United States Army
Fort Monmouth, New Jersey

Closure and Site Investigation Report for Underground Storage Tanks In the 600 Area

Main Post-West Area

February 2002

CLOSURE AND SITE INVESTIGATION REPORT FOR UNDERGROUND STORAGE TANKS IN THE 600 AREA

USTs IN THE 600 AREA:
600A, 600B, 611, 615,618, 619, 621, 634 638, 639-2, 640, 641, 644, 664, 666, AND 686

MAIN POST-WEST AREA

FEBRUARY 2002

PREPARED FOR:

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

PREPARED BY:

VERSAR, INC.
2558 PEARL BUCK ROAD, SUITE 1
BRISTOL, PA 19007-6894

TABLE OF CONTENTS

LIST OF TABLES

FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

Versar, Inc. (Versar) was contracted by the United States (U.S.) Army Fort Monmouth (Fort Monmouth), Directorate of Public Works (DPW), Fort Monmouth, New Jersey to prepare UST closure reports at sixty (60) sites at Fort Monmouth, New Jersey. Sixteen (16) of the sites, 600A, 600B, 611, 615, 618, 619, 621, 634, 638, 639-2, 640, 641, 644, 664, 666, and 686, are in the vicinity of Building 600 on the Main Post West Area. These sites cover a relatively small area surrounding Building 600, which has a high level of security. This report summarizes the combined investigation results for these 16 sites. This investigation was conducted in accordance with the Workplan for the 600 Area, which was verbally approved by the NJDEP during a meeting at Fort Monmouth in August 2001.

1.1 Background

Fort Monmouth is located in the central-eastern portion of New Jersey in Monmouth County, approximately 45 miles south of New York City and 70 miles northeast of Philadelphia. In addition to the Main Post, the installation includes two subposts, the Charles Wood Area and the Evans Area. The Main Post (Figure 1) encompasses approximately 630 acres and is generally bounded by State Highway 35, Parkers Creek, Lafetra Brook, the New Jersey Transit Railroad, and a residential area to the south. The post was established during WW I, in 1918, as an Army Signal Corps training center. The Main Post currently provides supporting administrative, training, and housing functions, as well as many of the community facilities for Fort Monmouth. The primary mission of Fort Monmouth is to provide command, administrative, and logistical support for Headquarters, U.S. Army Communications and Electronics Command (CECOM). CECOM is a major subordinate command of the U.S. Army Materiel Command (AMC) and is the host tenant at Fort Monmouth. The sites in the vicinity of Building 600 encompass an area of approximately 20 acres. Figure 2 shows the layout of the area and the location of the individual sites in relation to each other.

1.2 Objective

The objective of this report is to summarize the work previously performed in the 600 Area and present the results of the new investigations. The purpose of the investigations was to close the remaining 16 UST sites in the 600 Area.

This report includes:

- A description of soil and groundwater sampling activities conducted during the closure investigation;
- The presentation and summary of the results of previously and newly collected soil samples collected from UST sites in the 600 Area; and

- The presentation and summary of the results of previously and newly collected groundwater samples collected from existing monitoring wells and new geoprobe locations in the 600 Area.

2.0 SITE SETTING

2.1 Site Description

Figure 2 illustrates the 600 Area and the UST sites within the area. Each of the 16 UST sites is associated with a former building in the area. The approximate location of each of the buildings and associated USTs was determined from historical photographs and figures. The USTs each contained No. 2 Fuel Oil for heating the former buildings. The tanks were removed throughout 1994.

The 600 Area is bordered by Saltzman Avenue to the south, Sherrill Avenue to the north, Messenger Avenue to the west, and Irwin Avenue to the east. The area covers approximately 20 acres. The site contains a large military office building with a high level of security that is surrounded by well-groomed landscaping and fencing on three sides. Beyond the immediate Building 600 grounds are paved parking lots, several small support buildings, and secondary roadways. Topography at the site is relatively flat, but is centered over a topographic high, sloping gradually to the northwest.

2.2 Regional Geology

As reported in the RAWA (GES, 1999), Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain Physiographic province. The site is 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. The mineralogy ranges from quartz to glauconite. The New Jersey Coastal Plain formations record several major transgressive/regressive cycles and contain units, which are generally thicker to the southeast and reflect a deeper water environment. Over twenty (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, Marshaltown, and Navesink Formations). The individual thickness for these units varies greatly (i.e., from several ft. to several hundred ft.). The lithologies observed in borings installed within the Main Post area have reportedly consisted of fine-to-medium grained sands, with occasional lenses or lamentations of gravel silt and/or clay.

Based on past drilling, the depth to bedrock is greater than twenty (20) ft. A generalized stratigraphic sequence at the site (progressing upward) includes a lower (Sandy Hook) and upper (Shrewsbury) member of the Red Bank sand. The lower member is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite. The

upper is a yellowish-gray to reddish brown clayey, medium-to-coarse grained sand that contains abundant rock fragments, minor mica, and glauconite.

2.3 Hydrogeology

Groundwater has been encountered at depths between two (2) and fourteen (14) ft. below ground surface (bgs) in the 600 area. During soil sampling in the area, unsaturated soils were reportedly encountered up to twelve (12) ft. bgs. Seasonal water table fluctuations are expected to be limited to two (2) to three (3) ft. Fluctuations may also be due to tidal influence (based on proximity to the Atlantic Ocean, rivers, tributaries), the nature of fill material, presence of clay and silt lenses in the overburden, and local recharge areas (streams and lakes). The interbedded sequences of sand and clay transmit water under both confined and unconfined conditions. The intermittent clay strata serve as semi-confining beds, where present. The 600 area is located on a topographic mound, generally causing the groundwater to flow away from Building 600 in all directions.

3.0 SITE CHARACTERIZATION

Soil samples were collected at several of the former UST sites when the tanks were originally removed. Illustrations of each site and analytical data are presented in Figures 4-1 through 4-16. The soil sampling data is also summarized in Table 3-1. Table 3-3 summarizes groundwater sample data collected from wells and by Geoprobe sampling in the area.

3.1 Previous Soil Sampling Summary

Soil samples were collected and analyzed for total petroleum hydrocarbons (TPH) at six of the UST sites in the 600 Area, 600B, 611, 618, 619, 621, and 686. Results of the soil sample analyses are summarized in Table 3-1. This section describes the results in detail.

Six soil samples were collected from the excavation walls at 600B on November 10, 1993. Concentrations of TPH in the six samples ranged from 1,020 mg/kg to 13,000 mg/kg. Two of the locations, A and F, exceeded the Residential Direct Contact Soil Cleanup Criteria (RDCSCC) of 10,000 mg/kg for total organic compounds. On November 15, 1993, soil samples were collected at locations A and F and were analyzed for VOCs. Sample A contained acetone, ethylbenzene, and xylenes. Sample F contained methylene chloride and xylenes. None of the VOCs were detected at concentrations that exceed the RDCSCC.

Two post-excavation samples collected during the August 18, 1994 removal of the UST at Building 611 contained 27.6 and 2,450 mg/kg TPH. Geoprobe samples collected on September 6, 1994 contained up to 2,831 mg/kg TPH. Additional excavation was conducted on December 16, 1994. Samples collected following the excavation activities ranged from no detectable TPH to 57.8 mg/kg TPH. All concentrations were below the guidance concentration.

Soil samples collected on September 6, 1994 from six locations surrounding the former UST excavation at Building 618 contained concentrations of TPH ranging from 1,000 to 5,360 mg/kg. Additional soil removal was conducted on September 22, 1994. Soil samples were collected in six locations correlating to the original six sample locations. Two of soil samples still contained concentrations of TPH above the guidance concentration. On September 27, 1994, following additional soil removal, these two locations were sampled a third time, and one of the locations still had a TPH concentration of 2,920 mg/kg. Additional remediation and sampling was conducted on January 4, 1995 at sample location 618-A. The final post-excavation soil sample contained only 35 mg/kg TPH.

Six soil samples were collected August 25, 1994 from the extent of the UST excavation at former Building 619, and TPH concentrations ranged from 70.6 to 3,060 mg/kg. Additional soil removal was conducted in three areas of the excavation where samples

exceeded the guidance concentration. Results of the second round of soil sampling conducted September 9, 1994 ranged from 45.1 to 543 mg/kg, which is below the 1,000 mg/kg guidance concentration.

Soil samples were collected from the walls of the UST excavation at former building 621 on August 26, 1994. The highest concentration of TPH detected was 174.3 mg/kg. Most of the samples contained non-detectable concentrations of TPH.

On January 18, 1995, six soil samples were collected from the area of the former UST at the former Building 686. The concentrations of TPH detected in these samples ranged from 79.6 to 14,700 mg/kg. Following additional excavation activities on January 27, 1994, soil samples were collected from four locations that exceeded the cleanup criteria. The concentration of TPH was still above cleanup criteria at one location. No additional excavation activities were performed.

3.2 Previous Groundwater Sampling Summary

Six monitoring wells were installed in the vicinity of the 600 area in association with unrelated investigations. Three of the wells, M5-MW15, M5-MW16, and M5-MW25, are located in the northwest corner of the 600 area. Three wells, 699-MW2, 699-MW15, and 616-MW1 are located in the southeast corner of the area. Quarterly samples have been collected from these wells since the time of their installation. Samples were analyzed for volatile and semi-volatile compounds. Because groundwater generally flows away from the center of the 600 area, analytical data collected from these wells located at the edge of the area may be indicative of any impact the former USTs may have had on groundwater quality in the area. The groundwater data is summarized in Table 3-3. This section discusses the data in detail.

Quarterly samples collected from 616-MW1 between April 1997 and December 2001 contained small concentrations of xylenes below NJDEP groundwater quality criteria (GWQC) of 40 ug/L. No other volatile or semi-volatile compounds were detected in this well. Two of the quarterly samples collected from 699-MW15 between November 1995 and December 2001 contained concentrations of methylene chloride below the GWQC of 2 ug/L. Benzene was detected during the June 19, 2001 sample round at a concentrations of 1.33, which exceeds the GWQC. However, benzene was not detected in the two subsequent quarterly sampling rounds. Toluene was also detected in the June 19, 2001 sample at a concentration of 1.82 ug/L, which is below the GWQC.

The first sample collected from 699-MW2 in May 1995 contained several compounds including benzene at a concentration of 3.7 ug/L, which is above the GWQC of 0.2 ug/L. Benzene was detected in only one subsequent sample collected June 19, 2001 and was not detected in the two most recent rounds. Acetone, t-butyl alcohol, methylene chloride, methyl ethyl ketone, toluene, ethyl benzene, and total xylenes were each detected, at low concentrations, during one or more sample rounds. Acetone and methylene chloride are common laboratory contaminants and are not believed to be indicative of site conditions.

Quarterly samples collected from M5-MW25 between April 1999 and September 2001 contained no volatile or semi-volatile compounds except one, chloroform, which was detected during one round at a concentration of 1.47 ug/L, below the GWQC of 6 ug/L. Groundwater collected in September 1999 from M5-MW15 contained tetrachloroethylene at a concentration of 2.15 ug/L, which is greater than the GWQC of 0.4 ug/L. That compound has not been detected in subsequent sample rounds. No other compounds were detected at M5-MW15. Tetrachloroethylene was detected at concentrations ranging from 8.35 ug/L to 639.7 ug/L, each exceeding the GWQC, in samples collected from M5-MW16 between April 1999 and September 2001. No other compounds were detected at M5-MW16.

4.0 SOIL AND GROUNDWATER SAMPLING

Soil samples were collected from each of the 10 former UST excavation areas that either had not yet been investigated, or that required additional investigation. Geoprobe groundwater samples were collected from five locations across the 600 area. The following sections provide the details of the field activities conducted to facilitate closure of all 16 sites in the 600 area.

4.1 Soil Sampling

There were ten UST sites, 600A, 615, 634, 638, 639, 640, 641, 644, 664, and 666, that had not yet been investigated. The historical files for former UST site 600A were unavailable for review. Because the exact location of the former UST is unknown, five soil samples were collected from locations on the north, east, and west sides of the former building 600. The south side of the building has been investigated because it is the location of the former UST 600B. At each of the other nine sites where the former UST location is known, soil samples were collected from the four sides and in the center of each former tank excavation. Soil samples were collected at the depth of the bottom of the former excavation or if the depth is unknown, at the deepest unsaturated depth interval.

Additional sampling was conducted at three of the six sites that were previously investigated. At 600B and 686, previous sample locations contained TPH concentrations that exceed the soil guidance concentration of 1,000 mg/kg. None of the TPH results at 619 exceeded the guidance criteria, however, the two soil samples with the highest concentrations were resampled in order to assess the current conditions at that site. All of the new samples were analyzed for both TPH and VOC.

Prior to soil sampling activities, all sites were marked-out for clearance from underground and overhead utilities. Soil samples were collected using the Geoprobe soil sampling system. All soil samples were screened using a PID in the field and then submitted to the laboratory and analyzed for TPH. Select samples were also analyzed for VOC based on field observations. Soil samples were labeled with the site number followed by consecutive numbers starting with the number 1. Figures labeled 4-1 through 4-16 illustrate the sample locations and sample results at each site.

4.2 Groundwater Sample Collection

Quarterly groundwater monitoring was conducted per usual at the six existing wells in the area, M5-MW15, M5-MW16, M5-MW25, 616-MW1, 699-MW2, and 699-MW15. Groundwater was also collected using the Geoprobe sampling method at five locations strategically located across the 600 Area to complement the existing groundwater quality

data. The Geoprobe groundwater sample locations and existing monitoring well locations are illustrated on Figure 2.

Groundwater samples were submitted for laboratory analysis of VOCs and SVOCs. Geoprobe locations were resampled a minimum of 30 days after the initial round of sampling.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Soil Sampling Results

On November 15, 2001, five soil samples were collected at 600A located at the former Building 600. TPH was only detected in one of the samples, 600A-5, at a concentration of 381.15 mg/kg. The former UST 600B, also located at former Building 600, was investigated at the time of its removal in November 1993. One of the samples, 600B-1, exceeded the cleanup criteria with a TPH concentration of 13,000 mg/kg. The samples collected November 15, 2001 did not exceed the cleanup criteria, but two of the samples did exceed the guidance criteria of 1,000 mg/kg. Therefore, the soil samples were analyzed for VOCs. Like all of the soil samples collected in the 600 Area, the VOC samples collected at 600B only contained methylene chloride, a common laboratory contaminant.

On September 6, 1994, at the time of the UST removal, three samples collected at 611 contained TPH concentrations above the guidance criteria. Additional soil removal was conducted and subsequent samples collected from 611 on December 16, 1994 contained very low levels of TPH ranging from undetected to 57.80 mg/kg.

None of the five samples collected at each of the former buildings 615, 638, 639, 664, and 666 contained detectable concentrations of TPH.

On September 9, 1994, six samples were collected at 618. None of the samples exceeded the cleanup criteria but they all exceeded the guidance criteria of 1,000 mg/kg. The results ranged from 1,000 to 5,360 mg/kg TPH. Additional soil removal was conducted and new post-excavation samples were collected on September 22, 1994. Only two samples from the subsequent round exceeded the guidance criteria, yet further remediation was conducted and subsequent samples 618A and 618D, collected on September 27, 1994 contained 2,920 mg/kg and non detectable TPH, respectively. After additional excavation, soil from sample location 618A was sampled again on January 4, 1995 and contained only 35 mg/kg TPH.

Site 619 was investigated at the time of the UST removal. Two of the soil samples collected on August 25, 1994 contained concentrations of TPH above the guidance criteria. Samples 619B and 619F contained 1,450 and 3,060 mg/kg TPH, respectively. Additional soil removal was conducted and four of the sample locations were resampled on September 9, 1994. The results of the second round of sampling ranged from 45.10 to 543 mg/kg TPH. The two locations, E and F, that contained the highest concentration of TPH in the 1994 sampling round were resampled and analyzed for TPH and VOC in order to assess current site conditions. Locations E and F contained 701.82 and 295.13 mg/kg TPH, respectively. Both samples contained low levels of chloroform. No other VOCs were detected.

On August 25, 1994, soil samples were collected at 621 when the UST was removed. The sample concentrations ranged from undetectable to 174.30 mg/kg TPH. No additional investigation was necessary at this site.

Soil samples were collected at the former location of the UST at 634 on November 19, 2001. The results ranged from undetectable to 1,079.28 mg/kg TPH, just barely above the guidance criteria. Therefore, the samples were also analyzed for VOCs. The only compound detected was methylene chloride.

Five samples collected from the excavation of former UST 640 on November 8, 2001, contained TPH concentrations ranging from 262.25 to 2,922.48 mg/kg except for location 640-1, which contained 10,757.05 mg/kg. The samples were analyzed for VOCs and only contained low levels of the laboratory contaminant, methylene chloride, found in all other samples.

Soil samples were collected at 641 on October 26, 2001. Only two of the samples contained detectable levels of TPH. The sample locations, 641-2 and 641-5, contained 1,585.49 and 347.79 mg/kg TPH. The two samples were analyzed for VOCs and contained no detectable compounds.

Soil samples were collected at 644 on January 3, 2002. Samples contained between 4,616.22 and 8,903.10 mg/kg TPH. One of the sample locations, 644-1, was analyzed for VOCs and contained no volatile compounds.

Six post-excavation soil samples were collected from 686 at the time of UST removal. Results ranged from 79.60 to 14,700 mg/kg TPH. Following additional soil removal four of the locations were resampled and contained TPH concentrations ranging from 236 at 686-E to 1,400 mg/kg at 686-F. The location 686-F was resampled on November 15, 2001 for TPH and VOC analyses. Soil sample F contained 337.76 mg/kg TPH and no detectable VOCs.

5.2 Groundwater Sample Results

The results of the long term monitoring are summarized in section 3.2: Previous Groundwater Sampling Summary. Five of the six wells contain no compounds above GWQC. MW5-MW16 has exceeded the GWQC for tetrachloroethylene in every round collected between April 1999 and September 2001. No other compounds have been detected in groundwater from that well.

Geoprobe groundwater samples were collected at five locations, 600GW-1 through 600GW-5, throughout the 600 area on January 3, 2002 and February 5, 2002. Samples collected at 600GW-1 contained no compounds above method detection limits. The first sample collected at 600GW-2 contained three compounds, naphthalene, 2-methylnaphthalene, and dibenzofuran at concentrations of 89.36 ug/L, 35.38ug/L, and 1.37 ug/L, respectively. The second round collected at 600GW-2 contained acenaphthene

at 1.03 ug/L. Groundwater collected at 600GW-3 contained no detectable compounds during the first sample round and four compounds, 3.58 ug/L of naphthalene, 29.64 ug/L of 2-methylnaphthalene, 1.11 ug/L of acenaphthene, and 2.19 ug/L of phenanthrene, during the second round. There were no compounds detected in the first round collected at 600GW-4. The second round collected from 600GW-4 contained 1.11 ug/L 1,4-dichlorobenzene and 1.92 ug/L 1,2-dichlorobenzene. Several compounds were detected at 600GW-5 during the first round of sample collection, but no compounds were detected at that location during the second round. None of the compounds detected in the geoprobe groundwater samples during either round of sampling exceeded GWQC. The sample results are summarized in Table 3-3.

5.3 Recommendations

Based on soil sampling results, there was only one soil sample collected in the 600 Area that exceeds NJDEP soil cleanup criteria. Sample location 640-1 contained 10,757.05 mg/kg TPH. However, this sample was analyzed for VOCs and contained only one volatile compound, methylene chloride, at very low concentrations that did not exceed the soil cleanup criteria. Methylene chloride is a common laboratory contaminant that is not considered indicative of site conditions. Given that the concentration of TPH detected at 640-1 only slightly exceeded the soil cleanup criteria and the given absence of VOCs in the sample, we respectfully recommend that further action is not necessary at this location. Therefore, no further action is recommended at the 16 individual UST sites in the 600 Area.

Based on groundwater sample results, groundwater collected at the five Geoprobe sample locations has not been impacted by the presence of the former USTs in the 600 Area. Groundwater at one well, MW5-MW16, contains one compound of concern that exceeds the NJDEP GWQC. However, this well is being continuously monitored in association with the investigation at Area M5. Therefore, no further action is recommended for the former USTs in the 600 Area.

(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

_X_ NA – Federal Agreement

D. (Complete all that apply)

- Assigned Case Manager : Ian Curtis, Federal Case Manager

Facility Location	UST Registration Number	Incident Report Number
600A	81533-83	
600B	81533-212	93-11-9-0923-00
611	81533-212	94-8-18-1613-35
615	81533-89	
618	81533-91	94-8-19-1612-06
619	81533-92	94-08-24-1320-18
621	81533-94	94-08-25-1302-00
634	(NA)	94-10-21-0841-16
638	(NA)	94-10-21-0841-16
639	(NA)	
640	(NA)	94-10-21-0841-16
641	(NA)	94-10-21-0841-16
644	(NA)	
664	(NA)	
666	(NA)	
686	81533-107	94-12-08-1040-10

- Tank Closure Number : Federal Case Manager

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.: 10173

Firm: U.S. Army, Fort Monmouth Firm's UST Cert. Number: 10173

Firm Address: Bldg. 173 City: Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-1475

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

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

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

1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, federal or other public agency by either a principal executive officer or ranking elected Official.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

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

Signature: _____

Company Name: U.S. Army Fort Monmouth Date: 05/24/02

Tables

Table 3-1
Summary of Soil Sampling Results for TPH Analysis

Sample Site ID	Sample Date	Sample ID	TPH Concentration (mg/kg)
600A	11/15/01	1	ND
	11/15/01	2	ND
	11/15/01	3	ND
	11/15/01	4	ND
	11/15/01	5	381.15
	11/15/01	DUP	ND
600B	11/10/93	A	13,000.00
	11/10/93	B	1,020.00
	11/10/93	C	2,600.00
	11/10/93	D	4,020.00
	11/10/93	E	2,480.00
	11/10/93	F	7,200.00
	11/15/01	1	840.17
	11/15/01	2	3,521.65
	11/15/01	3	ND
	11/15/01	4	ND
	11/15/01	5	401.04
	11/15/01	6	6,137.04
	11/15/01	DUP	ND
611	08/18/94	P-1	2,450.00
	08/18/94	P-2	27.60
	09/06/94	A	ND
	09/06/94	B	2,831.00
	09/06/94	C	1,160.00
	09/06/94	D	348.00
	09/06/94	E	554.00
	09/06/94	F	752.00
	09/06/94	G	47.30
	09/06/94	G (dup)	143.50
	09/06/94	H	1,030.00
	12/16/94	A1	9.52
	12/16/94	B1	29.40
	12/16/94	C1	57.80
	12/16/94	G1	ND
	12/16/94	H1	15.90
615	11/19/01	1	ND
	11/19/01	2	ND
	11/19/01	3	ND
	11/19/01	4	ND
	11/19/01	5	ND
	11/19/01	DUP	ND

Table 3-1
Summary of Soil Sampling Results for TPH Analysis

Sample Site ID	Sample Date	Sample ID	TPH Concentration (mg/kg)
618	09/06/94	A	3,940.00
	09/06/94	B	1,000.00
	09/06/94	C	1,240.00
	09/06/94	D	4,390.00
	09/06/94	E	5,360.00
	09/04/94	F	4,860.00
	09/22/94	A	1,050.00
	09/22/94	B	214.00
	09/22/94	C	164.00
	09/22/94	D	2,810.00
	09/22/94	E	15.90
	09/22/94	F	33.00
	09/27/94	A	2,920.00
	09/27/94	D	ND
	01/04/95	A	35.00
619	08/25/94	A	154.00
	08/25/94	B	1,450.00
	08/25/94	C	70.60
	08/25/94	D	555.00
	08/25/94	E	858.00
	08/25/94	F	3,060.00
	09/09/94	B1	84.00
	09/09/94	C1	45.10
	09/09/94	E1	543.00
	09/09/94	F1	113.00
	10/12/01	E	701.82
	10/12/01	F	295.13
621	08/25/94	A	ND
	08/25/94	B	ND
	08/25/94	C	ND
	08/25/94	D	ND
	08/25/94	E	42.30
	08/25/94	F	ND
	08/25/94	G (dup of A)	36.50
	08/25/94	H	174.30

Table 3-1
Summary of Soil Sampling Results for TPH Analysis

Sample Site ID	Sample Date	Sample ID	TPH Concentration (mg/kg)
634	11/19/01	1	ND
	11/19/01	2	ND
	11/19/01	3	713.28
	11/19/01	4	ND
	11/19/01	5	721.34
	11/19/01	DUP	1,079.28
638	10/13/01	1	ND
	10/13/01	2	ND
	10/13/01	3	ND
	10/13/01	4	ND
	10/13/01	5	ND
	10/13/01	DUP	ND
639	10/13/01	1	ND
	10/13/01	2	ND
	10/13/01	3	ND
	10/13/01	4	ND
	10/13/01	5	ND
	10/13/01	DUP	ND
640	11/08/01	1	10,757.05
	11/08/01	2	287.44
	11/08/01	3	2,478.86
	11/08/01	4	240.79
	11/08/01	5	262.25
	11/08/01	DUP	2,922.48
641	10/26/01	1	ND
	10/26/01	2	1,585.49
	10/26/01	3	ND
	10/26/01	4	ND
	10/26/01	5	347.79
	10/26/01	DUP	ND

Table 3-1
Summary of Soil Sampling Results for TPH Analysis

Sample Site ID	Sample Date	Sample ID	TPH Concentration (mg/kg)
644	10/12/01	1	1,297.72
	10/12/01	2	3,203.55
	10/12/01	3	308.93
	10/12/01	4	5,166.71
	10/12/01	5	ND
	01/03/02	1	8,903.10
	01/03/02	2	6,921.76
	01/03/02	3	7,243.03
	01/03/02	4	7,616.32
	01/03/02	5	4,616.22
664	11/14/01	1	ND
	11/14/01	2	ND
	11/14/01	3	ND
	11/14/01	4	ND
	11/14/01	5	ND
	11/14/01	DUP	ND
666	11/14/01	1	ND
	11/14/01	2	ND
	11/14/01	3	ND
	11/14/01	4	ND
	11/14/01	5	ND
	11/14/01	DUP	ND
686	01/18/95	A	79.60
	01/18/95	B	14,700.00
	01/18/95	C	174.00
	01/18/95	D	4,400.00
	01/18/95	E	2,900.00
	01/18/95	F	3,200.00
	01/18/95	G (dup of F)	1,600.00
	01/27/95	B	667.00
	01/27/95	D	342.00
	01/27/95	E	236.00
	01/27/95	F	1,400.00
	11/15/01	piping	256.62
	11/15/01	686/8'	337.76

ND = Not detected above method detection limits.

Table 3-2
Summary of Soil Sampling Results for VOCs

Sample Site ID	Sample Date	Sample ID	Acetone	Chloroform	Ethyl-benzene	Methylene Chloride	Total Xylenes
RDCSCC			1000	19	1000	49	410
600B	11/15/93	A2	**0.28**	ND	**4.50**	ND	**17.40**
	11/15/93	F2	ND	ND	ND	**0.20**	**0.41**
	11/15/01	1	ND	ND	ND	**1.20**	ND
	11/15/01	2	ND	ND	ND	**0.66**	ND
	11/15/01	3	ND	ND	ND	**0.36**	ND
	11/15/01	4	ND	ND	ND	**0.34**	ND
	11/15/01	5	ND	ND	ND	ND	ND
619	10/12/01	E	ND	**0.87**	ND	ND	ND
	10/12/01	F	ND	**6.8**	ND	ND	ND
634	11/19/01	1	ND	ND	ND	ND	ND
	11/19/01	2	ND	ND	ND	**0.28**	ND
	11/19/01	3	ND	ND	ND	**0.29**	ND
	11/19/01	4	ND	ND	ND	**0.33**	ND
	11/19/01	5	ND	ND	ND	**0.40**	ND
640	11/08/01	1	ND	ND	ND	**1.50**	ND
	11/08/01	2	ND	ND	ND	**0.69**	ND
	11/08/01	3	ND	ND	ND	**0.49**	ND
	11/08/01	4	ND	ND	ND	**0.40**	ND
	11/08/01	5	ND	ND	ND	**0.33**	ND
641	10/26/01	2	ND	ND	ND	ND	ND
	10/26/01	5	ND	ND	ND	ND	ND
644	10/26/01	1	ND	ND	ND	ND	ND
	10/26/01	2	ND	ND	ND	ND	ND
	10/26/01	3	ND	ND	ND	ND	ND
	10/26/01	4	ND	ND	ND	ND	ND
	10/26/01	5	ND	ND	ND	ND	ND
686	11/15/01	686	ND	ND	ND	ND	ND

All results reported in mg/kg.
RDCSCC =NJDEP Residential Direct Contact Soil Celanup Criteria (mg/kg)

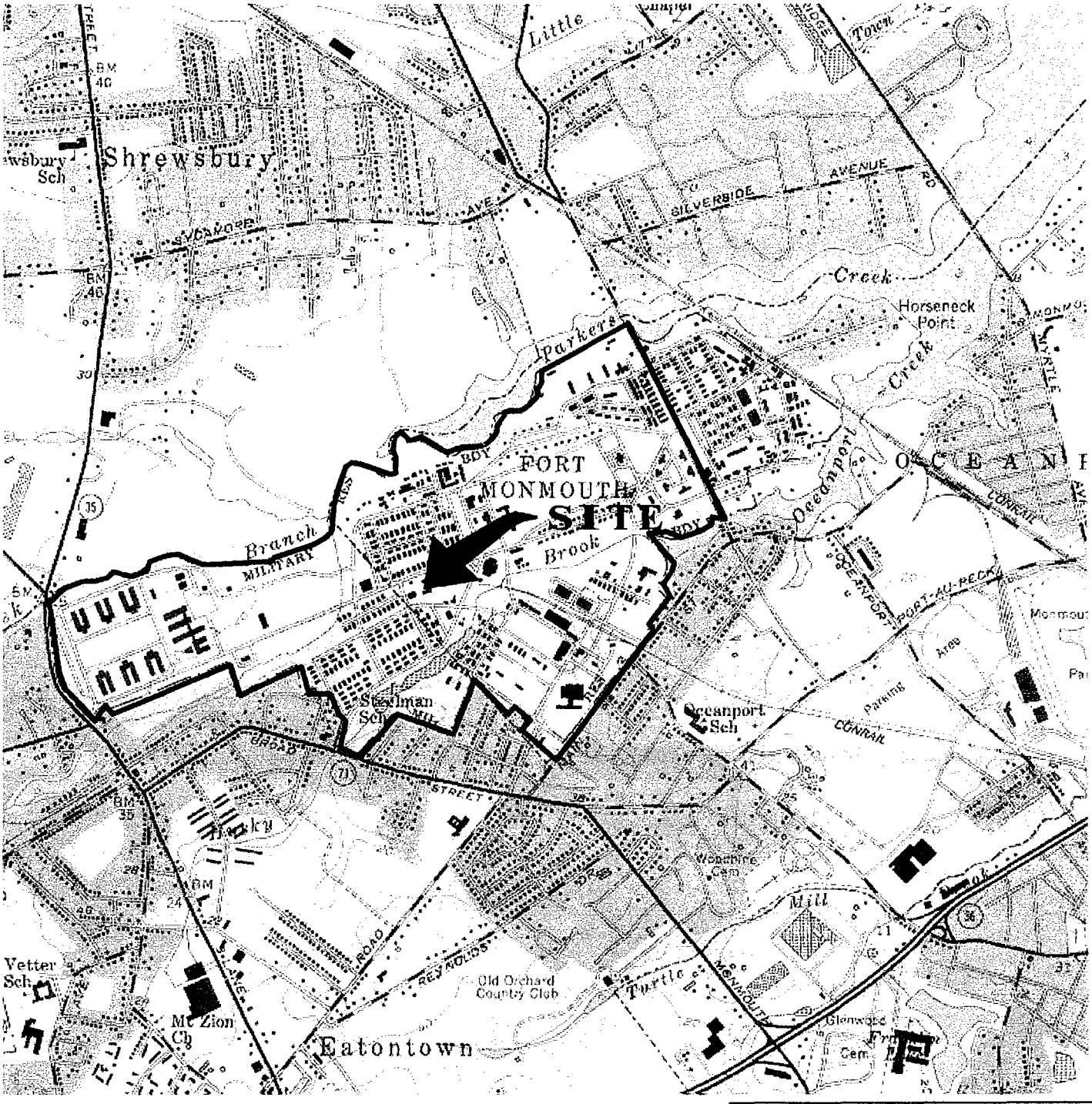
Table 3-3
Summary of Groundwater Data in the 600 Area

Monitoring Well	Sample Date	t-butyl alcohol	acetone	methylene chloride	MEK	benzene	toluene	ethyl-benze	total xylenes
616-MW1	04/02/97	ND	ND	ND	ND	ND	ND	ND	ND
	04/02/97	ND	ND	ND	ND	ND	ND	ND	ND
	07/16/97	ND	ND	ND	ND	ND	ND	ND	ND
	07/16/97	ND	ND	ND	ND	ND	ND	ND	ND
	10/07/97	ND	ND	ND	ND	ND	ND	ND	ND
	10/07/97	ND	ND	ND	ND	ND	ND	ND	ND
	01/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	01/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	06/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	06/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	07/29/98	ND	ND	ND	ND	ND	ND	ND	ND
	07/29/98	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/98	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/98	ND	ND	ND	ND	ND	ND	ND	ND
	03/09/99	ND	ND	ND	ND	ND	ND	ND	ND
	06/28/99	ND	ND	ND	ND	ND	ND	ND	**3.91**
	09/24/99	ND	ND	ND	ND	ND	ND	ND	**19.8**
	11/30/99	ND	ND	ND	ND	ND	ND	ND	**6.95**
	03/29/00	ND	ND	ND	ND	ND	ND	ND	ND
	06/16/00	ND	ND	ND	ND	ND	ND	ND	**2.27**
	09/07/00	ND	ND	ND	ND	ND	ND	ND	**3.00**
	12/28/00	ND	ND	ND	ND	ND	ND	ND	**4.35**
	03/21/01	ND	ND	ND	ND	ND	ND	ND	ND
	06/19/01	ND	ND	ND	ND	ND	ND	ND	ND
	08/30/01	ND	ND	ND	ND	ND	ND	ND	**1.17**
	12/13/01	ND	ND	ND	ND	ND	ND	ND	ND
699-MW15	11/21/95	ND	ND	**0.8**	ND	ND	ND	ND	ND
	11/21/95	ND	ND	**0.8**	ND	ND	ND	ND	ND
	02/20/96	ND	ND	**0.7**	ND	ND	ND	ND	ND
	02/20/96	ND	ND	**0.7**	ND	ND	ND	ND	ND
	05/22/96	ND	ND	NA	ND	ND	NA	ND	ND
	05/22/96	ND	ND	NA	ND	ND	NA	ND	ND
	10/01/96	ND	ND	NA	ND	ND	NA	ND	ND
	10/01/96	ND	ND	NA	ND	ND	NA	ND	ND
	01/13/97	ND	ND	NA	ND	ND	NA	ND	ND
	01/13/97	ND	ND	NA	ND	ND	NA	ND	ND
	04/02/97	ND	ND	ND	ND	ND	ND	ND	ND
	04/02/97	ND	ND	ND	ND	ND	ND	ND	ND
	07/16/97	ND	ND	ND	ND	ND	ND	ND	ND
	07/16/97	ND	ND	ND	ND	ND	ND	ND	ND
	10/07/97	ND	ND	ND	ND	ND	ND	ND	ND
	10/07/97	ND	ND	ND	ND	ND	ND	ND	ND
	01/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	01/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	06/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	06/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	07/29/98	ND	ND	ND	ND	ND	ND	ND	ND
	07/29/98	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/98	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/98	ND	ND	ND	ND	ND	ND	ND	ND
	03/09/99	ND	ND	ND	ND	ND	ND	ND	ND
	06/28/99	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/99	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/99	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/00	ND	ND	ND	ND	ND	ND	ND	ND
	06/16/00	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/00	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/00	ND	ND	ND	ND	ND	ND	ND	ND
	03/12/01	ND	ND	ND	ND	ND	ND	ND	ND
	06/19/01	ND	ND	ND	ND	**1.33**	**1.82**	ND	ND
	08/30/01	ND	ND	ND	ND	ND	ND	ND	ND
	12/13/01	ND	ND	ND	ND	ND	ND	ND	ND
Standards:		5	700	2	300	0.2	1000	700	40

Table 3-3
Summary of Groundwater Data in the 600 Area

Monitoring Well	Sample Date	t-butyl alcohol	acetone	methylene chloride	MEK	benzene	toluene	ethyl-benze	total xylenes
699-MW2	05/24/95	**2.0**	NA	**1.0**	ND	**3.7**	**16**	**4.3**	**24**
	05/24/95	**2.0**	NA	**1.0**	ND	**3.7**	**16**	**4.3**	**24**
	08/16/95	ND	NA	**1.7**	ND	ND	ND	ND	ND
	08/16/95	ND	NA	**1.7**	ND	ND	ND	ND	ND
	11/20/95	ND	NA	**0.8**	ND	ND	ND	ND	ND
	11/20/95	ND	NA	**0.8**	ND	ND	ND	ND	ND
	02/21/96	ND	NA	**0.8**	ND	ND	ND	ND	ND
	02/21/96	ND	NA	**0.8**	ND	ND	ND	ND	ND
	05/22/96	NA	NA	NA	ND	NA	NA	NA	NA
	05/22/96	NA	NA	NA	ND	NA	NA	NA	NA
	10/01/96	NA	NA	NA	ND	NA	NA	NA	NA
	10/01/96	NA	NA	NA	ND	NA	NA	NA	NA
	01/13/97	NA	NA	NA	ND	NA	NA	NA	NA
	01/13/97	NA	NA	NA	ND	NA	NA	NA	NA
	04/02/97	ND	ND	ND	ND	ND	ND	ND	ND
	04/02/97	ND	ND	ND	ND	ND	ND	ND	ND
	07/16/97	ND	ND	ND	ND	ND	ND	ND	ND
	07/16/97	ND	ND	ND	ND	ND	ND	ND	ND
	10/07/97	ND	ND	ND	ND	ND	ND	ND	ND
	10/07/97	ND	ND	ND	ND	ND	ND	ND	ND
	01/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	01/09/98	ND	ND	ND	ND	ND	ND	ND	ND
	06/08/98	ND	**8.40**	ND	ND	ND	ND	ND	ND
	06/08/98	ND	**8.40**	ND	ND	ND	ND	ND	ND
	07/29/98	ND	ND	ND	**3.72**	ND	ND	ND	ND
	07/29/98	ND	ND	ND	**3.72**	ND	ND	ND	ND
	12/30/98	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/98	ND	ND	ND	ND	ND	ND	ND	ND
	03/10/99	ND	ND	ND	ND	ND	ND	ND	ND
	06/28/99	ND	ND	ND	ND	ND	ND	ND	ND
	09/25/99	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/99	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/00	ND	ND	ND	ND	ND	ND	ND	ND
	06/16/00	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/00	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/00	ND	ND	ND	ND	ND	ND	ND	ND
	03/12/01	ND	ND	ND	ND	ND	ND	ND	ND
	06/19/01	ND	ND	ND	ND	**4.77**	**24.25**	**4.29**	**18.31**
	08/30/01	ND	ND	**1.84**	ND	ND	ND	ND	ND
	12/13/01	ND	ND	ND	ND	ND	ND	ND	ND
Standards:		5	700	2	300	0.2	1000	700	40

Figures



LONG BRANCH, N. J.

40073-C8-TF-024

1954

PHOTOREVISED 1981

DMA 6164 I SE-SERIES V822

QUADRANGLE LOCATION

Mapped, edited and published by the Geological Survey

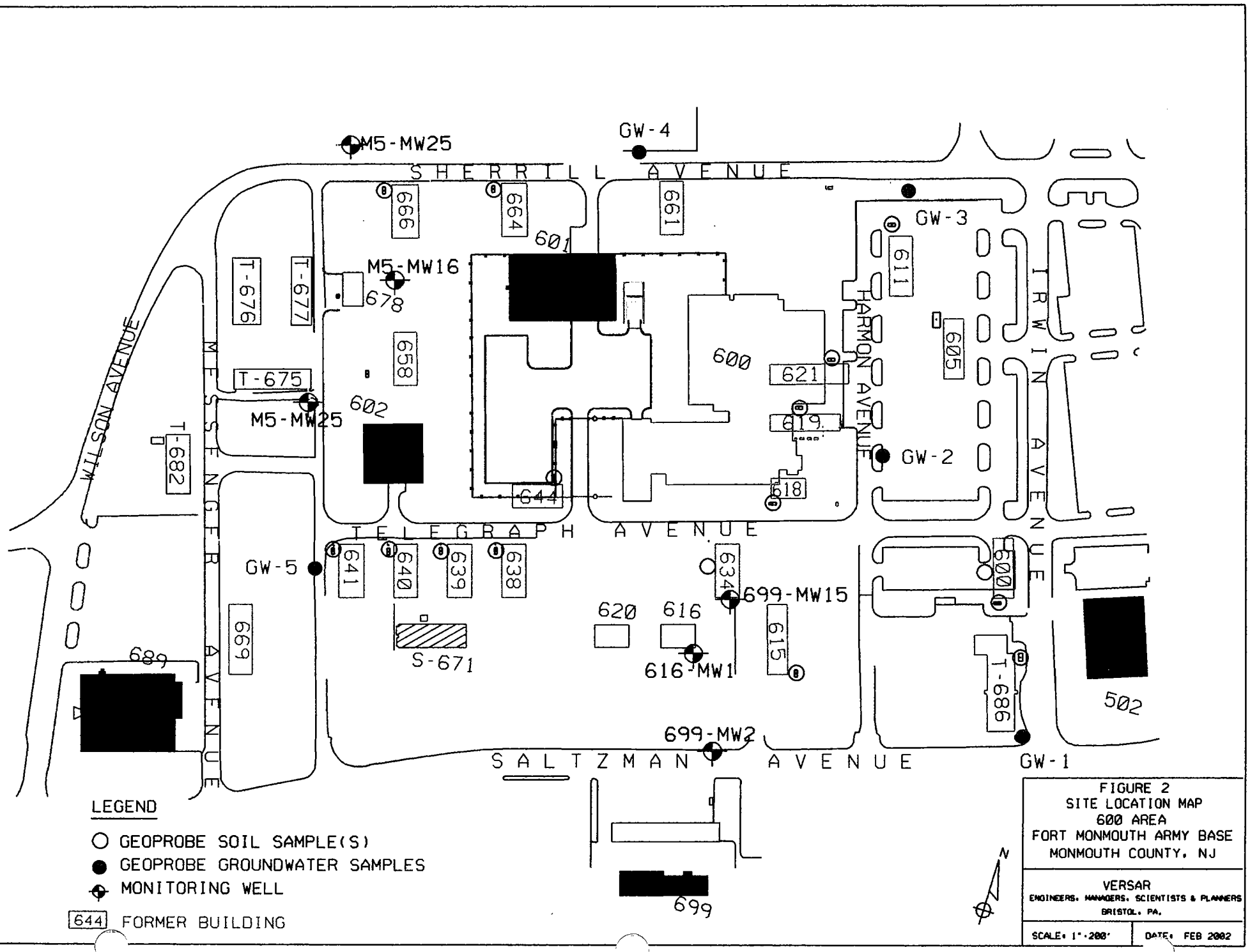
FIGURE 1

LOCATION MAP
Building 600 Area
Main-Post West
Fort Monmouth Army Base
Monmouth County, NJ

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

Scale: 1" = 2000'

Date: FEB 2002


M5-MW25
GW-4
SHERRILL AVENUE
666
664
661
601
GW-3
611
M5-MW16
678
T-676
T-677
658
600
621
605
IRWIN AVENUE
HARMON AVENUE
T-675
M5-MW25
602
619
GW-2
T-682
WILSON AVENUE
MESSENGER AVENUE
644
618
TELEGRAPH AVENUE
GW-5
641
640
639
638
634
699-MW15
600
620
616
615
669
689
S-671
616-MW1
T-686
502
699-MW2
SALTZMAN AVENUE
GW-1
699
LEGEND
GEOPROBE SOIL SAMPLE(S)
GEOPROBE GROUNDWATER SAMPLES
MONITORING WELL
644 FORMER BUILDING
N
FIGURE 2
SITE LOCATION MAP
600 AREA
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ
VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.
SCALE: 1"=200'
DATE: FEB 2002

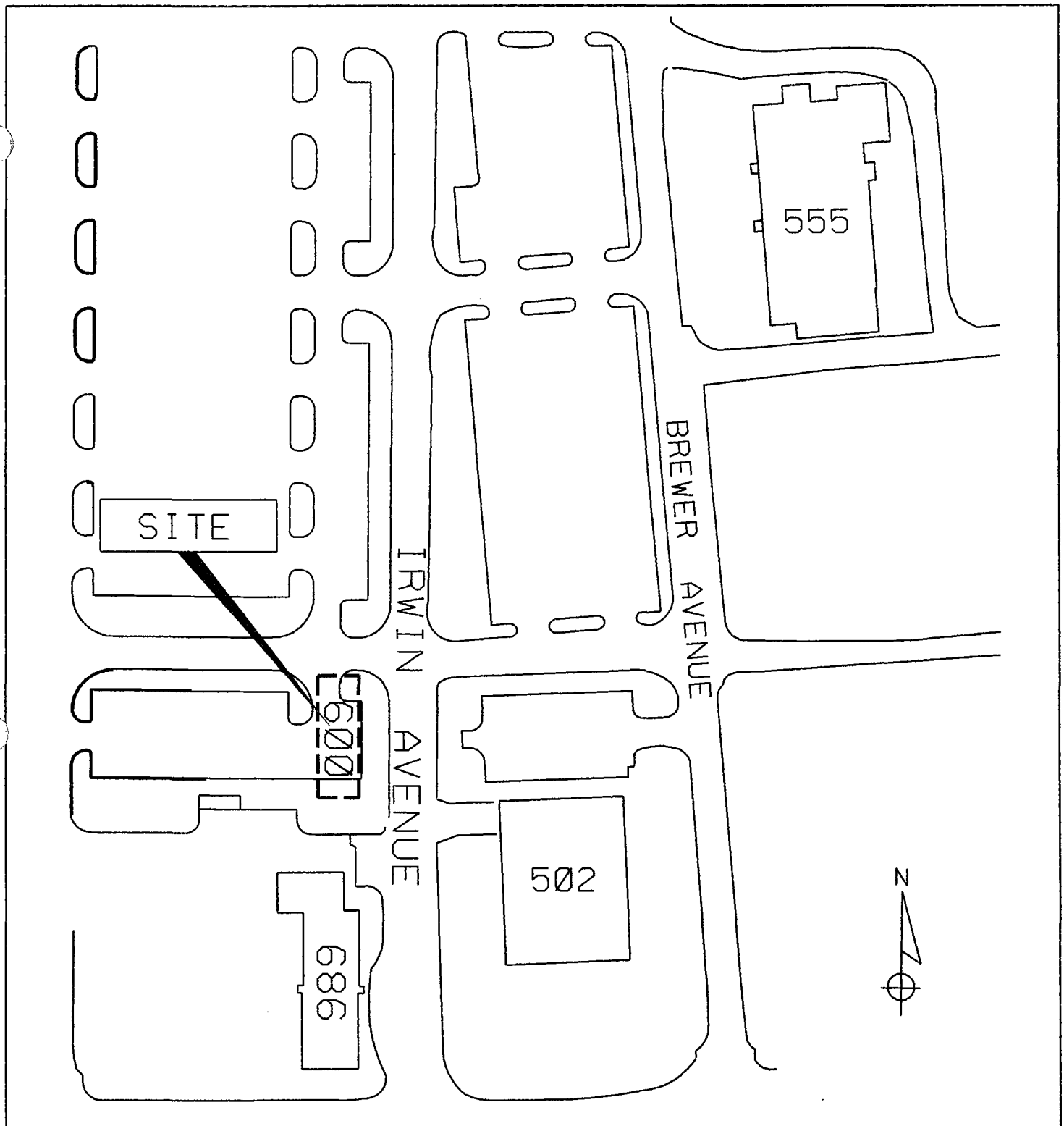


FIGURE 3-1
SITE MAP
BUILDING 600A
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

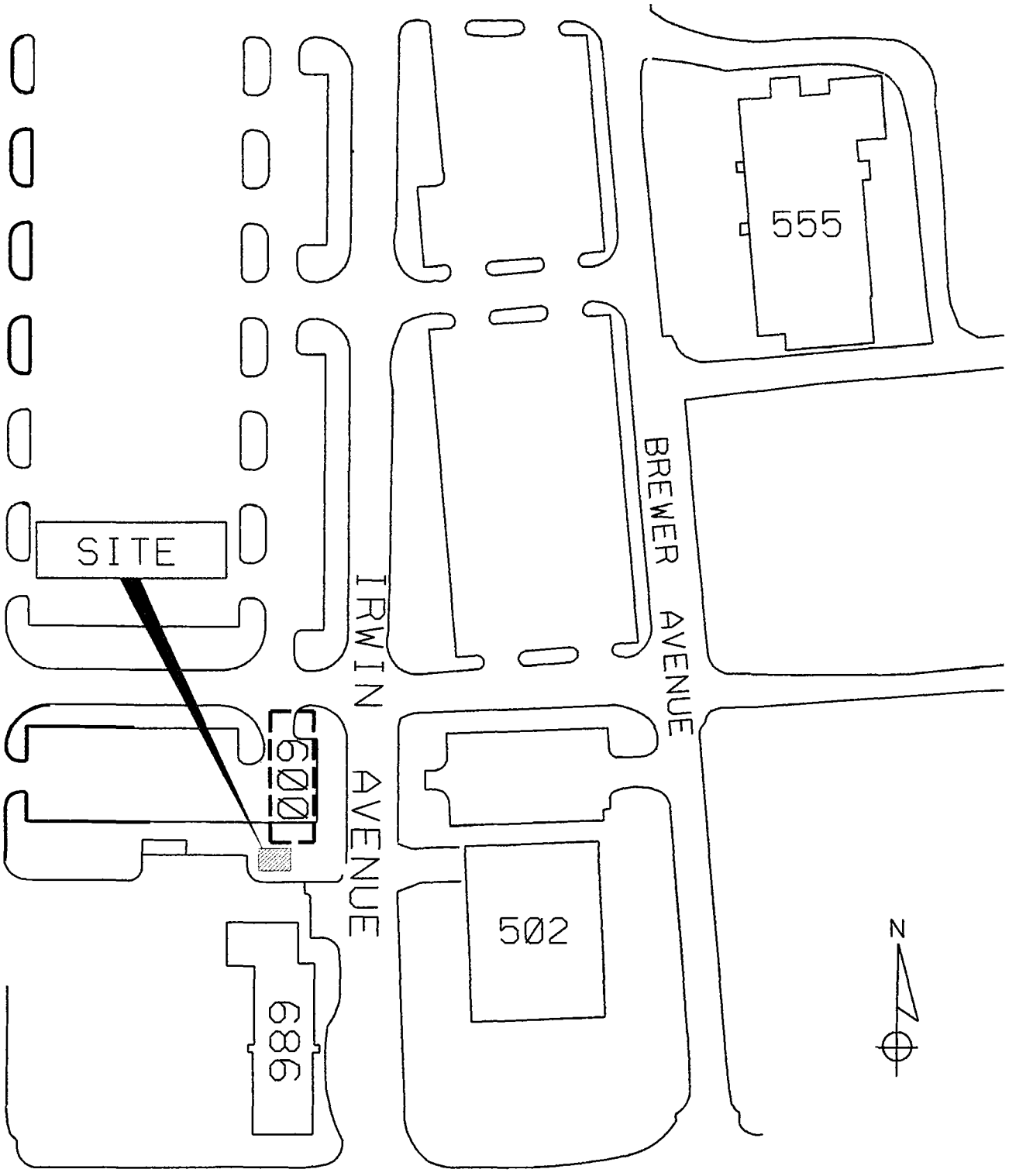


FIGURE 3-2
SITE MAP
BUILDING 600B
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

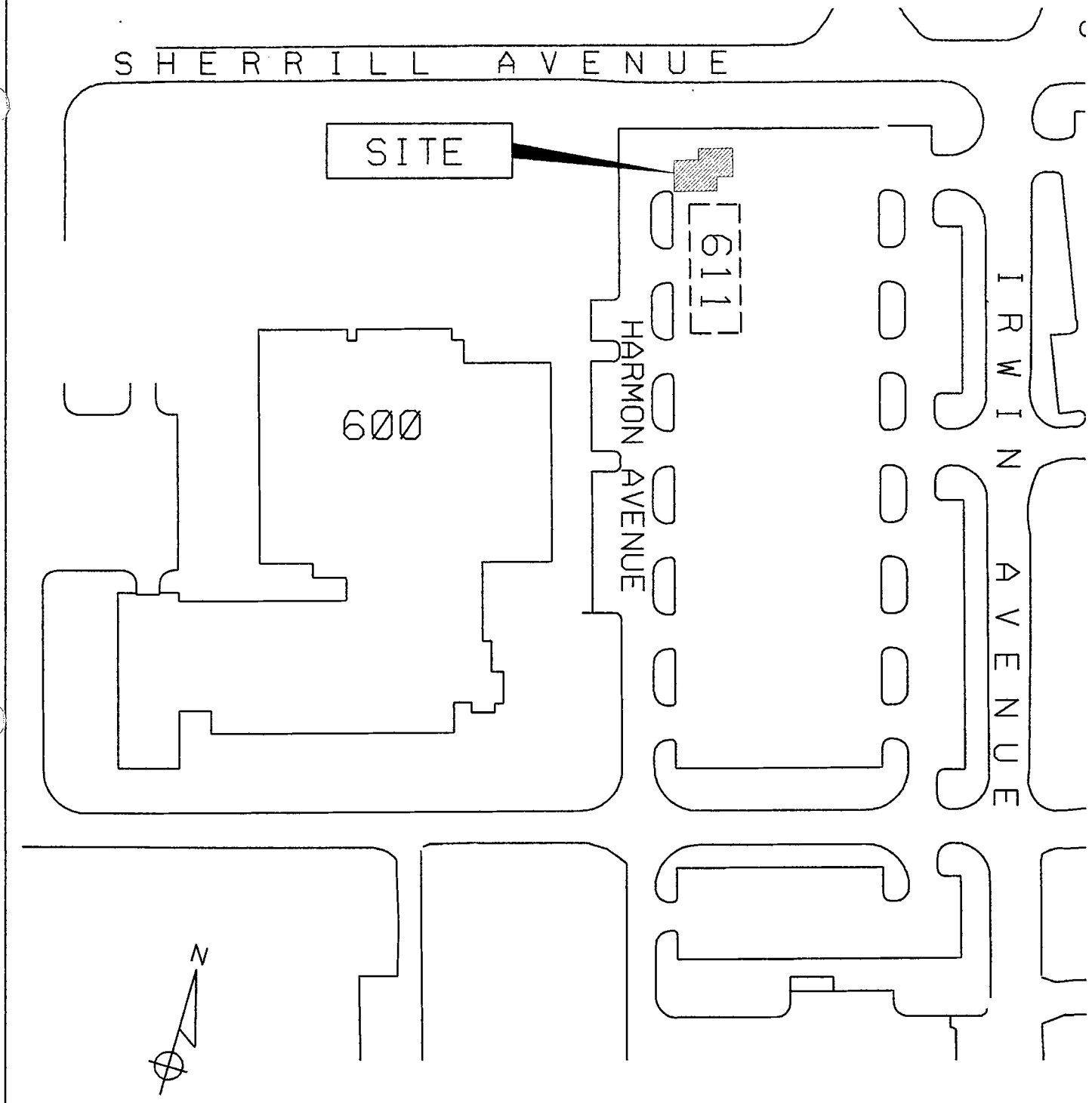


FIGURE 3-3
SITE MAP
BUILDING 611
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

611 F

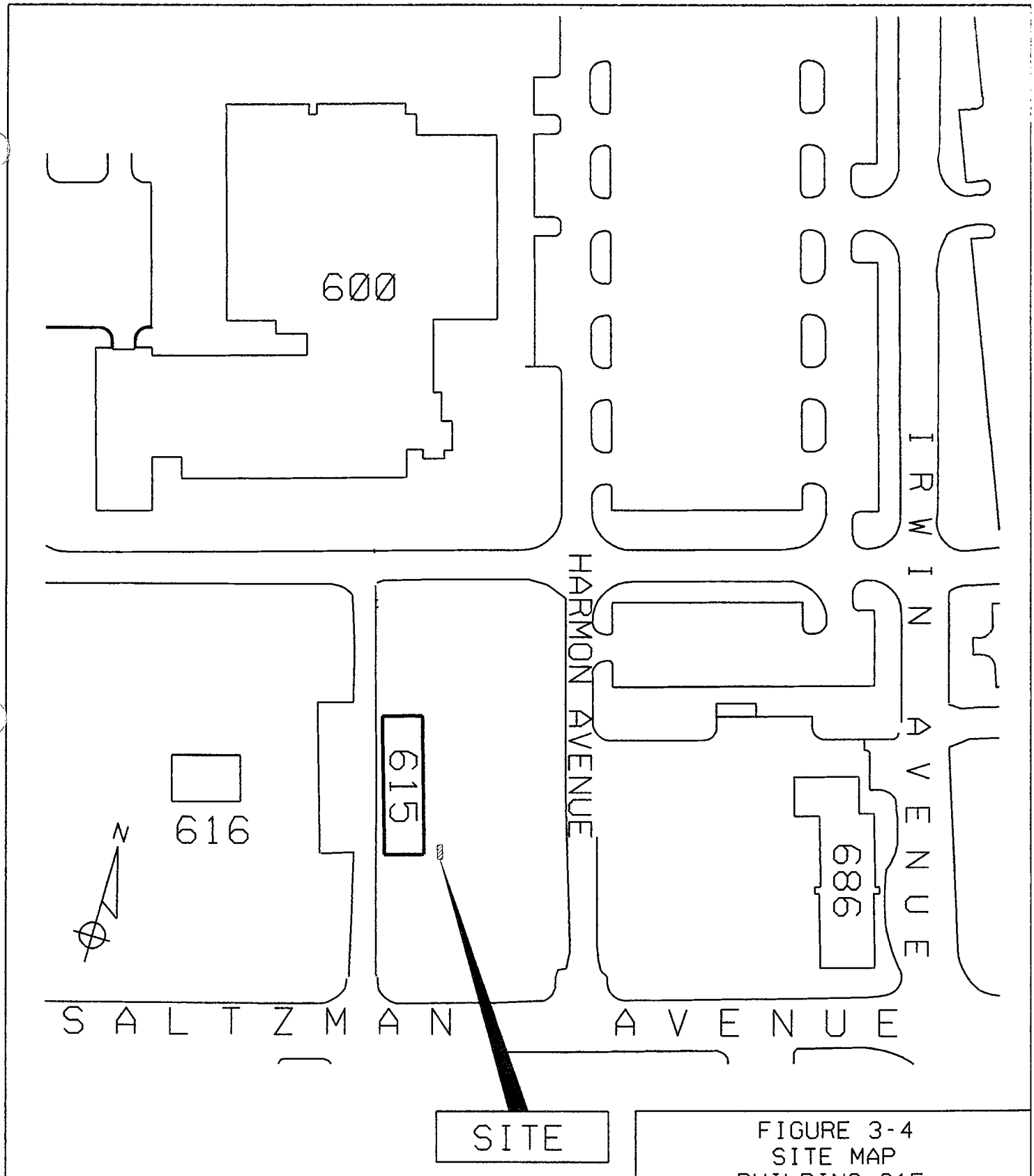


FIGURE 3-4
SITE MAP
BUILDING 615
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

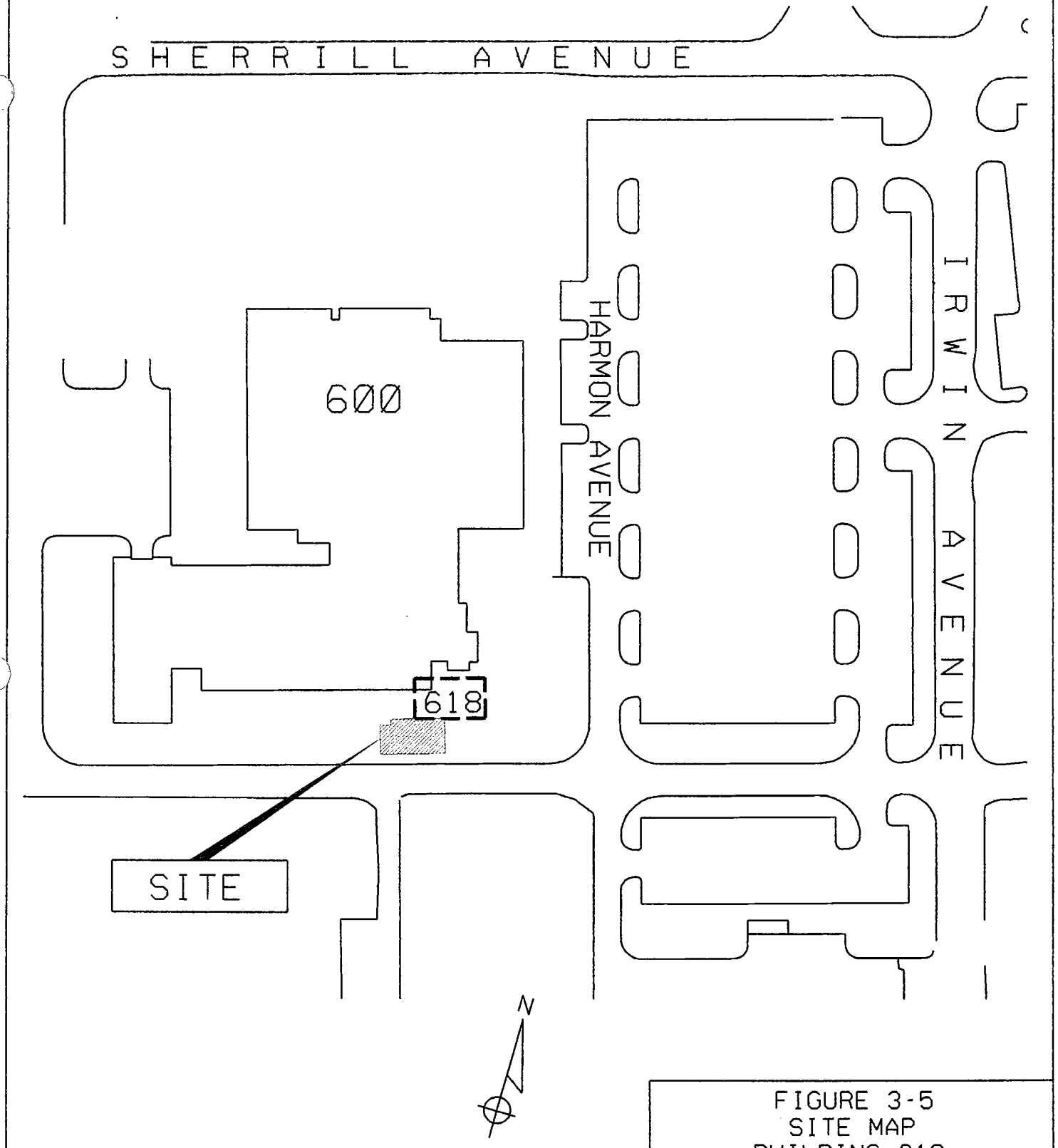


FIGURE 3-5
SITE MAP
BUILDING 618
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

618 F

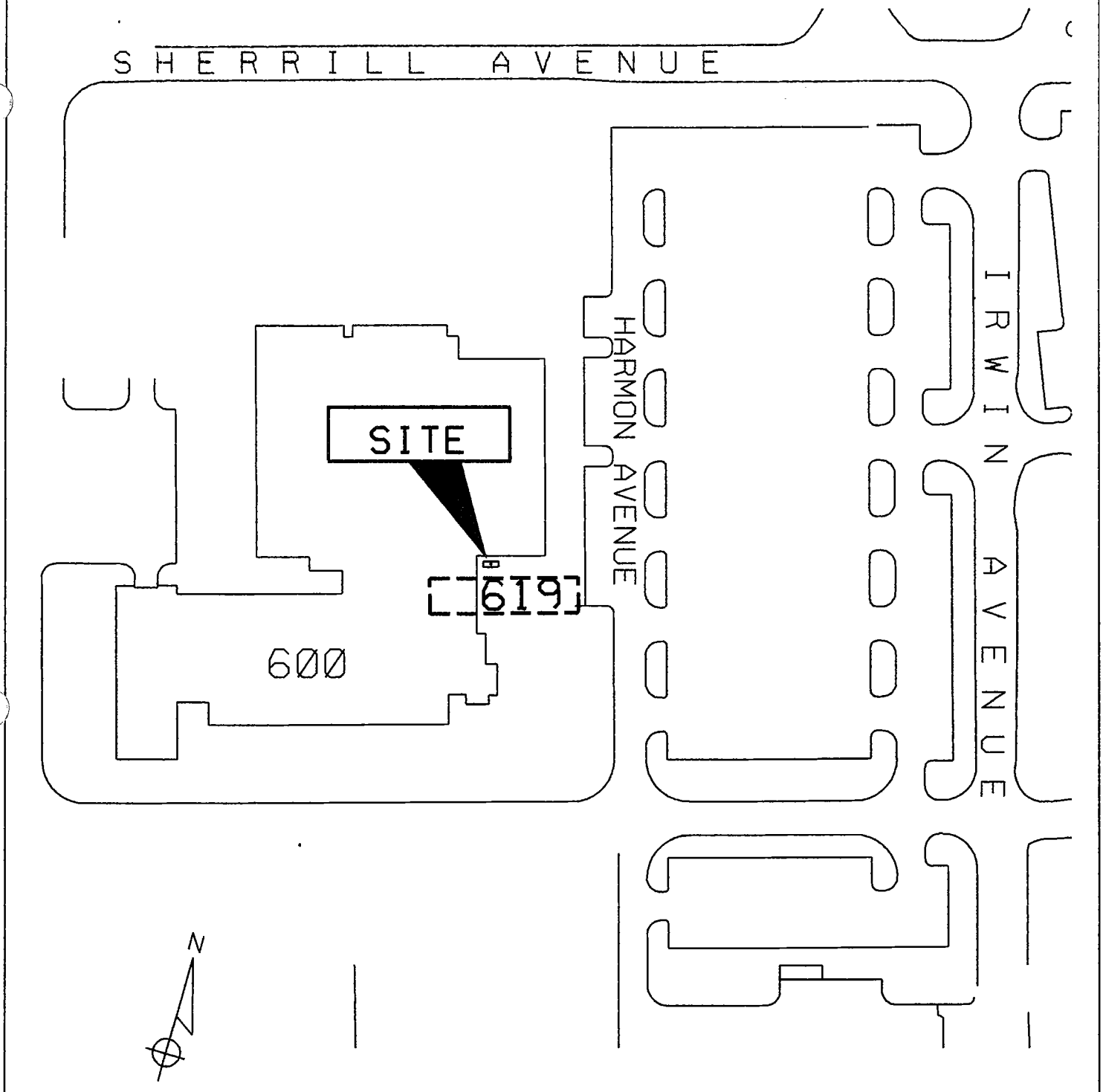


FIGURE 3-6
SITE MAP
BUILDING 619
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

619 F

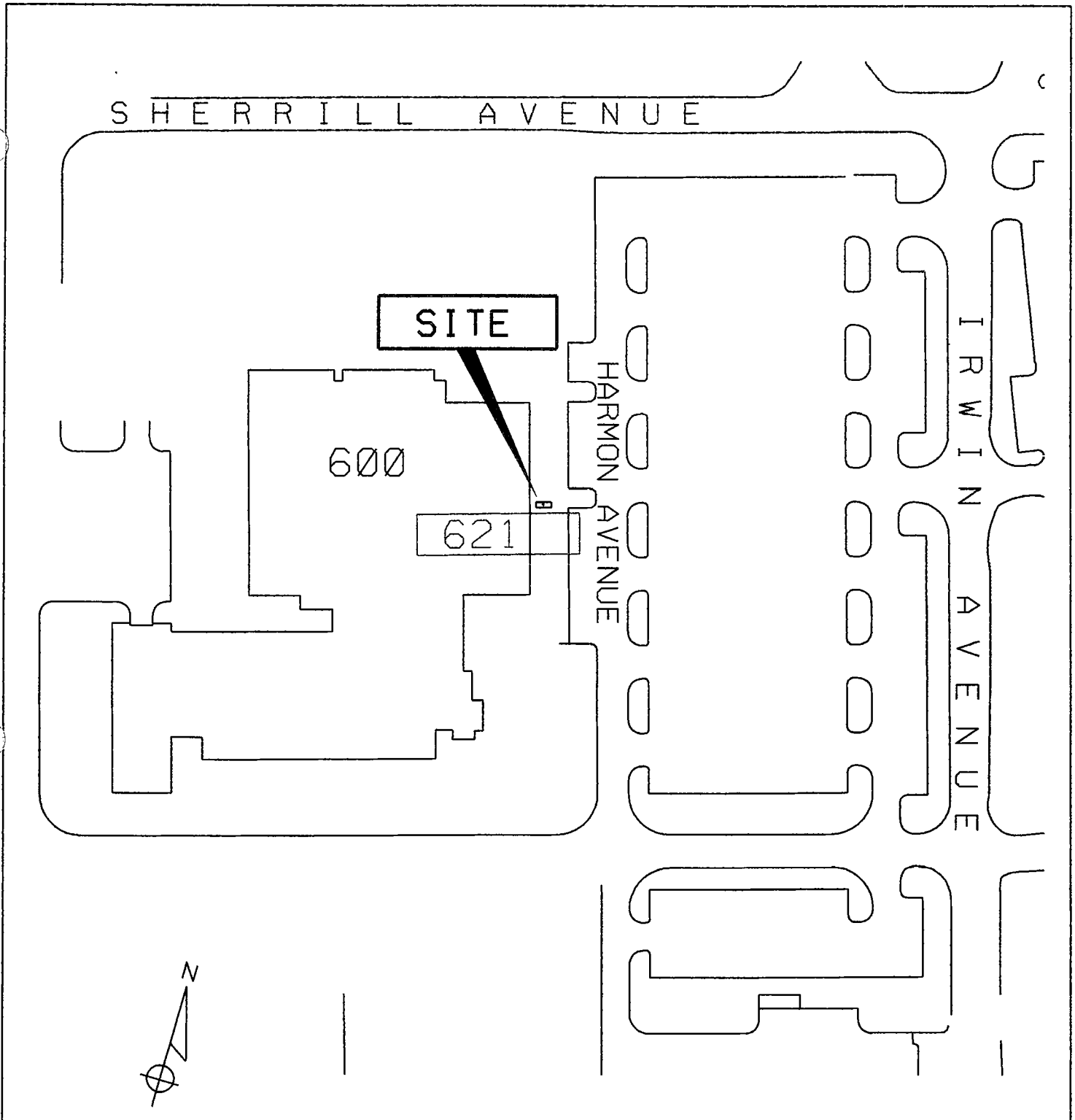


FIGURE 3-7
SITE MAP
BUILDING 621
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

621 F

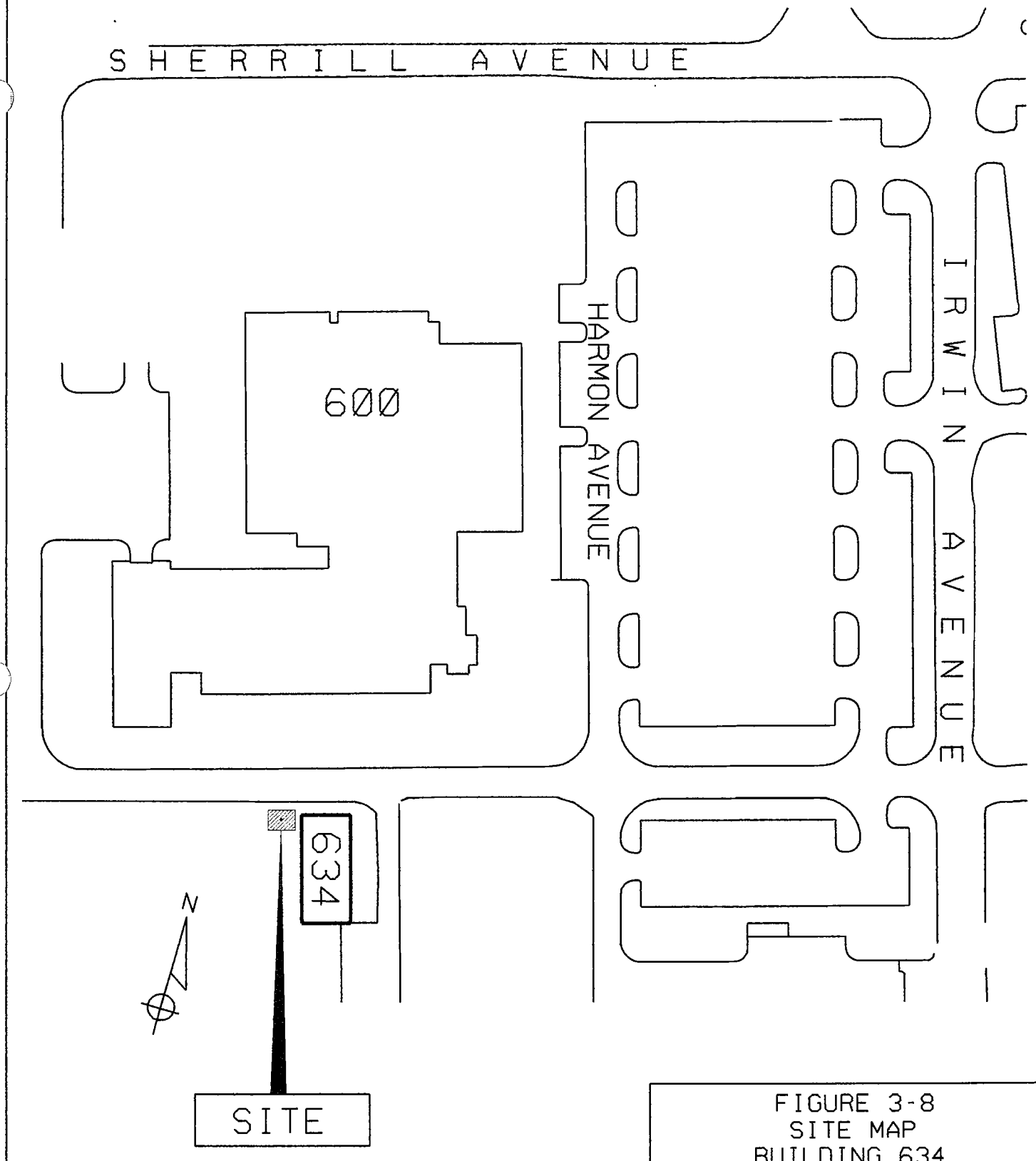


FIGURE 3-8
SITE MAP
BUILDING 634
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

634 F

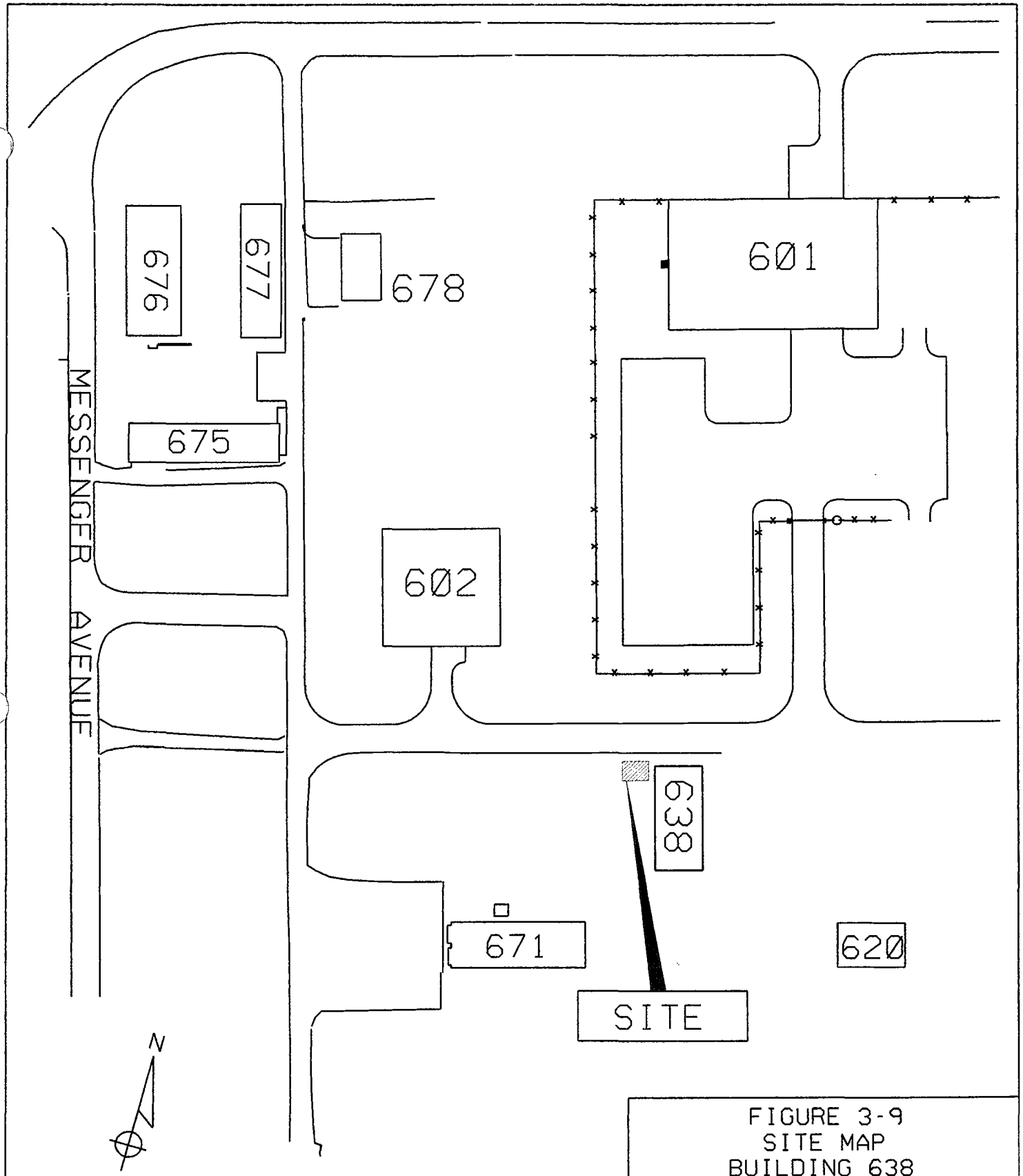


FIGURE 3-9
SITE MAP
BUILDING 638
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

638 F

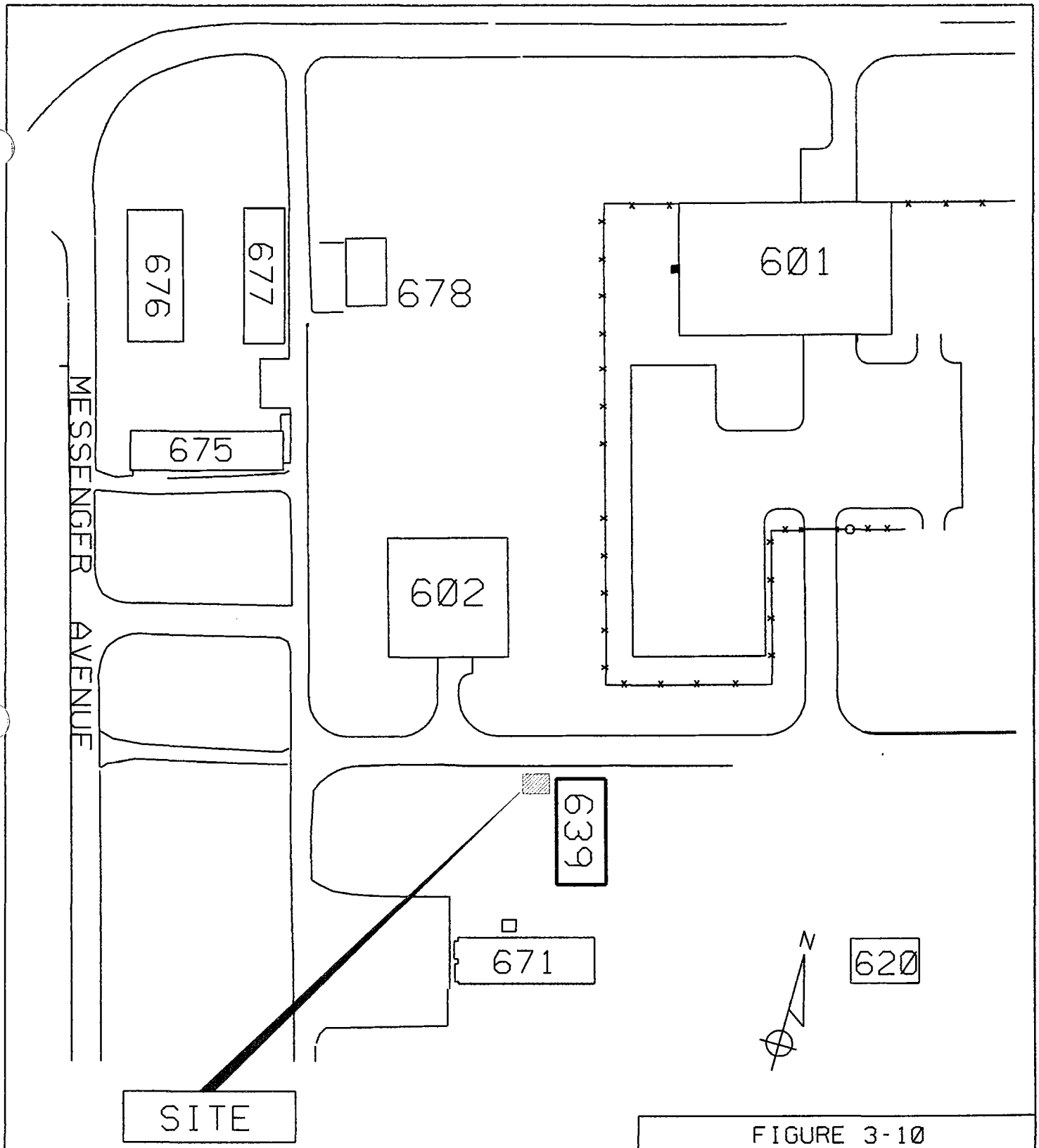


FIGURE 3-10
SITE MAP
BUILDING 639
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

639

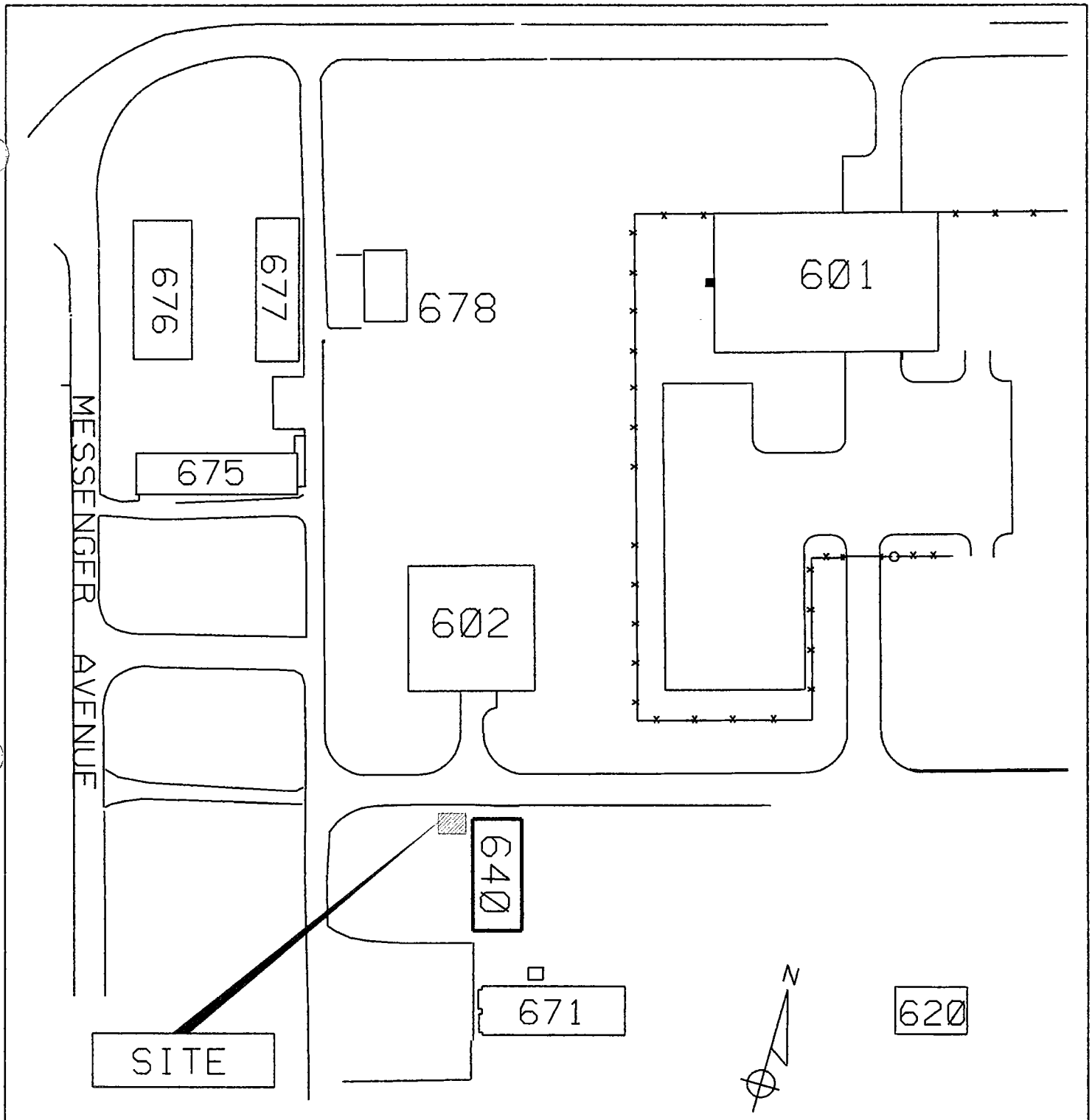


FIGURE 3-11
SITE MAP
BUILDING 640
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

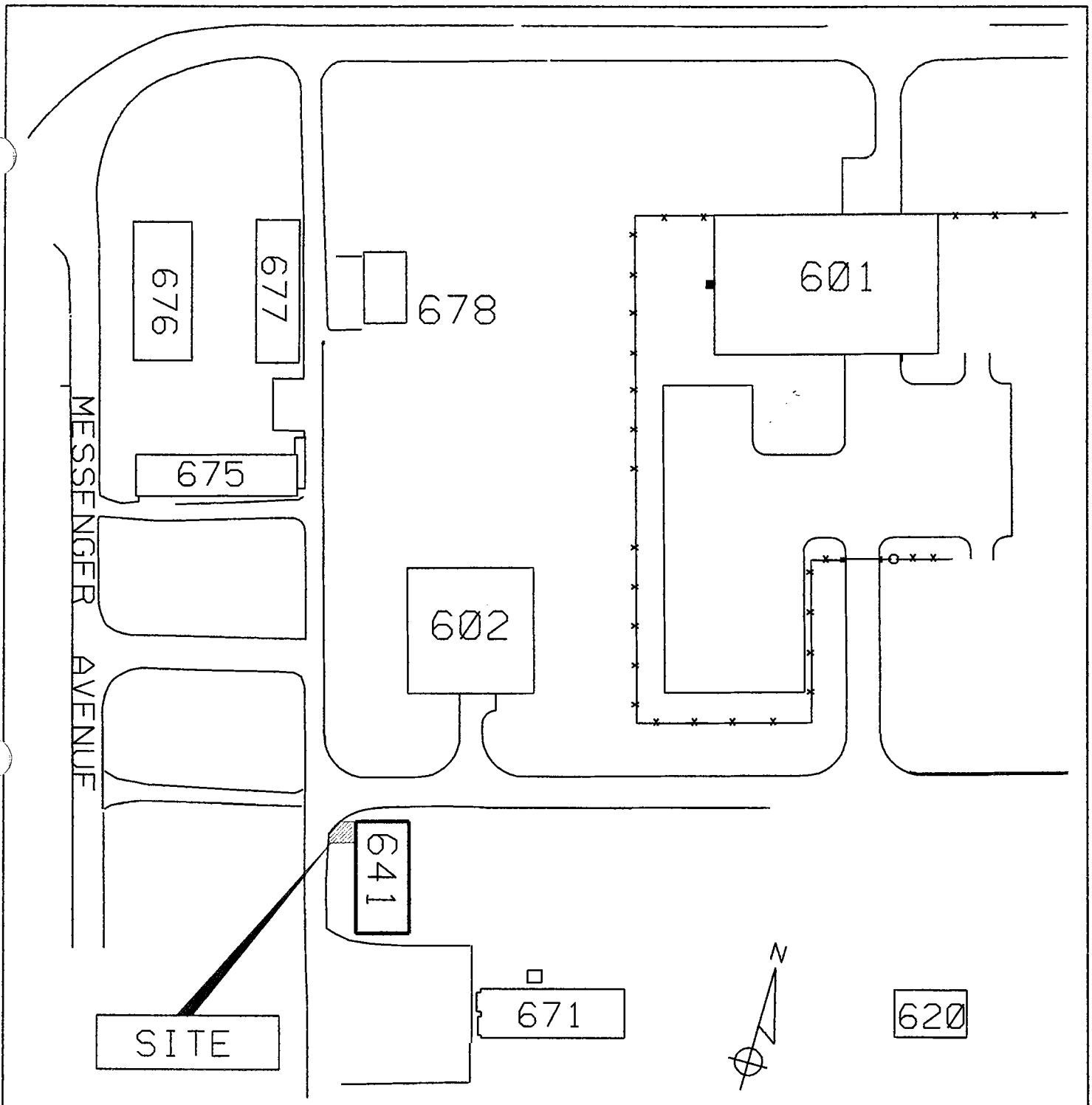


FIGURE 3-12
SITE MAP
BUILDING 641
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100' | DATE: FEB 2002

641 H

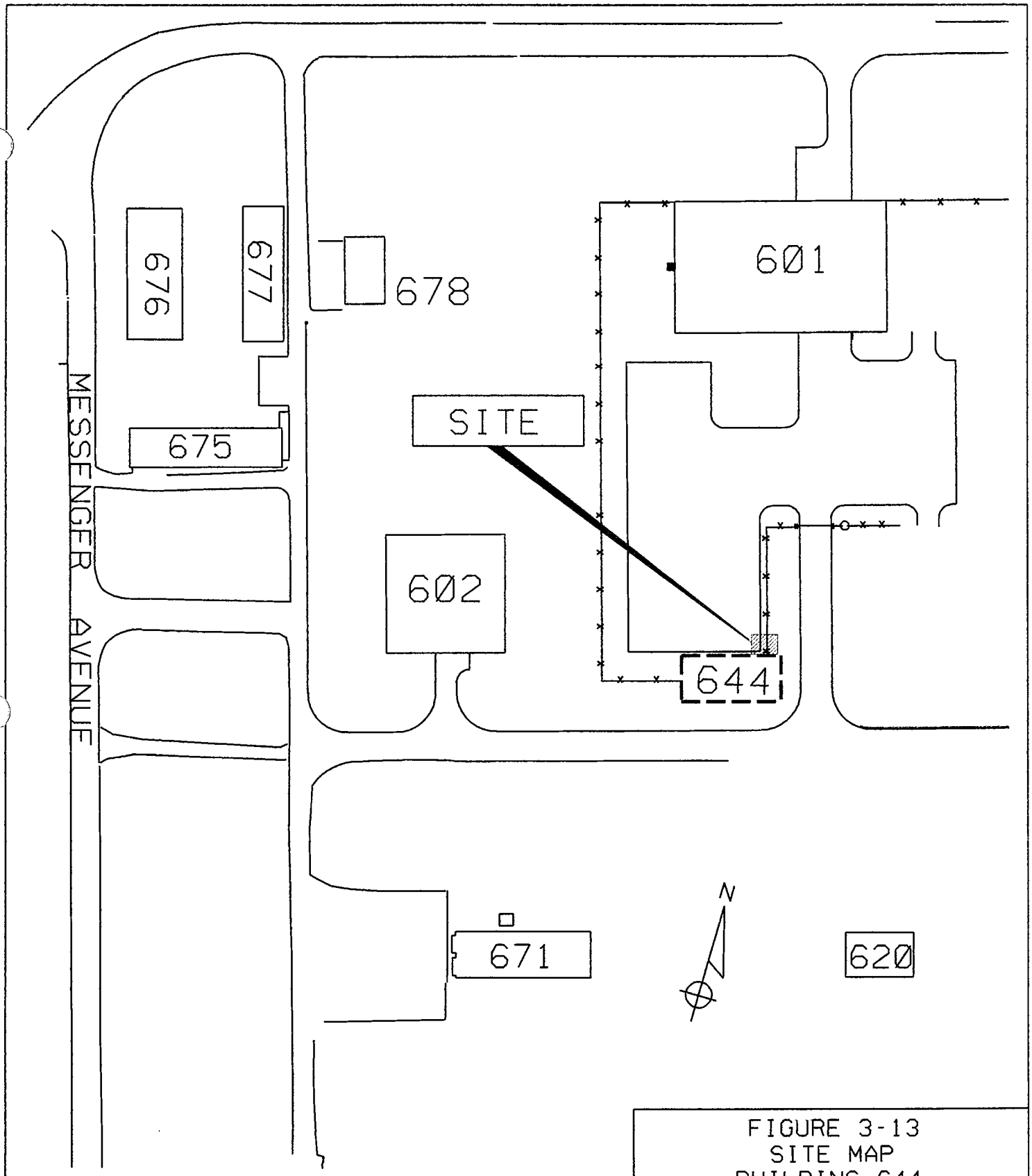


FIGURE 3-13
SITE MAP
BUILDING 644
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

D44 F

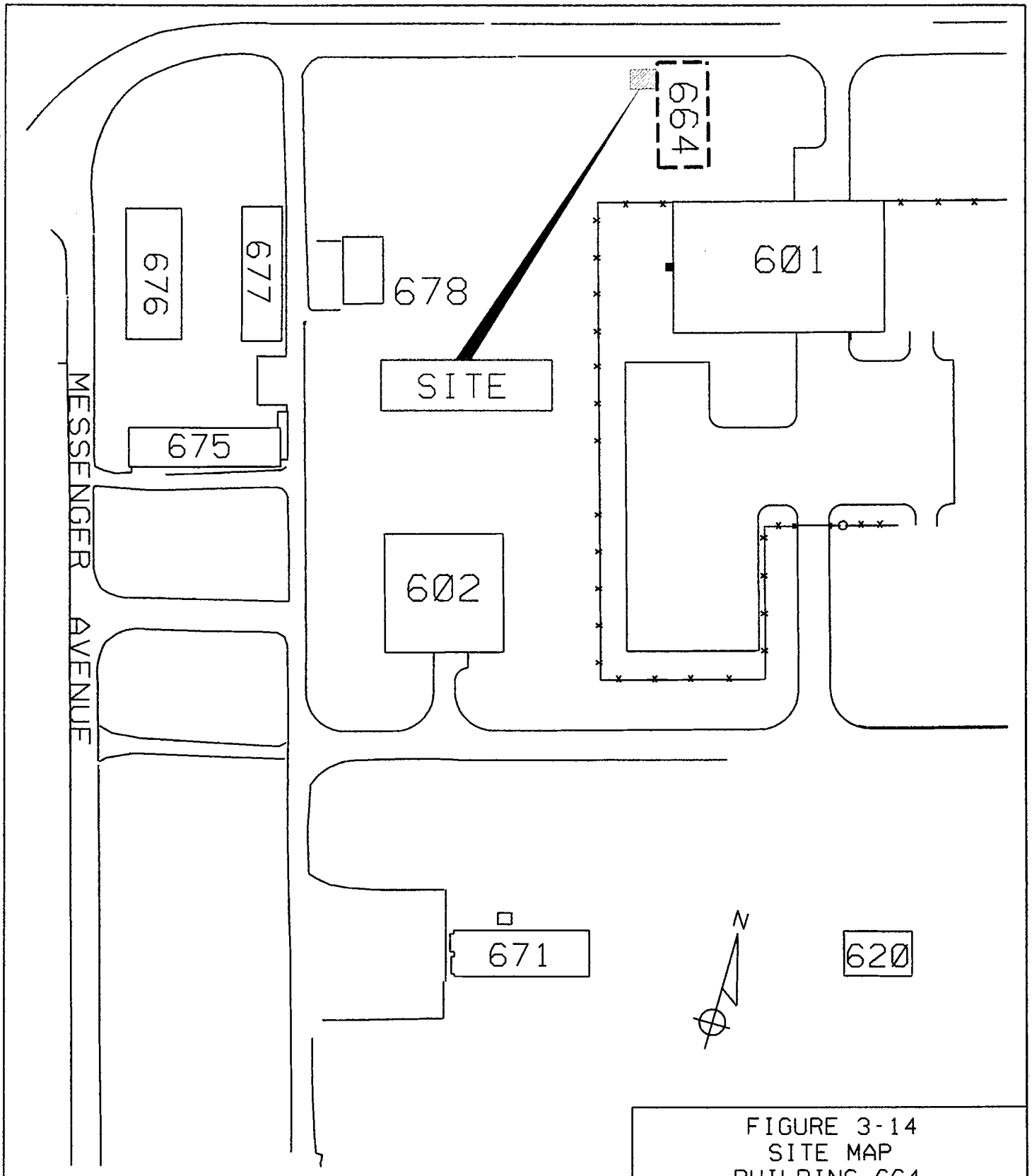


FIGURE 3-14
SITE MAP
BUILDING 664
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100' | DATE: FEB 2002

644 F.02

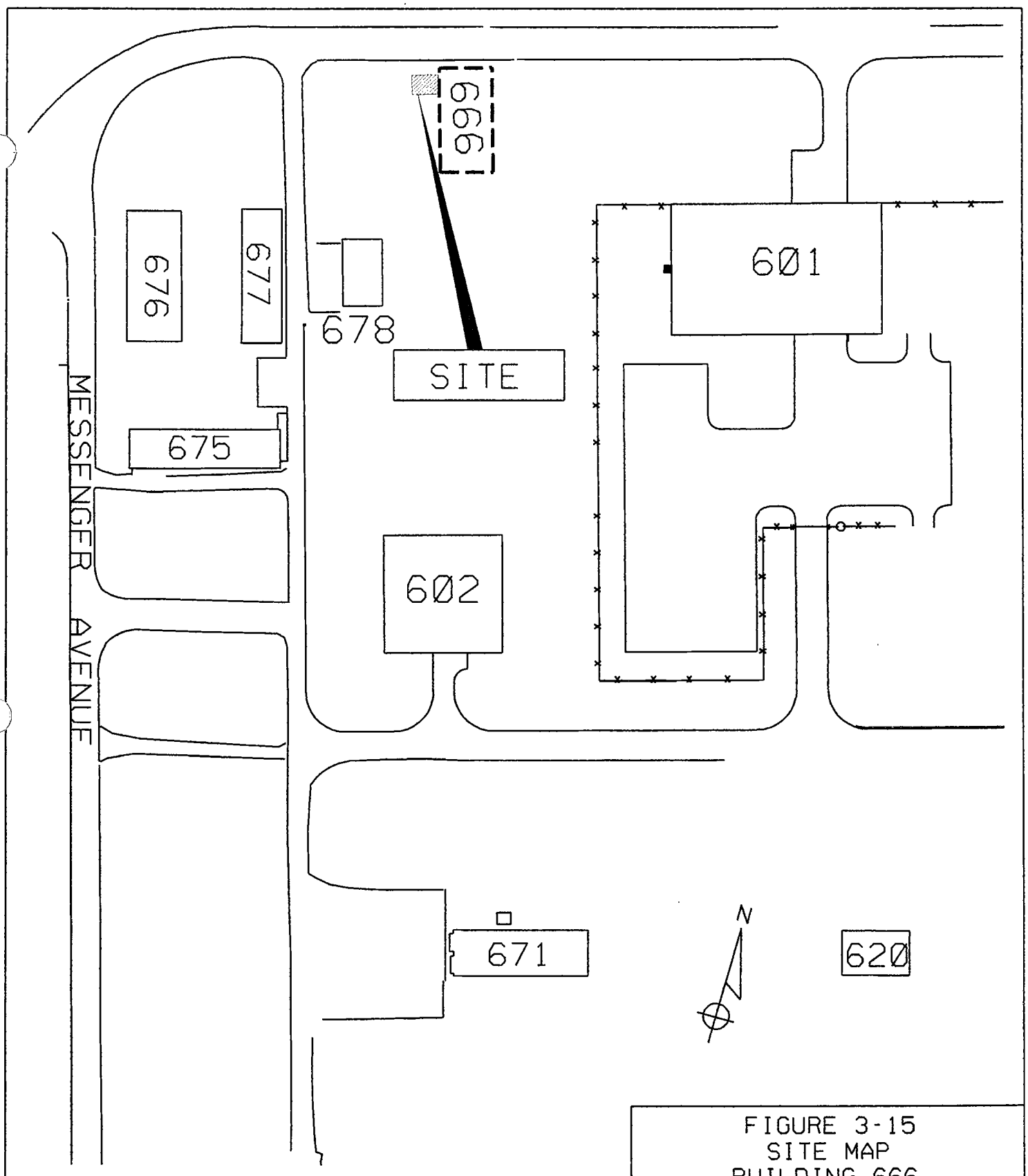


FIGURE 3-15
SITE MAP
BUILDING 666
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002

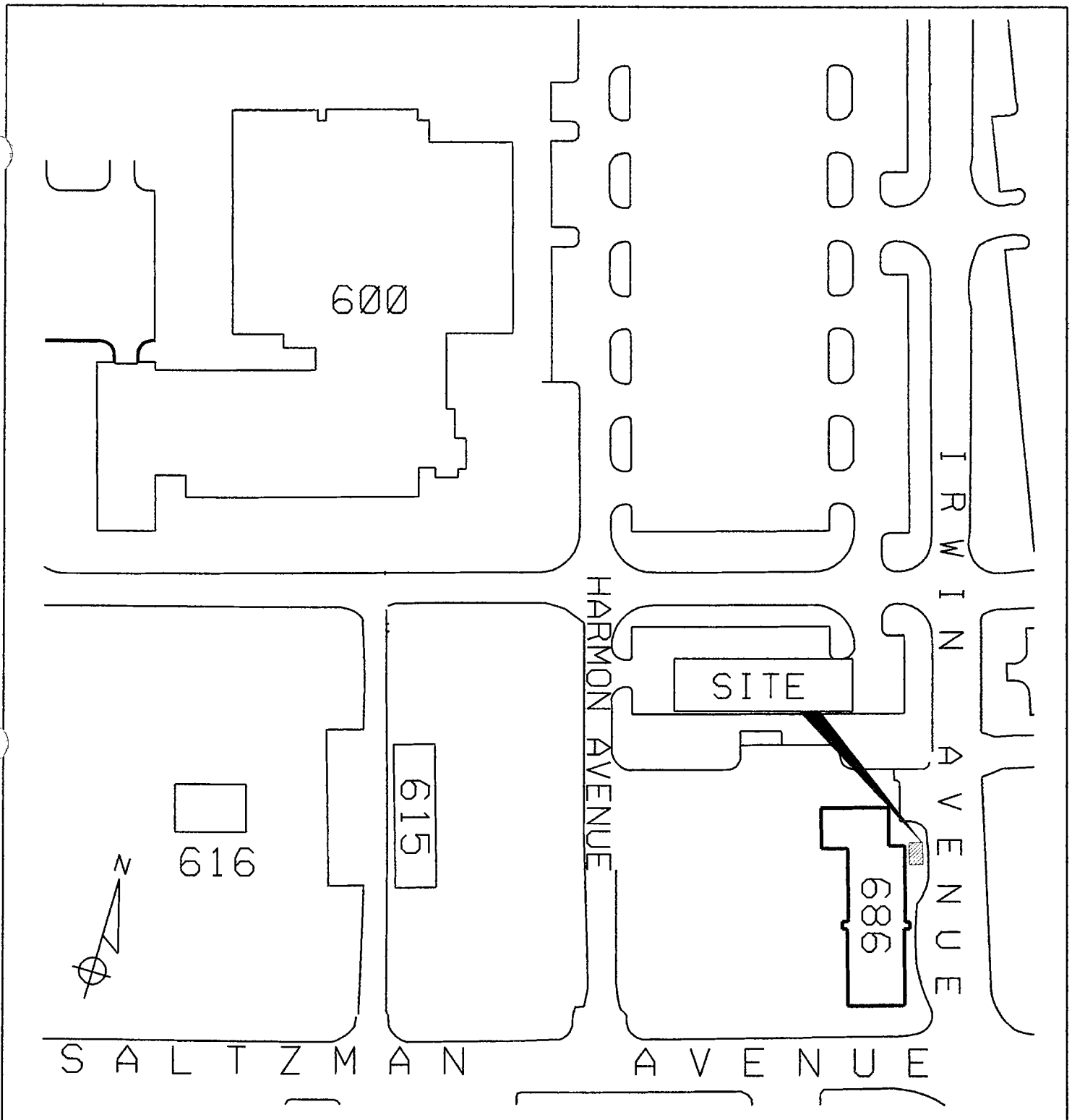
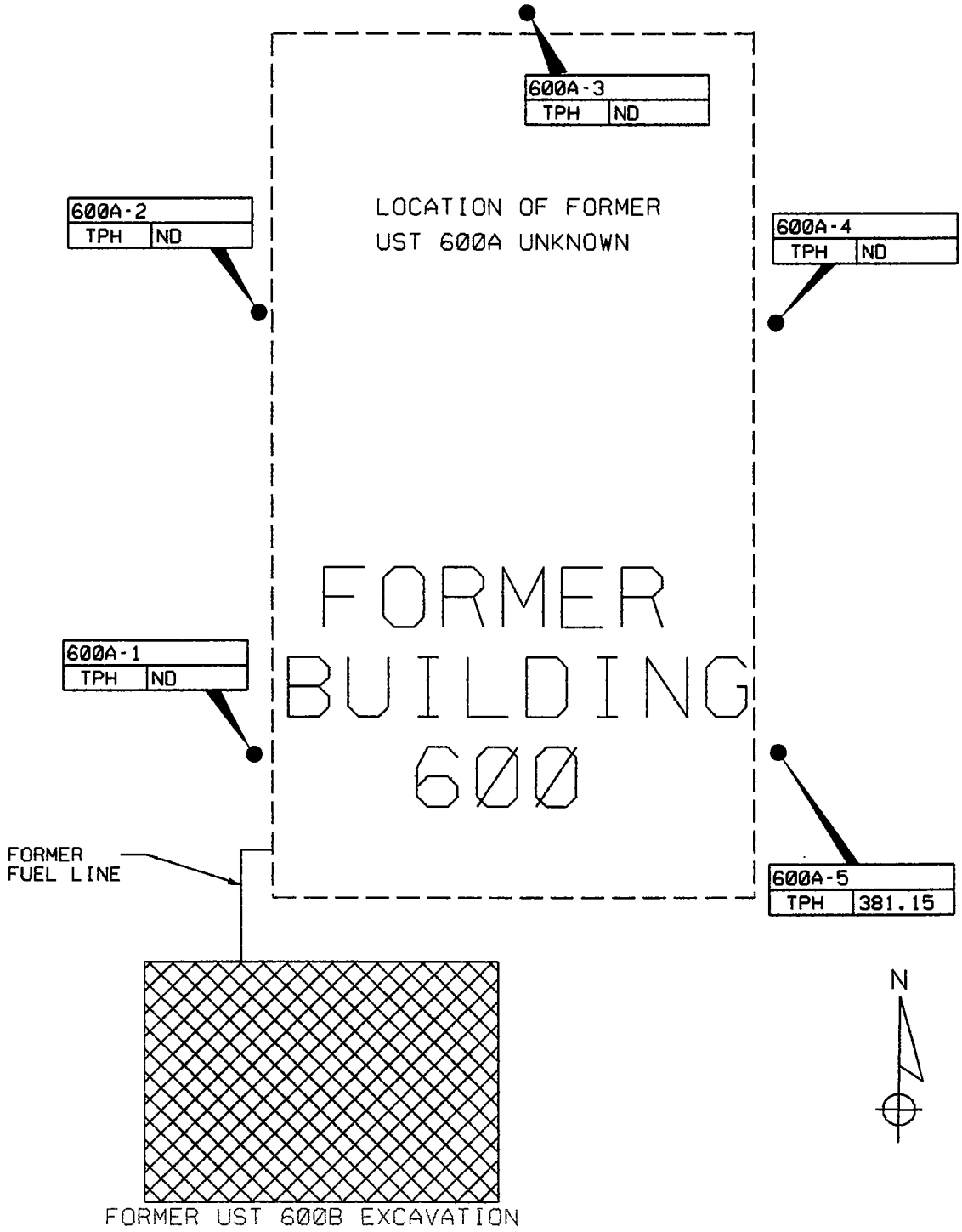


FIGURE 3-16
SITE MAP
BUILDING 686
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: FEB 2002



LEGEND

- SOIL SAMPLE LOCATION (NOVEMBER 15, 2001)
- LIMIT OF EXCAVATION AT 600B

NOTES:

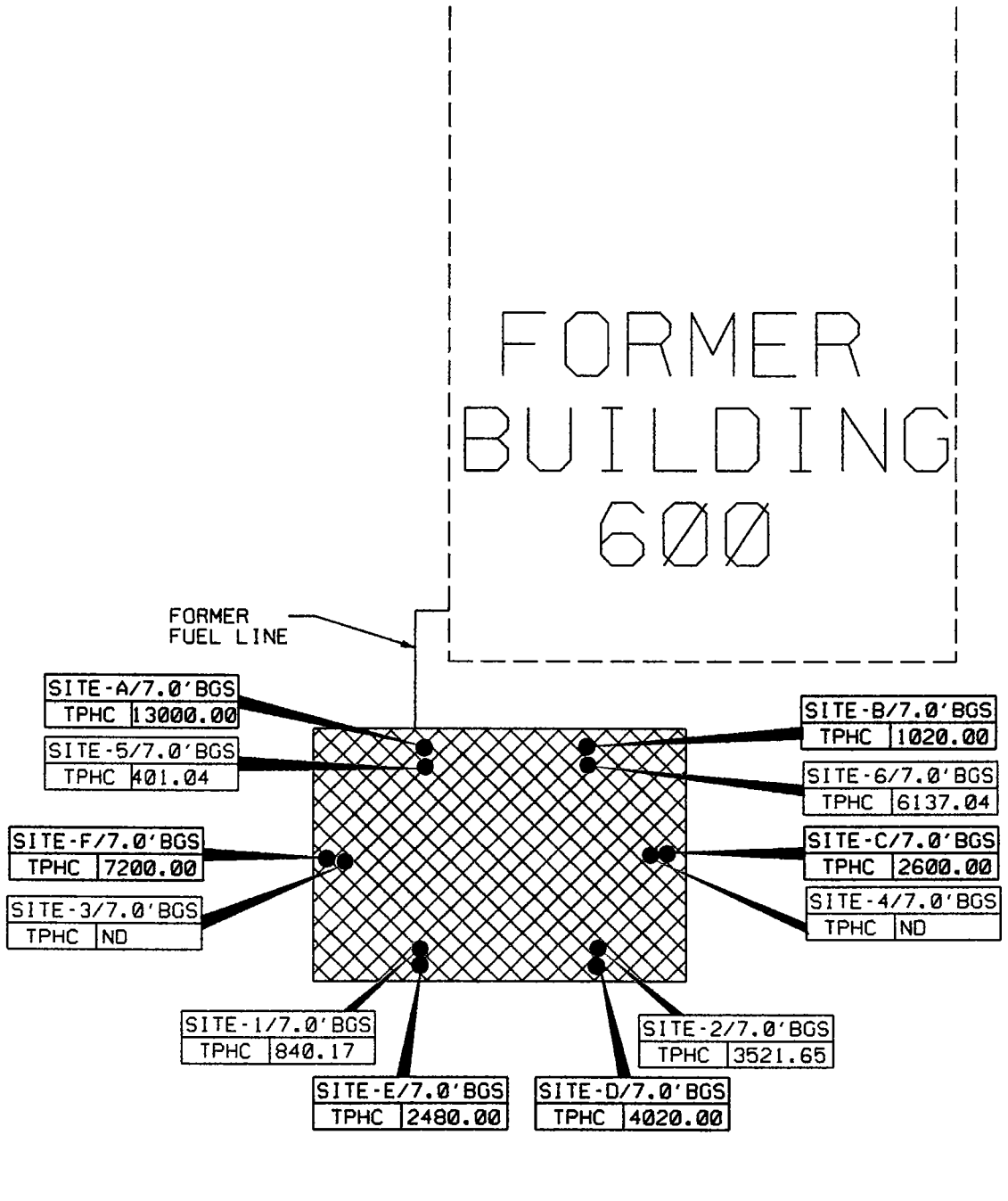
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-1
SOIL SAMPLING LOCATION MAP
BUILDING 600A
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

600B



LEGEND

- SOIL SAMPLE LOCATION (NOVEMBER 10, 1993)
- SOIL SAMPLE LOCATION (NOVEMBER 15, 2001)
- LIMIT OF EXCAVATION (NOVEMBER 15, 1993)

NOTES:

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

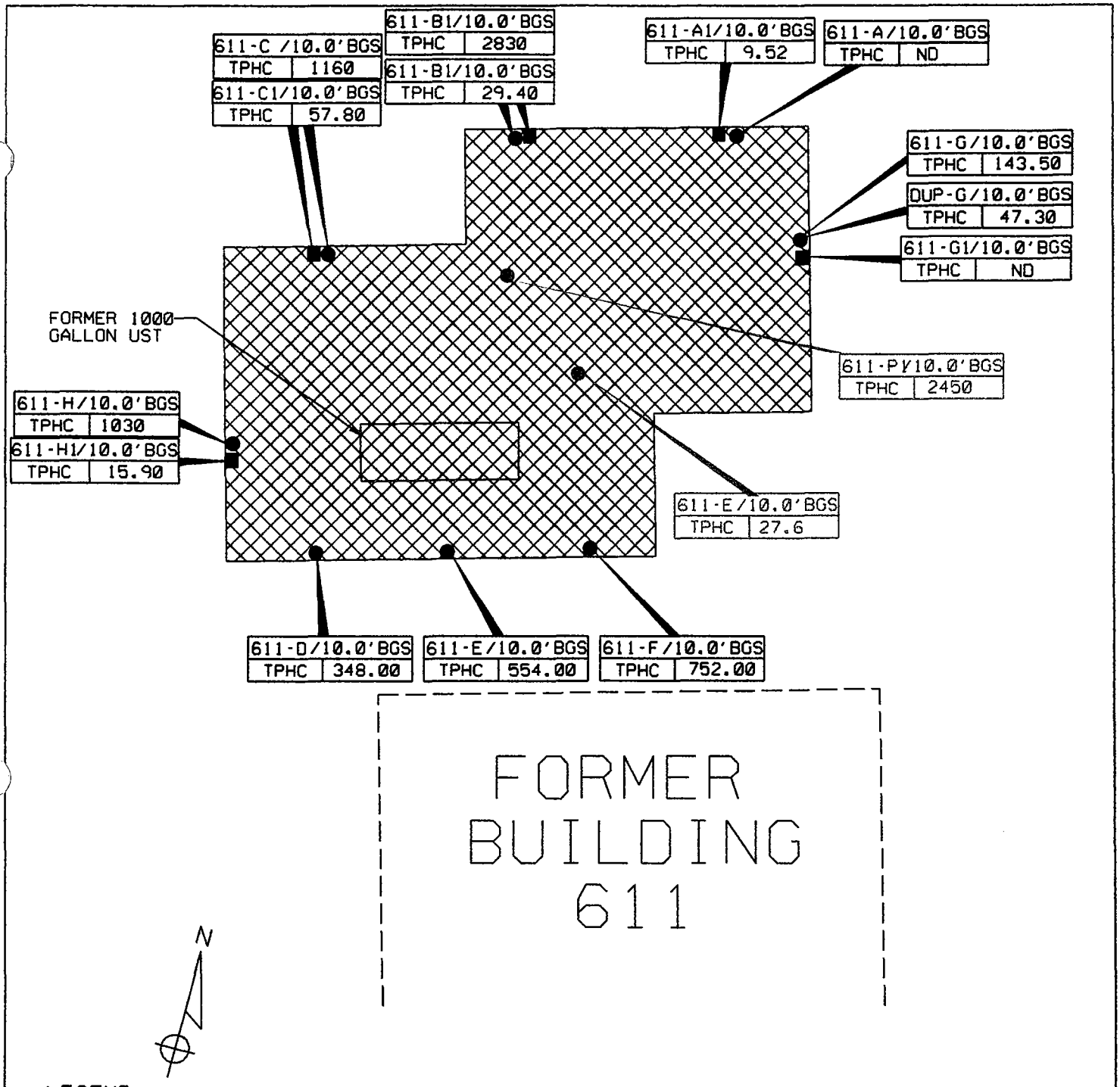
FIGURE 4-2
SOIL SAMPLING LOCATION MAP
BUILDING 600B
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 10'

DATE: FEB 2002

600B F



LEGEND

- SOIL SAMPLE LOCATION (AUGUST 18, 1994)
- SOIL SAMPLE LOCATION (SEPTEMBER 6, 1994)
- SOIL SAMPLE LOCATION (DECEMBER 16, 1994)
- LIMIT OF EXCAVATION (AUGUST 18, 1994)

NOTES:

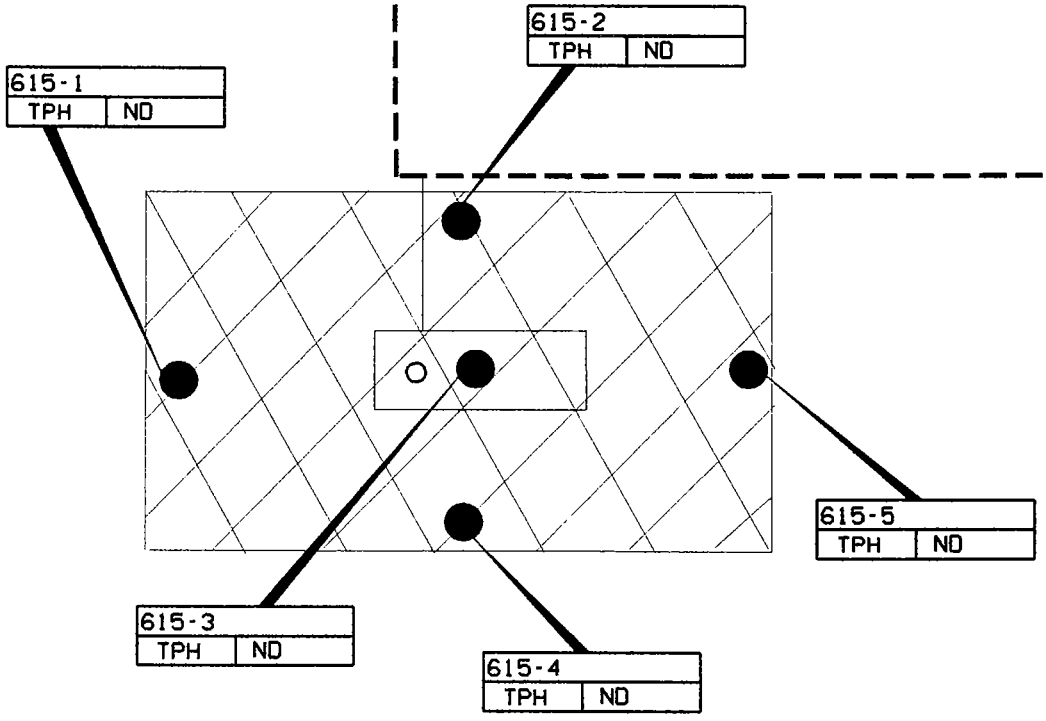
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS = BELOW GROUND SURFACE

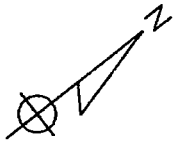
FIGURE 4-3
SOIL SAMPLING LOCATION MAP
BUILDING 611
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

611 f





LEGEND

● SOIL SAMPLE LOCATION (NOVEMBER 19, 2001)

▨ APPROXIMATE LIMIT OF EXCAVATION

NOTES:

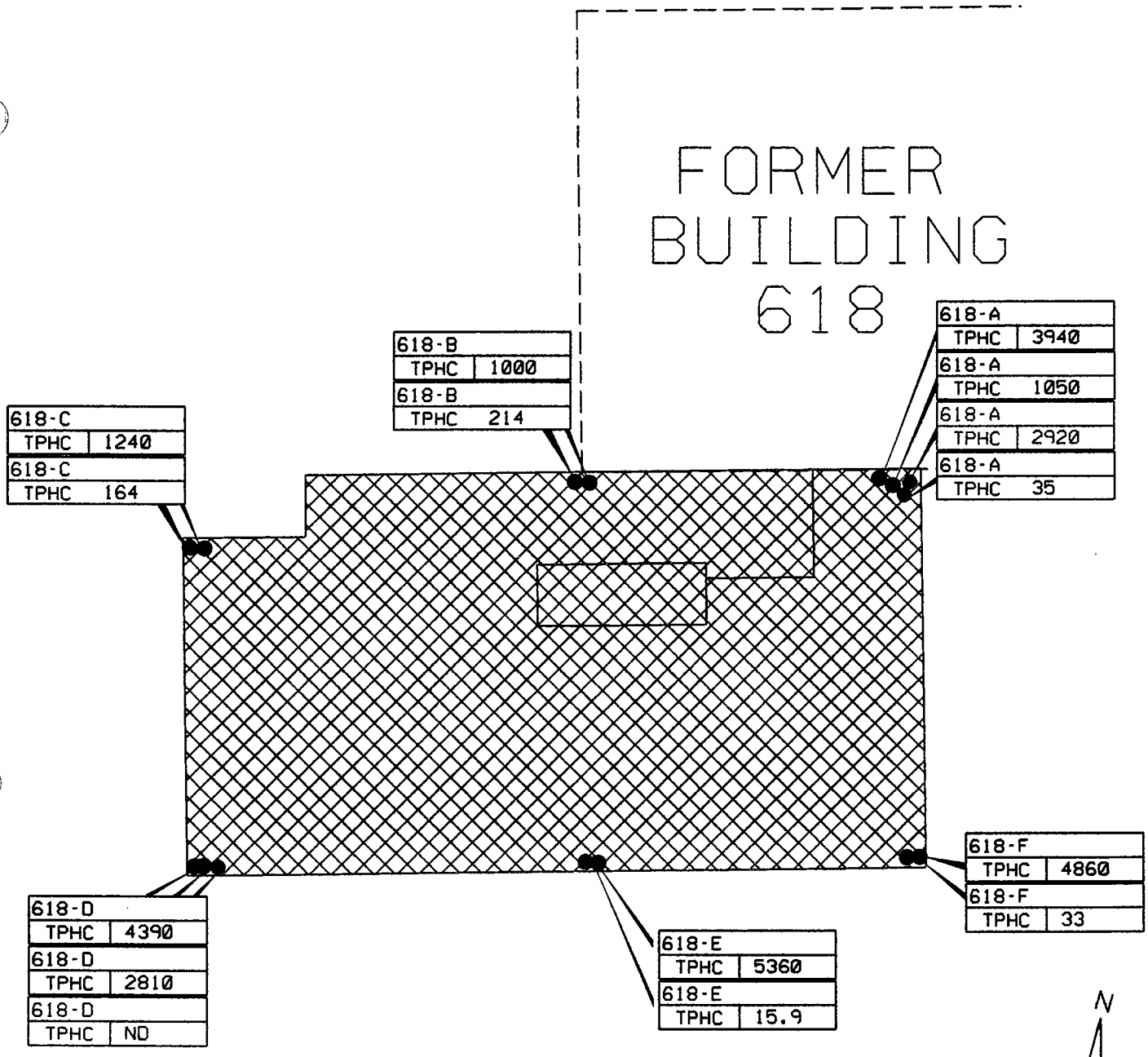
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-4
SAMPLE LOCATION MAP
BUILDING 615
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

619 F



LEGEND

- SOIL SAMPLE LOCATION (SEPTEMBER 6, 1994)
- SOIL SAMPLE LOCATION (SEPTEMBER 22, 1994)
- SOIL SAMPLE LOCATION (SEPTEMBER 27, 1994)
- SOIL SAMPLE LOCATION (JANUARY 4, 1995)
- LIMIT OF EXCAVATION

NOTES:

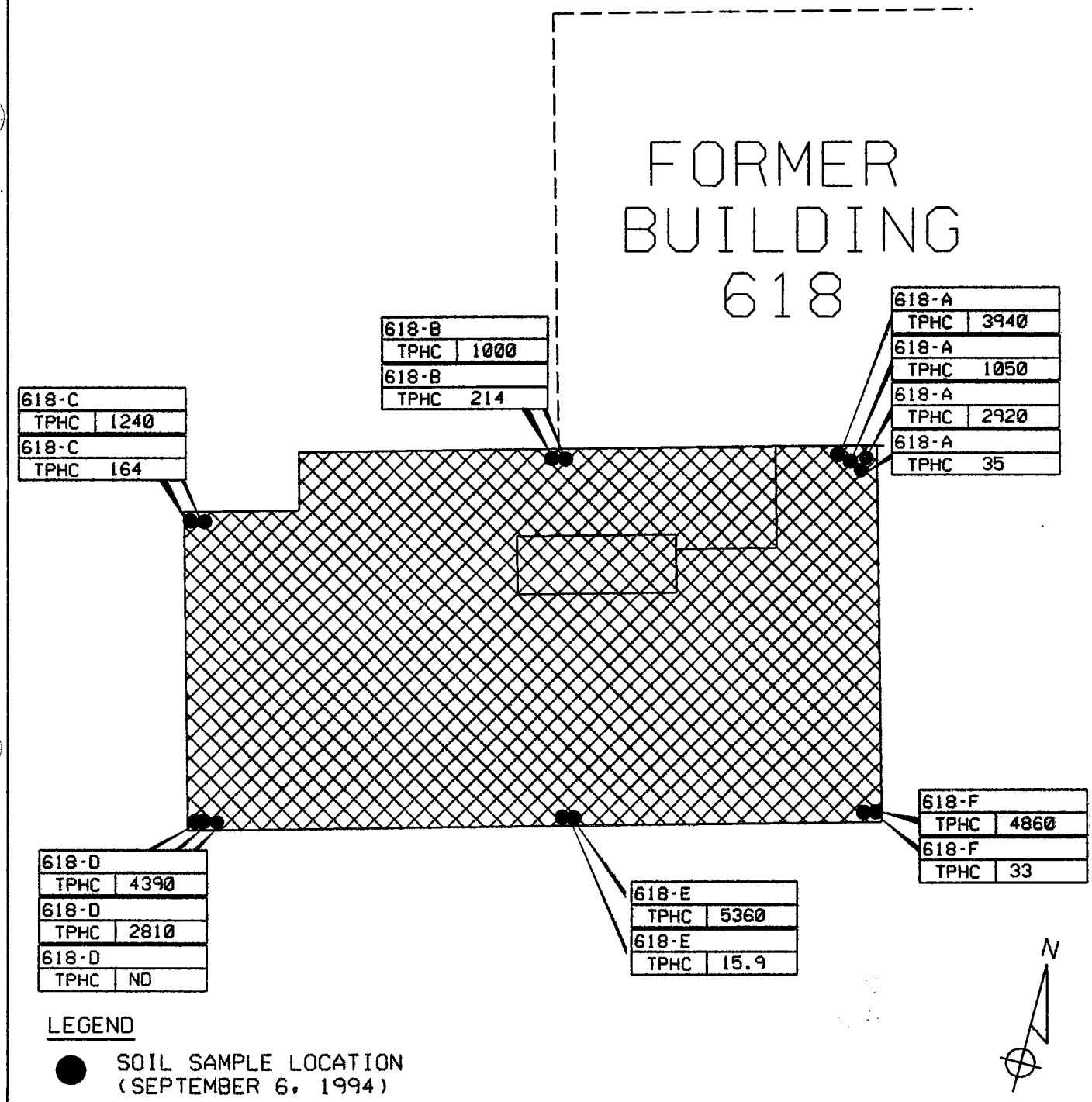
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-5
SOIL SAMPLING LOCATION MAP
BUILDING 618
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

618 FI



LEGEND

- SOIL SAMPLE LOCATION (SEPTEMBER 6, 1994)
- SOIL SAMPLE LOCATION (SEPTEMBER 22, 1994)
- SOIL SAMPLE LOCATION (SEPTEMBER 27, 1994)
- SOIL SAMPLE LOCATION (JANUARY 4, 1995)
- LIMIT OF EXCAVATION

NOTES:

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

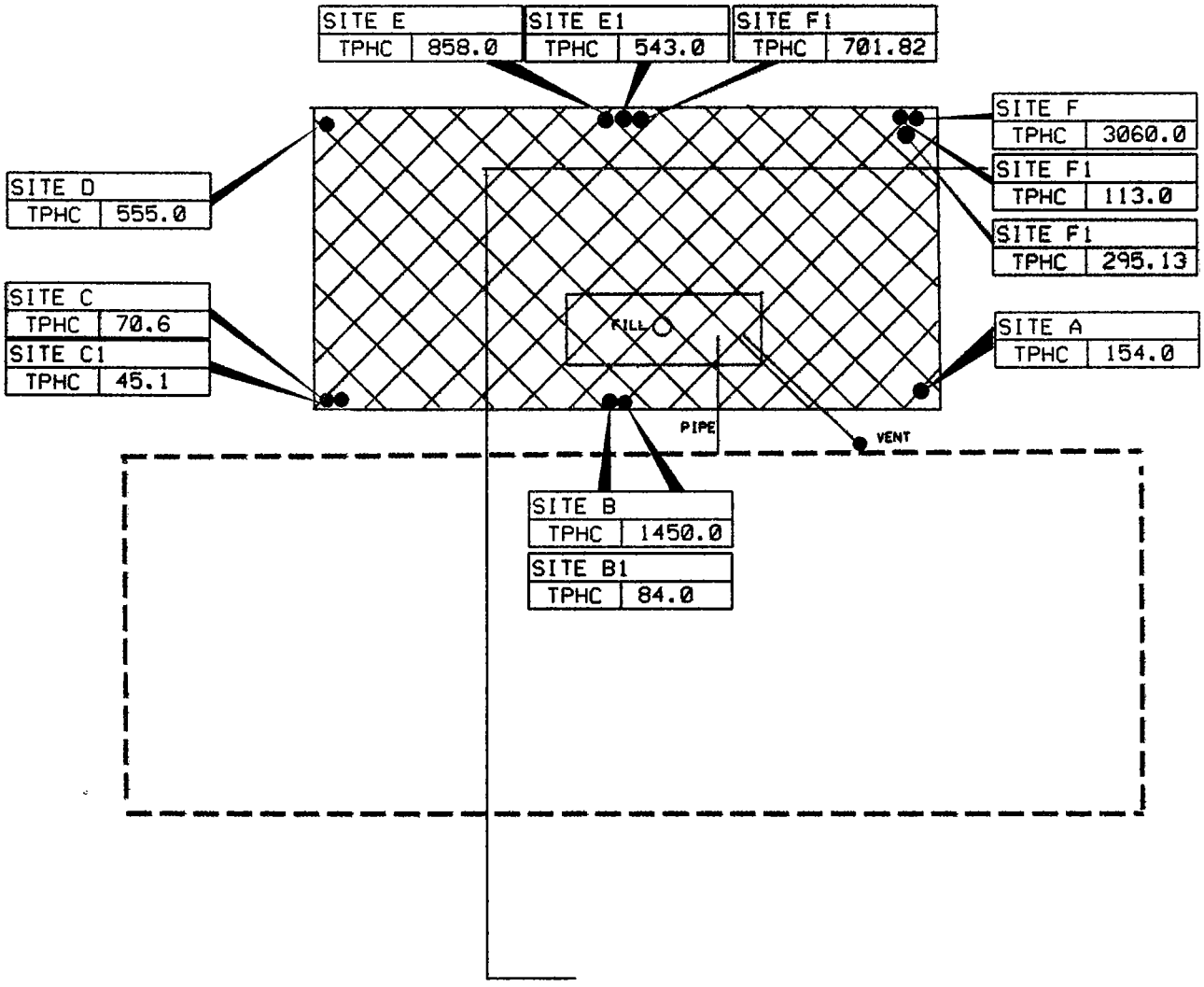
FIGURE 4-5
SOIL SAMPLING LOCATION MAP
BUILDING 618
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 10'

DATE: FEB 2002

618 F...



N

LEGEND

- SOIL SAMPLE LOCATION (AUGUST 25, 1994)
- SOIL SAMPLE LOCATION (SEPTEMBER 9, 1994)
- SOIL SAMPLE LOCATION (OCTOBER 12, 2001)
- LIMIT OF EXCAVATION (DECEMBER 16, 1994)

NOTES:

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

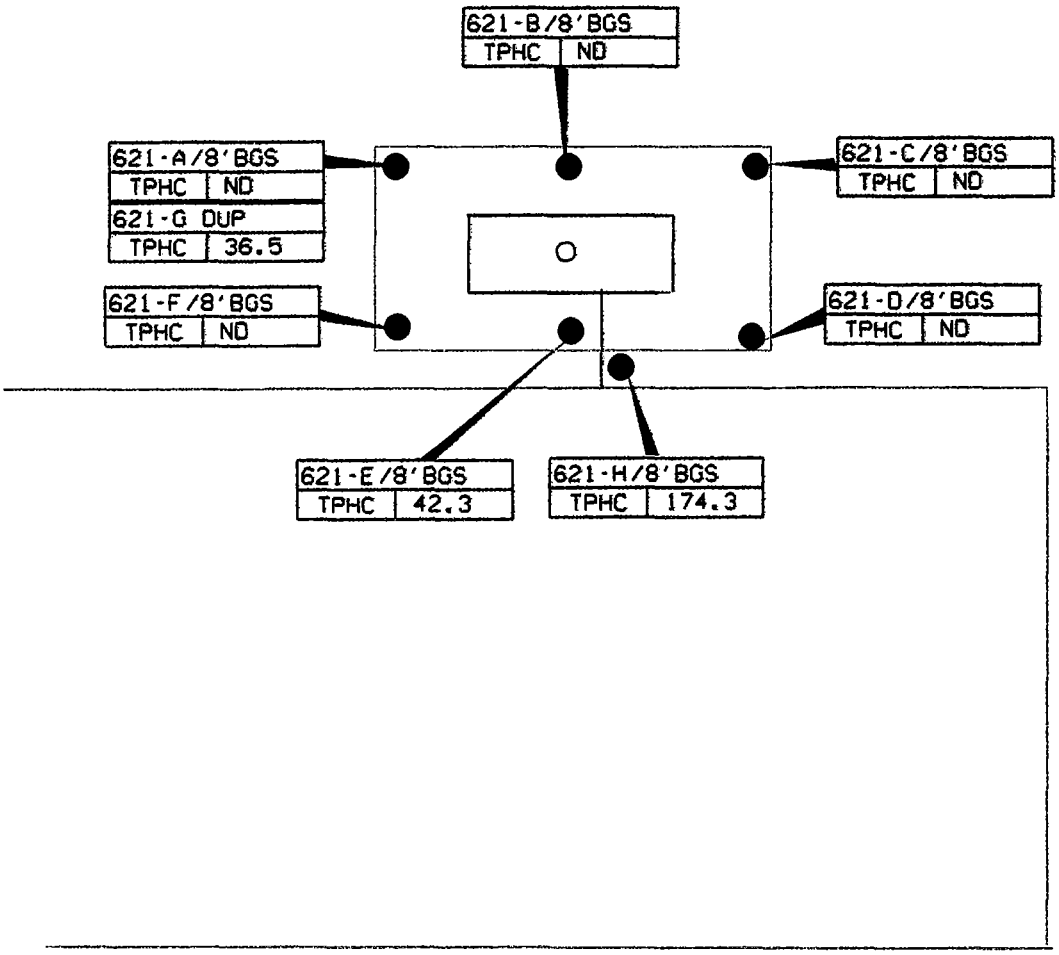
FIGURE 4-6
SOIL SAMPLING LOCATION MAP
BUILDING 619
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 10'

DATE: FEB 2002

619 F1



LEGEND

● SOIL SAMPLE LOCATION (AUGUST 25, 1994)

▭ LIMIT OF EXCAVATION

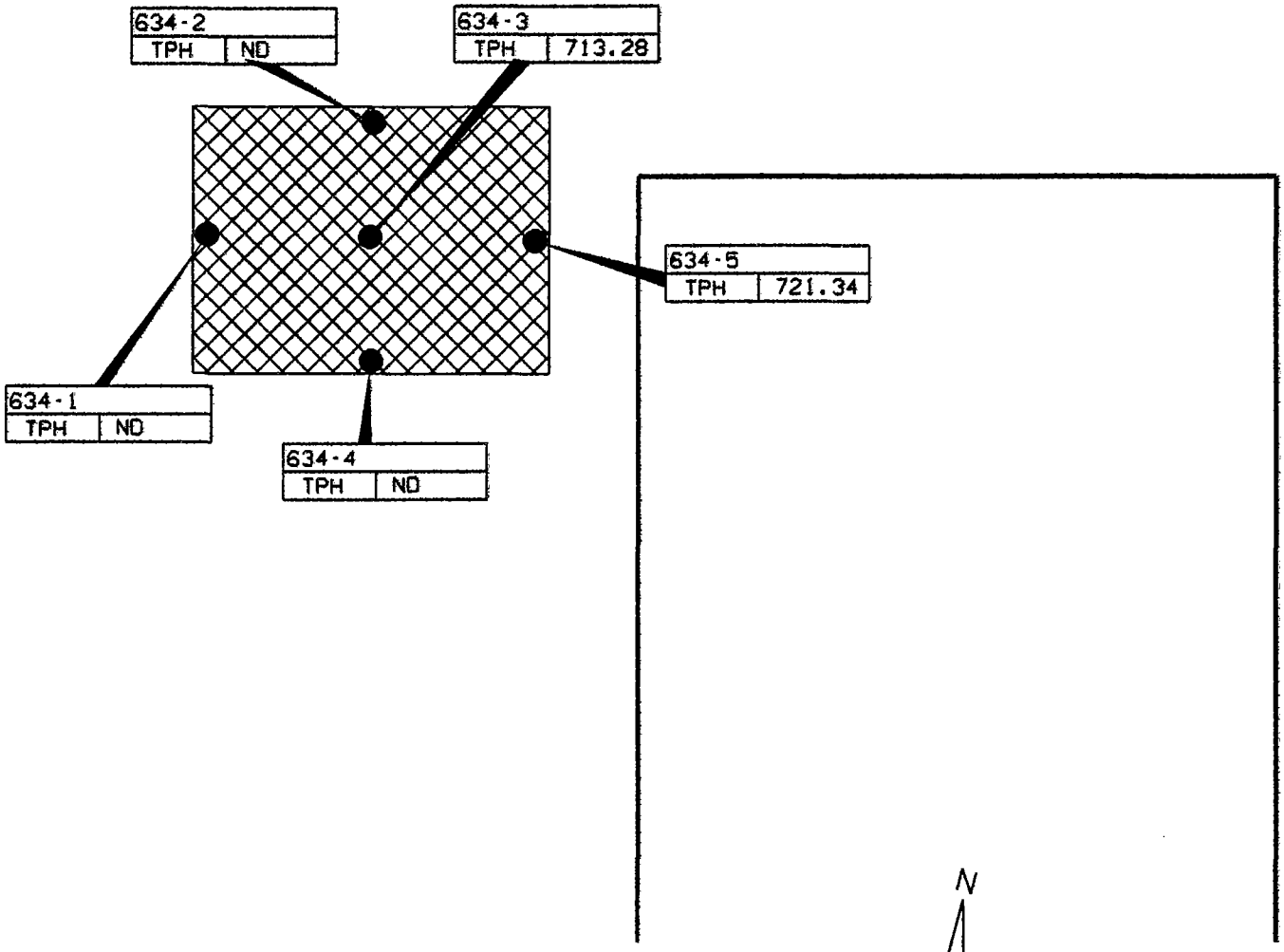
NOTES:

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

FIGURE 4-7
SOIL SAMPLING LOCATION MAP
BUILDING 621
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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



LEGEND

- SOIL SAMPLE LOCATION (NOVEMBER 19, 2001)
- LIMIT OF EXCAVATION

NOTES:

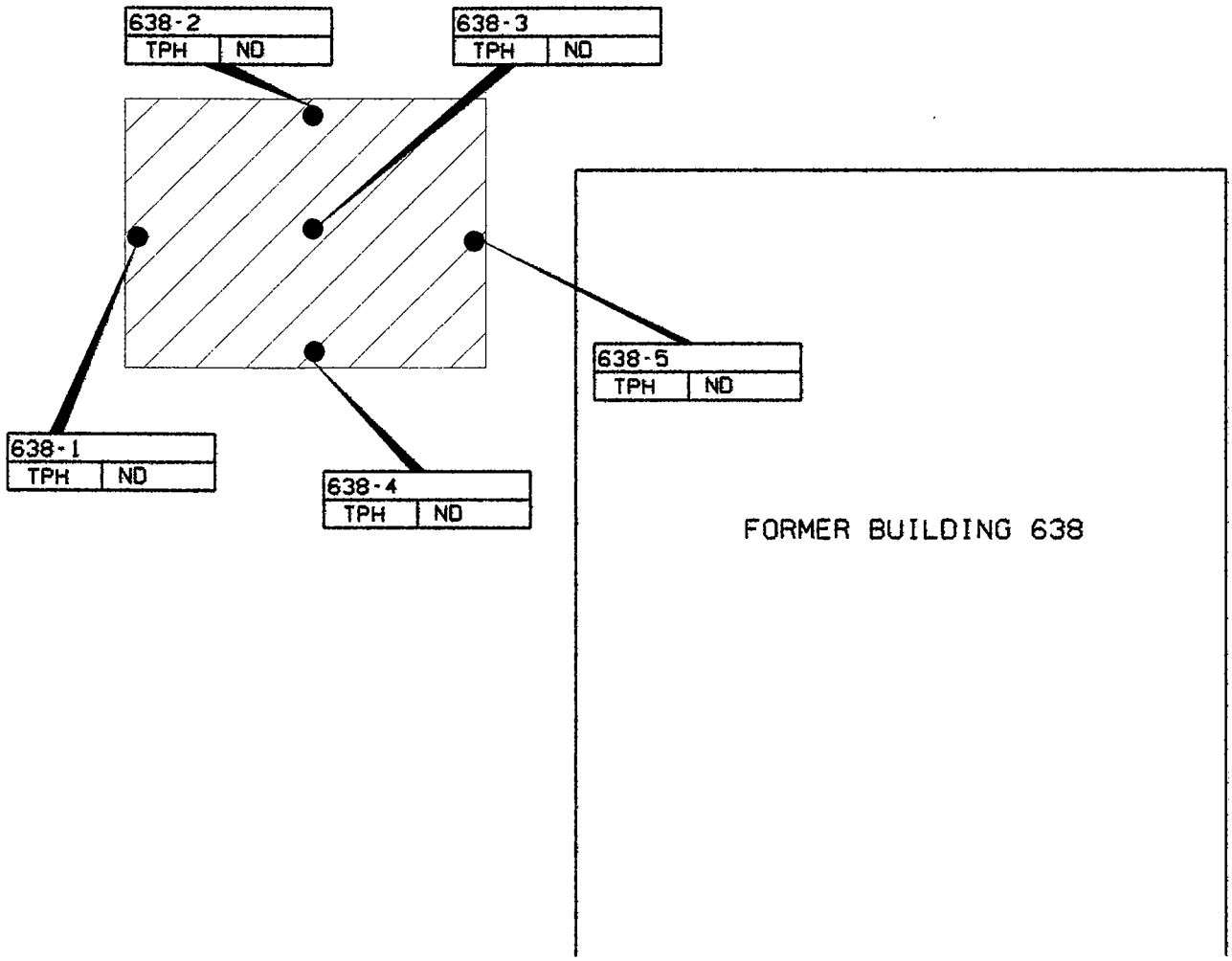
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-8
SOIL SAMPLING LOCATION MAP
BUILDING 634
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

634 F1



LEGEND

- SOIL SAMPLE LOCATION (OCTOBER 13, 2001)
- LIMIT OF EXCAVATION

NOTES:

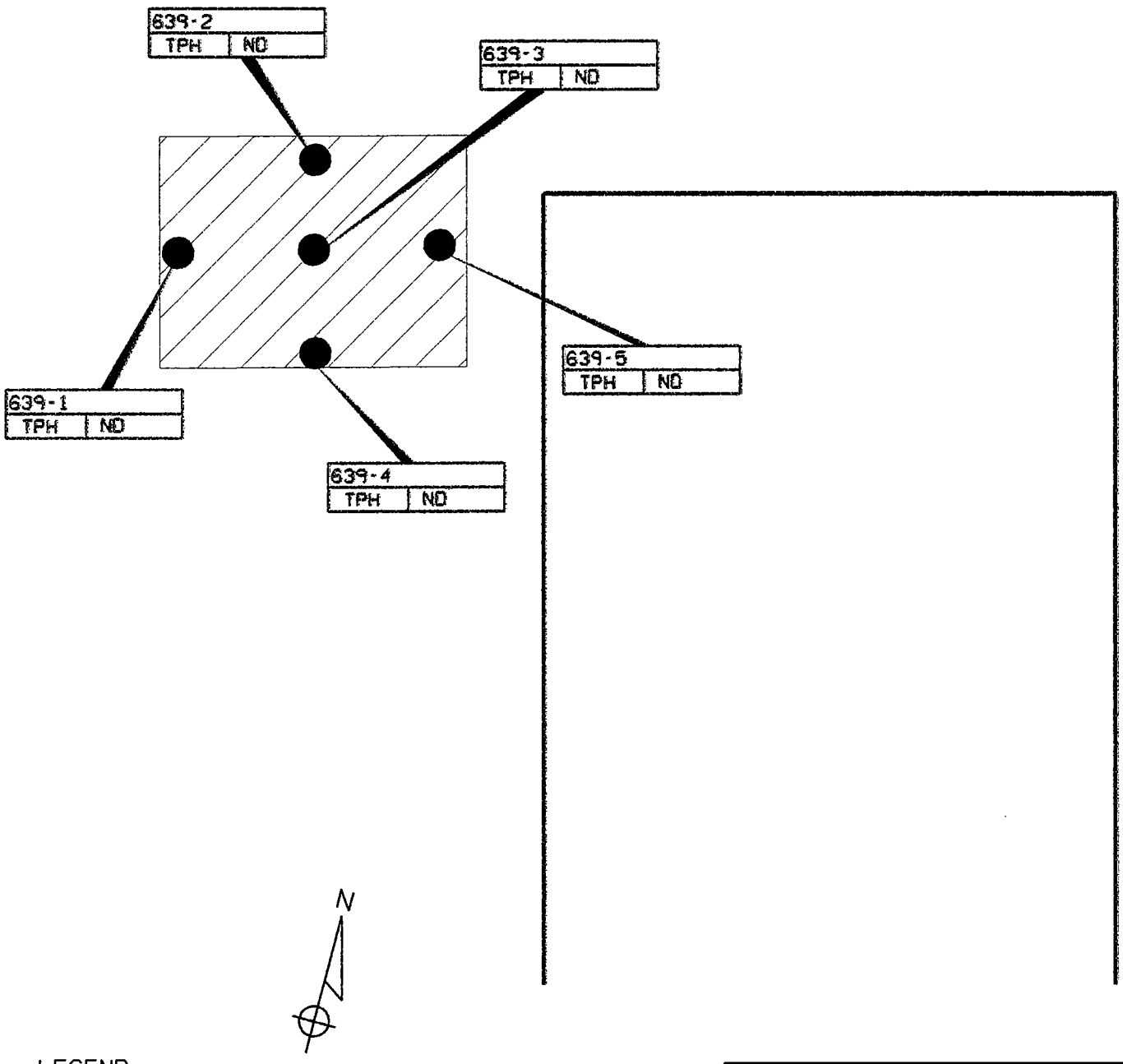
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-9
SOIL SAMPLING LOCATION MAP
BUILDING 638
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

638 F



LEGEND

● SOIL SAMPLE LOCATION (OCTOBER 13, 2001

▨ LIMIT OF EXCAVATION

NOTES:

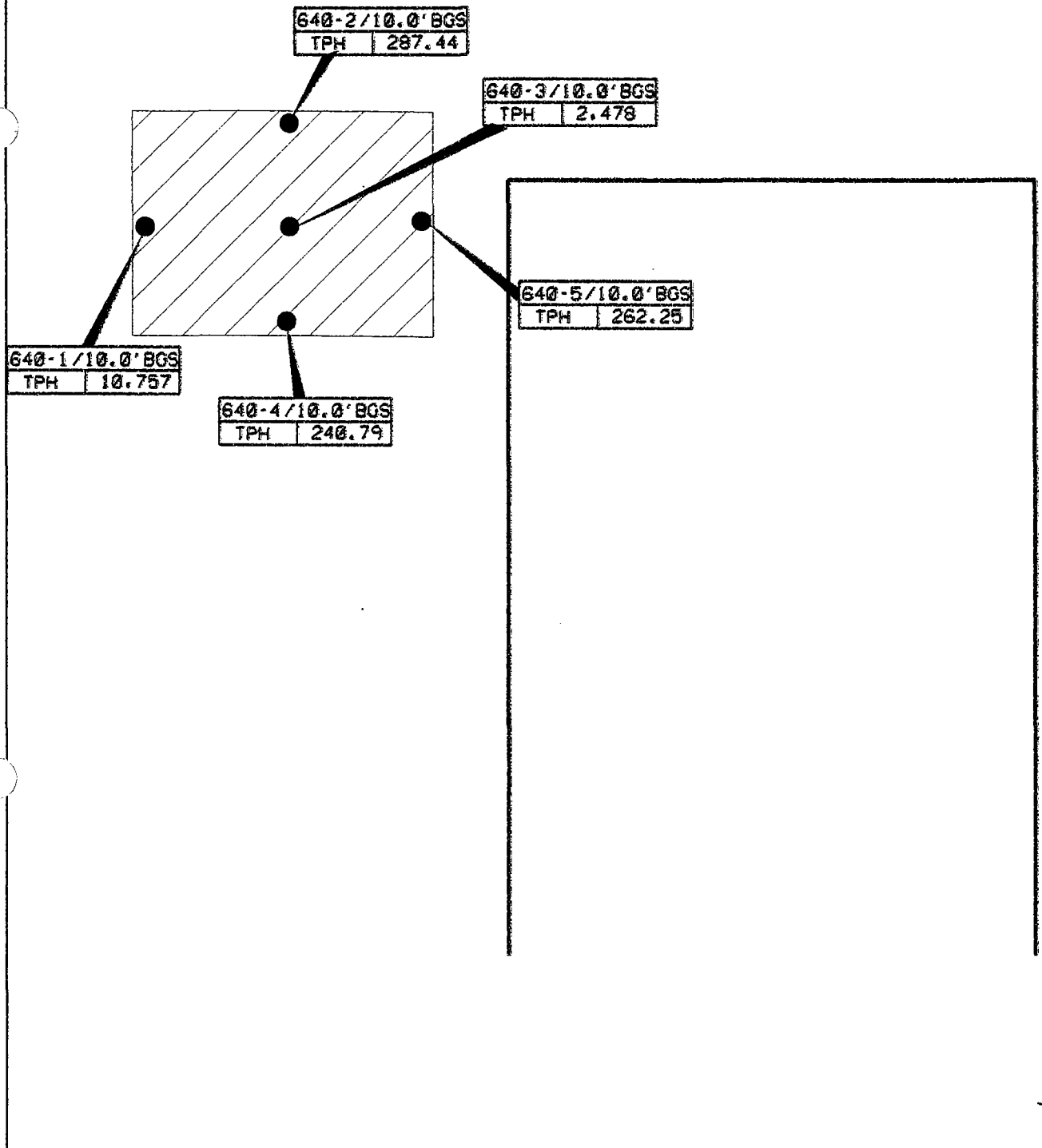
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-10
SOIL SAMPLING LOCATION MAP
BUILDING 639
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

638 F1



LEGEND

- SOIL SAMPLE LOCATION (NOVEMBER 8, 2001)
- LIMIT OF EXCAVATION

NOTES:

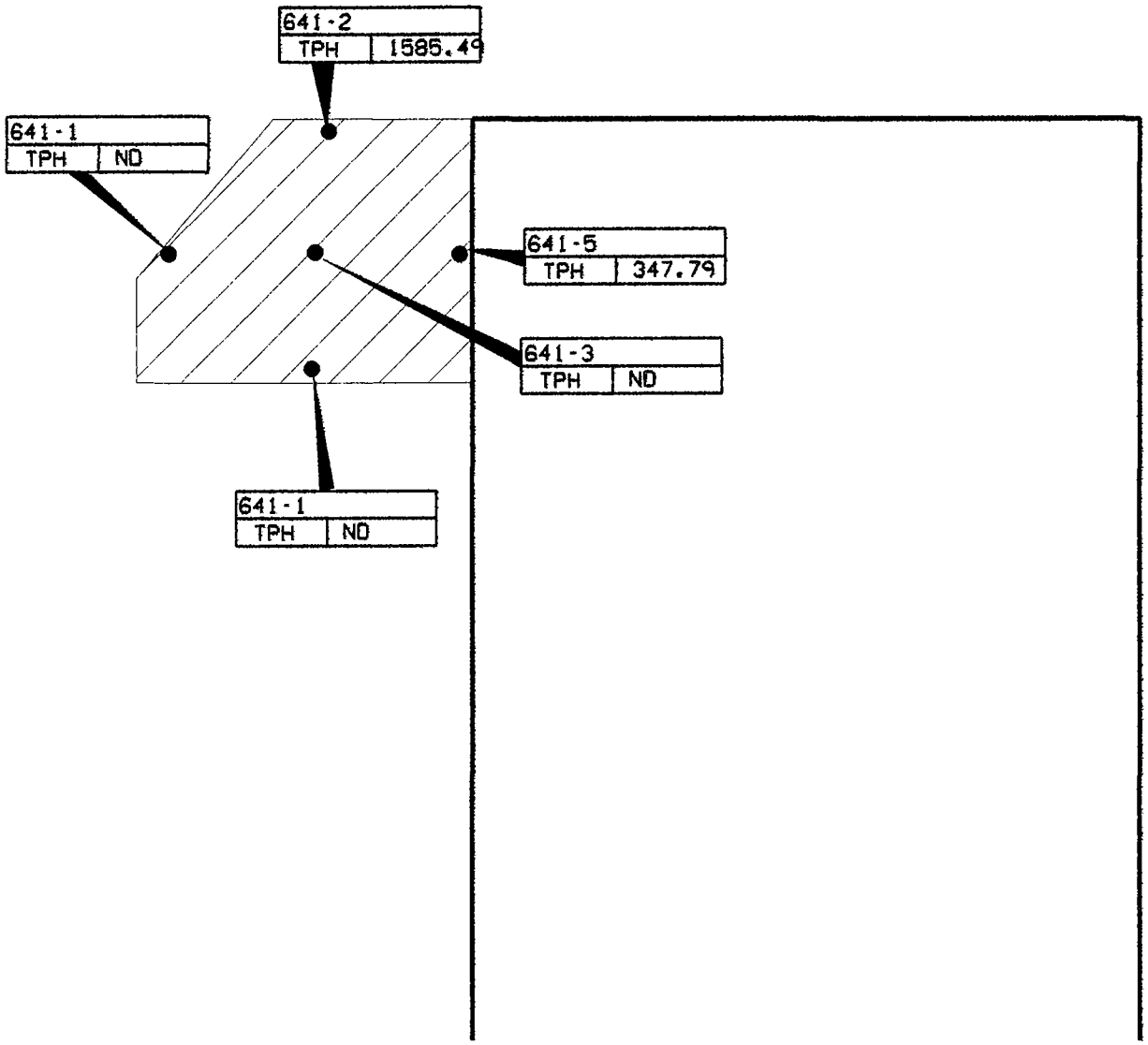
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-11
SOIL SAMPLING LOCATION MAP
BUILDING 640
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

640 F



LEGEND

- SOIL SAMPLE LOCATION (OCTOBER 26, 2001)
- LIMIT OF EXCAVATION (DECEMBER 16, 1994)

NOTES:

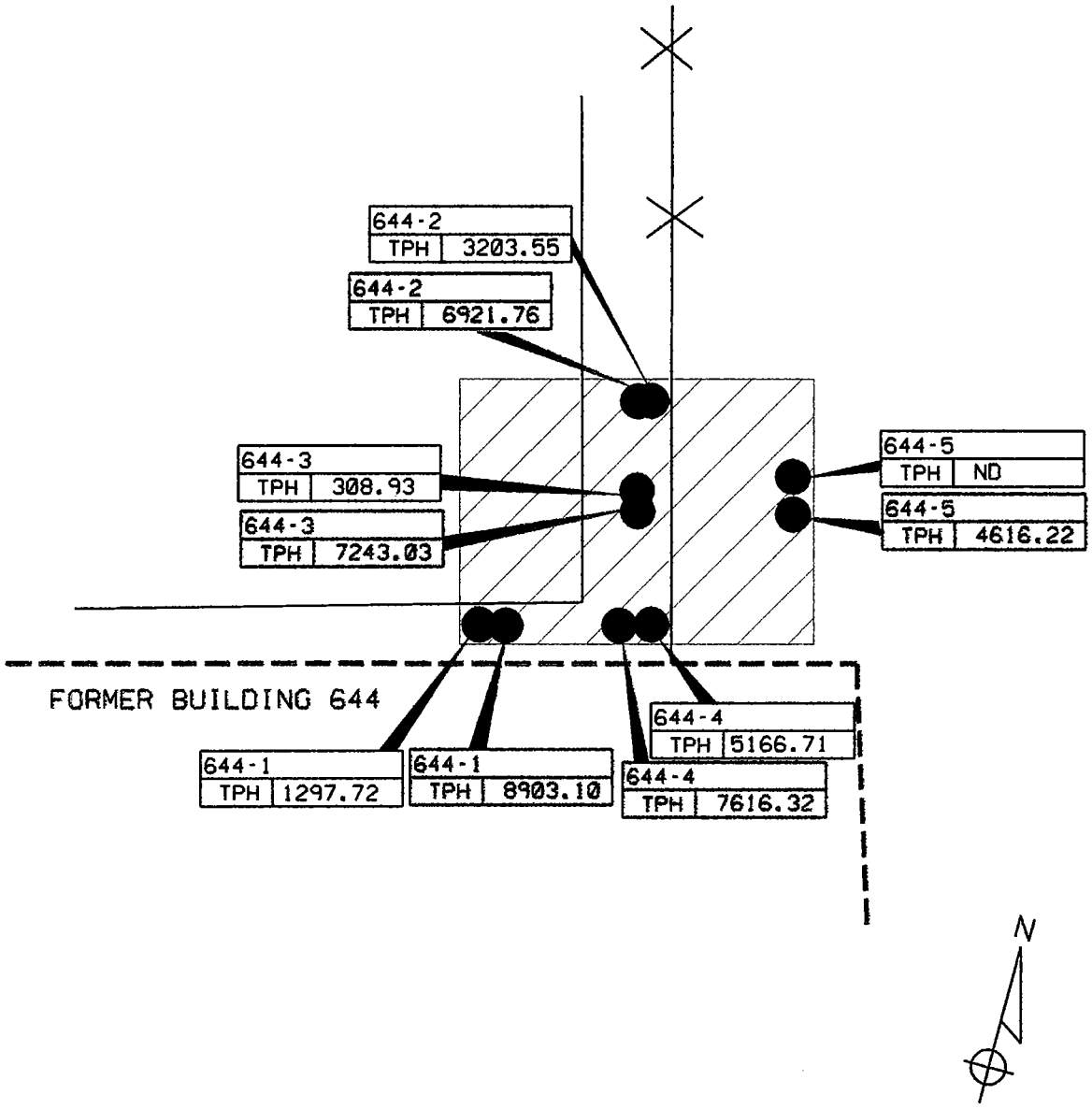
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-12
SOIL SAMPLING LOCATION MAP
BUILDING 641
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

641 F-1



LEGEND

- SOIL SAMPLE LOCATION (OCTOBER 12, 2001)
- SOIL SAMPLE LOCATION (JANUARY 3, 2002)
- APPROXIMATE LIMIT OF EXCAVATION

NOTES:

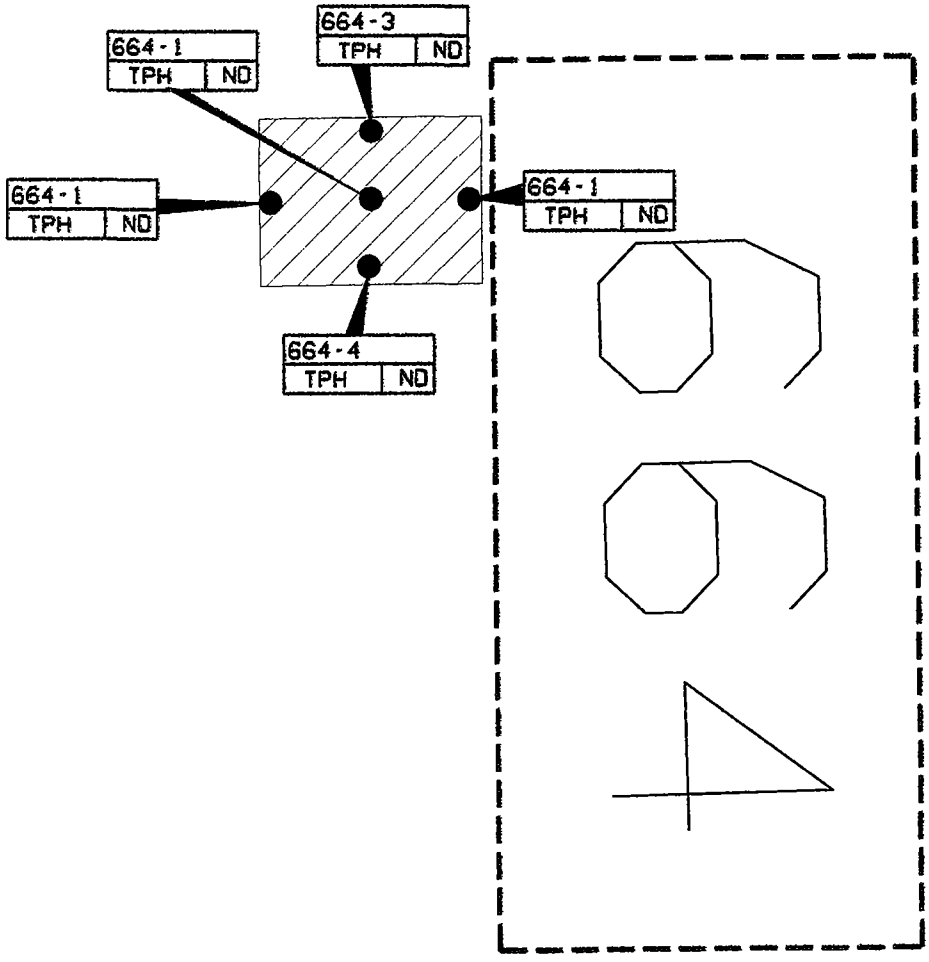
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 4-13
SOIL SAMPLING LOCATION MAP
BUILDING 644
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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

b41 f1



LEGEND

● SOIL SAMPLE LOCATION (NOVEMBER 14, 2001)

LIMIT OF EXCAVATION

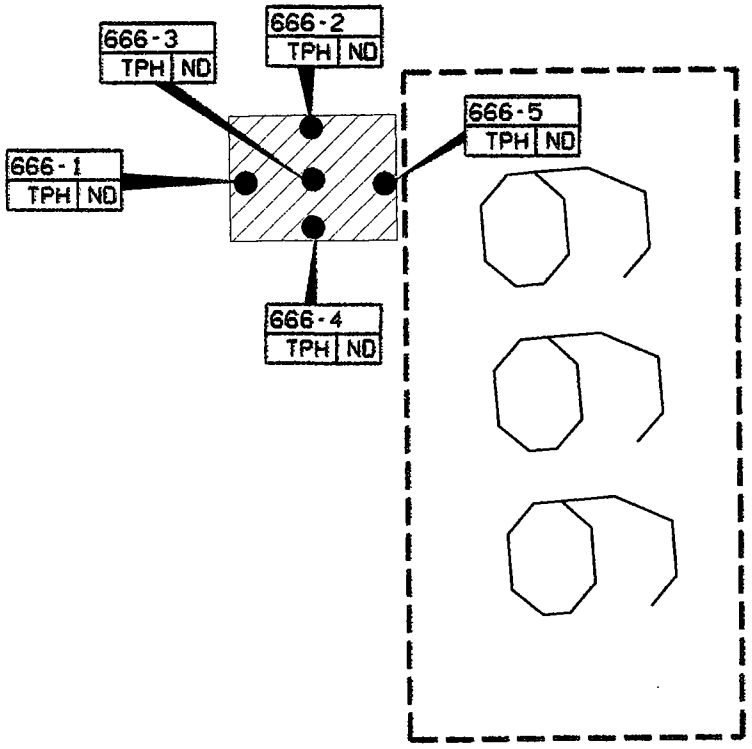
NOTES:

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

FIGURE 4-14
SOIL SAMPLING LOCATION MAP
BUILDING 664
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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



LEGEND

● SOIL SAMPLE LOCATION (NOVEMBER 14, 2001)

LIMIT OF EXCAVATION

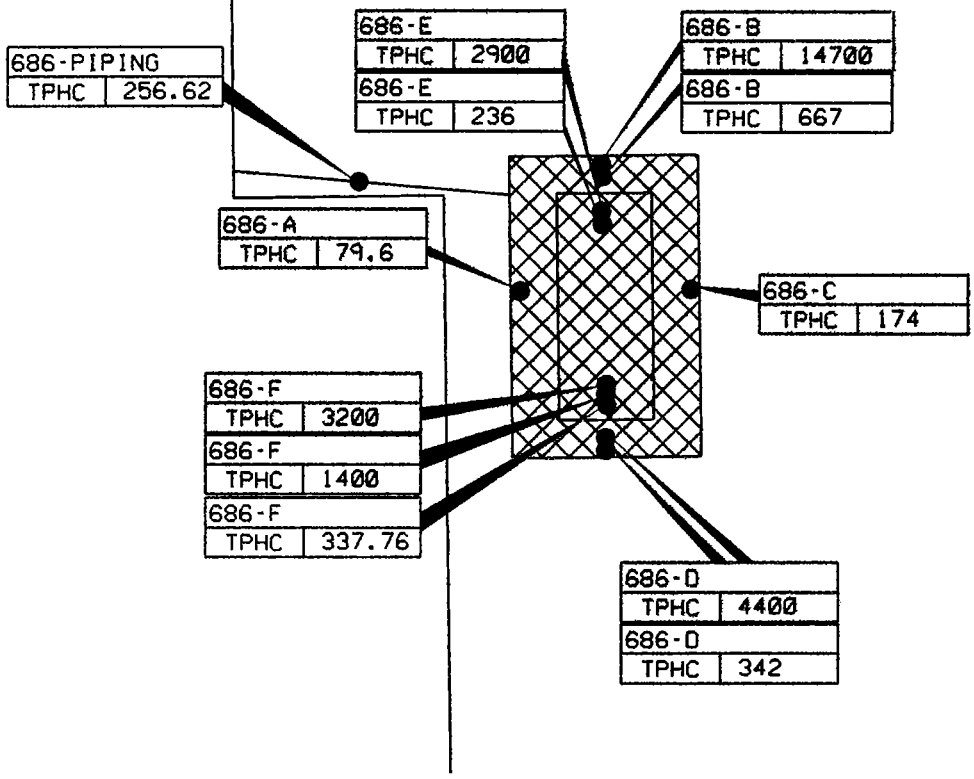
NOTES:

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

FIGURE 4-15
SOIL SAMPLING LOCATION MAP
BUILDING 666
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

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



LEGEND

- SOIL SAMPLE LOCATION (JANUARY 18, 1995)
- SOIL SAMPLE LOCATION (JANUARY 27, 1995)
- SOIL SAMPLE LOCATION (NOVEMBER 15, 2001)

LIMIT OF EXCAVATION

NOTES:

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

FIGURE 4-16
SOIL SAMPLING LOCATION MAP
BUILDING 686
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=10' | DATE: FEB 2001

I-4 686

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 600

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
T. B.	2007501	Aqueous	05-Fed-02	02/05/02
F. B.	2007502	Aqueous	05-Fed-02 11:05	02/05/02
600GW1/6.7'	2007503	Aqueous	05-Fed-02 11:30	02/05/02
600GW2/6.5'	2007504	Aqueous	05-Fed-02 13:15	02/05/02
600GW3/12.2'	2007505	Aqueous	05-Fed-02 14:00	02/05/02
600GW4/12.4'	2007506	Aqueous	05-Fed-02 14:20	02/05/02
600GW5/7.3'	2007507	Aqueous	05-Fed-02 14:45	02/05/02
F. D.	2007508	Aqueous	05-Fed-02	02/05/02

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

2-27-02
Daniel Wright/Date
Laboratory Director

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020213\VB010793.D Vial: 32
Acq On : 14 Feb 2002 1:30 pm Operator: Skelton
Sample : 2007508 Inst : GC VOA 2
Misc : Field Dupe Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Feb 15 6:47 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 : Fri Feb 15 06:29:01 2002
Response via : Initial Calibration
DataAcq Meth : M262477

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	624468	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.49	114	4490451	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1307299	30.00	ug/L	-0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1777498	31.56	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 105.20%			
35) Toluene-d8	23.50	98	5248163	29.78	ug/L	-0.01
Spiked Amount 30.000	Range 81 - 117		Recovery = 99.27%			
49) Bromofluorobenzene	30.34	95	2229231	29.63	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 98.77%			

Target Compounds Qvalue

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

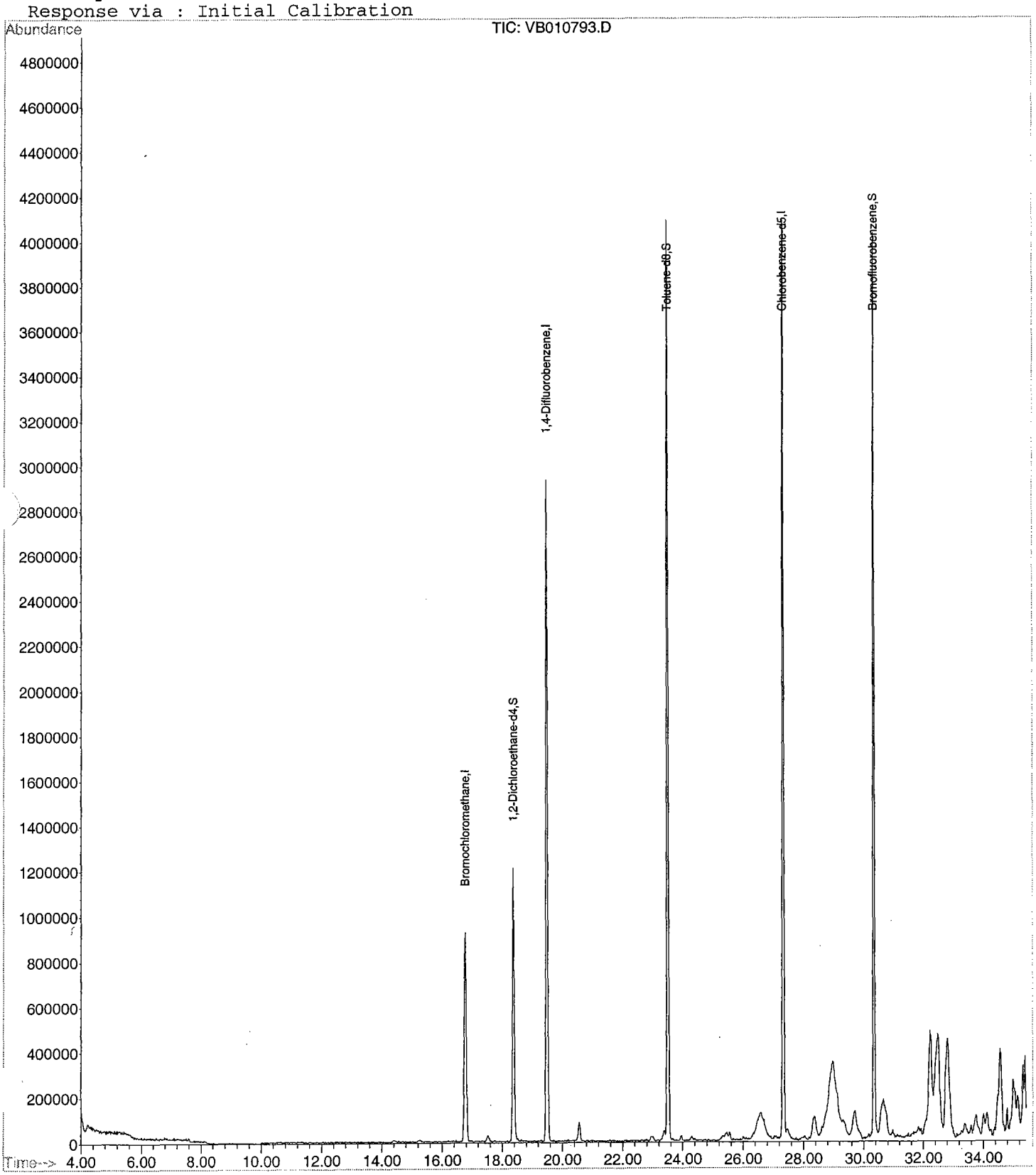
Quantitation Report

Data File : C:\HPCHEM\1\DATA\020213\VB010793.D
Acq On : 14 Feb 2002 1:30 pm
Sample : 2007508
Misc : Field Dupe
MS Integration Params: TBA.P
Quant Time: Feb 15 6:47 2002

Vial: 32
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00

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	**BNA06570.D**	Sample Name	**MB-2939**
Operator	**BPatel**	Misc Info	**MB-0202007**
Date Acquired	**8-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	**BNA06570.D**	Sample Name	**MB-2939**
Operator	**BPatel**	Misc Info	**MB-0202007**
Date Acquired	**8-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-2939

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB-2939

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06570.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/8/02

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	7.49	4	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06587.D**	Sample Name	**MB-2947**
Operator	**BPatel**	Misc Info	**MB-020208**
Date Acquired	**9-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	**BNA06587.D**	Sample Name	**MB-2947**
Operator	**BPatel**	Misc Info	**MB-020208**
Date Acquired	**9-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-2947

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB-2947

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06587.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/8/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/9/02

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	**BNA06580.D**	Sample Name	**2007502**
Operator	**BPatel**	Misc Info	**Field Blank**
Date Acquired	**8-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	**BNA06580.D**	Sample Name	**2007502**
Operator	**BPatel**	Misc Info	**Field Blank**
Date Acquired	**8-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: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2007502

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06580.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/8/02

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	**BNA06581.D**	Sample Name	**2007503**
Operator	**BPatel**	Misc Info	**600GW1**
Date Acquired	**8-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	**BNA06581.D**	Sample Name	**2007503**
Operator	**BPatel**	Misc Info	**600GW1**
Date Acquired	**8-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.

600GW1

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2007503

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06581.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/8/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	7.49	4	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06582.D**	Sample Name	**2007504**
Operator	**BPatel**	Misc Info	**600GW2**
Date Acquired	**8-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	18.36	50863	1.03 ug/L	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	**BNA06582.D**	Sample Name	**2007504**
Operator	**BPatel**	Misc Info	**600GW2**
Date Acquired	**8-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.

600GW2

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2007504

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06582.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/8/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	7.49	5	J
2. 004780-79-4	1-Naphthalenemethanol	19.37	7	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06583.D**	Sample Name	**2007505**
Operator	**BPatel**	Misc Info	**600GW3**
Date Acquired	**8-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	13.94	283183	3.58 ug/L	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	15.61	1552544	29.64 ug/L	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	18.23	58408	1.11 ug/L	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	19.49	144221	2.36 ug/L	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	21.84	194053	2.19 ug/L	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	**BNA06583.D**	Sample Name	**2007505**
Operator	**BPatel**	Misc Info	**600GW3**
Date Acquired	**8-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.

600GW3

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2007505

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06583.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/8/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

Number TICs found: 15 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000535-77-3	Benzene, 1-methyl-3-(1-methylet	12.04	5	JN
2. 000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.76	7	JN
3. 000099-87-6	Benzene, 1-methyl-4-(1-methylet	13.29	9	JN
4. 002809-64-5	Naphthalene, 1,2,3,4-tetrahydro-5	15.11	7	JN
5. 002142-73-6	Ethanone, 1-(2,5-dimethylphenyl)	15.21	8	JN
6. 000264-09-5	Benzocycloheptatriene	15.85	30	JN
7. 000092-52-4	Biphenyl	16.76	8	JN
8. 000575-43-9	Naphthalene, 1,6-dimethyl-	17.13	10	JN
9.	unknown	17.20	15	J
10. 000575-37-1	Naphthalene, 1,7-dimethyl-	17.33	24	JN
11. 000581-42-0	Naphthalene, 2,6-dimethyl-	17.38	12	JN
12. 000581-40-8	Naphthalene, 2,3-dimethyl-	17.60	8	JN
13. 000573-98-8	Naphthalene, 1,2-dimethyl-	17.81	5	JN
14. 006939-35-1	1(2H)-Naphthalenone, 3,4-dihydr	18.63	17	JN
15. 000941-98-0	Ethanone, 1-(1-Naphthalenyl)-	19.82	5	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06584.D**	Sample Name	**2007506**
Operator	**BPatel**	Misc Info	**600GW4**
Date Acquired	**8-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	**BNA06584.D**	Sample Name	**2007506**
Operator	**BPatel**	Misc Info	**600GW4**
Date Acquired	**8-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.

600GW4

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2007506

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06584.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/8/02

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	**BNA06585.D**	Sample Name	**2007507**
Operator	**BPatel**	Misc Info	**600GW5**
Date Acquired	**9-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	**BNA06585.D**	Sample Name	**2007507**
Operator	**BPatel**	Misc Info	**600GW5**
Date Acquired	**9-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.

600GW5

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 2007507

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06585.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 2/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/9/02

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	7.49	4	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA06588.D**	Sample Name	**2007508**
Operator	**BPatel**	Misc Info	**Field Dup**
Date Acquired	**9-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	**BNA06588.D**	Sample Name	**2007508**
Operator	**BPatel**	Misc Info	**Field Dup**
Date Acquired	**9-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 Dup

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2007508

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA06588.D

Level: (low/med) LOW Date Received: 2/5/02

% Moisture: decanted: (Y/N) N Date Extracted: 2/8/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/9/02

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Lab File ID: BNA06548.D DFTPP Injection Date: 2/5/02

Instrument ID: GC_BNA_2 DFTPP Injection Time: 7:24

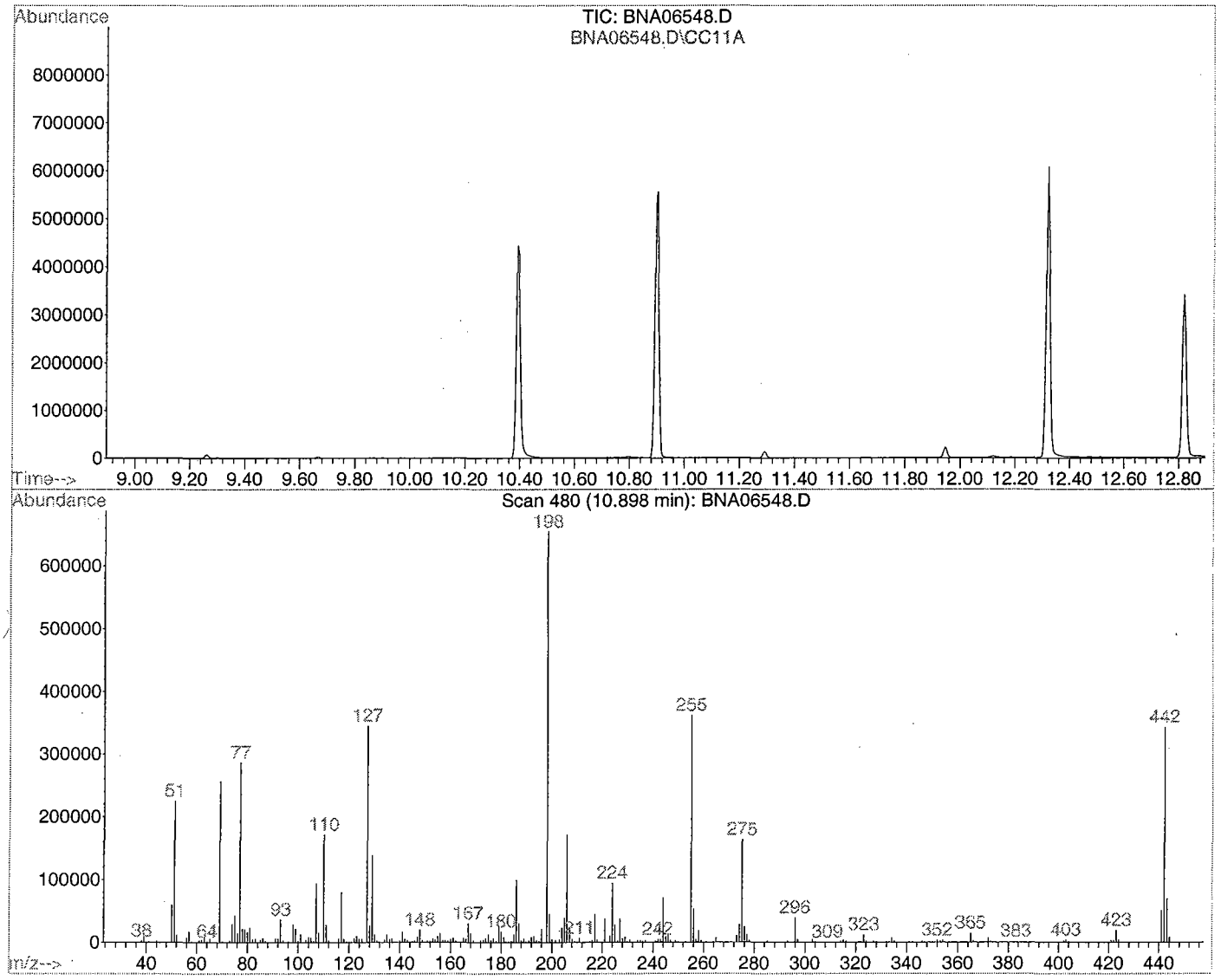
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	34.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	39.2
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	25.0 - 75.0% of mass 198	52.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.9
365	Greater than 0.75% of mass 198	2.3
441	Present, but less than mass 443	7.7
442	40.0 - 110.0% of mass 198	52.4
443	15.0 - 24.0% of mass 442	10.5 (20.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD120	SSTD120	BNA06549.D	2/5/02	7:47
02	SSTD010	SSTD010	BNA06550.D	2/5/02	8:32
03	SSTD050	SSTD050	BNA06551.D	2/5/02	9:17
04	SSTD020	SSTD020	BNA06552.D	2/5/02	10:02
05	SSTD080	SSTD080	BNA06553.D	2/5/02	10:48

Data File : D:\DATA\020205\BNA06548.D Vial: 99
Acq On : 5 Feb 2002 7:24 am Operator: BPatel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 480

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.4	225024	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.2	256448	PASS
70	69	0.00	2	0.7	1749	PASS
127	198	40	60	52.8	345280	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	654528	PASS
199	198	5	9	6.9	45360	PASS
275	198	10	30	24.9	163072	PASS
365	198	1	100	2.3	14753	PASS
441	443	1	99	73.4	50544	PASS
442	198	40	100	52.4	342720	PASS
443	442	17	23	20.1	68848	PASS

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration

Calibration Files
120 =BNA06549.D 80 =BNA06553.D 50 =BNA06551.D
20 =BNA06552.D 10 =BNA06550.D

		Compound	120	80	50	20	10	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	T	Pyridine	1.366	1.369	1.382	1.353	1.436	1.381	2.33
3)	T	N-nitroso-dimethylami	0.721	0.720	0.752	0.751	0.775	0.744	3.14
4)	S	2-Fluorophenol	1.238	1.256	1.295	1.299	1.366	1.291	3.81
5)	T	Aniline	1.931	1.910	2.003	2.028	2.115	1.997	4.10
6)	S	Phenol-d6	1.503	1.511	1.588	1.604	1.720	1.585	5.53
7)	TCM	Phenol	1.490	1.518	1.600	1.666	1.790	1.613	7.50
8)	T	bis(2-Chloroethyl)eth	1.210	1.228	1.285	1.314	1.421	1.292	6.50
9)	TM	2-Chlorophenol	1.324	1.329	1.371	1.379	1.456	1.372	3.88
10)	T	1,3-Dichlorobenzene	1.451	1.456	1.507	1.503	1.591	1.502	3.73
11)	TCM	1,4-Dichlorobenzene	1.471	1.486	1.522	1.529	1.610	1.524	3.53
12)	T	Benzyl alcohol	0.800	0.811	0.833	0.823	0.879	0.829	3.68
13)	T	1,2-Dichlorobenzene	1.363	1.371	1.400	1.435	1.511	1.416	4.24
14)	T	2-Methylphenol	1.075	1.089	1.127	1.160	1.235	1.137	5.64
15)	T	bis(2-chloroisopropyl	1.130	1.140	1.199	1.231	1.329	1.206	6.67
16)	T	4-Methylphenol	1.120	1.145	1.199	1.222	1.290	1.195	5.58
17)	TPM	n-Nitroso-di-n-propyl	0.240	0.240	0.243	0.237	0.258	0.244	3.38
18)	T	Hexachloroethane	0.574	0.587	0.607	0.608	0.644	0.604	4.39
19)	I	Naphthalene-d8	----------ISTD----------						
20)	S	Nitrobenzene-d5	0.398	0.406	0.419	0.426	0.449	0.420	4.72
21)	T	Nitrobenzene	0.374	0.391	0.409	0.427	0.439	0.408	6.44
22)	T	Isophorone	0.642	0.648	0.669	0.683	0.713	0.671	4.27
	TC	2-Nitrophenol	0.198	0.199	0.199	0.195	0.196	0.197	0.99
	T	2,4-Dimethylphenol	0.358	0.367	0.383	0.394	0.409	0.382	5.29
25)	T	bis(2-Chloroethoxy)me	0.374	0.387	0.405	0.425	0.445	0.407	7.01
26)	TC	2,4-Dichlorophenol	0.290	0.287	0.290	0.295	0.294	0.291	1.15
27)	T	Benzoic Acid	0.302	0.288	0.276	0.236	0.239	0.268	11.11
28)	TM	1,2,4-Trichlorobenzen	0.340	0.345	0.342	0.346	0.350	0.345	1.08
29)	T	Naphthalene	0.891	0.962	1.021	1.079	1.128	1.016	9.22
30)	T	4-Chloroaniline	0.401	0.413	0.423	0.438	0.449	0.425	4.52
31)	TC	Hexachlorobutadiene	0.211	0.212	0.210	0.207	0.215	0.211	1.35
32)	TCM	4-Chloro-3-methylphen	0.311	0.324	0.334	0.336	0.347	0.330	4.04
33)	T	2-Methylnaphthalene	0.633	0.646	0.669	0.688	0.723	0.672	5.29
34)	I	Acenaphthene-d10	----------ISTD----------						
35)	TP	Hexachlorocyclopentad	0.397	0.408	0.377	0.333	0.291	0.361	13.54
36)	TC	2,4,6-Trichlorophenol	0.438	0.436	0.426	0.414	0.415	0.426	2.67
37)	T	2,4,5-Trichlorophenol	0.465	0.464	0.454	0.438	0.431	0.451	3.38
38)	S	2-Fluorobiphenyl	1.272	1.299	1.307	1.333	1.372	1.317	2.85
39)	T	2-Chloronaphthalene	1.184	1.218	1.224	1.247	1.296	1.234	3.37
40)	T	2-Nitroaniline	0.439	0.445	0.442	0.433	0.438	0.439	0.98
41)	T	Dimethylphthalate	1.343	1.403	1.420	1.445	1.508	1.424	4.23
42)	T	Acenaphthylene	1.828	1.935	2.017	2.077	2.166	2.005	6.49
43)	T	2,6-Dinitrotoluene	0.222	0.226	0.229	0.226	0.231	0.227	1.45
44)	T	3-Nitroaniline	0.347	0.356	0.351	0.354	0.351	0.352	1.00
45)	TCM	Acenaphthene	1.220	1.247	1.269	1.299	1.362	1.279	4.25
46)	TP	2,4-Dinitrophenol	0.222	0.211	0.186	0.140	0.107	0.173	28.13
47)	T	Dibenzofuran	1.556	1.624	1.648	1.691	1.755	1.655	4.50
48)	TMP	4-Nitrophenol	0.312	0.316	0.314	0.290	0.277	0.302	5.77
49)	TM	2,4-Dinitrotoluene	0.451	0.454	0.449	0.439	0.445	0.447	1.30
50)	T	Diethylphthalate	1.386	1.460	1.493	1.521	1.604	1.493	5.34
51)	T	Fluorene	1.442	1.469	1.483	1.481	1.552	1.486	2.74
	T	4-Chlorophenyl-phenyl	0.757	0.753	0.722	0.709	0.735	0.735	2.81
	T	4-Nitroaniline	0.346	0.348	0.351	0.342	0.349	0.347	0.96
54)	I	Phenanthrene-d10	----------ISTD----------						

#) = Out of Range

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration

Calibration Files
120 =BNA06549.D 80 =BNA06553.D 50 =BNA06551.D
20 =BNA06552.D 10 =BNA06550.D

		Compound	120	80	50	20	10	Avg	%RSD
55)	T	4,6-Dinitro-2-methylp	0.159	0.154	0.146	0.125	0.107	0.138	15.69
56)	TC	n-Nitrosodiphenylamin	0.570	0.567	0.578	0.575	0.601	0.578	2.34
57)	T	Azobenzene	0.711	0.748	0.803	0.866	0.929	0.811	10.84
58)	S	2,4,6-Tribromophenol	0.122	0.116	0.109	0.100	0.097	0.109	9.55
59)	T	4-Bromophenyl-phenyle	0.259	0.249	0.242	0.235	0.234	0.244	4.31
60)	T	Hexachlorobenzene	0.263	0.253	0.246	0.237	0.235	0.247	4.69
61)	TCM	Pentachlorophenol	0.175	0.165	0.158	0.141	0.129	0.154	11.92
62)	T	Phenanthrene	1.094	1.135	1.174	1.201	1.261	1.173	5.40
63)	T	Anthracene	1.132	1.180	1.229	1.248	1.294	1.217	5.13
64)	T	Di-n-butylphthalate	1.161	1.246	1.316	1.345	1.380	1.290	6.78
65)	TC	Fluoranthene	1.193	1.238	1.267	1.268	1.297	1.253	3.13
66)	I	Chrysene-d12	----------ISTD----------						
67)	T	Benzidine	0.468	0.461	0.465	0.474	0.515	0.477	4.65
68)	TM	Pyrene	1.173	1.217	1.256	1.265	1.327	1.248	4.58
69)	S	p-Terphenyl-d14	0.914	0.929	0.927	0.904	0.924	0.920	1.14
70)	T	Butylbenzylphthalate	0.595	0.604	0.621	0.611	0.632	0.613	2.40
71)	T	Benzo[a]anthracene	1.282	1.337	1.356	1.304	1.340	1.324	2.26
72)	T	3,3'-Dichlorobenzidin	0.475	0.479	0.461	0.429	0.432	0.455	5.23
73)	T	Chrysene	1.170	1.207	1.213	1.212	1.253	1.211	2.44
74)	T	bis(2-Ethylhexyl)phth	0.799	0.825	0.850	0.839	0.874	0.837	3.35
75)	I	Perylene-d12	----------ISTD----------						
76)	TC	Di-n-octylphthalate	1.743	1.851	1.952	1.881	1.928	1.871	4.36
)	T	Benzo[b]fluoranthene	1.704	1.715	1.699	1.641	1.662	1.684	1.86
)	T	Benzo[k]fluoranthene	1.676	1.727	1.700	1.660	1.655	1.684	1.78
79)	TC	Benzo[a]pyrene	1.639	1.640	1.615	1.542	1.581	1.603	2.60
80)	T	Indeno[1,2,3-cd]pyren	1.695	1.613	1.563	1.462	1.439	1.554	6.83
81)	T	Dibenz[a,h]anthracene	1.595	1.551	1.498	1.423	1.441	1.502	4.83
82)	T	Benzo[g,h,i]perylene	1.521	1.515	1.481	1.424	1.442	1.477	2.94

(#) = Out of Range

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Lab File ID: BNA06568.D DFTPP Injection Date: 2/8/02

Instrument ID: GC_BNA_2 DFTPP Injection Time: 11:19

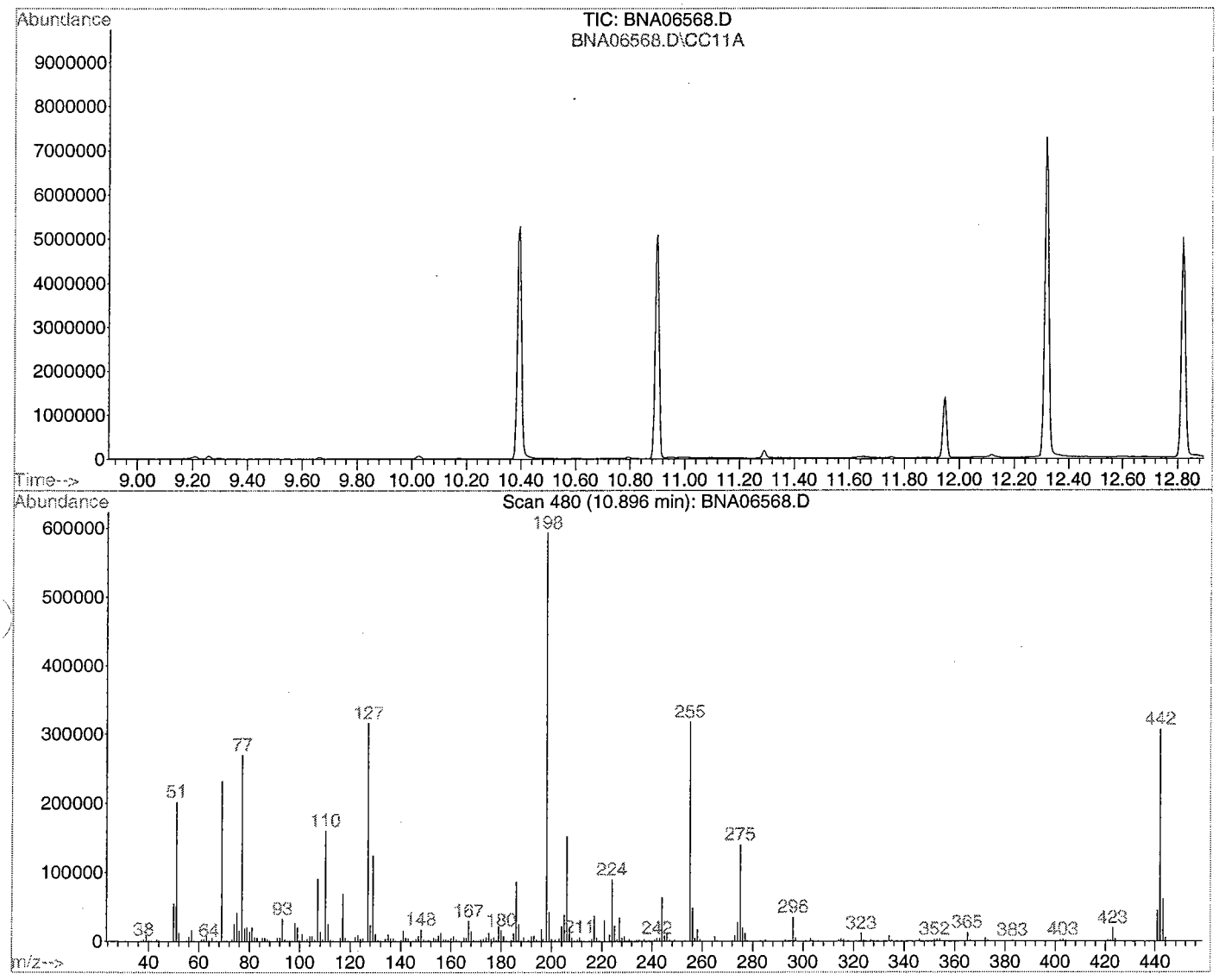
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	34.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	39.0
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	25.0 - 75.0% of mass 198	53.2
197	Less than 1.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	23.5
365	Greater than 0.75% of mass 198	2.1
441	Present, but less than mass 443	7.6
442	40.0 - 110.0% of mass 198	51.6
443	15.0 - 24.0% of mass 442	10.3 (19.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	BNA06569.D	2/8/02	11:45
02	MB-2939	MB-2939	BNA06570.D	2/8/02	12:30
03	2006804MS	2006804MS	BNA06575.D	2/8/02	16:32
04	2006804MSD	2006804MSD	BNA06576.D	2/8/02	17:21
05	FIELD BLANK	2007502	BNA06580.D	2/8/02	20:30
06	600GW1	2007503	BNA06581.D	2/8/02	21:17
07	600GW2	2007504	BNA06582.D	2/8/02	22:04
08	600GW3	2007505	BNA06583.D	2/8/02	22:50
09	600GW4	2007506	BNA06584.D	2/8/02	23:36
10	600GW5	2007507	BNA06585.D	2/9/02	0:23
11	MB-2947	MB-2947	BNA06587.D	2/9/02	1:55
12	FIELD DUP	2007508	BNA06588.D	2/9/02	2:41

Data File : D:\DATA\020208\BNA06568.D Vial: 99
Acq On : 8 Feb 2002 11:19 am Operator: BPatel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 480

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.0	201728	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.0	231808	PASS
70	69	0.00	2	0.7	1721	PASS
127	198	40	60	53.2	315648	PASS
197	198	0.00	1	0.6	3703	PASS
198	198	100	100	100.0	593792	PASS
199	198	5	9	7.1	42096	PASS
275	198	10	30	23.5	139776	PASS
365	198	1	100	2.1	12504	PASS
441	443	1	99	73.8	45000	PASS
442	198	40	100	51.6	306368	PASS
443	442	17	23	19.9	60976	PASS

Evaluate Continuing Calibration Report

Data File : D:\DATA\020208\BNA06569.D Vial: 100
Acq On : 8 Feb 2002 11:45 am Operator: BPatel
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
2	T	Pyridine	1.381	1.421	-2.9	99	-0.01
3	T	N-nitroso-dimethylamine	0.744	0.772	-3.8	99	0.00
4	S	2-Fluorophenol	1.291	1.319	-2.2	98	0.00
5	T	Aniline	1.997	2.001	-0.2	96	0.00
6	S	Phenol-d6	1.585	1.619	-2.1	98	0.00
7	TCM	Phenol	1.613	1.654	-2.5	100	0.00
8	T	bis(2-Chloroethyl)ether	1.292	1.318	-2.0	99	0.00
9	TM	2-Chlorophenol	1.372	1.402	-2.2	99	0.00
10	T	1,3-Dichlorobenzene	1.502	1.506	-0.3	97	0.00
11	TCM	1,4-Dichlorobenzene	1.524	1.538	-0.9	98	0.00
12	T	Benzyl alcohol	0.829	0.868	-4.7	101	0.00
13	T	1,2-Dichlorobenzene	1.416	1.416	0.0	98	0.00
14	T	2-Methylphenol	1.137	1.162	-2.2	100	0.00
15	T	bis(2-chloroisopropyl)ether	1.206	1.274	-5.6	103	0.00
16	T	4-Methylphenol	1.195	1.236	-3.4	100	0.00
17	TPM	n-Nitroso-di-n-propylamine	0.244	0.248	-1.6	98	0.00
18	T	Hexachloroethane	0.604	0.597	1.2	95	0.00
19	I	Naphthalene-d8	1.000	1.000	0.0	99	0.00
20	S	Nitrobenzene-d5	0.420	0.424	-1.0	100	0.00
21	T	Nitrobenzene	0.408	0.415	-1.7	100	0.00
22	T	Isophorone	0.671	0.671	0.0	99	0.00
23	TC	2-Nitrophenol	0.197	0.202	-2.5	100	0.00
24	T	2,4-Dimethylphenol	0.382	0.384	-0.5	99	0.00
25	T	bis(2-Chloroethoxy)methane	0.407	0.410	-0.7	100	0.00
26	TC	2,4-Dichlorophenol	0.291	0.288	1.0	98	0.00
27	T	Benzoic Acid	0.268	0.300	-11.9	107	0.00
28	TM	1,2,4-Trichlorobenzene	0.345	0.337	2.3	97	0.00
29	T	Naphthalene	1.016	1.015	0.1	98	0.00
30	T	4-Chloroaniline	0.425	0.414	2.6	96	0.00
31	TC	Hexachlorobutadiene	0.211	0.209	0.9	98	0.00
32	TCM	4-Chloro-3-methylphenol	0.330	0.338	-2.4	100	0.00
33	T	2-Methylnaphthalene	0.672	0.664	1.2	98	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	96	0.00
35	TP	Hexachlorocyclopentadiene	0.361	0.212	41.3#	54	0.00
36	TC	2,4,6-Trichlorophenol	0.426	0.435	-2.1	98	0.00
37	T	2,4,5-Trichlorophenol	0.451	0.460	-2.0	98	0.00
38	S	2-Fluorobiphenyl	1.317	1.315	0.2	97	0.00
39	T	2-Chloronaphthalene	1.234	1.244	-0.8	98	0.00
40	T	2-Nitroaniline	0.439	0.461	-5.0	101	0.00
41	T	Dimethylphthalate	1.424	1.459	-2.5	99	0.00
42	T	Acenaphthylene	2.005	2.013	-0.4	96	0.00
43	T	2,6-Dinitrotoluene	0.227	0.233	-2.6	98	0.00
44	T	3-Nitroaniline	0.352	0.344	2.3	94	0.00
45	TCM	Acenaphthene	1.279	1.267	0.9	96	0.00
46	TP	2,4-Dinitrophenol	0.173	0.198	-14.5	103	0.00
47	T	Dibenzofuran	1.655	1.651	0.2	97	0.00
48	TMP	4-Nitrophenol	0.302	0.344	-13.9	105	0.00
49	TM	2,4-Dinitrotoluene	0.447	0.458	-2.5	98	0.00
50	S	Diethylphthalate	1.493	1.530	-2.5	99	0.00
51	T	Fluorene	1.486	1.488	-0.1	97	0.00
52	T	4-Chlorophenyl-phenylether	0.735	0.727	1.1	97	0.00
53	T	4-Nitroaniline	0.347	0.359	-3.5	99	0.00

(#) = Out of Range

000090

Evaluate Continuing Calibration Report

Data File : D:\DATA\020208\BNA06569.D Vial: 100
Acq On : 8 Feb 2002 11:45 am Operator: BPatel
Sample : Sstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	I	Phenanthrene-d10	1.000	1.000	0.0	97	0.00
55	T	4,6-Dinitro-2-methylphenol	0.138	0.145	-5.1	96	0.00
56	TC	n-Nitrosodiphenylamine	0.578	0.579	-0.2	97	0.00
57	T	Azobenzene	0.811	0.827	-2.0	100	0.00
58	S	2,4,6-Tribromophenol	0.109	0.106	2.8	94	0.00
59	T	4-Bromophenyl-phenylether	0.244	0.236	3.3	95	0.00
60	T	Hexachlorobenzene	0.247	0.240	2.8	95	0.00
61	TCM	Pentachlorophenol	0.154	0.161	-4.5	99	0.00
62	T	Phenanthrene	1.173	1.180	-0.6	97	0.00
63	T	Anthracene	1.217	1.226	-0.7	97	0.00
64	T	Di-n-butylphthalate	1.290	1.372	-6.4	101	0.00
65	TC	Fluoranthene	1.253	1.253	0.0	96	0.00
66	I	Chrysene-d12	1.000	1.000	0.0	94	0.00
67	T	Benzidine	0.477	0.580	-21.6	118	0.00
68	TM	Pyrene	1.248	1.273	-2.0	96	0.00
69	S	p-Terphenyl-d14	0.920	0.948	-3.0	97	0.00
70	T	Butylbenzylphthalate	0.613	0.661	-7.8	101	0.00
71	T	Benzo[a]anthracene	1.324	1.377	-4.0	96	0.00
72	T	3,3'-Dichlorobenzidine	0.455	0.495	-8.8	101	0.00
	T	Chrysene	1.211	1.235	-2.0	96	0.00
	T	bis(2-Ethylhexyl)phthalate	0.837	0.908	-8.5	101	0.00
75	I	Perylene-d12	1.000	1.000	0.0	94	0.00
76	TC	Di-n-octylphthalate	1.871	2.103	-12.4	101	0.00
77	T	Benzo[b]fluoranthene	1.684	1.716	-1.9	95	0.00
78	T	Benzo[k]fluoranthene	1.684	1.696	-0.7	94	0.00
79	TC	Benzo[a]pyrene	1.603	1.626	-1.4	95	0.00
80	T	Indeno[1,2,3-cd]pyrene	1.554	1.542	0.8	93	-0.01
81	T	Dibenz[a,h]anthracene	1.502	1.497	0.3	94	-0.01
82	T	Benzo[g,h,i]perylene	1.477	1.475	0.1	94	0.00

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

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-2939

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Lab File ID: BNA06570.D Lab Sample ID: MB-2939

Instrument ID: GC/MS Ins Date Extracted: 2/7/02

Matrix: (soil/water) WATER Date Analyzed: 2/8/02

Level: (low/med) LOW Time Analyzed: 12:30

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2006804MS	2006804MS	BNA06575.D	2/8/02
02	2006804MSD	2006804MSD	BNA06576.D	2/8/02
03	FIELD BLANK	2007502	BNA06580.D	2/8/02
04	600GW1	2007503	BNA06581.D	2/8/02
05	600GW2	2007504	BNA06582.D	2/8/02
06	600GW3	2007505	BNA06583.D	2/8/02
07	600GW4	2007506	BNA06584.D	2/8/02
08	600GW5	2007507	BNA06585.D	2/9/02

COMMENTS:

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-2947

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Lab File ID: BNA06587.D Lab Sample ID: MB-2947

Instrument ID: GC/MS Ins Date Extracted: 2/8/02

Matrix: (soil/water) WATER Date Analyzed: 2/9/02

Level: (low/med) LOW Time Analyzed: 1:55

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	FIELD DUP	2007508	BNA06588.D	2/9/02

COMMENTS:

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BNA06575.D** Sample Name **2006804MS**

Date Acquired **8-Feb-02**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		2.31 ug/L	11.53
62-75-9	N-nitroso-dimethylamine		9.80 ug/L	49.01
62-53-3	Aniline		4.28 ug/L	21.38
111-44-4	bis(2-Chloroethyl)ether		15.89 ug/L	79.43
541-73-1	1,3-Dichlorobenzene		12.79 ug/L	63.94
106-46-7	1,4-Dichlorobenzene		13.00 ug/L	64.99
100-51-6	Benzyl alcohol		11.96 ug/L	59.79
95-50-1	1,2-Dichlorobenzene		13.29 ug/L	66.44
39638-32-9	bis(2-chloroisopropyl)ether		16.78 ug/L	83.90
621-64-7	n-Nitroso-di-n-propylamine		16.16 ug/L	80.81
67-72-1	Hexachloroethane		11.05 ug/L	55.26
98-95-3	Nitrobenzene		16.74 ug/L	83.68
78-59-1	Isophorone		17.71 ug/L	88.56
111-91-1	bis(2-Chloroethoxy)methane		16.70 ug/L	83.49
120-82-1	1,2,4-Trichlorobenzene		13.38 ug/L	66.92
91-20-3	Naphthalene		15.39 ug/L	76.95
106-47-8	4-Chloroaniline		7.45 ug/L	37.27
87-68-3	Hexachlorobutadiene		12.27 ug/L	61.34
91-57-6	2-Methylnaphthalene		15.05 ug/L	75.25
77-47-4	Hexachlorocyclopentadiene		4.44 ug/L	22.22
91-58-7	2-Chloronaphthalene		15.81 ug/L	79.07
88-74-4	2-Nitroaniline		15.68 ug/L	78.40
131-11-3	Dimethylphthalate		16.95 ug/L	84.77
208-96-8	Acenaphthylene		15.11 ug/L	75.57
606-20-2	2,6-Dinitrotoluene		17.84 ug/L	89.18
99-09-2	3-Nitroaniline		8.93 ug/L	44.64
83-32-9	Acenaphthene		15.88 ug/L	79.41
132-64-9	Dibenzofuran		15.68 ug/L	78.39
121-14-2	2,4-Dinitrotoluene		16.86 ug/L	84.32
84-66-2	Diethylphthalate		17.36 ug/L	86.82
86-73-7	Fluorene		15.86 ug/L	79.29
7005-72-3	4-Chlorophenyl-phenylether		15.43 ug/L	77.14
100-01-6	4-Nitroaniline		13.37 ug/L	66.85
86-30-6	n-Nitrosodiphenylamine		16.24 ug/L	81.22
103-33-3	Azobenzene		17.46 ug/L	87.31
101-55-3	4-Bromophenyl-phenylether		15.37 ug/L	76.85
118-74-1	Hexachlorobenzene		15.18 ug/L	75.88
85-01-8	Phenanthrene		16.98 ug/L	84.88
120-12-7	Anthracene		16.33 ug/L	81.67
84-74-2	Di-n-butylphthalate		18.39 ug/L	91.96
206-44-0	Fluoranthene		16.19 ug/L	80.95
129-00-0	Pyrene		18.40 ug/L	91.98
85-68-7	Butylbenzylphthalate		19.14 ug/L	95.70
56-55-3	Benzo[a]anthracene		16.54 ug/L	82.72
218-01-9	Chrysene		17.24 ug/L	86.20
117-81-7	bis(2-Ethylhexyl)phthalate		18.86 ug/L	94.31
117-84-0	Di-n-octylphthalate		18.35 ug/L	91.75
205-99-2	Benzo[b]fluoranthene		16.08 ug/L	80.40
207-08-9	Benzo[k]fluoranthene		15.80 ug/L	78.99
50-32-8	Benzo[a]pyrene		15.17 ug/L	75.84
193-39-5	Indeno[1,2,3-cd]pyrene		15.07 ug/L	75.36
53-70-3	Dibenz[a,h]anthracene		16.06 ug/L	80.32
191-24-2	Benzo[g,h,i]perylene		16.11 ug/L	80.57

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BNA06576.D** Sample Name **2006804MSD**

Date Acquired **8-Feb-02**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		0.01 detected	0.06
62-75-9	N-nitroso-dimethylamine		10.74 ug/L	53.68
62-53-3	Aniline		0.59 detected	2.97
111-44-4	bis(2-Chloroethyl)ether		16.94 ug/L	84.68
541-73-1	1,3-Dichlorobenzene		15.57 ug/L	77.87
106-46-7	1,4-Dichlorobenzene		15.49 ug/L	77.43
100-51-6	Benzyl alcohol		13.31 ug/L	66.57
95-50-1	1,2-Dichlorobenzene		15.78 ug/L	78.89
39638-32-9	bis(2-chloroisopropyl)ether		17.54 ug/L	87.70
621-64-7	n-Nitroso-di-n-propylamine		16.47 ug/L	82.33
67-72-1	Hexachloroethane		13.98 ug/L	69.91
98-95-3	Nitrobenzene		17.44 ug/L	87.19
78-59-1	Isophorone		18.50 ug/L	92.51
111-91-1	bis(2-Chloroethoxy)methane		17.43 ug/L	87.16
120-82-1	1,2,4-Trichlorobenzene		15.73 ug/L	78.66
91-20-3	Naphthalene		17.12 ug/L	85.61
106-47-8	4-Chloroaniline		4.22 ug/L	21.12
87-68-3	Hexachlorobutadiene		15.63 ug/L	78.13
91-57-6	2-Methylnaphthalene		16.51 ug/L	82.53
77-47-4	Hexachlorocyclopentadiene		5.23 ug/L	26.16
91-58-7	2-Chloronaphthalene		16.89 ug/L	84.45
88-74-4	2-Nitroaniline		16.38 ug/L	81.90
131-11-3	Dimethylphthalate		17.70 ug/L	88.51
208-96-8	Acenaphthylene		15.89 ug/L	79.44
606-20-2	2,6-Dinitrotoluene		18.16 ug/L	90.81
99-09-2	3-Nitroaniline		9.00 ug/L	45.01
83-32-9	Acenaphthene		16.65 ug/L	83.27
132-64-9	Dibenzofuran		16.20 ug/L	81.00
121-14-2	2,4-Dinitrotoluene		17.85 ug/L	89.26
84-66-2	Diethylphthalate		18.23 ug/L	91.13
86-73-7	Fluorene		16.46 ug/L	82.32
7005-72-3	4-Chlorophenyl-phenylether		16.01 ug/L	80.04
100-01-6	4-Nitroaniline		13.62 ug/L	68.11
86-30-6	n-Nitrosodiphenylamine		16.98 ug/L	84.91
103-33-3	Azobenzene		18.08 ug/L	90.41
101-55-3	4-Bromophenyl-phenylether		16.09 ug/L	80.45
118-74-1	Hexachlorobenzene		15.85 ug/L	79.27
85-01-8	Phenanthrene		17.79 ug/L	88.93
120-12-7	Anthracene		16.78 ug/L	83.92
84-74-2	Di-n-butylphthalate		19.10 ug/L	95.52
206-44-0	Fluoranthene		16.90 ug/L	84.52
129-00-0	Pyrene		18.91 ug/L	94.53
85-68-7	Butylbenzylphthalate		19.77 ug/L	98.87
56-55-3	Benzo[a]anthracene		17.09 ug/L	85.47
218-01-9	Chrysene		17.84 ug/L	89.19
117-81-7	bis(2-Ethylhexyl)phthalate		19.60 ug/L	98.01
117-84-0	Di-n-octylphthalate		19.19 ug/L	95.93
205-99-2	Benzo[b]fluoranthene		16.73 ug/L	83.63
207-08-9	Benzo[k]fluoranthene		16.73 ug/L	83.66
50-32-8	Benzo[a]pyrene		16.03 ug/L	80.16
193-39-5	Indeno[1,2,3-cd]pyrene		16.07 ug/L	80.35
53-70-3	Dibenz[a,h]anthracene		16.81 ug/L	84.04
191-24-2	Benzo[g,h,i]perylene		16.94 ug/L	84.68

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Lab File ID (Standard): BNA06569.D Date Analyzed: 2/8/02

Instrument ID: GC_BNA_2 Time Analyzed: 11:45

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	860290	10.94	3194676	13.90	1629607	18.16
	UPPER LIMIT	1720580	11.44	6389352	14.40	3259214	18.66
	LOWER LIMIT	430145	10.44	1597338	13.40	814804	17.66
	EPA SAMPLE NO.						
01	MB-2939	898925	10.94	3365570	13.89	1736220	18.16
02	2006804MS	801047	10.94	2971505	13.90	1531680	18.16
03	2006804MSD	836450	10.94	3112773	13.90	1612022	18.17
04	FIELD BLANK	834266	10.94	3089969	13.89	1600850	18.16
05	600GW1	840520	10.94	3080262	13.90	1598071	18.16
06	600GW2	816229	10.94	2965614	13.89	1545532	18.16
07	600GW3	864075	10.94	3117121	13.89	1642964	18.16
08	600GW4	858363	10.94	3117684	13.89	1608515	18.16
09	600GW5	801816	10.94	2924925	13.89	1514088	18.16
10	MB-2947	878009	10.94	3231697	13.89	1677861	18.16
11	FIELD DUP	938259	10.94	3398044	13.89	1762738	18.16

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: 02-12539 Case No.: 20075 Location: 600 G SDG No.:

Lab File ID (Standard): BNA06569.D Date Analyzed: 02/08/02

Instrument ID: GC_BNA_2 Time Analyzed: 11:45

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	2968215	21.79	2846493	28.29	2059289	31.64
	UPPER LIMIT	5936430	21.29	5692986	27.79	4118578	31.14
	LOWER LIMIT	1484108	22.29	1423247	28.79	1029645	32.14
	EPA SAMPLE NO.						
01	MB-2939	3156536	21.79	2978375	28.28	2258271	31.63
02	2006804MS	2789565	21.79	2580150	28.29	1936486	31.64
03	2006804MSD	2912301	21.79	2706007	28.29	2004141	31.64
04	FIELD BLANK	2925251	21.79	2807421	28.28	2099976	31.63
05	600GW1	2903369	21.79	2845681	28.28	2135818	31.64
06	600GW2	2835136	21.79	2733310	28.28	2050140	31.63
07	600GW3	3016901	21.79	2978533	28.28	2251183	31.64
08	600GW4	2978737	21.79	2911255	28.28	2197134	31.63
09	600GW5	2800057	21.79	2769378	28.28	2082896	31.64
10	MB-2947	3089099	21.79	3028995	28.28	2274340	31.63
11	FIELD DUP	3251806	21.79	3300466	28.28	2466572	31.64

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/LSC Reviewed)

Data File : D:\DATA\020208\BNA06570.D Vial: 1
Acq On : 8 Feb 2002 12:30 pm Operator: BPatel
Sample : MB-2939 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 8 13:07 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	898925	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	3365570	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1736220	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	3156536	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2978375	40.00	ug/L	-0.01
75) Perylene-d12	31.63	264	2258271	40.00	ug/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.15	112	1386418	47.80	ug/L	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 47.80%			
6) Phenol-d6	10.16	99	1126913	31.64	ug/L	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 31.64%			
20) Nitrobenzene-d5	12.25	82	1272453	36.04	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 72.08%			
38) 2-Fluorobiphenyl	16.53	172	2145476	37.54	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 75.08%			
58) 2,4,6-Tribromophenol	20.11	330	710528	82.77	ug/L	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 82.77%			
69) p-Terphenyl-d14	25.73	244	3184637	46.51	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 93.02%			

Target Compounds Qvalue

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

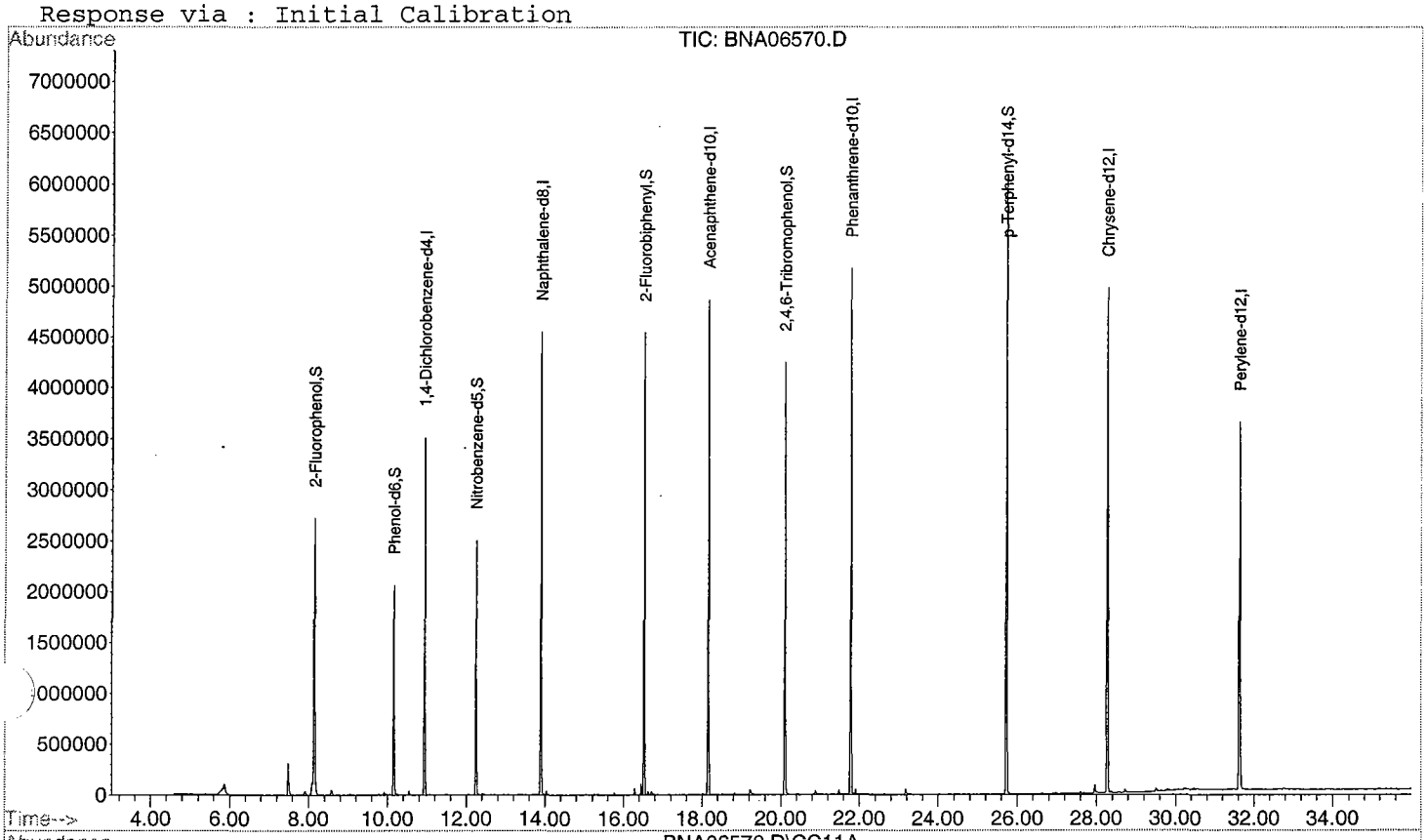
000099

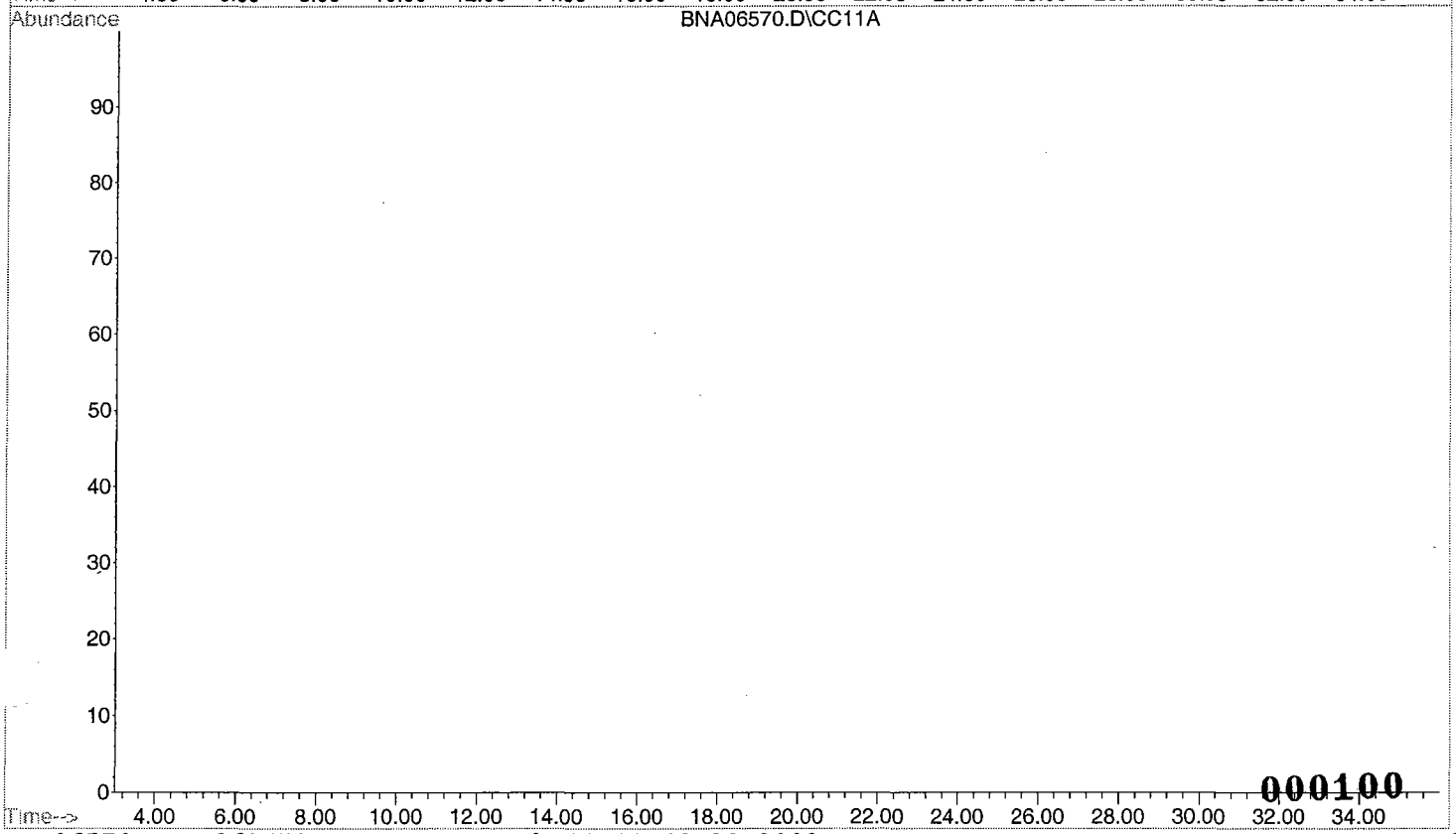
Quantitation Report

Data File : D:\DATA\020208\BNA06570.D
Acq On : 8 Feb 2002 12:30 pm
Sample : MB-2939
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 8 13:07 2002

Vial: 1
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000100

Quantitation Report (QT Reviewed)

Data File : D:\DATA\020208\BNA06587.D Vial: 18
Acq On : 9 Feb 2002 1:55 am Operator: BPatel
Sample : MB-2947 Inst : GC/MS Ins
Misc : MB-020208 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 9 2:31 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	878009	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	3231697	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1677861	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	3089099	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	3028995	40.00	ug/L	-0.01
75) Perylene-d12	31.63	264	2274340	40.00	ug/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	8.15	112	956233	33.75	ug/L	0.00
Spiked Amount 100.000	Range 21 - 100		Recovery = 33.75%			
6) Phenol-d6	10.16	99	723035	20.78	ug/L	0.00
Spiked Amount 100.000	Range 10 - 94		Recovery = 20.78%			
20) Nitrobenzene-d5	12.25	82	1107227	32.66	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 65.32%			
38) 2-Fluorobiphenyl	16.53	172	1862564	33.73	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 67.46%			
58) 2,4,6-Tribromophenol	20.11	330	650217	77.40	ug/L	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 77.40%			
69) p-Terphenyl-d14	25.73	244	2986529	42.89	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 85.78%			
Target Compounds						Qvalue

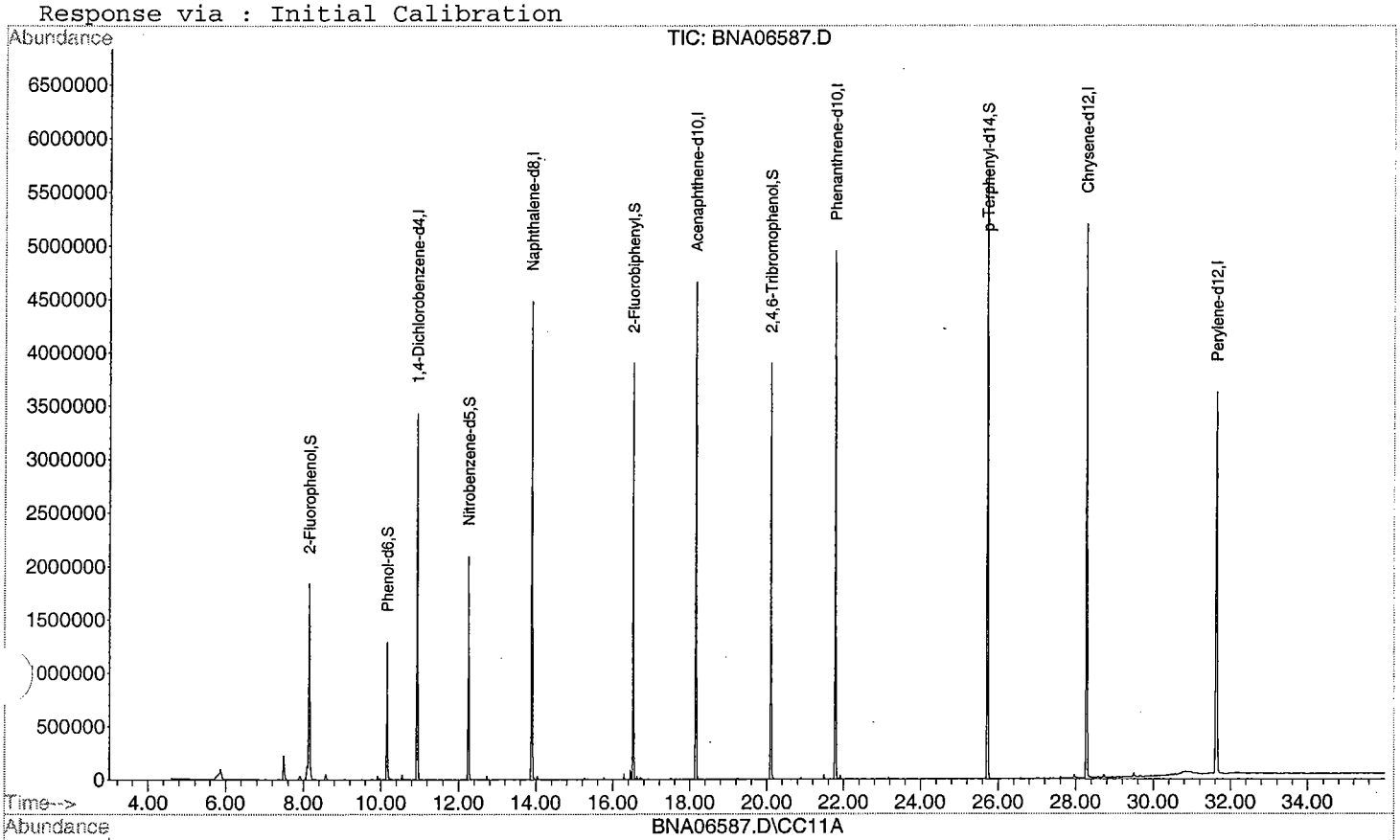
(#) = qualifier out of range (m) = manual integration

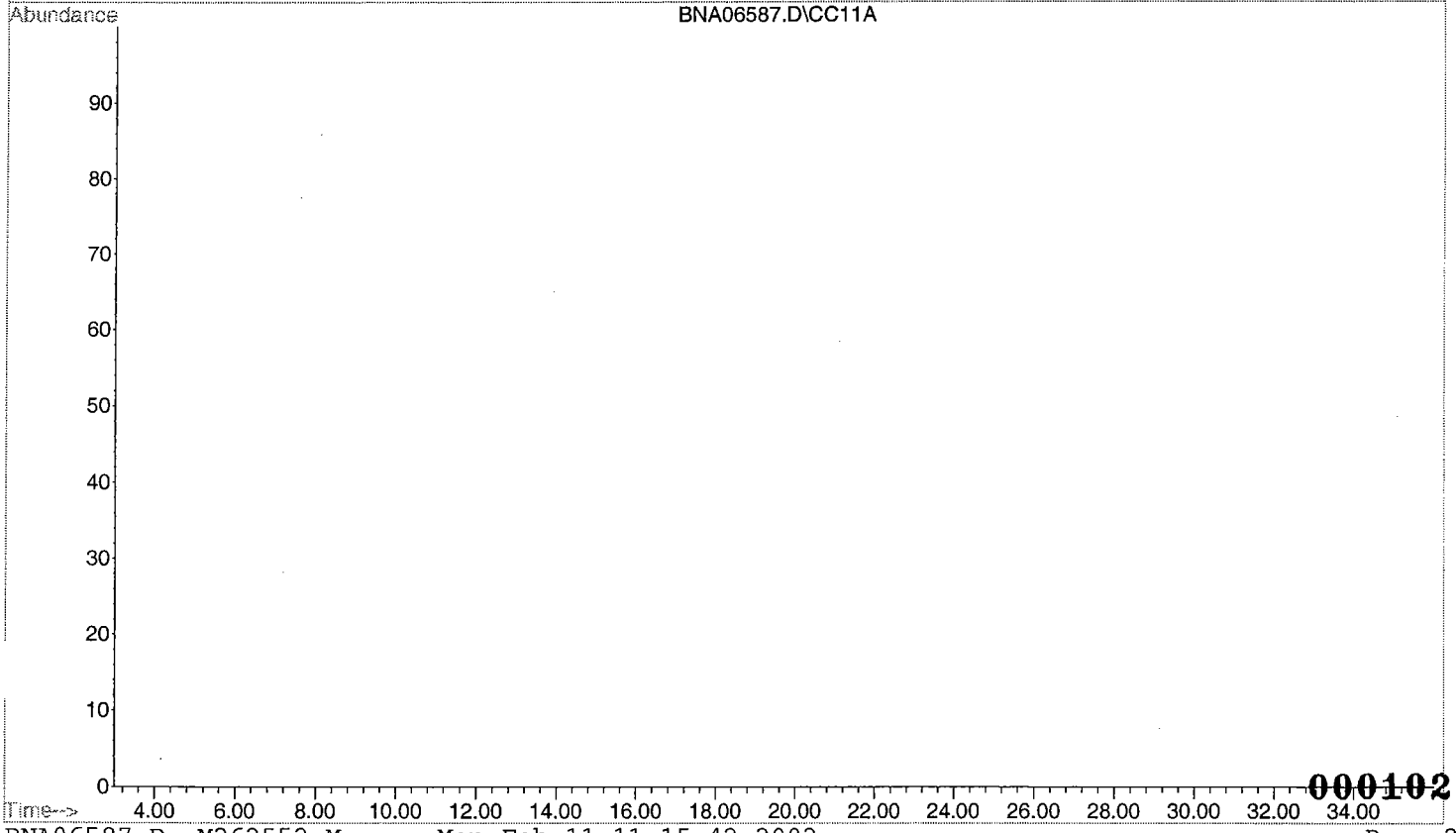
Quantitation Report

Data File : D:\DATA\020208\BNA06587.D
Acq On : 9 Feb 2002 1:55 am
Sample : MB-2947
Misc : MB-020208
MS Integration Params: RTEINT.P
Quant Time: Feb 9 2:31 2002

Vial: 18
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000102

Quantitation Report (QT Reviewed)

Data File : D:\DATA\020208\BNA06580.D Vial: 11
Acq On : 8 Feb 2002 8:30 pm Operator: BPatel
Sample : 2007502 Inst : GC/MS Ins
Misc : Field Blank Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 8 21:07 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	834266	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	3089969	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1600850	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	2925251	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2807421	40.00	ug/L	-0.01
75) Perylene-d12	31.63	264	2099976	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	12.25	82	1069742	33.00	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	66.00%		
38) 2-Fluorobiphenyl	16.53	172	1719223	32.63	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	65.26%		
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	25.73	244	1424706	22.07	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	44.14%		

Target Compounds Qvalue

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

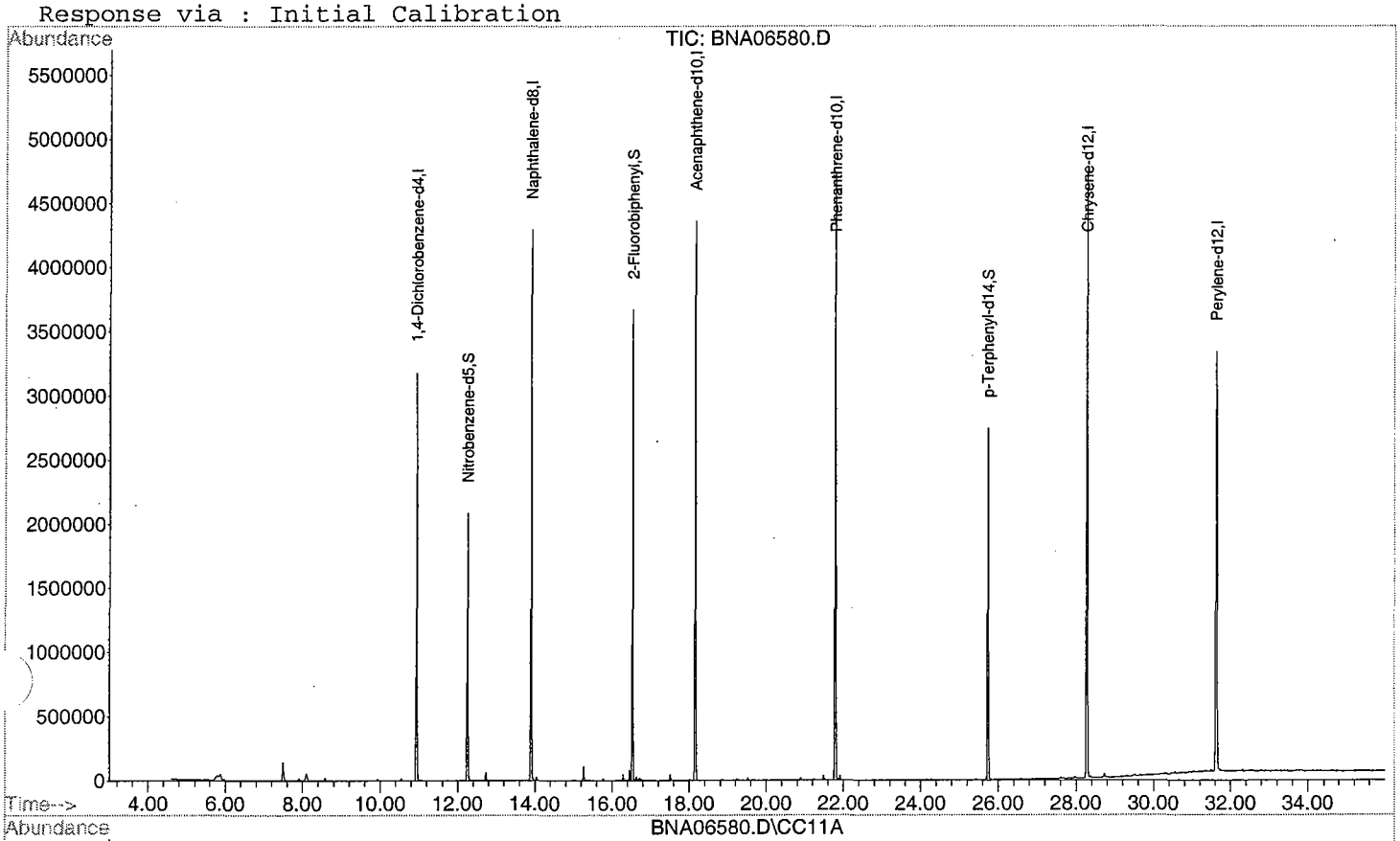
000103

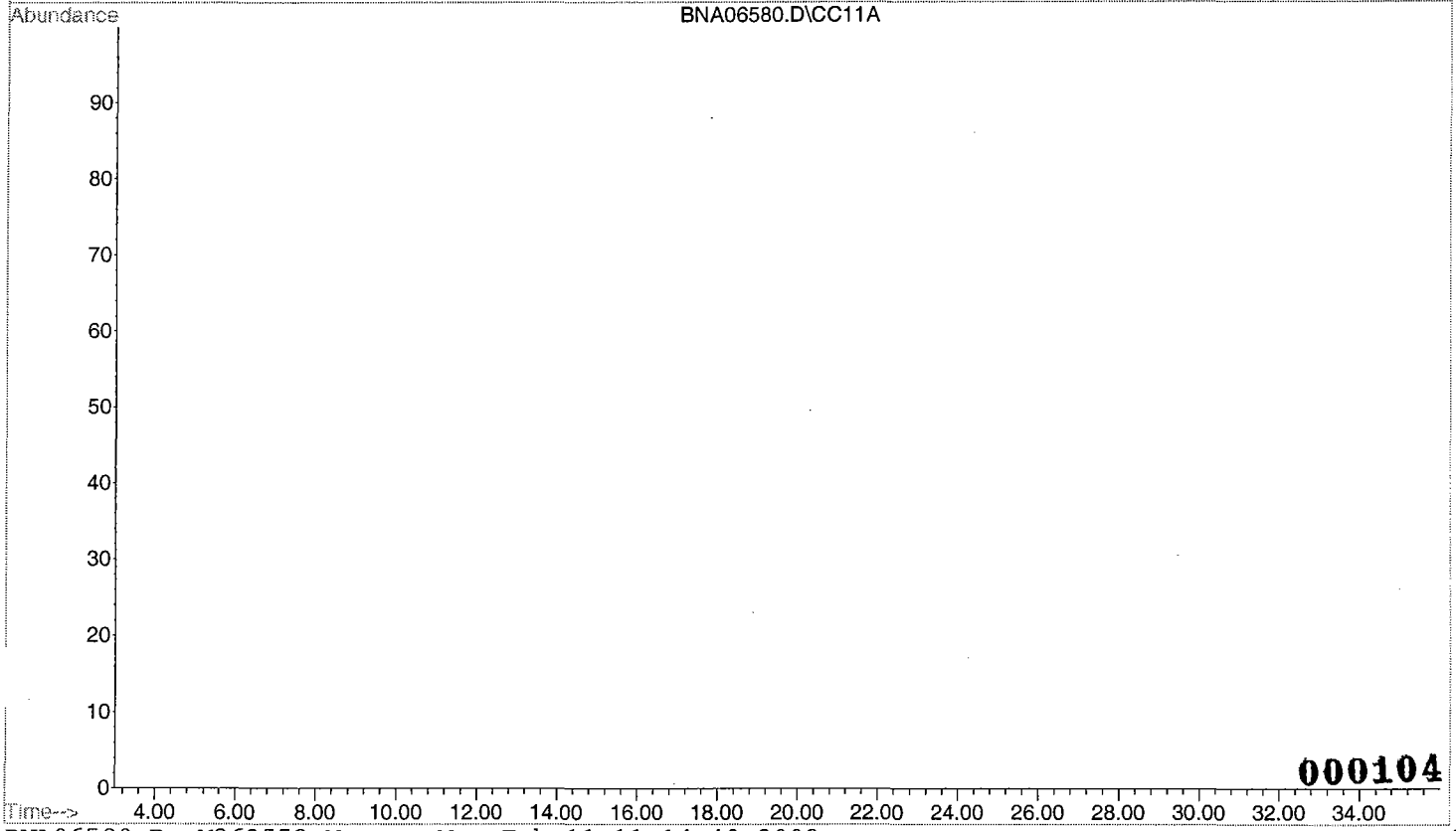
Quantitation Report

Data File : D:\DATA\020208\BNA06580.D
Acq On : 8 Feb 2002 8:30 pm
Sample : 2007502
Misc : Field Blank
MS Integration Params: RTEINT.P
Quant Time: Feb 8 21:07 2002

Vial: 11
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000104

Quantitation Report (QT/LSC Reviewed)

Data File : D:\DATA\020208\BNA06581.D Vial: 12
Acq On : 8 Feb 2002 9:17 pm Operator: BPatel
Sample : 2007503 Inst : GC/MS Ins
Misc : 600GW1 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 8 21:53 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	840520	40.00	ug/L	0.00
19) Naphthalene-d8	13.90	136	3080262	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1598071	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	2903369	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2845681	40.00	ug/L	-0.01
75) Perylene-d12	31.64	264	2135818	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	12.25	82	1073153	33.21	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	66.42%		
38) 2-Fluorobiphenyl	16.53	172	1757971	33.42	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	66.84%		
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	25.73	244	1596925	24.41	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	48.82%		

Target Compounds Qvalue

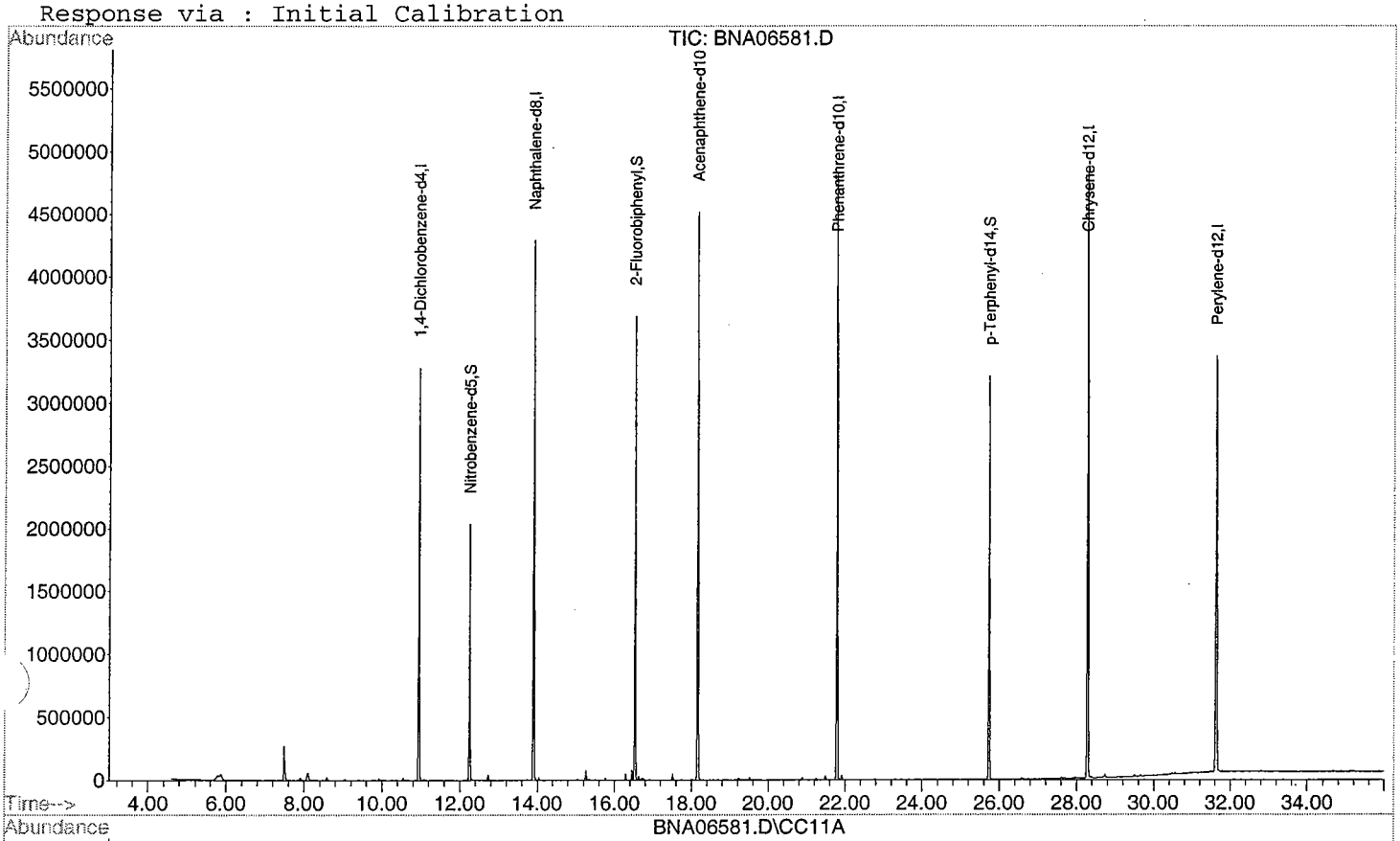
000105

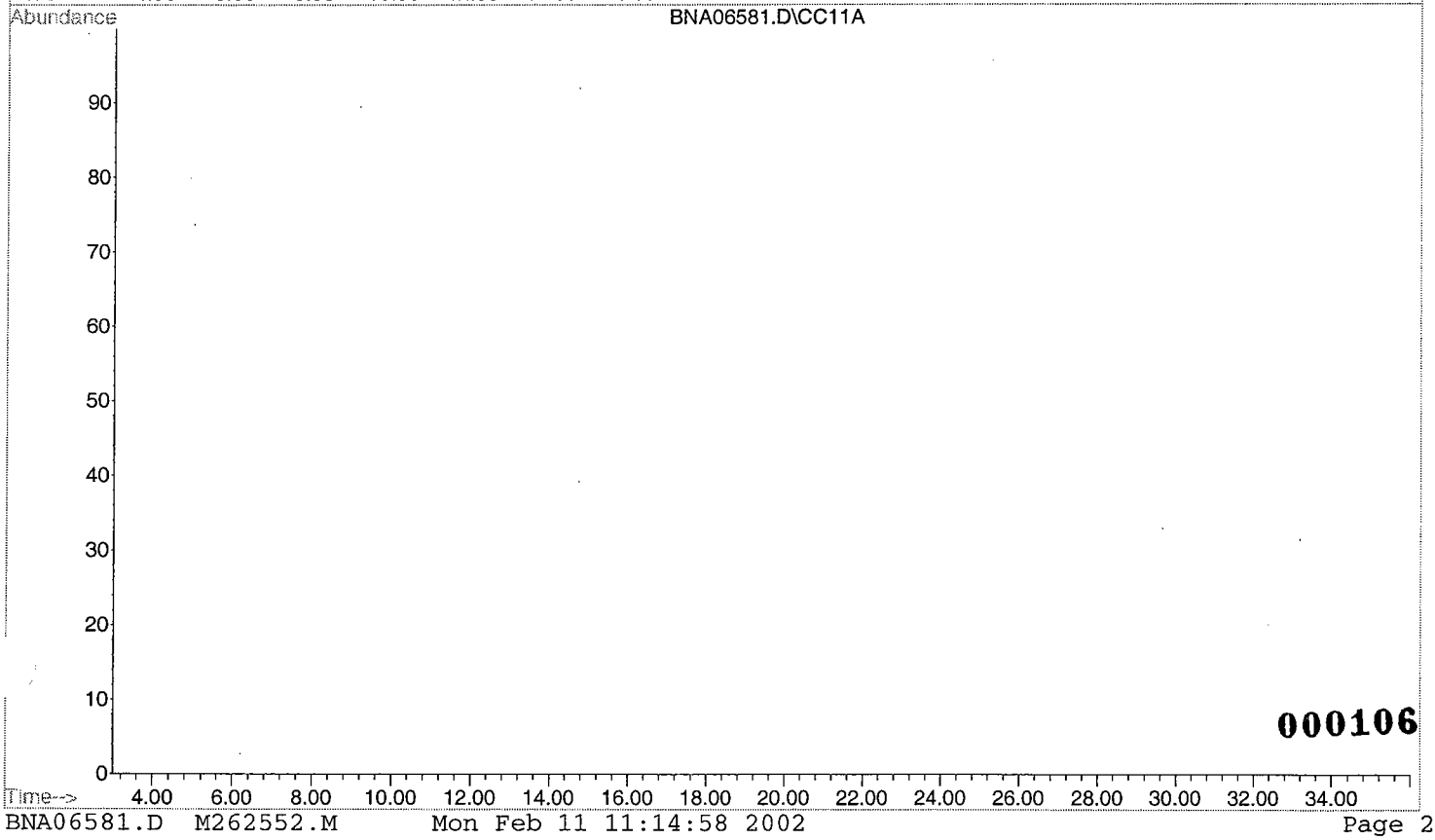
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\DATA\020208\BNA06581.D Vial: 12
Acq On : 8 Feb 2002 9:17 pm Operator: BPatel
Sample : 2007503 Inst : GC/MS Ins
Misc : 600GW1 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 8 21:53 2002 Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000106

Quantitation Report (QT/LSC Reviewed)

Data File : D:\DATA\020208\BNA06582.D Vial: 13
Acq On : 8 Feb 2002 10:04 pm Operator: BPatel
Sample : 2007504 Inst : GC/MS Ins
Misc : 600GW2 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 11 11:01 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	816229	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	2965614	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1545532	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	2835136	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2733310	40.00	ug/L	-0.02
75) Perylene-d12	31.63	264	2050140	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	12.25	82	1074985	34.55	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	69.10%		
38) 2-Fluorobiphenyl	16.53	172	1728326	33.98	ug/L	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery =	67.96%		
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	25.73	244	1589318	25.29	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	50.58%		
Target Compounds						Qvalue
45) Acenaphthene	18.36	153	50863	1.03	ug/L #	20

000107

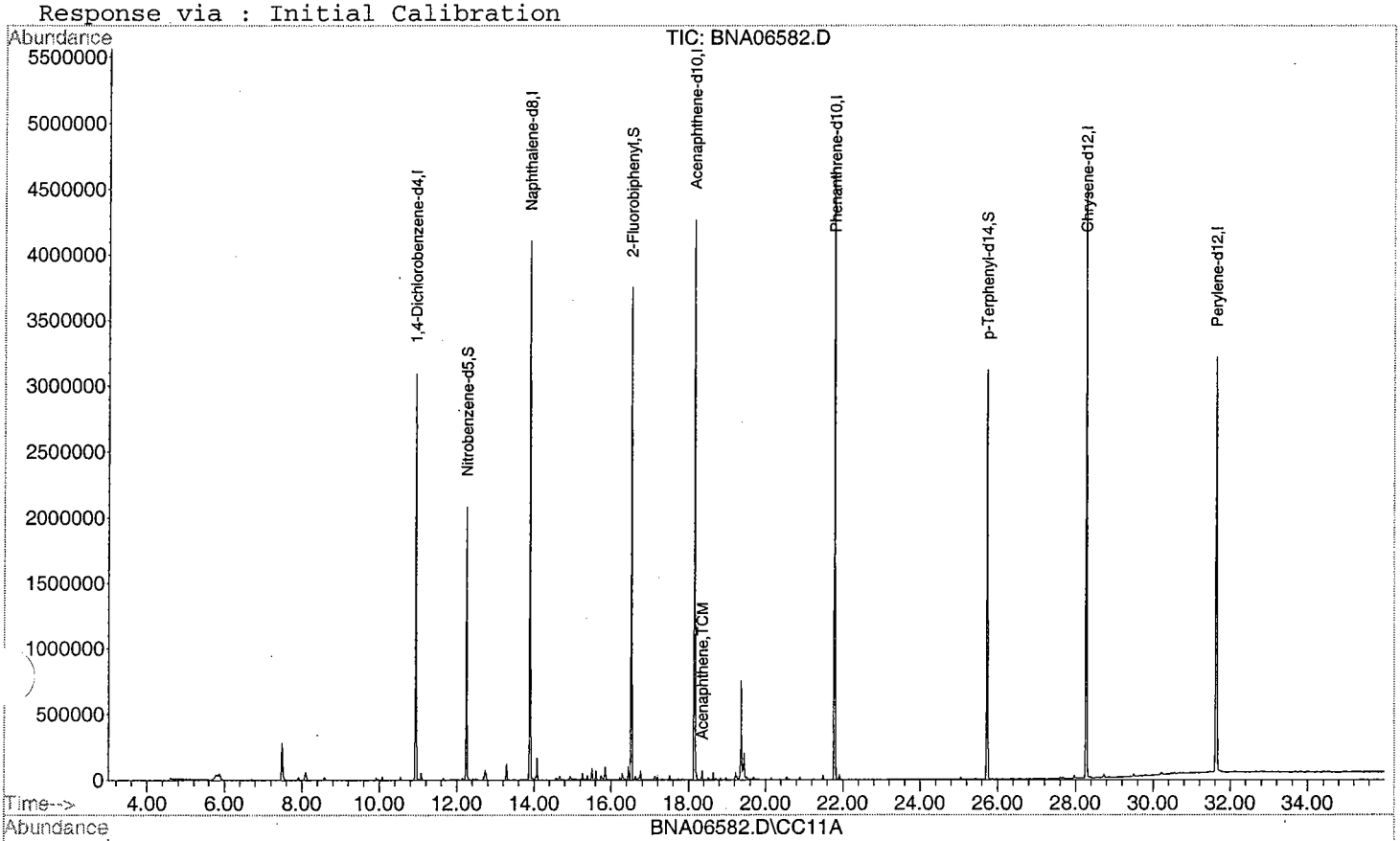
(#) = qualifier out of range (m) = manual integration
BNA06582.D M262552.M Mon Feb 11 11:15:04 2002

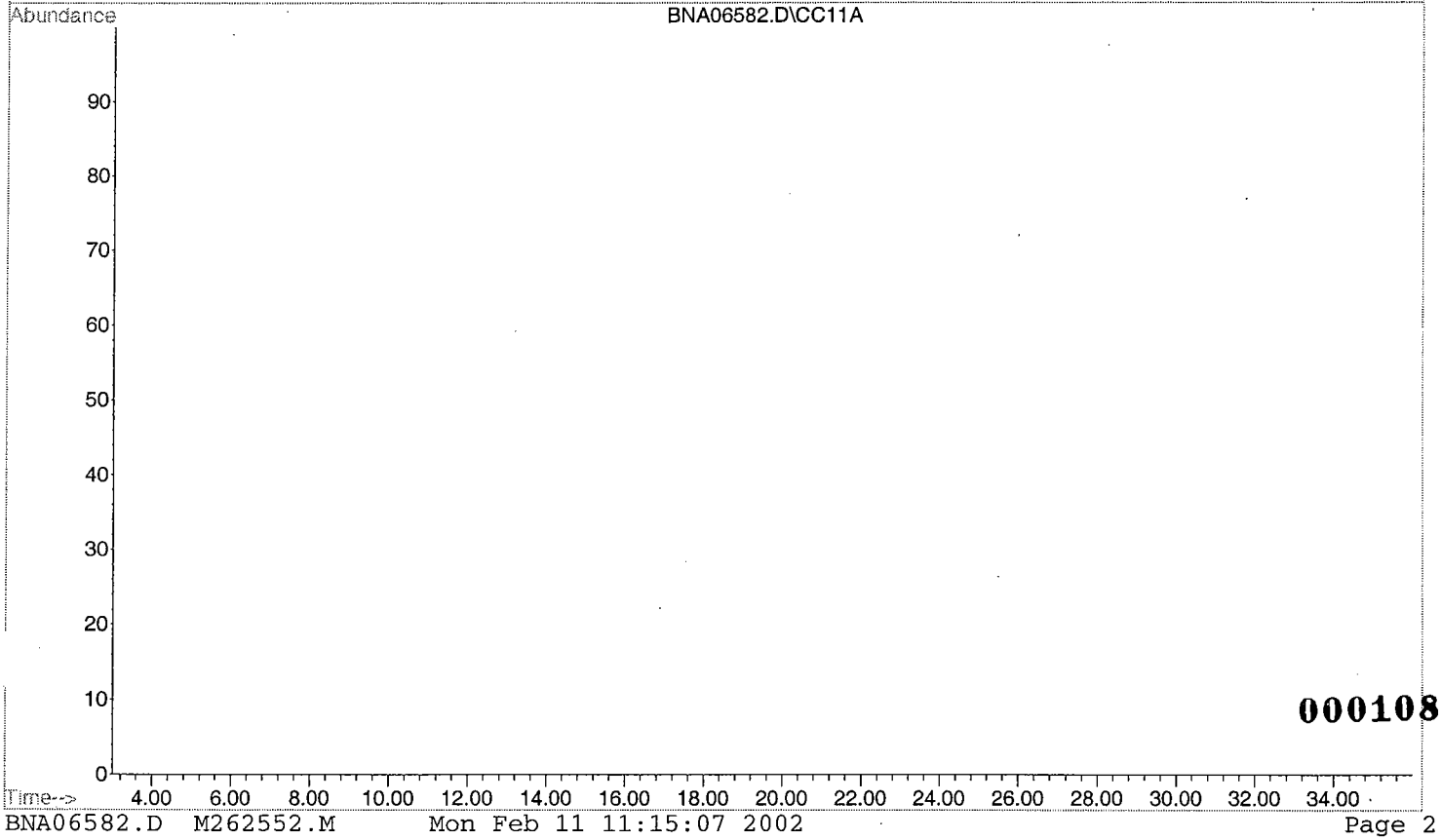
Quantitation Report

Data File : D:\DATA\020208\BNA06582.D
Acq On : 8 Feb 2002 10:04 pm
Sample : 2007504
Misc : 600GW2
MS Integration Params: RTEINT.P
Quant Time: Feb 11 11:01 2002

Vial: 13
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000108

Quantitation Report (QT/LSC Reviewed)

Data File : D:\DATA\020208\BNA06583.D Vial: 14
Acq On : 8 Feb 2002 10:50 pm Operator: BPatel
Sample : 2007505 Inst : GC/MS Ins
Misc : 600GW3 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 11 11:03 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	864075	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	3117121	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1642964	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	3016901	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2978533	40.00	ug/L	-0.01
75) Perylene-d12	31.64	264	2251183	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	12.25	82	1087577	33.26	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	66.52%		
38) 2-Fluorobiphenyl	16.53	172	1821284	33.68	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	67.36%		
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	25.73	244	1329590	19.42	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	38.84%		
Target Compounds						Qvalue
29) Naphthalene	13.94	128	283183	3.58	ug/L	100
33) 2-Methylnaphthalene	15.61	142	1552544	29.64	ug/L	97
45) Acenaphthene	18.23	153	58408	1.11	ug/L	97
51) Fluorene	19.49	166	144221	2.36	ug/L	99
62) Phenanthrene	21.84	178	194053	2.19	ug/L	98

000109

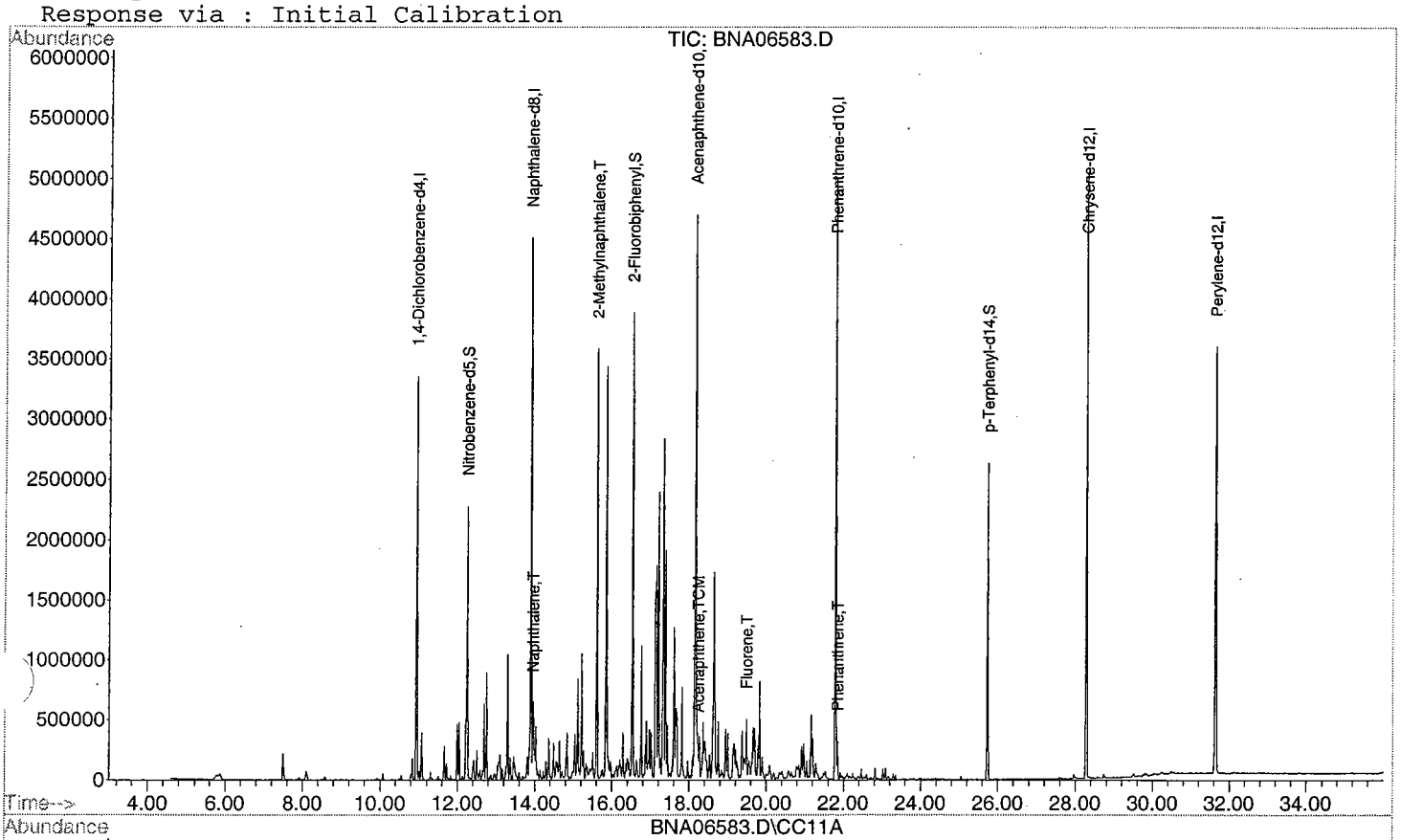
(#) = qualifier out of range (m) = manual integration

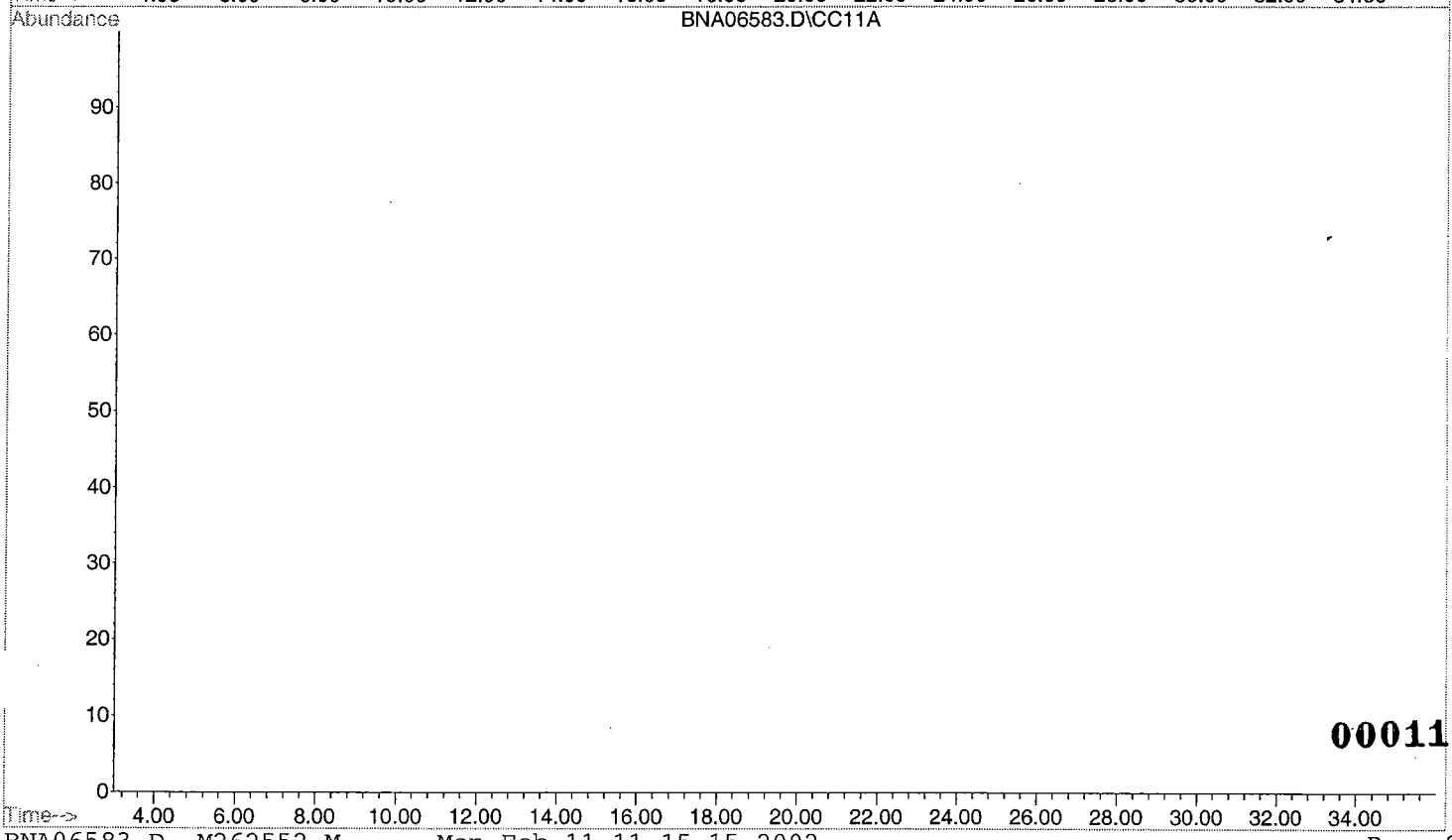
Quantitation Report

Data File : D:\DATA\020208\BNA06583.D
Acq On : 8 Feb 2002 10:50 pm
Sample : 2007505
Misc : 600GW3
MS Integration Params: RTEINT.P
Quant Time: Feb 11 11:03 2002

Vial: 14
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000110

Quantitation Report (QT Reviewed)

Data File : D:\DATA\020208\BNA06584.D Vial: 15
Acq On : 8 Feb 2002 11:36 pm Operator: BPatel
Sample : 2007506 Inst : GC/MS Ins
Misc : 600GW4 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 9 0:12 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	858363	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	3117684	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1608515	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	2978737	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2911255	40.00	ug/L	-0.01
75) Perylene-d12	31.63	264	2197134	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	12.25	82	1036531	31.69	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	63.38%		
38) 2-Fluorobiphenyl	16.53	172	1685709	31.84	ug/L	-0.01
Spiked Amount 50.000	Range 43 - 116		Recovery =	63.68%		
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	25.73	244	1599378	23.90	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	47.80%		

Target Compounds Qvalue

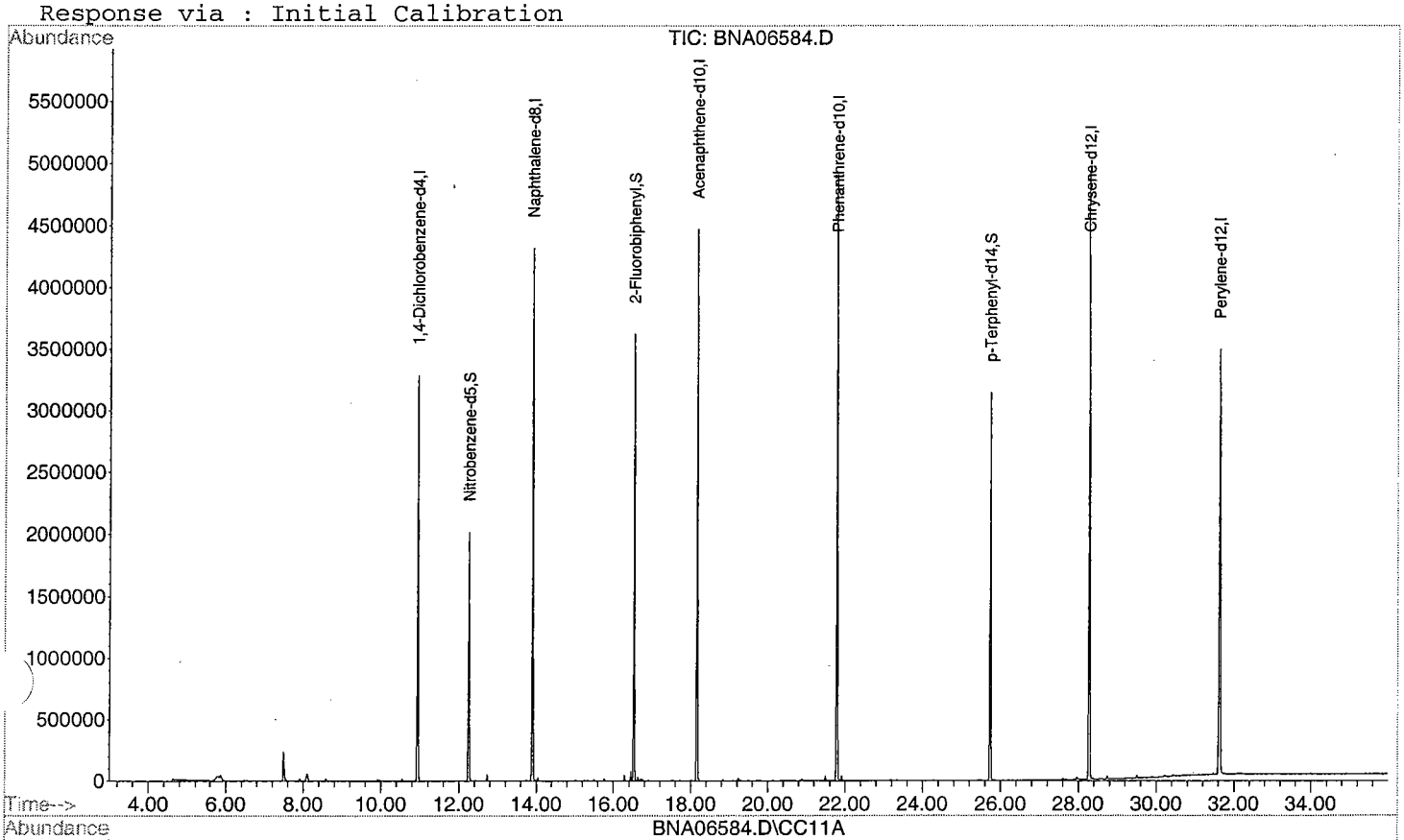
000111

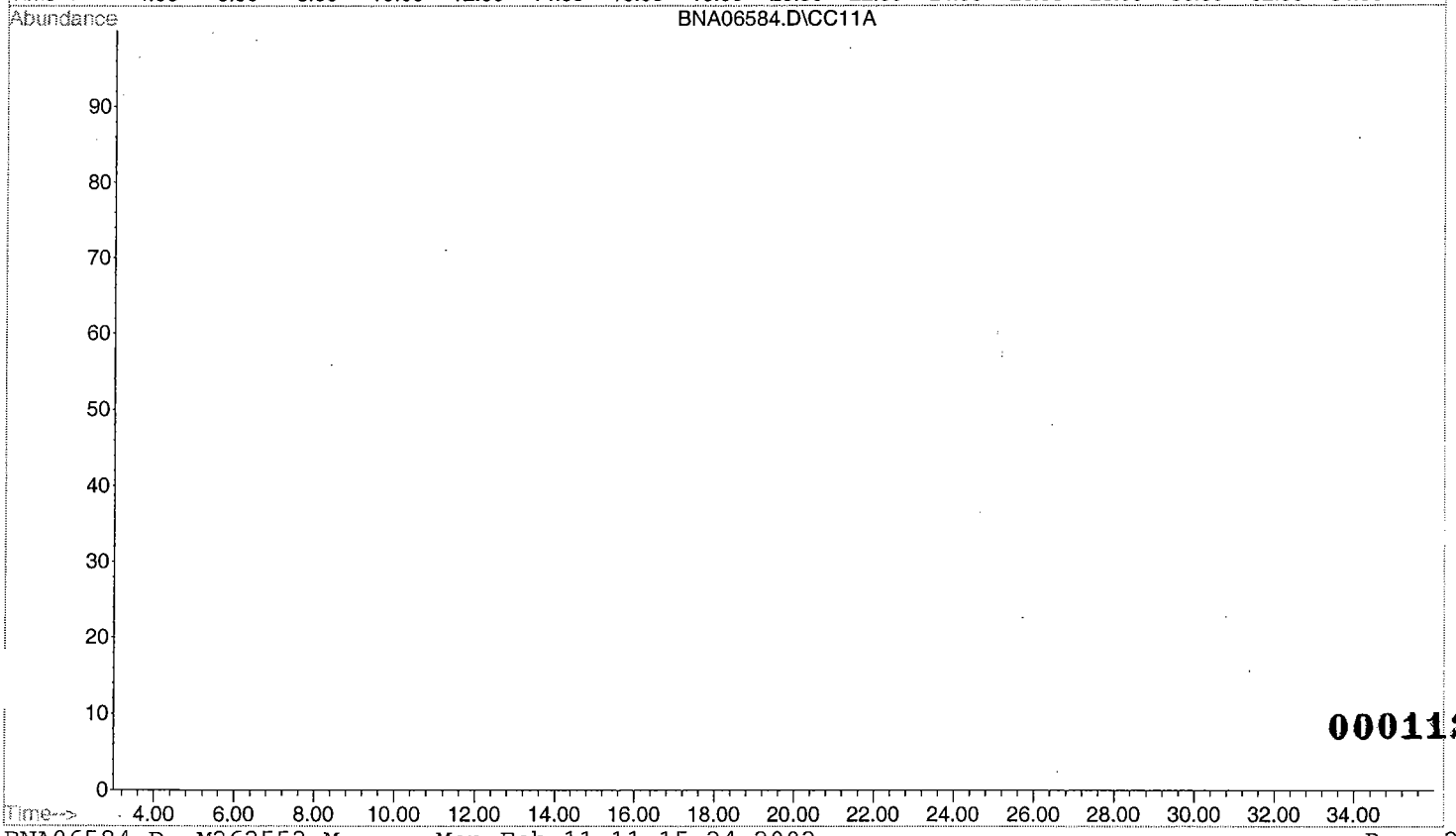
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\DATA\020208\BNA06584.D Vial: 15
Acq On : 8 Feb 2002 11:36 pm Operator: BPatel
Sample : 2007506 Inst : GC/MS Ins
Misc : 600GW4 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 9 0:12 2002 Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000112

Quantitation Report (QT/LSC Reviewed)

Data File : D:\DATA\020208\BNA06585.D Vial: 16
Acq On : 9 Feb 2002 12:23 am Operator: BPatel
Sample : 2007507 Inst : GC/MS Ins
Misc : 600GW5 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 9 0:59 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	801816	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	2924925	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1514088	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	2800057	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	2769378	40.00	ug/L	-0.02
75) Perylene-d12	31.64	264	2082896	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	12.25	82	1065514	34.72	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	69.44%		
38) 2-Fluorobiphenyl	16.53	172	1719635	34.51	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	69.02%		
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	25.73	244	1273143	20.00	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	40.00%		
Target Compounds						Qvalue

000113

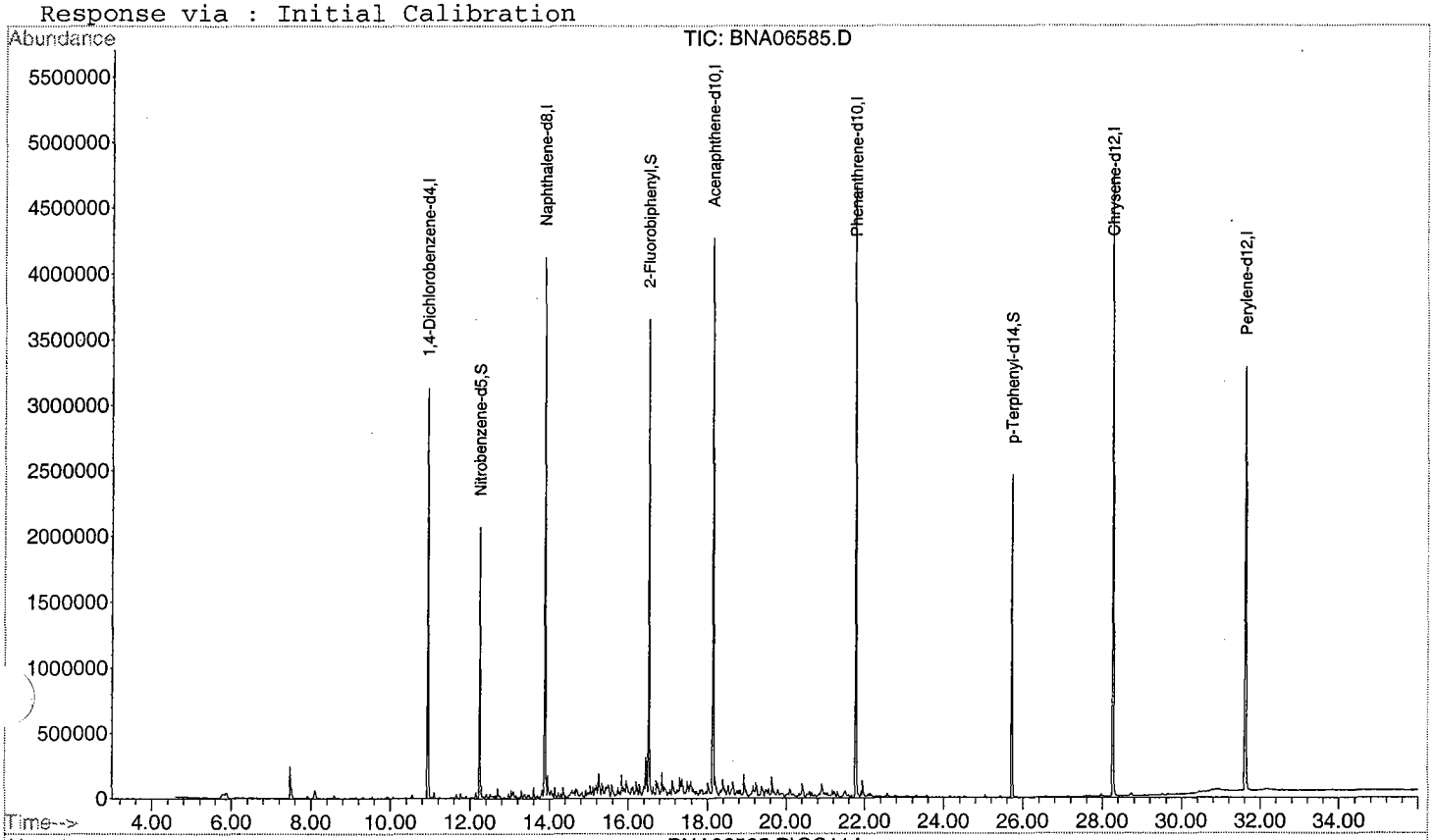
(#) = qualifier out of range (m) = manual integration

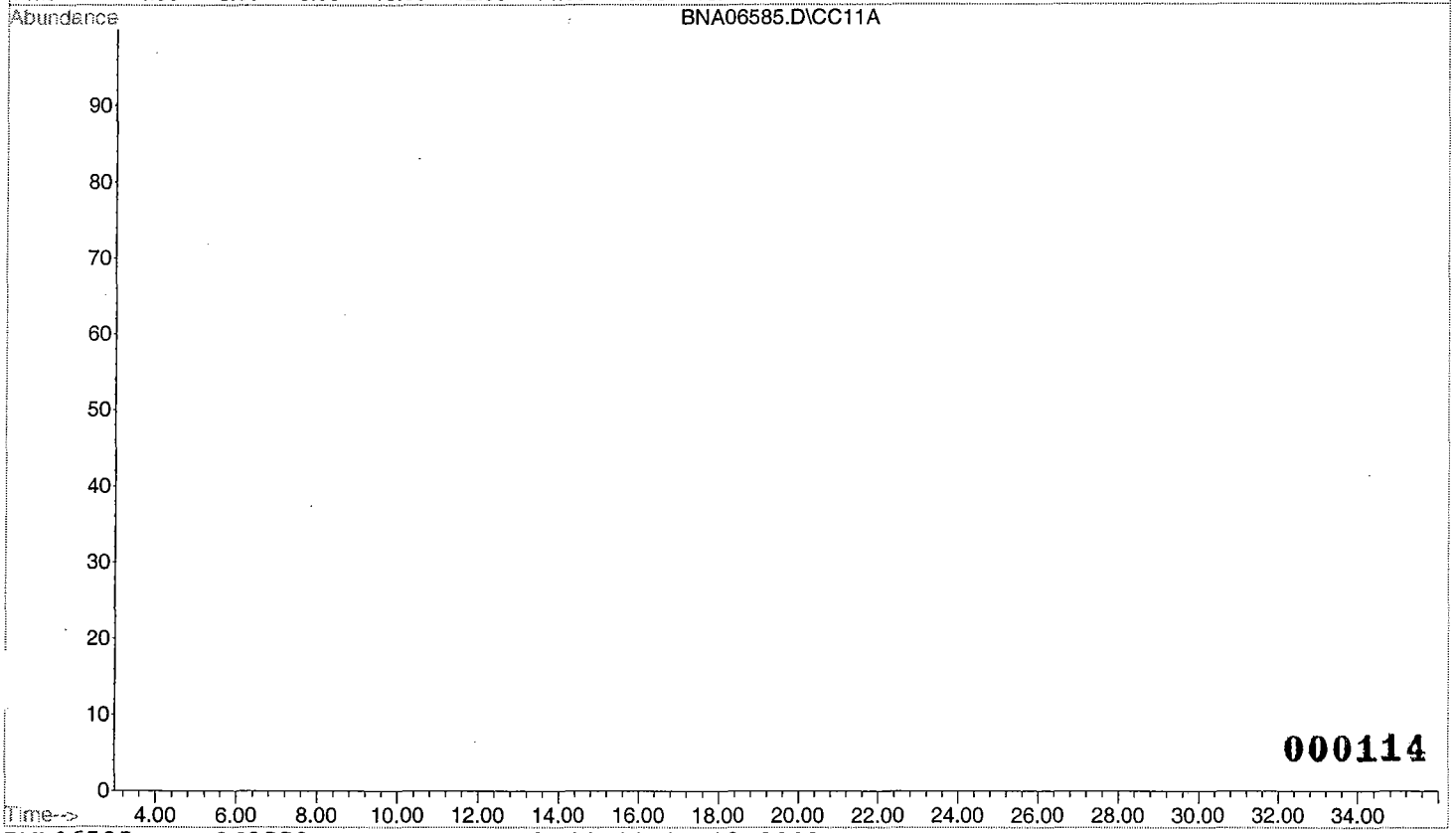
Quantitation Report

Data File : D:\DATA\020208\BNA06585.D
Acq On : 9 Feb 2002 12:23 am
Sample : 2007507
Misc : 600GW5
MS Integration Params: RTEINT.P
Quant Time: Feb 9 0:59 2002

Vial: 16
Operator: BPatel
Inst : GC/MS Ins
Multiplr: 1.00
GC Integration Params: rteint2.p
Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000114

Quantitation Report (QT Reviewed)

Data File : D:\DATA\020208\BNA06588.D Vial: 19
Acq On : 9 Feb 2002 2:41 am Operator: BPatel
Sample : 2007508 Inst : GC/MS Ins
Misc : Field Dup Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 11 11:07 2002 Quant Results File: M262552.RES

Quant Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration
DataAcq Meth : M262552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.94	152	938259	40.00	ug/L	0.00
19) Naphthalene-d8	13.89	136	3398044	40.00	ug/L	0.00
34) Acenaphthene-d10	18.16	164	1762738	40.00	ug/L	0.00
54) Phenanthrene-d10	21.79	188	3251806	40.00	ug/L	0.00
66) Chrysene-d12	28.28	240	3300466	40.00	ug/L	-0.01
75) Perylene-d12	31.64	264	2466572	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	12.25	82	1258133	35.29	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	70.58%		
38) 2-Fluorobiphenyl	16.53	172	2068462	35.65	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	71.30%		
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	25.73	244	1839274	24.24	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	48.48%		

Target Compounds Qvalue

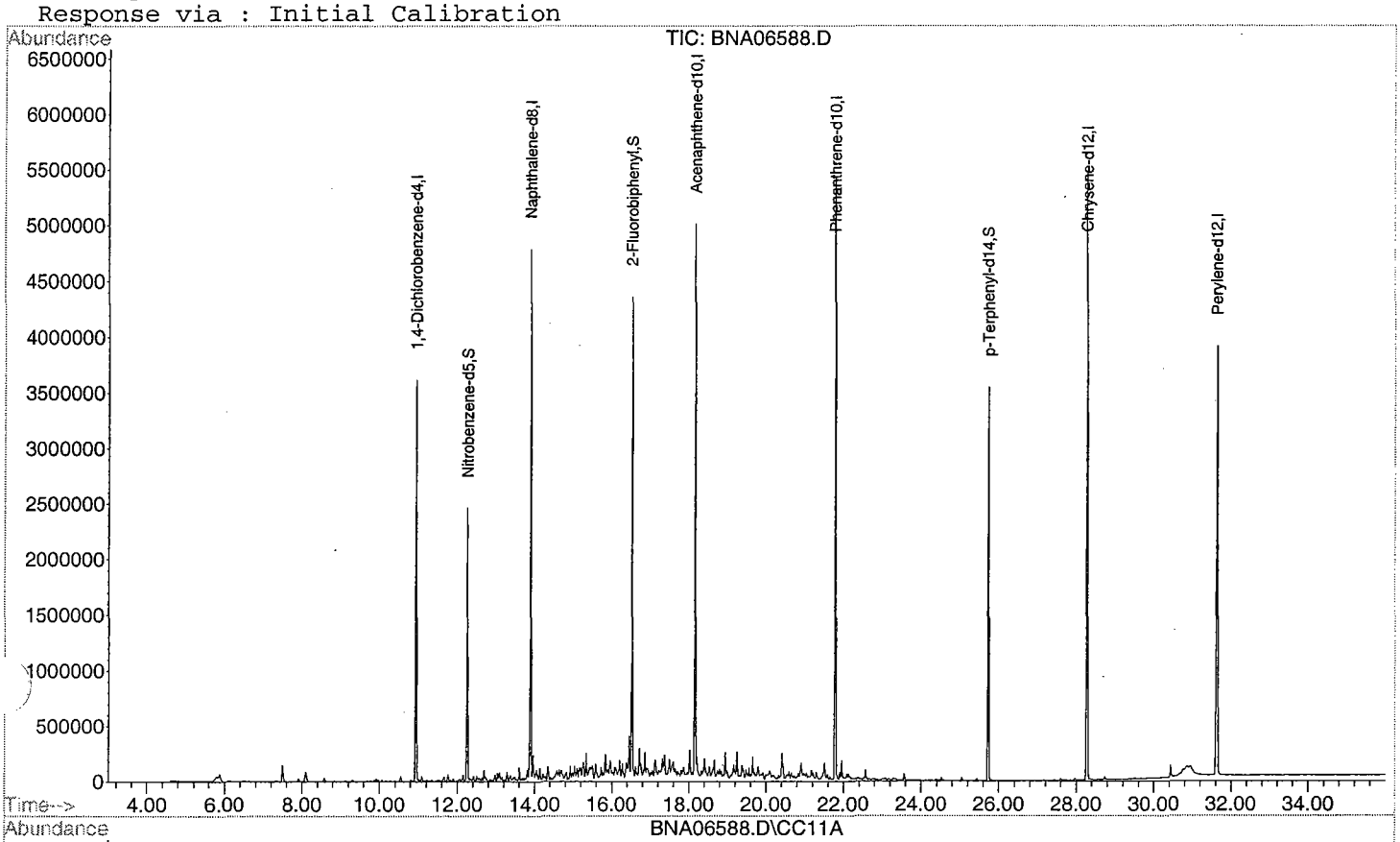
000115

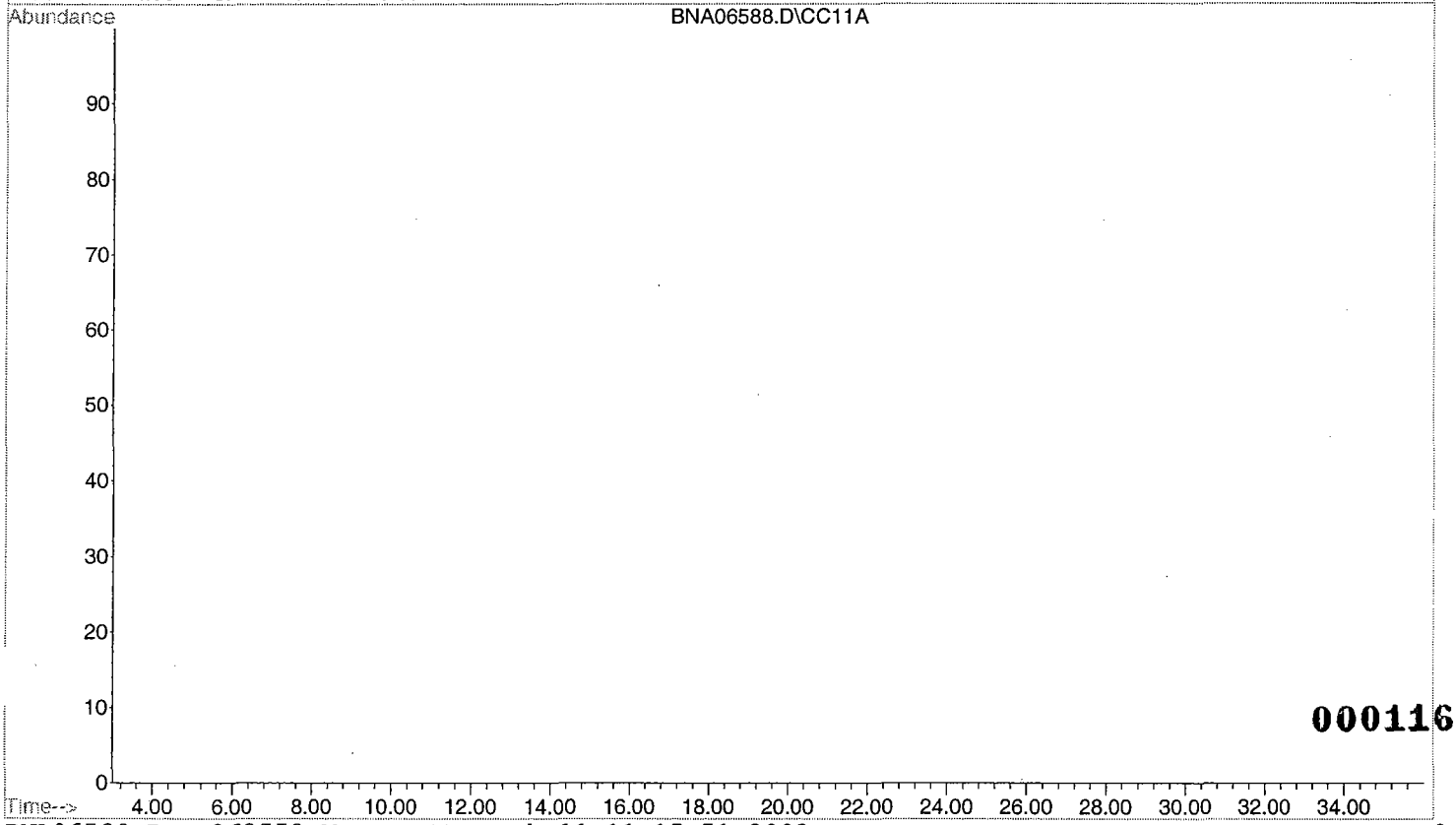
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\DATA\020208\BNA06588.D Vial: 19
Acq On : 9 Feb 2002 2:41 am Operator: BPatel
Sample : 2007508 Inst : GC/MS Ins
Misc : Field Dup Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Feb 11 11:07 2002 Quant Results File: M262552.RES

Method : C:\HPCHEM\1\METHODS\M262552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Feb 05 14:50:22 2002
Response via : Initial Calibration





000116

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓ DA
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature

Date 2/27/02

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

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

600 Area

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
T. B.	2000301	Aqueous	03-Jan-02	01/03/02
F. B.	2000302	Aqueous	03-Jan-02 10:00	01/03/02
600 GW-1/6.9'	2000303	Aqueous	03-Jan-02 10:30	01/03/02
600 GW-2/6.3'	2000304	Aqueous	03-Jan-02 10:45	01/03/02
600 GW-3/12.3'	2000305	Aqueous	03-Jan-02 11:20	01/03/02
600 GW-4/12.6'	2000306	Aqueous	03-Jan-02 13:45	01/03/02
600 GW-5/7.5'	2000307	Aqueous	03-Jan-02 14:15	01/03/02
F.D.	2000308	Aqueous	03-Jan-02	01/03/02

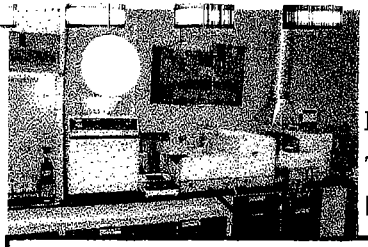
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

1-10-02
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 (Y)OMA ( )Other:_____

Project No: 02
Location: 600 AREA GROUNDWATER SAMPLES

Samplers Name / Company: MARK LOMAN - TVS - PWS 07

Lab Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	VOA + 15	BN + 15							Remarks / Preservation Method
20003 01	T.B.	1-3-02	—	AQ.	2	X								HCL
02	F.B.	"	1000	"	3	X	X							HCL, <4°C
03	600 GW-1 6.9'	"	1030	"	3	X	X							" "
04	600 GW-2 6.3'	"	1045	"	3	X	X							" "
05	600 GW-3 12.3'	"	1120	"	3	X	X							" "
06	600 GW-4 12.6'	"	1345	"	3	X	X							" "
07	600 GW-5 7.5'	"	1415	"	3	X	X							" "
08	F.D.	"	—	"	3	X	X							" "

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	1-3-02 1450				
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.xls9/6/99

200002

METHOD SUMMARY

Method Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5-ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

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

Surrogates are added to measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

CONFORMANCE-
NON-
CONFORMANCE

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate Yes, No, N/A

1. Chromatograms labeled/Compounds identified (Field samples and method blanks) — Yes
2. Retention times for chromatograms provided — Yes
3. GC/MS Tune Specifications
   a. BFB Meet Criteria — Yes
   b. DFTPP Meet Criteria — Yes
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series — Yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series — Yes
6. GC/MS Calibration requirements
   a. Calibration Check Compounds Meet Criteria — Yes
   b. System Performance Check Compounds Meet Criteria — Yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank: — NO
   a. VOA Fraction _____
   b. B/N Fraction _____
   c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria — Yes

   If not met, list those compounds and their recoveries, which fall outside the acceptable range:
   a. VOA Fraction _____
   b. B/N Fraction _____
   c. Acid Fraction NA

   If not met, were the calculations checked and the results qualified as "estimated"? _____
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — Yes
   a. VOA Fraction _____
   b. B/N Fraction _____
   c. Acid Fraction NA

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria — Yes
(If not met, list those compounds, which fall outside the acceptable range)

    a. VOA Fraction _____
    b. B/N Fraction _____
    c. Acid Fraction 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: 1-10-02

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 20003

Site: Bldg. 600 Area

	Date	Hold Time
Date Sampled	01/03/02	NA
Receipt/Refrigeration	01/03/02	NA
Extractions		
1. BN	01/07/02	7 days
Analyses		
1. Volatile Organics	01/03,04/02	14 days
2. BN	01/07,08,/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	**VB010531.D**	Sample Name	**MB 3Jan02**
Operator	**Skelton**	Field ID	**MB 3Jan02**
Date Acquired	**3 Jan 2002 10:54 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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

MB 03Jan02

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB 3Jan02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010531.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/3/02

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

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

Data File	**VB010546.D**	Sample Name	**2000301**
Operator	**Skelton**	Field ID	**Trip Blank**
Date Acquired	**3 Jan 2002 10:01 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

1/4/02 2:22 PM

000014

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Trip Blank

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000301

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010546.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/3/02

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

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

Data File	**VB010547.D**	Sample Name	**2000302**
Operator	**Skelton**	Field ID	**Field Blank**
Date Acquired	**3 Jan 2002 10:43 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

C:\HPCHEM\Custrpt\Volatile\624fy01.crt

1/4/02 2:22 PM

000016

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Field Blank

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000302

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010547.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/3/02

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

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

Data File	**VB010548.D**	Sample Name	**2000303**
Operator	**Skelton**	Field ID	**600GW-1**
Date Acquired	**3 Jan 2002 11:24 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

1/4/02 2:22 PM

000018

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **600GW-1**

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000303

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010548.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/3/02

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	24.38	4	J

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

Data File	**VB010549.D**	Sample Name	**2000304**
Operator	**Skelton**	Field ID	**600GW-2**
Date Acquired	**4 Jan 2002 12:06 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

1/4/02 2:22 PM

000020

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **600GW-2**

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000304

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010549.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/4/02

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: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000526-73-8	Benzene, 1,2,3-trimethyl-	32.02	3	JN
2.	unknown	33.87	4	J

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

Data File	**VB010550.D**	Sample Name	**2000305**
Operator	**Skelton**	Field ID	**600GW-3**
Date Acquired	**4 Jan 2002 12:48 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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **600GW-3**

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000305

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010550.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/4/02

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: 5

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	25.49	6	JN
2. 000275-51-4	Azulene	31.10	240	JN
3. 000270-82-6	Benzo[c]thiophene	32.22	6	JN
4. 000135-98-8	Benzene, (1-methylpropyl)-	32.43	4	JN
5. 000095-63-6	Benzene, 1,2,4-trimethyl-	33.14	3	JN

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

Data File	**VB010551.D**	Sample Name	**2000306**
Operator	**Skelton**	Field ID	**600GW-4**
Date Acquired	**4 Jan 2002 1:31 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

1/4/02 2:22 PM

000024

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **600GW-4**

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000306

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010551.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/4/02

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: 4

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000090-12-0	Naphthalene, 1-methyl-	26.54	21	JN
2. 000264-09-5	Benzocycloheptatriene	30.61	8	JN
3. 000091-20-3	Naphthalene	31.09	8	JN
4.	unknown	32.44	4	J

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

Data File	**VB010557.D**	Sample Name	**2000307**
Operator	**Skelton**	Field ID	**600GW-5**
Date Acquired	**4 Jan 2002 8:50 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	18.67	158682	1.00 ug/L	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	23.70	310688	1.80 ug/L	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	27.56	1176432	6.33 ug/L	700	0.40 ug/L	
1330-20-7	m+p-Xylenes	27.75	1903264	29.07 ug/L	nle	0.99 ug/L	
95-47-6	o-Xylene	28.84	2658012	18.83 ug/L	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

600GW-5

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000307

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010557.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/4/02

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: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000620-14-4	Benzene, 1-ethyl-3-methyl-	30.94	36	JN
2. 000526-73-8	Benzene, 1,2,3-trimethyl-	31.08	22	JN
3. 000611-14-3	Benzene, 1-ethyl-2-methyl-	31.70	17	JN
4. 000095-36-3	1,2,4-Trimethylbenzene	32.02	62	JN
5. 000095-36-3	1,2,4-Trimethylbenzene	33.13	36	JN
6. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.48	14	JN
7. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	33.65	20	JN
8. 000535-77-3	Benzene, 1-methyl-3-(1-methylet	34.28	10	JN
9. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	34.36	11	JN
10. 001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	34.54	14	JN

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

Data File	**VB010558.D**	Sample Name	**2000308**
Operator	**Skelton**	Field ID	**Field Dup**
Date Acquired	**4 Jan 2002 9:31 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	18.67	157320	1.00 ug/L	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	23.70	317217	1.85 ug/L	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	27.56	1153670	6.19 ug/L	700	0.40 ug/L	
1330-20-7	m+p-Xylenes	27.75	1810882	27.57 ug/L	nle	0.99 ug/L	
95-47-6	o-Xylene	28.84	2749255	19.41 ug/L	nle	0.26 ug/L	
100-42-5	Styrene			not detected	100	0.39 ug/L	
75-25-2	Bromoform			not detected	4	0.85 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	0.87 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.25 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.43 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.52 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6 2-Sept-9

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time

C:\HPCHEM\Custrpt\Volatile\624fy01.crt

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Field Dup

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000308

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB010558.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: not dec. Date Analyzed: 1/4/02

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: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	25.52	14	JN
2. 000611-14-3	Benzene, 1-ethyl-2-methyl-	30.94	35	JN
3.	unknown	31.09	47	J
4. 000611-14-3	Benzene, 1-ethyl-2-methyl-	31.70	17	JN
5. 000526-73-8	Benzene, 1,2,3-trimethyl-	32.02	60	JN
6. 000526-73-8	Benzene, 1,2,3-trimethyl-	33.13	33	JN
7. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.48	13	JN
8.	unknown	33.65	19	J
9.	unknown	34.09	11	J
10.	unknown	34.54	17	J

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Lab File ID: VB010498.D BFB Injection Date: 1/2/02

Instrument ID: GCMS#2 BFB Injection Time: 11:49

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

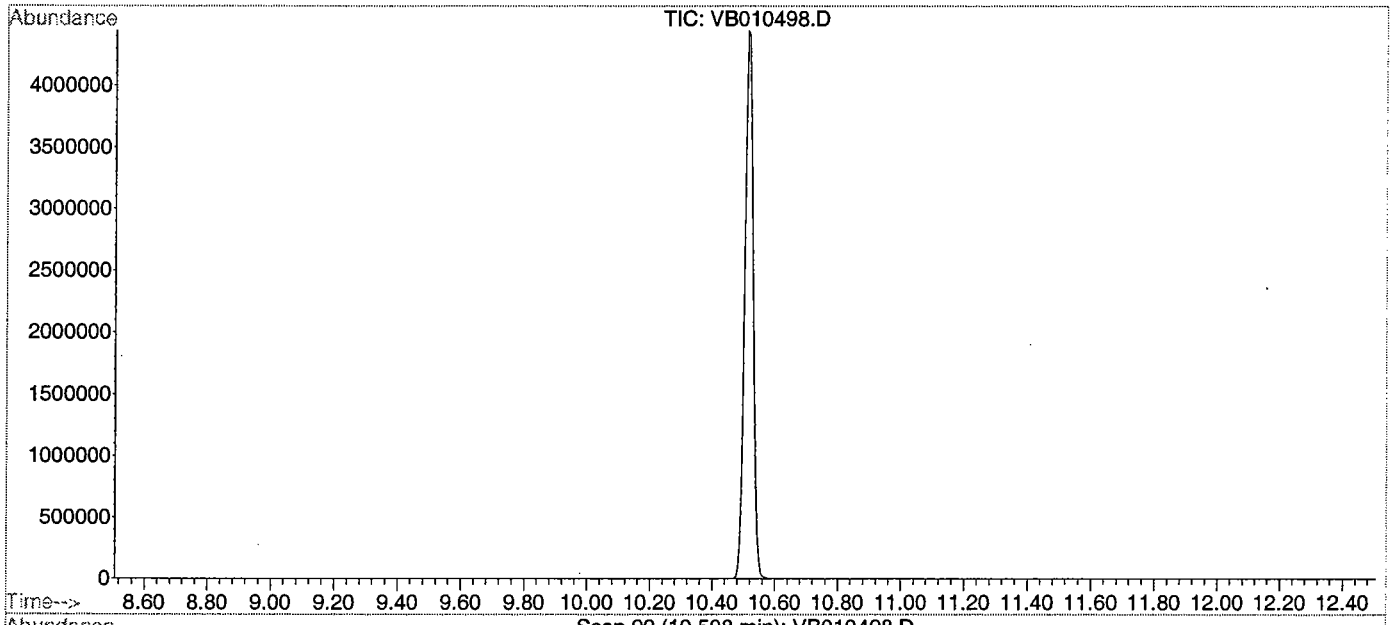
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.4
75	30.0 - 66.0% of mass 95	52.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	77.7
175	4.0 - 9.0% of mass 174	6.1 (7.9)1
176	93.0 - 101.0% of mass 174	77.2 (99.4)1
177	5.0 - 9.0% of mass 176	5.3 (6.9)2

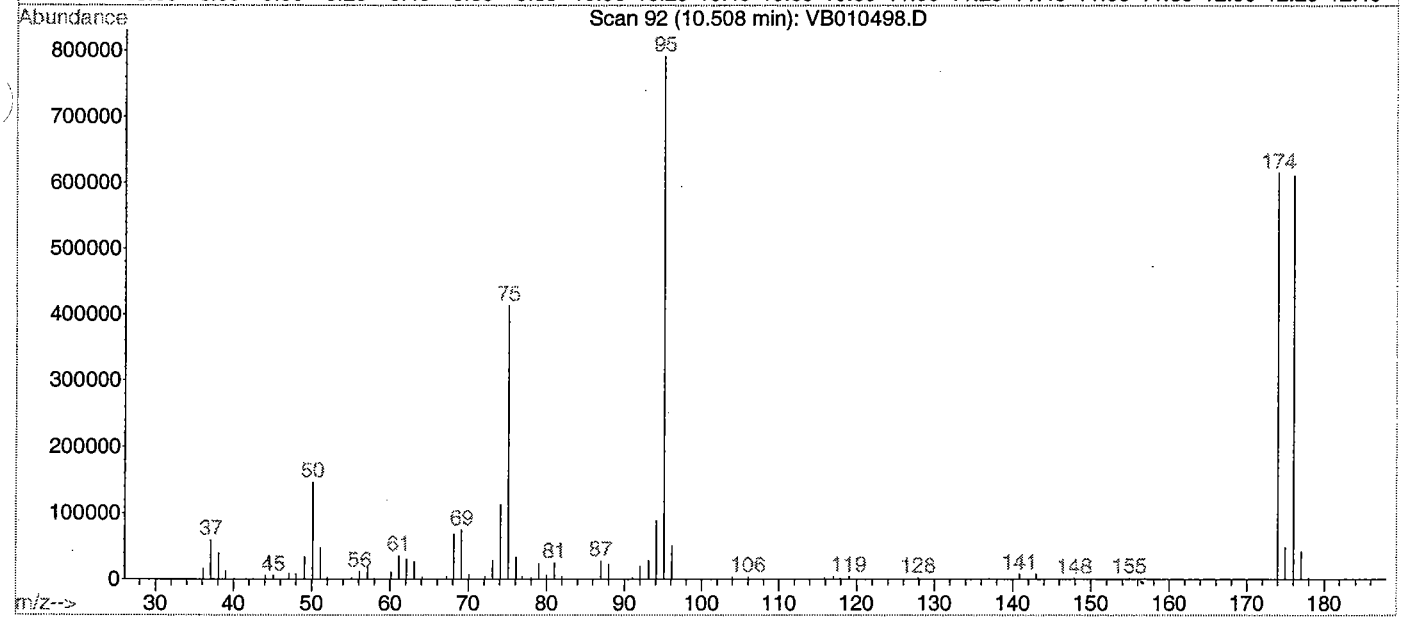
1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010499.D	1/2/02	12:18
02	VSTD100	VSTD100	VB010500.D	1/2/02	13:16
03	VSTD005	VSTD005	VB010501.D	1/2/02	13:57
04	VSTD050	VSTD050	VB010502.D	1/2/02	14:43
05	VSTD010	VSTD010	VB010503.D	1/2/02	15:24

Data File : C:\HPCHEM\1\DATA\020102\VB010498.D Vial: 1
Acq On : 2 Jan 2002 11:49 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\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 92

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.4	145984	PASS
75	95	30	60	52.2	413248	PASS
95	95	100	100	100.0	791360	PASS
96	95	5	9	6.4	51032	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.7	614784	PASS
175	174	5	9	7.9	48576	PASS
176	174	95	101	99.4	611200	PASS
177	176	5	9	6.9	42216	PASS

Response Factor Report GC VOA 2

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration

Calibration Files
100 =VB010500.D 50 =VB010502.D 20 =VB010499.D
10 =VB010503.D 5 =VB010501.D

		Compound	100	50	20	10	5	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------						
2)	t	Acrolein	0.225	0.276	0.099	0.175	0.192	0.194	33.71
3)	t	Acrylonitrile	1.093	1.154	1.092	0.919	1.142	1.080	8.73
4)	t	tert-Butyl alcohol	0.137	0.156	0.153	0.149	0.183	0.156	10.88
5)	t	Methyl-tert-Butyl eth	7.881	7.653	7.211	6.860	6.745	7.270	6.76
6)	t	Di-isopropyl ether	2.109	2.031	1.928	1.898	1.853	1.964	5.31
7)	T	Dichlorodifluorometha	2.183	2.121	2.334	2.265	2.326	2.246	4.10
8)	TP	Chloromethane	2.400	2.237	1.999	2.362	2.669	2.334	10.46
9)	TC	Vinyl Chloride	2.810	2.806	2.855	2.866	2.861	2.839	1.03
10)	T	Bromomethane	1.457	1.482	1.492	1.406	1.594	1.486	4.62
11)	T	Chloroethane	1.461	1.400	1.449	1.385	1.408	1.421	2.29
12)	T	Trichlorofluoromethan	4.184	4.761	4.939	4.928	4.970	4.756	6.94
13)	MC	1,1-Dichloroethene	4.160	4.077	4.192	4.374	4.186	4.198	2.59
14)	T	Acetone	0.923	1.201	1.017	0.966	1.738	1.169	28.67
15)	T	Carbon Disulfide	6.625	6.668	6.172	6.568	6.376	6.482	3.18
16)	T	Methylene Chloride	2.420	2.377	2.312	2.471	2.388	2.394	2.44
17)	T	trans-1,2-Dichloroeth	3.856	3.818	3.773	3.851	3.818	3.823	0.87
18)	TP	1,1-Dichloroethane	4.711	4.621	4.684	4.856	4.698	4.714	1.84
19)	T	Vinyl Acetate	6.599	6.343	5.661	5.077	5.089	5.754	12.20
20)	T	2-Butanone	1.302	1.413	1.187	0.956	1.268	1.225	13.98
21)	T	cis-1,2-Dichloroethen	3.792	3.726	3.810	3.785	3.778	3.778	0.84
22)	TC	Chloroform	4.645	4.628	4.688	4.827	4.697	4.697	1.67
23)	T	1,1,1-Trichloroethane	4.198	4.064	3.900	3.957	3.776	3.979	4.04
	T	Carbon Tetrachloride	3.718	3.518	3.334	3.266	3.136	3.394	6.70
	S	1,2-Dichloroethane-d4	3.393	3.188	3.199	3.281	3.279	3.268	2.52
26)	I	1,4-Difluorobenzene	----------ISTD----------						
27)	TM	Benzene	1.212	1.299	1.271	1.242	1.257	1.256	2.57
28)	T	1,2-Dichloroethane	0.512	0.534	0.544	0.507	0.525	0.524	2.96
29)	TM	Trichloroethene	0.351	0.363	0.356	0.336	0.341	0.349	3.11
30)	TC	1,2-Dichloropropane	0.317	0.326	0.314	0.299	0.295	0.310	4.20
31)	T	Bromodichloromethane	0.422	0.421	0.394	0.377	0.367	0.396	6.25
32)	T	2-Chloroethyl vinyl e	0.129	0.133	0.133	0.124	0.127	0.129	2.96
33)	T	cis-1,3-Dichloroprope	0.509	0.508	0.457	0.415	0.388	0.455	11.94
34)	T	4-Methyl-2-Pentanone	0.120	0.120	0.113	0.087	0.101	0.108	13.10
35)	S	Toluene-d8	1.265	1.212	1.218	1.199	1.212	1.221	2.08
36)	TCM	Toluene	1.283	1.411	1.416	1.373	1.382	1.373	3.89
37)	I	Chlorobenzene-d5	----------ISTD----------						
38)	T	trans-1,3-Dichloropro	1.847	1.813	1.544	1.360	1.312	1.575	15.79
39)	T	1,1,2-Trichloroethane	1.043	1.095	1.073	0.980	1.038	1.046	4.15
40)	T	Tetrachloroethene	1.396	1.422	1.366	1.358	1.332	1.375	2.55
41)	T	2-Hexanone	0.898	0.943	0.751	0.551	0.682	0.765	20.89
42)	T	Dibromochloromethane	1.126	1.093	0.947	0.846	0.802	0.963	14.98
43)	TMP	Chlorobenzene	3.141	3.297	3.248	3.176	3.172	3.207	1.99
44)	TC	Ethylbenzene	5.067	5.794	5.753	5.419	5.324	5.471	5.57
45)	T	m+p-Xylenes	1.903	2.021	1.947	1.881	1.890	1.928	3.00
46)	T	o-Xylene	4.128	4.505	4.317	4.089	3.757	4.159	6.72
47)	T	Styrene	3.504	3.680	3.469	3.269	2.942	3.373	8.34
48)	TP	Bromoform	0.794	0.722	0.563	0.468	0.470	0.603	24.58
49)	S	Bromofluorobenzene	1.954	1.877	1.802	1.765	1.713	1.822	5.21
50)	TP	1,1,2,2-Tetrachloroet	1.417	1.471	1.443	1.221	1.402	1.391	7.07
51)	T	1,3-Dichlorobenzene	2.665	2.811	2.728	2.566	2.633	2.681	3.48
52)	T	1,4-Dichlorobenzene	2.812	2.988	2.874	2.782	2.748	2.841	3.33
	T	1,2-Dichlorobenzene	2.626	2.758	2.658	2.567	2.608	2.644	2.72

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Lab File ID: VB010529.D BFB Injection Date: 1/3/02

Instrument ID: GCMS#2 BFB Injection Time: 9:31

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	18.2
75	30.0 - 66.0% of mass 95	53.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	83.4
175	4.0 - 9.0% of mass 174	6.5 (7.7)1
176	93.0 - 101.0% of mass 174	80.3 (96.2)1
177	5.0 - 9.0% of mass 176	5.1 (6.3)2

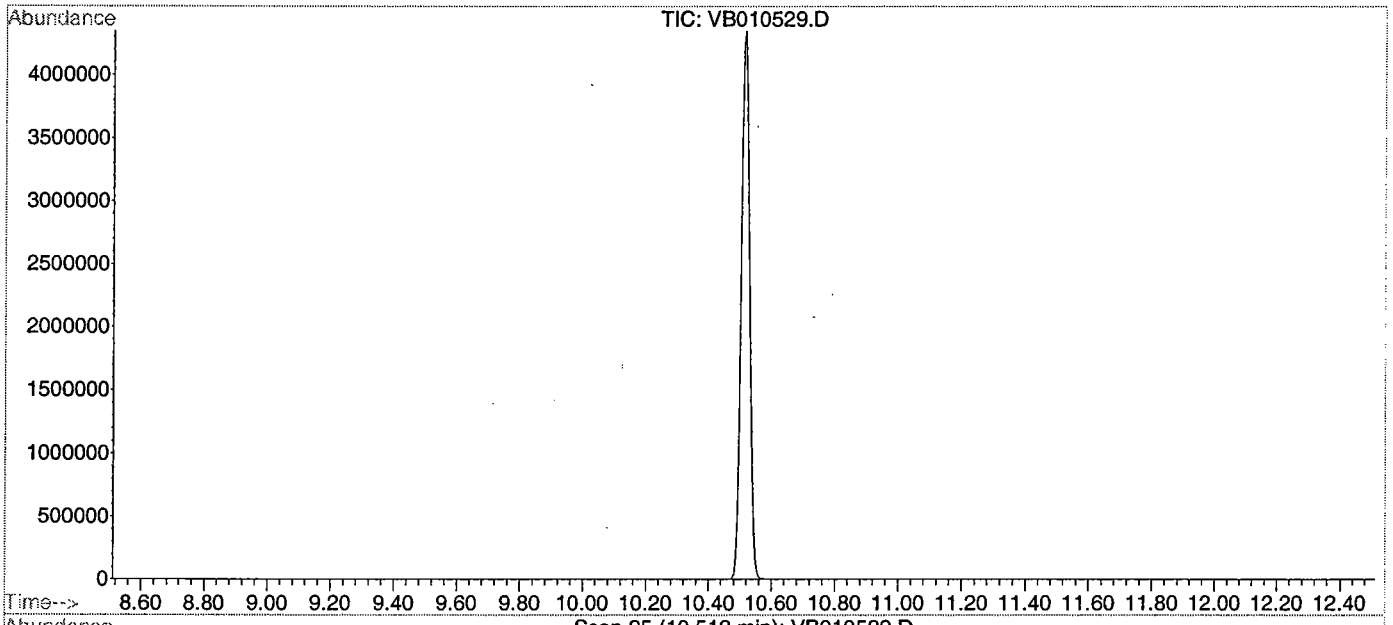
1-Value is % mass 174 2-Value is % mass 176

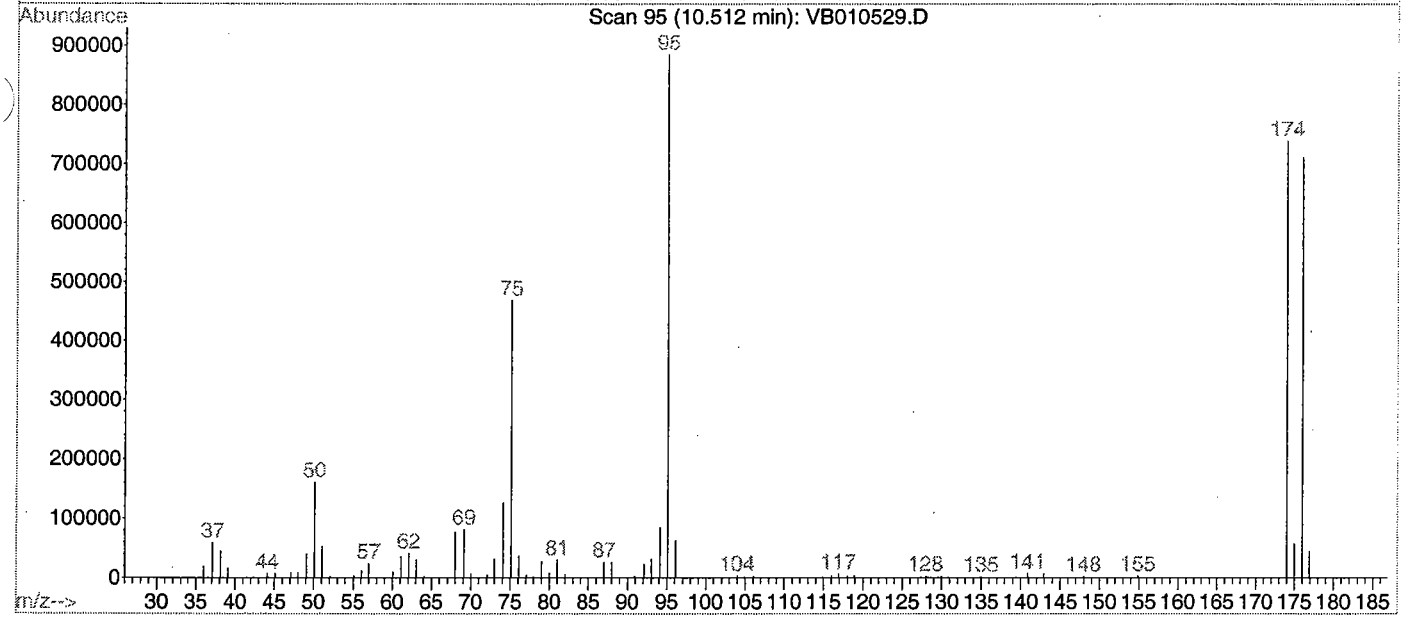
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010530.D	1/3/02	10:00
02	MB 03JAN02	MB 3JAN02	VB010531.D	1/3/02	10:54
03	TRIP BLANK	2000301	VB010546.D	1/3/02	22:01
04	FIELD BLANK	2000302	VB010547.D	1/3/02	22:43
05	600GW-1	2000303	VB010548.D	1/3/02	23:24
06	600GW-2	2000304	VB010549.D	1/4/02	0:06
07	600GW-3	2000305	VB010550.D	1/4/02	0:48
08	600GW-4	2000306	VB010551.D	1/4/02	1:31
09	600GW-5	2000307	VB010557.D	1/4/02	8:50
10	FIELD DUP	2000308	VB010558.D	1/4/02	9:31

BFB

Data File : C:\HPCHEM\1\DATA\020103\VB010529.D Vial: 25
Acq On : 3 Jan 2002 9:31 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\M262476.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	18.2	160704	PASS
75	95	30	60	53.0	468480	PASS
95	95	100	100	100.0	884736	PASS
96	95	5	9	7.1	62896	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.4	738304	PASS
175	174	5	9	7.7	57184	PASS
176	174	95	101	96.2	710528	PASS
177	176	5	9	6.3	44944	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020103\VB010530.D Vial: 25
Acq On : 3 Jan 2002 10:00 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 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	98	0.00
2	t	Acrolein	0.194	0.166	14.4	164	0.00
3	t	Acrylonitrile	1.080	0.809	25.1#	73	0.00
4	t	tert-Butyl alcohol	0.156	0.114	26.9#	73	0.00
5	t	Methyl-tert-Butyl ether	7.270	5.957	18.1	81	0.00
6	t	Di-isopropyl ether	1.964	1.715	12.7	88	0.00
7	T	Dichlorodifluoromethane	2.246	1.957	12.9	82	0.00
8	TP	Chloromethane	2.334	2.363	-1.2	116	0.00
9	TC	Vinyl Chloride	2.839	2.584	9.0	89	0.00
10	T	Bromomethane	1.486	1.488	-0.1	98	0.00
11	T	Chloroethane	1.421	1.431	-0.7	97	0.00
12	T	Trichlorofluoromethane	4.756	4.995	-5.0	99	0.00
13	MC	1,1-Dichloroethene	4.198	3.796	9.6	89	0.00
14	T	Acetone	1.169	0.789	32.5#	76	0.00
15	T	Carbon Disulfide	6.482	5.983	7.7	95	0.00
16	T	Methylene Chloride	2.394	2.221	7.2	94	0.00
17	T	trans-1,2-Dichloroethene	3.823	3.486	8.8	91	0.00
18	TP	1,1-Dichloroethane	4.714	4.434	5.9	93	0.00
19	T	Vinyl Acetate	5.754	4.538	21.1	79	0.00
20	T	2-Butanone	1.225	0.803	34.4#	67	0.00
		cis-1,2-Dichloroethene	3.778	3.454	8.6	89	0.00
22	TC	Chloroform	4.697	4.433	5.6	93	0.00
23	T	1,1,1-Trichloroethane	3.979	3.601	9.5	91	0.00
24	T	Carbon Tetrachloride	3.394	3.116	8.2	92	0.00
25	S	1,2-Dichloroethane-d4	3.268	2.990	8.5	92	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	93	0.00
27	TM	Benzene	1.256	1.294	-3.0	94	0.00
28	T	1,2-Dichloroethane	0.524	0.535	-2.1	91	0.00
29	TM	Trichloroethene	0.349	0.352	-0.9	92	0.00
30	TC	1,2-Dichloropropane	0.310	0.310	0.0	91	0.00
31	T	Bromodichloromethane	0.396	0.406	-2.5	95	0.00
32	T	2-Chloroethyl vinyl ether	0.129	0.132	-2.3	93	0.00
33	T	cis-1,3-Dichloropropene	0.455	0.442	2.9	90	0.00
34	T	4-Methyl-2-Pentanone	0.108	0.088	18.5	72	0.00
35	S	Toluene-d8	1.221	1.247	-2.1	95	0.00
36	TCM	Toluene	1.373	1.428	-4.0	94	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00
38	T	trans-1,3-Dichloropropene	1.575	1.433	9.0	87	0.00
39	T	1,1,2-Trichloroethane	1.046	0.974	6.9	85	0.00
40	T	Tetrachloroethene	1.375	1.383	-0.6	95	0.00
41	T	2-Hexanone	0.765	0.550	28.1#	69	0.00
42	T	Dibromochloromethane	0.963	0.889	7.7	88	0.00
43	TMP	Chlorobenzene	3.207	3.193	0.4	93	0.00
44	TC	Ethylbenzene	5.471	5.630	-2.9	92	0.00
45	T	m+p-Xylenes	1.928	1.966	-2.0	95	0.00
46	T	o-Xylene	4.159	4.215	-1.3	92	0.00
47	T	Styrene	3.373	3.428	-1.6	93	0.00
48	TP	Bromoform	0.603	0.485	19.6	81	0.00
49	S	Bromofluorobenzene	1.822	1.814	0.4	95	0.00
	P	1,1,2,2-Tetrachloroethane	1.391	1.181	15.1	77	0.00
51	T	1,3-Dichlorobenzene	2.681	2.552	4.8	88	0.00
52	T	1,4-Dichlorobenzene	2.841	2.806	1.2	92	0.00
53	T	1,2-Dichlorobenzene	2.644	2.567	2.9	91	0.00

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

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID. **MB 03Jan02**

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Lab File ID: VB010531.D Lab Sample ID: MB 3Jan02

Date Analyzed: 1/3/02 Time Analyzed: 10:54

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	2000301	VB010546.D	22:01
02	FIELD BLANK	2000302	VB010547.D	22:43
03	600GW-1	2000303	VB010548.D	23:24
04	600GW-2	2000304	VB010549.D	0:06
05	600GW-3	2000305	VB010550.D	0:48
06	600GW-4	2000306	VB010551.D	1:31
07	600GW-5	2000307	VB010557.D	8:50
08	FIELD DUP	2000308	VB010558.D	9:31

COMMENTS:

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.: _____

	Lab ID.	SMC1 DCE #	SMC2 TOL #	SMC3 BFB #	TOT OUT
01	MB 03JAN02	90	98	92	0
02	TRIP BLANK	88	99	93	0
03	FIELD BLANK	90	99	94	0
04	600GW-1	91	100	92	0
05	600GW-2	92	100	92	0
06	600GW-3	88	102	93	0
07	600GW-4	87	100	90	0
08	600GW-5	86	103	94	0
09	FIELD DUP	84	108	94	0

				QC LIMITS
SMC1	DCE	=	1,2-Dichloroethane-d4	(70-121)
SMC2	TOL	=	Toluene-d8	(81-117)
SMC3	BFB	=	Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

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

Data File	**VB010517.D**	Sample Name	**1667901 MS**
Date Acquired	**3-Jan-02**	Field ID	**1667901 MS**

Compound Name	Amount Added ug/L	Result ul/L	Percent Recovered
Acrolein	200	139.49	69.7
Acrylonitrile	200	189.33	94.7
tert-Butyl alcohol	200	233.42	116.7
Methyl-tert-Butyl ether	20	19.32	96.6
Di-isopropyl ether	20	20.21	101.1
Dichlorodifluoromethane	20	18.40	92.0
Chloromethane	20	18.76	93.8
Vinyl Chloride	20	19.53	97.6
Bromomethane	20	19.57	97.8
Chloroethane	20	19.75	98.8
Trichlorofluoromethane	20	19.48	97.4
1,1-Dichloroethene	20	19.55	97.8
Acetone	20	16.73	83.7
Carbon Disulfide	20	20.01	100.0
Methylene Chloride	20	19.93	99.7
trans-1,2-Dichloroethene	20	19.61	98.1
1,1-Dichloroethane	20	20.15	100.8
Vinyl Acetate	20	17.36	86.8
2-Butanone	20	17.69	88.5
cis-1,2-Dichloroethene	20	20.47	102.3
Chloroform	20	20.35	101.7
1,1,1-Trichloroethane	20	19.23	96.2
Carbon Tetrachloride	20	19.16	95.8
Benzene	20	19.91	99.6
1,2-Dichloroethane	20	19.79	99.0
Trichloroethene	20	19.39	96.9
1,2-Dichloropropane	20	19.69	98.4
Bromodichloromethane	20	19.65	98.2
2-Chloroethyl vinyl ether	20	20.14	100.7
cis-1,3-Dichloropropene	20	18.89	94.4
4-Methyl-2-Pentanone	20	18.61	93.0
Toluene	20	20.07	100.3
trans-1,3-Dichloropropene	20	18.81	94.1
1,1,2-Trichloroethane	20	19.53	97.6
Tetrachloroethene	20	19.23	96.2
2-Hexanone	20	17.46	87.3
Dibromochloromethane	20	19.53	97.7
Chlorobenzene	20	19.73	98.6
Ethylbenzene	20	20.20	101.0
m+p-Xylenes	40	38.88	97.2
o-Xylene	20	20.10	100.5
Styrene	20	20.01	100.1
Bromoform	20	19.14	95.7
1,1,2,2-Tetrachloroethane	20	18.75	93.8
1,3-Dichlorobenzene	20	19.18	95.9
1,4-Dichlorobenzene	20	19.50	97.5
1,2-Dichlorobenzene	20	19.66	98.3

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

Data File	**VB010518.D**	Sample Name	**1667901 MSD**
Date Acquired	**3-Jan-02**	Field ID	**1667901 MSD**

Compound Name	Amount Added ug/L	Result ul/L	Percent Recovered
Acrolein	200	137.10	68.5
Acrylonitrile	200	185.29	92.6
tert-Butyl alcohol	200	240.66	120.3
Methyl-tert-Butyl ether	20	19.21	96.0
Di-isopropyl ether	20	19.48	97.4
Dichlorodifluoromethane	20	17.80	89.0
Chloromethane	20	19.07	95.3
Vinyl Chloride	20	18.96	94.8
Bromomethane	20	19.80	99.0
Chloroethane	20	19.81	99.1
Trichlorofluoromethane	20	18.61	93.1
1,1-Dichloroethene	20	19.02	95.1
Acetone	20	16.14	80.7
Carbon Disulfide	20	19.81	99.1
Methylene Chloride	20	20.15	100.8
trans-1,2-Dichloroethene	20	19.49	97.4
1,1-Dichloroethane	20	19.78	98.9
Vinyl Acetate	20	17.94	89.7
2-Butanone	20	17.38	86.9
cis-1,2-Dichloroethene	20	19.87	99.3
Chloroform	20	20.10	100.5
1,1,1-Trichloroethane	20	19.25	96.2
Carbon Tetrachloride	20	19.02	95.1
Benzene	20	19.96	99.8
1,2-Dichloroethane	20	20.15	100.8
Trichloroethene	20	19.39	97.0
1,2-Dichloropropane	20	20.44	102.2
Bromodichloromethane	20	20.01	100.1
2-Chloroethyl vinyl ether	20	20.59	103.0
cis-1,3-Dichloropropene	20	19.18	95.9
4-Methyl-2-Pentanone	20	20.16	100.8
Toluene	20	20.11	100.6
trans-1,3-Dichloropropene	20	19.15	95.7
1,1,2-Trichloroethane	20	20.22	101.1
Tetrachloroethene	20	19.42	97.1
2-Hexanone	20	17.83	89.1
Dibromochloromethane	20	19.68	98.4
Chlorobenzene	20	19.84	99.2
Ethylbenzene	20	20.05	100.3
m+p-Xylenes	40	39.58	99.0
o-Xylene	20	20.24	101.2
Styrene	20	20.24	101.2
Bromoform	20	19.37	96.8
1,1,2,2-Tetrachloroethane	20	19.11	95.6
1,3-Dichlorobenzene	20	19.39	97.0
1,4-Dichlorobenzene	20	19.48	97.4
1,2-Dichlorobenzene	20	19.48	97.4

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: UST

NJDEP#: 13461 Case No.: 20003 Location: 600Are SDG No.:

Lab File ID (Standard): VB010530.D Date Analyzed: 1/3/02

Instrument ID: GCMS#2 Time Analyzed: 10:00

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	528235	16.76	3944080	19.49	1123054	27.33
	UPPER LIMIT	1056470	17.26	7888160	19.99	2246108	27.83
	LOWER LIMIT	264118	16.26	1972040	18.99	561527	26.83
	Lab ID.						
01	MB 03JAN02	523041	16.75	3872471	19.49	1109131	27.33
02	TRIP BLANK	432153	16.75	3476179	19.49	1011003	27.33
03	FIELD BLANK	424704	16.75	3543495	19.49	1013516	27.33
04	600GW-1	410020	16.75	3451504	19.49	1029810	27.33
05	600GW-2	406023	16.75	3489497	19.49	1019893	27.34
06	600GW-3	400582	16.76	3537805	19.49	1064215	27.33
07	600GW-4	375734	16.76	3573669	19.49	1138906	27.34
08	600GW-5	341881	16.74	3773953	19.49	1018403	27.33
09	FIELD DUP	335779	16.74	3747205	19.49	1021789	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\020103\VB010531.D Vial: 25
Acq On : 3 Jan 2002 10:54 am Operator: Skelton
Sample : MB 3Jan02 Inst : GC VOA 2
Misc : MB 3Jan02 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 3 11:29 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	523041	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3872471	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1109131	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1545345	27.12	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 90.40%			
35) Toluene-d8	23.50	98	4624452	29.34	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 97.80%			
49) Bromofluorobenzene	30.34	95	1866653	27.71	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 92.37%			

Target Compounds Qvalue

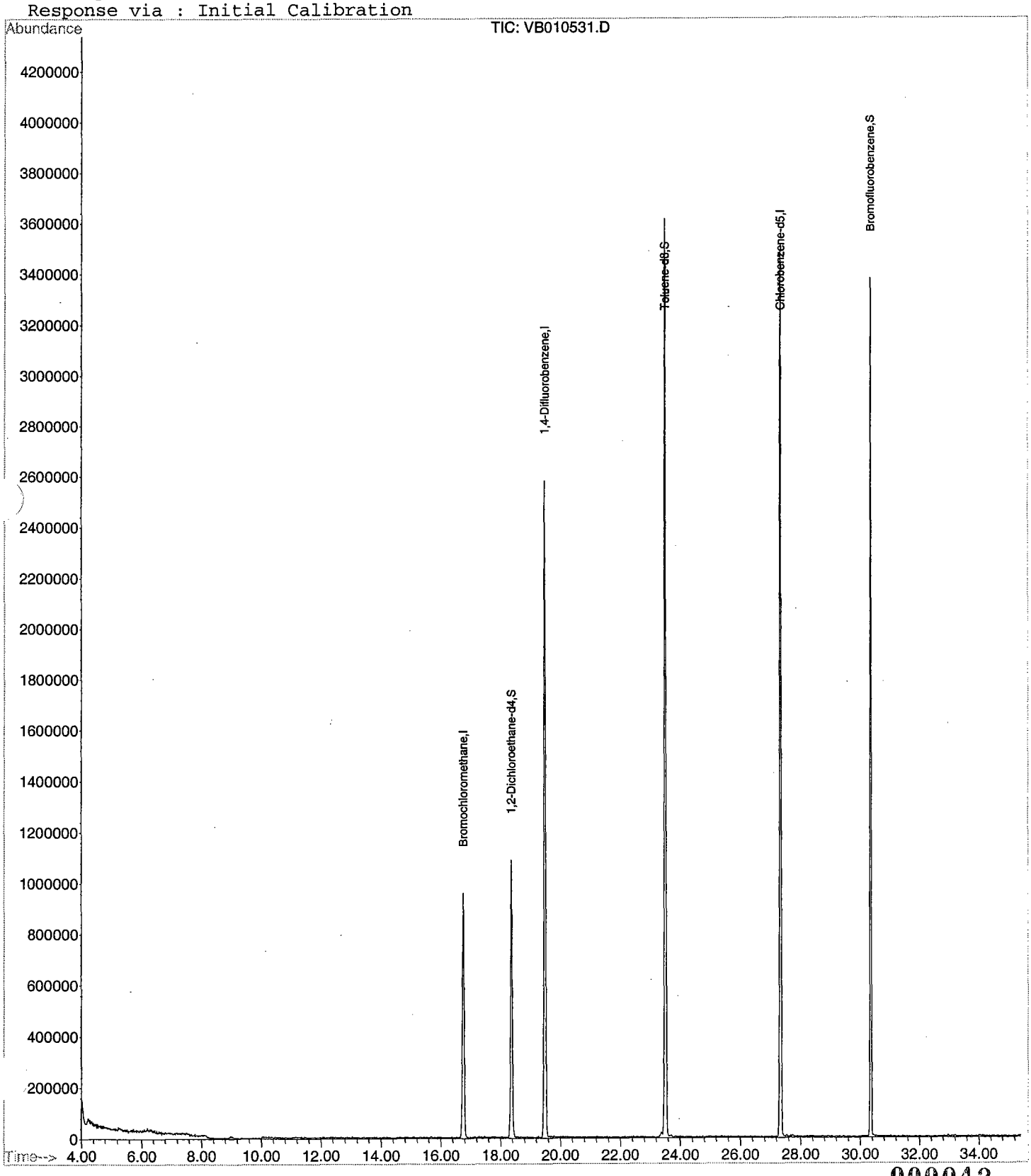
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010531.D
Acq On : 3 Jan 2002 10:54 am
Sample : MB 3Jan02
Misc : MB 3Jan02
MS Integration Params: TBA.P
Quant Time: Jan 3 11:29 2002

Vial: 25
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010546.D Vial: 10
Acq On : 3 Jan 2002 10:01 pm Operator: Skelton
Sample : 2000301 Inst : GC VOA 2
Misc : Trip Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 3 22:36 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	432153	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.49	114	3476179	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1011003	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1248160	26.51	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 88.37%			
35) Toluene-d8	23.51	98	4220085	29.83	ug/L	0.01
Spiked Amount 30.000	Range 81 - 117		Recovery = 99.43%			
49) Bromofluorobenzene	30.35	95	1709744	27.84	ug/L	0.01
Spiked Amount 30.000	Range 74 - 121		Recovery = 92.80%			
Target Compounds						Qvalue

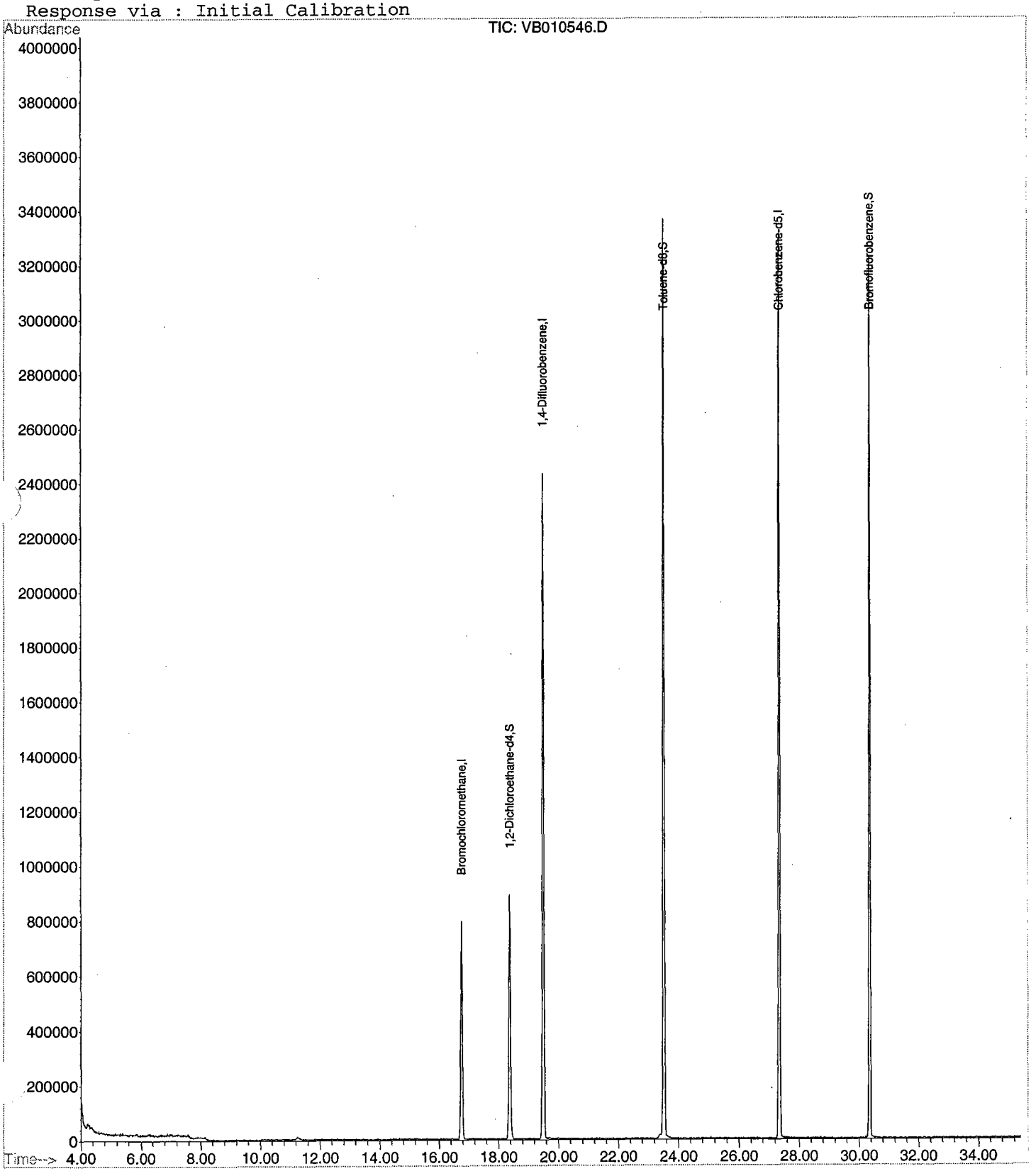
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010546.D
Acq On : 3 Jan 2002 10:01 pm
Sample : 2000301
Misc : Trip Blank
MS Integration Params: TBA.P
Quant Time: Jan 3 22:36 2002

Vial: 10
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010547.D Vial: 11
Acq On : 3 Jan 2002 10:43 pm Operator: Skelton
Sample : 2000302 Inst : GC VOA 2
Misc : Field Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 3 23:18 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	424704	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.49	114	3543495	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1013516	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1254524	27.12	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 90.40%			
35) Toluene-d8	23.51	98	4279265	29.67	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 98.90%			
49) Bromofluorobenzene	30.35	95	1739387	28.25	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 94.17%			

Target Compounds Qvalue

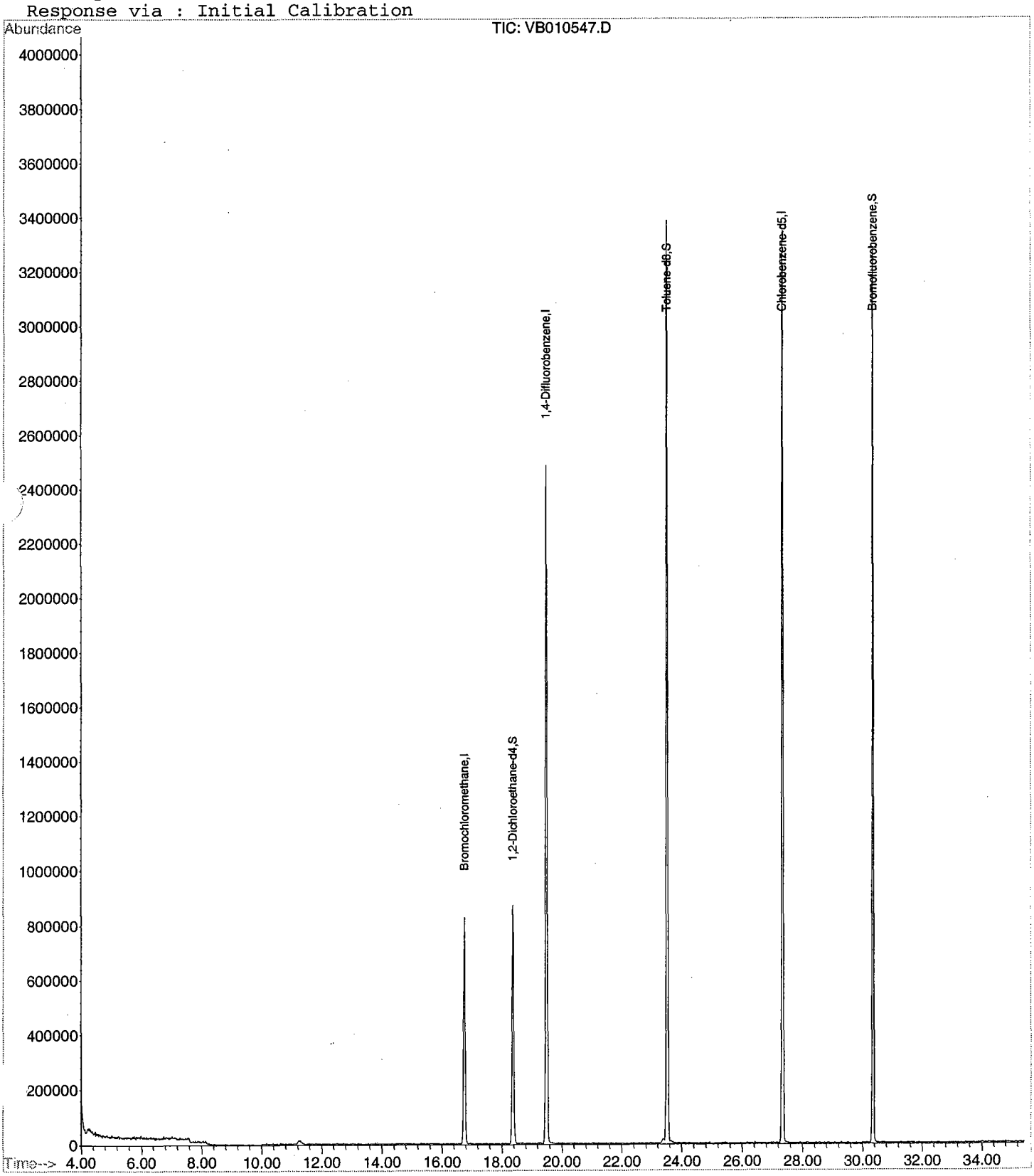
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010547.D
Acq On : 3 Jan 2002 10:43 pm
Sample : 2000302
Misc : Field Blank
MS Integration Params: TBA.P
Quant Time: Jan 3 23:18 2002

Vial: 11
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010548.D Vial: 12
Acq On : 3 Jan 2002 11:24 pm Operator: Skelton
Sample : 2000303 Inst : GC VOA 2
Misc : 600GW-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:16 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

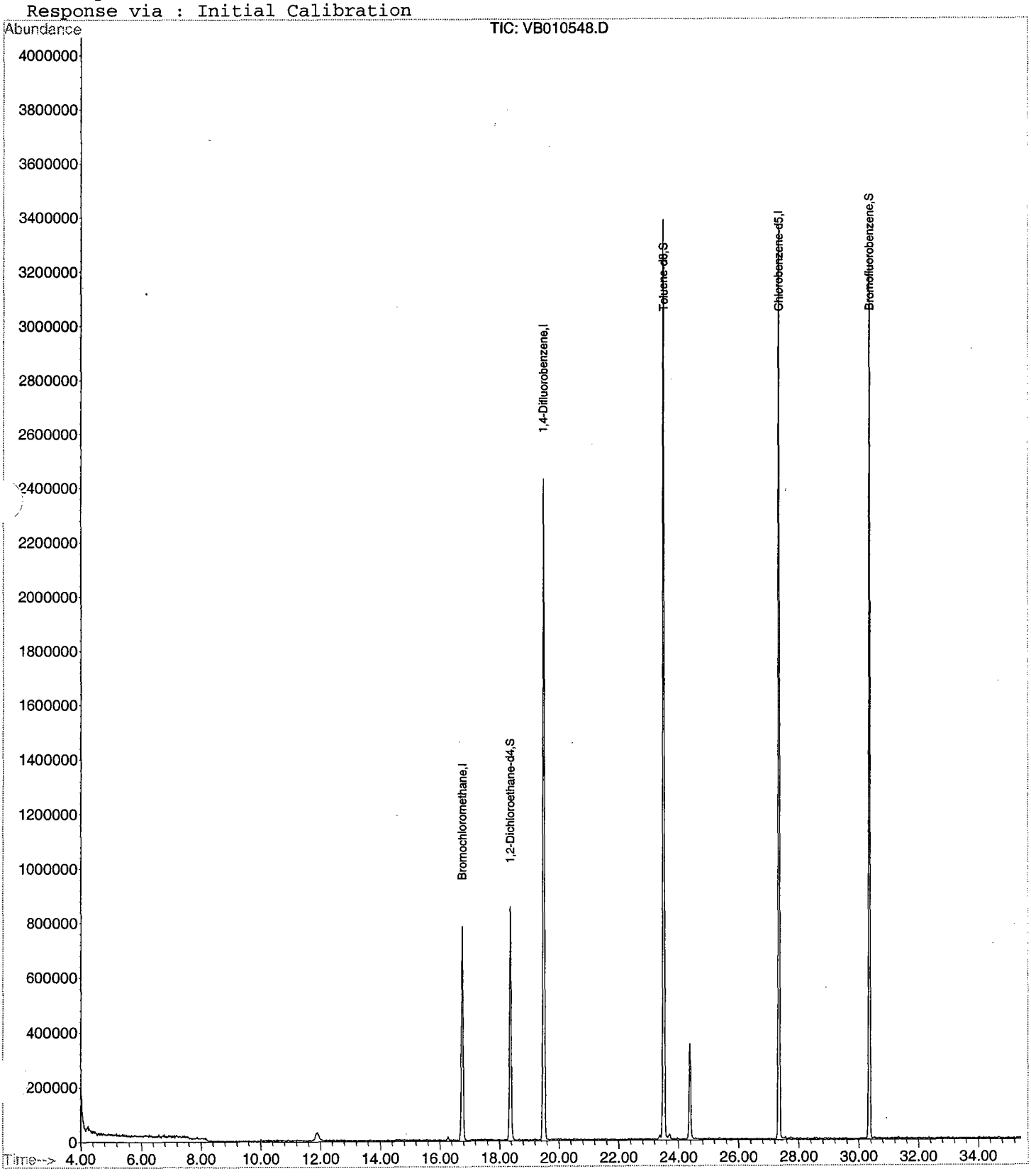
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	410020	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.49	114	3451504	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1029810	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1221339	27.34	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 91.13%			
35) Toluene-d8	23.51	98	4230965	30.12	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 100.40%			
49) Bromofluorobenzene	30.35	95	1730290	27.66	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 92.20%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010548.D Vial: 12
Acq On : 3 Jan 2002 11:24 pm Operator: Skelton
Sample : 2000303 Inst : GC VOA 2
Misc : 600GW-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:16 2002 Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010549.D Vial: 13
Acq On : 4 Jan 2002 12:06 am Operator: Skelton
Sample : 2000304 Inst : GC VOA 2
Misc : 600GW-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:17 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	406023	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3489497	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.34	119	1019893	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1219159	27.56	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 91.87%			
35) Toluene-d8	23.51	98	4252498	29.94	ug/L	0.01
Spiked Amount 30.000	Range 81 - 117		Recovery = 99.80%			
49) Bromofluorobenzene	30.35	95	1704356	27.51	ug/L	0.01
Spiked Amount 30.000	Range 74 - 121		Recovery = 91.70%			
Target Compounds						Qvalue

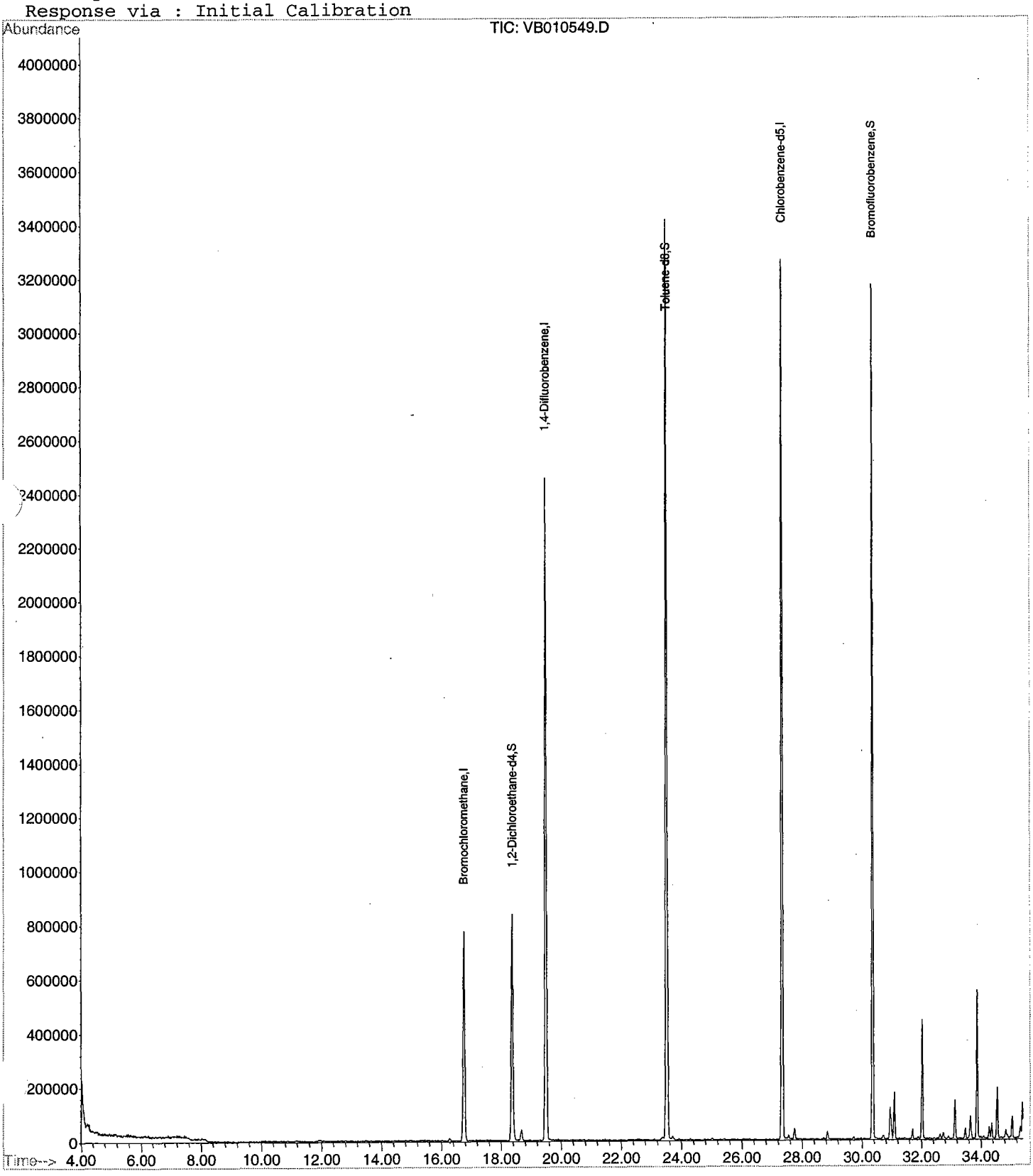
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010549.D
Acq On : 4 Jan 2002 12:06 am
Sample : 2000304
Misc : 600GW-2
MS Integration Params: TBA.P
Quant Time: Jan 4 14:17 2002

Vial: 13
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010550.D Vial: 14
Acq On : 4 Jan 2002 12:48 am Operator: Skelton
Sample : 2000305 Inst : GC VOA 2
Misc : 600GW-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:17 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	400582	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3537805	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1064215	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1151208	26.38	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 87.93%			
35) Toluene-d8	23.51	98	4385081	30.45	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 101.50%			
49) Bromofluorobenzene	30.35	95	1799485	27.84	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 92.80%			

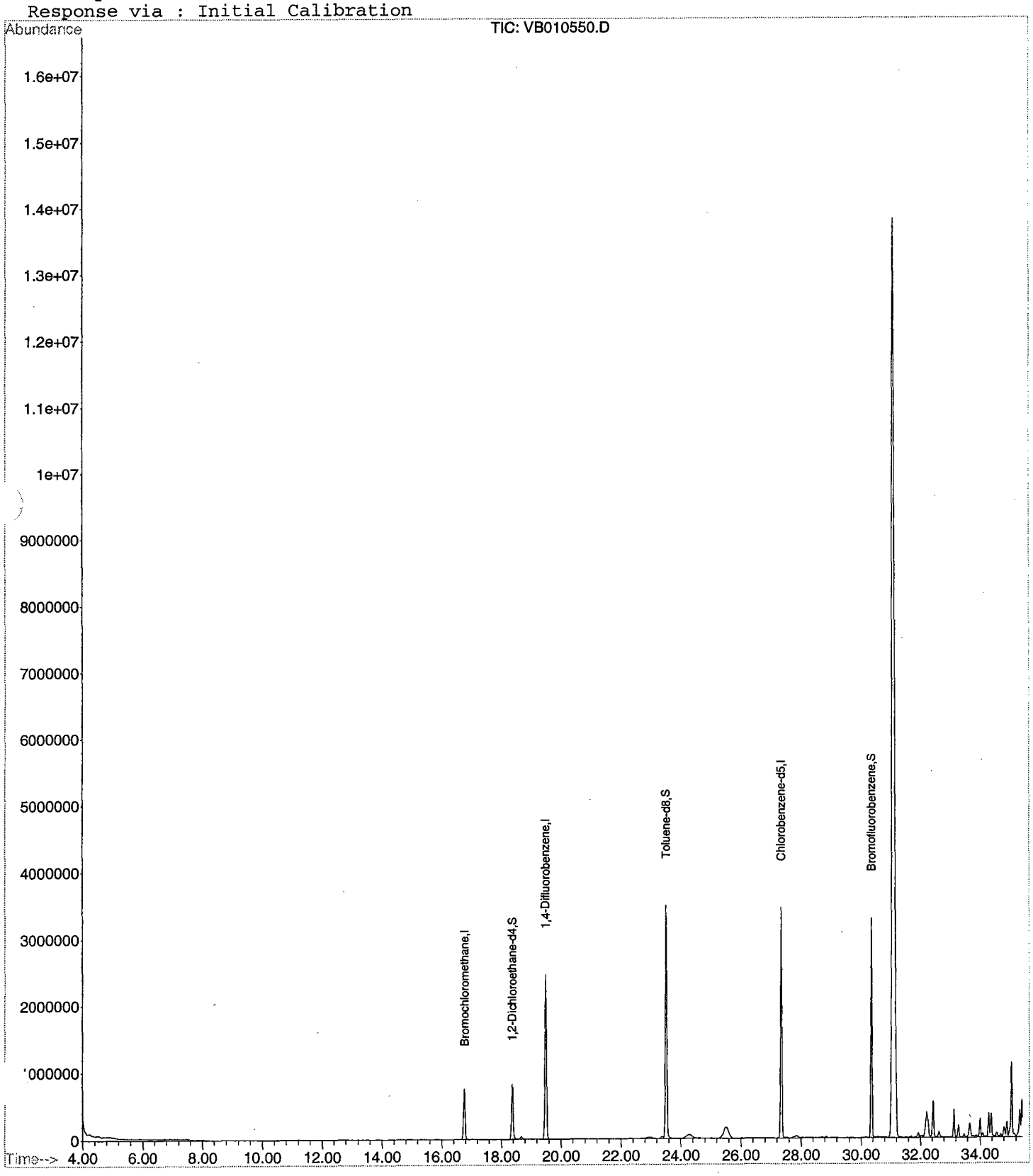
Target Compounds Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010550.D Vial: 14
Acq On : 4 Jan 2002 12:48 am Operator: Skelton
Sample : 2000305 Inst : GC VOA 2
Misc : 600GW-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:17 2002 Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010551.D Vial: 15
Acq On : 4 Jan 2002 1:31 am Operator: Skelton
Sample : 2000306 Inst : GC VOA 2
Misc : 600GW-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 2:06 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

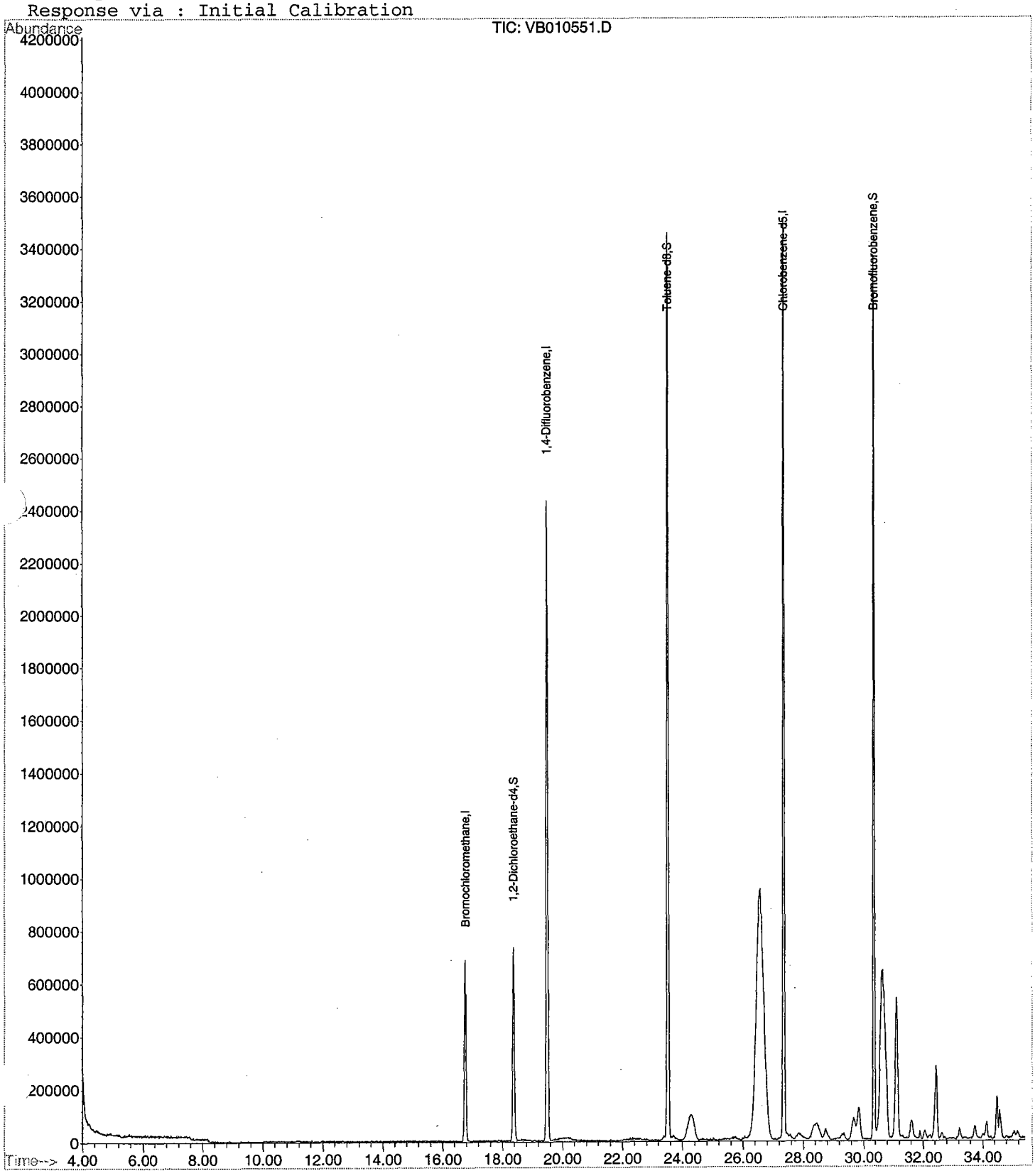
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	375734	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3573669	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.34	119	1138906	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1065459	26.03	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 86.77%			
35) Toluene-d8	23.51	98	4347553	29.89	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 99.63%			
49) Bromofluorobenzene	30.35	95	1875774	27.12	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 90.40%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010551.D Vial: 15
Acq On : 4 Jan 2002 1:31 am Operator: Skelton
Sample : 2000306 Inst : GC VOA 2
Misc : 600GW-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 2:06 2002 Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010557.D Vial: 21
Acq On : 4 Jan 2002 8:50 am Operator: Skelton
Sample : 2000307 Inst : GC VOA 2
Misc : 600GW-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:17 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

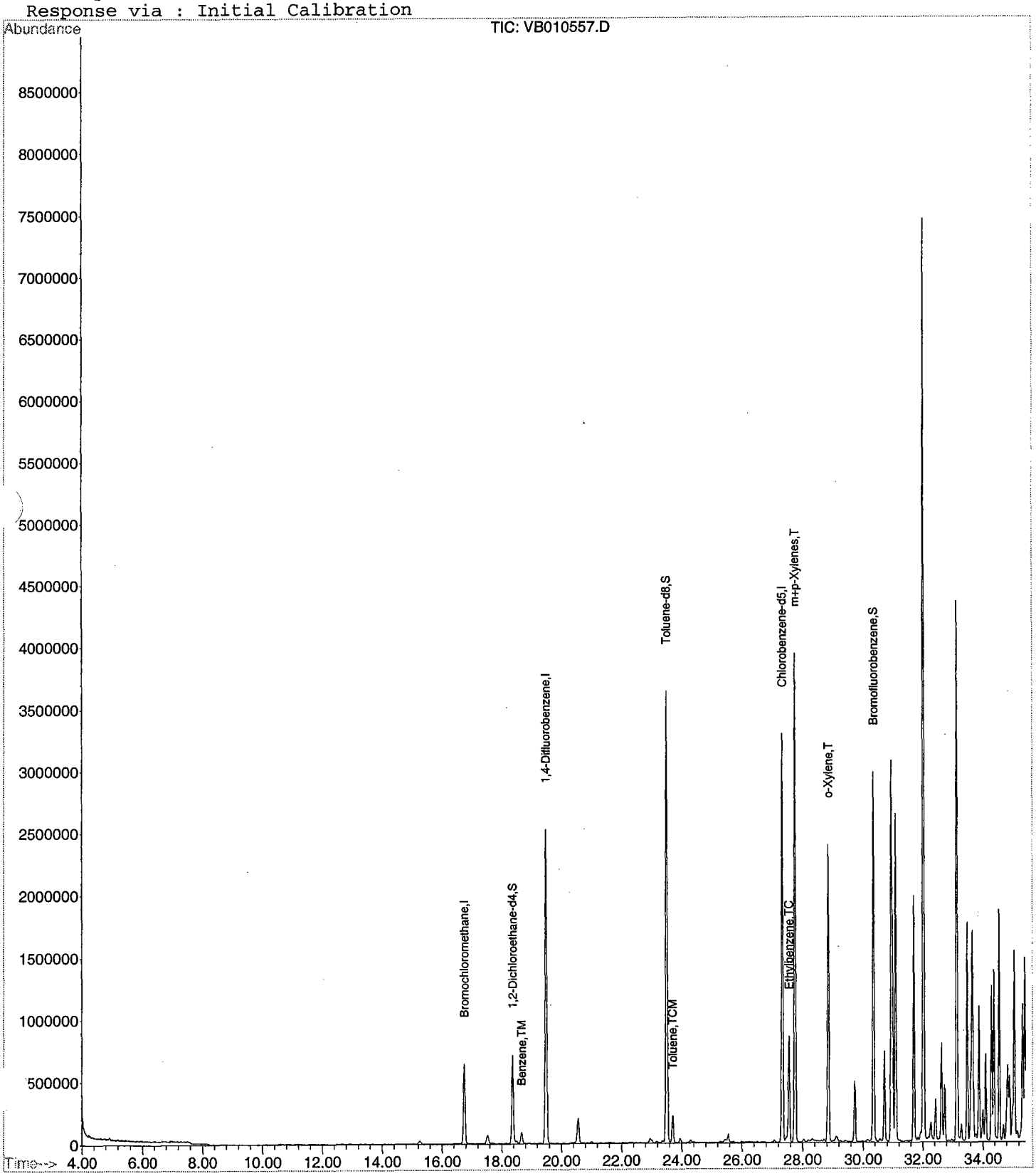
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.74	128	341881	30.00	ug/L	-0.02
26) 1,4-Difluorobenzene	19.49	114	3773953	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1018403	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	965670	25.93	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 86.43%			
35) Toluene-d8	23.50	98	4762598	31.01	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 103.37%			
49) Bromofluorobenzene	30.35	95	1737291	28.09	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 93.63%			
Target Compounds						Qvalue
27) Benzene	18.66	78	158682	1.00	ug/L	98
36) Toluene	23.70	91	310688	1.80	ug/L	89
44) Ethylbenzene	27.56	91	1176432	6.33	ug/L	98
45) m+p-Xylenes	27.75	106	1903264	29.07	ug/L	96
46) o-Xylene	28.84	91	2658012	18.83	ug/L	98

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010557.D Vial: 21
Acq On : 4 Jan 2002 8:50 am Operator: Skelton
Sample : 2000307 Inst : GC VOA 2
Misc : 600GW-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:17 2002 Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\020103\VB010558.D Vial: 22
Acq On : 4 Jan 2002 9:31 am Operator: Skelton
Sample : 2000308 Inst : GC VOA 2
Misc : Field Dup Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:18 2002 Quant Results File: M262476.RES

Quant Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration
DataAcq Meth : M262476

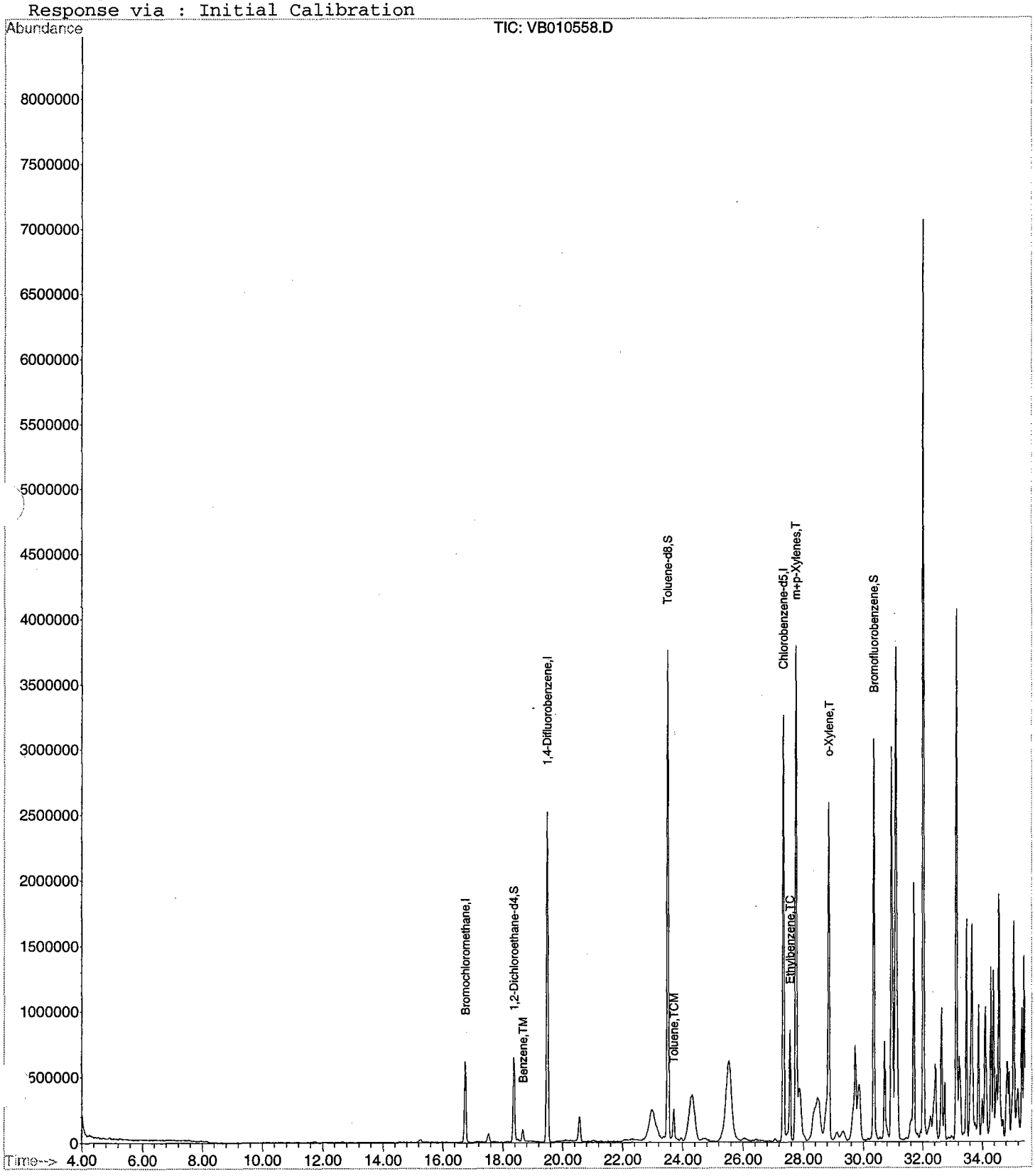
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.74	128	335779	30.00	ug/L	-0.02
26) 1,4-Difluorobenzene	19.49	114	3747205	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1021789	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	922672	25.22	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 84.07%			
35) Toluene-d8	23.50	98	4953742	32.48	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 108.27%			
49) Bromofluorobenzene	30.34	95	1757976	28.33	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 94.43%			
Target Compounds						Qvalue
27) Benzene	18.67	78	157320	1.00	ug/L	99
36) Toluene	23.70	91	317217	1.85	ug/L	91
44) Ethylbenzene	27.56	91	1153670	6.19	ug/L	99
45) m+p-Xylenes	27.75	106	1810882	27.57	ug/L	98
46) o-Xylene	28.84	91	2749255	19.41	ug/L	98

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\020103\VB010558.D Vial: 22
Acq On : 4 Jan 2002 9:31 am Operator: Skelton
Sample : 2000308 Inst : GC VOA 2
Misc : Field Dup Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Jan 4 14:18 2002 Quant Results File: M262476.RES

Method : C:\HPCHEM\1\METHODS\M262476.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Jan 03 11:17:10 2002
Response via : Initial Calibration



000058

BASE NEUTRAL

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05344.D**	Sample Name	**MB-020107**
Operator	**B.Patel**	Misc Info	**MB-020107**
Date Acquired	**8-Jan-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	**BN05344.D**	Sample Name	**MB-020107**
Operator	**B.Patel**	Misc Info	**MB-020107**
Date Acquired	**8-Jan-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-020107

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB-020107

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05344.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/8/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05334.D**	Sample Name	**2000302**
Operator	**B.Patel**	Misc Info	**Field Blank**
Date Acquired	**7-Jan-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	**BN05334.D**	Sample Name	**2000302**
Operator	**B.Patel**	Misc Info	**Field Blank**
Date Acquired	**7-Jan-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.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000302

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05334.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000057-10-3	Hexadecanoic acid	22.18	4	JN
2. 000112-80-1	Oleic Acid	23.89	20	JN
3.	unknown	23.94	30	J
4. 000057-11-4	Octadecanoic acid	24.09	15	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05335.D**	Sample Name	**2000303**
Operator	**B.Patel**	Misc Info	**600GW-1**
Date Acquired	**7-Jan-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	**BN05335.D**	Sample Name	**2000303**
Operator	**B.Patel**	Misc Info	**600GW-1**
Date Acquired	**7-Jan-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.

600GW-1

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000303

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05335.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	18.23	8	J
2. 000112-80-1	Oleic Acid	23.89	7	JN
3.	unknown	23.93	12	J
4. 000057-11-4	Octadecanoic acid	24.08	5	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05336.D**	Sample Name	**2000304**
Operator	**B.Patel**	Misc Info	**600GW-2**
Date Acquired	**7-Jan-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	12.98	3474126	89.36 ug/L	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	14.63	784737	35.38 ug/L	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	17.62	37633	1.37 ug/L	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	**BN05336.D**	Sample Name	**2000304**
Operator	**B.Patel**	Misc Info	**600GW-2**
Date Acquired	**7-Jan-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.
600GW-2

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000304

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05336.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

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. 000095-15-8	Benzo[b]thiophene	13.12	5	JN
2. 000090-12-0	Naphthalene, 1-methyl-	14.86	19	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05337.D**	Sample Name	**2000305**
Operator	**B.Patel**	Misc Info	**600GW-3**
Date Acquired	**7-Jan-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	**BN05337.D**	Sample Name	**2000305**
Operator	**B.Patel**	Misc Info	**600GW-3**
Date Acquired	**7-Jan-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.

600GW-3

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000305

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05337.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

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	**BN05338.D**	Sample Name	**2000306**
Operator	**B.Patel**	Misc Info	**600GW-4**
Date Acquired	**7-Jan-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	**BN05338.D**	Sample Name	**2000306**
Operator	**B.Patel**	Misc Info	**600GW-4**
Date Acquired	**7-Jan-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.

600GW-4

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000306

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05338.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

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	**BN05339.D**	Sample Name	**2000307**
Operator	**B.Patel**	Misc Info	**600GW-5**
Date Acquired	**7-Jan-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	12.98	1251939	31.27 ug/L	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	14.63	2872232	125.76 ug/L	NLE	1.11	ug/L	E
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	17.20	41656	1.94 ug/L	400	1.02	ug/L	
132-64-9	Dibenzofuran	17.62	55578	1.89 ug/L	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	18.44	65736	2.86 ug/L	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	20.75	83045	2.62 ug/L	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	**BN05339.D**	Sample Name	**2000307**
Operator	**B.Patel**	Misc Info	**600GW-5**
Date Acquired	**7-Jan-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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05342.D**	Sample Name	**2000307 (1:2)**
Operator	**B.Patel**	Misc Info	**600GW-5 (1:2)**
Date Acquired	**8-Jan-02**	Sample Multiplier	**2**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.22	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	1.28	ug/L	
62-53-3	Aniline			not detected	NLE	1.56	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.60	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.80	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.90	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.34	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.92	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	1.62	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	1.68	ug/L	
67-72-1	Hexachloroethane			not detected	10	1.92	ug/L	
98-95-3	Nitrobenzene			not detected	10	2.54	ug/L	
78-59-1	Isophorone			not detected	100	1.76	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.22	ug/L	
91-20-3	Naphthalene	12.98	657936	32.06 ug/L	NLE	2.12	ug/L	D
106-47-8	4-Chloroaniline			not detected	NLE	1.54	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	2.32	ug/L	
91-57-6	2-Methylnaphthalene	14.62	1481889	126.58 ug/L	NLE	2.22	ug/L	D
77-47-4	Hexachlorocyclopentadiene			not detected	50	2.52	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	2.20	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.90	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	2.18	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	1.86	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.96	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.70	ug/L	
83-32-9	Acenaphthene			not detected	400	2.04	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	2.12	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	2.32	ug/L	
84-66-2	Diethylphthalate			not detected	5000	2.20	ug/L	
86-73-7	Fluorene	18.44	32348	2.76 ug/L	300	1.68	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.84	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.84	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	2.20	ug/L	
103-33-3	Azobenzene			not detected	NLE	2.12	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.74	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	2.16	ug/L	
85-01-8	Phenanthrene	20.74	42256	2.60 ug/L	NLE	2.16	ug/L	D
120-12-7	Anthracene			not detected	2000	1.86	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.46	ug/L	
206-44-0	Fluoranthene			not detected	300	1.80	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BN05342.D**	Sample Name	**2000307 (1:2)**
Operator	**B.Patel**	Misc Info	**600GW-5 (1:2)**
Date Acquired	**8-Jan-02**	Sample Multiplier	**2**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	3.62	ug/L	
129-00-0	Pyrene			not detected	200	2.02	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	2.26	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.74	ug/L	
218-01-9	Chrysene			not detected	20	2.10	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.98	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	2.40	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	2.14	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	2.48	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.08	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.64	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	2.24	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.00	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.

600GW-5

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000307

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05339.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

Number TICs found: 14 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000622-96-8	Benzene, 1-ethyl-4-methyl-	9.01	9	JN
2. 000095-36-3	1,2,4-Trimethylbenzene	9.16	8	JN
3. 000526-73-8	Benzene, 1,2,3-trimethyl-	9.63	24	JN
4. 000098-82-8	Benzene, (1-methylethyl)-	10.15	15	JN
5. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	10.75	14	JN
6. 000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	11.23	11	JN
7.	unknown	12.34	19	J
8. 000090-12-0	Naphthalene, 1-methyl-	14.87	53	JN
9.	unknown	15.77	11	J
10. 001127-76-0	Naphthalene, 1-ethyl-	15.97	12	JN
11. 000581-42-0	Naphthalene, 2,6-dimethyl-	16.14	49	JN
12. 000581-40-8	Naphthalene, 2,3-dimethyl-	16.32	50	JN
13. 000582-16-1	Naphthalene, 2,7-dimethyl-	16.38	25	JN
14. 000571-58-4	Naphthalene, 1,4-dimethyl-	16.59	17	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05340.D**	Sample Name	**2000308**
Operator	**B.Patel**	Misc Info	**Field Dup.**
Date Acquired	**7-Jan-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	12.97	1166782	30.05 ug/L	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	14.63	2717697	122.69 ug/L	NLE	1.11	ug/L	E
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	17.20	40344	1.97 ug/L	400	1.02	ug/L	
132-64-9	Dibenzofuran	17.62	53891	1.92 ug/L	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	18.44	65220	2.97 ug/L	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	20.75	84376	2.77 ug/L	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	**BN05340.D**	Sample Name	**2000308**
Operator	**B.Patel**	Misc Info	**Field Dup.**
Date Acquired	**7-Jan-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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BN05343.D**	Sample Name	**2000308 (1:2)**
Operator	**B.Patel**	Misc Info	**Field Dup (1:2)**
Date Acquired	**8-Jan-02**	Sample Multiplier	**2**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.22	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	1.28	ug/L	
62-53-3	Aniline			not detected	NLE	1.56	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.60	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.80	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.90	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.34	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.92	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	1.62	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	1.68	ug/L	
67-72-1	Hexachloroethane			not detected	10	1.92	ug/L	
98-95-3	Nitrobenzene			not detected	10	2.54	ug/L	
78-59-1	Isophorone			not detected	100	1.76	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.22	ug/L	
91-20-3	Naphthalene	12.98	571713	30.66 ug/L	NLE	2.12	ug/L	D
106-47-8	4-Chloroaniline			not detected	NLE	1.54	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	2.32	ug/L	
91-57-6	2-Methylnaphthalene	14.63	1365413	128.36 ug/L	NLE	2.22	ug/L	D
77-47-4	Hexachlorocyclopentadiene			not detected	50	2.52	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	2.20	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.90	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	2.18	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	1.86	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.96	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.70	ug/L	
83-32-9	Acenaphthene	17.20	19993	2.06 ug/L	400	2.04	ug/L	D
132-64-9	Dibenzofuran			not detected	NLE	2.12	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	2.32	ug/L	
84-66-2	Diethylphthalate			not detected	5000	2.20	ug/L	
86-73-7	Fluorene	18.44	29676	2.84 ug/L	300	1.68	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.84	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.84	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	2.20	ug/L	
103-33-3	Azobenzene			not detected	NLE	2.12	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.74	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	2.16	ug/L	
85-01-8	Phenanthrene	20.75	41197	2.85 ug/L	NLE	2.16	ug/L	D
120-12-7	Anthracene			not detected	2000	1.86	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.46	ug/L	
206-44-0	Fluoranthene			not detected	300	1.80	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BN05343.D**	Sample Name	**2000308 (1:2)**
Operator	**B.Patel**	Misc Info	**Field Dup (1:2)**
Date Acquired	**8-Jan-02**	Sample Multiplier	**2**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	3.62	ug/L	
129-00-0	Pyrene			not detected	200	2.02	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	2.26	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.74	ug/L	
218-01-9	Chrysene			not detected	20	2.10	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.98	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	2.40	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	2.14	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	2.48	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.08	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.64	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	2.24	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.00	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
D= Value from dilution
B= Compound in Related Blank
PQL= Practical Quantitation Limit

MDL= Method Detection Limit
NLE= No Limit Established
R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Field Dup.

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 2000308

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN05340.D

Level: (low/med) LOW Date Received: 1/3/02

% Moisture: decanted: (Y/N) N Date Extracted: 1/7/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/7/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

Number TICs found: 14 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000095-36-3	1,2,4-Trimethylbenzene	9.63	23	JN
2. 000098-82-8	Benzene, (1-methylethyl)-	10.15	15	JN
3. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	10.75	14	JN
4. 002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	11.23	11	JN
5.	unknown	12.34	20	J
6. 000091-57-6	Naphthalene, 2-methyl-	14.87	56	JN
7.	unknown	15.77	12	J
8. 001127-76-0	Naphthalene, 1-ethyl-	15.97	13	JN
9. 000581-42-0	Naphthalene, 2,6-dimethyl-	16.14	51	JN
10. 000581-40-8	Naphthalene, 2,3-dimethyl-	16.32	53	JN
11. 000582-16-1	Naphthalene, 2,7-dimethyl-	16.38	27	JN
12. 000571-58-4	Naphthalene, 1,4-dimethyl-	16.59	18	JN
13. 000575-41-7	Naphthalene, 1,3-dimethyl-	16.79	9	JN
14. 002131-42-2	Naphthalene, 1,4,6-trimethyl-	17.73	9	JN

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Lab File ID: BN05275.D DFTPP Injection Date: 1/3/02

Instrument ID: GC_BNA_1 DFTPP Injection Time: 9:18

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	56.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	75.2
70	Less than 2.0% of mass 69	0.6 (0.8)1
127	25.0 - 75.0% of mass 198	54.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	22.7
365	Greater than 0.75% of mass 198	3.8
441	Present, but less than mass 443	9.0
442	40.0 - 110.0% of mass 198	58.2
443	15.0 - 24.0% of mass 442	12.0 (20.6)2

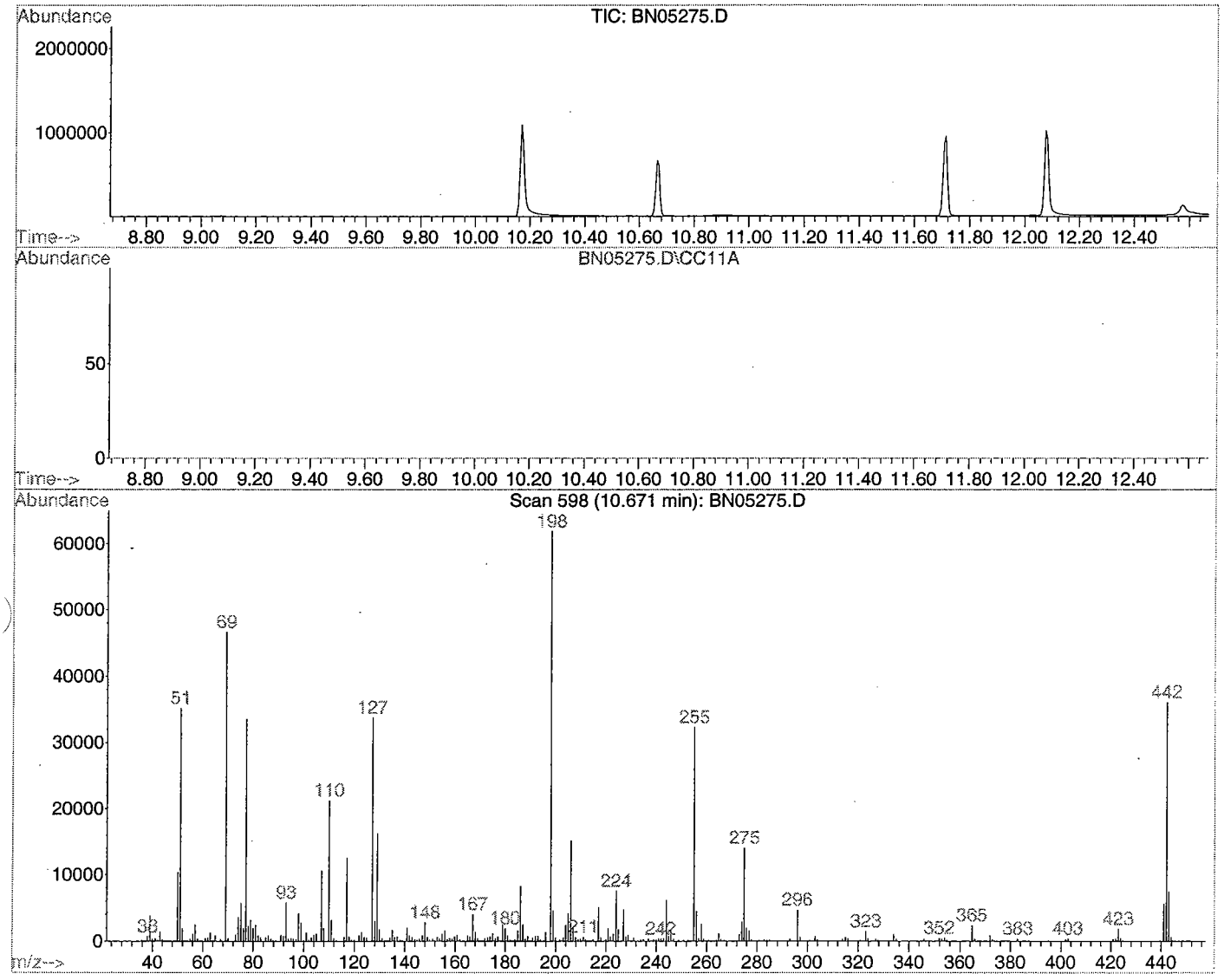
1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD120	SSTD120	BN05276.D	1/3/02	9:44
02	SSTD010	SSTD010	BN05277.D	1/3/02	10:32
03	SSTD050	SSTD050	BN05278.D	1/3/02	11:19
04	SSTD020	SSTD020	BN05279.D	1/3/02	12:08
05	SSTD080	SSTD080	BN05280.D	1/3/02	12:58

DFTPP

Data File : D:\HPCHEM\1\DATA\020103\BN05275.D Vial: 99
Acq On : 3 Jan 2002 9:18 am Operator: B.Patel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.8	35152	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	75.2	46600	PASS
70	69	0.00	2	0.8	372	PASS
127	198	40	60	54.5	33744	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	61928	PASS
199	198	5	9	7.4	4561	PASS
275	198	10	30	22.7	14057	PASS
365	198	1	100	3.8	2343	PASS
441	443	1	99	74.6	5545	PASS
442	198	40	100	58.2	36072	PASS
443	442	17	23	20.6	7436	PASS

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration

Calibration Files
120 =BN05276.D 80 =BN05280.D 50 =BN05278.D
20 =BN05279.D 10 =BN05277.D

		Compound	120	80	50	20	10	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	T	Pyridine	1.516	1.299	1.379	1.329	1.428	1.390	6.17
3)	T	N-nitroso-dimethylami	0.982	0.932	0.894	0.857	0.758	0.885	9.57
4)	S	2-Fluorophenol	1.424	1.435	1.385	1.312	1.286	1.368	4.87
5)	T	Aniline	2.304	1.979	1.802	1.624	1.793	1.900	13.59
6)	S	Phenol-d6	1.761	1.735	1.714	1.606	1.603	1.684	4.42
7)	TCM	Phenol	1.725	1.750	1.730	1.723	1.617	1.709	3.08
8)	T	bis(2-Chloroethyl)eth	1.705	1.647	1.769	1.527	1.545	1.638	6.30
9)	TM	2-Chlorophenol	1.404	1.353	1.334	1.305	1.271	1.333	3.76
10)	T	1,3-Dichlorobenzene	1.496	1.479	1.448	1.423	1.455	1.460	1.93
11)	TCM	1,4-Dichlorobenzene	1.526	1.511	1.498	1.457	1.534	1.505	2.02
12)	T	Benzyl alcohol	0.599	0.680	0.701	0.640	0.572	0.638	8.45
13)	T	1,2-Dichlorobenzene	1.402	1.377	1.402	1.356	1.407	1.389	1.56
14)	T	2-Methylphenol	1.247	1.257	1.226	1.210	1.193	1.227	2.12
15)	T	bis(2-chloroisopropyl	2.129	2.027	2.025	2.005	2.107	2.059	2.71
16)	T	4-Methylphenol	1.218	1.270	1.272	1.200	1.196	1.231	3.04
17)	TM	n-Nitroso-di-n-propyl	0.207	0.204	0.207	0.193	0.204	0.203	2.86
18)	T	Hexachloroethane	0.739	0.733	0.732	0.705	0.733	0.728	1.86
19)	I	Naphthalene-d8	----------ISTD----------						
20)	S	Nitrobenzene-d5	0.480	0.464	0.456	0.443	0.446	0.458	3.27
21)	T	Nitrobenzene	0.458	0.459	0.440	0.429	0.425	0.442	3.55
22)	T	Isophorone	0.738	0.734	0.707	0.691	0.695	0.713	3.08
23)	TC	2-Nitrophenol	0.216	0.215	0.210	0.198	0.187	0.205	6.05
24)	T	2,4-Dimethylphenol	0.375	0.380	0.378	0.367	0.382	0.377	1.55
25)	T	bis(2-Chloroethoxy)me	0.524	0.515	0.508	0.506	0.513	0.513	1.35
26)	TC	2,4-Dichlorophenol	0.281	0.283	0.276	0.265	0.265	0.274	3.16
27)	T	Benzoic Acid	0.276	0.274	0.256	0.225	0.197	0.246	13.82
28)	TM	1,2,4-Trichlorobenzen	0.308	0.313	0.308	0.309	0.319	0.312	1.54
29)	T	Naphthalene	1.037	1.034	1.037	1.013	1.057	1.036	1.52
30)	T	4-Chloroaniline	0.329	0.349	0.342	0.340	0.310	0.334	4.55
31)	TC	Hexachlorobutadiene	0.179	0.180	0.180	0.182	0.189	0.182	2.35
32)	TCM	4-Chloro-3-methylphen	0.307	0.317	0.302	0.300	0.301	0.305	2.31
33)	T	2-Methylnaphthalene	0.603	0.593	0.590	0.573	0.595	0.591	1.88
34)	I	Acenaphthene-d10	----------ISTD----------						
35)	T	Hexachlorocyclopentad	0.424	0.412	0.401	0.356	0.329	0.385	10.46
36)	TC	2,4,6-Trichlorophenol	0.410	0.410	0.398	0.397	0.388	0.400	2.43
37)	T	2,4,5-Trichlorophenol	0.480	0.470	0.466	0.436	0.411	0.453	6.26
38)	S	2-Fluorobiphenyl	1.349	1.390	1.385	1.374	1.366	1.373	1.18
39)	T	2-Chloronaphthalene	1.253	1.263	1.260	1.255	1.267	1.259	0.45
40)	T	2-Nitroaniline	0.521	0.514	0.493	0.480	0.436	0.489	6.89
41)	T	Dimethylphthalate	1.790	1.808	1.772	1.758	1.776	1.781	1.08
42)	T	Acenaphthylene	1.950	1.974	1.996	2.021	1.996	1.987	1.34
43)	T	2,6-Dinitrotoluene	0.438	0.429	0.436	0.442	0.432	0.435	1.19
44)	T	3-Nitroaniline	0.368	0.396	0.374	0.376	0.332	0.369	6.36
45)	TCM	Acenaphthene	1.194	1.214	1.225	1.214	1.229	1.215	1.11
46)	T	2,4-Dinitrophenol	0.249	0.245	0.210	0.161	0.150	0.203	22.72
47)	T	Dibenzofuran	1.637	1.668	1.664	1.667	1.692	1.666	1.17
48)	TM	4-Nitrophenol	0.325	0.317	0.263	0.291	0.227	0.284	14.08
49)	TM	2,4-Dinitrotoluene	0.482	0.491	0.485	0.463	0.448	0.474	3.79
50)	T	Diethylphthalate	1.981	2.006	2.002	1.960	1.992	1.988	0.93
51)	T	Fluorene	1.281	1.320	1.274	1.317	1.327	1.304	1.88
52)	T	4-Chlorophenyl-phenyl	0.697	0.707	0.703	0.709	0.725	0.708	1.49
53)	T	4-Nitroaniline	0.369	0.384	0.368	0.352	0.322	0.359	6.58
54)	I	Phenanthrene-d10	----------ISTD----------						

#) = Out of Range

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration

Calibration Files
120 =BN05276.D 80 =BN05280.D 50 =BN05278.D
20 =BN05279.D 10 =BN05277.D

		Compound	120	80	50	20	10	Avg	%RSD
55)	T	4,6-Dinitro-2-methylp	0.187	0.182	0.170	0.152	0.141	0.166	11.74
56)	TC	n-Nitrosodiphenylamin	0.650	0.653	0.657	0.656	0.662	0.656	0.72
57)	T	Azobenzene	1.171	1.157	1.165	1.158	1.164	1.163	0.46
58)	S	2,4,6-Tribromophenol	0.130	0.128	0.127	0.121	0.116	0.125	4.65
59)	T	4-Bromophenyl-phenyle	0.243	0.251	0.255	0.252	0.264	0.253	3.09
60)	T	Hexachlorobenzene	0.239	0.242	0.244	0.249	0.245	0.244	1.51
61)	TCM	Pentachlorophenol	0.138	0.137	0.130	0.103	0.093	0.120	17.42
62)	T	Phenanthrene	1.106	1.125	1.130	1.127	1.187	1.135	2.70
63)	T	Anthracene	1.114	1.144	1.147	1.121	1.151	1.136	1.47
64)	T	Di-n-butylphthalate	2.004	2.035	2.002	1.946	1.941	1.986	2.05
65)	TC	Fluoranthene	1.121	1.140	1.166	1.156	1.170	1.151	1.76
66)	I	Chrysene-d12	ISTD						
67)	T	Benzidine	0.577	0.518	0.521	0.543	0.587	0.549	5.78
68)	TM	Pyrene	1.506	1.504	1.472	1.429	1.473	1.477	2.13
69)	S	p-Terphenyl-d14	0.884	0.899	0.897	0.877	0.889	0.889	1.00
70)	T	Butylbenzylphthalate	1.186	1.163	1.129	1.084	1.011	1.114	6.24
71)	T	Benzo[a]anthracene	1.241	1.243	1.222	1.190	1.208	1.221	1.83
72)	T	3,3'-Dichlorobenzidin	0.578	0.582	0.559	0.552	0.564	0.567	2.21
73)	T	Chrysene	1.201	1.197	1.169	1.135	1.157	1.172	2.35
74)	T	bis(2-Ethylhexyl)phth	1.649	1.623	1.543	1.444	1.399	1.532	7.11
75)	I	Perylene-d12	ISTD						
76)	TC	Di-n-octylphthalate	3.579	3.633	3.548	3.329	3.223	3.462	5.11
77)	T	Benzo[b]fluoranthene	1.514	1.559	1.563	1.470	1.527	1.526	2.49
78)	T	Benzo[k]fluoranthene	1.499	1.531	1.539	1.539	1.523	1.526	1.08
79)	TC	Benzo[a]pyrene	1.454	1.491	1.481	1.469	1.447	1.468	1.25
80)	T	Indeno[1,2,3-cd]pyren	1.623	1.623	1.616	1.539	1.517	1.584	3.23
81)	T	Dibenz[a,h]anthracene	1.141	1.126	1.122	1.066	1.065	1.104	3.24
82)	T	Benzo[g,h,i]perylene	1.488	1.456	1.445	1.385	1.369	1.429	3.52

#) = Out of Range

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Lab File ID: BN05296.D DFTPP Injection Date: 1/4/02

Instrument ID: GC_BNA_1 DFTPP Injection Time: 9:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	48.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	64.4
70	Less than 2.0% of mass 69	0.4 (0.6)1
127	25.0 - 75.0% of mass 198	49.9
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	6.5
275	10.0 - 30.0% of mass 198	21.0
365	Greater than 0.75% of mass 198	3.5
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	64.8
443	15.0 - 24.0% of mass 442	12.2 (18.8)2

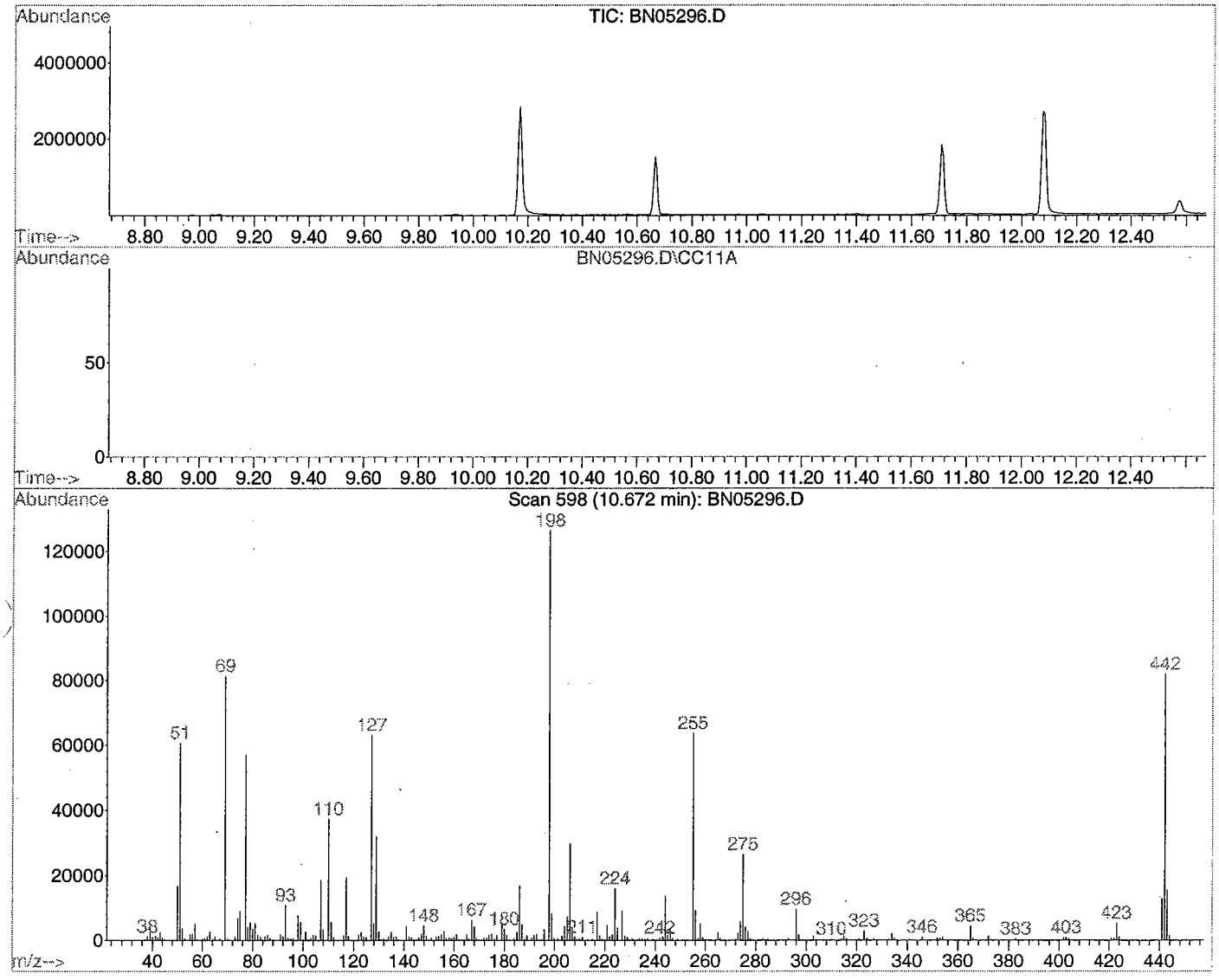
1-Value is % mass 69 2-Value is % mass 442

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	BN05297.D	1/4/02	10:14
02	1666204MS	1666204MS	BN05323.D	1/5/02	5:48
03	1666204MSD	1666204MSD	BN05324.D	1/5/02	6:32

DFTPP

Data File : D:\HPCHEM\1\DATA\020104\BN05296.D Vial: 99
Acq On : 4 Jan 2002 9:50 am Operator: B.Patel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	48.0	60656	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	64.4	81480	PASS
70	69	0.00	2	0.6	475	PASS
127	198	40	60	49.9	63104	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	126472	PASS
199	198	5	9	6.5	8201	PASS
275	198	10	30	21.0	26504	PASS
365	198	1	100	3.5	4401	PASS
441	443	1	99	82.7	12722	PASS
442	198	40	100	64.8	81968	PASS
443	442	17	23	18.8	15383	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\020104\BN05297.D Vial: 100
Acq On : 4 Jan 2002 10:14 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\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 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	117	0.00
2	T	Pyridine	1.390	1.389	0.1	117	-0.02
3	T	N-nitroso-dimethylamine	0.885	0.885	0.0	115	-0.02
4	S	2-Fluorophenol	1.368	1.394	-1.9	117	0.00
5	T	Aniline	1.900	1.759	7.4	114	0.00
6	S	Phenol-d6	1.684	1.725	-2.4	117	0.00
7	TCM	Phenol	1.709	1.782	-4.3	120	0.00
8	T	bis(2-Chloroethyl)ether	1.638	1.507	8.0	99	0.00
9	TM	2-Chlorophenol	1.333	1.353	-1.5	118	0.00
10	T	1,3-Dichlorobenzene	1.460	1.467	-0.5	118	0.00
11	TCM	1,4-Dichlorobenzene	1.505	1.491	0.9	116	0.00
12	T	Benzyl alcohol	0.638	0.761	-19.3	127	0.00
13	T	1,2-Dichlorobenzene	1.389	1.384	0.4	115	0.00
14	T	2-Methylphenol	1.227	1.274	-3.8	121	0.00
15	T	bis(2-chloroisopropyl)ether	2.059	2.088	-1.4	120	0.00
16	T	4-Methylphenol	1.231	1.315	-6.8	121	0.00
17	TM	n-Nitroso-di-n-propylamine	0.203	0.212	-4.4	119	0.00
18	T	Hexachloroethane	0.728	0.725	0.4	115	0.00
[illegible]	I	Naphthalene-d8	1.000	1.000	0.0	119	0.00
[illegible]		Nitrobenzene-d5	0.458	0.456	0.4	118	0.00
21	T	Nitrobenzene	0.442	0.443	-0.2	119	0.00
22	T	Isophorone	0.713	0.718	-0.7	120	0.00
23	TC	2-Nitrophenol	0.205	0.217	-5.9	123	0.00
24	T	2,4-Dimethylphenol	0.377	0.383	-1.6	120	0.00
25	T	bis(2-Chloroethoxy)methane	0.513	0.511	0.4	119	0.00
26	TC	2,4-Dichlorophenol	0.274	0.280	-2.2	120	0.00
27	T	Benzoic Acid	0.246	0.271	-10.2	126	0.02
28	TM	1,2,4-Trichlorobenzene	0.312	0.306	1.9	118	0.00
29	T	Naphthalene	1.036	1.021	1.4	117	0.00
30	T	4-Chloroaniline	0.334	0.354	-6.0	122	0.00
31	TC	Hexachlorobutadiene	0.182	0.183	-0.5	121	0.00
32	TCM	4-Chloro-3-methylphenol	0.305	0.313	-2.6	123	0.00
33	T	2-Methylnaphthalene	0.591	0.586	0.8	118	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00
35	T	Hexachlorocyclopentadiene	0.385	0.364	5.5	106	0.00
36	TC	2,4,6-Trichlorophenol	0.400	0.414	-3.5	122	0.00
37	T	2,4,5-Trichlorophenol	0.453	0.479	-5.7	120	0.00
38	S	2-Fluorobiphenyl	1.373	1.381	-0.6	116	0.00
39	T	2-Chloronaphthalene	1.259	1.279	-1.6	119	0.00
40	T	2-Nitroaniline	0.489	0.520	-6.3	123	0.00
41	T	Dimethylphthalate	1.781	1.778	0.2	117	0.00
42	T	Acenaphthylene	1.987	1.996	-0.5	117	0.00
43	T	2,6-Dinitrotoluene	0.435	0.433	0.5	116	0.00
44	T	3-Nitroaniline	0.369	0.367	0.5	114	0.00
45	TCM	Acenaphthene	1.215	1.236	-1.7	118	0.00
46	T	2,4-Dinitrophenol	0.203	0.211	-3.9	117	0.00
47	T	Dibenzofuran	1.666	1.642	1.4	115	0.00
48	TM	4-Nitrophenol	0.284	0.298	-4.9	132	0.00
49	TM	2,4-Dinitrotoluene	0.474	0.474	0.0	114	0.00
		Diethylphthalate	1.988	1.972	0.8	115	0.00
51	T	Fluorene	1.304	1.306	-0.2	120	0.00
52	T	4-Chlorophenyl-phenylether	0.708	0.720	-1.7	120	0.00
53	T	4-Nitroaniline	0.359	0.360	-0.3	114	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\020104\BN05297.D Vial: 100
Acq On : 4 Jan 2002 10:14 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\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 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	118	0.00
55	T	4,6-Dinitro-2-methylphenol	0.166	0.169	-1.8	117	0.00
56	TC	n-Nitrosodiphenylamine	0.656	0.651	0.8	116	0.00
57	T	Azobenzene	1.163	1.170	-0.6	118	0.00
58	S	2,4,6-Tribromophenol	0.125	0.133	-6.4	123	0.00
59	T	4-Bromophenyl-phenylether	0.253	0.254	-0.4	117	0.00
60	T	Hexachlorobenzene	0.244	0.247	-1.2	119	0.00
61	TCM	Pentachlorophenol	0.120	0.142	-18.3	128	0.00
62	T	Phenanthrene	1.135	1.117	1.6	116	0.00
63	T	Anthracene	1.136	1.134	0.2	116	0.00
64	T	Di-n-butylphthalate	1.986	2.000	-0.7	117	0.00
65	TC	Fluoranthene	1.151	1.105	4.0	111	0.00
66	I	Chrysene-d12	1.000	1.000	0.0	110	0.00
67	T	Benzidine	0.549	0.487	11.3	103	0.00
68	TM	Pyrene	1.477	1.523	-3.1	113	0.00
69	S	p-Terphenyl-d14	0.889	0.914	-2.8	112	0.00
70	T	Butylbenzylphthalate	1.114	1.150	-3.2	112	0.00
71	T	Benzo[a]anthracene	1.221	1.247	-2.1	112	0.00
72	T	3,3'-Dichlorobenzidine	0.567	0.558	1.6	109	0.00
		Chrysene	1.172	1.183	-0.9	111	0.00
74	T	bis(2-Ethylhexyl)phthalate	1.532	1.569	-2.4	112	0.00
75	I	Perylene-d12	1.000	1.000	0.0	109	0.00
76	TC	Di-n-octylphthalate	3.462	3.617	-4.5	111	0.00
77	T	Benzo[b]fluoranthene	1.526	1.514	0.8	106	0.00
78	T	Benzo[k]fluoranthene	1.526	1.526	0.0	108	0.00
79	TC	Benzo[a]pyrene	1.468	1.471	-0.2	108	0.00
80	T	Indeno[1,2,3-cd]pyrene	1.584	1.560	1.5	106	0.00
81	T	Dibenz[a,h]anthracene	1.104	1.108	-0.4	108	0.00
82	T	Benzo[g,h,i]perylene	1.429	1.401	2.0	106	0.00

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Lab File ID: BN05326.D DFTPP Injection Date: 1/7/02

Instrument ID: GC_BNA_1 DFTPP Injection Time: 10:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	70.0
70	Less than 2.0% of mass 69	0.6 (0.9)1
127	25.0 - 75.0% of mass 198	51.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 30.0% of mass 198	21.2
365	Greater than 0.75% of mass 198	3.3
441	Present, but less than mass 443	8.9
442	40.0 - 110.0% of mass 198	57.4
443	15.0 - 24.0% of mass 442	10.8 (18.9)2

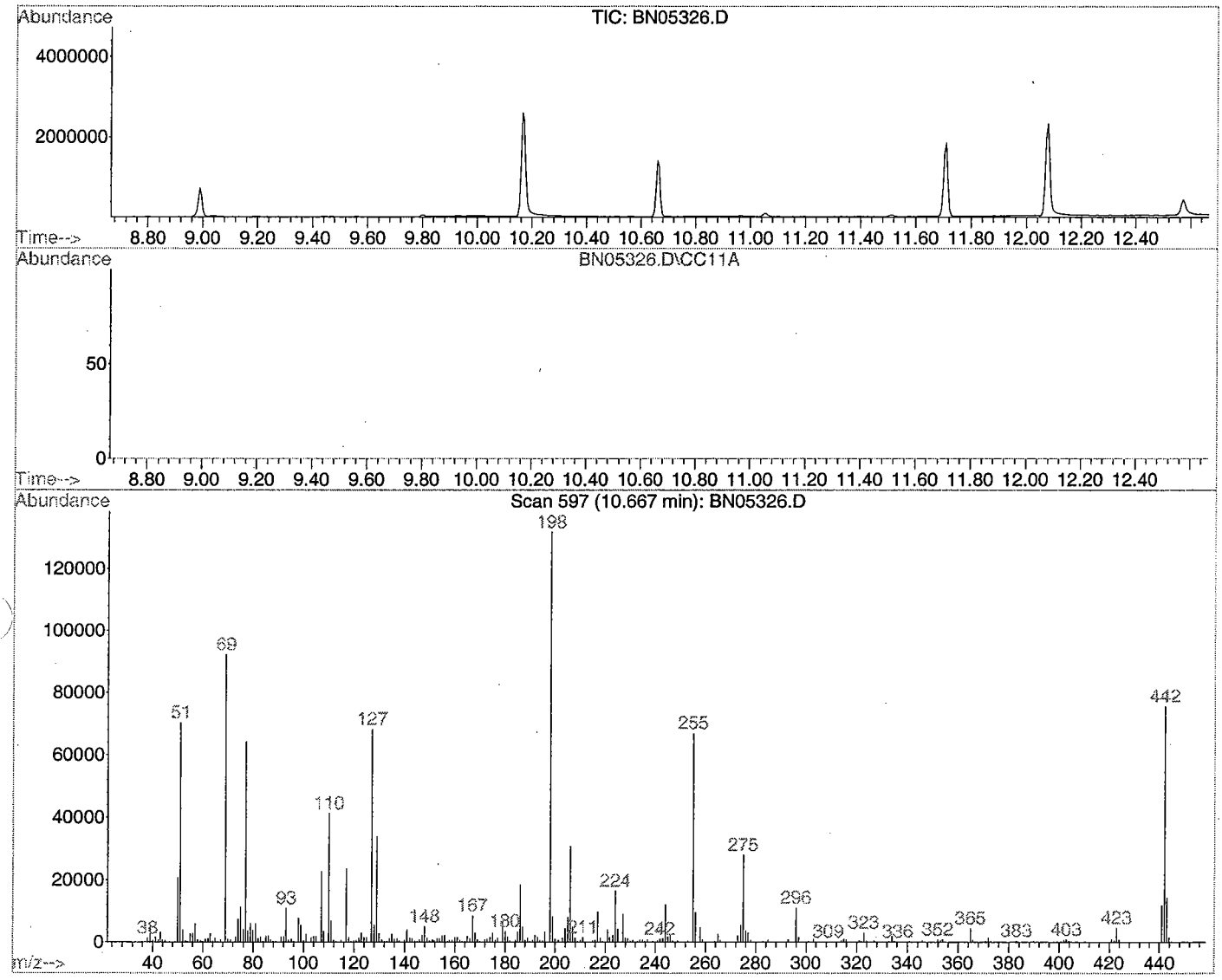
1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	BN05327.D	1/7/02	11:15
02	FIELD BLANK	2000302	BN05334.D	1/7/02	16:33
03	600GW-1	2000303	BN05335.D	1/7/02	17:19
04	600GW-2	2000304	BN05336.D	1/7/02	18:04
05	600GW-3	2000305	BN05337.D	1/7/02	18:49
06	600GW-4	2000306	BN05338.D	1/7/02	19:34
07	600GW-5	2000307	BN05339.D	1/7/02	20:19
08	FIELD DUP.	2000308	BN05340.D	1/7/02	21:03
09	600GW-5 DL	2000307 (1:2)	BN05342.D	1/8/02	8:13
10	FIELD DUP.DL	2000308 (1:2)	BN05343.D	1/8/02	9:03
11	MB-020107	MB-020107	BN05344.D	1/8/02	9:48

DFTPP

Data File : D:\HPCHEM\1\DATA\020107\BN05326.D Vial: 99
Acq On : 7 Jan 2002 10:50 am Operator: B.Patel
Sample : DFTPP Tune Inst : GC/MS Ins
Misc : 50 NG/2UL Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Scan 597

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.3	70272	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	70.0	92232	PASS
70	69	0.00	2	0.9	851	PASS
127	198	40	60	51.7	68128	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	131840	PASS
199	198	5	9	6.2	8193	PASS
275	198	10	30	21.2	27968	PASS
365	198	1	100	3.3	4414	PASS
441	443	1	99	82.5	11775	PASS
442	198	40	100	57.4	75632	PASS
443	442	17	23	18.9	14280	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\020107\BN05327.D Vial: 100
Acq On : 7 Jan 2002 11:15 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\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 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	118	0.00
2	T	Pyridine	1.390	1.304	6.2	112	-0.02
3	T	N-nitroso-dimethylamine	0.885	0.885	0.0	117	0.00
4	S	2-Fluorophenol	1.368	1.401	-2.4	119	0.00
5	T	Aniline	1.900	1.729	9.0	113	0.00
6	S	Phenol-d6	1.684	1.708	-1.4	117	0.00
7	TCM	Phenol	1.709	1.791	-4.8	122	0.00
8	T	bis(2-Chloroethyl)ether	1.638	1.574	3.9	105	0.00
9	TM	2-Chlorophenol	1.333	1.369	-2.7	121	0.00
10	T	1,3-Dichlorobenzene	1.460	1.478	-1.2	120	0.00
11	TCM	1,4-Dichlorobenzene	1.505	1.507	-0.1	119	0.00
12	T	Benzyl alcohol	0.638	0.803	-25.9	135	0.00
13	T	1,2-Dichlorobenzene	1.389	1.395	-0.4	117	0.00
14	T	2-Methylphenol	1.227	1.275	-3.9	123	0.00
15	T	bis(2-chloroisopropyl)ether	2.059	2.099	-1.9	122	0.00
16	T	4-Methylphenol	1.231	1.312	-6.6	122	0.00
17	TM	n-Nitroso-di-n-propylamine	0.203	0.214	-5.4	122	0.00
18	T	Hexachloroethane	0.728	0.748	-2.7	120	0.00
[illegible]	I	Naphthalene-d8	1.000	1.000	0.0	119	0.00
[illegible]		Nitrobenzene-d5	0.458	0.458	0.0	120	0.00
21	T	Nitrobenzene	0.442	0.443	-0.2	120	0.00
22	T	Isophorone	0.713	0.727	-2.0	123	0.00
23	TC	2-Nitrophenol	0.205	0.215	-4.9	122	0.00
24	T	2,4-Dimethylphenol	0.377	0.380	-0.8	120	0.00
25	T	bis(2-Chloroethoxy)methane	0.513	0.507	1.2	119	0.00
26	TC	2,4-Dichlorophenol	0.274	0.277	-1.1	120	0.00
27	T	Benzoic Acid	0.246	0.274	-11.4	128	0.02
28	TM	1,2,4-Trichlorobenzene	0.312	0.308	1.3	119	0.00
29	T	Naphthalene	1.036	1.036	0.0	119	0.00
30	T	4-Chloroaniline	0.334	0.337	-0.9	117	0.00
31	TC	Hexachlorobutadiene	0.182	0.180	1.1	120	0.00
32	TCM	4-Chloro-3-methylphenol	0.305	0.313	-2.6	124	0.00
33	T	2-Methylnaphthalene	0.591	0.577	2.4	117	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00
35	T	Hexachlorocyclopentadiene	0.385	0.390	-1.3	113	0.00
36	TC	2,4,6-Trichlorophenol	0.400	0.413	-3.2	121	0.00
37	T	2,4,5-Trichlorophenol	0.453	0.481	-6.2	120	0.00
38	S	2-Fluorobiphenyl	1.373	1.399	-1.9	118	0.00
39	T	2-Chloronaphthalene	1.259	1.271	-1.0	118	0.00
40	T	2-Nitroaniline	0.489	0.515	-5.3	122	0.00
41	T	Dimethylphthalate	1.781	1.795	-0.8	118	0.00
42	T	Acenaphthylene	1.987	1.999	-0.6	117	0.00
43	T	2,6-Dinitrotoluene	0.435	0.445	-2.3	119	0.00
44	T	3-Nitroaniline	0.369	0.353	4.3	110	0.00
45	TCM	Acenaphthene	1.215	1.207	0.7	115	0.00
46	T	2,4-Dinitrophenol	0.203	0.219	-7.9	122	0.00
47	T	Dibenzofuran	1.666	1.656	0.6	116	0.00
48	TM	4-Nitrophenol	0.284	0.331	-16.5	147	0.00
49	TM	2,4-Dinitrotoluene	0.474	0.487	-2.7	117	0.00
[illegible]		Diethylphthalate	1.988	2.030	-2.1	118	0.00
51	T	Fluorene	1.304	1.319	-1.2	121	0.00
52	T	4-Chlorophenyl-phenylether	0.708	0.716	-1.1	119	0.00
53	T	4-Nitroaniline	0.359	0.374	-4.2	118	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\020107\BN05327.D Vial: 100
Acq On : 7 Jan 2002 11:15 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\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 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	119	0.00
55	T	4,6-Dinitro-2-methylphenol	0.166	0.176	-6.0	123	0.00
56	TC	n-Nitrosodiphenylamine	0.656	0.651	0.8	118	0.00
57	T	Azobenzene	1.163	1.191	-2.4	122	0.00
58	S	2,4,6-Tribromophenol	0.125	0.136	-8.8	127	0.00
59	T	4-Bromophenyl-phenylether	0.253	0.252	0.4	118	0.00
60	T	Hexachlorobenzene	0.244	0.243	0.4	118	0.00
61	TCM	Pentachlorophenol	0.120	0.142	-18.3	130	0.00
62	T	Phenanthrene	1.135	1.130	0.4	119	0.00
63	T	Anthracene	1.136	1.125	1.0	117	0.00
64	T	Di-n-butylphthalate	1.986	2.027	-2.1	121	0.00
65	TC	Fluoranthene	1.151	1.151	0.0	118	0.00
66	I	Chrysene-d12	1.000	1.000	0.0	116	0.00
67	T	Benzidine	0.549	0.587	-6.9	131	0.00
68	TM	Pyrene	1.477	1.514	-2.5	120	0.00
69	S	p-Terphenyl-d14	0.889	0.904	-1.7	117	0.00
70	T	Butylbenzylphthalate	1.114	1.150	-3.2	118	0.00
71	T	Benzo[a]anthracene	1.221	1.233	-1.0	117	0.00
72	T	3,3'-Dichlorobenzidine	0.567	0.520	8.3	108	0.00
		Chrysene	1.172	1.179	-0.6	117	0.00
74	T	bis(2-Ethylhexyl)phthalate	1.532	1.567	-2.3	118	0.00
75	I	Perylene-d12	1.000	1.000	0.0	119	0.00
76	TC	Di-n-octylphthalate	3.462	3.600	-4.0	121	0.00
77	T	Benzo[b]fluoranthene	1.526	1.494	2.1	114	0.00
78	T	Benzo[k]fluoranthene	1.526	1.544	-1.2	119	0.00
79	TC	Benzo[a]pyrene	1.468	1.446	1.5	116	0.00
80	T	Indeno[1,2,3-cd]pyrene	1.584	1.584	0.0	117	0.00
81	T	Dibenz[a,h]anthracene	1.104	1.113	-0.8	118	0.00
82	T	Benzo[g,h,i]perylene	1.429	1.377	3.6	113	0.00

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-020107

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Lab File ID: BN05344.D Lab Sample ID: MB-020107

Instrument ID: GC/MS Ins Date Extracted: 1/7/02

Matrix: (soil/water) WATER Date Analyzed: 1/8/02

Level: (low/med) LOW Time Analyzed: 9:48

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	FIELD BLANK	2000302	BN05334.D	1/7/02
02	600GW-1	2000303	BN05335.D	1/7/02
03	600GW-2	2000304	BN05336.D	1/7/02
04	600GW-3	2000305	BN05337.D	1/7/02
05	600GW-4	2000306	BN05338.D	1/7/02
06	600GW-5	2000307	BN05339.D	1/7/02
07	FIELD DUP.	2000308	BN05340.D	1/7/02
08	600GW-5 DL	2000307 (1:2)	BN05342.D	1/8/02
09	FIELD DUP.DL	2000308 (1:2)	BN05343.D	1/8/02

COMMENTS:

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.: _____

	EPA SAMPLE NO.	S1 NBZ #	S2 2FP #	S3 TPL #	TOT OUT
01	1666204MS	66	65	68	0
02	1666204MSD	72	69	77	0
03	FIELD BLANK	56	54	37	0
04	600GW-1	63	61	55	0
05	600GW-2	53	53	20	0
06	600GW-3	58	55	31	0
07	600GW-4	48	45	25	0
08	600GW-5	71	64	47	0
09	FIELD DUP.	76	74	55	0
10	600GW-5 DL	70	64	47	0
11	FIELD DUP.DL	75	76	58	0
12	MB-020107	43	41	41	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 **BN05323.D** Sample Name **1666204MS**

Date Acquired **5-Jan-02**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		4.93 ug/L	24.65
62-75-9	N-nitroso-dimethylamine		7.71 ug/L	38.54
62-53-3	Aniline		9.34 ug/L	46.70
111-44-4	bis(2-Chloroethyl)ether		10.83 ug/L	54.16
541-73-1	1,3-Dichlorobenzene		13.22 ug/L	66.11
106-46-7	1,4-Dichlorobenzene		13.11 ug/L	65.56
100-51-6	Benzyl alcohol		15.33 ug/L	76.63
95-50-1	1,2-Dichlorobenzene		13.80 ug/L	69.02
39638-32-9	bis(2-chloroisopropyl)ether		16.98 ug/L	84.88
621-64-7	n-Nitroso-di-n-propylamine		13.87 ug/L	69.33
67-72-1	Hexachloroethane		13.37 ug/L	66.87
98-95-3	Nitrobenzene		14.91 ug/L	74.53
78-59-1	Isophorone		16.73 ug/L	83.64
111-91-1	bis(2-Chloroethoxy)methane		12.63 ug/L	63.15
120-82-1	1,2,4-Trichlorobenzene		13.85 ug/L	69.26
91-20-3	Naphthalene		14.37 ug/L	71.85
106-47-8	4-Chloroaniline		10.18 ug/L	50.92
87-68-3	Hexachlorobutadiene		13.47 ug/L	67.36
91-57-6	2-Methylnaphthalene		15.33 ug/L	76.65
77-47-4	Hexachlorocyclopentadiene		6.01 ug/L	30.06
91-58-7	2-Chloronaphthalene		15.56 ug/L	77.81
88-74-4	2-Nitroaniline		15.73 ug/L	78.64
131-11-3	Dimethylphthalate		14.52 ug/L	72.59
208-96-8	Acenaphthylene		14.41 ug/L	72.06
606-20-2	2,6-Dinitrotoluene		17.99 ug/L	89.97
99-09-2	3-Nitroaniline		13.16 ug/L	65.79
83-32-9	Acenaphthene		16.25 ug/L	81.27
132-64-9	Dibenzofuran		15.97 ug/L	79.87
121-14-2	2,4-Dinitrotoluene		17.29 ug/L	86.43
84-66-2	Diethylphthalate		14.45 ug/L	72.26
86-73-7	Fluorene		16.65 ug/L	83.25
7005-72-3	4-Chlorophenyl-phenylether		13.77 ug/L	68.85
100-01-6	4-Nitroaniline		12.49 ug/L	62.44
86-30-6	n-Nitrosodiphenylamine		14.22 ug/L	71.08
103-33-3	Azobenzene		16.75 ug/L	83.74
101-55-3	4-Bromophenyl-phenylether		14.05 ug/L	70.23
118-74-1	Hexachlorobenzene		16.61 ug/L	83.06
85-01-8	Phenanthrene		16.81 ug/L	84.04
120-12-7	Anthracene		15.83 ug/L	79.13
84-74-2	Di-n-butylphthalate		14.59 ug/L	72.93
206-44-0	Fluoranthene		16.43 ug/L	82.14
129-00-0	Pyrene		17.28 ug/L	86.41
85-68-7	Butylbenzylphthalate		14.77 ug/L	73.87
56-55-3	Benzo[a]anthracene		17.08 ug/L	85.38
218-01-9	Chrysene		14.41 ug/L	72.04
117-81-7	bis(2-Ethylhexyl)phthalate		14.02 ug/L	70.10
117-84-0	Di-n-octylphthalate		13.69 ug/L	68.44
205-99-2	Benzo[b]fluoranthene		16.57 ug/L	82.87
207-08-9	Benzo[k]fluoranthene		16.62 ug/L	83.11
50-32-8	Benzo[a]pyrene		15.45 ug/L	77.24
193-39-5	Indeno[1,2,3-cd]pyrene		16.56 ug/L	82.78
53-70-3	Dibenz[a,h]anthracene		19.27 ug/L	96.33
191-24-2	Benzo[g,h,i]perylene		15.63 ug/L	78.17

Base Neutral Spike Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name **BN05324.D** Sample Name **1666204MSD**

Date Acquired **5-Jan-02**

CAS#	Name		Amount Recovered	Percent Recovered
110-86-1	Pyridine		6.18 ug/L	30.91
62-75-9	N-nitroso-dimethylamine		6.99 ug/L	34.94
62-53-3	Aniline		9.55 ug/L	47.76
111-44-4	bis(2-Chloroethyl)ether		11.08 ug/L	55.39
541-73-1	1,3-Dichlorobenzene		12.76 ug/L	63.81
106-46-7	1,4-Dichlorobenzene		12.45 ug/L	62.27
100-51-6	Benzyl alcohol		15.26 ug/L	76.32
95-50-1	1,2-Dichlorobenzene		12.97 ug/L	64.84
39638-32-9	bis(2-chloroisopropyl)ether		17.40 ug/L	87.01
621-64-7	n-Nitroso-di-n-propylamine		14.27 ug/L	71.36
67-72-1	Hexachloroethane		12.69 ug/L	63.45
98-95-3	Nitrobenzene		15.68 ug/L	78.40
78-59-1	Isophorone		17.49 ug/L	87.47
111-91-1	bis(2-Chloroethoxy)methane		13.40 ug/L	67.01
120-82-1	1,2,4-Trichlorobenzene		14.41 ug/L	72.06
91-20-3	Naphthalene		15.08 ug/L	75.39
106-47-8	4-Chloroaniline		12.52 ug/L	62.61
87-68-3	Hexachlorobutadiene		13.89 ug/L	69.47
91-57-6	2-Methylnaphthalene		16.17 ug/L	80.83
77-47-4	Hexachlorocyclopentadiene		6.98 ug/L	34.89
91-58-7	2-Chloronaphthalene		16.49 ug/L	82.43
88-74-4	2-Nitroaniline		16.00 ug/L	79.98
131-11-3	Dimethylphthalate		15.40 ug/L	77.00
208-96-8	Acenaphthylene		14.72 ug/L	73.59
606-20-2	2,6-Dinitrotoluene		19.37 ug/L	96.87
99-09-2	3-Nitroaniline		15.06 ug/L	75.32
83-32-9	Acenaphthene		16.86 ug/L	84.28
132-64-9	Dibenzofuran		16.31 ug/L	81.53
121-14-2	2,4-Dinitrotoluene		19.11 ug/L	95.56
84-66-2	Diethylphthalate		15.86 ug/L	79.32
86-73-7	Fluorene		17.64 ug/L	88.22
7005-72-3	4-Chlorophenyl-phenylether		14.86 ug/L	74.29
100-01-6	4-Nitroaniline		14.37 ug/L	71.83
86-30-6	n-Nitrosodiphenylamine		15.65 ug/L	78.25
103-33-3	Azobenzene		17.87 ug/L	89.35
101-55-3	4-Bromophenyl-phenylether		15.21 ug/L	76.07
118-74-1	Hexachlorobenzene		17.95 ug/L	89.75
85-01-8	Phenanthrene		18.48 ug/L	92.41
120-12-7	Anthracene		17.91 ug/L	89.57
84-74-2	Di-n-butylphthalate		16.89 ug/L	84.45
206-44-0	Fluoranthene		19.03 ug/L	95.14
129-00-0	Pyrene		19.82 ug/L	99.08
85-68-7	Butylbenzylphthalate		16.80 ug/L	83.99
56-55-3	Benzo[a]anthracene		19.34 ug/L	96.71
218-01-9	Chrysene		16.42 ug/L	82.12
117-81-7	bis(2-Ethylhexyl)phthalate		15.70 ug/L	78.52
117-84-0	Di-n-octylphthalate		15.96 ug/L	79.78
205-99-2	Benzo[b]fluoranthene		19.62 ug/L	98.11
207-08-9	Benzo[k]fluoranthene		19.12 ug/L	95.62
50-32-8	Benzo[a]pyrene		17.98 ug/L	89.89
193-39-5	Indeno[1,2,3-cd]pyrene		18.90 ug/L	94.48
53-70-3	Dibenz[a,h]anthracene		22.38 ug/L	111.89
191-24-2	Benzo[g,h,i]perylene		18.14 ug/L	90.71

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Lab File ID (Standard): BN05297.D Date Analyzed: 1/4/02

Instrument ID: GC_BNA_1 Time Analyzed: 10:14

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	469379	10.01	1685542	12.92	754723	17.12
	UPPER LIMIT	938758	10.51	3371084	13.42	1509446	17.62
	LOWER LIMIT	234690	9.51	842771	12.42	377362	16.62
	EPA SAMPLE NO.						
01	1666204MS	482631	10.01	1754962	12.92	781673	17.12
02	1666204MSD	442411	10.01	1564270	12.92	711103	17.12

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.: 20003 Location: 600 Ar SDG No.:

Lab File ID (Standard): BN05297.D Date Analyzed: 01/04/02

Instrument ID: GC_BNA_1 Time Analyzed: 10:14

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	1219083	20.69	892291	27.08	666723	30.29
	UPPER LIMIT	2438166	20.19	1784582	26.58	1333446	29.79
	LOWER LIMIT	609542	21.19	446146	27.58	333362	30.79
	EPA SAMPLE NO.						
01	1666204MS	1257956	20.69	963837	27.09	716214	30.29
02	1666204MSD	1127246	20.68	883978	27.08	644961	30.29

IS1 DCB = 1,4-Dichlorobenzene-d4
IS2 NAP = Naphthalene-d8
IS3 ANE = Acenaphthene-d10
IS4 PNE = Phenanthrene-d10
IS5 CYS = Chrysene-d12
IS6 PRL = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Lab Code 13461

Project: 02 Case No.: 20003 Location: 600 Ar SDG No.:

Lab File ID (Standard): BN05327.D Date Analyzed: 1/7/02

Instrument ID: GC_BNA_1 Time Analyzed: 11:15

		IS1DCB AREA #	RT #	IS2NAP AREA #	RT #	IS3ANE AREA #	RT #
	12 HOUR STD	474662	10.00	1695557	12.92	753446	17.11
	UPPER LIMIT	949324	10.50	3391114	13.42	1506892	17.61
	LOWER LIMIT	237331	9.50	847779	12.42	376723	16.61
	EPA SAMPLE NO.						
01	FIELD BLANK	378364	10.02	1395622	12.93	637306	17.13
02	600GW-1	397072	10.01	1434426	12.93	658329	17.13
03	600GW-2	407336	10.01	1501531	12.93	657983	17.13
04	600GW-3	374307	10.02	1363866	12.93	612222	17.13
05	600GW-4	423040	10.01	1567712	12.93	697577	17.13
06	600GW-5	424971	10.01	1546171	12.93	705912	17.13
07	FIELD DUP.	430495	10.01	1499540	12.93	674544	17.13
08	600GW-5 DL	433439	10.01	1585108	12.93	720017	17.13
09	FIELD DUP.DL	397778	10.02	1440259	12.93	639981	17.13
10	MB-020107	515684	10.01	1873723	12.93	830581	17.13

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.: 20003 Location: 600 Ar SDG No.:

Lab File ID (Standard): BN05327.D Date Analyzed: 01/07/02

Instrument ID: GC_BNA_1 Time Analyzed: 11:15

		IS4PNE AREA #	RT #	IS5CYS AREA #	RT #	IS6PRL AREA #	RT #
	12 HOUR STD	1235449	20.68	945466	27.08	725563	30.29
	UPPER LIMIT	2470898	20.18	1890932	26.58	1451126	29.79
	LOWER LIMIT	617725	21.18	472733	27.58	362782	30.79
	EPA SAMPLE NO.						
01	FIELD BLANK	989629	20.70	745698	27.10	567062	30.31
02	600GW-1	1062918	20.70	808171	27.10	611967	30.31
03	600GW-2	1089602	20.70	864645	27.10	641598	30.31
04	600GW-3	977419	20.70	759025	27.10	571150	30.31
05	600GW-4	1113216	20.70	879978	27.10	660795	30.30
06	600GW-5	1116664	20.70	907546	27.10	683470	30.30
07	FIELD DUP.	1072048	20.70	872255	27.10	683579	30.30
08	600GW-5 DL	1146593	20.70	951606	27.10	698921	30.30
09	FIELD DUP.D	1018478	20.70	817371	27.10	612208	30.31
10	MB-020107	1337925	20.70	1053262	27.10	774288	30.30

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\020107\BN05344.D Vial: 3
Acq On : 8 Jan 2002 9:48 am Operator: B.Patel
Sample : MB-020107 Inst : GC/MS Ins
Misc : MB-020107 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 8 10:23 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	515684	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1873723	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	830581	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1337925	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	1053262	40.00	ug/L	0.00
75) Perylene-d12	30.30	264	774288	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	462967	21.59	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	43.18%		
38) 2-Fluorobiphenyl	15.55	172	582373	20.42	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	40.84%#		
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	24.61	244	480796	20.53	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	41.06%		

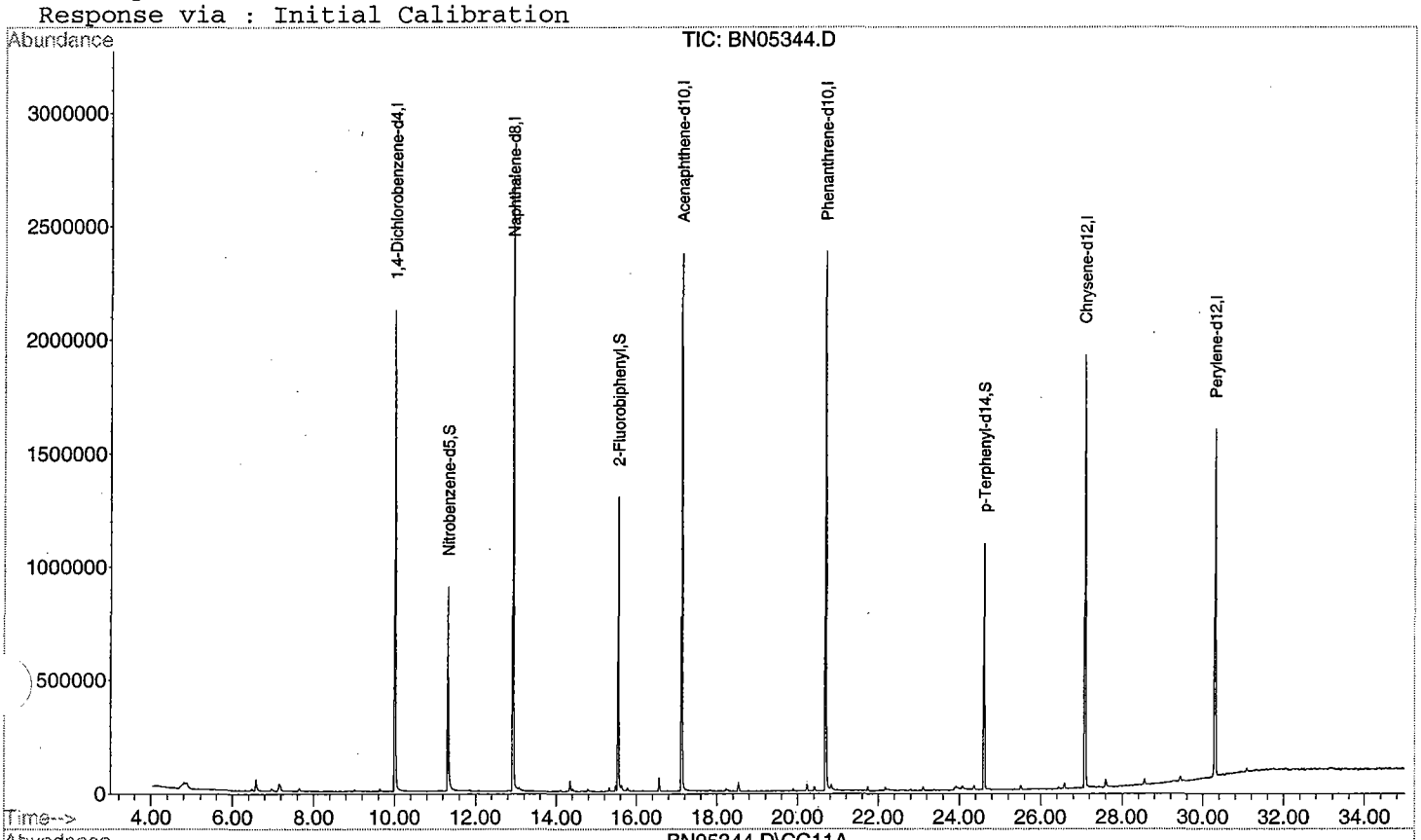
Target Compounds Qvalue

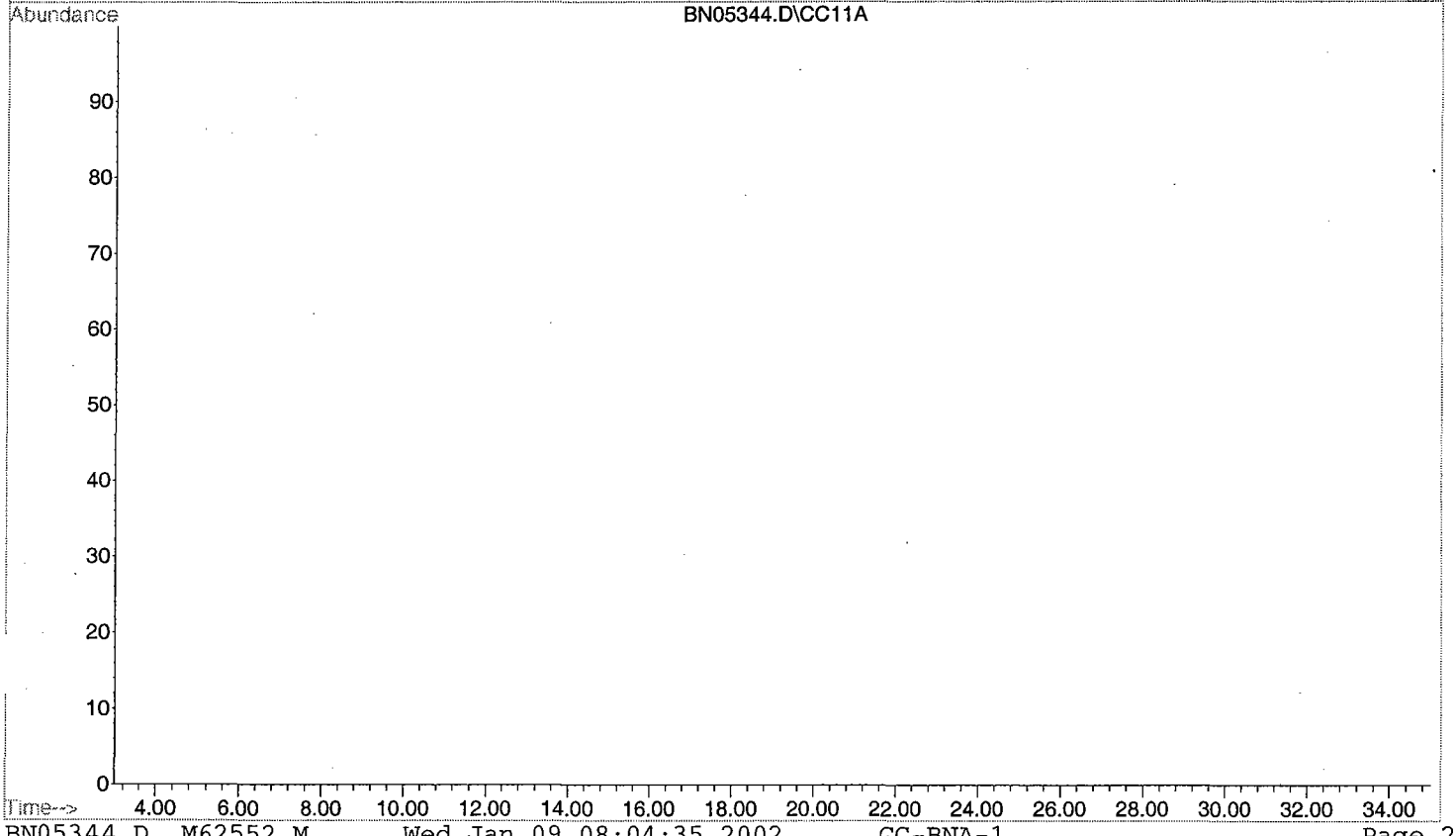
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05344.D Vial: 3
Acq On : 8 Jan 2002 9:48 am Operator: B.Patel
Sample : MB-020107 Inst : GC/MS Ins
Misc : MB-020107 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 8 10:23 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





000109

Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05334.D Vial: 7
Acq On : 7 Jan 2002 4:33 pm Operator: B.Patel
Sample : 2000302 Inst : GC/MS Ins
Misc : Field Blank Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:48 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.02	152	378364	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1395622	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	637306	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	989629	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	745698	40.00	ug/L	0.00
75) Perylene-d12	30.31	264	567062	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	444460	27.83	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	55.66%		
38) 2-Fluorobiphenyl	15.55	172	592954	27.10	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	54.20%		
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	24.62	244	305131	18.40	ug/L	0.02
Spiked Amount 50.000	Range 33 - 141		Recovery =	36.80%		

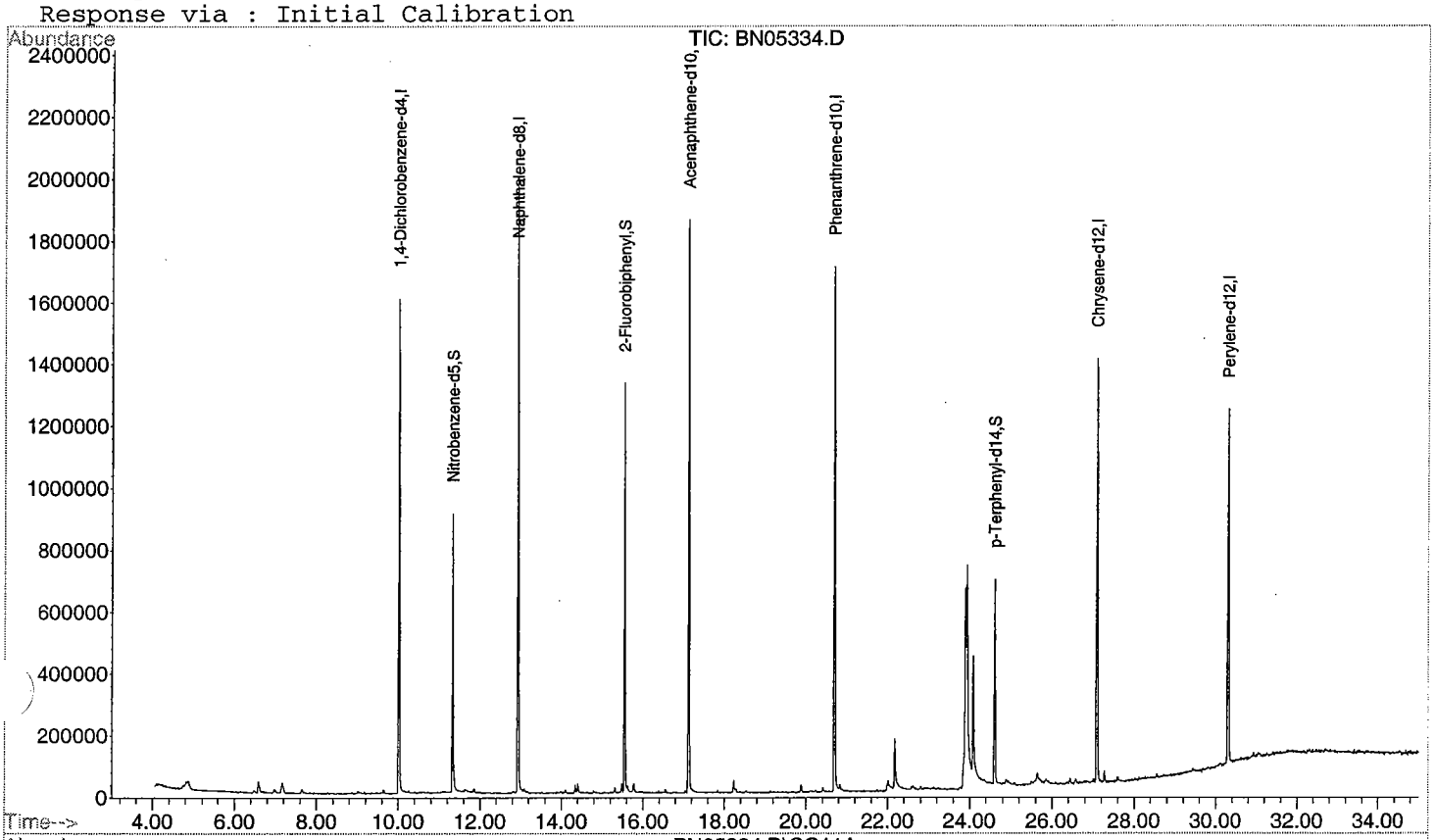
Target Compounds Qvalue

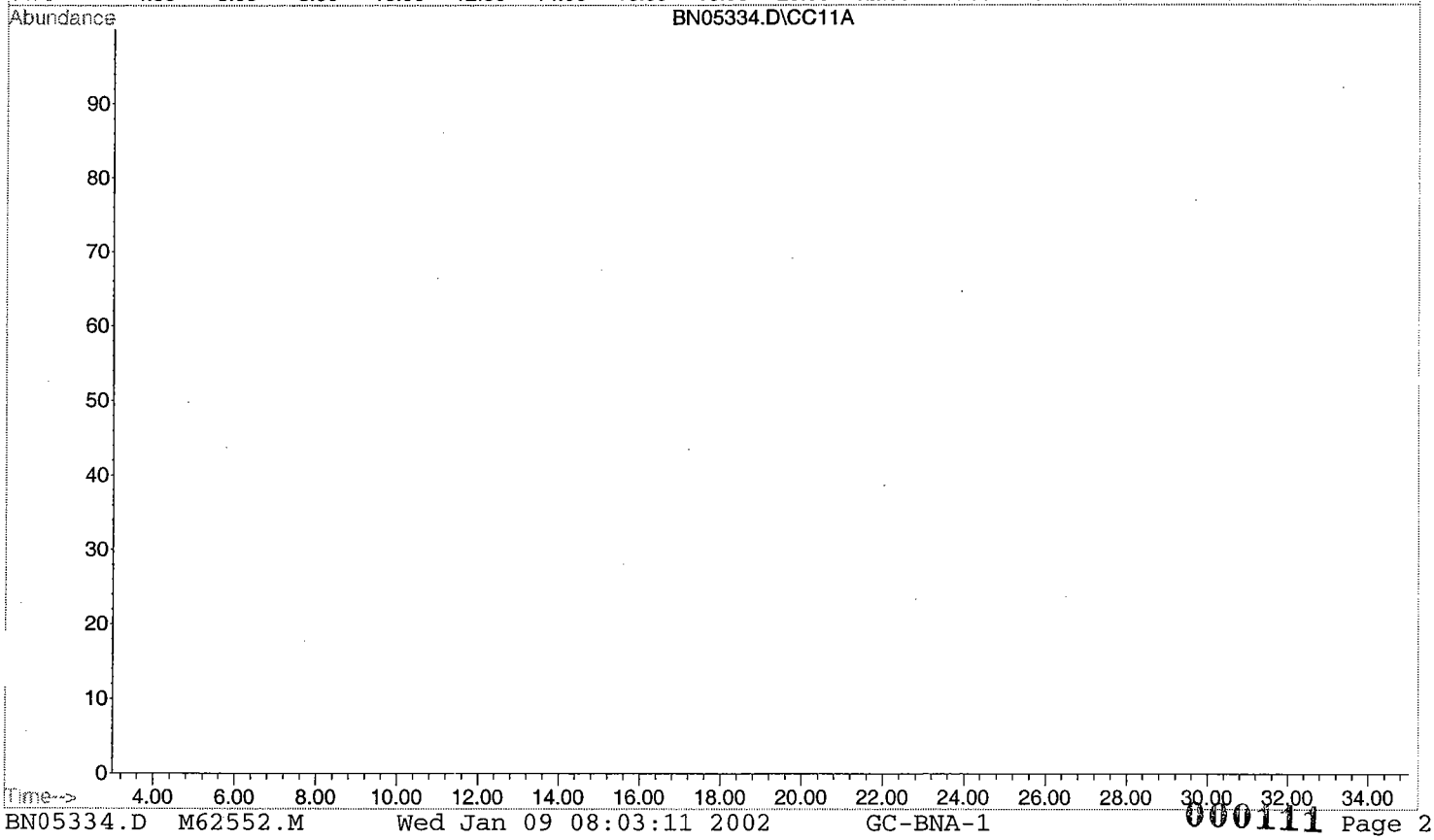
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05334.D Vial: 7
Acq On : 7 Jan 2002 4:33 pm Operator: B.Patel
Sample : 2000302 Inst : GC/MS Ins
Misc : Field Blank Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:48 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05335.D Vial: 8
Acq On : 7 Jan 2002 5:19 pm Operator: B.Patel
Sample : 2000303 Inst : GC/MS Ins
Misc : 600GW-1 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:49 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	397072	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1434426	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	658329	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1062918	40.00	ug/L	0.01
66) Chrysene-d12	27.10	240	808171	40.00	ug/L	0.01
75) Perylene-d12	30.31	264	611967	40.00	ug/L	0.03
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	11.32	82	516756	31.48	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	62.96%		
38) 2-Fluorobiphenyl	15.55	172	686782	30.39	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	60.78%		
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	24.62	244	491689	27.36	ug/L	0.01
Spiked Amount 50.000	Range 33 - 141		Recovery =	54.72%		

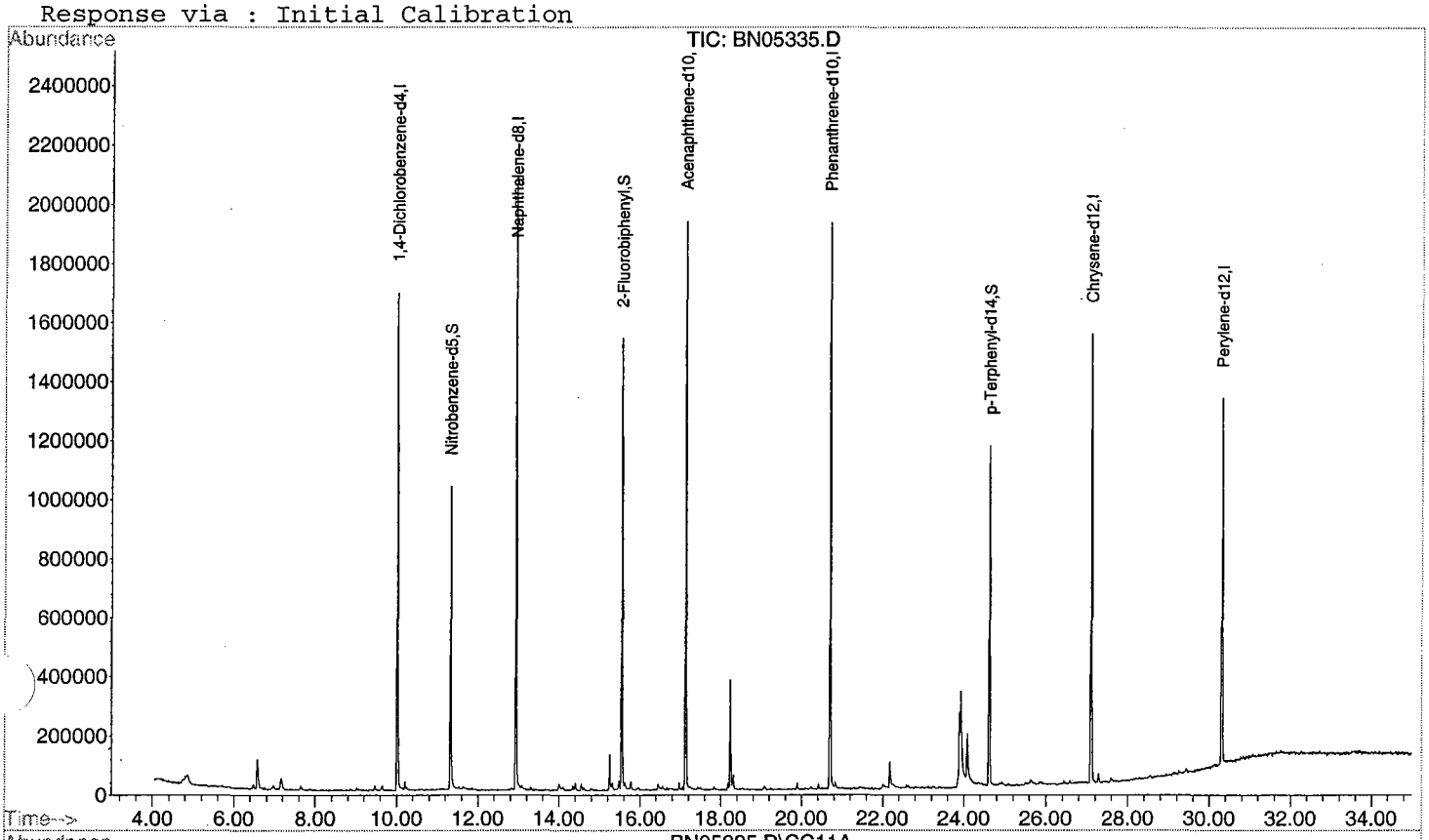
Target Compounds Qvalue

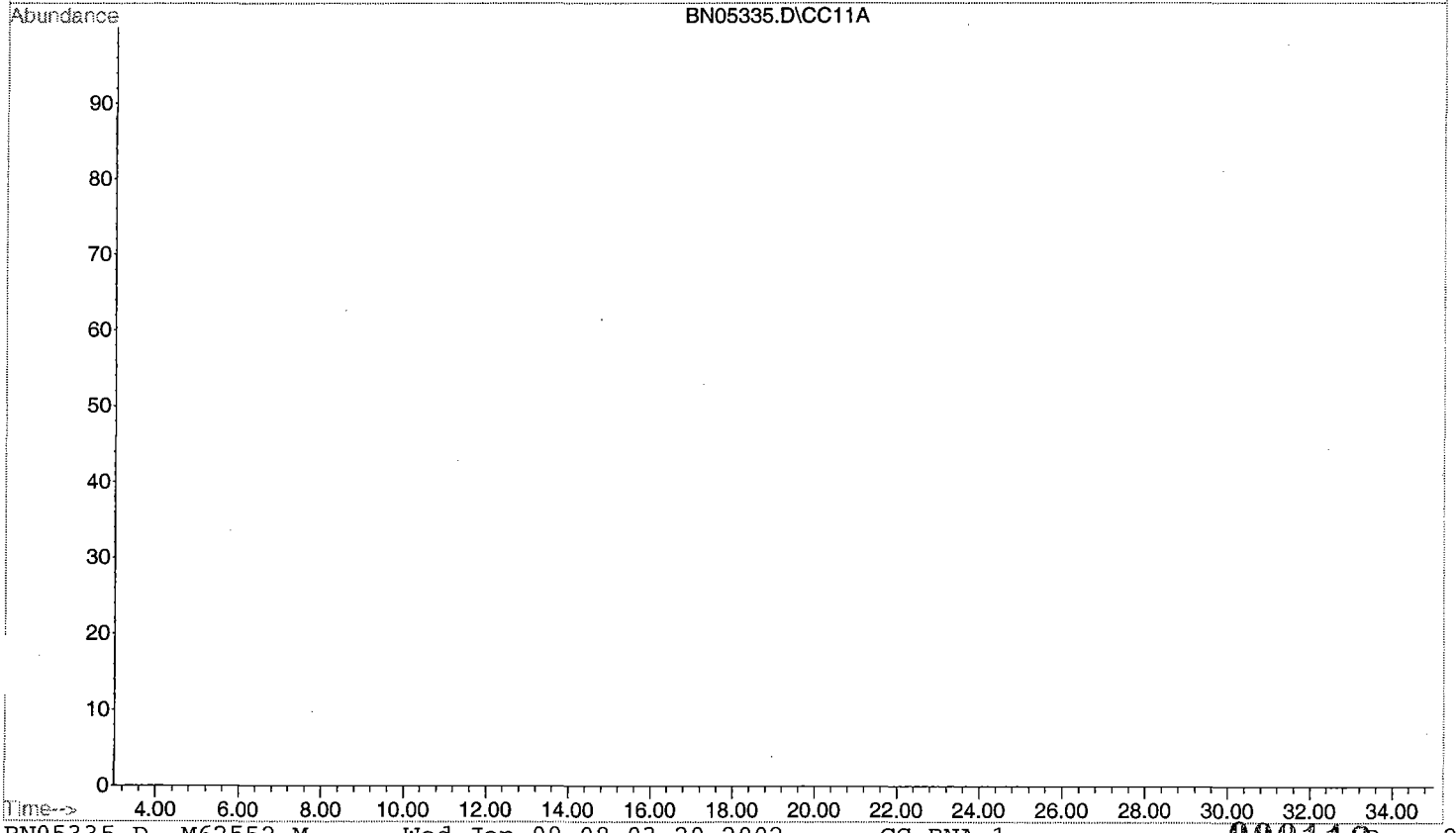
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05335.D Vial: 8
Acq On : 7 Jan 2002 5:19 pm Operator: B.Patel
Sample : 2000303 Inst : GC/MS Ins
Misc : 600GW-1 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:49 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05336.D Vial: 9
Acq On : 7 Jan 2002 6:04 pm Operator: B.Patel
Sample : 2000304 Inst : GC/MS Ins
Misc : 600GW-2 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:51 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

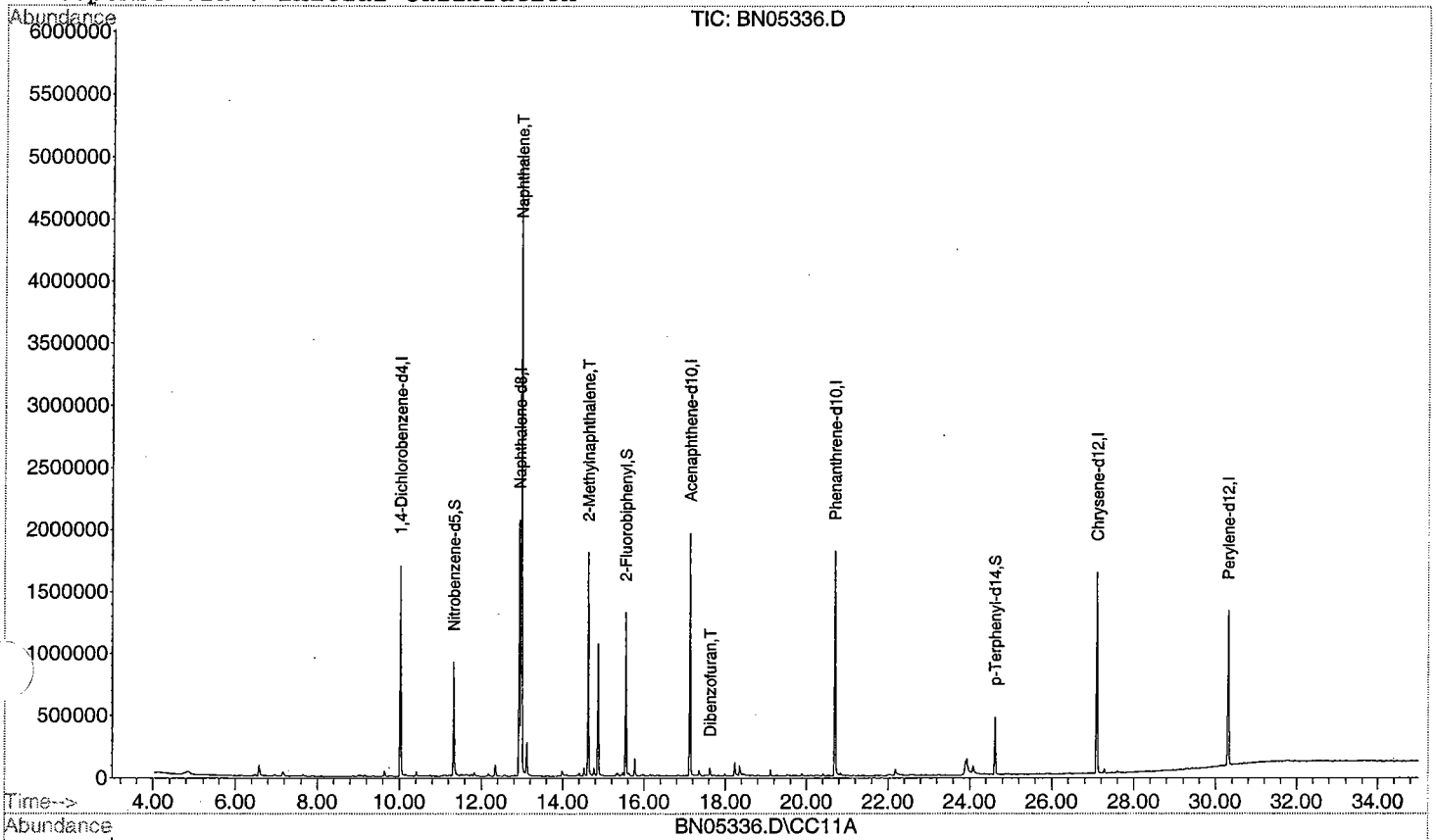
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	407336	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1501531	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	657983	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1089602	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	864645	40.00	ug/L	0.02
75) Perylene-d12	30.31	264	641598	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	452000	26.30	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	52.60%		
38) 2-Fluorobiphenyl	15.55	172	593596	26.28	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	52.56%		
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	24.61	244	195188	10.15	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	20.30%#		
Target Compounds						Qvalue
29) Naphthalene	12.98	128	3474126	89.36	ug/L	99
33) 2-Methylnaphthalene	14.63	142	784737	35.38	ug/L	99
47) Dibenzofuran	17.62	168	37633	1.37	ug/L #	95

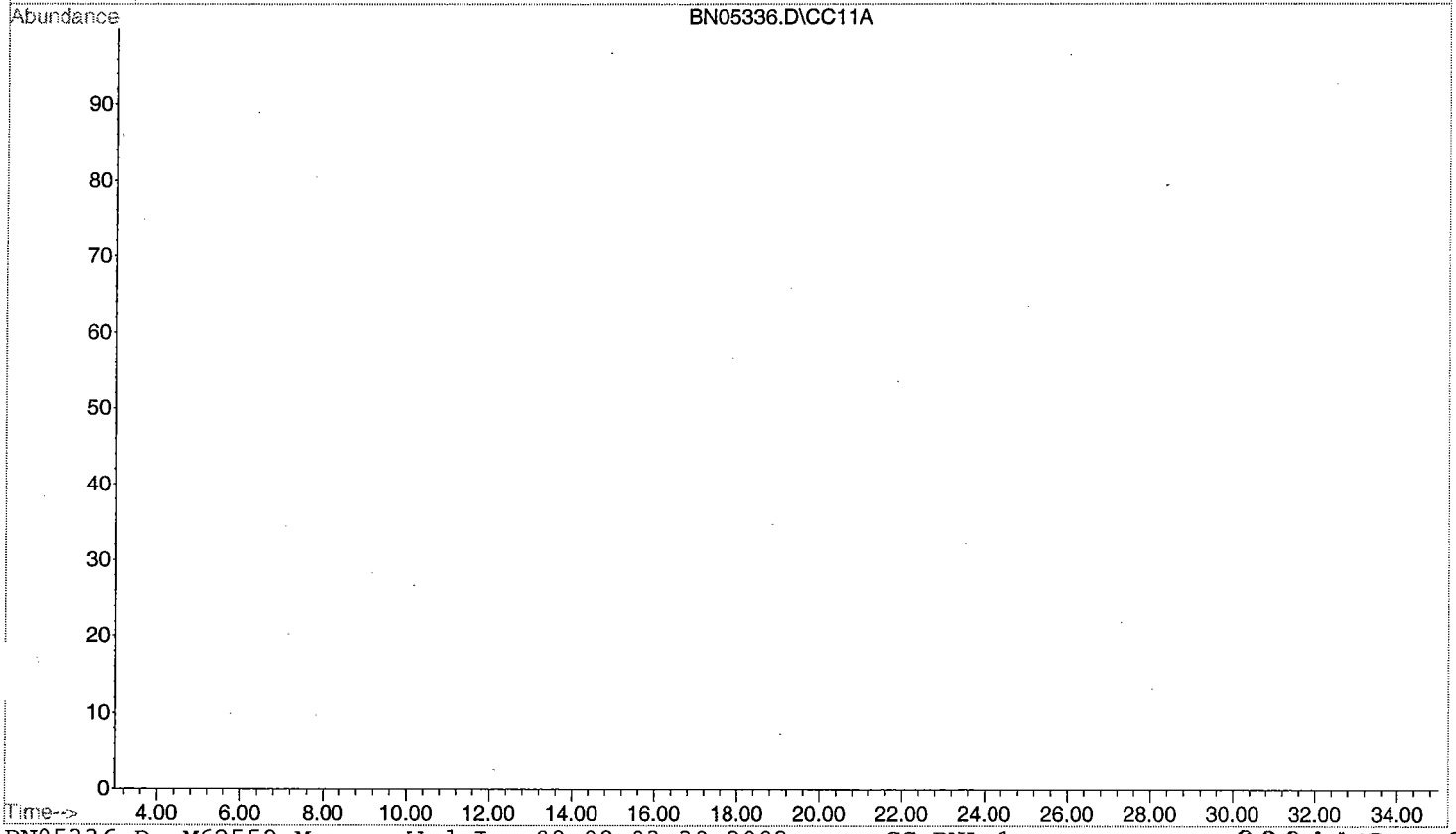
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05336.D Vial: 9
Acq On : 7 Jan 2002 6:04 pm Operator: B.Patel
Sample : 2000304 Inst : GC/MS Ins
Misc : 600GW-2 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:51 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05337.D Vial: 10
Acq On : 7 Jan 2002 6:49 pm Operator: B.Patel
Sample : 2000305 Inst : GC/MS Ins
Misc : 600GW-3 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:52 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.02	152	374307	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1363866	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	612222	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	977419	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	759025	40.00	ug/L	0.00
75) Perylene-d12	30.31	264	571150	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery = 0.00%#			
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery = 0.00%#			
20) Nitrobenzene-d5	11.32	82	449431	28.79	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 57.58%			
38) 2-Fluorobiphenyl	15.55	172	578955	27.55	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 55.10%			
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	24.61	244	263500	15.61	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 31.22%#			

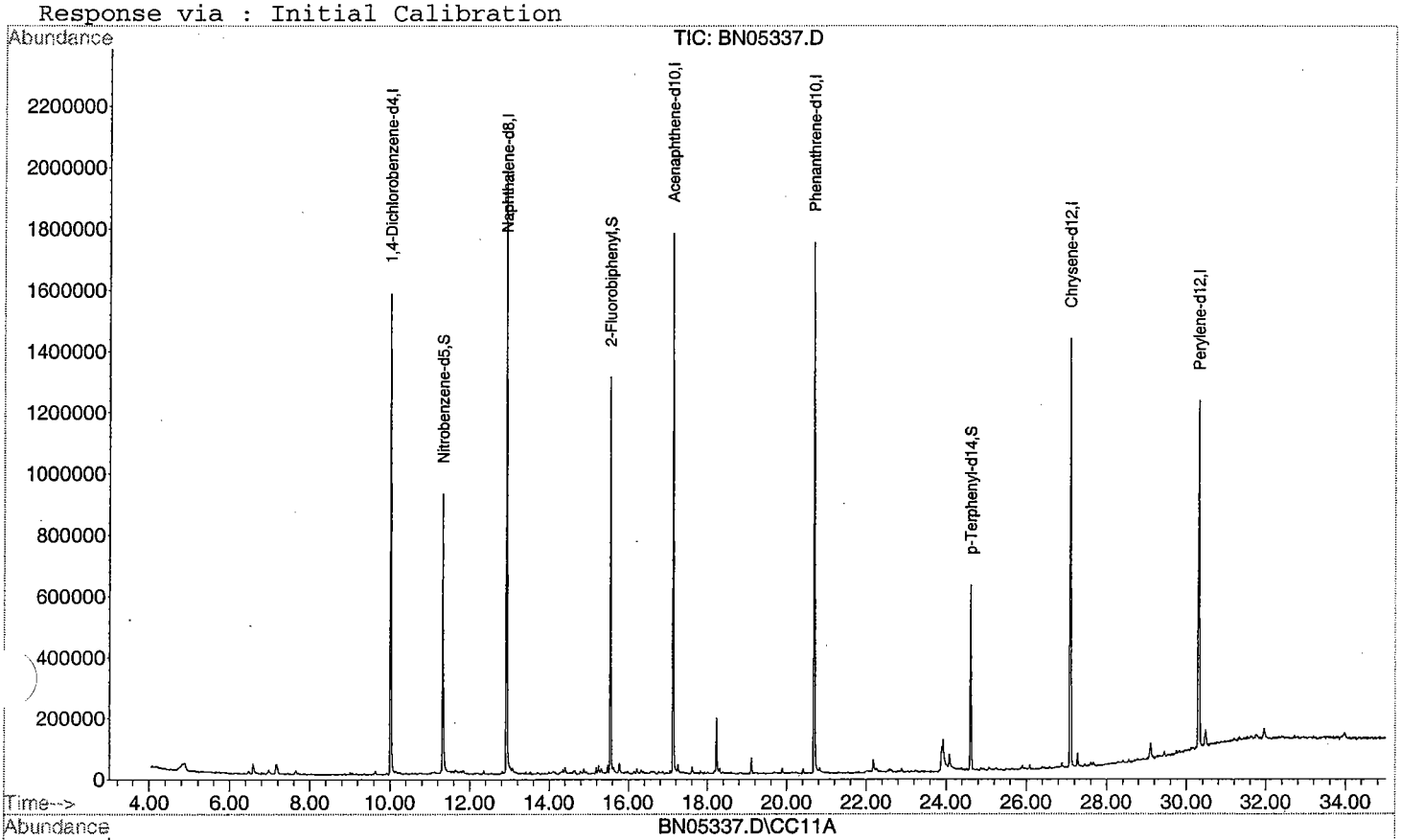
Target Compounds Qvalue

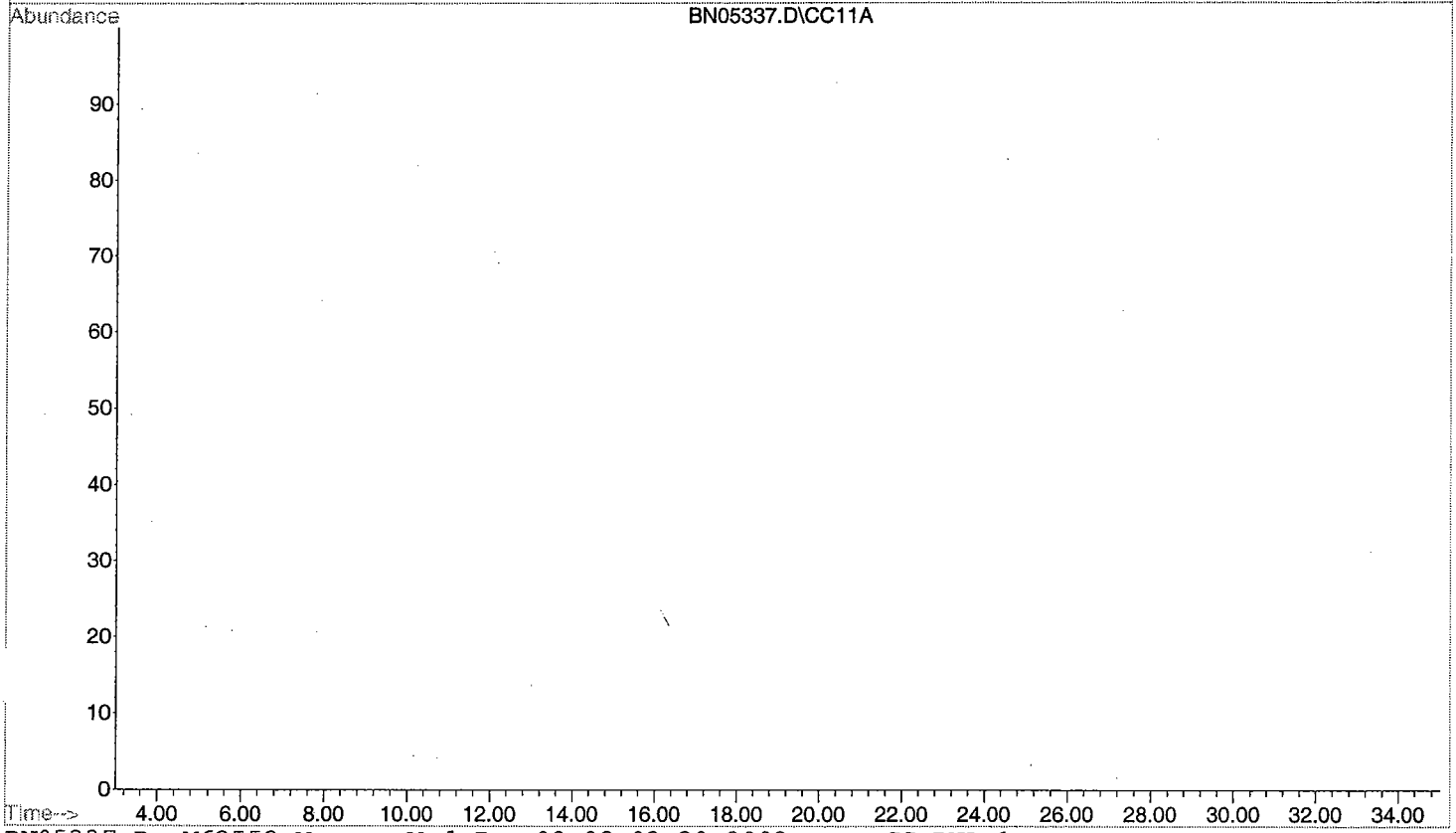
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05337.D Vial: 10
Acq On : 7 Jan 2002 6:49 pm Operator: B.Patel
Sample : 2000305 Inst : GC/MS Ins
Misc : 600GW-3 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:52 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05338.D Vial: 11
Acq On : 7 Jan 2002 7:34 pm Operator: B.Patel
Sample : 2000306 Inst : GC/MS Ins
Misc : 600GW-4 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:52 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

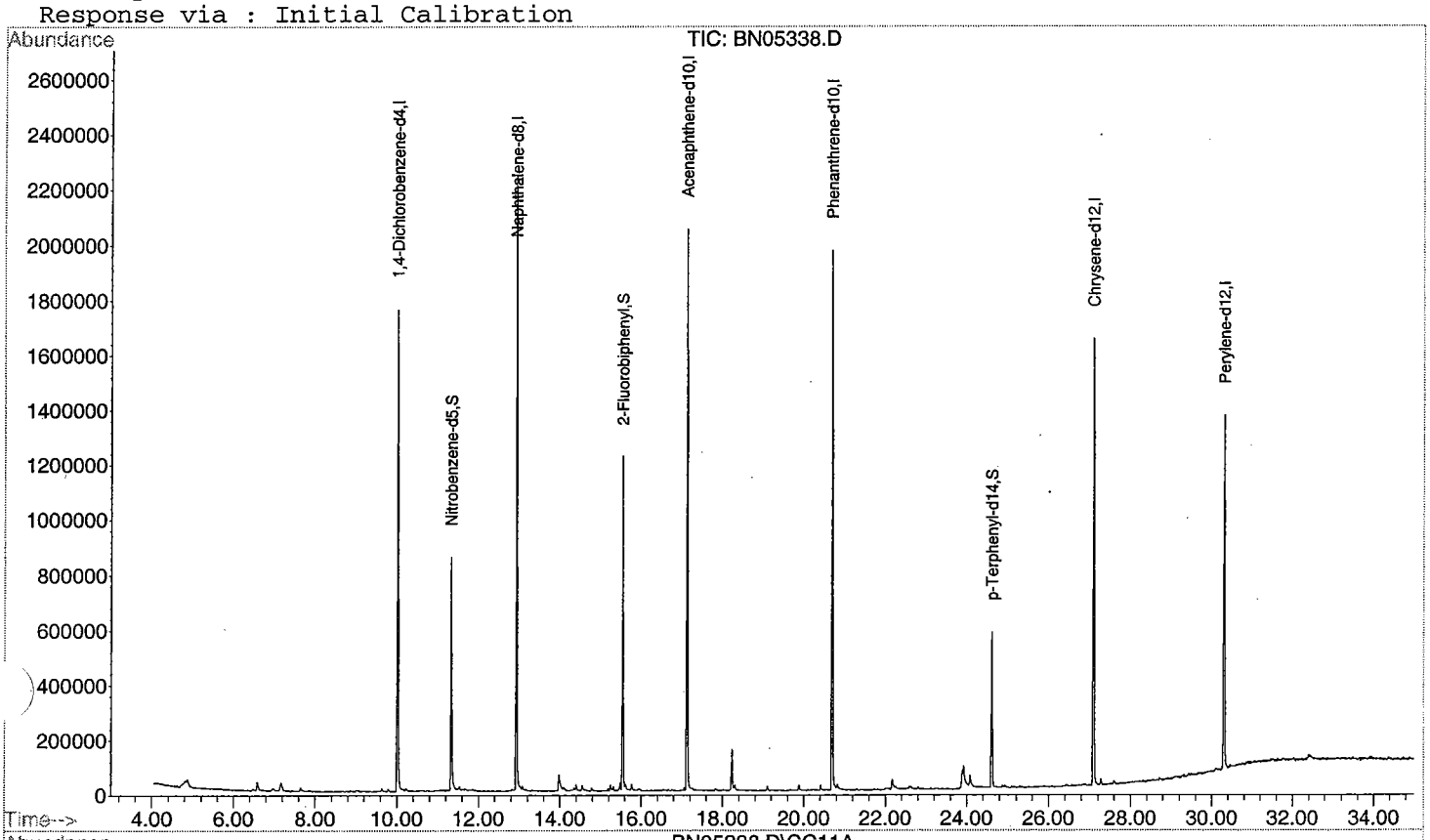
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	423040	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1567712	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	697577	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1113216	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	879978	40.00	ug/L	0.00
75) Perylene-d12	30.30	264	660795	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	426229	23.76	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	47.52%		
38) 2-Fluorobiphenyl	15.54	172	541256	22.60	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	45.20%		
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	24.61	244	248124	12.68	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	25.36%#		
Target Compounds						Qvalue

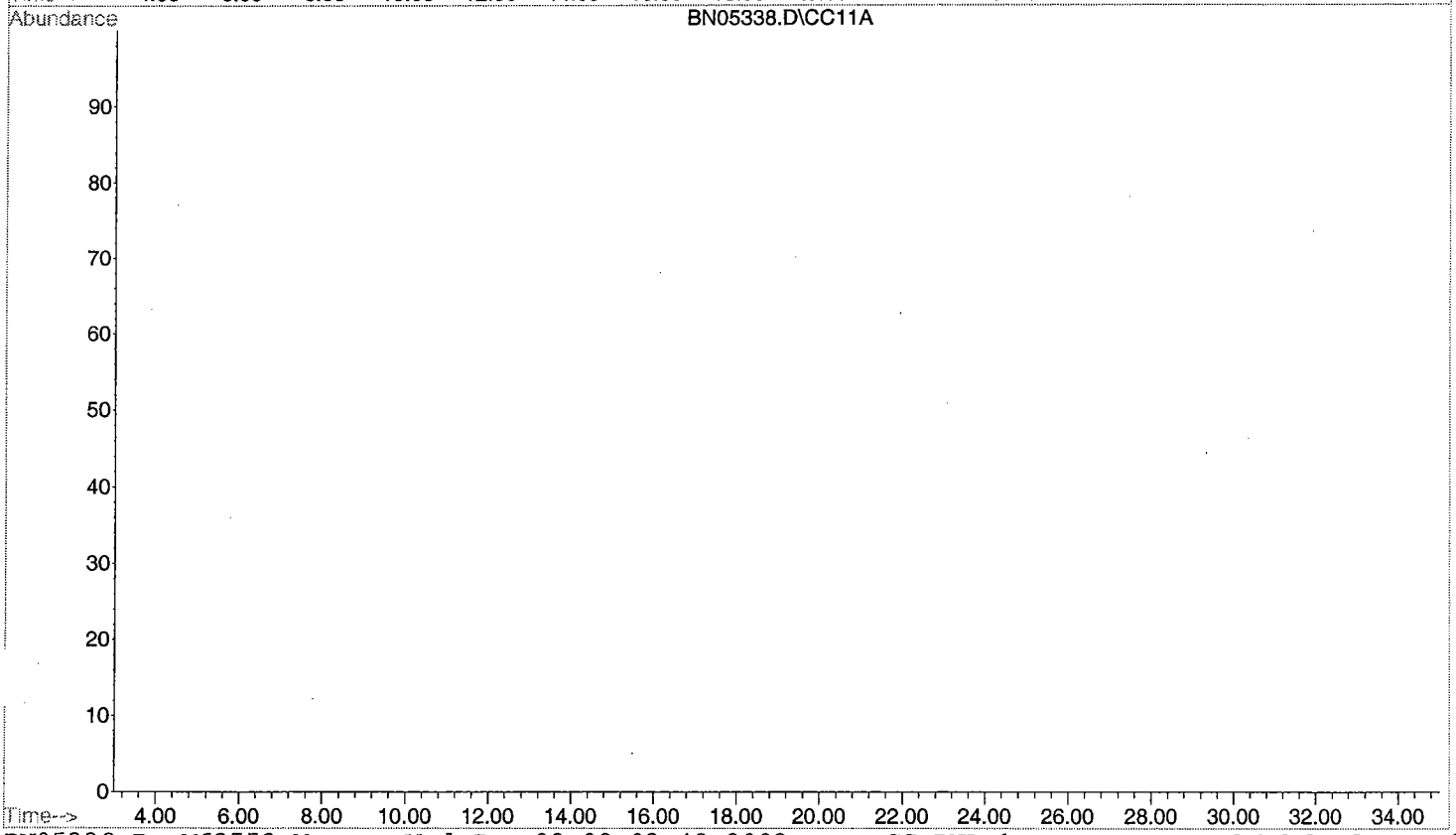
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05338.D Vial: 11
Acq On : 7 Jan 2002 7:34 pm Operator: B.Patel
Sample : 2000306 Inst : GC/MS Ins
Misc : 600GW-4 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:52 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05339.D Vial: 12
Acq On : 7 Jan 2002 8:19 pm Operator: B.Patel
Sample : 2000307 Inst : GC/MS Ins
Misc : 600GW-5 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:54 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

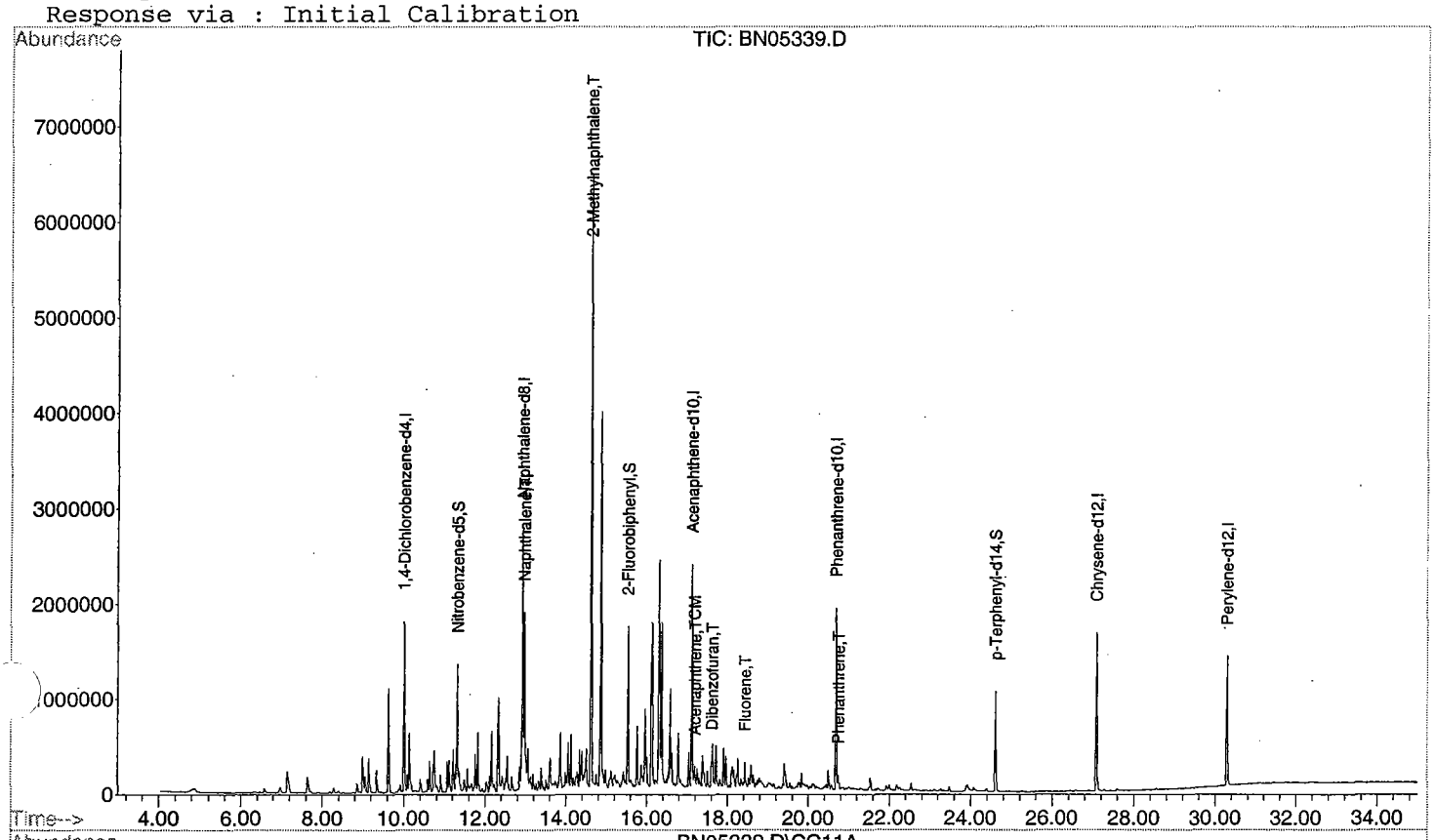
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	424971	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1546171	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	705912	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1116664	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	907546	40.00	ug/L	0.00
75) Perylene-d12	30.30	264	683470	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery = 0.00%#			
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery = 0.00%#			
20) Nitrobenzene-d5	11.32	82	626645	35.41	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery = 70.82%			
38) 2-Fluorobiphenyl	15.54	172	774980	31.98	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 63.96%			
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	24.61	244	469690	23.27	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 46.54%			
Target Compounds						Qvalue
29) Naphthalene	12.98	128	1251939	31.27	ug/L	99
33) 2-Methylnaphthalene	14.63	142	2872232	125.76	ug/L	98
45) Acenaphthene	17.20	153	41656	1.94	ug/L	94
47) Dibenzofuran	17.62	168	55578	1.89	ug/L #	80
51) Fluorene	18.44	166	65736	2.86	ug/L	86
62) Phenanthrene	20.75	178	83045	2.62	ug/L	99

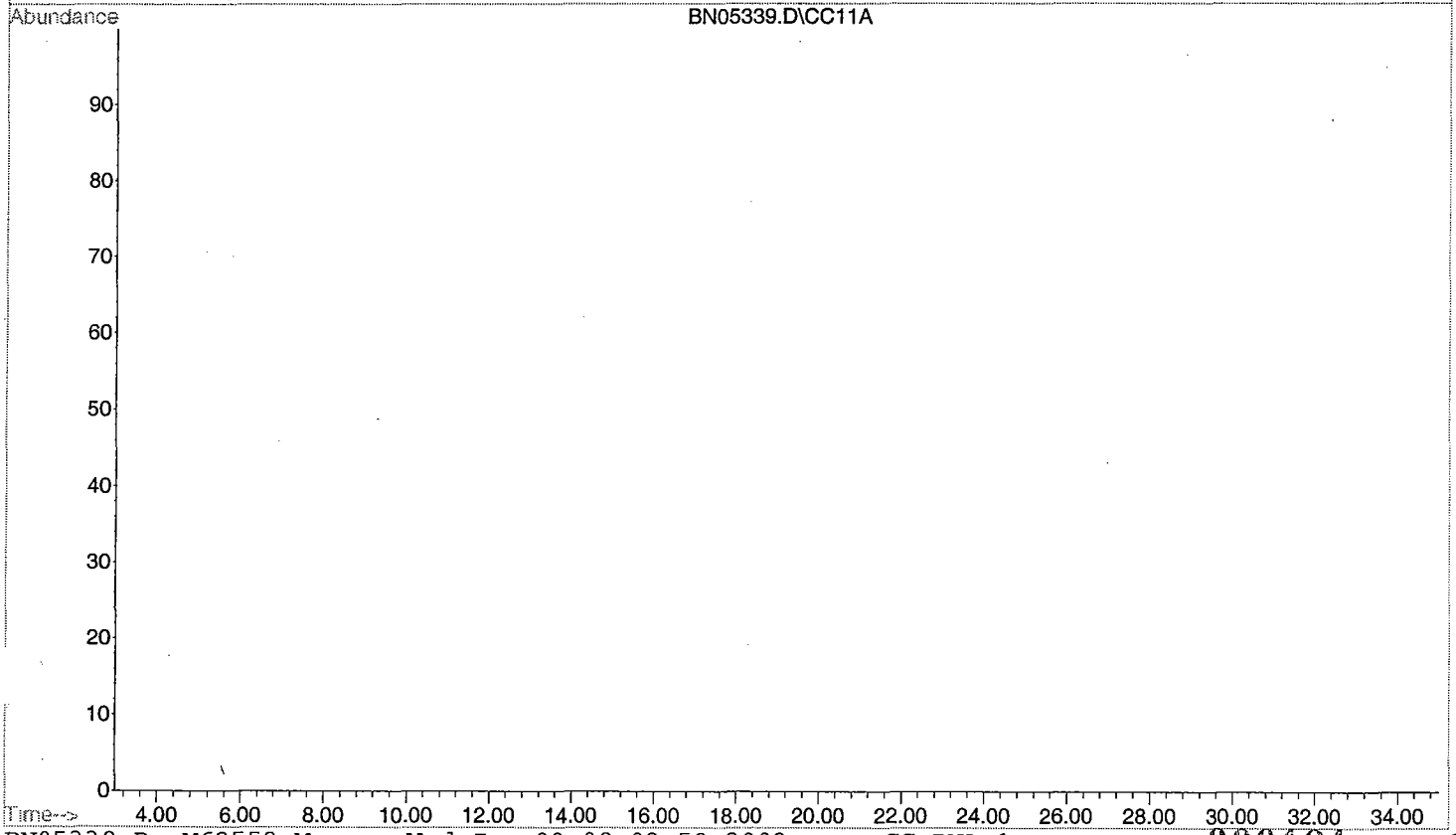
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05339.D Vial: 12
Acq On : 7 Jan 2002 8:19 pm Operator: B.Patel
Sample : 2000307 Inst : GC/MS Ins
Misc : 600GW-5 Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:54 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05340.D Vial: 13
Acq On : 7 Jan 2002 9:03 pm Operator: B.Patel
Sample : 2000308 Inst : GC/MS Ins
Misc : Field Dup. Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:58 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

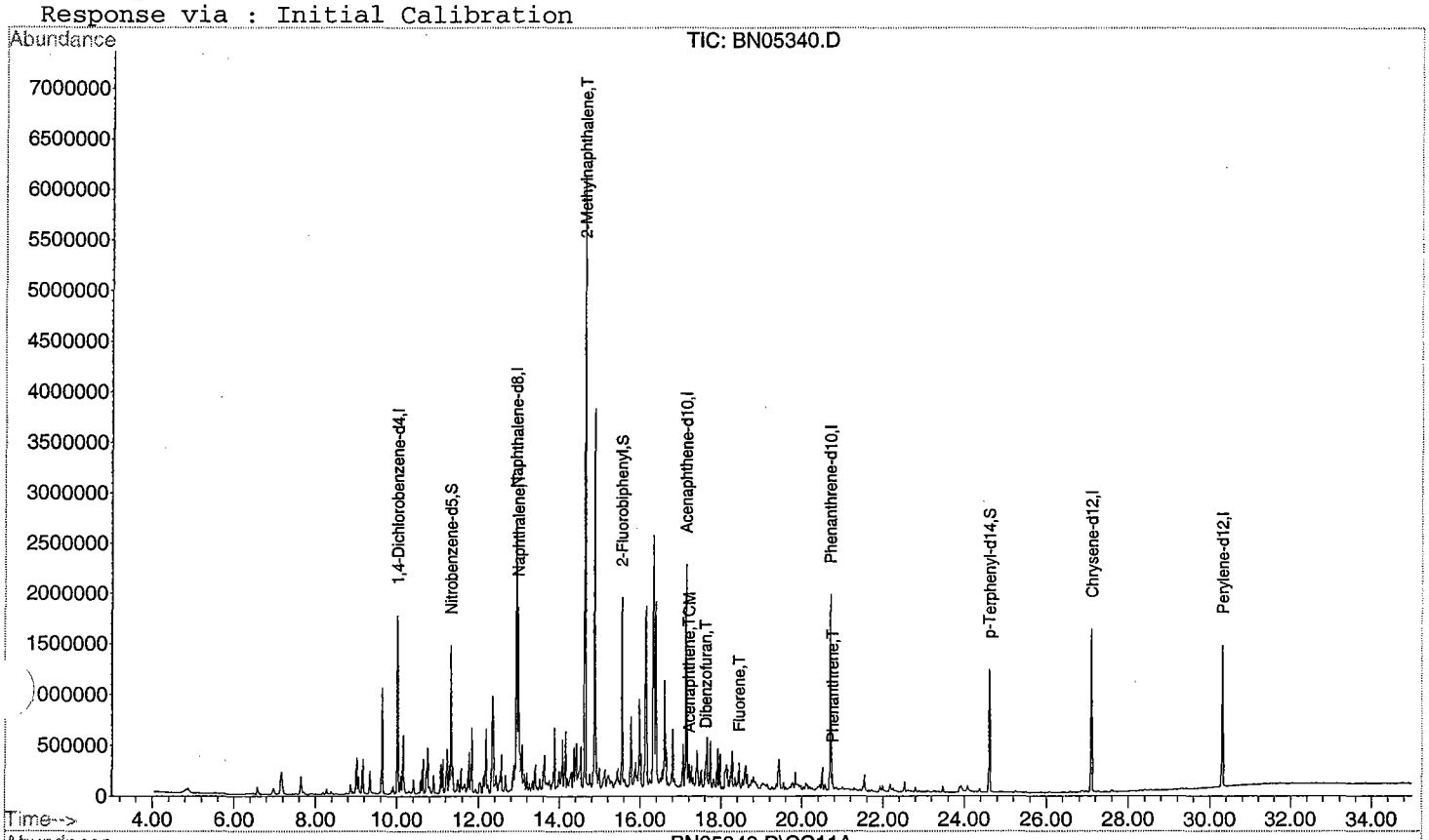
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	430495	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1499540	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	674544	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1072048	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	872255	40.00	ug/L	0.01
75) Perylene-d12	30.30	264	683579	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	652351	38.01	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	76.02%		
38) 2-Fluorobiphenyl	15.54	172	851587	36.78	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	73.56%		
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	24.61	244	534627	27.56	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	55.12%		
Target Compounds						Qvalue
29) Naphthalene	12.97	128	1166782	30.05	ug/L	100
33) 2-Methylnaphthalene	14.63	142	2717697	122.69	ug/L	99
45) Acenaphthene	17.20	153	40344	1.97	ug/L	98
47) Dibenzofuran	17.62	168	53891	1.92	ug/L #	80
51) Fluorene	18.44	166	65220	2.97	ug/L	98
62) Phenanthrene	20.75	178	84376	2.77	ug/L	97

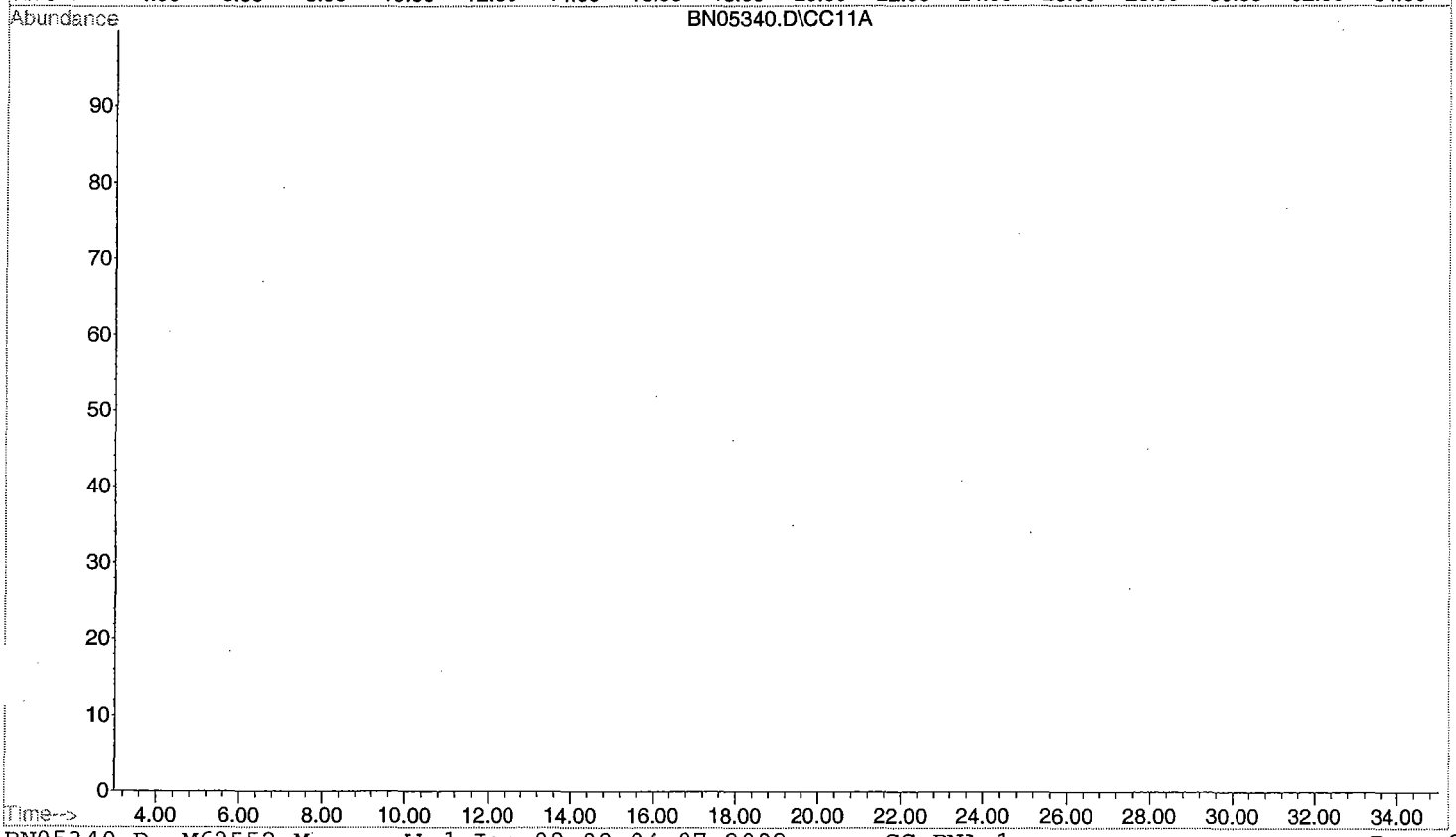
(#) = qualifier out of range (m) = manual integration
BN05340.D M62552.M Wed Jan 09 08:04:04 2002 GC-BNA-1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05340.D Vial: 13
Acq On : 7 Jan 2002 9:03 pm Operator: B.Patel
Sample : 2000308 Inst : GC/MS Ins
Misc : Field Dup. Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 7:58 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05342.D Vial: 1
Acq On : 8 Jan 2002 8:13 am Operator: B.Patel
Sample : 2000307 (1:2) Inst : GC/MS Ins
Misc : 600GW-5 (1:2) Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 8:01 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

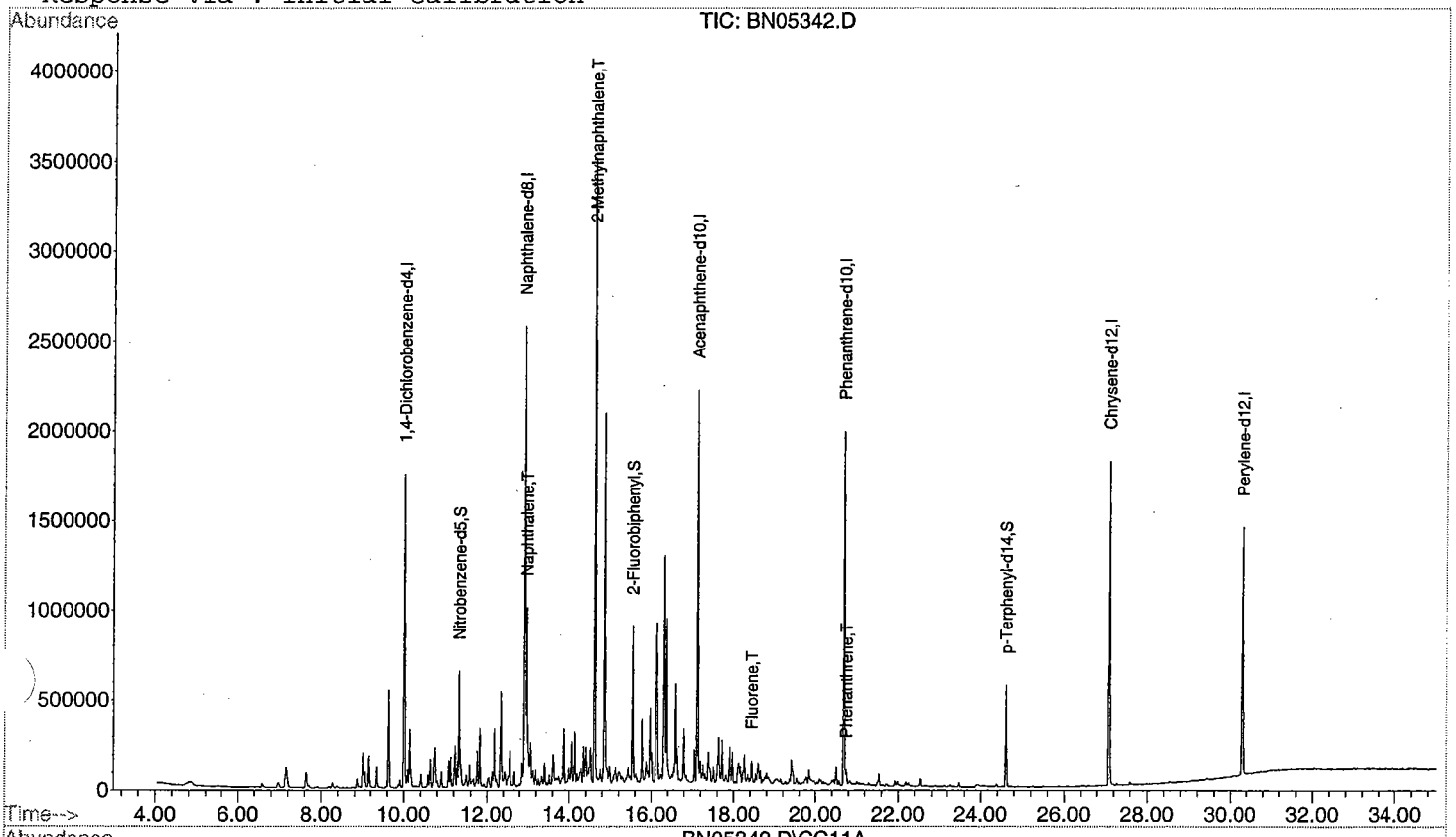
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.01	152	433439	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1585108	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	720017	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1146593	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	951606	40.00	ug/L	0.00
75) Perylene-d12	30.30	264	698921	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	318475	17.55	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	35.10%		
38) 2-Fluorobiphenyl	15.54	172	396710	16.05	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	32.10%#		
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	24.60	244	250282	11.83	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	23.66%#		
Target Compounds						Qvalue
29) Naphthalene	12.98	128	657936	16.03	ug/L	99
33) 2-Methylnaphthalene	14.62	142	1481889	63.29	ug/L	100
51) Fluorene	18.44	166	32348	1.38	ug/L	97
62) Phenanthrene	20.74	178	42256	1.30	ug/L	95

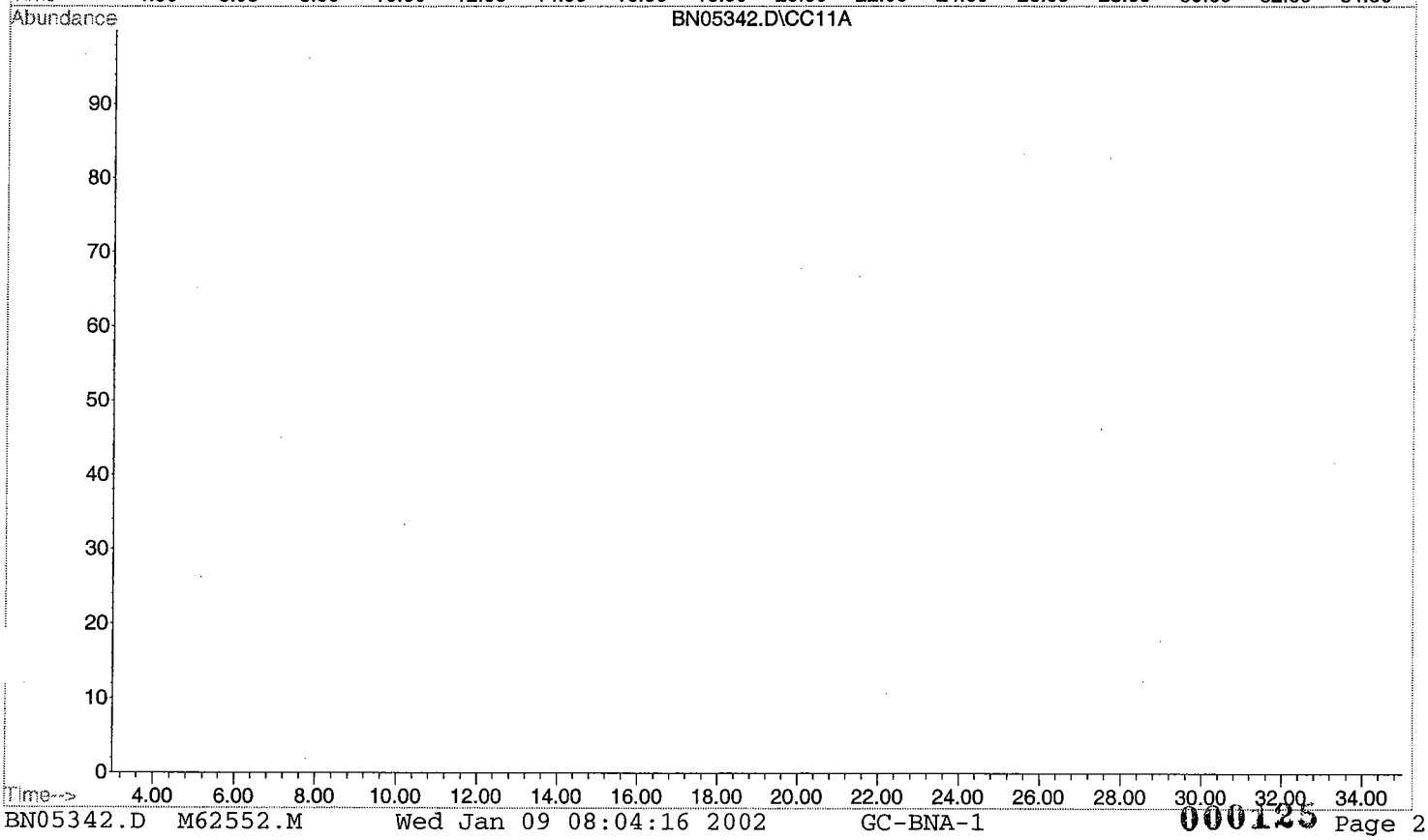
(#) = qualifier out of range (m) = manual integration
BN05342.D M62552.M Wed Jan 09 08:04:14 2002 GC-BNA-1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05342.D Vial: 1
Acq On : 8 Jan 2002 8:13 am Operator: B.Patel
Sample : 2000307 (1:2) Inst : GC/MS Ins
Misc : 600GW-5 (1:2) Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 8:01 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\020107\BN05343.D Vial: 2
Acq On : 8 Jan 2002 9:03 am Operator: B.Patel
Sample : 2000308 (1:2) Inst : GC/MS Ins
Misc : Field Dup (1:2) Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 8:01 2002 Quant Results File: M62552.RES

Quant Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration
DataAcq Meth : M62552

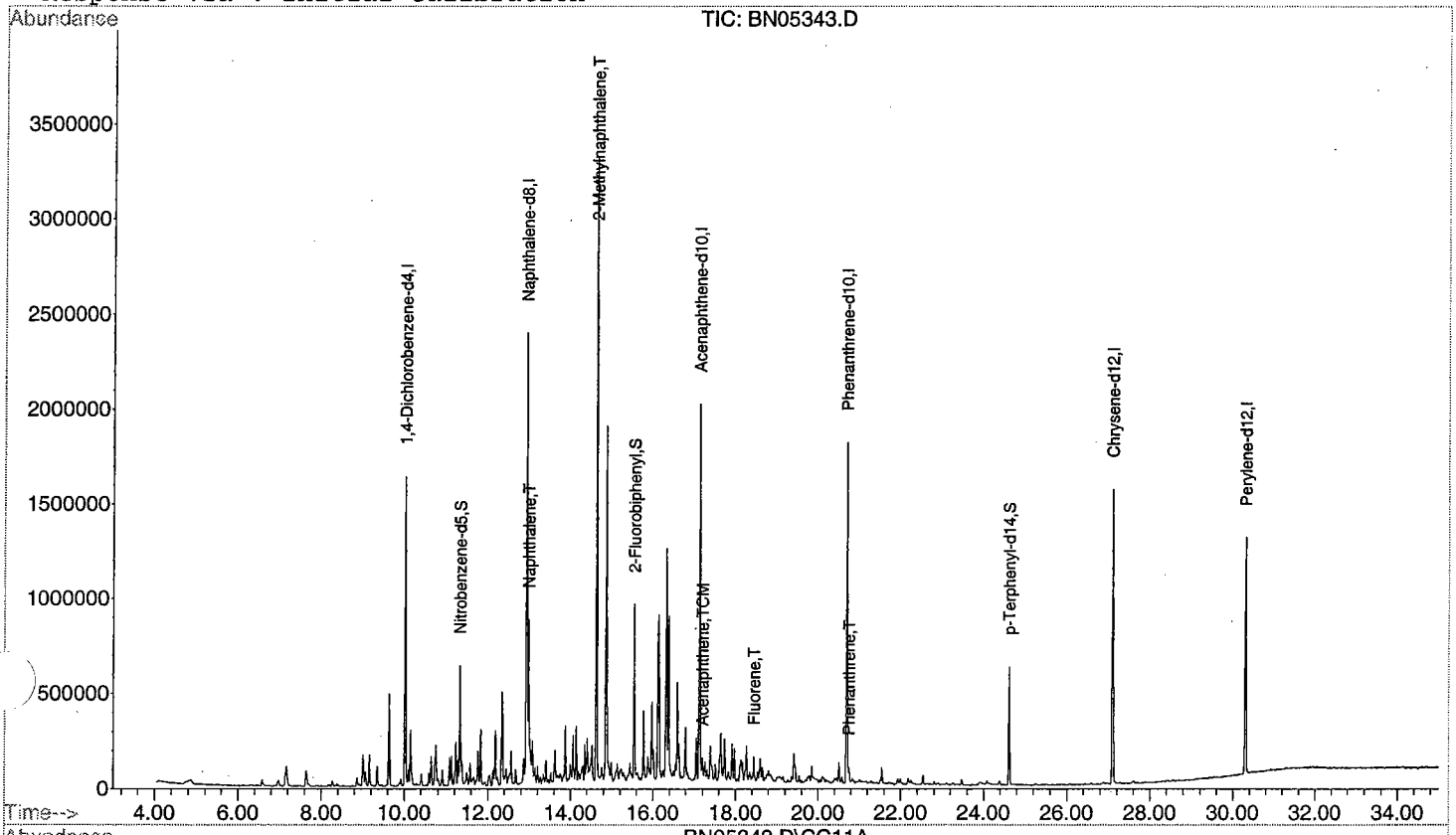
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.02	152	397778	40.00	ug/L	0.00
19) Naphthalene-d8	12.93	136	1440259	40.00	ug/L	0.00
34) Acenaphthene-d10	17.13	164	639981	40.00	ug/L	0.00
54) Phenanthrene-d10	20.70	188	1018478	40.00	ug/L	0.00
66) Chrysene-d12	27.10	240	817371	40.00	ug/L	0.00
75) Perylene-d12	30.31	264	612208	40.00	ug/L	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/L	
Spiked Amount 100.000	Range 21 - 100		Recovery =	0.00%#		
6) Phenol-d6	0.00	99	0	0.00	ug/L	
Spiked Amount 100.000	Range 10 - 94		Recovery =	0.00%#		
20) Nitrobenzene-d5	11.32	82	308222	18.70	ug/L	0.00
Spiked Amount 50.000	Range 35 - 114		Recovery =	37.40%		
38) 2-Fluorobiphenyl	15.55	172	417272	18.99	ug/L	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery =	37.98%#		
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	24.61	244	264950	14.58	ug/L	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery =	29.16%#		
Target Compounds						Qvalue
29) Naphthalene	12.98	128	571713	15.33	ug/L	98
33) 2-Methylnaphthalene	14.63	142	1365413	64.18	ug/L	99
45) Acenaphthene	17.20	153	19993	1.03	ug/L	96
51) Fluorene	18.44	166	29676	1.42	ug/L	95
62) Phenanthrene	20.75	178	41197	1.43	ug/L	98

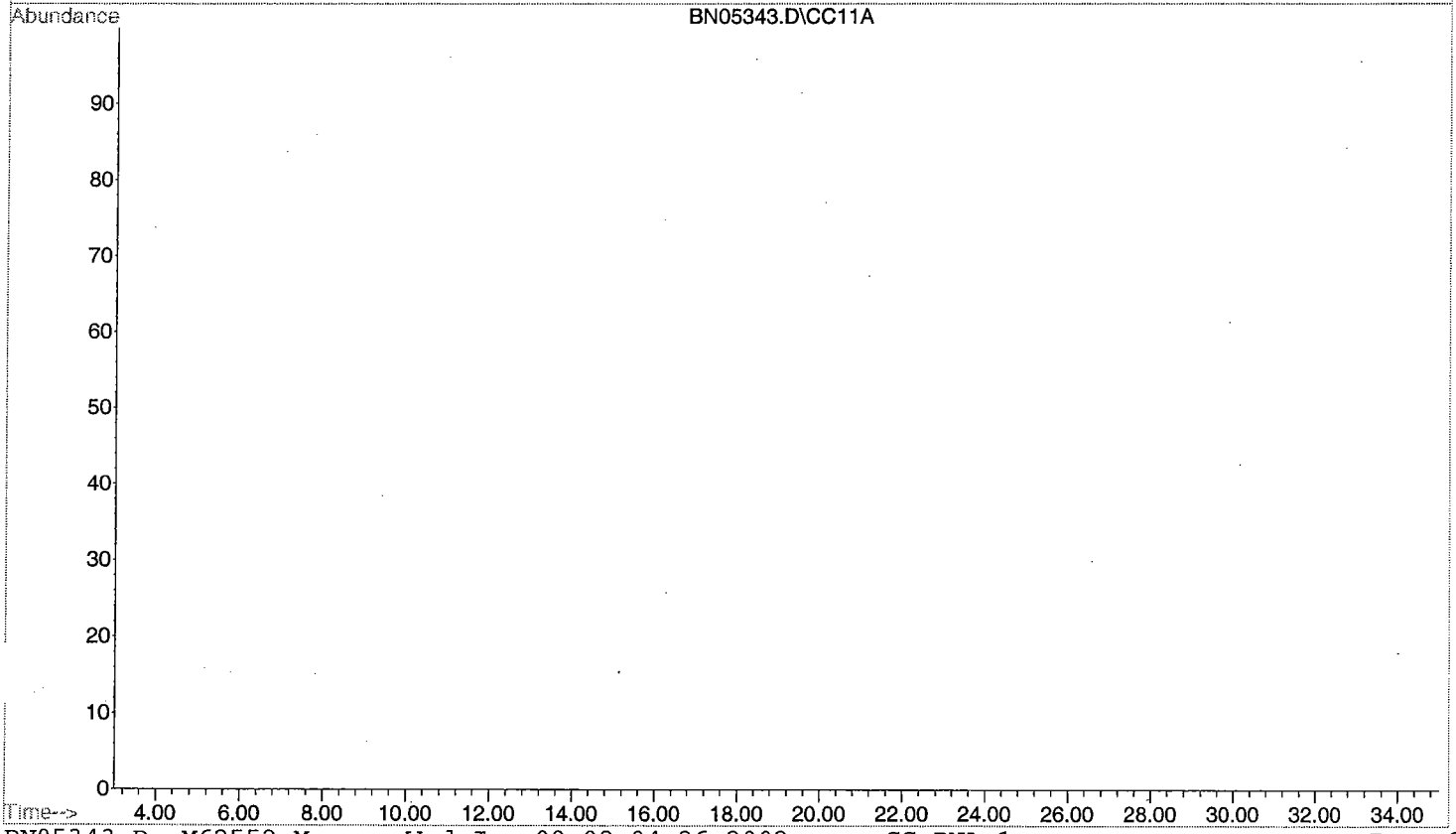
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\020107\BN05343.D Vial: 2
Acq On : 8 Jan 2002 9:03 am Operator: B.Patel
Sample : 2000308 (1:2) Inst : GC/MS Ins
Misc : Field Dup (1:2) Multiplr: 1.00
MS Integration Params: RTEINT.P GC Integration Params: rteint2.p
Quant Time: Jan 9 8:01 2002 Quant Results File: M62552.RES

Method : C:\HPCHEM\1\METHODS\M62552.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Jan 03 13:43:53 2002
Response via : Initial Calibration





000127

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	✓
2.	Table of Contents submitted	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	✓
4.	Document paginated and legible	✓
5.	Chain of Custody submitted	✓
6.	Samples submitted to lab within 48 hours of sample collection	✓
7.	Methodology Summary submitted	✓
8.	Laboratory Chronicle and Holding Time Check submitted	✓
9.	Results submitted on a dry weight basis	N/A
10.	Method Detection Limits submitted	✓
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 1/10/02

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

618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489 • 609-467-9521

E-SYSTEMS, INC.

PROJECT: U.S. ARMY FORT MONMOUTH, NJ BLDG 600

ANALYSIS NO:	CLIENT ID:
A 5364	1330.1
A 5365	1330.2
A 5366	1330.3
A 5367	1330.4

RECEIVED
DEC 17 1993
By

Reviewed

DATE RECEIVED: NOVEMBER 17, 1993

TWENTY FIRST CENTURY
ENVIRONMENTAL, INC.

Richard W Lynch

RICHARD W. LYNCH
LABORATORY MANAGER

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Calibration Summary Meet Criteria	___	N/A
2.	ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria.	___	N/A
3.	Serial Dilution Summary Submitted (if applicable) / Meet Criteria.	___	N/A
4.	Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria.	___	N/A

5. Blank Contamination - If yes, list compounds and concentrations in each blank:

None

6. Matrix Spike/ Matrix Spike Duplicate Recoveries Meet Criteria ___ ✓
(If not met, list those compounds and their recoveries which fall outside the acceptable range)

7. Extraction Holding Time Met ___ ✓

If not met, list number of days exceeded for each sample: _____

8. Analysis Holding Time Met ___ ✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Laboratory Manager: B. M K Date: 12-17-93

Samples 1330.1 - 1330.4

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)		✓
2. GC/MS Tune Specifications		
a. BFB Meet Criteria		✓
b. DFTPP Meet Criteria		N/A
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.		✓
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		✓
5. GC/MS Calibration Requirements		
a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓

6. Blank Contamination - If yes, list compounds and concentrations in each blank:

a. VOA Fraction Acetone @ 16 ppb in Extraction Blank
b. B/N Fraction
c. Acid Fraction

7. Surrogate Recoveries Meet Criteria		✓

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"?		N/A
8. Matrix Spike/ Matrix Spike Duplicate Recoveries Meet Criteria (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

9. Internal Standard Area/Retention Time Shift Meet Criteria		✓

Samples 1330.1 to 1330.4

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (CONTINUED)

	No	Yes
10. Extraction Holding Time Met	___	✓

If not met, list number of days exceeded for each sample: _____

11. Analysis Holding Time Met	___	✓

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Laboratory Manager: B. M K Date: 12-17-93

Samples 1330.1 to 1330.4

TABLE OF CONTENTS

NARRATIVE

There were no problems encountered during the analysis of this batch of samples (A5364 to A5367). All extractions and analysis were completed within proper hold times.

A5364-67

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #: 21st Century

Chain of Custody

Project #: None - UnKnown	Sampler: Cute Inc.	Date / Time 11/15/93 1400	Analysis Parameters	Start:
Customer: C. Appleby DPW	Site Name: Bldg. 600 UST# 81533-212 DICOR 93-11-9-0923			Finish:
Phone: x 26224				Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	VOA +15	Pb	OVA Reading	TPH - GRO	Remarks
1330.1	11/15/93 1500	Site A-2, 7-7.5'	Soil	1	X	X	9.0		
.2	11/15/93 1503	Site F-2, 7-7.5'	Soil	1	X	X	9.0		
.3	11/15/93 1455	Field Blank	AQ	3	X				
.4	11/15/93 0955	Trip Blank	AQ	3	X				
									Kept <4°C
									OVA - SN - A52114
									Calibrated. 95 PPM methane
									Read 91 PPM 11/15/93
									OR C. Appls

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	11/15/93 1610		
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
		Lynda Carlin	11/17/93 1100

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 _____ of _____ Pages Rev. A Date: 02 Apr 93

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

Purgeables

U.S.E.P.A. Method 624 - This is a purge and trap Gas Chromatograph/ Mass Spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

An HP5996 GC/MS was used with a capillary column.

Method detection limits are as stated.

Soil samples are prepared for analysis as prescribed in Method 8240/8260 from SW-846.

Metals

Soil samples for metal analysis were run in accordance with the methods prescribed in SW-846. This includes a nitric acid digestion followed by either Furnace, Flame Atomic Absorption, Flameless Atomic Absorption, or Inductively Coupled Plasma analysis.

Aqueous samples for metals analysis were run in accordance with the methods prescribed in Methods for Chemical Analysis of Water and Wastes, EPA-600-4-79-020 March 1983.

LABORATORY CHRONICLE

RECEIPT/REFRIGERATION 11/17/93

ORGANICS
EXTRACTION

1. Acids NA
2. Base/Neutrals NA
3. Pesticides/PCB's/Herbicides NA
4. Petroleum Hydrocarbons/Oil & Grease NA

ANALYSIS

1. Volatiles 11/19/93-11/22/93
2. Acids NA
3. Base/Neutrals NA
4. Pesticides/PCB's/Herbicides NA
5. Petroleum Hydrocarbons/Oil & Grease NA
6. Total Organic Carbon NA

Section Supervisor
Review & Approval Jeffrey D Martin

INORGANICS

1. Metals 11/22/93
2. Cyanides NA
3. Phenols NA

OTHER ANALYTES

Section Supervisor
Review & Approval Matthew R. Gold

Quality Control Supervisor
Review & Approval

Laboratory Director
Review & Approval Richard W Lynch

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

RESULT SUMMARY

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 600

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/Kg)	RESULT (mg/Kg)
A 5364	1330.1	5.00	N.D.
A 5365	1330.2	5.00	N.D.

00006

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A5364	DILUTION FACTOR	125.00
CLIENT ID	1330.1 BLDG 600	COMMENTS	HNU 9.0
DATA FILE	>A4481	DATE ANALYZED	11/19/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	7700	2-Chloroethylvinylether	ND	1500
Acrylonitrile	ND	7700	2-Hexanone	ND	1500
Chloromethane	ND	1500	trans-1,3-Dichloropropene	ND	770
Bromomethane	ND	1500	Toluene	ND	770
Vinyl Chloride	ND	1500	cis-1,3-Dichloropropene	ND	770
Chloroethane	ND	1500	1,1,2,2-Tetrachloroethane	ND	770
Acetone	280 JB	1500	1,1,2-Trichloroethane	ND	770
1,1-Dichloroethene	ND	770	4-Methyl-2-pentanone	ND	1500
Carbon Disulfide	ND	1500	Tetrachloroethene	ND	770
Methylene Chloride	ND	770	Dibromochloromethane	ND	770
1,2-Dichloroethene(trans)	ND	770	Chlorobenzene	ND	770
1,1-Dichloroethane	ND	770	Ethylbenzene	4500	770
Vinyl Acetate	ND	770	m&p-Xylenes	10000	770
2-Butanone	ND	1500	o-Xylene	7400	770
Chloroform	ND	770	Styrene	ND	770
1,1,1-Trichloroethane	ND	770	Bromoform	ND	770
Carbon Tetrachloride	ND	770	m-Dichlorobenzene	ND	770
1,2-Dichloroethane	ND	770	p-Dichlorobenzene	ND	770
Benzene	ND	770	o-Dichlorobenzene	ND	770
Trichloroethene	ND	770	Methyl Tertiary Butyl Ether	ND	1500
1,2-Dichloropropane	ND	770	Tertiary Butyl Alcohol	ND	7700
Bromodichloromethane	ND	770			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.7	70 - 121	OK
Toluene-d8	109	81 - 117	OK
Bromofluorobenzene	103	74 - 121	OK

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.1

Client Name: US Army Ft. Monmouth

Client ID: BLDG 600

Matrix: (soil/water) SOIL

Lab Sample ID: A5364

Sample wt/vol: 0.04 (g/mL) g

Lab File ID: >A4481

Level: LOW

Date Received: 11/17/93

% Moisture: 19

Date Analyzed 11/19/93

Column: CAP

Dilution Factor: 125

Number TICs Found 20

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	108872	Cyclohexane, methyl- (8CI9CI)	12.61	8500
2	1678917	Cyclohexane, ethyl- (8CI9CI)	15.81	6700
3	1678928	Cyclohexane, propyl- (8CI9CI)	18.33	6500
4	611143	Benzene, 1-ethyl-2-methyl- (9CI)	19.44	23000
5	108678	Benzene, 1,3,5-trimethyl- (9CI)	19.59	20000
6	622968	Benzene, 1-ethyl-4-methyl- (9CI)	19.98	12000
7	95636	Benzene, 1,2,4-trimethyl- (8CI9CI)	20.30	41000
8	1074551	Benzene, 1-methyl-4-propyl- (9CI)	20.62	8100
9	620144	Benzene, 1-ethyl-3-methyl- (9CI)	21.10	16000
10	1074437	Benzene, 1-methyl-3-propyl- (9CI)	21.49	22000
11	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	21.59	33000
12	1074175	Benzene, 1-methyl-2-propyl- (9CI)	21.97	7800
13	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	22.17	20000
14	933982	Benzene, 1-ethyl-2,3-dimethyl- (9CI)	22.31	12000
15	2049958	Benzene, (1,1-dimethylpropyl)- (9CI)	22.57	23000
16	2870044	Benzene, 2-ethyl-1,3-dimethyl- (9CI)	22.89	11000
17	488233	Benzene, 1,2,3,4-tetramethyl- (8CI9CI)	23.16	12000
18	54120626	Benzene, ethyl-1,2,4-trimethyl- (9CI)	23.30	11000
19	100527	Benzaldehyde (ACN)(DOT)(8CI9CI)	23.61	8100
20	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	23.99	20000

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Soil
SAMPLE NUMBER	A5365	DILUTION FACTOR	125.00
CLIENT ID	1330.2 BLDG 600	QA BATCH	
DATA FILE	>A4483	DATE ANALYZED	11/19/93

COMPOUND	UG/KG		MDL	COMPOUND	UG/KG		MDL
Acrolein	ND		7800	Bromodichloromethane	ND		780
Acrylonitrile	ND		7800	2-Chloroethylvinylether	ND		1600
Chloromethane	ND		1600	2-Hexanone	ND		1600
Bromomethane	ND		1600	trans-1,3-Dichloropropene	ND		780
Vinyl Chloride	ND		1600	Toluene	ND		780
Chloroethane	ND		1600	cis-1,3-Dichloropropene	ND		780
Acetone	ND	B	1600	1,1,2,2-Tetrachloroethane	ND		780
1,1-Dichloroethene	ND		780	1,1,2-Trichloroethane	ND		780
Carbon Disulfide	ND		1600	4-Methyl-2-pentanone	ND		1600
Methylene Chloride	220	J	780	Tetrachloroethene	ND		780
1,2-Dichloroethene(trans)	ND		780	Dibromochloromethane	ND		780
1,1-Dichloroethane	ND		780	Chlorobenzene	ND		780
Vinyl Acetate	ND		780	Ethylbenzene	ND		780
2-Butanone	ND		1600	m&p-Xylenes	410	J	780
Chloroform	ND		780	o-Xylene	ND		780
1,1,1-Trichloroethane	ND		780	Styrene	ND		780
Carbon Tetrachloride	ND		780	Bromoform	ND		780
1,2-Dichloroethane	ND		780	m-Dichlorobenzene	ND		780
Benzene	ND		780	p-Dichlorobenzene	ND		780
Trichloroethene	ND		780	o-Dichlorobenzene	ND		780
1,2-Dichloropropane	ND		780				

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.9	70 - 121	OK
Toluene-d8	105	81 - 117	OK
Bromofluorobenzene	103	74 - 121	OK

Percent Solid of 80.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NUMBER

1330.2

Client Name: US Army Ft. Monmouth

Client ID: BLDG 600

Matrix: (soil/water) SOIL

Lab Sample ID: A5365

Sample wt/vol: 0.04 (g/mL) g

Lab File ID: >A4483

Level: LOW

Date Received: 11/17/93

% Moisture: 20

Date Analyzed 11/19/93

Column: CAP

Dilution Factor: 125

Number TICs Found 20

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	4923777	Cyclohexane, 1-ethyl-2-methyl-,cis- (8CI9CI)	17.75	2400
2	1678928	Cyclohexane, propyl- (8CI9CI)	18.29	2600
3	45651410	1-Azabicyclo[2.2.2]octane, 4-methyl (9CI)	19.14	1600
4	620144	Benzene, 1-ethyl-3-methyl- (9CI)	20.25	2500
5	135988	Benzene, 1-methylpropylethyl- (9CI)	20.58	2100
6	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	20.72	1900
7	1074437	Benzene, 1-methyl-3-propyl- (9CI)	21.44	2800
8	933982	Benzene, 1-ethyl-2,3-dimethy- (9CI)	22.18	1400
9	91178	Napthalene, decahydro- (8CI9CI)	22.66	6400
10	1074551	Benzene, 1methyl-4-propyl (9CI)	21.93	2000
11	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	22.14	1900
12	2870044	Benzene, 2-ethyl-1,3-dimethyl- (9CI)	22.28	2500
13	2049958	Benzene, (1,1,-dimethylpropyl)- (9CI)	22.54	6700
14	2050240	Benzene, 1,3- diethyl-5-methyl- (9CI)	22.71	2400
15	29606799	Cyclohexanone, 5-methyl-2-(1-methylethenyl-,	22.86	4700
16	527537	Benzene, 1,2,3,5-tetramethyl- (8CI9CI)	23.13	2400
17	2958761	Napthalene, decahydro-2-methyl- (8CI9CI)	23.27	5900
18	100527	Benzaldehyde (ACN)(DOT) (8CI9CI)	23.59	2700
19	1196583	Benzene, (1-ethylpropyl)- (8CI9CI)	23.84	2900
20	25155151	Benzene, 2-ethyl-1,4-dimethyl- (9CI)	23.97	5200

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	A5366	DILUTION FACTOR	1.00
CLIENT ID	1330.3 BLDG 600	QA BATCH	
DATA FILE	>A4480	DATE ANALYZED	11/19/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	10	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	3.9 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.9	76 - 114	OK
Toluene-d8	97.5	88 - 110	OK
Bromofluorobenzene	103	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.3

Lab Name:21st Century Environmental Contract:N/A

Client Name: US Army Ft. Monmouth, NJ

Client ID: BLDG 600

Matrix: (soil/water) WATER

Lab Sample ID: A5366

Sample wt/vol: 5 (g/mL) ml

Lab File ID: >A4480

Level: (low/med) LOW

Date Received: NA

% Moisture: NA

Date Analyzed: 11/19/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO UNKNOWNS			

FORM I VOA-TIC 1/87 Rev.

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	A5367	DILUTION FACTOR	1.00
CLIENT ID	1330.4 BLDG 600	QA BATCH	
DATA FILE	>A4490	DATE ANALYZED	11/22/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	5.6 J	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	2.1 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.9	76 - 114	OK
Toluene-d8	96.2	88 - 110	OK
Bromofluorobenzene	104	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.4

Lab Name:21st Century Environmental Contract:N/A

Client Name: US Army Ft. Monmouth, NJ

Client ID: BLDG 600

Matrix: (soil/water) WATER

Lab Sample ID: A5367

Sample wt/vol: 5 (g/mL) ml

Lab File ID: >A4490

Level: (low/med) LOW

Date Received: NA

% Moisture: NA

Date Analyzed: 11/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 1

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
108203	Diisopropyl ether	8.91	6.4	

FORM I VOA-TIC 1/87 Rev.

DATA PACKAGE

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 600

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/Kg)	RESULT (mg/Kg)
A 5364	1330.1	5.00	N.D.
A 5365	1330.2	5.00	N.D.

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER	US ARMY FT. MONMOUTH NJ	MATRIX	Soil
SAMPLE NUMBER	A5364	DILUTION FACTOR	125.00
CLIENT ID	1330.1 BLDG 600	COMMENTS	HNU 9.0
DATA FILE	>A4481	DATE ANALYZED	11/19/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	7700	2-Chloroethylvinylether	ND	1500
Acrylonitrile	ND	7700	2-Hexanone	ND	1500
Chloromethane	ND	1500	trans-1,3-Dichloropropene	ND	770
Bromomethane	ND	1500	Toluene	ND	770
Vinyl Chloride	ND	1500	cis-1,3-Dichloropropene	ND	770
Chloroethane	ND	1500	1,1,2,2-Tetrachloroethane	ND	770
Acetone	280 JB	1500	1,1,2-Trichloroethane	ND	770
1,1-Dichloroethene	ND	770	4-Methyl-2-pentanone	ND	1500
Carbon Disulfide	ND	1500	Tetrachloroethene	ND	770
Methylene Chloride	ND	770	Dibromochloromethane	ND	770
1,2-Dichloroethene(trans)	ND	770	Chlorobenzene	ND	770
1,1-Dichloroethane	ND	770	Ethylbenzene	4500	770
Vinyl Acetate	ND	770	m&p-Xylenes	10000	770
2-Butanone	ND	1500	o-Xylene	7400	770
Chloroform	ND	770	Styrene	ND	770
1,1,1-Trichloroethane	ND	770	Bromoform	ND	770
Carbon Tetrachloride	ND	770	m-Dichlorobenzene	ND	770
1,2-Dichloroethane	ND	770	p-Dichlorobenzene	ND	770
Benzene	ND	770	o-Dichlorobenzene	ND	770
Trichloroethene	ND	770	Methyl Tertiary Butyl Ether	ND	1500
1,2-Dichloropropane	ND	770	Tertiary Butyl Alcohol	ND	7700
Bromodichloromethane	ND	770			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	94.7	70 - 121	OK
Toluene-d8	109	81 - 117	OK
Bromofluorobenzene	103	74 - 121	OK

Percent Solid of 81.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.1

Client Name: US Army Ft. Monmouth

Client ID: BLDG 600

Matrix: (soil/water) SOIL

Lab Sample ID: A5364

Sample wt/vol: 0.04 (g/mL) g

Lab File ID: >A4481

Level: LOW

Date Received: 11/17/93

% Moisture: 19

Date Analyzed 11/19/93

Column: CAP

Dilution Factor: 125

Number TICs Found 20

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	108872	Cyclohexane, methyl- (8CI9CI)	12.61	8500
2	1678917	Cyclohexane, ethyl- (8CI9CI)	15.81	6700
3	1678928	Cyclohexane, propyl- (8CI9CI)	18.33	6500
4	611143	Benzene, 1-ethyl-2-methyl- (9CI)	19.44	23000
5	108678	Benzene, 1,3,5-trimethyl- (9CI)	19.59	20000
6	622968	Benzene, 1-ethyl-4-methyl- (9CI)	19.98	12000
7	95636	Benzene, 1,2,4-trimethyl- (8CI9CI)	20.30	41000
8	1074551	Benzene, 1-methyl-4-propyl- (9CI)	20.62	8100
9	620144	Benzene, 1-ethyl-3-methyl- (9CI)	21.10	16000
10	1074437	Benzene, 1-methyl-3-propyl- (9CI)	21.49	22000
11	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	21.59	33000
12	1074175	Benzene, 1-methyl-2-propyl- (9CI)	21.97	7800
13	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	22.17	20000
14	933982	Benzene, 1-ethyl-2,3-dimethyl- (9CI)	22.31	12000
15	2049958	Benzene, (1,1-dimethylpropyl)- (9CI)	22.57	23000
16	2870044	Benzene, 2-ethyl-1,3-dimethyl- (9CI)	22.89	11000
17	488233	Benzene, 1,2,3,4-tetramethyl- (8CI9CI)	23.16	12000
18	54120626	Benzene, ethyl-1,2,4-trimethyl- (9CI)	23.30	11000
19	100527	Benzaldehyde (ACN)(DOT)(8CI9CI)	23.61	8100
20	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	23.99	20000

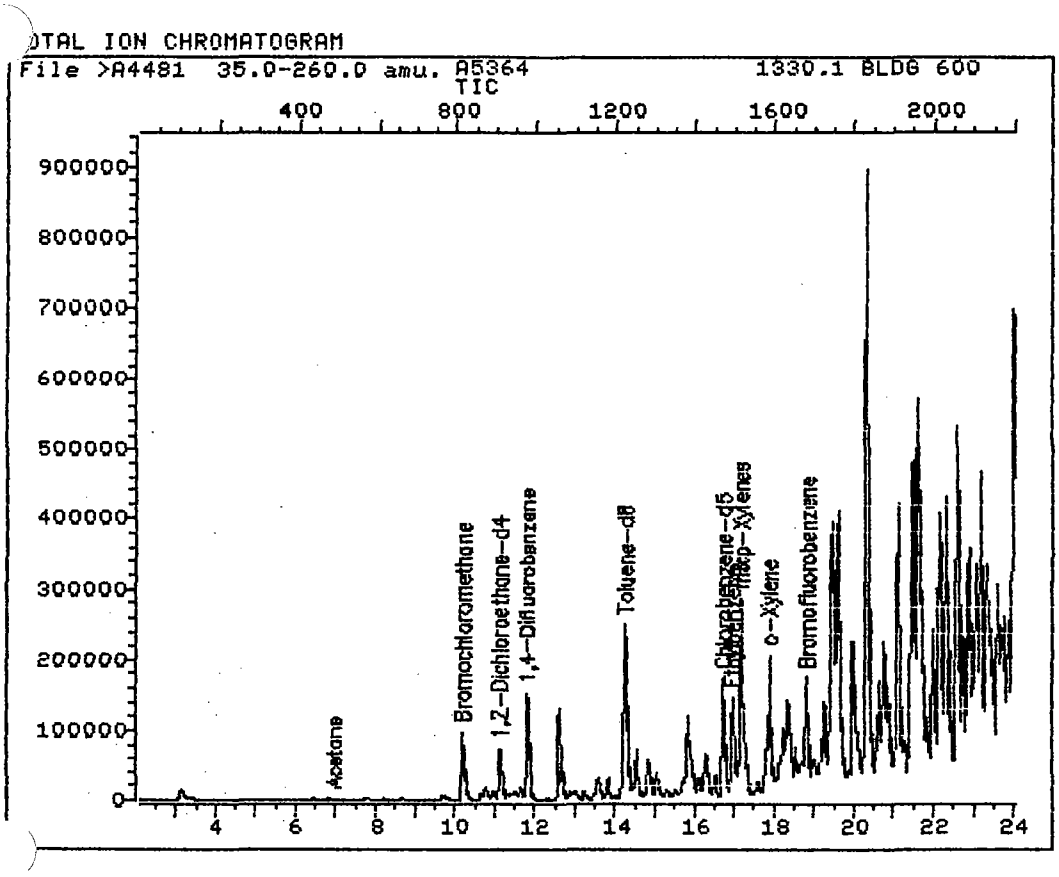
QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 931119 18:27
Output File: ^A4481::D1 Injected at: 931119 17:59
Data File: >A4481::D3 Dilution Factor: 1.00000
Name: A5364
Misc: 1330.1 BLDG 600 0.04g

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.20	814	61757	50.00	UG/L	100
9)	Acetone	6.96	488	1137	1.79	UG/L	91
23)	1,2-Dichloroethane-d4	11.12	906	121423	47.34	UG/L	100
24)	*1,4-Difluorobenzene	11.80	975	320083	50.00	UG/L	100
33)	Toluene-d8	14.24	1220	330272	54.59	UG/L	100
35)	*Chlorobenzene-d5	16.72	1469	256200	50.00	UG/L	100
43)	Ethylbenzene	16.95	1492	211691	28.95	UG/L	80
44)	m&p-Xylenes	17.15	1512	378394	67.67	UG/L	90
45)	o-Xylene	17.87	1584	273935	48.02	UG/L	89
48)	Bromofluorobenzene	18.82	1679	143848	51.52	UG/L	100

* Compound is ISTD



Data File: >A4481::D3 Quant Output File: ^A4481::D1
Name: A5364
Misc: 1330.1 BLDG 600 0.04g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

Operator ID: MANAGER
Quant Time: 931119 18:27
Injected at: 931119 17:59

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Soil
SAMPLE NUMBER	A5365	DILUTION FACTOR	125.00
CLIENT ID	1330.2 BLDG 600	QA BATCH	
DATA FILE	>A4483	DATE ANALYZED	11/19/93

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	7800	Bromodichloromethane	ND	780
Acrylonitrile	ND	7800	2-Chloroethylvinylether	ND	1600
Chloromethane	ND	1600	2-Hexanone	ND	1600
Bromomethane	ND	1600	trans-1,3-Dichloropropene	ND	780
Vinyl Chloride	ND	1600	Toluene	ND	780
Chloroethane	ND	1600	cis-1,3-Dichloropropene	ND	780
Acetone	ND B	1600	1,1,2,2-Tetrachloroethane	ND	780
1,1-Dichloroethene	ND	780	1,1,2-Trichloroethane	ND	780
Carbon Disulfide	ND	1600	4-Methyl-2-pentanone	ND	1600
Methylene Chloride	220 J	780	Tetrachloroethene	ND	780
1,2-Dichloroethene(trans)	ND	780	Dibromochloromethane	ND	780
1,1-Dichloroethane	ND	780	Chlorobenzene	ND	780
Vinyl Acetate	ND	780	Ethylbenzene	ND	780
2-Butanone	ND	1600	m&p-Xylenes	410 J	780
Chloroform	ND	780	o-Xylene	ND	780
1,1,1-Trichloroethane	ND	780	Styrene	ND	780
Carbon Tetrachloride	ND	780	Bromoform	ND	780
1,2-Dichloroethane	ND	780	m-Dichlorobenzene	ND	780
Benzene	ND	780	p-Dichlorobenzene	ND	780
Trichloroethene	ND	780	o-Dichlorobenzene	ND	780
1,2-Dichloropropane	ND	780			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	93.9	70 - 121	OK
Toluene-d8	105	81 - 117	OK
Bromofluorobenzene	103	74 - 121	OK

Percent Solid of 80.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

E1

EPA SAMPLE NUMBER

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.2

Client Name: US Army Ft. Monmouth

Client ID: BLDG 600

Matrix: (soil/water) SOIL

Lab Sample ID: A5365

Sample wt/vol: 0.04 (g/mL) g

Lab File ID: >A4483

Level: LOW

Date Received: 11/17/93

% Moisture: 20

Date Analyzed 11/19/93

Column: CAP

Dilution Factor: 125

Number TICs Found 20

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST CONC
1	4923777	Cyclohexane, 1-ethyl-2-methyl-,cis- (8CI9CI)	17.75	2400
2	1678928	Cyclohexane, propyl- (8CI9CI)	18.29	2600
3	45651410	1-Azabicyclo[2.2.2]octane, 4-methyl (9CI)	19.14	1600
4	620144	Benzene, 1-ethyl-3-methyl- (9CI)	20.25	2500
5	135988	Benzene, 1-methylpropylethyl- (9CI)	20.58	2100
6	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	20.72	1900
7	1074437	Benzene, 1-methyl-3-propyl- (9CI)	21.44	2800
8	933982	Benzene, 1-ethyl-2,3-dimethy- (9CI)	22.18	1400
9	91178	Napthalene, decahydro- (8CI9CI)	22.66	6400
10	1074551	Benzene, 1methyl-4-propyl (9CI)	21.93	2000
11	535773	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	22.14	1900
12	2870044	Benzene, 2-ethyl-1,3-dimethyl- (9CI)	22.28	2500
13	2049958	Benzene, (1,1,-dimethylpropyl)- (9CI)	22.54	6700
14	2050240	Benzene, 1,3- diethyl-5-methyl- (9CI)	22.71	2400
15	29606799	Cyclohexanone, 5-methyl-2-(1-methylethenyl-,	22.86	4700
16	527537	Benzene, 1,2,3,5-tetramethyl- (8CI9CI)	23.13	2400
17	2958761	Napthalene, decahydro-2-methyl- (8CI9CI)	23.27	5900
18	100527	Benzaldehyde (ACN)(DOT) (8CI9CI)	23.59	2700
19	1196583	Benzene, (1-ethylpropyl)- (8CI9CI)	23.84	2900
20	25155151	Benzene, 2-ethyl-1,4-dimethyl- (9CI)	23.97	5200

QUANT REPORT

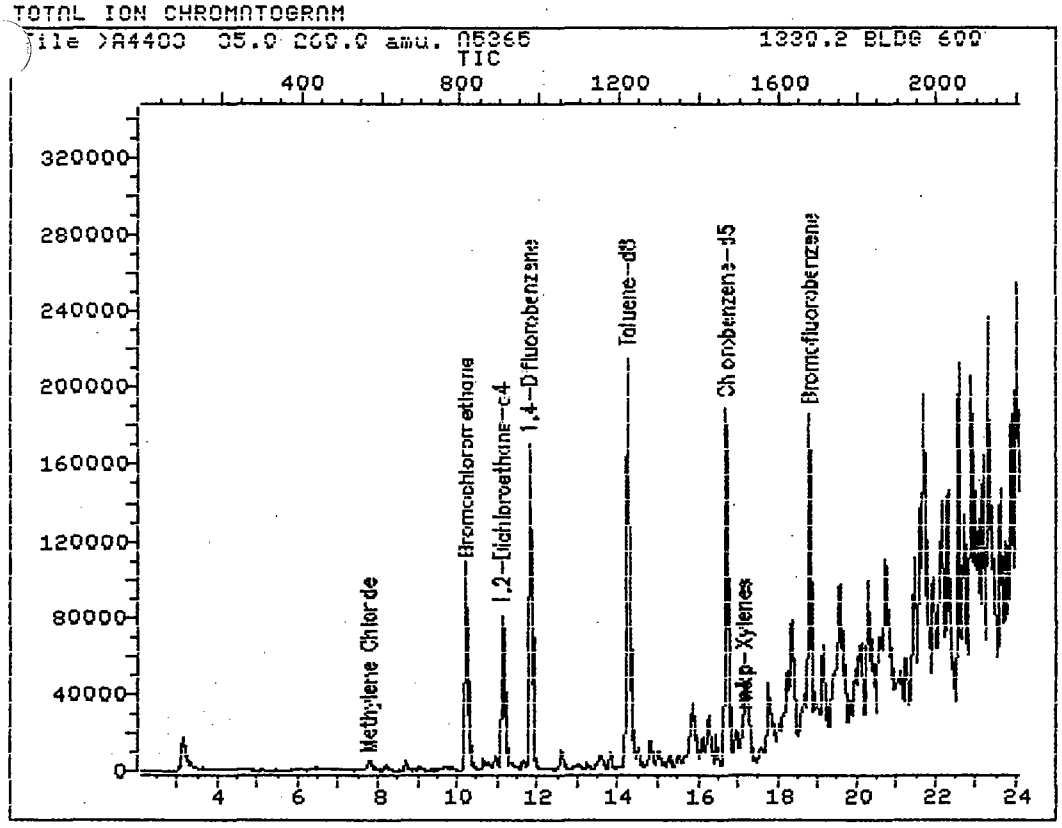
Operator ID: MANAGER Quant Rev: 6 Quant Time: 931119 19:32
Output File: ^A4483::D1 Injected at: 931119 19:04
Data File: >A4483::D3 Dilution Factor: 1.00000
Name: A5365
Misc: 1330.2 BLDG 600 0.04g

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.20	813	71101	50.00	UG/L	100
13)	Methylene Chloride	7.74	566	4655	1.40	UG/L	67
23)	1,2-Dichloroethane-d4	11.10	904	138680	46.96	UG/L	100
24)	*1,4-Difluorobenzene	11.79	973	367505	50.00	UG/L	100
33)	Toluene-d8	14.21	1217	364832	52.52	UG/L	100
35)	*Chlorobenzene-d5	16.68	1465	285955	50.00	UG/L	100
44)	m&p-Xylenes	17.11	1508	16407	2.63	UG/L	93
48)	Bromofluorobenzene	18.77	1675	161165	51.72	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A4483::D3 Quant Output File: ^A4483::D1
Name: A5365
Misc: 1330.2 BLDG 600 0.04g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

Operator ID: MANAGER
Quant Time: 931119 19:32
Injected at: 931119 19:04

T0124

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	A5366	DILUTION FACTOR	1.00
CLIENT ID	1330.3 BLDG 600	QA BATCH	
DATA FILE	>A4480	DATE ANALYZED	11/19/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	10	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	3.9 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.9	76 - 114	OK
Toluene-d8	97.5	88 - 110	OK
Bromofluorobenzene	103	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.3

Lab Name:21st Century Environmental Contract:N/A

Client Name: US Army Ft. Monmouth, NJ

Client ID: BLDG 600

Matrix: (soil/water) WATER

Lab Sample ID: A5366

Sample wt/vol: 5 (g/mL) ml

Lab File ID: >A4480

Level: (low/med) LOW

Date Received: NA

% Moisture: NA

Date Analyzed: 11/19/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO UNKNOWNS			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 931119 17:54
Output File: ^A4480::D1 Injected at: 931119 17:26
Data File: >A4480::D3 Dilution Factor: 1.00000
Name: A5366
Misc: 1330.3 BLDG 600 5ml

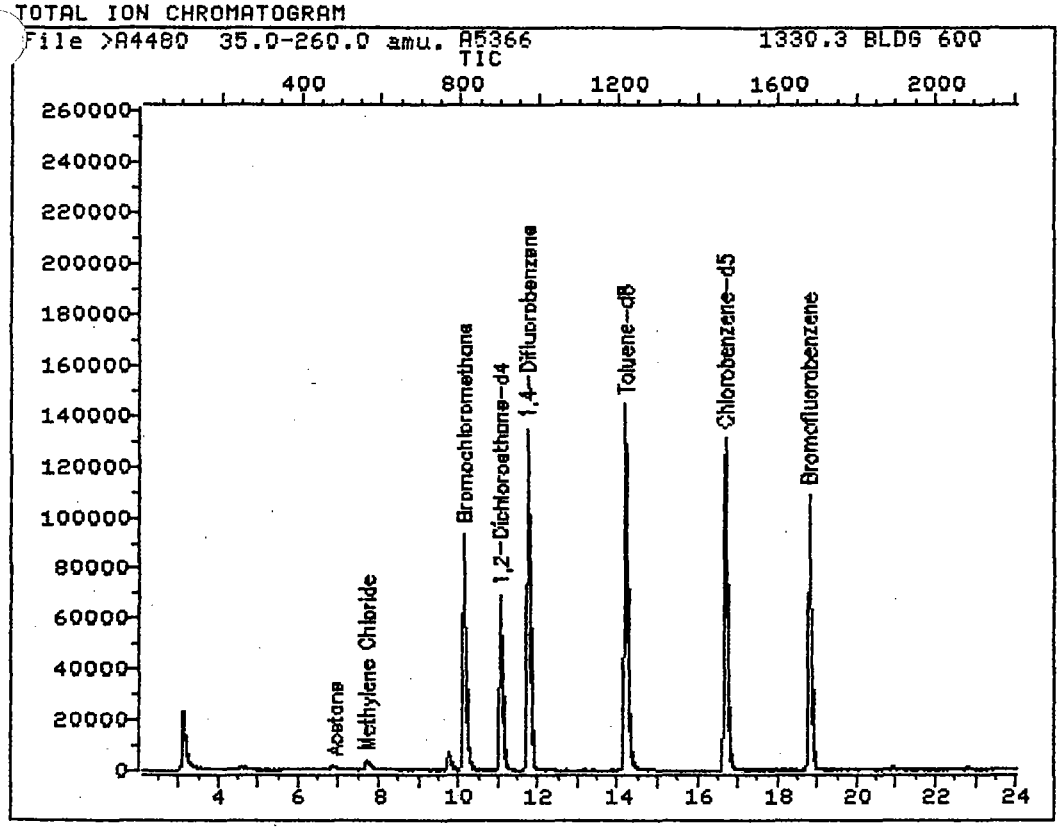
ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.14	808	58768	50.00	UG/L	100
9)	Acetone	6.90	482	6254	10.34	UG/L	88
13)	Methylene Chloride	7.70	562	10815	3.92	UG/L	71
23)	1,2-Dichloroethane-d4	11.05	899	118286	48.46	UG/L	100
24)	*1,4-Difluorobenzene	11.74	969	290068	50.00	UG/L	100
33)	Toluene-d8	14.19	1215	267383	48.77	UG/L	100
35)	*Chlorobenzene-d5	16.68	1466	200589	50.00	UG/L	100
48)	Bromofluorobenzene	18.79	1678	112593	51.51	UG/L	100

* Compound is ISTD

00027

TOTAL ION CHROMATOGRAM



Data File: >A4480::D3 Quant Output File: ^A4480::D1
Name: A5366
Misc: 1330.3 BLDG 600 5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

Operator ID: MANAGER
Quant Time: 931119 17:54
Injected at: 931119 17:26

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	A5367	DILUTION FACTOR	1.00
CLIENT ID	1330.4 BLDG 600	QA BATCH	
DATA FILE	>A4490	DATE ANALYZED	11/22/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	5.6 J	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	2.1 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.9	76 - 114	OK
Toluene-d8	96.2	88 - 110	OK
Bromofluorobenzene	104	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1330.4

Lab Name:21st Century Environmental Contract:N/A

Client Name: US Army Ft. Monmouth, NJ

Client ID: BLDG 600

Matrix: (soil/water) WATER

Lab Sample ID: A5367

Sample wt/vol: 5 (g/mL) ml

Lab File ID: >A4490

Level: (low/med) LOW

Date Received: NA

% Moisture: NA

Date Analyzed: 11/22/93

Column: DB-624

Dilution Factor: 1

Number TICs found: 1

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
108203	Diisopropyl ether	8.91	6.4	

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

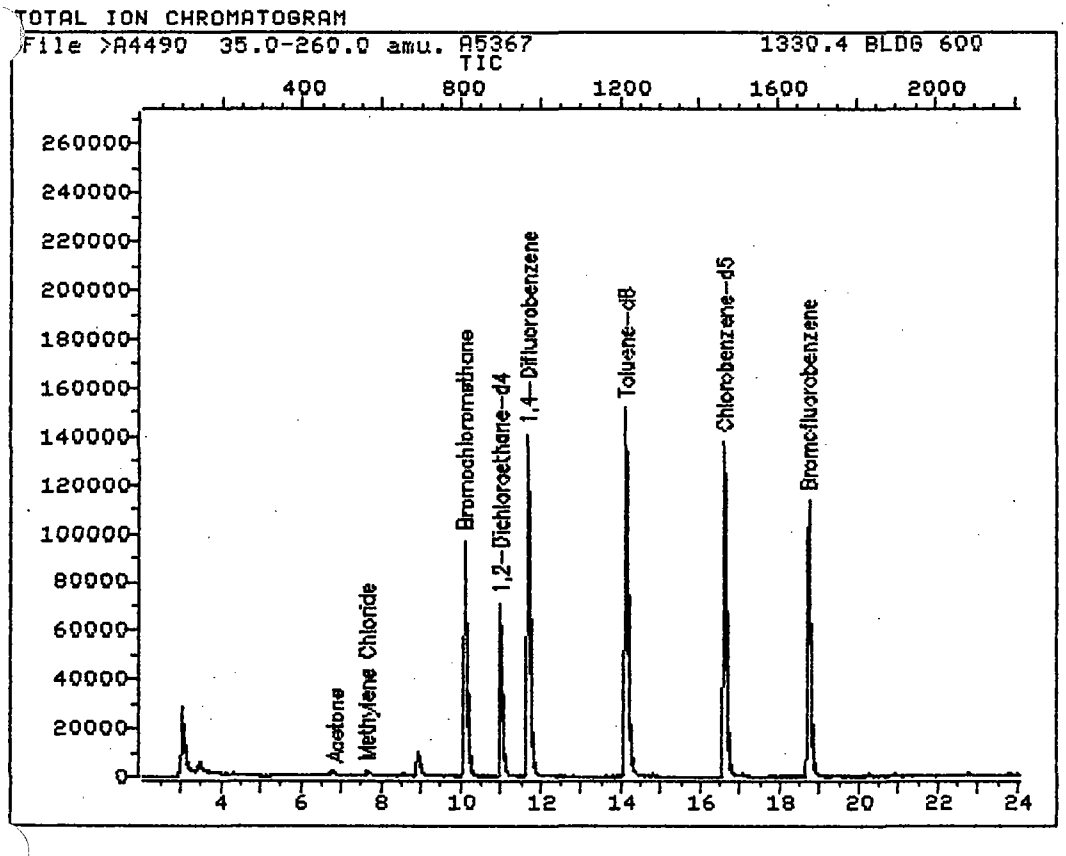
Operator ID: MANAGER
Output File: ^A4490::D1
Data File: >A4490::D3
Name: A5367
Misc: 1330.4 BLDG 600

Quant Rev: 6
Quant Time: 931123 08:48
Injected at: 931122 18:05
Dilution Factor: 1.00000
5ml

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931123 08:42

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.09	808	60649	50.00	UG/L	100
9)	Acetone	6.86	482	4583	5.63	UG/L	88
13)	Methylene Chloride	7.64	561	5841	2.12	UG/L	69
23)	1,2-Dichloroethane-d4	11.00	899	120873	47.93	UG/L	100
24)	*1,4-Difluorobenzene	11.69	969	302757	50.00	UG/L	100
33)	Toluene-d8	14.13	1214	282621	48.11	UG/L	100
35)	*Chlorobenzene-d5	16.61	1464	212808	50.00	UG/L	100
48)	Bromofluorobenzene	18.72	1676	117476	52.22	UG/L	100

* Compound is ISTD



Data File: >A4490::D3 Quant Output File: ^A4490::D1
Name: A5367
Misc: 1330.4 BLDG 600 5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931123 08:42

Operator ID: MANAGER
Quant Time: 931123 08:48
Injected at: 931122 18:05

Q C RESULTS

ICP Batch # M 213

GFAA Batch # _____

Hg Batch # _____

21st Century Environmental

Aqueous ☐

Solid ☒

QUALITY CONTROL DATA

ELEMENT	MDL (ppm)	PREP BLK	LCS (% rec)	SAMPLE RESULT	DUPLICATE RESULT	RPD	SPIKE AMT. (ppm)	SPIKE (% rec)
Aluminum								
Antimony								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Magnesium								
Manganese								
Nickel								
Silver								
Sodium								
Vanadium								
Zinc								
Arsenic								
Lead	0.05	N.D.	110	.12	.08	40	0.5	112
Selenium								
Thallium								
Mercury								
Potassium								

Comments: _____

00034

21st Century Environmental Inc
SOIL VOLATILE SURROGATE RECOVERY

SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	TOT OUT
BLANK	100	96	103	0
A5369	105	100	102	0
A5370	105	100	99	0
BLANK	97	97	103	0
MeOH BLK	97	96	104	0
A5366	97	98	103	0
A5364	95	109	103	0
A5365	94	105	103	0
A5368	96	105	110	0
BLANK	97	100	102	0
A5367	96	96	104	0
A4692MS	97	86	81	0
A4692MSD	98	87	81	0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	70-121
S2 (TOL) = Toluene-d8	81-117
S3 (BFB) = Bromofluorobenzene	74-121

Column used to flag surrogate recovery values

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Contract:N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: A4692 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	ND	52.1	104	59-172
Trichloroethene	50.0	ND	47.8	96	62-137
Benzene	50.0	ND	53.6	107	66-142
Toluene	50.0	ND	41.0	82	59-139
Chlorobenzene	50.0	ND	53.8	108	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	48.6	97	7	22	59-172
Trichloroethene	50.00	45.2	90	6	24	62-137
Benzene	50.00	50.1	100	7	21	66-142
Toluene	50.00	39.7	79	4	21	59-139
Chlorobenzene	50.00	50.9	102	6	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of qc limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

QUANT REPORT

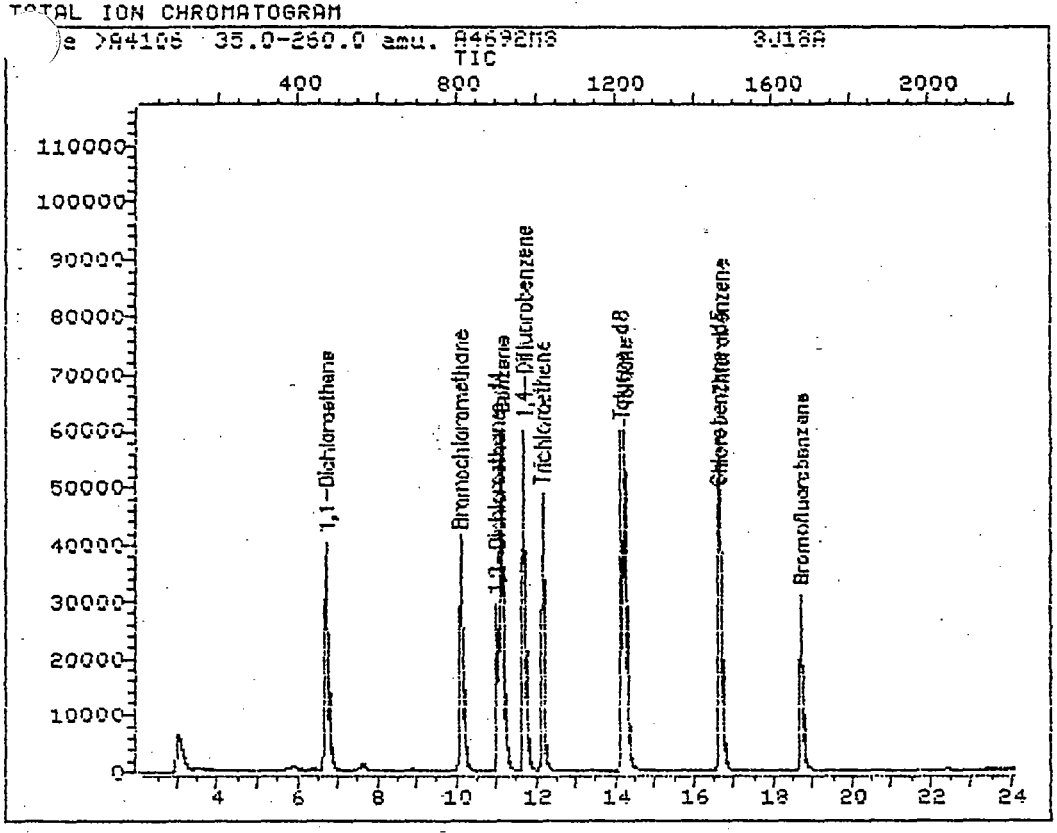
Operator ID: MANAGER Quant Rev: 6 Quant Time: 931022 01:2·
Output File: ^A4106::QT Injected at: 931022 00:58
Data File: >A4106::03 Dilution Factor: 1.0000
Name: A4692MS
Misc: 3J18A 5ɛ

ID File: ID0127::M1
Title: USEPA 624 VOLATILE
Last Calibration: 931021 15:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.09	807	32467	50.00	UG/L	100
10)	1,1-Dichloroethene	6.71	467	78413	52.12	UG/L	100
23)	1,2-Dichloroethane-d4	11.01	899	53942	48.55	UG/L	100
24)	*1,4-Difluorobenzene	11.69	968	137072	50.00	UG/L	100
26)	Benzene	11.13	911	143531	53.58	UG/L	100
27)	Trichloroethene	12.14	1013	44123	47.78	UG/L	84
33)	Toluene-d8	14.13	1213	111900	43.21	UG/L	100
34)	Toluene	14.24	1224	117354	40.97	UG/L	93
35)	*Chlorobenzene-d5	16.60	1462	76209	50.00	UG/L	100
42)	Chlorobenzene	16.66	1468	78137	53.76	UG/L	97
48)	Bromofluorobenzene	18.70	1673	33183	40.49	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A4106::D3 Quant Output File: ^A4106::QT
Name: A4692MS
Misc: 3J18A 5g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931021 15:23

Operator ID: MANAGER
Quant Time: 931022 01:2[illegible]
Injected at: 931022 00:58

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 931022 01:5
Output File: ^A4107::QT Injected at: 931022 01:29
Data File: >A4107::D3 Dilution Factor: 1.0000
Name: A4692MSD
Misc: 3J18A 5

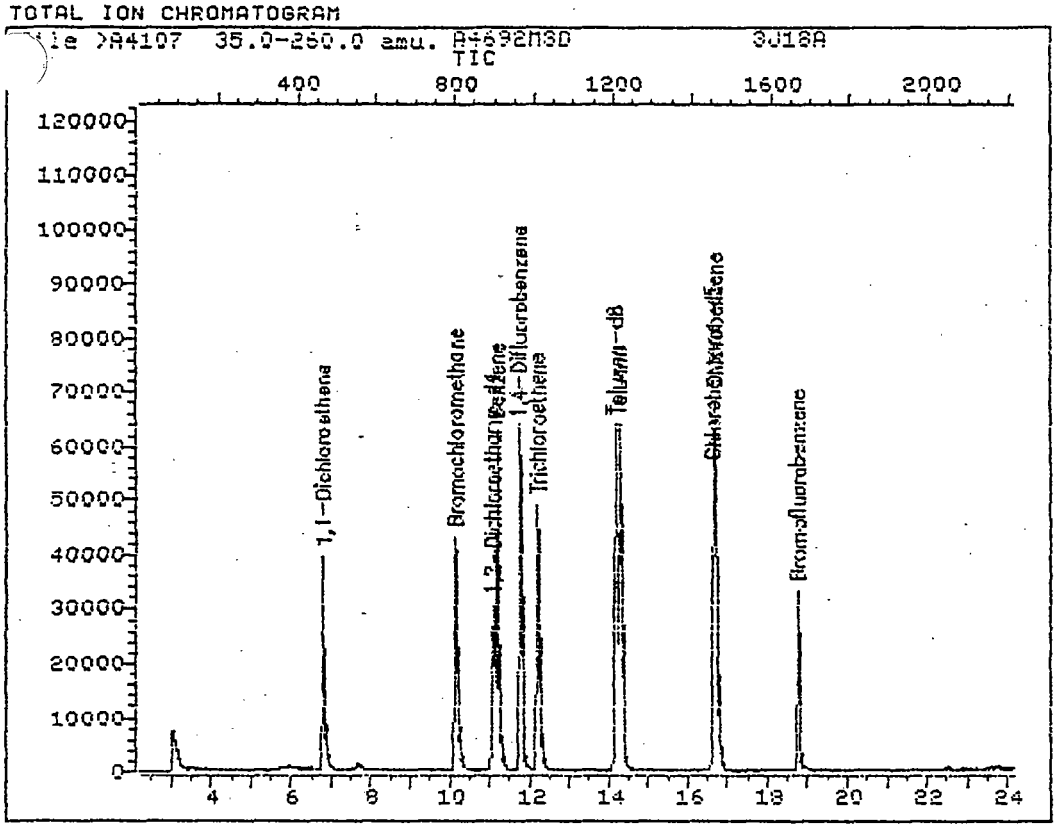
ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931021 15:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.14	800	33101	50.00	UG/L	100
10)	1,1-Dichloroethene	6.78	461	74573	48.62	UG/L	100
23)	1,2-Dichloroethane-d4	11.05	891	55319	48.84	UG/L	100
24)	*1,4-Difluorobenzene	11.72	959	144829	50.00	UG/L	100
26)	Benzene	11.17	903	141705	50.07	UG/L	100
27)	Trichloroethene	12.18	1005	44082	45.18	UG/L	8
33)	Toluene-d8	14.15	1203	118660	43.37	UG/L	100
34)	Toluene	14.26	1214	120120	39.69	UG/L	9
35)	*Chlorobenzene-d5	16.62	1452	82354	50.00	UG/L	100
42)	Chlorobenzene	16.67	1457	79883	50.86	UG/L	9
48)	Bromofluorobenzene	18.73	1664	35701	40.31	UG/L	100

* Compound is ISTD

00039

TOTAL ION CHROMATOGRAM



Data File: >A4107::D3 Quant Output File: ^A4107::QT
Name: A4692MSD
Misc: 3J18A 5g

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931021 15:23

Operator ID: MANAGER
Quant Time: 931022 01:57
Injected at: 931022 01:29

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

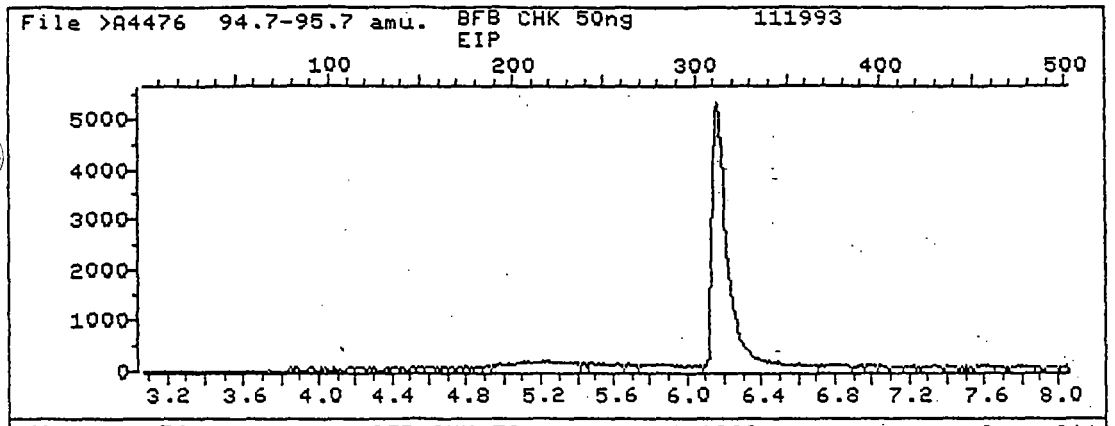
DATE AND TIME OF INJECTION: 11/19/93 13:59
INSTRUMENT ID: 5995

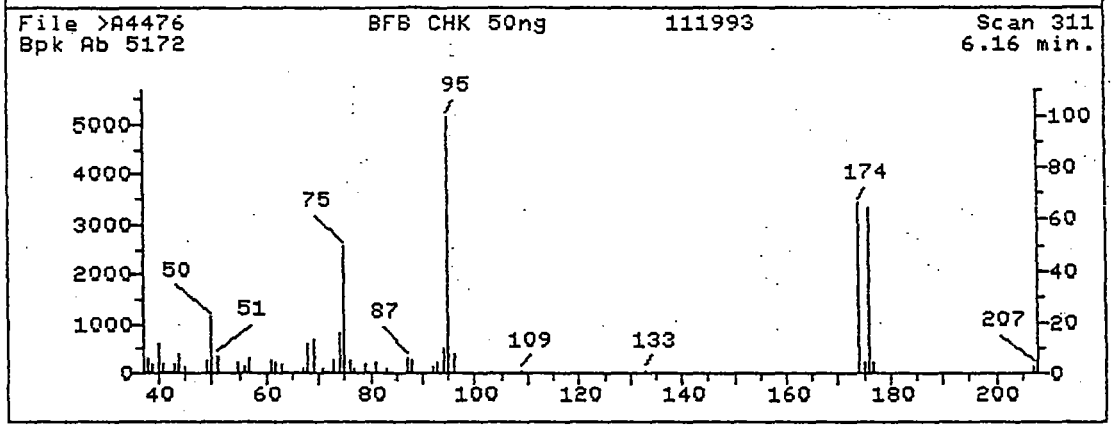
DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.08	22.08	Ok
75	30-60% of mass 95	49.27	49.27	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.70	7.70	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	66.14	66.14	Ok
175	5-9% of mass 174	4.45	6.72	Ok
176	95-101% of mass 174	64.27	97.16	Ok
177	5-9% of mass 176	3.98	6.20	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>A4476::D2		BFB CHK 50ng		11/19/93 13:59
>A4477::D2		HSL CAL CHK 50ppb		11/19/93 14:22
>A4478::D3		BLANK		11/19/93 16:18
>A4479::D3		MeOH BLK		11/19/93 16:54
>A4480::D3		A5366		11/19/93 17:26
>A4481::D3		A5364		11/19/93 17:59
>A4483::D3		A5365		11/19/93 19:04
>A4484::D3		A5368		11/19/93 19:37





>A4476 BFB CHK 50ng 111993
311 NRM

File: >A4476 Scan #: 311 Retn. time: 6.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.95	5.820	49.95	22.080	67.90	11.504	80.90	3.828	108.95	1.044
37.95	5.994	50.95	6.825	68.90	13.032	82.90	1.740	132.95	.947
38.95	3.113	54.95	4.350	70.90	2.030	86.90	6.148	173.85	66.145
39.85	11.524	55.95	2.939	72.90	4.988	87.90	5.124	174.95	4.447
40.85	3.616	56.95	6.206	73.90	15.893	91.90	2.166	175.95	64.269
42.85	3.674	60.90	4.911	74.90	49.265	92.90	4.157	176.85	3.983
43.85	7.115	61.90	4.215	75.90	4.640	93.90	9.938	207.05	2.900
44.95	2.359	62.90	3.558	76.90	2.108	94.90	100.000	207.95	.889
48.95	4.834	66.90	1.817	78.90	3.229	96.00	7.695		

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

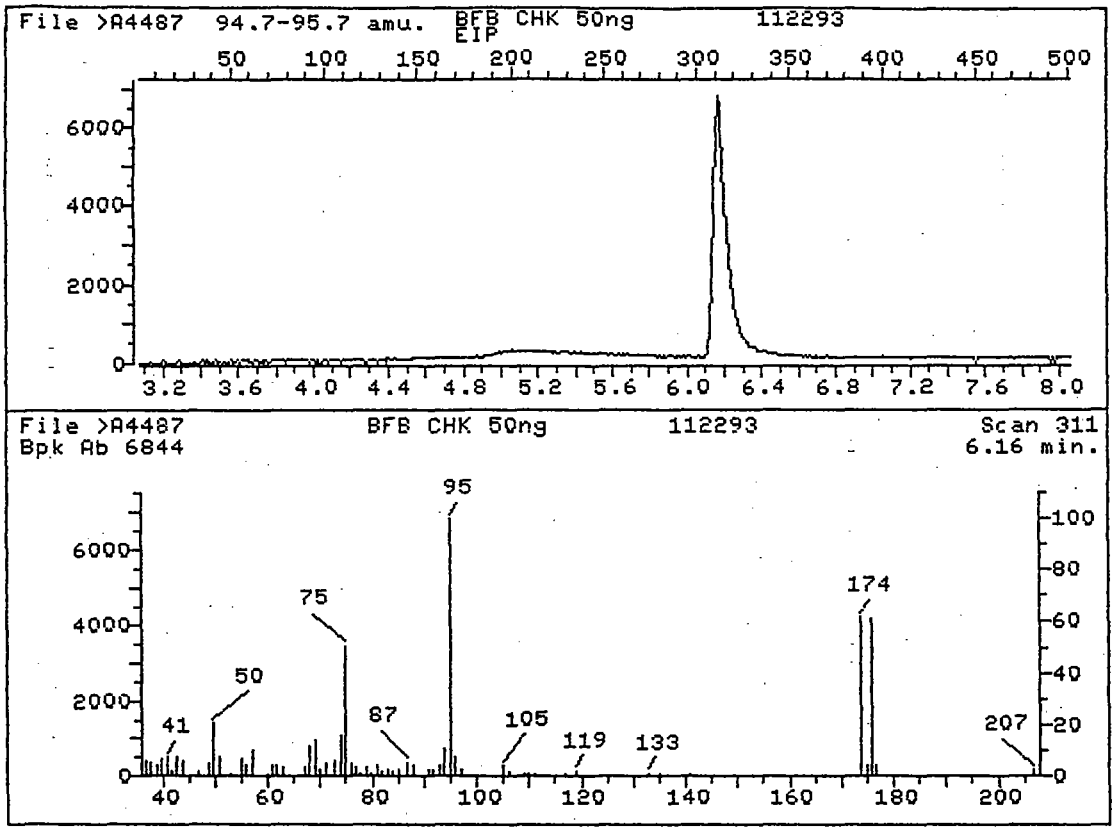
DATE AND TIME OF INJECTION: 11/22/93 15:29
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Lynch.

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	20.56	20.56	Ok
75	30-60% of mass 95	50.54	50.54	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.52	7.52	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	61.75	61.75	Ok
175	5-9% of mass 174	4.37	7.08	Ok
176	95-101% of mass 174	61.06	98.89	Ok
177	5-9% of mass 176	4.06	6.65	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID		DATE TIME
>A4487::D3		BFB CHK 50ng		11/22/93 15:29
>A4488::D3		HSL CAL CHK 50ppb		11/22/93 16:35
>A4489::D3		BLANK		11/22/93 17:28
>A4490::D3		A5367		11/22/93 18:05
>A4491::D3		A5357		11/22/93 18:37
>A4492::D3		A5355		11/22/93 19:09
>A4493::D3		A5387		11/22/93 19:42



>A4487 BFB CHK 50ng 112293
311 NRM

File: >A4487 Scan #: 311 Retn. time: 6.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.85	1.257	52.95	1.008	72.90	5.538	86.90	5.275	110.95	1.271
36.85	6.122	54.95	6.517	73.90	15.532	87.90	4.077	116.95	1.257
37.85	4.866	55.95	3.872	74.90	50.541	90.90	2.878	118.95	1.783
38.85	4.383	56.95	10.228	76.00	4.851	91.90	2.762	132.95	1.154
39.85	6.984	59.80	1.184	76.90	3.068	92.90	4.106	135.00	.964
40.85	7.525	60.90	4.252	77.80	.935	93.90	10.491	140.90	1.008
41.95	1.417	61.80	3.916	78.80	3.419	94.90	100.000	173.85	61.748
42.85	7.203	62.90	3.448	79.80	1.140	95.90	7.525	174.85	4.369
43.85	5.538	66.90	3.112	80.80	4.106	96.95	2.893	175.85	61.061
46.85	1.739	67.90	11.397	81.90	1.812	104.95	4.018	176.85	4.062
48.85	5.070	68.90	14.509	83.00	2.352	105.95	1.432	206.95	2.162
49.85	20.558	69.90	2.601	83.90	1.403	108.85	1.081	208.05	.745
50.85	7.481	71.00	4.909	85.00	2.338	109.95	.847		

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 11/19/93

Contractor: 21st Century Env. Time: 14:22

Contract No: Laboratory ID: >A4477

Instrument ID: Volatile Inst A Initial Calibration Date: 11/09/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	1.43249	1.00820	29.62		**	
Bromomethane	1.04974	1.01019	3.77			
Vinyl Chloride	1.57678	1.31532	16.58	*		
Chloroethane	.90195	.78873	12.55			
Acrolein	.05549	.04073	26.60			(Conc=100.00)
1,1,2-Trichlorotrifluoroethane	2.19227	2.20235	.46			
Trichlorofluromethane	3.67660	3.66165	.41			
Acetone	.71035	.51445	27.58			
1,1-Dichloroethene	3.39084	2.95996	12.71	*		
Carbon Disulfide	5.49262	4.45355	18.92			
Acrylonitrile	.62129	.50486	18.74			
Methylene Chloride	2.90785	2.34482	19.36			
1,2-Dichloroethene(trans)	3.40143	2.87297	15.54			
Tertiary Butyl Alcohol	.83745	.52518	37.29			(Conc=100.00)
Methyl Tertiary Butyl Ether	4.28851	2.73433	36.24			
1,1-Dichloroethane	4.04214	3.35073	17.10		**	
Vinyl Acetate	5.67139	3.61164	36.32			
2-Butanone	1.18849	.92410	22.25			
Chloroform	3.58945	3.24644	9.56	*		
1,1,1-Trichloroethane	2.74729	2.46525	10.27			
Carbon Tetrachloride	2.26220	2.00850	11.21			
1,2-Dichloroethane-d4	2.57781	2.07655	19.45			(Conc=50.00)
1,2-Dichloroethane	.56078	.45488	18.88			
Benzene	1.14334	1.07103	6.32			
Trichloroethene	.39984	.40221	.59			
1,2-Dichloropropane	.47785	.40433	15.39	*		
Bromodichloromethane	.62987	.57048	9.43			
2-Chloroethylvinylether	.32164	.27971	13.04			
2-Hexanone	.29314	.25114	14.33			
trans-1,3-Dichloropropene	.66397	.59066	11.04			
Toluene-d8	.98044	.94503	3.61			
Toluene	1.04974	1.00176	4.57	*		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 11/19/93

Contractor: 21st Century Env. Time: 14:22

Contract No: Laboratory ID: >A4477

Instrument ID: Volatile Inst A Initial Calibration Date: 11/09/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
cis-1,3-Dichloropropene	.84936	.72057	15.16			
1,1,2,2-Tetrachloroethane	.45498	.38757	14.82		**	
1,1,2-Trichloroethane	.43273	.41607	3.85			
4-Methyl-2-pentanone	.41918	.35037	16.41			
Tetrachloroethene	.39365	.38472	2.27			
Dibromochloromethane	.60540	.57053	5.76			
Chlorobenzene	.92785	.91198	1.71		**	
Ethylbenzene	1.59656	1.42696	10.62	*		
m&p-Xylenes	1.23699	1.09133	11.78			(Conc=100.00)
o-Xylene	1.21406	1.11328	8.30			
Styrene	.90718	.87919	3.09			
Bromoform	.36431	.32929	9.61		**	
Bromofluorobenzene	.61999	.54489	12.11			
m-Dichlorobenzene	.73847	.76373	3.42			
p-Dichlorobenzene	.79295	.80987	2.13			
o-Dichlorobenzene	.72230	.73679	2.01			

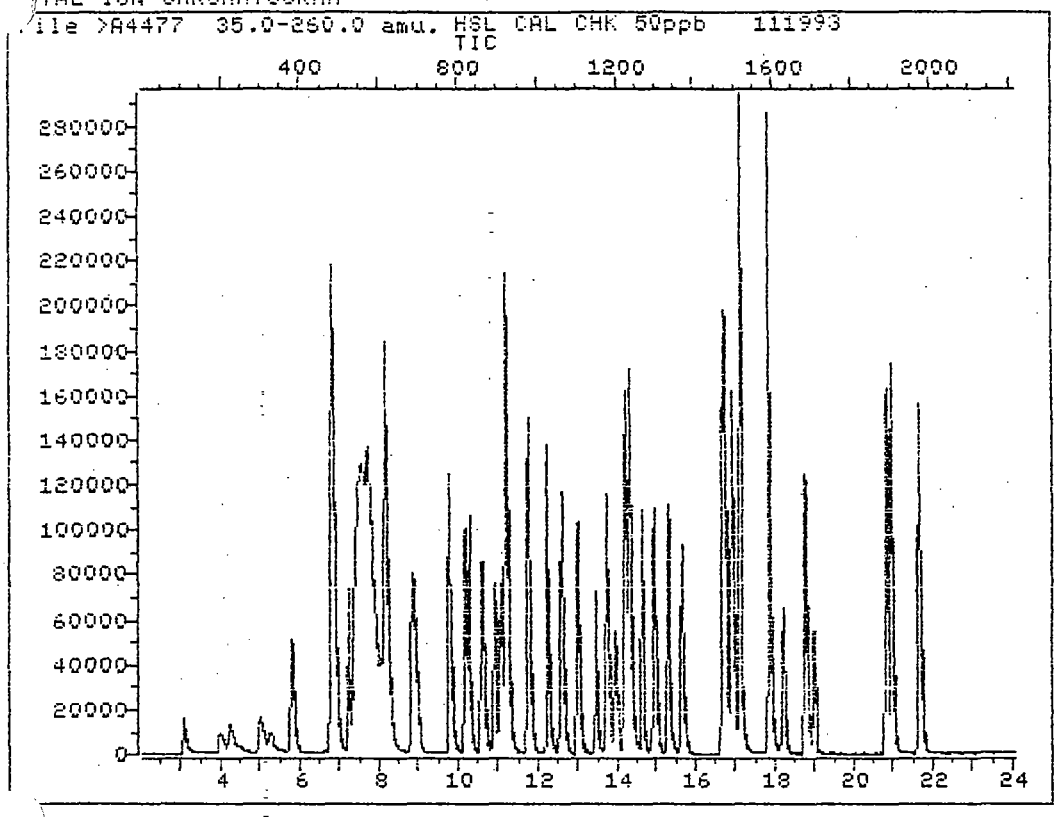
RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

TAL ION CHROMATOGRAM



Data File: >A4477::D2 Quant Output File: ^A4477::D1
Name: HSL CAL CHK 50ppb
Misc: 111993

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931118 13:00

Operator ID: MANAGER
Quant Time: 931119 14:57
Injected at: 931119 14:22

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 11/22/93

Contractor: 21st Century Env. Time: 16:35

Contract No: Laboratory ID: >A4488

Instrument ID: Volatile Inst A Initial Calibration Date: 11/09/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	1.43249	.91128	36.39		**	
Bromomethane	1.04974	.95655	8.88			
Vinyl Chloride	1.57678	1.18387	24.92	*		
Chloroethane	.90195	.69716	22.71			
Acrolein	.05549	.03857	30.49			(Conc=100.00)
1,1,2-Trichlorotrifluoroethane	2.19227	2.32391	6.00			
Trichlorofluromethane	3.67660	3.78080	2.83			
Acetone	.71035	.67160	5.46			
1,1-Dichloroethene	3.39084	2.94060	13.28	*		
Carbon Disulfide	5.49262	4.59579	16.33			
Acrylonitrile	.62129	.54603	12.11			
Methylene Chloride	2.90785	2.26884	21.98			
1,2-Dichloroethene(trans)	3.40143	2.84929	16.23			
Tertiary Butyl Alcohol	.83745	.81131	3.12			(Conc=100.00)
Methyl Tertiary Butyl Ether	4.28851	2.98481	30.40			
1,1-Dichloroethane	4.04214	3.38153	16.34		**	
Vinyl Acetate	5.67139	4.46121	21.34			
2-Butanone	1.18849	1.10525	7.00			
Chloroform	3.58945	3.22900	10.04	*		
1,1,1-Trichloroethane	2.74729	2.51362	8.51			
Carbon Tetrachloride	2.26220	2.02576	10.45			
1,2-Dichloroethane-d4	2.57781	2.07908	19.35			(Conc=50.00)
1,2-Dichloroethane	.56078	.46333	17.38			
Benzene	1.14334	1.09907	3.87			
Trichloroethene	.39984	.41348	3.41			
1,2-Dichloropropane	.47785	.40875	14.46	*		
Bromodichloromethane	.62987	.58860	6.55			
2-Chloroethylvinylether	.32164	.29410	8.56			
2-Hexanone	.29314	.26079	11.04			
trans-1,3-Dichloropropene	.66397	.60794	8.44			
Toluene-d8	.98044	.97026	1.04			
Toluene	1.04974	1.05970	.95	*		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 11/22/93

Contractor: 21st Century Env. Time: 16:35

Contract No: Laboratory ID: >A4488

Instrument ID: Volatile Inst A Initial Calibration Date: 11/09/93

Minimum $\overline{RF}$ for SPCC is .300 Maximum % Diff for CCC is 25%

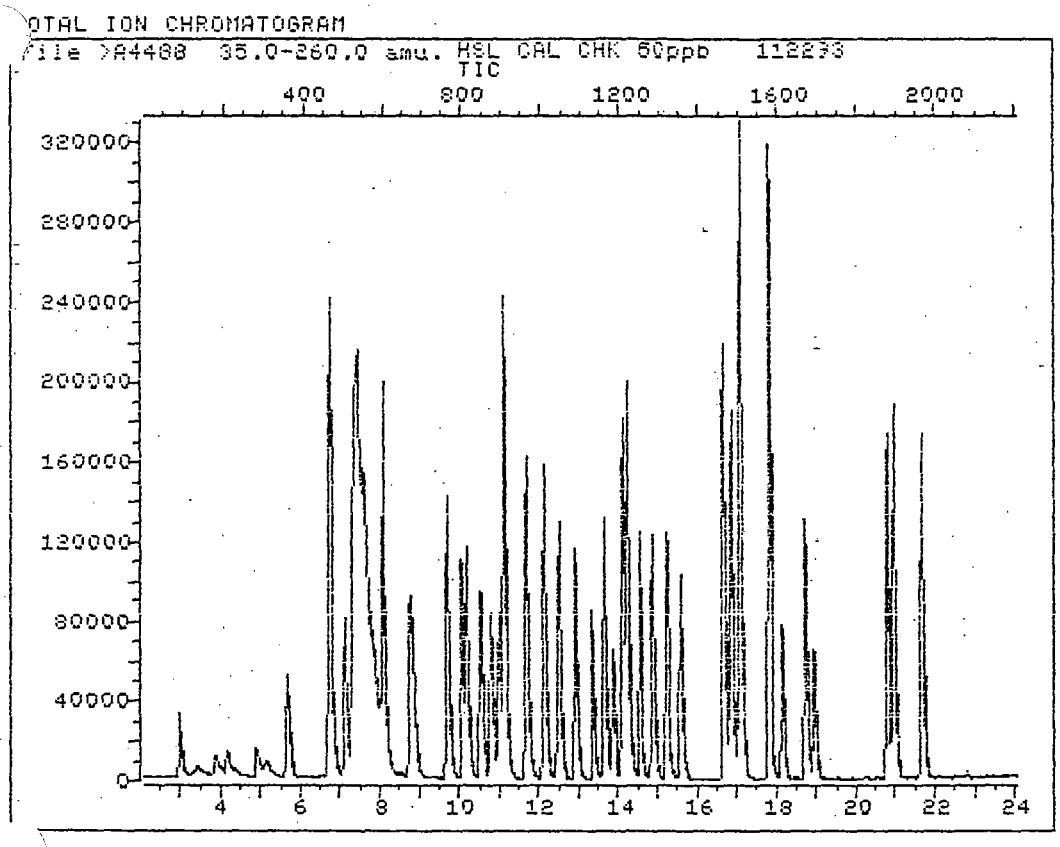
Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
cis-1,3-Dichloropropene	.84936	.74048	12.82			
1,1,2,2-Tetrachloroethane	.45498	.42724	6.10		**	
1,1,2-Trichloroethane	.43273	.43135	.32			
4-Methyl-2-pentanone	.41918	.35813	14.56			
Tetrachloroethene	.39365	.40526	2.95			
Dibromochloromethane	.60540	.58982	2.57			
Chlorobenzene	.92785	.92246	.58		**	
Ethylbenzene	1.59656	1.48351	7.08	*		
m&p-Xylenes	1.23699	1.11769	9.64			(Conc=100.00)
o-Xylene	1.21406	1.11391	8.25			
Styrene	.90718	.87113	3.97			
Bromoform	.36431	.36276	.42		**	
Bromofluorobenzene	.61999	.52854	14.75			
m-Dichlorobenzene	.73847	.73309	.73			
p-Dichlorobenzene	.79295	.79078	.27			
o-Dichlorobenzene	.72230	.72020	.29			

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)



Data File: >A4488::D3 Quant Output File: ^A4488::D1
Name: HSL CAL CHK 50ppb
Misc: 112293

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

Operator ID: MANAGER
Quant Time: 931122 17:04
Injected at: 931122 16:35

21st Century Environmental Inc.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

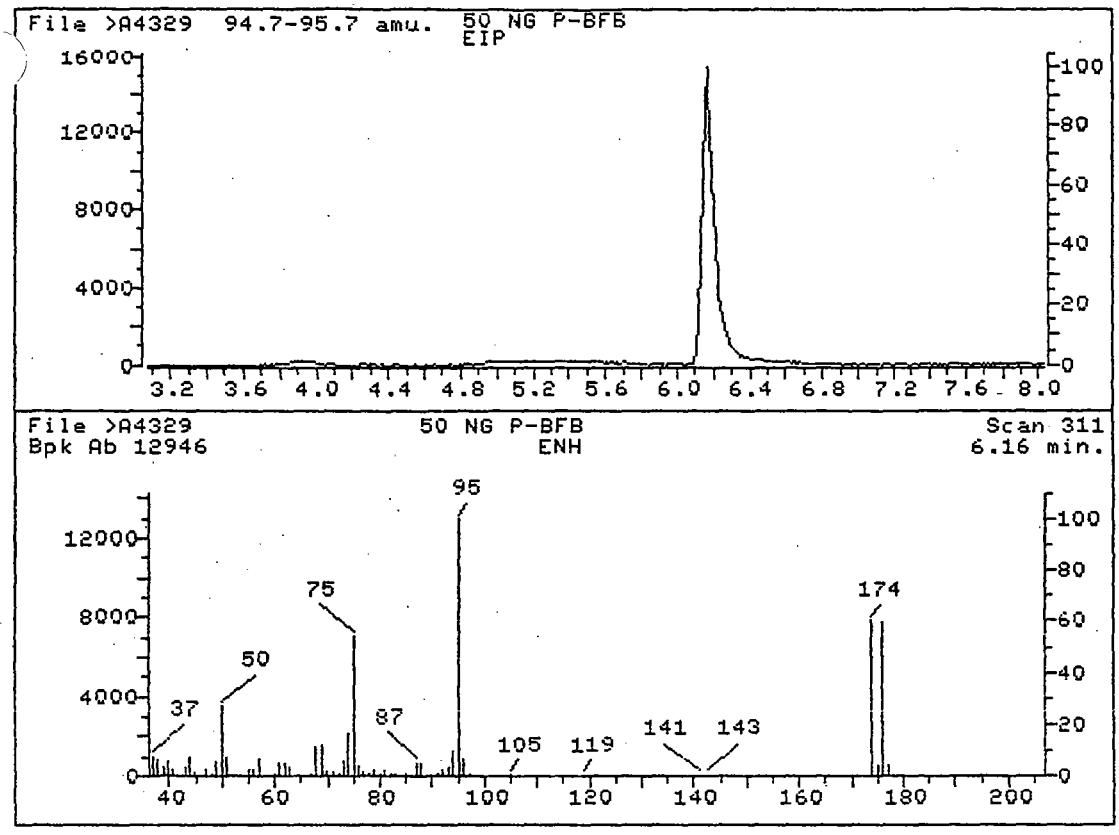
DATE AND TIME OF INJECTION: 11/09/93 11:51
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Symm

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	26.97	26.97	Ok
75	30-60% of mass 95	54.36	54.36	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.00	7.00	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	60.04	60.04	Ok
175	5-9% of mass 174	4.28	7.12	Ok
176	95-101% of mass 174	59.18	98.56	Ok
177	5-9% of mass 176	4.06	6.87	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>A4329::D61	50 NG P-BFB		11/09/93 11:51
>A4330::D61	HSL CAL STD 50ppb		11/09/93 12:53
>A4331::D61	HSL CAL STD 20ppb		11/09/93 13:32
>A4332::D61	HSL CAL STD 100ppb		11/09/93 14:06
>A4333::D61	HSL CAL STD 150ppb		11/09/93 14:52
>A4334::D61	HSL CAL STD 200ppb		11/09/93 15:27
>A4335::D61	BLANK		11/09/93 16:02
>A4336::D61	A5111		11/09/93 16:42
>A4337::D61	A5179		11/09/93 17:15
>A4338::D61	A5180		11/09/93 17:48
>A4339::D61	A5181		11/09/93 18:33
>A4340::D61	A5182		11/09/93 19:05
>A4341::D61	A5183		11/09/93 19:38
>A4342::D61	A5059		11/09/93 20:11
>A4343::D61	A5060		11/09/93 20:43
>A4344::D61	A5061		11/09/93 21:16
>A4347::D61	A5063		11/09/93 22:53
>A4348::D61	A5064		11/09/93 23:26



>A4329 50 NG P-BFB
311 NRM ENH

File: >A4329 Scan #: 311 Retn. time: 6.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.95	1.659	48.85	5.559	68.90	12.777	80.90	2.620	97.05	.919
36.95	7.786	49.95	26.973	69.90	1.587	81.90	.864	103.85	.184
37.95	6.750	50.95	7.907	70.90	2.022	83.00	.629	104.95	.514
38.85	3.229	54.95	2.504	72.00	.579	85.00	.833	118.85	.460
39.85	6.031	55.95	2.704	73.00	5.526	87.00	5.103	140.90	.318
40.85	2.969	56.95	6.309	73.90	16.660	87.90	4.748	142.80	.405
41.95	.446	59.80	1.205	74.90	54.360	90.90	.717	173.95	60.039
42.95	3.584	60.90	5.186	76.00	4.527	92.00	2.444	174.95	4.276
43.95	7.694	61.90	4.870	76.90	1.585	92.90	3.714	175.95	59.175
44.85	1.957	62.90	3.546	77.80	.689	94.00	10.280	176.95	4.065
46.95	2.217	66.90	1.007	78.80	2.276	95.00	100.000	207.05	1.355
47.85	.684	67.90	12.015	79.90	.850	96.00	6.995		

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: Volatile Inst A

Contractor: 21st Century Env. Calibration Date: 11/09/93

Contract No:

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%

Laboratory ID:	>A4331	>A4330	>A4332	>A4333	>A4334					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Chloromethane	1.41614	1.48583	1.38938	1.48584	1.38527	.384	1.43249	3.499		**
Bromomethane	1.02934	1.10841	.98126	1.06910	1.06061	.489	1.04974	4.529		
Vinyl Chloride	1.52263	1.68403	1.46466	1.67308	1.53950	.413	1.57678	6.155	*	
Chloroethane	.80840	1.02808	.90131	.86565	.90633	.514	.90195	8.938		
Acrolein	.05216	.05314	.05654	.05890	.05674	.649	.05549	5.008		(Conc=40.0,100.0,200.0
1,1,2-Trichlorotrifluoroethane	2.04266	2.19818	2.14431	2.25029	2.32588	.671	2.19227	4.888		
Trichlorofluromethane	3.47163	3.77732	3.62495	3.75547	3.75363	.672	3.67660	3.520		
Acetone	.65670	.67167	.71720	.80655	.69963	.679	.71035	8.266		
1,1-Dichloroethene	3.46021	3.64549	3.24738	3.40539	3.19573	.668	3.39084	5.286	*	
Carbon Disulfide	4.70961	5.33780	5.49181	5.86737	6.05652	.708	5.49262	9.528		
Acrylonitrile	.54150	.62219	.63927	.70276	.60072	.794	.62129	9.437		
Methylene Chloride	2.91014	3.13544	2.72013	2.89062	2.88294	.756	2.90785	5.100		
1,2-Dichloroethene(trans)	3.39805	3.58310	3.23530	3.35122	3.43946	.802	3.40143	3.736		
Tertiary Butyl Alcohol	-	.61353	.84709	1.05172	-	.778	.83745	26.181		(Conc=40.0,100.0,200.0
Methyl Tertiary Butyl Ether	-	3.46235	4.54282	4.86036	-	.804	4.28851	17.089		
1,1-Dichloroethane	3.78417	4.21623	3.85904	4.12971	4.22153	.871	4.04214	5.104		**
Vinyl Acetate	4.75648	5.66626	5.67980	6.32058	5.93384	.878	5.67139	10.158		
2-Butanone	1.18801	1.10022	1.17819	1.31778	1.15824	.962	1.18849	6.722		
Chloroform	3.36531	3.70631	3.42462	3.66984	3.78117	1.012	3.58945	5.104	*	
1,1,1-Trichloroethane	2.56913	2.85226	2.65624	2.80681	2.85200	1.044	2.74729	4.660		
Carbon Tetrachloride	2.09076	2.32597	2.17211	2.34245	2.37973	1.072	2.26220	5.496		
1,2-Dichloroethane-d4	2.55670	2.64470	2.79111	2.46942	2.42713	1.089	2.57781	5.651		(Conc=50.0,50.0,50.0,5
1,2-Dichloroethane	.53015	.56714	.53564	.58976	.58119	.952	.56078	4.775		
Benzene	1.08161	1.19068	1.08997	1.17220	1.18222	.953	1.14334	4.637		
Trichloroethene	.38471	.41551	.39865	.42436	.37598	1.039	.39984	5.074		
1,2-Dichloropropane	.45032	.49669	.45894	.48763	.49570	1.068	.47785	4.543	*	
Bromodichloromethane	.60336	.64585	.59713	.65619	.64685	1.104	.62987	4.356		
2-Chloroethylvinylether	.30403	.32211	.31454	.34588	.32165	1.141	.32164	4.787		
2-Hexanone	.28250	.27696	.30188	.33078	.27361	1.301	.29314	8.090		
trans-1,3-Dichloropropene	.60862	.68443	.63418	.69094	.70169	1.165	.66397	6.080		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: Volatile Inst A

Contractor: 21st Century Env. Calibration Date: 11/09/93

Contract No:

Minimum $\overline{RF}$ for SPCC is .300 Maximum % RSD for CCC is 30%

Laboratory ID:	>A4331	>A4330	>A4332	>A4333	>A4334					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Toluene-d8	.93694	.95229	.99760	1.00527	1.01007	1.206	.98044	3.411		(Conc=50.0,50.0,50.0,5
Toluene	.94400	1.05882	1.00914	1.10072	1.13600	1.215	1.04974	7.216	*	
cis-1,3-Dichloropropene	.77201	.87336	.81013	.88691	.90438	.877	.84936	6.591		
1,1,2,2-Tetrachloroethane	.41084	.49408	.43530	.46678	.46789	1.137	.45498	7.097		**
1,1,2-Trichloroethane	.40611	.44372	.41282	.45002	.45098	.896	.43273	4.980		
4-Methyl-2-pentanone	.41359	.39946	.42492	.46966	.38824	.919	.41918	7.505		
Tetrachloroethene	.37672	.41067	.37172	.40073	.40841	.916	.39365	4.624		
Dibromochloromethane	.57516	.62097	.57784	.63499	.61804	.939	.60540	4.487		
Chlorobenzene	.86084	.95991	.87657	.95433	.98761	1.003	.92785	6.006		**
Ethylbenzene	1.50052	1.63926	1.51652	1.63336	1.69312	1.014	1.59656	5.253	*	
m&p-Xylenes	1.18826	1.27196	1.15439	1.25465	1.31567	1.026	1.23699	5.258		(Conc=40.0,100.0,200.0
o-Xylene	1.17314	1.26950	1.12067	1.21877	1.28822	1.068	1.21406	5.676		
Styrene	.84945	.94069	.84973	.92050	.97556	1.069	.90718	6.189		
Bromoform	.32129	.36170	.34992	.39373	.39491	1.090	.36431	8.534		**
Bromofluorobenzene	.62013	.61233	.61052	.61367	.64330	1.124	.61999	2.182		(Conc=50.0,50.0,50.0,5
m-Dichlorobenzene	.76536	.77087	.67688	.73259	.74666	1.246	.73847	5.097		
p-Dichlorobenzene	.82415	.83567	.72139	.76554	.81798	1.255	.79295	6.080		
o-Dichlorobenzene	.75022	.75536	.66161	.71926	.72506	1.297	.72230	5.167		

RF - Response Factor (Subscript is amount in UG/L)

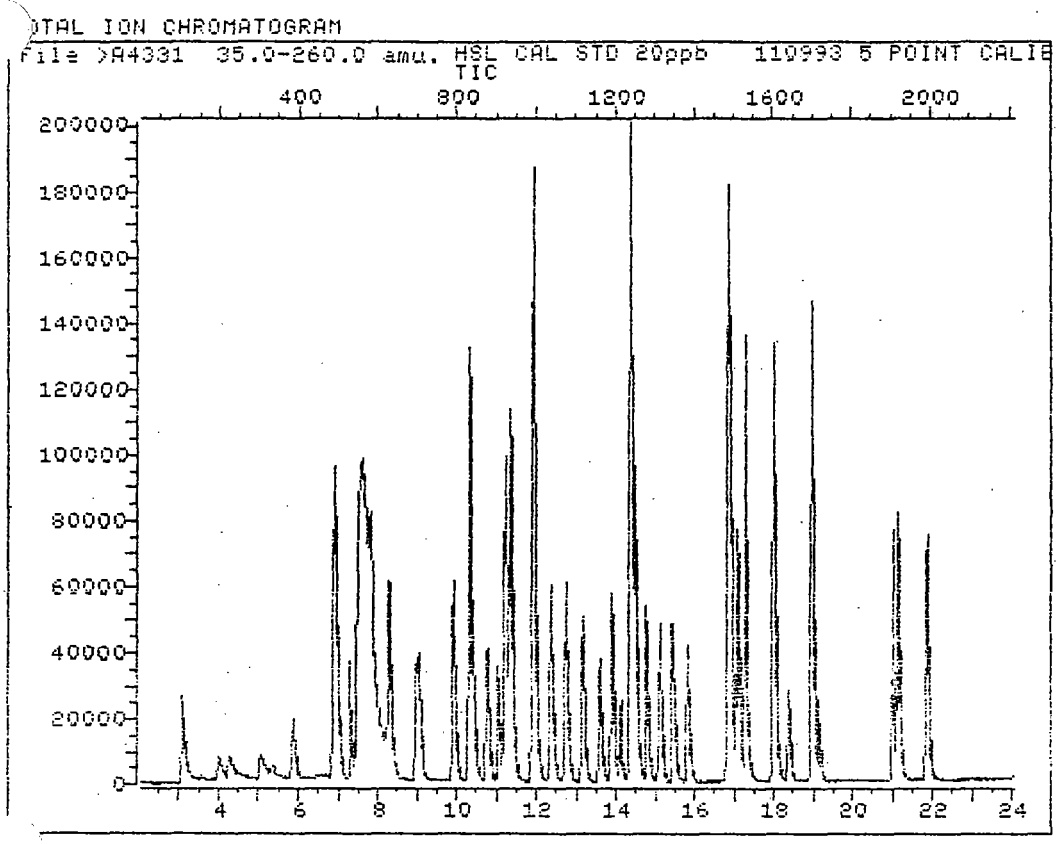
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

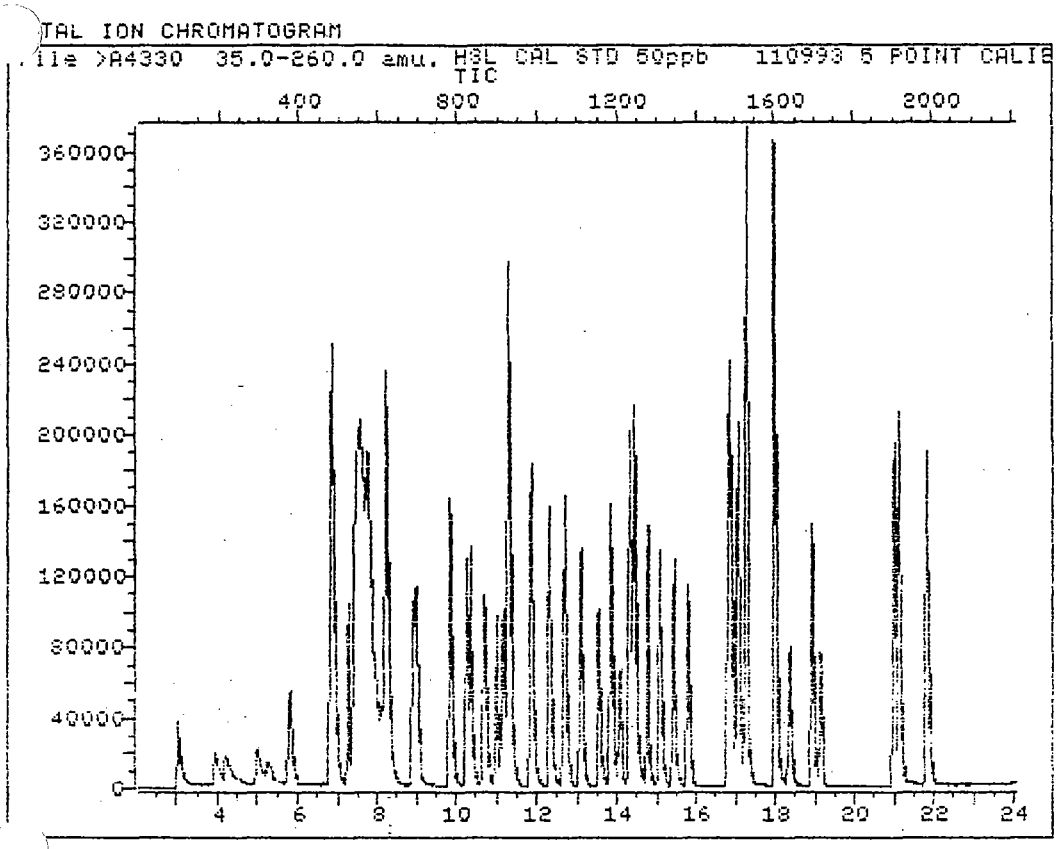
CC054



Data File: >A4331::D6 Quant Output File: ^A4331::D1
Name: HSL CAL STD 20ppb
Misc: 110993 5 POINT CALIBRATION

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931109 13:37

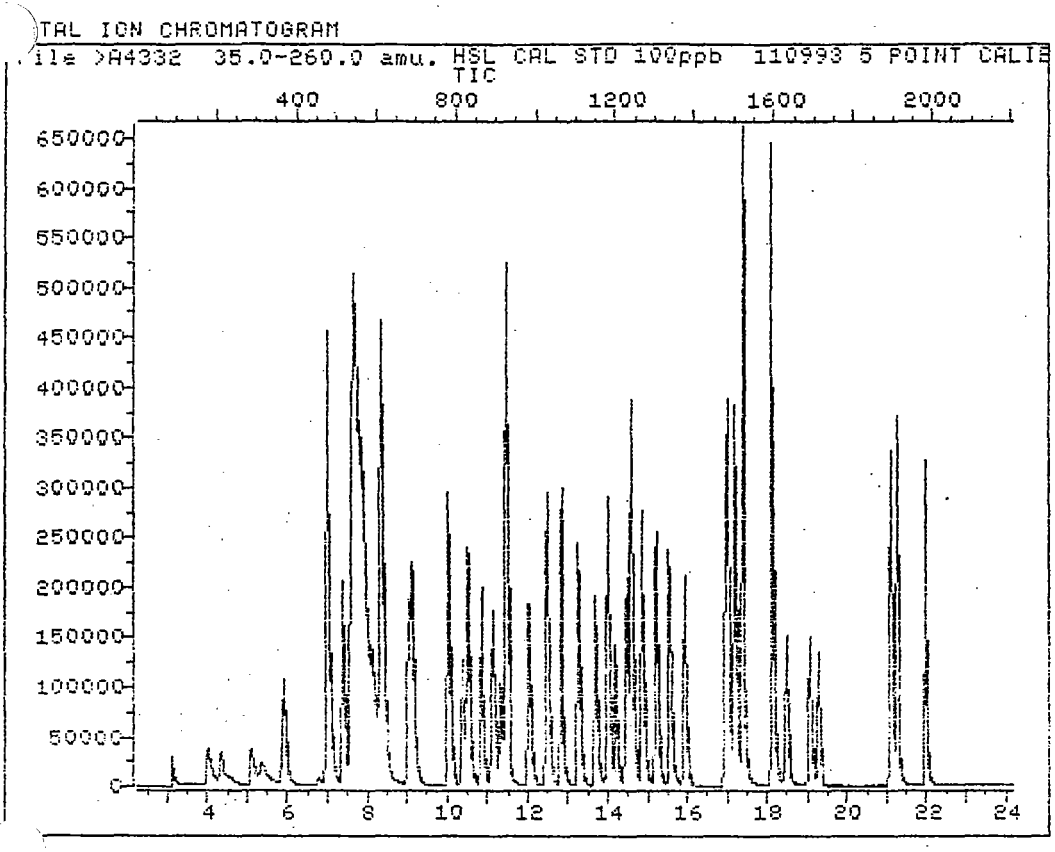
Operator ID: MANAGER
Quant Time: 931109 14:02
Injected at: 931109 13:32



Data File: >A4330::D6 Quant Output File: ^A4330::D1
Name: HSL CAL STD 50ppb
Misc: 110993 5 POINT CALIBRATION

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931108 14:37

Operator ID: MANAGER
Quant Time: 931109 13:27
Injected at: 931109 12:53

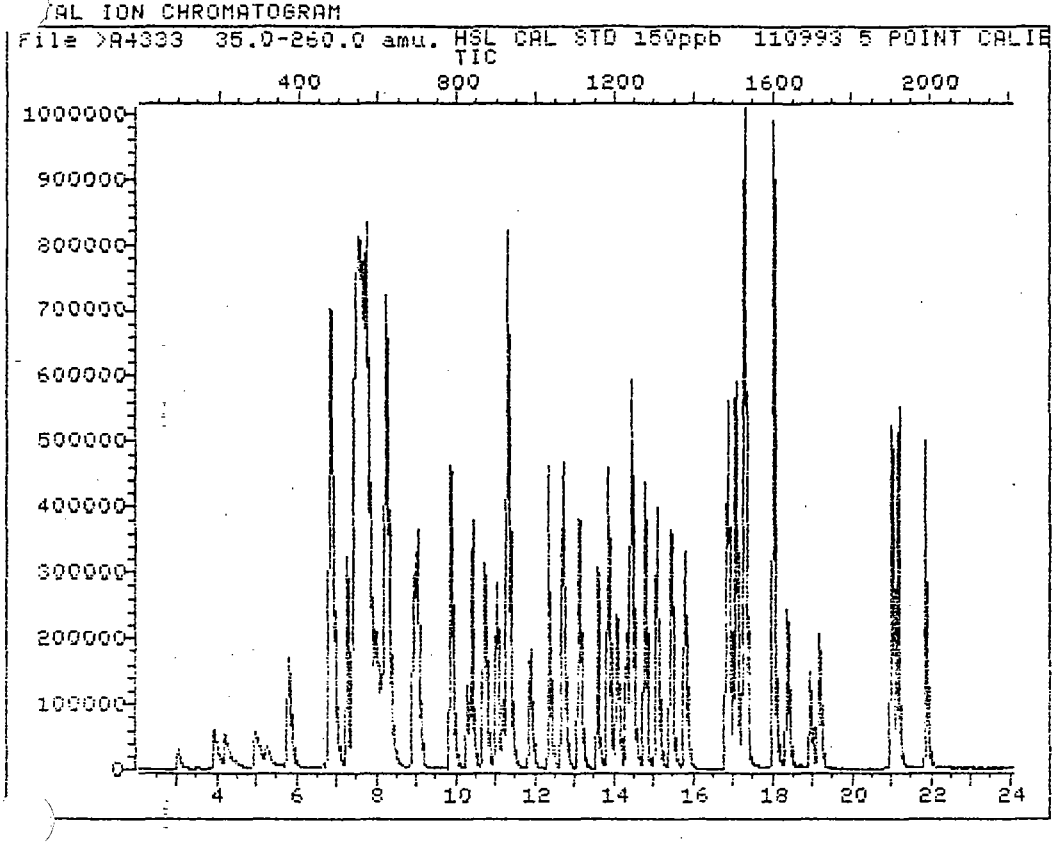


Data File: >A4332::D6 Quant Output File: ^A4332::D1
Name: HSL CAL STD 100ppb
Misc: 110993 5 POINT CALIBRATION

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931109 13:37

Operator ID: MANAGER
Quant Time: 931109 14:35
Injected at: 931109 14:06

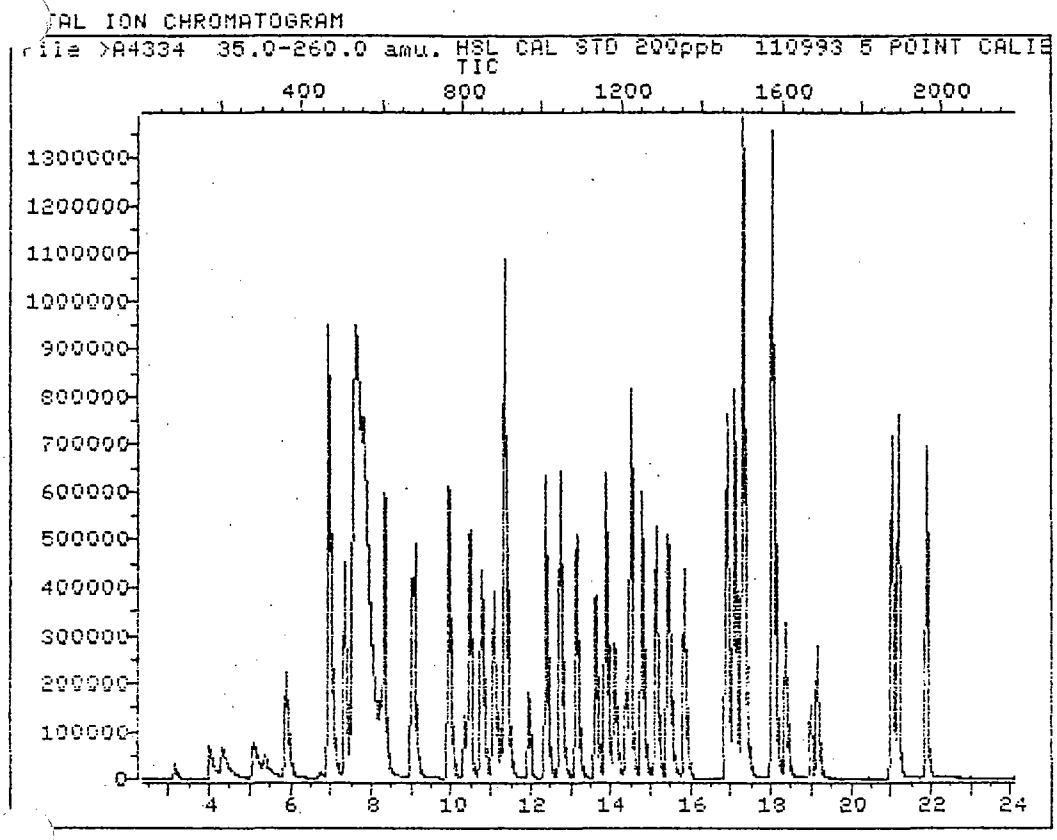
/AL ION CHROMATOGRAM



Data File: >A4333::D6 Quant Output File: ^A4333::D1
Name: HSL CAL STD 150ppb
Misc: 110993 5 POINT CALIBRATION

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931109 14:56

Operator ID: MANAGER
Quant Time: 931109 15:22
Injected at: 931109 14:52



Data File: >A4334::D6 Quant Output File: ^A4334::D1
Name: HSL CAL STD 200ppb
Misc: 110993 5 POINT CALIBRATION

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931109 14:56

Operator ID: MANAGER
Quant Time: 931109 15:55
Injected at: 931109 15:27

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st CENTURY ENVIRONMENTAL INC. Contract No.:

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

LAB ID FILE (BLANK): >A4478 DATE ANALYZED: 11/19/93

INSTRUMENT ID: A TIME ANALYZED: 16:18

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A5366	>A4480	11/19/93	17:26
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

COMMENTS: _____

_____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	111993 METHOD BLANK	QA BATCH	
DATA FILE	>A4478	DATE ANALYZED	11/19/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	96.8	76 - 114	OK
Toluene-d8	97.1	88 - 110	OK
Bromofluorobenzene	103	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLANK

Lab Name:21st Century Environmental Contract:N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: N/A

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

Sample wt/vol: 5 (g/mL) ml Lab File ID: >A4478

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

% Moisture: NA Date Analyzed: 11/19/93

Column: DB-624 Dilution Factor: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

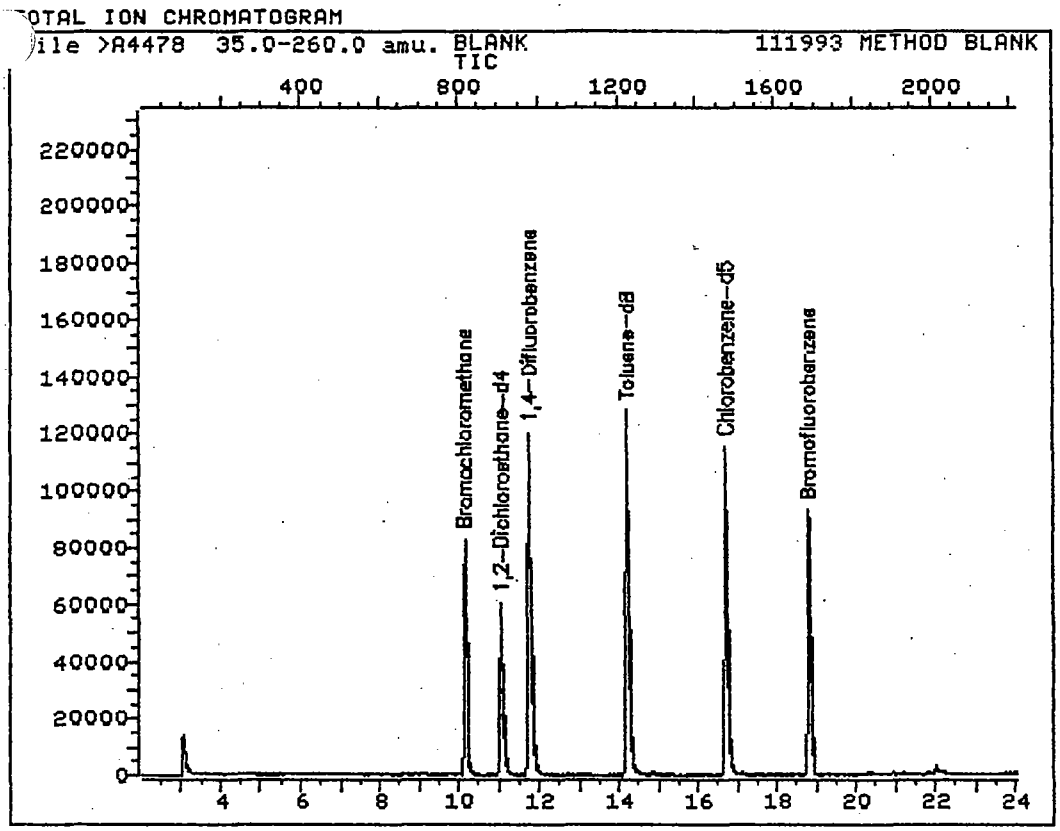
QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 931119 16:49
Output File: ^A4478::D1 Injected at: 931119 16:18
Data File: >A4478::D3 Dilution Factor: 1.00000
Name: BLANK
Misc: 111993 METHOD BLANK 5ml

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.15	816	51029	50.00	UG/L	100
23)	1,2-Dichloroethane-d4	11.07	908	102601	48.41	UG/L	100
24)	*1,4-Difluorobenzene	11.76	978	251406	50.00	UG/L	100
33)	Toluene-d8	14.20	1223	230724	48.56	UG/L	100
35)	*Chlorobenzene-d5	16.69	1474	171735	50.00	UG/L	100
48)	Bromofluorobenzene	18.79	1685	96509	51.57	UG/L	100

* Compound is ISTD



Data File: >A4478::D3 Quant Output File: ^A4478::D1
Name: BLANK
Misc: 111993 METHOD BLANK 5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

Operator ID: MANAGER
Quant Time: 931119 16:49
Injected at: 931119 16:18

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st CENTURY ENVIRONMENTAL INC. Contract No.:

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

LAB ID FILE (BLANK): >A4489 DATE ANALYZED: 11/22/93

INSTRUMENT ID: A TIME ANALYZED: 17:28

Matrix: WATER Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A5367	>A4490	11/22/93	18:05
2	A5355	>A4492	11/22/93	19:09
3	A5387	>A4493	11/22/93	19:42
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

COMMENTS: _____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID	112293 METHOD BLANK	QA BATCH	
DATA FILE	>A4489	DATE ANALYZED	11/22/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	2-Chloroethylvinylether	ND	10
Acrylonitrile	ND	50	2-Hexanone	ND	10
Chloromethane	ND	10	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	10	Toluene	ND	5
Vinyl Chloride	ND	10	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	10	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	10	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	10
Carbon Disulfide	ND	10	Tetrachloroethene	ND	5
Methylene Chloride	ND	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	10	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Methyl Tertiary Butyl Ether	ND	10
1,2-Dichloropropane	ND	5	Tertiary Butyl Alcohol	ND	50
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.3	76 - 114	OK
Toluene-d8	99.5	88 - 110	OK
Bromofluorobenzene	102	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BLANK

Lab Name:21st Century Environmental Contract:N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: N/A

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

Sample wt/vol: 5 (g/mL) ml Lab File ID: >A4489

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

% Moisture: NA Date Analyzed: 11/22/93

Column: DB-624 Dilution Factor: 1

Number TICs found: 1 CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
108203	Diisopropyl ether (DOT)	8.92	6.5	

FORM I VOA-TIC 1/87 Rev.

00067

QUANT REPORT

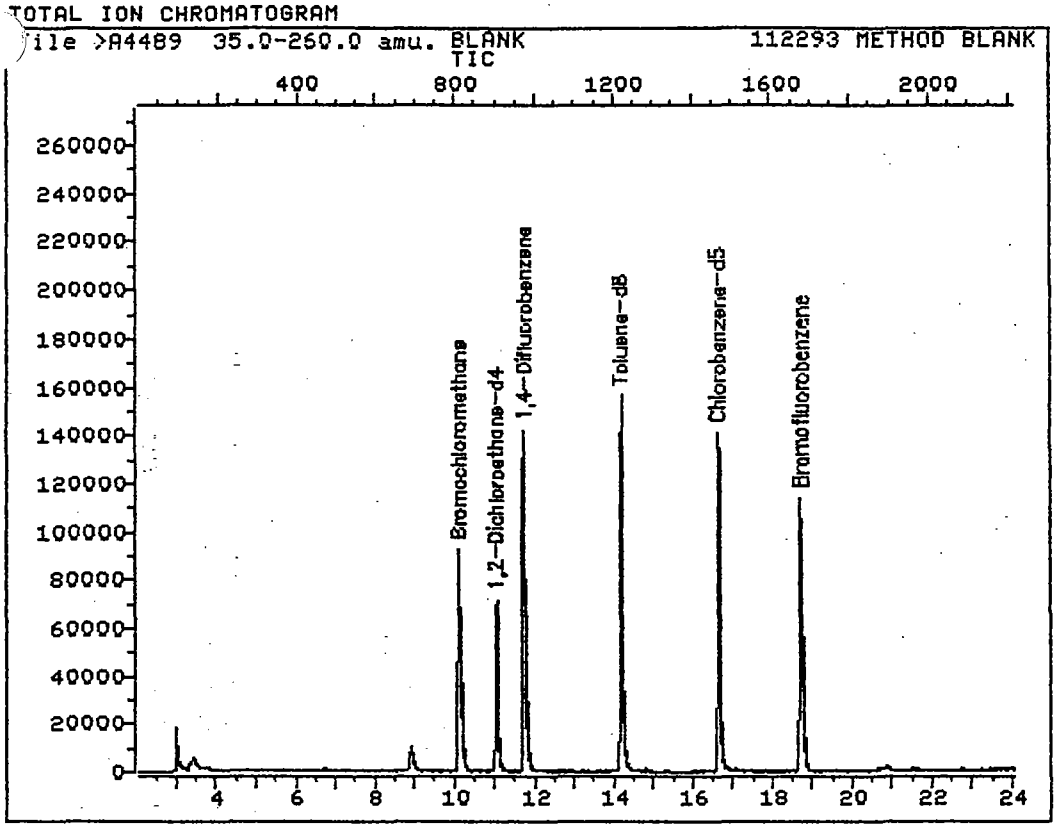
Operator ID: MANAGER Quant Rev: 6 Quant Time: 931123 08:43
Output File: ^A4489::D1 Injected at: 931122 17:28
Data File: >A4489::D3 Dilution Factor: 1.00000
Name: BLANK
Misc: 112293 METHOD BLANK 5ml

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931123 08:42

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.11	808	58724	50.00	UG/L	100
23)	1,2-Dichloroethane-d4	11.03	901	118764	48.64	UG/L	100
24)	*1,4-Difluorobenzene	11.73	971	290810	50.00	UG/L	100
33)	Toluene-d8	14.16	1216	280870	49.77	UG/L	100
35)	*Chlorobenzene-d5	16.64	1465	212005	50.00	UG/L	100
48)	Bromofluorobenzene	18.72	1675	114617	51.14	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A4489::D3 Quant Output File: ^A4489::D1
Name: BLANK
Misc: 112293 METHOD BLANK 5ml

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931123 08:42

Operator ID: MANAGER
Quant Time: 931123 08:43
Injected at: 931122 17:28

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: 21st CENTURY ENVIRONMENTAL INC. Contract No.:

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

LAB ID FILE (BLANK): >A4479 DATE ANALYZED: 11/19/93

INSTRUMENT ID: A TIME ANALYZED: 16:54

Matrix: SOIL Level:(low/med) LOW Column:(pack/cap)

Sample ID: MeOH BLK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	A5364	>A4481	11/19/93	17:59
2	A5365	>A4483	11/19/93	19:04
3	A5368	>A4484	11/19/93	19:37
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

COMMENTS: _____

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	MeOH BLK	DILUTION FACTOR	1.00
CLIENT ID	EXTRACTION BLANK	QA BATCH	
DATA FILE	>A4479	DATE ANALYZED	11/19/93

COMPOUND	UG/L		MDL	COMPOUND	UG/L		MDL
Acrolein	ND		50	2-Chloroethylvinylether	ND		10
Acrylonitrile	ND		50	2-Hexanone	ND		10
Chloromethane	ND		10	trans-1,3-Dichloropropene	ND		5
Bromomethane	ND		10	Toluene	ND		5
Vinyl Chloride	ND		10	cis-1,3-Dichloropropene	ND		5
Chloroethane	ND		10	1,1,2,2-Tetrachloroethane	ND		5
Acetone	16	B	10	1,1,2-Trichloroethane	ND		5
1,1-Dichloroethene	ND		5	4-Methyl-2-pentanone	ND		10
Carbon Disulfide	ND		10	Tetrachloroethene	ND		5
Methylene Chloride	ND		5	Dibromochloromethane	ND		5
1,2-Dichloroethene(trans)	ND		5	Chlorobenzene	ND		5
1,1-Dichloroethane	ND		5	Ethylbenzene	ND		5
Vinyl Acetate	ND		5	m&p-Xylenes	ND		5
2-Butanone	ND		10	o-Xylene	ND		5
Chloroform	ND		5	Styrene	ND		5
1,1,1-Trichloroethane	ND		5	Bromoform	ND		5
Carbon Tetrachloride	ND		5	m-Dichlorobenzene	ND		5
1,2-Dichloroethane	ND		5	p-Dichlorobenzene	ND		5
Benzene	ND		5	o-Dichlorobenzene	ND		5
Trichloroethene	ND		5	Methyl Tertiary Butyl Ether	ND		10
1,2-Dichloropropane	ND		5	Tertiary Butyl Alcohol	ND		50
Bromodichloromethane	ND		5				

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	97.2	76 - 114	OK
Toluene-d8	96.5	88 - 110	OK
Bromofluorobenzene	104	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MeOH BLANK

Lab Name:21st Century Environmental Contract:N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: EXTRACT. BLANK

Sample wt/vol: 5 (g/mL) g Lab File ID: >A4479

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

% Moisture: NA Date Analyzed: 11/19/93

Column: DB-624 Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

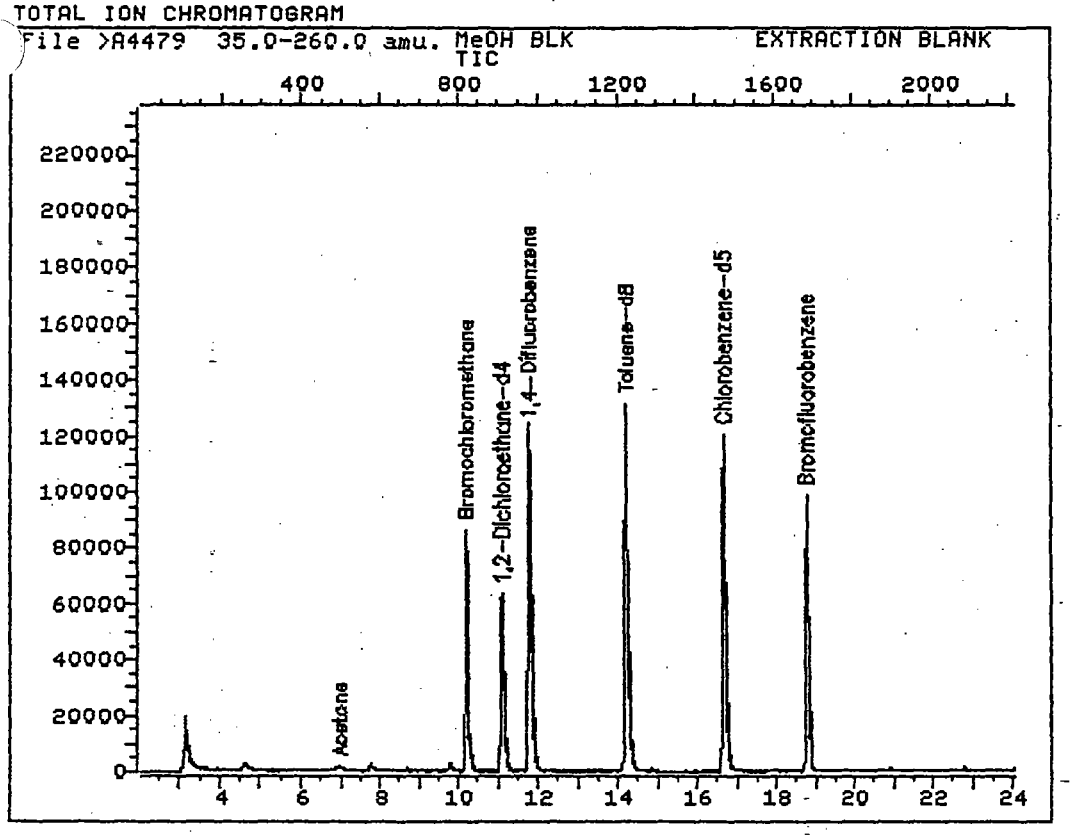
Operator ID: MANAGER Quant Rev: 6 Quant Time: 931119 17:22
Output File: ^A4479::D1 Injected at: 931119 16:54
Data File: >A4479::D3 Dilution Factor: 1.00000
Name: MeOH BLK
Misc: EXTRACTION BLANK 100ul

ID File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.19	820	53558	50.00	UG/L	100
9)	Acetone	6.96	494	8677	15.75	UG/L	91
23)	1,2-Dichloroethane-d4	11.10	911	108132	48.61	UG/L	100
24)	*1,4-Difluorobenzene	11.77	979	262147	50.00	UG/L	100
33)	Toluene-d8	14.20	1223	239002	48.24	UG/L	100
35)	*Chlorobenzene-d5	16.66	1471	178711	50.00	UG/L	100
48)	Bromofluorobenzene	18.76	1682	101099	51.91	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A4479::D3 Quant Output File: ^A4479::D1
Name: MeOH BLK
Misc: EXTRACTION BLANK 100ul

Id File: ID0127::M1
Title: USEPA 624 VOLATILES
Last Calibration: 931119 16:46

Operator ID: MANAGER
Quant Time: 931119 17:22
Injected at: 931119 16:54

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

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

Lab. ID #: 1325.1-.6
Sample Rec'd: 11/10/93
Analysis Start: 11/12/93
Analysis Comp: 11/12/93

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

NJDEPE UST Reg.#: **81533-212**
Closure #:
DICAR #: **93-11-9-0923-00**
Location #: **Bldg. # 600**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1325.1	Site A, 7 - 7.5' hNu = 18.	87	13000.	129
1325.2	Site B, 7 - 7.5' hNu = 5.	78	1020.	6.6
1325.3	Site C, 7 - 7.5' hNu = 10.	87	2600.	46.
1325.4	Site D, 7 - 7.5' hNu = 7.	88	4020.	46.
1325.5	Site E, 7 - 7.5' hNu = 12.	85	2480.	46.
1325.6	Site F, 7 - 7.5' hNu = 20.	86	7200.	46.
M. BL.	Method Blank	100	ND	3.3

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

1324.3 Dup. = 82% 1324.3 Spike= 90% 1324.3 Spike Dup.= 88% RPD: 97%

Brian K. McKee
Laboratory Director

SEA... INC.
An E-SYSTEMS Company

P.O. #: PW5-007

Chain of Custody

Project #: NA
Customer: C. Appleby
Phone: x26234

Sampler: Gute
Site Name: Bldg. 600
UST # 81533-212
DICOE-93-11-9-0923-00

Date / Time: 11/10/93 | 1410

Analysis Parameters

Start:
Finish:

Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solid	Munsell	Hnu Reading	Remarks
1325.1	11/10/93	1432	Site A - 7-7.5'	Soil	1	X	X	X	18.0	
.2		1434	Site B - 7-7.5'	Soil	1	X	X	X	5.0	
.3		1436	Site C 7-7.5'	Soil	1	X	X	X	10.0	
.4		1438	Site D 7-7.5'	Soil	1	X	X	X	7.0	Kept <4°C
.5	↓	1425	Site E 7-7.5'	Soil	1	X	X	X	12.0	
.6		1428	Site F 7-7.5'	Soil	1	X	X	X	20.0	
										Hnu - Calibrated to 55 ppm methane @ Span = 9.2 130 hrs CG

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

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
[signature]	11/10/93 | 1520	Sarah J. Hubbard	11/10/93 | 1530

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

FT. MONMOUTH OFFICE
E-SYSTEMS, INC. • P. O. BOX 369, BUILDING 1209 • FT. MONMOUTH, NEW JERSEY 07703-5000 • (201) 544-0095

PHC Conformance/Non-conformance Summary Report

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

Comments: _____

Laboratory Authentication Statement

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

Brian K. McKee
Laboratory Manager

Nov. 12, 1993 Sarah Hubbard

1324.1 6 MV

1324.1 Dup 7 MV

1324.2 Spk 96 MV

1324.2 Spk Dup 94 MV

1324.2 70 MV (dil 7)

1324.3 13 MV

1324.4 119 MV (dil 7)

1325.1 201 MV (dil 13)

1325.2 277 MV

1325.3 114 MV (dil 7)

1325.4 179 (dil 7)

1325.5 106 (dil 7)

1325.6 309 MV (dil 7)

1326.1 13 MV

1326.2 8 MV

1326.3 6 MV

November 12, 1993 1200 Sarah G. Hubbard

Blank 0 MV

33.75 80 MV

67.5 159 MV R 9999

135 313 MV

1322.1 253 MV

1322.2 37 MV

1322.3 57 (27)

1322.4 112 MV

1322.5 191 MV

1323.1 125 MV

1323.2 278 MV

1323.3 ND

1323.4 207 MV

195-6970-00

PRINTED IN U.S.A.

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

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

Lab. ID #: 1325.1-.6
Sample Rec'd: 11/10/93
Analysis Start: 11/11/93
Analysis Comp: 11/11/93

Analysis: Munsel

Lab ID#	Soil Color
1325.1	2.5Y 4/4 Olive Brown
1325.2	2.5Y 4/4 Olive Brown
1325.3	2.5Y 4/4 Olive Brown
1325.4	2.5Y 4/4 Olive Brown
1325.5	5Y 4/4 Olive
1325.6	5Y 5/3 Olive

Brian K. McKee
Laboratory Director

11/15/93 11:07 AM

Page 1 of 2

33.75 –
65.7 –
135 –

date _____

SERV-AIR, INC.
An E-SYSTEMS Company

Sample	Ext. Amt.	M.V.	Conc.	Mg/Kg	W.Wt.	D.Wt.	%S
1322.1	10	253	108.5	1,154.3	5.810	5.474	94
.2	30	37	15.4	52.8	5.246	5.090	.97
.3	30	57 (dil 7)	23.9	595.3	6.100	5.741	.94
.4	30	112	47.7	172.3	7.371	6.793	.92
.5	30	191	81.8	293.1	7.952	7.424	.93
1323.1	5	125	53.3	1,254.3	7.567	6.419	.85
.2	5	278	119.3	2,840.1	6.252	5.253	.84
.3	5	ND	—	—	5.227	4.487	.80
.4	5	207	88.7	2,136.6	8.128	6.781	.83
1324.1	30	~~6~~ MV	~~1.25~~	~~4.37~~ 7.71	5.664	4.862	.80
.2	30	~~70~~ (dil 7)	~~40.1~~	~~1070.4~~ 784.5	6.197	5.455	.88
Dup .2	30	7	87%	9.39	—	—	~~86~~
Spk .2	30	96		[153] 90%	—	—	
Dup Spk .2	30	94		154 88% / 97%	—	—	
.3	10	13	60.1 →		5.264	4.379	.83
.4	10	(dil 7) 119	4034. →		4.970	4.359	.88
1325.1	10	~~20~~ 2 (dil 13)	~~6728.~~ 12862 →		6.331	5.483	.87
.2	15	277	1015. →		5.739	4.503	.78

33.75 – 80
67.5 – 159
135 – 313

R – 9999

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

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. 600

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
600-1/7'	1658401	Soil	15-Nov-01 13:00	11/15/01
600-2/7'	1658402	Soil	15-Nov-01 13:15	11/15/01
600-3/7'	1658403	Soil	15-Nov-01 13:30	11/15/01
600-4/7'	1658404	Soil	15-Nov-01 13:40	11/15/01
600-5/7'	1658405	Soil	15-Nov-01 13:50	11/15/01
FD/7'	1658406	Soil	15-Nov-01	11/15/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-30-01
Daniel Wright/Date
Laboratory Director

600A

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

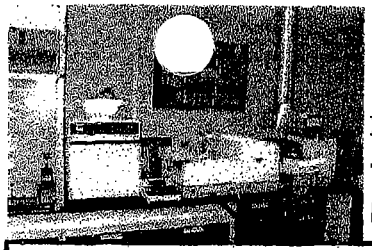
Additional comments: _____

_____

_____

_____ 11-30-01

Laboratory Manager Date



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 #: 12475
( )DERA (✓)OMA ( )Other:_____
Project No: 02-12539
Location: BLDG. 600 FORMER
Samplers Name / Company: MARK LAURA - TVS - PWSO7

Comments: Cal. Hz HNU O.K (WD)

Lims Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	VOA+15	TPHC	% SOLID						Remarks / Preservation Method
1 116584 01	600 - 1 7'	11-15-01	1300	soil	1		X	X						
02	600 - 2 7'	"	1315	"	"		X	X						
03	600 - 3 7'	"	1330	"	"		X	X						
04	600 - 4 7'	"	1340	"	"		X	X						
05	600 - 5 7'	"	1350	"	"		X	X						
06	FD 7'	"	—	"	"		X	X						

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	11-15-01 1400	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, (✓)Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (✓)Standard 3 wks, ( )Rush ___ Days, ( )ASAP Verbal ___ Hrs.

Remarks:

000003

Page 1 of 1

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 # :** **Location :** **UST Reg. # :**	16584 Bldg. 600
Analysis :	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix :	Soil	**Date Extracted :**	19-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1658401	600-1	**1.00**	15.36	90.08	164	**ND**
1658402	600-2	**1.00**	15.62	89.02	163	**ND**
1658403	600-3	**1.00**	15.01	87.53	172	**ND**
1658404	600-4	**1.00**	15.21	84.53	176	**ND**
1658405	600-5	**1.00**	15.47	89.78	163	**381.15**
1658406	F.D.	**1.00**	15.74	91.06	158	**ND**
METHOD BLANK	MB-2639	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013807.D Vial: 100
Acq On : 19 Nov 2001 11:20 am Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : Tstd050 Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.649 E3	-14.6	109	-0.03
2	tC	C10	20.595	22.791 E3	-10.7	107	0.00
3	TC	C12	21.549	22.973 E3	-6.6	104	0.00
4	tC	C14	23.048	23.409 E3	-1.6	101	0.00
5	tC	C16	24.057	24.122 E3	-0.3	100	0.00
6	tC	C18	24.812	24.021 E3	3.2	97	0.00
7	tC	C20	24.684	24.373 E3	1.3	98	0.00
8	tC	C22	25.878	25.638 E3	0.9	100	0.00
9	tC	C24	26.326	25.916 E3	1.6	99	0.00
10	tC	C26	26.702	26.194 E3	1.9	99	0.00
11	tC	C28	26.061	25.765 E3	1.1	99	0.00
12	tC	C30	26.583	26.469 E3	0.4	99	0.00
13	tC	C32	26.447	26.266 E3	0.7	99	0.00
14	tC	C34	26.317	26.143 E3	0.7	99	0.00
15	tC	C36	26.661	27.081 E3	-1.6	102	0.00
16	tC	C38	24.528	25.796 E3	-5.2	106	0.00
17	tC	C40	21.994	24.627 E3	-12.0	115	0.00
18	tC	c42	19.638	23.151 E3	-17.9	120	0.00
19	TC	Pristane	23.812	22.692 E3	4.7	94	0.00
20	TC	Phytane	25.573	25.364 E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.624 E3	-0.5	101	0.00
22	tC	TPHC - total	28.994	27.732 E3	4.4	104	1.46#

000006

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013818.D Vial: 7
Acq On : 19 Nov 2001 5:51 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.912 E3	-16.1	111	-0.05
2	tC	C10	20.595	22.414 E3	-8.8	105	-0.01
3	TC	C12	21.549	23.381 E3	-8.5	106	0.00
4	tC	C14	23.048	23.883 E3	-3.6	103	0.00
5	tC	C16	24.057	24.693 E3	-2.6	103	0.00
6	tC	C18	24.812	26.500 E3	-6.8	107	0.00
7	tC	C20	24.684	25.423 E3	-3.0	103	0.00
8	tC	C22	25.878	26.184 E3	-1.2	102	0.00
9	tC	C24	26.326	26.479 E3	-0.6	102	0.00
10	tC	C26	26.702	26.760 E3	-0.2	102	0.00
11	tC	C28	26.061	26.296 E3	-0.9	101	0.00
12	tC	C30	26.583	26.999 E3	-1.6	101	0.00
13	tC	C32	26.447	26.755 E3	-1.2	101	0.00
14	tC	C34	26.317	26.612 E3	-1.1	101	0.00
15	tC	C36	26.661	27.616 E3	-3.6	104	0.00
16	tC	C38	24.528	26.472 E3	-7.9	109	0.00
17	tC	C40	21.994	25.435 E3	-15.6	118	-0.01
18	tC	c42	19.638	24.573 E3	-25.1#	127	0.00
19	TC	Pristane	23.812	24.480 E3	-2.8	102	0.00
20	TC	Phytane	25.573	25.715 E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	26.074 E3	-2.3	103	0.00
22	tC	TPHC - total	28.994	28.595 E3	1.4	108	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013829.D Vial: 18
Acq On : 19 Nov 2001 11:54 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.396 E3	-18.7	113	-0.06
2	tC	C10	20.595	23.520 E3	-14.2	111	-0.01
3	TC	C12	21.549	23.599 E3	-9.5	107	0.00
4	tC	C14	23.048	24.254 E3	-5.2	104	0.00
5	tC	C16	24.057	24.923 E3	-3.6	104	0.00
6	tC	C18	24.812	24.957 E3	-0.6	101	0.00
7	tC	C20	24.684	25.776 E3	-4.4	104	0.00
8	tC	C22	25.878	26.537 E3	-2.5	103	0.00
9	tC	C24	26.326	26.812 E3	-1.8	103	0.00
10	tC	C26	26.702	27.049 E3	-1.3	103	0.00
11	tC	C28	26.061	26.689 E3	-2.4	103	0.00
12	tC	C30	26.583	27.596 E3	-3.8	103	0.00
13	tC	C32	26.447	27.128 E3	-2.6	102	0.00
14	tC	C34	26.317	26.996 E3	-2.6	103	0.00
15	tC	C36	26.661	28.071 E3	-5.3	105	0.00
16	tC	C38	24.528	26.803 E3	-9.3	111	0.00
17	tC	C40	21.994	25.904 E3	-17.8	121	0.00
18	tC	c42	19.638	25.406 E3	-29.4#	131	0.00
19	TC	Pristane	23.812	24.377 E3	-2.4	101	0.00
20	TC	Phytane	25.573	26.222 E3	-2.5	104	0.00
21	sC	o-terphenyl	25.484	26.413 E3	-3.6	104	0.00
22	tC	TPHC - total	28.994	29.521 E3	-1.8	111	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013840.D Vial: 29
Acq On : 20 Nov 2001 5:56 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.151	E3	-17.4	112	-0.05
2	tC	C10	20.595	22.359	E3	-8.6	105	-0.01
3	TC	C12	21.549	23.393	E3	-8.6	106	0.00
4	tC	C14	23.048	23.788	E3	-3.2	102	0.00
5	tC	C16	24.057	24.483	E3	-1.8	102	0.00
6	tC	C18	24.812	24.651	E3	0.6	100	0.00
7	tC	C20	24.684	25.098	E3	-1.7	101	0.00
8	tC	C22	25.878	25.962	E3	-0.3	101	0.00
9	tC	C24	26.326	26.272	E3	0.2	101	0.00
10	tC	C26	26.702	26.516	E3	0.7	101	0.00
11	tC	C28	26.061	26.090	E3	-0.1	100	0.00
12	tC	C30	26.583	26.802	E3	-0.8	100	0.00
13	tC	C32	26.447	26.556	E3	-0.4	100	0.00
14	tC	C34	26.317	26.433	E3	-0.4	100	0.00
15	tC	C36	26.661	27.462	E3	-3.0	103	0.00
16	tC	C38	24.528	26.273	E3	-7.1	108	0.00
17	tC	C40	21.994	25.371	E3	-15.4	118	-0.01
18	tC	c42	19.638	25.059	E3	-27.6#	129	0.00
19	TC	Pristane	23.812	23.910	E3	-0.4	100	0.00
20	TC	Phytane	25.573	24.771	E3	3.1	98	0.00
21	sC	o-terphenyl	25.484	25.800	E3	-1.2	102	0.00
22	tC	TPHC - total	28.994	29.430	E3	-1.5	111	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16584
	DPW. SELFM-PW-EV	**Location :**	Bldg. 600
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		

Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1658401			10.00	9.98	**99.83**
1658402			10.00	10.32	**103.20**
1658403			10.00	10.18	**101.80**
1658404			10.00	10.16	**101.58**
1658405			10.00	10.45	**104.47**
1658406			10.00	10.31	**103.12**
METHOD BLANK	MB-2639		10.00	11.50	**114.96**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	16584
	DPW. SELFM-PW-EV	**Location :**	Bldg. 600
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1658101MS	1000	0.00	924.80	92.48	75-125
1658101MSD	1000	0.00	920.81	92.08	75-125

RPD	**0.43**	**20.00**

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

Client :	U.S. Army	**Project # :**	16584
	DPW. SELFM-PW-EV	**Location :**	Bldg. 600
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-011108	19-Nov-01	1000	848.93	84.89	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

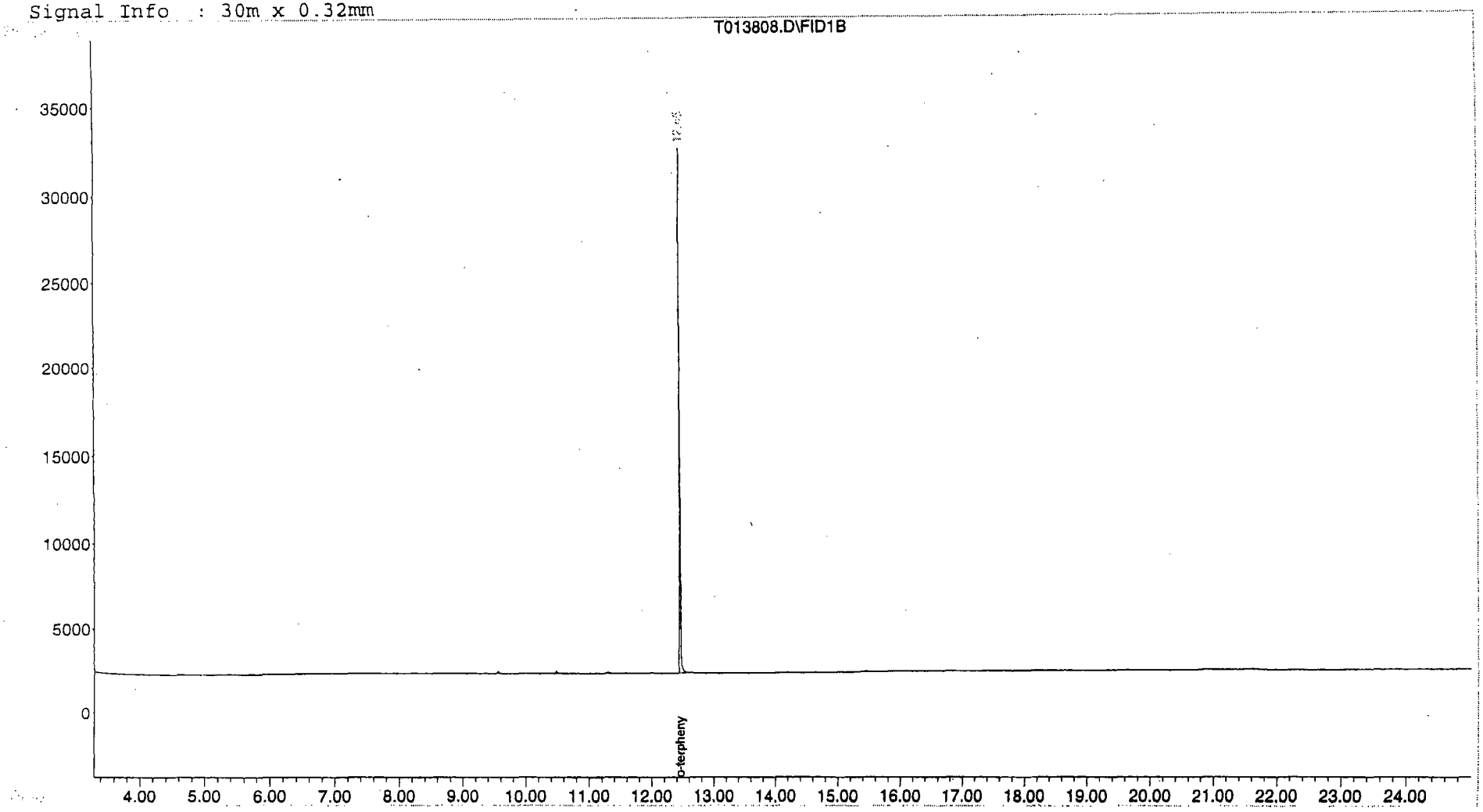
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	292962	11.496 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 114.96%#	
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013827.D Vial: 16
Acq On : 19 Nov 2001 10:48 pm Operator: Skelton
Sample : 1658401s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 23:13 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	254409	9.983 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.83%#
Target Compounds			

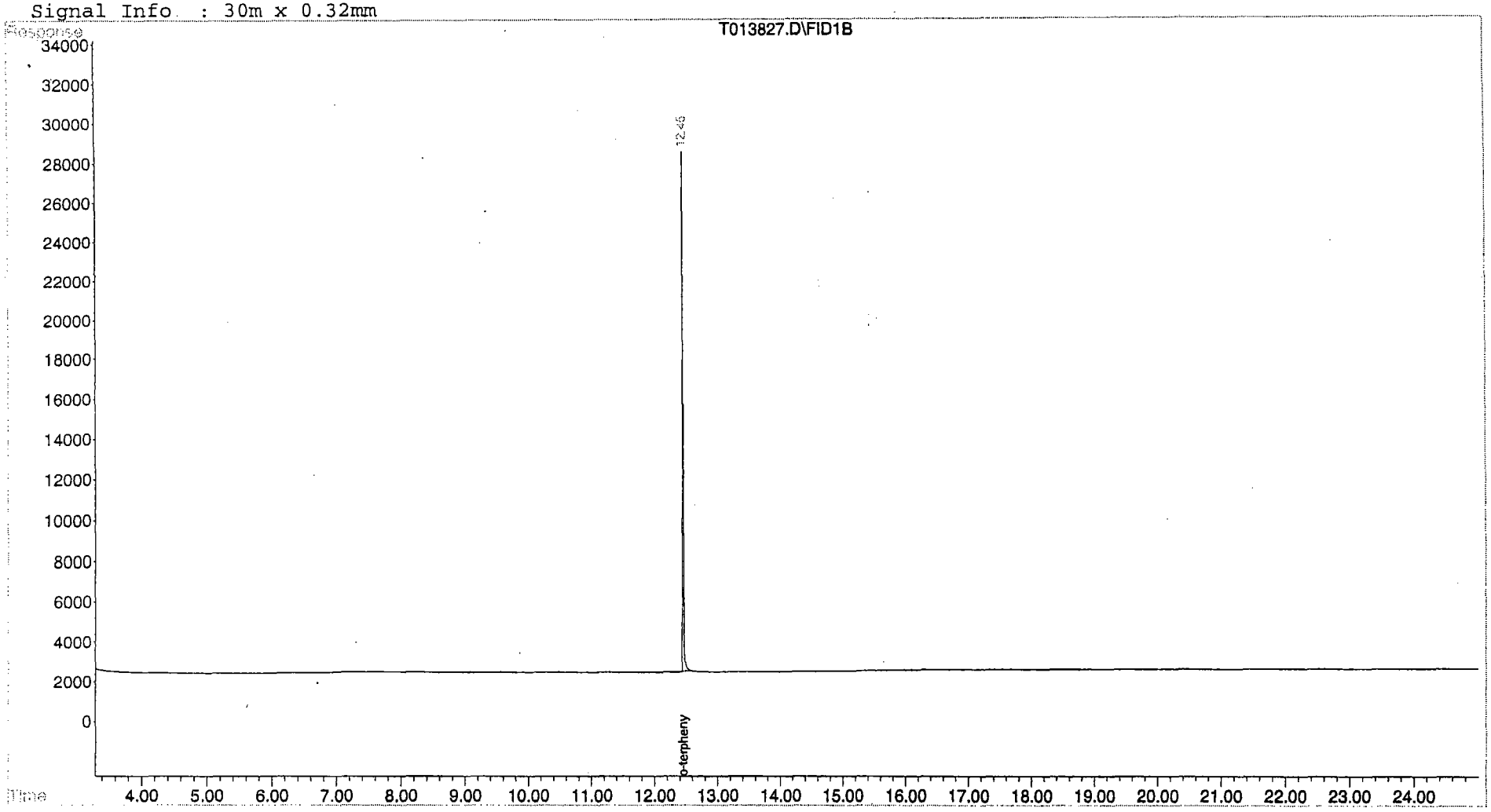
(f)-RT Delta > 1/2 Window (m)-manual int

Quantitatio port

Data File : C:\HPCHEM\1\DATA\011119\T013827.D Vial: 16
Acq On : 19 Nov 2001 10:48 pm Operator: Skelton
Sample : 1658401s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 23:13 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013828.D Vial: 17
Acq On : 19 Nov 2001 11:21 pm Operator: Skelton
Sample : 1658402s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 23:46 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	262987	10.320 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 103.20%#	
Target Compounds			

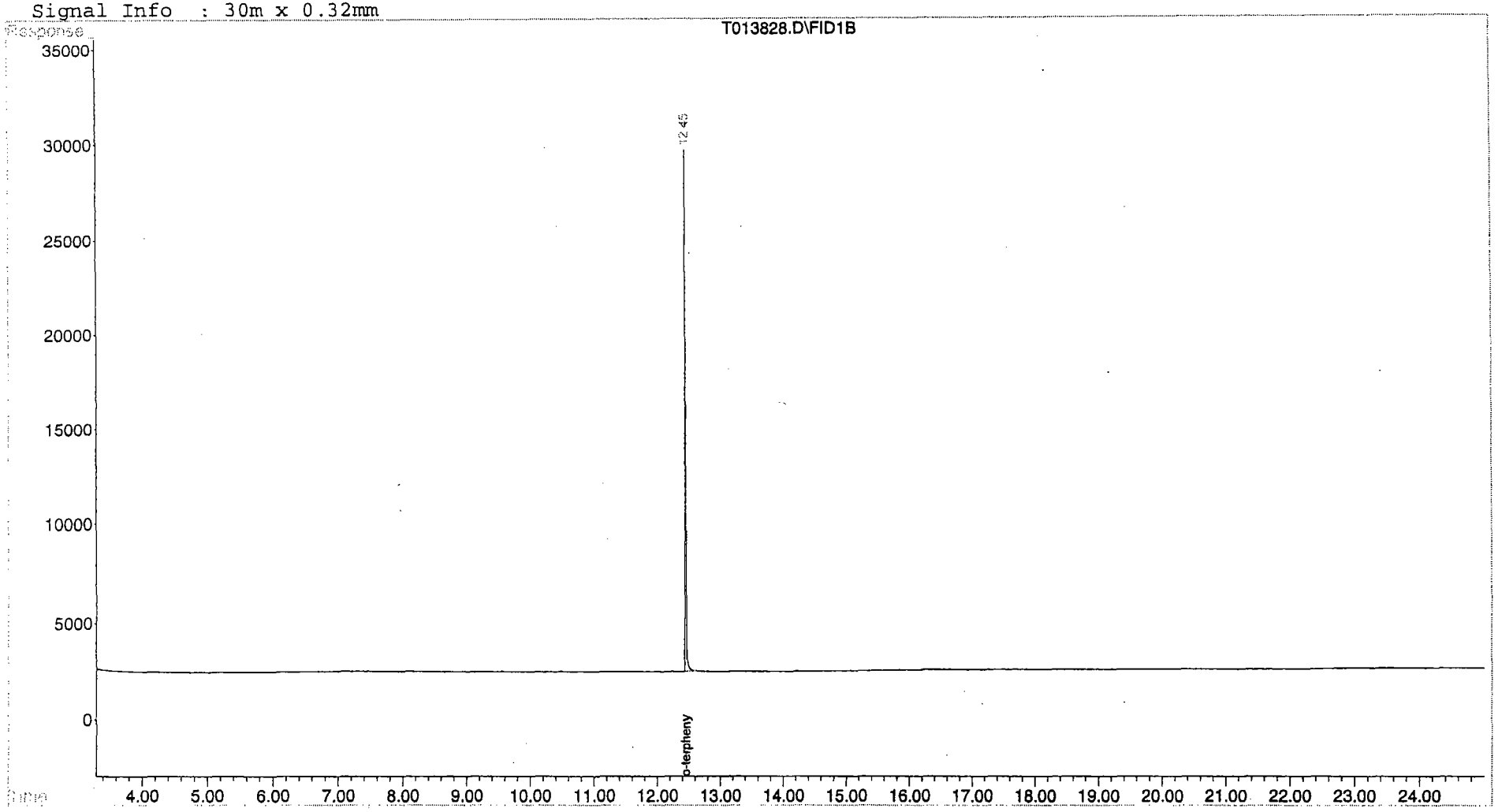
(f) RT Delta > 1/2 Window (m)=manual int

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013828.D Vial: 17
Acq On : 19 Nov 2001 11:21 pm Operator: Skelton
Sample : 1658402s Inst : GC/MS Ins.
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 23:46 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013830.D Vial: 19
Acq On : 20 Nov 2001 12:27 am Operator: Skelton
Sample : 1658403s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 0:52 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

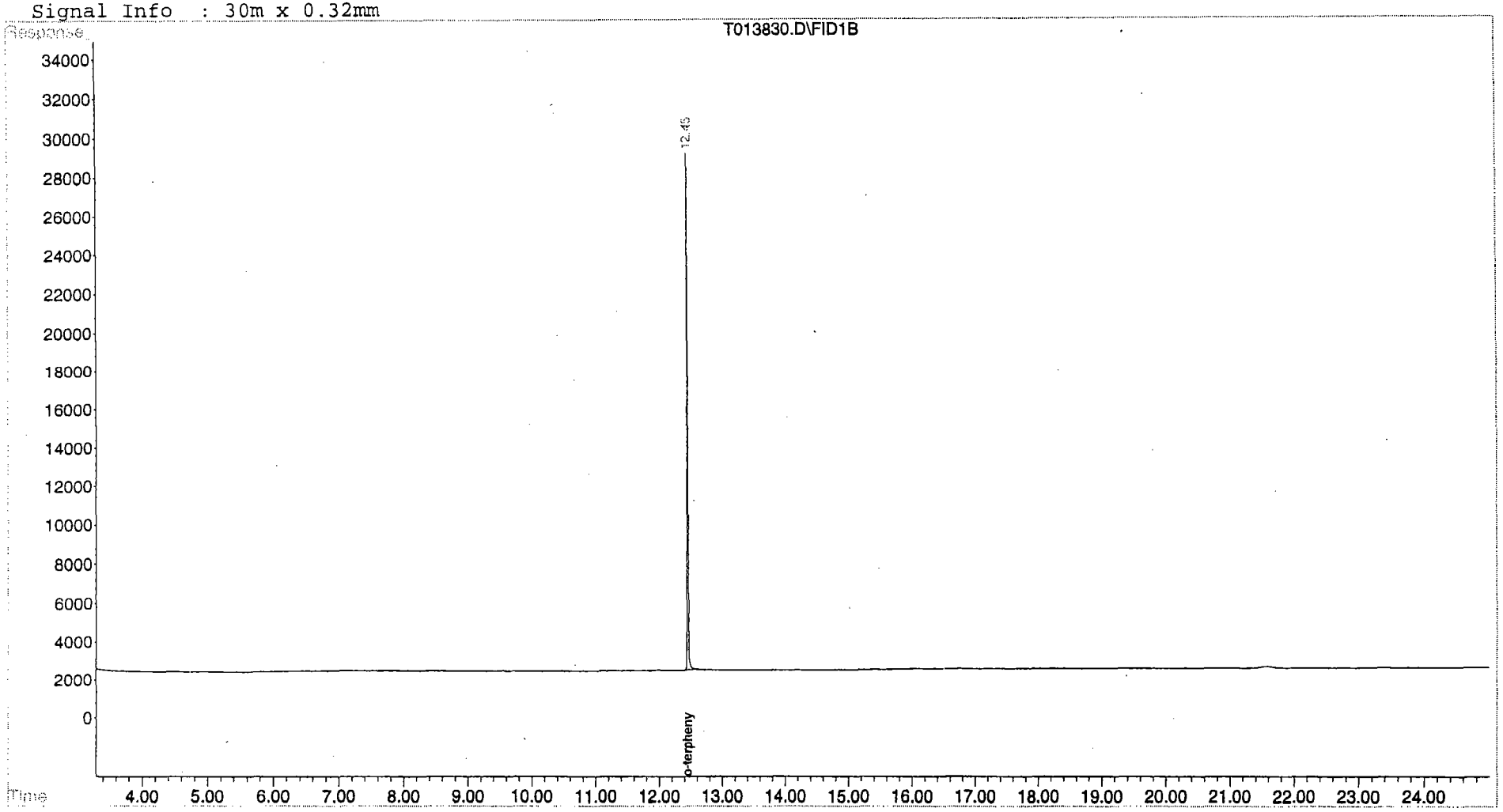
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	259413	10.180 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	101.80%#
Target Compounds			

Quantitatio eport

Data File : C:\HPCHEM\1\DATA\011119\T013830.D Vial: 19
Acq On : 20 Nov 2001 12:27 am Operator: Skelton
Sample : 1658403s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 0:52 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013831.D Vial: 20
Acq On : 20 Nov 2001 1:00 am Operator: Skelton
Sample : 1658404s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 1:25 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	258859	10.158 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 101.58%#	
Target Compounds			

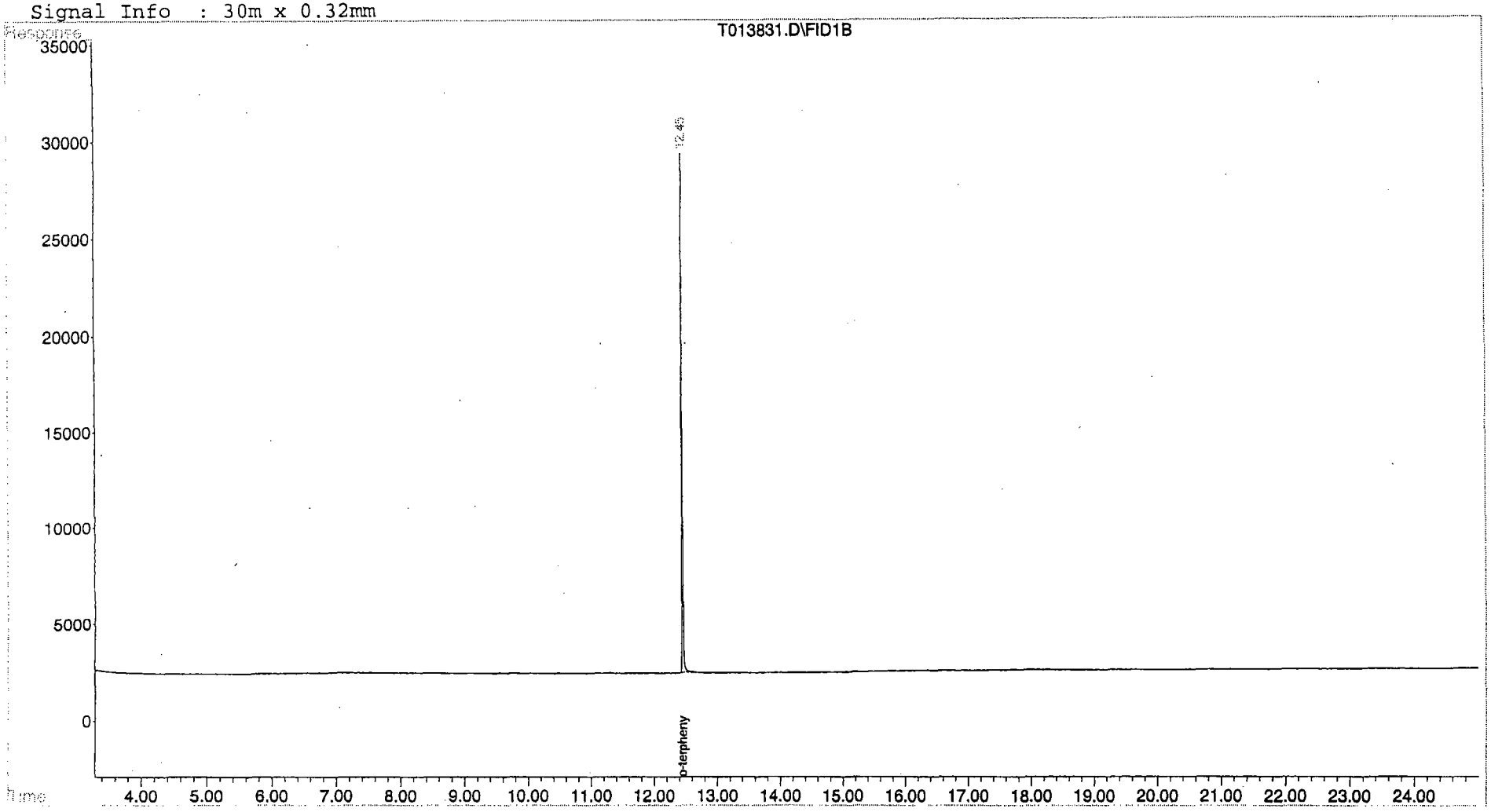
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013831.D Vial: 20
Acq On : 20 Nov 2001 1:00 am Operator: Skelton
Sample : 1658404s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 1:25 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013832.D Vial: 21
Acq On : 20 Nov 2001 1:32 am Operator: Skelton
Sample : 1658405s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 26 9:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	266231	10.447 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 104.47%#	
Target Compounds			
22) tC TPHC - total	12.45	3069763	105.876 mg/L m

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

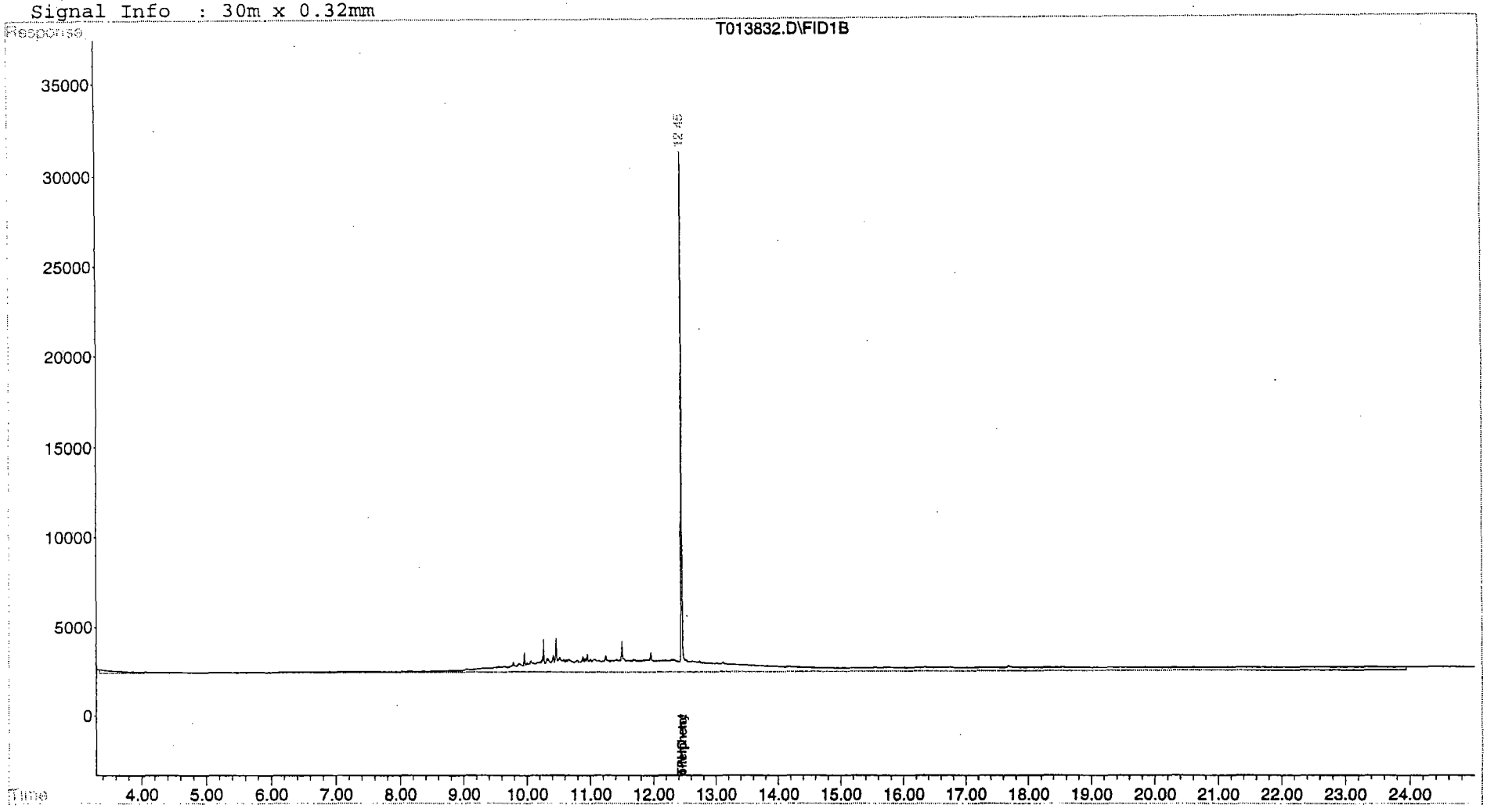
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013832.D
Acq On : 20 Nov 2001 1:32 am
Sample : 1658405s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 26 9:56 2001 Quant Results File: TPH95.RES

Vial: 21
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013833.D Vial: 22
Acq On : 20 Nov 2001 2:05 am Operator: Skelton
Sample : 1658406s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 2:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	262792	10.312 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	103.12%#
Target Compounds			

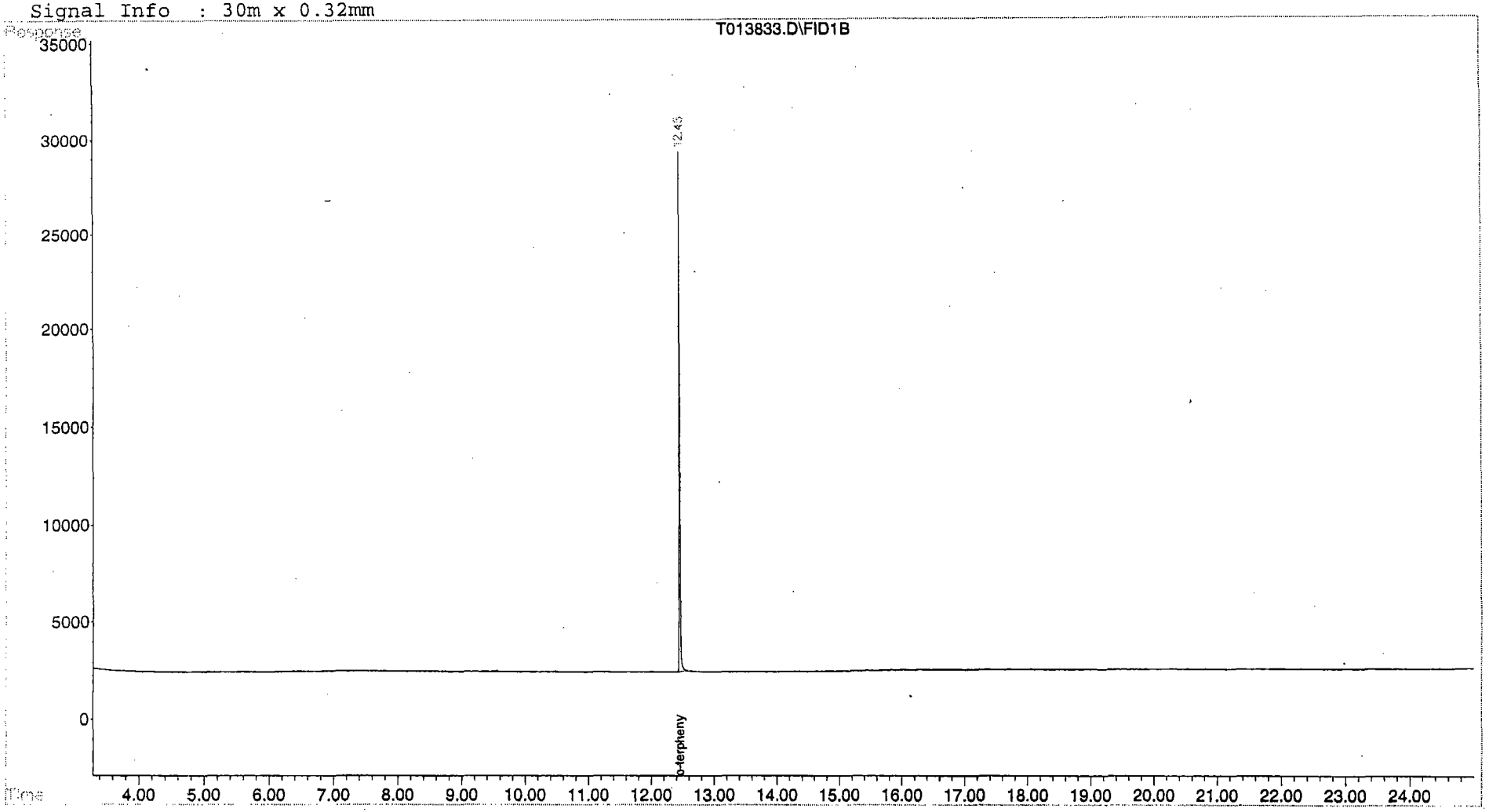
(6) RT Delta > 1/2 Window (m)=manual int

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013833.D Vial: 22
Acq On : 20 Nov 2001 2:05 am Operator: Skelton
Sample : 1658406s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 2:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



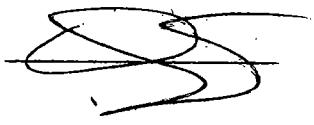
LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature 

Date 11/30/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

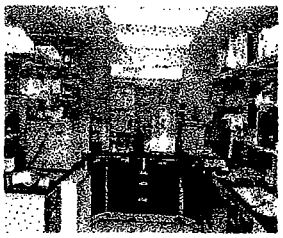
Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW-8. for Solid Waste Analysis. I have personally examined the information contained in t report and to the best of my knowledge, I believe that the submitted information is t accurate, complete and meets the above referenced standards where applicable. I aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 600B

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
600B-1/7.5'	1658501	Soil	15-Nov-01 10:25	11/15/01
600B-2/7.5'	1658502	Soil	15-Nov-01 10:50	11/15/01
600B-3/7.5'	1658503	Soil	15-Nov-01 11:15	11/15/01
600B-4/7.5'	1658504	Soil	15-Nov-01 11:35	11/15/01
600B-5/7.5'	1658505	Soil	15-Nov-01 11:49	11/15/01
600B-6/7.5'	1658506	Soil	15-Nov-01 12:00	11/15/01
FD600B/7.5'	1658507	Soil	15-Nov-01	11/15/01

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

12-6-01
Daniel Wright/Date
Laboratory Director

Table of Contents

CHAIN OF CUSTODY

METHOD SUMMARY

Method Summary

NJDEP Method 8260
Gas Chromatographic Determination of Volatiles in Soil

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 is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, 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 — NA
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series — Yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series — Yes
6. GC/MS Calibration requirements
   a. Calibration Check Compounds Meet Criteria — Yes
   b. System Performance Check Compounds Meet Criteria — Yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank: — yes
   a. VOA Fraction 1,3DCB 405, 1,4DCB 585, 1,2DCB 485
   b. B/N Fraction NA
   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 NA
   c. Acid Fraction NA

   If not met, were the calculations checked and the results qualified as "estimated"? _____

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — Yes
   a. VOA Fraction _____
   b. B/N Fraction NA
   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 — NO
(If not met, list those compounds, which fall outside the acceptable range)

a. VOA Fraction IS3 high recov OK
b. B/N Fraction NA
c. Acid Fraction NA

11. Extraction Holding Time Met — NA

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: [signature] Date: 12-6-01

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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	

Additional comments: _____

Laboratory Manager

12-6-01
Date

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16585

Site: Bldg. 600B

	Date	Hold Time
Date Sampled	11/15/01	NA
Receipt/Refrigeration	11/15/01	NA
Extractions		
1. TPHC	11/19/01	14 days
Analyses		
1. VOA	11/20,26/01	14 days
2. TPHC	11/19/01	40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	Method Detection Limit
J	:	Compound identified below detection limit
B	:	Compound found in blank
D	:	Results are from a dilution of the sample
U	:	Compound searched for but not detected
E	:	Compound exceeds calibration limit
PQL	:	Practical Quantitation Limit
NLE	:	No limit established
RT	:	Retention time

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 20Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007444.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 20Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007444.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	300	U
1330-20-7	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

FIELD ID.

MB 20Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007444.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	300	U
1330-20-7	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	40	J
106-46-7	1,4-Dichlorobenzene	38	J
95-50-1	1,2-Dichlorobenzene	48	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

MB26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-1

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658501

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007448.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 16.11 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	1200	
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	250	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-1

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658501

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007448.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 16.11 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

600B-1

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658501

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007448.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 16.11 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 3

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 004110-44-5	Octane, 3,3-dimethyl-	30.89	1500	JN
2. 000493-02-7	Naphthalene, decahydro-, trans-	33.66	1900	JN
3. 002958-76-1	Naphthalene, decahydro-2-methyl	34.95	1900	JN

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-2

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658502

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007449.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 18.02 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	660	
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	250	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID. **600B-2**

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658502

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007449.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 18.02 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

600B-2

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658502

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007449.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 18.02 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	28.10	2100	J
2.	unknown	28.99	3500	J
3.	unknown	30.64	1600	J
4.	unknown	30.89	3200	J
5. 000108-67-8	Benzene, 1,3,5-trimethyl-	31.92	4400	JN
6. 001678-93-9	Cyclohexane, butyl-	32.17	2000	JN
7.	unknown	32.33	1800	J
8.	unknown	33.37	3300	J
9.	unknown	33.66	1900	J
10.	unknown	34.43	2900	J
11.	unknown	34.55	2700	J
12.	unknown	34.78	1900	J
13. 029949-27-7	n-Amylcyclohexane	34.85	4600	JN
14.	unknown	34.94	4600	J
15.	unknown	35.28	1700	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-4

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658504

Sample wt/vol: 10.4 (g/ml) G Lab File ID: VC007450.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 12.26 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	770	U
107131	Acrylonitrile	770	U
75650	tert-Butyl alcohol	1400	U
1634044	Methyl-tert-Butyl ether	330	U
108203	Di-isopropyl ether	220	U
75718	Dichlorodifluoromethane	440	U
74-87-3	Chloromethane	110	U
75-01-4	Vinyl Chloride	330	U
74-83-9	Bromomethane	220	U
75-00-3	Chloroethane	330	U
75-69-4	Trichlorofluoromethane	220	U
75-35-4	1,1-Dichloroethene	110	U
67-64-1	Acetone	220	U
75-15-0	Carbon Disulfide	110	U
75-09-2	Methylene Chloride	360	
156-60-5	trans-1,2-Dichloroethene	220	U
75-35-3	1,1-Dichloroethane	110	U
108-05-4	Vinyl Acetate	330	U
78-93-3	2-Butanone	330	U
	cis-1,2-Dichloroethene	110	U
67-66-3	Chloroform	110	U
75-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon Tetrachloride	220	U
71-43-2	Benzene	110	U
107-06-2	1,2-Dichloroethane	220	U
79-01-6	Trichloroethene	110	U
78-87-5	1,2-Dichloropropane	110	U
75-27-4	Bromodichloromethane	110	U
110-75-8	2-Chloroethyl vinyl ether	220	U
10061-01-5	cis-1,3-Dichloropropene	110	U
108-10-1	4-Methyl-2-Pentanone	220	U
108-88-3	Toluene	110	U
10061-02-6	trans-1,3-Dichloropropene	220	U
79-00-5	1,1,2-Trichloroethane	220	U
127-18-4	Tetrachloroethene	110	U
591-78-6	2-Hexanone	220	U
126-48-1	Dibromochloromethane	220	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	220	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

600B-4

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658504

Sample wt/vol: 10.4 (g/ml) G Lab File ID: VC007450.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 12.26 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	U
1330-20-7	o-Xylene	220	U
100-42-5	Styrene	220	U
75-25-2	Bromoform	220	U
79-34-5	1,1,2,2-Tetrachloroethane	220	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

600B-4

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658504

Sample wt/vol: 10.4 (g/ml) G Lab File ID: VC007450.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 12.26 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	28.51	2500	J
2.	unknown	28.99	3000	J
3.	unknown	29.40	2100	J
4.	unknown	30.53	1400	J
5. 002847-72-5	Decane, 4-methyl-	30.89	2900	JN
6.	unknown	31.92	2200	J
7.	unknown	32.03	1900	J
8.	unknown	32.17	2000	J
9.	unknown	32.81	1400	J
10.	unknown	33.37	2300	J
11.	unknown	33.66	1700	J
12.	unknown	34.44	2200	J
13.	unknown	34.78	1600	J
14. 004292-92-6	Cyclohexane, pentyl-	34.85	4200	JN
15.	unknown	34.95	5000	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-5

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658505

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC007451.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 19.37 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	900	U
107131	Acrylonitrile	900	U
75650	tert-Butyl alcohol	1700	U
1634044	Methyl-tert-Butyl ether	390	U
108203	Di-isopropyl ether	260	U
75718	Dichlorodifluoromethane	510	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	390	U
74-83-9	Bromomethane	260	U
75-00-3	Chloroethane	390	U
75-69-4	Trichlorofluoromethane	260	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	260	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	340	
156-60-5	trans-1,2-Dichloroethene	260	U
75-35-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	390	U
78-93-3	2-Butanone	390	U
	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
75-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	260	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	260	U
79-01-6	Trichloroethene	130	U
78-87-5	1,2-Dichloropropane	130	U
75-27-4	Bromodichloromethane	130	U
110-75-8	2-Chloroethyl vinyl ether	260	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	260	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	260	U
79-00-5	1,1,2-Trichloroethane	260	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	260	U
126-48-1	Dibromochloromethane	260	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	40	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-5

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658505

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC007451.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 19.37 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	390	U
1330-20-7	o-Xylene	260	U
100-42-5	Styrene	260	U
75-25-2	Bromoform	260	U
79-34-5	1,1,2,2-Tetrachloroethane	260	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

600B-5

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658505

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC007451.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 19.37 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	28.10	3200	J
2.	unknown	28.52	4100	J
3.	unknown	29.00	4000	J
4.	unknown	30.05	2700	J
5.	unknown	30.53	2300	J
6.	unknown	30.65	2500	J
7. 002847-72-5	Decane, 4-methyl-	30.89	4800	JN
8.	unknown	31.93	3300	J
9. 001678-93-9	Cyclohexane, butyl-	32.17	3100	JN
10.	unknown	32.80	2700	J
11.	unknown	33.06	2300	J
12. 000645-10-3	1,7-Dimethyl-4-(1-methylethyl)cyc	33.29	2600	JN
13.	unknown	33.65	3200	J
14. 004292-92-6	Cyclohexane, pentyl-	34.85	5200	JN
15.	unknown	34.95	6600	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-5

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658505

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC007464.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 19.37 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	4500	U
107131	Acrylonitrile	4500	U
75650	tert-Butyl alcohol	8400	U
1634044	Methyl-tert-Butyl ether	1900	U
108203	Di-isopropyl ether	1300	U
75718	Dichlorodifluoromethane	2600	U
74-87-3	Chloromethane	640	U
75-01-4	Vinyl Chloride	1900	U
74-83-9	Bromomethane	1300	U
75-00-3	Chloroethane	1900	U
75-69-4	Trichlorofluoromethane	1300	U
75-35-4	1,1-Dichloroethene	640	U
67-64-1	Acetone	1300	U
75-15-0	Carbon Disulfide	640	U
75-09-2	Methylene Chloride	1300	U
156-60-5	trans-1,2-Dichloroethene	1300	U
75-35-3	1,1-Dichloroethane	640	U
108-05-4	Vinyl Acetate	1900	U
78-93-3	2-Butanone	1900	U
	cis-1,2-Dichloroethene	640	U
67-66-3	Chloroform	640	U
75-55-6	1,1,1-Trichloroethane	640	U
56-23-5	Carbon Tetrachloride	1300	U
71-43-2	Benzene	640	U
107-06-2	1,2-Dichloroethane	1300	U
79-01-6	Trichloroethene	640	U
78-87-5	1,2-Dichloropropane	640	U
75-27-4	Bromodichloromethane	640	U
110-75-8	2-Chloroethyl vinyl ether	1300	U
10061-01-5	cis-1,3-Dichloropropene	640	U
108-10-1	4-Methyl-2-Pentanone	1300	U
108-88-3	Toluene	640	U
10061-02-6	trans-1,3-Dichloropropene	1300	U
79-00-5	1,1,2-Trichloroethane	1300	U
127-18-4	Tetrachloroethene	640	U
591-78-6	2-Hexanone	1300	U
126-48-1	Dibromochloromethane	1300	U
108-90-7	Chlorobenzene	640	U
100-41-4	Ethylbenzene	1300	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-5

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658505

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC007464.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 19.37 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	1900	U
1330-20-7	o-Xylene	1300	U
100-42-5	Styrene	1300	U
75-25-2	Bromoform	1300	U
79-34-5	1,1,2,2-Tetrachloroethane	1300	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
95-50-1	1,2-Dichlorobenzene	1900	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

600B-5

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658505

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC007464.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 19.37 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-6

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658506

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007452.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 17.39 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	870	U
107131	Acrylonitrile	870	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	370	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	500	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	140	J
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	4300	

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-6

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658506

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007452.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 17.39 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	10000	
1330-20-7	o-Xylene	4200	
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

FIELD ID.

600B-6

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658506

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007452.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 17.39 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	29.00	18000	J
2.	unknown	30.06	6800	J
3. 000611-14-3	Benzene, 1-ethyl-2-methyl-	30.84	6800	JN
4. 002847-72-5	Decane, 4-methyl-	30.89	7900	JN
5. 000108-67-8	Benzene, 1,3,5-trimethyl-	30.98	7100	JN
6. 000095-36-3	1,2,4-Trimethylbenzene	31.92	21000	JN
7. 000095-36-3	1,2,4-Trimethylbenzene	33.03	8800	JN
8. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.37	15000	JN
9.	unknown	33.54	19000	J
10.	unknown	33.67	11000	J
11.	unknown	33.78	7500	J
12.	unknown	34.43	10000	J
13. 004292-92-6	Cyclohexane, pentyl-	34.86	9300	JN
14.	unknown	34.95	8600	J
15.	unknown	35.29	6300	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-6

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658506

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007465.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 17.39 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	4400	U
107131	Acrylonitrile	4400	U
75650	tert-Butyl alcohol	8100	U
1634044	Methyl-tert-Butyl ether	1900	U
108203	Di-isopropyl ether	1200	U
75718	Dichlorodifluoromethane	2500	U
74-87-3	Chloromethane	620	U
75-01-4	Vinyl Chloride	1900	U
74-83-9	Bromomethane	1200	U
75-00-3	Chloroethane	1900	U
75-69-4	Trichlorofluoromethane	1200	U
75-35-4	1,1-Dichloroethene	620	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	620	U
75-09-2	Methylene Chloride	1200	U
156-60-5	trans-1,2-Dichloroethene	1200	U
75-35-3	1,1-Dichloroethane	620	U
108-05-4	Vinyl Acetate	1900	U
78-93-3	2-Butanone	1900	U
	cis-1,2-Dichloroethene	620	U
67-66-3	Chloroform	620	U
75-55-6	1,1,1-Trichloroethane	620	U
56-23-5	Carbon Tetrachloride	1200	U
71-43-2	Benzene	620	U
107-06-2	1,2-Dichloroethane	1200	U
79-01-6	Trichloroethene	620	U
78-87-5	1,2-Dichloropropane	620	U
75-27-4	Bromodichloromethane	620	U
110-75-8	2-Chloroethyl vinyl ether	1200	U
10061-01-5	cis-1,3-Dichloropropene	620	U
108-10-1	4-Methyl-2-Pentanone	1200	U
108-88-3	Toluene	620	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
127-18-4	Tetrachloroethene	620	U
591-78-6	2-Hexanone	1200	U
126-48-1	Dibromochloromethane	1200	U
108-90-7	Chlorobenzene	620	U
100-41-4	Ethylbenzene	2000	

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

600B-6

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658506

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007465.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 17.39 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	4600	
1330-20-7	o-Xylene	2000	
100-42-5	Styrene	1200	U
75-25-2	Bromoform	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
95-50-1	1,2-Dichlorobenzene	1900	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

600B-6

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658506

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC007465.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 17.39 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD600B

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658507

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007453.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 11.13 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	780	U
107131	Acrylonitrile	780	U
75650	tert-Butyl alcohol	1400	U
1634044	Methyl-tert-Butyl ether	330	U
108203	Di-isopropyl ether	220	U
75718	Dichlorodifluoromethane	440	U
74-87-3	Chloromethane	110	U
75-01-4	Vinyl Chloride	330	U
74-83-9	Bromomethane	220	U
75-00-3	Chloroethane	330	U
75-69-4	Trichlorofluoromethane	220	U
75-35-4	1,1-Dichloroethene	110	U
67-64-1	Acetone	220	U
75-15-0	Carbon Disulfide	110	U
75-09-2	Methylene Chloride	150	J
156-60-5	trans-1,2-Dichloroethene	220	U
75-35-3	1,1-Dichloroethane	110	U
108-05-4	Vinyl Acetate	330	U
78-93-3	2-Butanone	330	U
	cis-1,2-Dichloroethene	110	U
67-66-3	Chloroform	110	U
75-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon Tetrachloride	220	U
71-43-2	Benzene	110	U
107-06-2	1,2-Dichloroethane	220	U
79-01-6	Trichloroethene	110	U
78-87-5	1,2-Dichloropropane	110	U
75-27-4	Bromodichloromethane	110	U
110-75-8	2-Chloroethyl vinyl ether	220	U
10061-01-5	cis-1,3-Dichloropropene	110	U
108-10-1	4-Methyl-2-Pentanone	220	U
108-88-3	Toluene	110	U
10061-02-6	trans-1,3-Dichloropropene	60	J
79-00-5	1,1,2-Trichloroethane	220	U
127-18-4	Tetrachloroethene	110	U
591-78-6	2-Hexanone	220	U
126-48-1	Dibromochloromethane	220	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	220	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD600B

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658507

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007453.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 11.13 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	U
1330-20-7	o-Xylene	220	U
100-42-5	Styrene	220	U
75-25-2	Bromoform	220	U
79-34-5	1,1,2,2-Tetrachloroethane	220	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

FD600B

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658507

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007453.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 11.13 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000119-64-2	Naphthalene, 1,2,3,4-tetrahydro-	27.59	17000	JN
2.	unknown	28.10	9400	J
3.	unknown	28.53	11000	J
4.	unknown	29.42	7000	J
5. 000091-20-3	Naphthalene	30.90	19000	JN
6.	unknown	31.46	5800	J
7.	unknown	31.92	2900	J
8.	unknown	32.17	5400	J
9.	unknown	32.81	4600	J
10.	unknown	33.06	3700	J
11. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.37	3700	JN
12.	unknown	34.32	2800	J
13.	unknown	34.43	2700	J
14. 004292-92-6	Cyclohexane, pentyl-	34.85	4500	JN
15.	unknown	34.95	3900	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD600B

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658507

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007466.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 11.13 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	780	U
107131	Acrylonitrile	780	U
75650	tert-Butyl alcohol	1400	U
1634044	Methyl-tert-Butyl ether	330	U
108203	Di-isopropyl ether	220	U
75718	Dichlorodifluoromethane	440	U
74-87-3	Chloromethane	110	U
75-01-4	Vinyl Chloride	330	U
74-83-9	Bromomethane	220	U
75-00-3	Chloroethane	330	U
75-69-4	Trichlorofluoromethane	220	U
75-35-4	1,1-Dichloroethene	110	U
67-64-1	Acetone	220	U
75-15-0	Carbon Disulfide	110	U
75-09-2	Methylene Chloride	220	U
156-60-5	trans-1,2-Dichloroethene	220	U
75-35-3	1,1-Dichloroethane	110	U
108-05-4	Vinyl Acetate	330	U
78-93-3	2-Butanone	330	U
	cis-1,2-Dichloroethene	110	U
67-66-3	Chloroform	110	U
75-55-6	1,1,1-Trichloroethane	110	U
56-23-5	Carbon Tetrachloride	220	U
71-43-2	Benzene	110	U
107-06-2	1,2-Dichloroethane	220	U
79-01-6	Trichloroethene	110	U
78-87-5	1,2-Dichloropropane	110	U
75-27-4	Bromodichloromethane	110	U
110-75-8	2-Chloroethyl vinyl ether	220	U
10061-01-5	cis-1,3-Dichloropropene	110	U
108-10-1	4-Methyl-2-Pentanone	220	U
108-88-3	Toluene	110	U
10061-02-6	trans-1,3-Dichloropropene	220	U
79-00-5	1,1,2-Trichloroethane	220	U
127-18-4	Tetrachloroethene	110	U
591-78-6	2-Hexanone	220	U
126-48-1	Dibromochloromethane	220	U
108-90-7	Chlorobenzene	110	U
100-41-4	Ethylbenzene	220	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD600B

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658507

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007466.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 11.13 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	U
1330-20-7	o-Xylene	24	J
100-42-5	Styrene	220	U
75-25-2	Bromoform	220	U
79-34-5	1,1,2,2-Tetrachloroethane	220	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID: VC007374.D BFB Injection Date: 11/15/01

Instrument ID: GCMSVoa BFB Injection Time: 14:10

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.7
75	30.0 - 66.0% of mass 95	47.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	71.0
175	4.0 - 9.0% of mass 174	5.0 (7.1)1
176	93.0 - 101.0% of mass 174	69.5 (97.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.4)2

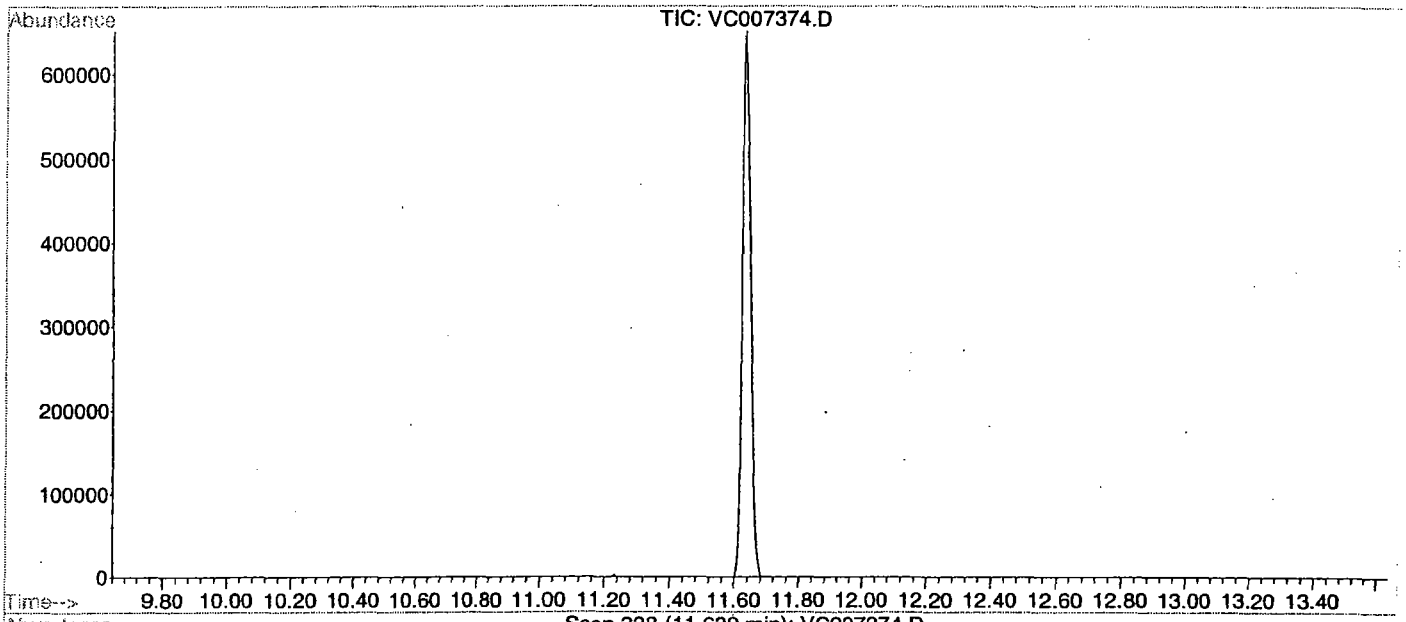
1-Value is % mass 174 2-Value is % mass 176

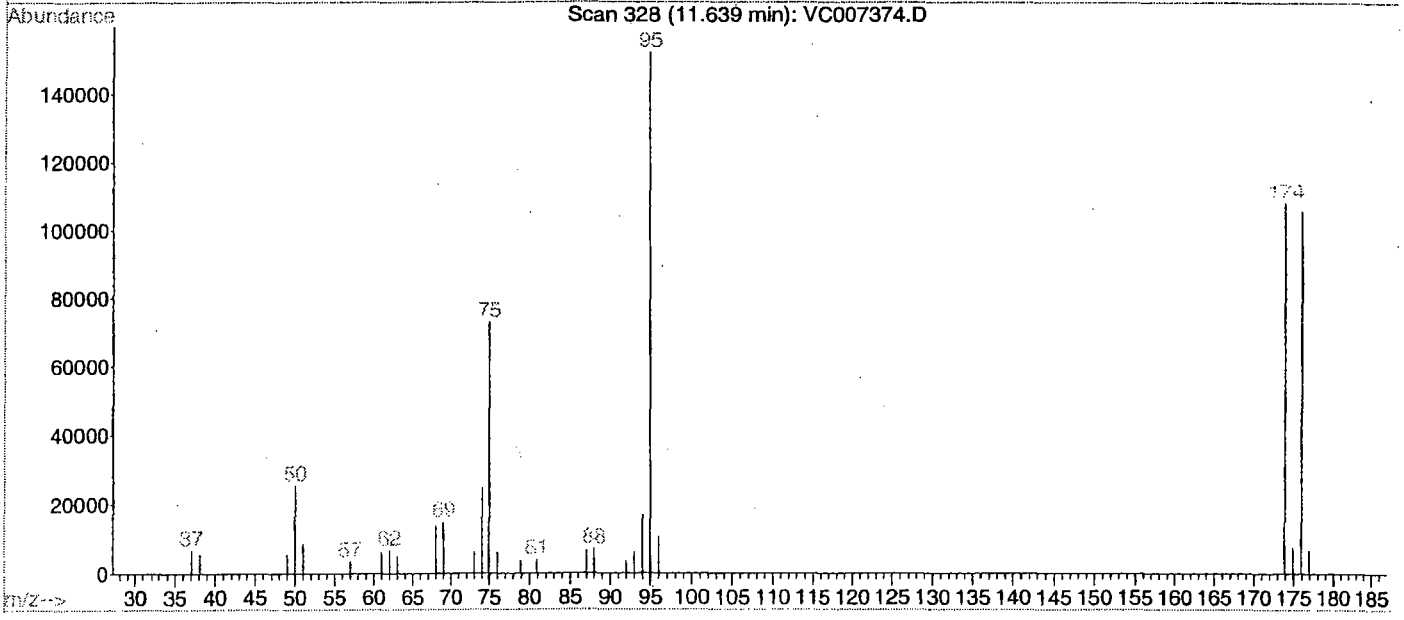
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VC007375.D	11/15/01	14:54
02	VSTD050	VSTD050	VC007376.D	11/15/01	15:34
03	VSTD020	VSTD020	VC007377.D	11/15/01	16:15
04	VSTD010	VSTD010	VC007378.D	11/15/01	16:55
05	VSTD005	VSTD005	VC007379.D	11/15/01	17:36

BFB

Data File : D:\HPCHEM\1\DATA\011115\VC007374.D Vial: 3
Acq On : 15 Nov 2001 2:10 pm Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 328

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	25472	PASS
75	95	30	60	47.9	73008	PASS
95	95	100	100	100.0	152320	PASS
96	95	5	9	6.9	10513	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.0	108168	PASS
175	174	5	9	7.1	7632	PASS
176	174	95	101	97.8	105832	PASS
177	176	5	9	6.4	6788	PASS

Response Factor Report GC/MS Ins

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 30 14:00:51 2001
Response via : Initial Calibration

Calibration Files
50 =VC007376.D 5 =VC007379.D 10 =VC007378.D
20 =VC007377.D 100 =VC007375.D

		Compound	50	5	10	20	100	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------						
2)	t	Acrolein	0.429	0.427	0.461	0.464	0.434	0.443	4.09
3)	t	Acrylonitrile	1.096	1.146	1.211	1.204	1.101	1.151	4.75
4)	t	tert-Butyl alcohol	0.152	0.121	0.151	0.161	0.158	0.149	10.58
5)	t	Methyl-tert-Butyl eth	5.537	5.411	5.821	5.839	5.577	5.637	3.31
6)	t	Di-isopropyl ether	1.735	1.327	1.675	1.719	1.743	1.640	10.79
7)	T	Dichlorodifluorometha	2.485	2.252	2.422	2.532	2.335	2.405	4.70
8)	TP	Chloromethane	3.081	3.086	3.213	3.197	2.908	3.097	3.95
9)	TC	Vinyl Chloride	2.971	3.059	3.168	3.100	2.846	3.029	4.12
10)	T	Bromomethane	1.483	1.454	1.599	1.530	1.394	1.492	5.19
11)	T	Chloroethane	1.579	1.599	1.624	1.631	1.575	1.601	1.59
12)	T	Trichlorofluoromethan	3.356	3.328	3.516	3.497	3.350	3.409	2.63
13)	MC	1,1-Dichloroethene	3.054	2.924	3.199	3.161	3.060	3.080	3.49
14)	T	Acetone	0.832	1.438	1.040	0.918	0.798	1.005	25.78
15)	T	Carbon Disulfide	7.101	7.077	7.422	7.334	7.109	7.209	2.19
16)	T	Methylene Chloride	2.150	2.174	2.352	2.233	2.141	2.210	3.94
17)	T	trans-1,2-Dichloroeth	2.875	2.833	3.019	2.956	2.880	2.912	2.55
18)	TP	1,1-Dichloroethane	3.813	3.815	4.070	3.939	3.782	3.884	3.10
19)	T	Vinyl Acetate	4.599	3.967	4.592	4.691	4.747	4.519	6.98
20)	T	2-Butanone	1.020	0.794	0.912	0.998	1.019	0.949	10.22
21)	T	cis-1,2-Dichloroethen	2.867	2.775	2.981	2.955	2.861	2.888	2.84
22)	TC	Chloroform	3.431	3.478	3.654	3.612	3.405	3.516	3.16
23)	T	1,1,1-Trichloroethane	2.778	2.661	2.869	2.851	2.767	2.785	2.96
24)	T	Carbon Tetrachloride	2.397	2.231	2.420	2.435	2.395	2.376	3.48
25)	S	1,2-Dichloroethane-d4	2.198	2.252	2.267	2.256	2.211	2.237	1.37
26)	I	1,4-Difluorobenzene	----------ISTD----------						
27)	TM	Benzene	1.318	1.378	1.399	1.367	1.264	1.345	4.02
28)	T	1,2-Dichloroethane	0.387	0.391	0.406	0.400	0.373	0.391	3.21
29)	TM	Trichloroethene	0.310	0.295	0.309	0.311	0.299	0.305	2.41
30)	TC	1,2-Dichloropropane	0.336	0.323	0.343	0.339	0.330	0.334	2.43
31)	T	Bromodichloromethane	0.382	0.368	0.384	0.385	0.377	0.379	1.79
32)	T	2-Chloroethyl vinyl e	0.110	0.080	0.100	0.110	0.108	0.102	12.79
33)	T	cis-1,3-Dichloroprope	0.503	0.450	0.494	0.506	0.502	0.491	4.79
34)	T	4-Methyl-2-Pentanone	0.117	0.093	0.111	0.124	0.119	0.113	10.55
35)	S	Toluene-d8	1.150	1.154	1.133	1.156	1.158	1.150	0.86
36)	TCM	Toluene	1.298	1.366	1.368	1.365	1.237	1.327	4.41
37)	I	Chlorobenzene-d5	----------ISTD----------						
38)	T	trans-1,3-Dichloropro	1.743	1.649	1.725	1.744	1.728	1.718	2.31
39)	T	1,1,2-Trichloroethane	1.032	1.011	1.105	1.076	0.999	1.045	4.26
40)	T	Tetrachloroethene	1.068	1.074	1.131	1.120	1.040	1.086	3.49
41)	T	2-Hexanone	0.709	0.580	0.661	0.703	0.715	0.674	8.36
42)	T	Dibromochloromethane	0.986	0.903	0.976	0.988	0.983	0.967	3.74
43)	TMP	Chlorobenzene	3.130	3.279	3.426	3.297	2.956	3.218	5.59
44)	TC	Ethylbenzene	5.409	5.570	5.810	5.643	5.198	5.526	4.22
45)	T	m+p-Xylenes	2.145	2.225	2.320	2.237	2.094	2.204	3.98
46)	T	o-Xylene	4.065	3.962	4.244	4.177	3.934	4.076	3.28
47)	T	Styrene	3.594	3.617	3.875	3.813	3.352	3.650	5.65
48)	TP	Bromoform	0.645	0.531	0.619	0.638	0.663	0.619	8.39
49)	S	Bromofluorobenzene	1.601	1.558	1.568	1.564	1.621	1.582	1.72
50)	TP	1,1,2,2-Tetrachloroet	1.430	1.505	1.583	1.531	1.419	1.494	4.65
51)	T	1,3-Dichlorobenzene	2.395	2.357	2.517	2.455	2.287	2.402	3.67
52)	T	1,4-Dichlorobenzene	2.476	2.470	2.584	2.542	2.347	2.484	3.63
53)	T	1,2-Dichlorobenzene	2.282	2.308	2.380	2.347	2.169	2.297	3.51

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID: VC007442.D BFB Injection Date: 11/20/01

Instrument ID: GCMSVoa BFB Injection Time: 9:32

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	17.8
75	30.0 - 66.0% of mass 95	49.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	74.6
175	4.0 - 9.0% of mass 174	5.1 (6.9)1
176	93.0 - 101.0% of mass 174	70.9 (95.1)1
177	5.0 - 9.0% of mass 176	4.4 (6.2)2

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

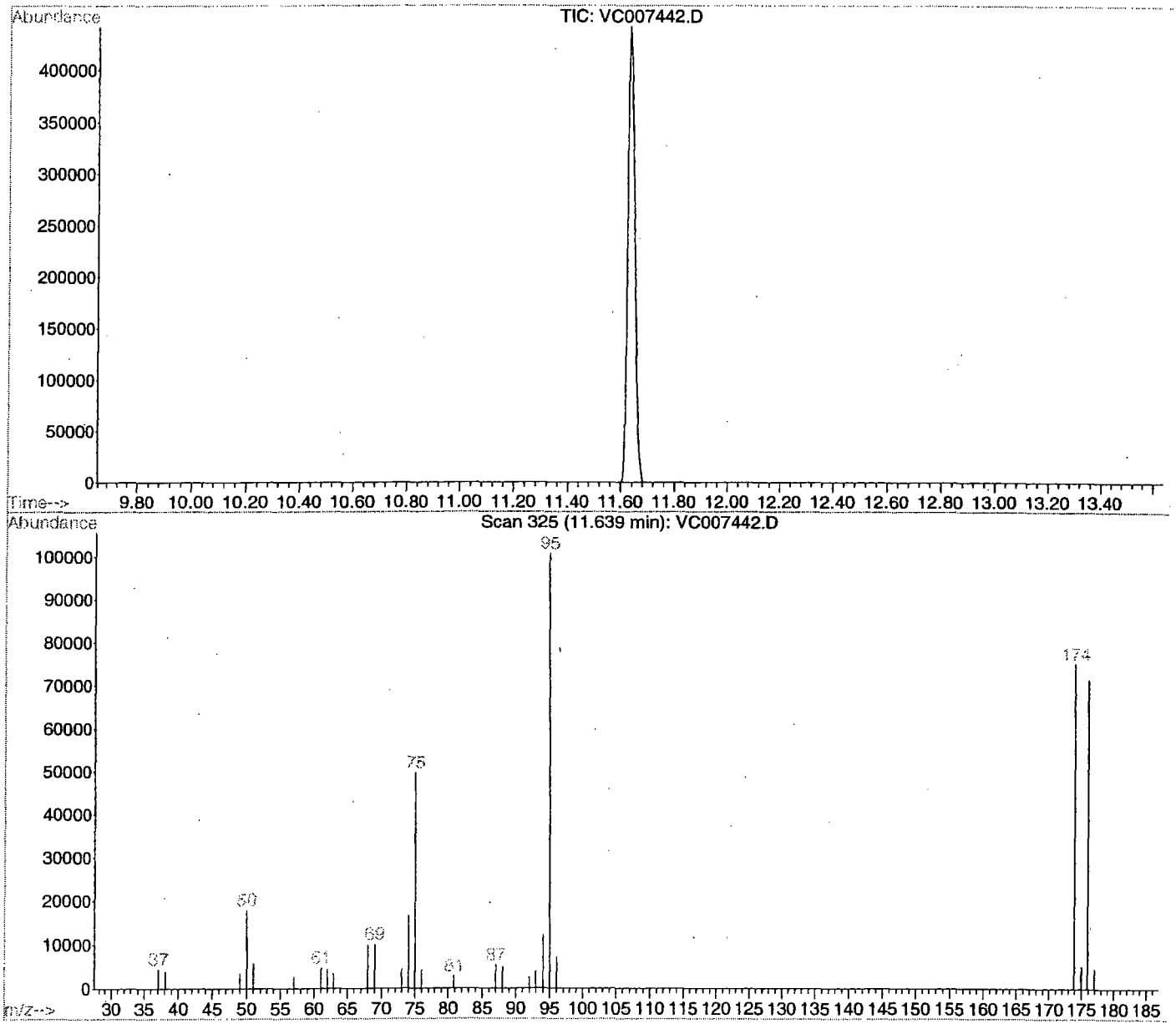
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007443.D	11/20/01	10:29
02	MB 20NOV01	MB	VC007444.D	11/20/01	11:19
03	600B-1	1658501	VC007448.D	11/20/01	14:58
04	600B-2	1658502	VC007449.D	11/20/01	15:38
05	600B-4	1658504	VC007450.D	11/20/01	16:19
06	600B-5	1658505	VC007451.D	11/20/01	16:59
07	600B-6	1658506	VC007452.D	11/20/01	17:40
08	FD600B	1658507	VC007453.D	11/20/01	18:21

BFB

Data File : D:\HPCHEM\1\DATA\011120\VC007442.D
Acq On : 20 Nov 2001 9:32 am
Sample : BFB Tune
Misc : BFB Tune
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP

Vial: 31
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00



Spectrum Information: Scan 325

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	17920	PASS
75	95	30	60	49.3	49696	PASS
95	95	100	100	100.0	100808	PASS
96	95	5	9	7.0	7057	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	74.6	75232	PASS
175	174	5	9	6.9	5169	PASS
176	174	95	101	95.1	71512	PASS
177	176	5	9	6.2	4432	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011120\VC007443.D Vial: 32
Acq On : 20 Nov 2001 10:29 am Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: ACETONE.P

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 30 14:00:51 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	84	0.00
2	t	Acrolein	0.443	0.479	-8.1	87	0.00
3	t	Acrylonitrile	1.151	1.297	-12.7	90	0.00
4	t	tert-Butyl alcohol	0.149	0.180	-20.8	94	0.00
5	t	Methyl-tert-Butyl ether	5.637	5.402	4.2	78	0.00
6	t	Di-isopropyl ether	1.640	1.503	8.4	73	0.01
7	T	Dichlorodifluoromethane	2.405	1.693	29.6#	56	0.00
8	TP	Chloromethane	3.097	2.585	16.5	68	0.02
9	TC	Vinyl Chloride	3.029	2.607	13.9	70	0.00
10	T	Bromomethane	1.492	1.233	17.4	68	0.00
11	T	Chloroethane	1.601	1.542	3.7	79	0.00
12	T	Trichlorofluoromethane	3.409	3.283	3.7	79	0.00
13	MC	1,1-Dichloroethene	3.080	2.980	3.2	79	0.00
14	T	Acetone	1.005	1.022	-1.7	93	0.00
15	T	Carbon Disulfide	7.209	6.634	8.0	76	0.00
16	T	Methylene Chloride	2.210	2.111	4.5	79	0.00
17	T	trans-1,2-Dichloroethene	2.912	2.817	3.3	80	0.00
18	TP	1,1-Dichloroethane	3.884	3.779	2.7	80	0.00
19	T	Vinyl Acetate	4.519	4.517	0.0	81	0.00
20	T	2-Butanone	0.949	1.042	-9.8	88	0.00
21	T	cis-1,2-Dichloroethene	2.888	2.817	2.5	80	0.00
22	TC	Chloroform	3.516	3.387	3.7	79	0.00
23	T	1,1,1-Trichloroethane	2.785	2.616	6.1	77	0.00
24	T	Carbon Tetrachloride	2.376	2.292	3.5	79	0.00
25	S	1,2-Dichloroethane-d4	2.237	2.408	-7.6	89	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	84	0.00
27	TM	Benzene	1.345	1.276	5.1	79	0.00
28	T	1,2-Dichloroethane	0.391	0.389	0.5	82	0.00
29	TM	Trichloroethene	0.305	0.286	6.2	78	0.00
30	TC	1,2-Dichloropropane	0.334	0.320	4.2	80	0.00
31	T	Bromodichloromethane	0.379	0.364	4.0	80	0.00
32	T	2-Chloroethyl vinyl ether	0.102	0.103	-1.0	79	0.00
33	T	cis-1,3-Dichloropropene	0.491	0.458	6.7	77	0.00
34	T	4-Methyl-2-Pentanone	0.113	0.127	-12.4	87	0.00
35	S	Toluene-d8	1.150	1.178	-2.4	86	0.00
36	TCM	Toluene	1.327	1.225	7.7	76	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	87	0.00
38	T	trans-1,3-Dichloropropene	1.718	1.578	8.1	78	0.00
39	T	1,1,2-Trichloroethane	1.045	0.997	4.6	80	0.00
40	T	Tetrachloroethene	1.086	0.984	9.4	76	0.00
41	T	2-Hexanone	0.674	0.735	-9.1	91	0.00
42	T	Dibromochloromethane	0.967	0.887	8.3	78	0.00
43	TMP	Chlorobenzene	3.218	2.899	9.9	76	0.00
44	TC	Ethylbenzene	5.526	5.120	7.3	79	0.00
45	T	m+p-Xylenes	2.204	2.006	9.0	78	0.00
46	T	o-Xylene	4.076	3.683	9.6	76	0.00
47	T	Styrene	3.650	3.038	16.8	69	0.00
48	TP	Bromoform	0.619	0.570	7.9	77	0.00
49	S	Bromofluorobenzene	1.582	1.587	-0.3	88	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.494	1.505	-0.7	85	0.00
51	T	1,3-Dichlorobenzene	2.402	2.060	14.2	73	0.00
52	T	1,4-Dichlorobenzene	2.484	2.144	13.7	73	0.00
53	T	1,2-Dichlorobenzene	2.297	2.018	12.1	74	0.00

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

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID: VC007460.D BFB Injection Date: 11/26/01

Instrument ID: GCMSVoa BFB Injection Time: 8:53

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	45.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.7
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	66.6 (97.1)1
177	5.0 - 9.0% of mass 176	4.6 (6.9)2

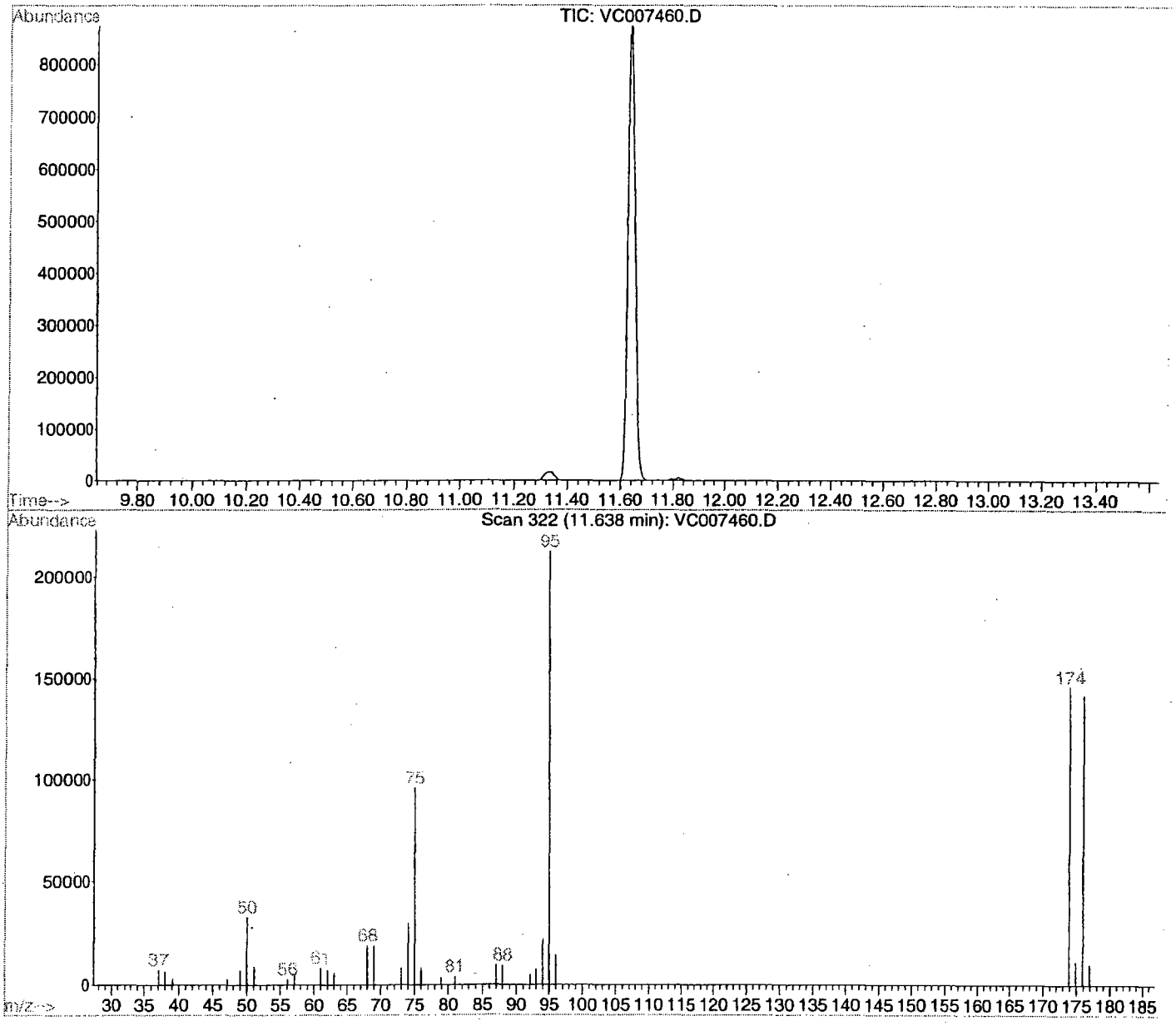
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007461.D	11/26/01	9:29
02	MB26NOV01	MB	VC007463.D	11/26/01	11:06
03	600B-5	1658505	VC007464.D	11/26/01	11:55
04	600B-6	1658506	VC007465.D	11/26/01	12:36
05	FB600B	1658507	VC007466.D	11/26/01	13:16

BFB

Data File : D:\HPCHEM\1\DATA\011126\VC007460.D Vial: 12
Acq On : 26 Nov 2001 8:53 am Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 322

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	32728	PASS
75	95	30	60	45.1	95968	PASS
95	95	100	100	100.0	212736	PASS
96	95	5	9	6.8	14373	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	68.7	146048	PASS
175	174	5	9	7.6	11123	PASS
176	174	95	101	97.1	141760	PASS
177	176	5	9	6.9	9827	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011126\VC007461.D Vial: 12
Acq On : 26 Nov 2001 9:29 am Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: ACETONE.P

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 30 14:00:51 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	151	0.00
2	t	Acrolein	0.443	0.381	14.0	124	0.00
3	t	Acrylonitrile	1.151	0.961	16.5	121	0.00
4	t	tert-Butyl alcohol	0.149	0.144	3.4	135	0.00
5	t	Methyl-tert-Butyl ether	5.637	5.660	-0.4	147	0.00
6	t	Di-isopropyl ether	1.640	1.753	-6.9	154	0.00
7	T	Dichlorodifluoromethane	2.405	2.228	7.4	133	0.00
8	TP	Chloromethane	3.097	2.560	17.3	121	0.00
9	TC	Vinyl Chloride	3.029	2.326	23.2	114	0.00
10	T	Bromomethane	1.492	1.465	1.8	145	0.00
11	T	Chloroethane	1.601	1.508	5.8	140	0.00
12	T	Trichlorofluoromethane	3.409	3.506	-2.8	152	0.00
13	MC	1,1-Dichloroethene	3.080	2.756	10.5	132	0.00
14	T	Acetone	1.005	1.134	-12.8	187	-0.01
15	T	Carbon Disulfide	7.209	6.653	7.7	137	0.00
16	T	Methylene Chloride	2.210	2.056	7.0	139	0.00
17	T	trans-1,2-Dichloroethene	2.912	2.558	12.2	131	0.00
18	TP	1,1-Dichloroethane	3.884	3.453	11.1	133	0.00
19	T	Vinyl Acetate	4.519	3.720	17.7	120	0.00
20	T	2-Butanone	0.949	0.915	3.6	139	-0.01
21	T	cis-1,2-Dichloroethene	2.888	2.577	10.8	132	0.00
22	TC	Chloroform	3.516	3.293	6.3	138	0.00
23	T	1,1,1-Trichloroethane	2.785	2.807	-0.8	149	0.00
24	T	Carbon Tetrachloride	2.376	2.370	0.3	147	0.00
25	S	1,2-Dichloroethane-d4	2.237	2.184	2.4	146	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	159	0.00
27	TM	Benzene	1.345	1.145	14.9	133	0.00
28	T	1,2-Dichloroethane	0.391	0.331	15.3	132	0.00
29	TM	Trichloroethene	0.305	0.282	7.5	144	-0.01
30	TC	1,2-Dichloropropane	0.334	0.285	14.7	134	0.00
31	T	Bromodichloromethane	0.379	0.336	11.3	139	0.00
32	T	2-Chloroethyl vinyl ether	0.102	0.088	13.7	126	-0.01
33	T	cis-1,3-Dichloropropene	0.491	0.445	9.4	140	0.00
34	T	4-Methyl-2-Pentanone	0.113	0.097	14.2	124	0.00
35	S	Toluene-d8	1.150	1.145	0.4	157	0.00
36	TCM	Toluene	1.327	1.149	13.4	134	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	166	0.00
38	T	trans-1,3-Dichloropropene	1.718	1.473	14.3	140	0.00
39	T	1,1,2-Trichloroethane	1.045	0.888	15.0	137	0.00
40	T	Tetrachloroethene	1.086	0.930	14.4	138	0.00
41	T	2-Hexanone	0.674	0.558	17.2	132	0.00
42	T	Dibromochloromethane	0.967	0.840	13.1	141	0.00
43	TMP	Chlorobenzene	3.218	2.656	17.5	134	0.00
44	TC	Ethylbenzene	5.526	4.661	15.7	137	0.00
45	T	m+p-Xylenes	2.204	1.835	16.7	136	0.00
46	T	o-Xylene	4.076	3.523	13.6	140	0.00
47	T	Styrene	3.650	2.758	24.4	120	0.00
48	TP	Bromoform	0.619	0.518	16.3	135	0.00
49	S	Bromofluorobenzene	1.582	1.635	-3.4	173	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.494	1.162	22.2	126	0.00
51	T	1,3-Dichlorobenzene	2.402	1.946	19.0	131	0.00
52	T	1,4-Dichlorobenzene	2.484	1.981	20.2	129	0.00
53	T	1,2-Dichlorobenzene	2.297	1.832	20.2	129	0.00

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

4A

FIELD ID.

VOLATILE METHOD BLANK SUMMARY

MB 20Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID: VC007444.D Lab Sample ID: MB

Date Analyzed: 11/20/01 Time Analyzed: 11:19

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMSVoa

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	600B-1	1658501	VC007448.D	14:58
02	600B-2	1658502	VC007449.D	15:38
03	600B-4	1658504	VC007450.D	16:19
04	600B-5	1658505	VC007451.D	16:59
05	600B-6	1658506	VC007452.D	17:40
06	FD600B	1658507	VC007453.D	18:21

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

FIELD ID.

MB26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID: VC007463.D Lab Sample ID: MB

Date Analyzed: 11/26/01 Time Analyzed: 11:06

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMSVoa

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	600B-5	1658505	VC007464.D	11:55
02	600B-6	1658506	VC007465.D	12:36
03	FB600B	1658507	VC007466.D	13:16

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

	Lab Name:	FMETL	**Project**	UST	
NJDEP #	13461	**Case No.:**	16585	**Location**	600B

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	107.0	100.0	95.0
02	MB	99.0	98.0	102.0
03	600B-1	111.7	93.3	102.7
04	600B-2	115.7	99.0	109.7
05	600B-4	111.0	94.7	93.0
06	600B-5	111.3	93.7	91.3
07	600B-6	105.7	92.7	92.7
09	FD600B	103.0	66.3	20.3

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 30 14:00:51 2001
Response via : Initial Calibration

Non-Spiked Sample: VC007454.D

	Spike Sample	Spike Duplicate Sample
File ID :	VC007455.D	VC007456.D
Sample :	1658602 MS	1658602 MSD
Acq Time:	20 Nov 2001 7:42 pm	20 Nov 2001 8:22 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	17	20	85	101	16	22	59-172
Benzene	0.0	20	18	20	88	102	14	21	66-142
Trichloroethene	0.0	20	19	23	94	113	19	24	62-137
Toluene	0.7	20	20	23	95	109	14	21	59-139
Chlorobenzene	0.0	20	13	17	66	84	24#	21	60-133

- Fails Limit Check

M362451.M Tue Dec 04 14:06:41 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID (Standard): VC007443.D Date Analyzed: 11/20/01

Instrument ID: GCMSVoa Time Analyzed: 10:29

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	209179	16.69	1450710	19.41	401662	27.24
	UPPER LIMIT	418358	17.19	2901420	19.91	803324	27.74
	LOWER LIMIT	104590	16.19	725355	18.91	200831	26.74
	FIELD ID.						
01	MB 20NOV01	194971	16.69	1324892	19.41	355712	27.25
02	600B-1	212532	16.69	1501022	19.41	409499	27.23
03	600B-2	240658	16.68	1723456	19.41	518293	27.24
04	600B-4	329618	16.69	2350991	19.41	760793	27.25
05	600B-5	364149	16.69	2592568	19.41	843289 *	27.24
06	600B-6	381866	16.69	2653913	19.41	956458 *	27.25
07	FD600B	380122	16.69	2674478	19.41	2190516 *	27.25

IS1 BCM = Bromochloromethane

IS2 DFB = 1,4-Difluorobenzene

IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16585 Location: 600B SDG No.:

Lab File ID (Standard): VC007461.D Date Analyzed: 11/26/01

Instrument ID: GCMSVoa Time Analyzed: 9:29

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	377637	16.69	2726556	19.42	769324	27.24
	UPPER LIMIT	755274	17.19	5453112	19.92	1538648	27.74
	LOWER LIMIT	188819	16.19	1363278	18.92	384662	26.74
	FIELD ID.						
01	MB26NOV01	343704	16.70	2468066	19.42	684484	27.25
02	600B-5	356664	16.69	2636727	19.41	750602	27.25
03	600B-6	361118	16.69	2648429	19.41	744471	27.25
04	FB600B	358822	16.69	2594371	19.41	978000	27.25

IS1 BCM = Bromochloromethane

IS2 DFB = 1,4-Difluorobenzene

IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007444.D Vial: 32
Acq On : 20 Nov 2001 11:19 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 19 11:45:35 2001
Response via : Initial Calibration
DataAcq Meth : M362451

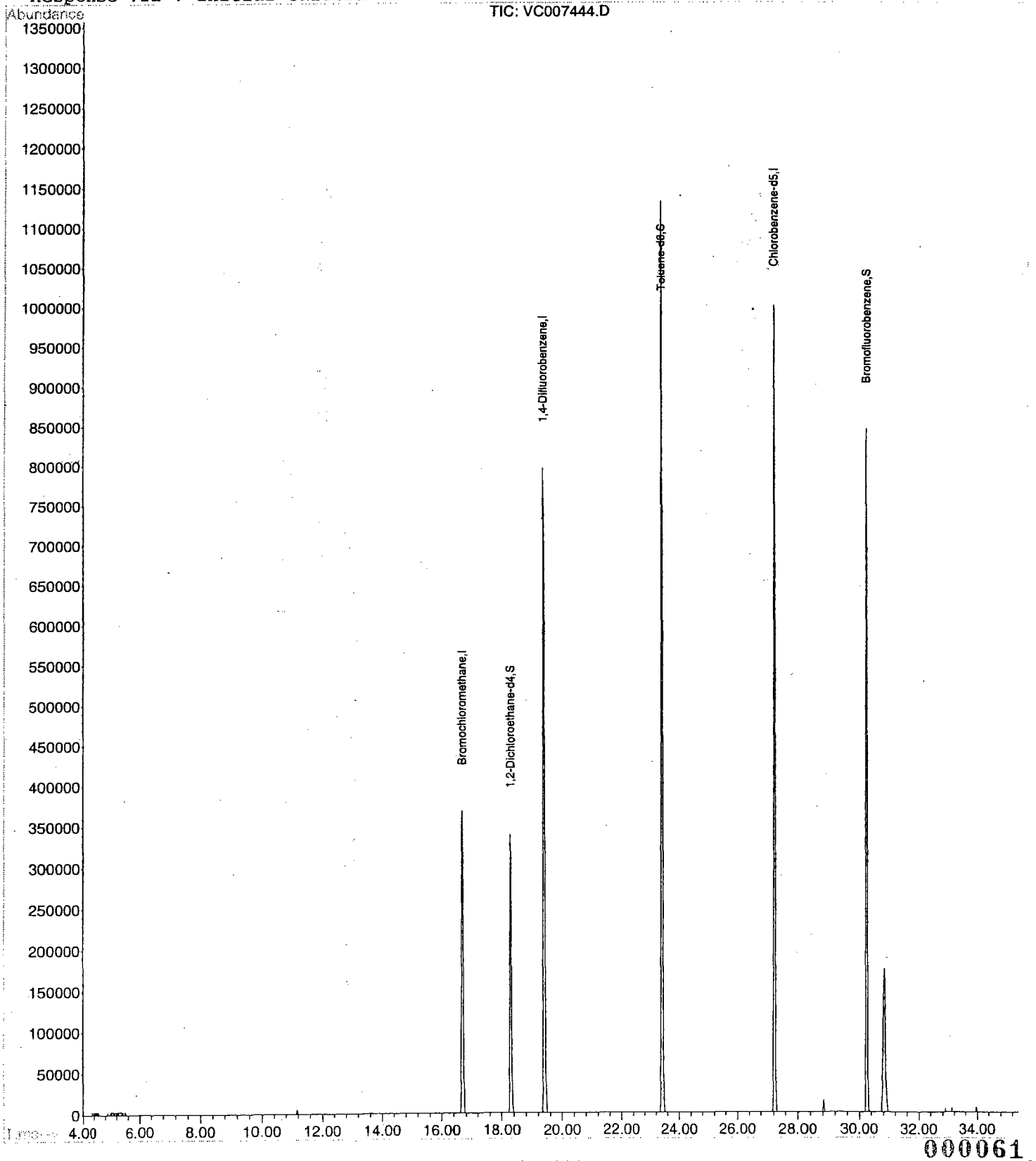
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	194971	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	1324892	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	355712	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	466644	32.10	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 107.00%			
35) Toluene-d8	23.42	98	1525220	30.03	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 100.10%			
49) Bromofluorobenzene	30.25	95	536140	28.58	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 95.27%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007444.D Vial: 32
Acq On : 20 Nov 2001 11:19 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007463.D Vial: 13
Acq On : 26 Nov 2001 11:06 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.70	128	343704	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.42	114	2468066	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	684484	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	758564	29.60	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 98.67%			
35) Toluene-d8	23.42	98	2792768	29.52	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 98.40%			
49) Bromofluorobenzene	30.25	95	1107708	30.69	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 102.30%			

Target Compounds Qvalue

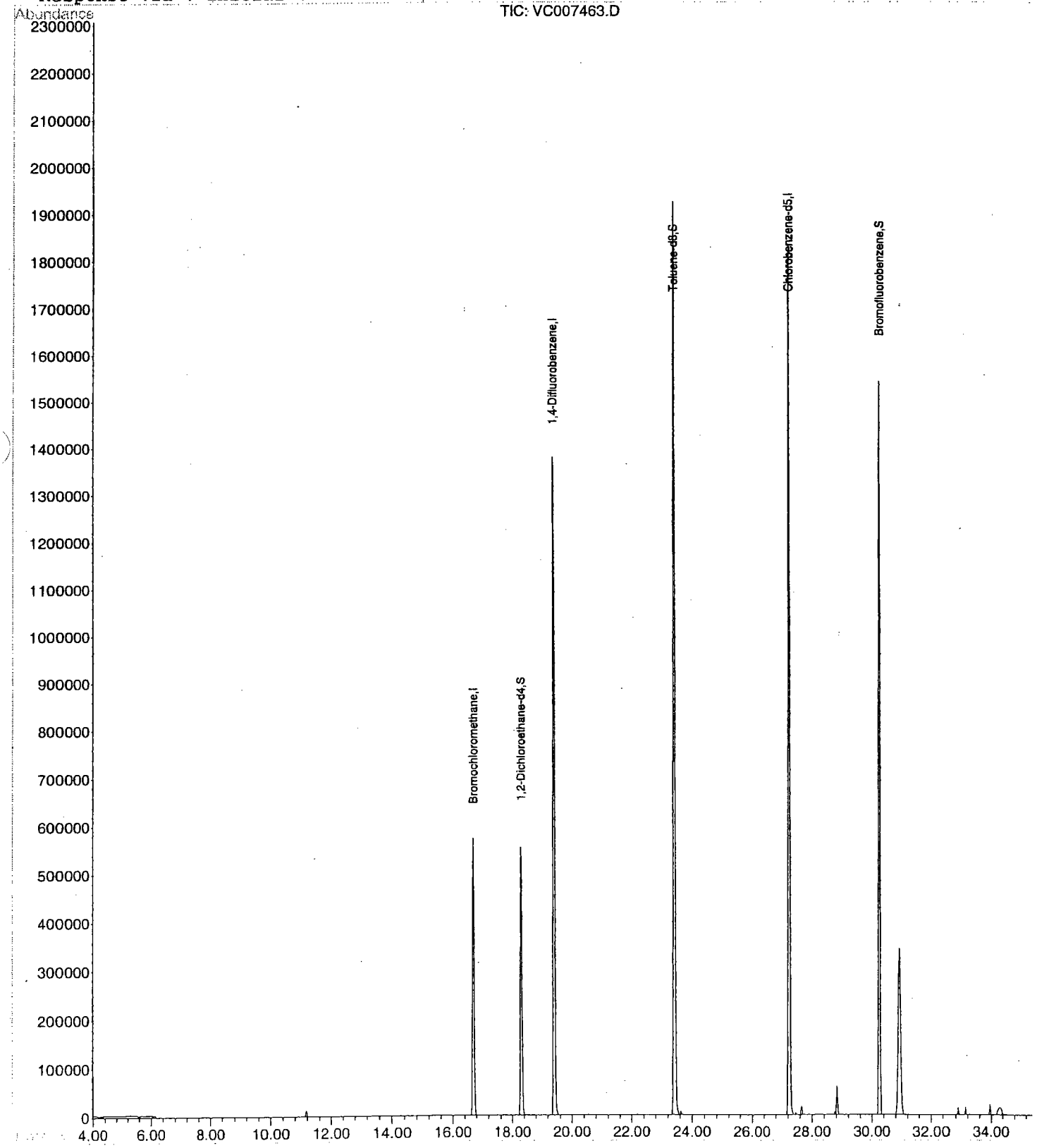
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007463.D
Acq On : 26 Nov 2001 11:06 am
Sample : MB
Misc : MB
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001

Vial: 13
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007448.D Vial: 1
Acq On : 20 Nov 2001 2:58 pm Operator: Skelton
Sample : 1658501 Inst : GC/MS Ins
Misc : 600B-1 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 20 15:33 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	212532	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	1501022	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.23	119	409499	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.29	65	1735412	109.51	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 365.03%#			
35) Toluene-d8	23.41	98	5343878	92.87	ug/L	-0.01
Spiked Amount 30.000	Range 81 - 117		Recovery = 309.57%#			
49) Bromofluorobenzene	30.25	95	2188872	101.36	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 337.87%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.15	84	157014	10.03	ug/L	95

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

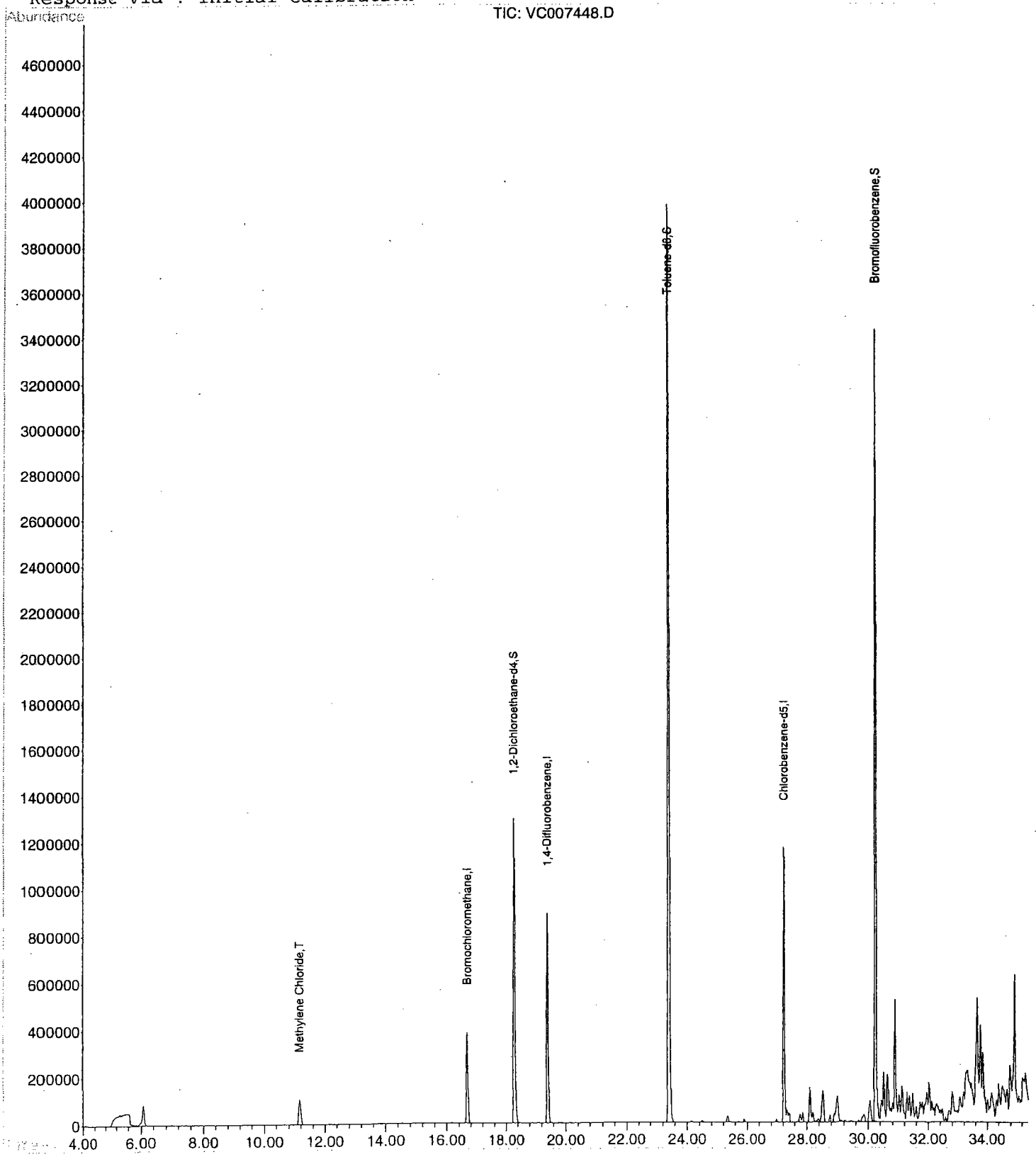
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007448.D
Acq On : 20 Nov 2001 2:58 pm
Sample : 1658501
Misc : 600B-1
MS Integration Params: ACETONE.P
Quant Time: Nov 20 15:33 2001

Vial: 1
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007449.D Vial: 2
Acq On : 20 Nov 2001 3:38 pm Operator: Skelton
Sample : 1658502 Inst : GC/MS Ins
Misc : 600B-2 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.68	128	240658	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.41	114	1723456	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	518293	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.29	65	2029213	113.09	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 376.97%#			
35) Toluene-d8	23.42	98	6489474	98.22	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 327.40%#			
49) Bromofluorobenzene	30.25	95	2946169	107.79	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 359.30%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.17	84	94801	5.35	ug/L	93

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

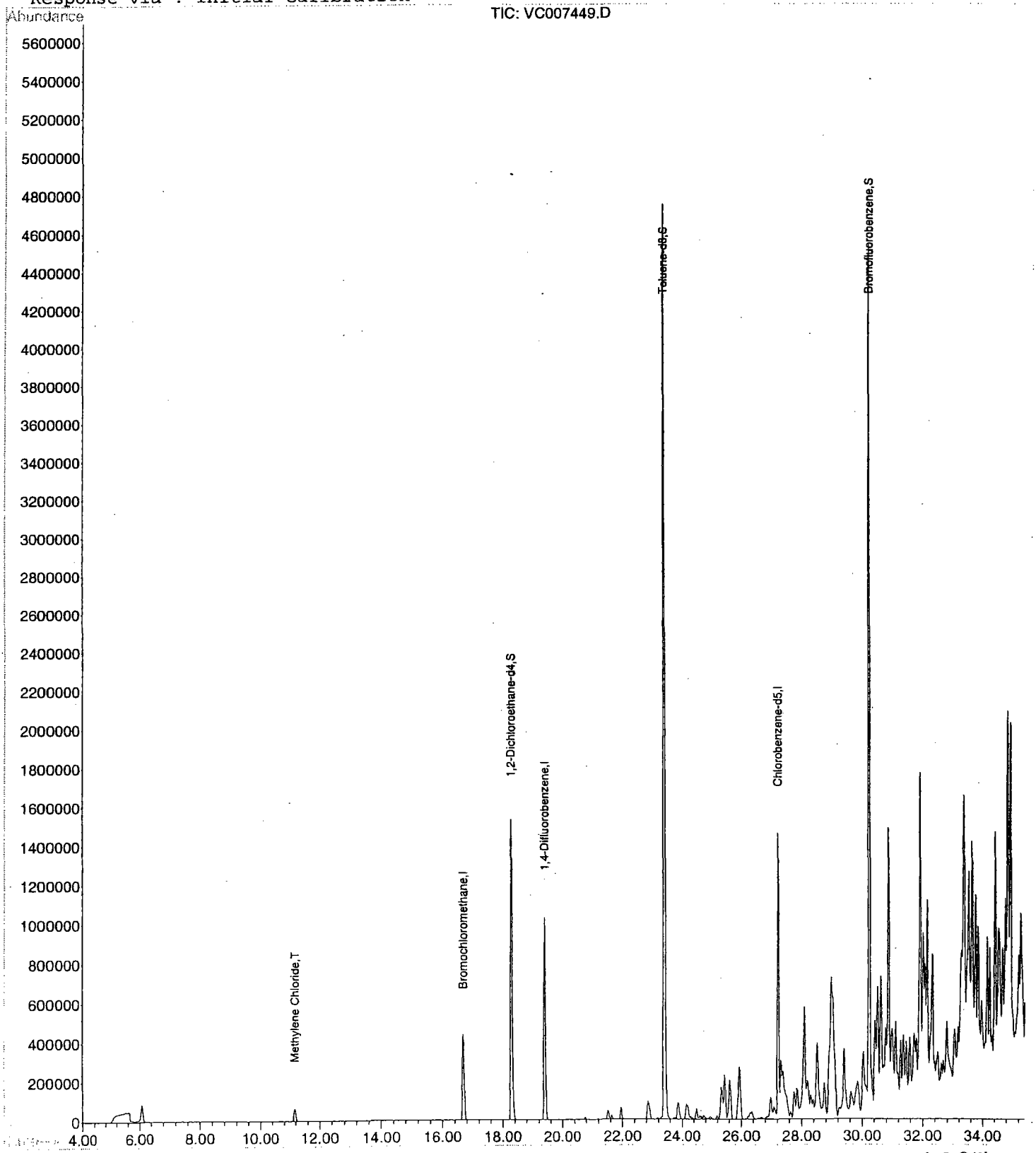
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007449.D
Acq On : 20 Nov 2001 3:38 pm
Sample : 1658502
Misc : 600B-2
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001

Vial: 2
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007450.D Vial: 3
Acq On : 20 Nov 2001 4:19 pm Operator: Skelton
Sample : 1658504 Inst : GC/MS Ins
Misc : 600B-4 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

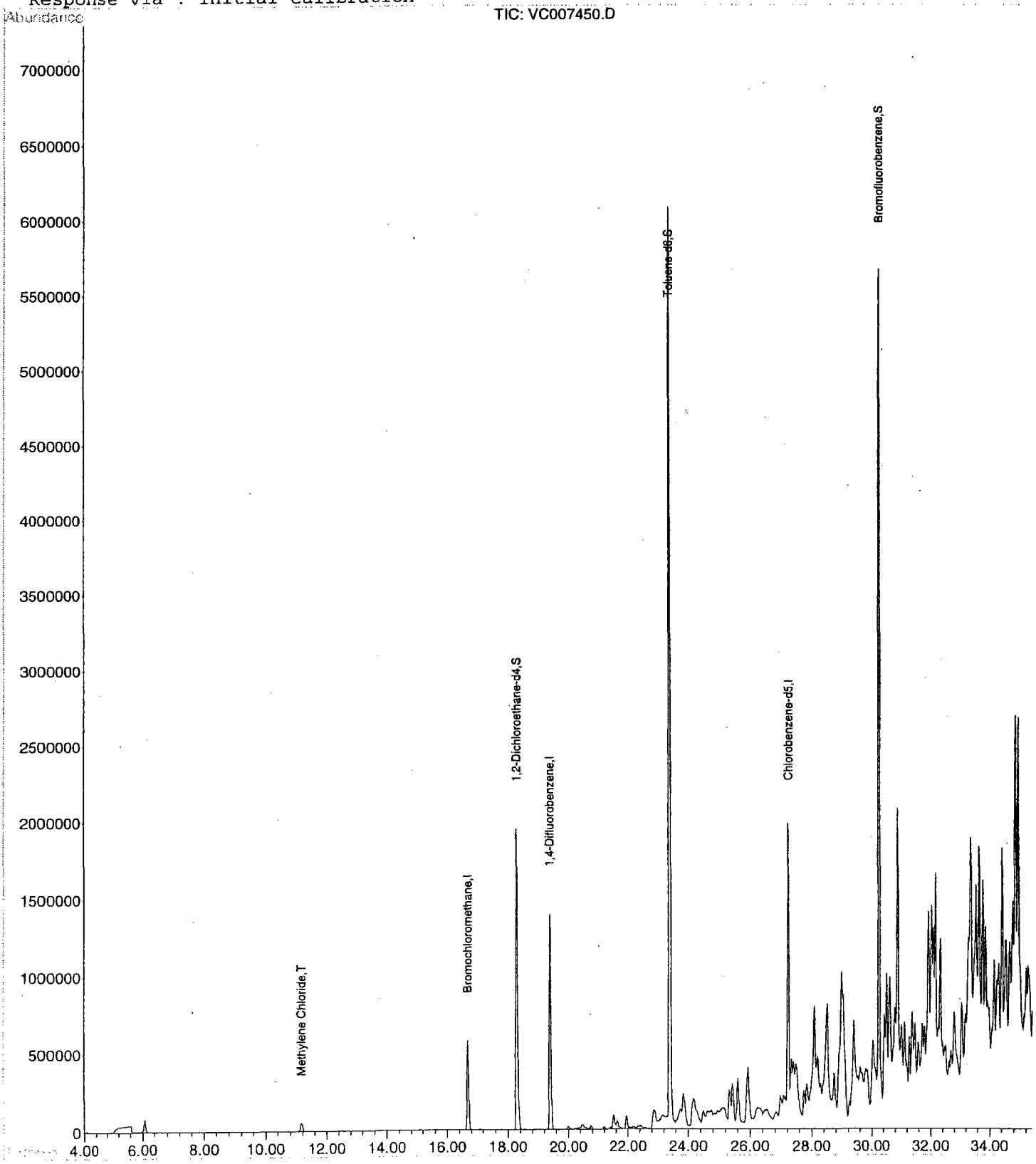
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	329618	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2350991	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	760793	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2675486	108.86	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 362.87%#			
35) Toluene-d8	23.41	98	8491315	94.22	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 314.07%#			
49) Bromofluorobenzene	30.25	95	3723781	92.81	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 309.37%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.17	84	79489	3.27	ug/L	87

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007450.D Vial: 3
Acq On : 20 Nov 2001 4:19 pm Operator: Skelton
Sample : 1658504 Inst : GC/MS Ins
Misc : 600B-4 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007451.D Vial: 4
Acq On : 20 Nov 2001 4:59 pm Operator: Skelton
Sample : 1658505 Inst : GC/MS Ins
Misc : 600B-5 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:24 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	364149	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2592568	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	843289	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2961218	109.06	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 363.53%#			
35) Toluene-d8	23.42	98	9277578	93.35	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 311.17%#			
49) Bromofluorobenzene	30.25	95	4059467	91.28	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 304.27%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	70140	2.61	ug/L	88

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

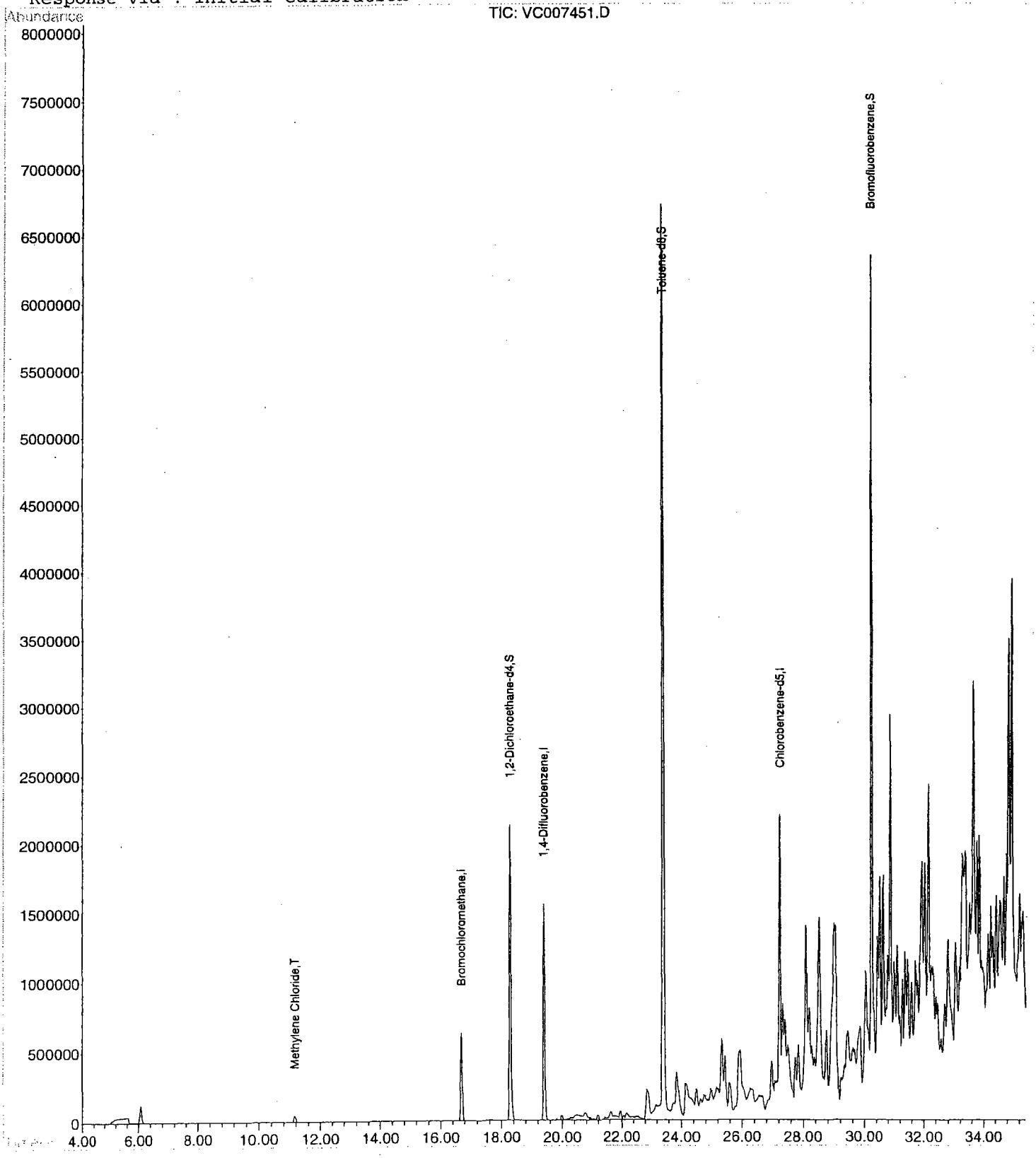
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007451.D
Acq On : 20 Nov 2001 4:59 pm
Sample : 1658505
Misc : 600B-5
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:24 2001

Vial: 4
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007464.D Vial: 14
Acq On : 26 Nov 2001 11:55 am Operator: Skelton
Sample : 1658505 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	356664	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2636727	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	750602	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	1071881	40.31	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	134.37%#		
35) Toluene-d8	23.42	98	3348251	33.12	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	110.40%		
49) Bromofluorobenzene	30.25	95	1340873	33.87	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	112.90%		

Target Compounds Qvalue

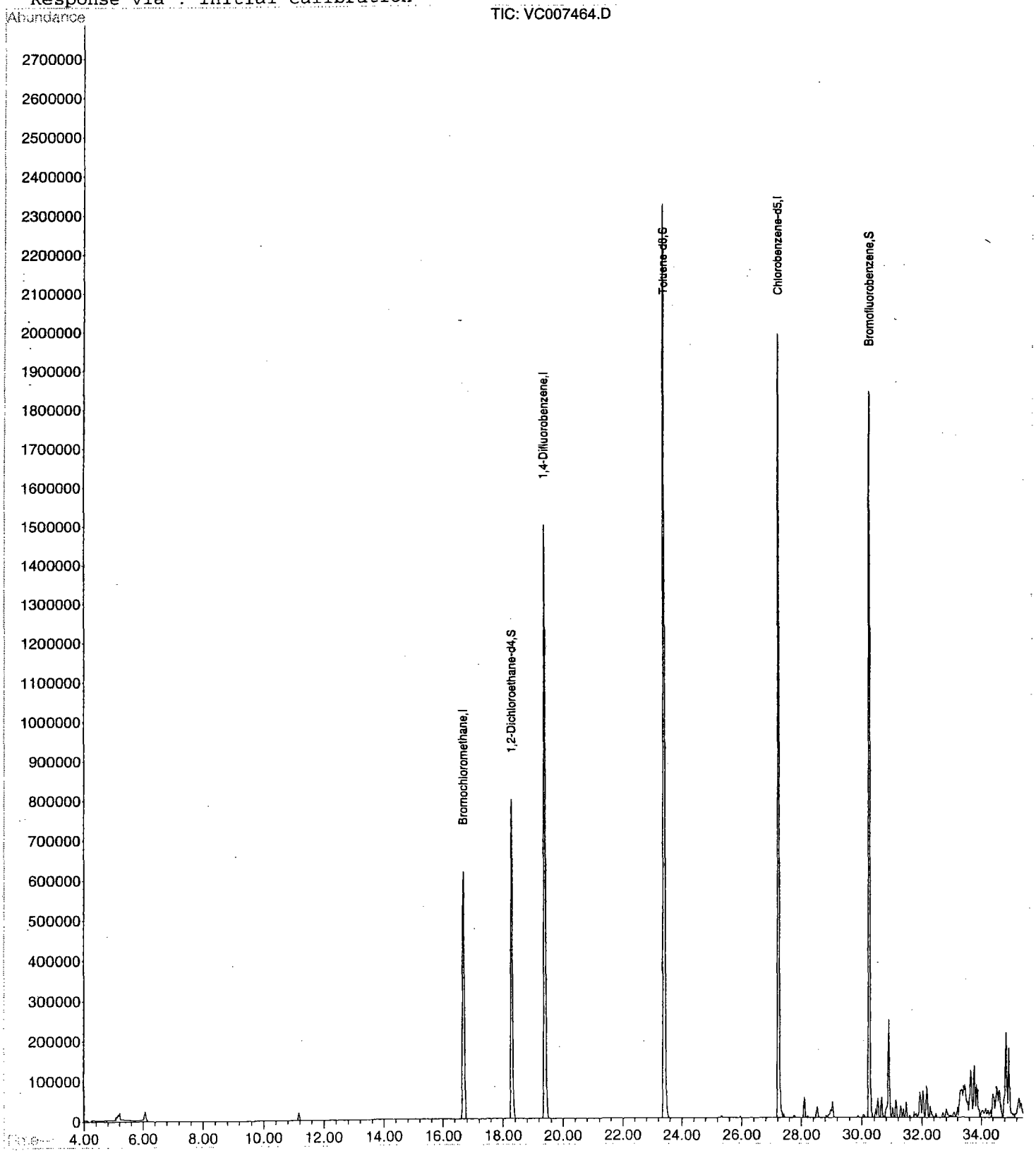
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007464.D
Acq On : 26 Nov 2001 11:55 am
Sample : 1658505
Misc :
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001

Vial: 14
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007452.D Vial: 5
Acq On : 20 Nov 2001 5:40 pm Operator: Skelton
Sample : 1658506 Inst : GC/MS Ins
Misc : 600B-6 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:24 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	381866	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2653913	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	956458	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2966280	104.18	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	347.27%#		
35) Toluene-d8	23.42	98	9397452	92.37	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	307.90%#		
49) Bromofluorobenzene	30.25	95	4667175	92.53	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	308.43%#		
Target Compounds						Qvalue
16) Methylene Chloride	11.15	84	32053	1.14	ug/L	79
44) Ethylbenzene	27.46	91	6125341	34.77	ug/L	98
45) m+p-Xylenes	27.65	106	5671080	80.70	ug/L	98
46) o-Xylene	28.74	91	4396655	33.83	ug/L	99

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

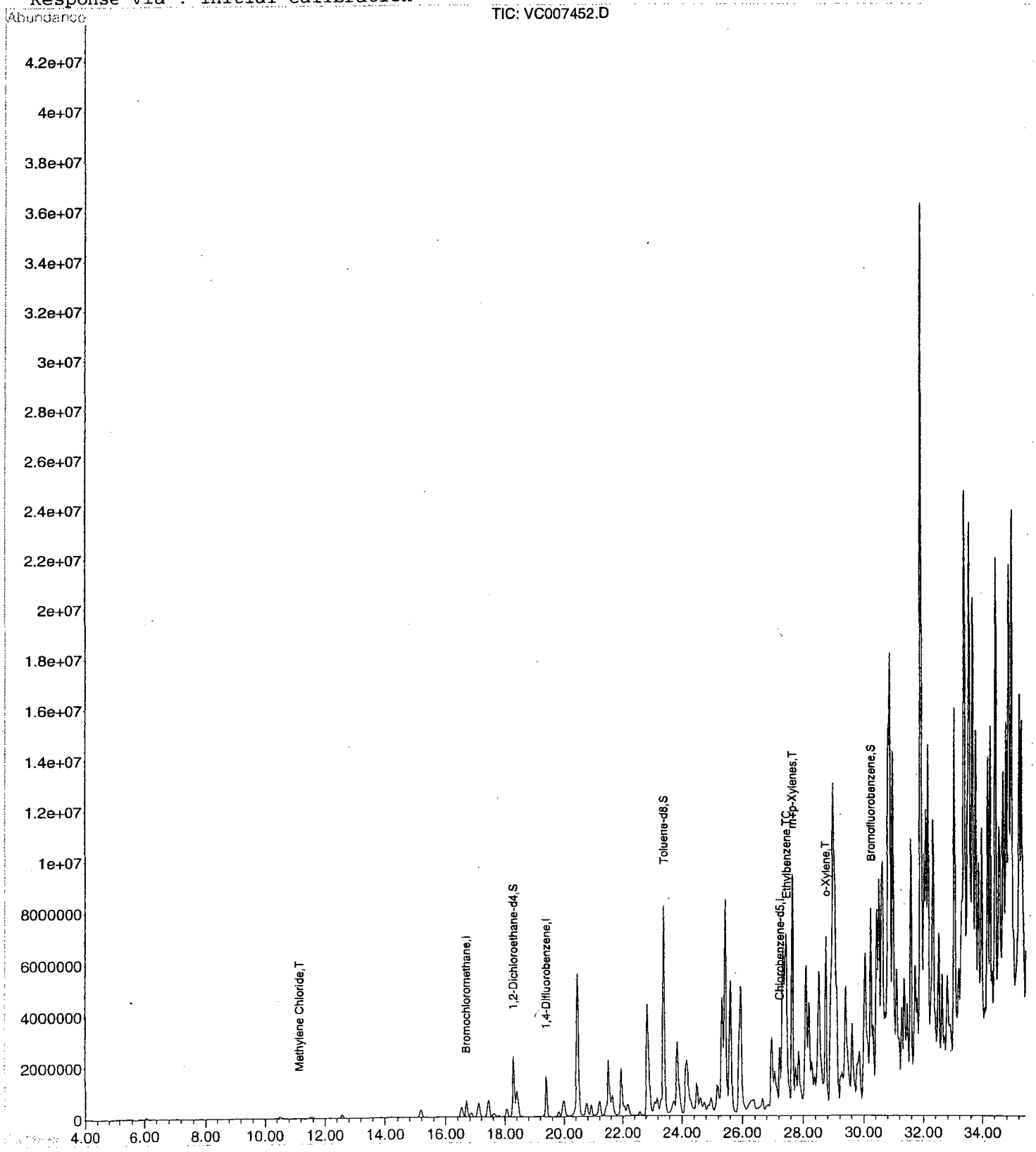
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007452.D
Acq On : 20 Nov 2001 5:40 pm
Sample : 1658506
Misc : 600B-6
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:24 2001

Vial: 5
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007465.D Vial: 15
Acq On : 26 Nov 2001 12:36 pm Operator: Skelton
Sample : 1658506 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

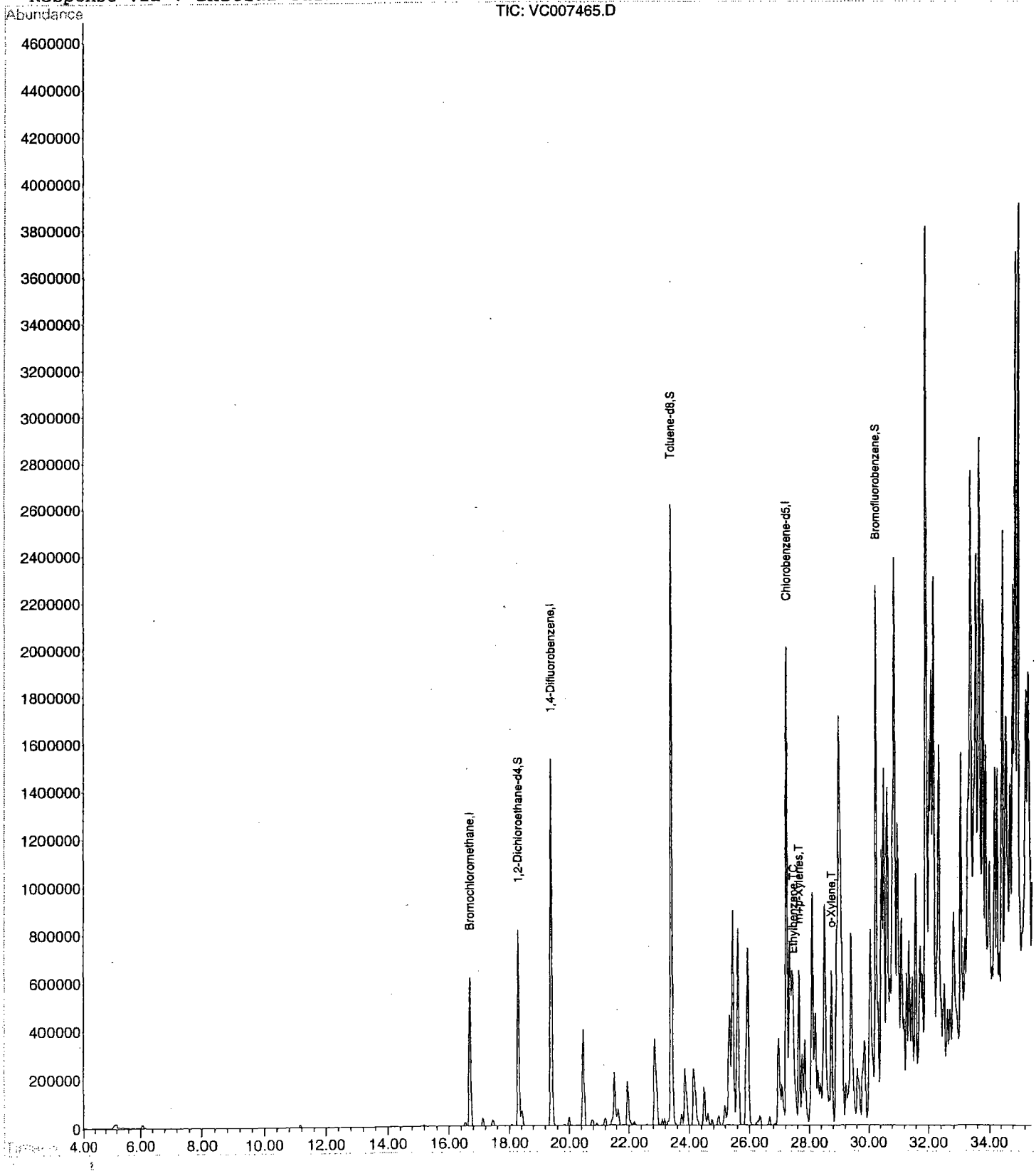
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	361118	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2648429	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	744471	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	1080933	40.14	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	133.80%#		
35) Toluene-d8	23.42	98	3541930	34.89	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	116.30%		
49) Bromofluorobenzene	30.25	95	1505228	38.34	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	127.80%#		
Target Compounds						Qvalue
44) Ethylbenzene	27.46	91	444019	3.24	ug/L	99
45) m+p-Xylenes	27.65	106	402929	7.37	ug/L	92
46) o-Xylene	28.74	91	329488	3.26	ug/L	98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007465.D Vial: 15
Acq On : 26 Nov 2001 12:36 pm Operator: Skelton
Sample : 1658506 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007466.D Vial: 16
Acq On : 26 Nov 2001 1:16 pm Operator: Skelton
Sample : 1658507 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

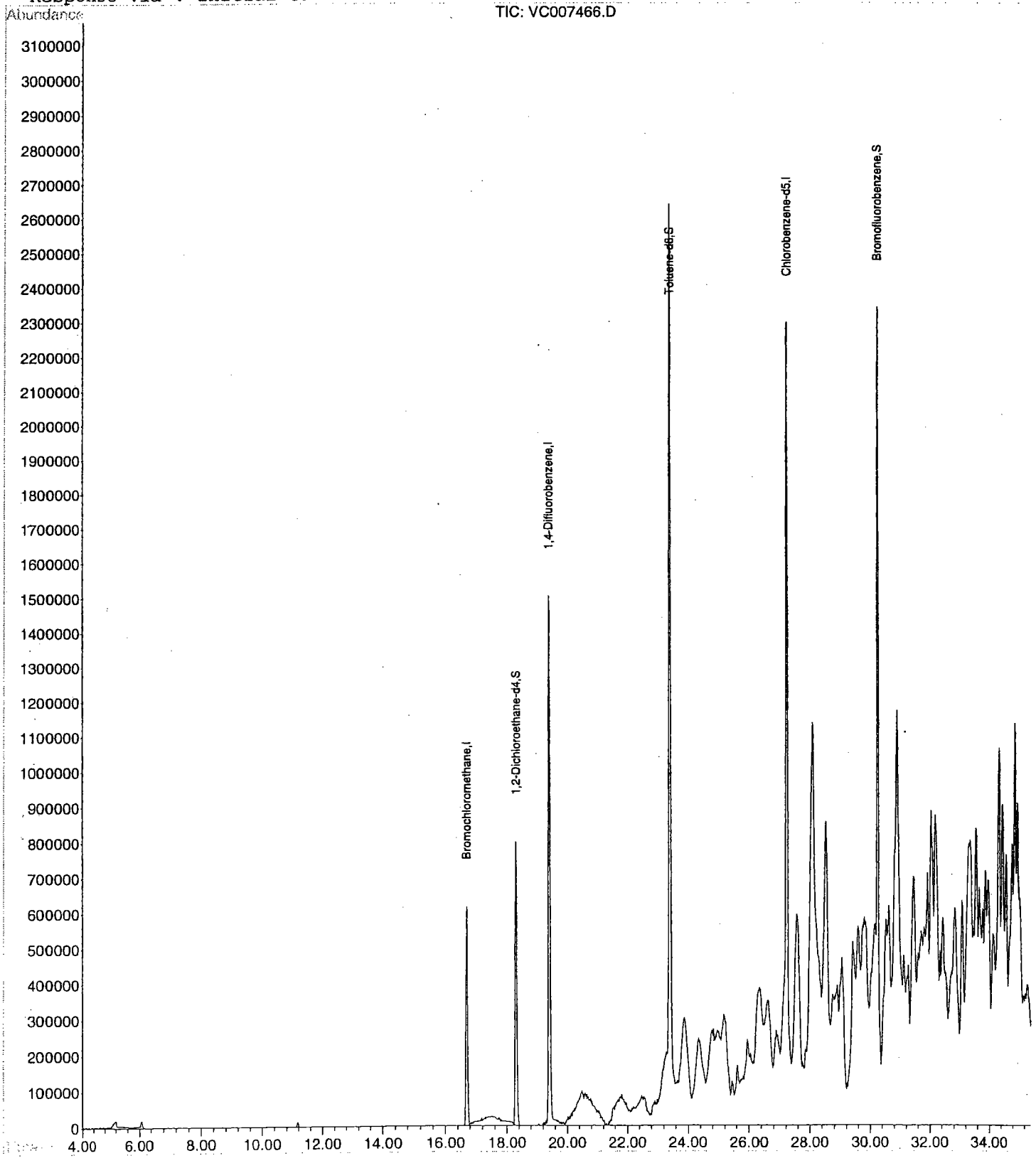
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	358822	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2594371	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	978000	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	1073672	40.13	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 133.77%#			
35) Toluene-d8	23.42	98	3476763	34.96	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 116.53%			
49) Bromofluorobenzene	30.25	95	1403197	27.21	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 90.70%			
Target Compounds						Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007466.D Vial: 16
Acq On : 26 Nov 2001 1:16 pm Operator: Skelton
Sample : 1658507 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007453.D Vial: 6
Acq On : 20 Nov 2001 6:21 pm Operator: Skelton
Sample : 1658507 Inst : GC/MS Ins
Misc : FD600B Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:25 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	380122	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2674478	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	2190516	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2884196	101.76	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	339.20%#		
35) Toluene-d8	23.42	98	9182476	89.56	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	298.53%#		
49) Bromofluorobenzene	30.25	95	4041440	34.98	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	116.60%		
Target Compounds						Qvalue
16) Methylene Chloride	11.18	84	38206	1.36	ug/L	77

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

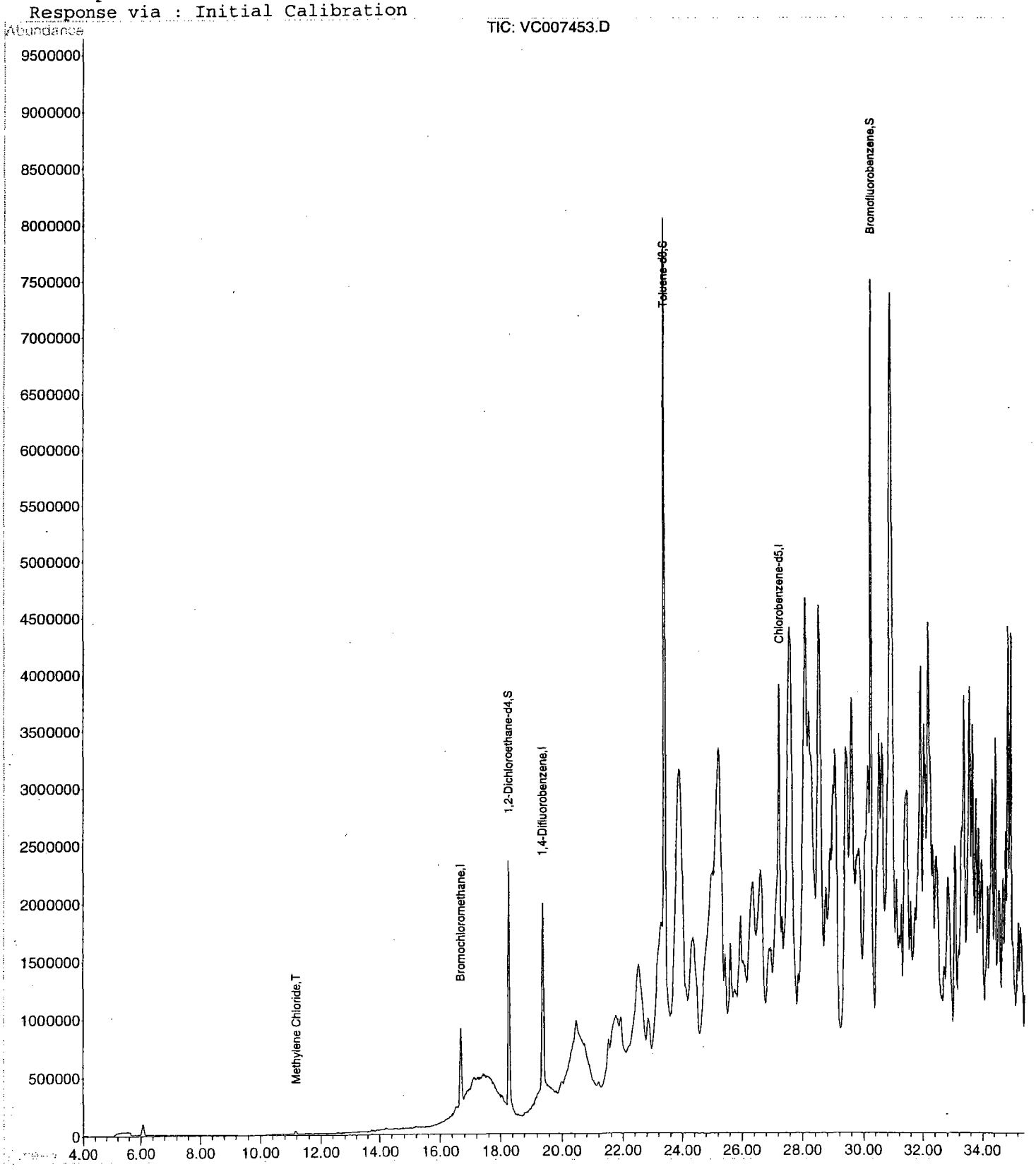
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007453.D
Acq On : 20 Nov 2001 6:21 pm
Sample : 1658507
Misc : FD600B
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:25 2001

Vial: 6
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 27 10:36:14 2001
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 # :** **Location :** **UST Reg. # :**	16585 Bldg. 600B
Analysis :	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix :	Soil	**Date Extracted :**	19-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1658501	600B-1	**1.00**	15.83	83.89	171	**840.17**
1658502	600B-2	**1.00**	15.05	81.98	184	**3521.65**
1658503	600B-3	**1.00**	15.93	82.30	173	**ND**
1658504	600B-4	**1.00**	15.54	87.74	166	**ND**
1658505	600B-5	**1.00**	15.74	80.63	178	**401.04**
1658506	600B-6	**1.00**	15.03	82.61	182	**6137.04**
1658507	FD	**1.00**	15.17	88.87	168	**ND**
METHOD BLANK	MB-2639	**1.00**	15.00	100.00	151	**ND**
METHOD BLANK	MB-2647	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1)	tC C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013807.D Vial: 100
Acq On : 19 Nov 2001 11:20 am Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : Tstd050 Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.649	E3	-14.6	109	-0.03
2	tC	C10	20.595	22.791	E3	-10.7	107	0.00
3	TC	C12	21.549	22.973	E3	-6.6	104	0.00
4	tC	C14	23.048	23.409	E3	-1.6	101	0.00
5	tC	C16	24.057	24.122	E3	-0.3	100	0.00
6	tC	C18	24.812	24.021	E3	3.2	97	0.00
7	tC	C20	24.684	24.373	E3	1.3	98	0.00
8	tC	C22	25.878	25.638	E3	0.9	100	0.00
9	tC	C24	26.326	25.916	E3	1.6	99	0.00
10	tC	C26	26.702	26.194	E3	1.9	99	0.00
11	tC	C28	26.061	25.765	E3	1.1	99	0.00
12	tC	C30	26.583	26.469	E3	0.4	99	0.00
13	tC	C32	26.447	26.266	E3	0.7	99	0.00
14	tC	C34	26.317	26.143	E3	0.7	99	0.00
15	tC	C36	26.661	27.081	E3	-1.6	102	0.00
16	tC	C38	24.528	25.796	E3	-5.2	106	0.00
17	tC	C40	21.994	24.627	E3	-12.0	115	0.00
18	tC	c42	19.638	23.151	E3	-17.9	120	0.00
19	TC	Pristane	23.812	22.692	E3	4.7	94	0.00
20	TC	Phytane	25.573	25.364	E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.624	E3	-0.5	101	0.00
22	tC	TPHC - total	28.994	27.732	E3	4.4	104	1.46#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013818.D Vial: 7
Acq On : 19 Nov 2001 5:51 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.912 E3	-16.1	111	-0.05
2	tC	C10	20.595	22.414 E3	-8.8	105	-0.01
3	TC	C12	21.549	23.381 E3	-8.5	106	0.00
4	tC	C14	23.048	23.883 E3	-3.6	103	0.00
5	tC	C16	24.057	24.693 E3	-2.6	103	0.00
6	tC	C18	24.812	26.500 E3	-6.8	107	0.00
7	tC	C20	24.684	25.423 E3	-3.0	103	0.00
8	tC	C22	25.878	26.184 E3	-1.2	102	0.00
9	tC	C24	26.326	26.479 E3	-0.6	102	0.00
10	tC	C26	26.702	26.760 E3	-0.2	102	0.00
11	tC	C28	26.061	26.296 E3	-0.9	101	0.00
12	tC	C30	26.583	26.999 E3	-1.6	101	0.00
13	tC	C32	26.447	26.755 E3	-1.2	101	0.00
14	tC	C34	26.317	26.612 E3	-1.1	101	0.00
15	tC	C36	26.661	27.616 E3	-3.6	104	0.00
16	tC	C38	24.528	26.472 E3	-7.9	109	0.00
17	tC	C40	21.994	25.435 E3	-15.6	118	-0.01
18	tC	c42	19.638	24.573 E3	-25.1#	127	0.00
19	TC	Pristane	23.812	24.480 E3	-2.8	102	0.00
20	TC	Phytane	25.573	25.715 E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	26.074 E3	-2.3	103	0.00
22	tC	TPHC - total	28.994	28.595 E3	1.4	108	0.51#

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013829.D Vial: 18
Acq On : 19 Nov 2001 11:54 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.396 E3	-18.7	113	-0.06
2	tC	C10	20.595	23.520 E3	-14.2	111	-0.01
3	TC	C12	21.549	23.599 E3	-9.5	107	0.00
4	tC	C14	23.048	24.254 E3	-5.2	104	0.00
5	tC	C16	24.057	24.923 E3	-3.6	104	0.00
6	tC	C18	24.812	24.957 E3	-0.6	101	0.00
7	tC	C20	24.684	25.776 E3	-4.4	104	0.00
8	tC	C22	25.878	26.537 E3	-2.5	103	0.00
9	tC	C24	26.326	26.812 E3	-1.8	103	0.00
10	tC	C26	26.702	27.049 E3	-1.3	103	0.00
11	tC	C28	26.061	26.689 E3	-2.4	103	0.00
12	tC	C30	26.583	27.596 E3	-3.8	103	0.00
13	tC	C32	26.447	27.128 E3	-2.6	102	0.00
14	tC	C34	26.317	26.996 E3	-2.6	103	0.00
15	tC	C36	26.661	28.071 E3	-5.3	105	0.00
16	tC	C38	24.528	26.803 E3	-9.3	111	0.00
17	tC	C40	21.994	25.904 E3	-17.8	121	0.00
18	tC	c42	19.638	25.406 E3	-29.4#	131	0.00
19	TC	Pristane	23.812	24.377 E3	-2.4	101	0.00
20	TC	Phytane	25.573	26.222 E3	-2.5	104	0.00
21	sC	o-terphenyl	25.484	26.413 E3	-3.6	104	0.00
22	tC	TPHC - total	28.994	29.521 E3	-1.8	111	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013840.D Vial: 29
Acq On : 20 Nov 2001 5:56 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.151 E3	-17.4	112	-0.05
2	tC	C10	20.595	22.359 E3	-8.6	105	-0.01
3	TC	C12	21.549	23.393 E3	-8.6	106	0.00
4	tC	C14	23.048	23.788 E3	-3.2	102	0.00
5	tC	C16	24.057	24.483 E3	-1.8	102	0.00
6	tC	C18	24.812	24.651 E3	0.6	100	0.00
7	tC	C20	24.684	25.098 E3	-1.7	101	0.00
8	tC	C22	25.878	25.962 E3	-0.3	101	0.00
9	tC	C24	26.326	26.272 E3	0.2	101	0.00
10	tC	C26	26.702	26.516 E3	0.7	101	0.00
11	tC	C28	26.061	26.090 E3	-0.1	100	0.00
12	tC	C30	26.583	26.802 E3	-0.8	100	0.00
13	tC	C32	26.447	26.556 E3	-0.4	100	0.00
14	tC	C34	26.317	26.433 E3	-0.4	100	0.00
15	tC	C36	26.661	27.462 E3	-3.0	103	0.00
16	tC	C38	24.528	26.273 E3	-7.1	108	0.00
17	tC	C40	21.994	25.371 E3	-15.4	118	-0.01
18	tC	c42	19.638	25.059 E3	-27.6#	129	0.00
19	TC	Pristane	23.812	23.910 E3	-0.4	100	0.00
20	TC	Phytane	25.573	24.771 E3	3.1	98	0.00
21	sC	o-terphenyl	25.484	25.800 E3	-1.2	102	0.00
22	tC	TPHC - total	28.994	29.430 E3	-1.5	111	0.51#

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013851.D Vial: 40
Acq On : 20 Nov 2001 11:59 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.333 E3	-18.4	113	-0.05
2	tC	C10	20.595	22.301 E3	-8.3	105	-0.01
3	TC	C12	21.549	23.385 E3	-8.5	106	0.00
4	tC	C14	23.048	23.751 E3	-3.1	102	0.00
5	tC	C16	24.057	24.359 E3	-1.3	101	0.00
6	tC	C18	24.812	24.271 E3	2.2	98	0.00
7	tC	C20	24.684	25.016 E3	-1.3	101	0.00
8	tC	C22	25.878	25.865 E3	0.1	101	0.00
9	tC	C24	26.326	26.136 E3	0.7	100	0.00
10	tC	C26	26.702	26.415 E3	1.1	100	0.00
11	tC	C28	26.061	25.990 E3	0.3	100	0.00
12	tC	C30	26.583	26.697 E3	-0.4	100	0.00
13	tC	C32	26.447	26.440 E3	0.0	100	0.00
14	tC	C34	26.317	26.342 E3	-0.1	100	0.00
15	tC	C36	26.661	27.330 E3	-2.5	103	0.00
16	tC	C38	24.528	26.234 E3	-7.0	108	0.00
17	tC	C40	21.994	25.278 E3	-14.9	118	-0.01
18	tC	c42	19.638	25.122 E3	-27.9#	130	0.00
19	TC	Pristane	23.812	23.579 E3	1.0	98	0.00
20	TC	Phytane	25.573	25.375 E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.727 E3	-1.0	101	0.00
22	tC	TPHC - total	28.994	28.838 E3	0.5	108	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16585
	DPW. SELFM-PW-EV	**Location :**	Bldg. 600B
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1658501			10.00	10.35	**103.53**
1658502			10.00	10.61	**106.08**
1658503			10.00	9.97	**99.71**
1658504			10.00	10.23	**102.31**
1658505			10.00	9.92	**99.17**
1658506			10.00	10.68	**106.82**
1658507			10.00	10.52	**105.19**
METHOD BLANK	MB-2639		10.00	11.50	**114.96**
METHOD BLANK	MB-2647		10.00	11.86	**118.64**

Surrogate Added : **o-Terphenyl**

Client :	U.S. Army	**Project # :**	16585
	DPW. SELFM-PW-EV	**Location :**	Bldg. 600B
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1658603MS	1000	88.41	931.16	84.27	75-125
1658603MSD	1000	88.41	949.81	86.14	75-125
			RPD	**2.19**	**20.00**

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

Client :	U.S. Army	**Project # :**	16585
	DPW. SELFM-PW-EV	**Location :**	Bldg. 600B
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1658101MS	1000	0.00	924.80	92.48	75-125
1658101MSD	1000	0.00	920.81	92.08	75-125
			RPD	0.43	20.00

Quality Control Check Standard Summary
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 # :** **Location :** **UST Reg. # :**	16585 Bldg. 600B
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2640	19-Nov-01	1000	848.93	84.89	75-125
LCS-2648	19-Nov-01	1000	861.18	86.12	75-126

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013810.D Vial: 3
Acq On : 19 Nov 2001 1:05 pm Operator: Skelton
Sample : MB 2647 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 13:30 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

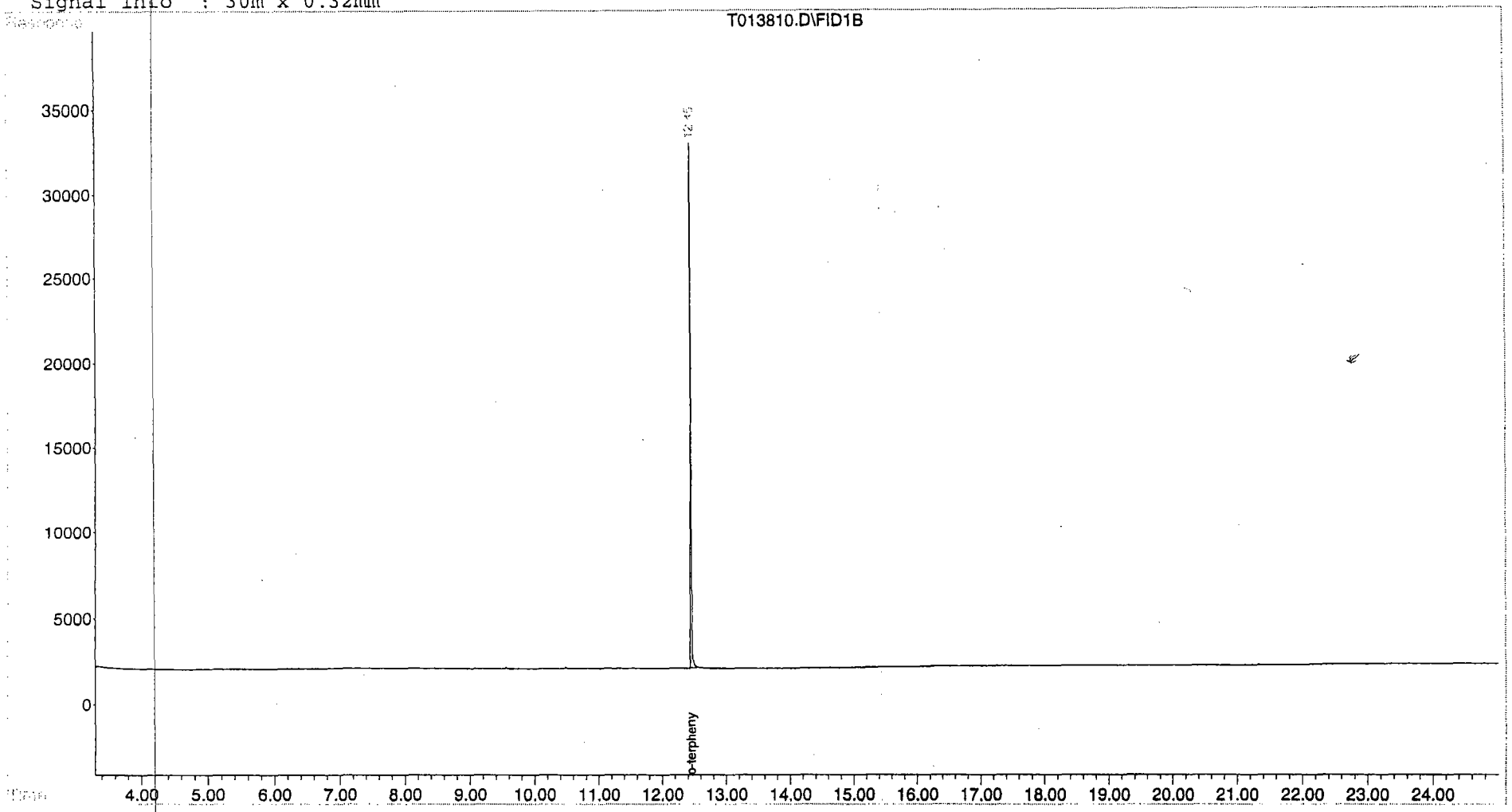
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	302332	11.864 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 118.64%#	
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013810.D Vial: 3
Acq On : 19 Nov 2001 1:05 pm Operator: Skelton
Sample : MB 2647 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 13:30 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

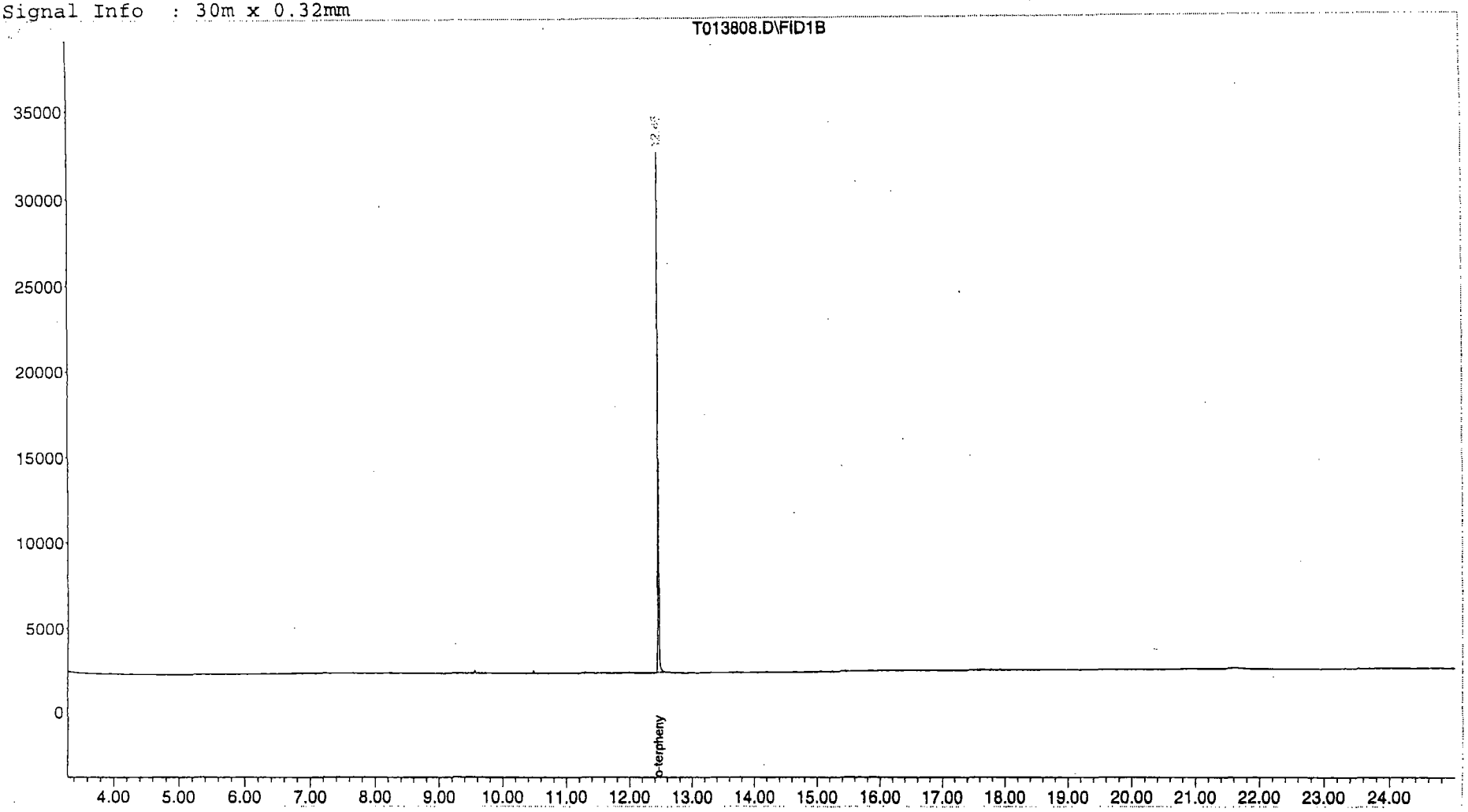
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	292962	11.496 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	114.96%#
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013834.D Vial: 23
Acq On : 20 Nov 2001 2:38 am Operator: Skelton
Sample : 1658501s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 26 9:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

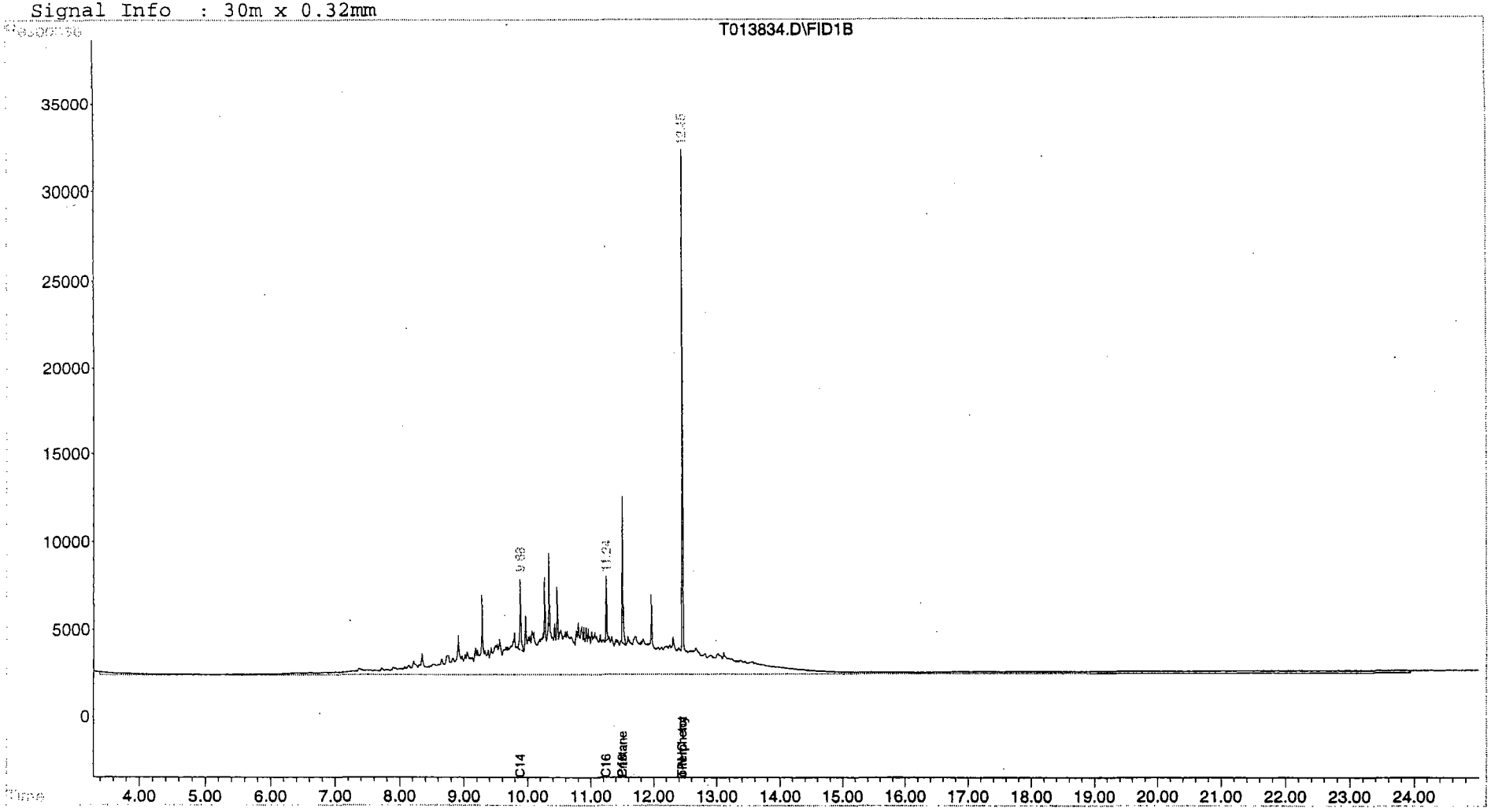
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	263834	10.353 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	103.53%#
Target Compounds			
4) tC C14	9.88	51903	2.252 mg/L
5) tC C16	11.24	36893	1.534 mg/L
6) tC C18	11.50	90397	3.643 mg/L
19) TC Pristane	11.50	90397	3.796 mg/L
22) tC TPHC - total	12.45	6469843	223.146 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013834.D Vial: 23
Acq On : 20 Nov 2001 2:38 am Operator: Skelton
Sample : 1658501s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 26 9:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013835.D Vial: 24
Acq On : 20 Nov 2001 3:11 am Operator: Skelton
Sample : 1658502s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:25 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

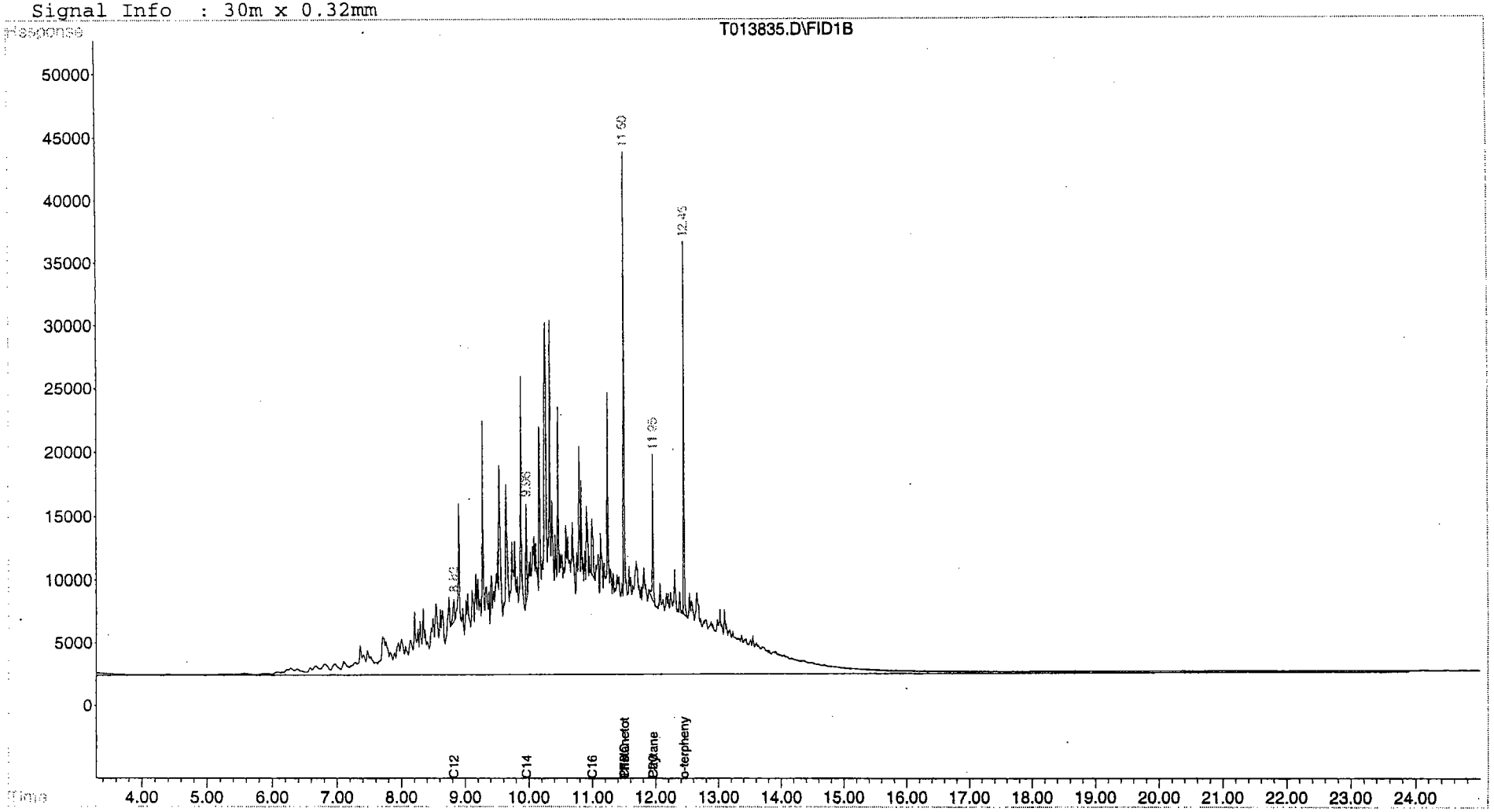
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	270336	10.608 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	106.08%#
Target Compounds			
3) TC C12	8.82	31234	1.449 mg/L
4) tC C14	9.96	80749	3.503 mg/L
5) tC C16	11.00	75426	3.135 mg/L
6) tC C18	11.50	329339	13.273 mg/L
7) tC C20	11.95	125643	5.090 mg/L
19) TC Pristane	11.50	329339	13.831 mg/L
20) TC Phytane	11.95	125643	4.913 mg/L
22) tC TPHC - total	11.50	25195959	869.011 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013835.D Vial: 24
Acq On : 20 Nov 2001 3:11 am Operator: Skelton
Sample : 1658502s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:25 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013836.D Vial: 25
Acq On : 20 Nov 2001 3:44 am Operator: Skelton
Sample : 1658503s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 4:10 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

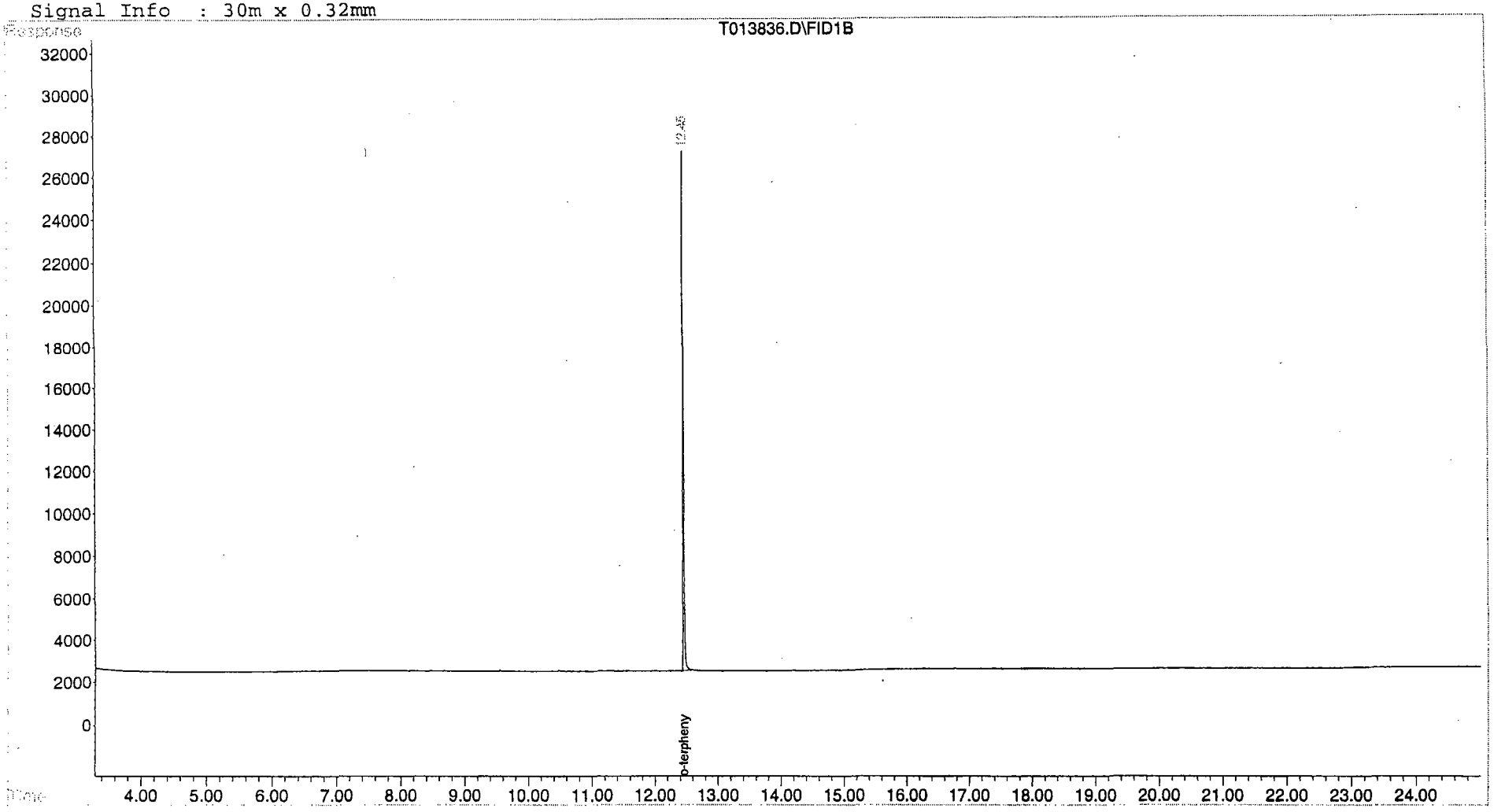
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	254090	9.971 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.71%#
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013836.D Vial: 25
Acq On : 20 Nov 2001 3:44 am Operator: Skelton
Sample : 1658503s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 4:10 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013837.D Vial: 26
Acq On : 20 Nov 2001 4:17 am Operator: Skelton
Sample : 1658504s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 4:43 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

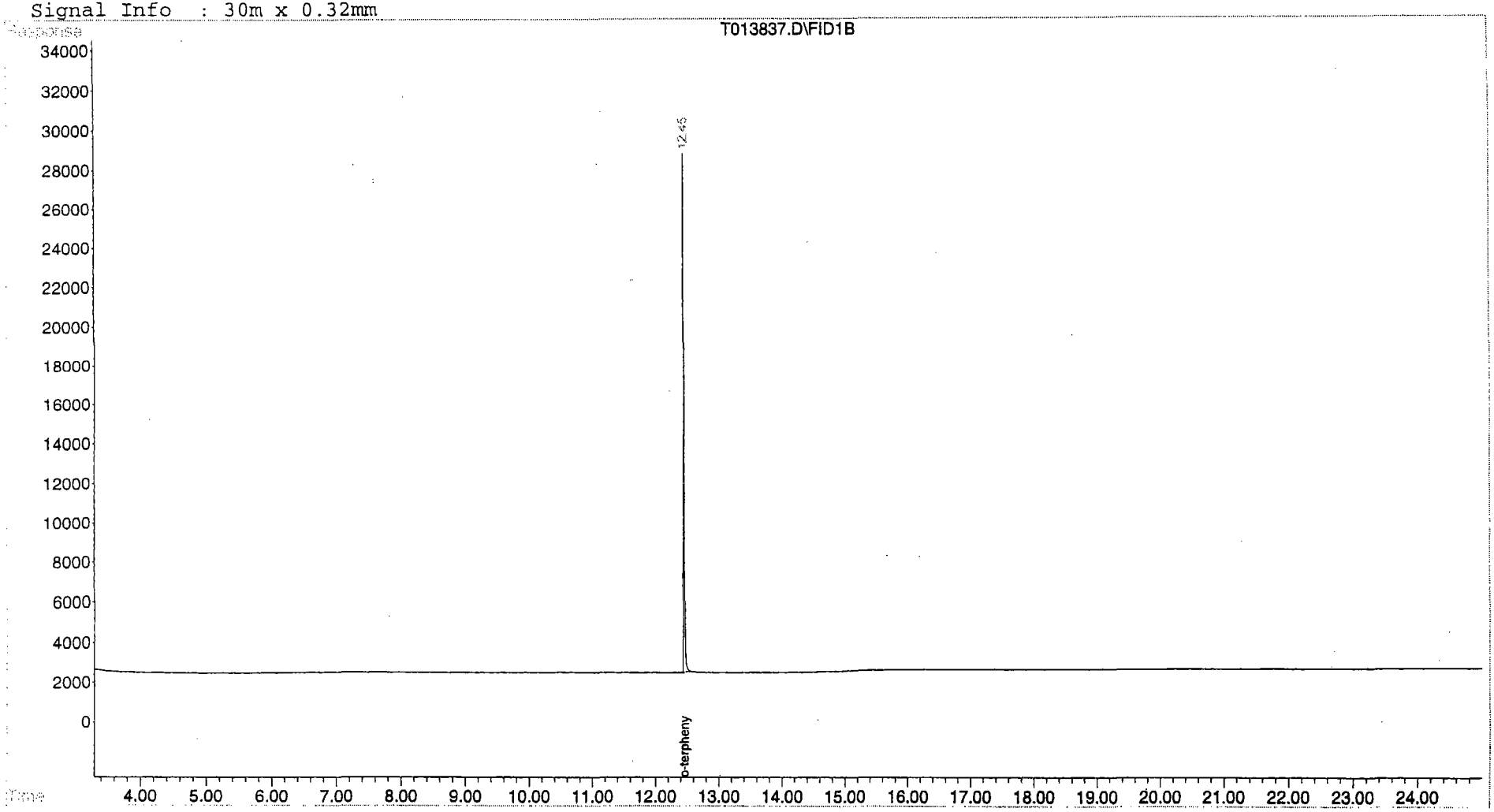
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	260720	10.231 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 102.31%#	
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013837.D Vial: 26
Acq On : 20 Nov 2001 4:17 am Operator: Skelton
Sample : 1658504s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 4:43 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013838.D Vial: 27
Acq On : 20 Nov 2001 4:50 am Operator: Skelton
Sample : 1658505s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:26 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

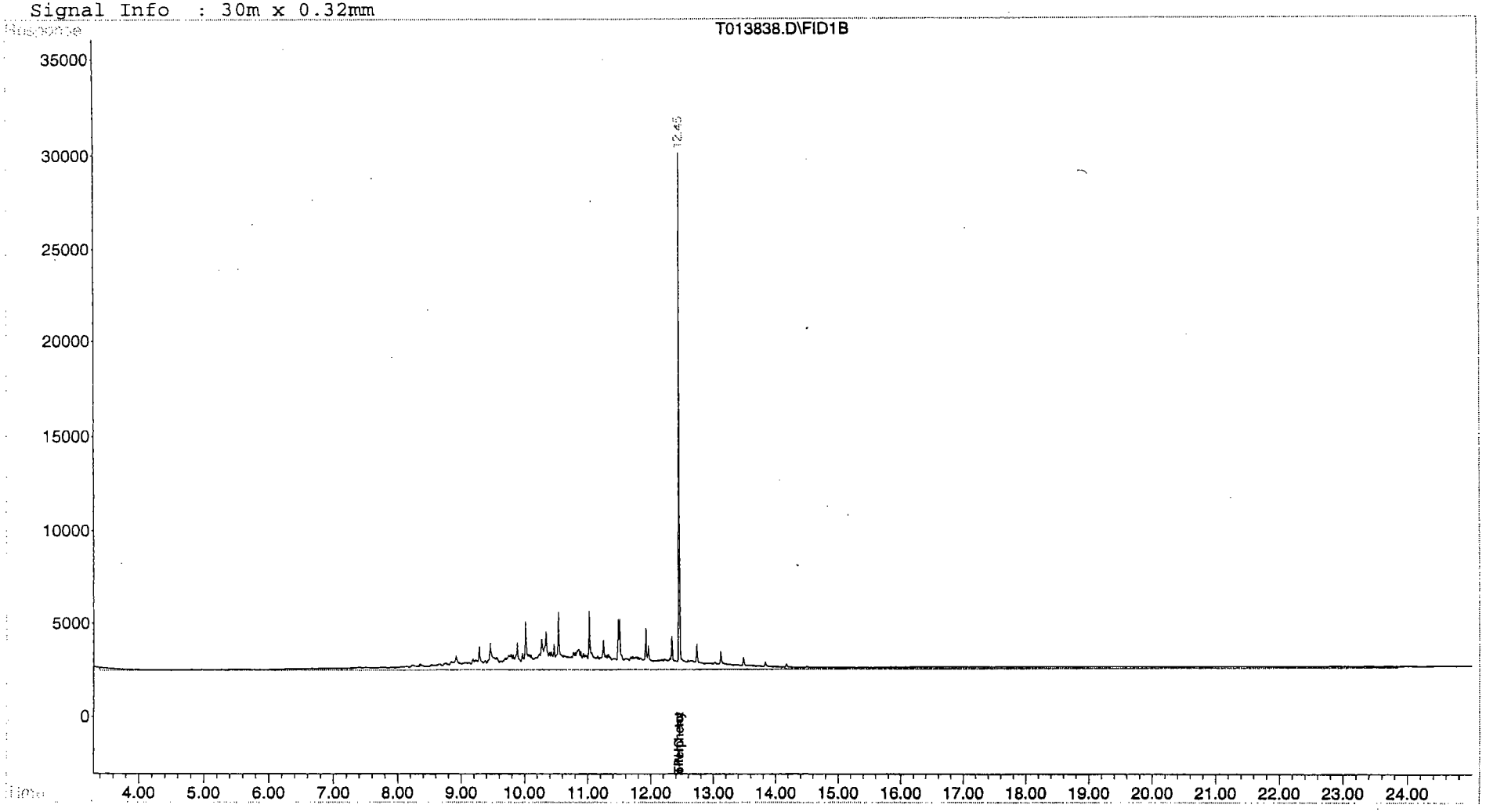
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	252713	9.917 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	99.17%#
Target Compounds			
22) tC TPHC - total	12.45	2951386	101.794 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013838.D Vial: 27
Acq On : 20 Nov 2001 4:50 am Operator: Skelton
Sample : 1658505s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:26 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013839.D Vial: 28
Acq On : 20 Nov 2001 5:23 am Operator: Skelton
Sample : 1658506s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:27 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

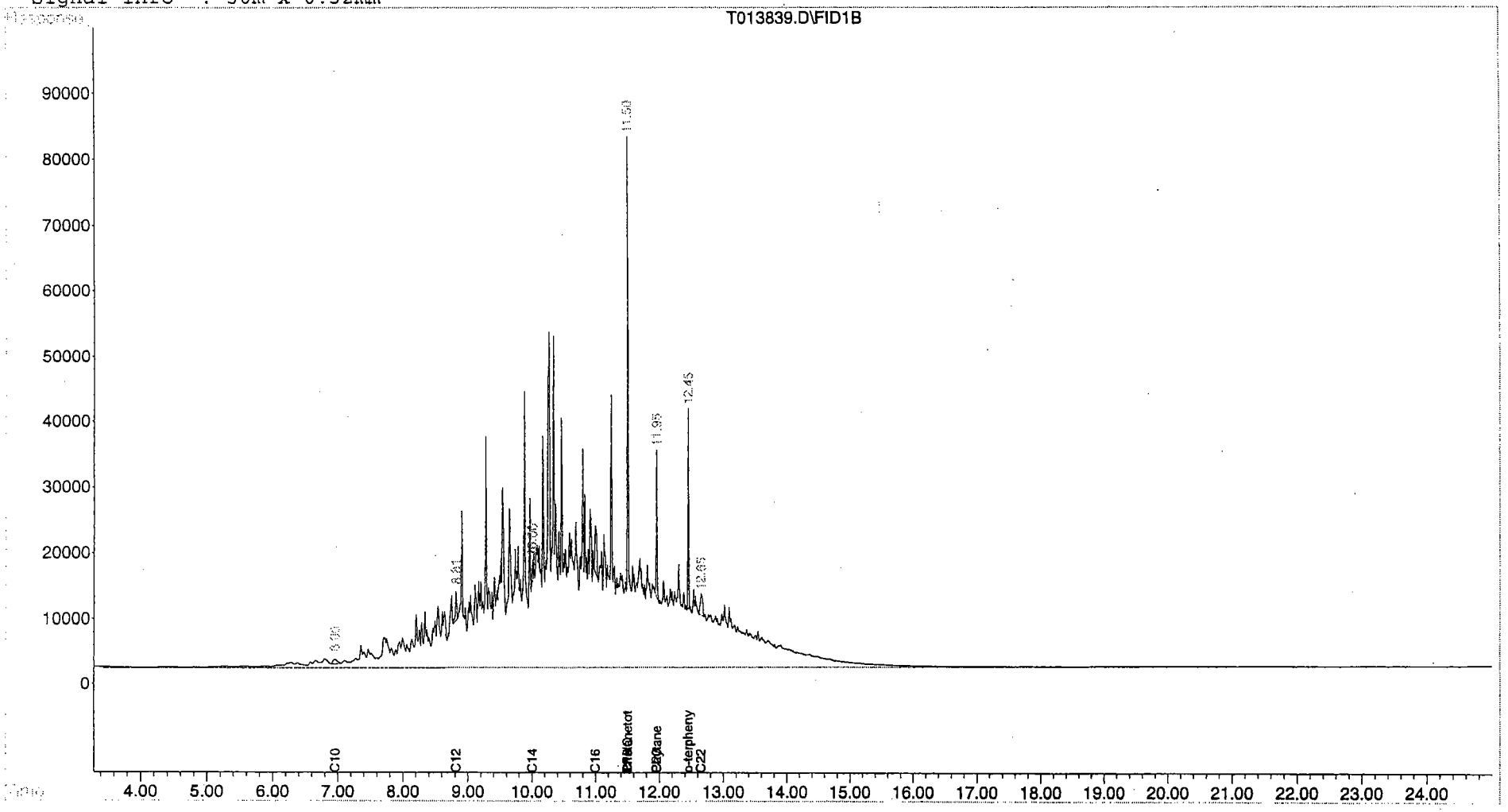
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	272209	10.682 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 106.82%#	
Target Compounds			
2) tC C10	6.96	35826	1.740 mg/L
3) TC C12	8.81	63020	2.925 mg/L
4) tC C14	10.01	31738	1.377 mg/L
5) tC C16	10.99	140517	5.841 mg/L
6) tC C18	11.50	646197	26.043 mg/L
7) tC C20	11.96	230727	9.347 mg/L
8) tC C22	12.65	89338	3.452 mg/L
19) TC Pristane	11.50	646197	27.138 mg/L
20) TC Phytane	11.96	230727	9.022 mg/L
22) tC TPHC - total	11.50	44186160	1523.985 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013839.D Vial: 28
Acq On : 20 Nov 2001 5:23 am Operator: Skelton
Sample : 1658506s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:27 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013841.D Vial: 30
Acq On : 20 Nov 2001 6:29 am Operator: Skelton
Sample : 1658507s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 6:55 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

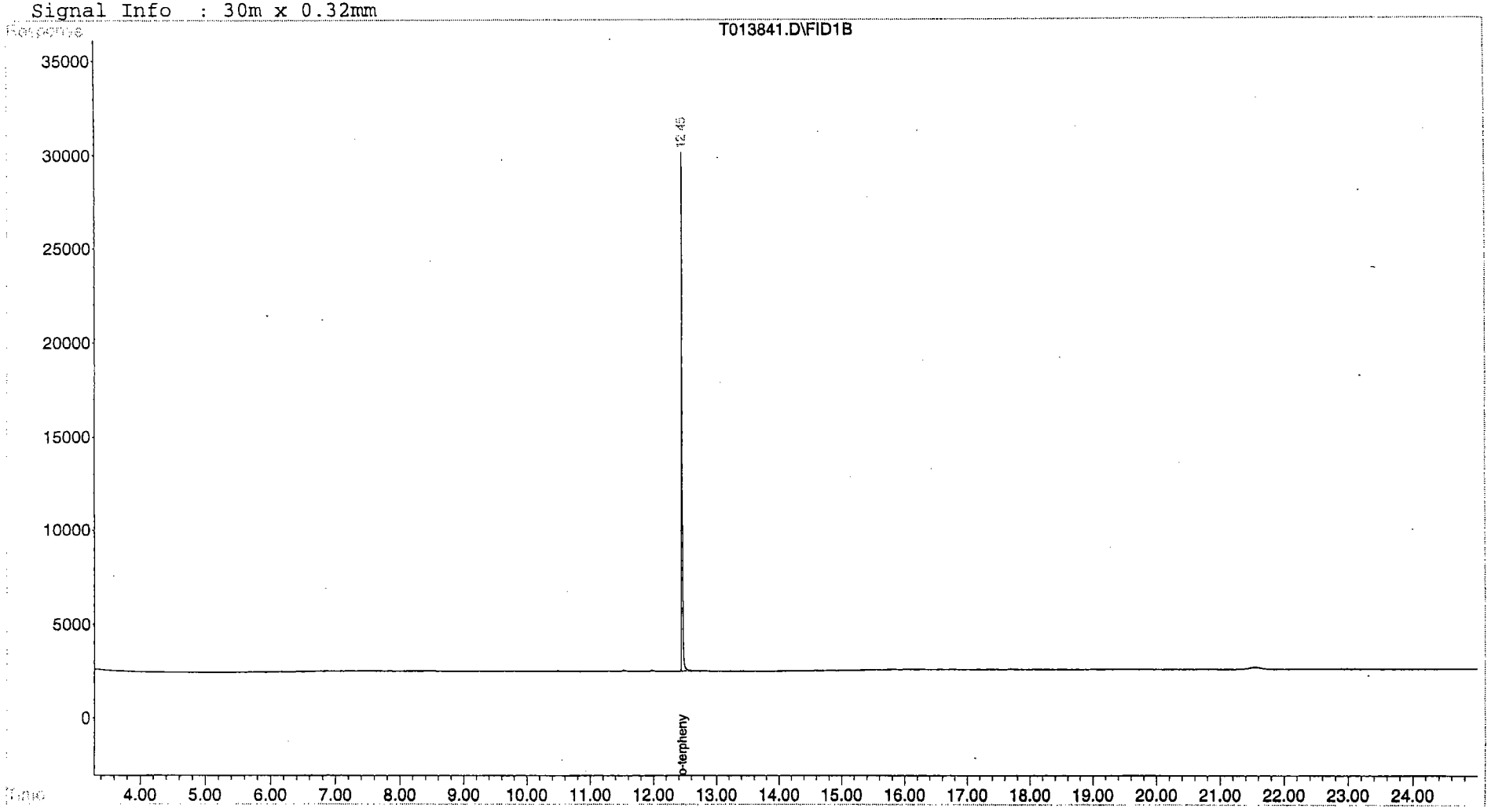
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	268060	10.519 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 105.19%#	
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013841.D Vial: 30
Acq On : 20 Nov 2001 6:29 am Operator: Skelton
Sample : 1658507s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 6:55 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
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 12/6/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

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 #: 1617.1-.2
Sample Rec'd: 08/18/94
Analysis Start: 08/24/94
Analysis Comp: 08/24/94

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

NJDEPE UST Reg.#: **0081533-87**
Closure #: **C-93-3888**
DICAR #: **94-8-18-1613-35**
Location #: **Bldg. 611**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1617.1	P-1	86	2450.	69.
1617.2	P-2	87	27.6	3.9
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1616.3dup= 116% 1616.3s= 121% 1616.3sd= 134% RPD=10.0%

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: PWS-007

Chain of Custody

DICAR# 94-8-18-1613-35

Project #: ~~C-93-3880~~ Ct	Sampler: George B / Cutchin	Date / Time 8-18-94 1500	Analysis Parameters
Customer: C. Appleby SELFM-PW-EV	Site Name: Bldg. 611 Post Excavation Prelim. Samples UST# 81533-87 TMS-C-93-3888		
Phone: x26224			

Start:

Finish:

Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	Remarks
1617.1	8-18-94 1500	P-1	Soil	1	X	Samples Kept <4°C
1617.2	↓ 1502	P-2	↓	1	X	bottles from ESS
						Precleaned Lot # 20941
						objectives - collect
						Analytical Data Prior
						to Further Excavation
						T/A - ASAP

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

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	8/19/94 8:30	Sarah J. Hubbard	8/19/94 0830

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

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

Enviornmental Laboratory

Certification Number 12461

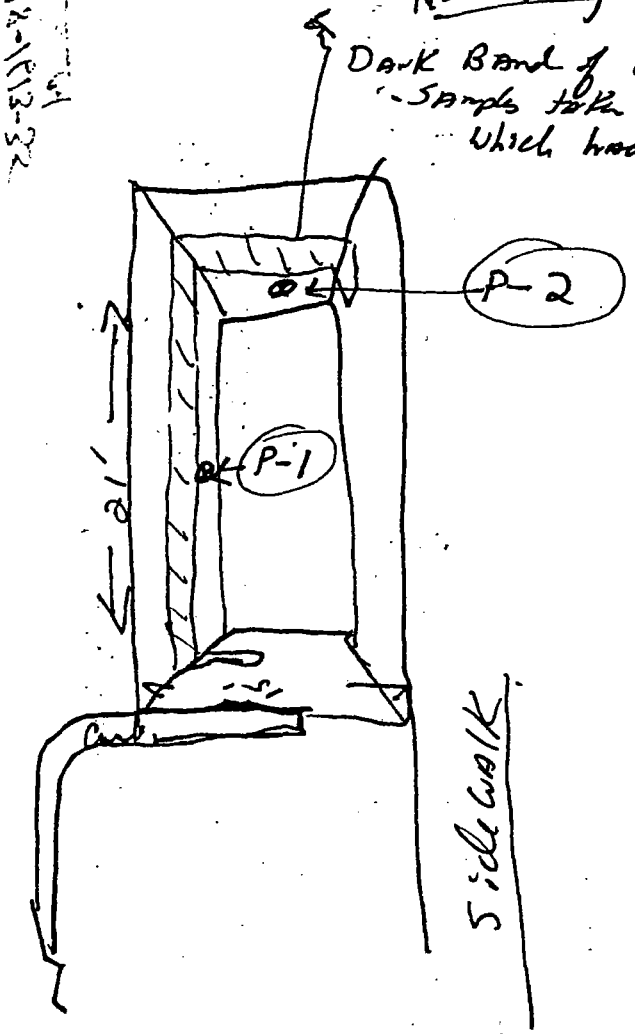
Bldg 611 - 8-19-94 - two samples TPHC taken

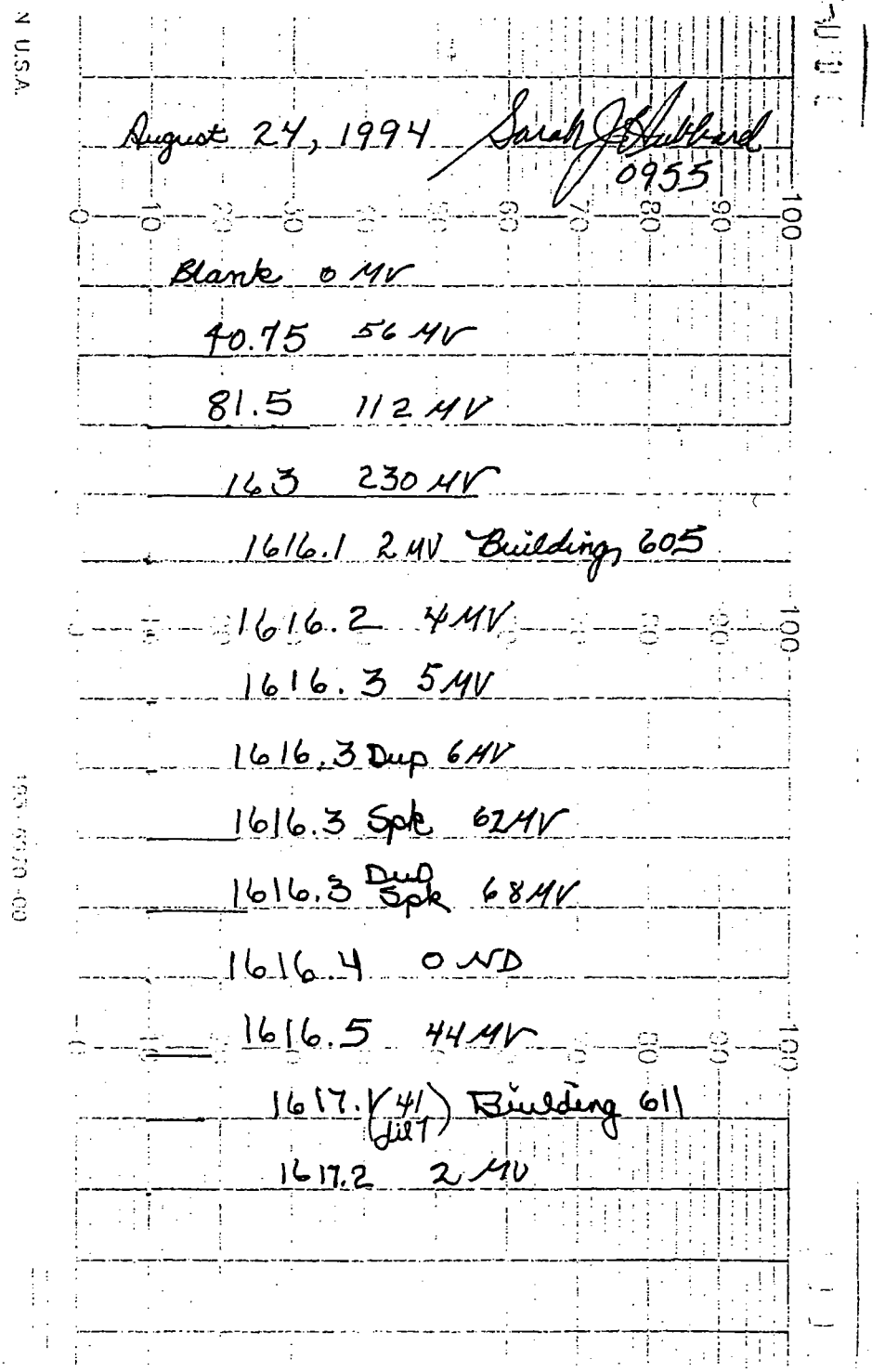
C. Appleby SECFm-PC-EV

No Bldg - Closest Site

Lat/Lon.: 40° 18' 55 sec

74° 02' 45 sec




August 24, 1994 Sarah J. Hubbard
0955
Blank 0 MV
40.75 56 MV
81.5 112 MV
163 230 MV
1616.1 2 MV Building 605
1616.2 4 MV
1616.3 5 MV
1616.3 Dup 6 MV
1616.3 Spk 62 MV
1616.3 Dup Spk 68 MV
1616.4 0 ND
1616.5 44 MV
1617.1 (41 dil) Building 611
1617.2 2 MV

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 #: 1633.1-.9
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.#: **# 87**
Closure #:
DICAR #: **94-8-18-1613-35**
Location #: **Bldg. 611**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1633.1	Site A, NE Wall	OVA= ND	85	ND	6.6
1633.2	Site B, N Midwall	OVA= ND	81	2830.	46.
1633.3	Site C, NW Wall	OVA= ND	82	1160.	6.6
1633.4	Site D, SW Wall	OVA= ND	82	348.	6.6
1633.5	Site E, S Midwall	OVA= ND	83	554.	6.6
1633.6	Site F, SE Wall	OVA= ND	83	752.	6.6
1633.7	Site G, East Wall	OVA= ND	81	143.5	6.6
1633.8	Site H, West Wall	OVA= ND	81	1030.	6.6
1633.9	Site I, dup	OVA= ND	85	47.3	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
BATCH dup= 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 #: 1633.1-.9
Sample Rec'd: 09/06/94
Analysis Start: 09/08/94
Analysis Comp: 09/08/94

Analysis: Munsel

Lab ID#	Soil Color
1633.1	5GY 4/1 Dark Greenish Gray
1633.2	5Y 3/2 Dark Olive Gray
1633.3	5Y 3/2 Dark Olive Gray
1633.4	5Y 3/2 Dark Olive Gray
1633.5	5Y 3/2 Dark Olive Gray
1633.6	5Y 2.5/1 Black
1633.7	5Y 3/2 Dark Olive Gray
1633.8	5Y 3/2 Dark Olive Gray
1633.9	5Y 2.5/1 Black

Brian K. McKee
Laboratory Director

SERV-AIR, INC.

P.O. #: PWS-87 TPHC

Chain of Custody

Project #: C-93-3888

Customer: DINKER DESAI SELFM-PW-ENV

Phone: 908-532-1475

Sampler: GEORGE B. / CUTE, INC

Date / Time: 9-6-94

Site Name: BLDG 611 UST # 87 DICAR 94-8-18-1613-35

Analysis Parameters: TPHC; 10 SOLID MUNSEL; OVA

Start:

Finish:

Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Remarks
1633.1	9-6-94 1342	SITE A - NE WALL	SOIL	1	ND SAMPLE KEPT @ 4°C
.2	1345	B - N - MIDWALL			
.3	1347	C - NW WALL			
.4	1350	D - SW WALL			
.5	1353	E - S - MID WALL			
.6	1355	F - SE WALL			
.7	1357	G - EAST WALL			OVA calibrated to 0 PPM AIR & 95 PPM METHANE - METER READ 80 PPM AT 1045 on 9/6/94 S/N A51963
.8	1400	H - WEST WALL			
.9	N/A	I - DUP			

Relinquished By (signature): [signature] Date / Time: 9/6/94 1430

Received By (signature):

Shipped By: HAND

Relinquished By (signature):

Date / Time:

Received for Lab by (signature): B. MK Date / Time: 9/6/94 1445

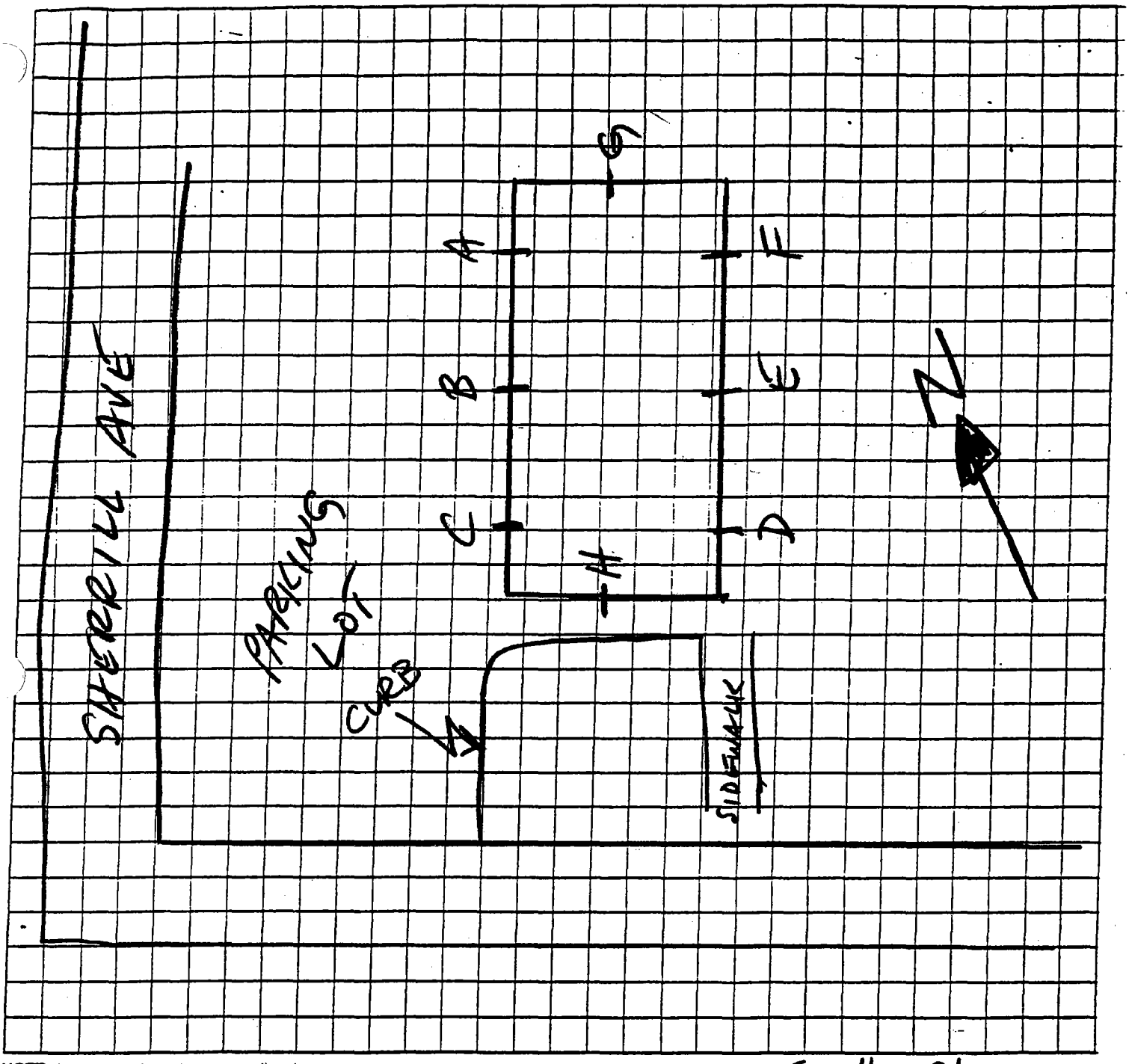
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

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

ALL SAMPLES ARE BOTTOM SIDEWALL 3'-6" ABOVE WATERLINE (≈10' DEEP)

SERV-AIR, INC. FORT MONMOUTH NEW JERSEY

PROPOSED SITE PLAN:



NOTE: *Indicate scale and compass direction.*

SCALE: 1" = 10'

REMARKS

- NORTH WALL EXCAVATED -
1 LOADER OF DIRT REMOVED
- NO FUEL LINES FOUND

TANK LOCATION

BLDG# 611
TANK # 0081533-87
TANK SIZE 1000 GALLON
TANK CONTENTS NO. 2 OIL

September 8, 199
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 (dil 7)

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 DH 9/8/94

1631.6 34 MV

~~1631.6 81 MV~~ VOID Duplicate DH 9/8/94

1631.6 31 MV

1631.6 149 MV Spike

1631.6 142 MV Spike Dup

~~1631.6 Blank 0 MV~~

PRINTED IN U.S.A.

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 JDA 9/8/94

1631.6 34 MV

~~1631.6 82 MV~~ VOID Duplicate JDA 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 40.75

52 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 #1633

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 #: 1768.1-.5
Sample Rec'd: 12/16/94
Analysis Start: 12/19/94
Analysis Comp: 12/20/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: 3540A

NJDEPE UST Reg.#:
Closure #: **C-93-3888**
DICAR #: **94-8-18-1613-35**
Location #: **Bldg. 611**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1768.1	Site A1, NE. Wall	OVA=5.	88	9.52	8.1
1768.2	Site B1, N. Midwall	OVA=3.	84	29.4	8.1
1768.3	Site C1, NW. Wall	OVA=ND	88	57.8	7.9
1768.4	Site G1, East Wall	OVA=6.	88	ND	7.6
1768.5	Site H1, West Wall	OVA=ND	87	15.9	8.1
M. Bl.	Method Blank		100	ND	7.7

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1762.6S= 122%, 1762.6SD= 114%, RPD= 7.0% 1762.6 Dup=100%

QC Limits: Recovery= 100+/-28%, RPD=19.7%

Brian K. McKee
Laboratory Director

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

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

Lab. ID #: 1768.1-.5
Sample Rec'd: 12/16/94
Analysis Start: 12/20/94
Analysis Comp: 12/20/94

Analysis: Munsel

Lab ID#	Soil Color
1768.1	5 GY 4/1 Dark Greenish Gray
1768.2	5 GY 4/1 Dark Greenish Gray
1768.3	5 GY 4/1 Dark Greenish Gray
1768.4	5 GY 4/1 Dark Greenish Gray
1768.5	5 GY 4/1 Dark Greenish Gray

Brian K. McKee
Laboratory Director

Second round of sampling after removal of PCB & soil

U.S. ARMY FORT MONMOUTH

P.O. #: W53-7

Chain of Custody

Project #:	Sampler: George Cute	Date / Time 12/16	Analysis Parameters
Customer: DeSai	Site Name: BLDG 611 TMS # C-93-388 Case # 94-8-18-1613-35		Start: / Finish:
Phone:			Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	T. Solids	Mansoil	VOA	Remarks
1768.1	12/16	10-09	Site A, NE Wall	Soil	1	X	X	X	5	
.2	"	10-14	Site B1, N Mid wall	"	1	X	X	X	3	
.3	"	10-18	Site C1, NW wall	"	1	X	X	X	ND	
.4	"	10-22	Site G1, East wall	"	1	X	X	X	6	
.5	"	10-25	Site H1, west wall	"	1	X	X	X	ND	

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	12/16 1145		

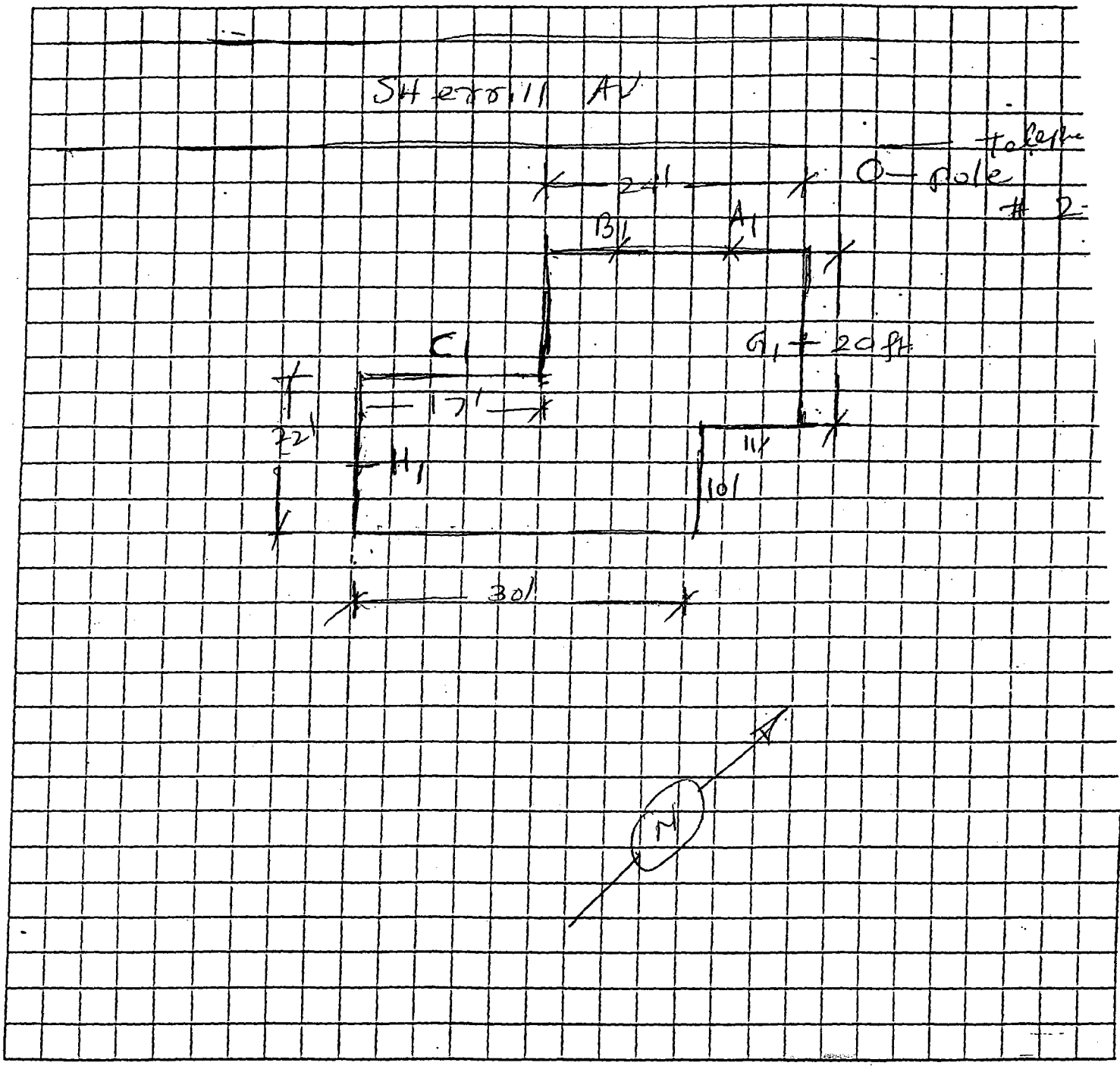
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
		B. Mk	12-16 1145

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

Enviornmental Laboratory

SERV-AIR, INC. FORT M MOUTH, NEW JERSEY

PROPOSED SITE PLAN



NOTE: *Indicate scale and compass direction.*

REMARKS

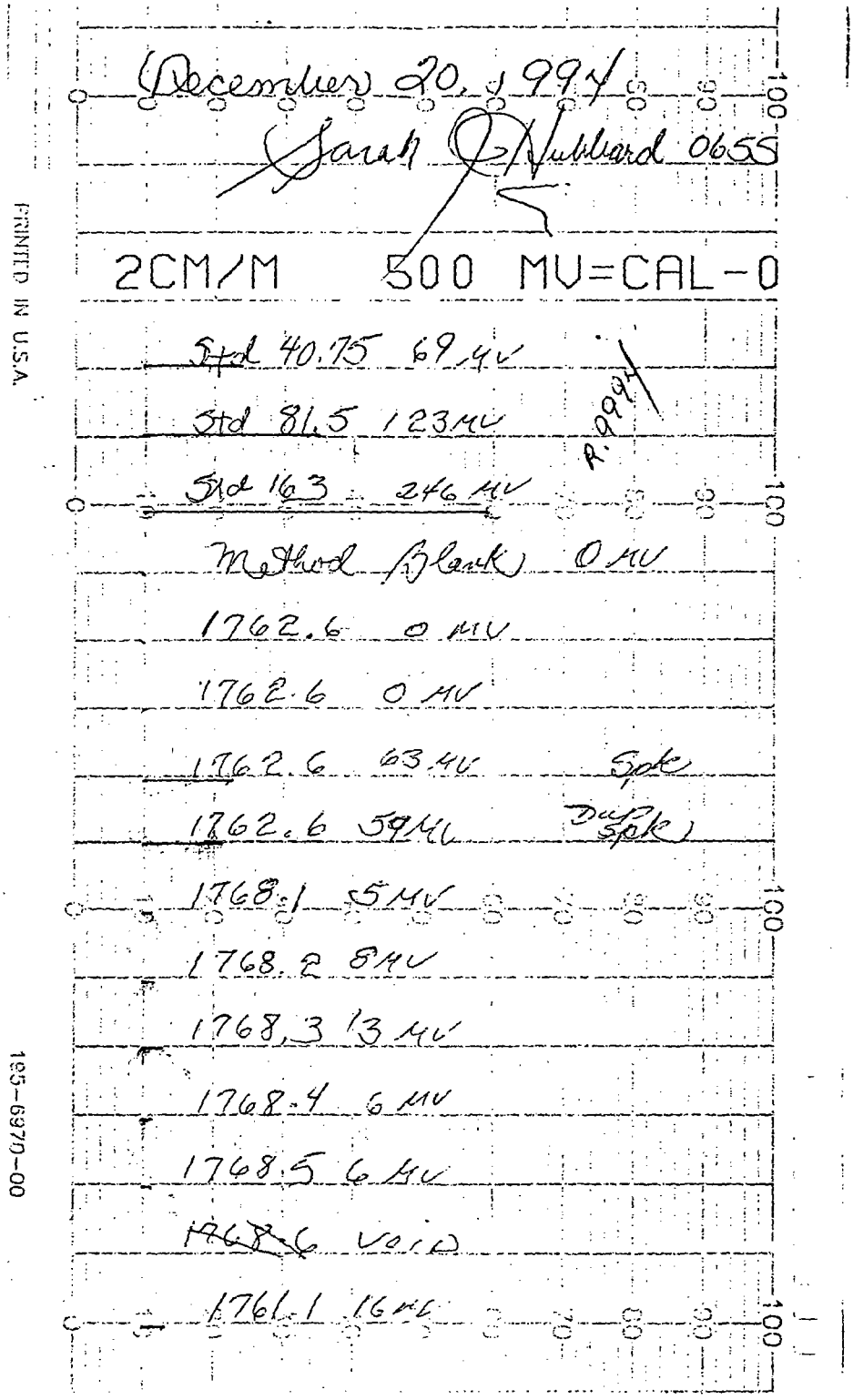
TANK LOCATION

BLDG# G 11

TANK #

TANK SIZE

TANK CONTENTS



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.		NA
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 #1768 BKM

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 #: 1633.1-.9
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.#: **# 87**
Closure #:
DICAR #: **94-8-18-1613-35**
Location #: **Bldg. 611**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1633.1	Site A, NE Wall	OVA= ND	85	ND	6.6
1633.2	Site B, N Midwall	OVA= ND	81	2830.	46.
1633.3	Site C, NW Wall	OVA= ND	82	1160.	6.6
1633.4	Site D, SW Wall	OVA= ND	82	348.	6.6
1633.5	Site E, S Midwall	OVA= ND	83	554.	6.6
1633.6	Site F, SE Wall	OVA= ND	83	752.	6.6
1633.7	Site G, East Wall	OVA= ND	81	143.5	6.6
1633.8	Site H, West Wall	OVA= ND	81	1030.	6.6
1633.9	Site I, dup	OVA= ND	85	47.3	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
BATCH dup= 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 #: 1633.1-.9
Sample Rec'd: 09/06/94
Analysis Start: 09/08/94
Analysis Comp: 09/08/94

Analysis: Munsel

Lab ID#	Soil Color
1633.1	5GY 4/1 Dark Greenish Gray
1633.2	5Y 3/2 Dark Olive Gray
1633.3	5Y 3/2 Dark Olive Gray
1633.4	5Y 3/2 Dark Olive Gray
1633.5	5Y 3/2 Dark Olive Gray
1633.6	5Y 2.5/1 Black
1633.7	5Y 3/2 Dark Olive Gray
1633.8	5Y 3/2 Dark Olive Gray
1633.9	5Y 2.5/1 Black

Brian K. McKee
Laboratory Director

SERV-AIR, INC.

P.O. #: PWS-67 TPHC

Chain of Custody

Project: C-93-3888	Sampler: GEORGE B. / CUTE, INC	Date / Time: 9-6-94	Analysis Parameters	Start:
Customer: DINKER DESAI SELFM-PW-ENV	Site Name: BLDG 611 UST # 87 DICAR 94-8-18-1613-35			Finish:
Phone: 908-532-1475				Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% SOLID	MUNSEL	OVA	Remarks
1633.1	9-6-94 1342	SITE A - NE WALL	SOIL	1	X	X	X	ND	SAMPLE KEPT < 4°C
.2	1345	B - N - MID WALL							
.3	1347	C - NW WALL							
.4	1350	D - SW WALL							
.5	1353	E - S - MID WALL							
.6	1355	F - SE WALL							
.7	1357	G - EAST WALL							OVA calibrated to 0 PPM AIR & 95 PPM METHANE - METER READ 80 PPM AT 1045 on 9/6/94 S/N A51983
.8	1400	H - WEST WALL							
.9	N/A	I - DUP							

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By: HAND
[signature]	9/6/94 1430		

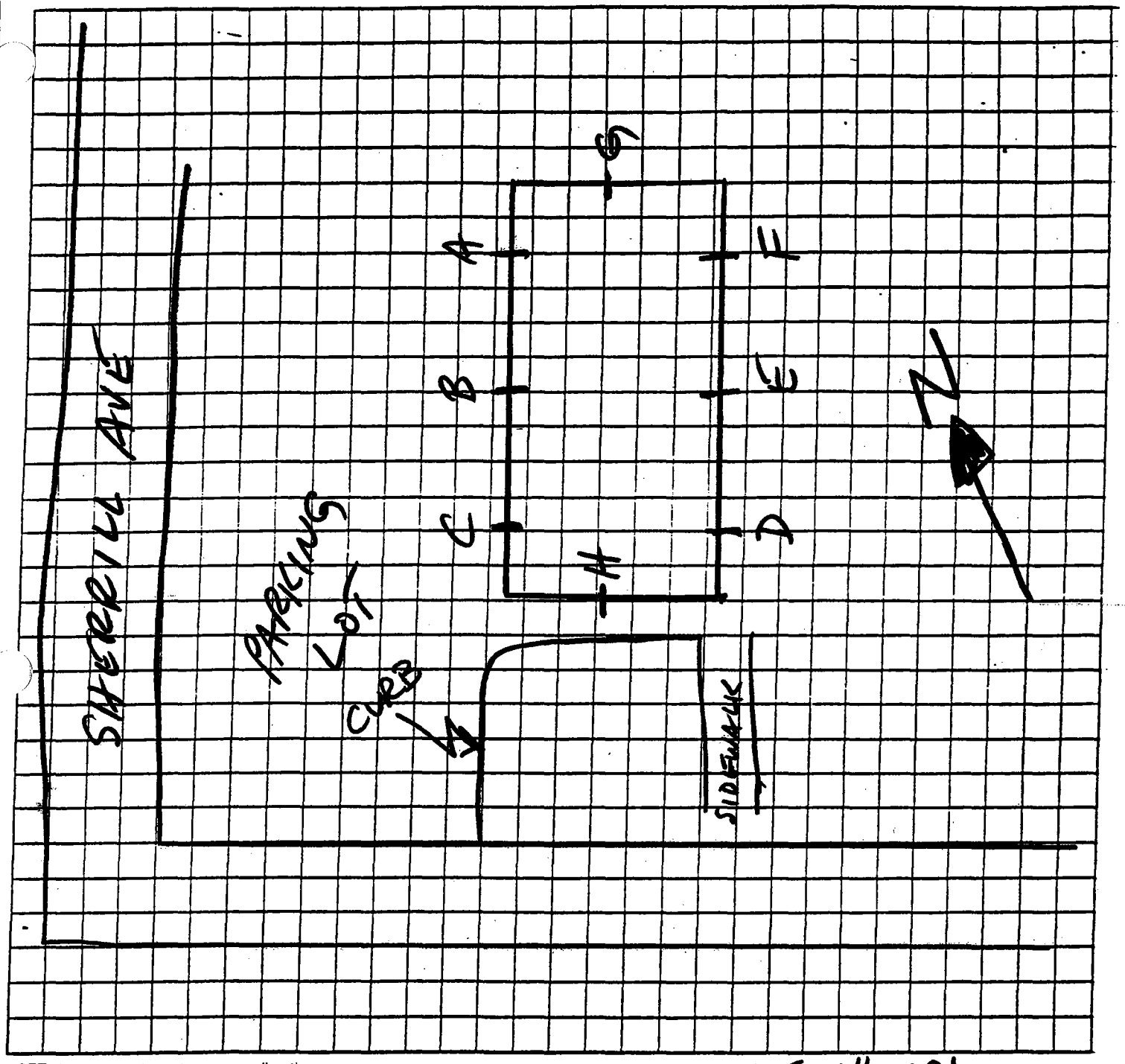
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
		B. MK	9/6/94 1445

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

ALL SAMPLES ARE BOTTOM SIDEWALL 3-6" ABOVE WATERLINE (≈ 10' DEEP)

SERV-AIR, INC. FORT MONMOUTH NEW JERSEY

PROPOSED SITE PLAN:



NOTE: *Indicate scale and compass direction.*

SCALE: 1" = 10'

REMARKS

NORTH WALL EXCAVATED -
1 LOADER OF DIRT REMOVED
NO FUEL LINES FOUND

TANK LOCATION

BLDG# 611
TANK # 0081533-87
TANK SIZE 1000 GALLON
TANK CONTENTS NO. 2 OIL

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 (617)

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

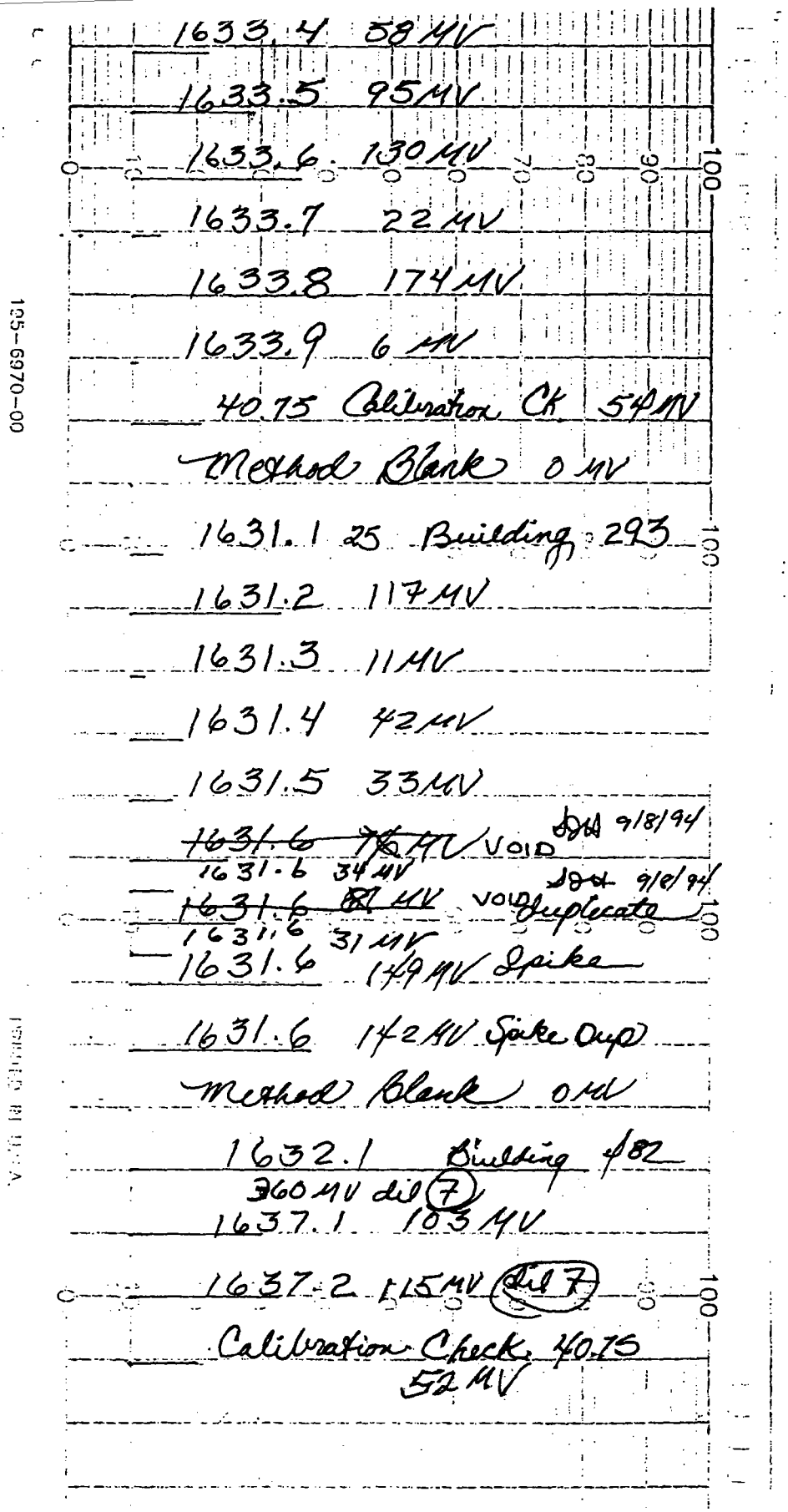
~~1631.6 76 MV~~ VOID DH 9/8/94
1631.6 34 MV

~~1631.6 82 MV~~ VOID Duplicate DH 9/8/94
1631.6 31 MV

1631.6 149 MV Spike

1631.6 142 MV Spike Dup

PRINTED IN U.S.A.


1633.4 59 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 DH 9/8/94
1631.6 34 MV
~~1631.6 82 MV~~ VOID Duplicate DH 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 dil (7)
1637.1 103 MV
1637.2 115 MV dil 7
Calibration Check 40.75
52 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 #1633

Brian K. McKee
Laboratory Manager

40.75 55
81.5 - 11.0 / R.9994 / Bldg. 611
163 - 231
sampled 9/6/94

U.S. ARMY FOR MONMOUTH

Sept 6, 1994
Sarah K Hubbard

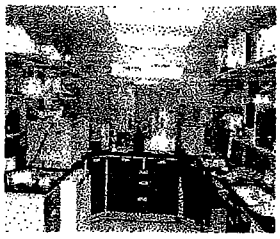
Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Method Blank	30	0	ND				—	—
1633.1	15	0	ND	6.743	5.738	.85	5GY 4/1	dark greenish gray
.2	15	due (7) 67	2,831.4	7.593	6.136	.81	5Y 3/2	dark olive gray
.3	15	199	1,158.0	6.213	5.126	.82	5Y 3/2	"
.4	15	58	347.8	6.050	4.996	.82	5Y 3/2	"
.5	15	95	553.7	6.514	5.400	.83	5Y 3/2	"
.6	15	130	752.4	6.808	5.655	.83	5Y 2.5Y/1	Black
.7	15	22	142.7	8.341	6.767	.81	5Y 3/2	dark Olive gray
.8	15	174	1,026.9	8.346	6.769	.81	5Y 3/2	"
.9	15	6	47.3	7.274	6.168	.85	5Y 2.5Y/1	Black

Certification Number 13461

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. 615

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
615-1/7.5'	1659701	Soil	19-Nov-01 10:00	11/19/01
615-2/7.5'	1659702	Soil	19-Nov-01 10:25	11/19/01
615-3/7.5'	1659703	Soil	19-Nov-01 10:45	11/19/01
615-4/7.5'	1659704	Soil	19-Nov-01 11:00	11/19/01
615-5/7.5'	1659705	Soil	19-Nov-01 11:20	11/19/01
615-FD/7.5'	1659706	Soil	19-Nov-01	11/19/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-30-01
Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

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

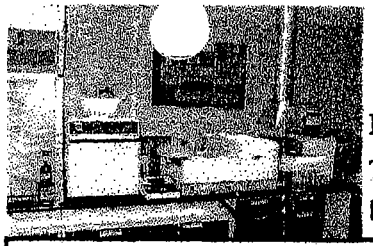
Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager _____ Date 11-30-01



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

000003

Customer: D.DESAI
Phone #: X21475
( )DERA ( )OMA ( )Other:_____

Project No: 02-12539
Location: BLDG. 615 (FORMER)

Samplers Name / Company: MACK LAURA - TVS - PWS 07

Lab Sample I.D.		Sample Location		Date	Time	Sample Type	# bottles	Analysis Parameters: VOA+15	TPHC	% SOLID				HNU (ppm)	Comments: Remarks / Preservation Method
16597	1	615-1	7.5'	11-19-01	1000	SOIL	1		X	X				0	<4oc
	2	615-2	7.5'	"	1025	"	"		X	X				0	"
	3	615-3	7.5'	"	1045	"	"		X	X				0	"
	4	615-4	7.5'	"	1100	"	"		X	X				0	"
1	5	615-5	7.5	"	1120	"	"		X	X				0	"
	6	615-FD	7.5	"	—	"	"		X	X				0	"

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	11-19-01	[signature]			
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: 1120 = 7.9'

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 # :** **Location :** **UST Reg. # :**	16597 Bldg. 615
Analysis :	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix :	Soil	**Date Extracted :**	20-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1659701	615-1	**1.00**	15.92	80.84	176	**ND**
1659702	615-2	**1.00**	15.90	79.44	179	**ND**
1659703	615-3	**1.00**	15.12	79.04	190	**ND**
1659704	615-4	**1.00**	15.45	81.25	180	**ND**
1659705	615-5	**1.00**	15.47	78.93	185	**ND**
1659706	615-FD	**1.00**	15.44	79.12	185	**ND**
METHOD BLANK	MB-2665	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1)	tC C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013851.D Vial: 40
Acq On : 20 Nov 2001 11:59 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.333	E3	-18.4	113	-0.05
2	tC	C10	20.595	22.301	E3	-8.3	105	-0.01
3	TC	C12	21.549	23.385	E3	-8.5	106	0.00
4	tC	C14	23.048	23.751	E3	-3.1	102	0.00
5	tC	C16	24.057	24.359	E3	-1.3	101	0.00
6	tC	C18	24.812	24.271	E3	2.2	98	0.00
7	tC	C20	24.684	25.016	E3	-1.3	101	0.00
8	tC	C22	25.878	25.865	E3	0.1	101	0.00
9	tC	C24	26.326	26.136	E3	0.7	100	0.00
10	tC	C26	26.702	26.415	E3	1.1	100	0.00
11	tC	C28	26.061	25.990	E3	0.3	100	0.00
12	tC	C30	26.583	26.697	E3	-0.4	100	0.00
13	tC	C32	26.447	26.440	E3	0.0	100	0.00
14	tC	C34	26.317	26.342	E3	-0.1	100	0.00
15	tC	C36	26.661	27.330	E3	-2.5	103	0.00
16	tC	C38	24.528	26.234	E3	-7.0	108	0.00
17	tC	C40	21.994	25.278	E3	-14.9	118	-0.01
18	tC	c42	19.638	25.122	E3	-27.9#	130	0.00
19	TC	Pristane	23.812	23.579	E3	1.0	98	0.00
20	TC	Phytane	25.573	25.375	E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.727	E3	-1.0	101	0.00
22	tC	TPHC - total	28.994	28.838	E3	0.5	108	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013874.D Vial: 63
Acq On : 21 Nov 2001 12:35 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.845 E3	-15.7	111	-0.06
2	tC	C10	20.595	22.510 E3	-9.3	106	-0.02
3	TC	C12	21.549	23.468 E3	-8.9	106	0.00
4	tC	C14	23.048	24.300 E3	-5.4	105	0.00
5	tC	C16	24.057	24.924 E3	-3.6	104	0.00
6	tC	C18	24.812	26.088 E3	-5.1	106	0.00
7	tC	C20	24.684	25.518 E3	-3.4	103	0.00
8	tC	C22	25.878	26.569 E3	-2.7	103	0.00
9	tC	C24	26.326	26.900 E3	-2.2	103	0.00
10	tC	C26	26.702	27.150 E3	-1.7	103	0.00
11	tC	C28	26.061	26.721 E3	-2.5	103	0.00
12	tC	C30	26.583	27.479 E3	-3.4	103	0.00
13	tC	C32	26.447	27.239 E3	-3.0	103	0.00
14	tC	C34	26.317	27.149 E3	-3.2	103	0.00
15	tC	C36	26.661	28.199 E3	-5.8	106	-0.01
16	tC	C38	24.528	27.068 E3	-10.4	112	-0.02
17	tC	C40	21.994	26.208 E3	-19.2	122	-0.02
18	tC	c42	19.638	25.939 E3	-32.1#	134	-0.02
19	TC	Pristane	23.812	24.975 E3	-4.9	104	0.00
20	TC	Phytane	25.573	25.985 E3	-1.6	103	0.00
21	sC	o-terphenyl	25.484	26.360 E3	-3.4	104	0.00
22	tC	TPHC - total	28.994	31.702 E3	-9.3	119	1.73#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16597
	DPW. SELFM-PW-EV	**Location :**	Bldg. 615
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix:	Soil	**Date Extracted :**	20-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1659701			10.00	10.35	**103.50**
1659702			10.00	10.11	**101.06**
1659703			10.00	10.55	**105.53**
1659704			10.00	10.20	**102.01**
1659705			10.00	9.91	**99.11**
1659706			10.00	10.85	**108.54**
METHOD BLANK	MB-2665		10.00	10.84	**108.38**

Surrogate Added : **o-Terphenyl**

Client:	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	**Project # :** **Location :** **UST Reg. # :**	16597 Bldg. 615

Analysis:	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix:	Soil	**Date Extracted :**	20-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1659701MS	1000	0.00	888.62	88.86	75-125
1659701MSD	1000	0.00	958.95	95.89	75-125

RPD	**7.61**	**20.00**

Quality Control Check Standard Summary
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 # :** **Location :** **UST Reg. # :**	16597 Bldg. 615
Analysis:	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix:	Soil	**Date Extracted :**	20-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2666	20-Nov-01	1000	868.74	86.87	75-126

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013857.D Vial: 46
Acq On : 20 Nov 2001 3:19 pm Operator: Skelton
Sample : MB 2665s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 15:45 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	276181	10.838 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 108.38%#	
Target Compounds			

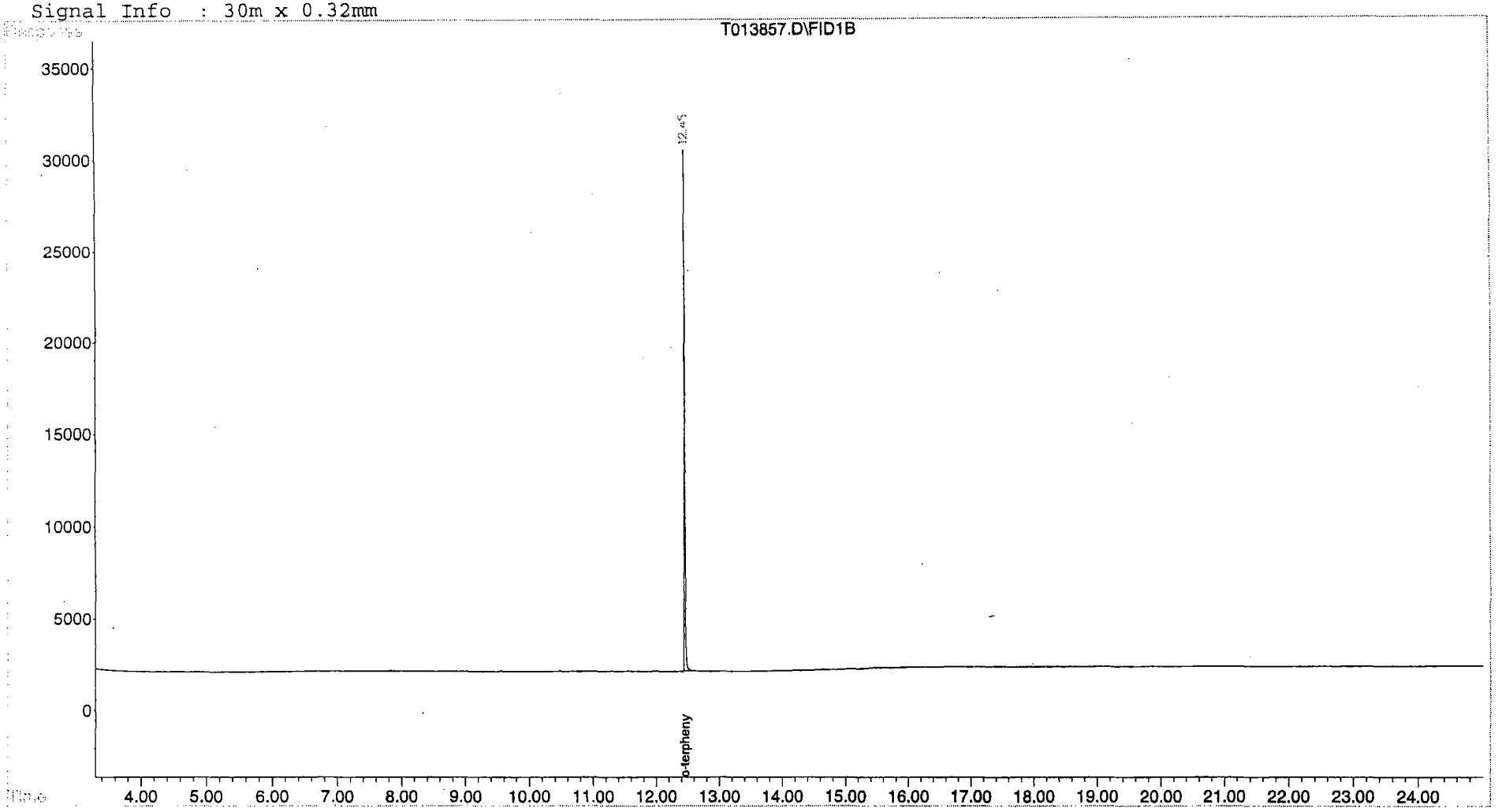
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013857.D
Acq On : 20 Nov 2001 3:19 pm
Sample : MB 2665s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 20 15:45 2001 Quant Results File: TPH95.RES

Vial: 46
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013859.D Vial: 48
Acq On : 20 Nov 2001 4:25 pm Operator: Skelton
Sample : 1659701s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 16:51 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

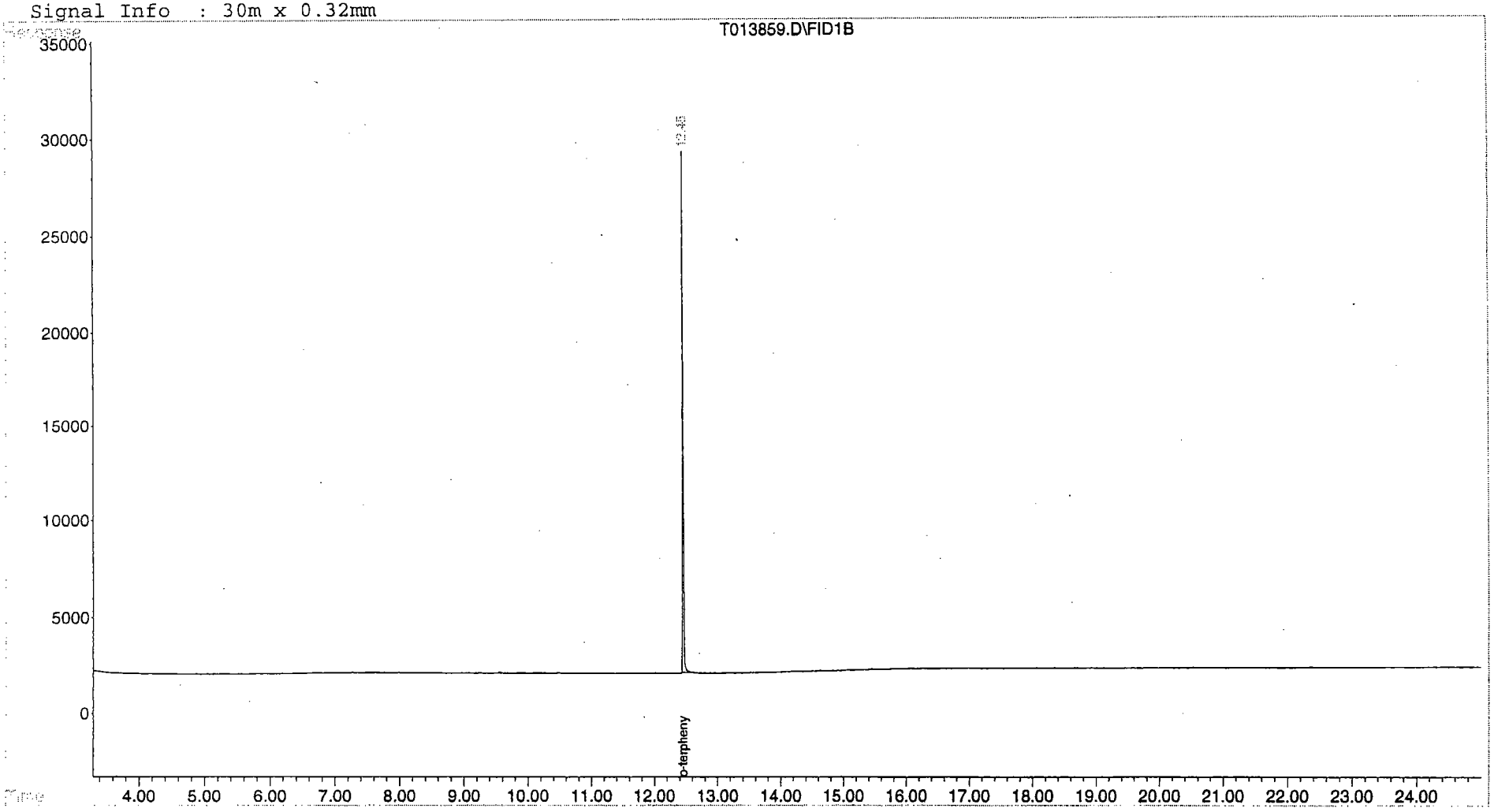
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	263747	10.350 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 103.50%#	
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013859.D Vial: 48
Acq On : 20 Nov 2001 4:25 pm Operator: Skelton
Sample : 1659701s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 16:51 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013863.D Vial: 52
Acq On : 20 Nov 2001 6:37 pm Operator: Skelton
Sample : 1659702s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 19:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

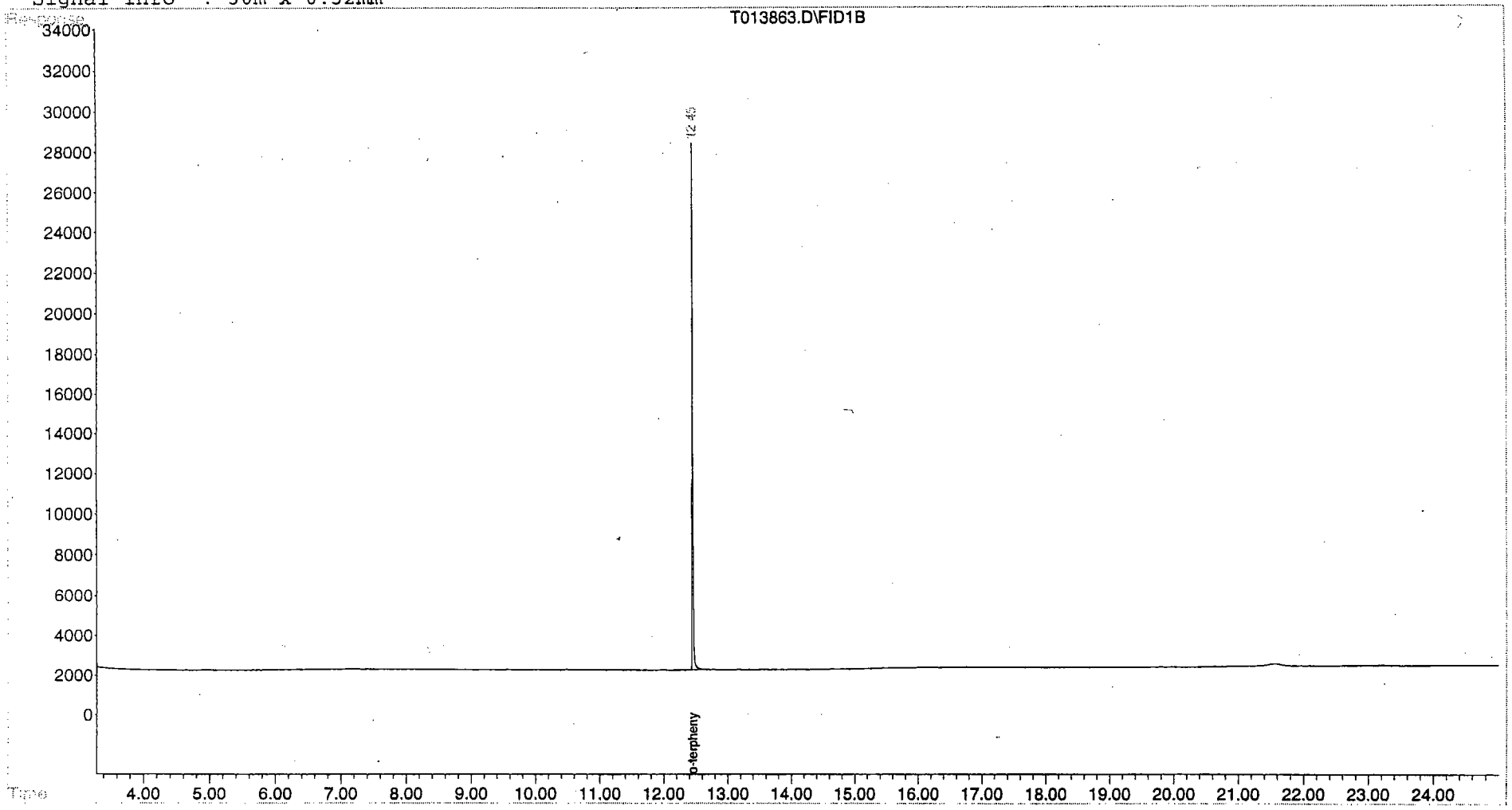
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	257548	10.106 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	101.06%#
Target Compounds			

Quantitation ort

Data File : C:\HPCHEM\1\DATA\011119\T013863.D Vial: 52
Acq On : 20 Nov 2001 6:37 pm Operator: Skelton
Sample : 1659702s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 19:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013864.D Vial: 53
Acq On : 20 Nov 2001 7:10 pm Operator: Skelton
Sample : 1659703s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 19:35 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

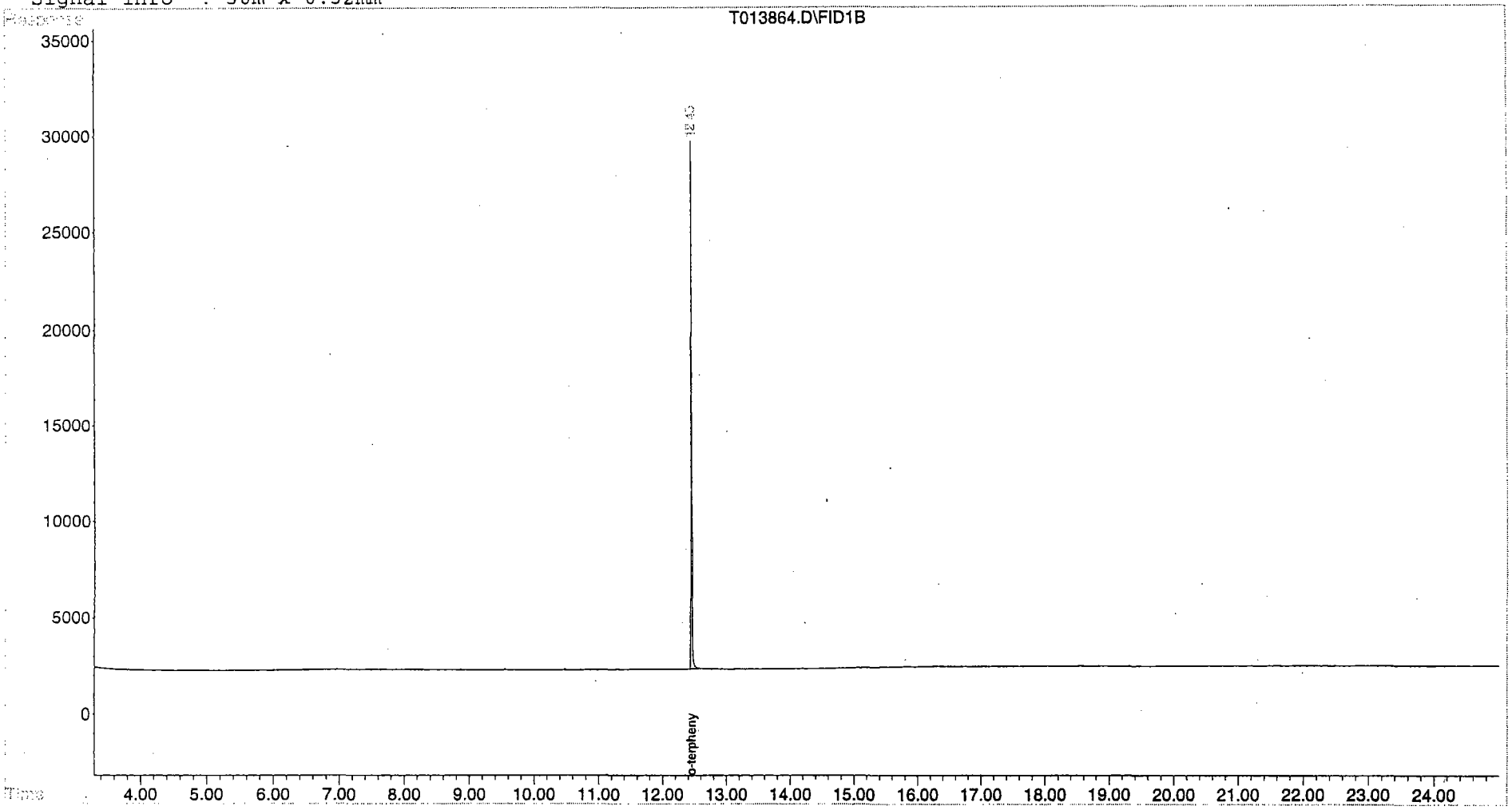
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	268925	10.553 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	105.53%#
Target Compounds			

Quantitation ort

Data File : C:\HPCHEM\1\DATA\011119\T013864.D Vial: 53
Acq On : 20 Nov 2001 7:10 pm Operator: Skelton
Sample : 1659703s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 19:35 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013865.D Vial: 54
Acq On : 20 Nov 2001 7:42 pm Operator: Skelton
Sample : 1659704s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 20:08 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

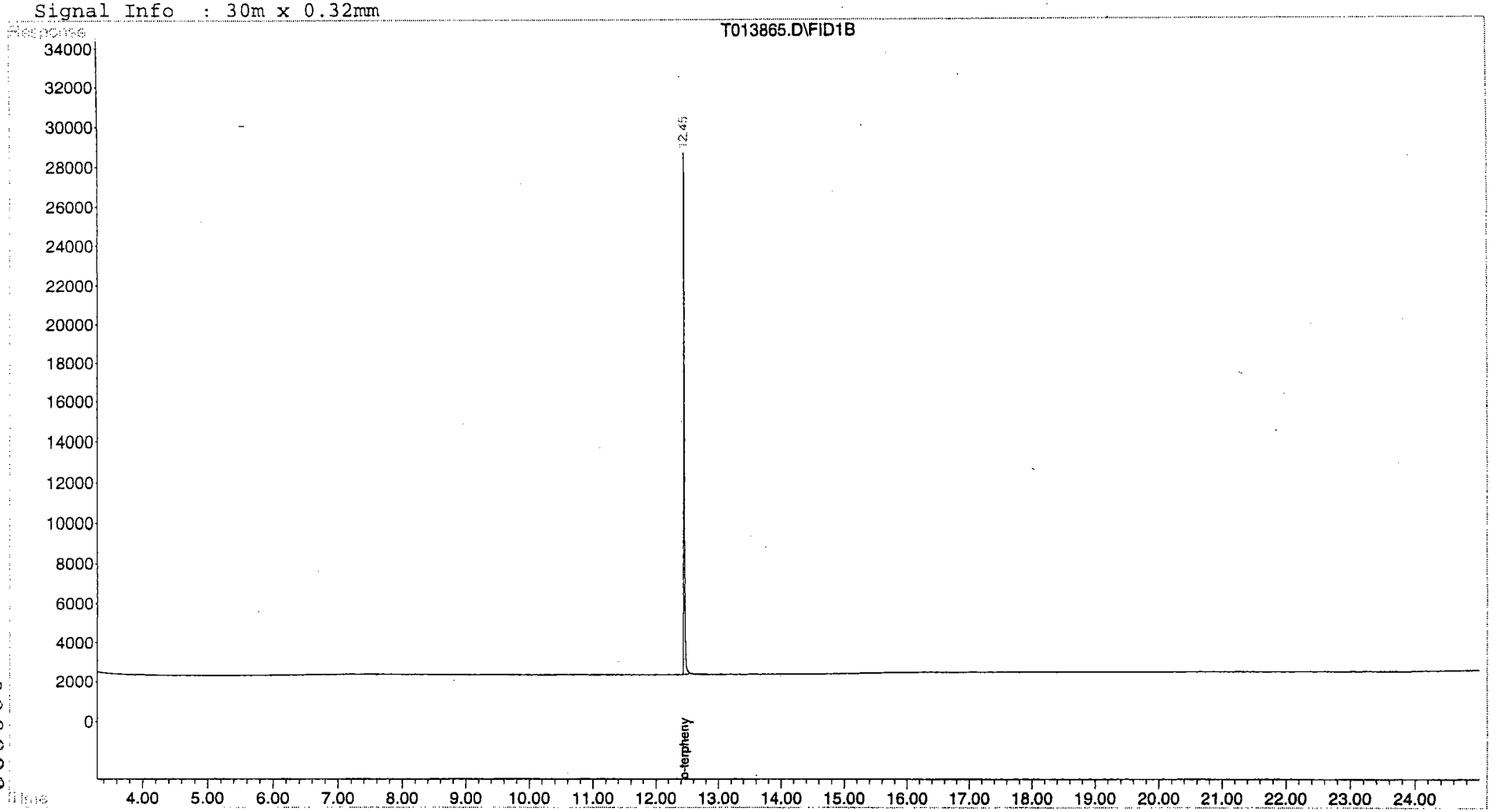
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	259956	10.201 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 102.01%#	
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013865.D Vial: 54
Acq On : 20 Nov 2001 7:42 pm Operator: Skelton
Sample : 1659704s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 20:08 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000020

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013866.D Vial: 55
Acq On : 20 Nov 2001 8:15 pm Operator: Skelton
Sample : 1659705s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 20:40 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

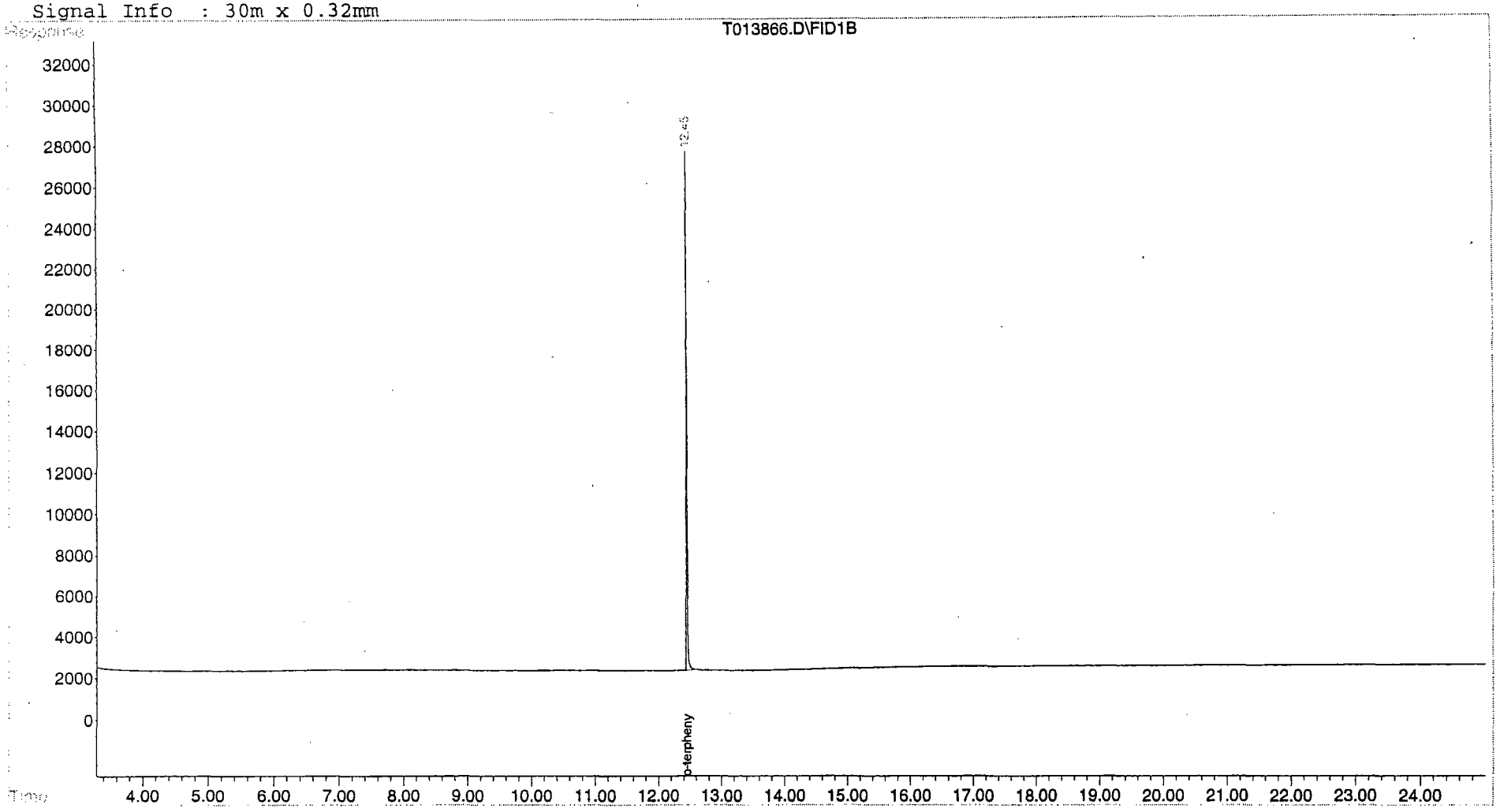
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	252576	9.911 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.11%#
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013866.D Vial: 55
Acq On : 20 Nov 2001 8:15 pm Operator: Skelton
Sample : 1659705s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 20:40 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013867.D Vial: 56
Acq On : 20 Nov 2001 8:48 pm Operator: Skelton
Sample : 1659706s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 21:13 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

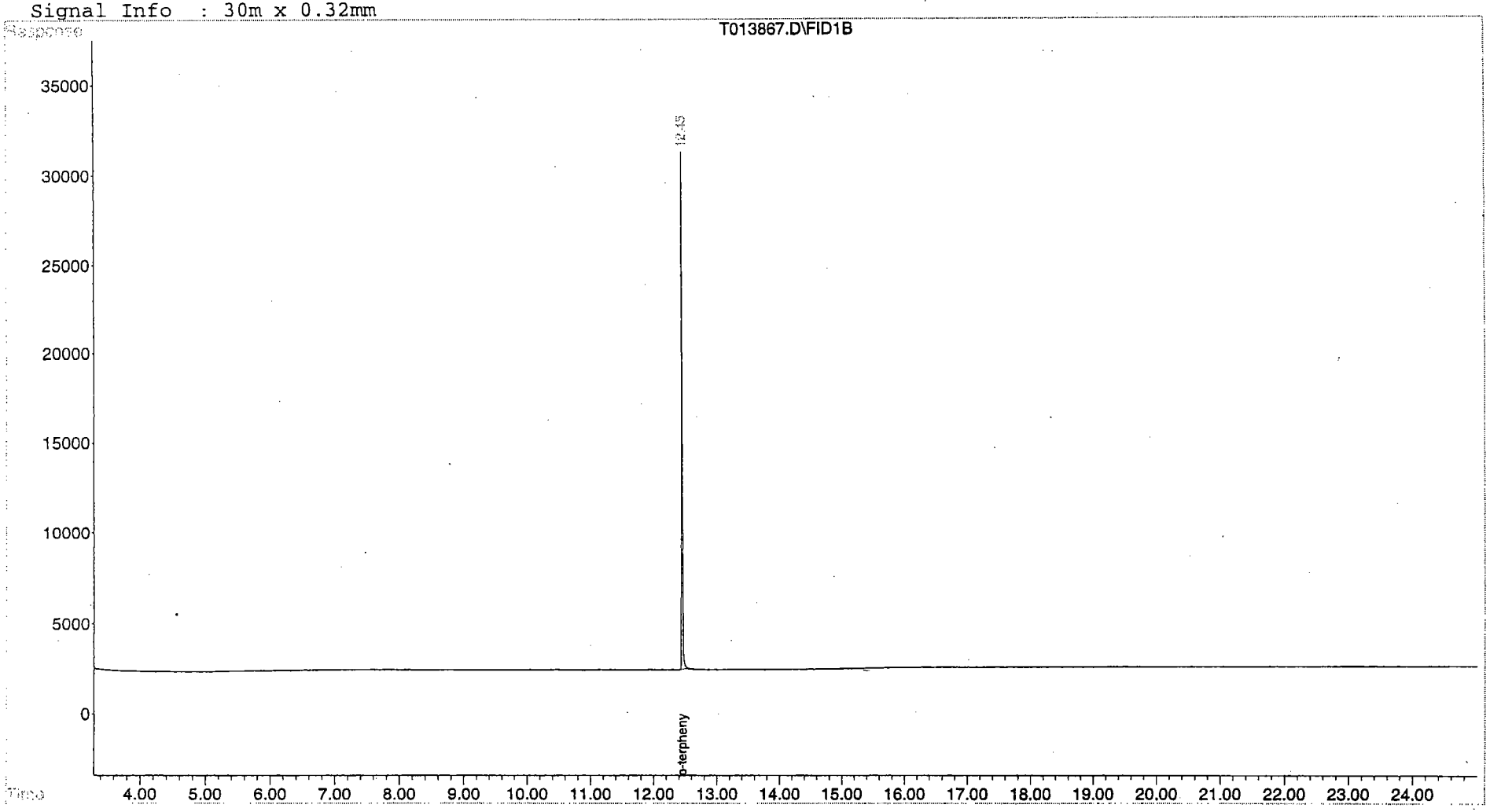
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	276588	10.854 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 108.54%#	
Target Compounds			

Quantitation ort

Data File : C:\HPCHEM\1\DATA\011119\T013867.D Vial: 56
Acq On : 20 Nov 2001 8:48 pm Operator: Skelton
Sample : 1659706s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 21:13 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 11/30/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW-84 for Solid Waste Analysis. I have personally examined the information contained in t report and to the best of my knowledge, I believe that the submitted information is tr accurate, complete and meets the above referenced standards where applicable. I 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 #: 1634.1-.8
Sample Rec'd: 09/06/94
Analysis Start: 09/14/94
Analysis Comp: 09/14/94

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

NJDEPE UST Reg.#: **0081533-91**
Closure #: **C93-3908**
DICAR #: **94-8-19-1612-06**
Location #: **Bldg. 618**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1634.1	Site A, NE. Wall	OVA= 18.	78	1050.	6.6
1634.2	Site B, Midwall N.	OVA= 10.	85	1000.	6.6
1634.3	Site C, NW.Wall	OVA= 60.	89	1240.	6.6
1634.4	Site D, SW. Wall	OVA= 10.	81	4390.	6.6
1634.5	Site E, S. Midwall	OVA= 20.	81	5360.	6.6
1634.6	Site F, SE. Wall	OVA= 35.	82	4860.	6.6
1634.7	Site H, Trench	OVA= ND	81	1130.	6.6
1634.8	Site G, Dup	OVA= --	77	128.	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1634.7dup= 102% 1634.7s= 199% 1634.7sd= 200% RPD= 0.4%
Cal Chk = 97%

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 #: 1634.1-.8
Sample Rec'd: 09/06/94
Analysis Start: 09/15/94
Analysis Comp: 09/15/94

Analysis: Munsel

Lab ID#	Soil Color
1634.1	5Y 4/3 Olive
1634.2	5Y 4/4 Olive
1634.3	2.5Y 4/4 Olive Brown
1634.4	5Y 3/2 Dark Olive Gray
1634.5	5Y 4/3 Olive
1634.6	5Y 4/3 Olive
1634.7	5Y 4/3 Olive
1634.8	5Y 4/3 Olive

Brian K. McKee
Laboratory Director

SERV-AIR, INC.

P.O. #: PWS-07 TPHC

Chain of Custody

Project #: C-93-3968

Customer: DINKER DESAI SELFM-PW-EV

Phone: 408-532-1475

Sampler: GEORGE B. / CUTE, INC

Site Name: BLDG 618 UST #91

DICAR # 94-8-19-1612-06

Date / Time: 9694

Analysis Parameters: TPHC 1610 SOLID MUNSEL OVA

Start:

Finish:

Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	1610	SOLID MUNSEL	OVA	Remarks
1634.1	9694 1313	SITE A - NE WALL	SOIL	1	X	X	X	18	SAMPLES KEPT < 4°C
.2	1315	B - N - MIDWALL						10	
.3	1317	C - NW WALL						60	
.4	1319	D - SW WALL						10	
.5	1322	E - S - MIDWALL						20	
.6	1325	F - SE WALL						35	
.7	1327	H - TRENCH						ND	
.8	N/A	SITE G - DUP						-	OVA Calibrated 0 PARTS AIR 95 PPM METHANE METER READ 80 1045 on 9/6/94 S/N A 51963

Relinquished By (signature): [signature]

Date / Time: 9/6/94 1440

Received By (signature):

Shipped By: HAND

Relinquished By (signature):

Date / Time:

Received for Lab by (signature): B. MK

Date / Time: 9/6/94 1445

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

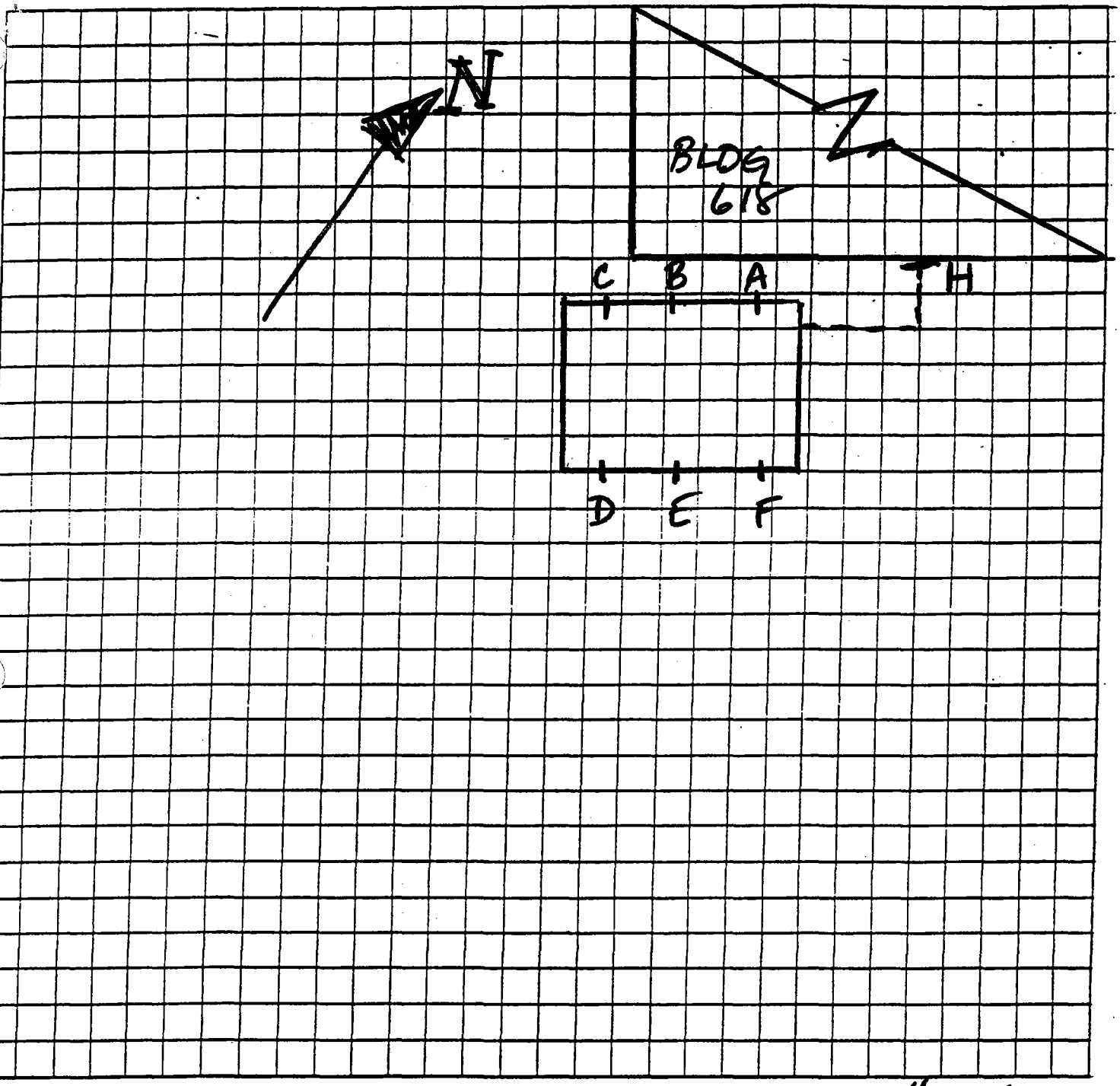
SAI-ENV COC form 01 Page 1 of 1 Pages Rev. A Date: 02 Apr 93

EXCEPT SITE H

ALL SAMPLES ARE BOTTOM SIDEWALL @ 3"-6" ABOVE WATER LEVEL (≈ 8 FT)
SITE H IS AT 2' BELOW GRADE at BLDG - 3" below trench bottom

SERV-AIR, INC. FORT MONMOUTH NEW JERSEY

PROPOSED SITE PLAN:



NOTE: *Indicate scale and compass direction.*

SCALE: 1" = 10'

REMARKS
GROUNDWATER @ 8'

TANK LOCATION
BLDG# 618
TANK # 0081533-91
TANK SIZE 550 GALLONS
TANK CONTENTS NO. 2 OIL

Sept 14, 1994 Sarah Goldbrand
1900

Blank 0 MV

40.75 59 MV

81.5 115 MV

163 234 MV

Method Blank 0 MV Building 292

1640.1 5 MV

1640.2 53 MV

1640.3 5 MV

1640.4 8 MV

1640.5 15 MV

1640.6 17 MV

1640.7 4 MV

1640.8 8 MV

1640.9 7 MV

40.75 Std 60 MV

Method Blank Building 290

1641.1 153 dil 13

1641.2 155 dil 13

1641.3 130 MV

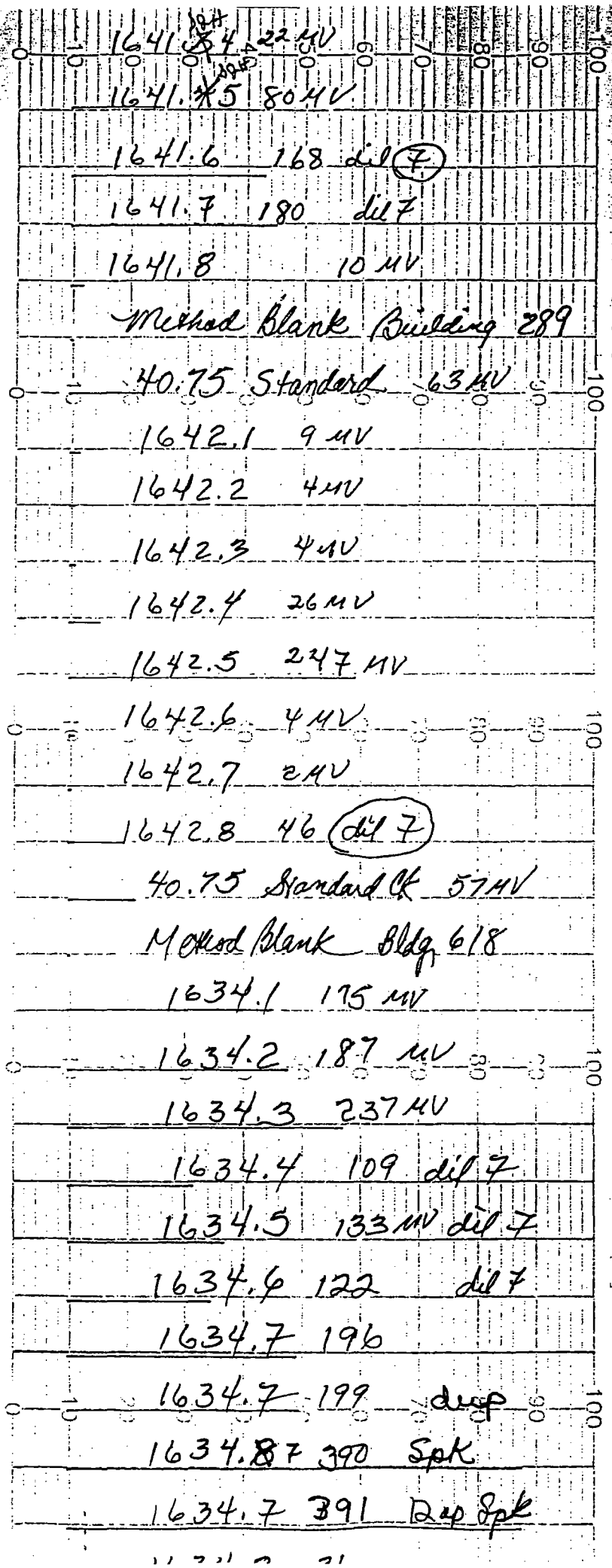
1641.3 127 MV Dup

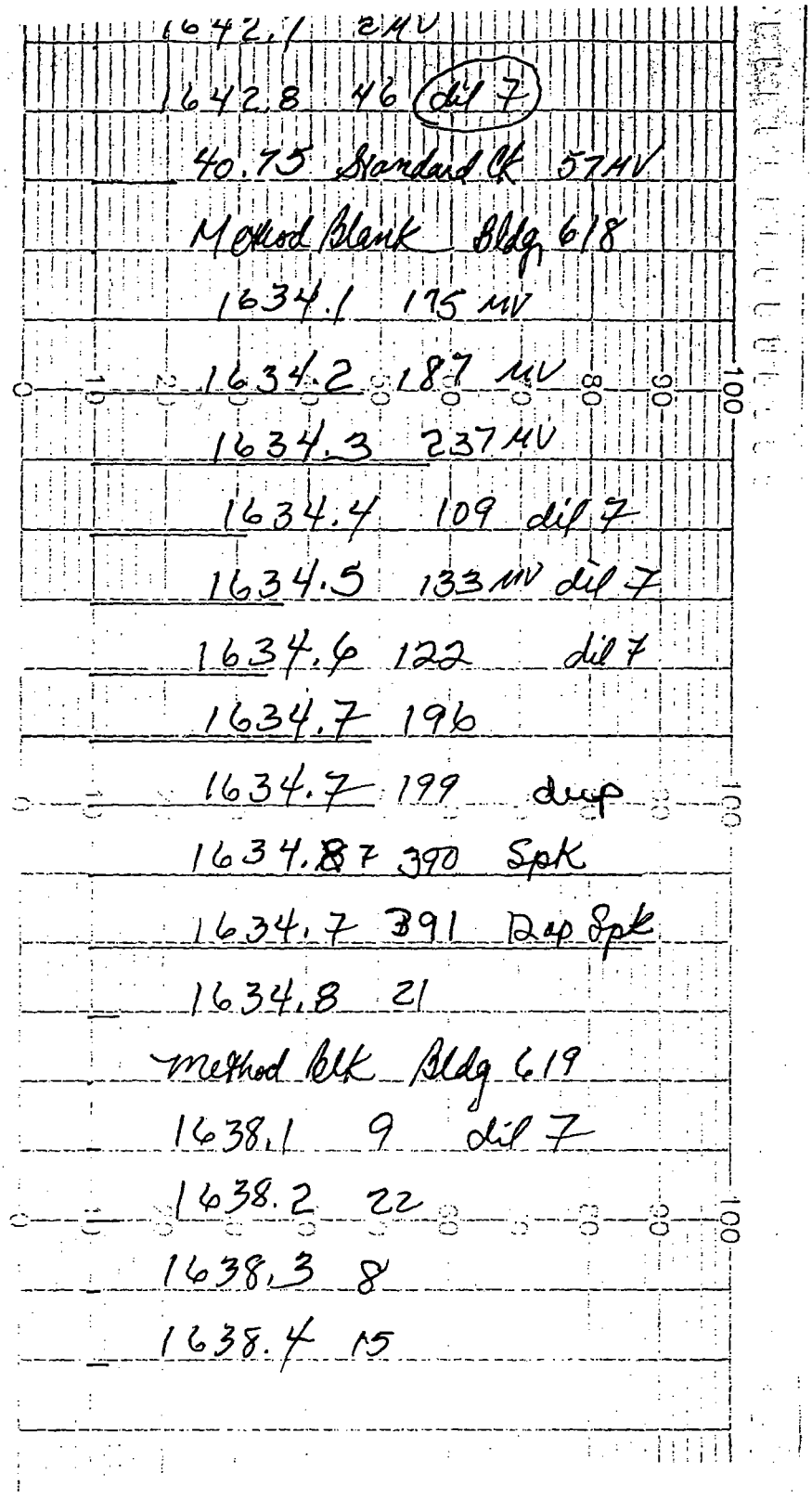
1641.3 191 MV Spk

1641.3 193 MV Dup Spk

1641.4 22 MV

1641.5 80 MV


1641.4 22 MV
1641.5 80 MV
1641.6 168 dil 7
1641.7 180 dil 7
1641.8 10 MV
Method Blank Building 289
40.75 Standard 63 MV
1642.1 9 MV
1642.2 4 MV
1642.3 4 MV
1642.4 26 MV
1642.5 247 MV
1642.6 4 MV
1642.7 2 MV
1642.8 46 dil 7
40.75 Standard Ck 57 MV
Method Blank Bldg 618
1634.1 175 MV
1634.2 187 MV
1634.3 237 MV
1634.4 109 dil 7
1634.5 133 MV dil 7
1634.6 122 dil 7
1634.7 196
1634.7 199 dup
1634.87 390 Spk
1634.7 391 Dup Spk



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)		✓

1634.7 spike + Spike Dup, Spike = 199% Spike Dup = 200%

Comments: Analyst added 2X Spike Recovery was 336.1 ppm and 334.5 Against S.O.P Value of 168 ppm

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 #1634

Brian K. McKee
Laboratory Manager

U.S. ARMY FORT MONMOUTH

9-14-94

Sarah Hubbard

4

Enviormental Laboratory

Bldg. 618
Sampled 9/6/94 2:20

mple	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
*Hood Blank	30	0	ND					
234.1	15	175	1,045.3	8.839	6.932	.78	5Y 4/3	Olive
.2	15	187	1,003.0	5.791	4.949	.85	5Y 4/4	Olive
.3	15	237	1,240.3	5.937	5.287	.89	2.5Y 4/4	Olive Brown
.4	15	dil 7 109	4,392.3	7.984	6.437	.81	5Y 3/2	dark Olive Gray
.5	15	dil 7 133	5,357.4	8.370	6.784	.81	5Y 4/3	Olive
.6	15	dil 7 122	4,855.1	7.239	5.920	.82	5Y 4/3	Olive
.7	15	196	1,127.2	8.335	6.717	.81	5Y 4/3	Olive
.8	15	21	128.3	5.545	4.256	.77	5Y 4/3	Olive
Dup 4.7	15	199	1,144.5	1114.5x.3 = 334.5		.81	—	—
Spk 4.7	15	390	2,241.7		=199%	.81	—	—
Dup Spk 4.7	15	391	2,247.4	1120.2x.3 = 336.06	= 200%	.81	—	—
				4 = 1.56		0.48		
				x̄ = 335.28				

Certification Number 13461

1114.5

The standard levels and respective mV responses are as follows...
1 concentration = 40.75 response = 59
2 concentration = 81.5 response = 115
3 concentration = 163 response = 234

The Correlation Coefficient is .9999479
The variables for the equation X = [(Y-b)/M] are as follows...

CONC = [((response - 136)/ 1.432751)+ 95.08334]

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 #: 1648.1-.6
Sample Rec'd: 09/22/94
Analysis Start: 09/23/94
Analysis Comp: 09/23/94

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

NJDEPE UST Reg.#: **0081533-91**
Closure #: **C93-3564**
DICAR #:
Location #: **Bldg. 618**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1648.1	Site A1	OVA= ND	80	3940.	46.
1648.2	Site B1	OVA= 3.	84	214.	6.6
1648.3	Site C1	OVA= 110.	88	164.	6.6
1648.4	Site D1	OVA= 1.	82	2810.	6.6
1648.5	Site E1	OVA= 4.	83	15.9	6.6
1648.6	Site F1	OVA= 5.	81	33.0	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
BATCH dup= 80% BATCH s= 84% BATCH sd= 82% RPD= 2.4%
Cal Chk = 104%

Brian K. McKee
Laboratory Director

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

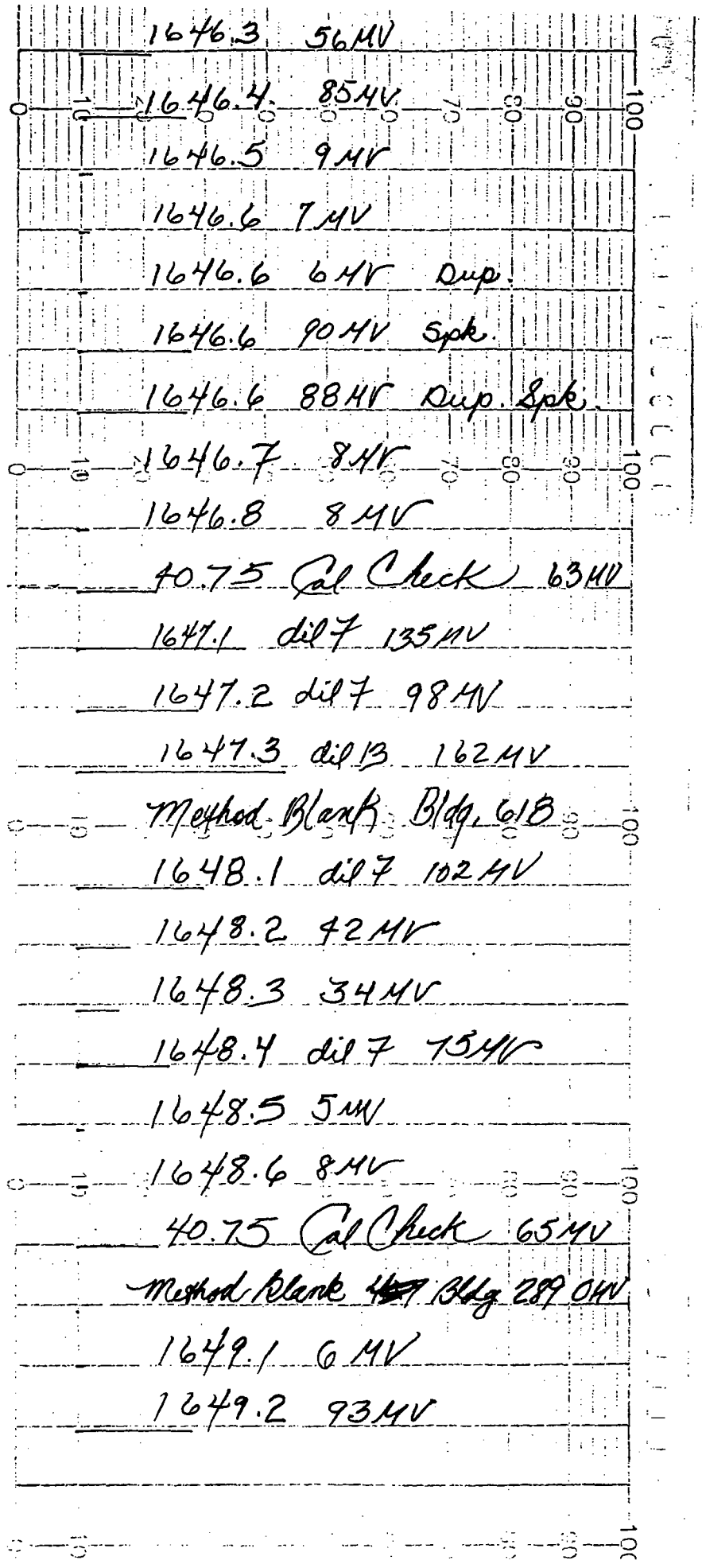
Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1648.1-.6
Sample Rec'd: 09/22/94
Analysis Start: 09/23/94
Analysis Comp: 09/23/94

Analysis: Munsel

Lab ID#	Soil Color
1648.1	5Y 3/2 Dark Olive Gray
1648.2	2.5Y 5/6 Light Olive Gray
1648.3	2.5Y 5/6 Light Olive Gray
1648.4	5Y 3/2 Dark Olive Gray
1648.5	5Y 3/2 Dark Olive Gray
1648.6	5Y 3/2 Dark Olive Gray

Brian K. McKee
Laboratory Director



The standard levels and respective mV responses are as follows...
1 concentration = 40.75 response = 65
2 concentration = 81.5 response = 121
3 concentration = 163 response = 242

The Correlation Coefficient is .9997946
The variables for the equation X = [(Y-b)/M] are as follows...

CONC = [((response - 142.6667)/ 1.478595)+ 95.08334]

U.S. ARMY FORT MONMOUTH

P.O. #: PW37 - TPHC

Chain of Custody

Project #: C93-3908

Customer: Desai
DPW Enviro.

Phone: (908) 532-4167

Sampler: George Cook

Site Name: Bldg 618
81533 - 91
C93-3908

Date / Time: 9/22 9:00

Analysis Parameters: TPHC, % solid, Mercury, UVA

Start:

Finish:

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Preservation Method	Remarks
16418.1	9/22 10:55	Site A1	Soil	1		ND Lab Prep # 2402
.2	" 10:58	Site B1	"	1		3 UVA obtained
.3	" 11:05	Site C1	"	1		180 w/ Zemach
.4	" 11:09	Site D1	"	1		1 Lab # 9518
.5	" 11:13	Site E1	"	1		4 Lab # 82
.6	" 11:18	Site F1	"	1		5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		2nd Round of samples

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

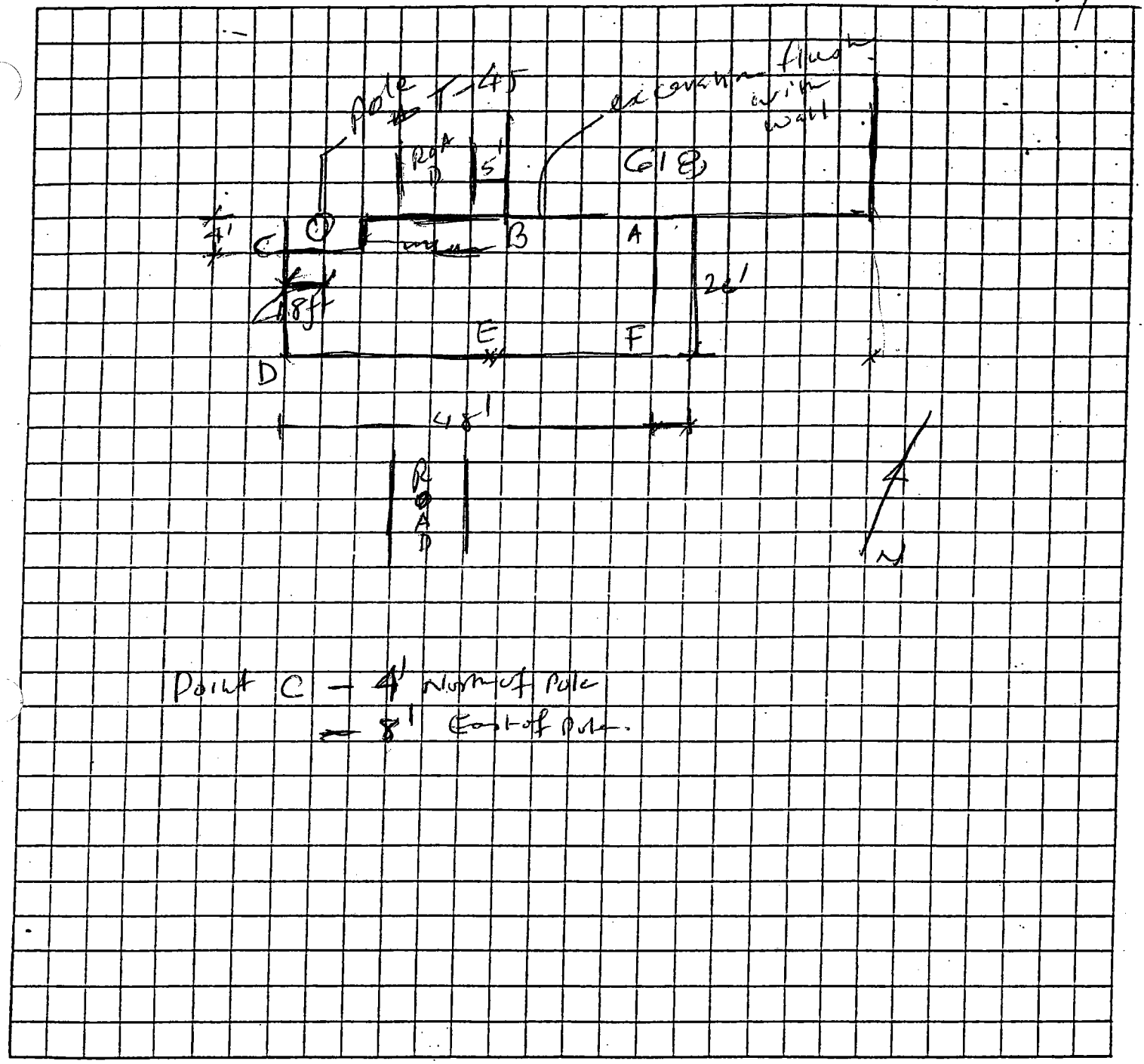
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
Dinker Desai	9/22 11:40	Sarah J. Hubbard	9/22/94 1140

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

Enviornmental Laboratory

SERV-AIR, INC. FORT MONMOUTH, NEW JERSEY Dunbar Pest 9-22-94

PROPOSED SITE PLAN



NOTE: *Indicate scale and compass direction.*

REMARKS

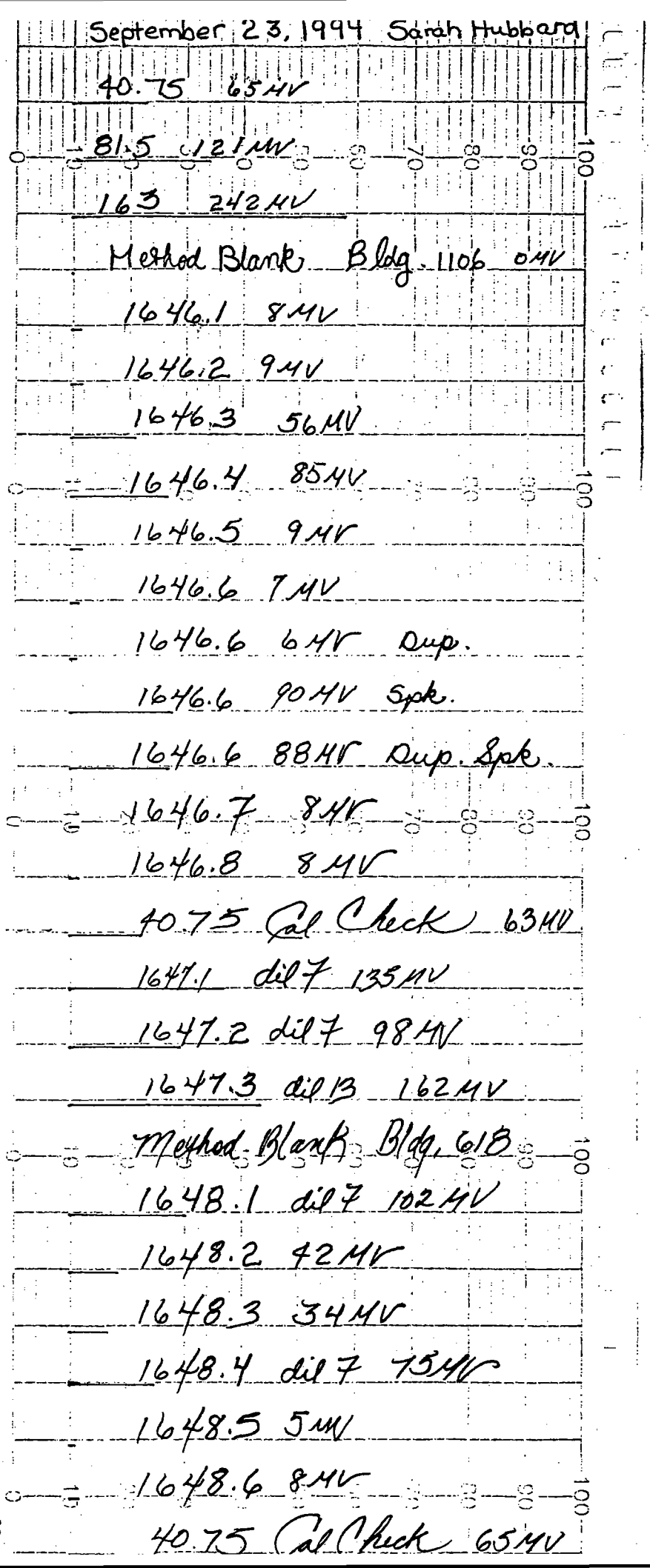
TANK LOCATION

BLDG# G18

TANK # 81533-91

TANK SIZE 550 Gallon

TANK CONTENTS #2 Heating oil


September 23, 1994 Sarah Hubbard
40.75 65MV
81.5 121MV
163 242MV
Method Blank Bldg. 1106 0MV
1646.1 8MV
1646.2 9MV
1646.3 56MV
1646.4 85MV
1646.5 9MV
1646.6 7MV
1646.6 6MV Dup.
1646.6 90MV Spk.
1646.6 88MV Dup. Spk.
1646.7 8MV
1646.8 8MV
40.75 Cal Check 63MV
1647.1 dil 7 135MV
1647.2 dil 7 98MV
1647.3 dil 13 162MV
Method Blank Bldg. 618
1648.1 dil 7 102MV
1648.2 42MV
1648.3 34MV
1648.4 dil 7 75MV
1648.5 5MV
1648.6 8MV
40.75 Cal Check 65MV

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 #1648

Brian K. McKee
Laboratory Manager

10.75-
81-5-121
163-242

U.S. ARMY FOR MONMOUTH

Bldg. 68 Second Round
9/22/94

9/23/94
Sarah Hubbard

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Method Blank	30	0	ND	—	—	—	—	—
1648.1	15	dil 7 102	3,942.2	6.117	4.909	.80	5Y 3/2	dark olive gray
.2	15	42	214.3	4.858	4.096	.84	2.5Y 5/6	light olive gray
.3	15	34	163.6	6.132	5.376	.88	"	"
.4	15	dil 7 75	2,806.8	8.381	6.848	.82	5Y 3/2	dark olive gray
.5	15	5	15.9	7.715	6.425	.83	"	"
.6	15	8	33	7.946	6.431	.81	"	"
Col Check			10.75 = 65 MV		=42.5			

Certification 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 #: 1653.1-.2
Sample Rec'd: 09/27/94
Analysis Start: 10/03/94
Analysis Comp: 10/04/94

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

NJDEPE UST Reg.#: **0081533-91**
Closure #: **C93-3908**
DICAR #:
Location #: **Bldg. 618**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1653.1	Site A2, Sidewall OVA= 320.	82	2920.	46.
1653.2	Site D2, Sidewall OVA= 110.	88	ND	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1653.2dup= 100% 1653.2s= 102% 1653.2sd= 102% RPD= 0.0%
Cal Chk = 95%

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 #: 1653.1-.2
Sample Rec'd: 09/27/94
Analysis Start: 10/03/94
Analysis Comp: 10/04/94

Analysis: Munsel

Lab ID#	Soil Color
1653.1	5Y 3/2 Dark Olive Gray
1653.2	5Y 4/4 Olive

Brian K. McKee
Laboratory Director

The standard levels and respective mV responses are as follows...
1 concentration = 40.75 response = 53
2 concentration = 81.5 response = 112
3 concentration = 163 response = 232

The Correlation Coefficient is .9996648
The variables for the equation X = [(Y-b)/M] are as follows...

CONC = [((response - 132.3333)/ 1.42574)+ 95.08334]

U.S. ARMY FORT MONMOUTH

Screening

P.O. #: DPW-7 TPHC

Chain of Custody

Project #: C-93-3908	Sampler: John / Enviro	Date / Time 9/27/94 2:00 pm	Start:
Customer: Dir. Dem. DPW - Environmental	Site Name: BCK 618 81533-91 C-93-3908	Analysis Parameters	Finish:
Phone: 908-532-1495			Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH 1. Soil Method	DVA	Remarks
1653.1	9/27	2:00	Side wall - Site A2	Soil	1	X X X	320	< 4°C
1653.2	11	2:30	Sidewall - Site D2	Soil	1	X X X	320	Cooled
								DVA Calibrated with zero air Volume 95 ml Ready. 81.

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

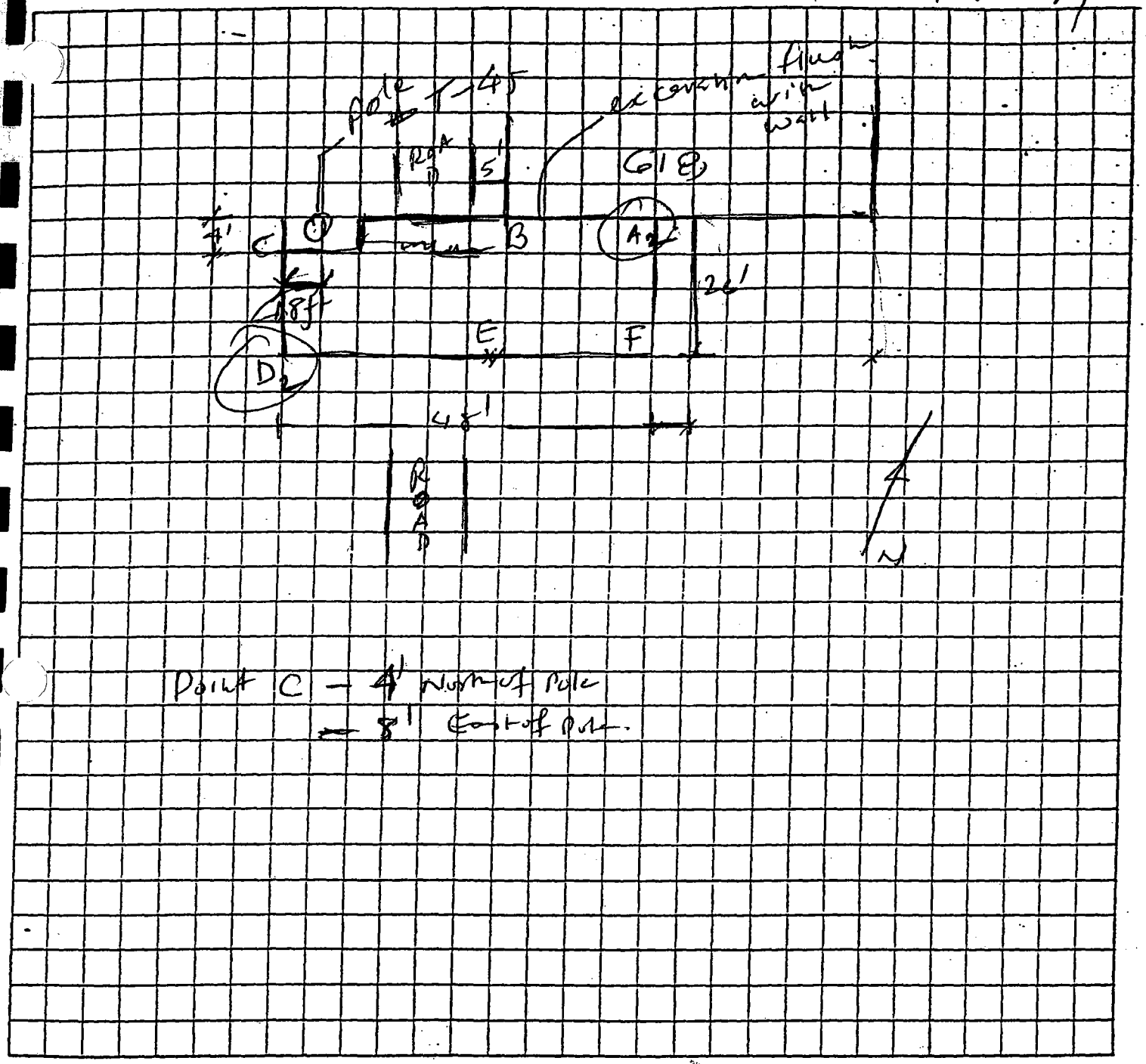
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	9/27 1600	B. MK	9/27/94 1600

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

Enviornmental Laboratory

SERV-AIR, INC. FORT MONMOUTH, NEW JERSEY Dunbar Pesai 9-22-94

PROPOSED SITE PLAN



Point C – 4' North of Pole
– 8' East of Pole

NOTE: *Indicate scale and compass direction.*

REMARKS

TANK LOCATION

BLDG# G18

TANK # 81533-91

TANK SIZE 550 Gallon

TANK CONTENTS #2 Heating oil

Oct. 3, 1994 Sarah J. Hubbard
1120

Blank 0 HV

40.75 53 HV

81.5 112 HV

163 232 HV

Method Blank Bldg. 619 0 HV

1638.1 100 HV (dil 7)

1638.2 17 HV

1638.3 0 HV

1638.4 0 HV

Method Blank Bldg. 618 0 HV

1653.1 70 HV (dil 7)

1653.2 0 HV

1653.2 0 HV Duplicate

1653.2 68 HV Spike

1653.2 68 HV Dup Spike

Calibration Check 40.75 52 HV

Method Blank Bldg. 563

1654.1 12 HV

1654.2 14 HV

1654.3 0 HV

1654.4 0 HV

1654.5 0 HV

1654.6 16 HV

1654.7 0 HV

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 #1653

Brian K. McKee
Laboratory Manager

40.75 - 3
81.5 - 11 -
163 - 232 R. 9990

U.S. ARMY FOR MONMOUTH

Bldg. 618.

Sarah J. Hubbard

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Method Blank	30	0	ND	—	—	—	—	—
653.1	15	dil 7 70	2,923.1	8.089	6.648	.82	5Y 3/2	dark olive gray
653.1 Dup	15	0	ND	10.125	8.934	.88	5Y 4/4	olive
Spk .2	15	0	ND	—	—	.88	—	—
Dup Spk .2	15	68	3785	—	—	.88	—	—
Dup Spk 653.2	15	68	3785	—	—	.88	—	—
Calibration Check				40.75 =	52 MV	= 38.7	mg/L	

Certification Number 13461

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

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

Lab. ID #: 1774.1-.2
Sample Rec'd: 01/04/95
Analysis Start: 01/05/95
Analysis Comp: 01/06/95

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

NJDEPE UST Reg.#: **81533-91**
Closure #: **C-93-3908**
DICAR #: **94-8-19-1612-06**
Location #: **Bldg. 618**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1774.1	Site A3, Sidewall OVA=ND	85	35.0	8.3
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1774.1Dup= 100% 1774.1S= 122% 1774.1SD= 117% RPD= 4.0%
Cal Chk = 91%

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 #: 1774.1
Sample Rec'd: 01/04/95
Analysis Start: 01/05/95
Analysis Comp: 01/06/94

Analysis: Munsel

Lab ID#	Soil Color
1774.1	2.5Y 5/6 Light Olive Brown

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: DW3-7

Chain of Custody

Project #:	Sampler: George / Cole	Date / Time 1/4 | 1-30	Analysis Parameters	Start:
Customer: DeSar	Site Name: Bldg 618 Case # 94-8-19 87533-91 1612-06 C-93-3908			Finish:
Phone:				Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	TCL Soil BNA	TCL Soil VOA	TPH	Remarks
1774.1	1/4/95 1-40	Sidecast pile #3	Soil	1	+	X	X	HD	Sigma Preserved 4°C
									Soil was screened with OVA 1-30
									No Readings
									OVA calibrated @ 0 air & Methane 95%
									Pumps 76
									A 52 11.4

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	1/4 | 1-30		

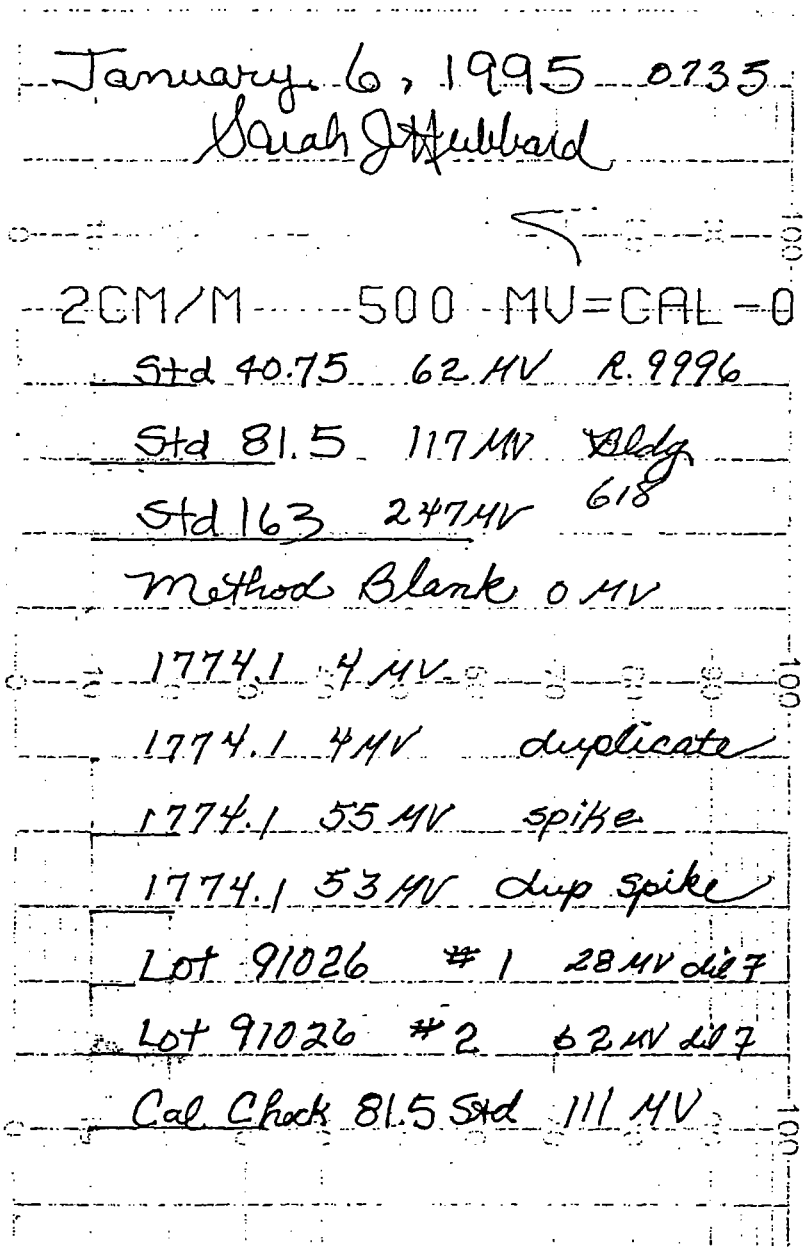
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
		B. Mc	1-4-95 | 1350

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

Enviornmental Laboratory

January 6, 1995 0735

Sarah J Hubbard



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 #1774

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 #: 1638.1
Sample Rec'd: 09/09/
Analysis Start: 09/14/
Analysis Comp: 09/14/

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

NJDEPE UST Reg.#: **0081533-92**
Closure #: **C93-3891**
DICAR #: **94-8-24-1320-18**
Location #: **Bldg. 619**

Lab ID.	Description	%Solid	Result (mg/K
1638.1	Site E1 OVA= 1.	83	543.
1638.2	Site F1 OVA= ND	91	113.
1638.3	Site C1 OVA= ND	85	45.1
1638.4	Site B1 OVA= ND	84	84.4
M. Bl.	Method Blank	100	ND

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
Batch dup= 102% Batch s= 199% Batch sd= 200% RPD= 0.4%
Cal Chk = 97%

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 #: 1638.1-.4
Sample Rec'd: 09/09/94
Analysis Start: 09/14/94
Analysis Comp: 09/14/94

Analysis: Munsel

Lab ID#	Soil Color
1638.1	5Y 3/2 Dark Olive Gray
1638.2	5Y 4/3 Olive
1638.3	5Y 5/6 Olive
1638.4	5Y 5/6 Olive

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #:

Chain of Custody

Project #:	Sampler: George Lute	Date / Time: Sept 9th / 2-15	Analysis Parameters	Start:
Customer: Dilkon Dasai	Site Name: CBIRA# 0081533 BLDG 619 e-97-3891 -92 D# 94-8-24-1320-18			Finish:
Phone:				

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	Lead	Arsenic	BTEX	VOA	Preservation Method	Remarks
1638.1	9/9 2-30	Site E1	Soil	1	X	X	X			4°C	Sample Prep
.2	" 2-34	Site F1	"	1	X	X	X			ND	
.3	" 2-37	Site C1	"	1	X	X	X			ND	OVA calibrated
.4	" 2-40	Site B1	"	1	X	X	X			ND	to zero air & acetone 55 ppm Reading — 73
											OVA # A 57903

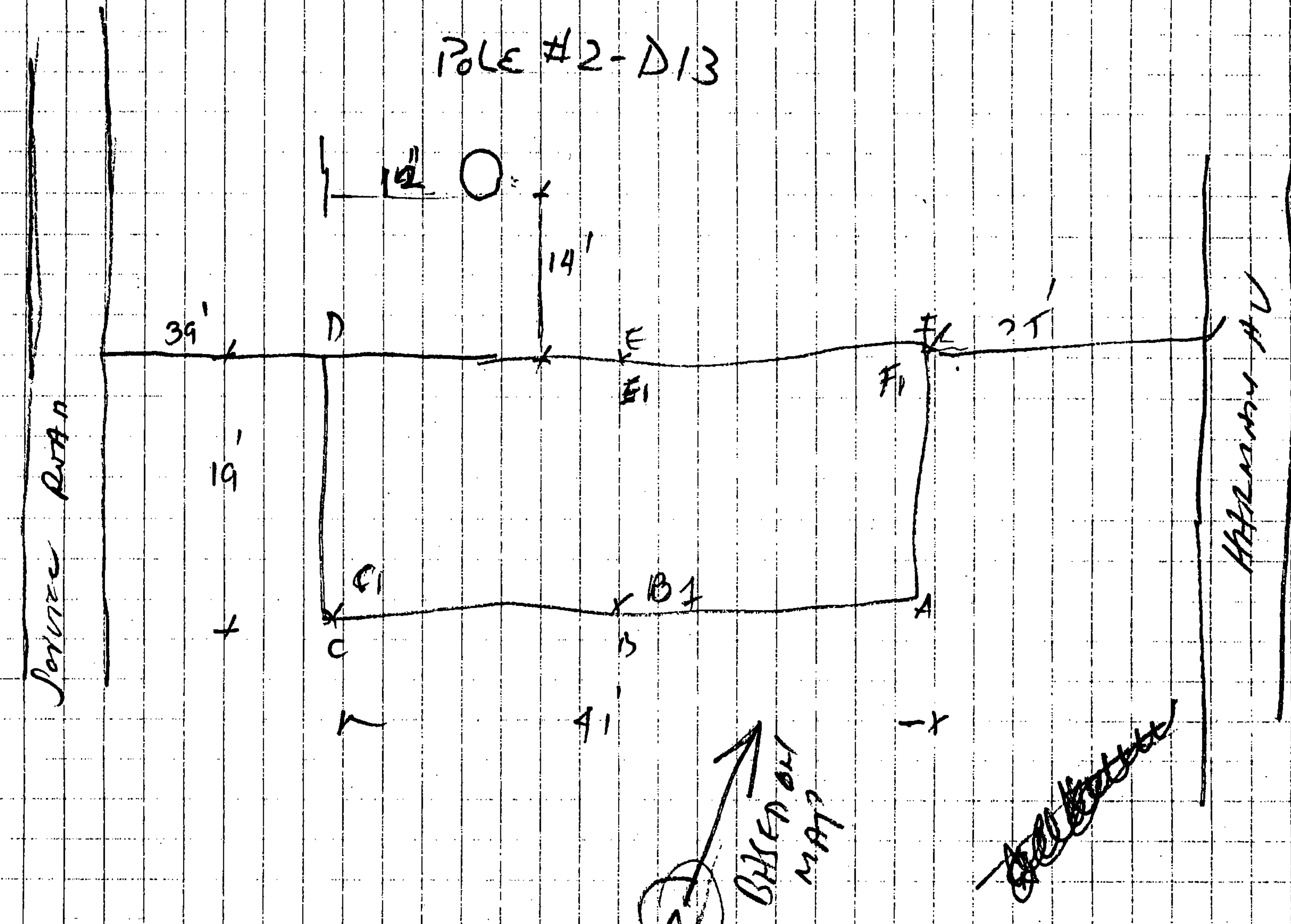
Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	9/9 15-10	Sarah E. Hustrand	9/9/94 1510

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

Enviornmental Laboratory

BLDG 6

Revised Sketch at C19
Hole was widened to
remove contamination.



11 TRUCK LOADS OF ADDITIONAL SOIL WAS TAKEN (10 CY. EA) 9/6 & 9/7

Sept 14, 1994 Sarah Hubbard

1900

Blank 0 MV

40.75 59 MV

81.5 115 MV

163 234 MV

Method Blank 0 MV Building 292

1640.1 5 MV

1640.2 53 MV

1640.3 5 MV

1640.4 8 MV

1640.5 15 MV

1640.6 17 MV

1640.7 4 MV

1640.8 8 MV

1640.9 7 MV

40.75 Std 60 MV

Method Blank Building 290

1641.1 153 dil 13

1641.2 155 dil 13

1641.3 130 MV

1641.3 127 MV Dup

1641.3 191 MV Spk

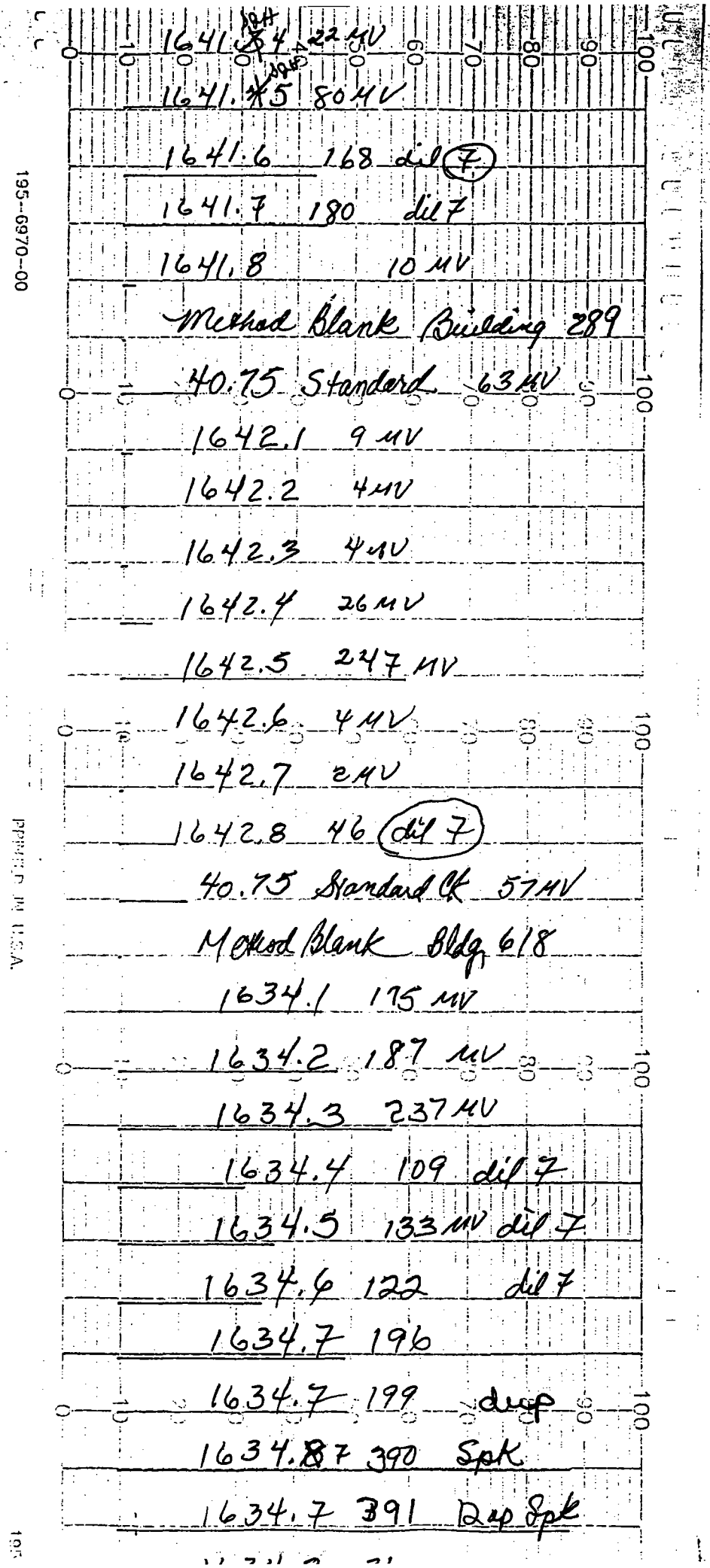
1641.3 193 MV Dup Spk

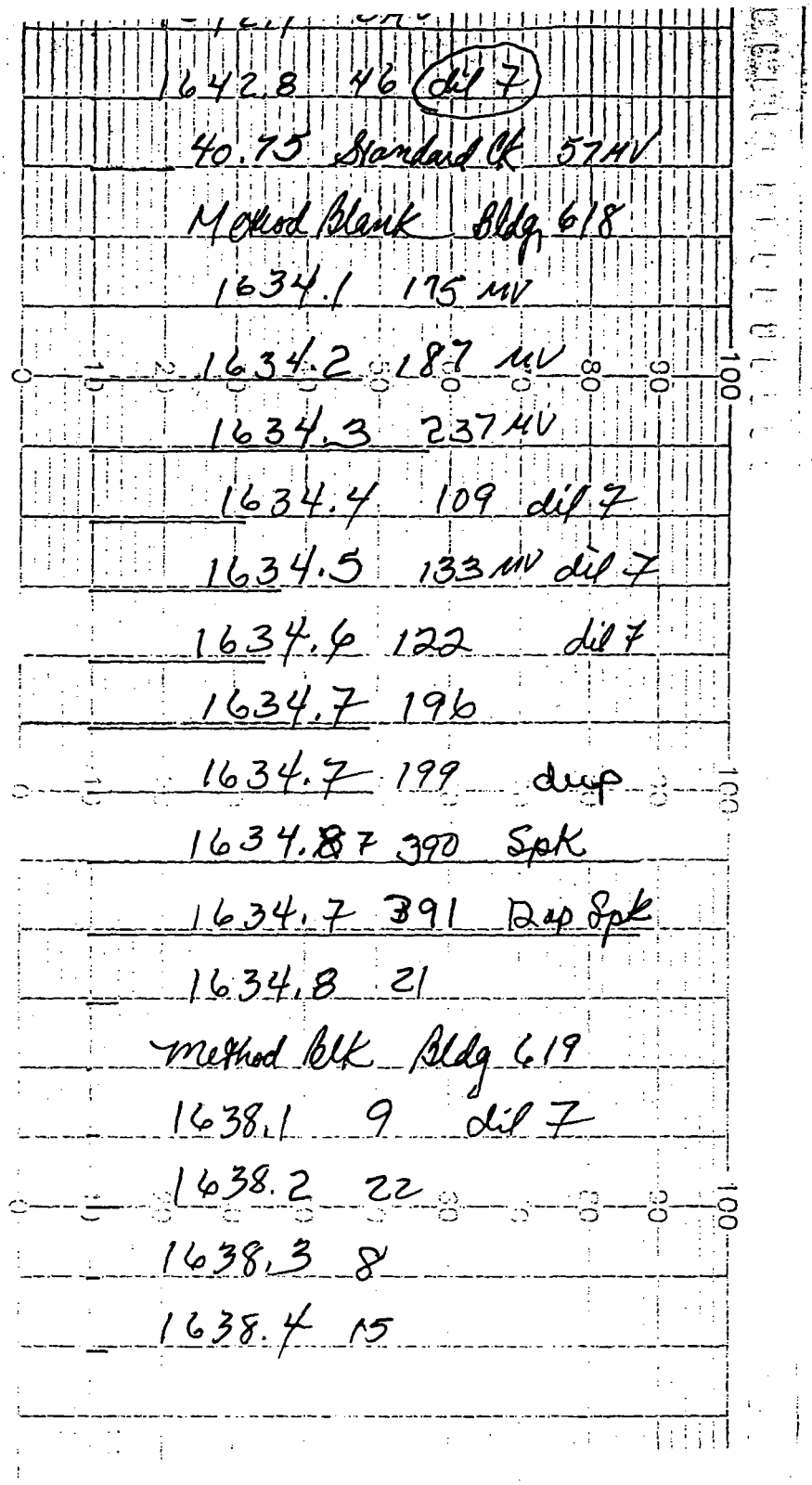
1641.4 22 MV

1641.5 80 MV

105-690-00

PRINTED IN U.S.A.


1641.4 22 MV
1641.5 80 MV
1641.6 168 dil 7
1641.7 180 dil 7
1641.8 10 MV
Method Blank Building 289
40.75 Standard 63 MV
1642.1 9 MV
1642.2 4 MV
1642.3 4 MV
1642.4 26 MV
1642.5 247 MV
1642.6 4 MV
1642.7 2 MV
1642.8 46 dil 7
40.75 Standard QC 57 MV
Method Blank Bldg 618
1634.1 175 MV
1634.2 187 MV
1634.3 237 MV
1634.4 109 dil 7
1634.5 133 MV dil 7
1634.6 122 dil 7
1634.7 196
1634.7 199 dup
1634.87 390 Spk
1634.7 391 Dup Spk



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)		✓

1634.7 (Batch spike) = 199%, 1634.7 (Batch S. Dup) = 200%

Comments: Analyst added 2x Spike amount Recovery was 334.5 ppm + 336.1 ppm against an SP value of 168 ppm

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 #1638

Brian K. McKee
Laboratory Manager

40.75 - 3
81.5 - 112
163 - 232 R.9996

U.S. ARMY FOR MONMOUTH

Oct. 3, 1994

Bldg. 619

Sarah J. Hubbard

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Method Blank	30	0	ND	—	—	—	—	—
1638.1	5	dil 7 100	11,786.9	5.133	4.427	.86	5Y 3/2	dark olive gray
.2	15	17	1014.0	7.390	6.695	.91	5Y 4/3	Olive
.3	15	0	ND	4.998	4.343	.87	5Y 5/6	Olive
.4	15	0	ND	5.247	4.527	.86	5Y 5/6	Olive

Certification 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 #: 1638.1-.4
Sample Rec'd: 09/09/94
Analysis Start: 10/03/94
Analysis Comp: 10/04/94

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

NJDEPE UST Reg.#: **0081533-92**
Closure #: **C93-3891**
DICAR #: **94-8-24-1320-18**
Location #: **Bldg. 619**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1638.1	Site E1, OVA= 1.	86	11800.	139
1638.2	Site F1, OVA= ND.	91	104.	6.6
1638.3	Site C1, OVA= ND.	87	ND	6.6
1638.4	Site B1, OVA= ND.	86	ND	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
Batch dup= 100% Batch s= 102% Batch sd= 102% RPD= 0.0%
Cal Chk = 95%

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 #: 1638.1-.4
Sample Rec'd: 09/09/94
Analysis Start: 09/14/94
Analysis Comp: 09/14/94

Analysis: Munsel

Lab ID#	Soil Color
1638.1	5Y 3/2 Dark Olive Gray
1638.2	5Y 4/3 Olive
1638.3	5Y 5/6 Olive
1638.4	5Y 5/6 Olive

Brian K. McKee
Laboratory Director

Return → Copy of Original COC

U.S. ARMY FORT MONMOUTH

P.O. #:

Chain of Custody

Project #:

Customer: Dilkon Desai

Phone:

Sampler: George Lute

Date / Time: Sept 9th / 2-15

Site Name: CBT Rdt BLDG 619
00815533 a-93-3891
-92 P# 94-8-24-1320-18

Analysis Parameters

Start:

Finish:

Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	Dodecane	Nitrobenzene	OVA	Remarks
1638.1	9/9	2-30	Site E1	Soil	1	X	X	X	11	Sample Preserved 4°C
.2	11	2-34	Site F1	11	1	X	X	X	ND	
.3	11	2-37	Site C1	11	1	X	X	X	ND	OVA calibrated
.4	11	2-40	Site B1	11	1	X	X	X	ND	to zero air & ambient 55 ppm Reading - 73
										OVA # A 57903

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

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	9/9 | 15-10	Sarah Gabbard	9/9/94 | 1510

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

Enviornmental Laboratory

Oct. 3, 1994 Sarah J. Hubbard
1120

Blank 0 MV

40.75 53 MV

81.5 112 MV

163 232 MV

Method Blank Bldg. 619 0 MV

1638.1 100 MV (dil 7)

1638.2 17 MV

1638.3 0 MV

1638.4 0 MV

Method Blank Bldg. 618 0 MV

1653.1 70 MV (dil 7)

1653.2 0 MV

1653.2 0 MV Duplicate

1653.2 68 MV Spike

1653.2 68 MV Dup Spike

Calibration Check 40.75 52 MV

Method Blank Bldg. 563

1654.1 12 MV

1654.2 14 MV

1654.3 0 MV

1654.4 0 MV

1654.5 0 MV

1654.6 16 MV

1654.7 0 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 #1638

Brian K. McKee
Laboratory Manager

The standard levels and respective mV responses are as follows...
1 concentration = 40.75 response = 53
2 concentration = 81.5 response = 112
3 concentration = 163 response = 232

The Correlation Coefficient is .9996648
The variables for the equation X = [(Y-b)/M] are as follows...

CONC = [((response - 132.3333)/ 1.42574)+ 95.08334]

40.75 - 59
81.5 - 115
123 - 234 A.9999

U.S. ARMY FORT MONMOUTH

9-14-94 Sarah Hubbard

5

Bldg 619 2:20

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Blank	30	0		—	—	—	—	—
1638.1	10	7	543.4	6.664	5.565	.83	5Y 3/2	Dark olive gray
.2	15	22	113.7	5.396	4.887	.91	5Y 4/3	Olive
.3	15	8	45.1	5.255	4.470	.85	5Y 5/4	Olive
.4	15	15	84.4	6.633	5.599	.84	5Y 5/6	Olive

Certification Number 13461

The standard levels and respective mV responses are as follows...

1 concentration = 40.75 response = 59
2 concentration = 81.5 response = 115
3 concentration = 163 response = 234

The Correlation Coefficient is .9999479
The variables for the equation X = [(Y-b)/M] are as follows...

CONC = [((response - 136)/ 1.432751)+ 95.08334]

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 #: 1620.1-.8
Sample Rec'd: 08/25/94
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.#: **0081533-92**
Closure #: **C-93-3891**
DICAR #: **94-8-24-1320-18**
Location #: **Bldg. 619**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1620.1	Site A, NE	OVA= 6.	93	154.	6.6
1620.2	Site B, S	OVA= 5.	89	1450.	46.
1620.3	Site C, SE	OVA= 30.	92	70.6	6.6
1620.4	Site D, SW	OVA= 3.	87	555.	6.6
1620.5	Site E, N	OVA= 8.	91	858.	6.6
1620.6	Site F, NW	OVA= 7.	83	3060.	46.
1620.7	Site G (dup) NE	OVA= 6.	86	59.5	6.6
1620.8	Site H, Feed Lines	OVA= ND	88	37.3	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1620.4dup= 109% 1620.4s= 117% 1620.4sd= 122% RPD= 4.0%

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 #: 1620.1-.8
Sample Rec'd: 08/25/94
Analysis Start: 08/31/94
Analysis Comp: 08/31/94

Analysis: Munsel

Lab ID#	Soil Color
1620.1	2.5Y 4/3 Olive Brown
1620.2	2.5Y 4/3 Olive Brown
1620.3	2.5Y 4/3 Olive Brown
1620.4	2.5Y 4/3 Olive Brown
1620.5	2.5Y 3/2 Very Dark Grayish Brown
1620.6	2.5Y 3/1 Very Dark Gray
1620.7	2.5Y 4/3 Olive Brown
1620.8	5Y 4/3 Olive

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: PWS-007 TPHC

Chain of Custody

Project #: C93-3891	Sampler: George B (cate	Date / Time 8/25 8-20	Analysis Parameters
Customer: Diane Dolce	Site Name: BLDG 619 UST 0081533-92 TMS C-93-3891	DI case # 94-8-24 1320 -18	Start: Finish:
Phone: 2145			Preservation Method

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% solids	Number	OVA/[illegible]	Remarks
16,20.1	8/25	8-30	Site A NE	Soil	1	X	X		6	Samples Kept < 4°C
.2	"	8-34	Site B S	"	1	X	X		5	
.3	"	8-36	Site C SE	"	1	X	X		30	
.4	"	8-40	Site D SW	"	1	X	X		3	
.5	"	8-43	Site E N	"	1	X	X		8	OVA calibrated with 200 ppm & 95 methane Resp. 95.
.6	"	8-46	Site F NW	"	1	X	X		7	
.7	"	8-49	Site G (Dup) NE	"	1	X	X		6	
.8	"	8-54	Site H (Field Blank) of A lines	"	1	X	X		0	
										* Please add the time and date of calibration and who did it

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

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	8/25/94 10:25		8/25/94 10:25

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. No site map attached when samples were logged in

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

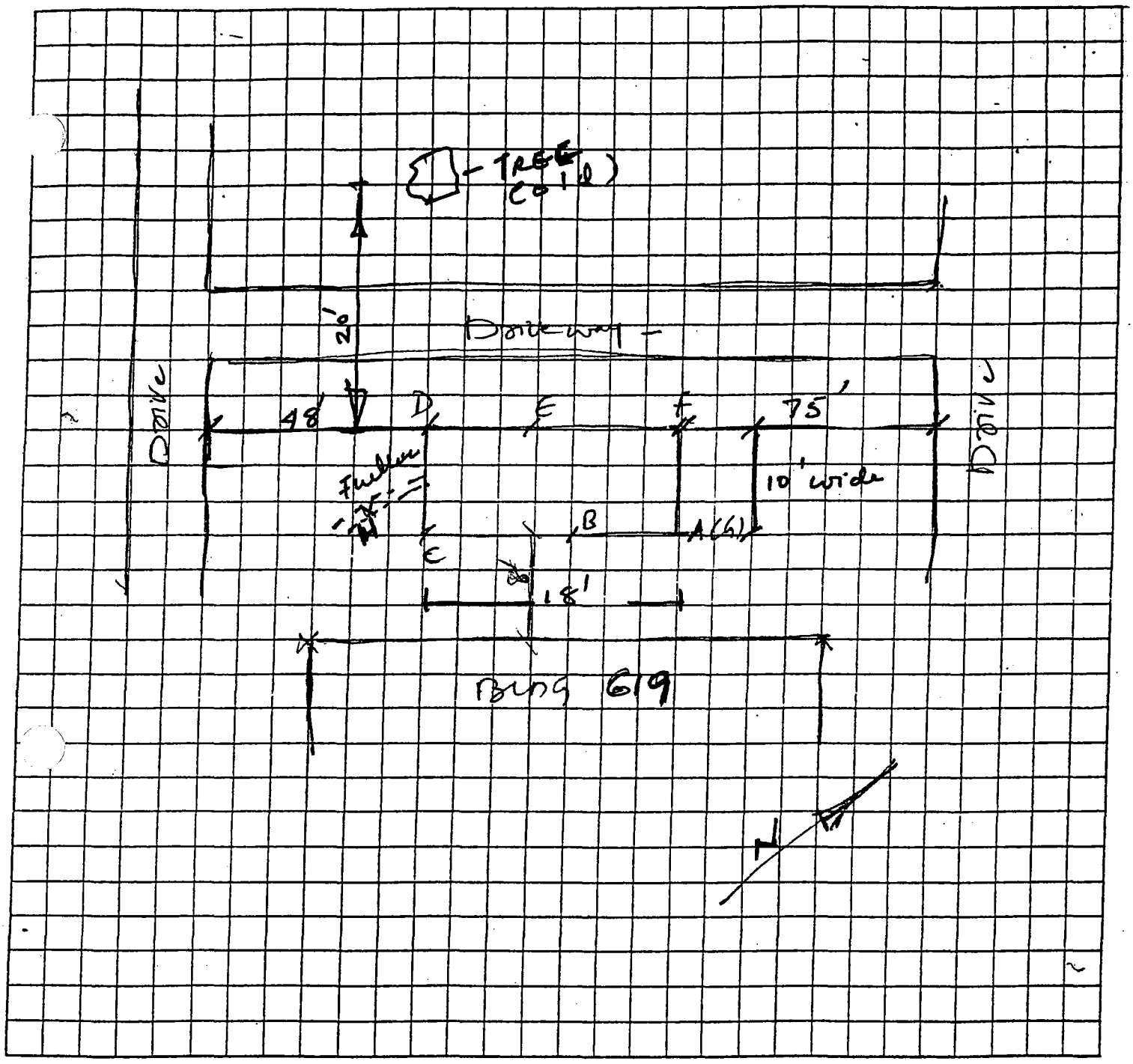
Enviornmental Laboratory

* Corrections made by Sample custodian. 8/25/94

Certification Number 13461

PROPOSED SITE PLAN

G17



NOTE: *Indicate scale and compass direction.*

REMARKS

G Dup of A

TANK LOCATION

BLDG# G19

TANK # 92

TANK SIZE 1000

TANK CONTENTS #2 Heating oil

August 31, 1994 Sarah Hubbard

1155

Blank 0 MV

10 75 58 MV

81.5 116 MV

163 237 MV

1627.1 107 MV Bldg. 678

1627.2 38 MV

1627.3 1 MV

1627.4 2 MV

1627.5 15 MV

1627.6 12 MV

1627.7 16 MV

Method Blank Bldg. 619

1620.1 30 MV

1620.2 39 MV (Lil F)

1620.3 13 MV

1620.4 104 MV

1620.4 Dup. 114 MV

1620.4 Spk. 225 MV

1620.4 Dup Spk 230 MV

1620.5 169

1620.6 78 (Lil F)

1620.7 10 MV

1620.8 6 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 #1620

B. McK

Brian K. McKee
Laboratory Manager

40.75 - 58
81. - 116
163 - 237

U.S. ARMY FORT MONMOUTH

Bldg. 619

1155 Sarah K. Hudson

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Blank	30	0	ND					
1620.1	15	30 (dil 7)	153.7	4.083	3.789	.93	2.5Y 4/3	Olive Brown
.2	15	39	1449.1	5.989	5.328	.89	2.5Y 4/3	Olive Brown
.3	15	13	70.6	6.192	5.685	.92	2.5Y 4/3	"
.4	15	104	554.6	8.558	7.452	.87	2.5Y 4/3	"
Dup .4	15	114	607.3	—	—	.87	—	—
Spk .4	15	225	1192.7 [119, 113]	—	—	.87	—	—
Dup Spk .4	15	230	1219.1 [119, 35]	—	—	.87	—	—
.5	15	169	857.9	4.736	4.318 ~~7.445~~	.91	2.5Y 3/2	very dark grayish brown
.6	15	78 (dil 7)	3,062.9	10.245	8.496	.83	2.5Y 3/1	very dark gray
.7	15	10	59.5	7.310	6.282	.86	2.5Y 4/3	Olive Brown
.8	15	6 MV	37.3	7.240	6.377	.88	5Y 4/3	Olive
Mean 1600								
				$\bar{x}$ = 195.39				
				$\bar{x}$ 7.92				

Certification Number 13461

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 619

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
T. B.	1650401	Methanol	12-Oct-01	10/12/01
619E/8'	1650402	Soil	12-Oct-01 10:23	10/12/01
619F/8'	1650403	Soil	12-Oct-01 10:50	10/12/01
F. D.	1650404	Soil	12-Oct-01	10/12/01

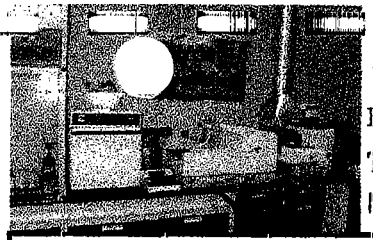
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

10-19-01
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 #: X21475
( )DERA (✓)OMA ( )Other:_____
Project No: 01-0001
Location: BLDG. 619 (FORMER)
Samplers Name / Company: Marie Lauren - TVS- PWS07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	VOA+15	TPHC	%SOLID					HNU PPM	Remarks / Preservation Method
16504 01	T.B.	10-12-01	—	METH	1	X							—	2868 <40c
02	619 E. 8'	"	1023	SOIL	2	X	X						700	2869 "
03	619 F 8'	"	1050	"	2	X	X						5	2870 "
04	F.D.	"	—	"	"	"	"						—	2871 "

Analysis Parameters: VOA+15; TPHC; %SOLID; HNU PPM

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
Marie	10-12-01 1455				
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:

200002

print legibly

Coc.xls9/27/01

METHOD SUMMARY

Method Summary

NJDEP Method 8260
Gas Chromatographic Determination of Volatiles in Soil

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 is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16504

Site: Bldg. 619

	Date	Hold Time
Date Sampled	10/12/01	NA
Receipt/Refrigeration	10/12/01	NA
Extractions		
1. TPHC	10/15/01	14 days
Analyses		
1. Volatile Organics	10/15/01	14 days
2. TPHC	10/16/01	40 days

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 — NA

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 NA
   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 NA
   c. Acid Fraction NA

   If not met, were the calculations checked and the results qualified as "estimated"? _____

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — yes
   a. VOA Fraction _____
   b. B/N Fraction NA
   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 NA
    c. Acid Fraction NA

11. Extraction Holding Time Met — NA

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: 10-29-01

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).	Yes
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.	yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	yes

Additional comments: _____

Laboratory Manager _____ Date 10-19-01

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	Method Detection Limit
J	:	Compound identified below detection limit
B	:	Compound found in blank
D	:	Results are from a dilution of the sample
U	:	Compound searched for but not detected
E	:	Compound exceeds calibration limit
PQL	:	Practical Quantitation Limit
NLE	:	No limit established
RT	:	Retention time

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007242.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 0 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007242.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 0 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

MB

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007242.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 0 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650401

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007243.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 0 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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	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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	780	
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650401

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007243.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 0 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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	300	U
1330-20-7	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

FIELD ID.

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650401

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007243.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 0 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

619E

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650402

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC007244.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.53 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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	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
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	360	U
78-93-3	2-Butanone	360	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	870	
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	240	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	240	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

619E

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650402

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC007244.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.53 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

619E

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650402

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VC007244.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.53 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

619F

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650403

Sample wt/vol: 1.4 (g/ml) G Lab File ID: VC007245.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.27 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	6300	U
107131	Acrylonitrile	6300	U
75650	tert-Butyl alcohol	12000	U
1634044	Methyl-tert-Butyl ether	2700	U
108203	Di-isopropyl ether	1800	U
75718	Dichlorodifluoromethane	3600	U
74-87-3	Chloromethane	900	U
75-01-4	Vinyl Chloride	2700	U
74-83-9	Bromomethane	1800	U
75-00-3	Chloroethane	2700	U
75-69-4	Trichlorofluoromethane	1800	U
75-35-4	1,1-Dichloroethene	900	U
67-64-1	Acetone	1800	U
75-15-0	Carbon Disulfide	900	U
75-09-2	Methylene Chloride	1800	U
156-60-5	trans-1,2-Dichloroethene	1800	U
75-35-3	1,1-Dichloroethane	900	U
108-05-4	Vinyl Acetate	2700	U
78-93-3	2-Butanone	2700	U
	cis-1,2-Dichloroethene	900	U
67-66-3	Chloroform	6800	
75-55-6	1,1,1-Trichloroethane	900	U
56-23-5	Carbon Tetrachloride	1800	U
71-43-2	Benzene	900	U
107-06-2	1,2-Dichloroethane	1800	U
79-01-6	Trichloroethene	900	U
78-87-5	1,2-Dichloropropane	900	U
75-27-4	Bromodichloromethane	900	U
110-75-8	2-Chloroethyl vinyl ether	1800	U
10061-01-5	cis-1,3-Dichloropropene	900	U
108-10-1	4-Methyl-2-Pentanone	1800	U
108-88-3	Toluene	900	U
10061-02-6	trans-1,3-Dichloropropene	1800	U
79-00-5	1,1,2-Trichloroethane	1800	U
127-18-4	Tetrachloroethene	900	U
591-78-6	2-Hexanone	1800	U
126-48-1	Dibromochloromethane	1800	U
108-90-7	Chlorobenzene	900	U
100-41-4	Ethylbenzene	1800	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

619F

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650403

Sample wt/vol: 1.4 (g/ml) G Lab File ID: VC007245.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.27 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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	2700	U
1330-20-7	o-Xylene	1800	U
100-42-5	Styrene	1800	U
75-25-2	Bromoform	1800	U
79-34-5	1,1,2,2-Tetrachloroethane	1800	U
541-73-1	1,3-Dichlorobenzene	2700	U
106-46-7	1,4-Dichlorobenzene	2700	U
95-50-1	1,2-Dichlorobenzene	2700	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

619F

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650403

Sample wt/vol: 1.4 (g/ml) G Lab File ID: VC007245.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.27 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Dupe

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650404

Sample wt/vol: 9.3 (g/ml) G Lab File ID: VC007246.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.28 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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	970	U
107131	Acrylonitrile	970	U
75650	tert-Butyl alcohol	1800	U
1634044	Methyl-tert-Butyl ether	410	U
108203	Di-isopropyl ether	280	U
75718	Dichlorodifluoromethane	550	U
74-87-3	Chloromethane	140	U
75-01-4	Vinyl Chloride	410	U
74-83-9	Bromomethane	280	U
75-00-3	Chloroethane	410	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
75-35-3	1,1-Dichloroethane	140	U
108-05-4	Vinyl Acetate	410	U
78-93-3	2-Butanone	410	U
	cis-1,2-Dichloroethene	140	U
67-66-3	Chloroform	1100	
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	280	U
108-90-7	Chlorobenzene	140	U
100-41-4	Ethylbenzene	280	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Dupe

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650404

Sample wt/vol: 9.3 (g/ml) G Lab File ID: VC007246.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.28 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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	410	U
1330-20-7	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	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Field Dupe

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1650404

Sample wt/vol: 9.3 (g/ml) G Lab File ID: VC007246.D

Level: (low/med) MED Date Received: 10/12/01

% Moisture: not dec. 22.28 Date Analyzed: 10/15/01

GC Column: Rtx502.2 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

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Lab File ID: VC006893.D BFB Injection Date: 8/31/01

Instrument ID: GCMSVoa BFB Injection Time: 10:29

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

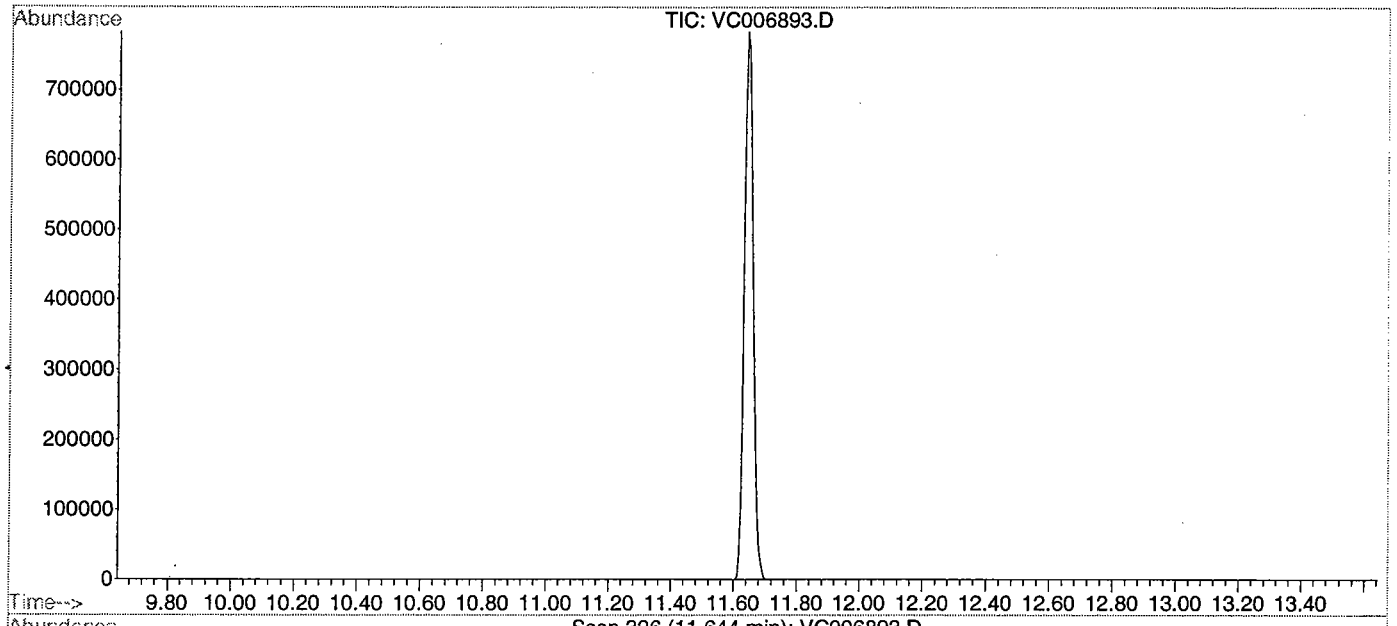
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.9
75	30.0 - 66.0% of mass 95	48.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	70.6
175	4.0 - 9.0% of mass 174	5.7 (8.0)1
176	93.0 - 101.0% of mass 174	67.8 (95.9)1
177	5.0 - 9.0% of mass 176	4.5 (6.7)2

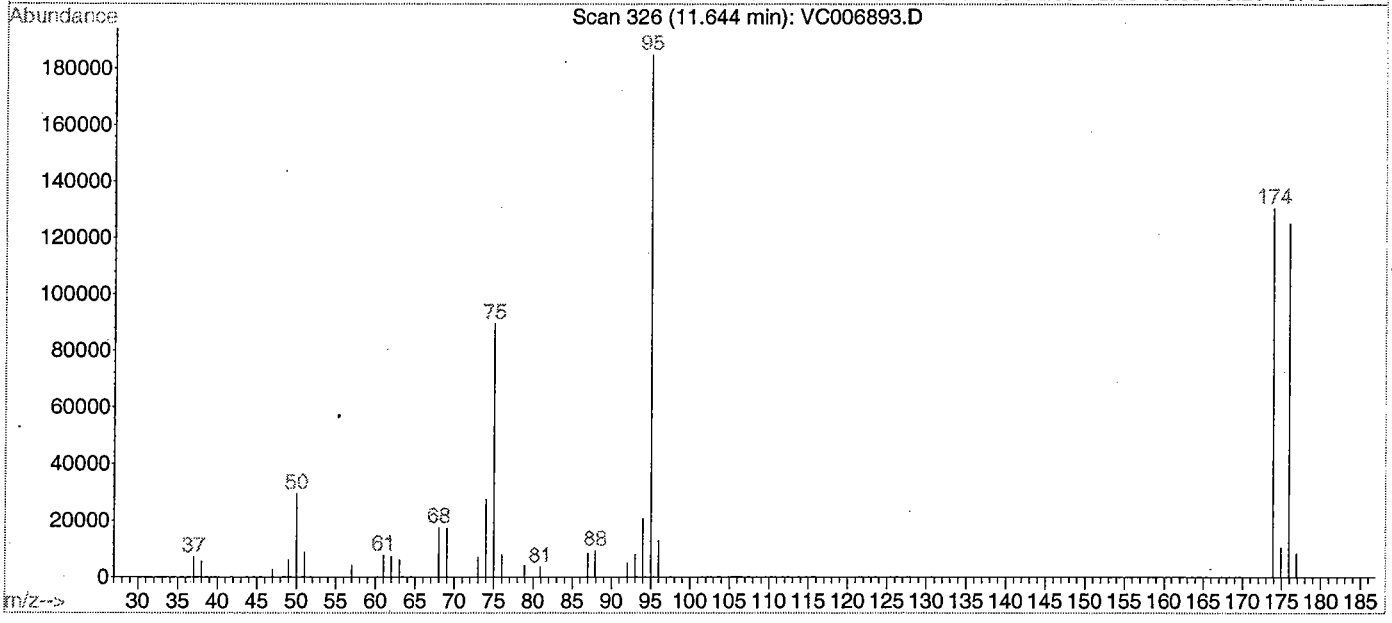
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VC006894.D	8/31/01	11:15
02	VSTD050	VSTD050	VC006895.D	8/31/01	11:55
03	VSTD020	VSTD020	VC006896.D	8/31/01	12:36
04	VSTD010	VSTD010	VC006897.D	8/31/01	13:16
05	VSTD005	VSTD005	VC006898.D	8/31/01	13:57

Data File : D:\HPCHEM\1\DATA\010831\VC006893.D Vial: 4
Acq On : 31 Aug 2001 10:29 am Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 326

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	29320	PASS
75	95	30	60	48.4	89528	PASS
95	95	100	100	100.0	184896	PASS
96	95	5	9	6.9	12781	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.6	130600	PASS
175	174	5	9	8.0	10467	PASS
176	174	95	101	95.9	125288	PASS
177	176	5	9	6.7	8401	PASS

Response Factor Report GC/MS Ins

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration

Calibration Files
50 =VC006895.D 5 =VC006898.D 10 =VC006897.D
20 =VC006896.D 100 =VC006894.D

		Compound	50	5	10	20	100	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------						
2)	t	Acrolein	0.233	0.199	0.223	0.201	0.098	0.191	28.30
3)	t	Acrylonitrile	1.057	0.953	1.035	0.852	0.979	0.975	8.25
4)	t	tert-Butyl alcohol	0.116	0.046	0.087	0.073	0.087	0.082	31.16
5)	t	Methyl-tert-Butyl eth	5.609	4.635	4.932	4.291	5.560	5.006	11.50
6)	t	Di-isopropyl ether	1.796	1.161	1.428	1.351	1.800	1.508	18.75
7)	T	Dichlorodifluorometha	3.985	3.825	3.776	3.236	3.631	3.691	7.69
8)	TP	Chloromethane	3.396	3.353	3.399	2.702	3.019	3.174	9.69
9)	TC	Vinyl Chloride	2.757	3.182	2.985	2.438	2.621	2.797	10.50
10)	T	Bromomethane	1.701	1.648	1.697	1.410	1.539	1.599	7.76
11)	T	Chloroethane	1.763	1.725	1.701	1.464	1.733	1.677	7.23
12)	T	Trichlorofluoromethan	3.885	4.050	3.905	3.303	3.803	3.789	7.55
13)	MC	1,1-Dichloroethene	3.182	2.768	2.981	2.536	3.170	2.927	9.43
14)	T	Acetone	0.563	0.638	0.650	0.444	0.550	0.569	14.53
15)	T	Carbon Disulfide	7.685	7.422	7.464	6.323	7.457	7.270	7.43
16)	T	Methylene Chloride	2.325	2.446	2.335	1.942	2.257	2.261	8.45
17)	T	trans-1,2-Dichloroeth	3.000	2.816	2.826	2.430	2.978	2.810	8.14
18)	TP	1,1-Dichloroethane	3.961	3.821	3.818	3.247	3.893	3.748	7.63
19)	T	Vinyl Acetate	4.058	2.770	3.319	2.936	4.087	3.434	17.94
20)	T	2-Butanone	0.723	0.358	0.583	0.482	0.730	0.575	27.72
21)	T	cis-1,2-Dichloroethen	2.937	2.449	2.667	2.265	2.912	2.646	11.02
22)	TC	Chloroform	3.720	3.783	3.740	3.084	3.641	3.594	8.06
23)	T	1,1,1-Trichloroethane	3.066	2.870	2.910	2.483	3.043	2.874	8.15
	T	Carbon Tetrachloride	2.705	2.517	2.589	2.163	2.671	2.529	8.59
	S	1,2-Dichloroethane-d4	2.311	2.384	2.348	2.335	2.293	2.334	1.50
26)	I	1,4-Difluorobenzene	----------ISTD----------						
27)	TM	Benzene	1.385	1.348	1.378	1.151	1.324	1.317	7.29
28)	T	1,2-Dichloroethane	0.403	0.400	0.405	0.332	0.394	0.387	7.97
29)	TM	Trichloroethene	0.321	0.294	0.307	0.259	0.314	0.299	8.18
30)	TC	1,2-Dichloropropane	0.333	0.308	0.322	0.269	0.328	0.312	8.24
31)	T	Bromodichloromethane	0.405	0.380	0.391	0.329	0.402	0.381	8.08
32)	T	2-Chloroethyl vinyl e	0.114	0.100	0.108	0.093	0.112	0.105	8.34
33)	T	cis-1,3-Dichloroprope	0.523	0.389	0.448	0.393	0.523	0.455	14.54
34)	T	4-Methyl-2-Pentanone	0.104	0.046	0.079	0.072	0.102	0.080	29.68
35)	S	Toluene-d8	1.182	1.191	1.190	1.186	1.183	1.187	0.35
36)	TCM	Toluene	1.393	1.360	1.387	1.158	1.313	1.322	7.35
37)	I	Chlorobenzene-d5	----------ISTD----------						
38)	T	trans-1,3-Dichloropro	1.873	1.424	1.574	1.380	1.851	1.620	14.30
39)	T	1,1,2-Trichloroethane	1.154	1.121	1.132	0.943	1.094	1.089	7.75
40)	T	Tetrachloroethene	1.172	1.111	1.124	0.940	1.127	1.095	8.18
41)	T	2-Hexanone	0.526	0.283	0.389	0.352	0.523	0.415	25.81
42)	T	Dibromochloromethane	1.097	0.963	0.993	0.835	1.076	0.993	10.52
43)	TMP	Chlorobenzene	3.416	3.466	3.452	2.845	3.236	3.283	7.97
44)	TC	Ethylbenzene	6.017	5.714	5.928	4.970	5.549	5.636	7.35
45)	T	m+p-Xylenes	2.311	2.221	2.279	1.912	2.174	2.179	7.26
46)	T	o-Xylene	4.369	3.370	3.876	3.435	4.177	3.845	11.48
47)	T	Styrene	3.872	3.250	3.593	3.077	3.723	3.503	9.44
48)	TP	Bromoform	0.725	0.560	0.618	0.535	0.719	0.632	13.90
49)	S	Bromofluorobenzene	1.686	1.637	1.645	1.663	1.720	1.670	2.01
50)	TP	1,1,2,2-Tetrachloroet	1.508	1.479	1.509	1.236	1.423	1.431	8.01
51)	T	1,3-Dichlorobenzene	2.488	2.099	2.238	1.968	2.427	2.244	9.72
52)	T	1,4-Dichlorobenzene	2.588	2.254	2.416	2.121	2.527	2.381	8.10
	T	1,2-Dichlorobenzene	2.384	2.171	2.261	1.937	2.320	2.215	7.85

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Lab File ID: VC007240.D BFB Injection Date: 10/15/01

Instrument ID: GCMSVoa BFB Injection Time: 11:43

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

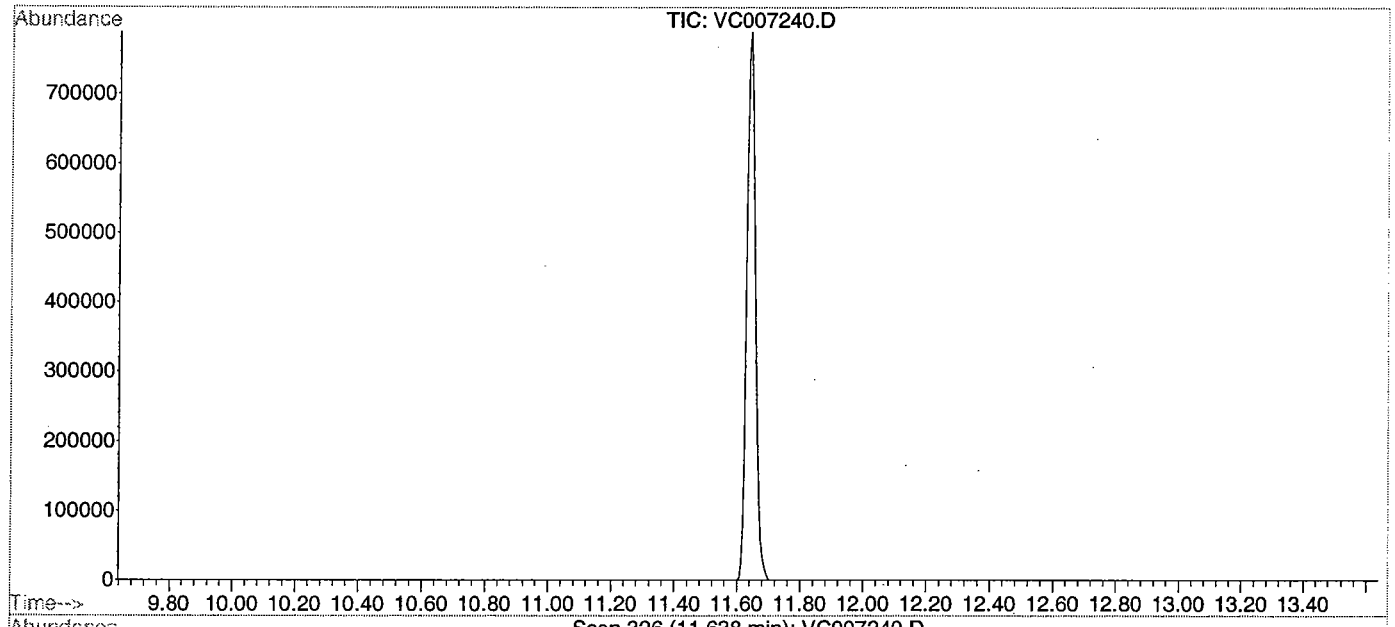
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.1
75	30.0 - 66.0% of mass 95	45.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	65.6
175	4.0 - 9.0% of mass 174	4.7 (7.2)1
176	93.0 - 101.0% of mass 174	63.2 (96.4)1
177	5.0 - 9.0% of mass 176	4.2 (6.6)2

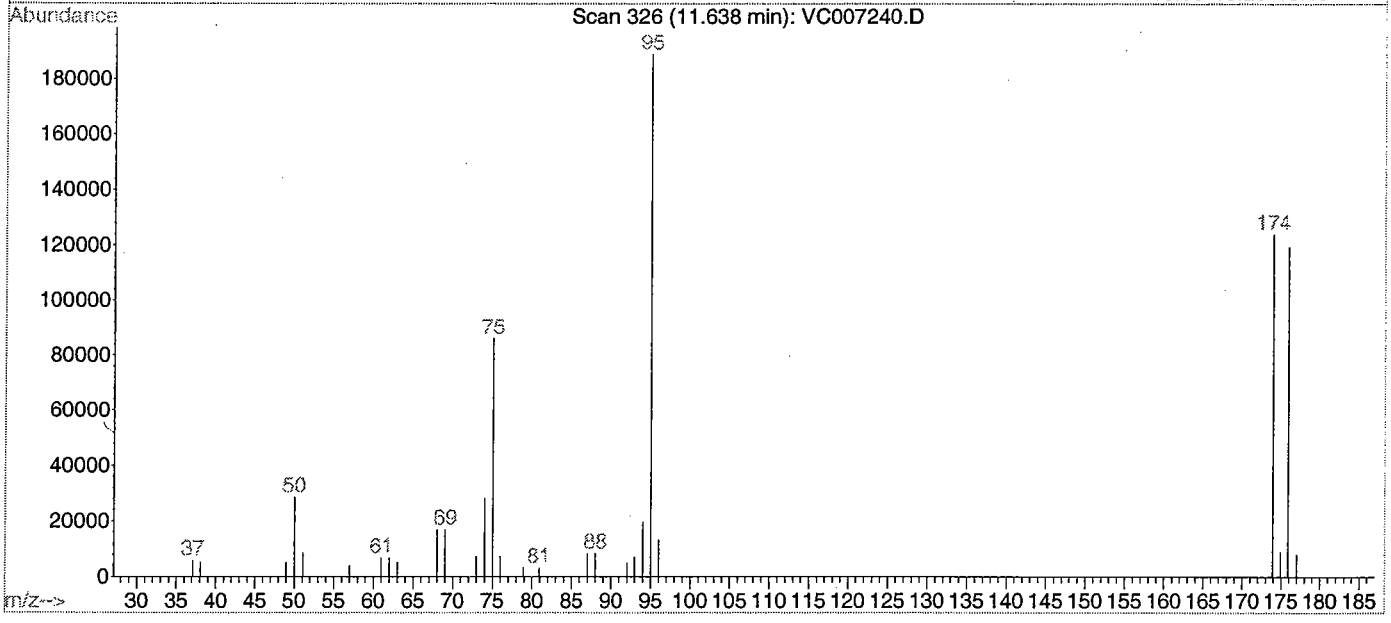
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007241.D	10/15/01	12:18
02	MB	MB	VC007242.D	10/15/01	15:03
03	TRIP BLANK	1650401	VC007243.D	10/15/01	15:59
04	619E	1650402	VC007244.D	10/15/01	16:39
05	619F	1650403	VC007245.D	10/15/01	17:19
06	FIELD DUPE	1650404	VC007246.D	10/15/01	18:00
07	MS	1650403 MS	VC007247.D	10/15/01	18:41
08	MSD	1650403 MSD	VC007248.D	10/15/01	19:22

Data File : D:\HPCHEM\1\DATA\011015\VC007240.D Vial: 1
Acq On : 15 Oct 2001 11:43 am Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 326

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	28536	PASS
75	95	30	60	45.6	86096	PASS
95	95	100	100	100.0	188992	PASS
96	95	5	9	7.0	13182	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	65.6	123888	PASS
175	174	5	9	7.2	8968	PASS
176	174	95	101	96.4	119432	PASS
177	176	5	9	6.6	7933	PASS

VC007240.D M362449.M Wed Oct 17 11:25:46 2001

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011015\VC007241.D Vial: 1
Acq On : 15 Oct 2001 12:18 pm Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	87	0.00
2	t	Acrolein	0.191	0.380	-99.0#	165	0.00
3	t	Acrylonitrile	0.975	0.941	3.5	96	0.00
4	t	tert-Butyl alcohol	0.082	0.113	-37.8#	135	0.00
5	t	Methyl-tert-Butyl ether	5.006	4.988	0.4	102	0.00
6	t	Di-isopropyl ether	1.508	1.589	-5.4	103	0.00
7	T	Dichlorodifluoromethane	3.691	2.745	25.6#	74	0.00
8	TP	Chloromethane	3.174	2.565	19.2	83	0.00
9	TC	Vinyl Chloride	2.797	2.351	15.9	84	0.00
10	T	Bromomethane	1.599	1.558	2.6	97	0.00
11	T	Chloroethane	1.677	1.535	8.5	92	0.00
12	T	Trichlorofluoromethane	3.789	3.546	6.4	94	0.00
13	MC	1,1-Dichloroethene	2.927	2.794	4.5	96	0.00
14	T	Acetone	0.569	0.769	-35.1#	151	0.00
15	T	Carbon Disulfide	7.270	6.693	7.9	92	0.00
16	T	Methylene Chloride	2.261	2.121	6.2	95	0.00
17	T	trans-1,2-Dichloroethene	2.810	2.584	8.0	93	0.00
18	TP	1,1-Dichloroethane	3.748	3.493	6.8	94	0.00
19	T	Vinyl Acetate	3.434	3.587	-4.5	107	0.00
20	T	2-Butanone	0.575	0.693	-20.5	125	0.00
[illegible]	T	cis-1,2-Dichloroethene	2.646	2.579	2.5	99	0.00
[illegible]	TC	Chloroform	3.594	3.383	5.9	96	0.00
23	T	1,1,1-Trichloroethane	2.874	2.778	3.3	98	0.00
24	T	Carbon Tetrachloride	2.529	2.429	4.0	98	0.00
25	S	1,2-Dichloroethane-d4	2.334	2.158	7.5	81	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	91	0.00
27	TM	Benzene	1.317	1.199	9.0	95	0.00
28	T	1,2-Dichloroethane	0.387	0.348	10.1	95	0.00
29	TM	Trichloroethene	0.299	0.285	4.7	100	0.00
30	TC	1,2-Dichloropropane	0.312	0.288	7.7	97	0.00
31	T	Bromodichloromethane	0.381	0.347	8.9	96	0.00
32	T	2-Chloroethyl vinyl ether	0.105	0.095	9.5	93	0.00
33	T	cis-1,3-Dichloropropene	0.455	0.442	2.9	102	0.00
34	T	4-Methyl-2-Pentanone	0.080	0.089	-11.2	112	0.00
35	S	Toluene-d8	1.187	1.123	5.4	86	0.00
36	TCM	Toluene	1.322	1.192	9.8	94	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
38	T	trans-1,3-Dichloropropene	1.620	1.488	8.1	102	0.00
39	T	1,1,2-Trichloroethane	1.089	0.954	12.4	96	0.00
40	T	Tetrachloroethene	1.095	0.961	12.2	97	0.00
41	T	2-Hexanone	0.415	0.438	-5.5	118	0.00
42	T	Dibromochloromethane	0.993	0.880	11.4	100	0.00
43	TMP	Chlorobenzene	3.283	2.810	14.4	94	0.00
44	TC	Ethylbenzene	5.636	4.918	12.7	94	0.00
45	T	m+p-Xylenes	2.179	1.887	13.4	94	0.00
46	T	o-Xylene	3.845	3.513	8.6	97	0.00
47	T	Styrene	3.503	2.631	24.9	81	0.00
48	TP	Bromoform	0.632	0.535	15.3	95	0.00
49	S	Bromofluorobenzene	1.670	1.611	3.5	92	0.00
[illegible]	P	1,1,2,2-Tetrachloroethane	1.431	1.234	13.8	95	0.00
[illegible]		1,3-Dichlorobenzene	2.244	1.917	14.6	92	0.00
52	T	1,4-Dichlorobenzene	2.381	1.957	17.8	87	0.00
53	T	1,2-Dichlorobenzene	2.215	1.818	17.9	89	0.00

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

4A

VOLATILE METHOD BLANK SUMMARY

FIELD ID.

MB

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Lab File ID: VC007242.D Lab Sample ID: MB

Date Analyzed: 10/15/01 Time Analyzed: 15:03

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMSVoa

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TRIP BLANK	1650401	VC007243.D	15:59
02	619E	1650402	VC007244.D	16:39
03	619F	1650403	VC007245.D	17:19
04	FIELD DUPE	1650404	VC007246.D	18:00
05	MS	1650403 MS	VC007247.D	18:41
06	MSD	1650403 MSD	VC007248.D	19:22

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	FMETL	**Project**	01-0001
NJDEP #	13461	**Location**	Bldg.619

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	96.0	93.0	94.0
02	TRIP BLANK	101.7	87.3	91.3
03	619E	94.0	83.3	89.0
04	619F	94.0	83.7	89.7
05	FIELD DUPE	89.0	79.3	84.7

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration

Non-Spiked Sample: VC007245.D

	Spike Sample	Spike Duplicate Sample
File ID :	VC007247.D	VC007248.D
Sample :	1650403 MS	1650403 MSD
Acq Time:	15 Oct 2001 6:41 pm	15 Oct 2001 7:22 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	22	19	109	96	13	22	59-172
Benzene	0.0	20	21	18	104	91	13	21	66-142
Trichloroethene	0.0	20	21	19	107	94	12	24	62-137
Toluene	0.0	20	21	19	105	93	12	21	59-139
Chlorobenzene	0.0	20	19	17	97	87	11	21	60-133

- Fails Limit Check

M362449.M Wed Oct 17 11:25:18 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: 010001 Case No.: 16504 Location: 619 SDG No.:

Lab File ID (Standard): VC007241.D Date Analyzed: 10/15/01

Instrument ID: GCMSVoa Time Analyzed: 12:18

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	373903	16.70	2648022	19.42	729062	27.24
	UPPER LIMIT	747806	17.20	5296044	19.92	1458124	27.74
	LOWER LIMIT	186952	16.20	1324011	18.92	364531	26.74
	FIELD ID.						
01	MB	352777	16.70	2495060	19.42	680029	27.25
02	TRIP BLANK	352155	16.69	2567449	19.42	722641	27.25
03	619E	351415	16.69	2528752	19.42	700445	27.24
04	619F	356721	16.69	2565234	19.42	711995	27.25
05	FIELD DUPE	361238	16.69	2616329	19.42	734453	27.25
06	MS	358475	16.69	2591576	19.42	735206	27.25
07	MSD	365658	16.70	2634430	19.42	742481	27.25

IS1 BCM = Bromochloromethane
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011015\VC007242.D Vial: 1
Acq On : 15 Oct 2001 3:03 pm Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 15:39 2001 Quant Results File: M362449.RES

Quant Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration
DataAcq Meth : M362449

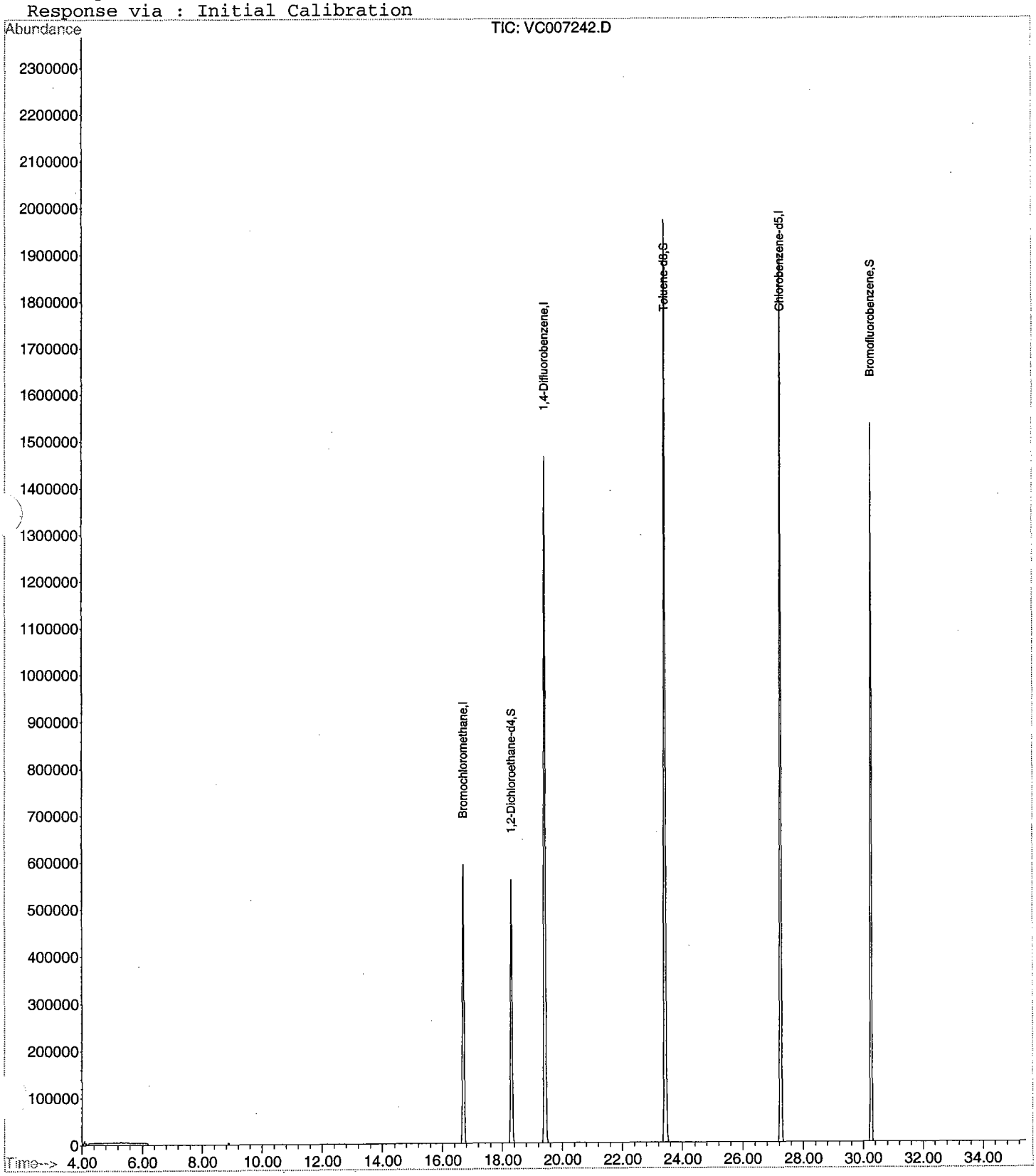
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.70	128	352777	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.42	114	2495060	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	680029	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	794526	28.94	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 96.47%			
35) Toluene-d8	23.42	98	2760873	27.98	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 93.27%			
49) Bromofluorobenzene	30.25	95	1062798	28.07	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 93.57%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
VC007242.D M362449.M Wed Oct 17 10:59:51 2001 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011015\VC007242.D Vial: 1
Acq On : 15 Oct 2001 3:03 pm Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 15:39 2001 Quant Results File: M362449.RES

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011015\VC007243.D Vial: 1
Acq On : 15 Oct 2001 3:59 pm Operator: Skelton
Sample : 1650401 Inst : GC/MS Ins
Misc : Trip Blank Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 17 10:57 2001 Quant Results File: M362449.RES

Quant Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration
DataAcq Meth : M362449

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	352155	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.42	114	2567449	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	722641	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2751860	100.43	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	334.77%#		
35) Toluene-d8	23.42	98	8880673	87.45	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	291.50%#		
49) Bromofluorobenzene	30.25	95	3671605	91.27	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	304.23%#		
Target Compounds						Qvalue
22) Chloroform	16.23	83	327406	7.76	ug/L	97

(#) = qualifier out of range (m) = manual integration
VC007243.D M362449.M Wed Oct 17 10:59:56 2001

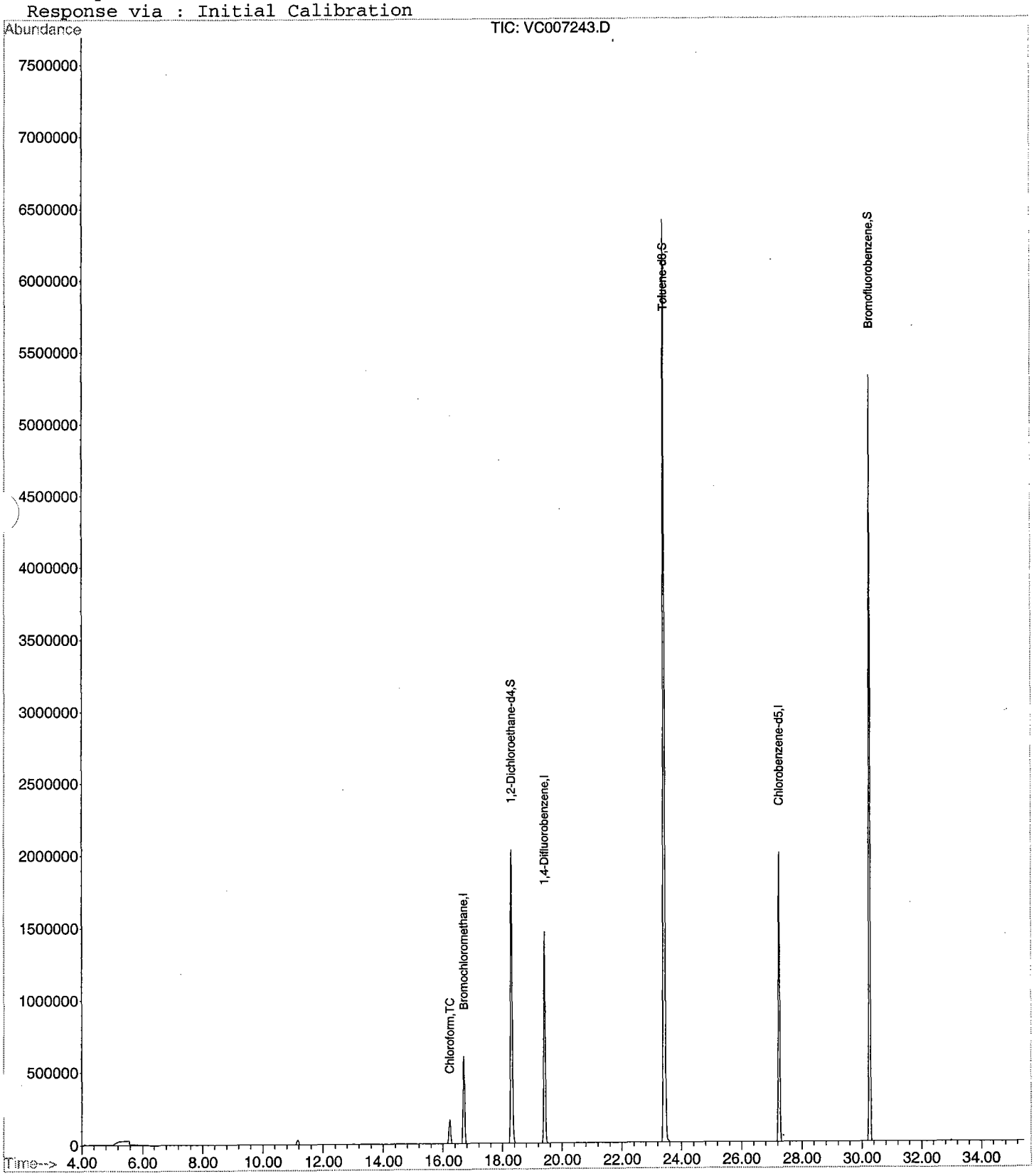
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011015\VC007243.D
Acq On : 15 Oct 2001 3:59 pm
Sample : 1650401
Misc : Trip Blank
MS Integration Params: RTEINT.P
Quant Time: Oct 17 10:57 2001

Vial: 1
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362449.RES

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011015\VC007244.D Vial: 2
Acq On : 15 Oct 2001 4:39 pm Operator: Skelton
Sample : 1650402 Inst : GC/MS Ins
Misc : 619E Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 17 10:57 2001 Quant Results File: M362449.RES

Quant Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration
DataAcq Meth : M362449

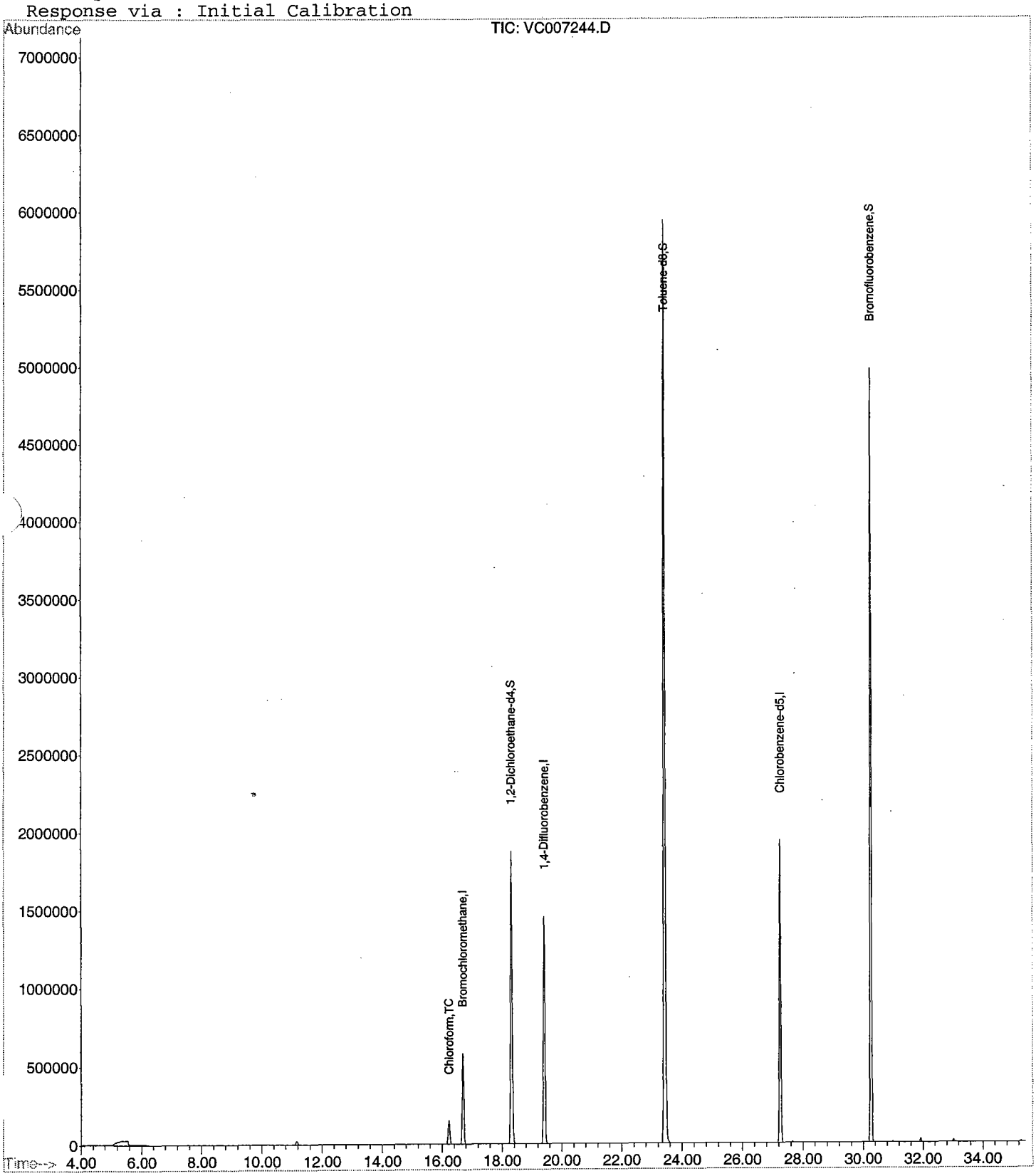
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	351415	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.42	114	2528752	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	700445	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2558403	93.56	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	311.87%#		
35) Toluene-d8	23.42	98	8390173	83.89	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	279.63%#		
49) Bromofluorobenzene	30.25	95	3479803	89.24	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	297.47%#		
Target Compounds						Qvalue
22) Chloroform	16.23	83	308367	7.33	ug/L	99

(#) = qualifier out of range (m) = manual integration
VC007244.D M362449.M Wed Oct 17 11:00:01 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011015\VC007244.D Vial: 2
Acq On : 15 Oct 2001 4:39 pm Operator: Skelton
Sample : 1650402 Inst : GC/MS Ins
Misc : 619E Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 17 10:57 2001 Quant Results File: M362449.RES

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011015\VC007245.D Vial: 3
Acq On : 15 Oct 2001 5:19 pm Operator: Skelton
Sample : 1650403 Inst : GC/MS Ins
Misc : 619F Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 17 10:58 2001 Quant Results File: M362449.RES

Quant Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration
DataAcq Meth : M362449

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	356721	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.42	114	2565234	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	711995	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2598096	93.60	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	312.00%#		
35) Toluene-d8	23.42	98	8558374	84.35	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	281.17%#		
49) Bromofluorobenzene	30.25	95	3550775	89.59	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	298.63%#		
Target Compounds						Qvalue
22) Chloroform	16.23	83	323213	7.56	ug/L	96

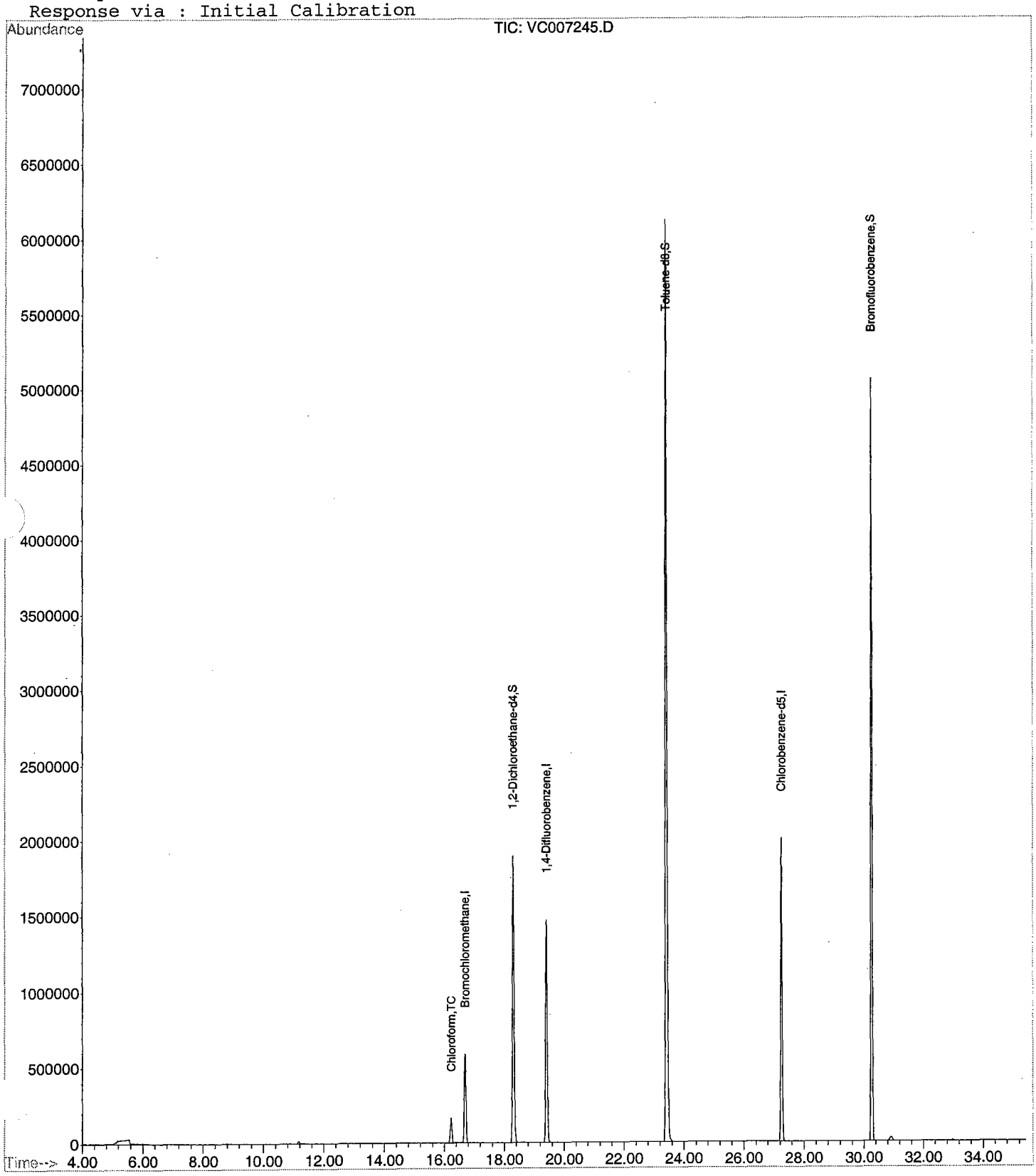
(#) = qualifier out of range (m) = manual integration

000044

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011015\VC007245.D Vial: 3
Acq On : 15 Oct 2001 5:19 pm Operator: Skelton
Sample : 1650403 Inst : GC/MS Ins
Misc : 619F Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 17 10:58 2001 Quant Results File: M362449.RES

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011015\VC007246.D Vial: 4
Acq On : 15 Oct 2001 6:00 pm Operator: Skelton
Sample : 1650404 Inst : GC/MS Ins
Misc : Field Dupe Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 18:36 2001 Quant Results File: M362449.RES

Quant Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
Response via : Initial Calibration
DataAcq Meth : M362449

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	361238	30.00	ug/L	-0.01
26) 1,4-Difluorobenzene	19.42	114	2616329	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	734453	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2504166	89.09	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	296.97%#		
35) Toluene-d8	23.42	98	8314696	80.35	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	267.83%#		
49) Bromofluorobenzene	30.25	95	3480378	85.12	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	283.73%#		
Target Compounds						Qvalue
22) Chloroform	16.23	83	349618	8.08	ug/L	99

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

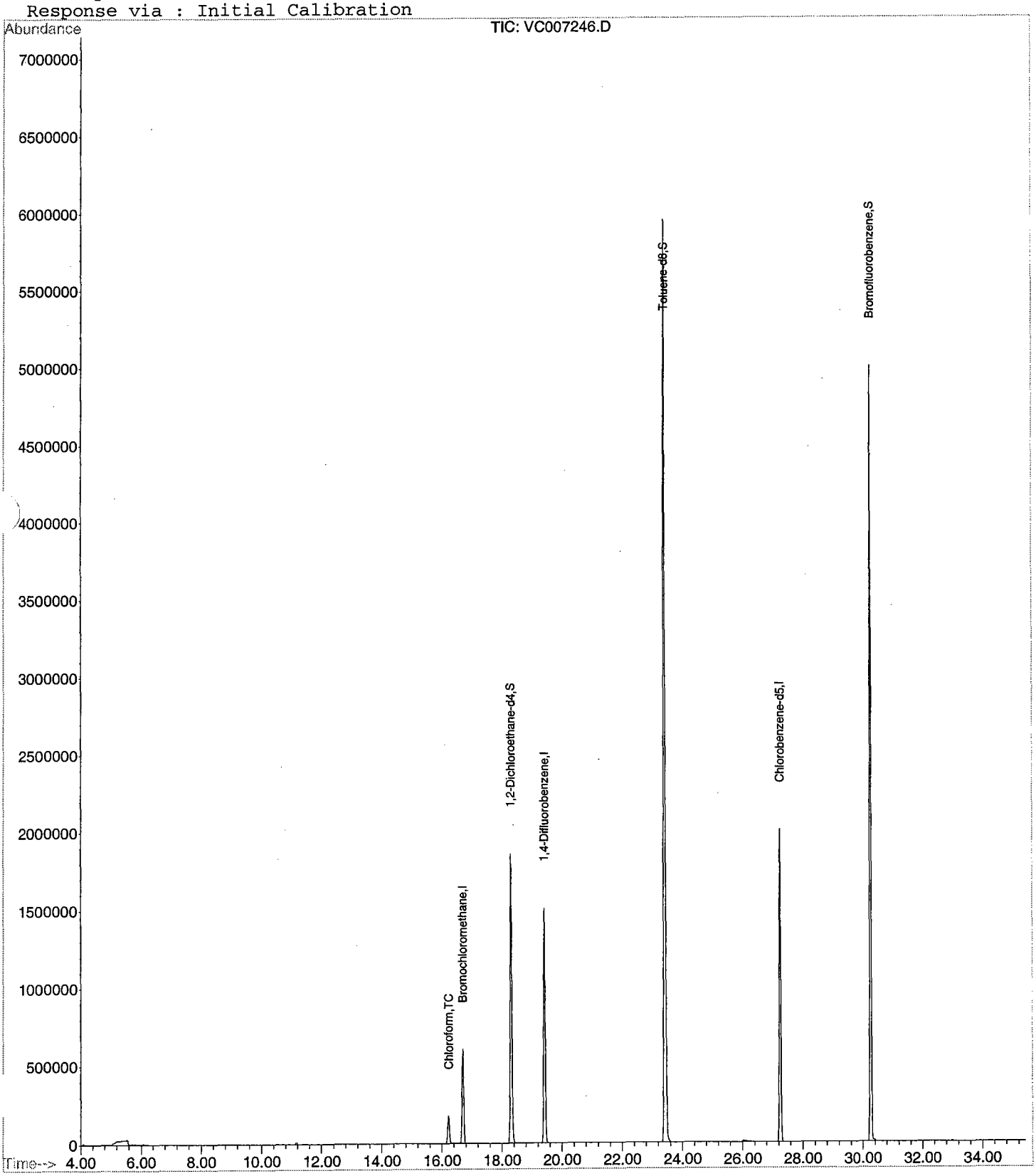
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011015\VC007246.D
Acq On : 15 Oct 2001 6:00 pm
Sample : 1650404
Misc : Field Dupe
MS Integration Params: RTEINT.P
Quant Time: Oct 15 18:36 2001

Vial: 4
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362449.RES

Method : D:\HPCHEM\1\METHODS\M362449.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 15 14:30:38 2001
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 # :** **Location :** **UST Reg. # :**	16504 Bldg.619
Analysis :	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix :	Soil	**Date Extracted :**	15-Oct-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1650402	619E	**1.00**	15.37	77.47	190	**701.82**
1650403	619F	**1.00**	15.37	77.73	190	**295.13**
1650404	F.D	**1.00**	15.87	77.72	184	**220.44**
METHOD BLANK	MB-2515	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1)	tC C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013669.D Vial: 16
Acq On : 15 Oct 2001 7:43 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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	19.014 E3	-5.5	101	0.01
2	tC	C10	20.595	22.377 E3	-8.7	105	0.00
3	TC	C12	21.549	23.085 E3	-7.1	105	0.00
4	tC	C14	23.048	24.180 E3	-4.9	104	0.00
5	tC	C16	24.057	24.776 E3	-3.0	103	0.00
6	tC	C18	24.812	25.012 E3	-0.8	101	0.00
7	tC	C20	24.684	25.466 E3	-3.2	103	0.00
8	tC	C22	25.878	26.348 E3	-1.8	102	0.00
9	tC	C24	26.326	26.670 E3	-1.3	102	0.00
10	tC	C26	26.702	26.927 E3	-0.8	102	0.00
11	tC	C28	26.061	26.495 E3	-1.7	102	0.00
12	tC	C30	26.583	27.243 E3	-2.5	102	0.00
13	tC	C32	26.447	26.985 E3	-2.0	102	0.00
14	tC	C34	26.317	26.921 E3	-2.3	102	0.00
15	tC	C36	26.661	27.874 E3	-4.5	105	0.00
16	tC	C38	24.528	26.428 E3	-7.7	109	0.00
17	tC	C40	21.994	25.099 E3	-14.1	117	0.00
18	tC	c42	19.638	24.199 E3	-23.2	125	0.00
19	TC	Pristane	23.812	24.046 E3	-1.0	100	0.00
20	TC	Phytane	25.573	25.856 E3	-1.1	103	0.00
	)C	o-terphenyl	25.484	26.125 E3	-2.5	103	0.00
2	CC	TPHC - total	28.994	28.793 E3	0.7	108	0.28

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013680.D Vial: 27
Acq On : 16 Oct 2001 1:49 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.377 E3	-2.0	97	0.00
2	tC	C10	20.595	21.602 E3	-4.9	102	0.00
3	TC	C12	21.549	22.362 E3	-3.8	101	0.00
4	tC	C14	23.048	23.537 E3	-2.1	101	0.00
5	tC	C16	24.057	24.206 E3	-0.6	101	0.00
6	tC	C18	24.812	25.449 E3	-2.6	103	0.00
7	tC	C20	24.684	24.900 E3	-0.9	100	0.00
8	tC	C22	25.878	25.708 E3	0.7	100	0.00
9	tC	C24	26.326	26.033 E3	1.1	100	0.00
10	tC	C26	26.702	26.298 E3	1.5	100	0.00
11	tC	C28	26.061	25.816 E3	0.9	99	0.00
12	tC	C30	26.583	26.526 E3	0.2	99	0.00
13	tC	C32	26.447	26.300 E3	0.6	99	0.00
14	tC	C34	26.317	26.214 E3	0.4	100	0.00
15	tC	C36	26.661	27.110 E3	-1.7	102	0.00
16	tC	C38	24.528	25.753 E3	-5.0	106	0.00
17	tC	C40	21.994	24.509 E3	-11.4	114	0.00
18	tC	c42	19.638	23.560 E3	-20.0	122	0.00
19	TC	Pristane	23.812	23.703 E3	0.5	99	0.00
20	TC	Phytane	25.573	25.161 E3	1.6	100	0.00
	C	o-terphenyl	25.484	25.505 E3	-0.1	100	0.00
2	CC	TPHC - total	28.994	27.463 E3	5.3	103	-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 # :**	16504
	DPW. SELFM-PW-EV	**Location :**	Bldg.619
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1650402			10.00	9.06	**90.63**
1650403			10.00	9.10	**90.98**
1650404			10.00	8.45	**84.54**
METHOD BLANK	MB-2515		10.00	11.26	**112.64**

Surrogate Added : **o-Terphenyl**

Matrix Spike/ Duplicate Recovery Report
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 # :** **Location :** **UST Reg. # :**	16504 Bldg.619
Analysis:	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1650241MS	1000	0.00	924.95	92.50	75-125
1650241MSD	1000	0.00	961.53	96.15	75-125
			RPD	**3.88**	**20.00**

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

Client :	U.S. Army	**Project # :**	16504
	DPW. SELFM-PW-EV	**Location :**	Bldg.619
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2516	15-Oct-01	1000	827.43	82.74	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013659.D Vial: 6
Acq On : 15 Oct 2001 2:05 pm Operator: B.Patel
Sample : MB-2515 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 15 15:05 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

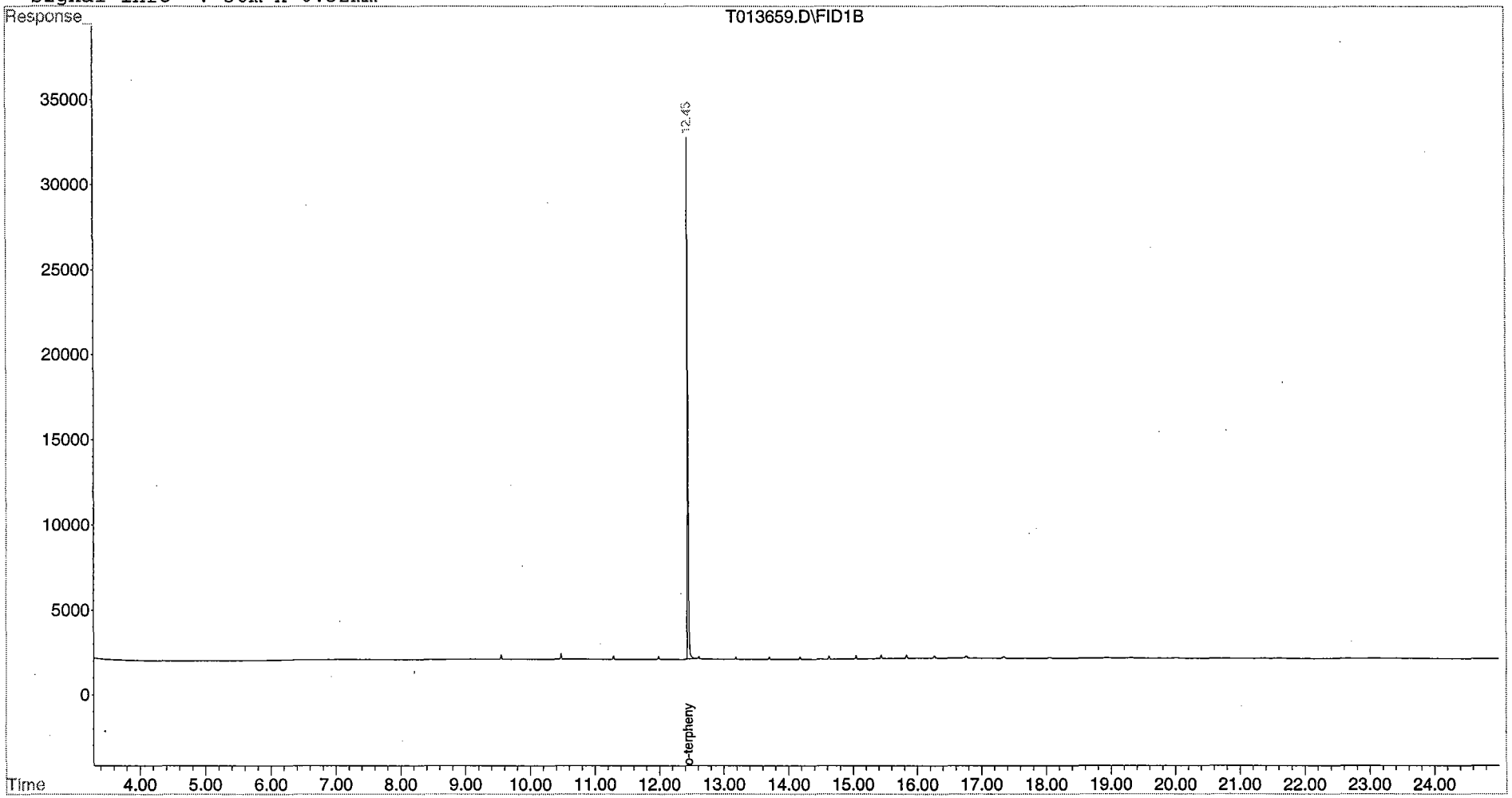
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	287051	11.264 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 112.64%#	
Target Compounds			

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

Data [illegible]le : C:\HPCHEM\1\DATA\011015\T013659.D [illegible]ial: 6
Acq On : 15 Oct 2001 2:05 pm Operator: B.Patel
Sample : MB-2515 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 15 15:05 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000057

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013674.D Vial: 21
Acq On : 15 Oct 2001 10:30 pm Operator: B.Patel
Sample : 1650402s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:50 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

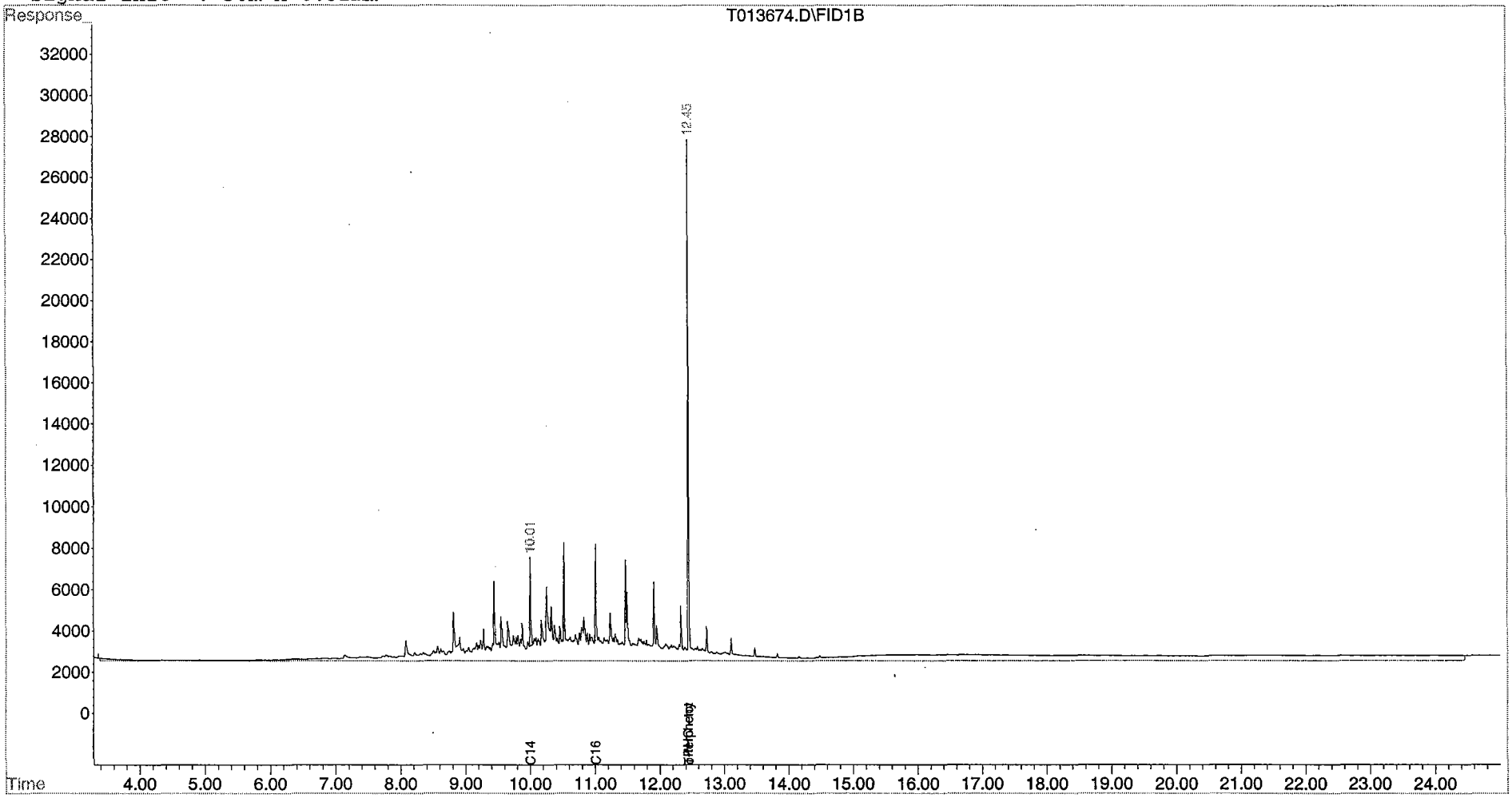
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	230960	9.063 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	90.63%#
Target Compounds			
4) tC C14	10.01	42162	1.829 mg/L
5) tC C16	11.02	43908	1.825 mg/L
22) tC TPHC - total	12.45	4846041	167.140 mg/L m

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

Data le : C:\HPCHEM\1\DATA\011015\T013674.D ial: 21
Acq On : 15 Oct 2001 10:30 pm Operator: B.Patel
Sample : 1650402s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:50 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000059

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013675.D Vial: 22
Acq On : 15 Oct 2001 11:03 pm Operator: B.Patel
Sample : 1650403s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	231853	9.098 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	90.98%#
Target Compounds			
22) tC TPHC - total	12.45	2044591	70.518 mg/L m

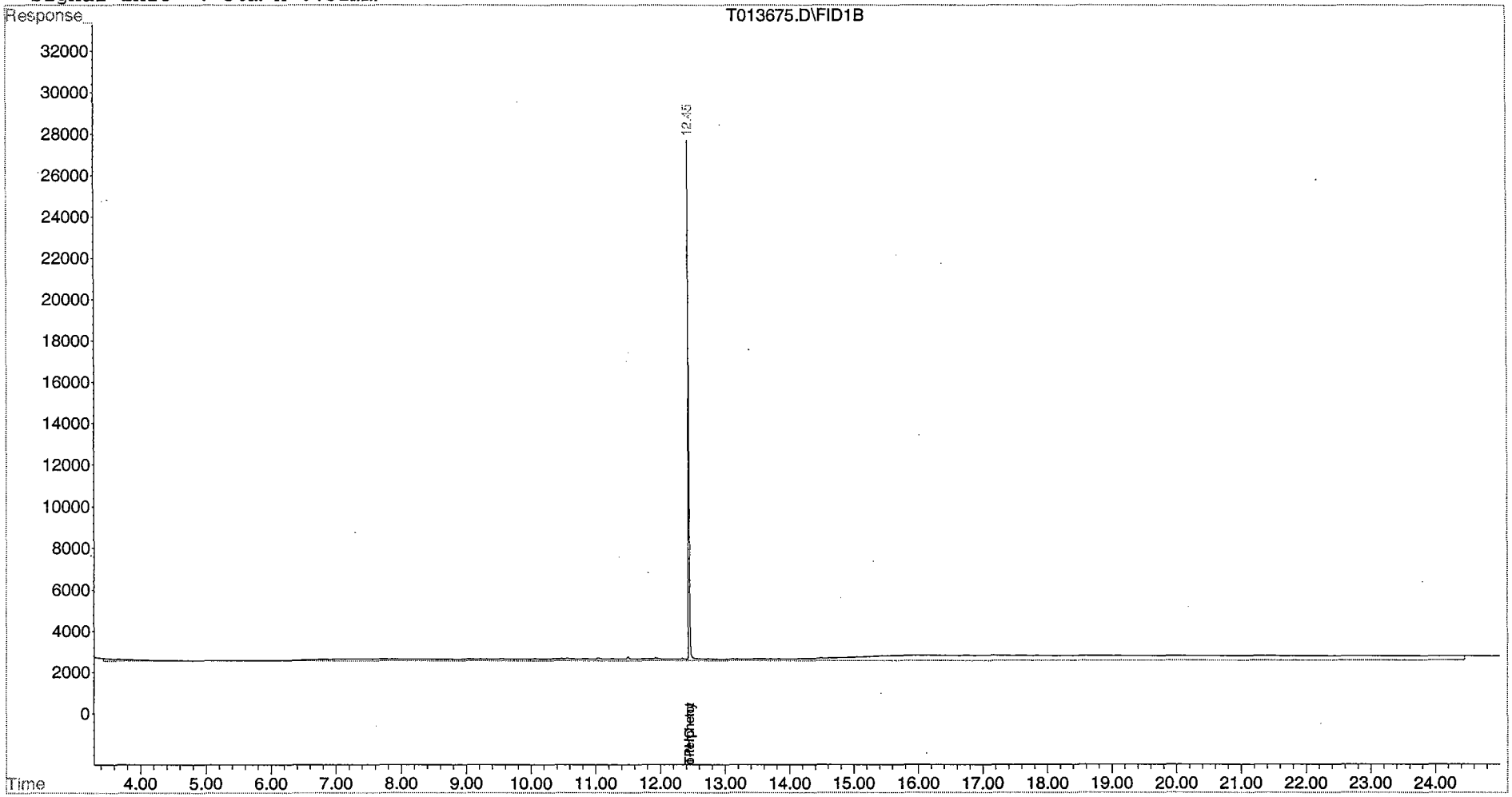
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\011015\T013675.D
Acq On : 15 Oct 2001 11:03 pm
Sample : 1650403s
Misc :
IntFile : TPHCINT.E
Quant Time: Oct 16 8:31 2001 Quant Results File: TPH95.RES

Vial: 22
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000061

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013676.D Vial: 23
Acq On : 15 Oct 2001 11:36 pm Operator: B.Patel
Sample : 1650404s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

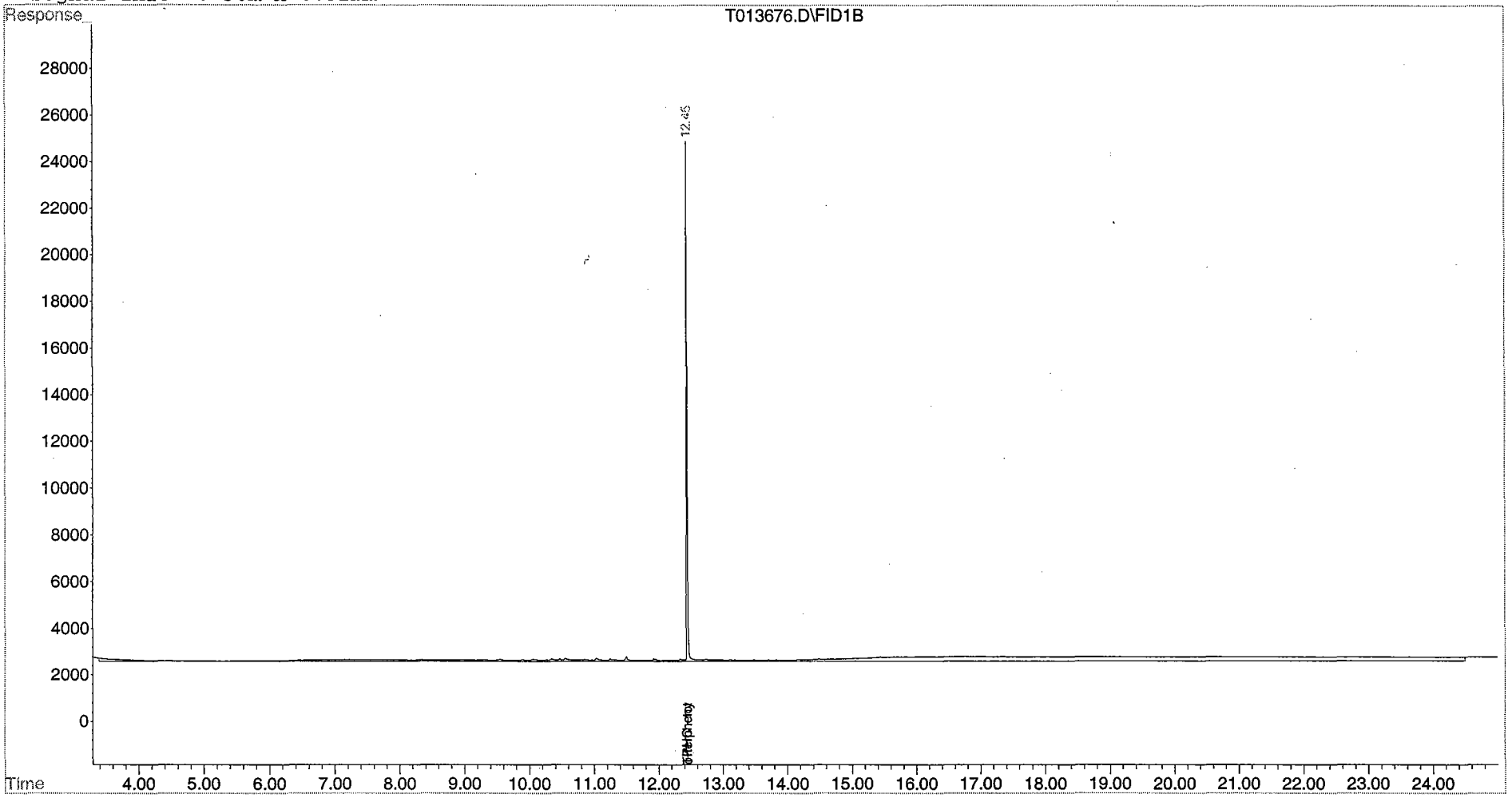
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	215448	8.454 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	84.54%#
Target Compounds			
22) tC TPHC - total	12.45	1576575	54.376 mg/L m

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

Data [illegible]le : C:\HPCHEM\1\DATA\011015\T013676.D [illegible]ial: 23
Acq On : 15 Oct 2001 11:36 pm Operator: B.Patel
Sample : 1650404s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000063

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
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 10/19/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

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 #: 1624.1-.8
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.#: **0081533-94**
Closure #:
DICAR #:
Location #: **Bldg. 621**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1624.1	Site A, Sidewall	OVA= ND	84	ND	6.6
1624.2	Site B, Sidewall	OVA= ND	84	ND	6.6
1624.3	Site C, Sidewall	OVA= ND	83	ND	6.6
1624.4	Site D, Sidewall	OVA= ND	85	ND	6.6
1624.5	Site E, Sidewall	OVA= ND	84	42.3	6.6
1624.6	Site F, Sidewall	OVA= ND	87	ND	6.6
1624.7	Site G (dup of A)	OVA= ND	85	36.5	6.6
1624.8	Site H, Feed Line	OVA= ND	88	174.3	6.6
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
BATCH dup= 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 #: 1624.1-.8
Sample Rec'd: 08/25/94
Analysis Start: 08/31/94
Analysis Comp: 08/31/94

Analysis: Munsel

Lab ID#	Soil Color
1624.1	2.5Y 5/6 Light Olive Brown
1624.2	2.5Y 5/6 Light Olive Brown
1624.3	2.5Y 5/6 Light Olive Brown
1624.4	2.5Y 5/6 Light Olive Brown
1624.5	2.5Y 5/6 Light Olive Brown
1624.6	2.5Y 5/6 Light Olive Brown
1624.7	2.5Y 5/6 Light Olive Brown
1624.8	2.5Y 3/2 Very Dark Grayish Brown

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #:

Chain of Custody

Project #: 94-8-25-1302	Sampler: George / Luke	Date / Time 8/26 10	Analysis Parameters	Start:	
Customer: Karen Dean. -00	Site Name: 621 UST 00815533-94			Finish:	
Phone:					Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	Lead & Arsenic	OVA	Remarks
1624.1	8/26	10-59	Site A Sidewalk	Soil	1	X	X	ND	Shelby Dean 24 hr
.2	"	10-43	Site B "	"	1	X	X	ND	
.3	"	10-40	Site C - Sidewalk	"	1	X	X	ND	
.4	"	10-46	Site D. "	"	1	X	X	ND	OVA - calibrated Bump on 93 & Span-94
.5	"	10-48	Site E - "	"	1	X	X	ND	
.6	"	11-05	Site F - "	"	1	X	X	ND	
.7	"	11-01	Site G (Dup) of A	"	1	X	X	ND	
.8	"	10-53	Site H (Feedline)	"	1			ND	OVA # A 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

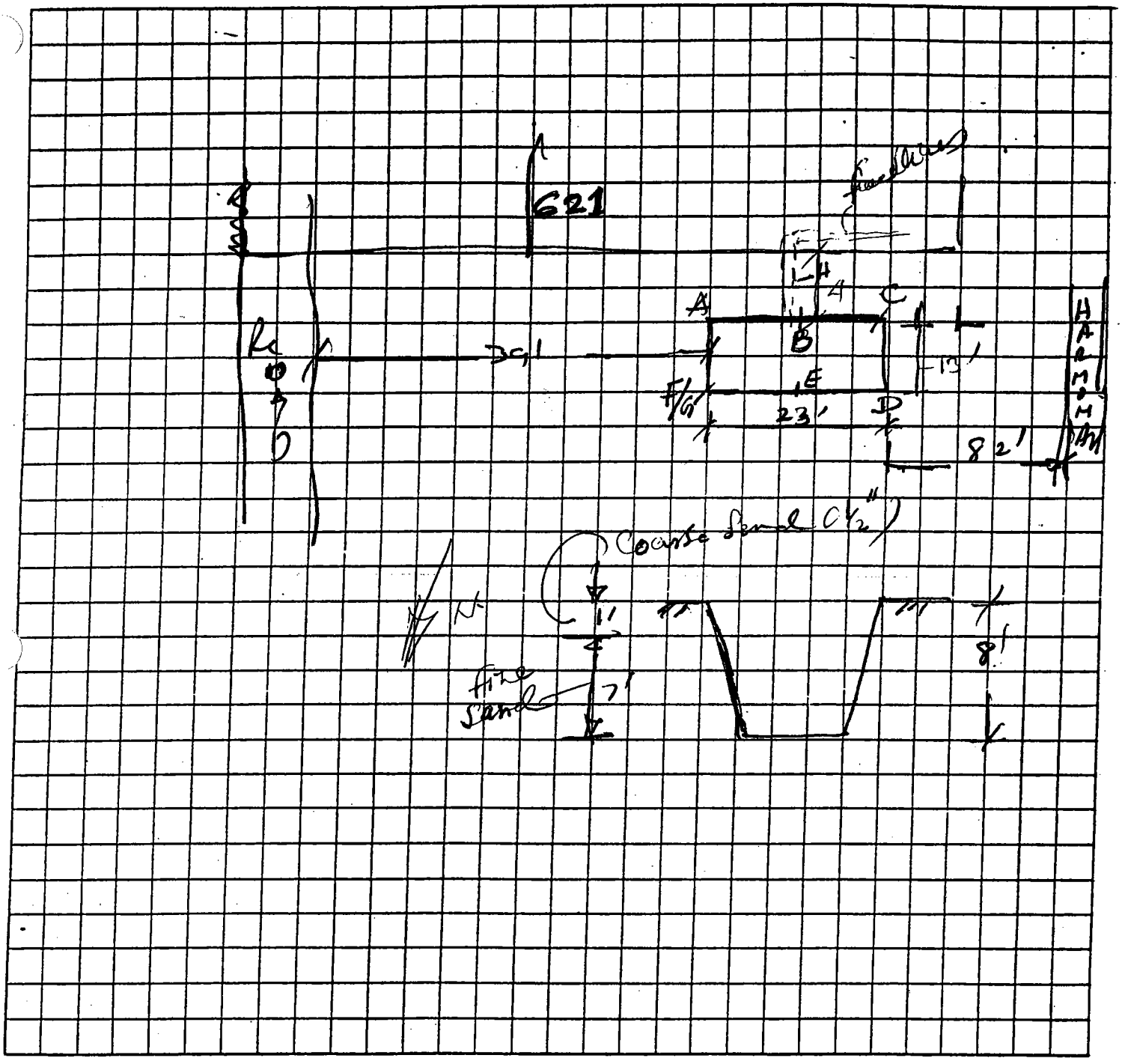
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

Enviornmental Laboratory

SERV-AIR, INC. FORT MONMOUTH, NEW JERSEY

C29

PROPOSED SITE PLAN



NOTE: *Indicate scale and compass direction.*

REMARKS

~~CT~~ (COUP) OF F

TANK LOCATION

BLDG# 621

TANK # 94

TANK SIZE 1000

TANK CONTENTS ~~#~~ 2 oil

Sarah P. Hubbard 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 4) Building 482

1625.2 66 dil 7

1625.3 128 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 #1624

B. McK

Brian K. McKee
Laboratory Manager

40.75 54
81.5 - 111
163 - 240

R.9990

U.S. ARMY FOR MONMOUTH

8-31-94

Sarah J. Hubbard

Bldg 621

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
Blank	0	0	ND	—	—	—	—	—
16241	15	0	ND	4.698	3.956	.84	2.5Y 5/6	light olive Brown
.2	15	0	ND	7.082	5.918	.84	2.5Y 5/6	light olive Brown
.3	15	0	ND	6.402	5.349	.83	2.5Y 5/6	light olive Brown
.4	15	0	ND	5.407	4.614	.85	2.5Y 5/6	"
.5	15	3	42.3	6.261	5.245	.84	2.5Y 5/6	"
.6	15	0	ND	4067	3.529	.87	2.5Y 5/6	"
.7	15	2	36.5	5.690	4.844	.85	2.5Y 5/6	"
.8	15	29	174.3	4874	4.277	.80	2.5Y 3/2	very dark grayish Brn

Certification Number 13461

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 634

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
634-1/7'	1659801	Soil	19-Nov-01 13:30	11/19/01
634-2/7'	1659802	Soil	19-Nov-01 13:50	11/19/01
634-3/7"	1659803	Soil	19-Nov-01 14:12	11/19/01
634-4/7'	1659804	Soil	19-Nov-01 14:25	11/19/01
634-5/7'	1659805	Soil	19-Nov-01 14:45	11/19/01
634-FD/7'	1659806	Soil	19-Nov-01	11/19/01
T.B.	1659807	Methanol	19-Nov-01	11/19/01

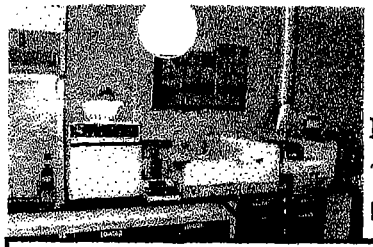
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

12-6-01
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 #: 532-1475
( )DERA (✓)OMA ( )Other:_____

Project No: 02-12539
Location: BLDG. 634 (FORMER)

Samplers Name / Company: MARK LAURA - TVS - PWS 07

Lab Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	Analysis Parameters: VOA + 15	TPHC	% SOLID					UNU (PM)	Comments: Remarks / Preservation Method
160598 01	634-1 7'	11-19-01	1330	SOIL	2	X	X	X					50	2957 <4°C
02	634-2 7'	"	1350	"	2	X	X	X					70	2958 "
/ 03	634-3 7'	"	1412	"	2	X	X	X					450	2959 "
04	634-4 7'	"	1425	"	2	X	X	X					50	2960 "
05	634-5 7'	"	1445	"	2	X	X	X					70	2961 "
06	634-FD 7'	"	—	"	2	X	X	X					—	2967 "
07	T.B.	"	—	METH	1	X								2956 "

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	11-19-01 1500				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks:

200000

METHOD SUMMARY

Method Summary

NJDEP Method 8260
Gas Chromatographic Determination of Volatiles in Soil

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 is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, 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	NA
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series	Yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	Yes
6. GC/MS Calibration requirements	
a. Calibration Check Compounds Meet Criteria	Yes
b. System Performance Check Compounds Meet Criteria	Yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank:	Yes
a. VOA Fraction 1,3DCB 40J, 1,4DCB 38J 1,2DCB 48J	
b. B/N Fraction NA	
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 NA	
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 TCE 143% MS	
b. B/N Fraction NA	
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 NA
    c. Acid Fraction NA

11. Extraction Holding Time Met — NA

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: 12-6-01

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).	yes
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.	yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	yes

Additional comments: _____

Laboratory Manager

12-6-01
Date

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16598

Site: Bldg. 634

	Date	Hold Time
Date Sampled	11/19/01	NA
Receipt/Refrigeration	11/19/01	NA
Extractions		
1. TPHC	11/20/01	14 days
Analyses		
1. VOA	11/26/01	14 days
2. TPHC	11/21/01	40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	**Method Detection Limit**
J	:	**Compound identified below detection limit**
B	:	**Compound found in blank**
D	:	**Results are from a dilution of the sample**
U	:	**Compound searched for but not detected**
E	:	**Compound exceeds calibration limit**
PQL	:	**Practical Quantitation Limit**
NLE	:	**No limit established**
RT	:	**Retention time**

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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	40	J
106-46-7	1,4-Dichlorobenzene	38	J
95-50-1	1,2-Dichlorobenzene	48	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-1

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659801

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007471.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 25.32 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	920	U
107131	Acrylonitrile	920	U
75650	tert-Butyl alcohol	1700	U
1634044	Methyl-tert-Butyl ether	400	U
108203	Di-isopropyl ether	260	U
75718	Dichlorodifluoromethane	530	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	400	U
74-83-9	Bromomethane	260	U
75-00-3	Chloroethane	400	U
75-69-4	Trichlorofluoromethane	260	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	260	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	250	J
156-60-5	trans-1,2-Dichloroethene	260	U
75-35-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	400	U
78-93-3	2-Butanone	400	U
	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
75-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	260	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	260	U
79-01-6	Trichloroethene	130	U
78-87-5	1,2-Dichloropropane	130	U
75-27-4	Bromodichloromethane	130	U
110-75-8	2-Chloroethyl vinyl ether	260	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	260	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	260	U
79-00-5	1,1,2-Trichloroethane	260	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	260	U
126-48-1	Dibromochloromethane	260	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	260	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-1

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659801

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007471.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 25.32 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	400	U
1330-20-7	o-Xylene	260	U
100-42-5	Styrene	260	U
75-25-2	Bromoform	260	U
79-34-5	1,1,2,2-Tetrachloroethane	260	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

634-1

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659801

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007471.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 25.32 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-2

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659802

Sample wt/vol: 10.4 (g/ml) G Lab File ID: VC007472.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 22.07 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	870	U
107131	Acrylonitrile	870	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	370	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	500	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	280	
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	250	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-2

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659802

Sample wt/vol: 10.4 (g/ml) G Lab File ID: VC007472.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 22.07 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

634-2

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659802

Sample wt/vol: 10.4 (g/ml) G Lab File ID: VC007472.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 22.07 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-3

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659803

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007473.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 21.32 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	870	U
107131	Acrylonitrile	870	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	370	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	500	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	290	
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	250	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-3

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659803

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007473.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 21.32 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

634-3

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659803

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007473.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 21.32 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-4

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659804

Sample wt/vol: 10.6 (g/ml) G Lab File ID: VC007474.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 23.31 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	240	U
75718	Dichlorodifluoromethane	490	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	370	U
74-83-9	Bromomethane	240	U
75-00-3	Chloroethane	370	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	330	
156-60-5	trans-1,2-Dichloroethene	240	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	370	U
78-93-3	2-Butanone	370	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	240	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	240	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-4

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659804

Sample wt/vol: 10.6 (g/ml) G Lab File ID: VC007474.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 23.31 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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	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

FIELD ID.

634-4

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659804

Sample wt/vol: 10.6 (g/ml) G Lab File ID: VC007474.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 23.31 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-5

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659805

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007475.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 19.38 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	850	U
107131	Acrylonitrile	850	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	360	U
108203	Di-isopropyl ether	240	U
75718	Dichlorodifluoromethane	480	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	400	
156-60-5	trans-1,2-Dichloroethene	240	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	360	U
78-93-3	2-Butanone	360	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	240	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	240	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

634-5

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659805

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007475.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 19.38 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	360	U
1330-20-7	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

FIELD ID.

634-5

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1659805

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007475.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 19.38 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-FD

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659806

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007476.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 21.9 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	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	490	
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	380	U
78-93-3	2-Butanone	380	U
	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	250	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

634-FD

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659806

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007476.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 21.9 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

634-FD

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659806

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC007476.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 21.9 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659807

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007470.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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	170	J
156-60-5	trans-1,2-Dichloroethene	200	U
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659807

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007470.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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

FIELD ID.

TB

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1659807

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007470.D

Level: (low/med) MED Date Received: 1/19/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Lab File ID: VC007374.D BFB Injection Date: 11/15/01

Instrument ID: GCMSVoa BFB Injection Time: 14:10

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.7
75	30.0 - 66.0% of mass 95	47.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	71.0
175	4.0 - 9.0% of mass 174	5.0 (7.1)1
176	93.0 - 101.0% of mass 174	69.5 (97.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.4)2

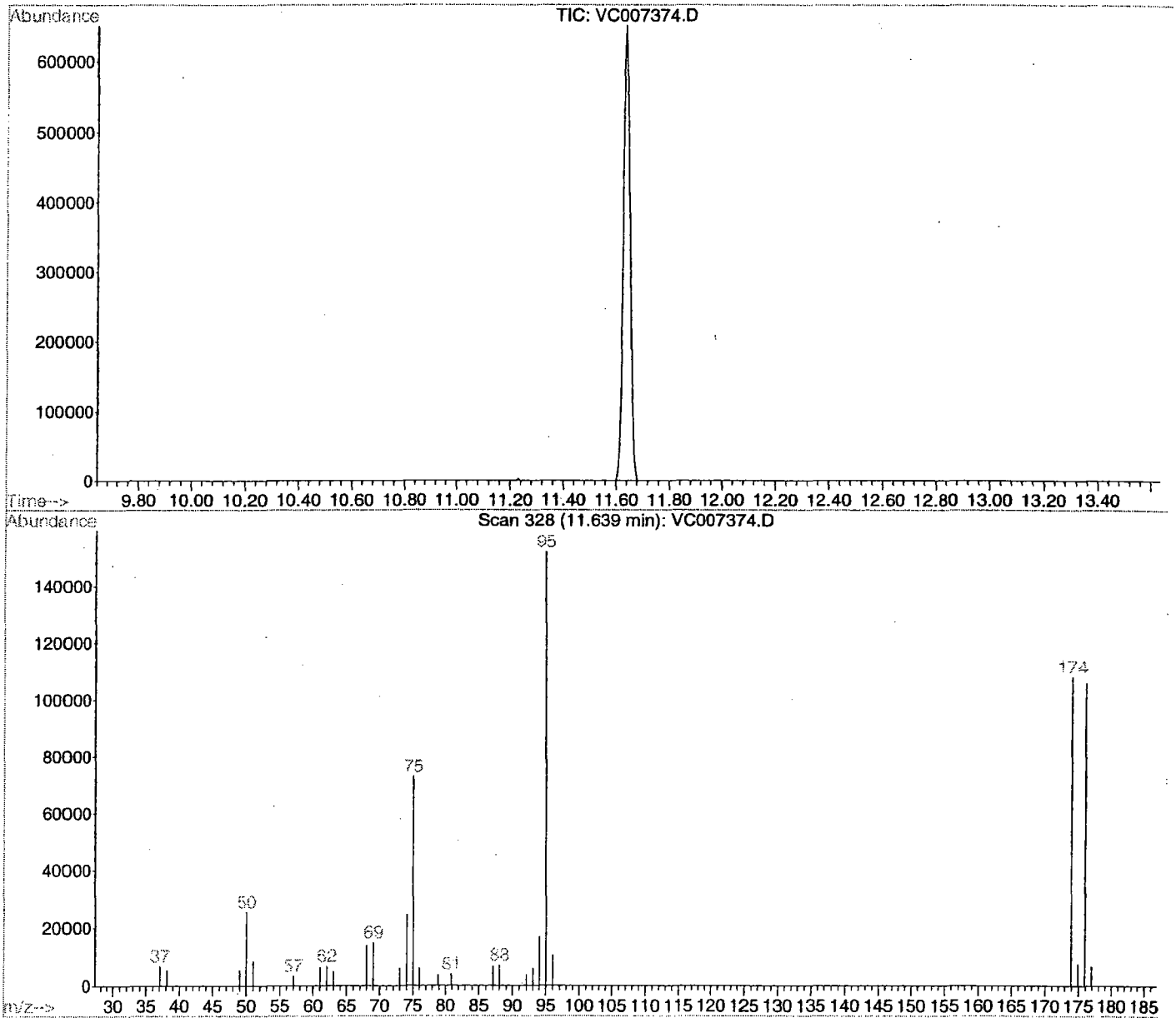
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VC007375.D	11/15/01	14:54
02	VSTD050	VSTD050	VC007376.D	11/15/01	15:34
03	VSTD020	VSTD020	VC007377.D	11/15/01	16:15
04	VSTD010	VSTD010	VC007378.D	11/15/01	16:55
05	VSTD005	VSTD005	VC007379.D	11/15/01	17:36

BFB

Data File : D:\HPCHEM\1\DATA\011115\VC007374.D Vial: 3
Acq On : 15 Nov 2001 2:10 pm Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 328

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	25472	PASS
75	95	30	60	47.9	73008	PASS
95	95	100	100	100.0	152320	PASS
96	95	5	9	6.9	10513	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.0	108168	PASS
175	174	5	9	7.1	7632	PASS
176	174	95	101	97.8	105832	PASS
177	176	5	9	6.4	6788	PASS

Response Factor Report GC/MS Ins

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration

Calibration Files
50 =VC007376.D 5 =VC007379.D 10 =VC007378.D
20 =VC007377.D 100 =VC007375.D

		Compound	50	5	10	20	100	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)	t	Acrolein	0.429	0.427	0.461	0.464	0.434	0.443	4.09
3)	t	Acrylonitrile	1.096	1.146	1.211	1.204	1.101	1.151	4.75
4)	t	tert-Butyl alcohol	0.152	0.121	0.151	0.161	0.158	0.149	10.58
5)	t	Methyl-tert-Butyl eth	5.537	5.411	5.821	5.839	5.577	5.637	3.31
6)	t	Di-isopropyl ether	1.735	1.327	1.675	1.719	1.743	1.640	10.79
7)	T	Dichlorodifluorometha	2.485	2.252	2.422	2.532	2.335	2.405	4.70
8)	TP	Chloromethane	3.081	3.086	3.213	3.197	2.908	3.097	3.95
9)	TC	Vinyl Chloride	2.971	3.059	3.168	3.100	2.846	3.029	4.12
10)	T	Bromomethane	1.483	1.454	1.599	1.530	1.394	1.492	5.19
11)	T	Chloroethane	1.579	1.599	1.624	1.631	1.575	1.601	1.59
12)	T	Trichlorofluoromethan	3.356	3.328	3.516	3.497	3.350	3.409	2.63
13)	MC	1,1-Dichloroethene	3.054	2.924	3.199	3.161	3.060	3.080	3.49
14)	T	Acetone	0.832	1.438	1.040	0.918	0.798	1.005	25.78
15)	T	Carbon Disulfide	7.101	7.077	7.422	7.334	7.109	7.209	2.19
16)	T	Methylene Chloride	2.150	2.174	2.352	2.233	2.141	2.210	3.94
17)	T	trans-1,2-Dichloroeth	2.875	2.833	3.019	2.956	2.880	2.912	2.55
18)	TP	1,1-Dichloroethane	3.813	3.815	4.070	3.939	3.782	3.884	3.10
19)	T	Vinyl Acetate	4.599	3.967	4.592	4.691	4.747	4.519	6.98
20)	T	2-Butanone	1.020	0.794	0.912	0.998	1.019	0.949	10.22
21)	T	cis-1,2-Dichloroethen	2.867	2.775	2.981	2.955	2.861	2.888	2.84
22)	TC	Chloroform	3.431	3.478	3.654	3.612	3.405	3.516	3.16
23)	T	1,1,1-Trichloroethane	2.778	2.661	2.869	2.851	2.767	2.785	2.96
24)	T	Carbon Tetrachloride	2.397	2.231	2.420	2.435	2.395	2.376	3.48
25)	S	1,2-Dichloroethane-d4	2.198	2.252	2.267	2.256	2.211	2.237	1.37
26)	I	1,4-Difluorobenzene	ISTD						
27)	TM	Benzene	1.318	1.378	1.399	1.367	1.264	1.345	4.02
28)	T	1,2-Dichloroethane	0.387	0.391	0.406	0.400	0.373	0.391	3.21
29)	TM	Trichloroethene	0.310	0.295	0.309	0.311	0.299	0.305	2.41
30)	TC	1,2-Dichloropropane	0.336	0.323	0.343	0.339	0.330	0.334	2.43
31)	T	Bromodichloromethane	0.382	0.368	0.384	0.385	0.377	0.379	1.79
32)	T	2-Chloroethyl vinyl e	0.110	0.080	0.100	0.110	0.108	0.102	12.79
33)	T	cis-1,3-Dichloroprope	0.503	0.450	0.494	0.506	0.502	0.491	4.79
34)	T	4-Methyl-2-Pentanone	0.117	0.093	0.111	0.124	0.119	0.113	10.55
35)	S	Toluene-d8	1.150	1.154	1.133	1.156	1.158	1.150	0.86
36)	TCM	Toluene	1.298	1.366	1.368	1.365	1.237	1.327	4.41
37)	I	Chlorobenzene-d5	ISTD						
38)	T	trans-1,3-Dichloropro	1.743	1.649	1.725	1.744	1.728	1.718	2.31
39)	T	1,1,2-Trichloroethane	1.032	1.011	1.105	1.076	0.999	1.045	4.26
40)	T	Tetrachloroethene	1.068	1.074	1.131	1.120	1.040	1.086	3.49
41)	T	2-Hexanone	0.709	0.580	0.661	0.703	0.715	0.674	8.36
42)	T	Dibromochloromethane	0.986	0.903	0.976	0.988	0.983	0.967	3.74
43)	TMP	Chlorobenzene	3.130	3.279	3.426	3.297	2.956	3.218	5.59
44)	TC	Ethylbenzene	5.409	5.570	5.810	5.643	5.198	5.526	4.22
45)	T	m+p-Xylenes	2.145	2.225	2.320	2.237	2.094	2.204	3.98
46)	T	o-Xylene	4.065	3.962	4.244	4.177	3.934	4.076	3.28
47)	T	Styrene	3.594	3.617	3.875	3.813	3.352	3.650	5.65
48)	TP	Bromoform	0.645	0.531	0.619	0.638	0.663	0.619	8.39
49)	S	Bromofluorobenzene	1.601	1.558	1.568	1.564	1.621	1.582	1.72
50)	TP	1,1,2,2-Tetrachloroet	1.430	1.505	1.583	1.531	1.419	1.494	4.65
1)	T	1,3-Dichlorobenzene	2.395	2.357	2.517	2.455	2.287	2.402	3.67
52)	T	1,4-Dichlorobenzene	2.476	2.470	2.584	2.542	2.347	2.484	3.63
53)	T	1,2-Dichlorobenzene	2.282	2.308	2.380	2.347	2.169	2.297	3.51

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Lab File ID: VC007460.D BFB Injection Date: 11/26/01

Instrument ID: GCMSVoa BFB Injection Time: 8:53

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	45.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.7
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	66.6 (97.1)1
177	5.0 - 9.0% of mass 176	4.6 (6.9)2

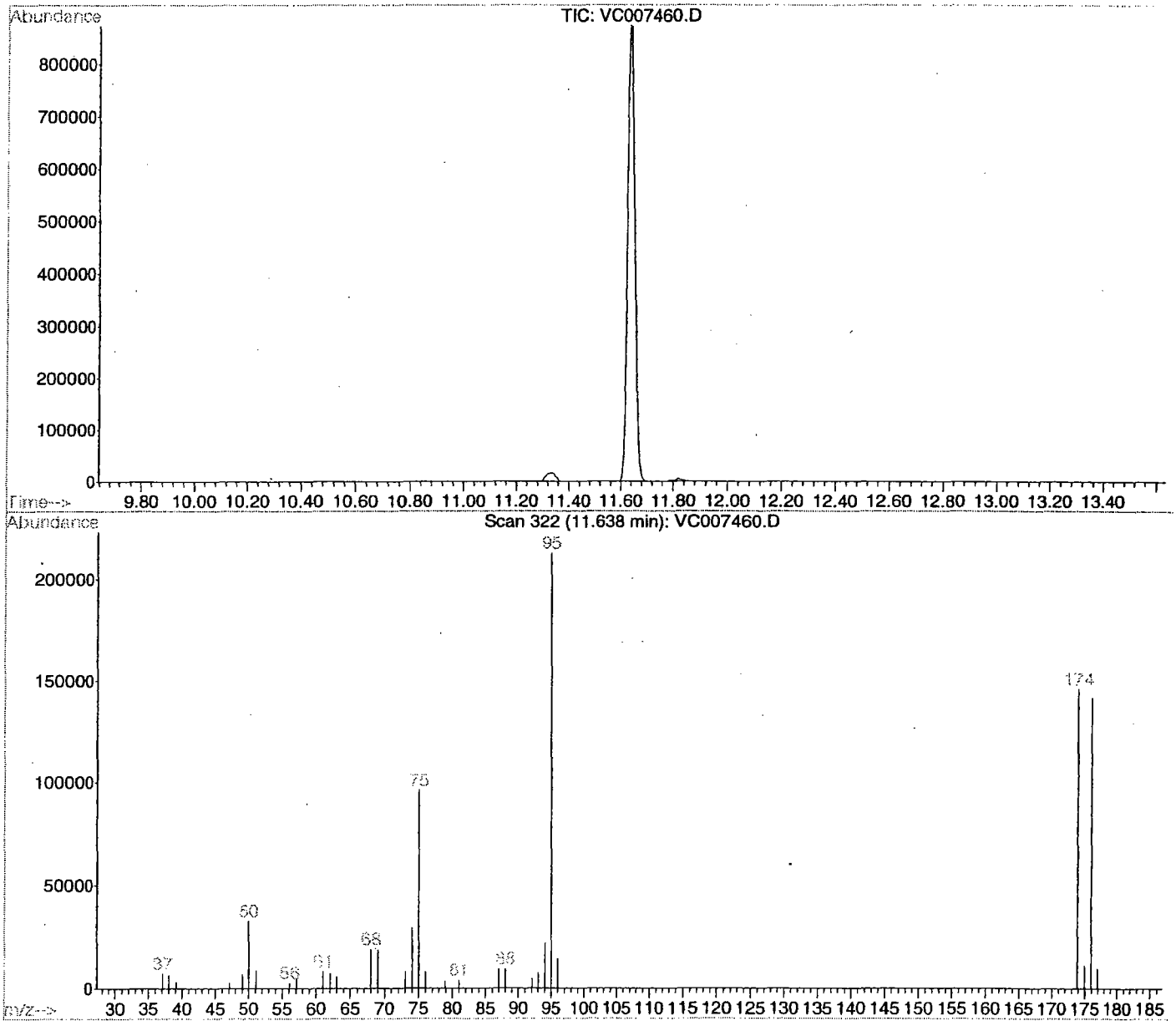
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007461.D	11/26/01	9:29
02	MB 26NOV01	MB	VC007463.D	11/26/01	11:06
03	TB	1659807	VC007470.D	11/26/01	16:10
04	634-1	1659801	VC007471.D	11/26/01	16:50
05	634-2	1659802	VC007472.D	11/26/01	17:31
06	634-3	1659803	VC007473.D	11/26/01	18:11
07	634-4	1659804	VC007474.D	11/26/01	18:51
08	634-5	1659805	VC007475.D	11/26/01	19:32
09	634-FD	1659806	VC007476.D	11/26/01	20:12

BFB

Data File : D:\HPCHEM\1\DATA\011126\VC007460.D Vial: 12
Acq On : 26 Nov 2001 8:53 am Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 322

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	32728	PASS
75	95	30	60	45.1	95968	PASS
95	95	100	100	100.0	212736	PASS
96	95	5	9	6.8	14373	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	68.7	146048	PASS
175	174	5	9	7.6	11123	PASS
176	174	95	101	97.1	141760	PASS
177	176	5	9	6.9	9827	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011126\VC007461.D Vial: 12
Acq On : 26 Nov 2001 9:29 am Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: ACETONE.P

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	151	0.00
2	t	Acrolein	0.443	0.381	14.0	124	0.00
3	t	Acrylonitrile	1.151	0.961	16.5	121	0.00
4	t	tert-Butyl alcohol	0.149	0.144	3.4	135	0.00
5	t	Methyl-tert-Butyl ether	5.637	5.660	-0.4	147	0.00
6	t	Di-isopropyl ether	1.640	1.753	-6.9	154	0.00
7	T	Dichlorodifluoromethane	2.405	2.228	7.4	133	0.00
8	TP	Chloromethane	3.097	2.560	17.3	121	0.00
9	TC	Vinyl Chloride	3.029	2.326	23.2	114	0.00
10	T	Bromomethane	1.492	1.465	1.8	145	0.00
11	T	Chloroethane	1.601	1.508	5.8	140	0.00
12	T	Trichlorofluoromethane	3.409	3.506	-2.8	152	0.00
13	MC	1,1-Dichloroethene	3.080	2.756	10.5	132	0.00
14	T	Acetone	1.005	1.134	-12.8	187	0.00
15	T	Carbon Disulfide	7.209	6.653	7.7	137	0.00
16	T	Methylene Chloride	2.210	2.056	7.0	139	0.00
17	T	trans-1,2-Dichloroethene	2.912	2.558	12.2	131	0.00
18	TP	1,1-Dichloroethane	3.884	3.453	11.1	133	0.00
19	T	Vinyl Acetate	4.519	3.720	17.7	120	0.00
20	T	2-Butanone	0.949	0.915	3.6	139	-0.01
21	T	cis-1,2-Dichloroethene	2.888	2.577	10.8	132	0.00
22	TC	Chloroform	3.516	3.293	6.3	138	0.00
23	T	1,1,1-Trichloroethane	2.785	2.807	-0.8	149	0.00
24	T	Carbon Tetrachloride	2.376	2.370	0.3	147	0.00
25	S	1,2-Dichloroethane-d4	2.237	2.184	2.4	146	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	159	0.00
27	TM	Benzene	1.345	1.145	14.9	133	0.00
28	T	1,2-Dichloroethane	0.391	0.331	15.3	132	0.00
29	TM	Trichloroethene	0.305	0.282	7.5	144	0.00
30	TC	1,2-Dichloropropane	0.334	0.285	14.7	134	0.00
31	T	Bromodichloromethane	0.379	0.336	11.3	139	0.00
32	T	2-Chloroethyl vinyl ether	0.102	0.088	13.7	126	0.00
33	T	cis-1,3-Dichloropropene	0.491	0.445	9.4	140	0.00
34	T	4-Methyl-2-Pentanone	0.113	0.097	14.2	124	0.00
35	S	Toluene-d8	1.150	1.145	0.4	157	0.00
36	TCM	Toluene	1.327	1.149	13.4	134	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	166	0.00
38	T	trans-1,3-Dichloropropene	1.718	1.473	14.3	140	0.00
39	T	1,1,2-Trichloroethane	1.045	0.888	15.0	137	0.00
40	T	Tetrachloroethene	1.086	0.930	14.4	138	0.00
41	T	2-Hexanone	0.674	0.558	17.2	132	0.00
42	T	Dibromochloromethane	0.967	0.840	13.1	141	0.00
43	TMP	Chlorobenzene	3.218	2.656	17.5	134	0.00
44	TC	Ethylbenzene	5.526	4.661	15.7	137	0.00
45	T	m+p-Xylenes	2.204	1.835	16.7	136	0.00
46	T	o-Xylene	4.076	3.523	13.6	140	0.00
47	T	Styrene	3.650	2.758	24.4	120	0.00
48	TP	Bromoform	0.619	0.518	16.3	135	0.00
49	S	Bromofluorobenzene	1.582	1.635	-3.4	173	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.494	1.162	22.2	126	0.00
51	T	1,3-Dichlorobenzene	2.402	1.946	19.0	131	0.00
52	T	1,4-Dichlorobenzene	2.484	1.981	20.2	129	0.00
53	T	1,2-Dichlorobenzene	2.297	1.832	20.2	129	0.00

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

VC007461.D M362451.M Wed Dec 05 08:52:34 2001

4A

VOLATILE METHOD BLANK SUMMARY

FIELD ID.

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Lab File ID: VC007463.D Lab Sample ID: MB

Date Analyzed: 11/26/01 Time Analyzed: 11:06

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMSVoa

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TB	1659807	VC007470.D	16:10
02	634-1	1659801	VC007471.D	16:50
03	634-2	1659802	VC007472.D	17:31
04	634-3	1659803	VC007473.D	18:11
05	634-4	1659804	VC007474.D	18:51
06	634-5	1659805	VC007475.D	19:32
07	634-FD	1659806	VC007476.D	20:12

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

	Lab Name:	FMETL	**Project**	UST	
NJDEP #	13461	**Case No.:**	16598	**Location**	634

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	99.0	98.0	102.0
02	634-1	106.7	93.3	103.0
03	634-2	112.3	99.7	109.0
04	634-3	111.7	99.0	109.3
05	634-4	111.0	96.3	106.3
06	634-5	113.7	98.3	109.0
07	634-FD	106.7	93.3	102.0
09	Trip Blank	122.7	105.7	114.3

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration

Non-Spiked Sample: VC007475.D

	Spike Sample	Spike Duplicate Sample
File ID :	VC007477.D	VC007478.D
Sample :	1659805 ms	1659805 msd
Acq Time:	26 Nov 2001 8:53 pm	26 Nov 2001 9:33 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	28	25	141	124	13	22	59-172
Benzene	0.0	20	26	23	132	117	12	21	66-142
Trichloroethene	0.0	20	29	25	143#	126	13	24	62-137
Toluene	0.0	20	27	24	137	121	12	21	59-139
Chlorobenzene	0.0	20	25	23	127	114	11	21	60-133

- Fails Limit Check

M362451.M Wed Dec 05 08:55:16 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: 0212539 Case No.: 16598 Location: 634 SDG No.:

Lab File ID (Standard): VC007461.D Date Analyzed: 11/26/01

Instrument ID: GCMSVoa Time Analyzed: 9:29

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	377637	16.69	2726556	19.42	769324	27.24
	UPPER LIMIT	755274	17.19	5453112	19.92	1538648	27.74
	LOWER LIMIT	188819	16.19	1363278	18.92	384662	26.74
	FIELD ID.						
01	MB 26NOV01	343704	16.70	2468066	19.42	684484	27.25
02	TB	346914	16.69	2575513	19.41	738872	27.24
03	634-1	354473	16.69	2653260	19.41	749272	27.24
04	634-2	352005	16.69	2596392	19.41	742459	27.25
05	634-3	351524	16.69	2589568	19.41	731218	27.24
06	634-4	352996	16.69	2651859	19.41	747841	27.25
07	634-5	345319	16.69	2602406	19.41	732911	27.25
08	634-FD	353171	16.69	2649087	19.41	754928	27.25

IS1 BCM = Bromochloromethane

IS2 DFB = 1,4-Difluorobenzene

IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007463.D Vial: 13
Acq On : 26 Nov 2001 11:06 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.70	128	343704	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.42	114	2468066	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	684484	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	758564	29.60	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 98.67%			
35) Toluene-d8	23.42	98	2792768	29.52	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 98.40%			
49) Bromofluorobenzene	30.25	95	1107708	30.69	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 102.30%			

Target Compounds Qvalue

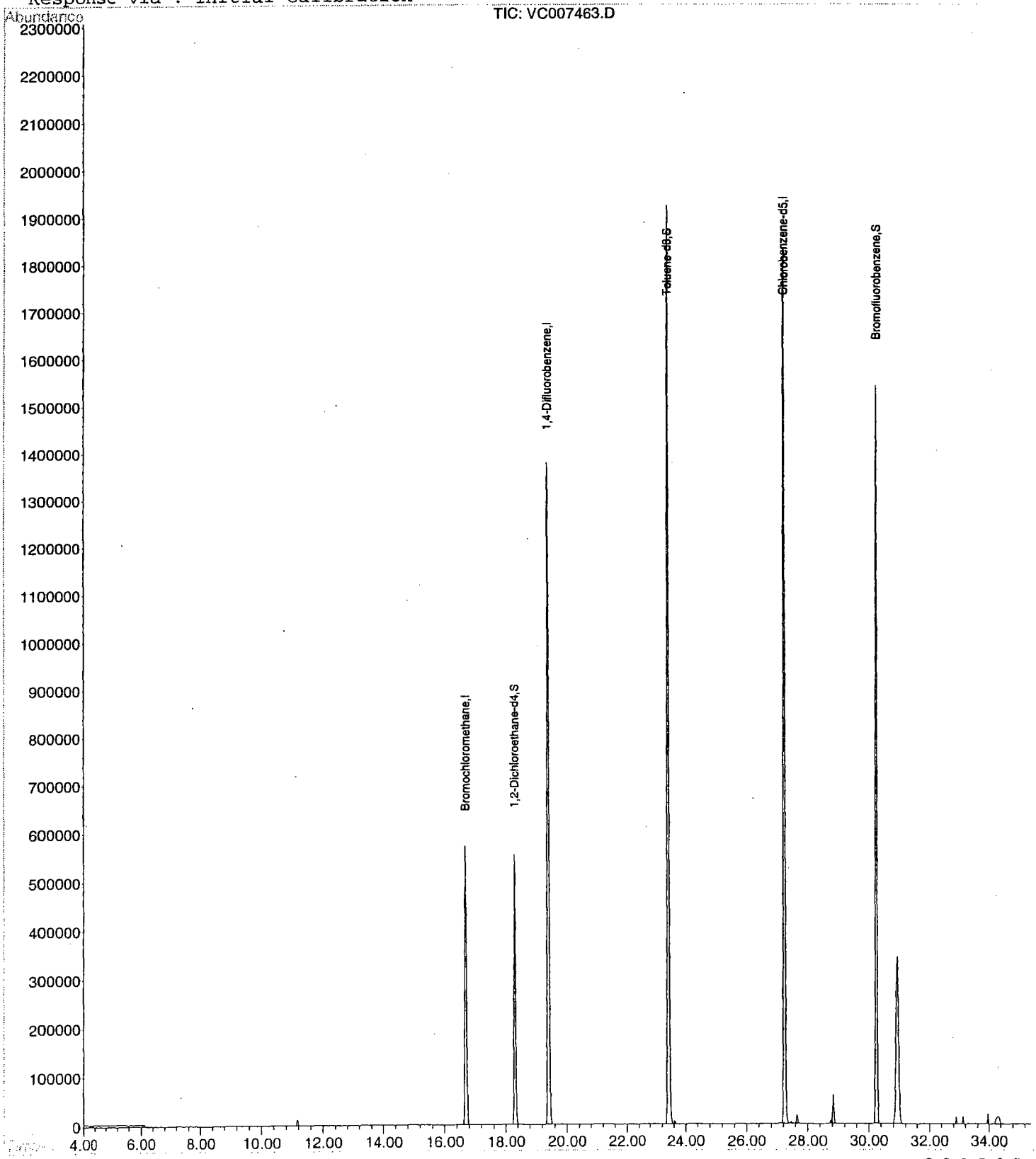
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007463.D
Acq On : 26 Nov 2001 11:06 am
Sample : MB
Misc : MB
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001

Vial: 13
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007471.D Vial: 2
Acq On : 26 Nov 2001 4:50 pm Operator: Skelton
Sample : 1659801 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 17:26 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	354473	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2653260	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	749272	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2776692	105.06	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	350.20%#		
35) Toluene-d8	23.42	98	9471849	93.12	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	310.40%#		
49) Bromofluorobenzene	30.25	95	4024339	101.84	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	339.47%#		
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	50198	1.92	ug/L	85

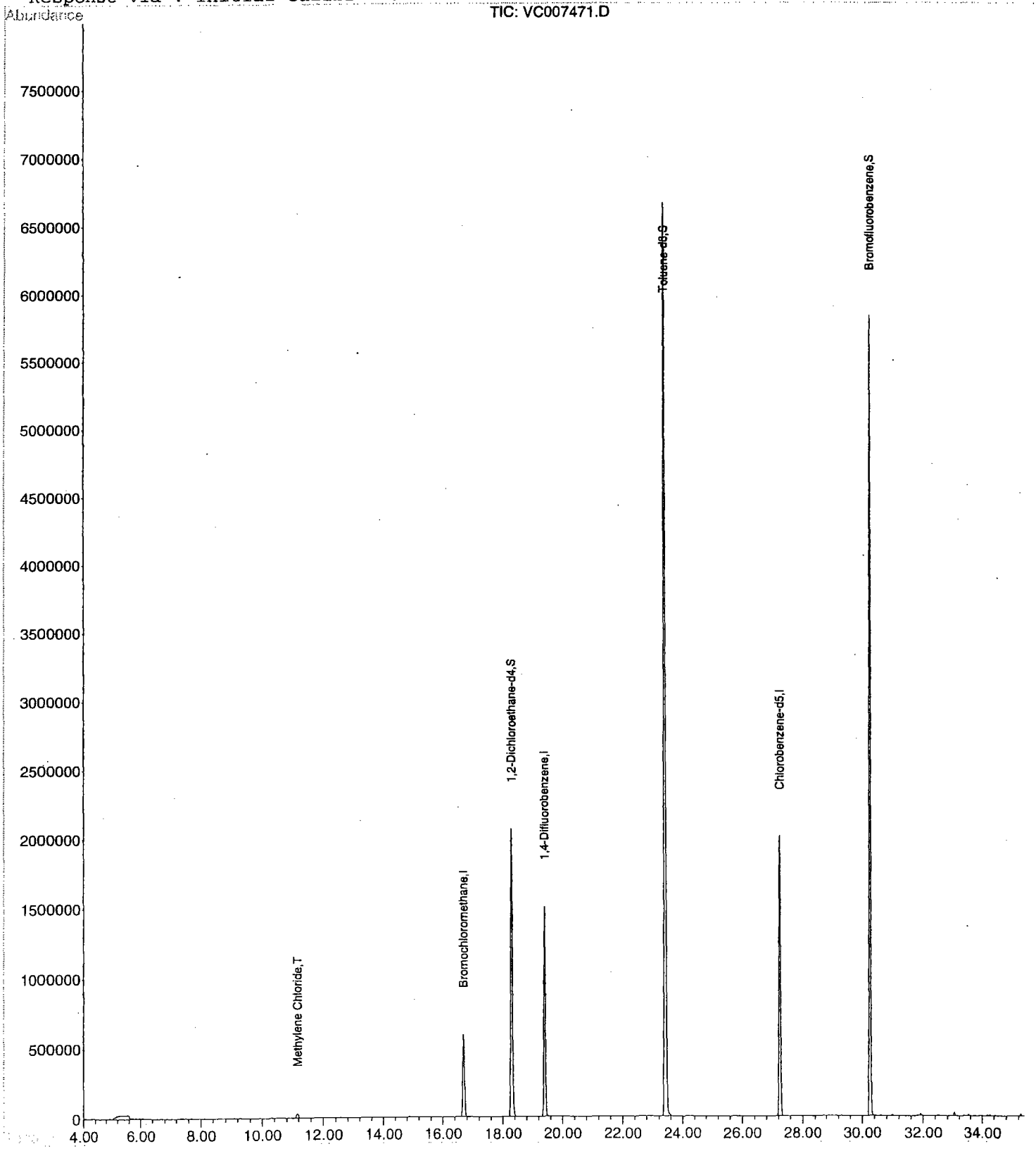
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007471.D
Acq On : 26 Nov 2001 4:50 pm
Sample : 1659801
Misc :
MS Integration Params: ACETONE.P
Quant Time: Nov 26 17:26 2001

Vial: 2
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007472.D Vial: 3
Acq On : 26 Nov 2001 5:31 pm Operator: Skelton
Sample : 1659802 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 18:06 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	352005	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2596392	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	742459	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2885793	109.95	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 366.50%#			
35) Toluene-d8	23.42	98	9833915	98.80	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 329.33%#			
49) Bromofluorobenzene	30.25	95	4192889	107.08	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 356.93%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	57899	2.23	ug/L	88

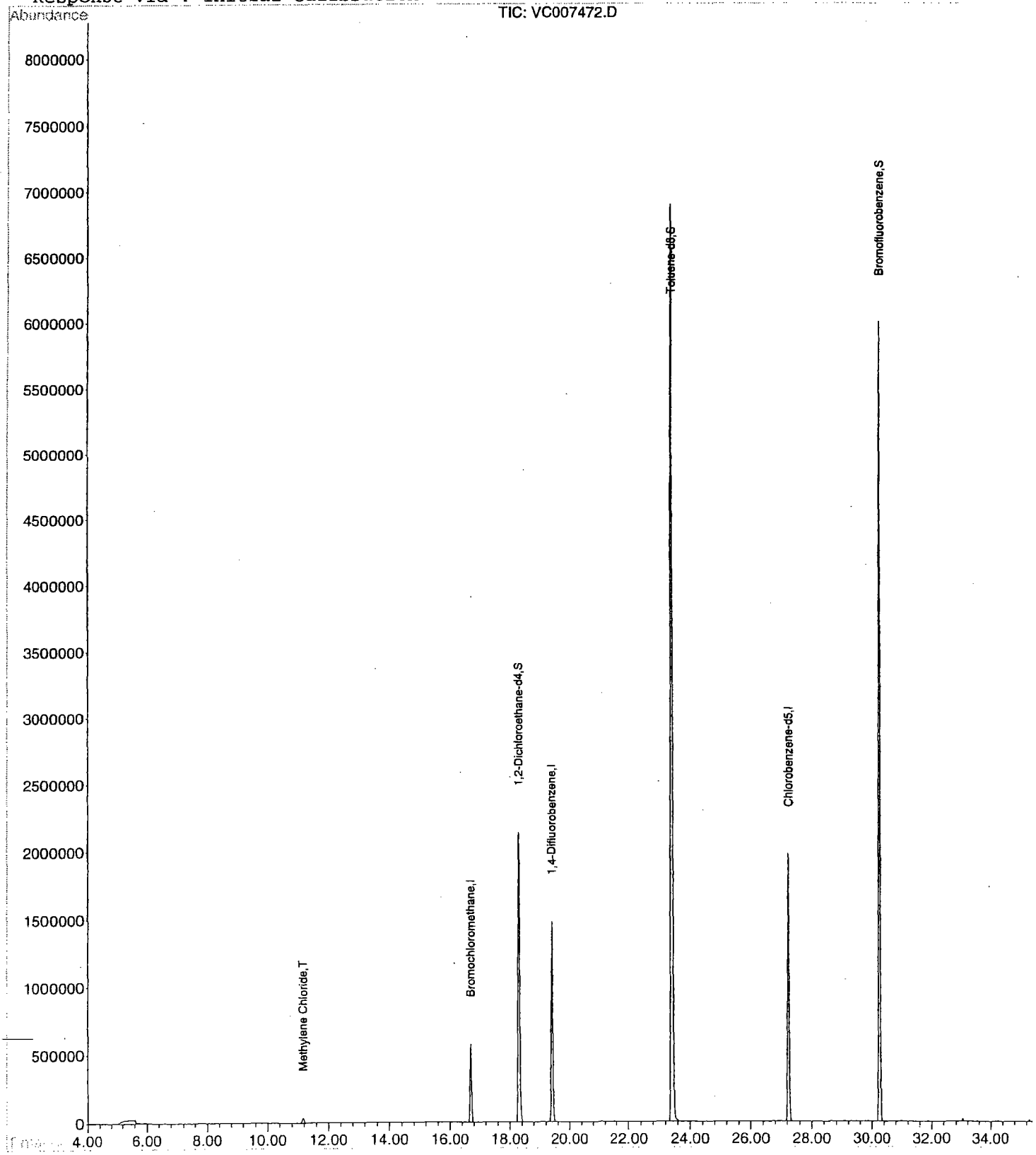
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007472.D
Acq On : 26 Nov 2001 5:31 pm
Sample : 1659802
Misc :
MS Integration Params: ACETONE.P
Quant Time: Nov 26 18:06 2001

Vial: 3
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007473.D Vial: 4
Acq On : 26 Nov 2001 6:11 pm Operator: Skelton
Sample : 1659803 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 18:46 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

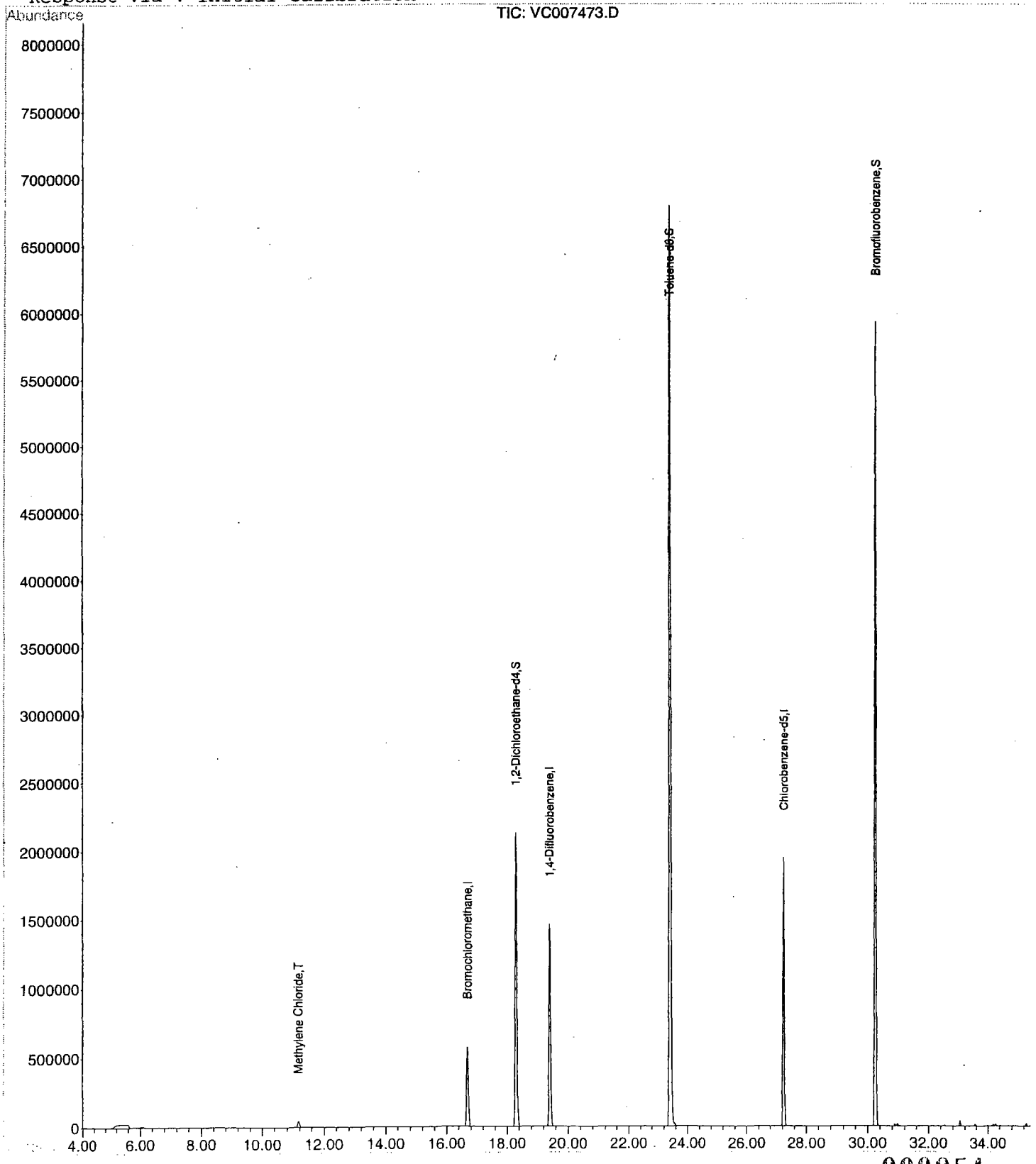
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	351524	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2589568	30.00	ug/L	-0.01
37) Chlorobenzene-d5	27.24	119	731218	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2869043	109.46	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	364.87%#		
35) Toluene-d8	23.42	98	9750074	98.22	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	327.40%#		
49) Bromofluorobenzene	30.25	95	4137461	107.29	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	357.63%#		
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	61053	2.36	ug/L	90

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007473.D Vial: 4
Acq On : 26 Nov 2001 6:11 pm Operator: Skelton
Sample : 1659803 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 18:46 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007474.D Vial: 5
Acq On : 26 Nov 2001 6:51 pm Operator: Skelton
Sample : 1659804 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 19:27 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	352996	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2651859	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	747841	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2864275	108.82	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	362.73%#		
35) Toluene-d8	23.42	98	9714563	95.56	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	318.53%#		
49) Bromofluorobenzene	30.25	95	4123805	104.56	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	348.53%#		
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	69448	2.67	ug/L	90

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

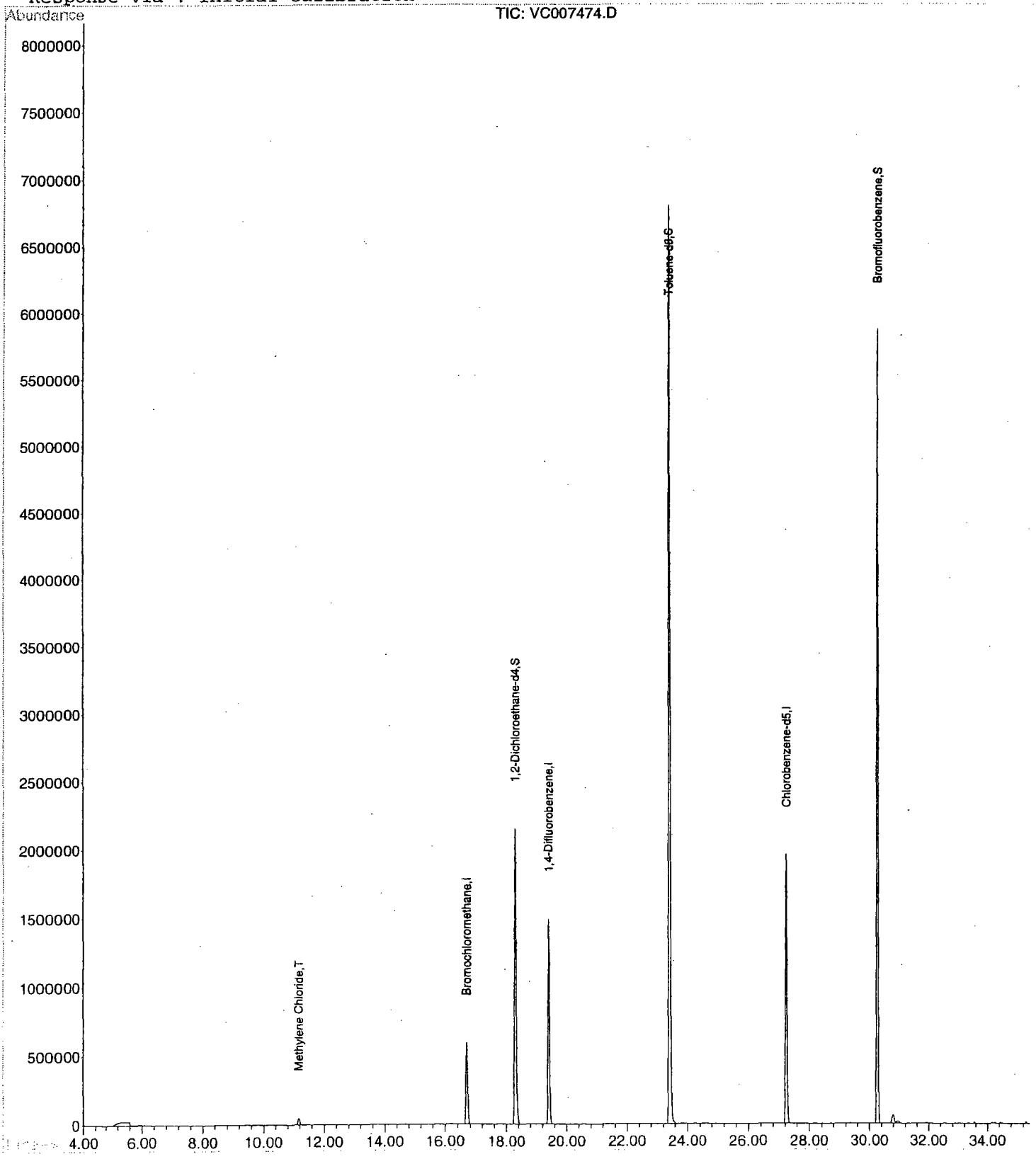
Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007474.D
Acq On : 26 Nov 2001 6:51 pm
Sample : 1659804
Misc :
MS Integration Params: ACETONE.P
Quant Time: Nov 26 19:27 2001

Vial: 5
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007475.D Vial: 6
Acq On : 26 Nov 2001 7:32 pm Operator: Skelton
Sample : 1659805 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 20:08 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	345319	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2602406	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	732911	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2864226	111.24	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	370.80%#		
35) Toluene-d8	23.42	98	9735671	97.59	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	325.30%#		
49) Bromofluorobenzene	30.25	95	4135722	107.00	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	356.67%#		
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	83594	3.29	ug/L	83

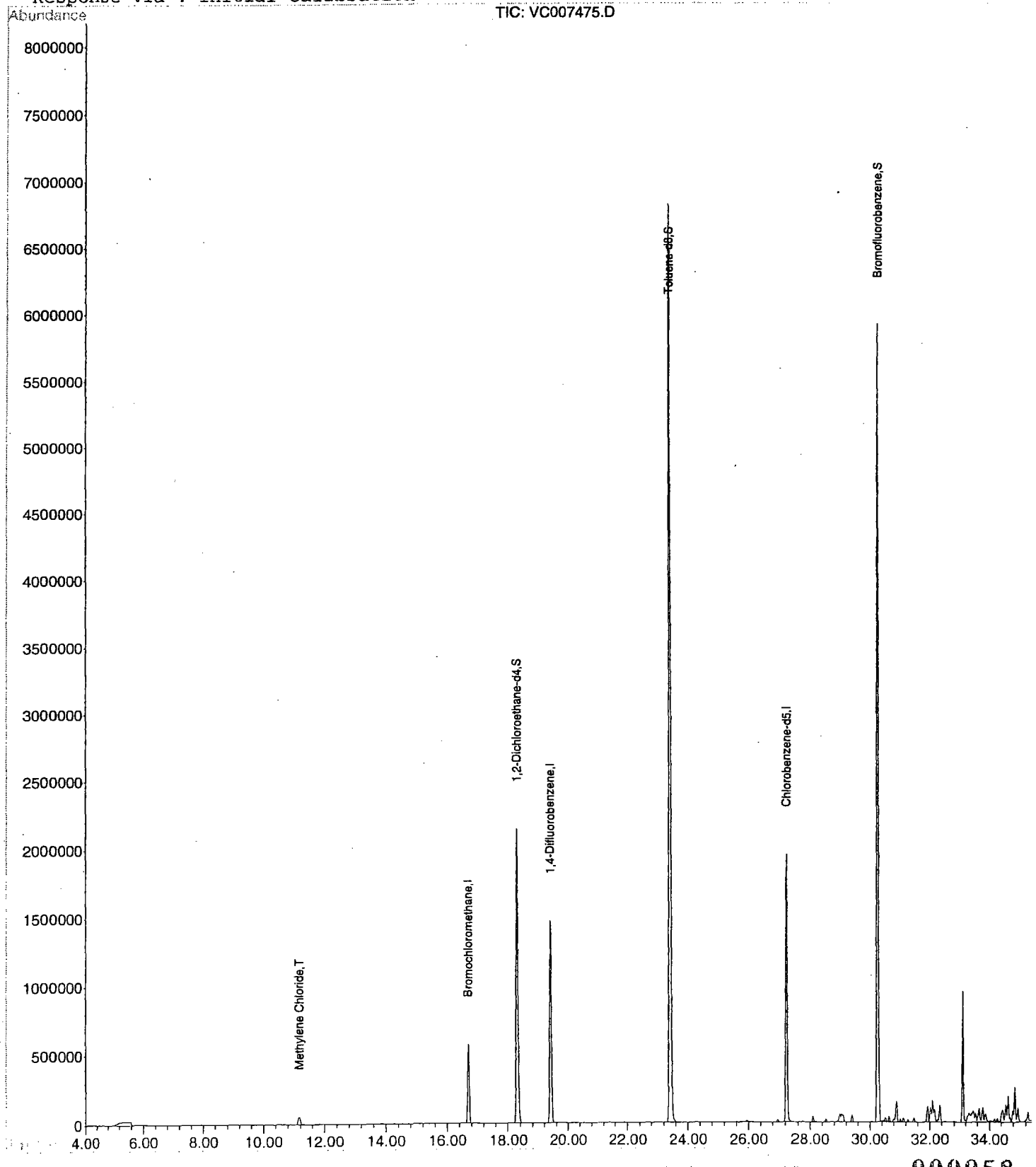
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007475.D
Acq On : 26 Nov 2001 7:32 pm
Sample : 1659805
Misc :
MS Integration Params: ACETONE.P
Quant Time: Nov 26 20:08 2001

Vial: 6
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007476.D Vial: 7
Acq On : 26 Nov 2001 8:12 pm Operator: Skelton
Sample : 1659806 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 20:48 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

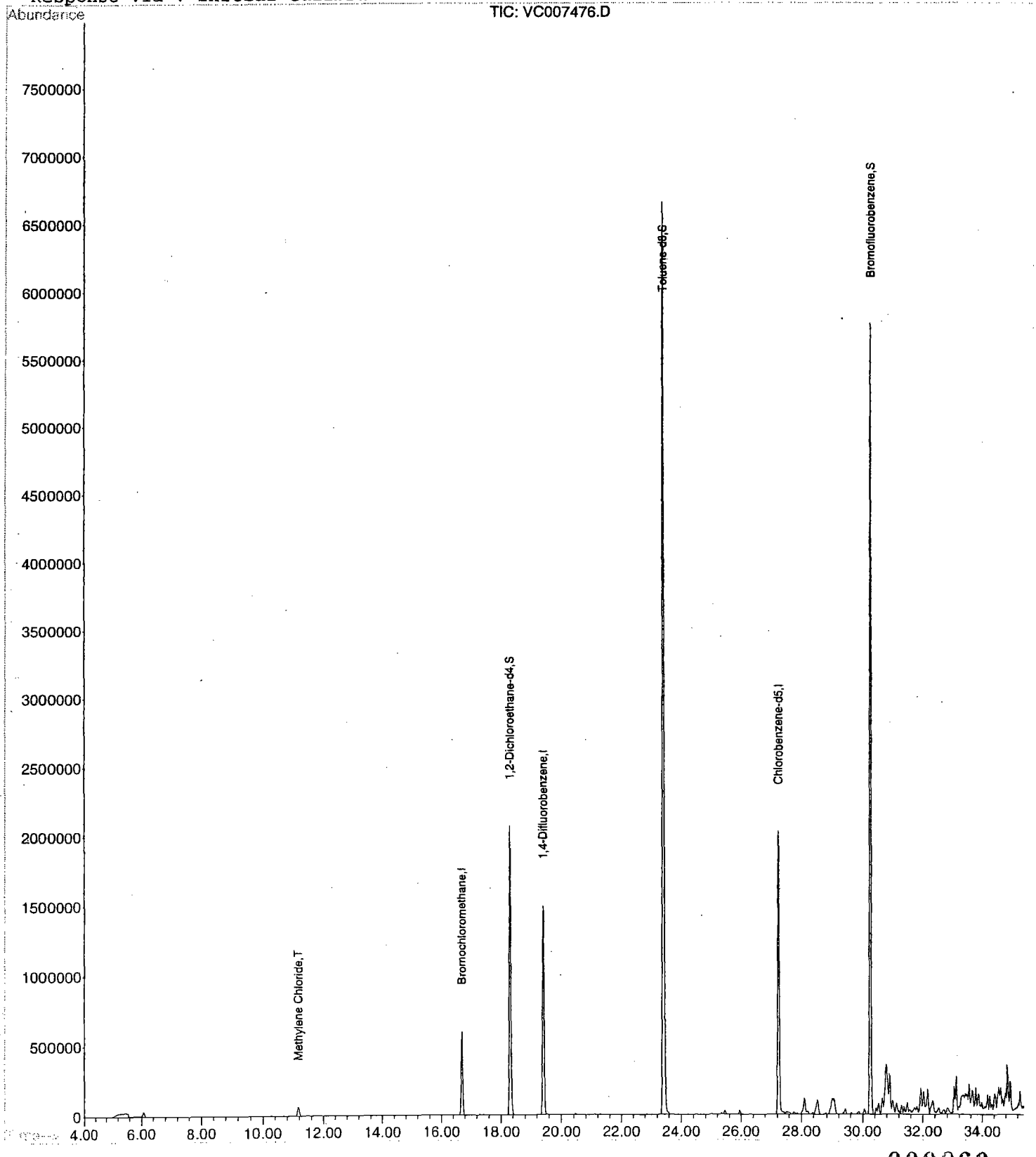
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	353171	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2649087	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	754928	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2765599	105.02	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 350.07%#			
35) Toluene-d8	23.42	98	9456454	93.12	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 310.40%#			
49) Bromofluorobenzene	30.25	95	4018809	100.94	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 336.47%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	101759	3.91	ug/L	80

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007476.D Vial: 7
Acq On : 26 Nov 2001 8:12 pm Operator: Skelton
Sample : 1659806 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 20:48 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007470.D Vial: 1
Acq On : 26 Nov 2001 4:10 pm Operator: Skelton
Sample : 1659807 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 16:45 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

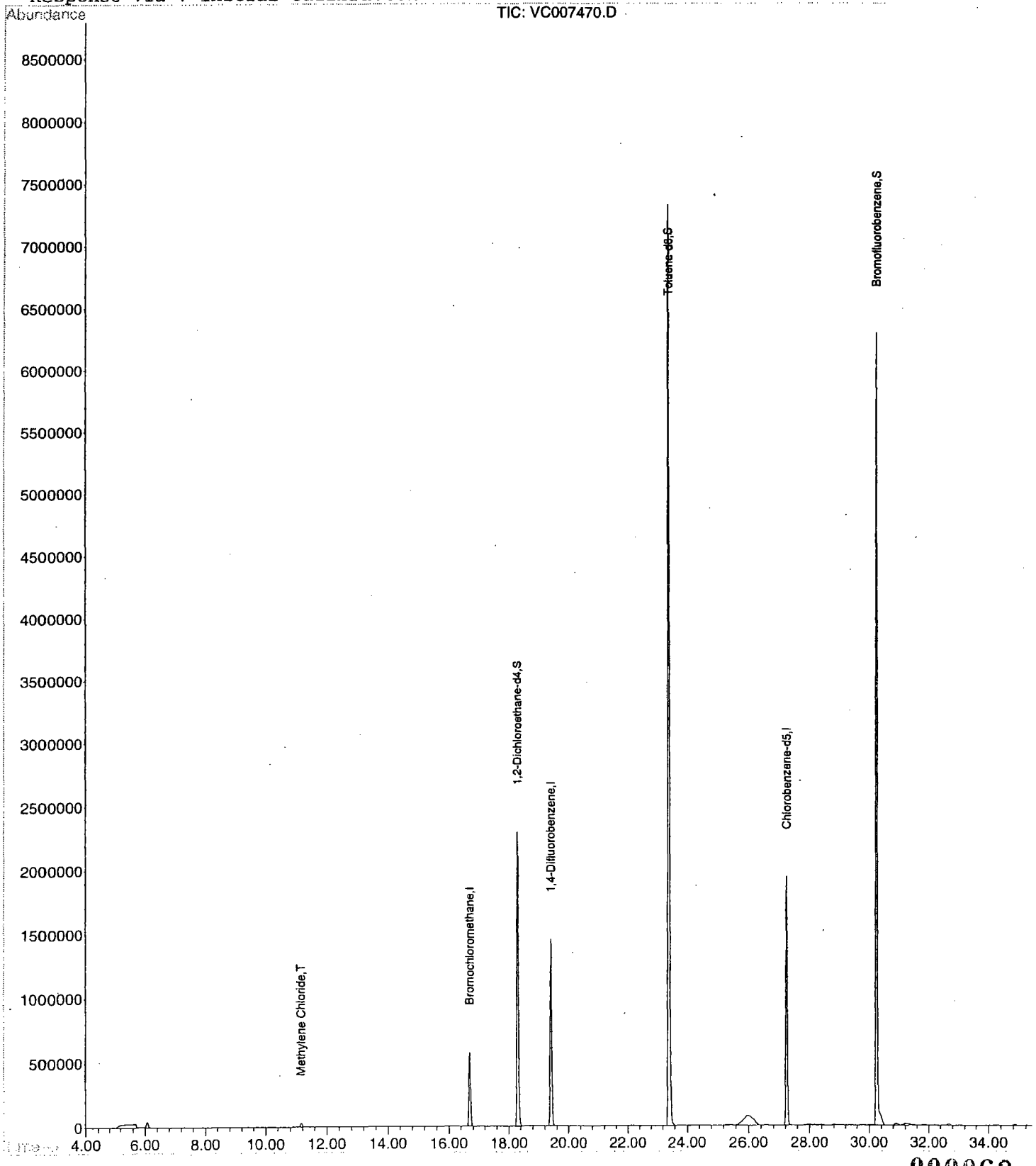
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	346914	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2575513	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	738872	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	3087676	119.37	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 397.90%#			
35) Toluene-d8	23.42	98	10279622	104.11	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 347.03%#			
49) Bromofluorobenzene	30.25	95	4359477	111.88	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 372.93%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.15	84	43903	1.72	ug/L	87

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007470.D Vial: 1
Acq On : 26 Nov 2001 4:10 pm Operator: Skelton
Sample : 1659807 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 26 16:45 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
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 # :** **Location :** **UST Reg. # :**	16598 Bldg. 634
Analysis :	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix :	Soil	**Date Extracted :**	20-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1659801	634-1	1.00	15.72	74.68	193	ND
1659802	634-2	1.00	15.17	77.93	192	ND
1659803	634-3	1.00	15.78	78.68	182	713.28
1659804	634-4	1.00	15.73	76.69	188	ND
1659805	634-5	1.00	15.55	80.62	181	721.34
1659806	634-FD	1.00	15.68	78.10	185	1079.28
METHOD BLANK	MB-2665	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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013851.D Vial: 40
Acq On : 20 Nov 2001 11:59 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.333 E3	-18.4	113	-0.05
2	tC	C10	20.595	22.301 E3	-8.3	105	-0.01
3	TC	C12	21.549	23.385 E3	-8.5	106	0.00
4	tC	C14	23.048	23.751 E3	-3.1	102	0.00
5	tC	C16	24.057	24.359 E3	-1.3	101	0.00
6	tC	C18	24.812	24.271 E3	2.2	98	0.00
7	tC	C20	24.684	25.016 E3	-1.3	101	0.00
8	tC	C22	25.878	25.865 E3	0.1	101	0.00
9	tC	C24	26.326	26.136 E3	0.7	100	0.00
10	tC	C26	26.702	26.415 E3	1.1	100	0.00
11	tC	C28	26.061	25.990 E3	0.3	100	0.00
12	tC	C30	26.583	26.697 E3	-0.4	100	0.00
13	tC	C32	26.447	26.440 E3	0.0	100	0.00
14	tC	C34	26.317	26.342 E3	-0.1	100	0.00
15	tC	C36	26.661	27.330 E3	-2.5	103	0.00
16	tC	C38	24.528	26.234 E3	-7.0	108	0.00
17	tC	C40	21.994	25.278 E3	-14.9	118	-0.01
18	tC	c42	19.638	25.122 E3	-27.9#	130	0.00
19	TC	Pristane	23.812	23.579 E3	1.0	98	0.00
20	TC	Phytane	25.573	25.375 E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.727 E3	-1.0	101	0.00
22	tC	TPHC - total	28.994	28.838 E3	0.5	108	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013862.D Vial: 51
Acq On : 20 Nov 2001 6:04 pm Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.766 E3	-15.2	110	-0.06
2	tC	C10	20.595	22.393 E3	-8.7	105	-0.01
3	TC	C12	21.549	23.301 E3	-8.1	106	0.00
4	tC	C14	23.048	23.973 E3	-4.0	103	0.00
5	tC	C16	24.057	24.532 E3	-2.0	102	0.00
6	tC	C18	24.812	24.994 E3	-0.7	101	0.00
7	tC	C20	24.684	25.116 E3	-1.8	101	0.00
8	tC	C22	25.878	26.101 E3	-0.9	101	0.00
9	tC	C24	26.326	26.431 E3	-0.4	101	0.00
10	tC	C26	26.702	26.676 E3	0.1	101	0.00
11	tC	C28	26.061	26.291 E3	-0.9	101	0.00
12	tC	C30	26.583	27.004 E3	-1.6	101	0.00
13	tC	C32	26.447	26.755 E3	-1.2	101	0.00
14	tC	C34	26.317	26.671 E3	-1.3	101	0.00
15	tC	C36	26.661	27.706 E3	-3.9	104	0.00
16	tC	C38	24.528	26.574 E3	-8.3	110	0.00
17	tC	C40	21.994	25.685 E3	-16.8	120	0.00
18	tC	c42	19.638	25.397 E3	-29.3#	131	0.00
19	TC	Pristane	23.812	24.323 E3	-2.1	101	0.00
20	TC	Phytane	25.573	25.746 E3	-0.7	102	0.00
21	sC	o-terphenyl	25.484	25.919 E3	-1.7	102	0.00
22	tC	TPHC - total	28.994	30.502 E3	-5.2	115	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013874.D Vial: 63
Acq On : 21 Nov 2001 12:35 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.845 E3	-15.7	111	-0.06
2	tC	C10	20.595	22.510 E3	-9.3	106	-0.02
3	TC	C12	21.549	23.468 E3	-8.9	106	0.00
4	tC	C14	23.048	24.300 E3	-5.4	105	0.00
5	tC	C16	24.057	24.924 E3	-3.6	104	0.00
6	tC	C18	24.812	26.088 E3	-5.1	106	0.00
7	tC	C20	24.684	25.518 E3	-3.4	103	0.00
8	tC	C22	25.878	26.569 E3	-2.7	103	0.00
9	tC	C24	26.326	26.900 E3	-2.2	103	0.00
10	tC	C26	26.702	27.150 E3	-1.7	103	0.00
11	tC	C28	26.061	26.721 E3	-2.5	103	0.00
12	tC	C30	26.583	27.479 E3	-3.4	103	0.00
13	tC	C32	26.447	27.239 E3	-3.0	103	0.00
14	tC	C34	26.317	27.149 E3	-3.2	103	0.00
15	tC	C36	26.661	28.199 E3	-5.8	106	-0.01
16	tC	C38	24.528	27.068 E3	-10.4	112	-0.02
17	tC	C40	21.994	26.208 E3	-19.2	122	-0.02
18	tC	c42	19.638	25.939 E3	-32.1#	134	-0.02
19	TC	Pristane	23.812	24.975 E3	-4.9	104	0.00
20	TC	Phytane	25.573	25.985 E3	-1.6	103	0.00
21	sC	o-terphenyl	25.484	26.360 E3	-3.4	104	0.00
22	tC	TPHC - total	28.994	31.702 E3	-9.3	119	1.73#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16598
	DPW. SELFM-PW-EV	**Location :**	Bldg. 634
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix:	Soil	**Date Extracted :**	20-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1659801			10.00	10.41	**104.13**
1659802			10.00	10.40	**103.96**
1659803			10.00	10.87	**108.65**
1659804			10.00	10.19	**101.87**
1659805			10.00	12.59	**125.89**
1659806			10.00	10.29	**102.93**
METHOD BLANK	MB-2665		10.00	10.84	**108.38**

Surrogate Added : **o-Terphenyl**

Client :	U.S. Army	**Project # :**	16598
	DPW. SELFM-PW-EV	**Location :**	Bldg. 634
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		

Analysis:	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix:	Soil	**Date Extracted :**	20-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1659701MS	1000	0.00	888.62	88.86	75-125
1659701MSD	1000	0.00	958.95	95.89	75-125
			RPD	**7.61**	**20.00**

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

Client :	U.S. Army	**Project # :**	16598
	DPW. SELFM-PW-EV	**Location :**	Bldg. 634
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	19-Nov-01
Matrix:	Soil	**Date Extracted :**	20-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	21-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2666	20-Nov-01	1000	868.74	86.87	75-126

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013857.D Vial: 46
Acq On : 20 Nov 2001 3:19 pm Operator: Skelton
Sample : MB 2665s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 15:45 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	276181	10.838 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 108.38%#	
Target Compounds			

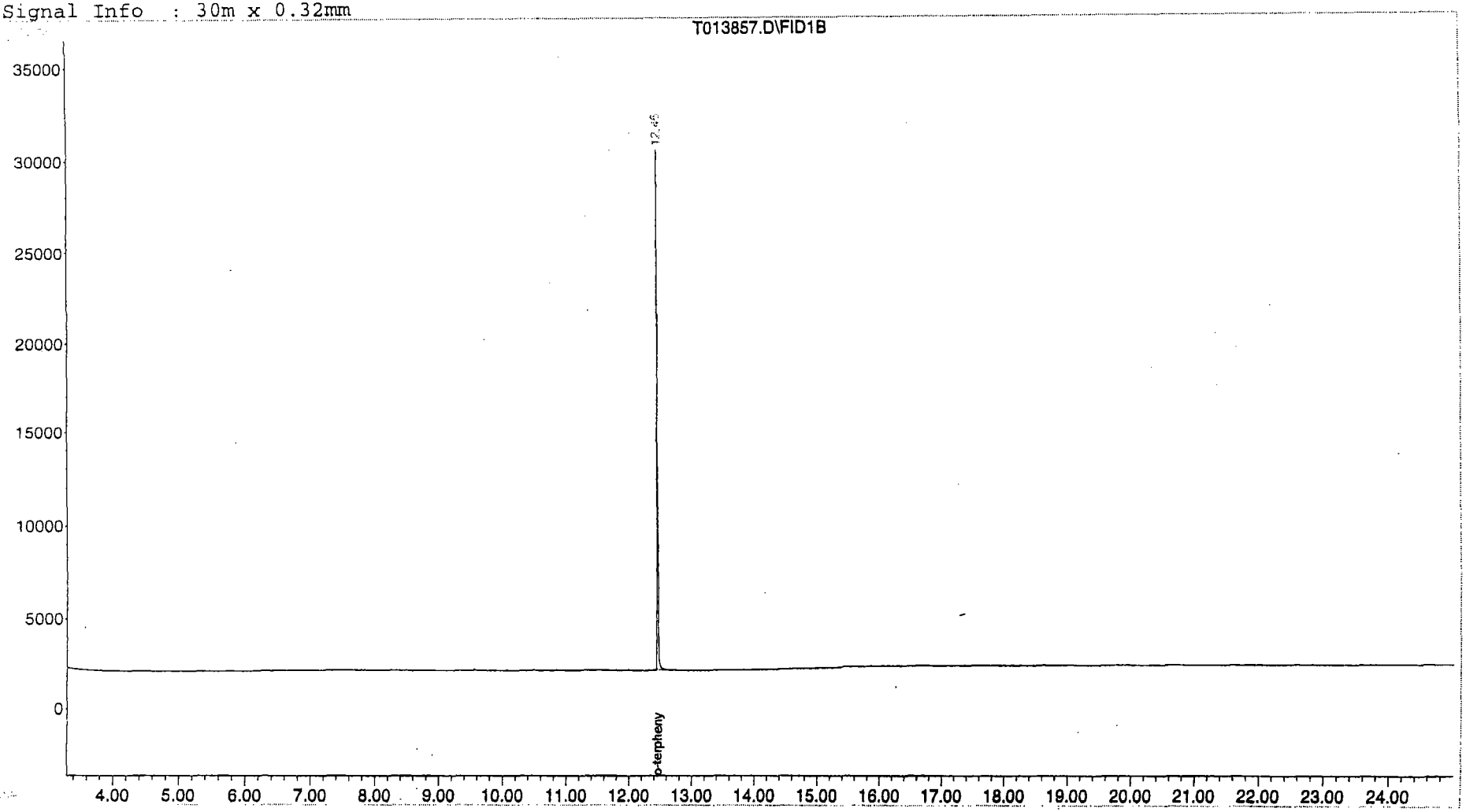
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013857.D
Acq On : 20 Nov 2001 3:19 pm
Sample : MB 2665s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 20 15:45 2001 Quant Results File: TPH95.RES

Vial: 46
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000074

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013868.D Vial: 57
Acq On : 20 Nov 2001 9:20 pm Operator: Skelton
Sample : 1659801s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 21:46 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

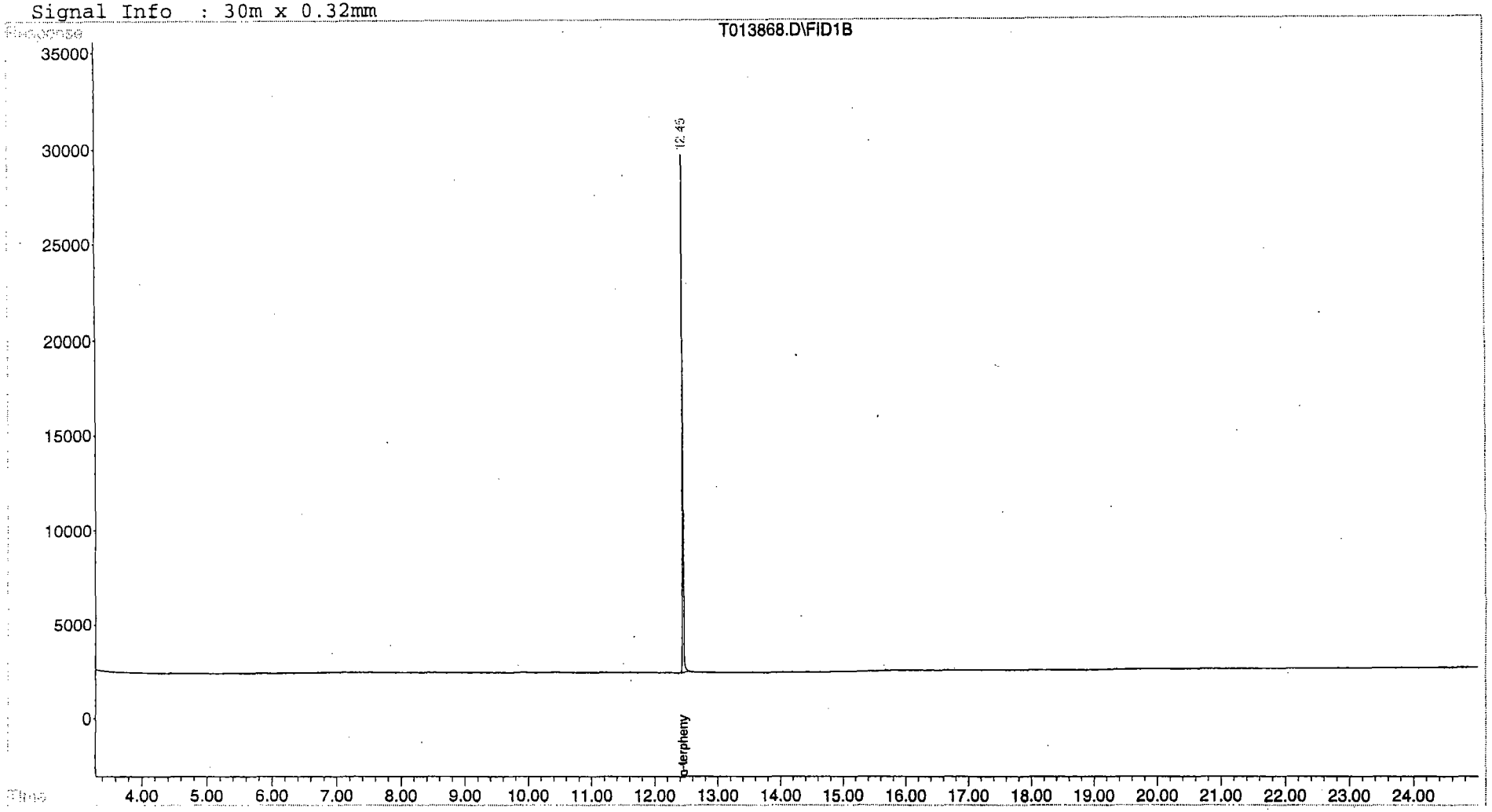
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	265370	10.413 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	104.13%#
Target Compounds			

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013868.D Vial: 57
Acq On : 20 Nov 2001 9:20 pm Operator: Skelton
Sample : 1659801s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 21:46 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013869.D Vial: 58
Acq On : 20 Nov 2001 9:53 pm Operator: Skelton
Sample : 1659802s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 22:18 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	264919	10.396 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 103.96%#	
Target Compounds			

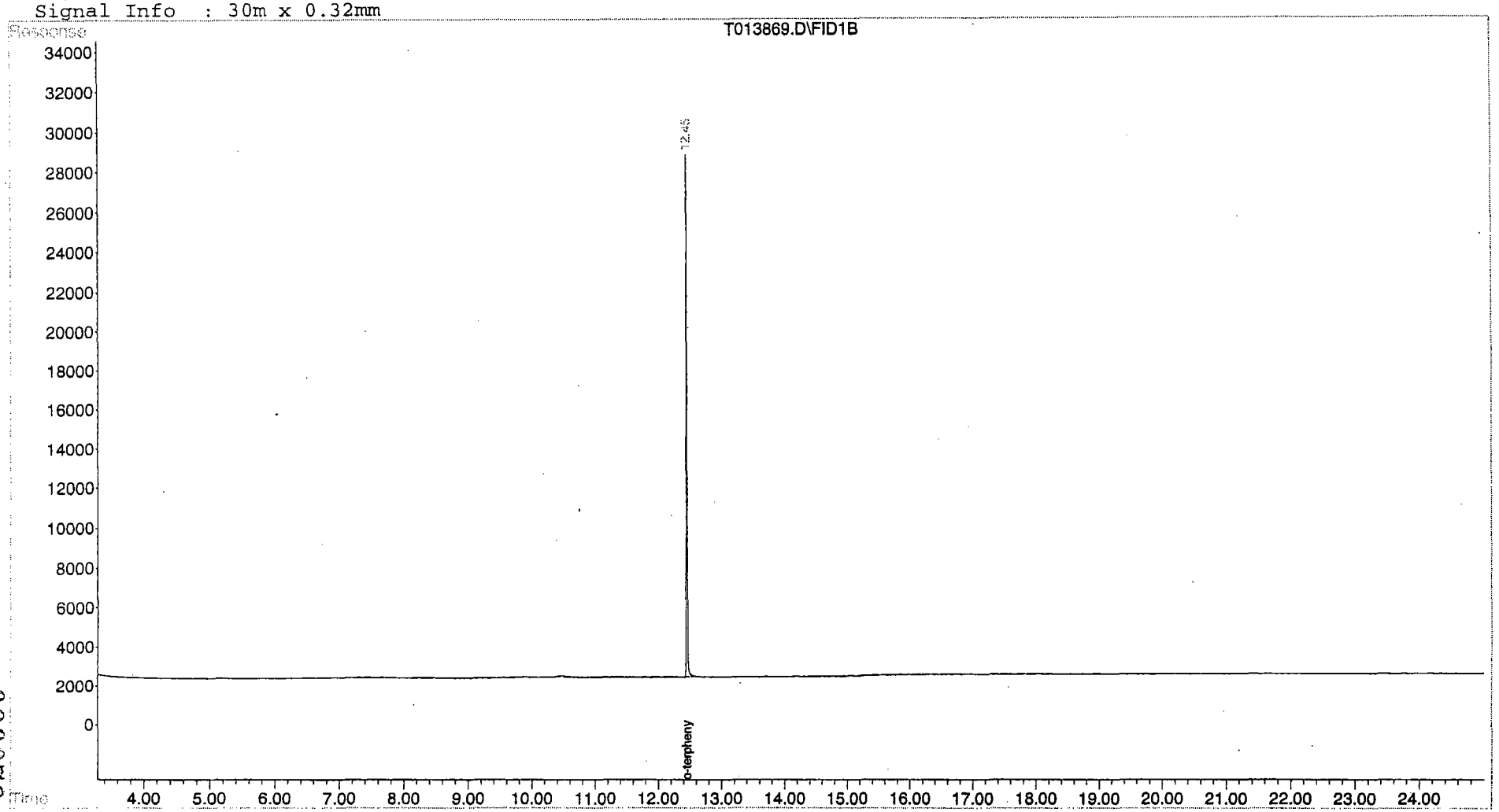
(f)-RT Delta > 1/2 Window (m)-manual int

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013869.D Vial: 58
Acq On : 20 Nov 2001 9:53 pm Operator: Skelton
Sample : 1659802s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 22:18 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



840000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013870.D Vial: 59
Acq On : 20 Nov 2001 10:25 pm Operator: Skelton
Sample : 1659803s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 21 8:45 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	276886	10.865 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	108.65%#
Target Compounds			
3) TC C12	8.82	31726	1.472 mg/L
4) tC C14	10.00	70451	3.057 mg/L
5) tC C16	11.01	70799	2.943 mg/L
6) tC C18	11.47	40292	1.624 mg/L
7) tC C20	11.91	43198	1.750 mg/L
19) TC Pristane	11.47	40292	1.692 mg/L
20) TC Phytane	11.91	43198	1.689 mg/L
22) tC TPHC - total	12.45	5135312	177.117 mg/L m

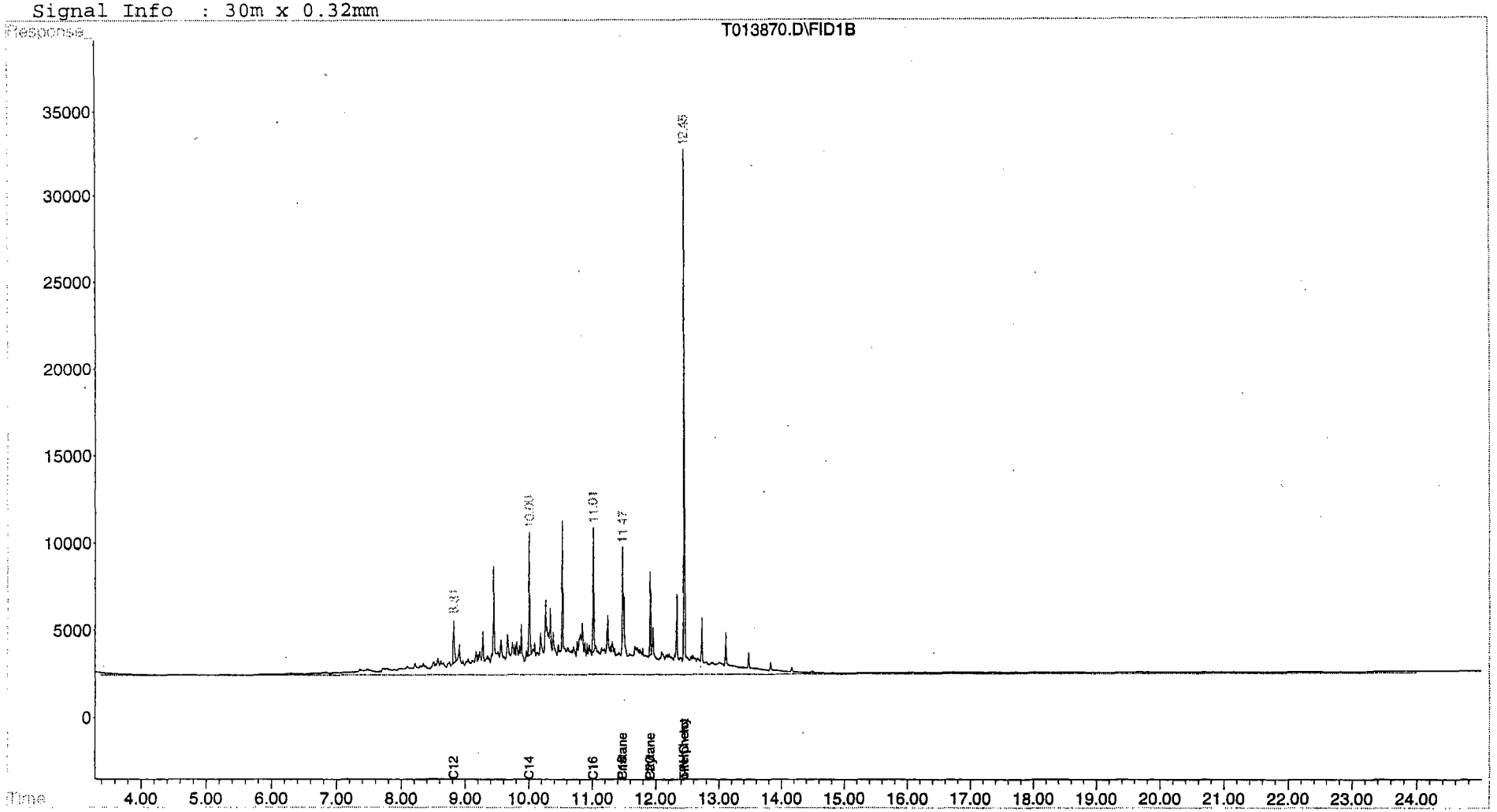
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitatio[illegible]port

Data File : C:\HPCHEM\1\DATA\011119\T013870.D Vial: 59
Acq On : 20 Nov 2001 10:25 pm Operator: Skelton
Sample : 1659803s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 21 8:45 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013871.D Vial: 60
Acq On : 20 Nov 2001 10:58 pm Operator: Skelton
Sample : 1659804s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 23:23 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	259608	10.187 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 101.87%#	
Target Compounds			

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

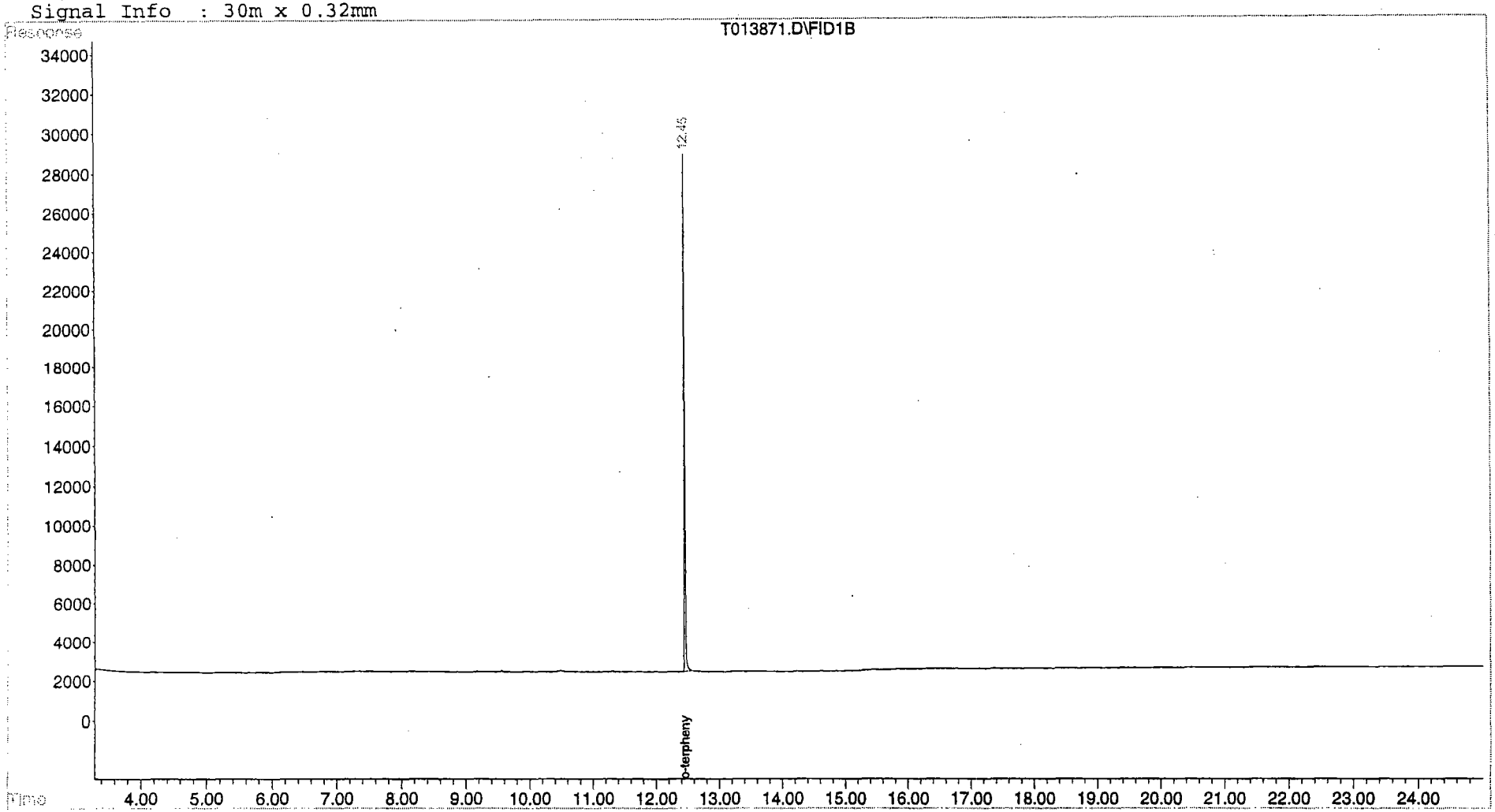
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013871.D
Acq On : 20 Nov 2001 10:58 pm
Sample : 1659804s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 20 23:23 2001 Quant Results File: TPH95.RES

Vial: 60
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013872.D Vial: 61
Acq On : 20 Nov 2001 11:30 pm Operator: Skelton
Sample : 1659805s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 21 8:46 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	320806	12.589 mg/L m
Spiked Amount 10.000 Range 8 - 13		Recovery = 125.89%#	
Target Compounds			
3) TC C12	8.82	35783	1.661 mg/L
4) tC C14	10.00	62406	2.708 mg/L
5) tC C16	11.01	60560	2.517 mg/L
7) tC C20	11.91	38229	1.549 mg/L
20) TC Phytane	11.91	38229	1.495 mg/L
22) tC TPHC - total	12.45	5243826	180.860 mg/L m

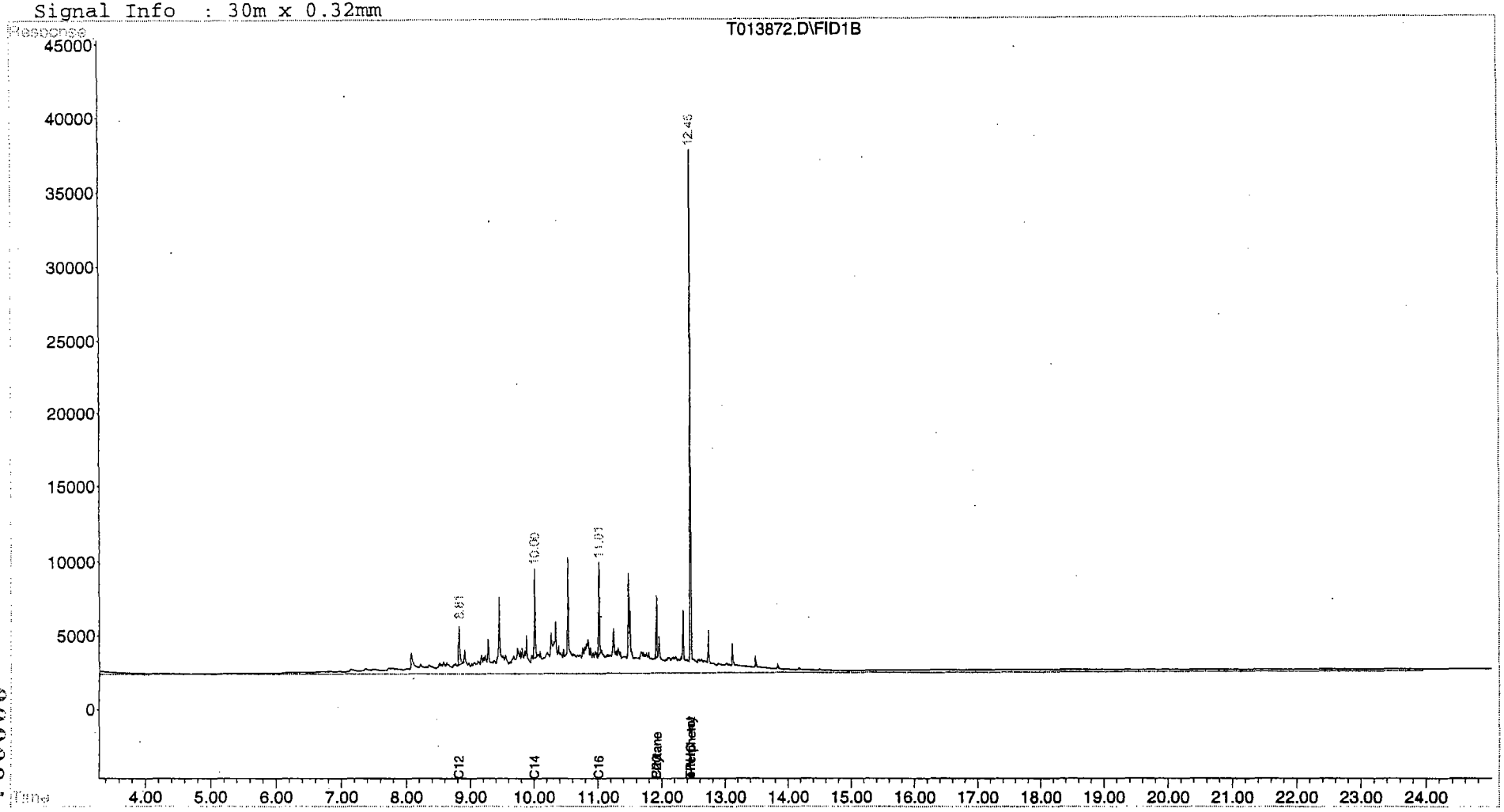
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013872.D
Acq On : 20 Nov 2001 11:30 pm
Sample : 1659805s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 21 8:46 2001 Quant Results File: TPH95.RES

Vial: 61
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



1659805

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013873.D Vial: 62
Acq On : 21 Nov 2001 12:03 am Operator: Skelton
Sample : 1659806s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 21 8:46 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	262304	10.293 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	102.93%#
Target Compounds			
3) TC C12	8.81	41250	1.914 mg/L
4) tC C14	10.00	88501	3.840 mg/L
5) tC C16	11.01	88976	3.699 mg/L
6) tC C18	11.47	50693	2.043 mg/L
7) tC C20	11.91	53901	2.184 mg/L
19) TC Pristane	11.47	50693	2.129 mg/L
20) TC Phytane	11.91	53901	2.108 mg/L
22) tC TPHC - total	12.44	7664184	264.339 mg/L m

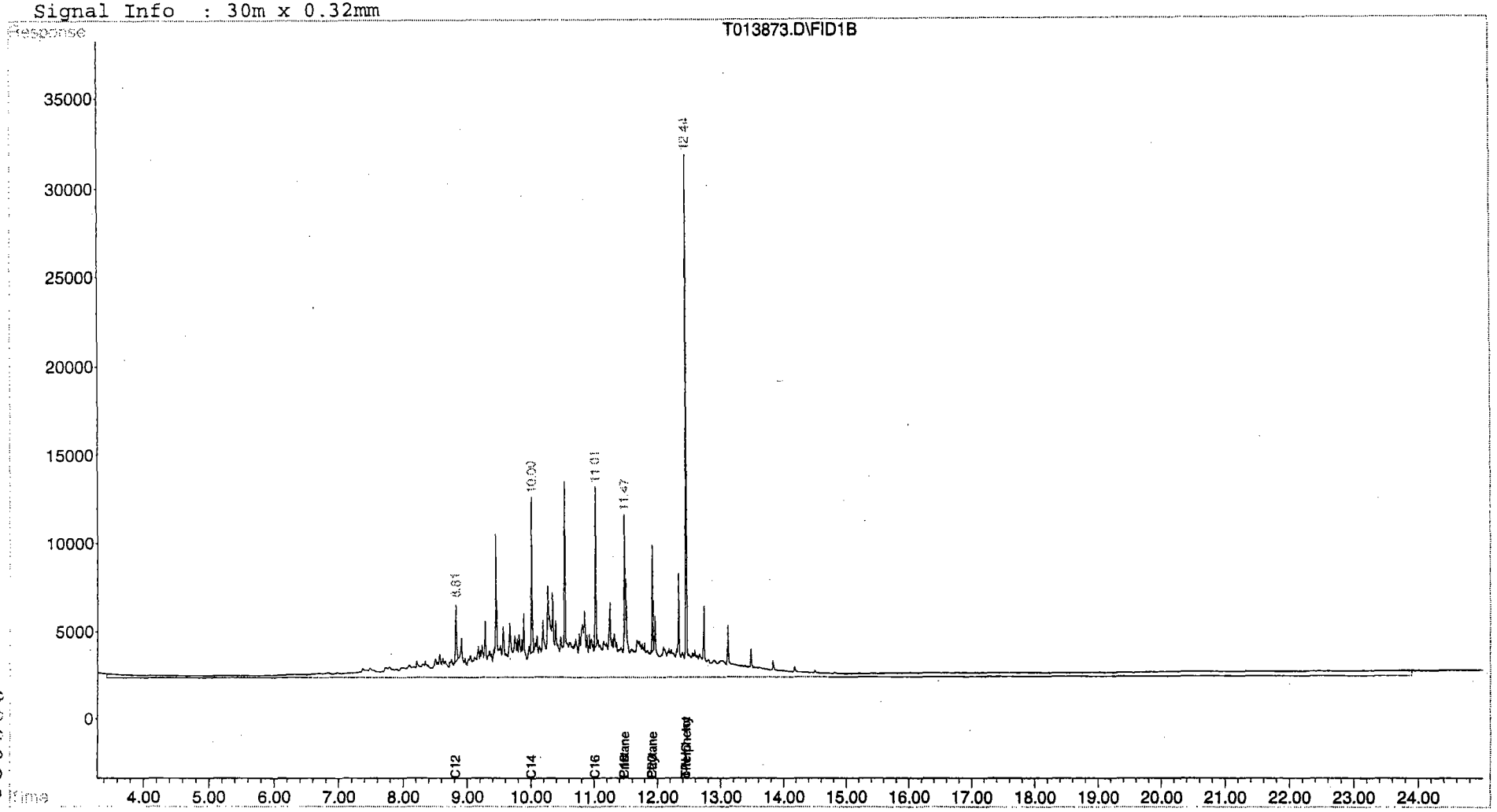
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013873.D
Acq On : 21 Nov 2001 12:03 am
Sample : 1659806s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 21 8:46 2001 Quant Results File: TPH95.RES

Vial: 62
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



980000

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	✓
2.	Table of Contents submitted	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	✓
4.	Document paginated and legible	✓
5.	Chain of Custody submitted	✓
6.	Samples submitted to lab within 48 hours of sample collection	✓
7.	Methodology Summary submitted	✓
8.	Laboratory Chronicle and Holding Time Check submitted	✓
9.	Results submitted on a dry weight basis	✓
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 12/6/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 638

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
638-1/8'	1650801	Soil	13-Oct-01 09:30	10/15/01
638-2/8'	1650802	Soil	13-Oct-01 09:45	10/15/01
638-3/8'	1650803	Soil	13-Oct-01 10:00	10/15/01
638-4/8'	1650804	Soil	13-Oct-01 10:15	10/15/01
638-5/8'	1650805	Soil	13-Oct-01 10:28	10/15/01
F. D./8'	1650806	Soil	13-Oct-01	10/15/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

10-19-01
Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

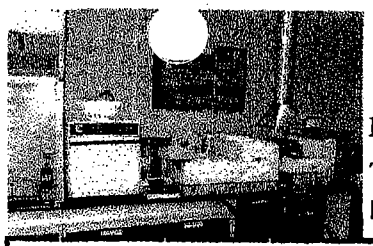
TPHC Conformance/Non-conformance Summary Report

		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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

10-19-01
Date



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: X21475
( )DERA (M)OMA ( )Other:_____

Project No: 01-0001
Location: BLDG. 638 (FORMER)

Samplers Name / Company: MARK LAURIA - TVS- PWS07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	TPHC	% SOLIDS					HNU ppm	Comments: Remarks / Preservation Method
16508 01	638-1 8'	10-13-01	0930	SOIL	1	X	X					500	<4oC
02	" -2 8'	"	0945	"	"	"	"					5	"
03	" -3 8'	"	1000	"	"	"	"					10	"
04	" -4 8'	"	1015	"	"	"	"					3	"
05	" -5 8'	"	1028	"	"	"	"					2	"
06	FD-8'	"	—	"	"	"	"					—	"

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	10-15-01 745				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: H2O = 8.5'

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 # :** **Location :** **UST Reg. # :**	16508 Bldg.638
Analysis :	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix :	Soil	**Date Extracted :**	15-Oct-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1650801	638-1	**1.00**	15.04	77.45	194	**ND**
1650802	638-2	**1.00**	15.87	76.77	186	**ND**
1650803	638-3	**1.00**	15.32	80.13	185	**ND**
1650804	638-4	**1.00**	15.46	78.95	186	**ND**
1650805	638-5	**1.00**	15.45	77.07	190	**ND**
1650806	FD	**1.00**	15.35	77.28	191	**ND**
METHOD BLANK	MB-2519	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013680.D Vial: 27
Acq On : 16 Oct 2001 1:49 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.377 E3	-2.0	97	0.00
2	tC	C10	20.595	21.602 E3	-4.9	102	0.00
3	TC	C12	21.549	22.362 E3	-3.8	101	0.00
4	tC	C14	23.048	23.537 E3	-2.1	101	0.00
5	tC	C16	24.057	24.206 E3	-0.6	101	0.00
6	tC	C18	24.812	25.449 E3	-2.6	103	0.00
7	tC	C20	24.684	24.900 E3	-0.9	100	0.00
8	tC	C22	25.878	25.708 E3	0.7	100	0.00
9	tC	C24	26.326	26.033 E3	1.1	100	0.00
10	tC	C26	26.702	26.298 E3	1.5	100	0.00
11	tC	C28	26.061	25.816 E3	0.9	99	0.00
12	tC	C30	26.583	26.526 E3	0.2	99	0.00
13	tC	C32	26.447	26.300 E3	0.6	99	0.00
14	tC	C34	26.317	26.214 E3	0.4	100	0.00
15	tC	C36	26.661	27.110 E3	-1.7	102	0.00
16	tC	C38	24.528	25.753 E3	-5.0	106	0.00
17	tC	C40	21.994	24.509 E3	-11.4	114	0.00
18	tC	c42	19.638	23.560 E3	-20.0	122	0.00
19	TC	Pristane	23.812	23.703 E3	0.5	99	0.00
20	TC	Phytane	25.573	25.161 E3	1.6	100	0.00
21	sC	o-terphenyl	25.484	25.505 E3	-0.1	100	0.00
22	tC	TPHC - total	28.994	27.463 E3	5.3	103	-0.95#

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013691.D Vial: 38
Acq On : 16 Oct 2001 7:53 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.508	E3	-2.7	98	0.00
2	tC	C10	20.595	21.645	E3	-5.1	102	0.00
3	TC	C12	21.549	22.587	E3	-4.8	102	0.00
4	tC	C14	23.048	23.954	E3	-3.9	103	0.00
5	tC	C16	24.057	24.677	E3	-2.6	103	0.00
6	tC	C18	24.812	24.781	E3	0.1	100	0.00
7	tC	C20	24.684	25.412	E3	-2.9	103	0.00
8	tC	C22	25.878	26.192	E3	-1.2	102	0.00
9	tC	C24	26.326	26.528	E3	-0.8	102	0.00
10	tC	C26	26.702	26.758	E3	-0.2	102	0.00
11	tC	C28	26.061	26.272	E3	-0.8	101	0.00
12	tC	C30	26.583	26.943	E3	-1.4	101	0.00
13	tC	C32	26.447	26.675	E3	-0.9	100	0.00
14	tC	C34	26.317	26.560	E3	-0.9	101	0.00
15	tC	C36	26.661	27.443	E3	-2.9	103	0.00
16	tC	C38	24.528	25.998	E3	-6.0	107	0.00
17	tC	C40	21.994	24.561	E3	-11.7	114	-0.01
18	tC	c42	19.638	23.252	E3	-18.4	120	0.00
19	TC	Pristane	23.812	23.971	E3	-0.7	100	0.00
20	TC	Phytane	25.573	25.721	E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	25.988	E3	-2.0	102	0.00
22	tC	TPHC - total	28.994	27.291	E3	5.9	103	1.02#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013702.D Vial: 49
Acq On : 16 Oct 2001 2:02 pm Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.632	E3	-3.4	99	0.00
2	tC	C10	20.595	22.169	E3	-7.6	104	0.00
3	TC	C12	21.549	23.089	E3	-7.1	105	0.00
4	tC	C14	23.048	24.435	E3	-6.0	105	0.00
5	tC	C16	24.057	25.180	E3	-4.7	105	0.00
6	tC	C18	24.812	26.378	E3	-6.3	107	0.00
7	tC	C20	24.684	26.011	E3	-5.4	105	0.00
8	tC	C22	25.878	26.755	E3	-3.4	104	0.00
9	tC	C24	26.326	27.054	E3	-2.8	104	0.00
10	tC	C26	26.702	27.246	E3	-2.0	103	0.00
11	tC	C28	26.061	26.758	E3	-2.7	103	0.00
12	tC	C30	26.583	27.484	E3	-3.4	103	0.00
13	tC	C32	26.447	27.211	E3	-2.9	103	0.00
14	tC	C34	26.317	27.042	E3	-2.8	103	0.00
15	tC	C36	26.661	27.851	E3	-4.5	105	0.00
16	tC	C38	24.528	26.291	E3	-7.2	109	0.00
17	tC	C40	21.994	24.624	E3	-12.0	115	0.00
18	tC	c42	19.638	22.774	E3	-16.0	118	0.00
19	TC	Pristane	23.812	24.656	E3	-3.5	103	0.00
20	TC	Phytane	25.573	26.295	E3	-2.8	104	0.00
21	sC	o-terphenyl	25.484	26.527	E3	-4.1	105	0.00
22	tC	TPHC - total	28.994	27.626	E3	4.7	104	0.00

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

Client :	U.S. Army	**Project # :**	16508
	DPW. SELFM-PW-EV	**Location :**	Bldg.638
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1650801			10.00	10.48	**104.77**
1650802			10.00	9.58	**95.76**
1650803			10.00	9.07	**90.69**
1650804			10.00	12.88	**128.78**
1650805			10.00	8.51	**85.06**
1650806			10.00	8.87	**88.73**
METHOD BLANK	MB-2519		10.00	10.39	**103.90**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	16508
	DPW. SELFM-PW-EV	**Location :**	Bldg.638
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2520	15-Oct-01	1000	806.30	80.63	75-125

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

Client :	U.S. Army	**Project # :**	16508
	DPW. SELFM-PW-EV	**Location :**	Bldg.638
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1650602MS	1000	0.00	839.28	83.93	75-125
1650602MSD	1000	0.00	853.53	85.35	75-125
			RPD	**1.68**	**20.00**

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013685.D Vial: 32
Acq On : 16 Oct 2001 4:34 am Operator: B.Patel
Sample : MB-2519 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:33 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	264784	10.390 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	103.90%#
Target Compounds			

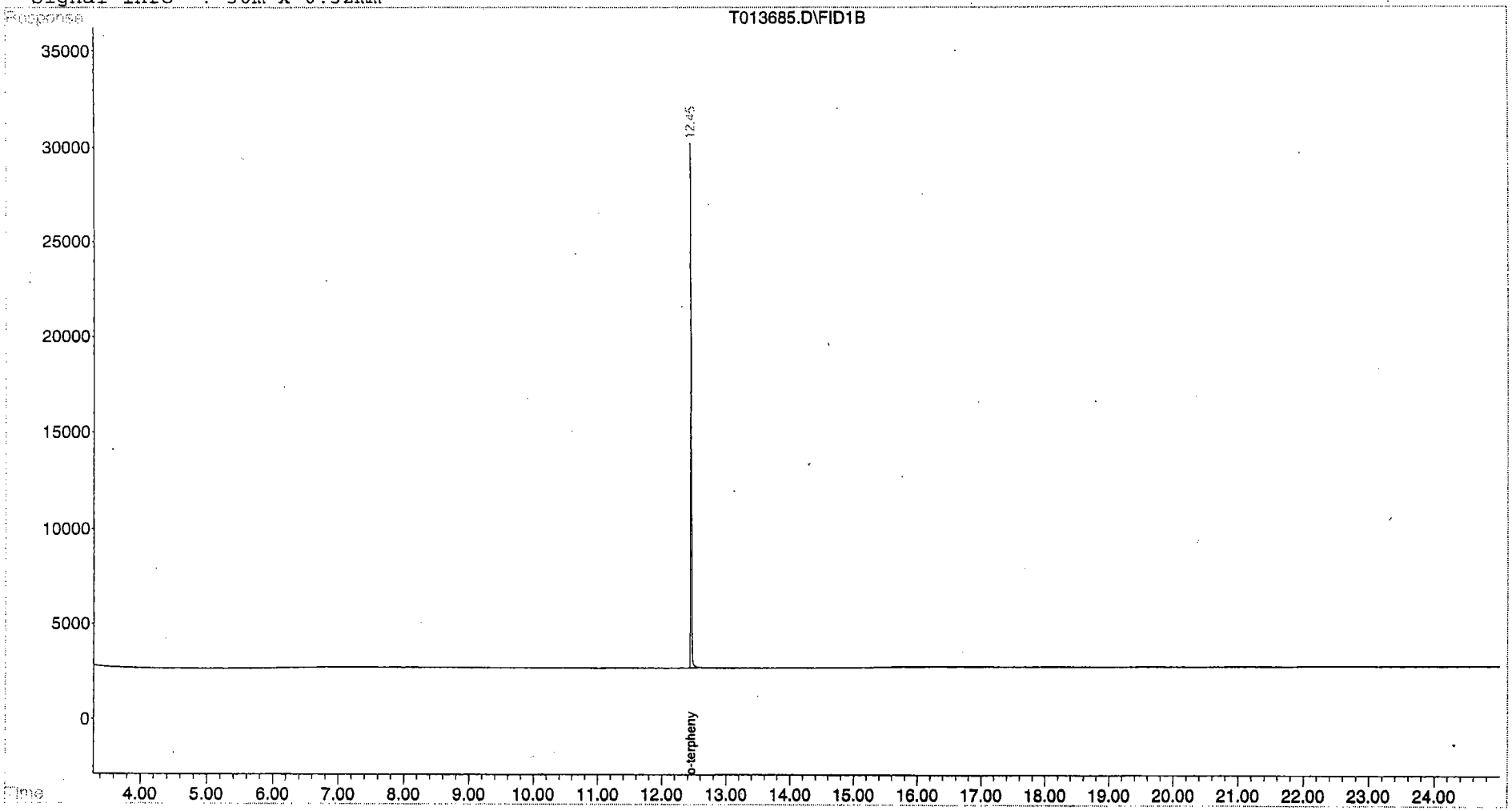
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati Report

Data File : C:\HPCHEM\1\DATA\011015\T013685.D Vial: 32
Acq On : 16 Oct 2001 4:34 am Operator: B.Patel
Sample : MB-2519 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:33 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013694.D Vial: 41
Acq On : 16 Oct 2001 9:33 am Operator: B.Patel
Sample : 1650801s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 10:29 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	266988	10.477 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	104.77%#
Target Compounds			

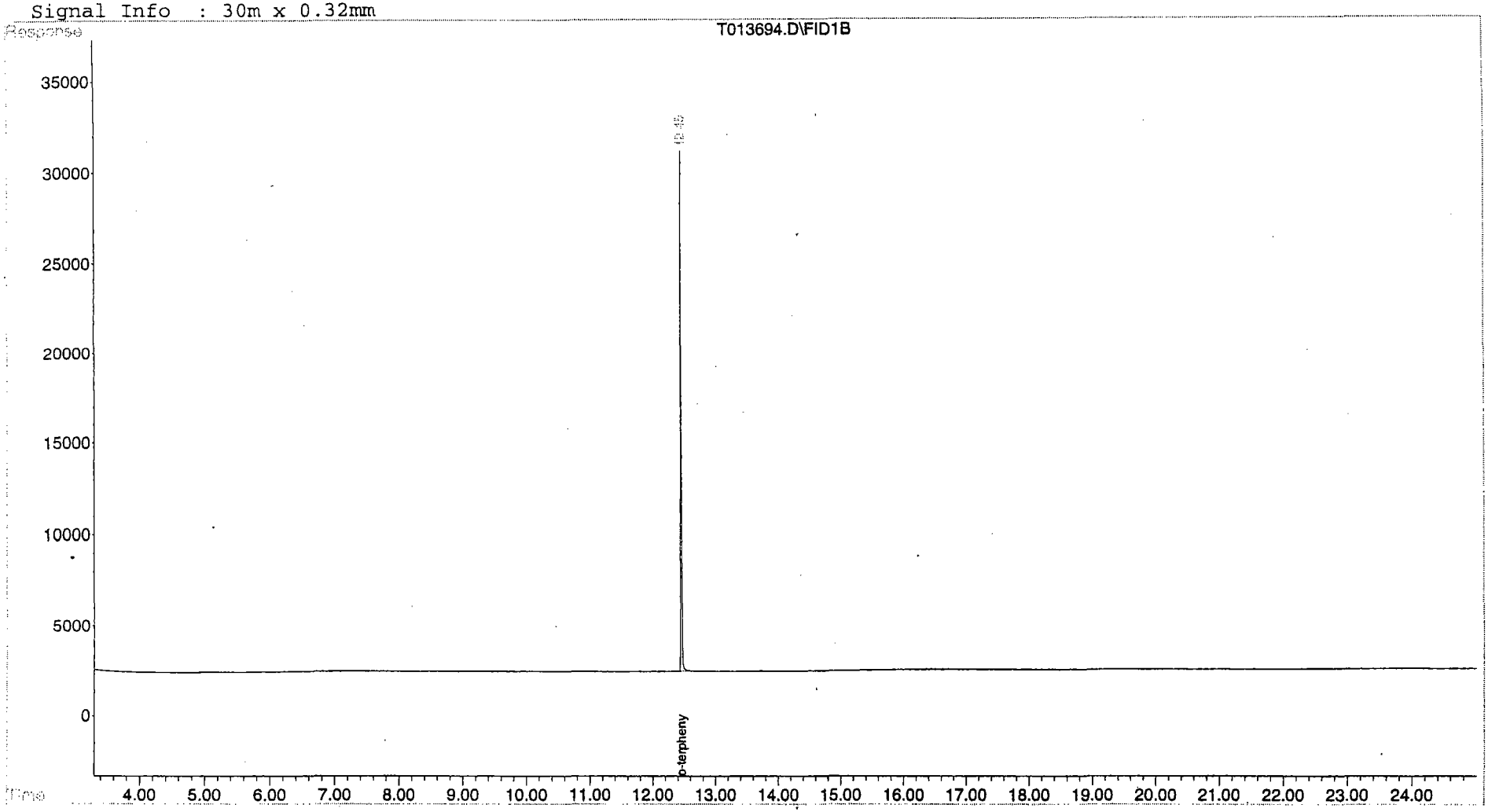
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011015\T013694.D Vial: 41
Acq On : 16 Oct 2001 9:33 am Operator: B.Patel
Sample : 1650801s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 10:29 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013695.D Vial: 42
Acq On : 16 Oct 2001 10:07 am Operator: B.Patel
Sample : 1650802s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 10:33 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	244029	9.576 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	95.76%#
Target Compounds			

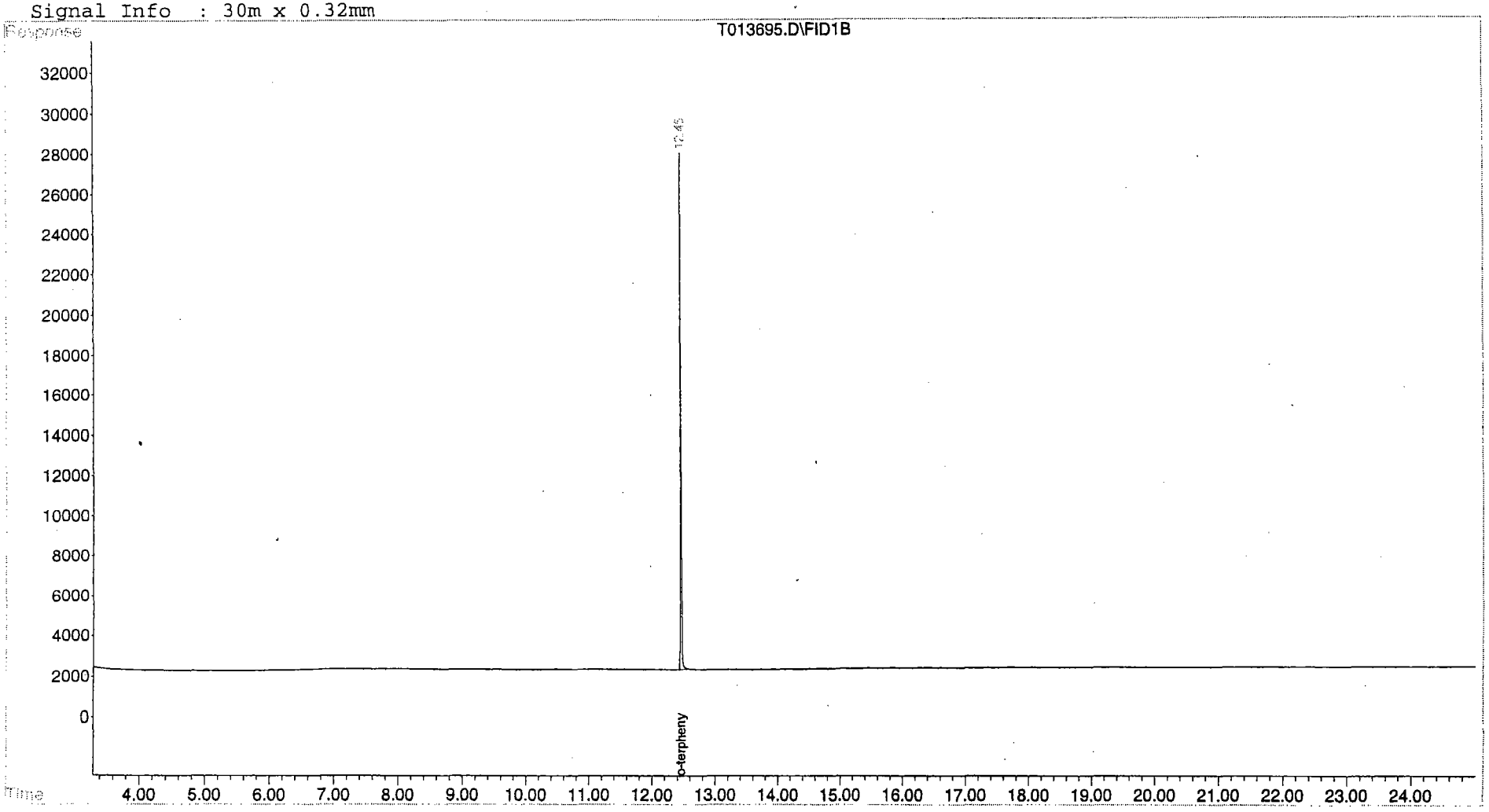
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011015\T013695.D Vial: 42
Acq On : 16 Oct 2001 10:07 am Operator: B.Patel
Sample : 1650802s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 10:33 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000017

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013696.D Vial: 43
Acq On : 16 Oct 2001 10:41 am Operator: B.Patel
Sample : 1650803s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 11:16 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	231115	9.069 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	90.69%#
Target Compounds			

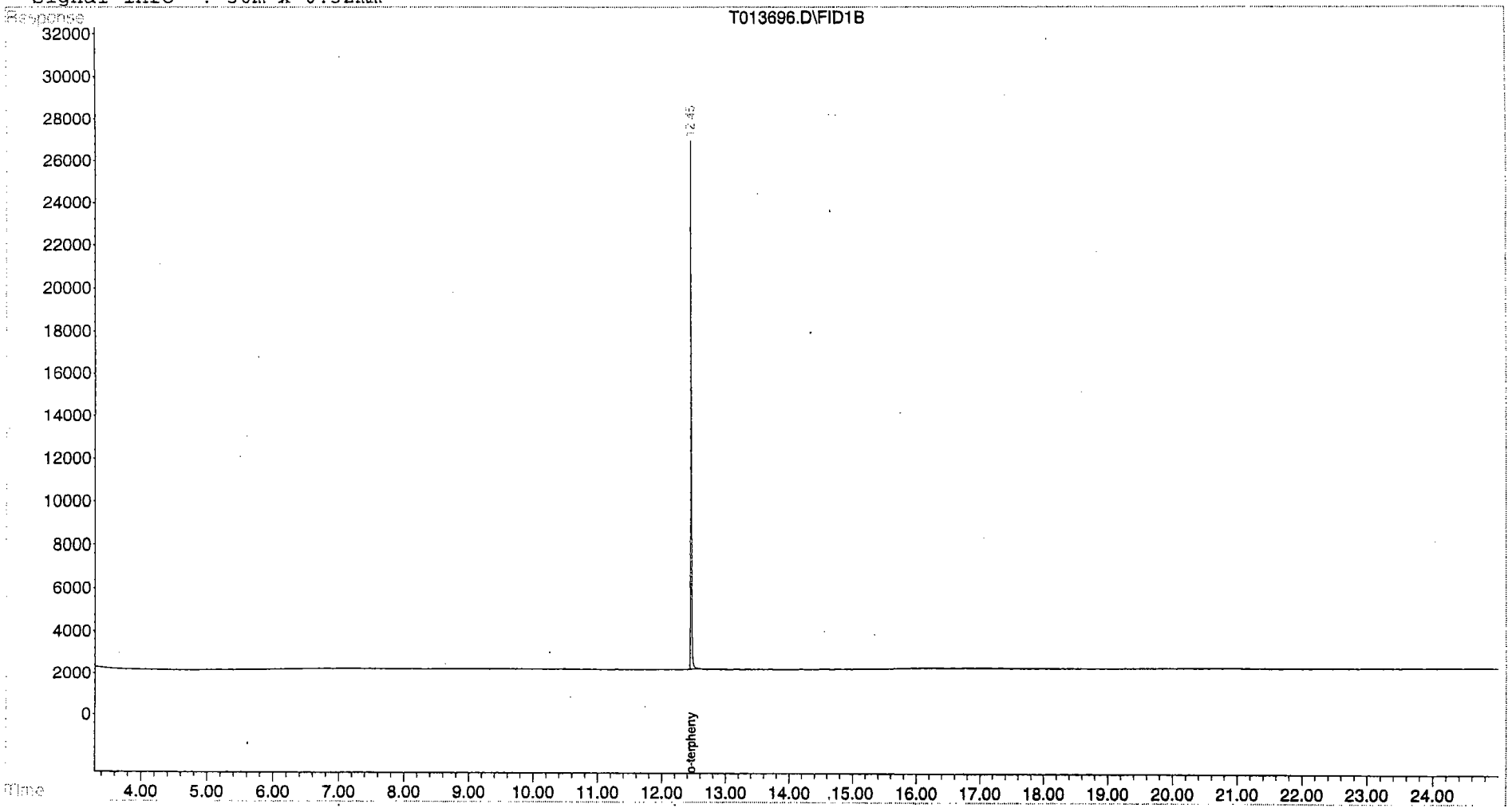
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011015\T013696.D Vial: 43
Acq On : 16 Oct 2001 10:41 am Operator: B.Patel
Sample : 1650803s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 11:16 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000019

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013697.D Vial: 44
Acq On : 16 Oct 2001 11:15 am Operator: B.Patel
Sample : 1650804s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:01 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	328173	12.878 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	128.78%#
Target Compounds			

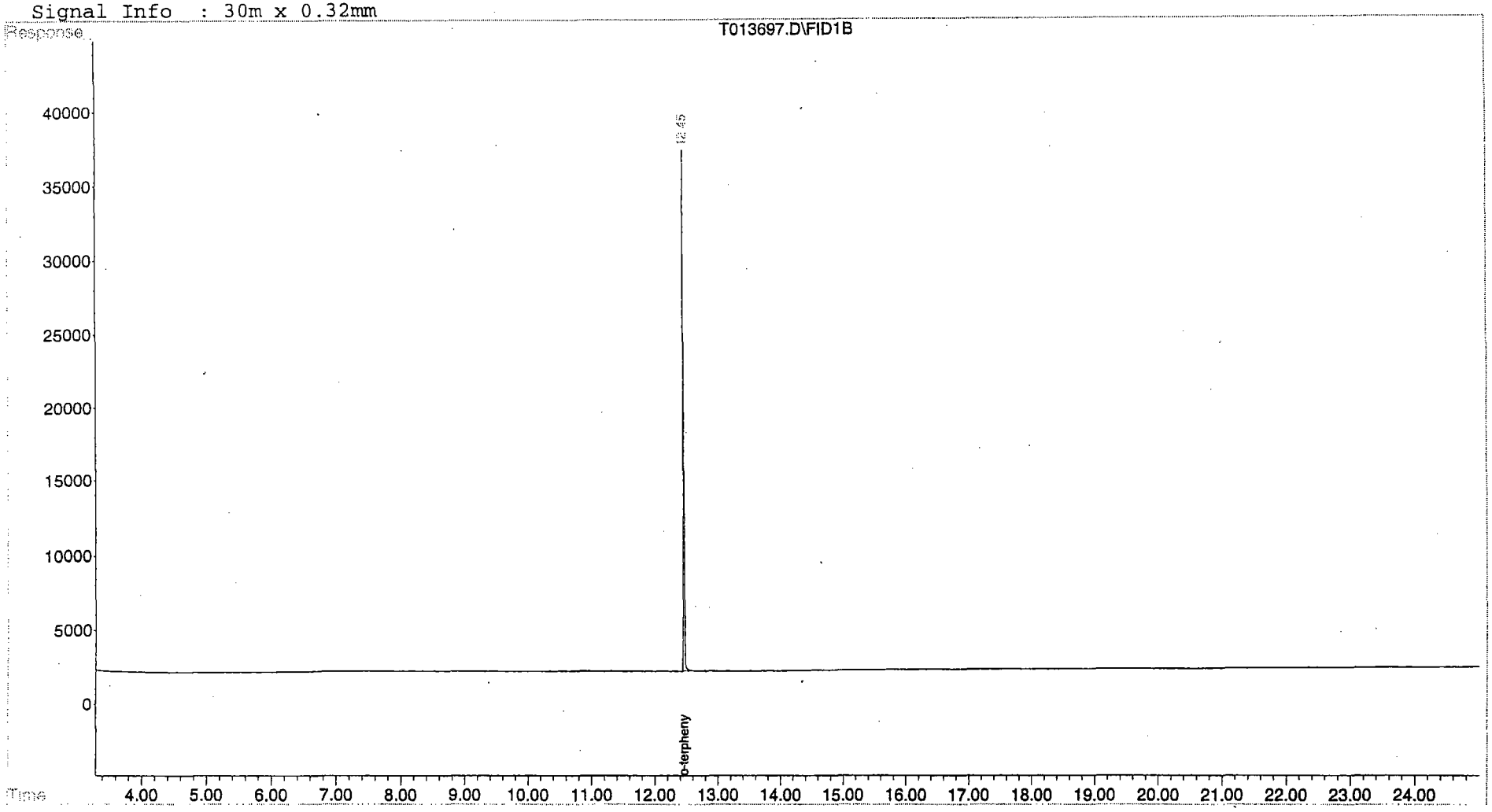
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011015\T013697.D Vial: 44
Acq On : 16 Oct 2001 11:15 am Operator: B.Patel
Sample : 1650804s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:01 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000021

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013698.D Vial: 45
Acq On : 16 Oct 2001 11:49 am Operator: B.Patel
Sample : 1650805s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	216764	8.506 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	85.06%#
Target Compounds			

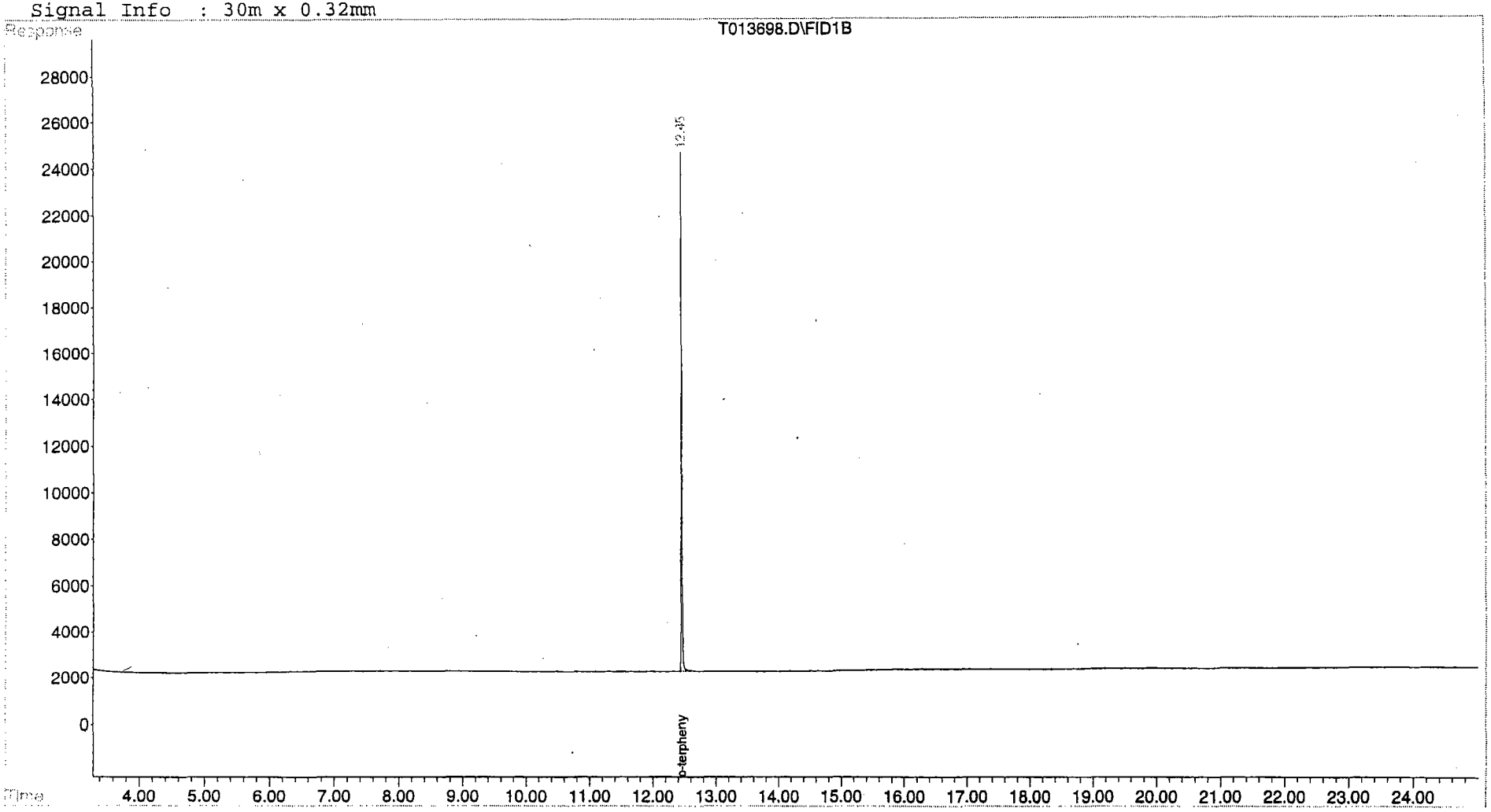
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011015\T013698.D Vial: 45
Acq On : 16 Oct 2001 11:49 am Operator: B.Patel
Sample : 1650805s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013699.D Vial: 46
Acq On : 16 Oct 2001 12:23 pm Operator: B.Patel
Sample : 1650806s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	226111	8.873 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	88.73%#
Target Compounds			

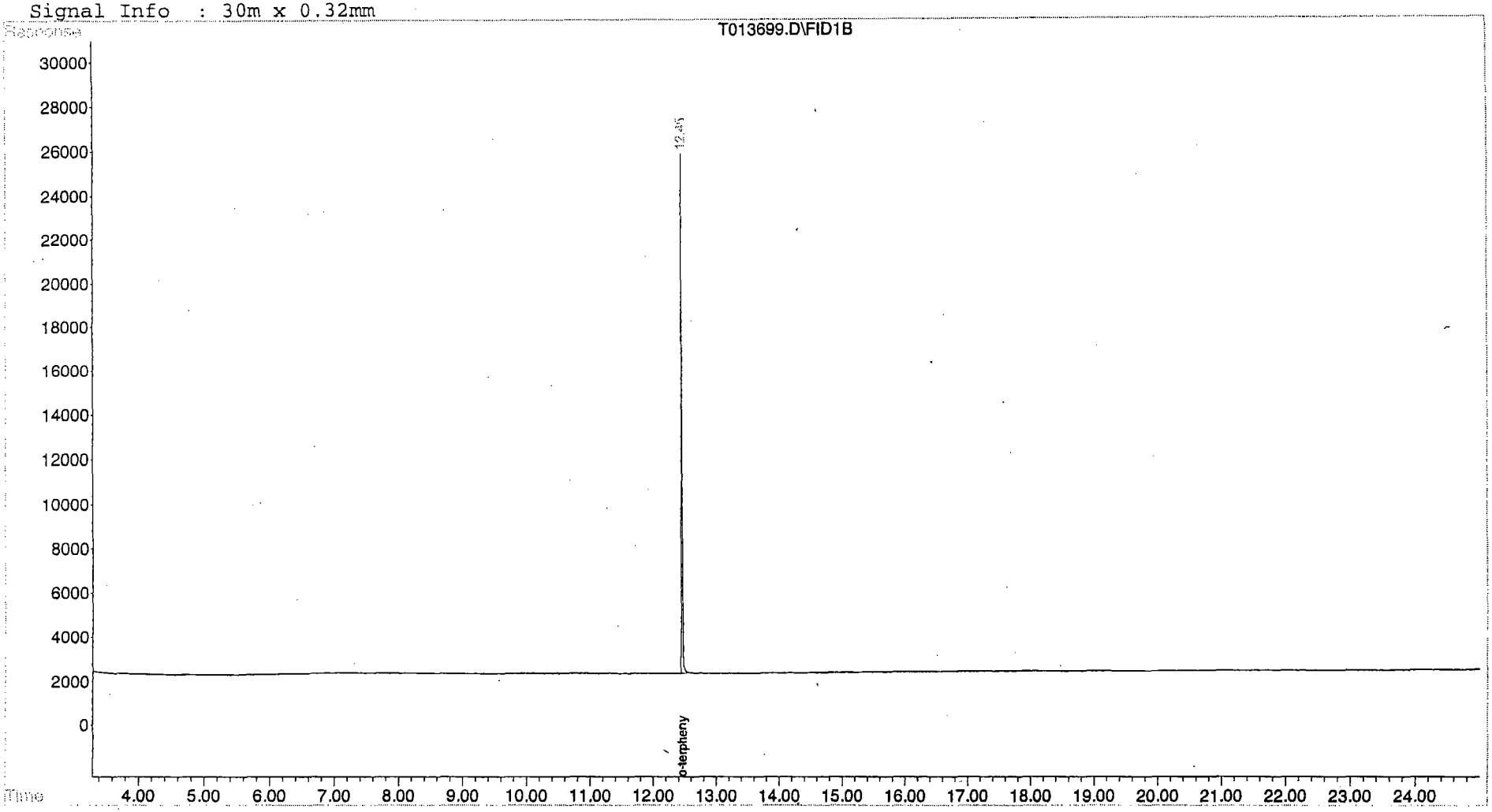
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat: Report

Data File : C:\HPCHEM\1\DATA\011015\T013699.D Vial: 46
Acq On : 16 Oct 2001 12:23 pm Operator: B.Patel
Sample : 1650806s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
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 10 / 19 / 01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW-84 for Solid Waste Analysis. I have personally examined the information contained in tl report and to the best of my knowledge, I believe that the submitted information is tr accurate, complete and meets the above referenced standards where applicable. I aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 639

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
639-1/8'	1650901	Soil	13-Oct-01 10:50	10/15/01
639-2/8'	1650902	Soil	13-Oct-01 11:05	10/15/01
639-3/8'	1650903	Soil	13-Oct-01 11:19	10/15/01
639-4/8'	1650904	Soil	13-Oct-01 11:25	10/15/01
639-5/8'	1650905	Soil	13-Oct-01 11:35	10/15/01
F. D./8'	1650906	Soil	13-Oct-01	10/15/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

10-19-01
Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

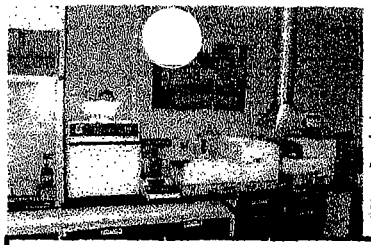
TPHC Conformance/Non-conformance Summary Report

		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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

10-19-01
Date



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: X21475
( )DERA (✓)OMA ( )Other: _____

Project No: 01-0001
Location: BLDG. 639 (FORMER)

Samplers Name / Company: Mark Lauer TVS- PWS07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	TPHC	% SOLIDS							Comments: Remarks / Preservation Method
						Analysis Parameters								
110504 01	639-1 8'	10-13-01	1050	SOIL	1	X	X							<4oc
02	639-2 8'	"	1105	"	"	"	"							"
03	639-3 8'	"	1119	"	"	"	"							"
04	639-4 8'	"	1125	"	"	"	"							"
05	639-5 8'	"	1135	"	"	"	"							"
06	FD 8'	"	—	"	"	"	"							"

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	10-15-01 730				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: H2O = 8.5'

000003

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 # :** **Location :** **UST Reg. # :**	16509 Bldg.639
Analysis :	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix :	Soil	**Date Extracted :**	15-Oct-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1650901	639-1	1.00	15.08	74.50	202	ND
1650902	639-2	1.00	15.02	73.95	204	ND
1650903	639-3	1.00	15.75	78.49	183	ND
1650904	639-4	1.00	15.10	75.86	198	ND
1650905	639-5	1.00	15.37	79.46	185	ND
1650906	FD	1.00	15.05	73.99	203	ND
METHOD BLANK	MB-2519	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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013680.D Vial: 27
Acq On : 16 Oct 2001 1:49 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.377	E3	-2.0	97	0.00
2	tC	C10	20.595	21.602	E3	-4.9	102	0.00
3	TC	C12	21.549	22.362	E3	-3.8	101	0.00
4	tC	C14	23.048	23.537	E3	-2.1	101	0.00
5	tC	C16	24.057	24.206	E3	-0.6	101	0.00
6	tC	C18	24.812	25.449	E3	-2.6	103	0.00
7	tC	C20	24.684	24.900	E3	-0.9	100	0.00
8	tC	C22	25.878	25.708	E3	0.7	100	0.00
9	tC	C24	26.326	26.033	E3	1.1	100	0.00
10	tC	C26	26.702	26.298	E3	1.5	100	0.00
11	tC	C28	26.061	25.816	E3	0.9	99	0.00
12	tC	C30	26.583	26.526	E3	0.2	99	0.00
13	tC	C32	26.447	26.300	E3	0.6	99	0.00
14	tC	C34	26.317	26.214	E3	0.4	100	0.00
15	tC	C36	26.661	27.110	E3	-1.7	102	0.00
16	tC	C38	24.528	25.753	E3	-5.0	106	0.00
17	tC	C40	21.994	24.509	E3	-11.4	114	0.00
18	tC	c42	19.638	23.560	E3	-20.0	122	0.00
19	TC	Pristane	23.812	23.703	E3	0.5	99	0.00
20	TC	Phytane	25.573	25.161	E3	1.6	100	0.00
21	sC	o-terphenyl	25.484	25.505	E3	-0.1	100	0.00
22	tC	TPHC - total	28.994	27.463	E3	5.3	103	-0.95#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013691.D Vial: 38
Acq On : 16 Oct 2001 7:53 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.508 E3	-2.7	98	0.00
2	tC	C10	20.595	21.645 E3	-5.1	102	0.00
3	TC	C12	21.549	22.587 E3	-4.8	102	0.00
4	tC	C14	23.048	23.954 E3	-3.9	103	0.00
5	tC	C16	24.057	24.677 E3	-2.6	103	0.00
6	tC	C18	24.812	24.781 E3	0.1	100	0.00
7	tC	C20	24.684	25.412 E3	-2.9	103	0.00
8	tC	C22	25.878	26.192 E3	-1.2	102	0.00
9	tC	C24	26.326	26.528 E3	-0.8	102	0.00
10	tC	C26	26.702	26.758 E3	-0.2	102	0.00
11	tC	C28	26.061	26.272 E3	-0.8	101	0.00
12	tC	C30	26.583	26.943 E3	-1.4	101	0.00
13	tC	C32	26.447	26.675 E3	-0.9	100	0.00
14	tC	C34	26.317	26.560 E3	-0.9	101	0.00
15	tC	C36	26.661	27.443 E3	-2.9	103	0.00
16	tC	C38	24.528	25.998 E3	-6.0	107	0.00
17	tC	C40	21.994	24.561 E3	-11.7	114	-0.01
18	tC	c42	19.638	23.252 E3	-18.4	120	0.00
19	TC	Pristane	23.812	23.971 E3	-0.7	100	0.00
20	TC	Phytane	25.573	25.721 E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	25.988 E3	-2.0	102	0.00
22	tC	TPHC - total	28.994	27.291 E3	5.9	103	1.02#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013702.D Vial: 49
Acq On : 16 Oct 2001 2:02 pm Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.632	E3	-3.4	99	0.00
2	tC	C10	20.595	22.169	E3	-7.6	104	0.00
3	TC	C12	21.549	23.089	E3	-7.1	105	0.00
4	tC	C14	23.048	24.435	E3	-6.0	105	0.00
5	tC	C16	24.057	25.180	E3	-4.7	105	0.00
6	tC	C18	24.812	26.378	E3	-6.3	107	0.00
7	tC	C20	24.684	26.011	E3	-5.4	105	0.00
8	tC	C22	25.878	26.755	E3	-3.4	104	0.00
9	tC	C24	26.326	27.054	E3	-2.8	104	0.00
10	tC	C26	26.702	27.246	E3	-2.0	103	0.00
11	tC	C28	26.061	26.758	E3	-2.7	103	0.00
12	tC	C30	26.583	27.484	E3	-3.4	103	0.00
13	tC	C32	26.447	27.211	E3	-2.9	103	0.00
14	tC	C34	26.317	27.042	E3	-2.8	103	0.00
15	tC	C36	26.661	27.851	E3	-4.5	105	0.00
16	tC	C38	24.528	26.291	E3	-7.2	109	0.00
17	tC	C40	21.994	24.624	E3	-12.0	115	0.00
18	tC	c42	19.638	22.774	E3	-16.0	118	0.00
19	TC	Pristane	23.812	24.656	E3	-3.5	103	0.00
20	TC	Phytane	25.573	26.295	E3	-2.8	104	0.00
21	sC	o-terphenyl	25.484	26.527	E3	-4.1	105	0.00
22	tC	TPHC - total	28.994	27.626	E3	4.7	104	0.00

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013713.D Vial: 11
Acq On : 16 Oct 2001 8:07 pm Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	19.052	E3	-5.7	101	0.00
2	tC	C10	20.595	20.931	E3	-1.6	98	0.00
3	TC	C12	21.549	22.928	E3	-6.4	104	0.00
4	tC	C14	23.048	24.345	E3	-5.6	105	0.00
5	tC	C16	24.057	25.134	E3	-4.5	104	0.00
6	tC	C18	24.812	26.209	E3	-5.6	106	0.00
7	tC	C20	24.684	25.831	E3	-4.6	104	0.00
8	tC	C22	25.878	26.778	E3	-3.5	104	0.00
9	tC	C24	26.326	27.174	E3	-3.2	104	0.00
10	tC	C26	26.702	27.410	E3	-2.7	104	0.00
11	tC	C28	26.061	26.962	E3	-3.5	104	0.00
12	tC	C30	26.583	27.669	E3	-4.1	104	0.00
13	tC	C32	26.447	27.437	E3	-3.7	103	0.00
14	tC	C34	26.317	27.299	E3	-3.7	104	0.00
15	tC	C36	26.661	28.259	E3	-6.0	106	0.00
16	tC	C38	24.528	26.926	E3	-9.8	111	0.00
17	tC	C40	21.994	25.609	E3	-16.4	119	0.00
18	tC	c42	19.638	24.540	E3	-25.0	127	0.00
19	TC	Pristane	23.812	24.898	E3	-4.6	104	0.00
	TC	Phytane	25.573	26.107	E3	-2.1	104	0.00
1	sC	o-terphenyl	25.484	26.489	E3	-3.9	104	0.00
22	tC	TPHC - total	28.994	28.360	E3	2.2	107	0.00

(#) = 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 # :**	16509
	DPW. SELFM-PW-EV	**Location :**	Bldg.639
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1650901			10.00	9.85	**98.53**
1650902			10.00	9.51	**95.09**
1650903			10.00	8.76	**87.61**
1650904			10.00	8.82	**88.24**
1650905			10.00	8.38	**83.75**
1650906			10.00	8.88	**88.76**
METHOD BLANK	MB-2519		10.00	10.39	**103.90**

Surrogate Added : **o-Terphenyl**

Matrix Spike/ Duplicate Recovery Report
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 # :** **Location :** **UST Reg. # :**	16509 Bldg.639
Analysis:	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1650602MS	1000	0.00	839.28	83.93	75-125
1650602MSD	1000	0.00	853.53	85.35	75-125
			RPD	**1.68**	**20.00**

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

Client :	U.S. Army	**Project # :**	16509
	DPW. SELFM-PW-EV	**Location :**	Bldg.639
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	13-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2520	15-Oct-01	1000	806.30	80.63	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013685.D Vial: 32
Acq On : 16 Oct 2001 4:34 am Operator: B.Patel
Sample : MB-2519 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:33 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	264784	10.390 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 103.90%#	
Target Compounds			

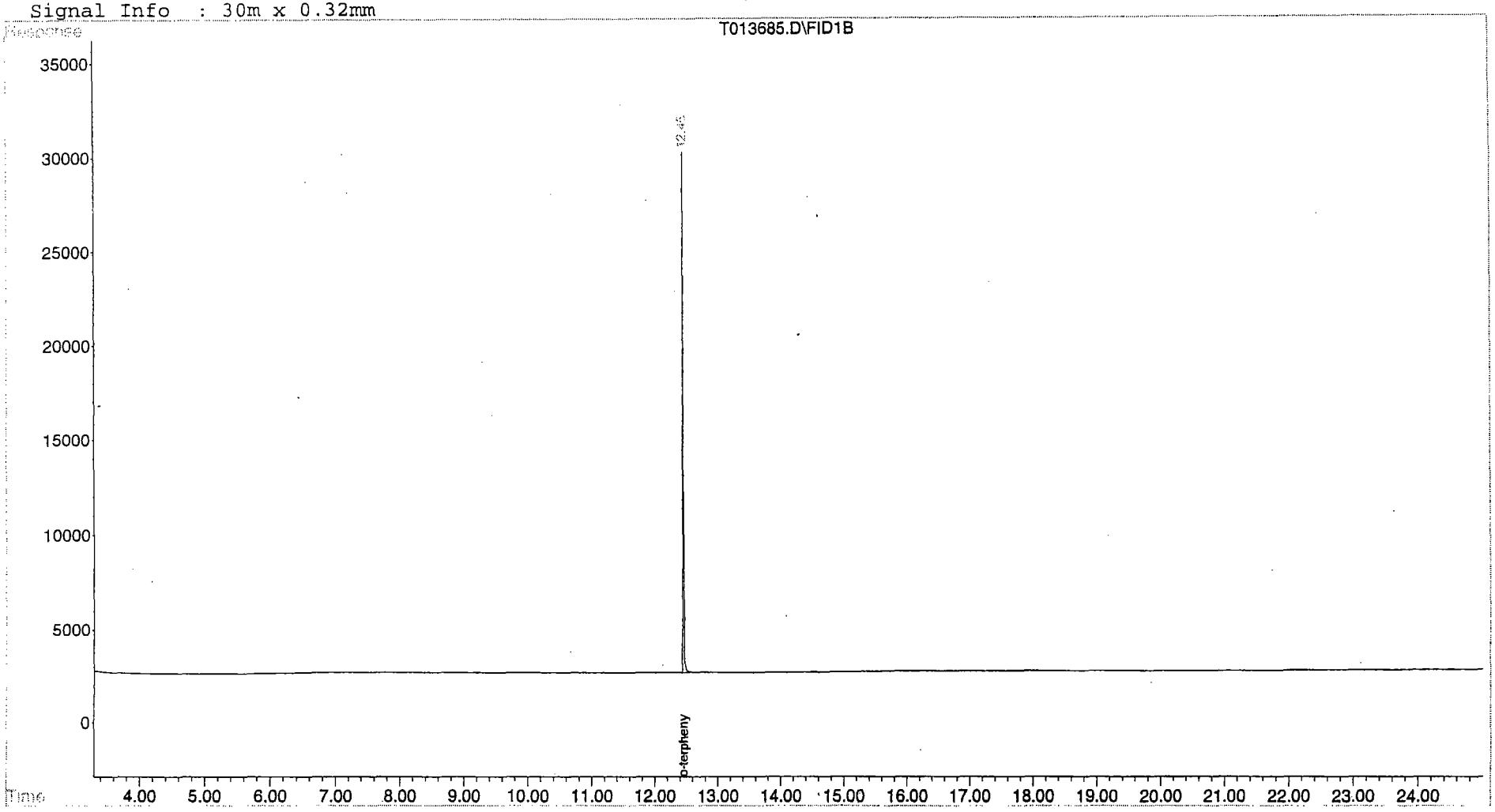
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011015\T013685.D Vial: 32
Acq On : 16 Oct 2001 4:34 am Operator: B.Patel
Sample : MB-2519 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:33 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000014

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013700.D Vial: 47
Acq On : 16 Oct 2001 12:56 pm Operator: B.Patel
Sample : 1650901s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	251091	9.853 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	98.53%#
Target Compounds			

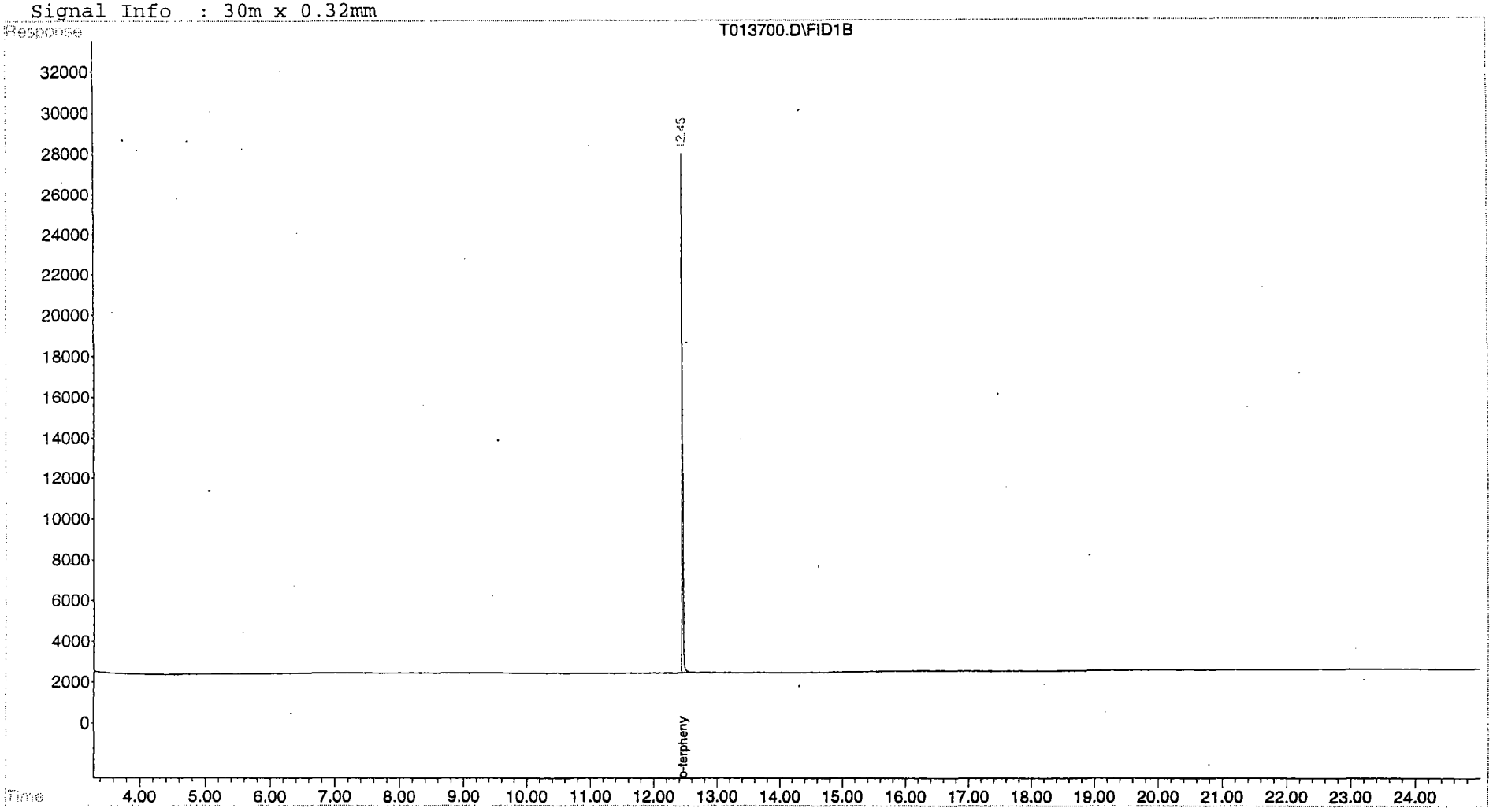
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat. Report

Data File : C:\HPCHEM\1\DATA\011015\T013700.D Vial: 47
Acq On : 16 Oct 2001 12:56 pm Operator: B.Patel
Sample : 1650901s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000016

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013701.D Vial: 48
Acq On : 16 Oct 2001 1:29 pm Operator: B.Patel
Sample : 1650902s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	242324	9.509 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	95.09%#
Target Compounds			

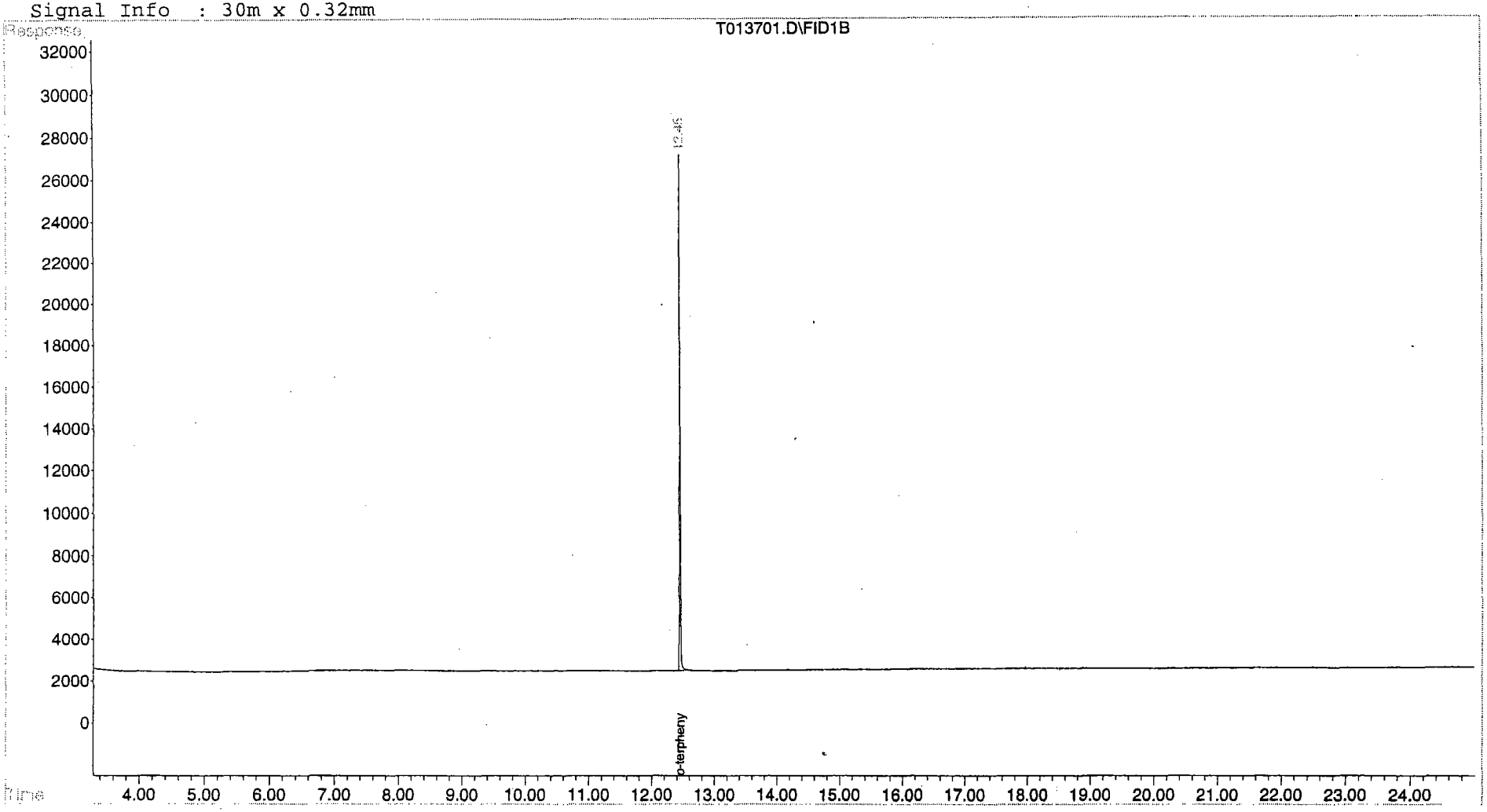
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011015\T013701.D Vial: 48
Acq On : 16 Oct 2001 1:29 pm Operator: B.Patel
Sample : 1650902s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



010018

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013703.D Vial: 1
Acq On : 16 Oct 2001 2:35 pm Operator: B.Patel
Sample : 1650903s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:03 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	223264	8.761 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	87.61%#
Target Compounds			

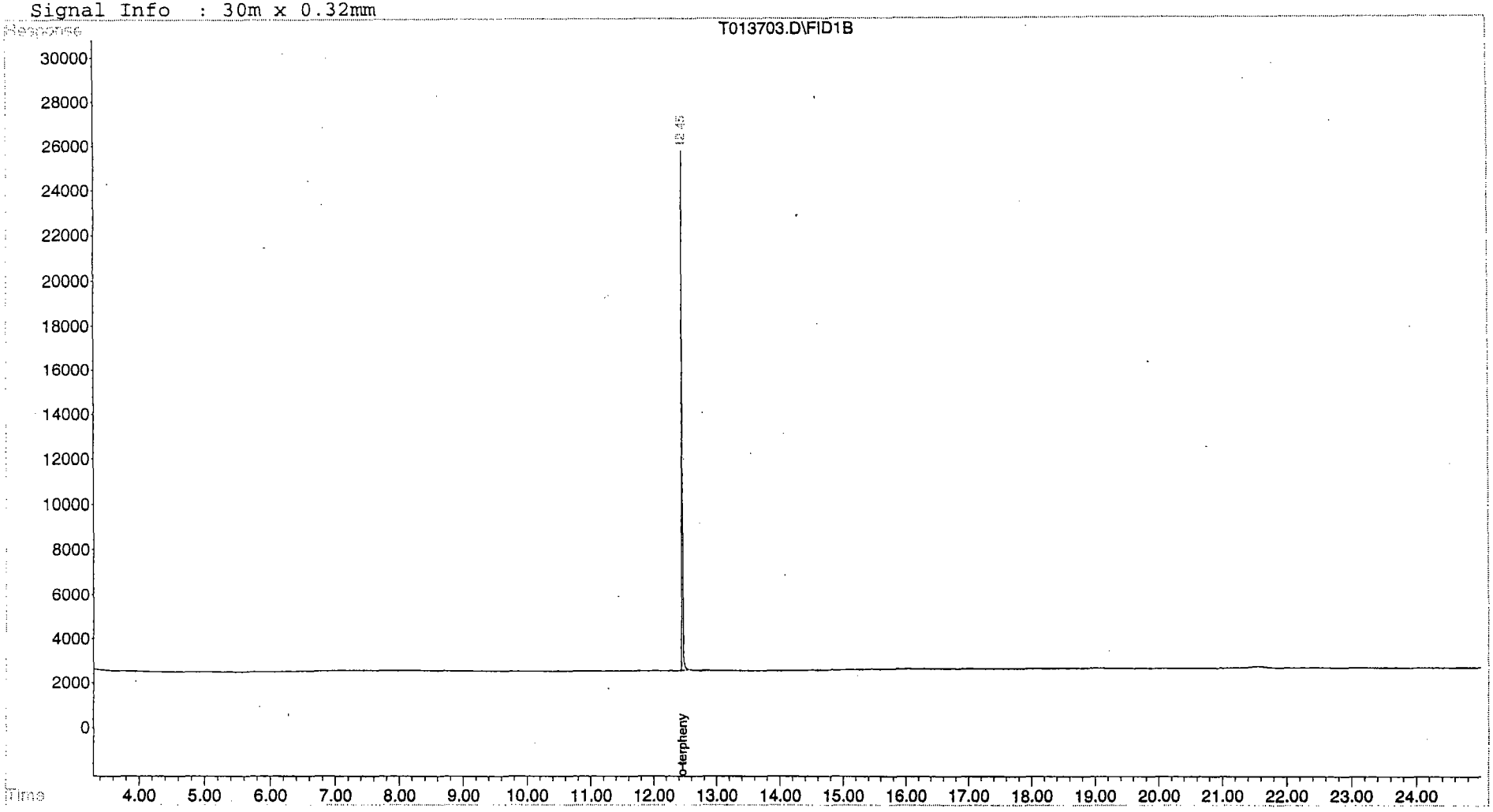
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011015\T013703.D Vial: 1
Acq On : 16 Oct 2001 2:35 pm Operator: B.Patel
Sample : 1650903s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 15:03 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000020

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013704.D Vial: 2
Acq On : 16 Oct 2001 3:09 pm Operator: B.Patel
Sample : 1650904s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 17 7:53 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	224875	8.824 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	88.24%#
Target Compounds			

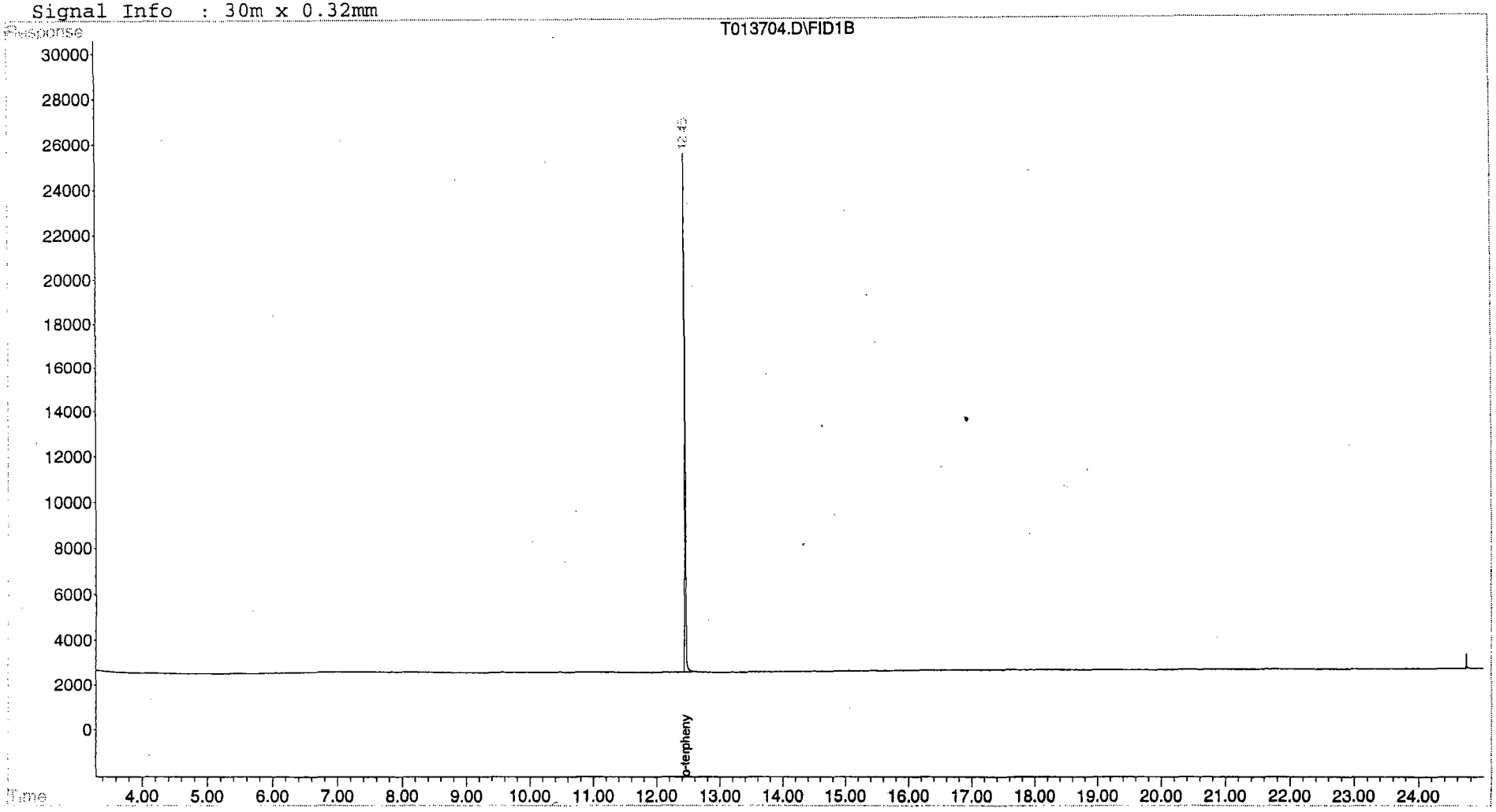
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati Report

Data File : C:\HPCHEM\1\DATA\011015\T013704.D Vial: 2
Acq On : 16 Oct 2001 3:09 pm Operator: B.Patel
Sample : 1650904s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 17 7:53 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



220022

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013705.D Vial: 3
Acq On : 16 Oct 2001 3:42 pm Operator: B.Patel
Sample : 1650905s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 17 7:54 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	213414	8.375 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	83.75%#
Target Compounds			
22) tC TPHC - total	12.45	952762	32.861 mg/L m

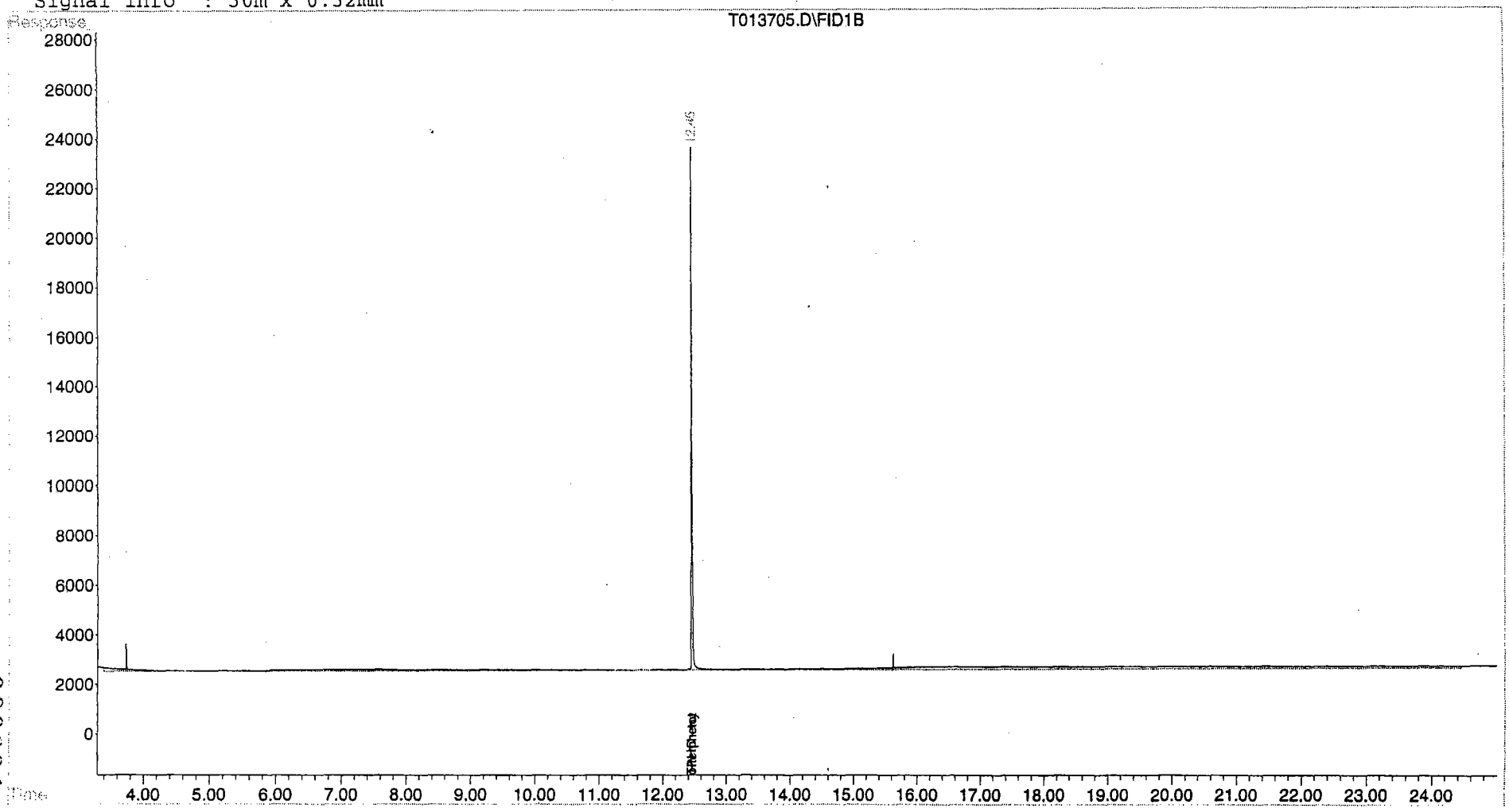
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat: Report

Data File : C:\HPCHEM\1\DATA\011015\T013705.D Vial: 3
Acq On : 16 Oct 2001 3:42 pm Operator: B.Patel
Sample : 1650905s Inst .: GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 17 7:54 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000024

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013706.D Vial: 4
Acq On : 16 Oct 2001 4:15 pm Operator: B.Patel
Sample : 1650906s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 17 7:54 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	226203	8.876 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	88.76%#
Target Compounds			

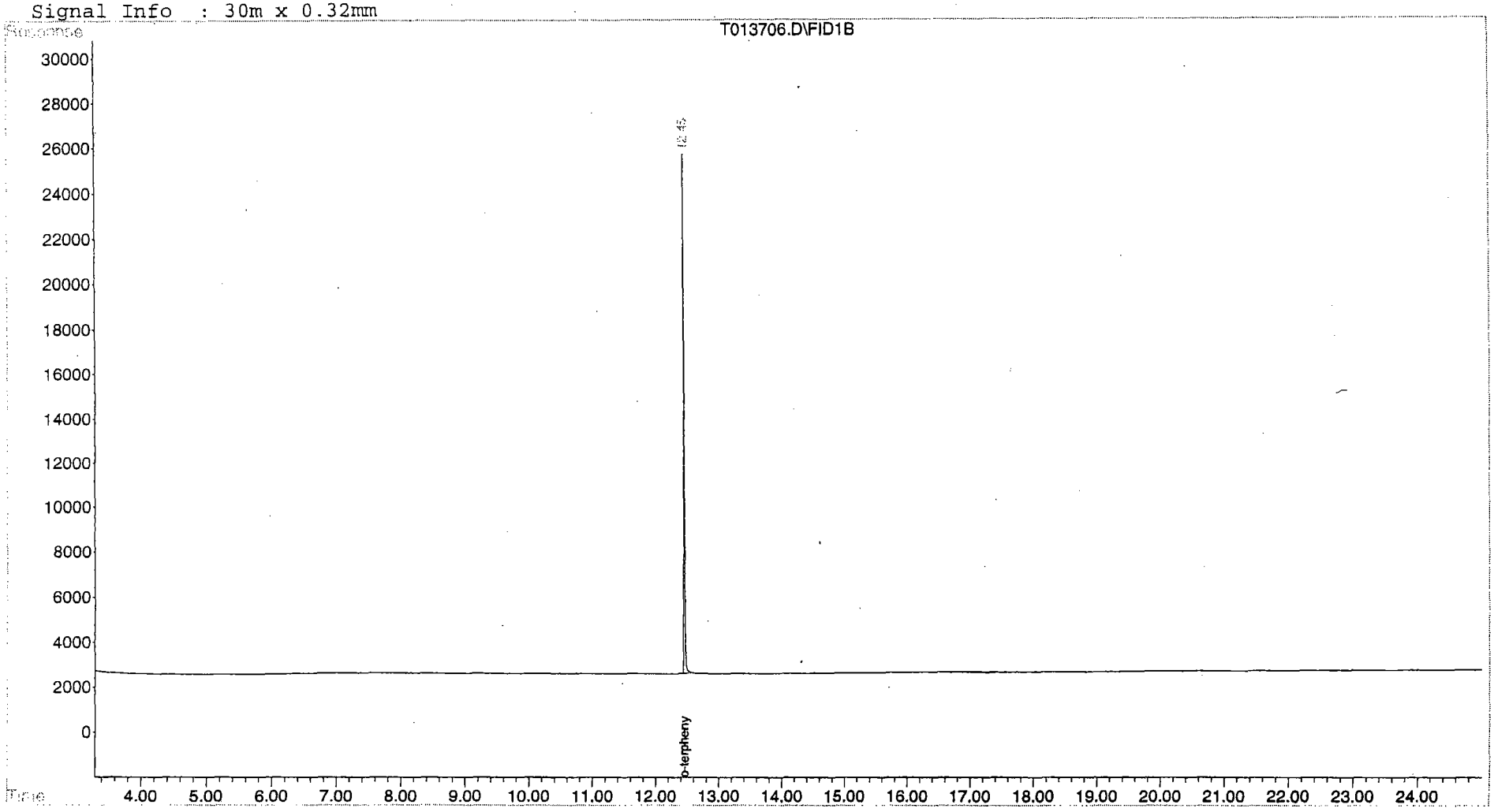
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat: Report

Data File : C:\HPCHEM\1\DATA\011015\T013706.D Vial: 4
Acq On : 16 Oct 2001 4:15 pm Operator: B.Patel
Sample : 1650906s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 17 7:54 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



920026

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
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 10/19/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW-8 for Solid Waste Analysis. I have personally examined the information contained in t report and to the best of my knowledge, I believe that the submitted information is tr accurate, complete and meets the above referenced standards where applicable. I aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-4359 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. 640

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
640-1/6'	1656701	Soil	08-Nov-01 10:28	11/08/01
640-2/8.5'	1656702	Soil	08-Nov-01 10:50	11/08/01
640-3/6'	1656703	Soil	08-Nov-01 11:20	11/08/01
640-4/8.5'	1656704	Soil	08-Nov-01 11:41	11/08/01
640-5/8.5'	1656705	Soil	08-Nov-01 12:00	11/08/01
FD/6'	1656706	Soil	08-Nov-01	11/08/01
T.B.	1656707	Methanol	08-Nov-01	11/08/01

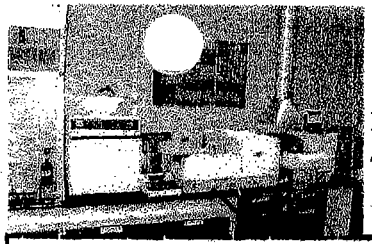
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-20-01
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 #: X2 1475
( )DERA (✓)OMA ( )Other:
Project No:
Location: BLDG. 640 (FORMER)
Samplers Name / Company: MARK LAURA - TVS-PWS 07

LIMS/Work Order #		Sample Location		Date	Time	Sample Type	# bottles	VOA+15	TPHC	%SOLID				HNU (PPM)	Remarks / Preservation Method
16567	1	640-1	6'	11-8-01	1028	SOIL	2	X	X	X	15-05			700	2909 <4°C
	2	640-2	8.5'	"	1050	"	2	X	X	X	15-24			300	2910 "
/	3	640-3	6'	"	1120	"	2	X	X	X	15-18			900	2911 "
	4	640-4	8.5'	"	1141	"	2	X	X	X	15-05			200	2912 "
	5	640-5	8.5'	"	1200	"	2	X	X	X	15-10	15-08	15-22	100	2913 "
	6	FD-	6'	"	—	"	2	X	X	X	15-08			—	2914 "
	7	T.B.		"	—	METH.	1	X						—	2908

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	11-8-01 1345				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, (X)Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ___ Days, ( )ASAP Verbal ___ Hrs.

Remarks: H20 = 9'

print legibly

METHOD SUMMARY

Method Summary

NJDEP Method 8260
Gas Chromatographic Determination of Volatiles in Soil

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 is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, 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	NA
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 NA	
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 NA	
c. Acid Fraction NA	
If not met, were the calculations checked and the results qualified as "estimated"?	
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	Yes
a. VOA Fraction	
b. B/N Fraction NA	
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 NA
    c. Acid Fraction NA

11. Extraction Holding Time Met — NA

If not met, list the number of days exceeded for each sample: _____

12. Analysis Holding Time Met — YES

If not met, list the number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager: _____ Date: 11-20-01

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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

11-20-01
Date

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16567

Site: Bldg. 640

	Date	Hold Time
Date Sampled	11/08/01	NA
Receipt/Refrigeration	11/08/01	NA
Extractions		
1. TPHC	11/08/01	14 days
Analyses		
1. Volatile Organics	11/09/01	14 days
2. TPHC	11/09/01	40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	Method Detection Limit
J	:	Compound identified below detection limit
B	:	Compound found in blank
D	:	Results are from a dilution of the sample
U	:	Compound searched for but not detected
E	:	Compound exceeds calibration limit
PQL	:	Practical Quantitation Limit
NLE	:	No limit established
RT	:	Retention time

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

MB 9Nov01

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010375.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 0 Date Analyzed: 11/9/01

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

MB 9Nov01

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010375.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 0 Date Analyzed: 11/9/01

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 9Nov01**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010375.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 0 Date Analyzed: 11/9/01

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 640-1

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656701

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VB010377.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 22.26 Date Analyzed: 11/9/01

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	240	U
75718	Dichlorodifluoromethane	490	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	370	U
74-83-9	Bromomethane	240	U
75-00-3	Chloroethane	370	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	1500	
156-60-5	trans-1,2-Dichloroethene	240	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	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. **640-1**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656701

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VB010377.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 22.26 Date Analyzed: 11/9/01

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	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	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. **640-5**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656705

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VB010381.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 27.1 Date Analyzed: 11/9/01

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.	unknown	34.45	1500	J

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656706

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010382.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 25.74 Date Analyzed: 11/9/01

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	950	U
107131	Acrylonitrile	950	U
75650	tert-Butyl alcohol	1800	U
1634044	Methyl-tert-Butyl ether	410	U
108203	Di-isopropyl ether	270	U
75718	Dichlorodifluoromethane	540	U
74-87-3	Chloromethane	140	U
75-01-4	Vinyl Chloride	410	U
74-83-9	Bromomethane	270	U
75-00-3	Chloroethane	410	U
75-69-4	Trichlorofluoromethane	270	U
75-35-4	1,1-Dichloroethene	140	U
67-64-1	Acetone	270	U
75-15-0	Carbon Disulfide	140	U
75-09-2	Methylene Chloride	270	J
156-60-5	trans-1,2-Dichloroethene	270	U
75-34-3	1,1-Dichloroethane	140	U
108-05-4	Vinyl Acetate	410	U
78-93-3	2-Butanone	410	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	270	U
71-43-2	Benzene	140	U
107-06-2	1,2-Dichloroethane	270	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	270	U
10061-01-5	cis-1,3-Dichloropropene	140	U
108-10-1	4-Methyl-2-Pentanone	270	U
108-88-3	Toluene	140	U
10061-02-6	trans-1,3-Dichloropropene	270	U
79-00-5	1,1,2-Trichloroethane	270	U
127-18-4	Tetrachloroethene	140	U
591-78-6	2-Hexanone	270	U
124-48-1	Dibromochloromethane	270	U
108-90-7	Chlorobenzene	140	U
100-41-4	Ethylbenzene	270	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656706

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010382.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 25.74 Date Analyzed: 11/9/01

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	410	U
95-47-6	o-Xylene	270	U
100-42-5	Styrene	270	U
75-25-2	Bromoform	270	U
79-34-5	1,1,2,2-Tetrachloroethane	270	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. FD

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656706

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010382.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 25.74 Date Analyzed: 11/9/01

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. 005911-04-6	Nonane, 3-methyl-	28.21	7900	JN
2.	unknown	28.63	5900	J
3.	unknown	29.09	20000	J
4.	unknown	30.16	7500	J
5. 001678-93-9	Cyclohexane, butyl-	32.28	6800	JN
6.	unknown	32.90	6000	J
7. 001074-43-7	Benzene, 1-methyl-3-propyl-	33.47	11000	JN
8.	unknown	33.64	8700	J
9.	unknown	33.76	8100	J
10.	unknown	34.54	6800	J

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656707

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010383.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 0 Date Analyzed: 11/9/01

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

TB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656707

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010383.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 0 Date Analyzed: 11/9/01

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. TB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1656707

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010383.D

Level: (low/med) MED Date Received: 11/8/01

% Moisture: not dec. 0 Date Analyzed: 11/9/01

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	27.86	5200	J
2.	unknown	29.68	3100	J
3.	unknown	31.08	3700	J
4.	unknown	31.62	4800	J
5.	unknown	32.41	5200	J
6.	unknown	33.23	3700	J
7.	unknown	33.40	2400	J
8.	unknown	34.11	3700	J
9.	unknown	34.46	7600	J
10.	unknown	34.59	4700	J

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Lab File ID: VB010373.D BFB Injection Date: 11/9/01

Instrument ID: GCMS#2 BFB Injection Time: 10:42

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

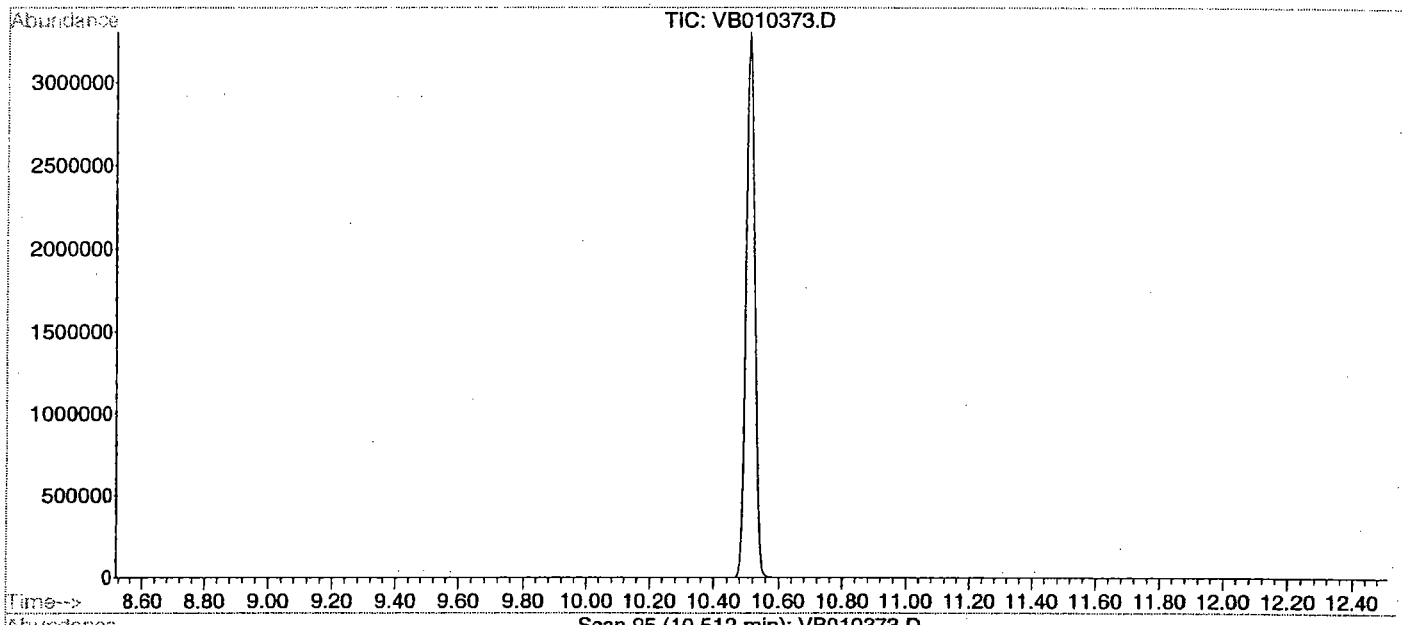
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.6
75	30.0 - 66.0% of mass 95	51.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	86.4
175	4.0 - 9.0% of mass 174	7.6 (8.8)1
176	93.0 - 101.0% of mass 174	83.5 (96.7)1
177	5.0 - 9.0% of mass 176	5.1 (6.1)2

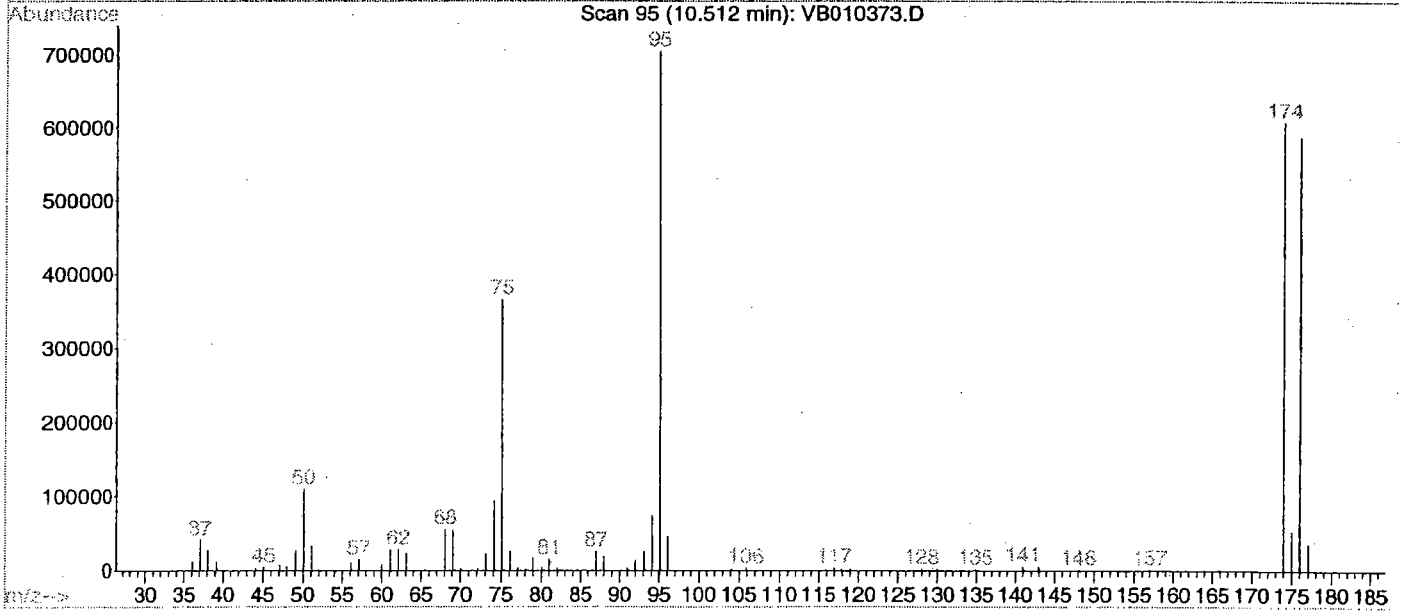
1-Value is % mass 174 2-Value is % mass 176

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	VB010374.D	11/9/01	11:11
02	MB 9NOV01	MB	VB010375.D	11/9/01	12:04
03	640-1	1656701	VB010377.D	11/9/01	13:41
04	640-2	1656702	VB010378.D	11/9/01	14:22
05	640-3	1656703	VB010379.D	11/9/01	15:03
06	640-4	1656704	VB010380.D	11/9/01	15:44
07	640-5	1656705	VB010381.D	11/9/01	16:25
08	FD	1656706	VB010382.D	11/9/01	17:06
09	TB	1656707	VB010383.D	11/9/01	17:47
10	640-5 MS	1656705 MS	VB010384.D	11/9/01	18:28
11	640-5 MSD	1656705 MSD	VB010385.D	11/9/01	19:09

Data File : C:\HPCHEM\1\DATA\011109\VB010373.D Vial: 1
Acq On : 9 Nov 2001 10:42 am Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 95

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	110280	PASS
75	95	30	60	51.9	366016	PASS
95	95	100	100	100.0	705344	PASS
96	95	5	9	6.6	46640	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.4	609216	PASS
175	174	5	9	8.8	53472	PASS
176	174	95	101	96.7	588864	PASS
177	176	5	9	6.1	36104	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011109\VB010374.D Vial: 2
Acq On : 9 Nov 2001 11:11 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	72	0.00
2	t	Acrolein	0.212	0.260	-22.6	105	0.00
3	t	Acrylonitrile	0.709	0.810	-14.2	98	0.00
4	t	tert-Butyl alcohol	0.132	0.174	-31.8#	115	0.00
5	t	Methyl-tert-Butyl ether	4.909	5.782	-17.8	104	0.00
6	t	Di-isopropyl ether	1.413	1.680	-18.9	105	0.00
7	T	Dichlorodifluoromethane	2.522	1.985	21.3	66	0.00
8	TP	Chloromethane	2.439	2.384	2.3	87	0.00
9	TC	Vinyl Chloride	2.453	2.419	1.4	88	0.00
10	T	Bromomethane	1.356	1.343	1.0	86	0.00
11	T	Chloroethane	1.297	1.398	-7.8	91	0.00
12	T	Trichlorofluoromethane	3.761	3.868	-2.8	89	0.00
13	MC	1,1-Dichloroethene	2.821	3.302	-17.1	102	0.00
14	T	Acetone	0.772	0.842	-9.1	88	0.00
15	T	Carbon Disulfide	5.318	5.503	-3.5	90	0.00
16	T	Methylene Chloride	1.852	2.062	-11.3	99	0.00
17	T	trans-1,2-Dichloroethene	2.484	2.882	-16.0	105	0.00
18	TP	1,1-Dichloroethane	2.843	3.501	-23.1	101	0.00
19	T	Vinyl Acetate	3.397	4.278	-25.9#	109	0.00
20	T	2-Butanone	0.768	0.953	-24.1	95	0.00
21	T	cis-1,2-Dichloroethene	2.495	2.949	-18.2	107	0.00
22	TC	Chloroform	3.142	3.632	-15.6	100	0.00
23	T	1,1,1-Trichloroethane	2.597	3.058	-17.8	101	0.00
24	T	Carbon Tetrachloride	2.153	2.637	-22.5	105	0.00
25	S	1,2-Dichloroethane-d4	2.334	2.389	-2.4	74	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	73	0.00
27	TM	Benzene	1.023	1.154	-12.8	98	0.00
28	T	1,2-Dichloroethane	0.377	0.438	-16.2	100	0.00
29	TM	Trichloroethene	0.290	0.342	-17.9	101	0.00
30	TC	1,2-Dichloropropane	0.252	0.302	-19.8	104	0.00
31	T	Bromodichloromethane	0.310	0.361	-16.5	100	0.00
32	T	2-Chloroethyl vinyl ether	0.096	0.111	-15.6	102	0.00
33	T	cis-1,3-Dichloropropene	0.370	0.436	-17.8	104	0.00
34	T	4-Methyl-2-Pentanone	0.076	0.096	-26.3#	104	0.00
35	S	Toluene-d8	1.143	1.215	-6.3	77	0.00
36	TCM	Toluene	1.137	1.326	-16.6	99	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	77	0.00
38	T	trans-1,3-Dichloropropene	1.281	1.452	-13.3	104	0.00
39	T	1,1,2-Trichloroethane	0.850	0.939	-10.5	99	0.00
40	T	Tetrachloroethene	1.180	1.263	-7.0	101	0.00
41	T	2-Hexanone	0.512	0.636	-24.2	106	0.00
42	T	Dibromochloromethane	0.806	0.887	-10.0	100	0.00
43	TMP	Chlorobenzene	2.786	3.111	-11.7	99	0.00
44	TC	Ethylbenzene	4.778	5.419	-13.4	101	0.00
45	T	m+p-Xylenes	1.737	1.920	-10.5	100	0.00
46	T	o-Xylene	3.720	4.114	-10.6	101	0.00
47	T	Styrene	3.084	3.417	-10.8	99	0.00
48	TP	Bromoform	0.484	0.481	0.6	95	0.00
49	S	Bromofluorobenzene	1.670	1.735	-3.9	77	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.075	1.189	-10.6	100	0.00
51	T	1,3-Dichlorobenzene	2.389	2.587	-8.3	99	0.00
52	T	1,4-Dichlorobenzene	2.535	2.732	-7.8	100	0.00
53	T	1,2-Dichlorobenzene	2.351	2.555	-8.7	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011109\VB010374.D Vial: 2
Acq On : 9 Nov 2001 11:11 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	t	Napthalene	3.707	4.361	-17.6	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VB010374.D M262NAP.M Fri Nov 16 10:46:08 2001

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Lab File ID: VB010244.D BFB Injection Date: 10/24/01

Instrument ID: GCMS#2 BFB Injection Time: 14:50

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	48.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	84.8
175	4.0 - 9.0% of mass 174	6.7 (7.8)1
176	93.0 - 101.0% of mass 174	83.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.7 (6.9)2

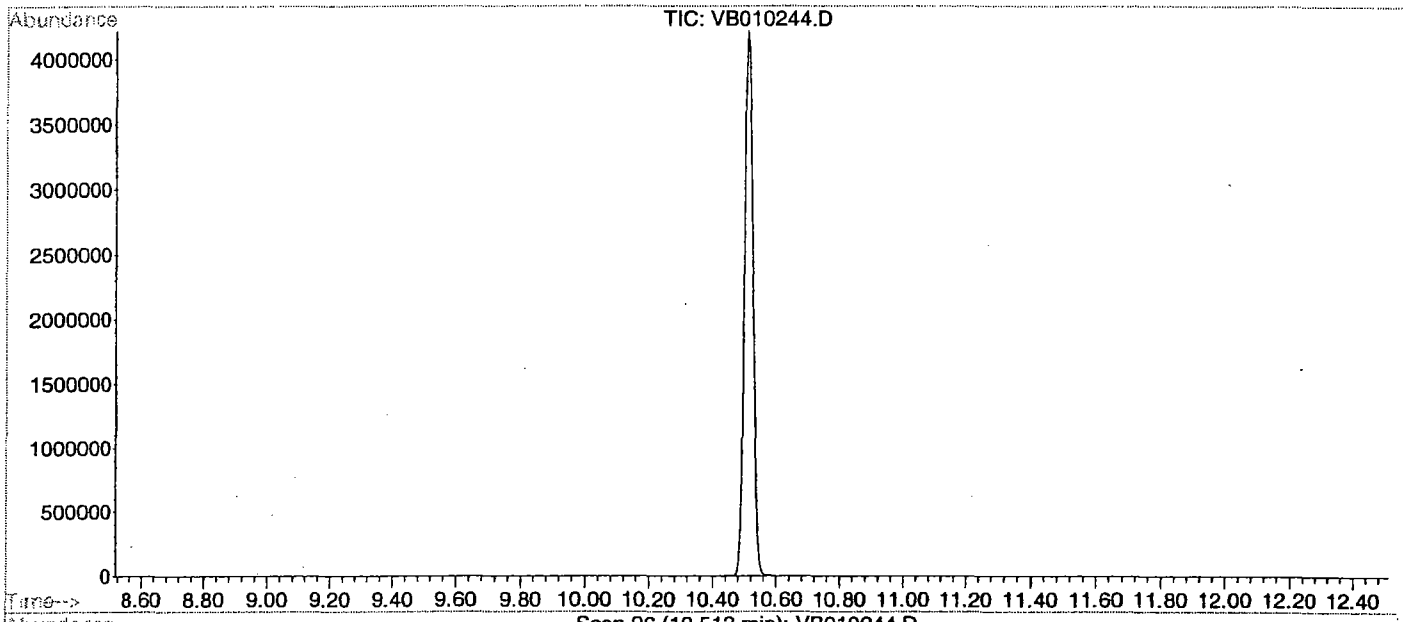
1-Value is % mass 174 2-Value is % mass 176

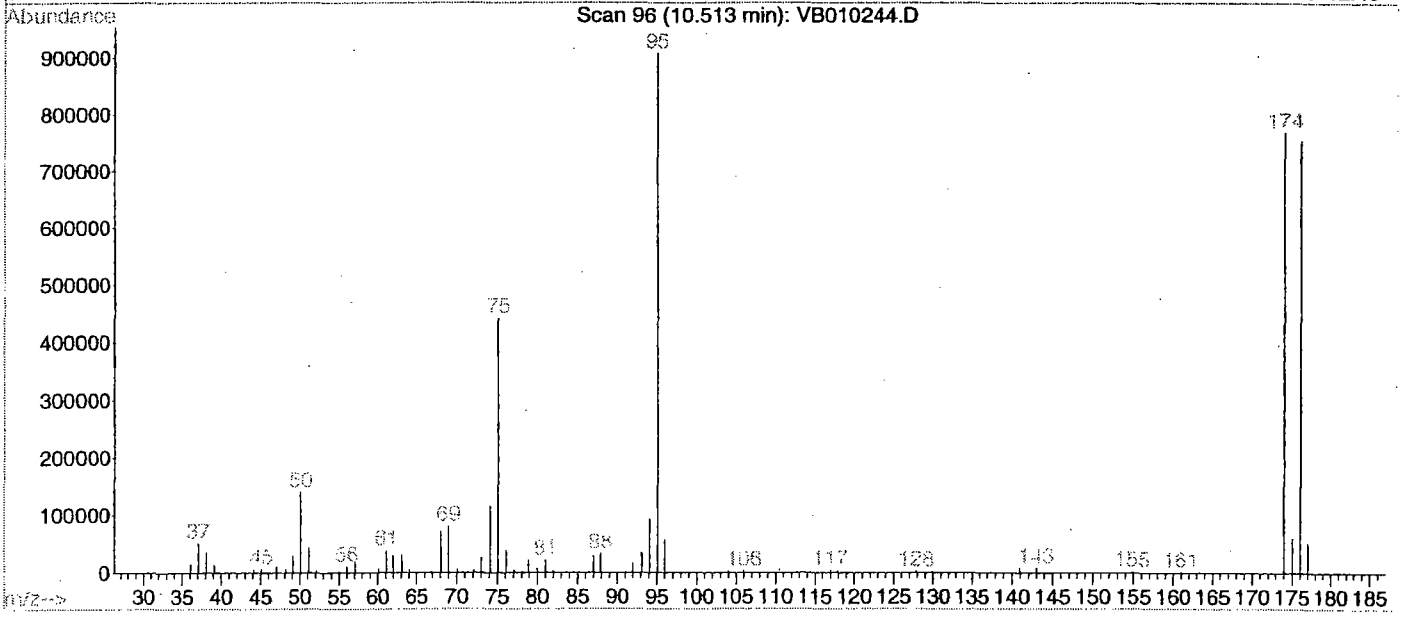
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010245.D	10/24/01	15:18
02	VSTD100	VSTD100	VB010246.D	10/24/01	16:12
03	VSTD050	VSTD050	VB010247.D	10/24/01	16:57
04	VSTD010	VSTD010	VB010248.D	10/24/01	17:42
05	VSTD005	VSTD005	VB010249.D	10/24/01	18:26

Data File : C:\HPCHEM\1\DATA\011024\VB010244.D
Acq On : 24 Oct 2001 2:50 pm
Sample : BFB Tune
Misc : BFB Tune
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.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 96

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	139904	PASS
75	95	30	60	48.7	442432	PASS
95	95	100	100	100.0	908672	PASS
96	95	5	9	6.3	57112	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.8	770432	PASS
175	174	5	9	7.8	60448	PASS
176	174	95	101	98.0	755200	PASS
177	176	5	9	6.9	51944	PASS

Response Factor Report GC VOA 2

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration

Calibration Files
100 =VB010246.D 50 =VB010247.D 20 =VB010245.D
10 =VB010248.D 5 =VB010249.D

		Compound	100	50	20	10	5	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------						
2)	t	Acrolein	0.231	0.205	0.177	0.217	0.230	0.212	10.43
3)	t	Acrylonitrile	0.737	0.694	0.589	0.743	0.782	0.709	10.44
4)	t	tert-Butyl alcohol	0.143	0.127	0.109	0.142	0.139	0.132	10.92
5)	t	Methyl-tert-Butyl eth	5.273	4.947	3.990	5.151	5.185	4.909	10.74
6)	t	Di-isopropyl ether	1.585	1.430	1.150	1.492	1.409	1.413	11.47
7)	T	Dichlorodifluorometha	2.661	2.418	2.155	2.671	2.705	2.522	9.31
8)	TP	Chloromethane	2.569	2.356	1.952	2.580	2.739	2.439	12.47
9)	TC	Vinyl Chloride	2.552	2.416	1.979	2.608	2.712	2.453	11.65
10)	T	Bromomethane	1.377	1.199	1.114	1.381	1.711	1.356	16.89
11)	T	Chloroethane	1.372	1.263	1.095	1.352	1.404	1.297	9.57
12)	T	Trichlorofluoromethan	4.027	3.675	3.129	3.933	4.039	3.761	10.16
13)	MC	1,1-Dichloroethene	3.084	2.802	2.309	3.002	2.908	2.821	10.81
14)	T	Acetone	0.605	0.574	0.684	0.833	1.163	0.772	31.18
15)	T	Carbon Disulfide	5.898	5.272	4.379	5.415	5.624	5.318	10.82
16)	T	Methylene Chloride	1.893	1.767	1.495	2.010	2.096	1.852	12.68
17)	T	trans-1,2-Dichloroeth	2.652	2.449	1.961	2.699	2.660	2.484	12.40
18)	TP	1,1-Dichloroethane	3.070	2.789	2.474	2.948	2.937	2.843	8.07
19)	T	Vinyl Acetate	3.919	3.665	2.816	3.494	3.091	3.397	13.05
20)	T	2-Butanone	0.797	0.718	0.717	0.826	0.780	0.768	6.33
21)	T	cis-1,2-Dichloroethen	2.716	2.468	1.980	2.680	2.632	2.495	12.15
22)	TC	Chloroform	3.316	3.053	2.593	3.276	3.474	3.142	10.89
23)	T	1,1,1-Trichloroethane	2.794	2.572	2.161	2.753	2.704	2.597	9.92
24)	T	Carbon Tetrachloride	2.459	2.206	1.799	2.229	2.074	2.153	11.22
25)	S	1,2-Dichloroethane-d4	2.218	2.370	2.311	2.358	2.413	2.334	3.18
26)	I	1,4-Difluorobenzene	----------ISTD----------						
27)	TM	Benzene	1.072	0.974	0.863	1.107	1.097	1.023	10.14
28)	T	1,2-Dichloroethane	0.401	0.358	0.319	0.407	0.401	0.377	10.05
29)	TM	Trichloroethene	0.312	0.276	0.246	0.311	0.304	0.290	9.82
30)	TC	1,2-Dichloropropane	0.272	0.239	0.212	0.268	0.268	0.252	10.17
31)	T	Bromodichloromethane	0.354	0.306	0.263	0.316	0.309	0.310	10.36
32)	T	2-Chloroethyl vinyl e	0.103	0.092	0.079	0.103	0.104	0.096	11.01
33)	T	cis-1,3-Dichloroprope	0.434	0.374	0.306	0.373	0.365	0.370	12.28
34)	T	4-Methyl-2-Pentanone	0.087	0.076	0.067	0.077	0.073	0.076	9.38
35)	S	Toluene-d8	1.136	1.137	1.151	1.141	1.153	1.143	0.69
36)	TCM	Toluene	1.171	1.096	0.976	1.210	1.230	1.137	9.10
37)	I	Chlorobenzene-d5	----------ISTD----------						
38)	T	trans-1,3-Dichloropro	1.575	1.331	1.076	1.242	1.183	1.281	14.70
39)	T	1,1,2-Trichloroethane	0.918	0.823	0.732	0.910	0.869	0.850	8.96
40)	T	Tetrachloroethene	1.288	1.142	0.962	1.218	1.290	1.180	11.54
41)	T	2-Hexanone	0.603	0.521	0.462	0.492	0.484	0.512	10.70
42)	T	Dibromochloromethane	0.967	0.828	0.683	0.792	0.760	0.806	13.01
43)	TMP	Chlorobenzene	2.975	2.665	2.418	2.953	2.919	2.786	8.63
44)	TC	Ethylbenzene	4.786	4.644	4.148	5.222	5.087	4.778	8.81
45)	T	m+p-Xylenes	1.853	1.688	1.482	1.867	1.795	1.737	9.15
46)	T	o-Xylene	4.001	3.672	3.146	3.933	3.849	3.720	9.24
47)	T	Styrene	3.417	3.072	2.664	3.200	3.066	3.084	8.89
48)	TP	Bromoform	0.663	0.507	0.391	0.452	0.406	0.484	22.74
49)	S	Bromofluorobenzene	1.661	1.674	1.729	1.659	1.628	1.670	2.20
50)	TP	1,1,2,2-Tetrachloroet	1.141	1.026	0.917	1.124	1.166	1.075	9.60
51)	T	1,3-Dichlorobenzene	2.599	2.325	2.005	2.479	2.537	2.389	9.93
52)	T	1,4-Dichlorobenzene	2.742	2.466	2.108	2.680	2.681	2.535	10.29
53)	T	1,2-Dichlorobenzene	2.521	2.283	1.969	2.466	2.516	2.351	9.97
54)	t	Napthalene	3.928	3.809	3.064	3.989	3.747	3.707	10.04

(#) = Out of Range

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID.

MB 9Nov01

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Lab File ID: VB010375.D Lab Sample ID: MB

Date Analyzed: 11/9/01 Time Analyzed: 12:04

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	640-1	1656701	VB010377.D	13:41
02	640-2	1656702	VB010378.D	14:22
03	640-3	1656703	VB010379.D	15:03
04	640-4	1656704	VB010380.D	15:44
05	640-5	1656705	VB010381.D	16:25
06	FD	1656706	VB010382.D	17:06
07	TB	1656707	VB010383.D	17:47
08	640-5 MS	1656705 MS	VB010384.D	18:28
09	640-5 MSD	1656705 MSD	VB010385.D	19:09

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

	Lab Name:	FMETL	**Project**	10001	
NJDEP #	13461	**Case No.:**	16567	**Location**	640

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	101.0	105.0	101.0
02	640-1	114.3	95.0	101.3
03	640-2	124.7	100.0	87.3
04	640-3	125.3	101.3	109.0
05	640-4	111.7	95.7	84.0
06	640-5	114.0	99.3	100.7
07	FD	123.3	105.3	115.0
08	TB	129.3	108.0	101.3

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration

Non-Spiked Sample: VB010383.D

	Spike Sample	Spike Duplicate Sample
File ID :	VB010384.D	VB010385.D
Sample :	1656705 MS	1656705 MSD
Acq Time:	9 Nov 2001 6:28 pm	9 Nov 2001 7:09 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	25	25	126	127	0	22	59-172
Benzene	0.0	20	24	24	118	118	0	21	66-142
Trichloroethene	0.0	20	24	24	122	120	1	24	62-137
Toluene	0.0	20	24	24	120	121	1	21	59-139
Chlorobenzene	0.0	20	23	22	117	112	5	21	60-133

- Fails Limit Check

M262NAP.M Fri Nov 16 10:46:30 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16567 Location: 640 SDG No.:

Lab File ID (Standard): VB010374.D Date Analyzed: 11/9/01

Instrument ID: GCMS#2 Time Analyzed: 11:11

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	452351	16.76	3143900	19.49	878614	27.33
	UPPER LIMIT	904702	17.26	6287800	19.99	1757228	27.83
	LOWER LIMIT	226176	16.26	1571950	18.99	439307	26.83
	Lab ID.						
01	MB 9NOV01	446112	16.76	3153629	19.49	875141	27.32
02	640-1	427313	16.76	3237418	19.48	884862	27.32
03	640-2	427614	16.77	3284846	19.48	1061378	27.33
04	640-3	414098	16.77	3264066	19.48	878234	27.33
05	640-4	420786	16.76	3180182	19.48	980623	27.33
06	640-5	421412	16.76	3133009	19.48	878703	27.33
07	FD	416736	16.76	3141072	19.48	862214	27.32
08	TB	417069	16.77	3139149	19.48	932757	27.33
09	640-5 MS	412839	16.76	3170448	19.48	852469	27.32
10	640-5 MSD	416894	16.77	3149568	19.48	889095	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\011109\VB010375.D Vial: 2
Acq On : 9 Nov 2001 12:04 pm Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 9 12:44 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	446112	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3153629	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	875141	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1056212	30.43	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	101.43%		
35) Toluene-d8	23.50	98	3776025	31.42	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	104.73%		
49) Bromofluorobenzene	30.34	95	1469950	30.17	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	100.57%		
Target Compounds						Qvalue

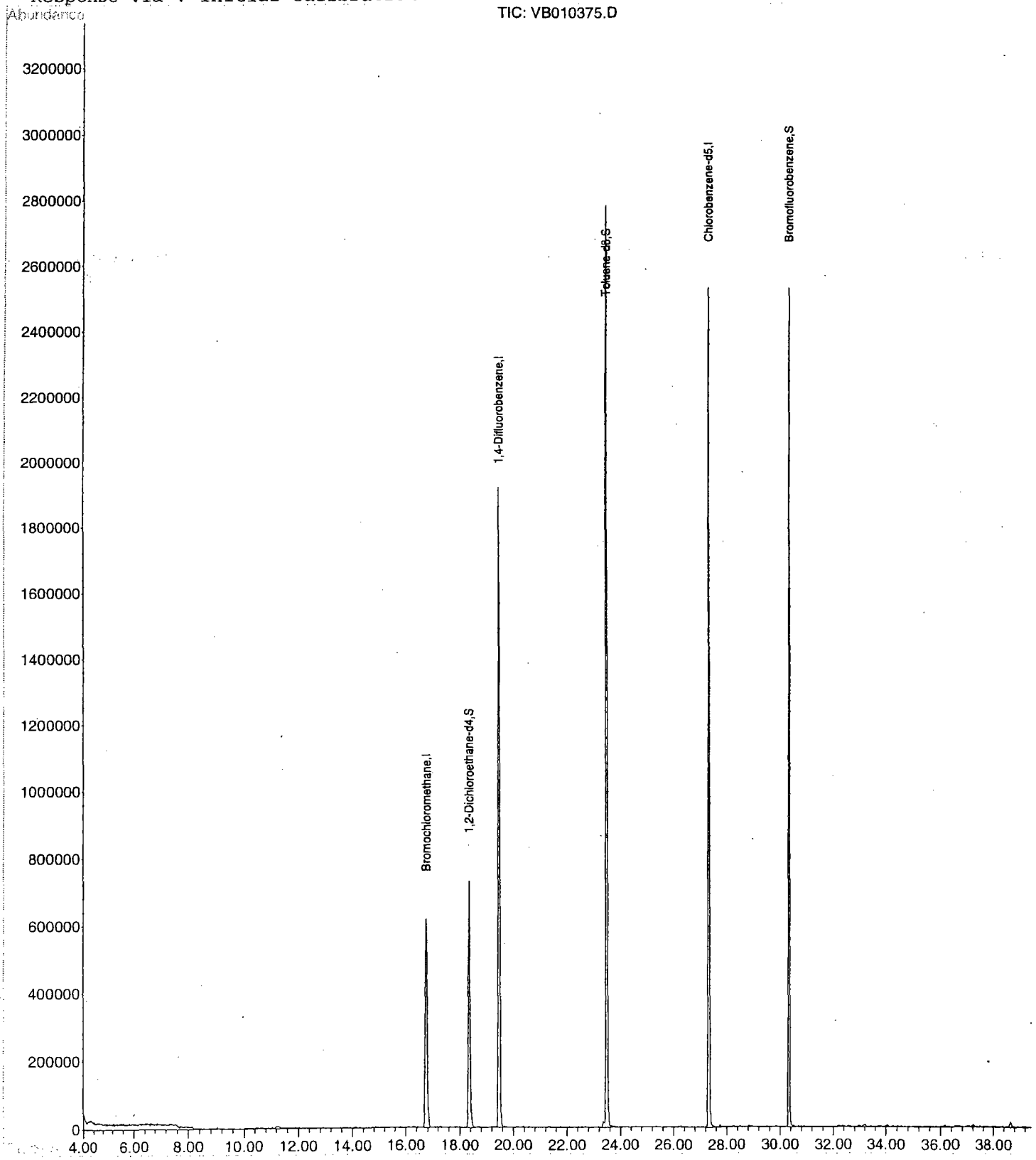
(#) = qualifier out of range (m) = manual integration
VB010375.D M262NAP.M Fri Nov 16 10:35:35 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010375.D Vial: 2
Acq On : 9 Nov 2001 12:04 pm Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 9 12:44 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration

TIC: VB010375.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010377.D Vial: 1
Acq On : 9 Nov 2001 1:41 pm Operator: Skelton
Sample : 1656701 Inst : GC VOA 2
Misc : 640-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 13 14:15 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	427313	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3237418	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	884862	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	3717300	111.81	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 372.70%#			
35) Toluene-d8	23.50	98	11643815	94.37	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 314.57%#			
49) Bromofluorobenzene	30.34	95	4936678	100.21	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 334.03%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.26	84	326765m	12.39	ug/L	

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

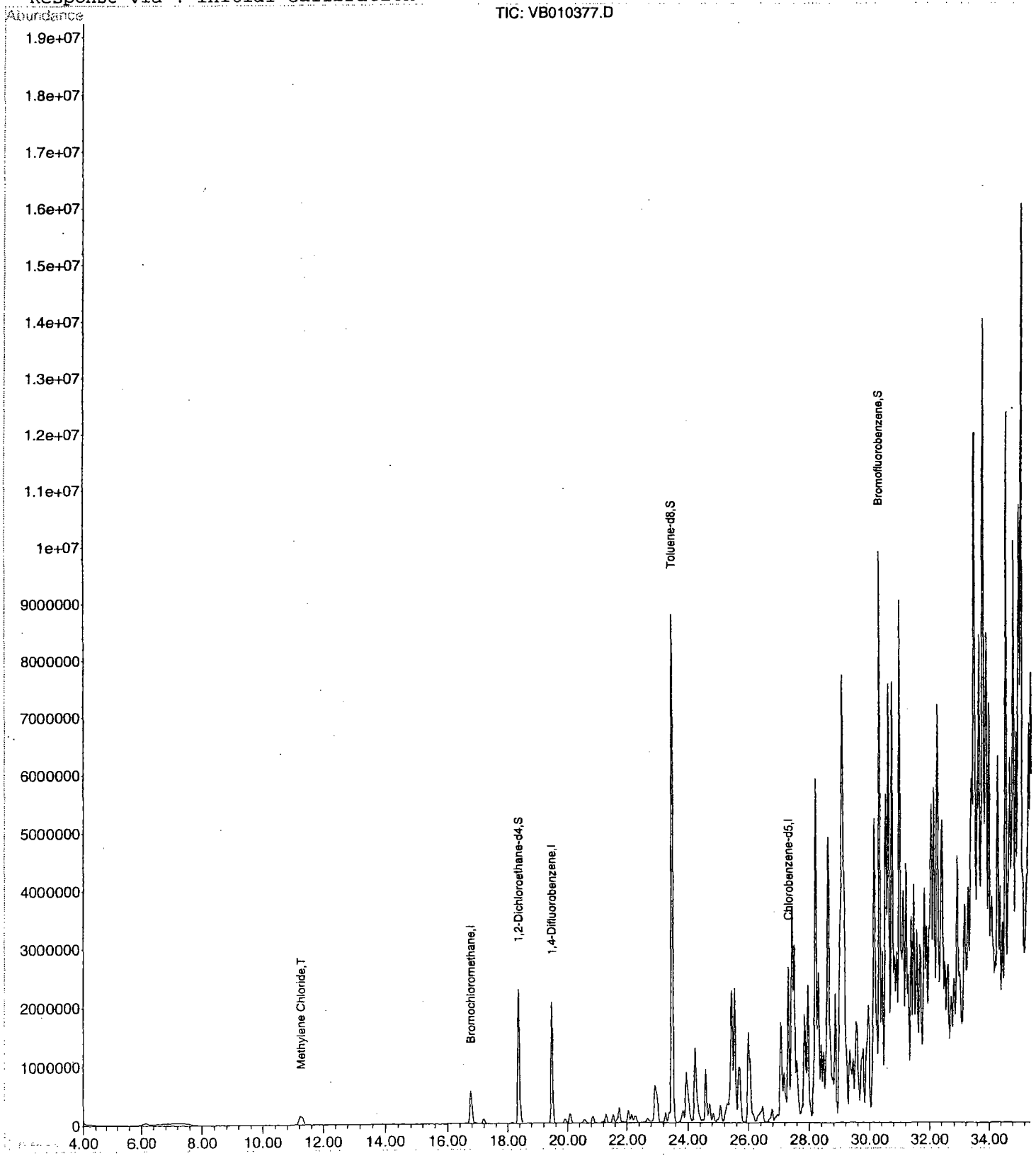
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010377.D
Acq On : 9 Nov 2001 1:41 pm
Sample : 1656701
Misc : 640-1
MS Integration Params: TBA.P
Quant Time: Nov 13 14:15 2001

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

Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010378.D Vial: 2
Acq On : 9 Nov 2001 2:22 pm Operator: Skelton
Sample : 1656702 Inst : GC VOA 2
Misc : 640-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:32 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

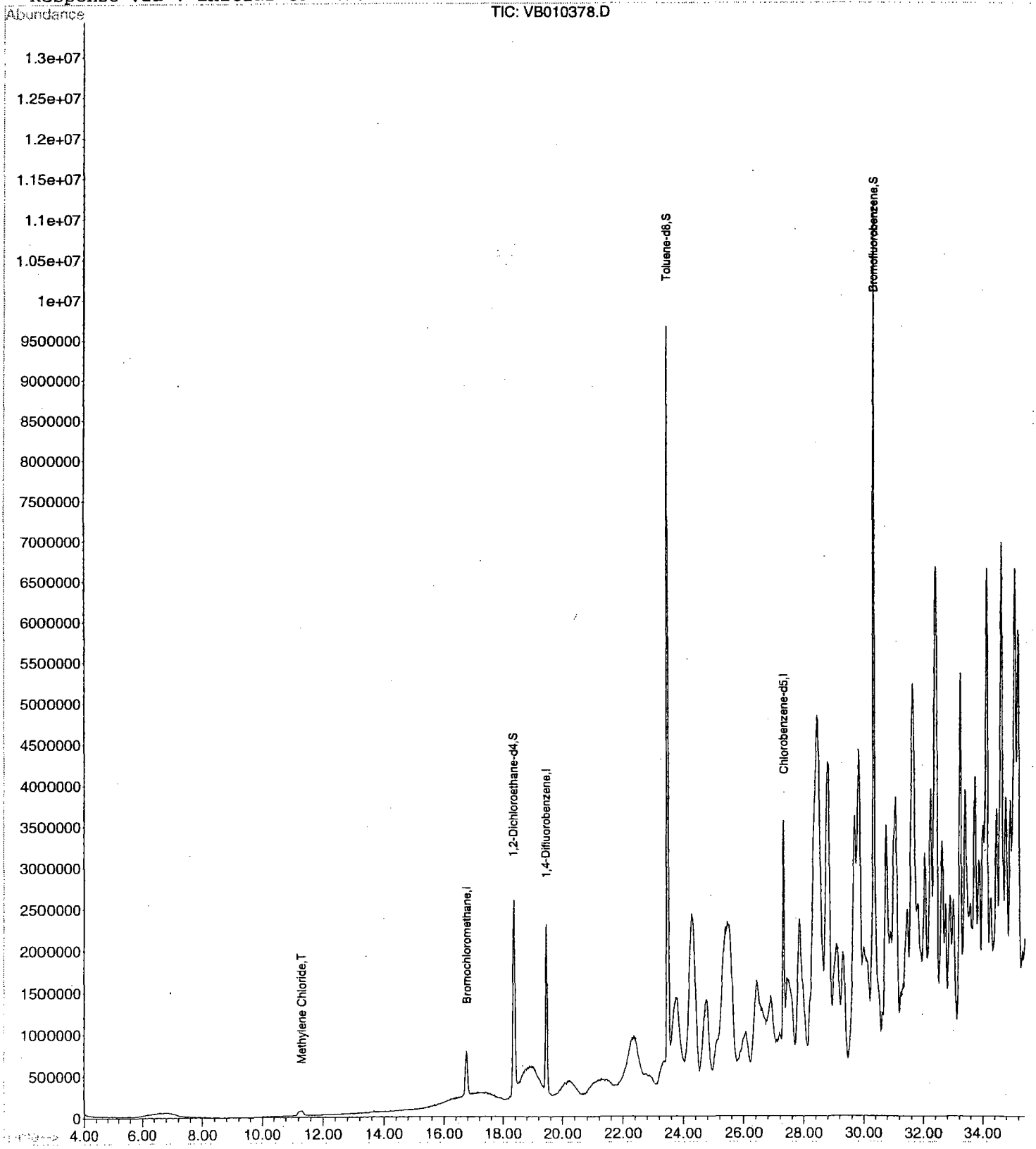
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	427614	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.48	114	3284846	30.00	ug/L	-0.01
37) Chlorobenzene-d5	27.33	119	1061378	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	4033430	121.24	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 404.13%#			
35) Toluene-d8	23.50	98	12411764	99.14	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 330.47%#			
49) Bromofluorobenzene	30.34	95	5178747	87.64	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 292.13%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.31	84	143921m	5.45	ug/L	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010378.D Vial: 2
Acq On : 9 Nov 2001 2:22 pm Operator: Skelton
Sample : 1656702 Inst : GC VOA 2
Misc : 640-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:32 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010379.D Vial: 3
Acq On : 9 Nov 2001 3:03 pm Operator: Skelton
Sample : 1656703 Inst : GC VOA 2
Misc : 640-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:32 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

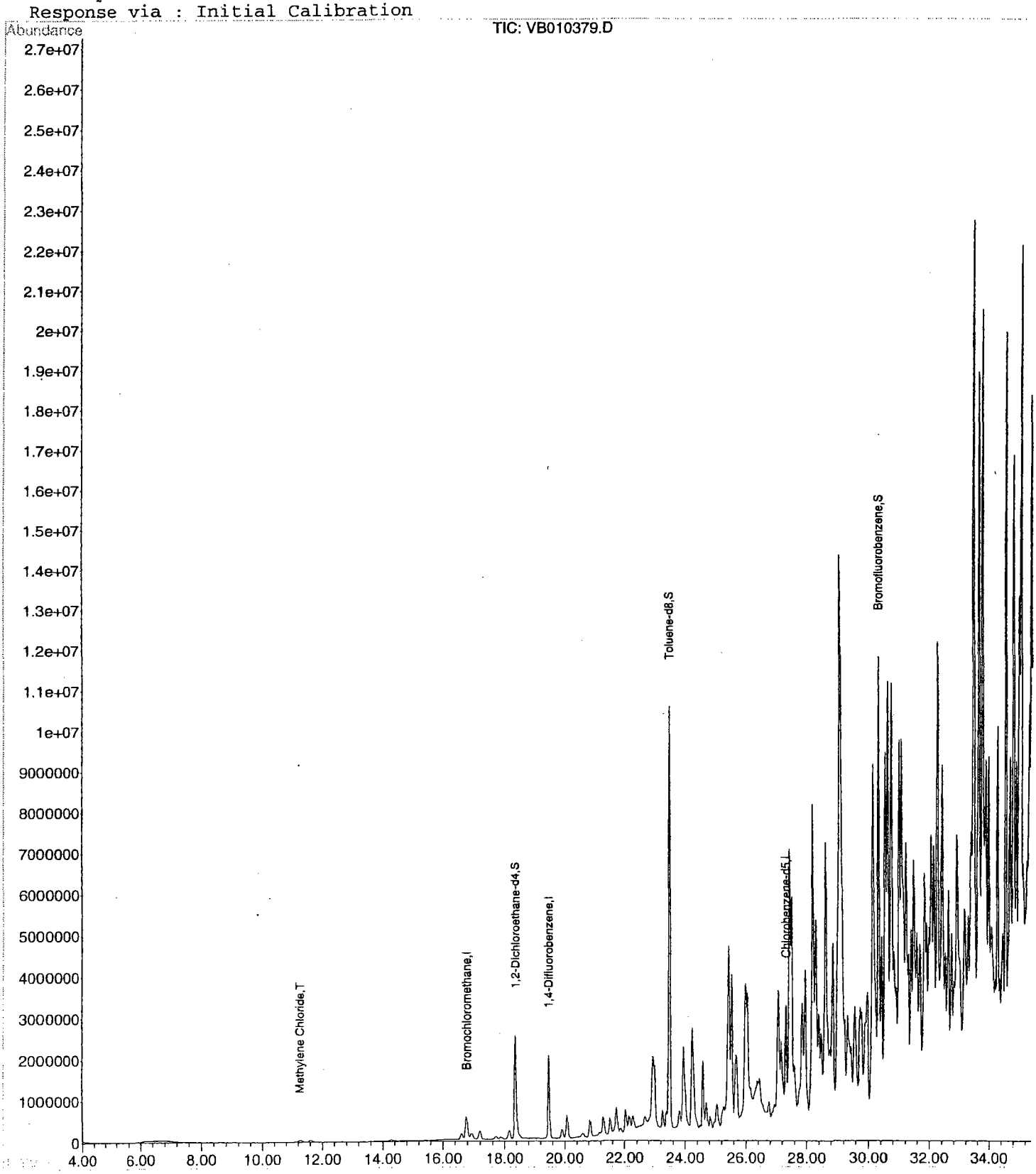
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	414098	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.48	114	3264066	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	878234	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	3927486	121.90	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 406.33%#			
35) Toluene-d8	23.50	98	12466143	100.21	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 334.03%#			
49) Bromofluorobenzene	30.34	95	5241374	107.20	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 357.33%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.25	84	96975	3.79	ug/L	71

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010379.D Vial: 3
Acq On : 9 Nov 2001 3:03 pm Operator: Skelton
Sample : 1656703 Inst : GC VOA 2
Misc : 640-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:32 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010380.D Vial: 4
Acq On : 9 Nov 2001 3:44 pm Operator: Skelton
Sample : 1656704 Inst : GC VOA 2
Misc : 640-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:33 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

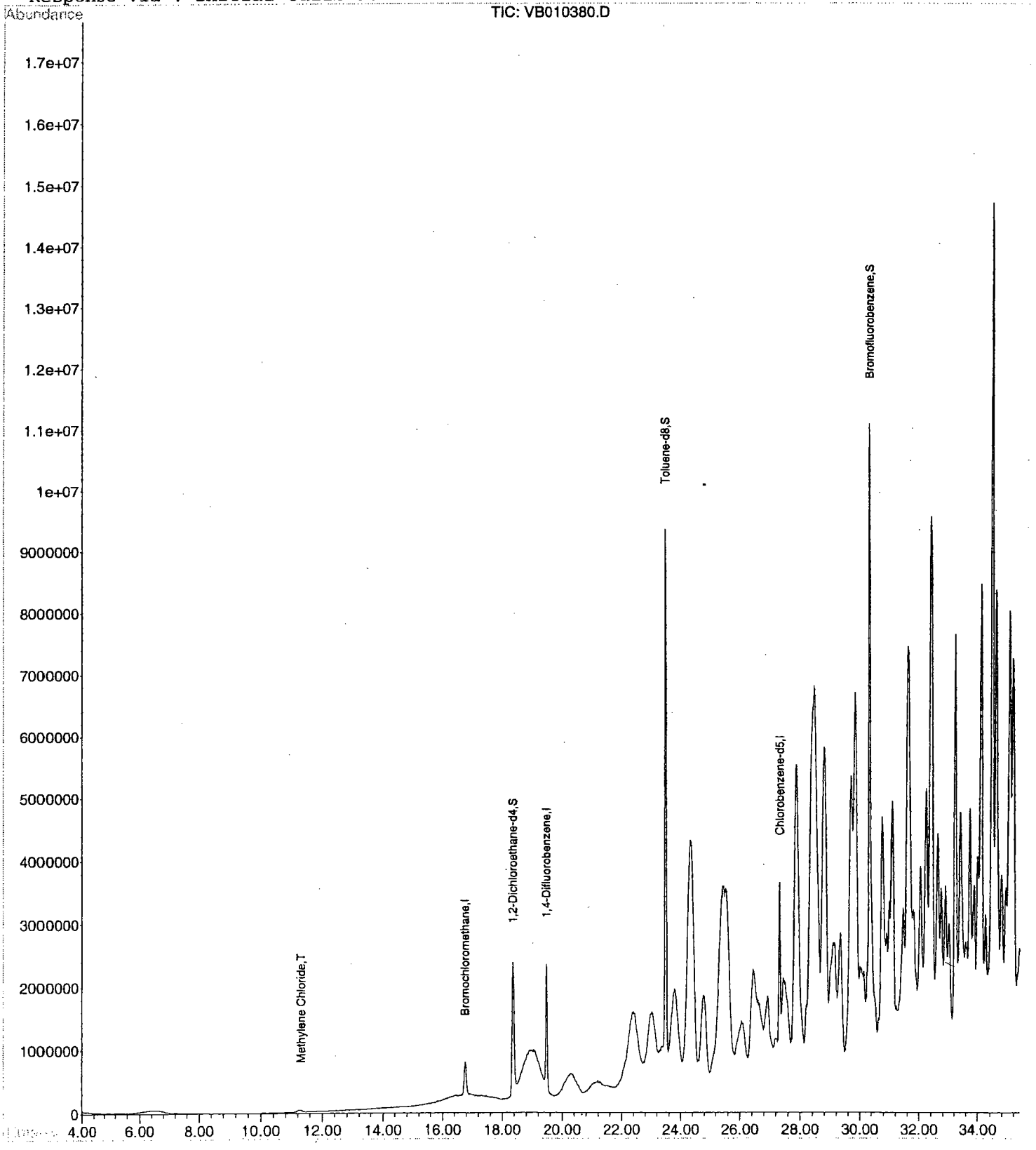
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	420786	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3180182	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	980623	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	3587770	109.59	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 365.30%#			
35) Toluene-d8	23.50	98	11513802	94.99	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 316.63%#			
49) Bromofluorobenzene	30.34	95	4611187	84.46	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 281.53%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.30	84	74413m	2.86	ug/L	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010380.D Vial: 4
Acq On : 9 Nov 2001 3:44 pm Operator: Skelton
Sample : 1656704 Inst : GC VOA 2
Misc : 640-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:33 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010381.D Vial: 5
Acq On : 9 Nov 2001 4:25 pm Operator: Skelton
Sample : 1656705 Inst : GC VOA 2
Misc : 640-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:33 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

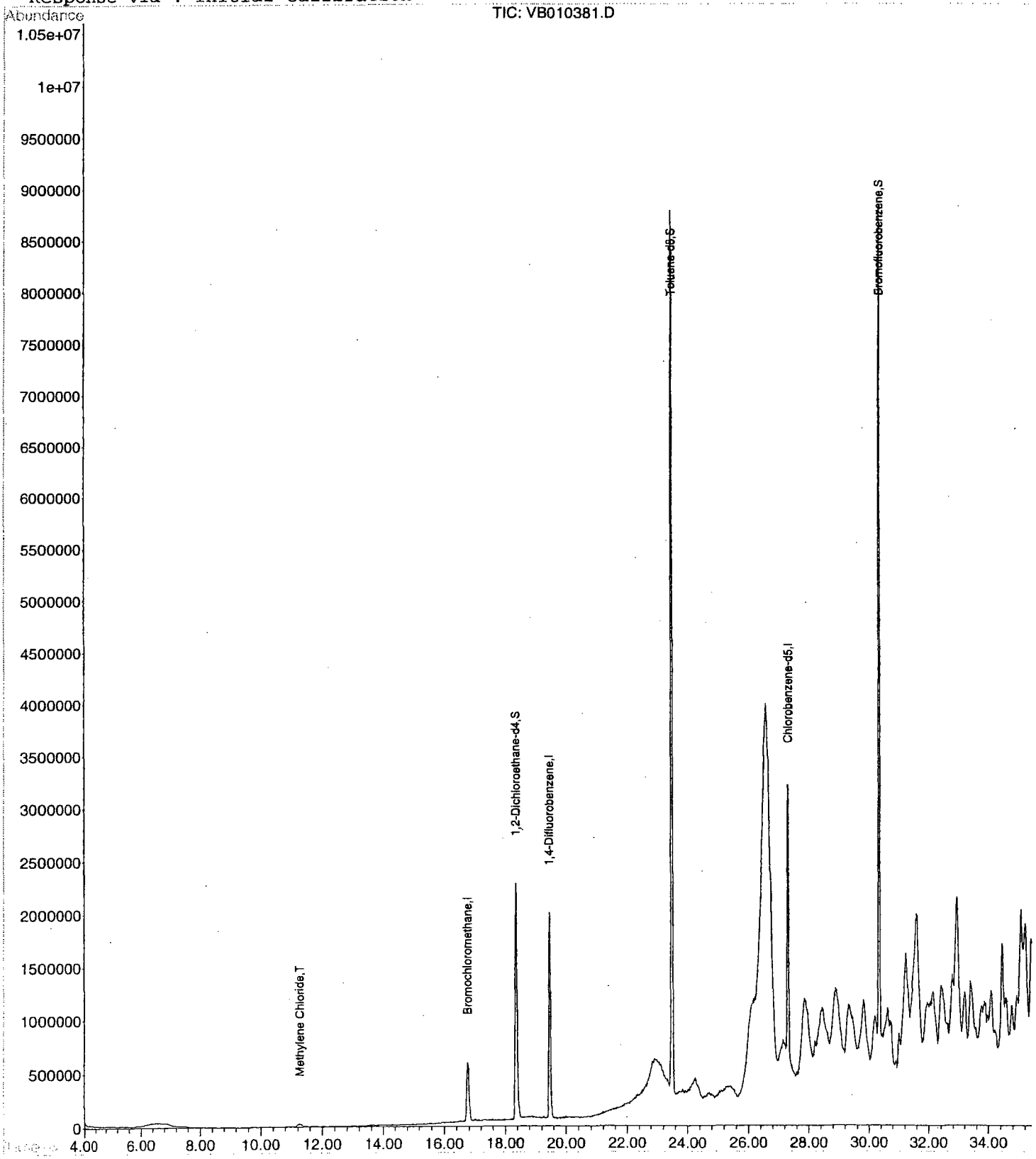
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	421412	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3133009	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	878703	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	3659649	111.62	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 372.07%#			
35) Toluene-d8	23.50	98	11751966	98.42	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 328.07%#			
49) Bromofluorobenzene	30.34	95	4865967	99.47	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 331.57%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.27	84	61335	2.36	ug/L	59

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010381.D Vial: 5
Acq On : 9 Nov 2001 4:25 pm Operator: Skelton
Sample : 1656705 Inst : GC VOA 2
Misc : 640-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:33 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010382.D Vial: 6
Acq On : 9 Nov 2001 5:06 pm Operator: Skelton
Sample : 1656706 Inst : GC VOA 2
Misc : FD Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:33 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	416736	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3141072	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	862214	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	3888603	119.93	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 399.77%#			
35) Toluene-d8	23.50	98	12435750	103.88	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 346.27%#			
49) Bromofluorobenzene	30.34	95	5400751	112.51	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 375.03%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.22	84	51105m	1.99	ug/L	

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

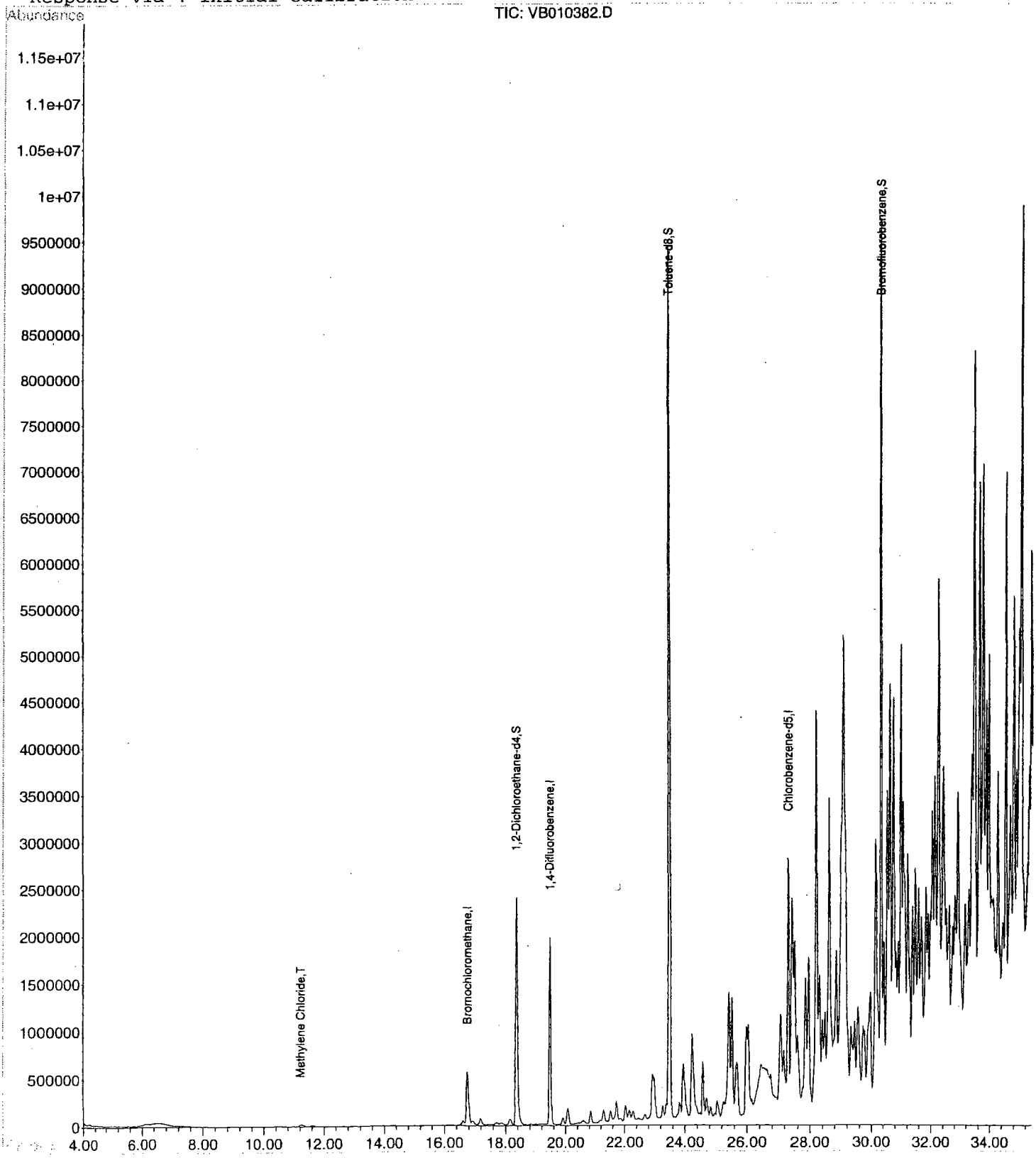
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010382.D
Acq On : 9 Nov 2001 5:06 pm
Sample : 1656706
Misc : FD
MS Integration Params: TBA.P
Quant Time: Nov 16 10:33 2001

Vial: 6
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00

Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\VB010383.D Vial: 7
Acq On : 9 Nov 2001 5:47 pm Operator: Skelton
Sample : 1656707 Inst : GC VOA 2
Misc : TB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:34 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

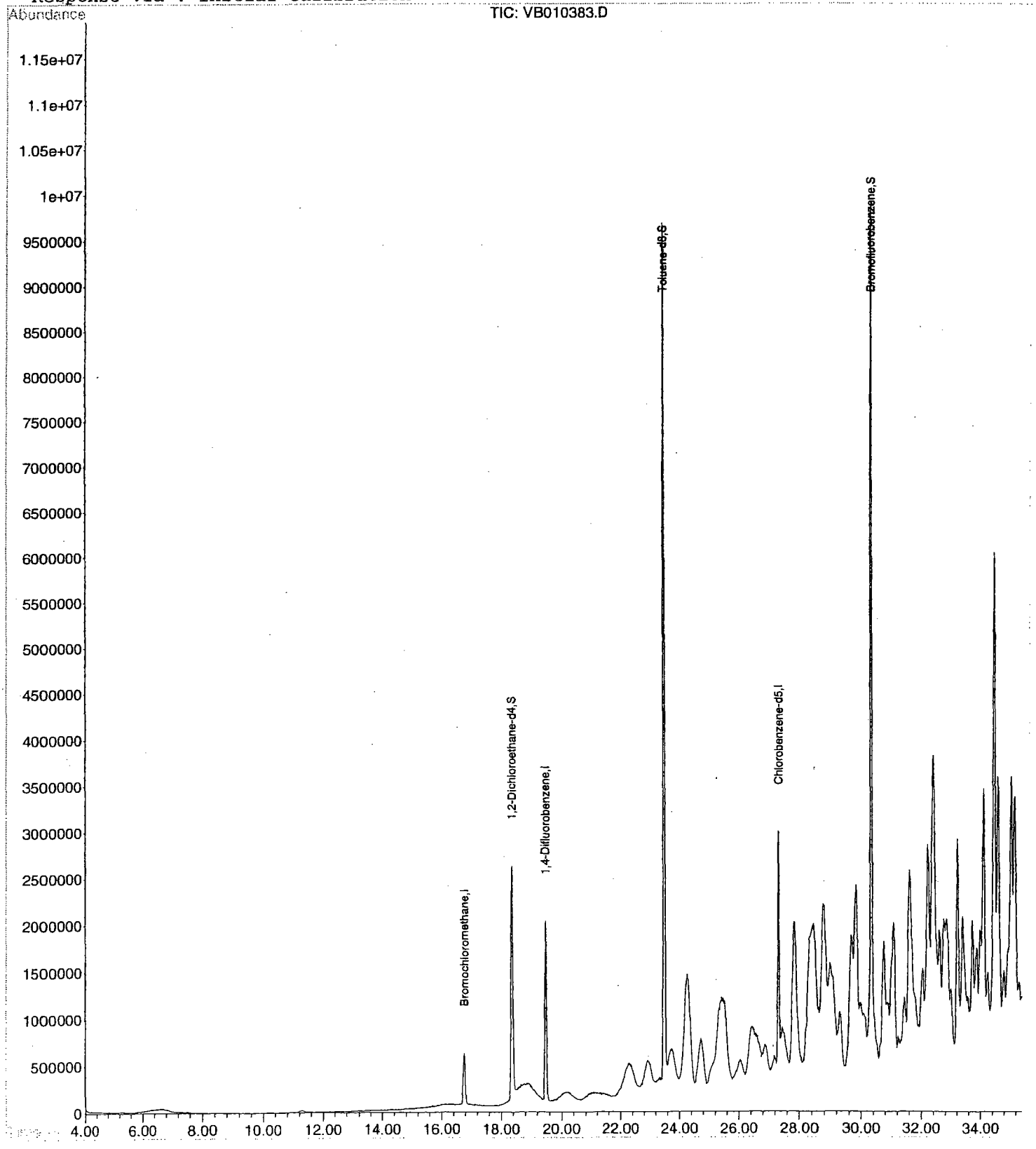
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	417069	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.48	114	3139149	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	932757	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	4064424	125.26	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 417.53%#			
35) Toluene-d8	23.50	98	12702415	106.17	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 353.90%#			
49) Bromofluorobenzene	30.34	95	5201227	100.16	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 333.87%#			
Target Compounds						Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011109\VB010383.D Vial: 7
Acq On : 9 Nov 2001 5:47 pm Operator: Skelton
Sample : 1656707 Inst : GC VOA 2
Misc : TB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 16 10:34 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 09 12:28:31 2001
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 # :** **Location :** **UST Reg. # :**	16567 Bldg.640
Analysis :	OQA-QAM-025	**Date Received :**	08-Nov-01
Matrix :	Soil	**Date Extracted :**	08-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	09-Nov-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1656701	640-1	**5.00**	15.05	77.74	194	**10757.05**
1656702	640-2	**1.00**	15.24	73.95	201	**287.44**
1656703	640-3	**1.00**	15.18	73.50	203	**2478.86**
1656704	640-4	**1.00**	15.05	73.05	206	**240.79**
1656705	640-5	**1.00**	15.10	72.90	206	**262.25**
1656706	F.D.	**1.00**	15.08	74.25	202	**2922.48**
METHOD BLANK	MB-011108	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1) tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2) tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3) TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4) tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5) tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6) tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7) tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8) tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9) tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10) tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11) tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12) tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13) tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14) tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15) tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16) tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17) tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18) tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19) TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20) TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21) sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22) tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011109\T013791.D Vial: 1
Acq On : 9 Nov 2001 10:24 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm std Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.143 E3	-17.3	112	-0.04
2	tC	C10	20.595	23.176 E3	-12.5	109	0.00
3	TC	C12	21.549	22.976 E3	-6.6	104	0.00
4	tC	C14	23.048	23.720 E3	-2.9	102	0.00
5	tC	C16	24.057	24.312 E3	-1.1	101	0.00
6	tC	C18	24.812	23.921 E3	3.6	97	0.00
7	tC	C20	24.684	25.003 E3	-1.3	101	0.00
8	tC	C22	25.878	25.812 E3	0.3	100	0.00
9	tC	C24	26.326	26.092 E3	0.9	100	0.00
10	tC	C26	26.702	26.312 E3	1.5	100	0.00
11	tC	C28	26.061	25.953 E3	0.4	100	0.00
12	tC	C30	26.583	26.597 E3	-0.1	99	0.00
13	tC	C32	26.447	26.315 E3	0.5	99	0.00
14	tC	C34	26.317	26.057 E3	1.0	99	0.00
15	tC	C36	26.661	26.783 E3	-0.5	101	0.00
16	tC	C38	24.528	24.986 E3	-1.9	103	0.00
17	tC	C40	21.994	22.898 E3	-4.1	107	0.00
18	tC	c42	19.638	19.999 E3	-1.8	103	0.00
19	TC	Pristane	23.812	23.897 E3	-0.4	99	0.00
20	TC	Phytane	25.573	25.292 E3	1.1	101	0.00
21	sC	o-terphenyl	25.484	25.359 E3	0.5	100	0.00
22	tC	TPHC - total	28.994	30.788 E3	-6.2	116	0.02

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011109\T013802.D Vial: 12
Acq On : 9 Nov 2001 4:29 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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.614 E3	-20.0	115	-0.05
2	tC	C10	20.595	23.597 E3	-14.6	111	0.00
3	TC	C12	21.549	23.528 E3	-9.2	107	0.00
4	tC	C14	23.048	24.130 E3	-4.7	104	0.00
5	tC	C16	24.057	24.816 E3	-3.2	103	0.00
6	tC	C18	24.812	26.661 E3	-7.5	108	0.00
7	tC	C20	24.684	25.504 E3	-3.3	103	0.00
8	tC	C22	25.878	26.340 E3	-1.8	102	0.00
9	tC	C24	26.326	26.671 E3	-1.3	102	0.00
10	tC	C26	26.702	26.957 E3	-1.0	102	0.00
11	tC	C28	26.061	26.517 E3	-1.7	102	0.00
12	tC	C30	26.583	27.258 E3	-2.5	102	0.00
13	tC	C32	26.447	27.063 E3	-2.3	102	0.00
14	tC	C34	26.317	26.923 E3	-2.3	102	0.00
15	tC	C36	26.661	27.988 E3	-5.0	105	0.00
16	tC	C38	24.528	26.819 E3	-9.3	111	0.00
17	tC	C40	21.994	25.842 E3	-17.5	120	0.00
18	tC	c42	19.638	25.515 E3	-29.9#	132	0.00
19	TC	Pristane	23.812	23.807 E3	0.0	99	0.00
20	TC	Phytane	25.573	25.882 E3	-1.2	103	0.00
21	sC	o-terphenyl	25.484	26.144 E3	-2.6	103	0.00
22	tC	TPHC - total	28.994	28.412 E3	2.0	107	1.73#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011109\T013804.D Vial: 12
Acq On : 9 Nov 2001 5:35 pm Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 1:5 dilution Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.453	E3	-19.1	114	-0.05
2	tC	C10	20.595	23.423	E3	-13.7	110	-0.01
3	TC	C12	21.549	23.327	E3	-8.3	106	0.00
4	tC	C14	23.048	24.014	E3	-4.2	103	0.00
5	tC	C16	24.057	24.771	E3	-3.0	103	0.00
6	tC	C18	24.812	26.485	E3	-6.7	107	0.00
7	tC	C20	24.684	25.477	E3	-3.2	103	0.00
8	tC	C22	25.878	26.346	E3	-1.8	102	0.00
9	tC	C24	26.326	26.664	E3	-1.3	102	0.00
10	tC	C26	26.702	26.944	E3	-0.9	102	0.00
11	tC	C28	26.061	26.518	E3	-1.8	102	0.00
12	tC	C30	26.583	27.256	E3	-2.5	102	0.00
13	tC	C32	26.447	27.034	E3	-2.2	102	0.00
14	tC	C34	26.317	26.926	E3	-2.3	102	0.00
15	tC	C36	26.661	27.966	E3	-4.9	105	0.00
16	tC	C38	24.528	26.839	E3	-9.4	111	0.00
17	tC	C40	21.994	25.894	E3	-17.7	121	0.00
18	tC	c42	19.638	25.562	E3	-30.2#	132	0.00
19	TC	Pristane	23.812	23.841	E3	-0.1	99	0.00
20	TC	Phytane	25.573	25.853	E3	-1.1	103	0.00
21	sC	o-terphenyl	25.484	26.086	E3	-2.4	103	0.00
22	tC	TPHC - total	28.994	28.719	E3	0.9	108	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16567
	DPW. SELFM-PW-EV	**Location :**	Bldg.640
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	8-Nov-01
Matrix:	Soil	**Date Extracted :**	8-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	9-Nov-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1656701			10.00	10.34	**103.37**
1656702			10.00	10.08	**100.84**
1656703			10.00	10.75	**107.51**
1656704			10.00	10.83	**108.25**
1656705			10.00	11.48	**114.76**
1656706			10.00	10.59	**105.92**
METHOD BLANK	MB-011108		10.00	10.57	**105.73**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	16567
	DPW. SELFM-PW-EV	**Location :**	Bldg.640
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	8-Nov-01
Matrix:	Soil	**Date Extracted :**	8-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	9-Nov-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1656705MS	1000	57.74	1086.25	102.85	75-125
1656705MSD	1000	57.74	920.21	86.25	75-125

RPD	**17.56**	**20.00**

Quality Control Check Standard Summary
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 # :** **Location :** **UST Reg. # :**	16567 Bldg.640
Analysis:	OQA-QAM-025	**Date Received :**	8-Nov-01
Matrix:	Soil	**Date Extracted :**	8-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	9-Nov-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-011108	08-Nov-01	1000	934.67	93.47	75-125

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013792.D Vial: 2
Acq On : 9 Nov 2001 10:56 am Operator: B.Patel
Sample : MB-011108 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 11:22 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	269427	10.573 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	105.73%#
Target Compounds			

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

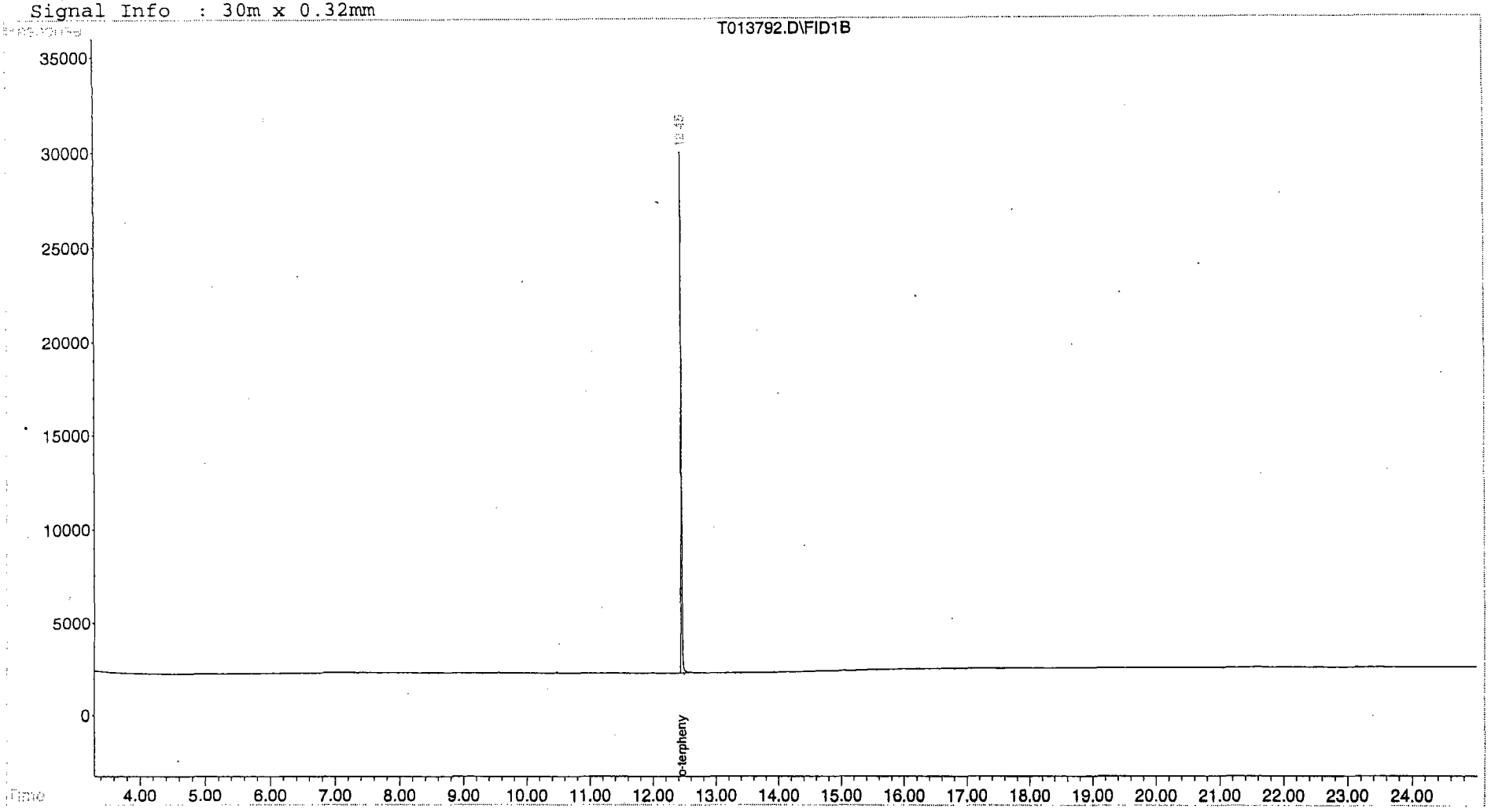
Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013792.D
Acq On : 9 Nov 2001 10:56 am
Sample : MB-011108
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 9 11:22 2001 Quant Results File: TPH95.RES

Vial: 2
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013794.D Vial: 4
Acq On : 9 Nov 2001 12:03 pm Operator: B.Patel
Sample : 1656701s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 12:45 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	263411	10.337 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 103.37%#	
Target Compounds			
2) tC C10	6.96	90516	4.395 mg/L
3) TC C12	8.81	123067	5.711 mg/L
4) tC C14	10.01	82917	3.598 mg/L
5) tC C16	11.01	113403	4.714 mg/L
6) tC C18	11.48	34868	1.405 mg/L
7) tC C20	11.91	85777	3.475 mg/L
8) tC C22	12.73	66660	2.576 mg/L
9) tC C24	13.54	41775	1.587 mg/L
19) TC Pristane	11.50	530882	22.295 mg/L
20) TC Phytane	11.96	208388	8.149 mg/L
12) tC TPHC - total	11.50	66990325	2310.504 mg/L m

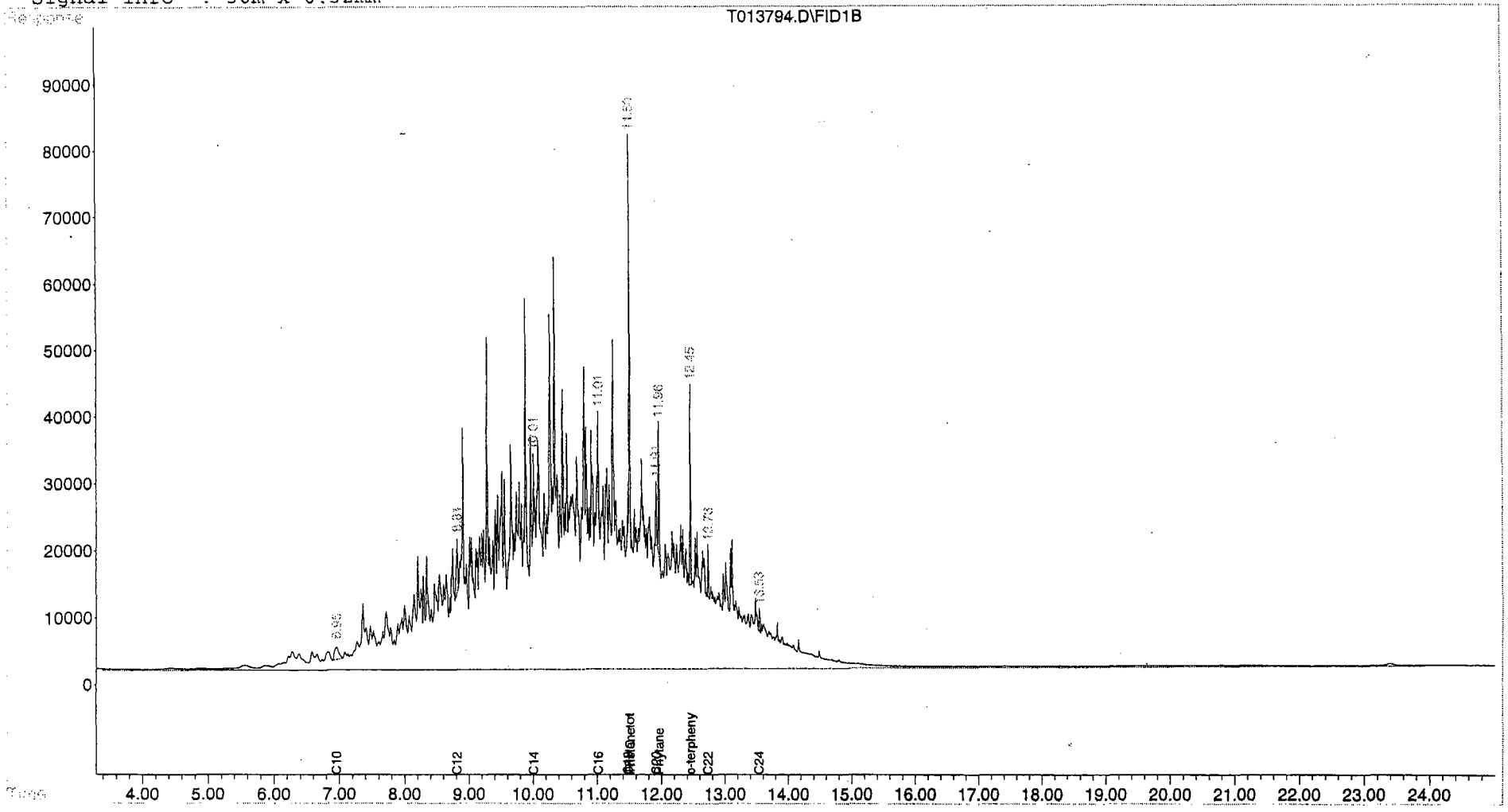
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013794.D Vial: 4
Acq On : 9 Nov 2001 12:03 pm Operator: B.Patel
Sample : 1656701s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 12:45 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013803.D Vial: 13
Acq On : 9 Nov 2001 5:02 pm Operator: B.Patel
Sample : 1656701 (1:5) Inst : GC/MS Ins
Misc : 1:5 dilution Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 14 9:37 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	53534	2.101 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	21.01%#
Target Compounds			
3) TC C12	8.90	40927	1.899 mg/L
4) tC C14	9.96	36745	1.594 mg/L
5) tC C16	11.01	50004	2.079 mg/L
6) tC C18	11.50	110761	4.464 mg/L
7) tC C20	11.95	42245	1.711 mg/L
19) TC Pristane	11.50	110761	4.652 mg/L
20) TC Phytane	11.95	42245	1.652 mg/L
22) tC TPHC - total	11.50	14595571	503.403 mg/L m

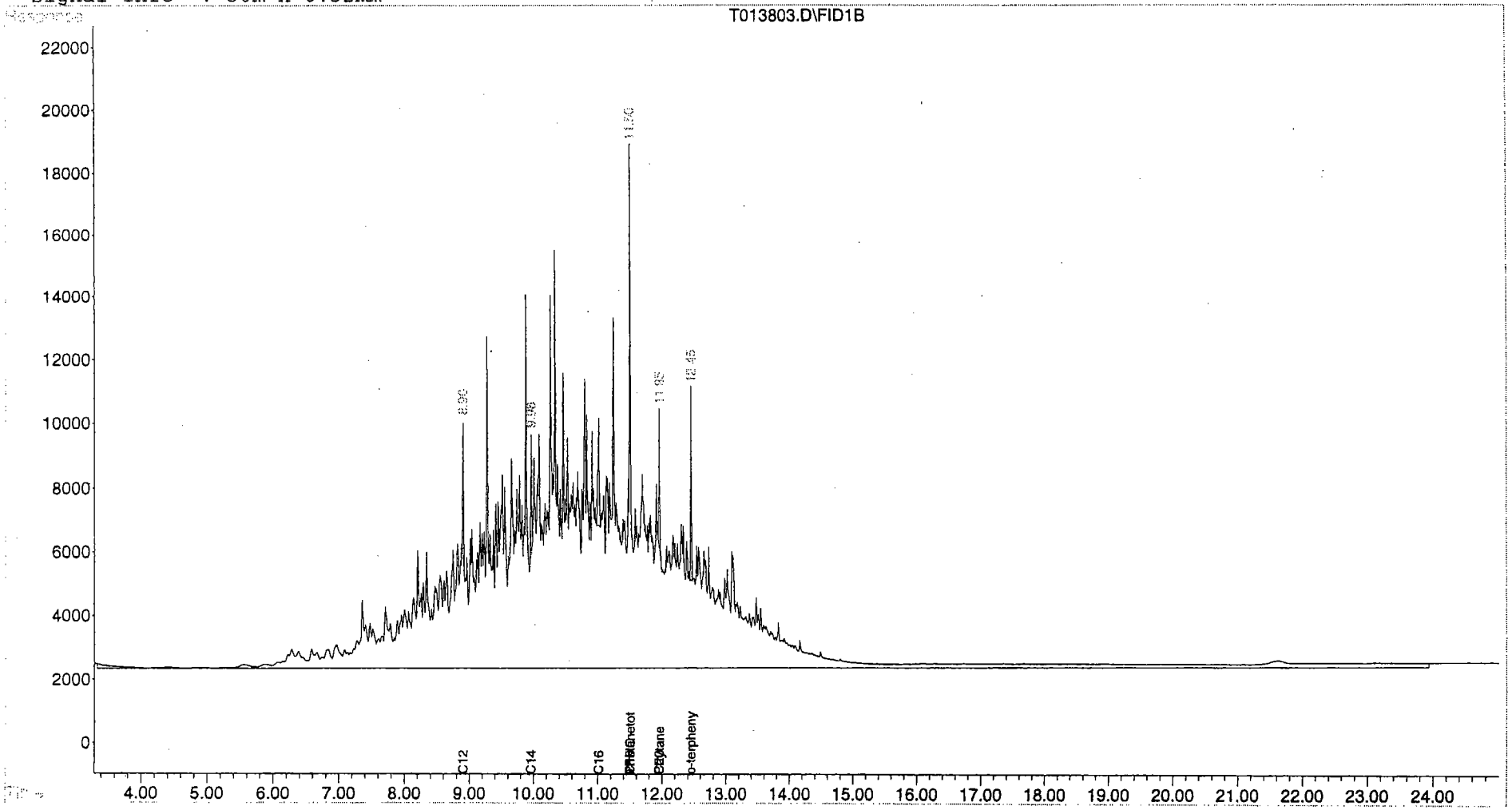
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013803.D Vial: 13
Acq On : 9 Nov 2001 5:02 pm Operator: B.Patel
Sample : 1656701 (1:5) Inst : GC/MS Ins
Misc : 1:5 dilution Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 14 9:37 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013795.D Vial: 5
Acq On : 9 Nov 2001 12:36 pm Operator: B.Patel
Sample : 1656702s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 14:18 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	256983	10.084 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 100.84%#	
Target Compounds			
22) tC TPHC - total	12.45	1878327	64.784 mg/L m

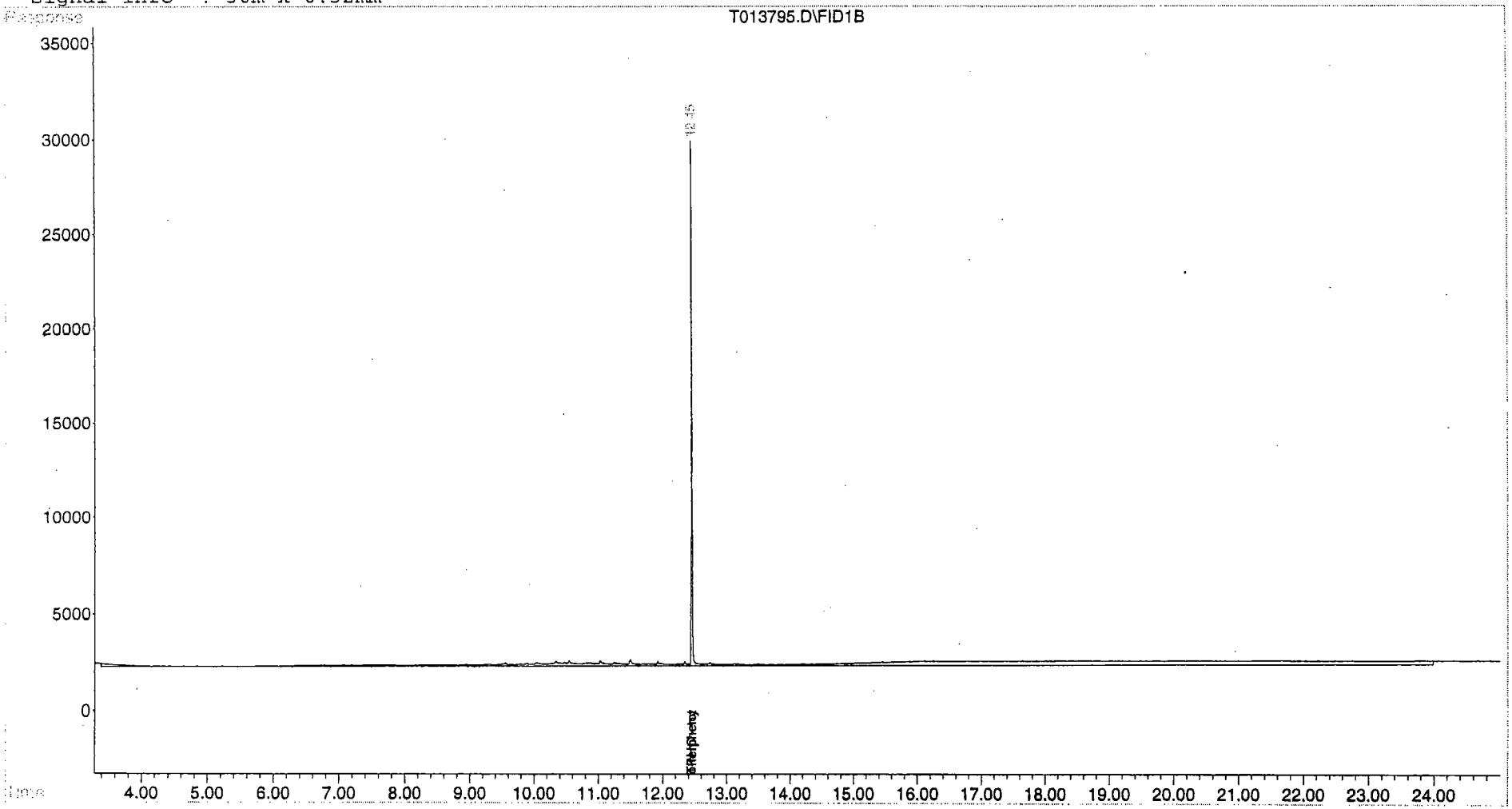
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013795.D Vial: 5
Acq On : 9 Nov 2001 12:36 pm Operator: B.Patel
Sample : 1656702s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 14:18 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013796.D Vial: 6
Acq On : 9 Nov 2001 1:09 pm Operator: B.Patel
Sample : 1656703s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 14:19 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	273970	10.751 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	107.51%#
Target Compounds			
3) TC C12	8.81	100189	4.649 mg/L
4) tC C14	10.01	211289	9.167 mg/L
5) tC C16	11.02	219895	9.141 mg/L
6) tC C18	11.48	111935	4.511 mg/L
7) tC C20	11.91	135737	5.499 mg/L
8) tC C22	12.73	77422	2.992 mg/L
9) tC C24	13.47	33049	1.255 mg/L
19) TC Pristane	11.50	70644	2.967 mg/L
20) TC Phytane	11.95	40638	1.589 mg/L
22) tC TPHC - total	12.45	16037743	553.143 mg/L m

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

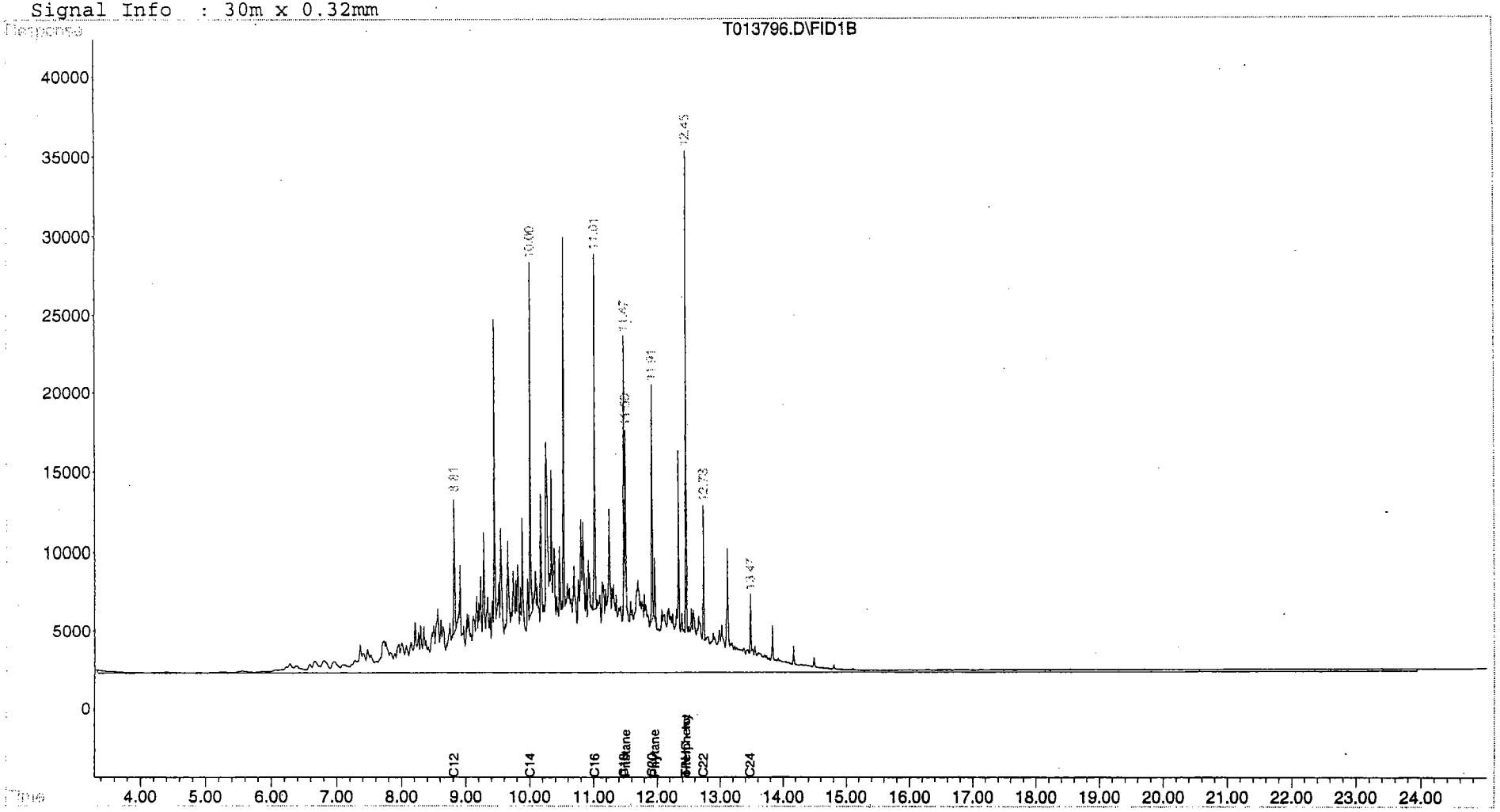
Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013796.D
Acq On : 9 Nov 2001 1:09 pm
Sample : 1656703s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 9 14:19 2001 Quant Results File: TPH95.RES

Vial: 6
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013797.D Vial: 7
Acq On : 9 Nov 2001 1:42 pm Operator: B.Patel
Sample : 1656704s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 14:19 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	275855	10.825 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	108.25%#
Target Compounds			
22) tC TPHC - total	12.45	1535109	52.946 mg/L m

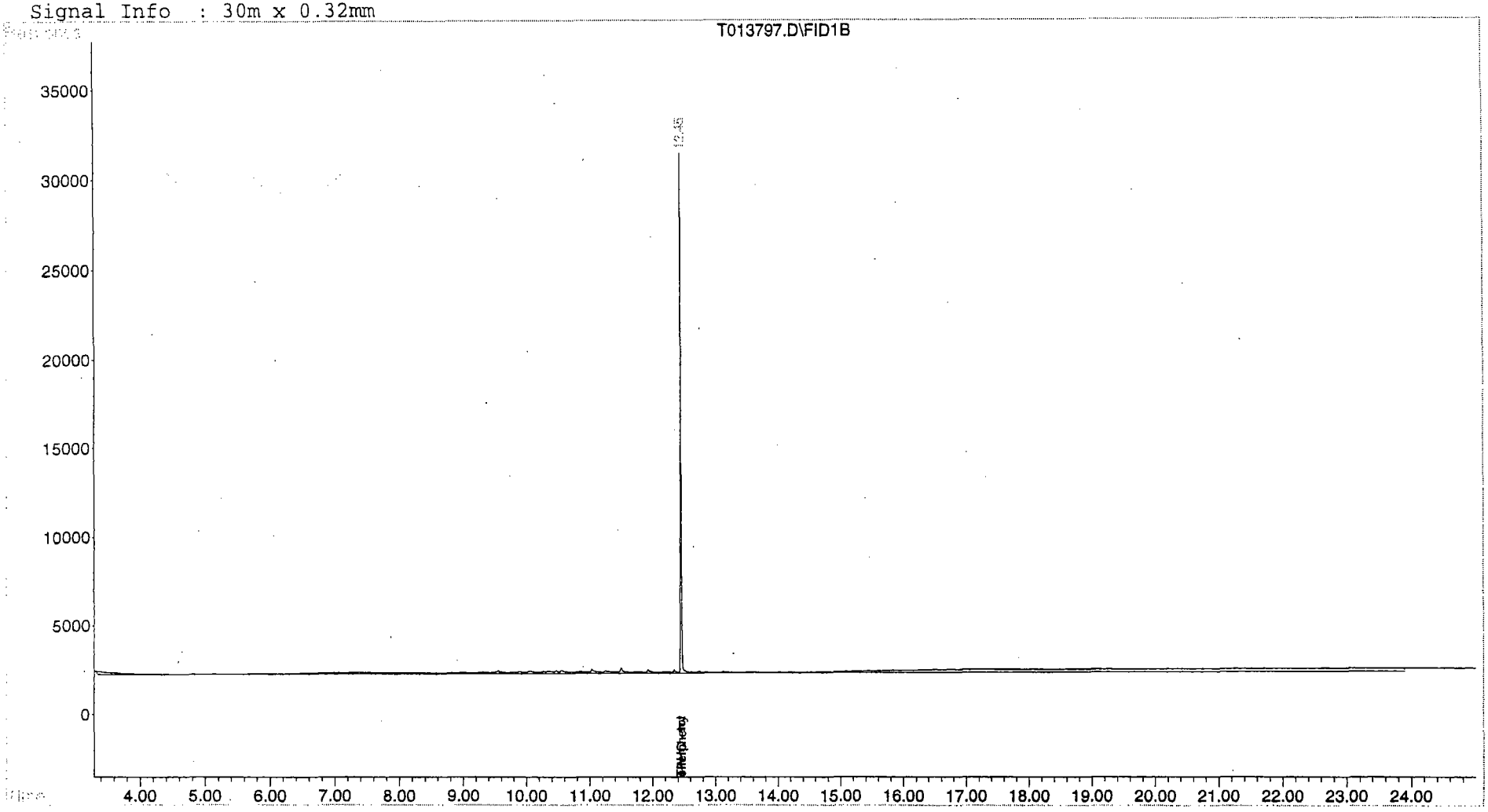
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013797.D Vial: 7
Acq On : 9 Nov 2001 1:42 pm Operator: B.Patel
Sample : 1656704s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 14:19 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000084

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013798.D Vial: 8
Acq On : 9 Nov 2001 2:16 pm Operator: B.Patel
Sample : 1656705s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 15:48 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	292453	11.476 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 114.76%#	
Target Compounds			
22) tC TPHC - total	12.45	1674037	57.738 mg/L m

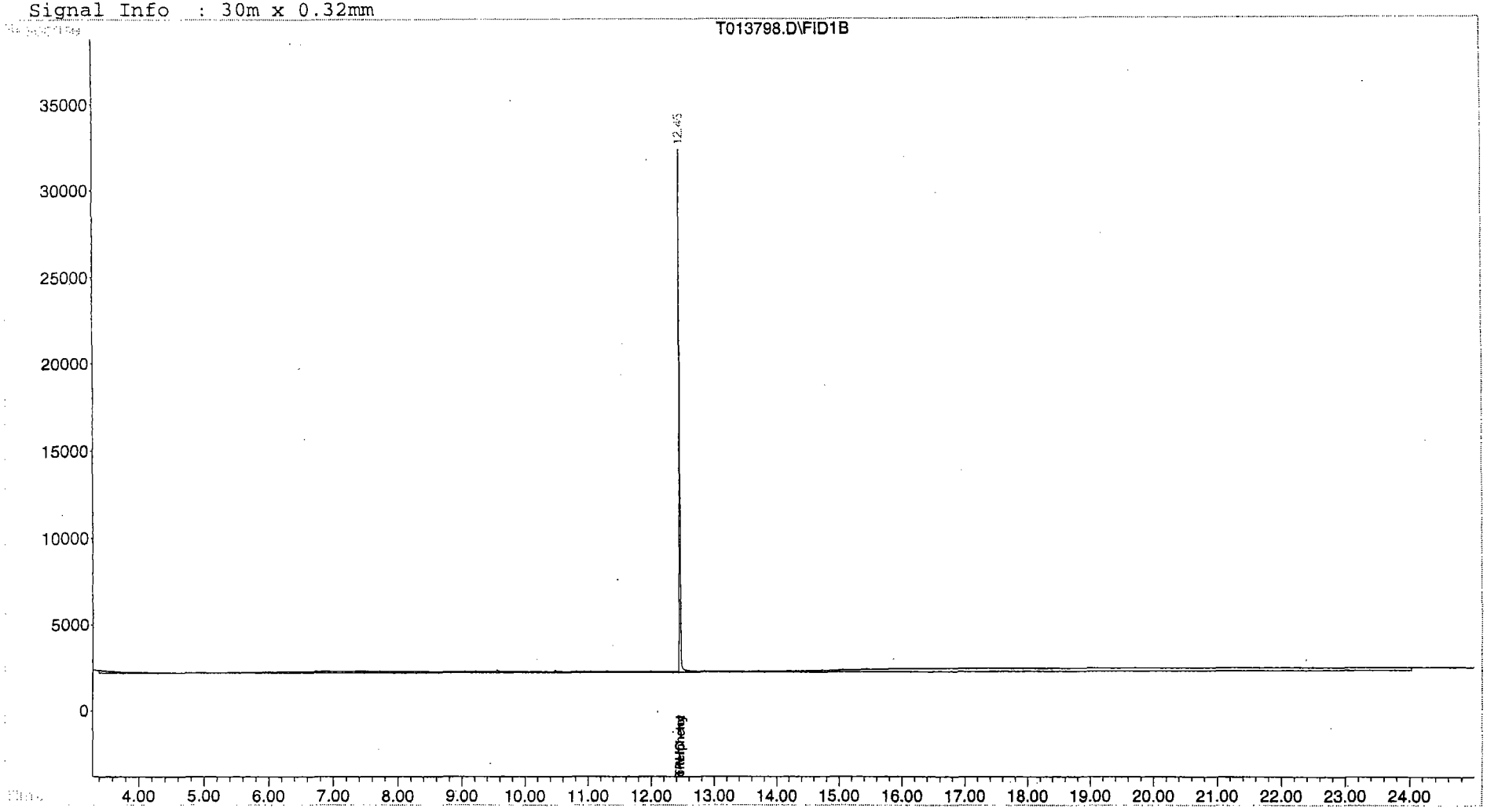
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013798.D Vial: 8
Acq On : 9 Nov 2001 2:16 pm Operator: B.Patel
Sample : 1656705s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 9 15:48 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011109\T013801.D Vial: 11
Acq On : 9 Nov 2001 3:55 pm Operator: B.Patel
Sample : 1656706s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 14 9:34 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	269911	10.592 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 105.92%#	
Target Compounds			
3) TC C12	8.81	106569	4.946 mg/L
4) tC C14	10.01	239241	10.380 mg/L
5) tC C16	11.01	245547	10.207 mg/L
6) tC C18	11.48	131351	5.294 mg/L
7) tC C20	11.91	133147	5.394 mg/L
8) tC C22	12.73	71729	2.772 mg/L
9) tC C24	13.47	32440	1.232 mg/L
19) TC Pristane	11.50	88205	3.704 mg/L
20) TC Phytane	11.95	48250	1.887 mg/L
22) tC TPHC - total	12.45	18975639	654.472 mg/L m

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

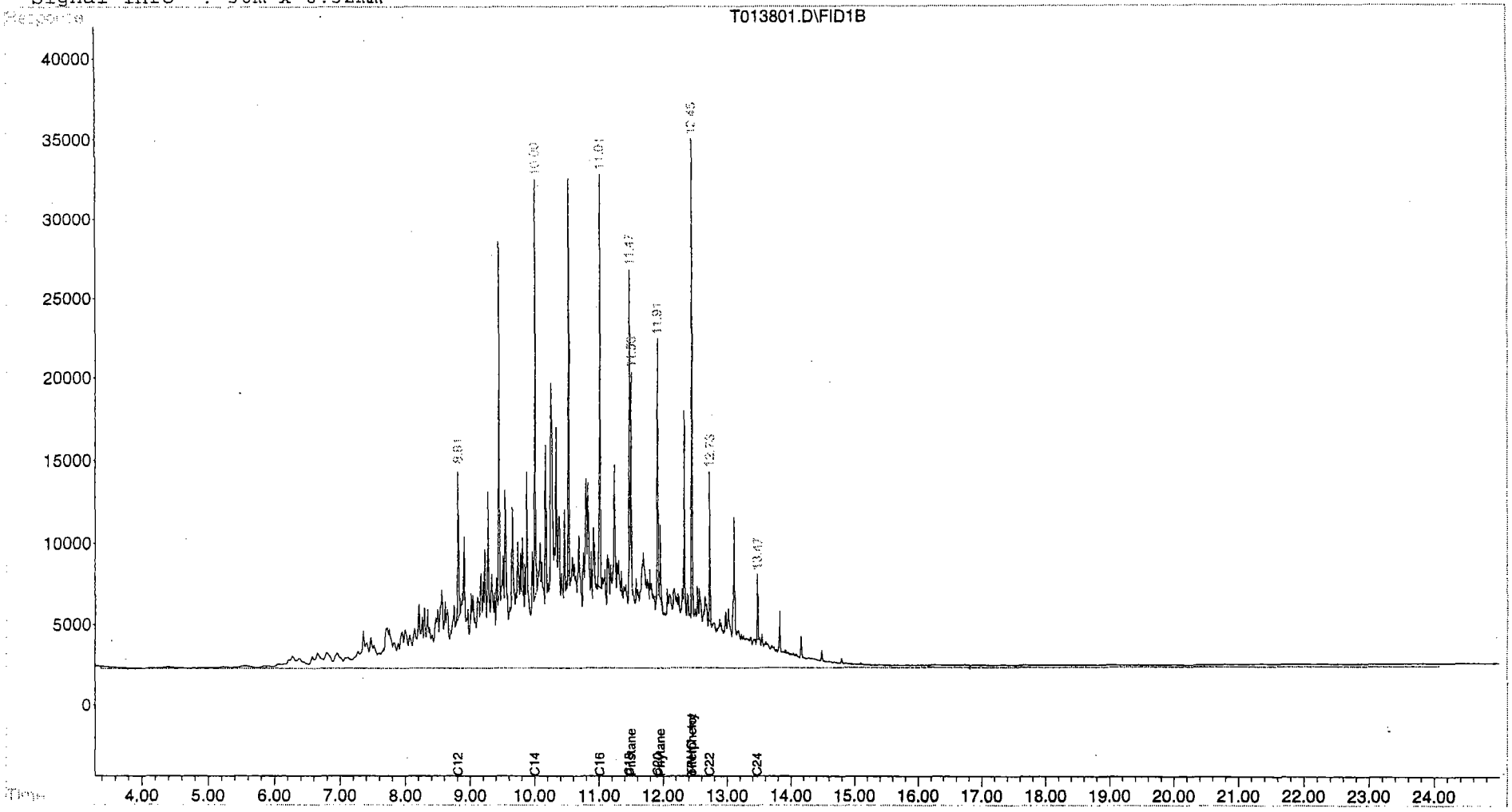
Quantitati eport

Data File : C:\HPCHEM\1\DATA\011109\T013801.D
Acq On : 9 Nov 2001 3:55 pm
Sample : 1656706s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 14 9:34 2001 Quant Results File: TPH95.RES

Vial: 11
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



880000

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 11/20/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-4359 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. 641

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
641-1 8.5'	1653901	Soil	26-Oct-01 14:00	10/26/01
641-2 8.5'	1653902	Soil	26-Oct-01 14:30	10/26/01
641-3 8.5'	1653903	Soil	26-Oct-01 14:50	10/26/01
641-4 8.5'	1653904	Soil	26-Oct-01 15:04	10/26/01
641-5 8.5'	1653905	Soil	26-Oct-01 15:17	10/26/01
FD 8.5'	1653906	Soil	26-Oct-01	10/26/01

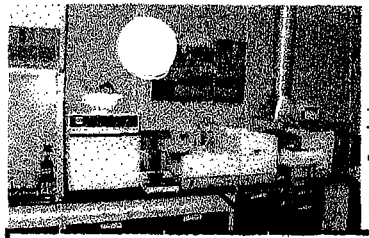
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-20-01
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 #: X2175
( )DERA (✓)OMA ( )Other:_____

Project No: 01-0001
Location: BLDG. 641

Samplers Name / Company: Nimesh Lathia - TUS-PWS 07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	Analysis Parameters: VOA+15	TPHC	%SOLID					HNU PPM	Comments: Remarks / Preservation Method
1 16539 01	641-1 8.5'	10-26-01	1400	SOIL	1		X	X					0	4°C
02	641-2 "	"	1430	"	2	X	X	X					250	2904 "
03	641-3 "	"	1450	"	1		X	X					0	"
04	641-4 "	"	1504	"	1		X	X					0	"
05	641-5 "	"	1517	"	2	X	X	X					100	2905 "
06	FD "	"	—	"	1		X	X						4°C

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	10-26-01 1540				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks:

000002

print legibly

Coc.xls10/17/01

METHOD SUMMARY

Method Summary

NJDEP Method 8260
Gas Chromatographic Determination of Volatiles in Soil

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 is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16539

Site: Bldg. 641

	Date	Hold Time
Date Sampled	10/26/01	NA
Receipt/Refrigeration	10/26/01	NA
Extractions		
1. TPHC	10/29/01	14 days
Analyses		
1. TPHC	10/30/01	40 days
2. VOA	10/29/01	14 days

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 — NA
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 NA
   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 NA
   c. Acid Fraction NA

   If not met, were the calculations checked and the results qualified as "estimated"?

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — yes
   a. VOA Fraction
   b. B/N Fraction NA
   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 NA
    c. Acid Fraction NA

11. Extraction Holding Time Met — NA

If not met, list the number of days exceeded for each sample: _____

12. Analysis Holding Time Met — YES

If not met, list the number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager: _____ Date: 11-20-01

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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

11-20-01
Date

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **MB**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010306.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/29/01

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	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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010306.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/29/01

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
91-20-3	Napthalene	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010306.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/29/01

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **641-2**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653902

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010309.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 20.45 Date Analyzed: 10/29/01

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	900	U
107131	Acrylonitrile	900	U
75650	tert-Butyl alcohol	1700	U
1634044	Methyl-tert-Butyl ether	390	U
108203	Di-isopropyl ether	260	U
75718	Dichlorodifluoromethane	510	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	390	U
74-83-9	Bromomethane	260	U
75-00-3	Chloroethane	390	U
75-69-4	Trichlorofluoromethane	260	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	260	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	260	U
156-60-5	trans-1,2-Dichloroethene	260	U
75-34-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	390	U
78-93-3	2-Butanone	390	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	260	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	260	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	260	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	260	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	260	U
79-00-5	1,1,2-Trichloroethane	260	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	260	U
124-48-1	Dibromochloromethane	260	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	260	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **641-2**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653902

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010309.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 20.45 Date Analyzed: 10/29/01

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	390	U
95-47-6	o-Xylene	260	U
100-42-5	Styrene	260	U
75-25-2	Bromoform	260	U
79-34-5	1,1,2,2-Tetrachloroethane	260	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
91-20-3	Napthalene	130	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **641-2**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653902

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010309.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 20.45 Date Analyzed: 10/29/01

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	29.10	1400	J
2. 017301-94-9	Nonane, 4-methyl-	29.16	970	JN
3.	unknown	30.75	920	J
4. 002847-72-5	Decane, 4-methyl-	31.00	2100	JN
5.	unknown	31.66	900	J
6.	unknown	32.04	1200	J
7.	unknown	32.14	920	J
8.	unknown	32.26	2000	J
9.	unknown	33.76	1100	J
10.	unknown	33.90	1100	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 641-5

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653905

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VB010310.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 27.24 Date Analyzed: 10/29/01

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	970	U
107131	Acrylonitrile	970	U
75650	tert-Butyl alcohol	1800	U
1634044	Methyl-tert-Butyl ether	420	U
108203	Di-isopropyl ether	280	U
75718	Dichlorodifluoromethane	550	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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **641-5**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653905

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VB010310.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 27.24 Date Analyzed: 10/29/01

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
91-20-3	Napthalene	260	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **641-5**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653905

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VB010310.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 27.24 Date Analyzed: 10/29/01

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: 5

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 036052-28-5	1-Naphthalenemethanol, 1,2,3,4-t	29.02	3000	JN
2. 020881-29-2	Benzenebutanoic acid, .gamma.-	32.01	2600	JN
3.	unknown	32.75	740	J
4. 001120-21-4	Undecane	33.21	520	JN
5. 001198-20-5	1,4-Methanonaphthalen-9-ol, 1,2,	33.40	790	JN

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Lab File ID: VB010244.D BFB Injection Date: 10/24/01

Instrument ID: GCMS#2 BFB Injection Time: 14:50

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	48.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	84.8
175	4.0 - 9.0% of mass 174	6.7 (7.8)1
176	93.0 - 101.0% of mass 174	83.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.7 (6.9)2

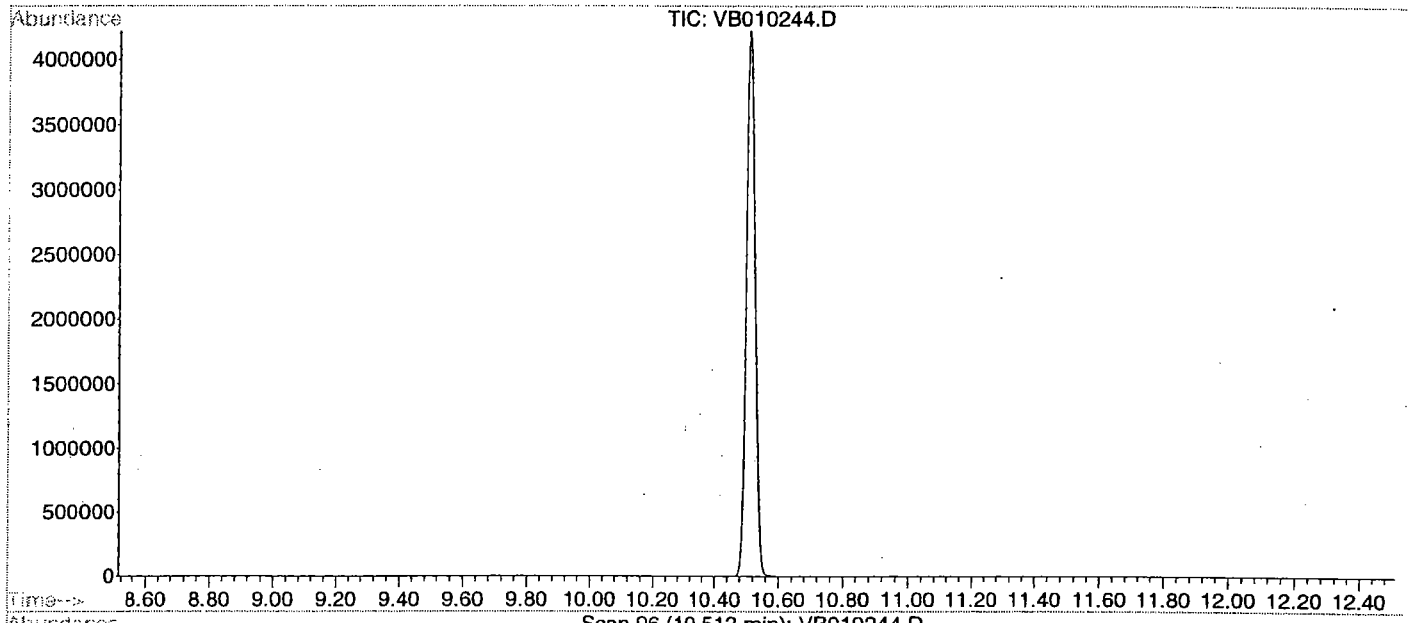
1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010245.D	10/24/01	15:18
02	VSTD100	VSTD100	VB010246.D	10/24/01	16:12
03	VSTD050	VSTD050	VB010247.D	10/24/01	16:57
04	VSTD010	VSTD010	VB010248.D	10/24/01	17:42
05	VSTD005	VSTD005	VB010249.D	10/24/01	18:26

BFB

Data File : C:\HPCHEM\1\DATA\011024\VB010244.D Vial: 1
Acq On : 24 Oct 2001 2:50 pm Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 96

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	139904	PASS
75	95	30	60	48.7	442432	PASS
95	95	100	100	100.0	908672	PASS
96	95	5	9	6.3	57112	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.8	770432	PASS
175	174	5	9	7.8	60448	PASS
176	174	95	101	98.0	755200	PASS
177	176	5	9	6.9	51944	PASS

Response Factor Report GC VOA 2

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration

Calibration Files
100 =VB010246.D 50 =VB010247.D 20 =VB010245.D
10 =VB010248.D 5 =VB010249.D

		Compound	100	50	20	10	5	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)	t	Acrolein	0.231	0.205	0.177	0.217	0.230	0.212	10.43
3)	t	Acrylonitrile	0.737	0.694	0.589	0.743	0.782	0.709	10.44
4)	t	tert-Butyl alcohol	0.143	0.127	0.109	0.142	0.139	0.132	10.92
5)	t	Methyl-tert-Butyl eth	5.273	4.947	3.990	5.151	5.185	4.909	10.74
6)	t	Di-isopropyl ether	1.585	1.430	1.150	1.492	1.409	1.413	11.47
7)	T	Dichlorodifluorometha	2.661	2.418	2.155	2.671	2.705	2.522	9.31
8)	TP	Chloromethane	2.569	2.356	1.952	2.580	2.739	2.439	12.47
9)	TC	Vinyl Chloride	2.552	2.416	1.979	2.608	2.712	2.453	11.65
10)	T	Bromomethane	1.377	1.199	1.114	1.381	1.711	1.356	16.89
11)	T	Chloroethane	1.372	1.263	1.095	1.352	1.404	1.297	9.57
12)	T	Trichlorofluoromethan	4.027	3.675	3.129	3.933	4.039	3.761	10.16
13)	MC	1,1-Dichloroethene	3.084	2.802	2.309	3.002	2.908	2.821	10.81
14)	T	Acetone	0.605	0.574	0.684	0.833	1.163	0.772	31.18
15)	T	Carbon Disulfide	5.898	5.272	4.379	5.415	5.624	5.318	10.82
16)	T	Methylene Chloride	1.893	1.767	1.495	2.010	2.096	1.852	12.68
17)	T	trans-1,2-Dichloroeth	2.652	2.449	1.961	2.699	2.660	2.484	12.40
18)	TP	1,1-Dichloroethane	3.070	2.789	2.474	2.948	2.937	2.843	8.07
19)	T	Vinyl Acetate	3.919	3.665	2.816	3.494	3.091	3.397	13.05
20)	T	2-Butanone	0.797	0.718	0.717	0.826	0.780	0.768	6.33
21)	T	cis-1,2-Dichloroethen	2.716	2.468	1.980	2.680	2.632	2.495	12.15
22)	TC	Chloroform	3.316	3.053	2.593	3.276	3.474	3.142	10.89
23)	T	1,1,1-Trichloroethane	2.794	2.572	2.161	2.753	2.704	2.597	9.92
24)	T	Carbon Tetrachloride	2.459	2.206	1.799	2.229	2.074	2.153	11.22
25)	S	1,2-Dichloroethane-d4	2.218	2.370	2.311	2.358	2.413	2.334	3.18
26)	I	1,4-Difluorobenzene	ISTD						
27)	TM	Benzene	1.072	0.974	0.863	1.107	1.097	1.023	10.14
28)	T	1,2-Dichloroethane	0.401	0.358	0.319	0.407	0.401	0.377	10.05
29)	TM	Trichloroethene	0.312	0.276	0.246	0.311	0.304	0.290	9.82
30)	TC	1,2-Dichloropropane	0.272	0.239	0.212	0.268	0.268	0.252	10.17
31)	T	Bromodichloromethane	0.354	0.306	0.263	0.316	0.309	0.310	10.36
32)	T	2-Chloroethyl vinyl e	0.103	0.092	0.079	0.103	0.104	0.096	11.01
33)	T	cis-1,3-Dichloroprope	0.434	0.374	0.306	0.373	0.365	0.370	12.28
34)	T	4-Methyl-2-Pentanone	0.087	0.076	0.067	0.077	0.073	0.076	9.38
35)	S	Toluene-d8	1.136	1.137	1.151	1.141	1.153	1.143	0.69
36)	TCM	Toluene	1.171	1.096	0.976	1.210	1.230	1.137	9.10
37)	I	Chlorobenzene-d5	ISTD						
38)	T	trans-1,3-Dichloropro	1.575	1.331	1.076	1.242	1.183	1.281	14.70
39)	T	1,1,2-Trichloroethane	0.918	0.823	0.732	0.910	0.869	0.850	8.96
40)	T	Tetrachloroethene	1.288	1.142	0.962	1.218	1.290	1.180	11.54
41)	T	2-Hexanone	0.603	0.521	0.462	0.492	0.484	0.512	10.70
42)	T	Dibromochloromethane	0.967	0.828	0.683	0.792	0.760	0.806	13.01
43)	TMP	Chlorobenzene	2.975	2.665	2.418	2.953	2.919	2.786	8.63
44)	TC	Ethylbenzene	4.786	4.644	4.148	5.222	5.087	4.778	8.81
45)	T	m+p-Xylenes	1.853	1.688	1.482	1.867	1.795	1.737	9.15
46)	T	o-Xylene	4.001	3.672	3.146	3.933	3.849	3.720	9.24
47)	T	Styrene	3.417	3.072	2.664	3.200	3.066	3.084	8.89
48)	TP	Bromoform	0.663	0.507	0.391	0.452	0.406	0.484	22.74
49)	S	Bromofluorobenzene	1.661	1.674	1.729	1.659	1.628	1.670	2.20
50)	TP	1,1,2,2-Tetrachloroet	1.141	1.026	0.917	1.124	1.166	1.075	9.60
51)	T	1,3-Dichlorobenzene	2.599	2.325	2.005	2.479	2.537	2.389	9.93
52)	T	1,4-Dichlorobenzene	2.742	2.466	2.108	2.680	2.681	2.535	10.29
53)	T	1,2-Dichlorobenzene	2.521	2.283	1.969	2.466	2.516	2.351	9.97
54)	t	Napthalene	3.928	3.809	3.064	3.989	3.747	3.707	10.04

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Lab File ID: VB010304.D BFB Injection Date: 10/29/01

Instrument ID: GCMS#2 BFB Injection Time: 8:09

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.6
75	30.0 - 66.0% of mass 95	47.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	87.7
175	4.0 - 9.0% of mass 174	6.5 (7.4)1
176	93.0 - 101.0% of mass 174	86.1 (98.2)1
177	5.0 - 9.0% of mass 176	5.7 (6.6)2

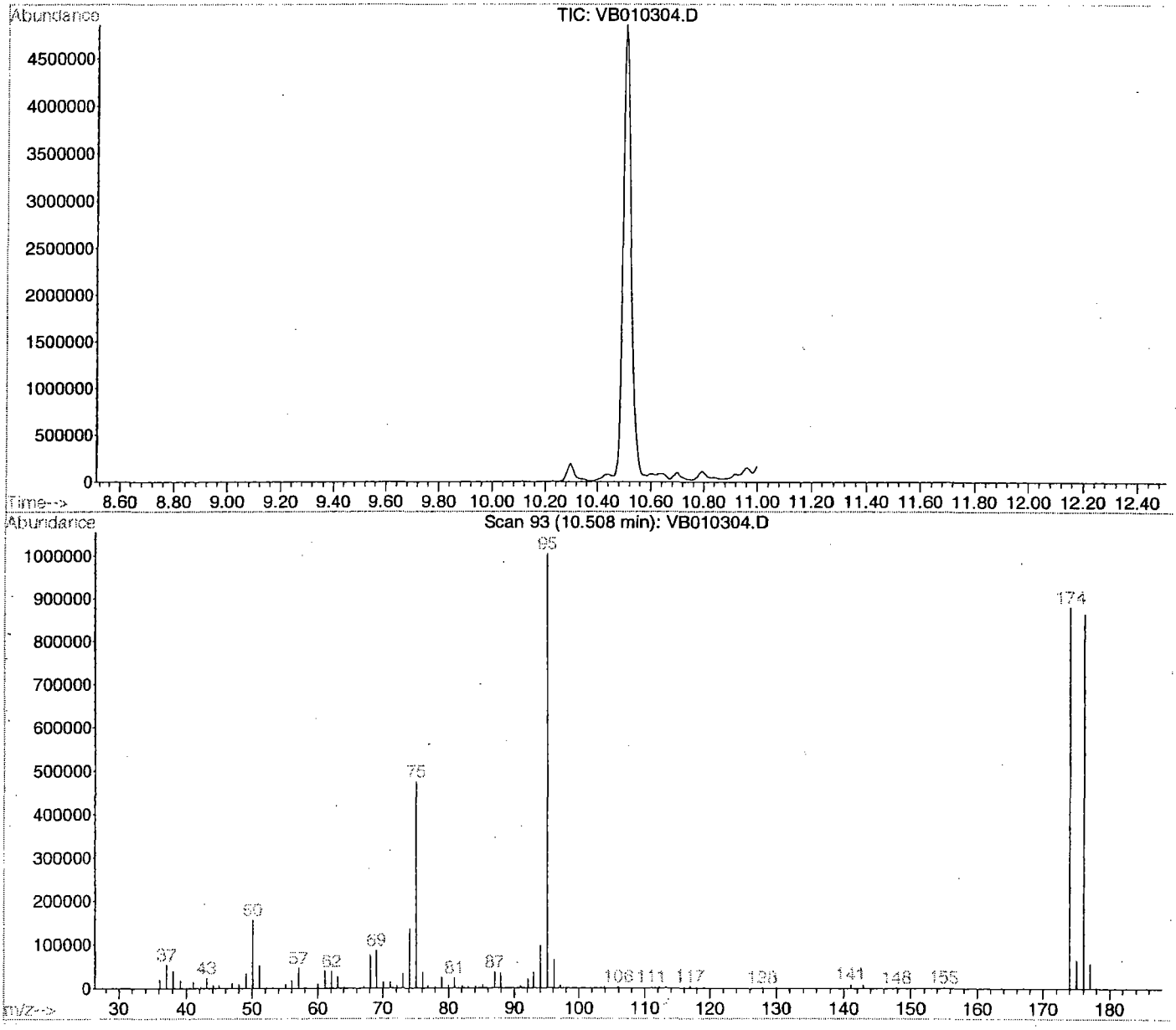
1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010305.D	10/29/01	8:38
02	MB	MB	VB010306.D	10/29/01	10:04
03	641-2	1653902	VB010309.D	10/29/01	12:33
04	641-5	1653905	VB010310.D	10/29/01	13:17

Data File : C:\HPCHEM\1\DATA\011029\VB010304.D
Acq On : 29 Oct 2001 8:09 am
Sample : BFB Tune
Misc : BFB Tune
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.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 93

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	156416	PASS
75	95	30	60	47.2	475072	PASS
95	95	100	100	100.0	1005888	PASS
96	95	5	9	6.5	65360	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	87.7	882304	PASS
175	174	5	9	7.4	65096	PASS
176	174	95	101	98.2	866112	PASS
177	176	5	9	6.6	57432	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011029\VB010305.D Vial: 1
Acq On : 29 Oct 2001 8:38 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	81	-0.02
2	t	Acrolein	0.212	0.163	23.1	74	-0.06
3	t	Acrylonitrile	0.709	0.508	28.3#	70	-0.02
4	t	tert-Butyl alcohol	0.132	0.109	17.4	81	-0.39
5	t	Methyl-tert-Butyl ether	4.909	4.951	-0.9	100	-0.01
6	t	Di-isopropyl ether	1.413	1.626	-15.1	114	-0.03
7	T	Dichlorodifluoromethane	2.522	1.906	24.4	72	-0.01
8	TP	Chloromethane	2.439	2.322	4.8	96	-0.02
9	TC	Vinyl Chloride	2.453	2.388	2.6	98	0.00
10	T	Bromomethane	1.356	1.407	-3.8	102	-0.01
11	T	Chloroethane	1.297	1.380	-6.4	102	-0.03
12	T	Trichlorofluoromethane	3.761	3.899	-3.7	101	0.00
13	MC	1,1-Dichloroethene	2.821	3.030	-7.4	106	0.00
14	T	Acetone	0.772	0.566	26.7#	67	-0.09
15	T	Carbon Disulfide	5.318	5.590	-5.1	103	0.00
16	T	Methylene Chloride	1.852	1.952	-5.4	106	0.00
17	T	trans-1,2-Dichloroethene	2.484	2.632	-6.0	109	-0.01
18	TP	1,1-Dichloroethane	2.843	3.365	-18.4	110	0.00
19	T	Vinyl Acetate	3.397	3.102	8.7	89	0.00
20	T	2-Butanone	0.768	0.566	26.3#	64	-0.04
21	T	cis-1,2-Dichloroethene	2.495	2.773	-11.1	113	0.00
22	TC	Chloroform	3.142	3.472	-10.5	108	-0.01
23	T	1,1,1-Trichloroethane	2.597	2.949	-13.6	110	0.00
24	T	Carbon Tetrachloride	2.153	2.477	-15.0	111	-0.01
25	S	1,2-Dichloroethane-d4	2.334	2.209	5.4	77	-0.02
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
27	TM	Benzene	1.023	1.038	-1.5	108	-0.01
28	T	1,2-Dichloroethane	0.377	0.344	8.8	97	-0.01
29	TM	Trichloroethene	0.290	0.306	-5.5	111	-0.01
30	TC	1,2-Dichloropropane	0.252	0.262	-4.0	111	0.00
31	T	Bromodichloromethane	0.310	0.316	-1.9	108	-0.01
32	T	2-Chloroethyl vinyl ether	0.096	0.091	5.2	103	0.00
33	T	cis-1,3-Dichloropropene	0.370	0.391	-5.7	115	0.00
34	T	4-Methyl-2-Pentanone	0.076	0.061	19.7	82	0.00
35	S	Toluene-d8	1.143	1.158	-1.3	90	0.00
36	TCM	Toluene	1.137	1.184	-4.1	109	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	95	-0.01
38	T	trans-1,3-Dichloropropene	1.281	1.165	9.1	103	0.00
39	T	1,1,2-Trichloroethane	0.850	0.710	16.5	92	0.00
40	T	Tetrachloroethene	1.180	1.154	2.2	114	0.00
41	T	2-Hexanone	0.512	0.461	10.0	94	-0.01
42	T	Dibromochloromethane	0.806	0.710	11.9	99	-0.01
43	TMP	Chlorobenzene	2.786	2.762	0.9	108	0.00
44	TC	Ethylbenzene	4.778	4.884	-2.2	112	0.00
45	T	m+p-Xylenes	1.737	1.733	0.2	111	0.00
46	T	o-Xylene	3.720	3.772	-1.4	114	-0.01
47	T	Styrene	3.084	3.140	-1.8	112	0.00
48	TP	Bromoform	0.484	0.365	24.6	88	0.00
49	S	Bromofluorobenzene	1.670	1.645	1.5	90	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.075	0.816	24.1	84	-0.01
51	T	1,3-Dichlorobenzene	2.389	2.349	1.7	111	0.00
52	T	1,4-Dichlorobenzene	2.535	2.450	3.4	110	-0.01
53	T	1,2-Dichlorobenzene	2.351	2.183	7.1	105	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011029\VB010305.D Vial: 1
Acq On : 29 Oct 2001 8:38 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	t	Napthalene	3.707	2.860	22.8	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VB010305.D M262NAP.M Thu Nov 08 14:59:06 2001

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Lab File ID: VB010306.D Lab Sample ID: MB

Date Analyzed: 10/29/01 Time Analyzed: 10:04

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	641-2	1653902	VB010309.D	12:33
02	641-5	1653905	VB010310.D	13:17

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	FMETL	**Project**	10001
NJDEP #	13461	**Location**	641

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	92.0	101.0	95.0
02	641-2	107.3	97.0	97.7
03	641-5	103.0	92.3	94.3

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration

Non-Spiked Sample: VB010268.D

	Spike Sample	Spike Duplicate Sample
File ID :	VB010269.D	VB010270.D
Sample :	1653103 MS	1653103 MSD
Acq Time:	25 Oct 2001 12:21 pm	25 Oct 2001 1:06 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	21	20	105	101	4	22	59-172
Benzene	0.0	20	21	21	105	104	1	21	66-142
Trichloroethene	0.0	20	22	21	109	104	5	24	62-137
Toluene	0.0	20	21	21	107	105	2	21	59-139
Chlorobenzene	0.0	20	22	21	109	103	5	21	60-133

- Fails Limit Check

M262NAP.M Thu Nov 08 15:00:49 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16539 Location: 641 SDG No.:

Lab File ID (Standard): VB010305.D Date Analyzed: 10/29/01

Instrument ID: GCMS#2 Time Analyzed: 8:38

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	511055	16.74	3864170	19.48	1081120	27.32
	UPPER LIMIT	1022110	17.24	7728340	19.98	2162240	27.82
	LOWER LIMIT	255528	16.24	1932085	18.98	540560	26.82
	Lab ID.						
01	MB	519014	16.75	3921542	19.48	1094267	27.32
02	641-2	480508	16.76	3734825	19.48	1045618	27.33
03	641-5	480412	16.76	3814988	19.48	1050488	27.32

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\011029\VB010306.D Vial: 1
Acq On : 29 Oct 2001 10:04 am Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 1 14:04 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Nov 01 11:14:40 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	519014	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3921542	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1094267	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.35	65	1119292	27.72	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 92.40%			
35) Toluene-d8	23.50	98	4546296	30.42	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 101.40%			
49) Bromofluorobenzene	30.34	95	1727916	28.36	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 94.53%			

Target Compounds Qvalue

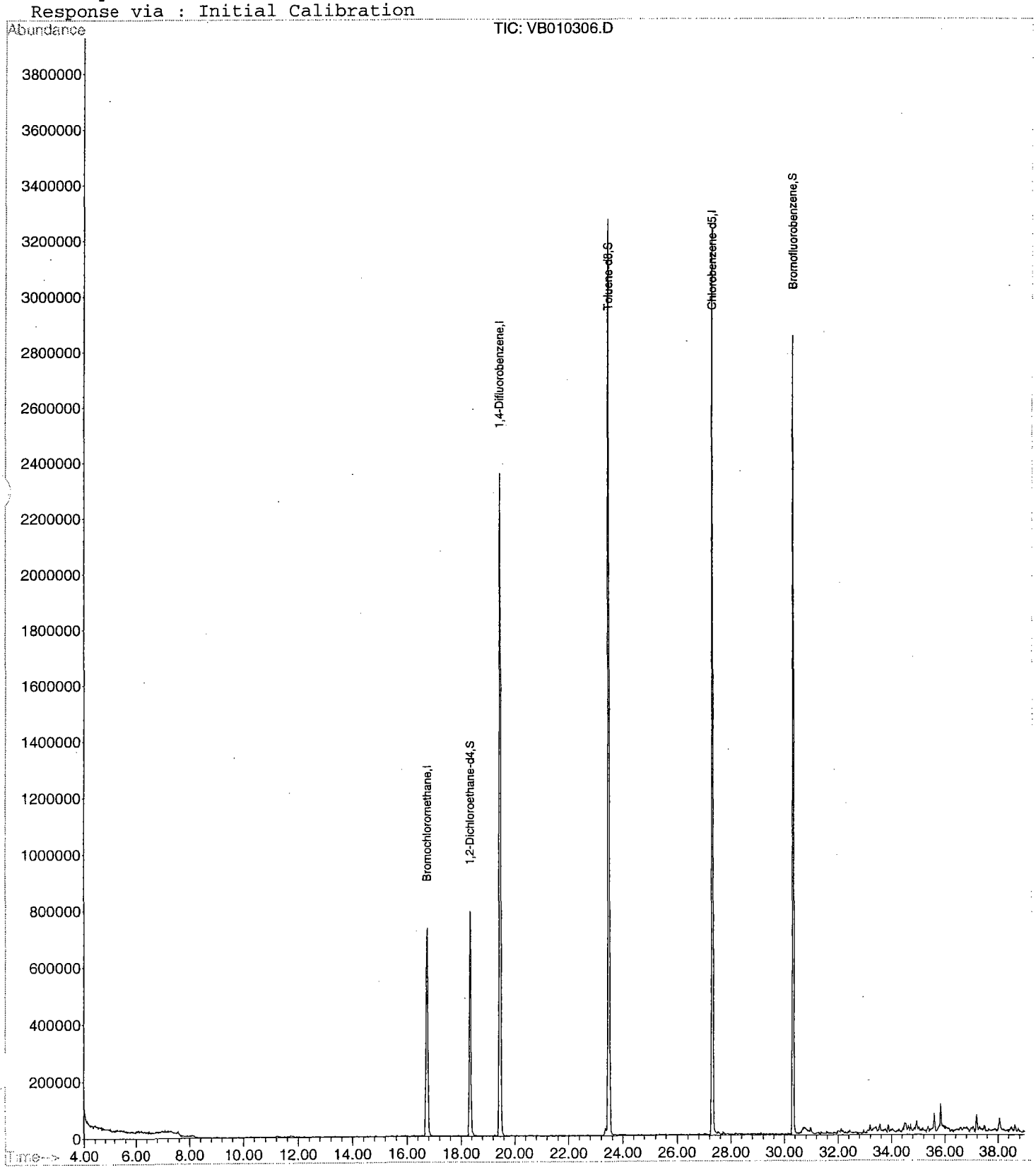
(#) = qualifier out of range (m) = manual integration
VB010306.D M262NAP.M Tue Nov 06 15:42:42 2001 Page 1

000033

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011029\VB010306.D Vial: 1
Acq On : 29 Oct 2001 10:04 am Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 1 14:04 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



000084

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\VB010309.D Vial: 3
Acq On : 29 Oct 2001 12:33 pm Operator: Skelton
Sample : 1653902 Inst : GC VOA 2
Misc : 641-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 6 15:42 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 29 11:58:32 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	480508	30.00	ug/L	0.02
26) 1,4-Difluorobenzene	19.48	114	3734825	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1045618	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	3944243	105.50	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 351.67%#			
35) Toluene-d8	23.50	98	13714550	96.35	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 321.17%#			
49) Bromofluorobenzene	30.34	95	5647681	97.02	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 323.40%#			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
VB010309.D M262NAP.M Tue Nov 06 15:42:48 2001

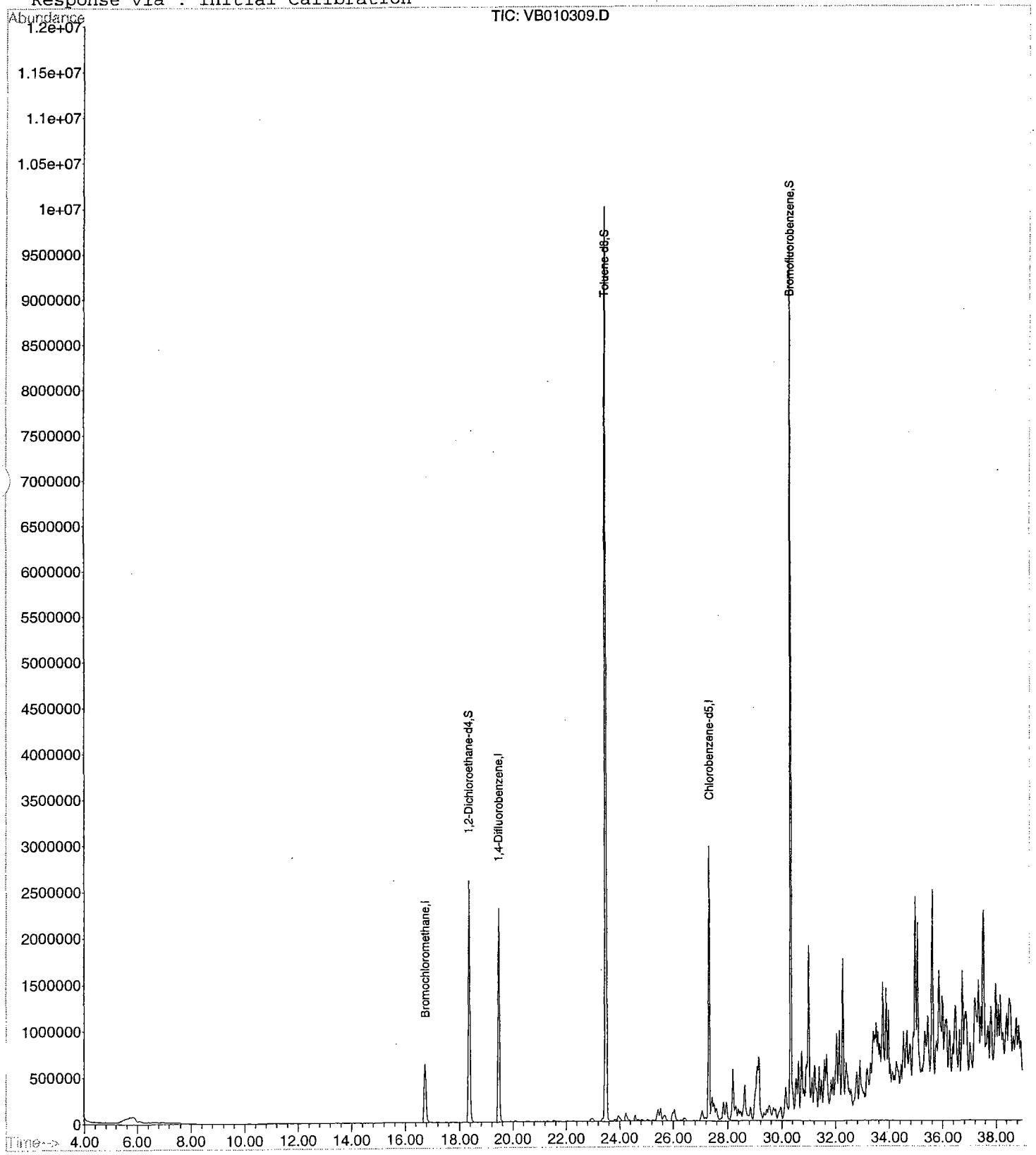
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011029\VB010309.D
Acq On : 29 Oct 2001 12:33 pm
Sample : 1653902
Misc : 641-2
MS Integration Params: TBA.P
Quant Time: Nov 6 15:42 2001

Vial: 3
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00

Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\VB010310.D Vial: 4
Acq On : 29 Oct 2001 1:17 pm Operator: Skelton
Sample : 1653905 Inst : GC VOA 2
Misc : 641-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 6 15:42 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 29 11:58:32 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	480412	30.00	ug/L	0.02
26) 1,4-Difluorobenzene	19.48	114	3814988	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1050488	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	3798358	101.62	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery =	338.73%#		
35) Toluene-d8	23.50	98	13407500	92.21	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	307.37%#		
49) Bromofluorobenzene	30.34	95	5496111	93.98	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	313.27%#		
Target Compounds						Qvalue
54) Napthalene	38.65	128	240915	1.86	ug/L	98

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

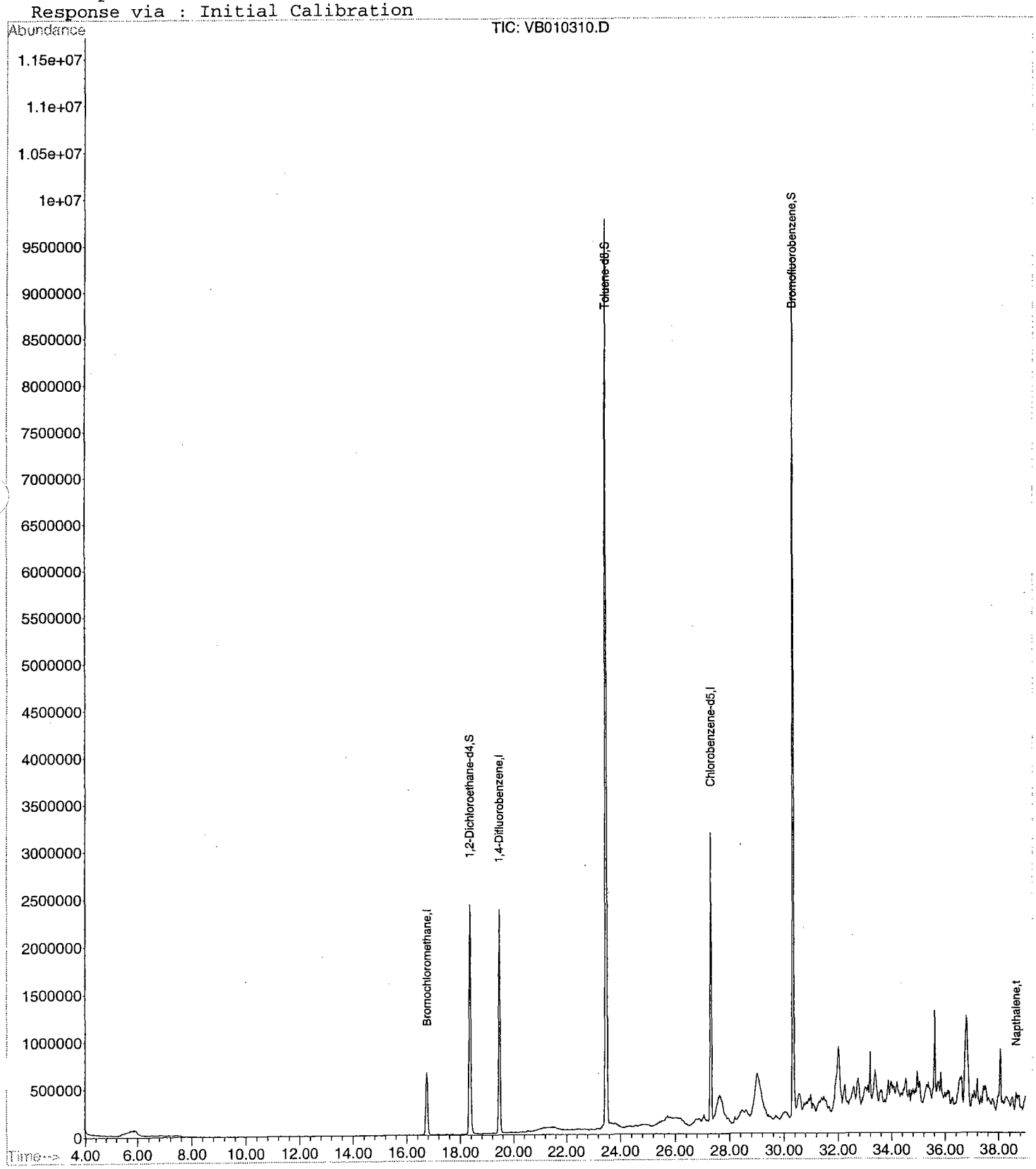
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011029\VB010310.D
Acq On : 29 Oct 2001 1:17 pm
Sample : 1653905
Misc : 641-5
MS Integration Params: TBA.P
Quant Time: Nov 6 15:42 2001

Vial: 4
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00

Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



000038

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 # :**	16539
		Location :	Bldg.641
		UST Reg. # :	

Analysis :	OQA-QAM-025	**Date Received :**	26-Oct-01
Matrix :	Soil	**Date Extracted :**	29-Oct-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	30-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1653901	641-1	**1.00**	15.17	77.14	194	**ND**
1653902	641-2	**1.00**	15.86	79.55	180	**1585.49**
1653903	641-3	**1.00**	15.17	76.43	195	**ND**
1653904	641-4	**1.00**	15.36	73.67	200	**ND**
1653905	641-5	**1.00**	15.30	72.76	203	**347.79**
1653906	F.D.	**1.00**	15.13	76.34	196	**ND**
METHOD BLANK	MB-011029	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011029\T013778.D Vial: 1
Acq On : 29 Oct 2001 10:57 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm std Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.843 E3	-15.7	110	-0.04
2	tC	C10	20.595	22.802 E3	-10.7	107	0.00
3	TC	C12	21.549	22.721 E3	-5.4	103	0.00
4	tC	C14	23.048	23.547 E3	-2.2	101	0.00
5	tC	C16	24.057	24.016 E3	0.2	100	0.00
6	tC	C18	24.812	23.780 E3	4.2	96	0.00
7	tC	C20	24.684	24.726 E3	-0.2	100	0.00
8	tC	C22	25.878	25.517 E3	1.4	99	0.00
9	tC	C24	26.326	25.822 E3	1.9	99	0.00
10	tC	C26	26.702	26.057 E3	2.4	99	0.00
11	tC	C28	26.061	25.697 E3	1.4	99	0.00
12	tC	C30	26.583	26.455 E3	0.5	99	0.00
13	tC	C32	26.447	26.298 E3	0.6	99	0.00
14	tC	C34	26.317	26.295 E3	0.1	100	0.00
15	tC	C36	26.661	27.268 E3	-2.3	102	0.00
16	tC	C38	24.528	26.387 E3	-7.6	109	0.00
17	tC	C40	21.994	25.659 E3	-16.7	119	0.00
18	tC	c42	19.638	25.239 E3	-28.5#	130	0.01
19	TC	Pristane	23.812	23.320 E3	2.1	97	0.00
	TC	Phytane	25.573	24.928 E3	2.5	99	0.00
	sC	o-terphenyl	25.484	25.233 E3	1.0	99	0.00
22	tC	TPHC - total	28.994	28.534 E3	1.6	107	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 1
T013778.D TPH95.M Tue Oct 30 08:20:36 2001

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011029\T013790.D Vial: 13
Acq On : 30 Oct 2001 7:45 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm std Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.265 E3	-18.0	113	-0.05
2	tC	C10	20.595	23.030 E3	-11.8	108	0.00
3	TC	C12	21.549	22.890 E3	-6.2	104	0.00
4	tC	C14	23.048	23.796 E3	-3.2	102	0.00
5	tC	C16	24.057	24.233 E3	-0.7	101	0.00
6	tC	C18	24.812	25.443 E3	-2.5	103	0.00
7	tC	C20	24.684	25.116 E3	-1.8	101	0.00
8	tC	C22	25.878	25.833 E3	0.2	100	0.00
9	tC	C24	26.326	26.113 E3	0.8	100	0.00
10	tC	C26	26.702	26.371 E3	1.2	100	0.00
11	tC	C28	26.061	26.008 E3	0.2	100	0.00
12	tC	C30	26.583	26.766 E3	-0.7	100	0.00
13	tC	C32	26.447	26.571 E3	-0.5	100	0.00
14	tC	C34	26.317	26.462 E3	-0.6	101	0.00
15	tC	C36	26.661	27.555 E3	-3.4	103	0.00
16	tC	C38	24.528	26.392 E3	-7.6	109	0.00
17	tC	C40	21.994	25.433 E3	-15.6	118	0.00
18	tC	c42	19.638	24.982 E3	-27.2#	129	0.01
19	TC	Pristane	23.812	23.432 E3	1.6	98	0.00
	TC	Phytane	25.573	25.233 E3	1.3	100	0.00
	sC	o-terphenyl	25.484	25.511 E3	-0.1	101	0.00
22	tC	TPHC - total	28.994	28.710 E3	1.0	108	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16539
	DPW. SELFM-PW-EV	**Location :**	Bldg.641
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		

Analysis:	OQA-QAM-025	**Date Received :**	26-Oct-01
Matrix:	Soil	**Date Extracted :**	29-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	30-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1653901			10.00	10.75	**107.48**
1653902			10.00	10.48	**104.83**
1653903			10.00	12.67	**126.71**
1653904			10.00	12.25	**122.46**
1653905			10.00	12.29	**122.85**
1653906			10.00	12.08	**120.78**
METHOD BLANK	MB-011029		10.00	12.95	**129.50**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	16539
	DPW. SELFM-PW-EV	**Location :**	Bldg.641
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	26-Oct-01
Matrix:	Soil	**Date Extracted :**	29-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	30-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1653901MS	1000	0.00	891.51	89.15	75-125
1653901MSD	1000	0.00	877.48	87.75	75-125

RPD	**1.59**	**20.00**

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

Client :	U.S. Army	**Project # :**	16539
	DPW. SELFM-PW-EV	**Location :**	Bldg.641
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	26-Oct-01
Matrix:	Soil	**Date Extracted :**	29-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	30-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-011029	29-Oct-01	1000	999.59	99.96	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013779.D Vial: 2
Acq On : 29 Oct 2001 11:31 am Operator: B.Patel
Sample : MB-011029 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 11:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	330102	12.954 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 129.54%#	
Target Compounds			

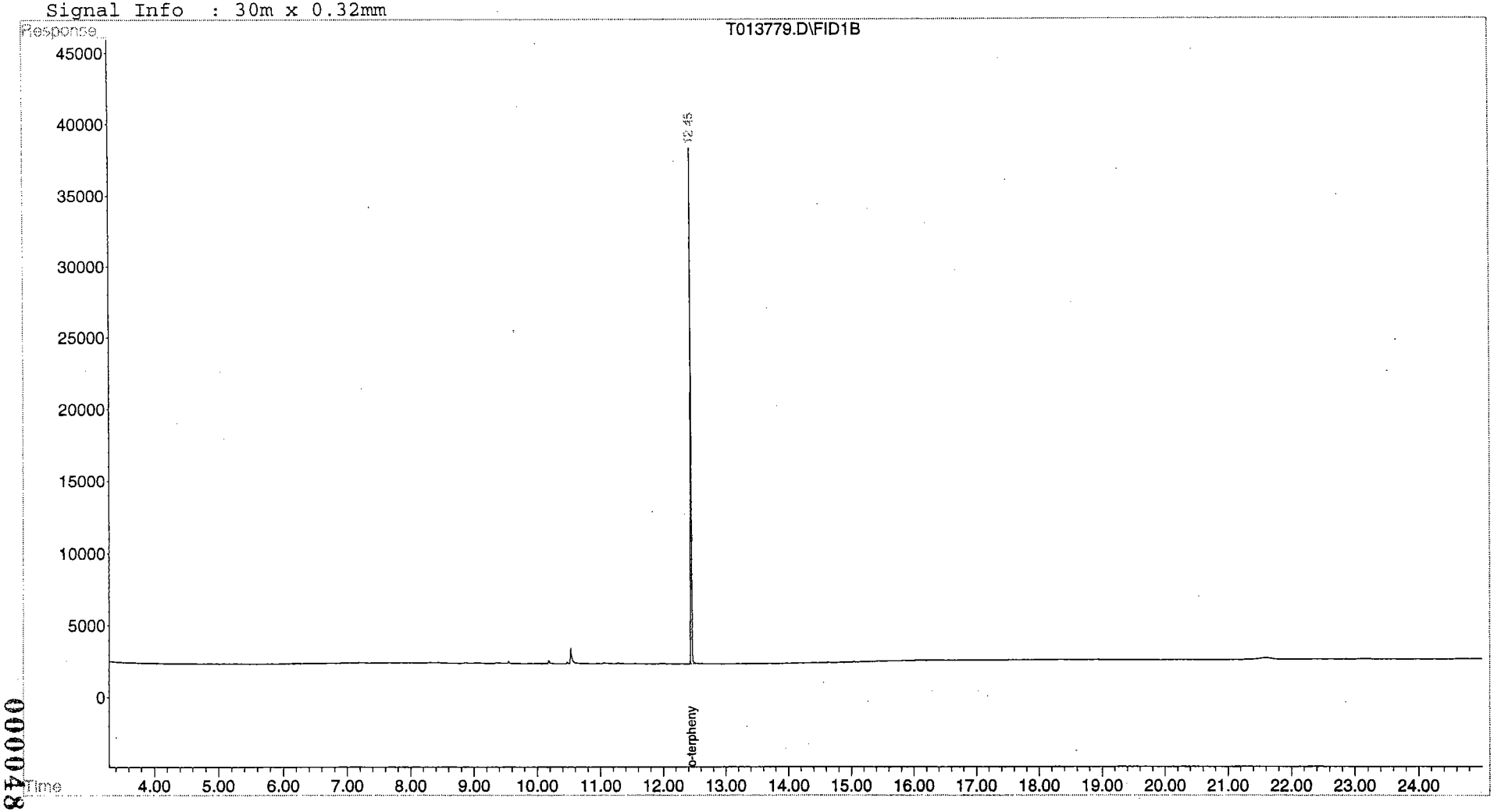
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011029\T013779.D Vial: 2
Acq On : 29 Oct 2001 11:31 am Operator: B.Patel
Sample : MB-011029 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 11:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013781.D Vial: 4
Acq On : 29 Oct 2001 12:37 pm Operator: B.Patel
Sample : 1653901s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 13:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	273904	10.748 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 107.48%#	
Target Compounds			

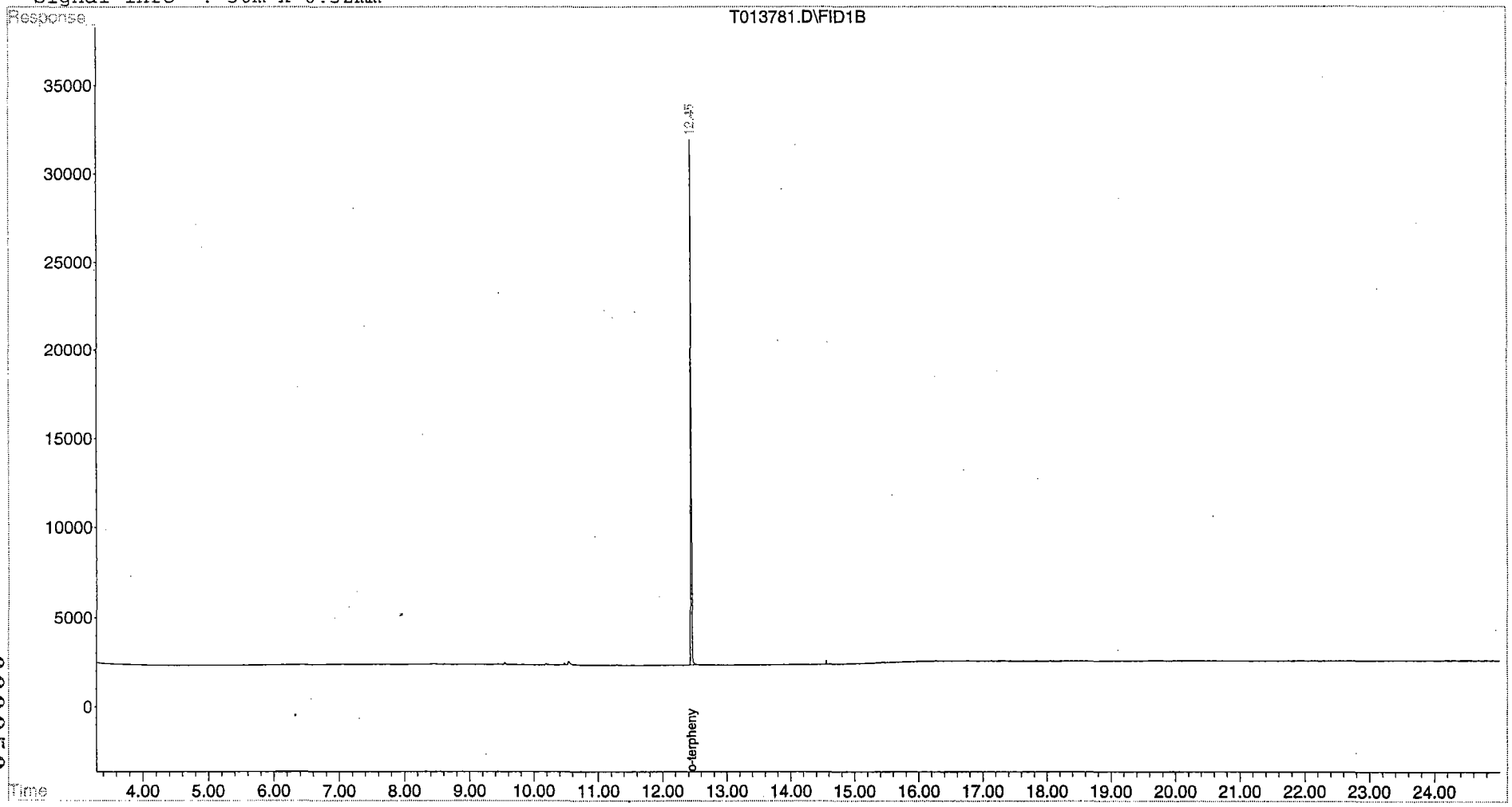
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011029\T013781.D Vial: 4
Acq On : 29 Oct 2001 12:37 pm Operator: B.Patel
Sample : 1653901s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 13:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000050

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013784.D Vial: 7
Acq On : 29 Oct 2001 2:16 pm Operator: B.Patel
Sample : 1653902s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 30 7:48 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	267145	10.483 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 104.83%#	
Target Compounds			
3) TC C12	8.90	39884	1.851 mg/L
4) tC C14	10.00	184275	7.995 mg/L
5) tC C16	11.01	160833	6.686 mg/L
6) tC C18	11.47	74489	3.002 mg/L
7) tC C20	11.91	90824	3.679 mg/L
8) tC C22	12.73	39076	1.510 mg/L
19) TC Pristane	11.50	60677	2.548 mg/L
20) TC Phytane	11.91	90824	3.552 mg/L
22) tC TPHC - total	12.45	11599825	400.079 mg/L m

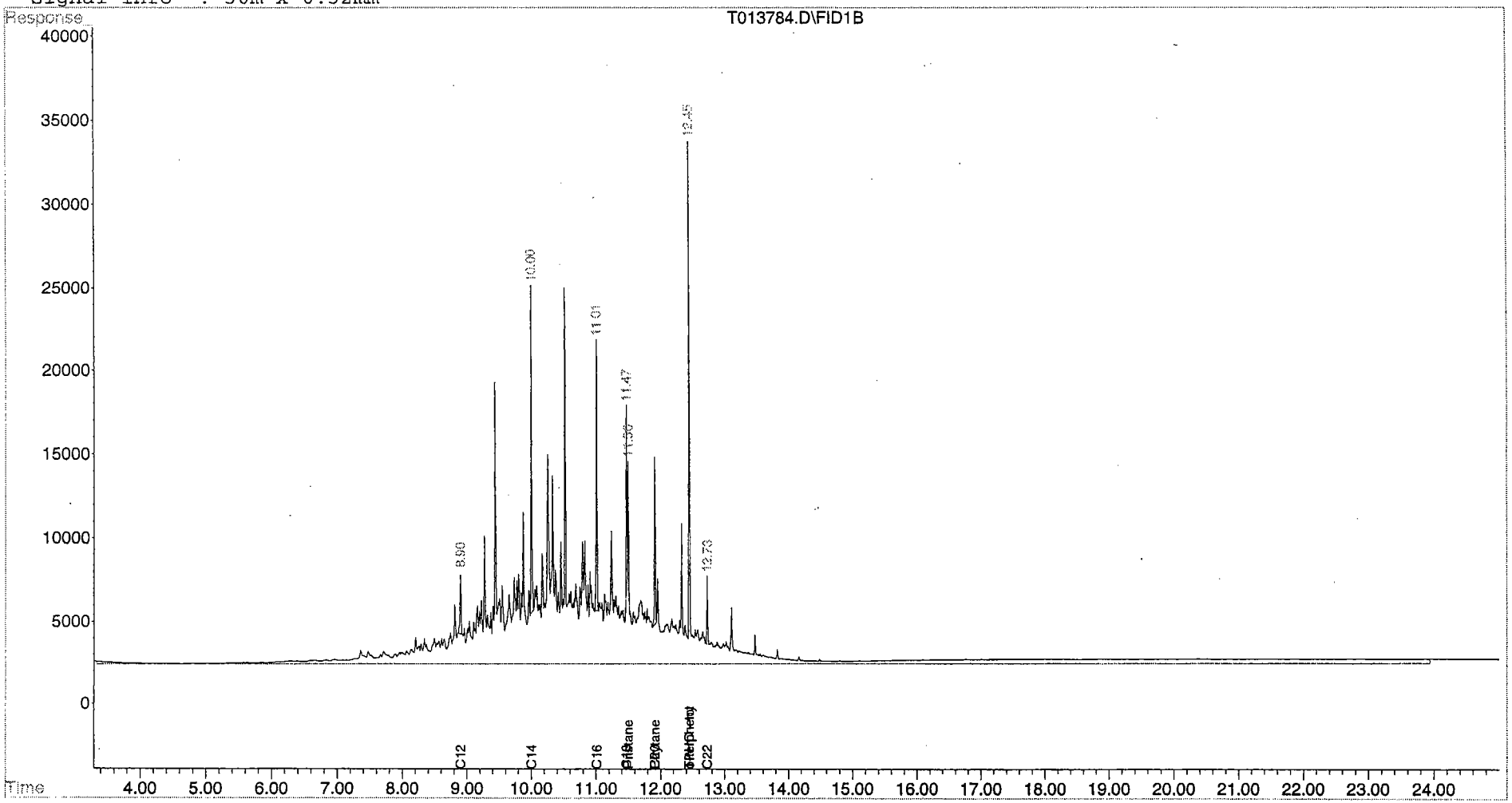
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat[illegible] Report

Data File : C:\HPCHEM\1\DATA\011029\T013784.D Vial: 7
Acq On : 29 Oct 2001 2:16 pm Operator: B.Patel
Sample : 1653902s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 30 7:48 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



250052

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013785.D Vial: 8
Acq On : 29 Oct 2001 2:49 pm Operator: B.Patel
Sample : 1653903s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 15:14 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	322913	12.671 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 126.71%#	
Target Compounds			

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

000053

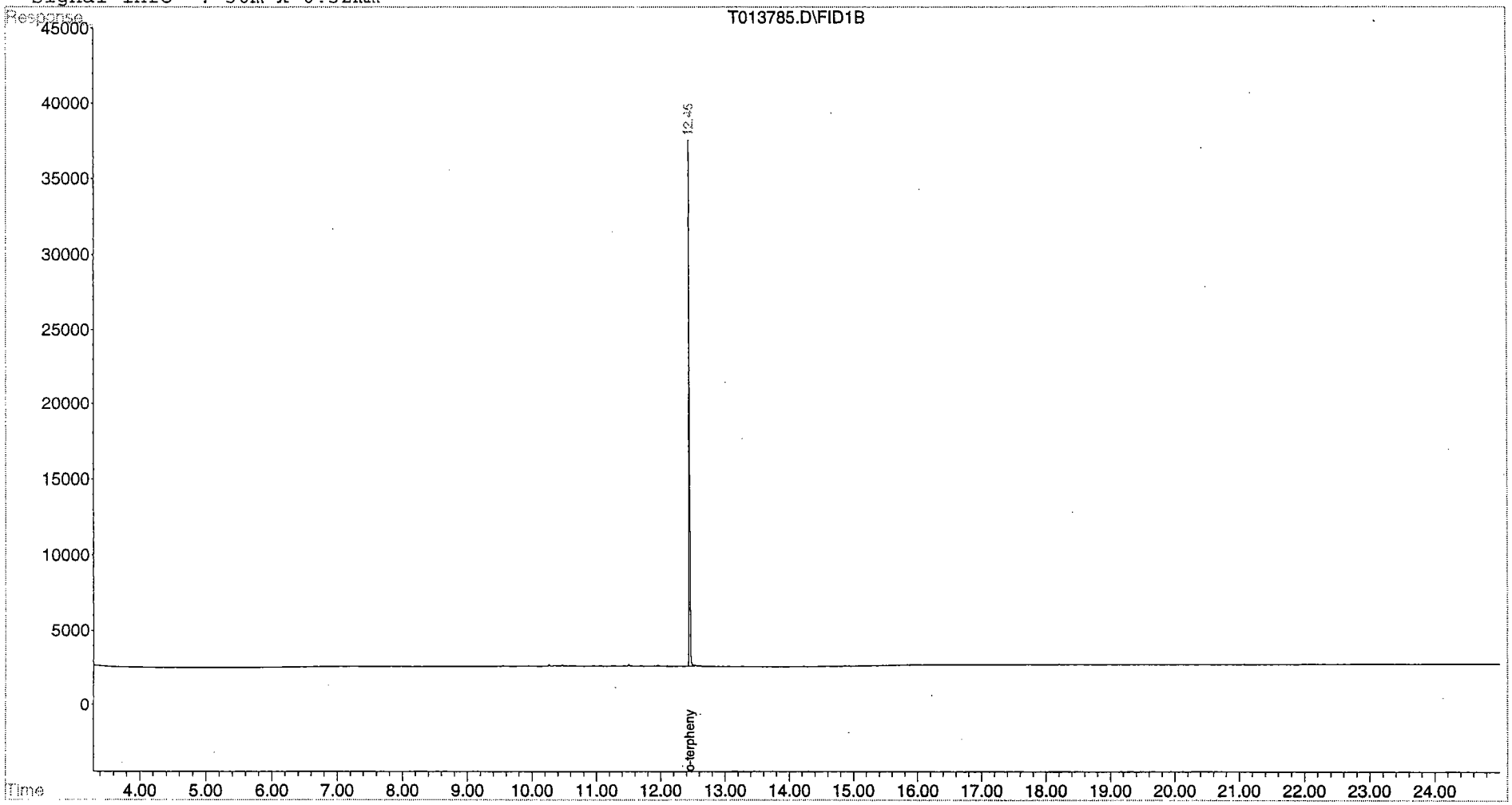
Quantitat' Report

Data File : C:\HPCHEM\1\DATA\011029\T013785.D
Acq On : 29 Oct 2001 2:49 pm
Sample : 1653903s
Misc :
IntFile : TPHCINT.E
Quant Time: Oct 29 15:14 2001 Quant Results File: TPH95.RES

Vial: 8
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000054

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013786.D Vial: 9
Acq On : 29 Oct 2001 3:22 pm Operator: B.Patel
Sample : 1653904s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 15:47 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	312080	12.246 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 122.46%#	
Target Compounds			

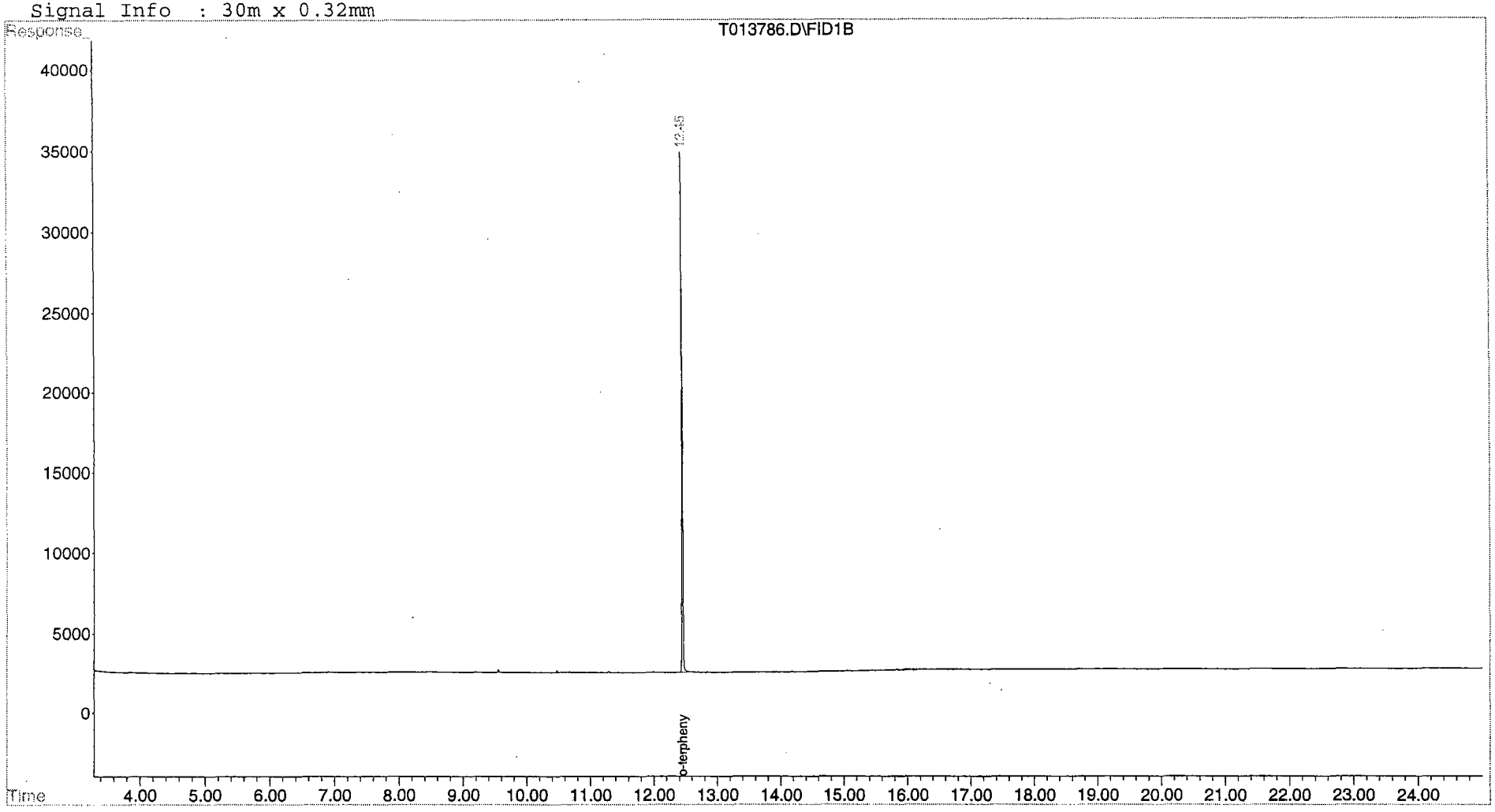
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011029\T013786.D Vial: 9
Acq On : 29 Oct 2001 3:22 pm Operator: B.Patel
Sample : 1653904s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 15:47 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000056

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013787.D Vial: 10
Acq On : 29 Oct 2001 3:55 pm Operator: B.Patel
Sample : 1653905s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 30 7:50 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	313053	12.285 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 122.85%#	
Target Compounds			
22) tC TPHC - total	12.45	2245187	77.437 mg/L m

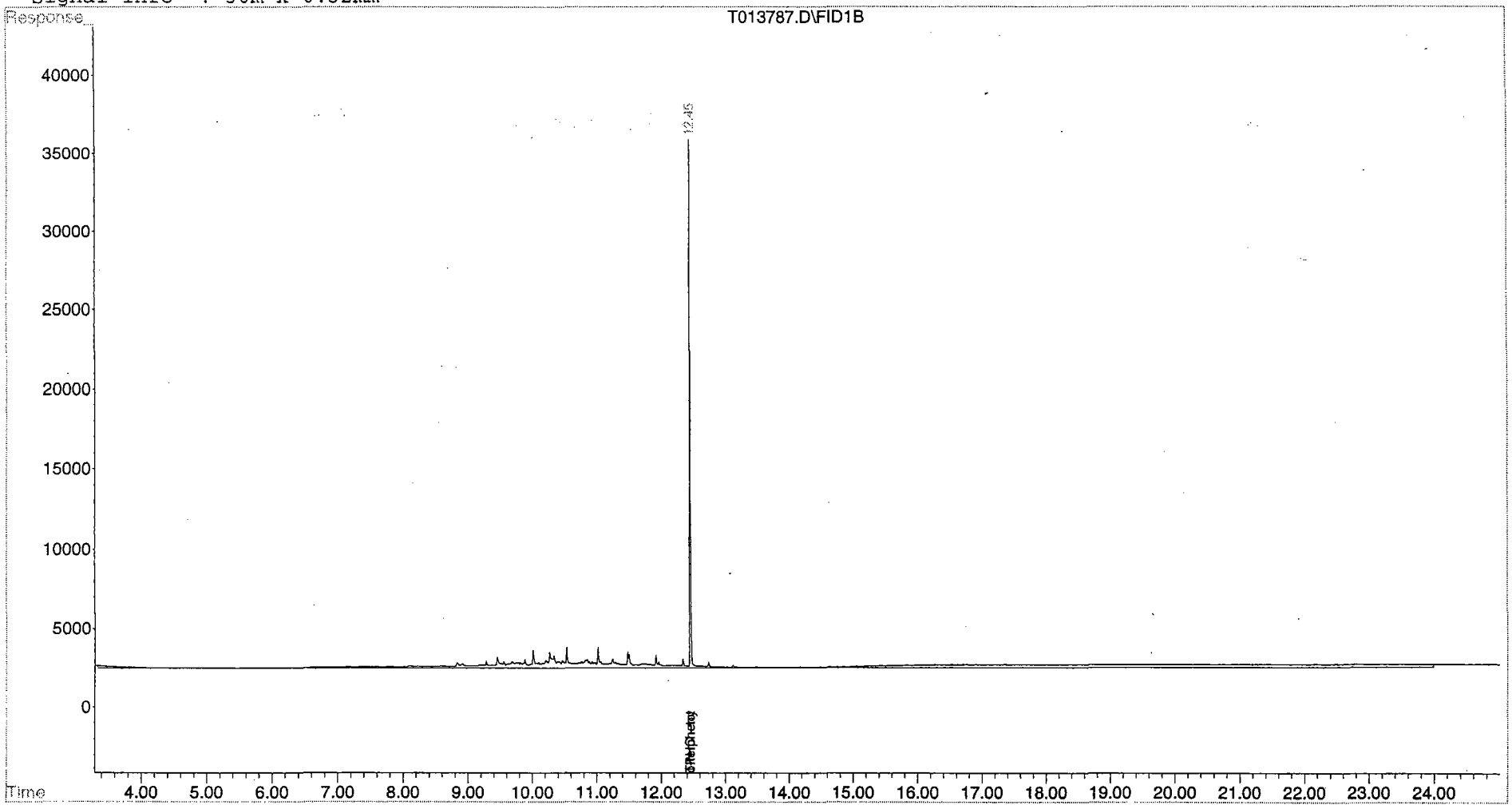
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitat Report

Data File : C:\HPCHEM\1\DATA\011029\T013787.D Vial: 10
Acq On : 29 Oct 2001 3:55 pm Operator: B.Patel
Sample : 1653905s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 30 7:50 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000058

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\T013788.D Vial: 11
Acq On : 29 Oct 2001 4:29 pm Operator: B.Patel
Sample : 1653906s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 16:55 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

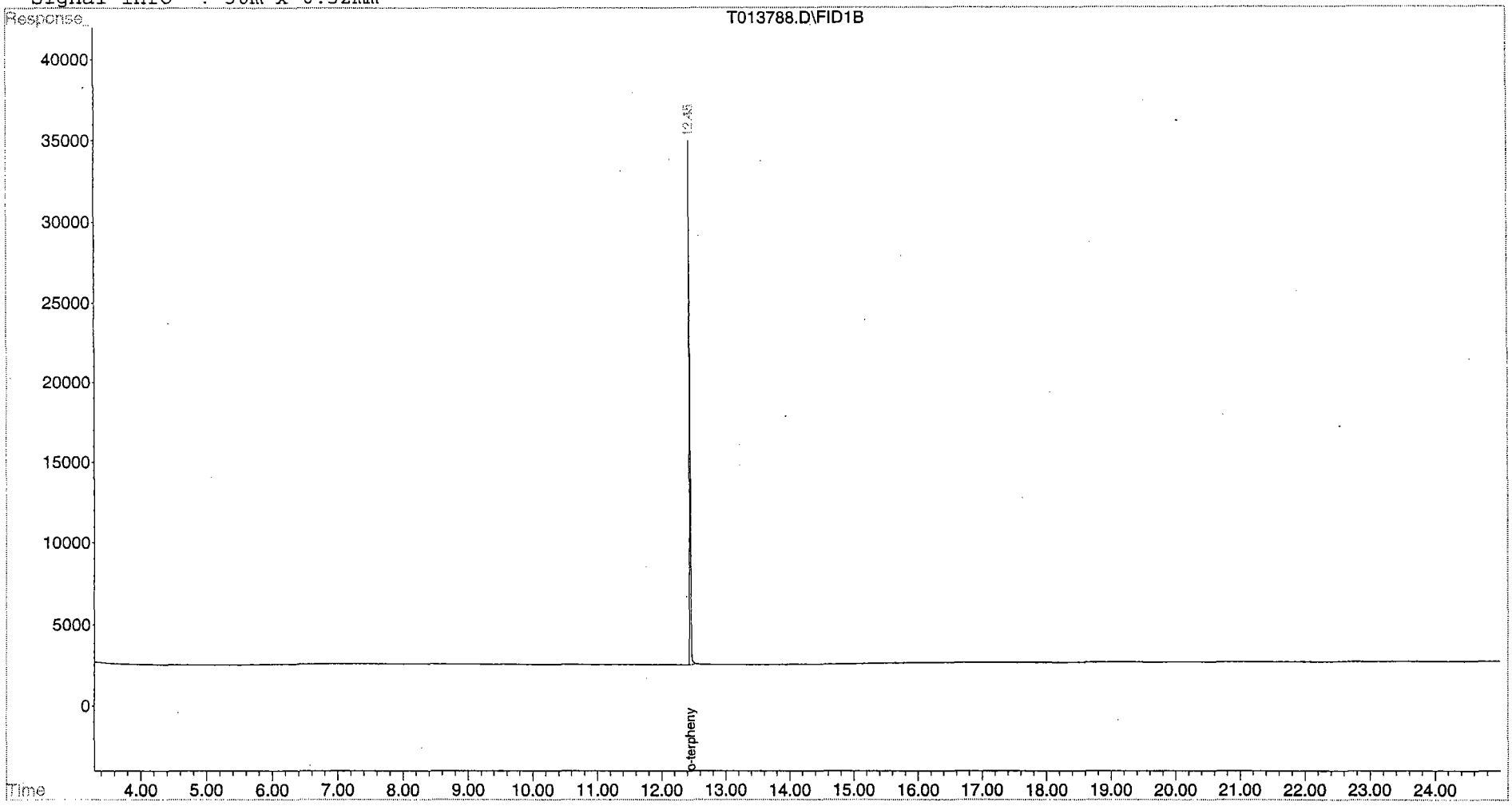
Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	307790	12.078 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 120.78%#	
Target Compounds			

Data File : C:\HPCHEM\1\DATA\011029\T013788.D Vial: 11
Acq On : 29 Oct 2001 4:29 pm Operator: B.Patel
Sample : 1653906s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 29 16:55 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



090000

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 11/20/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 644

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
644-1/8'	1650501	Soil	12-Oct-01 11:40	10/12/01
644-2/8'	1650502	Soil	12-Oct-01 11:55	10/12/01
644-3/8'	1650503	Soil	12-Oct-01 12:55	10/12/01
644-4/8'	1650504	Soil	12-Oct-01 13:18	10/12/01
644-5/8'	1650505	Soil	12-Oct-01 13:40	10/12/01
F. D./8'	1650506	Soil	12-Oct-01	10/12/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

10-19-01
Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

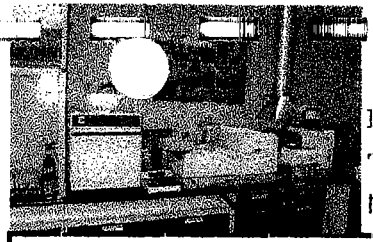
TPHC Conformance/Non-conformance Summary Report

		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).	yes
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.	yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	yes

Additional comments: _____

Laboratory Manager

10-19-01
Date



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: X21475
( )DERA (✓)OMA ( )Other:_____

Project No: 01-0001
Location: BLDG. 644

Samplers Name / Company: MARK LAURA - TVS - PWS 07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	TPHC	% SOLID						HNU PPM	Comments: Remarks / Preservation Method
160505 01	644-1 8'	10-12-01	1140	SOIL	1	X	X						500	<4°C
02	" -2 8'	"	1155	"	"	X	X						300	"
03	" -3 8'	"	1255	"	"	X	X						800	"
04	" -4 8'	"	1318	"	"	X	X						600	"
05	" -5 8'	"	1340	"	"	X	X						0	"
06	FD. 8'	"	—	"	"	X	X						—	"

Analysis Parameters

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	10-12-01 1455	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
		[signature]			

Report Type: ( )Full, (X)Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks:

000002A

print legibly

Coc.xls9/27/01

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 # :** **Location :** **UST Reg. # :**	16505 Bldg.644
Analysis :	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix :	Soil	**Date Extracted :**	15-Oct-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1650501	644-1	**1.00**	15.93	76.41	186	**1297.72**
1650502	644-2	**1.00**	15.54	76.73	190	**3203.55**
1650503	644-3	**1.00**	15.34	78.20	189	**308.93**
1650504	644-4	**1.00**	15.71	77.50	186	**5166.71**
1650505	644-5	**1.00**	15.51	76.93	190	**ND**
1650506	F.D	**1.00**	15.78	78.41	183	**3459.95**
METHOD BLANK	MB-2515	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

000004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013669.D Vial: 16
Acq On : 15 Oct 2001 7:43 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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	19.014 E3	-5.5	101	0.01
2	tC	C10	20.595	22.377 E3	-8.7	105	0.00
3	TC	C12	21.549	23.085 E3	-7.1	105	0.00
4	tC	C14	23.048	24.180 E3	-4.9	104	0.00
5	tC	C16	24.057	24.776 E3	-3.0	103	0.00
6	tC	C18	24.812	25.012 E3	-0.8	101	0.00
7	tC	C20	24.684	25.466 E3	-3.2	103	0.00
8	tC	C22	25.878	26.348 E3	-1.8	102	0.00
9	tC	C24	26.326	26.670 E3	-1.3	102	0.00
10	tC	C26	26.702	26.927 E3	-0.8	102	0.00
11	tC	C28	26.061	26.495 E3	-1.7	102	0.00
12	tC	C30	26.583	27.243 E3	-2.5	102	0.00
13	tC	C32	26.447	26.985 E3	-2.0	102	0.00
14	tC	C34	26.317	26.921 E3	-2.3	102	0.00
15	tC	C36	26.661	27.874 E3	-4.5	105	0.00
16	tC	C38	24.528	26.428 E3	-7.7	109	0.00
17	tC	C40	21.994	25.099 E3	-14.1	117	0.00
18	tC	c42	19.638	24.199 E3	-23.2	125	0.00
19	TC	Pristane	23.812	24.046 E3	-1.0	100	0.00
20	TC	Phytane	25.573	25.856 E3	-1.1	103	0.00
	C	o-terphenyl	25.484	26.125 E3	-2.5	103	0.00
2	C	TPHC - total	28.994	28.793 E3	0.7	108	0.28

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013680.D Vial: 27
Acq On : 16 Oct 2001 1:49 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.377	E3	-2.0	97	0.00
2	tC	C10	20.595	21.602	E3	-4.9	102	0.00
3	TC	C12	21.549	22.362	E3	-3.8	101	0.00
4	tC	C14	23.048	23.537	E3	-2.1	101	0.00
5	tC	C16	24.057	24.206	E3	-0.6	101	0.00
6	tC	C18	24.812	25.449	E3	-2.6	103	0.00
7	tC	C20	24.684	24.900	E3	-0.9	100	0.00
8	tC	C22	25.878	25.708	E3	0.7	100	0.00
9	tC	C24	26.326	26.033	E3	1.1	100	0.00
10	tC	C26	26.702	26.298	E3	1.5	100	0.00
11	tC	C28	26.061	25.816	E3	0.9	99	0.00
12	tC	C30	26.583	26.526	E3	0.2	99	0.00
13	tC	C32	26.447	26.300	E3	0.6	99	0.00
14	tC	C34	26.317	26.214	E3	0.4	100	0.00
15	tC	C36	26.661	27.110	E3	-1.7	102	0.00
16	tC	C38	24.528	25.753	E3	-5.0	106	0.00
17	tC	C40	21.994	24.509	E3	-11.4	114	0.00
18	tC	c42	19.638	23.560	E3	-20.0	122	0.00
19	TC	Pristane	23.812	23.703	E3	0.5	99	0.00
20	TC	Phytane	25.573	25.161	E3	1.6	100	0.00
	SC	o-terphenyl	25.484	25.505	E3	-0.1	100	0.00
	CC	TPHC - total	28.994	27.463	E3	5.3	103	-0.95#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011015\T013691.D Vial: 38
Acq On : 16 Oct 2001 7:53 am Operator: B.Patel
Sample : Tstd050 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
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	18.019	18.508 E3	-2.7	98	0.00
2	tC	C10	20.595	21.645 E3	-5.1	102	0.00
3	TC	C12	21.549	22.587 E3	-4.8	102	0.00
4	tC	C14	23.048	23.954 E3	-3.9	103	0.00
5	tC	C16	24.057	24.677 E3	-2.6	103	0.00
6	tC	C18	24.812	24.781 E3	0.1	100	0.00
7	tC	C20	24.684	25.412 E3	-2.9	103	0.00
8	tC	C22	25.878	26.192 E3	-1.2	102	0.00
9	tC	C24	26.326	26.528 E3	-0.8	102	0.00
10	tC	C26	26.702	26.758 E3	-0.2	102	0.00
11	tC	C28	26.061	26.272 E3	-0.8	101	0.00
12	tC	C30	26.583	26.943 E3	-1.4	101	0.00
13	tC	C32	26.447	26.675 E3	-0.9	100	0.00
14	tC	C34	26.317	26.560 E3	-0.9	101	0.00
15	tC	C36	26.661	27.443 E3	-2.9	103	0.00
16	tC	C38	24.528	25.998 E3	-6.0	107	0.00
17	tC	C40	21.994	24.561 E3	-11.7	114	-0.01
18	tC	c42	19.638	23.252 E3	-18.4	120	0.00
19	TC	Pristane	23.812	23.971 E3	-0.7	100	0.00
20	TC	Phytane	25.573	25.721 E3	-0.6	102	0.00
	C	o-terphenyl	25.484	25.988 E3	-2.0	102	0.00
2	C	TPHC - total	28.994	27.291 E3	5.9	103	1.02#

(#) = 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 # :**	16505
	DPW. SELFM-PW-EV	**Location :**	Bldg.644
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1650501			10.00	9.23	**92.26**
1650502			10.00	9.75	**97.52**
1650503			10.00	9.54	**95.37**
1650504			10.00	10.84	**108.35**
1650505			10.00	9.90	**99.03**
1650506			10.00	10.25	**102.54**
METHOD BLANK	MB-2515		10.00	11.26	**112.64**

Surrogate Added : **o-Terphenyl**

Matrix Spike/ Duplicate Recovery Report
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 # :** **Location :** **UST Reg. # :**	16505 Bldg.644
Analysis:	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1650241MS	1000	0.00	924.95	92.50	75-125
1650241MSD	1000	0.00	961.53	96.15	75-125
			RPD	**3.88**	**20.00**

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

Client :	U.S. Army	**Project # :**	16505
	DPW. SELFM-PW-EV	**Location :**	Bldg.644
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	12-Oct-01
Matrix:	Soil	**Date Extracted :**	15-Oct-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	16-Oct-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2516	15-Oct-01	1000	827.43	82.74	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013659.D Vial: 6
Acq On : 15 Oct 2001 2:05 pm Operator: B.Patel
Sample : MB-2515 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 15 15:05 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	287051	11.264 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 112.64%#	
Target Compounds			

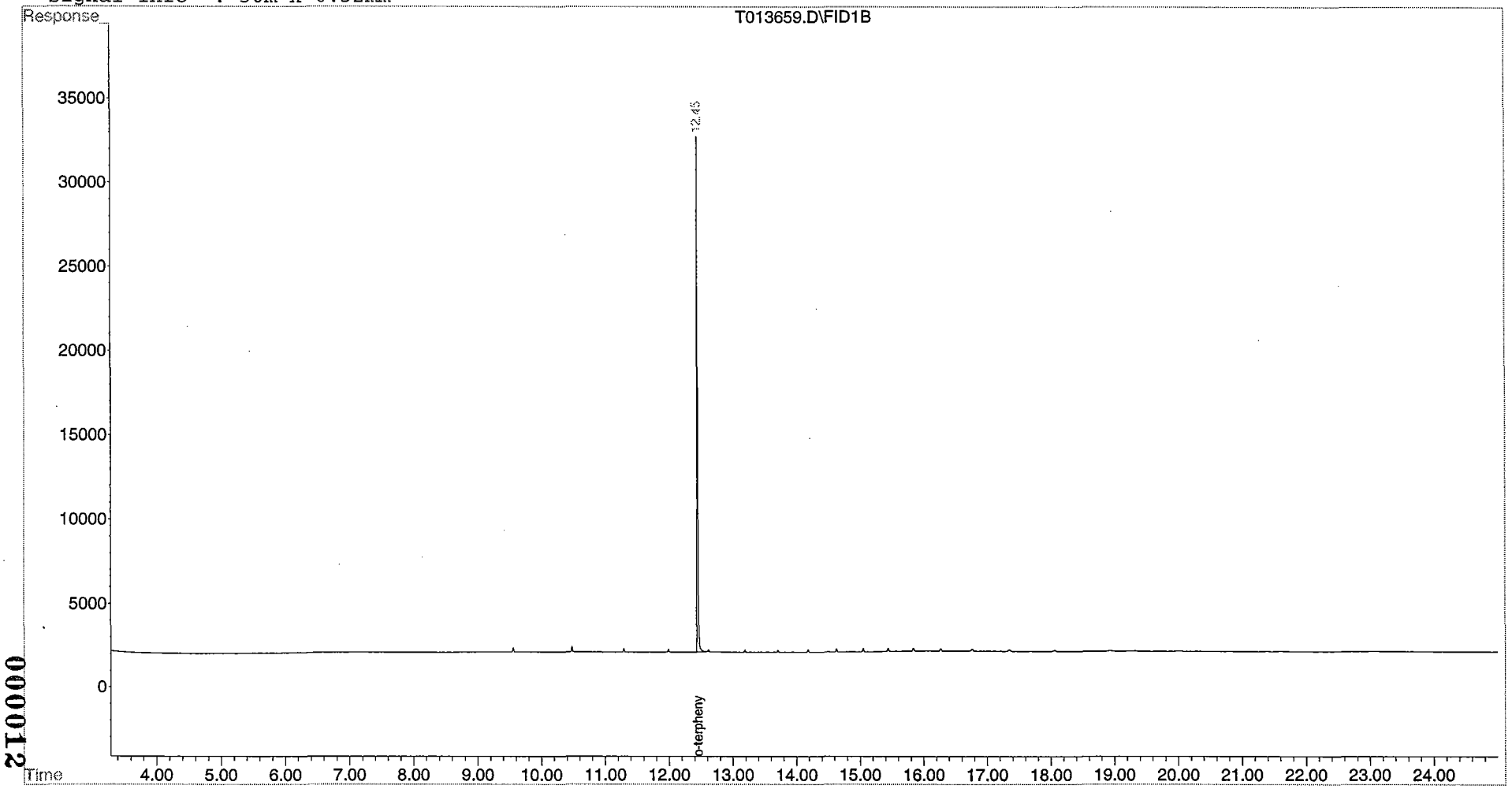
000011

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

Data le : C:\HPCHEM\1\DATA\011015\T013659.D ial: 6
Acq On : 15 Oct 2001 2:05 pm Operator: B.Patel
Sample : MB-2515 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 15 15:05 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013677.D Vial: 24
Acq On : 16 Oct 2001 12:09 am Operator: B.Patel
Sample : 1650501s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:51 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

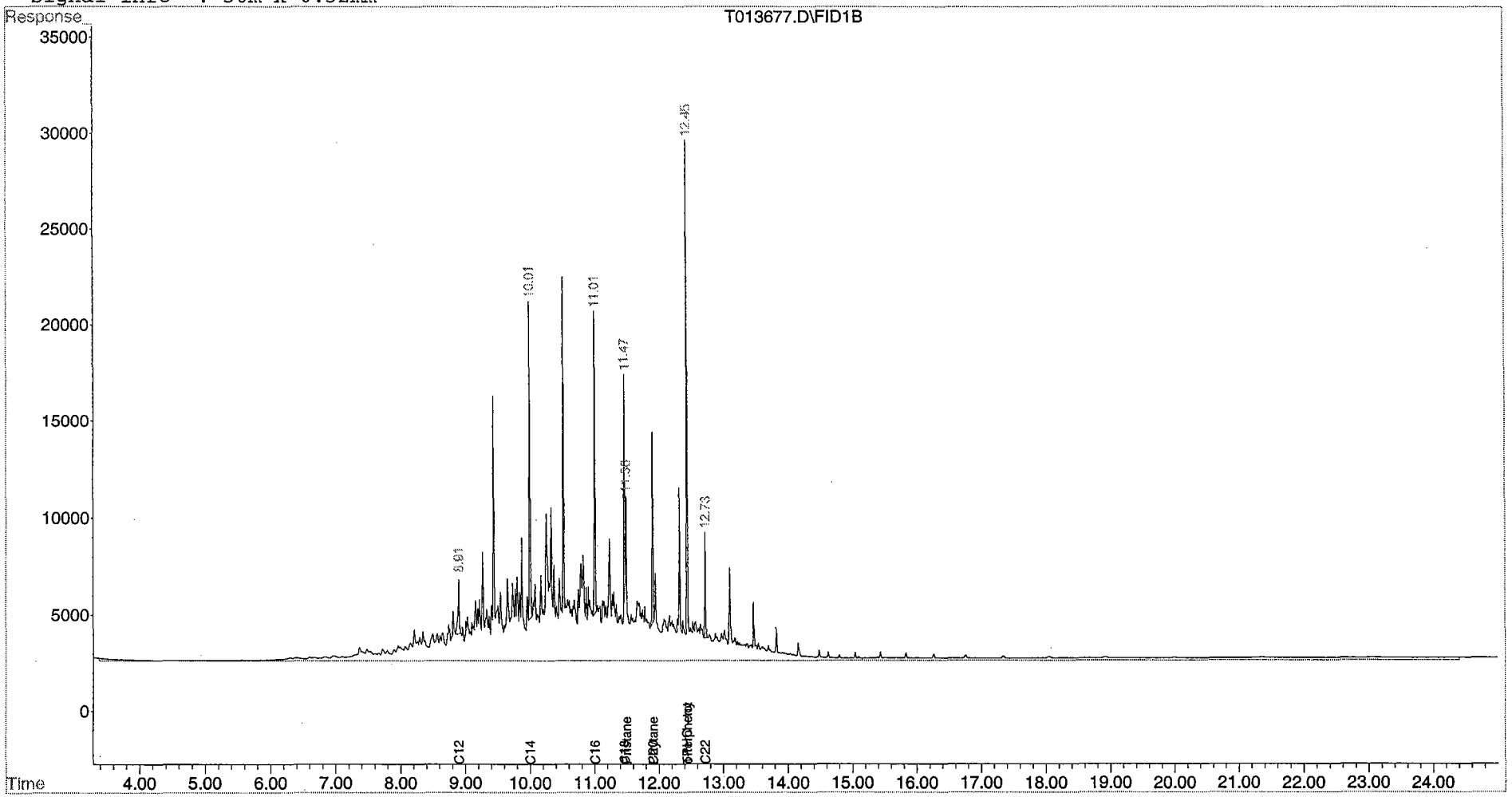
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	235108	9.226 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	92.26%#
Target Compounds			
3) TC C12	8.91	39768	1.846 mg/L
4) tC C14	10.01	160674	6.971 mg/L
5) tC C16	11.02	148335	6.166 mg/L
6) tC C18	11.48	87583	3.530 mg/L
7) tC C20	11.91	89277	3.617 mg/L
8) tC C22	12.73	50087	1.935 mg/L
19) TC Pristane	11.50	35344	1.484 mg/L
20) TC Phytane	11.91	89277	3.491 mg/L
22) tC TPHC - total	12.45	9159756	315.921 mg/L m

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

Data [illegible]le : C:\HPCHEM\1\DATA\011015\T013677.D [illegible]ial: 24
Acq On : 16 Oct 2001 12:09 am Operator: B.Patel
Sample : 1650501s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:51 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000014

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013678.D Vial: 25
Acq On : 16 Oct 2001 12:42 am Operator: B.Patel
Sample : 1650502s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:51 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	248514	9.752 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	97.52%#
Target Compounds			
3) TC C12	8.75	56806	2.636 mg/L
4) tC C14	10.01	57121	2.478 mg/L
5) tC C16	11.02	83926	3.489 mg/L
6) tC C18	11.50	192238	7.748 mg/L
7) tC C20	11.91	44937	1.820 mg/L
19) TC Pristane	11.50	192238	8.073 mg/L
20) TC Phytane	11.96	90899	3.554 mg/L
22) tC TPHC - total	12.45	22149070	763.924 mg/L m

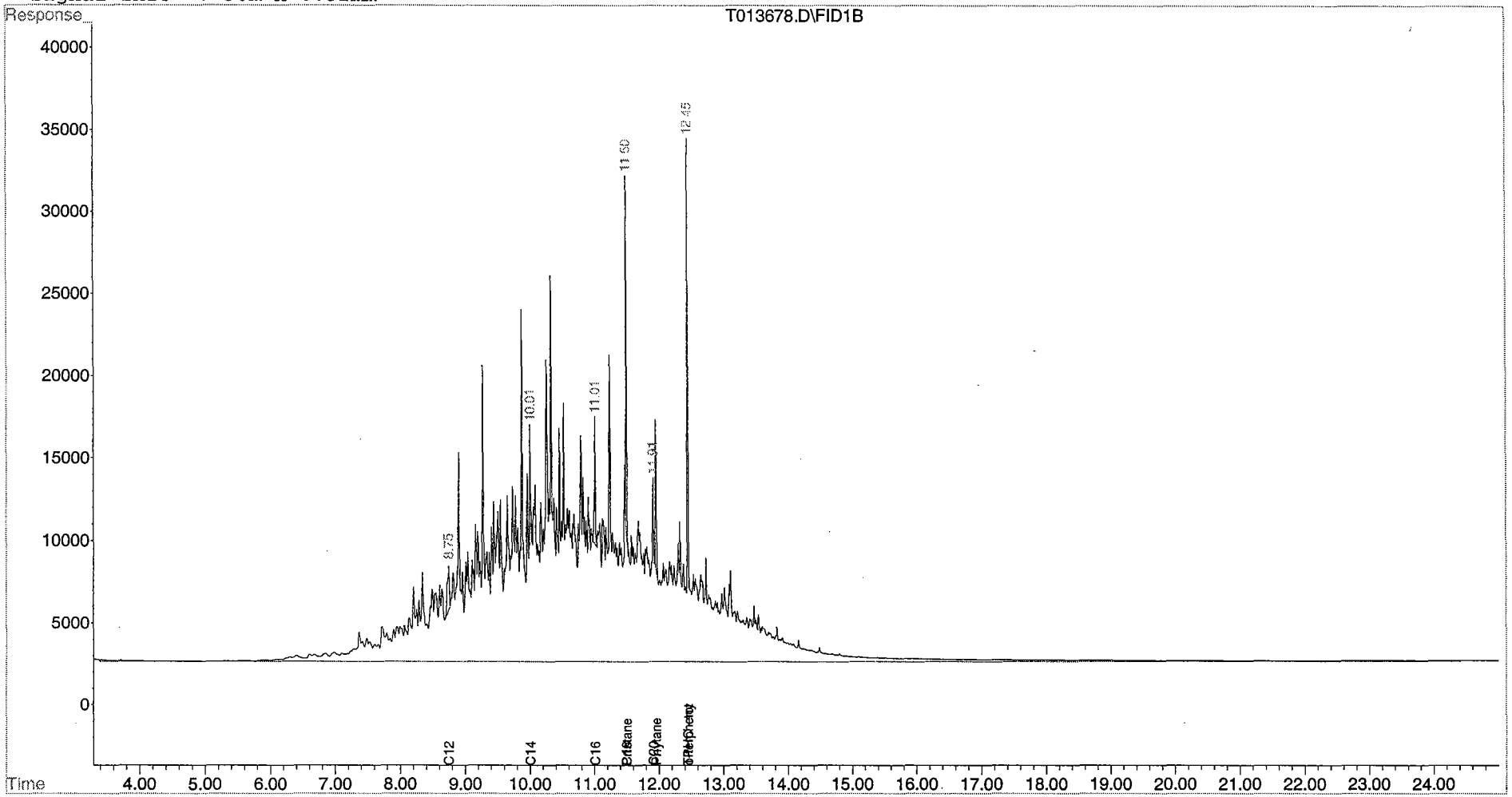
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\011015\T013678.D
Acq On : 16 Oct 2001 12:42 am
Sample : 1650502s
Misc :
IntFile : TPHCINT.E
Quant Time: Oct 16 7:51 2001 Quant Results File: TPH95.RES

Vial: 25
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000016

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013679.D Vial: 26
Acq On : 16 Oct 2001 1:16 am Operator: B.Patel
Sample : 1650503s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:32 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

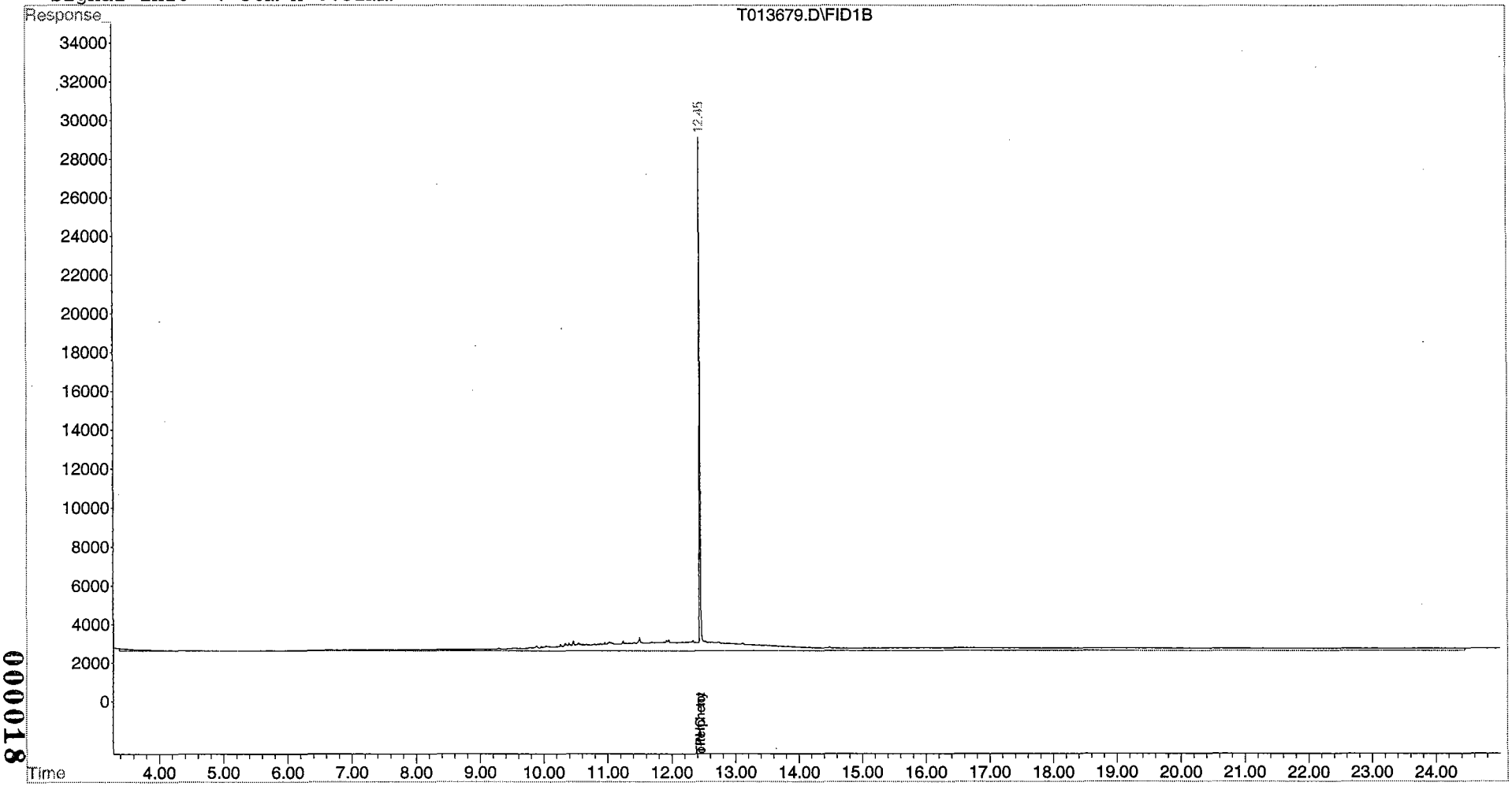
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	243039	9.537 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	95.37%#
Target Compounds			
22) tC TPHC - total	12.45	2148869	74.115 mg/L m

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

Data [illegible]le : C:\HPCHEM\1\DATA\011015\T013679.D [illegible]ial: 26
Acq On : 16 Oct 2001 1:16 am Operator: B.Patel
Sample : 1650503s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:32 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013681.D Vial: 28
Acq On : 16 Oct 2001 2:22 am Operator: B.Patel
Sample : 1650504s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:52 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

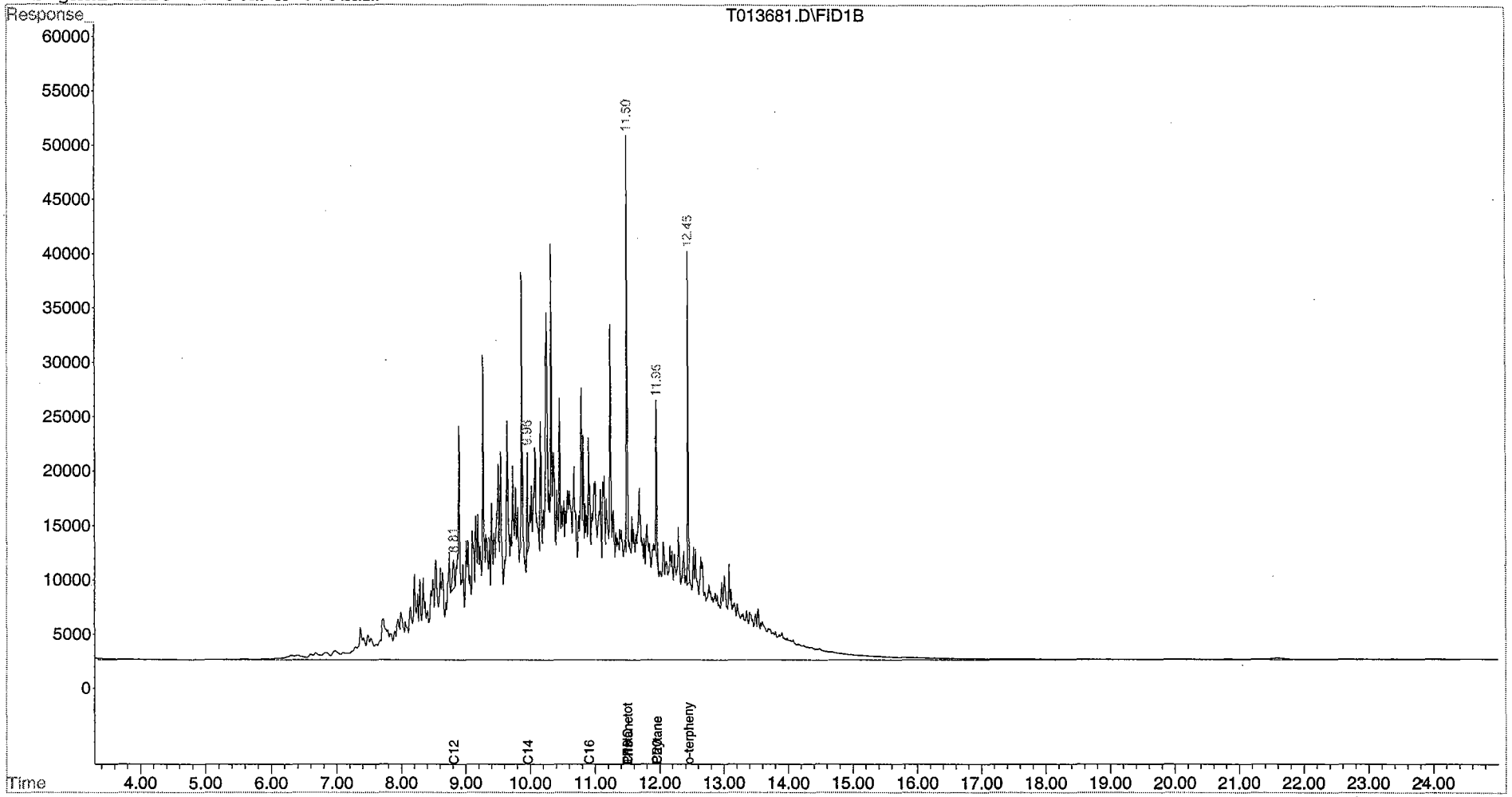
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	276119	10.835 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 108.35%#	
Target Compounds			
3) TC C12	8.81	53481	2.482 mg/L
4) tC C14	9.96	74559	3.235 mg/L
5) tC C16	10.91	46506	1.933 mg/L
6) tC C18	11.50	364799	14.702 mg/L
7) tC C20	11.96	147313	5.968 mg/L
19) TC Pristane	11.50	364799	15.320 mg/L
20) TC Phytane	11.96	147313	5.760 mg/L
22) tC TPHC - total	11.50	36476924	1258.093 mg/L m

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

Data le : C:\HPCHEM\1\DATA\011015\T013681.D ial: 28
Acq On : 16 Oct 2001 2:22 am Operator: B.Patel
Sample : 1650504s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:52 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



020000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013682.D Vial: 29
Acq On : 16 Oct 2001 2:55 am Operator: B.Patel
Sample : 1650505s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:32 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	252351	9.903 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.03%#
Target Compounds			

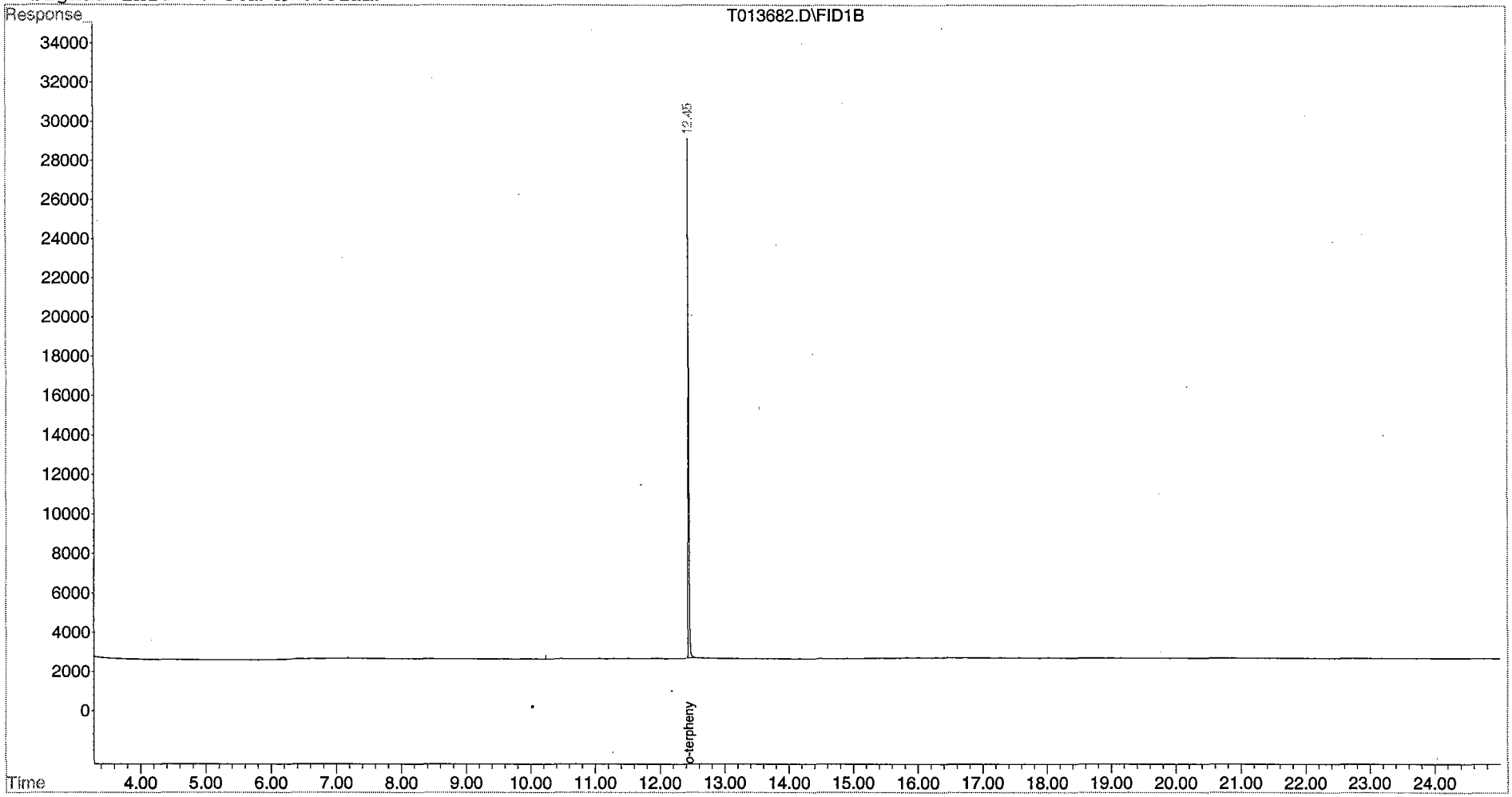
(f)=RT Delta > 1/2 Window (m)=manual int.

000021

Data le : C:\HPCHEM\1\DATA\011015\T013682.D ial: 29
Acq On : 16 Oct 2001 2:55 am Operator: B.Patel
Sample : 1650505s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 8:32 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



220000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011015\T013683.D Vial: 30
Acq On : 16 Oct 2001 3:28 am Operator: B.Patel
Sample : 1650506s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 16 7:53 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	261314	10.254 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	102.54%#
Target Compounds			
3) TC C12	8.75	59154	2.745 mg/L
4) tC C14	10.01	32201	1.397 mg/L
5) tC C16	11.01	42845	1.781 mg/L
6) tC C18	11.50	252579	10.180 mg/L
7) tC C20	11.96	113550	4.600 mg/L
19) TC Pristane	11.50	252579	10.607 mg/L
20) TC Phytane	11.96	113550	4.440 mg/L
22) tC TPHC - total	11.50	24824132	856.187 mg/L m

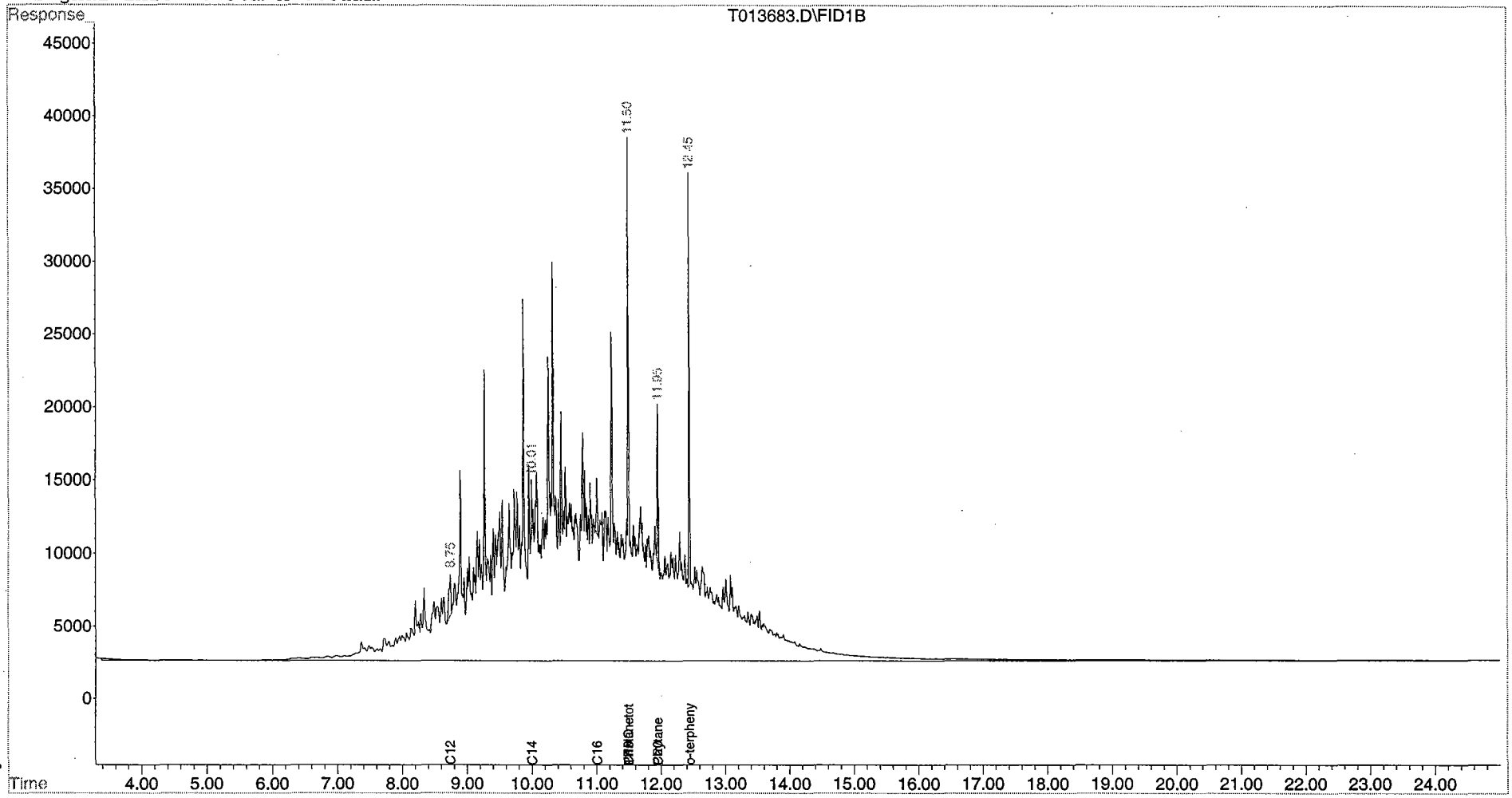
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\011015\T013683.D
Acq On : 16 Oct 2001 3:28 am
Sample : 1650506s
Misc :
IntFile : TPHCINT.E
Quant Time: Oct 16 7:53 2001 Quant Results File: TPH95.RES

Vial: 30
Operator: B.Patel
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Mon Oct 15 14:01:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000024

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
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 10/19/21

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-4359 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. 644

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
T. B.	1653801	Methanol	26-Oct-01	10/26/01
644-1 8'	1653802	Soil	26-Oct-01 10:10	10/26/01
644-2 8'	1653803	Soil	26-Oct-01 10:27	10/26/01
644-3 8'	1653804	Soil	26-Oct-01 10:48	10/26/01
644-4 8'	1653805	Soil	26-Oct-01 11:03	10/26/01
644-5 8'	1653806	Soil	26-Oct-01 11:28	10/26/01
FD 8'	1653807	Soil	26-Oct-01	10/26/01

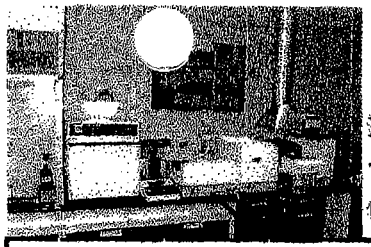
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-20-01
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 #: X21475
( )DERA (M)OMA ( )Other:
Project No: 01-0001
Location: BLDG. 644 (FORMER)
Samplers Name / Company: MARK LAWN - TWS-PWSO7

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	VOA + IS	% SOLID					HNU ppm	Remarks / Preservation Method
165138 01	T.B.	10-26-01	—	METH.	1	X						—	2882 4°C
02	644-1 5'		1010	SOIL	2	X	X					400	2883
03	644-2 5'		1027									300	2900
04	644-3 5'		1048									375	2901
05	644-4 5'		1103									300	2902
06	644-5 5'		1128									15	
07	F.D 5'		—									—	2907

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	10-26-01 1320				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ___ Days, ( )ASAP Verbal ___ Hrs.

Remarks:

print legibly

METHOD SUMMARY

Method Summary

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.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16538

Site: Bldg. 644

	Date	Hold Time
Date Sampled	10/26/01	NA
Receipt/Refrigeration	10/26/01	NA
Extractions		
Analyses		
1. VOA	10/26/01	14 days

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	NA
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 NA	
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 NA	
c. Acid Fraction NA	
If not met, were the calculations checked and the results qualified as "estimated"?	
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	Yes
a. VOA Fraction _____	
b. B/N Fraction NA	
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 NA
c. Acid Fraction NA

11. Extraction Holding Time Met — NA

If not met, list the number of days exceeded for each sample: _____

12. Analysis Holding Time Met — YES

If not met, list the number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager: _____ Date: 11-20-01

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**

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010284.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/26/01

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010284.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/26/01

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
91-20-3	Napthalene	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010284.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/26/01

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **MB**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010306.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/29/01

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	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

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010306.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/29/01

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	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
91-20-3	Napthalene	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.: MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010306.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/29/01

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: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653801

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010293.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/26/01

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: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653801

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010293.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/26/01

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
91-20-3	Napthalene	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID.

Trip Blank

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653801

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB010293.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 0 Date Analyzed: 10/26/01

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

644-1

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653802

Sample wt/vol: 9.1 (g/ml) G Lab File ID: VB010294.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 9.5 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	8600	U
107131	Acrylonitrile	8600	U
75650	tert-Butyl alcohol	16000	U
1634044	Methyl-tert-Butyl ether	3700	U
108203	Di-isopropyl ether	2400	U
75718	Dichlorodifluoromethane	4900	U
74-87-3	Chloromethane	1200	U
75-01-4	Vinyl Chloride	3700	U
74-83-9	Bromomethane	2400	U
75-00-3	Chloroethane	3700	U
75-69-4	Trichlorofluoromethane	2400	U
75-35-4	1,1-Dichloroethene	1200	U
67-64-1	Acetone	2400	U
75-15-0	Carbon Disulfide	1200	U
75-09-2	Methylene Chloride	2400	U
156-60-5	trans-1,2-Dichloroethene	2400	U
75-34-3	1,1-Dichloroethane	1200	U
108-05-4	Vinyl Acetate	3700	U
78-93-3	2-Butanone	3700	U
156-59-2	cis-1,2-Dichloroethene	1200	U
67-66-3	Chloroform	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	2400	U
71-43-2	Benzene	1200	U
107-06-2	1,2-Dichloroethane	2400	U
79-01-6	Trichloroethene	1200	U
78-87-5	1,2-Dichloropropane	1200	U
124-48-1	Bromodichloromethane	1200	U
110-75-8	2-Chloroethyl vinyl ether	2400	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
108-10-1	4-Methyl-2-Pentanone	2400	U
108-88-3	Toluene	1200	U
10061-02-6	trans-1,3-Dichloropropene	2400	U
79-00-5	1,1,2-Trichloroethane	2400	U
127-18-4	Tetrachloroethene	1200	U
591-78-6	2-Hexanone	2400	U
124-48-1	Dibromochloromethane	2400	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	2400	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 644-1

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653802

Sample wt/vol: 9.1 (g/ml) G Lab File ID: VB010294.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 9.5 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	3700	U
95-47-6	o-Xylene	2400	U
100-42-5	Styrene	2400	U
75-25-2	Bromoform	2400	U
79-34-5	1,1,2,2-Tetrachloroethane	2400	U
541-73-1	1,3-Dichlorobenzene	3700	U
106-46-7	1,4-Dichlorobenzene	3700	U
95-50-1	1,2-Dichlorobenzene	3700	U
91-20-3	Napthalene	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **644-1**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653802

Sample wt/vol: 9.1 (g/ml) G Lab File ID: VB010294.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 9.5 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	31.00	4900	J

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

644-2

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653803

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VB010295.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 12.4 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	7300	U
107131	Acrylonitrile	7300	U
75650	tert-Butyl alcohol	14000	U
1634044	Methyl-tert-Butyl ether	3100	U
108203	Di-isopropyl ether	2100	U
75718	Dichlorodifluoromethane	4200	U
74-87-3	Chloromethane	1000	U
75-01-4	Vinyl Chloride	3100	U
74-83-9	Bromomethane	2100	U
75-00-3	Chloroethane	3100	U
75-69-4	Trichlorofluoromethane	2100	U
75-35-4	1,1-Dichloroethene	1000	U
67-64-1	Acetone	2100	U
75-15-0	Carbon Disulfide	1000	U
75-09-2	Methylene Chloride	2100	U
156-60-5	trans-1,2-Dichloroethene	2100	U
75-34-3	1,1-Dichloroethane	1000	U
108-05-4	Vinyl Acetate	3100	U
78-93-3	2-Butanone	3100	U
156-59-2	cis-1,2-Dichloroethene	1000	U
67-66-3	Chloroform	1000	U
71-55-6	1,1,1-Trichloroethane	1000	U
56-23-5	Carbon Tetrachloride	2100	U
71-43-2	Benzene	1000	U
107-06-2	1,2-Dichloroethane	2100	U
79-01-6	Trichloroethene	1000	U
78-87-5	1,2-Dichloropropane	1000	U
124-48-1	Bromodichloromethane	1000	U
110-75-8	2-Chloroethyl vinyl ether	2100	U
10061-01-5	cis-1,3-Dichloropropene	1000	U
108-10-1	4-Methyl-2-Pentanone	2100	U
108-88-3	Toluene	1000	U
10061-02-6	trans-1,3-Dichloropropene	2100	U
79-00-5	1,1,2-Trichloroethane	2100	U
127-18-4	Tetrachloroethene	1000	U
591-78-6	2-Hexanone	2100	U
124-48-1	Dibromochloromethane	2100	U
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	2100	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 644-2

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653803

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VB010295.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 12.4 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	3100	U
95-47-6	o-Xylene	2100	U
100-42-5	Styrene	2100	U
75-25-2	Bromoform	2100	U
79-34-5	1,1,2,2-Tetrachloroethane	2100	U
541-73-1	1,3-Dichlorobenzene	3100	U
106-46-7	1,4-Dichlorobenzene	3100	U
95-50-1	1,2-Dichlorobenzene	3100	U
91-20-3	Napthalene	1000	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 644-2

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653803

Sample wt/vol: 10.9 (g/ml) G Lab File ID: VB010295.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 12.4 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

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

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 002847-72-5	Decane, 4-methyl-	31.01	4500	JN
2.	unknown	32.05	3700	J

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

644-3

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653804

Sample wt/vol: 9.4 (g/ml) G Lab File ID: VB010296.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 15.2 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	8800	U
107131	Acrylonitrile	8800	U
75650	tert-Butyl alcohol	16000	U
1634044	Methyl-tert-Butyl ether	3800	U
108203	Di-isopropyl ether	2500	U
75718	Dichlorodifluoromethane	5000	U
74-87-3	Chloromethane	1300	U
75-01-4	Vinyl Chloride	3800	U
74-83-9	Bromomethane	2500	U
75-00-3	Chloroethane	3800	U
75-69-4	Trichlorofluoromethane	2500	U
75-35-4	1,1-Dichloroethene	1300	U
67-64-1	Acetone	2500	U
75-15-0	Carbon Disulfide	1300	U
75-09-2	Methylene Chloride	2500	U
156-60-5	trans-1,2-Dichloroethene	2500	U
75-34-3	1,1-Dichloroethane	1300	U
108-05-4	Vinyl Acetate	3800	U
78-93-3	2-Butanone	3800	U
156-59-2	cis-1,2-Dichloroethene	1300	U
67-66-3	Chloroform	1300	U
71-55-6	1,1,1-Trichloroethane	1300	U
56-23-5	Carbon Tetrachloride	2500	U
71-43-2	Benzene	1300	U
107-06-2	1,2-Dichloroethane	2500	U
79-01-6	Trichloroethene	1300	U
78-87-5	1,2-Dichloropropane	1300	U
124-48-1	Bromodichloromethane	1300	U
110-75-8	2-Chloroethyl vinyl ether	2500	U
10061-01-5	cis-1,3-Dichloropropene	1300	U
108-10-1	4-Methyl-2-Pentanone	2500	U
108-88-3	Toluene	1300	U
10061-02-6	trans-1,3-Dichloropropene	2500	U
79-00-5	1,1,2-Trichloroethane	2500	U
127-18-4	Tetrachloroethene	1300	U
591-78-6	2-Hexanone	2500	U
124-48-1	Dibromochloromethane	2500	U
108-90-7	Chlorobenzene	1300	U
100-41-4	Ethylbenzene	2500	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **644-3**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653804

Sample wt/vol: 9.4 (g/ml) G Lab File ID: VB010296.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 15.2 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	3800	U
95-47-6	o-Xylene	2500	U
100-42-5	Styrene	2500	U
75-25-2	Bromoform	2500	U
79-34-5	1,1,2,2-Tetrachloroethane	2500	U
541-73-1	1,3-Dichlorobenzene	3800	U
106-46-7	1,4-Dichlorobenzene	3800	U
95-50-1	1,2-Dichlorobenzene	3800	U
91-20-3	Napthalene	1300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **644-3**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653804

Sample wt/vol: 9.4 (g/ml) G Lab File ID: VB010296.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 15.2 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (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

644-4

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653805

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010297.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 5.54 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	7700	U
107131	Acrylonitrile	7700	U
75650	tert-Butyl alcohol	14000	U
1634044	Methyl-tert-Butyl ether	3300	U
108203	Di-isopropyl ether	2200	U
75718	Dichlorodifluoromethane	4400	U
74-87-3	Chloromethane	1100	U
75-01-4	Vinyl Chloride	3300	U
74-83-9	Bromomethane	2200	U
75-00-3	Chloroethane	3300	U
75-69-4	Trichlorofluoromethane	2200	U
75-35-4	1,1-Dichloroethene	1100	U
67-64-1	Acetone	2200	U
75-15-0	Carbon Disulfide	1100	U
75-09-2	Methylene Chloride	2200	U
156-60-5	trans-1,2-Dichloroethene	2200	U
75-34-3	1,1-Dichloroethane	1100	U
108-05-4	Vinyl Acetate	3300	U
78-93-3	2-Butanone	3300	U
156-59-2	cis-1,2-Dichloroethene	1100	U
67-66-3	Chloroform	1100	U
71-55-6	1,1,1-Trichloroethane	1100	U
56-23-5	Carbon Tetrachloride	2200	U
71-43-2	Benzene	1100	U
107-06-2	1,2-Dichloroethane	2200	U
79-01-6	Trichloroethene	1100	U
78-87-5	1,2-Dichloropropane	1100	U
124-48-1	Bromodichloromethane	1100	U
110-75-8	2-Chloroethyl vinyl ether	2200	U
10061-01-5	cis-1,3-Dichloropropene	1100	U
108-10-1	4-Methyl-2-Pentanone	2200	U
108-88-3	Toluene	1100	U
10061-02-6	trans-1,3-Dichloropropene	2200	U
79-00-5	1,1,2-Trichloroethane	2200	U
127-18-4	Tetrachloroethene	1100	U
591-78-6	2-Hexanone	2200	U
124-48-1	Dibromochloromethane	2200	U
108-90-7	Chlorobenzene	1100	U
100-41-4	Ethylbenzene	2200	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. 644-4

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653805

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010297.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 5.54 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	3300	U
95-47-6	o-Xylene	2200	U
100-42-5	Styrene	2200	U
75-25-2	Bromoform	2200	U
79-34-5	1,1,2,2-Tetrachloroethane	2200	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
91-20-3	Napthalene	1300	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. 644-4

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653805

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VB010297.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 5.54 Date Analyzed: 10/26/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

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

Number TICs found: 7

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	30.75	3700	J
2. 002847-72-5	Decane, 4-methyl-	31.01	5700	JN
3.	unknown	32.04	5200	J
4.	unknown	32.14	3500	J
5. 013151-34-3	Decane, 3-methyl-	32.46	4200	JN
6.	unknown	33.47	4000	J
7.	unknown	34.54	4500	J

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

644-5

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653806

Sample wt/vol: 9.8 (g/ml) G Lab File ID: VB010307.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 12.5 Date Analyzed: 10/29/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	8200	U
107131	Acrylonitrile	8200	U
75650	tert-Butyl alcohol	15000	U
1634044	Methyl-tert-Butyl ether	3500	U
108203	Di-isopropyl ether	2300	U
75718	Dichlorodifluoromethane	4700	U
74-87-3	Chloromethane	1200	U
75-01-4	Vinyl Chloride	3500	U
74-83-9	Bromomethane	2300	U
75-00-3	Chloroethane	3500	U
75-69-4	Trichlorofluoromethane	2300	U
75-35-4	1,1-Dichloroethene	1200	U
67-64-1	Acetone	2300	U
75-15-0	Carbon Disulfide	1200	U
75-09-2	Methylene Chloride	2300	U
156-60-5	trans-1,2-Dichloroethene	2300	U
75-34-3	1,1-Dichloroethane	1200	U
108-05-4	Vinyl Acetate	3500	U
78-93-3	2-Butanone	3500	U
156-59-2	cis-1,2-Dichloroethene	1200	U
67-66-3	Chloroform	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	2300	U
71-43-2	Benzene	1200	U
107-06-2	1,2-Dichloroethane	2300	U
79-01-6	Trichloroethene	1200	U
78-87-5	1,2-Dichloropropane	1200	U
124-48-1	Bromodichloromethane	1200	U
110-75-8	2-Chloroethyl vinyl ether	2300	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
108-10-1	4-Methyl-2-Pentanone	2300	U
108-88-3	Toluene	1200	U
10061-02-6	trans-1,3-Dichloropropene	2300	U
79-00-5	1,1,2-Trichloroethane	2300	U
127-18-4	Tetrachloroethene	1200	U
591-78-6	2-Hexanone	2300	U
124-48-1	Dibromochloromethane	2300	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	2300	U

1A

Lab ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

644-5

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653806

Sample wt/vol: 9.8 (g/ml) G Lab File ID: VB010307.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 12.5 Date Analyzed: 10/29/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	3500	U
95-47-6	o-Xylene	2300	U
100-42-5	Styrene	2300	U
75-25-2	Bromoform	2300	U
79-34-5	1,1,2,2-Tetrachloroethane	2300	U
541-73-1	1,3-Dichlorobenzene	3500	U
106-46-7	1,4-Dichlorobenzene	3500	U
95-50-1	1,2-Dichlorobenzene	3500	U
91-20-3	Napthalene	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. **644-5**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653806

Sample wt/vol: 9.8 (g/ml) G Lab File ID: VB010307.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 12.5 Date Analyzed: 10/29/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (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

FD

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653807

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VB010308.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 16.5 Date Analyzed: 10/29/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

107028	Acrolein	8300	U
107131	Acrylonitrile	8300	U
75650	tert-Butyl alcohol	15000	U
1634044	Methyl-tert-Butyl ether	3500	U
108203	Di-isopropyl ether	2400	U
75718	Dichlorodifluoromethane	4700	U
74-87-3	Chloromethane	1200	U
75-01-4	Vinyl Chloride	3500	U
74-83-9	Bromomethane	2400	U
75-00-3	Chloroethane	3500	U
75-69-4	Trichlorofluoromethane	2400	U
75-35-4	1,1-Dichloroethene	1200	U
67-64-1	Acetone	2400	U
75-15-0	Carbon Disulfide	1200	U
75-09-2	Methylene Chloride	2400	U
156-60-5	trans-1,2-Dichloroethene	2400	U
75-34-3	1,1-Dichloroethane	1200	U
108-05-4	Vinyl Acetate	3500	U
78-93-3	2-Butanone	3500	U
156-59-2	cis-1,2-Dichloroethene	1200	U
67-66-3	Chloroform	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	2400	U
71-43-2	Benzene	1200	U
107-06-2	1,2-Dichloroethane	2400	U
79-01-6	Trichloroethene	1200	U
78-87-5	1,2-Dichloropropane	1200	U
124-48-1	Bromodichloromethane	1200	U
110-75-8	2-Chloroethyl vinyl ether	2400	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
108-10-1	4-Methyl-2-Pentanone	2400	U
108-88-3	Toluene	1200	U
10061-02-6	trans-1,3-Dichloropropene	2400	U
79-00-5	1,1,2-Trichloroethane	2400	U
127-18-4	Tetrachloroethene	1200	U
591-78-6	2-Hexanone	2400	U
124-48-1	Dibromochloromethane	2400	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	2400	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab ID. **FD**

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653807

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VB010308.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 16.5 Date Analyzed: 10/29/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	3500	U
95-47-6	o-Xylene	2400	U
100-42-5	Styrene	2400	U
75-25-2	Bromoform	2400	U
79-34-5	1,1,2,2-Tetrachloroethane	2400	U
541-73-1	1,3-Dichlorobenzene	3500	U
106-46-7	1,4-Dichlorobenzene	3500	U
95-50-1	1,2-Dichlorobenzene	3500	U
91-20-3	Napthalene	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab ID. FD

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 664 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1653807

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VB010308.D

Level: (low/med) MED Date Received: 10/26/01

% Moisture: not dec. 16.5 Date Analyzed: 10/29/01

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

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 12.5 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID: VB010244.D BFB Injection Date: 10/24/01

Instrument ID: GCMS#2 BFB Injection Time: 14:50

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	48.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	84.8
175	4.0 - 9.0% of mass 174	6.7 (7.8)1
176	93.0 - 101.0% of mass 174	83.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.7 (6.9)2

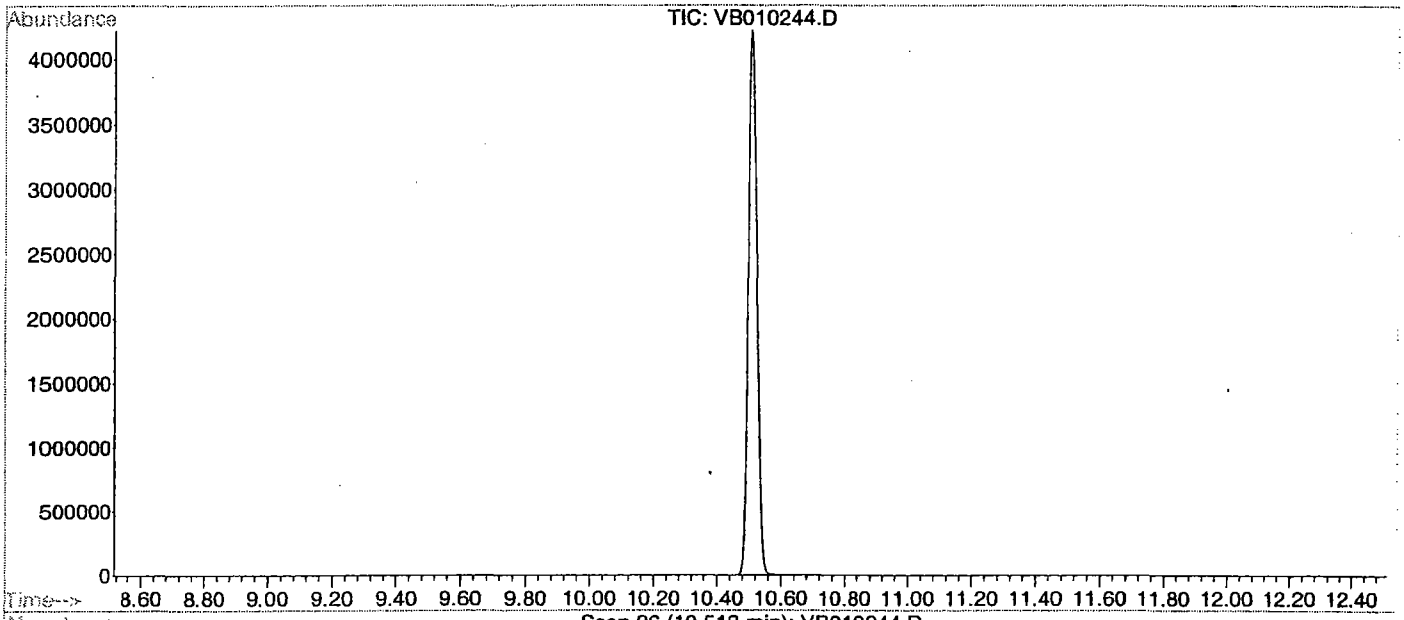
1-Value is % mass 174 2-Value is % mass 176

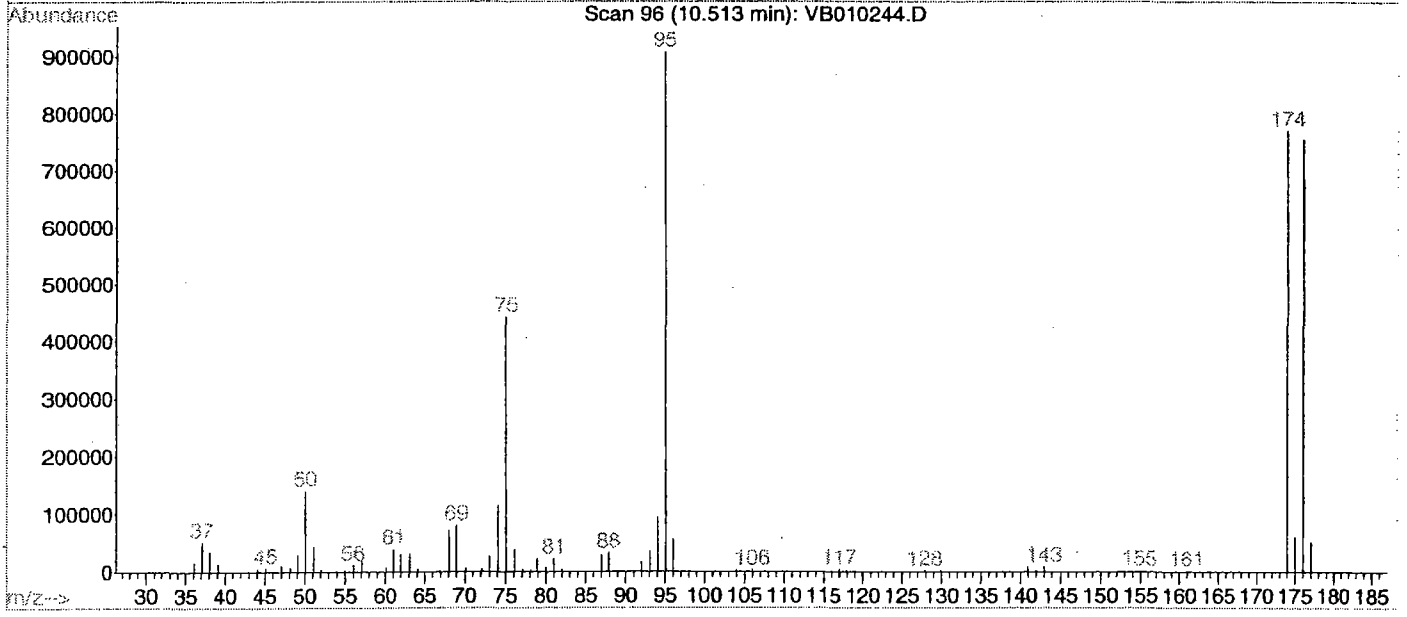
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010245.D	10/24/01	15:18
02	VSTD100	VSTD100	VB010246.D	10/24/01	16:12
03	VSTD050	VSTD050	VB010247.D	10/24/01	16:57
04	VSTD010	VSTD010	VB010248.D	10/24/01	17:42
05	VSTD005	VSTD005	VB010249.D	10/24/01	18:26

BFB

Data File : C:\HPCHEM\1\DATA\011024\VB010244.D Vial: 1
Acq On : 24 Oct 2001 2:50 pm Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP





Spectrum Information: Scan 96

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	139904	PASS
75	95	30	60	48.7	442432	PASS
95	95	100	100	100.0	908672	PASS
96	95	5	9	6.3	57112	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.8	770432	PASS
175	174	5	9	7.8	60448	PASS
176	174	95	101	98.0	755200	PASS
177	176	5	9	6.9	51944	PASS

Response Factor Report GC VOA 2

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration

Calibration Files
100 =VB010246.D 50 =VB010247.D 20 =VB010245.D
10 =VB010248.D 5 =VB010249.D

		Compound	100	50	20	10	5	Avg	%RSD
1)	I	Bromochloromethane	ISTD						
2)	t	Acrolein	0.231	0.205	0.177	0.217	0.230	0.212	10.43
3)	t	Acrylonitrile	0.737	0.694	0.589	0.743	0.782	0.709	10.44
4)	t	tert-Butyl alcohol	0.143	0.127	0.109	0.142	0.139	0.132	10.92
5)	t	Methyl-tert-Butyl eth	5.273	4.947	3.990	5.151	5.185	4.909	10.74
6)	t	Di-isopropyl ether	1.585	1.430	1.150	1.492	1.409	1.413	11.47
7)	T	Dichlorodifluorometha	2.661	2.418	2.155	2.671	2.705	2.522	9.31
8)	TP	Chloromethane	2.569	2.356	1.952	2.580	2.739	2.439	12.47
9)	TC	Vinyl Chloride	2.552	2.416	1.979	2.608	2.712	2.453	11.65
10)	T	Bromomethane	1.377	1.199	1.114	1.381	1.711	1.356	16.89
11)	T	Chloroethane	1.372	1.263	1.095	1.352	1.404	1.297	9.57
12)	T	Trichlorofluoromethan	4.027	3.675	3.129	3.933	4.039	3.761	10.16
13)	MC	1,1-Dichloroethene	3.084	2.802	2.309	3.002	2.908	2.821	10.81
14)	T	Acetone	0.605	0.574	0.684	0.833	1.163	0.772	31.18
15)	T	Carbon Disulfide	5.898	5.272	4.379	5.415	5.624	5.318	10.82
16)	T	Methylene Chloride	1.893	1.767	1.495	2.010	2.096	1.852	12.68
17)	T	trans-1,2-Dichloroeth	2.652	2.449	1.961	2.699	2.660	2.484	12.40
18)	TP	1,1-Dichloroethane	3.070	2.789	2.474	2.948	2.937	2.843	8.07
19)	T	Vinyl Acetate	3.919	3.665	2.816	3.494	3.091	3.397	13.05
20)	T	2-Butanone	0.797	0.718	0.717	0.826	0.780	0.768	6.33
21)	T	cis-1,2-Dichloroethen	2.716	2.468	1.980	2.680	2.632	2.495	12.15
22)	TC	Chloroform	3.316	3.053	2.593	3.276	3.474	3.142	10.89
23)	T	1,1,1-Trichloroethane	2.794	2.572	2.161	2.753	2.704	2.597	9.92
24)	T	Carbon Tetrachloride	2.459	2.206	1.799	2.229	2.074	2.153	11.22
25)	S	1,2-Dichloroethane-d4	2.218	2.370	2.311	2.358	2.413	2.334	3.18
26)	I	1,4-Difluorobenzene	ISTD						
27)	TM	Benzene	1.072	0.974	0.863	1.107	1.097	1.023	10.14
28)	T	1,2-Dichloroethane	0.401	0.358	0.319	0.407	0.401	0.377	10.05
29)	TM	Trichloroethene	0.312	0.276	0.246	0.311	0.304	0.290	9.82
30)	TC	1,2-Dichloropropane	0.272	0.239	0.212	0.268	0.268	0.252	10.17
31)	T	Bromodichloromethane	0.354	0.306	0.263	0.316	0.309	0.310	10.36
32)	T	2-Chloroethyl vinyl e	0.103	0.092	0.079	0.103	0.104	0.096	11.01
33)	T	cis-1,3-Dichloroprope	0.434	0.374	0.306	0.373	0.365	0.370	12.28
34)	T	4-Methyl-2-Pentanone	0.087	0.076	0.067	0.077	0.073	0.076	9.38
35)	S	Toluene-d8	1.136	1.137	1.151	1.141	1.153	1.143	0.69
36)	TCM	Toluene	1.171	1.096	0.976	1.210	1.230	1.137	9.10
37)	I	Chlorobenzene-d5	ISTD						
38)	T	trans-1,3-Dichloropro	1.575	1.331	1.076	1.242	1.183	1.281	14.70
39)	T	1,1,2-Trichloroethane	0.918	0.823	0.732	0.910	0.869	0.850	8.96
40)	T	Tetrachloroethene	1.288	1.142	0.962	1.218	1.290	1.180	11.54
41)	T	2-Hexanone	0.603	0.521	0.462	0.492	0.484	0.512	10.70
42)	T	Dibromochloromethane	0.967	0.828	0.683	0.792	0.760	0.806	13.01
43)	TMP	Chlorobenzene	2.975	2.665	2.418	2.953	2.919	2.786	8.63
44)	TC	Ethylbenzene	4.786	4.644	4.148	5.222	5.087	4.778	8.81
45)	T	m+p-Xylenes	1.853	1.688	1.482	1.867	1.795	1.737	9.15
46)	T	o-Xylene	4.001	3.672	3.146	3.933	3.849	3.720	9.24
47)	T	Styrene	3.417	3.072	2.664	3.200	3.066	3.084	8.89
48)	TP	Bromoform	0.663	0.507	0.391	0.452	0.406	0.484	22.74
49)	S	Bromofluorobenzene	1.661	1.674	1.729	1.659	1.628	1.670	2.20
50)	TP	1,1,2,2-Tetrachloroet	1.141	1.026	0.917	1.124	1.166	1.075	9.60
51)	T	1,3-Dichlorobenzene	2.599	2.325	2.005	2.479	2.537	2.389	9.93
52)	T	1,4-Dichlorobenzene	2.742	2.466	2.108	2.680	2.681	2.535	10.29
53)	T	1,2-Dichlorobenzene	2.521	2.283	1.969	2.466	2.516	2.351	9.97
54)	t	Napthalene	3.928	3.809	3.064	3.989	3.747	3.707	10.04

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID: VB010282.D BFB Injection Date: 10/26/01

Instrument ID: GCMS#2 BFB Injection Time: 9:47

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.2
75	30.0 - 66.0% of mass 95	46.1
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	82.8
175	4.0 - 9.0% of mass 174	6.4 (7.8)1
176	93.0 - 101.0% of mass 174	82.0 (99.1)1
177	5.0 - 9.0% of mass 176	5.2 (6.4)2

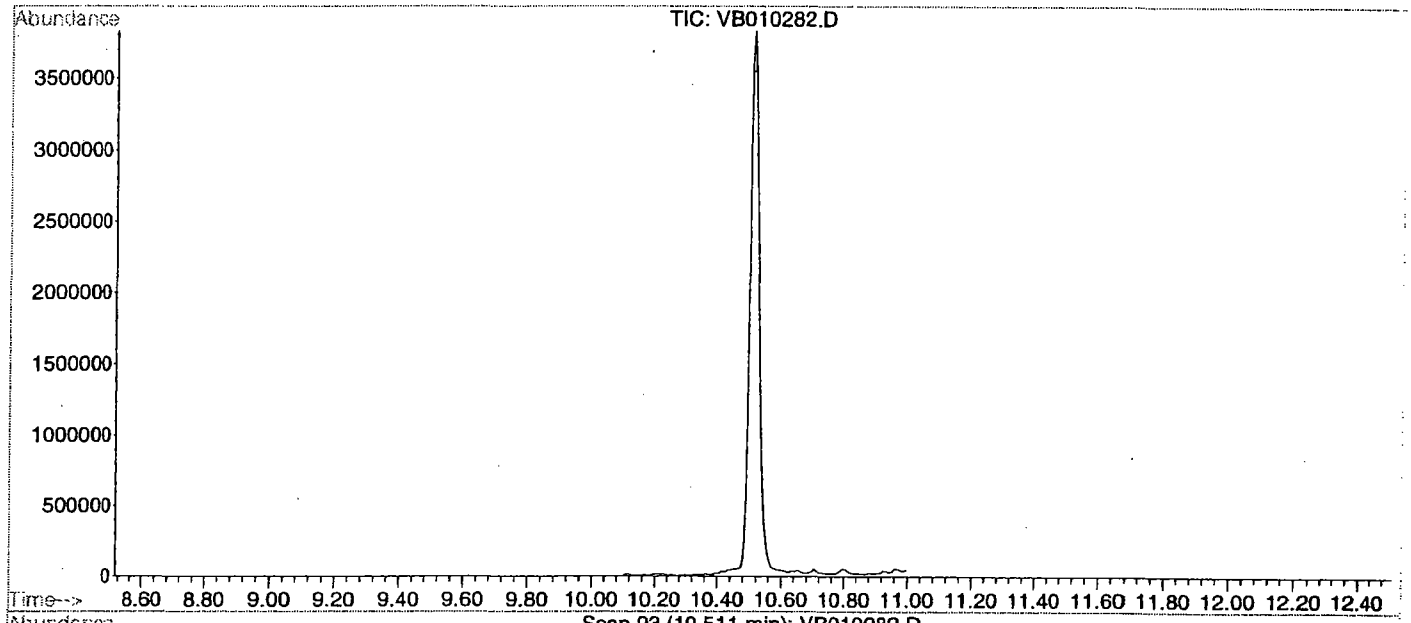
1-Value is % mass 174 2-Value is % mass 176

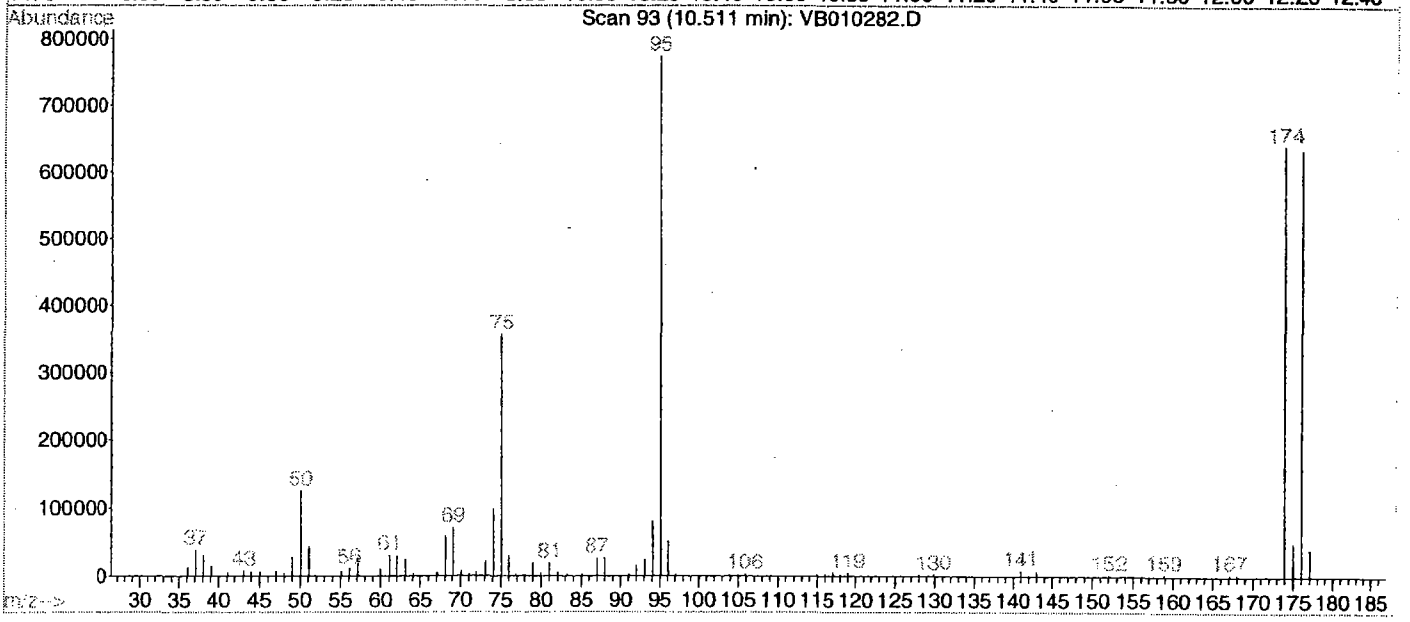
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010283.D	10/26/01	10:16
02	MB	MB	VB010284.D	10/26/01	11:12
03	TRIP BLANK	1653801	VB010293.D	10/26/01	18:10
04	644-1	1653802	VB010294.D	10/26/01	18:55
05	644-2	1653803	VB010295.D	10/26/01	19:40
06	644-3	1653804	VB010296.D	10/26/01	20:24
07	644-4	1653805	VB010297.D	10/26/01	21:09

Data File : C:\HPCHEM\1\DATA\011026\VB010282.D
Acq On : 26 Oct 2001 9:47 am
Sample : BFB Tune
Misc : BFB Tune
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP

Vial: 9
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00





Spectrum Information: Scan 93

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.2	125408	PASS
75	95	30	60	46.1	356928	PASS
95	95	100	100	100.0	774656	PASS
96	95	5	9	6.7	51736	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.8	641344	PASS
175	174	5	9	7.8	49712	PASS
176	174	95	101	99.1	635328	PASS
177	176	5	9	6.4	40424	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011026\VB010283.D Vial: 9
Acq On : 26 Oct 2001 10:16 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	91	0.00
2	t	Acrolein	0.212	0.220	-3.8	113	-0.02
3	t	Acrylonitrile	0.709	0.714	-0.7	111	0.00
4	t	tert-Butyl alcohol	0.132	0.151	-14.4	127	-0.21
5	t	Methyl-tert-Butyl ether	4.909	5.569	-13.4	127	0.00
6	t	Di-isopropyl ether	1.413	1.550	-9.7	123	-0.01
7	T	Dichlorodifluoromethane	2.522	2.002	20.6	85	-0.01
8	TP	Chloromethane	2.439	2.304	5.5	108	0.00
9	TC	Vinyl Chloride	2.453	2.291	6.6	106	-0.01
10	T	Bromomethane	1.356	1.355	0.1	111	-0.01
11	T	Chloroethane	1.297	1.308	-0.8	109	-0.03
12	T	Trichlorofluoromethane	3.761	3.756	0.1	109	-0.01
13	MC	1,1-Dichloroethene	2.821	2.927	-3.8	116	-0.01
14	T	Acetone	0.772	0.766	0.8	102	-0.05
15	T	Carbon Disulfide	5.318	5.313	0.1	111	0.00
16	T	Methylene Chloride	1.852	1.895	-2.3	116	0.00
17	T	trans-1,2-Dichloroethene	2.484	2.598	-4.6	121	-0.01
18	TP	1,1-Dichloroethane	2.843	3.130	-10.1	115	0.00
19	T	Vinyl Acetate	3.397	3.841	-13.1	124	0.00
20	T	2-Butanone	0.768	0.941	-22.5	120	-0.02
21	T	cis-1,2-Dichloroethene	2.495	2.702	-8.3	124	0.00
22	TC	Chloroform	3.142	3.362	-7.0	118	0.00
23	T	1,1,1-Trichloroethane	2.597	2.886	-11.1	122	0.00
24	T	Carbon Tetrachloride	2.153	2.243	-4.2	114	0.00
25	S	1,2-Dichloroethane-d4	2.334	2.312	0.9	91	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	92	0.00
27	TM	Benzene	1.023	1.117	-9.2	119	0.00
28	T	1,2-Dichloroethane	0.377	0.401	-6.4	115	0.00
29	TM	Trichloroethene	0.290	0.321	-10.7	119	0.00
30	TC	1,2-Dichloropropane	0.252	0.285	-13.1	123	0.00
31	T	Bromodichloromethane	0.310	0.338	-9.0	117	0.00
32	T	2-Chloroethyl vinyl ether	0.096	0.106	-10.4	122	0.00
33	T	cis-1,3-Dichloropropene	0.370	0.414	-11.9	124	0.00
34	T	4-Methyl-2-Pentanone	0.076	0.092	-21.1	125	0.00
35	S	Toluene-d8	1.143	1.160	-1.5	92	0.00
36	TCM	Toluene	1.137	1.266	-11.3	119	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
38	T	trans-1,3-Dichloropropene	1.281	1.370	-6.9	122	0.00
39	T	1,1,2-Trichloroethane	0.850	0.919	-8.1	120	0.00
40	T	Tetrachloroethene	1.180	1.256	-6.4	125	0.00
41	T	2-Hexanone	0.512	0.679	-32.6#	140	0.00
42	T	Dibromochloromethane	0.806	0.808	-0.2	113	0.00
43	TMP	Chlorobenzene	2.786	2.985	-7.1	118	0.00
44	TC	Ethylbenzene	4.778	5.242	-9.7	121	0.00
45	T	m+p-Xylenes	1.737	1.876	-8.0	121	0.00
46	T	o-Xylene	3.720	4.134	-11.1	125	0.00
47	T	Styrene	3.084	3.376	-9.5	121	0.00
48	TP	Bromoform	0.484	0.463	4.3	113	0.00
	S	Bromofluorobenzene	1.670	1.651	1.1	91	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.075	1.103	-2.6	115	0.00
51	T	1,3-Dichlorobenzene	2.389	2.548	-6.7	121	0.00
52	T	1,4-Dichlorobenzene	2.535	2.705	-6.7	122	0.00
53	T	1,2-Dichlorobenzene	2.351	2.477	-5.4	120	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011026\VB010283.D Vial: 9
Acq On : 26 Oct 2001 10:16 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	t	Napthalene	3.707	4.122	-11.2	128	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VB010283.D M262NAP.M Thu Nov 08 15:01:45 2001 Page 2

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID: VB010304.D BFB Injection Date: 10/29/01

Instrument ID: GCMS#2 BFB Injection Time: 8:09

GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.6
75	30.0 - 66.0% of mass 95	47.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	87.7
175	4.0 - 9.0% of mass 174	6.5 (7.4)1
176	93.0 - 101.0% of mass 174	86.1 (98.2)1
177	5.0 - 9.0% of mass 176	5.7 (6.6)2

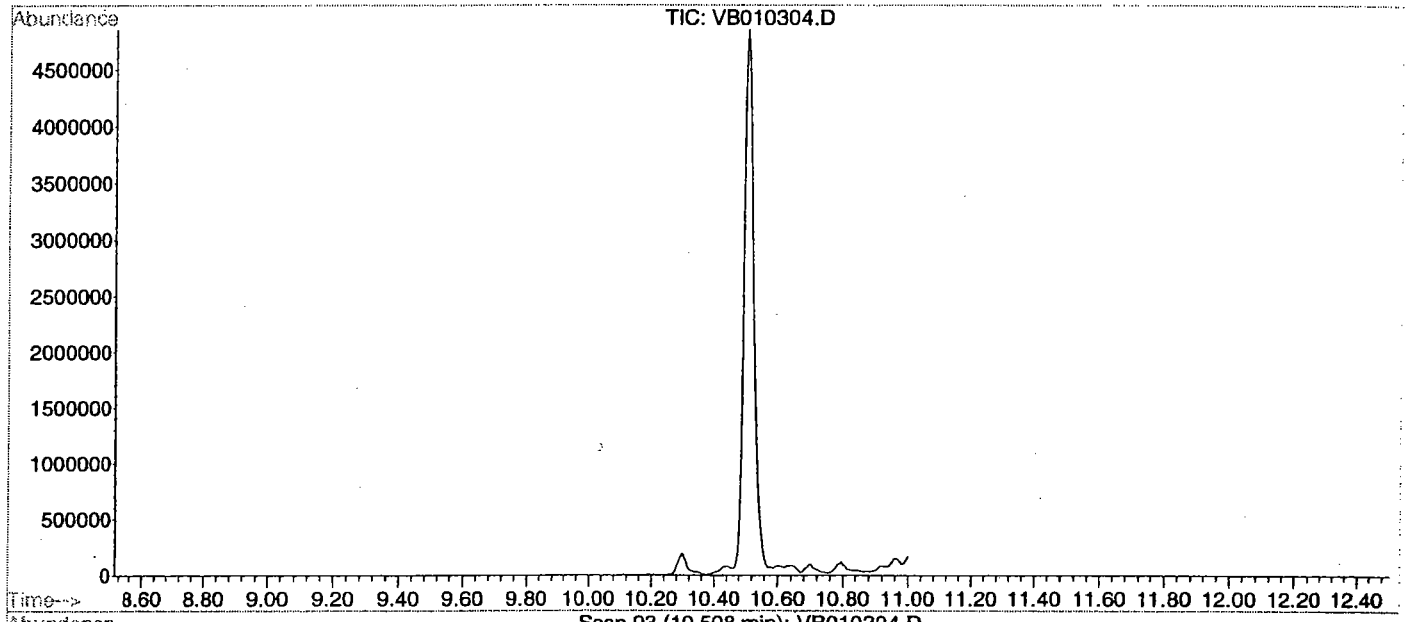
1-Value is % mass 174 2-Value is % mass 176

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

	Lab ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VB010305.D	10/29/01	8:38
02	MB	MB	VB010306.D	10/29/01	10:04
03	644-5	1653806	VB010307.D	10/29/01	11:04
04	FD	1653807	VB010308.D	10/29/01	11:48

BFB

Data File : C:\HPCHEM\1\DATA\011029\VB010304.D Vial: 1
Acq On : 29 Oct 2001 8:09 am Operator: Skelton
Sample : BFB Tune Inst : GC VOA 2
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: TBA.P
Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 93

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	156416	PASS
75	95	30	60	47.2	475072	PASS
95	95	100	100	100.0	1005888	PASS
96	95	5	9	6.5	65360	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	87.7	882304	PASS
175	174	5	9	7.4	65096	PASS
176	174	95	101	98.2	866112	PASS
177	176	5	9	6.6	57432	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011029\VB010305.D Vial: 1
Acq On : 29 Oct 2001 8:38 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	81	-0.02
2	t	Acrolein	0.212	0.163	23.1	74	-0.06
3	t	Acrylonitrile	0.709	0.508	28.3#	70	-0.02
4	t	tert-Butyl alcohol	0.132	0.109	17.4	81	-0.39
5	t	Methyl-tert-Butyl ether	4.909	4.951	-0.9	100	-0.01
6	t	Di-isopropyl ether	1.413	1.626	-15.1	114	-0.03
7	T	Dichlorodifluoromethane	2.522	1.906	24.4	72	-0.01
8	TP	Chloromethane	2.439	2.322	4.8	96	-0.02
9	TC	Vinyl Chloride	2.453	2.388	2.6	98	0.00
10	T	Bromomethane	1.356	1.407	-3.8	102	-0.01
11	T	Chloroethane	1.297	1.380	-6.4	102	-0.03
12	T	Trichlorofluoromethane	3.761	3.899	-3.7	101	0.00
13	MC	1,1-Dichloroethene	2.821	3.030	-7.4	106	0.00
14	T	Acetone	0.772	0.566	26.7#	67	-0.09
15	T	Carbon Disulfide	5.318	5.590	-5.1	103	0.00
16	T	Methylene Chloride	1.852	1.952	-5.4	106	0.00
17	T	trans-1,2-Dichloroethene	2.484	2.632	-6.0	109	-0.01
18	TP	1,1-Dichloroethane	2.843	3.365	-18.4	110	0.00
19	T	Vinyl Acetate	3.397	3.102	8.7	89	0.00
20	T	2-Butanone	0.768	0.566	26.3#	64	-0.04
21	T	cis-1,2-Dichloroethene	2.495	2.773	-11.1	113	0.00
22	TC	Chloroform	3.142	3.472	-10.5	108	-0.01
23	T	1,1,1-Trichloroethane	2.597	2.949	-13.6	110	0.00
24	T	Carbon Tetrachloride	2.153	2.477	-15.0	111	-0.01
25	S	1,2-Dichloroethane-d4	2.334	2.209	5.4	77	-0.02
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
27	TM	Benzene	1.023	1.038	-1.5	108	-0.01
28	T	1,2-Dichloroethane	0.377	0.344	8.8	97	-0.01
29	TM	Trichloroethene	0.290	0.306	-5.5	111	-0.01
30	TC	1,2-Dichloropropane	0.252	0.262	-4.0	111	0.00
31	T	Bromodichloromethane	0.310	0.316	-1.9	108	-0.01
32	T	2-Chloroethyl vinyl ether	0.096	0.091	5.2	103	0.00
33	T	cis-1,3-Dichloropropene	0.370	0.391	-5.7	115	0.00
34	T	4-Methyl-2-Pentanone	0.076	0.061	19.7	82	0.00
35	S	Toluene-d8	1.143	1.158	-1.3	90	0.00
36	TCM	Toluene	1.137	1.184	-4.1	109	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	95	-0.01
38	T	trans-1,3-Dichloropropene	1.281	1.165	9.1	103	0.00
39	T	1,1,2-Trichloroethane	0.850	0.710	16.5	92	0.00
40	T	Tetrachloroethene	1.180	1.154	2.2	114	0.00
41	T	2-Hexanone	0.512	0.461	10.0	94	-0.01
42	T	Dibromochloromethane	0.806	0.710	11.9	99	-0.01
43	TMP	Chlorobenzene	2.786	2.762	0.9	108	0.00
44	TC	Ethylbenzene	4.778	4.884	-2.2	112	0.00
45	T	m+p-Xylenes	1.737	1.733	0.2	111	0.00
46	T	o-Xylene	3.720	3.772	-1.4	114	-0.01
47	T	Styrene	3.084	3.140	-1.8	112	0.00
48	TP	Bromoform	0.484	0.365	24.6	88	0.00
49	S	Bromofluorobenzene	1.670	1.645	1.5	90	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.075	0.816	24.1	84	-0.01
51	T	1,3-Dichlorobenzene	2.389	2.349	1.7	111	0.00
52	T	1,4-Dichlorobenzene	2.535	2.450	3.4	110	-0.01
53	T	1,2-Dichlorobenzene	2.351	2.183	7.1	105	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011029\VB010305.D Vial: 1
Acq On : 29 Oct 2001 8:38 am Operator: Skelton
Sample : Vstd020 Inst : GC VOA 2
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: TBA.P

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	t	Napthalene	3.707	2.860	22.8	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VB010305.D M262NAP.M Thu Nov 08 14:59:06 2001

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID: VB010306.D Lab Sample ID: MB

Date Analyzed: 10/29/01 Time Analyzed: 10:04

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	644-5	1653806	VB010307.D	11:04
02	FD	1653807	VB010308.D	11:48

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab ID.

MB

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID: VB010284.D Lab Sample ID: MB

Date Analyzed: 10/26/01 Time Analyzed: 11:12

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	1653801	VB010293.D	18:10
02	644-1	1653802	VB010294.D	18:55
03	644-2	1653803	VB010295.D	19:40
04	644-3	1653804	VB010296.D	20:24
05	644-4	1653805	VB010297.D	21:09

COMMENTS:

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	FMETL	**Project**	10001
NJDEP #	13461	**Location**	644

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	95.0	100.0	97.0
02	MB	92.0	101.0	95.0
03	TRIP BLANK	115.3	96.0	103.3
04	644-1	93.0	87.0	89.0
05	644-2	92.0	89.0	86.0
06	644-3	92.0	90.0	87.0
07	644-4	87.0	86.0	87.0
08	644-5	87.0	85.0	79.0
09	FD	85.0	81.0	74.0

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration

Non-Spiked Sample: VB010268.D

	Spike Sample	Spike Duplicate Sample
File ID :	VB010269.D	VB010270.D
Sample :	1653103 MS	1653103 MSD
Acq Time:	25 Oct 2001 12:21 pm	25 Oct 2001 1:06 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	21	20	105	101	4	22	59-172
Benzene	0.0	20	21	21	105	104	1	21	66-142
Trichloroethene	0.0	20	22	21	109	104	5	24	62-137
Toluene	0.0	20	21	21	107	105	2	21	59-139
Chlorobenzene	0.0	20	22	21	109	103	5	21	60-133

- Fails Limit Check

M262NAP.M Thu Nov 08 15:00:49 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID (Standard): VB010283.D Date Analyzed: 10/26/01

Instrument ID: GCMS#2 Time Analyzed: 10:16

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	576042	16.76	3948745	19.49	1088856	27.33
	UPPER LIMIT	1152084	17.26	7897490	19.99	2177712	27.83
	LOWER LIMIT	288021	16.26	1974373	18.99	544428	26.83
	Lab ID.						
01	MB	571507	16.76	3890013	19.48	1052620	27.33
02	TRIP BLANK	543668	16.77	3948686	19.49	1055121	27.33
03	644-1	540295	16.77	3791170	19.49	1008323	27.33
04	644-2	542511	16.78	3809990	19.49	1034129	27.33
05	644-3	538522	16.76	3753726	19.49	1037818	27.33
06	644-4	534347	16.77	3769829	19.49	1004485	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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL Project: 010001

NJDEP#: 13461 Case No.: 16538 Location: 644 SDG No.:

Lab File ID (Standard): VB010305.D Date Analyzed: 10/29/01

Instrument ID: GCMS#2 Time Analyzed: 8:38

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	511055	16.74	3864170	19.48	1081120	27.32
	UPPER LIMIT	1022110	17.24	7728340	19.98	2162240	27.82
	LOWER LIMIT	255528	16.24	1932085	18.98	540560	26.82
	Lab ID.						
01	MB	519014	16.75	3921542	19.48	1094267	27.32
02	644-5	485120	16.75	3823895	19.48	1048696	27.32
03	FD	491491	16.76	3732113	19.48	1032825	27.32

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\011026\VB010284.D Vial: 9
Acq On : 26 Oct 2001 11:12 am Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 1 14:02 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Nov 01 11:14:40 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	571507	30.00	ug/L	0.02
26) 1,4-Difluorobenzene	19.48	114	3890013	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1052620	30.00	ug/L	0.01
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1264233	28.43	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 94.77%			
35) Toluene-d8	23.50	98	4439988	29.95	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 99.83%			
49) Bromofluorobenzene	30.34	95	1697090	28.96	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 96.53%			
Target Compounds						Qvalue

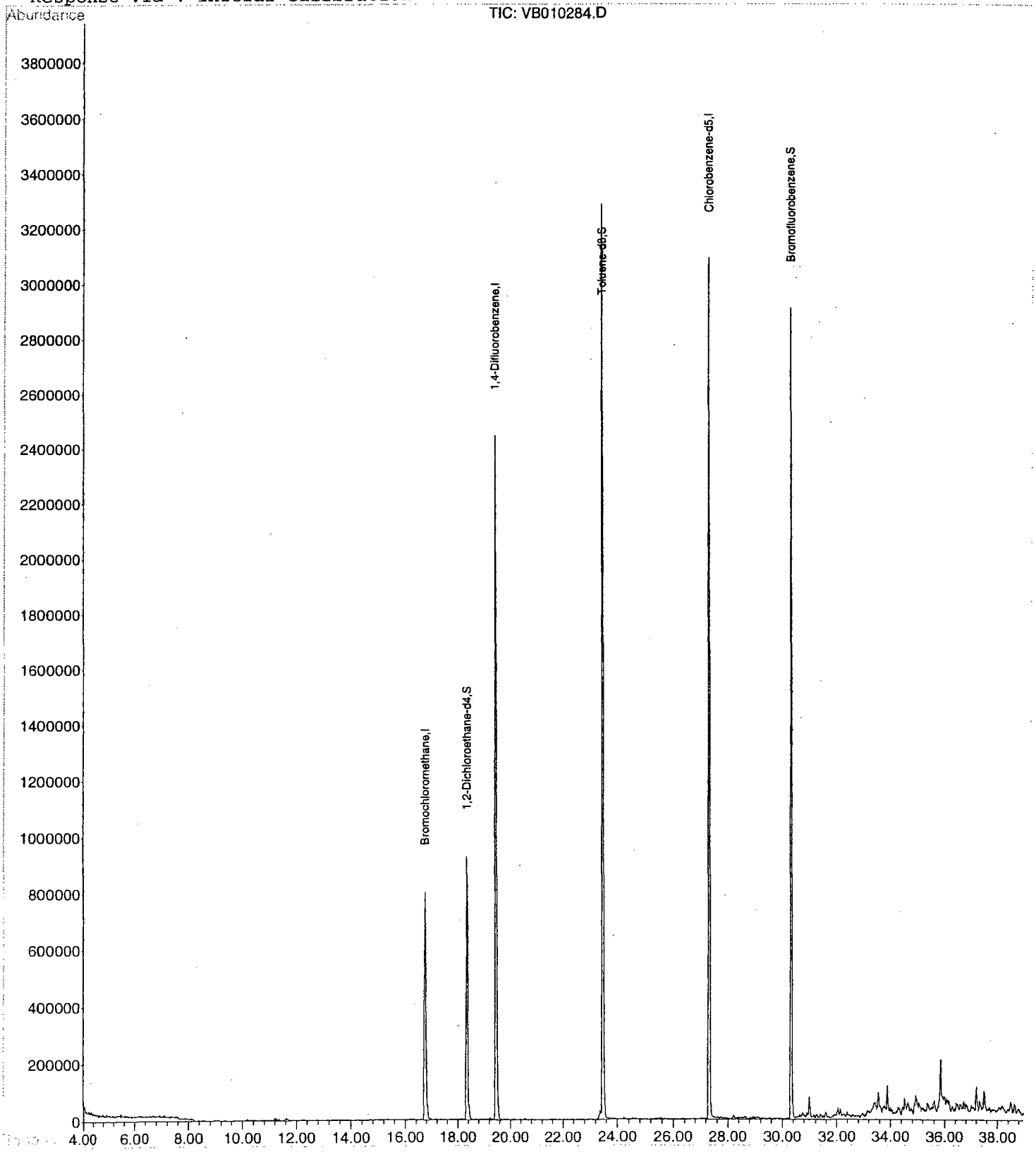
(#) = qualifier out of range (m) = manual integration
VB010284.D M262NAP.M Tue Nov 06 15:30:48 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011026\VB010284.D
Acq On : 26 Oct 2001 11:12 am
Sample : MB
Misc : MB
MS Integration Params: TBA.P
Quant Time: Nov 1 14:02 2001

Vial: 9
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\VB010306.D Vial: 1
Acq On : 29 Oct 2001 10:04 am Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 1 14:04 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Thu Nov 01 11:14:40 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

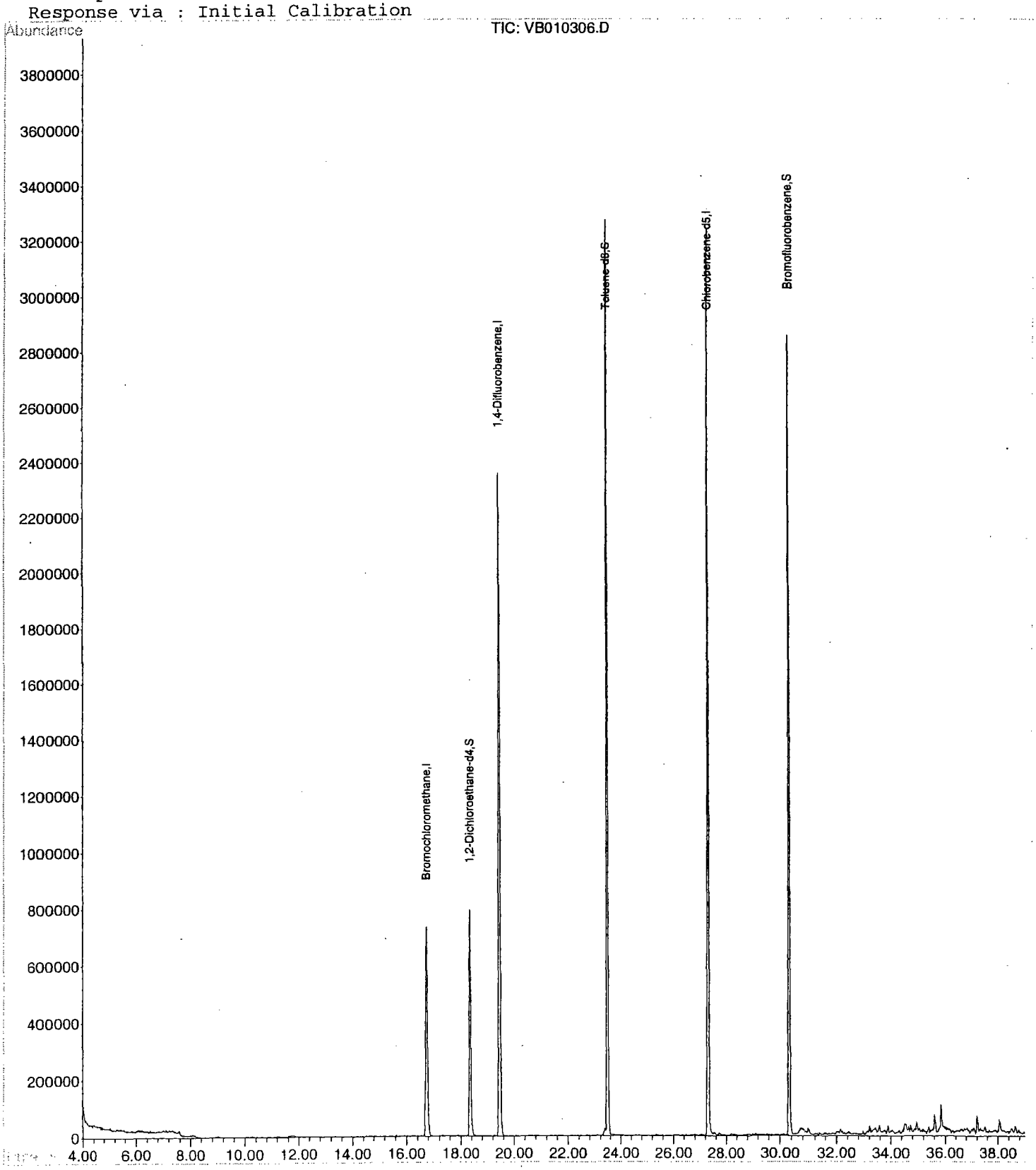
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	519014	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3921542	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1094267	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.35	65	1119292	27.72	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 92.40%			
35) Toluene-d8	23.50	98	4546296	30.42	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 101.40%			
49) Bromofluorobenzene	30.34	95	1727916	28.36	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 94.53%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
VB010306.D M262NAP.M Tue Nov 06 15:31:24 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011029\VB010306.D Vial: 1
Acq On : 29 Oct 2001 10:04 am Operator: Skelton
Sample : MB Inst : GC VOA 2
Misc : MB Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Nov 1 14:04 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011026\VB010293.D Vial: 8
Acq On : 26 Oct 2001 6:10 pm Operator: Skelton
Sample : 1653801 Inst : GC VOA 2
Misc : Trip Blank Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 17:49 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Oct 26 10:59:23 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	543668	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3948686	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1055121	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.38	65	4768554	112.74	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 375.80%#			
35) Toluene-d8	23.50	98	14344351	95.31	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 317.70%#			
49) Bromofluorobenzene	30.34	95	5985044	101.89	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 339.63%#			

Target Compounds Qvalue

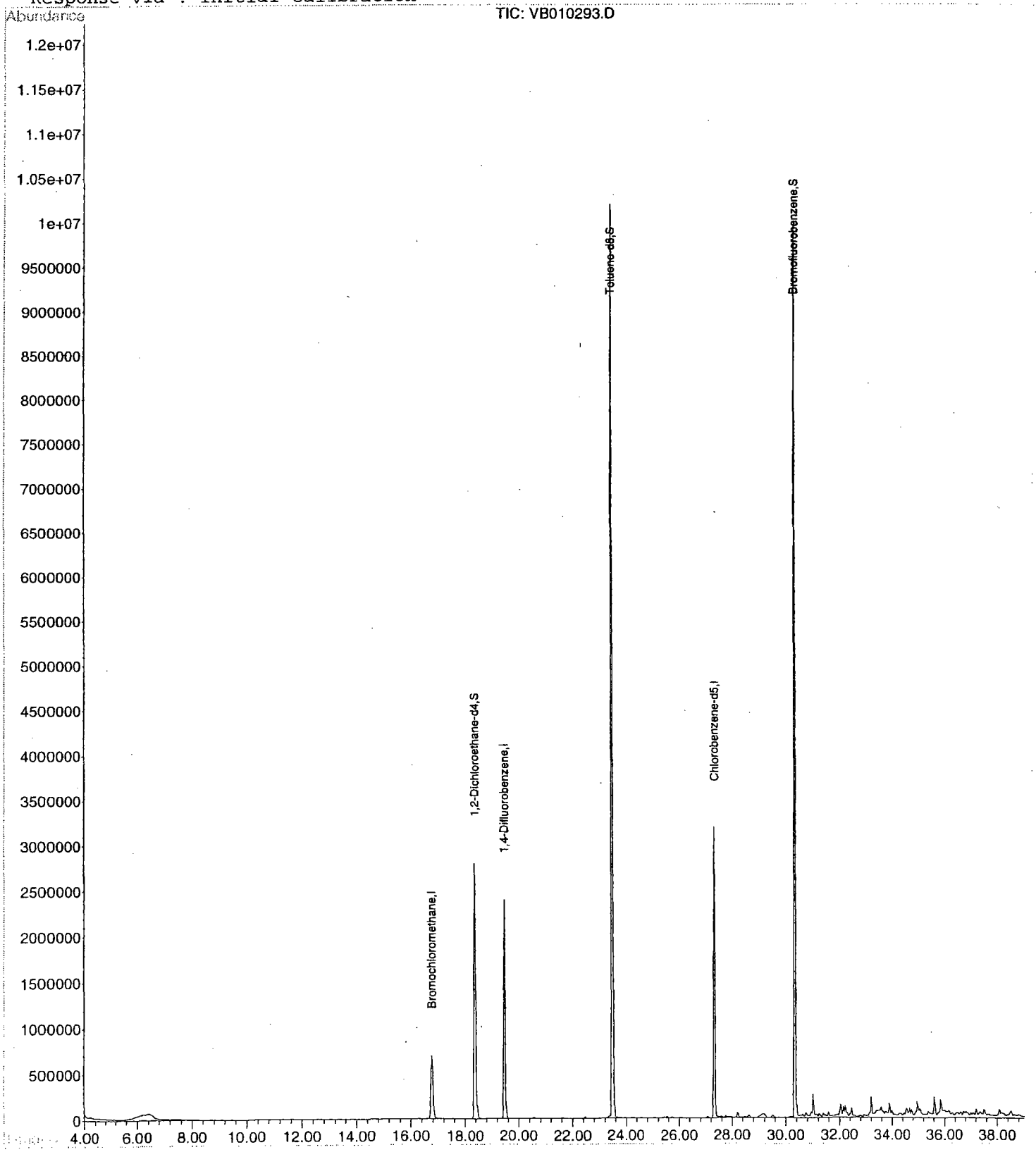
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011026\VB010293.D
Acq On : 26 Oct 2001 6:10 pm
Sample : 1653801
Misc : Trip Blank
MS Integration Params: TBA.P
Quant Time: Oct 26 17:49 2001

Vial: 8
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\011026\VB010294.D Vial: 9
Acq On : 26 Oct 2001 6:55 pm Operator: Skelton
Sample : 1653802 Inst : GC VOA 2
Misc : 644-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 18:34 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Oct 26 10:59:23 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	540295	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.49	114	3791170	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1008323	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1546133	36.78	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	122.60%#		
35) Toluene-d8	23.50	98	5087943	35.21	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	117.37%#		
49) Bromofluorobenzene	30.34	95	1998581	35.60	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	118.67%		

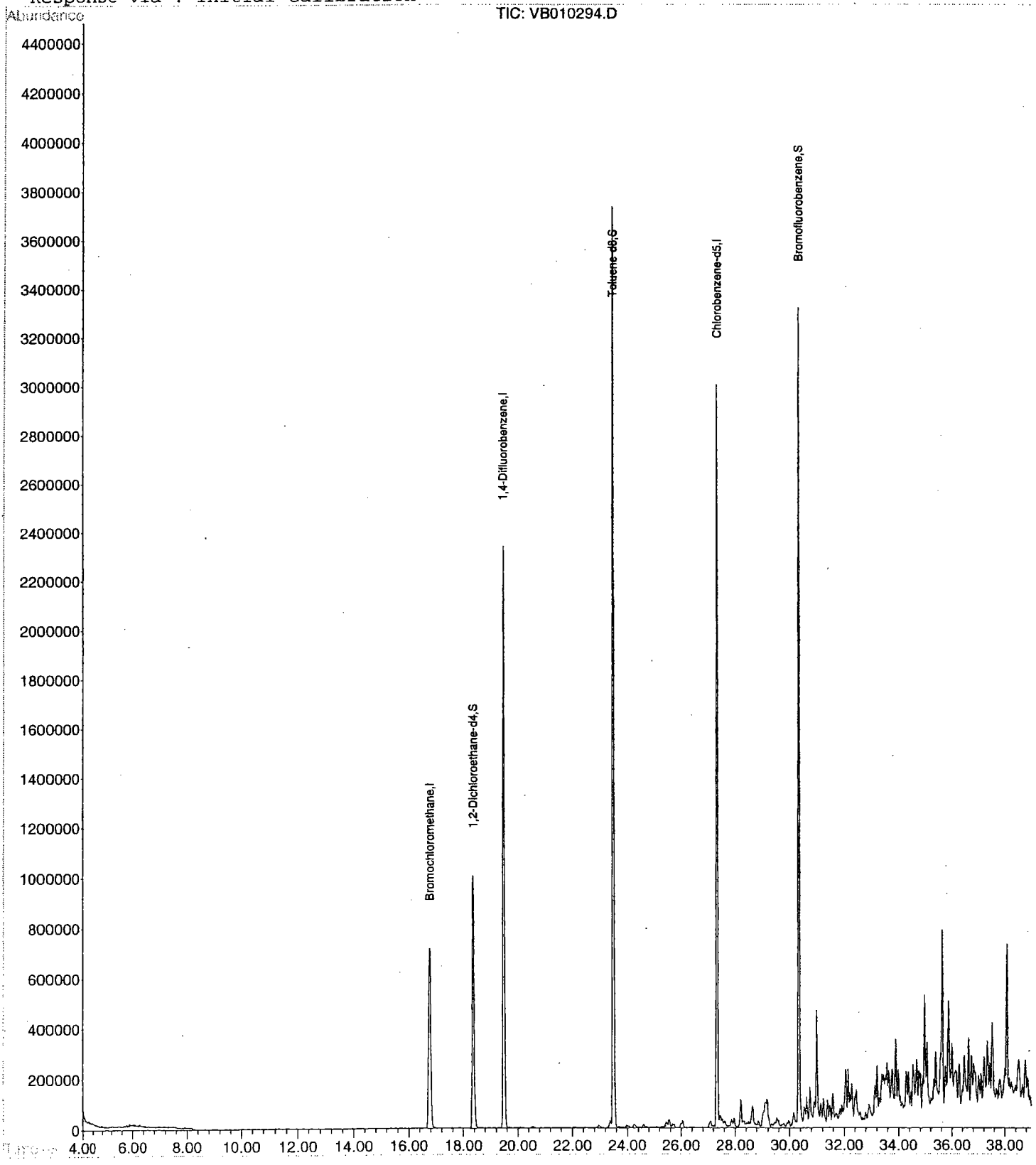
Target Compounds Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011026\VB010294.D Vial: 9
Acq On : 26 Oct 2001 6:55 pm Operator: Skelton
Sample : 1653802 Inst : GC VOA 2
Misc : 644-1 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 18:34 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\011026\VB010295.D Vial: 10
Acq On : 26 Oct 2001 7:40 pm Operator: Skelton
Sample : 1653803 Inst : GC VOA 2
Misc : 644-2 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 19:19 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Oct 26 10:59:23 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.78	128	542511	30.00	ug/L	0.02
26) 1,4-Difluorobenzene	19.49	114	3809990	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1034129	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1538518	36.45	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 121.50%#			
35) Toluene-d8	23.50	98	5192738	35.76	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 119.20%#			
49) Bromofluorobenzene	30.34	95	2000016	34.74	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 115.80%			

Target Compounds Qvalue

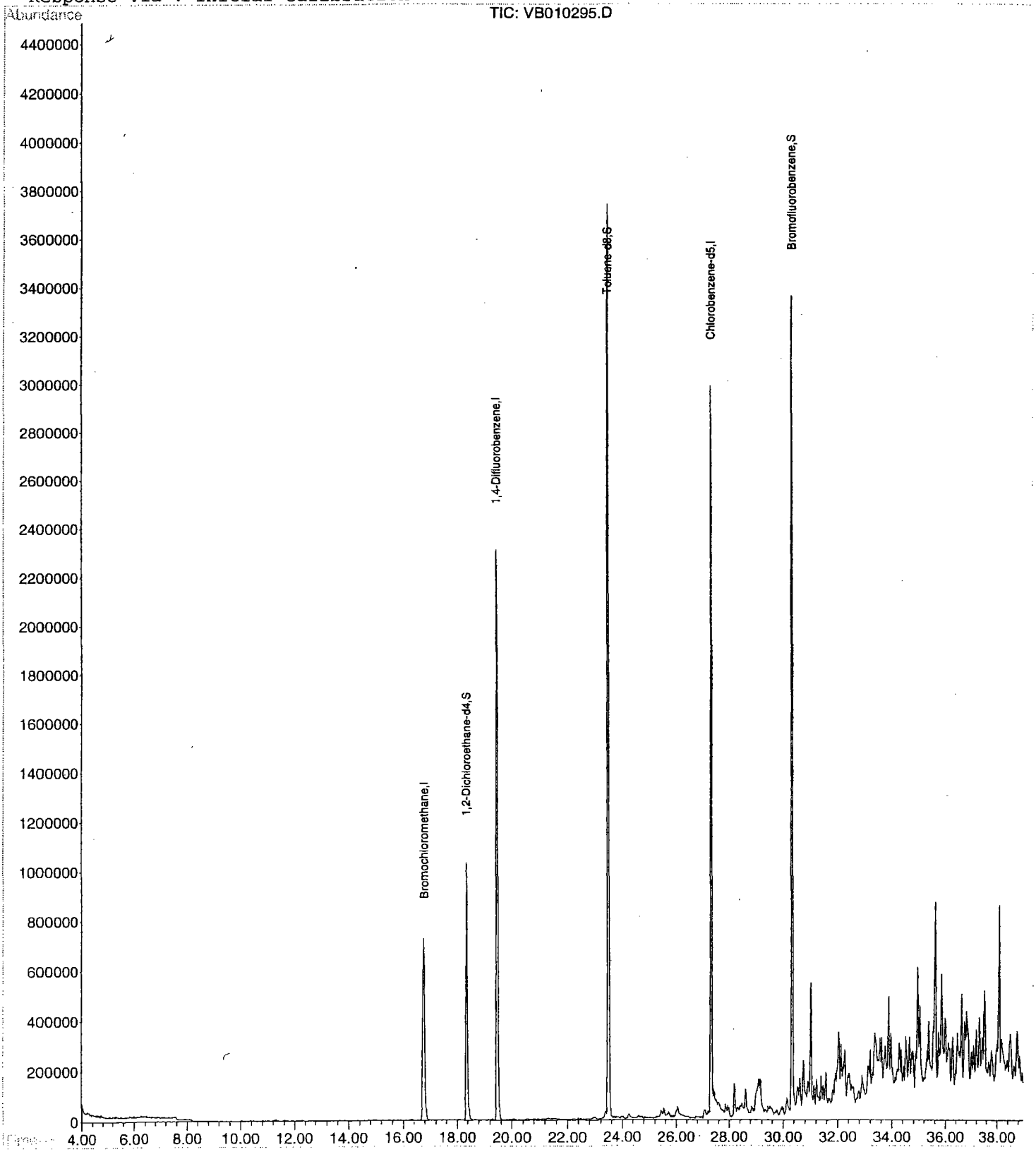
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011026\VB010295.D
Acq On : 26 Oct 2001 7:40 pm
Sample : 1653803
Misc : 644-2
MS Integration Params: TBA.P
Quant Time: Oct 26 19:19 2001

Vial: 10
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011026\VB010296.D Vial: 11
Acq On : 26 Oct 2001 8:24 pm Operator: Skelton
Sample : 1653804 Inst : GC VOA 2
Misc : 644-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 20:03 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Oct 26 10:59:23 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	538522	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.49	114	3753726	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1037818	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1535857	36.66	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	122.20%#		
35) Toluene-d8	23.51	98	5142389	35.94	ug/L	0.01
Spiked Amount 30.000	Range 81 - 117		Recovery =	119.80%#		
49) Bromofluorobenzene	30.35	95	2027479	35.09	ug/L	0.01
Spiked Amount 30.000	Range 74 - 121		Recovery =	116.97%		

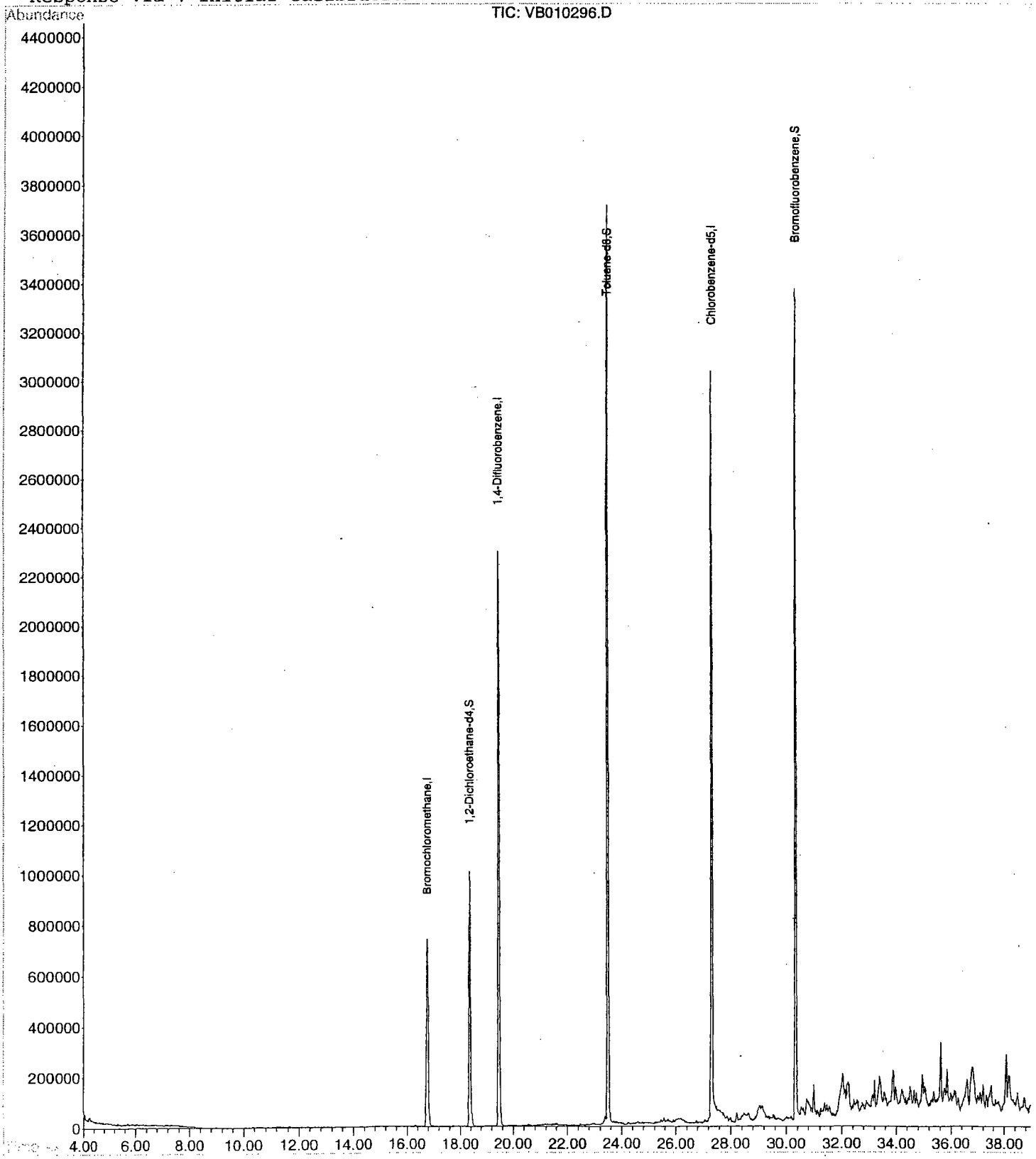
Target Compounds Qvalue

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011026\VB010296.D Vial: 11
Acq On : 26 Oct 2001 8:24 pm Operator: Skelton
Sample : 1653804 Inst : GC VOA 2
Misc : 644-3 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 20:03 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



000067

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\011026\VB010297.D Vial: 12
Acq On : 26 Oct 2001 9:09 pm Operator: Skelton
Sample : 1653805 Inst : GC VOA 2
Misc : 644-4 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 26 20:48 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Oct 26 10:59:23 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.77	128	534347	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.49	114	3769829	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.33	119	1004485	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.37	65	1457016	35.05	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 116.83%			
35) Toluene-d8	23.51	98	5015360	34.91	ug/L	0.01
Spiked Amount 30.000	Range 81 - 117		Recovery = 116.37%			
49) Bromofluorobenzene	30.34	95	1960305	35.05	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 116.83%			
Target Compounds						Qvalue
54) Napthalene	38.65	128	146975	1.18	ug/L	# 68

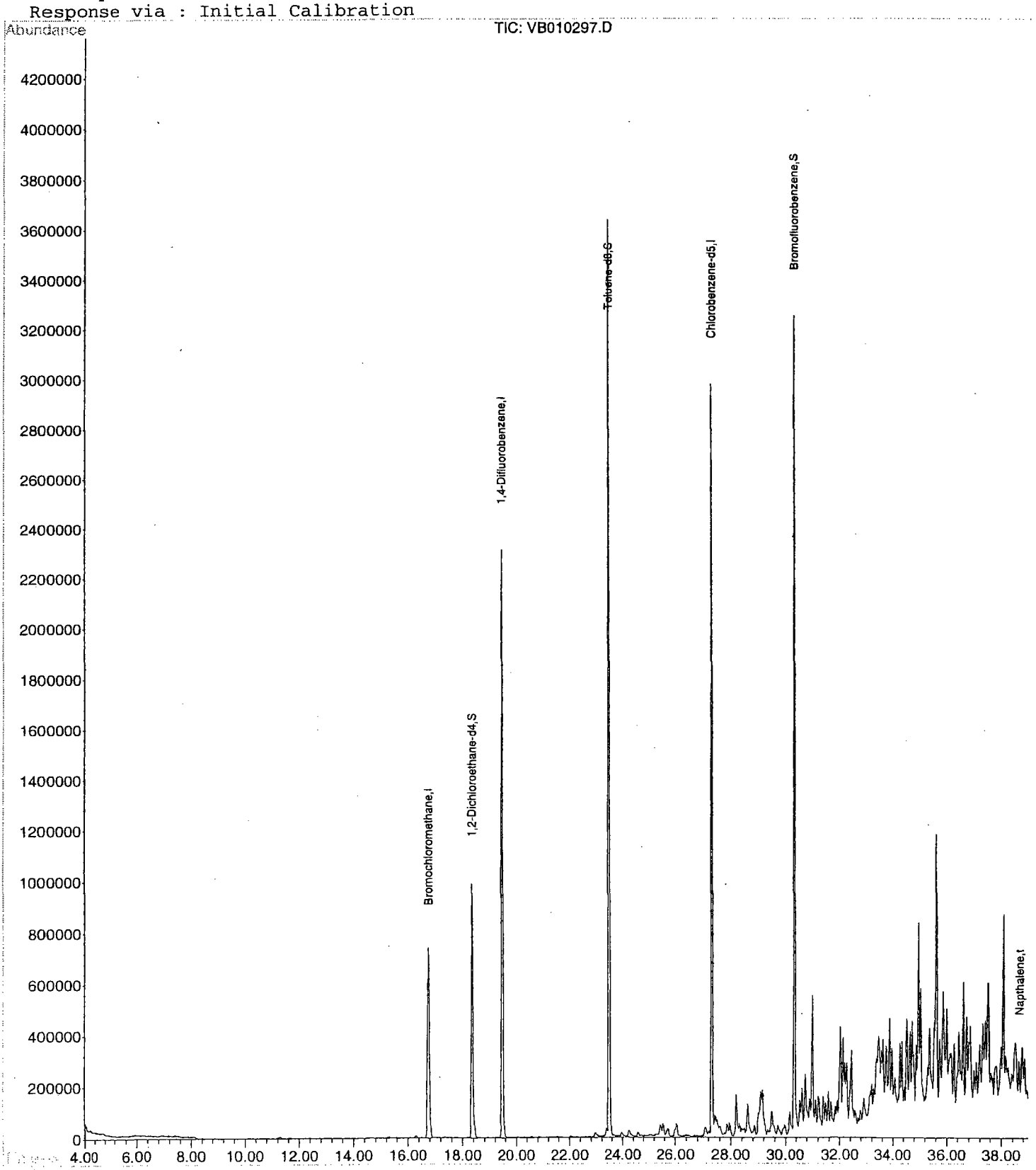
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011026\VB010297.D
Acq On : 26 Oct 2001 9:09 pm
Sample : 1653805
Misc : 644-4
MS Integration Params: TBA.P
Quant Time: Oct 26 20:48 2001

Vial: 12
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\VB010307.D Vial: 1
Acq On : 29 Oct 2001 11:04 am Operator: Skelton
Sample : 1653806 Inst : GC VOA 2
Misc : 644-5 Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 29 11:43 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Oct 26 10:59:23 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.75	128	485120	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.48	114	3823895	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1048696	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.35	65	1324651	35.10	ug/L	-0.02
Spiked Amount 30.000	Range 70 - 121		Recovery = 117.00%			
35) Toluene-d8	23.50	98	5005436	34.35	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 114.50%			
49) Bromofluorobenzene	30.34	95	1908184	32.68	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 108.93%			

Target Compounds Qvalue

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

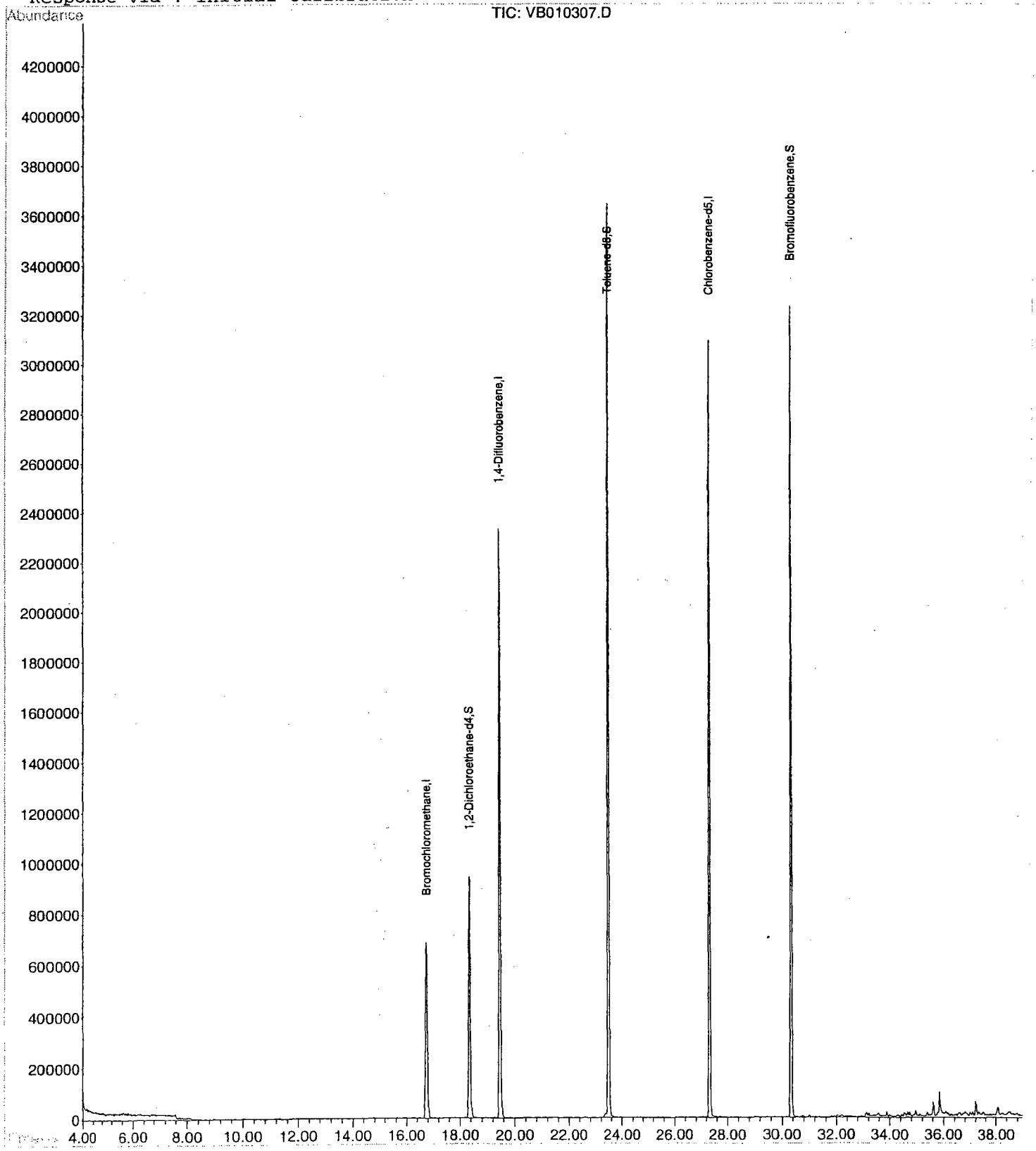
000070

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011029\VB010307.D
Acq On : 29 Oct 2001 11:04 am
Sample : 1653806
Misc : 644-5
MS Integration Params: TBA.P
Quant Time: Oct 29 11:43 2001

Vial: 1
Operator: Skelton
Inst : GC VOA 2
Multiplr: 1.00
Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011029\VB010308.D Vial: 2
Acq On : 29 Oct 2001 11:48 am Operator: Skelton
Sample : 1653807 Inst : GC VOA 2
Misc : FD Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 29 12:28 2001 Quant Results File: M262NAP.RES

Quant Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Oct 29 11:58:32 2001
Response via : Initial Calibration
DataAcq Meth : M262NAP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.76	128	491491	30.00	ug/L	0.02
26) 1,4-Difluorobenzene	19.48	114	3732113	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.32	119	1032825	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.36	65	1315107	34.39	ug/L	0.01
Spiked Amount 30.000	Range 70 - 121		Recovery = 114.63%			
35) Toluene-d8	23.50	98	4742676	33.34	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 111.13%			
49) Bromofluorobenzene	30.34	95	1797960	31.27	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 104.23%			

Target Compounds Qvalue

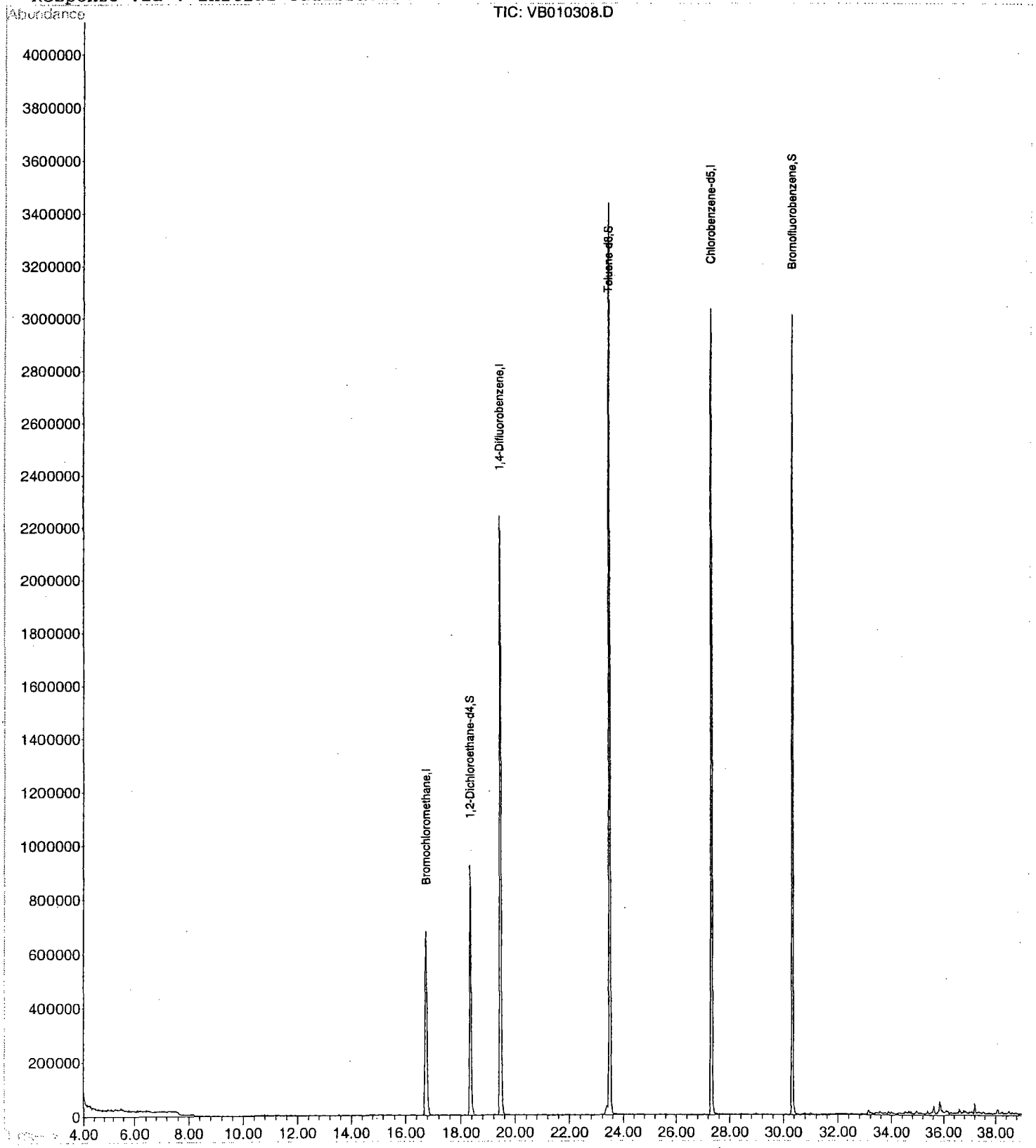
(#) = qualifier out of range (m) = manual integration

000072

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011029\VB010308.D Vial: 2
Acq On : 29 Oct 2001 11:48 am Operator: Skelton
Sample : 1653807 Inst : GC VOA 2
Misc : FD Multiplr: 1.00
MS Integration Params: TBA.P
Quant Time: Oct 29 12:28 2001 Quant Results File: M262NAP.RES

Method : C:\HPCHEM\1\METHODS\M262NAP.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 06 13:58:13 2001
Response via : Initial Calibration



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 11/20/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 644

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
644-1/8'	2000201	Soil	03-Jan-02 14:30	01/03/02
644-2/8'	2000202	Soil	03-Jan-02 14:30	01/03/02
644-3/8'	2000203	Soil	03-Jan-02 14:30	01/03/02
644-4/8'	2000204	Soil	03-Jan-02 14:30	01/03/02
644-5/8'	2000205	Soil	03-Jan-02 14:30	01/03/02

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

1-10-02
Daniel Wright Date
Laboratory Director

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

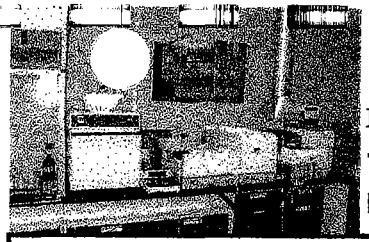
TPHC Conformance/Non-conformance Summary Report

		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. Positive result slightly above MDL	Yes
3.	Matrix Spike Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range). High Sample concentration	NO
4.	Duplicate Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range). High Sample Concentration	NO
5.	IR Spectra submitted for standards, blanks and samples.	NA
6.	Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

1-10-02
Date



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 #: 82475
( )DERA ( )OMA ( )Other:_____

Project No: 02
Location: BLDG. 644 FORMER

Samplers Name / Company: MARK LAURA - TVS - PWS 07

Analysis Parameters: TPHC; % SOLID

Comments: RESAMPLE TPHC (NOT ON CHAIN) FROM 10-12-01

Lab Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	TPHC	% SOLID	Remarks / Preservation Method
20002 1	644 - 1 8'	1-3-02	1430	SOIL	1	X	X	
2	644 - 2 "	"	"	"	"	X	X	
3	644 - 3 "	"	"	"	"	X	X	
4	644 - 4 "	"	"	"	"	X	X	
5	644 - 5 "	"	"	"	"	X	X	

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	1-3-02 1450	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, (X)Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: NO HNU / NO FD

000003

print legibly

Coc.xls9/6/99

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 # :** **Location :** **UST Reg. # :**	20002 Bldg.644
Analysis :	OQA-QAM-025	**Date Received :**	03-Jan-02
Matrix :	Soil	**Date Extracted :**	04-Jan-02
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	08-Jan-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2000201	644-1	**1.00**	15.12	72.61	206	**8903.10**
2000202	644-2	**1.00**	15.21	77.79	191	**6921.76**
2000203	644-3	**1.00**	15.45	76.37	192	**7243.03**
2000204	644-4	**2.00**	15.44	76.63	191	**7616.32**
2000205	644-5	**1.00**	16.07	84.84	166	**4616.22**
METHOD BLANK	MB-020104	**1.00**	15.00	100.00	151	**196.95**

ND = Not Detected

MDL = Method Detection Limit

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1) tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2) tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3) TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4) tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5) tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6) tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7) tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8) tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9) tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10) tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11) tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12) tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13) tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14) tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15) tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16) tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17) tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18) tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19) TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20) TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21) sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22) tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020107\T013910.D Vial: 1
Acq On : 7 Jan 2002 10:08 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.541 E3	-19.5	114	-0.09
2	tC	C10	20.595	23.337 E3	-13.3	110	-0.02
3	TC	C12	21.549	23.026 E3	-6.9	104	0.00
4	tC	C14	23.048	23.653 E3	-2.6	102	0.00
5	tC	C16	24.057	23.995 E3	0.3	100	0.00
6	tC	C18	24.812	24.024 E3	3.2	97	0.00
7	tC	C20	24.684	24.598 E3	0.3	99	0.00
8	tC	C22	25.878	25.328 E3	2.1	98	0.00
9	tC	C24	26.326	25.567 E3	2.9	98	0.00
10	tC	C26	26.702	25.863 E3	3.1	98	0.00
11	tC	C28	26.061	25.475 E3	2.2	98	0.00
12	tC	C30	26.583	26.211 E3	1.4	98	0.00
13	tC	C32	26.447	25.922 E3	2.0	98	0.00
14	tC	C34	26.317	25.739 E3	2.2	98	0.00
15	tC	C36	26.661	26.165 E3	1.9	98	0.00
16	tC	C38	24.528	23.901 E3	2.6	99	0.00
17	tC	C40	21.994	21.596 E3	1.8	101	0.00
18	tC	c42	19.638	20.074 E3	-2.2	104	0.00
19	TC	Pristane	23.812	23.160 E3	2.7	96	0.00
20	TC	Phytane	25.573	24.859 E3	2.8	99	0.00
	C	o-terphenyl	25.484	25.149 E3	1.3	99	0.00
2	C	TPHC - total	28.994	27.703 E3	4.5	104	1.45#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\020107\T013921.D Vial: 12
Acq On : 8 Jan 2002 7:34 am Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 ppm std Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	22.299 E3	-23.8	118	-0.08
2	tC	C10	20.595	23.108 E3	-12.2	109	-0.02
3	TC	C12	21.549	24.098 E3	-11.8	109	0.00
4	tC	C14	23.048	24.788 E3	-7.5	107	0.00
5	tC	C16	24.057	25.156 E3	-4.6	105	0.00
6	tC	C18	24.812	25.432 E3	-2.5	103	0.00
7	tC	C20	24.684	25.745 E3	-4.3	104	0.00
8	tC	C22	25.878	26.549 E3	-2.6	103	0.00
9	tC	C24	26.326	26.837 E3	-1.9	103	0.00
10	tC	C26	26.702	27.079 E3	-1.4	103	0.00
11	tC	C28	26.061	26.671 E3	-2.3	103	0.00
12	tC	C30	26.583	27.373 E3	-3.0	102	0.00
13	tC	C32	26.447	27.099 E3	-2.5	102	0.00
14	tC	C34	26.317	26.174 E3	0.5	99	0.00
15	tC	C36	26.661	24.278 E3	8.9	91	0.00
16	tC	C38	24.528	19.006 E3	22.5	78	-0.01
17	tC	C40	21.994	14.408 E3	34.5#	67	-0.02
18	tC	c42	19.638	11.189 E3	43.0#	58	-0.04
19	TC	Pristane	23.812	24.283 E3	-2.0	101	0.00
20	TC	Phytane	25.573	26.088 E3	-2.0	104	0.00
	C	o-terphenyl	25.484	26.397 E3	-3.6	104	0.00
2	C	TPHC - total	28.994	27.136 E3	6.4	102	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 2

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

Client :	U.S. Army	**Project # :**	20002
	DPW. SELFM-PW-EV	**Location :**	Bldg.644
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	3-Jan-02
Matrix:	Soil	**Date Extracted :**	4-Jan-02
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	8-Jan-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
2000201			10.00	9.22	**92.16**
2000202			10.00	9.59	**95.91**
2000203			10.00	9.17	**91.74**
2000204			10.00	10.22	**102.16**
2000205			10.00	8.93	**89.32**
METHOD BLANK	MB-020104		10.00	9.15	**91.53**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	20002
	DPW. SELFM-PW-EV	**Location :**	Bldg.644
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	3-Jan-02
Matrix:	Soil	**Date Extracted :**	4-Jan-02
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	8-Jan-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-020104	04-Jan-02	1000	724.45	72.45	75-126

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	**Project # :** **Location :** **UST Reg. # :**	20002 Bldg.644
Analysis:	OQA-QAM-025	**Date Received :**	3-Jan-02
Matrix:	Soil	**Date Extracted :**	4-Jan-02
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	8-Jan-02
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
2000201MS	1000	1955.01	2858.05	90.30	75-125
2000201MSD	1000	1955.01	1669.03	-28.60	75-125

RPD	**385.38**	**20.00**

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013911.D Vial: 2
Acq On : 7 Jan 2002 10:41 am Operator: Skelton
Sample : MB-020104 Inst : GC/MS Ins
Misc : MB-020104 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 9 9:57 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

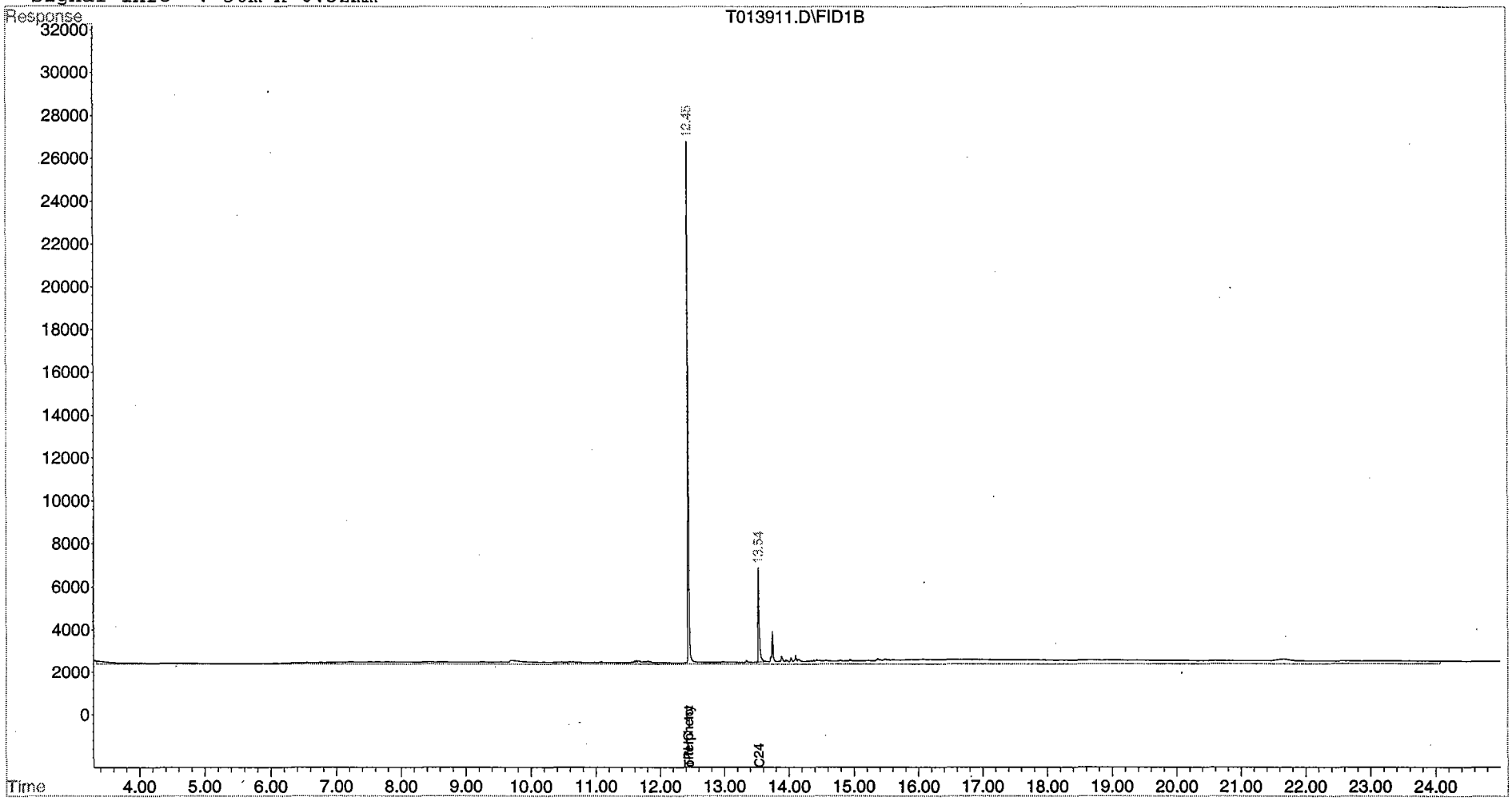
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	233240	9.153 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	91.53%#
Target Compounds			
9) tC C24	13.54	54670	2.077 mg/L
22) tC TPHC - total	12.45	1713106	59.085 mg/L m

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

Data File : C:\HPCHEM\1\DATA\020107\T013911.D Vial: 2
Acq On : 7 Jan 2002 10:41 am Operator: Skelton
Sample : MB-020104 Inst : GC/MS Ins
Misc : MB-020104 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 9 9:57 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013913.D Vial: 4
Acq On : 7 Jan 2002 11:48 am Operator: Skelton
Sample : 2000201s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 13:06 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

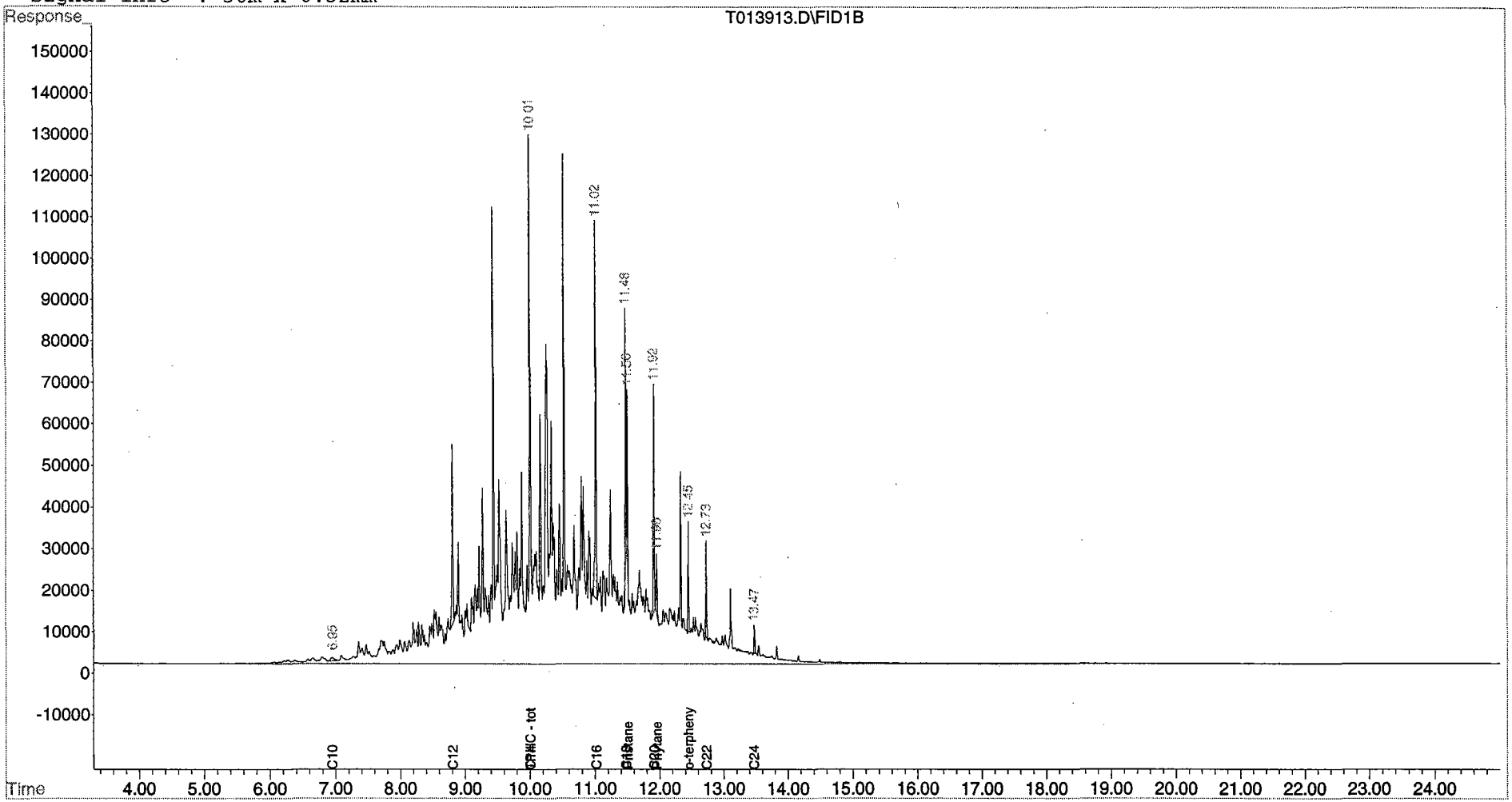
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	234848	9.216 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	92.16%#
Target Compounds			
2) tC C10	6.95	33872	1.645 mg/L
3) TC C12	8.81	476352	22.106 mg/L
4) tC C14	10.01	1090856	47.330 mg/L
5) tC C16	11.02	963260	40.041 mg/L
6) tC C18	11.48	416941	16.804 mg/L
7) tC C20	11.92	509488	20.640 mg/L
8) tC C22	12.73	192229	7.428 mg/L
9) tC C24	13.47	56730	2.155 mg/L
19) TC Pristane	11.51	320796	13.472 mg/L
20) TC Phytane	11.96	144799	5.662 mg/L
22) tC TPHC - total	10.01	56683132	1955.007 mg/L m

Data File : C:\HPCHEM\1\DATA\020107\T013913.D
Acq On : 7 Jan 2002 11:48 am
Sample : 2000201s
Misc :
IntFile : TPHCINT.E
Quant Time: Jan 7 13:06 2002 Quant Results File: TPH95.RES

Vial: 4
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013916.D Vial: 7
Acq On : 7 Jan 2002 1:28 pm Operator: Skelton
Sample : 2000202s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 14:42 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

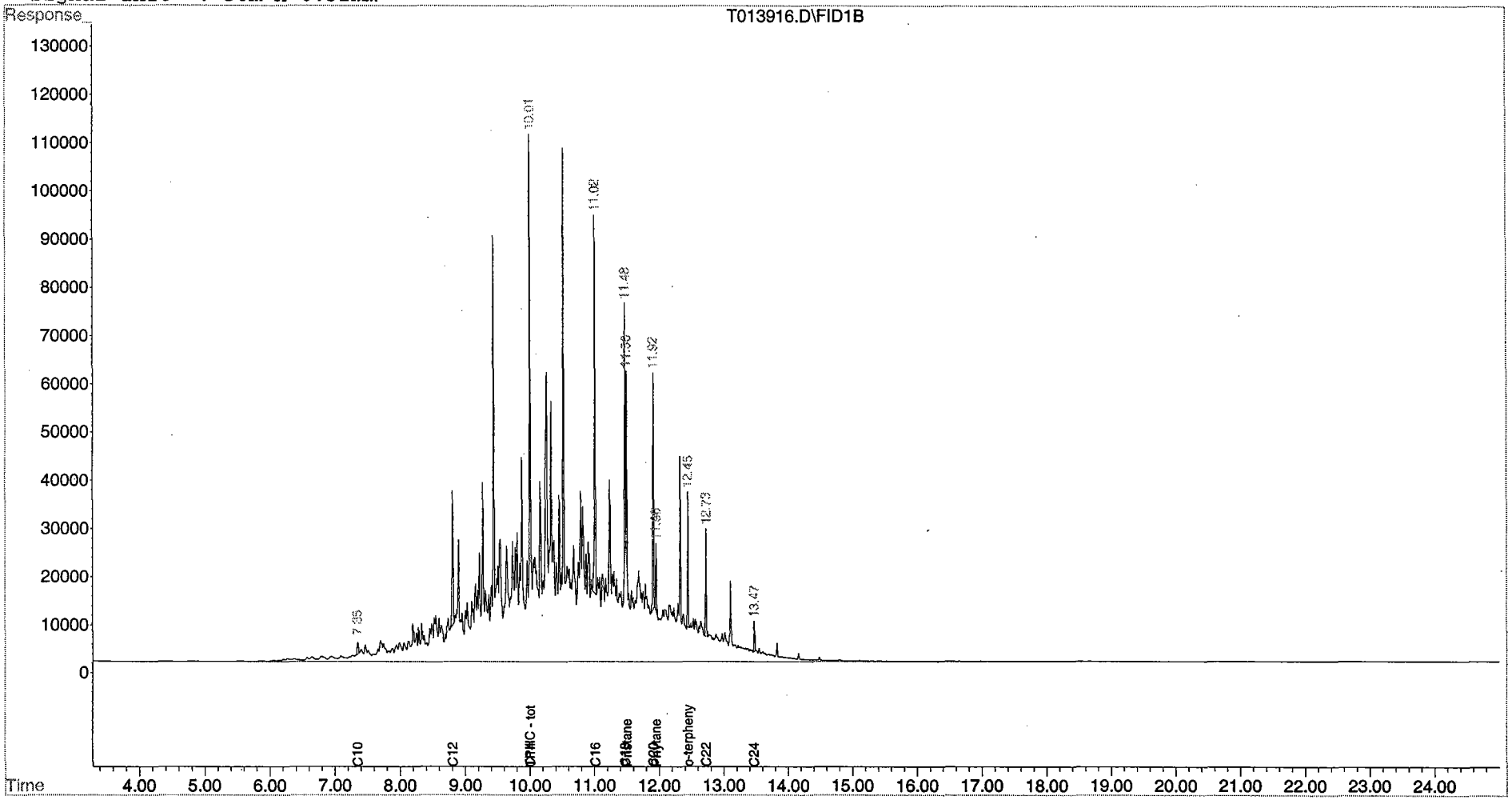
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	244422	9.591 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	95.91%#
Target Compounds			
2) tC C10	7.35	33709	1.637 mg/L
3) TC C12	8.81	314479	14.594 mg/L
4) tC C14	10.01	907983	39.395 mg/L
5) tC C16	11.02	781056	32.467 mg/L
6) tC C18	11.48	359906	14.505 mg/L
7) tC C20	11.92	456582	18.497 mg/L
8) tC C22	12.73	207226	8.008 mg/L
9) tC C24	13.48	58054	2.205 mg/L
19) TC Pristane	11.51	309851	13.013 mg/L
20) TC Phytane	11.96	142348	5.566 mg/L
22) tC TPHC - total	10.01	47489328	1637.912 mg/L m

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

Data File : C:\HPCHEM\1\DATA\020107\T013916.D Vial: 7
Acq On : 7 Jan 2002 1:28 pm Operator: Skelton
Sample : 2000202s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 14:42 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000015

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013917.D Vial: 8
Acq On : 7 Jan 2002 2:02 pm Operator: Skelton
Sample : 2000203s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 14:43 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

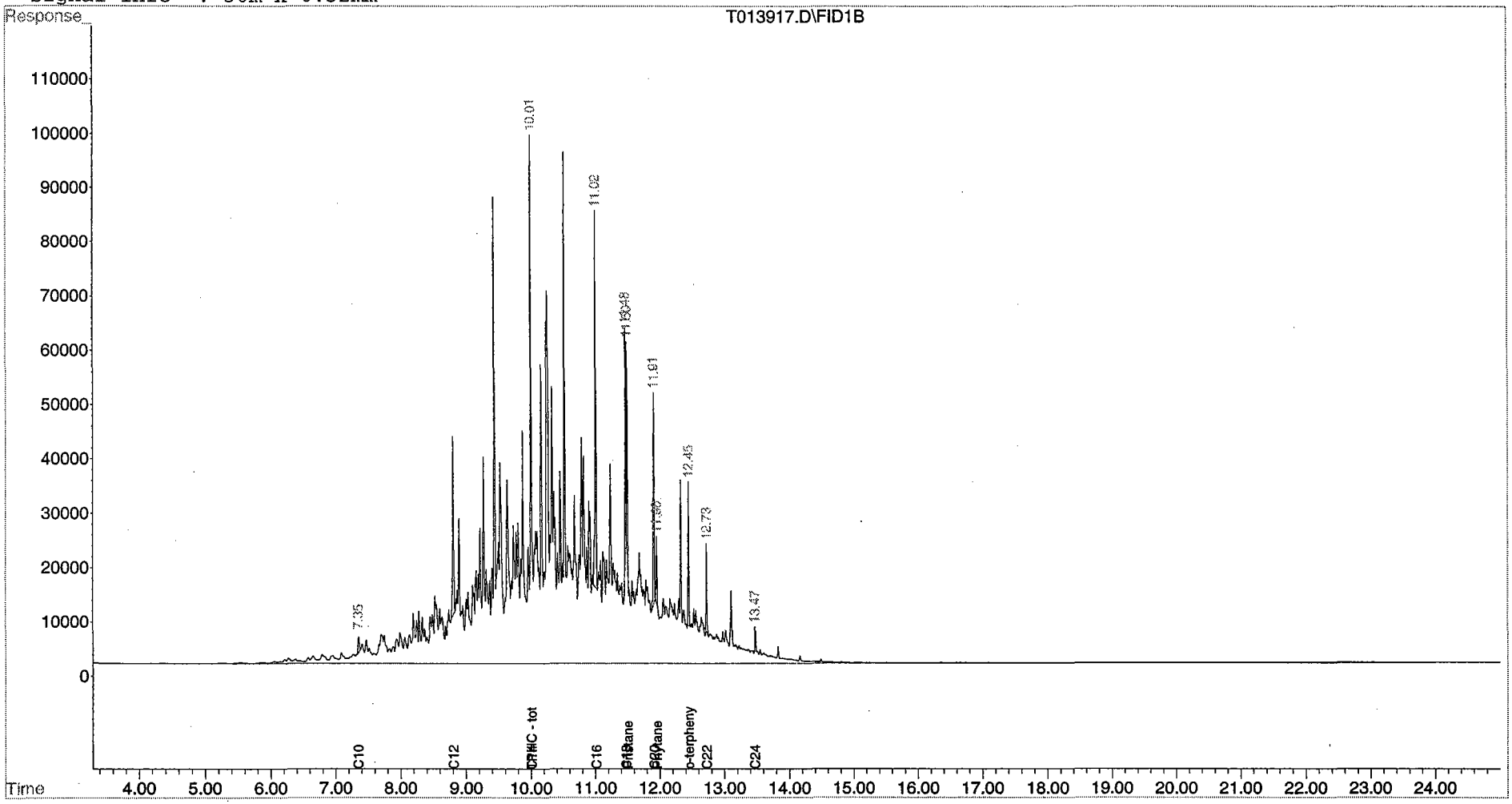
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	233775	9.174 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery =	91.74%#
Target Compounds			
2) tC C10	7.35	38342	1.862 mg/L
3) TC C12	8.81	357147	16.574 mg/L
4) tC C14	10.01	803624	34.867 mg/L
5) tC C16	11.02	737910	30.674 mg/L
6) tC C18	11.48	290536	11.709 mg/L
7) tC C20	11.92	366322	14.840 mg/L
8) tC C22	12.73	127846	4.940 mg/L
9) tC C24	13.47	37454	1.423 mg/L
19) TC Pristane	11.50	308620	12.961 mg/L
20) TC Phytane	11.96	123753	4.839 mg/L
22) tC TPHC - total	10.01	49554296	1709.133 mg/L m

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

Data File : C:\HPCHEM\1\DATA\020107\T013917.D Vial: 8
Acq On : 7 Jan 2002 2:02 pm Operator: Skelton
Sample : 2000203s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 14:43 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000017

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013918.D Vial: 9
Acq On : 7 Jan 2002 2:36 pm Operator: Skelton
Sample : 2000204s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 15:05 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	260335	10.216 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 102.16%#	
Target Compounds			
2) tC C10	7.09	40418	1.962 mg/L
3) TC C12	8.81	253305	11.755 mg/L
4) tC C14	10.01	441862	19.171 mg/L
5) tC C16	11.02	174547	7.256 mg/L
6) tC C18	11.48	62827	2.532 mg/L
7) tC C20	11.92	112866	4.572 mg/L
8) tC C22	12.56	30712	1.187 mg/L
19) TC Pristane	11.51	490136	20.584 mg/L
20) TC Phytane	11.96	173699	6.792 mg/L
22) tC TPHC - total	10.27	61404169	2117.836 mg/L m

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

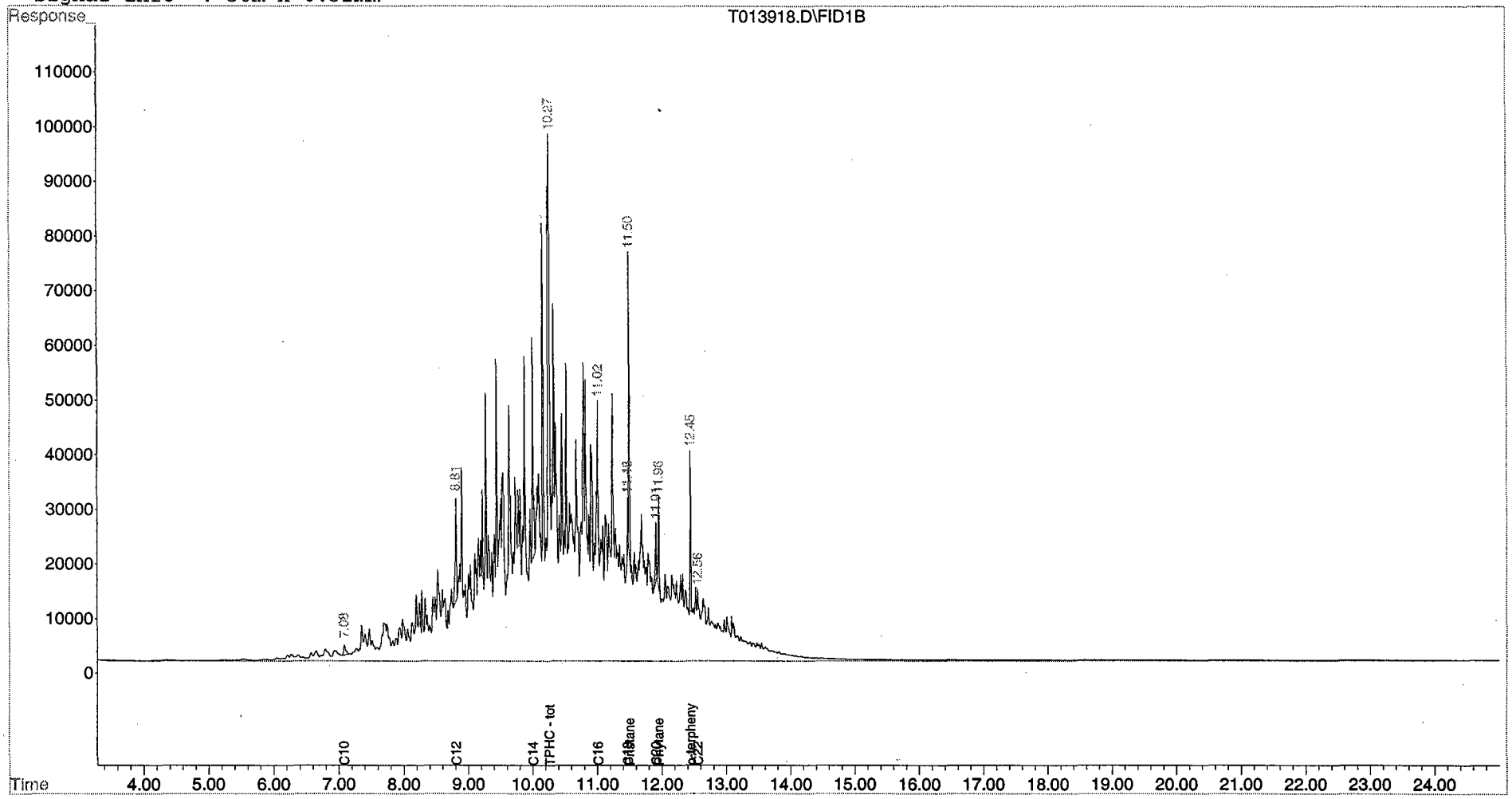
000018

Data File : C:\HPCHEM\1\DATA\020107\T013918.D
Acq On : 7 Jan 2002 2:36 pm
Sample : 2000204s
Misc :
IntFile : TPHCINT.E
Quant Time: Jan 7 15:05 2002 Quant Results File: TPH95.RES

Vial: 9
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000019

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013920.D Vial: 11
Acq On : 7 Jan 2002 3:43 pm Operator: Skelton
Sample : 2000204 (1:2) Inst : GC/MS Ins
Misc : 1:2 dil Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 16:11 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

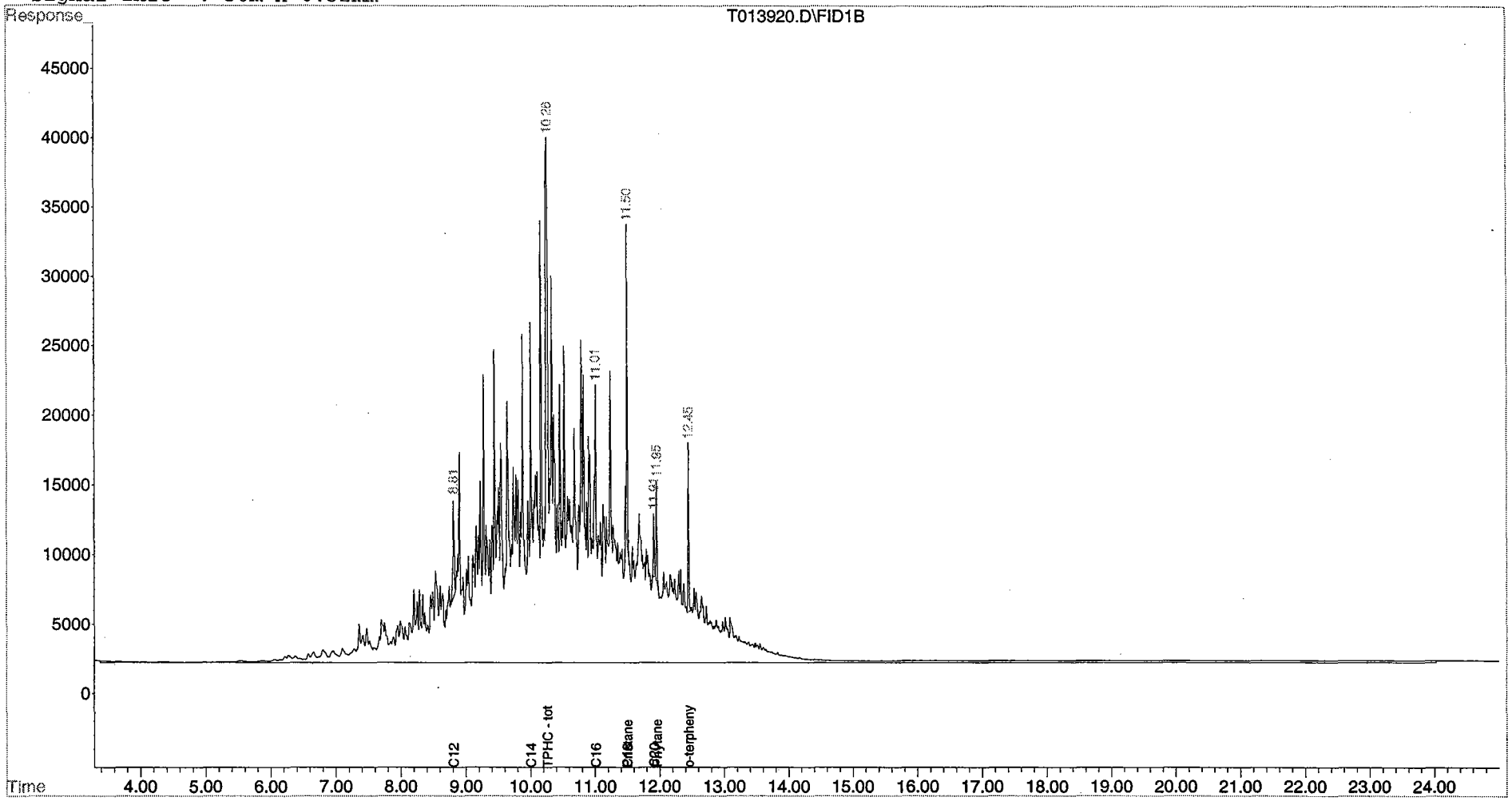
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	112785	4.426 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	44.26%#
Target Compounds			
3) TC C12	8.81	98122	4.554 mg/L
4) tC C14	10.01	122336	5.308 mg/L
5) tC C16	11.01	70012	2.910 mg/L
6) tC C18	11.50	204349	8.236 mg/L
7) tC C20	11.91	38714	1.568 mg/L
19) TC Pristane	11.50	204349	8.582 mg/L
20) TC Phytane	11.96	73055	2.857 mg/L
22) tC TPHC - total	10.26	26127470	901.139 mg/L m

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

Data File : C:\HPCHEM\1\DATA\020107\T013920.D Vial: 11
Acq On : 7 Jan 2002 3:43 pm Operator: Skelton
Sample : 2000204 (1:2) Inst : GC/MS Ins
Misc : 1:2 dil Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 16:11 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



020021

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\020107\T013919.D Vial: 10
Acq On : 7 Jan 2002 3:09 pm Operator: Skelton
Sample : 2000205s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jan 7 15:48 2002 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	227629	8.932 mg/L
Spiked Amount 10.000 Range 8 - 13	Recovery = 89.32%#		
Target Compounds			
3) TC C12	8.81	40352	1.873 mg/L
4) tC C14	10.01	31643	1.373 mg/L
5) tC C16	11.01	82615	3.434 mg/L
6) tC C18	11.50	467052	18.823 mg/L
7) tC C20	11.96	147306	5.968 mg/L
19) TC Pristane	11.50	467052	19.614 mg/L
20) TC Phytane	11.96	147306	5.760 mg/L
22) tC TPHC - total	11.50	36494868	1258.712 mg/L m

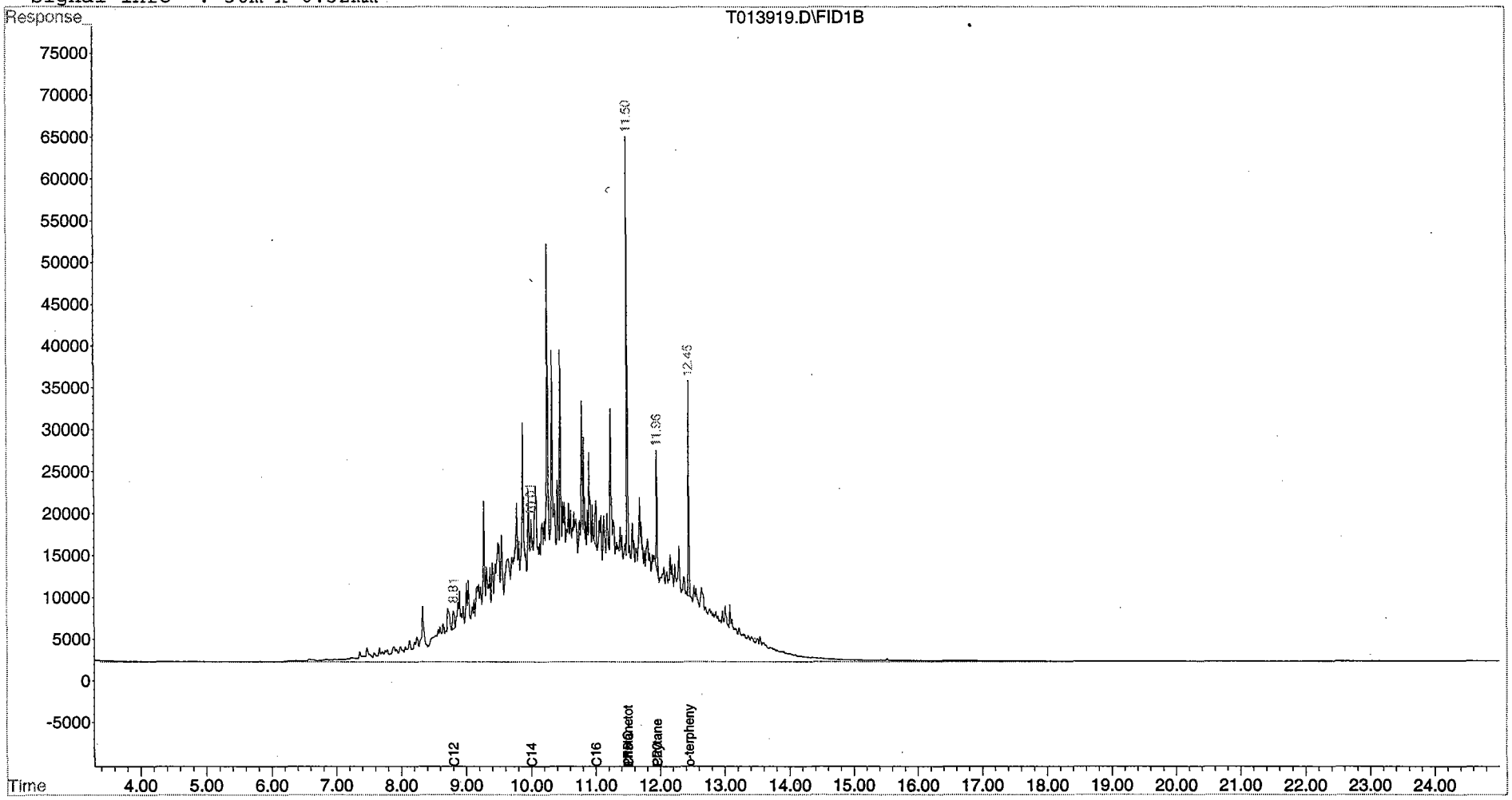
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\020107\T013919.D
Acq On : 7 Jan 2002 3:09 pm
Sample : 2000205s
Misc :
IntFile : TPHCINT.E
Quant Time: Jan 7 15:48 2002 Quant Results File: TPH95.RES

Vial: 10
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



0000023

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 1/10/02

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

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. 664

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
664-1/7.5'	1658201	Soil	14-Nov-01 13:15	11/14/01
664-2/7.5'	1658202	Soil	14-Nov-01 13:35	11/14/01
664-3/7.5'	1658203	Soil	14-Nov-01 13:50	11/14/01
664-4/7.5'	1658204	Soil	14-Nov-01 14:05	11/14/01
664-5/7.5'	1658205	Soil	14-Nov-01 14:25	11/14/01
FD/7.5'	1658206	Soil	14-Nov-01	11/14/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-30-01

Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

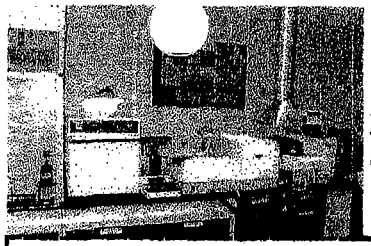
TPHC Conformance/Non-conformance Summary Report

		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).	yes
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.	yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	yes

Additional comments: _____

Laboratory Manager

11-30-01
Date



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: D. DESAI
Phone #: X21475
( )DERA (V)OMA ( )Other:_____

Project No: 02 -
Location: BLDG. 664 (FORMER)

Samplers Name / Company: MARK LAURA - TVS - AWS 07

LIMS/Work Order #		Sample Location	Date	Time	Sample Type	# bottles	VOA+15	TPHC	%SOLID				HNU (PPM)	Remarks / Preservation Method
16058	1	664-1 7.5'	11-14-01	1315	soil	1		X	X				0	<4°C
	2	664-2 7.5'	"	1335	"	"		X	X				0	"
	3	664-3 7.5'	"	1350	"	"		X	X				0	"
	4	664-4 7.5'	"	1405	"			X	X				0	"
	5	664-5 7.5'	"	1425	"			X	X				0	"
	6	FD 7.5'	"	—	"			X	X				—	"

Analysis Parameters

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	11-14-01 1515				
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:

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

Client :	U.S. Army	**Project # :**	16582
	DPW. SELFM-PW-EV	**Location :**	Bldg. 664
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis :	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix :	Soil	**Date Extracted :**	19-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1658201	664-1	1.00	15.14	88.18	170	ND
1658202	664-2	1.00	15.00	86.36	175	ND
1658203	664-3	1.00	15.09	85.37	176	ND
1658204	664-4	1.00	15.40	87.20	169	ND
1658205	664-5	1.00	15.39	84.33	175	ND
1658206	F.D.	1.00	15.02	85.83	176	ND
METHOD BLANK	MB-2639	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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1) tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2) tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3) TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4) tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5) tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6) tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7) tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8) tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9) tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10) tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11) tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12) tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13) tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14) tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15) tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16) tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17) tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18) tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19) TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20) TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21) sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22) tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013807.D Vial: 100
Acq On : 19 Nov 2001 11:20 am Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : Tstd050 Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.649	E3	-14.6	109	-0.03
2	tC	C10	20.595	22.791	E3	-10.7	107	0.00
3	TC	C12	21.549	22.973	E3	-6.6	104	0.00
4	tC	C14	23.048	23.409	E3	-1.6	101	0.00
5	tC	C16	24.057	24.122	E3	-0.3	100	0.00
6	tC	C18	24.812	24.021	E3	3.2	97	0.00
7	tC	C20	24.684	24.373	E3	1.3	98	0.00
8	tC	C22	25.878	25.638	E3	0.9	100	0.00
9	tC	C24	26.326	25.916	E3	1.6	99	0.00
10	tC	C26	26.702	26.194	E3	1.9	99	0.00
11	tC	C28	26.061	25.765	E3	1.1	99	0.00
12	tC	C30	26.583	26.469	E3	0.4	99	0.00
13	tC	C32	26.447	26.266	E3	0.7	99	0.00
14	tC	C34	26.317	26.143	E3	0.7	99	0.00
15	tC	C36	26.661	27.081	E3	-1.6	102	0.00
16	tC	C38	24.528	25.796	E3	-5.2	106	0.00
17	tC	C40	21.994	24.627	E3	-12.0	115	0.00
18	tC	c42	19.638	23.151	E3	-17.9	120	0.00
	TC	Pristane	23.812	22.692	E3	4.7	94	0.00
	TC	Phytane	25.573	25.364	E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.624	E3	-0.5	101	0.00
22	tC	TPHC - total	28.994	27.732	E3	4.4	104	1.46#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013818.D Vial: 7
Acq On : 19 Nov 2001 5:51 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.912 E3	-16.1	111	-0.05
2	tC	C10	20.595	22.414 E3	-8.8	105	-0.01
3	TC	C12	21.549	23.381 E3	-8.5	106	0.00
4	tC	C14	23.048	23.883 E3	-3.6	103	0.00
5	tC	C16	24.057	24.693 E3	-2.6	103	0.00
6	tC	C18	24.812	26.500 E3	-6.8	107	0.00
7	tC	C20	24.684	25.423 E3	-3.0	103	0.00
8	tC	C22	25.878	26.184 E3	-1.2	102	0.00
9	tC	C24	26.326	26.479 E3	-0.6	102	0.00
10	tC	C26	26.702	26.760 E3	-0.2	102	0.00
11	tC	C28	26.061	26.296 E3	-0.9	101	0.00
12	tC	C30	26.583	26.999 E3	-1.6	101	0.00
13	tC	C32	26.447	26.755 E3	-1.2	101	0.00
14	tC	C34	26.317	26.612 E3	-1.1	101	0.00
15	tC	C36	26.661	27.616 E3	-3.6	104	0.00
16	tC	C38	24.528	26.472 E3	-7.9	109	0.00
17	tC	C40	21.994	25.435 E3	-15.6	118	-0.01
18	tC	c42	19.638	24.573 E3	-25.1#	127	0.00
	TC	Pristane	23.812	24.480 E3	-2.8	102	0.00
	TC	Phytane	25.573	25.715 E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	26.074 E3	-2.3	103	0.00
22	tC	TPHC - total	28.994	28.595 E3	1.4	108	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013829.D Vial: 18
Acq On : 19 Nov 2001 11:54 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.396 E3	-18.7	113	-0.06
2	tC	C10	20.595	23.520 E3	-14.2	111	-0.01
3	TC	C12	21.549	23.599 E3	-9.5	107	0.00
4	tC	C14	23.048	24.254 E3	-5.2	104	0.00
5	tC	C16	24.057	24.923 E3	-3.6	104	0.00
6	tC	C18	24.812	24.957 E3	-0.6	101	0.00
7	tC	C20	24.684	25.776 E3	-4.4	104	0.00
8	tC	C22	25.878	26.537 E3	-2.5	103	0.00
9	tC	C24	26.326	26.812 E3	-1.8	103	0.00
10	tC	C26	26.702	27.049 E3	-1.3	103	0.00
11	tC	C28	26.061	26.689 E3	-2.4	103	0.00
12	tC	C30	26.583	27.596 E3	-3.8	103	0.00
13	tC	C32	26.447	27.128 E3	-2.6	102	0.00
14	tC	C34	26.317	26.996 E3	-2.6	103	0.00
15	tC	C36	26.661	28.071 E3	-5.3	105	0.00
16	tC	C38	24.528	26.803 E3	-9.3	111	0.00
17	tC	C40	21.994	25.904 E3	-17.8	121	0.00
18	tC	c42	19.638	25.406 E3	-29.4#	131	0.00
19	TC	Pristane	23.812	24.377 E3	-2.4	101	0.00
20	TC	Phytane	25.573	26.222 E3	-2.5	104	0.00
21	sC	o-terphenyl	25.484	26.413 E3	-3.6	104	0.00
22	tC	TPHC - total	28.994	29.521 E3	-1.8	111	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16582
	DPW. SELFM-PW-EV	**Location :**	Bldg. 664
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1658201			10.00	9.70	**96.95**
1658202			10.00	9.94	**99.36**
1658203			10.00	9.35	**93.48**
1658204			10.00	10.00	**100.00**
1658205			10.00	9.80	**98.04**
1658206			10.00	9.65	**96.51**
METHOD BLANK	MB-2639		10.00	11.50	**114.96**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	16582
	DPW. SELFM-PW-EV	**Location :**	Bldg. 664
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1658101MS	1000	0.00	924.80	92.48	75-125
1658101MSD	1000	0.00	920.81	92.08	75-125

RPD	**0.43**	**20.00**

Quality Control Check Standard Summary
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 # :** **Location :** **UST Reg. # :**	16582 Bldg. 664
Analysis:	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-011108	19-Nov-01	1000	848.93	84.89	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	292962	11.496 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 114.96%#	
Target Compounds			

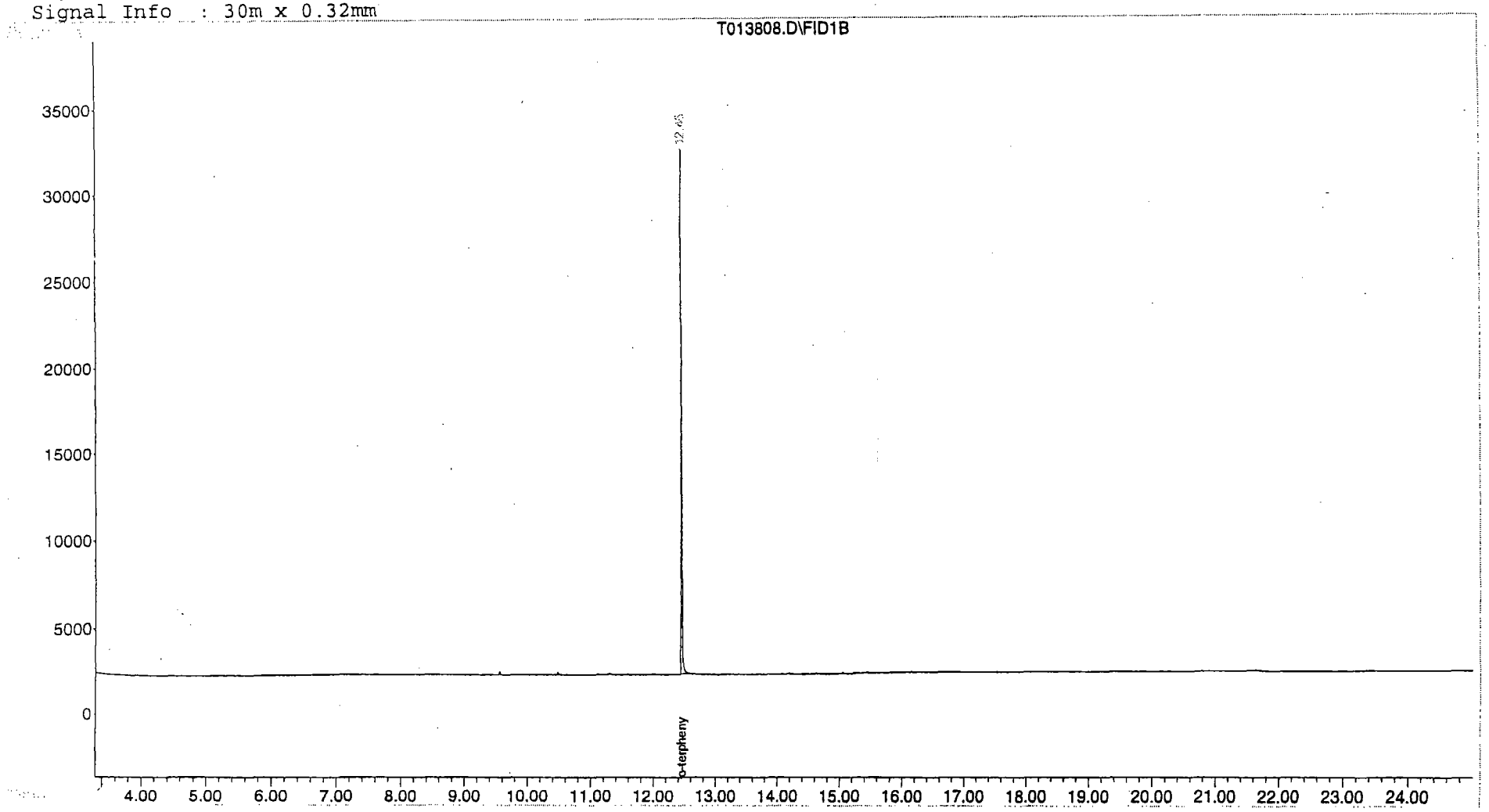
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013808.D
Acq On : 19 Nov 2001 11:59 am
Sample : MB 2639
Misc : 19Nov01
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Vial: 1
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013821.D Vial: 10
Acq On : 19 Nov 2001 7:30 pm Operator: Skelton
Sample : 1658201s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 19:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	247058	9.695 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	96.95%#
Target Compounds			

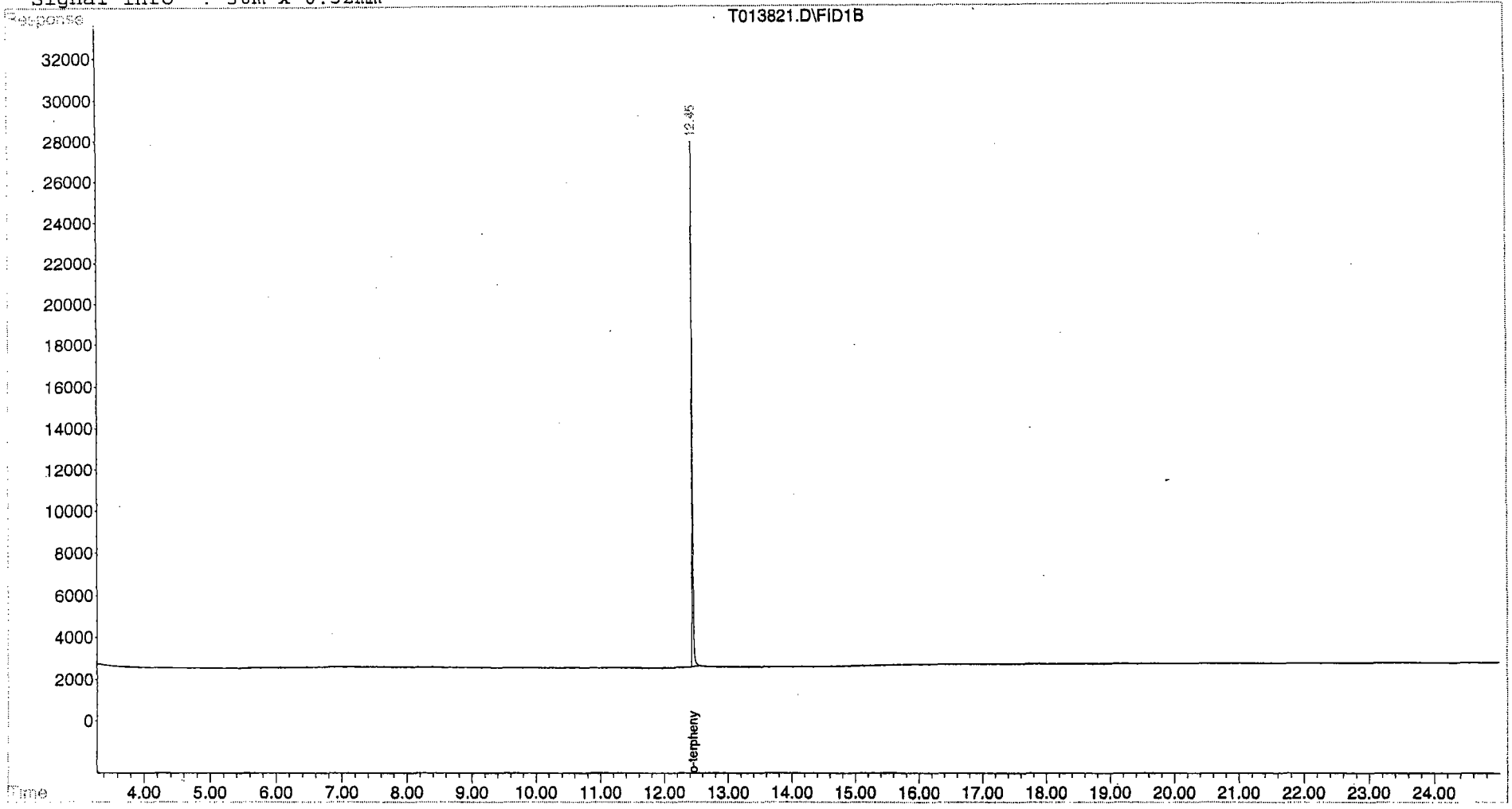
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati(eport

Data File : C:\HPCHEM\1\DATA\011119\T013821.D Vial: 10
Acq On : 19 Nov 2001 7:30 pm Operator: Skelton
Sample : 1658201s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 19:56 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013822.D Vial: 11
Acq On : 19 Nov 2001 8:03 pm Operator: Skelton
Sample : 1658202s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 20:29 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	253213	9.936 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.36%#
Target Compounds			

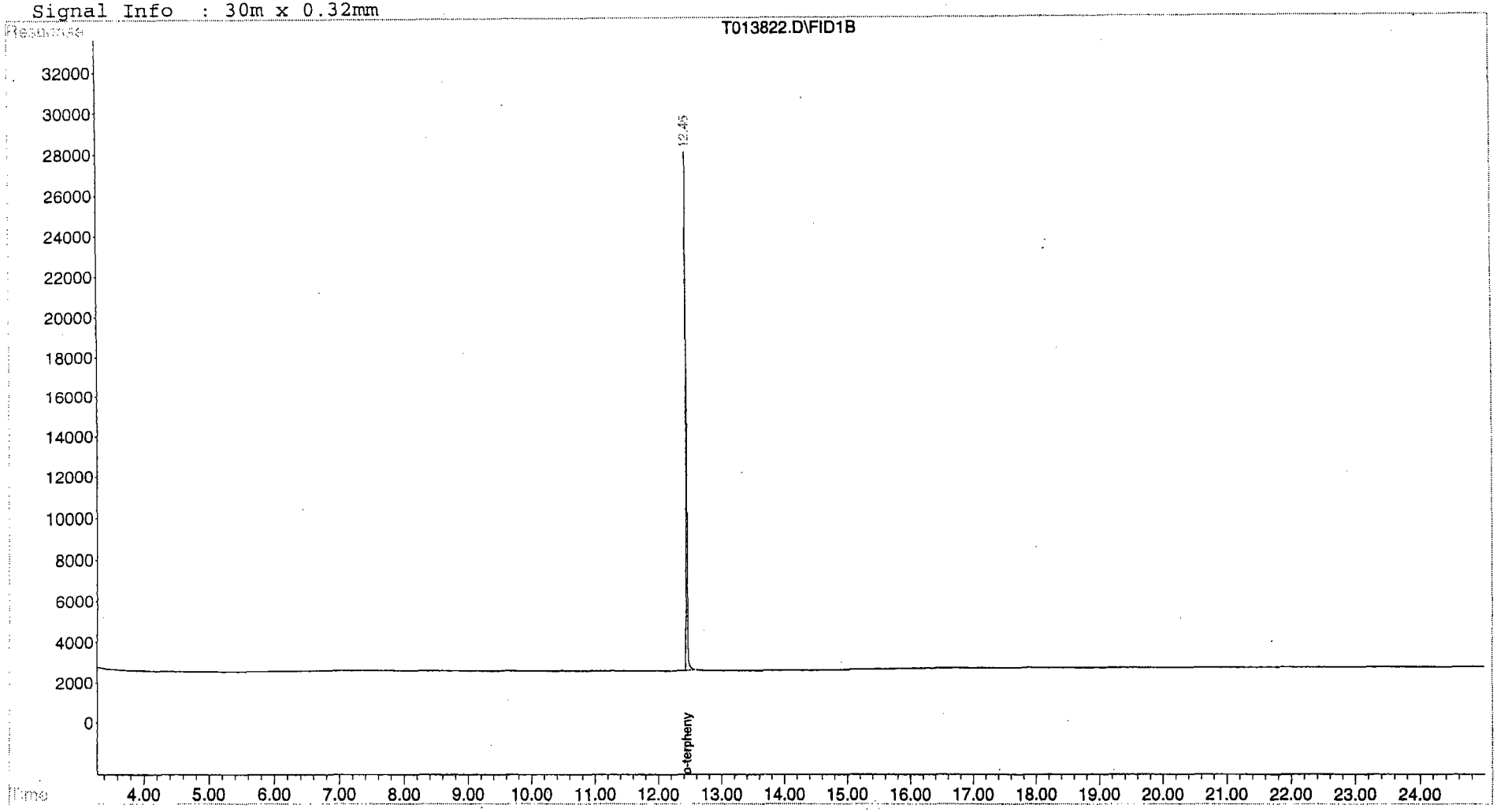
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitatic eport

Data File : C:\HPCHEM\1\DATA\011119\T013822.D Vial: 11
Acq On : 19 Nov 2001 8:03 pm Operator: Skelton
Sample : 1658202s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 20:29 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013823.D Vial: 12
Acq On : 19 Nov 2001 8:36 pm Operator: Skelton
Sample : 1658203s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 21:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	238228	9.348 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	93.48%#
Target Compounds			

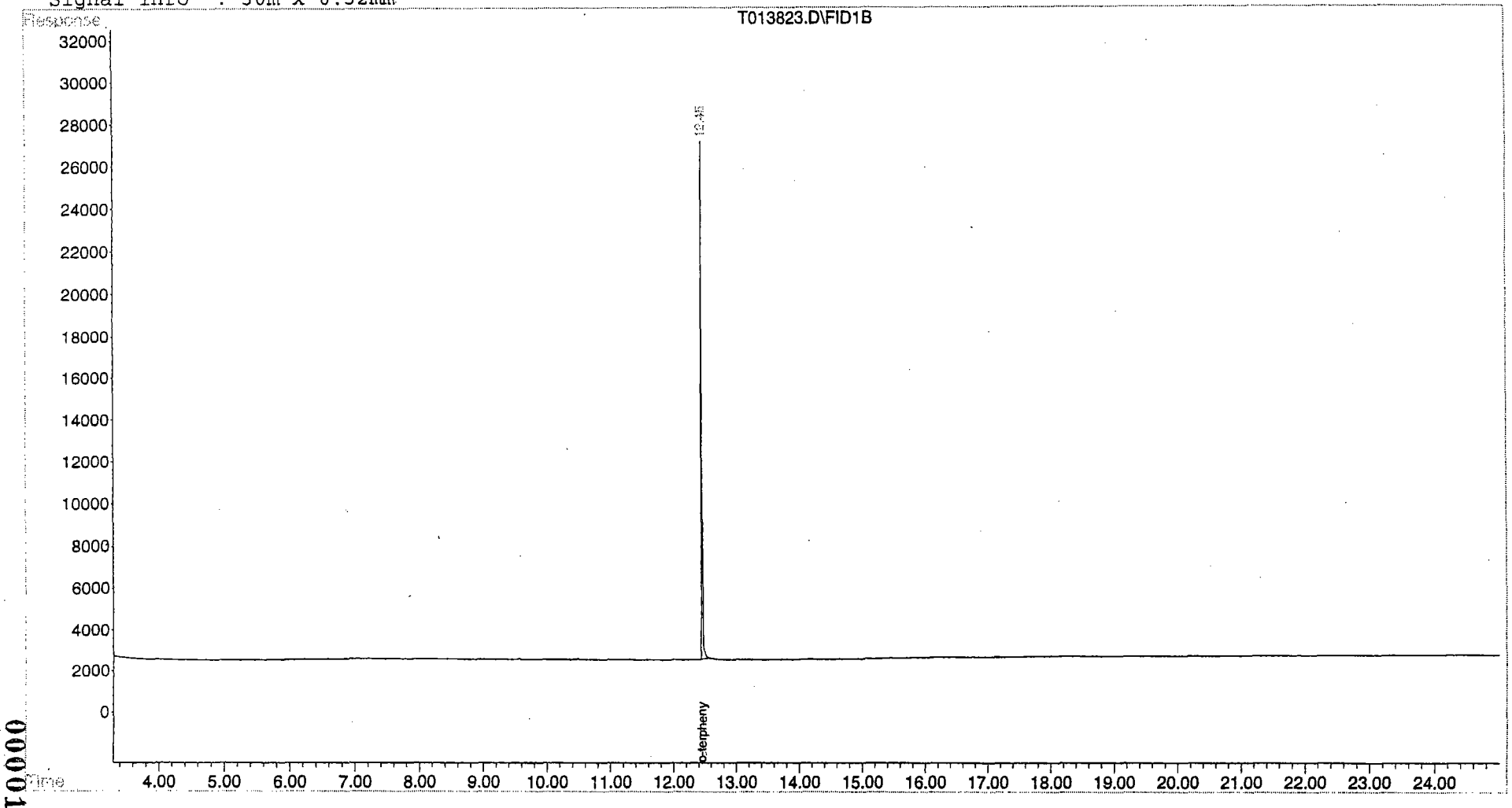
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitatic eport

Data File : C:\HPCHEM\1\DATA\011119\T013823.D Vial: 12
Acq On : 19 Nov 2001 8:36 pm Operator: Skelton
Sample : 1658203s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 21:02 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013824.D Vial: 13
Acq On : 19 Nov 2001 9:09 pm Operator: Skelton
Sample : 1658204s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 21:35 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	254845	10.000 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	100.00%#
Target Compounds			

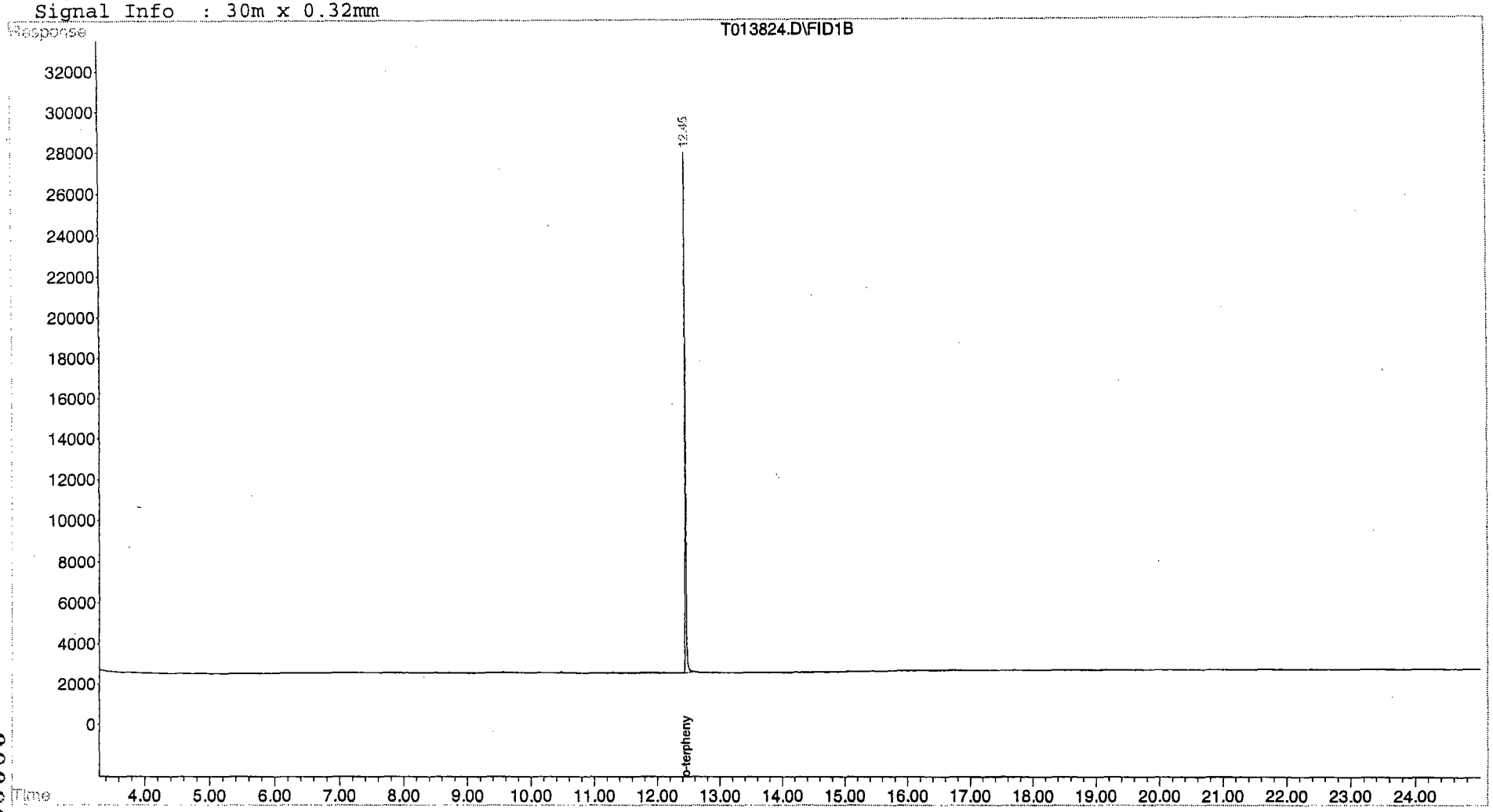
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitatic eport

Data File : C:\HPCHEM\1\DATA\011119\T013824.D Vial: 13
Acq On : 19 Nov 2001 9:09 pm Operator: Skelton
Sample : 1658204s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 21:35 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013825.D Vial: 14
Acq On : 19 Nov 2001 9:42 pm Operator: Skelton
Sample : 1658205s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 22:07 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	249844	9.804 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	98.04%#
Target Compounds			

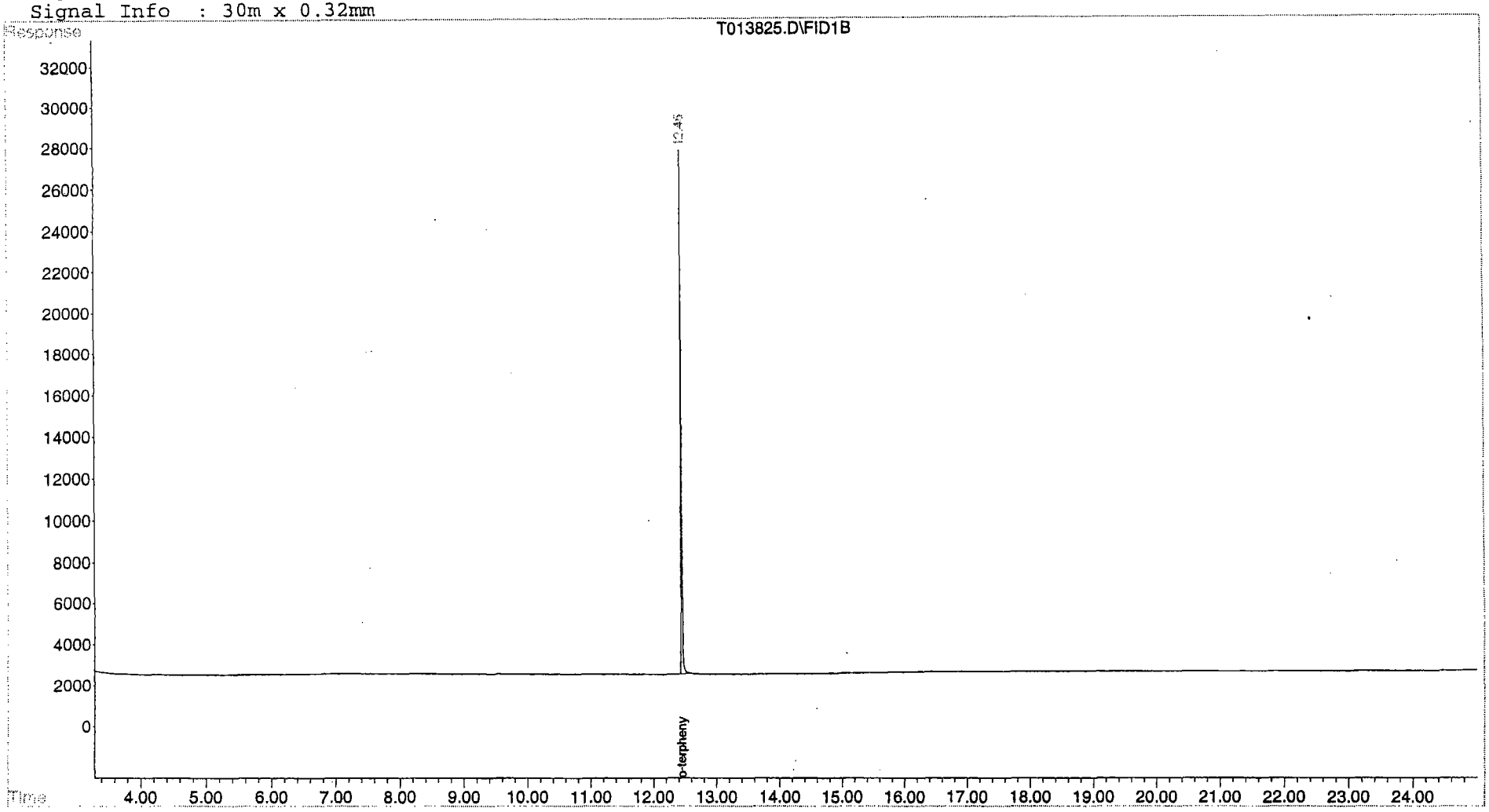
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati(eport

Data File : C:\HPCHEM\1\DATA\011119\T013825.D Vial: 14
Acq On : 19 Nov 2001 9:42 pm Operator: Skelton
Sample : 1658205s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 22:07 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013826.D Vial: 15
Acq On : 19 Nov 2001 10:15 pm Operator: Skelton
Sample : 1658206s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 22:40 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	245942	9.651 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	96.51%#
Target Compounds			

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

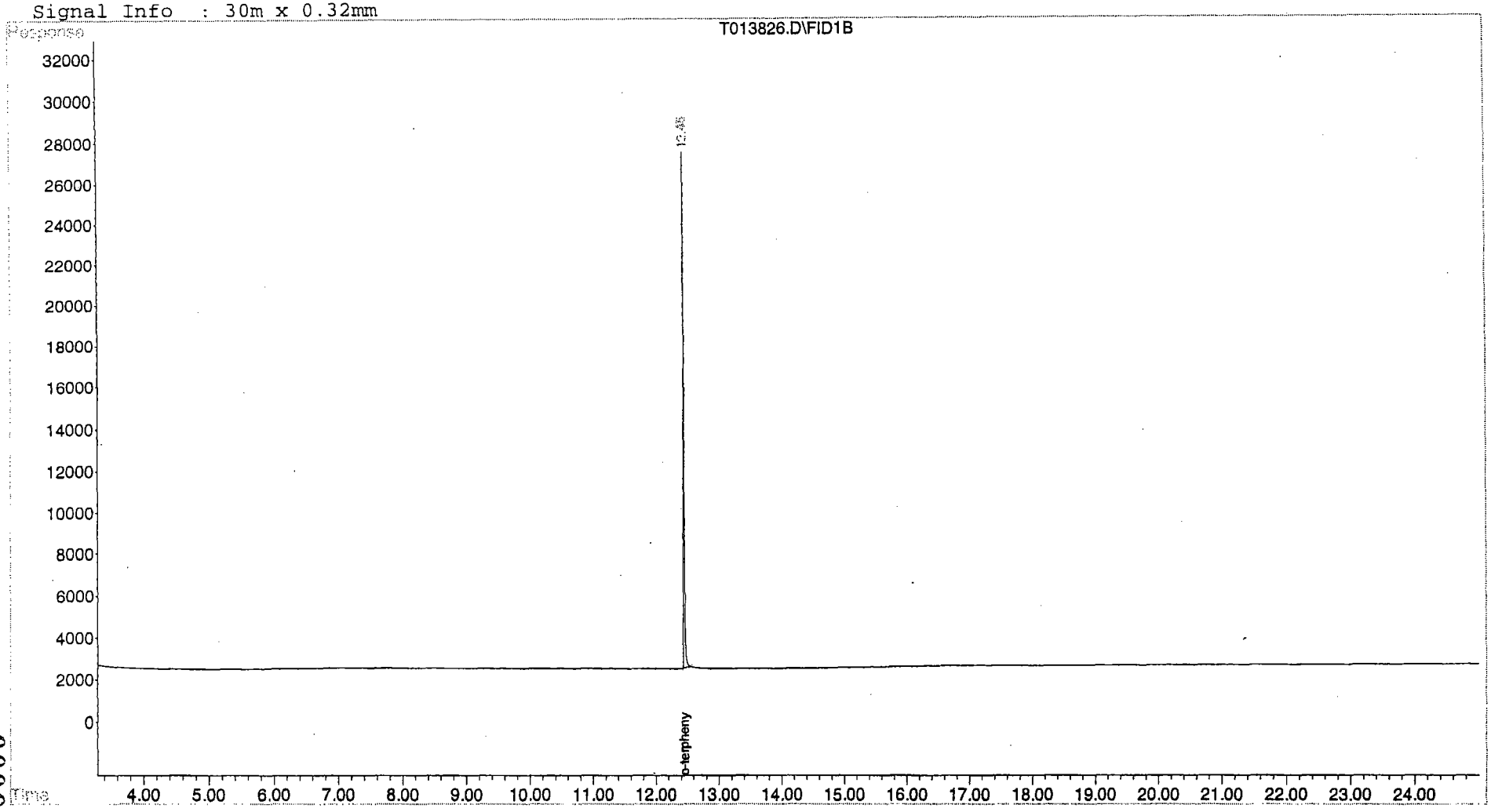
Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013826.D
Acq On : 19 Nov 2001 10:15 pm
Sample : 1658206s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 19 22:40 2001 Quant Results File: TPH95.RES

Vial: 15
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
10. Method Detection Limits submitted ✓
11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP ✓

Laboratory Manager or Environmental Consultant's Signature _____

Date 11/30/07

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-8 for Solid Waste Analysis. I have personally examined the information contained in t report and to the best of my knowledge, I believe that the submitted information is tr accurate, complete and meets the above referenced standards where applicable. I aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-4359 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. 666

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
666-1/7.5'	1658101	Soil	14-Nov-01 10:15	11/14/01
666-2/7.5'	1658102	Soil	14-Nov-01 10:35	11/14/01
666-3/7.5'	1658103	Soil	14-Nov-01 10:55	11/14/01
666-4/7.5'	1658104	Soil	14-Nov-01 11:15	11/14/01
666-5/7.5'	1658105	Soil	14-Nov-01 11:30	11/14/01
F.D./1/7.5'	1658106	Soil	14-Nov-01	11/14/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

11-30-01
Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.
Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, sample weight and concentration.

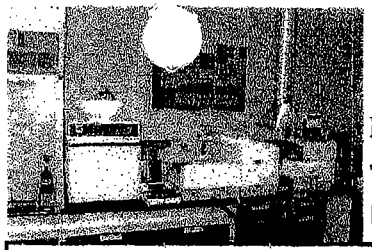
TPHC Conformance/Non-conformance Summary Report

		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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

11-30-01
Date



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. 666 (FORMER)
Samplers Name / Company:

Comments: Cal. #2 Hand O.K (MW)

LIMS/Work Order #		Sample Location	Date	Time	Sample Type	# bottles	Analysis Parameters: VOA+IS	TPHC	%SOLID					HNU (PPM)	Remarks / Preservation Method
16581	1	666-1 7.5'	11-14-01	1015	SOIL	1		X	X					0	<4°C
	2	666-2 7.5'	"	1035	"	"		X	X					0	"
	3	666-3 7.5'	"	1055	"	"		X	X					0	
/	4	666-4 7.5'	"	1115	"	"		X	X					0	
	5	666-5 7.5'	"	1130	"	"		X	X					0	
—	6	F.D. 7.5'	"	—	"	"		X	X					—	

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	11-14-01 1515	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
		[signature]			

Report Type: (_)Full, (X)Reduced, (_)Standard, (_)Screen / non-certified, (_)EDD
Turnaround time: (X)Standard 3 wks, (_)Rush ____ Days, (_)ASAP Verbal ____ Hrs.

Remarks: H2O = 8'

000003

print legibly

Page 1 of 1

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 # :** **Location :** **UST Reg. # :**	16581 Bldg. 666
Analysis :	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix :	Soil	**Date Extracted :**	19-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1658101	666-1	1.00	15.67	88.85	163	ND
1658102	666-2	1.00	15.27	87.86	169	ND
1658103	666-3	1.00	15.16	88.30	169	ND
1658104	666-4	1.00	15.30	89.07	166	ND
1658105	666-5	1.00	15.18	86.95	172	ND
1658106	F.D.	1.00	15.37	88.75	166	ND
METHOD BLANK	MB-2639	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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

		Compound	5	100	50	20	10	Avg		%RSD
1)	tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2)	tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3)	TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4)	tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5)	tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6)	tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7)	tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8)	tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9)	tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10)	tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11)	tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12)	tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13)	tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14)	tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15)	tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16)	tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17)	tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18)	tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19)	TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20)	TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21)	sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22)	tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013807.D Vial: 100
Acq On : 19 Nov 2001 11:20 am Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : Tstd050 Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.649 E3	-14.6	109	-0.03
2	tC	C10	20.595	22.791 E3	-10.7	107	0.00
3	TC	C12	21.549	22.973 E3	-6.6	104	0.00
4	tC	C14	23.048	23.409 E3	-1.6	101	0.00
5	tC	C16	24.057	24.122 E3	-0.3	100	0.00
6	tC	C18	24.812	24.021 E3	3.2	97	0.00
7	tC	C20	24.684	24.373 E3	1.3	98	0.00
8	tC	C22	25.878	25.638 E3	0.9	100	0.00
9	tC	C24	26.326	25.916 E3	1.6	99	0.00
10	tC	C26	26.702	26.194 E3	1.9	99	0.00
11	tC	C28	26.061	25.765 E3	1.1	99	0.00
12	tC	C30	26.583	26.469 E3	0.4	99	0.00
13	tC	C32	26.447	26.266 E3	0.7	99	0.00
14	tC	C34	26.317	26.143 E3	0.7	99	0.00
15	tC	C36	26.661	27.081 E3	-1.6	102	0.00
16	tC	C38	24.528	25.796 E3	-5.2	106	0.00
17	tC	C40	21.994	24.627 E3	-12.0	115	0.00
18	tC	c42	19.638	23.151 E3	-17.9	120	0.00
19	TC	Pristane	23.812	22.692 E3	4.7	94	0.00
20	TC	Phytane	25.573	25.364 E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.624 E3	-0.5	101	0.00
22	tC	TPHC - total	28.994	27.732 E3	4.4	104	1.46#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013818.D Vial: 7
Acq On : 19 Nov 2001 5:51 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.912 E3	-16.1	111	-0.05
2	tC	C10	20.595	22.414 E3	-8.8	105	-0.01
3	TC	C12	21.549	23.381 E3	-8.5	106	0.00
4	tC	C14	23.048	23.883 E3	-3.6	103	0.00
5	tC	C16	24.057	24.693 E3	-2.6	103	0.00
6	tC	C18	24.812	26.500 E3	-6.8	107	0.00
7	tC	C20	24.684	25.423 E3	-3.0	103	0.00
8	tC	C22	25.878	26.184 E3	-1.2	102	0.00
9	tC	C24	26.326	26.479 E3	-0.6	102	0.00
10	tC	C26	26.702	26.760 E3	-0.2	102	0.00
11	tC	C28	26.061	26.296 E3	-0.9	101	0.00
12	tC	C30	26.583	26.999 E3	-1.6	101	0.00
13	tC	C32	26.447	26.755 E3	-1.2	101	0.00
14	tC	C34	26.317	26.612 E3	-1.1	101	0.00
15	tC	C36	26.661	27.616 E3	-3.6	104	0.00
16	tC	C38	24.528	26.472 E3	-7.9	109	0.00
17	tC	C40	21.994	25.435 E3	-15.6	118	-0.01
18	tC	c42	19.638	24.573 E3	-25.1#	127	0.00
19	TC	Pristane	23.812	24.480 E3	-2.8	102	0.00
20	TC	Phytane	25.573	25.715 E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	26.074 E3	-2.3	103	0.00
22	tC	TPHC - total	28.994	28.595 E3	1.4	108	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16581
	DPW. SELFM-PW-EV	**Location :**	Bldg. 666
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1658101			10.00	10.69	**106.94**
1658102			10.00	9.99	**99.93**
1658103			10.00	9.72	**97.15**
1658104			10.00	9.98	**99.80**
1658105			10.00	10.21	**102.09**
1658106			10.00	10.17	**101.70**
METHOD BLANK	MB-2639		10.00	11.50	**114.96**

Surrogate Added : **o-Terphenyl**

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

Client :	U.S. Army	**Project # :**	16581
	DPW. SELFM-PW-EV	**Location :**	Bldg. 666
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1658101MS	1000	0.00	924.80	92.48	75-125
1658101MSD	1000	0.00	920.81	92.08	75-125
			RPD	**0.43**	**20.00**

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

Client :	U.S. Army	**Project # :**	16581
	DPW. SELFM-PW-EV	**Location :**	Bldg. 666
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	14-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-011108	19-Nov-01	1000	848.93	84.89	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	292962	11.496 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	114.96%#
Target Compounds			

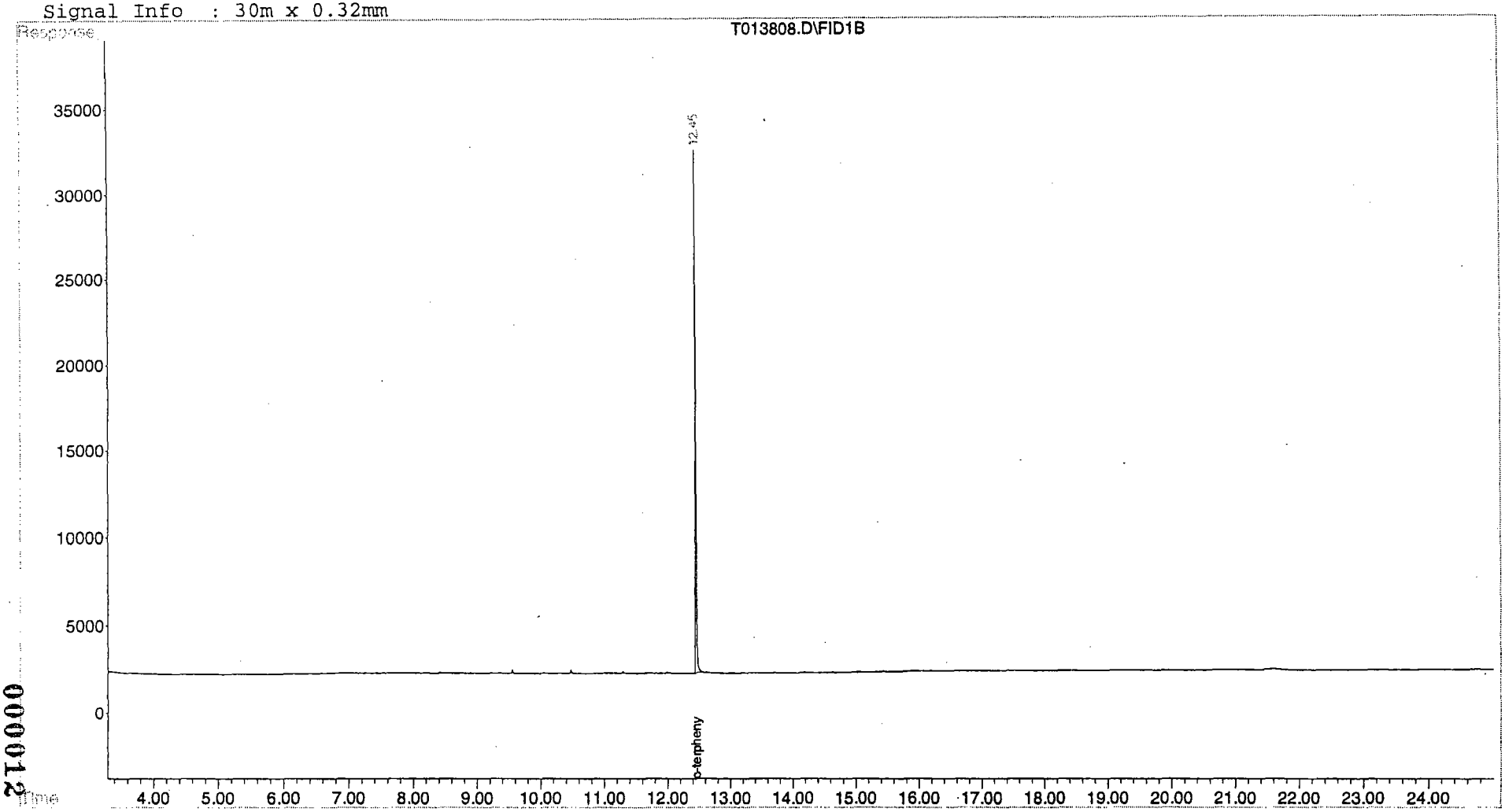
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013808.D Vial: 1
Acq On : 19 Nov 2001 11:59 am Operator: Skelton
Sample : MB 2639 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 12:24 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013812.D Vial: 1
Acq On : 19 Nov 2001 2:33 pm Operator: Skelton
Sample : 1658101s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 14:58 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	272518	10.694 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	106.94%#
Target Compounds			

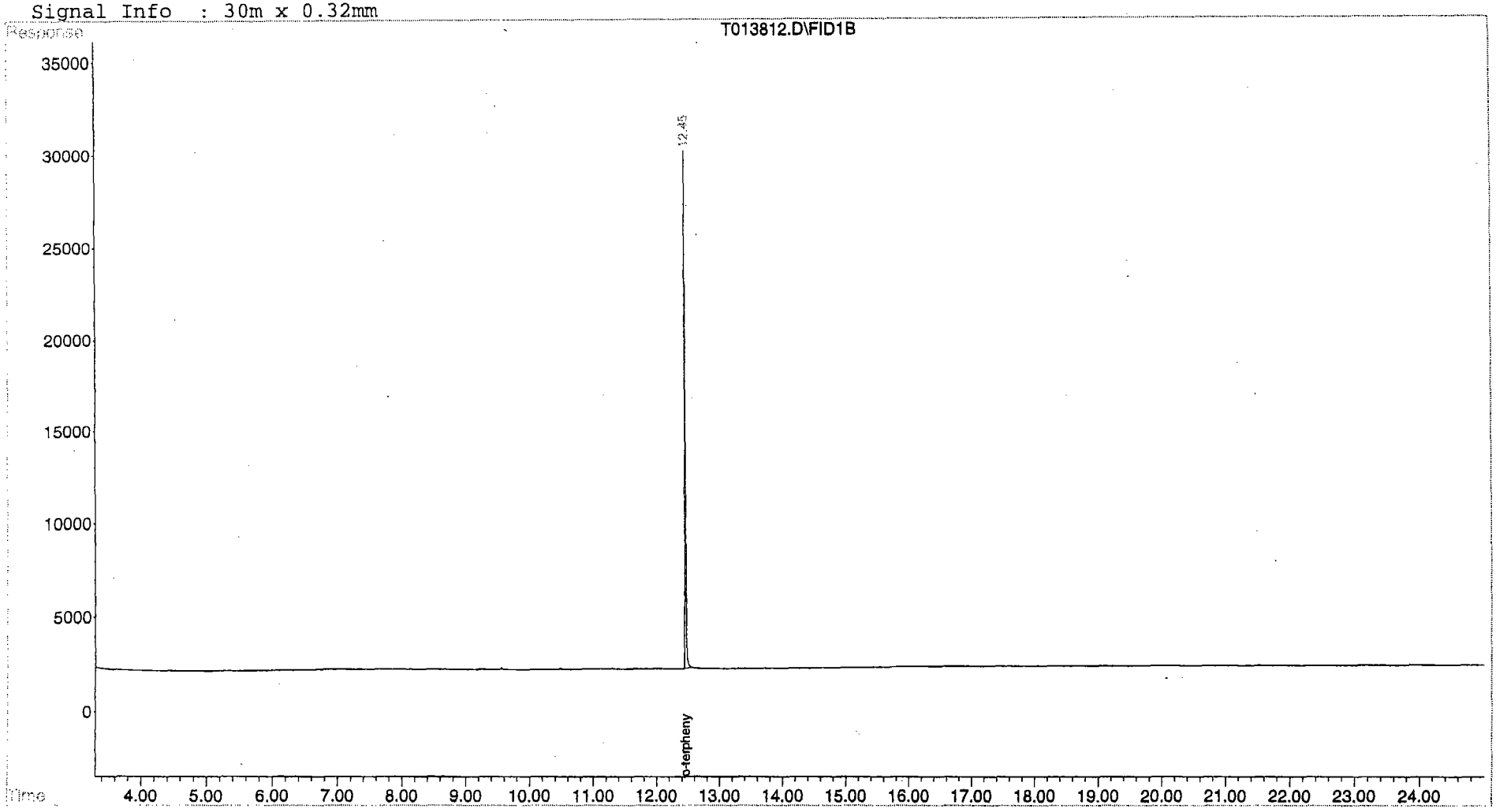
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013812.D Vial: 1
Acq On : 19 Nov 2001 2:33 pm Operator: Skelton
Sample : 1658101s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 14:58 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



000014

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013815.D Vial: 4
Acq On : 19 Nov 2001 4:12 pm Operator: Skelton
Sample : 1658102s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 16:38 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	254664	9.993 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.93%#
Target Compounds			

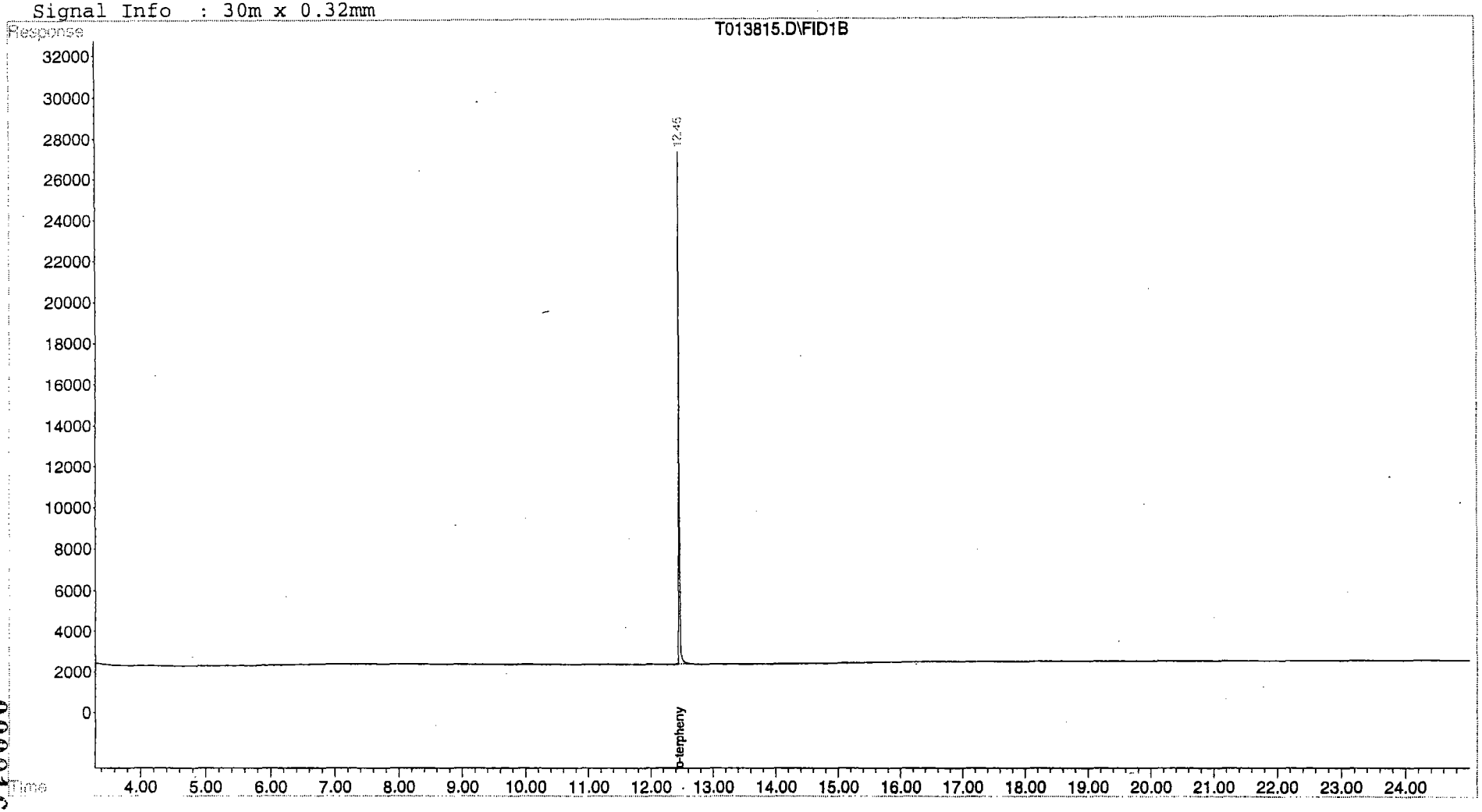
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013815.D Vial: 4
Acq On : 19 Nov 2001 4:12 pm Operator: Skelton
Sample : 1658102s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 16:38 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013816.D Vial: 5
Acq On : 19 Nov 2001 4:45 pm Operator: Skelton
Sample : 1658103s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 17:11 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	247585	9.715 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	97.15%#
Target Compounds			

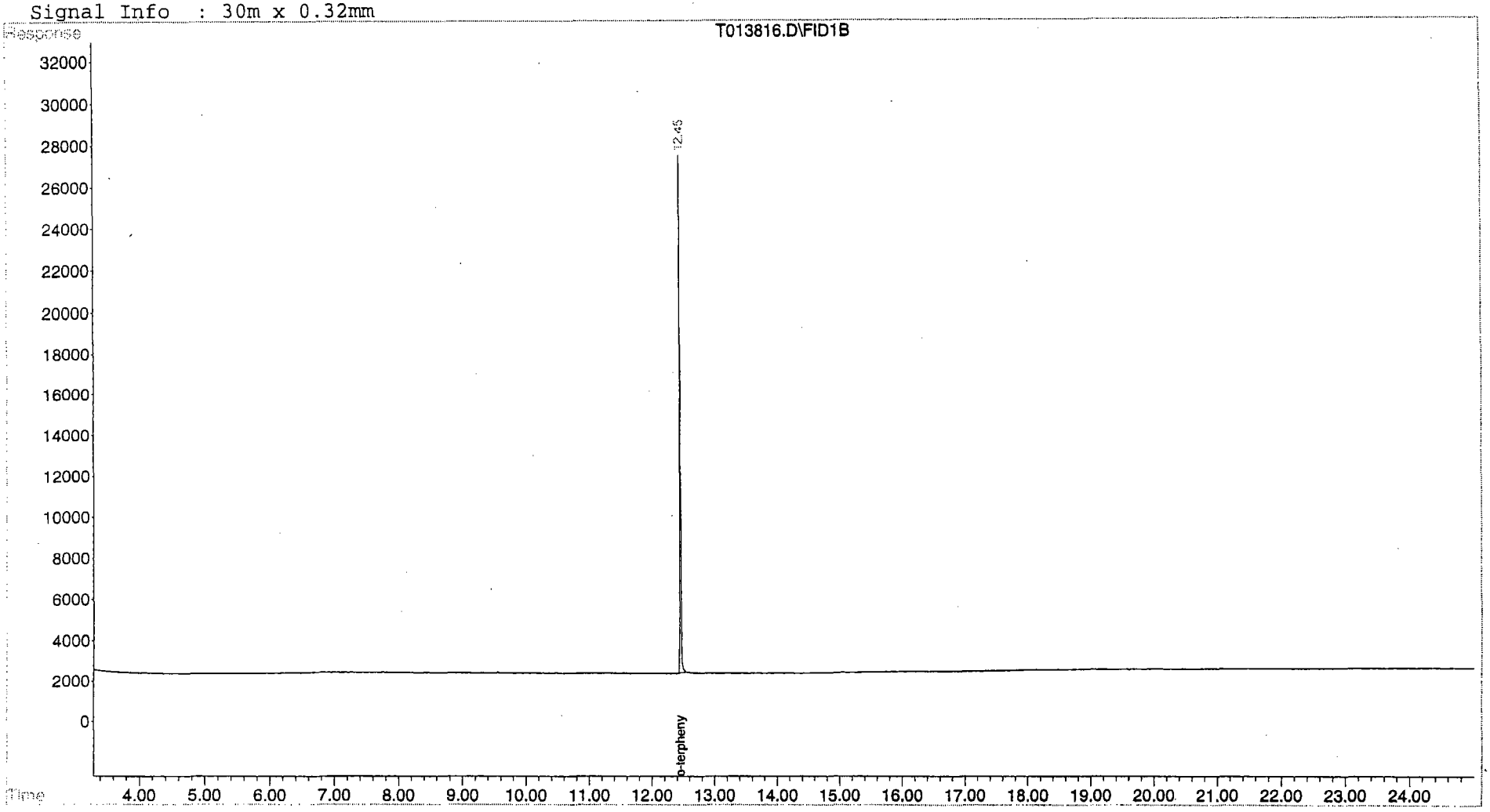
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitati(eport

Data File : C:\HPCHEM\1\DATA\011119\T013816.D Vial: 5
Acq On : 19 Nov 2001 4:45 pm Operator: Skelton
Sample : 1658103s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 17:11 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013817.D Vial: 6
Acq On : 19 Nov 2001 5:18 pm Operator: Skelton
Sample : 1658104s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 17:44 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	254328	9.980 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	99.80%#
Target Compounds			

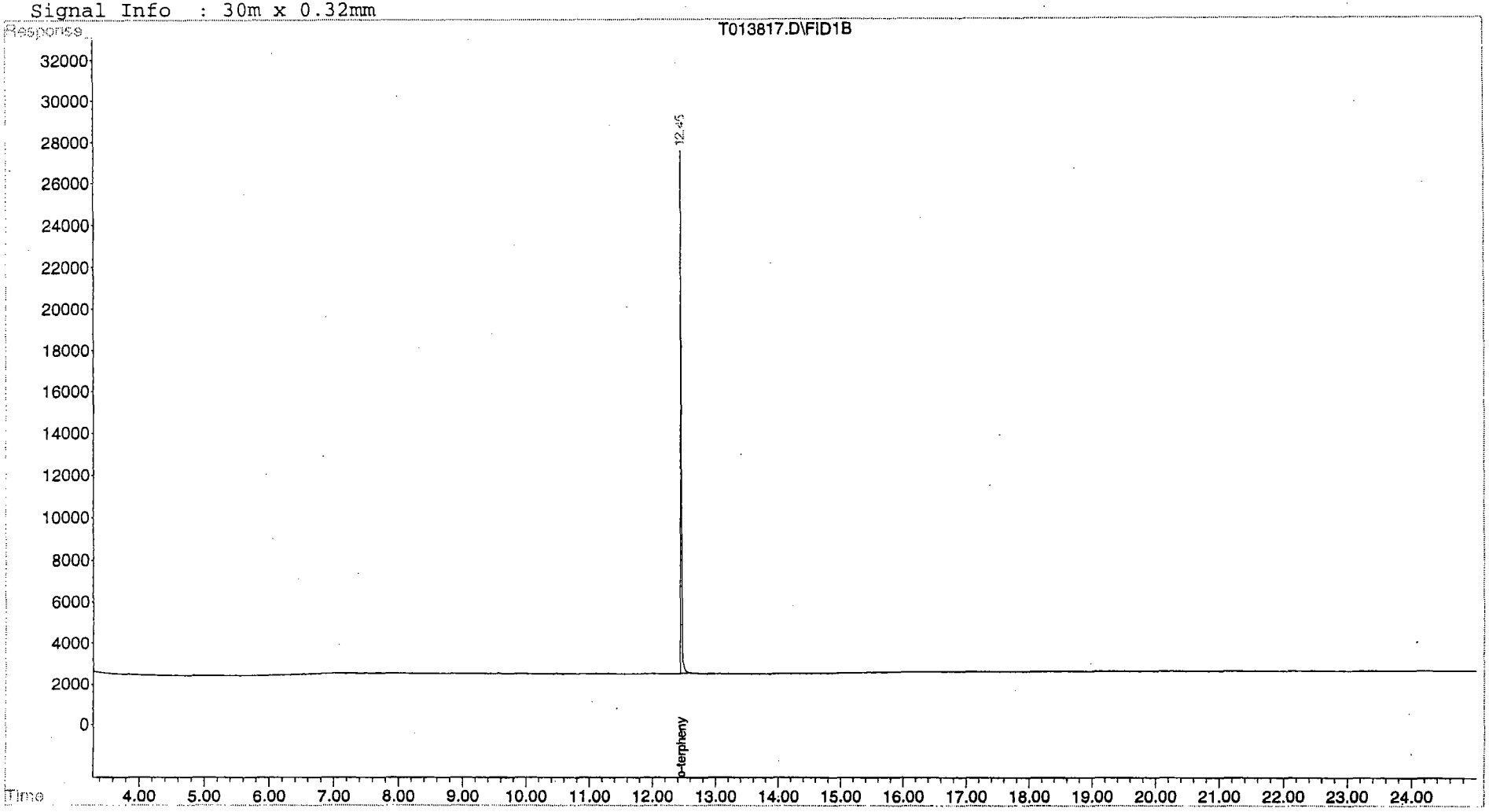
(f)=RT Delta > 1/2 Window (m)=manual int

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013817.D Vial: 6
Acq On : 19 Nov 2001 5:18 pm Operator: Skelton
Sample : 1658104s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 17:44 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



020020

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013819.D Vial: 8
Acq On : 19 Nov 2001 6:24 pm Operator: Skelton
Sample : 1658105s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 18:50 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	260157	10.209 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 102.09%#	
Target Compounds			

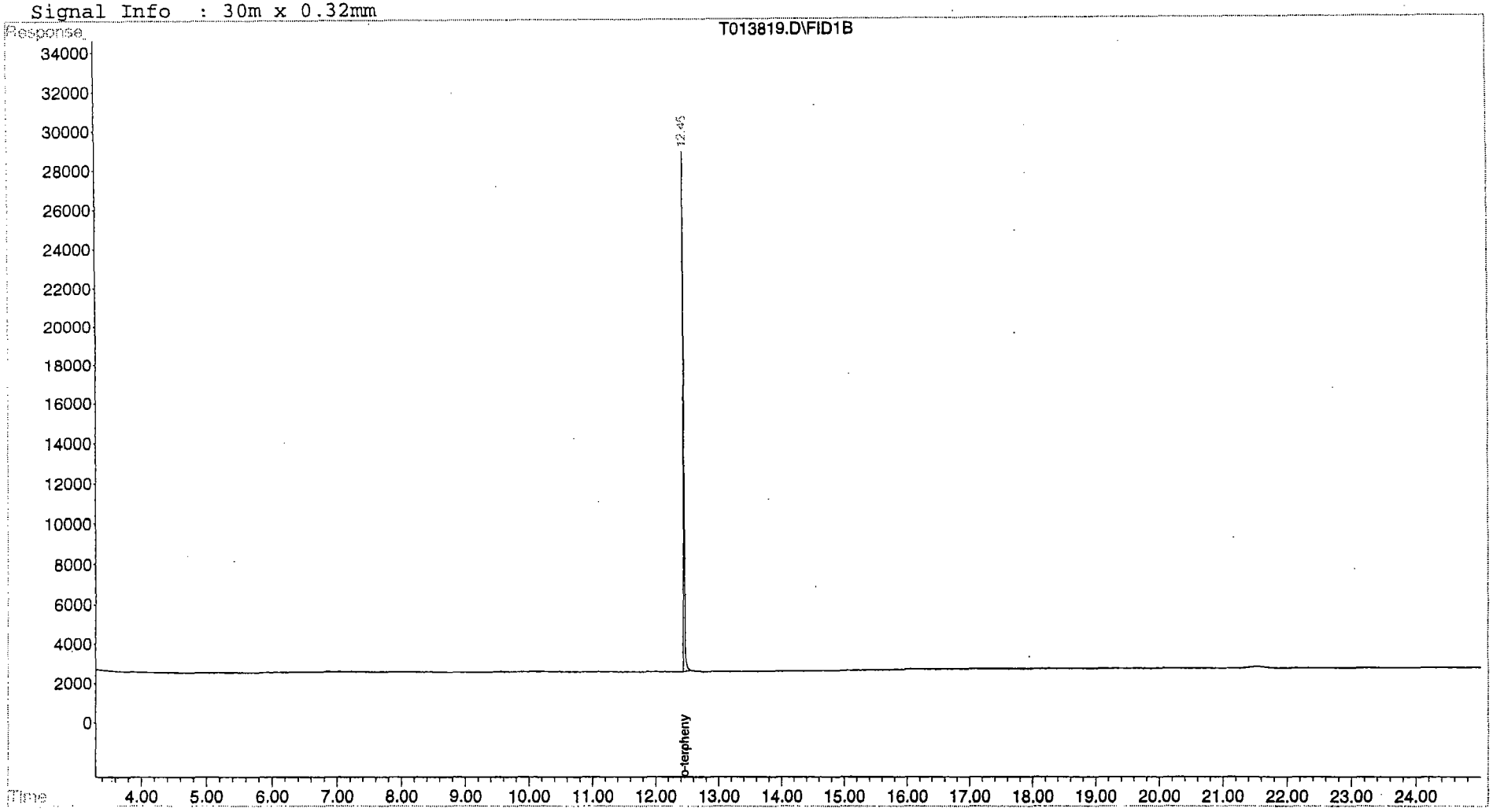
(f)-RT Delta > 1/2 Window (m)=manual int

Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013819.D Vial: 8
Acq On : 19 Nov 2001 6:24 pm Operator: Skelton
Sample : 1658105s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 18:50 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



220000

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013820.D Vial: 9
Acq On : 19 Nov 2001 6:57 pm Operator: Skelton
Sample : 1658106s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 19:23 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	259169	10.170 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 101.70%#	
Target Compounds			

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

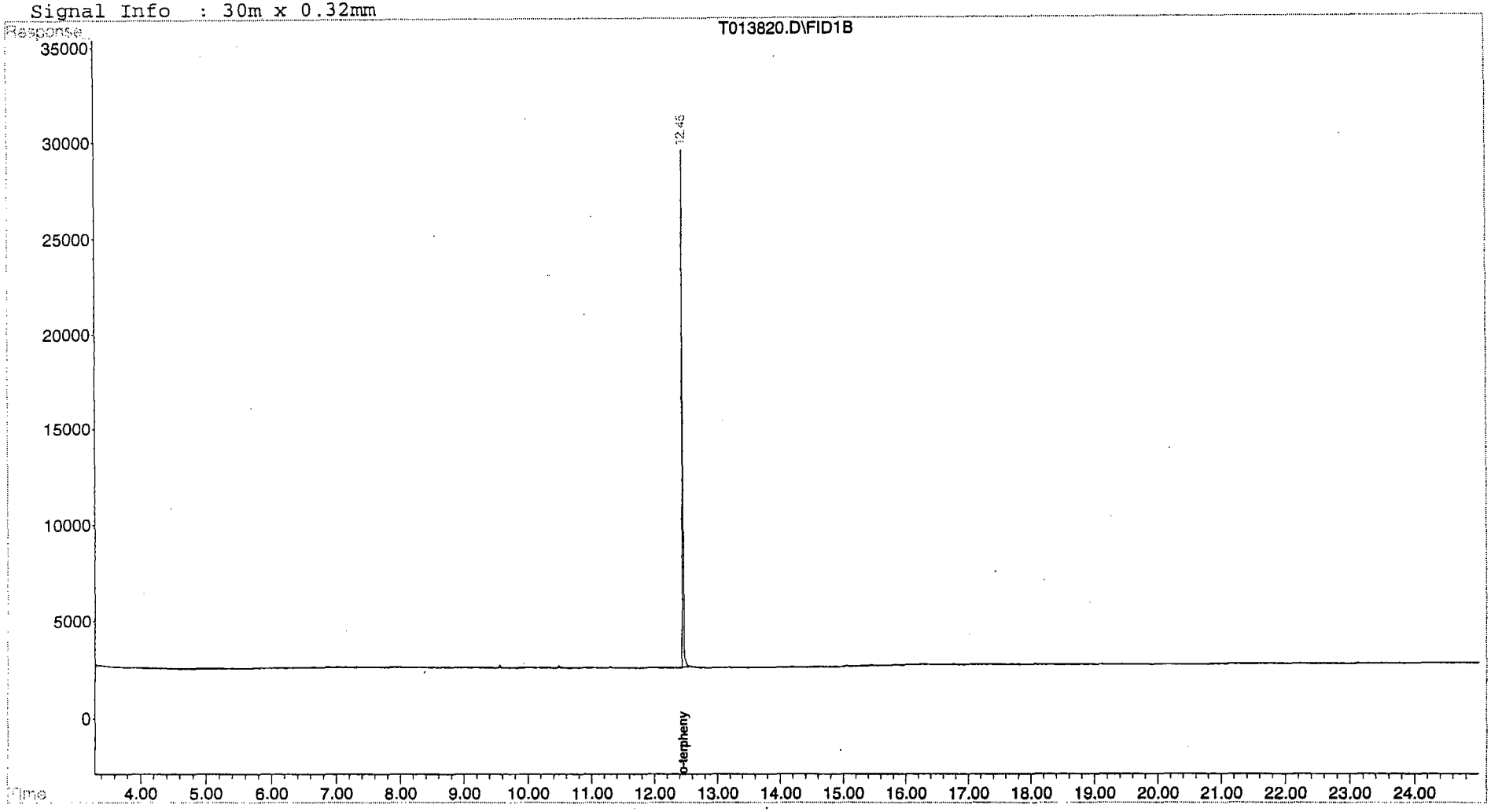
Quantitati eport

Data File : C:\HPCHEM\1\DATA\011119\T013820.D
Acq On : 19 Nov 2001 6:57 pm
Sample : 1658106s
Misc :
IntFile : TPHCINT.E
Quant Time: Nov 19 19:23 2001 Quant Results File: TPH95.RES

Vial: 9
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	✓
2.	Table of Contents submitted	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	✓
4.	Document paginated and legible	✓
5.	Chain of Custody submitted	✓
6.	Samples submitted to lab within 48 hours of sample collection	✓
7.	Methodology Summary submitted	✓
8.	Laboratory Chronicle and Holding Time Check submitted	✓
9.	Results submitted on a dry weight basis	✓
10.	Method Detection Limits submitted	✓
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	✓

Laboratory Manager or Environmental Consultant's Signature

Date 11/30/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW-8 for Solid Waste Analysis. I have personally examined the information contained in t report and to the best of my knowledge, I believe that the submitted information is tr accurate, complete and meets the above referenced standards where applicable. I 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. 173
Ft. Monmouth, NJ 07703

Lab. ID #: 1782.1-.7
Sample Rec'd: 01/18/95
Analysis Start: 01/19/95
Analysis Comp: 01/20/95

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: 3540A

NJDEPE UST Reg.#: **81533-107**
Closure #:
DICAR #: **94-12-8-1040-10**
Location #: **Bldg. 686**

Lab ID.	Description		%Solid	Result (mg/Kg)	MDL
1782.1	Site A, W. Sidewall	OVA=ND	87	79.6	8.2
1782.2	Site B, N. Sidewall	OVA=ND	88	14700.	100
1782.3	Site C, E. Sidewall	OVA=ND	85	174.	8.4
1782.4	Site D, S. Sidewall	OVA=1.	88	4400.	53.
1782.5	Site E, N. Floor	OVA=ND	82	2900.	55.
1782.6	Site F, S. Floor	OVA=ND	86	3200.	57.
1782.7	Site G, Dup		81	1600.	8.1
M. Bl.	Method Blank		100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1782.3S= 115%, 1782.3SD= 113%, RPD= 2.1% 1782.3 Dup= 35%
Cal. Check = 103%
QC Limits: Recovery= +/-28%, RPD=19.7%

Brian K. McKee
Laboratory Director

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

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

Lab. ID #: 1782.1-.7
Sample Rec'd: 01/18/95
Analysis Start: 01/19/95
Analysis Comp: 01/20/95

Analysis: Munsel

Lab ID#	Soil Color
1782.1	2.5Y 5/6 Light Olive Brown
1782.2	2.5Y 4/3 Olive Brown
1782.3	2.5Y 5/6 Light Olive Brown
1782.4	2.5Y 5/6 Lght Olive Brown
1782.5	2.5Y 5/4 Light Olive Brown
1782.6	5Y 4/4 Olive
1782.7	5Y 4/4 Olive

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #:

Chain of Custody

Project #:	Sampler: George Cuttle	Date / Time 1/18/95 1420	Start:
Customer: DeSaia	Site Name: Bldg 686 00831533 -107 94-12-8-1040 -10	Analysis Parameters	Finish:
Phone:			Preservation Method

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	1,2,4,5 TMB	Naphthalene				VOA	Remarks
1782.1	1/18/95	1135	Site A Sidewall (West)	Soil	1	X	X	X				ND	single component
1782.2	"	1123	Site B North wall	"	1	X	X	X				ND	type
1782.3	"	1115	Site C East wall	"	1	X	X	X				ND	
1782.4	"	1155	Site D South wall	"	1	X	X	X				1	
1782.5	"	1140	Site E North (floor sample)	"	1	X	X	X				ND	VOA calibration
1782.6	"	1150	Site F South (floor sample)	"	1	X	X	X				ND	mix reason
1782.7	"	1154	Site G (DUP)	"	1	X	X	X					Duplicate pair
													for 72

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	1/18/95 12:00		
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time

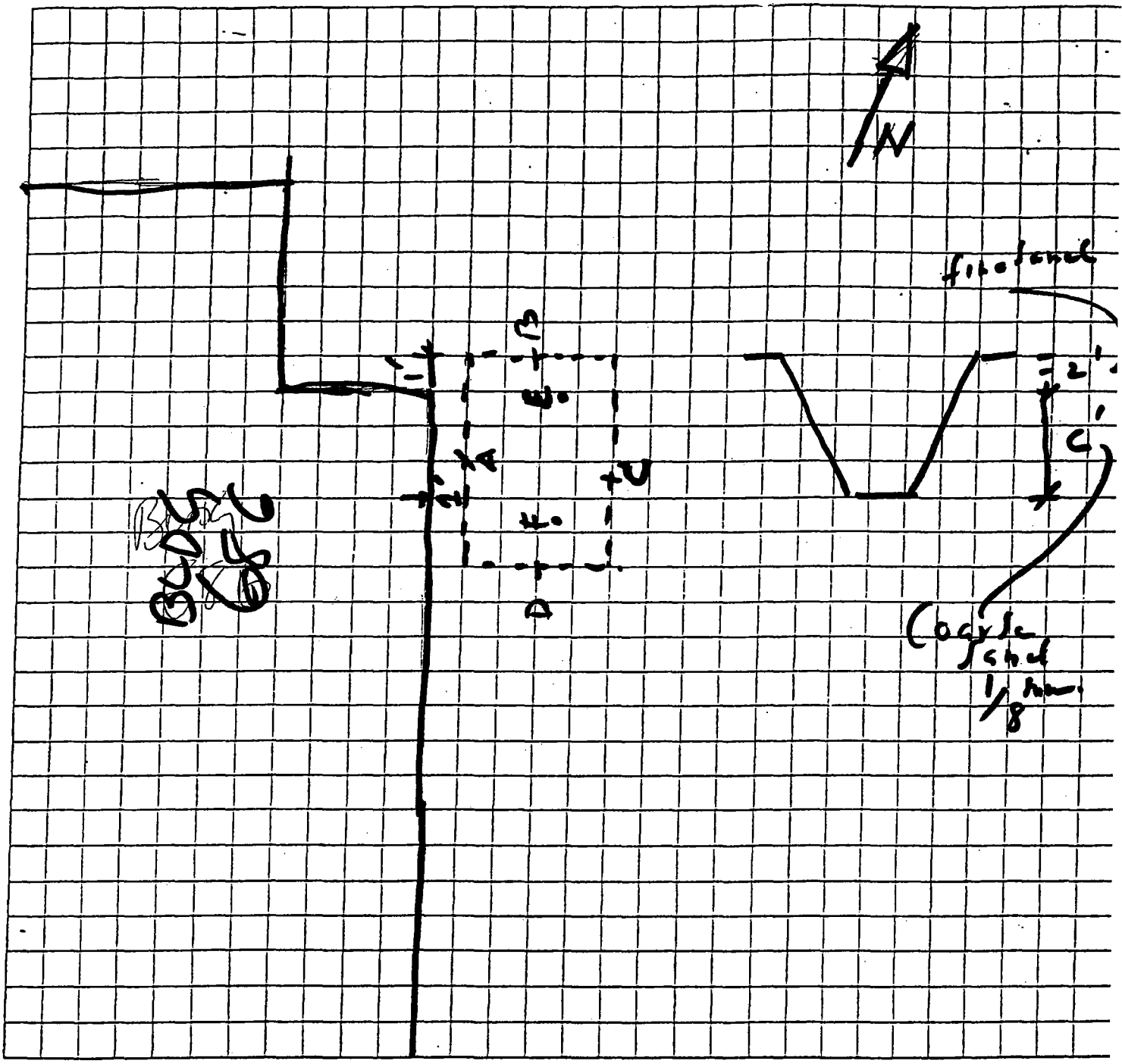
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

Enviornmental Laboratory

SERV-AIR, INC. FORT MONMOUTH, NEW JERSEY 1/18-95

PROPOSED SITE PLAN

Dunker Desa



NOTE: *Indicate scale and compass direction.*

REMARKS

TANK LOCATION

BLDG# C86

TANK # 0081533-107

TANK SIZE 2000 Gallons

TANK CONTENTS #2 Heating Oil

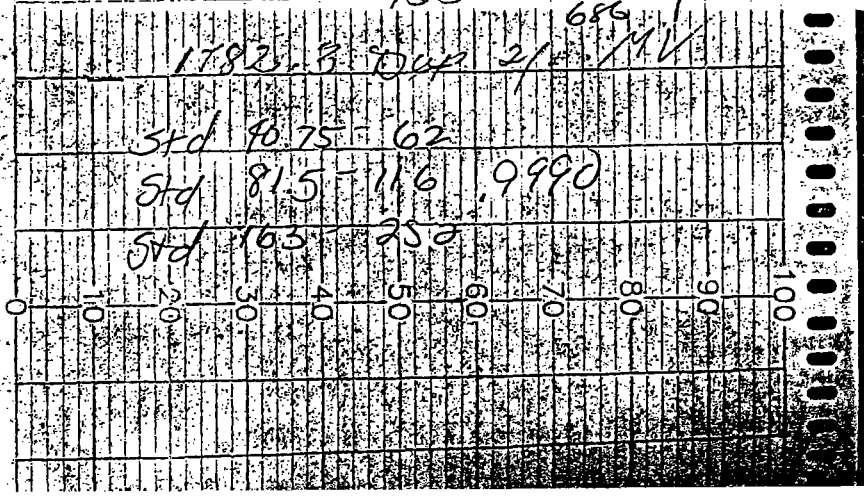
Jan. 20, 1995 Sarah Hubbard
Bldg 686 0845 (rerun)

2CM/M 500 MV=CAL-0

Standard	40.75	62 MV
Standard	81.5	116 MV
Standard	163	252 MV
Method Blank		0 MV
1782.1	10 MV	
1782.2	192 MV	dil 3
1782.3	24 MV	
1782.3	72 MV	Spk
1782.3	71 MV	Dup Spk
1782.4	108 MV	7 dil
1782.5	62 MV	dil 7
1782.6	71	dil 7
1782.7	243	
Cal Ck	40.75	62 MV

1-20-95 8941330 Bldg 686

1782.3	Dup	2 dil MV
Std	40.75	62
Std	81.5	116 .990
Std	163	250



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 #1782

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. 173
Ft. Monmouth, NJ 07703

Lab. ID #: 1790.1-.4
Sample Rec'd: 01/27/95
Analysis Start: 02/03/95
Analysis Comp: 02/04/95

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: 3540A

NJDEPE UST Reg.#: **81533-107**
Closure #:
DICAR #: **94-12-8-1040-10**
Location #: **Bldg. 686**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1790.1	Site D1 OVA=	81	342.	16.
1790.2	Site B1 OVA=	85	667.	7.8
1790.3	Site E1 OVA=	87	236.	8.1
1790.4	Site F1 OVA=	86	1400.	7.7
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1790.1S= 124%, 1790.1SD= 134%, RPD= 7.9% 1790.1 Dup=100%
Cal. Check = 107%
QC Limits: Recovery = 60% to 140% and RPD = 15.75% at 2 Std. Dev.

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 #: 1790.1-.4
Sample Rec'd: 01/27/95
Analysis Start: 02/03/95
Analysis Comp: 02/04/95

Analysis: Munsel

Lab ID#	Soil Color
1790.1	7.5YR 4/4 Brown
1790.2	7.5YR 3/2 Dark Brown
1790.3	7.5YR 4/3 Brown
1790.4	7.5YR 4/3 Brown

Brian K. McKee
Laboratory Director

Second round of Fe (4) after additional dirt removed.

U.S. ARMY FORT MONMOUTH

P.O. #: PWS # 7

Chain of Custody

Project #:	Sampler: JB/MM/acte	Date / Time 11/27/95	Analysis Parameters
Customer: Dean	Site Name: BLDG 81533 CEC -107 94-12-8-1040-10		Start:
Phone:			Finish:

Lab Sample ID Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPH	1-Solid Mixture	OVA	Preservation Method	Remarks
1790.1	11/27/95	10-03	Site D1	Soil	1	X	X	X		Sample preserved @ 4°C
.2	"	10-00	Site B1	"	1	X	X	X		
.3	"	10-05	Site E1	"	1	X	X	X		
.4	"	10-08	Site F1	"	1	X	X	X		
										OVA - calibrated to benzene @ 95 ppm

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	11/27/95 11:00 AM		
Relinquished By (signature)	**Date / Time**	**Received for Lab by (signature):**	**Date / Time**

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

Enviornmental Laboratory

Bldg 282 - reruns on High Samples

Feb. 4, 1995 Sarah Hubbard

1130

2CM/M 500 MV=CAL-0

Std 40.75 63 MV

Std 81.5 118 MV

Std 163 250 MV

Method Blank 0 MV

1790.1 24 MV

1790.1 24 MV Dup

1790.1 49 MV Spike

1790.1 51 MV Dup Spk

1790.2 109 MV

1790.3 37 MV

1790.4 234 MV

Cal CK 40.75 65 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

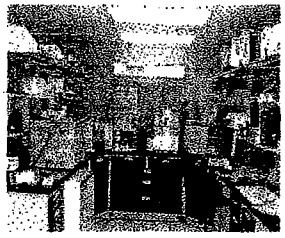
I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information 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 #1790

Brian K. McKee
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

Bldg. 686

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
686 Piping/2'	1658601	Soil	15-Nov-01 09:20	11/15/01
686/8'	1658602	Soil	15-Nov-01 09:45	11/15/01
FD/8'	1658603	Soil	15-Nov-01	11/15/01
T. B.	1658604	Methanol	15-Nov-01	11/15/01

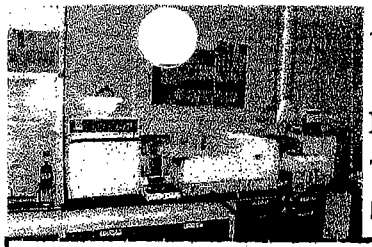
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

12-6-01
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 #: X2145
( )DERA (✓)OMA ( )Other:_____

Project No: 02-12539
Location: BLDG. 686

Samplers Name / Company: MARK LAURA - TVS - PWS 07

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	VOA+15	TPHC	%SOLID					HNU (PPM)	Remarks / Preservation Method
11058 6 1	686 PIPING - 2'	11-15-01	0920	SOIL	1		X	X					20	<4°c
2	686 8'	11	0945	11	2	X	X	X					900	29 33
3	FD 8'	11	—	11	2	X	X	X					—	29 41
4	T.B.	11	—	METH.	1	X								29 32

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	11-15-01 1400	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
		[signature]			

Report Type: (_)Full, (X)Reduced, (_)Standard, (_)Screen / non-certified, (_)EDD
Turnaround time: (X)Standard 3 wks, (_)Rush ____ Days, (_)ASAP Verbal ____ Hrs.

Remarks:

000002

print legibly

METHOD SUMMARY

Method Summary

NJDEP Method 8260
Gas Chromatographic Determination of Volatiles in Soil

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 is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

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

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five milliliters (25mL) Methylene Chloride is added to the flask and it is secured on a orbital shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL 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 1mL-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 solid, 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	NA
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 NA	
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 NA	
c. Acid Fraction NA	
If not met, were the calculations checked and the results qualified as "estimated"?	
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	yes
a. VOA Fraction	
b. B/N Fraction NA	
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 — NO
(If not met, list those compounds, which fall outside the acceptable range)

a. VOA Fraction 53 high initial run rerun OK
b. B/N Fraction NA
c. Acid Fraction NA

11. Extraction Holding Time Met — NA

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: 12-6-01

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).	Yes
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.	Yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	Yes

Additional comments: _____

Laboratory Manager

12-6-01
Date

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16586

Site: Bldg. 686

	Date	Hold Time
Date Sampled	11/15/01	NA
Receipt/Refrigeration	11/15/01	NA
Extractions		
1. TPHC	11/19/01	14 days
Analyses		
1. VOA	11/20,26/01	14 days
2. TPHC	11/19/01	40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	:	Method Detection Limit
J	:	Compound identified below detection limit
B	:	Compound found in blank
D	:	Results are from a dilution of the sample
U	:	Compound searched for but not detected
E	:	Compound exceeds calibration limit
PQL	:	Practical Quantitation Limit
NLE	:	No limit established
RT	:	Retention time

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 15Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007444.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 15Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007444.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	300	U
1330-20-7	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

FIELD ID.

MB 15Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007444.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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
1330-20-7	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	40	J
106-46-7	1,4-Dichlorobenzene	38	J
95-50-1	1,2-Dichlorobenzene	48	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007463.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 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

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

686

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658602

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007454.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 13.98 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	820	U
107131	Acrylonitrile	820	U
75650	tert-Butyl alcohol	1500	U
1634044	Methyl-tert-Butyl ether	350	U
108203	Di-isopropyl ether	230	U
75718	Dichlorodifluoromethane	470	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	350	U
74-83-9	Bromomethane	230	U
75-00-3	Chloroethane	350	U
75-69-4	Trichlorofluoromethane	230	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	230	U
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	170	J
156-60-5	trans-1,2-Dichloroethene	230	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	350	U
78-93-3	2-Butanone	350	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	230	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	230	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
75-27-4	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	230	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	230	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	230	U
79-00-5	1,1,2-Trichloroethane	230	U
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	230	U
126-48-1	Dibromochloromethane	230	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	230	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

686

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658602

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007454.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 13.98 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	350	U
1330-20-7	o-Xylene	33	J
100-42-5	Styrene	28	J
75-25-2	Bromoform	230	U
79-34-5	1,1,2,2-Tetrachloroethane	230	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

FIELD ID.

686

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658602

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007454.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 13.98 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	25.95	8400	J
2.	unknown	30.06	7300	J
3.	unknown	30.64	6800	J
4. 002847-72-5	Decane, 4-methyl-	30.89	8500	JN
5.	unknown	31.93	7200	J
6.	unknown	32.03	7500	J
7. 001678-93-9	Cyclohexane, butyl-	32.17	10000	JN
8.	unknown	32.80	7000	J
9.	unknown	33.65	8400	J
10.	unknown	33.77	8500	J
11.	unknown	33.87	9100	J
12.	unknown	34.43	11000	J
13. 029949-27-7	n-Amylcyclohexane	34.85	12000	JN
14.	unknown	34.95	14000	J
15.	unknown	35.27	7200	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

686 DI

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658602

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007467.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 13.98 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	4100	U
107131	Acrylonitrile	4100	U
75650	tert-Butyl alcohol	7600	U
1634044	Methyl-tert-Butyl ether	1800	U
108203	Di-isopropyl ether	1200	U
75718	Dichlorodifluoromethane	2300	U
74-87-3	Chloromethane	590	U
75-01-4	Vinyl Chloride	1800	U
74-83-9	Bromomethane	1200	U
75-00-3	Chloroethane	1800	U
75-69-4	Trichlorofluoromethane	1200	U
75-35-4	1,1-Dichloroethene	590	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	590	U
75-09-2	Methylene Chloride	1200	U
156-60-5	trans-1,2-Dichloroethene	1200	U
75-35-3	1,1-Dichloroethane	590	U
108-05-4	Vinyl Acetate	1800	U
78-93-3	2-Butanone	1800	U
	cis-1,2-Dichloroethene	590	U
67-66-3	Chloroform	590	U
75-55-6	1,1,1-Trichloroethane	590	U
56-23-5	Carbon Tetrachloride	1200	U
71-43-2	Benzene	590	U
107-06-2	1,2-Dichloroethane	1200	U
79-01-6	Trichloroethene	590	U
78-87-5	1,2-Dichloropropane	590	U
75-27-4	Bromodichloromethane	590	U
110-75-8	2-Chloroethyl vinyl ether	1200	U
10061-01-5	cis-1,3-Dichloropropene	590	U
108-10-1	4-Methyl-2-Pentanone	1200	U
108-88-3	Toluene	590	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
127-18-4	Tetrachloroethene	590	U
591-78-6	2-Hexanone	1200	U
126-48-1	Dibromochloromethane	1200	U
108-90-7	Chlorobenzene	590	U
100-41-4	Ethylbenzene	220	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

686 DI

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658602

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC007467.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 13.98 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	1800	U
1330-20-7	o-Xylene	120	J
100-42-5	Styrene	1200	U
75-25-2	Bromoform	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
541-73-1	1,3-Dichlorobenzene	1800	U
106-46-7	1,4-Dichlorobenzene	1800	U
95-50-1	1,2-Dichlorobenzene	1800	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658603

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007457.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 14.01 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	810	U
107131	Acrylonitrile	810	U
75650	tert-Butyl alcohol	1500	U
1634044	Methyl-tert-Butyl ether	350	U
108203	Di-isopropyl ether	230	U
75718	Dichlorodifluoromethane	460	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	350	U
74-83-9	Bromomethane	230	U
75-00-3	Chloroethane	350	U
75-69-4	Trichlorofluoromethane	230	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	230	U
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	250	
156-60-5	trans-1,2-Dichloroethene	230	U
75-35-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	350	U
78-93-3	2-Butanone	350	U
	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
75-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	230	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	230	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
75-27-4	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	230	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	230	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	230	U
79-00-5	1,1,2-Trichloroethane	51	J
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	230	U
126-48-1	Dibromochloromethane	230	U
108-90-7	Chlorobenzene	36	J
100-41-4	Ethylbenzene	230	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

FD

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658603

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007457.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 14.01 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	35	J
1330-20-7	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	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

FIELD ID.

FD

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658603

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007457.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 14.01 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 002051-30-1	Octane, 2,6-dimethyl-	28.10	12000	JN
2.	unknown	28.52	13000	J
3.	unknown	29.41	10000	J
4.	unknown	30.05	10000	J
5.	unknown	30.53	10000	J
6. 002847-72-5	Decane, 4-methyl-	30.89	10000	JN
7.	unknown	32.17	14000	J
8.	unknown	32.80	11000	J
9.	unknown	33.06	11000	J
10.	unknown	33.55	13000	J
11.	unknown	33.66	11000	J
12.	unknown	34.44	16000	J
13. 029949-27-7	n-Amylcyclohexane	34.86	15000	JN
14.	unknown	34.94	19000	J
15.	unknown	35.29	9900	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD DI

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658603

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007468.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 14.01 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	4000	U
107131	Acrylonitrile	4000	U
75650	tert-Butyl alcohol	7500	U
1634044	Methyl-tert-Butyl ether	1700	U
108203	Di-isopropyl ether	1200	U
75718	Dichlorodifluoromethane	2300	U
74-87-3	Chloromethane	580	U
75-01-4	Vinyl Chloride	1700	U
74-83-9	Bromomethane	1200	U
75-00-3	Chloroethane	1700	U
75-69-4	Trichlorofluoromethane	1200	U
75-35-4	1,1-Dichloroethene	580	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	580	U
75-09-2	Methylene Chloride	1200	U
156-60-5	trans-1,2-Dichloroethene	1200	U
75-35-3	1,1-Dichloroethane	580	U
108-05-4	Vinyl Acetate	1700	U
78-93-3	2-Butanone	1700	U
	cis-1,2-Dichloroethene	580	U
67-66-3	Chloroform	580	U
75-55-6	1,1,1-Trichloroethane	580	U
56-23-5	Carbon Tetrachloride	1200	U
71-43-2	Benzene	580	U
107-06-2	1,2-Dichloroethane	1200	U
79-01-6	Trichloroethene	580	U
78-87-5	1,2-Dichloropropane	580	U
75-27-4	Bromodichloromethane	580	U
110-75-8	2-Chloroethyl vinyl ether	1200	U
10061-01-5	cis-1,3-Dichloropropene	580	U
108-10-1	4-Methyl-2-Pentanone	1200	U
108-88-3	Toluene	580	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
127-18-4	Tetrachloroethene	580	U
591-78-6	2-Hexanone	1200	U
126-48-1	Dibromochloromethane	1200	U
108-90-7	Chlorobenzene	580	U
100-41-4	Ethylbenzene	1200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD DI

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658603

Sample wt/vol: 10.1 (g/ml) G Lab File ID: VC007468.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 14.01 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	1700	U
1330-20-7	o-Xylene	1200	U
100-42-5	Styrene	1200	U
75-25-2	Bromoform	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
541-73-1	1,3-Dichlorobenzene	1700	U
106-46-7	1,4-Dichlorobenzene	1700	U
95-50-1	1,2-Dichlorobenzene	1700	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658604

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007458.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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	3400	
156-60-5	trans-1,2-Dichloroethene	200	U
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	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
75-27-4	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	66	J
126-48-1	Dibromochloromethane	67	J
108-90-7	Chlorobenzene	26	J
100-41-4	Ethylbenzene	200	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID.

TB

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658604

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007458.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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
1330-20-7	o-Xylene	200	U
100-42-5	Styrene	200	U
75-25-2	Bromoform	200	U
79-34-5	1,1,2,2-Tetrachloroethane	44	J
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

FIELD ID.

TB

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658604

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007458.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/20/01

GC Column: Rtx502.2 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: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 025550-13-4	Benzene, diethylmethyl-	28.04	3200	JN
2.	unknown	28.53	4100	J
3.	unknown	29.43	5100	J
4.	unknown	29.61	2700	J
5.	unknown	31.42	3500	J
6.	unknown	32.03	1700	J
7.	unknown	32.21	5600	J
8.	unknown	32.44	3200	J
9.	unknown	32.82	1500	J
10.	unknown	33.07	3800	J
11.	unknown	33.23	1900	J
12.	unknown	33.95	3200	J
13.	unknown	34.31	4100	J
14.	unknown	34.44	3600	J
15.	unknown	34.90	2300	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658604

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007469.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	3500	U
107131	Acrylonitrile	3500	U
75650	tert-Butyl alcohol	6500	U
1634044	Methyl-tert-Butyl ether	1500	U
108203	Di-isopropyl ether	1000	U
75718	Dichlorodifluoromethane	2000	U
74-87-3	Chloromethane	500	U
75-01-4	Vinyl Chloride	1500	U
74-83-9	Bromomethane	1000	U
75-00-3	Chloroethane	1500	U
75-69-4	Trichlorofluoromethane	1000	U
75-35-4	1,1-Dichloroethene	500	U
67-64-1	Acetone	1000	U
75-15-0	Carbon Disulfide	500	U
75-09-2	Methylene Chloride	1000	U
156-60-5	trans-1,2-Dichloroethene	1000	U
75-35-3	1,1-Dichloroethane	500	U
108-05-4	Vinyl Acetate	1500	U
78-93-3	2-Butanone	1500	U
	cis-1,2-Dichloroethene	500	U
67-66-3	Chloroform	500	U
75-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	1000	U
71-43-2	Benzene	500	U
107-06-2	1,2-Dichloroethane	1000	U
79-01-6	Trichloroethene	500	U
78-87-5	1,2-Dichloropropane	500	U
75-27-4	Bromodichloromethane	500	U
110-75-8	2-Chloroethyl vinyl ether	1000	U
10061-01-5	cis-1,3-Dichloropropene	500	U
108-10-1	4-Methyl-2-Pentanone	1000	U
108-88-3	Toluene	500	U
10061-02-6	trans-1,3-Dichloropropene	1000	U
79-00-5	1,1,2-Trichloroethane	1000	U
127-18-4	Tetrachloroethene	500	U
591-78-6	2-Hexanone	1000	U
126-48-1	Dibromochloromethane	1000	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	160	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658604

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007469.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	1500	U
1330-20-7	o-Xylene	1000	U
100-42-5	Styrene	1000	U
75-25-2	Bromoform	1000	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
541-73-1	1,3-Dichlorobenzene	1500	U
106-46-7	1,4-Dichlorobenzene	1500	U
95-50-1	1,2-Dichlorobenzene	1500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

TB

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1658604

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC007469.D

Level: (low/med) MED Date Received: 11/15/01

% Moisture: not dec. 0 Date Analyzed: 11/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 25 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID: VC007374.D BFB Injection Date: 11/15/01

Instrument ID: GCMSVoa BFB Injection Time: 14:10

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.7
75	30.0 - 66.0% of mass 95	47.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	71.0
175	4.0 - 9.0% of mass 174	5.0 (7.1)1
176	93.0 - 101.0% of mass 174	69.5 (97.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.4)2

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

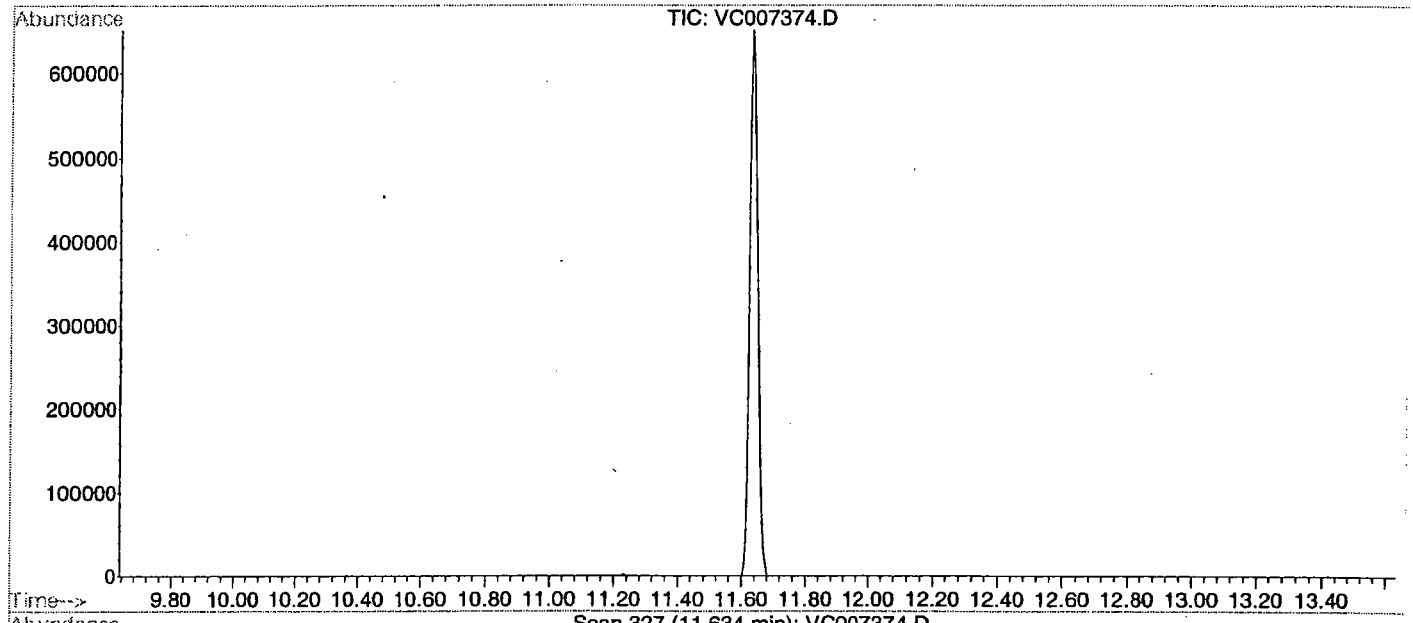
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

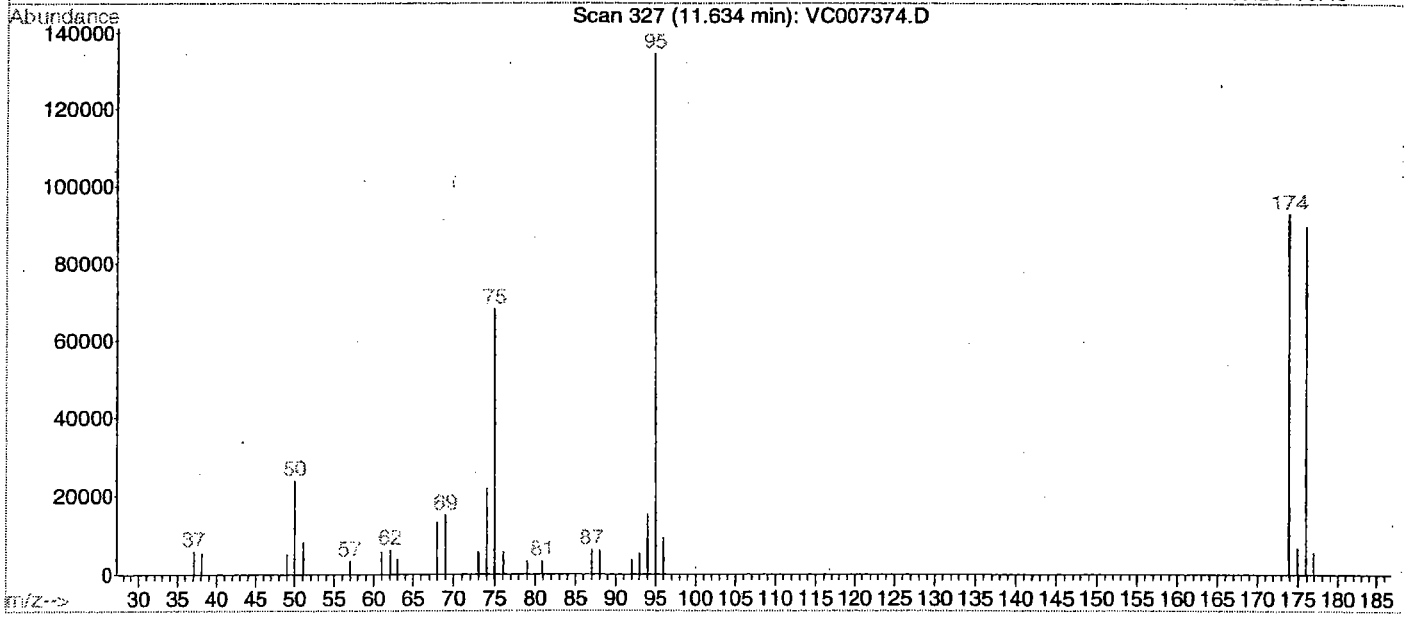
	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VC007375.D	11/15/01	14:54
02	VSTD050	VSTD050	VC007376.D	11/15/01	15:34
03	VSTD020	VSTD020	VC007377.D	11/15/01	16:15
04	VSTD010	VSTD010	VC007378.D	11/15/01	16:55
05	VSTD005	VSTD005	VC007379.D	11/15/01	17:36

BFB

Data File : D:\HPCHEM\1\DATA\011115\VC007374.D
Acq On : 15 Nov 2001 2:10 pm
Sample : BFB Tune
Misc : BFB Tune
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP

Vial: 3
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00





Spectrum Information: Scan 327

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	23880	PASS
75	95	30	60	50.7	68184	PASS
95	95	100	100	100.0	134592	PASS
96	95	5	9	7.0	9359	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.0	92872	PASS
175	174	5	9	7.4	6827	PASS
176	174	95	101	96.6	89672	PASS
177	176	5	9	6.3	5613	PASS

Response Factor Report GC/MS Ins

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration

Calibration Files
50 =VC007376.D 5 =VC007379.D 10 =VC007378.D
20 =VC007377.D 100 =VC007375.D

		Compound	50	5	10	20	100	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------						
2)	t	Acrolein	0.429	0.427	0.461	0.464	0.434	0.443	4.09
3)	t	Acrylonitrile	1.096	1.146	1.211	1.204	1.101	1.151	4.75
4)	t	tert-Butyl alcohol	0.152	0.121	0.151	0.161	0.158	0.149	10.58
5)	t	Methyl-tert-Butyl eth	5.537	5.411	5.821	5.839	5.577	5.637	3.31
6)	t	Di-isopropyl ether	1.735	1.327	1.675	1.719	1.743	1.640	10.79
7)	T	Dichlorodifluorometha	2.485	2.252	2.422	2.532	2.335	2.405	4.70
8)	TP	Chloromethane	3.081	3.086	3.213	3.197	2.908	3.097	3.95
9)	TC	Vinyl Chloride	2.971	3.059	3.168	3.100	2.846	3.029	4.12
10)	T	Bromomethane	1.483	1.454	1.599	1.530	1.394	1.492	5.19
11)	T	Chloroethane	1.579	1.599	1.624	1.631	1.575	1.601	1.59
12)	T	Trichlorofluoromethan	3.356	3.328	3.516	3.497	3.350	3.409	2.63
13)	MC	1,1-Dichloroethene	3.054	2.924	3.199	3.161	3.060	3.080	3.49
14)	T	Acetone	0.832	1.438	1.040	0.918	0.798	1.005	25.78
15)	T	Carbon Disulfide	7.101	7.077	7.422	7.334	7.109	7.209	2.19
16)	T	Methylene Chloride	2.150	2.174	2.352	2.233	2.141	2.210	3.94
17)	T	trans-1,2-Dichloroeth	2.875	2.833	3.019	2.956	2.880	2.912	2.55
18)	TP	1,1-Dichloroethane	3.813	3.815	4.070	3.939	3.782	3.884	3.10
19)	T	Vinyl Acetate	4.599	3.967	4.592	4.691	4.747	4.519	6.98
20)	T	2-Butanone	1.020	0.794	0.912	0.998	1.019	0.949	10.22
21)	T	cis-1,2-Dichloroethen	2.867	2.775	2.981	2.955	2.861	2.888	2.84
22)	TC	Chloroform	3.431	3.478	3.654	3.612	3.405	3.516	3.16
23)	T	1,1,1-Trichloroethane	2.778	2.661	2.869	2.851	2.767	2.785	2.96
24)	T	Carbon Tetrachloride	2.397	2.231	2.420	2.435	2.395	2.376	3.48
25)	S	1,2-Dichloroethane-d4	2.198	2.252	2.267	2.256	2.211	2.237	1.37
26)	I	1,4-Difluorobenzene	----------ISTD----------						
27)	TM	Benzene	1.318	1.378	1.399	1.367	1.264	1.345	4.02
28)	T	1,2-Dichloroethane	0.387	0.391	0.406	0.400	0.373	0.391	3.21
29)	TM	Trichloroethene	0.310	0.295	0.309	0.311	0.299	0.305	2.41
30)	TC	1,2-Dichloropropane	0.336	0.323	0.343	0.339	0.330	0.334	2.43
31)	T	Bromodichloromethane	0.382	0.368	0.384	0.385	0.377	0.379	1.79
32)	T	2-Chloroethyl vinyl e	0.110	0.080	0.100	0.110	0.108	0.102	12.79
33)	T	cis-1,3-Dichloroprope	0.503	0.450	0.494	0.506	0.502	0.491	4.79
34)	T	4-Methyl-2-Pentanone	0.117	0.093	0.111	0.124	0.119	0.113	10.55
35)	S	Toluene-d8	1.150	1.154	1.133	1.156	1.158	1.150	0.86
36)	TCM	Toluene	1.298	1.366	1.368	1.365	1.237	1.327	4.41
37)	I	Chlorobenzene-d5	----------ISTD----------						
38)	T	trans-1,3-Dichloropro	1.743	1.649	1.725	1.744	1.728	1.718	2.31
39)	T	1,1,2-Trichloroethane	1.032	1.011	1.105	1.076	0.999	1.045	4.26
40)	T	Tetrachloroethene	1.068	1.074	1.131	1.120	1.040	1.086	3.49
41)	T	2-Hexanone	0.709	0.580	0.661	0.703	0.715	0.674	8.36
42)	T	Dibromochloromethane	0.986	0.903	0.976	0.988	0.983	0.967	3.74
43)	TMP	Chlorobenzene	3.130	3.279	3.426	3.297	2.956	3.218	5.59
44)	TC	Ethylbenzene	5.409	5.570	5.810	5.643	5.198	5.526	4.22
45)	T	m+p-Xylenes	2.145	2.225	2.320	2.237	2.094	2.204	3.98
46)	T	o-Xylene	4.065	3.962	4.244	4.177	3.934	4.076	3.28
47)	T	Styrene	3.594	3.617	3.875	3.813	3.352	3.650	5.65
48)	TP	Bromoform	0.645	0.531	0.619	0.638	0.663	0.619	8.39
49)	S	Bromofluorobenzene	1.601	1.558	1.568	1.564	1.621	1.582	1.72
50)	TP	1,1,2,2-Tetrachloroet	1.430	1.505	1.583	1.531	1.419	1.494	4.65
51)	T	1,3-Dichlorobenzene	2.395	2.357	2.517	2.455	2.287	2.402	3.67
52)	T	1,4-Dichlorobenzene	2.476	2.470	2.584	2.542	2.347	2.484	3.63
53)	T	1,2-Dichlorobenzene	2.282	2.308	2.380	2.347	2.169	2.297	3.51

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID: VC007442.D BFB Injection Date: 11/20/01

Instrument ID: GCMSVoa BFB Injection Time: 9:32

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	17.8
75	30.0 - 66.0% of mass 95	49.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	74.6
175	4.0 - 9.0% of mass 174	5.1 (6.9)1
176	93.0 - 101.0% of mass 174	70.9 (95.1)1
177	5.0 - 9.0% of mass 176	4.4 (6.2)2

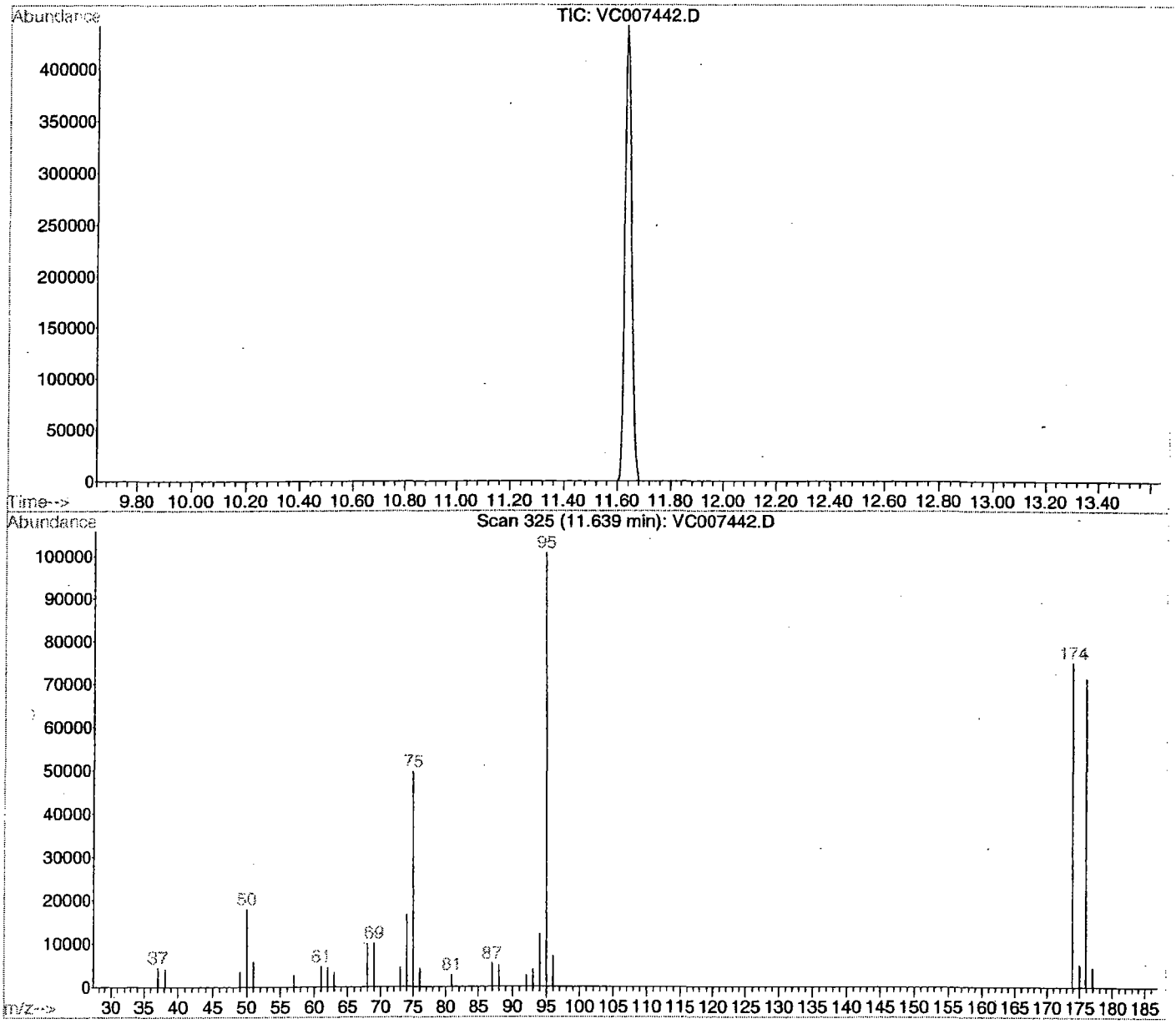
1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007443.D	11/20/01	10:29
02	MB 15NOV01	MB	VC007444.D	11/20/01	11:19
03	686	1658602	VC007454.D	11/20/01	19:01
04	FD	1658603	VC007457.D	11/20/01	21:03
05	TB	1658604	VC007458.D	11/20/01	21:44

BFB

Data File : D:\HPCHEM\1\DATA\011120\VC007442.D Vial: 31
Acq On : 20 Nov 2001 9:32 am Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 325

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	17920	PASS
75	95	30	60	49.3	49696	PASS
95	95	100	100	100.0	100808	PASS
96	95	5	9	7.0	7057	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	74.6	75232	PASS
175	174	5	9	6.9	5169	PASS
176	174	95	101	95.1	71512	PASS
177	176	5	9	6.2	4432	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011120\VC007443.D Vial: 32
Acq On : 20 Nov 2001 10:29 am Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: ACETONE.P

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	84	0.00
2	t	Acrolein	0.443	0.479	-8.1	87	0.00
3	t	Acrylonitrile	1.151	1.297	-12.7	90	0.00
4	t	tert-Butyl alcohol	0.149	0.180	-20.8	94	-0.01
5	t	Methyl-tert-Butyl ether	5.637	5.402	4.2	78	0.00
6	t	Di-isopropyl ether	1.640	1.503	8.4	73	0.00
7	T	Dichlorodifluoromethane	2.405	1.693	29.6#	56	0.00
8	TP	Chloromethane	3.097	2.585	16.5	68	0.00
9	TC	Vinyl Chloride	3.029	2.607	13.9	70	0.00
10	T	Bromomethane	1.492	1.233	17.4	68	0.00
11	T	Chloroethane	1.601	1.542	3.7	79	0.00
12	T	Trichlorofluoromethane	3.409	3.283	3.7	79	0.00
13	MC	1,1-Dichloroethene	3.080	2.980	3.2	79	0.00
14	T	Acetone	1.005	1.022	-1.7	93	0.00
15	T	Carbon Disulfide	7.209	6.634	8.0	76	0.00
16	T	Methylene Chloride	2.210	2.111	4.5	79	0.00
17	T	trans-1,2-Dichloroethene	2.912	2.817	3.3	80	0.00
18	TP	1,1-Dichloroethane	3.884	3.779	2.7	80	0.00
19	T	Vinyl Acetate	4.519	4.517	0.0	81	-0.01
20	T	2-Butanone	0.949	1.042	-9.8	88	-0.01
21	T	cis-1,2-Dichloroethene	2.888	2.817	2.5	80	0.00
22	TC	Chloroform	3.516	3.387	3.7	79	0.00
23	T	1,1,1-Trichloroethane	2.785	2.616	6.1	77	0.00
24	T	Carbon Tetrachloride	2.376	2.292	3.5	79	0.00
25	S	1,2-Dichloroethane-d4	2.237	2.408	-7.6	89	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	84	0.00
27	TM	Benzene	1.345	1.276	5.1	79	0.00
28	T	1,2-Dichloroethane	0.391	0.389	0.5	82	0.00
29	TM	Trichloroethene	0.305	0.286	6.2	78	0.00
30	TC	1,2-Dichloropropane	0.334	0.320	4.2	80	0.00
31	T	Bromodichloromethane	0.379	0.364	4.0	80	0.00
32	T	2-Chloroethyl vinyl ether	0.102	0.103	-1.0	79	0.00
33	T	cis-1,3-Dichloropropene	0.491	0.458	6.7	77	0.00
34	T	4-Methyl-2-Pentanone	0.113	0.127	-12.4	87	0.00
35	S	Toluene-d8	1.150	1.178	-2.4	86	0.00
36	TCM	Toluene	1.327	1.225	7.7	76	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	87	0.00
38	T	trans-1,3-Dichloropropene	1.718	1.578	8.1	78	0.00
39	T	1,1,2-Trichloroethane	1.045	0.997	4.6	80	0.00
40	T	Tetrachloroethene	1.086	0.984	9.4	76	0.00
41	T	2-Hexanone	0.674	0.735	-9.1	91	0.00
42	T	Dibromochloromethane	0.967	0.887	8.3	78	0.00
43	TMP	Chlorobenzene	3.218	2.899	9.9	76	0.00
44	TC	Ethylbenzene	5.526	5.120	7.3	79	0.00
45	T	m+p-Xylenes	2.204	2.006	9.0	78	0.00
46	T	o-Xylene	4.076	3.683	9.6	76	0.00
47	T	Styrene	3.650	3.038	16.8	69	0.00
48	TP	Bromoform	0.619	0.570	7.9	77	-0.01
49	S	Bromofluorobenzene	1.582	1.587	-0.3	88	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.494	1.505	-0.7	85	0.00
51	T	1,3-Dichlorobenzene	2.402	2.060	14.2	73	0.00
52	T	1,4-Dichlorobenzene	2.484	2.144	13.7	73	0.00
53	T	1,2-Dichlorobenzene	2.297	2.018	12.1	74	0.00

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

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID: VC007460.D BFB Injection Date: 11/26/01

Instrument ID: GCMSVoa BFB Injection Time: 8:53

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	45.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.7
175	4.0 - 9.0% of mass 174	5.2 (7.6)1
176	93.0 - 101.0% of mass 174	66.6 (97.1)1
177	5.0 - 9.0% of mass 176	4.6 (6.9)2

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

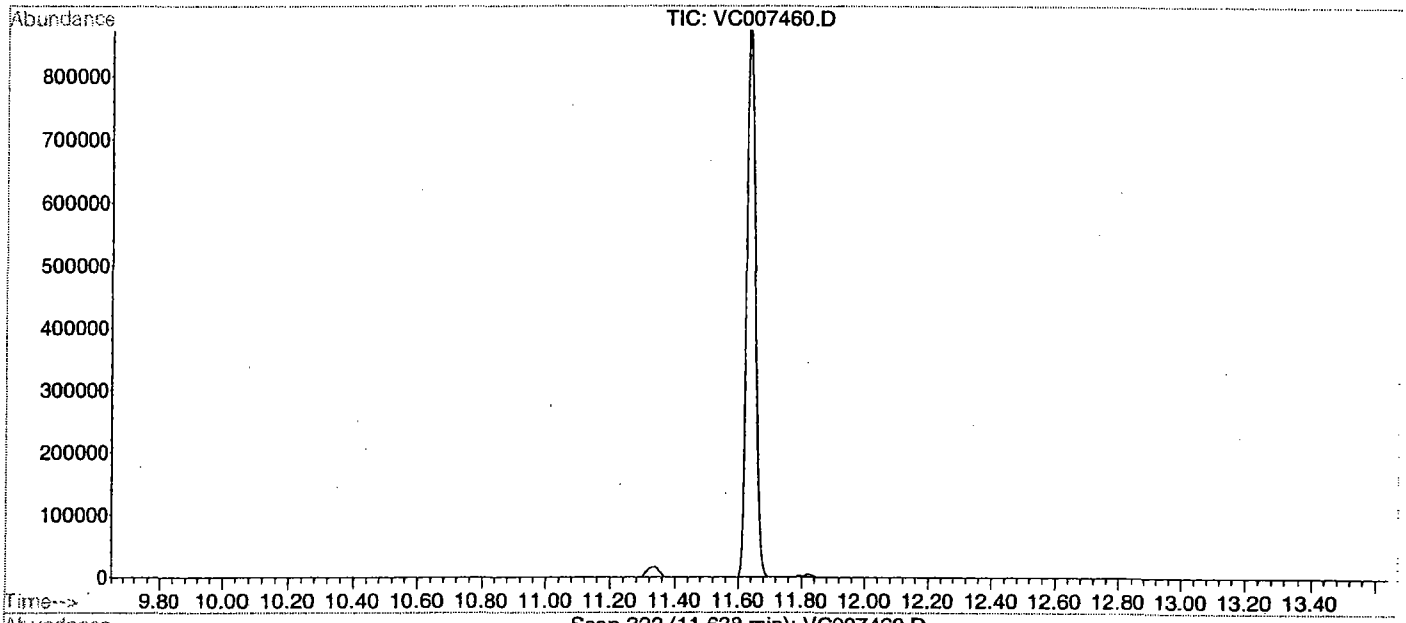
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

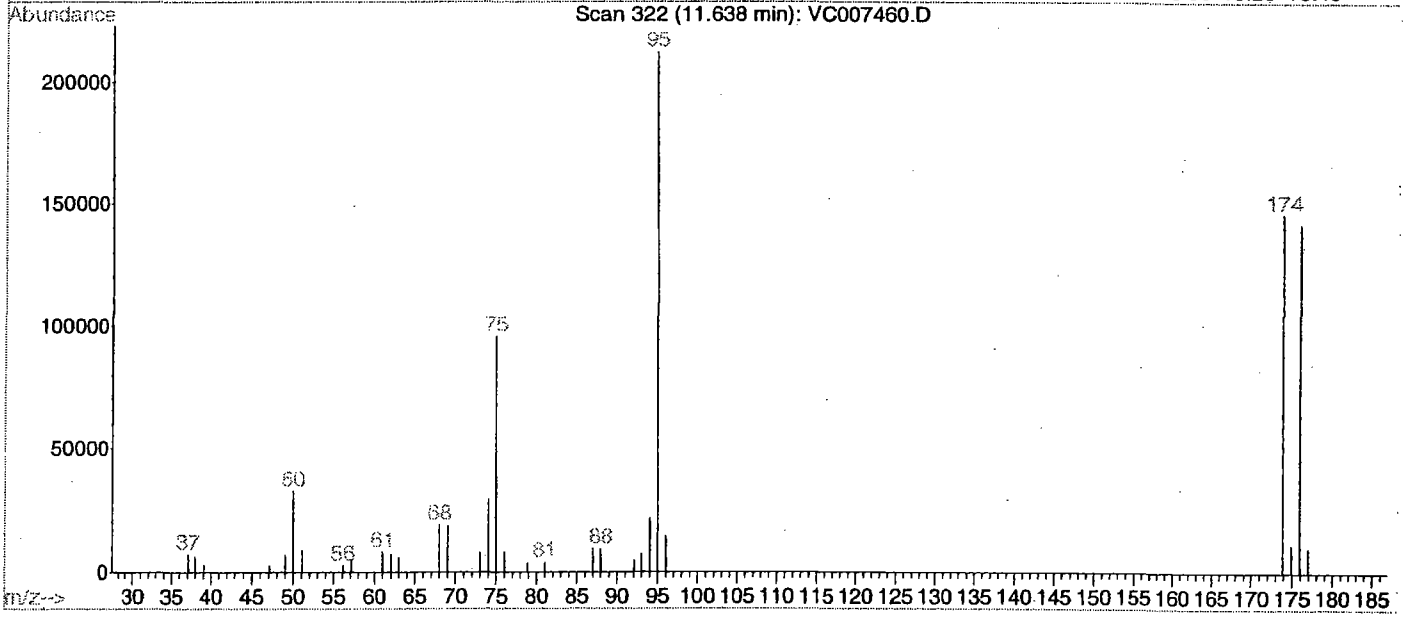
	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC007461.D	11/26/01	9:29
02	MB 26NOV01	MB	VC007463.D	11/26/01	11:06
03	686 DL	1658602	VC007467.D	11/26/01	13:57
04	FD DL	1658603	VC007468.D	11/26/01	14:37
05	TB	1658604	VC007469.D	11/26/01	15:18

BFB

Data File : D:\HPCHEM\1\DATA\011126\VC007460.D
Acq On : 26 Nov 2001 8:53 am
Sample : BFB Tune
Misc : BFB tune
MS Integration Params: ACETONE.P
Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP

Vial: 12
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00





Spectrum Information: Scan 322

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	32728	PASS
75	95	30	60	45.1	95968	PASS
95	95	100	100	100.0	212736	PASS
96	95	5	9	6.8	14373	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	68.7	146048	PASS
175	174	5	9	7.6	11123	PASS
176	174	95	101	97.1	141760	PASS
177	176	5	9	6.9	9827	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\011126\VC007461.D Vial: 12
Acq On : 26 Nov 2001 9:29 am Operator: Skelton
Sample : Vstd020 Inst : GC/MS Ins
Misc : Vstd020 Multiplr: 1.00
MS Integration Params: ACETONE.P

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Multiple Level Calibration

Min. RRF : 0.025 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	151	0.00
2	t	Acrolein	0.443	0.381	14.0	124	0.00
3	t	Acrylonitrile	1.151	0.961	16.5	121	0.00
4	t	tert-Butyl alcohol	0.149	0.144	3.4	135	0.00
5	t	Methyl-tert-Butyl ether	5.637	5.660	-0.4	147	0.00
6	t	Di-isopropyl ether	1.640	1.753	-6.9	154	0.00
7	T	Dichlorodifluoromethane	2.405	2.228	7.4	133	0.00
8	TP	Chloromethane	3.097	2.560	17.3	121	0.00
9	TC	Vinyl Chloride	3.029	2.326	23.2	114	0.00
10	T	Bromomethane	1.492	1.465	1.8	145	0.00
11	T	Chloroethane	1.601	1.508	5.8	140	0.00
12	T	Trichlorofluoromethane	3.409	3.506	-2.8	152	0.00
13	MC	1,1-Dichloroethene	3.080	2.756	10.5	132	0.00
14	T	Acetone	1.005	1.134	-12.8	187	0.00
15	T	Carbon Disulfide	7.209	6.653	7.7	137	0.00
16	T	Methylene Chloride	2.210	2.056	7.0	139	0.00
17	T	trans-1,2-Dichloroethene	2.912	2.558	12.2	131	0.00
18	TP	1,1-Dichloroethane	3.884	3.453	11.1	133	0.00
19	T	Vinyl Acetate	4.519	3.720	17.7	120	0.00
20	T	2-Butanone	0.949	0.915	3.6	139	-0.01
21	T	cis-1,2-Dichloroethene	2.888	2.577	10.8	132	0.00
22	TC	Chloroform	3.516	3.293	6.3	138	0.00
23	T	1,1,1-Trichloroethane	2.785	2.807	-0.8	149	0.00
24	T	Carbon Tetrachloride	2.376	2.370	0.3	147	0.00
25	S	1,2-Dichloroethane-d4	2.237	2.184	2.4	146	0.00
26	I	1,4-Difluorobenzene	1.000	1.000	0.0	159	0.00
27	TM	Benzene	1.345	1.145	14.9	133	0.00
28	T	1,2-Dichloroethane	0.391	0.331	15.3	132	0.00
29	TM	Trichloroethene	0.305	0.282	7.5	144	0.00
30	TC	1,2-Dichloropropane	0.334	0.285	14.7	134	0.00
31	T	Bromodichloromethane	0.379	0.336	11.3	139	0.00
32	T	2-Chloroethyl vinyl ether	0.102	0.088	13.7	126	0.00
33	T	cis-1,3-Dichloropropene	0.491	0.445	9.4	140	0.00
34	T	4-Methyl-2-Pentanone	0.113	0.097	14.2	124	0.00
35	S	Toluene-d8	1.150	1.145	0.4	157	0.00
36	TCM	Toluene	1.327	1.149	13.4	134	0.00
37	I	Chlorobenzene-d5	1.000	1.000	0.0	166	0.00
38	T	trans-1,3-Dichloropropene	1.718	1.473	14.3	140	0.00
39	T	1,1,2-Trichloroethane	1.045	0.888	15.0	137	0.00
40	T	Tetrachloroethene	1.086	0.930	14.4	138	0.00
41	T	2-Hexanone	0.674	0.558	17.2	132	0.00
42	T	Dibromochloromethane	0.967	0.840	13.1	141	0.00
43	TMP	Chlorobenzene	3.218	2.656	17.5	134	0.00
44	TC	Ethylbenzene	5.526	4.661	15.7	137	0.00
45	T	m+p-Xylenes	2.204	1.835	16.7	136	0.00
46	T	o-Xylene	4.076	3.523	13.6	140	0.00
47	T	Styrene	3.650	2.758	24.4	120	0.00
48	TP	Bromoform	0.619	0.518	16.3	135	0.00
49	S	Bromofluorobenzene	1.582	1.635	-3.4	173	0.00
50	TP	1,1,2,2-Tetrachloroethane	1.494	1.162	22.2	126	0.00
51	T	1,3-Dichlorobenzene	2.402	1.946	19.0	131	0.00
52	T	1,4-Dichlorobenzene	2.484	1.981	20.2	129	0.00
53	T	1,2-Dichlorobenzene	2.297	1.832	20.2	129	0.00

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

4A

FIELD ID.

MB 15Nov01

VOLATILE METHOD BLANK SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID: VC007444.D Lab Sample ID: MB

Date Analyzed: 11/20/01 Time Analyzed: 11:19

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMSVoa

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	686	1658602	VC007454.D	19:01
02	FD	1658603	VC007457.D	21:03
03	TB	1658604	VC007458.D	21:44

COMMENTS:

4A

FIELD ID.

VOLATILE METHOD BLANK SUMMARY

MB 26Nov01

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID: VC007463.D Lab Sample ID: MB

Date Analyzed: 11/26/01 Time Analyzed: 11:06

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMSVoa

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	686 DL	1658602	VC007467.D	13:57
02	FD DL	1658603	VC007468.D	14:37
03	TB	1658604	VC007469.D	15:18

COMMENTS:

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

	Lab Name:	FMETL	Project	UST	
NJDEP #	13461	Case No.:	16586	Location	686

	EPA SAMPLE NO.	SMC1 1,2-DCE-d4	SMC2 Tol-d8	SMC3 BFB
01	MB	107.0	100.0	95.0
02	MB	99.0	98.0	102.0
03	686	97.3	86.7	76.0
04	FD	110.3	99.7	45.3
05	TB	119.7	108.0	45.0

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

D System Monitoring Compounds diluted out

Spike Recovery and RPD Summary Report - Soil

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Fri Nov 30 14:00:51 2001
Response via : Initial Calibration

Non-Spiked Sample: VC007454.D

	Spike Sample	Spike Duplicate Sample
File ID :	VC007455.D	VC007456.D
Sample :	1658602 MS	1658602 MSD
Acq Time:	20 Nov 2001 7:42 pm	20 Nov 2001 8:22 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	17	20	85	101	16	22	59-172
Benzene	0.0	20	18	20	88	102	14	21	66-142
Trichloroethene	0.0	20	19	23	94	113	19	24	62-137
Toluene	0.7	20	20	23	95	109	14	21	59-139
Chlorobenzene	0.0	20	13	17	66	84	24#	21	60-133

- Fails Limit Check

M362451.M Tue Dec 04 14:06:41 2001

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID (Standard): VC007443.D Date Analyzed: 11/20/01

Instrument ID: GCMSVoa Time Analyzed: 10:29

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	209179	16.69	1450710	19.41	401662	27.24
	UPPER LIMIT	418358	17.19	2901420	19.91	803324	27.74
	LOWER LIMIT	104590	16.19	725355	18.91	200831	26.74
	FIELD ID.						
01	MB 15NOV01	194971	16.69	1324892	19.41	355712	27.25
02	686	382956	16.69	2681543	19.41	952879*	27.24
03	FD	367694	16.69	2546248	19.41	1575963*	27.24
04	TB	366159	16.69	2524711	19.41	1658493*	27.24

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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: FMETL NJDEP # 13461

Project: UST Case No.: 16586 Location: 686 SDG No.:

Lab File ID (Standard): VC007461.D Date Analyzed: 11/26/01

Instrument ID: GCMSVoa Time Analyzed: 9:29

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1BCM AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	377637	16.69	2726556	19.42	769324	27.24
	UPPER LIMIT	755274	17.19	5453112	19.92	1538648	27.74
	LOWER LIMIT	188819	16.19	1363278	18.92	384662	26.74
	FIELD ID.						
01	MB 26NOV01	343704	16.70	2468066	19.42	684484	27.25
02	686 DL	360349	16.69	2595214	19.41	733332	27.25
03	FD DL	362059	16.69	2676309	19.42	806500	27.25
04	TB	370741	16.69	2681351	19.41	814027	27.24

IS1 BCM = Bromochloromethane

IS2 DFB = 1,4-Difluorobenzene

IS3 CBZ = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007444.D Vial: 32
Acq On : 20 Nov 2001 11:19 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 19 11:45:35 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	194971	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	1324892	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	355712	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	466644	32.10	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 107.00%			
35) Toluene-d8	23.42	98	1525220	30.03	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 100.10%			
49) Bromofluorobenzene	30.25	95	536140	28.58	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 95.27%			

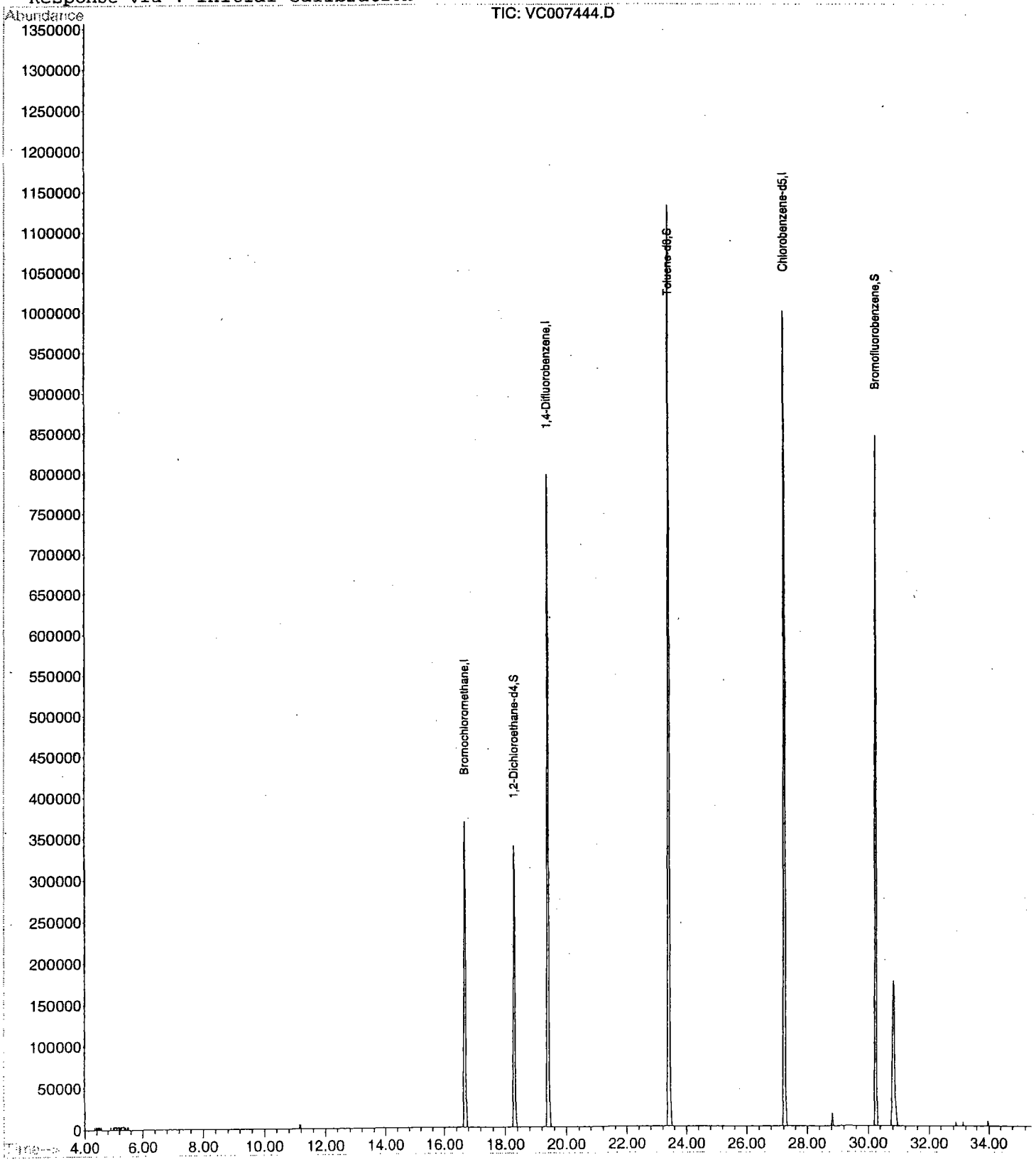
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007444.D Vial: 32
Acq On : 20 Nov 2001 11:19 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:23 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007463.D Vial: 13
Acq On : 26 Nov 2001 11:06 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

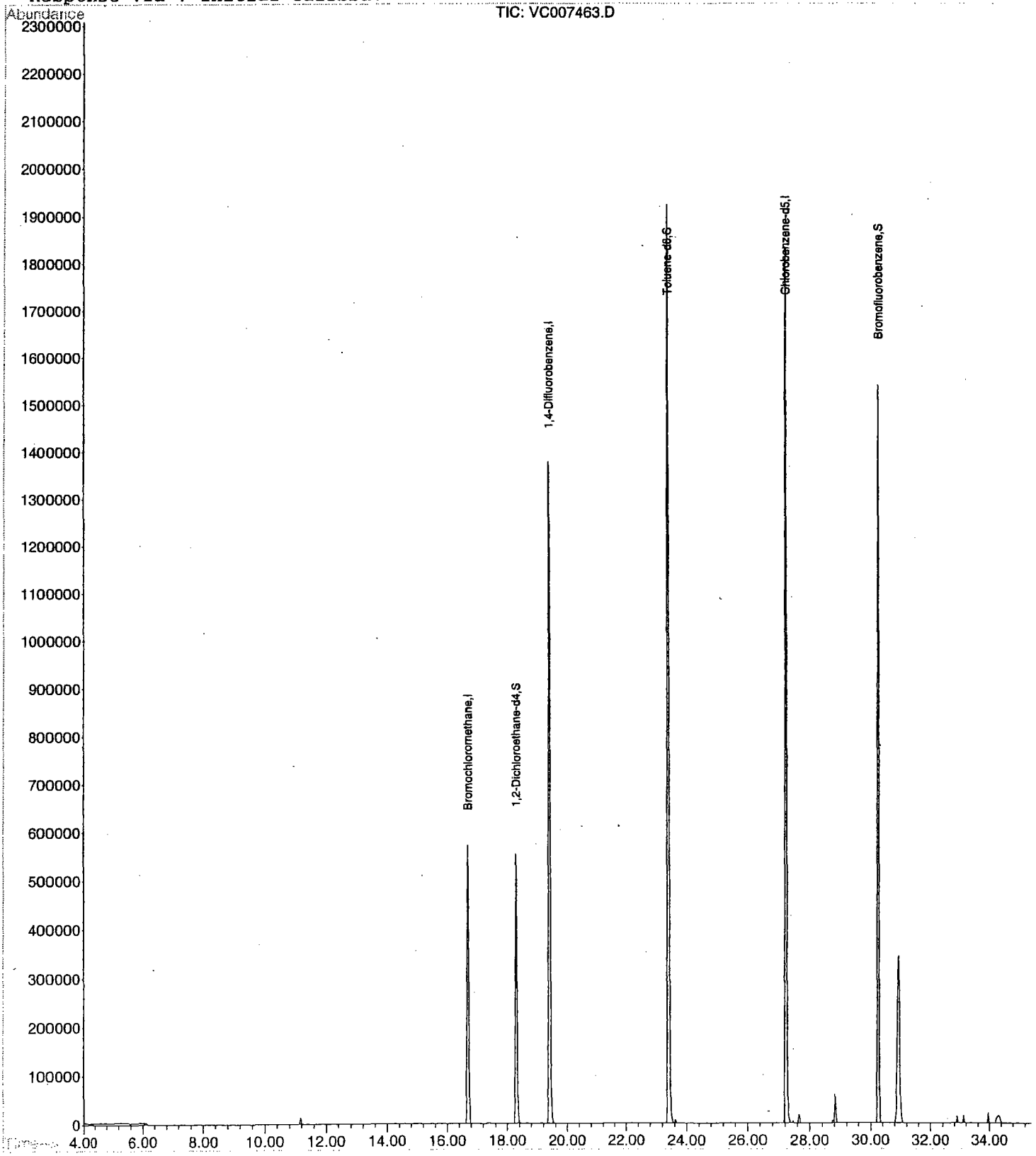
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.70	128	343704	30.00	ug/L	0.01
26) 1,4-Difluorobenzene	19.42	114	2468066	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	684484	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	758564	29.60	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 98.67%			
35) Toluene-d8	23.42	98	2792768	29.52	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 98.40%			
49) Bromofluorobenzene	30.25	95	1107708	30.69	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 102.30%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
VC007463.D M362451.M Tue Dec 04 15:01:15 2001

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007463.D Vial: 13
Acq On : 26 Nov 2001 11:06 am Operator: Skelton
Sample : MB Inst : GC/MS Ins
Misc : MB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Nov 27 11:35 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007454.D Vial: 7
Acq On : 20 Nov 2001 7:01 pm Operator: Skelton
Sample : 1658602 Inst : GC/MS Ins
Misc : 686 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 14:56 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

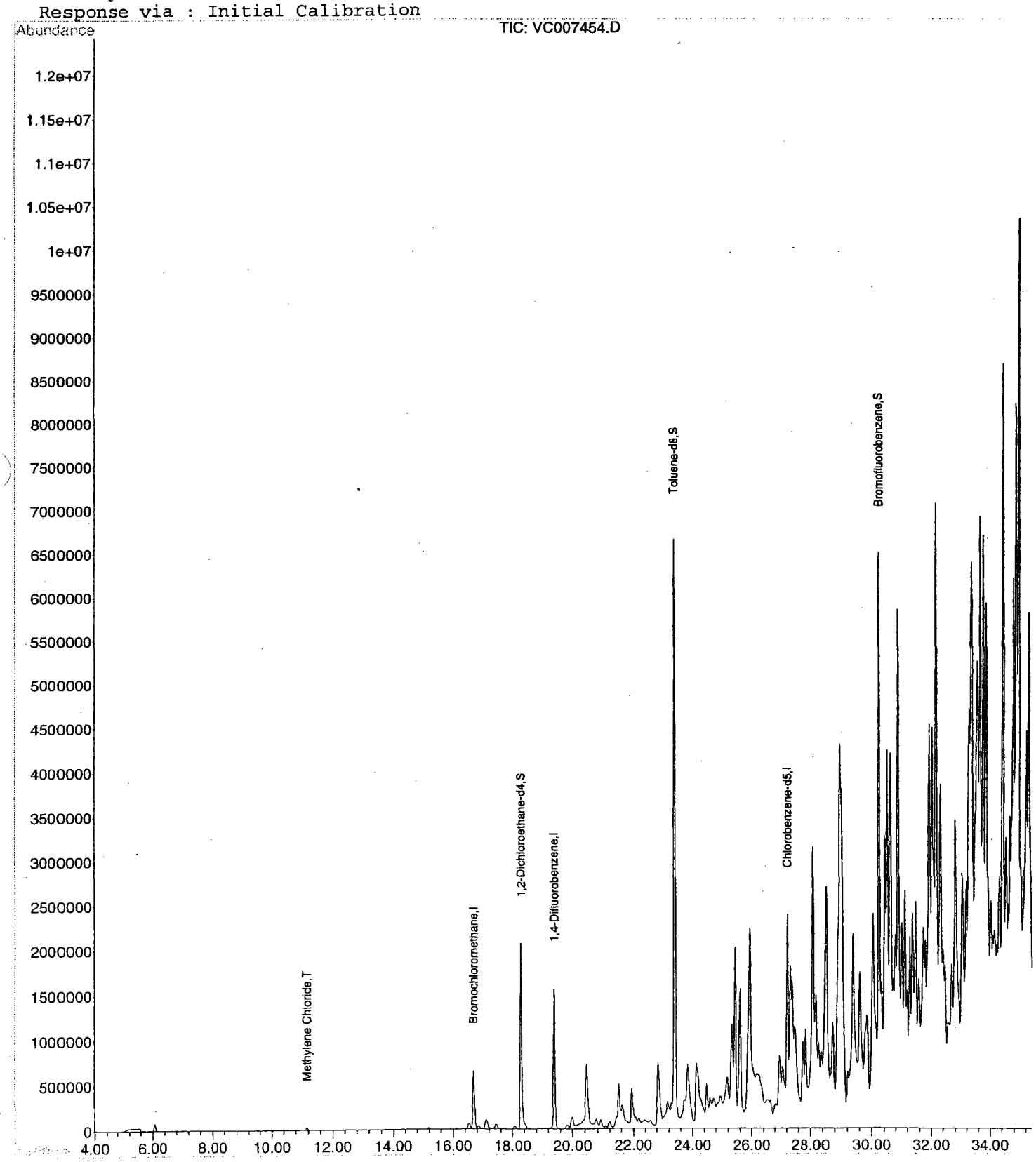
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	382956	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2681543	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	952879	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2759909	96.66	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 322.20%#			
35) Toluene-d8	23.42	98	8935302	86.92	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 289.73%#			
49) Bromofluorobenzene	30.25	95	3893088	77.47	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 258.23%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	41026	1.45	ug/L	85

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007454.D Vial: 7
Acq On : 20 Nov 2001 7:01 pm Operator: Skelton
Sample : 1658602 Inst : GC/MS Ins
Misc : 686 Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 14:56 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007467.D Vial: 16
Acq On : 26 Nov 2001 1:57 pm Operator: Skelton
Sample : 1658602 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 15:00 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	360349	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2595214	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	733332	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	1050844	39.11	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	130.37%#		
35) Toluene-d8	23.42	98	3246518	32.63	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	108.77%		
49) Bromofluorobenzene	30.25	95	1272304	32.90	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	109.67%		

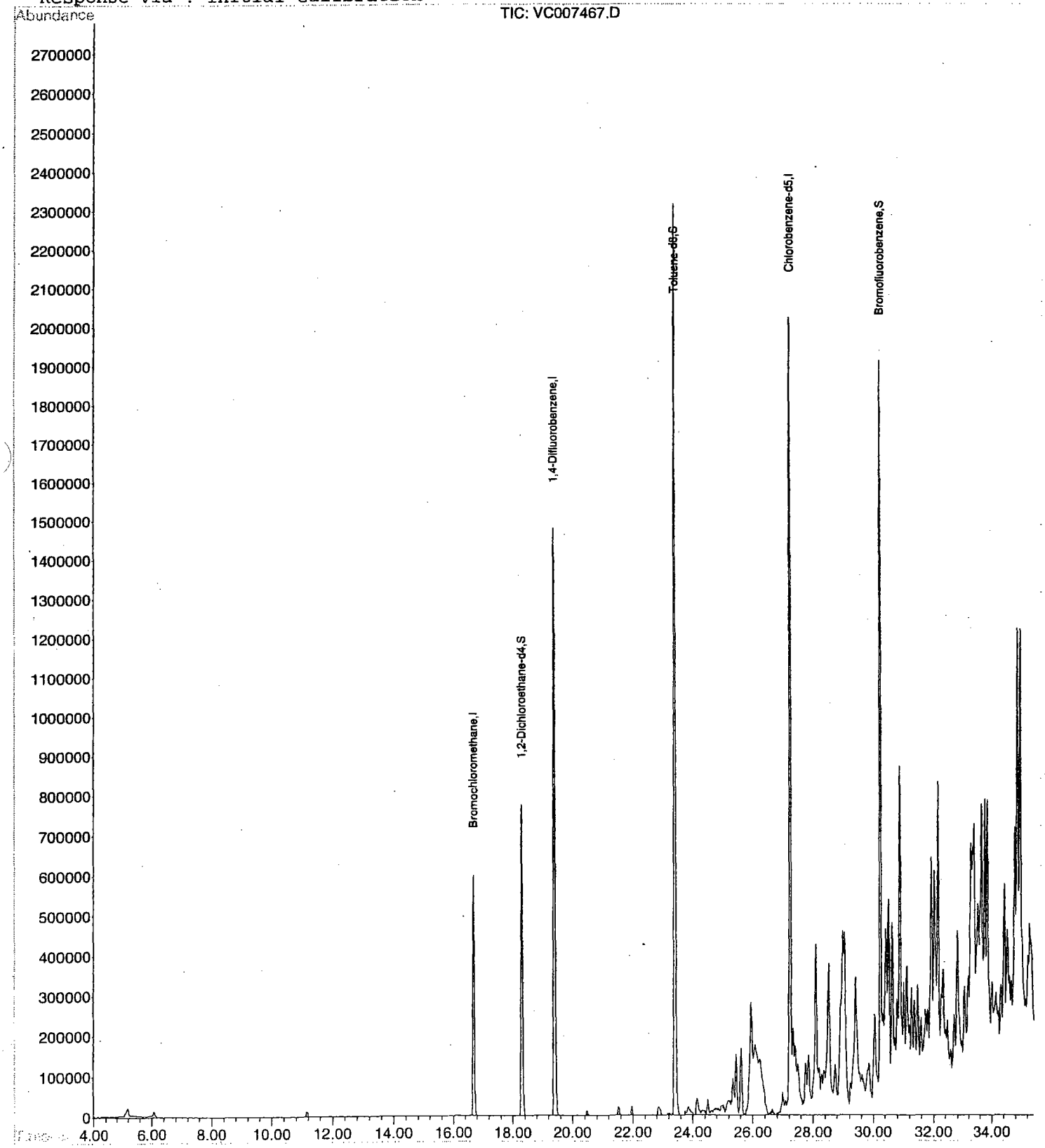
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007467.D Vial: 16
Acq On : 26 Nov 2001 1:57 pm Operator: Skelton
Sample : 1658602 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 15:00 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007457.D Vial: 10
Acq On : 20 Nov 2001 9:03 pm Operator: Skelton
Sample : 1658603 Inst : GC/MS Ins
Misc : FD Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 14:56 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	367694	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2546248	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	1575963	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	2972424	108.42	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 361.40%#			
35) Toluene-d8	23.42	98	9642404	98.78	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 329.27%#			
49) Bromofluorobenzene	30.25	95	4136706	49.77	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 165.90%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.17	84	57835	2.14	ug/L	82

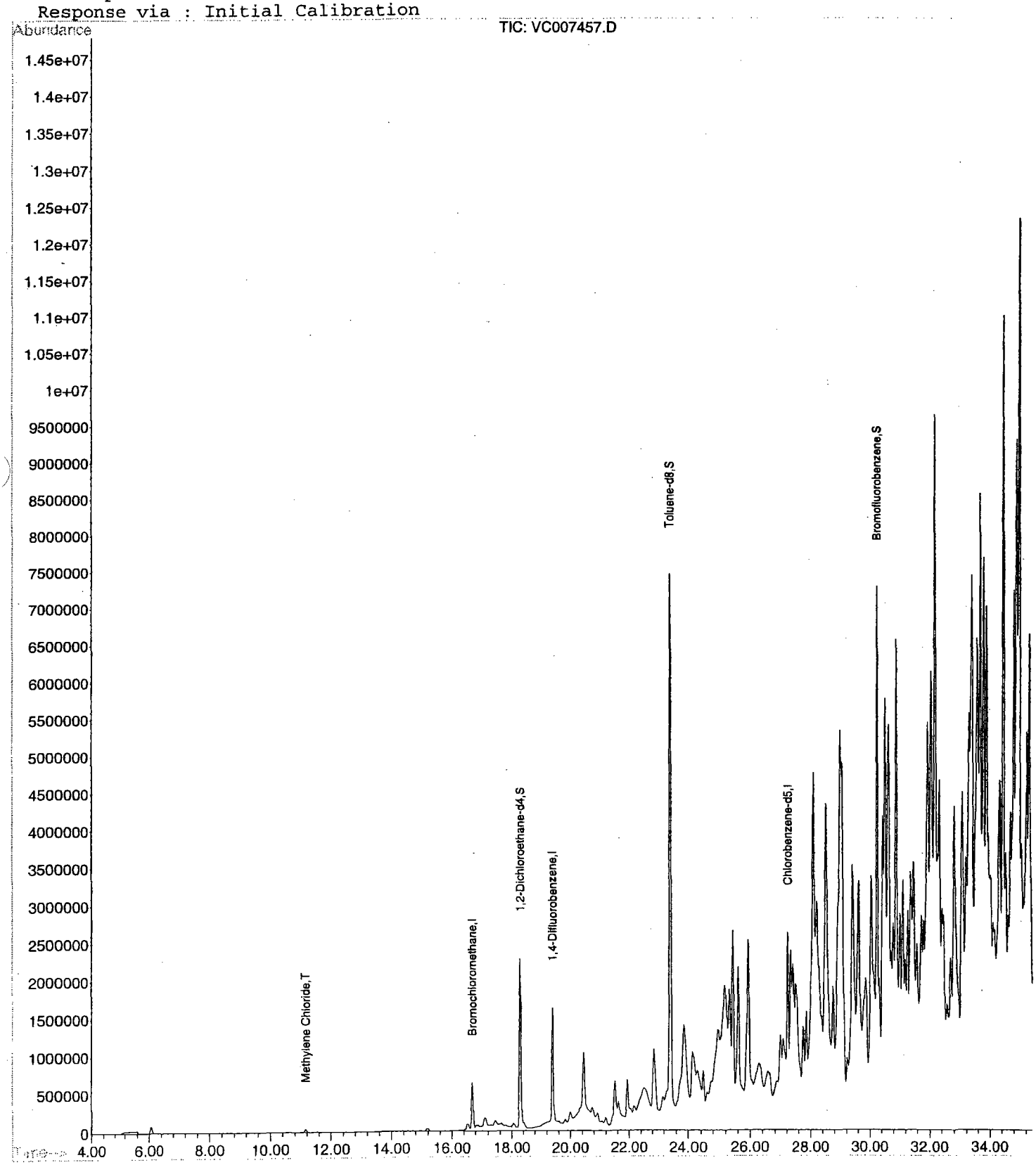
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007457.D
Acq On : 20 Nov 2001 9:03 pm
Sample : 1658603
Misc : FD
MS Integration Params: ACETONE.P
Quant Time: Dec 4 14:56 2001

Vial: 10
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007468.D Vial: 17
Acq On : 26 Nov 2001 2:37 pm Operator: Skelton
Sample : 1658603 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 15:00 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	362059	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.42	114	2676309	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.25	119	806500	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	1146915	42.48	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	141.60%#		
35) Toluene-d8	23.42	98	3782108	36.86	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	122.87%#		
49) Bromofluorobenzene	30.25	95	1533292	36.05	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	120.17%		

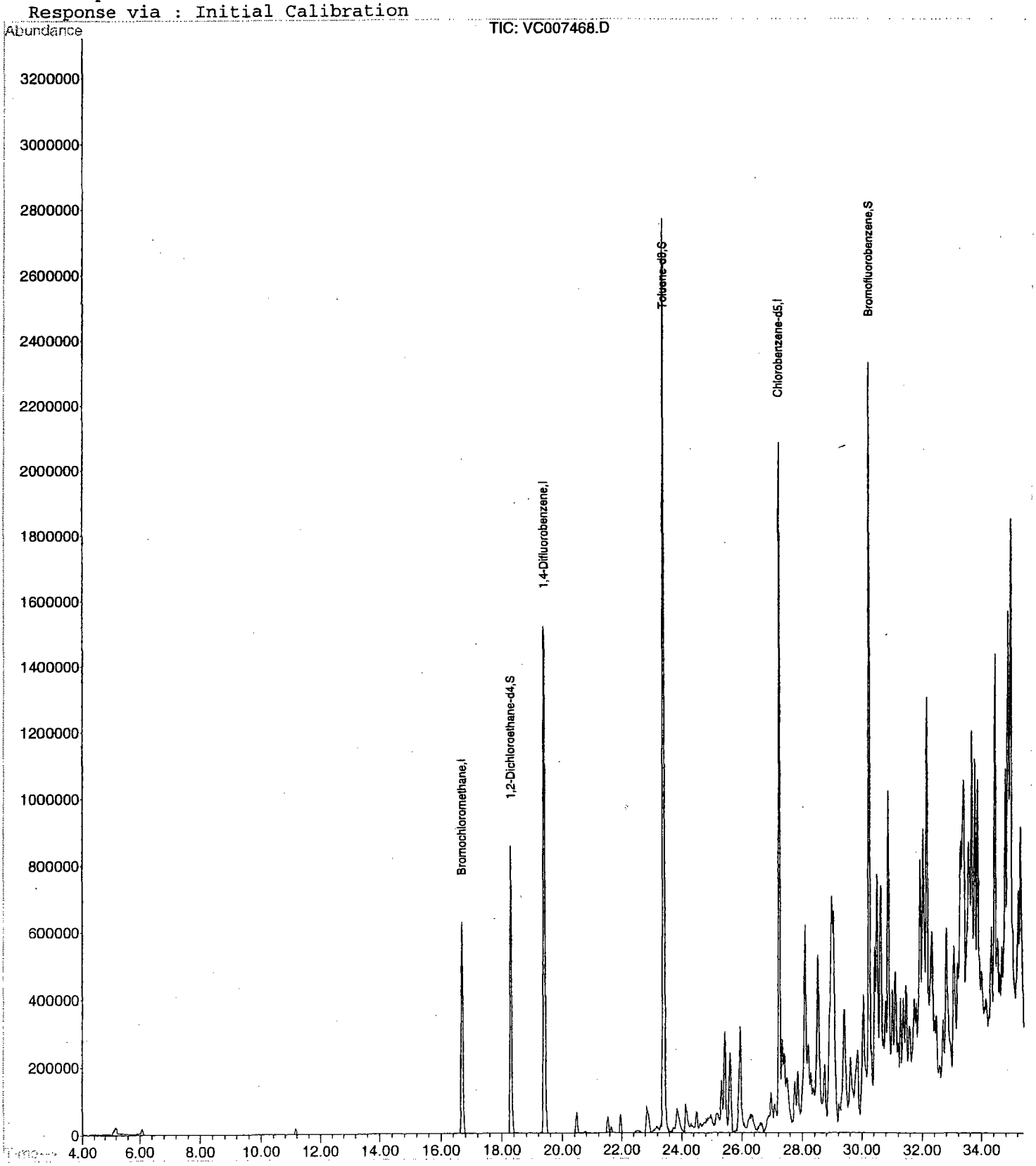
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007468.D Vial: 17
Acq On : 26 Nov 2001 2:37 pm Operator: Skelton
Sample : 1658603 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 15:00 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data File : D:\HPCHEM\1\DATA\011120\VC007458.D Vial: 11
Acq On : 20 Nov 2001 9:44 pm Operator: Skelton
Sample : 1658604 Inst : GC/MS Ins
Misc : TB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 14:56 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Nov 20 12:00:22 2001
Response via : Initial Calibration
DataAcq Meth : M362451

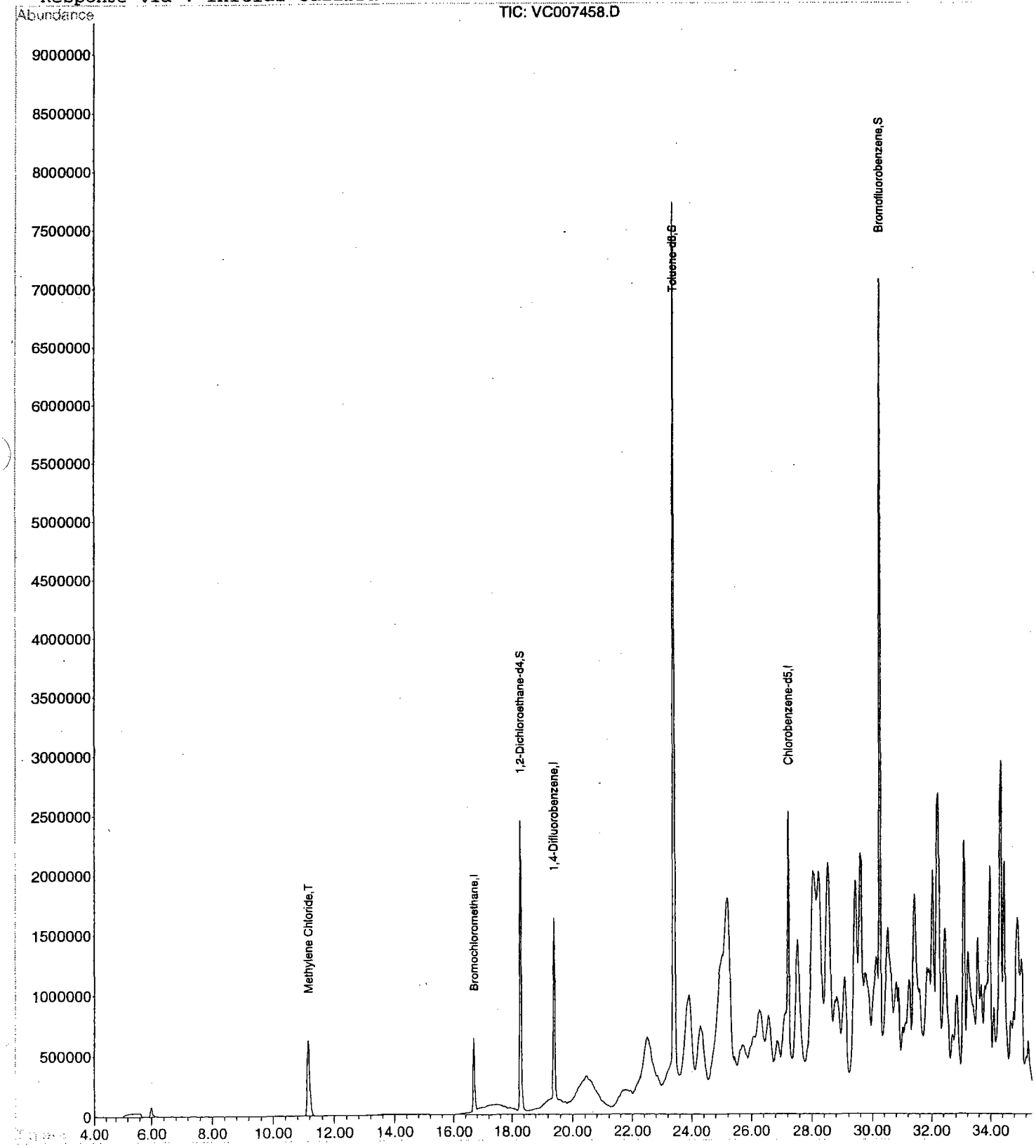
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	366159	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2524711	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	1658493	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	3189186	116.81	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery = 389.37%#			
35) Toluene-d8	23.42	98	10277488	106.19	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery = 353.97%#			
49) Bromofluorobenzene	30.25	95	4340452	49.62	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery = 165.40%#			
Target Compounds						Qvalue
16) Methylene Chloride	11.16	84	922946	34.22	ug/L	87

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011120\VC007458.D Vial: 11
Acq On : 20 Nov 2001 9:44 pm Operator: Skelton
Sample : 1658604 Inst : GC/MS Ins
Misc : TB Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 14:56 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\011126\VC007469.D Vial: 18
Acq On : 26 Nov 2001 3:18 pm Operator: Skelton
Sample : 1658604 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 15:00 2001 Quant Results File: M362451.RES

Quant Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Mon Nov 26 11:35:58 2001
Response via : Initial Calibration
DataAcq Meth : M362451

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	16.69	128	370741	30.00	ug/L	0.00
26) 1,4-Difluorobenzene	19.41	114	2681351	30.00	ug/L	0.00
37) Chlorobenzene-d5	27.24	119	814027	30.00	ug/L	0.00
System Monitoring Compounds						
25) 1,2-Dichloroethane-d4	18.30	65	1199700	43.40	ug/L	0.00
Spiked Amount 30.000	Range 70 - 121		Recovery =	144.67%#		
35) Toluene-d8	23.42	98	4049229	39.39	ug/L	0.00
Spiked Amount 30.000	Range 81 - 117		Recovery =	131.30%#		
49) Bromofluorobenzene	30.25	95	1613299	37.58	ug/L	0.00
Spiked Amount 30.000	Range 74 - 121		Recovery =	125.27%#		

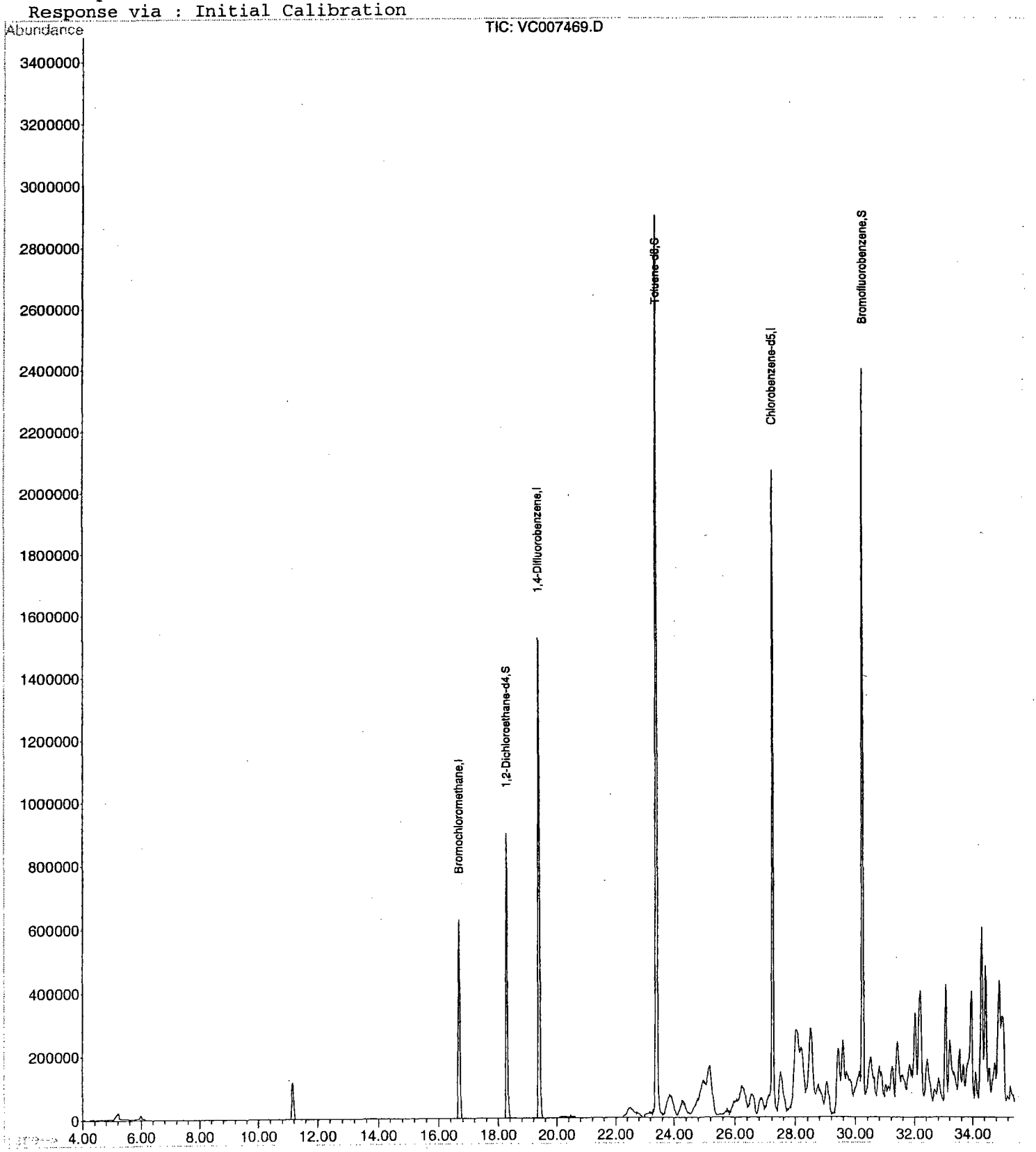
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\011126\VC007469.D Vial: 18
Acq On : 26 Nov 2001 3:18 pm Operator: Skelton
Sample : 1658604 Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: ACETONE.P
Quant Time: Dec 4 15:00 2001 Quant Results File: M362451.RES

Method : D:\HPCHEM\1\METHODS\M362451.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Dec 04 14:36:27 2001
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 # :** **Location :** **UST Reg. # :**	16586 Bldg. 686
Analysis :	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix :	Soil	**Date Extracted :**	19-Nov-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1658601	686Piping-2'	**1.00**	15.30	83.52	177	**256.62**
1658602	686Piping-8'	**1.00**	15.50	86.02	170	**315.69**
1658603	FD - 8'	**1.00**	15.22	85.99	173	**337.76**
METHOD BLANK	MB-2647	**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\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001

Calibration Files
5 =T013655.D 100 =T013656.D 50 =T013654.D
20 =T013658.D 10 =T013657.D

	Compound	5	100	50	20	10	Avg		%RSD
1) tC	C8	1.744	1.887	1.886	1.754	1.738	1.802	E4	4.30
2) tC	C10	2.003	2.147	2.126	1.965	2.057	2.060	E4	3.79
3) TC	C12	2.113	2.213	2.208	2.156	2.083	2.155	E4	2.66
4) tC	C14	2.299	2.326	2.324	2.268	2.306	2.305	E4	1.02
5) tC	C16	2.493	2.384	2.406	2.366	2.379	2.406	E4	2.12
6) tC	C18	2.560	2.472	2.471	2.394	2.508	2.481	E4	2.44
7) tC	C20	2.514	2.458	2.478	2.435	2.458	2.468	E4	1.20
8) tC	C22	2.749	2.537	2.572	2.524	2.557	2.588	E4	3.55
9) tC	C24	2.833	2.572	2.606	2.557	2.595	2.633	E4	4.31
10) tC	C26	2.890	2.593	2.634	2.598	2.636	2.670	E4	4.66
11) tC	C28	2.766	2.550	2.598	2.549	2.569	2.606	E4	3.51
12) tC	C30	2.816	2.620	2.673	2.602	2.581	2.658	E4	3.56
13) tC	C32	2.764	2.603	2.654	2.589	2.613	2.645	E4	2.69
14) tC	C34	2.766	2.589	2.631	2.573	2.599	2.632	E4	2.97
15) tC	C36	2.763	2.655	2.663	2.622	2.627	2.666	E4	2.14
16) tC	C38	2.526	2.460	2.422	2.425	2.430	2.453	E4	1.79
17) tC	C40	2.197	2.275	2.148	2.199	2.178	2.199	E4	2.14
18) tC	c42	1.886	2.124	1.935	1.972	1.902	1.964	E4	4.86
19) TC	Pristane	2.536	2.306	2.402	2.282	2.379	2.381	E4	4.20
20) TC	Phytane	2.753	2.476	2.516	2.487	2.554	2.557	E4	4.43
21) sC	o-terphenyl	2.654	2.507	2.538	2.504	2.538	2.548	E4	2.41
22) tC	TPHC - total	3.562	2.604	2.659	2.739	2.933	2.899	E4	13.48

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013807.D Vial: 100
Acq On : 19 Nov 2001 11:20 am Operator: Skelton
Sample : Tstd050 Inst : GC/MS Ins
Misc : Tstd050 Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.649 E3	-14.6	109	-0.03
2	tC	C10	20.595	22.791 E3	-10.7	107	0.00
3	TC	C12	21.549	22.973 E3	-6.6	104	0.00
4	tC	C14	23.048	23.409 E3	-1.6	101	0.00
5	tC	C16	24.057	24.122 E3	-0.3	100	0.00
6	tC	C18	24.812	24.021 E3	3.2	97	0.00
7	tC	C20	24.684	24.373 E3	1.3	98	0.00
8	tC	C22	25.878	25.638 E3	0.9	100	0.00
9	tC	C24	26.326	25.916 E3	1.6	99	0.00
10	tC	C26	26.702	26.194 E3	1.9	99	0.00
11	tC	C28	26.061	25.765 E3	1.1	99	0.00
12	tC	C30	26.583	26.469 E3	0.4	99	0.00
13	tC	C32	26.447	26.266 E3	0.7	99	0.00
14	tC	C34	26.317	26.143 E3	0.7	99	0.00
15	tC	C36	26.661	27.081 E3	-1.6	102	0.00
16	tC	C38	24.528	25.796 E3	-5.2	106	0.00
17	tC	C40	21.994	24.627 E3	-12.0	115	0.00
18	tC	c42	19.638	23.151 E3	-17.9	120	0.00
19	TC	Pristane	23.812	22.692 E3	4.7	94	0.00
20	TC	Phytane	25.573	25.364 E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.624 E3	-0.5	101	0.00
22	tC	TPHC - total	28.994	27.732 E3	4.4	104	1.46#

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013818.D Vial: 7
Acq On : 19 Nov 2001 5:51 pm Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	20.912 E3	-16.1	111	-0.05
2	tC	C10	20.595	22.414 E3	-8.8	105	-0.01
3	TC	C12	21.549	23.381 E3	-8.5	106	0.00
4	tC	C14	23.048	23.883 E3	-3.6	103	0.00
5	tC	C16	24.057	24.693 E3	-2.6	103	0.00
6	tC	C18	24.812	26.500 E3	-6.8	107	0.00
7	tC	C20	24.684	25.423 E3	-3.0	103	0.00
8	tC	C22	25.878	26.184 E3	-1.2	102	0.00
9	tC	C24	26.326	26.479 E3	-0.6	102	0.00
10	tC	C26	26.702	26.760 E3	-0.2	102	0.00
11	tC	C28	26.061	26.296 E3	-0.9	101	0.00
12	tC	C30	26.583	26.999 E3	-1.6	101	0.00
13	tC	C32	26.447	26.755 E3	-1.2	101	0.00
14	tC	C34	26.317	26.612 E3	-1.1	101	0.00
15	tC	C36	26.661	27.616 E3	-3.6	104	0.00
16	tC	C38	24.528	26.472 E3	-7.9	109	0.00
17	tC	C40	21.994	25.435 E3	-15.6	118	-0.01
18	tC	c42	19.638	24.573 E3	-25.1#	127	0.00
19	TC	Pristane	23.812	24.480 E3	-2.8	102	0.00
20	TC	Phytane	25.573	25.715 E3	-0.6	102	0.00
21	sC	o-terphenyl	25.484	26.074 E3	-2.3	103	0.00
22	tC	TPHC - total	28.994	28.595 E3	1.4	108	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013840.D Vial: 29
Acq On : 20 Nov 2001 5:56 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.151 E3	-17.4	112	-0.05
2	tC	C10	20.595	22.359 E3	-8.6	105	-0.01
3	TC	C12	21.549	23.393 E3	-8.6	106	0.00
4	tC	C14	23.048	23.788 E3	-3.2	102	0.00
5	tC	C16	24.057	24.483 E3	-1.8	102	0.00
6	tC	C18	24.812	24.651 E3	0.6	100	0.00
7	tC	C20	24.684	25.098 E3	-1.7	101	0.00
8	tC	C22	25.878	25.962 E3	-0.3	101	0.00
9	tC	C24	26.326	26.272 E3	0.2	101	0.00
10	tC	C26	26.702	26.516 E3	0.7	101	0.00
11	tC	C28	26.061	26.090 E3	-0.1	100	0.00
12	tC	C30	26.583	26.802 E3	-0.8	100	0.00
13	tC	C32	26.447	26.556 E3	-0.4	100	0.00
14	tC	C34	26.317	26.433 E3	-0.4	100	0.00
15	tC	C36	26.661	27.462 E3	-3.0	103	0.00
16	tC	C38	24.528	26.273 E3	-7.1	108	0.00
17	tC	C40	21.994	25.371 E3	-15.4	118	-0.01
18	tC	c42	19.638	25.059 E3	-27.6#	129	0.00
19	TC	Pristane	23.812	23.910 E3	-0.4	100	0.00
20	TC	Phytane	25.573	24.771 E3	3.1	98	0.00
21	sC	o-terphenyl	25.484	25.800 E3	-1.2	102	0.00
22	tC	TPHC - total	28.994	29.430 E3	-1.5	111	0.51#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011119\T013851.D Vial: 40
Acq On : 20 Nov 2001 11:59 am Operator: Skelton
Sample : Tstd050s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
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	18.019	21.333 E3	-18.4	113	-0.05
2	tC	C10	20.595	22.301 E3	-8.3	105	-0.01
3	TC	C12	21.549	23.385 E3	-8.5	106	0.00
4	tC	C14	23.048	23.751 E3	-3.1	102	0.00
5	tC	C16	24.057	24.359 E3	-1.3	101	0.00
6	tC	C18	24.812	24.271 E3	2.2	98	0.00
7	tC	C20	24.684	25.016 E3	-1.3	101	0.00
8	tC	C22	25.878	25.865 E3	0.1	101	0.00
9	tC	C24	26.326	26.136 E3	0.7	100	0.00
10	tC	C26	26.702	26.415 E3	1.1	100	0.00
11	tC	C28	26.061	25.990 E3	0.3	100	0.00
12	tC	C30	26.583	26.697 E3	-0.4	100	0.00
13	tC	C32	26.447	26.440 E3	0.0	100	0.00
14	tC	C34	26.317	26.342 E3	-0.1	100	0.00
15	tC	C36	26.661	27.330 E3	-2.5	103	0.00
16	tC	C38	24.528	26.234 E3	-7.0	108	0.00
17	tC	C40	21.994	25.278 E3	-14.9	118	-0.01
18	tC	c42	19.638	25.122 E3	-27.9#	130	0.00
19	TC	Pristane	23.812	23.579 E3	1.0	98	0.00
20	TC	Phytane	25.573	25.375 E3	0.8	101	0.00
21	sC	o-terphenyl	25.484	25.727 E3	-1.0	101	0.00
22	tC	TPHC - total	28.994	28.838 E3	0.5	108	1.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 1

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

Client :	U.S. Army	**Project # :**	16586
	DPW. SELFM-PW-EV	**Location :**	Bldg. 686
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1658601			10.00	10.60	**105.96**
1658602			10.00	10.60	**106.04**
1658603			10.00	10.49	**104.88**
METHOD BLANK	MB-2647		10.00	11.86	**118.64**

Surrogate Added : **o-Terphenyl**

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	**Project # :** **Location :** **UST Reg. # :**	16586 Bldg. 686
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1658603MS	1000	88.41	931.16	84.27	75-125
1658603MSD	1000	88.41	949.81	86.14	75-125
			RPD	**2.19**	**20.00**

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

Client :	U.S. Army	**Project # :**	16586
	DPW. SELFM-PW-EV	**Location :**	Bldg. 686
	Bldg. 173	**UST Reg. # :**	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	15-Nov-01
Matrix:	Soil	**Date Extracted :**	19-Nov-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	19-Nov-01
Injection Volume :	1uL	**Analyst :**	Skelton

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2648	19-Nov-01	1000	861.18	86.12	75-126

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013810.D Vial: 3
Acq On : 19 Nov 2001 1:05 pm Operator: Skelton
Sample : MB 2647 Inst : GC/MS Ins
Misc : 19Nov01 Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 19 13:30 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.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	302332	11.864 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 118.64%#	
Target Compounds			

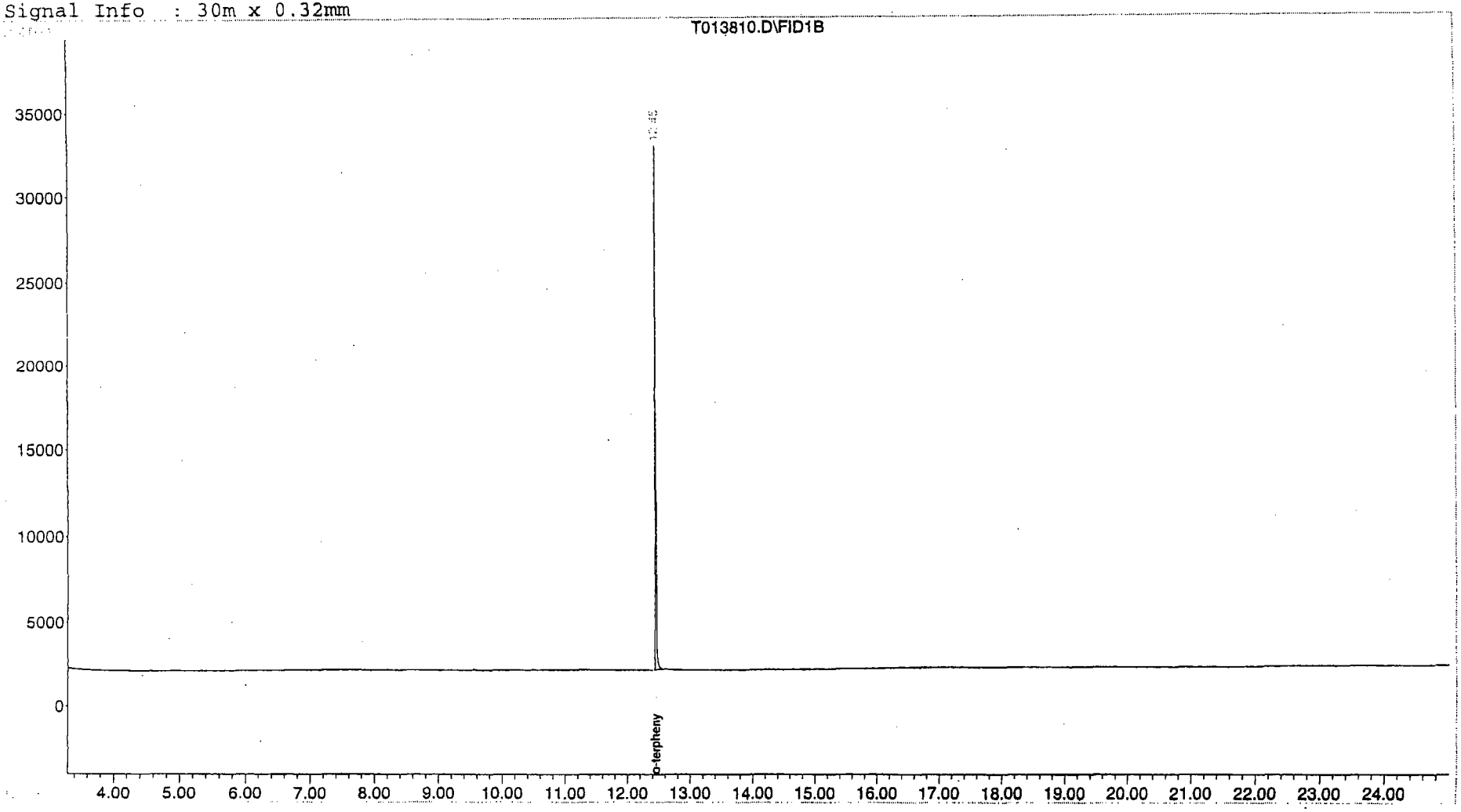
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013810.D
Acq On : 19 Nov 2001 1:05 pm
Sample : MB 2647
Misc : 19Nov01
IntFile : TPHCINT.E
Quant Time: Nov 19 13:30 2001 Quant Results File: TPH95.RES

Vial: 3
Operator: Skelton
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013842.D Vial: 31
Acq On : 20 Nov 2001 7:02 am Operator: Skelton
Sample : 1658601s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:28 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

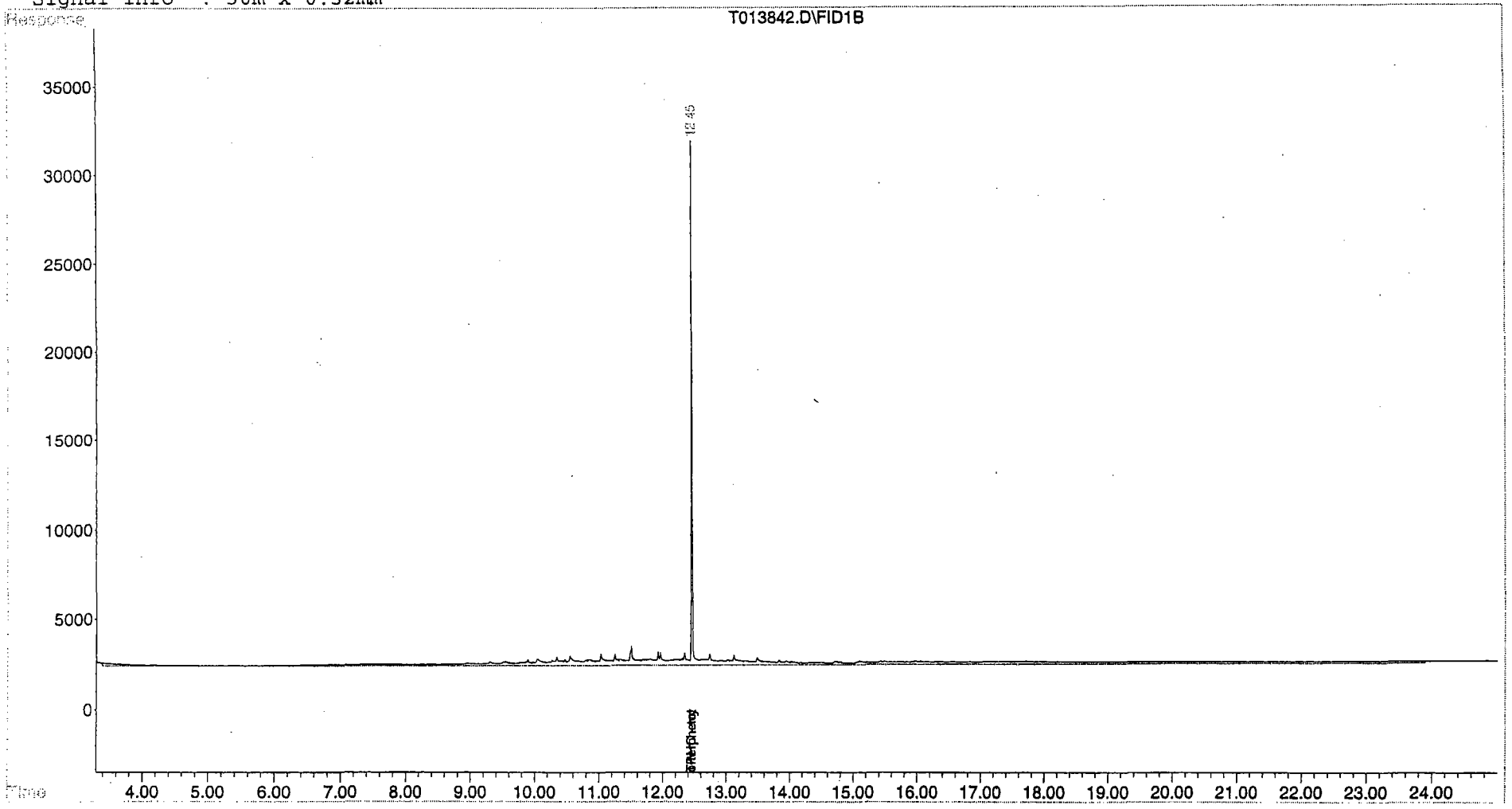
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	270022	10.596 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 105.96%#	
Target Compounds			
22) tC TPHC - total	12.45	1901539	65.584 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013842.D Vial: 31
Acq On : 20 Nov 2001 7:02 am Operator: Skelton
Sample : 1658601s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:28 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013843.D Vial: 32
Acq On : 20 Nov 2001 7:35 am Operator: Skelton
Sample : 1658602s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:28 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

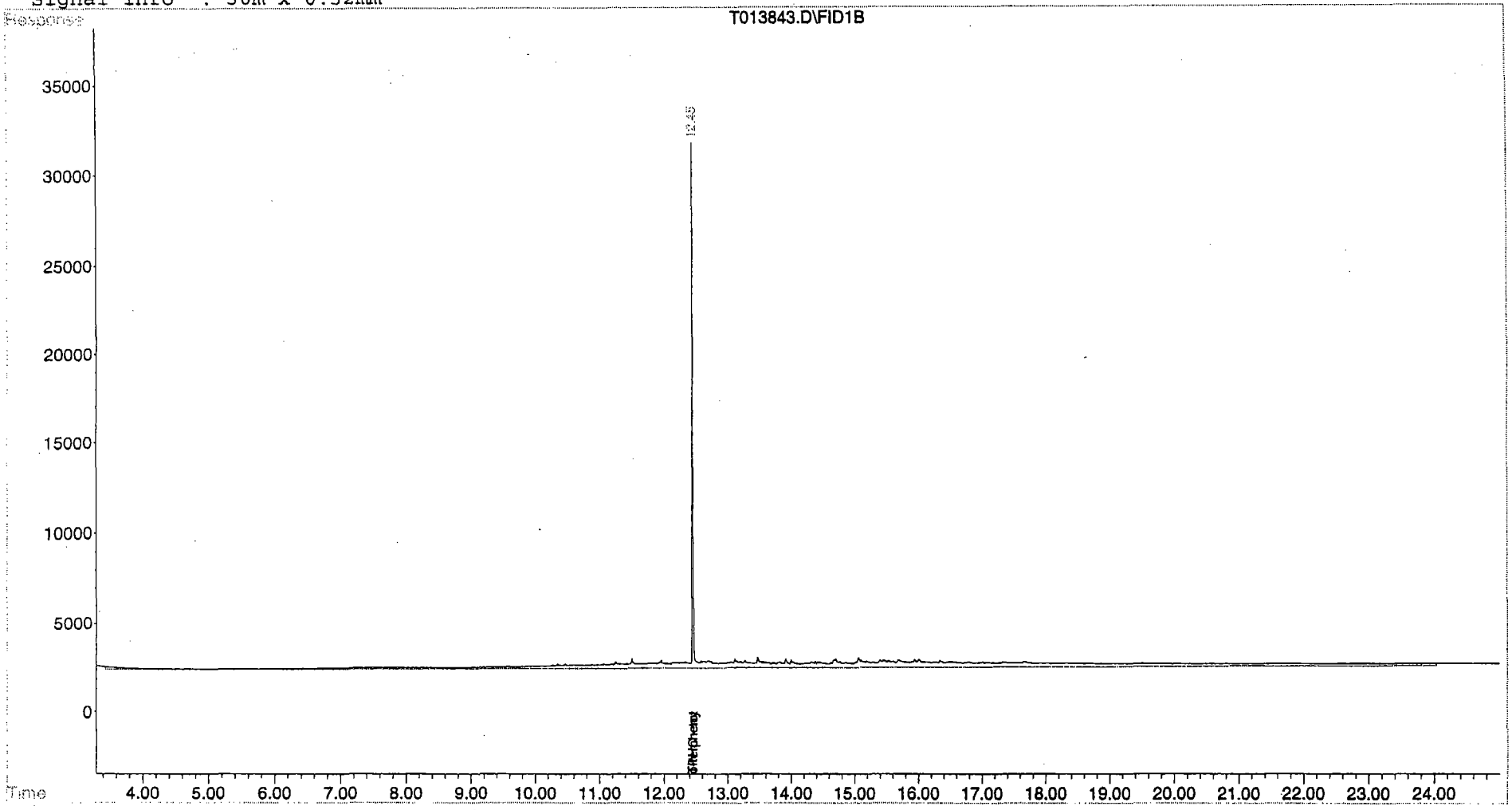
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	270235	10.604 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 106.04%#	
Target Compounds			
22) tC TPHC - total	12.45	2440800	84.183 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013843.D Vial: 32
Acq On : 20 Nov 2001 7:35 am Operator: Skelton
Sample : 1658602s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 8:28 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011119\T013844.D Vial: 33
Acq On : 20 Nov 2001 8:08 am Operator: Skelton
Sample : 1658603s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 9:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Initial Calibration
DataAcq Meth : TPH95.M

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

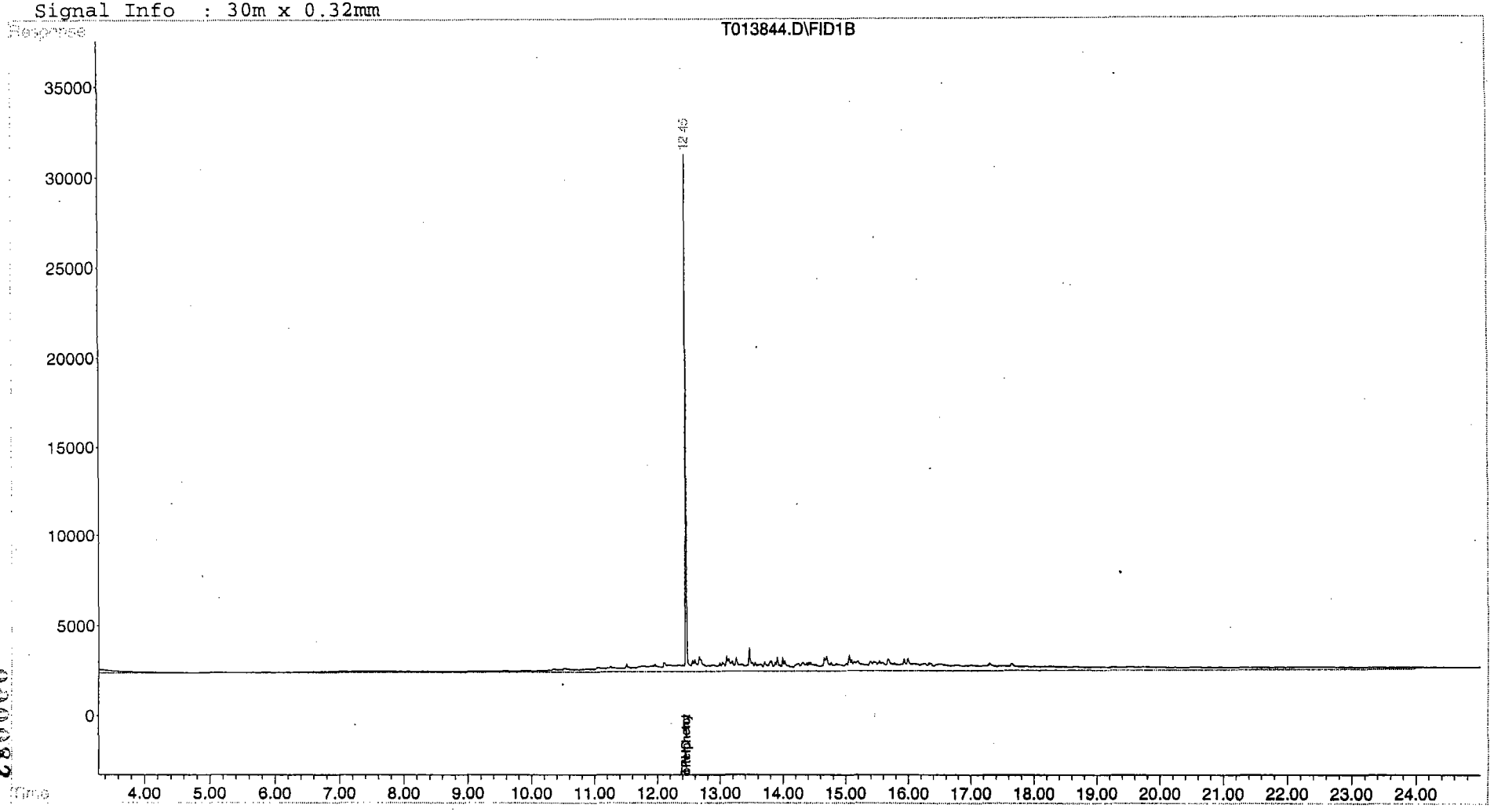
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	267279	10.488 mg/L
Spiked Amount 10.000 Range 8 - 13		Recovery = 104.88%#	
Target Compounds			
22) tC TPHC - total	12.45	2563384	88.411 mg/L m

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011119\T013844.D Vial: 33
Acq On : 20 Nov 2001 8:08 am Operator: Skelton
Sample : 1658603s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Nov 20 9:31 2001 Quant Results File: TPH95.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH95.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Wed Oct 24 13:32:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH95.M

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



880083

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted ✓
4. Document paginated and legible ✓
5. Chain of Custody submitted ✓
6. Samples submitted to lab within 48 hours of sample collection ✓
7. Methodology Summary submitted ✓
8. Laboratory Chronicle and Holding Time Check submitted ✓
9. Results submitted on a dry weight basis ✓
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 12/6/01

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager