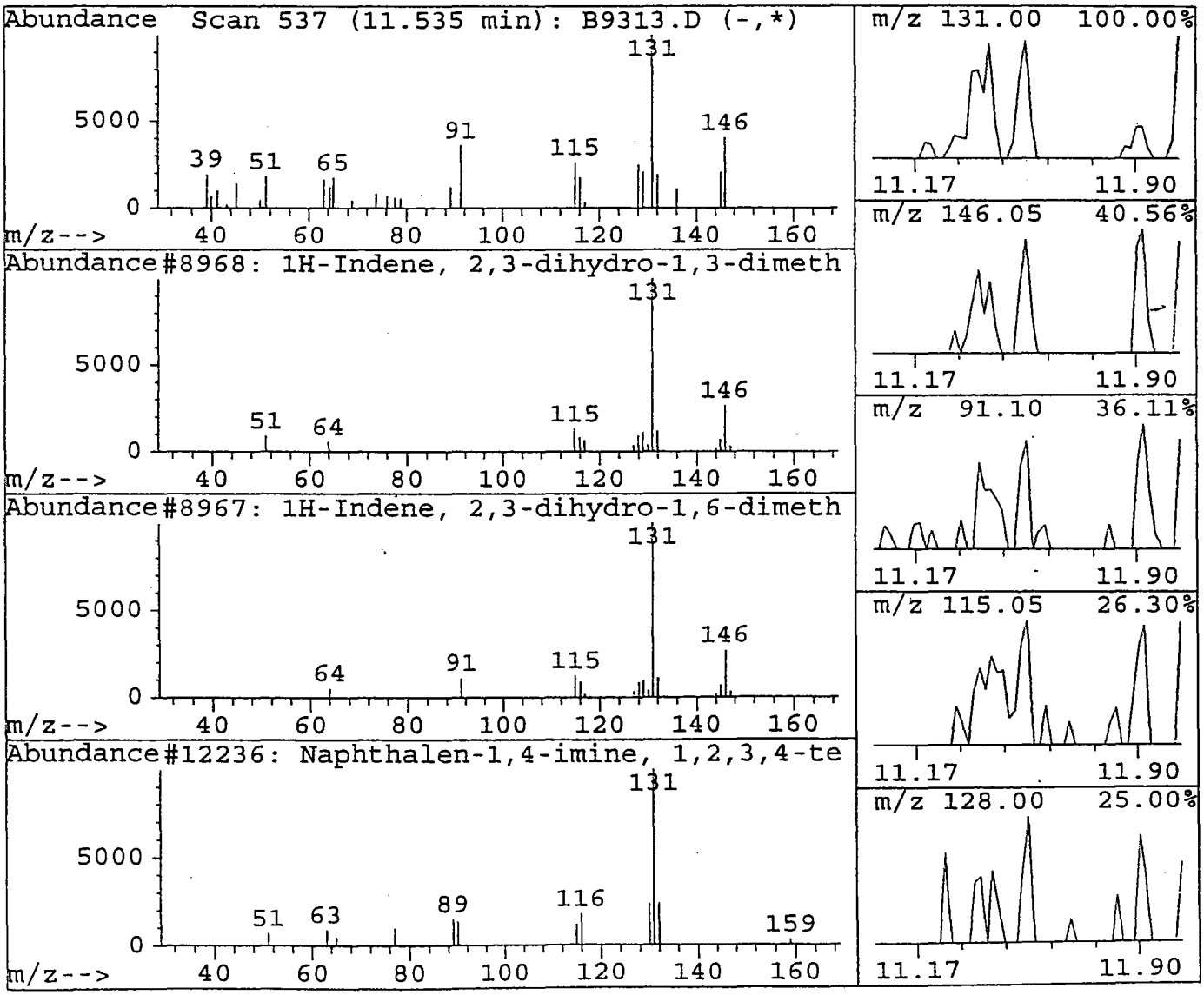
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9313.d Vial: 14
Acq On : 8 Dec 95 4:43 am Operator: SCOTTV
Sample : 54555..... 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.
11.53	1.79 ug/mL	5602	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	43
2	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	43
3	Naphthalen-1,4-imine, 1,2,3,4-tetra	12236	055257-99-3	16
4	Silane, butoxytrimethyl-	8835	001825-65-6	12
5	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	10



Library Search Compound Report

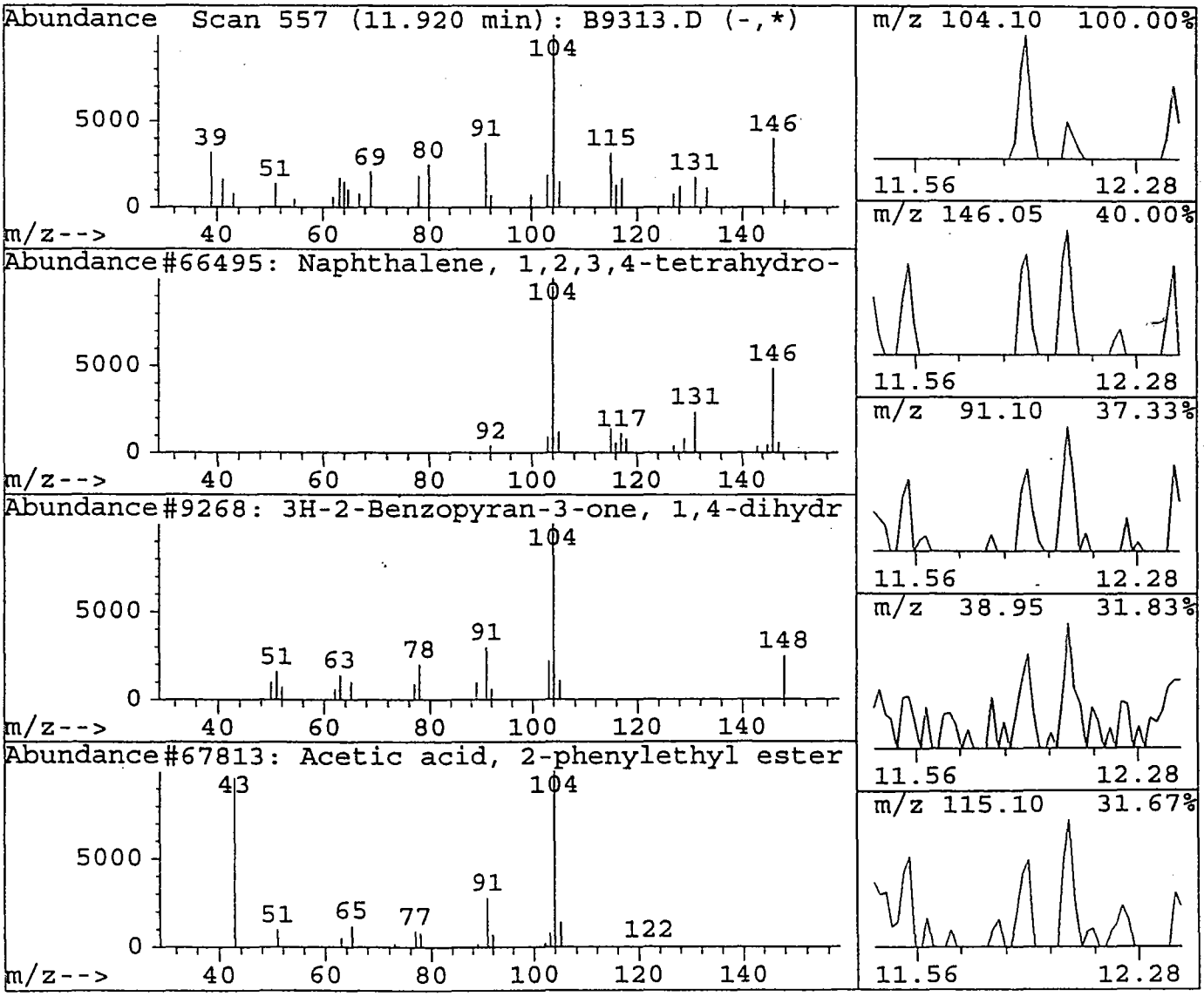
Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555..... Converted from RTE d
Misc :

Vial: 14
Operator: SCOTTV
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.
11.92	2.61 ug/mL	8157	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-2-m	66495	003877-19-8	58
2	3H-2-Benzopyran-3-one, 1,4-dihydro-	9268	004385-35-7	27
3	Acetic acid, 2-phenylethyl ester	67813	000103-45-7	22
4	Benzenemethanol, 2-methyl-	64686	000089-95-2	12
5	Butanedioic acid, phenyl-	21169	000635-51-8	12



Library Search Compound Report

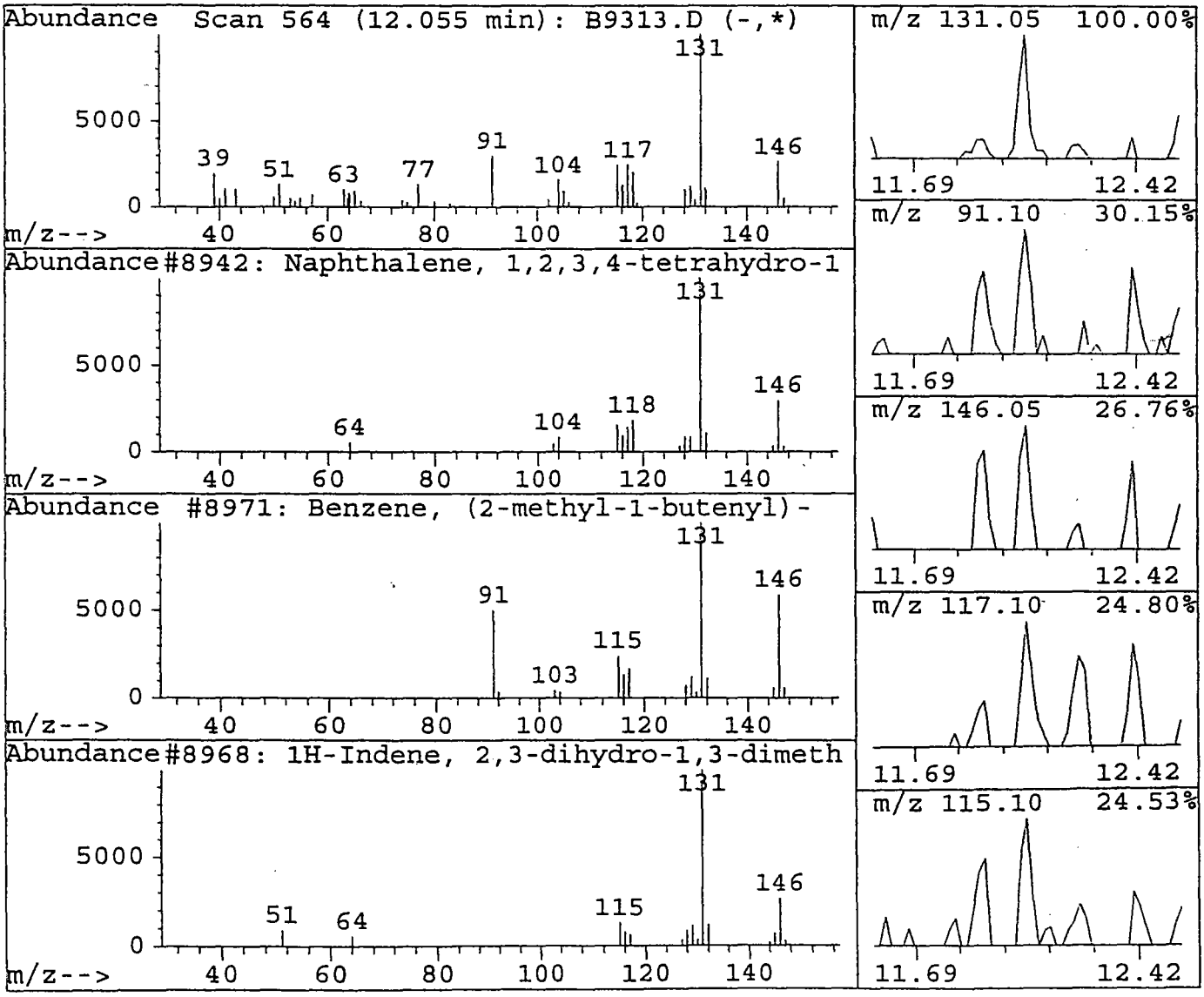
Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555.....
Misc :

Vial: 14
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.
12.05	4.25 ug/mL	13312	Naphthalene-d8	11.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1-m	8942	001559-81-5	90
2	Benzene, (2-methyl-1-butenyl)-	8971	056253-64-6	81
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	70
4	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	70
5	1H-Indene, 2,3-dihydro-1,2-dimethyl	8947	017057-82-8	70



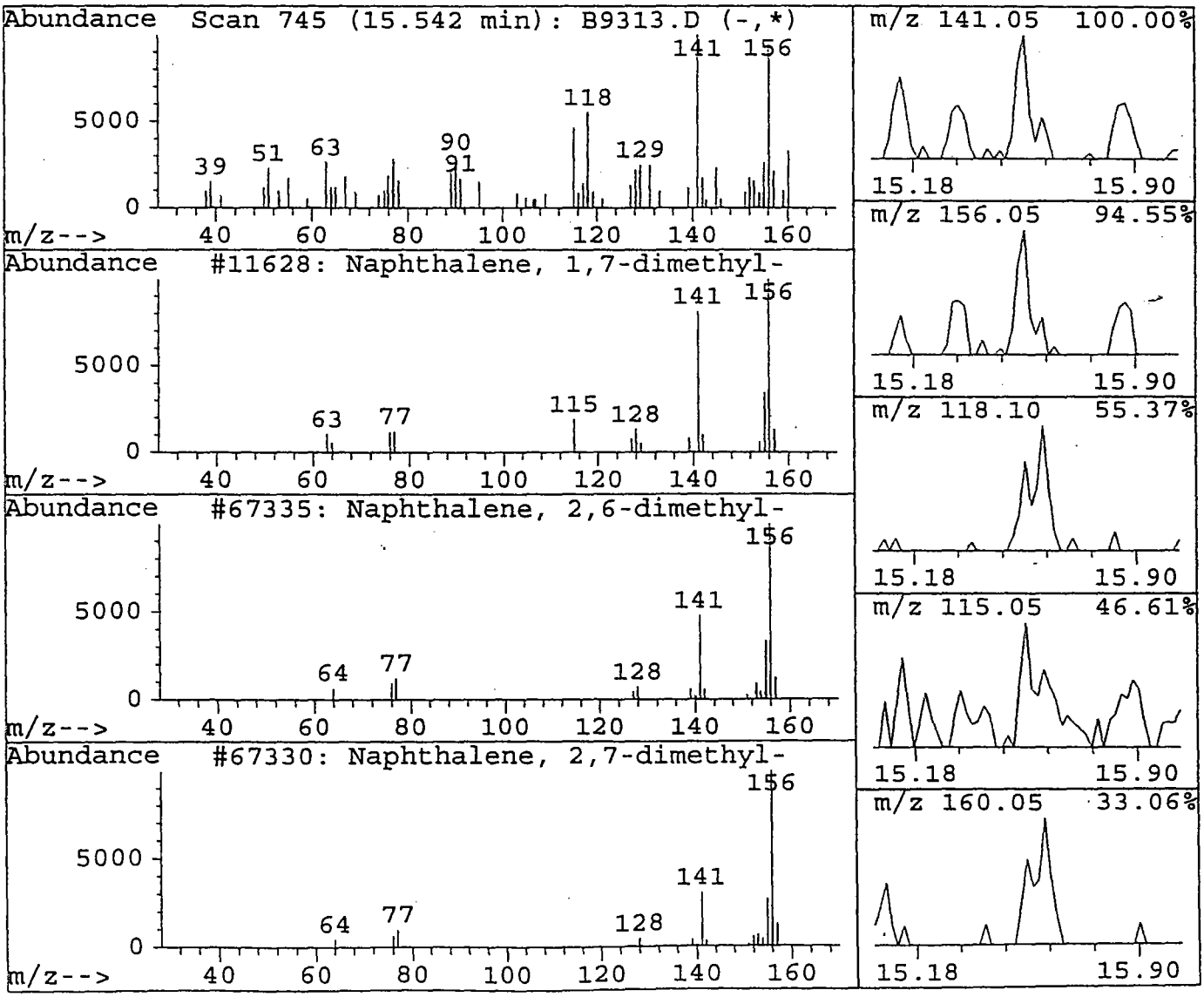
Library Search Compound Report

Data File : c:\hpchem\1\data2\b9313.d Vial: 14
Acq On : 8 Dec 95 4:43 am Operator: SCOTTV
Sample : 54555..... 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.
15.54	4.00 ug/mL	18253	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,7-dimethyl-	11628	000575-37-1	91
2	Naphthalene, 2,6-dimethyl-	67335	000581-42-0	90
3	Naphthalene, 2,7-dimethyl-	67330	000582-16-1	78
4	Naphthalene, 1,5-dimethyl-	11633	000571-61-9	78
5	Naphthalene, 1,8-dimethyl-	67338	000569-41-5	60



Library Search Compound Report

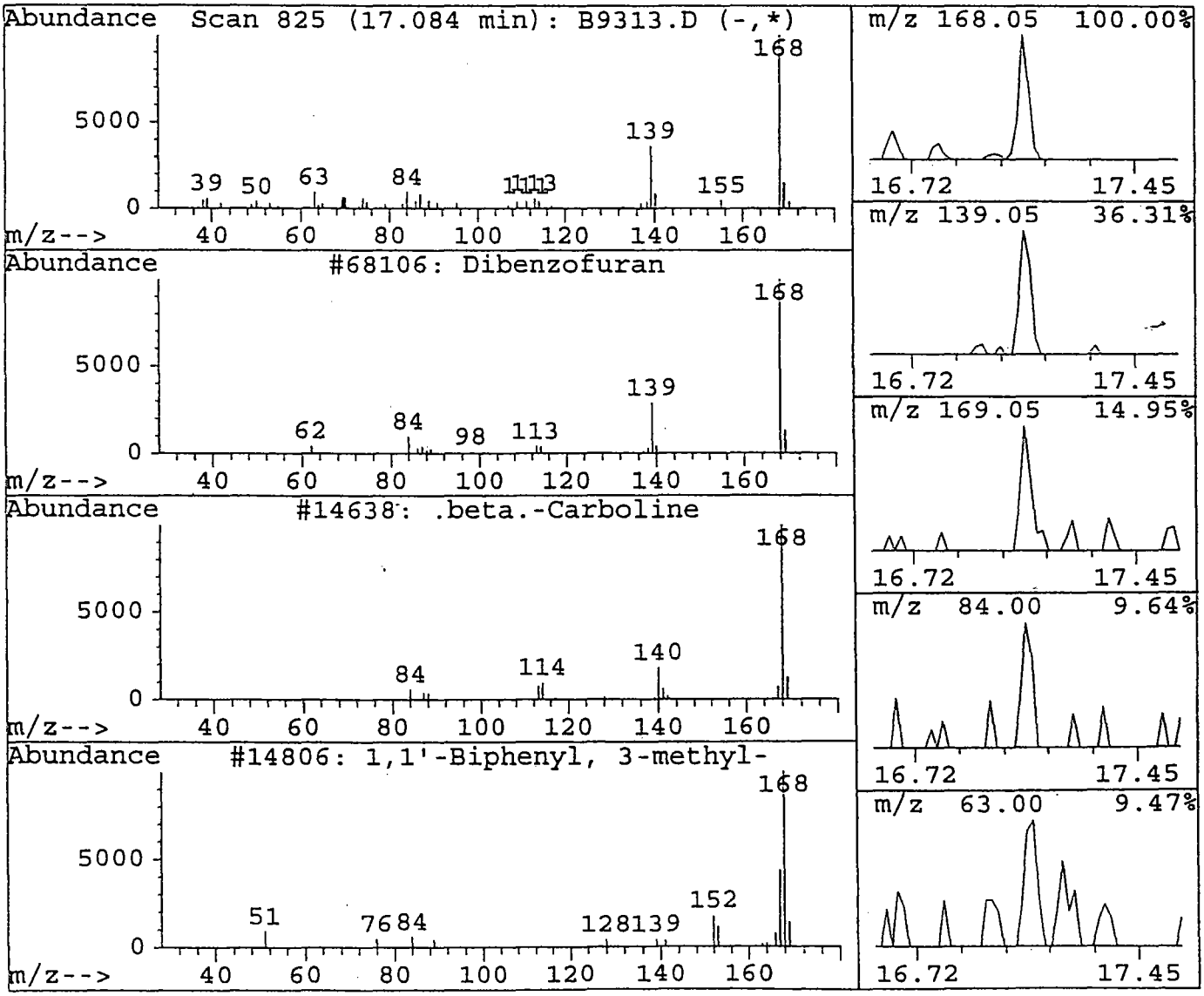
Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555.....
Misc :

Vial: 14
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.
17.08	3.51 ug/mL	16019	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dibenzofuran	68106	000132-64-9	93
2	.beta.-Carboline	14638	000000-00-0	50
3	1,1'-Biphenyl, 3-methyl-	14806	000643-93-6	42
4	Benzenemethanol, 3,4-dimethoxy-	14479	000093-03-8	42
5	9H-Pyrido[3,4-b]indole	14641	000244-63-3	42



Library Search Compound Report

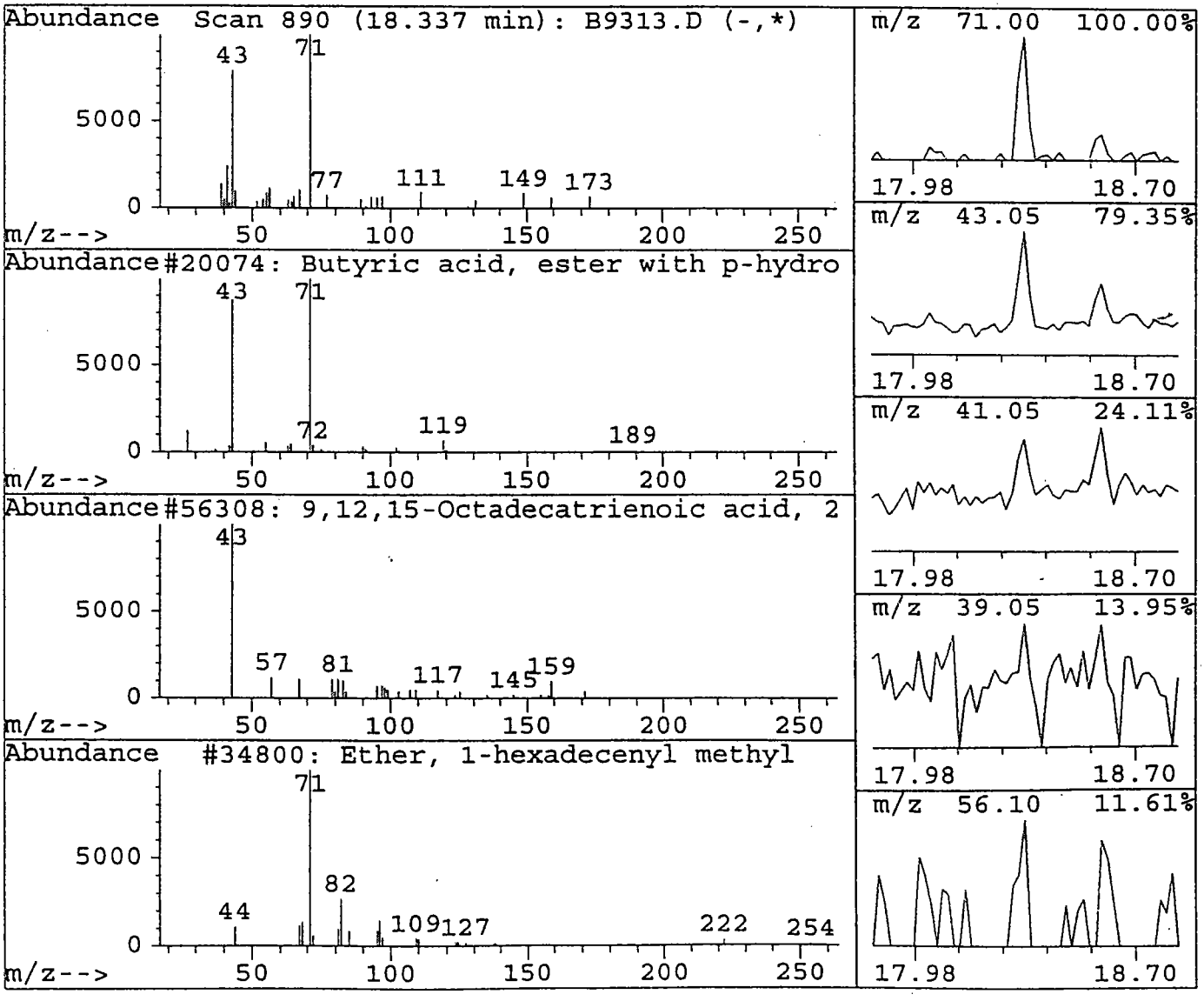
Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555.....
Misc :

Vial: 14
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.
18.34	1.96 ug/mL	8957	Acenaphthene-d10	16.47

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butyric acid, ester with p-hydroxyb	20074	029052-10-6	38
2	9,12,15-Octadecatrienoic acid, 2,3-	56308	055320-02-0	9
3	Ether, 1-hexadecenyl methyl	34800	015519-14-9	9
4	Cyclohexanol, 2,2-dichloro-1-methyl	18213	000000-00-0	9
5	2-Pentanone, 1-phenyl-	67691	006683-92-7	9



Library Search Compound Report

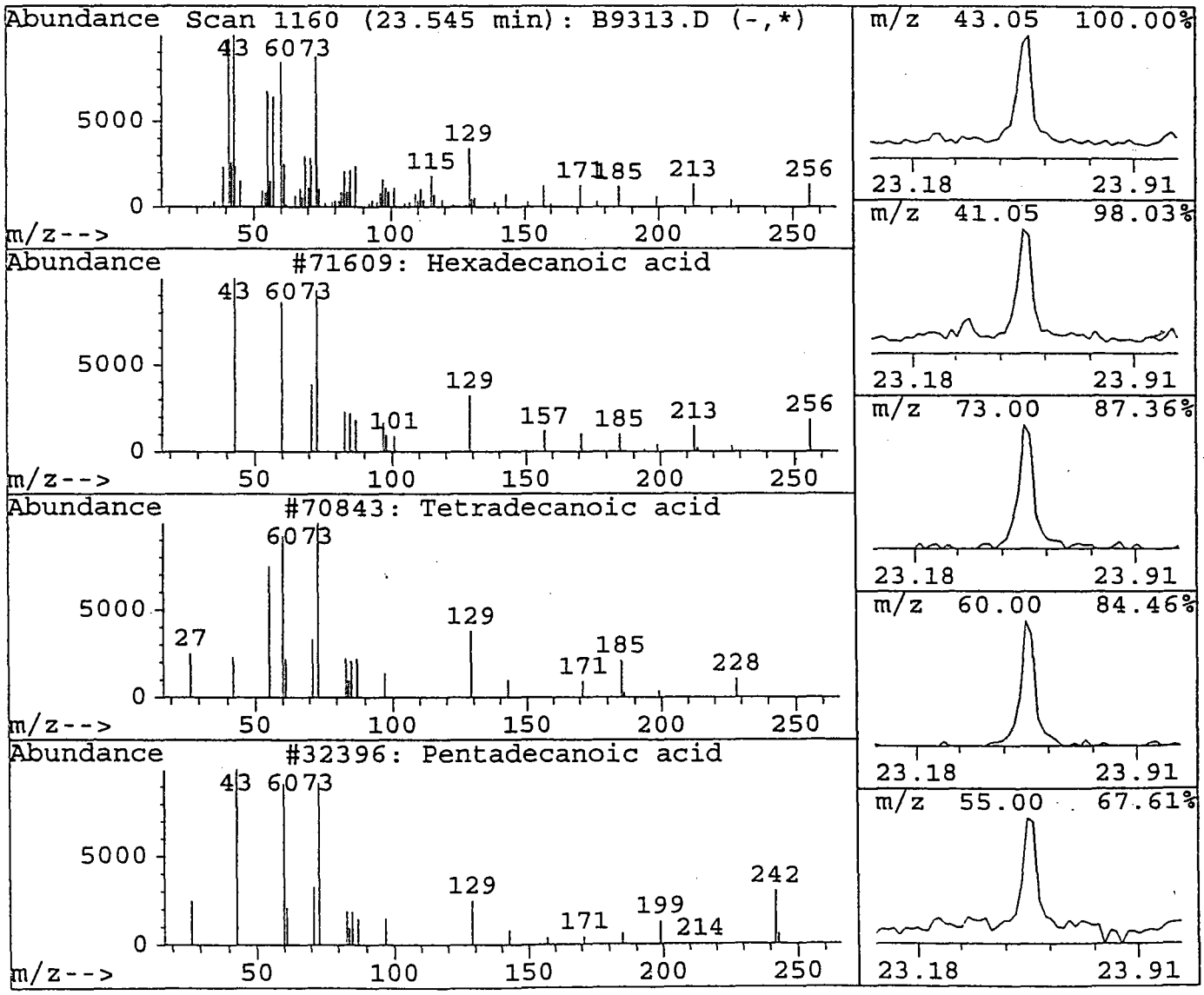
Data File : c:\hpchem\1\data2\b9313.d
Acq On : 8 Dec 95 4:43 am
Sample : 54555.....
Misc :

Vial: 14
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.
23.54	13.45 ug/mL	62523	Phenanthrene-d10	20.86

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecanoic acid	71609	000057-10-3	99
2	Tetradecanoic acid	70843	000544-63-8	83
3	Pentadecanoic acid	32396	001002-84-2	72
4	Dodecanamide, N,N-bis(2-hydroxyethy	40673	000120-40-1	68
5	Undecanoic acid	19473	000112-37-8	59



2C

WATER SEMIVOLATILE SURROGATE RECOVERY

341

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	41	37	65						
02	9547000B	56	49	91						
03	46360MS	54	58	110						
04	46360MSD	51	56	121						
05										
06										
07										
08										
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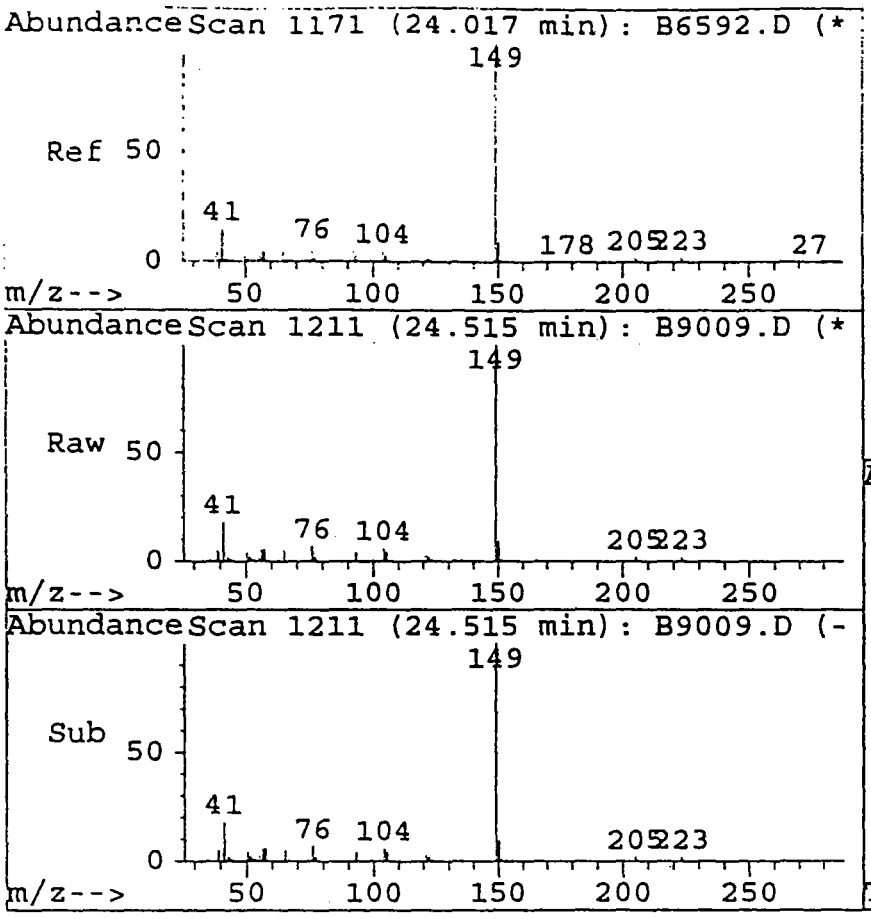
	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

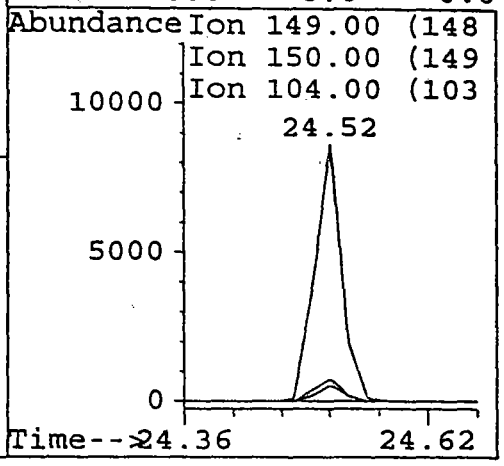
D Surrogate diluted out



#62
Di-n-butylphthalate
Concen: 5.43 ug/mL
RT: 24.52 min Scan# 1211
Delta R.T. -0.12 min
Lab File: b9009.d
Acq: 27 Oct 95 2:21 pm

Tgt Ion:149 Resp: 16902

Ion	Ratio	Lower	Upper
149	100		
150	8.9	7.3	10.9
104	6.4	3.7	5.5#
0	0.0	0.0	0.0



Library Search Compound Report

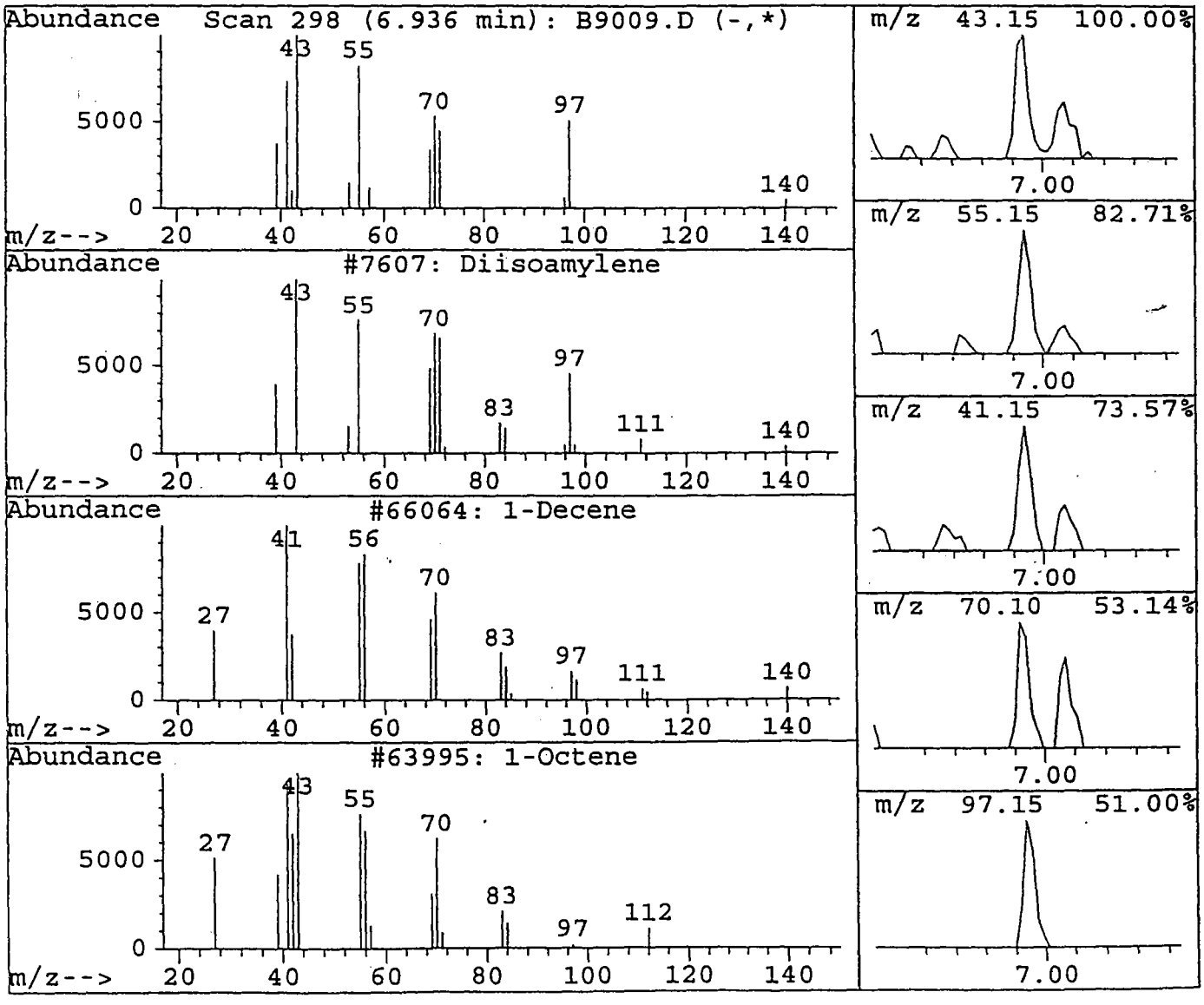
Data File : c:\hpchem\1\data2\b9009.d
Acq On : 27 Oct 95 2:21 pm
Sample : BLANK.....
Misc :

Vial: 3
Operator: SCOTTV
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
6.94	2.46 ug/ml	10825	1,4-Dichlorobenzene-d4	8.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Diisoamylene	7607	054063-09-1	64
2	1-Decene	66064	000872-05-9	35
3	1-Octene	63995	000111-66-0	35
4	Heptane, 4-methyl-	3096	000589-53-7	25
5	Cyclopentane, 1,2-dimethyl-, cis-	1367	001192-18-3	25



4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLK03

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: B9309.D Lab Sample ID: BLANK3

Instrument ID: ABNA Date Extracted: 12/4/95

Matrix: (soil/water) WATER Date Analyzed: 12/8/95

Level: (low/med) _____ Time Analyzed: 0120

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9554551B	9554551B	B9310.D	12/08/95
02	9554552B	9554552B	B9311.D	12/08/95
03	9554554B	9554554B	B9312.D	12/08/95
04	9554555B	9554555B	B9313.D	12/08/95
05	9554556B	9554556B	B9314.D	12/08/95
06	9554557B	9554557B	B9315.D	12/08/95
07	9554558B	9554558B	B9316.D	12/08/95
08				
09				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. SBLK03

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9309.D

Level: (low/med) Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9309.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
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

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B9309.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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.				
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Quantitation Report

Data File : c:\hpchem\1\data2\b9309.d Vial: 10
Acq On : 8 Dec 95 1:20 am Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 12:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

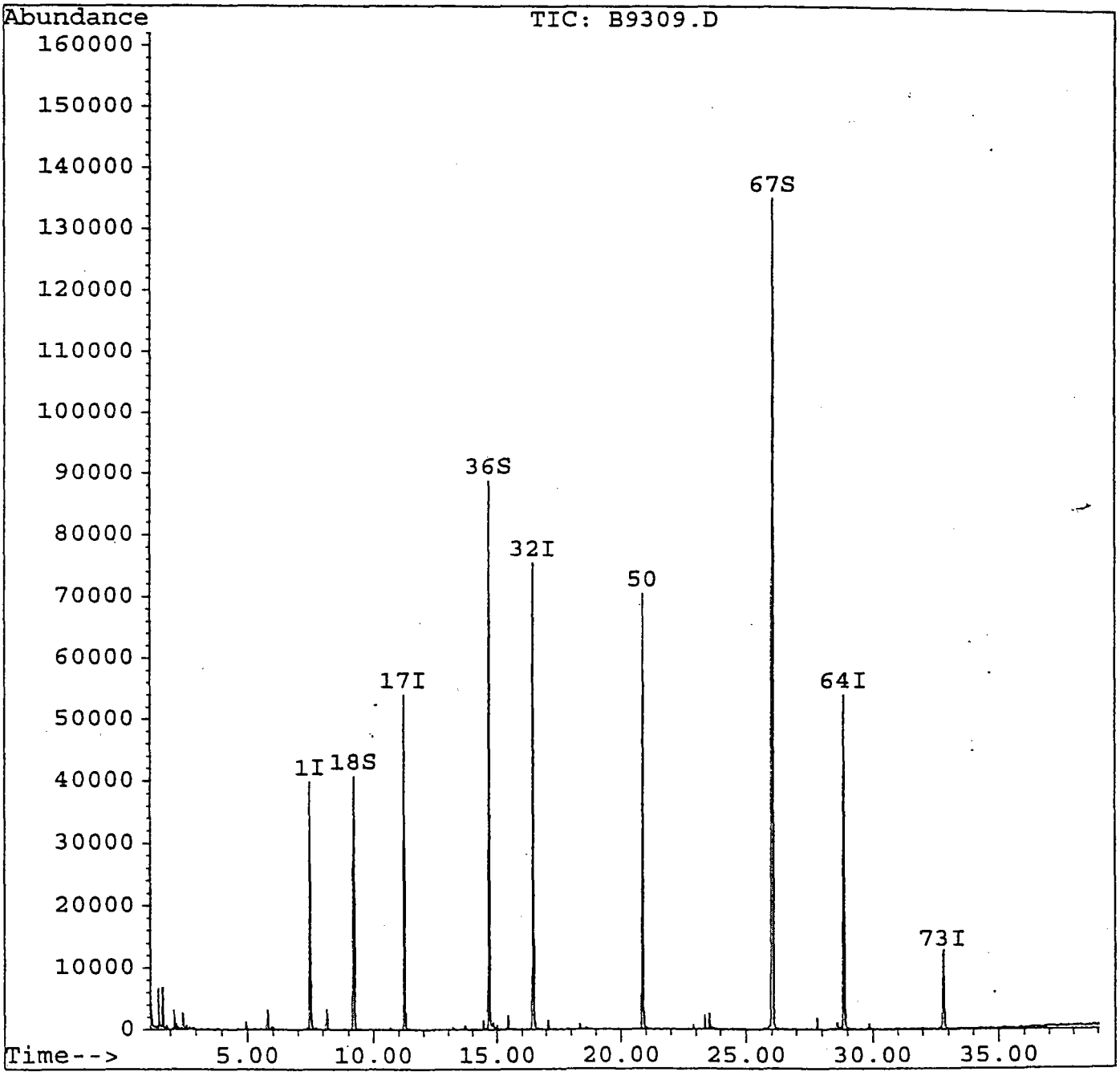
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	13214	40.00	ug/mL	-0.34
17) Naphthalene-d8	11.23	136	57506	40.00	ug/mL	-0.35
32) Acenaphthene-d10	16.46	164	38030	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	61176	40.00	ug/ml	-0.38
64) Chrysene-d12	28.84	240	55171	40.00	ug/mL	-0.40
73) Perylene-d12	32.79	264	17234	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	359	0.57	ug/mL	0.57%
18) Nitrobenzene-d5	9.23	82	39268	57.14	ug/mL	57.14%
36) 2-Fluorobiphenyl	14.69	172	66686	65.96	ug/mL	65.96%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	127672	83.92	ug/mL	83.92%
Target Compounds						Qvalue

Quantitation Report

Data File : c:\hpchem\1\data2\b9309.d
Acq On : 8 Dec 95 1:20 am
Sample : BLANK..... Converted from RTE d
Misc :
Quant Time: Dec 11 12:49 1995

Vial: 10
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Initial Calibration

Non-Spiked Sample: B8997.D

	Spike Sample	Spike Duplicate Sample
File ID :	B9011.D	B9012.D
Sample :	46360MS.....	Converted from RTE data file >B9011::D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.3	100	42	50	41	49	18	100	1-300
Phenol	0.6	100	59	59	59	59	0	23	5-112
bis(2-Chloroethyl)et	0.0	100	57	51	57	51	11	55	12-158
2-Chlorophenol	0.0	100	57	53	57	53	8	29	23-134
1,3-Dichlorobenzene	0.0	100	45	43	45	43	3	42	1-172
1,4-Dichlorobenzene	0.0	100	47	45	47	45	5	32	20-124
1,2-Dichlorobenzene	0.0	100	47	45	47	45	5	31	32-129
bis(2-chloroisopropy	0.0	100	77	72	77	72	7	46	36-166
N-Nitroso-Di-n-propy	0.0	100	51	47	51	47	9	55	1-230
Hexachloroethane	0.0	100	44	41	44	41	7	25	40-113
Nitrobenzene	0.2	100	50	48	50	47	5	39	35-180
Isophorone	0.0	100	48	45	48	45	7	63	21-196
2-Nitrophenol	0.0	100	54	50	54	50	8	35	29-182
2,4-Dimethylphenol	0.0	100	75	84	75	84	11	26	32-119
bis(2-Chloroethoxy)m	0.0	100	56	51	56	51	8	35	33-184
2,4-Dichlorophenol	0.0	100	72	77	72	77	7	26	39-135
1,2,4-Trichlorobenze	0.0	100	49	46	49	46	7	28	44-142
Naphthalene	0.3	100	52	48	51	48	7	30	21-133
Hexachlorobutadiene	0.0	100	52	48	52	48	6	26	24-116
4-Chloro-3-methylphe	0.0	100	74	83	74	83	11	37	22-147
2-Chloronaphthalene	0.0	100	63	61	63	61	3	13	60-118
2,4,6-Trichloropheno	0.0	100	65	73	65	73	12	32	37-144
Dimethylphthalate	0.0	100	11	11	11	11	3	23	1-112
Acenaphthylene	0.0	100	62	63	62	63	2	40	33-145
2,6-Dinitrotoluene	0.0	100	96	99	96	99	3	30	50-158
Acenaphthene	0.0	100	73	74	73	74	1	28	47-145
2,4-Dinitrophenol	0.0	100	54	60	54	60	10	50	1-191
4-Nitrophenol	0.0	100	50	52	50	52	3	47	1-132
2,4-Dinitrotoluene	0.0	100	83	83	83	83	0	22	39-139
Diethylphthalate	0.0	100	20	20	20	20	1	27	1-114
Fluorene	0.0	100	80	83	80	83	4	21	59-121
4-Chlorophenyl-pheny	0.0	100	78	81	78	81	3	33	25-158
4,6-Dinitro-2-methyl	0.1	100	85	87	85	87	2	93	1-181
4-Bromophenyl-phenyl	0.0	100	93	89	93	89	4	23	53-127
Hexachlorobenzene	0.0	100	88	88	88	88	0	25	1-152
Pentachlorophenol	0.0	100	77	81	77	81	5	49	14-176
Phenanthrene	0.1	100	86	94	86	94	9	21	54-120
Anthracene	0.1	100	74	79	74	79	7	32	52-115
Di-n-butylphthalate	20.6	100	53	59	33	38	14	17	1-118
Fluoranthene	0.1	100	75	75	75	75	0	33	26-137
Pyrene	0.2	100	102	101	102	100	2	25	52-115
Butylbenzylphthalate	0.0	100	63	65	63	65	3	27	1-152

Chrysene	0.3	100	86	92	85	92	8	48	17-168
bis(2-Ethylhexyl)pht	0.0	100	89	101	89	101	12	41	8-158
Di-n-octylphthalate	0.2	100	74	87	74	86	16	31	4-146
Benzo[b]fluoranthene	0.0	100	71	89	71	89	23	39	24-159
Benzo[k]fluoranthene	0.0	100	71	77	71	77	7	32	11-162
Benzo[a]pyrene	0.0	100	83	88	83	88	7	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	81	94	81	94	15	45	1-171
Dibenz[a,h]anthracen	0.0	100	70	86	70	86	20	70	1-227
Benzo[g,h,i]perylene	0.0	100	72	86	72	86	17	59	1-219

BNACLP.M Wed Nov 22 14:47:04 1995 BNA

Quantitation Report

Data File : c:\hpchem\1\data2\b9011.d Vial: 5
Acq On : 27 Oct 95 4:04 pm Operator: SCOTTV
Sample : 46360MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 31 15:39 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	24328	40.00	ug/mL	-0.09
17) Naphthalene-d8	12.32	136	97435	40.00	ug/mL	-0.11
32) Acenaphthene-d10	17.64	164	56181	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	74786	40.00	ug/ml	-0.10
64) Chrysene-d12	30.18	240	35528	40.00	ug/mL	-0.10
73) Perylene-d12	34.14	264	16536	40.00	ug/mL	-0.10
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	5.07	112	40915	52.76	ug/mL	52.76%
3) Phenol-d5	8.10	99	81492	64.76	ug/mL	64.76%
18) Nitrobenzene-d5	10.29	82	71765	54.35	ug/mL	54.35%
36) 2-Fluorobiphenyl	15.81	172	99873	58.28	ug/mL	58.28%
54) 2,4,6-Tribromophenol	20.10	330	20403	86.16	ug/mL	86.16%
67) Terphenyl-d14	27.26	244	97283	110.24	ug/mL	110.24%
Target Compounds						**Qvalue**
4) N-nitrosodimethylamine	2.10	74	22456	41.61	ug/ml	100
6) Phenol	8.12	94	70099	59.38	ug/mL	100
7) bis(2-Chloroethyl)ether	12.03	93	82048	56.86	ug/mL	100
8) 2-Chlorophenol	8.06	128	46342	57.17	ug/mL#	83
9) 1,3-Dichlorobenzene	8.39	146	37275	44.83	ug/mL	99
10) 1,4-Dichlorobenzene	8.66	146	39314	46.72	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	38547	47.04	ug/mL#	96
12) 2-Methylphenol	9.29	108	5196	6.68	ug/mL	53
13) bis(2-chloroisopropyl)ethe	9.72	45	104911	77.20	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.12	70	47254	50.85	ug/mL	98
16) Hexachloroethane	9.99	117	23206	43.95	ug/mL#	67
19) Nitrobenzene	10.35	77	62972	49.80	ug/mL#	86
20) Isophorone	11.18	82	128772	48.00	ug/mL#	93
21) 2-Nitrophenol	11.30	139	31651	54.31	ug/mL#	92
22) 2,4-Dimethylphenol	14.60	107	70299	74.63	ug/mLm	100
23) bis(2-Chloroethoxy)methane	12.03	93	82048	55.86	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	51706	71.87	ug/mL#	90
25) 1,2,4-Trichlorobenzene	12.22	180	36372	49.07	ug/mL	95
26) Naphthalene	12.40	128	126554	51.78	ug/mL	98
27) 4-Chloroaniline	12.40	127	15664	13.67	ug/mL#	13
28) Hexachlorobutadiene	12.90	225	20087	51.69	ug/mL	98
29) 4-Chloro-3-methylphenol	14.60	107	70394	74.44	ug/mL	90
30) 2-Chloronaphthalene	15.97	162	96889	62.71	ug/mlm	100
31) 2-Methylnaphthalene	14.60	142	50713	23.94	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.56	196	38970	65.14	ug/mL	97
35) 2,4,5-Trichlorophenol	15.56	196	38970	79.89	ug/mL	97
37) 2-Nitroaniline	18.53	65	4756	4.33	ug/mL#	38
38) Dimethylphthalate	17.26	163	21170	11.02	ug/mL#	13

(#) = qualifier out of range (m) = manual integration

Quantitation Report

360

Data File : c:\hpchem\1\data2\b9011.d Vial: 5
Acq On : 27 Oct 95 4:04 pm Operator: SCOTTV
Sample : 46360MS..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 31 15:39 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.18	152	156148	61.73	ug/mL	97
40)	2,6-Dinitrotoluene	17.35	165	41277	95.56	ug/mL#	79
41)	3-Nitroaniline	19.34	138	1557	3.24	ug/mL#	19
42)	Acenaphthene	17.74	153	105172	73.42	ug/mL	98
43)	2,4-Dinitrophenol	18.11	184	15991	54.29	ug/mL#	85
44)	4-Nitrophenol	18.86	109	16078	50.23	ug/mL#	61
46)	2,4-Dinitrotoluene	18.53	165	52578	82.74	ug/mL#	1
47)	Diethylphthalate	19.46	149	43228	19.78	ug/mL	97
48)	Fluorene	19.34	166	131556	80.24	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.54	204	55916	78.26	ug/mL#	84
51)	4-Nitroaniline	19.34	138	1557	3.62	ug/mL#	19
52)	4,6-Dinitro-2-methylphenol	19.73	198	23619	85.19	ug/mL	100
53)	n-Nitrosodiphenylamine	19.94	169	71016	70.01	ug/mL	96
55)	1,2-Diphenylhydrazine (as	19.54	77	69196	20.74	ug/ml	100
56)	4-Bromophenyl-phenylether	20.99	248	32480	92.88	ug/mL#	88
57)	Hexachlorobenzene	20.95	284	38892	87.66	ug/mL#	39
58)	Pentachlorophenol	21.70	266	23340	76.81	ug/mL	99
59)	Phenanthrene	22.20	178	174965	86.09	ug/mL	99
60)	Anthracene	22.36	178	148000	74.15	ug/mLm	99
62)	Di-n-butylphthalate	24.54	149	201030	53.46	ug/mL	99
63)	Fluoranthene	25.81	202	152814	74.83	ug/mL#	53
65)	Benzidine	22.13	184	11493	47.31	ug/ml	100
66)	Pyrene	26.43	202	145327	102.25	ug/mL#	70
68)	Butylbenzylphthalate	29.04	149	68443	61.89	ug/mL#	15
69)	Benzo[a]anthracene	30.17	228	106111	83.59	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.32	252	3672	10.71	ug/mL#	93
71)	Chrysene	30.26	228	65164	85.64	ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	31.04	149	141688	89.39	ug/mL#	37
74)	Di-n-octylphthalate	32.95	149	174136	74.01	ug/mL#	100
75)	Benzo[b]fluoranthene	33.20	252	56999	70.62	ug/mL#	89
76)	Benzo[k]fluoranthene	33.28	252	34292	71.37	ug/mLm	89
77)	Benzo[a]pyrene	34.01	252	36949	82.66	ug/mLm	89
78)	Indeno[1,2,3-cd]pyrene	36.69	276	18775	80.91	ug/mL#	25
79)	Dibenz[a,h]anthracene	36.81	278	15952	70.33	ug/mL#	75
80)	Benzo[g,h,i]perylene	37.21	276	15258	72.43	ug/mLm	60

(#) = qualifier out of range (m) = manual integration

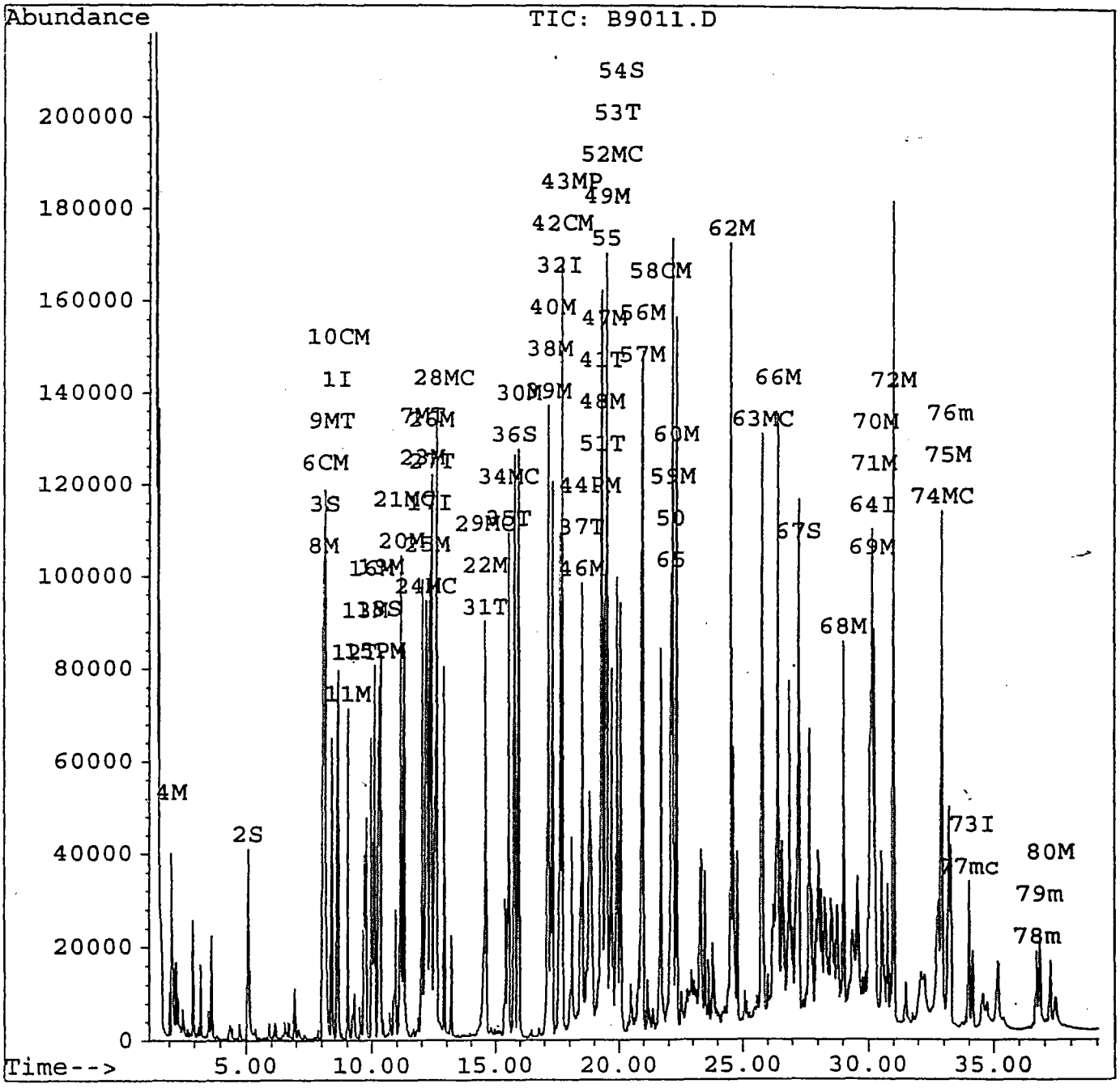
Quantitation Report

Data File : c:\hpchem\1\data2\b9011.d
Acq On : 27 Oct 95 4:04 pm
Sample : 46360MS.....
Misc :
Quant Time: Oct 31 15:39 1995

Converted from RTE d

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d Vial: 6
Acq On : 27 Oct 95 4:56 pm Operator: SCOTTV
Sample : 46360MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 31 15:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	25002	40.00	ug/mL	-0.09
17) Naphthalene-d8	12.34	136	97241	40.00	ug/mL	-0.09
32) Acenaphthene-d10	17.64	164	55587	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	77102	40.00	ug/ml	-0.10
64) Chrysene-d12	30.19	240	28509	40.00	ug/mL	-0.10
73) Perylene-d12	34.15	264	10719	40.00	ug/mL	-0.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.07	112	41071	51.53	ug/mL	51.53%
3) Phenol-d5	8.10	99	86409	66.82	ug/mL	66.82%
18) Nitrobenzene-d5	10.29	82	67083	50.90	ug/mL	50.90%
36) 2-Fluorobiphenyl	15.81	172	95217	56.16	ug/mL	56.16%
54) 2,4,6-Tribromophenol	20.10	330	21999	90.11	ug/mL	90.11%
67) Terphenyl-d14	27.29	244	85795	121.15	ug/mL	121.15%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.10	74	27505	49.59	ug/ml	100
6) Phenol	8.13	94	71763	59.15	ug/mL	100
7) bis(2-Chloroethyl)ether	12.03	93	75257	50.75	ug/mL	97
8) 2-Chlorophenol	8.06	128	44078	52.91	ug/mL#	84
9) 1,3-Dichlorobenzene	8.39	146	37044	43.35	ug/mL	96
10) 1,4-Dichlorobenzene	8.66	146	38620	44.66	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	37641	44.70	ug/mL	97
12) 2-Methylphenol	9.29	108	5280	6.60	ug/mL	56
13) bis(2-chloroisopropyl)ethe	9.72	45	100159	71.72	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.12	70	44456	46.55	ug/mL#	97
16) Hexachloroethane	9.99	117	22213	40.93	ug/mL#	69
19) Nitrobenzene	10.35	77	59971	47.52	ug/mL	88
20) Isophorone	11.18	82	119927	44.79	ug/mL#	92
21) 2-Nitrophenol	11.30	139	29087	50.01	ug/mL#	93
22) 2,4-Dimethylphenol	14.61	107	78542	83.54	ug/mLm	100
23) bis(2-Chloroethoxy)methane	12.03	93	75257	51.34	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	55427	77.20	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.22	180	33976	45.93	ug/mL	94
26) Naphthalene	12.40	128	117900	48.34	ug/mL	99
27) 4-Chloroaniline	12.40	127	14859	12.99	ug/mL#	9
28) Hexachlorobutadiene	12.90	225	18787	48.44	ug/mL	98
29) 4-Chloro-3-methylphenol	14.61	107	78226	82.88	ug/mL	88
30) 2-Chloronaphthalene	15.96	162	94046	60.99	ug/mlm	100
31) 2-Methylnaphthalene	14.61	142	56412	26.68	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.58	196	43455	73.41	ug/mL	96
35) 2,4,5-Trichlorophenol	15.58	196	43455	90.04	ug/mL	96
37) 2-Nitroaniline	18.53	65	5027	4.62	ug/mL#	36
38) Dimethylphthalate	17.26	163	21488	11.30	ug/mL#	14

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d Vial: 6
Acq On : 27 Oct 95 4:56 pm Operator: SCOTTV
Sample : 46360MSD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Oct 31 15:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Acenaphthylene	17.18	152	157682	63.01	ug/mL	98
40)	2,6-Dinitrotoluene	17.35	165	42117	98.54	ug/mL#	93
41)	3-Nitroaniline	19.34	138	1555	3.27	ug/mL#	19
42)	Acenaphthene	17.74	153	104941	74.04	ug/mL	98
43)	2,4-Dinitrophenol	18.13	184	17570	60.29	ug/mL#	82
44)	4-Nitrophenol	18.96	109	16471	52.01	ug/mL#	60
46)	2,4-Dinitrotoluene	18.53	165	52140	82.92	ug/mL#	1
47)	Diethylphthalate	19.48	149	43087	19.93	ug/mL#	93
48)	Fluorene	19.34	166	134877	83.15	ug/mL	99
49)	4-Chlorophenyl-phenylether	19.54	204	56911	80.50	ug/mL#	86
51)	4-Nitroaniline	19.34	138	1555	3.50	ug/mL#	19
52)	4,6-Dinitro-2-methylphenol	19.73	198	24840	86.90	ug/mL	100
53)	n-Nitrosodiphenylamine	19.96	169	73730	70.51	ug/mL	94
55)	1,2-Diphenylhydrazine (as	19.54	77	71856	20.89	ug/ml	100
56)	4-Bromophenyl-phenylether	20.99	248	32240	89.43	ug/mL#	90
57)	Hexachlorobenzene	20.95	284	40163	87.81	ug/mL#	46
58)	Pentachlorophenol	21.72	266	25232	80.54	ug/mL	99
59)	Phenanthrene	22.20	178	196854	93.95	ug/mL	99
60)	Anthracene	22.36	178	162894	79.16	ug/mLm	99
62)	Di-n-butylphthalate	24.56	149	227050	58.57	ug/mLm	98
63)	Fluoranthene	25.82	202	157448	74.79	ug/mL#	68
65)	Benzidine	22.13	184	12053	61.83	ug/ml	100
66)	Pyrene	26.44	202	114720	100.58	ug/mLm	73
68)	Butylbenzylphthalate	29.07	149	57991	65.35	ug/mLm	1
69)	Benzo[a]anthracene	30.17	228	89943	88.30	ug/mL	98
70)	3,3'-Dichlorobenzidine	30.33	252	3072	11.16	ug/mL#	89
71)	Chrysene	30.27	228	56444	92.44	ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.04	149	127927	100.58	ug/mL#	36
74)	Di-n-octylphthalate	32.93	149	132028	86.56	ug/mL#	100
75)	Benzo[b]fluoranthene	33.20	252	46610	89.08	ug/mL#	86
76)	Benzo[k]fluoranthene	33.28	252	23877	76.66	ug/mLm	86
77)	Benzo[a]pyrene	34.02	252	25611	88.39	ug/mLm	86
78)	Indeno[1,2,3-cd]pyrene	36.70	276	14190	94.34	ug/mL#	28
79)	Dibenz[a,h]anthracene	36.81	278	12632	85.92	ug/mL#	72
80)	Benzo[g,h,i]perylene	37.22	276	11729	85.89	ug/mLm	61

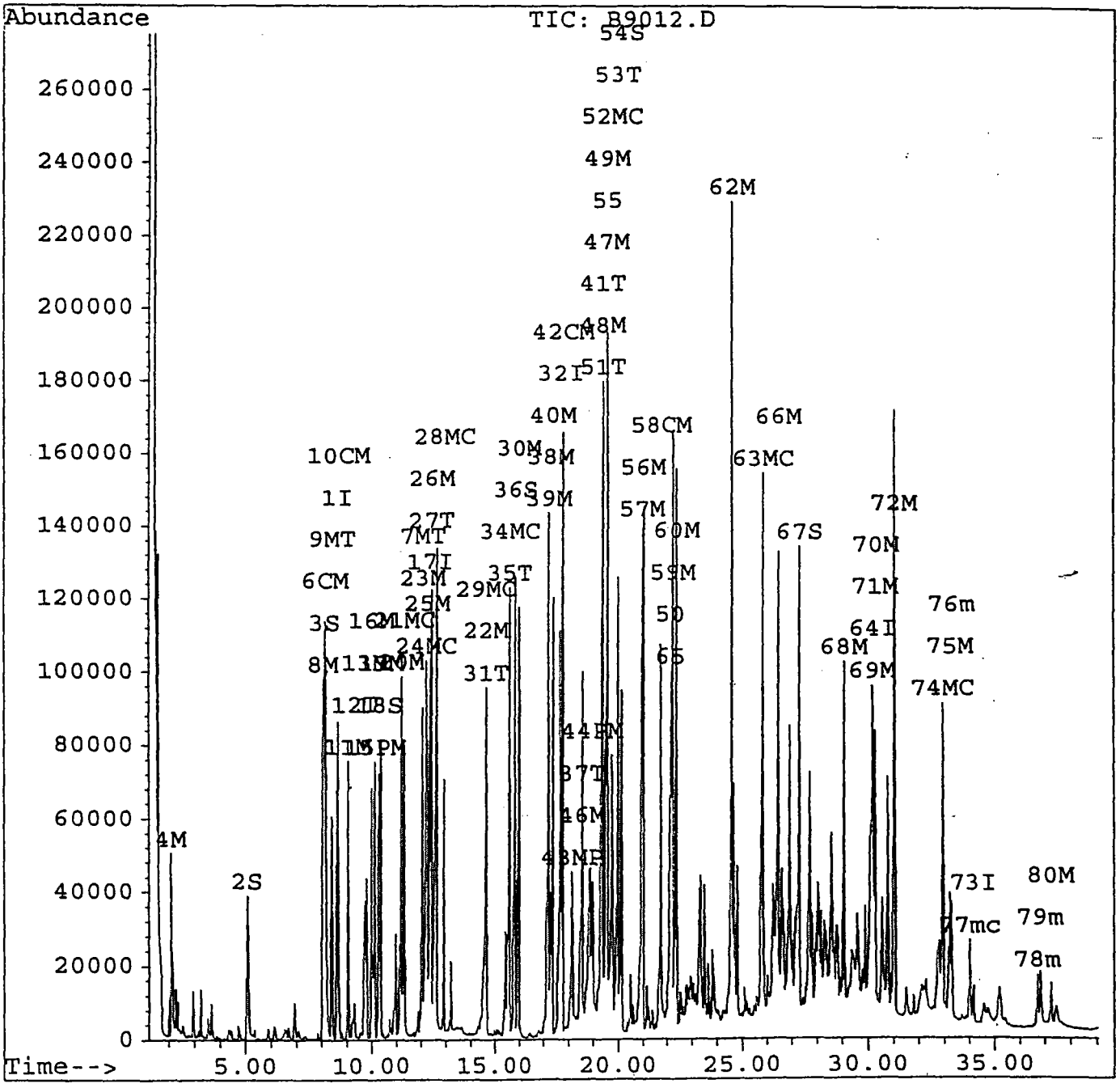
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9012.d
Acq On : 27 Oct 95 4:56 pm
Sample : 46360MSD.....
Misc :
Quant Time: Oct 31 15:38 1995

Vial: 6
Operator: SCOTTV
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration



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 Craig

Laboratory Manager (as defined in N.J.A.C. 7:18)

APPENDIX F

PHOTOGRAPHS

Photographic Log
UST No. 090010-54
Building 482
Main Post-East
Fort Monmouth

Versar, Inc.
Bristol, PA